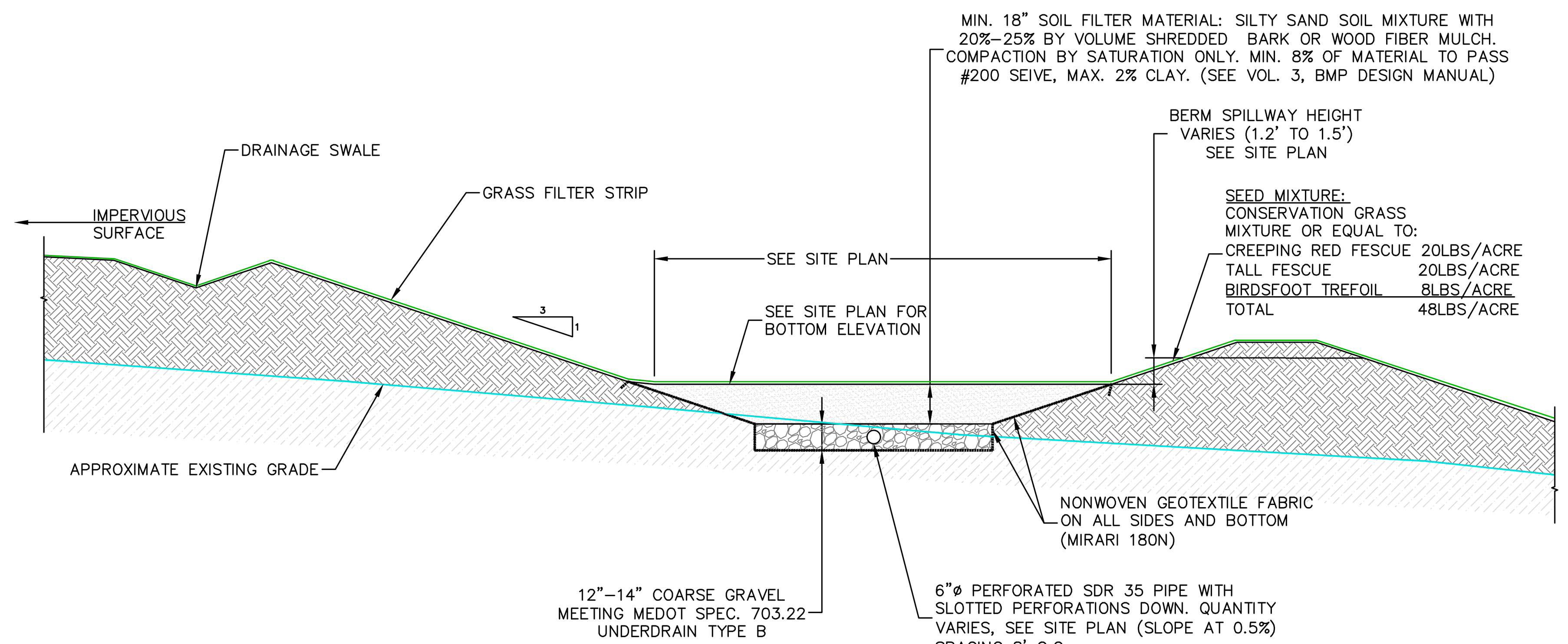


GENERAL NOTES:

1. SOIL FILTER MATERIAL IS NOT TO BE INSTALLED UNTIL THE AREA OF THE SITE THAT IS TRIBUTARY TO THE SOIL FILTER IS PERMANENTLY STABILIZED.
2. SOIL FILTER MEDIA AND UNDERDRAIN MATERIAL MUST BE COMPACTED TO BETWEEN 90% AND 92% STANDARD PROCTOR.
3. CONTRACTOR SHALL IDENTIFY SOURCE OF FILTER MEDIA, HAVE SIEVE ANALYSIS AND A PERMEABILITY TEST PERFORMED. ANALYSIS SHALL BE PERFORMED ON EACH TYPE OF THE MATERIAL, WHICH SHALL CONFORM TO ASTM C136. THE SOIL FILTER MEDIA MIXTURE MUST HAVE 8% TO 12% BY WEIGHT PASSING THE #200 SIEVE, A CLAY CONTENT LESS THAN 2% AND HAVE 10% DRY WEIGHT OF ORGANIC MATTER. PERMEABILITY TEST ON THE SOIL FILTER MEDIA MIXTURE SHALL CONFORM TO ASTM D2434 AND SHALL BE DONE WITH THE MEDIA COMPACTED TO 90–92% OF MAXIMUM DRY DENSITY BASED ON ASTM D698.
4. GEOTEXTILE FABRIC MUST BE PLACED WITH A 12" MINIMUM OVERLAP OF THE SEAMS.

