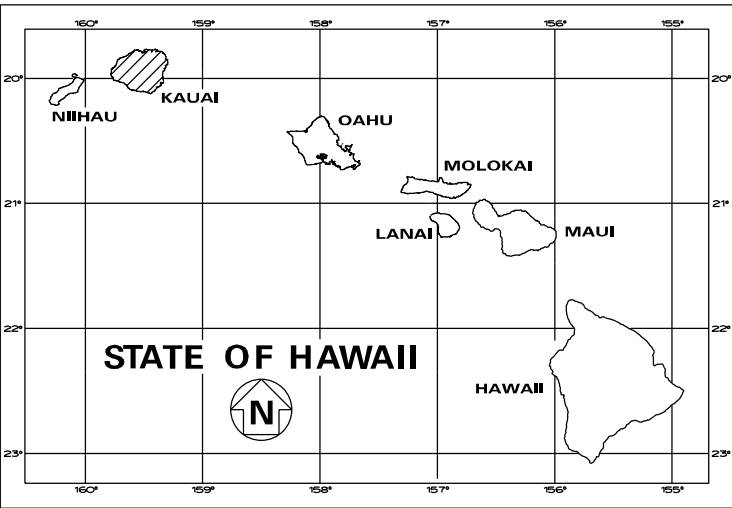


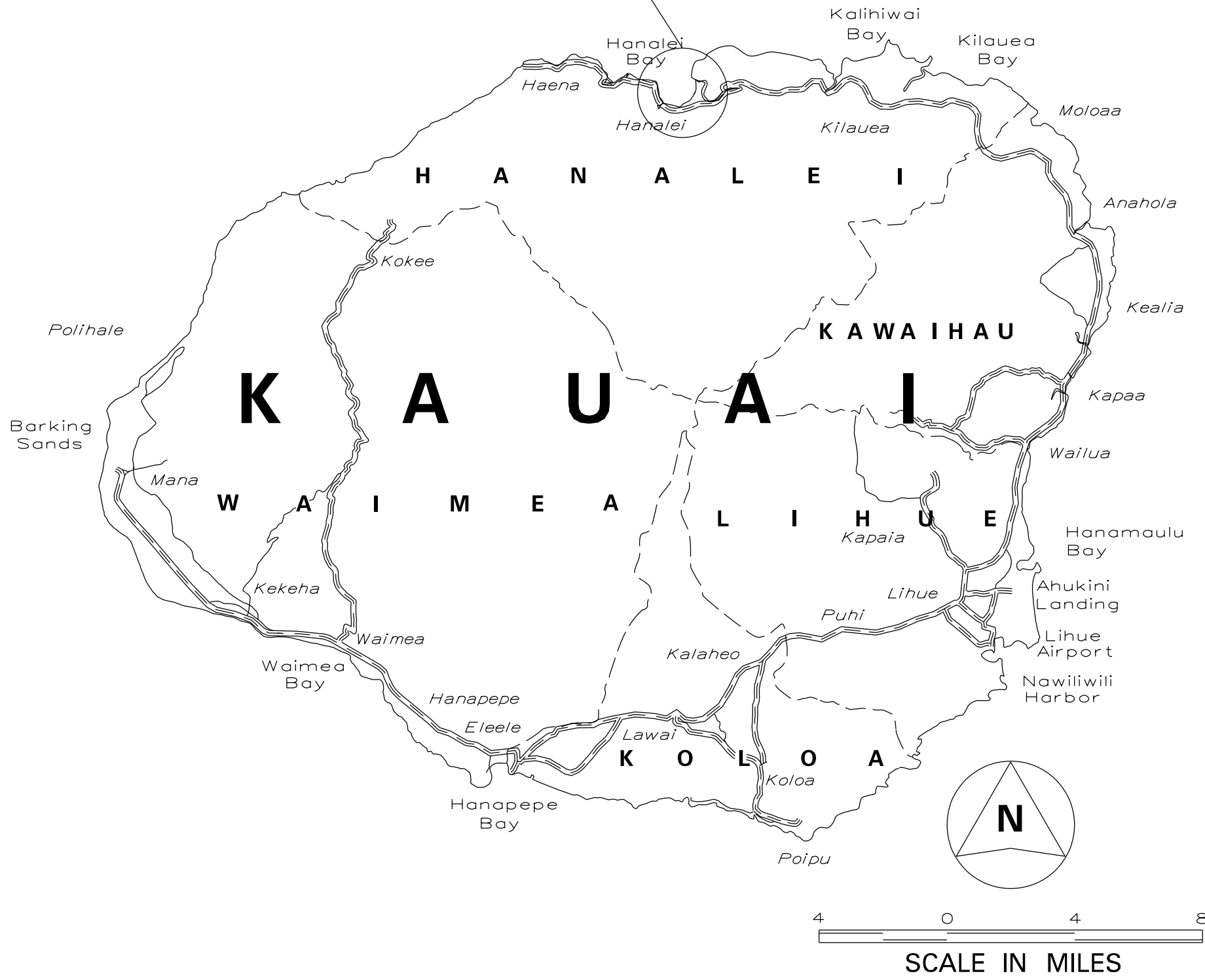
INDEX TO DRAWINGS	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STANDARD PLANS SUMMARY
3 – 4	GENERAL NOTES
5	HISTORIC PRESERVATION AND ENVIRONMENTAL PROTECTION NOTES
6 – 8	WATER POLLUTION AND EROSION CONTROL NOTES
9	TYPICAL SECTIONS
10	ROADWAY PLAN
11	PAVEMENT MARKING DETAILS, NOTES & SUMMARY
12	PAVEMENT MARKING PLAN
13	LOW SPEED UNDIVIDED HIGHWAY WORK ZONE SIGNING PLAN, NOTES & DETAILS
14 – 15	TRAFFIC CONTROL PLAN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU, HAWAII
PLANS FOR
KUHIO HIGHWAY
DRAINAGE IMPROVEMENTS
AT MALOLO ROAD
PROJECT NO. 560A-02-22
TAX MAP KEY: (4) 5-5-002:037

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	560A-02-22	2023	1	15

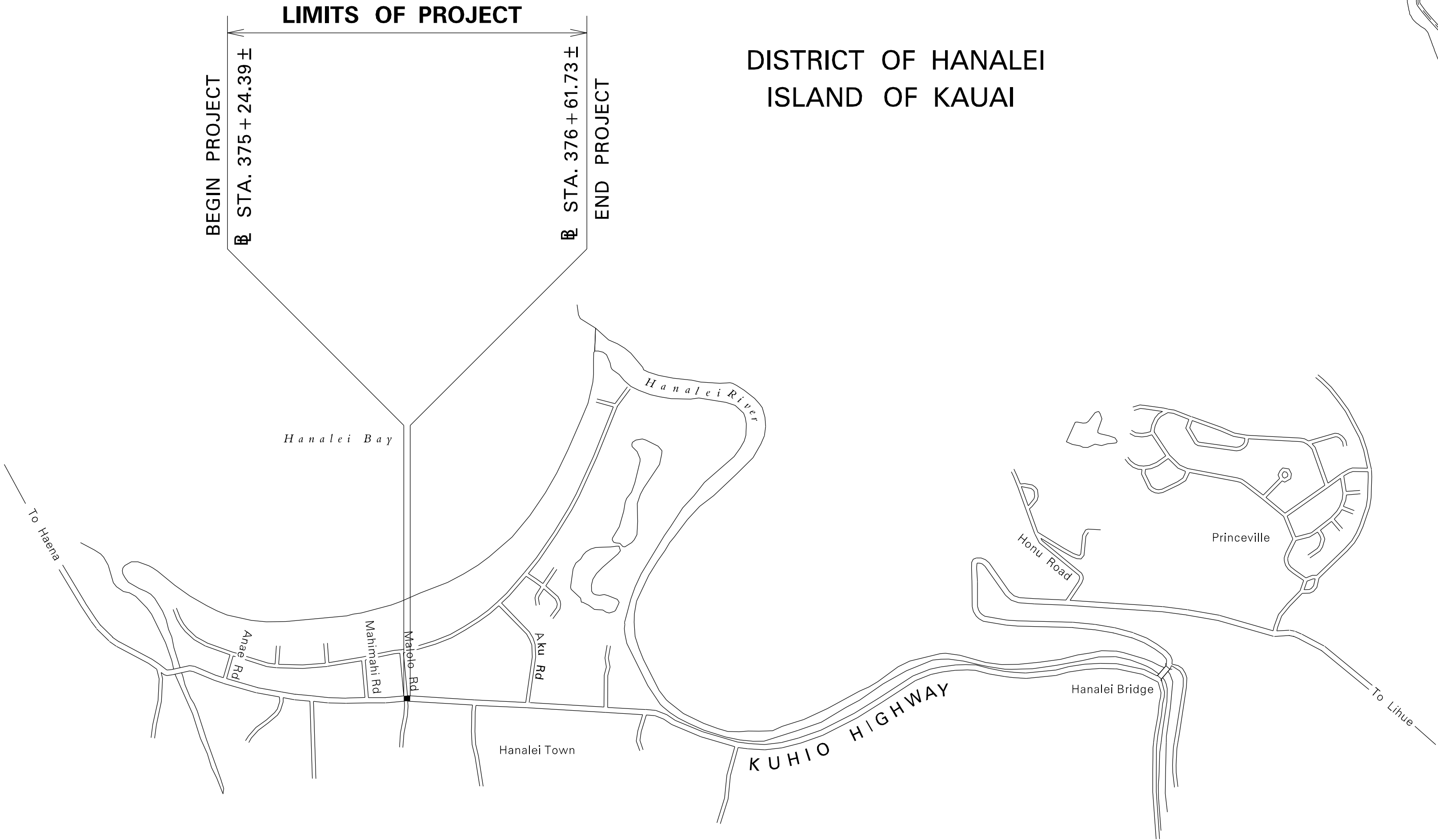


PROJECT LOCATION

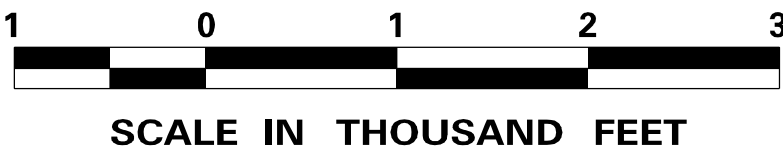


FEDERAL AID PROJECTS PREVIOUSLY CONSTRUCTED OR UNDER CONSTRUCTION

MILE POST 2.89 TO MILE POST 2.89



LAYOUT PLAN



HWY-K
DESIGNED BY

HWY-KE
MANAGED BY

241-3000
PHONE

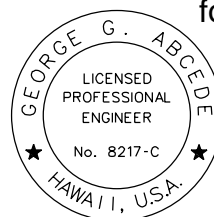
SEP. 2022
DATE

APPROVED:

George G. Arcede

Nov 14, 2022

County Engineer, Dept. of Public Works,
County of Kauai (For Work within County R/W)



My License Expires April 30, 2024

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Nov 2, 2022
Signature Date

APPROVED:

[Signature]

Nov 2, 2022

FOR DIR. OF TRANSPORTATION

DATE

STANDARD PLANS SUMMARY

STANDARD PLAN NO.	TITLE	DATE
B-01	NOTES & MISCELLANEOUS DETAILS	05/31/07
B-03	BACKFILL DETAILS AT EARTH RETAINING STRUCTURES	05/31/07
B-12	PRESTRESSED CONCRETE PILES & COMPRESSION SPLICE	05/31/07
	CAN DETAILS	
B-12A	PRESTRESSED CONCRETE PILES, PILE & COMPRESSION	05/31/07
	SPLICE CAN DETAILS & NOTES	
B-12B	PILE INTERACTION DIAGRAM	05/31/07
B-13	PRESTRESSED CONCRETE PILE BUILD-UP DETAILS	05/31/07

