

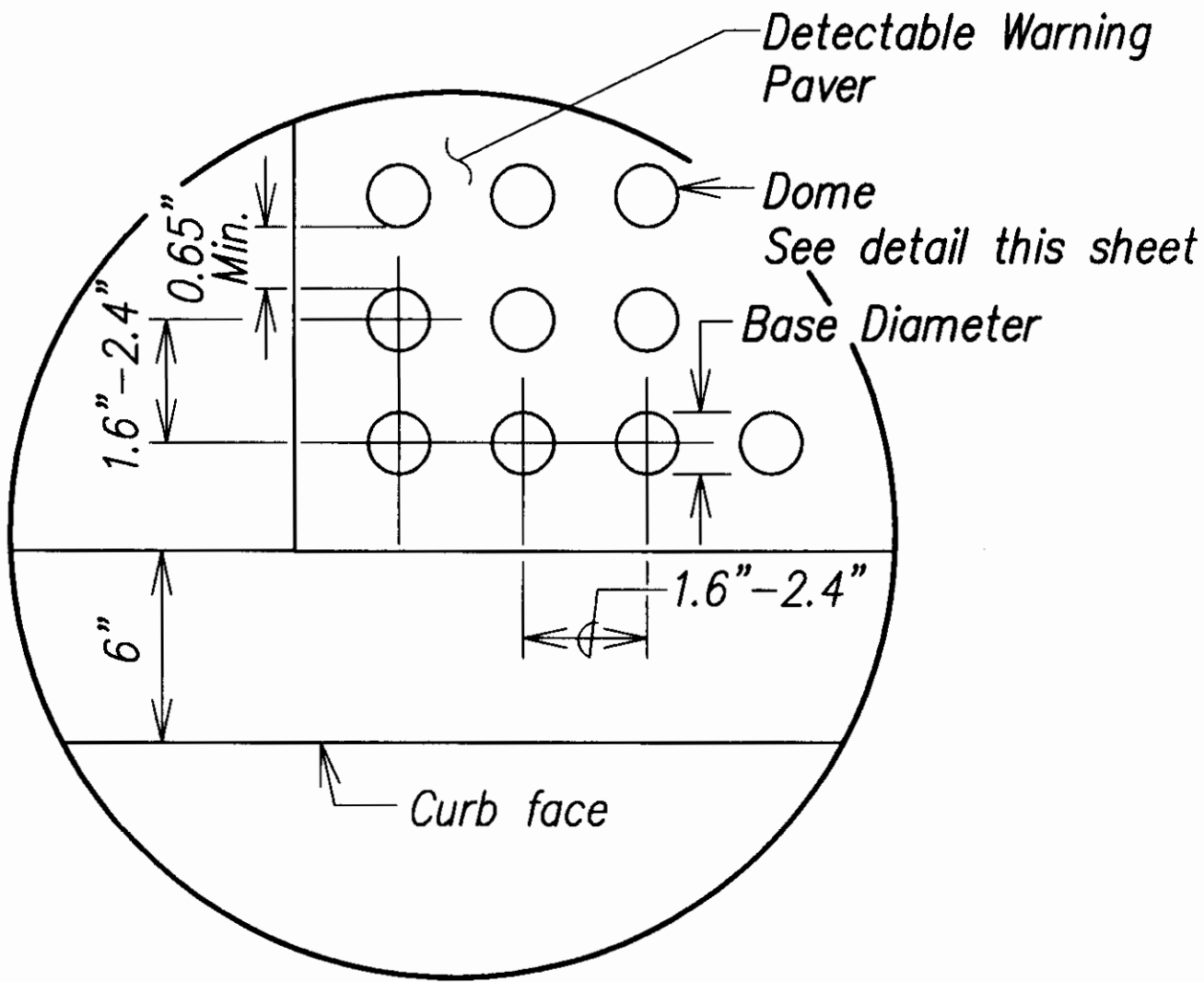
CURB RAMP AND SIDEWALK NOTES:

