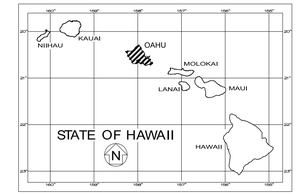
INDEX TO DRAWINGS	
SHEET NO.	DESCRIPTION
T1.01	TITLE SHEET
A1.01	GENERAL NOTES, DRAW SYMBOLS
A1.02	FLOOR PLAN, REFLECTED CLG PLAN
A1.03	ROOF PLAN, EXTERIOR ELEVATIONS
A1.04	CROSS, LONG SECT, INT ELEV
A1.05	WALL SECT, DETAILS
A1.06	DETAILS
A1.07	DETAILS, MTG HTS, SCHED
A1.08	DETAILS
S1.01	GENERAL NOTES
S1.02	TYPICAL DETAILS
S1.03	TYPICAL DETAILS
S1.04	TYPICAL DETAILS
S2.01	EXIST WD DECK RETRO FRAM PLN
S2.02	NEW ROOF FRAMING PLAN
S3.01	SECTIONS
S3.02	SECTIONS
S3.03	SECTIONS
E-1.01	ELEC SYM LIST GEN ELEC NOTES
E-1.02	ELEC PLANS EXIST/NEW WORK
E-1.03	ONE LINE DIAGRAM
E-1.04	MISC ELEC DETAILS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	HWY-O-01-2019	2019	1	22



STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

HONOLULU, HAWAII

PLANS FOR

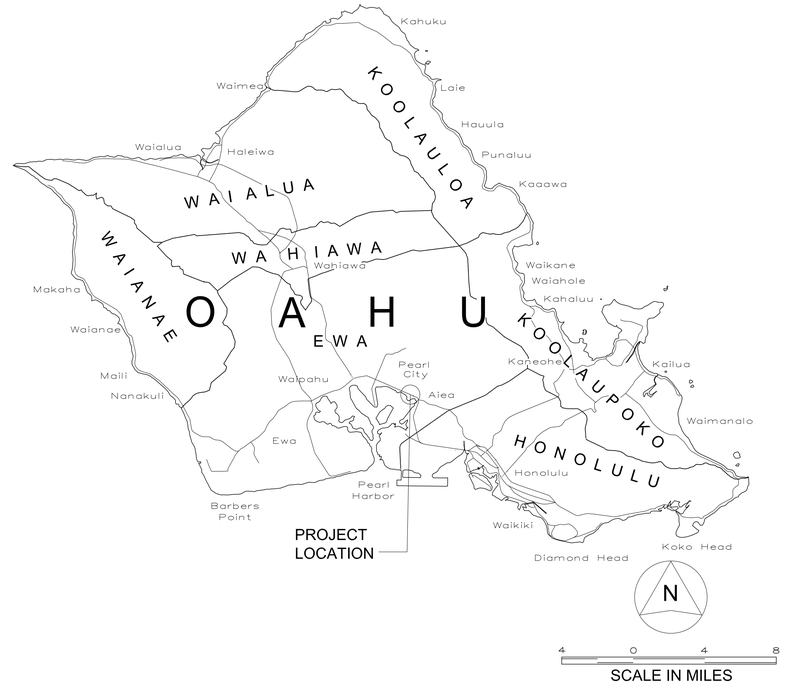
WAIMALU FIELD OFFICE IMPROVEMENTS

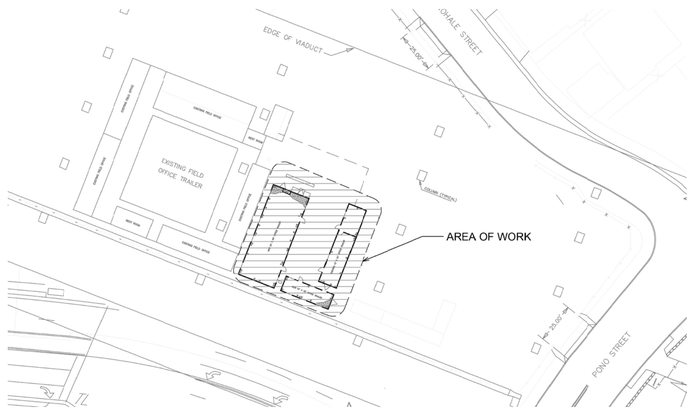
TMK : 9-8-026:022

PROJECT NO. HWY-O-01-2019

DISTRICT OF AIEA

ISLAND OF OAHU





LOCATION PLAN

NOT TO SCALE

BOWERS + KUBOTA CONSULTING — DESIGNED BY

HWY-O-01-2019 — MANAGED BY

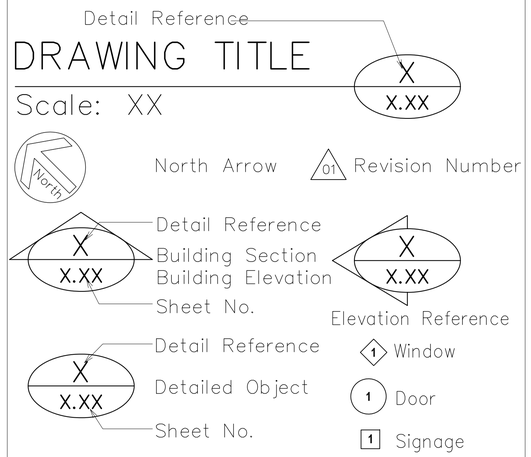
836-7787 — PHONE

NOV 2018 — DATE

GENERAL NOTES:

1. The Contractor shall carefully examine the drawings, read the specifications and all other contract documents and shall visit the site prior to submittal of their bid. The Contractor shall fully inform themselves prior to the submission as to all existing conditions and limitations under which the work is to be performed. Contractor shall include in the proposal a sum to cover all costs of all items necessary to perform the work as set forth in the contract documents. No allowance shall be made to the Contractor because of lack of such examination or knowledge. The submission of a bid shall be construed as conclusive evidence that the bidder has made such examination.
2. No work shall proceed without the approval of the engineer. All phases of on-site work shall be coordinated with the engineer so as to minimize any conflicts on-site, ensure adequate ingress/egress is provided to occupied spaces, the contractor shall provide and maintain a safety barricade around the project site and shall assure that safety of the public at all times, and that disruption to existing activities is minimized.
3. If any Contractor is in doubt as to the true meaning of any part of the contract documents, or finds discrepancies in, or omission from any part of the contract documents, he may submit to the Engineer a written request for interpretation thereof.
4. All work shall be accomplished in strict accordance with all local and federal laws, regulations, and standards having jurisdiction over this project.
5. All materials for this project shall be new and free from all defects unless specified otherwise.
6. The Contractor shall be responsible for coordinating all work among the various trades as necessary to avoid conflicts and to ensure that all work is in compliance with the contract documents.
7. The Contractor shall be responsible for providing all blocking, backing, brackets, etc. as required for the proper and secured installation of all materials and products.
8. The Contractor shall report any unsatisfactory conditions and/or discrepancies to the engineer. Failure to comply with this condition may result in placing any and all responsibility, liability and expense to the contractor.
9. The Contractor shall review the project for any long lead items and provide special considerations to avoid unnecessary delays to the completion of the project.
10. The Contractor shall notify the Engineer immediately upon encountering any hazardous materials, etc. during the course of this project. The Contractor is not authorized to handle, test or remove such materials without specific authorization from the Engineer.
11. The contractor shall verify all dimensions and conditions prior to the fabrication and/or ordering his materials.
12. Products specified and/or indicated by name in these drawings and/or specifications establish a design or material quality desired for this project. The products of other manufacturers are acceptable provided that they meet or exceed the material and construction requirements specified and/or herein are subjected to review/approval during the submittal process.
13. The Contractor with the supervision of the Engineer shall inspect and note all existing damages prior to the start of work. Any new damages resulting from the construction shall be corrected at the Contractor's cost.
14. The Contractor shall maintain a clean and safe area to work, and contain dust during carpentry work, and clean up daily.
15. All work shall conform 2006 International Building Code and amendments of the City & County of Honolulu thereof.
16. This project shall be designed and constructed in accordance with Americans with Disabilities Act accessibility (ADA/ABA) guidelines.

DRAWING SYMBOLS LEGEND



FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	2	22

ARCHITECTURAL ABBREVIATIONS

A	
@	At
C	
CLR	Clear
D	
DEMO	Demolish
DN	Down
DS	Downspout
DWG	Drawing
E	
(E)	Existing
EQ	Equal
EXIST	Existing
G	
GDRL	Guardrail
H	
HDRL	Handrail
M	
MAX	Maximum
MIN	Minimum
MTL	Metal
P	
PTD	Painted
R	
REQ'D	Required
S	
SIM	Similar
SL	Slope
T	
THK	Thick
T.O.	Top of
TYP	Typical
U	
UON	Unless Otherwise Noted
W	
W/	With
WD	Wood

COLOR AND MATERIAL INDEX

KEY NO.	MATERIAL	LOCATION	MANFUFACTURER'S REPRESENTATIVE	DESCRIPTION	REMARKS
ACT-1	ACOUSTICAL CEILING TILE	ENCLOSED DECK	ROCKFON- SONNY LESSARY WILLIAMS PACIFIC, INC. 808-294-5024	ROCKFON XX, PATTERN G 2' x 4' x 3/4" WHITE-SQUARE LAY IN	PRELUDE XL SUSPENSION SYSTEM
RB-1	RUBBER BASE	ENCLOSED DECK	ROPPE CORPORATION T & A SUPPLY CO, INC. 808-488-6007	700 SERIES WALL BASE COLOR: TO BE SELECTED	
RF-1	RESILIENT SAFE TCORK TILE FLOORING	ENCLOSED DECK	ROPPE CORPORATION T & A SUPPLY CO, INC. 808-488-6007	24 x 24 TILE FLOORING COLOR: TO BE SELECTED	RUBBER
PT-1	PAINT	THRU-OUT	PPG PAINTS	GLOSS FINISH COLOR: TO BE SELECTED	LOW VOC
PT-2	PAINT	THRU-OUT	PPG PAINTS	SEMI-GLOSS FINISH COLOR: TO BE SELECTED	LOW VOC
PL-1	PLASTIC LAMINATE	ENCLOSED DECK	WILSONART LAMINATE GARY ORIMOTO 808-487-3881 X2218	COLOR: TO BE SELECTED	
SS-1	SOLID SURFACE	ENCLOSED DECK	SOLID SURFACE REP REP #	COLOR: TO BE SELECTED	

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4/30/20
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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

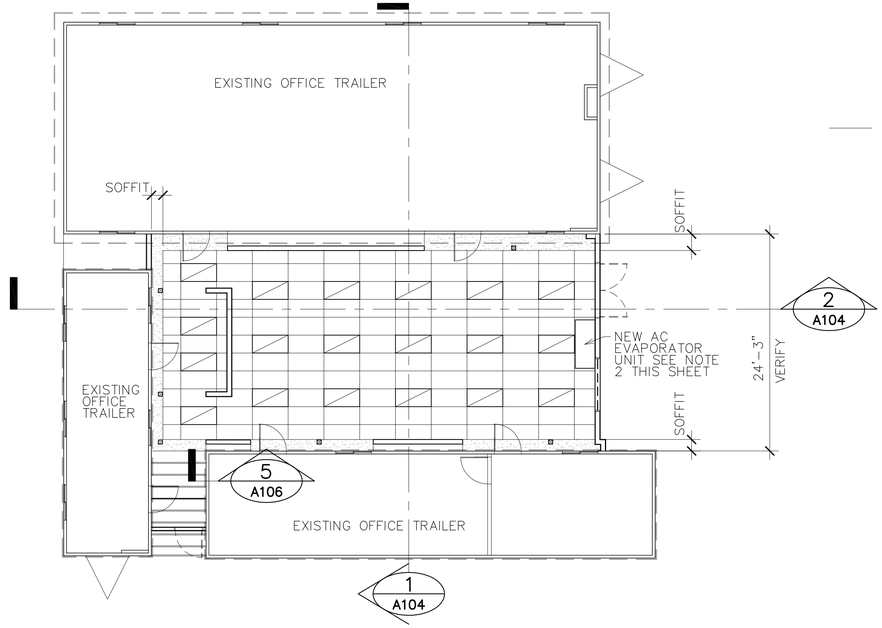
GENERAL NOTES
DRAWING SYMBOLS

WAIMALU FIELD OFFICE IMPROVEMNTS
Project No. HWY-O-01-2019
Scale: NTS Date: November 2018

