

GENERAL NOTES

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	56D-01-13M	2013	ADD.2	12

LEGEND

	Phase 1
	Phase 2
	Phase 3
	Resurfacing Limits

e.p.	Existing Edge of Pavement
e.s.	Existing Edge of Shoulder
r/w	Existing Right-of-Way

Phasing

- Work shall be phased in 3 phases
 - Phase 1 - Makai side only from Sta. 34+56.18 to Sta. 44+00
 - Phase 2 - Both sides of road from Sta. 44+00 to Sta. 67+00
 - Phase 3 - Both sides of road from Sta. 11+00 to Sta. 26+58
- Each phase shall begin surveying and staking right-of-way boundary followed by the removal and herbicide of six (6) inch diameter or less trees followed by the removal of larger trees. After all trees are removed, identify bare soil areas and install erosion control and Indonesian Privet. Then install trees.

5/29/13 Plans to be included in bid set.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
GENERAL NOTES AND LEGEND
KUHIO HIGHWAY
INVASIVE SPECIES MANAGEMENT
Kalihiwai Road to Kahili Holo Road
Project No. 56D-01-13M

Date: May, 2013

SHEET No. 1 OF 1 SHEETS

ADD.2

- The scope of work for this project consists of the removal of invasive trees, planting of native trees, and three years of tree sapling removals and herbicide treatment.
- The following scope of work should be performed as night work except during no night work periods or deemed unsafe by the contractor and approved by the engineer: movement of tree logs, branches, debris and other parts from the roadside slope to Kuhio Highway, loading onto trucks.
- No night work from September 15th to December 15th.
- Contractor shall make every attempt to limit lane closures during the daytime. No lane closures from December 15th to January 5th.
- The Contractor shall have a job-site inspector to whom immediate noise complaints can be forwarded for prompt response and who shall have the general responsibility of monitoring quiet work procedures.
- The Contractor shall give sufficient notice regarding the project to any residents that may be impacted by the nighttime activity. The notification for the planned nighttime activity shall also contain the name and telephone number of the job-site inspector.
- Engineer will consider arrangements made by the Contractor for alternative access to the state right of way through private property.
- Remove and herbicide the cut stump of all Albizia Trees (*Falcataria moluccana*), African Tulip Trees (*Spathodea campanulata*), Octopus Trees (*Schefflera actinophylla*), Parasol Leaf Trees (*Macaranga tanarius*), and Bingabing Trees (*Macaranga mappa*) within the project limits. Protect Shoebutton *Ardisia* (*Ardisia elliptica*) to remain.
- Chipping or grinding of trees is allowed as noise permit allows. Felled logs and debris shall be disposed of outside the right of way. Road closures are required for the act of tree felling where there is a risk to road users. Cut stumps as close to ground as possible. Herbicide all tree stumps with Pathfinder II using the cut stump method.
- Every six months after the last new tree is planted, remove and herbicide all Albizia Trees (*Falcataria moluccana*), African Tulip Trees (*Spathodea campanulata*), Octopus Trees (*Schefflera actinophylla*), Parasol Leaf Trees (*Macaranga tanarius*), and Bingabing Trees (*Macaranga mappa*) within the project limits. Perform these removals a total of 6 times. Additionally, the project limits shall expand to include the Kuhio Highway Emergency Slope Stabilization project after final acceptance from Sta. 35+00 to Sta. 44+00 for the purposes of removing the invasive trees listed above for 4 rounds of sapling removals (24 months).
- Cover all exposed soils resulting from tree operations with jute mesh erosion control fabric installed per manufacturer's recommendations. Submit product information for approval by the Engineer.
- Contractor shall halt the pruning or clearing of trees taller than 15 feet at the times of the year from June 1st to September 15th.
- The Contractor is reminded of the requirements of Subsection 108.01 - Subletting of Contract, which requires him to perform work to not less than 30 percent of the total contract cost less deductible items. Non-compliance with this Subsection may be grounds for rejection of bid.
- The Contractor's attention is directed to the following Sections: Section 107 - Legal Relations and Responsibility to Public; Section 108 - Prosecution and Progress; Section 201 - Clearing and Grubbing, Section 212 - Archeological Inventory Survey and Section 645 - Work Zone Traffic Control and Section 671 - Protection of Seabirds.
- At the end of each day's work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of public traffic.
- The existence and location of underground utilities, manholes, monuments and structures as shown on the plans are from the latest available data, but the accuracy is not guaranteed. The encountering of other obstacles during the course of work is possible. The Contractor shall tone for the exact locations and depths of all underground facilities, either shown on or omitted from the plans, in areas where work, such as the placement of sign posts, traffic signal conduits, etc. may affect these properties. Toning shall be considered incidental to the various contract items and will not be paid for separately. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.
- The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting construction operations.
- The Contractor shall obtain variances to a Community Noise permit secured by DOT from the State Department of Health, Noise and Radiation Branch, 591 Ala Moana Blvd., Room 136, Honolulu, HI 96813-2498; Telephone No. 586-4700. This shall be considered incidental to the various contract items and will not be paid for separately.
- The Contractor shall indemnify and be solely responsible for the protection of adjacent properties, utilities and existing structures from damages due to construction. Repairing any damage shall be at the Contractor's own expense, to the satisfaction of the Engineer.
- Existing drainage system will be functional at all times during construction. The Contractor shall furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to any culvert work or the various contract items and will not be paid for separately.
- The Contractor shall clean and remove any accumulation of aggregates along the roadside within 10 feet of the edge of pavement. This work shall be considered incidental to bulk of work or the various contract items and will not be paid for separately.
- No material and/or equipment shall be stockpiled or otherwise stored within the highway right-of-way except at locations designed in writing and approved by the Engineer. If use of location is approved by the engineer, the Contractor shall obtain a permit to use the property within the highway right-of-way from the Kauai District Office at Telephone No. 241-3006.
- Contractor shall coordinate construction activities with the Kauai Highways Emergency Slope Stabilization Project (# Sta. 35+00 to # Sta. 44+00). Coordination to include lane closures to maximize concurrent lane closures, access to staging area and other activities as determined by the Engineer.
- Contractor shall complete the archeological inventory survey prior to construction.
- Contractor shall use licensed surveyors to stake right-of-way boundaries. Use survey monuments, stake boundary corners and every 500 feet of boundary. Engineer will not pay separately for surveying and will considered the cost as included in the contract cost for various contract pay items.

