

WATER POLLUTION AND EROSION CONTROL NOTES:

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-083-1(082)	2022	11	99

A. GENERAL:

- See Special Provisions Section 209 - Water Pollution and Erosion Control. Section 209 describes but is not limited to: submittal requirements; scheduling of a water pollution and erosion control conference with the Engineer; construction requirements; method of measurement; and basis of payment. In addition, Appendix A lists potential pollutant sources and corresponding BMPs used to mitigate the pollutants.
- Follow the guidelines in the current HDOT Construction Best Management Practices Field Manual in developing, installing and maintaining the Best Management Practices (BMP) for the project. For any conflicting requirements between the Manual and applicable bid documents, the applicable bid documents will govern. Should a requirement not be clearly described within the applicable bid documents, the Contractor shall notify the Engineer immediately for interpretation. For the purposes of clarification under Note A.2, "applicable bid documents" include the construction plans, standard specifications, Special Provisions, Permits, and the Storm Water Pollution Prevention Plan (SWPPP) when applicable.
- Follow the guidelines in the Honolulu's City & County "Rules Relating to Soil Erosion Standards and Guidelines" along with applicable Soil Erosion Guidelines for projects on Maui, Molokai, Kauai, and Hawaii.
- The Engineer may assess liquidated damages of up to \$27,500 for non-compliance of each BMP requirement and each requirement stated in Section 209 and special provisions, for every day of non-compliance. There is no maximum limit on the amount assessed per day.
- The Engineer will deduct the cost from the progress payment for all citations received by the Department for non-compliance, or the Contractor shall reimburse the State for the full amount of the outstanding cost incurred by the State.
- If necessary, install a rain gage prior to any field work including the installation of any site-specific best management practices. The rain gage shall have a tolerance of at least 0.05 inches of rainfall. Install the rain gage on the project site in an area that will not deter rainfall from entering the gage opening. Do not install in a location where rain water may splash into rain gage. The rain gage installation shall be stable and plumbed. Do not begin field work until the rain gage is installed and site-specific best management practices are in-place.
- Submit Site-Specific BMP Plan to the Engineer along with a completed Site-Specific BMP Review Checklist within 21 calendar days of date of award. The Site-Specific BMP Review Checklist may be obtained from <http://www.stormwaterhawaii.com>.

B. WASTE DISPOSAL:

- Waste Materials**
Collect and store all waste materials in a securely lidded metal dumpster or roll off container with cover to keep rain out or loss of waste during windy conditions. The dumpster shall meet all local and State solid waste management regulations. Deposit all trash and construction debris from the site in the dumpster. Empty the dumpster weekly or when the container is two-thirds full, whichever is sooner. Do not bury construction waste materials onsite. The Contractor's supervisory personnel shall be instructed regarding the correct procedure for waste disposal. Post notices stating these practices in the office trailer, on a weatherproof bulletin board, or other accessible location acceptable to the Engineer. The Contractor shall be responsible for seeing that these procedures are followed. Submit the Solid Waste Disclosure Form for Construction Sites to the Engineer within 21 calendar days of contract execution. Provide a copy of all the disposal receipts from the facility permitted by the Department of Health to receive solid waste to the Engineer monthly. This should also include documentation from any intermediary facility where solid waste is handled or processed.
- Hazardous Waste**
Dispose all hazardous waste materials in the manner specified by local or State regulations and by the manufacturer. The Contractor's site personnel shall be instructed in these practices and shall be responsible for seeing that these practices are followed.
- Sanitary Waste**
Collect all sanitary waste from the portable units a minimum of once per week, or as required. Position sanitary facilities where they are secure and will not be tipped over or knocked down.