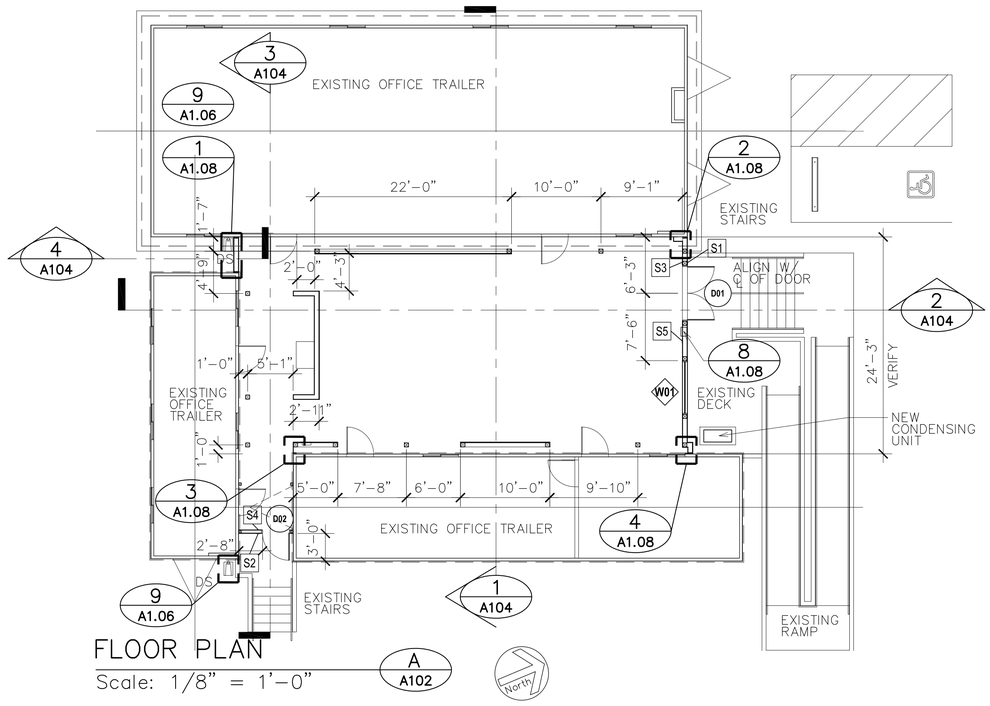
SHEET No. A1.01 OF 22 SHEETS

A101 GENNOTES.DWG 12/12/2018 8:36:22 AM

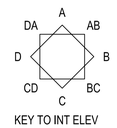
A1.01



REFLECTED CEILING PLAN B
Scale: 1/8" = 1'-0" A103



FLOOR PLAN
Scale: 1/8" = 1'-0" A A102



KEY TO INT ELEV

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	3	22

1. ANY STORAGE OF MATERIALS/EQUIPMENT ON THE PROJECT SITE SHALL BE APPROVED BY THE ENGINEER PRIOR TO COMMENCEMENT. ANY ITEMS DAMAGED OR STOLEN ARE A THE RESPONSIBILITY OF THE CONTRACTOR.

LEGEND

LIGHT FIXTURE

ACT

PAINTED GYPBD (SOFFIT)

2. CONTRACTOR SHALL PROVIDE DX SPLIT A/AC SYSTEM, 48,000 BTUH NOMINAL COOLING: CEILING SUSPENDED FCU WITH ADJUSTABLE AIR VANES; FLOOR MOUNTED ACCU ON RIBBED NEOPRENE PADS; 100 CFM OUTSIDE AIR WITH DUCT, AIR VOLUME DAMPER AND INSECT SCREEN AT OUTSIDE AIR INTAKE; CONDENSATE DRAIN PROPERLY SLOPED TO DRAIN; ALL PIPES ADEQUATELY INSULATED AND WITH PROPERLY SLEEVED/SEALED PENETRATIONS THRU WALLS; AND REMOTE TEMPERATURE/ON/OFF CONTROLS. PIPES SHALL BE COVERED WITH PREFABRICATED PIPE COVERS OR PAINTED TO MATCH EXISTING FINISH. ALL METALLIC MATERIALS SHALL BE PROTECTED AGAINST CORROSION. TEST ALL EQUIPMENT AND CONTROLS FOR PROPER OPERATION. THE AIR CONDITIONING SYSTEM SHALL BE INSTALLED WITH ALL REQUIRE ELEMENTS FOR A FULLY OPERATIONAL SYSTEM.

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4/30/20
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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FLOOR PLAN, REFLECTED CEILING PLAN

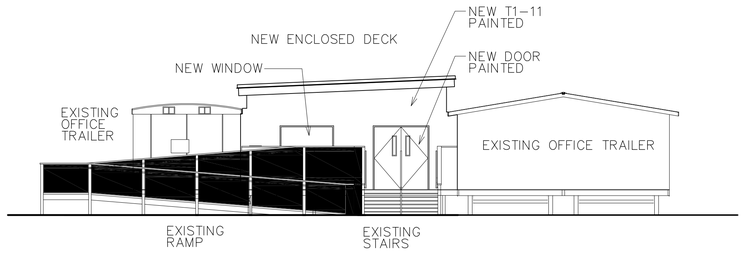
WAIMALU FIELD OFFICE IMPROVEMNTS
Project No. HWY-0-01-2019
Scale: 1/8"=1'-0" Date: November 2018

SHEET No. A1.02 OF 22 SHEETS

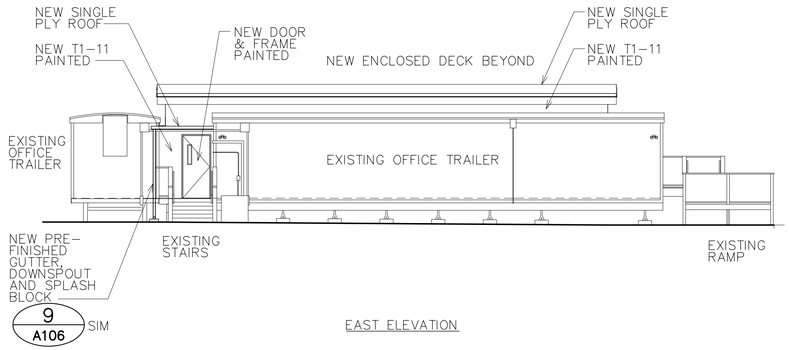
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A102 PP.DWG 12/3/2018 4:43:44 PM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	4	22



NORTH ELEVATION

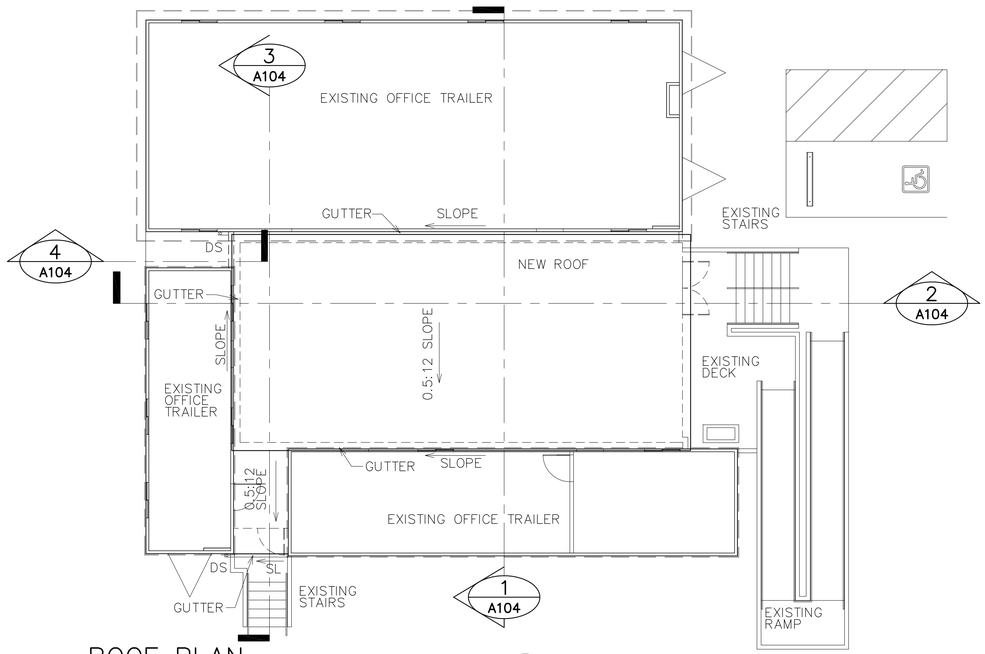


EAST ELEVATION

EXTERIOR ELEVATIONS

Scale: 1/8" = 1'-0"

B
A103



ROOF PLAN

Scale: 1/8" = 1'-0"

A
A103

0 8 16
SCALE IN FEET
SCALE: 1/8"=1'-0"

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4/30/20
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROOF PLAN, EXTRIOR ELEVATIONS

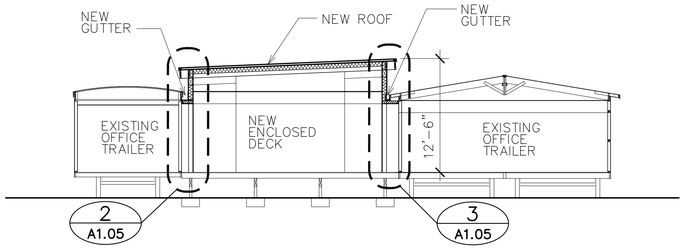
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Project No. HWY-0-01-2019
Scale:1/8"=1'-0" Date: November 2018

SHEET No. A1.03 OF 22 SHEETS

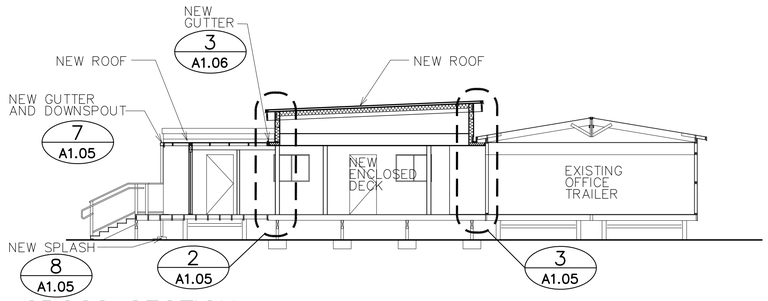
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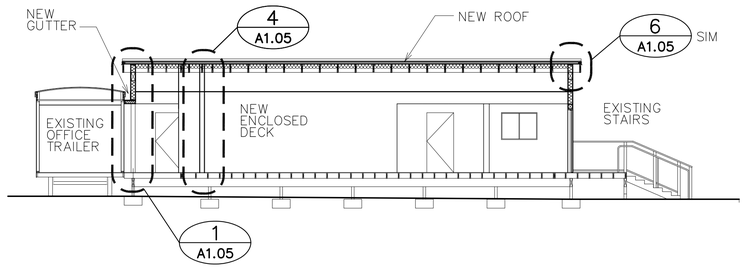
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HAWAII	HAW.	HWY-O-01-2019	2019	5	22



