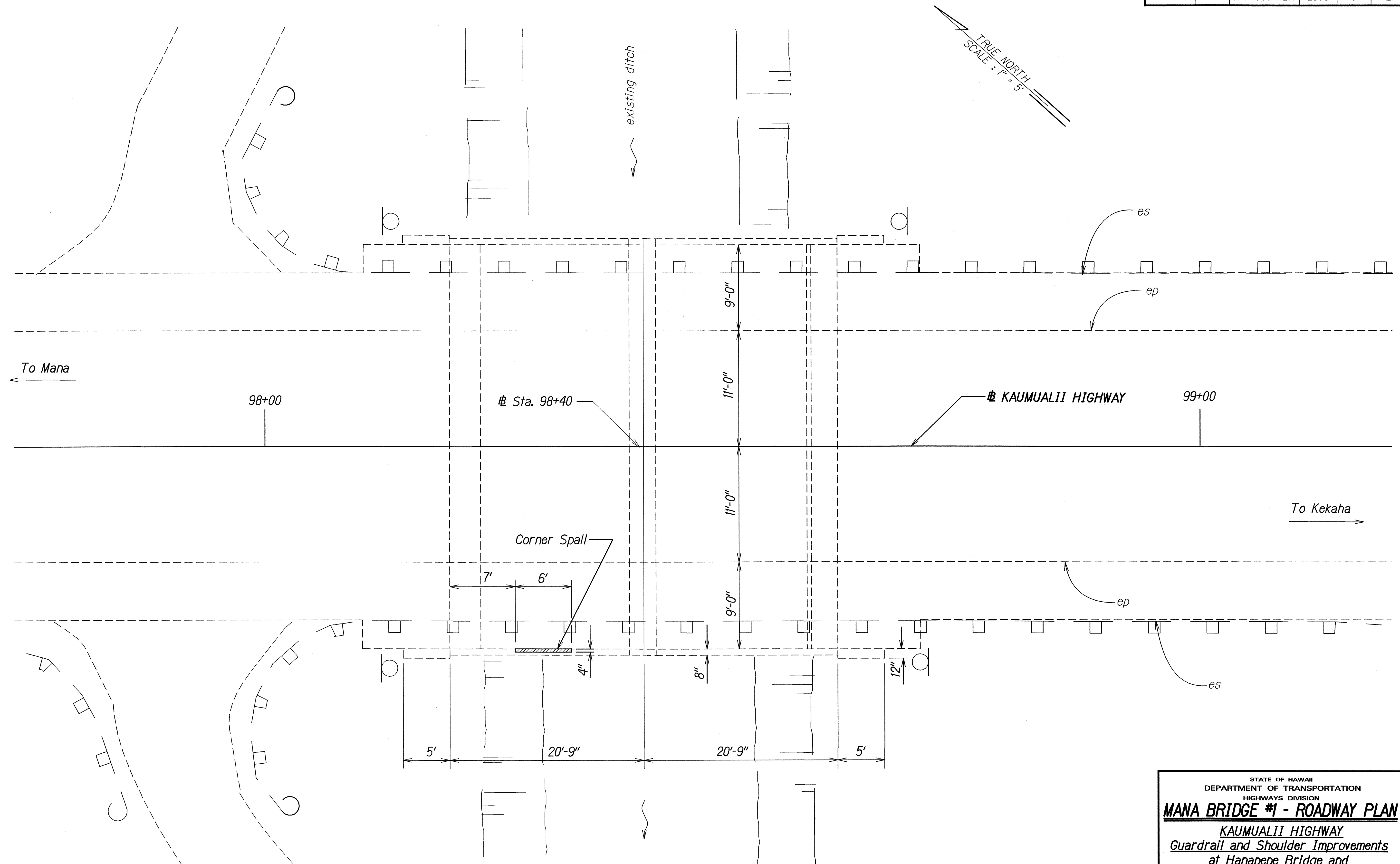


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(27)	2005	6	27



PLAN - MANA BRIDGE #1 (M.P. 31.60±)
Scale: 1" = 5'

