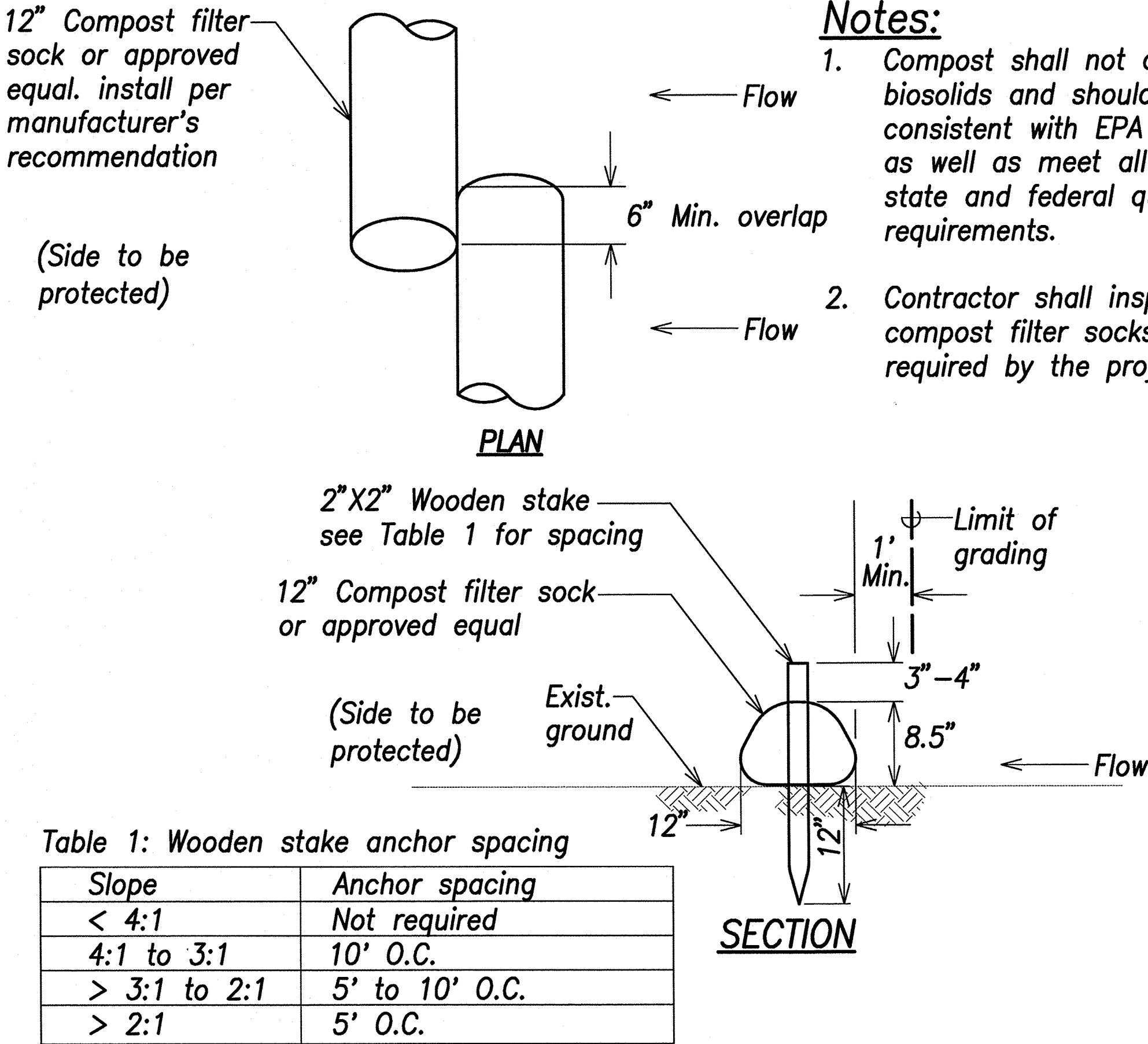