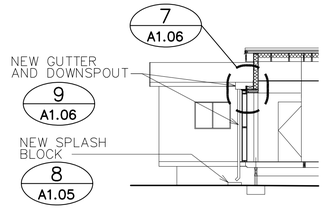
CROSS SECTION
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1 A104



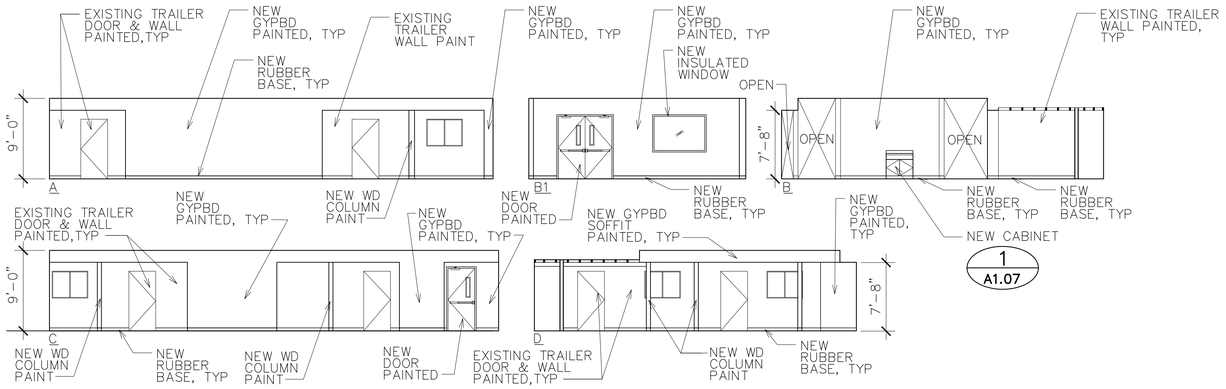
CROSS SECTION
Scale: 1/8" = 1'-0"
3 A104



LONGTUDINAL SECTION
Scale: 1/8" = 1'-0"
2 A104



CROSS SECTION
Scale: 1/8" = 1'-0"
4 A104



INTERIOR ELEVATIONS
Scale: 1/8" = 1'-0"
5 A104

0 8 16
SCALE IN FEET
SCALE: 1/8"=1'-0"

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

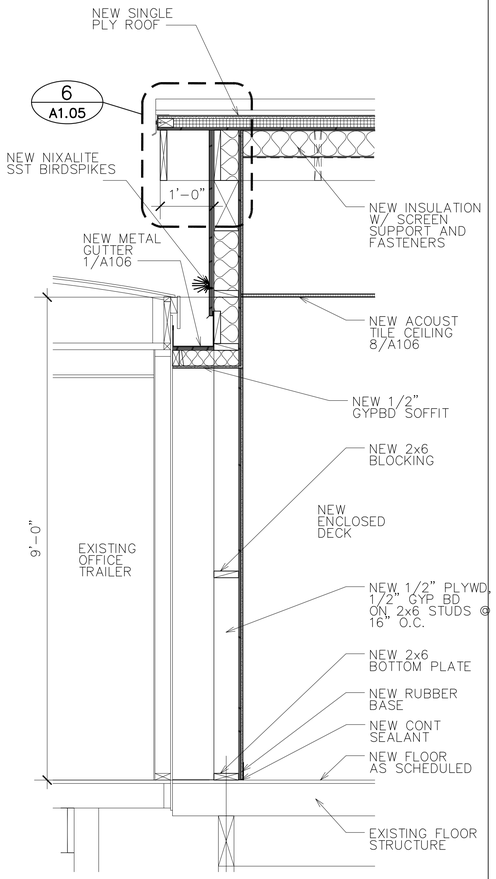
CROSS, LONG. SECTIONS INTERIOR ELEVATIONS

WAIMALU FIELD OFFICE IMPROVEMNTS
Project No. HWY-0-01-2019
Scale:1/8"=1'-0" Date: November 2018

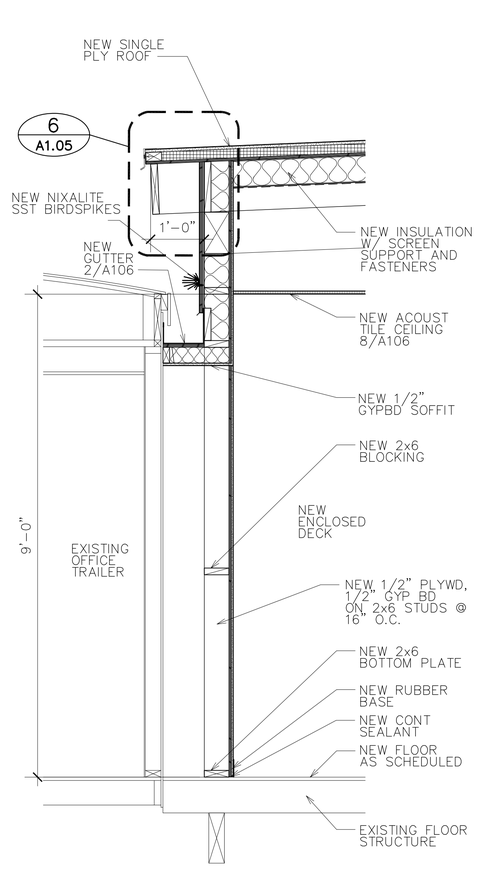
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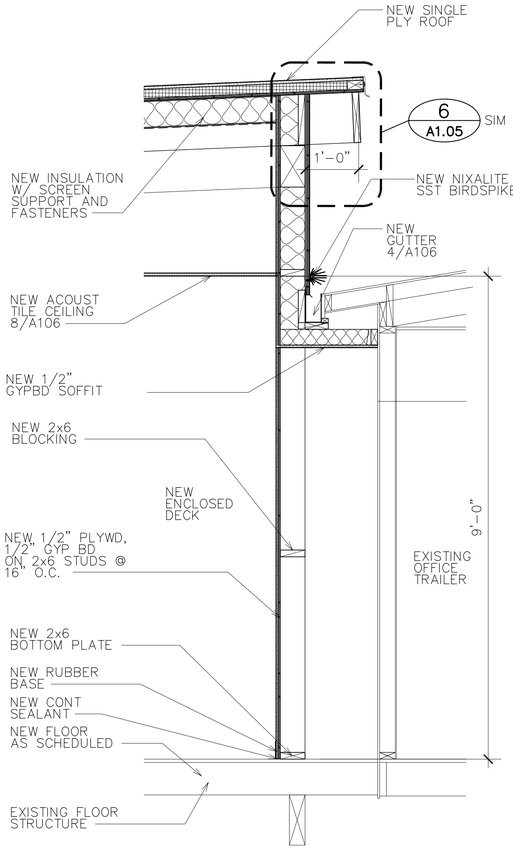
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	6	22



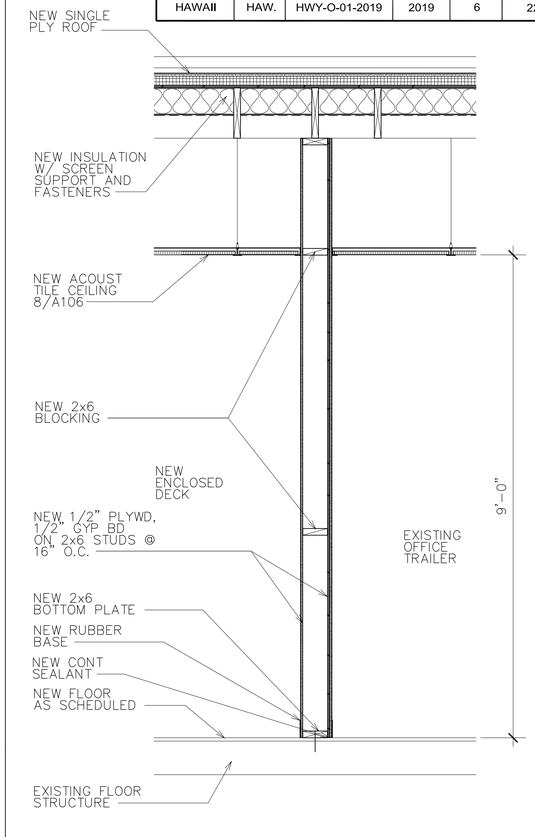
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1 / A105



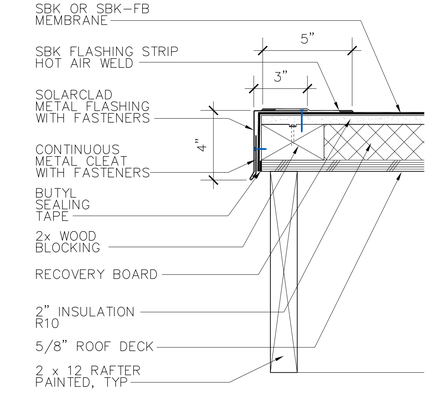
WALL SECTION
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2 / A105



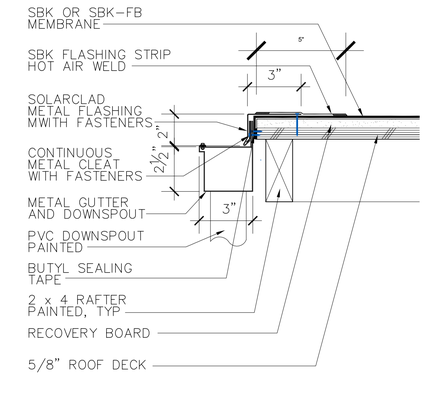
WALL SECTION
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3 / A105



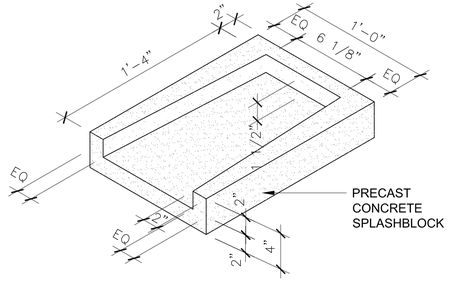
WALL SECTION
Scale: 1/8" = 1'-0"
4 / A105



ROOF DETAIL
Scale: 3" = 1'-0"
6 / A105



ROOF DETAIL
Scale: 3" = 1'-0"
7 / A105



SPLASH BLOCK
Scale: NTS
8 / A105

0 3 6 9 12
SCALE IN FEET
SCALE: 3"=1'-0"

0 6 12
SCALE IN FEET
SCALE: 3/4"=1'-0"

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

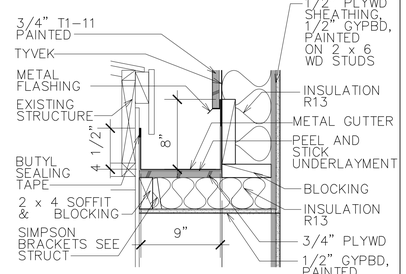
WALL SECTIONS DETAILS

WAIMALU FIELD OFFICE IMPROVEMNTS
Project No. HWY-0-01-2019
Scale:3/4"=1'-0" Date: November 2018

SHEET No.A1.05 OF 22 SHEETS

A105 WALL SECTIONS 12/7/2018 11:01:32 AM

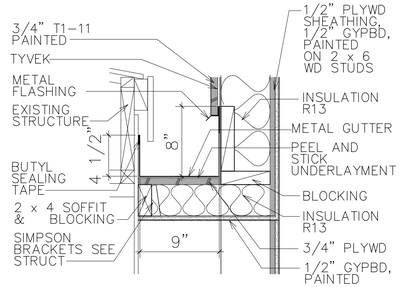
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	7	22



GUTTER DETAIL

Scale: 1 1/2" = 1'-0"

