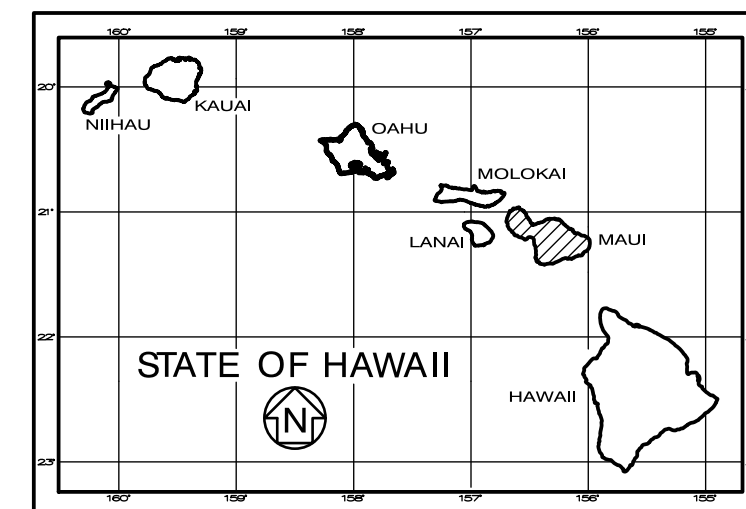


INDEX TO DRAWINGS	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STANDARD PLANS SUMMARY
3-5	GENERAL NOTES AND ABBREVIATIONS
6-9	WATER POLLUTION & EROSION CONTROL NOTES
10-11	EROSION CONTROL PLANS
12-13	TRAFFIC CONTROL PLANS
14-21	STRUCTURAL PLANS

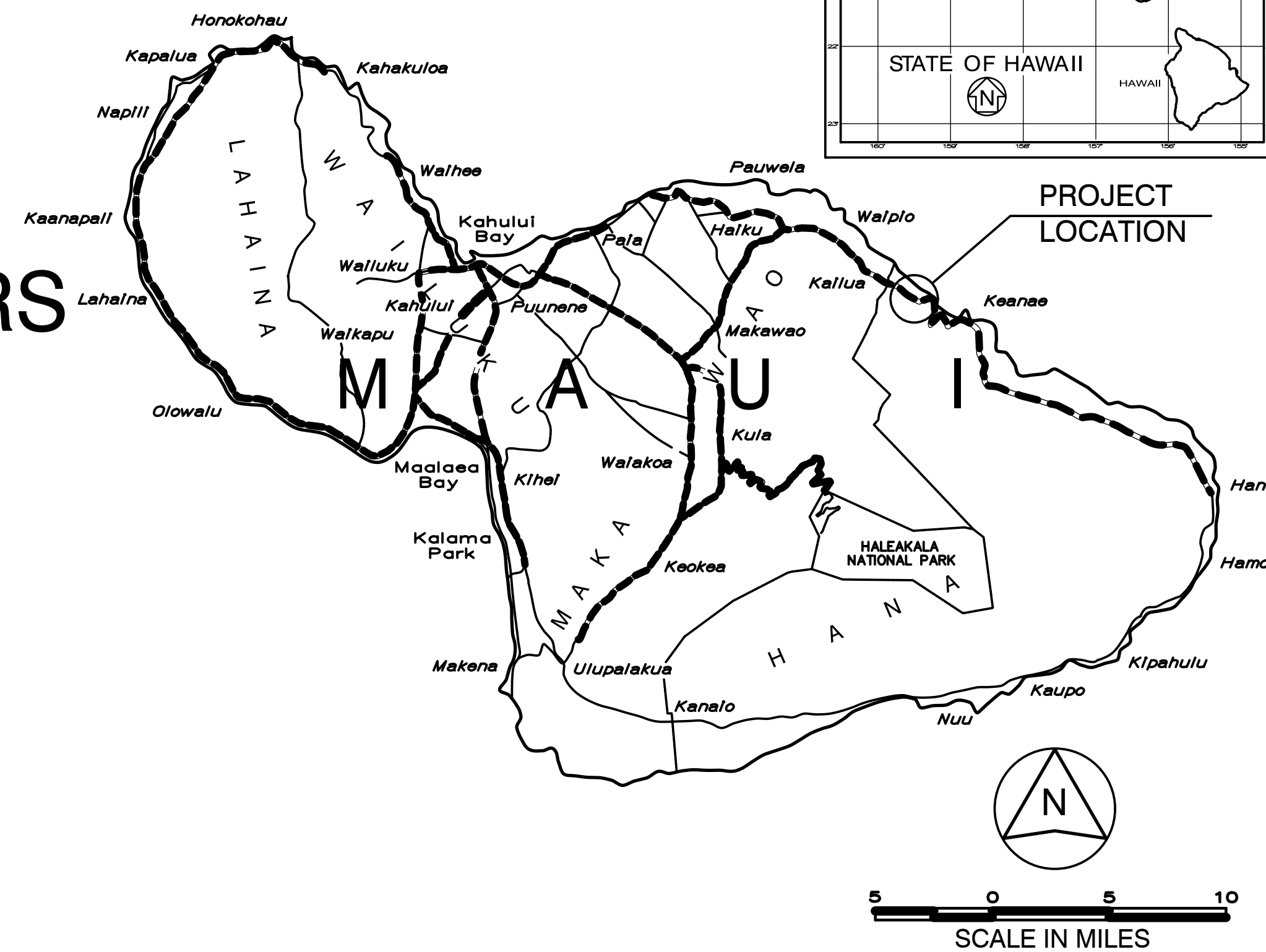
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	1	21



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU, HAWAII

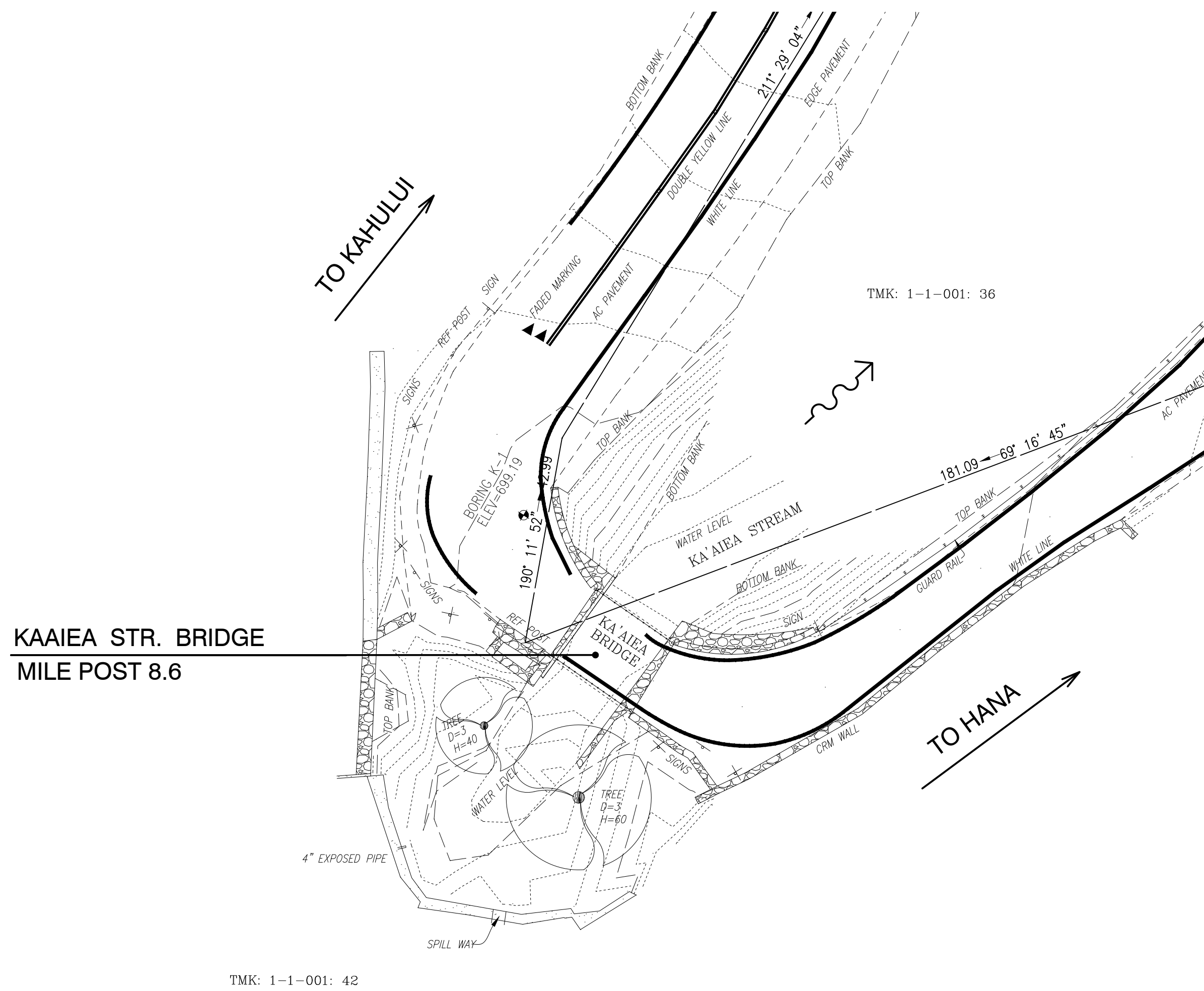
PLANS FOR
KAAIEA STREAM BRIDGE EMERGENCY REPAIRS
ROUTE 360, MILEPOST 8.6
FEDERAL AID PROJECT NO. ER-24(007)

DISTRICT OF MAKAWAO
ISLAND OF MAUI



DRAWING NAME: Z:\00 ONGOING\21-009.3-KAAIEA BR CRITICAL FINDINGS MAUI\01 CAD\01-09-23 BID\01 KSR-0001 T1LSHT.DWG PLOT TIME: 01-09-23 11:31 AM

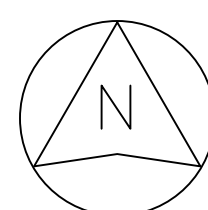
DESIGNED BY _____
MANAGED BY _____
HWY-M _____
PHONE (808) 873-3535
DATE JAN. 2023



— FEDERAL AID PROJECTS PREVIOUSLY CONSTRUCTED OR UNDER CONSTRUCTION

MILE POST 8.6 TO MILE POST 8.6

LAYOUT PLAN



DEPARTMENT OF TRANSPORTATION
STATE OF HAWAII

APPROVED: _____
DIR. OF TRANSPORTATION

Feb 14, 2023
DATE

STANDARD PLANS SUMMARY

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	2	21

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 CAN DETAILS	05/31/07
B-12A	PRESTRESSED CONCRETE PILES, PILE & COMPRESSION SPLICE CAN DETAILS & NOTES	05/31/07
B-12B	PILE INTERACTION DIAGRAM	05/31/07
B-13	PRESTRESSED CONCRETE PILE BUILD-UP DETAILS	05/31/07

D-01	CATTLE GATE	05/31/07
D-02	CHAIN LINK FENCE WITH TOPRAIL	05/31/07
D-03	CHAIN LINK FENCE WITHOUT TOPRAIL	05/31/07
D-04	WIRE FENCE WITH METAL POSTS	05/31/07
D-05	TYPICAL DETAILS OF CURBS AND/OR GUTTERS	05/31/07
D-06	TYPICAL DETAIL OF REINFORCED CONCRETE DROP DRIVEWAY	05/31/07
D-07	CENTERLINE AND REFERENCE SURVEY MONUMENTS	05/31/07
D-08	STREET SURVEY MONUMENT	05/31/07
D-15	CONCRETE SIDEWALK	05/31/07
D-16	P.C.C. BUS PAD	05/31/07
D-17	P.C.C. BUS PAD	05/31/07
D-18	P.C.C. PAVEMENT LAYOUT	05/31/07
D-19	P.C.C. PAVEMENT W/ PERMEABLE BASE JOINT DETAILS	05/31/07
D-20	P.C.C. PAVEMENT W/ PERMEABLE BASE JOINT DETAILS	05/31/07
D-21	P.C.C. LONGITUDINAL JOINT DETAILS	05/31/07
D-22	P.C.C. CONNECTION TO CURBS AND GUTTERS	05/31/07
D-23	JOINTS	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

STANDARD PLAN NO.	TITLE	DATE
H-01A	TYPE A CATCH BASIN	05/31/07
H-01B	TYPE B CATCH BASIN	05/31/07
H-01C	TYPE C CATCH BASIN	05/31/07
H-01D	TYPE D CATCH BASIN	05/31/07
H-01E	CATCH BASIN SECTIONS	05/31/07
H-02A	TYPE A1 CATCH BASIN	05/31/07
H-02B	TYPE B2 CATCH BASIN	05/31/07
H-02C	TYPE C1 CATCH BASIN	05/31/07
H-02D	TYPE D1 CATCH BASIN	05/31/07
H-02E	CATCH BASIN SECTION	05/31/07
H-03	TYPE A,B, AND C STORM DRAIN MANHOLE	05/31/07
H-04	TYPE D STORM DRAIN MANHOLE	05/31/07
H-05	TYPICAL REINFORCING DETAILS FOR DRAINAGE STRUCTURES	05/31/07
H-06	TYPICAL REINFORCING DETAILS FOR DRAINAGE STRUCTURES	05/31/07
H-07	CATCH BASIN AND MANHOLE CASTINGS	05/31/07
H-08	TYPE 1A-9 AND 1A-9P GRATED DROP INLET	05/31/07
H-09	TYPE 2A-9 AND 2A-9P GRATED DROP INLET	05/31/07
H-10	TYPE A-9 OR A-9P STEEL FRAMES	05/31/07
H-11	TYPE A-9 AND A-9P STEEL GRATES	05/31/07
H-12	TYPE 61614P AND 1211214P GRATED DROP INLET	05/31/07
H-13	TYPE 61616P AND 1211216P GRATED DROP INLET	05/31/07
H-14	TYPE 61214P GRATED DROP INLET	05/31/07
H-15	TYPE 1211214, 1211214P, 1211216, 1211216P STEEL FRAME AND GRATES	05/31/07
H-16	TYPE 61614, 61614P, 61616, 61616P STEEL FRAME AND GRATES	05/31/07
H-17	TYPE 61214 STEEL FRAMES AND GRATES	05/31/07
H-18	TYPE 61214P STEEL GRATES	05/31/07
H-19	TYPE 61614B STEEL FRAME AND GRATES	05/31/07
H-20	CEMENT RUBBLE MASONRY STRUCTURES	05/31/07
H-21	CONCRETE AND CEMENT RUBBLE MASONRY STRUCTURES	05/31/07
H-22	INLET/OUTLET STRUCTURE	05/31/07
H-23	INLET/OUTLET STRUCTURE	05/31/07
H-24	FLARED END SECTION FOR CULVERTS	05/31/07
H-25	FLARED END SECTION FOR CULVERTS	05/31/07
H-26	CONCRETE SPILLWAY INLET	05/31/07
H-27	CAP COUPLING DETAILS STANDARD JOINT	05/31/07
H-28	REINFORCED CONCRETE COLLAR & JACKET	05/31/07
H-29	UNDERDRAIN CLEANOUT STEEL FRAME AND COVER	05/31/07
H-30	UNDERDRAIN CONNECTION TO DRAINAGE STRUCTURE	05/31/07