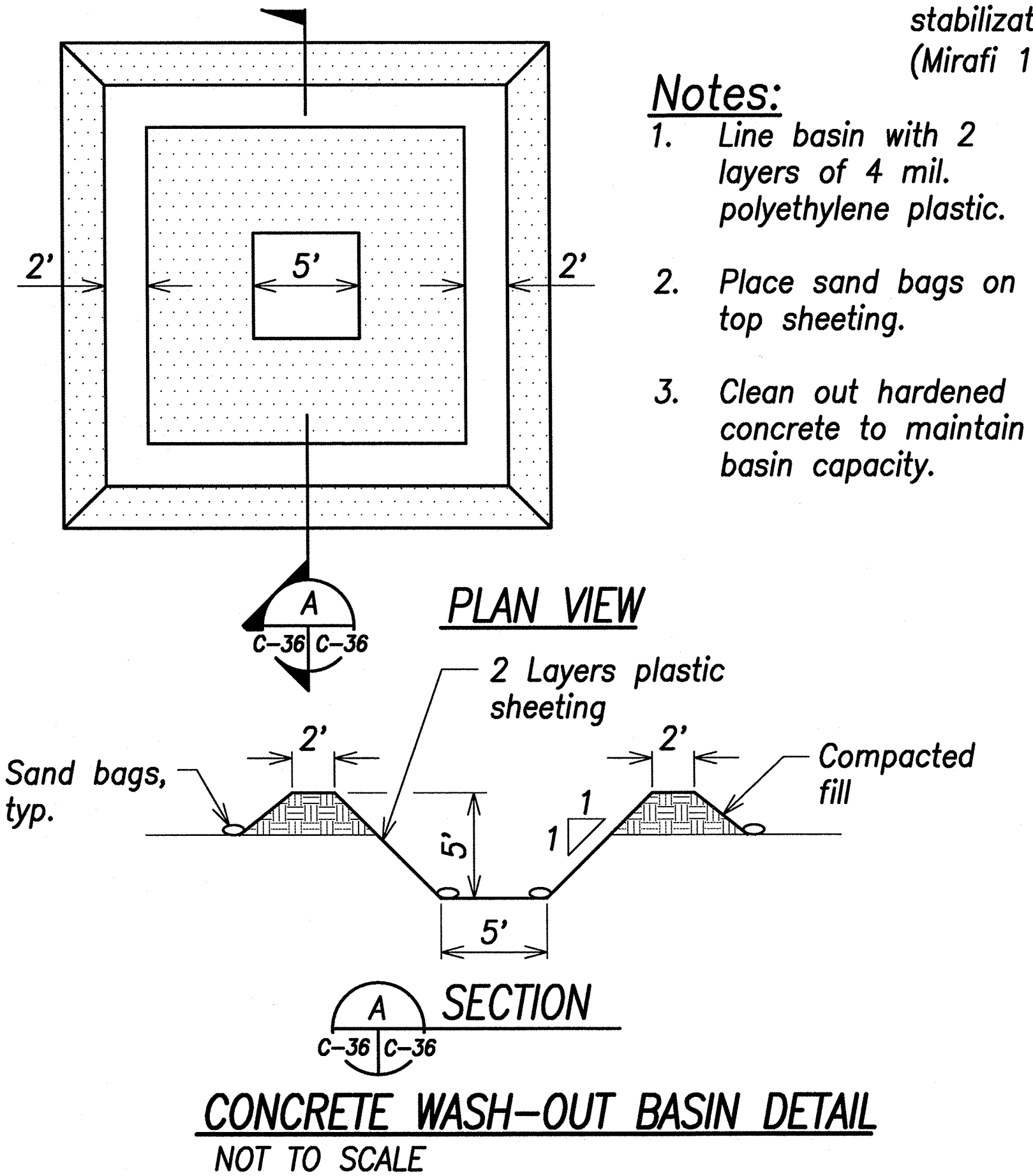