L-01	TREE PLANTING	08/16/06
L-02	TREE PLANTING	08/16/06
L-03	TREE TRANSPLANTING	08/16/06
L-04	PALM PLANTING	08/16/06
L-05	SHRUB PLANTING	08/16/06
L-06	LANDSCAPE DETAILS	08/16/06
L-07	LANDSCAPE DETAILS	08/16/06
L-08	LANDSCAPE DETAILS	08/16/06
L-09	LANDSCAPE DETAILS	08/16/06
L-10	LANDSCAPE DETAILS	08/16/06
L-11	PLANTING NOTES	08/16/06
L-12	IRRIGATION DETAILS	08/16/06
L-13	IRRIGATION DETAILS	08/16/06
L-14	IRRIGATION DETAILS	08/16/06
L-15	IRRIGATION DETAILS	08/16/06
L-16	IRRIGATION DETAILS	08/16/06
L-17	IRRIGATION DETAILS	08/16/06
L-18	IRRIGATION DETAILS	08/16/06
L-19	IRRIGATION DETAILS	08/16/06
L-20	IRRIGATION DETAILS	08/16/06
L-21	IRRIGATION DETAILS	08/16/06
L-22	IRRIGATION DETAILS	08/16/06
L-23	IRRIGATION DETAILS	08/16/06
L-24	IRRIGATION NOTES	08/16/06

TE-01	SIGN HEIGHT AND LOCATION	07/11/08
TE-01A	SIGN INSTALLATION	07/11/08
TE-02A	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-02B	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-02C	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-03A	GALVANIZED SQUARE TUBE SIGN POST MOUNTING	05/31/07
TE-03B	GALVANIZED SQUARE TUBE SIGN POST MOUNTING	05/31/07
TE-04	REGULATORY SIGNS	07/11/08
TE-05	WARNING SIGNS	07/11/08
TE-06	MISCELLANEOUS SIGNS	07/11/08
TE-07	CONSTRUCTION SIGNS	07/11/08
TE-08	MISCELLANEOUS INTERSECTION SIGNS	07/11/08

STANDARD PLAN NO.	TITLE	DATE
TE-31	PAVEMENT ALPHABETS, NUMBERS & SYMBOLS	07/11/08
TE-32	TYPE I & II TRAFFIC SIGNAL SYSTEM MISC. DETAILS	05/31/07
TE-33	TYPE II TRAFFIC SIGNAL SYSTEM	08/16/06
TE-33A.1	TYPE II TRAFFIC SIGNAL STANDARD	05/31/07
TE-33A.2	TYPE II TRAFFIC SIGNAL STANDARD	05/31/07
TE-34	LOOP DETECTOR DETAILS	07/11/08
TE-35	LOOP DETECTORS & DUCT DETAILS	07/11/08
TE-36	TRAFFIC SIGNAL DETAILS	07/11/08
TE-37	PULLBOX & COVER DETAILS	07/11/08
TE-37A	TYPE "A" TRAFFIC PULLBOX	05/31/07
TE-37B	TYPE "A" TRAFFIC PULLBOX REINFORCING	05/31/07
TE-37C	TYPE "B" TRAFFIC PULLBOX	05/31/07
TE-37D	TYPE "B" TRAFFIC PULLBOX REINFORCING	05/31/07
TE-37E	TYPE "B" TRAFFIC PULLBOX FOUNDATION	05/31/07
TE-37F	TYPE "C" TRAFFIC PULLBOX	05/31/07
TE-37G	TYPE "C" TRAFFIC PULLBOX REINFORCING	05/31/07
TE-37H	TYPE "C" TRAFFIC PULLBOX FOUNDATION	05/31/07
TE-37J	TRAFFIC PULLBOX COVER AND DETAILS	05/31/07
TE-38	TYPE III TRAFFIC SIGNAL STANDARD	05/31/07
TE-38A.1	TYPE III TRAFFIC SIGNAL STANDARD	05/31/07
TE-38A.2	TYPE III TRAFFIC SIGNAL STANDARD	05/31/07
TE-39	METAL GUARDRAIL CONNECTION TO CONCRETE BARRIER	07/11/08
TE-40	CONCRETE BARRIER TRANSITION	05/31/07
TE-40A	CONCRETE BARRIER TRANSITION SECTIONS	05/31/07
TE-41	GUARDRAIL TYPE 4 (RIGID BARRIER)	05/31/07
TE-42	PORTABLE CONCRETE BARRIER	05/31/07
TE-43	PORTABLE CONCRETE BARRIER	05/31/07
TE-44	GUARDRAIL TYPE 4 MISCELLANEOUS DETAILS	07/11/08
TE-45	BARRICADES	07/11/08
TE-46	DELINEATION & PAVEMENT MARKINGS AT NARROW BRIDGES	07/11/08
TE-47	HIGHWAY LIGHT STANDARD	05/31/07

A circular professional engineer seal. The outer ring contains the text "GEORGE G. ABCDE" at the top and "HAWAII, U.S.A." at the bottom, separated by two five-pointed stars. The inner circle contains the text "LICENSED PROFESSIONAL ENGINEER" and "No. 8217-C".

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD PLANS SUMMARY

KUHIO HIGHWAY

Drainage Improvements at Malolo Road

Project No. 560A-02-22

Date: June 2022

GENERAL NOTES

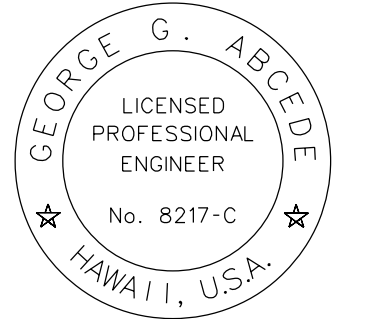
1. The scope of work for this project includes removing existing pavement; hydro-mulch seeding of dressed shoulders; installing rolled curb.
2. Contractor to obtain a Right of Entry Agreement with the parcel owner prior to the commencement of work.
3. The contractor's attention is directed to the following Sections of the Special Provisions: Subsection 107.06 Contractor Duty Regarding Public Convenience; Subsection 104(i) Utilities and Services; and Section 645 Work Zone Traffic Control.
4. Any work specified in the contract but not listed separately in the proposal schedule shall be considered incidental to various items and shall not be paid separately.
5. The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting of his operations.
6. At the end of each day's work, the Contractor shall remove all equipment and other obstruction to permit free passage of public traffic.
7. All lanes shall be open to traffic during the hours of 3:00 PM to 8:00 AM. Only one lane of highway shall be closed at any other time. Night working hours are specified in Section 107 of the Special Provisions. Failure of the Contractor to open all lanes of traffic during the times specified above shall result in assessment of rental fees as specified in Section 108.09 of the Special Provisions.
8. All workers within the State right-of-way who are exposed to either vehicles using the roadway or to construction equipment shall wear high-visibility safety apparel that meets the Performance Class 2 or 3 requirements of ANS/I/SEA 107-2004. "Workers" is defined as people on foot whose duties place them with the State right-of-way, such as, but not limited to construction and maintenance forces, equipment operators, survey crews, utility crews, responders to incidents (e.g. EMT and Firemen), and law enforcements personnel directing traffic, investigating accidents, handling lane closures and obstructed roadways.
9. No material or equipment shall be stockpiled or otherwise stored within the highway right-of-way except at locations designated in writing and approved by the Engineer. The contractor shall obtain a permit to use the property within the highway right-of-way from the State Highways Division at telephone no. (808) 241-3000.
10. 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 be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.
11. Prior to construction, the Contractor shall contact the various utility agencies for location of existing utilities within the project limits. The Contractor shall locate and protect all existing utilities whether or not shown on the plans. Any cost incurred by damages to existing utilities will be borne by the Contractor. Contractor shall request from One-Call Center, Ph./866-423-7278. The Contractor shall also call the County of Kauai, Department of Water, PH (808) 245-5400 and the Wastewater Division, Ph. (808) 241-6642 for toning waterlines and sewerlines respectively.

12. All works of toning, probing, hand digging, and all other means of utility verifications shall not be paid for separately, but shall be considered incidental to the various contract items.
13. The Contractor shall provide for access to and from all existing driveways, sidewalk and ADA access routes, and side streets and cross streets at all time. This work shall be considered incidental to the various contract items.
14. 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 the various contract items.
15. The contractor, at his own expense, shall keep the project area and surrounding area free from dust nuisance.
16. Smooth riding connections shall be constructed at all limits of construction including the beginning and end of project, connecting approaches, side streets and driveways as shown on the plans.
17. The Contractor shall exercise extreme caution to preserve BENCHMARKS (Survey Monuments). Whenever the center of a Survey Monuments is less than three (3) feet from the edge of construction, the Contractor shall retain a Licensed Land Surveyor to reference the location of said Survey Monument. 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 benchmarks shall be sent to the Department of Transportation, Highways Division, Cadastral Engineering Section, for review and approval prior to construction.
18. All new reference survey monuments shall be set under a Licensed land Surveyor's direction. Copies of field notes, descriptions and new values of the new benchmarks shall be sent to the Department of Transportation, Highways Division, Cadastral Engineering Section, for review and approval prior to construction.
19. Should historic remains such as artifacts, burials, concentration of shell or charcoal be encountered during construction activities, work shall cease in the immediately vicinity of the find. The Contractor shall immediately notify the Planning Department and the State Historic Preservation Division at (808) 241-3690, which will assess the significance of the find and recommend the appropriate mitigation measures, if necessary.
20. The Contractor shall take measures to reduce the spread of invasive species (eg. Rapid Ohia Death) such as by minimizing the movement of plant or soil material between worksites, such as fill. Additionally, all equipment, materials, and personnel should be cleaned of excess soil and debris to minimize the risk of spreading invasive species.
21. Removal and disposal of existing pavement shall be considered incidental to the various contract items and will not be paid separately.
22. All saw cutting works shall be considered incidental to the various contract items and will not be paid separately.
23. The Contractor, at his own expense shall hydro-mulch and maintain per Section 641 Hydro-Mulch Seeding of the HDOT Standard Specification all areas disturbed by his operations.
24. Earth swale shall be graded to drain. Graded swales and shoulder shall be grassed. This work shall be considered incidental to the various contract items.

25. Trimming and dressing of shoulder, sidewalk and bus turnout shall consist of clearing, grubbing, grading, reshaping and compacting the unpaved shoulders with suitable materials as shown on the plans and/or as directed by the Engineer. Suitable materials shall include materials from roadway excavation, including topsoil and base material therefrom, and if necessary, additional materials from borrow outside the limits of the right of way. Asphalt concrete removed from cold planning, reconstruction and roadway excavation shall not be used for dressing of shoulders, sidewalk or bus turnout. This work shall be considered incidental to the various contract items.
26. The exact locations and limits or areas to be excavated shall be determined in the field by the Engineer.
27. All asphalt concrete materials from cold planning, reconstruction and roadway excavation operations shall become the property of the Contractor. The Contractor shall remove and dispose these materials and shall be considered incidental to the various contract items.
28. A Road Permit is required from the County "Department of Public Works" for the construction and warning sign installation within County right-of-way. Three (3) sets of the approved plans shall be submitted at the time when the Road Permit is applied for. Additionally, the applicant will need to provide Certificate of Liability Insurance naming the County as additionally insured. This work shall be considered incidental to the various contract items and will not be paid separately.

