FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.				

CURB RAMP AND SIDEWALK NOTES:

1. These typical details are intended as curb ramp guidelines for design and construction. These guidelines shall not replace site specific curb ramp plans.
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 48".
   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.

/dl/usr2/traffic/std/curbramp/rampnote-r03-02-11.dgn

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

R 03-02-11 TE-00 sht. 1 of 9

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

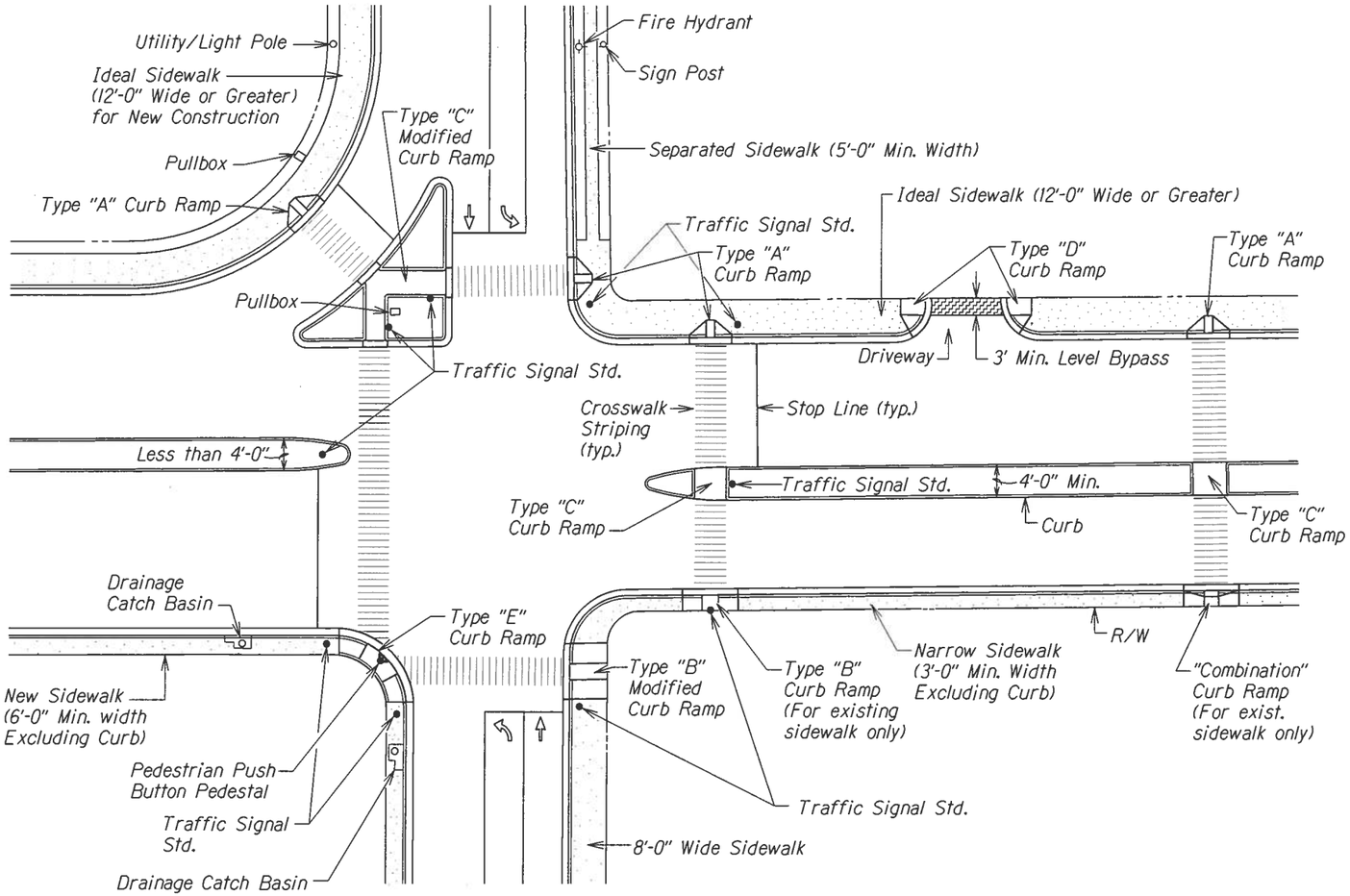
CURB RAMP AND SIDEWALK NOTES

XX
XX
XX

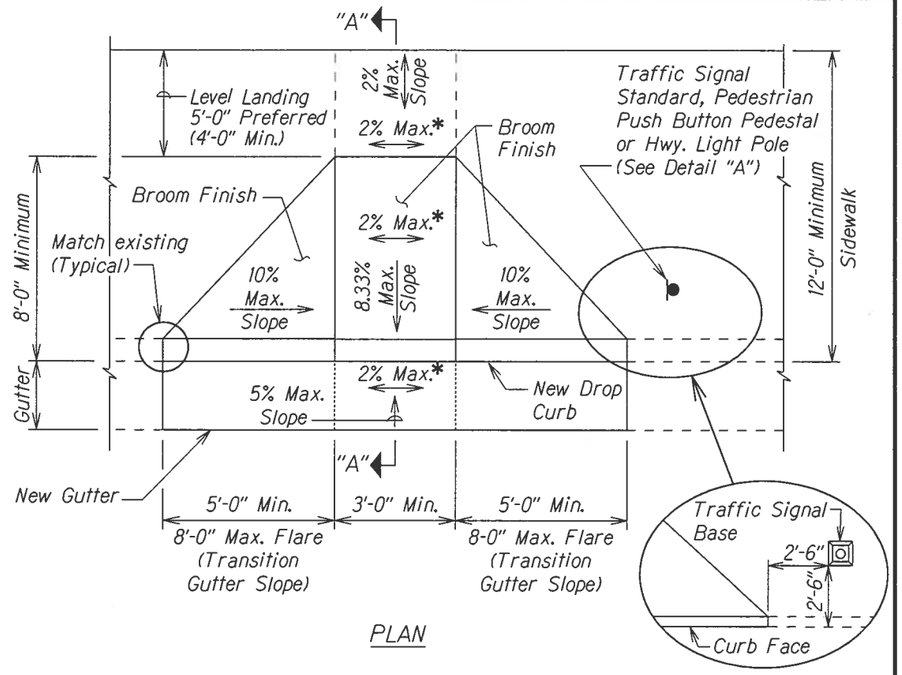
Date: Oct. 16, 2000

SHEET No. 1 OF 9 SHEETS

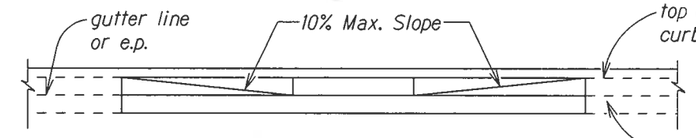
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.				



