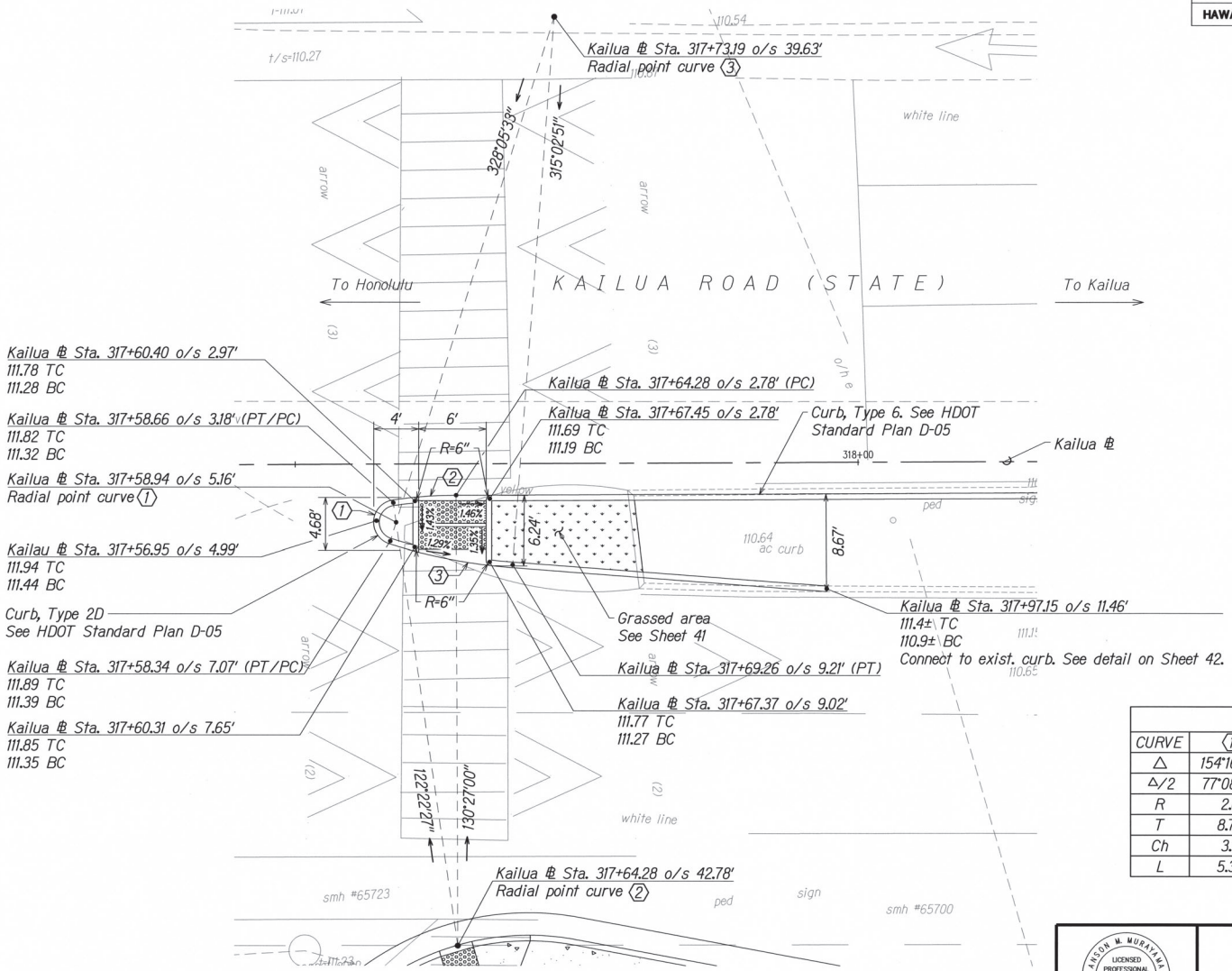
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61D-01-23	2024	26	87



CURVE DATA			
CURVE	(1)	(2)	(3)
Δ	154°16'54"	08°04'33"	10°49'34"
Δ/2	77°08'27"	04°02'16.5"	05°24'47"
R	2.0'	40.0'	49.0'
T	8.76'	2.82'	4.64'
Ch	3.9'	5.63'	9.24'
L	5.39'	5.64'	9.26'

LEGEND

- Concrete area
- Grassed area
- Pedestrian detectable warning

KAILUA ROAD AND ULUOA STREET INTERSECTION
TYPE "C" CURB RAMP DETAIL

5 2.5 0 5 10
Graphic Scale in Feet

ANSON M. MURAYAMA
LICENSED PROFESSIONAL ENGINEER
No. 6975-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. LICENSE EXPIRATION DATE: 04/30/24.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS - 1

KAILUA ROAD INTERSECTION IMPROVEMENTS
Vicinity of Uluoa Street and Ulumaru Drive
Project No. 61D-01-23