DATE	DATE
DESIGNED BY	DESIGNED BY
CHECKED BY	CHECKED BY
NOTED BY	NOTED BY
ORIGINAL	ORIGINAL

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	56D-01-13M	2013	ADD.3	12

WATER POLLUTION AND EROSION CONTROL NOTES:

A. GENERAL:

1. See Section 209 - Temporary Water Pollution, Dust, 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.
2. Follow the guidelines in the "Construction Best Management Practices Field Manual", dated January 2008 in developing, installing and maintaining the Best Management Practices (BMP) for the project.
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, for every day of non-compliance. There is no maximum limit on the amount assessed per day.
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.
6. For projects that require an NPDES Permit from the Department of Health, install a rain gage prior to any field work including the installation of any site-specific best management practices. The rain gage shall have a tolerance of at least 0.05 inches of rainfall, and have an opening of at least one-inch in diameter. Install the rain gage on the project site in an area that will not deter rainfall from entering the gage opening. The rain gage installation shall be stable and plumbed. Do not begin field work until the rain gage is installed and site-specific best management practices are in-place.

B. WASTE DISPOSAL:

1. Waste Materials

Collect and store all waste materials in a securely lidded metal dumpster. 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 a minimum of twice per week or as often as is deemed necessary. 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 and the Contractor shall be responsible for seeing that these procedures are followed.

2. 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.

3. Sanitary Waste

Collect all sanitary waste from the portable units a minimum of once per week, or as required.

C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

1. Inspect all control measures at least once each week and within 24 hours of any rainfall event of 0.5 inches or greater within a 24 hour period.
2. Maintain all measures in good working order. If repair is necessary, it shall be initiated within 24 hours after the inspection.
3. Remove built-up sediment from silt fence when it has reached one-third the height of the fence.
4. 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.

5. Inspect temporary and permanent seeding and planting for bare spots, washouts, and healthy growth.
6. Make a maintenance inspection report promptly after each inspection. Submit a copy to the Engineer no later than one week from the date of the inspection.
7. Provide a stabilized construction entrance to reduce vehicle tracking of sediments. Include stabilized construction entrance in the Water Pollution, Dust, and Erosion Control submittals. Minimum length should be 50 feet. Minimum width should be 30 feet. Minimum depth should be 12 inches or as recommended by the soils engineer and underlain with geo-textile fabric. Clean the paved street adjacent to the site entrance daily or as required to remove any excess mud, cold planed materials, dirt, or rock tracked from the site. Cover dump trucks hauling material from the construction site with a tarpaulin.
8. Include designated Concrete Washout Area(s) in the Water Pollution, Dust, and Erosion Control submittals.
9. Submit the name of a specific individual designated responsible for inspections, maintenance and repair activities and filling out the inspection and maintenance report.
10. 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.
11. Contain, remove, and dispose slurry generated from saw cutting of pavement in accordance with approved BMP practices. Payment for confinement, removal, and disposal of slurry shall be considered incidental to the various contract items.

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 Block

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.

f. Whenever possible, use a product up completely before disposing of the container.

g. Follow manufacturer's recommendations for proper use and disposal.

h. Conduct a daily inspection to ensure proper use and disposal of materials onsite.

2. Hazardous Material Pollution Prevention Plan

a. Keep products in original containers unless they are not resealable.

b. Retain original labels and material safety data sheets (MSDS).

c. Dispose of surplus products according to manufacturer's instructions and local and State regulations.



5/29/13 Plans to be included in bid set.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WATER POLLUTION & EROSION CONTROL NOTES

KUHIO HIGHWAY
Invasive Species Management
Kalihiwai Road to Kahili Holo Road
Project No. 56D-01-13M
Date: April, 2013

SHEET No. 1 OF 2 SHEETS

ADD. 3

SURVEY PLOTTED BY	DATE
DRAWN BY	10/27/13
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
SCALE	
N.	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	56D-01-13M	2013	ADD.4	12

WATER POLLUTION AND EROSION CONTROL NOTES: -Cont.

D. GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES: -Cont.

3. Onsite and Offsite Product Specific Plan

The following product specific practices shall be followed onsite:

a. Petroleum Based Products:

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. Once applied, work fertilizer into the soil to limit exposure to storm water. Storage shall be in a covered shed. 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 highway drainage system. Dispose properly according to manufacturer's instructions or State and local regulations.

d. Concrete Trucks:

Wash out or discharge concrete truck drum wash water only at a designated site. Do not discharge water in the highway drainage system or waters of the United States. Contact Drinking Water Branch, Department of Health at 586-4258 to receive permission to designate a disposal site. Clean disposal site as required or as requested by the Owner's representative.

4. Spill Control Plan

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 and in 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 materials and equipment necessary for spill cleanup in the material storage area onsite.

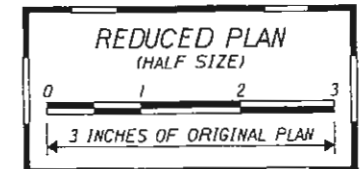
e. Clean up all spills immediately after discovery.

f. Keep the spill area well ventilated. Personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.

g. Report spills of toxic hazardous material to the appropriate State or local government agency, regardless of the size.

