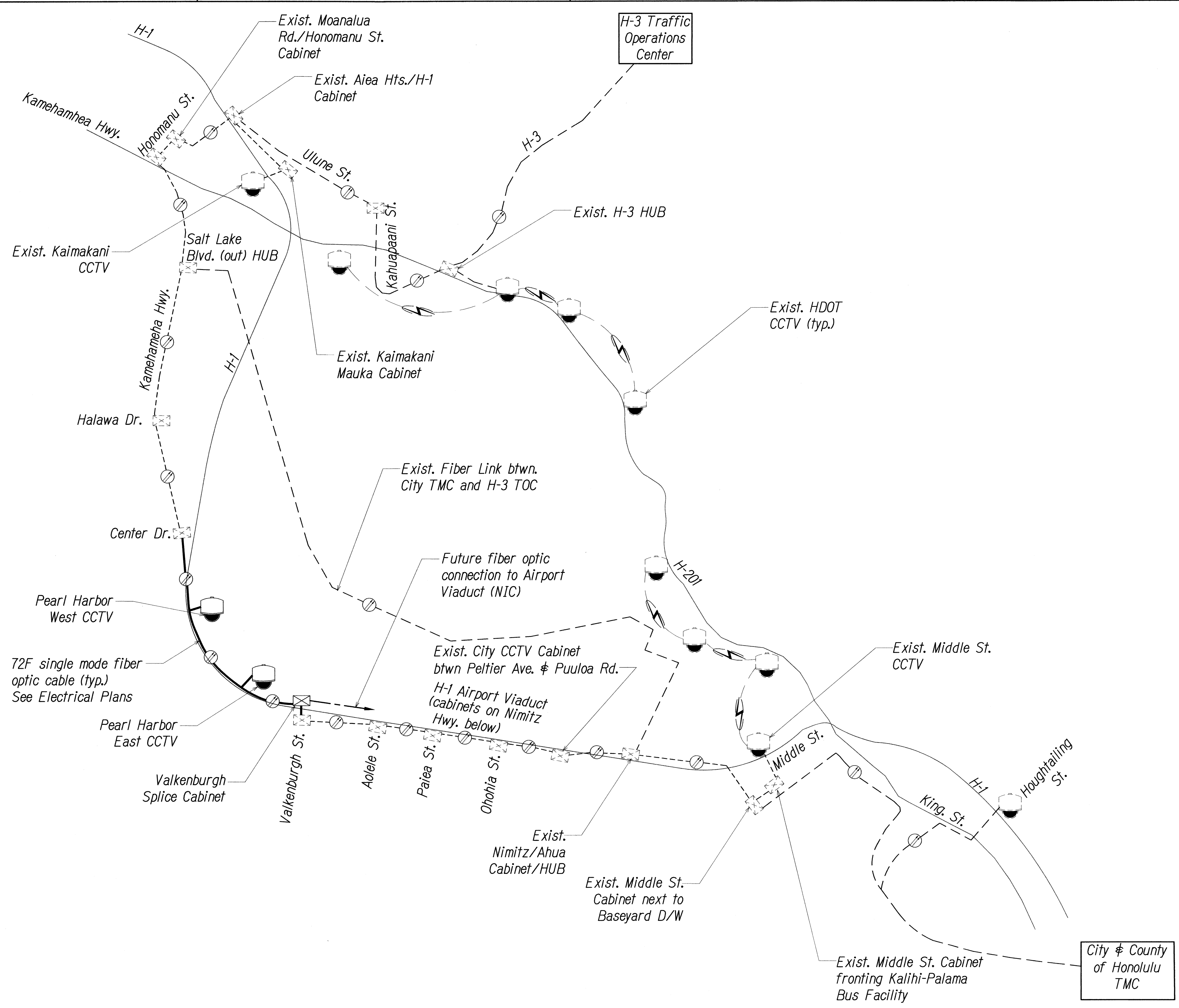


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(127)	2011	17	60



Key

- CCTV Camera (GFE)
- Equipment/Splice Cabinets
- Fiber
- Existing Fiber
- Existing Fiber Link (for information only)
- Future Fiber
- Existing Wireless Link

Note: Dash Lines Denote Existing Cables, Devices, or Enclosures.

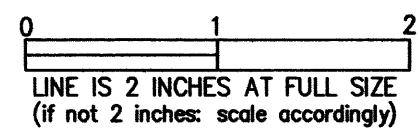
Note:
See Sheets C-2 & C-3 for location of existing cabinets.

GFE = Government Furnished Equipment

DESIGNED BY	DATE
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

FILE: \\96-46\\96-46.21\\DWG\\SY-1 COMM PLAN.DWG Nov 23, 2011-2:37 PM

COMMUNICATIONS PLAN
Not to Scale



NEIL H. KASAMOTO
LICENSED PROFESSIONAL ENGINEER
No. 6931-C
HAWAII, U.S.A.

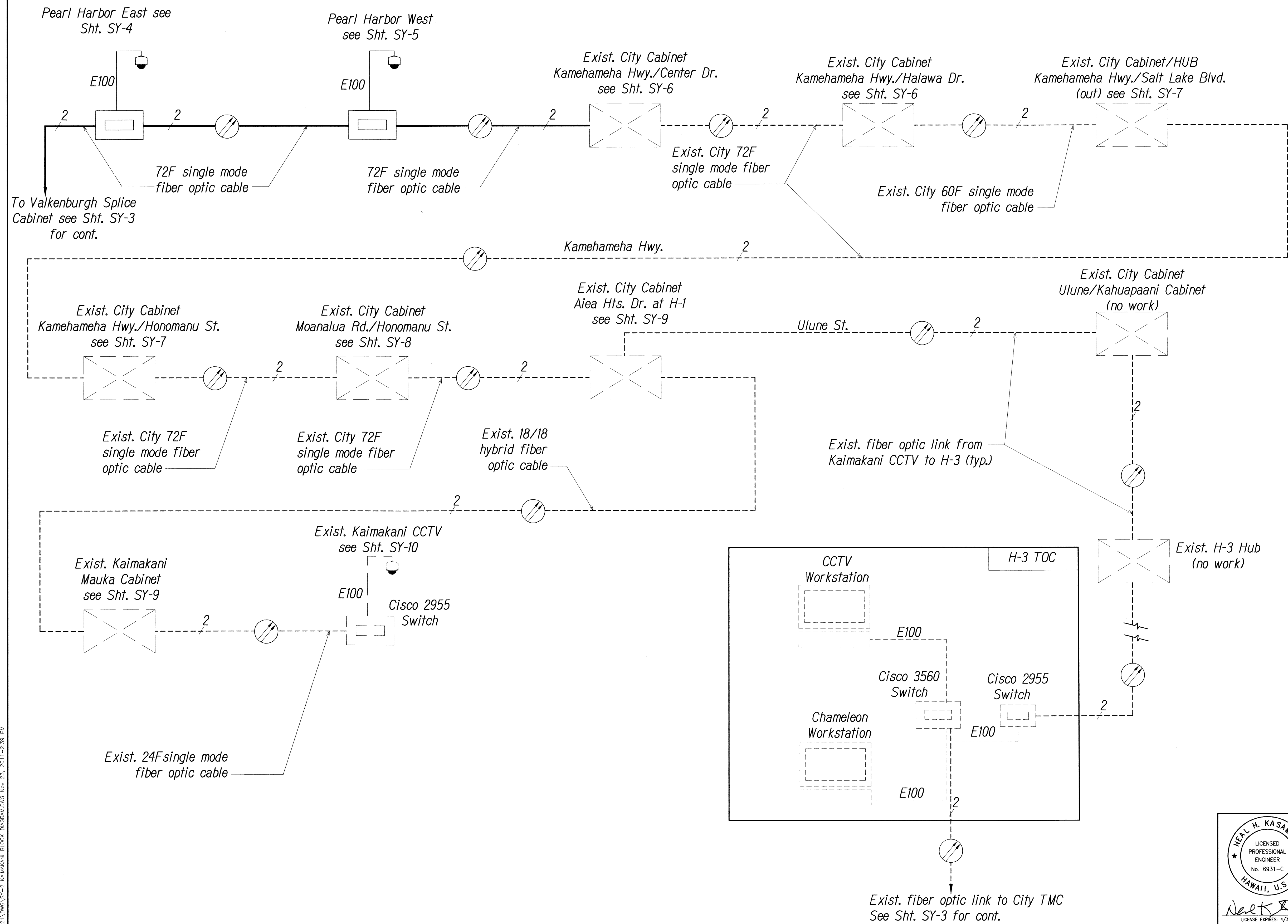
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Communications Plan

Freeway Management System, Phase 1C
Part 1B: Installation of CCTV and Communication Infrastructure
Federal Aid Project No. IM-0300(127)

Scale: NTS Date: 8/18/11

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(127)	2011	18	60



Key

- CCTV Camera (GFE)
- Cisco 2955 Switch
- Equipment/Splice Cabinet
- Workstation
- Fiber
- Existing Fiber
- Number of Fibers Used
- E100 - 10/100 MBPS Ethernet Link

Note: Dash Lines Denote Existing Cables, Devices, or Enclosures.

Notes:

See Sheets C-2 & C-3 for location of existing cabinets.

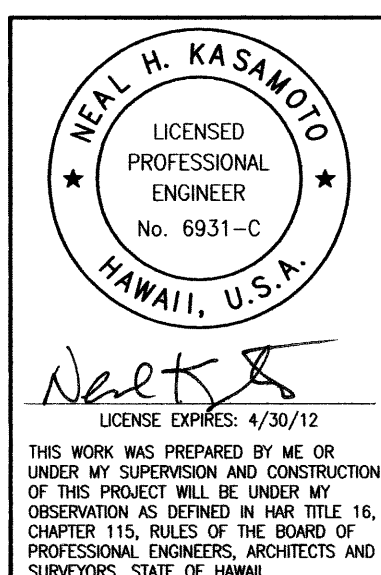
See Sheet SY-17 for network topology

GFE = Government Furnished Equipment

DESIGNED BY	DATE
NOTED BY	
CHECKED BY	
ORIGINAL	
NO.	

FILE: \\98-46-98-46.21\DWG\SY-2 KAIMAKANI BLOCK DIAGRAM.DWG Nov 23, 2011-2:38 PM

SYSTEM BLOCK DIAGRAM - Kaimakani Connection
Not to Scale



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

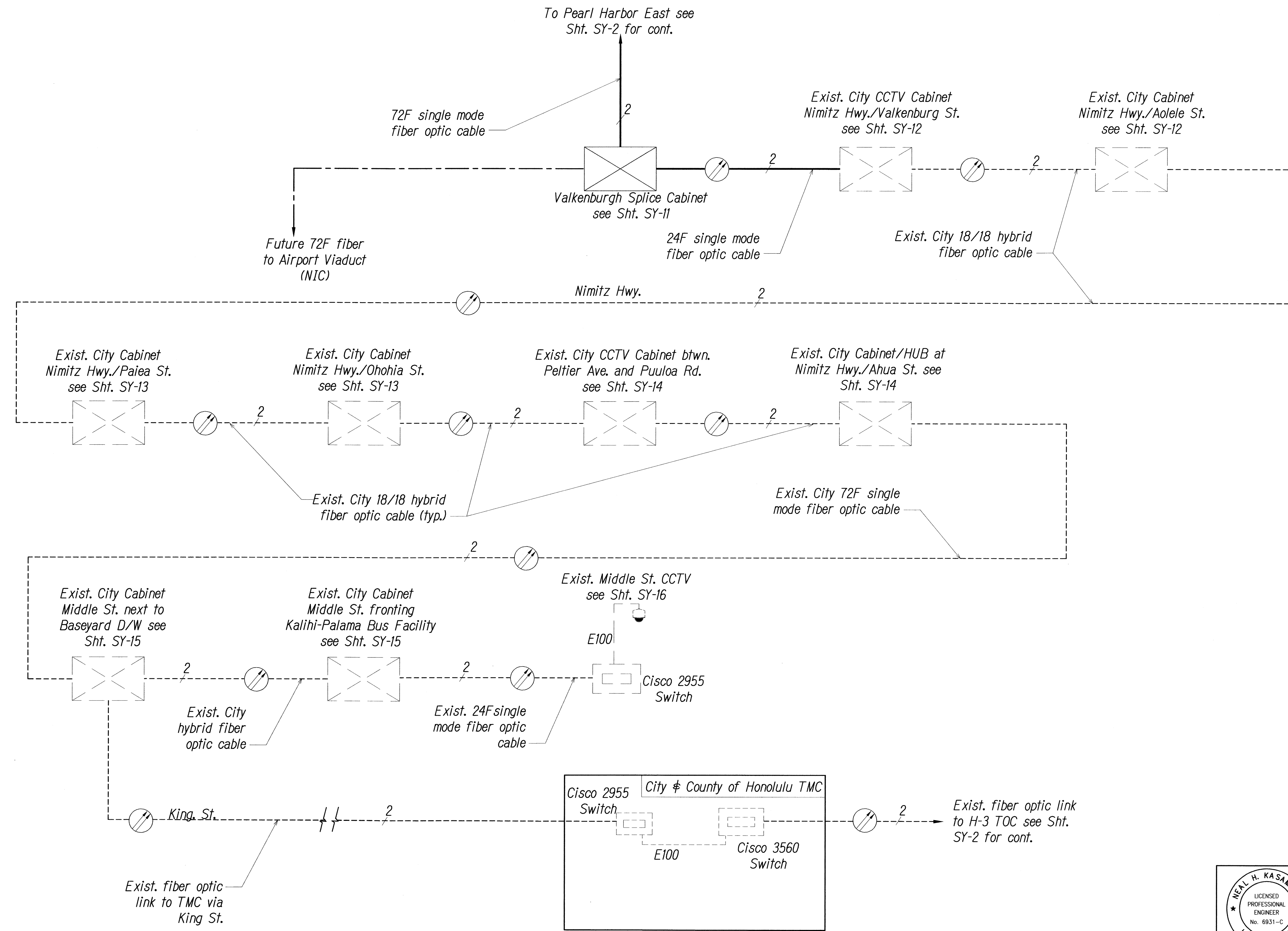
Communications Plan
Block Diagram

Freeway Management System, Phase 1C
Part 1B: Installation of CCTV and
Communication Infrastructure
Federal Aid Project No. IM-0300(127)

Scale: NTS Date: 8/18/11

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(if not 2 inches, scale accordingly)

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(127)	2011	19	60



Key

- CCTV Camera (GFE)
- Cisco 2955 Switch
- Equipment/Splice Cabinet
- Workstation
- Fiber
- Existing Fiber
- 2 - Number of Fibers Used
- E100 - 10/100 MBPS Ethernet Link

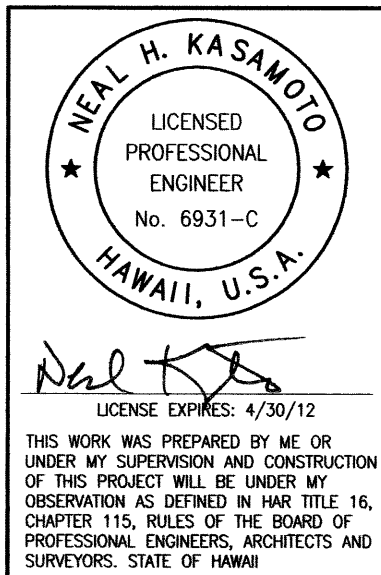
Note: Dash Lines Denote Existing Cables, Devices, or Enclosures.

