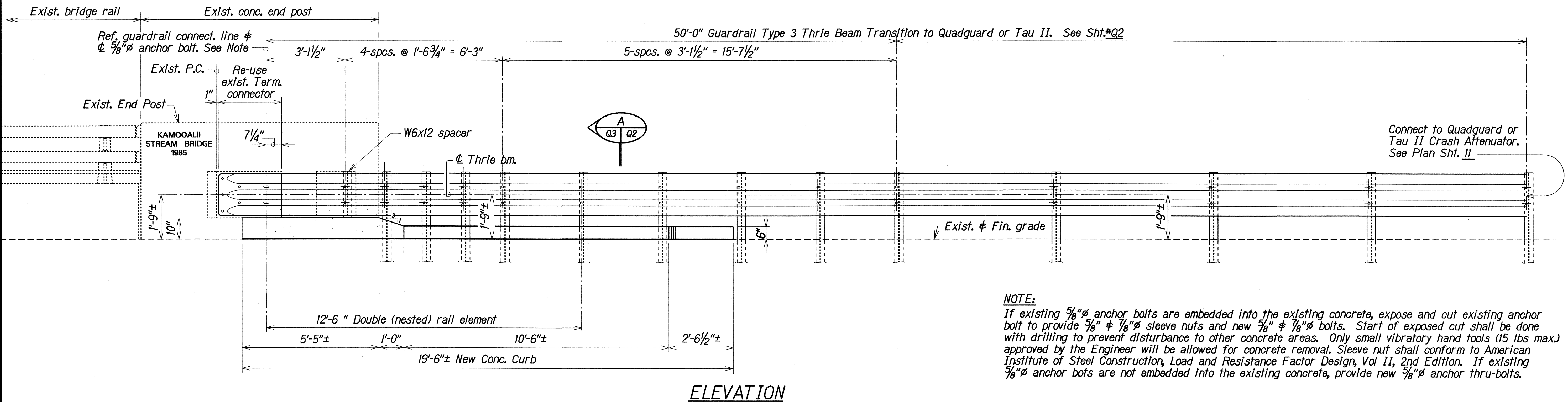
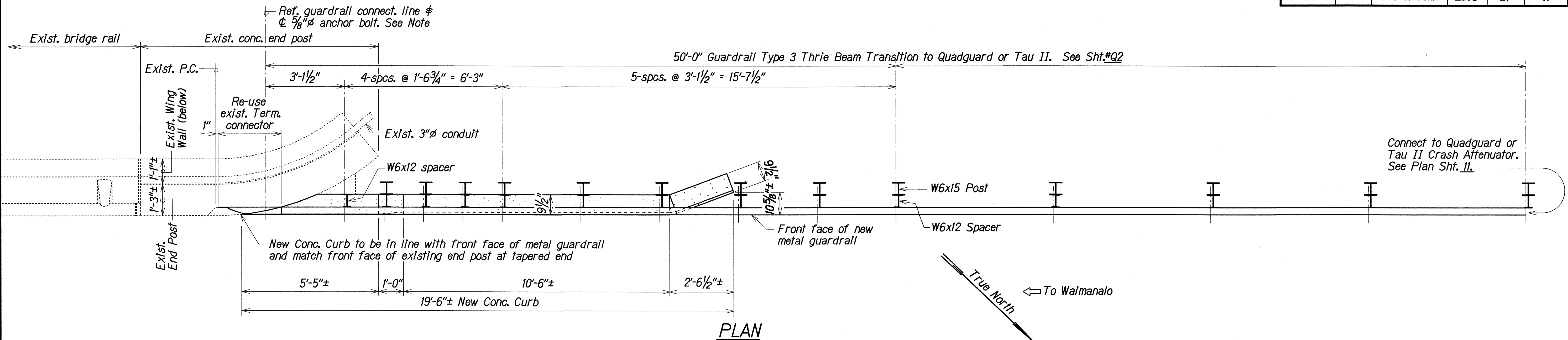