C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

- For projects with an NPDES Permit for Construction Activities, inspect at the following intervals. For construction areas discharging to nutrient or sediment impaired waters, inspect all control measures at least once each week and within 24 hours of any rainfall event of 0.25 inches or greater within a 24 hour period. For construction areas discharging to waters not impaired for nutrient or sediments, inspect all control measures weekly. Inspections are only required during the project's normal working hours. The discharge point water classification may be found in the SWPPP.
- For projects without an NPDES Permit for Construction Activities, inspect all control measures weekly.
- Maintain all erosion and sediment control measures in good working order. If repair is necessary, initiate repair immediately and complete by the close of the next work day if the problem does not require significant repair or replacement, or if the problem can be corrected through routine maintenance. When installation of a new erosion or sediment control or a significant repair is needed, install the new or modified control or complete the repair no later than 7 calendar days from the time of discovery. "Immediately" means the Contractor shall take all reasonable measures to minimize or prevent discharge of pollutants until a permanent solution is installed and made operational. If a problem is identified at a time in the day in which it is too late to initiate repair, initiation of repair shall begin on the following work day.
- Remove built-up sediment from silt fence when it has reached one-third the height of the fence. Remove sediment from other perimeter sediment control devices when it has reached one-half the height of the device.
- Inspect silt screen or fence for depth of sediment, tears, to verify that the fabric is securely attached to the fence posts or concrete slab and to verify that the fence posts are firmly in the ground. Inspect and verify the bottom of the silt screen is buried a minimum of 6 inches below the existing ground.
- Inspect temporary and permanent seeding and planting for bare spots, washouts and healthy growth.
- Complete and submit to the Engineer a maintenance inspection report within 24 hours after each inspection.
- Provide a stabilized construction entrance at all points of exit onto paved roads to reduce vehicle tracking of sediments. Include stabilized construction entrance in the Water Pollution, Dust, and Erosion Control submittals. Minimum length should be 50 feet. Minimum width should be 30 feet. Minimum depth should be 12 inches or as recommended by the soils engineer and underlain with geo-textile fabric. If minimum dimensions cannot be met, provide other stabilization techniques that remove sediment prior to exit. Clean the paved street adjacent to the site entrance daily or as required to remove any excess mud, cold-planed materials, dirt or rock tracked from the site. Do not hose down the street without containing or vacuuming wash water. Cover dump trucks hauling material from the construction site with a tarpaulin. Remove sediment tracked onto the street, sidewalk, or other paved area by the end of the day in which the track-out occurs.
- Include designated Concrete Washout Area(s) in the Water Pollution, Dust, and Erosion Control submittals.
- Submit the name of a specific individual designated responsible for inspections, maintenance and repair activities and filling out the inspection and maintenance report.
- Personnel selected for the inspection and maintenance responsibilities shall receive training from the Contractor. They shall be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.

DATE	08/08/22
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

JOSEPH R. SALVADOR

LICENSED PROFESSIONAL ENGINEER

No. 14094-C

HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Signature

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

WATER POLLUTION & EROSION CONTROL NOTES

KAMEHAMEHA HIGHWAY INTERSECTION IMPROVEMENTS AT KAHAKULI HIGHWAY

Federal-Aid Project No. NH-083-1(082)

Scale: None

Date: Sept. 2022

SHEET No. N-10 OF 13 SHEETS

11

WATER POLLUTION AND EROSION CONTROL NOTES (Cont.):

E. PERMIT REQUIREMENTS:

1. A National Pollutant Discharge Elimination System (NPDES) Permit for Construction Activities of one acre or more of disturbed area is required for this project. If the Contractor requires extra land disturbance, including staging and storage areas, that is not covered by the NPDES Permit obtained by the County, the Contractor shall be responsible for obtaining the required NPDES Construction Activities Permit to cover this additional disturbed area. See Hawaii Administrative Rules Chapter 11-55, Appendix C for definition of land disturbance. The Contractor's attention is directed to the applicable NPDES Permit documents on the bid package compact disc.
2. Comply with all applicable State and Federal Permit conditions. Permits may include, but not limited to the following:
- a. NPDES Permit for Construction Activities
 - b. NPDES Permit for Construction Dewatering

F. SITE-SPECIFIC BMP REQUIREMENTS:

Each BMP below is referenced to the corresponding section of the current HDOT Construction Best Management Practices Field Manual and appropriate Supplemental Sheets. The Manual may be obtained from the HDOT Statewide Stormwater Management Program Website at <http://www.stormwaterhawaii.com/resources/contractors-and-consultants> under Construction Best Management Practices Field Manual. Supplemental BMP sheets are located at <http://www.stormwaterhawaii.com/resources/contractors-and-consultants/storm-water-pollution-prevention-plan-swppp> under Concrete Curing and Irrigation Water.

The requirements for Water Pollution, Dust, and Erosion Control submittals are included in Section 209 of the Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and applicable Special Provisions. A list of pollutant sources and corresponding BMP used to mitigate the pollutants are included in Section 209 of the Special Provisions under Appendix A.

Follow the requirements below:

