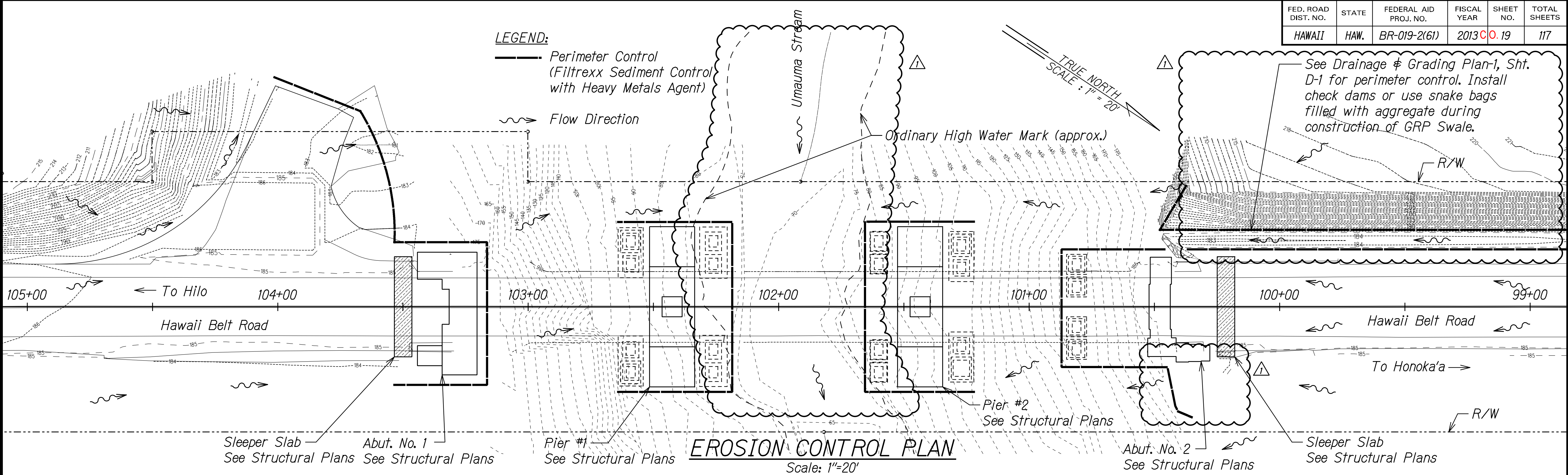


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-019-2(61)	2013	C.O. 19	117



Site Specific Best Management Practices Notes:

- Refer to Sht. N-3, and N-4 for general "Water Pollution and Erosion Control Notes".
- All work shall be done in such a way as to isolate all work from the stream so that no material removed or replaced during the construction process will fall into or reach the stream.
- The Contractor shall 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, and have an opening of at least one-inch in diameter. Install the rain gage on the project site in an area that will not deter rainfall from entering the gage opening. 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.
- Work within Ordinary High Water Mark (OHWM) as shown on the grading plans:
 - The work shall be conducted in the dry season or when any affected stream has minimal or no flow, to the extent practicable. The work shall be discontinued during flooding, intense rainfall, storm surge, or high surf conditions where runoff and turbidity cannot be controlled.
 - The Contractor shall install a stream gage in line with the upstream edge of the proposed footings. The gage shall be closely monitored by designated personnel or by an automated alarm system. In the event that the stream elevation reaches 72 feet above mean sea level (MSL) or the stream depth rises more than 1 foot in 30 minutes all work shall be discontinued and personnel, loose construction materials, and equipment shall be relocated to higher ground (minimum of 10 feet above the OHWM)

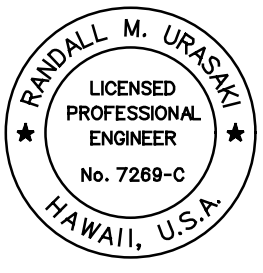
until the stream levels have subsided to the acceptable level. The above BMP represents a minimum measure and the Contractor shall improve upon it as necessary to ensure personnel safety and minimize potential for pollutant and debris discharge to the stream.

- The Contractor shall closely monitor the site rain gage. All work shall be discontinued and personnel/loose construction materials and equipment shall be relocated to higher ground (minimum of 10 feet above the OHWM) during instense rainfall of 0.5 inches or greater within a 24 hour period.
 - The Contractor shall check with the National Weather Service to keep abreast of approaching severe weather in order to take appropriate precautionary measure to secure the project site.
 - At the end of each work day all loose construction material and equipment shall be relocated to higher ground (minimum of 10 feet above the OHWM).
 - All footing form braces shall be constructed within the footing limits and shall not be located on the stream side of the forms. The Contractor shall design the forms to withstand stream flow forces resulting from a 1-year recurrence interval storm which is estimated to have a stream flow elevation of 79.5 MSL at the upstream edge of the proposed footings and a stream flow velocity of 35 feet per second.
- No project-related materials (fill, revetment rock, pipe etc.) shall be stockpiled within the stream banks.
 - No fueling of project-related vehicles and equipment shall take place within the stream banks.
 - The Contractor shall not allow personnel or equipment to enter or cross the wetted portions of the stream bed.

