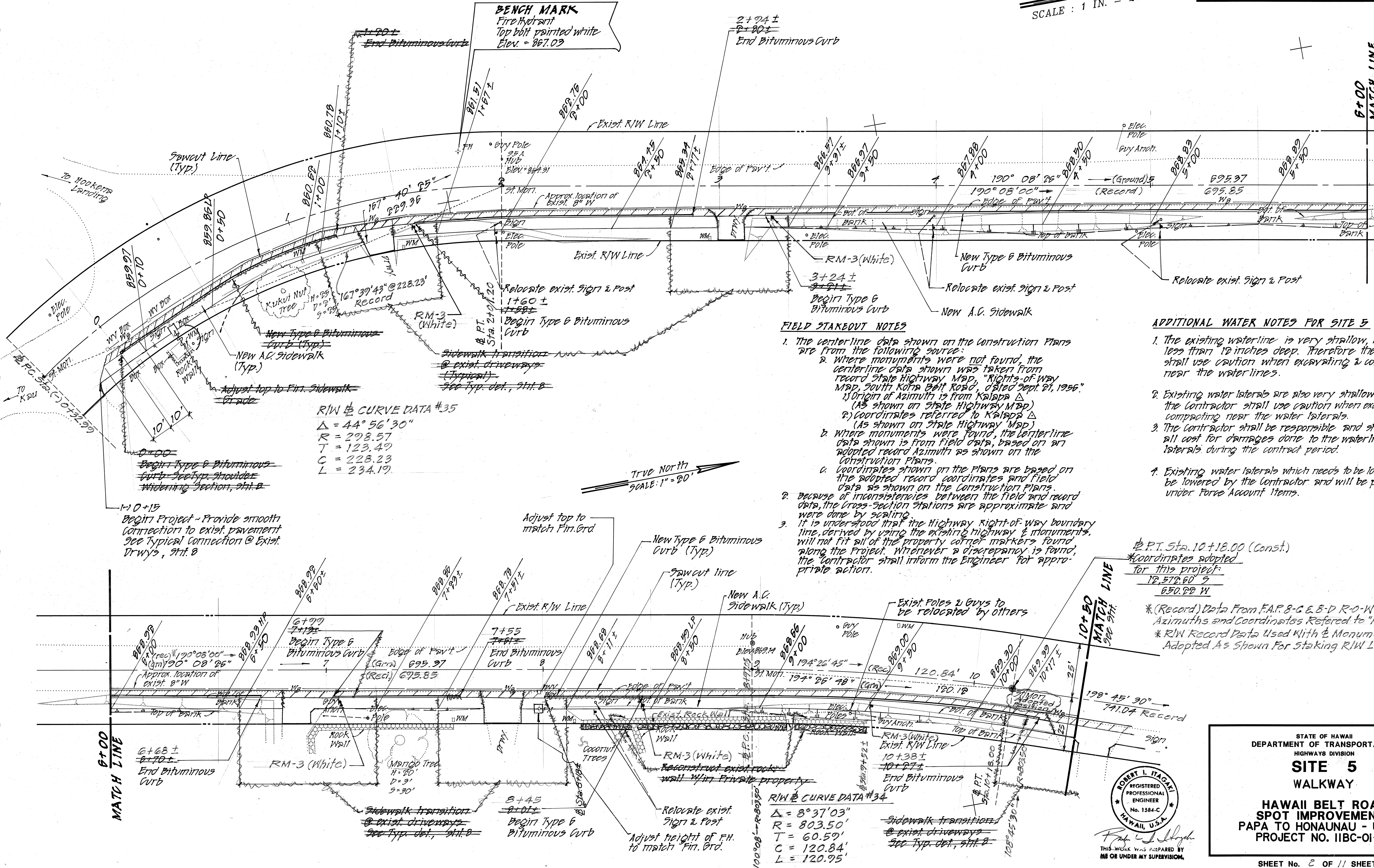


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	11BC-01-90	1989	9	36

True North
SCALE: 1 IN. = 20 FT.



R/W & CURVE DATA #35
 $\Delta = 44^\circ 56' 30''$
 $R = 278.57$
 $T = 123.49$
 $C = 228.23$
 $L = 234.19$

FIELD STAKEOUT NOTES

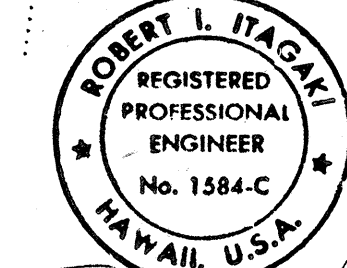
- The centerline data shown on the Construction Plans are from the following source:
 - Where monuments were not found, the centerline data shown was taken from record State Highway Map, "Rights-of-Way Map, South Kona Belt Road, dated Sept. 21, 1986."
 - Origin of Azimuth is from Kalapa Δ (As shown on State Highway Map)
 - Coordinates referred to Kalapa Δ (As shown on State Highway Map)
 - Where monuments were found, the centerline data shown is from field data, based on an adopted record Azimuth as shown on the Construction Plans.
 - Coordinates shown on the Plans are based on the adopted record coordinates and field data as shown on the Construction Plans.
- Because of inconsistencies between the field and record data, the cross-section stations are approximate and were done by scaling.
- It is understood that the Highway Right-of-Way boundary line, derived by using the existing highway & monuments, will not fit all of the property corner markers found along the Project. Whenever a discrepancy is found, the Contractor shall inform the Engineer for appropriate action.

ADDITIONAL WATER NOTES FOR SITE 5

- The existing waterline is very shallow, in places less than 18 inches deep. Therefore the Contractor shall use caution when excavating & compacting near the waterlines.
- Existing water laterals are also very shallow, therefore the Contractor shall use caution when excavating and compacting near the water laterals.
- The Contractor shall be responsible and shall bear all cost for damages done to the waterline and laterals during the contract period.
- Existing water laterals which needs to be lowered will be lowered by the Contractor and will be paid for under Force Account Items.