1. Protect all Drainage Inlets receiving runoff from disturbed areas (SC-1).
2. Contain on-site runoff using Perimeter Sediment Controls
 - a. SC-7 Silt Fence or Filter Fabric Fence
 - b. SC-2 Vegetated Filter Fabric Fence
 - c. SC-6 Compost Filter Berm/Sock
 - d. SC-8 Sandbag Barrier
 - e. SC-9 Brush or Rock Filter
3. Control offsite runoff from entering construction area
 - a. EC-3 Run-On Diversion
 - b. EC-6 Earth Dike, Swales, and Ditches
4. Incorporate applicable Site Management BMP
 - a. SM-1 Employee Training
 - b. SM-2 Material Storage and Handling
 - c. SM-3 Stockpile Management
 - d. SM-6 Solid Waste Management
 - f. SM-7 Sanitary Waste Management
 - g. SM-9 Hazardous Materials and Waste Management
 - h. SM-10 Spill Prevention and Control
 - i. SM-11 Vehicle and Equipment Cleaning
 - j. SM-12 Vehicle and Equipment Maintenance
 - k. SM-13 Vehicle and Equipment Refueling
 - l. SM-14 Scheduling
 - m. SM-15 Location of Potential Sources of Sediment
 - n. SM-16 Staging Area
 - o. SM-17 Preservation of Existing Vegetation
 - p. SM-19 Dust Control
5. Contain pollutants within the Construction Staging/Storage Area BMP with applicable Perimeter Sediment Controls and Site Management BMP. Include a Stabilized Construction Entrance/Exit (SC-11) for all areas which exit onto a paved street. Restrict vehicle access to these points.
6. Manage Concrete Waste including installing a Concrete Washout Area (SM-4) and properly disposing of Concrete Curing Water (California Stormwater BMP Handbook NS-12 Concrete Curing).
7. Remove saw cut slurry and hydrodemolition water from the site by vacuuming. Provide storm drain protection and/or perimeter sediment controls during saw cutting and hydrodemolition work.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	000000
	TRACED BY	
	DESIGNED BY	
NOTE BOOK	QUANTITIES BY	
	CHECKED BY	
No.		

JOSEPH R. SALVADOR

LICENSED PROFESSIONAL ENGINEER

No. 14094-C

HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Signature

04/2022

SIGNATURE

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

WATER POLLUTION & EROSION CONTROL NOTES

KAMEHAMEHA HIGHWAY INTERSECTION IMPROVEMENTS AT KAHAKILI HIGHWAY

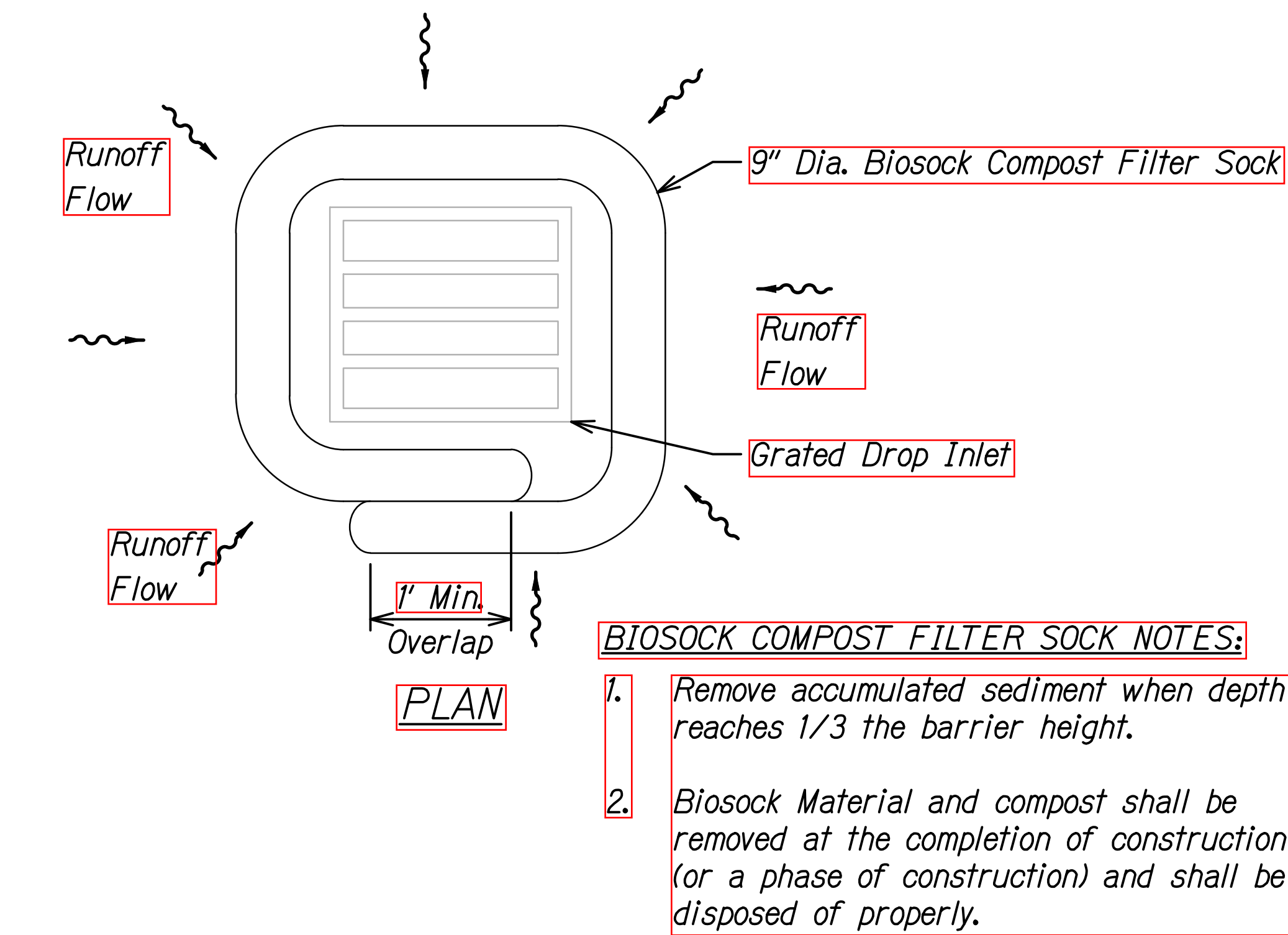
Federal-Aid Project No. NH-083-1(082)

