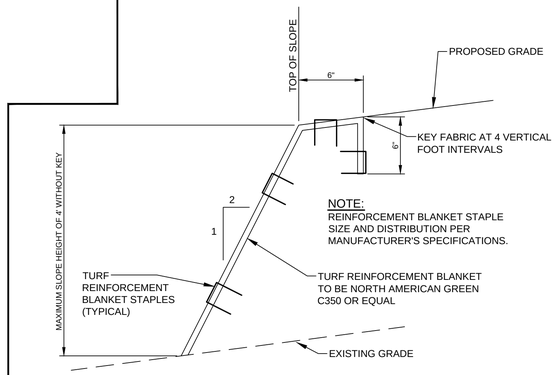

A TURF REINFORCEMENT BLANKET DETAIL

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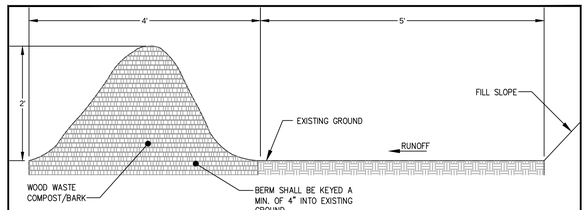


NOTES:

1. THE WOOD WASTE COMPOST/BARK MIX SHALL CONFORM TO THE FOLLOWING STANDARDS:

   A. MOISTURE CONTENT – 30–60%
   B. pH – 5.0–8.0
   C. SCREEN SIZE – 100% LESS THAN 3", MAX. 70% LESS THAN 1"
   D. NO LESS THAN 40% ORGANIC MATERIAL (DRY WEIGHT) BY LOSS OF IGNITION
   F. NO STONES LARGER THAN 2" IN DIAMETER

2. THE COMPOST BERM SHALL BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR.

3. THE WOOD WASTE COMPOST/BARK FILTER BERM MAY BE USED IN LIEU OF SILTATION FENCE, AT THE TOE OF SHALLOW SLOPES, ON FROZEN GROUND, LEDGE OUT CROPS, VERY ROOTED FORESTED AREA OR AT THE EDGE OF GRAVEL PARKING AREAS.

4. BERMS SHALL REMAIN IN PLACE UNTIL UPSTREAM AREA IS COMPLETED OR 90% CATCH OF VEGETATION IS ATTAINED. BERMS SHALL BE REMOVED BY SPREADING SUCH THAT THE NATIVE EARTH CAN BE SEEN BELOW.

B WOOD WASTE COMPOST / BARK FILTER BERM

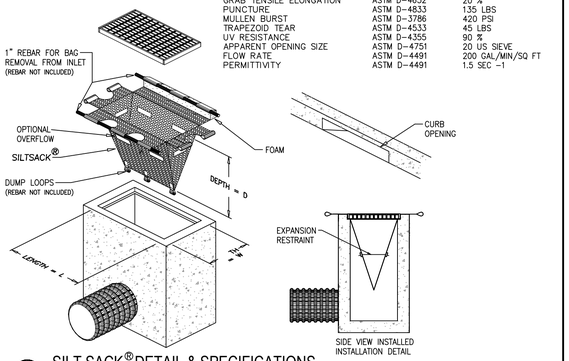
N.T.S.

NOTE: THE SILTSACK® WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

HI–FLOW SILTSACK® (FOR USE IN LOW POINTS/SAGS)

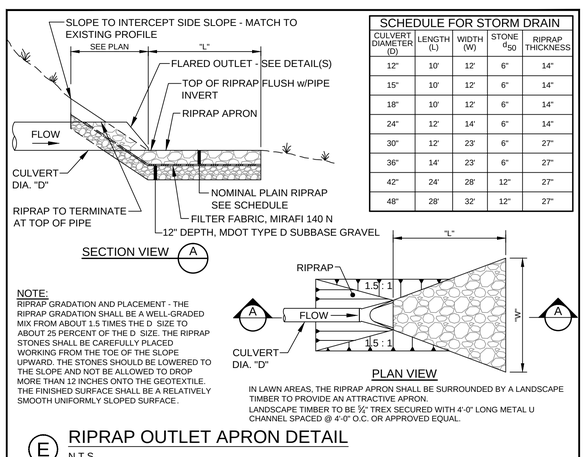
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN–OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D–4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D–4632	20 %
PUNCTURE	ASTM D–4833	135 LBS
MULLEN BURST	ASTM D–3786	420 PSI
TRAPEZOID TEAR	ASTM D–4533	45 LBS
UV RESISTANCE	ASTM D–4355	90 %
APPARENT OPENING SIZE	ASTM D–4751	20 US SIEVE
FLOW RATE	ASTM D–4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D–4491	1.5 SEC –1



D SILT SACK® DETAIL & SPECIFICATIONS

N.T.S.



