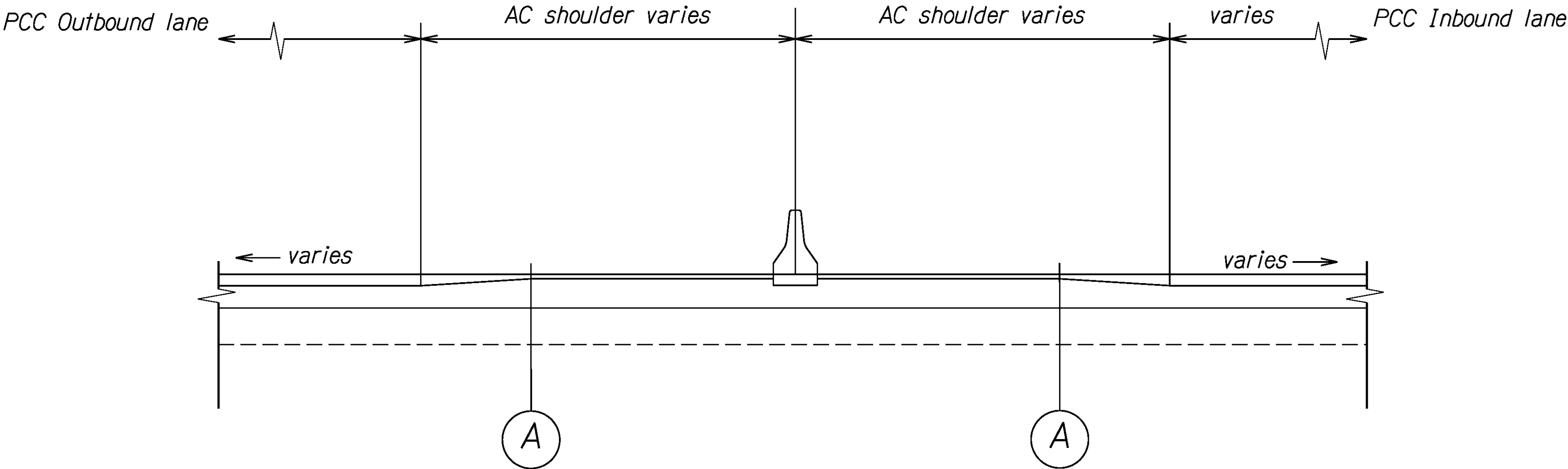
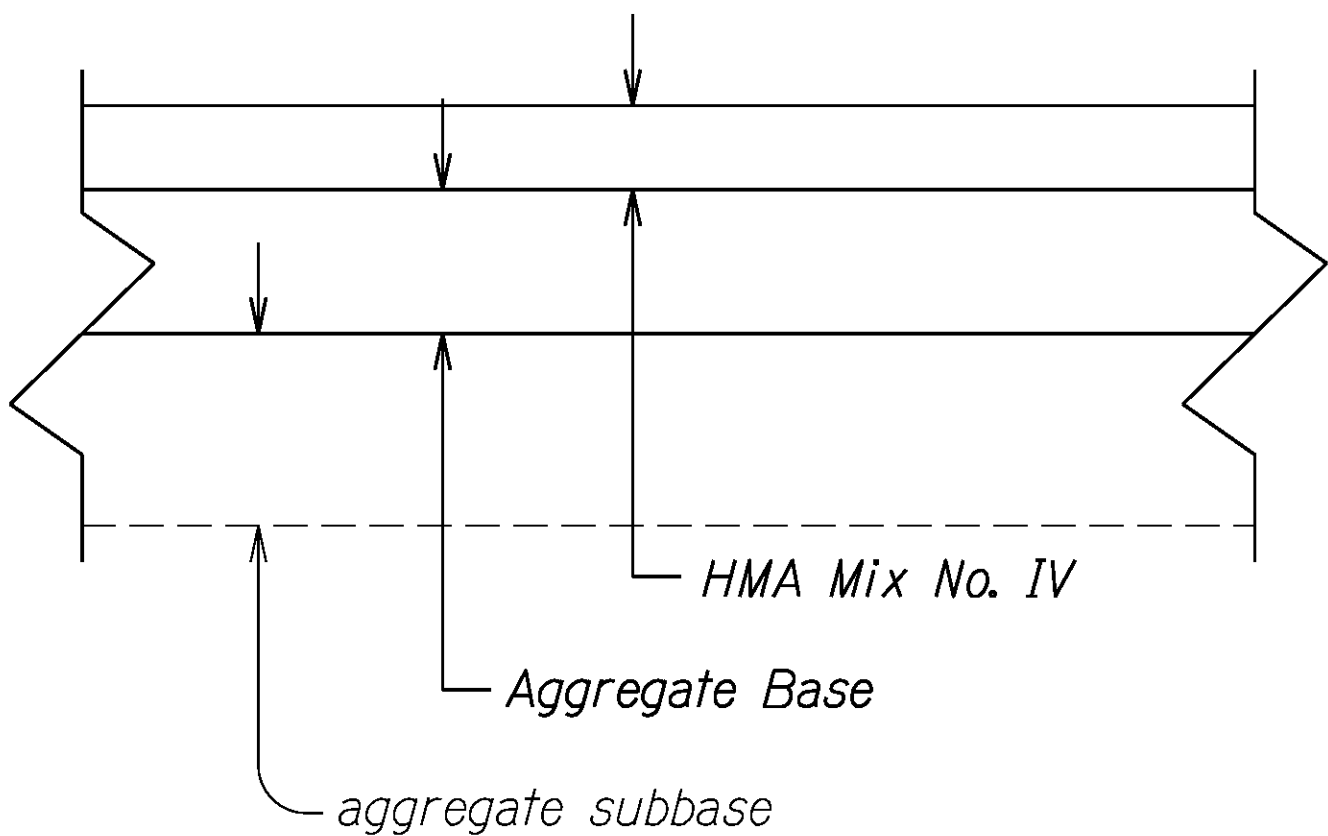


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.10	119

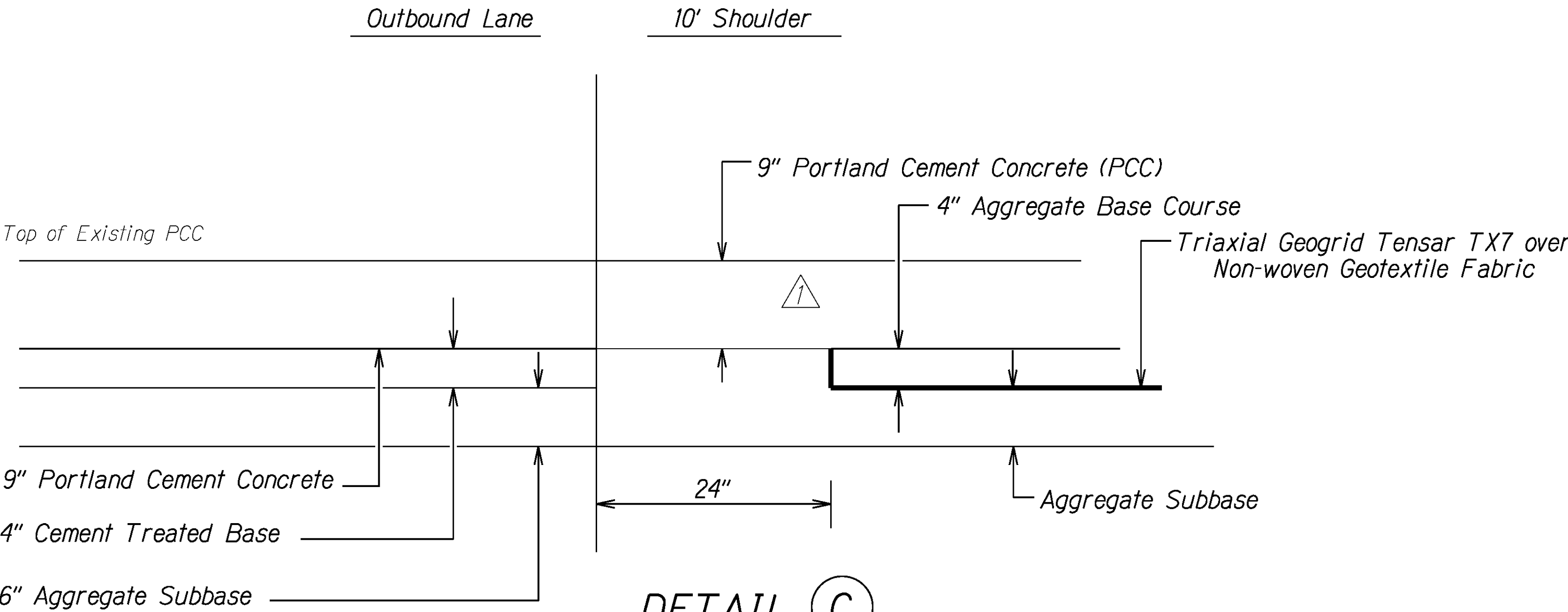


INTERSTATE ROUTE H-2
TYPICAL MEDIAN SECTION

Sta. 51+00 to # Sta. 190+00, # Sta. 299+00 to # Sta. 347+00, # Sta. 366+00 to # Sta. 404+00
Not to Scale



DETAIL (A)
Not to Scale



DETAIL (C)

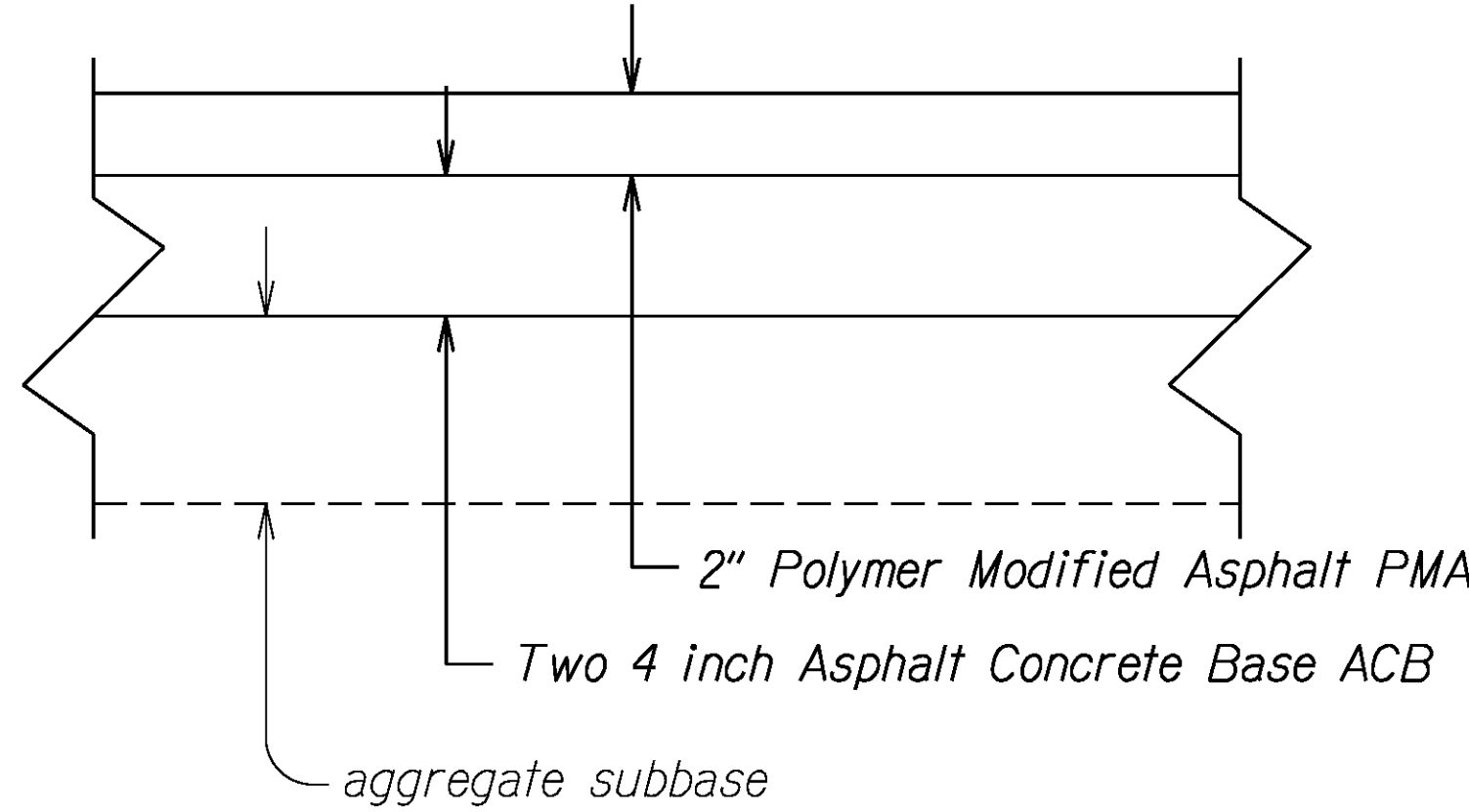
INTERSTATE ROUTE H-2 OUTBOUND SHOULDER
H-2 # Sta. 74+60± to H-2 # Sta. 122+50±
Not to Scale

Note:

1. Excavate 9 inches Below Grade within 24 inches of the PCC Travel Lane.
2. Excavate the Remainder of the 10-foot Wide Shoulder to 13 inches Below Grade.
3. Place a Non-woven Geotextile Fabric (Standard Specification 716.02) on the Subgrade.
4. Place a Triaxial Geogrid Tensar TX7 or Equivalent Over the Non-woven Geotextile Fabric.
5. Place 4 inches of Aggregate Base Course Compacted to at Least 90 Percent of it's Maximum dry Density (AASHTO T 180). Maintain existing grades
6. Place 9 inches PCC With Tie Bars to the Existing PCC Per Standard Plans and with Dowel Bars at the Transverse Joints Per Standard Plans.

