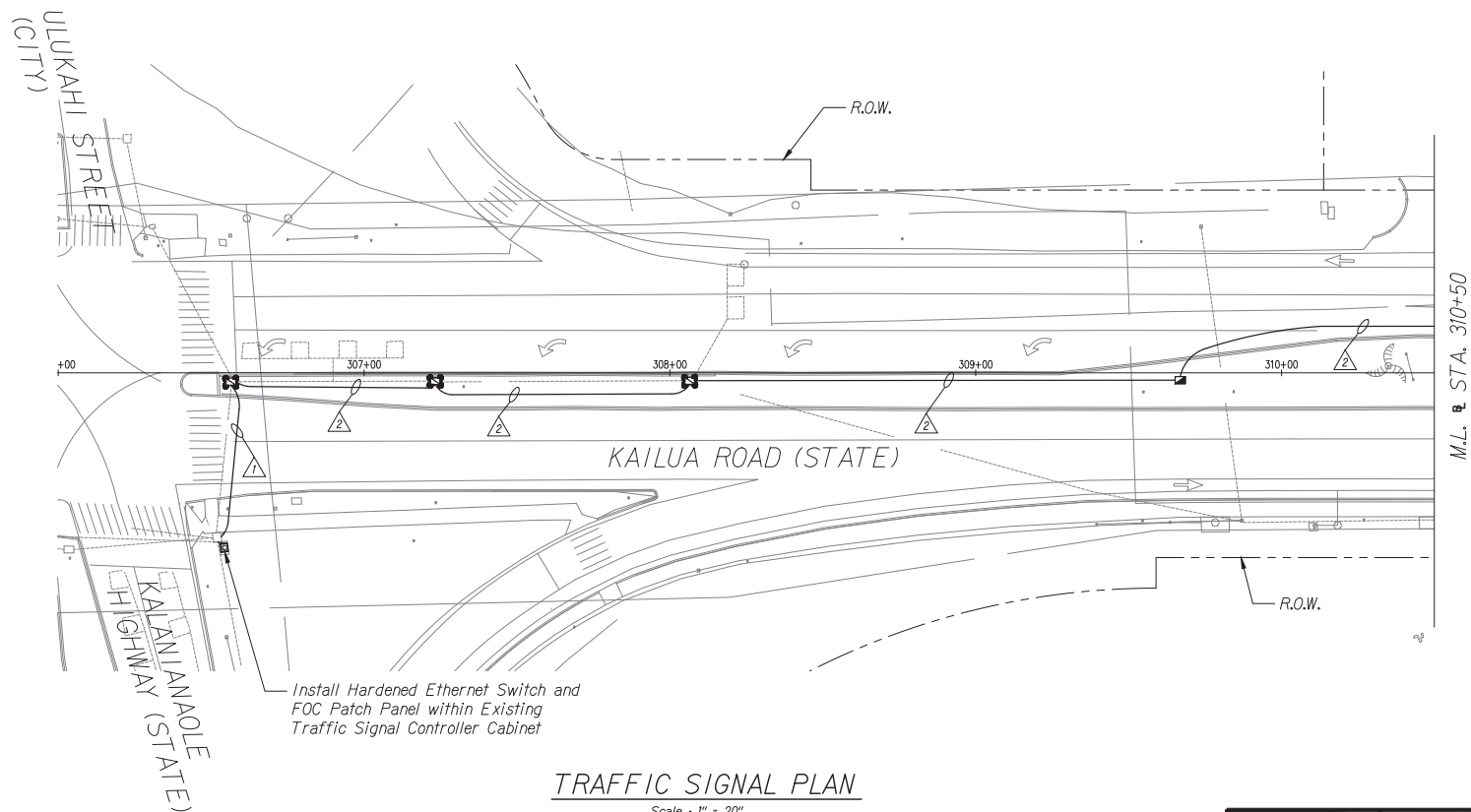


C:\Users\p\p\OneDrive\Desktop\2023 Kailua Kailua Plans\TS-2.dwg, 1/28/2023 4:10:04 PM