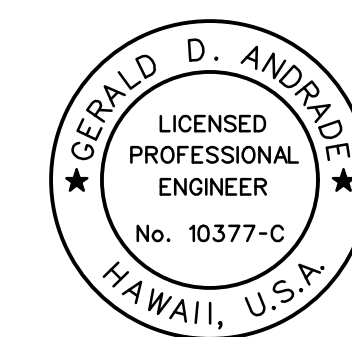
TE-01	SIGN HEIGHT AND LOCATION	07/11/08
TE-1A	SIGN INSTALLATION	07/11/08
TE-02A	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-02B	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-02C	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-03A	GALVANIZED SQUARE TUBE SIGN POST MOUNTING	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-09	BIKE ROUTE SIGN & SUPPLEMENTARY PLATES	07/11/08
TE-10	INTERSTATE ROUTE MARKER	07/11/08
TE-11	STATE ROUTE MARKER AND AUXILIARY MARKERS	07/11/08
TE-12	STATE ROUTE MARKER AND BORDER DETAIL FOR GUIDE SIGNS	07/11/08
TE-12A	ROUTE SIGN ASSEMBLIES	07/11/08
TE-13	STREET NAME SIGN ON MAST ARM	07/11/08
TE-14 ●	MISCELLANEOUS REFLECTOR MARKERS	07/11/08
TE-15	OBJECT MARKERS	07/11/08
TE-16	MILE POSTS	07/11/08
TE-17A	CANTILEVER OVERHEAD SIGN ELEVATION & DETAILS	05/31/07
TE-17B	CANTILEVER SIGN FRAME DETAIL AND SECTION	05/31/07
TE-17C	CANTILEVER SIGN FRAME DETAIL	05/31/07
TE-17D	CANTILEVER SIGN FRAME SECTION	05/31/07
TE-17E	CANTILEVER SIGN FRAME DETAILS	05/31/07
TE-18A	TWO POST OVERHEAD SIGN FRAME ELEVATIONS	05/31/07
TE-18B	TWO POST SIGN FRAMING PLAN SECTION	05/31/07
TE-18C	TWO POST SIGN FRAMING SECTIONS AND DETAILS	05/31/07
TE-18D	TWO POST SIGN FRAME DETAILS	05/31/07
TE-18E	TWO POST SIGN FRAME DETAILS	05/31/07
TE-19A	OVERHEAD SIGN FRAMING SCHEDULE	05/31/07
TE-19B	SIGN POST DRILLED SHAFT FOUNDATION	05/31/07
TE-19C	SPREAD FOOTING	05/31/07
TE-19D	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.1	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.2	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.3	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.4	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.5	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19E	ANCHORAGE DETAILS	05/31/07
TE-19F	ANCHORAGE DETAILS	05/31/07
TE-19G	MISCELLANEOUS SIGN FRAME DETAILS	05/31/07
TE-19H	LUMINAIRE WALKWAY SUPPORT	05/31/07
TE-19J	FIXED MESSAGE LUMINAIRE SUPPORT	05/31/07
TE-19K	MISCELLANEOUS SIGN DETAILS	05/31/07
TE-19L	MISCELLANEOUS SIGN DETAILS	05/31/07
TE-19M	MISCELLANEOUS SIGN FRAME DETAILS	05/31/07
TE-20	SUPPORTS FOR GROUND MOUNTED GUIDE SIGN	05/31/07
TE-20A	SUPPORTS FOR GROUND MOUNTED GUIDE SIGN	05/31/07
TE-20B	SUPPORTS FOR GROUND MOUNTED GUIDE SIGN	05/31/07
TE-20C	SUPPORTS FOR GROUND MOUNTED GUIDE SIGN	05/31/07
TE-21A	SIGN BREAKAWAY MOUNTS	05/31/07
TE-21B	SIGN BREAKAWAY MOUNTS	05/31/07
TE-22	LAMINATED ALUMINUM SIGN PANELS (OVERHEAD)	05/31/07
TE-23	LAMINATED ALUMINUM SIGN PANELS (GROUND MOUNTED)	07/11/08
TE-24	SOLID ALUMINUM EXTRUDED SIGN PANEL AND ACCESSORY DETAILS	05/31/07
TE-25	GUIDE SIGNS LUMINAIRE MOUNTINGS	05/31/07
TE-26	RAISED PAVEMENT MARKERS AND STRIPING	07/11/08
TE-27	RAISED PAVEMENT MARKERS AND STRIPING	07/11/08
TE-28	ENTRANCE AND EXIT PAVEMENT MARKINGS	07/11/08
TE-28A	MISCELLANEOUS PAVEMENT MARKINGS	07/11/08
TE-29	PAVEMENT ARROWS AND SYMBOLS	07/11/08
TE-30	PAVEMENT ALPHABETS, NUMBERS & SYMBOLS	07/11/08
TE-31	PAVEMENT ALPHABETS, NUMBERS & SYMBOLS	07/11/08

STANDARD PLAN NO.	TITLE	DATE
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

NOTE:
STANDARD PLANS APPLICABLE TO THIS PROJECT ARE INDICATED BY A "●" NEXT TO THE STANDARD PLAN NO. (FOR EXAMPLE: D-07 ●)

ORIGINAL PLAN DATE
DRAWN BY
TRACED BY
NOTE BOOK
REVISIONS BY
CHECKED BY
No.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Signature: Gerald D. Andrade
EXPIRATION DATE OF THE LICENSE: 04/30/24

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD PLAN SUMMARY

**KAAIEA STREAM BRIDGE EMERGENCY REPAIRS
ROUTE 360, MILE POST 8.6
Fed. Aid Proj. No. ER-24(007)**

Scale: None Date: Jan. 2023

SHEET No. N-1 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	3	21

GENERAL NOTES:

- The scope of work for this project includes the filling of voids under the abutments and wingwalls of Ka'aiea Stream Bridge on Hana Highway; Work includes erosion control measures, traffic controls and scour void filling via grout injection into grout bags.
- The Contractor is reminded that the clearing of debris within the stream shall be done by hand. The Placement of machinery within the stream is prohibited based upon the current permit coordination and approvals. The use of the sand bags within the stream to isolate work areas is prohibited. Any deviation in debris removal methods shall require coordination and approval by the Engineer.
- The Contractor is reminded of the requirements of Subsection 105.16 - Subcontracts which requires him to perform work amounting 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 of the Standard Specifications and the Special Provisions: Subsection 104.09 - Maintenance of Traffic; Subsection 104.11 - Utilities and Services; Subsection 105.09 - Coordination Between the Contractors; Subsection 107.06 - Contractor Duty Regarding Public Convenience; Subsection 107.12 - Protection of Persons and Property; and Section 645 - Work Zone Traffic Control.
- 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.
- All existing utilities, whether or not shown on the plans, shall be protected at all times by the Contractor during construction unless specified on the plans to be abandoned. All existing utility/light poles, overhead utilities and guy poles/wires shall remain in place and operational. The Contractor shall be held liable for any damages incurred to the existing utilities as a result of his operations. All damaged portions shall be replaced in accordance with the standards and specifications of the affected utility company at no cost to the State. No delays or extensions of contract time will be allowed as a result of these required repairs.
- 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 shall be kept 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.
- Existing facilities and/or pavement to remain which has been damaged by the Contractor shall be restored to its original condition at no cost to the State.
- All graded areas and all grassed areas damaged by construction activities shall be planted in accordance with Specifications Section 641 - Hydro-Mulch Seeding. This work is considered incidental to the various contract items.

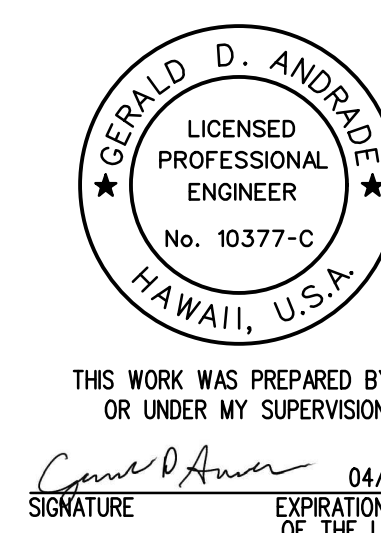
GENERAL NOTES, CON'T:

- Cost for clearing of vegetation for access shall be considered incidental to the various contract items.
- Contractor shall use Hawaii-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 consider the cost as incidental in the contract cost for the various contract pay items.
- No material and/or equipment shall be stockpiled or otherwise stored within the State right-of-way except at locations designated 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 State right-of-way from the State Highways Division at telephone no. 808-873-3535.
- Any work specified in the contract documents, but not listed separately in the Proposal Schedule, shall be considered incidental to the various contract items and shall not be paid for separately.
- To Avoid and Minimize Potential Project Impacts To The Hawaiian Hoary Bat Do Not Disturb, Remove or Trim Woddy Plants Greater Than 15 Feet Tall During The Bat Birthing And Pup Rearing Season Between June 1 And September 15.
- If Nene Are Observed Within The Projects Area, Do Not Approach, Feed or Disturb The Birds. Notify The Engineer Of Any Sightings. A Biologist Familiar With The Nesting Behavior Of Nene Shall Survey For Nests Are Found Within 150 Feet Of The Construction Area, Work Shall Cease Immediately And The Engineer Shall Notify The US Fish And Wildlife Service.
- If A Nest or Active Brood Of Hawaiian Waterbirds is Found, Notify The Engineer Immediately. The Engineer Shall Contact The US Fish And Wildlife Service Within 48 Hours For Further Guidance. A 100 Foot Buffer Shall Be Established Around The Nesting Area. A Biologist Familiar With The Species Shall Be Present During Construction Until Any Chicks/Ducklings Fledge To Ensure That There Are No Adverse Impacts.

ABBREVIATIONS:

Az	Azimuth
⊕	Baseline
BVC	Begin Vertical Curve
BMP	Best Management Practices
C	Chord
CRM	Cement Rubble Masonry
d	existing drainline
Elev.	Elevation
EP	New Edge of Pavement
ep	Existing Edge of Pavement
ES	New Edge of Shoulder
es	Existing Edge of Shoulder
EVC	End Vertical Curve
Exist.	Existing
ga	Guy Anchor
GRP	Grouted Rubble Paving
HMA	Hot Mix Asphalt
Lc	Length of Curve
Lt.	Left of ⊕
M.L.	Matchline
o.c.	on center
o/s	Offset
OHWM	Ordinary High Water mark
PC	Point of Curvature
PCC	Point of Compound Curvature
PIVC	Point of Intersection Vertical Curve
PP	Power Pole
PT	Point of Tangency
R	Radius
Rt.	Right of ⊕
R/W	Right-of-Way
S	Slope
Sta.	Station along ⊕
T	Tangent
TW	Top Wall Elevation
V.C.	Vertical Curve

ORIGINAL PLAN	DATE
DRAWN BY	
NOTED BY	
CHECKED BY	
DATE	



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**GENERAL NOTES
AND ABBREVIATIONS**

KA'AIEA STREAM BRIDGE EMERGENCY REPAIRS
ROUTE 360, MILE POST 8.6
Fed. Aid Proj. No. ER-24(007)

Scale: None Date: Jan. 2023

SHEET No. N-2 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	4	21

NOTES FOR CONSTRUCTION WITHIN STATE RIGHT-OF-WAY:

- The Contractor shall obtain a Permit to Perform Work upon State Highways from the State Highways' District Engineer, at 650 Palapala Drive, Kahului, Hawaii, prior to commencement of work within the State's Highway Right-of-Way.
- Construction and restoration of all existing highway facilities within the State's Right-of-Way, including the legal relations and responsibility to the public, shall be in accordance with the current Hawaii Standard Specifications for Road and Bridge Construction dated 2005, and the Specifications for Installation of Miscellaneous Improvements within State Highways, of the State Highways Division.
- Work may be performed only between the hours of 8:30 a.m. and 3:30 p.m., Monday through Friday, except holidays, unless otherwise permitted by the District Engineer.
- The Contractor shall provide, install and maintain all necessary signs, lights, flares, barricades, markers, cones, and other protective facilities, and shall take all necessary precautions for the protection, convenience, and safety of public traffic. All such protective facilities and precautions to be taken shall conform with the "Administrative Rules of Hawaii Governing the Use of Traffic Control Devices at Work Sites on or Adjacent to Public Streets and Highways", adopted by the Director of Transportation, and the current U.S. Federal Highway Administration "Manual on Uniform Traffic Control Devices, Part VI - Standards and Guides for Traffic Controls for Street and Highway Construction, Maintenance, Utility and Incident Management Operations".

