

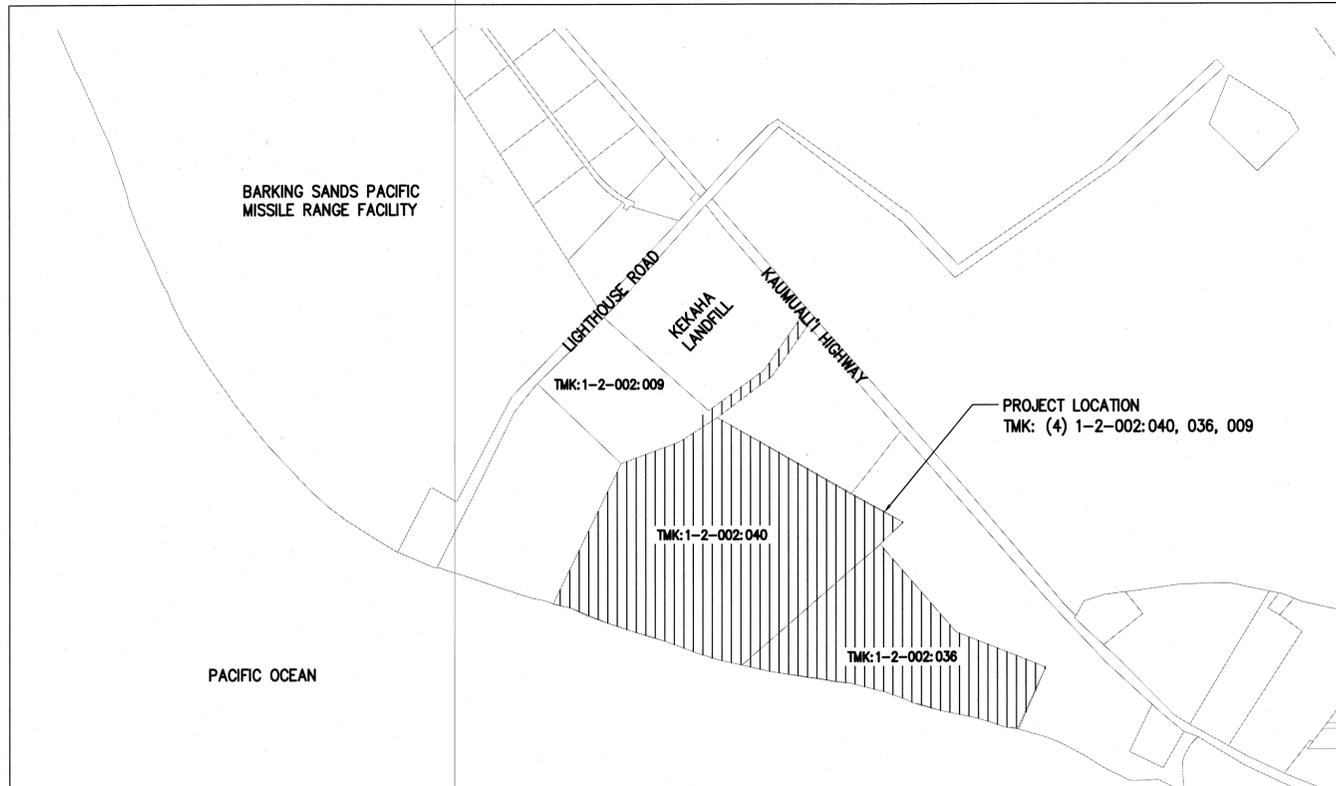
STATE OF HAWAII
 DEPARTMENT OF LAND AND NATURAL RESOURCES
 ENGINEERING DIVISION

JOB NO. 500CK30B

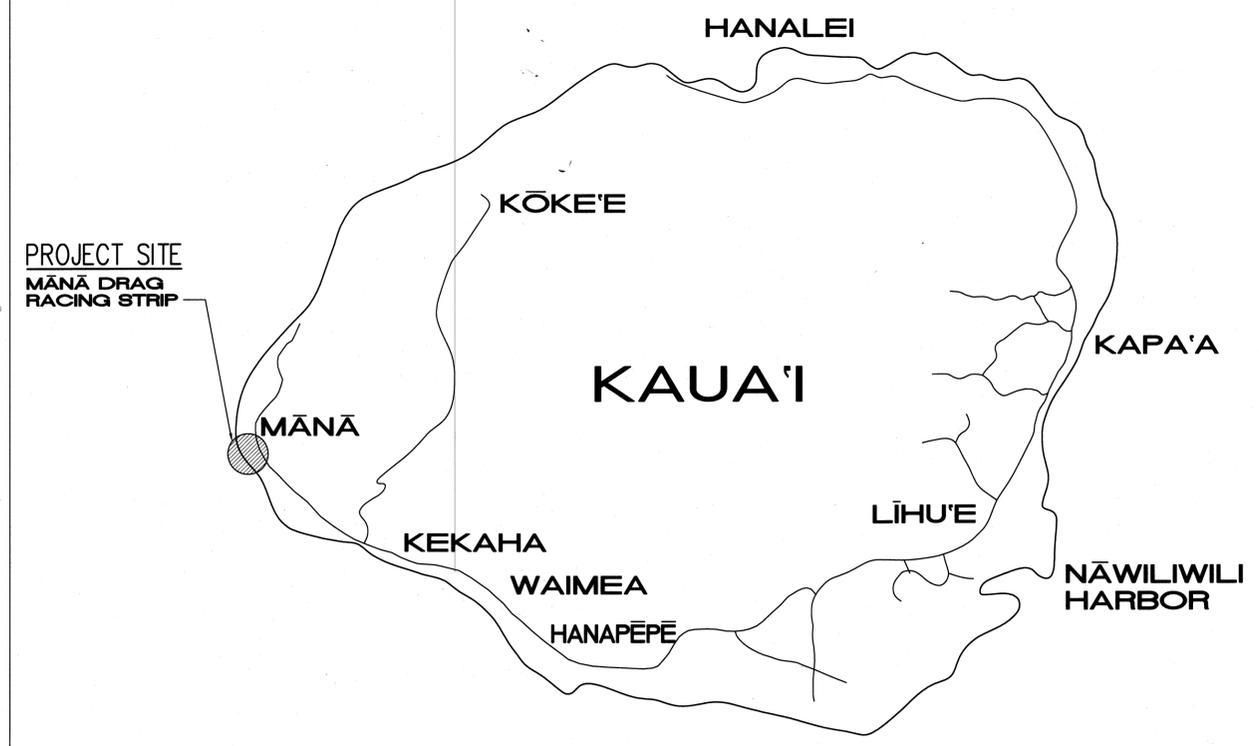
MĀNĀ DRAG RACING STRIP
 IMPROVEMENTS PHASE 2
 ELECTRICAL UPGRADES

KAUA'I, HAWAII

T.M.K.: (4) 1-2-002: 040, 036, 009 (Por.)



LOCATION MAP
 1" = 300'
 (TMK: (4) 1-2-002: 040, 036, 009)



ISLAND OF KAUAI
 NOT TO SCALE

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APPROVED:

C. S. Chang
 CARTY S. CHANG, P.E.
 CHIEF ENGINEER
 ENGINEERING DIVISION
 DEPARTMENT OF LAND AND NATURAL RESOURCES

4/20/16
 DATE

DRAWING NO.
 T-001

CONSTRUCTION NOTES:

- ALL CONSTRUCTION WORK IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE PUBLICATIONS "HAWAII STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2005" AND ITS AMENDMENTS AND THE "STANDARD DETAILS FOR PUBLIC WORKS, CITY AND COUNTY OF HONOLULU, AND THE COUNTIES OF KAUAI, MAUI, AND HAWAII." THE STANDARD DETAILS ARE AVAILABLE AT THE COUNTY OF KAUAI CLERK'S OFFICE.
- CONSTRUCTION PLANS ARE VALID FOR A PERIOD OF ONE YEAR FROM THE DATE OF APPROVAL. IF CONSTRUCTION DOES NOT COMMENCE WITHIN THE ONE YEAR TIME FROM THE DATE OF APPROVAL, THE CONSTRUCTION PLANS SHALL BE RESUBMITTED TO ALL REVIEWING AND APPROVING AGENCIES FOR REVIEW, APPROVAL, AND RECERTIFICATION OF THE PLAN.
- ALL GRUBBING AND STOCKPILING WORK SHALL BE PERFORMED IN ACCORDANCE WITH COUNTY OF KAUAI ORDINANCE NO. 808.
- AFTER EACH RAINFALL EVENT, THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK AND DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS, AND OTHER AREAS. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION BY THE COUNTY ENGINEER SHALL BE PAYABLE BY THE CONTRACTOR.
- DURING CLEANING OPERATIONS, THE CONTRACTOR SHALL SUPPLY A WATER TRUCK FOR DUST CONTROL PURPOSES UNTIL THE VEGETATION HAS RE-ESTABLISHED ITSELF. EXCESS WATER, INCLUDING SILT AND DIRT, SHALL NOT BE ALLOWED TO RUN-OFF THE PROPERTY.
- BENCHMARKS THAT ARE DISTURBED OR DESTROYED SHALL BE RESTORED UNDER A LICENSED LAND SURVEYOR'S DIRECTION. COPIES OF FIELD NOTES, DESCRIPTIONS AND NEW VALUES OF THE NEW BENCHMARK SHALL BE SENT TO THE DEPARTMENT OF PUBLIC WORKS SURVEY SECTION FOR REVIEW AND APPROVAL PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OVERTIME AND/OR NIGHT WORK PAYMENTS FOR COUNTY'S STAFF AND INSPECTION PERSONNEL, INCLUDING CONSULTANTS, WHEN THE CONTRACT REQUIRES OVERTIME OR NIGHT WORK TO BE PERFORMED, OR DIRECTS THE CONTRACTOR TO WORK ADDITIONAL SHIFTS OR OVERTIME FOR COUNTY'S CONVENIENCE.
- BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE EMPLOYED AT ALL TIMES TO THE MAXIMUM EXTENT PRACTICABLE TO PREVENT DAMAGE BY SEDIMENTATION. EROSION OR DUST TO STREAMS, WATERCOURSES, NATURAL AREAS AND THE PROPERTY OF OTHERS.
- SURVEYS SHALL BE DONE UNDER THE SUPERVISION OF A LAND SURVEYOR LICENSED IN THE STATE OF HAWAII.
- IF SYSTEM CONDITIONS REQUIRE NON-EMERGENCY NIGHT TIME WORK DURING THE AUTUMN SEABIRD FALL SEASON (SEPTEMBER 15 THROUGH DECEMBER 15), USE OF LIGHTING SHALL BE RESTRICTED BETWEEN 9:00 P.M. TO 4:30 A.M. IF LIGHTING OF THE WORK AREA IS REQUIRED IN SUCH SITUATION, ALL LIGHTS SHALL BE SHIELDED (MINIMUM LIGHT SPILL TOWARDS THE SKY) AND DIRECTED DOWNWARDS TO THE MAXIMUM EXTENT PRACTICABLE. MINIMUM REQUIREMENTS FOR LIGHTING BY HIOSH AND OSHA SHALL BE PROVIDED AND ASSURED BY THE CONTRACTOR. THE CONTRACTOR SHALL TRAIN ALL EMPLOYEES WORKING AT NIGHT (RECORDS RETAINED BY THE CONTRACTOR) ON HOW TO HANDLE ANY RETRIEVED DOWNED BIRDS AND SHALL HAVE APPROPRIATE EQUIPMENT AS APPROVED BY SAVE OUR SHEARWATERS (SOS) ON SITE TO HOLD AND TRANSPORT ANY RETRIEVED BIRDS TO A SOS FACILITY. THIS REQUIREMENT DOES NOT ALLOW LIGHTING AS MAY BE RESTRICTED BY OTHER GOVERNMENT AGENCIES.
- PRIOR TO STARTING ANY EXCAVATION ACTIVITIES, THE CONTRACTOR SHALL CONTACT THE HAWAII ONE CALL CENTER AT 1-866-423-7287.

