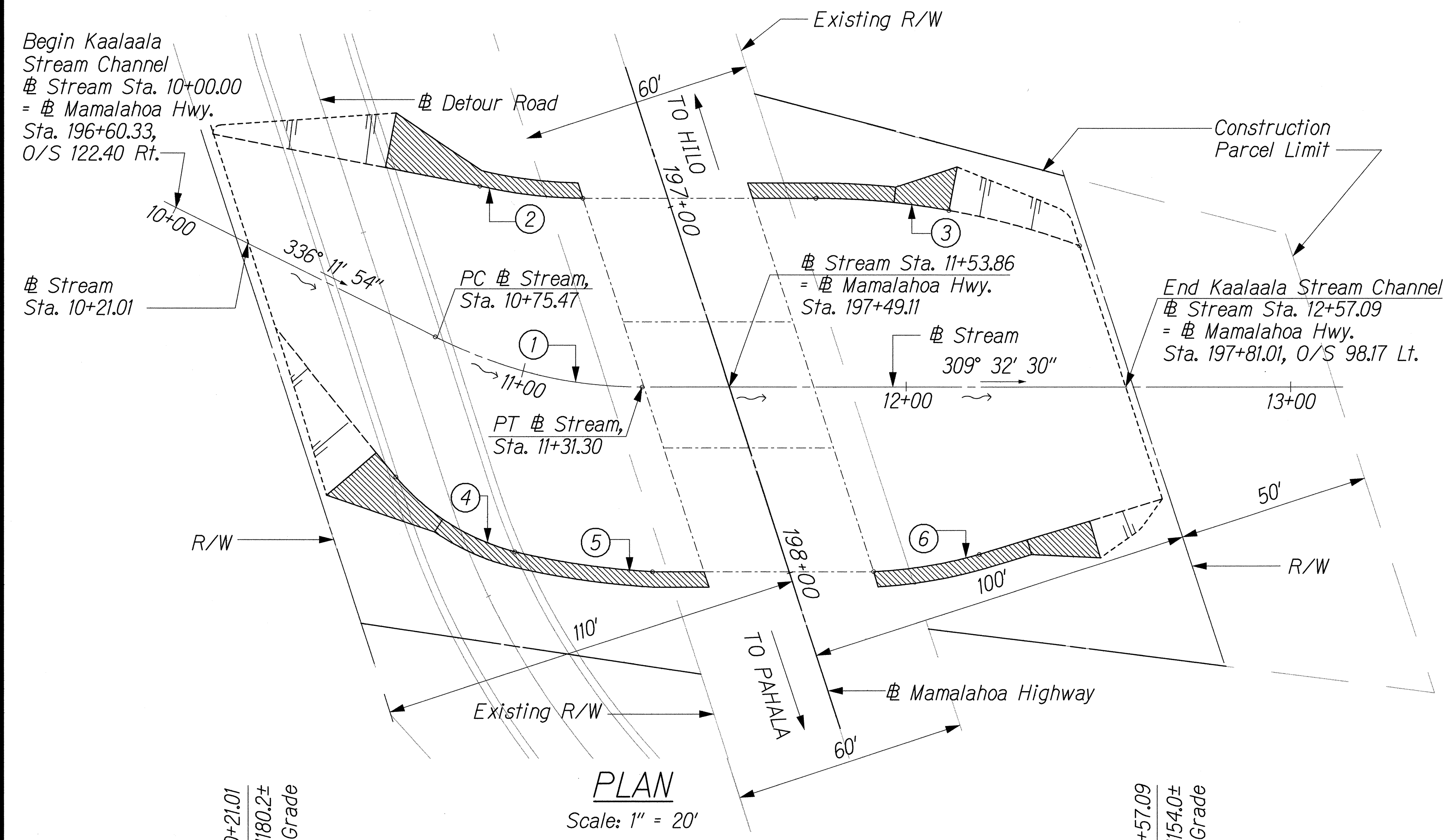