- These typical details are intended as curb ramp guidelines for design and construction.
- A 2% maximum cross slope shall be maintained in the direction of pedestrian traffic.
- Subject to field conditions, the Engineer shall determine the final location of curb ramps.
- All pullboxes shall be installed away from the curb ramp and within the sidewalk/unpaved area to the maximum extent feasible.
- 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.
- Transitions from ramps to gutters and roadways shall be flush.
- Curb ramps and sidewalks shall be constructed to eliminate ponding to the maximum extent feasible.
- The pedestrian push button shall meet operational and reach requirements of the American with Disabilities Act Accessibility Guidelines (ADAAG):
 - Forward Reach. The maximum height for forward reach shall be 48".
 - Side Reach. The maximum height for side reach shall be 54".
 - 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.
- 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.
- 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.
- Construction joints are required to join curb ramps with sidewalks.
- Unless otherwise noted, new gutters are required as shown.
- All curb ramps and sidewalks shall be reinforced with 6x6 W2.9/W2.9
- Surface of sidewalks and curb ramps shall be firm, stable, and slip-resistant. This includes the surfaces of pullboxes, valve covers, manhole covers, etc.
- Bed course material is required for curb ramps, sidewalks, and gutters.
- 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.
- 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.
- If possible, install utility poles, fire hydrants, light poles, sign posts, pullboxes, etc. off of sidewalk but within the right-of-way.

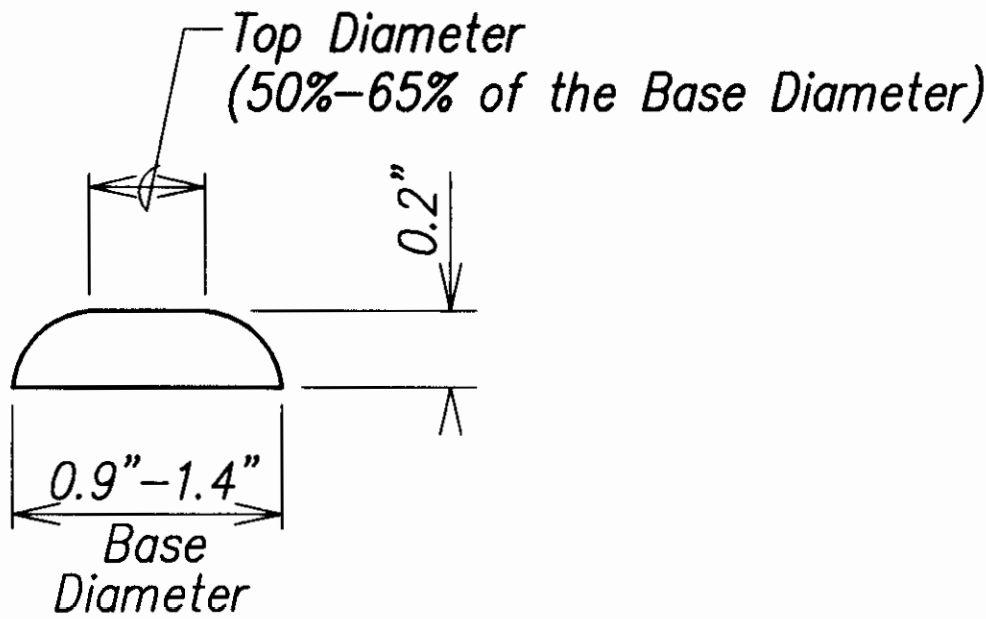
- Objects protruding from utility poles and walls adjacent to the sidewalks (i.e. wall mounted fire hydrants, telephones, meters on poles, etc.) shall be mounted to meet the current American with Disabilities Act Accessibility Guidelines (ADAAG) and will be subject to Engineer's approval.
- If a curb 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.
- Additional information is available from:
 - American with Disabilities Act Accessibility Guidelines (ADAAG), Jan. 1998, The Access Board.
 - Accessible Rights-of-Way: A Design Guide, Nov. 1999, The Access Board.
 - Designing Sidewalks and Trails for Access, Part 1, July 1999, FHWA.
 - Designing Sidewalks and Trails for Access, Part 2, Sept. 2001, FHWA.