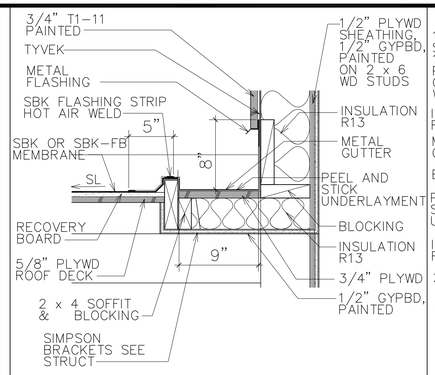
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GUTTER DETAIL

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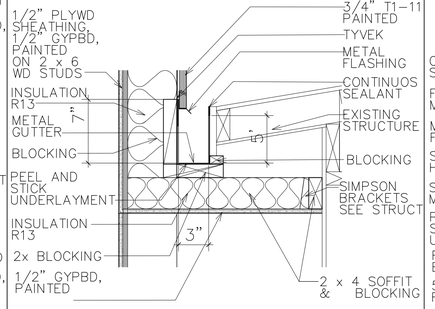
2 / A106



GUTTER DETAIL

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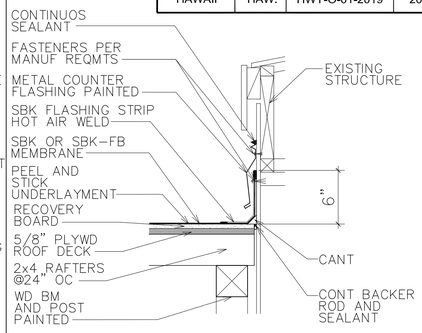
3 / A106



GUTTER DETAIL

Scale: 1 1/2" = 1'-0"

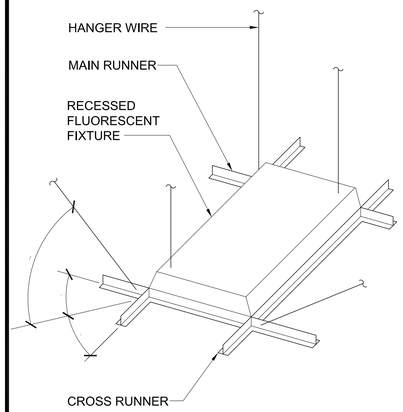
4 / A106



ROOF DETAIL

Scale: 1 1/2" = 1'-0"

5 / A106



FIXTURES WEIGH 20 LBS. OR MORE CONNECT (2) NO. 12 GA. FIXTURE SUPPORT WIRE @ DIAGONAL CORNERS OF EA. FIXTURE. THREE FULL WRAPS MINIMUM. FIXTURE SUPPORT WIRE SUPPLIED & HUNG BY T-BAR CONTRACTOR. MAX. FIXTURE WEIGHT 55 LBS.

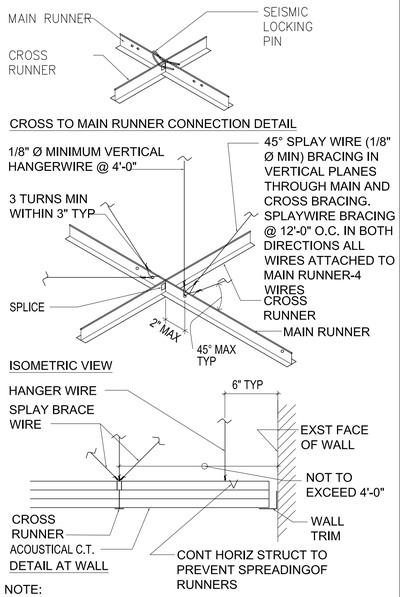
ALL LIGHT FIXTURES MUST BE POSITIVELY ATTACHED TO SUSPENSION SYSTEM.

NO. 10 GA. LATERAL SUPPORT WIRE WITHIN 3" OF EACH CORNER OF LIGHT FIXTURE. SPLAY WIRE AS SHOWN MIN. OF THREE FULL WRAPS AT EACH CONNECTION POINT. WIRE SUPPORT BY ACOUSTICAL CEILING CONTRACTOR. SEE U.B.C. STD. 47-18

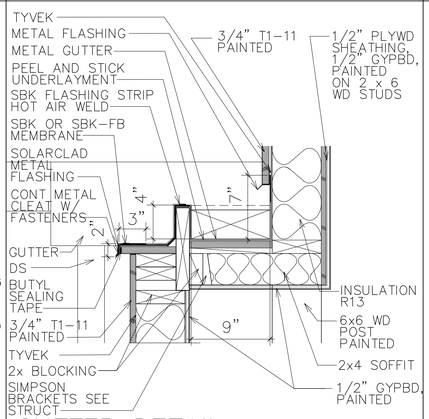
ATC SEIMIC & GRID ASSEMBLY

Scale: NTS

6 / A106



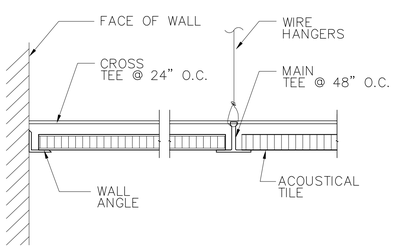
NOTE:
-SPLICES & INTERSECTIONS OF RUNNERS SHALL BE ATTACHED W/MECH.INTERLOCKING CONNECTORS SUCH AS POP RIVETS, SCREWS, PINS, PLATES W/BENT TABS, OR OTHER APPROVED CONNECTORS. DESIGN CONNECTORS FOR 2X DESIGN LOAD OR ULTIMATE AXIAL TENSION OR COMPRESSION (MIN.120#) -APPLICABLE FOR SUSPENDED ACT IN AREAS LARGER THAN 144 SF SURROUNDED BY WALLS THAT CONNECT DIRECTLY TO THE STRUCTURE ABOVE PER ASTM E580.



GUTTER DETAIL

Scale: 1 1/2" = 1'-0"

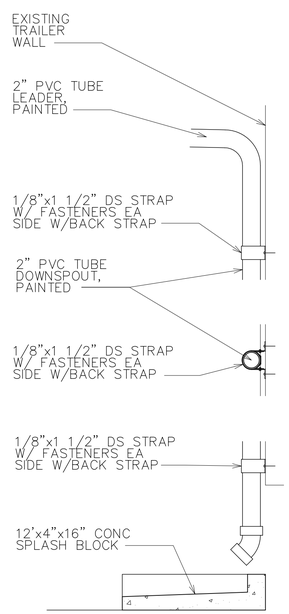
7 / A106



ACT CEILING DETAIL

Scale: 3" = 1'-0"

8 / A106



DOWNSPOUT DETAIL

Scale: 1 1/2" = 1'-0"

9 / A106

0 3 6 9 12
SCALE IN FEET
SCALE: 3"=1'-0"

0 3 6 9 12
SCALE IN FEET
SCALE: 1 1/2"=1'-0"

MARK M. NAKAO
LICENSED PROFESSIONAL ARCHITECT
No. 8026
HAWAII, U.S.A.
4/30/20
SIGNATURE / DATE
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS

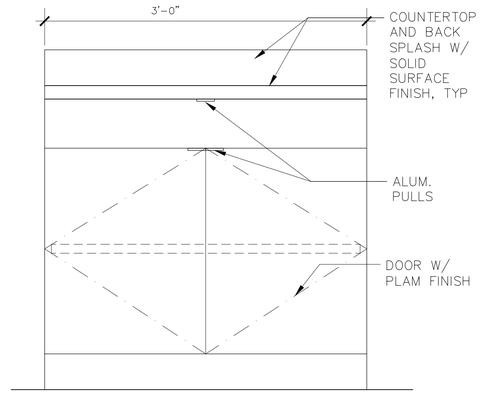
WAIMALU FIELD OFFICE IMPROVEMNTS
Project No. HWY-O-01-2019
Scale:3"=1'-0" Date: November 2018

SHEET No. A1.06 OF 22 SHEETS

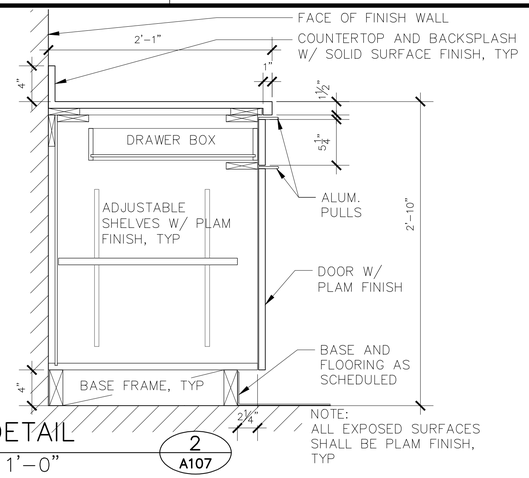
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A106 DETS.DWG 11/21/2018 2:32:46 PM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	8	22

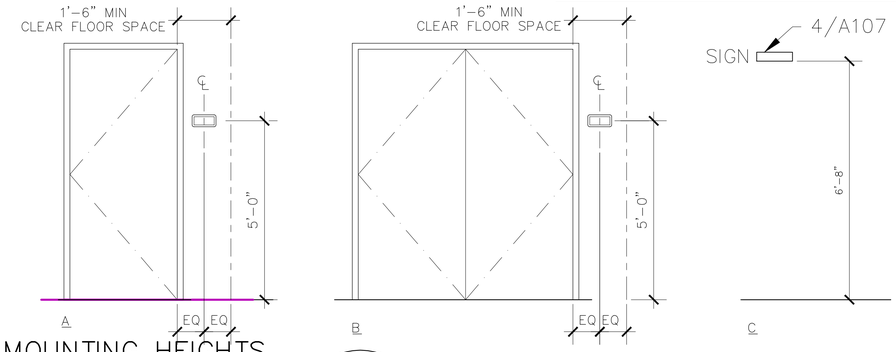


MILLWORK DETAIL — 1 / A107
Scale: 3/4" = 1'-0"



NOTE:
ALL EXPOSED SURFACES SHALL BE PLAM FINISH, TYP

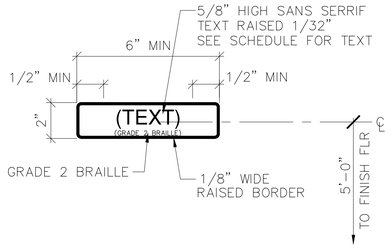
MILLWORK DETAIL — 2 / A107
Scale: 3/4" = 1'-0"



MOUNTING HEIGHTS — 3 / A107
Scale: NTS



SIGN TYPE A — 4 / A107
Scale: 3" = 1'-0"



SIGN TYPE B — 5 / A107
Scale: 3" = 1'-0"

SIGNAGE SCHEDULE

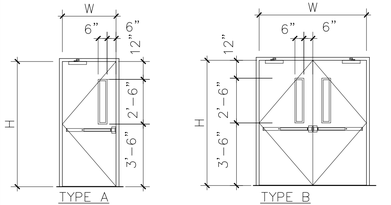
	SIGN #	ROOM #	DOOR #	SIGN COPY	TACTILE PLAQUE	SIGNAGE TYPE	MOUNTING HEIGHT	REMARKS
ENCLOSED DECK	S1	–	D01	OFFICE	YES	B	B	
	S2	–	D02	OFFICE	YES	B	A	
	S3	–	D01	EXIT	YES	B	B	
	S4	–	D02	EXIT	YES	B	A	
	S5	–	–	NO SMOKING	–	A	C	TO BE MOUNTED IN THE ENCLOSED DECK

DOOR AND FRAME SCHEDULE

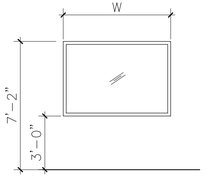
MARK	TYPE	DOOR SIZE W	DOOR SIZE H	DOOR SIZE THK	DOOR MATL	FRAME DETAIL HEAD	FRAME DETAIL JAMB	FRAME DETAIL THRES	FIRE RATING	HDWR NO	REMARKS
D01	B	6'-0"	7'-0"	1-3/4"	HM	6/A108	6/A108	10/A108		02	
D02	A	3'-0"	7'-0"	1-3/4"	HM	5/A108	5/A108	9/A108		01	