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	560A-02-22	2023	3	15

ORIGINAL PLAN	NOTE BOOK	No.	DATE	SURVEY PLOTTED BY
				DRAWN BY
				DESIGNED BY
				CHECKED BY



My License Expires: April 30, 2024

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Signature Date

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
GENERAL NOTES
KUHIO HIGHWAY
Drainage Improvements at Malolo Road
Project No. 560A-02-22
Date: Aug. 2022

SHEET No. 1 OF 2 SHEETS

NOTES FOR CONSTRUCTION WITHIN COUNTY RIGHT-OF-WAY

1. All damaged pavement shall be restored to its original condition in accordance with the most current versions of the "Hawaii Standard Specifications for Road and Bridge Construction" and the "Standard Details for Public Works Construction, September 1984", the "Standard Details for Public Works Construction, City and County of Honolulu, and the Counties of Kauai, Maui, and Hawaii." with 2" inimum Hot Mix Asphalt concrete pavement (State Design Mix V) and 8" minimum base course.

2. 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 and for the convenience and safety of the public traffic. All such protective facilities and precautions to be taken shall conform with the Rules and Regulations G overning the use of Traffic Control Devices at work sites on or adjacent to Public Streets and Highways adopted by the Highway Safety Coordinator and U.S. Federal Highway Administration Manual on Uniform Traffic Control Devices for Streets and Highways dated 2009 and its amendments.

3. The Contractor shall, whenever necessary, properly sheet and brace all excavations to render it secure and shall remove all such sheeting and bracing before completion of the backfill for water mains. The minimum cover requirements (from top of pipe to finished grade over pipe) is three (3) feet.

4.

A. A permit shall be obtained by the Contractor from the Department of Public Works, County of Kauai before work on a public street or highway may begin. Permit fees shall be at the Contractor's expense.

B. Driveways shall be kept open unless owners of the abutting lots using these right-of-way are otherwise provided for satisfactorily.

C. All work including repair of damaged pavement and shoulders shall be inspected and approved by the department of public works. All unapproved work shall be considered unacceptable and shall be reworked and corrected as directed by the Department of Public Works, at the Contractor's expense.

D. Damaged shoulders shall be restored to a condition equal to or better than existing condition.

E. Work on a public street area may be performed only between the hours of 8:00 a.m. To 3:30 p.m. Monday through Friday, except on holidays recognized by the county of Kauai, unless otherwise permitted in writing by the County Engineer.

F. During non-working hours, all trenched shall be covered with a safe non-skid bridging material and all lanes shall be opened to public vehicular and pedestrian traffic.

G. No material and/or equipment shall be stockpiled or otherwise stored within County right-of-way except at locations designated in writing and approved by the County Engineer.

H. The Contractor shall conduct his operations so as to offer the least possible obstructions and inconvenience to the public and he shall have under construction no greater length or amount of work that he can execute properly with due regard to the rights of the public.

I. All existing drainage flow conditions shall be maintained.

5. The Contractor shall retain the services of a geotechnical engineer for quality control. Certification from the geotechnical engineer shall be submitted to the Department of Public Works at the completion of the construction work. The geotechnical engineer shall certify that the construction work meets the "Standard Specifications". The geotechnical engineer shall also submit test results as requested by the Department of Public Works

6. The Contractor shall hold a preconstruction meeting with the Construction - Design sections of the Department of Public Works before commencing any work.

7. The Contractor shall exercise extreme caution to preserve benchmarks (survey monuments) whenever the center of a survey monument is less than three (3) feet from the edge of construction. The contractor shall retain a licensed surveyor to reference the location of said survey monument.

8. 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.

9. The Contractor shall be responsible for all overtime 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.

10. If system conditions require non-emergency nighttime 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) in 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 an SOS facility. This requirement does not allow lighting as may be restricted by other government agencies.
- | FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|------------|-------------|-----------|--------------|
| HAWAII | HAW. | 560A-02-22 | 2023 | 4 | 15 |
- APPROVED:
- Nov 14, 2022

County Engineer, Dept. of Public Works,

County of Kaua'i (For Work within County R/W)

For

Date
-
- My License Expires: April 30, 2024
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION
- Signature

Nov 2, 2022

Date
- STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES

KUHIO HIGHWAY

Drainage Improvements at Malolo Road

Project No. 560A-02-22

Date: Sep. 2022
- SHEET No. 2 OF 2 SHEETS
- 4

HISTORICAL PRESERVATION NOTES

1.

If cultural materials such as artifacts, burials, concentrations of shell or charcoal be discovered during construction, all earth-moving activity within and around the immediate discovery area shall cease immediately and the find shall be protected from further damage. The Contractor shall immediately notify the Planning Department and the State Historic Preservation Division at (808) 241-3690, which will assess the significance of the find and recommend appropriate mitigation measures, if necessary.
2.

If previously unidentified non-burial historic properties, or unanticipated effects are discovered, the Contractor shall follow the Hawaii Administrative Rules (HAR) Chapter 13-280 "Rules Governing General Procedures for Inadvertent Discoveries of Historic Properties During a Project Covered by the Historic Preservation Review Process".
3.

If human remains are discovered, HAR Title 13, Subtitle 13, Chapter 300 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains and the State Historic Preservation Division and the Police Department will be contacted. The appropriate process would then proceed in conformance with HAR Section 13-300, Subchapter 4, "Procedures for Proper Treatment of Burial Sites and Human Skeletal Remains".

MAMMALIAN PROTECTION NOTES

1.

The Contractor shall incorporate the following measures to avoid and minimize project-related adverse effects to the Hawaiian hoary bat:

a.

There shall be no disturbance, removal, or trimming of woody plants greater than 15 feet (4.6 meters) tall during the Hawaiian Hoary bat birthing and pup rearing season (June 1 through September 15).

b.

Barbed wire shall not be used for fencing.

AVIAN PROTECTION NOTES

1.

The Contractor shall incorporate the following measures to avoid and minimize project-related adverse effects to Hawaiian seabirds (Hawaiian petrel, Newell's shearwater and Hawaii DPS of the band-rumped storm-petrel):

a.

Before beginning any work at the project site, the Contractor shall:

i.

Collect information regarding the protection of seabirds and seabird fallout.

ii.

Submit to the Engineer for acceptance a protection of seabirds training plan including a detailed description of information and materials the Contractor intends to use in the training classes. The training plan shall be submitted to the Engineer for acceptance at least 15 days in advance of the class. If the Engineer rejects the training plan, the Contractor shall revise and promptly propose another training plan.

iii.

Disseminate information regarding the protection of seabirds and seabird fallout by conducting training classes for all employees, subcontractors, suppliers and other personnel working on the project, including HDOT personnel, on such topics as the Save Our Shearwater (SOS) program, proper use of temporary lighting, procedures to store and report downed seabirds, and the consequences of non-compliance with the laws regarding threatened and endangered seabirds. The Engineer may request for additional topics related to seabirds to be included in the training classes.

Training classes shall be taught by authorized representatives of the U.S. Fish and Wildlife Service (USFWS), the Department of Land and Natural Resources, the SOS program or other qualified personnel accepted by the Engineer.
- AVIAN PROTECTION NOTES (CONT.)
- iv.

Furnish the Engineer with evidence that the Contractor has held training classes, including the dates of the classes, identify who conducted the training, and the content and nature of the training.

b.

The Contractor shall comply to the following construction requirements:

i.

Conduct additional training classes during the project to update all employees, subcontractors, suppliers, HDOT personnel and other personnel on new and/or updated information regarding the protection of seabirds and seabird fallout.

ii.

No permanent streetlights shall be installed as part of the project.

iii.

All temporary lights used for night work (between sunset and sunrise) shall contain less than 2% wavelengths less than 550 nm, and shall be downward-facing and shielded so the bulb can only be seen from below. Temporary lights shall include but are not limited to flood lights, light towers, lights for construction equipment and other lights as determined by the Engineer. All traffic control devices, including warning lights, arrow boards, portable changeable message signs and other lighting device as determined by the Engineer shall be shielded.

iv.

Nighttime construction and the use of all temporary lights shall cease during the peak seabird fledgling period (September 15 through December 15).

v.

Furnish and maintain a small (approximately 10" x 12" x 19"), portable cat kennel on site to temporarily hold a downed seabird. The Contractor shall obtain acceptance of the cat kennel from the Engineer prior to use.

vi.

If a downed dead seabird is found, the Contractor shall contact the USFWS (Ms. Megan Laut at 808-792-9400) within 24 hours.

vii.

If the downed seabird is alive, the Contractor shall:

I.

Pick up the seabird from behind as soon as possible using a clean towel, t-shirt or cloth by gently wrapping it around its back and wings.

II.

Place the seabird in the cat kennel and immediately contact the SOS Program Coordinator at 808-635-5117 for further instructions on where to deliver the seabird.

III.

Deliver the seabird to the location determined by the coordinator of the SOS program and as directed by the Engineer.

IV.

Keep the seabird in a cool, quiet location and out of direct sunlight with adequate ventilation

V.

The Contractor and any personnel on-site shall not feed, provide water, handle or release the seabird

The Contractor shall maintain records of all downed seabirds for the duration of the project. The records shall include the date, time, location and condition (dead or alive) the seabird was found and delivered. Submit a copy of the records to the Engineer after finding each and every downed seabird.

2.

The Contractor shall incorporate these measures to avoid and minimize project-related adverse effects to Hawaiian waterbirds (Hawaiian stilt, Hawaiian coot, Hawaiian common gallinule, and the Hawaiian duck):

a.

In areas where known presence of Hawaiian waterbirds occurs, post, implement and enforce reduced speed limits, and inform project personnel and Contractors of the presence of these endangered species on-site.

b.

If water resources are located within or adjacent to the project site, incorporate the applicable Best Management Practices (BMPs) regarding work in aquatic environments to the project design.

c.

Survey for Hawaiian waterbirds and nests within the vicinity of the project area prior to initiation of project work using survey biologists familiar with the species' biology. Survey biologists should be trained and capable of identifying adults and juveniles of each species, nesting behaviors, and nests.

i.

Surveys for species and nests should be repeated when a delay of work occurs that is three days or more (during which the birds may attempt to nest).

ii.

If a nest or active brood is found, contact the Kauai Branch DOFAW Office at (808) 274-3433 within 24 hours for further guidance

AVIAN PROTECTION NOTES (CONT.)

iii.

Establish and maintain a 100-ft buffer around all active nests and/or broods until the chicks/ducklings have fledged. Do not conduct potentially disruptive activities or habitat alteration within this buffer.

iv.

A biological monitor that is familiar with the species' biology shall be present on the project site during all construction or earth moving activities until the chicks/ducklings fledge to ensure that Hawaiian waterbirds and nests are not adversely affected.

3.

The Contractor shall incorporate these measures to avoid and minimize project-related adverse effects to Hawaiian goose or nene:

a.

Nene in or near the project area shall not be approached, fed, or disturbed in any way.

b.

If nene are observed loafing, foraging, or otherwise present within the project area during the breeding season (September 1 through April 30), a trained biologist familiar with nene nesting behavior will survey the area in and around the project area for nests prior to work each day. Surveys will be repeated after any subsequent delay of work of three or more days (during which the birds may attempt to nest).

c.

If a nest is identified within a radius of 150 feet of the project area, or a previously undiscovered nest is found within the 150-foot radius after work begins, all work shall cease and the Kauai Branch DOFAW Office will be contacted immediately at (808) 274-3433 for further guidance.

d.

Reduced speed limits shall be posted and implemented in areas where nene are known to be present, and project personnel and Contractors will be informed of the presence of endangered species on-site.

e.

There shall be no feeding of birds or dogs on the project site.

BIOLOGICAL RESOURCE PROTECTION NOTES

1.

The Contractor shall take measures to reduce the spread of invasive species (e.g. Rapid Ohia Death):

a.

Minimize the movement of plant or soil material between work sites.

b.

All equipment, materials, and personnel should be cleaned of excess soil and debris to minimize the risk of spreading invasive species. Gear that may contain soil, such as work boots and vehicles, should be thoroughly cleaned with water and sprayed with 70 1/4 alcohol solution to prevent the spread of Rapid Ohia Death and other harmful fungal pathogens.

