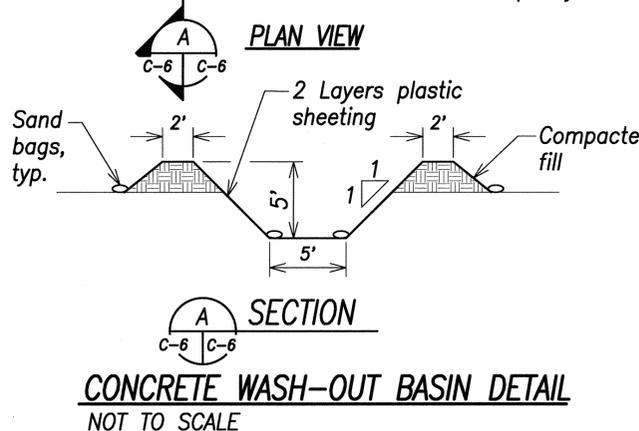
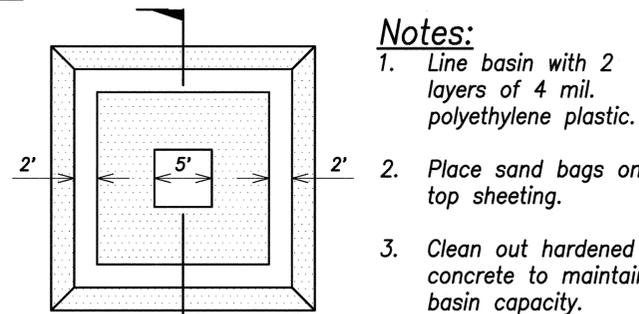


**BEST MANAGEMENT PRACTICES
TEMPORARY EROSION CONTROL NOTES
DURING CONSTRUCTION**

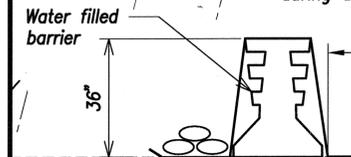
- PRIOR TO CLEARING LAND FOR GRADING, TEMPORARY EROSION CONTROL MEASURES, SUCH AS SAND BAGS AND TEMPORARY CONSTRUCTION SEDIMENT BASINS SHALL BE INSTALLED.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE ESTABLISHED AS SHOWN ON PLANS, PRIOR TO GRADING OPERATIONS.
- FOLLOW SEQUENCE OF OPERATION AS RECOMMENDED BY THE "RULES RELATING TO SOIL EROSION STANDARDS AND GUIDELINES," DEPARTMENT OF PLANNING AND PERMITTING, CITY AND COUNTY OF HONOLULU, APRIL 1999.
- THE CONTRACTOR SHALL MINIMIZE THE AMOUNT OF LAND TO BE EXPOSED AT ANY ONE TIME.
- EXCAVATED MATERIAL MUST BE PLACED IN THE TEMPORARY CONSTRUCTION SEDIMENT BASINS AND BE ALLOWED TO DRY OUT COMPLETELY. THE MATERIAL SHALL BE COVERED OVERNIGHT. IN THE EVENT OF A RAIN STORM, THE MATERIAL SHALL BE COVERED TO MINIMIZE SEDIMENT RUNOFF.
- PERIODIC REMOVAL OF DRIED SOLID MATERIAL SHALL BE HAULED AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE COUNTY REQUIREMENTS.
- THE SANDBAGS USED FOR STREAM DIVERSION SHALL BE REMOVED AT THE END OF EACH WORK DAY.
- THE CONTRACTOR SHALL USE HIS BEST PROFESSIONAL JUDGMENT (BPJ) IN DETERMINING IF SEDIMENT SAND BAGS NEED TO BE REMOVED DURING A HEAVY RAIN EVENT (E.G. THREAT TO PUBLIC HEALTH AND/OR SAFETY). CONTRACTOR SHALL LINE ALL NEWLY EXPOSED SURFACES WITH GEOTEXTILE FABRIC PRIOR TO SAND BAG REMOVAL.
- CONTRACTOR SHALL PROVIDE PERIODIC MAINTENANCE TO SEDIMENT BARRIERS AND BASINS.
- THE ABOVE PROCEDURE FOR EROSION AND SEDIMENT CONTROL MAY BE REVISED BY THE CONTRACTOR TO CONFORM TO HIS GRADING OPERATION PROCEDURE. HOWEVER, ANY REVISIONS TO THE ABOVE SHALL BE SUBMITTED TO THE CHIEF, CIVIL ENGINEERING BRANCH, DEPARTMENT OF PLANNING AND PERMITTING FOR APPROVAL.
- ACCESS POINT SHALL HAVE A STABILIZED CONSTRUCTION ENTRANCE WITH MINIMUM DIMENSIONS SHOWN ON THIS PLAN AND A SECTION CONSISTING OF 1" TO 3" COARSE AGGREGATE OR LARGER (7" MAX.), 8" THICK MIN, OVER FILTER FABRIC (MIRAFI 600X OR APPROVED EQUAL).