WATER POLLUTION AND EROSION CONTROL NOTES:

- GENERAL:**
 - THE CONTRACTOR IS REMINDED OF THE REQUIREMENTS OF SECTION 209 - WATER POLLUTION AND EROSION CONTROL AND SECTION 620- DUST CONTROL IN THE "HAWAII STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" 2005 AND ITS AMENDMENTS. 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 A BMP PLAN APPROVED BY THE DEPARTMENT OF HEALTH.
 - THE CONTRACTOR SHALL FOLLOW THE GUIDELINES IN THE "INTERIM BEST MANAGEMENT PRACTICES MANUAL FOR CONSTRUCTION SITES FOR COUNTY OF KAUAI APRIL 2004" IN DEVELOPING, INSTALLING AND MAINTAINING THE BEST MANAGEMENT PRACTICES (BMPs) FOR THE PROJECT. THE CONTRACTOR MAY SUBMIT ALTERNATE METHODS TO THE ENGINEER FOR ACCEPTANCE.
 - THE CONTRACTOR SHALL KEEP A COPY OF THE APPROVED BMP PLAN, NOI, ETC. ON THE PROJECT SITE. THE BMP PLAN SHALL BE UPDATED TO REFLECT ANY CHANGES MADE DURING THE COURSE OF CONSTRUCTION FOR THE DURATION OF THE PROJECT.
 - THE COUNTY ENGINEER MAY ASSESS LIQUIDATED DAMAGES OF UP TO \$27,500 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.
 - THE COUNTY ENGINEER MAY DEDUCT THE COST FROM THE PROGRESS PAYMENT FOR ALL CITATIONS RECEIVED BY THE DEPARTMENT FOR NON COMPLIANCE, OR THE CONTRACTOR/OWNER SHALL REIMBURSE THE STATE AND/OR COUNTY FOR THE FULL AMOUNT OF THE OUTSTANDING COST INCURRED BY THE STATE AND/OR COUNTY.
- WASTE DISPOSAL:**
 - WASTE MATERIALS: ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER THAT DOES NOT LEAK. 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.
 - HAZARDOUS WASTE: ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATIONS 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.
 - SANITARY WASTE: ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK, OR AS REQUIRED.
- EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:**
 - ALL CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EACH WEEK AND WITHIN 24 HOURS FOLLOWING ANY RAINFALL EVENT OF 0.5 INCHES OR GREATER.
 - ALL MEASURES SHALL BE MAINTAINED IN GOOD WORKING ORDER. IF REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS AFTER THE INSPECTION.
 - BUILT UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
 - 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.
 - TEMPORARY AND PERMANENT SEEDING AND PLANTING SHALL BE INSPECTED FOR BARE SPOTS, WASH OUTS AND HEALTHY GROWTH.
 - THE CONTRACTOR SHALL SUBMIT TO THE COUNTY ENGINEER A MAINTENANCE INSPECTION REPORT PROMPTLY AFTER EACH WEEKLY INSPECTION.
 - 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.
 - 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.

WATER POLLUTION AND EROSION CONTROL NOTES (CONT.):

- ALL SLOPES AND EXPOSED AREAS SHALL BE GRASSED AS FINAL GRADES HAVE BEEN ESTABLISHED. GRADING TO FINAL GRADE SHALL BE CONTINUOUS, AND ANY AREA IN WHICH WORK HAS BEEN INTERRUPTED OR DELAYED OR EXPOSED FOR MORE THAN 15 DAYS SHALL BE GRASSED IN ORDER TO PREVENT DUST EMISSION, EROSION AND SILT RUNOFF. AREAS WITH IMPORTED SOILS SHALL BE GRASSED NO MORE THAN 5 WORKING DAYS AFTER FINAL GRADES HAVE BEEN ESTABLISHED.
- TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED.
- GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES:**
 - 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 OF THE CONSTRUCTION CONTRACTOR'S SITE-SPECIFIC BMP PLAN.

CONCRETE	FERTILIZERS
DETERGENTS	PETROLEUM BASED PRODUCTS
PAINTS (ENAMEL AND LATEX)	CLEANING SOLVENTS
METAL STUDS	WOOD
TAR	MASONRY BLOCK
 - 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 PRODUCTS AS REQUIRED TO DO THE JOB.
 - 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.
 - PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
 - SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
 - A PRODUCT SHALL BE USED UP COMPLETELY BEFORE DISPOSING OF THE CONTAINER.
 - MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.
 - THE CONTRACTOR SHALL CONDUCT A DAILY INSPECTION TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.
- HAZARDOUS MATERIAL POLLUTION PREVENTION PLAN:**
 - PRODUCTS SHALL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
 - ORIGINAL LABELS AND MATERIAL SAFETY DATA SHEETS (MSDS) SHALL BE RETAINED AND MADE AVAILABLE TO THE ENGINEER UPON REQUEST.
 - SURPLUS PRODUCTS SHALL BE DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR LOCAL AND STATE RECOMMENDED REGULATIONS.
- ONSITE AND OFFSITE PRODUCTS SPECIFIC PLANS:**
 - THE FOLLOWING PRODUCT SPECIFIC PRACTICES SHALL BE FOLLOWED ONSITE:

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.
 - FERTILIZERS: APPLY FERTILIZERS USED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, WORK FERTILIZER INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE SHALL BE IN A COVERED SHED.
 - PAINTS: SEAL AND STORE ALL CONTAINERS WHEN NOT REQUIRED FOR USE. DO NOT DISCHARGE EXCESS PAINT TO THE ROADWAY DRAINAGE SYSTEM. DISPOSE PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTION OR STATE AND LOCAL REGULATIONS.
 - CONCRETE TRUCKS: WASH OUT OR DISCHARGE CONCRETE TRUCK DRUM WASH WATER ONLY AT A DESIGNATED SITE. DO NOT DISCHARGE WATER IN ROADWAY DRAINAGE SYSTEM OR WATERS OF THE UNITED STATES. CONTACT DRINKING WATER BRANCH, DEPARTMENT OF HEALTH AT (808) 586-4258 TO RECEIVE PERMISSION TO DESIGNATE A DISPOSAL SITE. CLEAN DISPOSAL SITE AS REQUIRED OR AS REQUESTED BY THE OWNER'S REPRESENTATIVE.

WATER POLLUTION AND EROSION CONTROL NOTES (CONT.):

- SPILL CONTROL PLAN:
- POST A SPILL PREVENTION PLAN TO INCLUDE MEASURES TO PREVENT AND CLEAN UP EACH SPILL.
 - 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 AND IN THE OFFICE TRAILER ONSITE.
 - CLEARLY POST MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP. MAKE SITE PERSONNEL AWARE OF THE PROCEDURES AND THE LOCATION OF INFORMATION AND CLEAN UP SUPPLIES.
 - KEEP MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEAN UP IN THE MATERIAL STORAGE AREA ONSITE.
 - CLEANUP ALL SPILLS IMMEDIATELY AFTER DISCOVERY.
 - KEEP THE SPILL AREA WELL VENTILATED. PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
 - REPORT SPILLS OR TOXIC HAZARDOUS MATERIAL TO THE APPROPRIATE STATE AND LOCAL GOVERNMENT AGENCY, REGARDLESS OF SIZE.
- NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS:**
- THE CONTRACTOR SHALL OBTAIN AND COMPLY WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS FOR KAUAI DISTRICT PERMIT PROJECTS. THIS IS AVAILABLE AT THE KAUAI DISTRICT OFFICE AT 3040 'UMI STREET, SUITE 205. DUE TO POTENTIAL COST IMPACTS, THE CONTRACTOR NEEDS TO BE AWARE OF THESE REQUIREMENTS.
 - THE CONTRACTOR SHALL OBTAIN AND COMPLY WITH NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS FOR ALL PROJECT WHICH WILL DISTURB ONE (1) ACRE OR MORE OF LAND. THE CONTRACTOR SHALL NOT START CONSTRUCTION UNTIL NOTICE OF GENERAL PERMIT COVERAGE (NGPC) IS RECEIVED FROM THE DEPARTMENT OF HEALTH, STATE OF HAWAII AND HAS SATISFIED ANY OTHER APPLICABLE REQUIREMENTS OF THE NPDES PERMIT PROGRAM.
 - THE CONTRACTOR SHALL COMPLETE AND SUBMIT A CONTRACTOR'S CERTIFICATION OF NPDES COMPLIANCE, INCLUDING COMPLETION OF THE BEST MANAGEMENT PRACTICE (BMP) CHECKLIST AND SUBMITTAL OF A WRITTEN BMP PLAN AND DRAWINGS, PRIOR TO ISSUANCE OF THE PERMIT TO PERFORM WORK UPON COUNTY ROADWAYS.

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REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
		STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION MĀNĀ DRAG RACING STRIP IMPROVEMENTS PHASE 2 ELECTRICAL UPGRADES KAUAI, HAWAII			
GENERAL NOTES					
DESIGNED:	JN	SUBMITTED:	<i>[Signature]</i>		
DRAWN:	JN	DATE:	APRIL 2016		
CHECKED:	KHK	SCALE:	AS SHOWN		
APPROVED:	<i>[Signature]</i>		APR 28 2016	DRAWING NO.	T-002
CHIEF ENGINEER		DATE			

ENVIRONMENTAL NOTES:

- IN ACCORDANCE WITH CHAPTER 11-60.1, AIR POLLUTION CONTROL, TITLE 11, HAWAII ADMINISTRATIVE RULES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT EFFECTIVE CONTROL MEASURES ARE PROVIDED TO MINIMIZE OR PREVENT ANY VISIBLE DUST EMISSION CAUSED BY THE CONSTRUCTION WORK FROM IMPACTING THE SURROUNDED AREAS INCLUDING THE OFF-SITE ROADWAYS USED TO ENTER/EXIT THE PROJECT. THESE MEASURES INCLUDE BUT ARE NOT LIMITED TO THE USE OF WATER WAGONS, SPRINKLER SYSTEMS, DUST FENCES, ETC.
- IN ACCORDANCE WITH CHAPTER 11-55, WATER POLLUTION CONTROL AND CHAPTER 11-54, WATER QUALITY STANDARDS, TITLE 11, HAWAII ADMINISTRATIVE RULES, THE PROPERTY OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR ENSURING THAT THE BEST MANAGEMENT PRACTICE (BMP) TO MINIMIZE OR PREVENT THE DISCHARGE OF SEDIMENTS, DEBRIS AND OTHER WATER POLLUTANT INTO STATE WATERS IS PROVIDED AT ALL TIMES.
- IN ACCORDANCE WITH CHAPTER 11-58, SOLID WASTE MANAGEMENT CONTROL, TITLE 11, HAWAII ADMINISTRATIVE RULES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT GRUB MATERIAL, DEMOLITION WASTE AND CONSTRUCTION WASTE GENERATED BY THE PROJECT ARE DISPOSED OF IN A MANNER OR AT A SITE APPROVED BY THE STATE DEPARTMENT OF HEALTH. DISPOSAL OF ANY OF THESE WASTES BY BURNING IS PROHIBITED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL APPLICABLE PERMITS FROM THE DEPARTMENT OF HEALTH INCLUDING BUT NOT LIMITED TO NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES), NOTICE OF INTENT AND GENERAL PERMIT FOR STORM WATER, HYDROSTATIC TEST AND DEWATERING DISCHARGES PRIOR TO COMMENCING CONSTRUCTION. NPDES PERMIT SHALL BE REQUIRED PRIOR TO GRADING OR GRUBBING WORK OVER AN AREA OF ONE ACRE OR MORE.
- AFTER EACH RAINFALL EVENT, THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM THIS WORK AND DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS AND OTHER AREAS. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION BY THE COUNTY ENGINEER SHALL BE PAYABLE BY THE CONTRACTOR.
- BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE EMPLOYED AT ALL TIMES TO THE MAXIMUM EXTENT PRACTICABLE PREVENT DAMAGE BY SEDIMENTATION, EROSION OR DUST TO STREAMS, WATERCOURSES, NATURAL AREAS AND THE PROPERTY OF OTHERS.
- THE CONTRACTOR SHALL OBTAIN AND COMPLY WITH NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS FOR ALL PROJECTS WHICH WILL DISTURB ONE (1) ACRE OR MORE OF LAND. THE CONTRACTOR SHALL NOT START CONSTRUCTION UNTIL NOTICE OF GENERAL PERMIT COVERAGE (NGPC) IS RECEIVED FROM THE DEPARTMENT OF HEALTH, STATE OF HAWAII AND HAS SATISFIED ANY OTHER PERMITTING REQUIREMENTS OF THE NPDES PERMIT PROGRAM.
- IN ACCORDANCE WITH CHAPTER 11-46, COMMUNITY NOISE, HAWAII ADMINISTRATIVE RULES, THE CONTRACTOR AND THE PROPERTY OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR PROVIDING EFFECTIVE CONTROL MEASURES TO MINIMIZE OR PREVENT CONSTRUCTION RELATED NOISE FROM IMPACTING THE RESIDENTS IN THE IMMEDIATE AREA. IF REQUIRED, NOISE REDUCTION MEASURES SHALL BE IMPLEMENTED BY THE CONTRACTOR DURING THE CONSTRUCTION WORK.
- THE PROPERTY MAY HARBOR RODENTS WHICH WILL BE DISPERSED TO THE SURROUNDING AREAS WHEN THE SITE IS CLEARED. IN ACCORDANCE WITH CHAPTER 11-26, ENTITLED VECTOR CONTROL OF TITLE 11, HAR, THE APPLICANT SHALL ASCERTAIN THE PRESENCE OR ABSENCE OF RODENTS ON THE PROPERTY. SHOULD THE PRESENCE OF RODENTS BE DETERMINED, THE APPLICANT SHALL ERADICATE THE RODENTS PRIOR TO CLEARING THE SITE.
- A COPY OF THE PLANS, CONSTRUCTION SCHEDULE AND/OR WRITTEN MEASURES THAT IS REQUIRED TO BE SUBMITTED BY THE CONTRACTOR (DUST CONTROL MEASURES/ PLANS) SHOULD ALSO BE SENT TO THE DEPARTMENT OF HEALTH AND MONITORING PURPOSES.