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83G-01-03M	2005	27	47



NOTE:
If existing $\frac{5}{8}$ " ϕ anchor bolts are embedded into the existing concrete, expose and cut existing anchor bolt to provide $\frac{5}{8}$ " ϕ $\frac{1}{8}$ " ϕ sleeve nuts and new $\frac{5}{8}$ " ϕ $\frac{1}{8}$ " ϕ bolts. Start of exposed cut shall be done with drilling to prevent disturbance to other concrete areas. Only small vibratory hand tools (15 lbs max.) approved by the Engineer will be allowed for concrete removal. Sleeve nut shall conform to American Institute of Steel Construction, Load and Resistance Factor Design, Vol II, 2nd Edition. If existing $\frac{5}{8}$ " ϕ anchor bolts are not embedded into the existing concrete, provide new $\frac{5}{8}$ " ϕ anchor thru-bolts.

KAMOOALII STREAM BRIDGE--METAL GUARDRAIL TRANSITION UPGRADE at END POST NO. 1
Scale: 1/2" = 1'-0"

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	FEB 2005
DRAWN BY	KSG
DESIGNED BY	JFL/KAM
CHECKED BY	JFL/KAM
APPROVED BY	PTS

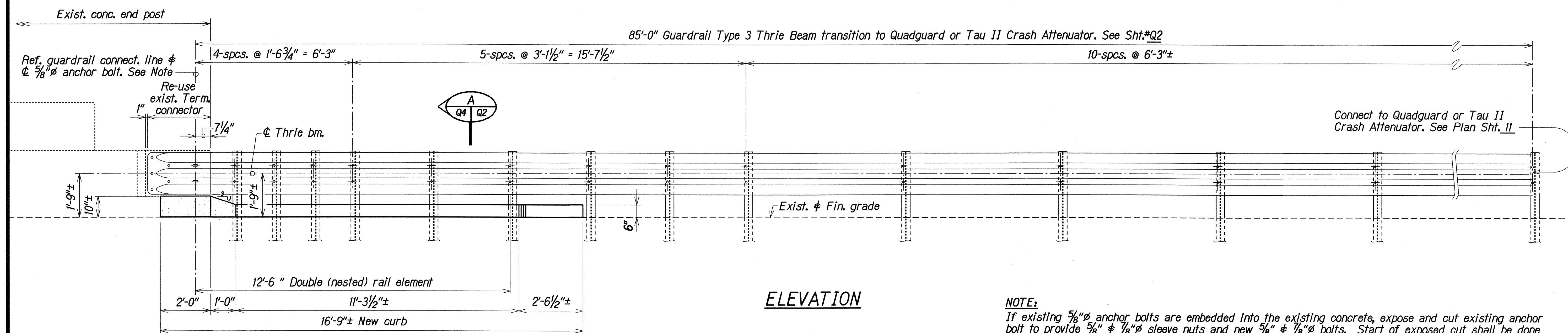
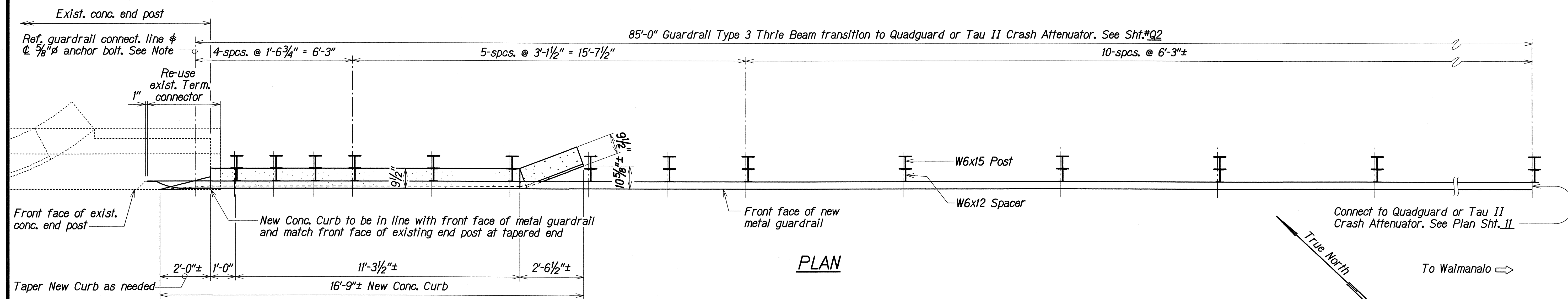
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KAMOOALII STR. BRIDGE--METAL GUARDRAIL TRANSITION UPGRADE at END POST NO. 1
KAMEHAMEHA HIGHWAY RESURFACING
Kahiko Street to Pali Highway
Project No. 83G-01-03M

