

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)	2022	20	38

STA. 65+15± TO # STA. 72+65± LT. (BASE BID)
Remove existing guardrail system and end treatments
Abandon post in place and stabilize slope (Sta. 70+00± to 71+00±)
Install 100.0 LF Guardrail Type MGS W-Beam and Spacer Blocks with 8-Ft. post (Sta. 70+00± to 71+00±)
Install 562.5 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: MFLT (TL-3)
Trailing End: MASH Type A with Rubrail

CURVE DATA:
 $\Delta = 38^{\circ}32'00''$
 $\frac{\Delta}{2} = 19^{\circ}16'00''$
 $R = 2,147.42'$
 $T = 750.61'$
 $C = 1,417.15'$
 $L_c = 1,444.21'$
 $D.C. = 02^{\circ}40'00''$

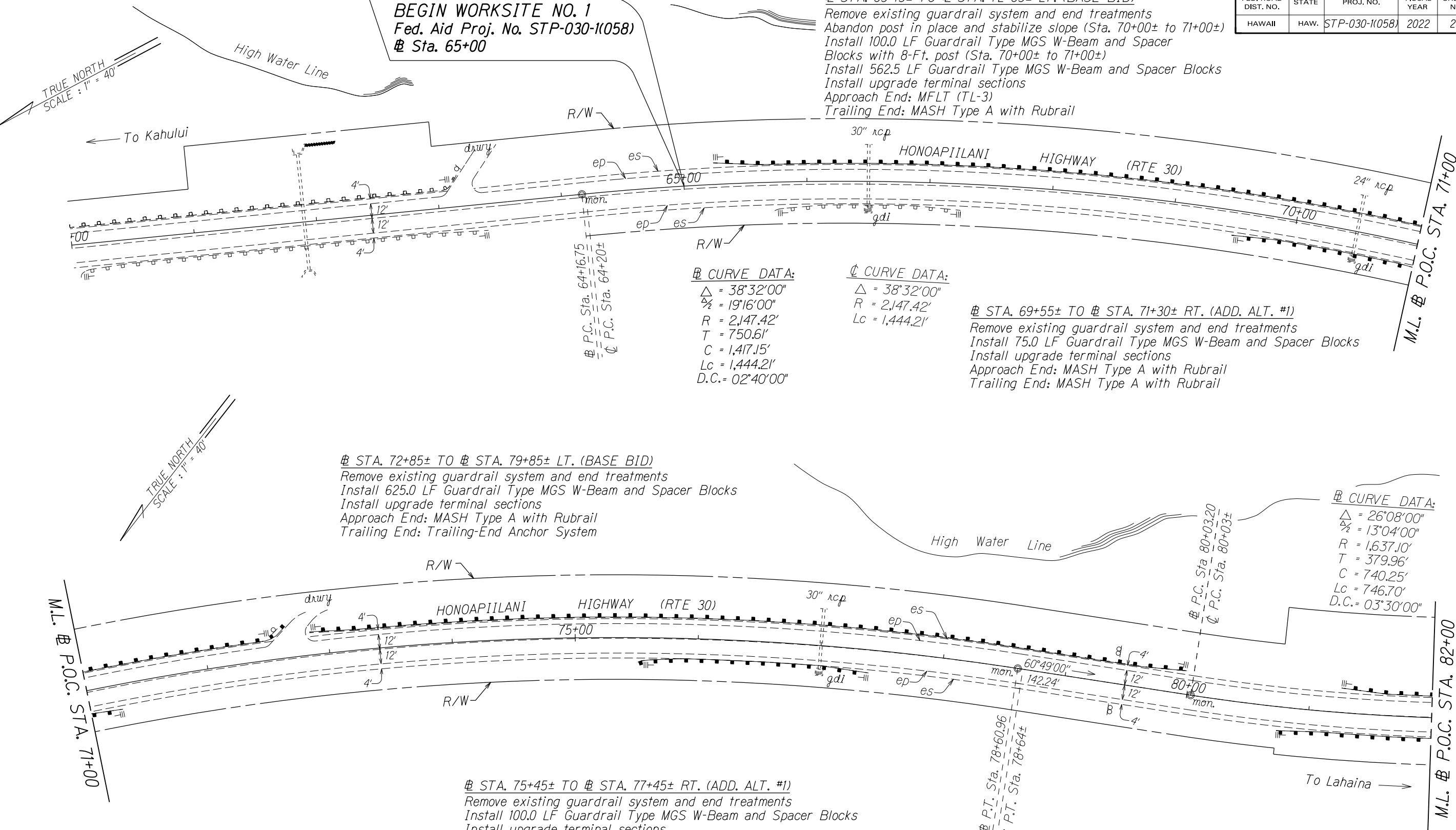
CURVE DATA:
 $\Delta = 38^{\circ}32'00''$
 $R = 2,147.42'$
 $L_c = 1,444.21'$

STA. 69+55± TO # STA. 71+30± RT. (ADD. ALT. #1)
Remove existing guardrail system and end treatments
Install 75.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: MASH Type A with Rubrail
Trailing End: MASH Type A with Rubrail

STA. 72+85± TO # STA. 79+85± LT. (BASE BID)
Remove existing guardrail system and end treatments
Install 625.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: MASH Type A with Rubrail
Trailing End: Trailing-End Anchor System

CURVE DATA:
 $\Delta = 26^{\circ}08'00''$
 $\frac{\Delta}{2} = 13^{\circ}04'00''$
 $R = 1,637.10'$
 $T = 379.96'$
 $C = 740.25'$
 $L_c = 746.70'$
 $D.C. = 03^{\circ}30'00''$

STA. 75+45± TO # STA. 77+45± RT. (ADD. ALT. #1)
Remove existing guardrail system and end treatments
Install 100.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: MASH Type A with Rubrail
Trailing End: MASH Type A with Rubrail



NOTE: Contractor shall abandon existing guardrail post in place as determined necessary to avoid damage to existing shoulder and/or slope area behind guardrail. Existing guardrail post to be abandoned in place shall be cut flush or below ground surface. Install 8-Ft. guardrail post where required to adequately secure new guardrail system.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

HONOAPIILANI HIGHWAY

GUARDRAIL & SHOULDER IMPROVEMENTS

Vicinity of North Kihei Road to Hononana

Federal-Aid Project No. STP-030-1(058)

Scale: 1" = 40'

Date: July, 2022

SHEET No. 1 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)	2022	21	38

STA. 81+20± TO # STA. 83+55± LT. (BASE BID)
Remove existing guardrail system and end treatments
Abandon post in place and stabilize slope (Sta. 81+85± to 82+85±)
Install 100.0 LF Guardrail Type MGS W-Beam and Spacer Blocks with 8-Ft. post (Sta. 81+85± to 82+85±)
Install 37.5 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: MASH Type A with Rubrail
Trailing End: MSKT-SP-MGS8(TL-3)

☒ CURVE DATA:
 $\Delta = 25^{\circ}53'21''$
 $R = 1,594.17'$
 $Lc = 720.33'$

STA. 85+25± TO # STA. 93+25± LT. (BASE BID)
Remove existing guardrail system and end treatments
Install 712.5 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: MFLT (TL-3)
Trailing End: MASH Type A with Rubrail

☒ CURVE DATA:
 $\Delta = 67^{\circ}26'00''$
 $\frac{\Delta}{2} = 33^{\circ}43'00''$
 $R = 573.14'$
 $T = 382.48'$
 $C = 636.28'$
 $Lc = 674.55'$
 $D.C. = 10^{\circ}00'00''$

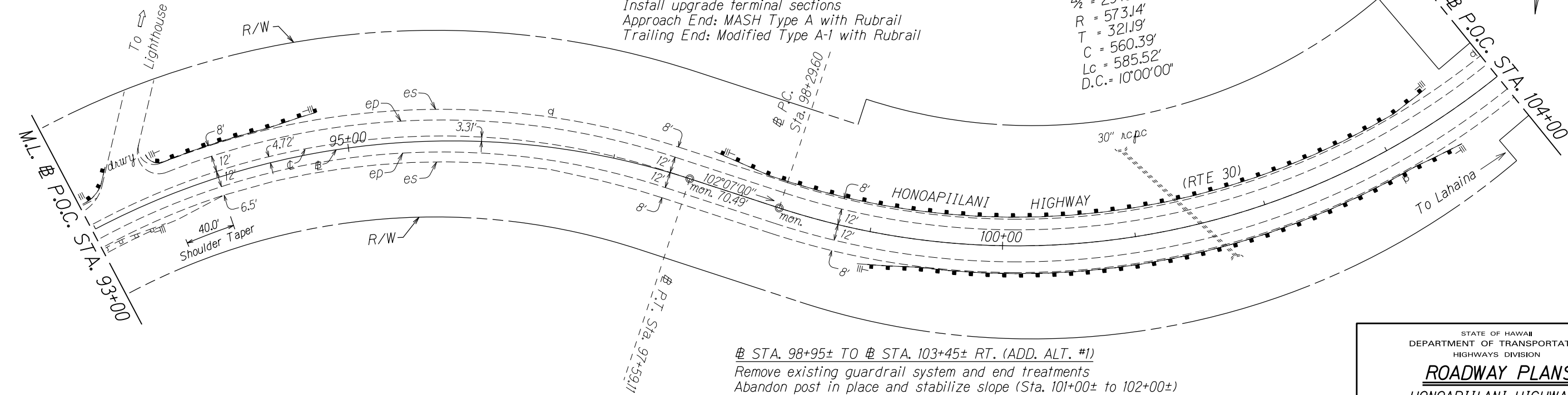
☒ CURVE DATA:
 $\Delta = 58^{\circ}32'00''$
 $\frac{\Delta}{2} = 29^{\circ}16'00''$
 $R = 573.14'$
 $T = 321.19'$
 $C = 560.39'$
 $Lc = 585.52'$
 $D.C. = 10^{\circ}00'00''$