WINDOW SCHEDULE

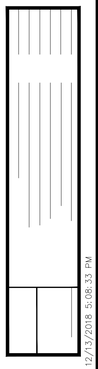
MARK	TYPE	WINDOW SIZE W	WINDOW SIZE H	WINDOW SIZE THK	WINDOW MATL	FRAME DETAIL HEAD	FRAME DETAIL JAMB	FRAME DETAIL SILL	FRAME DETAIL MULLION	FRAME MATL	FIRE RATING	GLASS TYPE	REMARKS
W01	A	6'-0"	4'-2"	8"	GL	7/A108	7/A108	11/A108	–	MTL		LAM	INSUL



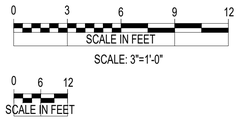
DOOR TYPES — 4 / A106
Scale: NTS



WINDOW TYPES — 4 / A106
Scale: NTS



A107R.DWG 12/13/2018 5:08:33 PM



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4/30/20
SIGNATURE DATE

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

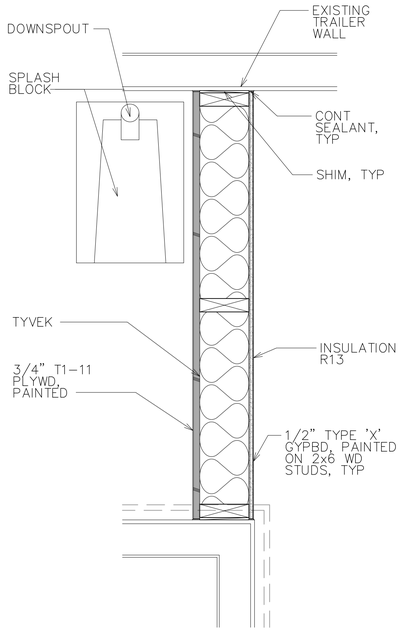
DETAILS, MOUNTING HTS SCHEDULES

WAIMALU FIELD OFFICE IMPROVEMNTS
Project No. HWY-O-01-2019
Scale:1/8"=1'-0" Date: November 2018

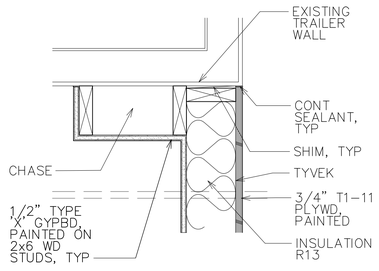
SHEET No. A1.07 OF 22 SHEETS

A1.07

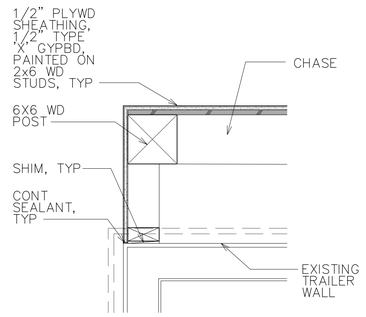
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-01-2019	2019	9	22



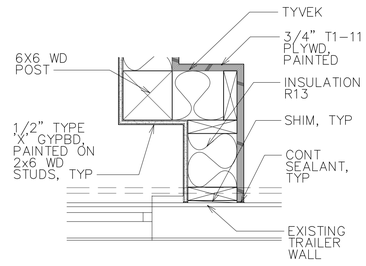
ENLARGED WALL DETAIL 1 A108
Scale: 1 1/2" = 1'-0"



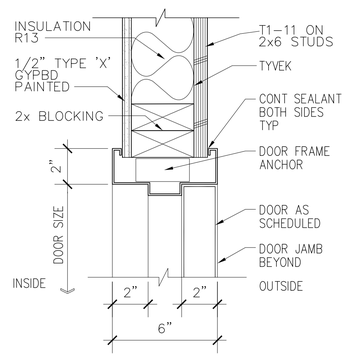
ENLARGED WALL DETAIL 2 A108
Scale: 1 1/2" = 1'-0"



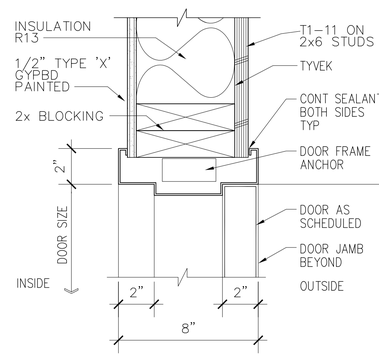
ENLARGED WALL DETAIL 3 A108
Scale: 1 1/2" = 1'-0"



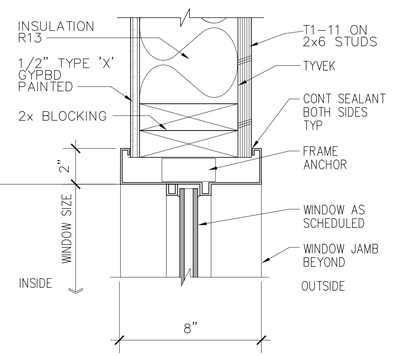
ENLARGED WALL DETAIL 4 A108
Scale: 1 1/2" = 1'-0"



DOOR DETAIL 5 A108
Scale: 3" = 1'-0"

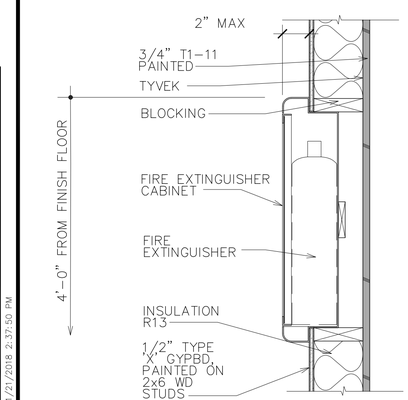


DOOR DETAIL 6 A108
Scale: 3" = 1'-0"

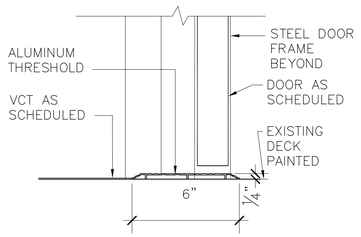


HEAD (JAMB SIM)

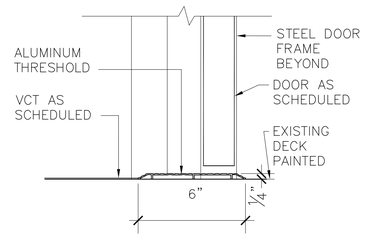
WINDOW DETAIL 7 A108
Scale: 3" = 1'-0"



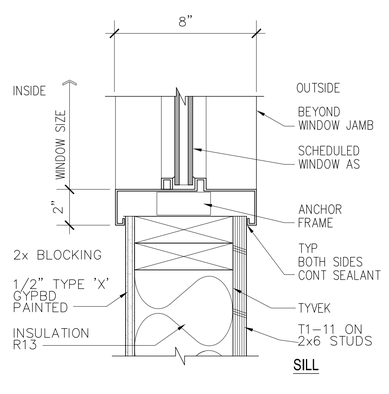
FE CABINET DETAIL 8 A108
Scale: 1 1/2" = 1'-0"



DOOR DETAIL 9 A108
Scale: 3" = 1'-0"



DOOR DETAIL 10 A108
Scale: 3" = 1'-0"



SILL

WINDOW DETAIL 11 A108
Scale: 3" = 1'-0"

0 3 6 9 12
SCALE IN FEET
SCALE: 3"=1'-0"

0 3 6 9 12
SCALE IN FEET
SCALE: 1 1/2"=1'-0"

MARK M. NAKAO
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No. 8026
HAWAII, U.S.A.
4/30/20
DATE
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS, MOUNTING HTS SCHEDULES

WAIMALU FIELD OFFICE IMPROVEMNTS
Project No. HWY-0-01-2019
Scale:1/8"=1'-0" Date: November 2018

SHEET No. A1.08 OF 22 SHEETS

A108 DETS.DWG 11/21/2018 2:37:50 PM

A1.08

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	10	22

GENERAL:

A. Workmanship and Materials shall conform to The Hawaii Standard Specifications for Road & Bridge Construction. however, where reference is made to performance conforming to other standards the more stringent shall apply.

B. The Contractor shall compare all the contract documents with each other and report in writing to The Engineer all inconsistencies and omissions.

C. The Contractor shall take field measurements and verify field conditions and shall compare such field measurements and conditions with the drawings before commencing work. report in writing to The Engineer all inconsistencies and omissions.

D. The Contractor shall be responsible for methods of construction, workmanship and job safety. the contractor shall provide temporary shoring and bracing as required for stability of structural members and systems.

E. Construction loading shall not exceed design live load unless special shoring is provided. allowable loads shall be reduced in areas where the structure has not attained full design strength.

F. The Contractor shall be responsible for protection of the adjacent properties, structures, streets and utilities during the construction period.

G. Details noted as typical on the structural drawings shall apply in all conditions unless specifically shown or noted.

H. The General Contractor and his subcontractors must submit in writing any requests for modifications to the plans and specifications.

DESIGN CRITERIA

A. Seismic
- A. Seismic importance factor: ——— 1.00
- B. Mapped spectral response accelerations:
  - a. Ss ——— 0.607
  - b. S1 ——— 0.174
- C. Spectral response coefficents:
  - A. Sds ——— 0.601
  - B. Sd1 ——— 0.380
- D. Seismic Design Category: ——— D
- E. Basic seismic force resisting system: Light Framed Walls Sheathed with Plywood
- F. Design base shear: ——— 3.40K
- G. Seismic response coefficent: ——— 0.093
- H. Response modification factor: ——— 6.5
- I. Analysis procedure used: Equivalent lateral force procedure

B. Wind
- A. Basic wind speed - 3 second gust ——— 105 Mph
- B. Wind importance factor & building category ——— 1.00
- C. Wind exposure category ——— C
- D. Internal Pressure Coefficient ——— 0.55
- E. Topographic Factor, Kzt ——— 1.3
- F. Directionality Factor, Kd ——— 0.7
- G. Components and Cladding ——— 56 PSF

C. Design Live Loads
- A. Roof ——— 20 Psf

STRUCTURAL LUMBER:

A. Structural lumber shall be termite and rot pressure preservative treated coastal Douglas Fir conforming to standard grading and dressing rules of the West Coast Lumber Inspection Bureau (WCLIB).

B. Unless otherwise noted, structural members shall have the following grades or better:
- a. 2x4, 2x6 studs ——— Grade no. 2
- b. 2x joists and rafters ——— Grade no. 2
- c. 4x beams and headers ——— Grade no. 1
- d. 6x beams and headers ——— Grade no. 1 and better
- e. 4x posts ——— Grade no. 1
- f. 6x posts ——— Grade no. 1 and better

C. Sheathing shall be identified with the appropriate trademark of the american plywood association, and shall meet the requirements of the latest edition of u.s. product standard ps 1 or apa's performance standards.
- a. roof sheathing shall be tongue and groove cdx apa rated sheathing, exposure 1, 32/16 span rating.
- b. interior wall sheathing shall be cdx apa rated sheathing, exposure 1, 16" oc span rating.
- c. exterior wall sheathing shall be cdx apa rated siding, exterior exposure, 16" oc span rating.

D. Provide minimum nailing per table 2304.9.1 of the international building code, unless otherwise noted.

E. All nails shall be galvanized common nails. all nails in exposed, exterior connections shall be hot dipped galvanized.

F. Bolts shall conform to Astm A307, and shall be galvanized.

G. Prefabricated framing hardware shall be galvanized simpson strong tie hardware, minimum zmax coating, or approved equal. install in accordance with manufacturer's recommendations.

H. Place a layer of 30# roofing felt between all wood members and concrete or masonry surfaces.

MANUFACTURED LUMBER:

A. Wood I joists and rim boards shall be manufactured by Weyerhaeuser Trus Joist or an approved equal and shall be termite and rot treated with Tribucide 11.