Notes:
 See Sheets C-2 & C-3 for location of existing cabinets.
 See SY-17 for network topology
 GFE = Government Furnished Equipment

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

FILE: 196-46-96-46.21.DWG SY-3 Middle St BLOCK.DWG Nov. 23, 2011-2:40 PM

SYSTEM BLOCK DIAGRAM - Middle St. Connection
 Not to Scale



STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

Communications Plan
 Block Diagram

Freeway Management System, Phase 1C.
Part 1B: Installation of CCTV and
Communication Infrastructure
Federal Aid Project No. IM-0300(127)

Scale: NTS Date: 8/18/11

SHEET No. SY-3 OF 17 SHEETS

0 1 2
 LINE IS 2 INCHES AT FULL SIZE
 (If not 2 inches: scale accordingly)

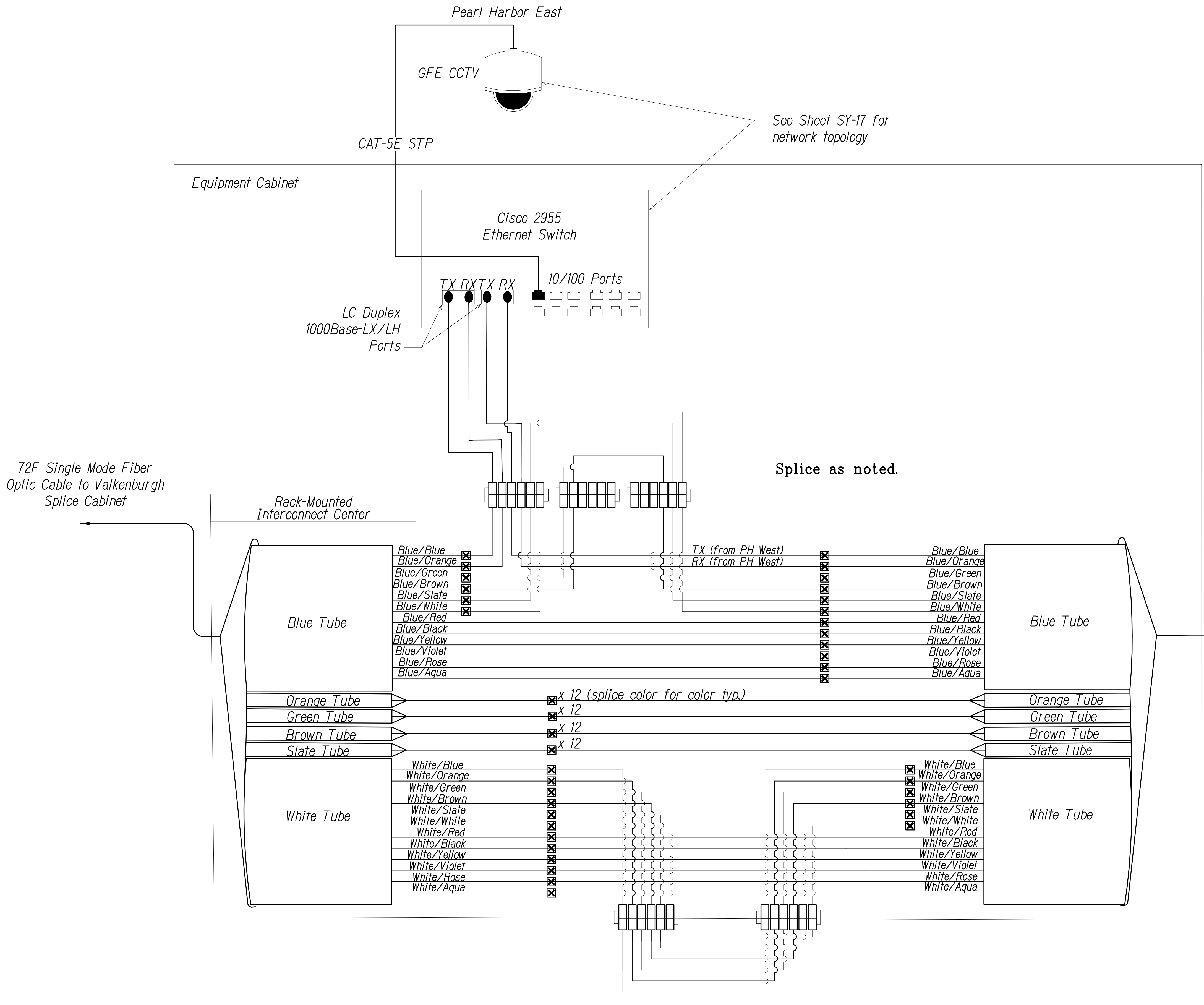
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(127)	2011	20	60

- Key
- Equipment Connection Fiber Optic Jumper
 - Fiber Optic Pigtail
 - Bare Fiber Left Coiled In Splice Tray
 - Existing Splice
 - Fusion Splice
 - Patch Panel Module
 - Fiber

Note: Dash Lines Denote Existing Cables, Devices, or Enclosures.

PN\\ATA-HNL-ENG2018\\PROJECTS\\ENG\\1996\\96-46\\21\\DWG\\AB_SY-4_P1_EAST_R2955.DWG Mar 18, 2020 10:45 AM

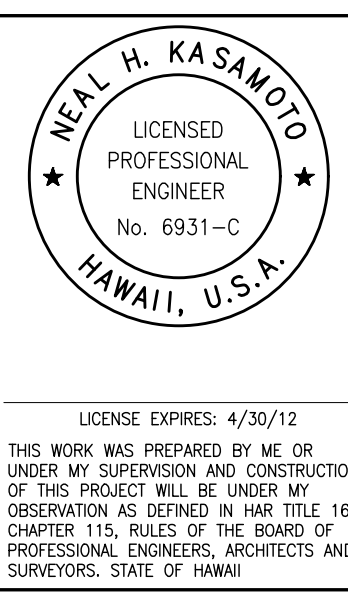
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTEBOOK	
No.	



SPlicing AND CONNECTION DETAIL - Pearl Harbor East
Not to Scale

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If not 2 inches: scale accordingly)

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
Communications Plan
Splice Details
Freeway Management System, Phase 1C,
Part 1B: Installation of CCTV and
Communication Infrastructure
Federal Aid Project No. IM-0300(127)
Scale: NTS Date: 8/18/11
SHEET No. SY-4 OF 17 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(127)	2011	21	60

- Key
- Equipment Connection Fiber Optic Jumper
 - Fiber Optic Pigtail
 - Bare Fiber Left Coiled In Splice Tray
 - Existing Splice
 - Fusion Splice
 - Patch Panel Module
 - Fiber

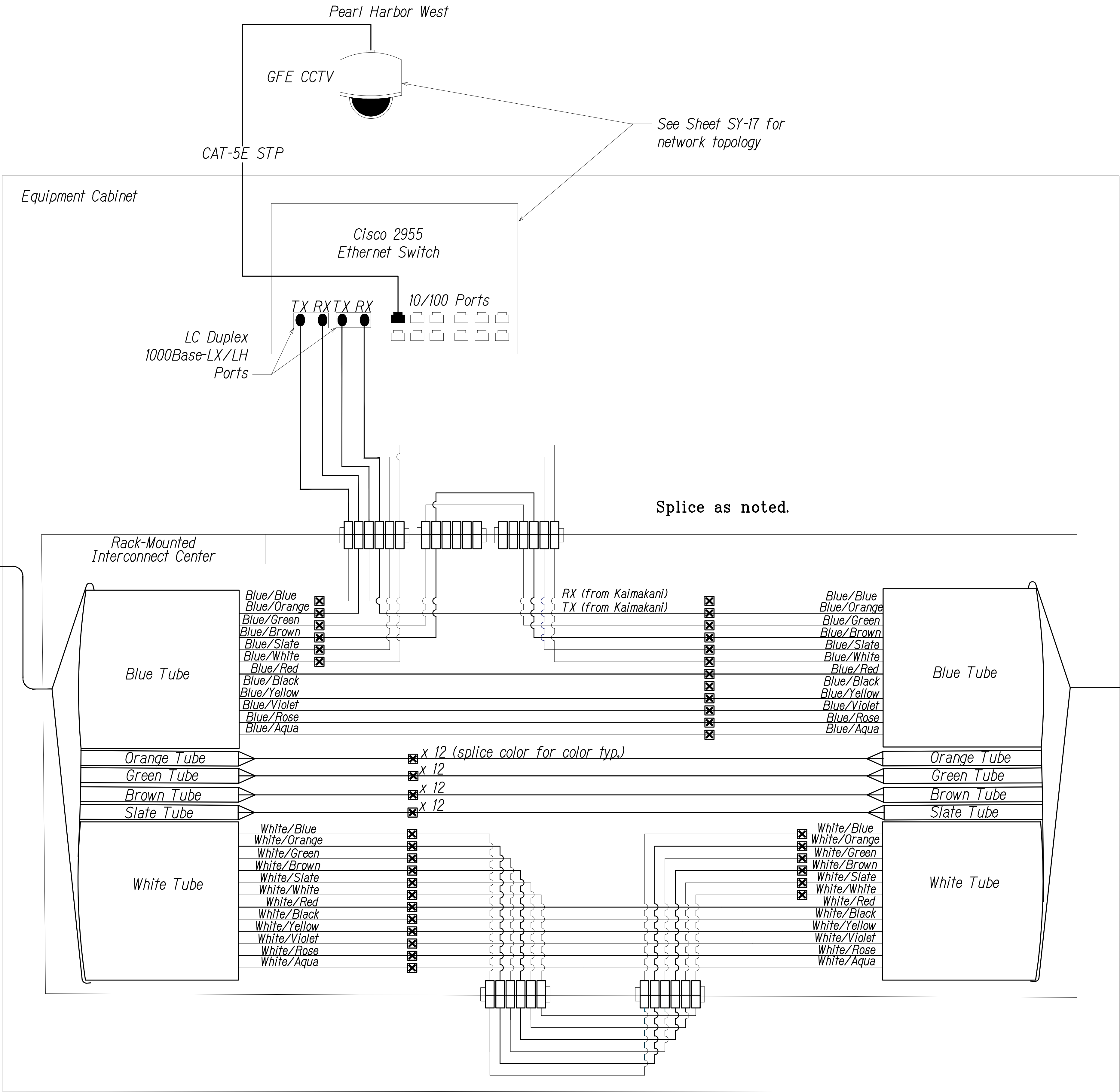
Note: Dash Lines Denote Existing Cables, Devices, or Enclosures.

PN\\ATA-HNL-ENG2018\\PROJECTS\\ENG\\1996\\96-46\\21\\DWG\\AB_SY-5 PH WEST R2955.DWG Mar 18, 2020-10:47 AM

SURVEY PLOTTED BY	DATE
DRAWN BY	"
TRACED BY	"
DESIGNED BY	"
QUANTITIES BY	"
CHECKED BY	"
ORIGINAL PLAN	No.
NOTEBOOK	No.