Scale: None

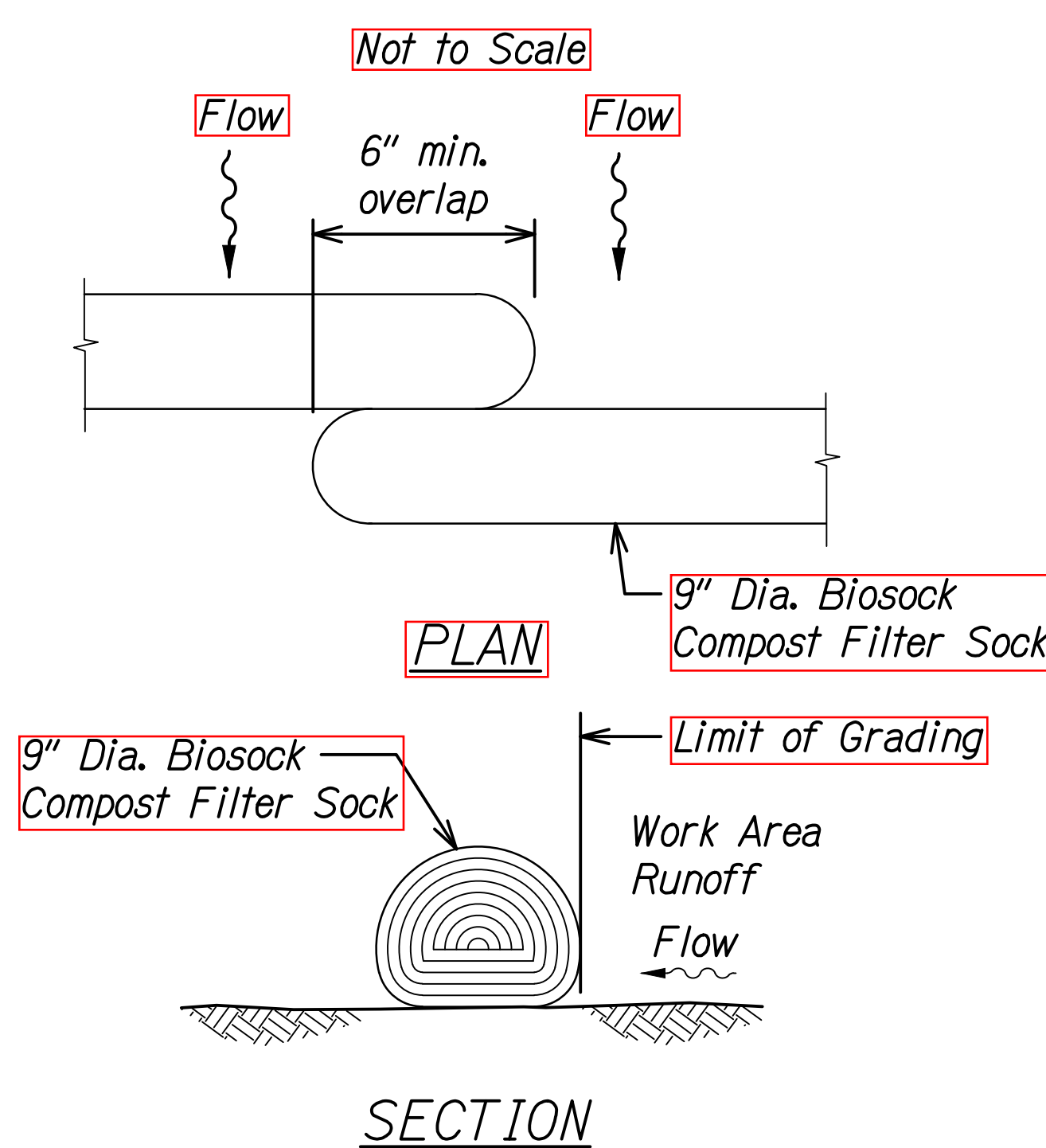
Date: Sept. 2022

SHEET No. N-12 OF 13 SHEETS

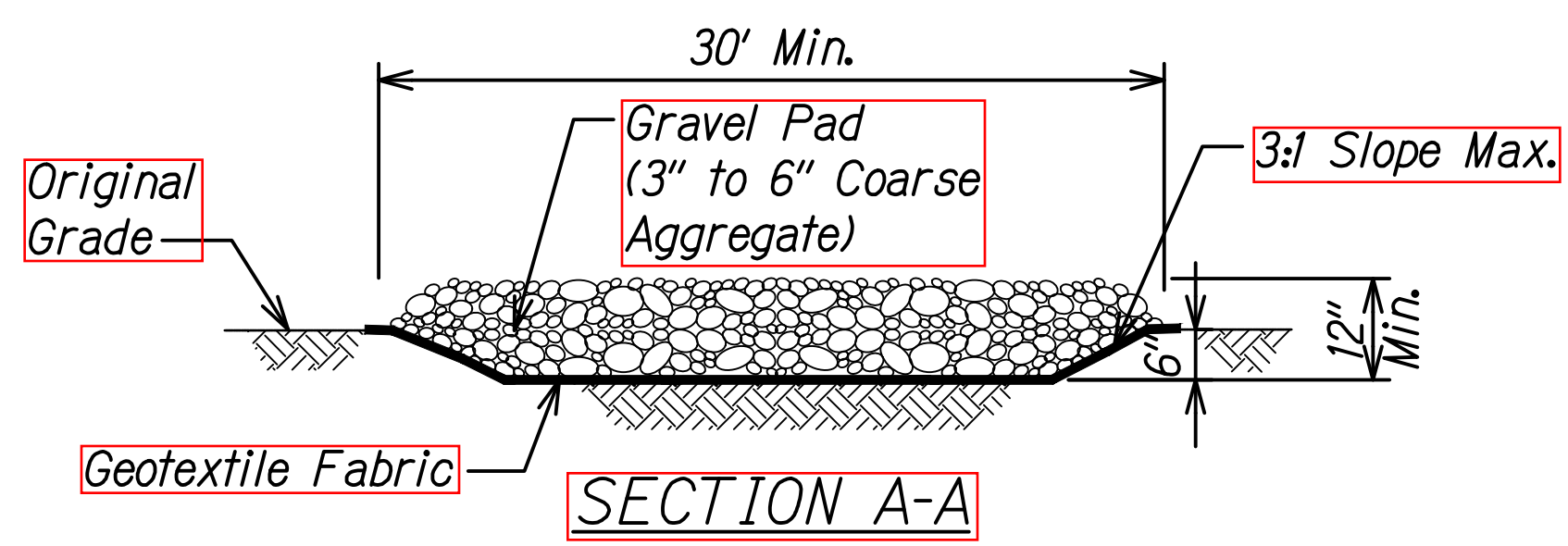