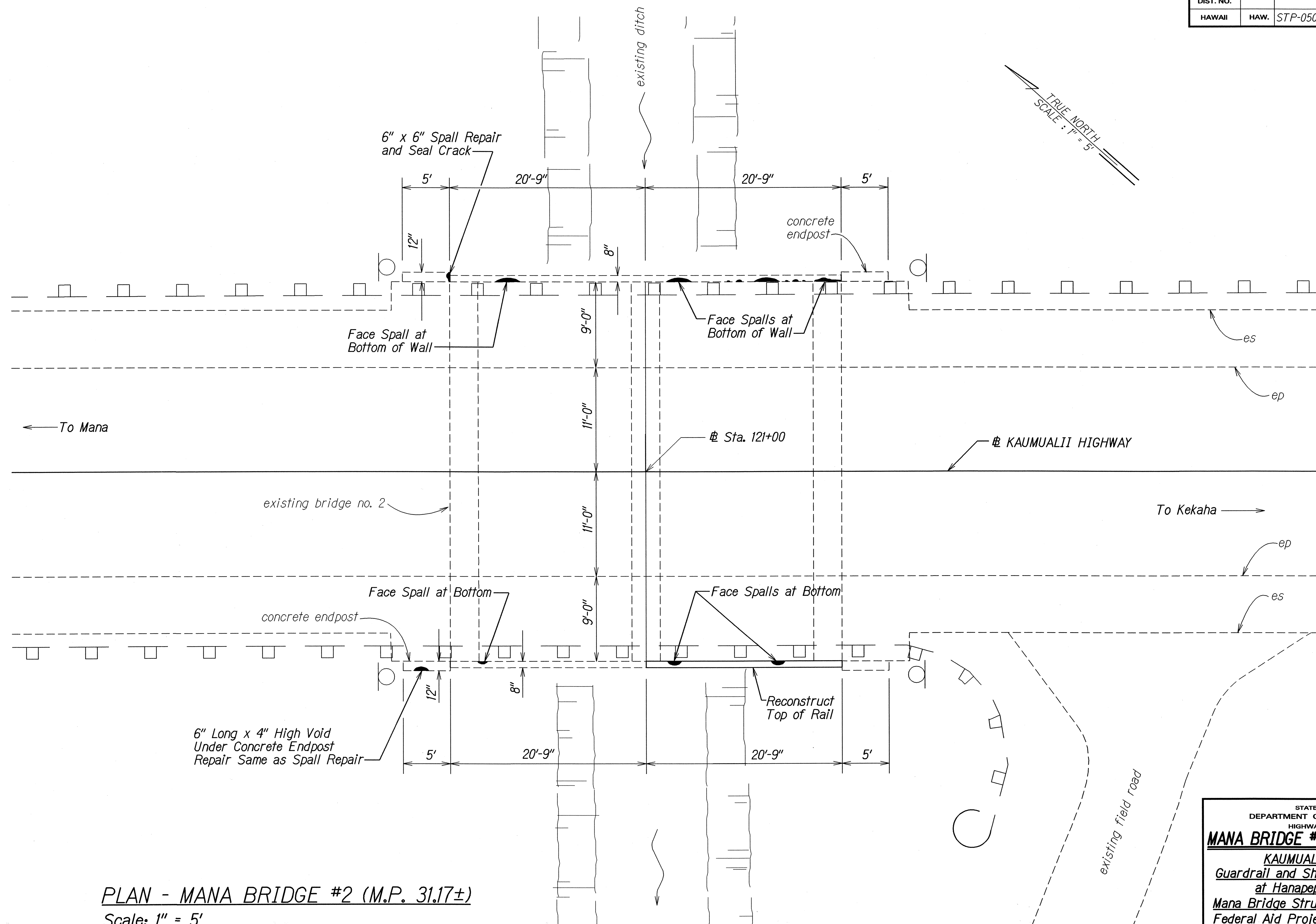
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MANA BRIDGE #1 - ROADWAY PLAN

KAUMUALII HIGHWAY
Guardrail and Shoulder Improvements
at Hanapepe Bridge and
Mana Bridge Structure Nos. 1, 2, 3 & 4
Federal Aid Project No. STP-050-1(27)
Scale: 1"=5' Date: Nov. 2004

SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(27)	2005	8	27



PLAN - MANA BRIDGE #2 (M.P. 31.17±)

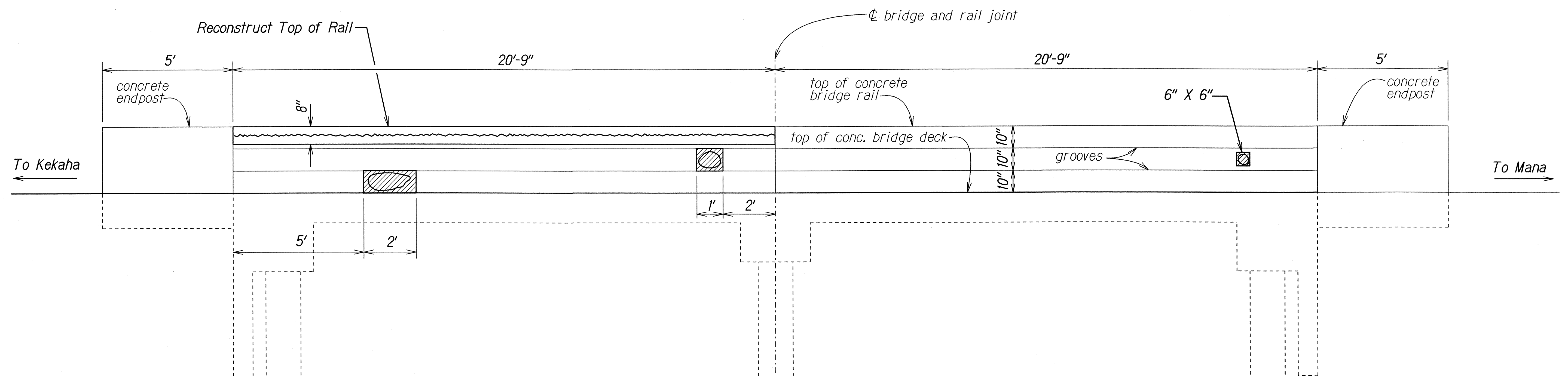
Scale: 1" = 5'