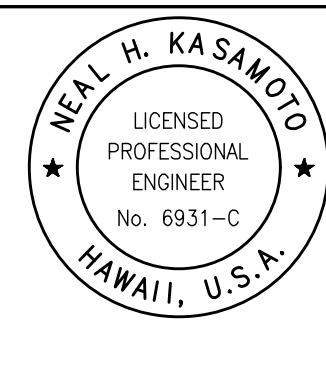
72F Single Mode Fiber Optic Cable to Pearl Harbor East Equipment Cabinet

72F Single Mode Fiber Optic Cable to Exist. Kamehameha Hwy./Center Dr. Cabinet



SPlicing AND CONNECTION DETAIL - Pearl Harbor West
Not to Scale

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If not 2 inches: scale accordingly)



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
Communications Plan
Splice Details
Freeway Management System, Phase 1C,
Part 1B: Installation of CCTV and
Communication Infrastructure
Federal Aid Project No. IM-0300(127)
Scale: NTS Date: 8/18/11
SHEET No. SY-5 OF 17 SHEETS

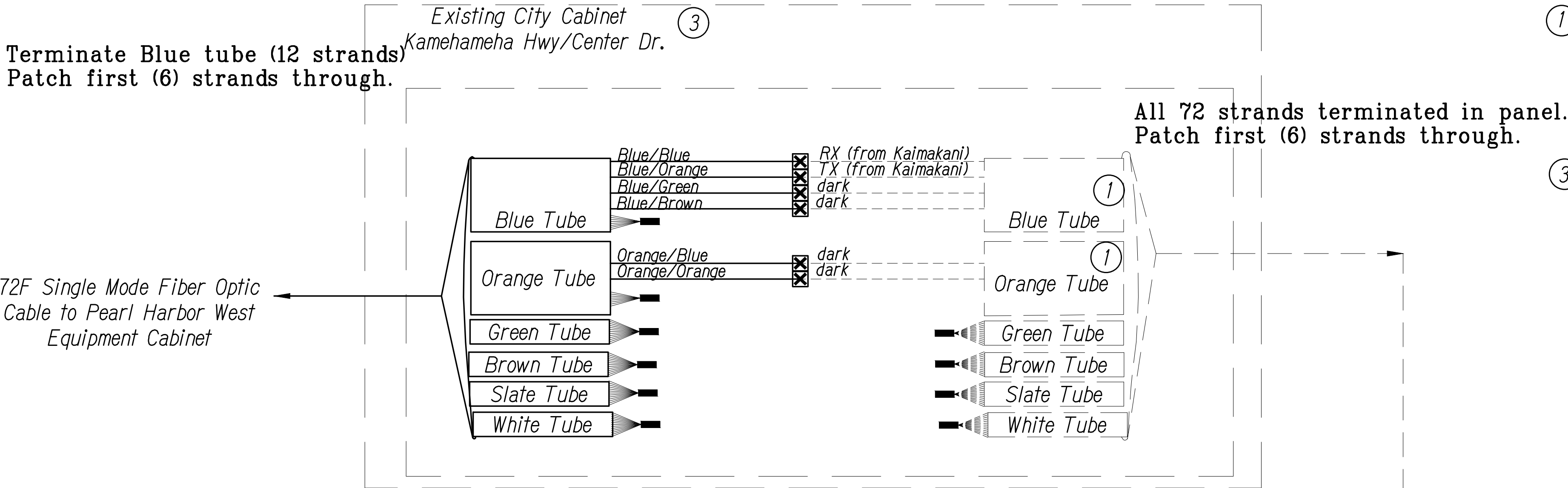
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(127)	2011	22	60

Notes:

① Fiber assignment to be determined by Contractor. Coordinate and verify with City DTS & Engineer before performing any splicing. Contractor shall document all fiber assignments for splices made. Leave all unused fibers bare and coiled in tray.

③ Contractor shall investigate installation of patch panel modules in exist. City cabinets which shall be incidental to pay item "Modifications In Existing Cabinets." Where space exists, the number of spliced fibers shown shall be completed with patch panel modules, pigtails and jumper cables similar to the detail on Sheet SY-II and shall be paid under "Additional Splicing, Testing and Equipment" as directed by the Engineer.

See Sheets C-2 & C-3 for location of existing cabinets.

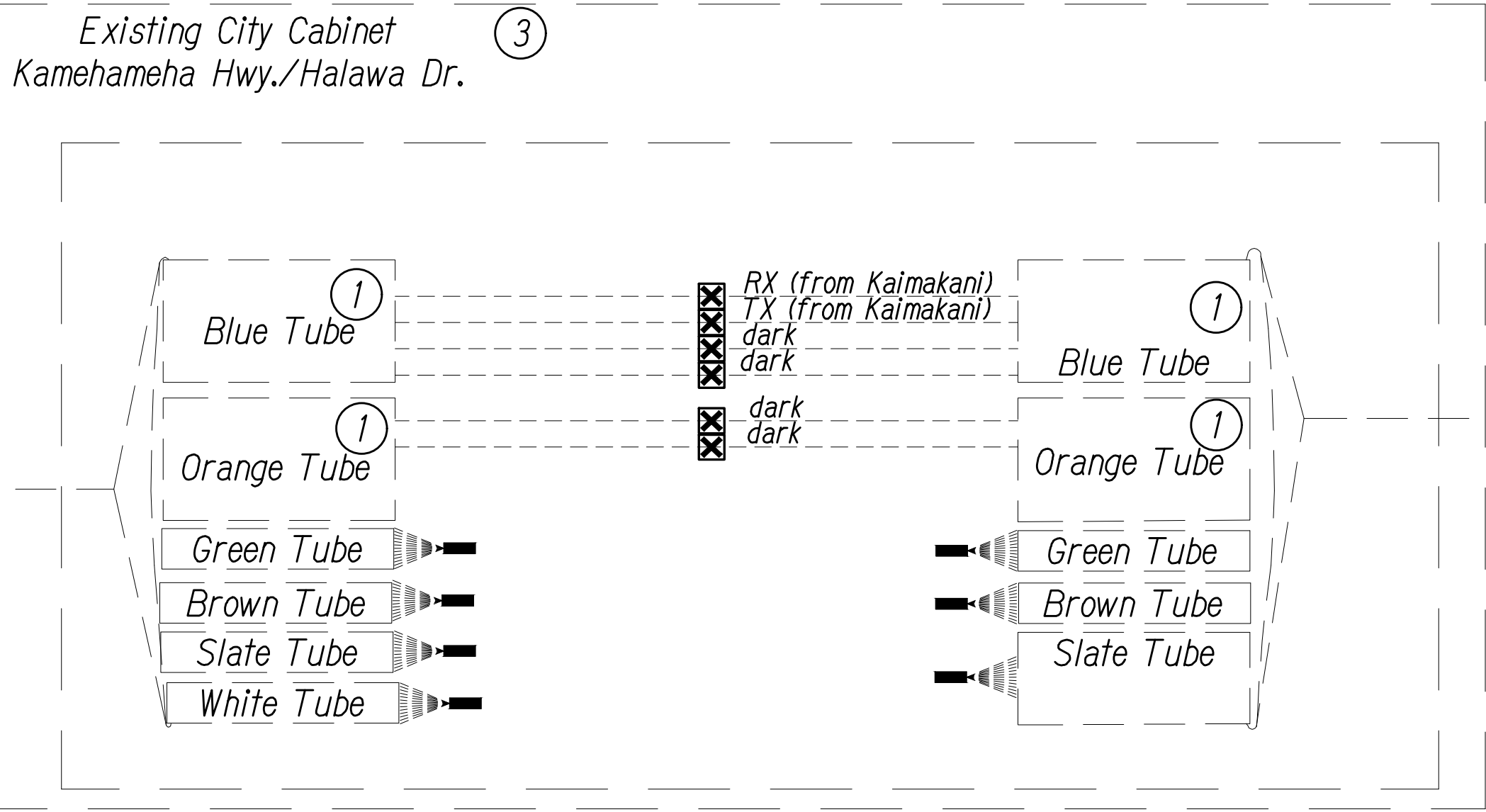


Kamehameha Hwy.
Radford Drive
Cabinet.

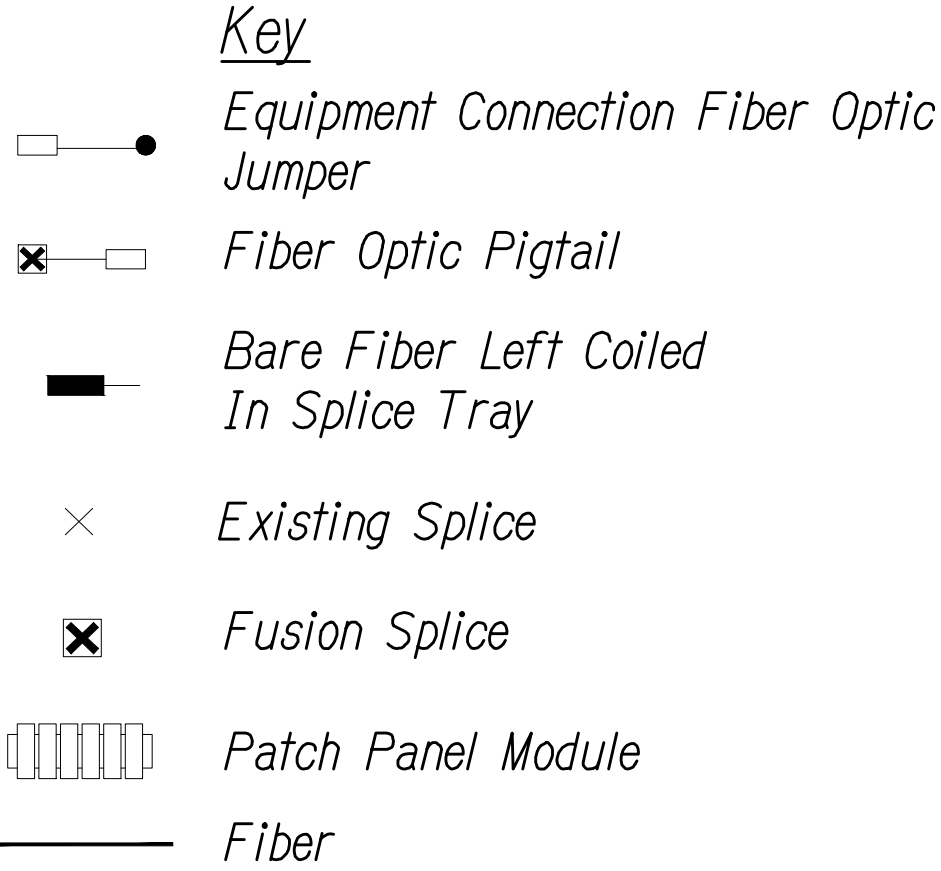
Both 72 SM cables terminated.
Patch through (6) strands.

Exist. City 72F Single Mode
Fiber Optic Cable

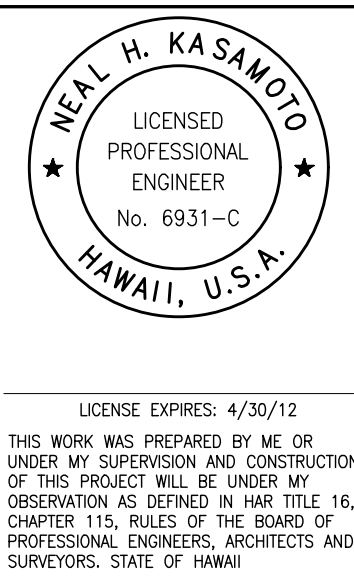
All 72 strands terminated in panel.
Plug in pigtails to first (6) strands.



Exist. City 60F Single Mode Fiber Optic
Cable To Exist. Kamehameha Hwy./Salt
Lake Blvd. (OUT) Cabinet./HUB



LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
Communications Plan
Splice Details
Freeway Management System, Phase 1C,
Part 1B: Installation of CCTV and
Communication Infrastructure
Federal Aid Project No. IM-0300(127)
Scale: NTS Date: 8/18/11
SHEET No. SY-6 OF 17 SHEETS

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If not 2 inches: scale accordingly)

SPlicing AND CONNECTION DETAIL
Not to Scale

SURVEY PLOTTED BY	DATE
DRAWN BY	"
TRACED BY	"
DESIGNED BY	"
QUANTITIES BY	"
CHECKED BY	"
ORIGINAL PLAN	No.
NOTEBOOK	No.

PN\\ATA-HNL-ENG2018\PROJECTS\ENG\1996\96-46\21\DWG\AB_SY-6 SPlice DETAILS.DWG Mod 18, 2020-10:48 AM

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(127)	2011	23	60

Splice White tube.
Blue, Orange, Green, Brown,
Slate, White strands.
NOTE: White tube is spliced.
Please confirm available
for use.