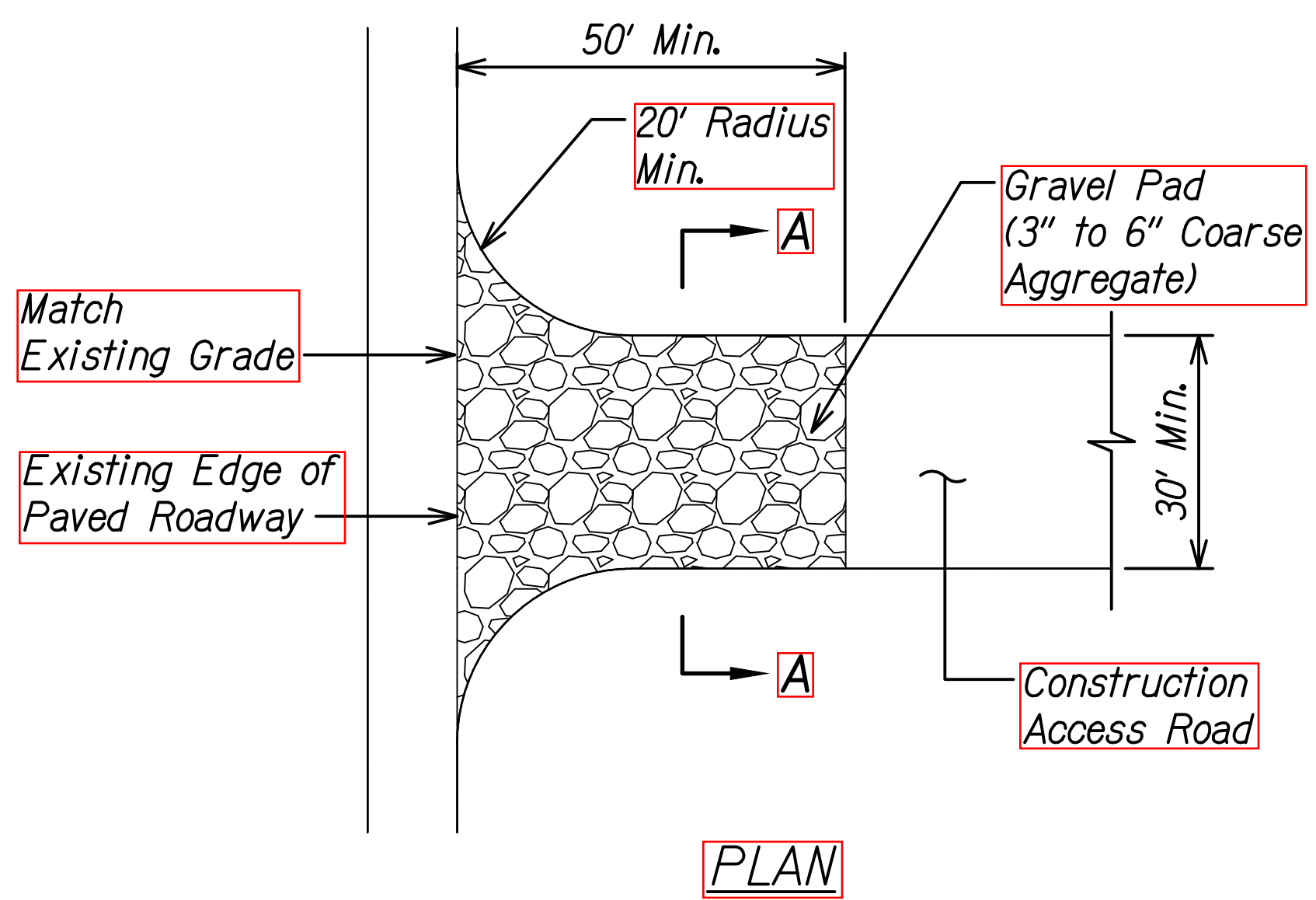
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-083-1(082)	2022	14	99