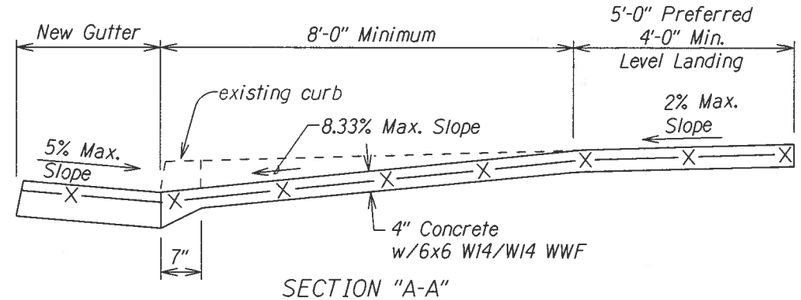
TYPICAL CURB RAMPS



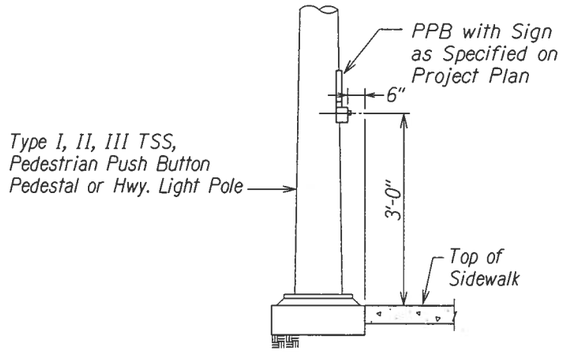
PLAN



ELEVATION



SECTION "A-A"



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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS

XX
XX
XX

Not to Scale Date: XX, 20XX

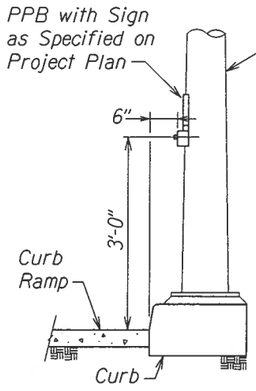
SHEET No. 2 OF 9 SHEETS

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

tdl/usr2/traffic/std/curbramp/rampa-ri2-06-06.dgn

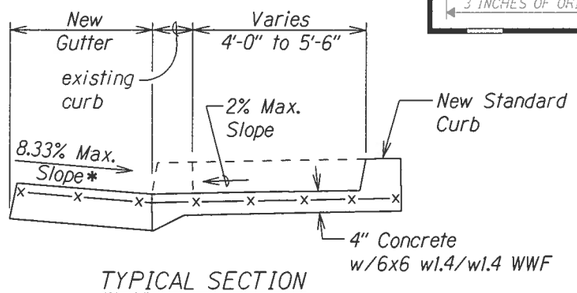
RI2-06-06 TE-XX sht. 2 of 9

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.				

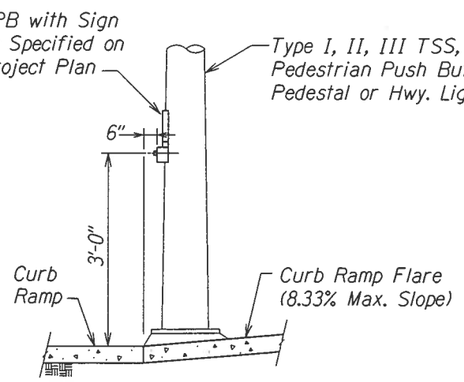


DETAIL "B"

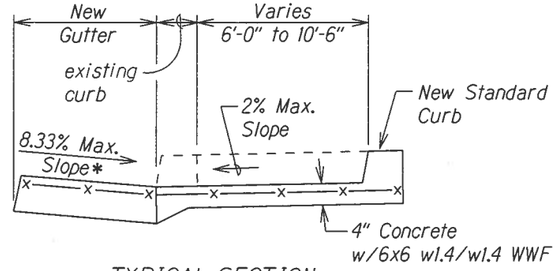
REDUCED PLAN
(HALF SIZE)
0 1 2 3
3 INCHES OF ORIGINAL PLAN



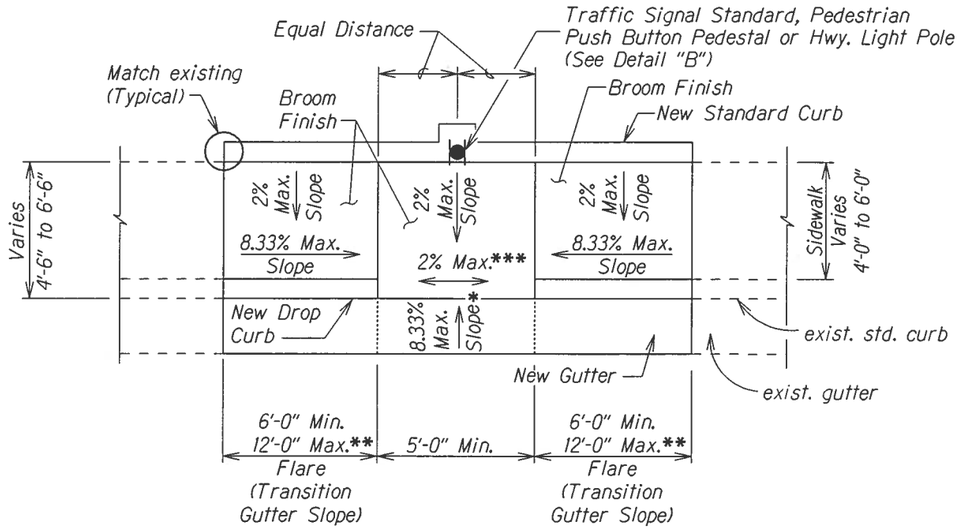
TYPICAL SECTION



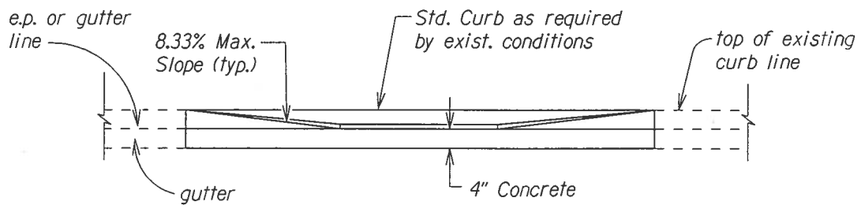
DETAIL "C"