Note:

See Roadway Plans and Schedule for Pavement Structure to be One of the Following:
1. 2½' Removal and 2½" HMA Mix No. IV.
2. Item 304.02 Aggregate Base per Engineer's Direction



DETAIL (B)

RAMP C SHOULDER
H-2 # Sta. 71+72 to H-2 # Sta. 72+68
Not to Scale

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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No. 2015	DESIGNED BY	
	CHECKED BY	



4/16/21

Removed Note of Triaxial Geogrid Tensar TX7 over Non-Woven Geotextile Fabric under PCC

DATE

REVISION

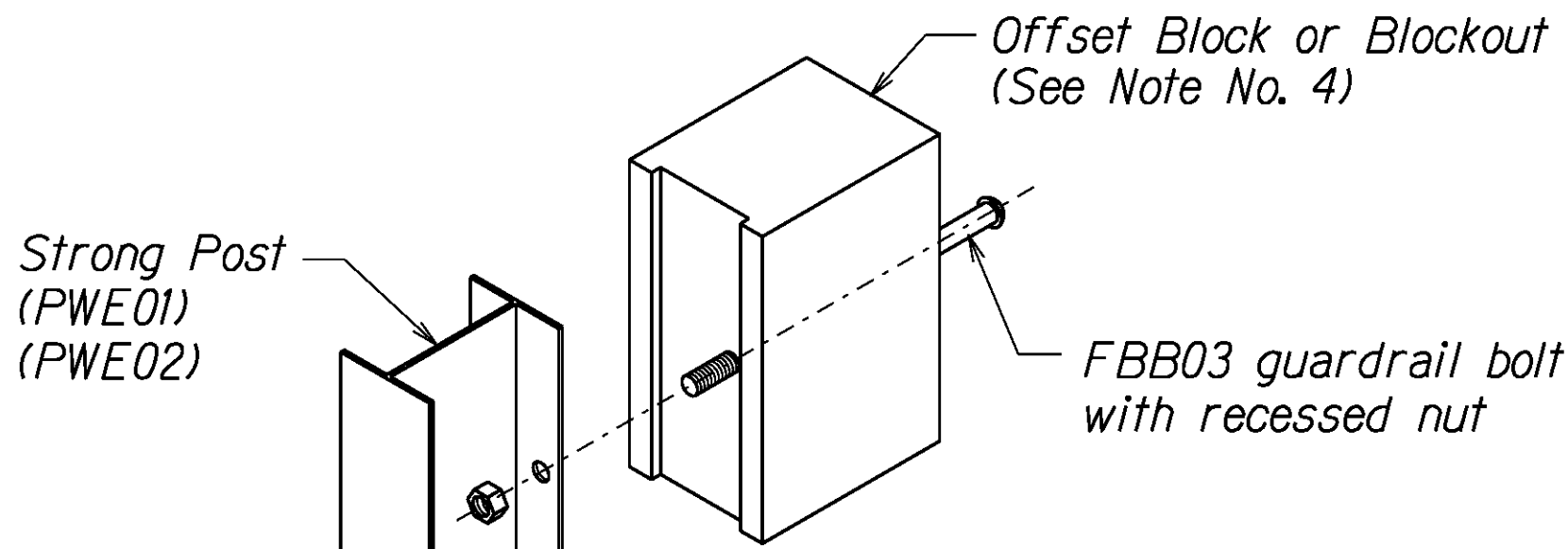
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION TYPICAL SHOULDER SECTION <u>INTERSTATE ROUTE H-2 and</u> <u>MOANALUA FREEWAY, PHASE 2</u> <u>Guardrail and Shoulder Improvements</u> <u>Federal Aid Project No. NH-STP-0300(164)</u> Scale: As Shown Date: August, 2020 SHEET No. 1 OF 2 SHEETS
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.12	119

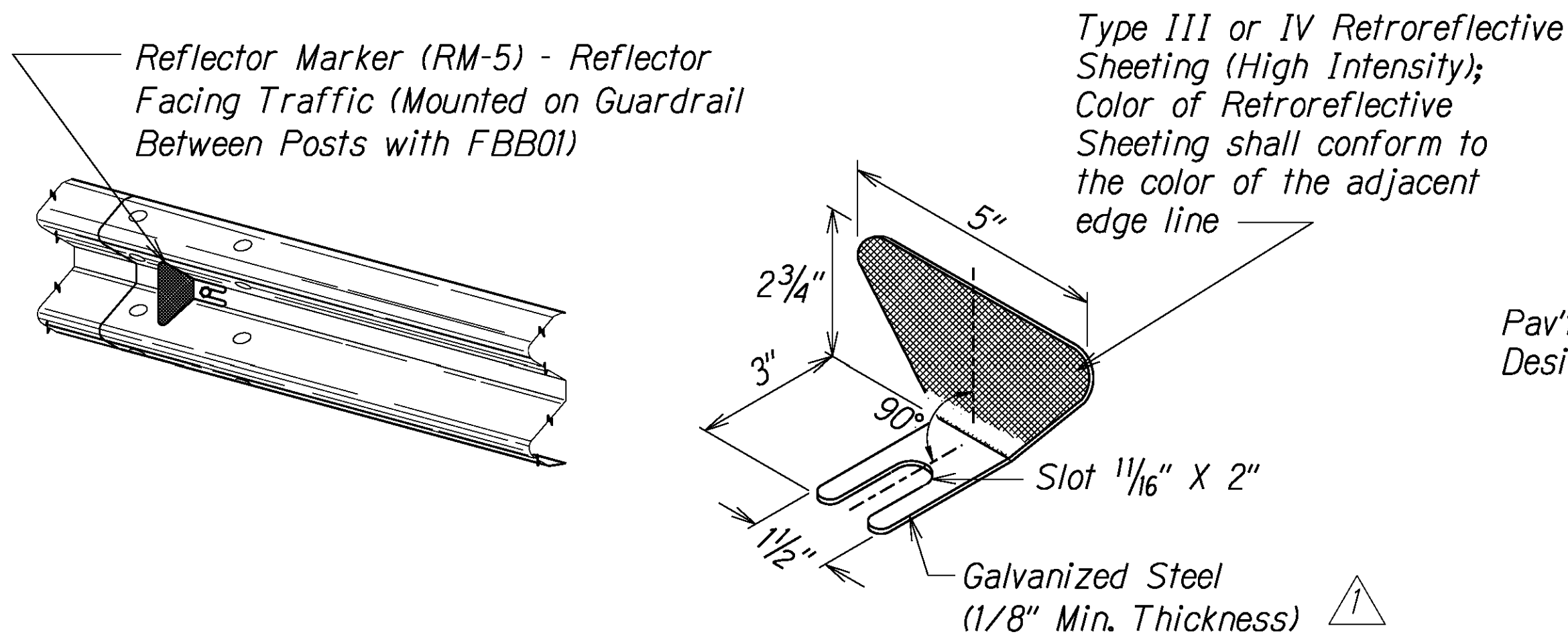
GENERAL NOTES

1. All hardware, posts and fasteners shall be hot-dip zinc coated galvanized after fabrication. No punching, drilling or cutting will be permitted after galvanizing.
2. Where conditions require, special post lengths in increments of 6 inches may be specified by the Engineer.
3. All fasteners, posts, and rail elements (i.e. FBB03, PWE01, RWM04b, etc.) shall conform to the latest edition and amendments of "A Guide to Standardized Highway Barrier Rail Hardware", a report prepared and approved by the AASHTO-AGC-ARTBA Joint Cooperative Committee, Subcommittee On New Highway Materials, Task Force 13 Report. Dimensions of fastners, posts and rail elements have been converted from metric units into their present form.
4. The Blockout or Offset Block shall be approved by the State.
5. All new guardrail systems (system consists of total length of guardrail including both end treatments) shall include the Additional Paved Area.
6. After the guardrail posts are installed in the paved area, the Contractor shall fill/seal around each guardrail post and all cracks in the paved area caused during the guardrail post installation. If required by the inspector/engineer, the Contractor shall tamper the paved area around the guardrail post prior to filling/sealing. All costs associated with this work shall not be paid for separately, but shall be considered incidental to the various guardrail items.
7. When standards for the fill slope area cannot be met, a site specific, engineer approved design may be used.
8. Minimum working width (clear distance) between back of MGS post to any fixed object is 4'-1" (49").
9. New Hot Mix Asphalt (HMA) pavement at guardrails shall extend 6 feet longitudinally beyond terminal ends.
10. Reflector Markers (RM-5) mounted on guardrails shall be spaced every 25 feet. RM-5's shall not be installed on Terminal Sections. Furnishing and installing of each RM-5 shall be considered incidental to the guardrail system.

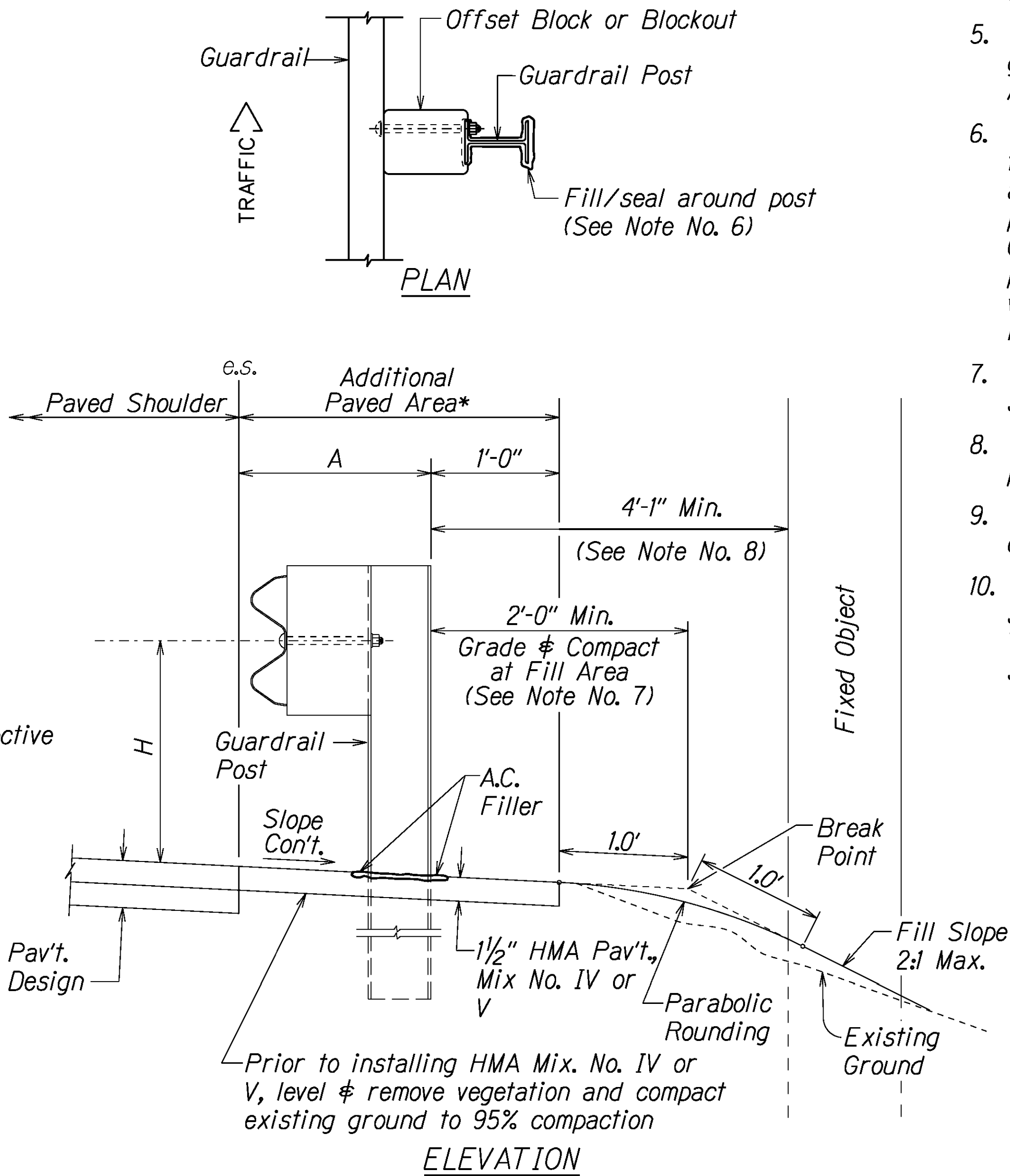
GUARDRAIL TYPE	DIMENSION	
	H	A
MGS w/ Standard 8" Offset Block	2'-1"	1'-6"
MGS w/ No Blockout	2'-7/8"	9 1/4"



Exploded View
(Rail and washer not shown)
STEEL POST AND BLOCK DETAIL



REFLECTOR MARKER (RM-5) DETAIL AND TYPICAL INSTALLATION



TYPICAL GUARDRAIL INSTALLATION

04/16/21 Revised Material Description

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

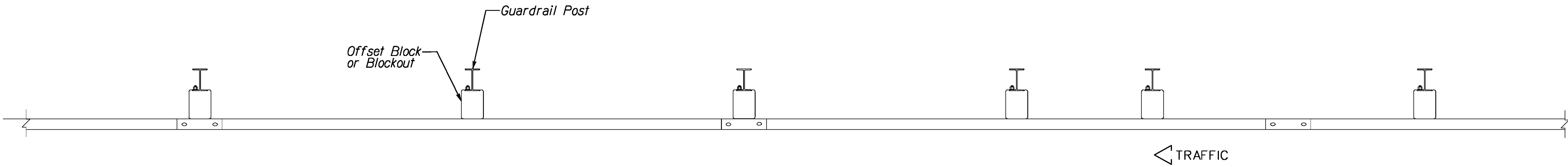
GUARDRAIL DETAILS

**INTERSTATE ROUTE H-2 and
MOANALUA FREEWAY, PHASE 2
Guardrail and Shoulder Improvements
Federal-Aid Project No. NH-STP-0300(164)**

