

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

PROPOSED BEST MANAGEMENT PRACTICE (BMP) PLAN (PIER 21 IN MANOA-PALOLO STREAM)

THE CONTRACTOR SHALL PREPARE A SITE-SPECIFIC BMP (ssBMP) PLANS FOR THE PROJECT AND SUBMIT TO THE ENGINEER FOR REVIEW AND ACCEPTANCE. THE ENGINEER WILL THEN SUBMIT THE ssBMP PLANS TO THE DEPARTMENT OF HEALTH (DOH) FOR THEIR REVIEW AND APPROVAL. UPON RECEIPT OF THE ssBMP PLANS FROM THE ENGINEER, DOH REQUIRES 30 DAYS TO REVIEW THE ssBMP. THE ssBMP PLANS SHALL BE COMPLETE AND ACCEPTABLE TO THE DEPARTMENT OF HEALTH. UNACCEPTABLE ssBMP PLANS WILL BE RETURNED FOR CORRECTION OR CLARIFICATION. DOH MAY REQUIRE ANOTHER 30 DAYS TO REVIEW THE REVISED ssBMP. CONTRACTOR SHALL NOT WAIT FOR THE NOTICE TO PROCEED TO BEGIN THE BMP PLAN PREPARATION AND SUBMITTAL, WHICH SHALL BE INCIDENTAL TO THE CONSTRUCTION CONTRACT AND WILL NOT BE PAID FOR SEPARATELY.

1. CONSTRUCTION SEQUENCE

- A. THE CONSTRUCTION WITHIN THE MANOA-PALOLO STREAM WILL BE DONE DURING THE DRY SEASON WHEN THERE IS LOW STREAM FLOW.
- B. INITIALLY, THE CONTRACTOR SHALL INSTALL AN EFFECTIVE SILT CONTAINMENT DEVICE(S) TO ISOLATE THE CONSTRUCTION ACTIVITIES FROM THE RECEIVING STATE WATERS. CONSTRUCTION EQUIPMENT WILL NOT BE ALLOWED WITHIN THE STREAM BED UNTIL THE EFFECTIVE SILT CONTAINMENT DEVICE(S) IS INSTALLED.
- C. AN ACCESS PATH TO THE CONSTRUCTION SITE WILL BE CREATED BY DIVERTING THE STREAM FLOW AWAY FROM THE PATH. THE STREAM FLOW SHALL ALSO BE DIVERTED AROUND THE CONSTRUCTION SITE VIA BERMS, SAND BAGS, PIPES OR OTHER METHODS.
- D. ALL DEBRIS AND/OR EXCAVATED MATERIALS SHALL BE PROPERLY REMOVED FROM THE AQUATIC ENVIRONMENT AND DISPOSED OF AT THE UPLAND STATE OR COUNTY APPROVED SITES. NO CONSTRUCTION MATERIAL OR CONSTRUCTION-RELATED MATERIALS SHALL BE STOCKPILED, STORED, OR PLACED IN THE AQUATIC ENVIRONMENT OR STORED OR PLACED IN WAYS THAT WILL DISTURB THE AQUATIC ENVIRONMENT. IF STOCKPILING OF EXCAVATED MATERIALS IS REQUIRED PRIOR TO TRANSPORTING TO THE STATE OR COUNTY APPROVED SITE, TRANSPORTING THE EXCAVATED MATERIALS FROM THE SITE TO AN APPROVED STOCKPILE AREA SHALL BE DONE WITH A WATERTIGHT EQUIPMENT.