STA. 97+70± TO # STA. 103+45± LT. (BASE BID)
Remove existing guardrail system and end treatments
Install 475.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: MASH Type A with Rubrail
Trailing End: Modified Type A-1 with Rubrail

STA. 98+95± TO # STA. 103+45± RT. (ADD. ALT. #1)
Remove existing guardrail system and end treatments
Abandon post in place and stabilize slope (Sta. 101+00± to 102+00±)
Install 100.0 LF Guardrail Type MGS W-Beam and Spacer Blocks with 8-Ft. post (Sta. 101+00± to 102+00±)
Install 250.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: Modified Type A-1 with Rubrail
Trailing End: MASH Type A with Rubrail

STA. 80+75± TO # STA. 83+25± RT. (ADD. ALT. #1)
Remove existing guardrail system and end treatments
Abandon post in place and stabilize slope (Sta. 82+10± to 82+60±)
Install 50.0 LF Guardrail Type MGS W-Beam and Spacer Blocks with 8-Ft. post (Sta. 82+10± to 82+60±)
Install 100.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: MASH Type A with Rubrail
Trailing End: MASH Type A with Rubrail

STA. 93+60± TO # STA. 94+85± LT. (BASE BID)
Remove existing guardrail system and end treatments
Install 50.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: Modified Type A-1 with Rubrail
Trailing End: Trailing-End Anchor System



NOTE: Contractor shall abandon existing guardrail post in place as determined necessary to avoid damage to existing shoulder and/or slope area behind guardrail. Existing guardrail post to be abandoned in place shall be cut flush or below ground surface. Install 8-Ft. guardrail post where required to adequately secure new guardrail system.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

HONOAPIILANI HIGHWAY

GUARDRAIL & SHOULDER IMPROVEMENTS

Vicinity of North Kihei Road to Hononana

Federal-Aid Project No. STP-030-1(058)

Scale: 1" = 40' Date: July, 2022

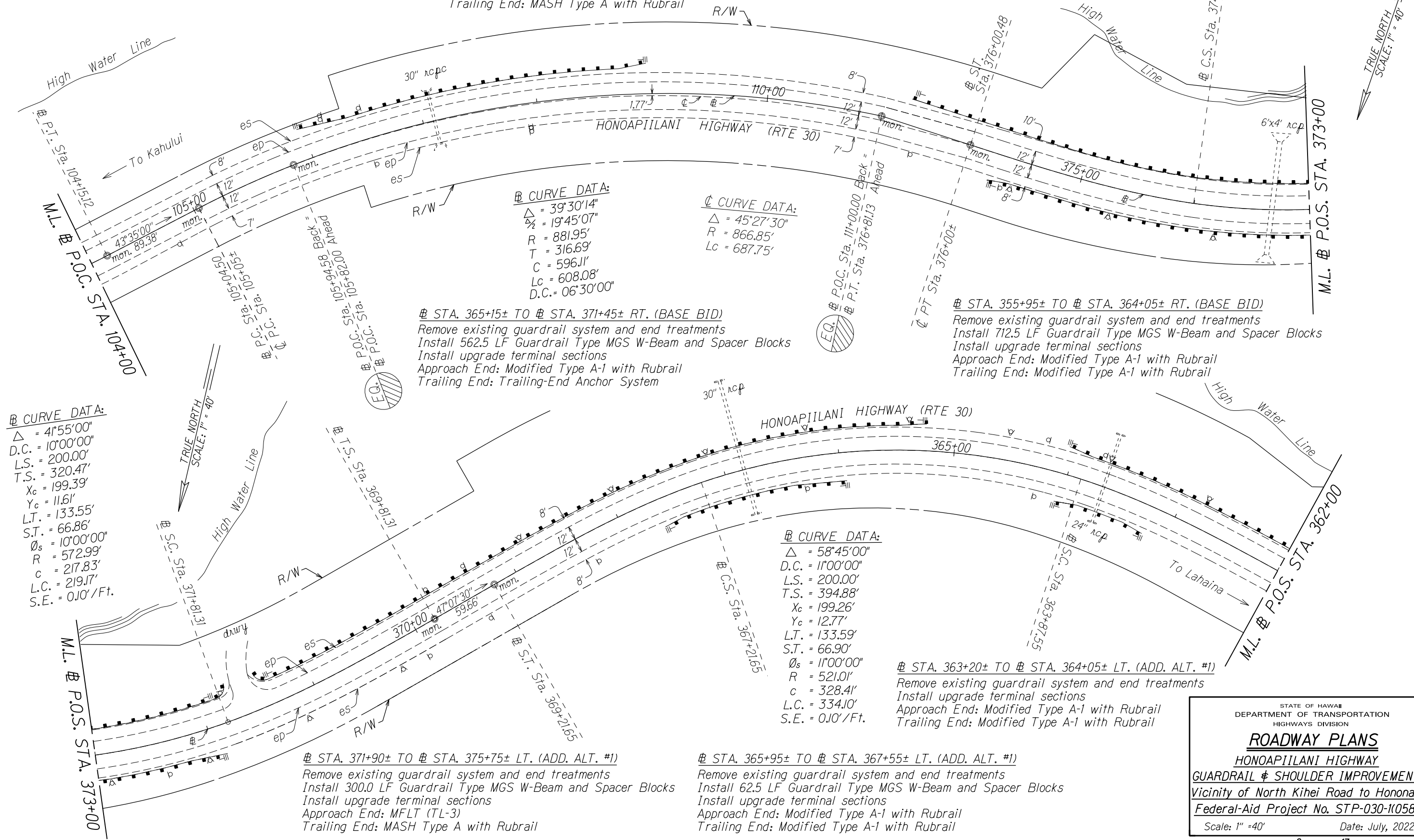
SHEET No. 2 OF 17 SHEETS

NOTE: Contractor shall abandon existing guardrail post in place as determined necessary to avoid damage to existing shoulder and/or slope area behind guardrail. Existing guardrail post to be abandoned in place shall be cut flush or below ground surface. Install 8-Ft. guardrail post where required to adequately secure new guardrail system.

± STA. 105+95± TO ± STA. 108+95± LT. (BASE BID)
Remove existing guardrail system and end treatments
Install 200.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: MASH Type A with Rubrail
Trailing End: MASH Type A with Rubrail

± STA. 371+75± TO ± STA. 376+65± RT. (BASE BID)
Remove existing guardrail system and end treatments
Install 400.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: MFLT (TL-3)
Trailing End: MASH Type A with Rubrail

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)	2022	22	38



± CURVE DATA:
Δ = 41°55'00"
D.C. = 10°00'00"
L.S. = 200.00'
T.S. = 320.47'
Xc = 199.39'
Yc = 11.61'
L.T. = 133.55'
S.T. = 66.86'
Ds = 10°00'00"
R = 572.99'
C = 217.83'
L.C. = 219.17'
S.E. = 0.10' / Ft.

± CURVE DATA:
Δ = 39°30'14"
Ds = 19°45'07"
R = 881.95'
T = 316.69'
C = 596.11'
Lc = 608.08'
D.C. = 06°30'00"

± CURVE DATA:
Δ = 45°27'30"
R = 866.85'
Lc = 687.75'

± STA. 365+15± TO ± STA. 371+45± RT. (BASE BID)
Remove existing guardrail system and end treatments
Install 562.5 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: Modified Type A-1 with Rubrail
Trailing End: Trailing-End Anchor System

± STA. 355+95± TO ± STA. 364+05± RT. (BASE BID)
Remove existing guardrail system and end treatments
Install 712.5 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: Modified Type A-1 with Rubrail
Trailing End: Modified Type A-1 with Rubrail

± CURVE DATA:
Δ = 58°45'00"
D.C. = 11°00'00"
L.S. = 200.00'
T.S. = 394.88'
Xc = 199.26'
Yc = 12.77'
L.T. = 133.59'
S.T. = 66.90'
Ds = 11°00'00"
R = 521.01'
C = 328.41'
L.C. = 334.10'
S.E. = 0.10' / Ft.

± STA. 363+20± TO ± STA. 364+05± LT. (ADD. ALT. #1)
Remove existing guardrail system and end treatments
Install upgrade terminal sections
Approach End: Modified Type A-1 with Rubrail
Trailing End: Modified Type A-1 with Rubrail

± STA. 371+90± TO ± STA. 375+75± LT. (ADD. ALT. #1)
Remove existing guardrail system and end treatments
Install 300.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: MFLT (TL-3)
Trailing End: MASH Type A with Rubrail

± STA. 365+95± TO ± STA. 367+55± LT. (ADD. ALT. #1)
Remove existing guardrail system and end treatments
Install 62.5 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: Modified Type A-1 with Rubrail
Trailing End: Modified Type A-1 with Rubrail

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

HONOAPIILANI HIGHWAY

GUARDRAIL & SHOULDER IMPROVEMENTS

Vicinity of North Kihei Road to Hononana

Federal-Aid Project No. STP-030-1(058)

Scale: 1" = 40' Date: July, 2022

SHEET No. 3 OF 17 SHEETS

SURVEY PLOTTED BY	DATE
DRAWN BY	7/22
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
mei,jay	
mei,jay	
mei,jay	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)	2022	23	38

STA. 346+00± TO # STA. 352+10± RT. (BASE BID)

Remove existing guardrail system and end treatments
Install 312.5 LF Strong Post Thrie-Beam Guardrail (Sta. 347+25± to 350+37.5±)
Transition Thrie-Beam Guardrail to Guardrail Type MGS (2 x 6.25 LF)
Install 200.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: MFLT (TL-3)
Trailing End: Modified Type A-1 with Rubrail

CURVE DATA:

$\Delta = 26^{\circ}22'30''$
D.C. = 7°00'00"
L.S. = 200.00'
T.S. = 292.23'
 $X_c = 199.70'$
 $Y_c = 8.14'$
L.T. = 133.44'
S.T. = 66.76'

$\phi_s = 7^{\circ}00'13''$
R = 819.10'
C = 176.47'
L.C. = 176.81'
S.E. = 0.10' / Ft.