E. PERMIT REQUIREMENTS:

1. Comply with all applicable State and Federal Permit conditions.



DATE	10/22/11
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

5/29/13	Plans to be included in bid set.
DATE	REVISION

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
WATER POLLUTION & EROSION CONTROL NOTES
KUHIO HIGHWAY Invasive Species Management Kalihiwai Road to Kahili Holo Road Project No. 56D-01-13M Date: April, 2013
SHEET No. 2 OF 2 SHEETS

ADD. 4

				TREE REMOVALS						PLANTING SCHEDULE								
PHASE	Sta.	Sta.	Roadside	<6" dia.	6 to 12"	12 to 18"	18 to 24"	24 to 36"	>36"	Indonesian Privet	Hala	Kukui	Kamani	Milo	Kou	Manele	Lonomea	Loulu
1	34+56.18	39+34	Makai	0	0	0	8	0	0	**	2	3	2	0	0	0	0	2
1	41+44	43+00	Makai	60	10	4	2	2	2	**	8	8	4	4	4	4	4	8
1	43+00	44+00	Makai	30	5	1	0	1	0	**	2	2	1	1	1	1	1	2
Subtotal				90	15	5	10	3	2	**	12	13	7	5	5	5	5	12
2	44+00	45+00	Mauka	40	25	0	0	0	0	**	2	2	2	2	1	2	2	2
2	45+00	46+00	Mauka	60	5	2	3	0	1	**	2	2	2	2	1	2	2	2
2	46+00	47+00	Mauka	80	3	5	4	2	0	**	2	2	2	2	1	2	2	2
2	47+00	48+00	Mauka	40	4	3	3	3	0	**	2	2	2	2	1	2	2	2
2	48+00	49+00	Mauka	47	3	0	5	2	0	**	2	2	2	2	1	2	2	2
2	49+00	50+00	Mauka	35	5	5	5	3	1	**	2	2	2	2	1	2	2	2
2	50+00	51+00	Mauka	56	5	6	5	1	3	**	2	2	2	2	1	2	2	2
2	51+00	52+00	Mauka	50	8	1	3	4	0	**	2	2	2	2	1	2	2	2
2	52+00	53+00	Mauka	50	4	2	4	3	2	**	2	2	2	2	1	2	2	2
2	53+00	54+00	Mauka	70	5	7	3	1	0	**	2	2	2	2	1	2	2	2
2	54+00	55+00	Mauka	55	0	0	2	1	2	**	2	2	2	2	1	2	2	2
2	55+00	56+00	Mauka	25	5	1	0	1	1	**	2	2	1	1	1	1	1	2
2	56+00	57+00	Mauka	36	3	0	0	3	0	**	2	1	1	1	0	0	1	2
2	57+00	58+00	Mauka	28	5	5	1	2	0	**	2	1	1	1	0	0	1	2
2	58+00	59+00	Mauka	25	5	3	5	2	0	**	2	1	1	1	0	0	1	2
2	59+00	60+00	Mauka	40	10	5	1	0	0	**	2	2	1	1	0	0	1	2
2	60+00	61+00	Mauka	60	5	3	4	0	0	**	2	2	2	2	1	2	2	2
2	61+00	62+00	Mauka	20	10	5	1	0	0	**	2	2	2	2	1	2	2	2
2	62+00	63+00	Mauka	22	0	8	3	4	0	**	2	2	1	1	1	1	1	2
2	63+00	64+00	Mauka	35	2	8	1	2	0	**	2	2	1	1	1	1	1	2

ORIGINAL PLAN

DATE: _____

SURVEY PLOTTED BY

DRAWN BY

TRACED BY

NOTED BOOK

DESIGNED BY

QUANTITIES BY

CHECKED BY

5/29/13

Plans to be included in bid set.

DATE

REVISION

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

TREE DISPOSITION PLAN

KUHIO HIGHWAY

INVASIVE SPECIES MANAGEMENT

Kalihiwai Road to Kahili Holo Road

Project No. 56D-01-13M

Date: May, 2013

SHEET No. 1 OF 2 SHEETS

ADD.5

				TREE REMOVALS						PLANTING SCHEDULE								
PHASE	# STA.	# STA.	Roadside	<6" dia.	6 to 12"	12 to 18"	18 to 24"	24 to 36"	>36"	Indonesian Privet	Hala	Kukui	Kamani	Milo	Kou	Manele	Lonomea	Loulu
2	64+00	65+00	Mauka	20	4	0	0	1	0	*	2	1	1	1	0	0	1	2
2	65+00	66+00	Mauka	35	2	2	0	0	0	*	2	1	1	1	0	0	1	2
2	66+00	67+00	Mauka	0	0	0	0	0	0	*	0	0	0	0	0	0	0	0
2	55+00	61+00	Makai	0	0	0	0	0	0	*	2	1	1	1	0	0	1	2
2	62+00	65+00	Makai	20	0	0	8	0	0	*	0	0	0	0	0	0	0	0
Subtotal				949	118	71	61	34	10	*	46	40	36	36	16	18	36	46
3	15+00	26+58	Makai	80	7	5	5	3	4	*	34	20	20	20	3	6	20	34
3	11+00	12+00	Mauka	0	0	0	0	0	0	*	0	0	0	0	0	0	0	0
3	12+00	13+00	Mauka	0	0	0	0	0	0	*	0	0	0	0	0	0	0	0
2	13+00	14+00	Mauka	0	0	0	0	0	0	*	0	0	0	0	0	0	0	0
3	14+00	15+00	Mauka	5	5	2	3	0	0	*	2	2	1	1	1	1	1	2
3	15+00	16+00	Mauka	10	2	1	4	1	0	*	2	2	1	1	1	1	1	2
3	16+00	17+00	Mauka	20	3	2	1	1	0	*	2	2	1	1	1	1	1	2
3	17+00	18+00	Mauka	20	3	3	2	1	0	*	2	2	1	1	1	1	1	2
3	18+00	19+00	Mauka	10	0	4	2	4	0	*	2	2	1	1	1	1	1	2
3	19+00	20+00	Mauka	0	2	1	0	0	0	*	2	2	1	1	1	1	1	2
3	20+00	21+00	Mauka	0	2	1	1	0	0	*	2	2	1	1	1	1	1	2
3	21+00	22+00	Mauka	0	0	2	1	2	1	*	2	2	1	1	1	1	1	2
3	22+00	23+00	Mauka	0	0	3	0	0	0	*	2	2	1	1	1	1	1	2
3	23+00	24+00	Mauka	0	4	1	0	0	0	*	2	2	1	1	1	1	1	2
3	24+00	25+00	Mauka	10	3	2	3	1	0	*	2	2	1	1	1	1	1	2
3	25+00	26+00	Mauka	10	2	1	3	2	1	*	2	2	1	1	1	1	1	2
3	26+00	26+58	Mauka	10	0	2	2	3	0	*	2	2	1	1	1	1	1	2
Subtotal				175	33	30	28	14	5	*	60	46	33	33	16	19	33	60

Notes:

- Planting locations to be determined by project arborist and approved by the Engineer.
- See Plan Sheet No. 11 for planting schedule grand totals.