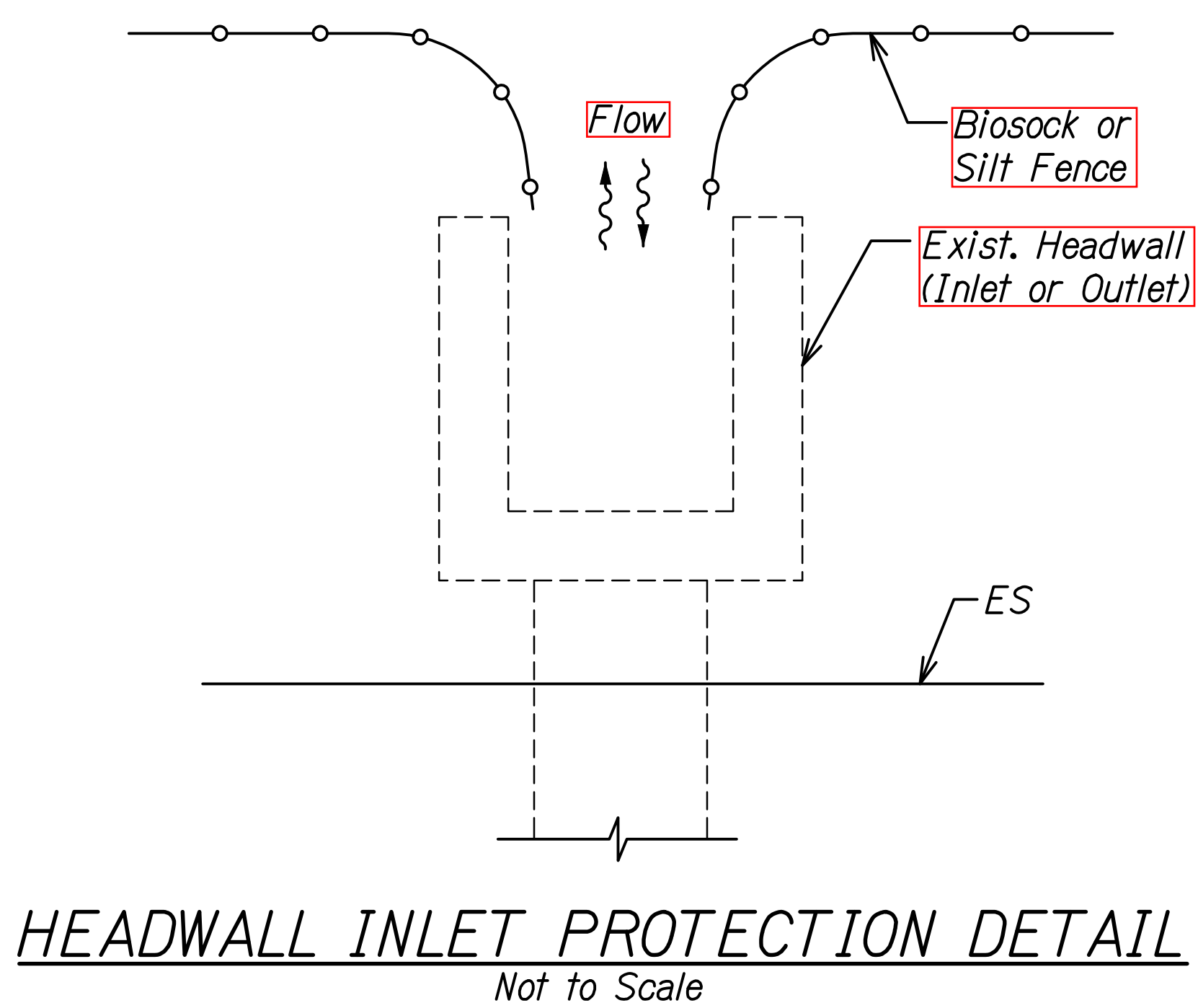
BIOSOCK COMPOST FILTER SOCK DRAIN INLET PROTECTION DETAIL
Not to Scale