Notes:

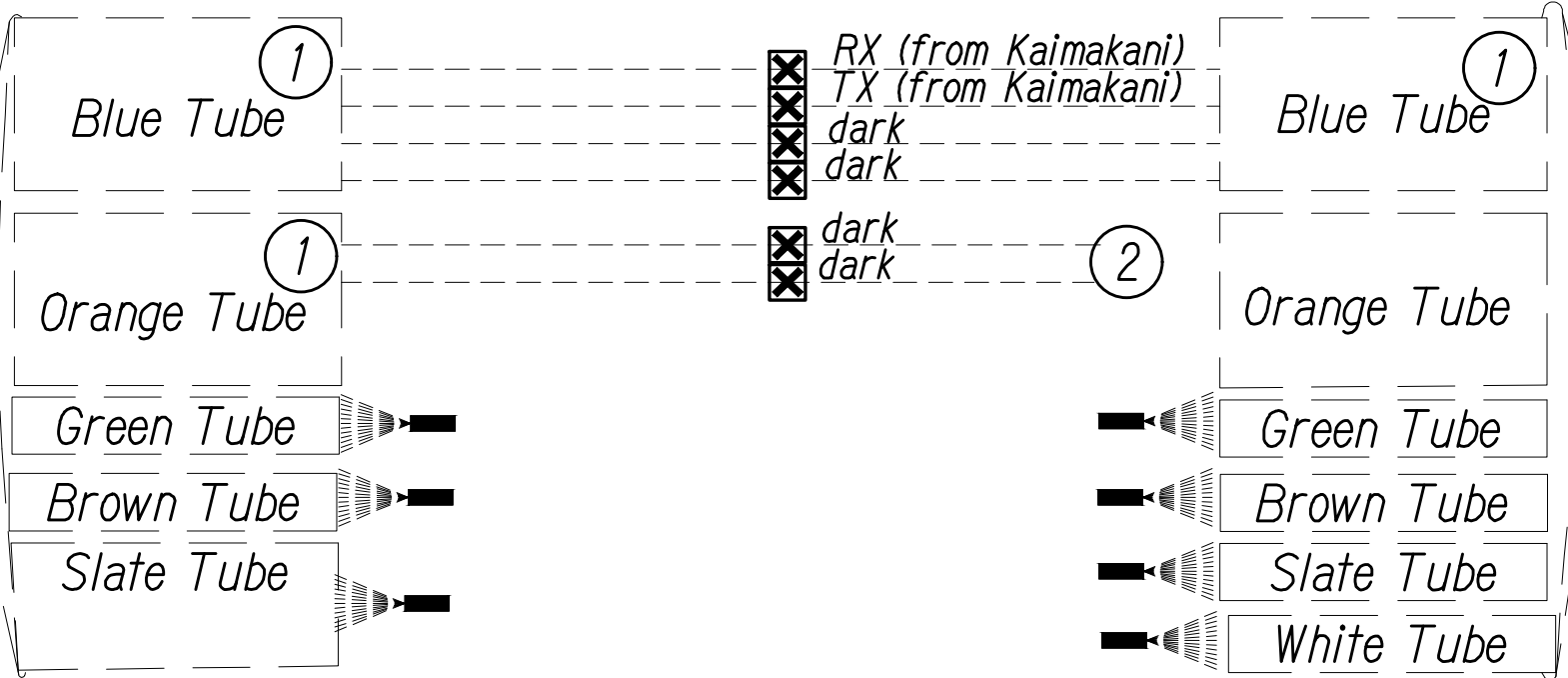
- ① Fiber assignment to be determined by Contractor. Coordinate and verify with City DTS & Engineer before performing any splicing. Contractor shall document all fiber assignments for splices made. Leave all unused fibers bare and coiled in tray.
- ② Fiber assignment to be determined by DTS. Coordinate and verify with City DTS & Engineer before performing any splicing. Contractor shall document all fiber assignments for splices made. Leave all unused fibers bare and coiled in tray.
- ③ Contractor shall investigate installation of patch panel modules in exist. City cabinets which shall be incidental to pay item "Modifications In Existing Cabinets." Where space exists, the number of spliced fibers shown shall be completed with patch panel modules, pigtails and jumper cables similar to the detail on Sheet SY-11 and shall be paid under "Additional Splicing, Testing and Equipment" as directed by the Engineer.

See Sheets C-2 & C-3 for location of existing cabinets.

Splice Slate tube.
Blue, Orange, Green, Brown, Slate,
White strands. NOTE: Slate strand in
Slate tube is spliced. Please confirm
available for use.

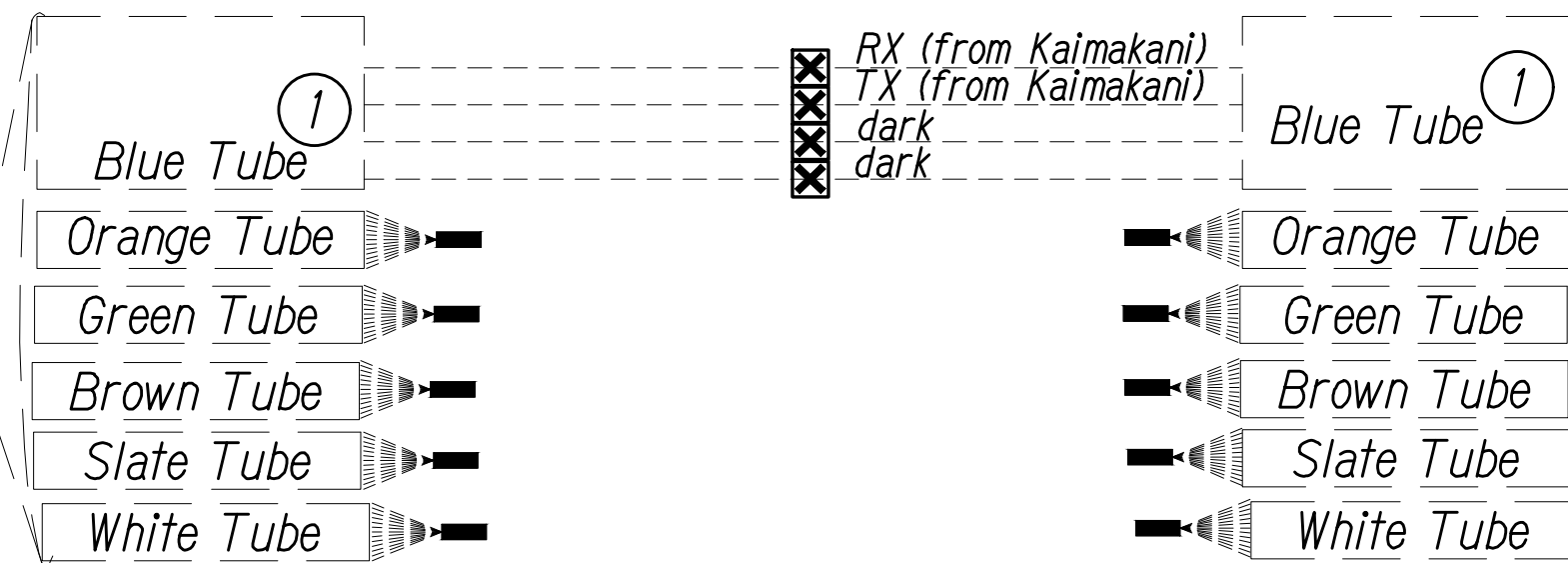
Existing City 60F Single Mode Fiber
Optic Cable to Exist. Kamehameha
Hwy./Halawa Dr. Cabinet

Existing City Cabinet/HUB at
Kamehameha Hwy/Salt Lake Blvd. (OUT) ③



Exist. City 72F Single Mode Fiber Optic Cable

Existing City Cabinet
Kamehameha Hwy/Honomanu St. ③



Exist. City 72F Single Mode Fiber
Optic Cable To Exist. Moanalua
Rd./Honomanu St. Cabinet

Key

- Equipment Connection Fiber Optic Jumper
- Fiber Optic Pigtail
- Bare Fiber Left Coiled In Splice Tray
- Existing Splice
- Fusion Splice
- Patch Panel Module
- Fiber

Note: Dash Lines Denote Existing Cables,
Devices, or Enclosures.

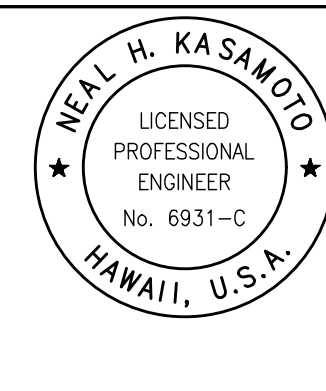
SPLICING AND CONNECTION DETAIL

Not to Scale

LEGEND FOR AS-BUILT POSTINGS

- Squiggly line for as-built deletion
- Double line for as-built deletion
- Roadway Text for as-built posting

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If not 2 inches: scale accordingly)



LICENSE EXPIRES: 4/30/12
THIS WORK WAS PREPARED BY ME OR
UNDER MY SUPERVISION AND CONSTRUCTION
OF THIS PROJECT WILL BE UNDER MY
OBSERVATION AS DEFINED IN HAWAII TITLE 16,
CHAPTER 110, RULES OF THE BOARD OF
PROFESSIONAL ENGINEERS, ARCHITECTS AND
SURVEYORS, STATE OF HAWAII

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Communications Plan Splice Details

Freeway Management System, Phase 1C,
Part 1B: Installation of CCTV and
Communication Infrastructure
Federal Aid Project No. IM-0300(127)

Scale: NTS Date: 8/18/11

SHEET No. SY-7 OF 17 SHEETS

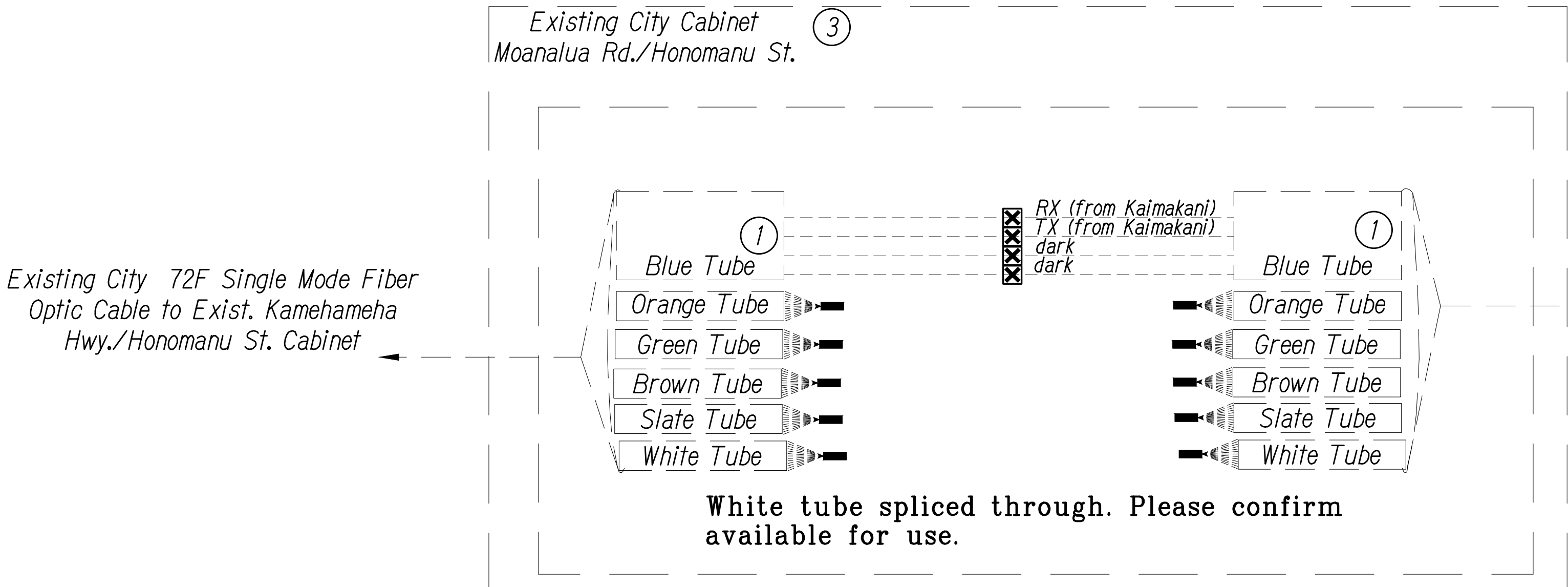
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(127)	2011	24	60

Notes:

- ① Fiber assignment to be determined by Contractor. Coordinate and verify with City DTS & Engineer before performing any splicing. Contractor shall document all fiber assignments for splices made. Leave all unused fibers bare and coiled in tray.
- ③ Contractor shall investigate installation of patch panel modules in exist. City cabinets which shall be incidental to pay item "Modifications In Existing Cabinets." Where space exists, the number of spliced fibers shown shall be completed with patch panel modules, pigtails and jumper cables similar to the detail on Sheet SY-11 and shall be paid under "Additional Splicing, Testing and Equipment" as directed by the Engineer.

See Sheets C-2 & C-3 for location of existing cabinets.



SPLICING AND CONNECTION DETAIL

Not to Scale

Key

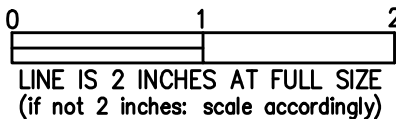
- Equipment Connection Fiber Optic Jumper
- Fiber Optic Pigtail
- Bare Fiber Left Coiled In Splice Tray
- Existing Splice
- Fusion Splice
- Patch Panel Module
- Fiber

Note: Dash Lines Denote Existing Cables, Devices, or Enclosures.

SURVEY PLOTTED BY	DATE
DRAWN BY	"
TRACED BY	"
DESIGNED BY	"
QUANTITIES BY	"
CHECKED BY	"
ORIGINAL PLAN	No.
NOTEBOOK	No.

PN\\ATA-HNL-ENG2018\PROJECTS\ENG\1996\96-46\96-46.21\DWG\AB_SY-8_SPLICE DETAILS.DWG Mod 18, 2020-10:49 AM

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting



LICENSE EXPIRES: 4/30/12

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Communications Plan
Splice Details

Freeway Management System, Phase 1C,
Part 1B: Installation of CCTV and
Communication Infrastructure
Federal Aid Project No. IM-0300(127)

Scale: NTS Date: 8/18/11

SHEET No. SY-8 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(127)	2011	25	60

Notes:

① Fiber assignment to be determined by Contractor. Coordinate and verify with City DTS & Engineer before performing any splicing. Contractor shall document all fiber assignments for splices made. Leave all unused fibers bare and coiled in tray.

③ Contractor shall investigate installation of patch panel modules in exist. City cabinets which shall be incidental to pay item "Modifications In Existing Cabinets." Where space exists, the number of spliced fibers shown shall be completed with patch panel modules, pigtails and jumper cables similar to the detail on Sheet SY-11 and shall be paid under "Additional Splicing, Testing and Equipment" as directed by the Engineer.

