

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 USE SHALLOW SWALES 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 SWALES, OR LIMITED ACTIVITY IS REQUIRED THAT MAY NOT BE EASILY ACCOMMODATED BY THE SWALES. 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 EXCESSIVE 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 SWALES TO ACT AS THE PRIMARY DEVICE TO CAPTURE AND RETAIN SUSPENDED SEDIMENT. THIS BENEFIT IS A PRINCIPAL REASON WHY THE CONSTRUCTION OF THE SWALES 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 SEDIMENTATION SWALES BY SHEET FLOW.
- THE PUMPING OF DIRTBAGS WITH A DISCHARGE TO THE SWALES OR MUNICIPAL DRAINAGE SYSTEM.
- 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 SHOREFRONT.

REQUIREMENTS FOR DIRTBAGS:

THE SITE CONTRACTOR SHALL INCLUDE THE PRICE OF INSTALLING, OPERATING, AND REMOVAL AND DISPOSAL OF FOUR DIRTBAG 57S 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 DIRTBAG 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 3/4" 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 THE WATER FRONT IS OBSERVED.

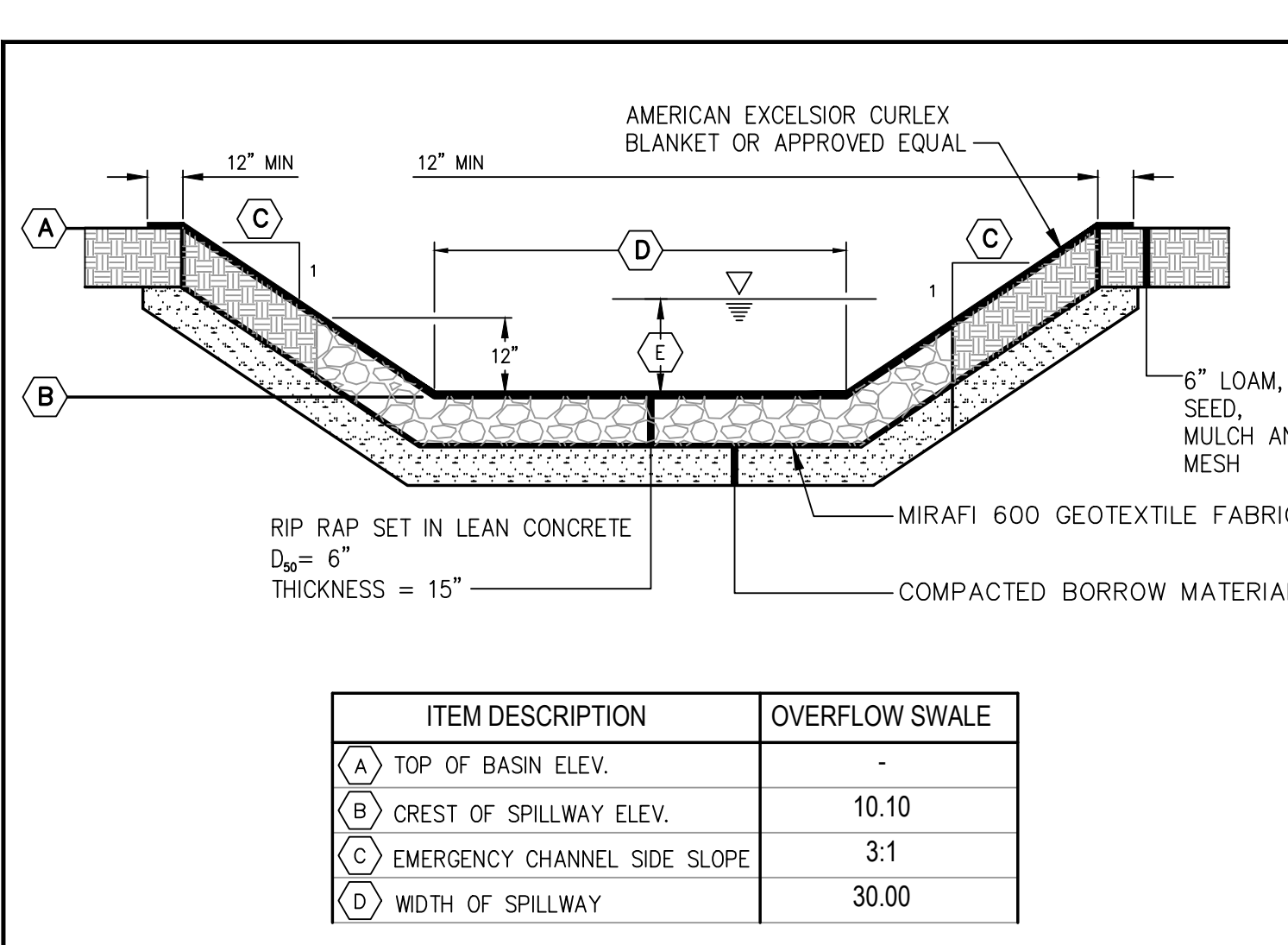
WINTER OPERATIONS:

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

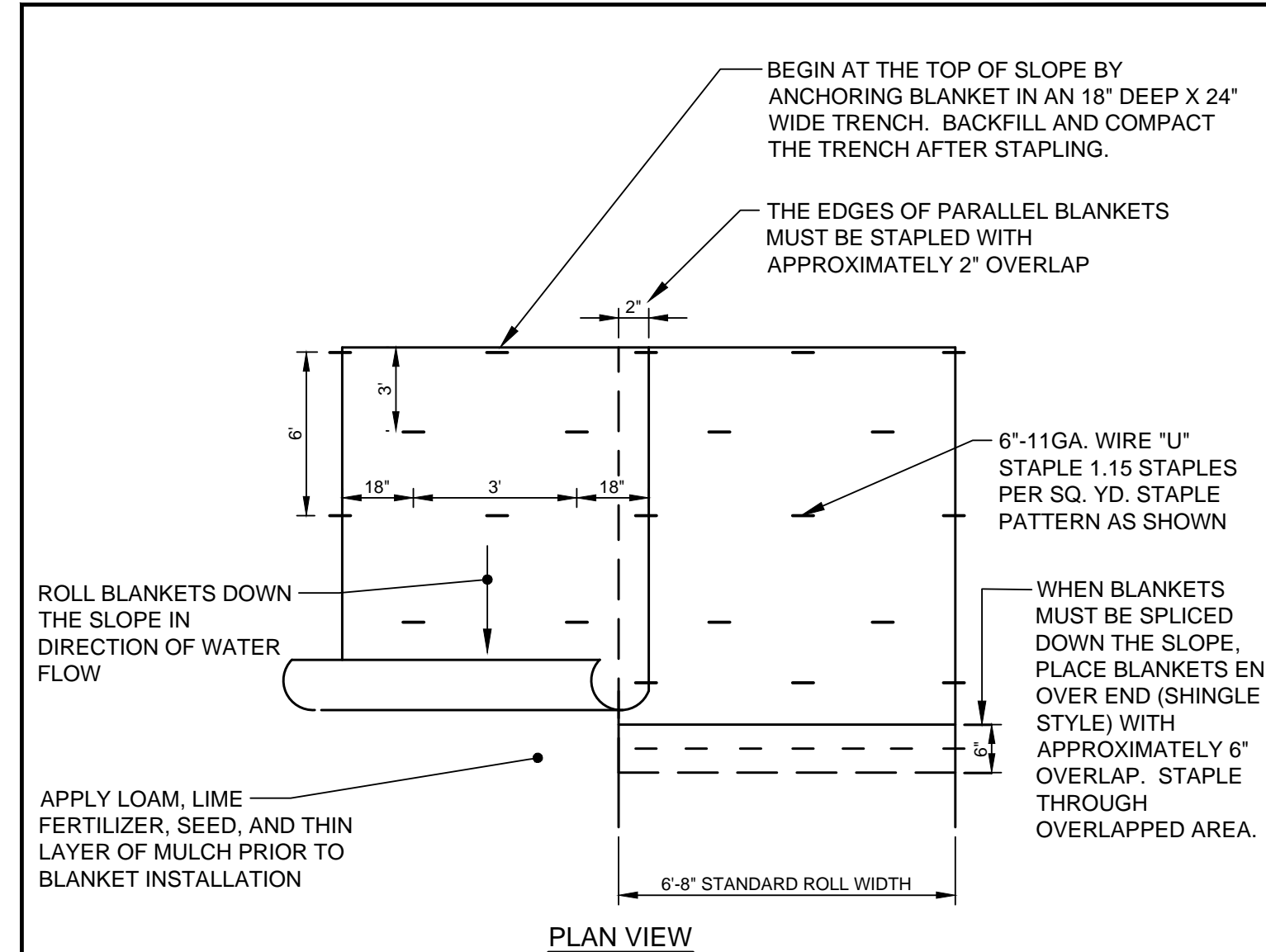
RECORD KEEPING

THE WEEKLY EROSION-SEDIMENT CONTROL REPORTS PREPARED IN ACCORDANCE WITH THE MAINE CONSTRUCTION GENERAL 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.

(A) DIRTBAG® DETAIL AND SPECIFICATIONS
N.T.S.



(B) TYPICAL WATER QUALITY FILTER OVERFLOW CHANNEL
N.T.S.



EROSION CONTROL BLANKET SLOPE STABILIZATION DETAIL
N.T.S.

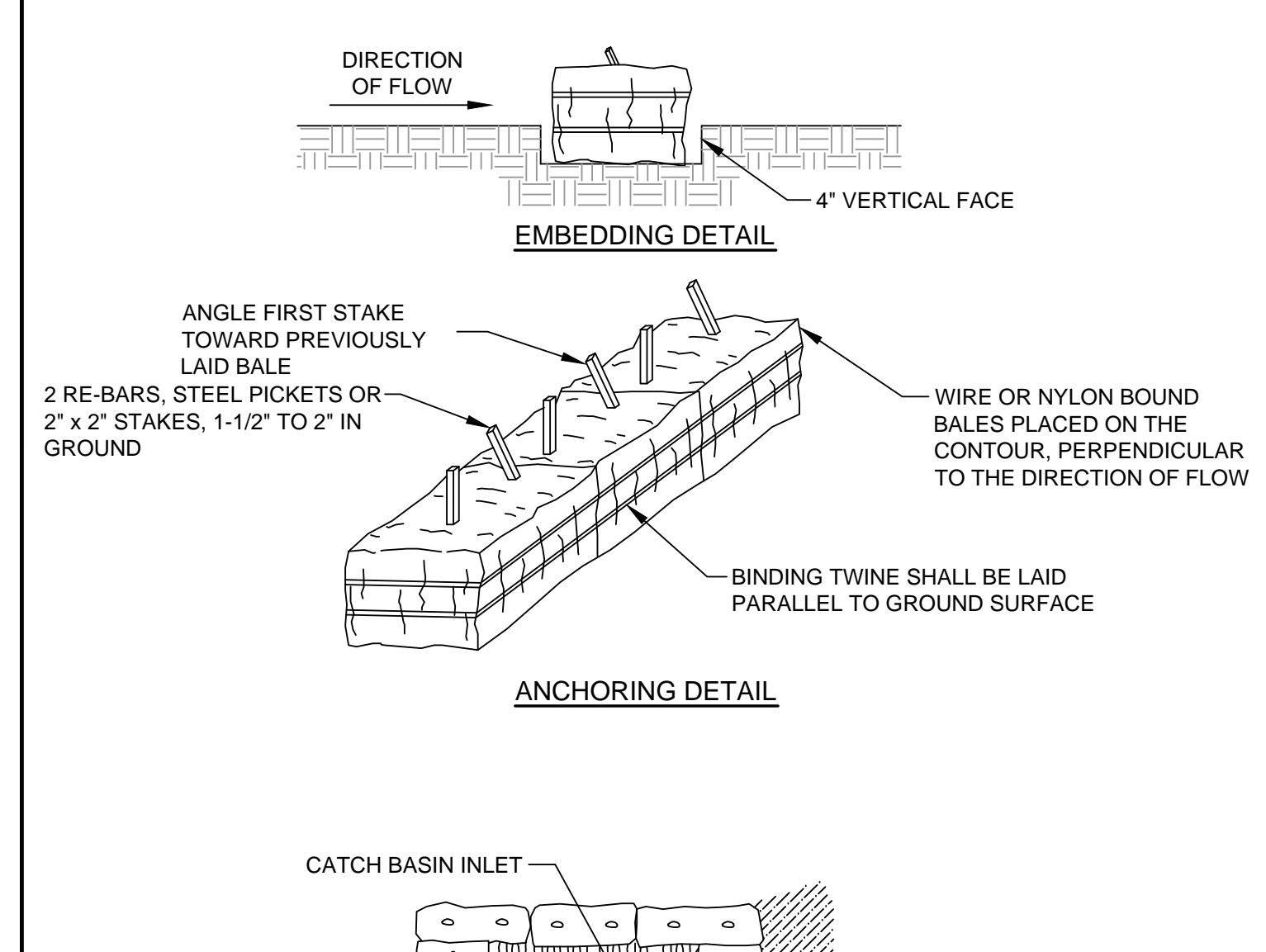
NOTE: THE SILT SACK WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

PROPERTY	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4832	285 LBS
GRAB TENSILE ELONGATION	ASTM D-4832	20 %
PUNCTURE	ASTM D-4833	135 LBS
MULLER BURST	ASTM D-3785	420 PSF
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4335	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US GIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SG FT
PERMITTIVITY	ASTM D-4491	1.5 SEC-1