5/29/13 Plans to be Included in bid set.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

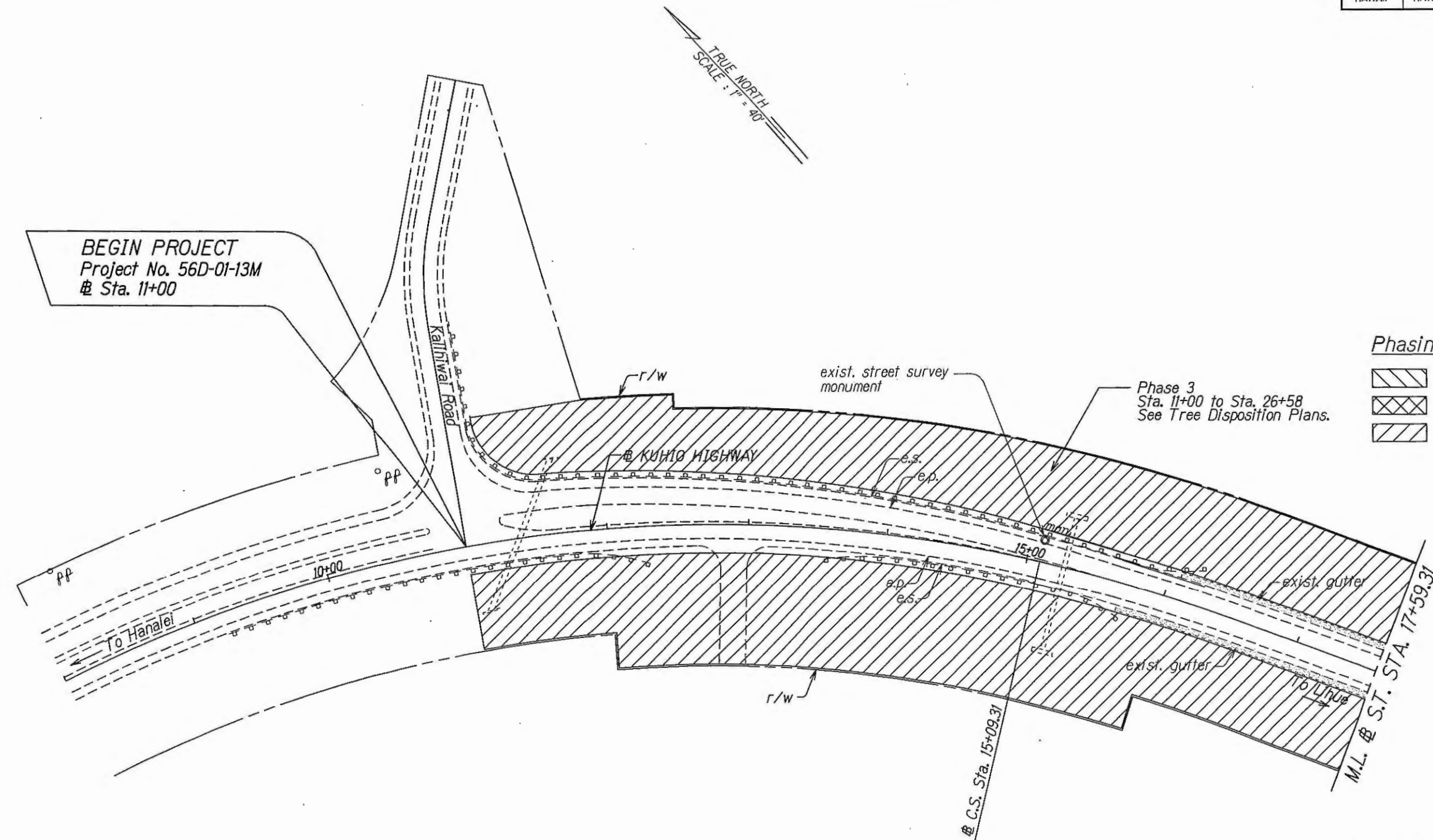
TREE DISPOSITION PLAN

KUHIO HIGHWAY
INVASIVE SPECIES MANAGEMENT
Kalihiwai Road to Kahili Holo Road
Project No. 56D-01-13M




Date: May, 2013

SURVEY PLOTTED BY: DATE: 5/29/13
DRAWN BY: X
CHECKED BY: X
NOTED BY: X
DESIGNED BY: X
ORIGINAL PLAN: X
NOTE BOOK: X
ddj/awen
N8tuadpagn

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	56D-01-13M	2013	ADD.7	12



Phasing Legend

-  Phase 1
-  Phase 2
-  Phase 3

Phase 3
Sta. 11+00 to Sta. 26+58
See Tree Disposition Plans.