Scale: As Noted Date: Feb. 2005

SHEET No. Q3 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83G-01-03M	2005	28	47



NOTE:

If existing $\frac{5}{8}$ " anchor bolts are embedded into the existing concrete, expose and cut existing anchor bolt to provide $\frac{5}{8}$ " $\times$ $\frac{1}{8}$ " sleeve nuts and new $\frac{5}{8}$ " $\times$ $\frac{1}{8}$ " bolts. Start of exposed cut shall be done with drilling to prevent disturbance to other concrete areas. Only small vibratory hand tools (15 lbs max.) approved by the Engineer will be allowed for concrete removal. Sleeve nut shall conform to American Institute of Steel Construction, Load and Resistance Factor Design, Vol 11, 2nd Edition. If existing $\frac{5}{8}$ " anchor bolts are not embedded into the existing concrete, provide new $\frac{5}{8}$ " anchor thru-bolts.

KAMOOALII STREAM BRIDGE--METAL GUARDRAIL TRANSITION UPGRADE at END POST NO. 3

Scale: $\frac{1}{2}$ " = 1'-0"

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	FEB 2005
	DESIGNED BY	FEB 2005
	CHECKED BY	FEB 2005

db4/1st2/ksy/11u/kahiko2.pdf/ckml/

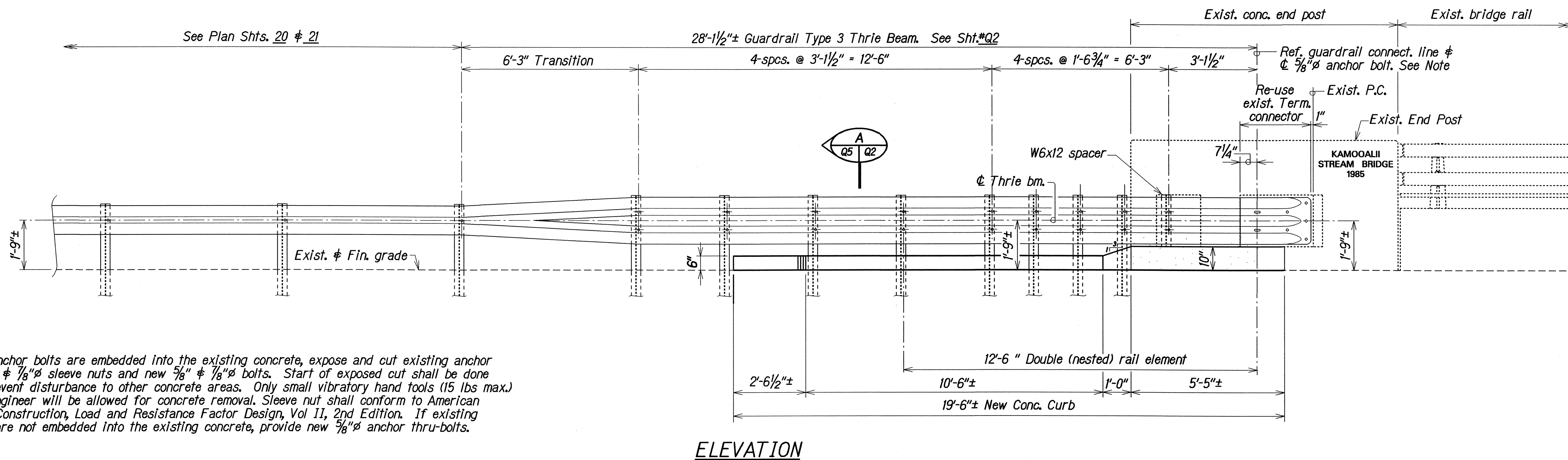
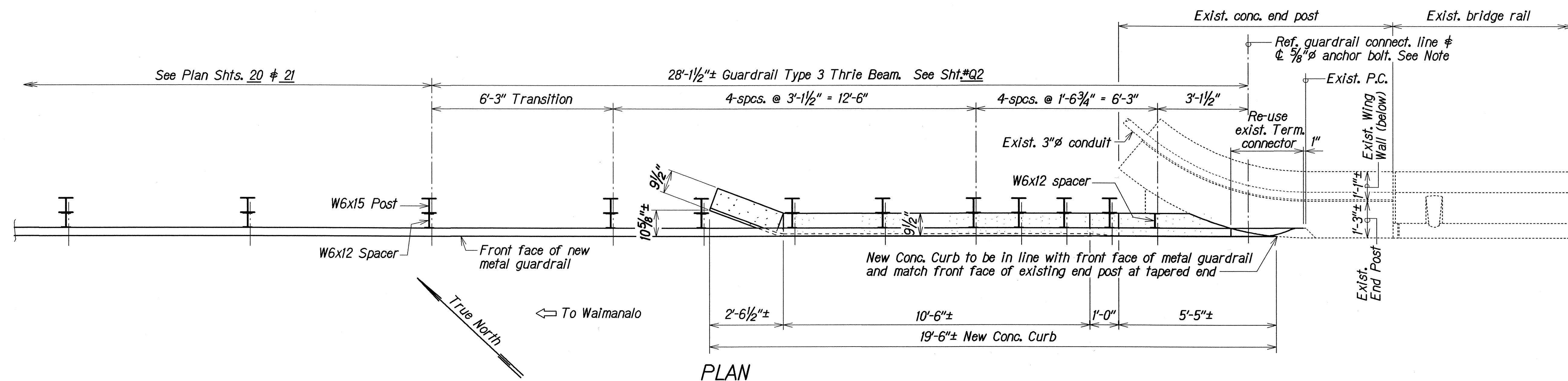
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KAMOOALII STR. BRIDGE--METAL GUARDRAIL
TRANSITION UPGRADE at END POST NO. 3
KAMEHAMEHA HIGHWAY RESURFACING
Kahiko Street to Pali Highway