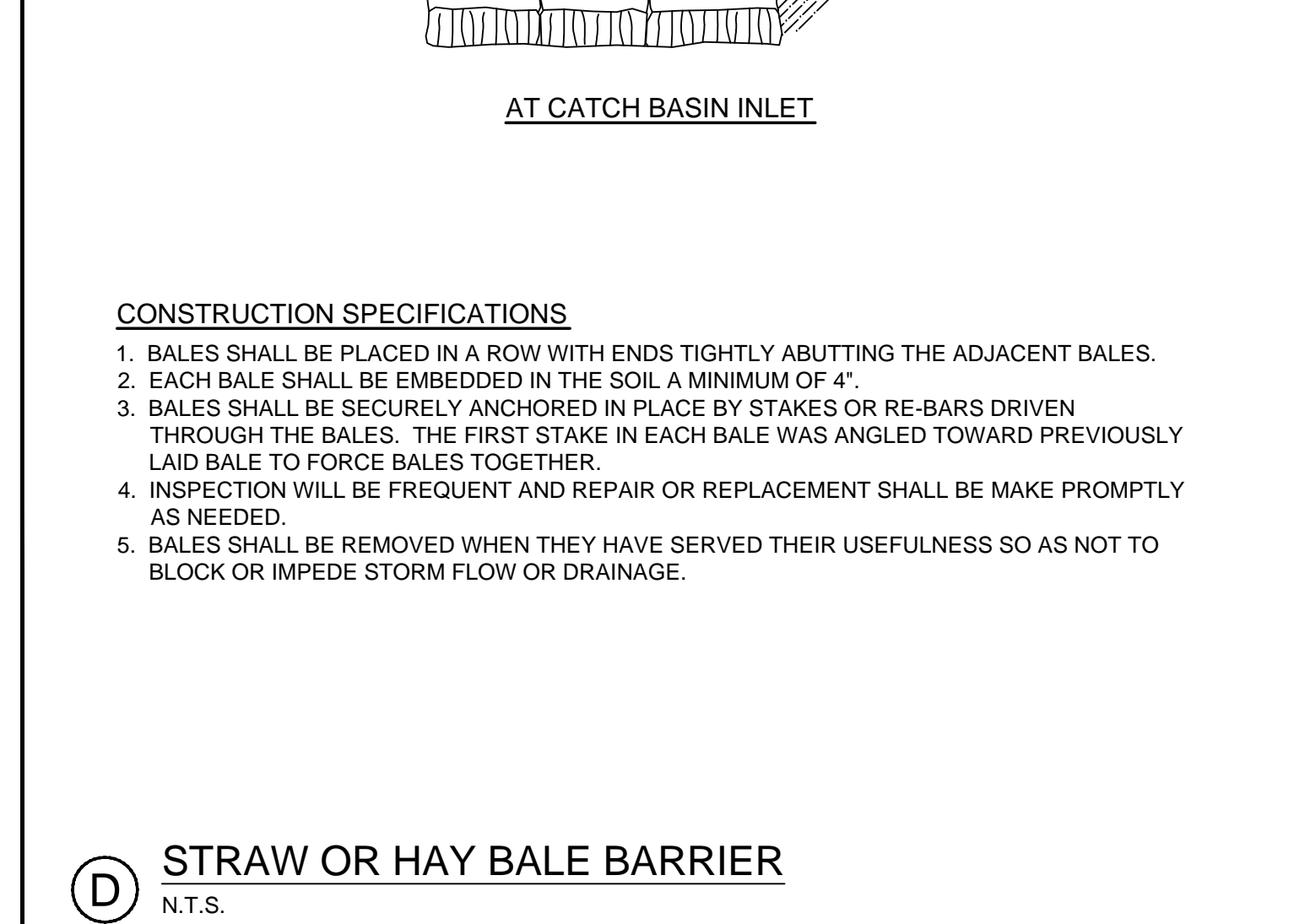
CONSTRUCTION SPECIFICATIONS

- BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
- BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE WAS ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
- INSPECTION WILL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MAKE PROMPTLY AS NEEDED.
- BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

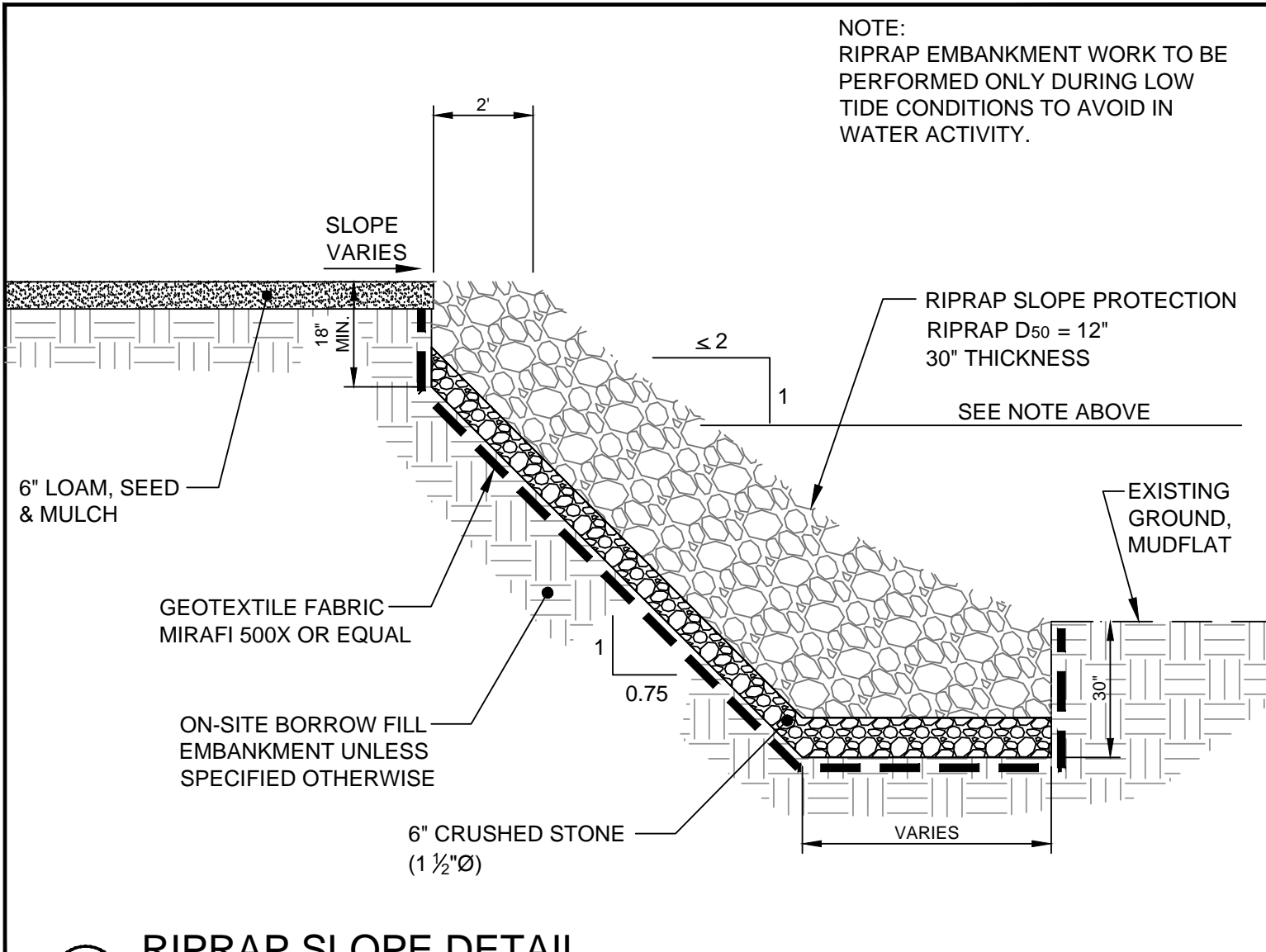
(D) STRAW OR HAY BALE BARRIER
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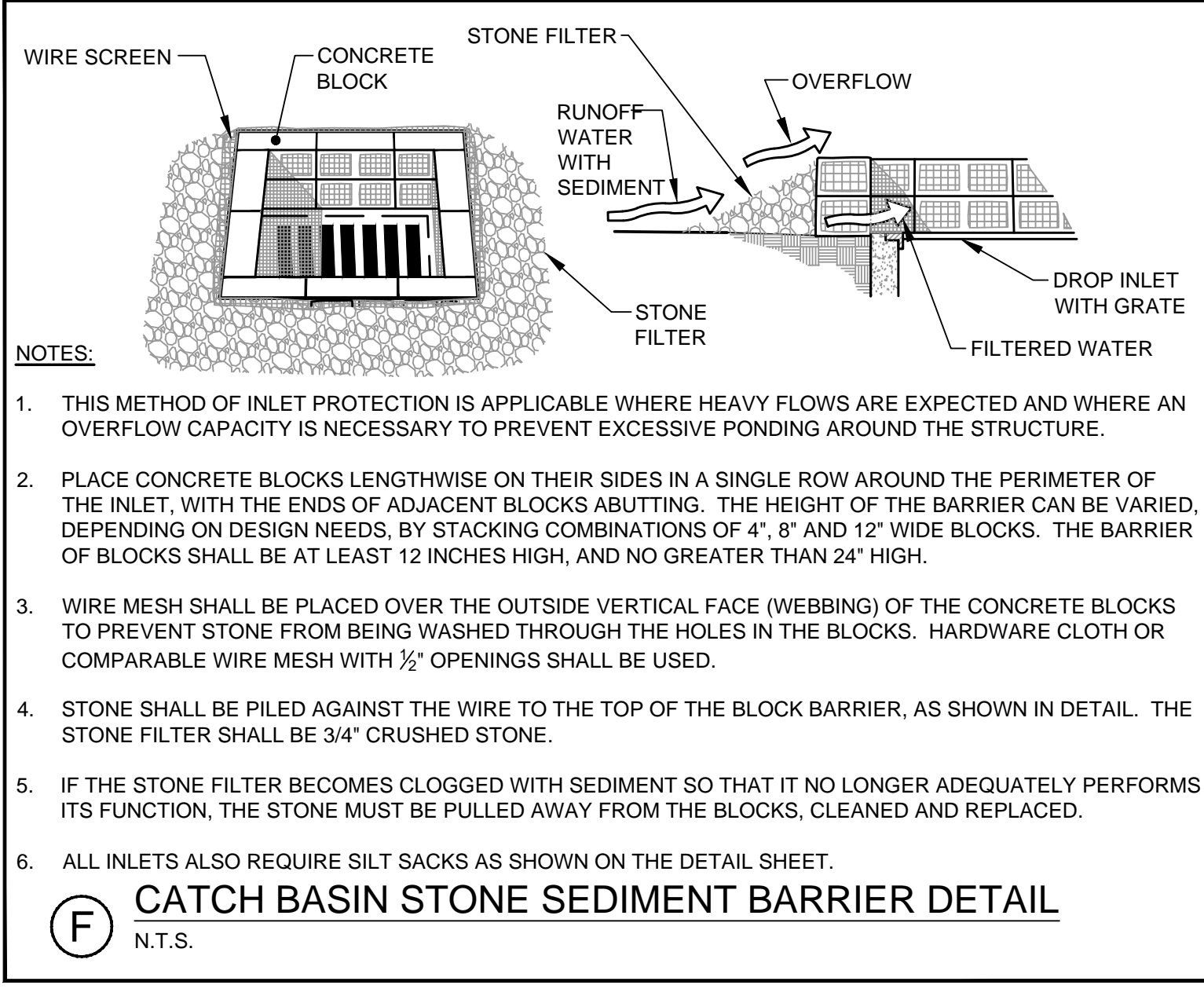
(G) SILT SACK® DETAIL & SPECIFICATIONS
N.T.S.