Lane closures shall conform to the traffic control plans incorporated in Section 645 and these construction plans and must be approved by the Division prior to the issuance of the permit.
- No material and/or equipment shall be stockpiled or otherwise stored within the State's Highway Right-of-Way except at locations designated in writing and approved by the District Engineer.
- Compaction tests shall be taken in accordance with the specifications for installation of miscellaneous improvements within State Highways, as follows:
 - Subbase: one (1) compaction test per lift per 200 linear feet of roadway
 - Base course: one (1) compaction test per lift per 200 linear feet of roadway
 - One (1) compaction test per lift per 300 linear feet of trench.
 - A copy of the test results shall be submitted to the District Engineer.
- Existing drainage systems shall be functional at all times.
- The Contractor shall exercise care to minimize damages to existing highway improvements. All damages shall be repaired by the Contractor, at his expense, to the satisfaction of the District Engineer.
- Approval of the permit construction plans shall be valid for a period of one (1) year from the date of notification of approval to the applicant. In the event construction does not commence within this one-year period, the applicant will be required to resubmit the construction plans for the Division's review and reapproval.
- All regulatory, guide, and construction signs and barricades shall have a high-intensity reflective background.

NOTES FOR CONSTRUCTION WITHIN STATE RIGHT-OF-WAY, CONT.:

- The Contractor shall inform the State Highways' Permit Office (873-3535) at least two (2) days prior to closing any lanes.
- Driveways shall be kept open unless the owners of the properties using these rights-of-way are otherwise provided for satisfactory.
- 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 approved. All walkways shall conform to ADA requirements.
- The Contractor shall reference, to the satisfaction of the District Engineer, all existing traffic signs, posts and pavement markings prior to commencement of construction. The Contractor shall replace or repair all traffic signs, posts, and pavement markings disturbed by his activities, at his expense, unless directed otherwise by the District Engineer or his representative.
- The Contractor shall exercise care when performing work in, on or adjacent to the State's Highway right-of-way. Damages to existing facilities shall be immediately reported to the respective utility companies, and/or County or State agencies. The repair work shall be done at the Contractor's expense.
- The Contractor shall implement Best Management Practices (BMP) measures for all work within the State Highway.
- The Contractor shall notify the State Highway's Maintenance Engineer (873-3535), three (3) working days prior to commencing work.
- The permit to perform work upon State Highways may be revoked because of default in any of the following, but not limited to conditions:
 - Work performed before or after permitted hours.
 - Failure to maintain roadway surfaces in a smooth and safe condition.
 - Failure to clean up construction debris generated from project work.
 - Failure to provide proper traffic control.
 - Failure to replace damaged pavement markings and signs.
- After completion of the project, the Owner and/or Contractor, shall submit the complete set of "as-built" plans to the Highways Division.

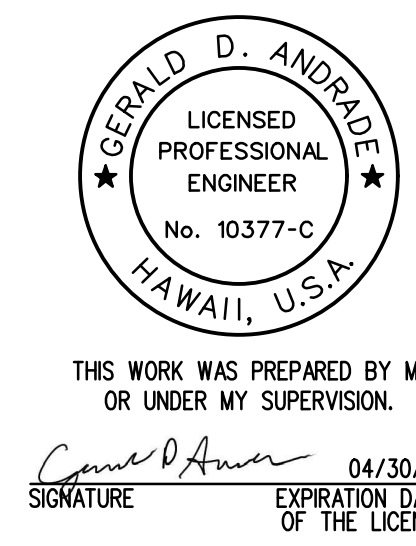
PUBLIC HEALTH, SAFETY AND CONVENIENCE NOTES:

- The Contractor shall observe and comply with all Federal, State, and Local laws required for the protection of public health and safety and environmental quality.
- The Contractor, at his own expense, shall keep the project and its surrounding areas free from dust nuisance. The work shall be in conformance with the air pollution standards and regulations of the State Department of Health. The County may require supplementary measures as necessary.
- The Contractor's attention is directed to Chapter 46, Public Health Regulations, Department of Health, State of Hawaii, "Community Noise Control" in which maximum allowable noise levels have been set. If the construction activities for this project will exceed the allowable noise levels, the Contractor will be required to obtain a permit from the Director of the Department of Health. The Contractor shall obtain a copy of Chapter 448 and become familiar with the noise level restrictions and the procedures for obtaining a Permit for construction activities.
- The Contractor is to comply with the directions of the State of Hawaii Occupation Safety and Health Law (DOSH).

HISTORICAL PRESERVATION NOTES:

- Should historic remains such as artifacts, burials, concentrations of shell or charcoal be encountered during construction activities, work shall cease immediately in the immediate vicinity of the find, and the find shall be protected from further damage. The Contractor shall cordon off the area and immediately notify the State Historic Preservation Division at (808) 692-8015, which will assess the significance of the find and recommend the appropriate mitigation measures, if necessary. In addition, if human burial are found, the Contractor shall immediately notify the County of Maui Police Department.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES

KAALIA STREAM BRIDGE EMERGENCY REPAIRS
ROUTE 360, MILE POST 8.6
Fed. Aid Proj. No. ER-24(007)

Scale: None Date: Jan. 2023

SHEET No. N-3 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	5	21

US FISH AND WILDLIFE GENERAL NOTES

The contractor shall comply to the following measures to avoid or minimize project impacts to threatened and endangered animals, including bats, birds, turtles, and invertebrates, in Hawaii and the Pacific Islands as described below.

HAWAIIAN HOARY BAT

1. Do not disturb, remove, or trim woody plants greater than 15 feet tall during the bat birthing and pup rearing season (June 1 through September 15).
2. Do not use barbed wire for fencing.

HAWAIIAN SEABIRDS

1. Fully shield all outdoor lights so the bulb can only be seen from below bulb height and only use when necessary.
2. Install automatic motion sensor switches and timer controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area.
3. Avoid nighttime construction during the seabird fledging period, September 15 through December 15.

HAWAIIAN WATERBIRDS

If a Hawaiian Waterbird nest or active brood is found in the action area:

1. Immediately notify the Engineer who will coordinate with contact USFWS Pacific Island Fish and Wildlife Office for further guidance.
2. Establish and maintain a 100-foot (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.

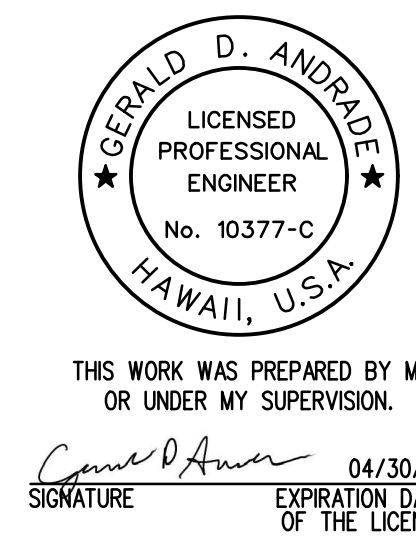
HAWAIIAN GOOSE OR NENE

1. Do not approach, feed, or disturb Hawaiian Geese.
2. If Hawaiian geese are observed loafing or foraging within the project area during the breeding season (September through April), halt work and have a biologist familiar with the nesting behavior of Hawaiian geese survey for nests in and around the project area prior to the resumption of any work. Repeat surveys after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest).
3. Cease all work immediately and contact the USFWS Pacific Island Fish and Wildlife Office for further guidance if a nest is discovered within a radius of 150 ft of proposed work, or a previously undiscovered nest if found within said radius after work begins.
4. In areas where Hawaiian geese are known to be present, post and implement reduced speed limits, and inform project personnel and contractors about the presence of endangered species on-site.
5. Have a biological monitor that is familiar with the species' biology 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 impacted.

PACIFIC HAWAIIAN DAMSELFLY

1. Turbidity and siltation from project-related work shall be minimized and contained within the vicinity of the site through the appropriate use of effective silt containment devices and the curtailment of work during adverse tidal and weather conditions.
2. All project-related materials and equipment (dredges, barges, backhoes, etc.) to be placed in the water shall be cleaned of pollutants prior to use.
3. No project-related materials (fill, revetment rock, pipe etc.) should be stockpiled in the water (intertidal zones, reef flats, stream channels, wetlands, etc.) or on each habitats.
4. All debris removed from the marine/aquatic environment shall be disposed of at an approved upland or ocean dumping site.
5. No contamination (trash or debris disposal, non-native species introduction, attraction of non-native pests, etc.) of adjacent habitats (reef flats, channels, open-ocean, stream channels, wetlands, beaches, forests, etc.) shall result from project-related activities. This shall be accomplished by implementing a litter-control plan and developing a Hazard Analysis and Critical Control Point Plan (<https://www.fws.gov/policy/A1750fwl.html>) to prevent attraction and introduction of non-native species.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	TRACED BY	
	DESIGNED BY	
	CHECKED BY	



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
 Signature: *Gerald D. Andrade* 04/30/24
 EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

GENERAL NOTES

KAALIA STREAM BRIDGE EMERGENCY REPAIRS
ROUTE 360, MILE POST 8.6
Fed. Aid Proj. No. ER-24(007)

Scale: None Date: Jan. 2023

SHEET No. N-4 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	6	21

WATER POLLUTION AND EROSION CONTROL NOTES:

A. GENERAL:

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- Submit Site-Specific BMP Plan to the Engineer along with a completed Site-Specific BMP Review Checklist within 21 calendar days of contract execution. The Site-Specific BMP Review Checklist may be obtained from <http://www.stormwaterhawaii.com>.
- The Contractor shall consider and install BMP measures which take into account high intensity and prolonged rainfall, and to address the potential problems that may occur.
- All areas used in support of construction activities disturbed or damaged by the Contractor, including but not limited to, staging areas, construction entrance/exit, and travel routes, shall be temporarily stabilized during construction in accordance with Section 209 of the 2005 Standard Specifications for Road, Bridge, and Public Works Construction. These areas shall be restored to their original condition or better upon completion of construction. Disturbed and exposed areas shall be permanently stabilized using vegetative cover, pavement, or equivalent to match pre-existing or better condition as approved by the State.
- Final stabilization and restoration of disturbed or damaged areas shall begin immediately as soon as construction is completed and the construction support areas are no longer used.
- The State reserves the right to determine the appropriateness and adequacy of proposed and/or implemented BMPs. Additional BMP measures required by the State shall not be paid for by the State.
- The Contractor shall be responsible for all damages and/or injuries resulting from the BMPs.
- The Contractor shall be responsible for any citations or fines that may be levied as related to the NPDES program on this permit, whether directly levied against the Contractor or the Department of Transportation.
- The Contractor may discuss proposed and implemented BMP measures and the adequacy of them with District Engineer.

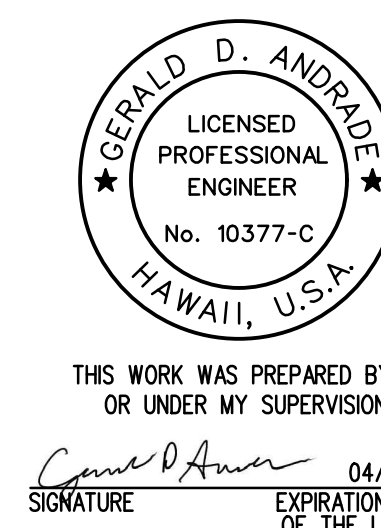
B. WASTE DISPOSAL:

- 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 21 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.
- 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.
- 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:

- 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.
- For projects without an NPDES Permit for Construction Activities, inspect all control measures weekly.
- 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.
- 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.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	TRACED BY	
	DESIGNED BY	
	CHECKED BY	



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
 SIGNATURE: *Gerald D. Andrade* EXPIRATION DATE OF THE LICENSE: 04/30/24

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

WATER POLLUTION AND EROSION CONTROL NOTES-1

KAALAE STREAM BRIDGE EMERGENCY REPAIRS
 ROUTE 360, MILE POST 8.6
 Fed. Aid Proj. No. ER-24(007)

Scale: None Date: Jan. 2023

SHEET No. EC-1 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	7	21

WATER POLLUTION AND EROSION CONTROL NOTES (Cont.):

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.
12. Contain, remove, and dispose slurry generated from saw cutting of pavement in accordance with approved BMP practices. Do not allow discharge into the drainage system or State waters.
13. For projects with an NPDES Permit for Construction Activities, immediately initiate stabilizing exposed soil areas upon completion of earth-disturbing activities for areas where earth-disturbing activities have permanently or temporarily ceased. Earth-disturbing activities have permanently ceased when clearing and excavation within any area of the construction site that will not include permanent structures has been completed. Earth-disturbing activities have temporarily ceased when clearing, grading, and excavation within any area of the site that will not include permanent structures will not resume (i.e., the land will be idle) for a period of 14 or more calendar days, but such activities will resume in the future. For construction areas discharging into waters not impaired for nutrients sediments, complete initial stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities. For construction areas discharging into nutrient or sediment impaired waters, complete initial stabilization within 7 calendar days after the temporary or permanent cessation of earth-disturbing activities. Classification of water at the discharge point may be found in the SWPPP.
14. For projects without an NPDES Permit for Construction Activities, complete initial stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities.

