

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-OM-2022-38R	2023	1	9

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%.
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.

CURBLESS CROSSWALK NOTES:

1. If conditions are encountered on site at crosswalks that do not have curb ramps and sidewalks, the Contractor shall inform the Engineer of these specific conditions and their locations. HDOT will submit construction plans for these specific conditions to the Disability and Communications Access Board (DCAB), indicating paved clear floor spaces with maximum 2% slopes or a Technical Infeasiblity Statement pending DCAB approval.

FIGURE 5.1

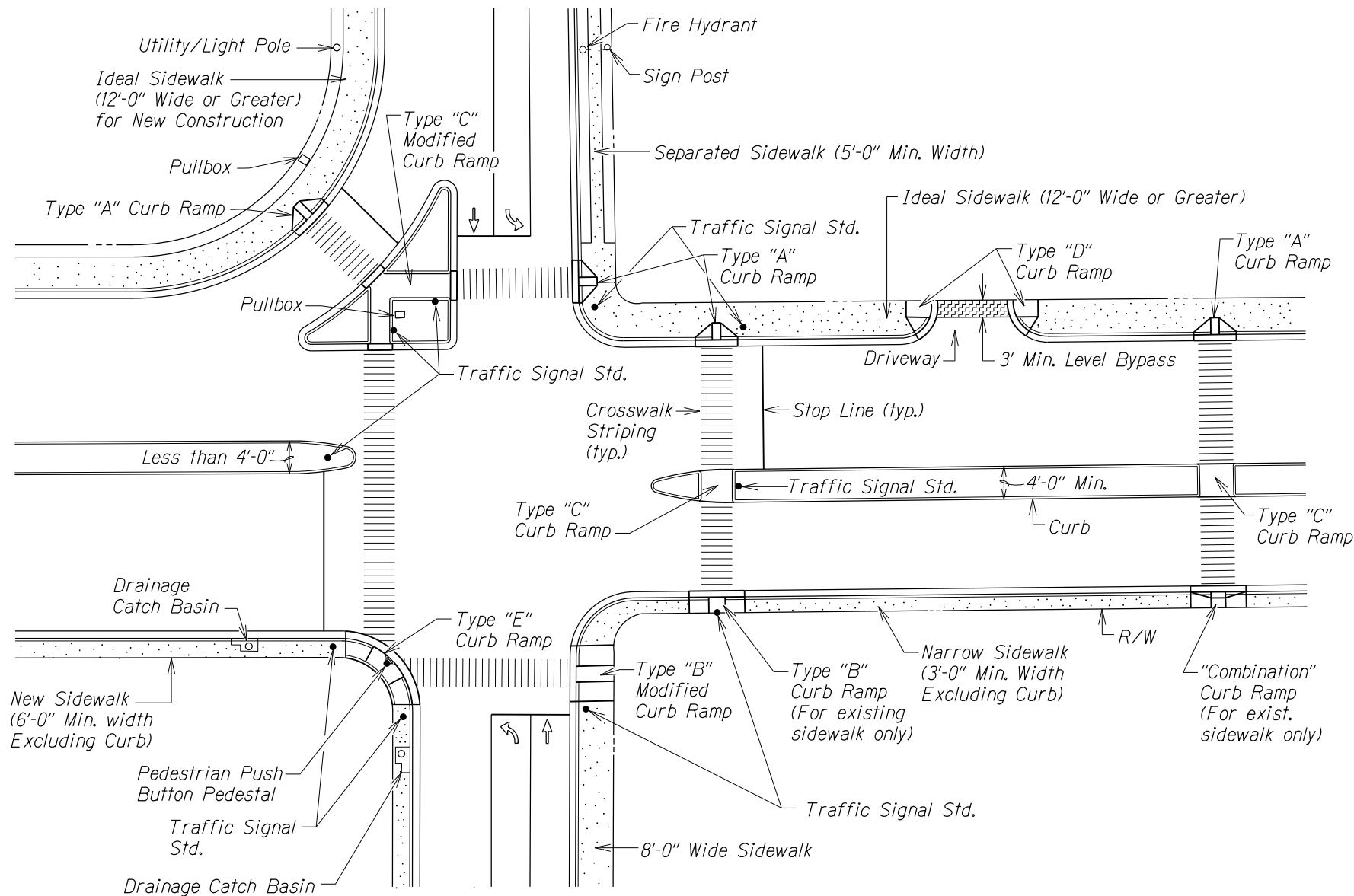
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP AND SIDEWALK NOTES
SIDEWALK, CURB AND GUTTER REPAIR
AT VARIOUS LOCATIONS
ISLAND OF OAHU
PROJECT NO. HWY-OM-2022-38R
Date: June, 2022

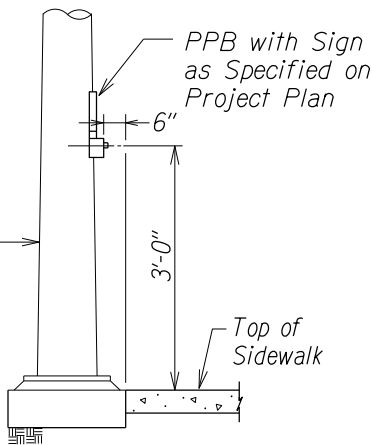
SHEET No. 1 OF 9 SHEETS

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

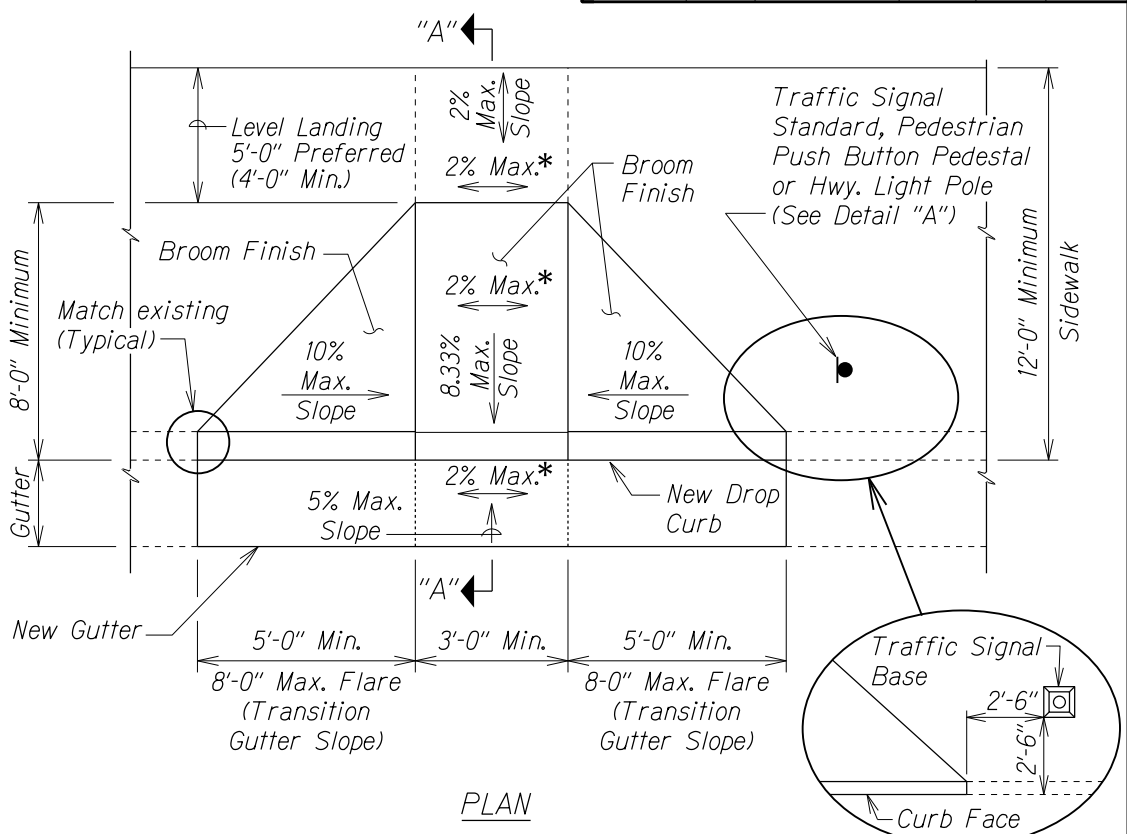
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-OM-2022-38R	2023	2	9