See Sheets C-2 & C-3 for location of existing cabinets.

Key

Equipment Connection Fiber Optic Jumper

Fiber Optic Pigtail

Bare Fiber Left Coiled In Splice Tray

Existing Splice

Fusion Splice

Patch Panel Module

Fiber

Note: Dash Lines Denote Existing Cables, Devices, or Enclosures.

LEGEND FOR AS-BUILT POSTINGS

Squiggly line for as-built deletion

Double line for as-built deletion

Roadway

Text for as-built posting

NEAL H. KASAMOTO
LICENSED PROFESSIONAL ENGINEER
No. 6931-C
HAWAII, U.S.A.

LICENSE EXPIRES: 4/30/12
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
Communications Plan
Splice Details
Freeway Management System, Phase 1C,
Part 1B: Installation of CCTV and
Communication Infrastructure
Federal Aid Project No. IM-0300(127)
Scale: NTS Date: 8/18/11

SHEET No. SY-9 OF 17 SHEETS

Splice White tube.
Blue, Orange, Green, Brown,
strands.
NOTE: White tube is spliced.
Please confirm available
for use.

Exist. City 72F Single Mode Fiber
Optic Cable to Moanalua Rd./
Honomanu St.

Existing City Cabinet
at Aiea Heights Dr./H-1

Existing Fiber to H-3 via Ulune
St./Kahuaapani St. Cabinet

Splice as noted.

Existing HDOT Kaimakani
Mauka Cabinet

Exist. 24F Single Mode Fiber
Optic Cable To Exist. Kaimakani St.
Camera Cabinet

Exist. 18/18 Hybrid
Fiber Optic Cable

Terminate on pigtails and plug into
existing panel.

SPlicing AND CONNECTION DETAIL
Not to Scale

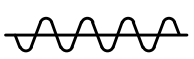
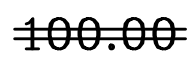
"AS-BUILT"

25

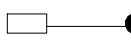



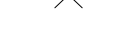


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(127)	2011	26	60

Note:
See Sheets C-2 & C-3 for location of existing cabinets.

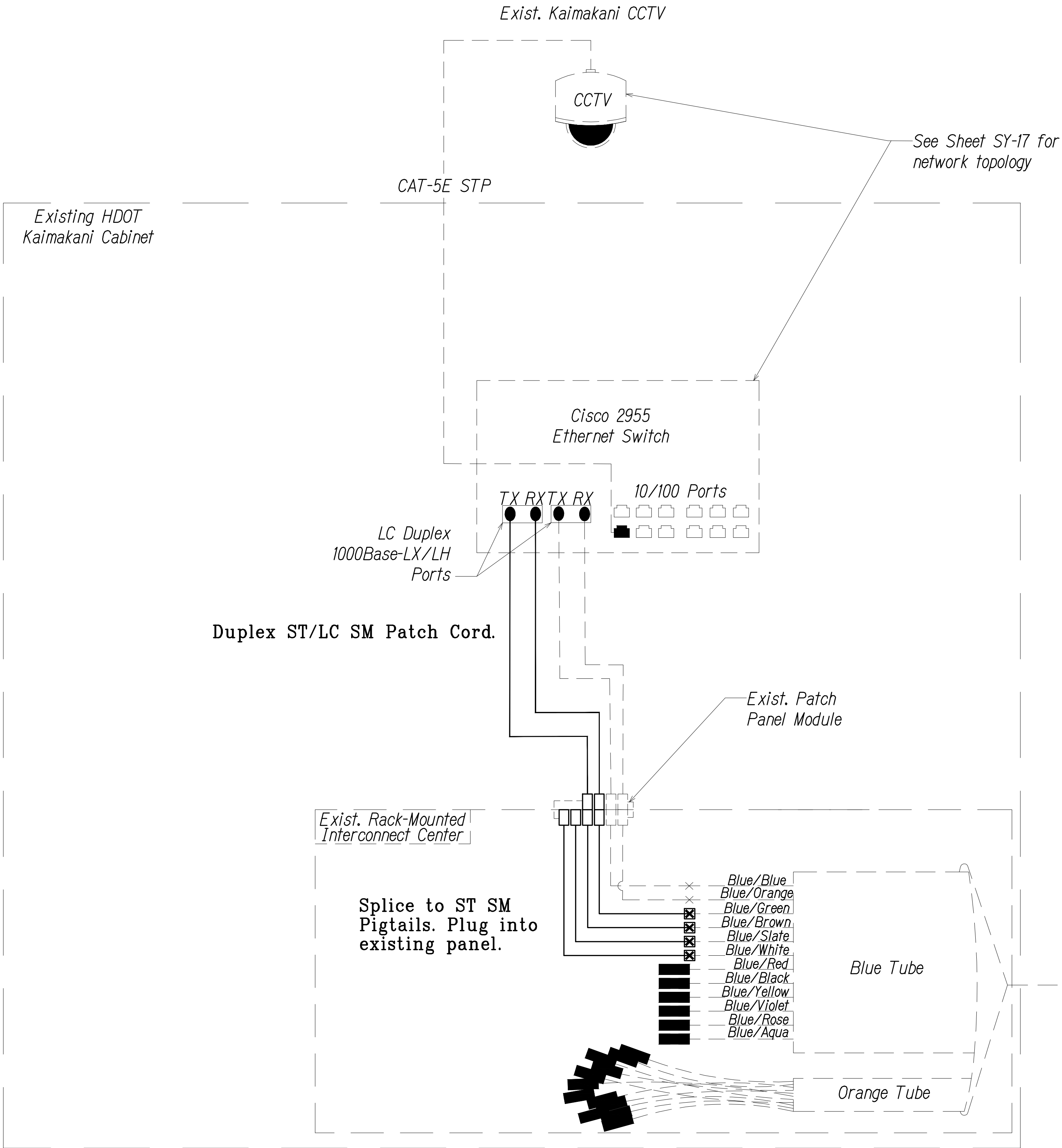
LEGEND FOR AS-BUILT POSTINGS

	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

Key

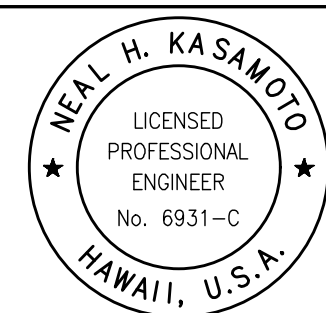
	Equipment Connection Fiber Optic Jumper
	Fiber Optic Pigtail
	Bare Fiber Left Coiled In Splice Tray
	Existing Splice
	Fusion Splice
	Patch Panel Module
	Fiber

Note: Dash Lines Denote Existing Cables, Devices, or Enclosures.



SPLICING AND CONNECTION DETAIL - Kaimakani

Not to Scale



LICENSE EXPIRES: 4/30/12
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**Communications Plan
Splice Details**

Freeway Management System, Phase 1C,
Part 1B: Installation of CCTV and
Communication Infrastructure
Federal Aid Project No. IM-0300(127)

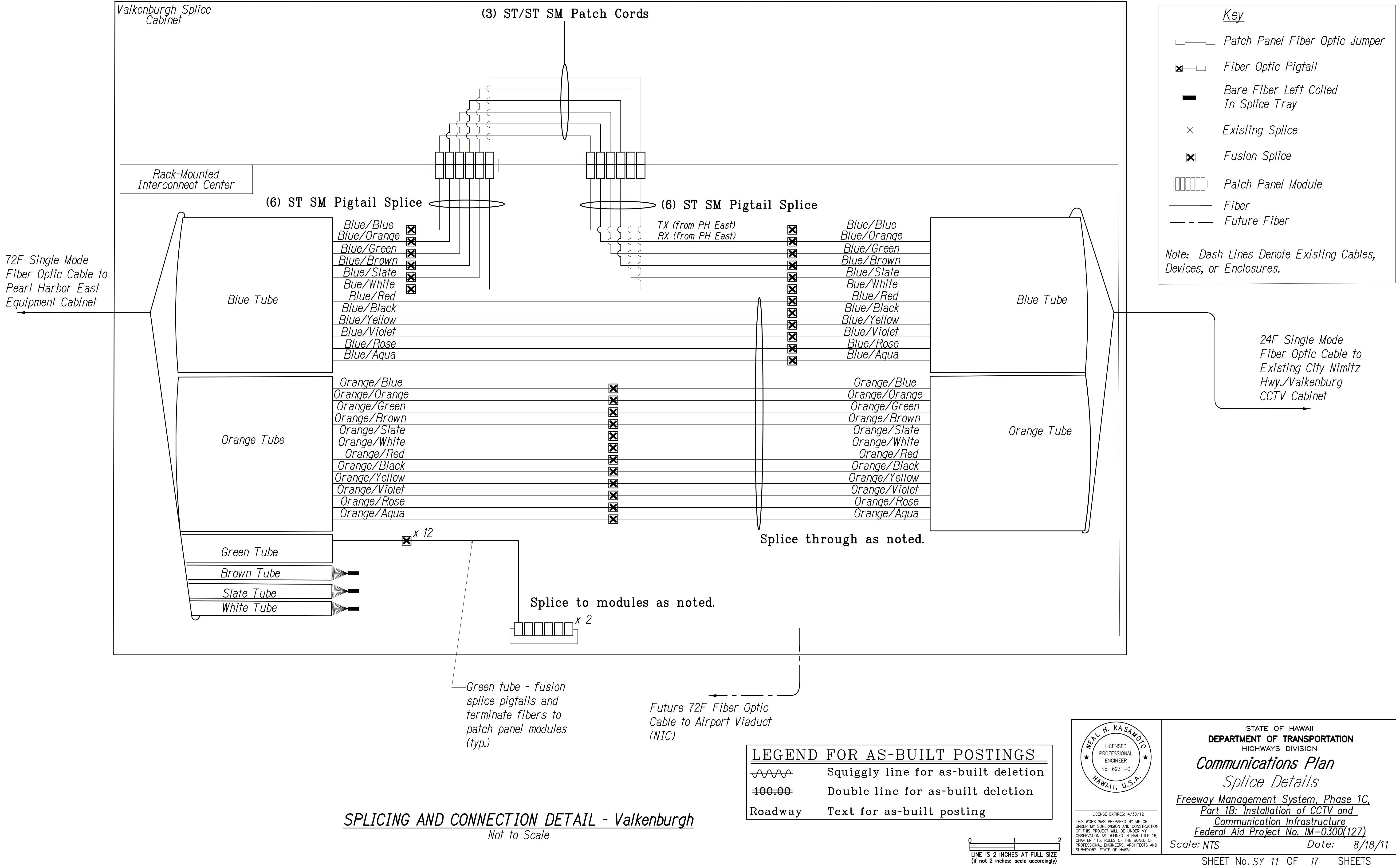
Scale: NTS Date: 8/18/11

SHEET No. SY-10 OF 17 SHEETS

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If not 2 inches: scale accordingly)

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(127)	2011	27	60



SURVEY PLOTTED BY	DATE
DRAWN BY	"
TRACED BY	"
DESIGNED BY	"
QUANTITIES BY	"
CHECKED BY	"

ORIGINAL PLAN	No.
NOTEBOOK	No.