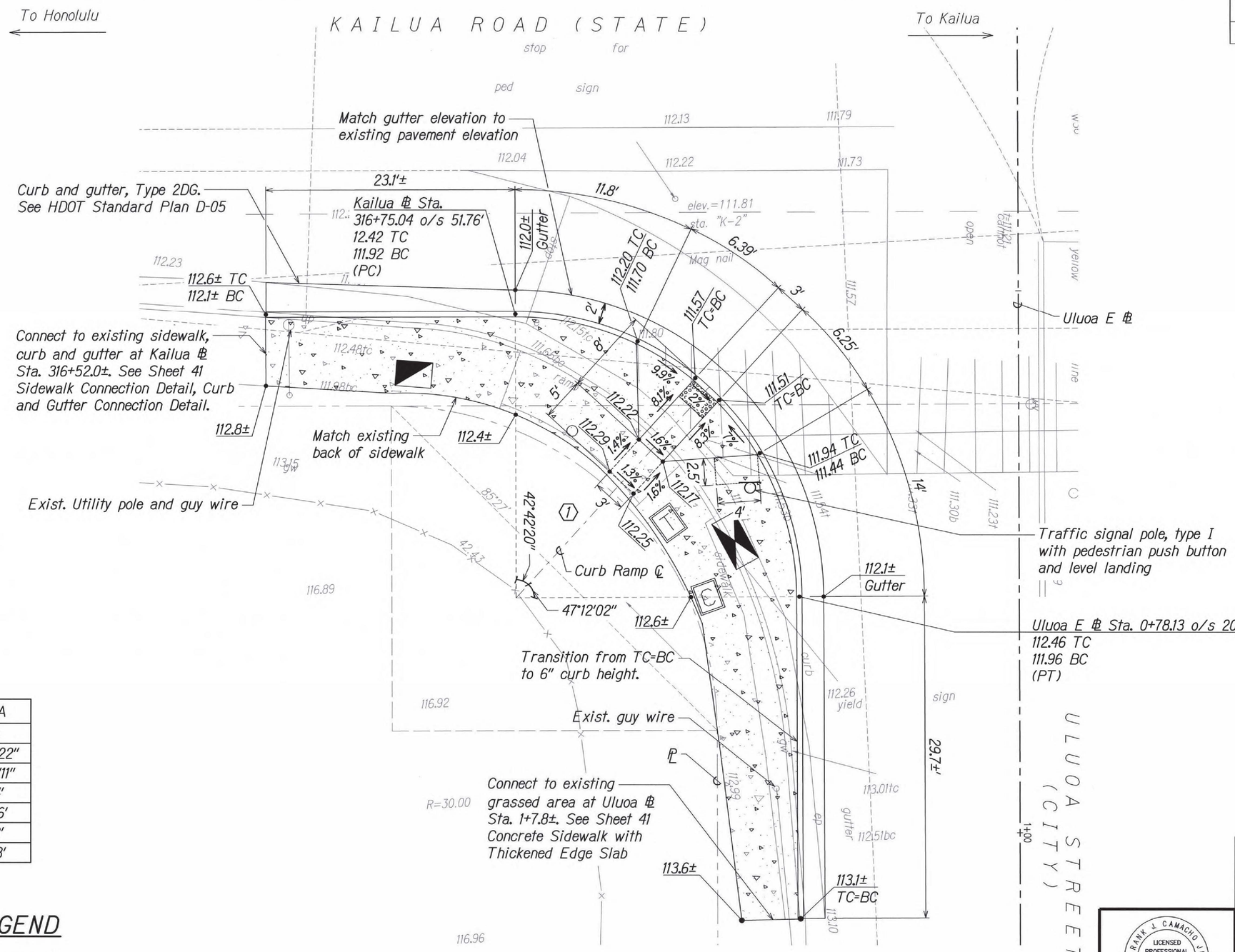
Scale: 1" = 5'
Date: DEC, 2023

SHEET No. 1 OF 8 SHEETS

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

P:\Land Projects\DOT IDIQ - 2022\Traffic Operations Task\PAO 2 Kailua Traffic\PSE\Drawings\05 Curb Ramp Details 1.dwg, 12/6/2023 9:26:52 AM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61D-01-23	2024	ADD.27	87



CURVE DATA	
CURVE	1
Δ	89°54'22"
Δ/2	44°57'11"
R	26.4'
T	26.36'
Ch	37.3'
L	41.43'

LEGEND

- Concrete area
- Grassed area
- Pedestrian detectable warning

KAILUA ROAD AND ULUOA STREET INTERSECTION SOUTHEAST SIDEWALK PLAN

Graphic Scale in Feet (5, 2.5, 0, 5, 10)

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. (FOR CONSTRUCTION IN CITY RIGHT-OF-WAY ONLY) DATE

DATE	REVISION
1/11/24	1 Revised Curb Ramps

FRANK J. CAMACHO JR. LICENSED PROFESSIONAL ENGINEER No. 14908-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. LICENSE EXPIRATION DATE: 04/30/24

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS - 2

KAILUA ROAD INTERSECTION IMPROVEMENTS
Vicinity of Uluoa Street and Ulumanu Drive
Project No. 61D-01-23

