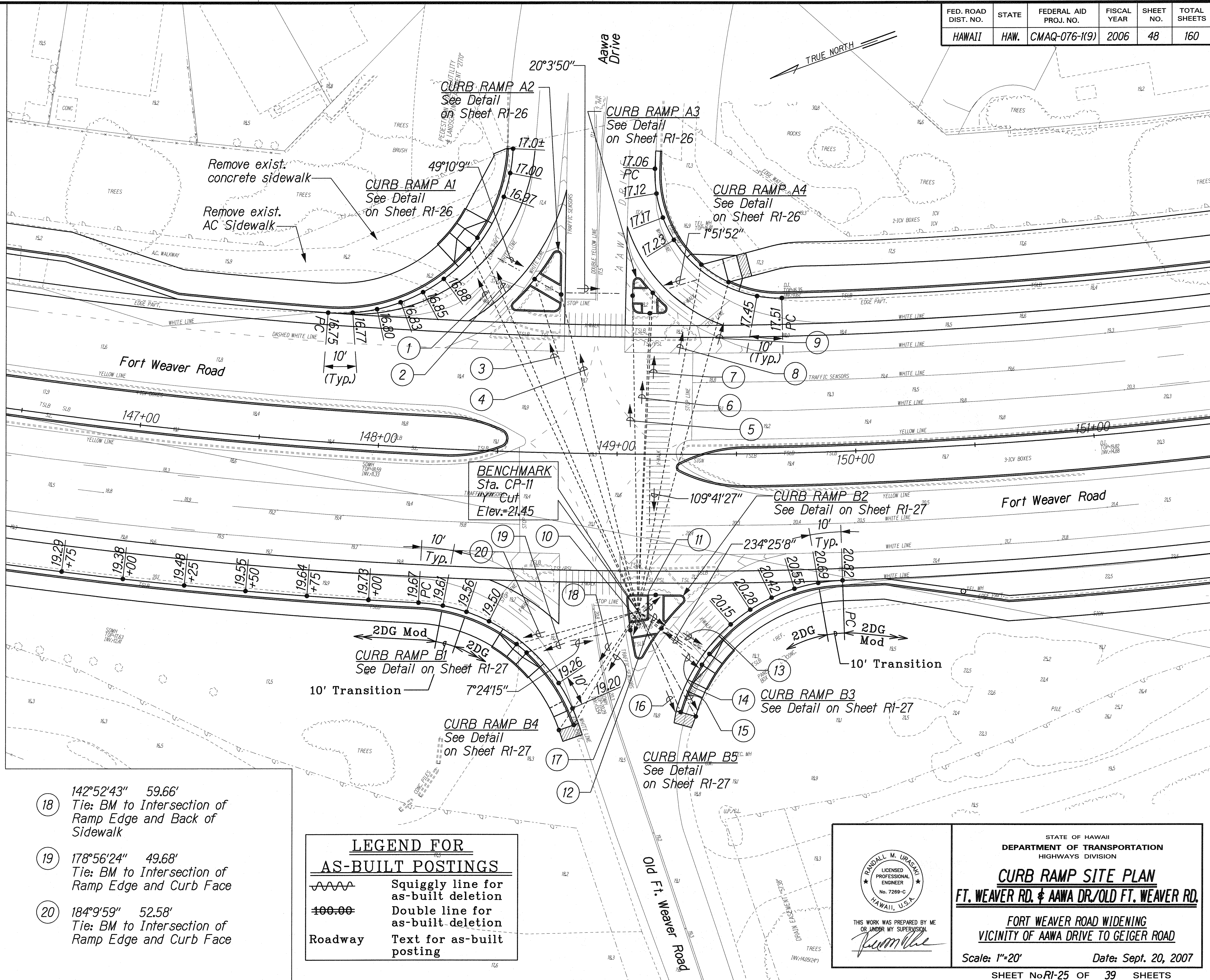


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	48	160

- 1 264°20'4" 167.60'
Tie: BM to Intersection of Ramp Edge and Curb Face
- 2 266°5'51" 170.36'
Tie: BM to Intersection of Ramp Edge and Curb Face
- 3 272°3'56" 145.82'
Tie: BM to Intersection of Ramp Edge and Curb Face
- 4 275°43'53" 136.59'
Tie: BM to Intersection of Ramp Edge and Curb Face
- 5 288°21'54" 132.24'
Tie: BM to Intersection of Ramp Edge and Curb Face
- 6 291°35'44" 124.95'
Tie: BM to Intersection of Ramp Edge and Curb Face
- 7 292°0'1" 133.55'
Tie: BM to Intersection of Ramp Edge and Curb Face
- 8 299°41'41" 147.68'
Tie: BM to Intersection of Ramp Edge and Curb Face
- 9 304°42'43" 143.07'
Tie: BM to Intersection of Ramp Edge and Curb Face
- 10 130°46'7" 8.58'
Tie: BM to Intersection of Ramp Edge and Curb Face
- 11 337°2'5" 10.16'
Tie: BM to Intersection of Ramp Edge and Curb Face
- 12 55°31'50" 12.26'
Tie: BM to Intersection of Ramp Edge and Curb Face
- 13 50°13'24" 34.99'
Tie: BM to Intersection of Ramp Edge and Curb Face
- 14 59°13'25" 35.03'
Tie: BM to Intersection of Ramp Edge and Curb Face
- 15 80°26'29" 50.29'
Tie: BM to Intersection of Ramp Edge and Back of Sidewalk
- 16 86°17'55" 45.91'
Tie: BM to Intersection of Ramp Edge and Curb Face
- 17 138°39'40" 54.59'
Tie: BM to Intersection of Ramp Edge and Curb Face

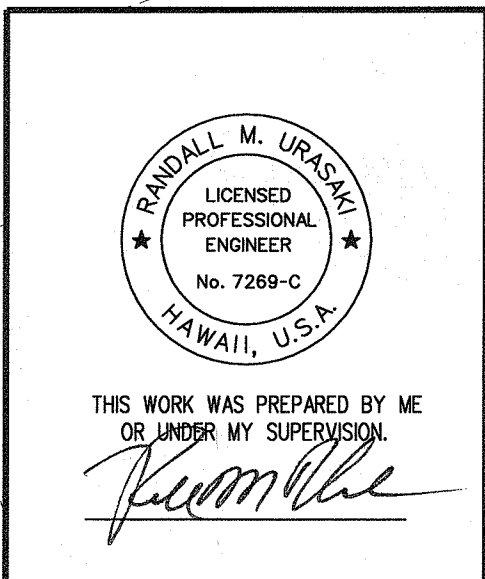
- 18 142°52'43" 59.66'
Tie: BM to Intersection of Ramp Edge and Back of Sidewalk
- 19 178°56'24" 49.68'
Tie: BM to Intersection of Ramp Edge and Curb Face
- 20 184°9'59" 52.58'
Tie: BM to Intersection of Ramp Edge and Curb Face

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting



ORIGINAL PLAN	DATE
DRAWN BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	

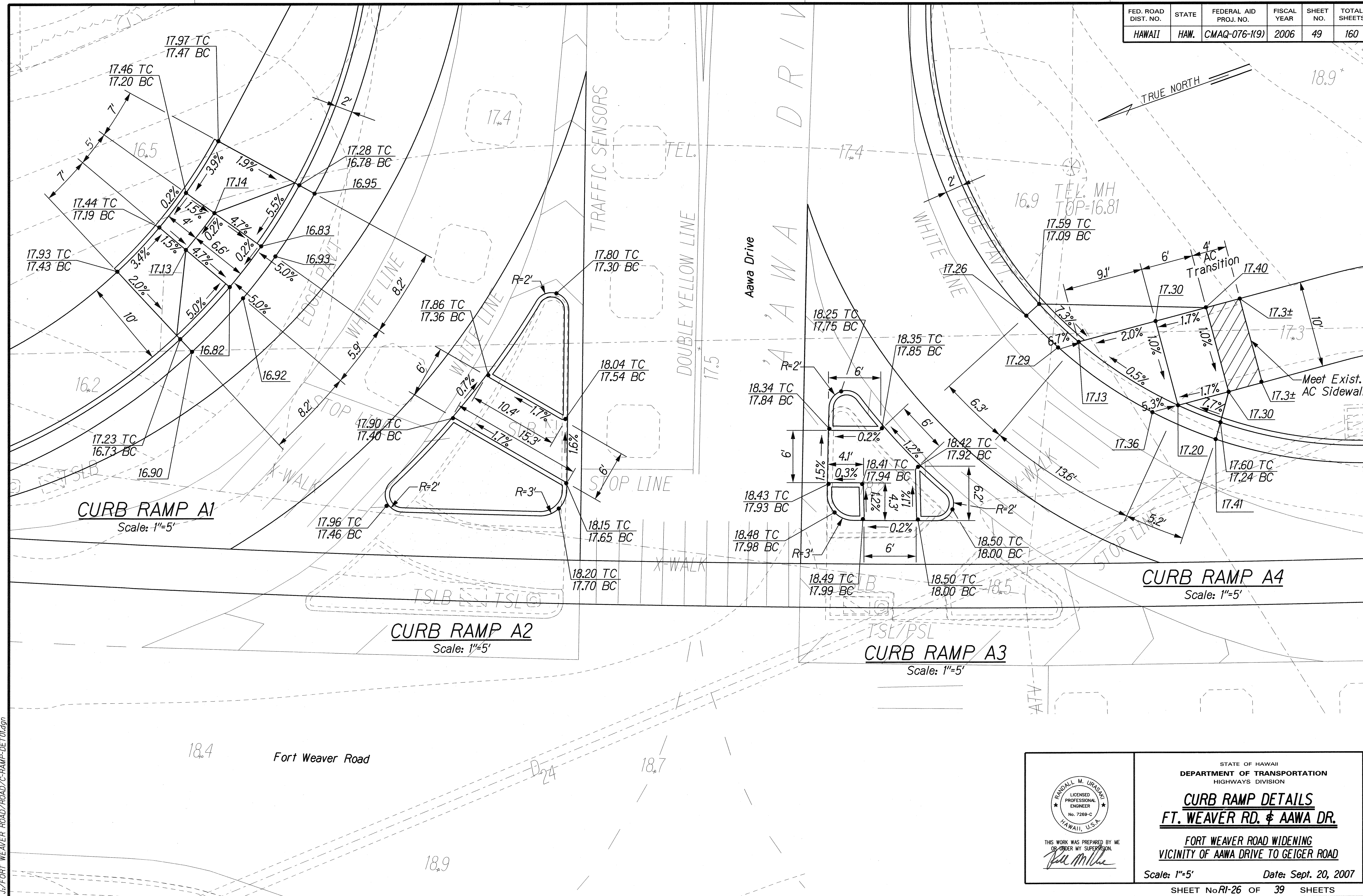
1/4" FORT WEAVER ROAD/ROAD/C-RAMP-PLAN/01.dgn



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP SITE PLAN
FT. WEAVER RD. & AAWA DR./OLD FT. WEAVER RD.
FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD
Scale: 1"=20' Date: Sept. 20, 2007

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	49	160



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

Fort Weaver Road/C-RAMP DETAIL

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS
FT. WEAVER RD. & AWA DR.