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
TRACED BY	DRAWN BY	
NOTED BY	CHECKED BY	
DESIGNED BY		
QUANTITIES BY		
CHECKED BY		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
MANA BRIDGE #2 - ROADWAY PLAN
KAUMUALII HIGHWAY
Guardrail and Shoulder Improvements
at Hanapepe Bridge and
Mana Bridge Structure Nos. 1, 2, 3 & 4
Federal Aid Project No. STP-050-1(27)
Scale: 1"=5' Date: Nov. 2004

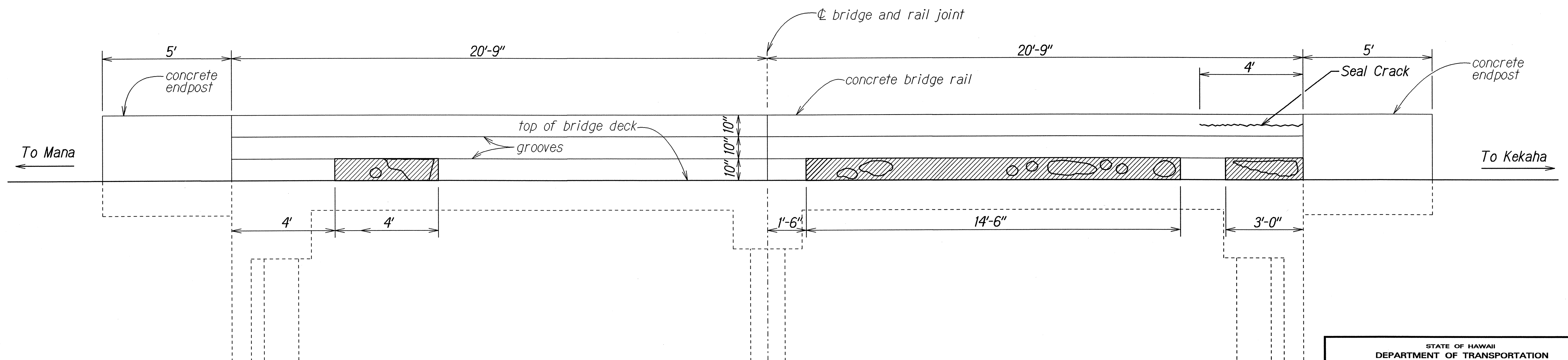
SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(27)	2005	9	27



ELEVATION - MANA BRIDGE #2 - INSIDE MAKAI

Scale: 1/2" = 1'-0"



ELEVATION - MANA BRIDGE #2 - INSIDE MAUKA

Scale: 1/2" = 1'-0"

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
TRACED BY	DRAWN BY	6/04
NOTED BY	CHECKED BY	
QUANTITIES BY		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