Scale: 1" = 5' Date: DEC, 2023

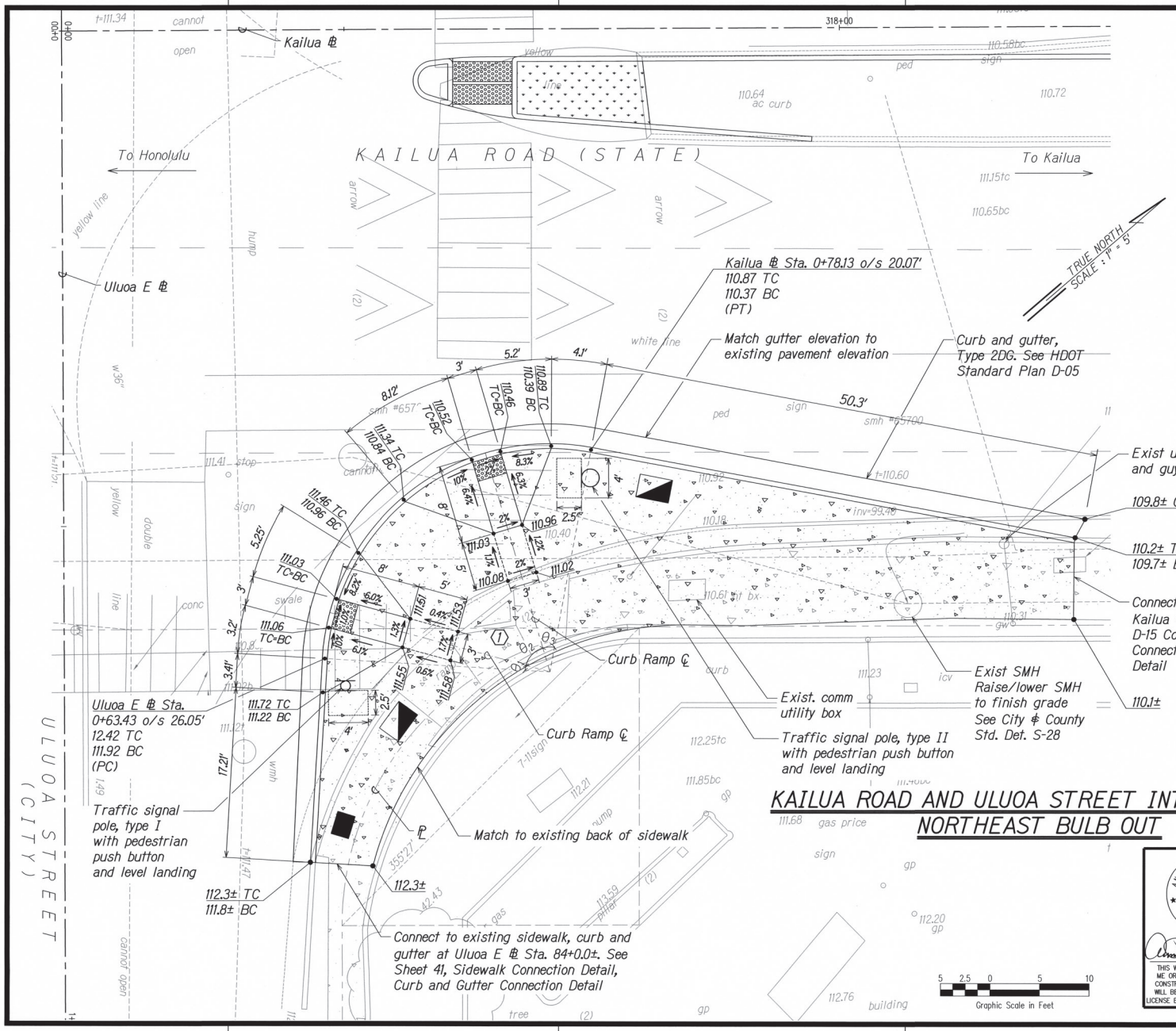
SHEET No. 2 OF 8 SHEETS

ADD. 27

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

P:\Land Projects\DOT IDIQ - 2022\Traffic Operations Task\PAO 2 Kailua TrafSig PSE\Drawings\27 Curb Ramp Details - 2.dwg, 1/4/2024 4:20:15 PM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61D-01-23	2024	28	87



LEGEND

- Concrete area
- Grassed area
- Pedestrian detectable warning

CURVE DATA		
CURVE	(1)	
Δ	97°11'5"	θ_1 = 11°42'4"
Δ/2	48°36'58"	θ_2 = 58°41'53"
R	23.0'	θ_3 = 26°47'7"
T	21.62'	
Ch	31.51'	
L	34.71'	

NOTES:

1. For sewer manhole adjustments upward less than 3", see City and County of Honolulu Std. Detail S-28. For SMH adjustments upward greater than 3" or for any adjustments downward, reconstruct SMH top from below the cone section.