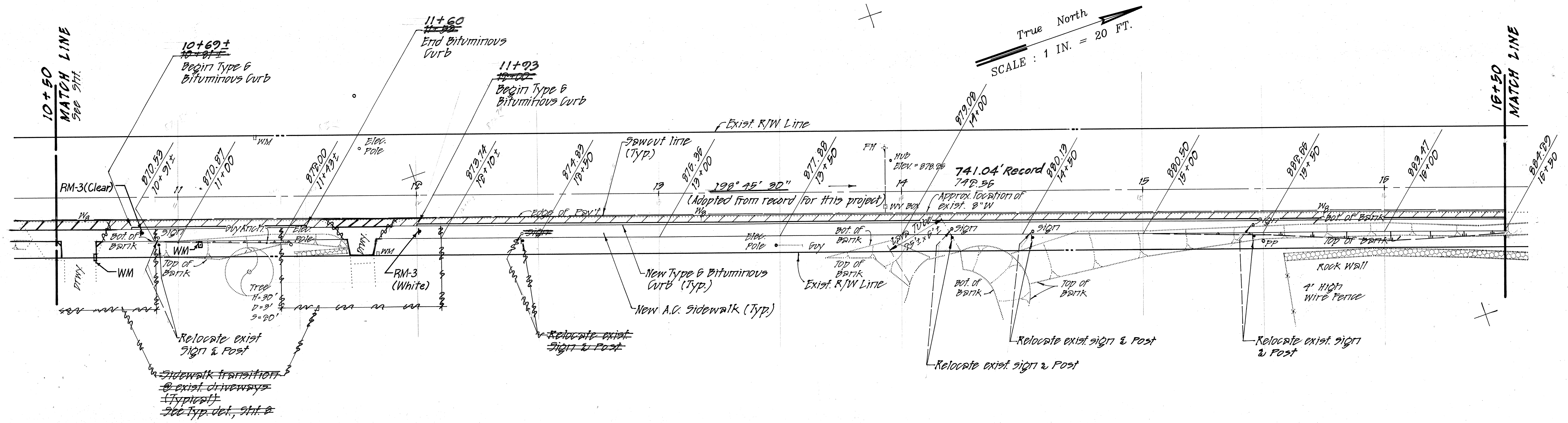
Δ P.T. Sta. 10+18.00 (Const.)
 *Coordinates adopted for this project:
 17,572.60' S
 650.88' W

* (Record) Data From F.A.P. 8-G & 8-D R-O-W Maps, Azimuths and Coordinates Referred to "KALAPA" Δ .
 * R/W Record Data Used With Δ Monuments Adopted As Shown For Staking R/W Lines.



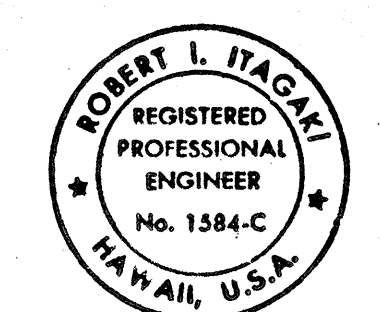
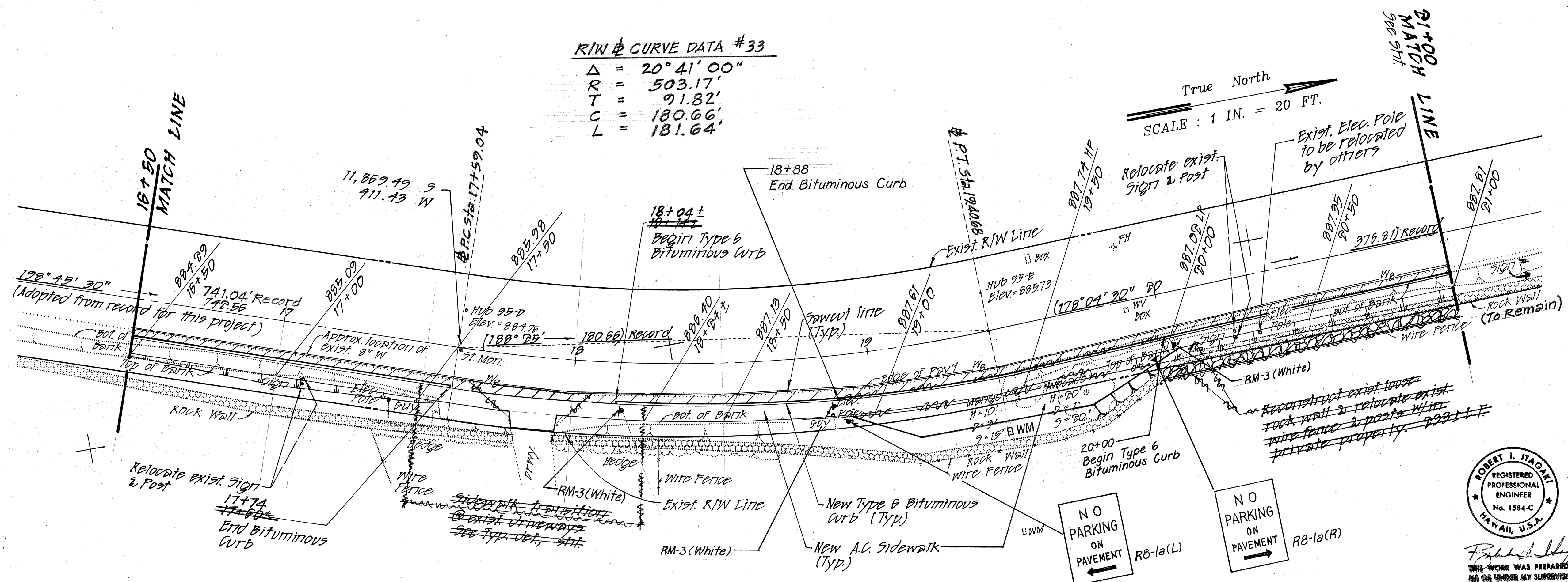
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
SITE 5
WALKWAY
HAWAII BELT ROAD
SPOT IMPROVEMENTS
PAPA TO HONAUNAU - UNIT I
PROJECT NO. IIBC-01-90

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	11BC-01-90	1989	10	36



R/W CURVE DATA #33

Δ	=	20° 41' 00"
R	=	503.17'
T	=	91.82'
C	=	180.66'
L	=	181.64'



