	WATER POLLUTION AND EROSION CONT	ROL
А.	GENERAL:	
1.	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.	7. <i>B</i> .
2.	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 A2, "applicable bid documents" include the construction plans, standard specifications, Special Provisions, Permits, and the Storm Water Pollution Prevention Plan (SWPPP) when applicable.	/.
3.	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.	
4.	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.	2.
5.	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.	3.
6.	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.	

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SURVEY PLOTTED BY	DRAWN BY	TRACED BY	DESIGNED BI	CHECKED BY	** 2016/16-040/16-040/1H2 PCKG/DWG/C-3 CONSTRINCTION NOTES DWG Arr 20 2032-3-52
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NOTES:

Submit site-specific BMP plan to the Engineer along with a completed site-specific BMP Review Checklist 1 within 30 calendar days of contract execution. The site-specific BMP Review Checklist may be obtained from http://www.stormwaterhawali.com.

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 30 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.

- EROSION AND SEDIMENT CONTROL I MAINTENANCE PRACTICES:
- For projects with an NPDES Permit f Activities, inspect at the following inter construction areas discharging to nutr impaired waters, inspect all control mea once each week and within 24 hours of event of 0.25 inches or greater within period. For construction areas dischart not impaired for nutrient or sediments control measures weekly. Inspections a during the project's normal working he discharge point water classification ma the SWPPP.
- 2. For projects without an NPDES permit Construction Activities, inspect all cont. weekly.
- Maintain all erosion and sediment cont. good working order. If repair is neces repair immediately and complete by the next work day if the problem does not significant repair or replacement, or if be corrected through routine maintenal installation of a new erosion or sedime significant repair is needed, install the modified control or complete the repair calendar days from the time of discover means the Contractor shall take all rea measures to minimize or prevent disch pollutants until a permanent solution is made operational. If a problem is ident in the day in which it is too late to in initiation of repair shall begin on the following work day.
- 4. 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.
- 5. 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.
- 6. Inspect temporary and permanent seeding and planting for bare spots, washouts and healthy growth.
- 7. Complete and submit to the Engineer a maintenance inspection report within 24 hours after each inspection.

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	8.	Provide a sta of exit onto p					•	
for Construction ervals. For trient or sediment beasures at least of any rainfall of any rainfall of any rainfall of any to waters s, inspect all are only required hours. The may be found in		sediments. In the Water Poi submittals. Mi width should inches or as underlain with dimensions ca techniques th paved street required to r materials, dir hose down th wash water. (the construct tracked onto by the end of	Ilution, D inimum le be 30 fe recomme h geo-tex annot be at remove adjacent emove an tor rock e street Cover du ion site the stree	ust, an ength s et. Min nded L nded L tile fa met, p e sedin to the y exce k track withou mp tru with a et, side	nd Erosion C should be 50 nimum depth by the soils e abric. If mini rovide other ment prior to ment prior to ss mud, colo ked from the it containing ked from the it containing tarpaulin. R ewalk, or othe	ontrol feet. should enginee mum stabili stabili o exit. ce dai l-plane site. or vad materi emove er pav	Minimu d be 12 er and ization ization Clean ly or a d Do not cuumin al fro sedim ed are	um 2 the as og m ent ea
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t require if the problem can ance. When nent control or a he new or	10.	Submit the na responsible fo activities and report.	or inspec	tions,	maintenance	and r	epair	nce
ir no later than 7 very. "Immediately" easonable harge of is installed and ntified at a time initiate repair,	11.	Personnel set responsibilitie Contractor. The the inspection keeping the e in good work	es shall i They sha n and ma erosion ar	receive II be t intenai nd sed	e training fro rained in all nce practices	om the neces	ssary i	for
fallowing work	10		- •				,	•

12. Sediment and Erosion Control BMP measures shown in the Contract Documents are minimum BMP requirements and do not constitute a complete Sediment and Erosion Control Plan. The Contractor shall incorporate additional BMPs based upon means and methods considering site conditions and construction sequence in accordance with the Contract Documents including applicable permit document requirements. Costs shall be included in lump sum Pay Item No. 209.0100, Installation, Maintenance, Monitoring, and Removal of BMP and shall not be paid for separately.