2. CONSTRUCTION METHOD

- A. PROTECT/SUPPORT CRM WALL ON WESTBANK (EWA-SIDE) BEFORE DIVERTING FLOW.
- B. FOR PIER 21 FOOTING RETROFIT, CONTRACTOR SHALL MINIMIZE CONSTRUCTING TEMPORARY BARRIERS TO STORM WATER FLOWS. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING THOSE BARRIERS BEFORE THE OCCURRENCE OF FLOW THAT MAY DAMAGE THE CHANNEL AND SURROUNDING PROPERTY.
- C. AFTER THE STREAM FLOW HAS BEEN DIVERTED, A BACKHOE WILL BE USED TO EXCAVATE THE STREAM BED TO EXPOSE THE EXISTING PILE CAP.
- D. A PILE DRIVING EQUIPMENT WILL BE USED TO INSTALL THE PERIMETER SHEET PILES TO PROTECT THE EXCAVATION AND REDUCE POLLUTION OF THE STREAM.
- E. THE BACKHOE AND/OR OTHER EXCAVATION EQUIPMENT WILL BE USED TO EXCAVATE AND EXPOSE THE BOTTOM OF THE EXISTING PILE CAP.
- F. THE PILE DRIVING EQUIPMENT WILL INSTALL THE 16-INCH DIAMETER STEEL PILES TO UPGRADE THE FOUNDATION.
- G. TOP OF PILES WILL BE CUT AND REMOVED PRIOR TO PLACING REBARS AND CONCRETE.
- H. TO FACILITATE DRY BEDDING, THE BOTTOM MAY BE OVER EXCAVATED AND BACKFILLED WITH CRUSHED ROCK.
- I. REINFORCEMENT WILL BE PLACED AND THE CONCRETE WILL BE PUMPED INTO PLACE.
- J. BACKFILL WITH LOW STRENGTH CONCRETE AND REMOVE PROTRUDING TOPS OF SHEET PILES.
- K. CLEAN UP WORK AREA TO RESTORE TO ITS PRE-CONSTRUCTION CONDITION. THIS INCLUDES RESTORATION OF BOTH EAST AND WEST SIDES CRM WALL BANKS.
- L. NO MATERIAL AND/OR EQUIPMENT SHALL BE STOCKPILED OR OTHERWISE STORED WITHIN THE HIGHWAY RIGHT-OF-WAY, EXCEPT AT LOCATIONS DESIGNATED IN WRITING AND APPROVED BY THE DISTRICT ENGINEER. NO STOCKPILING OR STORAGE IS ALLOWED OVER EXISTING BRIDGE FOOTINGS AND ROOT BASES AROUND EXISTING TREES THAT WILL REMAIN IN PLACE.

3. CHARACTERISTICS OF THE DISCHARGE AND POTENTIAL POLLUTANTS ASSOCIATED WITH THE PROPOSED CONSTRUCTION ACTIVITY

- A. MATERIAL TEMPORARILY PLACED MAY INCLUDE SILT SCREEN, PLASTIC OR STEEL PIPES, COARSE GRAVEL, PLASTIC LINING, FORM MATERIAL, BERMS, DIKES, COFFERDAMS, AND SAND BAGS.
- B. MATERIAL PERMANENTLY PLACED INCLUDE SHEET PILES, IF NECESSARY, CONCRETE FILLED STEEL PILES, REINFORCEMENT AND CONCRETE.
- C. MATERIAL THAT MAY ENTER STATE WATERS DUE TO THE PROPOSED CONSTRUCTION ACTIVITY INCLUDES SOIL EROSION, CONSTRUCTION DEBRIS, CONCRETE, AND REMOVED VEGETATION.
- D. DISCHARGES ASSOCIATED WITH THE OPERATION OF THE EQUIPMENT INCLUDE OIL LEAK, AND SPILLS FROM THE FUELING OPERATION. MAINTENANCE OF EQUIPMENT AND FUEL STORAGE WILL NOT BE ALLOWED WITHIN THE AQUATIC ENVIRONMENT.