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE 5

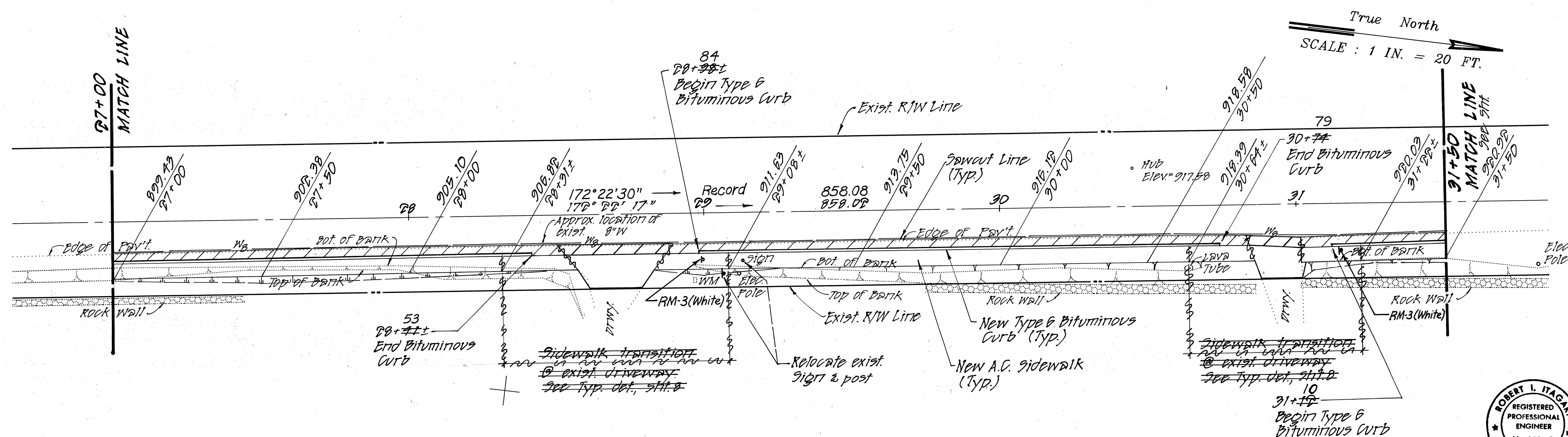
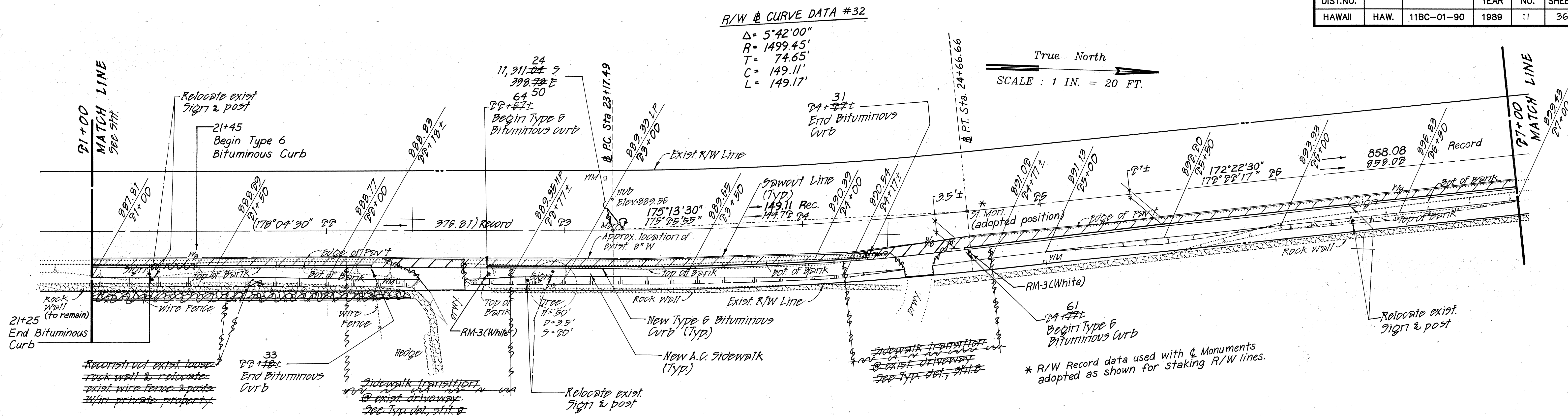
WALKWAY

**HAWAII BELT ROAD
SPOT IMPROVEMENTS
PAPA TO HONAUNAU - UNIT I
PROJECT NO. IIBC-01-90**

SHEET No. 3 OF 11 SHEETS

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
CHECKED BY	
NO.	

FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETST
HAWAII	HAW.	11BC-01-90	1989	11	36



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SITE 5
WALKWAY

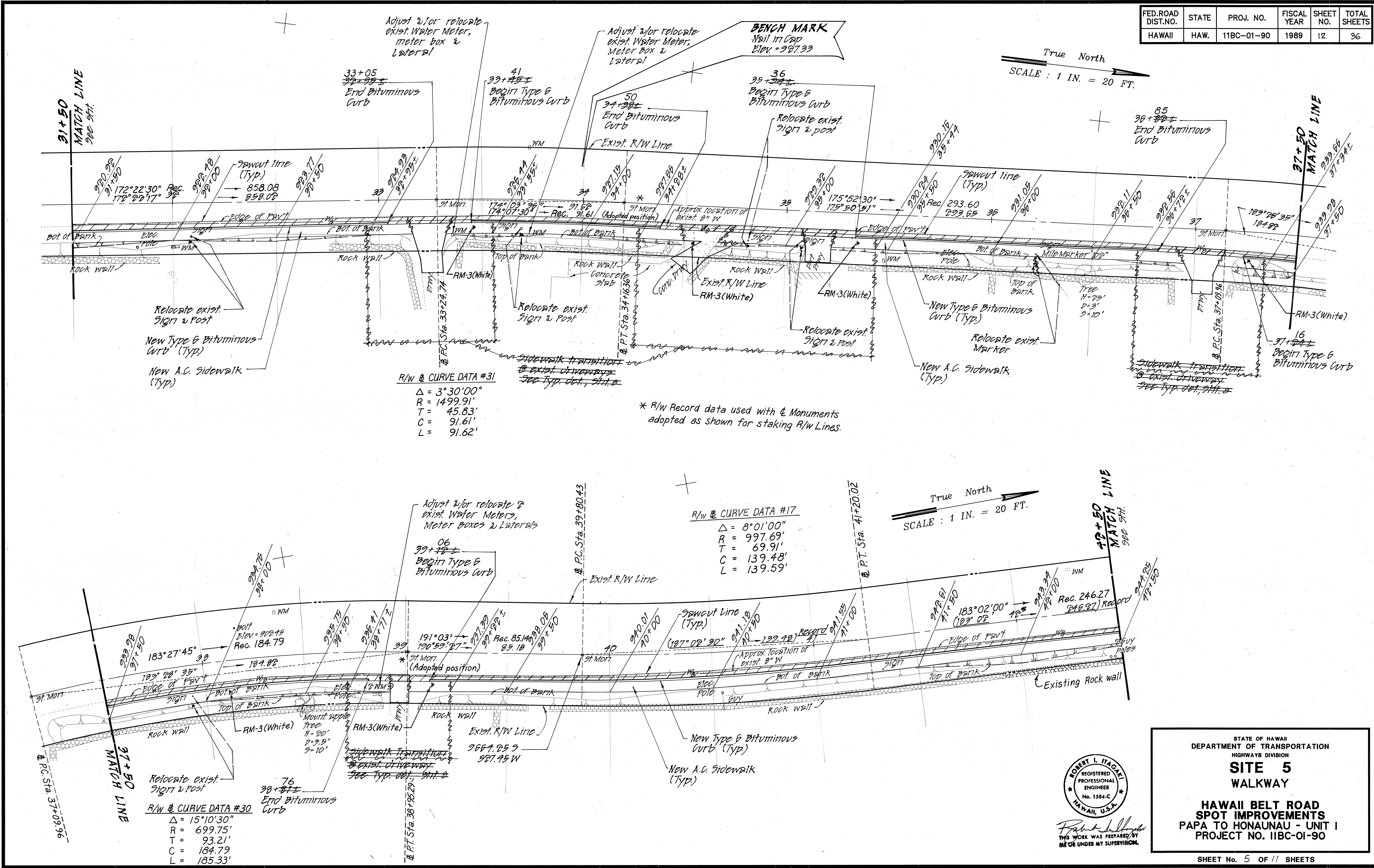
**HAWAII BELT ROAD
SPOT IMPROVEMENTS
PAPA TO HONAUNAU - UNIT I
PROJECT NO. IIBC-01-90**

SHEET No. 4 OF 11 SHEETS

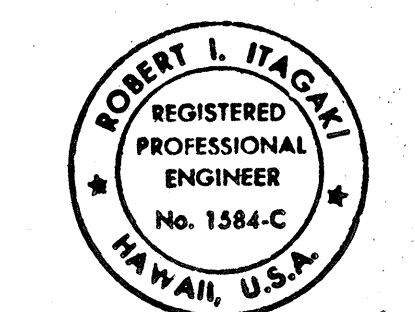
ORIGINAL PLAN	SURVEY PLOTTED BY _____ DATE _____
NOTE BOOK	DRAWN BY _____
	TRACED BY _____
	DESIGNED BY _____
	QUANTITIES BY _____
No. _____	CHECKED BY _____

19-100 File:P-3 Disk:Plan 12-5-89

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	11BC-01-90	1989	12	36



ORIGINAL PLAN	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
NO.	