PN\\ATA-HNL-ENG2018\\PROJECTS\\ENG\\1996\\96-46\\96-46.2\\DWG\\AB_SY-11 VALKENBURG CABLING M01 18, 2020-10:51 AM

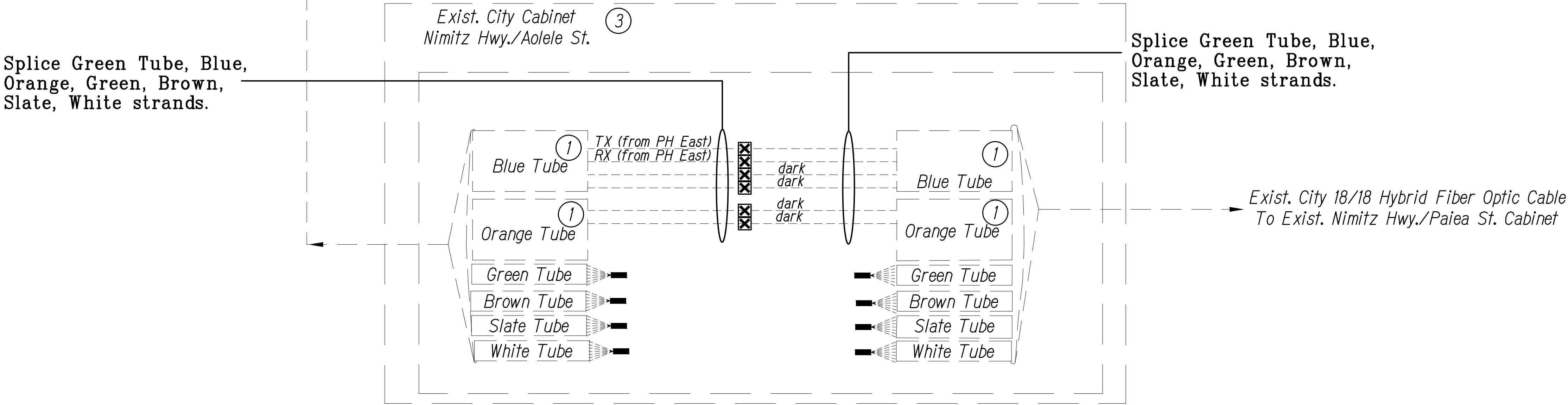
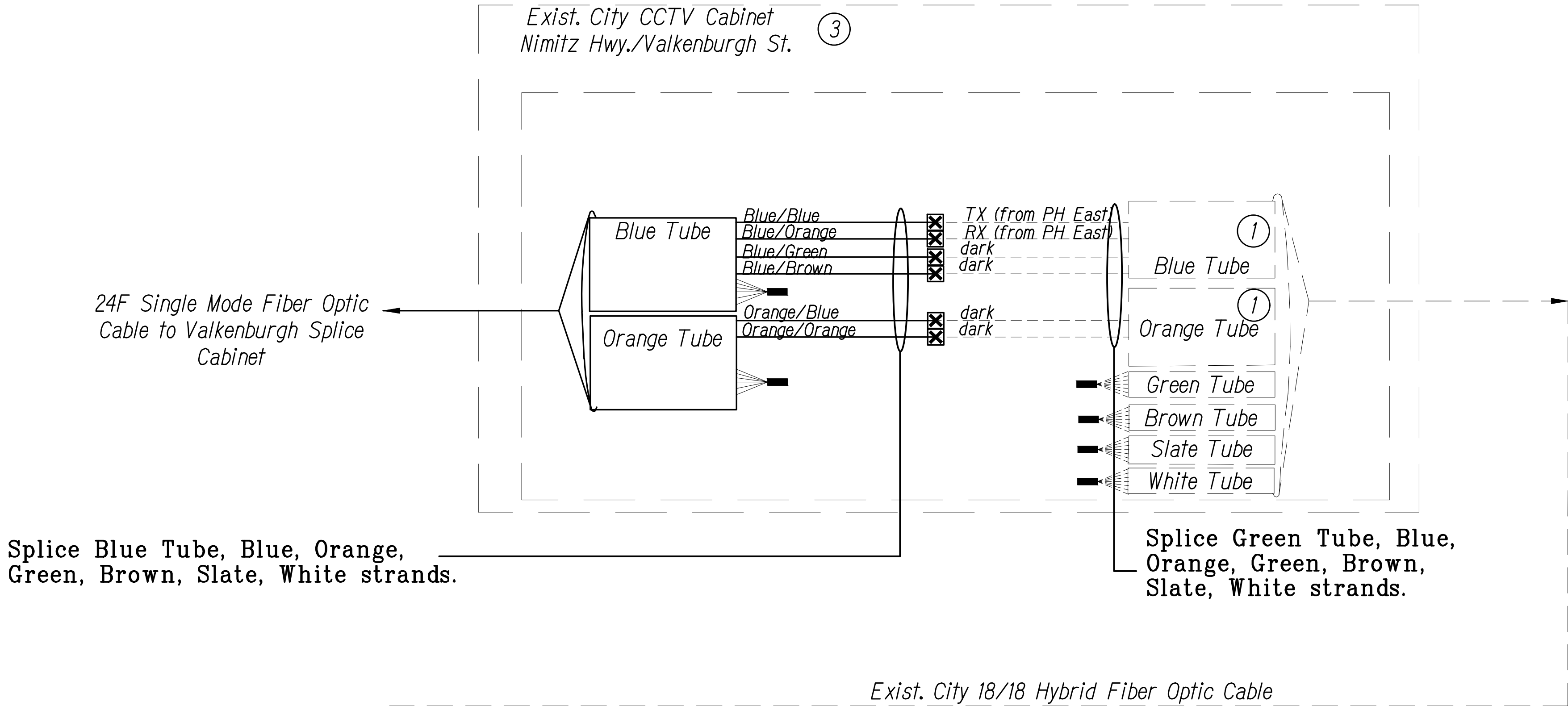
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(127)	2011	28	60

Notes:

- ① Fiber assignment to be determined by Contractor. Coordinate and verify with City DTS & Engineer before performing any splicing. Contractor shall document all fiber assignments for splices made. Leave all unused fibers bare and coiled in tray.
- ③ Contractor shall investigate installation of patch panel modules in exist. City cabinets which shall be incidental to pay item "Modifications In Existing Cabinets." Where space exists, the number of spliced fibers shown shall be completed with patch panel modules, pigtails and jumper cables similar to the detail on Sheet SY-11 and shall be paid under "Additional Splicing, Testing and Equipment" as directed by the Engineer.

See Sheets C-2 & C-3 for location of existing cabinets.



Key

- Equipment Connection Fiber Optic Jumper
- Fiber Optic Pigtail
- Bare Fiber Left Coiled In Splice Tray
- Existing Splice
- Fusion Splice
- Patch Panel Module
- Fiber

Note: Dash Lines Denote Existing Cables, Devices, or Enclosures.

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

SURVEY PLOTTED BY	DATE
DRAWN BY	"
TRACED BY	"
DESIGNED BY	"
QUANTITIES BY	"
CHECKED BY	"
ORIGINAL PLAN	No.
NOTEBOOK	No.

PN\\ATA-HNL-ENG2018\PROJECTS\ENG\1996\96-46\96-46.2\DWG\AB_SY-12_NIMITZ.DWG Mod 18, 2020-10-31 AM

SPLICING AND CONNECTION DETAIL
Not to Scale

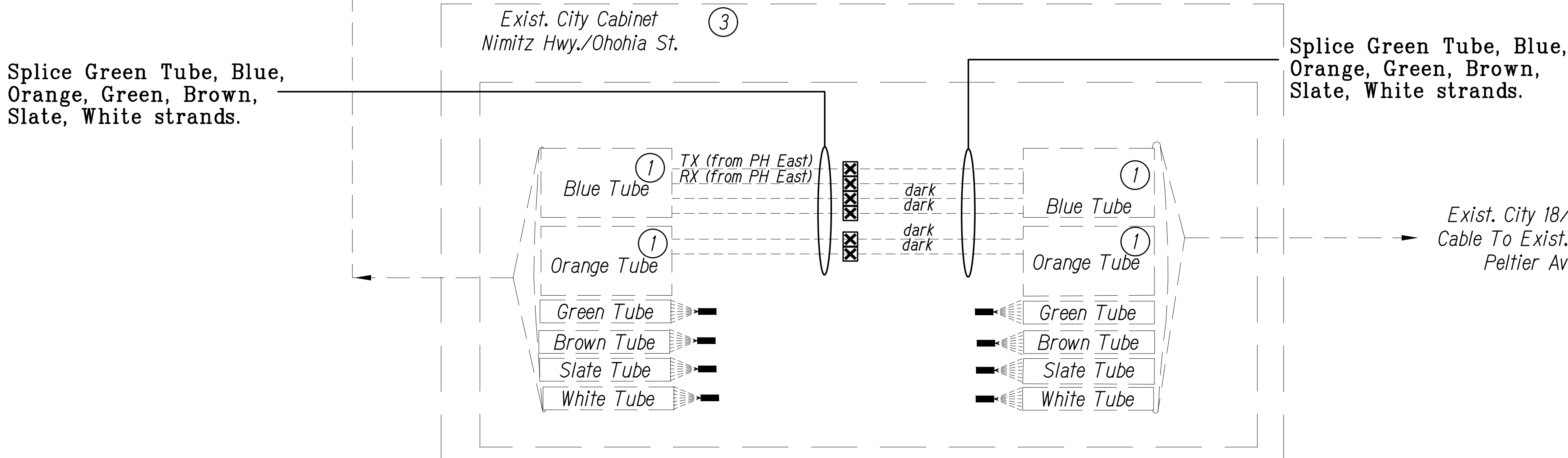
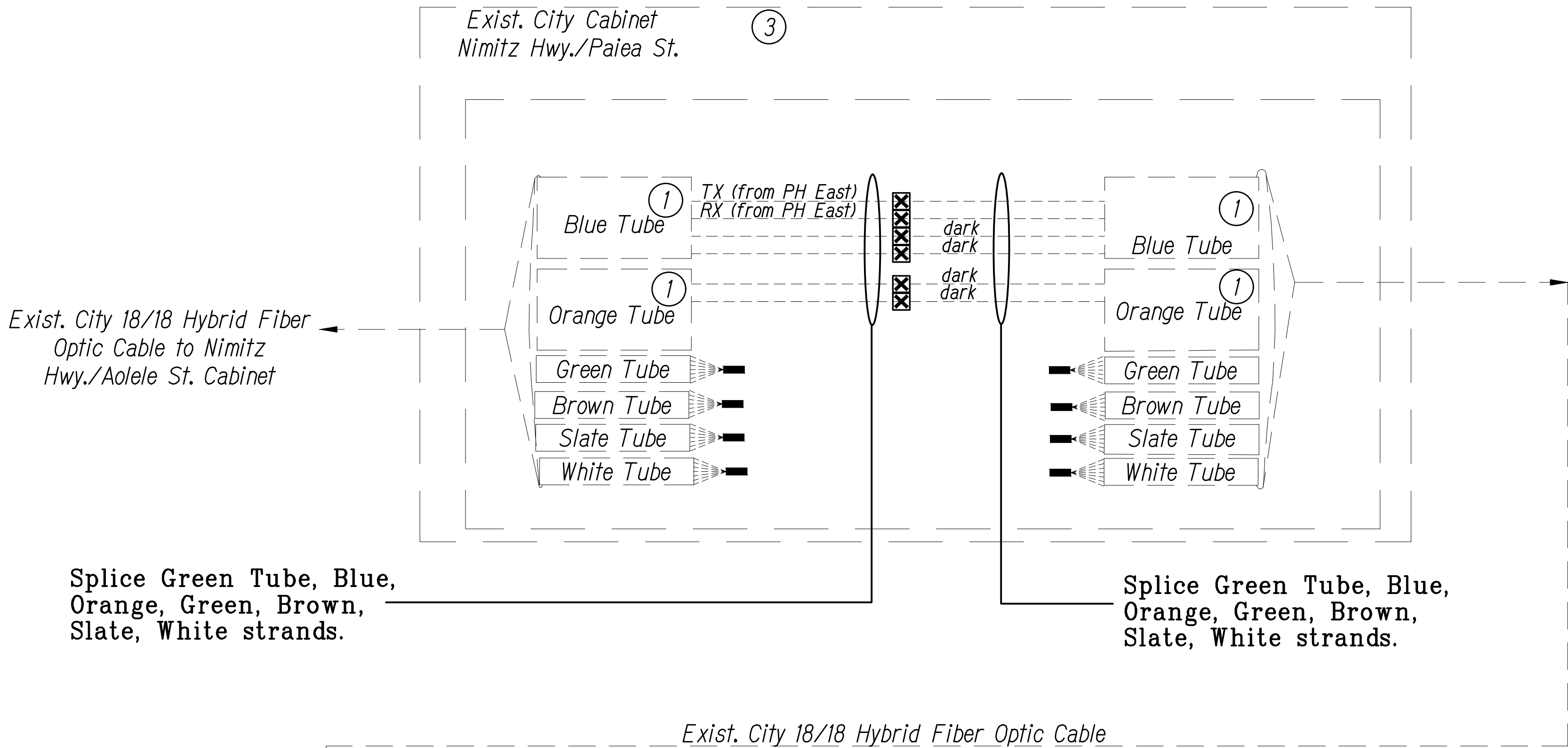
0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If not 2 inches: scale accordingly)

"AS-BUILT"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
Communications Plan
Splice Details
Freeway Management System, Phase 1C,
Part 1B: Installation of CCTV and
Communication Infrastructure
Federal Aid Project No. IM-0300(127)
Scale: NTS Date: 8/18/11
SHEET No. SY-12 OF 17 SHEETS

NEAL H. KASAKO
LICENSED PROFESSIONAL ENGINEER
No. 6931-C
HAWAII, U.S.A.
LICENSE EXPIRES: 4/30/12
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN HAWAII TITLE 16, CHAPTER 110, RULES OF THE BOARD OF PROFESSIONAL ENGINEERS, ARCHITECTS AND SURVEYORS, STATE OF HAWAII

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(127)	2011	29	60



SPLICING AND CONNECTION DETAIL
Not to Scale

Notes:

- ① Fiber assignment to be determined by Contractor. Coordinate and verify with City DTS & Engineer before performing any splicing. Contractor shall document all fiber assignments for splices made. Leave all unused fibers bare and coiled in tray.
- ③ Contractor shall investigate installation of patch panel modules in exist. City cabinets which shall be incidental to pay item "Modifications In Existing Cabinets." Where space exists, the number of spliced fibers shown shall be completed with patch panel modules, pigtails and jumper cables similar to the detail on Sheet SY-11 and shall be paid under "Additional Splicing, Testing and Equipment" as directed by the Engineer.
- ④ Fiber cable type to be verified by Contractor.

See Sheets C-2 & C-3 for location of existing cabinets.

Key

- Equipment Connection Fiber Optic Jumper
- Fiber Optic Pigtail
- Bare Fiber Left Coiled In Splice Tray
- Existing Splice
- Fusion Splice
- Patch Panel Module
- Fiber

Note: Dash Lines Denote Existing Cables, Devices, or Enclosures.