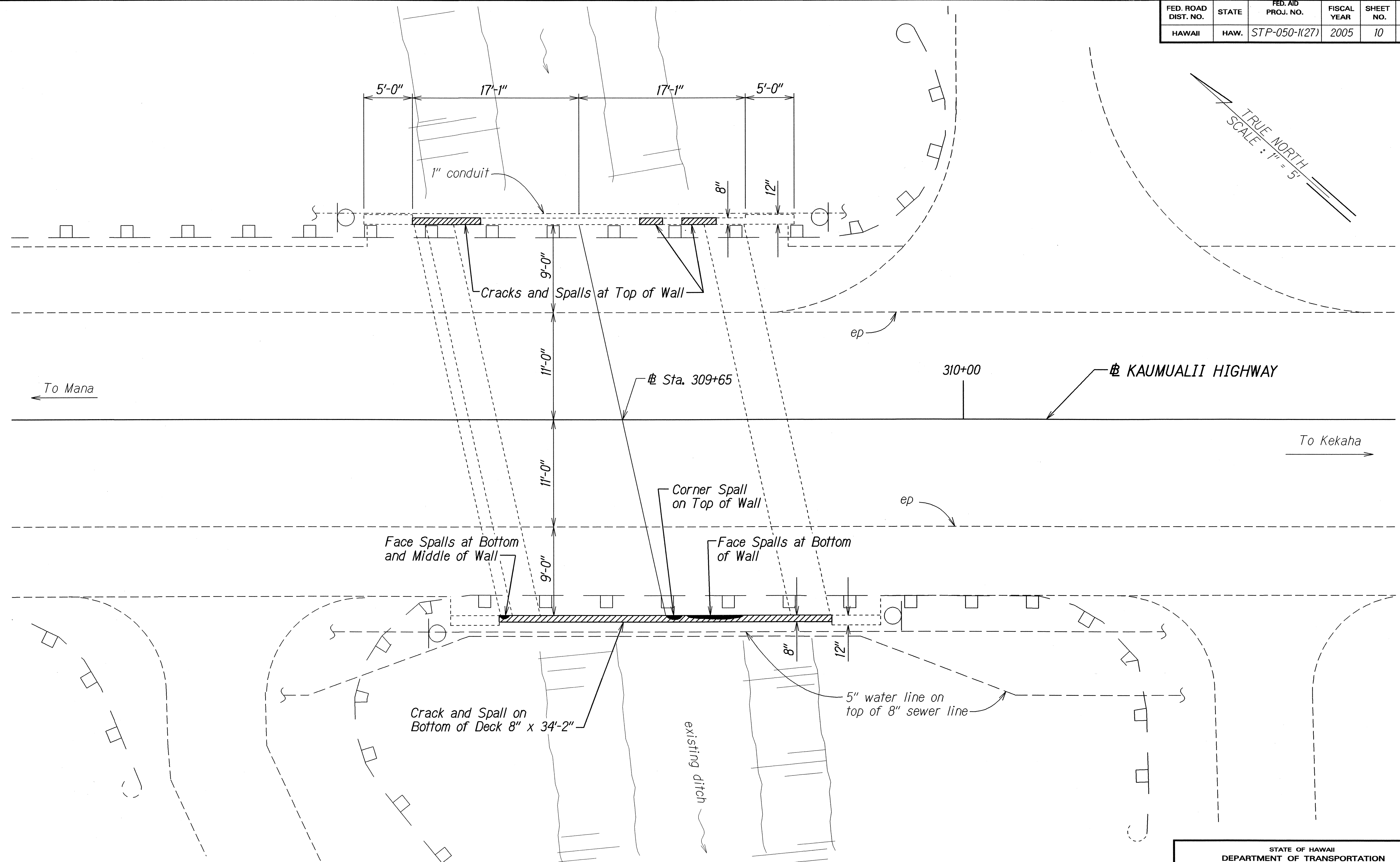
MANA BRIDGE #2 - ELEVATIONS

KAUMUALII HIGHWAY
Guardrail and Shoulder Improvements
at Hanapepe Bridge and
Mana Bridge Structure Nos. 1, 2, 3 & 4
Federal Aid Project No. STP-050-1(27)

Scale: As Shown Date: Nov. 2004

SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(27)	2005	10	27



PLAN- BRIDGE #3 (M.P. 27.59±)
Scale: 1" = 5'

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	6/04
ke2/erll	TRACED BY	
gmk/p33dgm	CHECKED BY	

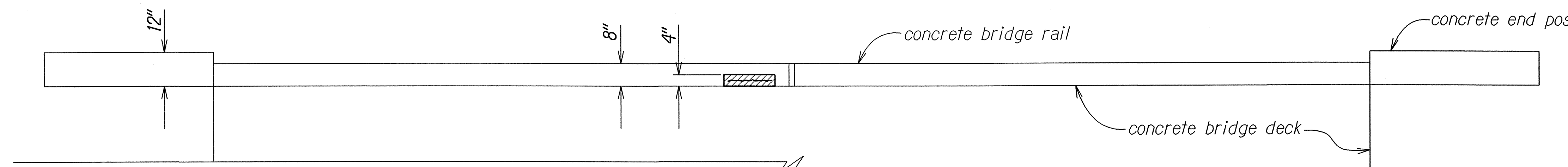
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MANA BRIDGE #3 - ROADWAY PLAN

KAUMUALII HIGHWAY
Guardrail and Shoulder Improvements
at Hanapepe Bridge and
Mana Bridge Structure Nos. 1, 2, 3 & 4
Federal Aid Project No. STP-050-1(25)
Scale: 1"=5' Date: Nov. 2004

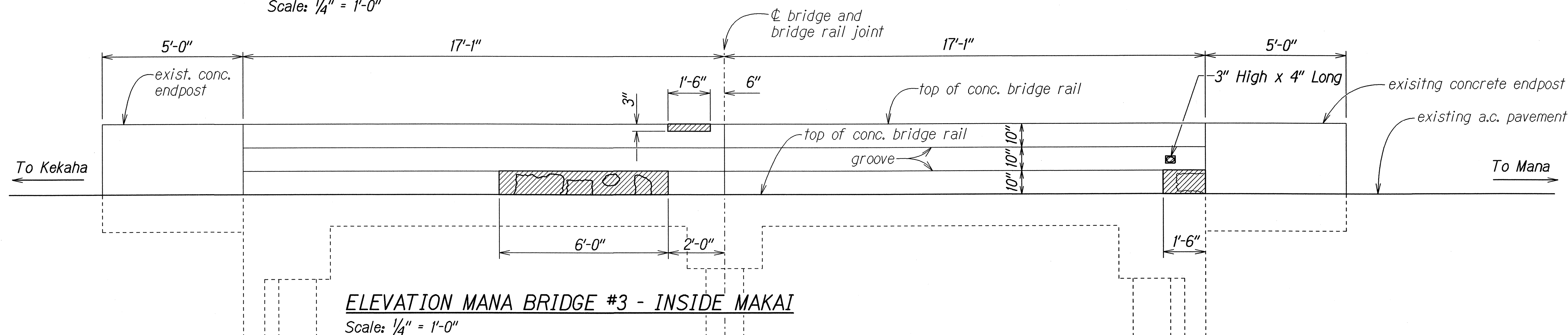
SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(27)	2005	11	27