2.

The information and guidance at <https://cms.ctahr.hawaii.edu/rod> shall be reviewed and followed if ohia trees are present and will be removed.

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				DESIGNED BY
				CHECKED BY

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Signature Date

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
HISTORIC PRESERVATION AND ENVIRONMENTAL PROTECTION NOTES
KUHIO HIGHWAY
Drainage Improvements at Malolo Road
Project No. 560A-02-22
Date: Sep. 2022
SHEET No. 1 OF 1 SHEETS

5

WATER POLLUTION AND EROSION CONTROL NOTES:

A. GENERAL:

1. See Special Provisions Section 209 - Water Pollution and Erosion Control. Section 209 describes but is not limited to: submittal requirements; scheduling of a water pollution and erosion control conference with the Engineer; construction requirements; method of measurement; and basis of payment. In addition, Appendix A lists potential pollutant sources and corresponding BMPs used to mitigate the pollutants.
2. Follow the guidelines in the current HDOT Construction Best Management Practices Field Manual in developing, installing and maintaining the Best Management Practices (BMP) for the project. For any conflicting requirements between the Manual and applicable bid documents, the applicable bid documents will govern. Should a requirement not be clearly described within the applicable bid documents, the Contractor shall notify the Engineer immediately for interpretation. For the purposes of clarification under Note A.2, "applicable bid documents" include the construction plans, standard specifications, Special Provisions, Permits, and the Storm Water Pollution Prevention Plan (SWPPP) when applicable.
3. Follow the guidelines in the Honolulu's City & County "Rules Relating to Soil Erosion Standards and Guidelines" along with applicable Soil Erosion Guidelines for projects on Maui, Molokai, Kauai, and Hawaii.
4. The Engineer may assess liquidated damages of up to \$27,500 for non-compliance of each BMP requirement and each requirement stated in Section 209 and special provisions, for every day of non-compliance. There is no maximum limit on the amount assessed per day.
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. If necessary, install a rain gage prior to any field work including the installation of any site-specific best management practices. The rain gage shall have a tolerance of at least 0.05 inches of rainfall. Install the rain gage on the project site in an area that will not deter rainfall from entering the gage opening. Do not install in a location where rain water may splash into rain gage. The rain gage installation shall be stable and plumbed. Do not begin field work until the rain gage is installed and site-specific best management practices are in-place.
7. Submit Site-Specific BMP Plan to the Engineer along with a completed Site-Specific BMP Review Checklist within 30 calendar days of contract execution. The Site-Specific BMP Review Checklist may be obtained from <http://www.stormwaterhawaii.com>.

B. WASTE DISPOSAL:

1. Waste Materials

Collect and store all waste materials in a securely lidded metal dumpster or roll off container with cover to keep rain out or loss of waste during windy conditions. The dumpster shall meet all local and State solid waste management regulations. Deposit all trash and construction debris from the site in the dumpster. Empty the dumpster weekly or when the container is two-thirds full, whichever is sooner. Do not bury construction waste materials onsite. The Contractor's supervisory personnel shall be instructed regarding the correct procedure for waste disposal. Post notices stating these practices in the office trailer, on a weatherproof bulletin board, or other accessible location acceptable to the Engineer. The Contractor shall be responsible for seeing that these procedures are followed. Submit the Solid Waste Disclosure Form for Construction Sites to the Engineer within 30 calendar days of contract execution. Provide a copy of all the disposal receipts from the facility permitted by the Department of Health to receive solid waste to the Engineer monthly. This should also include documentation from any intermediary facility where solid waste is handled or processed.
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

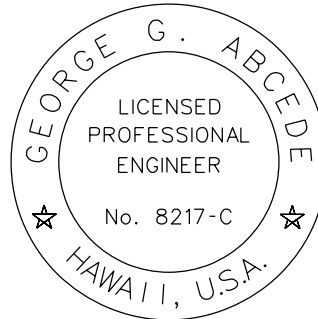
Collect all sanitary waste from the portable units a minimum of once per week, or as required. Position sanitary facilities where they are secure and will not be tipped over or knocked down.

C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

1. For projects with an NPDES Permit for Construction Activities, inspect at the following intervals. For construction areas discharging to nutrient or sediment impaired waters, inspect all control measures at least once each week and within 24 hours of any rainfall event of 0.25 inches or greater within a 24 hour period. For construction areas discharging to waters not impaired for nutrient or sediments, inspect all control measures weekly. Inspections are only required during the project's normal working hours. The discharge point water classification may be found in the SWPPP.
2. For projects without an NPDES Permit for Construction Activities, inspect all control measures weekly.
3. Maintain all erosion and sediment control measures in good working order. If repair is necessary, initiate repair immediately and complete by the close of the next work day if the problem does not require significant repair or replacement, or if the problem can be corrected through routine maintenance. When installation of a new erosion or sediment control or a significant repair is needed, install the new or modified control or complete the repair no later than 7 calendar days from the time of discovery. "Immediately" means the Contractor shall take all reasonable measures to minimize or prevent discharge of pollutants until a permanent solution is installed and made operational. If a problem is identified at a time in the day in which it is too late to initiate repair, initiation of repair shall begin on the following work day.
4. Remove built-up sediment from silt fence when it has reached one-third the height of the fence. Remove sediment from other perimeter sediment control devices when it has reached one-half the height of the device.
5. Inspect silt screen or fence for depth of sediment, tears, to verify that the fabric is securely attached to the fence posts or concrete slab and to verify that the fence posts are firmly in the ground. Inspect and verify the bottom of the silt screen is buried a minimum of 6 inches below the existing ground.
6. Inspect temporary and permanent seeding and planting for bare spots, washouts and healthy growth.
7. Complete and submit to the Engineer a maintenance inspection report within 24 hours after each inspection.
8. Provide a stabilized construction entrance at all points of exit onto paved roads 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. If minimum dimensions cannot be met, provide other stabilization techniques that remove sediment prior to exit. 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. Do not hose down the street without containing or vacuuming wash water. Cover dump trucks hauling material from the construction site with a tarpaulin. Remove sediment tracked onto the street, sidewalk, or other paved area by the end of the day in which the track-out occurs.
9. Include designated Concrete Washout Area(s) in the Water Pollution, Dust, and Erosion Control submittals.
10. Submit the name of a specific individual designated responsible for inspections, maintenance and repair activities and filling out the inspection and maintenance report.
11. 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.

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	560A-02-22	2023	6	15

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Signature: Date: Nov 2, 2022

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
<u>WATER POLLUTION & EROSION CONTROL NOTES</u>
<u>KUHIO HIGHWAY</u>
<u>Drainage Improvements at Malolo Road</u>
<u>Project No. 560A-02-22</u>
Date: June 2022
SHEET No. 1 OF 3 SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES (Cont.):

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

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

- d. *Concrete Trucks:*
Washout or discharge concrete truck drum wash water only at a designated site as far as practicable from storm drain inlets or State waters. Do not discharge water in the drainage system or State waters. Disposal by percolation is prohibited. Clean disposal site as required or as requested by the Engineer.

4. Spill Control Plan

b. The Contractor shall be the spill prevention and cleanup coordinator. Designate at least three site personnel who shall receive spill prevention and cleanup training. These individuals shall each become responsible for a particular phase of prevention and cleanup. Post the names of responsible spill personnel in the material storage area on a weatherproof bulletin board or other accessible location acceptable to the Engineer 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 ample materials and equipment necessary for spill cleanup in the material storage area onsite.
- e. Clean up all spills immediately after discovery.
- f. Keep the spill area well ventilated. Personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.

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

- ## 2. Hazardous Material Pollution Prevention Plan

- ### 3. Onsite and Offsite Product Specific Plan

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.



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WATER POLLUTION & EROSION CONTROL NOTES

KUHIO HIGHWAY
Drainage Improvements at Malolo Road
Project No. 560A-02-22

Date: June 2022

WATER POLLUTION AND EROSION CONTROL NOTES (Cont.):

E. PERMIT REQUIREMENTS:

1. A National Pollutant Discharge Elimination System (NPDES) Permit for Construction Activities of one acre or more of disturbed area is required for this project. If the Contractor requires extra land disturbance, including staging and storage areas, that is not covered by the NPDES Permit obtained by the State, the Contractor shall be responsible for obtaining the required NPDES Construction Activities Permit to cover this additional disturbed area. See Hawaii Administrative Rules Chapter 11-55, Appendix C for definition of land disturbance. The Contractor's attention is directed to the applicable NPDES Permit documents on the bid package compact disc.

- a. Deadlines for initiating and completing initial stabilization
- b. Increased inspection frequency and installation of rain gage if applicable
- c. Deadlines to initiate and complete repairs to BMPs
- d. Reporting requirements and corrective action reports

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

F. SITE-SPECIFIC BMP REQUIREMENTS:

Each BMP below is referenced to the corresponding section of the current HDOT Construction Best Management Practices Field Manual and appropriate Supplemental Sheets. The Manual may be obtained from the HDOT Statewide Stormwater Management Program Website at <http://www.stormwaterhawaii.com/resources/contractors-and-consultants> under Construction Best Management Practices Field Manual. Supplemental BMP sheets are located at <http://stormwaterhawaii.com/resources/contractors-and-consultants/storm-water-pollution-prevention-plan-swppp/> under Concrete Curing and Irrigation Water.

The requirements for Water Pollution, Dust, and Erosion Control submittals are included in Section 209 of the Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and applicable Special Provisions. A list of pollutant sources and corresponding BMP used to mitigate the pollutants are included in Section 209 of the Special Provisions under Appendix A.

Follow the requirements below:

1. Protect all Drainage Inlets receiving runoff from disturbed areas (SC-2).
2. Contain on-site runoff using Perimeter Sediment Controls
 - a. SC-1 Silt Fence
 - b. SC-5 Vegetated Filter Strips and Buffers
 - c. SC-8 Compost Filter Berm
 - d. SC-13 Sandbag Barrier
 - e. SC-14 Brush or Rock Filter
3. Control offsite runoff from entering construction area
 - a. EC-8 Run-On Diversion
 - b. SC-6 Earth Dike
 - c. SC-7 Temporary Drains and Swales
4. Incorporate applicable Site Management BMP
 - a. SM-1 Employee Training
 - b. SM-2 Material Delivery and Storage
 - c. SM-3 Material Use
 - d. SM-4 Protection of Stockpiles
 - e. SM-6 Solid Waste Management
 - f. SM-7 Sanitary/Septic Waste Management
 - g. SM-9 Hazardous Waste Management
 - h. SM-10 Spill Prevention and Control
 - i. SM-11 Vehicle and Equipment Cleaning
 - j. SM-12 Vehicle and Equipment Maintenance
 - k. SM-13 Vehicle and Equipment Refueling
 - l. SM-14 Scheduling
 - m. SM-15 Location of Potential Sources of Sediment
 - n. SM-16 Preservation of Existing Vegetation
 - o. SM-18 Dust Control
5. Contain pollutants within the Construction Staging/Storage Area BMP with applicable Perimeter Sediment Controls and Site Management BMP. Include a Stabilized Construction Entrance/Exit (EC-2) for all areas which exit onto a paved street. Restrict vehicle access to these points.
6. Manage Concrete Waste including installing a Concrete Washout Area (SM-5) and properly disposing of Concrete Curing Water (California Stormwater BMP Handbook NS-12 Concrete Curing).
7. Remove saw cut slurry and hydrodemolition water from the site by vacuuming. Provide storm drain protection and/or perimeter sediment controls during saw cutting and hydrodemolition work.