EMBANKMENT NOTES:

1. THE PROPOSED EMBANKMENT AREAS SHALL BE GRUBBED, ALL PERISHABLE MATERIAL AND ROCKS LARGER THAN 6" SHALL BE REMOVED.
2. THE EMBANKMENT MUST BE KEYED INTO UNDISTURBED SUBSURFACE SOIL.
3. THE EMBANKMENT MATERIAL MUST BE FREE OF FROZEN SOIL, ROCKS OVER SIX INCHES, AND SOD, BUSH, STUMPS, TREE ROOTS, WOOD, OR OTHER PERISHABLE MATERIALS. THE EMBANKMENTS MUST BE COMPACTED USING REGULAR METHODS THAT WOULD REASONABLY GUARANTEE THAT THE FILL DENSITY IS AT LEAST 90% OF THE MAXIMUM DENSITY AS DETERMINED BY STANDARD PROCTOR (ASTM–698).
4. EMBANKMENT SHALL BE LOAMED, SEEDED AND AN EROSION CONTROL FABRIC SHALL BE PLACED AS NEEDED.

UNDERDRAINED FILTER BASINS

CONSTRUCTION SEQUENCE: THE SOIL FILTER MEDIA AND VEGETATION MUST NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH COMPACTED GRAVEL, PAVEMENT OR OTHER STRUCTURE, 90% VEGETATION COVER, OR OTHER PERMANENT STABILIZATION UNLESS THE RUNOFF FROM THE CONTRIBUTING DRAINAGE AREA IS DIVERTED AROUND THE FILTER UNTIL STABILIZATION IS COMPLETED. COMPACTION OF SOIL FILTER: FILTER SOIL MEDIA AND UNDERDRAIN BEDDING MATERIAL MUST BE COMPACTED TO BETWEEN 90% AND 92% STANDARD PROCTOR. THE BED SHOULD BE INSTALLED IN AT LEAST 2 LIFTS OF 9 INCHES TO PREVENT POCKETS OF LOOSE MEDIA.

TESTING AND SUBMITTALS: THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE FILTER MEDIA. ALL RESULTS OF FIELD AND LABORATORY TESTING SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR CONFIRMATION. THE CONTRACTOR SHALL:

- SELECT SAMPLES FOR SAMPLING OF EACH TYPE OF MATERIAL TO BE BLENDED FOR THE MIXED FILTER MEDIA AND SAMPLES OF THE UNDERDRAIN BEDDING MATERIAL. SAMPLES MUST BE A COMPOSITE OF THREE DIFFERENT LOCATIONS (GRABS) FROM THE STOCKPILE OR PIT FACE. SAMPLE SIZE REQUIRED WILL BE DETERMINED BY THE TESTING LABORATORY.
- PERFORM A SIEVE ANALYSIS CONFORMING TO STM C136 (STANDARD TEST METHOD FOR SIEVE ANALYSIS OF FINE AND COURSE AGGREGATES 1996A) ON EACH TYPE OF THE SAMPLE MATERIAL. THE RESULTING SOIL FILTER MEDIA MIXTURE MUST HAVE 8% TO 12% BY WEIGHT PASSING THE #200 SIEVE, A CLAY CONTENT OF LESS THAN 2% (DETERMINED HYDROMETER GRAIN SIZE ANALYSIS) AND HAVE 10% DRY WEIGHT OF ORGANIC MATTER.
- PERFORM A PERMEABILITY TEST ON THE SOIL FILTER MEDIA MIXTURE CONFORMING TO ASTM D2434 WITH THE MIXTURE COMPACTED TO 90–92% OF MAXIMUM DRY DENSITY BASED ON ASTM D698.