FORT WEAVER ROAD WIDENING
VICINITY OF AWA DRIVE TO GEIGER ROAD

Scale: 1"=5' Date: Sept. 20, 2007

SHEET No RI-26 OF 39 SHEETS

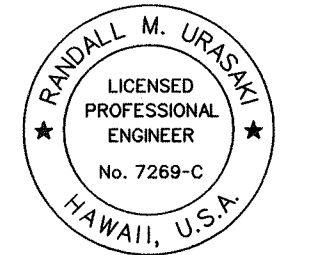
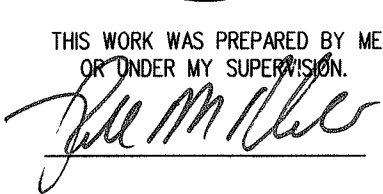
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	51	160

CURB RAMP AND SIDEWALK NOTES:

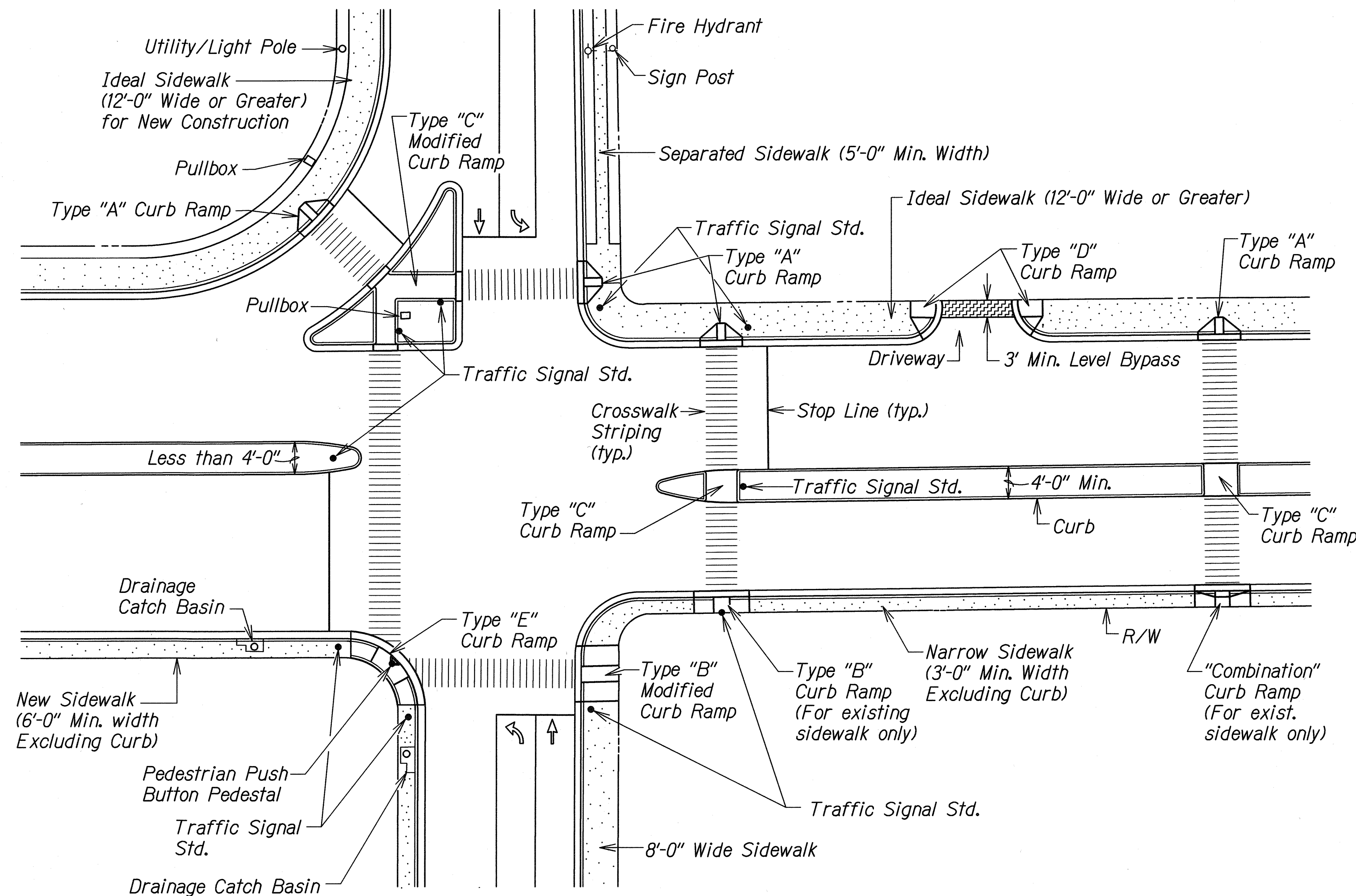
1. These typical details are intended as curb ramp guidelines for design and construction.
2. A 2% maximum cross slope shall be maintained in the direction of pedestrian traffic.
3. Subject to field conditions, the Engineer shall determine the final location of curb ramps.
4. All pullboxes shall be installed away from the curb ramp and within the sidewalk/unpaved area to the maximum extent feasible.
5. Where necessary, existing pullboxes, handholes, manholes, etc. shall be adjusted to match curb ramp grade. Adjustments shall not be paid for separately but shall be considered incidental to the various curb ramp items unless indicated otherwise.
6. Transitions from ramps to gutters and roadways shall be flush.
7. Curb ramps and sidewalks shall be constructed to eliminate ponding to the maximum extent feasible.
8. The pedestrian push button shall meet operational and reach requirements of the American with Disabilities Act Accessibility Guidelines (ADAAG):
 - a) Forward Reach. The maximum height for forward reach shall be 48".
 - b) Side Reach. The maximum height for side reach shall be 54".
 - c) Operation. Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbf.
9. The maximum slopes of adjoining gutters or road surface immediately fronting the curb ramp shall not exceed 5% for Type A, D and Combination ramps and 8.33% for Type B, C, and E ramps.
10. There shall be a 30"x48" level ground surface (2% max. cross slope, both directions) for a forward or side approach, as appropriate, to a pedestrian push button.
11. Construction joints are required to join curb ramps with sidewalks.
12. Unless otherwise noted, new gutters are required as shown.
13. All curb ramps shall be reinforced with 6x6 W1.4/W1.4 welded wire fabric.
14. Surface of sidewalks and curb ramps shall be firm, stable, and slip-resistant. This includes the surfaces of pullboxes, valve covers, manhole covers, etc.
15. Bed course material is required for curb ramps, sidewalks, and gutters.
16. All sidewalks shall provide a minimum clear width of 3'-0" (excluding curb) for pedestrian circulation. If this cannot be met, a minimum 32-inch clear width is allowed for a distance of 24-inches.
17. Passing spaces along new sidewalks with 5' clear width or less shall be provided at maximum 200' intervals as required by ADA guidelines. The passing area shall be a minimum 5' wide by 5' long as feasible.
18. If possible, install utility poles, fire hydrants, light poles, sign posts, pullboxes, etc. off of sidewalk but within the right-of-way.
19. Objects protruding from utility poles and walls adjacent to the sidewalks (i.e. wall mounted fire hydrants, telephones, meters on poles, etc.) shall be mounted to meet the current American with Disabilities Act Accessibility Guidelines (ADAAG) and will be subject to Engineer's approval.
20. If a curb ramp is not constructed according to the plans, the Contractor shall reconstruct the curb ramp at no cost to the State. Construction tolerance for Portland Cement Concrete shall be based on 1/4 inch per 10 ft. (±0.2%). Remedial measures will not be accepted.
21. Additional information is available from:
 - a) American with Disabilities Act Accessibility Guidelines (ADAAG), Jan. 1998, The Access Board.
 - b) Accessible Rights-of-Way: A Design Guide, Nov. 1999, The Access Board.
 - c) Designing Sidewalks and Trails for Access, Part 1, July 1999, FHWA.
 - d) Designing Sidewalks and Trails for Access, Part 2, Sept. 2001, FHWA.

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

td1/usr2/traffic/std/curbramp/rampnote-r12-06-06.dgn
R12-06-06 TE-XX sh1. 1 of 9

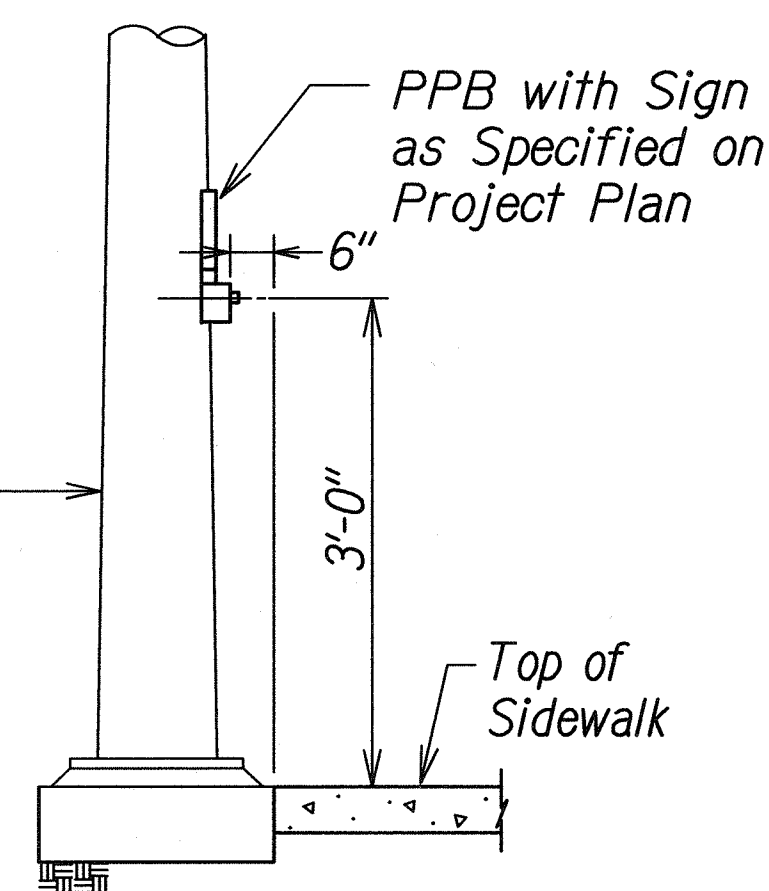
 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION 	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION CURB RAMP AND SIDEWALK NOTES FORT WEAVER ROAD WIDENING VICINITY OF AAWA DRIVE TO GEIGER ROAD Scale: NTS Date: Sept. 20, 2007
	SHEET No. R1-28 OF 39 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	52	160



TYPICAL CURB RAMPS

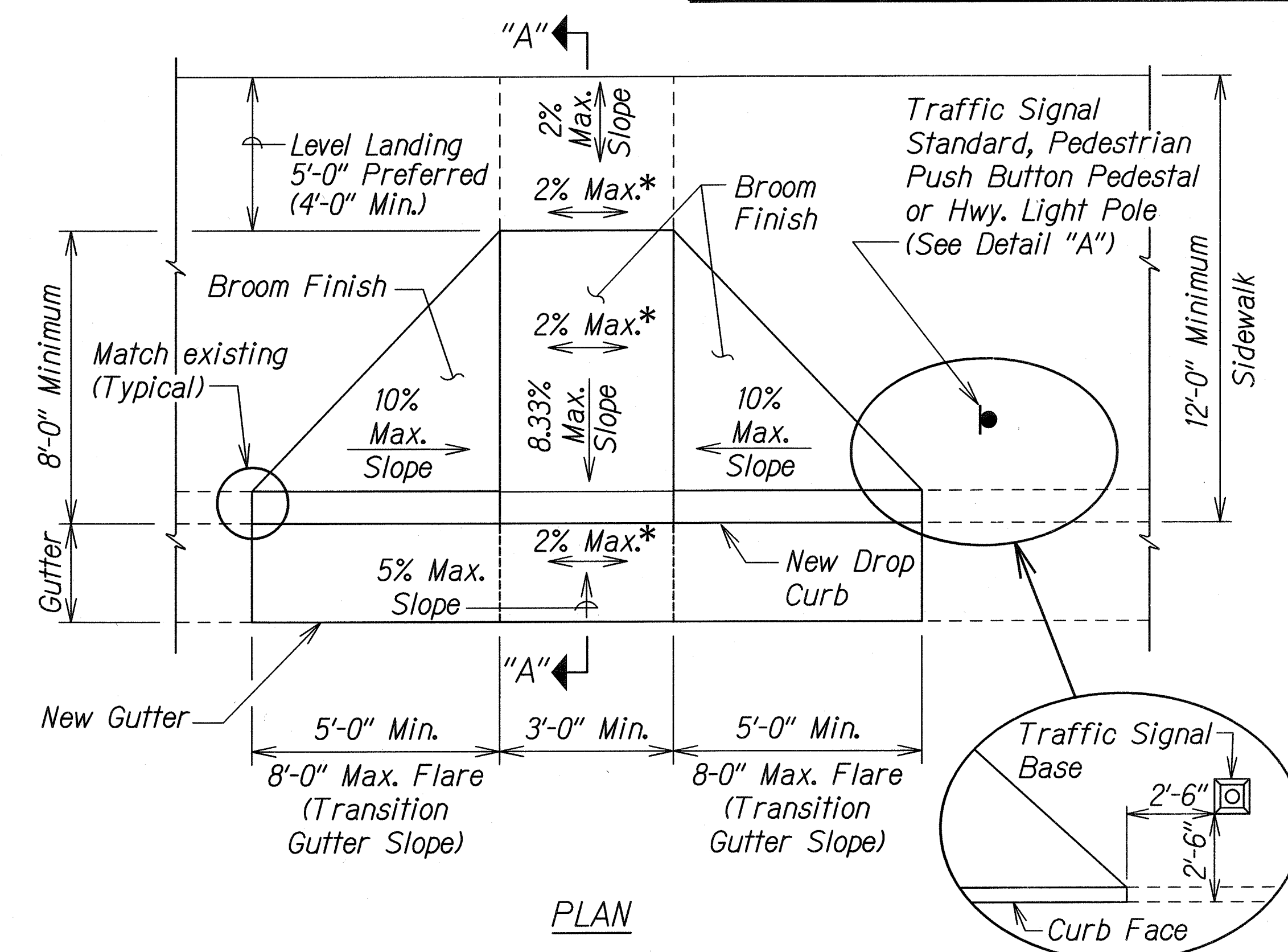
Type I, II, III TSS,
Pedestrian Push Button
Pedestal or Hwy. Light Pole