4. PROPOSED CONTROL MEASURES OR TREATMENT

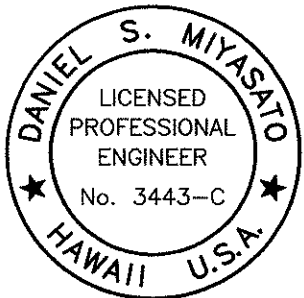
- A. EFFECTIVE SILT CONTAINMENT DEVICES SHALL BE INSTALLED AROUND THE WORK SITE PRIOR TO ANY CONSTRUCTION ACTIVITY. THEY SHALL BE MAINTAINED UNTIL THE FOOTING RETROFIT CONSTRUCTION ACTIVITY IS COMPLETED. DETAILS WILL BE SUBMITTED AFTER CONTRACTOR IS SELECTED.
- B. STREAM FLOW SHALL BE DIVERTED AWAY FROM OR AROUND, THE CONSTRUCTION SITE PRIOR TO SHEET PILE INSTALLATION.
- C. A DESIGNATED UPLAND AREA AWAY FROM THE AQUATIC ENVIRONMENT FOR THE SELECTED CONTRACTOR TO STORE OR STOCKPILE CONSTRUCTION RELATED MATERIALS AND EQUIPMENT WILL BE ASSIGNED PRIOR TO START OF CONSTRUCTION ACTIVITY.
- D. ALL LOOSE MATERIAL AND SMALL TOOLS AND EQUIPMENT WILL BE REMOVED FROM THE CONSTRUCTION SITE AFTER EVERY WORK DAY IS COMPLETED.
- E. EQUIPMENT SHALL BE INSPECTED DAILY TO MAKE SURE OIL LEAKS DO NOT OCCUR. EQUIPMENT SHALL BE STORED UPLAND AWAY FROM THE AQUATIC ENVIRONMENT. FUELING AND LUBRICATING OF EQUIPMENT AND MOTOR VEHICLES WILL BE CONDUCTED AWAY FROM THE AQUATIC ENVIRONMENT AND IN A MANNER TO PROTECT AGAINST SPILLS AND EVAPORATION. LUBRICANTS AND EXCESS OILS WILL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
- F. SKILLED MASONRY WORKERS WILL BE USED TO FINISH THE CONCRETE FOOTING.

5. WATER QUALITY MONITORING PLAN

- A. THE MONITORING PLAN WILL CONSIST OF A CONTROL STATION AND MONITORING STATION AT A LOCATION FROM THE CONSTRUCTION SITE APPROVED BY THE DEPARTMENT OF HEALTH. TURBIDITY, PH, AND TOTAL SUSPENDED SOILS (TSS) SHALL BE MONITORED.
- B. THE MONITORING SCHEDULE SHALL INVOLVE COLLECTING SAMPLES EVERY DAY FOR 5 DAYS PRIOR TO START OF CONSTRUCTION AT THE CONTROL STATION AND MONITORING STATION. DURING THE CONSTRUCTION PERIOD, REPRESENTATIVE SAMPLES SHALL BE TAKEN TWICE A WEEK AT THE CONTROL STATION AND MONITORING STATION. SAMPLES SHALL BE TAKEN AFTER CONSTRUCTION WORK HAS STARTED FOR THE DAY, AT LEAST 1 OR 2 HOURS AFTER THE WORKDAY BEGINS. IF THE RESULTS EXCEED THE GEOMETRIC MEAN ESTABLISHED FROM THE BASELINE PRE-CONSTRUCTION WATER QUALITY MONITORING OR APPLICABLE WATER QUALITY STANDARDS, MODIFICATIONS SHALL BE MADE TO THE WATER POLLUTION CONTROLS.
- C. SAMPLES SHALL BE TAKEN AT MID-DEPTH OF WATER OR AS RECOMMENDED BY THE DEPARTMENT OF HEALTH. SAMPLE RESULTS SHALL BE SUBMITTED TO THE DEPARTMENT OF HEALTH, CLEAN WATER BRANCH. IF THE RESULTS EXCEED THE APPLICABLE WATER STANDARDS, THE CLEAN WATER BRANCH WILL BE NOTIFIED WITHIN 24 HOURS AFTER THE AVAILABILITY OF THE ANALYTICAL RESULTS. NOTIFICATION WILL INCLUDE MITIGATION MEASURES. THE PRE-CONSTRUCTION, AND DURING CONSTRUCTION MONITORING RESULTS SHALL BE SUBMITTED TO THE DEPARTMENT OF HEALTH AS SOON AS THEY BECOME AVAILABLE OR NO LATER THAN ONE WEEK AFTER THE AVAILABILITY OF THE ANALYTICAL RESULTS.
- D. THE STATE OF HAWAII, DEPARTMENT OF HEALTH, CLEAN WATER BRANCH (PHONE: 586-4309) SHALL BE NOTIFIED THREE DAYS PRIOR TO START OF CONSTRUCTION AND AT THE END OF CONSTRUCTION.