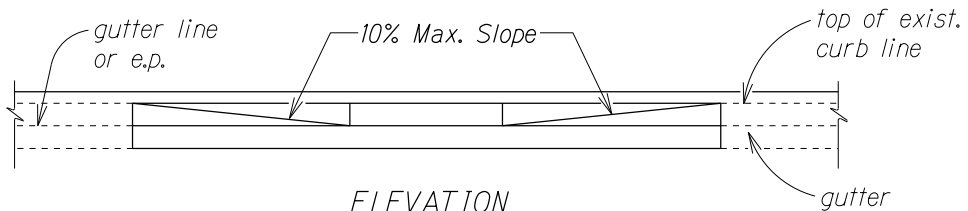
TYPICAL CURB RAMPS



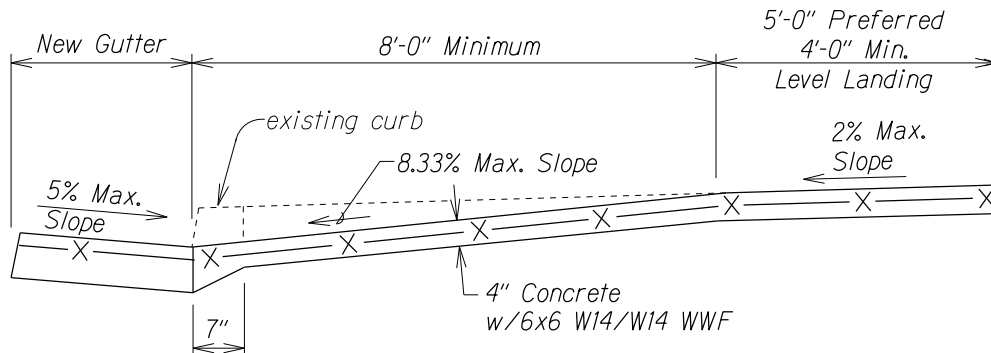
DETAIL "A"



PLAN



ELEVATION



SECTION "A-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

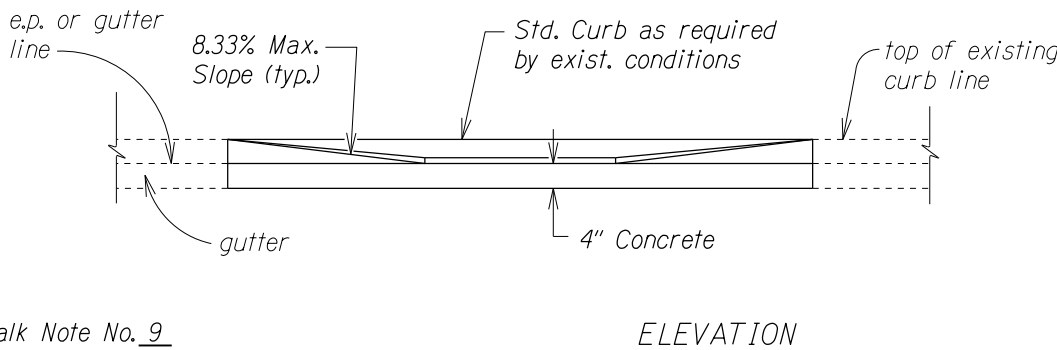