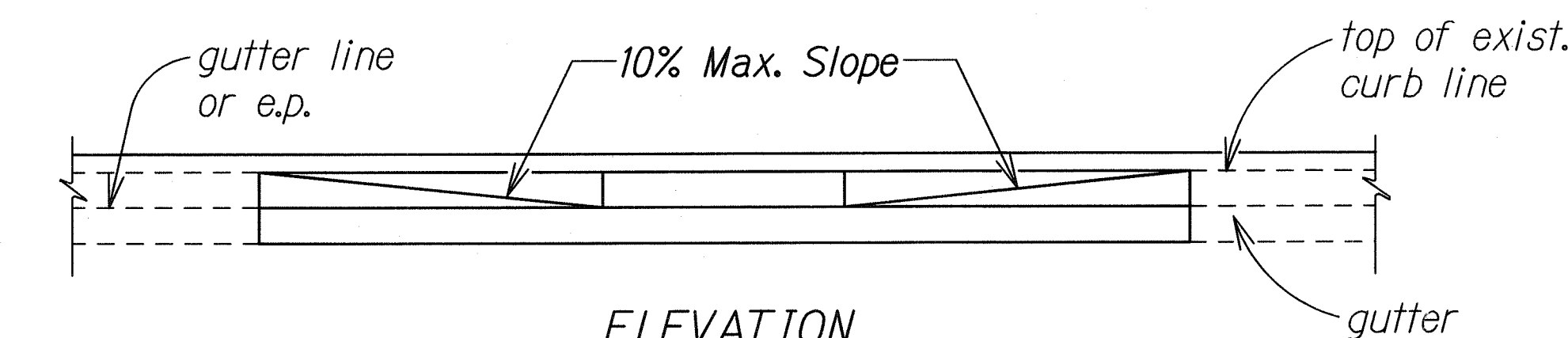
DETAIL "A"

CURB RAMP - TYPE "A"
SIDEWALK WIDTH 12'-0" OR GREATER

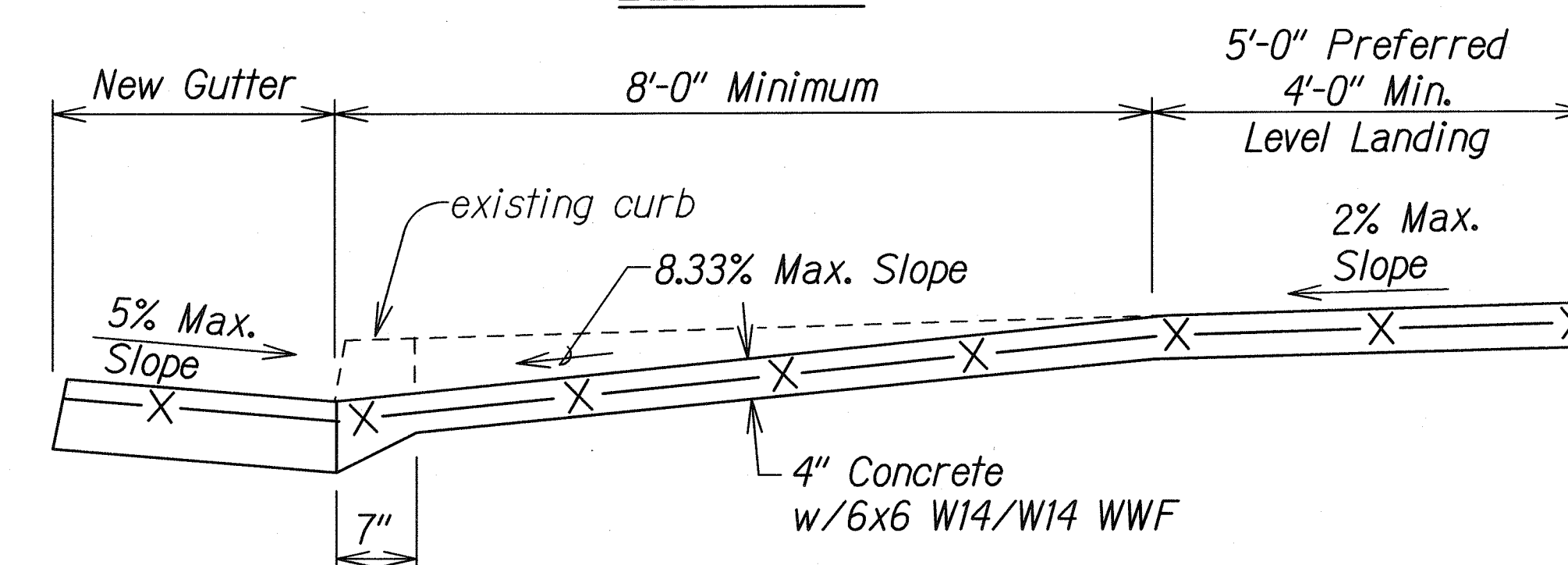
* If Roadway Slope >2% Conform
to Roadway Slope and File
Technical Infeasibility (TI)
Statement



PLAN



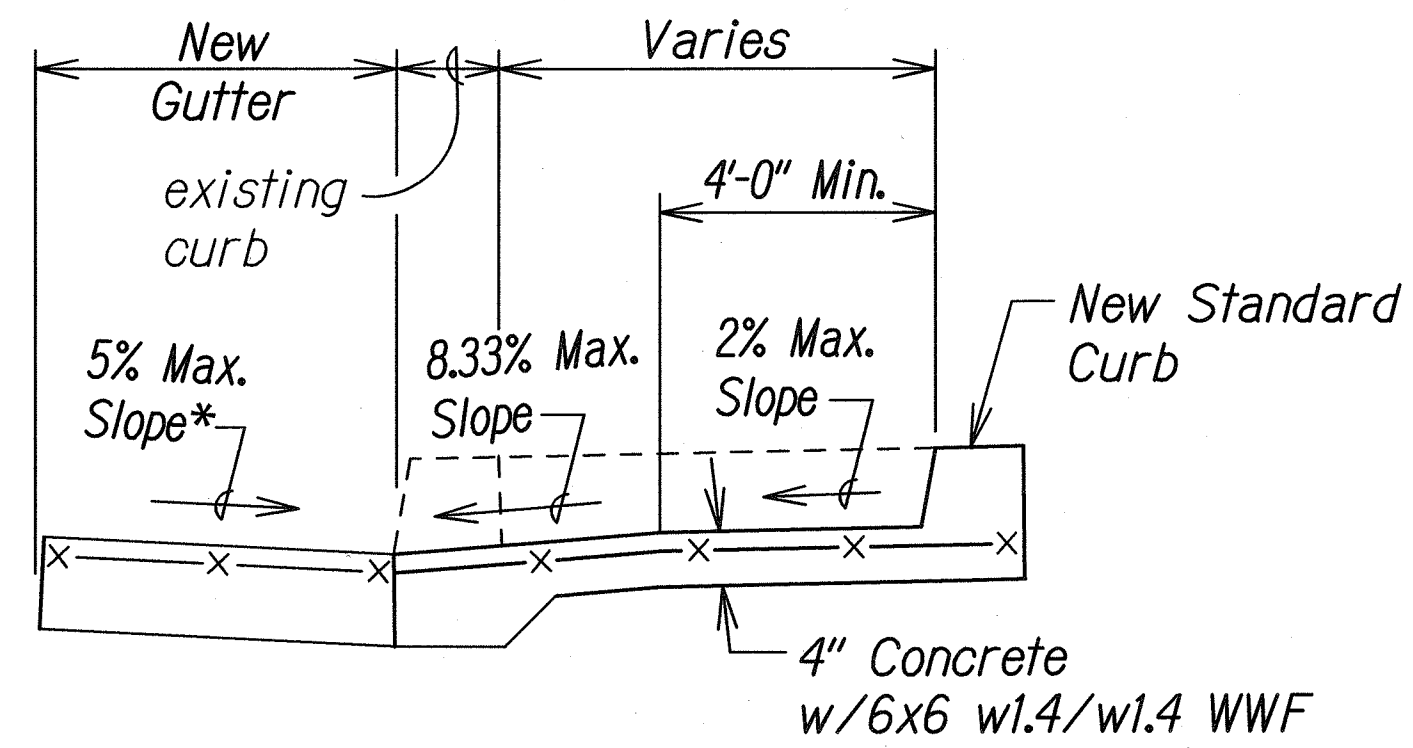
ELEVATION



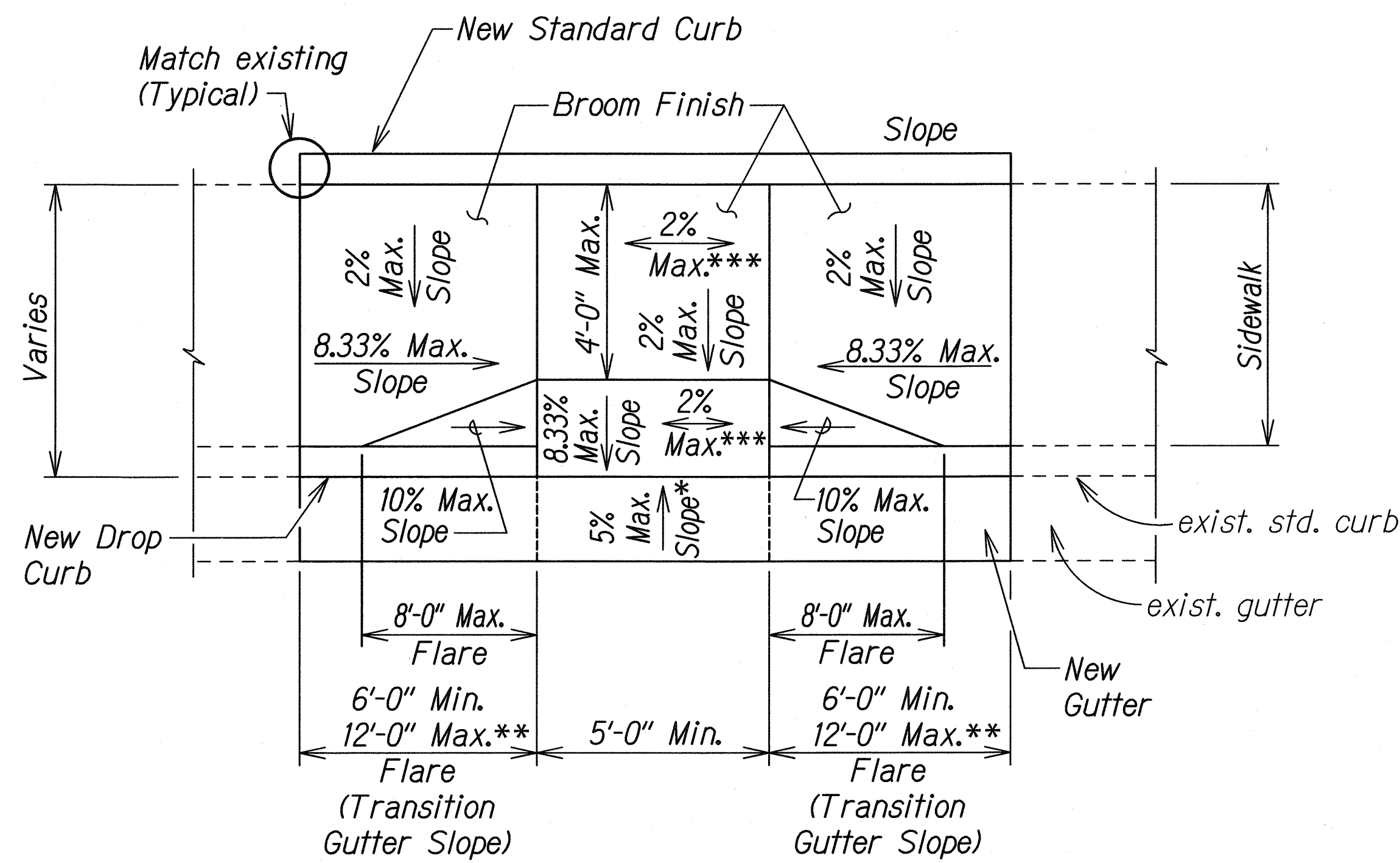
SECTION "A-A"

