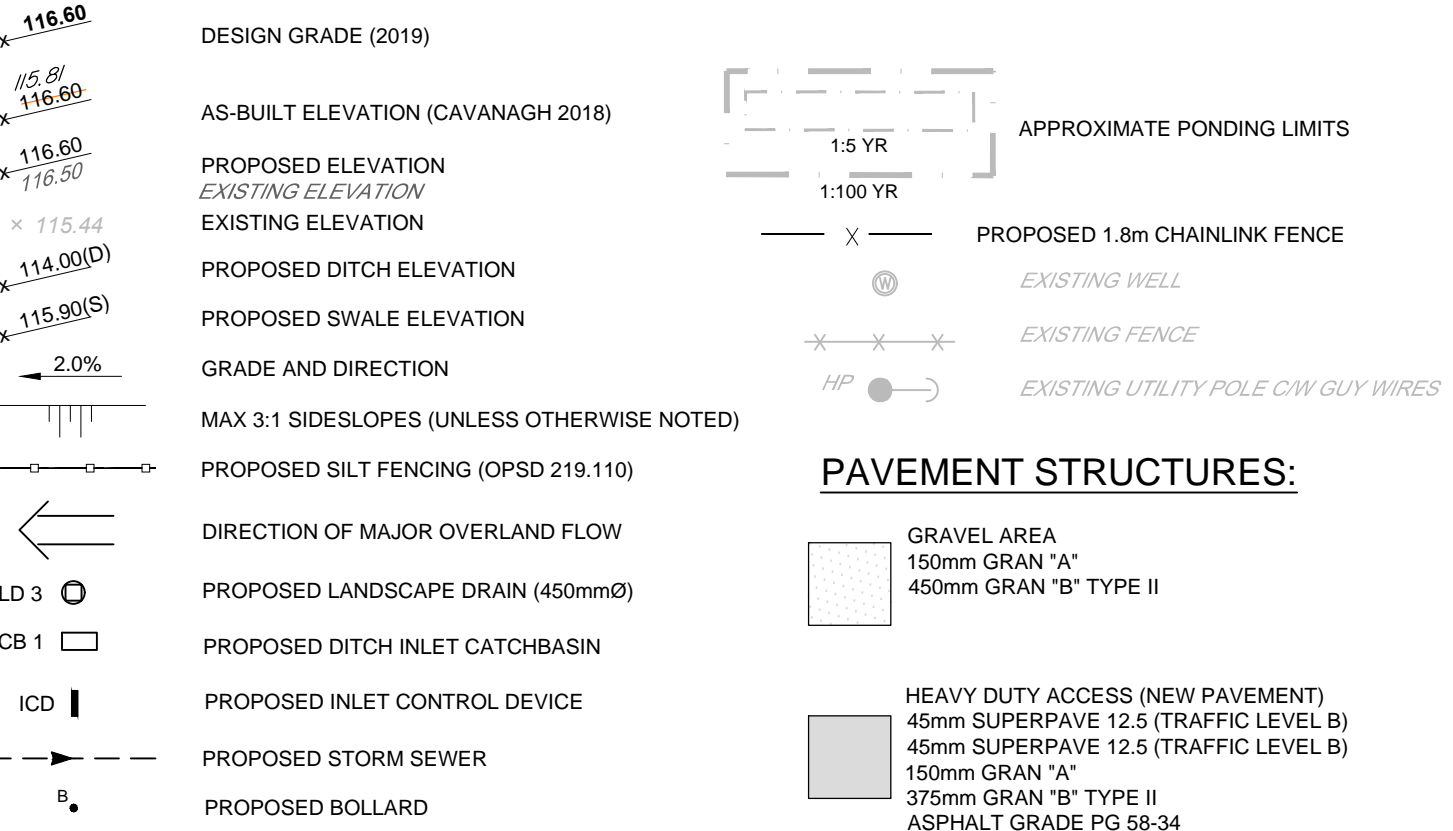


Erosion and Sediment Control Responsibilities:

ESC Measure	Symbol	Specification	Installation Responsibility	Inspection/Maintenance Responsibility	Inspection Frequency	Approval to Remove	Removal Responsibility	After Final Acceptance Inspection/Maintenance Responsibility
Silt Fence	—	OPSD 219.110	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	Consultant	Developer's Contractor	N/A
Filter Fabric (under grates)	—	Location as indicated On Plans	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	Consultant	Developer's Contractor	N/A
Straw Bale Check Dam	—	OPSD 219.180	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	Consultant	Developer's Contractor	N/A
Dust Control	—	Location as Required Around Site	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	Consultant	Developer's Contractor	N/A
Stabilized Material Stockpiling	—	Location as Required by Contractor	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	Developer's Contractor	Developer's Contractor	N/A
Sediment Basin (for flows being pumped out of excavations)	—	Location as Required by Contractor	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	Developer's Contractor	Developer's Contractor	N/A
Rip-Rap	—	OPSD 810.010	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	To Remain	N/A	Owner
Hydraulic Seed & Mulch	—	Proposed Swales and Ditches	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	To Remain	N/A	Owner