FLORAL AND FAUNAL RESOURCES:

- CONSTANT VIGILANCE SHALL BE KEPT FOR THE PRESENCE OF PROTECTED SPECIES DURING ALL ASPECTS OF THE PROPOSED ACTION. PROTECTED SPECIES INCLUDE PLANTS AND ANIMALS LISTED OR PROPOSED FOR LISTING AS THREATENED OR ENDANGERED UNDER THE ENDANGERED SPECIES ACT (ESA), BIRDS COVERED UNDER THE MIGRATORY BIRD CONSERVATION ACT, AS WELL AS ALL MARINE MAMMALS. PROTECTED SPECIES OF CONCERN: HAWAIIAN PETREL, NEWELL'S SHEARWATERS, BAND-RUMPED STORM PETREL, HAWAIIAN BLACK-NECKED STILT, HAWAIIAN COOT, HAWAIIAN MOORHEN, HAWAIIAN DUCK, HAWAIIAN GOOSE, BAND-RUMPED STORM PETREL, HAWAIIAN HOARY BAT, GREEN SEA TURTLE, HAWAIIAN MONK SEAL, AND THE PANICUM NIHAUENSE.
- ALL ON-SITE PROJECT PERSONNEL, IRRESPECTIVE OF THEIR EMPLOYMENT ARRANGEMENT OR AFFILIATION (E.G., EMPLOYEE, CONTRACTOR, ETC.), SHALL BE APPRISED OF THE STATUS OF ANY PROTECTED SPECIES POTENTIALLY PRESENT IN THE PROJECT AREA AND THE PROTECTIONS AFFORDED TO THOSE SPECIES UNDER FEDERAL LAWS. BROCHURES EXPLAINING THE LAWS AND GUIDELINES FOR LISTED SPECIES IN HAWAII, AMERICAN SAMOA, AND GUAM MAY BE DOWNLOADED FROM [HTTP://WWW.NMFS.NOAA.GOV/PROT_RES/MMWATCH/HAWAII.HTM](http://www.nmfs.noaa.gov/prot_res/mmwatch/hawaii.htm) AND [HTTP://WWW.FWS.GOV/PACIFICISLANDS/WESA/ENDSPINDEX.HTML#HAWAIIAN](http://www.fws.gov/pacificislands/wesa/endspindex.html#hawaii).
- THE PROJECT FOREMAN SHALL DESIGNATE AN APPROPRIATE NUMBER OF COMPETENT OBSERVERS TO SURVEY THE AREA ADJACENT TO THE PROPOSED ACTION FOR PROTECTED SPECIES. THE PROJECT FOREMAN SHALL ALSO HAVE IN HIS/HER POSSESSION AT THE JOBSITE A HANDOUT WITH PHOTOGRAPHS OF PROTECTED SPECIES. (U.S. FISH AND WILDLIFE SERVICE - PACIFIC ISLANDS FISH AND WILDLIFE OFFICE (PIFWO) WILL PROVIDE THE INFORMATIONAL HANDOUT).

FLORAL AND FAUNAL RESOURCES (CONT.):

- SURVEYS OF THE PROJECT AREA SHALL BE MADE PRIOR TO THE START OF WORK EACH DAY, AND PRIOR TO RESUMPTION OF WORK FOLLOWING ANY BREAK OF MORE THAN ONE HALF HOUR, TO ENSURE THAT NO PROTECTED SPECIES ARE WITHIN 50 YARDS OF THE PROJECT AREA. ALL WORK SHALL BE POSTPONED OR HALTED WHEN PROTECTED SPECIES ARE PRESENT, AND SHALL ONLY BEGIN/RESUME AFTER THE ANIMALS HAVE VOLUNTARILY DEPARTED THE AREA. IN THE CASE OF SESSILE SPECIES, A CONSERVATION PLAN SHALL BE DEVELOPED AND APPROVED BETWEEN THE REGULATORY BRANCH, U.S. ARMY CORPS OF ENGINEERS AND PIFWO AND/OR NATIONAL MARINE FISHERIES SERVICE PACIFIC ISLANDS REGIONAL OFFICE (PIRO).
- IF AN ONSITE PROTECTED SPECIES DOES NOT DEPART THE AREA ON ITS OWN FOR 3 DAYS OR MORE, THE CONTRACTOR SHALL CONTACT PIFWO FOR FURTHER TECHNICAL ASSISTANCE AND GUIDANCE (808) 792-29400.
- ANY INTERACTION WITH OR INCIDENTAL TAKE OF PROTECTED SPECIES SHALL BE REPORTED IMMEDIATELY TO THE REGULATORY BRANCH, U.S. ARMY CORPS OF ENGINEERS (808) 438-9258. ADDITIONALLY, PURSUANT TO THE ESA, ANY TAKE OF ESA-LISTED SPECIES (OTHER THAN MARINE MAMMALS) MUST BE REPORTED TO THE U.S. FISH AND WILDLIFE OFFICE OF LAW ENFORCEMENT IN HONOLULU AT 1-808-861-8525. ANY INCIDENTAL TAKE OF MARINE MAMMALS SHALL BE REPORTED IMMEDIATELY TO THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) 24-HOURS HOTLINE AT 1-888-256-9840. INFORMATION REPORTED MUST INCLUDE THE NAME AND PHONE NUMBER OF A POINT OF CONTACT, LOCATION OF THE INCIDENT, AND NATURE OF THE TAKE AND/OR INQUIRY.
- HAWAIIAN GOOSE
 - PRIOR TO START OF CONSTRUCTION, OR AFTER ANY SUBSEQUENT DELAY IN WORK OF THREE OR MORE DAYS, A BIOLOGIST FAMILIAR WITH THE NESTING BEHAVIOR OF THE HAWAIIAN GOOSE SHALL SURVEY THE AREA. IF A NEST IS DISCOVERED, WORK SHALL IMMEDIATELY CEASE AND THE UNITED STATES FISH AND WILDLIFE SERVICE, PACIFIC ISLANDS FISH AND WILDLIFE OFFICE (USFWS) SHALL BE CONTACTED.
 - ALL ON-SITE PROJECT PERSONNEL SHOULD BE APPRISED THAT HAWAIIAN GEESSE MAY BE IN THE VICINITY OF THE PROJECT AT ANY TIME DURING THE YEAR.
 - IF A HAWAIIAN GOOSE (OR GEESSE) APPEARS WITHIN 100 FEET OF ONGOING WORK, ALL ACTIVITY SHALL BE TEMPORARILY SUSPENDED UNTIL THE HAWAIIAN GOOSE (OR GEESSE) LEAVES THE AREA OF ITS OWN ACCORD.
- HAWAIIAN HOARY BAT
 - REMOVING, TRIMMING, OR OTHERWISE DISTURBING TREES GREATER THAN 15 FEET TALL DURING THE HOARY BAT AND PUP REARING SEASON HAS THE POTENTIAL TO IMPACT HOARY BATS AND THEIR PUPS. THE CUTTING OR REMOVING OF SUCH TREES SHALL NOT OCCUR BETWEEN JUNE 1 AND SEPTEMBER 15 TO THE EXTENT POSSIBLE. IF DISTURBANCE OF SUCH TREES IS NECESSARY BETWEEN JUNE 1 AND SEPTEMBER 15, A SURVEY SHALL FIRST BE CONDUCTED BY A KNOWLEDGEABLE WILDLIFE BIOLOGIST TO PREVENT DISTURBANCE OF THE HOARY BAT.
- SEABIRDS
 - CONSTRUCTION ACTIVITIES SHALL BE LIMITED DURING DAYLIGHT HOURS, ESPECIALLY DURING PEAK FALLOUT PERIOD OF SEPTEMBER 15 THROUGH DECEMBER 15.
 - SEABIRDS ARE SUSCEPTIBLE TO COLLISIONS WITH OBJECTS THAT PROTRUDE ABOVE THE VEGETATION LAYER, SUCH AS UTILITY LINES AND EXTENDED EQUIPMENT.
- HAWAIIAN WATERBIRDS
 - PRIOR TO THE START OF CONSTRUCTION, THE USFWS SHALL BE NOTIFIED AND A BIOLOGIST FAMILIAR WITH THE BEHAVIORS OF THE HAWAIIAN WATERBIRD, SHALL SURVEY THE AREA. A REPORT OF THE PRECONSTRUCTION SURVEY AND FINDINGS SHALL BE SUBMITTED TO USFWS PRIOR TO THE START OF CONSTRUCTION.
 - IF A NEST IS DISCOVERED, THE USFWS SHALL BE CONTACTED IMMEDIATELY. A 100-FOOT BUFFER SHALL BE ESTABLISHED AND MAINTAINED AROUND ALL ACTIVE NESTS AND/OR BROODS UNTIL THE CHICKS/DUCKLINGS HAVE FLEDGED. NO POTENTIALLY DISRUPTIVE ACTIVITIES OR HABITAT ALTERATION SHALL OCCUR WITHIN THIS BUFFER.
 - A BIOLOGICAL MONITOR(S) SHALL BE PRESENT ON THE PROJECT SITE DURING ALL CONSTRUCTION OR EARTH MOVING ACTIVITIES TO ENSURE THAT THE HAWAIIAN WATERBIRDS AND NESTS ARE NOT ADVERSELY IMPACTED. IF A LISTED HAWAIIAN WATERBIRD IS OBSERVED WITHIN THE PROJECT SITE, OR FLIES INTO THE SITE WHILE ACTIVITIES ARE OCCURRING, ALL ACTIVITIES WITHIN 100 FEET OF THE INDIVIDUAL SHALL BE TEMPORARILY SUSPENDED UNTIL THE HAWAIIAN WATERBIRD LEAVES THE AREA OF ITS OWN ACCORD.
 - A POST CONSTRUCTION REPORT SHALL BE SUBMITTED TO THE UFWFS WITHIN 30 DAYS OF THE COMPLETION OF THE PROJECT. THE REPORT SHALL INCLUDE THE RESULTS OF THE HAWAIIAN WATERBIRD SURVEYS, THE LOCATION AND OUTCOME OF DOCUMENTED NESTS, AND ANY OTHER RELEVANT INFORMATION.

HISTORICAL PRESERVATION NOTES:

- SHOULD HISTORIC REMAINS SUCH AS ARTIFACTS, BURIALS, CONCENTRATION OF SHELL OR CHARCOAL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, WORK SHALL CEASE IMMEDIATELY IN THE IMMEDIATE VICINITY OF THE FIND AND THE FIND SHALL BE PROTECTED FROM FURTHER DAMAGE. THE CONTRACTOR SHALL CORDON OFF THE AREA AND IMMEDIATELY NOTIFY THE PLANNING DEPARTMENT AT (808) 241-4050, KALIKO SANTOS AT THE OHA KAUAI OFFICE AT (808) 241-3506, AND THE STATE HISTORIC PRESERVATION DIVISION AT (808) 692-8015, WHICH WILL ASSESS THE SIGNIFICANCE OF THE FIND AND RECOMMEND THE APPROPRIATE MITIGATION MEASURES, IF NECESSARY. IN ADDITION, IF HUMAN BURIALS ARE FOUND, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COUNTY OF KAUAI POLICE DEPARTMENT.