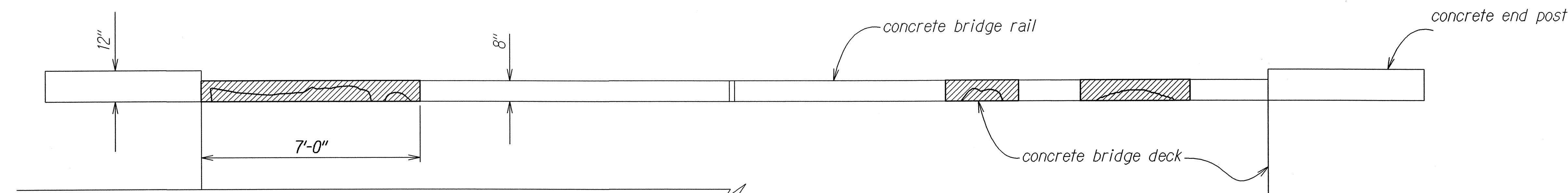
PLAN MANA BRIDGE #3 - MAKAI RAIL

Scale: $\frac{1}{4}'' = 1'-0''$



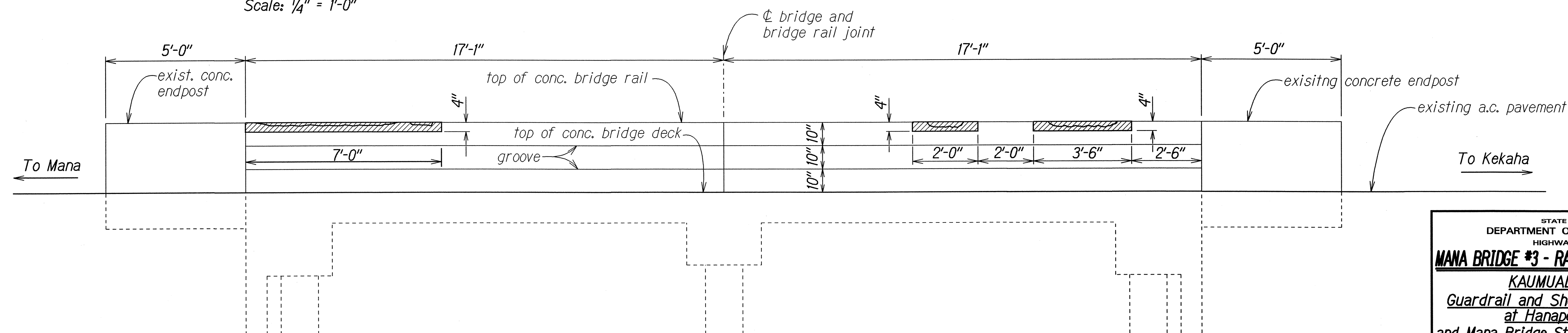
ELEVATION MANA BRIDGE #3 - INSIDE MAKAI

Scale: $\frac{1}{4}'' = 1'-0''$



PLAN MANA BRIDGE #3 - MAUKA RAIL

Scale: $\frac{1}{4}'' = 1'-0''$



ELEVATION MANA BRIDGE #3 - INSIDE MAUKA

Scale: $\frac{1}{4}'' = 1'-0''$

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
TRACED BY	DRAWN BY	6/04
NOTED BY	CHECKED BY	
QUANTITIES BY		
CHECKED BY		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

