

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(57)18	1972	4	171

END OF PROJECT NO. US-S-0720(3)
STA. 359 + 49.08 =
BEG. OF PROJECT NO. BU-072-1(2), UNIT 4 EQ.
STA. 7 + 50

M-3A CURVE DATA
Δ = 49° 53' 50"
R = 1400.00
T = 651.30
Lc = 1219.22

M-3A CURVE DATA
Δ = 15° 6' 57"
R = 1454.00
T = 192.92
Lc = 383.59

M-3B CURVE DATA
Δ = 3° 55' 31"
R = 2640.00
T = 90.47
Lc = 180.87

M-3B CURVE DATA
Δ = 38° 06' 20"
R = 4000.00
T = 1381.43
Lc = 2660.27

- GENERAL NOTES:**
1. Replace all existing aluminum guard rails with Guard Rail, Type 3, Single except where otherwise specified.
 2. Reconstruct all existing galvanized steel guard rail except where otherwise specified.
 3. Replace all existing painted steel guard rails with Guard Rail, Type 3, Single.
 4. See Guard Rail Summary, Sheet No. 24.
 5. Remove existing chain link fence on concrete median barrier. Sta. 69+05± to Sta. 87+50±
 6. Refer to the Drainage Tabulation for the type of modification to be made to the existing Drainage structures and for their estimated quantities.
 7. Install Headlight Glare Screen on existing concrete barrier. For Details and Schedule, See Sheet No. 23.

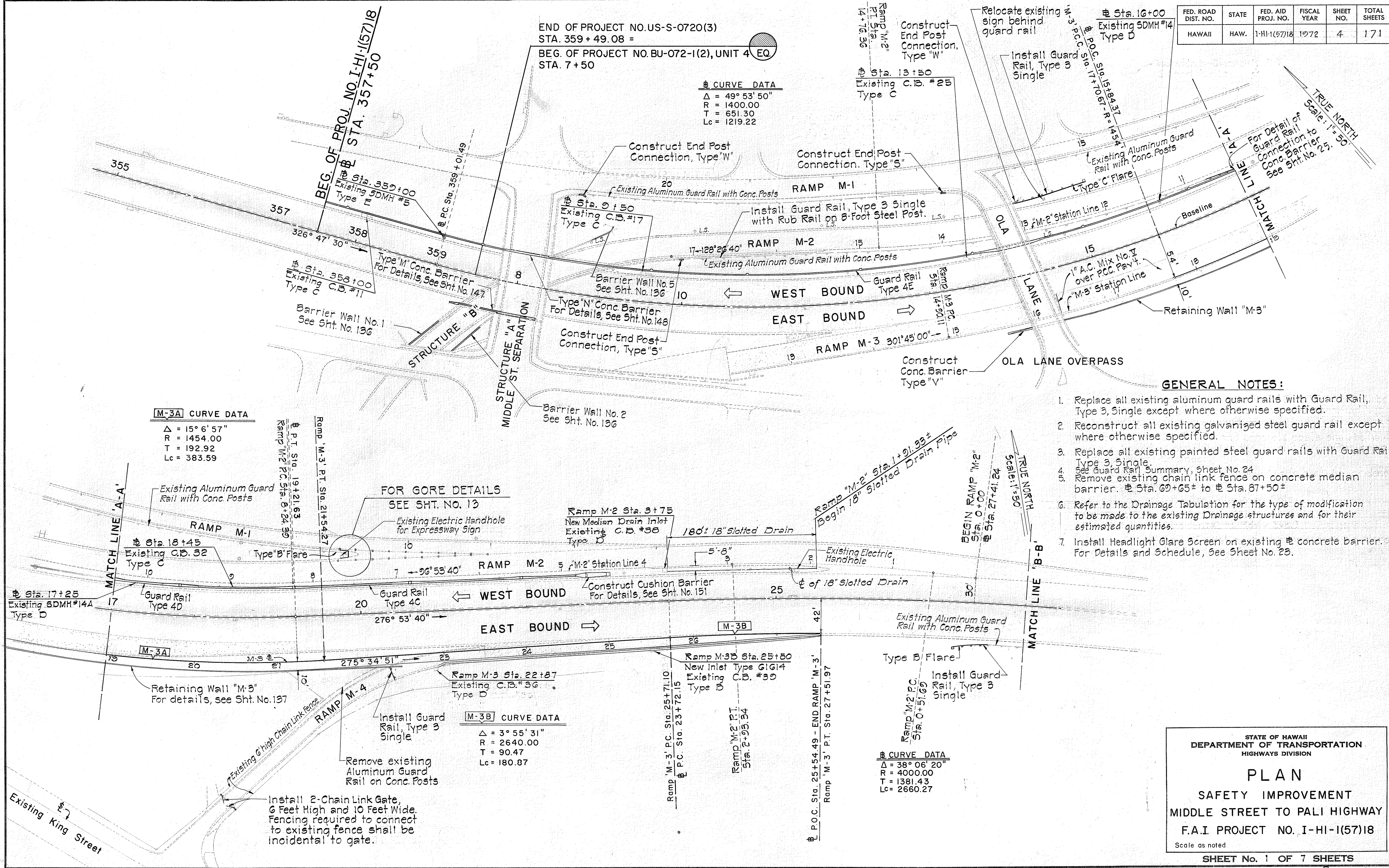
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PLAN