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					CHECKED BY	
					QUANTITIES BY	

GEORGE G. ARCEDE


LICENSED PROFESSIONAL ENGINEER

No. 8217-C

HAWAII, U.S.A.

My License Expires: April 30, 2024

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Nov 2, 2022

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STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

WATER POLLUTION & EROSION CONTROL NOTES

KUHIO HIGHWAY

Drainage Improvements at Malolo Road

Project No. 560A-02-22

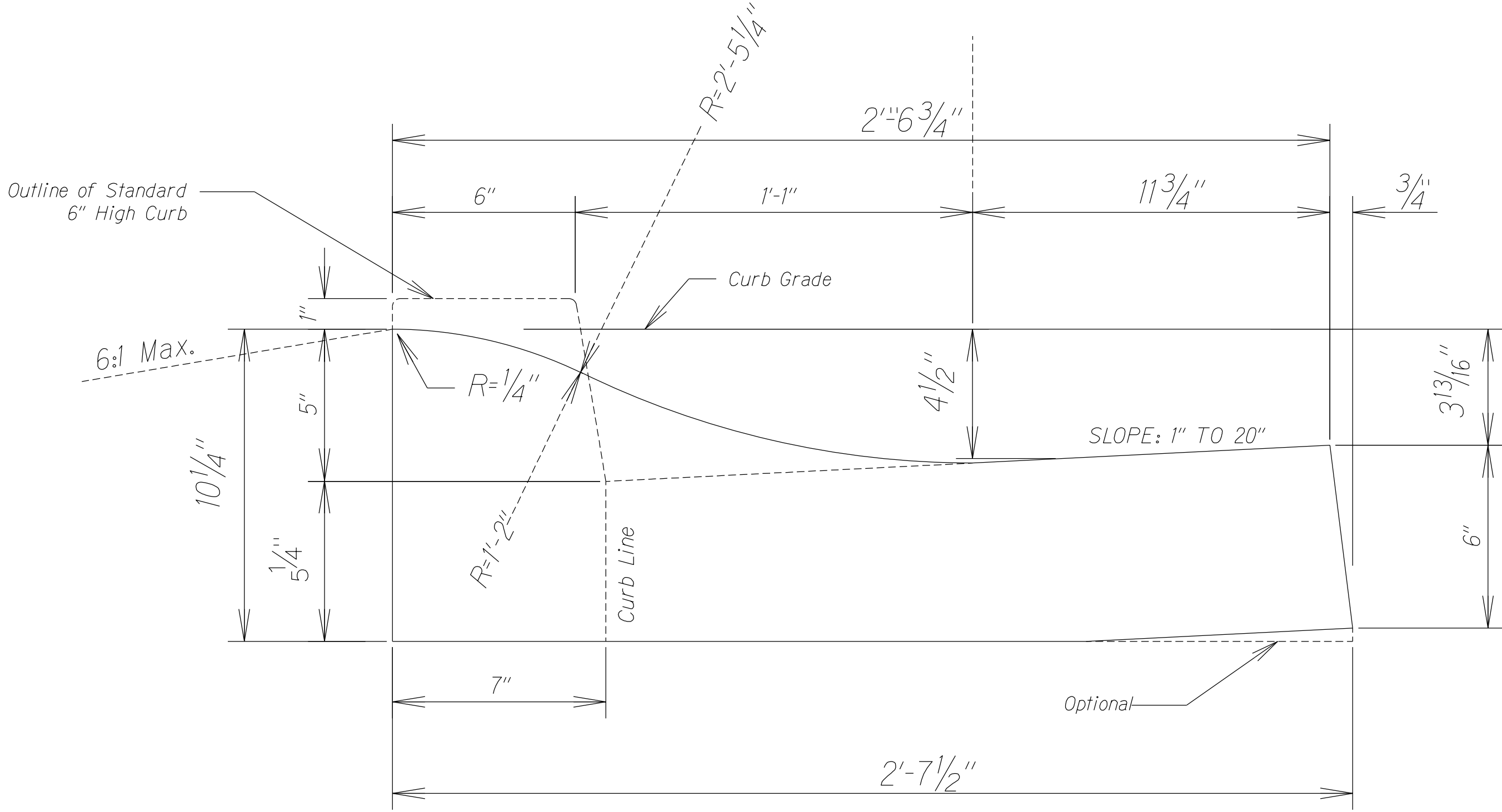
Date: June 2022

SHEET No. 3

OF 3

SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	560A-02-22	2023	9	15



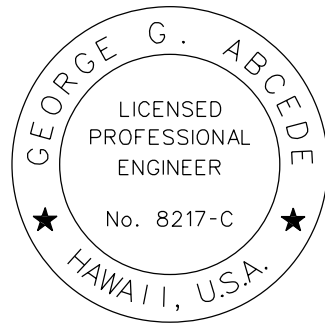
Class "A" Concrete quantity = 0.0565 cu. yd./lin. ft.

CAST IN PLACE ROLLED CURB AND GUTTER

NOTES:

1. Modify as necessary to achieve proposed drainage pattern.
2. Modifications shall be approved in advance by the Engineer.

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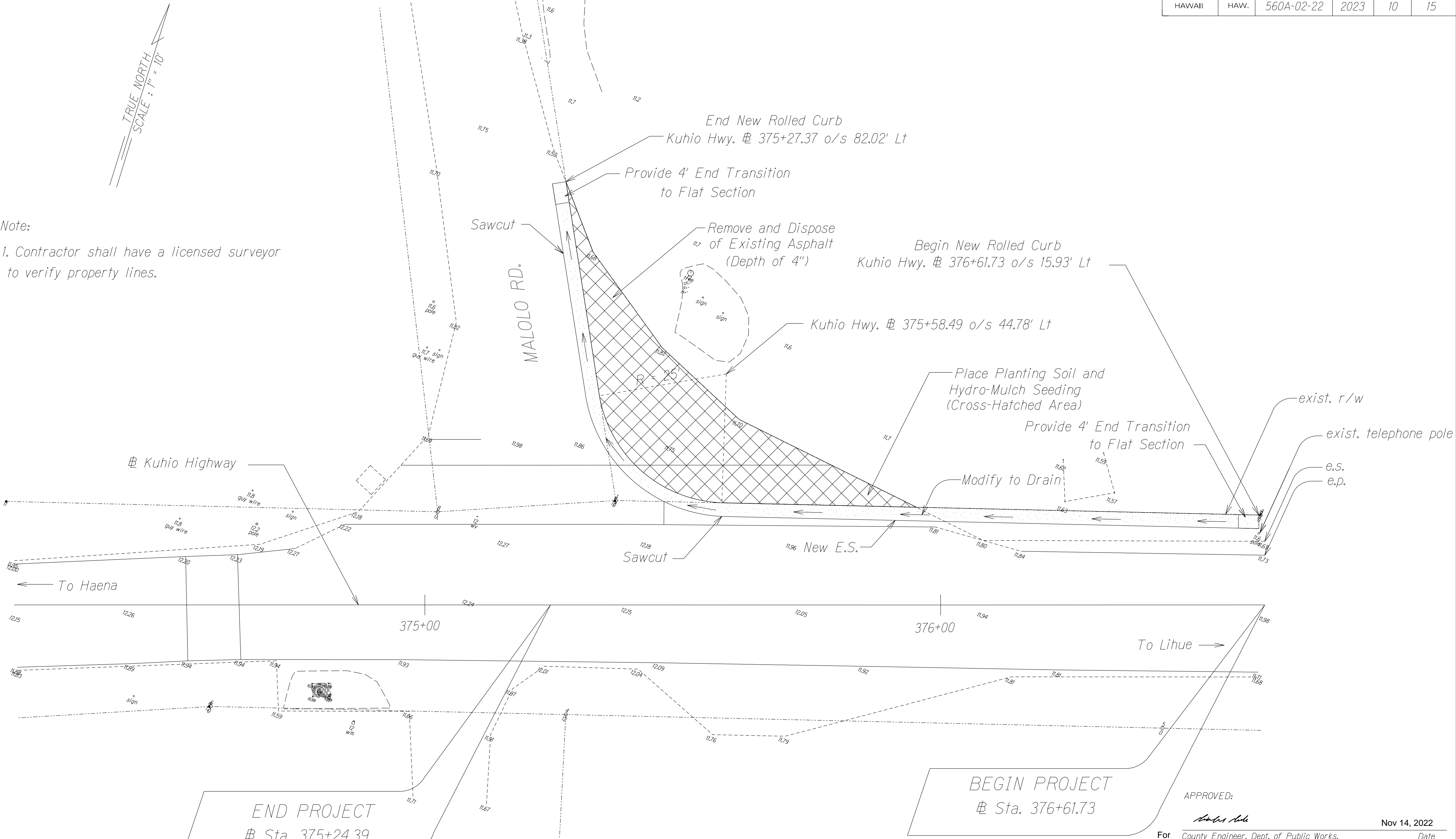
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL SECTIONS
KUHIO HIGHWAY
Drainage Improvements at Malolo Road
Project No. 560A-02-22

Not to Scale Date: Aug. 2022

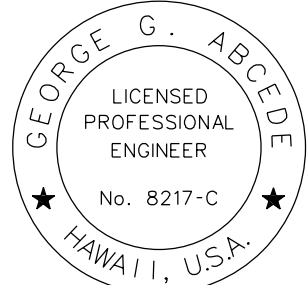
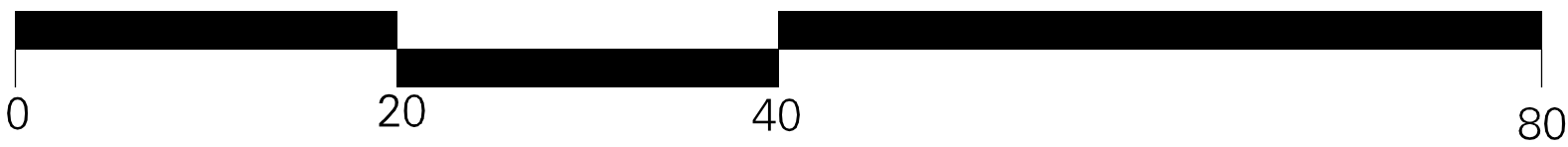
SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	560A-02-22	2023	10	15



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APPROVED:
For County Engineer, Dept. of Public Works,
County of Kauai (For Work within County R/W)