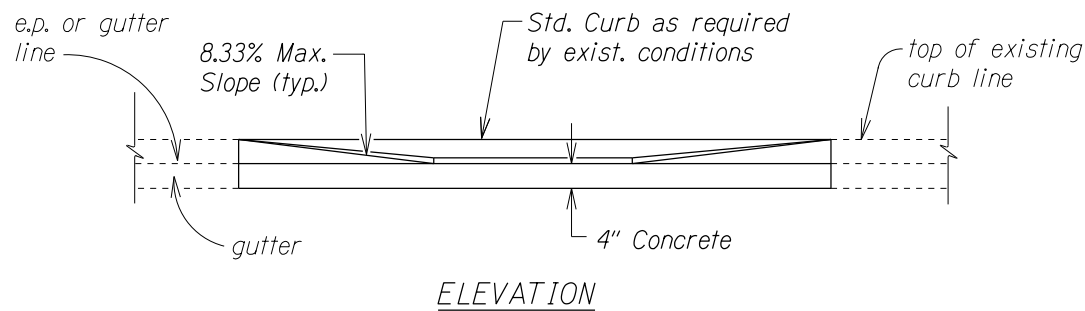
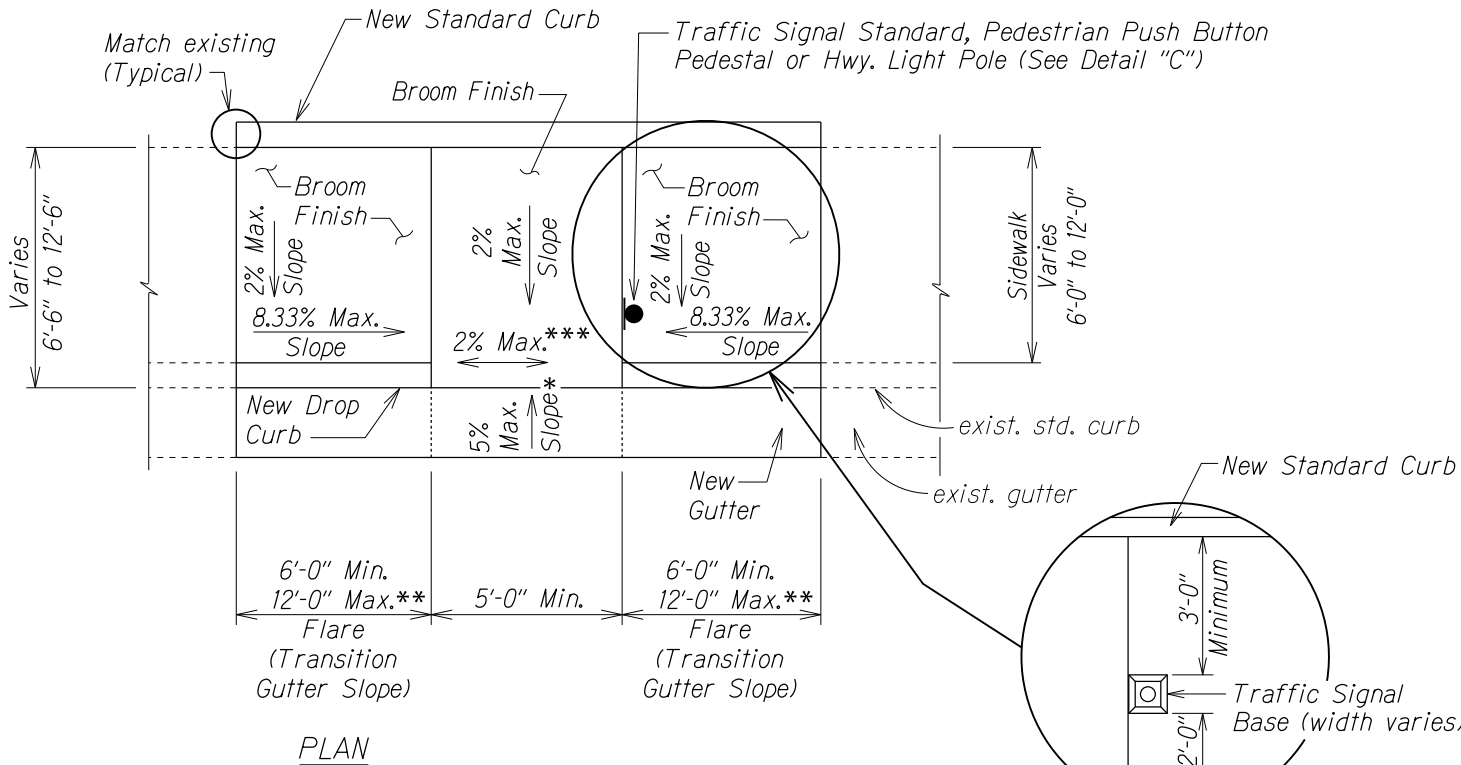
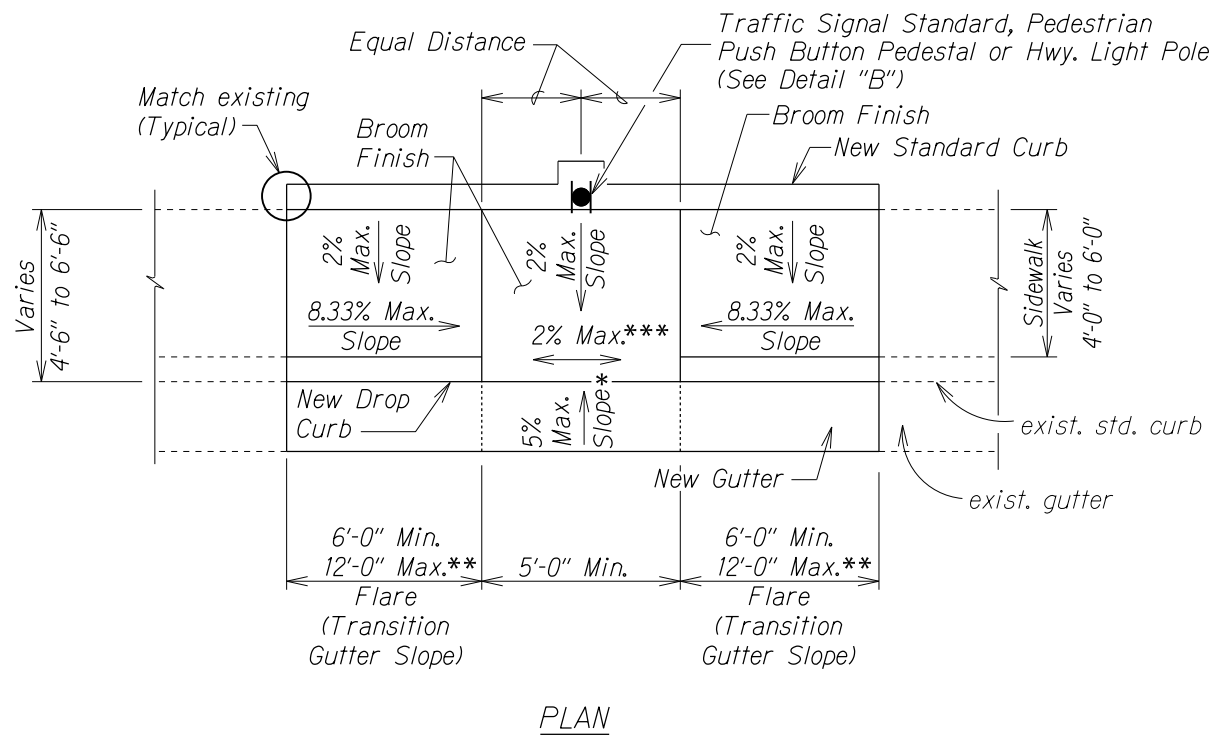
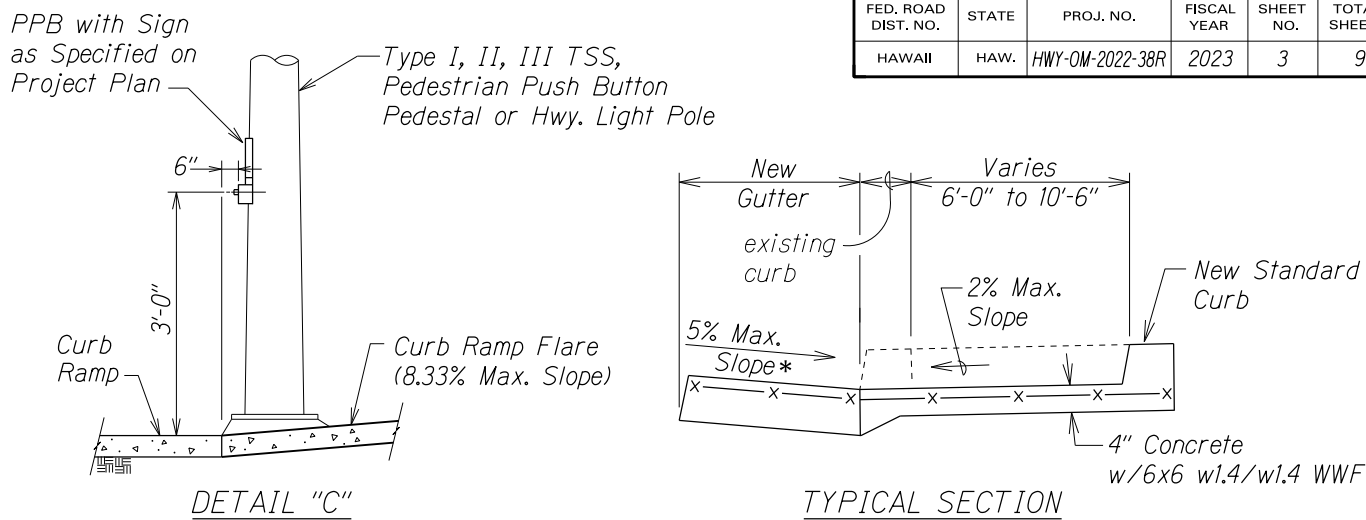
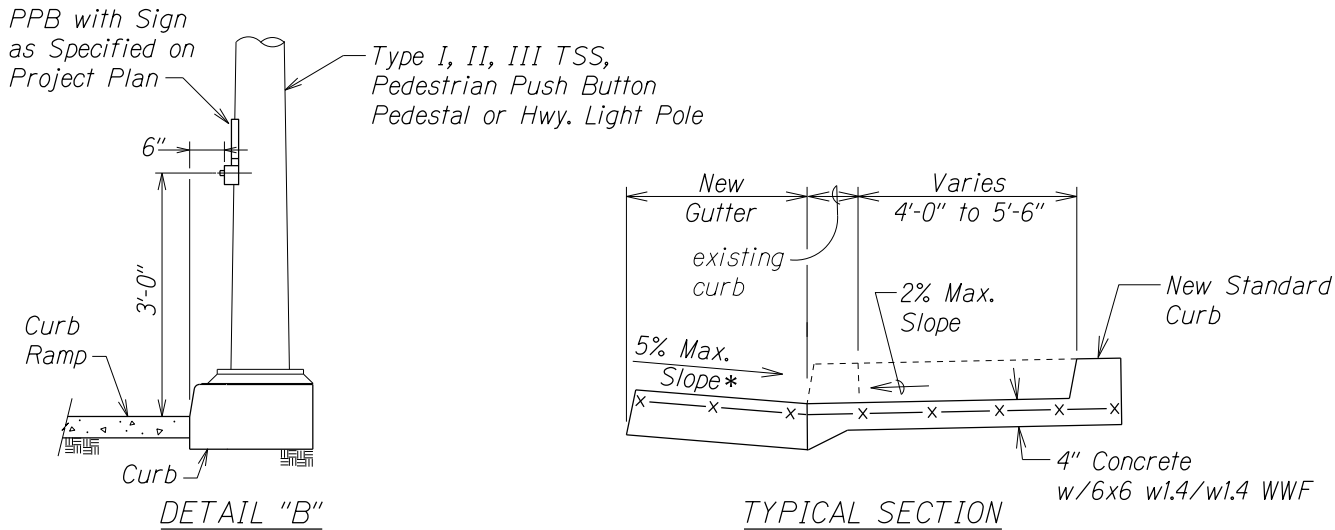
FIGURE 5.2