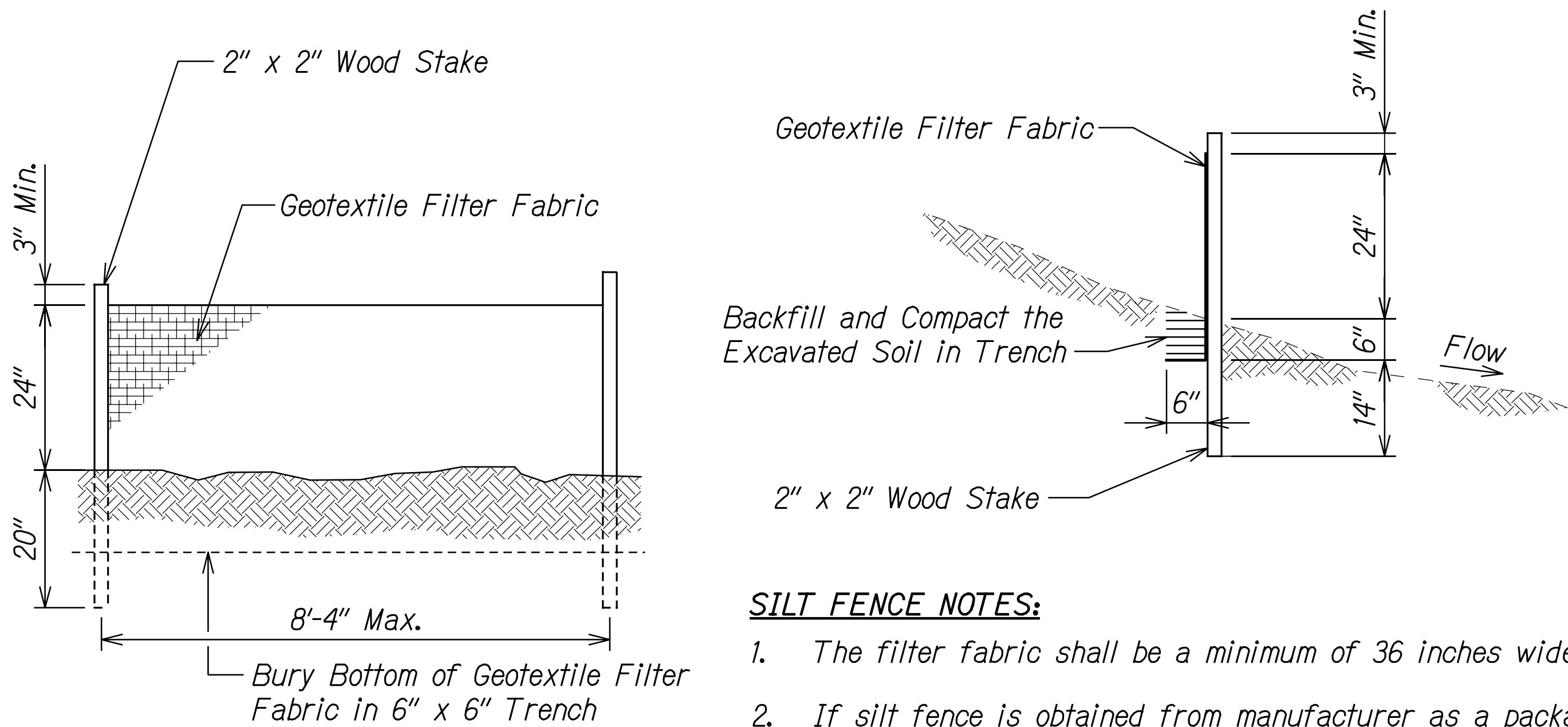
- Dewatering effluent shall not be discharged to the stream or any other tributary that will discharge to a stream, pond, or the ocean. Every effort should be made to allow ground water or storm water to naturally percolate into the ground. In the event that dewatering activities are absolutely necessary, dewatering effluent shall be hauled and disposed of at South Hilo Sanitary Landfill.
- During work being performed above the stream banks and/or stream (e.g. chipping, removal of concrete or iron, painting, concrete pouring, etc.) netting, filter cloth, or similar materials shall be suspended below the work area in such a fashion as to capture any falling debris and prevent contamination of the stream and/or stream banks.
- Refer to Special Provisions for information on lead removal and testing. Prior to any excavation, the top 4 inches of soil and vegetation shall be removed, tested for lead, and hauled to a designated hazardous material disposal site, as necessary, in accordance within the Special Provisions and Approved Hazardous Waste Management Plan.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