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

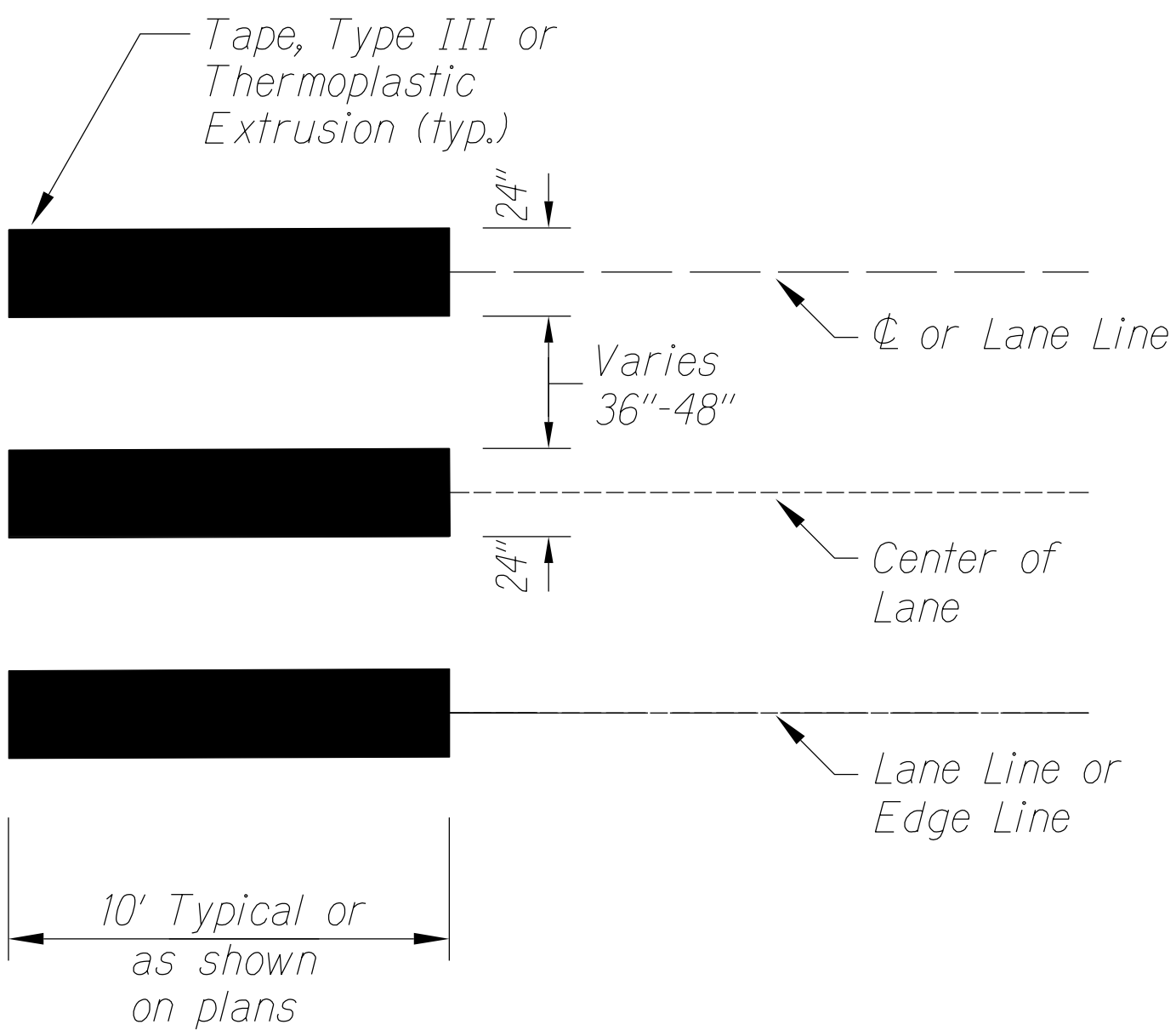
ROADWAY PLAN
KUHIO HIGHWAY
Drainage Improvements at Malolo Road
Project No. 560A-02-22

Scale: 1" = 10' Date: Sep. 2022

SHEET No. 1 OF 1 SHEETS

NOTES

1. Layout of pavement markings and striping shall be done by the Contractor and approved by the Engineer prior to any installation work.
2. Existing pavement markings not incorporated in the final traffic pattern shall be removed as directed by the Engineer. Costs shall be incidental to the various pavement marking items.
3. Raised pavement markers shall not be installed within crosswalks.
4. Existing signs not shown on these plans shall remain as posted unless otherwise directed by the Engineer. Removal and disposal of existing signs and/or posts as designated on these plans shall be incidental to the various signing items.
5. Final locations of all stop lines shall be approved by the Engineer prior to installation.
6. All pavement striping shall be as noted on the plans.
7. Pavement marking (Tape or Thermoplastic Extrusion) over existing and new pavement shall be applied with an approved primer as recommended by the manufacturer and as approved by the Engineer. The primer shall be allowed to dry to the tacky stage prior to tape application.
8. The Contractor shall erect at the beginning of the project and at the end of the project advance construction warning signs as indicated on the plans or as directed by the Engineer. The signs shall be kept in place for the duration of the project and shall be maintained by the Contractor. These signs shall be placed in addition to the required traffic controlsigns called for in Section 645 - Work Zone Traffic Control. The advance construction warning signs shall be new and become the property of the Contractor.



CROSSWALK STRIPING DETAIL

Not to Scale

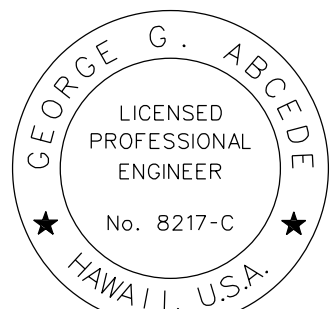
NOTE

1. Crosswalk markings shall be parallel to the direction of the vehicle travel, even if the crosswalk is skewed to roadway.

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	560A-02-22	2023	11	15

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ORIGINAL PLAN	NOTE BOOK
PLAN	NOTE
BOOK	BOOK
NO.	NO.



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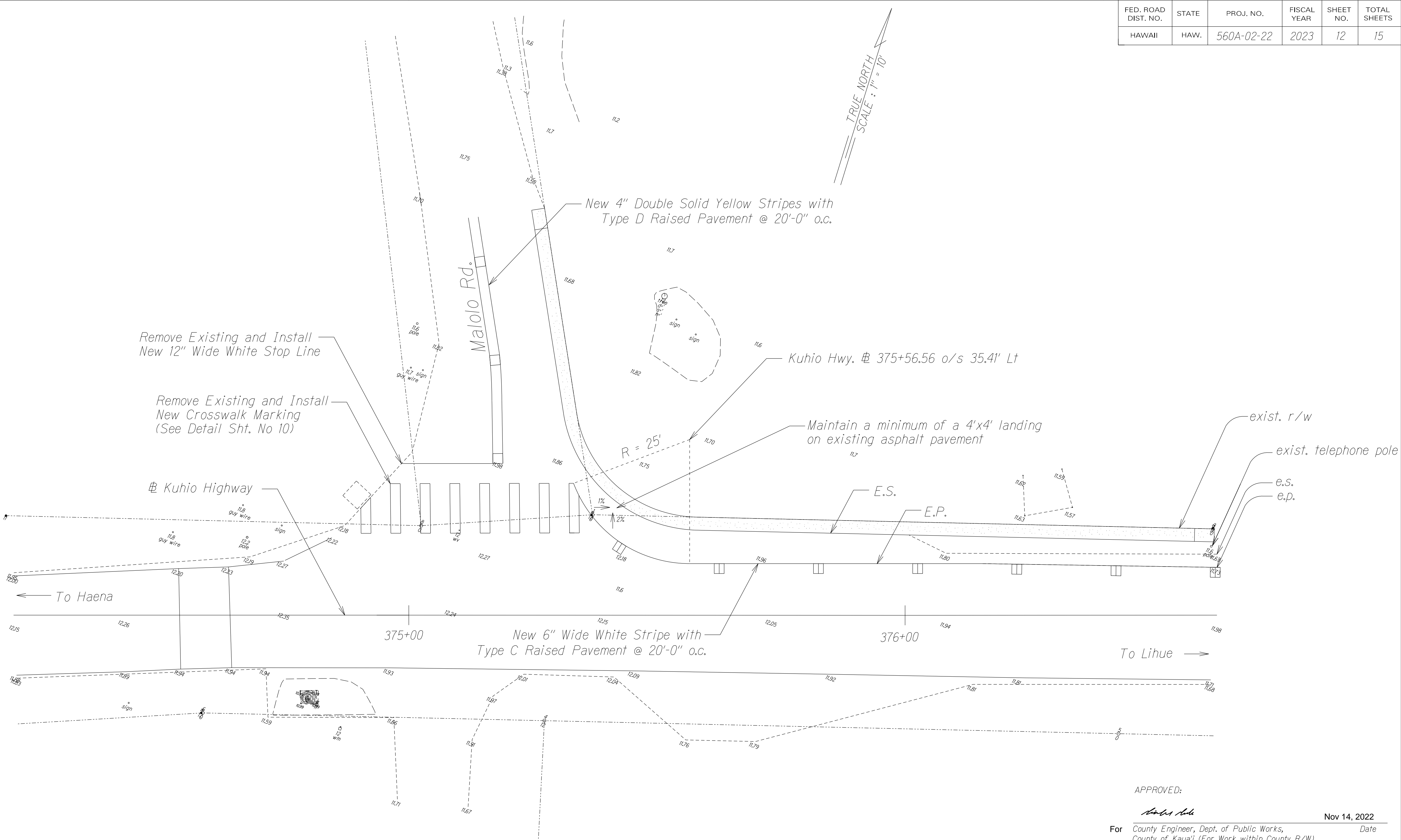
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PAVEMENT MARKING
DETAILS, NOTES & SUMMARY

KUHIO HIGHWAY
Drainage Improvements at Malolo Road
Project No. 560A-02-22
Scale: As Shown Date: Sep. 2022

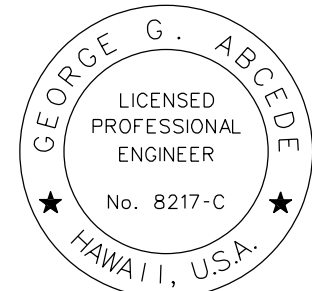
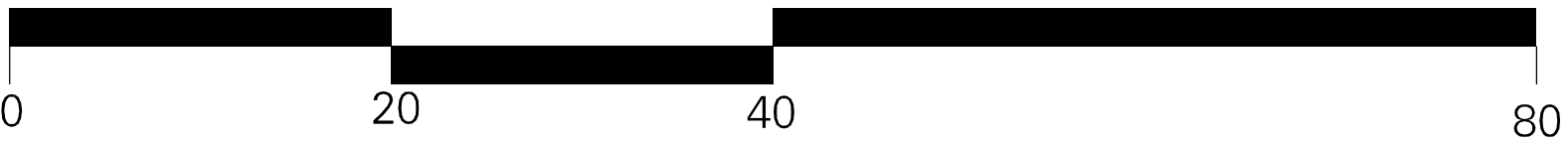
SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	560A-02-22	2023	12	15



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Signature: Date: Nov 2, 2022

APPROVED:

For County Engineer, Dept. of Public Works,
County of Kaua'i (For Work within County R/W) Date: Nov 14, 2022