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS
SIDEWALK, CURB AND GUTTER REPAIR
AT VARIOUS LOCATIONS
ISLAND OF OAHU
PROJECT NO. HWY-OM-2022-38R
Not to Scale Date: June, 2022

SHEET No. 2 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-OM-2022-38R	2023	3	9



CURB RAMP - TYPE "B"
SIDEWALK WIDTH 4'-0" OR GREATER
BUT LESS THAN 6'-0" WIDTH

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

FIGURE 5.3

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS

SIDEWALK, CURB AND GUTTER REPAIR

AT VARIOUS LOCATIONS

ISLAND OF OAHU

PROJECT NO. HWY-OM-2022-38R

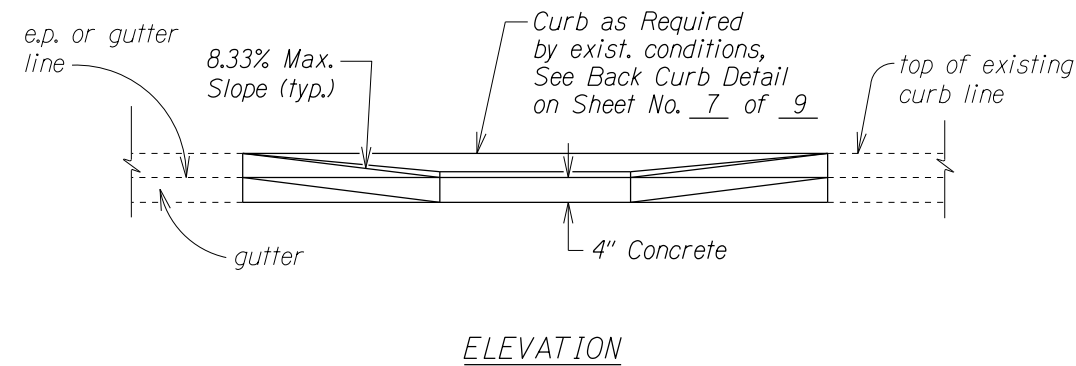
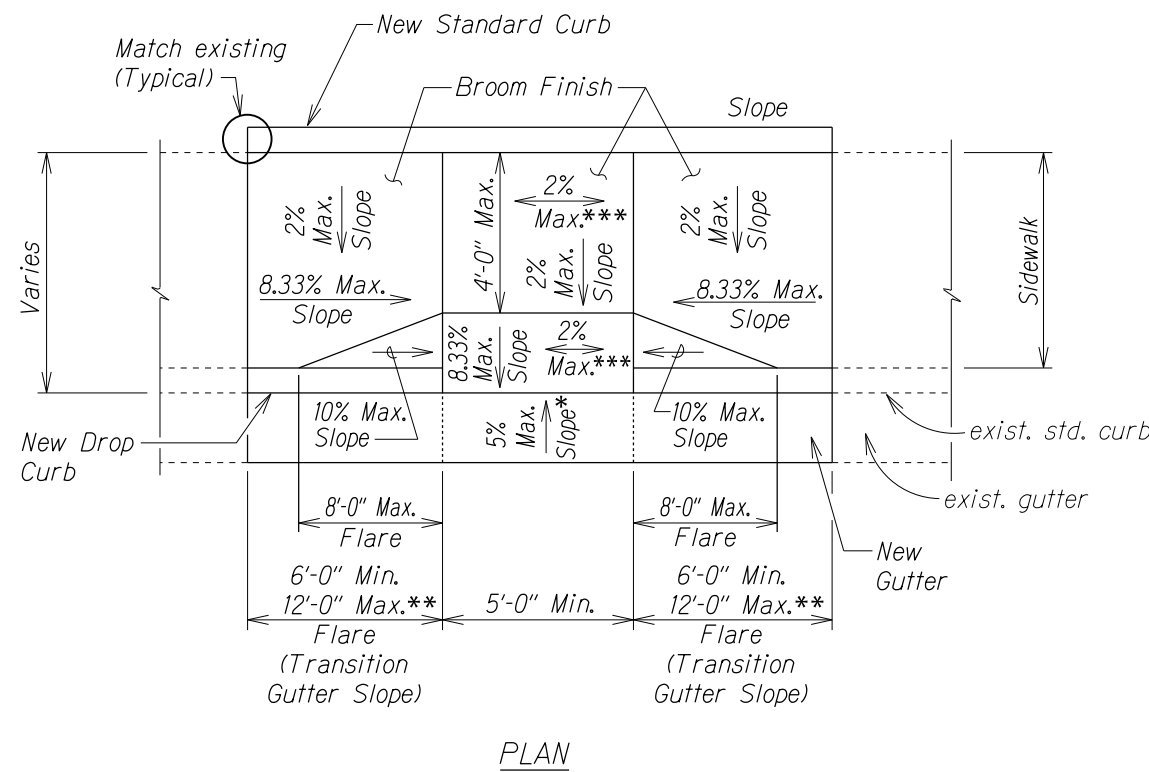
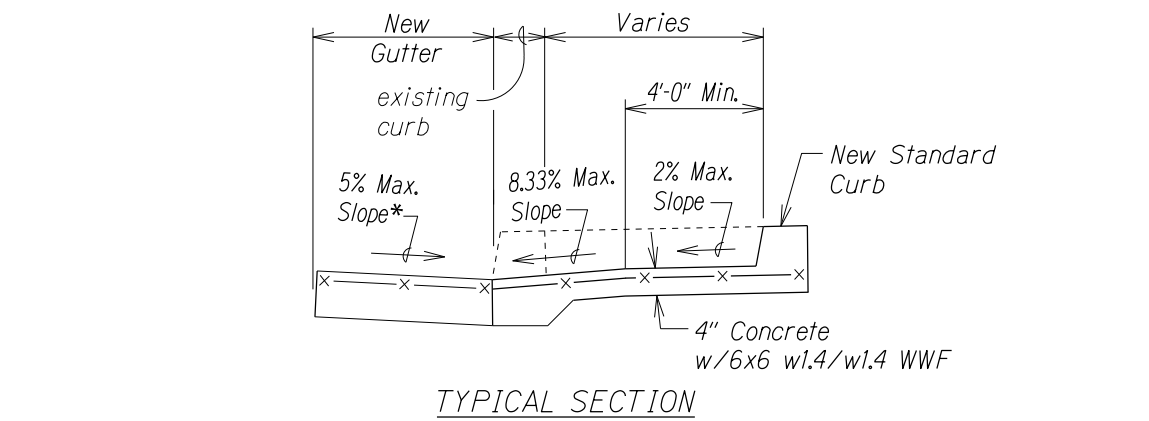
Not to Scale

Date: June, 2022

SHEET No. 3 OF 9 SHEETS

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

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-OM-2022-38R	2023	4	9



CURB RAMP - COMBINATION

* See Curb Ramp and Sidewalk Note No. 9.

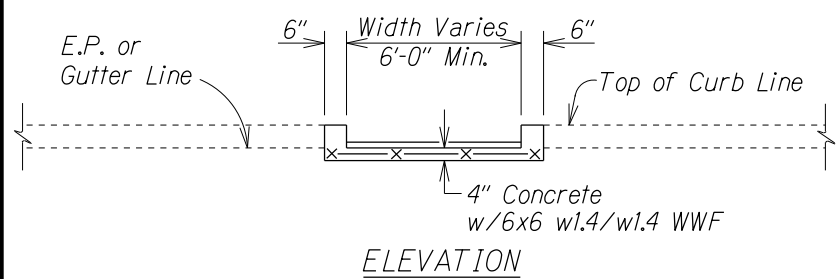
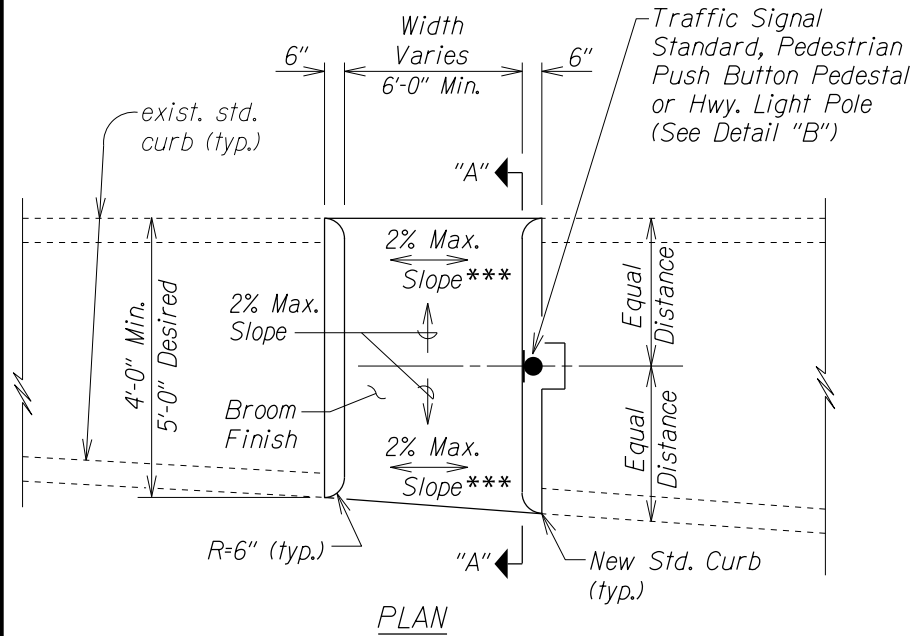
** The slope of the ramp shall take precedence over the length of the ramp. If the maximum slope of a ramp cannot be met within a length of 12 feet, then the slope of the ramp shall be set when the length of the ramp is set at the maximum of 12 feet.

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

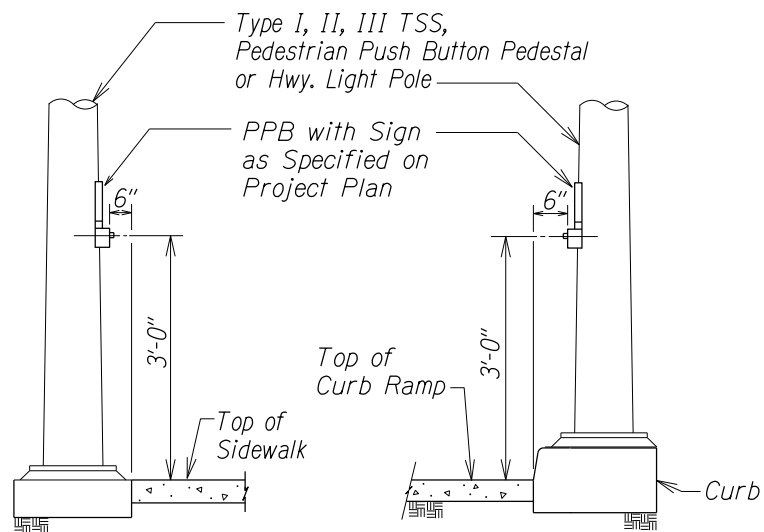
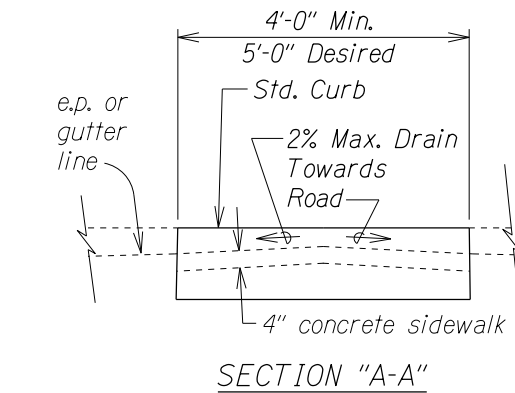
FIGURE 5.4

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
CURB RAMP DETAILS
SIDEWALK, CURB AND GUTTER REPAIR
AT VARIOUS LOCATIONS
ISLAND OF OAHU
PROJECT NO. HWY-OM-2022-38R
Not to Scale Date: June, 2022
SHEET No. 4 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-OM-2022-38R	2023	5	9