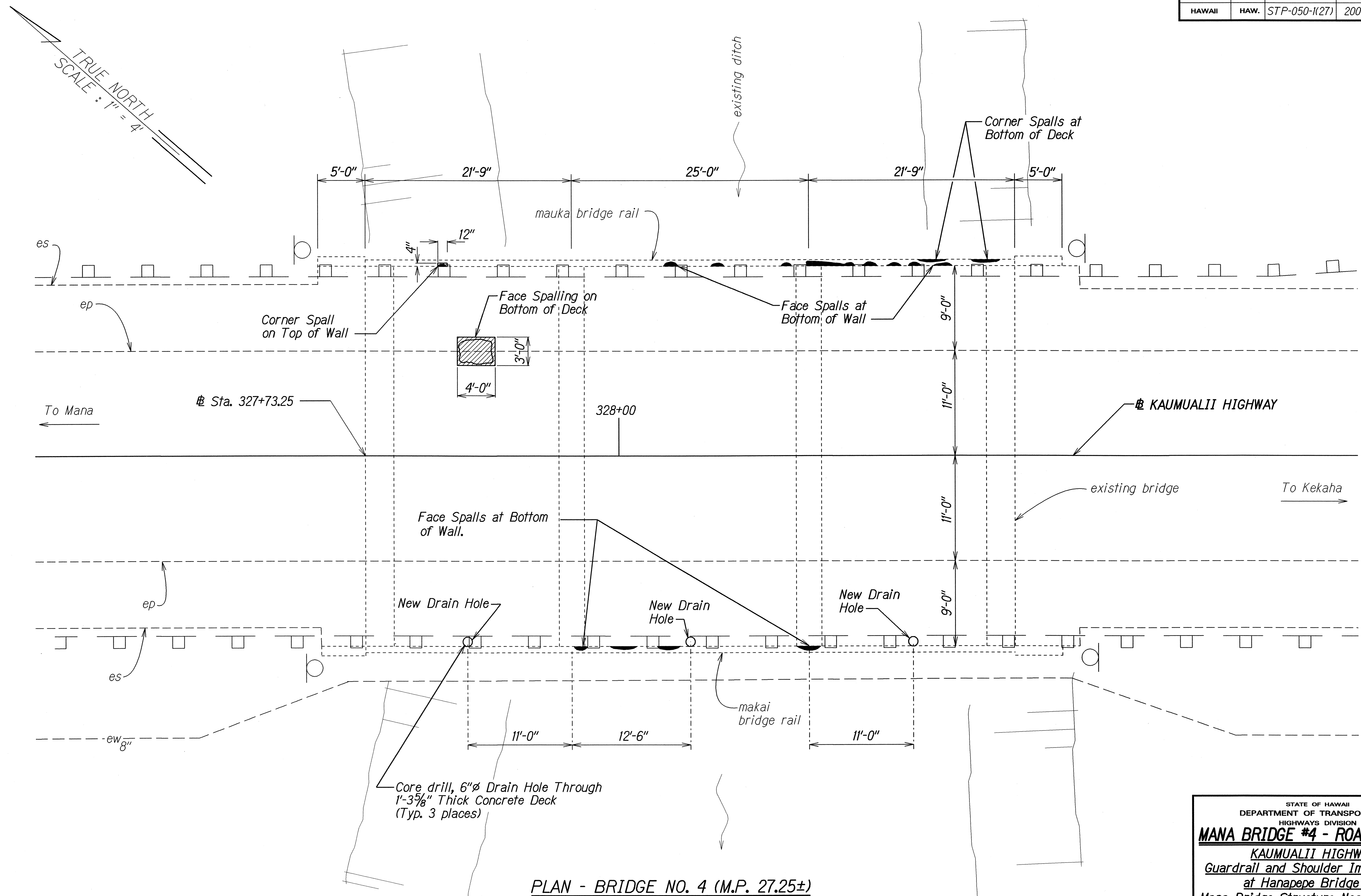
MANA BRIDGE #3 - RAIL PLAN AND ELEVATION

KAUMUALII HIGHWAY
Guardrail and Shoulder Improvements
at Hanapepe Bridge
and Mana Bridge Structure Nos. 1, 2, 3 & 4
Federal Aid Project No. STP-050-1(27)

Scale: As Shown Date: Nov. 2004

SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(27)	2005	12	27



PLAN - BRIDGE NO. 4 (M.P. 27.25±)
Scale: 1" = 5'

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
TRACED BY	DRAWN BY	6/04
NOTED BY	CHECKED BY	
DATE		

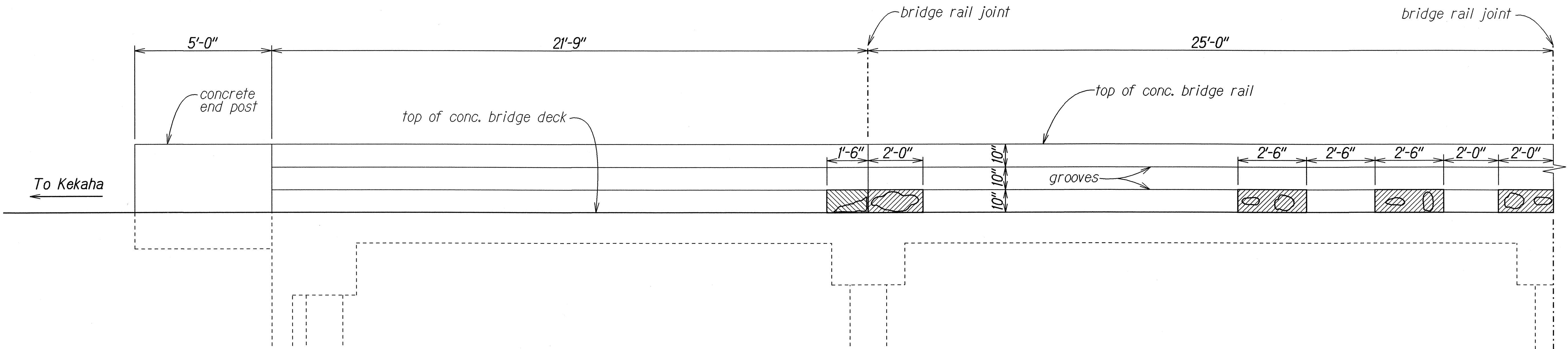
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MANA BRIDGE #4 - ROADWAY PLAN