PUBLIC HEALTH, SAFETY, AND CONVENIENCE NOTES:

- CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH, SAFETY AND ENVIRONMENTAL QUALITY.
- THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AND ITS SURROUNDING AREAS FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH. THE COUNTY AND STATE SHALL REQUIRE SUPPLEMENTARY MEASURES IF REQUIRED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANING AND REMOVAL OF ALL SILT AND DEBRIS GENERATED BY HIS WORK AND DEPOSITED AND ACCUMULATED WITHIN DOWNSTREAM WATERWAYS, DITCHES AND DRAIN PIPES AND PUBLIC AND PRIVATE ROADWAYS. THE CONTRACTOR AGREES TO REIMBURSE THE STATE OF HAWAII FOR ALL COSTS EXPENDED IN PERFORMANCE OF ABOVE WORK IF REQUIRED FOR PUBLIC HEALTH AND SAFETY OR MADE NECESSARY BY NON-PERFORMANCE BY THE CONTRACTOR.
- THE CONTRACTOR SHALL NOT PERFORM ANY CONSTRUCTION OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW INTO EXISTING CITY OR STATE DRAINAGE SYSTEMS, OR ADJOINING PROPERTIES, STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATIONS OCCUR, THE CONTRACTOR MAY BE CITED AND THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS NECESSARY.
- THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, MARKERS, CONES, AND OTHER PROTECTIVE FACILITIES AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION, CONVENIENCE AND SAFETY OF THE PUBLIC.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO CHAPTER 46, PUBLIC HEALTH REGULATIONS, STATE DEPARTMENT OF HEALTH, STATE OF HAWAII, "COMMUNITY NOISE CONTROL," IN WHICH MAXIMUM PERMISSIBLE NOISE LEVELS HAVE BEEN SET. IF THE CONSTRUCTION WORK REQUIRES A PERMIT FROM THE STATE DIRECTOR OF HEALTH, THE CONTRACTOR SHALL OBTAIN A COPY OF CHAPTER 46 AND BECOME FAMILIAR WITH THE NOISE LEVEL RESTRICTIONS AND THE PROCEDURES FOR OBTAINING A PERMIT FOR THE CONSTRUCTION ACTIVITIES. APPLICATION AND INFORMATION ON VARIANCES ARE AVAILABLE FROM THE ENVIRONMENTAL PROTECTION AND HEALTH SERVICES DIVISION, 1250 PUNCHBOWL ST., HONOLULU, HI 96813 OR BY TELEPHONE (586-4576).

ABBREVIATIONS

A.C.	ASPHALT CONCRETE
BC	BOTTOM CURB
BOT.	BOTTOM
BW	BOTTOM WALL
CL	CENTERLINE
C.L.	CHAIN-LINK
CONC.	CONCRETE
DET.	DETAIL
DWG.	DRAWING
E/ELEC.	ELECTRIC
ELEV./EL.	ELEVATION
EOP	EDGE OF PAVEMENT
EXIST.	EXISTING
GIRA	GARDEN ISLE RACING ASSOCIATION
LF	LINEAR FOOT
LP	LIGHT/LAMP POLE
MAX.	MAXIMUM
MIN.	MINIMUM
O.C.	ON CENTER
PAV'T	PAVEMENT
P	PROPERTY LINE
P.P.	POWER POLE
S	SLOPE
SL	STREET LIGHT
SN	SIGN
STA	STATION
STD.	STANDARD
TC	TOP CURB
TMK	TAX MAP KEY
TP	TOP PIPE OR TOP PAVEMENT
TYP.	TYPICAL
UP	UTILITY POLE
W	WATER
WL	WATERLINE
WV	WATER VALVE BOX
WVHH	WATER VALVE HAND HOLE

SHEET NUMBERING NOMENCLATURE

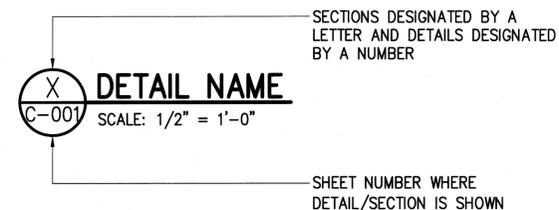
ALL SHEETS WILL BE NUMBERED BEGINNING WITH A LETTER FOLLOVED BY DASH "-" AND TWO NUMBERS AS FOLLOWS:

C-001

T- TITLE
C- CIVIL
E- ELECTRICAL

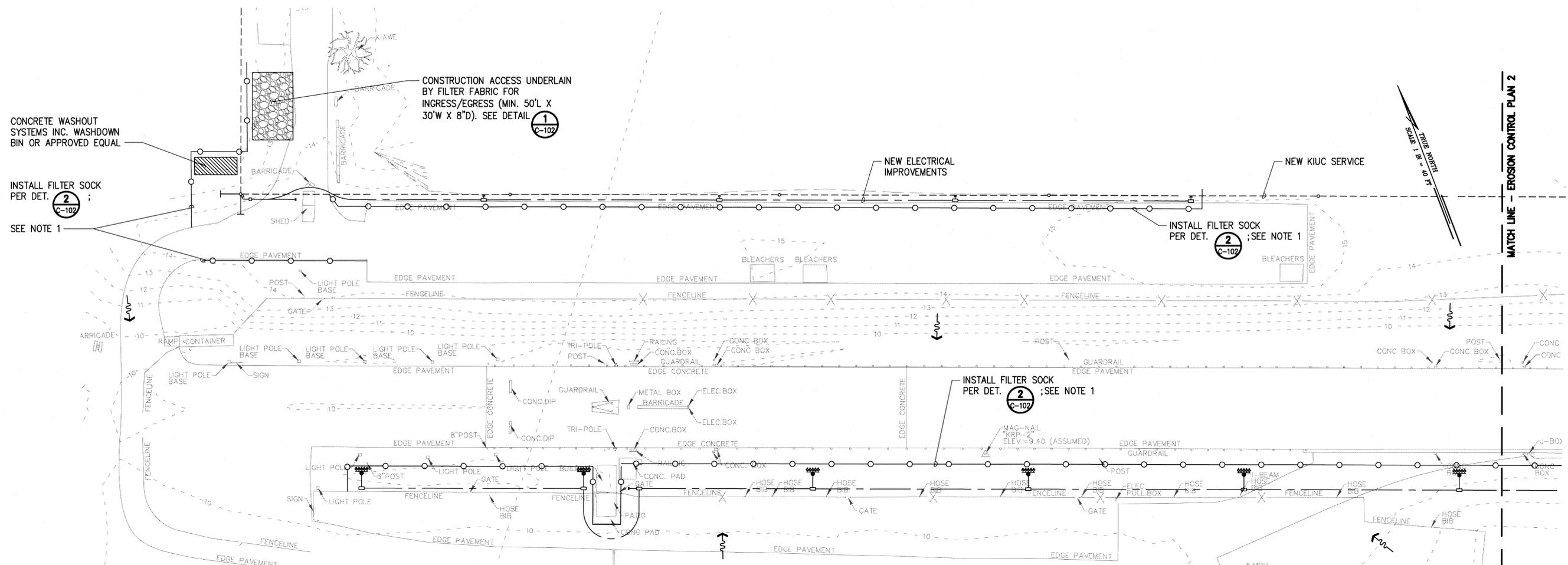
SHEET NUMBER
DISCIPLINE LETTER

DETAIL/SECTION TITLE



REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION MANA DRAG RACING STRIP IMPROVEMENTS PHASE 2 ELECTRICAL UPGRADES KAUAI, HAWAII					
GENERAL NOTES AND ABBREVIATIONS					
DESIGNED: JN	SUBMITTED: <i>[Signature]</i>				
DRAWN: JN	DATE: APRIL 2016				
CHECKED: KHK	SCALE: AS SHOWN				
APPROVED: <i>[Signature]</i>	DRAWING NO. T-003				
CHIEF ENGINEER		APR 28 2016	DATE		

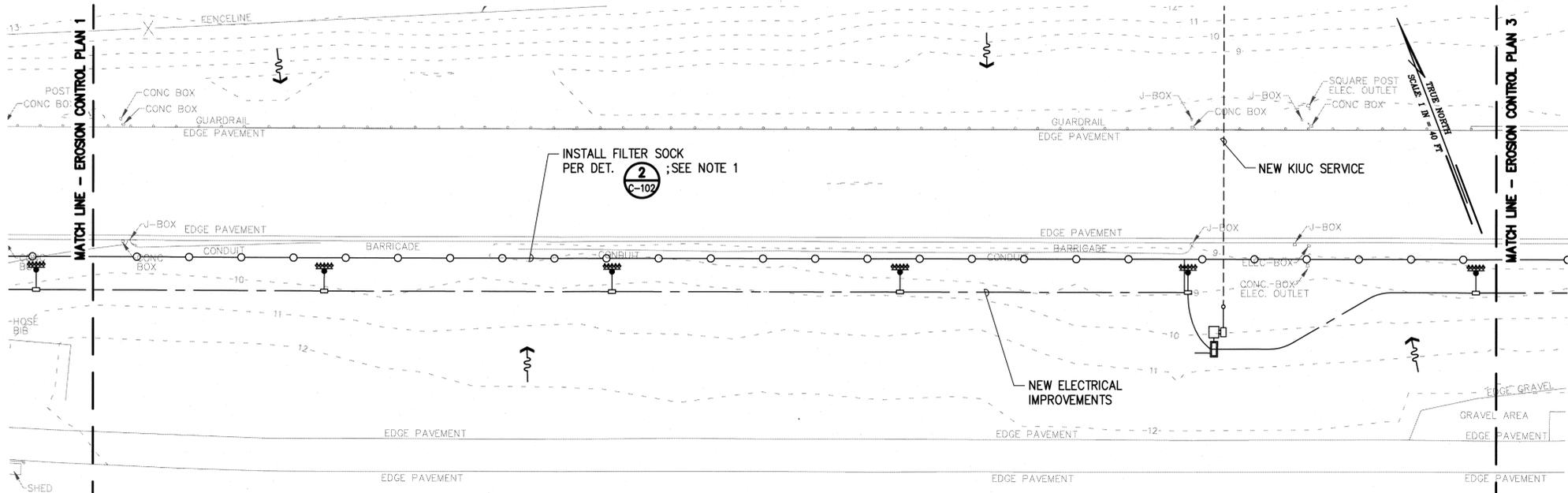
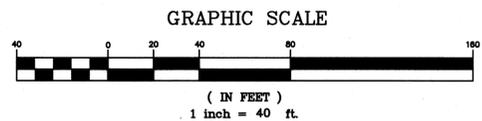
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EROSION CONTROL PLAN 1
SCALE: 1"=40'

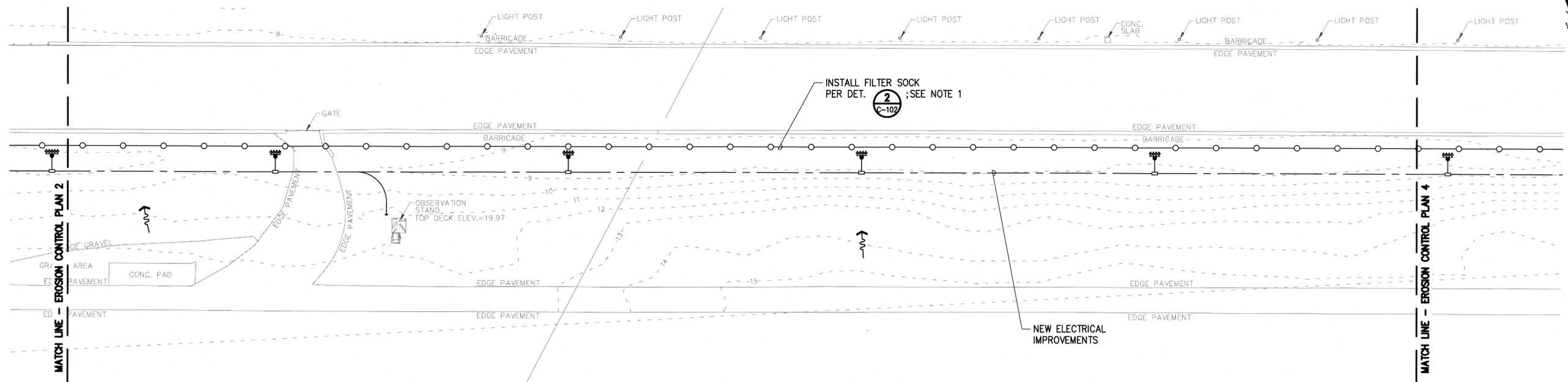
- LEGEND**
- FILTER SOCK
 - CONCRETE WASHDOWN BIN
 - CONSTRUCTION ACCESS
 - FLOW DIRECTION

- NOTES:**
1. THE CONTRACTOR SHALL INSTALL TEMPORARY FILTER SOCKS AS SHOWN ON PLAN AROUND THE AREA OF WORK AWARDED/ANTICIPATED AND AS DIRECTED BY THE ENGINEER.