LEGEND



AS-BUILT GRADES PROVIDED BY THOMAS CAVANAGH CONSTRUCTION SEPTEMBER, 2018

SEWER NOTES:

- SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
- SPECIFICATIONS:

ITEM	SPEC. No.
DITCH INLET CATCHBASIN (600X1200)	OPSD 705.040
STORM SEWER	PVC DR 35
PERFORATED STORM (800mmØ PIPE)	HDPE SMOOTH-WALLED PIPE
LANDSCAPE DRAIN COVER (450mmØ)	HDPE SMOOTH-WALLED PIPE
LANDSCAPE DRAIN TEE (600X600X450 TEE)	HDPE SMOOTH-WALLED PIPE
- FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTING PIPES TO CONCRETE STRUCTURES (FOR EXAMPLE KOR-N-SEAL, PSX POSITIVE SEAL AND DURASEAL). THE CONCRETE CRADLE FOR THE PIPE CAN BE ELIMINATED.

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.
- ALL EROSION AND SEDIMENT CONTROLS ARE TO BE INSTALLED TO THE SATISFACTION OF THE ENGINEER AND THE MUNICIPAL AUTHORITIES. 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.
 - EROSION AND SEDIMENT CONTROL MEASURES ARE TO 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.
 - TO PREVENT SURFACE EROSION FROM ENTERING ANY STORM DRAINAGE SYSTEM DURING CONSTRUCTION, FILTER CLOTH WILL BE PLACED UNDER GRATES OF NEARBY LANDSCAPE DRAINS 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
 - ROADWAYS ARE TO BE SWEEP AS REQUIRED OR AS DIRECTED BY THE ENGINEER AND/OR THE REPRESENTATIVE OF THE MUNICIPALITY.
 - 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.

INLET CONTROL DEVICE DATA - DICB 1

DESIGN EVENT	PLUG TYPE ICD (CIRCULAR ORIFICE SIZE)	DIAMETER OF OUTLET PIPE	DESIGN FLOW	DESIGN HEAD	WATER ELEVATION	PONDING DEPTH
1.5 YR	178mm Ø ORIFICE	300mm Ø	63.0 L/s	0.84 m	114.94 m	0.34 m
1:100 YR	178mm Ø ORIFICE	300mm Ø	71.0 L/s	1.07 m	115.17 m	0.57 m

GENERAL NOTES:

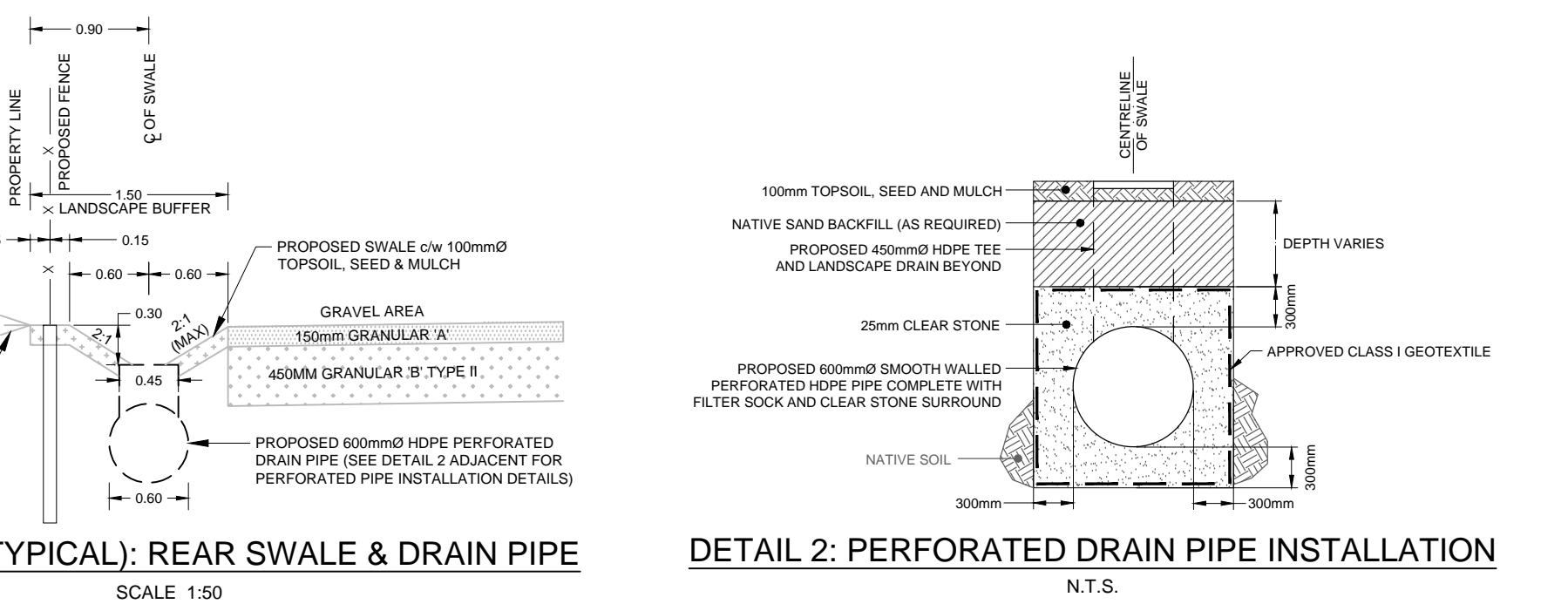
- COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
- DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS DRAWING.
- OBTAIN ALL 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 AND ENGINEERS 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 MUNICIPAL AUTHORITIES 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. THE EXISTING POINT ELEVATIONS, SITE CONTOURS AND SURVEY INFORMATION WAS PROVIDED BY THOMAS CAVANAGH CONSTRUCTION LIMITED (FILE NAME: 2727 Carp Rd Linework for Topo.dwg). THE SURROUNDING CONTOUR INFORMATION BEYOND THE SITE IS FROM CITY OF OTTAWA MAPPING.
- REFER TO GEOTECHNICAL INVESTIGATION REPORT NO. 63978.96 (DATED APRIL 27, 2016) PREPARED BY HOLEL CHEVRIER ENGINEERING 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.
- REFER TO THE SITE PLAN AND LANDSCAPE PLAN FOR HARD SURFACE AREAS AND DIMENSIONS.
- SAW CUT AND KEYGRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10 AND R25).