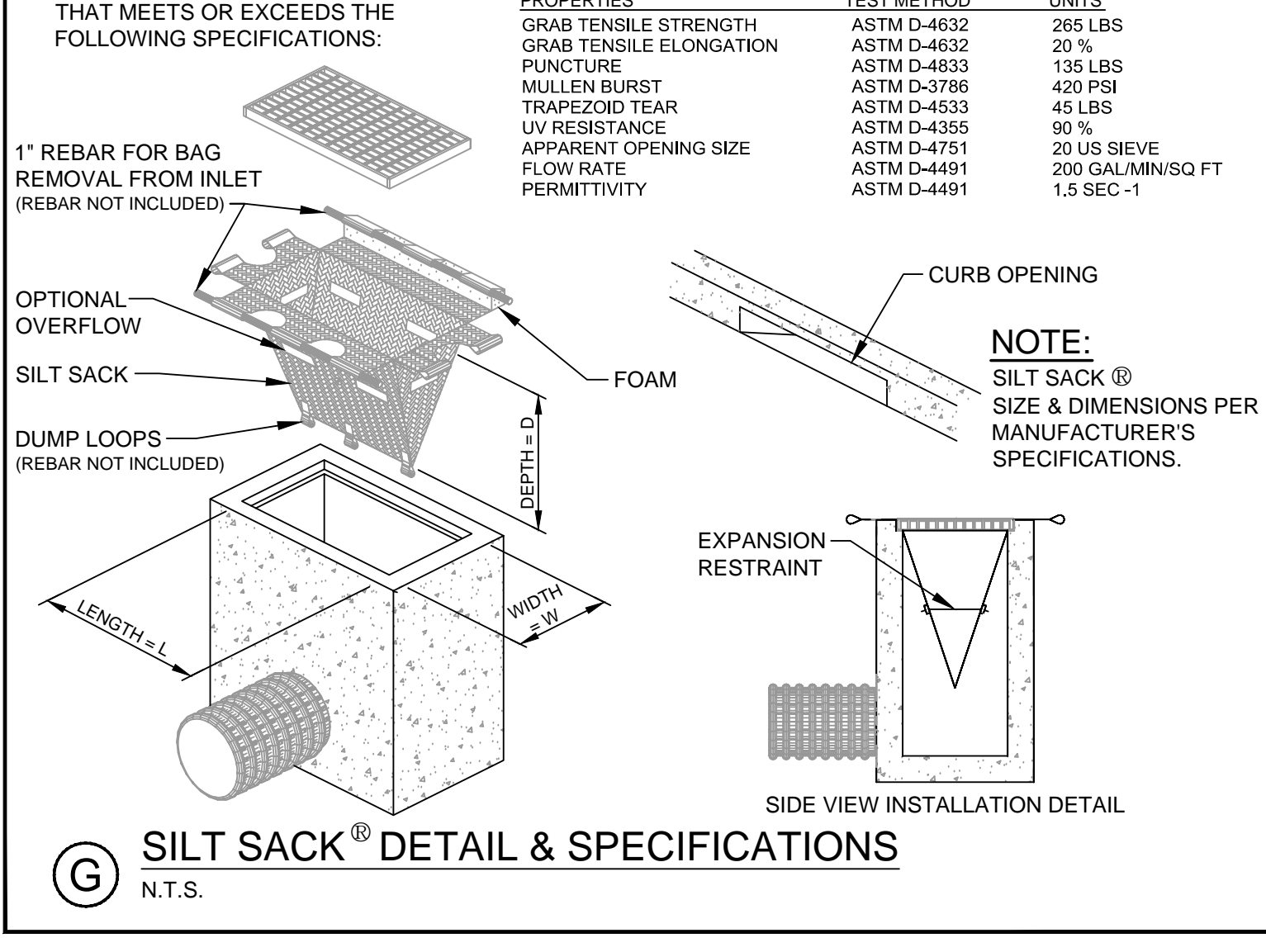
(H) TEMPORARY TOPSOIL STOCKPILE DETAIL
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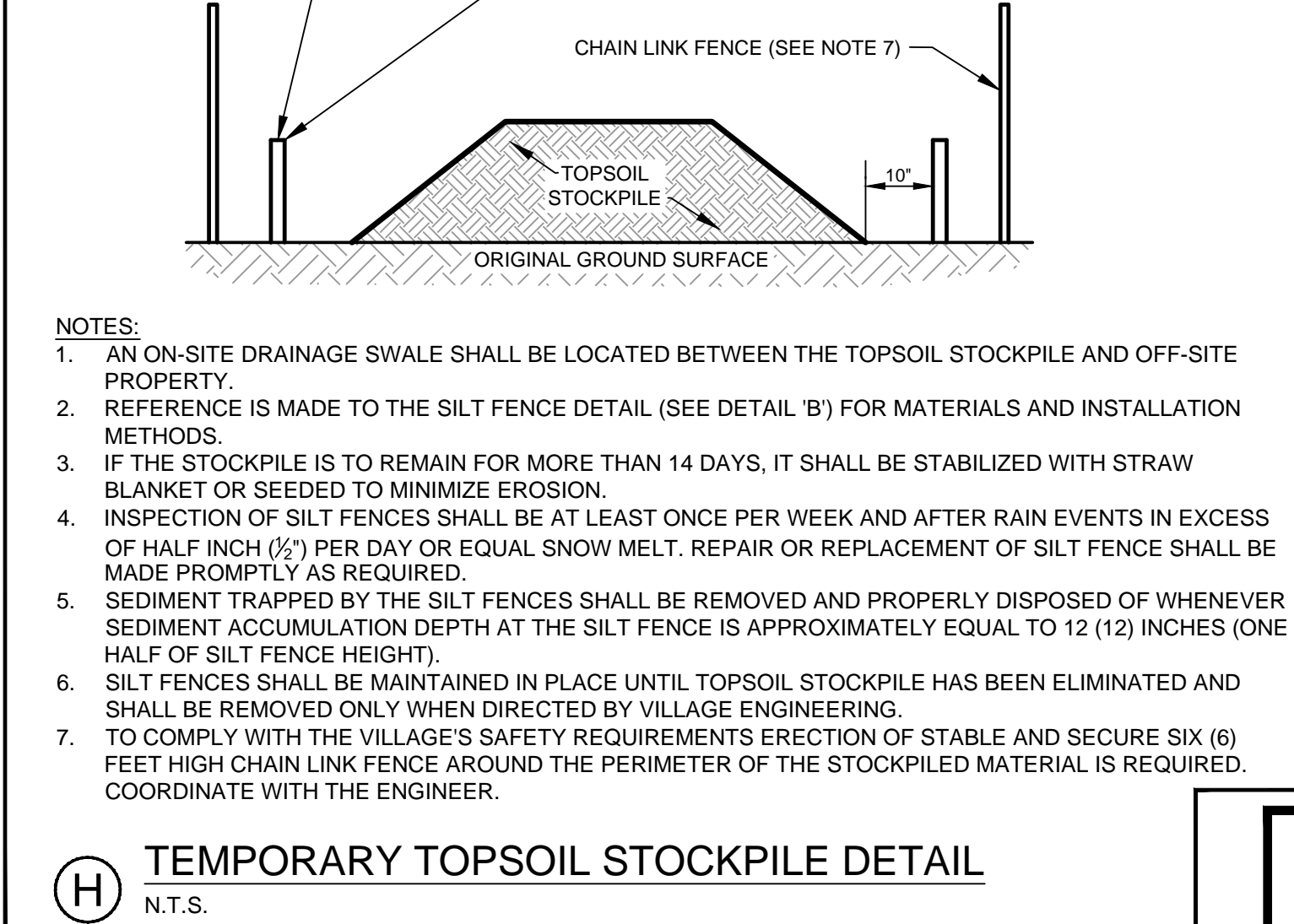
(E) RIPRAP SLOPE DETAIL
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