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE
(FOR CONSTRUCTION IN CITY RIGHT-OF-WAY ONLY)

CHIEF, WASTEWATER BRANCH, D.P.P. DATE

KAILUA ROAD AND ULUOA STREET INTERSECTION NORTHEAST BULB OUT

ANSON M. MURAYAMA
LICENSED PROFESSIONAL ENGINEER
No. 6975-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
LICENSE EXPIRATION DATE: 04/30/24

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS - 3

KAILUA ROAD INTERSECTION IMPROVEMENTS
Vicinity of Uluoa Street and Ulumanu Drive
Project No. 61D-01-23

Scale: 1" = 5' Date: DEC, 2023

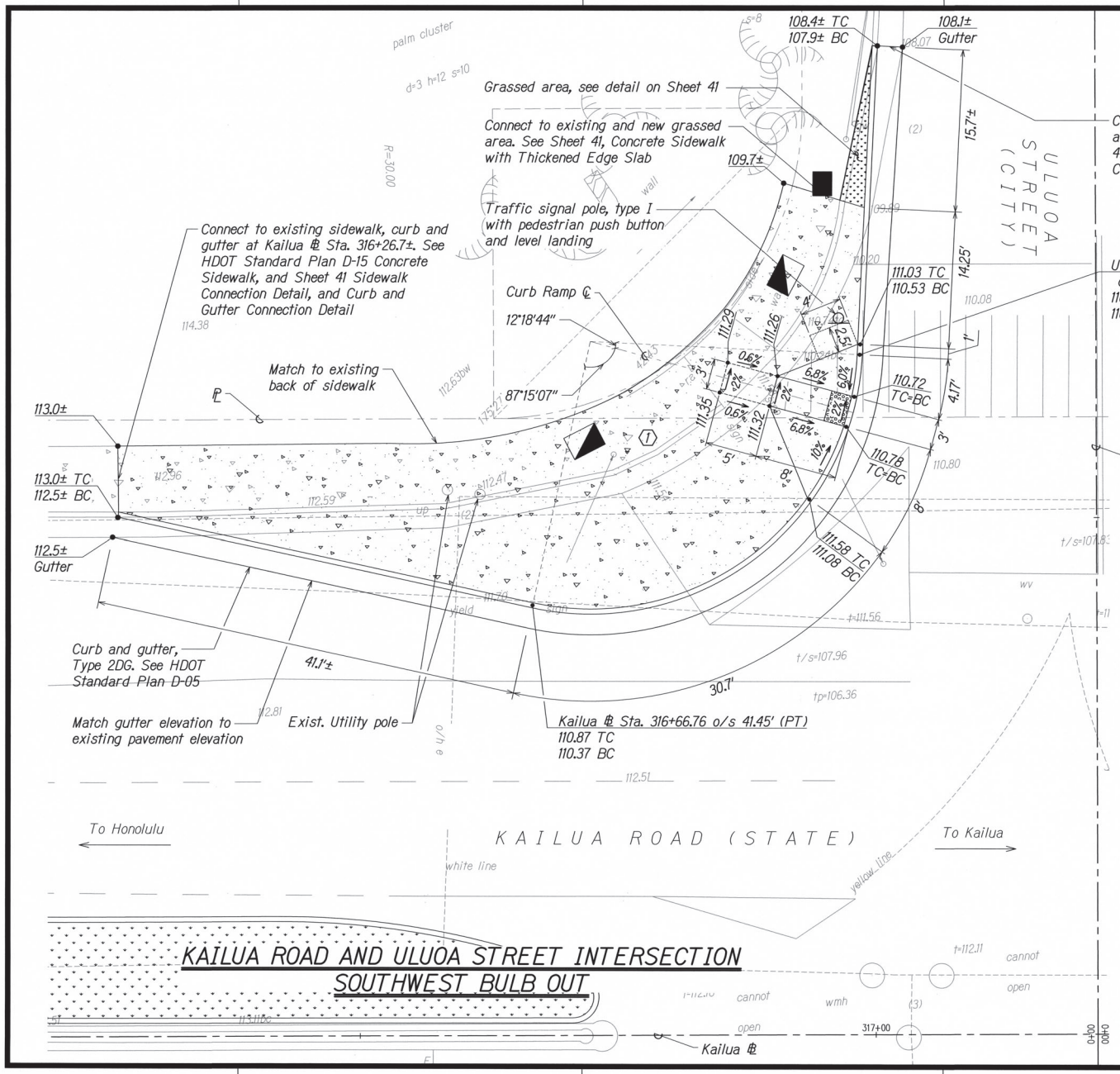
SHEET No. 3 OF 8 SHEETS

28

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

P:\Land Projects\DOT IDIQ - 2022\Traffic Operations Task\PAO 2 Kailua Traf\Sig PSE\Drawings\28 Curb Ramp Details - 3.dwg, 12/6/2023 9:27:04 AM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61D-01-23	2024	29	87



TRUE NORTH
SCALE : 1" = 5'

LEGEND

- Concrete area
- Grassed area
- Pedestrian detectable warning

CURVE DATA	
CURVE	(1)
Δ	99°33'51"
Δ/2	49°46'56"
R	26.4'
T	31.22'
Ch	40.32'
L	45.88'

Graphic Scale in Feet (5 2.5 0 5 10)

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE
(FOR CONSTRUCTION IN CITY RIGHT-OF-WAY ONLY)

ANSON M. MURAYAMA
LICENSED PROFESSIONAL ENGINEER
No. 6975-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. LICENSE EXPIRATION DATE: 04/30/24

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS - 4

KAILUA ROAD INTERSECTION IMPROVEMENTS
Vicinity of Uluoa Street and Ulumanu Drive
Project No. 61D-01-23