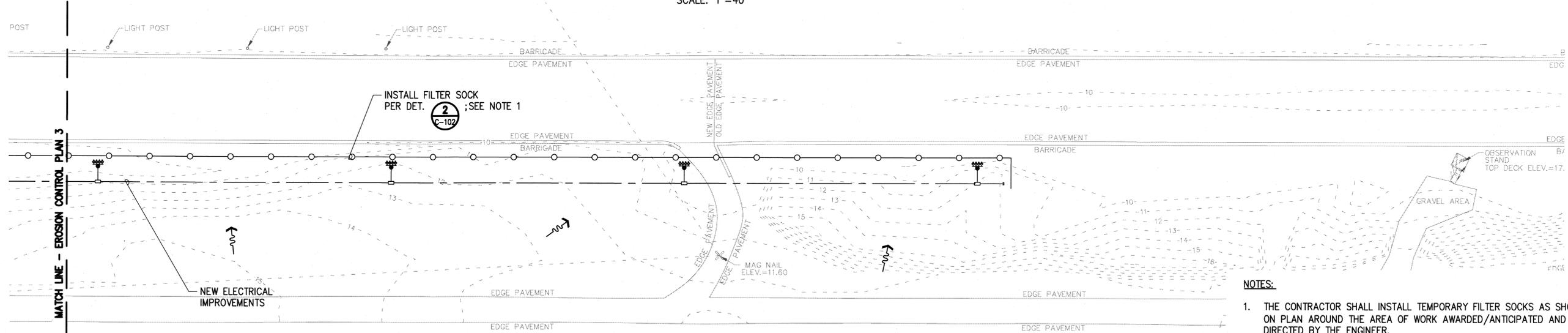
EROSION CONTROL PLAN 2
SCALE: 1"=40'

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION MĀNĀ DRAG RACING STRIP IMPROVEMENTS PAHSE 2 ELECTRICAL UPGRADES KAUAĪ, HAWAĪI					
EROSION CONTROL PLAN 1 & 2					
DESIGNED:	JN	SUBMITTED:			
DRAWN:	JN	DATE:	APRIL 2016		
CHECKED:	KHK	SCALE:	AS SHOWN		
APPROVED:		DATE:	APR 28 2016		
CHIEF ENGINEER		DRAWING NO.		C-101	



EROSION CONTROL PLAN 3

SCALE: 1"=40'

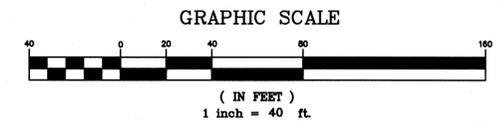


EROSION CONTROL PLAN 4

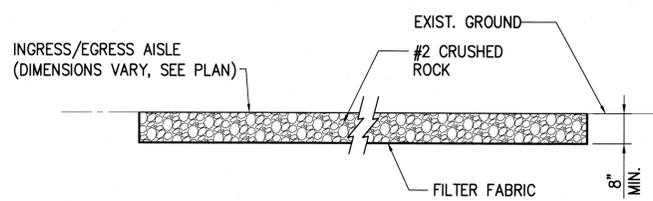
SCALE: 1"=40'

NOTES:

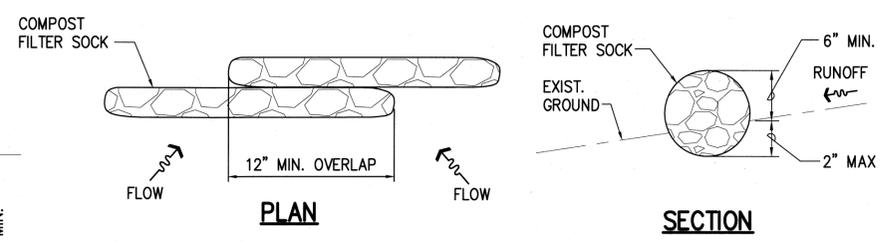
1. THE CONTRACTOR SHALL INSTALL TEMPORARY FILTER SOCKS AS SHOWN ON PLAN AROUND THE AREA OF WORK AWARDED/ANTICIPATED AND AS DIRECTED BY THE ENGINEER.



- LEGEND**
- FILTER SOCK
 - FLOW DIRECTION



1 INGRESS/EGRESS AISLE DETAIL
SCALE: NOT TO SCALE



2 FILTER SOCK DETAIL
SCALE: NOT TO SCALE

NOTE:

1. FILTER SOCK SHALL BE MANUFACTURED BY FILTREXX INTERNATIONAL, LLC, OR APPROVED EQUAL, AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
2. COMPOST SHALL NOT CONTAIN BIOSOLIDS AND SHOULD BE CONSISTENT WITH EPA GUIDELINES.
3. CONTRACTOR IS NOT REQUIRED TO STAKE COMPOST FILTER SOCKS BUT SHALL ENSURE FILTER SOCKS REMAIN IN PLACE TO PROVIDE ADEQUATE PROTECTION.
4. CONTRACTOR SHALL ENSURE THAT BEST MANAGEMENT PRACTICES ARE IN PLACE AT ALL TIMES DURING CONSTRUCTION TO THE MAXIMUM EXTENT PRACTICABLE.
5. CONTRACTOR SHALL RESTORE ALL DISTURBED SURFACES TO EXISTING CONDITION OR BETTER AT NO ADDITIONAL COST TO THE STATE.

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION MĀNĀ DRAG RACING STRIP IMPROVEMENTS PHASE 2 ELECTRICAL UPGRADES KAUAʻI, HAWAII					
EROSION CONTROL PLAN 3 & 4					
MISCELLANEOUS DETAILS					
DESIGNED:	JN	SUBMITTED:			
DRAWN:	JN	DATE:	APRIL 2016		
CHECKED:	KHK	SCALE:	AS SHOWN		
APPROVED:			DATE:	APR 28 2016	
CHIEF ENGINEER			DATE	APR 28 2016	
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.					C-102

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MOUNTING HEIGHT	ELECTRICAL LEGEND	
TO CENTER	SYMBOLS	DESCRIPTION
		POLE-MOUNTED METAL HALIDE SPORTS FLOODLIGHT
		LIGHTING POLE
		OVERHEAD SERVICE POLE
		POLE-MOUNTED TRANSFORMER
		OVERHEAD SERVICE LINE
		UNDERGROUND CONDUIT OR DUCTLINE IN SLAB OR BELOW GRADE
		CONDUIT STUB WITH CAP AND MARKER, UNDERGROUND
18"		RECEPTACLE, DUPLEX, NEMA 5-20R, GFCI, WEATHERPROOF
		TRANSFORMER
		GROUND
		CIRCUIT BREAKER
		CONTACTOR
		PUSHBUTTON
		CURRENT TRANSFORMER
		ELECTRICAL METER
		PAD-MOUNTED TRANSFORMER
		PAD-MOUNTED SWITCHBOARD
		ELECTRICAL HANDHOLE
		DUCT SECTION TAG
		NOTE DESIGNATION

ELECTRICAL ABBREVIATIONS			
AIC	AMPERE-INTERRUPTING CAPACITY	MH	METAL HALIDE
ACI	AMERICAN CONCRETE INSTITUTE	NEC	NATIONAL ELECTRICAL CODE
AMP, A	AMPERE	NEMA	NATIONAL ELECTRICAL MANUFACTURE'S ASSOCIATION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
AWG	AMERICAN WIRE GAUGE	N.C.	NORMALLY CLOSED
C	CONDUIT, CONDUCTOR	N.O.	NORMALLY OPEN
CKT	CIRCUIT	NO.,#	NUMBER
EHH	ELECTRICAL HAND HOLE	O/H	OVERHEAD
FLP	FLOODLIGHT POLE	PFB	PROVISION FOR FUTURE BREAKER
GFCI	GROUND FAULT CIRCUIT INTERRUPTOR	PSI	POUNDS PER SQUARE INCH
GND	GROUND	PVC	POLYVINYL CHLORIDE
GRS	GALVANIZED RIGID STEEL	V	VOLTS
IMC	INTERMEDIATE METAL CONDUIT	W	WIRE, WIDE, WATTS, WITH
KCMIL	ONE THOUSAND CIRCULAR MILS	WP	WEATHERPROOF
KIUC	KAUAI ISLAND UTILITY COOPERATIVE	WT	WEIGHT
KV	KILO-VOLT	∅	PHASE
KVA	KILO-VOLT AMPERE	'	FOOT, FEET
KW	KILOWATT	"	INCH, INCHES
LBS	POUNDS	&	AND
EL	FLOOD ZONE ELEVATION	SS	STAINLESS STEEL

ELECTRICAL GENERAL NOTES

- WORK INCLUDES INSTALLATION OF ALL ELECTRICAL SYSTEMS COMPLETE AND OPERATIONAL AS LIMITED BY THE INTENT OF THE CONTRACT DOCUMENTS. ALL WORK SHOWN ON ELECTRICAL DRAWINGS IS NEW UNLESS OTHERWISE NOTED.
- CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO COMMENCEMENT OF NEW WORK.
- PERFORM ELECTRICAL WORK IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70), NATIONAL ELECTRICAL SAFETY CODE, AND ALL LOCAL RULES AND REGULATIONS.
- OBTAIN ALL NECESSARY PERMITS AS REQUIRED.
- PROVIDE COMPRESSION TYPE FITTINGS FOR EMT CONDUITS AT EXTERIOR LOCATIONS. SET SCREW FITTINGS ARE PROHIBITED AT EXTERIOR LOCATIONS AND WILL NOT BE APPROVED. PROVIDE GALVANIZED MALLEABLE IRON FOR ALL OTHER FITTINGS.
- SIZE ALL CONDUIT PER THE NATIONAL ELECTRICAL CODE UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
- PROVIDE SOLID COPPER, 600 VOLT INSULATION TYPE THWN POWER CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS #10 AND SMALLER.
- PROVIDE AN INSULATED GREEN GROUNDING CONDUCTOR, SIZED PER TABLE 250-122 OF THE NATIONAL ELECTRICAL CODE, FOR ALL CIRCUITS. INSTALL THIS CONDUCTOR IN ALL RACEWAYS INCLUDING THOSE INSTALLED FOR SWITCH LEGS AND ATTACH TO THE DEVICE, LUMINAIRE, OR EQUIPMENT USING A SUITABLE GROUNDING LUG.
- PROVIDE AND INSTALL ALL JUNCTION AND PULLBOXES REQUIRED FOR THE INSTALLATION OF ELECTRICAL DEVICES AND EQUIPMENT, WHETHER OR NOT SPECIFICALLY INDICATED ON THE PLANS. SIZE BOXES PER THE NATIONAL ELECTRICAL CODE.
- SHOULD PROJECT CONDITIONS REQUIRE REARRANGEMENT OF WORK, MARK SUCH CHANGES ON THE AS-BUILT DRAWINGS.
- SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR ALL LUMINAIRES, EQUIPMENT AND DEVICES COVERED BY THIS CONTRACT FOR APPROVAL PRIOR TO ORDERING.
- THE MINIMUM CONDUIT SIZE IS 1" FOR EXTERIOR UNDERGROUND USE. ACCEPTABLE CONDUITS FOR EXTERIOR USE ARE PVC SCH40, PVC SCH80, GRS, IMC.
- PAINT ALL EXPOSED CONDUITS TO MATCH ADJACENT SURFACES.
- ALL EXPOSED METAL (BOXES, SUPPORTS, HARDWARE, ETC.) SHALL BE 316 STAINLESS STEEL.
- TONE AND LOCATE ALL UTILITY LINES WITHIN THE PROJECT AREA PRIOR TO START OF EXCAVATION. REPAIR OR PAY FOR ALL DAMAGES TO EXISTING UTILITIES.
- COORDINATE ALL EXTERIOR UTILITY DISTRIBUTION WORK WITH KAUAI ISLAND UTILITY COOPERATIVE.
- PER NEC 110, MANUFACTURERS ARE REQUIRED TO PROVIDE LABEL ON ELECTRICAL EQUIPMENT SUCH AS SWITCHBOARDS, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTERS TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. ENSURE THAT ALL ELECTRICAL APPARATUS ARE PROVIDED WITH THIS LABEL.
- IN PERFORMING ALL WORK, THE CONTRACTOR SHALL EXERCISE DUE CARE AND CAUTION NECESSARY TO AVOID ANY DAMAGE TO AND IMPAIRMENT IN THE USE OF ANY EXISTING UTILITY LINE, ANY DAMAGE INFLICTED ON EXISTING LINES/UTILITIES RESULTING FROM CONTRACTORS OPERATIONS SHALL BE REPAIRED AND RESTORED AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL COORDINATE ALL ELECTRIC UTILITY WORK WITH THE ELECTRIC COMPANY PRIOR TO STARTING WORK. CONTRACTOR SHALL PAY FOR ALL ELECTRIC COMPANY CHARGES (INCLUDING METER INSTALLATION, CONNECTION, MONTHLY USAGE, DEMAND, CUSTOMER SURCHARGES, AND BASE RATE CHARGES) UNTIL THE PROJECT IS COMPLETED AND ACCEPTED BY THE STATE.
- ALL WORK SHOWN ON ELECTRICAL DRAWINGS IS NEW UNLESS OTHERWISE NOTED.