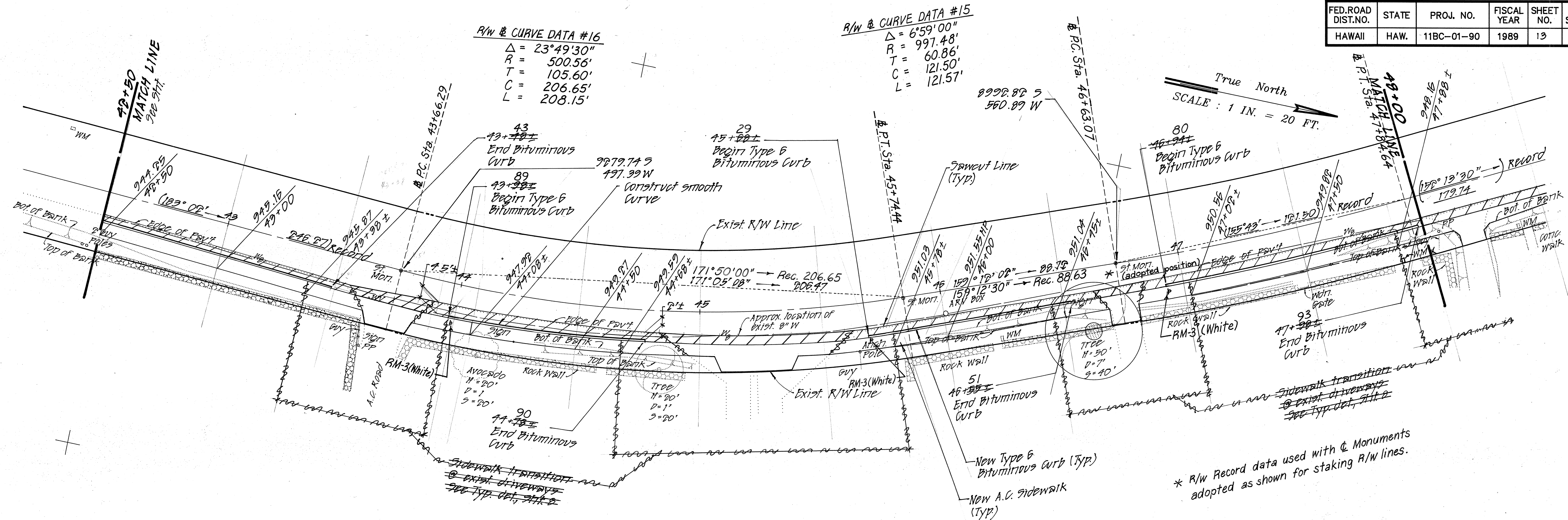


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SITE 5
WALKWAY
HAWAII BELT ROAD
SPOT IMPROVEMENTS
PAPA TO HONAUNAU - UNIT I
PROJECT NO. IIBC-01-90

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	11BC-01-90	1989	13	36

R/W & CURVE DATA #15
 $\Delta = 6^{\circ}59'00''$
 $R = 997.48'$
 $T = 60.86'$
 $C = 121.50'$
 $L = 121.57'$

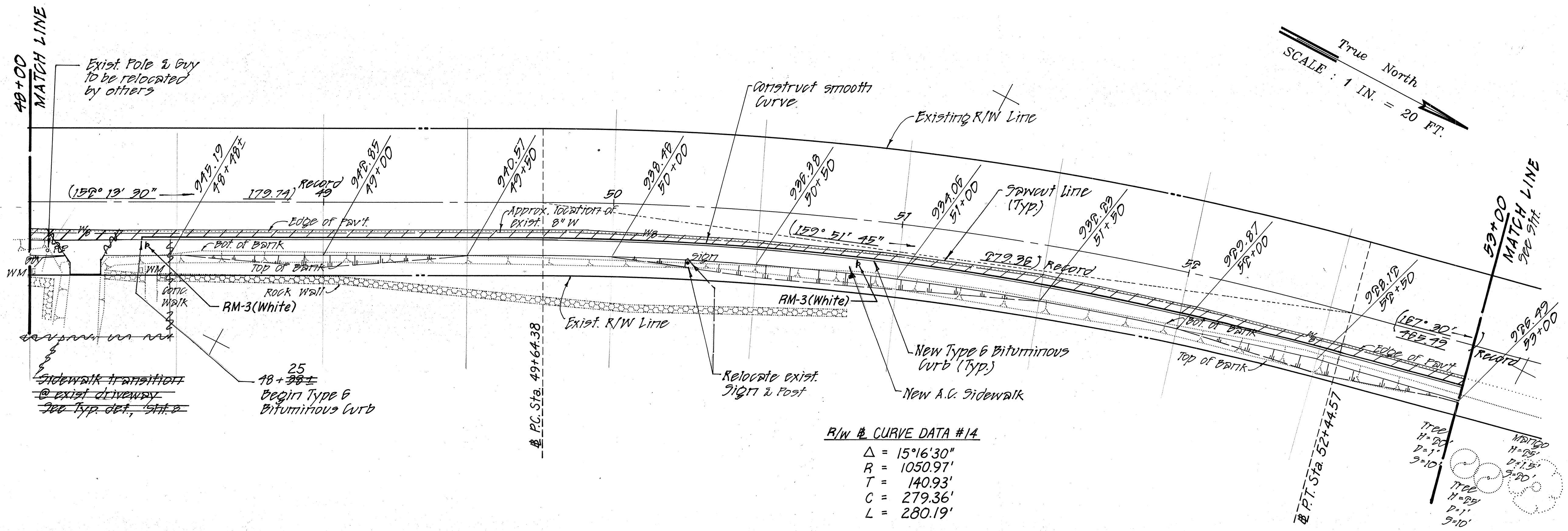
R/W & CURVE DATA #16
 $\Delta = 23^{\circ}49'30''$
 $R = 500.56'$
 $T = 105.60'$
 $C = 206.65'$
 $L = 208.15'$



* R/W Record data used with Δ Monuments adopted as shown for staking R/W lines.