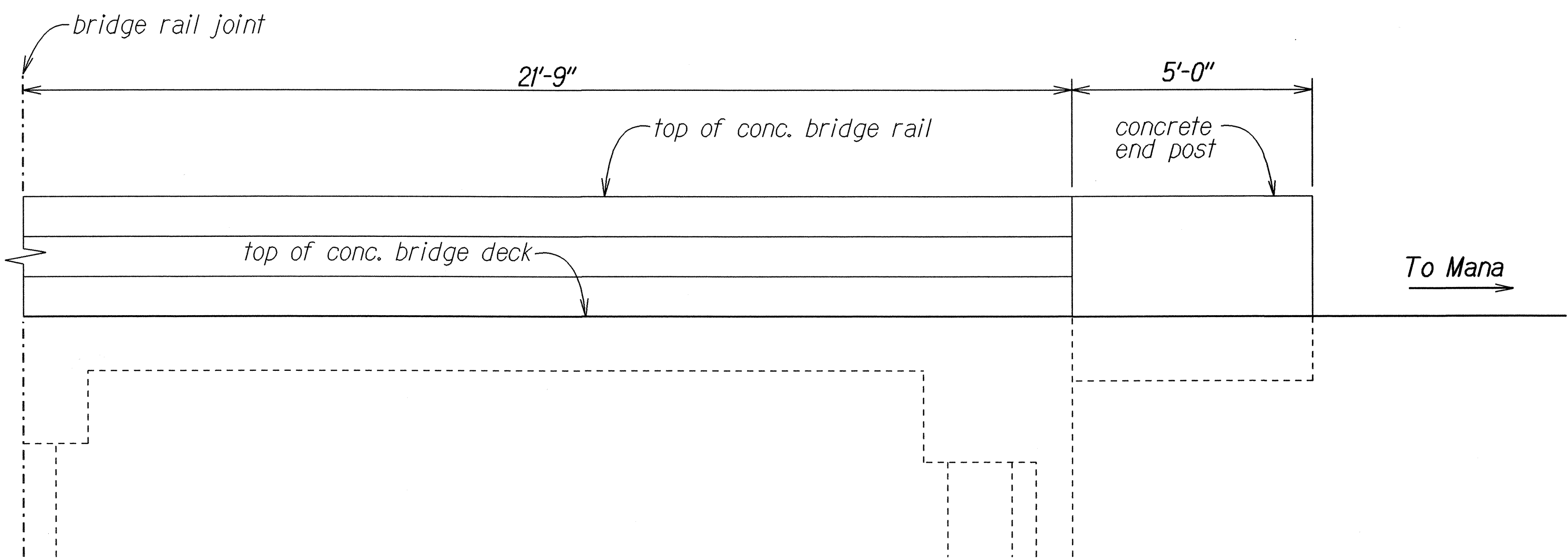
KAUMUALII HIGHWAY
Guardrail and Shoulder Improvements
at Hanapepe Bridge and
Mana Bridge Structure Nos. 1, 2, 3 & 4
Federal Aid Project No. STP-050-1(27)
Scale: 1" = 5' Date: Nov. 2004

SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(27)	2005	13	27



ELEVATION MANA BRIDGE #4 - INSIDE MAKAI
Scale: 1/4" = 1'-0"



ELEVATION MANA BRIDGE #4 - INSIDE MAKAI
Scale: 1/4" = 1'-0"

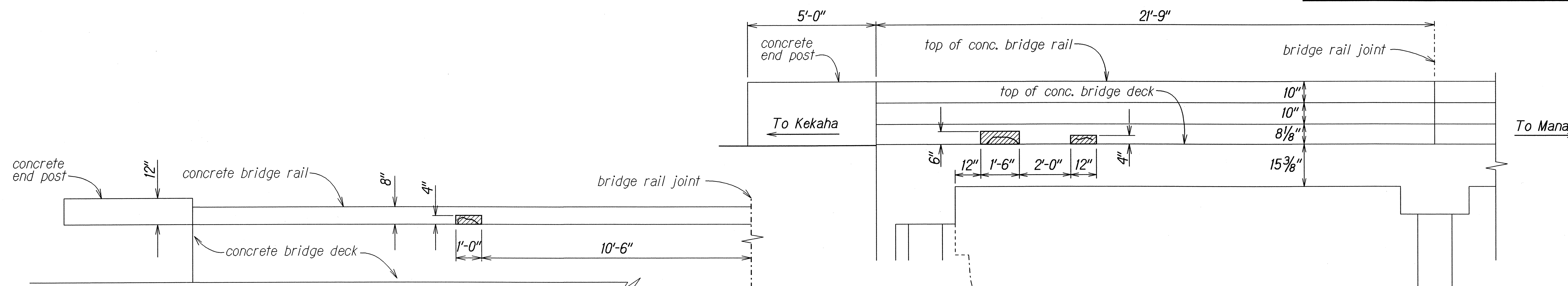
ORIGINAL PLAN	DATE
NOTED BY	6/04
DRAWN BY	
CHECKED BY	
QUANTITIES BY	
DESIGNED BY	
APPROVED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MANA BRIDGE #4 - ELEVATIONS
KAUMUALII HIGHWAY
Guardrail and Shoulder Improvements
at Hanapepe Bridge and
Mana Bridge Structure Nos. 1, 2, 3 & 4
Federal Aid Project No. STP-050-1(27)
Scale: As Shown Date: Nov. 2004