STA. 355+95± TO # STA. 360+05± LT. (ADD. ALT. #1)

Remove existing guardrail system and end treatments
Install 312.5 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: Modified Type A-1 with Rubrail
Trailing End: Modified Type A-1 with Rubrail

CURVE DATA:

$\Delta = 10^{\circ}45'00''$ L.T. = 133.37'
D.C. = 4°00'00" S.T. = 66.69'
L.S. = 200.00' $\phi_s = 4^{\circ}00'00''$
T.S. = 234.87' R = 1,430.78'
 $X_c = 199.90'$ C = 68.76'
 $Y_c = 4.65'$ L.C. = 68.77'
S.E. = 0.06' / Ft.

CURVE DATA:

$\Delta = 60^{\circ}05'00''$
D.C. = 10°00'00"
L.S. = 200.00'
T.S. = 432.93'
 $X_c = 199.39'$
 $Y_c = 11.61'$
L.T. = 135.55'
S.T. = 64.89'
 $\phi_s = 10^{\circ}18'26''$
R = 581.51'
C = 392.71'
L.C. = 400.58'
S.E. = 0.10' / Ft.

STA. 347+50± TO # STA. 350+75± LT. (ADD. ALT. #1)

Remove existing guardrail system between anchor blocks
Install 50.0 LF Strong Post Thrie-Beam Guardrail with 8' posts (Sta. 349+45± to 349+95±)
Install 275.0 LF Strong Post Thrie-Beam Guardrail
Install new terminal connectors (RTE01b)
Attach to existing anchor blocks
Repair anchor blocks as needed

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

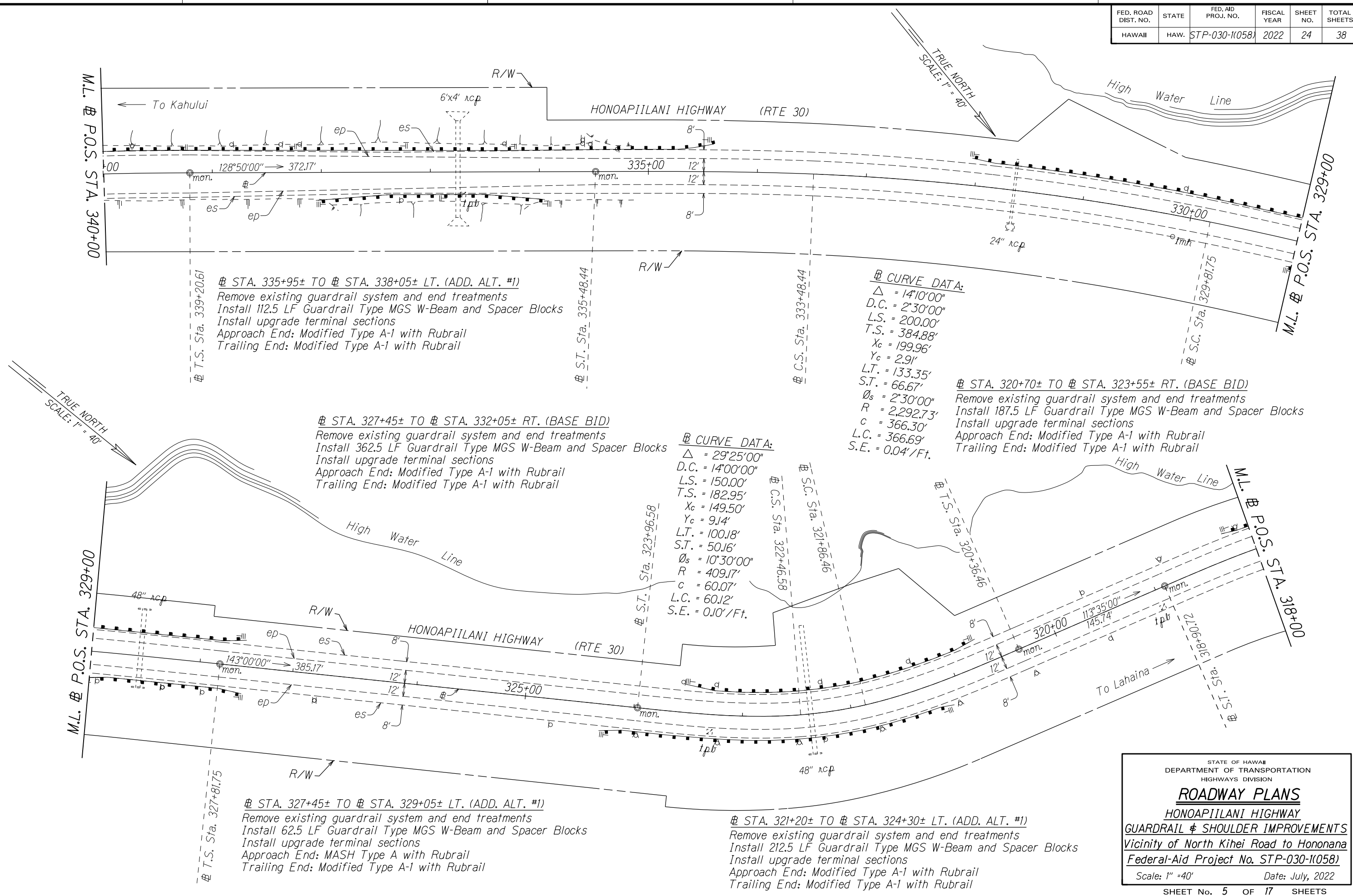
ROADWAY PLANS
HONOAPIILANI HIGHWAY
GUARDRAIL & SHOULDER IMPROVEMENTS
Vicinity of North Kihei Road to Hononana
Federal-Aid Project No. STP-030-1(058)

Scale: 1" = 40' Date: July, 2022

SHEET No. 4 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)	2022	24	38

SURVEY PLOTTED BY	DATE
DRAWN BY	7/22
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
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qmp/bdgn	



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

HONOAPIILANI HIGHWAY

GUARDRAIL & SHOULDER IMPROVEMENTS

Vicinity of North Kihei Road to Hononana

Federal-Aid Project No. STP-030-1(058)

Scale: 1" = 40'

Date: July, 2022

SHEET No. 5 OF 17 SHEETS

$R/W =$

$D.C. = 140$
 $L.S. = 150$
 $T.S. = 277$
 $X_c = 149.5$
 $Y_c = 9/4$

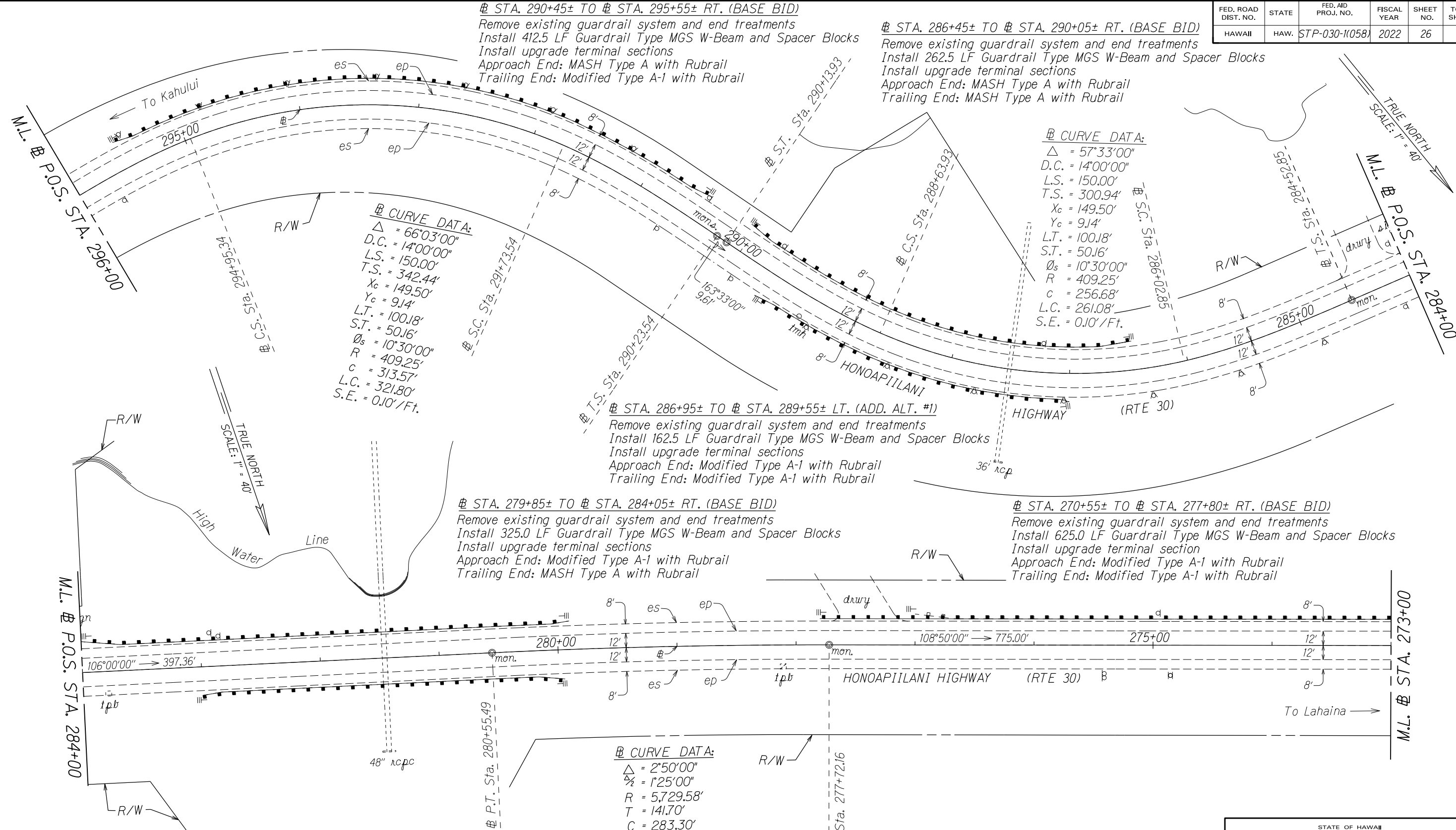
$a. 301 + 75.03$

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)	2022	26	38



§ STA. 290+45± TO § STA. 295+55± RT. (BASE BID)
Remove existing guardrail system and end treatments
Install 412.5 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: MASH Type A with Rubrail
Trailing End: Modified Type A-1 with Rubrail