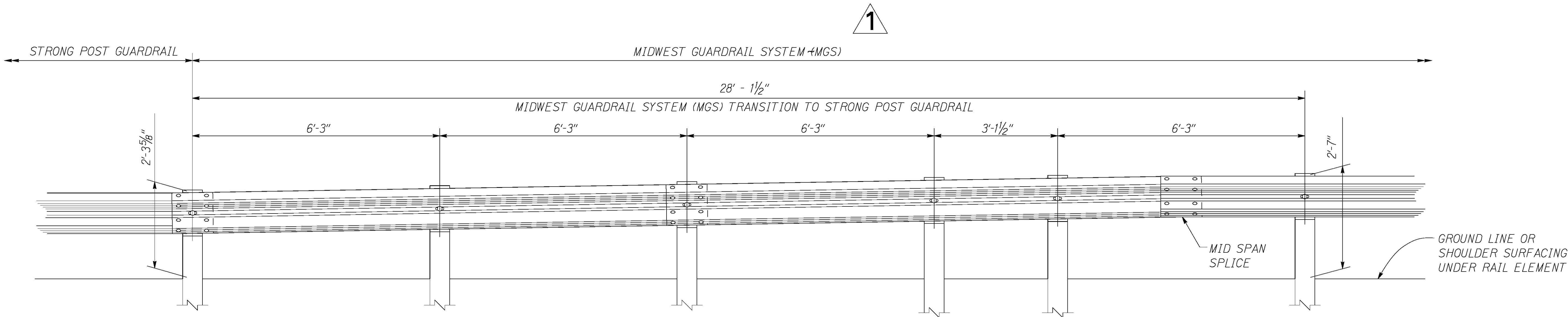
Scale: Not To Scale Date: August, 2020

SHEET No. 1 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.16	119



PLAN



ELEVATION

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

r09/06/16 D:\r09\standards\Traffic Guardrail Standards\m16_midwest.dgn

1

4/16/21

Updated label on detail

DATE

REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
MGS TRANSITION TO
STRONG POST GUARDRAIL
INTERSTATE ROUTE H-2, 84-INCH
Culvert Restoration at M.P. 2.10
Federal Aid Project No. NH-STP-0300(164)

Scale: Not to Scale Date: May, 2020

SHEET No. 5 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.18	119

H-2 @ Sta. 49+00± to H-2 @ Sta. 58+00±, Lt.

Remove and Dispose of 2.50 inches of Asphalt Pavement, of the 10.00 foot Shoulder. Replace with 2.50 inches HMA Pavement Mix No. IV.

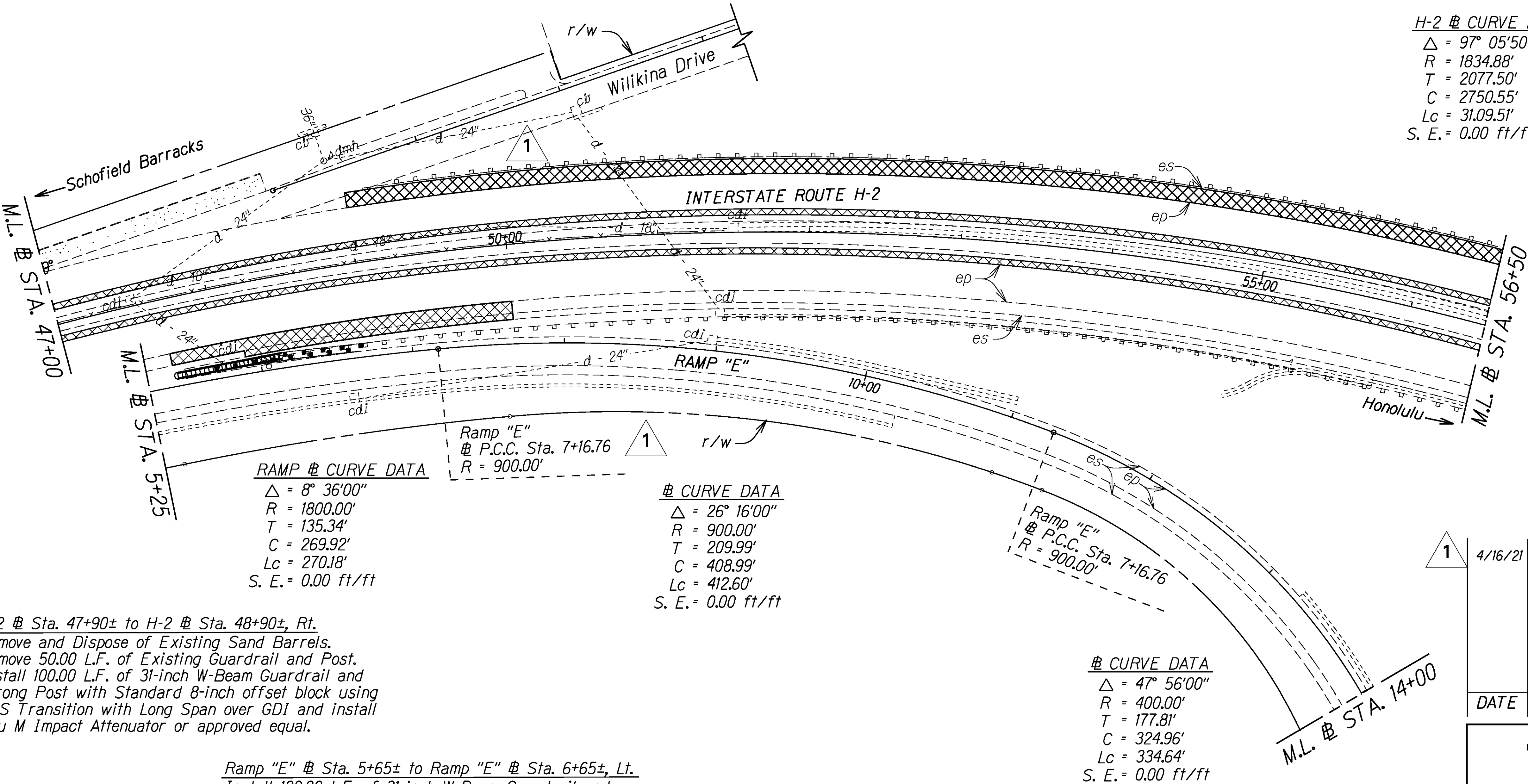
H-2 @ Sta. 47+68± to H-2 @ Sta. 50+00±, Rt.

Remove and Dispose 2.50 inches of Asphalt Pavement of the 5.00 foot Shoulder. Replace with 2.50 inches HMA Pavment Mix No. IV.

TRUE NORTH
SCALE: 1" = 40'

H-2 @ CURVE DATA

$\Delta = 97^\circ 05'50''$
 $R = 1834.88'$
 $T = 2077.50'$
 $C = 2750.55'$
 $Lc = 31.09.51'$
 $S. E. = 0.00 \text{ ft/ft}$



RAMP @ CURVE DATA

$\Delta = 8^\circ 36'00''$
 $R = 1800.00'$
 $T = 135.34'$
 $C = 269.92'$
 $Lc = 270.18'$
 $S. E. = 0.00 \text{ ft/ft}$

@ CURVE DATA

$\Delta = 26^\circ 16'00''$
 $R = 900.00'$
 $T = 209.99'$
 $C = 408.99'$
 $Lc = 412.60'$
 $S. E. = 0.00 \text{ ft/ft}$

@ CURVE DATA

$\Delta = 47^\circ 56'00''$
 $R = 400.00'$
 $T = 177.81'$
 $C = 324.96'$
 $Lc = 334.64'$
 $S. E. = 0.00 \text{ ft/ft}$

H-2 @ Sta. 47+90± to H-2 @ Sta. 48+90±, Rt.

Remove and Dispose of Existing Sand Barrels.
Remove 50.00 L.F. of Existing Guardrail and Post.
Install 100.00 L.F. of 31-inch W-Beam Guardrail and Strong Post with Standard 8-inch offset block using MGS Transition with Long Span over GDI and install Tau M Impact Attenuator or approved equal.

Ramp "E" @ Sta. 5+65± to Ramp "E" @ Sta. 6+65±, Lt.

Install 100.00 L.F. of 31-inch W-Beam Guardrail and Strong Post with Standard 8-inch offset block. Connect to Impact Attenuator with Long Span Over GDI and Trailing-End Anchorage System.

H-2 @ Sta. 48+23± to H-2 @ Sta. 50+00±, Rt.

Remove and Dispose 2.50 Inches of Asphalt Pavement, of the 5.00 Foot Storm Water Gutter. See Plan Sheet No. H1 for Storm Water Gutter Details.

4/16/21	Removed guardrail H-2 @ Sta. 49+32 to 49+82 note from plans outbound Removed new guardrail H-2 @ Sta. 49+32 to 49+82 note from plans outbound Revised impact attenuator note at H-2 @ Sta. 47+90 to 48+90 inbound Corrected Ramp E P.C.C. @ Sta. 7+16.76
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DATE	REVISION
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STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION ROADWAY PLANS INTERSTATE ROUTE H-2 and MOANALUA FREEWAY, PHASE 2 Guardrail and Shoulder Improvements Federal-Aid Project No. NH-STP-0300(164) Scale: 1" = 40' Date: August, 2020 SHEET No. 2 OF 41 SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD. 19	119

RAMP C @ CURVE DATA

$\Delta = 23^\circ 20'00''$
 $R = 985.00'$
 $T = 203.39'$
 $C = 398.37'$
 $Lc = 401.14'$
 $S. E. = 0.00 \text{ ft/ft}$

H-2 @ Sta. 61+00± to H-2 @ Sta. 67+50±, Lt.
Remove and Dispose 2.50 inches of Asphalt Pavement of the 10.00 foot Shoulder. Replace with 2.50 inches HMA Pavement Mix No. IV.

H-2 @ Sta. 61+29± to H-2 @ Sta. 72+50±, Median O.B.
Remove and Dispose of 2.50 inches of Asphalt Pavement of the 4.00 foot Shoulder. Replace with 2.50 inches HMA Pavement Mix No. IV.

1
H2 @ Sta. 57+16± Median
Remove and Dispose of Sand Barrels.
Install Tau M Impact Attenuator or approved equal.

H-2 @ Sta. 57+02± to H-2 @ Sta. 57+89.5±, Rt.
Remove 25.00 L.F. of Existing Guardrail and Posts. Install 37.50 L.F. of 31-inch W-Beam Guardrail and Strong Post with Standard 8-inch offset block using MGS Transition to Strong Post. Connect to Loop "I" Guardrail with W-Beam End Section Buffer.

Loop "I" @ Sta. 7+28± to Loop "I" @ Sta. 7+90.50±, Lt.
Remove 25.00 L.F. of Existing Guardrail and Posts. Install 37.50 L.F. of 31-inch W-Beam Guardrail and Strong Post with Standard 8-inch offset block using MGS Transition to Strong Post. Connect to W-Beam End Section Buffer on H-2 Side.

Loop "I" @ Sta. 6+00± to @ 8+90±, Rt.
Remove and dispose of 290.00 L.F. of 2.50 inches of Asphalt Pavement of the 4.00 foot Storm Water Gutter. Replace with 2.50 inches of HMA Pavement Mix No. IV. For Storm Water Gutter, See Plan Sheet H1.

H-2 @ Sta. 61+49± to H-2 @ Sta. 72+44±, Median I.B.
Remove and Dispose of 2.50 inches of Asphalt Pavement of the 4.00 foot Shoulder. Replace with 2.50 inches HMA Pavement Mix No. IV.

1 H2 @ Sta. 62+54± Median
Remove and Dispose of Sand Barrels.
Install Tau M Impact Attenuator or approved equal.

H-2 @ CURVE DATA

$\Delta = 97^\circ 05'50''$
 $R = 1834.88'$
 $T = 2077.50'$
 $C = 2750.55'$
 $Lc = 3109.51'$
 $S. E. = 0.00 \text{ ft/ft}$

RAMP E @ CURVE DATA

$\Delta = 80^\circ 33'54''$
 $R = 250.00'$
 $T = 211.88'$
 $C = 323.28'$
 $Lc = 351.53'$
 $S. E. = 0.00 \text{ ft/ft}$