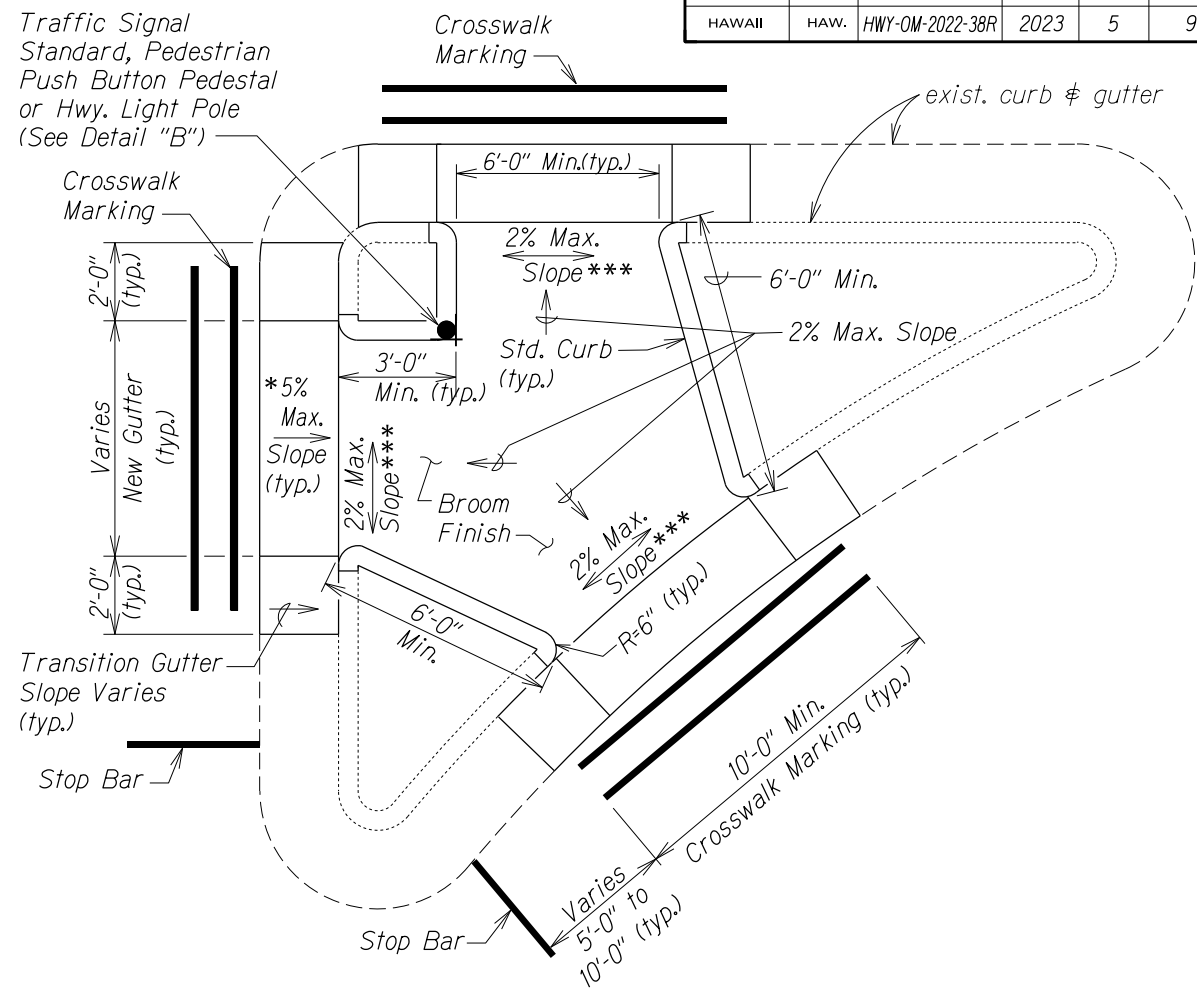


CURB RAMP - TYPE "C"
USE AT MEDIAN CROSSINGS, ISLANDS

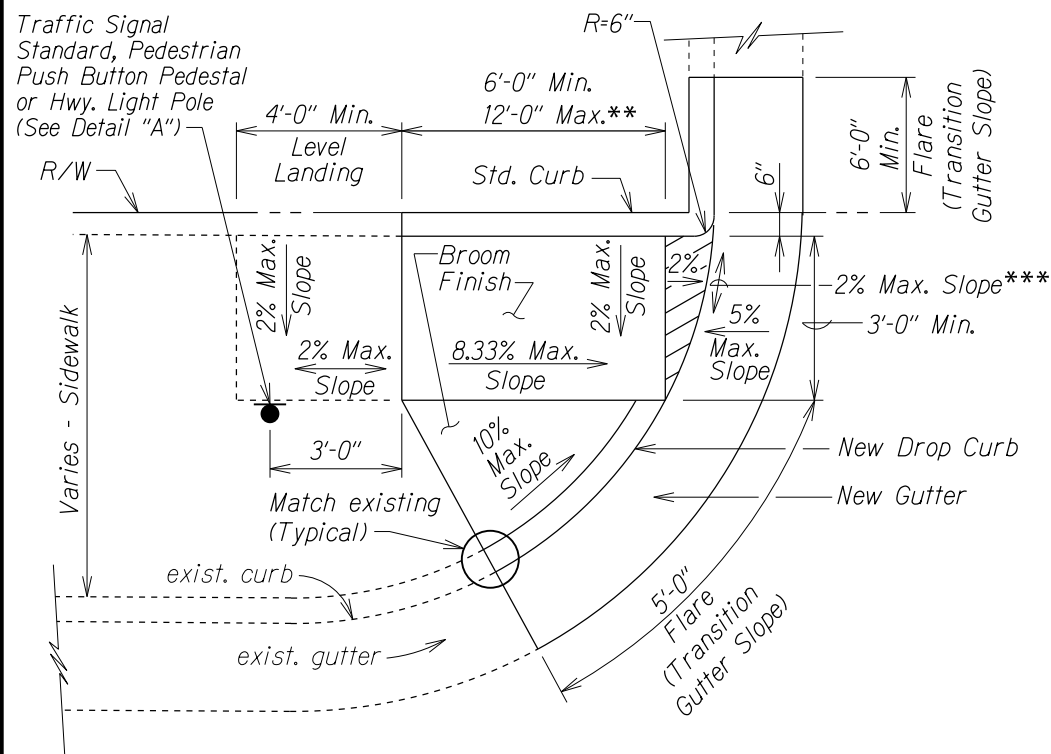


DETAIL "A"

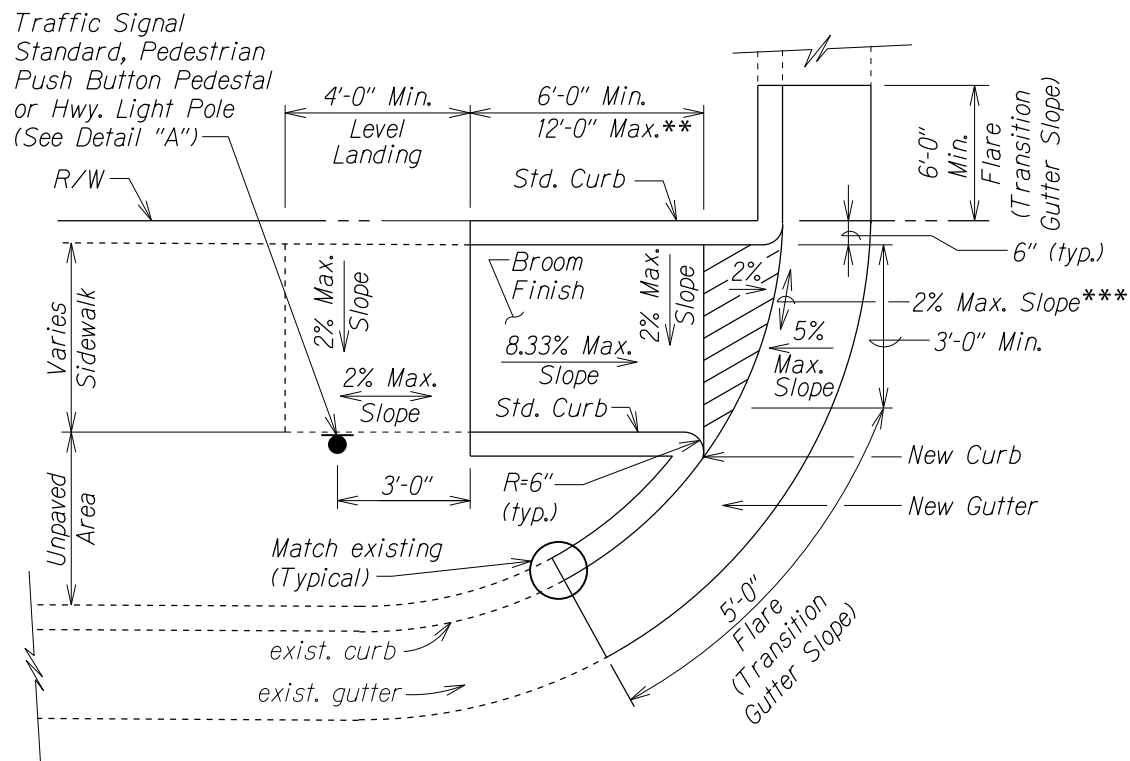
DETAIL "B"