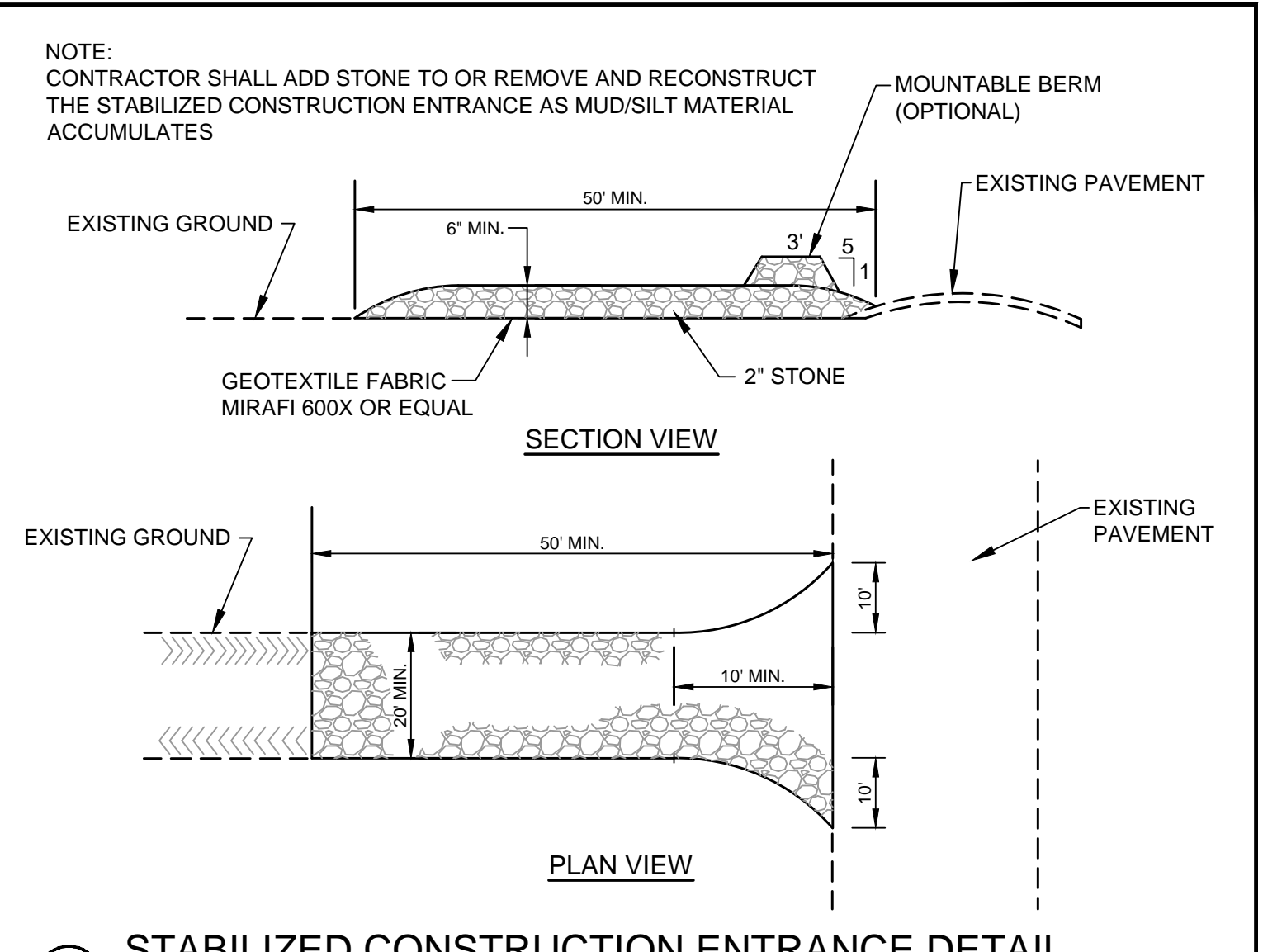
(F) CATCH BASIN STONE SEDIMENT BARRIER DETAIL
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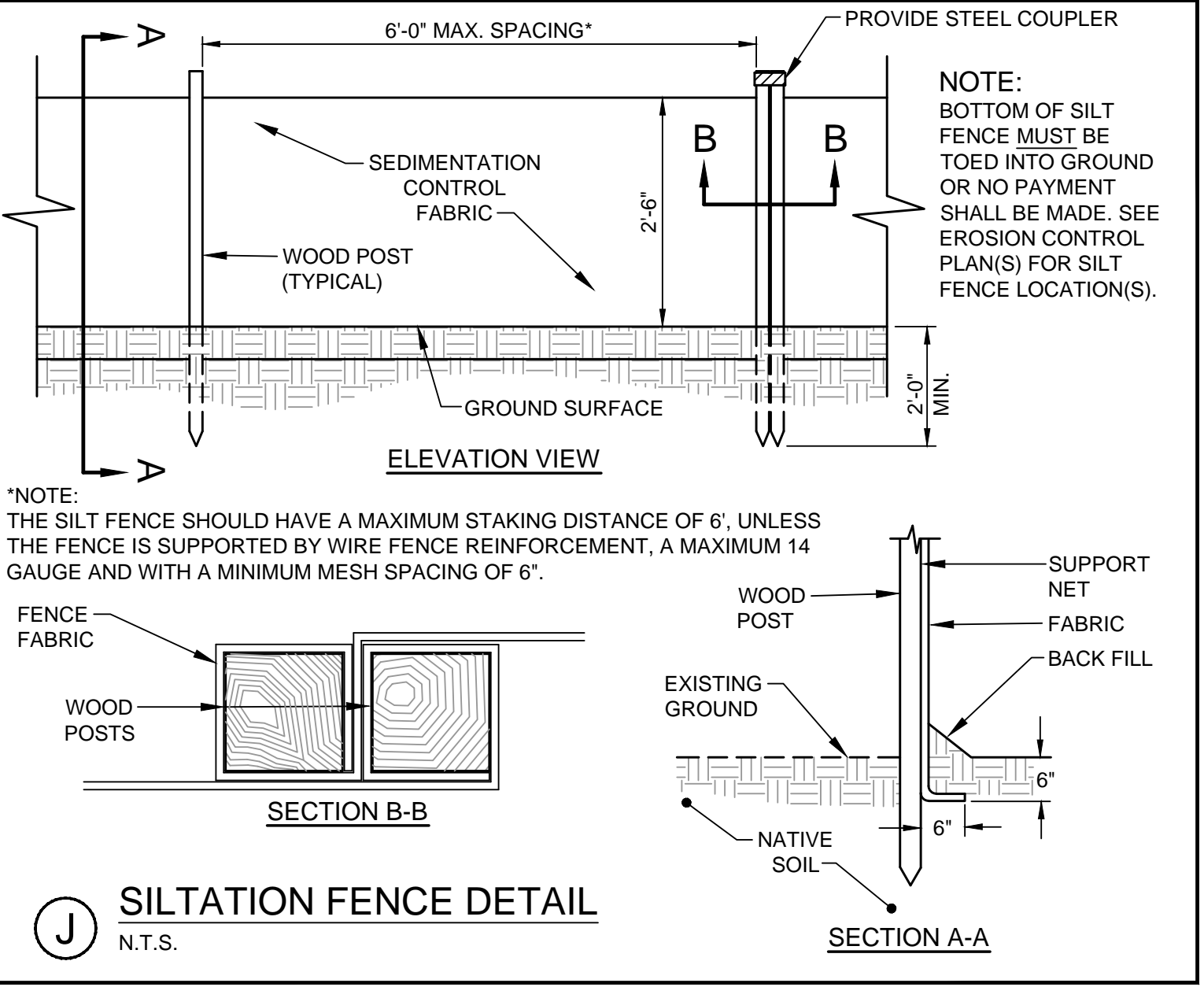
(K) WOOD WASTE COMPOST / BARK FILTER BERM
N.T.S.