§ STA. 286+45± TO § STA. 290+05± RT. (BASE BID)
Remove existing guardrail system and end treatments
Install 262.5 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: MASH Type A with Rubrail
Trailing End: MASH Type A with Rubrail

§ STA. 286+95± TO § STA. 289+55± LT. (ADD. ALT. #1)
Remove existing guardrail system and end treatments
Install 162.5 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: Modified Type A-1 with Rubrail
Trailing End: Modified Type A-1 with Rubrail

§ STA. 279+85± TO § STA. 284+05± RT. (BASE BID)
Remove existing guardrail system and end treatments
Install 325.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: Modified Type A-1 with Rubrail
Trailing End: MASH Type A with Rubrail

§ STA. 270+55± TO § STA. 277+80± RT. (BASE BID)
Remove existing guardrail system and end treatments
Install 625.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal section
Approach End: Modified Type A-1 with Rubrail
Trailing End: Modified Type A-1 with Rubrail

§ STA. 279+95± TO § STA. 283+05± LT. (ADD. ALT. #1)
Remove existing guardrail system and end treatments
Install 212.5 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: Modified Type A-1 with Rubrail
Trailing End: Modified Type A-1 with Rubrail

SURVEY PLOTTED BY	DATE
DRAWN BY	7/22
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

ORIGINAL PLAN	NOTE BOOK
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mei,jay	mei,jay

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

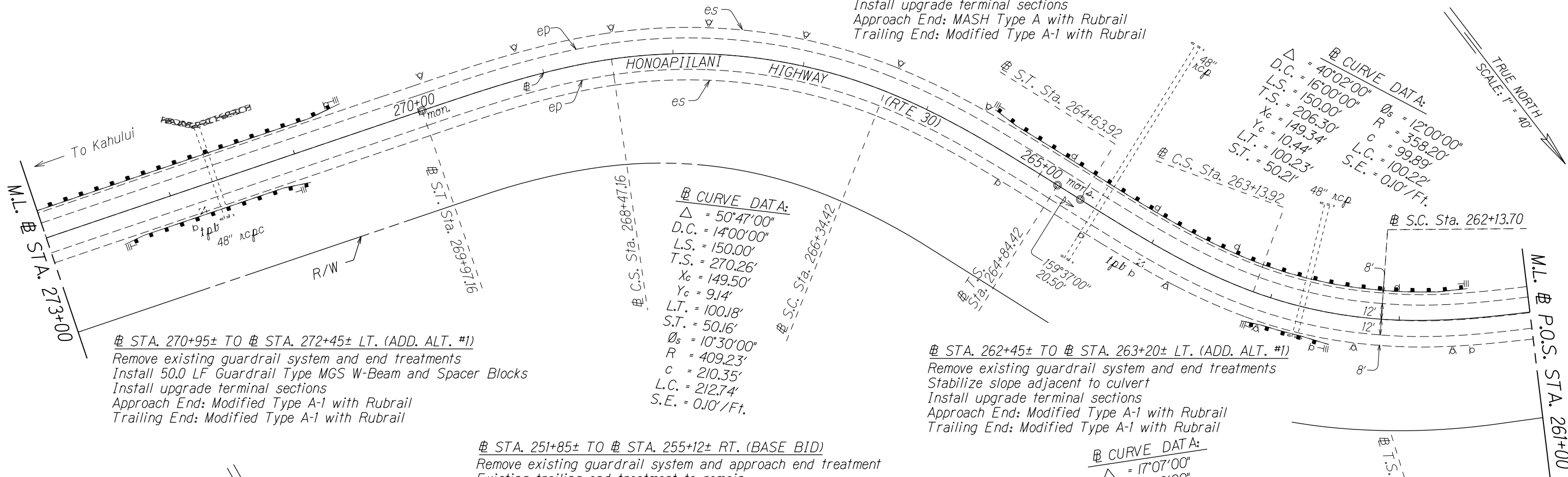
ROADWAY PLANS
HONOAPIILANI HIGHWAY
GUARDRAIL & SHOULDER IMPROVEMENTS
Vicinity of North Kihei Road to Hononana
Federal-Aid Project No. STP-030-1(058)

Scale: 1" = 40'
Date: July, 2022

SHEET No. 7 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)	2022	27	38

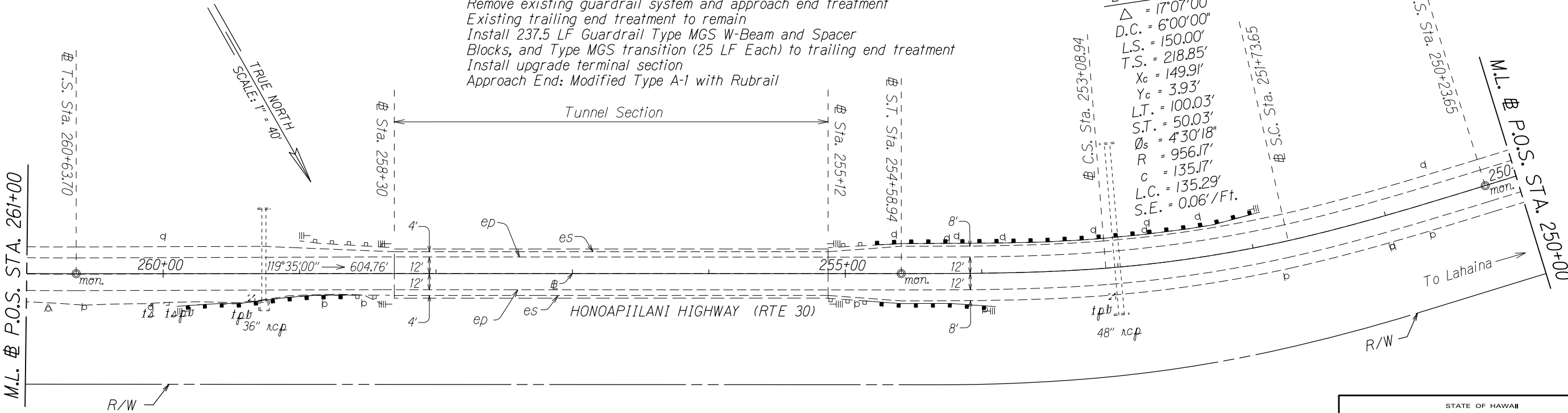
STA. 261+45± TO # STA. 265+55± RT. (BASE BID)
Remove existing guardrail system and end treatments
Install 312.5 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: MASH Type A with Rubrail
Trailing End: Modified Type A-1 with Rubrail



STA. 270+95± TO # STA. 272+45± LT. (ADD. ALT. #1)
Remove existing guardrail system and end treatments
Install 50.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: Modified Type A-1 with Rubrail
Trailing End: Modified Type A-1 with Rubrail

STA. 251+85± TO # STA. 255+12± RT. (BASE BID)
Remove existing guardrail system and approach end treatment
Existing trailing end treatment to remain
Install 237.5 LF Guardrail Type MGS W-Beam and Spacer Blocks, and Type MGS transition (25 LF Each) to trailing end treatment
Install upgrade terminal section
Approach End: Modified Type A-1 with Rubrail

STA. 262+45± TO # STA. 263+20± LT. (ADD. ALT. #1)
Remove existing guardrail system and end treatments
Stabilize slope adjacent to culvert
Install upgrade terminal sections
Approach End: Modified Type A-1 with Rubrail
Trailing End: Modified Type A-1 with Rubrail



STA. 258+30± TO # STA. 259+90± LT. (ADD. ALT. #1)
Remove existing guardrail system and approach end treatment
Existing trailing end treatment to remain
Install 75.0 LF Guardrail Type MGS W-Beam and Spacer Blocks, and Type MGS transition (25 LF Each) to trailing end treatment
Install upgrade terminal section
Approach End: Modified Type A-1 with Rubrail

STA. 253+95± TO # STA. 255+12± LT. (ADD. ALT. #1)
Remove existing guardrail system and trailing end treatment
Existing approach end treatment to remain
Install 25.0 LF Guardrail Type MGS W-Beam and Spacer Blocks, and Type MGS transition (25 LF Each) to approach end treatment
Install upgrade terminal section
Trailing End: Modified Type A-1 with Rubrail