Conduit and Cable Schedule		
Symbol	Cond.	Description
⚠	2" Conc.	1 - 6SM FOC*
	2" Conc.	Spare
	2" Conc.	Spare
	2" Conc.	Spare
⚠	2" Conc.	1 - 6SM FOC*
	2" Conc.	Spare

* With Fabric Inner Duct

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61D-01-23	2023	70	87



TRAFFIC SIGNAL PLAN

Scale : 1" = 20"

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
INVESTIGATED BY	
NOTED BY	
APPROVED BY	

TEY M. A. TONG
LICENSED PROFESSIONAL ENGINEER
No. 15540-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Tey M. A. Tong
SIGNATURE
4/20/24
DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL PLAN - 1

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

Scale: 1" = 20" Date: Dec, 2023

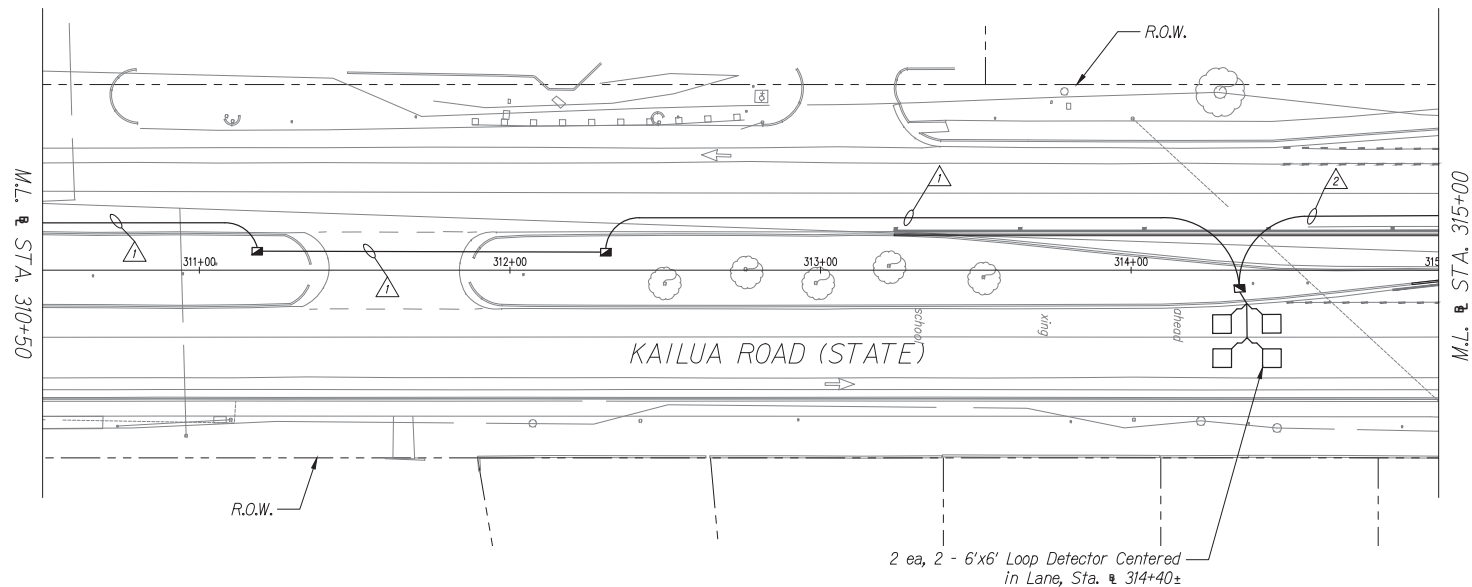
SHEET No. 1 OF 6 SHEETS

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DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
IN CHARGE	
PROJECT NO.	
DATE	

Conduit and Cable Schedule		
Symbol	Cond.	Description
△	2" Conc.	1 - 6SM FOC*
	2" Conc.	Spare
△	2" Conc.	1 - 6SM FOC*
	2" Conc.	2 - 2C#14
* With Fabric Inner Duct		