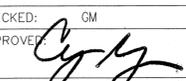
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REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
		 STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION MĀNĀ DRAG RACING STRIP IMPROVEMENTS PHASE 2 ELECTRICAL UPGRADES KAUAI, HAWAII ELECTRICAL LEGEND, ABBREVIATIONS, AND GENERAL NOTES			
DESIGNED: KH		SUBMITTED:			
DRAWN: KH		DATE: APRIL 2016			
CHECKED: GM		SCALE: AS SHOWN			
APPROVED:		DATE: APR 28 2016		DRAWING NO.: E-001	
CHIEF ENGINEER					

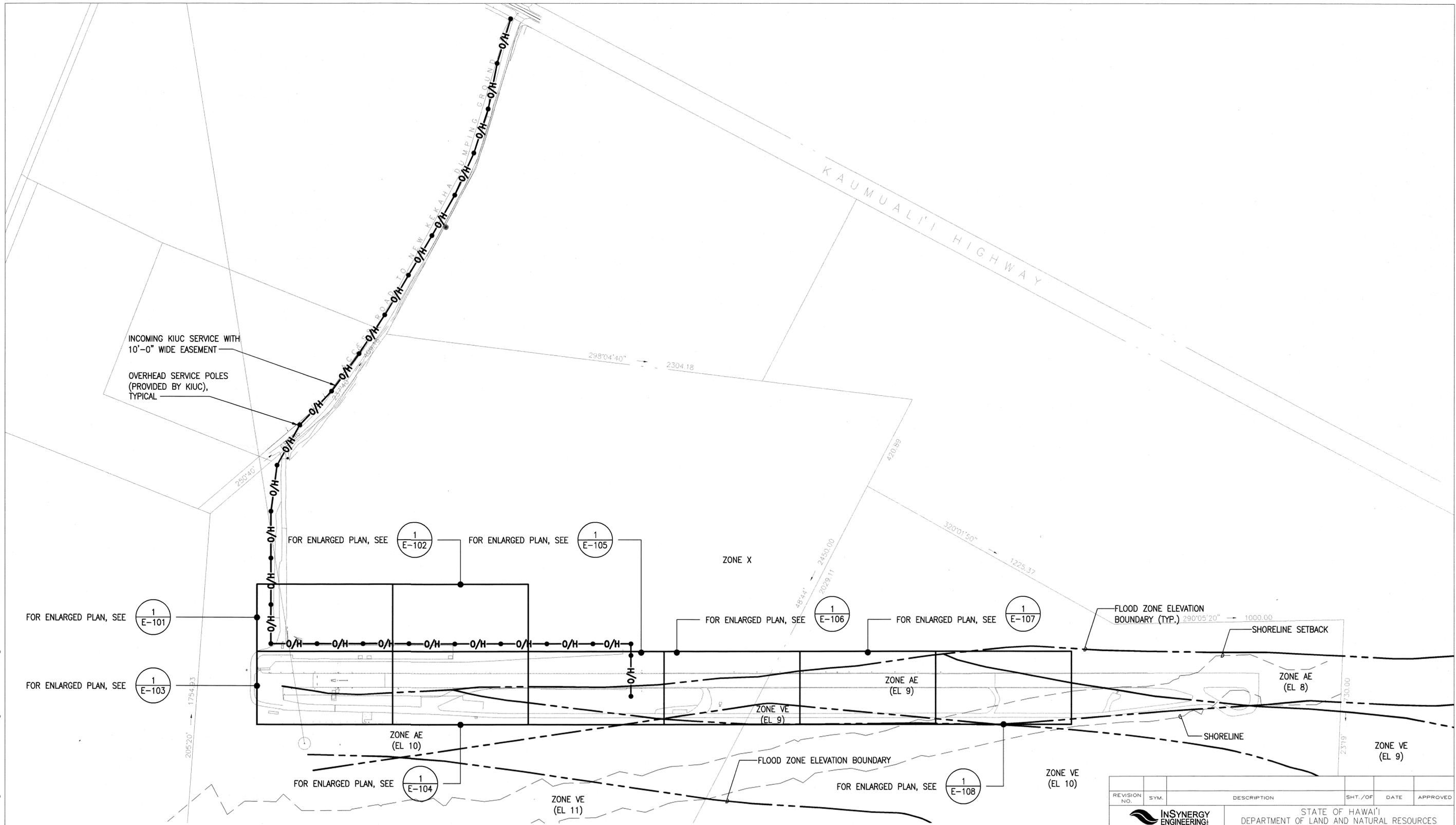
KAUAI ISLAND UTILITY COOPERATIVE UNDERGROUND CONSTRUCTION NOTES AND REQUIREMENTS

1. THESE NOTES ARE NOT INTENDED TO BE USED IN PLACE OF THE SERVICE INSTALLATION MANUAL, PLEASE REFER TO SERVICE INSTALLATION MANUAL FOR ALL SERVICE ISSUES.
2. CONTRACTOR SHALL CONTACT KAUAI ISLAND UTILITY COOPERATIVE'S ("KIUC") CONSTRUCTION COORDINATOR/INSPECTOR PRIOR TO START OF WORK ON KE FACILITIES AND FOR SCHEDULING SITE INSPECTIONS. [WESTSIDE: 246-2323; EASTSIDE: 246-4343]
3. CONTRACTOR SHALL CONTACT KIUC'S DISTRIBUTION PLANNING COORDINATOR @ 246-2373 FOR DESIGN APPROVALS, STANDARD DETAIL DRAWINGS, AND ANY ITEMS NOT ADDRESSED IN THESE NOTES OR DRAWINGS.
4. ALL CONTRACTORS ENTERING KIUC FACILITIES MUST BE APPROVED BY KIUC AND MUST HAVE PROPER LICENSING AND INSURANCE COVERAGE. CONTACT KIUC LEGAL COORDINATOR @ 246-4369 FOR DETAILS.
5. ALL TRENCHES AND PULLBOXES MUST BE INSPECTED BY KIUC PRIOR TO BACKFILLING AND CONCRETE-ENCASING OPERATIONS. FOR DETAILED TRENCHING AND BACKFILLING REQUIREMENTS REFER TO KIUC'S SERVICE INSTALLATION MANUAL.
6. THE CONTRACTOR SHALL PROVIDE A POLY-LINE 200 LB. TEST LINE OR EQUIVALENT AS A PULLING WIRE IN ALL 1",2",3" & 4" CONDUITS. IN 5" AND 6" CONDUITS, THE CONTRACTOR SHALL INSTALL NEPTCO WP1800 MULETAPE AS A PULLING LINE.
7. ALL CONDUITS, PULLBOXES, HANDHOLES, & MANHOLES SHALL BE CLEANED AND FREE FROM OBJECTIONABLE MATERIALS. CONDUIT ENDS SHALL BE ADEQUATELY COVERED UNTIL THE CONDUCTOR IS INSTALLED BY THE ELECTRIC COMPANY. (COVER'S SHALL BE CARLON PLUG WITH PULL TAB SERIES P258 EQUIVALENT OR BETTER)
8. FOR ALL CONDUIT OTHER THAN SERVICES, REFER TO CONDUIT SCHEDULE ON DRAWINGS.
9. FOR ALL SERVICES WHERE THE CONDUCTOR IS 1/0 OR LESS, THE DISTANCE FROM KIUC'S HANDHOLE AND CUSTOMER'S METER IS LESS THAN 125 FEET, AND NOT CROSSING ANY DRIVEWAYS OR ROADS THE CONDUIT SHALL BE 2 INCH SCHEDULE 40 PVC. FOR SERVICES GREATER THAN 125 FEET, CONTACT KIUC PLANNER FOR FIELD VERIFICATION AND UNDERGROUND SERVICE REQUIREMENTS. ANY DEVIATIONS WILL REQUIRE KIUC WRITTEN APPROVAL.
10. PRIMARY AND SECONDARY CONDUITS FOR NEW LINE EXTENSIONS SHALL BE SCHEDULE 40 PVC. (CARLON P&C DUCT TYPE DB EQUIVALENT OR BETTER.) UNDER DRIVEWAYS AND ROADWAYS, THE CONDUITS SHALL BE ENCASED IN A MINIMUM OF 3 INCH CONCRETE JACKET EXTENDING 12" OUTSIDE THE EDGE OF PAVEMENT.
11. SCHEDULE 80 PVC CONDUIT MAY BE SUBSTITUTED FOR THE CONCRETE ENCASED SCHEDULE 40 PVC FOR SERVICE CONDUIT ONLY CROSSING UNDER UNPAVED PRIVATE DRIVEWAYS & ROADWAYS FROM KIUC POLE/HANDHOLE TO CUSTOMER'S METER. IF CONCRETE DRIVEWAY WILL BE BUILT OVER SERVICE CONDUIT IMMEDIATELY AFTER CONDUIT IS INSTALLED, THAN SCHEDULE 40 PVC MAY BE USED PROVIDED THAT IT MEETS WITH RULE NO. 21.
12. ALL PRIMARY AND SECONDARY CONDUITS WHICH ARE CROSSING STATE OR COUNTY ROADWAYS SHALL BE SCHEDULE 40 PVC ENCASED IN A MINIMUM OF 3 INCH CONCRETE JACKET, WHICH SHALL EXTEND A MINIMUM OF 12 INCHES OUTSIDE OF THE EDGE OF PAVEMENT.
13. ELECTRICAL SUPPLY DUCTS, WHEN INSTALLED NEAR COMMUNICATION CABLES, SHALL BE SEPARATED FROM COMMUNICATION DUCT SYSTEMS AND BURIED COMMUNICATION CABLES OR CONDUCTORS BY NOT LESS THAN 3 INCHES OF CONCRETE OR 12 INCHES OF EARTH WHEN PARALLELING OR CROSSING.
14. CHAIRS SHALL BE INSTALLED AND SPACED AT A MAXIMUM OF 5 FEET SEPARATION WHEN CONCRETE ENCASING CONDUITS.
15. ALL CONDUITS SHALL ENTER BOXES AT 90 DEGREE ANGLE, PERPENDICULAR AND FLUSH TO THE WALL WITH BELL ENDS TO PREVENT CABLE DAMAGE.
16. 90 DEGREE CONDUIT BENDS SHALL BE FACTORY MADE WITH A MINIMUM RADIUS OF 3 FEET IN TRENCH RUNS.
17. CONDUIT BENDS EXCEEDING 90 DEGREES WILL NOT BE ACCEPTED.
18. A 36 INCH MINIMUM HORIZONTAL CLEARANCE SHALL BE MAINTAINED WHEN RUNNING KIUC CONDUITS PARALLEL TO WATER & SEWER LINES. IF CLEARANCE IS LESS THAN 36 INCHES, KIUC CONDUIT SHALL BE CONCRETE ENCASED.
19. NO FOREIGN PULLBOXES, HANDHOLES, MANHOLES, CONCRETE SLABS/BOXES, STRUCTURES, ETC. ARE TO BE INSTALLED OVER KIUC FACILITIES WITH THE EXCEPTION OF HTCO, CATV OR WATERLINE CONDUIT CROSSINGS. SUCH CROSSING MUST BE APPROVED BY KIUC'S SERVICE ASSURANCE DEPARTMENT AND KIUC CONDUIT TO BE CONCRETE ENCASED. CONCRETE ENCASMENT MUST BE MINIMUM OF 3 INCH ENCASMENT AND EXTEND A MINIMUM OF 1 FOOT BEYOND CROSSING CONDUIT OR PIPE.
20. YELLOW MARKER TAPE TO BE PLACED 1 FOOT ABOVE ELECTRICAL CONDUITS IN THE TRENCH DURING BACKFILLING. (E-Z CODE WBT 6 INCH WIDE 4 MILL POLYETHYLENE PROTECT-A-LINE WARNING TAPE NA-0708 "ELECTRIC LINE" IN YELLOW, EQUIVALENT OR BETTER)
21. UNLESS OTHERWISE NOTED, THE TOP OF ALL CONDUITS SHALL BE AT A DEPTH OF 24 INCHES.
22. ALL HANDHOLES, PULLBOXES, AND MANHOLES SHALL BE WALKER INDUSTRIES TYPE OR APPROVED EQUAL. CONTACT KIUC PRIOR TO ORDERING UNDERGROUND BOXES FOR VENDOR APPROVAL. CUSTOMER TO SUBMIT MANUFACTURER'S SHOP DRAWINGS IF SUBSTITUTING FROM WALKER INDUSTRIES TYPE.
23. TYPICALLY, THE TOP OF ALL ELECTRICAL UTILITY BOXES SHALL BE 1 INCH ABOVE FINISH GRADE, SINGLE PHASE TRANSFORMER PADS SHALL BE 2 INCHES ABOVE FINISH GRADE, AND THREE PHASE TRANSFORMER PADS SHALL BE 4 INCHES ABOVE FINISH GRADE UNLESS OTHERWISE NOTED. (SPECIAL CONDITIONS MAY APPLY TO SIDEWALKS, ROADWAYS, ETC. SEE SPECIFIC LOCATION NOTATION)
24. AT NO TIME SHALL CEMENT MORTAR, WOOD OR ANY OTHER MATERIAL BE USED BETWEEN PRE-CAST SECTIONS OF KIUC PULLBOXES, HANDHOLES, OR MANHOLES. THE PERMANENT INSTALLATION OF WOODEN WEDGES TO LEVEL OR RAISE THE PRE-CAST SECTIONS SHALL NOT BE PERMITTED.
25. A MINIMUM OF 6 INCHES OF #3 CRUSHED ROCK BACKFILL SHALL BE PLACED LOOSELY BENEATH THE BOTTOM SECTION OF HANDHOLES AND PULLBOXES. CRUSHED ROCK OR OTHER FOREIGN MATERIALS ARE NOT TO BE PLACED INSIDE HANDHOLES AND PULLBOXES.

