

| Erosion and Sediment Control Responsibilities: | | | | | | | | | |
|--|--------------------------------------|------------------------------------|-----------------------------|---------------------------------------|-----------------------|------------------------|---------------------------------------|-----------------------|------------------------|
| ESC Measure | Symbol | Specification | Installation Responsibility | Inspection/Maintenance Responsibility | Approval to Remove | Removal Responsibility | Inspection/Maintenance Responsibility | Approval to Remove | Removal Responsibility |
| Silt Fence | OPSD 219.110 | Erosion and Sediment Control Notes | Developer's Contractor | Developer's Contractor | Weekly (as a minimum) | Consultant | Developer's Contractor | Weekly (as a minimum) | Consultant |
| Filter Fabric | Location as Indicated in ESC Note #3 | Erosion and Sediment Control Notes | Developer's Contractor | Developer's Contractor | Weekly (as a minimum) | Consultant | Developer's Contractor | Weekly (as a minimum) | Consultant |
| Mud Mat | Location as Indicated in ESC Note #3 | Erosion and Sediment Control Notes | Developer's Contractor | Developer's Contractor | Weekly (as a minimum) | Consultant | Developer's Contractor | Weekly (as a minimum) | Consultant |
| Dust Control | Location as Indicated in ESC Note #3 | Erosion and Sediment Control Notes | Developer's Contractor | Developer's Contractor | Weekly (as a minimum) | Consultant | Developer's Contractor | Weekly (as a minimum) | Consultant |
| Stockpiled Material | Location as Indicated in ESC Note #3 | Erosion and Sediment Control Notes | Developer's Contractor | Developer's Contractor | Weekly (as a minimum) | Consultant | Developer's Contractor | Weekly (as a minimum) | Consultant |
| Sediment Basin | Location as Indicated in ESC Note #3 | Erosion and Sediment Control Notes | Developer's Contractor | Developer's Contractor | Weekly (as a minimum) | Consultant | Developer's Contractor | Weekly (as a minimum) | Consultant |

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.

1. ALL EROSION AND SEDIMENT CONTROLS ARE TO BE INSTALLED TO THE SATISFACTION OF THE ENGINEER AND THE CITY OF OTTAWA. THEY ARE TO BE 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. THESE PRACTICES ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE CURRENT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL AND SHOULD INCLUDE AS A MINIMUM THOSE MEASURES INDICATED ON THE PLAN.
2. EROSION AND SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED DURING CONSTRUCTION IN ACCORDANCE WITH THE "GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES" (GOVERNMENT OF ONTARIO, MAY 1987). THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEETING ALL REGULATORY AGENCY REQUIREMENTS.
3. TO PREVENT SURFACE EROSION FROM ENTERING ANY STORM SEWER SYSTEM DURING CONSTRUCTION, FILTER CLOTH WILL BE PLACED UNDER GRATES OF NEARBY CATCHBASINS AND STRUCTURES. A LIGHT DUTY SILT FENCE BARRIER WILL ALSO BE INSTALLED AROUND THE CONSTRUCTION AREA (WHERE APPLICABLE). THESE CONTROL MEASURES WILL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
4. TO LIMIT EROSION, MINIMIZE THE AMOUNT OF EXPOSED SOILS AT ANY GIVEN TIME, RE-VEGETATE EXPOSED AREAS AND SLOPES AS SOON AS POSSIBLE AND PROTECT EXPOSED SLOPES WITH NATURAL OR SYNTHETIC MULCHES.
5. FOR MATERIAL STOCKPILING, MINIMIZE THE AMOUNT OF EXPOSED MATERIALS AT ANY GIVEN TIME; APPLY TEMPORARY SEEDING, TARPS, COMPACTION AND/OR SURFACE ROUGHENING AS REQUIRED TO STABILIZE STOCKPILED MATERIALS THAT WILL NOT BE USED WITHIN 14 DAYS.
6. THE SEDIMENT CONTROL MEASURES SHALL ONLY BE REMOVED WHEN, IN THE OPINION OF THE ENGINEER, THE MEASURES ARE NO LONGER REQUIRED, NO CONTROL MEASURES MAY BE PERMANENTLY REMOVED WITHOUT PRIOR AUTHORIZATION FROM THE ENGINEER.
7. THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE ENGINEER ANY ACCIDENTAL DISCHARGES OF SEDIMENT MATERIAL INTO ANY STORM SEWER SYSTEM. APPROPRIATE RESPONSE MEASURES, INCLUDING ANY REPAIRS TO EXISTING CONTROL MEASURES OR THE IMPLEMENTATION OF ADDITIONAL CONTROL MEASURES, SHALL BE CARRIED OUT BY THE CONTRACTOR WITHOUT DELAY.
8. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
9. ROADWAYS ARE TO BE SWEEP AS REQUIRED OR AS DIRECTED BY THE ENGINEER AND/OR THE MUNICIPALITY.
10. THE CONTRACTOR SHALL ENSURE PROPER DUST CONTROL IS PROVIDED WITH THE APPLICATION OF WATER (AND IF REQUIRED) CALCIUM CHLORIDE DURING DRY PERIODS. MONITOR DUST LEVELS DURING SITE PREPARATION/EXCAVATION, AND CONSTRUCTION ACTIVITIES, AND WHEN DUST LEVELS BECOME VISUALLY APPARENT SPRAY WATER TO MINIMIZE THE RELEASE OF DUST FROM GRAVEL, PAVED AREAS AND EXPOSED SOILS. USE CHEMICAL DUST SUPPRESSANTS ONLY WHERE NECESSARY ON PROBLEM AREAS.