SAFETY IMPROVEMENT
MIDDLE STREET TO PALI HIGHWAY
F.A.I. PROJECT NO. I-HI-1(57)18

Scale as noted

SHEET NO. 1 OF 7 SHEETS



DATE	DESIGNED BY	CHECKED BY

2-5-8

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(57)18	1972	4	171

END OF PROJECT NO. US-S-0720(3)
STA. 359 + 49.08 =
BEG. OF PROJECT NO. BU-072-I(2), UNIT 4 EQ.
STA. 7 + 50

Curve Data
 $\Delta = 49^\circ 53' 50''$
 $R = 1400.00$
 $T = 651.30$
 $L_c = 1219.22$

Ramp M-2
 P.T. Sta. 14+76.36
 Sta. 13+50
 Existing C.B. #25
 Type C

Sta. 16+00
 Existing SDMH #14
 Type D

TRUE NORTH
 Scale: 1" = 50'

M-3A CURVE DATA
 $\Delta = 15^\circ 6' 57''$
 $R = 1454.00$
 $T = 192.92$
 $L_c = 383.59$

GENERAL NOTES:

1. Replace all existing aluminum guard rails with Guard Rail, Type 3, Single except where otherwise specified.
2. Reconstruct all existing galvanized steel guard rail except where otherwise specified.
3. Replace all existing painted steel guard rails with Guard Rail, Type 3, Single.
4. See Guard Rail Summary, Sheet No. 24.
5. Remove existing chain link fence on concrete median barrier. Sta. 69+65+ to Sta. 87+50+.
6. Refer to the Drainage Tabulation for the type of modification to be made to the existing Drainage structures and for their estimated quantities.
7. Install Headlight Glare Screen on existing concrete barrier. For Details and Schedule, See Sheet No. 23.