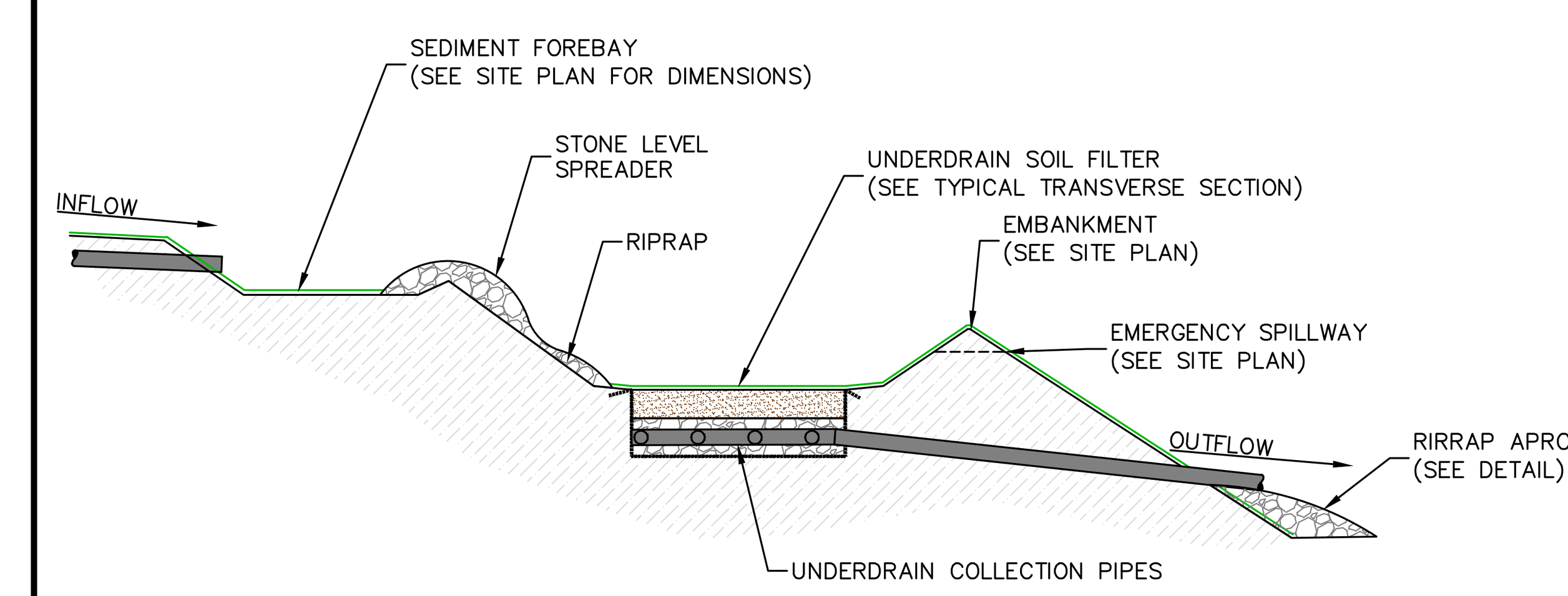
ENGINEERING OVERSIGHT

THE APPLICANT WILL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER TO INSPECT THE CONSTRUCTION AND STABILIZATION OF THE UNDERDRAINED VEGETATED SOIL FILTER. IF NECESSARY, THE INSPECTING ENGINEER WILL INTERPRET THE CONSTRUCTION PLANS FOR THE CONTRACTOR. THE INSPECTING ENGINEER WILL NOTIFY THE DEPARTMENT IN WRITING WITHIN 30 DAYS OF THE PERMANENT STABILIZATION OF THE FILTER. ACCOMPANYING THE ENGINEER'S NOTIFICATION MUST BE A COPY OF THE TEST RESULTS FOR ANY SOIL FILL, AGGREGATE, OR MULCH MATERIALS USED IN THE CONSTRUCTION OF THE STORMWATER MANAGEMENT STRUCTURES AND A LOG OF THE ENGINEER'S INSPECTIONS GIVING THE DATE OF EACH INSPECTION, THE TIME OF EACH INSPECTION, AND THE ITEMS INSPECTED ON EACH VISIT.