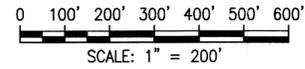
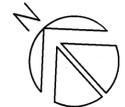
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REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
		 STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION MĀNĀ DRAG RACING STRIP IMPROVEMENTS PHASE 2 ELECTRICAL UPGRADES KAUAI, HAWAII			
				KAUAI ISLAND UTILITY COOPERATIVE NOTES	
		DESIGNED: KH	SUBMITTED: 		
		DRAWN: KH	DATE: APRIL 2016		
		CHECKED: GM	SCALE: AS SHOWN		
		APPROVED: 	DATE: APR 28 2016		DRAWING NO: E-002
		CHIEF ENGINEER			

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1 OVERALL SITE PLAN
E-100 SCALE: 1"=200'-0"

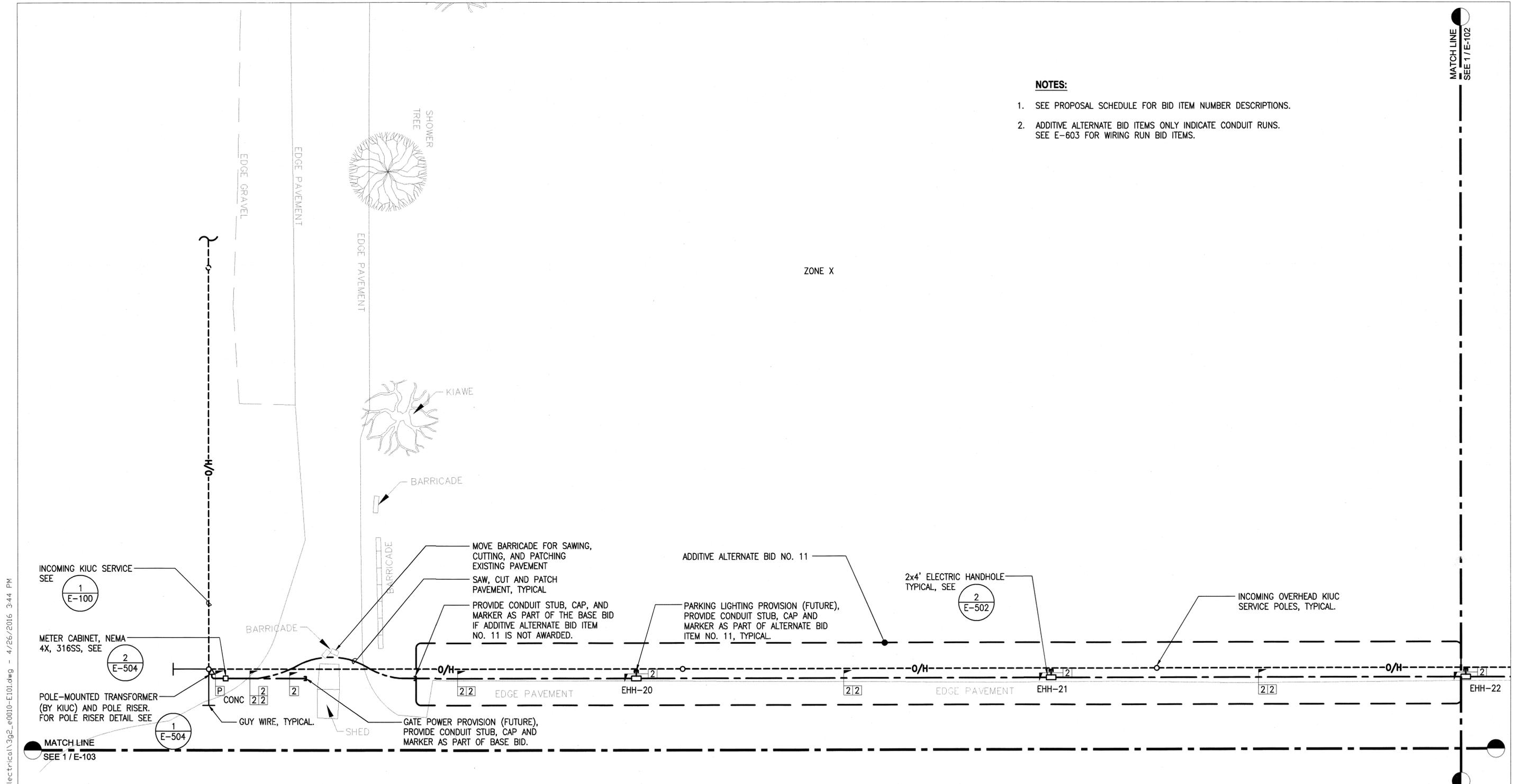


REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION					
MĀNĀ DRAG RACING STRIP IMPROVEMENTS PHASE 2 ELECTRICAL UPGRADES KAUA'I, HAWAII					
OVERALL SITE PLAN					
DESIGNED:	KH	SUBMITTED:			
DRAWN:	KH	DATE:	APRIL 2016		
CHECKED:	GM	SCALE:	AS SHOWN		
APPROVED:			DATE:	APR 28 2016	
CHIEF ENGINEER			DRAWING NO.	E-100	

MATCH LINE
SEE 1/E-102

NOTES:

1. SEE PROPOSAL SCHEDULE FOR BID ITEM NUMBER DESCRIPTIONS.
2. ADDITIVE ALTERNATE BID ITEMS ONLY INDICATE CONDUIT RUNS. SEE E-603 FOR WIRING RUN BID ITEMS.



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- INCOMING KIUC SERVICE SEE 1 E-100
- METER CABINET, NEMA 4X, 316SS, SEE 2 E-504
- POLE-MOUNTED TRANSFORMER (BY KIUC) AND POLE RISER. FOR POLE RISER DETAIL SEE 1 E-504
- MATCH LINE SEE 1/E-103

1 ENLARGED ELECTRICAL PLAN - 1
E-101 SCALE: 1"=20'-0"



REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
 <p>STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION</p> <p>MĀNĀ DRAG RACING STRIP IMPROVEMENTS PHASE 2 ELECTRICAL UPGRADES KAUAI, HAWAII</p> <p>ENLARGED ELECTRICAL PLAN - 1</p>					
DESIGNED:	KH	SUBMITTED:	[Signature]		
DRAWN:	KH	DATE:	APRIL 2016		
CHECKED:	GM	SCALE:	AS SHOWN		
APPROVED:	[Signature]	DATE:	APR 28 2016		
CHIEF ENGINEER:	[Signature]	DRAWING NO.:	E-101		

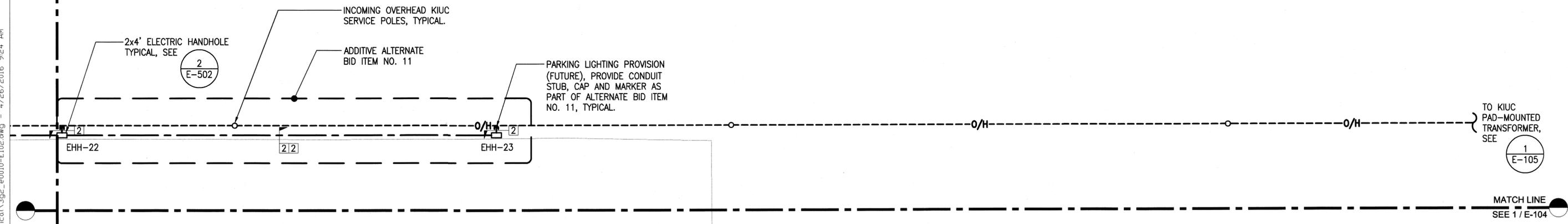
MATCH LINE
SEE 1/E-101

NOTES:

1. SEE PROPOSAL SCHEDULE FOR BID ITEM NUMBER DESCRIPTIONS.
2. ADDITIVE ALTERNATE BID ITEMS ONLY INDICATE CONDUIT RUNS. SEE E-603 FOR WIRING RUN BID ITEMS.

ZONE X

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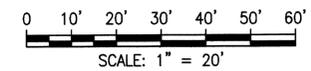


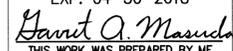
TO KIUC
PAD-MOUNTED
TRANSFORMER,
SEE

1
E-105

MATCH LINE
SEE 1/E-104

1
E-102 ENLARGED ELECTRICAL PLAN - 2
SCALE: 1"=20'-0"

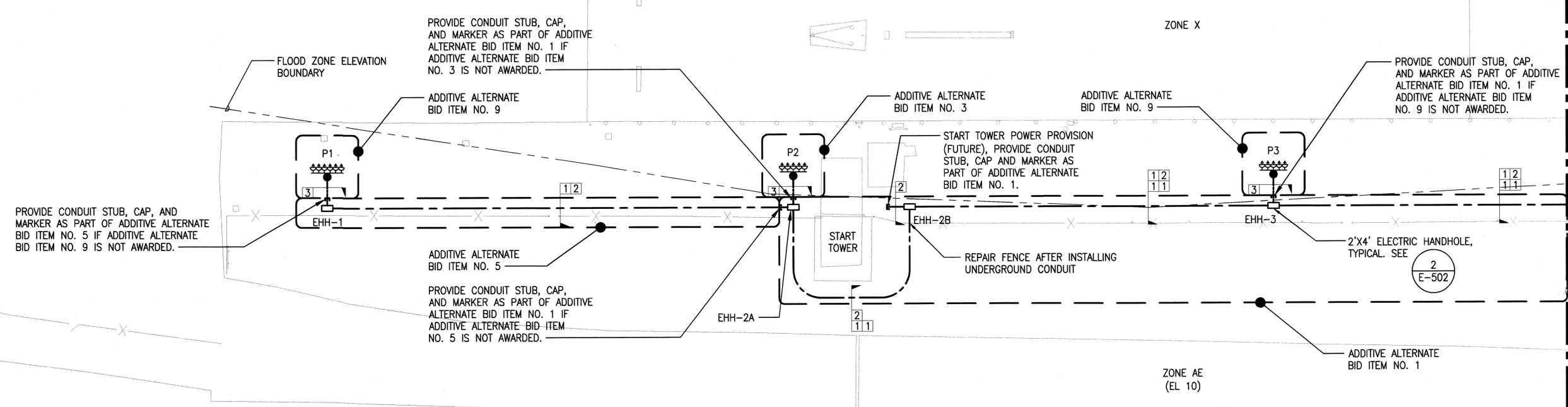


REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
 <p>STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION</p> <p>MĀNĀ DRAG RACING STRIP IMPROVEMENTS PHASE 2 ELECTRICAL UPGRADES KAUAI, HAWAII</p> <p>ENLARGED ELECTRICAL PLAN - 2</p>					
DESIGNED:	KH	SUBMITTED:			
DRAWN:	KH	DATE:	APRIL 2016		
CHECKED:	GM	SCALE:	AS SHOWN		
APPROVED:			DATE:	APR 28 2016	
CHIEF ENGINEER		DATE		DRAWING NO. E-102	

MATCH LINE
SEE 1/E-101

NOTES:

1. SEE PROPOSAL SCHEDULE FOR BID ITEM NUMBER DESCRIPTIONS.
2. ADDITIVE ALTERNATE BID ITEMS ONLY INDICATE CONDUIT RUNS. SEE E-603 FOR WIRING RUN BID ITEMS.