	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
	CURB RAMP DETAILS	
	FORT WEAVER ROAD WIDENING VICINITY OF AAWA DRIVE TO GEIGER ROAD	
	Scale: NTS	Date: Sept. 20, 2007

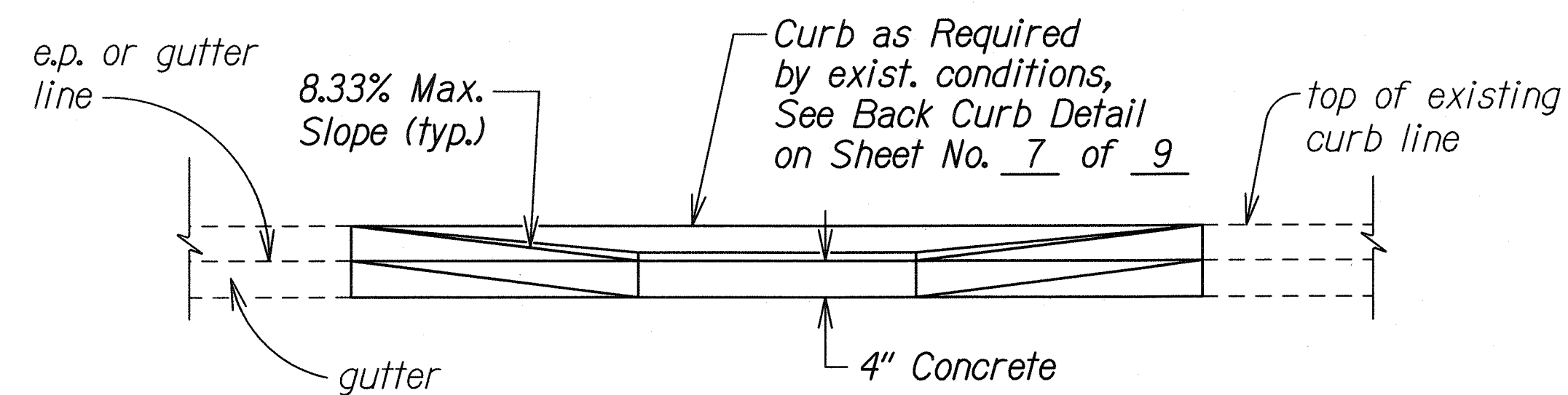
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	53S-1	160



TYPICAL SECTION



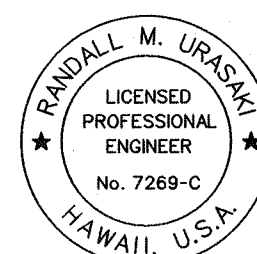
PLAN



ELEVATION

CURB RAMP - COMBINATION

- * See Curb Ramp and Sidewalk Note No. 9.
- ** The slope of the ramp shall take precedence over the length of the ramp. If the maximum slope of a ramp cannot be met within a length of 12 feet, then the slope of the ramp shall be set when the length of the ramp is set at the maximum of 12 feet.
- *** If Roadway Slope >2% Conform to Roadway Slope and File a Technical Infeasibility (TI) Statement



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R. M. Urashki

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: NTS

Date: Sept. 20, 2007

SHEET No. RI-30A of 39 SHEETS

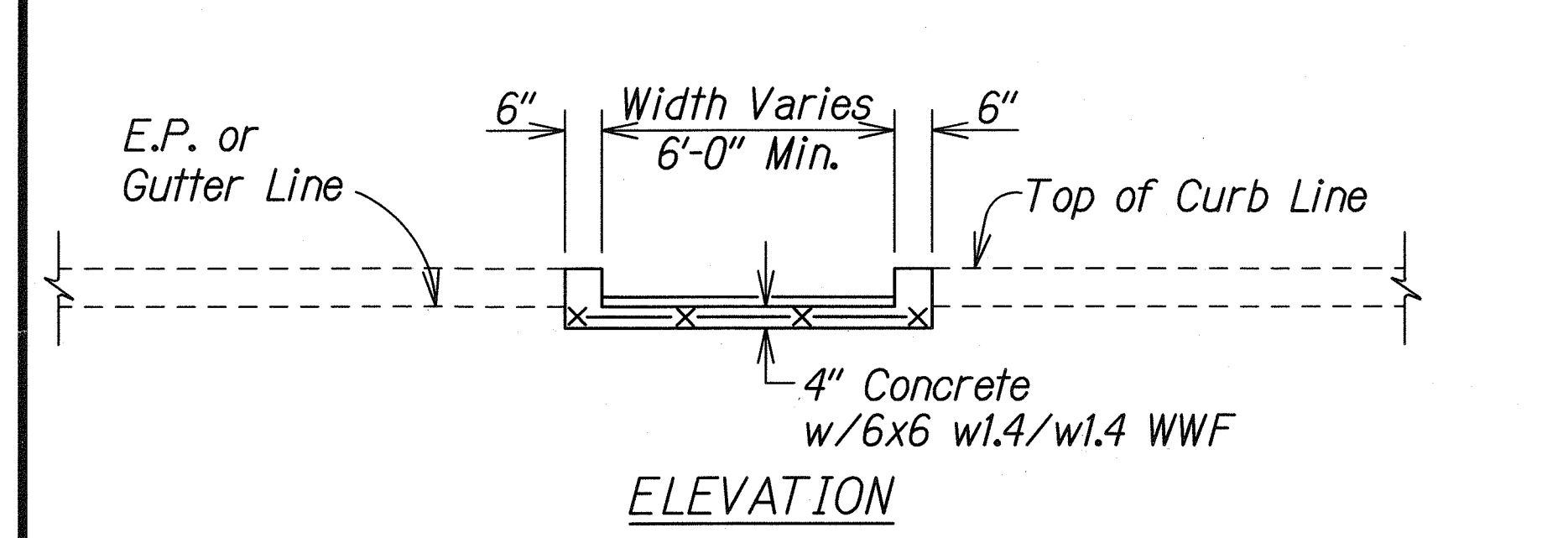
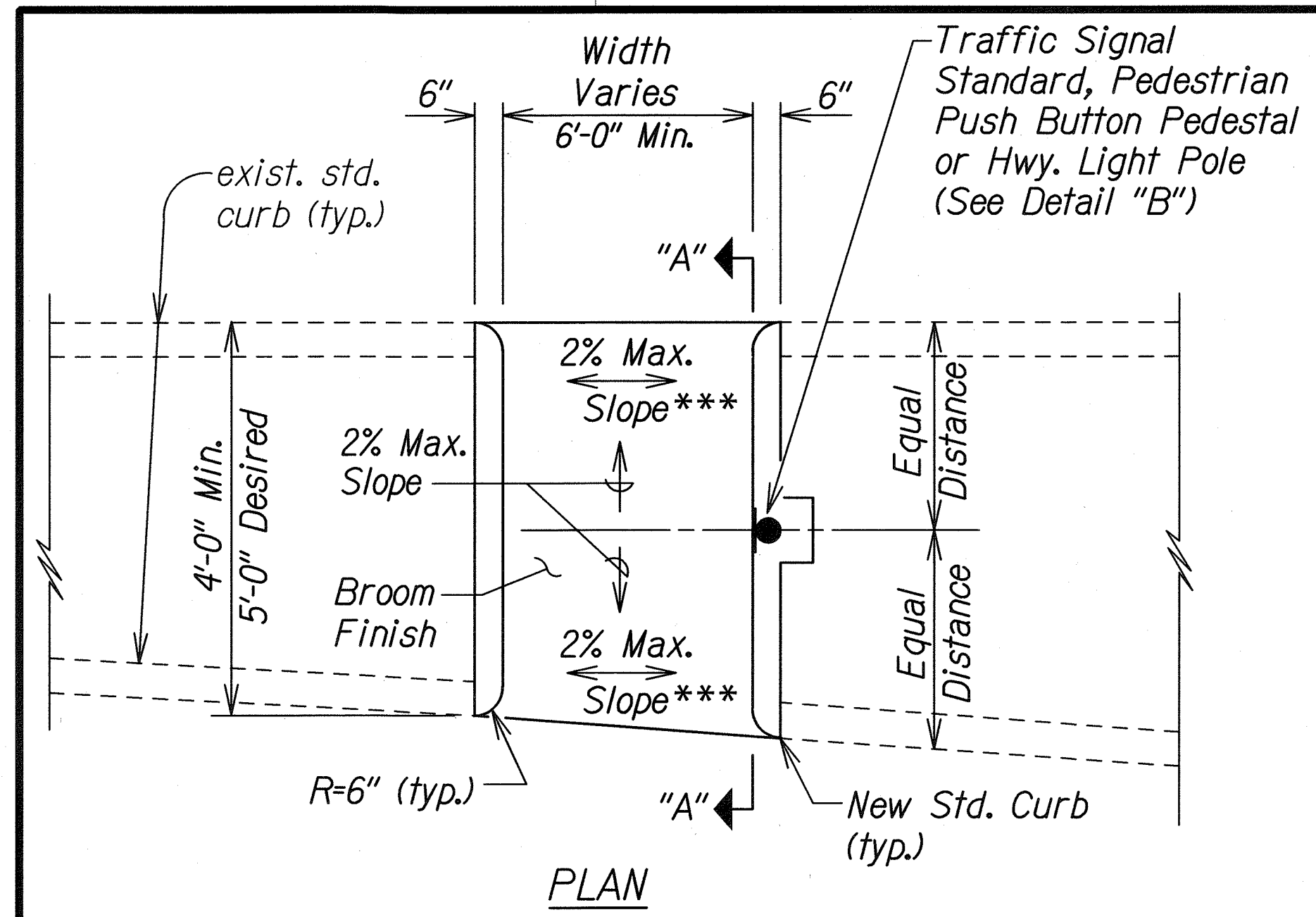
53S-1