1979 SECTION 104(b)5 ESTIMATE
 ROUTE H-1 - SECTION A8.0.3 TO A8.0.4

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
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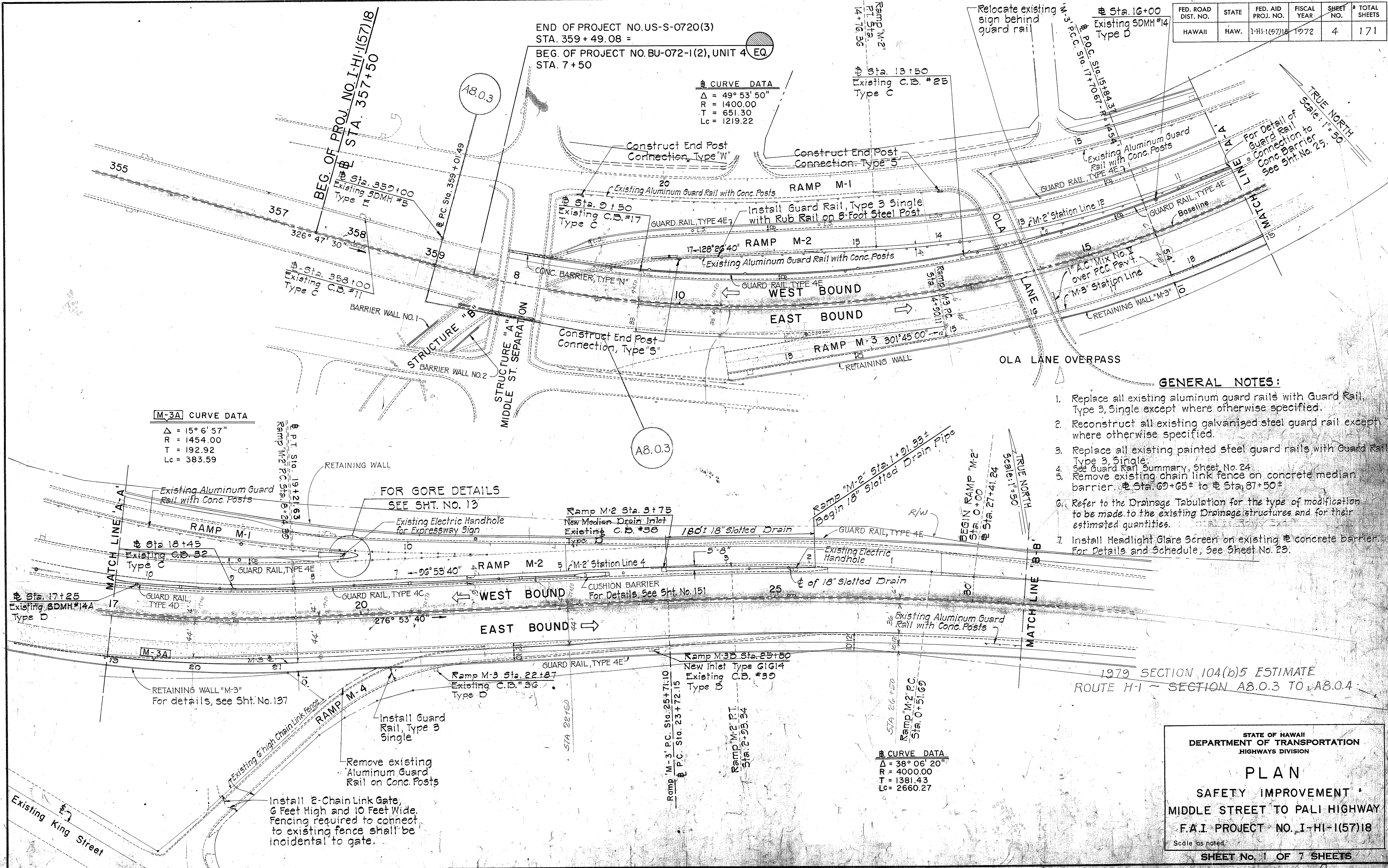
PLAN

SAFETY IMPROVEMENT
 MIDDLE STREET TO PALI HIGHWAY
 F.A.I. PROJECT NO. I-HI-1(57)18

Scale as noted

SHEET No. 1 OF 7 SHEETS

DATE	BY
DESIGNED BY	TRACED BY
NOTED BY	CHECKED BY
ORIGINAL	PLAN
NOTE BOOK	NO.



FED. ROAD DIST. NO.	STATE	FED AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEET
HAWAII	HAW.	1-HI-1(57)18	1972	5	17