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 | Cleaning Solvents |
| Detergents | Wood |
| Paints (enamel and latex) | Masonry Block |
| Metal Studs | Herbicides and Pesticides |
| Tar | Curing Compounds |
| Fertilizers | Adhesives |
| Petroleum Based Products | |

- 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 Safety Data Sheets (SDS), formerly Material Safety Data Sheets (MSDS).
 - c. Dispose of surplus products according to manufacturers' instructions and local and State or Federal regulations.
 3. Onsite and Offsite Product Specific Plan

The following product specific practices shall be followed onsite:

 - a. Petroleum Based Products:

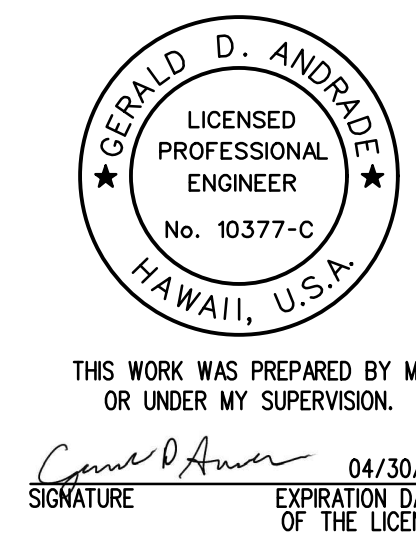
Monitor all onsite vehicles for leaks and perform regular preventive maintenance to reduce the chance of leakage. Store petroleum products in tightly sealed containers which are clearly labeled. Apply asphalt substances used onsite according to the manufacturer's recommendation.
 - b. Fertilizers:

Apply fertilizers used only in the minimum amounts recommended by the manufacturer 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 storm water. 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 or Federal 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
 - 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 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.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	TRACED BY	
	DESIGNED BY	
	CHECKED BY	



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WATER POLLUTION AND EROSION CONTROL NOTES-2

KAALIA STREAM BRIDGE EMERGENCY REPAIRS
ROUTE 360, MILE POST 8.6
Fed. Aid Proj. No. ER-24(007)

Scale: None Date: Jan. 2023

SHEET No. EC-2 OF 5 SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES (Cont.):

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	8	21

g. 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 Clean Water Branch (DOH-CWB) via email at cleanwaterbranch@doh.hawaii.gov during non-business hours, the DOH Hazard Evaluation and Emergency Response Office at (808) 586-4249, the Coast Guard Maui Station at (808) 986-0023, and the local Emergency Planning Committee at (808) 720-7285. The Contractor shall also provide to the Engineer, within 1 calendar day 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.

E. PERMIT REQUIREMENTS:

1. The calculated land disturbance area for this project based on the construction plans is 0.1 acres not including Contractor Staging and Storage areas. If the total of the disturbed area and the Contractor Staging and Storage area is one acre or greater, the Contractor shall obtain the NPDES Construction Activities Permit using HDOT's latest SWPPP template. See Hawaii Administrative Rules Chapter 11-55, Appendix C for the definition of land disturbance. The Contractor shall be responsible for obtaining the required NPDES Construction Activities Permit and complying with the requirements of HAR 11-55 including, but not limited to:

- 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. Permits may include, but not limited to the following:

- a. NPDES Permit for Construction Activities
- b. NPDES Permit for Construction Dewatering
- c. NPDES Permit for Hydrotesting Waters
- d. Water Quality Certification
- e. Stream Channel Alteration Permit
- f. Section 404 Army Corps of Engineer Permit

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> under Construction Best Management Practices Field Manual. Supplemental BMP sheets are located at http://stormwaterhawaii.com/contractors/contractors_BMPmanual.aspx 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.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
 Signature: *Gerald D. Andrade* 04/30/24
 EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

WATER POLLUTION AND EROSION CONTROL NOTES-3

KAALIEA STREAM BRIDGE EMERGENCY REPAIRS
 ROUTE 360, MILE POST 8.6
 Fed. Aid Proj. No. ER-24(007)

Scale: None Date: Jan. 2023

SHEET No. EC-3 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	9	21

STAGING AREA NOTES:

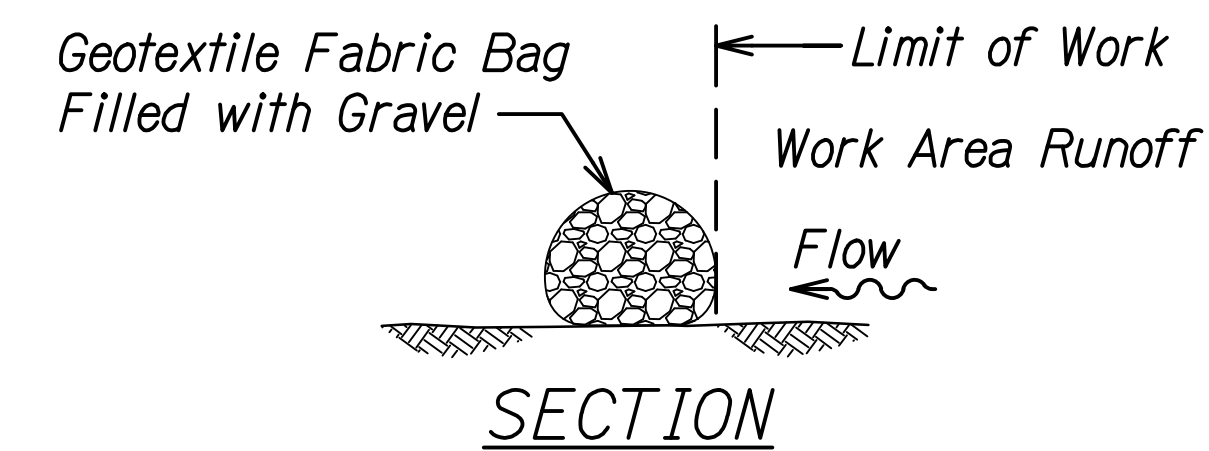
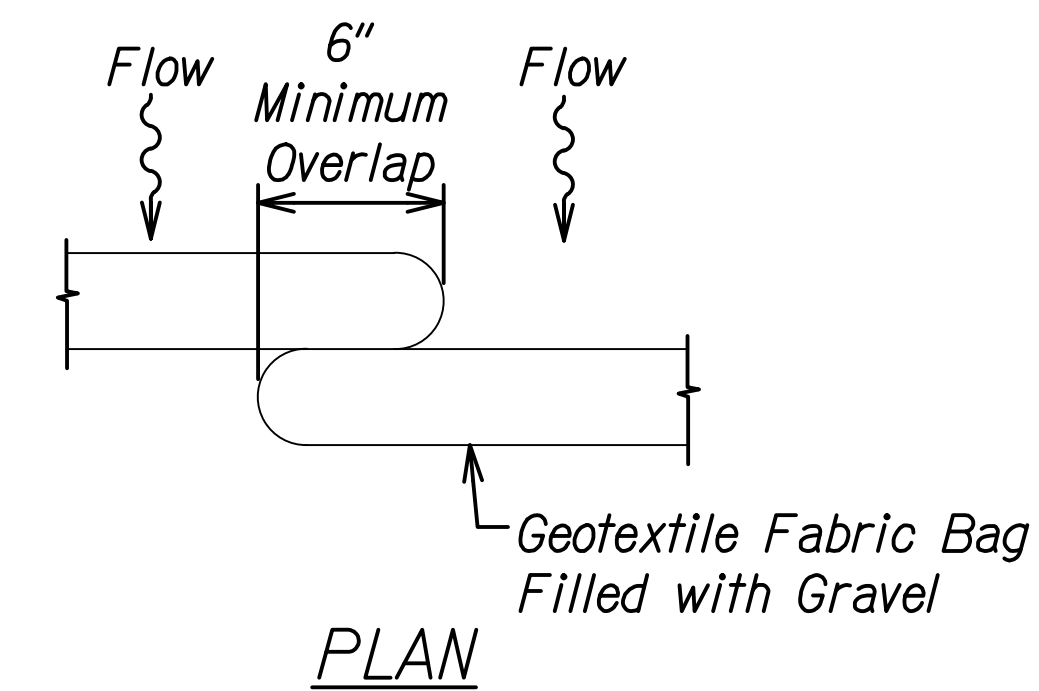
1. Place and tack down geotextile fabric over sheet plastic at staging area.
2. Place Biosocks or silt fence along low end of staging area perimeter to filter staging area runoff.
3. Place drip pans under all vehicles and equipment.
4. Provide spill kits at all staging areas.
5. Secure and provide secondary containment for portable toilets.

STORAGE AREA NOTE:

1. Place Biosocks along storage area perimeter to filter runoff.

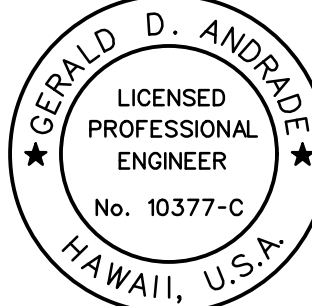
BIOSOCK COMPOST FILTER SOCK NOTES:

1. Remove accumulated sediment when depth reaches 1/3 the barrier height.
2. Biosock material and compost shall be removed at the completion of construction (or a phase of construction) and shall be disposed or properly.
3. No staking is required for slopes < 4:1.
4. Compost shall not contain biosolids and should be consistent with United States Environmental Protection Agency guidelines.



GRAVEL BAG DETAIL
Not to Scale

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	TRACED BY	
	DESIGNED BY	
	CHECKED BY	

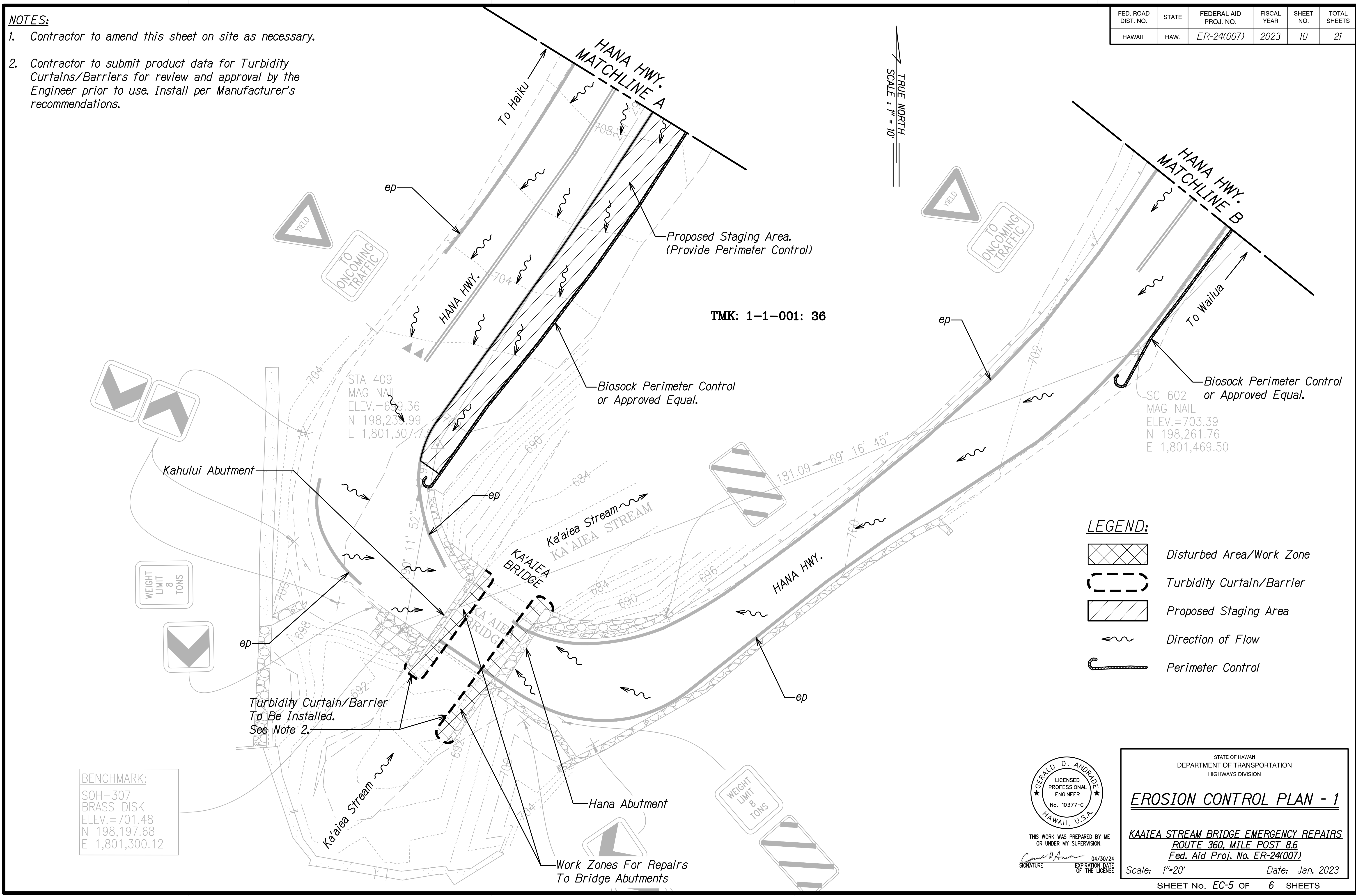

 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
 SIGNATURE: *Gerald D. Andrade* EXPIRATION DATE OF THE LICENSE: 04/30/24

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
WATER POLLUTION & EROSION CONTROL DETAILS
 KAAIEA STREAM BRIDGE EMERGENCY REPAIRS
 ROUTE 360, MILE POST 8.6
 Fed. Aid Proj. No. ER-24(007)
 Scale: None Date: Jan. 2023
 SHEET No. EC-4 OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	10	21

NOTES:

1. Contractor to amend this sheet on site as necessary.
2. Contractor to submit product data for Turbidity Curtains/Barriers for review and approval by the Engineer prior to use. Install per Manufacturer's recommendations.