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61D-01-23	2023	71	87

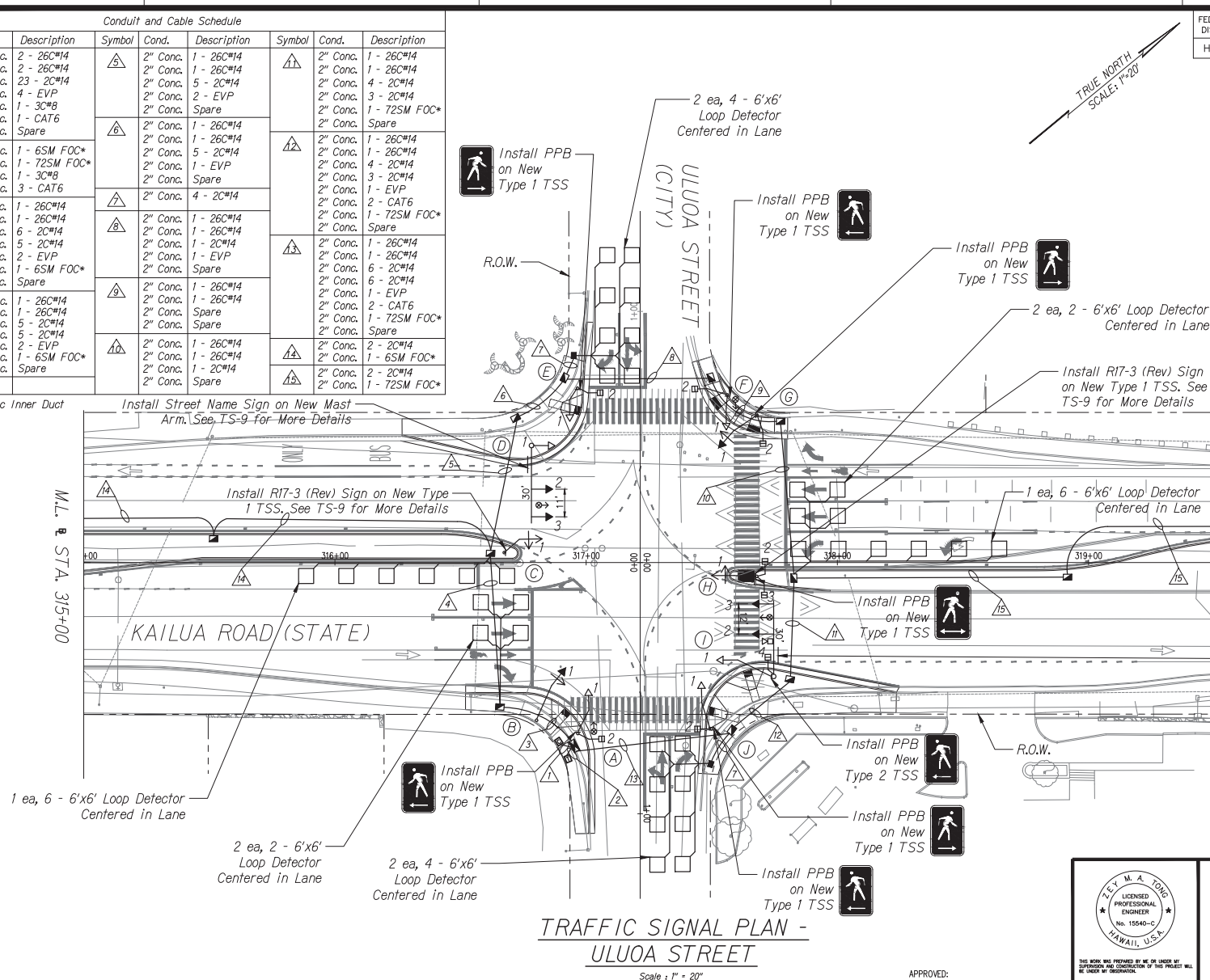


TRAFFIC SIGNAL PLAN
Scale : 1" = 20"

 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. <i>Tey M. A. Tong</i> SIGNATURE 4/20/24 OFFICIAL SEAL	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION TRAFFIC SIGNAL PLAN - 2 <i>KAILUA ROAD INTERSECTION IMPROVEMENTS</i> <i>Vicinity of Ulukou Street and Uluamanu Drive</i> <i>Project No. 61D-01-23</i> Scale: 1" = 20" Date: Dec, 2023
	SHEET No. 2 OF 6 SHEETS