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

HONOAPIILANI HIGHWAY

GUARDRAIL & SHOULDER IMPROVEMENTS

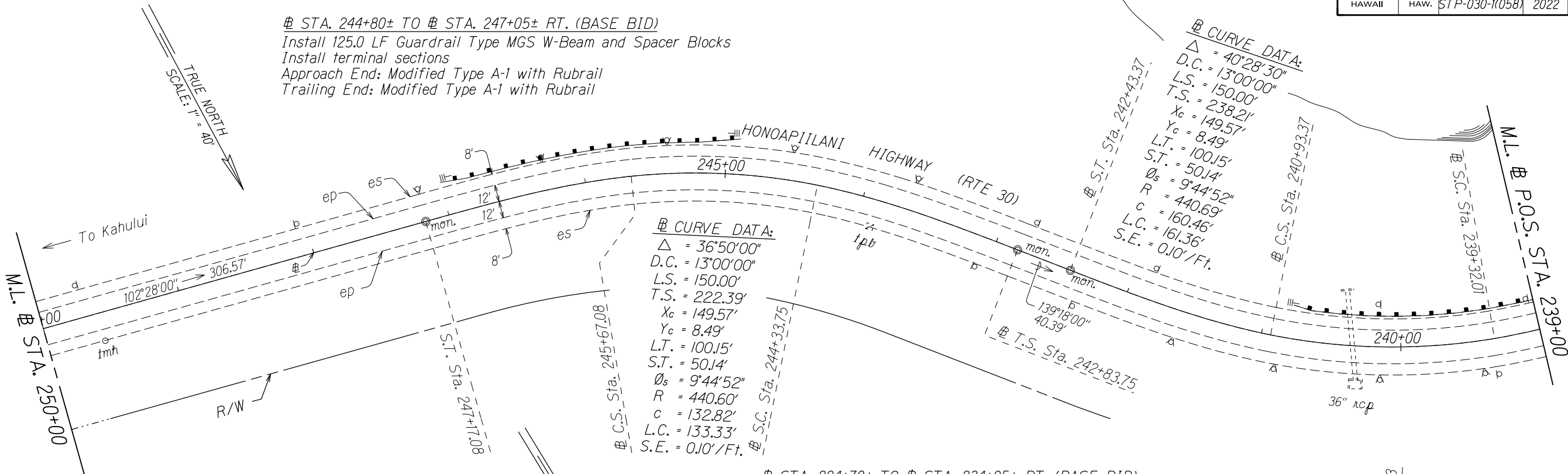
Vicinity of North Kihei Road to Hononana

Federal-Aid Project No. STP-030-1(058)

Scale: 1" = 40' Date: July, 2022

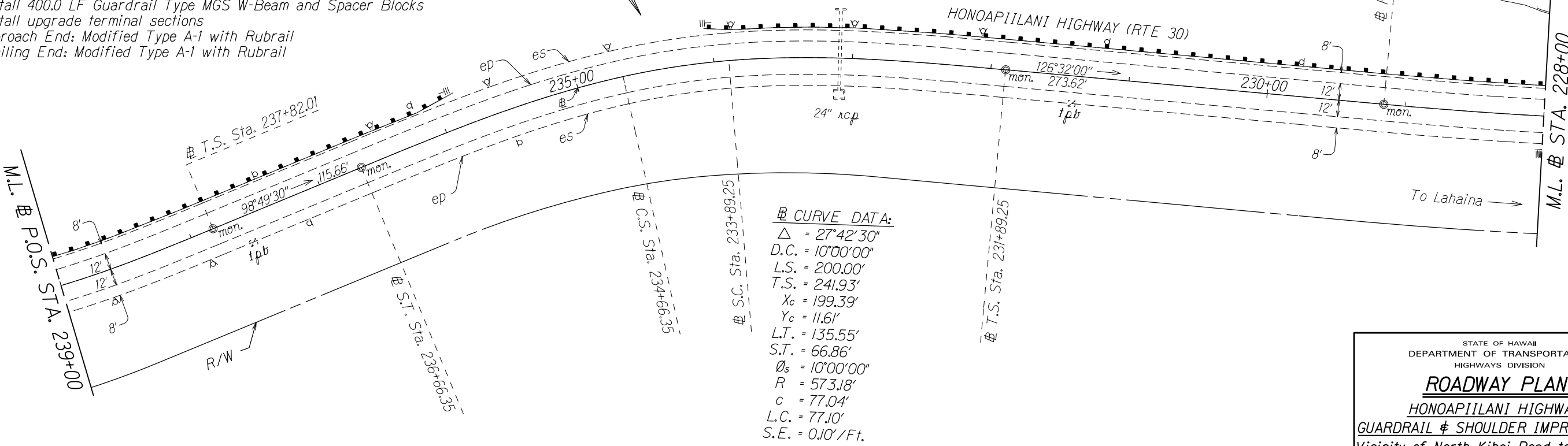
SHEET No. 8 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)	2022	28	38



⊞ STA. 235+85± TO ⊞ STA. 240+85± RT. (BASE BID)
Remove existing guardrail system and end treatments
Install 400.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: Modified Type A-1 with Rubrail
Trailing End: Modified Type A-1 with Rubrail

⊞ STA. 224+70± TO ⊞ STA. 234+05± RT. (BASE BID)
Remove existing guardrail system and end treatments
Install 837.5 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal section
Approach End: MSKT-SP-MGS8 (TL-3)
Trailing End: Modified Type A-1 with Rubrail



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

HONOAPIILANI HIGHWAY

GUARDRAIL & SHOULDER IMPROVEMENTS

Vicinity of North Kihei Road to Hononana

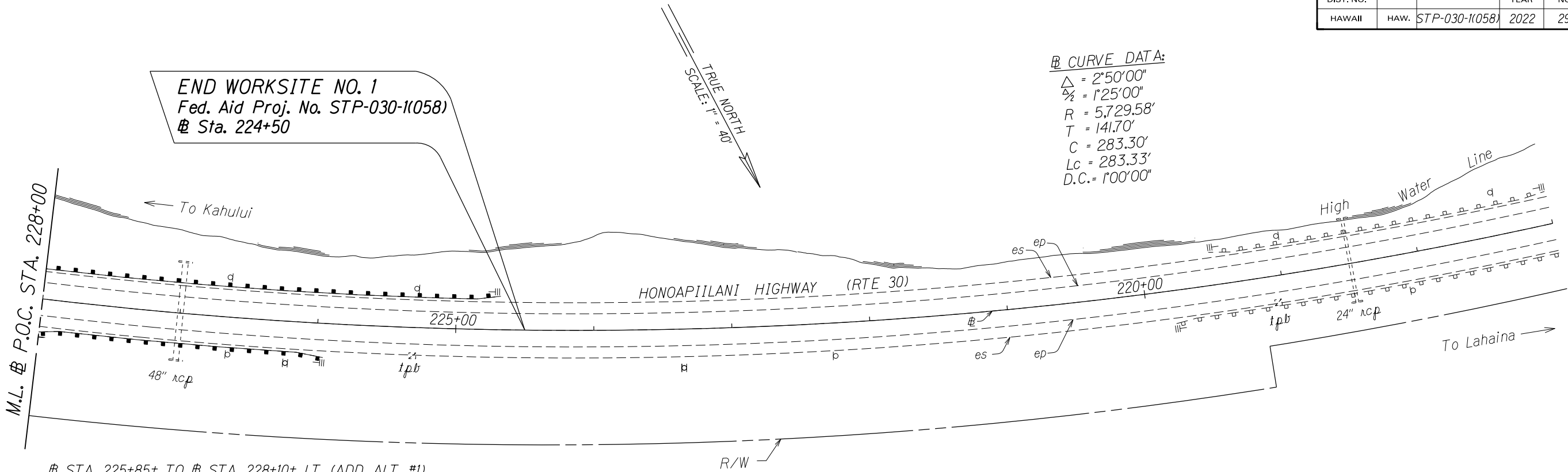
Federal-Aid Project No. STP-030-1(058)

Scale: 1" = 40' Date: July, 2022

SHEET No. 9 OF 17 SHEETS

SURVEY PLOTTED BY	DATE
DRAWN BY	7/22
DESIGNED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
me/jay	
mm/pdgn	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)	2022	29	38



STA. 225+85± TO # STA. 228+10± LT. (ADD. ALT. #1)
Remove existing guardrail system and end treatments
Install 125.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: MSKT-SP-MGS8 (TL-3)
Trailing End: Modified Type A-1 with Rubrail

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
mei,jay	mei,jay	7/22
NOTE BOOK	DESIGNED BY	CHECKED BY
mei,jay	mei,jay	mei,jay
QUANTITIES BY	CHECKED BY	
mei,jay	mei,jay	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

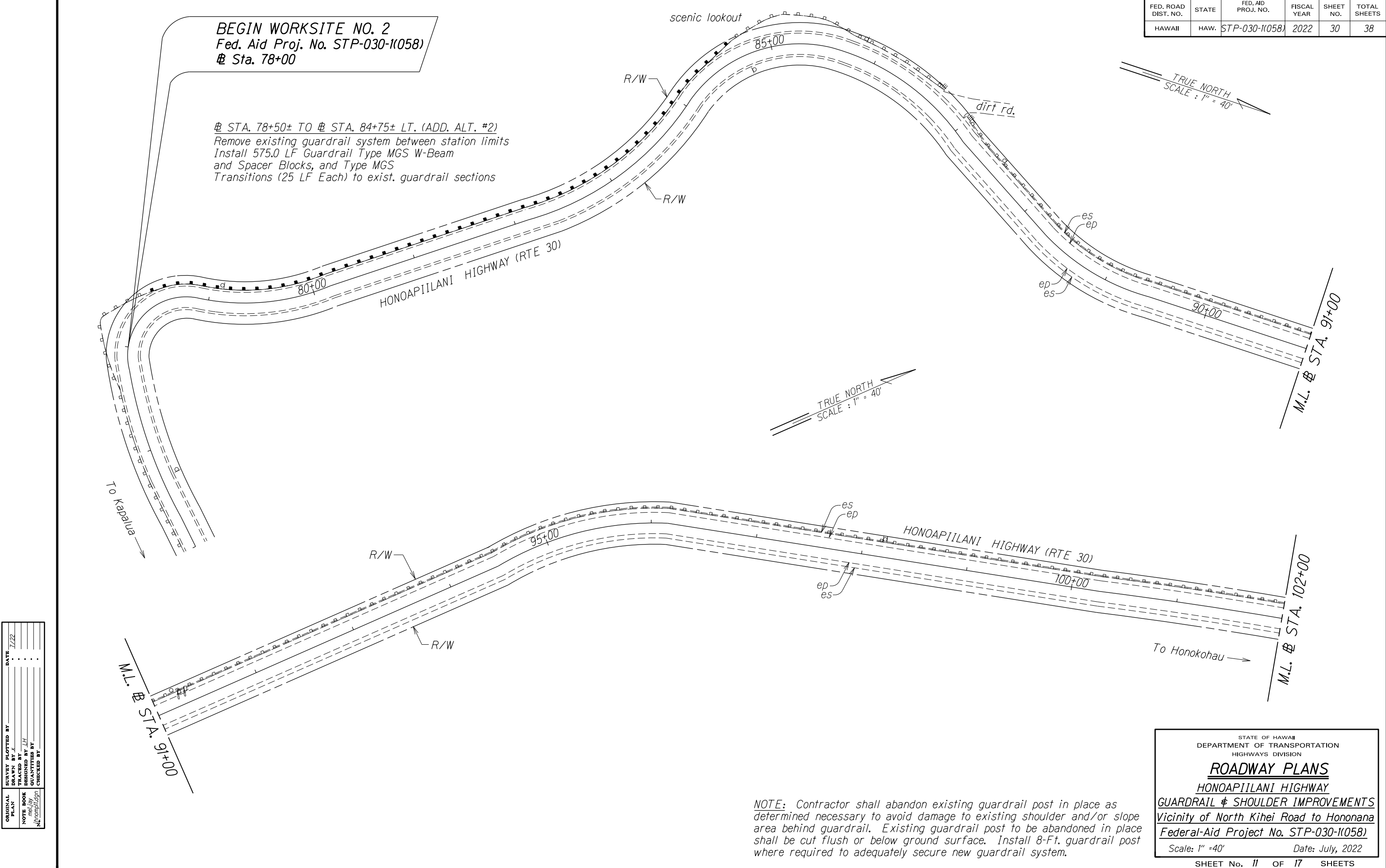
ROADWAY PLANS
HONOAPIILANI HIGHWAY
GUARDRAIL & SHOULDER IMPROVEMENTS
Vicinity of North Kihei Road to Hononana
Federal-Aid Project No. STP-030-1(058)