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

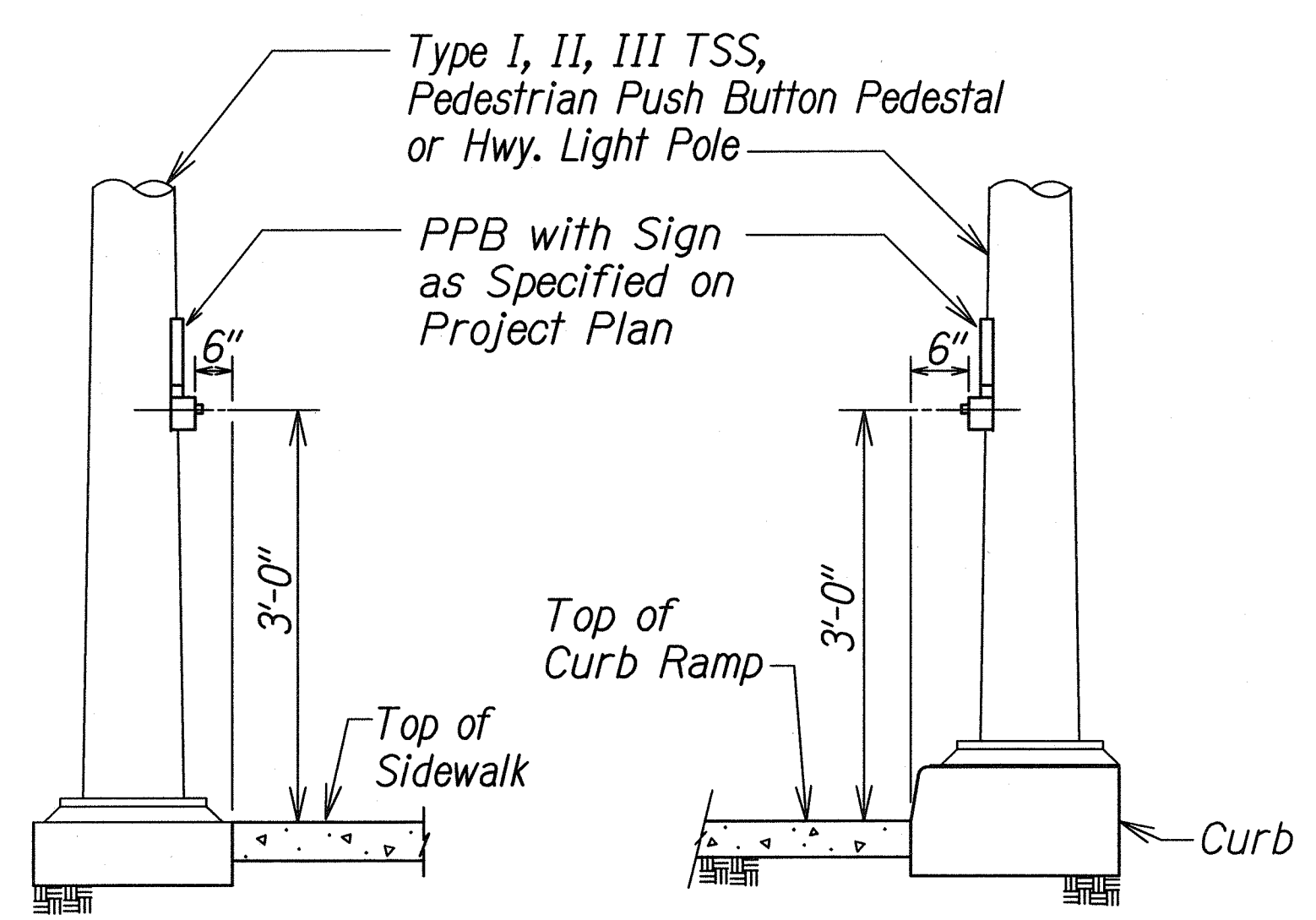
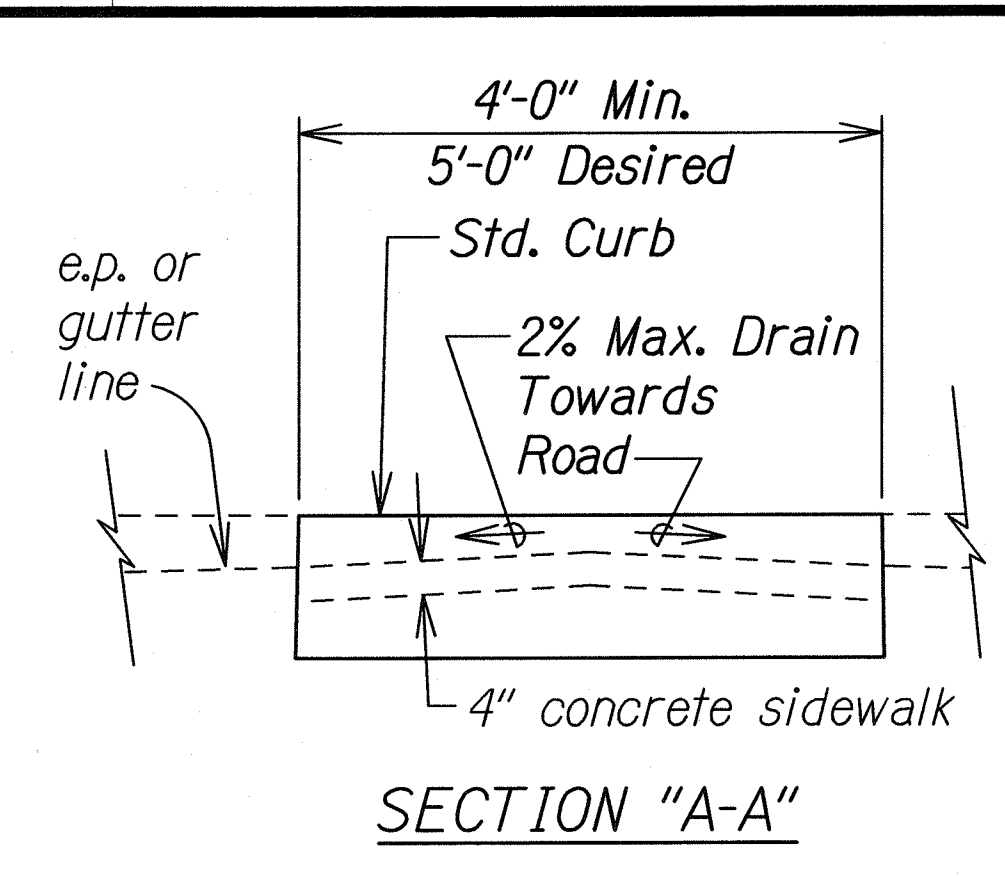
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RI2-06-06 TE-XX sh. 4 of 9

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	54	160

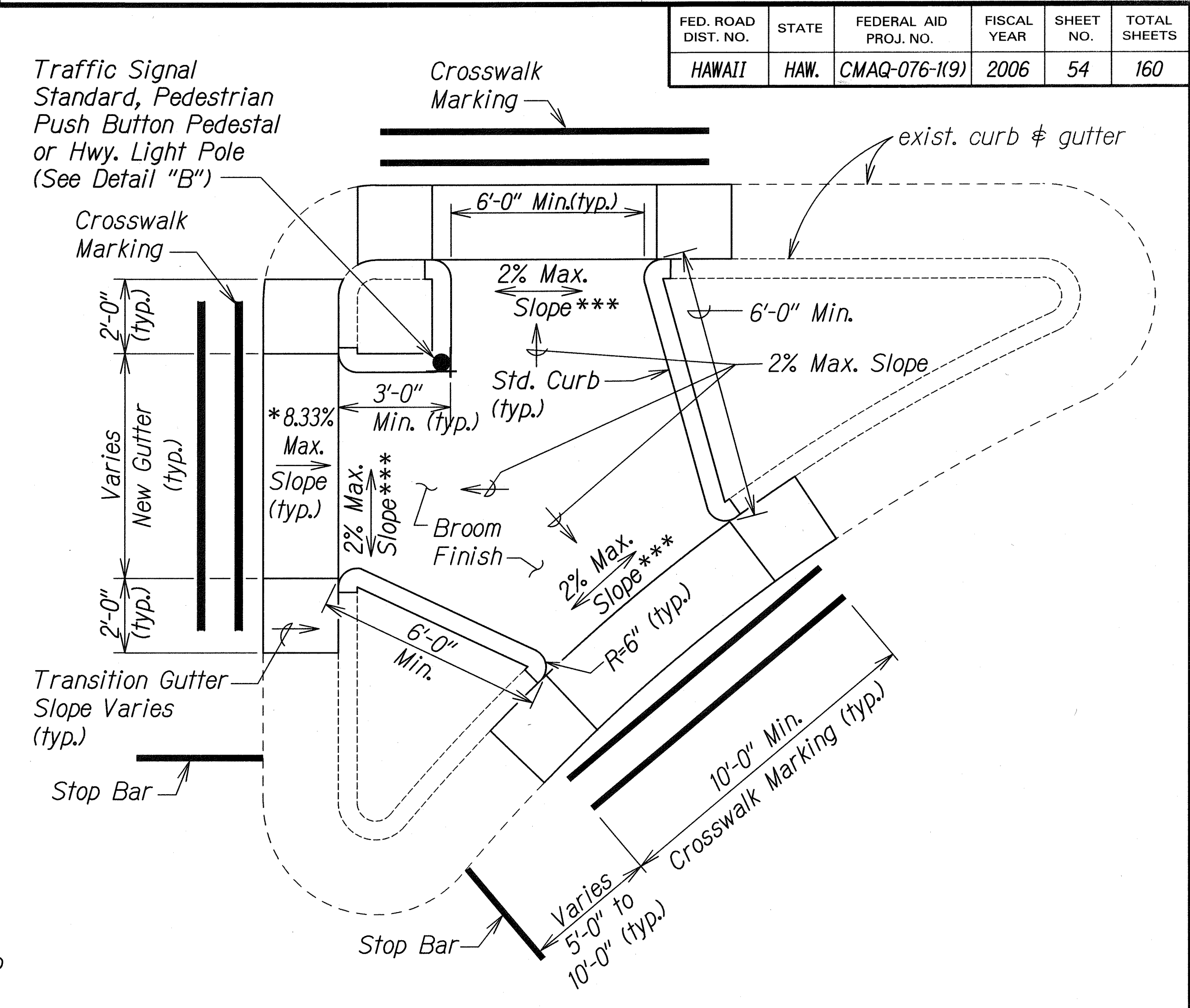


CURB RAMP - TYPE "C"
USE AT MEDIAN CROSSINGS, ISLANDS

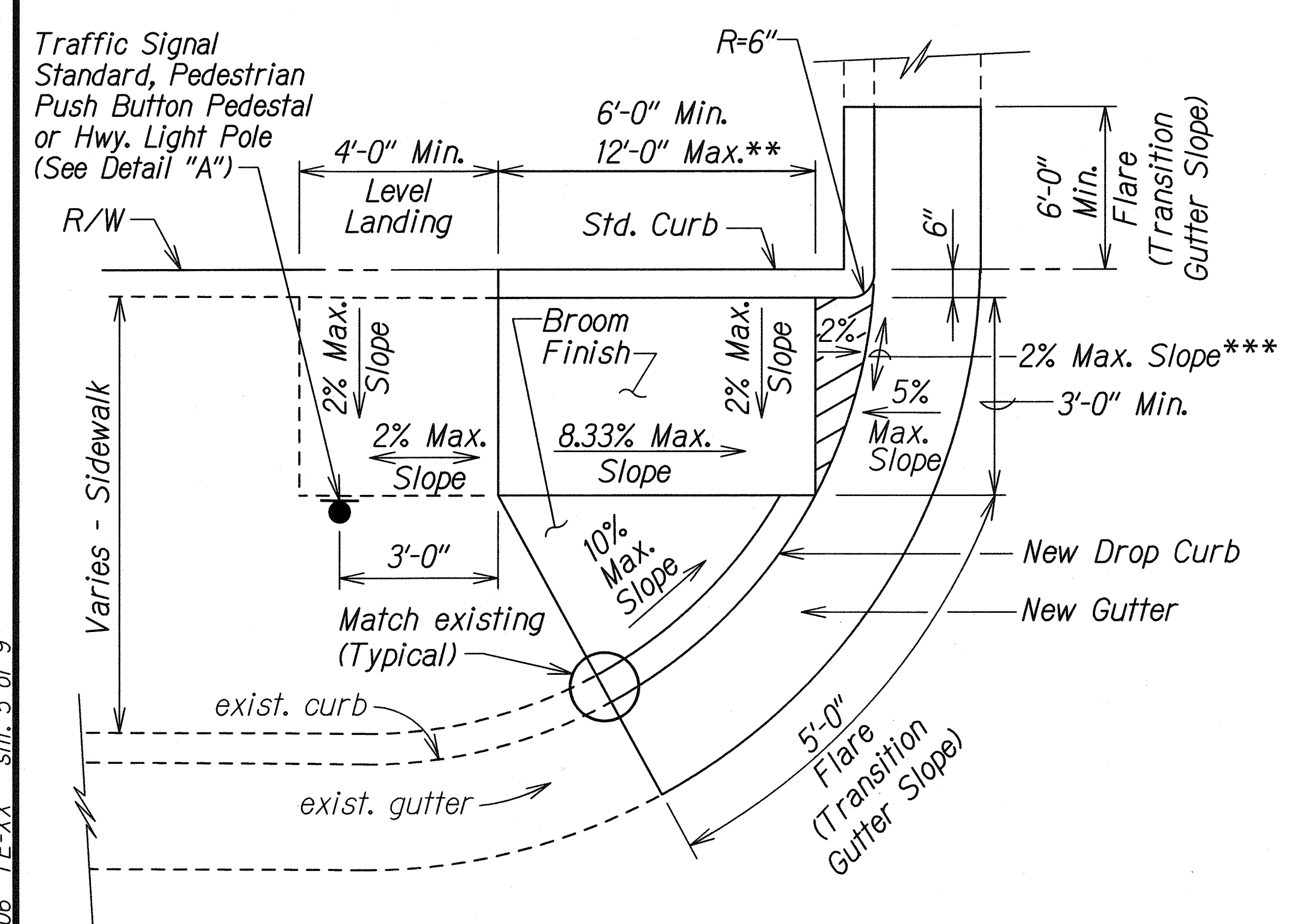


DETAIL "A"