6. DEWATERING PLAN

- A. AN ANALYSIS OF THE SOURCE WATER QUALITY AS SPECIFIED IN DOH-NOI FORM G SHALL BE PROVIDED BY THE CONTRACTOR PRIOR TO START OF DEWATERING. THE ANALYSIS SHALL INCLUDE AN EVALUATION OF THE SOURCE WATER QUALITY DATA COLLECTED WITH RESPECT TO THE APPLICABLE NUMERIC CRITERIA AND NUMERIC STANDARDS FOR THE TOXIC POLLUTANTS SPECIFIED UNDER HAR, CHAPTER 11-54.
- B. CONTRACTOR SHALL DESIGN THE TREATMENT OF DEWATERING ACTIVITY AND OBTAIN DOH'S APPROVAL PRIOR TO DEWATERING.
- C. TREATMENT MAY INCLUDE SILTATION TANKS, FILTERS AND PUMPS.
- D. TREATMENT DESIGN CALCULATIONS AND PROPOSED MITIGATIVE MEASURES SHALL BE SUBMITTED TO DOH BY THE CONTRACTOR.
- E. AN APPROVED SITE-SPECIFIC DEWATERING PLAN IS REQUIRED BEFORE START OF CONSTRUCTION DEWATERING ACTIVITIES.
- F. PROHIBITED PRACTICES:
  - (1) DEWATERING EFFLUENT WILL NOT BE DIRECTLY DISCHARGED INTO ANY STORM DRAIN OR RECEIVING WATERS WITHOUT PRIOR TREATMENT TO REMOVE POLLUTANTS.
  - (2) IF EFFLUENT WATER QUALITY DEGRADES BELOW THE TREATABLE LEVEL OF THE FILTER SYSTEM, DISCHARGES SHALL BE HALTED UNTIL PROPER MEASURES ARE INCORPORATED.
- G. OPERATION AND MAINTENANCE PROCEDURES SHALL INCLUDE:
  - (1) RESPONSIBLE FIELD PERSON OF THE SYSTEM, BY TITLE OR NAME;
  - (2) OPERATION PLAN;
  - (3) MAINTENANCE SCHEDULING OR ACTION CRITERIA;
  - (4) MAINTENANCE PROGRAM;
  - (5) SEDIMENT HANDLING AND DISPOSAL PLAN;
  - (6) MONITORING AND VISUAL INSPECTION PROGRAM;
  - (7) CESSATION OF DISCHARGE PLAN;
  - (8) EFFLUENT CONTROL PLAN;
  - (9) EMERGENCY FLOOD CONTROL PLAN; AND
  - (10) WEST BANK CRM WALL MAINTENANCE PLAN IN THE DIVERTED FLOW REGION.
- H. A NOTICE OF INTENT FOR NPDES GENERAL PERMIT COVERAGE AUTHORIZING DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY DEWATERING APPLICATION HAS BEEN FILED WITH THE HAWAII STATE DEPARTMENT OF HEALTH. THE CONTRACTOR SHALL PREPARE AND SUBMIT A SITE-SPECIFIC DEWATERING PLAN, AND A SITE-SPECIFIC DEWATERING BEST MANAGEMENT PRACTICES PLAN, A MINIMUM OF THIRTY DAYS PRIOR TO THE START OF CONSTRUCTION DEWATERING ACTIVITIES. CONTRACTOR SHALL MAKE REVISIONS AS REQUIRED. DEWATERING ACTIVITIES WILL NOT BE ALLOWED UNTIL THE SITE-SPECIFIC DEWATERING BEST MANAGEMENT PRACTICES PLAN IS ACCEPTED BY DOH.
- 7. WATER QUALITY CERTIFICATION APPLICATION HAS BEEN FILED WITH THE HAWAII STATE DEPARTMENT OF HEALTH.
- 8. STREAM CHANNEL ALTERATION PERMIT (SCAP) APPLICATION HAS BEEN FILED WITH THE DEPARTMENT OF LAND AND NATURAL RESOURCES, STATE OF HAWAII.
- 9. COMPLY WITH THE CONDITIONS STIPULATED IN THE WATER QUALITY CERTIFICATION, NPDES GENERAL PERMIT COVERAGE FOR CONSTRUCTION DEWATERING, HAWAII STATE DEPARTMENT OF HEALTH CWB-NOI FORM C, ARMY CORPS OF ENGINEERS PERMIT, STREAM CHANNEL ALTERATION PERMIT, AND SECTION 209-WATER POLLUTION AND EROSION CONTROL OF THE SPECIAL PROVISIONS.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-H1-1(226)	2003	5	36