5/29/13 Plans to be included in bid set.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROADWAY PLAN

KUHIO HIGHWAY
INVASIVE SPECIES MANAGEMENT
Kalihiwai Road to Kahili Holo Road
Project No. 56D-01-13M

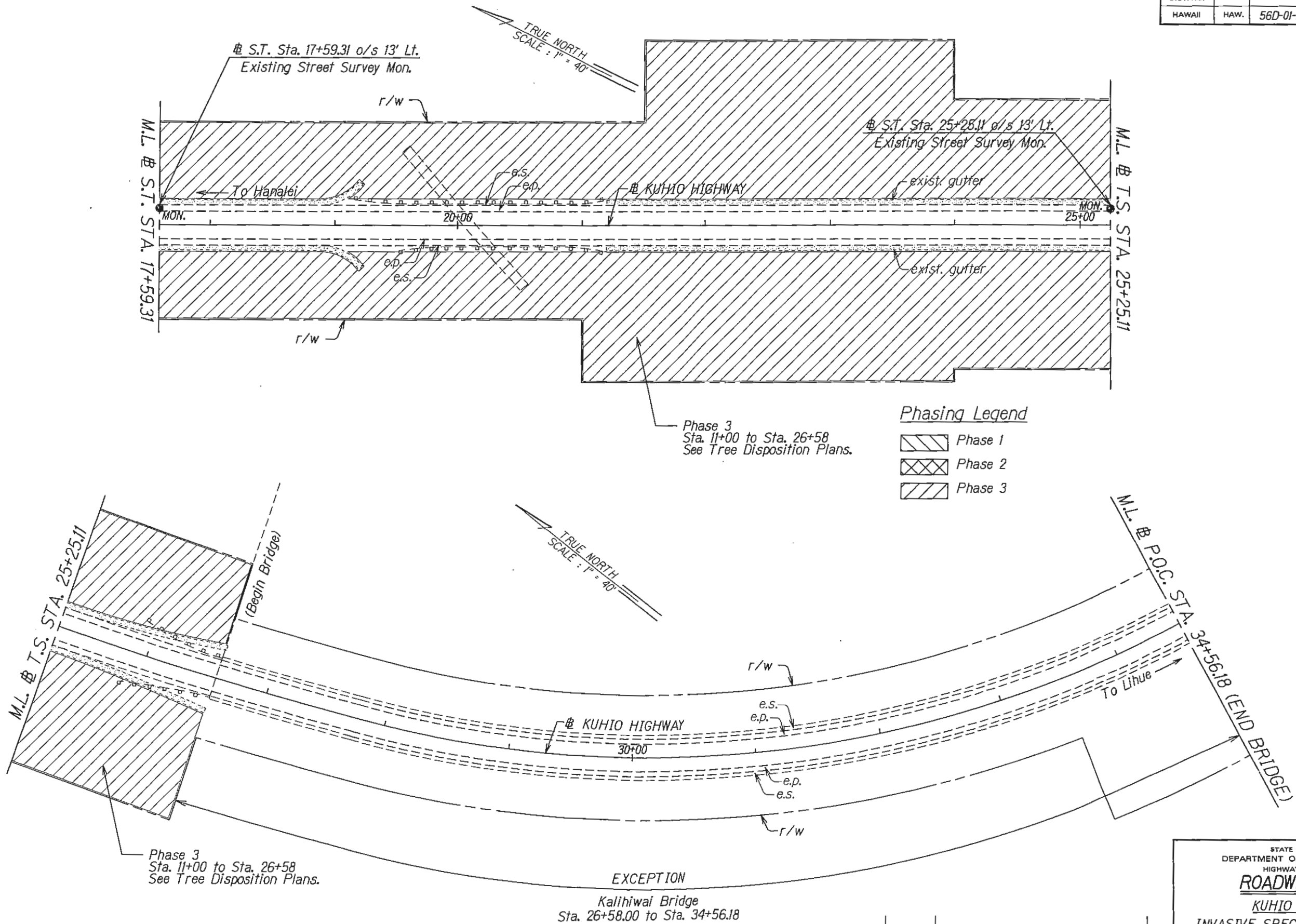
Scale: 1" = 40' Date: May, 2013

SHEET No. 1 OF 4 SHEETS




ADD.7

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTES BOOK	DESIGNED BY	2/06
QUANTITIES BY	CHECKED BY	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	56D-01-13M	2013	ADD.8	12



Phasing Legend

-  Phase 1
-  Phase 2
-  Phase 3

Phase 3
Sta. 11+00 to Sta. 26+58
See Tree Disposition Plans.

Phase 3
Sta. 11+00 to Sta. 26+58
See Tree Disposition Plans.