LEGEND:

- Disturbed Area/Work Zone
- Turbidity Curtain/Barrier
- Proposed Staging Area
- Direction of Flow
- Perimeter Control

BENCHMARK:
 SOH-307
 BRASS DISK
 ELEV.=701.48
 N 198,197.68
 E 1,801,300.12

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

EROSION CONTROL PLAN - 1

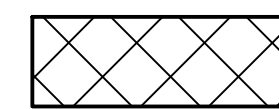
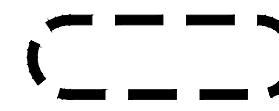
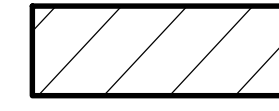


KAAIEA STREAM BRIDGE EMERGENCY REPAIRS
 ROUTE 360, MILE POST 8.6
 Fed. Aid Proj. No. ER-24(007)

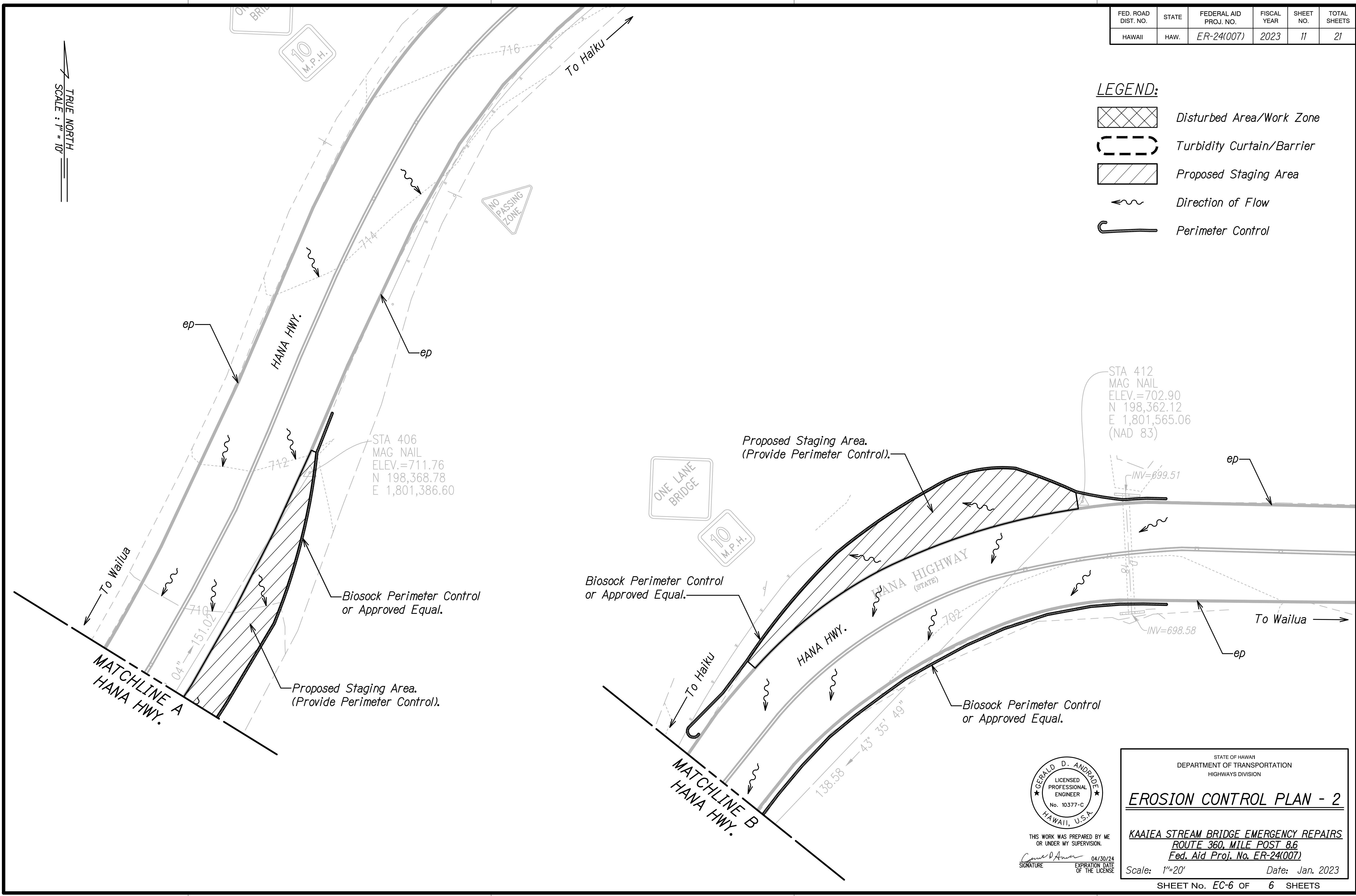
Scale: 1"=20' Date: Jan. 2023

SHEET No. EC-5 OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	11	21

TRUE NORTH
SCALE: 1" = 10'

- LEGEND:**
-  Disturbed Area/Work Zone
 -  Turbidity Curtain/Barrier
 -  Proposed Staging Area
 -  Direction of Flow
 -  Perimeter Control



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

GERALD D. ANDRADE
LICENSED PROFESSIONAL ENGINEER
No. 10377-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
SIGNATURE: *Gerald D. Andrade* 04/30/24
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

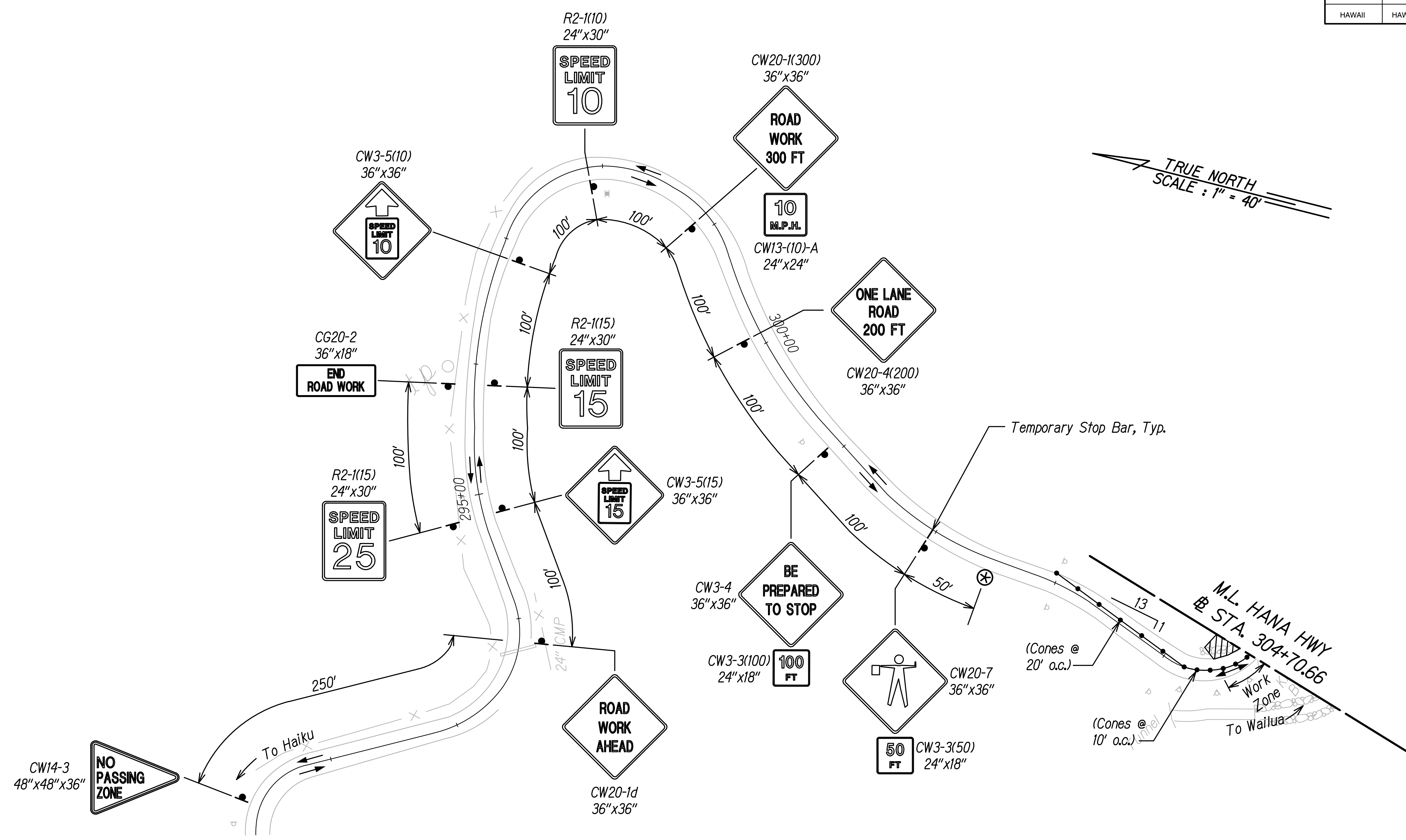
EROSION CONTROL PLAN - 2

KAALAEA STREAM BRIDGE EMERGENCY REPAIRS
ROUTE 360, MILE POST 8.6
Fed. Aid Proj. No. ER-24(007)

Scale: 1"=20' Date: Jan. 2023

SHEET No. EC-6 OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	12	21



TRUE NORTH
SCALE : 1" = 40'

ORIGINAL PLAN
NOTE BOOK
No. _____

SURVEY PLOTTED BY: _____ DATE: _____
 DRAWN BY: _____
 DESIGNED BY: _____
 CHECKED BY: _____

- LEGEND**
- Temporary Stop Bar
 - ⊕ Flagger
 - ▨ Work Zone
 - Sign
 - ← Direction of Traffic
 - Traffic Cones or Delineators

GERALD D. ANDRADE
 LICENSED PROFESSIONAL ENGINEER
 No. 10377-C
 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
 Signature: _____ Date: 04/30/24
 EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

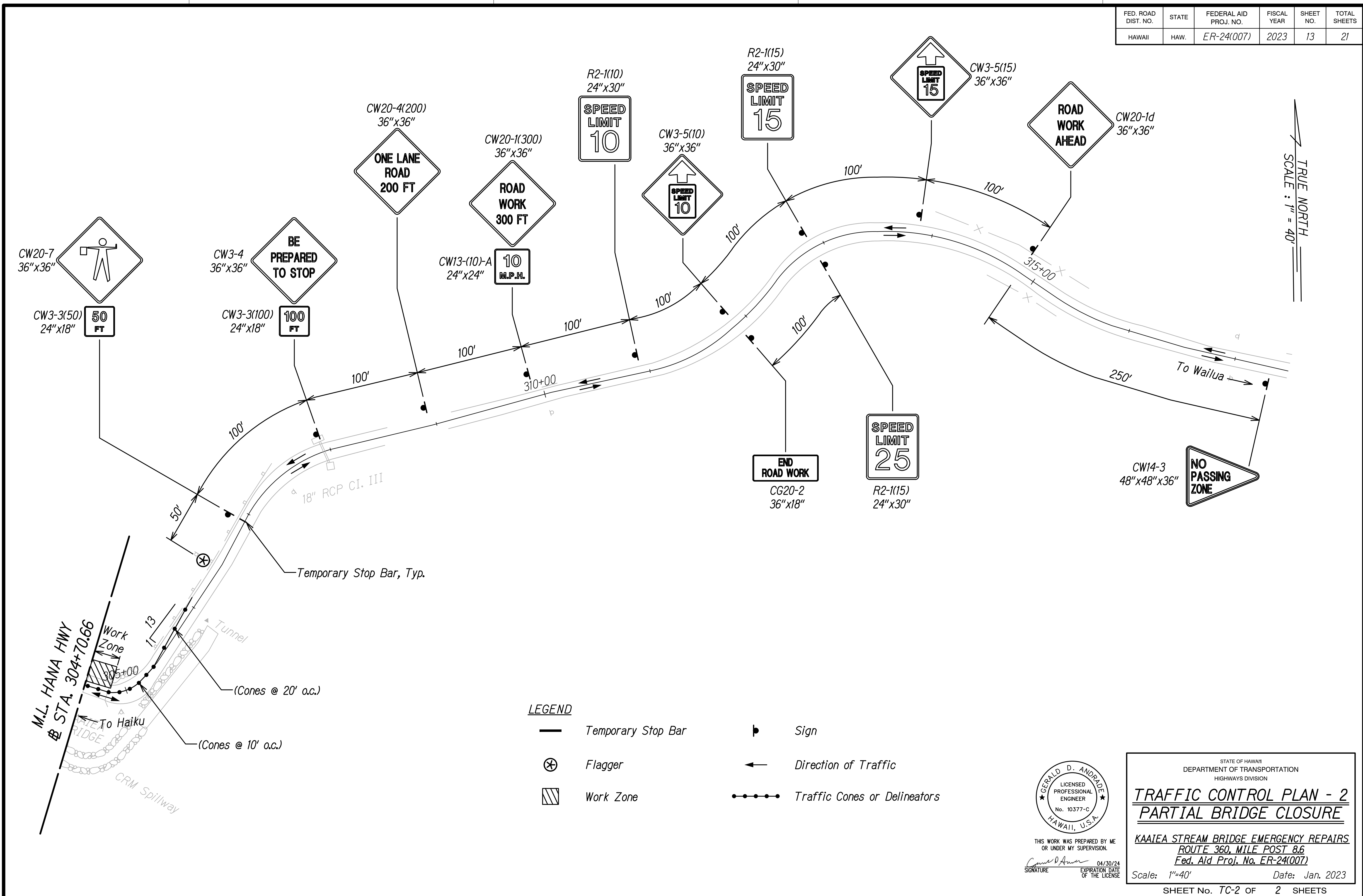
TRAFFIC CONTROL PLAN - 1
PARTIAL BRIDGE CLOSURE

KAAIEA STREAM BRIDGE EMERGENCY REPAIRS
 ROUTE 360, MILE POST 8.6
 Fed. Aid Proj. No. ER-24(007)

Scale: 1"=40' Date: Jan. 2023

SHEET No. TC-1 OF 2 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	13	21



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

- LEGEND**
- Temporary Stop Bar
 - ⊗ Flagger
 - ▨ Work Zone
 - ▴ Sign
 - ← Direction of Traffic
 - Traffic Cones or Delineators

GERALD D. ANDRADE
 LICENSED PROFESSIONAL ENGINEER
 No. 10377-C
 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
 SIGNATURE: *Gerald D. Andrade* 04/30/24
 EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN - 2
PARTIAL BRIDGE CLOSURE

KAAIEA STREAM BRIDGE EMERGENCY REPAIRS
 ROUTE 360, MILE POST 8.6
 Fed. Aid Proj. No. ER-24(007)

Scale: 1"=40' Date: Jan. 2023

SHEET No. TC-2 OF 2 SHEETS

TRUE NORTH
 SCALE: 1" = 40'

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	14	21

STRUCTURAL GENERAL NOTES

CONSTRUCTION SEQUENCE

1. GENERAL SPECIFICATIONS:
 - A. State of Hawaii Department of Transportation Hawaii Standard Specifications Road and Bridge Construction 2005 together with Special Provisions prepared for this contract.
2. GENERAL:
 - A. The contract documents are complementary. Any requirement in one document is as binding as though occurring in all. A stricter requirement prevails over any less strict requirement. The stricter requirement will be the requirement that provides the greater product life, durability, strength and function.
 - B. Existing conditions are shown on the drawings to the best of the designer's knowledge and are intended to aid the contractor during construction. Bridge dimensions, where shown on the drawings, are based on field measurements. Existing dimensions and elevations shown may not be exact and are provided for information only. Contractor shall field verify all existing dimensions and elevations prior to construction. All discrepancies shall be promptly called to the attention of the Engineer and shall be resolved prior to proceeding with any construction work.
 - C. Drawings are based on field measurements, taken on March 15, 2022.
 - D. Bridge is posted at 8 tons.
 - E. No storage of materials or heavy equipment is allowed on the existing bridge.
 - F. Contractor shall submit for approval construction procedure and equipment list for concrete grout filled concrete fabric bags.