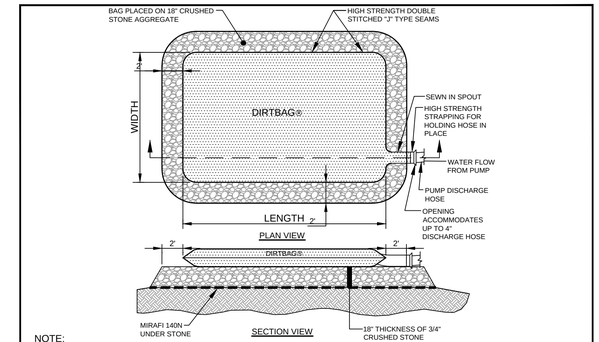
SCHEDULE FOR STORM DRAIN				
CULVERT DIAMETER (D)	LENGTH (L)	WIDTH (W)	STONE d_{50}	RIPRAP THICKNESS
12"	10'	12'	6"	14"
15"	10'	12'	6"	14"
18"	10'	12'	6"	14"
24"	12'	14'	6"	14"
30"	12'	23'	6"	27"
36"	14'	23'	6"	27"
42"	24'	28'	12"	27"
48"	28'	32'	12"	27"

NOTE:
RIPRAP GRADATION AND PLACEMENT - THE RIPRAP GRADATION SHALL BE A WELL-GRADED MIX FROM ABOUT 1.5 TIMES THE D SIZE TO ABOUT 25 PERCENT OF THE D SIZE. THE RIPRAP STONES SHALL BE CAREFULLY PLACED WORKING FROM THE TOE OF THE SLOPE UPWARD. THE STONES SHOULD BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12 INCHES ONTO THE GEOTEXTILE. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH UNIFORMLY SLOPED SURFACE.

IN LAWN AREAS, THE RIPRAP APRON SHALL BE SURROUNDED BY A LANDSCAPE TIMBER TO PROVIDE AN ATTRACTIVE APRON.
LANDSCAPE TIMBER TO BE 5/4" TREX SECURED WITH 4'-0" LONG METAL U CHANNEL SPACED @ 4'-0" O.C. OR APPROVED EQUAL.

E RIPRAP OUTLET APRON DETAIL

N.T.S.



NOTE:
LOCATION OF DIRTBAGS TO BE SELECTED BY THE CONTRACTOR BUT SHALL NOT BE SITED IN THE CRITICAL AREAS.

SPECIFICATIONS AND REQUIREMENTS FOR DEWATERING

THIS PROJECT WILL REQUIRE THE DISCHARGE OF CONSTRUCTION DEWATERING AND TURBID LADEN RUNOFF FROM THE SITE TO BE DIRECTED AND DISCHARGED THROUGH A DIRTBAG. THIS DESCRIPTION ALSO CONTAINS APPENDED MATERIALS DESCRIBING THE **DIRTBAGS** REFERRED TO IN THIS NARRATIVE.

OVERVIEW:

THE PROJECT WILL BENEFIT FROM A POND DESIGNED NOT ONLY FOR DETENTION BUT ALSO FOR USE AS SEDIMENTATION BASINS DURING CONSTRUCTION. HOWEVER, IT IS RECOGNIZED THAT WEATHER CONDITIONS ARE NOT ALWAYS PREDICTABLE; THERE MAY BE EXCEPTIONAL PERIODS WHEN CONSTRUCTION ACTIVITY RESULTS IN HIGHLY TURBID WATER WHICH IS NOT CONSIDERED DESIRABLE TO DISCHARGE TO THE PONDS, OR LIMITED ACTIVITY IS REQUIRED THAT MAY NOT BE EASILY ACCOMMODATED BY THE PONDS. TRADITIONALLY, MEDEP PERMITS HAVE HAD A STANDARD CONDITION WHICH STATES:

"THE APPLICANT SHALL TAKE ALL NECESSARY ACTIONS TO ENSURE THAT ITS ACTIVITIES OR THOSE OF ITS AGENTS DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS ON THE SITE DURING THE CONSTRUCTION AND OPERATION OF THE PROJECT COVERED BY THIS APPROVAL."