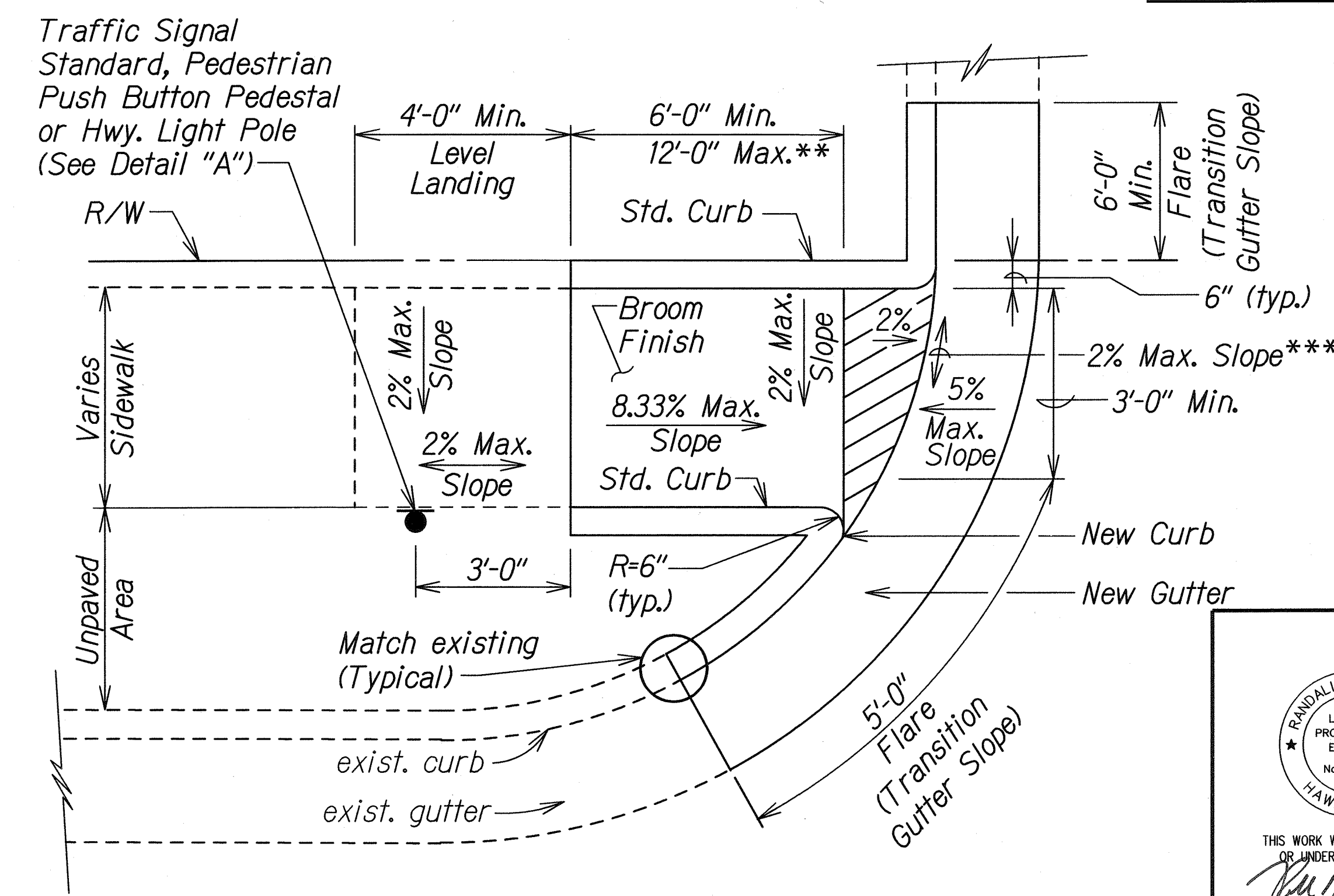
DETAIL "B"



CURB RAMP - TYPE "C" MODIFIED



CURB RAMP - TYPE "D"



CURB RAMP - TYPE "D" MODIFIED

* See Curb Ramp and Sidewalk Note No. 9.
** The slope of the ramp shall take precedence over the length of the ramp. If the maximum slope of a ramp cannot be met within a length of 12 feet, then the slope of the ramp shall be set when the length of the ramp is set at the maximum of 12 feet.
*** If Roadway Slope >2% Conform to Roadway Slope and File a Technical Infeasibility (TI) Statement

DATE	DESIGNED BY	CHECKED BY
12-06-06	TE-XX	shl. 5 of 9
ORIGINAL PLAN	NOTE BOOK	NO.

tdl/usr2/traffic/std/curb/ramp/rampod-r12-06-06.dgn

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Randall M. Urasak

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

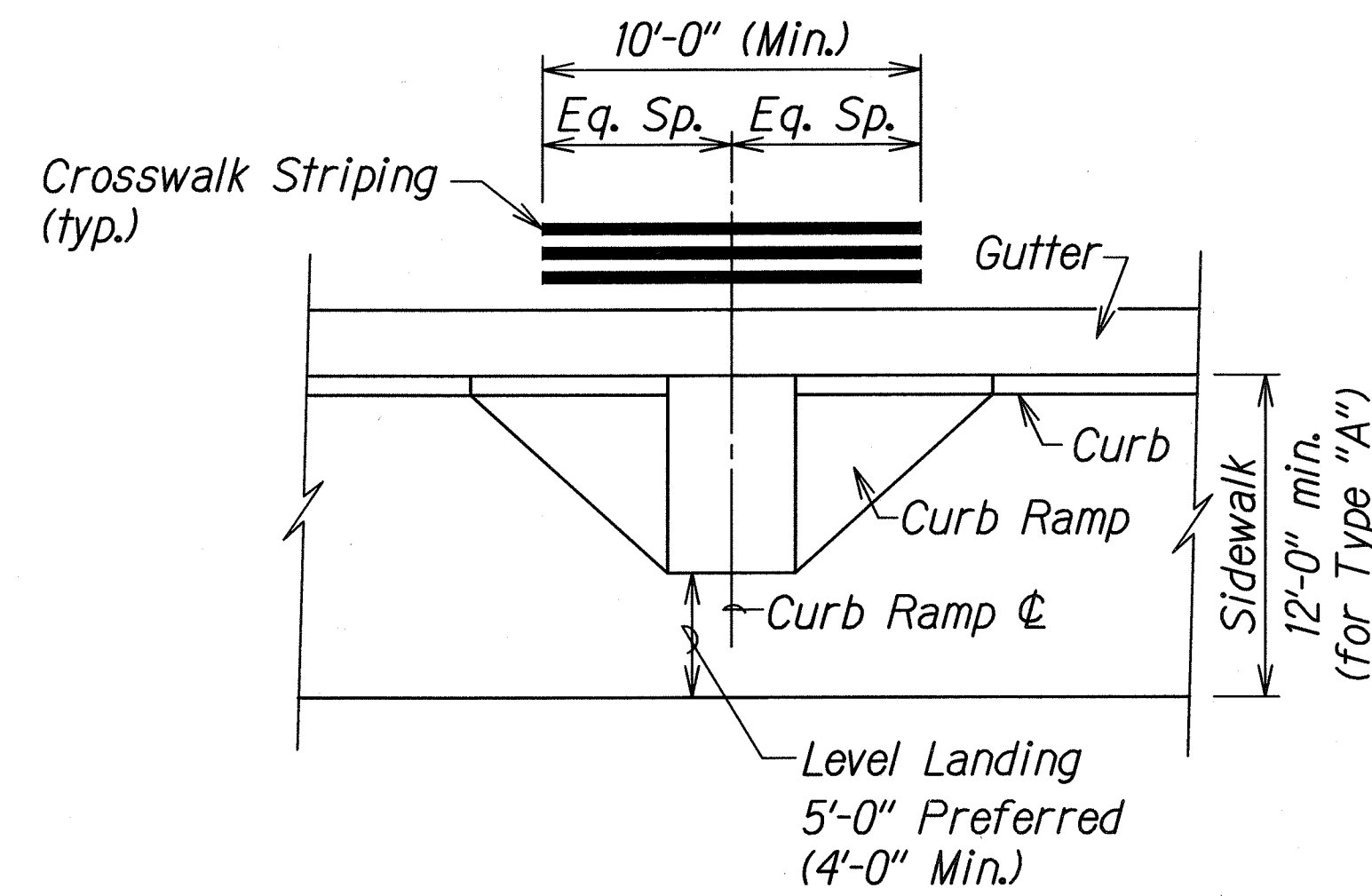
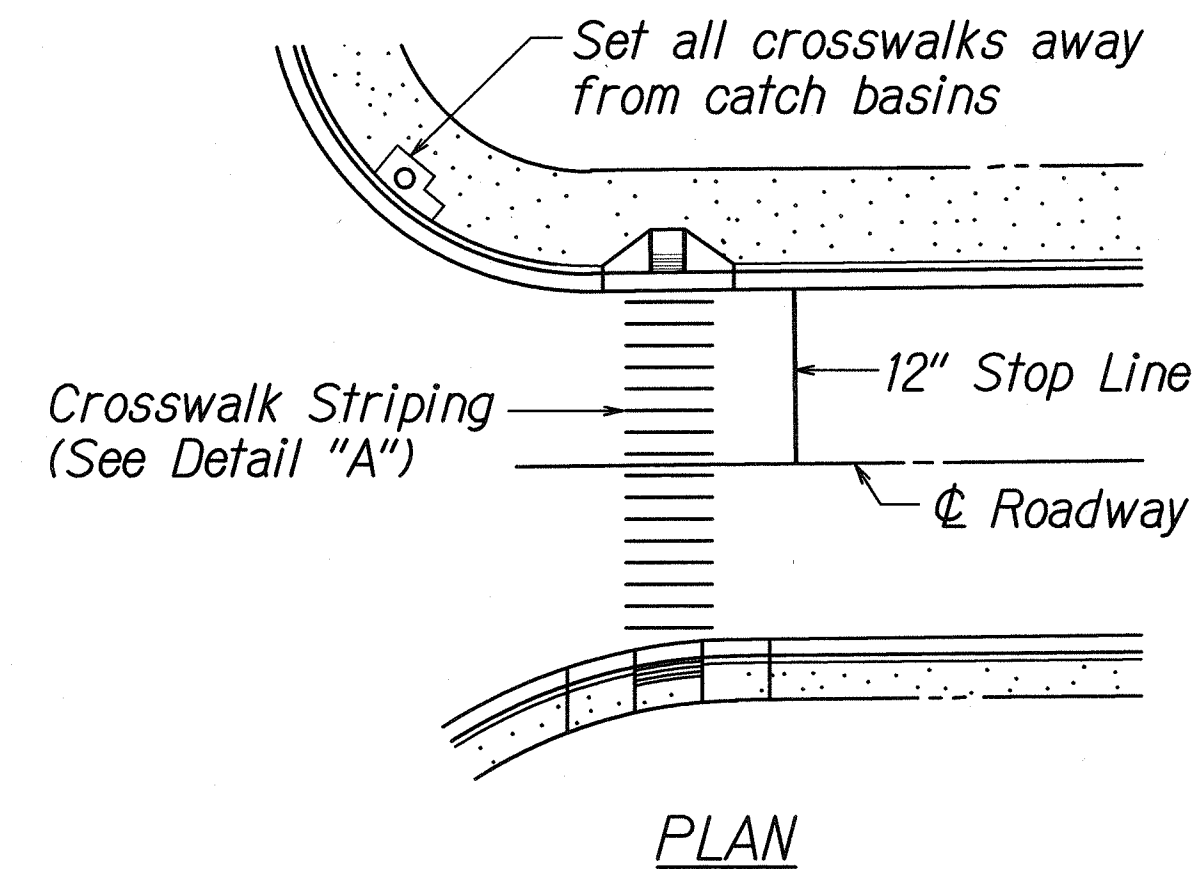
CURB RAMP DETAILS