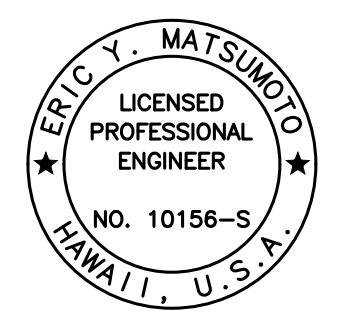
1. Install BMPs.
2. Remove all loose material, soft and otherwise unsuitable subgrade soils, sharp objects and debris from the location of work and properly dispose.
3. Install empty concrete fabric bags into the scour cavity.
4. Install required temporary formwork.
5. Pump concrete grout into concrete fabric bags.
6. Remove BMPs.

CONSTRUCTION SEQUENCE NOTES

1. Order of Construction Sequence shall not be changed unless approved by the Engineer.
2. Each sequence stage shall be completely finished before proceeding to the next stage unless otherwise noted. The Engineer will be the sole judge of whether the sequence stage is complete, and may direct the Contractor to stop work on a sequence stage to complete work on the preceding sequence stage.

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	

DRAWING NAME: Z:\00_DWG\21-009_3-KAAIEA BR CRITICAL FINDINGS MAUI\01_CAD\01-09-23 BID\KSR-50001_GEN NOTES.DWG PLOT TIME: 01-09-23, 10:44 AM



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Eric Y. Matsumoto
 SIGNATURE EXPIRATION DATE
 4-30-24
 OF THE LICENSE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

**STRUCTURAL GENERAL NOTES
 AND CONSTRUCTION SEQUENCE**

**KAIEA STREAM BRIDGE EMERGENCY REPAIRS
 ROUTE 360, MILE POST 8.6
 Fed. Aid Proj. No. ER-24(007)**

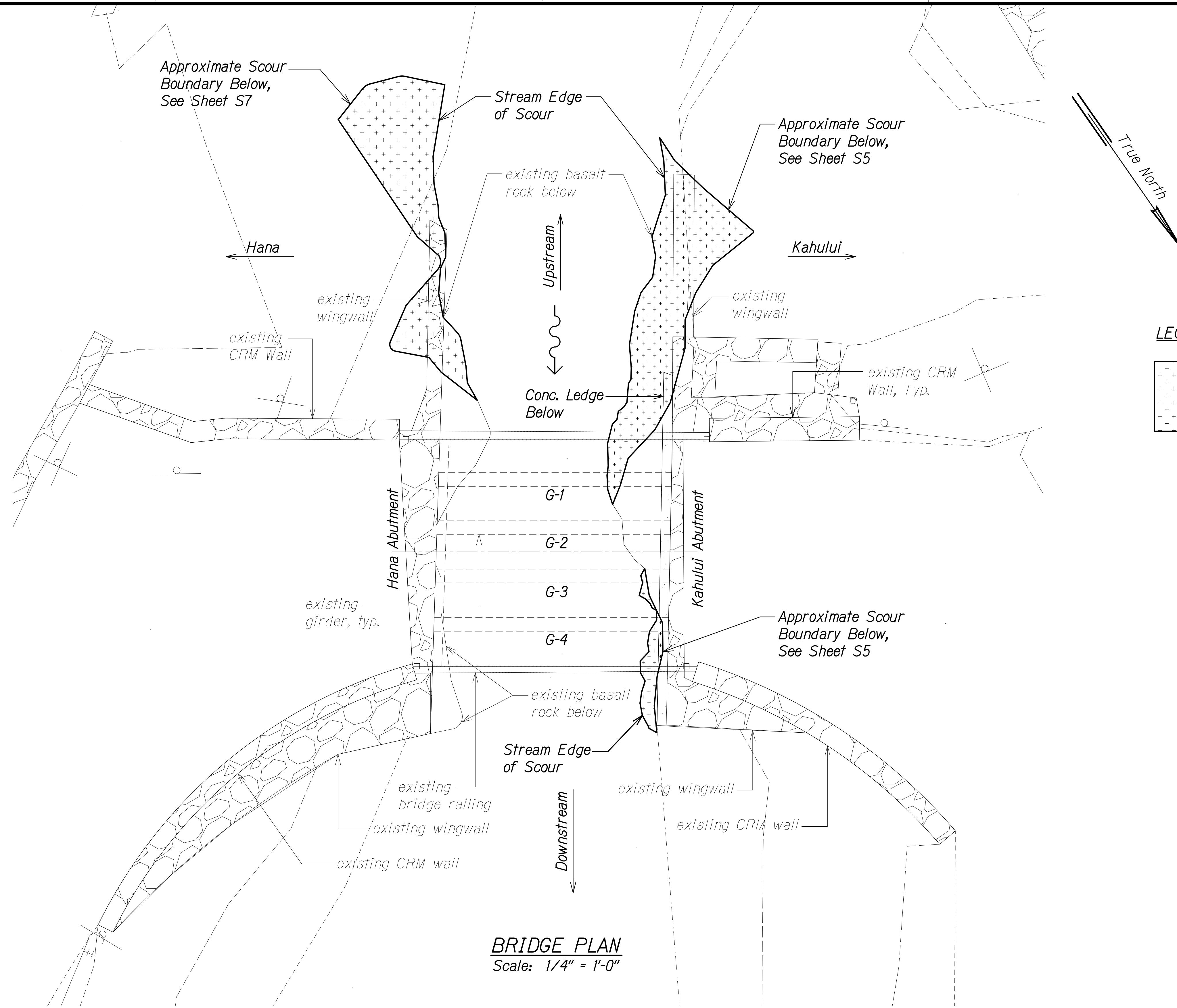
Scale: None Date: Jan. 2023

SHEET No. **SI** OF **8** SHEETS

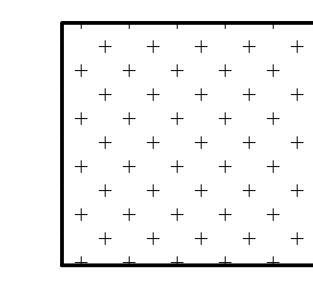
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	15	21

DRAWING NAME: Z:\00_ONGONG\21-009_3-KAAIEA BR. CRITICAL FINDINGS MAUI\01_CAD\01-09-23_BID\KSR-50002_BR_PLANDWG. PLOT TIME: 01-09-23 10:45 AM

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	



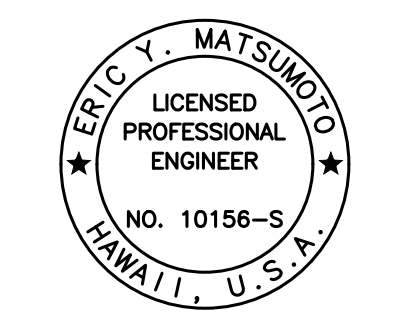
LEGEND:



Approximate scour location, based on measurement taken on March 15, 2022, to be filled in its entirety with concrete grout filled concrete fabric bags.

BRIDGE PLAN
Scale: 1/4" = 1'-0"

NOTE:
Abutment Back Face Dimension Unknown.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Eric Y. Matsumoto
SIGNATURE
4-30-24
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

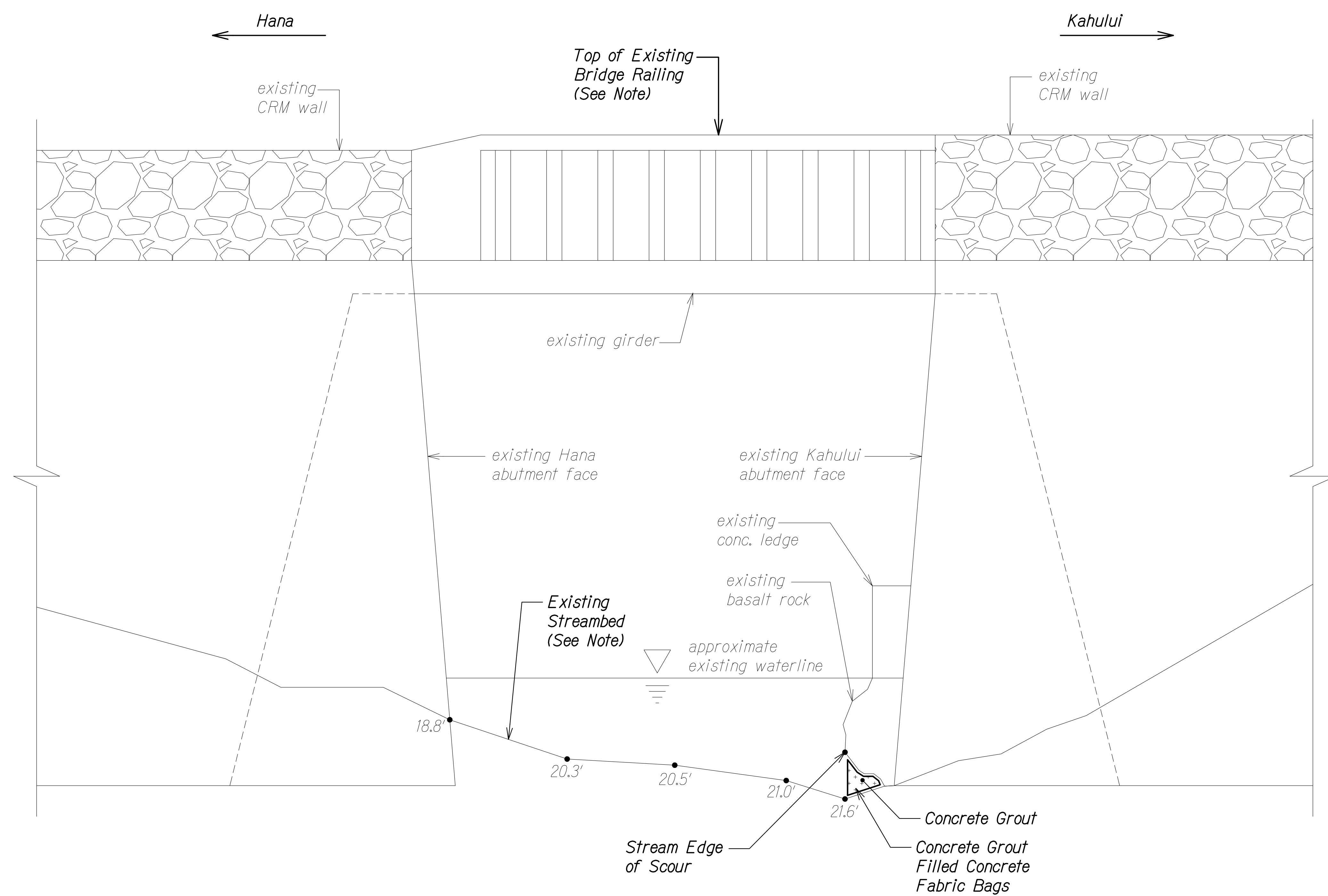
BRIDGE PLAN

KAAIEA STREAM BRIDGE EMERGENCY REPAIRS
ROUTE 360, MILE POST 8.6
Fed. Aid Proj. No. ER-24(007)

Scale: As Noted Date: Jan. 2023

SHEET No. S2 OF 8 SHEETS

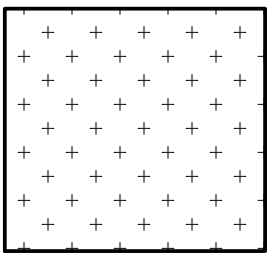
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	16	21



NOTE:

Streambed elevations measured from top of existing bridge railing.

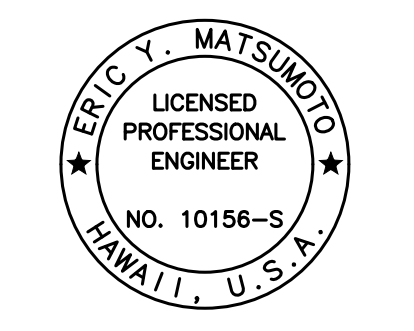
LEGEND:

 Approximate scour location, based on measurement taken on March 15, 2022, to be filled in its entirety with concrete grout filled concrete fabric bags.