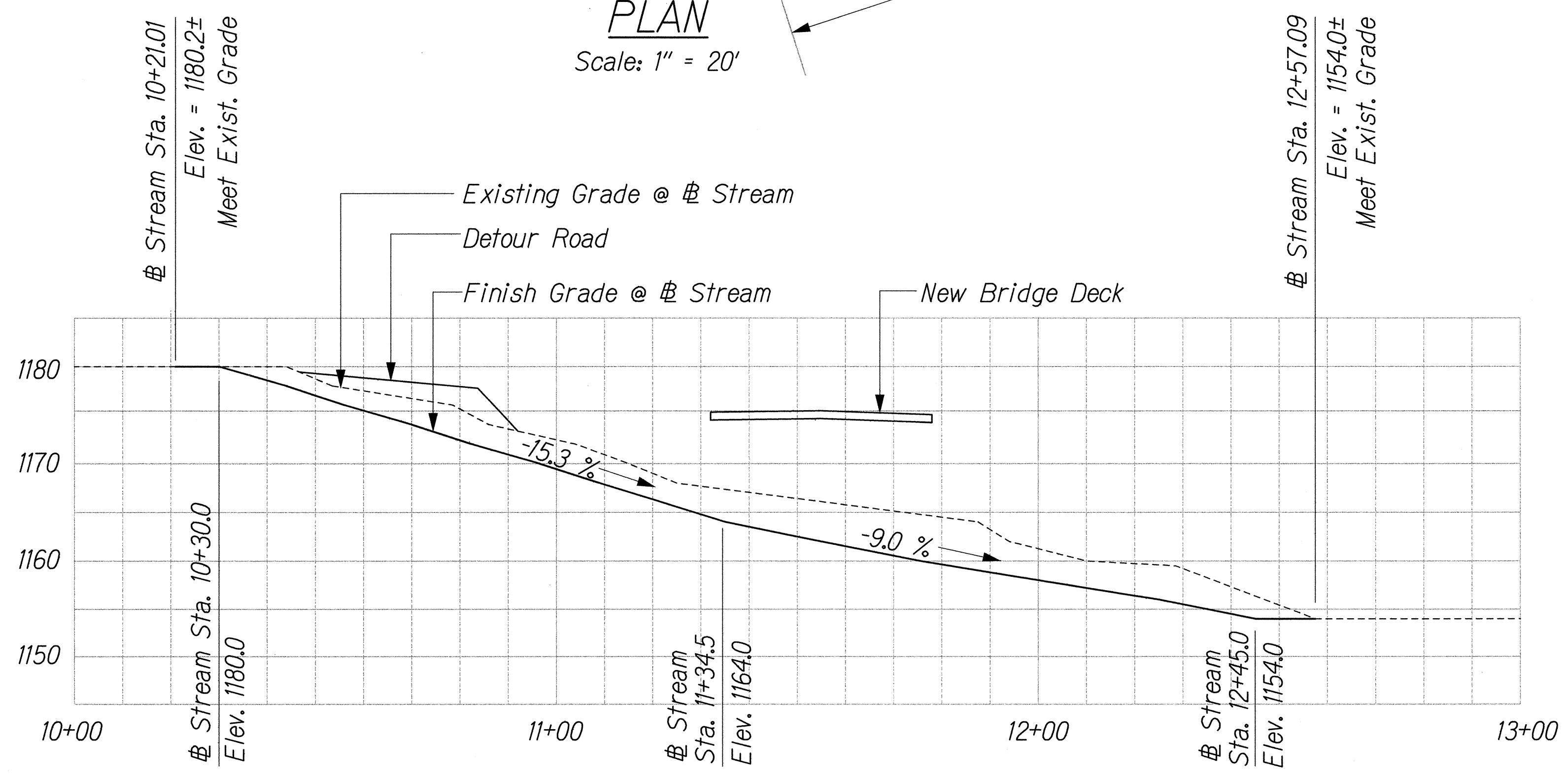