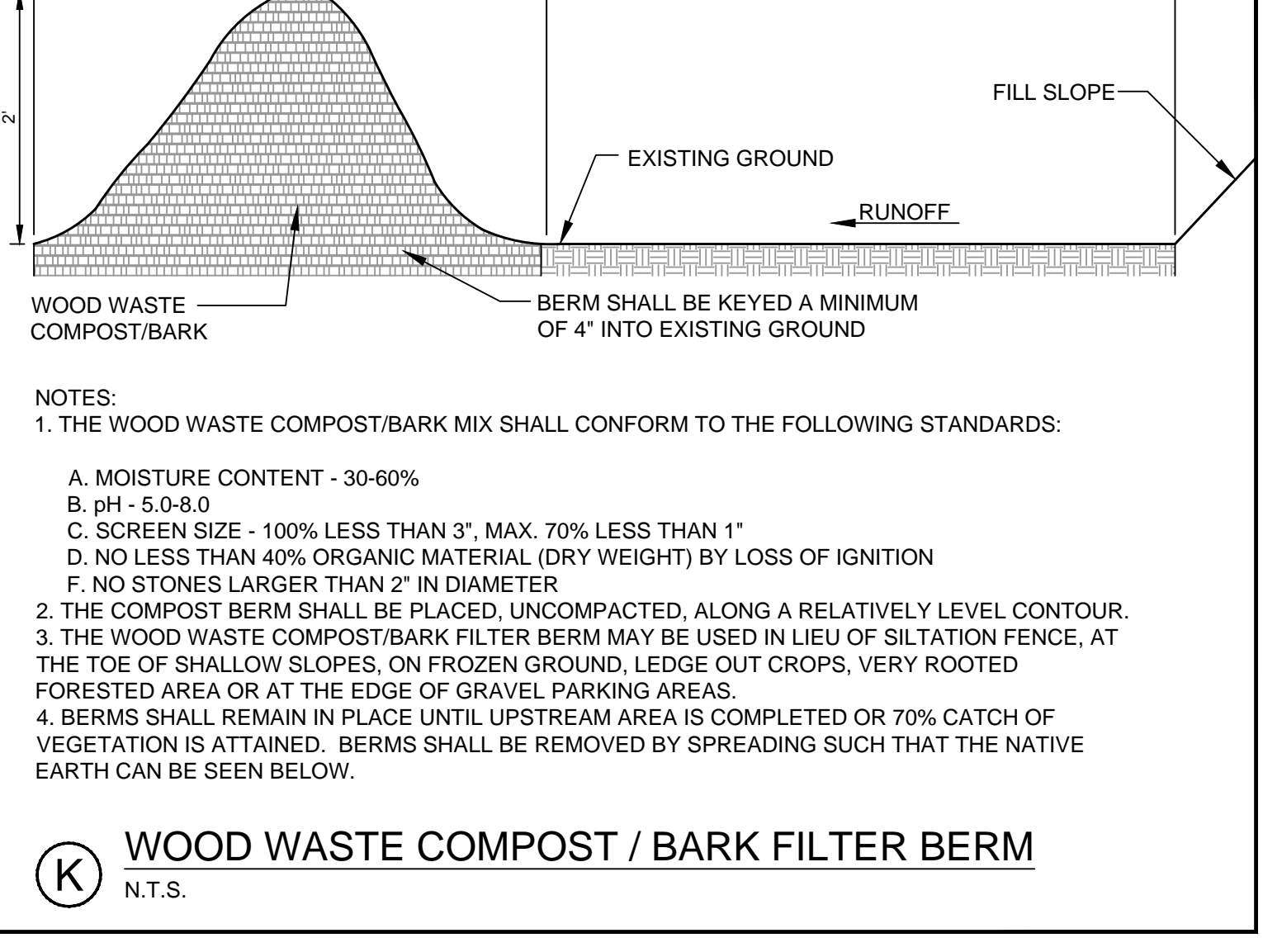
(L) VEGETATED DRAINAGE SWALE DETAIL
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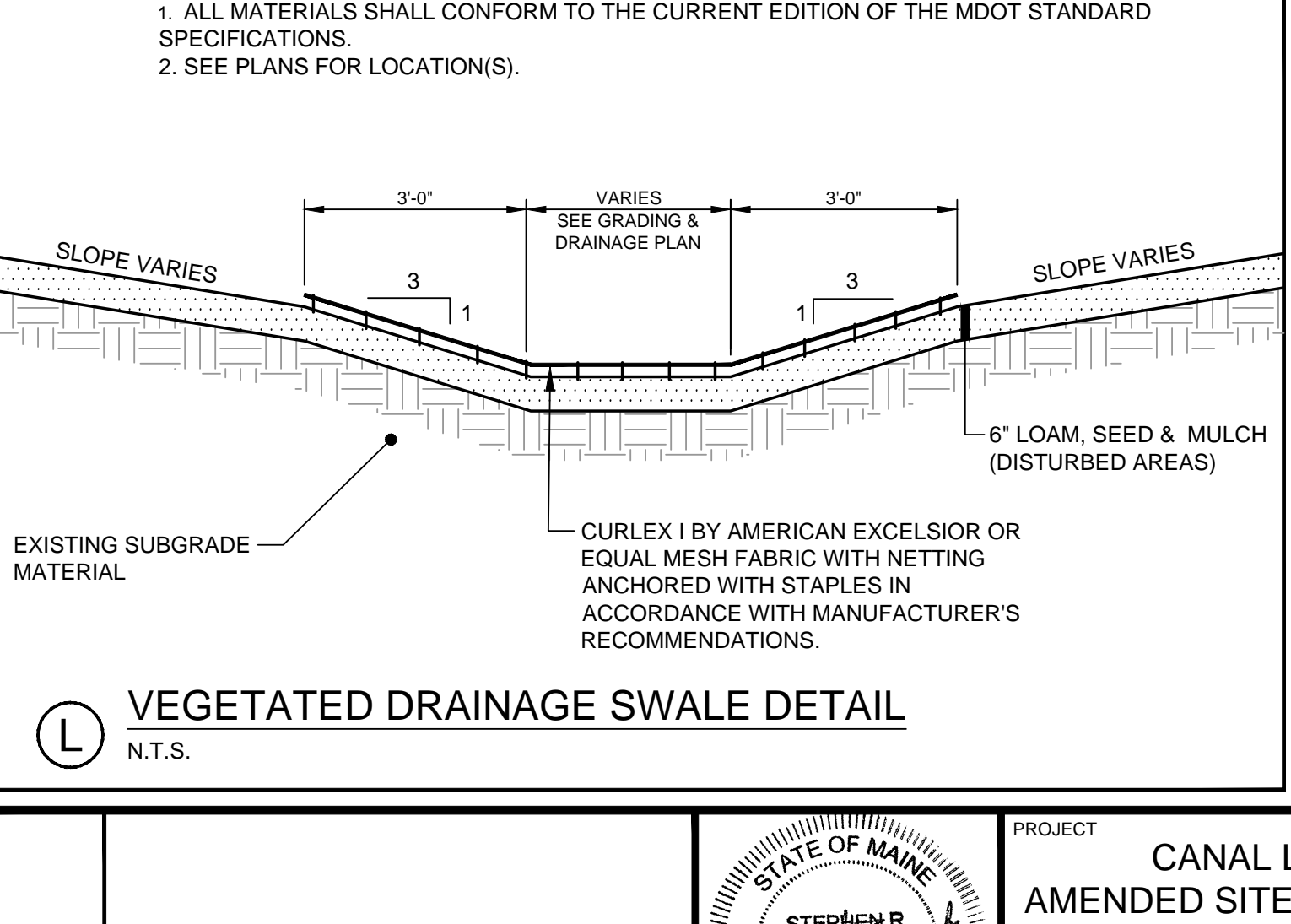
(I) STABILIZED CONSTRUCTION ENTRANCE DETAIL
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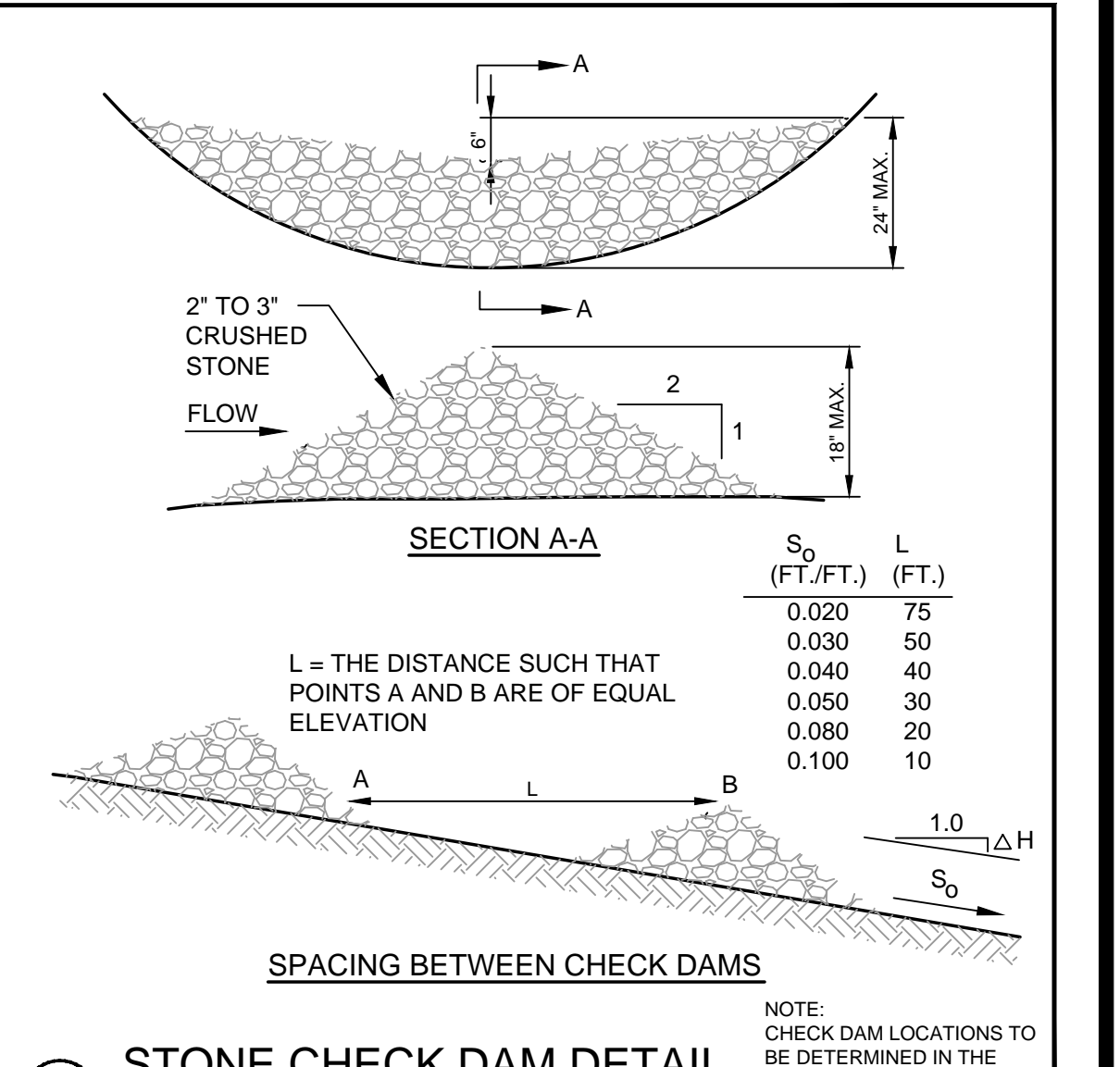
(J) SILTATION FENCE DETAIL
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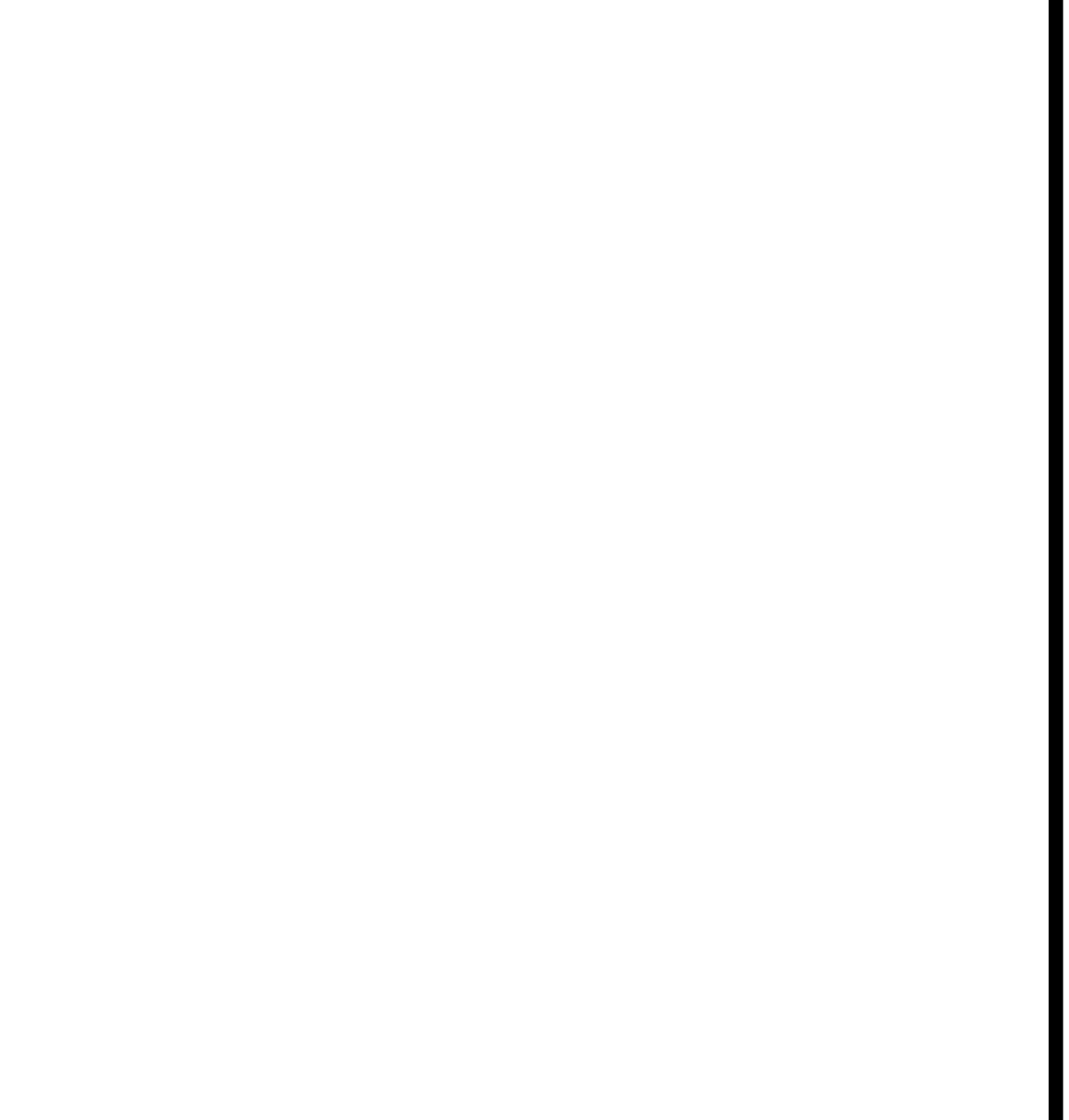