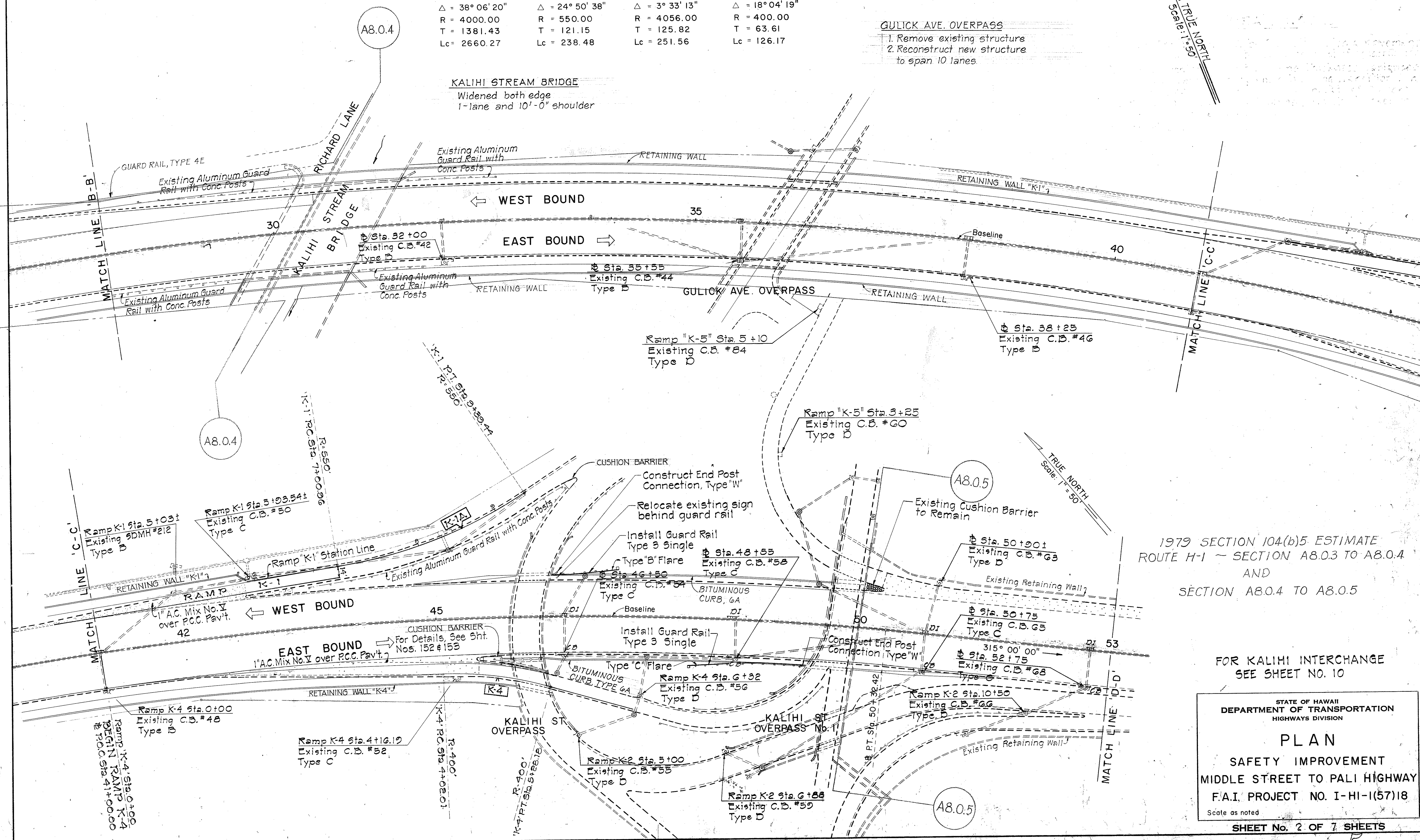
TRUE NORTH
Scale: 1"=50'

GULICK AVE. OVERPASS

1. Remove existing structure
2. Reconstruct new structure to span 10 lanes.

CURVE DATA			
BASELINE	K-1A	K-1B	K-4
$\Delta = 38^{\circ} 06' 20''$	$\Delta = 24^{\circ} 50' 38''$	$\Delta = 3^{\circ} 33' 13''$	$\Delta = 18^{\circ} 04' 19''$
R = 4000.00	R = 550.00	R = 4056.00	R = 400.00
T = 1381.43	T = 121.15	T = 125.82	T = 63.61
Lc = 2660.27	Lc = 238.48	Lc = 251.56	Lc = 126.17

KALIHI STREAM BRIDGE
Widened both edge
1-lane and 10'-0" shoulder



1979 SECTION 104(b)5 ESTIMATE
ROUTE H-1 ~ SECTION A8.0.3 TO A8.0.4
AND
SECTION A8.0.4 TO A8.0.5

FOR KALIHI INTERCHANGE
SEE SHEET NO. 10

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
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PLAN