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

FIGURE 5.5

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS

SIDEWALK, CURB AND GUTTER REPAIR

AT VARIOUS LOCATIONS

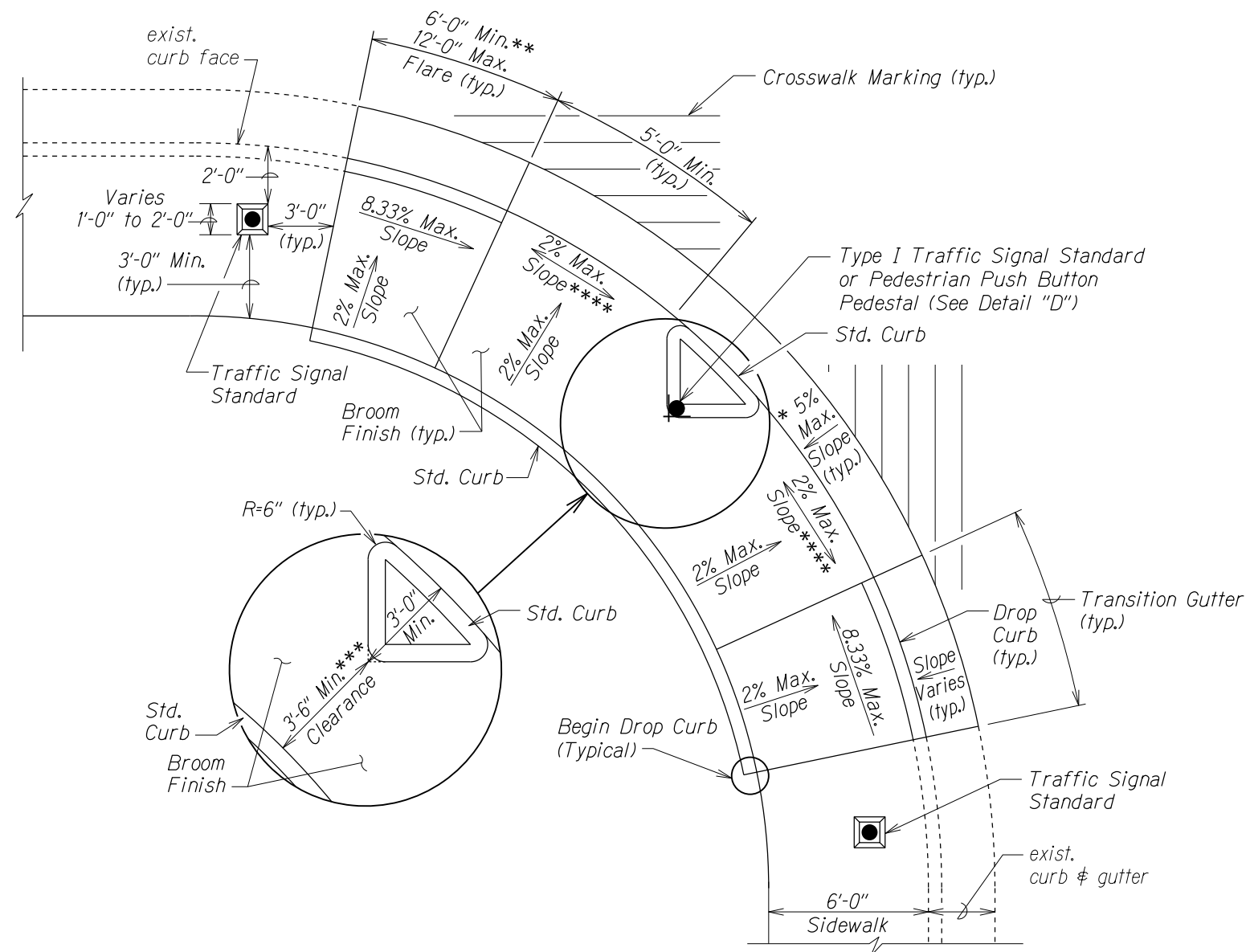
ISLAND OF OAHU

PROJECT NO. HWY-OM-2022-38R

Not to Scale

Date: June, 2022

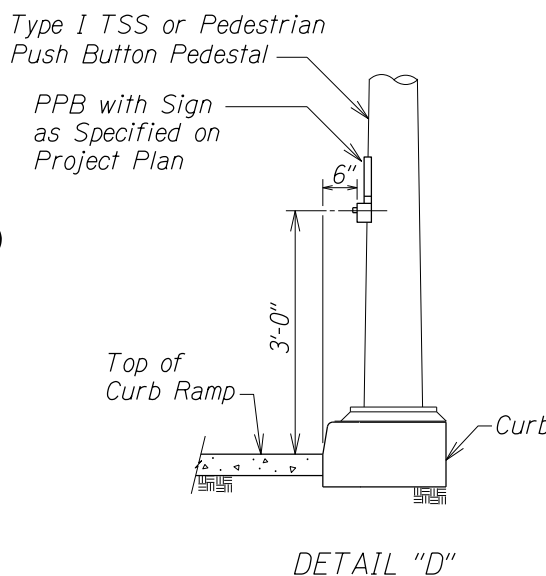
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-OM-2022-38R	2023	6	9



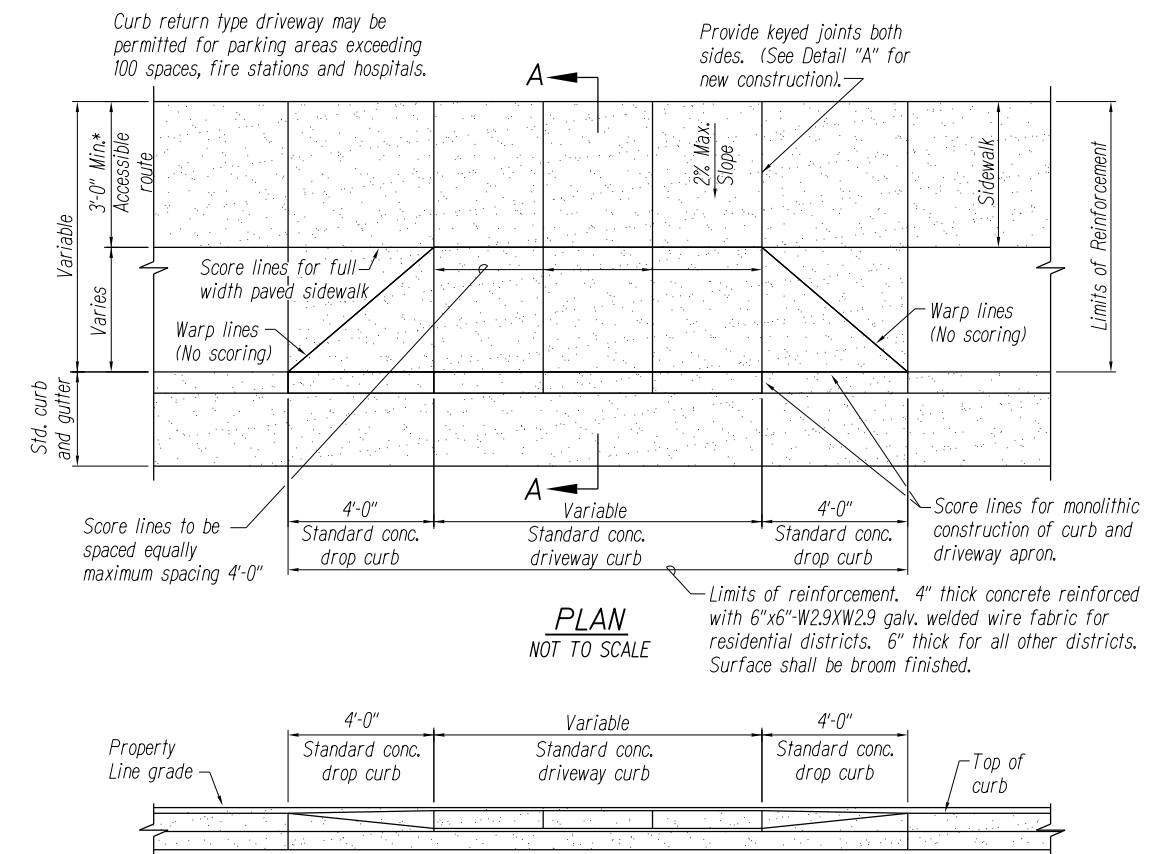
CURB RAMP - TYPE "E"
SIDEWALK WIDTH 7'-0" OR GREATER

(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*

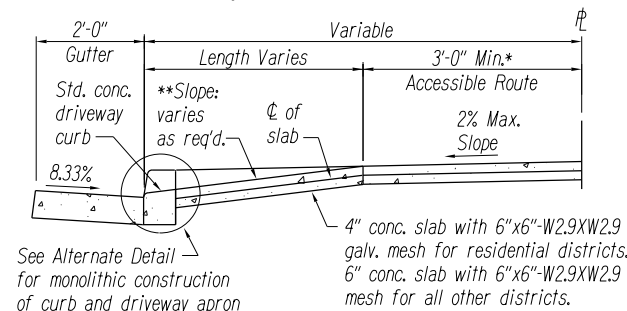


DETAIL "D"

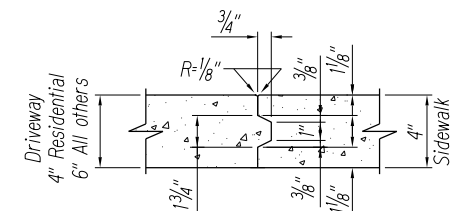


ELEVATION
NOT TO SCALE

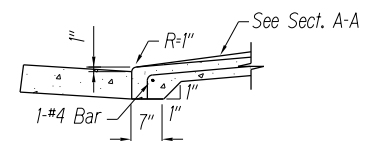
- * Match width of existing sidewalk whenever possible.
- ** Breakover and departure angles should not exceed 10 degrees or 17%.