Scale: 1" = 40' Date: July, 2022

SHEET No. 10 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)	2022	30	38

SURVEY PLOTTED BY	DATE
DRAWN BY	7/22
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
me/lay	
me/lay	
me/lay	



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

HONOAPIILANI HIGHWAY

GUARDRAIL & SHOULDER IMPROVEMENTS

Vicinity of North Kihei Road to Hononana

Federal-Aid Project No. STP-030-1(058)

Scale: 1" = 40' Date: July, 2022

SHEET No. 11 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)	2022	31	38

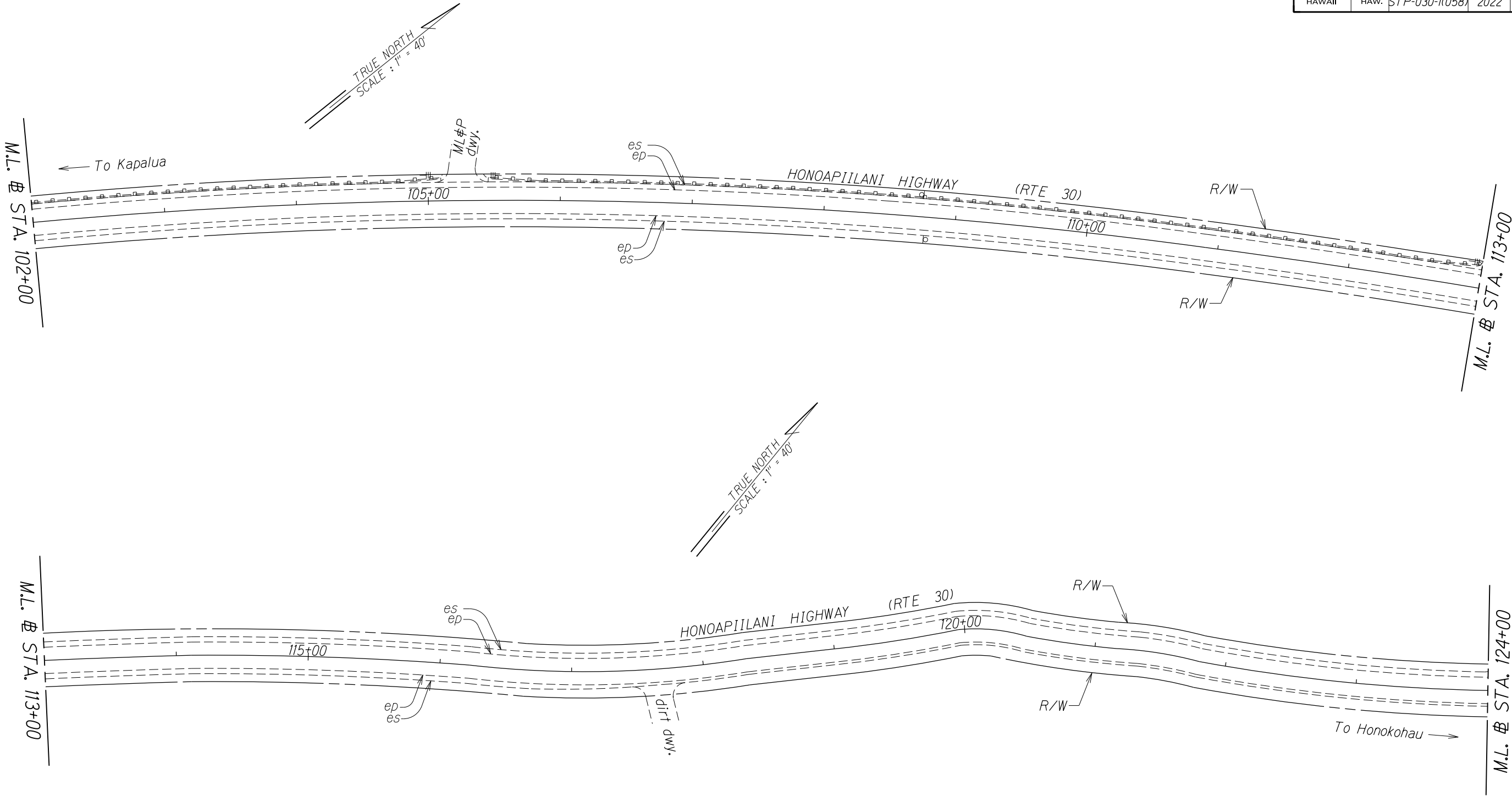
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	7/22
DESIGNED BY	me/lay	
QUANTITIES BY		
CHECKED BY		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

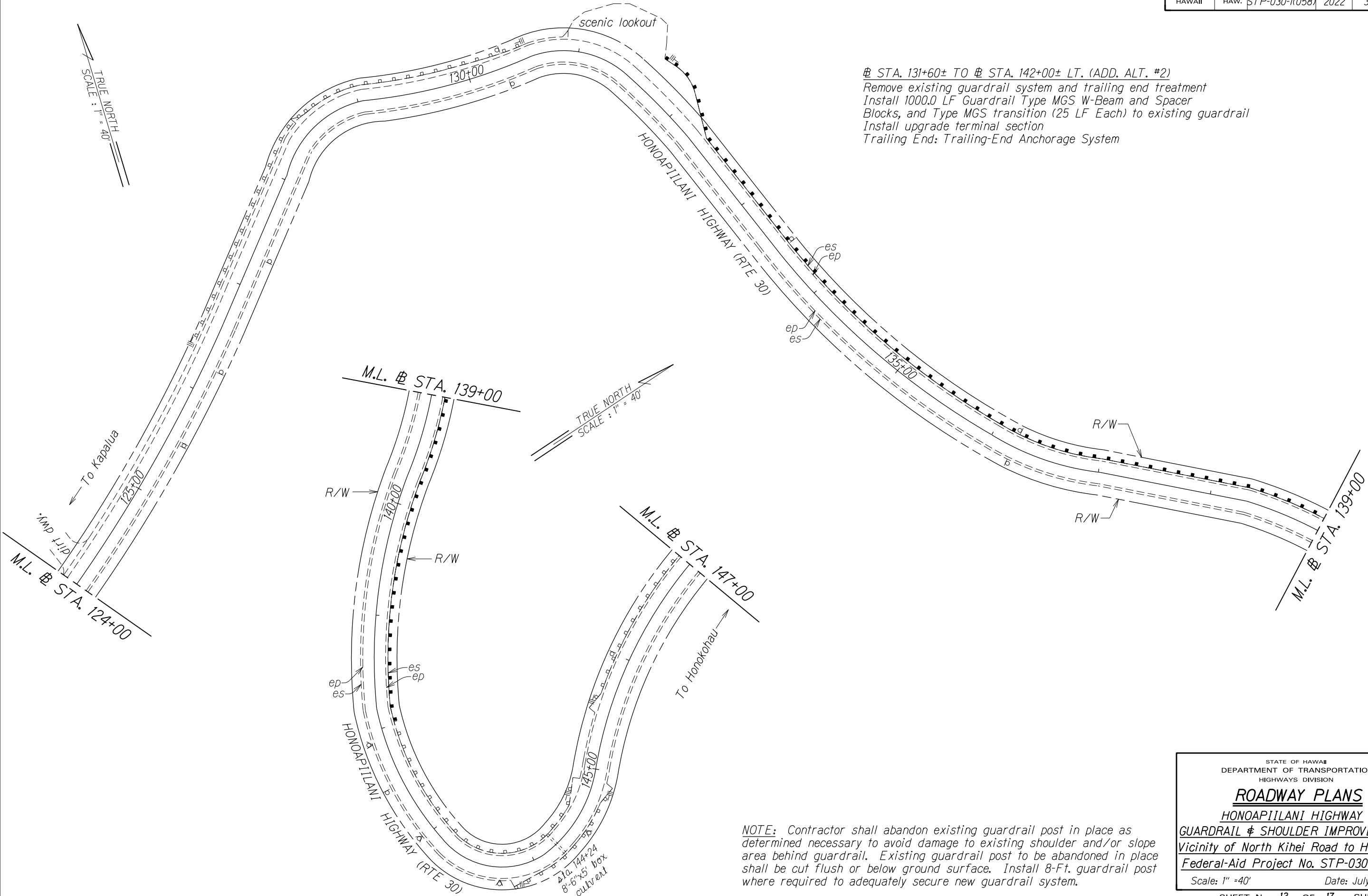
ROADWAY PLANS
HONOAPIILANI HIGHWAY
GUARDRAIL & SHOULDER IMPROVEMENTS
Vicinity of North Kihei Road to Hononana
Federal-Aid Project No. STP-030-1(058)