TYPICAL SECTION



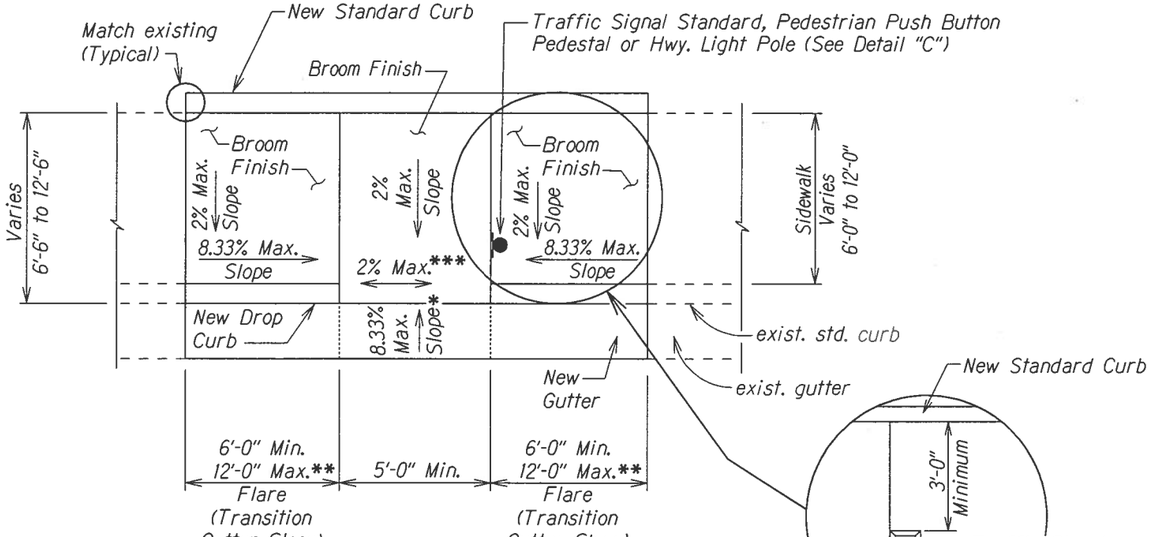
PLAN



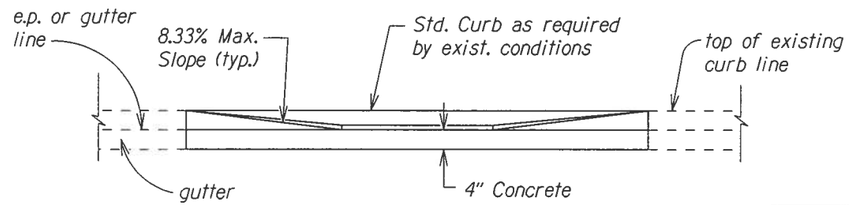
ELEVATION

CURB RAMP - TYPE "B"

SIDEWALK WIDTH 4'-0" OR GREATER
BUT LESS THAN 6'-0" WIDTH



PLAN



ELEVATION

CURB RAMP - TYPE "B" MODIFIED

SIDEWALK WIDTH 6'-0" OR GREATER
BUT LESS THAN 12'-0" WIDTH

* 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 Technical Infeasibility (TI) Statement

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS

XX
XX
XX

Not to Scale Date: XX, 20XX

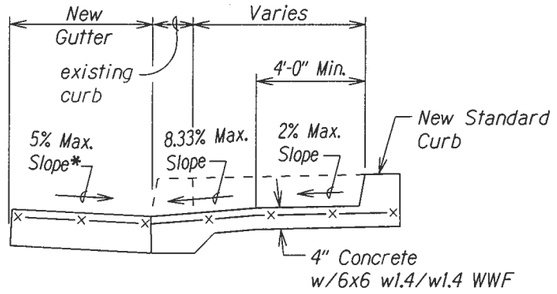
SHEET No. 3 OF 9 SHEETS

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

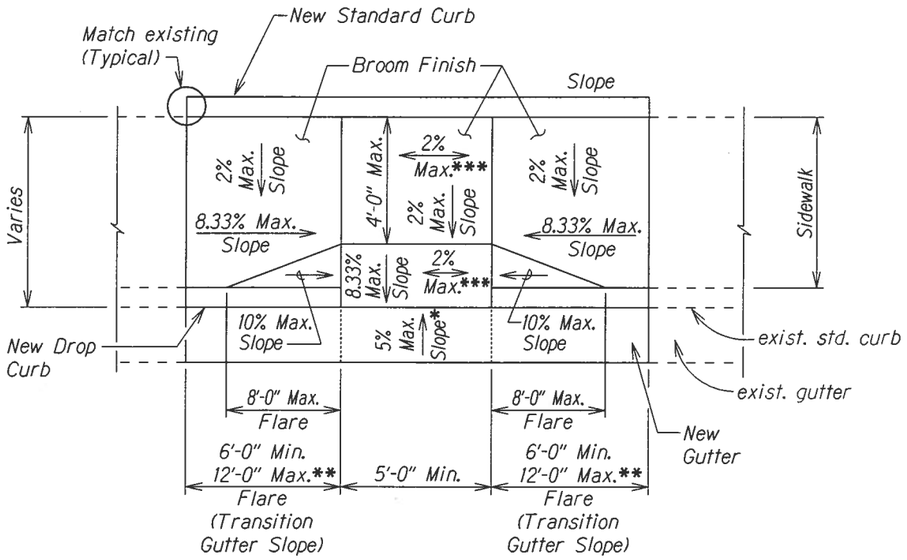
tdl/usr2/traffic/std/curbramp/rampb-r12-06-06.dgn

R12-06-06 TE-XX sht. 3 of 9

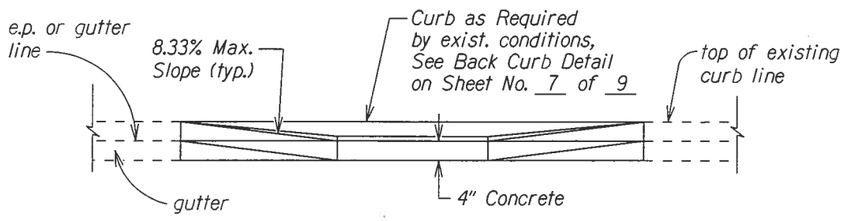
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.				



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

REDUCED PLAN
(HALF SIZE)
0 1 2 3
3 INCHES OF ORIGINAL PLAN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS

XX
XX
XX

Not to Scale Date: XX, 20XX

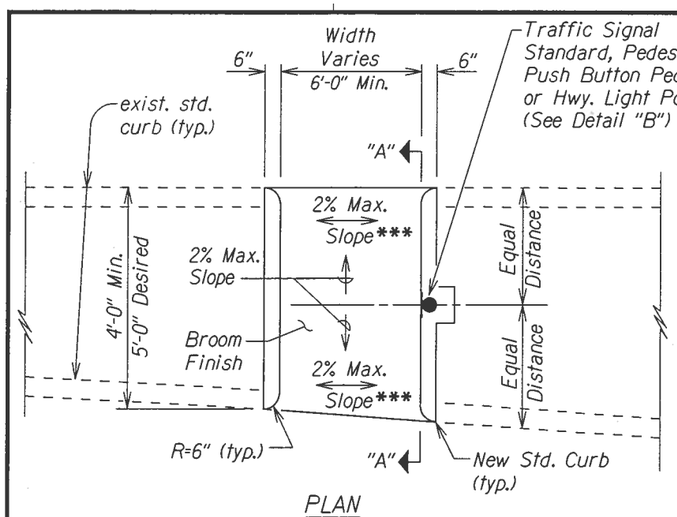
SHEET No. 4 OF 9 SHEETS

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

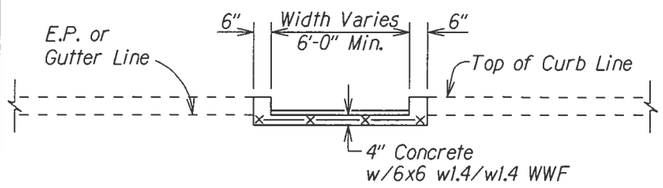
tdl/usr2/traffic/std/curbramp/rampb2-r12-06-06.dgn

R12-06-06 TE-XX sht. 4 of 9

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.				