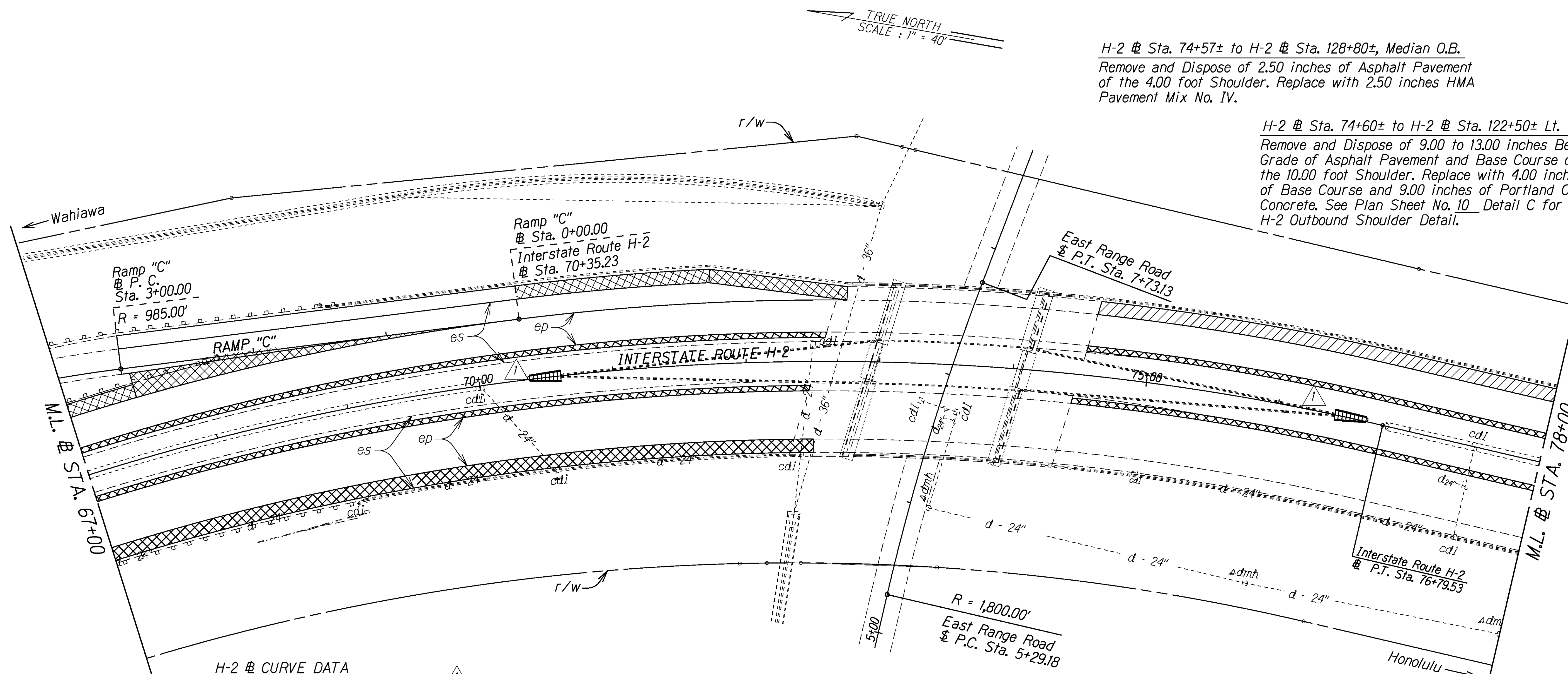
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4/16/21 Updated impact attenuator notes at H-2 @ Sta. 57+16 and 62+54 Median

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROADWAY PLANS
INTERSTATE ROUTE H-2 and
MOANALUA FREEWAY, PHASE 2
Guardrail and Shoulder Improvements
Federal-Aid Project No. NH-STP-0300(164)
Scale: 1" = 40' Date: August, 2021
SHEET No. 3 OF 41 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.20	119



H-2 @ Sta. 74+57± to H-2 @ Sta. 128+80±, Median O.B.
Remove and Dispose of 2.50 inches of Asphalt Pavement of the 4.00 foot Shoulder. Replace with 2.50 inches HMA Pavement Mix No. IV.

H-2 @ Sta. 74+60± to H-2 @ Sta. 122+50± Lt.
Remove and Dispose of 9.00 to 13.00 inches Below Grade of Asphalt Pavement and Base Course of the 10.00 foot Shoulder. Replace with 4.00 inches of Base Course and 9.00 inches of Portland Cement Concrete. See Plan Sheet No. 10 Detail C for H-2 Outbound Shoulder Detail.

H-2 @ CURVE DATA
Δ = 97° 05'50"
R = 1834.88'
T = 2077.50'
C = 2750.55'
Lc = 3109.51'
S. E. = 0.00 ft/ft

1 H-2 @ Sta. 70+50± Median
Remove and Dispose of Sand Barrels.
Install Tau M Impact Attenuator or approved equal.

1 H-2 @ Sta. 76+83± Median
Remove and Dispose of Sand Barrels.
Install Tau M Impact Attenuator or approved equal.

H-2 @ Sta. 67+50± to H-2 @ Sta. 70+40± Gore
Remove and Dispose of 2.50 inches of Asphalt Pavement of the 0.00 to 23.00 foot Gore. Replace with 2.50 inches HMA Pavement Mix No. IV.

H-2 @ Sta. 74+47± to H-2 @ Sta. 128+80±, Median I.B.
Remove and Dispose of 2.50 inches of Asphalt Pavement of the 4.00 foot Shoulder. Replace with 2.50 inches HMA Pavement Mix No. IV.

Ramp C @ Sta. 0+00± to H-2 @ Sta. 72+68± Lt.
Remove and Dispose 2.50 inches of Asphalt Pavement and 7.5 inches of Aggregate Base of the 10.00 foot Shoulder. Replace with two 4.00 inches lifts of HMAB and 2.00 inches of Polymer Modified Asphalt.

4/16/21	Updated impact attenuator notes at H-2 @ Sta. 70+50 and 76+83 median Updated plan to show new impact attenuator at H-2 @ Sta. 70+50 and 76+83 median
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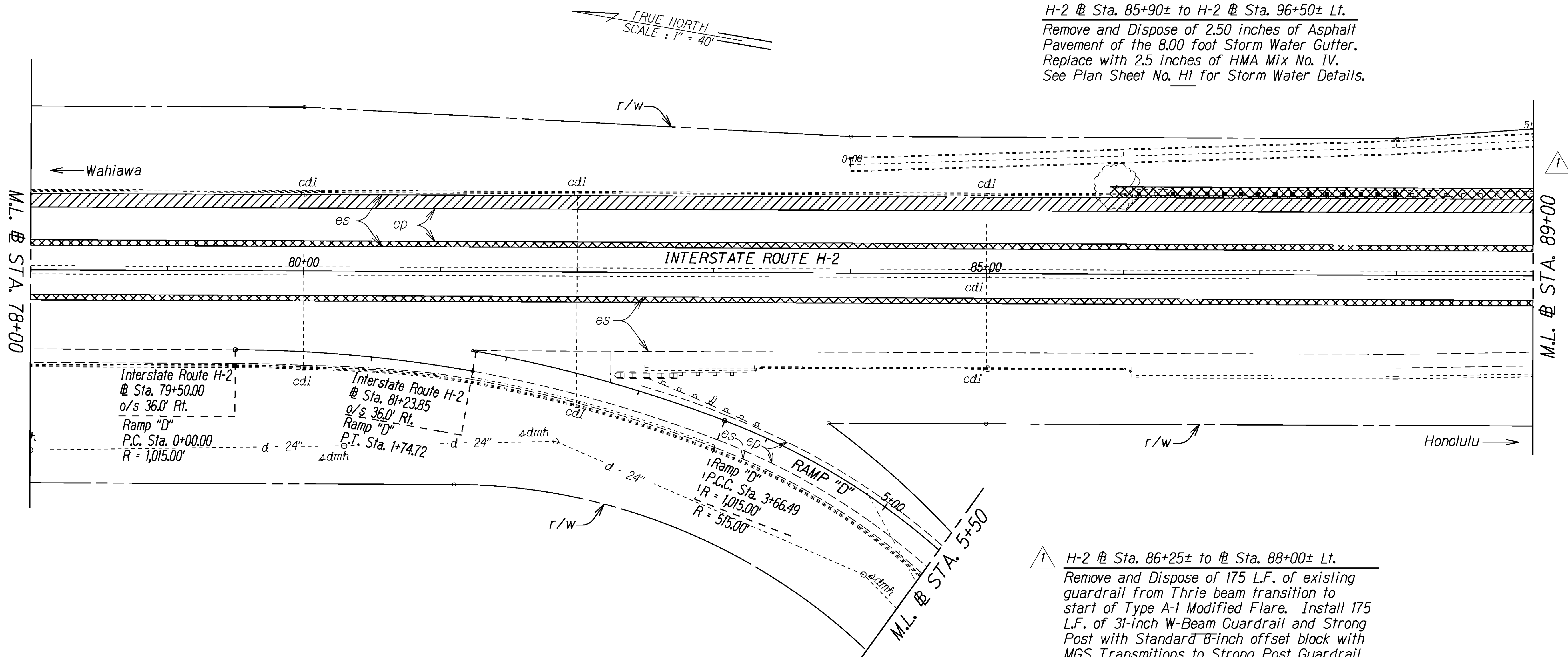
DATE	REVISION
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROADWAY PLANS
INTERSTATE ROUTE H-2 and
MOANALUA FREEWAY, PHASE 2
Guardrail and Shoulder Improvements
Federal-Aid Project No. NH-STP-0300(164)
Scale: 1" = 40' Date: August, 2020

SHEET No. 4 OF 41 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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Xm/s	DESIGNED BY	
	CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.21	119



H-2 @ Sta. 85+90± to H-2 @ Sta. 96+50± Lt.
Remove and Dispose of 2.50 inches of Asphalt
Pavement of the 8.00 foot Storm Water Gutter.
Replace with 2.5 inches of HMA Mix No. IV.
See Plan Sheet No. H1 for Storm Water Details.

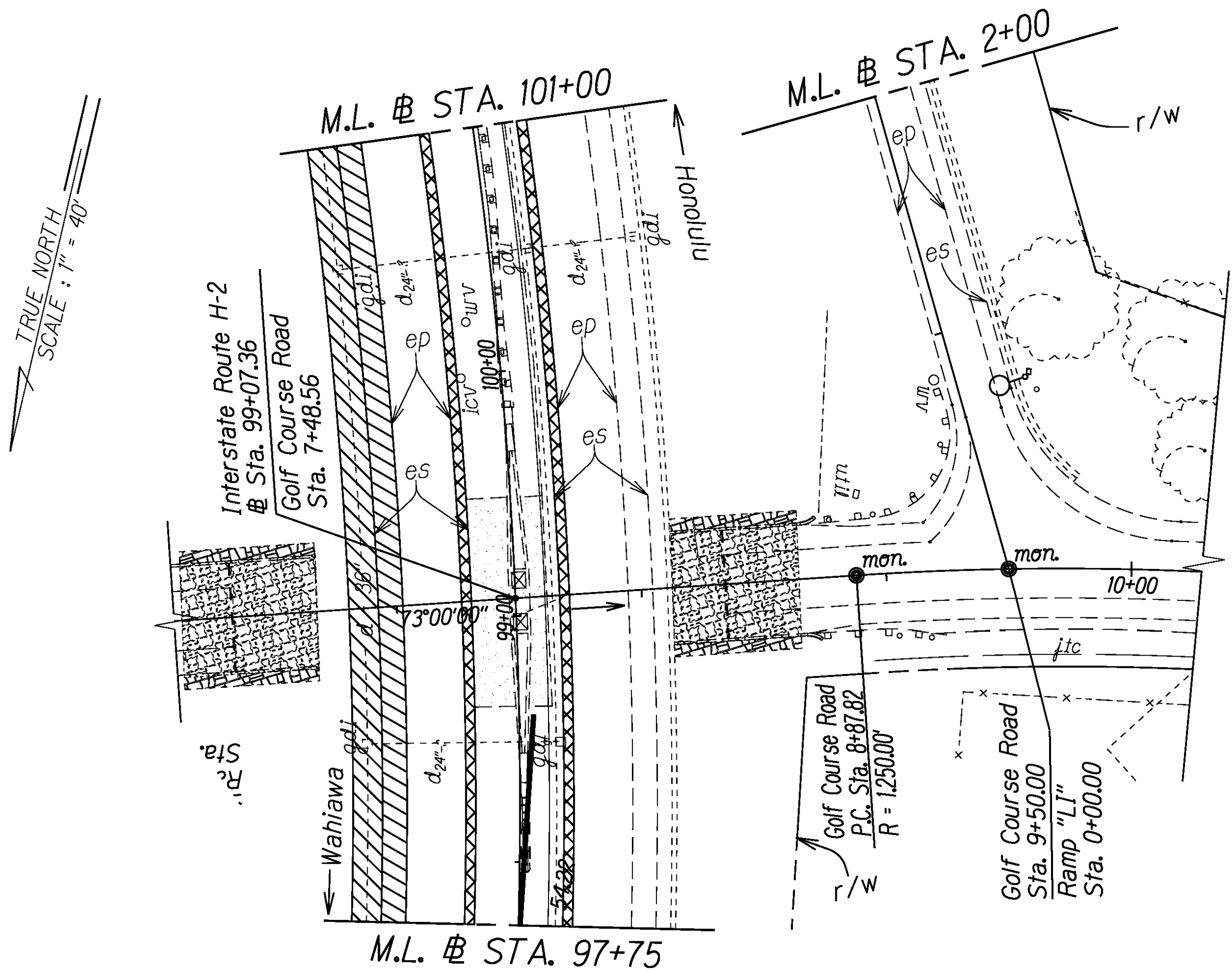
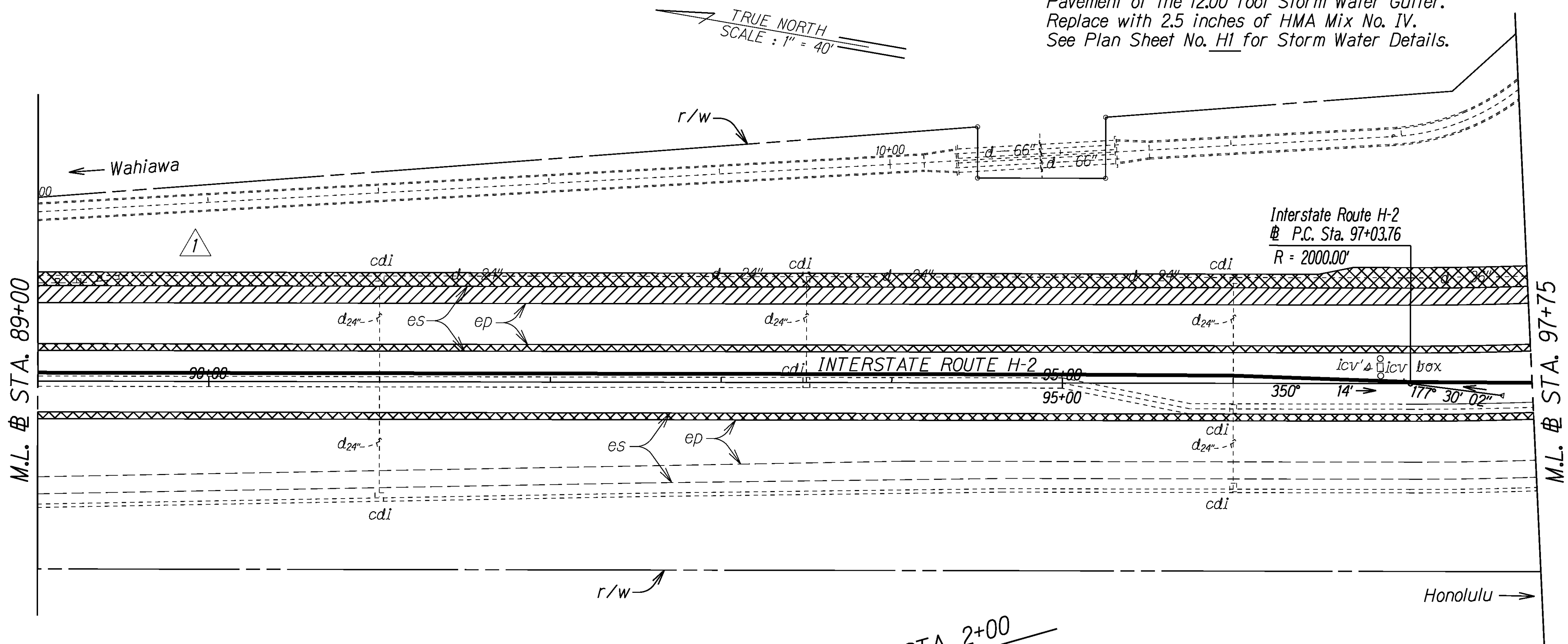
1 H-2 @ Sta. 86+25± to @ Sta. 88+00± Lt.
Remove and Dispose of 175 L.F. of existing
guardrail from Thrie beam transition to
start of Type A-1 Modified Flare. Install 175
L.F. of 31-inch W-Beam Guardrail and Strong
Post with Standard 8-inch offset block with
MGS Transmissions to Strong Post Guardrail.