True North
 SCALE: 1 IN. = 20 FT.

R/W & CURVE DATA #14
 $\Delta = 15^{\circ}16'30''$
 $R = 1050.97'$
 $T = 140.93'$
 $C = 279.36'$
 $L = 280.19'$



ROBERT L. ITAKI
 REGISTERED PROFESSIONAL ENGINEER
 No. 1584-C
 HAWAII, U.S.A.
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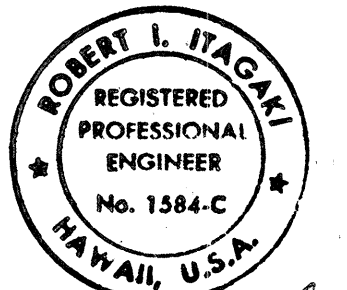
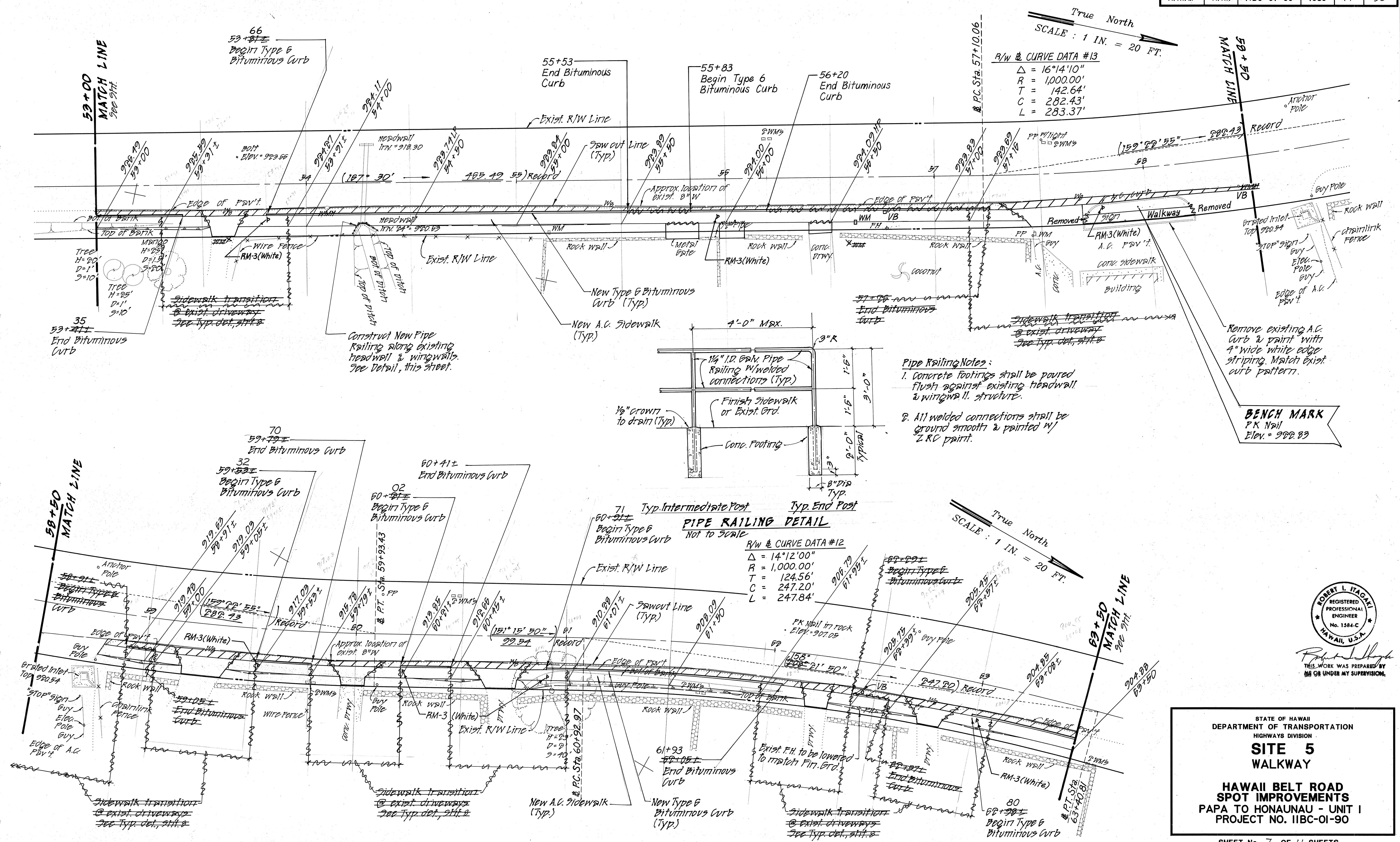
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
SITE 5
WALKWAY
HAWAII BELT ROAD
SPOT IMPROVEMENTS
PAPA TO HONAUNAU - UNIT I
PROJECT NO. IIBC-01-90

SHEET No. 6 OF 11 SHEETS

ORIGINAL PLAN	DATE
SURVEY PLANNED BY	
DRAWN BY	
DESIGNED BY	
CHECKED BY	
NO. 1	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	11BC-01-90	1989	14	36

ORIGINAL PLAN	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
NO.	