D. LICENSED	STATE OF HAWAI'I DEPARTMENT OF TRANSPORTATION
N. ↓ LICENSED PROFESSIONAL ENGINEER No. 6998-C	HIGHWAYS DIVISION WATER POLLUTION AND
IT WALL, U.S.P.	EROSION CONTROL NOTES
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN HAR TITLE 16, CHAPTER 115, RULES	<u>FREEWAY MANAGEMENT SYSTEM</u> <u>Phase 3A</u>
OF THE BOARD OF PROFESSIONAL ENGINEERS, ARCHITECTS AND SURVEYORS. STATE OF HAWAII	<u>Federal Aid Project No. NH-0300(175)</u>
LIC. EXP. DATE	Scale: As Shown Date: October 15, 2021
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WATER POLLUTION AND EROSION CONTROL NOTES (CONT.):

- C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES (CONT.):
- 13. Contain, remove, and dispose slurry generated from saw cutting of pavement in accordance with approved BMP practices. Do not allow discharge into the drainage system or State waters.
- 14. For projects with an NPDES Permit for Construction f. Whenever possible, use a product up completely before Activities, immediately initiate stabilizing exposed soil disposing of the container. areas upon completion of earth-disturbing activities for g. Follow manufacturer's recommendations for proper use areas where earth-disturbing activities have permanently and disposal. or temporarily ceased. Earth-disturbing activities have h. Conduct a daily inspection to ensure proper use and disposal of materials onsite. permanently ceased when clearing and excavation within any area of the construction site that will not include 2. Hazardous Material Pollution Prevention Plan permanent structures has been completed. Earth-disturbing activities have temporarily ceased when clearing, grading, and excavation within any area of the a. Keep products in original containers unless they are site that will not include permanent structures will not not resealable. resume (i.e., the land will be idle) for a period of 14 or b. Retain original labels and Safety Data Sheets (SDS), formerly Material Safety Data Sheets (MSDS). more calendar days, but such activities will resume in the future. For construction areas discharging into waters c. Dispose of surplus products according to not impaired for nutrients sediments, complete initial manufacturers' instructions and local and State stabilization within 14 calendar days after the temporary regulations. or permanent cessation of earth-disturbing activities. For construction areas discharging into nutrient or sediment Onsite and Offsite Product Specific Plan impaired waters, complete initial stabilization within 7 The following product specific practices shall be followed calendar days after the temporary or permanent cessation onsite: of earth-disturbing activities. Classification of water at the discharge point may be found in the SWPPP. a. Petroleum Based Products:
- 15. For projects without an NPDES Permit for Construction Activities, complete initial stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities.
- D. GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES:
- 1. Materials Pollution Prevention Plan
 - a. Applicable materials or substances listed below are expected to be present onsite during construction. Other materials and substances not listed below shall be added to the inventory.

<i>Concrete</i>	Cleaning Solvents
Detergents	Wood
Paints (enamel and latex)	Masonry Block
Metal studs	Herbicides and
Tar	Pesticides
Fertilizers	Curing Compounds
Petroleum Based Products	Adhesives

b. Use Material Management Practices to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff. Make an effort to store only enough product as is required to do the job.



- c. Store all materials stored onsite in a neat, orderly manner in their appropriate containers and if possible under a roof or other enclosure.
- d. Keep products in their original containers with the original manufacturer's label.
- e. Do not mix substances with one another unless recommended by the manufacturer.

- Monitor all onsite vehicles for leaks and perform regular preventive maintenance to reduce the chance of leakage. Store petroleum products in tightly sealed containers which are clearly labeled. Apply asphalt substances used onsite according to the manufacturer's recommendation.
- b. Fertilizers:

Apply fertilizers used only in the minimum amounts recommended by the manufacturer and federal, state, and local requirements. Avoid applying just before a heavy rain event. Apply at the appropriate time of year for the location, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth. Once applied, work fertilizer into the soil to limit exposure to storm water. Do not apply to storm conveyance channels with flowing water. Storage shall be in a covered shed or in an area where fertilizer will not come into contact with precipitation or storm water. Transfer the contents of any partially used bags of fertilizer to a sealable plastic bin to avoid spills.

c. Paints:

Seal and store all containers when not required for use. Do not discharge excess paint to the drainage system, sanitary sewer system, or State waters. Dispose properly according to manufacturers' instructions and State and local regulations.