Scale: 1" = 5' Date: DEC, 2023

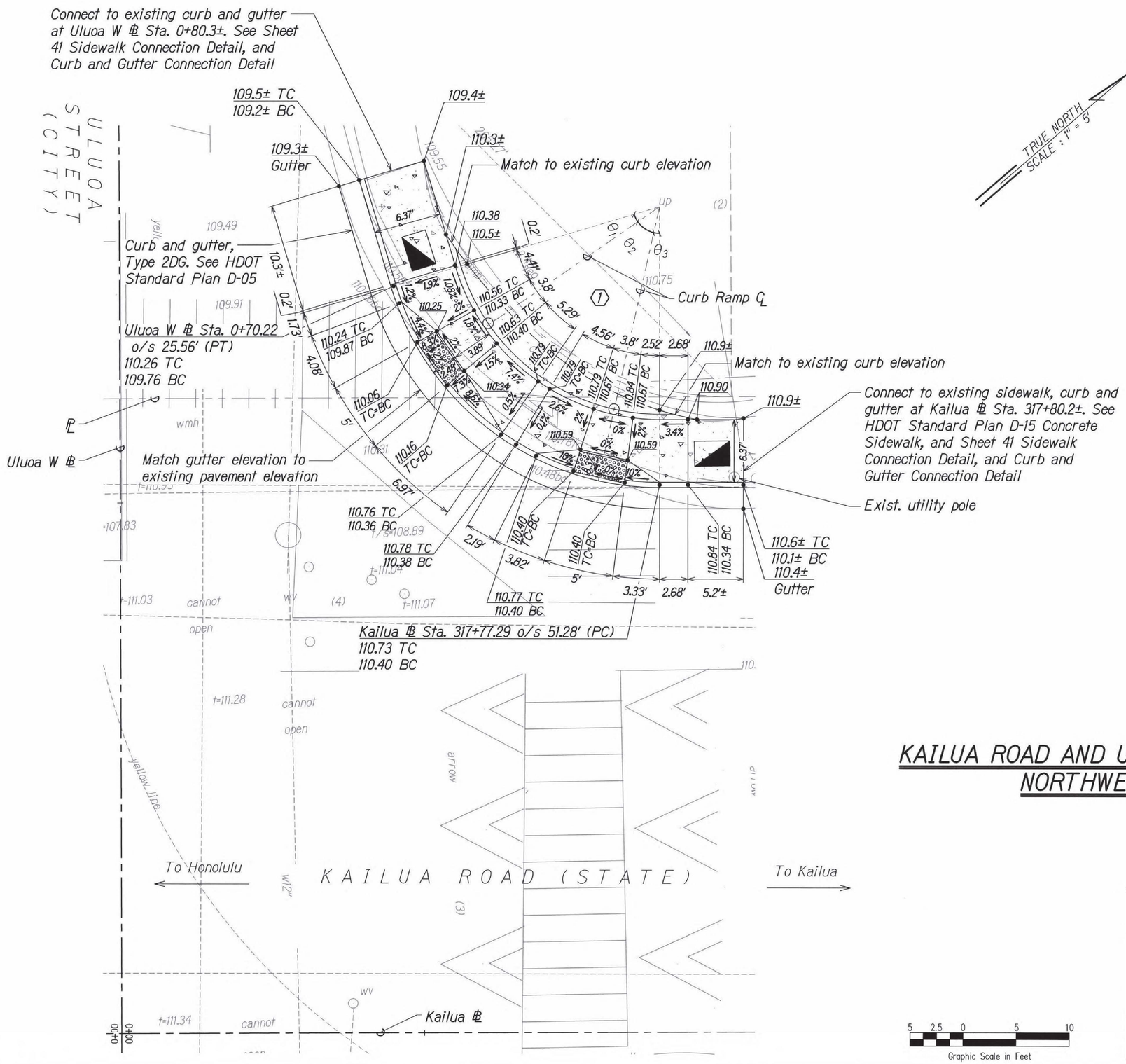
SHEET No. 4 OF 8 SHEETS

KAILUA ROAD AND ULUOA STREET INTERSECTION
SOUTHWEST BULB OUT

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	PLANS PREPARED BY	
	TRACED BY	
NOTE BOOK	DESIGNED BY	
	CALCULATED BY	
No.	CHECKED BY	

P:\Land Projects\DOT IDIQ - 2022\Traffic Operations Task\PAO 2 Kailua Traf\Sig PSE\Drawings\29 Curb Ramp Details - 4.dwg, 12/6/2023 9:27:10 AM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61D-01-23	2024	ADD.30	87



LEGEND

Concrete area

Pedestrian detectable warning

CURVE DATA	
CURVE	1
Δ	73°23'04"
Δ/2	36°41'32"
R	26.4'
T	19.67'
C	31.55'
L	33.81'

θ_1 = 18°02'06"
θ_2 = 42°42'23"
θ_3 = 12°39'15"

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE
(FOR CONSTRUCTION IN CITY RIGHT-OF-WAY ONLY)

KAILUA ROAD AND ULUOA STREET INTERSECTION NORTHWEST SIDEWALK PLAN

DATE	REVISION
1/11/24	⚠ Revised Curb Ramps

FRANK J. CAMACHO JR. LICENSED PROFESSIONAL ENGINEER No. 14908-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. LICENSE EXPIRATION DATE: 04/30/24