SECTION A-A
NOT TO SCALE



DETAIL "A"
NOT TO SCALE
(NEW CONSTRUCTION)



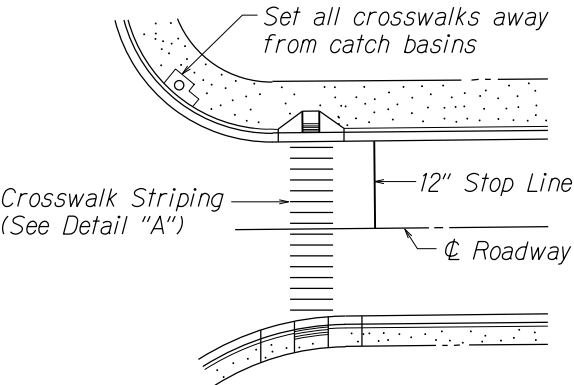
ALTERNATE DETAIL
NOT TO SCALE

DRIVEWAY APRON FIGURE 5.6

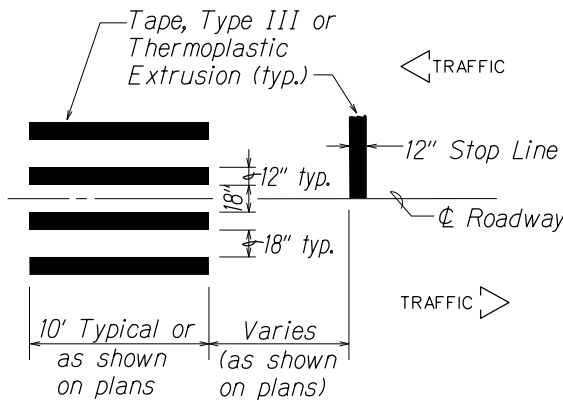
- NOTES:
1. For extension to existing driveway, scoring and finish shall match existing scoring and finish. For driveway constructed in built up areas, scoring conforming to scoring at adjacent driveways may be authorized.
 2. This detail is only one method for providing ADA access. Other methods can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

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

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-OM-2022-38R	2023	7	9



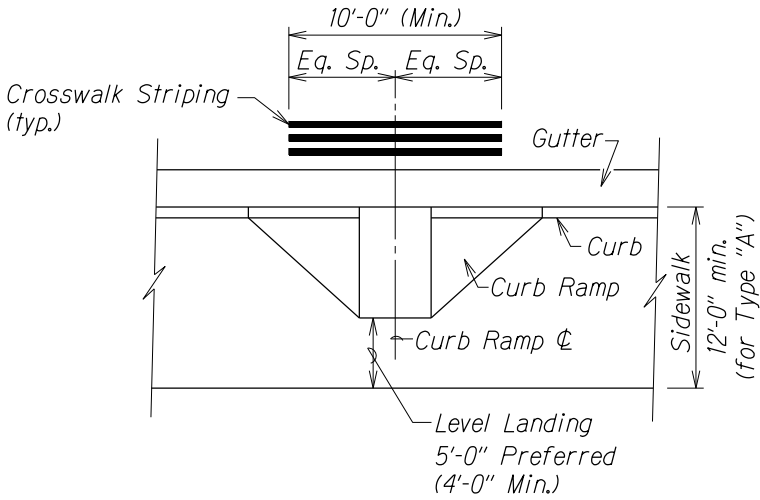
PLAN



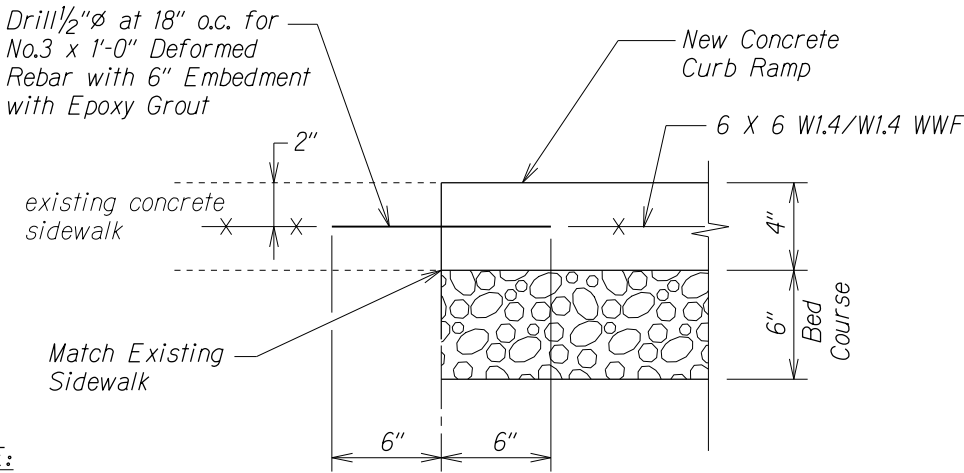
DETAIL "A"

CROSSWALK STRIPING DETAIL

NOTE:
Longitudinal lines shall be parallel to traffic flow.

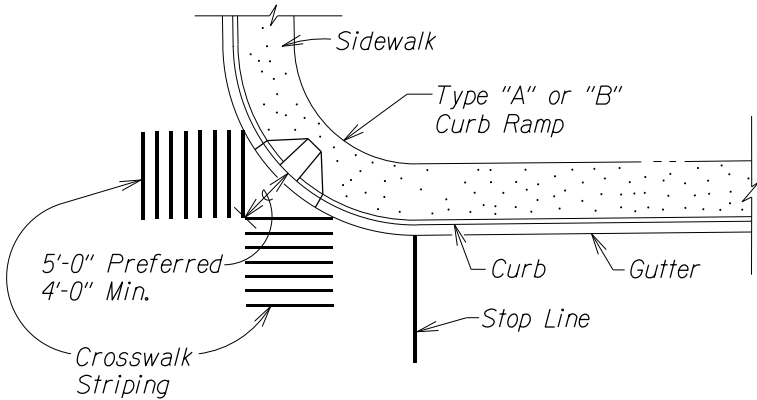


TYPICAL CROSSWALK STRIPING
AT CURB RAMP

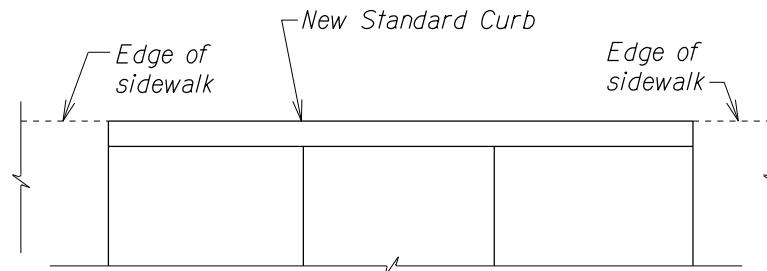


NOTE:
All curb ramps shall be reinforced.

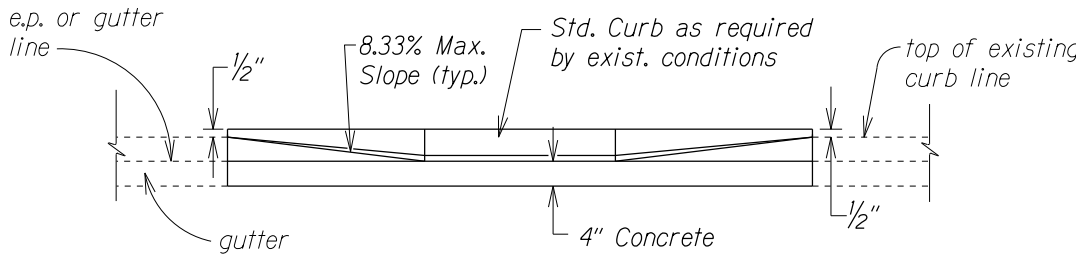
TYPICAL CONSTRUCTION JOINT
AT EXISTING SIDEWALK



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.