Conduit and Cable Schedule								
Symbol	Cond.	Description	Symbol	Cond.	Description	Symbol	Cond.	Description
⚠	3" Conc.	2 - 26C*14	⚠	2" Conc.	1 - 26C*14	⚠	2" Conc.	1 - 26C*14
	3" Conc.	2 - 26C*14		2" Conc.	1 - 26C*14		2" Conc.	1 - 26C*14
	3" Conc.	23 - 2C*14		2" Conc.	5 - 2C*14		2" Conc.	4 - 2C*14
	4 - EVP	2" Conc.		2 - EVP	2" Conc.		3 - 2C*14	
	2" Conc.	1 - 3C*8		2" Conc.	Spare		2" Conc.	1 - 72SM FOC*
⚠	2" Conc.	1 - CAT6	⚠	2" Conc.	1 - 26C*14	⚠	2" Conc.	Spare
	2" Conc.	Spare		2" Conc.	1 - 26C*14		2" Conc.	Spare
	2" Conc.	1 - 6SM FOC*		2" Conc.	1 - 26C*14		2" Conc.	1 - 26C*14
	2" Conc.	1 - 72SM FOC*		2" Conc.	5 - 2C*14		2" Conc.	4 - 2C*14
	2" Conc.	1 - 3C*8		2" Conc.	1 - EVP		2" Conc.	3 - 2C*14
⚠	2" Conc.	3 - CAT6	⚠	2" Conc.	4 - 2C*14	⚠	2" Conc.	1 - EVP
	2" Conc.	Spare		2" Conc.	1 - 26C*14		2" Conc.	2 - CAT6
	2" Conc.	1 - 6SM FOC*		2" Conc.	1 - 26C*14		2" Conc.	1 - 72SM FOC*
	2" Conc.	Spare		2" Conc.	1 - 26C*14		2" Conc.	Spare
	2" Conc.	3 - CAT6		2" Conc.	1 - 26C*14		2" Conc.	1 - 26C*14
⚠	2" Conc.	1 - 26C*14	⚠	2" Conc.	1 - 26C*14	⚠	2" Conc.	1 - 26C*14
	2" Conc.	1 - 26C*14		2" Conc.	1 - 26C*14		2" Conc.	1 - 26C*14
	2" Conc.	6 - 2C*14		2" Conc.	1 - 2C*14		2" Conc.	6 - 2C*14
	2" Conc.	5 - 2C*14		2" Conc.	1 - 2C*14		2" Conc.	6 - 2C*14
	2" Conc.	2 - EVP		2" Conc.	2 - EVP		2" Conc.	1 - 26C*14
⚠	2" Conc.	1 - 6SM FOC*	⚠	2" Conc.	Spare	⚠	2" Conc.	1 - 26C*14
	2" Conc.	Spare		2" Conc.	Spare		2" Conc.	1 - 26C*14
	2" Conc.	1 - 26C*14		2" Conc.	Spare		2" Conc.	1 - 26C*14
	2" Conc.	1 - 26C*14		2" Conc.	Spare		2" Conc.	1 - 26C*14
	2" Conc.	2 - EVP		2" Conc.	Spare		2" Conc.	1 - 26C*14
⚠	2" Conc.	1 - 6SM FOC*	⚠	2" Conc.	1 - 26C*14	⚠	2" Conc.	2 - 2C*14
	2" Conc.	Spare		2" Conc.	1 - 26C*14		2" Conc.	1 - 6SM FOC*
	2" Conc.	1 - 26C*14		2" Conc.	1 - 2C*14		2" Conc.	2 - 2C*14
	2" Conc.	1 - 26C*14		2" Conc.	Spare		2" Conc.	1 - 72SM FOC*
	2" Conc.	2 - EVP		2" Conc.	1 - 26C*14		2" Conc.	2 - 2C*14
⚠	2" Conc.	1 - 6SM FOC*	⚠	2" Conc.	1 - 26C*14	⚠	2" Conc.	1 - 72SM FOC*
	2" Conc.	Spare		2" Conc.	1 - 26C*14		2" Conc.	Spare
	2" Conc.	1 - 26C*14		2" Conc.	1 - 26C*14		2" Conc.	2 - 2C*14
	2" Conc.	1 - 26C*14		2" Conc.	1 - 2C*14		2" Conc.	1 - 6SM FOC*
	2" Conc.	2 - EVP		2" Conc.	Spare		2" Conc.	2 - 2C*14