EXCEPTION
Kalihiwai Bridge
Sta. 26+58.00 to Sta. 34+56.18

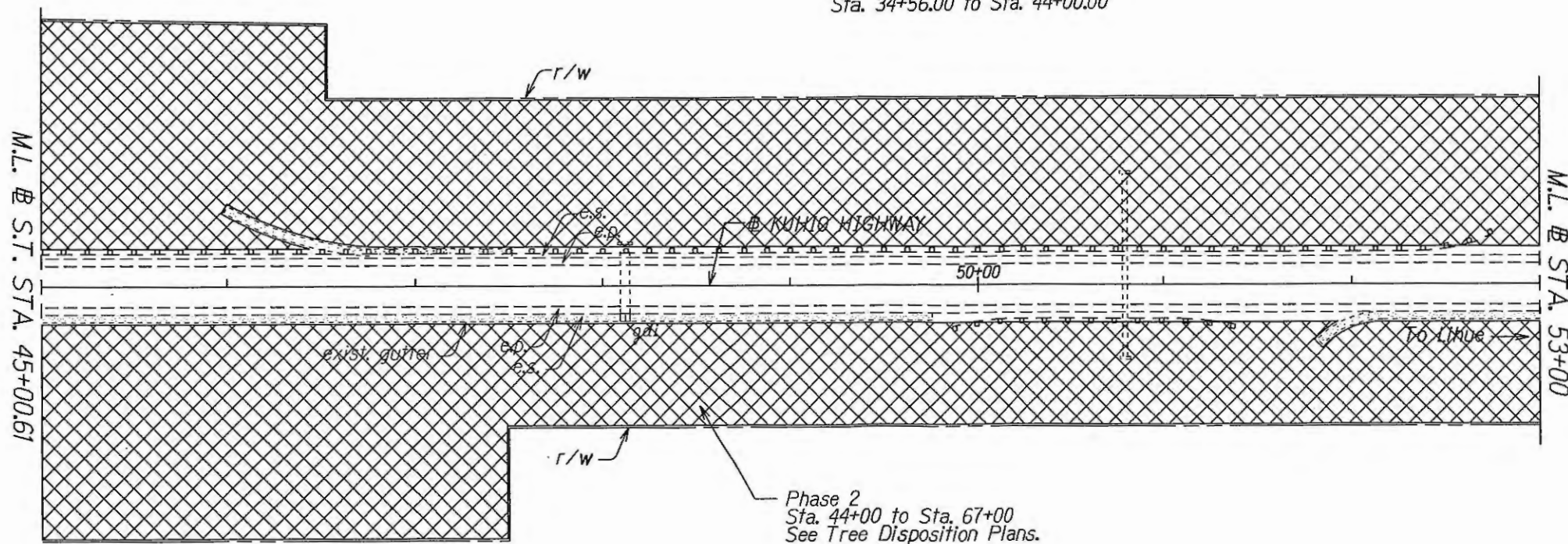
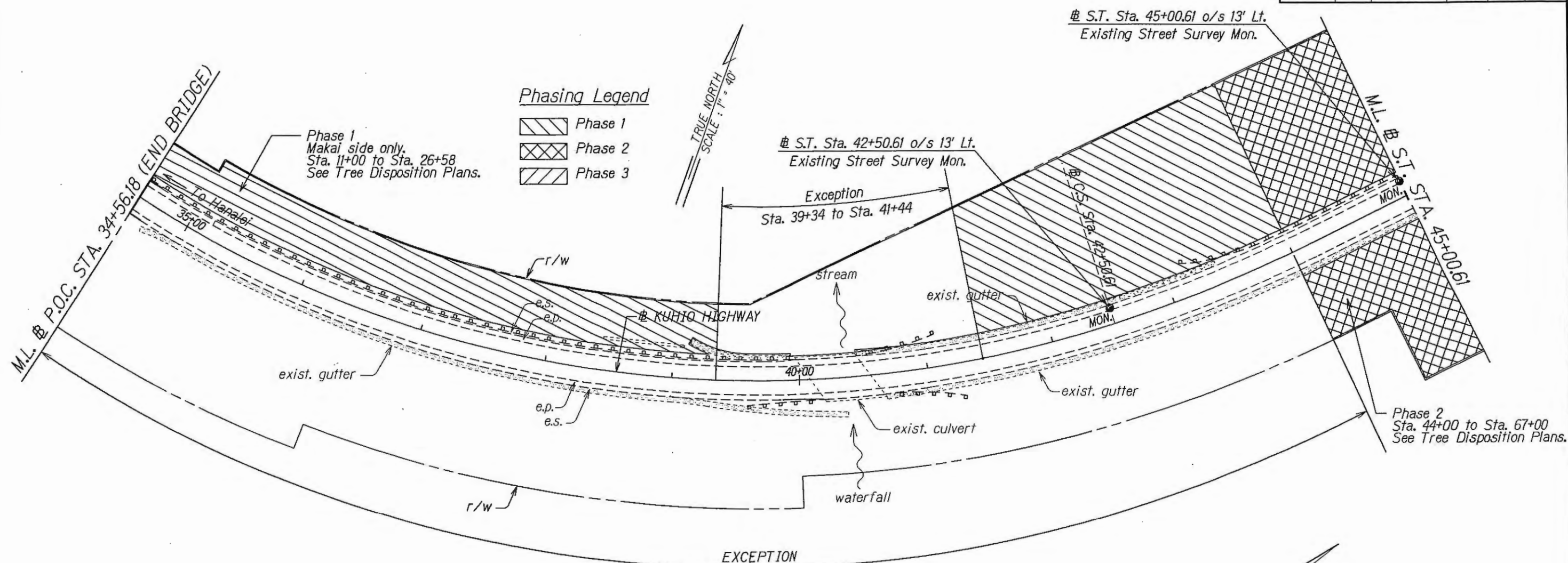
5/29/13 Plans to be included in bid set.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROADWAY PLAN
KUHIO HIGHWAY
INVASIVE SPECIES MANAGEMENT
Kalihiwai Road to Kahili Holo Road
Project No. 56D-01-13M
Scale: 1" = 40' Date: May, 2013
SHEET No. 2 OF 4 SHEETS

ADD.8

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	5/2/13
QUANTITIES BY	CHECKED BY	

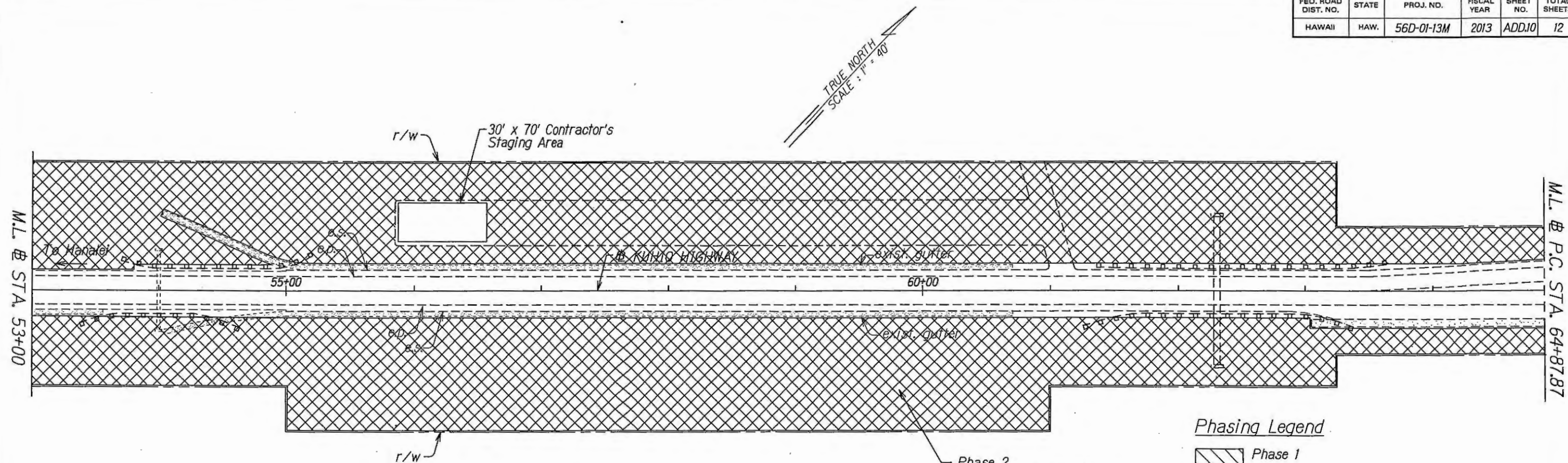


NOTE: Contractors archeologist to determine trees to remain to block view from Kuhio Highway to Kihel Heiau.