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS - 5

KAILUA ROAD INTERSECTION IMPROVEMENTS
Vicinity of Uluoa Street and Ulumanu Drive
Project No. 61D-01-23

Scale: 1" = 5' Date: DEC, 2023

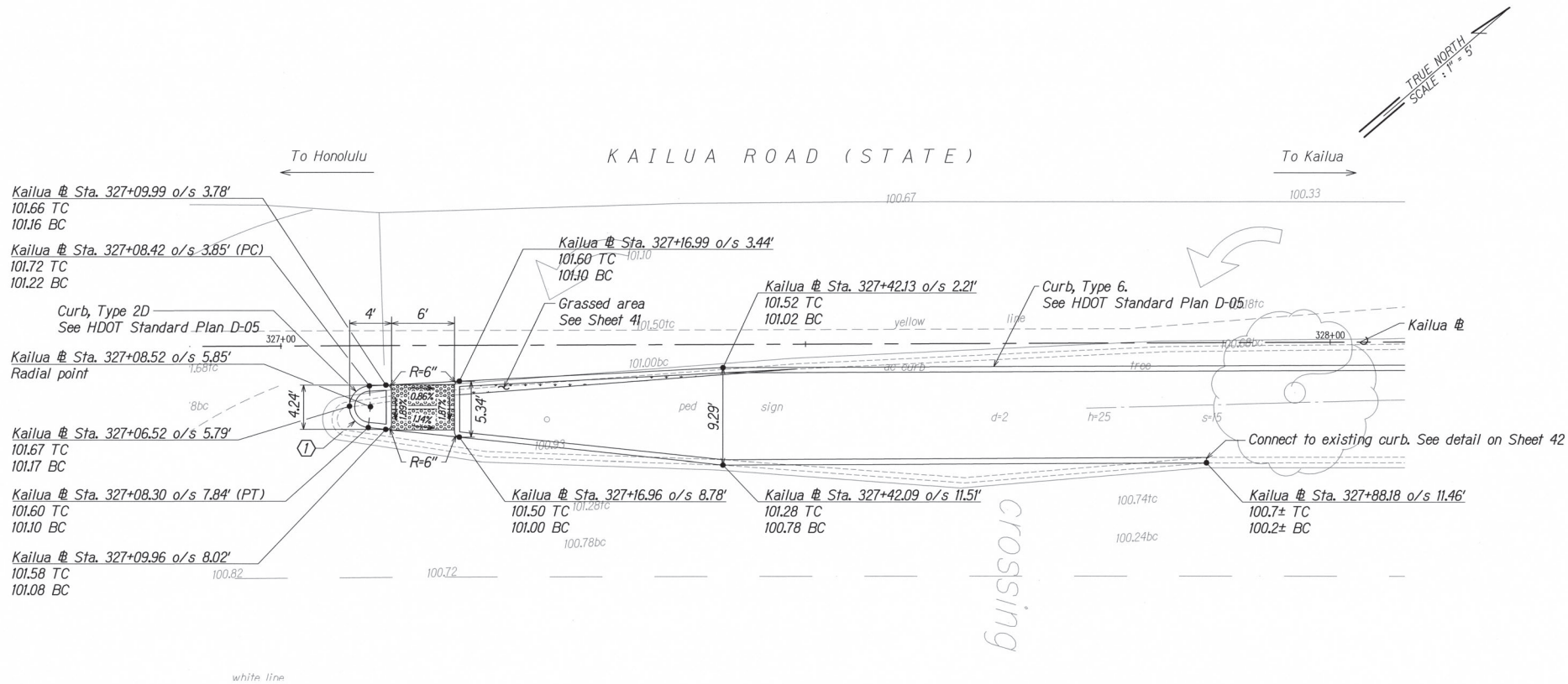
SHEET No. 5 OF 8 SHEETS

ADD. 30

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

P:\Land Projects\DOT ID\Q - 2022\Traffic Operations Task\PAO 2 Kailua TrafSig PSE\Drawings\30 Curb Ramp Details - 5.dwg, 1/4/2024 4:20:22 PM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61D-01-23	2024	31	87



KAILUA ROAD AND ULUMANU DRIVE INTERSECTION
TYPE "C" CURB RAMP DETAIL

LEGEND

- Concrete area
- Grassed area
- Pedestrian detectable warning

CURVE DATA	
CURVE	1
Δ	171°01'11"
Δ/2	85°30'35.5"
R	2.0'
T	25.47'
Ch	3.99'
L	5.97'

5 2.5 0 5 10
Graphic Scale in Feet

ANSON M. MURAYAMA
LICENSED PROFESSIONAL ENGINEER
No. 6975-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
LICENSE EXPIRATION DATE: 04/30/24

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS - 6

KAILUA ROAD INTERSECTION IMPROVEMENTS
Vicinity of Uluoa Street and Ulumanu Drive
Project No. 61D-01-23