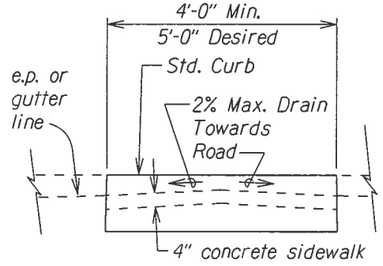
PLAN



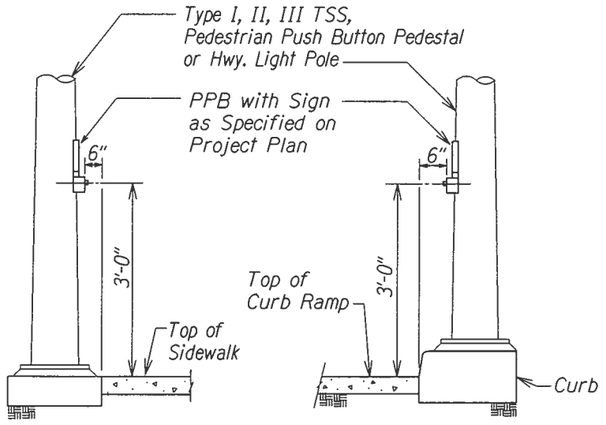
ELEVATION

CURB RAMP - TYPE "C"

USE AT MEDIAN CROSSINGS, ISLANDS

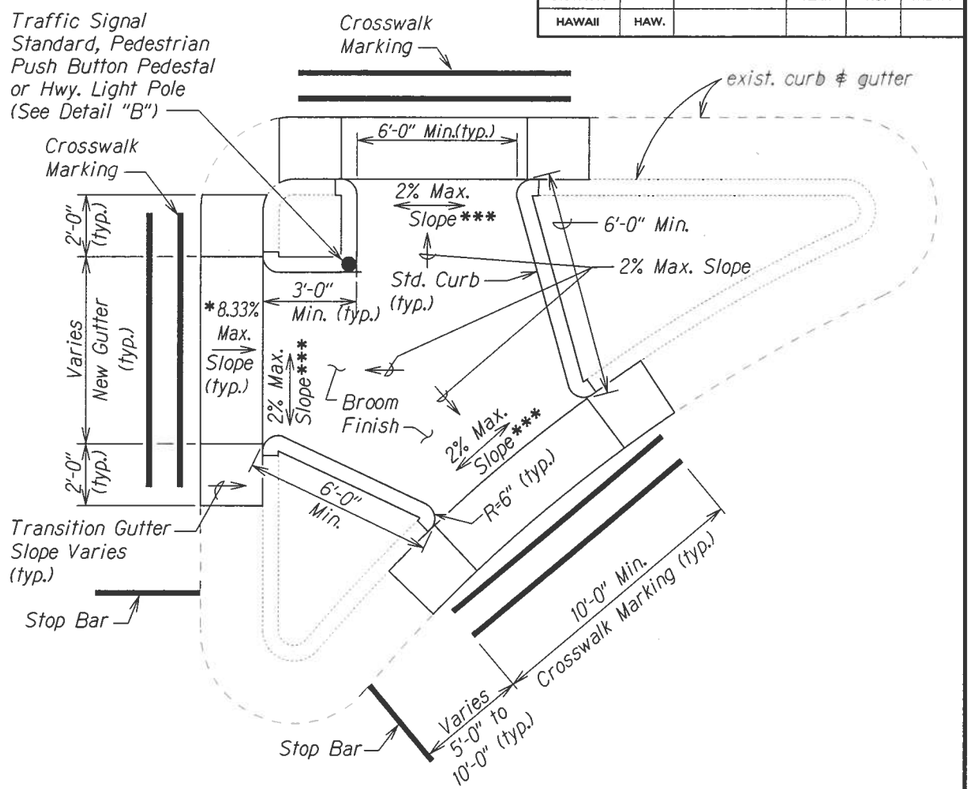


SECTION "A-A"

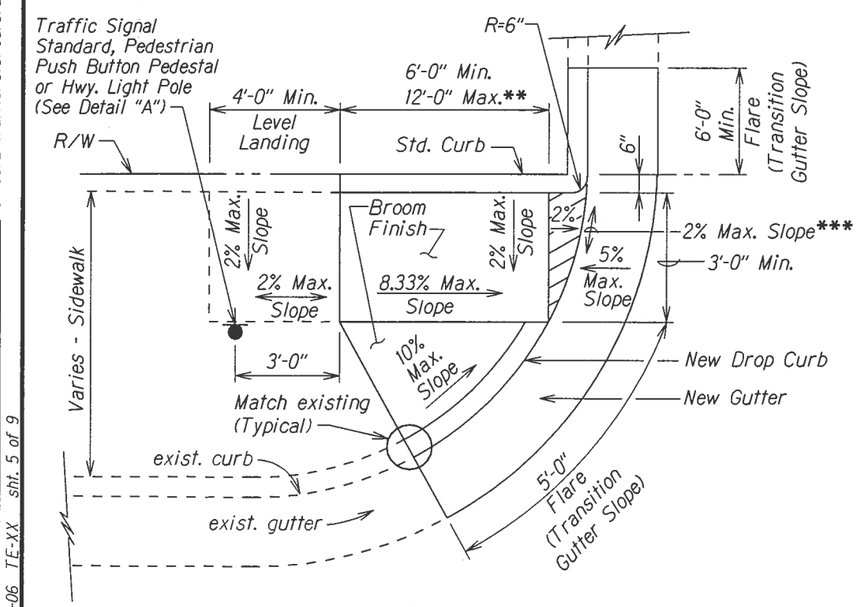


DETAIL "A"

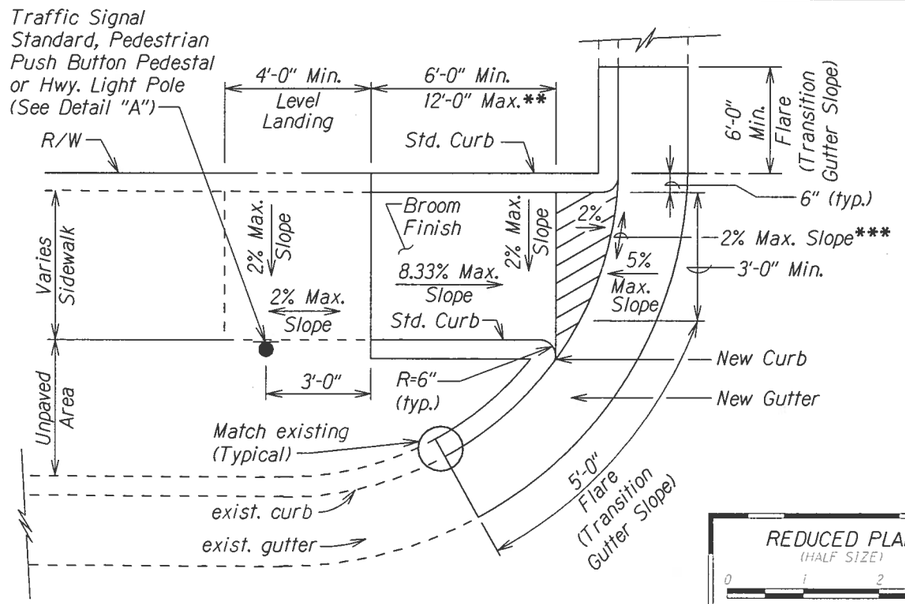
DETAIL "B"