CCO#2

 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. SIGNATURE: <i>R. Urashima</i> 04/30/18 EXPIRATION DATE OF THE LICENSE	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION EROSION CONTROL PLAN HAWAII BELT ROAD Rehabilitation of Umauma Stream Bridge FAP NO. BR-019-2(61) Scale: 1"=20' Date: July 15, 2014
	9/15/14 Revised Ordinary High Water Mark & Updated Perimeter Control Limits

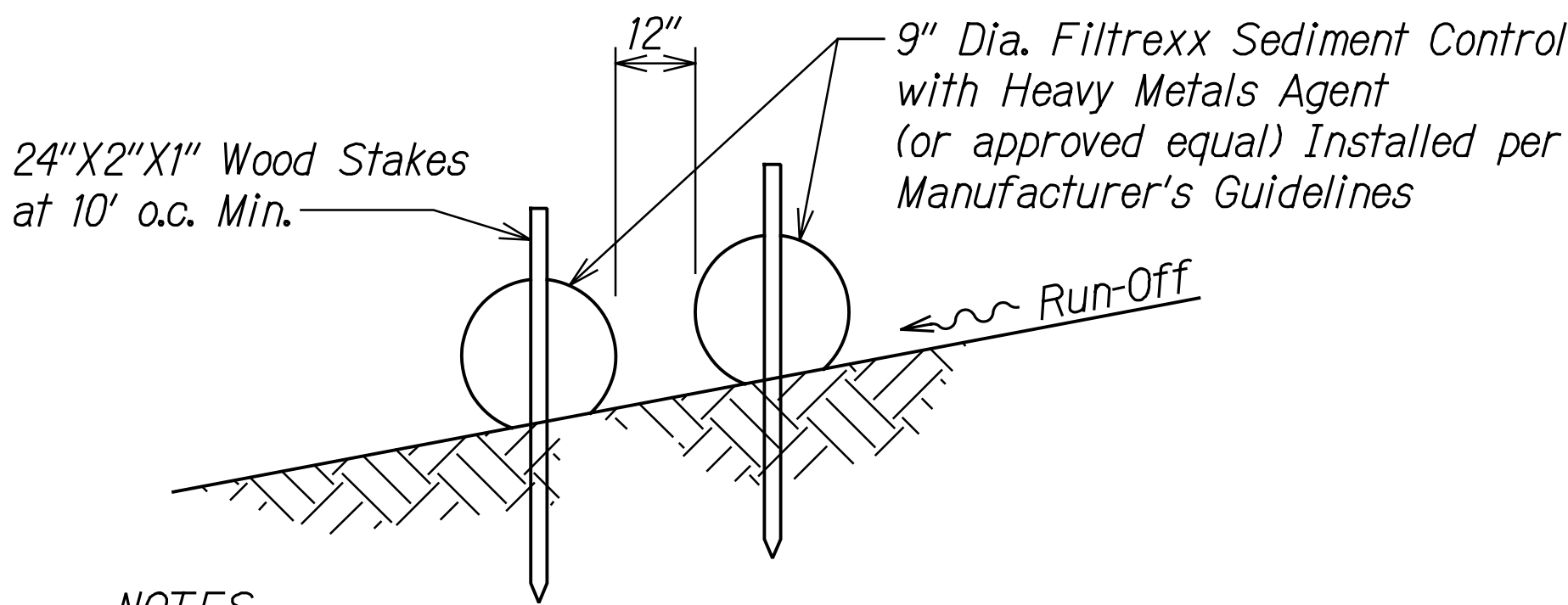
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-019-2(61)	2013	C.O.20	117



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.

SILT FENCE DETAIL
Not to Scale




NOTES:

1. Excavate and relocate rocks as needed to ensure a secure and gap free placement of sediment rolls.
2. Provide additional sediment rolls as necessary to ensure no gaps between existing grade and/or adjacent sediment rolls.
3. Overlap ends a minimum 18". See manufacturer's guidelines.

SEDIMENT ROLL DETAIL
Not to Scale

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

CCO#2

 <small>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.</small> <i>R. M. Urasaki</i> <small>SIGNATURE</small> 04/30/16 <small>EXPIRATION DATE OF THE LICENSE</small>	<p>STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION</p> <p>EROSION CONTROL DETAILS</p> <p>HAWAII BELT ROAD Rehabilitation of Umauma Stream Bridge FAP NO. BR-019-2(61)</p> <p>Scale: None Date: July 15, 2014</p>
	SHEET No. EC-2 OF 2 SHEETS