LEGEND FOR AS-BUILT POSTINGS

- Squiggly line for as-built deletion
- Double line for as-built deletion
- Roadway Text for as-built posting



LICENSE EXPIRES: 4/30/12
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN HAWAII TITLE 16, CHAPTER 110, RULES OF THE BOARD OF PROFESSIONAL ENGINEERS, ARCHITECTS AND SURVEYORS, STATE OF HAWAII

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Communications Plan
Splice Details
Freeway Management System, Phase 1C,
Part 1B: Installation of CCTV and
Communication Infrastructure
Federal Aid Project No. IM-0300(127)

Scale: NTS Date: 8/18/11

SHEET No. SY-13 OF 17 SHEETS

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If not 2 inches: scale accordingly)

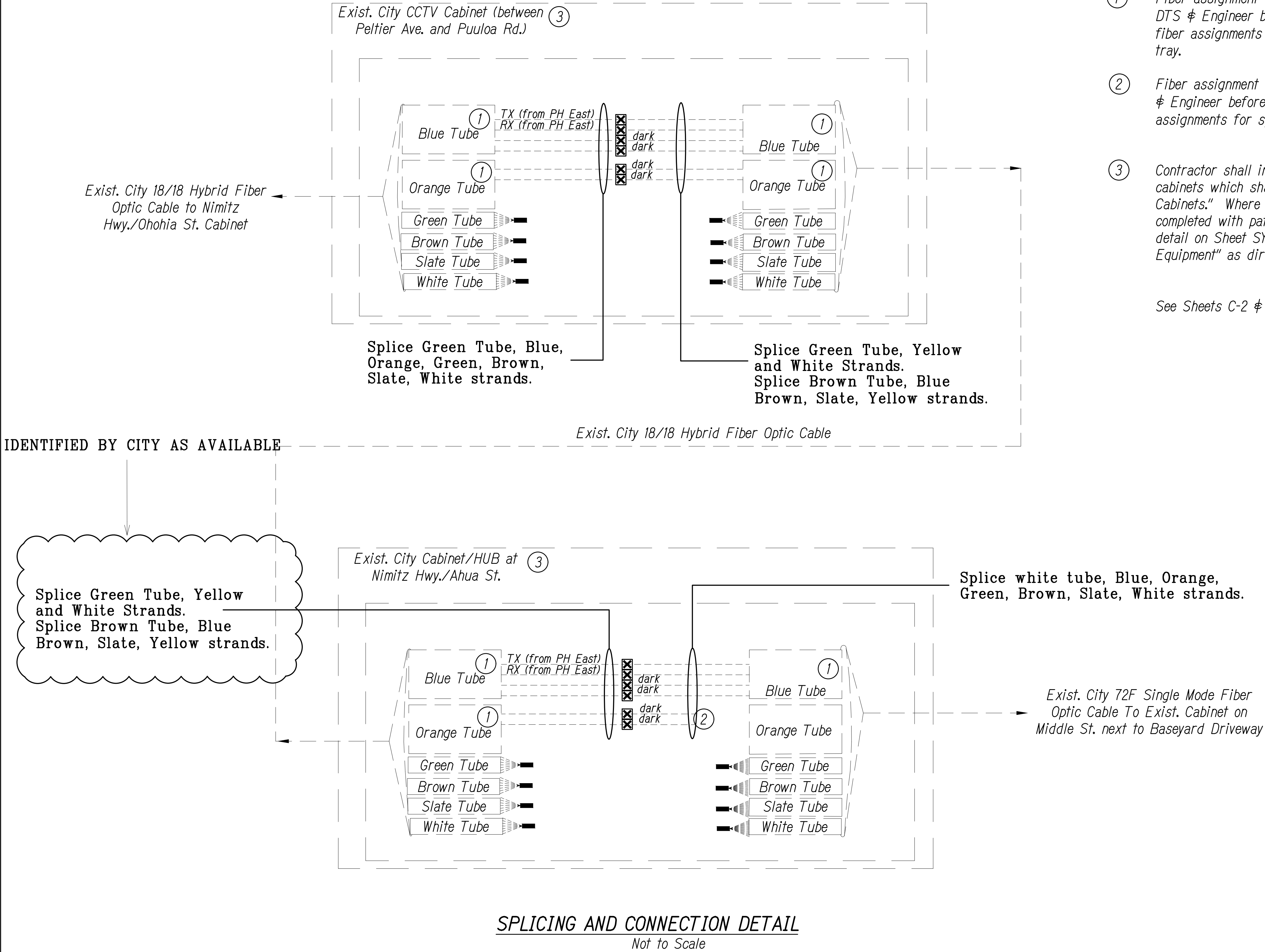
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(127)	2011	30	60

Notes:

- ① Fiber assignment to be determined by Contractor. Coordinate and verify with City DTS & Engineer before performing any splicing. Contractor shall document all fiber assignments for splices made. Leave all unused fibers bare and coiled in tray.
- ② Fiber assignment to be determined by DTS. Coordinate and verify with City DTS & Engineer before performing any splicing. Contractor shall document all fiber assignments for splices made. Leave all unused fibers bare and coiled in tray.
- ③ Contractor shall investigate installation of patch panel modules in exist. City cabinets which shall be incidental to pay item "Modifications In Existing Cabinets." Where space exists, the number of spliced fibers shown shall be completed with patch panel modules, pigtails and jumper cables similar to the detail on Sheet SY-11 and shall be paid under "Additional Splicing, Testing and Equipment" as directed by the Engineer.

See Sheets C-2 & C-3 for location of existing cabinets.



Key

Equipment Connection Fiber Optic Jumper

Fiber Optic Pigtail

Bare Fiber Left Coiled In Splice Tray

Existing Splice

Fusion Splice

Patch Panel Module

Fiber

Note: Dash Lines Denote Existing Cables, Devices, or Enclosures.

LEGEND FOR AS-BUILT POSTINGS

Squiggly line for as-built deletion

Double line for as-built deletion

Text for as-built posting

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

Communications Plan

Splice Details

Freeway Management System, Phase 1C,

Part 1B: Installation of CCTV and

Communication Infrastructure

Federal Aid Project No. IM-0300(127)

Scale: NTS

Date: 8/18/11

LICENSE EXPIRES: 4/30/12

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

PN\\ATA-HNL-ENG2018\\PROJECTS\\ENG\\1996\\96-46\\21\\DWG\\AB_SY-14_NIMITZ.DWG Mod 18, 2020-10:54 AM

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(127)	2011	31	60

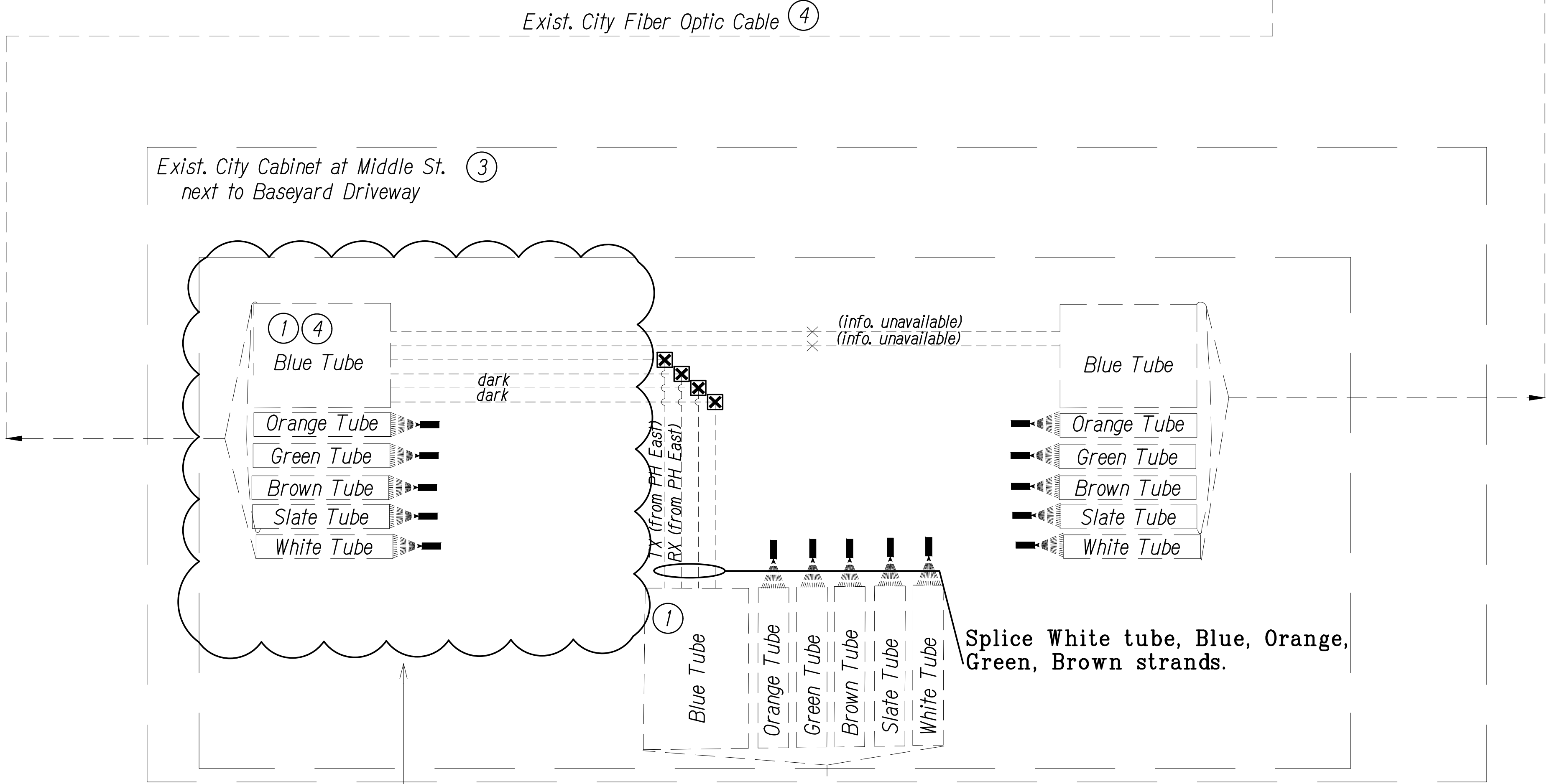
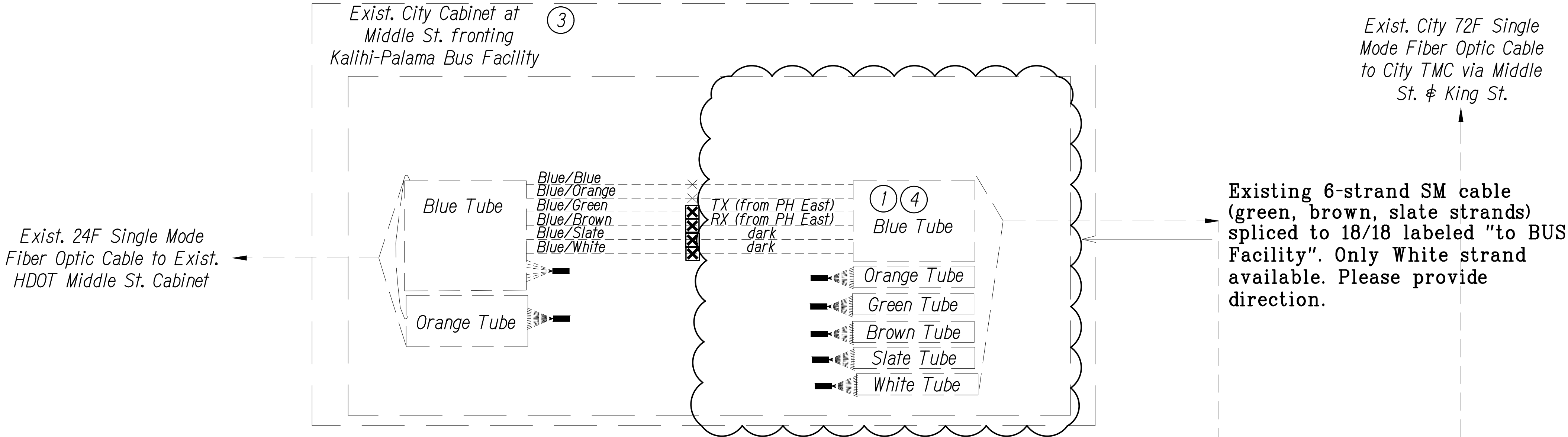
Notes:

- ① Fiber assignment to be determined by Contractor. Coordinate and verify with City DTS & Engineer before performing any splicing. Contractor shall document all fiber assignments for splices made. Leave all unused fibers bare and coiled in tray.
- ③ Contractor shall investigate installation of patch panel modules in exist. City cabinets which shall be incidental to pay item "Modifications In Existing Cabinets." Where space exists, the number of spliced fibers shown shall be completed with patch panel modules, pigtails and jumper cables similar to the detail on Sheet SY-11 and shall be paid under "Additional Splicing, Testing and Equipment" as directed by the Engineer.
- ④ Fiber cable type and tube shall be verified by Contractor.

See Sheets C-2 & C-3 for location of existing cabinets.

Key	
	Equipment Connection Fiber Optic Jumper
	Fiber Optic Pigtail
	Bare Fiber Left Coiled In Splice Tray
	Existing Splice
	Fusion Splice
	Patch Panel Module
	Fiber

Note: Dash Lines Denote Existing Cables, Devices, or Enclosures.



Existing 6-strand SM cable (green, brown, slate strands) spliced to 18/18 labeled "to BUS Facility". Only White strand available. Please provide direction.