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

REDUCED PLAN
(HALF SIZE)
0 1 2 3
3 INCHES OF ORIGINAL PLAN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS

XX
XX
XX

Not to Scale Date: XX, 20XX

SHEET No. 5 OF 9 SHEETS

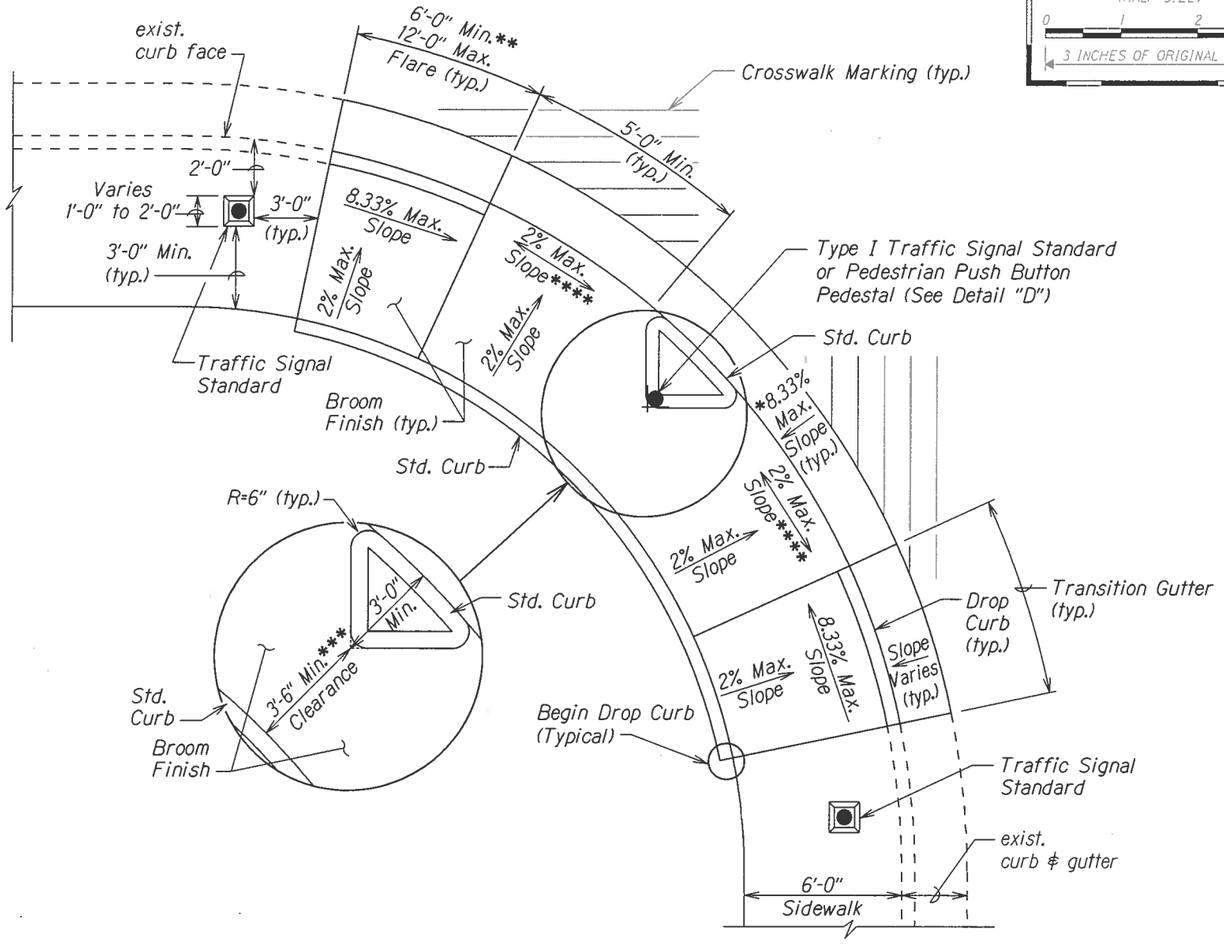
ORIGINAL PLAN | SIGNET PLOTTED BY ... DATE | SIGNET DRAWN BY | NOTE BOOK | DESIGNED BY | QUANTITIES BY | CHECKED BY | No. ...

fdl/usr2/traffic/std/curbramp/rampcd-r12-06-06.dgn

R12-06-06 TE-XX sht. 5 of 9

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.				

REDUCED PLAN
(HALF SIZE)
0 1 2 3
3 INCHES OF ORIGINAL PLAN



CURB RAMP - TYPE "E"

SIDEWALK WIDTH 7'-0" OR GREATER

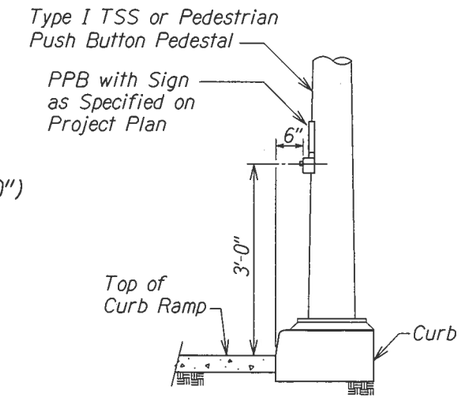
(TO BE USED ONLY WITH TRAFFIC SIGNAL STANDARD OR PEDESTRIAN PUSH BUTTON PEDESTAL ON TRIANGULAR "ISLAND")

* 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.

*** The Clearance shall be increased to 6'-0" or wider at areas with high pedestrian traffic or as directed by the Engineer or as shown on the plans.