DETECTABLE WARNING NOTES

- 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).
- 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.
- Domes shall be aligned on a square grid in the predominant direction of travel to permit wheels to roll between the domes.
- 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" or "Federal yellow".
- The material used to provide visual contrast shall be an integral part of the detectable warning surface.
- 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.
- The detectable warning for curb ramps and at driveways shall be 12" square x 2" thick, ADA-2 truncated dome pavers for pedestrian installation as manufactured by Wausau Tile, Inc. or equal and acceptable to the State and County Engineer. Install in accordance with the manufacturer's recommendations using the thin set mortar method.
- The Contractor shall submit shop drawings of the truncated dome pavers, including but not limited to truncated dome paver samples, product brochures, material specifications and manufacturer's installation instructions to the State and County Engineer for review and acceptance.
- The Contractor shall also prepare a 2-feet x 4-feet detectable warning test panel for review and acceptance by the State and County Engineer prior to construction of the curb ramps and detectable warning.
- The detectable warning shall not be paid for separately but shall be considered incidental to Curb Ramp, HMA Pavement for the shared-use path and Portland Cement Concrete Bike Path.



ENLARGEMENT



DOME SECTION

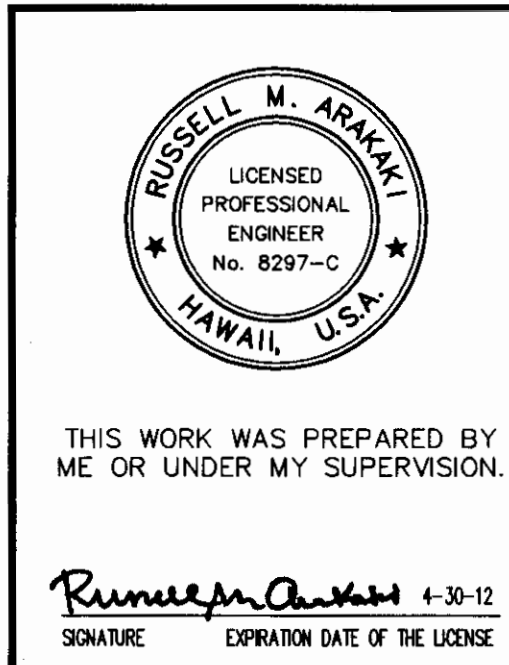
DETECTABLE WARNING DETAIL

Not to Scale

APPROVED:


COUNTY ENGINEER
(FOR WORK WITHIN COUNTY RIGHT OF WAY)