2/18/03	REVISED FIRST PARAGRAPH AND NOTE 9
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION ENVIRONMENTAL NOTES-1 INTERSTATE ROUTE H-1, SEISMIC RETROFIT KAPIOLANI INTERCHANGE, PHASE 2 FAIP NO. BR-H1-1(226) SCALE: NONE DATE: SEPT 2002 SHEET NO. C2 OF 21 SHEETS	



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		No.	

WATER POLLUTION AND EROSION CONTROL NOTES

A. GENERAL

1. THE CONTRACTOR IS REMINDED OF THE REQUIREMENTS OF SECTION 209 – WATER POLLUTION AND EROSION CONTROL, IN THE "HAWAII STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND PUBLIC WORKS CONSTRUCTION". 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. NO WORK SHALL COMMENCE WITHOUT AN APPROVED BMP PLAN.
2. THE CONTRACTOR SHALL FOLLOW THE GUIDELINES IN THE "BEST MANAGEMENT PRACTICES MANUAL FOR CONSTRUCTION SITES IN HONOLULU", DATED MAY 1999 IN DEVELOPING, INSTALLING AND MAINTAINING THE BEST MANAGEMENT PRACTICES (BMP) FOR THE PROJECT.
3. THE ENGINEER MAY ASSESS LIQUIDATED DAMAGES OF UP TO \$27,500.00 FOR NONCOMPLIANCE OF EACH BMP REQUIREMENT AND EACH REQUIREMENT STATED IN SECTION 209, FOR EVERY DAY OF NONCOMPLIANCE. THERE IS NO MAXIMUM LIMIT ON THE AMOUNT ASSESSED PER DAY.
4. THE ENGINEER WILL DEDUCT THE COST FROM THE PROGRESS PAYMENT FOR ALL CITATIONS RECEIVED BY THE DEPARTMENT FOR NONCOMPLIANCE, OR THE CONTRACTOR SHALL REIMBURSE THE STATE FOR THE FULL AMOUNT OF THE OUTSTANDING COST INCURRED BY THE STATE.

B. WASTE DISPOSAL

1. WASTE MATERIALS: ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER SHALL BE EMPTIED A MINIMUM OF TWICE PER WEEK OR AS OFTEN AS IS DEEMED NECESSARY. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ONSITE. THE CONTRACTOR'S SUPERVISORY PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES SHALL BE POSTED IN THE OFFICE TRAILER AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.
2. HAZARDOUS WASTE: ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR 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.
3. SANITARY WASTE: ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR 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.
4. SANITARY WASTE: ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK, OR AS REQUIRED.