* With Fabric Inner Duct

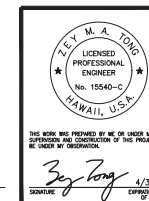


TRAFFIC SIGNAL PLAN - ULUA STREET

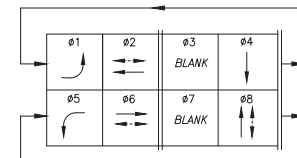
Scale: 1" = 20'

APPROVED:

DATE: 4/30/24
BY: [Signature]
FOR: [Signature]



FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61D-01-23	2023	72	87



PHASE DIAGRAM

New Model 2070 Controller
New Model 332 Cabinet

(R)	(R)	(R)	(R)	(R)
(Y)	(Y)	(Y)	(Y)	(Y)
(G)	(G)	(G)	(G)	(G)
A-1	F-1	D-2	B-1	A-2
D-1	I-1	D-3	C-1*	E-2
E-1	J-1	I-2	G-1	F-2
		I-3	H-1*	G-2

SIGNAL INDICATIONS

*Programmable Visibility Head

M.L. & STA. 319+50

Install Street Name Sign on New Mast Arm. See TS-9 for More Details

TRAFFIC SIGNAL PLAN - 3

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

Scale: 1" = 20' Date: Dec, 2023

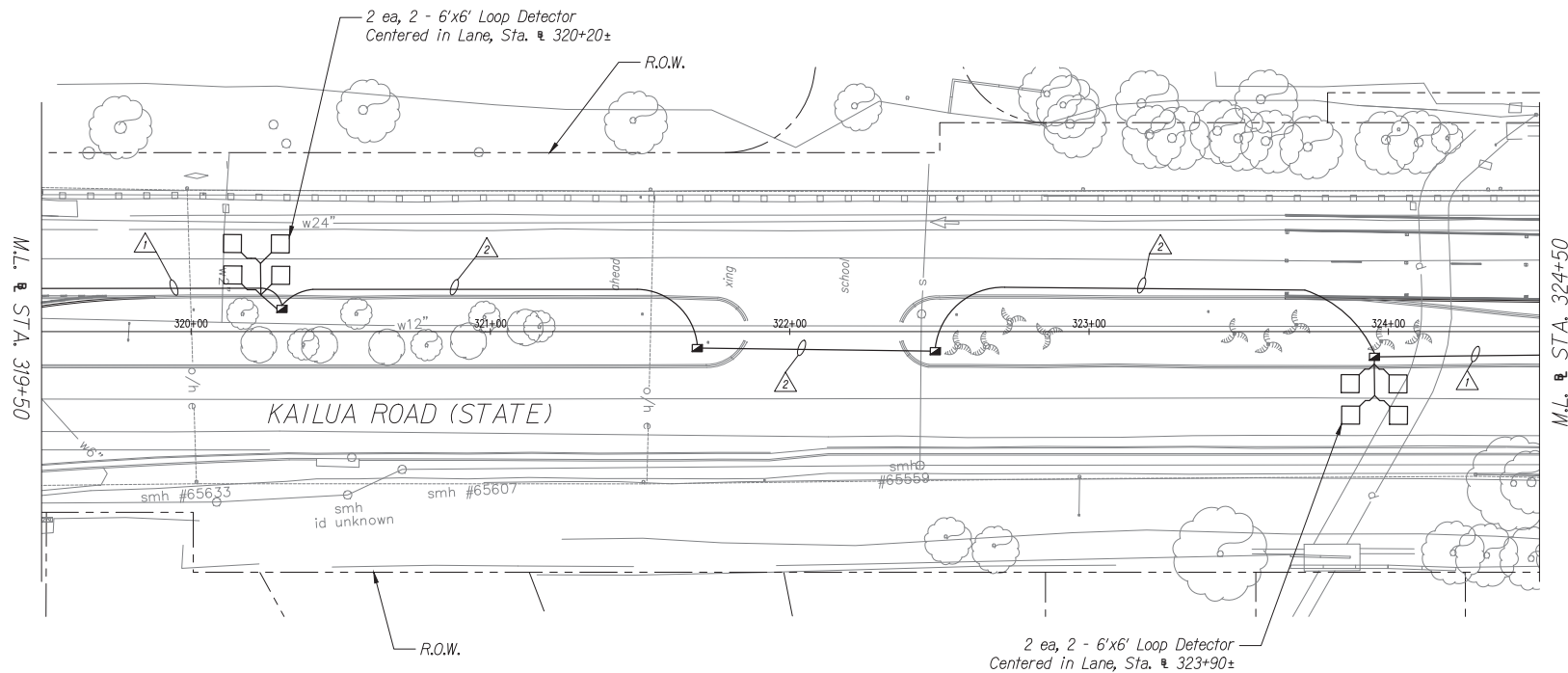
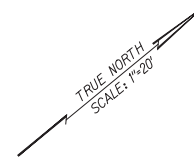
SHEET No. 3 OF 6 SHEETS