FIGURE 5.7

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS

SIDEWALK, CURB AND GUTTER REPAIR
AT VARIOUS LOCATIONS
ISLAND OF OAHU

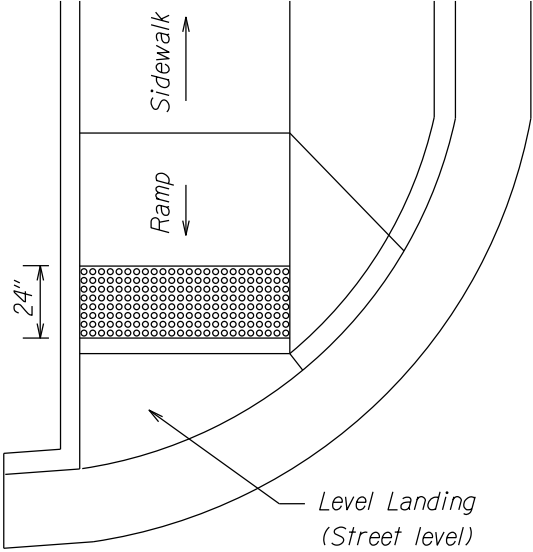
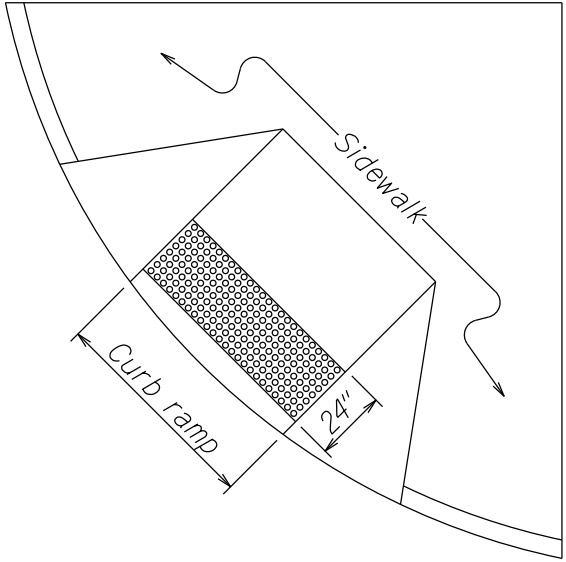
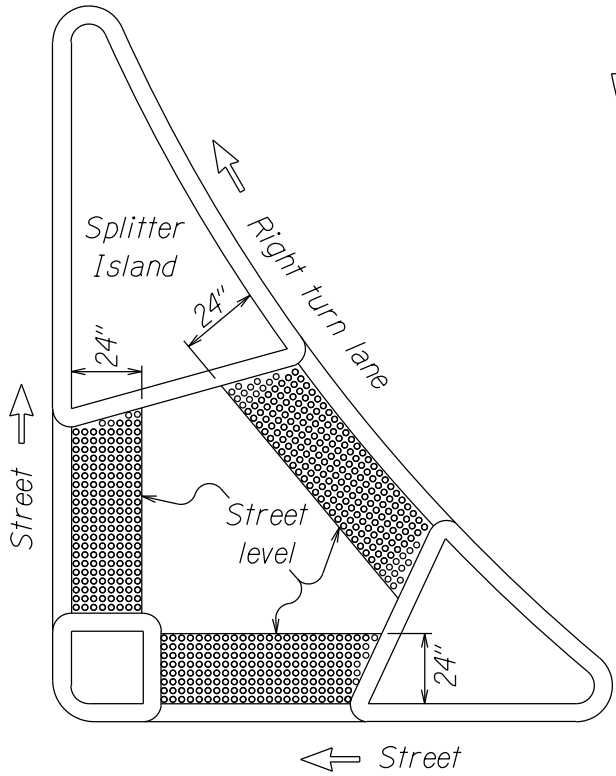
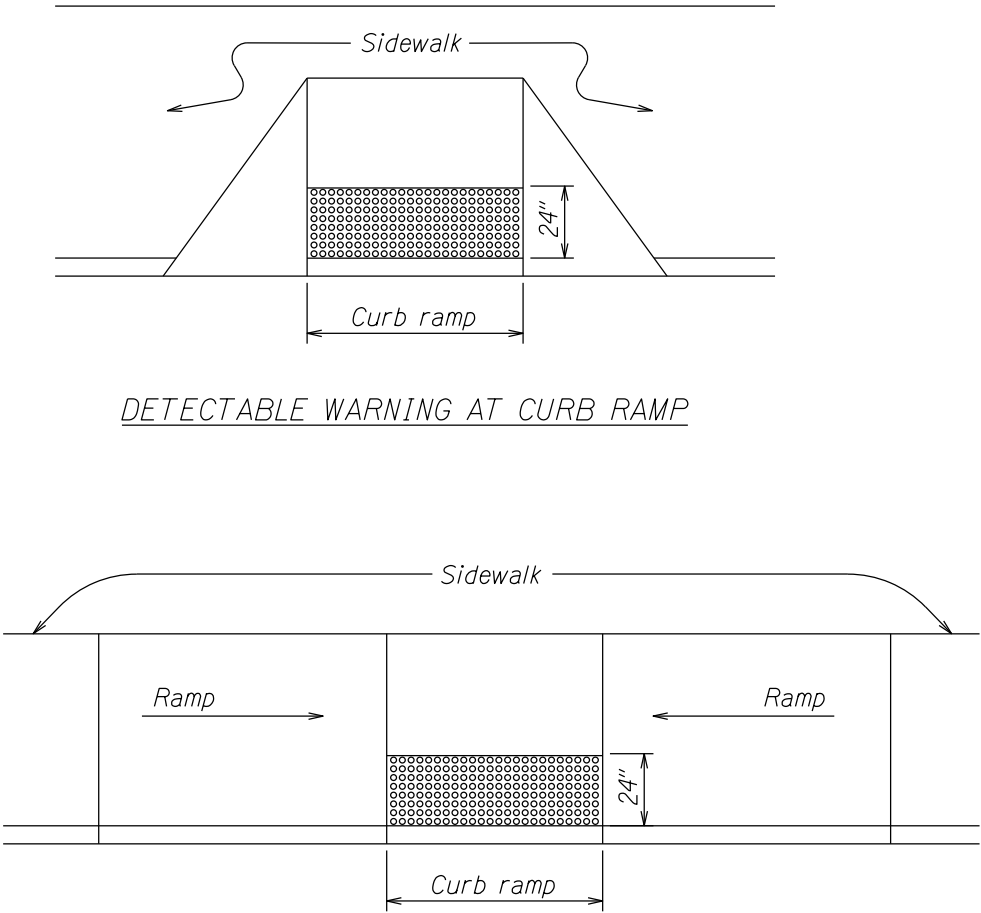
PROJECT NO. HWY-OM-2022-38R

Not to Scale Date: June, 2022

SHEET No. 7 OF 9 SHEETS

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

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-OM-2022-38R	2023	9	9



REFUGE ISLAND WITH
DETECTABLE WARNING

SHARED CURB RAMP WITH
DETECTABLE WARNING

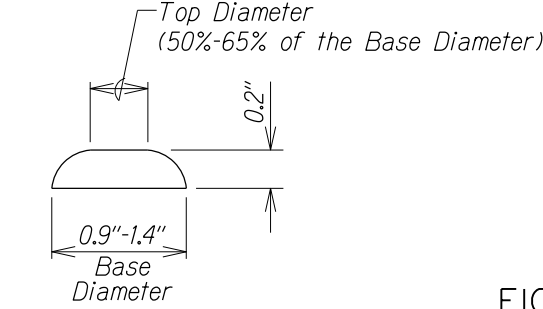
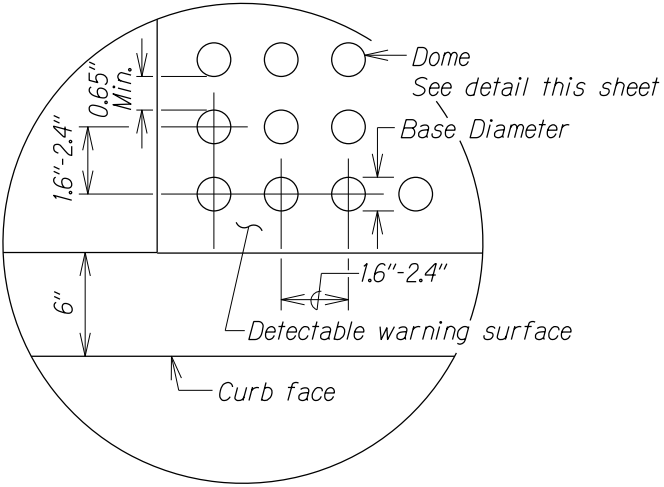
END OF SIDEWALK CURB RAMP WITH
DETECTABLE WARNING

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

FIGURE 5.9

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETECTABLE WARNING DETAILS
SIDEWALK, CURB AND GUTTER REPAIR
AT VARIOUS LOCATIONS
ISLAND OF OAHU
PROJECT NO. HWY-OM-2022-38R
Not to Scale Date: June, 2022

SHEET No. 9 OF 9 SHEETS