- a. Concrete Trucks: Washout or discharge concrete truck drum wash water only at a designated site as far as practicable from storm drain inlets or State waters. Do not discharge water in the drainage system or State waters. Disposal by percolation is prohibited. Clean disposal site as required or as requested by the Engineer.
- Spill Control Plan 4.
 - a. Post a Spill Prevention Plan to include measures to prevent and clean up each spill.
 - b. The Contractor shall be the spill prevention and cleanup coordinator. Designate at least three site personnel who shall receive spill prevention and cleanup training. These individuals shall each become responsible for a particular phase of prevention and cleanup. Post the names of responsible spill personnel in the material storage area on a weatherproof bulletin board or other the office trailer onsite.
 - c. Clearly post manufacturers' recommended methods for spill cleanup. Make site personnel aware of the procedures and the location of the information and cleanup supplies.
 - d. Keep ample materials and equipment necessary for spill cleanup in the material storage area onsite.
 - e. Clean up all spills immediately after discovery.
 - f. Keep the spill area well ventilated. Personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.

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accessible location acceptable to the engineer and in

Report spills of toxic hazardous material to the а. appropriate State or local government agency, regardless of the size. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR part 110, 40 CFR Part 117, or 40 CFR Part 302 occurs during a 24-hour period, the Contractor shall notify the Engineer as soon as the Contractor has knowledge of the discharge. The Engineer will notify the National Response Center (NRC) at (800) 424-8802, the Clean Water Branch during regular business hours at 586-4309, and the Hawaii State Hospital Operator at 247-2191 and the Clean Water Branch (DOH-CWB) via email at <u>cleanwaterbranch@doh.hawaii.gov</u> during non-business hours immediately. The Contractor shall also provide to the Engineer, within 7 calendar days of knowledge of the release, a description of the release, the circumstances

leading to the release, and the date of the release. The Engineer will provide this information to the DOH-CWB. The Engineer will provide information to the NRC if requested.

LICENSED PROFESSIONAL ENGINEER No. 6998-C	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION WATER POLLUTION AND EROSION CONTROL NOTES
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN HAR TITLE 16, CHAPTER 115, RULES OF THE BOARD OF PROFESSIONAL ENGINEERS, ARCHITECTS AND SURVEYORS. STATE OF HAWAII	<u>FREEWAY MANAGEMENT SYSTEM</u> <u>Phase 3A</u> <u>Federal Aid Project No. NH-0300(175)</u>
LIC. EXP. DATE	Scale: As Shown Date: October 15, 2021
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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 State, 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.
 - a. Deadlines for initiating and completing initial stabilization
 - b. Increased inspection frequency and installation of rain gage if applicable
 - c. Deadlines to initiate and complete repairs to BMPs
 - d. Reporting requirements and corrective action reports
- 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
 - c. NPDES Permit for Hydrotesting Waters
 - d. Water Quality Certification
 - e. Stream Channel Alteration Permit
 - f. Section 404 Army Corps of Engineer Permit

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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://stormwaterhawaii.com/resources/contractorsand-consultants/storm-water-pollution-prevention-plan-<u>swppp/</u> 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:

Protect all Drainage Inlets receiving runoff from disturbed areas (SC-2).

2. Contain on-site runoff using Perimeter Sediment Controls

- a. SC-1 Silt Fence
- b. SC-5 Vegetated Filter Strips and Buffers
- c. SC-8 Compost Filter Berm
- d. SC-13 Sandbag Barrier
- e. SC-14 Brush or Rock Filter

3. Control offsite runoff from entering construction area

- a. EC-8 Run-on Diversion
- b. SC-6 Earth Dike
- c. SC-7 Temporary Drains and Swales

- Incorporate applicable Site Management BMP 4.
 - c. SM-1 Employee Training
 - d. SM-2 Material Delivery and Storage
 - e. SM-3 Material Use
 - f. SM-4 Protection of Stockpiles
 - g. SM-6 Solid Waste Management
 - h. SM-7 Sanitary/Septic Waste Management
 - i. SM-9 Hazardous Waste Management
 - j. SM-10 Spill Prevention and Control
 - k. SM-11 Vehicle and Equipment Cleaning
 - I. SM-12 Vehicle and Equipment Maintenance
 - m. SM-13 Vehicle and Equipment Refueling
 - n. SM-14 Scheduling
 - o. SM-15 Location of Potential Sources of Sediment
 - p. SM-16 Preservation of Existing Vegetation
 - q. SM-18 Dust Control
- Contain pollutants within the Construction Staging/Storage Area BMP with applicable Perimeter Sediment Controls and Site Management BMP. Include a Stabilized Construction Entrance/Exit (EC-2) for all areas which exit onto a paved street. Restrict vehicle access to these points.
- Manage Concrete Waste including installing a 6. Concrete Washout Area (SM-5) and properly disposing of Concrete Curing Water (California Stormwater BMP Handbook NS-12 Concrete Curing).
- 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.

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