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

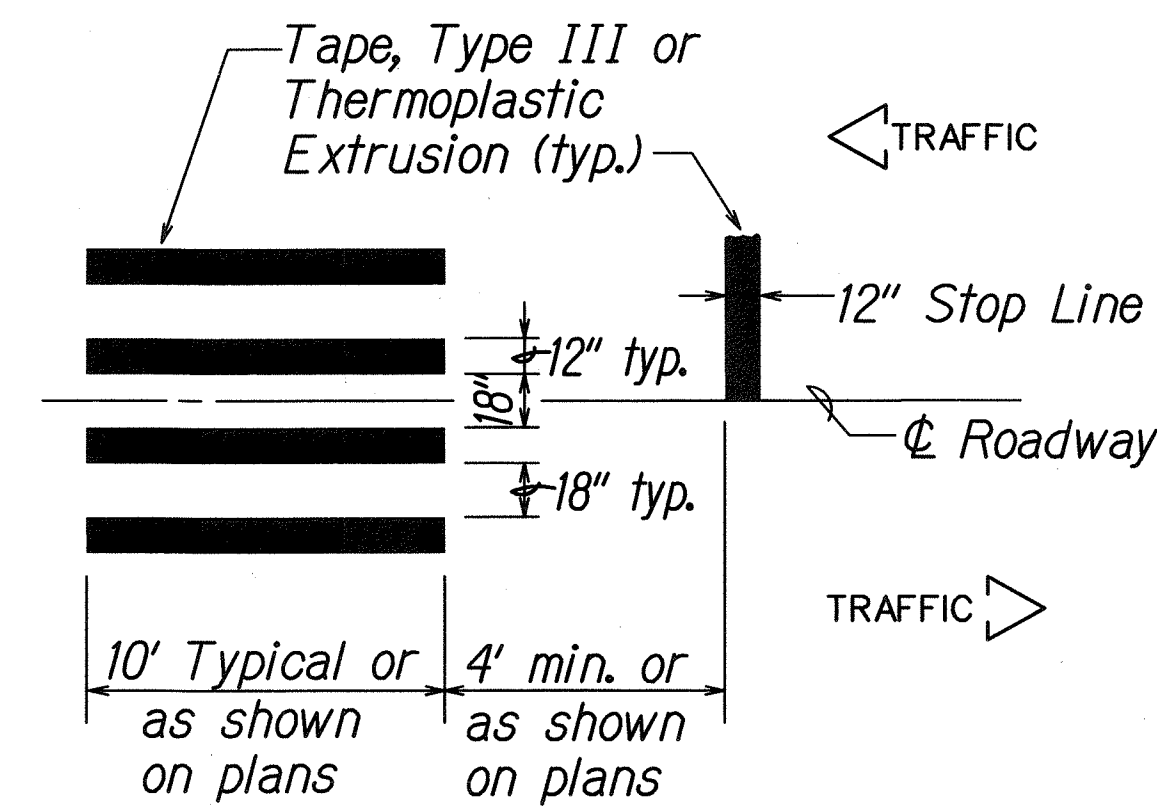
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SHEET No. R1-31 OF 39 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	56	160



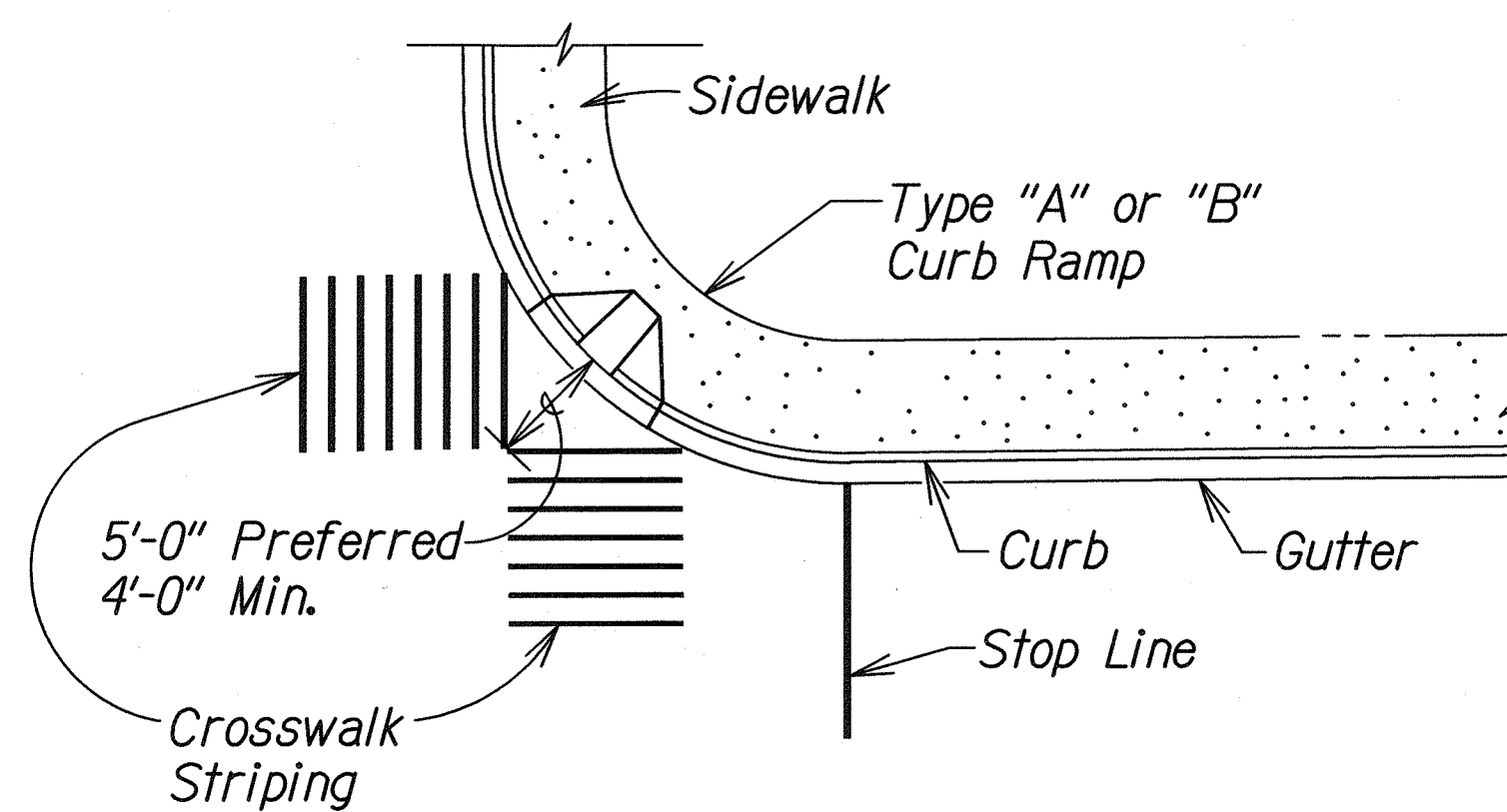
**TYPICAL CROSSWALK STRIPING
AT CURB RAMP**



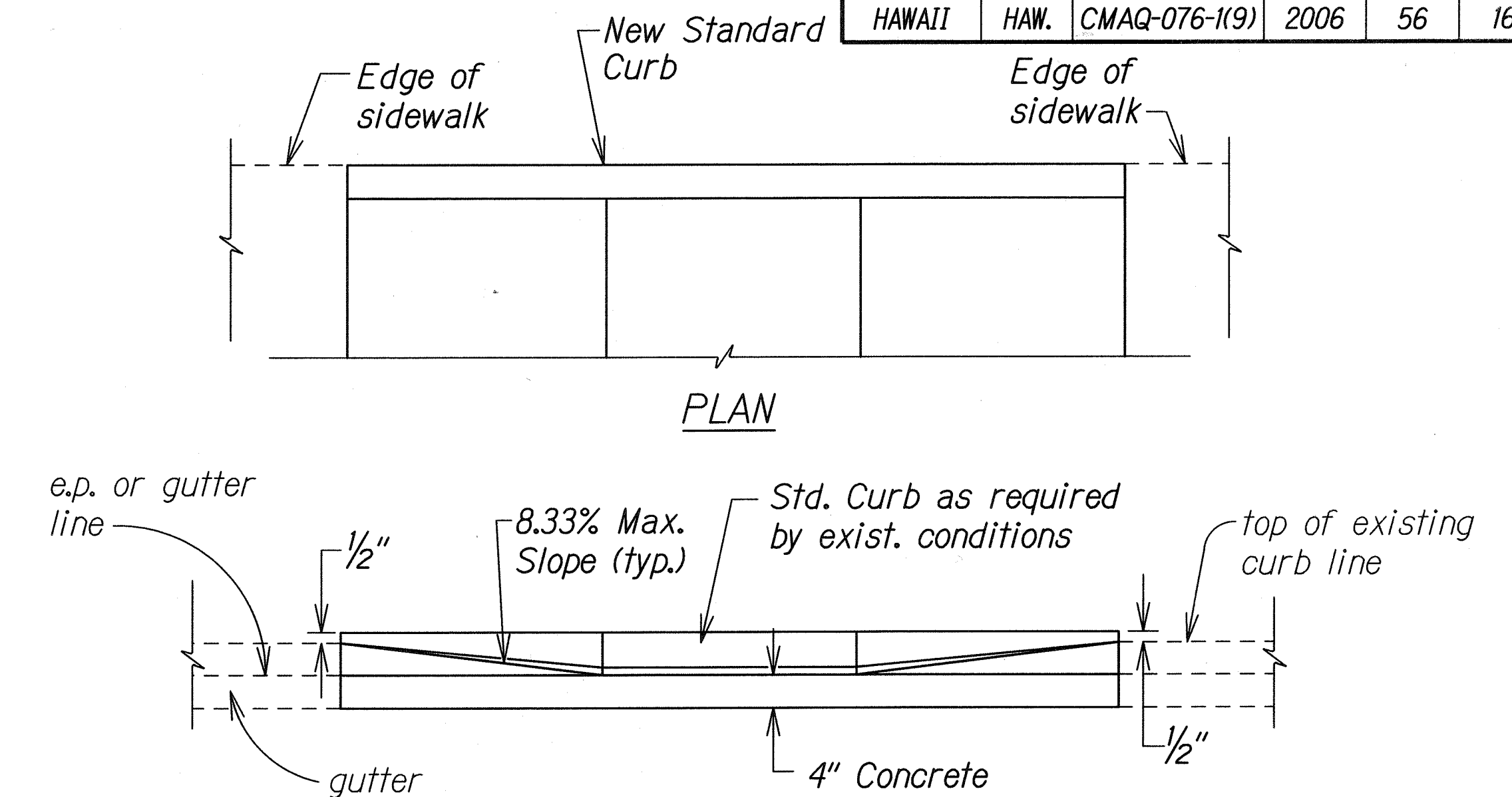
DETAIL "A"

CROSSWALK STRIPING DETAIL

NOTE:
Longitudinal lines shall be parallel to traffic flow.

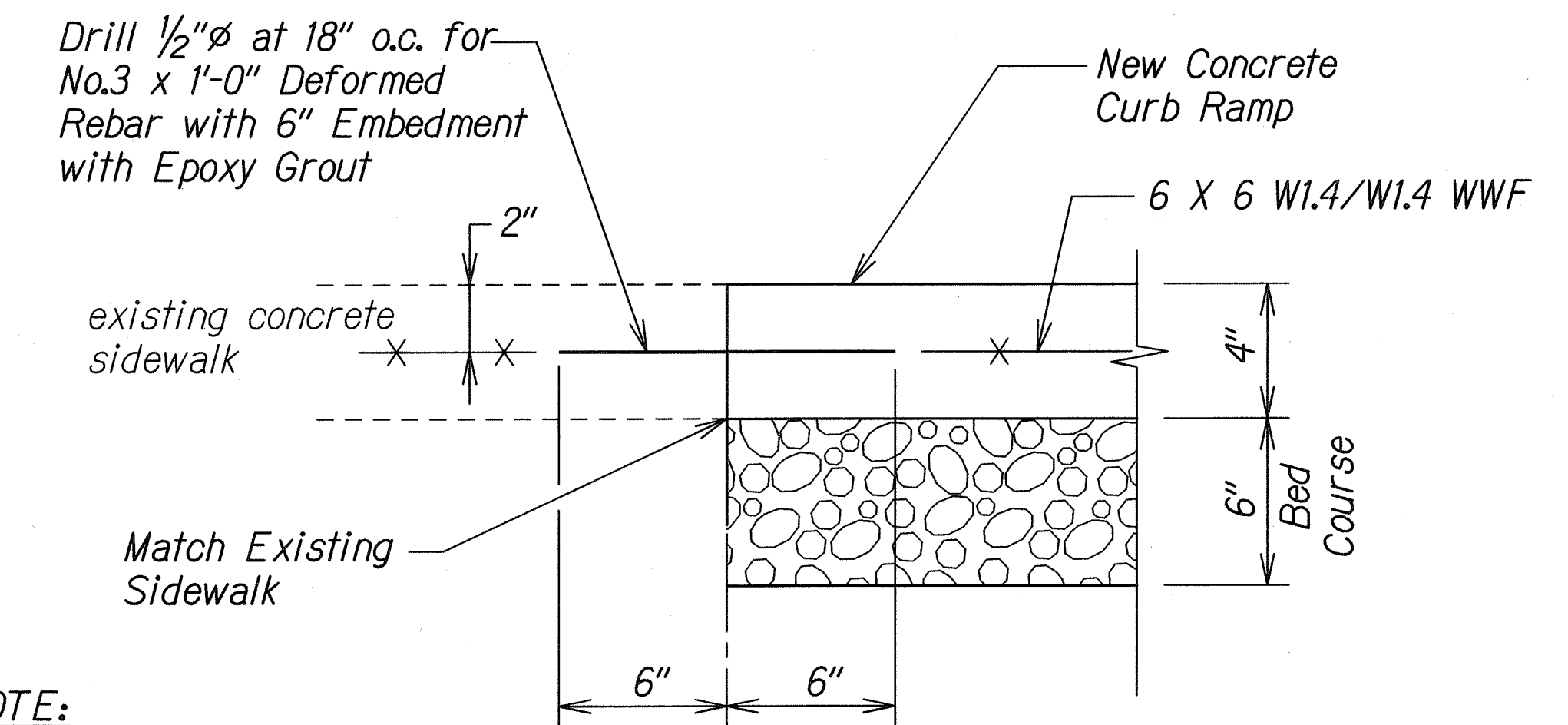


**TYPICAL CROSSWALK STRIPING
AT DIAGONAL CURB RAMP**



DETAIL - BACK CURB

NOTE:
This detail can be used in situations where the edge of sidewalk cannot be flush with the face of (back) curb due to right of way restrictions.