C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES

1. ALL CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EACH WEEK AND FOLLOWING ANY RAINFALL EVENT OF 0.5 INCHES OR GREATER. THE CONTRACTOR SHALL PROVIDE A RAIN GAUGE AND INSTALL AT A LOCATION AGREED TO BY THE STATE.
2. ALL MEASURES SHALL BE MAINTAINED IN GOOD WORKING ORDER. IF REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS AFTER INSPECTION.
3. BUILT-UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
4. SILT SCREEN OR FENCE SHALL BE INSPECTED 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.
5. TEMPORARY AND PERMANENT SEEDING AND PLANTING SHALL BE INSPECTED FOR BARE SPOTS, WASHOUTS AND HEALTHY GROWTH.
6. A WEEKLY MAINTENANCE INSPECTION REPORT SHALL BE MADE PROMPTLY EACH WEEK INSPECTION BY THE CONTRACTOR, AND SUBMITTED TO THE ENGINEER. A BLANK FORM SHALL BE SUBMITTED WITH THE BMP PLAN.
7. THE CONTRACTOR SHALL SELECT A MINIMUM OF THREE PERSONNEL WHO SHALL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.
8. 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.
9. ALL SLOPES AND EXPOSED AREAS SHALL BE GRASSED AS SOON AS FINAL GRADES HAVE BEEN ESTABLISHED. GRADING TO FINAL GRADE SHALL BE CONTINUOUS, AND ANY AREA, WHERE WORK HAS BEEN INTERRUPTED OR DELAYED FOR MORE THAN 15 DAYS SHALL BE GRASSED IN ORDER TO PREVENT DUST EROSION AND SILT RUNOFF. AREAS WITH IMPORTED SOILS SHALL BE GRASSED NOT MORE THAN 5 WORKING DAYS AFTER FINAL GRADES HAVE BEEN ESTABLISHED.
10. TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED.

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.
- |                           |                          |
|---------------------------|--------------------------|
| CONCRETE                  | FERTILIZERS              |
| DETERGENTS                | PETROLEUM BASED PRODUCTS |
| PAINTS (ENAMEL AND LATEX) | CLEANING SOLVENTS        |
| METAL STUDS               | WOOD                     |
| TAR                       | MASONRY BLOCKS           |
- (B) MATERIAL MANAGEMENT PRACTICES SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF. AN EFFORT SHALL BE MADE TO STORE ONLY ENOUGH PRODUCT AS IS REQUIRED TO DO THE JOB.
- (C) ALL MATERIALS STORED ONSITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND IF POSSIBLE UNDER A ROOF OR OTHER ENCLOSURE.
- (D) PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
- (E) SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- (F) WHENEVER POSSIBLE, A PRODUCT SHALL BE USED UP COMPLETELY BEFORE DISPOSING OF THE CONTAINER.
- (G) MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.
- (H) THE CONTRACTOR SHALL CONDUCT A DAILY INSPECTION TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.

2. HAZARDOUS MATERIAL POLLUTION PREVENTION PLAN

- (A) PRODUCTS SHALL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
- (B) ORIGINAL LABELS AND MATERIAL SAFETY DATA SHEETS (MSDS) SHALL BE RETAINED.
- (C) SURPLUS PRODUCTS SHALL BE DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR LOCAL AND STATE RECOMMENDED METHODS.

3. ONSITE AND OFFSITE MATERIAL SPECIFIC PLAN

- (A) THE FOLLOWING MATERIAL SPECIFIC PRACTICES SHALL BE FOLLOWED ONSITE:
- (1) PETROLEUM BASED PRODUCTS: ALL ONSITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATION.
- (2) FERTILIZERS: FERTILIZERS USED SHALL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE SHALL BE IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
- (3) PAINTS: ALL CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT SHALL NOT BE DISCHARGED TO THE HIGHWAY DRAINAGE SYSTEM BUT SHALL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.
- (4) CONCRETE TRUCKS: CONCRETE TRUCKS SHALL BE ALLOWED TO WASH OUT OR DRUM WASH WATER ONLY AT DESIGNATED SITE. WATER SHALL NOT BE DISCHARGED IN THE HIGHWAY DRAINAGE SYSTEM OR WATERS OF THE UNITED STATES. THE CONTRACTOR SHALL CONTACT DRINKING WATER BRANCH, DEPARTMENT OF HEALTH AT 586-4258 TO RECEIVE PERMISSION TO DESIGNATE A DISPOSAL SITE. THE CONTRACTOR SHALL CLEAN DISPOSAL SITE AS REQUIRED OR AS REQUESTED BY THE OWNER'S REPRESENTATIVE.
- (B) OFFSITE VEHICLE TRACKING: A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE SHALL BE CLEANED DAILY OR AS REQUIRED TO REMOVE ANY EXCESS MUD, COLD PLANED MATERIALS, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE SHALL BE COVERED WITH A TARPULIN.