Project No. 83G-01-03M

Scale: As Noted
Date: Feb. 2005

SHEET No. Q4 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83G-01-03M	2005	29	47



NOTE:
 If existing $\frac{5}{8}$ " ϕ anchor bolts are embedded into the existing concrete, expose and cut existing anchor bolt to provide $\frac{5}{8}$ " ϕ sleeve nuts and new $\frac{5}{8}$ " ϕ $\frac{1}{8}$ " ϕ bolts. Start of exposed cut shall be done with drilling to prevent disturbance to other concrete areas. Only small vibratory hand tools (15 lbs max.) approved by the Engineer will be allowed for concrete removal. Sleeve nut shall conform to American Institute of Steel Construction, Load and Resistance Factor Design, Vol II, 2nd Edition. If existing $\frac{5}{8}$ " ϕ anchor bolts are not embedded into the existing concrete, provide new $\frac{5}{8}$ " ϕ anchor thru-bolts.

KAMOOALII STREAM BRIDGE--METAL GUARDRAIL TRANSITION UPGRADE at END POST NO. 4

Scale: $\frac{1}{2}$ " = 1'-0"

ORIGINAL PLAN	DATE	DESIGNED BY	CHECKED BY	IN CHARGE
	FEB 2005	KSG	JFL/KAM	JFL/KAM
NOTED BY				
	FEB 2005			
QUANTITIES BY				
	FEB 2005			
APPROVED BY				
	FEB 2005			

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

**KAMOOALII STR. BRIDGE--METAL GUARDRAIL
 TRANSITION UPGRADE at END POST NO. 4**

KAMEHAMEHA HIGHWAY RESURFACING
 Kahiko Street to Pali Highway
 Project No. 83G-01-03M

Scale: As Noted Date: Feb, 2005