LEGEND

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|--|--------------------------------|--|--|
| | PROPOSED ELEVATION | | PROPOSED BUILDING ENTRANCE |
| | EXISTING ELEVATION | | PROPOSED SILT FENCING (OPSD 219.110) |
| | PROPOSED SWALE ELEVATION | | PROPOSED MUD MAT / CONSTRUCTION ENTRANCE |
| | PROPOSED TOP OF CURB ELEVATION | | APPROXIMATE PONDING LIMITS |
| | PROPOSED TERRACE ELEVATION | | EMERGENCY OVERLAND FLOW ROUTE |
| | GRADE AND DIRECTION | | PROPOSED SANITARY MANHOLE |
| | MAXIMUM 3:1 SIDESLOPE | | PROPOSED CATCHBASIN MANHOLE |
| | SAN MH 1 | | PROPOSED STORM MANHOLE |
| | HYD | | PROPOSED CATCHBASIN |
| | DC | | EXISTING CONCRETE CURB |
| | DC | | EXISTING SANITARY MANHOLE |
| | ICD | | EXISTING CATCHBASIN MANHOLE |
| | RD | | EXISTING STORM MANHOLE |
| | FFE=90.05 | | EXISTING CATCHBASIN |
| | | | EXISTING HYDRANT & VALVE |
| | | | EXISTING TREES / VEGETATION |
| | | | EXISTING UTILITY POLE CW GUY WIRES |
| | | | EXISTING FENCE |
| | | | EXISTING LIGHT STANDARD |

GENERAL NOTES:

1. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
2. 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.
3. OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
4. 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.
5. 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.
6. 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.
7. ALL ELEVATIONS ARE GEODETIC.
8. REFER TO GEOTECHNICAL INVESTIGATION REPORT (NO. PG4148-1, DATED JUNE 23, 2017) AND GEOTECHNICAL MEMORANDUM (NO. PG4148-MEMO.01R, DATED APRIL 18, 2018), PREPARED BY PATERSON GROUP INC., FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL.
9. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACE AREAS AND DIMENSIONS.
10. REFER TO THE "DEVELOPMENT SERVING STUDY AND STORMWATER MANAGEMENT REPORT" (R-2018-029) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD.
11. SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
12. PROVIDE LINE/PARKING PAINTING.
13. SNOW IS TO BE REMOVED FROM THE SITE. ON-SITE SNOW STORAGE WILL NOT BE PROVIDED.

GRADING NOTES:

1. 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.
2. 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.
3. 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.
4. THE GRANULAR BASE SHOULD BE COMPACTED TO AT LEAST 98% 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.
5. MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
6. MAXIMUM TERRACING GRADE TO BE 3:1 UNLESS OTHERWISE NOTED.
7. ALL GRADES BY CURBS ARE EDGE OF PAVEMENT GRADES UNLESS OTHERWISE INDICATED.
8. ALL CURBS SHALL BE BARRIER CURB (150mm) UNLESS OTHERWISE NOTED AND CONSTRUCTED AS PER CITY OF OTTAWA STANDARDS (SC.1).
9. REFER TO LANDSCAPE PLAN FOR PLANTING AND OTHER LANDSCAPE FEATURE DETAILS.
10. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GRADING PLAN INDICATING AS-BUILT ELEVATIONS OF ALL DESIGN GRADES SHOWN ON THIS PLAN.

PAVEMENT STRUCTURES:

| | | | | | |
|--|---|--|--|--|---|
| | LIGHT DUTY (NEW PAVEMENT) 50mm HL3 or SUPERPAVE 12.5 150mm GRANULAR "A" 300mm GRANULAR "B" TYPE II ASPHALT GRADE PG 58-34 *INSTALLED PER GEOTECHNICAL REPORT | | HEAVY DUTY (NEW PAVEMENT) 40mm HL3 or SUPERPAVE 12.5 150mm HL3 or SUPERPAVE 19.0 150mm GRANULAR "A" 400mm GRANULAR "B" TYPE II ASPHALT GRADE PG 58-34 *INSTALLED PER GEOTECHNICAL REPORT | | HEAVY DUTY (LOADING DOCKS) 150mm REINFORCED CONCRETE CLASS C1 (M32 MPa) 100mm GRANULAR "B" TYPE II 400mm GRANULAR "B" TYPE II *PER GEOTECHNICAL MEMO |
|--|---|--|--|--|---|

NOT FOR CONSTRUCTION

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.



OWNER INFORMATION
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c/o CAL KIRKPATRICK
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Ckirpatrick@Colonnade.ca



| No. | REVISION | DATE | BY |
|-----|----------------------------------|-----------|-----|
| 5 | REVISED WATER SERVICES | NOV 28/18 | FST |
| 4 | RE-ISSUED FOR SITE PLAN APPROVAL | OCT 18/18 | FST |
| 3 | REVISED PER CITY COMMENTS | JUN 28/18 | FST |
| 2 | ISSUED FOR SITE PLAN APPROVAL | APR 16/18 | FST |
| 1 | ISSUED FOR CLIENT REVIEW | APR 9/18 | FST |

| SCALE | |
|----------|----------|
| DESIGN | SM / FST |
| CHECKED | FST |
| DRAWN | SM |
| CHECKED | SM / FST |
| APPROVED | FST |

FOR REVIEW ONLY

DESIGN: SM / FST
CHECKED: FST
DRAWN: SM
CHECKED: SM / FST
APPROVED: FST

SCALE: 1:300

0 3 6 9 12

PROFESSIONAL ENGINEER

F.S. THAVETTE
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Nov 26, 2018
PROVINCE OF ONTARIO

NOVATECH

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LOCATION: CITY OF OTTAWA, 300 MOODIE DRIVE

DRAWING NAME: GRADING AND EROSION & SEDIMENT CONTROL PLAN

PROJECT NO: 118007

REV: REV #5

DRAWING NO: 118007-GR

#17663

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