ASBUILTS:

- THE CONTRACTOR IS TO PROVIDE THE CONSULTANT WITH A PLAN INDICATING ALL OF THE APPLICABLE GRADING AND SERVING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS AND ANY ALIGNMENT CHANGES AS WELL AS THE AS-BUILT ELEVATION OF EVERY DESIGN GRADE SHOWN ON THIS PLAN.

GRADING NOTES:

- ALL TOPSOIL, ORGANIC OR DELETERIOUS MATERIAL MUST BE ENTIRELY REMOVED FROM BENEATH THE PROPOSED PAVED AREAS.
- 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 SUBEXCAVATED AND REPLACED WITH SUITABLE MATERIAL THAT IS FROST COMPATIBLE WITH THE EXISTING SOILS.
- 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 96% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE.
- MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
- REFER TO THE SITE PLAN FOR PLANTING AND OTHER LANDSCAPE FEATURE DETAILS.



REFER TO PLAN 100149-4-SWM FOR DETAILS OF THE OFF-SITE THE STORMWATER MANAGEMENT FACILITY

SURVEY MONUMENT
STATION: 0011970244
LOCATION DESCRIPTION: TOWNSHIP: HUNTLEY CONCRETE BRIDGE UNDER OLD STITTVILLE-CARP ROAD, 4.8 km NORTHWEST FROM JUNCTION WITH HIGHWAY No. 15 IN SOUTH-WEST END OF BRIDGE NEAR MOST WESTERLY CORNER, 30 cm BELOW DECK.
ELEVATION: 115.090

APPROVED
By Adam Brown at 3:11 pm, Oct 01, 2019

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.

ADAM BROWN
MANAGER, DEVELOPMENT REVIEW - RURAL PLANNING, INFRASTRUCTURE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

OWNER INFORMATION
1384341 ONTARIO LTD.
CAVANAGH CONSTRUCTION LIMITED
8094 CAVANAGH ROAD
SHTON, ONTARIO, K0A 1B0

CONTACT: MATT NESRALLAH
PHONE: (613) 257-2918
E-MAIL: mnesrallah@thomascavanagh.ca

No.	REVISION	DATE	BY
8.	SURVEY MONUMENT ADDED	OCT 1/19	SMG
7.	SITE BENCHMARK ADDED	AUG 22/19	SMG
6.	ISSUED FOR SITE PLAN AMENDMENT APPLICATION	JUL 19/19	SMG
5.	INTERIM AS-BUILT (GRADES PROVIDED BY CAVANAGH CONSTRUCTION)	NOV 9/18	LAB
4.	ISSUED FOR REVISED SITE PLAN APPROVAL	JUN 27/18	SM
3.	REVISED PER CITY COMMENTS	SEPT 19/16	SM
2.	ISSUED FOR CLIENT REVIEW	MAY 27/16	SM
1.	ISSUED FOR SITE PLAN APPLICATION	MAY 20/16	SM

SCALE 1:500

0 5 10 15 20

DESIGN: BH / SM
CHECKED: BH
DRAWN: MWC
CHECKED: BH
APPROVED: SG

SCALE 1:500

0 5 10 15 20

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DRAWING NAME: GRADING, SERVING & EROSION AND SEDIMENT CONTROL PLAN

PROJECT No: 100149-4
REV: REV # 8
DRAWING No: 100149-4-GS

PLANNING # 17341

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D07-12-16-0077