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PAVEMENT MARKING PLAN

KUHIO HIGHWAY

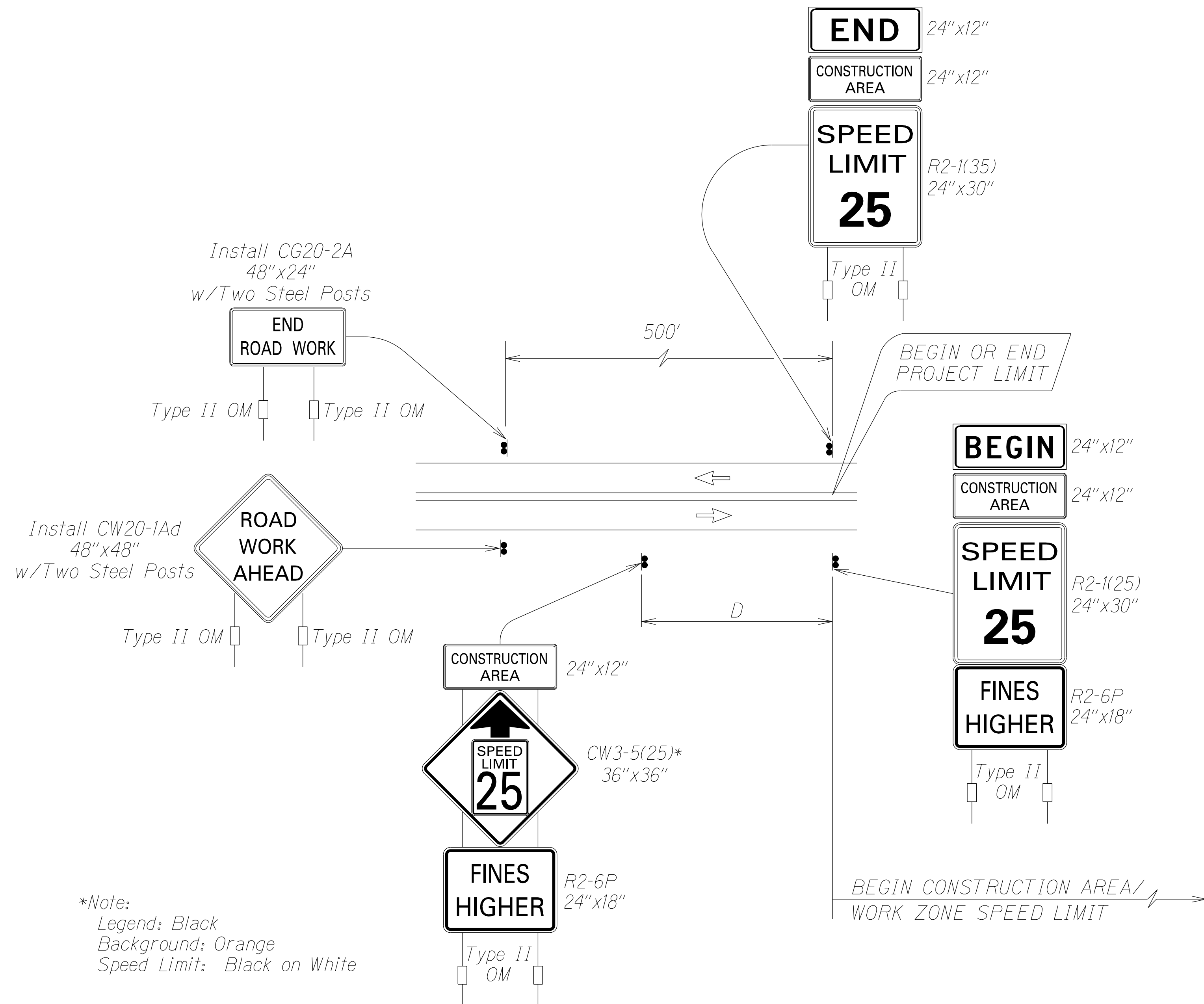
Drainage Improvements at Malolo Road

Project No. 560A-02-22

Scale: 1" = 10' Date: Oct. 2022

SHEET No. 2 OF 2 SHEETS

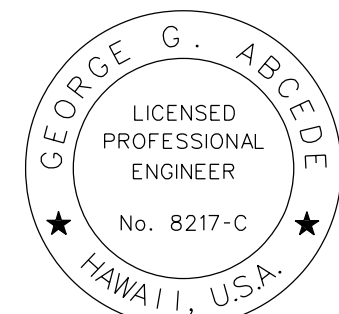
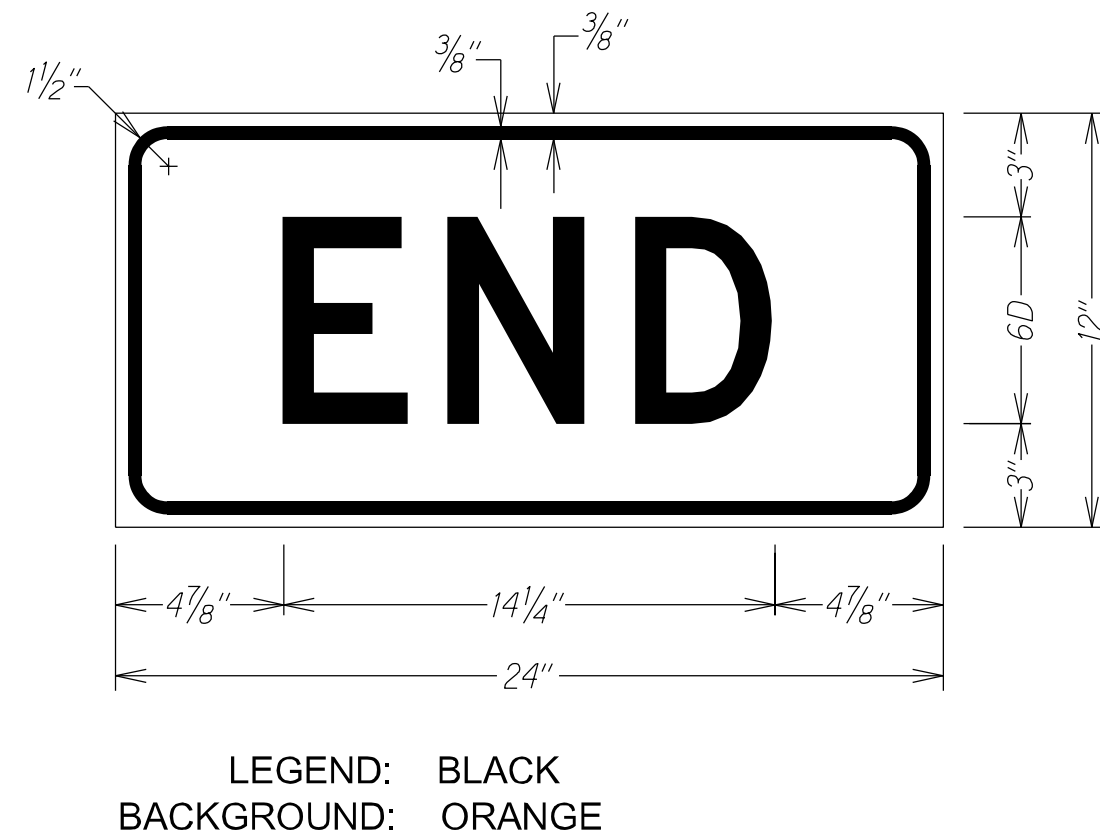
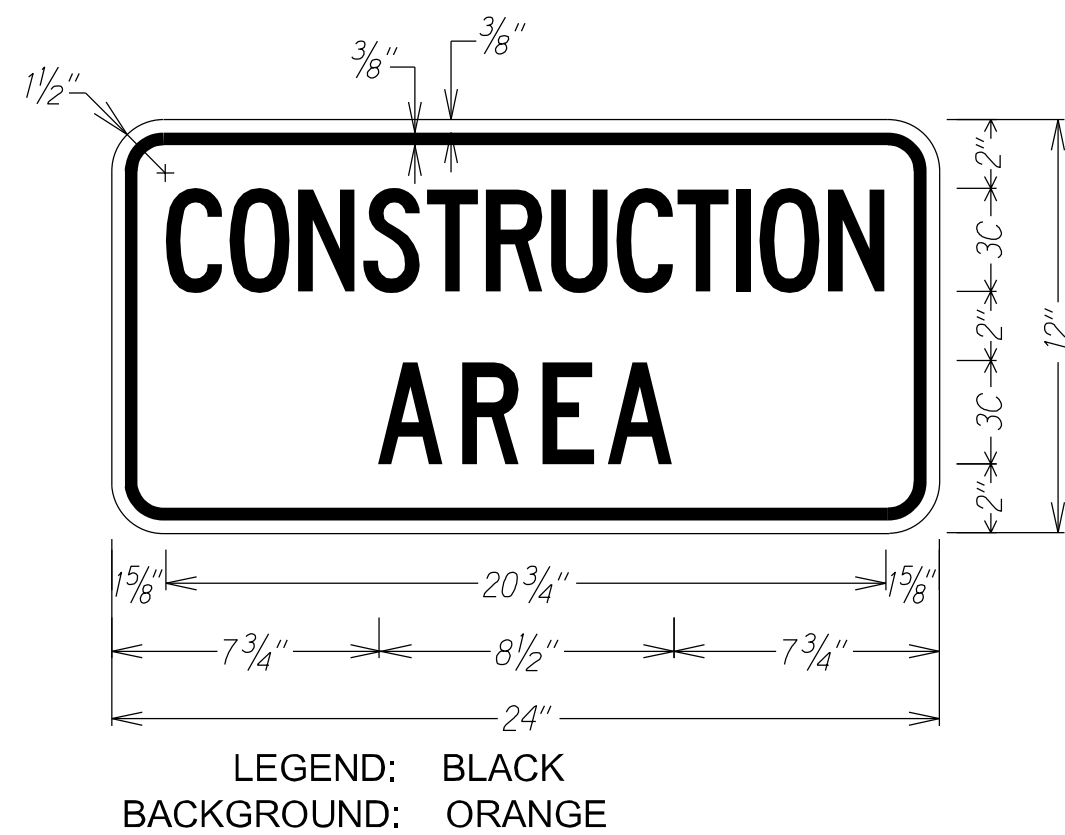
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	560A-02-22	2023	13	15



Work Zone Notes:

1. This Work Zone Sign Plan is intended for use on long-term stationary work zones/construction phases (3 days or more). All work zones or construction phases less than 3 days duration will use Traffic Control Plans shown in Section 645 of the Special Provisions.
2. All existing regulatory speed limit signs with posts within the work zone/project limits shall be removed and replaced with work zone speed limit sign assemblies (R2-1(25) and CW3-5(25) with "CONSTRUCTION AREA" and R2-6P "FINES HIGHER" Supplemental Signs).
3. Construction sign assemblies shall be installed on both the approaching and trailing ends of each work zone as shown on this plan.
4. Each construction warning sign and work zone speed limit assembly shall have a minimum of two (2) Type II OM. Installation of each Type II OM shall be considered incidental to various pay items and shall not be paid for separately.
5. Upon the completion of all physical work or as directed by the Engineer, all construction signs and work zone speed limit assemblies shall be removed. All speed limit signs and posts that were existing at the start of the project within the work zone/project limits shall be restored back to their original locations and configurations. Dates, times, locations and description of work for each sign location shall be provided to the engineer in writing.
6. Placement of construction signs shall not obstruct the path of pedestrians and bicyclists.
7. The removal and restoration of existing regulatory speed limit signs with new posts along with the installation, maintenance and removal of work zone speed limit sign assemblies shall be considered incidental to various pay items and shall not be paid for separately.

TYPICAL DETAIL FOR CONSTRUCTION SIGNS
ON TWO LANE OR MULTILANE UNDIVIDED LOW SPEED HIGHWAY



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LOW SPEED UNDIVIDED HIHGWAY
WORK ZONE SIGNING PLAN, NOTES&DETAILS

KUHIO HIGHWAY
Drainage Improvements at Malolo Road
Project No. 560A-02-22

Not To Scale Date: June 2022

SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	560A-02-22	2023	14	15

CONSTRUCTION NOTES FOR TRAFFIC CONTROL PLAN

- The permittee shall make adjustments at intersections, driveways, bridges, structures, etc. to fit field conditions.
- Cones or delineators shall be extended to a point where they are visible to approaching traffic.
- Traffic control devices shall be installed such that the sign or device farthest from the work area shall be placed first. The others shall then be placed progressively toward the work area.
- Regulatory and warning signs within the construction zone that are in conflict with the traffic control plans shall be removed or covered. All signs shall be restored upon the completion of the work.
- Flaggers and/or police officers shall be in sight of each other or in direct communication at all times.
- Sign spacings (D), taper lengths (L), longitudinal buffer space (B), and spacings of cones or delineators shall be as shown in Table 1 below, unless otherwise noted on the Traffic Control Plans.
- All traffic lanes shall be a minimum of 10 feet wide.
- All construction warning signs shall be promptly removed or covered whenever the message is not applicable or not in use.
- The backs of all signs used for traffic control shall be appropriately covered to preclude the display of inapplicable sign messages (i.e., when the signs have messages on both sides).
- At the end of each days work or as soon as the work is completed, the permittee shall remove all traffic control devices no longer needed to permit free and safe passage of public traffic. Removal shall be in the reverse order of installation.
- When required by the County of Kaua'i, the Contractor shall place additional advertisements in the newspaper for any lane closures. The advertisement shall be made one (1) day before the lane closure and shall contain the following information:
 - Map of the traffic change limits;
 - Notice of starting and ending dates, times and duration;
 - Map to show lane closure;
 - Explanation of the lane Closure, "NOTICE TO MOTORIST"