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TRACED BY	
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CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
N. XMTS	

4/16/21	Added construction note for new guardrail H-2 @ Sta. 86+25 to 88+00 outbound Added new guardrail at H-2 @ Sta. 86+25 to 88+00 outbound Revised hatching from PCC to AC
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION ROADWAY PLANS INTERSTATE ROUTE H-2 and MOANALUA FREEWAY, PHASE 2 Guardrail and Shoulder Improvements Federal-Aid Project No. NH-STP-0300(164) Scale: 1" = 40' Date: August, 2020	
SHEET No. 5 OF 41 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.22	119

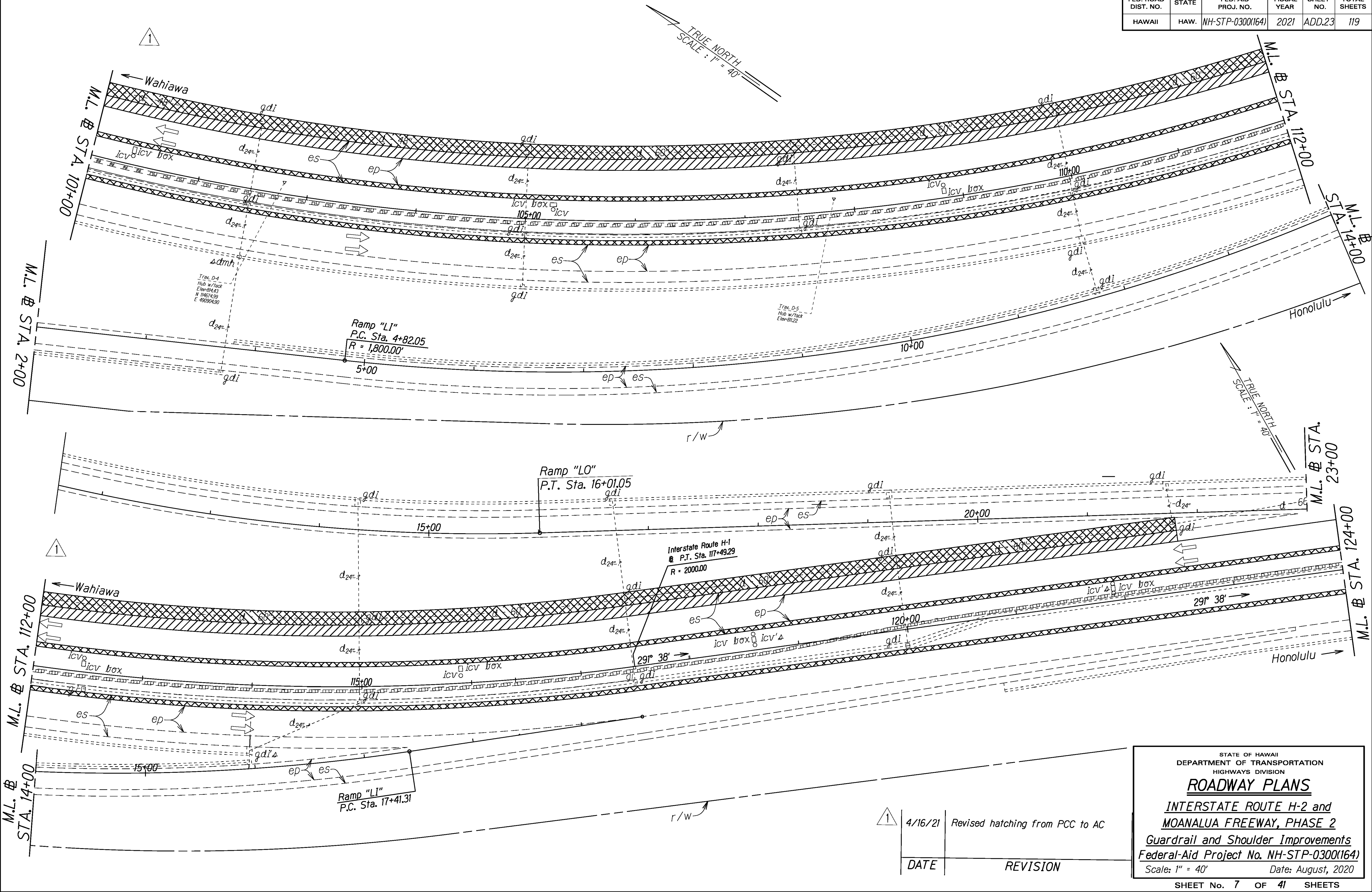
H-2 @ Sta. 96+50± to H-2 @ Sta. 122+50± Lt.
Remove and Dispose of 2.50 inches of Asphalt
Pavement of the 12.00 foot Storm Water Gutter.
Replace with 2.5 inches of HMA Mix No. IV.
See Plan Sheet No. H1 for Storm Water Details.



1	4/16/21	Revised hatching from PCC to AC
	DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <u>ROADWAY PLANS</u> <u>INTERSTATE ROUTE H-2 and</u> <u>MOANALUA FREEWAY, PHASE 2</u> <u>Guardrail and Shoulder Improvements</u> <u>Federal-Aid Project No. NH-STP-0300(164)</u> Scale: 1" = 40' Date: August, 2020		
SHEET No. 6 OF 41 SHEETS		

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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Xm/S	DESIGNED BY	
	CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.23	119

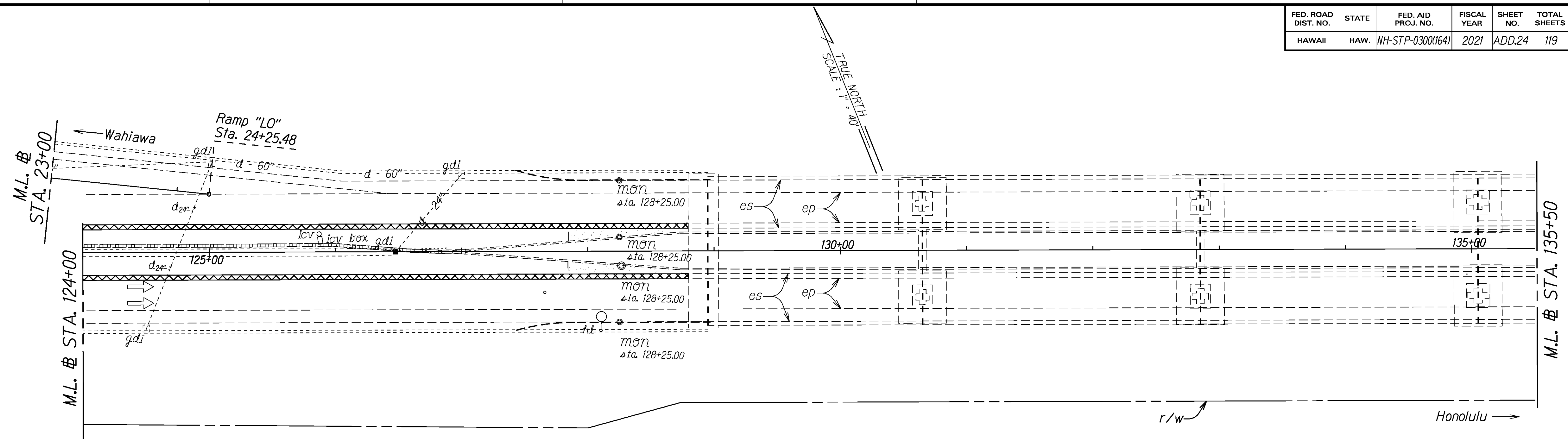


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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROADWAY PLANS
INTERSTATE ROUTE H-2 and
MOANALUA FREEWAY, PHASE 2
Guardrail and Shoulder Improvements
Federal-Aid Project No. NH-STP-0300(164)
Scale: 1" = 40' Date: August, 2020
SHEET NO. 7 OF 41 SHEETS

DATE	REVISION
4/16/21	Revised hatching from PCC to AC

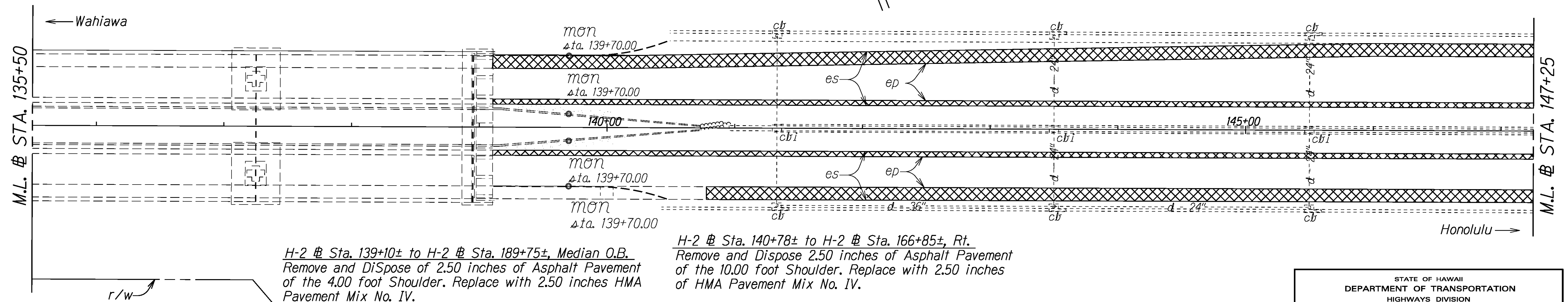
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.24	119



H-2 @ Sta. 139+10± to H-2 @ Sta. 189+78±, Median I.B.
Remove and DiSpse of 2.50 inches of Asphalt Pavement of the 4.00 foot Shoulder. Replace with 2.50 inches HMA Pavement Mix No. IV.

H-2 @ Sta. 139+10± to H-2 @ Sta. 164+09±, Lt.
Remove and Dispose of 2.50 inches of Asphalt Pavement of the 10.00 foot Shoulder. Replace with 2.50 inches of HMA Pavement Mix No. IV.

H-2 @ Sta. 141+25±, Median
Remove and Dispose of Sand Barrels, Install TAU M Impact Attenuator or approved equal..



H-2 @ Sta. 139+10± to H-2 @ Sta. 189+75±, Median O.B.
Remove and DiSpse of 2.50 inches of Asphalt Pavement of the 4.00 foot Shoulder. Replace with 2.50 inches HMA Pavement Mix No. IV.

H-2 @ Sta. 140+78± to H-2 @ Sta. 166+85±, Rt.
Remove and Dispose 2.50 inches of Asphalt Pavement of the 10.00 foot Shoulder. Replace with 2.50 inches of HMA Pavement Mix No. IV.