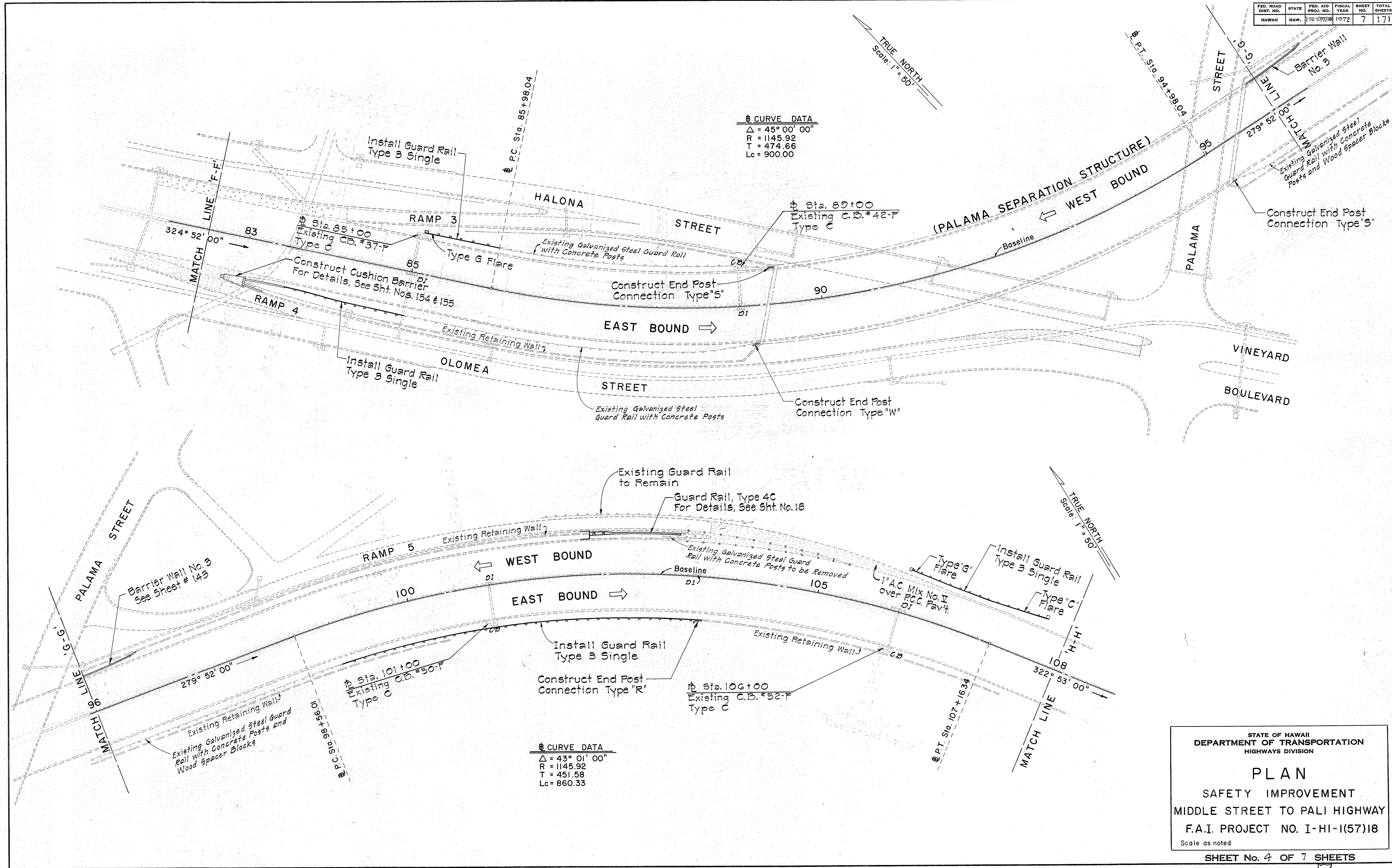
SAFETY IMPROVEMENT
MIDDLE STREET TO PALI HIGHWAY
F.A.I. PROJECT NO. I-HI-1(57)18

Scale as noted

SHEET No. 2 OF 7 SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-11-1(57)18	1972	7	171



ORIGINAL PLAN	DATE
NOTED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PLAN