(M) STONE CHECK DAM DETAIL
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(L) VEGETATED DRAINAGE SWALE DETAIL
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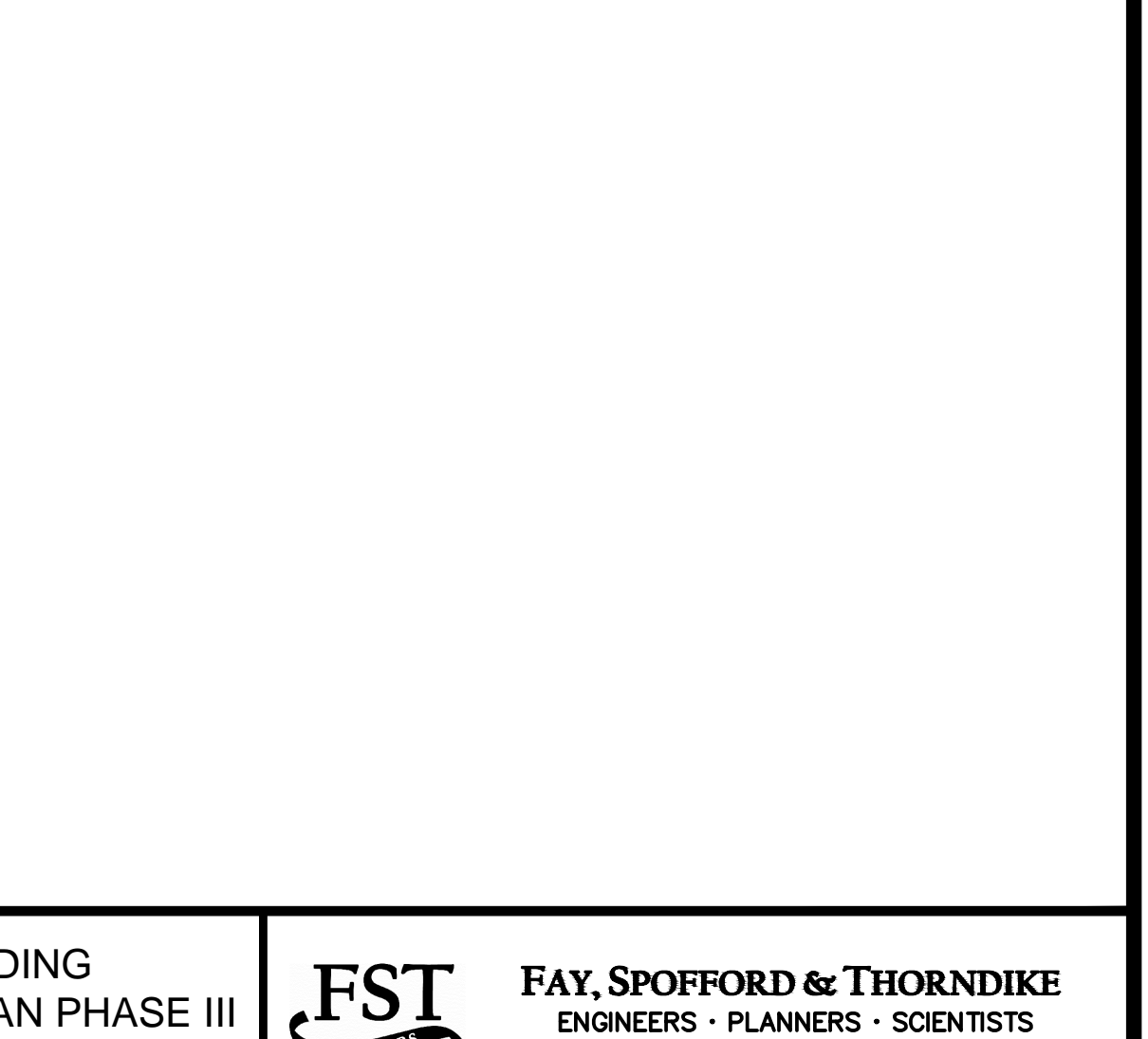
(M) STONE CHECK DAM DETAIL
N.T.S.



(J) SILTATION FENCE DETAIL
N.T.S.



(K) WOOD WASTE COMPOST / BARK FILTER BERM
N.T.S.



(L) VEGETATED DRAINAGE SWALE DETAIL
N.T.S.

PROJECT CANAL LANDING AMENDED SITE PLAN PHASE III			
SHEET TITLE EROSION AND SEDIMENT CONTROL DETAILS			FAY, SPOFFORD & THORNDIKE ENGINEERS • PLANNERS • SCIENTISTS 778 MAIN ST., SUITE 8, SOUTH PORTLAND, ME 04106
1	06.15.15	PRELIMINARY PHASE III AMENDED SITE PLAN TO CITY OF PORTLAND	DRAWN: LA DESIGNED: SRB CHECKED: SRB FILE NAME: 3091-DET-EROS SHEET: C-6.2
REV	DATE	DESCRIPTION	CLIENT: CANAL LANDING LLC 100 WEST COMMERCIAL STREET PORTLAND, ME 04101
		REVISIONS	P.E. STEPHEN BUSHEY LIC. # 7429