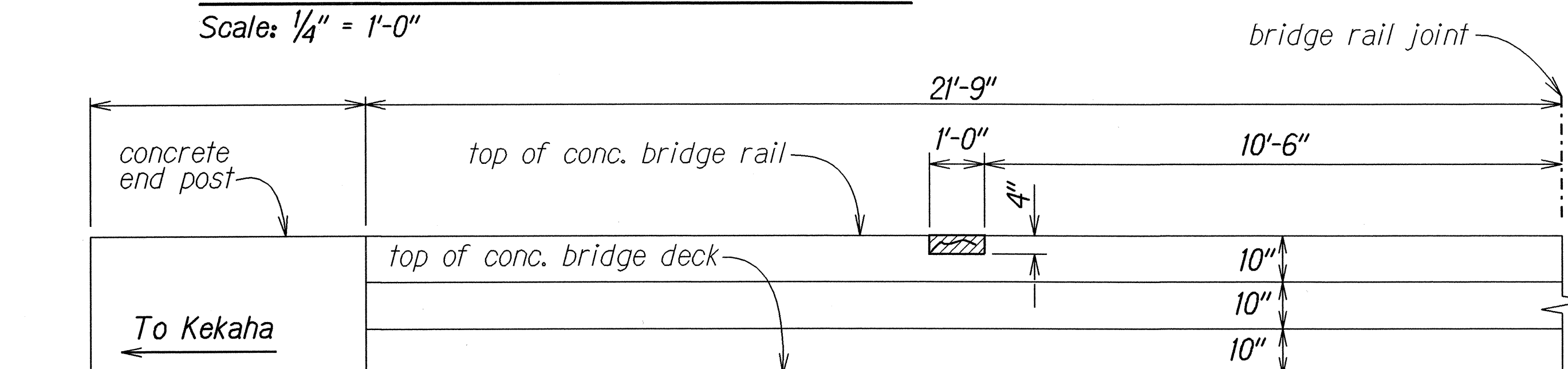
SHEET No. 1 OF 2 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(27)	2005	14	27



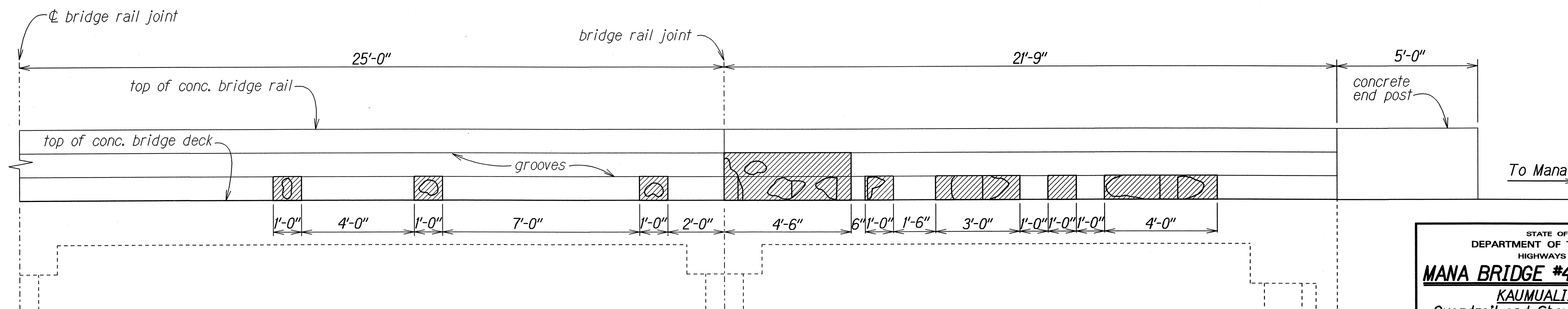
PLAN MANA BRIDGE #4 - MAUKA RAIL

Scale: $\frac{1}{4}" = 1'-0"$



ELEVATION MANA BRIDGE #4 - INSIDE MAUKA

Scale: $\frac{1}{4}" = 1'-0"$



ELEVATION MANA BRIDGE #4 - MAUKA RAIL

Scale: $\frac{1}{4}" = 1'-0"$

ORIGINAL PLAN	DATE	6/04
SURVEY PLOTTED BY		
DRAWN BY		
CHECKED BY		
NOTED BY		
DESIGNED BY		
QUANTITIES BY		
CHECKED BY		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
MANA BRIDGE #4 - ELEVATIONS
KAUMUALII HIGHWAY
Guardrail and Shoulder Improvements
at Hanapepe Bridge and
Mana Bridge Structure Nos. 1, 2, 3 & 4
Federal Aid Project No. STP-050-1(27)
Scale: As Shown Date: Nov. 2004
SHEET No. 2 OF 2 SHEETS