SAFETY IMPROVEMENT
MIDDLE STREET TO PALI HIGHWAY
F.A.I. PROJECT NO. I-HI-1(57)18

Scale as noted

SHEET No. 4 OF 7 SHEETS

Sta. 110+00
Existing C.B. #56-F
Type B

Sta. 111+70
Existing C.B. #60-F
Type A

Ramp "7" Sta. 7+50
Existing C.B. #64-F
Type C

Sta. 121+00
Existing C.B. #69-F
Type B

Ramp "7" Sta. 9+30
Existing C.B. #62-F
Type C

Construct End Post
Connection Type "R"

SCHOOL STREET

RAMP 7

Sta. 108+25
Existing C.B. #55-F
Type C

Construct End Post
Connection Type "W"

Install Guard Rails
Type 3 Single

Sta. 110+05
Existing C.B. #57-F
Type D

Construct End Post
Connection Type "W"

WEST BOUND

EAST BOUND

Construct End Post
Connection Type "W"

STRUC. No. 5
(LILIHA ACCESS SEPARATION)

STRUC. No. 6
(LILIHA SEPARATION)

Sta. 111+70
Existing C.B. #61-F
Type A

Construct End Post
Connection Type "W"

RAMP 6

Sta. 114+50
Existing C.B. #63-F
Type B

Ramp "6" Sta. 5+00
Existing C.B. #66-F
Type C

Ramp "6" Sta. 7+25
Existing C.B. #67-F
Type A

Ramp "6" Sta. 9+25
Existing C.B. #70-F
Type C

Barrier Wall No. 4
See Sheet #149
Sta. 123+75
Existing C.B. #71-F
Type B

Sta. 125+75
Existing C.B. #74-F
Type B

Sta. 128+25
Existing C.B. #1-F(T)
Type B

Sta. 129+75
Existing C.B. #4-F(T)
Type D

Sta. 132+75
Existing C.B. #6-F(T)
Type A

Construct End Post
Connection Type "S"

Install Guard Rail
Type 3 Single

Construct End Post
Connection Type "W"

Existing Galvanized Steel
Guard Rail with Concrete Posts
and Wood Spacer Blocks

Sta. 136+73
Existing C.B. #2-L(T)
Type A

Ramp "6" Sta. 11+50
Existing C.B. #72-F
Type C

Install Guard Rail
Type 3 Single

Construct End Post
Connection Type "W"

Construct End Post
Connection Type "R"

Install Guard Rails
Type 3 Single

Existing Galvanized Steel Guard
Rail with Steel Posts and Wood
Spacer Blocks to be removed

SCHOOL STREET

RAMP 8

Construct End Post
Connection Type "R"

Construct Cushion Barrier
For Details, See Sht. Nos. 156 & 157

1" A.C. Mix No. IV
over P.C. Pav't.

LINE

LINE

LINE

LINE

LINE

LINE

LINE

LINE

LINE

LINE

LINE

LINE

LINE

STRUC. No. 7
(AALA ST. EXTENSION SEPARATION)

Ramp "6" Sta. 13+50
Existing C.B. #75-F
Type C

STRUC. No. 8
(NUUANU STREAM BRIDGE)

Construct End Post
Connection Type "W"

Sta. 128+25
New Drop Intake
Existing C.B. #2-F(T)
Type D

Retaining Wall "D"
For details, see Sht. Nos. 144 & 145
Sta. 130+25
New Drop Intake
Existing C.B. #5-F(T)
Type D

Sta. 132+75
New Drop Intake
Existing C.B. #7-F(T)
Type A

Sta. 134+40
New Drop Intake
Existing C.B. #9-F(T)
Type D

Sta. 134+49.73
EQ. = -50.27

STRUC. No. 11
(NUUANU AVENUE)