AT A MINIMUM, THE PROFESSIONAL ENGINEER'S INSPECTION WILL OCCUR AFTER FOUNDATION SOIL PREPARATION BUT PRIOR TO PLACEMENT OF THE EMBANKMENT FILL, AFTER THE UNDERDRAIN PIPES ARE INSTALLED BUT NOT BACKFILLED, AFTER THE PIPE BEDDING FILL IS PLACED BUT PRIOR TO THE PLACEMENT OF THE FILTER MEDIA, AND AFTER THE FILTER MEDIA HAS BEEN PLACED AND THE FILTER SURFACE HAS BEEN SEEDED.

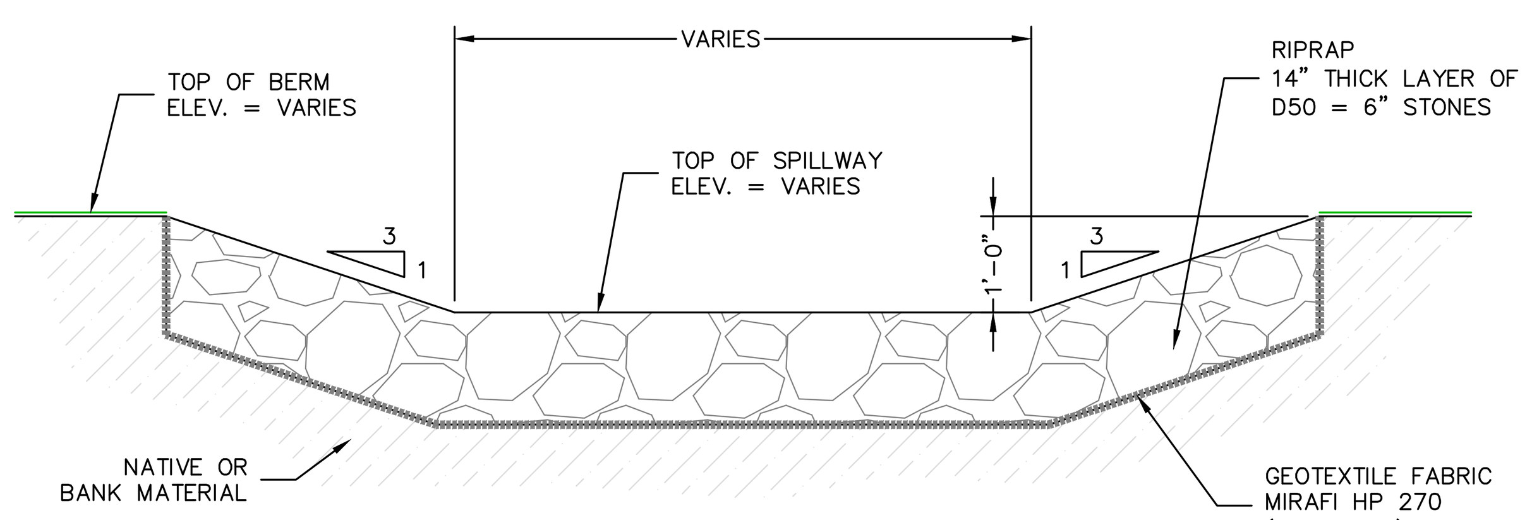
GRASSED UNDERDRAINED SOIL FILTER, TYPICAL TRANSVERSE SECTION

NO SCALE



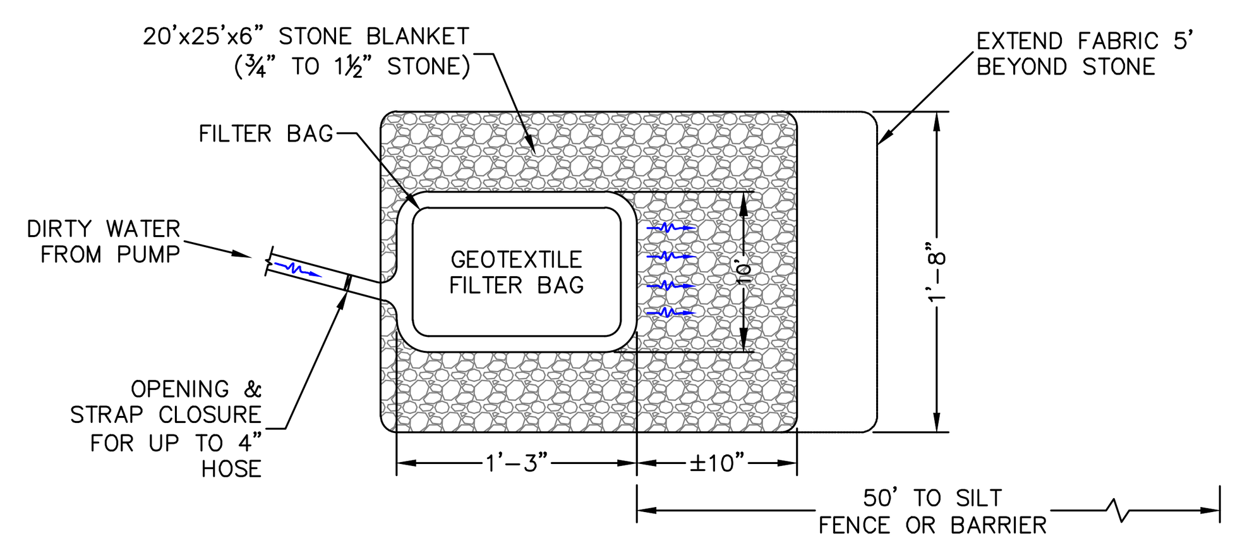
SEDIMENT FOREBAY SCHEMATIC

NO SCALE