NATIONAL MARINE FISHERIES SERVICE (NMFS) HABITAT  
CONSERVATION DIVISION, BEST MANAGEMENT PRACTICES (BMPs)

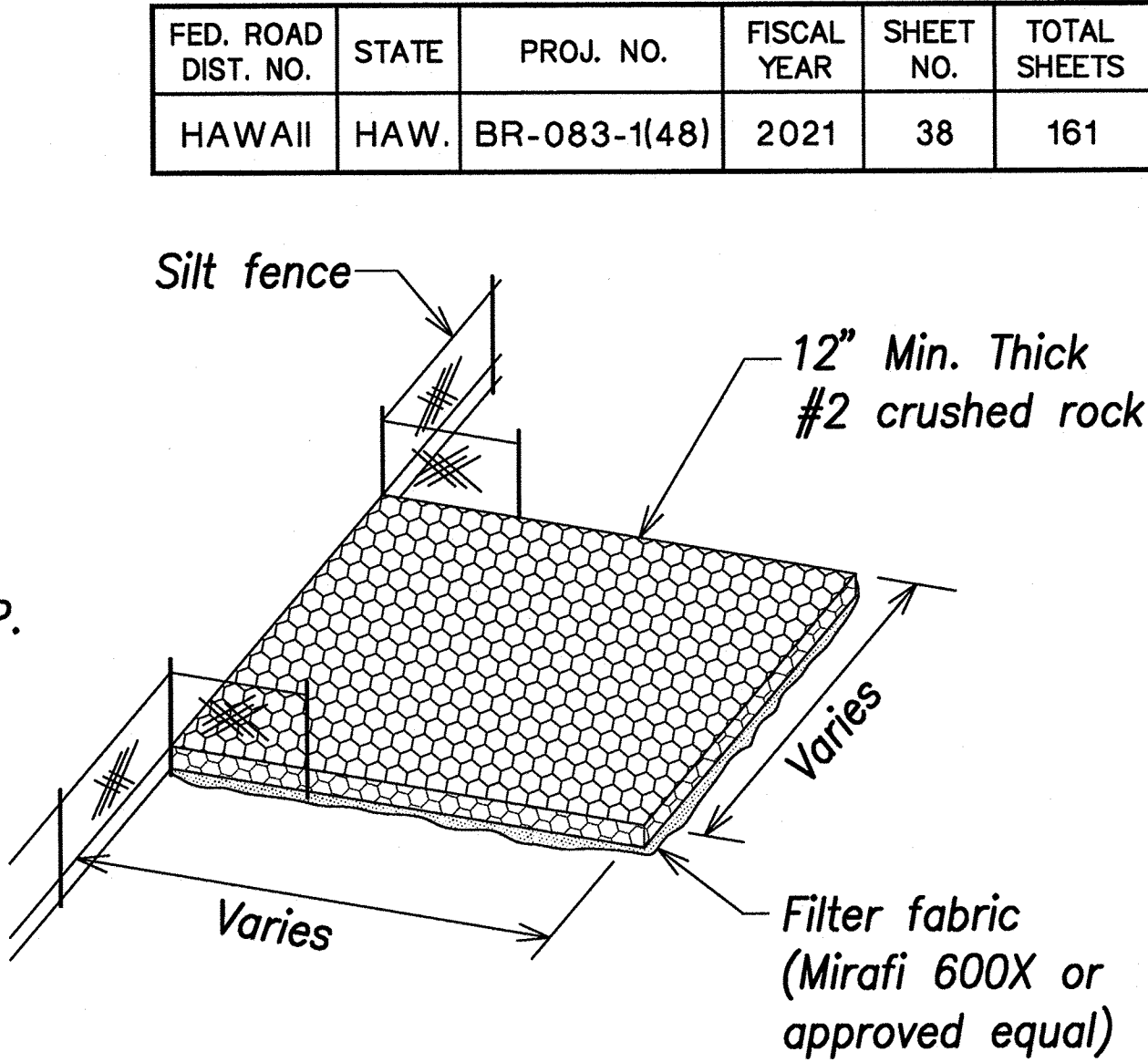
- 1. To control sedimentation, erosion control practices and silt containment devices (i.e. silt fences, basins, etc.) will be used and work will be curtailed during adverse weather and tidal/flow conditions
- 2. In-stream activities will be scheduled during the dry season (May – September) and when fair weather conditions are expected.
- 3. A contingency plan will be developed to control toxic materials.
- 4. Spill prevention and control materials will be stored on-site to clean potential spills.
- 5. All project-related materials and equipment will be free of pollutants.
- 6. Construction equipment will be regularly maintained to minimize the discharge and fluids and chemicals. All heavy equipment operations will be postponed or halted should a leak be detected.
- 7. Fueling of land-based vehicles and equipment will occur at least 50-feet away from the water, preferably over an impervious surface.
- 8. To prevent concrete spill waste, accidentally spilled material will be cleaned up immediately, excess concrete will not be mixed, and concrete will be disposed of in a lidded container.
- 9. Netting material will be suspended under the new bridge structure to catch falling debris.
- 10. Untreated wood, concrete, and steel will be used; pressure-treated lumber will be avoided to prevent introducing invasive species.
- 11. Following construction, all areas disturbed by construction activities will be restored and/or stabilized by landscaping, planting grass, and paving.
- 12. The Contractor shall ensure that natural stream flow rates are maintained during stream diversion activities.
- 13. The Contractor shall monitor the integrity and placement of the sandbags during stream diversion activities. If sandbags begin to tear or move, work should be stopped until they are replaced and/or adjusted.
- 14. Prior to mobilizing, ensure all construction equipment does not pose a risk of introducing new invasive species and will not increase abundance of invasive species at the project location.