Note: See S-XX for New Mast Arm Foundation Details

Conduit and Cable Schedule		
Symbol	Cond.	Description
△	2" Conc.	1 - 72SM FOC*
	2" Conc.	2 - 2C#14
△	2" Conc.	1 - 72SM FOC*
	2" Conc.	Spare

* With Fabric Inner Duct

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61D-01-23	2023	73	87



TRAFFIC SIGNAL PLAN

Scale : 1" = 20"

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
IN CHARGE	
APPROVED BY	
PROJECT NO.	

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Tey M. A. Tong
DATE: 4/30/24
OFFICIAL SEAL

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL PLAN - 4

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

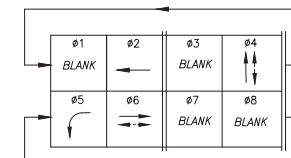
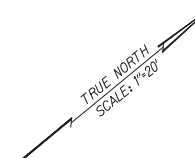
Scale: 1" = 20" Date: Dec, 2023

SHEET No. 4 OF 6 SHEETS

Conduit and Cable Schedule								
Symbol	Cond.	Description	Symbol	Cond.	Description	Symbol	Cond.	Description
△	3" Conc.	2 - 26C#14	△	2" Conc.	1 - 26C#14	△	2" Conc.	1 - 26C#14
	3" Conc.	15 - 2C#14		2" Conc.	2 - 2C#14		2" Conc.	4 - 2C#14
	2" Conc.	3 - EVF		2" Conc.	1 - EVF		2" Conc.	3 - 2C#14
	2" Conc.	1 - 3C#8		2" Conc.	2 - CAT6		2" Conc.	1 - EVF
	2" Conc.	1 - CAT6		2" Conc.	1 - 72SM FOC*		2" Conc.	Spare
	2" Conc.	Spare		2" Conc.	Spare		2" Conc.	Spare
△	2" Conc.	1 - 72SM FOC*	△	2" Conc.	1 - 26C#14	△	2" Conc.	1 - 26C#14
	2" Conc.	1 - 3C#8		2" Conc.	Spare		2" Conc.	4 - 2C#14
	2" Conc.	3 - CAT6		2" Conc.	Spare		2" Conc.	3 - 2C#14
△	2" Conc.	4 - 2C#14	△	2" Conc.	Spare	△	2" Conc.	2 - EVF
				2" Conc.	Spare		2" Conc.	Spare
△	2" Conc.	1 - 26C#14		△	2" Conc.		1 - 26C#14	△
	2" Conc.	4 - 2C#14	2" Conc.		Spare	2" Conc.	1 - 72SM FOC*	
2" Conc.	1 - EVF	2" Conc.	Spare		2" Conc.	Spare	2" Conc.	
2" Conc.	2 - CAT6	△	2" Conc.	1 - 26C#14	△	2" Conc.	Spare	
2" Conc.	1 - 72SM FOC*		2" Conc.	3 - 2C#14		2" Conc.	Spare	
2" Conc.	Spare		2" Conc.	1 - EVF				
			2" Conc.	Spare				