5/29/13	Plans to be included in bid set.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION ROADWAY PLAN KUHIO HIGHWAY INVASIVE SPECIES MANAGEMENT Kalihiwai Road to Kahili Holo Road Project No. 56D-01-13M Scale: 1" = 40' Date: May, 2013	
SHEET No. 3 OF 4 SHEETS	

SURVEY PLOTTED BY: _____ DATE: 9/06
 DRAWN BY: _____
 DESIGNED BY: _____
 CHECKED BY: _____
 ORIGINAL PLAN: _____
 INSET: _____
 SCALE: _____
 PROJECT: _____
 SHEET: _____

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	56D-01-13M	2013	ADD.10	12



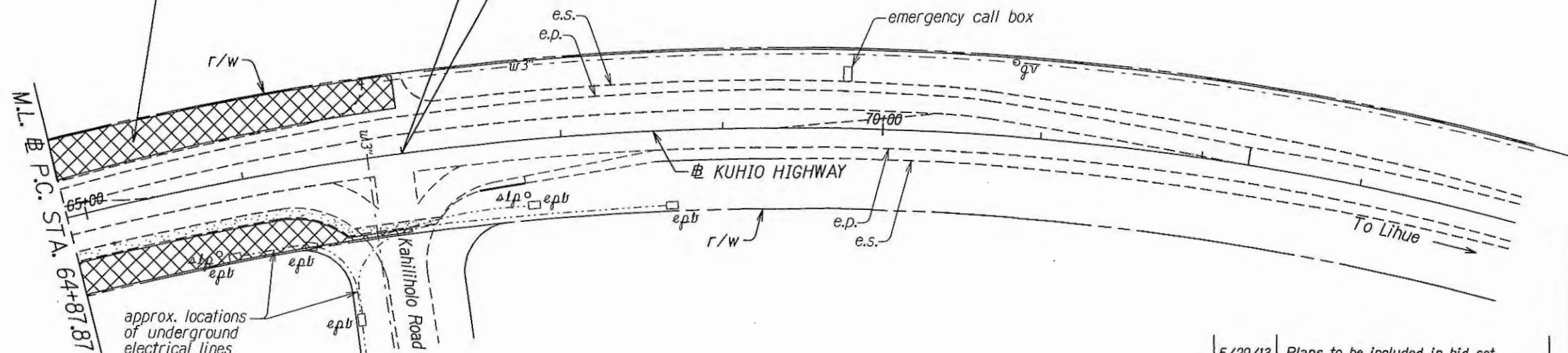
Phasing Legend

- Phase 1
- Phase 2
- Phase 3

Phase 2
Sta. 44+00 to Sta. 67+00
See Tree Disposition Plans.

END PROJECT
Project No. 56D-01-13M
@ Sta. 67+00.00

Phase 2
Sta. 44+00 to Sta. 67+00
See Tree Disposition Plans.



5/29/13	Plans to be included in bid set.
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROADWAY PLAN
KUHIO HIGHWAY
INVASIVE SPECIES MANAGEMENT
Kalihiwai Road to Kahili Holo Road
Project No. 56D-01-13M
Scale: 1" = 40' Date: May, 2013

SURVEY PLOTTED BY	DATE
DESIGNED BY	3/06
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

PLANT NOTES

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	56D-01-13M	2013	ADD.11	12

1. Landscape Contractor shall field verify all plant quantities and dimensions prior to installation. Quantities shown on plant list are for reference only, verify actual quantities as shown on plan. If there is a discrepancy, the planting plan shall take precedence.
2. Landscape Contractor shall be responsible for locating and protecting existing utilities.
3. Prior to tree and shrub hole excavation, all planting locations shall be staked out by contractor for approval by Engineer.
4. Notify Engineer of any discrepancies in plant locations or insufficient plant quantities due to difference in plans and actual field conditions.
5. Notify Engineer 30 days prior to planting operations for approval of all plant material at place of growth. All plant material not approved by the Engineer will be subject to rejection.
6. The Engineer will inspect plants at the place of growth and after the delivery to the project.
7. Plants shall meet size indicated by minimum height and spread. Plants shall be straight and uniformly shaped, unless unique or special characteristics are specified, and shall be undamaged, sound, healthy, vigorous and free of disease and insect infestation. Plants not conforming to these requirements on delivery to the project and at the end of the plant establishment period will be rejected.
8. Contractor shall be solely responsible for the complete removal and damages resulting from the introduction of planting any plant species listed on the Hawaii Department of Agriculture 'Noxious Weed Rules' as defined in the statute, Hawaii Administrative Rules 4:68:1 or the 'Federal Noxious Weed List' as defined in the Title 7 of the code of Federal Regulations (CFR), Parts 360 and 361.
9. Any planting that obstructs sight distance, signs or traffic lights shall be relocated or removed as determined by Engineer.
10. All plants shall be from plant stock collected from the Island of Kauai.
11. Contractor to install plants according to planting details with variances by project arborist and approved by the Engineer.
12. Planting locations to be determined by the project arborist and approved by the Engineer.