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-12(2)	2001	120	145



CURVE DATA						
	①	②	③	④	⑤	⑥
△	26° 39' 24"	12° 53' 49"	9° 58' 31"	35° 25' 1"	10° 22' 45"	13° 19' 34"
R	120.00'	120.00'	200.00'	60.00'	200.00'	120.00'
C	55.33'	26.95'	34.78'	36.50'	36.18'	27.85'
T	28.43'	13.56'	17.45'	19.16'	18.16'	14.02'
Lc	55.83'	27.01'	34.82'	37.09'	36.23'	27.91'

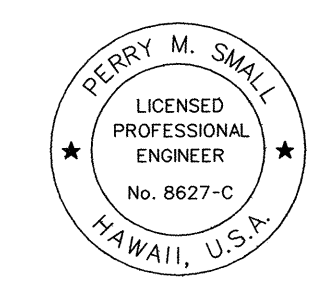


ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
DESIGNED BY		
CHECKED BY		
N.		

36 KALAALA DRAIN/STCHALDGN May 2001

VERTICAL PROFILE

Scale: Horizontal 1" = 20'
Vertical 1" = 10'



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.
Perry M. Small

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

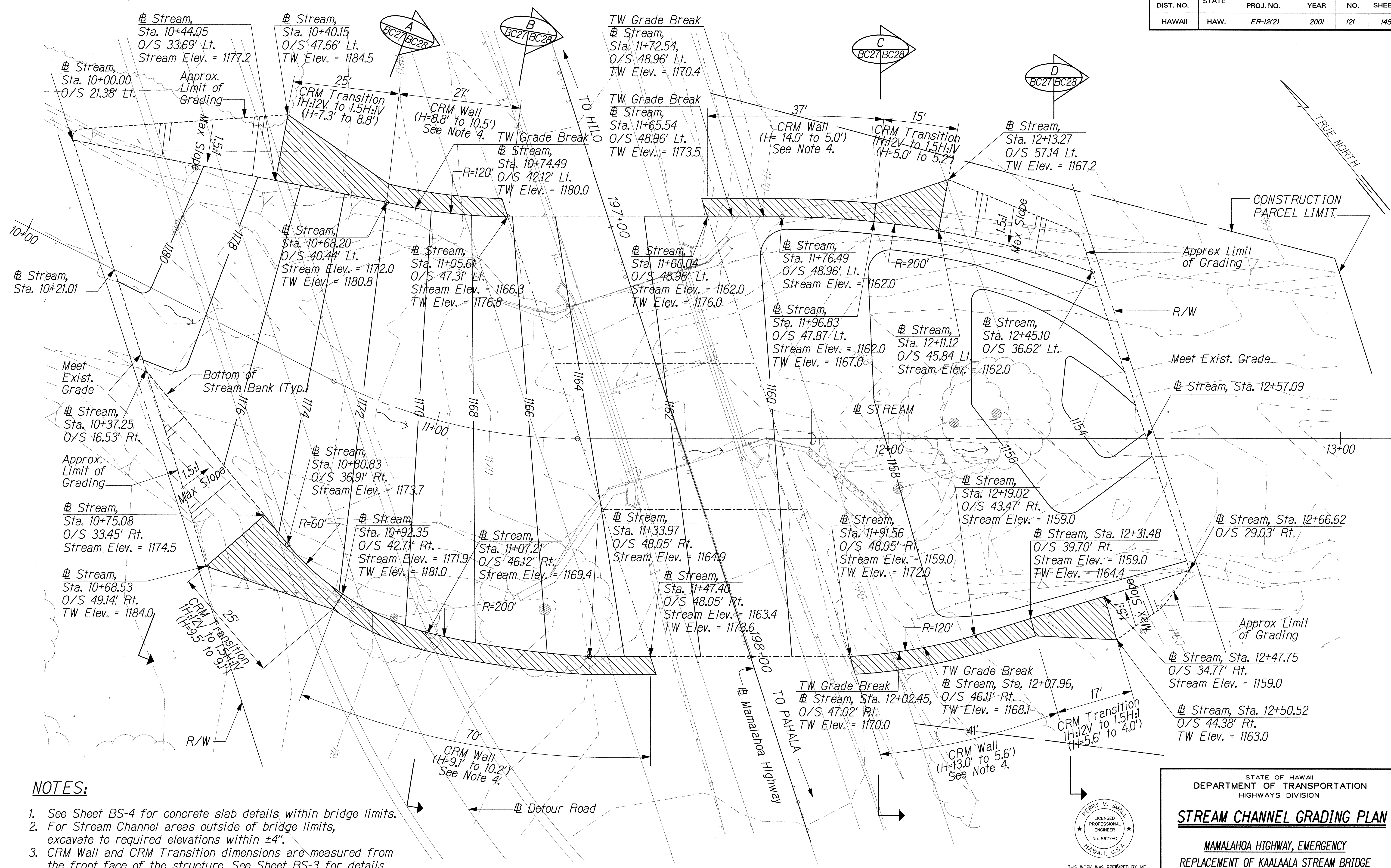
STREAM CHANNEL ALIGNMENT PLAN

MAMALAHOA HIGHWAY, EMERGENCY
REPLACEMENT OF KAALAALA STREAM BRIDGE
FEDERAL-AID PROJECT NO. ER-12(2), PAHALA, HAWAII

Scale: As Shown Date: February 20, 2001

SHEET No. BC26 OF 28 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-12(2)	2001	121	145

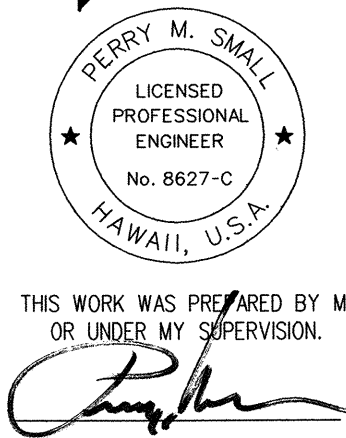


NOTES:

1. See Sheet BS-4 for concrete slab details within bridge limits.
2. For Stream Channel areas outside of bridge limits, excavate to required elevations within $\pm 4"$.
3. CRM Wall and CRM Transition dimensions are measured from the front face of the structure. See Sheet BS-3 for details.
4. Provide 5 LF CRM Wall transition at connection with abutments. Transition front face of CRM Walls (1H:12V to Vertical) to match front face of abutment walls.