PROVIDE CONDUIT STUB, CAP, AND MARKER AS PART OF ADDITIVE ALTERNATE BID ITEM NO. 5 IF ADDITIVE ALTERNATE BID ITEM NO. 9 IS NOT AWARDED.

PROVIDE CONDUIT STUB, CAP, AND MARKER AS PART OF ADDITIVE ALTERNATE BID ITEM NO. 1 IF ADDITIVE ALTERNATE BID ITEM NO. 3 IS NOT AWARDED.

ADDITIVE ALTERNATE BID ITEM NO. 9

ADDITIVE ALTERNATE BID ITEM NO. 5

PROVIDE CONDUIT STUB, CAP, AND MARKER AS PART OF ADDITIVE ALTERNATE BID ITEM NO. 1 IF ADDITIVE ALTERNATE BID ITEM NO. 5 IS NOT AWARDED.

ADDITIVE ALTERNATE BID ITEM NO. 3

START TOWER POWER PROVISION (FUTURE), PROVIDE CONDUIT STUB, CAP AND MARKER AS PART OF ADDITIVE ALTERNATE BID ITEM NO. 1.

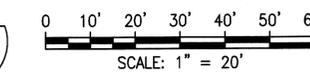
ADDITIVE ALTERNATE BID ITEM NO. 9

PROVIDE CONDUIT STUB, CAP, AND MARKER AS PART OF ADDITIVE ALTERNATE BID ITEM NO. 1 IF ADDITIVE ALTERNATE BID ITEM NO. 9 IS NOT AWARDED.

2'x4' ELECTRIC HANDHOLE, TYPICAL. SEE 2 E-502

ADDITIVE ALTERNATE BID ITEM NO. 1

1
E-103 **ENLARGED ELECTRICAL PLAN - 3**
SCALE: 1"=20'-0"



MATCH LINE
SEE 1/E-104

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
<p>STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION</p> <p>MĀNĀ DRAG RACING STRIP IMPROVEMENTS PHASE 2 ELECTRICAL UPGRADES KAUAI, HAWAII</p> <p>ENLARGED ELECTRICAL PLAN - 3</p>					
DESIGNED:	KH	SUBMITTED:	a		
DRAWN:	KH	DATE:	APRIL 2016		
CHECKED:	GM	SCALE:	AS SHOWN		
APPROVED:	<i>Garret A. Masuda</i>		DATE:	APR 28 2016	
CHIEF ENGINEER:	THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION		DRAWING NO.:	E-103	

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MATCH LINE
SEE 1/E-102

NOTES:

1. SEE PROPOSAL SCHEDULE FOR BID ITEM NUMBER DESCRIPTIONS.
2. ADDITIVE ALTERNATE BID ITEMS ONLY INDICATE CONDUIT RUNS. SEE E-603 FOR WIRING RUN BID ITEMS.

ZONE X

ADDITIVE ALTERNATE
BID ITEM NO. 4

PROVIDE CONDUIT STUB, CAP, AND
MARKER AS PART OF ADDITIVE ALTERNATE
BID ITEM NO. 1 IF ADDITIVE ALTERNATE
BID ITEM NO. 9 IS NOT AWARDED, TYPICAL.

ADDITIVE ALTERNATE
BID ITEM NO. 9

FLOOD ZONE ELEVATION
BOUNDARY

ZONE AE
(EL 9)

ZONE AE
(EL 10)

ADDITIVE ALTERNATE
BID ITEM NO. 1

PROVIDE CONDUIT STUB, CAP, AND
MARKER AS PART OF ADDITIVE ALTERNATE
BID ITEM NO. 1 IF ADDITIVE ALTERNATE
BID ITEM NO. 4 IS NOT AWARDED.

2'x4' ELECTRIC HANDHOLE,
TYPICAL. SEE

2
E-502

MATCH LINE
SEE 1/E-103

MATCH LINE
SEE 1/E-105

1
E-104 ENLARGED ELECTRICAL PLAN - 4
SCALE: 1"=20'-0"



0 10' 20' 30' 40' 50' 60'
SCALE: 1" = 20'

REVISION NO.	SYM.	DESCRIPTION	SHT. / OF	DATE	APPROVED
 <p>STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION</p> <p>MĀNĀ DRAG RACING STRIP IMPROVEMENTS PHASE 2 ELECTRICAL UPGRADES KAUĀI, HAWAII</p> <p>ENLARGED ELECTRICAL PLAN - 4</p>					
DESIGNED: KH		SUBMITTED: 			
DRAWN: KH		DATE: APRIL 2016			
CHECKED: GM		SCALE: AS SHOWN			
APPROVED: 		DATE: APR 28 2016		DRAWING NO. E-104	
CHIEF ENGINEER					

MATCH LINE
SEE 17/E-104

MATCH LINE
SEE 17/E-106

NOTES:

- 1. SEE PROPOSAL SCHEDULE FOR BID ITEM NUMBER DESCRIPTIONS.
- 2. ADDITIVE ALTERNATE BID ITEMS ONLY INDICATE CONDUIT RUNS. SEE E-603 FOR WIRING RUN BID ITEMS.

ZONE X

FOR ENLARGED PLAN, SEE 2
E-401

OVERHEAD SERVICE POLES
(PROVIDED BY KIUC),
TYPICAL

INCOMING KIUC SERVICE
SEE 1
E-102

FLOOD ZONE ELEVATION
BOUNDARY

2'x4' ELECTRIC HANDHOLE,
TYPICAL. SEE 2
E-502

ADDITIVE ALTERNATE
BID ITEM NO. 9

PROVIDE CONDUIT STUB, CAP, AND
MARKER AS PART OF BASE BID
IF ADDITIVE ALTERNATE BID ITEM
NO. 9 IS NOT AWARDED.

P8

P9

P10

P11

EHH-8

EHH-9

EHH-10

EHH-11

PROVIDE CONDUIT STUB, CAP, AND
MARKER AS PART OF ADDITIVE ALTERNATE
BID ITEM NO. 1 IF ADDITIVE ALTERNATE
BID ITEM NO. 9 IS NOT AWARDED, TYPICAL.

ADDITIVE ALTERNATE
BID ITEM NO. 1

PROVIDE CONDUIT STUB, CAP,
AND MARKER AS PART OF
BASE BID IF ADDITIVE ALTERNATE
BID ITEM NO. 1 IS NOT AWARDED.

SCOREBOARD PROVISION (FUTURE),
PROVIDE CONDUIT STUB, CAP,
AND MARKER AS PART OF
BASE BID IF ADDITIVE ALTERNATE
BID ITEM NO. 2 IS NOT AWARDED.

GUY WIRE.
3'x5' HANDHOLE WITH 2-4" C
(CONCRETE ENCASED) TO
TRANSFORMER PAD

SWITCHBOARD 4A

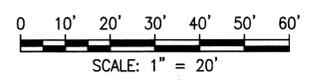
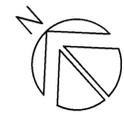
ZONE AE
(EL 9)

ZONE AE
(EL 10)

FLOOD ZONE ELEVATION
BOUNDARY

ZONE VE
(EL 10)

1
E-105 **ENLARGED ELECTRICAL PLAN - 5**
SCALE: 1"=20'-0"



REVISION NO.	SYM.	DESCRIPTION	SHT. / OF	DATE	APPROVED
 STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION MĀNĀ DRAG RACING STRIP IMPROVEMENTS PHASE 2 ELECTRICAL UPGRADES KAUAI, HAWAII ENLARGED ELECTRICAL PLAN - 5					
DESIGNED:	KH	SUBMITTED:	✓		
DRAWN:	KH	DATE:	APRIL 2016		
CHECKED:	GM	SCALE:	AS SHOWN		
APPROVED:	<i>Garret A. Masuda</i>		DATE:	APR 28 2016	DRAWING NO. E-105
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MATCHLINE
SEE 17/E-105

MATCHLINE
SEE 17/E-107

NOTES:

- 1. SEE PROPOSAL SCHEDULE FOR BID ITEM NUMBER DESCRIPTIONS.
- 2. ADDITIVE ALTERNATE BID ITEMS ONLY INDICATE CONDUIT RUNS. SEE E-603 FOR WIRING RUN BID ITEMS.

ZONE X

FLOOD ZONE ELEVATION
BOUNDARY

PROVIDE CONDUIT STUB, CAP, AND
MARKER AS PART OF ADDITIVE ALTERNATE
BID ITEM NO. 6 IF ADDITIVE ALTERNATE
BID ITEM NO. 10 IS NOT AWARDED, TYPICAL.

ADDITIVE ALTERNATE
BID ITEM NO. 10

2'X4' ELECTRIC HANDHOLE,
TYPICAL. SEE

2
E-502

P11

P12

P13

P14

EHH-11

EHH-12

EHH-13

EHH-14

PROVIDE CONDUIT STUB, CAP, AND
MARKER AS PART OF THE BASE BID
IF ADDITIVE ALTERNATE BID ITEM
NO. 6 IS NOT AWARDED.

FINISH TOWER POWER PROVISION
(FUTURE), CONDUIT STUB, CAP
AND MARKER.

FINISH
TOWER

ADDITIVE ALTERNATE
BID ITEM NO. 6

ZONE AE
(EL 9)

ZONE VE
(EL 9)

FLOOD ZONE ELEVATION
BOUNDARY

ZONE VE
(EL 10)

1
E-106 ENLARGED ELECTRICAL PLAN - 6
SCALE: 1"=20'-0"



0 10' 20' 30' 40' 50' 60'
SCALE: 1" = 20'

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INSYNERGY
ENGINEERING
MECHANICAL ELECTRICAL & FIRE PROTECTION
500 Pali Street Suite 200, Honolulu, Hawaii 96813
Phone: (808) 821-3777 Fax: (808) 821-3800



LICENSED PROFESSIONAL ENGINEER
No. 9756-E
HAWAII, U.S.A.

EXP. 04-30-2018

Garrett A. Masudava
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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

MĀNĀ DRAG RACING STRIP IMPROVEMENTS PHASE 2
ELECTRICAL UPGRADES
KAUAI, HAWAII

ENLARGED ELECTRICAL PLAN -- 6

DESIGNED: KH	SUBMITTED: 
DRAWN: KH	DATE: APRIL 2016
CHECKED: GM	SCALE: AS SHOWN
APPROVED: <i>Cy Ly</i>	DRAWING NO. E-106
CHIEF ENGINEER	DATE: APR 28 2016

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MATCH LINE
SEE 1/E-106

MATCH LINE
SEE 1/E-108

ZONE X

NOTES:

1. SEE PROPOSAL SCHEDULE FOR BID ITEM NUMBER DESCRIPTIONS.
2. ADDITIVE ALTERNATE BID ITEMS ONLY INDICATE CONDUIT RUNS. SEE E-603 FOR WIRING RUN BID ITEMS.

PROVIDE CONDUIT STUB, CAP, AND MARKER AS PART OF ADDITIVE ALTERNATE BID ITEM NO. 6 IF ADDITIVE ALTERNATE BID ITEM NO. 10 IS NOT AWARDED, TYPICAL.

ADDITIVE ALTERNATE BID ITEM NO. 10

2'x4' ELECTRIC HANDHOLE, TYPICAL. SEE

2
E-502

P14
EHH-14

2
1 1

P15
EHH-15

2
1 1

ADDITIVE ALTERNATE BID ITEM NO. 6

P16
EHH-16

2
1 1

ZONE AE
(EL 9)

ZONE VE
(EL 9)

FLOOD ZONE ELEVATION BOUNDARY

FLOOD ZONE ELEVATION BOUNDARY

SHORELINE SETBACK

1
E-107 ENLARGED ELECTRICAL PLAN - 7
SCALE: 1"=20'-0"



0 10' 20' 30' 40' 50' 60'
SCALE: 1" = 20'

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INSYNERGY ENGINEERING
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100 PULI STREET, SUITE 200, HONOLULU, HAWAII 96813
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No. 9756-E
HAWAII, U.S.A.
EXP. 04-30-2018

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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

MĀNĀ DRAG RACING STRIP IMPROVEMENTS PHASE 2
ELECTRICAL UPGRADES
KAUA'I, HAWAII

ENLARGED ELECTRICAL PLAN - 7

DESIGNED: KH	SUBMITTED: <i>[Signature]</i>
DRAWN: KH	DATE: APRIL 2016
CHECKED: GM	SCALE: AS SHOWN

APPROVED: *[Signature]* DATE: APR 28 2016
CHIEF ENGINEER

DRAWING NO: E-107

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