B. Wood I joist web holes shall conform to the manufacturer's recommendations. location of holes shall be approved by the engineer prior to placement.

C. Laminated veneer lumber (lvl) beams shall be manufactured by Weyerhaeuser Trus Joist or an approved equal and shall be termite and rot treated with Tribucide 11.

D. Double member lvl beams shall be fastened together with 3 rows of 16d nails at 12 inches o.c.

E. Wood I joists and lvl beams shall be stored and installed in accordance with the manufacturer's recommendations.

F. The contractor and joist manufacturer shall verify all joist dimensions.

MANUFACTURED LUMBER (cont'd):

G. Wood I joists and lvl beams shall be manufactured in a plant approved for fabrication by the building code and under the supervision of an approved third party inspection agency.

H. The joist manufacturer shall be responsible for providing added blocking bridging and framing necessary for a complete installation.

I. The joist manufacturer shall be responsible for providing added stiffeners, blocking, bracing, bridging and framing for concentrated loads from special/mechanical equipment. see architectural/mechanical drawings for locations nad weights of mechanical units. the joist manufacturer shall design joists for a 300 pound concentrated load where mechanical units occur.

J Design shall be based on the following criteria:
- a. dead load (not including self weight of joists) = 12 psf
- b. live load = 20 psf reducable
- c. wind loads = Per ASCE 7-05
- d. vertical deflection under total load shall be limited to L/240 of span.
- e. vertical deflection under live load shall be limited to L/360 of span.

K. Structural calculations and shop drawings shall be submitted to the engineer for review and approval prior to fabrication. shop drawings shall include: species, sizes and stress grades of joists and accessories to be used; span, configuration and spacing for each type of joist required; framed openings; bridging and bracing requirements; metal framing connectors for joist connections; and bearing and anchorage details. the structural calculations shall be stamped and signed by a structural engineer licensed to practice in the State of Hawaii.

INSPECTION OF WORK AND MATERIALS:

A. Contractor shall be responsible for ensuring that inspection of portions of the work, as required by The Hawaii Standard Specifications for Road and Bridge Construction & Special Provisions, is made at the appropriate time. the contractor shall give timely notice of when and where inspections are to be made and provide access for the inspector. the contractor shall correct defective work at no additional cost to the owner and pay for re-inspection.

B. The following structural work require inspection:
- A. Complete load path and uplift ties

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

SWP WAIMALU STRCT.DWG 12/7/2018 10:56:52 AM

ERIC S. TOMISHIMA — LICENSED PROFESSIONAL ENGINEER — No. 16572-S — HAWAII, U.S.A.

4/30/20
EXP. DATE

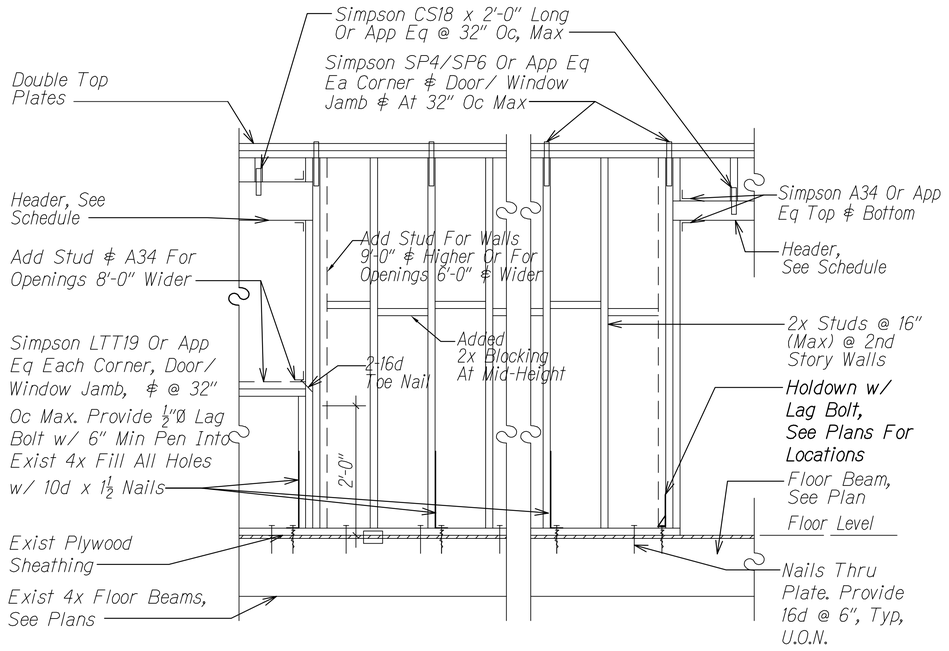
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES

WAIMALU FIELD OFFICE IMPROVEMENTS
Project No. HWY-O-01-2019
Scale: Date: November 2018

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	11	22



HEADER SCHEDULE
(MINIMUM SIZE UNLESS NOTED OTHERWISE)

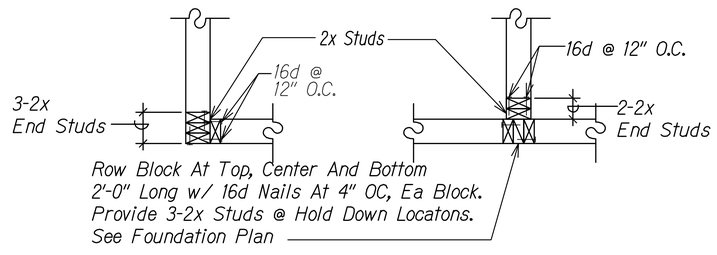
MAXIMUM OPENING	HEADER	
	2x6 STUDWALL	2x4 STUDWALL
UP TO 4'-0"	6x6	4x6
4'-1" TO 6'-0"	6x8	4x8
6'-1" TO 8'-0"	6x10	4x10
8'-1" TO 10'-0"	6x12	4x12
OVER 10'-0"	SEE PLAN FOR SIZE	SEE PLAN FOR SIZE

WALL SUPPORTED BY BEAM

TYPICAL STUD WALL FRAMING

Scale: Not To Scale

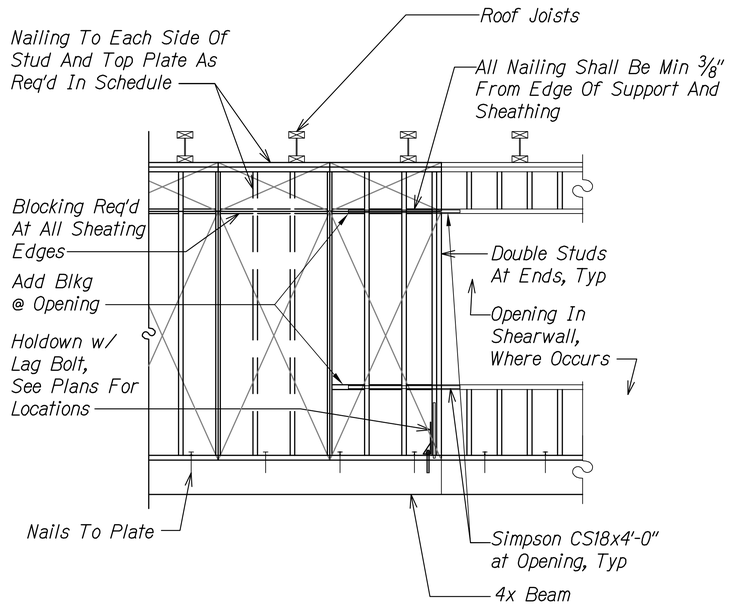
1 S1.02



TYPICAL STUD INTERSECTION

Scale: Not To Scale

3 S1.02



NOTES:
1. Sheathing To Be Fastened At All Edges Of Each Piece Per Schedule.
2. All Nails To Be Common Type U.N.O.
3. Individual Pieces Of Sheathing Shall Be 1'-4" (Minimum) In Least Dimension And Not Less Than 8 Sq Ft Total Area.
4. All Plywood Must Be Marked CD-X.
5. All Plywood Shall Be As Shown In The Schedule Below.
6. Typical Plywood Nailing Shall Be As Follows, Except As Noted In The Schedule Below. Edge - 8d Nails At 6" Oc. Field - 8d Nails At 12" Oc.

SHEATHING NAILING

TYPE	NAILING		NAILS THRU PLATE	SHEATHING
	EDGE	FIELD		
SW-1	8d Nails @ 4"	8d Nails @ 12"	16d @ 6" OC Max	1/2" Thk Plywood One Face

* Note: For Shearwalls With Sheathing On Both Wall Sides, Panel Joints Shall Be Offset To Fall On Different Framing Members.

SHEAR WALL SCHEDULE

Scale: Not To Scale

2 S1.02

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

SHP WAIMALU_STRUCT.DWG 12/7/2018 10:36:52 AM

ERIC S. TOMISHIMA
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HAWAII U.S.A.
4/30/20
EXP. DATE
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

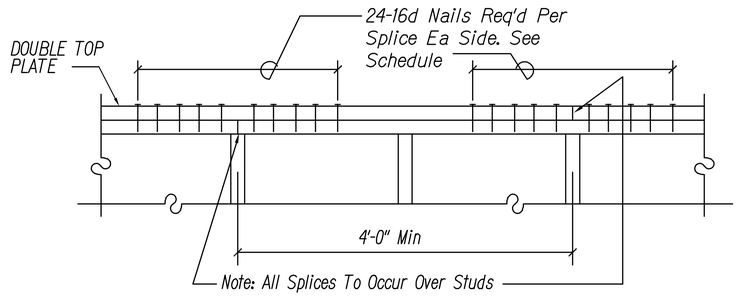
TYPICAL DETAILS

WAIMALU FIELD OFFICE IMPROVEMENTS
Project No. HWY-O-01-2019
Scale: Date: November 2018

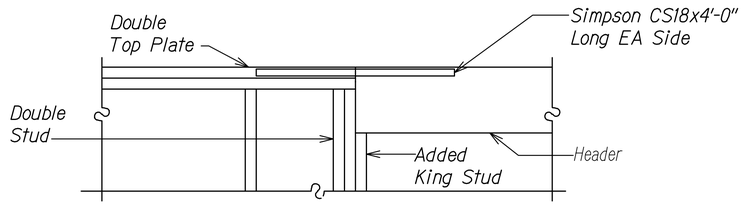
SHEET No. S1.02 OF 22 SHEETS

S1.02

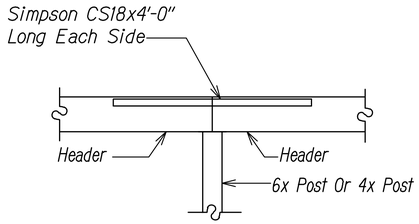
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	12	22



@ DOUBLE TOP PLATE



@ DOUBLE TOP PLATE TO HEADER

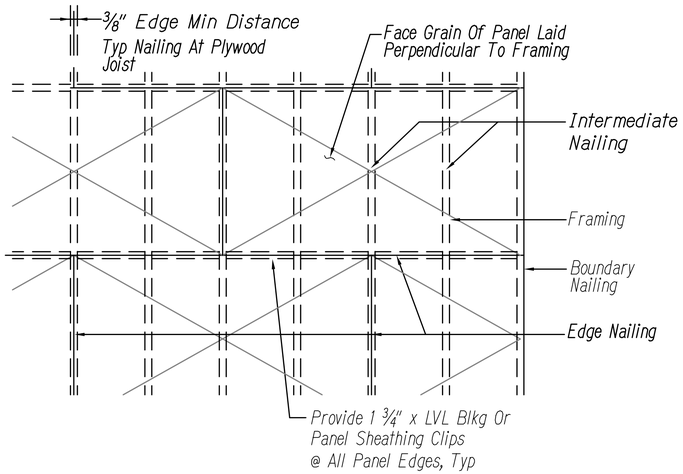


@ HEADER TO HEADER

TYPICAL PLATE/HEADER SPLICE

Scale: Not To Scale

1 / S1.03



SHEATHING NAILING			
TYPE	EDGE	BOUNDARIES	INTERMEDIATE
ROOF	8d AT 4"	8d AT 4"	8d AT 12"

PLYWOOD ROOF SHEATHING NAILING

Scale: Not To Scale

2 / S1.03

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

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ERIC S. TOMISHIMA
LICENSED PROFESSIONAL ENGINEER
No. 16572-S
HAWAII U.S.A.