THESE SPECIFICATIONS HAVE BEEN DEVELOPED FOR THE PURPOSE OF ADDRESSING CONSTRUCTION-DEWATERING ACTIVITIES WITH THE CONTINGENCY THAT UNPREDICTABLE WEATHER CAN CREATE. THE SPECIFICATION IS INTENDED TO "SHARE THE RISK" BETWEEN THE CONTRACTOR AND OWNER. IT IS ANTICIPATED THAT THIS METHOD WILL ALLOW THE BASE BID FOR THE PROJECT TO HAVE A REDUCED BUILT-IN CONTINGENCY COST FOR CERTAIN WEATHER-RELATED FACTORS.

THIS SPECIFICATION IS NOT INTENDED TO DIMINISH THE RECOGNIZED AND POTENTIAL AID OF THE PROPOSED SEDIMENT PONDS TO ACT AS THE PRIMARY DEVICE TO CAPTURE AND RETAIN SUSPENDED SEDIMENT. THIS BENEFIT IS A PRINCIPAL REASON WHY THE CONSTRUCTION OF THE POND EARLY IN THE PROJECT IS SO IMPORTANT.

ACCEPTABLE METHODS OF DISCHARGING CONSTRUCTION SITE RUNOFF:

DEWATERING OF THE CONSTRUCTION SITE SHALL BE ACCOMPLISHED USING ONE OF THE FOLLOWING MEASURES:

· THE DIRECTION OF THE RUNOFF TO THE SEDIMENTATION BASIN BY GRAVITY FLOW.

· THE PUMPING OF DIRTBAGS WITH A DISCHARGE TO THE POND.

· THE PUMPING OF CONSTRUCTION SITE WATER AND COLLECTED RUNOFF TO A **DIRTBAG** (PATENTED PRODUCT BY ACF ENVIRONMENTAL PRODUCTS) WITH RELEASE THROUGH A VEGETATED BUFFER AT LEAST 50 FEET UPGRADIENT OF A WETLAND.

REQUIREMENTS FOR DIRTBAGS:

THE SITE CONTRACTOR SHALL INCLUDE THE PRICE OF INSTALLING, OPERATING, AND REMOVAL AND DISPOSAL OF FOUR **DIRTBAG 55'S** AS PART OF THE BASE BID. A UNIT PRICE SHALL BE PROVIDED FOR ADDITIONAL **DIRTBAGS.**

AT ALL TIMES THERE MUST BE AN UNUSED DIRTBAG AVAILABLE FOR EMERGENCY USE.

AT ALL TIMES (AFTER INITIAL SITE PREPARATION), THE CONTRACTOR SHALL HAVE ONE **DIRTBAG** ACTIVE OR READY FOR USE. THE **DIRTBAGS** SHALL BE FIELD LOCATED BY THE CONTRACTOR BUT ARE NOT TO BE INSTALLED IN ANY **"CRITICAL"** AREA. (THE SITE CRITICAL AREAS ARE SHOWN ON THE EROSION-SEDIMENT CONTROL PLAN.) THE **DIRTBAG** SHALL BE INSTALLED ON A PREPARED SUBGRADE. THIS SUBGRADE SHALL CONSIST OF THE INSTALLATION OF A LAYER OF MIRAFI 600X, AND 18 INCHES OF ¾ INCH CRUSHED STONE. THE PLAN DIMENSION OF THE CRUSHED STONE PAD SHALL EXCEED THE PLAN AREA OF THE **DIRTBAG** BY AT LEAST TWO FEET IN ALL DIRECTIONS. THE **DIRTBAG** SHALL NOT BE INSTALLED ON AN UNDERLYING SLOPE OF GREATER THAN 15 PERCENT.

CONSTRUCTION DEWATERING OPERATIONS:

ALL CONSTRUCTION-DEWATERING OPERATIONS ARE THE RESPONSIBILITY OF THE SITE CONTRACTOR. IT SHALL BE THE SITE CONTRACTOR WHO IS RESPONSIBLE FOR SELECTING THE SITE FOR THE **DIRTBAG**, THE SELECTION OF THE USE OF THE **DIRTBAG** OR THE SEDIMENTATION BASIN FOR DIRECTING DEWATERING, EXCEPT THAT THE OWNER MAY DIRECT THE SITE CONTRACTOR TO ALTER THE SELECTED OPERATION IF TURBID DISCHARGE TO A WETLAND OR EITHER CULVERT UNDER WEEKS ROAD IS OBSERVED.