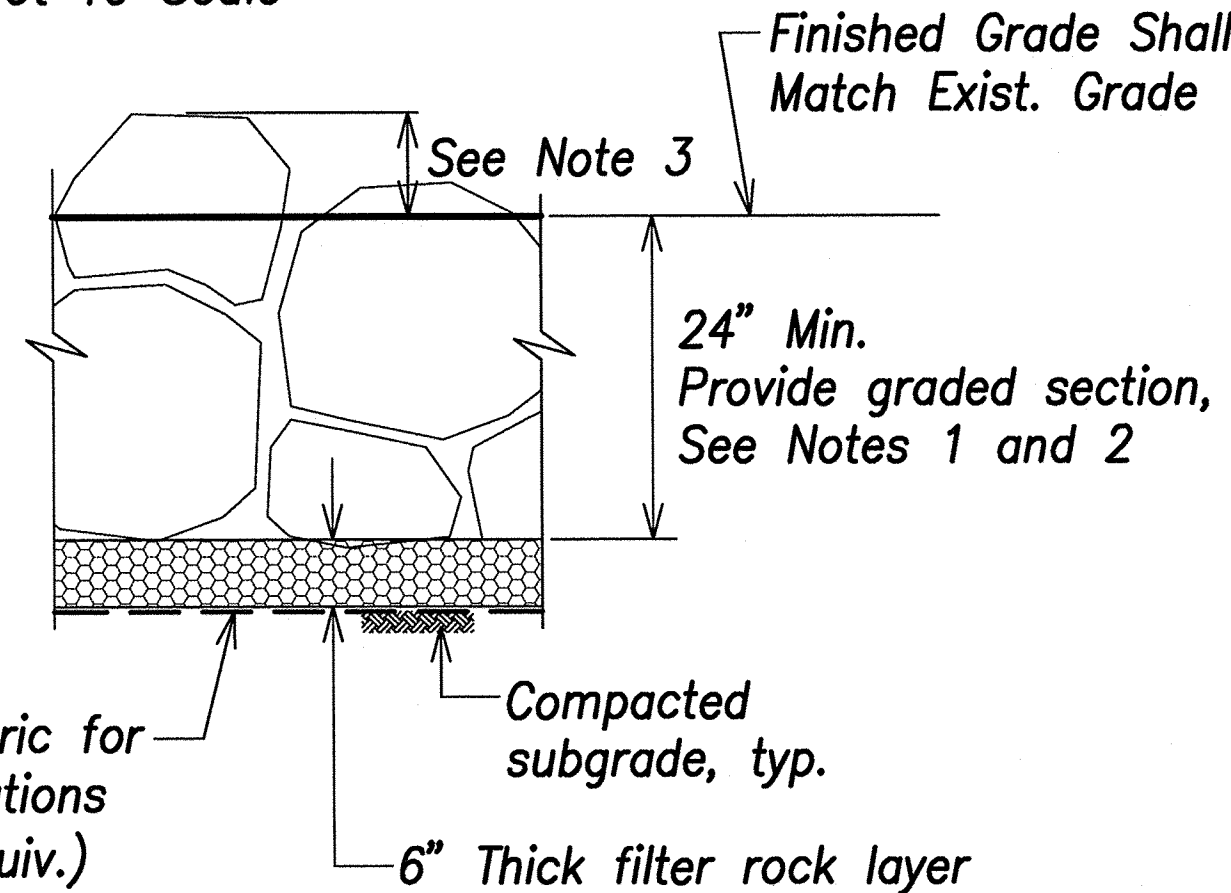
COMPOST FILTER SOCK DETAIL  
NOT TO SCALE



- Notes:
- 1. Compost shall not contain biosolids and should be consistent with EPA guidelines as well as meet all local, state and federal quality requirements.
  - 2. Contractor shall inspect compost filter socks when as required by the project SWPPP.



STABILIZED CONSTRUCTION ENTRANCE  
Not To Scale



- Notes:
- 1. Riprap shall be basalt rock and consist of 8"Ø average stone size, 12"Ø maximum stone size.
  - 2. Riprap gradation:  
D<sub>85</sub> = 10"  
D<sub>50</sub> = 8"  
D<sub>15</sub> = 4"
  - 3. 6" Max. from highest adjacent rock finish top.

TEMPORARY DUMPED RIPRAP  
Not to Scale

WALTER G. C. CHONG  
LICENSED PROFESSIONAL ENGINEER  
No. 8302-C  
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. "SUPERVISION OF CONSTRUCTION" IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES, ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS."

Walter G. C. Chong  
4/30/22  
SIGNATURE LIC. EXPIRATION  
R. M. TOWILL CORPORATION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**EROSION & SEDIMENT CONTROL DETAILS**

**Kamehameha Highway**  
**Kaipapau Stream Bridge Replacement**  
**Federal Aid Project No. BR-083-1(48)**

Scale: As Noted Date: February 2021

**SHEET No. C-36 OF SHEETS**

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
NO.	