12-21-11
DATE



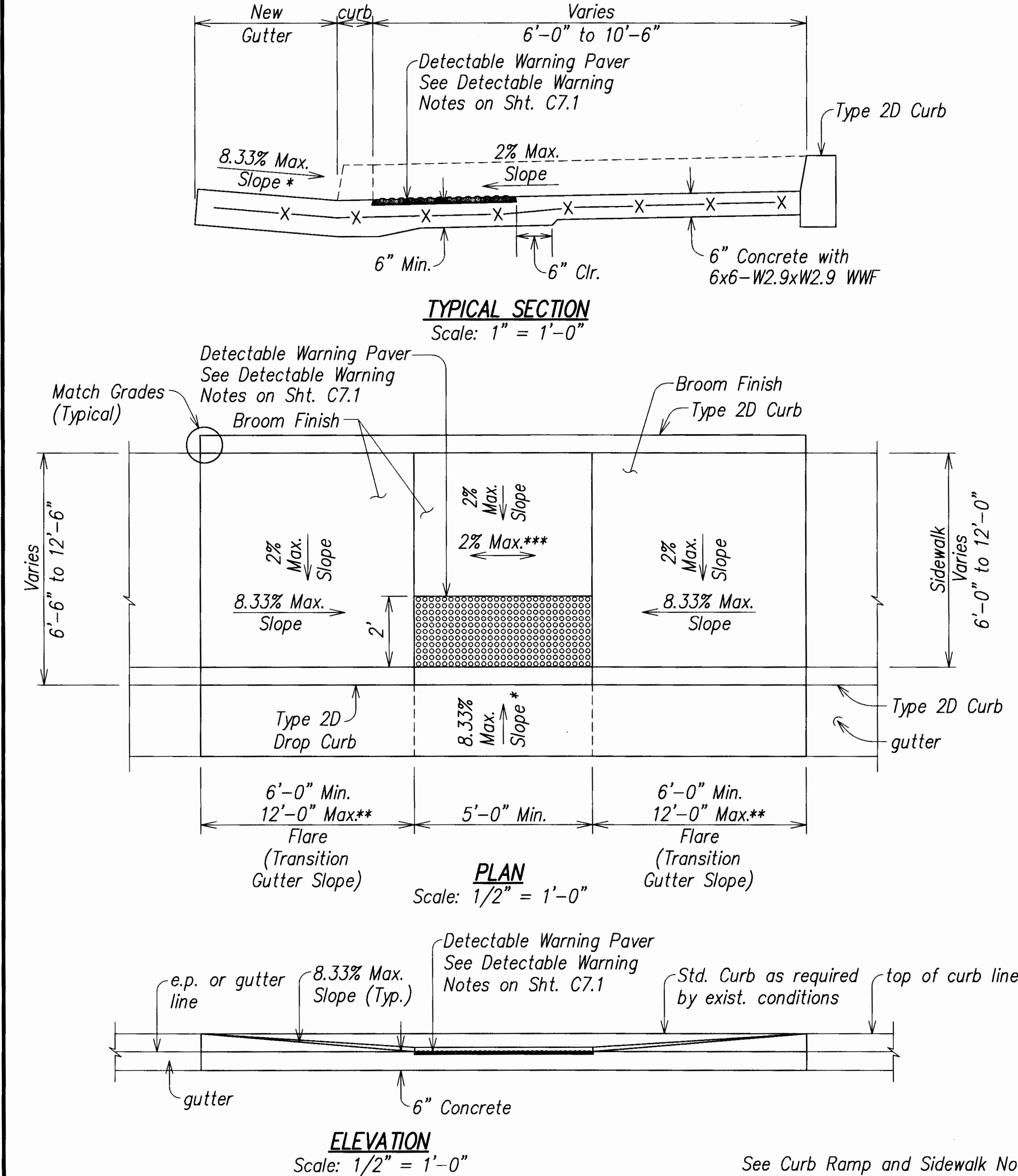
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.


SIGNATURE
EXPIRATION DATE OF THE LICENSE 4-30-12

COUNTY OF KAUAI DEPARTMENT OF PUBLIC WORKS			
LYDGATE PARK TO KAPA'A BIKE/ PEDESTRIAN PATH PHASE B KAPA'A, KAUAI, HAWAII			
CURB RAMP & SIDEWALK NOTES			
FEDERAL-AID PROJECT NO. STP-0700(61)			
DATE: NOVEMBER 2011			
DRAWN BY: NGA	F.B.	C.B.	SHEET
TRACED BY: RMA			C7.1
CHECKED BY:			OF SHEETS