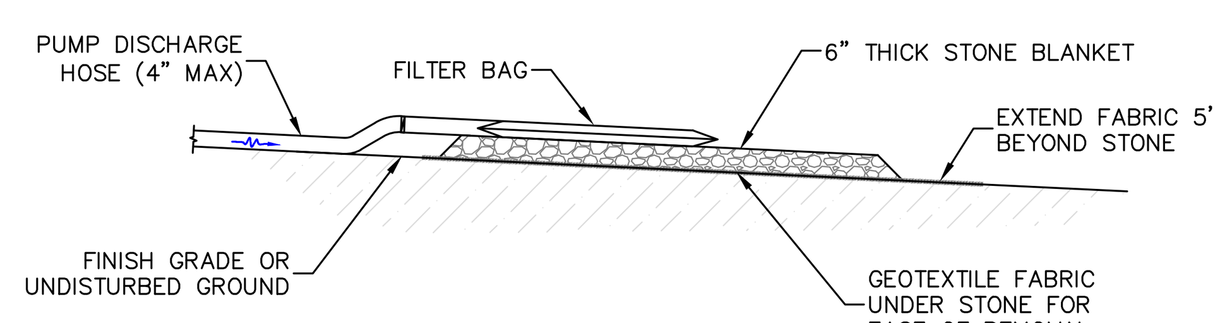


UNDERDRAIN SOIL FILTER SPILLWAY OUTLETS

NO SCALE



TOP VIEW



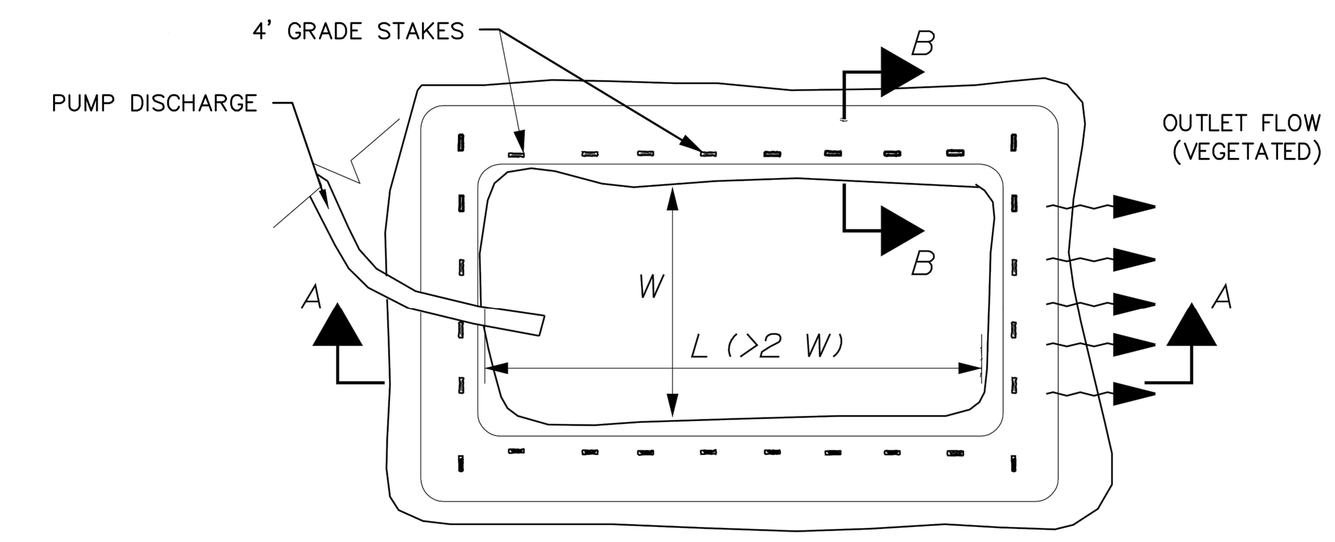
SIDE VIEW

NOTES:

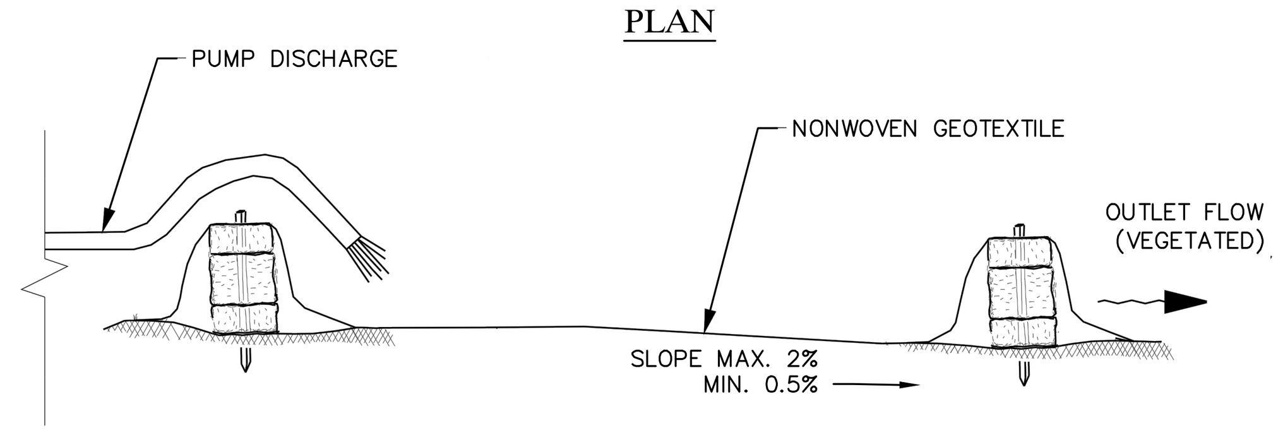
1. GEOTEXTILE FILTER BAG MATERIAL BASED ON PARTICLE SIZE IN DIRTY WATER, I.E. FOR COARSE PARTICLES A WOVEN MATERIAL; FOR SILTS AND CLAYS A NON–WOVEN MATERIAL.
2. DO NOT OVER–PRESSURIZE DIRT BAG OR USE BEYOND CAPACITY.
3. LOCATE DISCHARGE SITE ON FLAT UPLAND AREAS AS FAR AWAY AS POSSIBLE FROM STREAMS, WETLANDS, OTHER RESOURCES AND POINTS OF CONCENTRATED FLOW.
4. DOWNGRADIENT RECEIVING AREA MUST BE WELL VEGETATED OR OTHERWISE STABLE FROM EROSION, E.G., FOREST FLOOR OR COARSE GRAVEL/STONE.
5. DISCHARGE NOT PERMITTED WITHIN 25' OF A STREAM OR WETLAND. CONSULT WITH DEP IF STRUCTURE MUST BE WITHIN 75' OF STREAM OR WATER BODY. SECONDARY CONTAINMENT MAY BE REQUIRED.
6. DEWATERING IS REQUIRED FOLLOWING HEAVY RAINFALL EVENTS OR WHERE THE EXCAVATION INTERCEPTS THE GROUNDWATER TABLE DURING CONSTRUCTION. THE COLLECTED WATER NEEDS TREATMENT AND A DISCHARGE POINT THAT WILL NOT CAUSE DOWN GRADIENT EROSION AND OFFSITE SEDIMENTATION OR BE WITHIN A RESOURCE.