WINTER OPERATIONS:

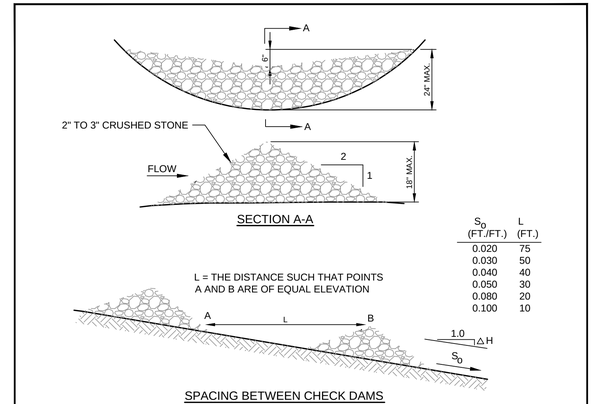
IN THE EVENT THAT WINTER OPERATIONS ARE REQUIRED, THE CONTRACTOR SHALL "POLY", ENCLOSE, AND PROVIDE TEMPORARY HEAT TO PREVENT THE **DIRTBAG** FROM SUBSTANTIAL FREEZING.

RECORD KEEPING

THE WEEKLY EROSION-SEDIMENT CONTROL REPORTS PREPARED IN ACCORDANCE WITH THE NPDES PERMIT SHALL MAINTAIN A LOG OF THE LOCATION, USE, AND REMOVAL OF **DIRTBAGS.** IN THE EVENT THAT THE STONE UNDER THE **DIRTBAG** BECOMES HIGHLY CONTAMINATED WITH FINES, THE NEXT **DIRTBAG** SHALL BE INSTALLED IN A DIFFERENT LOCATION.

G DIRTBAG® DETAIL AND SPECIFICATIONS

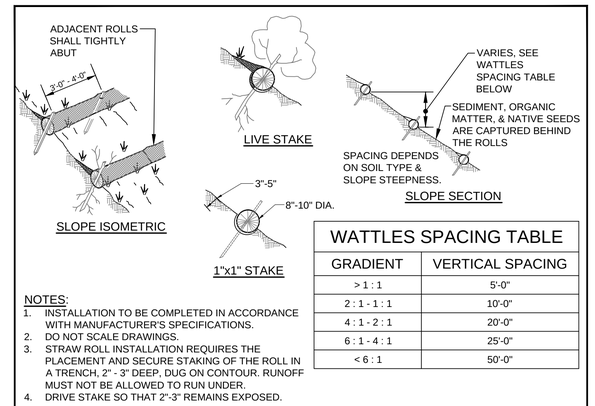
N.T.S.



S_D (FT./FT.)	L (FT.)
0.020	75
0.030	50
0.040	40
0.050	30
0.080	20
0.100	10

I STONE CHECK DAM DETAIL

N.T.S.



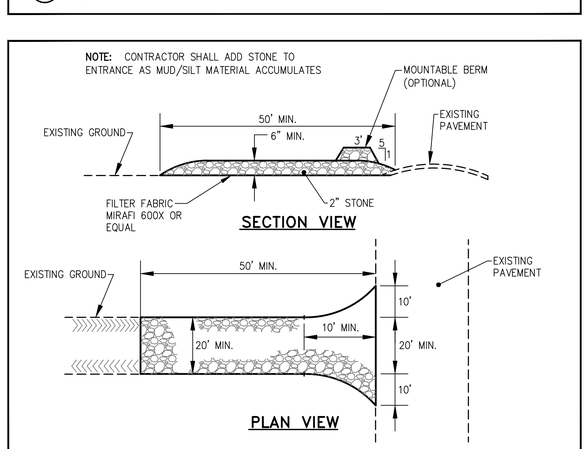
WATTLES SPACING TABLE	
GRADIENT	VERTICAL SPACING
> 1 : 1	5'-0"
2 : 1 - 1 : 1	10'-0"
4 : 1 - 2 : 1	20'-0"
6 : 1 - 4 : 1	25'-0"
< 6 : 1	50'-0"

NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 2" - 3" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER.
4. DRIVE STAKE SO THAT 2"-3" REMAINS EXPOSED.

J STRAW WATTLE DETAIL

N.T.S.