4. SPILL CONTROL PLAN

- (A) A SPILL PREVENTION PLAN SHALL BE POSTED AND ADJUSTED TO INCLUDE A DESCRIPTION AND CAUSE OF EACH SPILL, MEASURES TO PREVENT AND CLEAN UP EACH SPILL.

- (B) THE CONTRACTOR SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. THE CONTRACTOR SHALL 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. THE NAMES OF RESPONSIBLE SPILL PERSONNEL SHALL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ONSITE.
- (C) MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
- (D) MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE.
- (E) ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
- (F) THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- (G) SPILLS OF TOXIC HAZARDOUS MATERIAL SHALL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.

E. PERMIT REQUIREMENTS

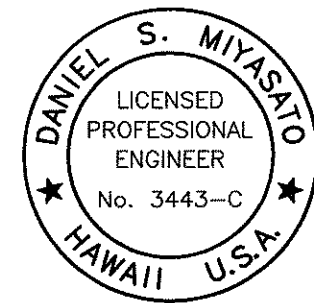
1. IF AN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT IS REQUIRED FOR CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOUR SETS OF THE WATER POLLUTION AND EROSION CONTROL SUBMITTALS AS DETAILED IN SUBSECTION 209.04 OF THE SPECIFICATIONS.
2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE STATE AND FEDERAL PERMIT CONDITIONS. PERMITS MAY INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:
- (A) NPDES PERMIT FOR CONSTRUCTION ACTIVITIES

F. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMANCE WITH THE APPLICABLE PROVISIONS OF CHAPTER 54, WATER QUALITY STANDARDS, AND CHAPTER 55, WATER POLLUTION CONTROL OF TITLE 11, ADMINISTRATIVE RULES OF THE STATE DEPARTMENT OF HEALTH.

G. THE CONTRACTOR AT HIS OWN EXPENSE SHALL KEEP THE PROJECT AREA AND SURROUNDING AREAS FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR AND WATER POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH.

H. APPLICATION FOR THE FOLLOWING PERMITS HAVE BEEN FILED WITH THE VARIOUS AGENCIES FOR WORK AT PIER 21.

1. NPDES CWB-NOI FORM G, HAWAII STATE DEPARTMENT OF HEALTH, FILE NO. HI 01GB200.
2. SECTION 401 WATER QUALITY CERTIFICATION, HAWAII STATE DEPARTMENT OF HEALTH.
3. DEPARTMENT OF ARMY PERMIT, CORPS OF ENGINEERS.
4. STREAM CHANNEL ALTERATION PERMIT (SCAP), HAWAII STATE DEPARTMENT OF LAND AND NATURAL RESOURCES, PERMIT NO. SCAP-OA-240E. THIS PERMIT IS EFFECTIVE UNTIL MAY 2003, AND THE HAWAII STATE DOT WILL FILE FOR THE NECESSARY EXTENSION.
5. COMMUNITY NOISE VARIANCE PERMIT, HAWAII STATE DEPARTMENT OF HEALTH, FOR WORK ON IN-BOUND LANES AND REPAIR OF DAMAGE ON DECK SLAB ABOVE PIER 21.
6. NPDES CWB-NOI FORM C, HAWAII STATE DEPARTMENT OF HEALTH.
- I. NO WORK SHALL BE ALLOWED IN THE STREAM UNTIL ALL APPLICABLE PERMITS HAVE BEEN APPROVED BY THE VARIOUS AGENCIES.
- J. COMPLY WITH THE REQUIREMENTS OF THE COMMUNITY NOISE VARIANCE PERMIT FOR NIGHT WORK FOR REMOVING H-1 STRIPING, RESTRIPIING, AND REPAIR OF OFF RAMP DECK SLAB.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-H1-1(226)	2003	6	36

2/18/03	REVISED NOTES A1, A3, C1, C6, H6
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION ENVIRONMENTAL NOTES-2 INTERSTATE ROUTE H-1, SEISMIC RETROFIT KAPIOLANI INTERCHANGE, PHASE 2 FAIP NO. BR-H1-1(226) SCALE: NONE DATE: SEPT 2002 SHEET NO. C3 OF 21 SHEETS	