Scale: 1" = 40' Date: July, 2022

SHEET No. 12 OF 17 SHEETS



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-11058	2022	32	38



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	7/22
DESIGNED BY	me/lay	
QUANTITIES BY		
CHECKED BY		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

HONOAPIILANI HIGHWAY

GUARDRAIL & SHOULDER IMPROVEMENTS

Vicinity of North Kihei Road to Hononana

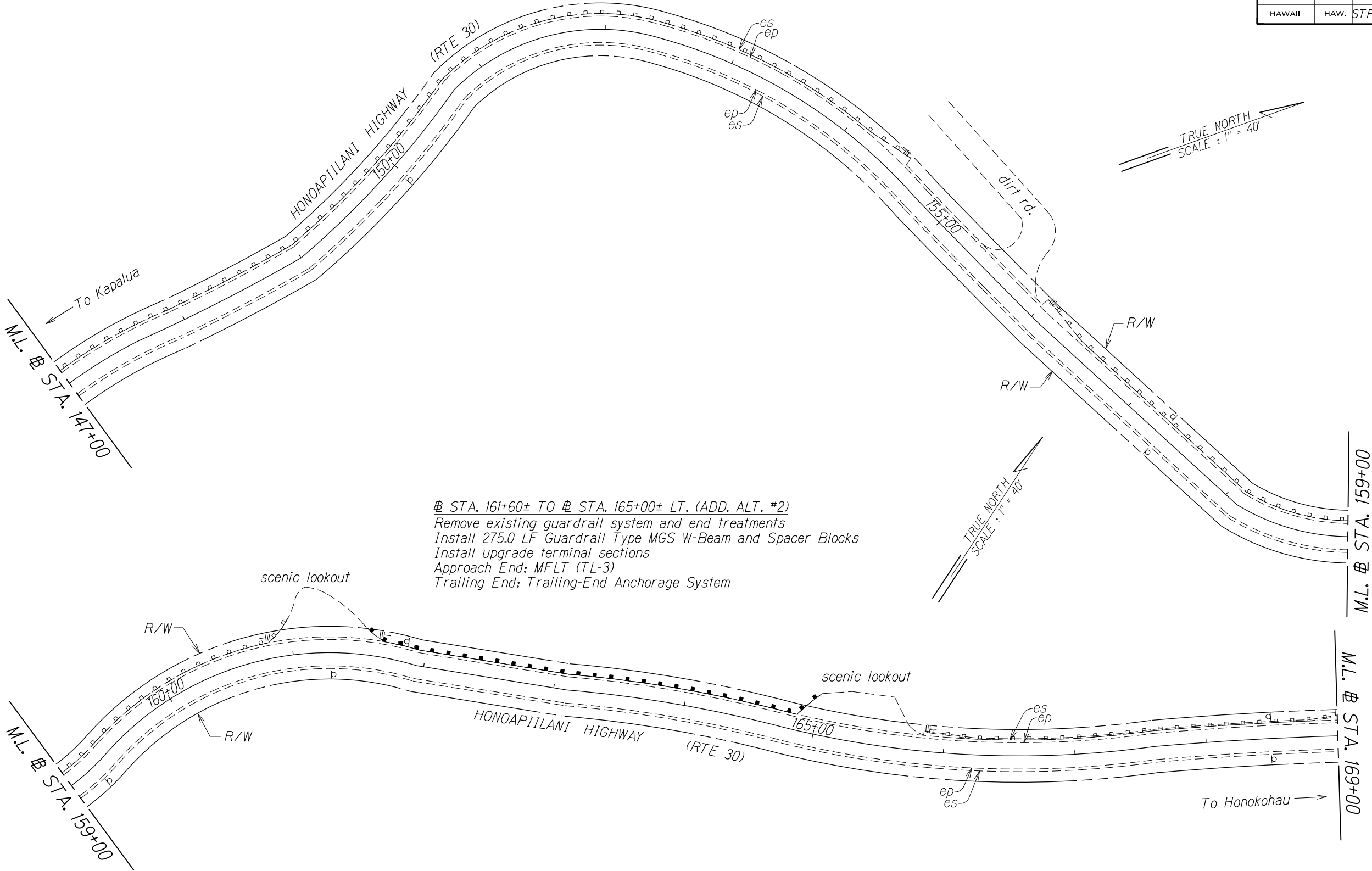
Federal-Aid Project No. STP-030-11058

Scale: 1" = 40' Date: July, 2022

SHEET No. 13 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)	2022	33	38

SURVEY PLOTTED BY	DATE
DRAWN BY	7/22
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
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NOTE: Contractor shall abandon existing guardrail post in place as determined necessary to avoid damage to existing shoulder and/or slope area behind guardrail. Existing guardrail post to be abandoned in place shall be cut flush or below ground surface. Install 8-Ft. guardrail post where required to adequately secure new guardrail system.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

HONOAPIILANI HIGHWAY

GUARDRAIL & SHOULDER IMPROVEMENTS

Vicinity of North Kihei Road to Hononana

Federal-Aid Project No. STP-030-1(058)

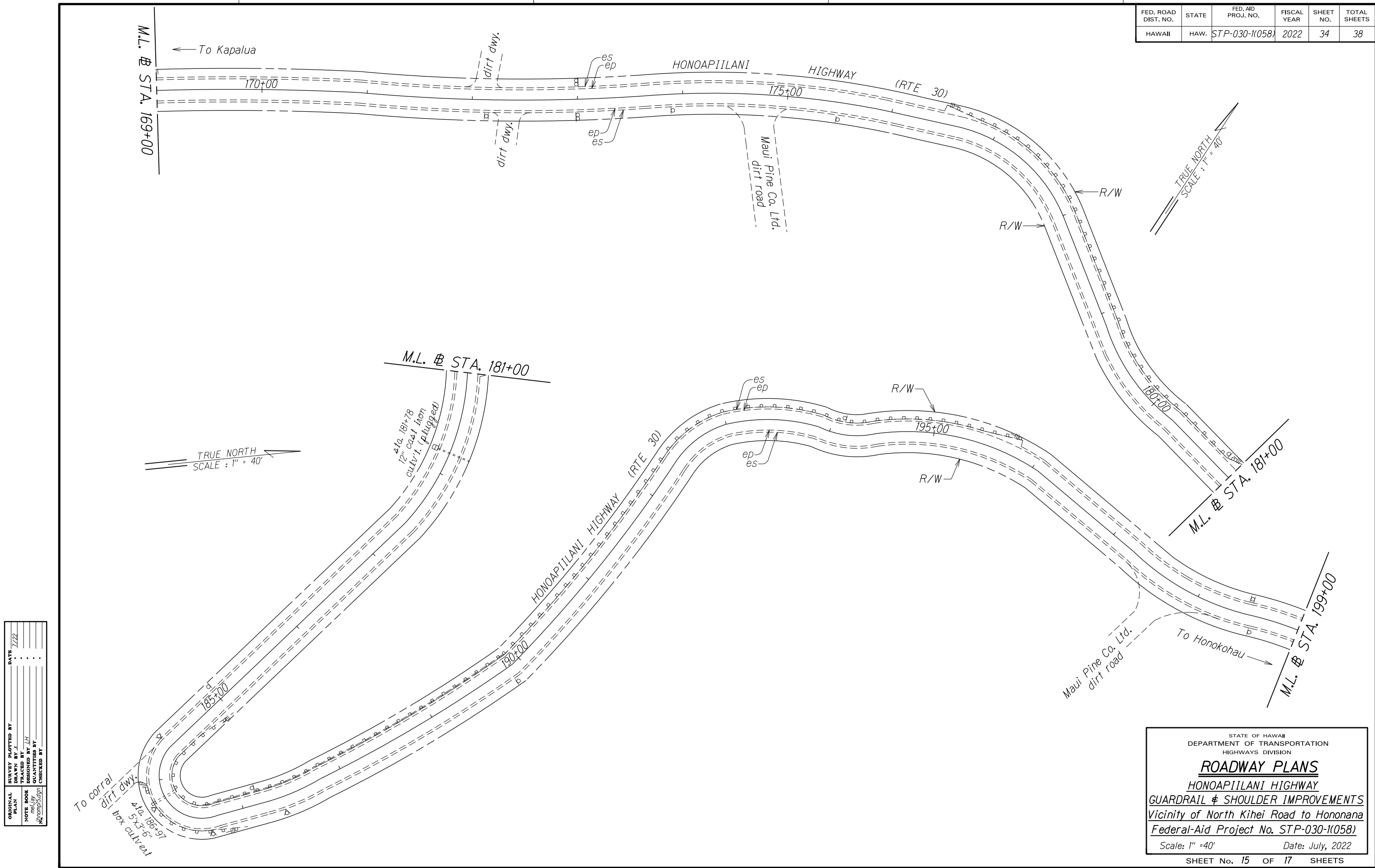
Scale: 1" = 40'