4/16/21	Updated impact attenuator note at H-2 @ Sta. 141+25 median
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

INTERSTATE ROUTE H-2 and
MOANALUA FREEWAY, PHASE 2

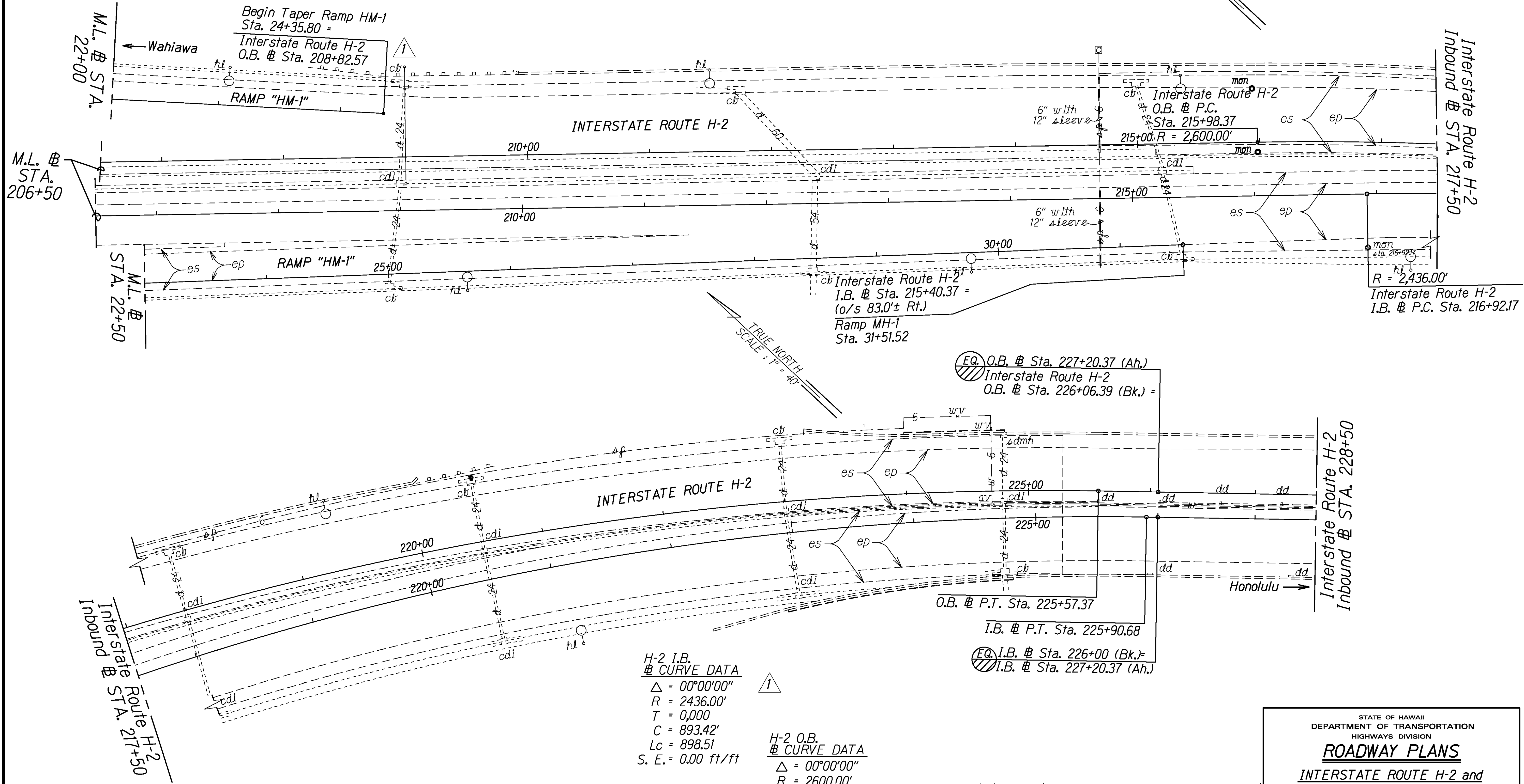
Guardrail and Shoulder Improvements

Federal-Aid Project No. NH-STP-0300(164)

Scale: 1" = 40' Date: August, 2020

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
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N.	CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.30	119



SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
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CHECKED BY	

ORIGINAL PLAN	ST/MS
NOTED BOOK	
NO.	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

**INTERSTATE ROUTE H-2 and
MOANALUA FREEWAY, PHASE 2**

Guardrail and Shoulder Improvements

Federal-Aid Project No. NH-STP-0300(164)

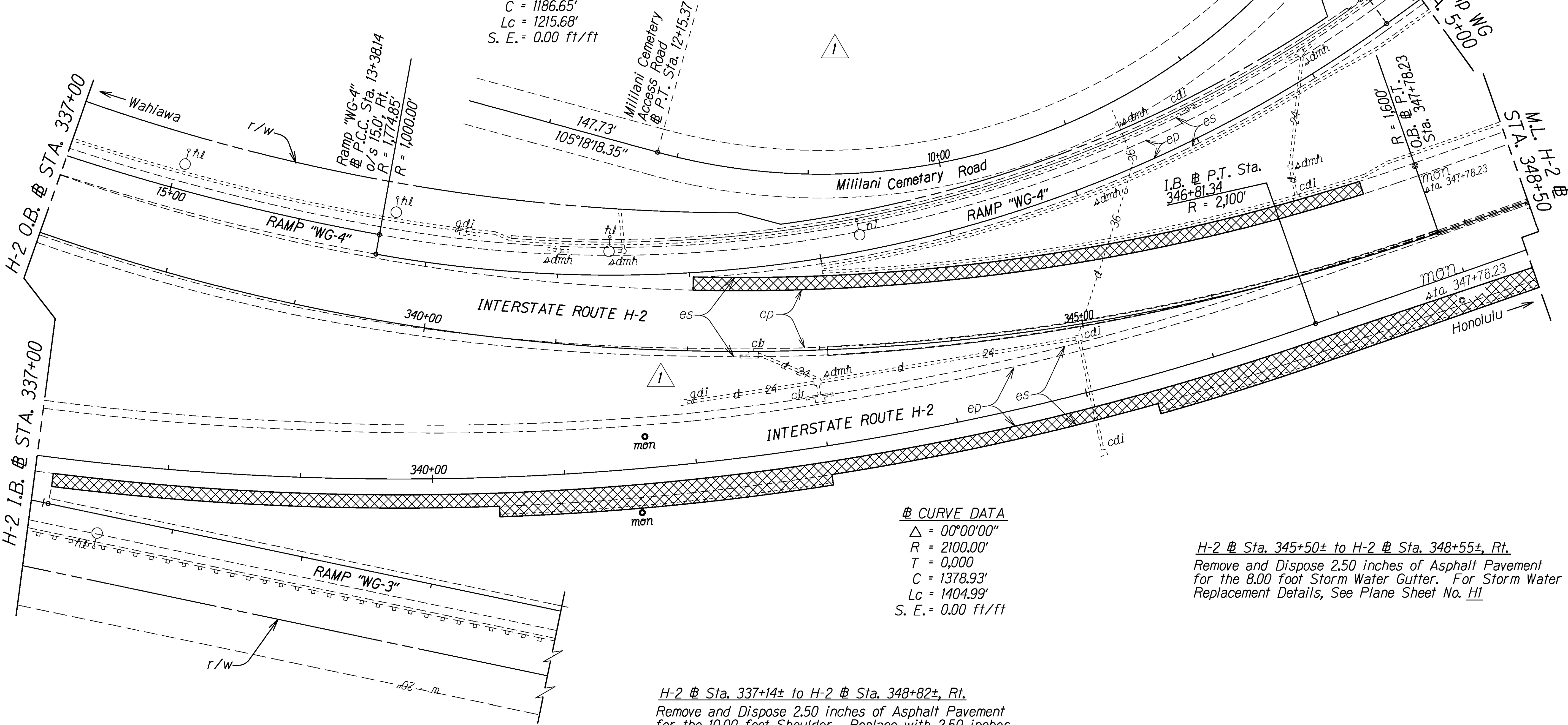
Scale: 1" = 40' Date: August, 2020

SHEET No. 14 OF 41 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.38	119

H-2 @ Sta. 343+04± to H-2 @ Sta. 347+33±, Lt.
Remove and Dispose of 2.50 inches of Asphalt Pavement for the 10.00 foot Shoulder and 4.00 foot Stormwater Gutter. Replace with 2.50 Inches HMA Pavement Mix No. IV. For Stormwater Gutter Details, See Plan Sheet No. H1.

⊕ CURVE DATA
Δ = 00°00'00"
R = 1600.00'
T = 0.000
C = 1186.65'
Lc = 1215.68'
S. E. = 0.00 ft/ft



⊕ CURVE DATA
Δ = 00°00'00"
R = 2100.00'
T = 0.000
C = 1378.93'
Lc = 1404.99'
S. E. = 0.00 ft/ft

H-2 @ Sta. 345+50± to H-2 @ Sta. 348+55±, Rt.
Remove and Dispose 2.50 inches of Asphalt Pavement for the 8.00 foot Storm Water Gutter. For Storm Water Replacement Details, See Plane Sheet No. H1

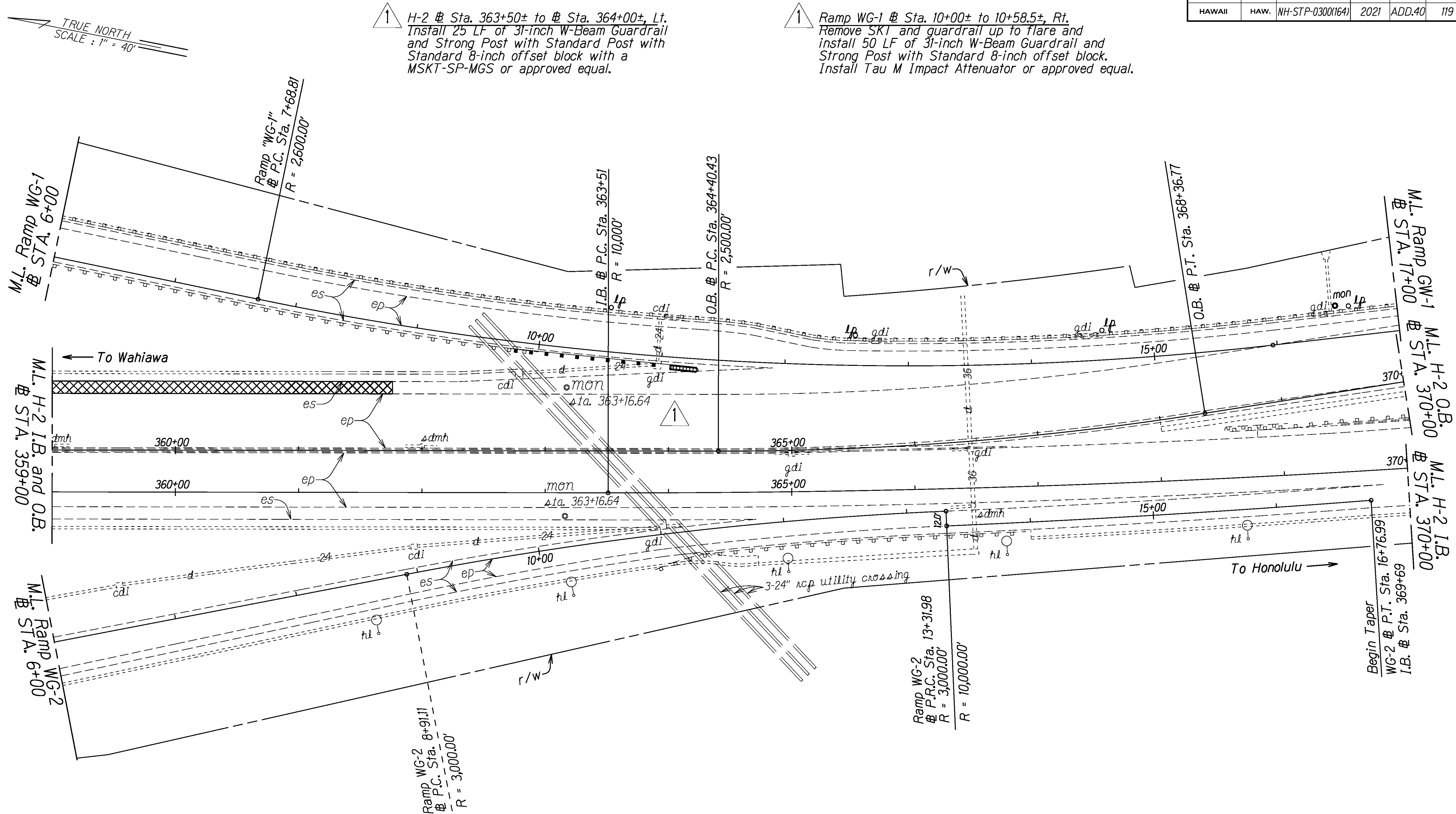
H-2 @ Sta. 337+14± to H-2 @ Sta. 348+82±, Rt.
Remove and Dispose 2.50 inches of Asphalt Pavement for the 10.00 foot Shoulder. Replace with 2.50 inches HMA Pavement Mix No. IV.

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO. X/MIS	

4/16/21	Removed new double sided guardrail note H-2 @ Sta. 341+93 to 343+18 outbound
	Removed new double sided guardrail H-2 @ Sta. 341+93 to 343+18 outbound
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROADWAY PLANS
INTERSTATE ROUTE H-2 and
MOANALUA FREEWAY, PHASE 2
Guardrail and Shoulder Improvements
Federal-Aid Project No. NH-STP-0300(164)
Scale: 1" = 40'
Date: August, 2020
SHEET No. 22 OF 41 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.40	119



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DESIGNED BY	
QUANTITIES BY	CHECKED BY	
XM/S		

4/16/21	Revised guardrail and impact attenuator note Ramp WG-1 @ Sta. 9+74 to 10+00 outbound
	Added guardrail note H-2 @ Sta. 363+50 to 364+00, LT
	Added guardrail note Ramp WG-1 @ Sta. 10+00 to 10+58 outbound
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

**INTERSTATE ROUTE H-2 and
MOANALUA FREEWAY, PHASE 2**

Guardrail and Shoulder Improvements

Federal-Aid Project No. NH-STP-0300(164)