SURVEY PLOTTED BY	DATE
DESIGNED BY	
NOTED BY	
CHECKED BY	

12/KAALALA/DRAIN/STRMCH02.dgn May 2001



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

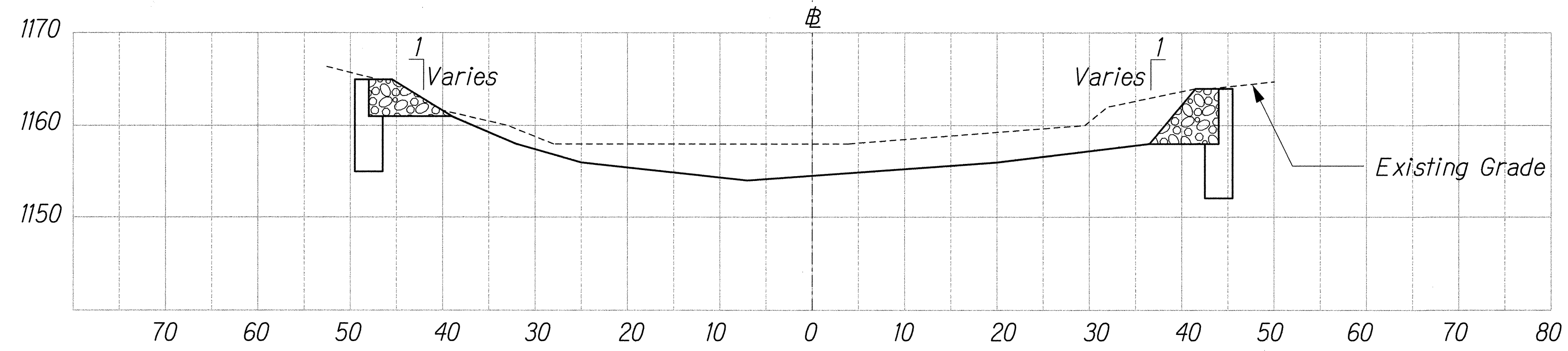
STREAM CHANNEL GRADING PLAN

MAMALAHOA HIGHWAY, EMERGENCY
REPLACEMENT OF KAALALA STREAM BRIDGE
FEDERAL-AID PROJECT NO. ER-12(2), PAHALA, HAWAII

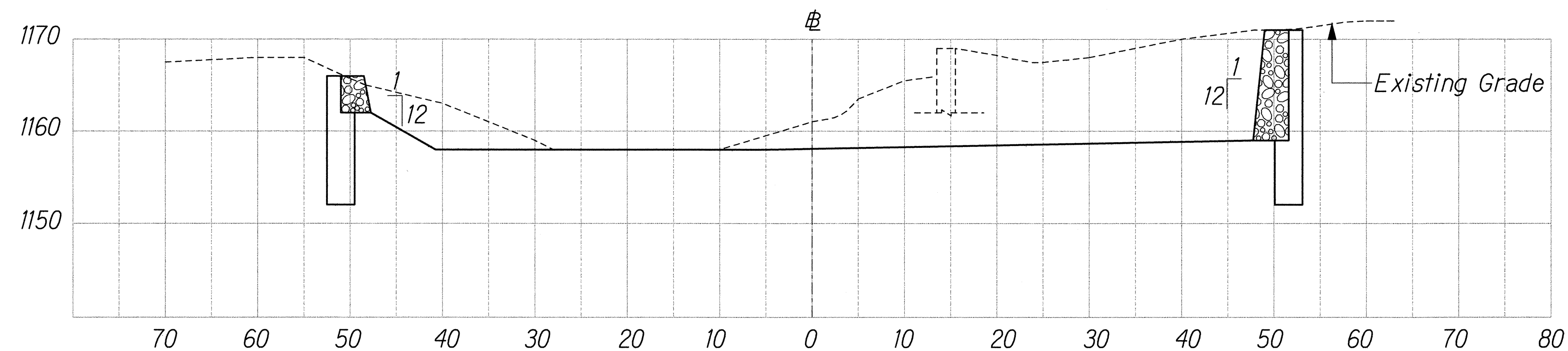
Scale: 1" = 10' Date: February 20, 2001

SHEET No. BC27 OF 28 SHEETS

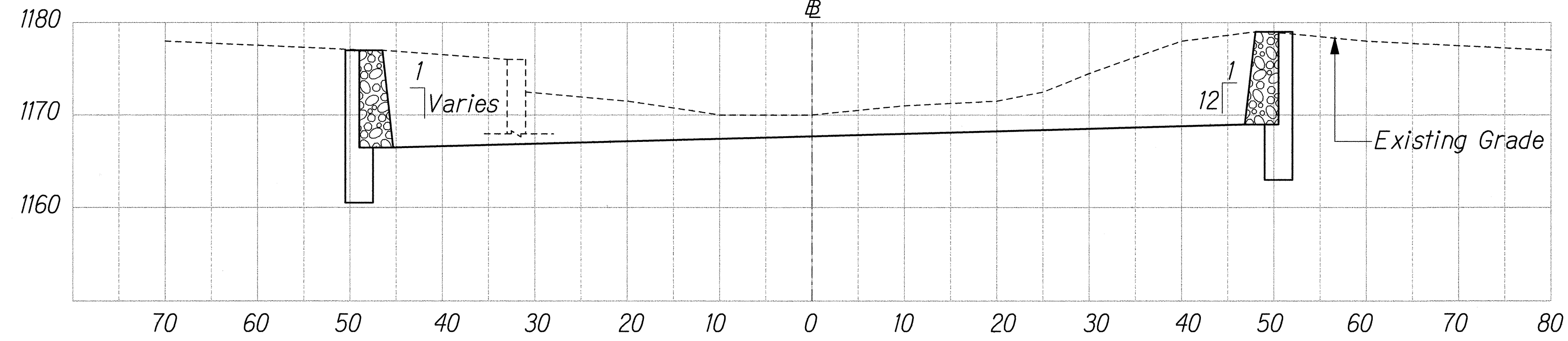
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-12(2)	2001	122	145



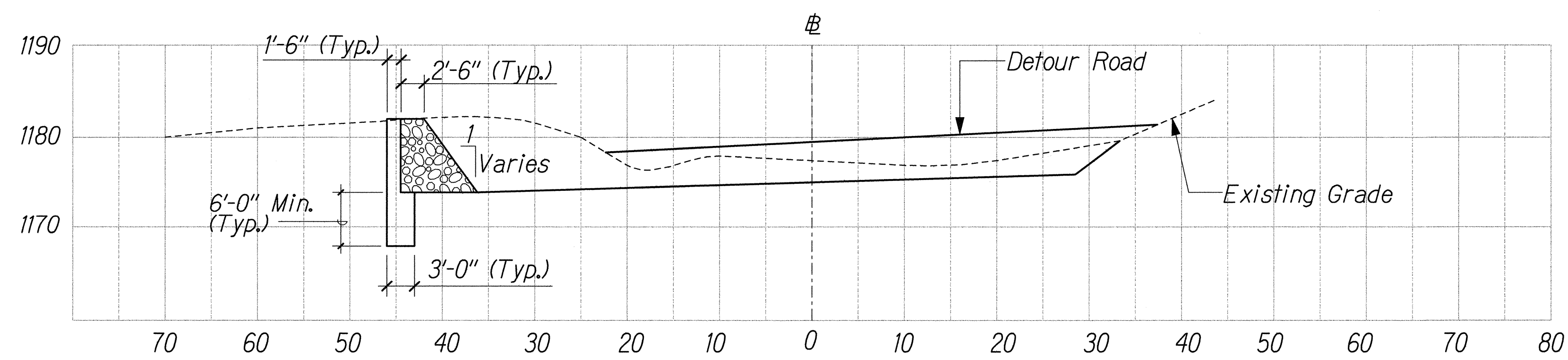
SECTION D
Scale: 1" = 10'-0" BC27/BC28



SECTION C
Scale: 1" = 10'-0" BC27/BC28



SECTION B
Scale: 1" = 10'-0" BC27/BC28



SECTION A
Scale: 1" = 10'-0" BC27/BC28

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

JK/KALALAA/SEC/XS3.dgn May 2001

PERRY M. SMALL
LICENSED PROFESSIONAL ENGINEER
No. 8627-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STREAM CHANNEL-CROSS SECTIONS

MAMALAHOA HIGHWAY, EMERGENCY
REPLACEMENT OF KAALALA STREAM BRIDGE
FEDERAL-AID PROJECT NO. ER-12(2), PAHALA, HAWAII

Scale: As Shown Date: February 20, 2001

SHEET No. BC28 OF 28 SHEETS