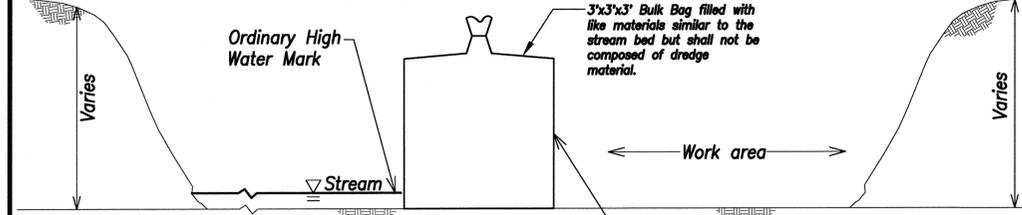
Note:
Contractor shall cover sediment basins overnight and during any rainfall events.

Temporary sand bags for work on upstream and downstream bridge aprons. Mirror layout and shift sand bags to complete work along the center and on east bank.

Exist. Chain Link Fence to remain. Add Geotextile filter fabric to fence



TEMPORARY CONSTRUCTION SEDIMENT BASIN
Not To Scale



Note:
Mirror layout and shift sand bags to complete work along the center and on east bank.



SOIL STABILIZATION:

- PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED, OR DISTURBED MORE THAN TWENTY CALENDAR DAYS PRIOR TO SITE DISTURBANCE.
- DISTURBED AREAS LEFT UNWORKED OR UNFINISHED FOR MORE THAN 30 CALENDAR DAYS WILL BE STABILIZED AS NECESSARY ACCORDING TO SOIL CONDITIONS.
- IN DISTURBED AREAS WHERE SURFACE CONDITIONS CONSIST OF ERODIBLE SOILS, THE SURFACE WILL BE STABILIZED WITH GRASSING.
- IN DISTURBED AREAS WHERE SURFACE CONDITIONS ARE BARE ROCK, OR NON-ERODIBLE SOILS, NO ADDITIONAL STABILIZATION WILL BE APPLIED.

POST CONSTRUCTION

- THE CONSTRUCTION AREA SHALL BE CLEARED OF ALL TRASH AND DEBRIS.
- EXCAVATED MATERIAL SHALL BE DRIED AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE COUNTY REQUIREMENTS.
- FENCE AND BARRIERS SHALL BE REMOVED WHEN NO LONGER REQUIRED.

EROSION CONTROL NOTES

- THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK AND DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS AND OTHER AREAS. THE COSTS INCURRED FOR WORK SHALL BE INCIDENTAL TO VARIOUS ITEMS OF WORK.
- ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SURFACE WATERS FROM DAMAGING THE CUT FACE OF AN EXCAVATION OR THE SLOPED SURFACES OF A FILL. FURTHERMORE, ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE SITE.
- NO GRADING WORK SHALL BE DONE ON SATURDAYS, SUNDAYS AND HOLIDAYS AT ANY TIME WITHOUT PRIOR NOTICE TO THE DIRECTOR, D.P.P., PROVIDED SUCH GRADING WORK IS ALSO IN CONFORMANCE WITH THE COMMUNITY NOISE CONTROL STANDARDS CONTAINED IN THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 46, "COMMUNITY NOISE CONTROL".
- THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BY THE CONTRACTOR BEFORE THE COMMENCEMENT OF THE GRADING WORK.
- ALL MEASURES TO CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATIONS BEGIN IN ACCORDANCE WITH HAWAII ADMINISTRATIVE RULES, CHAPTER 11-55, APPENDIX C, SPECIAL CONDITIONS FOR LAND DISTURBANCES, ITEM (A)(4).
- TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED.
- EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL ALL DISTURBED AREAS ARE REESTABLISHED WITH GROUND VEGETATION OR OTHER MEANS OF GROUND STABILIZATION.
- CONTRACTOR SHALL STOP ALL CONSTRUCTION ACTIVITIES IN THE WORK AREA WHEN STORM RUNOFF IS PRESENT EXCEPT TO PREVENT AND CONTROL SOIL EROSION. ALL COST TO REPAIR THE EROSION CONTROL MEASURES DUE TO STORM RUNOFF AND/OR REGULAR MAINTENANCE SHALL BE DONE AT NO COST TO THE STATE.

EROSION CONTROL PLAN
SCALE: 1"=30'



1	ADD 1: REV. DETAIL	1/1	5/25/16		
NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION MANOA STREAM IMPROVEMENTS AT WOODLAWN DRIVE BRIDGE MANOA, OAHU, HAWAII EROSION CONTROL PLAN					
DESIGNED: SKYA		SUBMITTED: SKYA			
DRAWN: TL/RY		DATE: May 2016			
CHECKED: SKYA		SCALE: AS SHOWN			
APPROVED: <i>Stacy K. Yokoo</i>		APRIL 30, 2016 EXPIRATION DATE OF LICENSE		DRAWING NO. C-6	
R. M. TOWILL CORPORATION		MAY 25 2016		DATE	