* With Fabric Inner Duct

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61D-01-23	2023	74	87



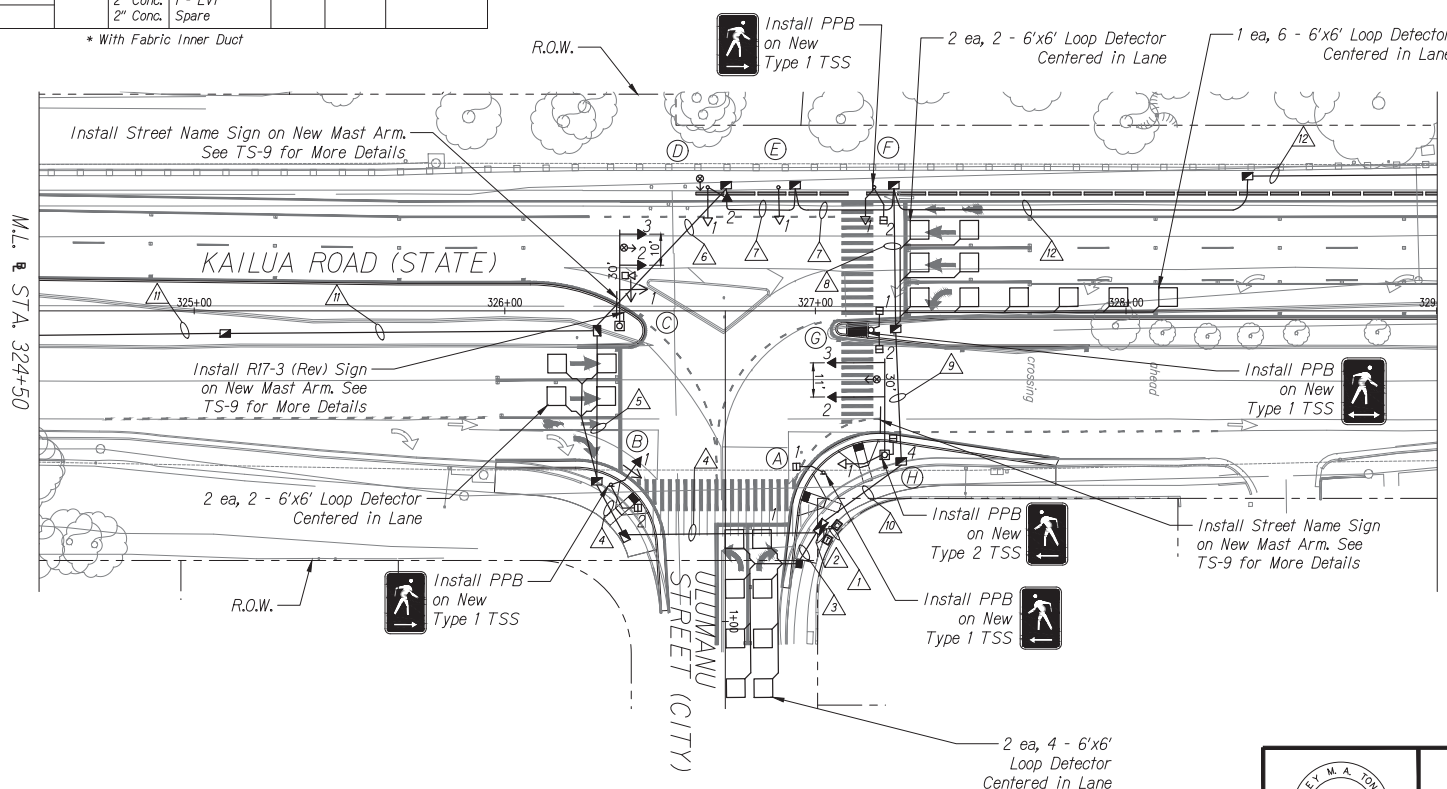
PHASE DIAGRAM

New Model 2070 Controller
New Model 332 Cabinet

(R)	(R)	(R)	(R)
(Y)	(Y)	(Y)	(Y)
(G)	(G)	(G)	(G)
E-1	C-2 H-2	B-1	A-1 G-1
F-1	C-3 H-3	C-1*	B-2 G-2
H-1	D-2	D-1	F-2 H-4

SIGNAL INDICATIONS

*Programmable Visibility Head

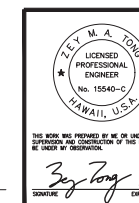


TRAFFIC SIGNAL PLAN - ULUMANU STREET

Scale: 1" = 20'

APPROVED:

DIST. CIVIL ENGINEERING DIVISION, D.P.P.
(FOR CONSTRUCTION WITH CITY RIGHT-OF-WAY ONLY)



THIS WORK WAS PREPARED BY ME OR UNDER MY
SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL
BE UNDER MY OBSERVATION.
DATE: 4/30/24
SIGNATURE: [Signature]

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL PLAN - 5

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

Scale: 1" = 20'

Date: Dec, 2023