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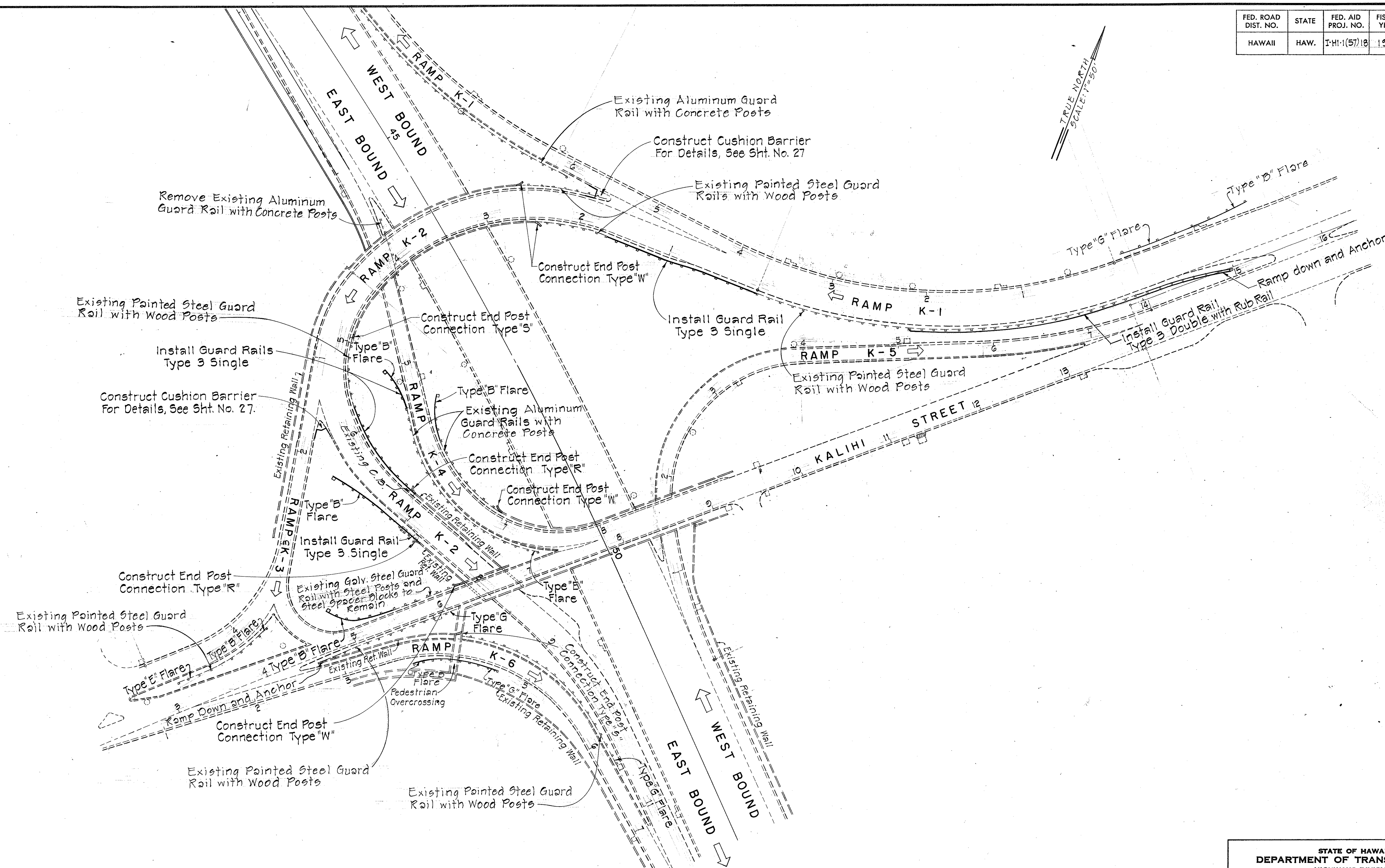
SHEET No. 5 OF 7 SHEETS

100 CURVE DATA

$\Delta = 5^{\circ}42'38"$
 $R = 2023.45$
 $T = 100.92$
 $L_c = 201.67$

ORIGINAL
PLAN
DATE
DRAWN BY
CHECKED BY
NOTED BY
NO.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(57)18	1972	10	171



DATE	
SURVEY PLOTTED BY	
DRAWN BY	
CHECKED BY	
NOTE BOOK	
No.	

STATE OF HAWAII
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HIGHWAYS DIVISION

PLAN

SAFETY IMPROVEMENT

MIDDLE STREET TO PALI HIGHWAY

F.A.I. PROJECT NO. I-HI-1(57)18

SHEET No. 7 OF 7 SHEETS