NOTE: CONTRACTOR SHALL ADD STONE TO ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES

C STABILIZED CONSTRUCTION ENTRANCE

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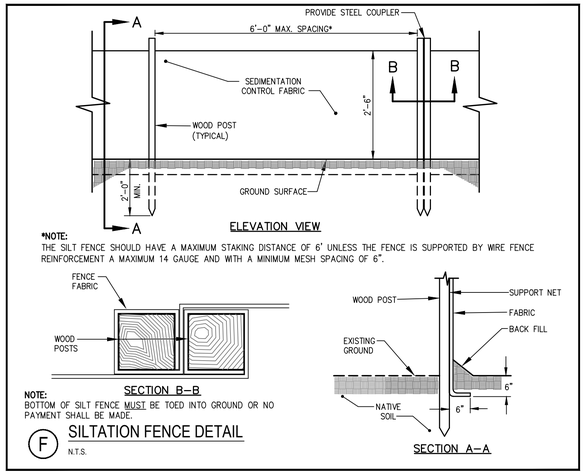
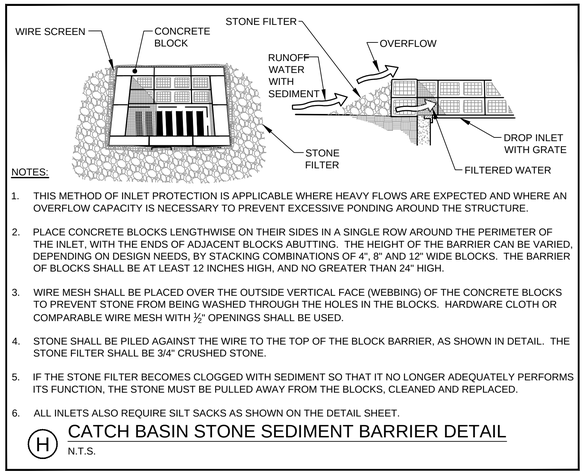


***NOTE:**
THE SILT FENCE SHOULD HAVE A MAXIMUM STAKING DISTANCE OF 6' UNLESS THE FENCE IS SUPPORTED BY WIRE FENCE REINFORCEMENT A MAXIMUM 14 GAUGE AND WITH A MINIMUM MESH SPACING OF 6".

NOTE:
BOTTOM OF SILT FENCE MUST BE TOED INTO GROUND OR NO PAYMENT SHALL BE MADE.

F SILTATION FENCE DETAIL

N.T.S.



NOTES:

1. THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.
2. PLACE CONCRETE BLOCKS LENGTHWISE ON THEIR SIDES IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET, WITH THE ENDS OF ADJACENT BLOCKS ABUTTING. THE HEIGHT OF THE BARRIER CAN BE VARIED, DEPENDING ON DESIGN NEEDS, BY STACKING COMBINATIONS OF 4", 8" AND 12" WIDE BLOCKS. THE BARRIER OF BLOCKS SHALL BE AT LEAST 12 INCHES HIGH, AND NO GREATER THAN 24" HIGH.
3. WIRE MESH SHALL BE PLACED OVER THE OUTSIDE VERTICAL FACE (WEBBING) OF THE CONCRETE BLOCKS TO PREVENT STONE FROM BEING WASHED THROUGH THE HOLES IN THE BLOCKS. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH ½" OPENINGS SHALL BE USED.
4. STONE SHALL BE PILED AGAINST THE WIRE TO THE TOP OF THE BLOCK BARRIER, AS SHOWN IN DETAIL. THE STONE FILTER SHALL BE 3/4" CRUSHED STONE.
5. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FROM THE BLOCKS, CLEANED AND REPLACED.
6. ALL INLETS ALSO REQUIRE SILT SACKS AS SHOWN ON THE DETAIL SHEET.

H CATCH BASIN STONE SEDIMENT BARRIER DETAIL

N.T.S.

PRELIMINARY - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
2	02.29.16	FINAL SITE AND SUBDIVISION PLANS SUBMITTED TO CITY
1	01.22.16	SUBMITTED TO CLIENT FOR REVIEW

REVISIONS

STATE OF MAINE · BO KENNEDY · No. 11994 · LICENSED PROFESSIONAL ENGINEER

P.E. APPROVAL

LIC. # 11994

PROJECT: SUBURBAN PROPANE RELOCATION

SHEET TITLE: EROSION CONTROL DETAILS

CLIENT: THOMPSON'S POINT DEVELOPMENT CO. INC.

STANTEC CONSULTING SERVICES INC.
778 MAIN ST, SUITE 8
SOUTH PORTLAND, ME 04106
WWW.STANTEC.COM

DRAWN:	DED	DATE:	SEPT 2014
DESIGNED:	BEK	SCALE:	AS NOTED
CHECKED:	BEK	JOB NO.	195350142
FILE NAME:	SP-M157 DETAILS		
SHEET	C-6.2		

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