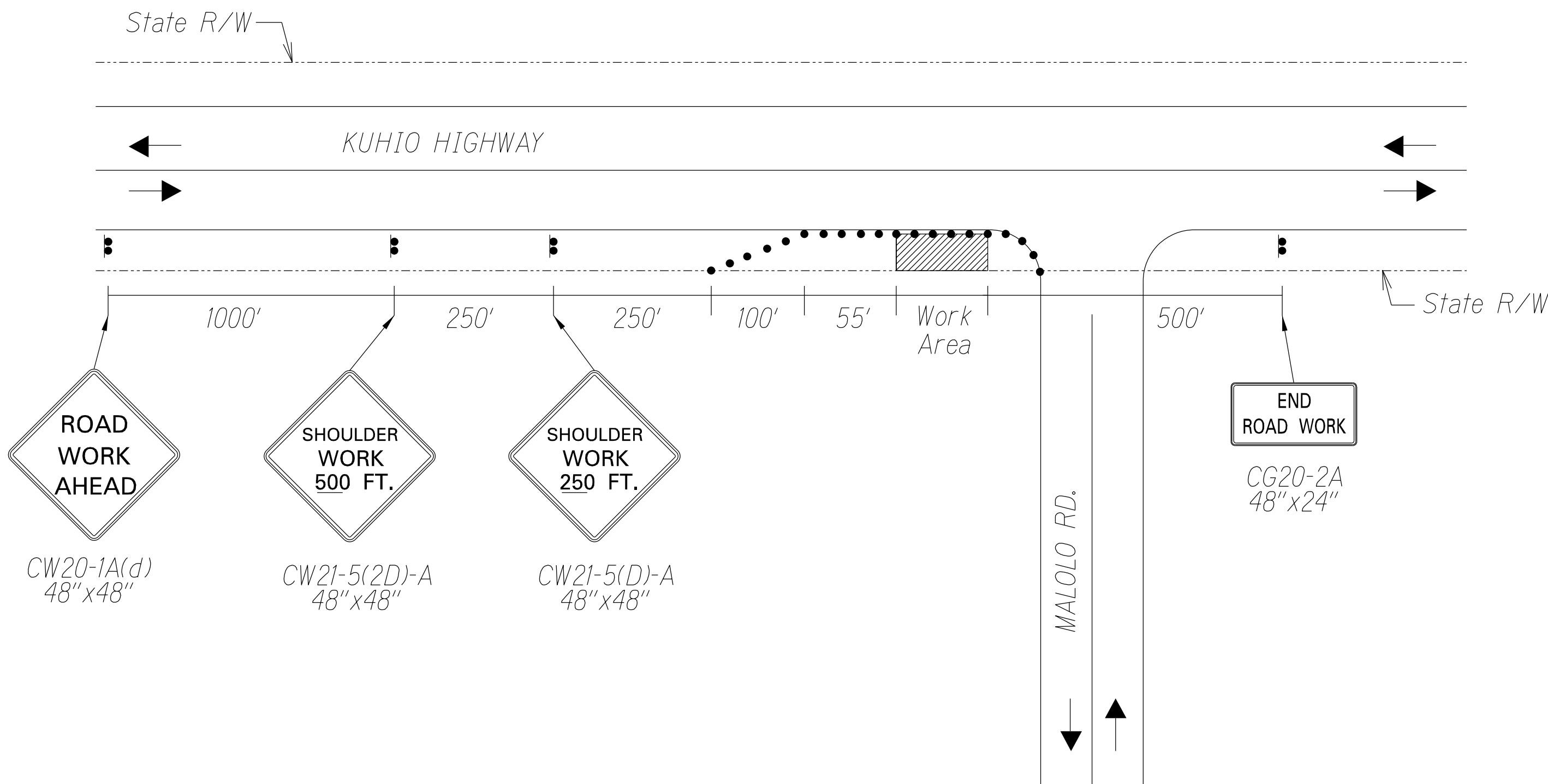
The Contractor shall be required to have any lane closures announced daily over the radio two (2) days before starting date until the work is completed. Both advertisements in the newspaper and over the radio shall be paid for by the Contractor. The Contractor shall also notify the hospital, ambulatory services, Police Department and the Fire Department of the lane closures.

TABLE 1 FOR TRAFFIC CONTROL PLAN

POSTED SPEED LIMIT (M.P.H.)	SIGN SPACING (L) (FEET)	TAPER LENGTH (T) (FEET)		LONGI-TUDINAL BUFFER SPACE (B) (FEET)	SPACING OF CONES OR DELINEATORS (FEET)		
		W = 12' OR LESS *	W = GREATER THAN 12' *		TAPER	TANGENT	WORK AREA
20	250	200	W X 17	35	20	20	10
25	250	200	W X 17	55	25	25	10
30	250	250	W X 20	85	30	30	10
35	250	250	W X 20	120	35	35	10
40	500	350	W X 30	170	20	20	10
45	500	550	W X 45	220	25	25	10
50	1000	600	W X 50	280	30	30	10
55	1000	700	W X 55	335	35	35	10

Note: *W = width of shoulder, lane, or offset

- Contractor to provide access and/or direction signs to reroute pedestrian traffic.
- Where pedestrian walkways exist, they shall be maintained in a safe and passable condition or other facilities for pedestrians shall be provided. Passages between walkways at intersections shall likewise be provided.
- Contractors shall provide safe passage to all motorists turning out of entrance to Malolo Road at all times. Further, the contractor shall provide a flagger/police officer at the intersections.
- All implemented work zone traffic control shall comply with "Hawaii Standard Specifications for Road and Bridge Construction 2005" and the Manual on Uniform Traffic Control Devices (MUTCD).



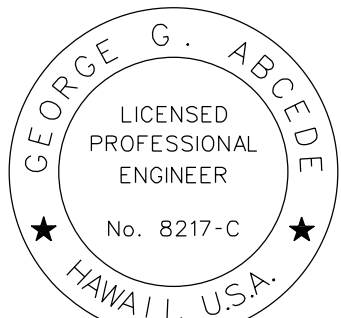
TYPICAL TRAFFIC CONTROL PLAN AT SHOULDER
Not to Scale

LEGEND

- Flagman / Policeman
- Cones
- Work Area
- Sign
- Direction of Traffic

APPROVED:

For County Engineer, Dept. of Public Works, County of Kaua'i (For Work within County R/W) Date Nov 14, 2022



My License Expires: April 30, 2024
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Signature Date

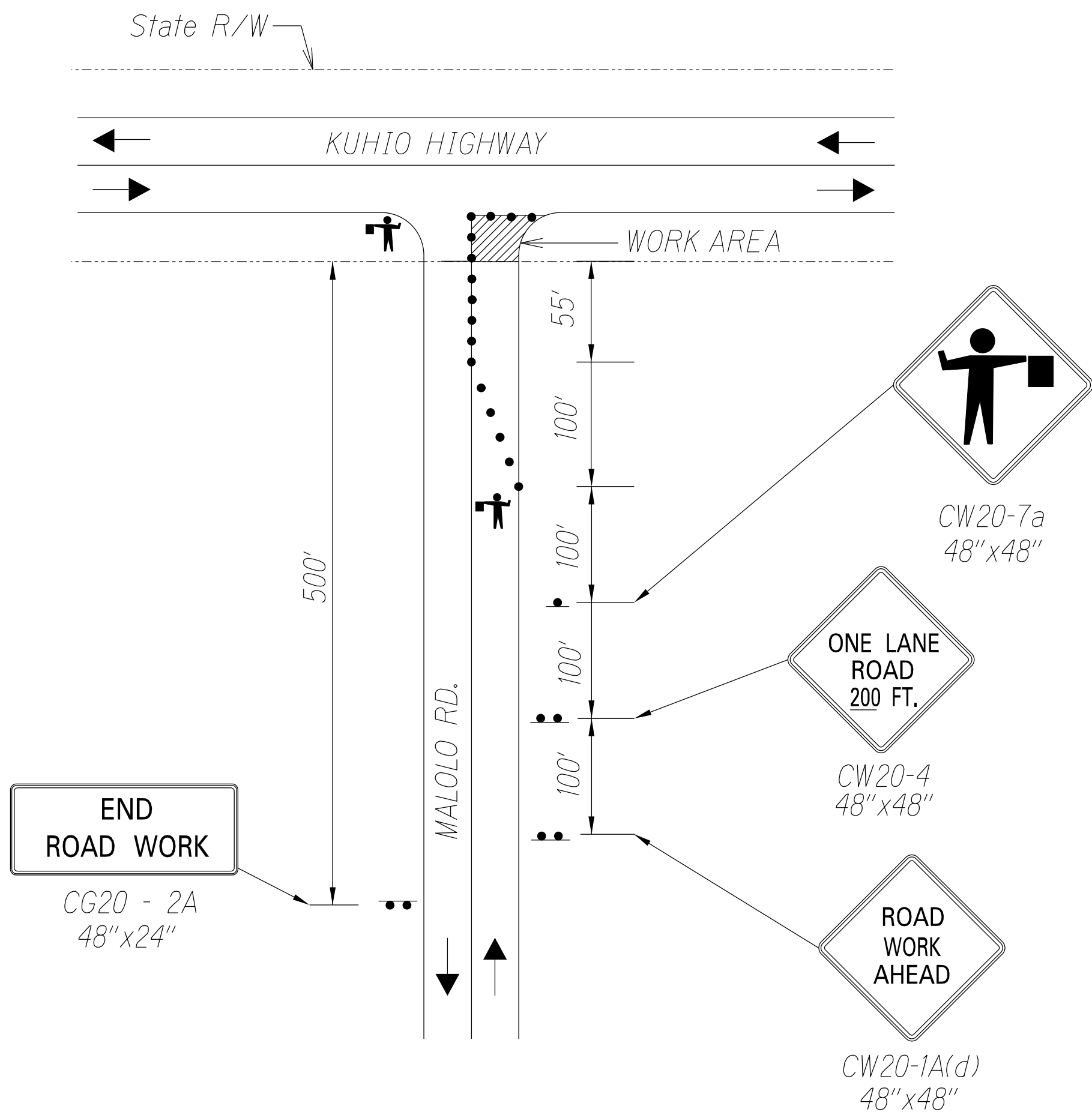
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN
KUHIO HIGHWAY
Drainage Improvements at Malolo Road
Project No. 560A-02-22

Not to Scale Date: Sep. 2022

SHEET No. 1 OF 2 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	560A-02-22	2023	15	15



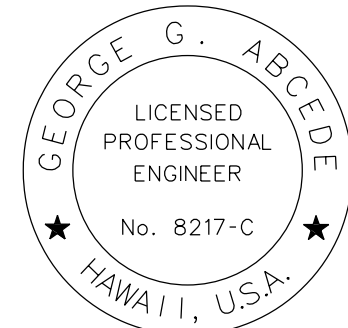
TRAFFIC CONTROL PLAN
TYPICAL AT INTERSECTIONS
WITHIN THE COUNTY RIGHT-OF-WAY
Not to Scale

- LEGEND
- Flagman / Policeman
 - Delineators
 - Work Area
 - Sign
 - Direction of Traffic

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
N ^o .	

APPROVED:

For County Engineer, Dept. of Public Works, Nov 14, 2022
County of Kaua'i (For Work within County R/W) *Date*



My License Expires: April 30, 2024

THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION

Signature Date

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN
KUHIO HIGHWAY
Drainage Improvements at Malolo Road
Project No. 560A-02-22

Not to Scale *Date: Oct. 2022*

SHEET No. 2 OF 2 SHEETS