Date: July, 2022

SHEET No. 14 OF 17 SHEETS

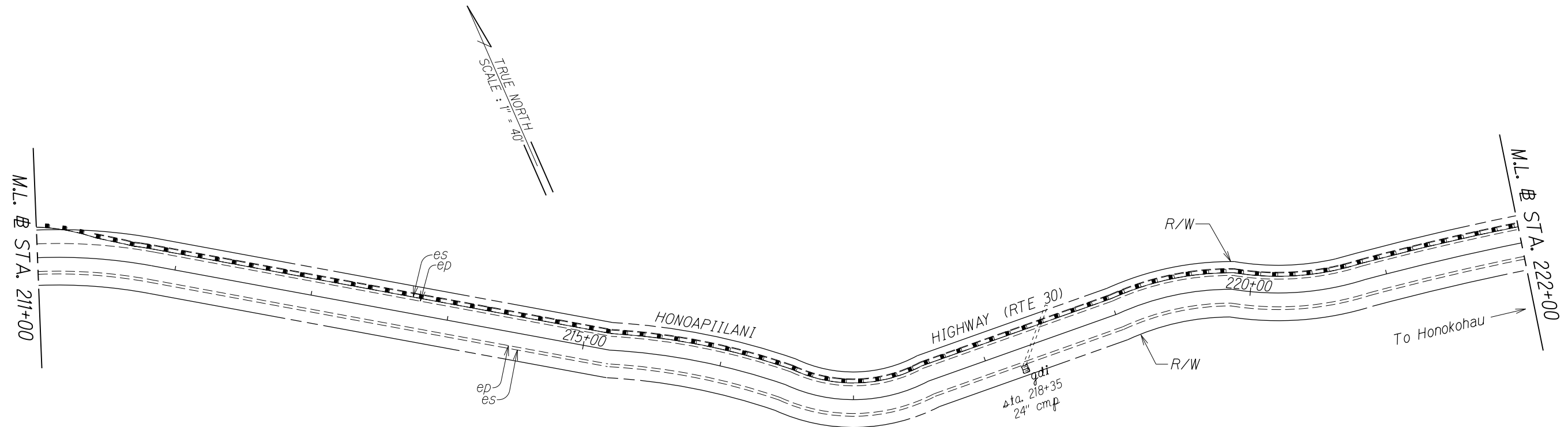
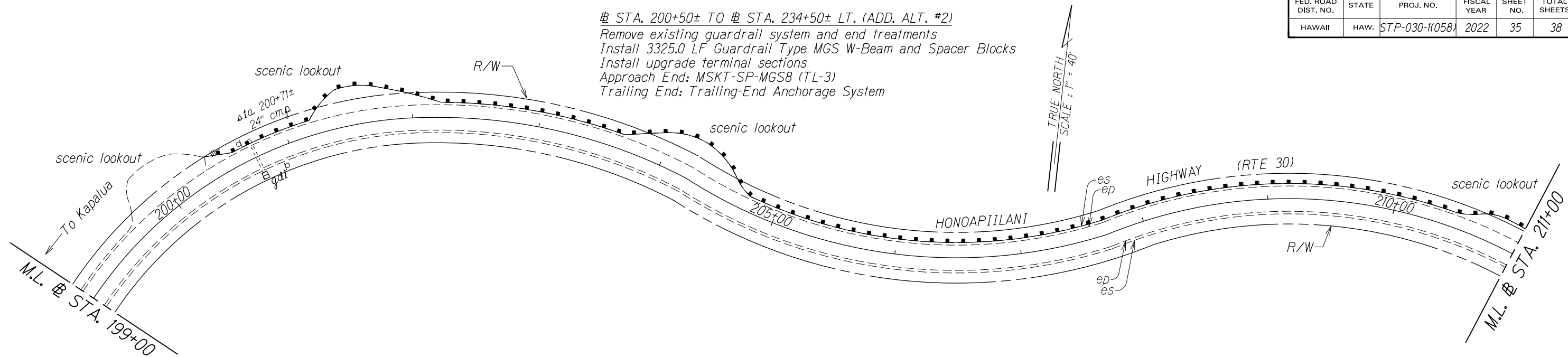
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)	2022	34	38

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	7/22
DESIGNED BY	DESIGNED BY	
QUANTITIES BY	QUANTITIES BY	
CHECKED BY	CHECKED BY	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)	2022	35	38

STA. 200+50± TO # STA. 234+50± LT. (ADD. ALT. #2)
 Remove existing guardrail system and end treatments
 Install 3325.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
 Install upgrade terminal sections
 Approach End: MSKT-SP-MGS8 (TL-3)
 Trailing End: Trailing-End Anchorage System



NOTE: Contractor shall abandon existing guardrail post in place as determined necessary to avoid damage to existing shoulder and/or slope area behind guardrail. Existing guardrail post to be abandoned in place shall be cut flush or below ground surface. Install 8-Ft. guardrail post where required to adequately secure new guardrail system.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

HONOAPIILANI HIGHWAY

GUARDRAIL & SHOULDER IMPROVEMENTS

Vicinity of North Kihei Road to Hononana

Federal-Aid Project No. STP-030-1(058)

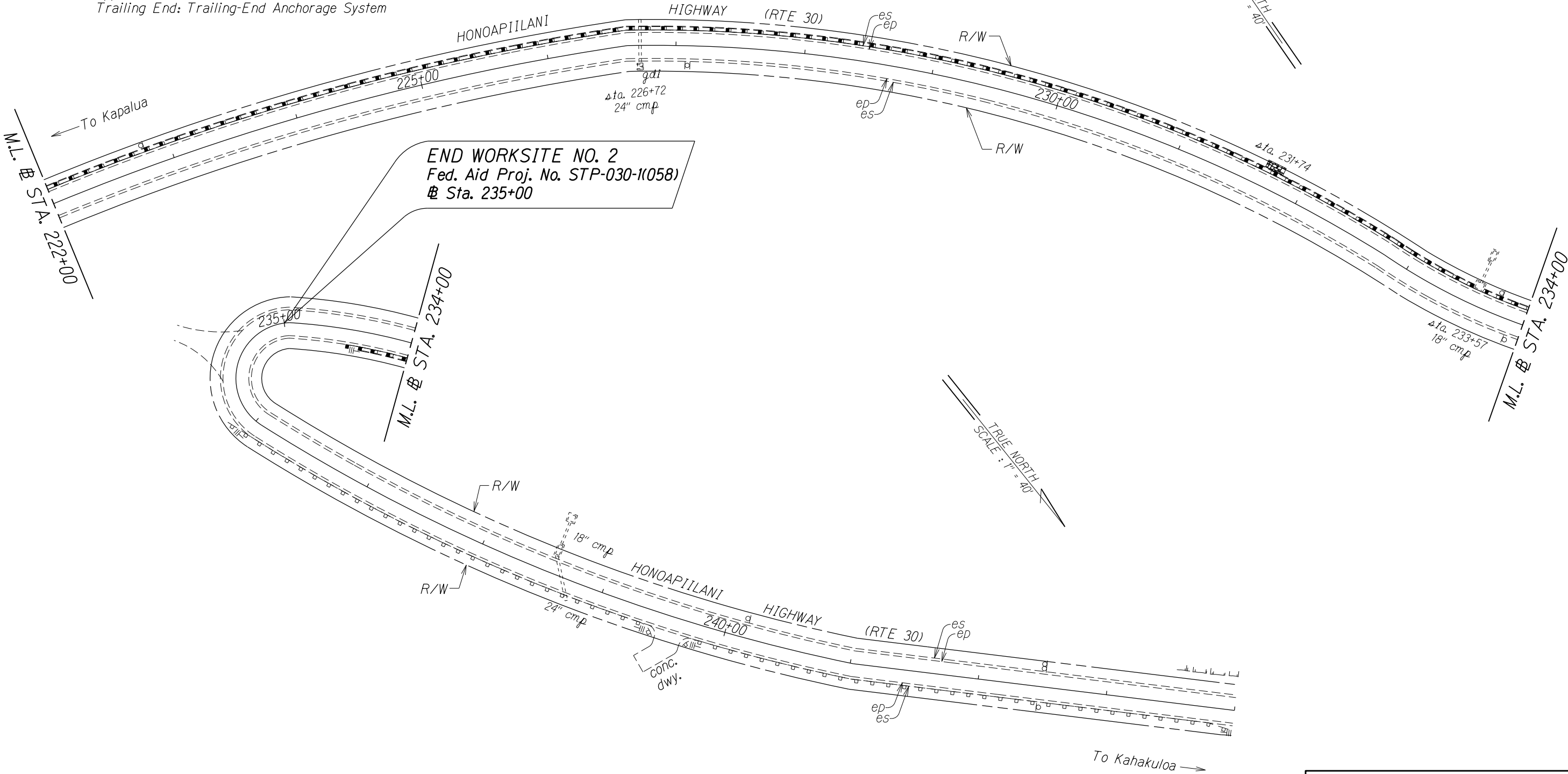
Scale: 1" =40' Date: July, 2022

SHEET No. 16 OF 17 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
NOTE BOOK meljay 4nexample.org	DRAWN BY <i>x</i>	<i>1/22</i>
	TRACED BY _____	•
	DESIGNED BY <i>LH</i>	•
	QUANTITIES BY _____	•
NC	CHECKED BY _____	•

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)	2022	36	38

STA. 200+50± TO # STA. 234+50± LT. (ADD. ALT. #2)
Remove existing guardrail system and end treatments
Install 3325.0 LF Guardrail Type MGS W-Beam and Spacer Blocks
Install upgrade terminal sections
Approach End: MSKT-SP-MGS8 (TL-3)
Trailing End: Trailing-End Anchorage System



END WORKSITE NO. 2
Fed. Aid Proj. No. STP-030-1(058)
Sta. 235+00

NOTE: Contractor shall abandon existing guardrail post in place as determined necessary to avoid damage to existing shoulder and/or slope area behind guardrail. Existing guardrail post to be abandoned in place shall be cut flush or below ground surface. Install 8-Ft. guardrail post where required to adequately secure new guardrail system.

STATE OF HAWAII
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HIGHWAYS DIVISION

ROADWAY PLANS

HONOAPIILANI HIGHWAY

GUARDRAIL & SHOULDER IMPROVEMENTS

Vicinity of North Kihei Road to Hononana

Federal-Aid Project No. STP-030-1(058)

Scale: 1" = 40' Date: July, 2022

SHEET No. 17 OF 17 SHEETS

SURVEY PLOTTED BY	DATE
DRAWN BY	7/22
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

ORIGINAL PLAN
NOTE BOOK
me/lay
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