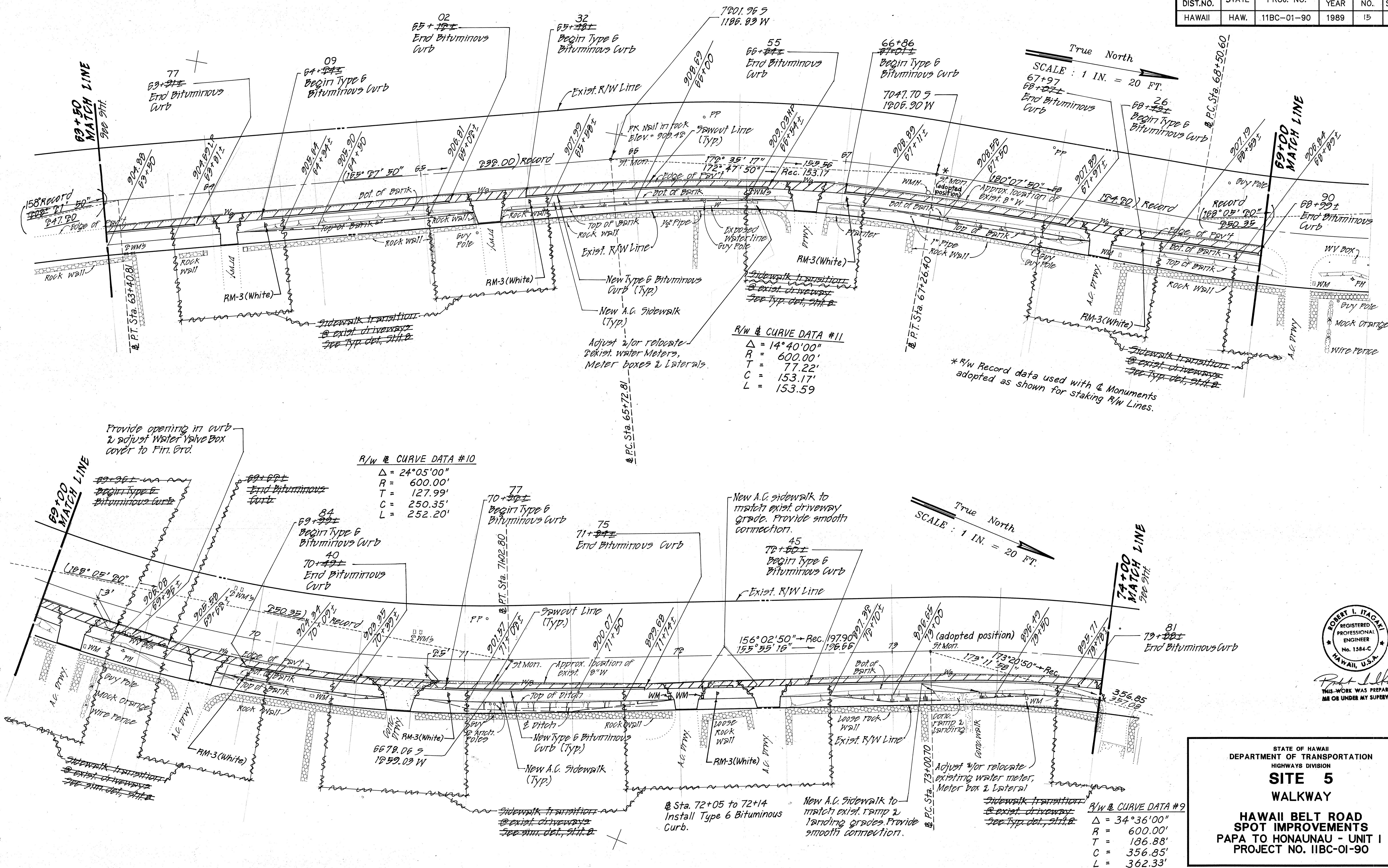
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STATE OF HAWAII
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HIGHWAYS DIVISION

**SITE 5
WALKWAY**

**HAWAII BELT ROAD
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PROJECT NO. 11BC-01-90**

FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETTS
HAWAII	HAW.	11BC-01-90	1989	15	36



ROBERT I. ITAGAKI
REGISTERED
PROFESSIONAL
ENGINEER
No. 1584-C
HAWAII, U.S.A.

Robert L. Hayes
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HIGHWAYS DIVISION

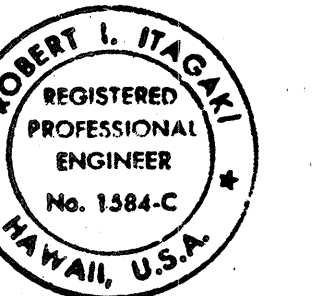
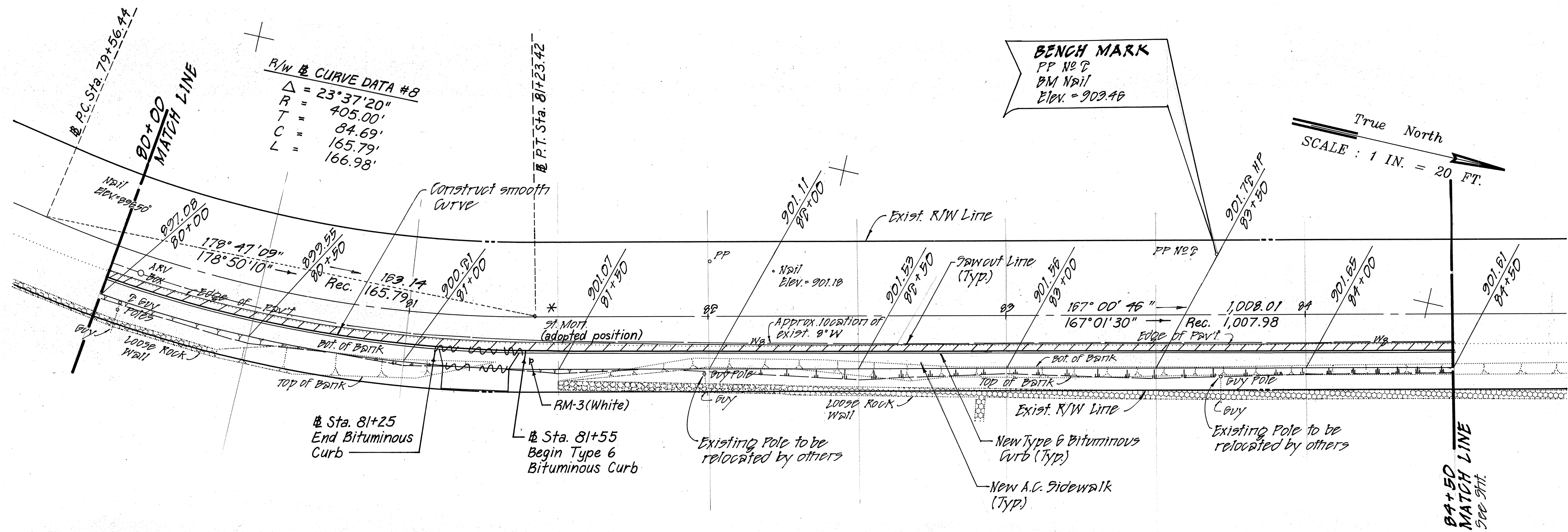
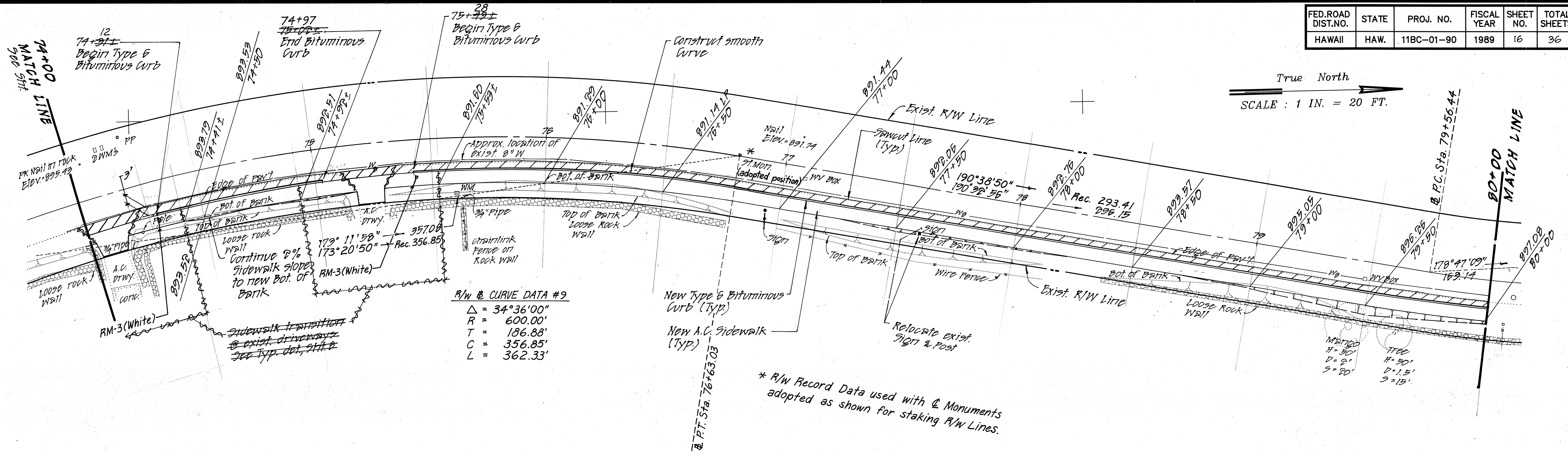
SITE 5
WAI KWAY