NOTE:
All curb ramps shall be reinforced.

**TYPICAL CONSTRUCTION JOINT
AT EXISTING SIDEWALK**

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: NTS Date: Sept. 20, 2007

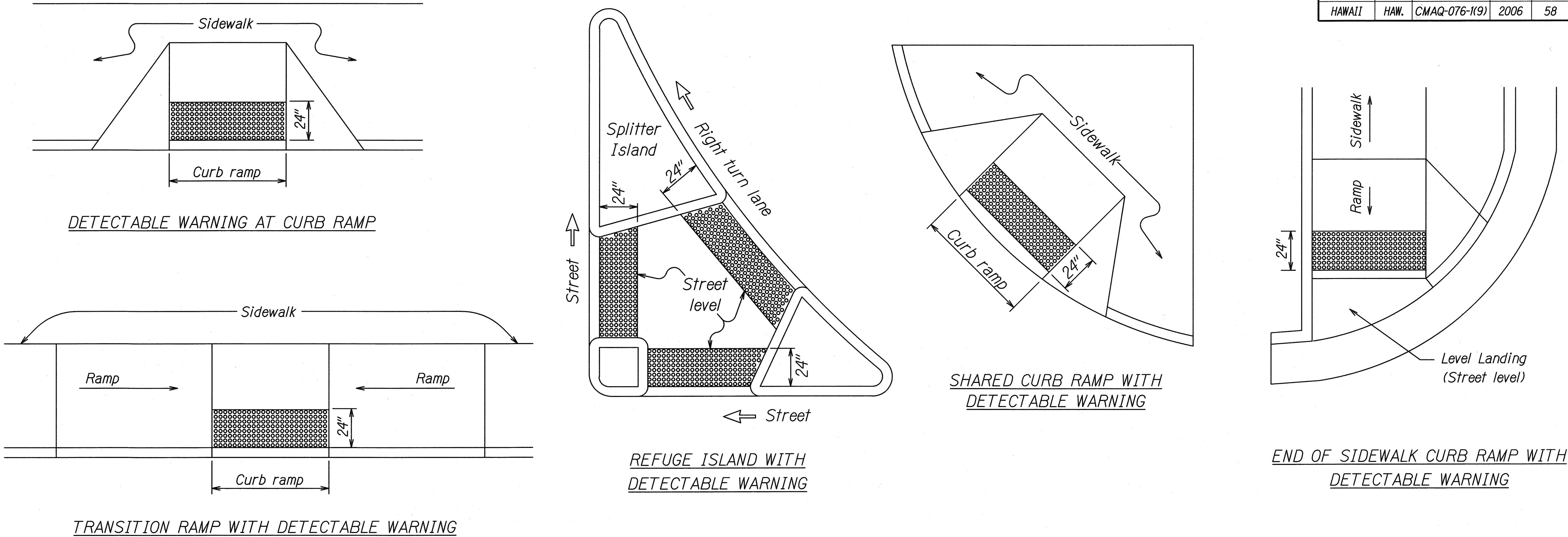
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Ramirez

NO. 7269-C
HAWAII, U.S.A.

J:\FORT WEAVER ROAD\PACKAGE 2\ROAD\RAMP\MISC-R12-06-06.dgn
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 SURVEY PLOTTED BY: DATE: 12/06/06
 DESIGNED BY: TE-XX
 CHECKED BY: sht. 7 of 9
 ORIGINAL PLAN: RI2-06-06

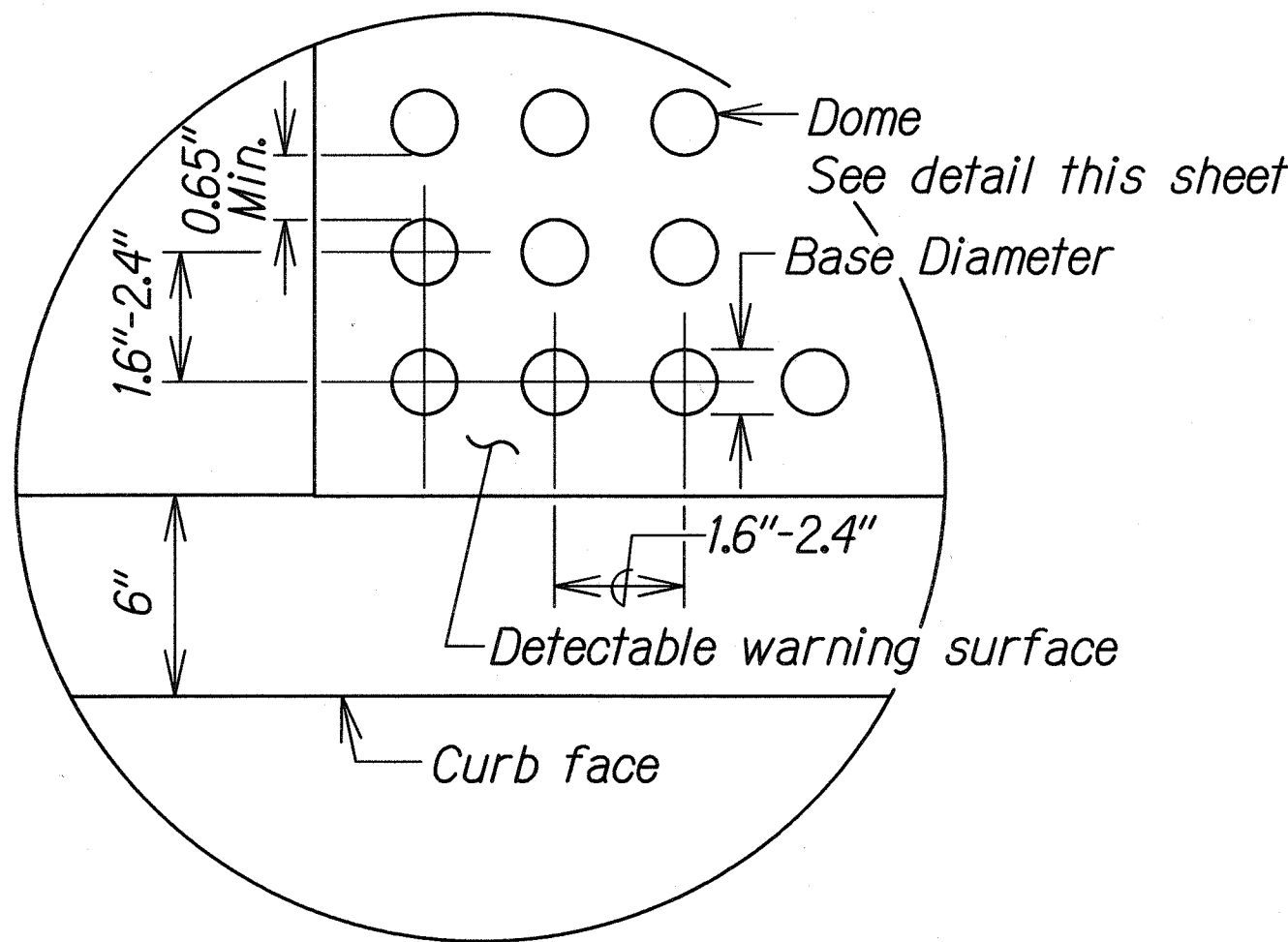
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HAWAII	HAW.	CMAQ-076-1(9)	2006	58	160



TYPICAL INSTALLATION OF DETECTABLE WARNINGS

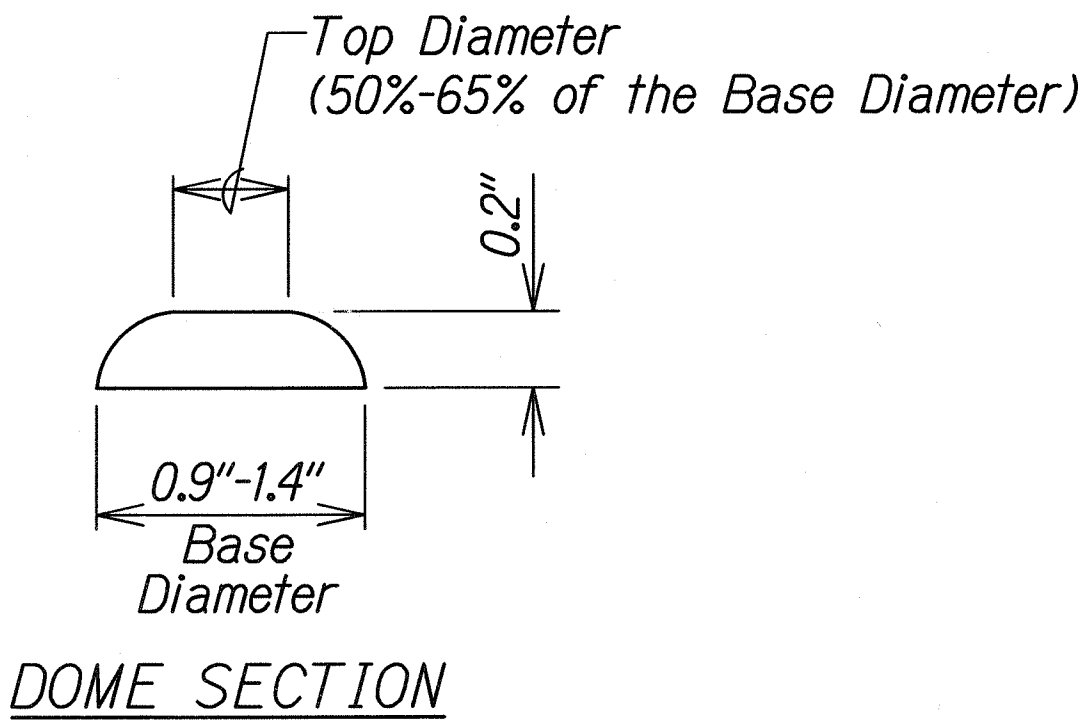
Not to Scale

- NOTES:
1. Detectable warnings shall be 24 inches in the direction of travel and extend the full width of the curb ramp or flush surface (does not include flares).
 2. Truncated domes shall have a diameter of 0.9 to 1.4 inch at the bottom, a diameter of 50%-65% of the base diameter at the top, a height of 0.2 inch and a center-to-center spacing of 1.6 to 2.4 inches measured along one side of a square arrangement.
 3. Domes shall be aligned on a square grid in the predominant direction of travel to permit wheels to roll between the domes.
 4. There shall be a minimum of 70 percent contrast in light reflectance between the detectable warning and an adjoining surface, or the detectable warning shall be "safety yellow".
 5. The material used to provide visual contrast shall be an integral part of the detectable warning surface.
 6. The detectable warning shall be located so that the edge nearest the curb line or other potential hazard is 6 to 8 inches from the curb line.



DETECTABLE WARNING DETAIL

Not to Scale



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETECTABLE WARNING DETAILS

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: NTS Date: Sept. 20, 2007

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

td1/ust2/traffic/std/curbramp/detect-rl2-06-06.dgn

TE-XX

sh. 9 of 9

R12-06-06