Exist. City 72F Single Mode Fiber Optic Cable to Nimitz Hwy./Ahua St. Cabinet

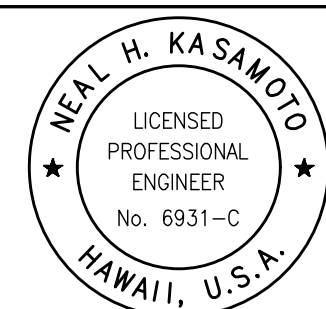
SPLICING AND CONNECTION DETAIL

Not to Scale

LEGEND FOR AS-BUILT POSTINGS

	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If not 2 inches: scale accordingly)



LICENSE EXPIRES: 4/30/12
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Communications Plan Splice Details

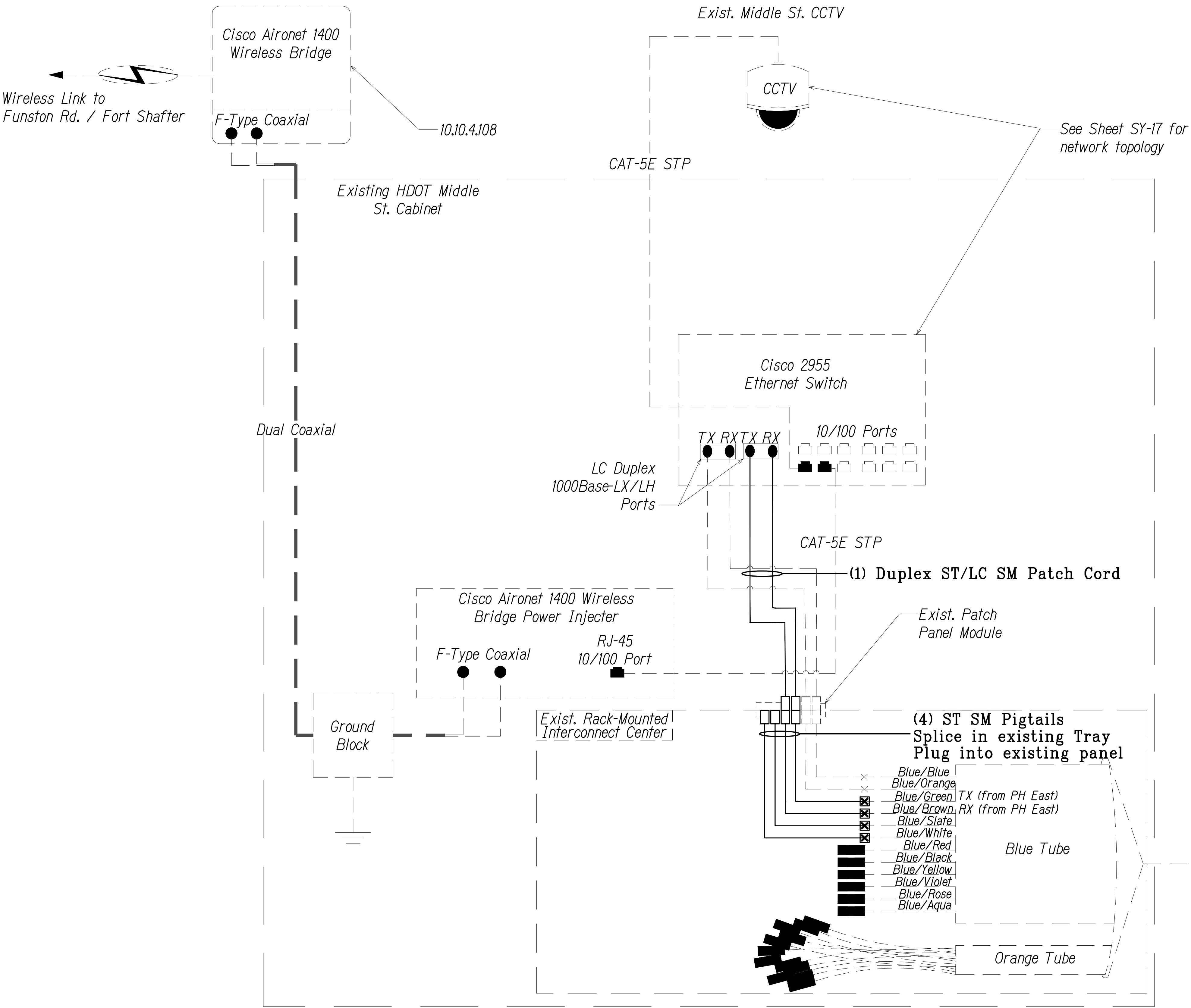
Freeway Management System, Phase 1C,
Part 1B: Installation of CCTV and
Communication Infrastructure
Federal Aid Project No. IM-0300(127)

Scale: NTS Date: 8/18/11

SHEET No.SY-15 OF 17 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(127)	2011	32	60



Note:
See Sheets C-2 & C-3 for location of existing cabinets.

Key

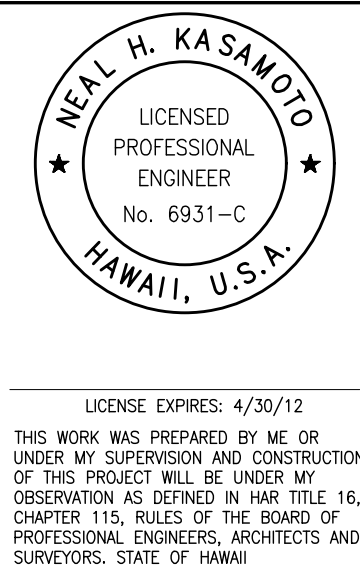
- Equipment Connection Fiber Optic Jumper
- Fiber Optic Pigtail
- Bare Fiber Left Coiled In Splice Tray
- Existing Splice
- Fusion Splice
- Patch Panel Module
- Fiber

Note: Dash Lines Denote Existing Cables, Devices, or Enclosures.

SPLICING AND CONNECTION DETAIL - MIDDLE ST.
Not to Scale

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If not 2 inches: scale accordingly)



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Communications Plan
Splice Details

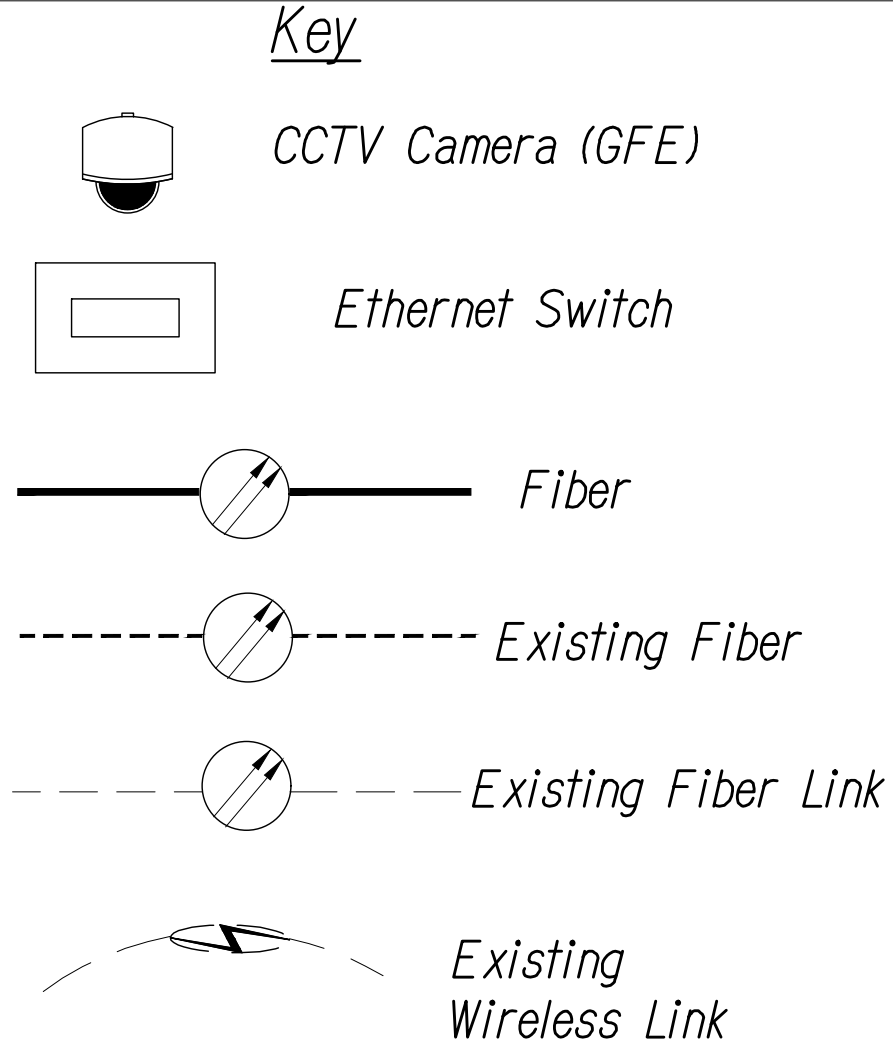
Freeway Management System, Phase 1C,
Part 1B: Installation of CCTV and
Communication Infrastructure
Federal Aid Project No. IM-0300(127)

Scale: NTS Date: 8/18/11

SHEET No. SY-16 OF 17 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(127)	2011	33	60



exist. configuration info.
revisions or new configuration

Note: Dash Lines Denote Existing Cables, Devices, or Enclosures.

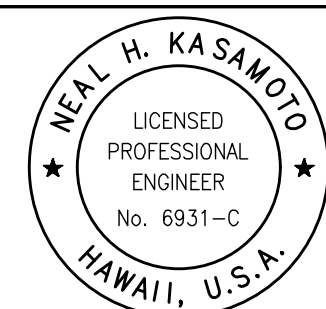
Notes:
* - Portion of exist. CCTV system to remain unchanged.
** - Only information pertinent to this system is shown.

Contractor shall modify all new and existing switches as required, to enable communications as shown.

GFE = Government Furnished Equipment

LEGEND FOR AS-BUILT POSTINGS

	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting



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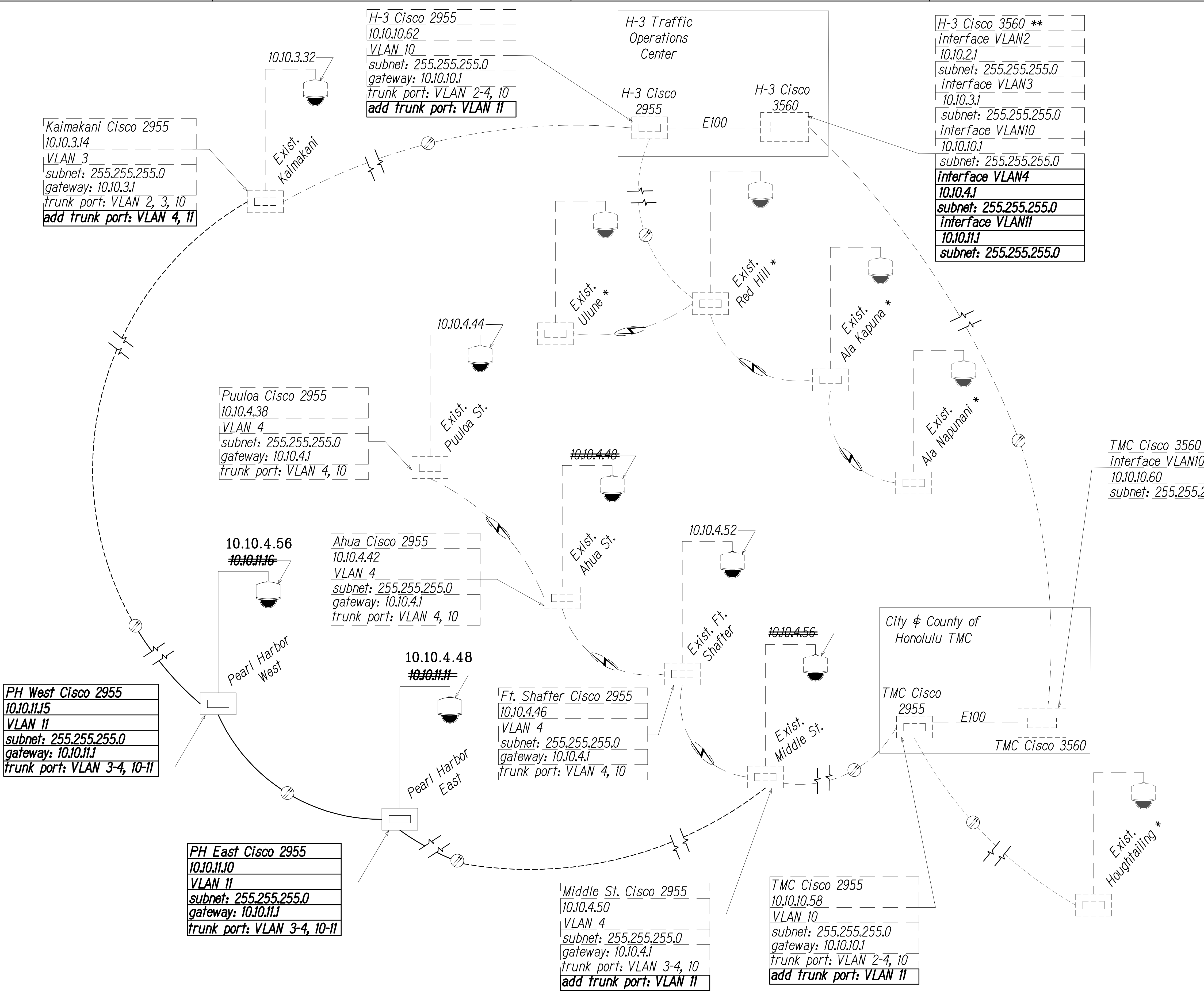
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Communications Plan Network Topology

Freeway Management System, Phase 1C,
Part 1B: Installation of CCTV and
Communication Infrastructure
Federal Aid Project No. IM-0300(127)

Scale: NTS Date: 8/18/11

SHEET No. SY-17 OF 17 SHEETS



NETWORK TOPOLOGY

Not to Scale

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If not 2 inches: scale accordingly)

"AS-BUILT"