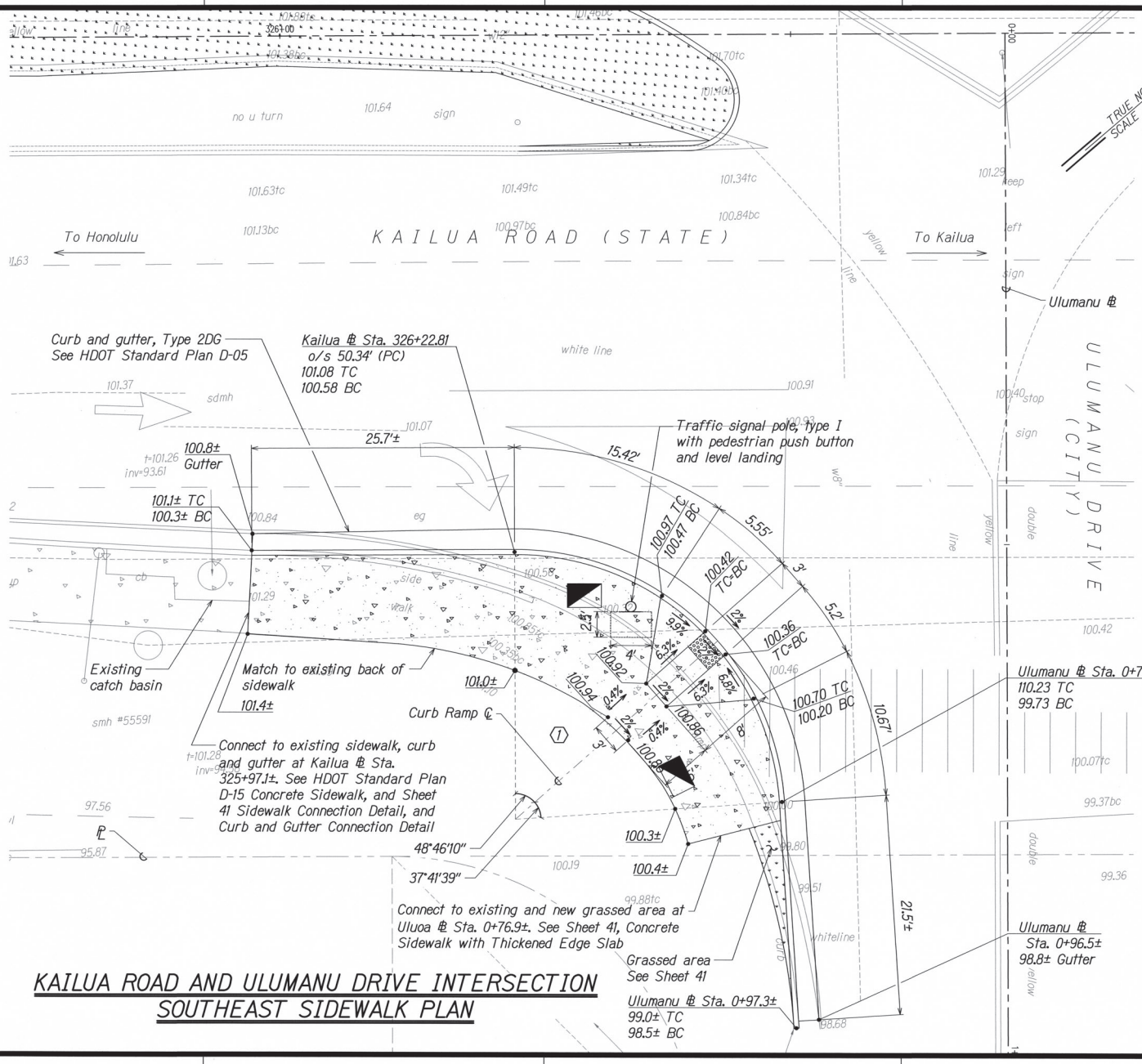
Scale: 1" = 5'
Date: DEC, 2023

SHEET No. 6 OF 8 SHEETS

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

P:\Land Projects\DOT IDIQ - 2022\Traffic Operations Task\PAO 2 Kailua TrafSig PSE\Drawings\31 Curb Ramp Details - 6.dwg, 12/6/2023 9:27:21 AM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61D-01-23	2024	32	87



LEGEND

- Concrete area
- Grassed area
- Pedestrian detectable warning

CURVE DATA	
CURVE	(1)
Δ	86°27'49"
Δ/2	43°13'54.5"
R	26.4'
T	24.82'
Ch	36.17'
L	39.84'

KAILUA ROAD AND ULUMANU DRIVE INTERSECTION SOUTHEAST SIDEWALK PLAN

ANSON M. MURAYAMA
LICENSED PROFESSIONAL ENGINEER
No. 6975-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. LICENSE EXPIRATION DATE: 04/30/24

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS - 7

KAILUA ROAD INTERSECTION IMPROVEMENTS
Vicinity of Uluoa Street and Ulumanu Drive
Project No. 61D-01-23