DOWNSTREAM BRIDGE ELEVATION
Scale: 1/2" = 1'-0"

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	

DRAWING NAME: Z:\00_ONGONG\21-009_3-KAAIEA BR CRITICAL FINDINGS MAUI\01 CAD\01-09-23 BID\KSR-50003 BR ELEV.DWG PLOT TIME: 01-09-23 10:46 AM



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Eric Y. Matsumoto
4-30-24
SIGNATURE EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

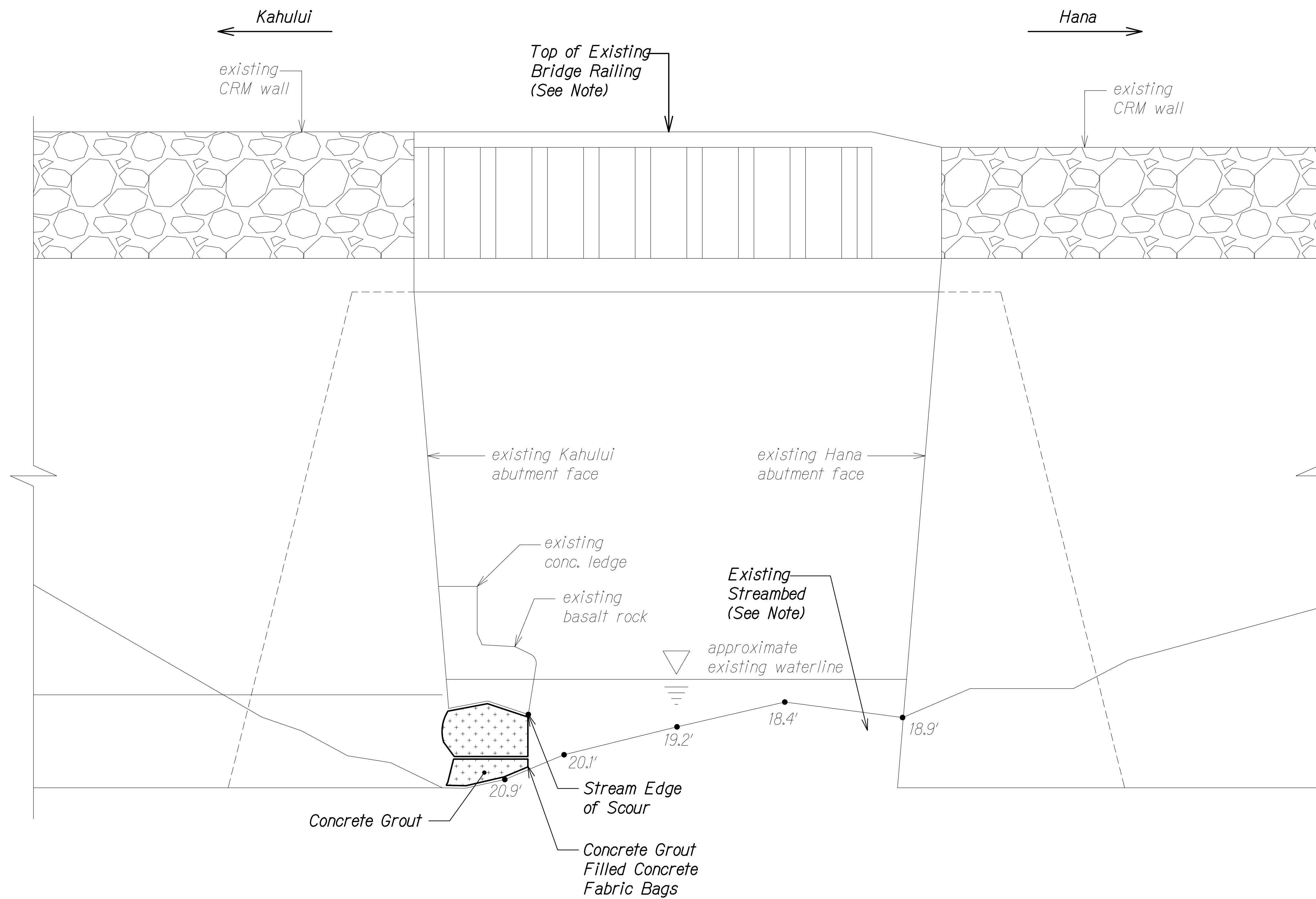
DOWNSTREAM BRIDGE ELEVATION

KAAIEA STREAM BRIDGE EMERGENCY REPAIRS
ROUTE 360, MILE POST 8.6
Fed. Aid Proj. No. ER-24(007)

Scale: As Noted Date: Jan. 2023

SHEET No. S3 OF 8 SHEETS

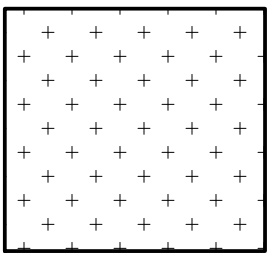
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	17	21



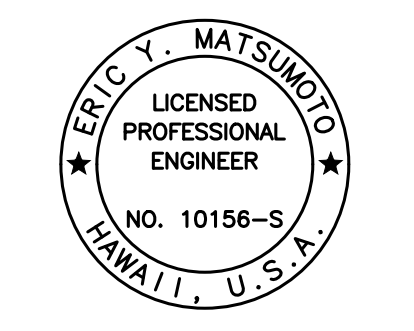
NOTE:

Streambed elevations measured from top of existing bridge railing.

LEGEND:

 Approximate scour location, based on measurement taken on March 15, 2022, to be filled in its entirety with concrete grout filled concrete fabric bags.

UPSTREAM BRIDGE ELEVATION
Scale: 1/2" = 1'-0"



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Eric Y. Matsumoto
SIGNATURE
4-30-24
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UPSTREAM BRIDGE ELEVATION

KAALIA STREAM BRIDGE EMERGENCY REPAIRS
ROUTE 360, MILE POST 8.6
Fed. Aid Proj. No. ER-24(007)

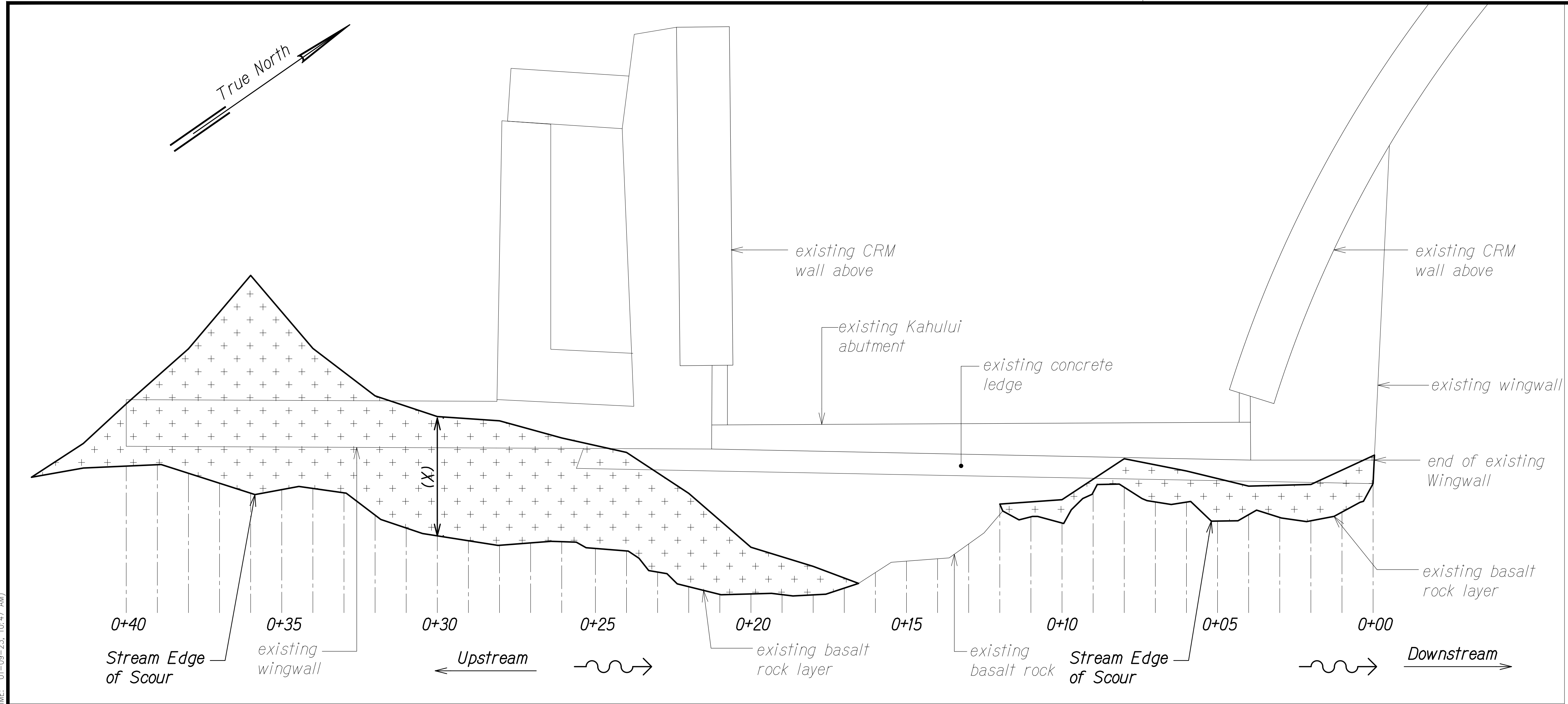
Scale: As Noted Date: Jan. 2023

SHEET No. 54 OF 8 SHEETS

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	

DRAWING NAME: Z:\00_ONGONG\21-009_3-KAAIEA BR. CRITICAL FINDINGS MAUI\01 CAD\01-09-23 BID\KSR-50003 BR ELEV.DWG PLOT TIME: 01-09-23 10:46 AM

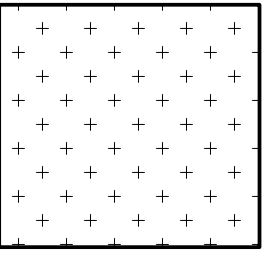
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	18	21



Station	(Y) High (Inches)	(X) Deep (Inches)
0+00	20	11
0+02	28	14
0+04	42	11
0+06	36	12
0+08	30	11
0+10	32	9
0+12	9	4
0+14	0	0
0+16	0	0
0+18	43	11
0+20	30	18
0+22	48	36
0+24	46	38
0+26	52	40
0+28	56	48
0+30	57	46
0+32	62	46
0+34	66	54
0+36	76	84
0+38	78	48
0+40	76	24

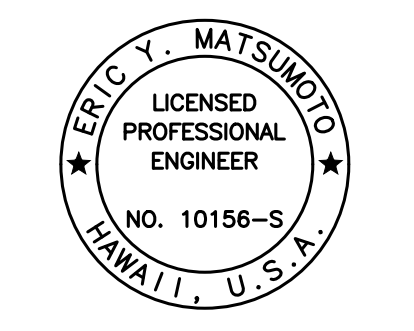
KAHULUI ABUTMENT FOUNDATION PLAN
Scale: 1/2" = 1'-0"

LEGEND:

 Approximate scour location, based on measurement taken on March 15, 2022, to be filled in its entirety with concrete grout filled concrete fabric bags.

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	

DRAWING NAME: Z:\00_ONGONG\21-009_3-KAAIEA BR CRITICAL FINDINGS MAUI\01-09-23-10:47 AM\ PLOT TIME: 01-09-23, 10:47 AM



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Eric Y. Matsumoto
SIGNATURE 4-30-24
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

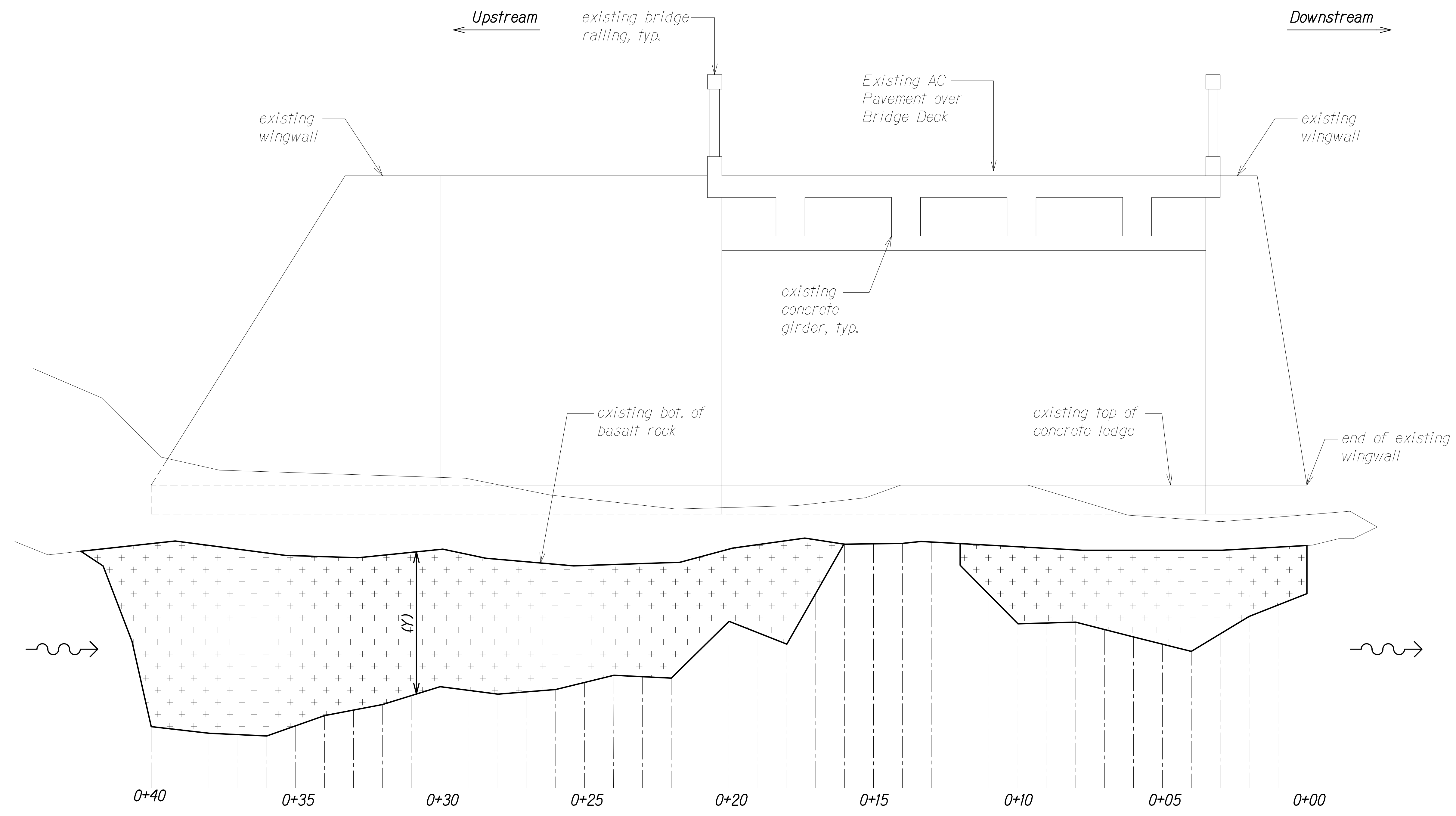
KAHULUI ABUTMENT PLAN

KAAIEA STREAM BRIDGE EMERGENCY REPAIRS
ROUTE 360, MILE POST 8.6
Fed. Aid Proj. No. ER-24(007)