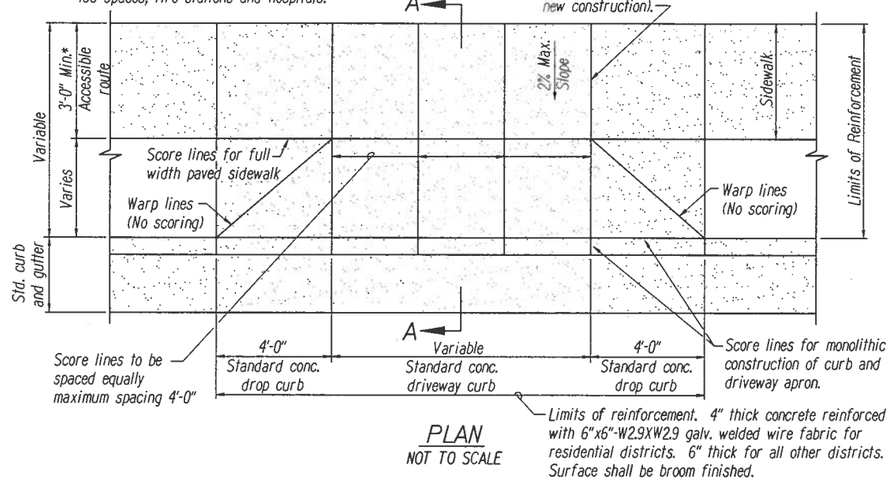
**** If Roadway Slope >2% Conform to Roadway Slope and File Technical Infeasibility (TI) Statement



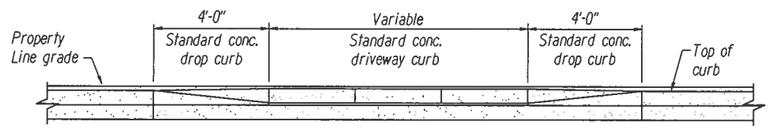
DETAIL "D"

Curb return type driveway may be permitted for parking areas exceeding 100 spaces, fire stations and hospitals.

Provide keyed joints both sides. (See Detail "A" for new construction).



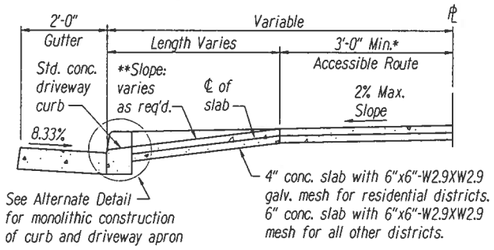
PLAN
NOT TO SCALE



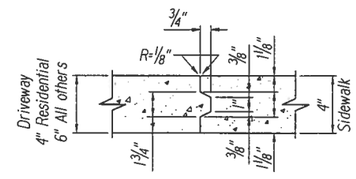
ELEVATION
NOT TO SCALE

* Match width of existing sidewalk whenever possible.

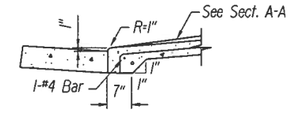
** Breakover and departure angles should not exceed 10 degrees or 17%.



SECTION A-A
NOT TO SCALE



DETAIL "A"
NOT TO SCALE
(NEW CONSTRUCTION)



ALTERNATE DETAIL
NOT TO SCALE

DRIVEWAY APRON

NOTES:

1. For extension to existing driveway, scoring and finish shall match existing scoring and finish. For driveway constructed in built up areas, scoring conforming to scoring at adjacent driveways may be authorized.
2. This detail is only one method for providing ADA access. Other methods can be used. These methods are shown in references listed in Curb Ramp and Sidewalk Note No. 21.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS

XX
XX
XX

Not to Scale Date: XX, 20XX

SHEET No. 6 OF 9 SHEETS

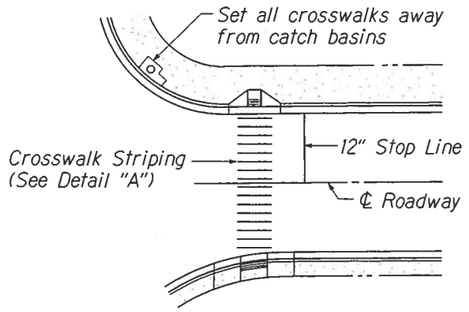
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
	TRACED BY	
NOTE BOOK	DESIGNED BY	
	QUANTITIES BY	
No.	CHECKED BY	

tdl /usr2/traffic/std/curbramp/rampe-r12-06-06.dgn

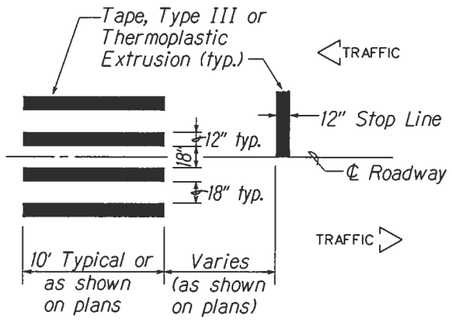
R12-06-06 TE-XX sht. 6 of 9

FILE: ADSH/STD-DET/R-29Adwg

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.				



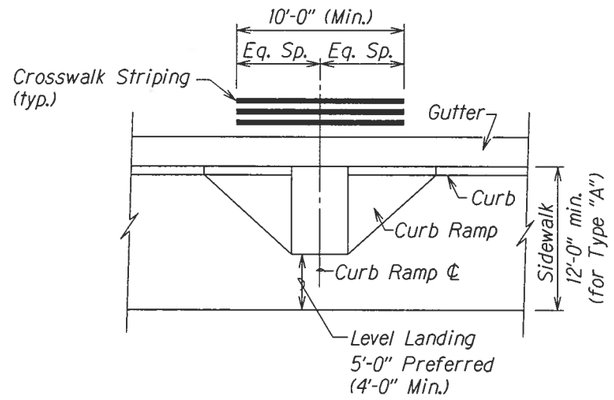
PLAN



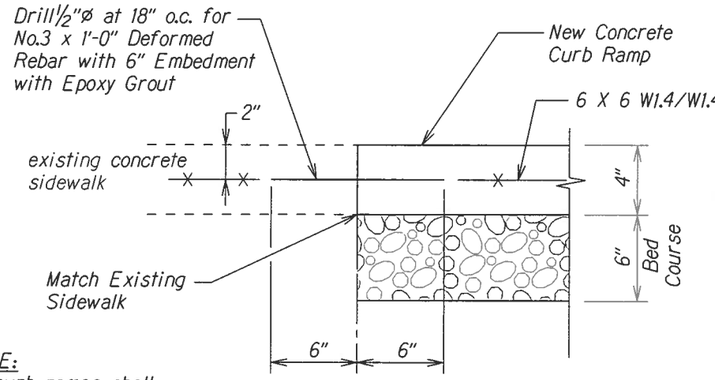
DETAIL "A"

CROSSWALK STRIPING DETAIL

NOTE:
Longitudinal lines shall be parallel to traffic flow.

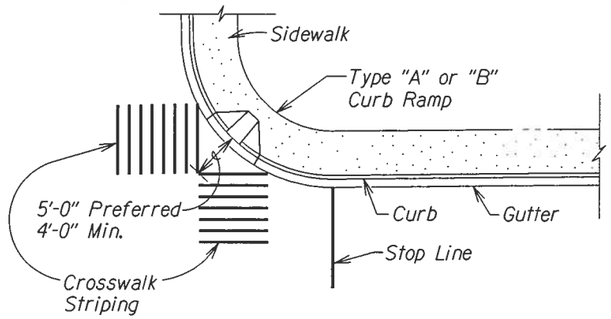


TYPICAL CROSSWALK STRIPING AT CURB RAMP

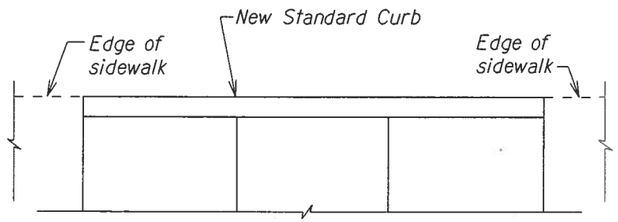


NOTE:
All curb ramps shall be reinforced.