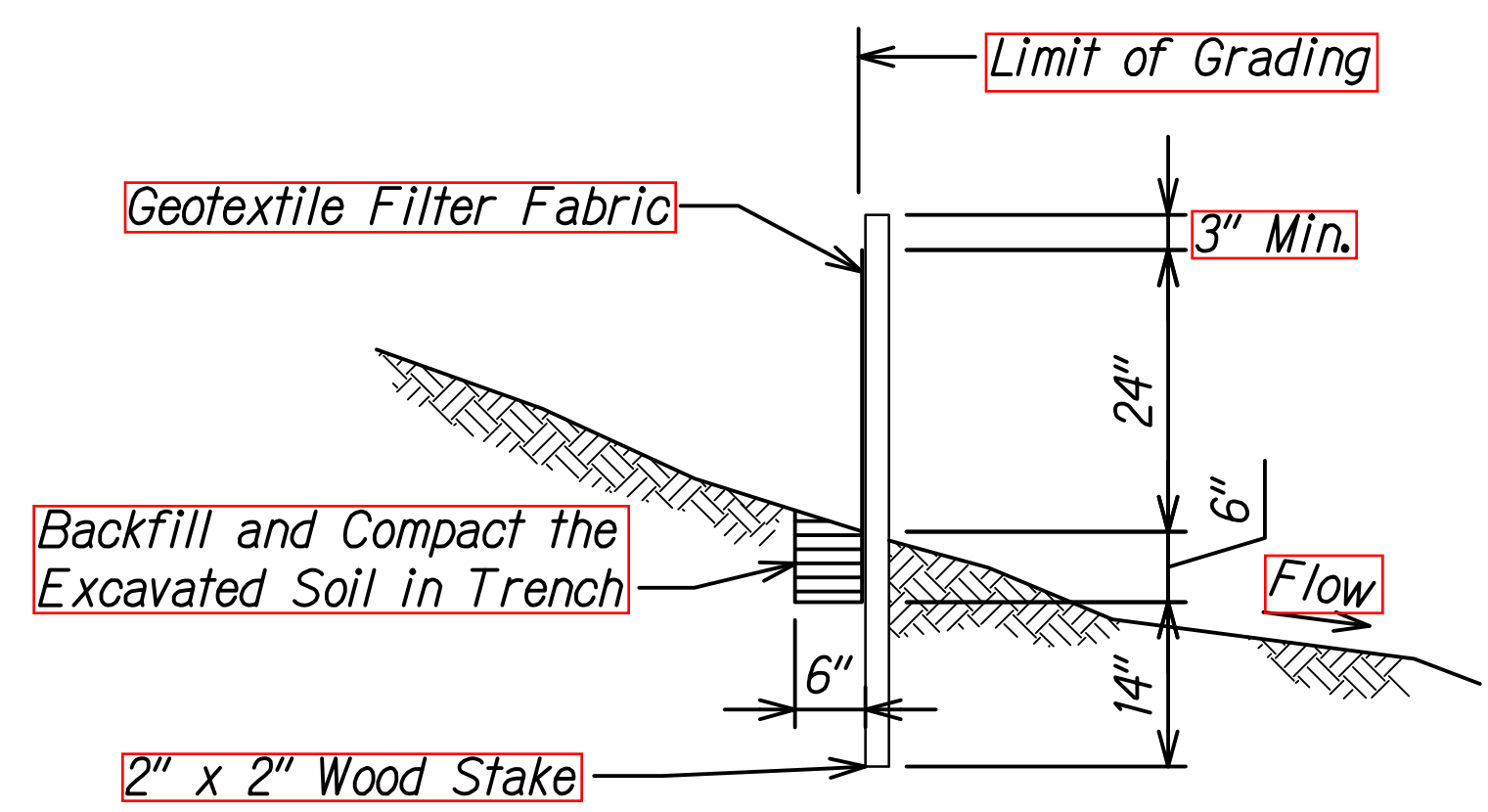
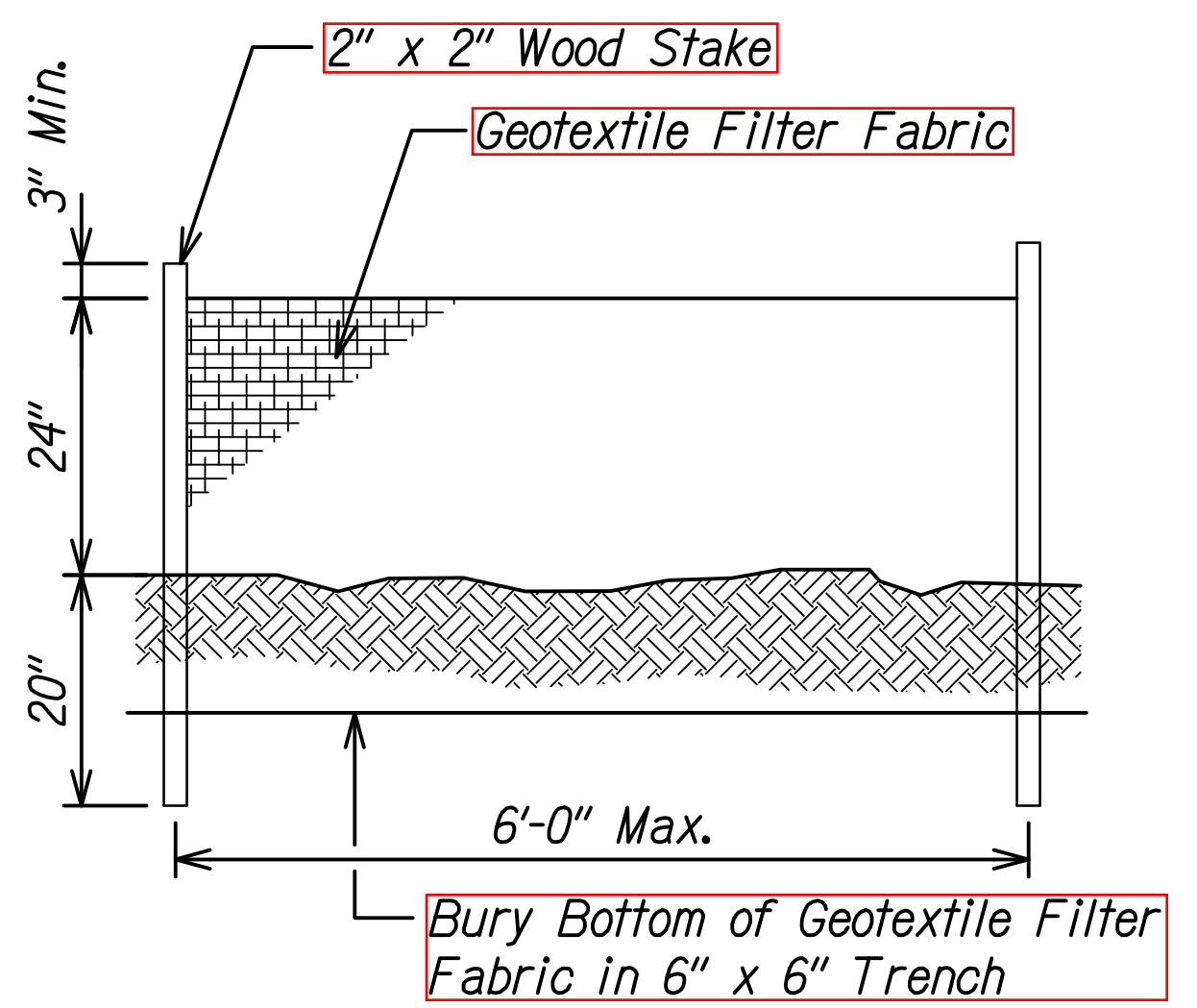
BIOSOCK COMPOST FILTER SOCK PERIMETER CONTROL DETAIL
Not to Scale



TEMPORARY STABILIZED CONSTRUCTION ENTRANCE
Not to Scale



HEADWALL INLET PROTECTION DETAIL
Not to Scale



SILT FENCE DETAIL
Not to Scale

- SILT FENCE NOTES:**
1. The filter fabric shall be a minimum of 36 inches wide.
 2. If silt fence is obtained from manufacturer as a package (i.e. fabric attached to post) the manufacturer's installation instructions shall be adhered to.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Signature: *Joseph R. Salvador* Date: 04/2022

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EROSION CONTROL DETAILS

KAMEHAMEHA HIGHWAY
INTERSECTION IMPROVEMENTS
AT KAEKILI HIGHWAY
Federal-Aid Project No. NH-083-1(082)

Scale: Date: Sept. 2022

DATE	000000
SURVEY PLOTTED BY	
ORIGINAL PLAN	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	