**HAWAII BELT ROAD
SPOT IMPROVEMENTS
PAPA TO HONAUNAU - UNIT 1
PROJECT NO. IIBC-01-90**

SHEET No. 8 OF 11 SHEETS

15

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	11BC-01-90	1989	16	36



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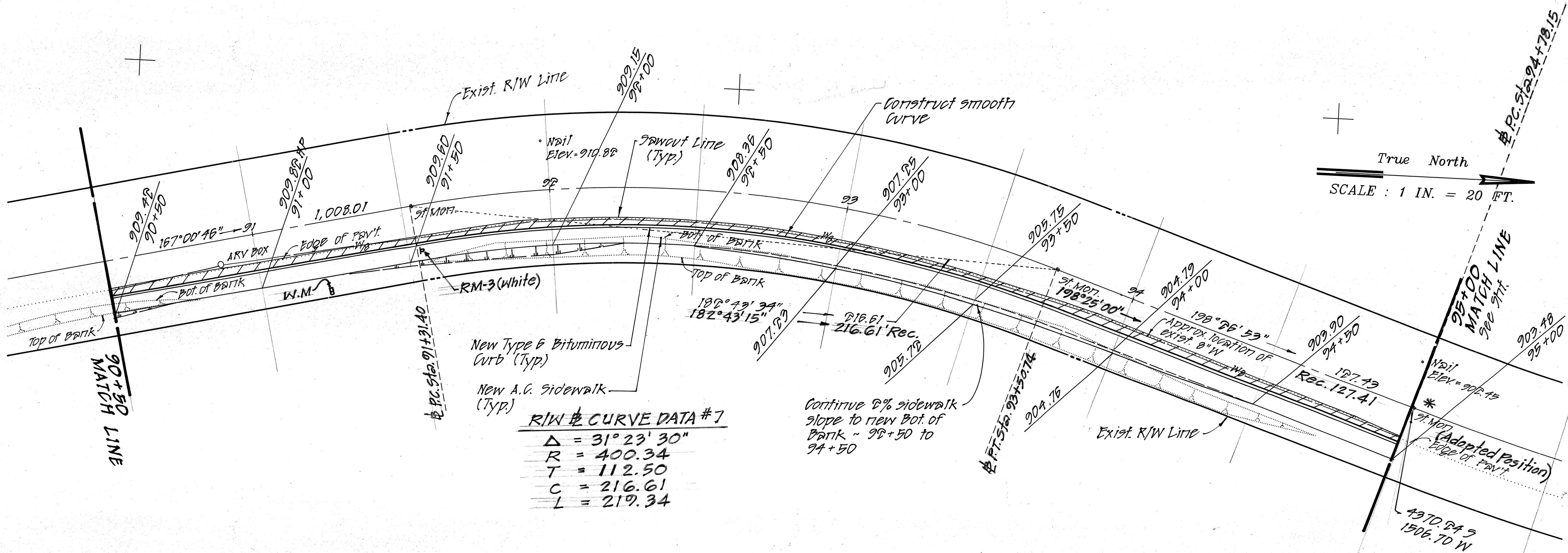
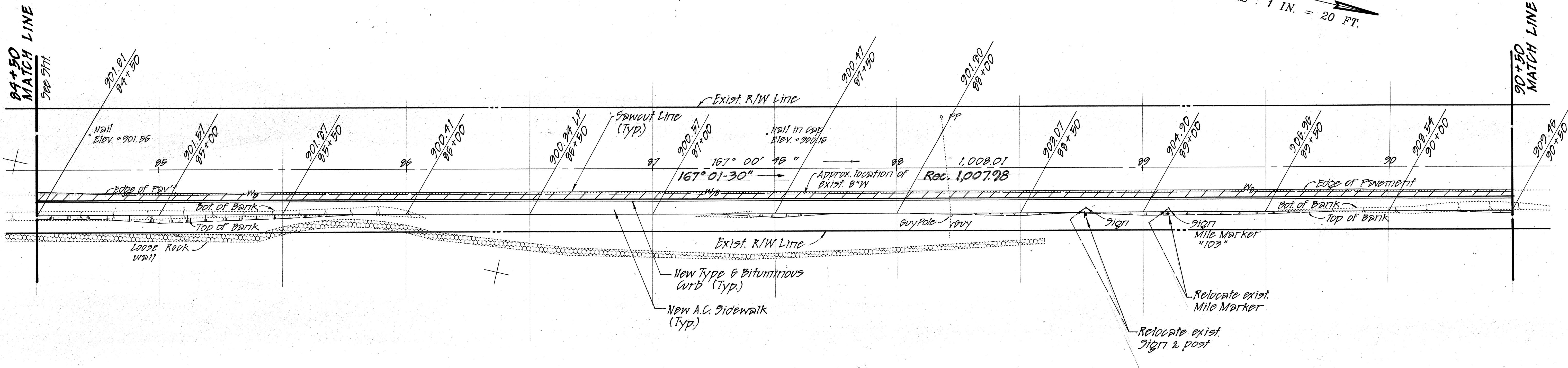
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**SITE 5
WALKWAY**

**HAWAII BELT ROAD
SPOT IMPROVEMENTS
PAPA TO HONAUNAU - UNIT I
PROJECT NO. 11BC-01-90**

SHEET No. 9 OF 11 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	11BC-01-90	1989	17	36

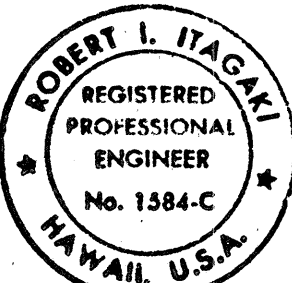
True North
SCALE : 1 IN. = 20 FT.



R/W & CURVE DATA #7

Δ	= 31° 23' 30"
R	= 400.34
T	= 112.50
C	= 216.61
L	= 219.34

True North
SCALE : 1 IN. = 20 FT.