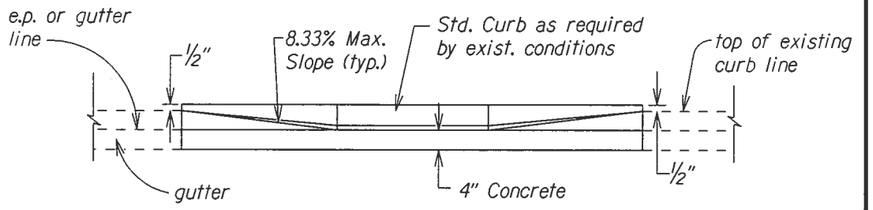
TYPICAL CONSTRUCTION JOINT AT EXISTING SIDEWALK



TYPICAL CROSSWALK STRIPING AT DIAGONAL CURB RAMP



PLAN



ELEVATION

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.

REDUCED PLAN
(HALF SIZE)
0 1 2 3
3 INCHES OF ORIGINAL PLAN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS

XX
XX
XX

Not to Scale Date: XX, 20XX

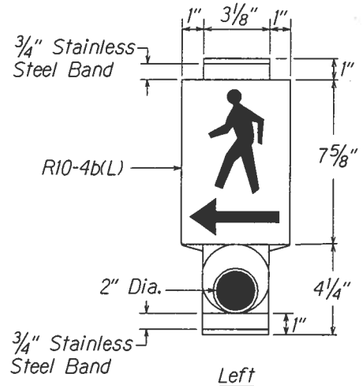
SHEET No. 7 OF 9 SHEETS

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

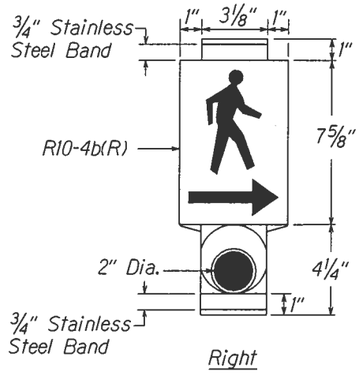
tdl /usr2/traffic/std/curbramp/rampmisc-r12-06.dgn

R12-06-06 TE-XX sht. 7 of 9

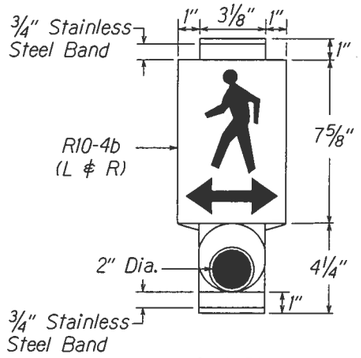
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.				



Left



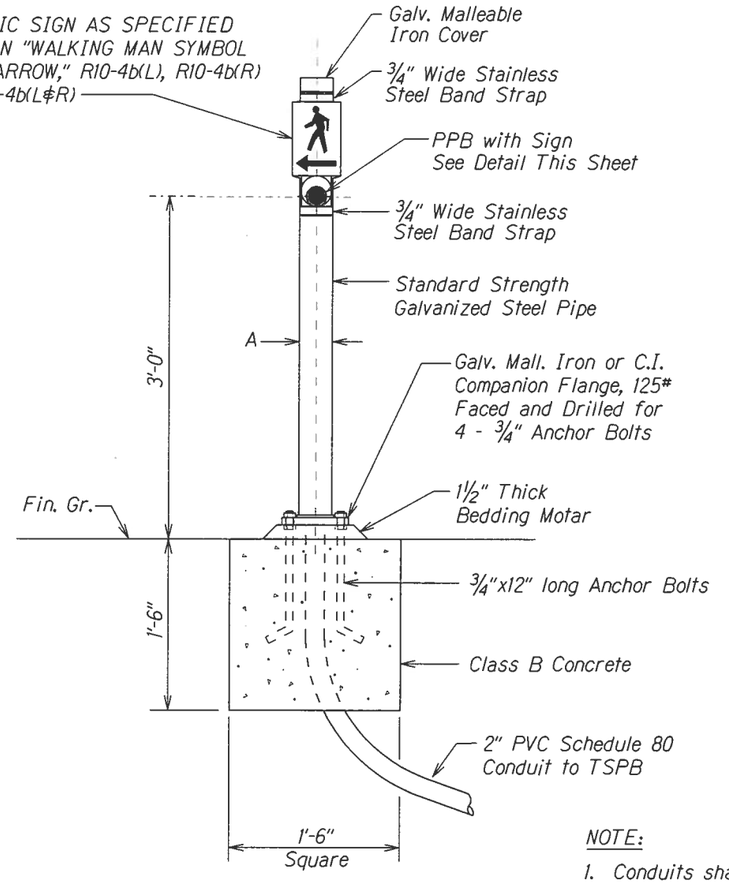
Right



Left ⊄ Right

PEDESTRIAN PUSH BUTTON WITH SIGN

Man, Arrow ⊄ Push Button - White
Background - Black

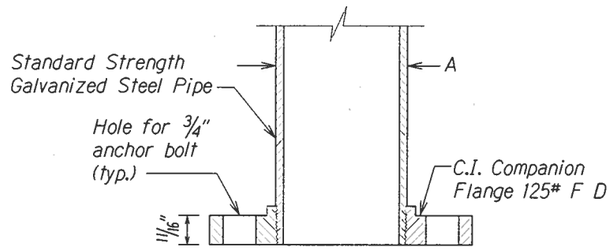


PPB POST AND FOOTING DETAIL

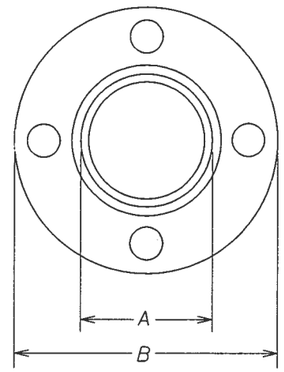
DATA TABLE FOR PPB POST		
AMOUNT OF PPB	DIMENSIONS	
	A	B
1	3½"	8"
2→3	4½"	9"

NOTE:

1. Conduits shall protrude 2" max. above finished surface of foundation.
2. Conduits shall slope away from post foundation.