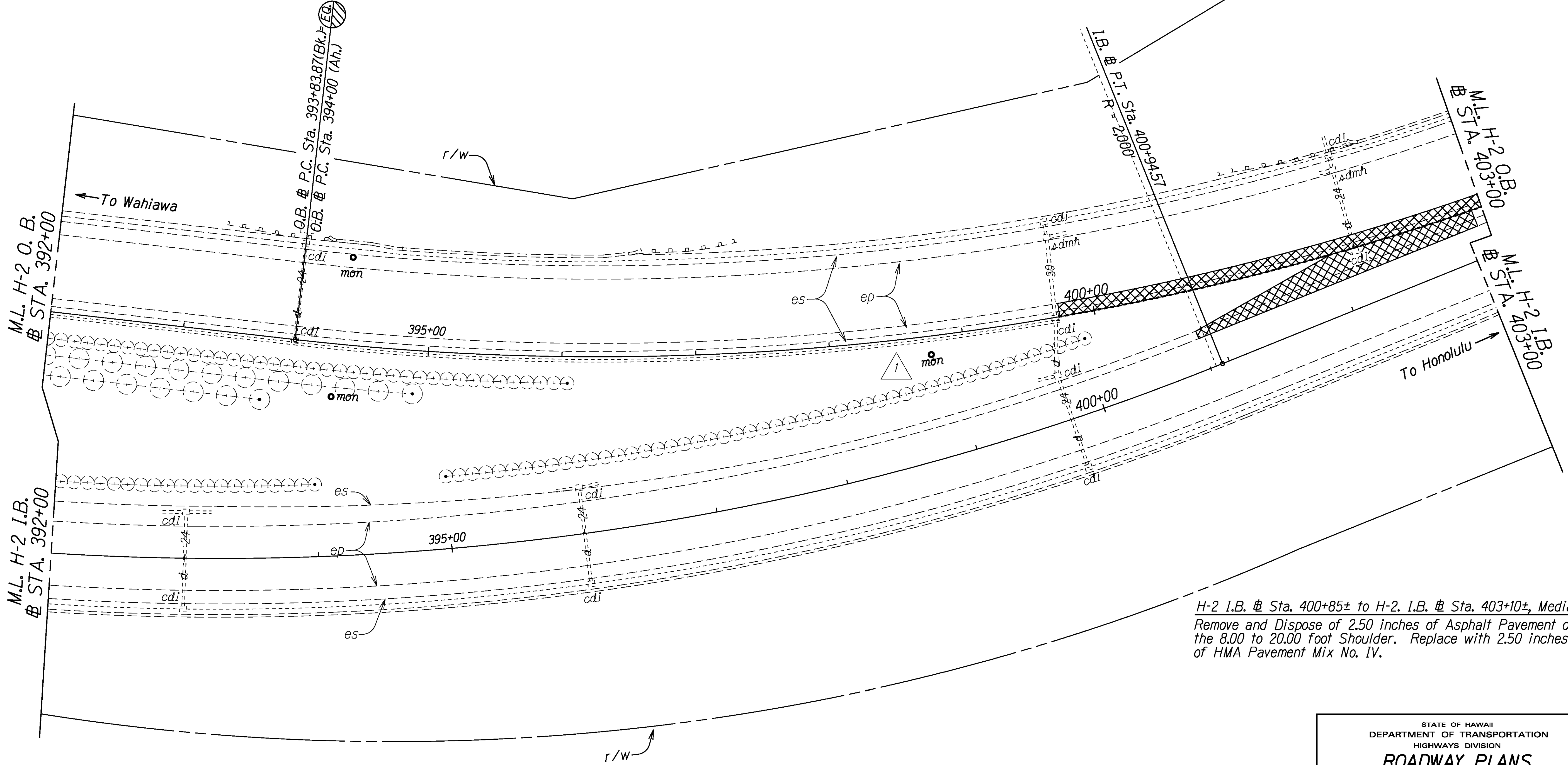
Scale: 1" = 40' Date: August, 2020

SHEET No. 24 OF 41 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.43	119

TRUE NORTH
SCALE : 1" = 40'

H-2 O.B. @ Sta. 399+74± to H-2. O.B. @ Sta. 447+00±, O.B. Median
Remove and Dispose of 2.50 inches of Asphalt Pavement of the 10.00 foot Shoulder. Replace with 2.50 inches HMA Pavement Mix No. IV



H-2 I.B. @ Sta. 400+85± to H-2. I.B. @ Sta. 403+10±, Median
Remove and Dispose of 2.50 inches of Asphalt Pavement of the 8.00 to 20.00 foot Shoulder. Replace with 2.50 inches of HMA Pavement Mix No. IV.

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

4/16/21	Removed new double sided guardrail note H-2 @ Sta. 398+52.5 to 400+40 outbound
	Removed new double sided guardrail H-2 @ Sta. 398+52.5 to 400+40 outbound
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

INTERSTATE ROUTE H-2 and MOANALUA FREEWAY, PHASE 2

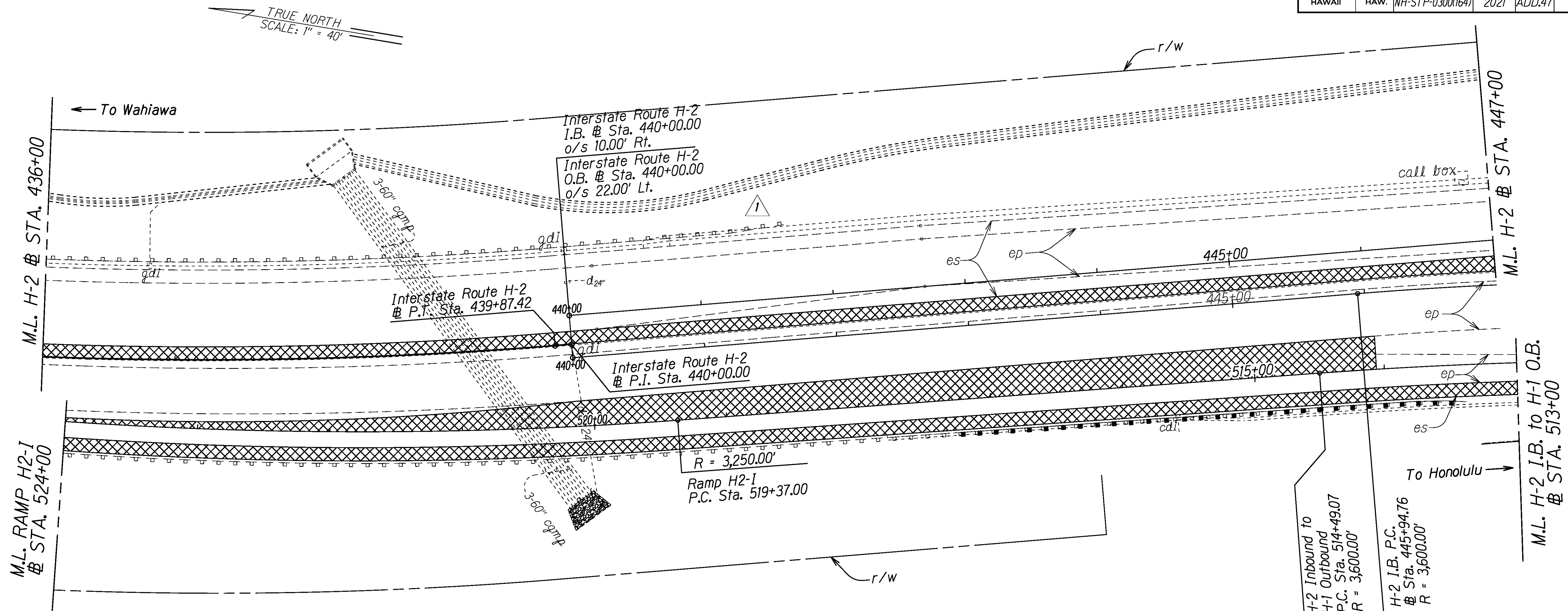
Guardrail and Shoulder Improvements

Federal-Aid Project No. NH-STP-0300(164)

Scale: 1" = 40' Date: August, 2020

SHEET No. 27 OF 41 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.47	119



Ramp H2-I @ Sta. 514+06± to Ramp H2-I Sta. 524+28± Gore
Remove and Dispose of 2.50 inches of Asphalt Pavement of the 0.00 to 29.00 foot Gore. Replace with 2.50 inches HMA Pavement Mix No. IV.
Note Sta. in Opposite Direction of H-2 Sta.

H2-I @ Sta. 513+38± to H2-I Sta. 517+25.50±, Lt.
Remove and Dispose of 200.00 L.F. of Guardrail and Post. Install 200.00 L.F. of New 31-inch W Beam Guardrail and Strong Post with Standard 8-inch Offset Blocks with MGS Transition to Existing Guardrail and Trailing-End Anchorage System. Note: Install New Guardrail Behind the Stormwater Gutter Starting at Ramp H2-I @ Sta. 517+20±. Sta. is Reverse of H2.

Ramp H2-I @ Sta. 515+35± to Ramp H2-I Sta. 517+20±, Lt.
Remove and Dispose of 2.50 inches of Asphalt Pavement of the 4 foot Storm Water Gutter. See Plan Sheet No. H-XX for Storm Water Gutter Details. Note: Install New Guardrail Post Behind Storm Water Gutter. Stationing on Ramp H2-I is Reverse of H-2 Stationing.

4/16/21 Removed new guardrail H-2 @ Sta. 441+50 to 441+95 outbound

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

INTERSTATE ROUTE H-2 and
MOANALUA FREEWAY, PHASE 2

Guardrail and Shoulder Improvements

Federal-Aid Project No. NH-STP-0300(164)

Scale: 1" = 40'

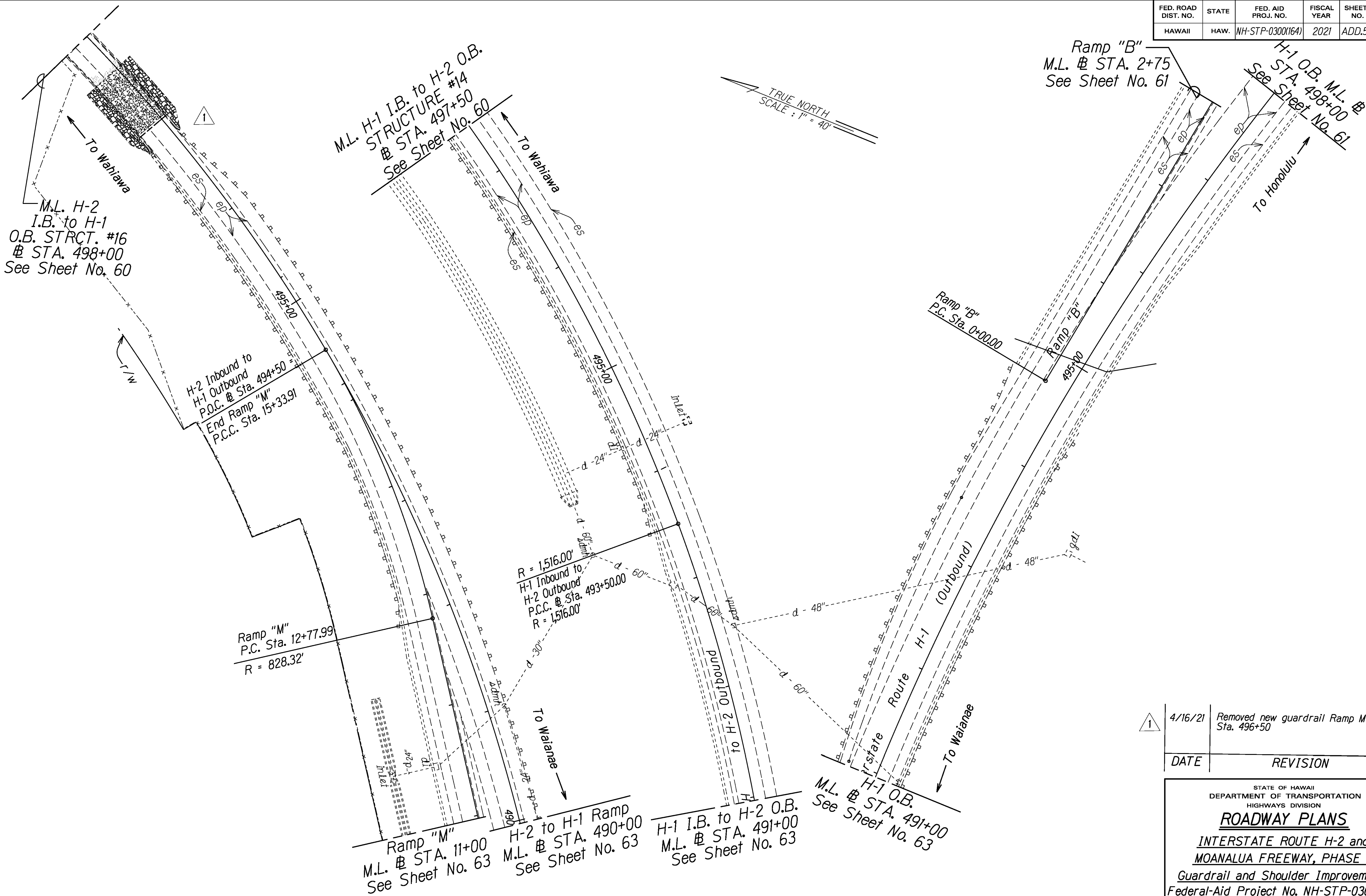
Date: August, 2020

SHEET No. 31 OF 41 SHEETS

ADD. 47

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
N. XMS	DESIGNED BY	
	CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.51	119