PLANT SCHEDULE

QUANTITY	COMMON NAME	BOTANICAL NAME	SIZE	COMMENTS
114	Hala	<i>Pandanus tectorius</i>	3 gallon	Plant 30' O.C.
2,000	Indonesian Privet	<i>Clerodendrum inerme</i>	6" potted	Plant 5' O.C.
97	Kukui	<i>Aleurites moluccana</i>	3 gallon	Plant 30' O.C.
74	True Kamani	<i>Calophyllum inophyllum</i>	3 gallon	Plant 30' O.C.
72	Milo	<i>Thespesia populnea</i>	3 gallon	Plant 30' O.C.
37	Kou	<i>Cordia subcordata</i>	3 gallon	Plant 30' O.C.
42	Manele	<i>Sapindus saponari</i>	3 gallon	Plant 30' O.C.
72	Lonomea	<i>Sapindus oahuensis</i>	3 gallon	Plant 30' O.C.
118	Loulu	<i>Pritchardia minor</i>	3 gallon	Plant 30' O.C.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTED	DRAWN BY	
NOTED	DESIGNED BY	
NOTED	QUANTITIES BY	
NOTED	CHECKED BY	

5/29/13 Plans to be included in bid set.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

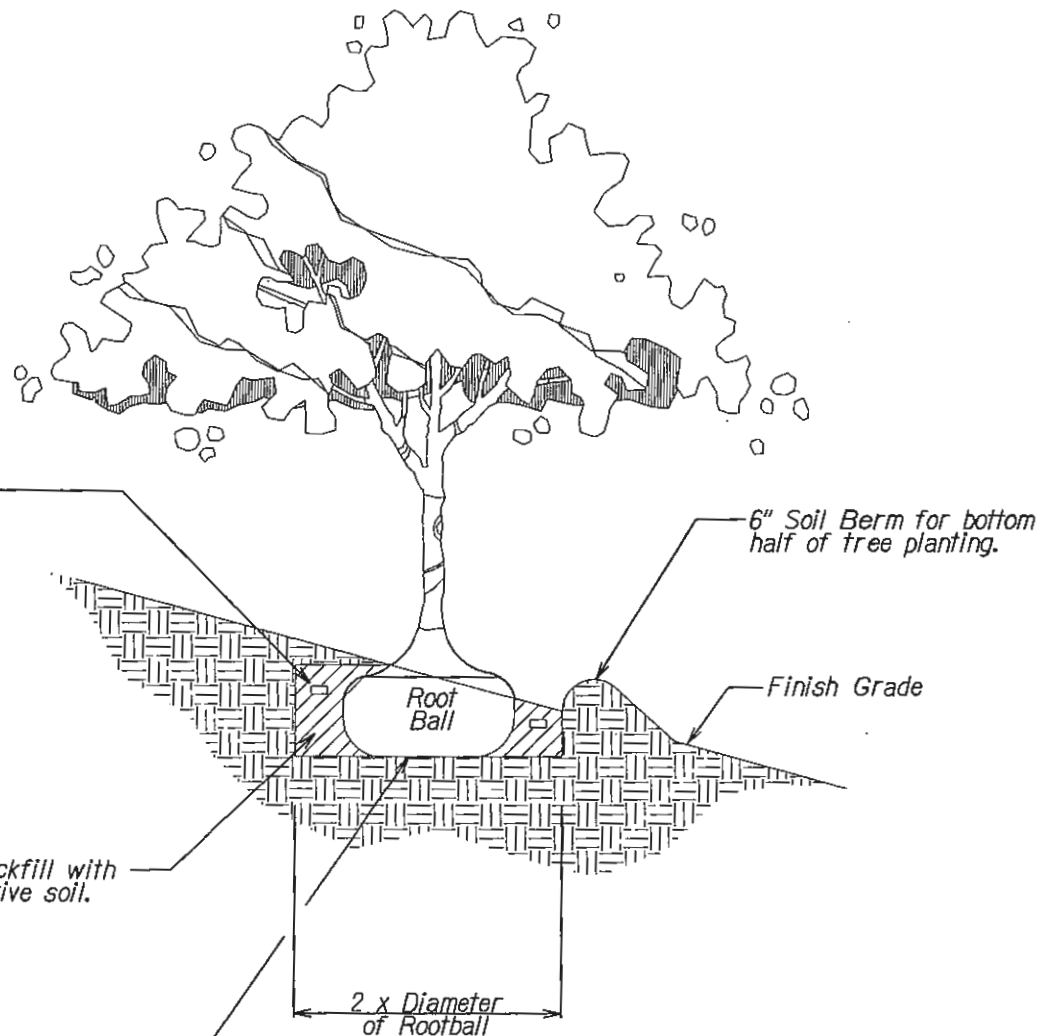
PLANTING NOTES AND DETAILS

KUHIO HIGHWAY
INVASIVE SPECIES MANAGEMENT
Kalihiwai Road to Kahili Holo Road
Project No. 56D-01-13M

Date: May, 2013

SHEET No. 1 OF 1 SHEETS

ADD.11



Three (3) Slow Release
Planting Tablets
(21 Grams, 20-10-5)

6" Soil Berm for bottom
half of tree planting.

Finish Grade

Root
Ball

Backfill with
native soil.

2 x Diameter
of Rootball

Top of Root Ball Shall
be Flush with Finish
Grade and Trunk Flare
Shall be Visible. If
Trunk Flare is Not
Visible, Tree Shall be
Rejected. Roughen Side
of Root Ball. Remove
Roots Girdling the Trunk.
Scarify Root Ball. Bottom
of Root Ball to Rest
on Subgrade.

NOTE:

Tree Shall be Plumb. If Tree is Leaning
At the End of the Plant Establishment
Period, the Tree Shall be Rejected.

3 TREE PLANTING ON SLOPE DETAIL
Scale: NTS

Typical Shrub
(As Specified)

Top of Root Ball to
be set 1" Above Soil
Surface to Account
for Settlement.

4" Soil Berm

One (1) Planting Tablet
(10 Grams, 20-10-5)

Finish Grade

Root
Ball

Backfill with
native soil.

Scarify Root Ball

2 x Diameter
of Rootball

Bottom of Rootball to
Rest On Subgrade.

10 SHRUB PLANTING ON SLOPE DETAIL
Scale: NTS

5/29/13 Plans to be Included in bid set.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PLANTING DETAILS
KUHIO HIGHWAY
INVASIVE SPECIES MANAGEMENT
Kalihiwai Road to Kahili Holo Road
Project No. 56D-01-13M

Scale: NTS
Date: May, 2013

SHEET No. 1 OF 1 SHEETS