SHEET No. 5 OF 6 SHEETS

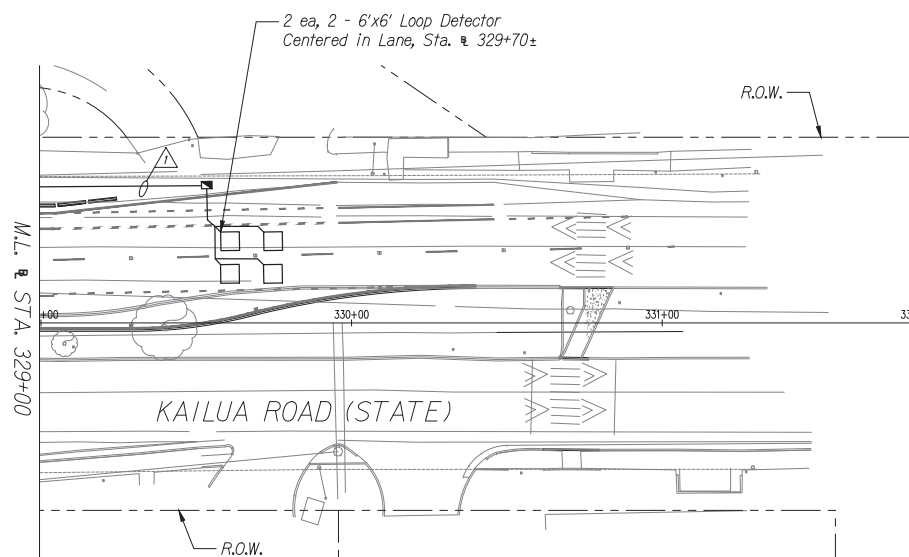
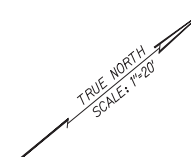
Note: See S-XX for New Mast Arm Foundation Details

DESIGN	DATE
DESIGNED BY	
CHECKED BY	
INVESTIGATED BY	
NOTED BY	
DATE	

Conduit and Cable Schedule		
Symbol	Cond.	Description
△	2" Conc.	2 - 2C#14
	2" Conc.	Spare

* With Fabric Inner Duct

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61D-01-23	2023	75	87



TRAFFIC SIGNAL PLAN

Scale : 1" = 20"

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
INVESTIGATED BY	
APPROVED BY	
NO.	

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Tey M. A. Tong
SIGNATURE

4/30/24
DATE OF WORK

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL PLAN - 6

*KAILUA ROAD INTERSECTION IMPROVEMENTS
Vicinity of Uluka Street and Uluamanu Drive
Project No. 61D-01-23*

Scale: 1" = 20" Date: Dec, 2023

SHEET No. 6 OF 6 SHEETS