SECTION

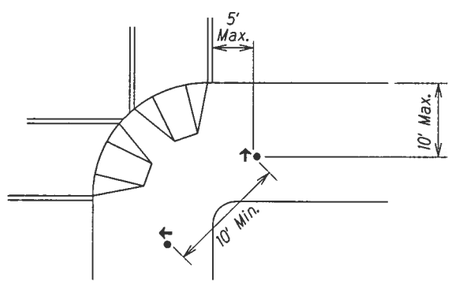


TOP VIEW

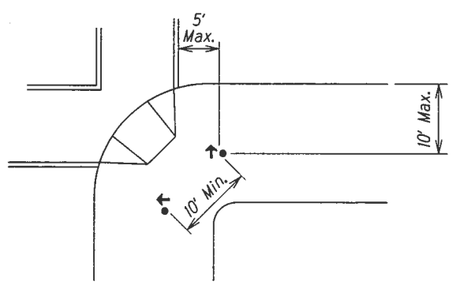
FLANGE DETAIL

GENERAL NOTES:

1. There shall be a 30" x 48" level ground surface (2% max. cross slope, both directions) for a forward or side approach, as appropriate, to a pedestrian push button. Location of pedestrian push button shall be shown on Civil Plans in addition to Electrical Plans.
2. At intersection corners where two pedestrian push buttons are provided, the push buttons should be separated by a distance of at least 10 ft. and located as follows:
   A. adjacent to a level all-weather surface to provide access from a wheelchair and, where there is an all-weather surface, wheelchair accessible route to the ramp
   B. within 5 ft. of the crosswalk extended
   C. within 10 ft. of the edge of the curb, shoulder or pavement
   D. parallel to the crosswalk to be used



TWO CURB-CUT RAMPS



ONE CURB-CUT RAMP

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PEDESTRIAN PUSH BUTTON DETAILS

XX
XX
XX

Scale: Not to scale Date: XX, 20XX

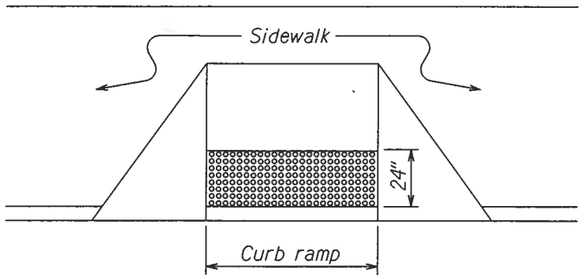
SHEET No. 8 OF 9 SHEETS

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY X | QUANTITIES BY | CHECKED BY | DATE X | NOTE BOOK N.A. | dgn N. \dgn

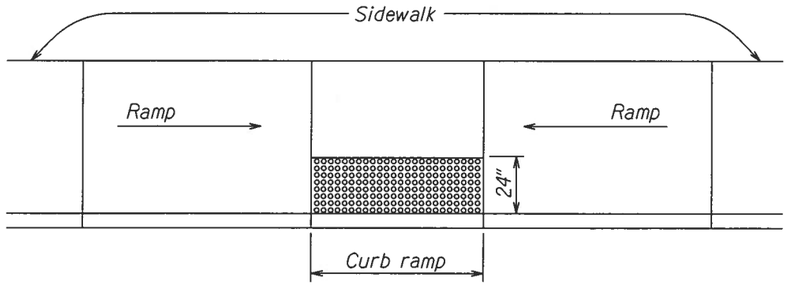
tdl /usr2/traffic/std/curbramp/ppbdet-r03-02-11.dgn

R 03-02-11 TE-XX sht. 8 of 9

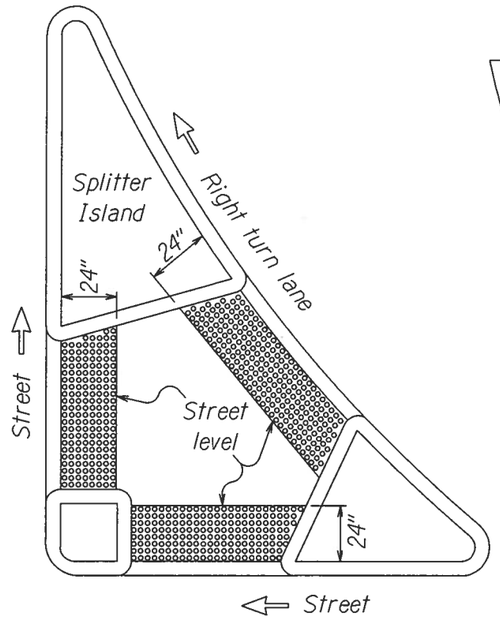
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.				



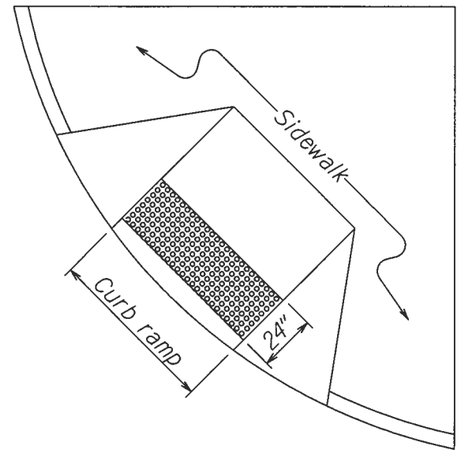
DETECTABLE WARNING AT CURB RAMP



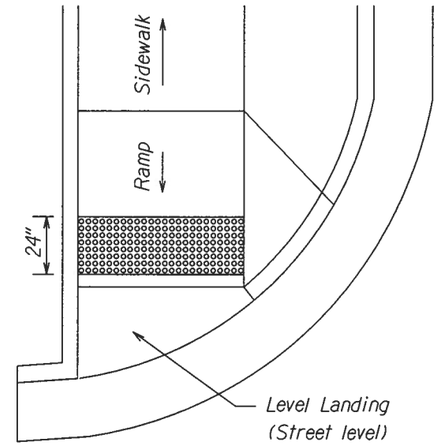
TRANSITION RAMP WITH DETECTABLE WARNING



REFUGE ISLAND WITH DETECTABLE WARNING



SHARED CURB RAMP WITH DETECTABLE WARNING



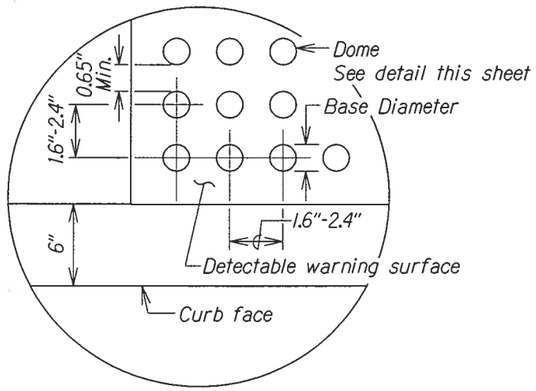
END OF SIDEWALK CURB RAMP WITH DETECTABLE WARNING

TYPICAL INSTALLATION OF DETECTABLE WARNINGS

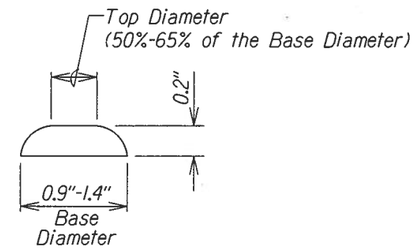
Not to Scale

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.



ENLARGEMENT



DOME SECTION

DETECTABLE WARNING DETAIL

Not to Scale

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETECTABLE WARNING DETAILS

XX
XX
XX

Scale: XX Date: XX, 20XX

SHEET No. 9 OF 9 SHEETS

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

tdl:/usr2/traffic/std/curbramp/detect-r12-06-06.dgn

R12-06-06 TE-XX sht. 9 of 9

R12-06-06

00