4/30/20
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HIGHWAYS DIVISION

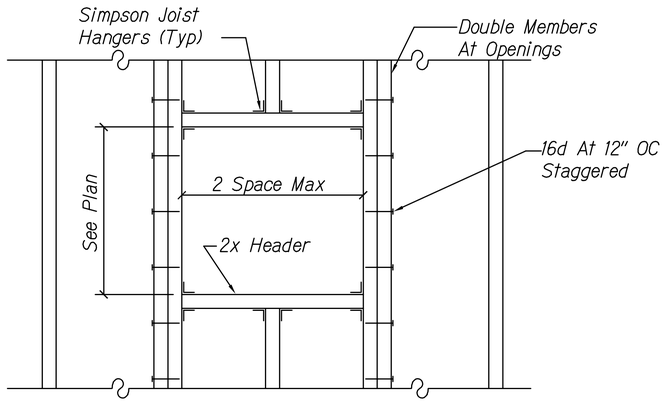
TYPICAL DETAILS

WAIMALU FIELD OFFICE IMPROVEMENTS
Project No. HWY-O-01-2019
Scale: Date: November 2018

SHEET No. S1.03 OF 22 SHEETS

S1.03

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	13	22



FRAMING OPENING

Scale: Not To Scale

1 / S1.04

NAILING SCHEDULE (The Number And Size Of Nails Cconnecting Wood Members Shall Not Be Less Than Set Forth Below.)	
CONNECTION	NAILING
1. Joist To Sill Or Girder, Toe Nail	3-8d
2. Bridging To Joist, Toe Nail, Each End	2-8d
3. Sole Plate To Joist Or Blocking, Face Nail	16d AT 16" OC
4. Top Plate To Stud, End Nail	2-16d
5. Stud To Sole Plate	4-8d TOE NAIL OR 2-16d END NAIL
6. Double Studs, Face Nail	16d AT 24" OC
7. Doubled Top Plates, Face Nail	16d AT 16" OC
8. Top Plates, Laps And Intersections, Face Nail	2-16d
9. Ceiling Joist To Plate, Toe Nail	3-8d
10. Continuous Header To stud, Toe Nail	4-8d
11. Ceiling Joists, Laps Over Partitions, Face Nail	3-16d
12. Ceiling Joists To Parallel Rafters, Face Nail	3-16d
13. Rafter To Plate, Toe Nail	3-8d
14. 1" Brace To Each Stud And Plate, Face Nail	2-8d
15. Built-Up Corner Studs	16d AT 12" OC

MINIMUM NAILING SCHEDULE

Scale: Not To Scale

2 / S1.04

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

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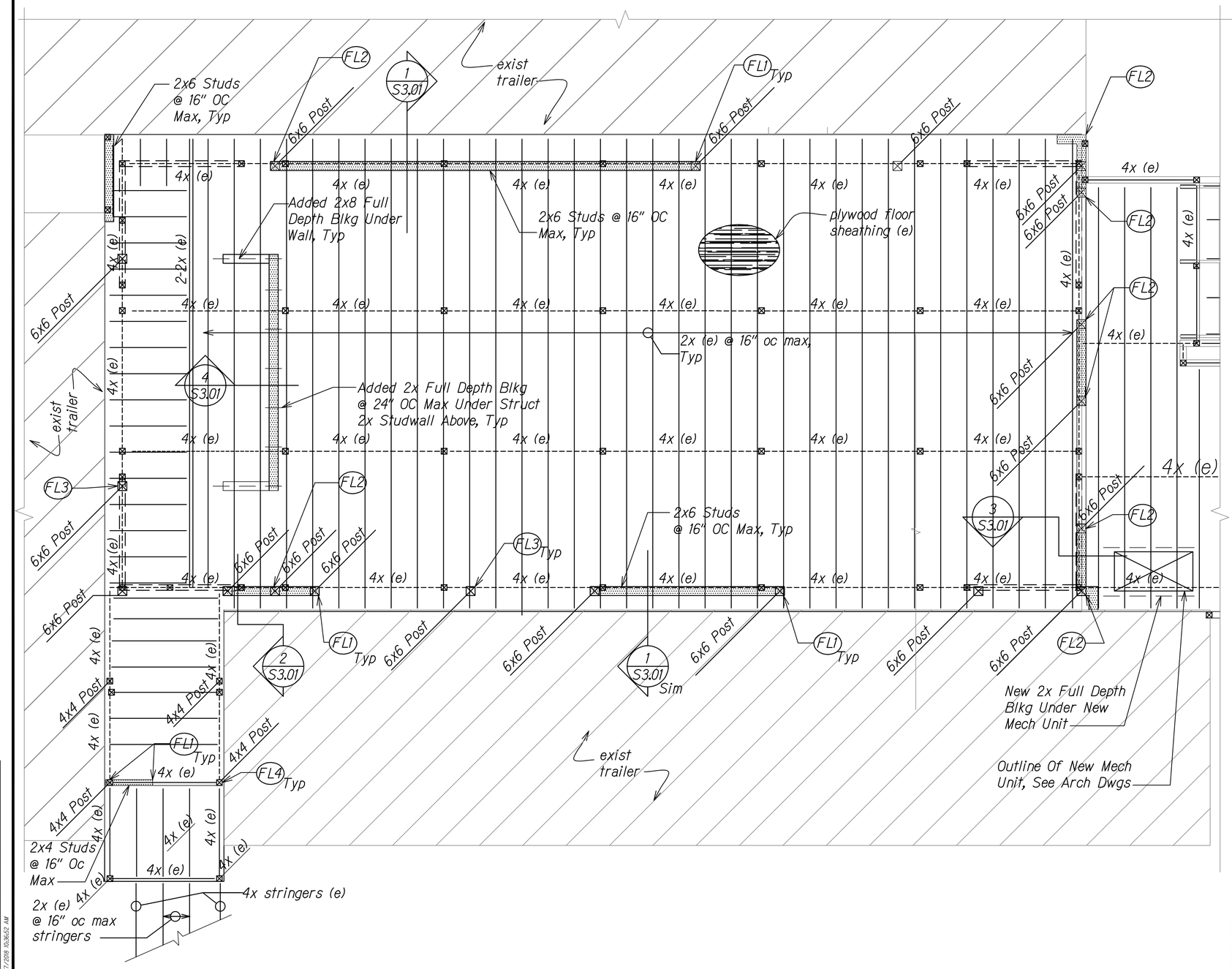
TYPICAL DETAILS

WAIMALU FIELD OFFICE IMPROVEMENTS
Project No. HWY-O-01-2019
Scale: Date: November 2018

SHEET No. S1.04 OF 22 SHEETS

S1.04

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	14	22



EXIST WOOD DECK RETROFIT FRAMING PLAN

Scale: 3/8"= 1'-0"

FLOOR CONNECTOR SCHEDULE		
MARK	CONNECTOR TYPE	REMARKS
FL1	Simpson LTT20B Or App Equal	Fasten To 2-2x Min Studs. Provide ½"Øx Lag Bolt Into Exist 4x Beam Below. Provide 6" Min Embed Into Exist 4x Beam
FL2	Simpson HTT4 Or App Equal	Fasten To 2-2x Min Studs. Provide ⅝"Øx Lag Bolt Into Exist 4x Beam Below. Provide 6" Min Embed Into Exist 4x Beam
FL3	Simpson ABU66 Or App Equal	Provide ⅝"Øx Lag Bolt Into Exist 4x Beam Below. Provide 6" Min Embed Into Exist 4x Beam
FL4	Simpson Abu44 Or App Equal	Provide ⅝"Øx Lag Bolt Into Exist 4x Beam Below. Provide 6" Min Embed Into Exist 4x Beam

LEGEND:

- FL1 — Indicates Floor Connector Type. See Floor Connector Schedule This Sheet.
- ⊠ — Indicates Exist 4x Post Below
- Indicates New Full Height Structural Studwall
- Indicates New Partial Height Structural Studwall
- Indicates Non-Structural Wall, See Arch Dwgs
- SW-1 — Indicates Plywood Shear Wall Type, See 2/S1.02. All Structural Studwalls Shall Be Shear Wall Type SW-1 Unless Otherwise Noted.

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

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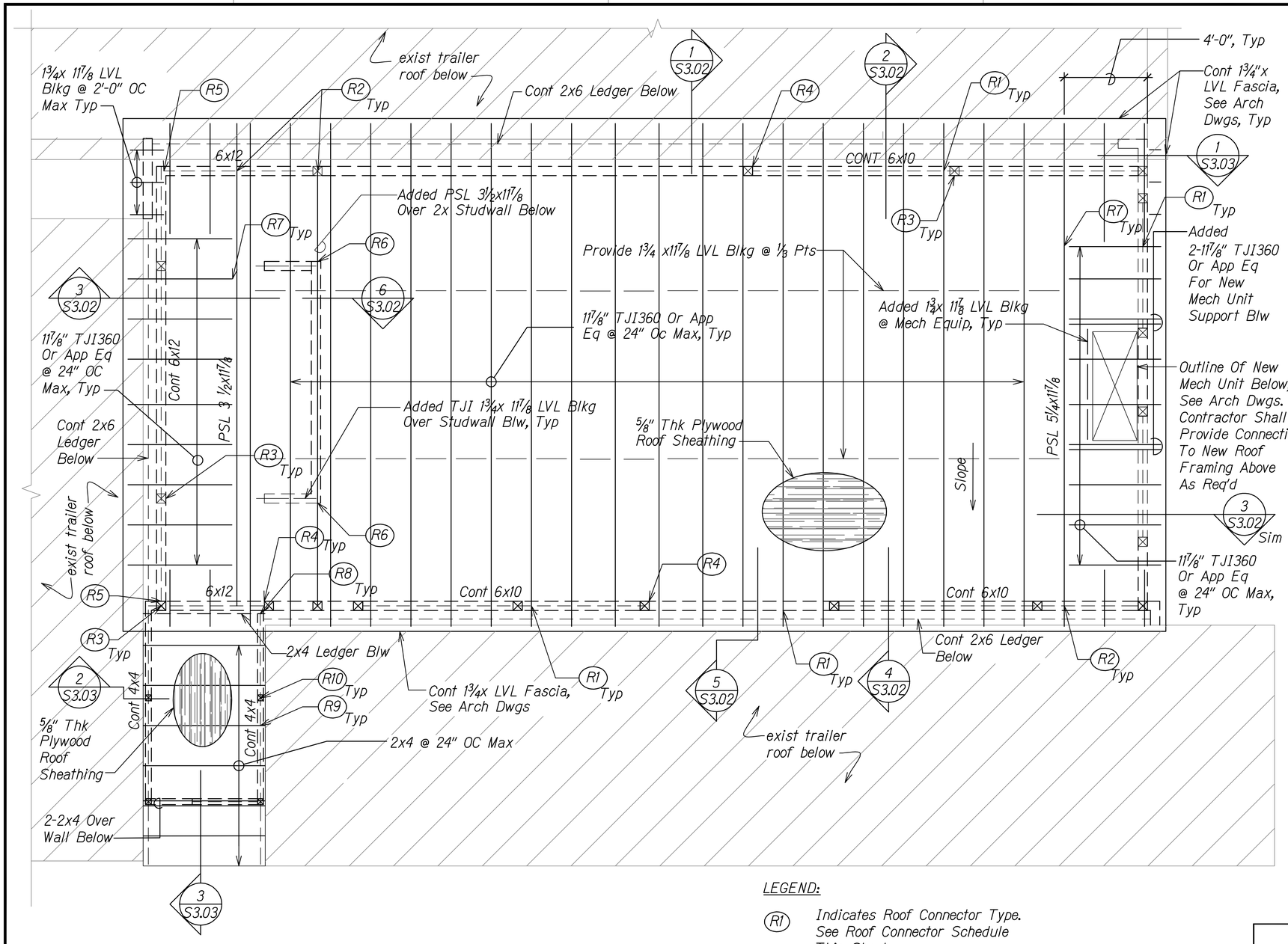
EXIST WOOD DECK RETROFIT FRAMING PLAN