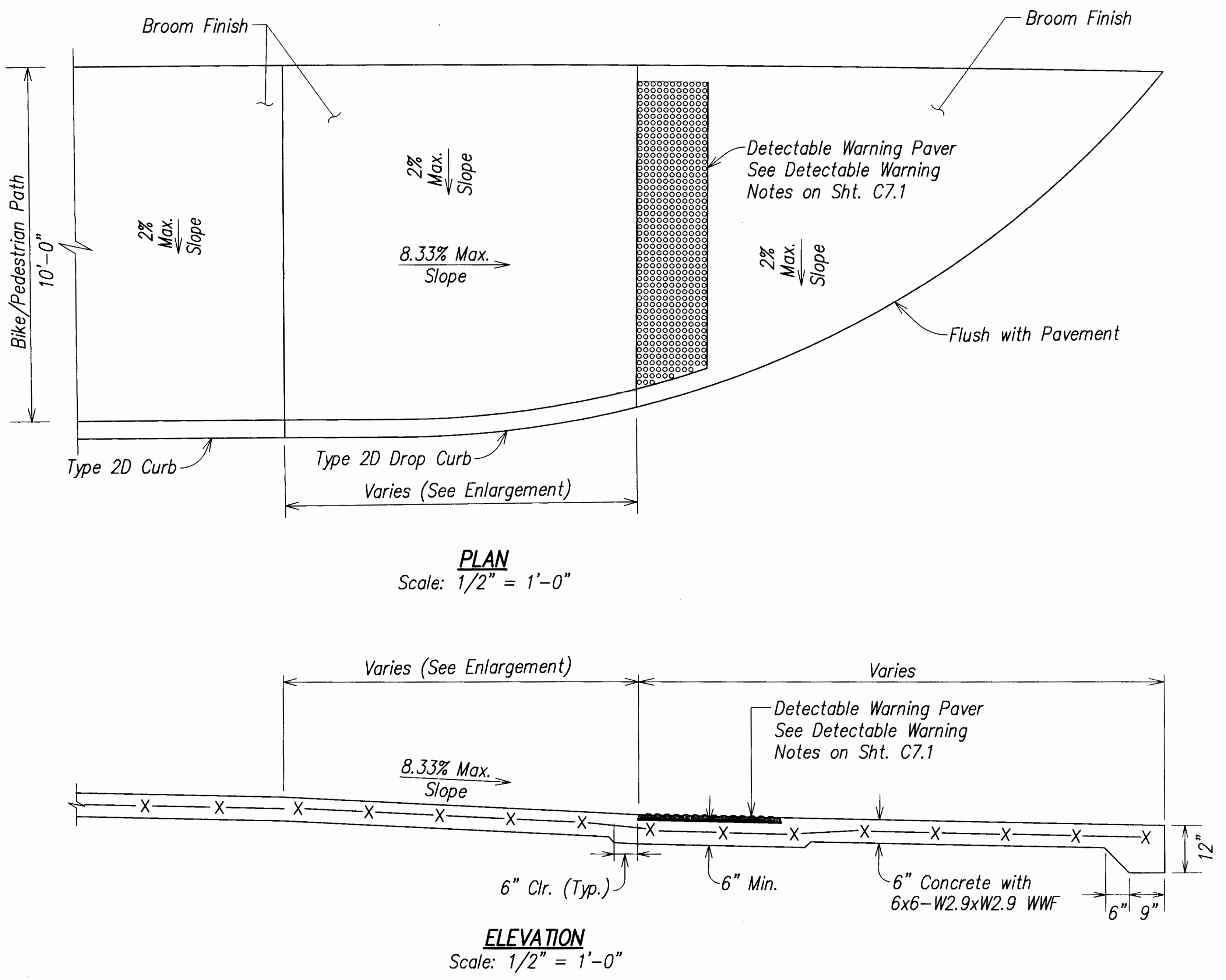
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(61)	2011	56	143



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 on Sht. C7.1
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



CURB RAMP - TYPE "D" MODIFIED

APPROVED:

COUNTY ENGINEER
(FOR WORK WITHIN COUNTY RIGHT OF WAY)
DATE 12-21-11

		COUNTY OF KAUAI DEPARTMENT OF PUBLIC WORKS LYDGATE PARK TO KAPA'A BIKE/ PEDESTRIAN PATH PHASE B KAPA'A, KAUAI, HAWAII	
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. 		TYPICAL CURB RAMP DETAILS FEDERAL-AID PROJECT NO. STP-0700(61) DATE: NOVEMBER 2011	
DRAWN BY: NGA TRACED BY: RMA CHECKED BY:	F.B. C.B. SHEET	4-30-12 EXPIRATION DATE OF THE LICENSE	OF C7.2 SHEETS

"AS-BUILT"