Scale: As Noted Date: Jan. 2023

SHEET No. 55 OF 8 SHEETS

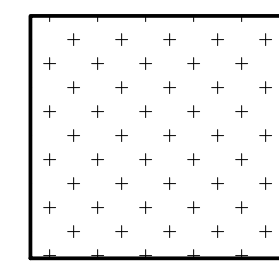
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	19	21



Station	(Y) High (Inches)	(X) Deep (Inches)
0+00	20	11
0+02	28	14
0+04	42	11
0+06	36	12
0+08	30	11
0+10	32	9
0+12	9	4
0+14	0	0
0+16	0	0
0+18	43	11
0+20	30	18
0+22	48	36
0+24	46	38
0+26	52	40
0+28	56	48
0+30	57	46
0+32	62	46
0+34	66	54
0+36	76	84
0+38	78	48
0+40	76	24

KAHULUI ABUTMENT ELEVATION
Scale: 1/2" = 1'-0"

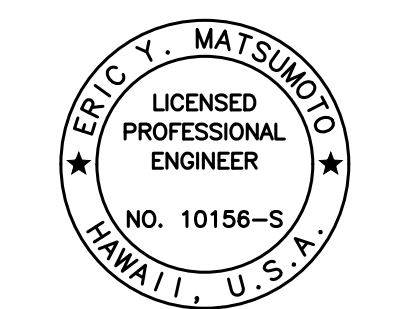
LEGEND:



Approximate scour location, based on measurement taken on March 15, 2022, to be filled in its entirety with concrete grout filled concrete fabric bags.

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	

DRAWING NAME: Z:\00_ONGONG\21-009.3-KAAIEA BR. CRITICAL FINDINGS MAUI\01 CAD\01-09-23 BID\KSR-50006 ABUT ELEV.DWG PLOT TIME: 01-09-23, 10:47 AM



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Eric Y. Matsumoto
SIGNATURE
4-30-24
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

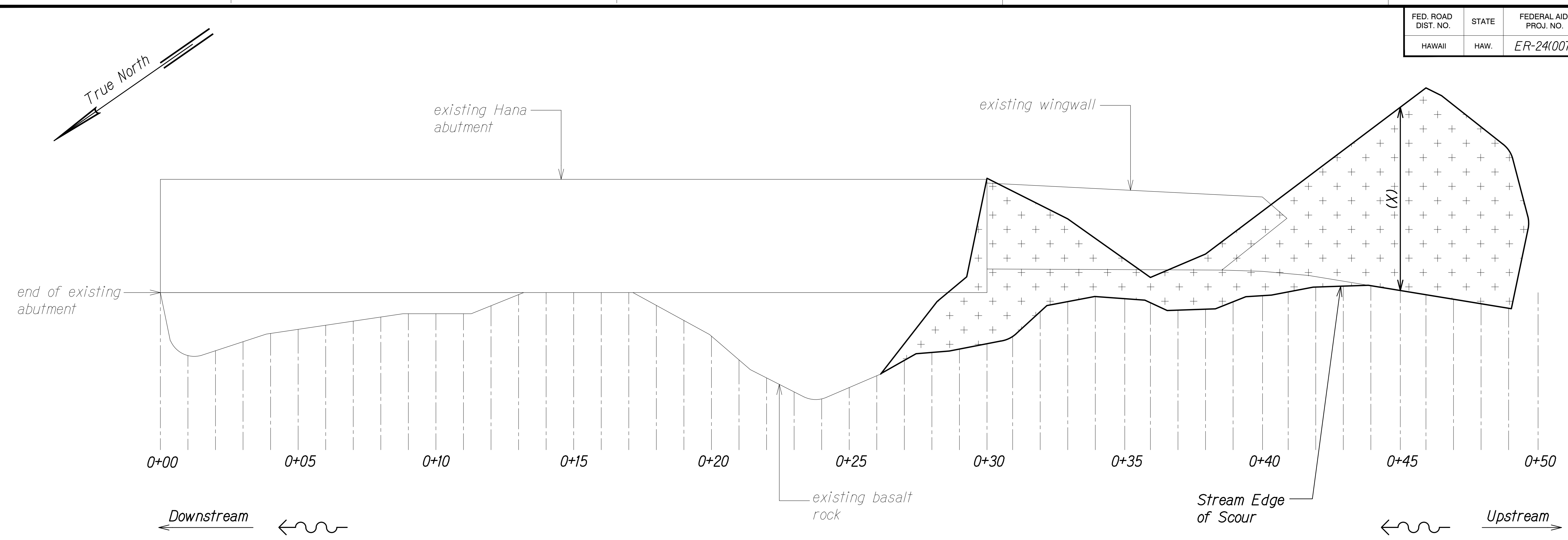
KAHULUI ABUTMENT ELEVATION

KAAIEA STREAM BRIDGE EMERGENCY REPAIRS
ROUTE 360, MILE POST 8.6
Fed. Aid Proj. No. ER-24(007)

Scale: As Noted Date: Jan. 2023

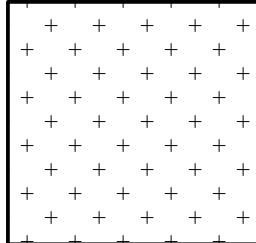
SHEET No. S6 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	20	21



HANA ABUTMENT FOUNDATION PLAN
 Scale: 1/2" = 1'-0"

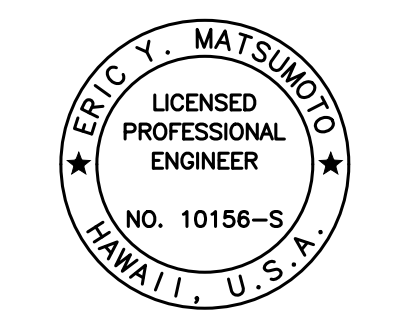
LEGEND:

 Approximate scour location, based on measurement taken on March 15, 2022, to be filled in its entirety with concrete grout filled concrete fabric bags.

Station	(Y) High (Inches)	(X) Deep (Inches)
0+30	78	72
0+33	78	36
0+36	86	11
0+38	89	24
0+46	120	90

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	

DRAWING NAME: Z:\00_ONGONG\21-009_3-KAAIEA BR CRITICAL FINDINGS MAUI\01 CAD\01-09-23 BID\KSR-50007 HANA ABUT PLAN.DWG PLOT TIME: 01-09-23 1:09 PM



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Eric Y. Matsumoto
 SIGNATURE
 4-30-24
 EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

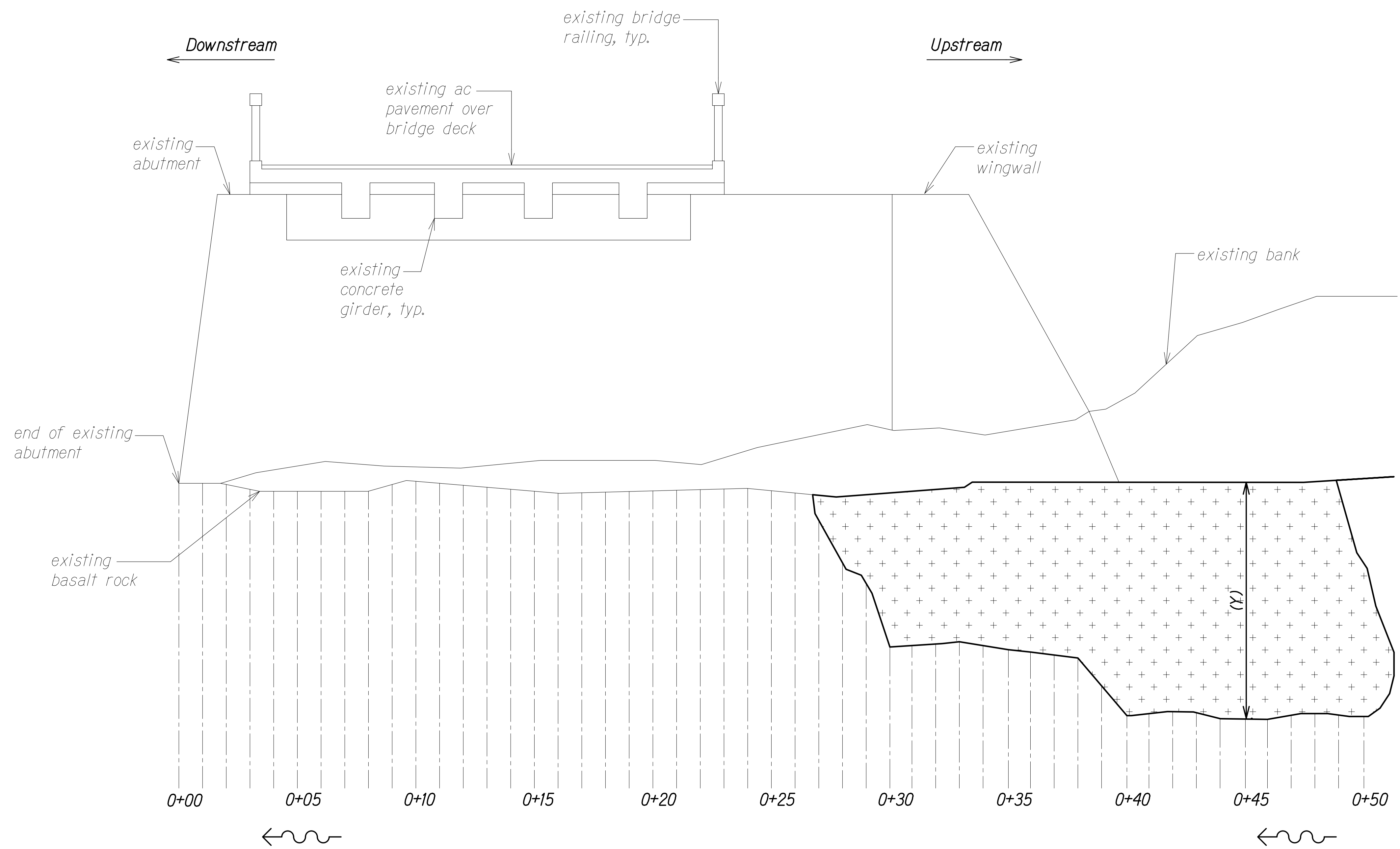
HANA ABUTMENT PLAN

KAAIEA STREAM BRIDGE EMERGENCY REPAIRS
ROUTE 360, MILE POST 8.6
Fed. Aid Proj. No. ER-24(007)

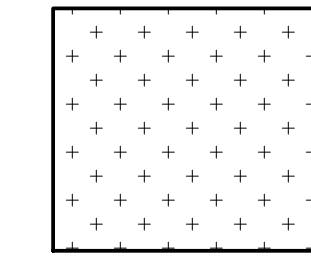
Scale: As Noted Date: Jan. 2023

SHEET No. 57 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(007)	2023	21	21



LEGEND:



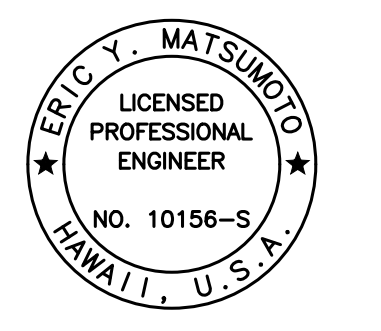
Approximate scour location, based on measurement taken on March 15, 2022, to be filled in its entirety with concrete grout filled concrete fabric bags.

Station	(Y) High (Inches)	(X) Deep (Inches)
0+30	78	72
0+33	78	36
0+36	86	11
0+38	89	24
0+46	120	90

HANA ABUTMENT ELEVATION
Scale: 3/8" = 1'-0"

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	

DRAWING NAME: Z:\00_DWG\021-009_3-KAAIEA BR CRITICAL FINDINGS MAUI\01_CAD\01-09-23_BID\KSR-50008_HANA ABUT ELEV.DWG PLOT TIME: 01-09-23 1:12 PM



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Eric Y. Matsumoto
SIGNATURE 4-30-24
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HANA ABUTMENT ELEVATION

KAAIEA STREAM BRIDGE EMERGENCY REPAIRS
ROUTE 360, MILE POST 8.6
Fed. Aid Proj. No. ER-24(007)

Scale: As Noted Date: Jan. 2023

SHEET No. 58 OF 8 SHEETS