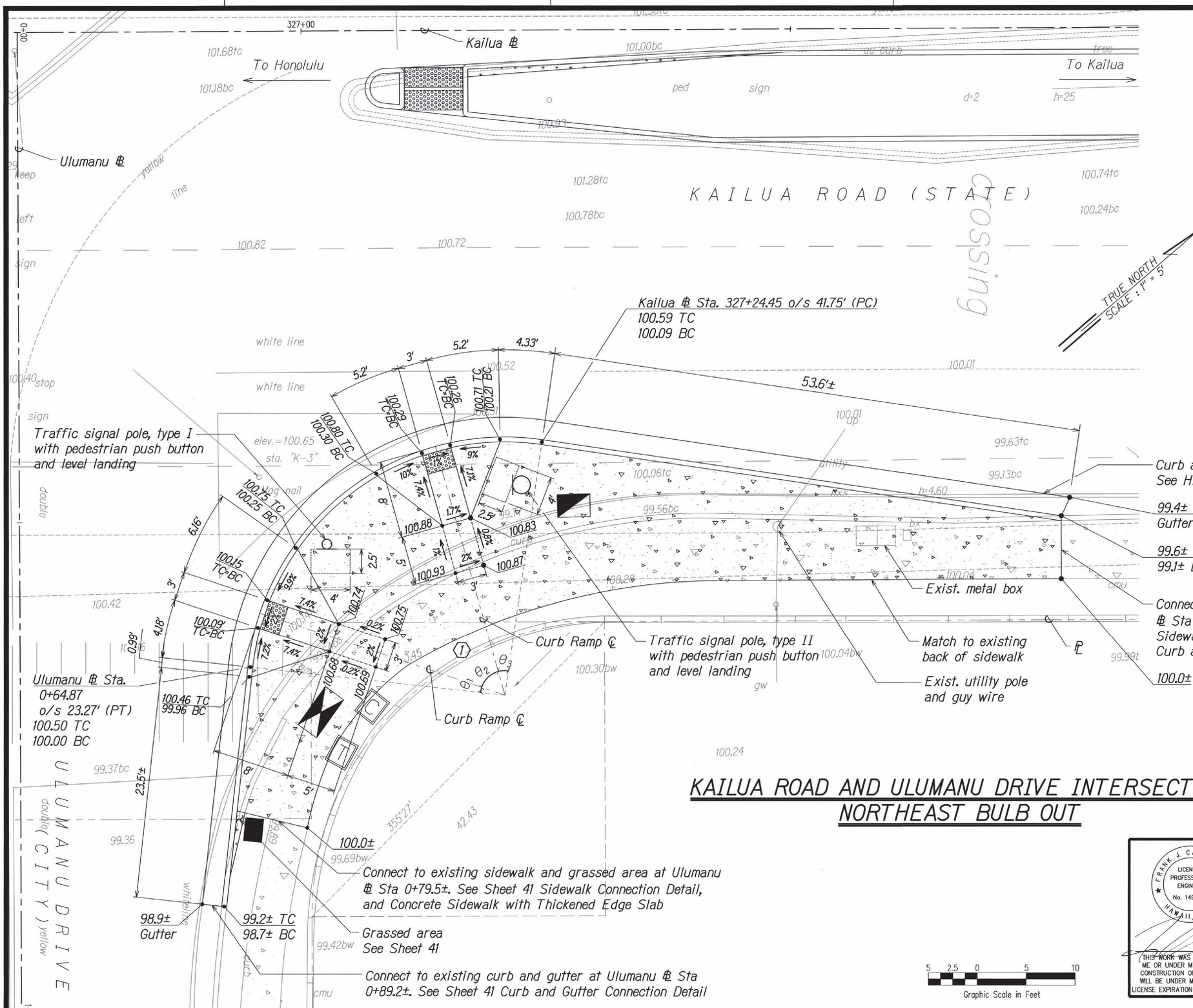
Scale: 1" = 5' Date: DEC, 2023

SHEET No. 7 OF 8 SHEETS

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

P:\Land Projects\DOT IDIQ - 2022\Traffic Operations Task\PAO 2 Kailua Traf\Sig PSE\Drawings\32 Curb Ramp Details - 7.dwg, 12/6/2023 9:50:41 AM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61D-01-23	2024	ADD.33	87



LEGEND

- Concrete area
- Grassed area
- Pedestrian detectable warning

CURVE DATA	
CURVE	1
Δ	83°30'36"
Δ/2	41°45'18"
R	26.4'
T	23.57'
Ch	35.16'
L	38.48'

θ_1 = 12°19'48"
θ_2 = 55°49'53"
θ_3 = 23°56'32"

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. (FOR CONSTRUCTION IN CITY RIGHT-OF-WAY ONLY) DATE

KAILUA ROAD AND ULUMANU DRIVE INTERSECTION NORTHEAST BULB OUT

DATE	REVISION
1/11/24	⚠ Revised Curb Ramps

FRANK J. CAMACHO JR. LICENSED PROFESSIONAL ENGINEER No. 14908-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. LICENSE EXPIRATION DATE: 04/30/24

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS - 8

KAILUA ROAD INTERSECTION IMPROVEMENTS
Vicinity of Uluoa Street and Ulumanu Drive
Project No. 61D-01-23

Scale: 1" = 5' Date: DEC, 2023

5 2.5 0 5 10
Graphic Scale in Feet

SHEET No. 8 OF 8 SHEETS

ADD. 33

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

P:\Land Projects\DOT IDIQ - 2022\Traffic Operations Task\PAO 2 Kailua TrafSig PSE\Drawings\33 Curb Ramp Details - 8.dwg, 1/4/2024 4:20:29 PM