PUMP DISCHARGE SEDIMENT CONTROL DEVICE (GEOTEXTILE FILTER BAG - DIRT BAG)

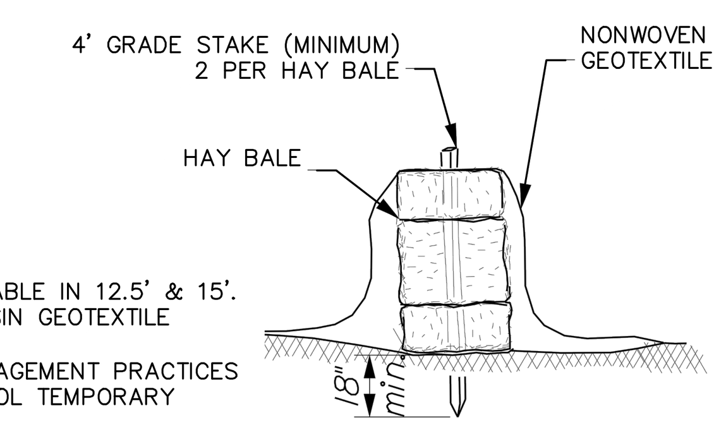
NOT TO SCALE



PLAN



SECTION AA



SECTION BB

NOTES:

- MOST NON–WOVEN GEOTEXTILE IS AVAILABLE IN 12.5' & 15'.
- OVERLAP ALL TEMPORARY SEDIMENT BASIN GEOTEXTILE JOINTS BE 1' (MIN.)
- DESIGN BASIN ACCORDING TO BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENTAION CONTROL TEMPORARY SEDIMENT BASIN.

TEMPORARY SEDIMENT BASIN

NO SCALE

CONCRETE WASHOUT NOTES:

- CONCRETE WASHOUT STATION IS TO BE SIZED TO HANDLE ALL THE WASH WATER, SOLIDS AND RAINFALL WITHOUT OVERFLOWING. TYPICALLY, 7 GALLONS OF WATER ARE REQUIRED TO CLEAN A TRUCK CHUTE AND 50 GALLONS FOR THE HOPPER OF A CONCRETE TRUCK. SIZE BASED ON MAXIMUM PLANNED PLACEMENT AND COMPLETE WASHOUT CONSTRUCTION PRIOR TO FIRST CONCRETE PLACEMENT.
- A BELOW–GRADE WASHOUT SHOULD BE SIZED TO CONTAIN ALL LIQUID WASTES WITH A 4–INCH FREEBOARD.
- ACCESS TO THE WASHOUT PIT SHOULD BE STABLE AND SECURE (PROVIDE BASE OF GRAVEL OR CRUSHED ROCK).
- A WASHOUT FACILITY SHOULD NOT BE PLACED WITHIN 50 FEET OF A STORM DRAIN OR DISCHARGE POINT UNLESS THE PIT IS LINED WITH ANCHORED PLASTIC SHEETING (MINIMUM 10–MIL THICKNESS) AND IS NOT ALLOWED TO OVERFLOW.
- INSPECT THE STRUCTURE ON A DAILY BASIS DURING CONCRETE PLACEMENTS TO ASSESS USAGE AND IDENTIFY LEAKS AND BREACHES. DISPOSE OF THE SOLIDS APPROPRIATELY.

CONCRETE WASHOUT DETAIL

NO SCALE

NO.	REVISIONS	DATE

SHEET TITLE: CIVIL DETAILS

SCALE: AS NOTED

DATE: MARCH 25, 2021

DRAWN BY: LP

CHECKED BY: WTL

CLIENT/PROJECT: KINGFISH MAINE

LOCATION: DUN GARVIN ROAD

TOWN: JONESPORT COUNTY: WASHINGTON STATE: MAINE

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STATE OF MAINE WILLIAM LANE No. 7577 LICENSED PROFESSIONAL ENGINEER 3-25-2021

PROJ. NO. 2019-412

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