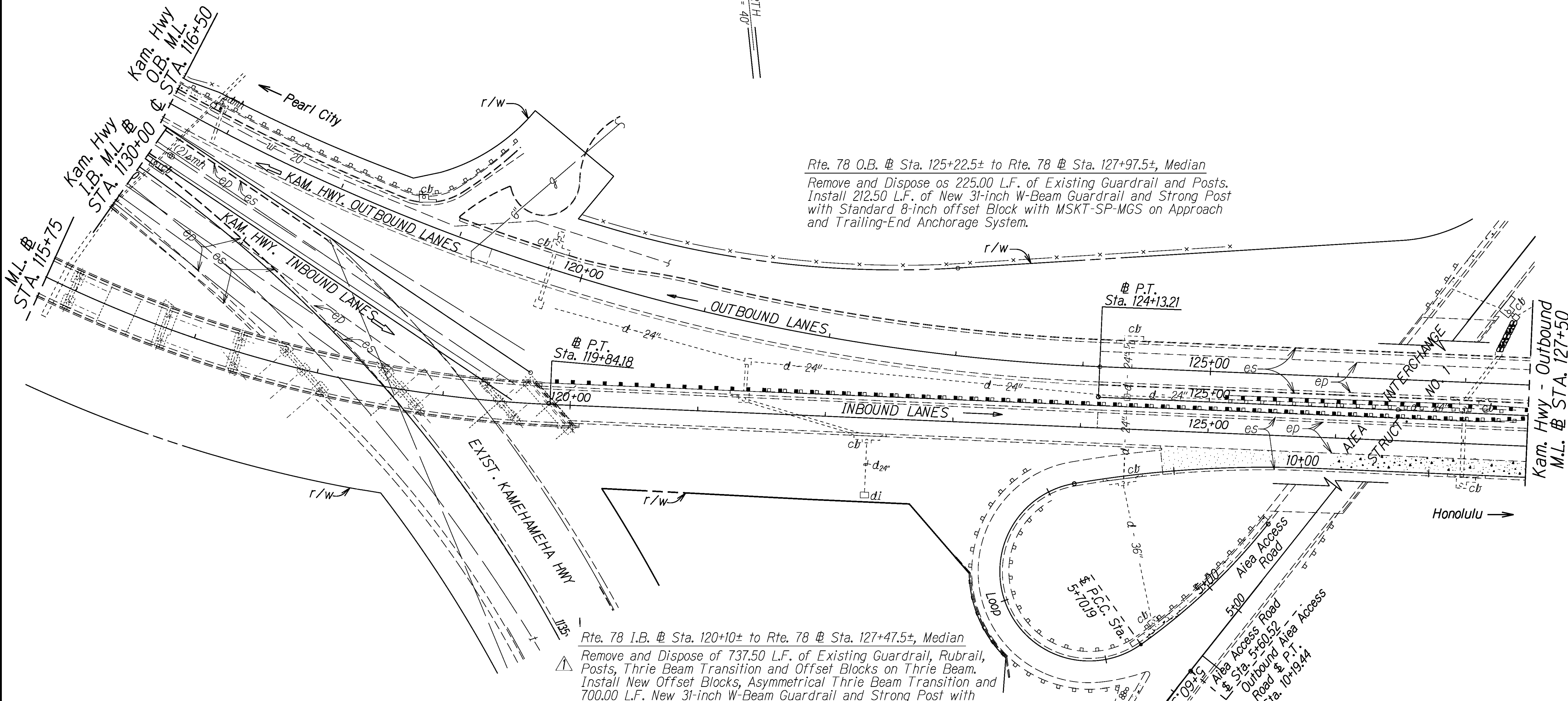


SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
N. X.MLS	

4/16/21	Removed new guardrail Ramp M @ Sta. 496+50
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION ROADWAY PLANS INTERSTATE ROUTE H-2 and MOANALUA FREEWAY, PHASE 2 Guardrail and Shoulder Improvements Federal-Aid Project No. NH-STP-0300(164) Scale: 1" = 40' Date: August, 2020	
SHEET No. 35 OF 41 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.55	119

TRUE NORTH
SCALE : 1" = 40'



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
N. X.M.I.S.	DESIGNED BY	
	CHECKED BY	

4/16/21	Revised guardrail note Rte 78 Sta. 120+10 to 127+47.5
DATE	REVISION

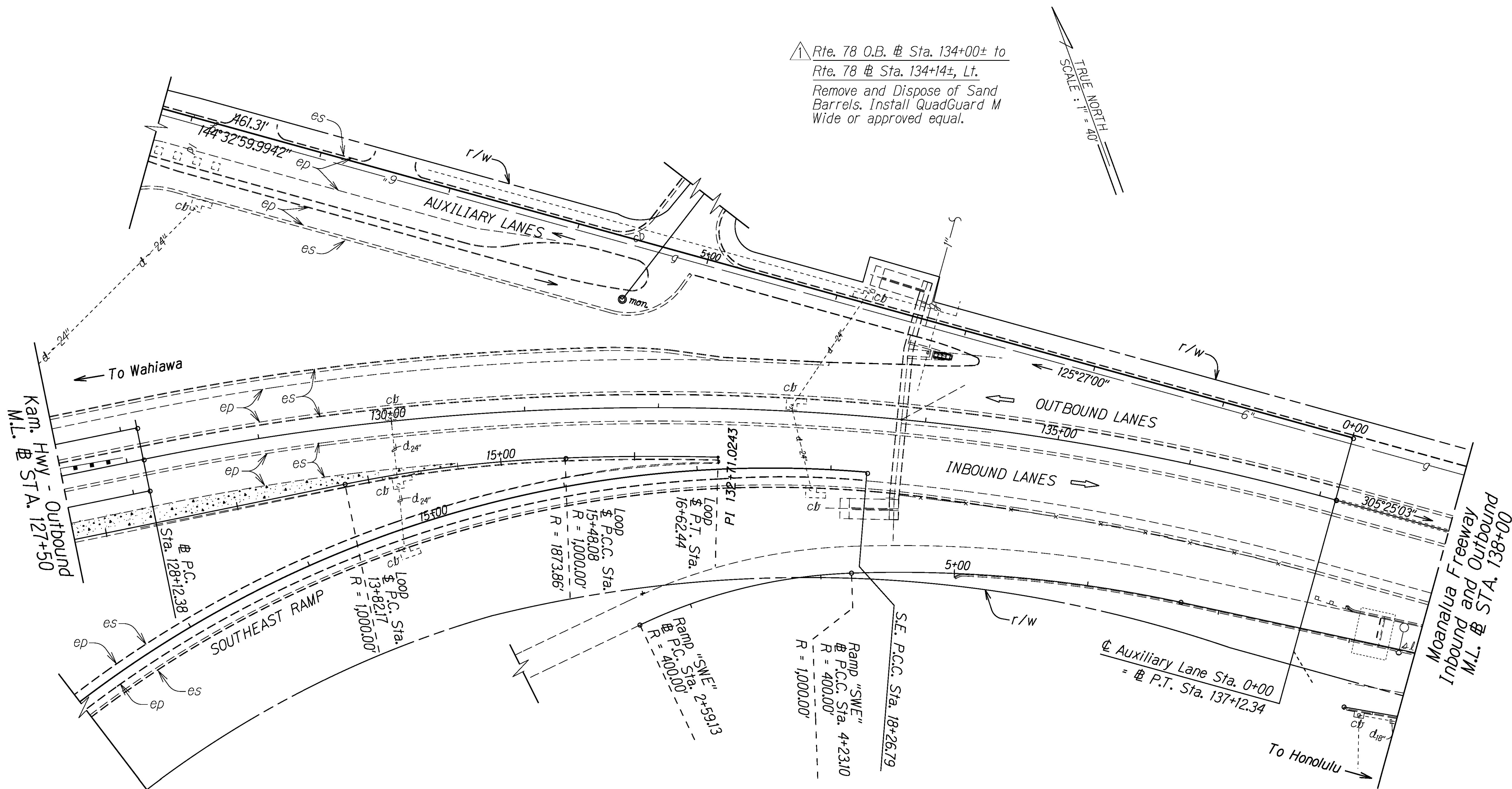
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

INTERSTATE ROUTE H-2 and
MOANALUA FREEWAY, PHASE 2
Guardrail and Shoulder Improvements
Federal-Aid Project No. NH-STP-0300(164)
Scale: 1" = 40' Date: August, 2020

SHEET No. 39 OF 41 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.56	119



△ Rte. 78 O.B. @ Sta. 134+00± to
Rte. 78 @ Sta. 134+14±, Lt.
Remove and Dispose of Sand
Barrels. Install QuadGuard M
Wide or approved equal.

TRUE NORTH
SCALE: 1" = 40'

Rte. 78 @ Sta. 134+92± to Rte. 78 @ Sta. 137+77±, Rt.
Remove and Dispose of 302.00 L.F. of Top Bar from Existing
Chain Link Fence. Install Wire per Standard Detail Plan
Sheet No. D3.
Installation of wire is incidental to removal of top bar.

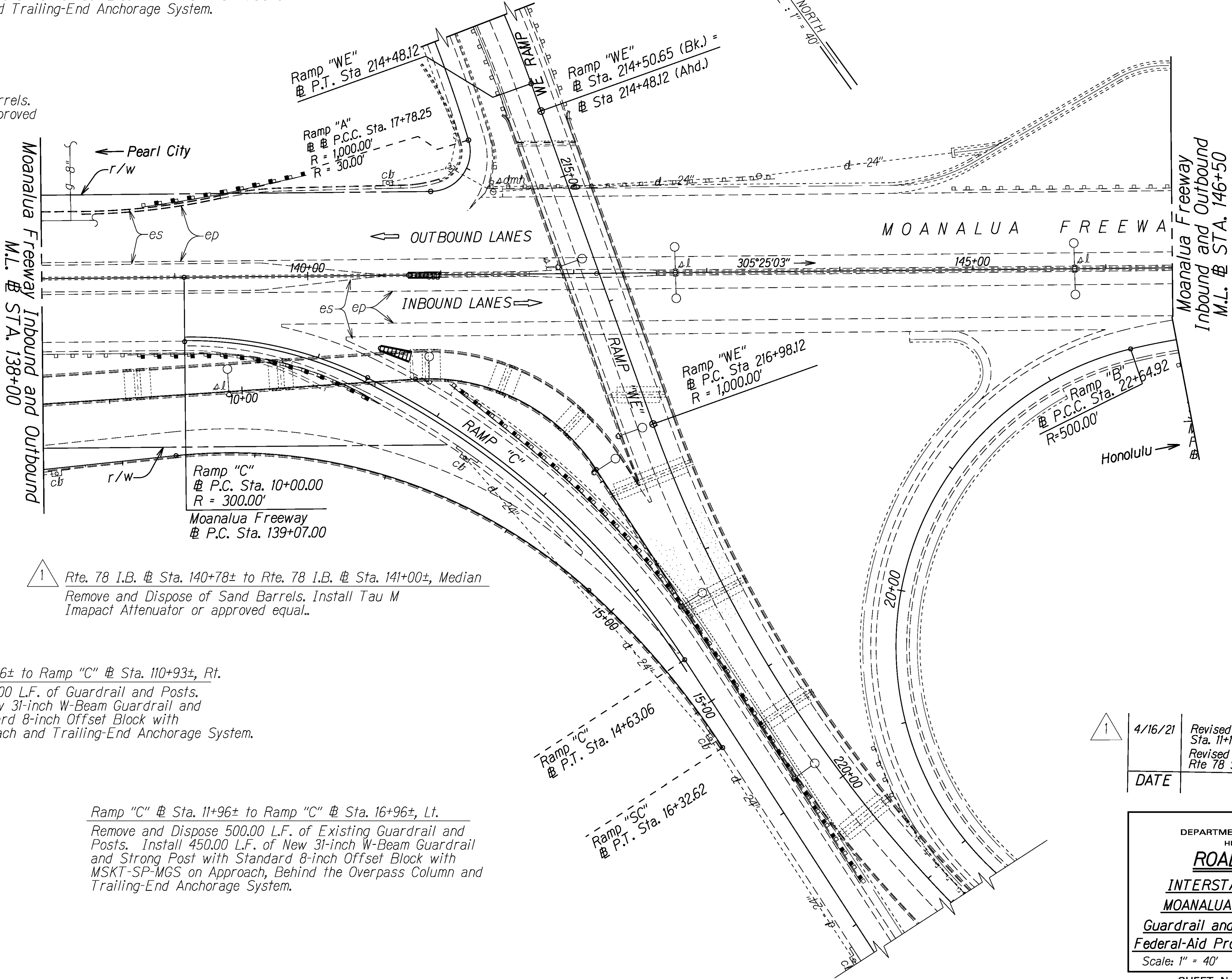
4/16/21	Revised impact attenuator note Rte 78 134+00 to 134+14
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROADWAY PLANS
INTERSTATE ROUTE H-2 and
MOANALUA FREEWAY, PHASE 2
Guardrail and Shoulder Improvements
Federal-Aid Project No. NH-STP-0300(164)
Scale: 1" = 40' Date: August, 2020
SHEET No. 40 OF 41 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-STP-0300(164)	2021	ADD.57	119

Rte. 78 O.B. @ Sta. 138+90± to Rte. 78 @ Sta. 140+40±, Lt.
Remove 90.00 L.F. of Existing Guardrail and Posts. Install 112.50 L.F. of New 31-inch W-Beam Guardrail and Strong Post with Standard 8-inch Offset Block with MSKT-SP-MGS on Approach and Trailing-End Anchorage System.

1 Ramp "C" I.B. @ Sta. 11+18± to Ramp "C" @ Sta. 11+40±, Lt.
Remove and Dispose of Sand Barrels. Install QuadGuard M wide or approved equal..



1 Rte. 78 I.B. @ Sta. 140+78± to Rte. 78 I.B. @ Sta. 141+00±, Median
Remove and Dispose of Sand Barrels. Install Tau M Impact Attenuator or approved equal..

Rte. 78 I.B. @ Sta. 138+36± to Ramp "C" @ Sta. 110+93±, Rt.
Remove and Dispose 212.00 L.F. of Guardrail and Posts. Install 212.50 L.F. of New 31-inch W-Beam Guardrail and Strong Post with Standard 8-inch Offset Block with MSKT-SP-MGS on Approach and Trailing-End Anchorage System.

Ramp "C" @ Sta. 11+96± to Ramp "C" @ Sta. 16+96±, Lt.
Remove and Dispose 500.00 L.F. of Existing Guardrail and Posts. Install 450.00 L.F. of New 31-inch W-Beam Guardrail and Strong Post with Standard 8-inch Offset Block with MSKT-SP-MGS on Approach, Behind the Overpass Column and Trailing-End Anchorage System.

1	4/16/21	Revised Impact attenuator note Ramp C Sta. 11+18 to 11+40 inbound Revised Impact attenuator note Rte 78 Sta. 140+78 to 141+00
DATE	REVISION	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROADWAY PLANS
INTERSTATE ROUTE H-2 and
MOANALUA FREEWAY, PHASE 2
Guardrail and Shoulder Improvements
Federal-Aid Project No. NH-STP-0300(164)
Scale: 1" = 40' Date: August, 2020
SHEET No. 41 OF 41 SHEETS

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
TRACED BY	_____
DESIGNED BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____
NO. XMS	_____