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SITE 5
WALKWAY

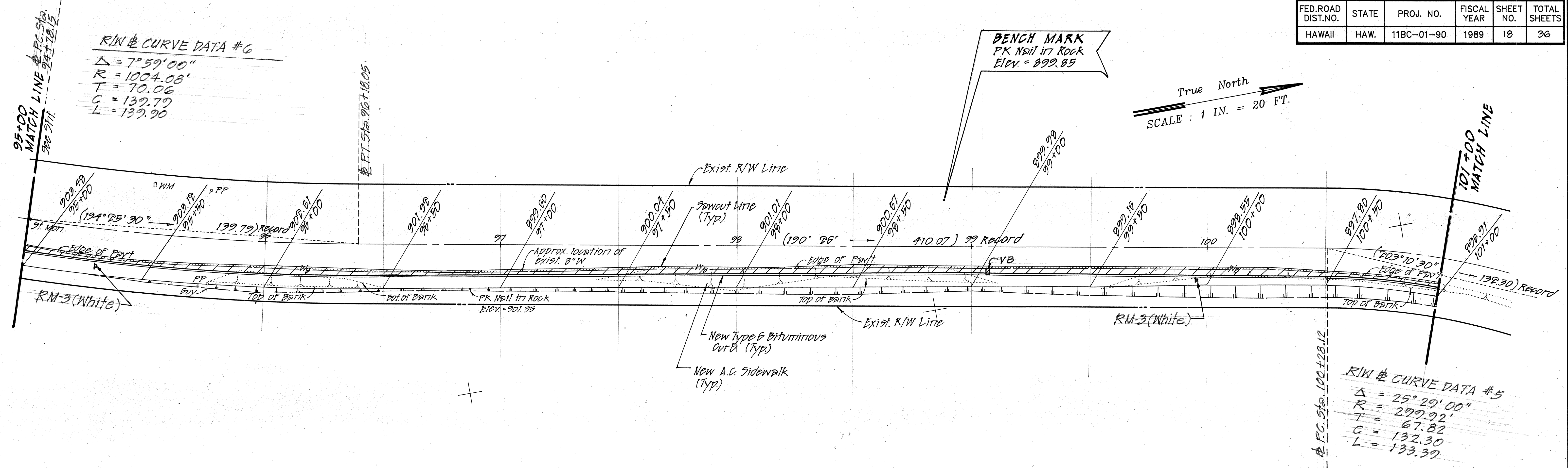
HAWAII BELT ROAD
SPOT IMPROVEMENTS
PAPA TO HONAUNAU - UNIT I
PROJECT NO. IIBC-01-90

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	11BC-01-90	1989	18	36

R/W # CURVE DATA #6
 $\Delta = 7^{\circ}59'00''$
 $R = 1004.08'$
 $T = 70.06$
 $C = 139.79$
 $L = 139.90$

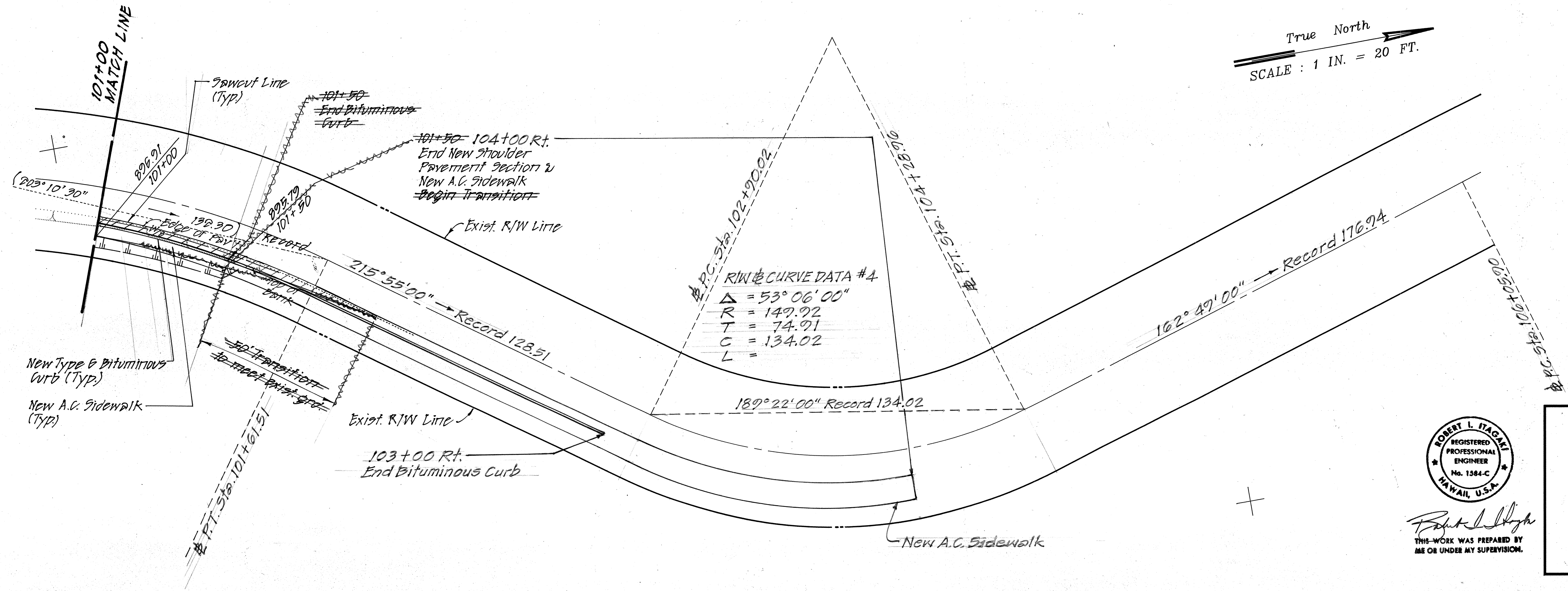
BENCH MARK
PK Nail in Rock
Elev. = 899.85

True North
SCALE : 1 IN. = 20 FT.

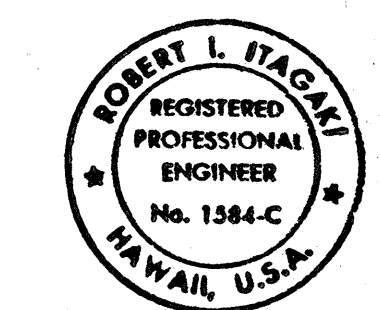


R/W # CURVE DATA #5
 $\Delta = 25^{\circ}29'00''$
 $R = 299.92'$
 $T = 67.82$
 $C = 132.30$
 $L = 133.39$

True North
SCALE : 1 IN. = 20 FT.



R/W # CURVE DATA #4
 $\Delta = 53^{\circ}06'00''$
 $R = 149.92$
 $T = 74.91$
 $C = 134.02$
 $L =$



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**SITE 5
WALKWAY**
HAWAII BELT ROAD
SPOT IMPROVEMENTS
PAPA TO HONAUNAU - UNIT I
PROJECT NO. 11BC-01-90

SURVEY PLOTTED BY	DATE
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TRACED BY	
CHECKED BY	
NOTE BOOK	
NO.	