WAIMALU FIELD OFFICE IMPROVEMENTS
Project No. HWY-O-01-2019

Scale: Date: November 2018

SHEET No. S2.01 OF 22 SHEETS

S2.01



FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	15	22

ROOF CONNECTOR SCHEDULE

MARK	CONNECTOR TYPE	REMARKS
R1	2-Simpson H2.5A Or App Equal	TJI Joist Or App Eq To Wall Or Beam Below
R2	2-Simpson H6 Or App Equal	PSL Beam To Wall Or Beam Below
R3	Simpson AC6(Max) Or App Equal	6x Beam To 6x Post
R4	Simpson ACE6(Max) Or App Equal	6x Beam To 6x Post
R5	Simpson HUC612 Or App Equal	6x Beam To 6x Beam
R6	2-Simpson CS16x 4'-0" Long Min Or App Eq	2-2x Or 6x Post To PSL 3½x Beam Above. Wrap Around Beam & Fill All Holes w/ 10d Nails
R7	Simpson MIU2.37/11 Or App Eq	TJI Joist To Tji Joist
R8	Simpson HUC44 Or App Eq	4x Beam to 6x Beam
R9	Simpson H2.5A Or App Eq	2x Roof Joist to 4x Beam Below
R10	Simpson CS18x2'-0" Long Min Or App Eq	4x Beam to 4x Post Below. Wrap Around Beam and Nail. Fill All Holes w/ 10d Nails, Typ

NOTES:

For Typical Plywood Roof Sheathing Fastening, See 2/S1.03

LEGEND:

- R1 — Indicates Roof Connector Type. See Roof Connector Schedule This Sheet.
- ⊠ — Indicates New 6x Or 4x Post Below
- ═══ — Indicates New Studwall Below
- — — — Indicates New Header Below

NEW ROOF FRAMING PLAN

Scale: 1/4"= 1'-0"

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NOTE BOOK | No.

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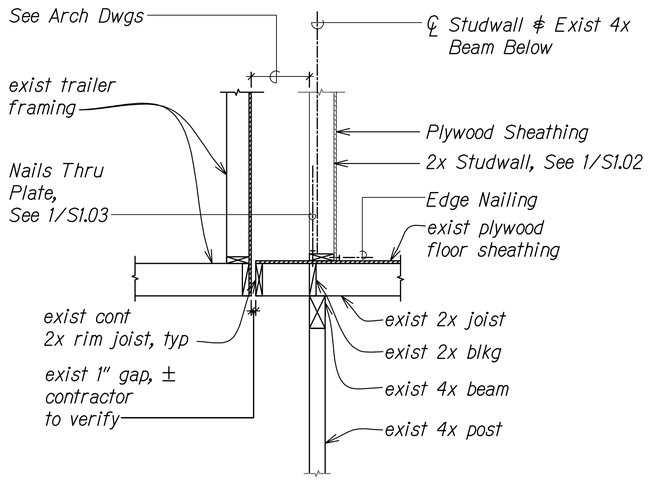
NEW ROOF FRAMING PLAN

WAIMALU FIELD OFFICE IMPROVEMENTS
Project No. HWY-O-01-2019
Scale: Date: November 2018

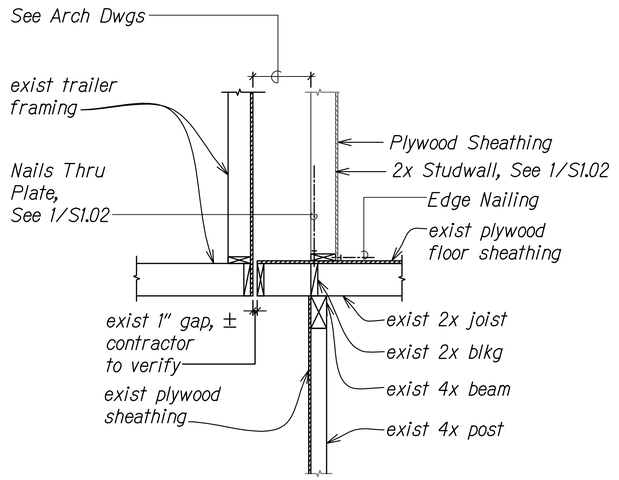
SHEET No. S2.02 OF 22 SHEETS

S2.02

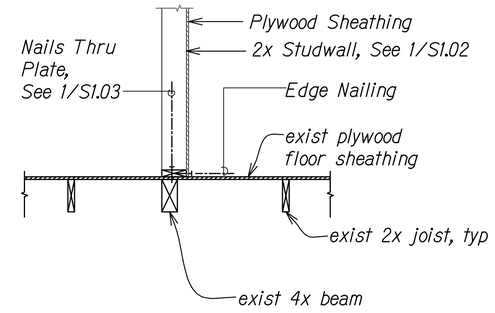
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	16	22



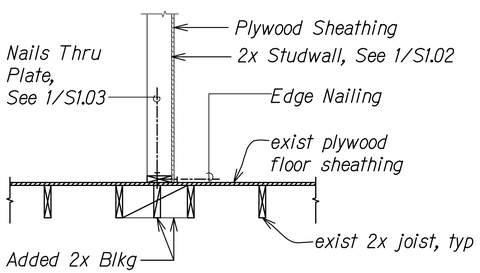
SECTION
Scale: 3/4" = 1'-0"
1 S3.01



SECTION
Scale: 3/4" = 1'-0"
2 S3.01



SECTION
Scale: 3/4" = 1'-0"
3 S3.01



SECTION
Scale: 3/4" = 1'-0"
4 S3.01

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

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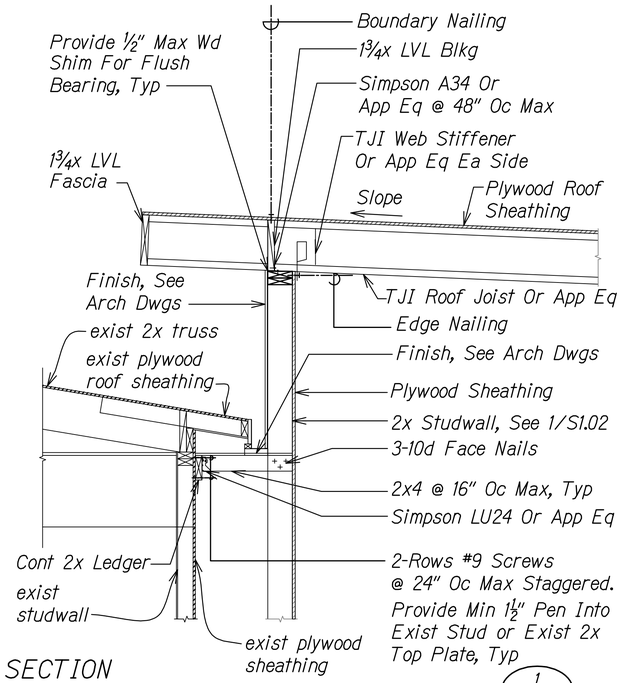
SECTIONS

WAIMALU FIELD OFFICE IMPROVEMENTS
Project No. HWY-O-01-2019
Scale: Date: November 2018

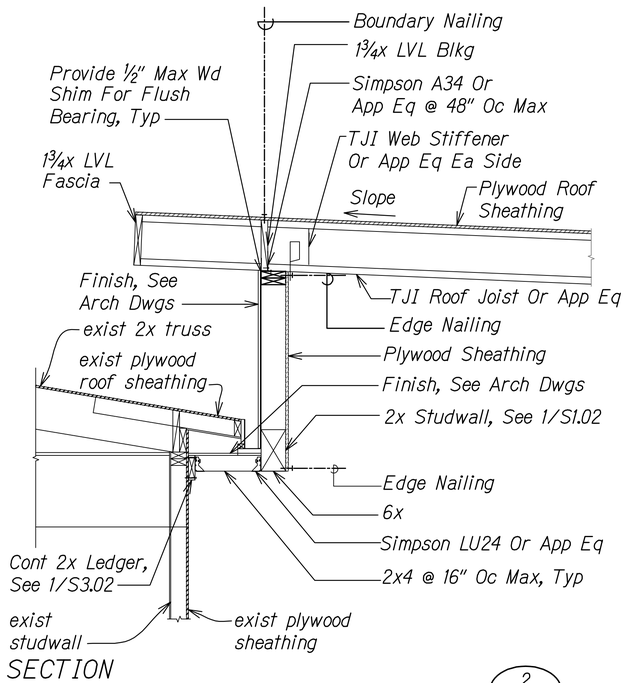
SHEET No. S3.01 OF 22 SHEETS

S3.01

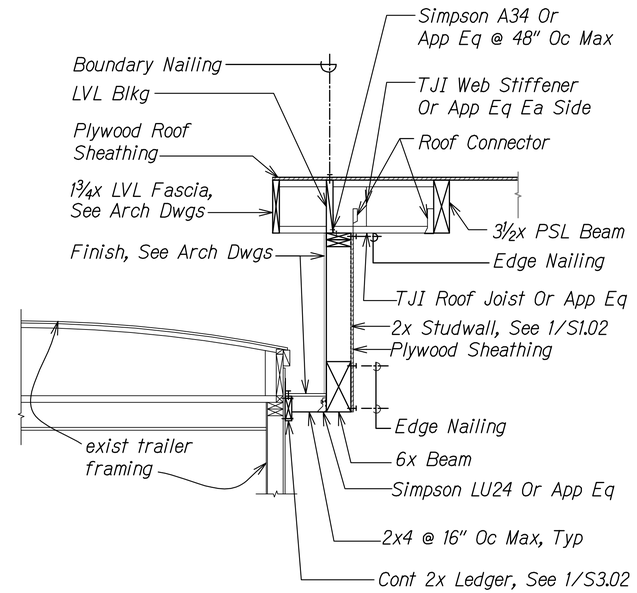
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	17	22



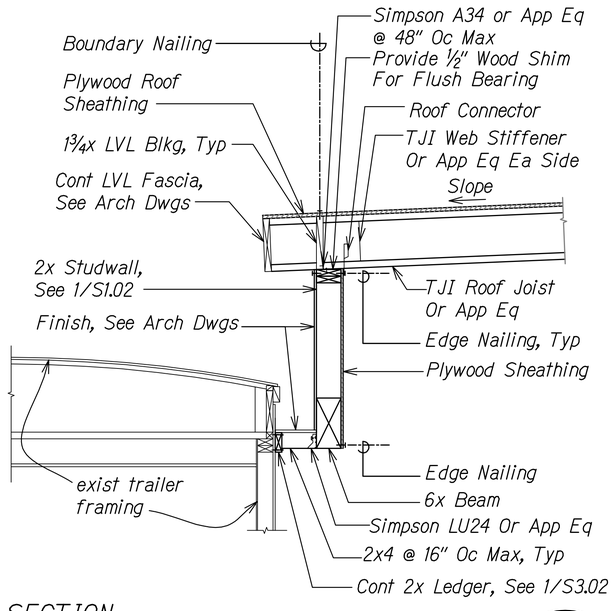
SECTION 1 S3.02
Scale: 3/4" = 1'-0"



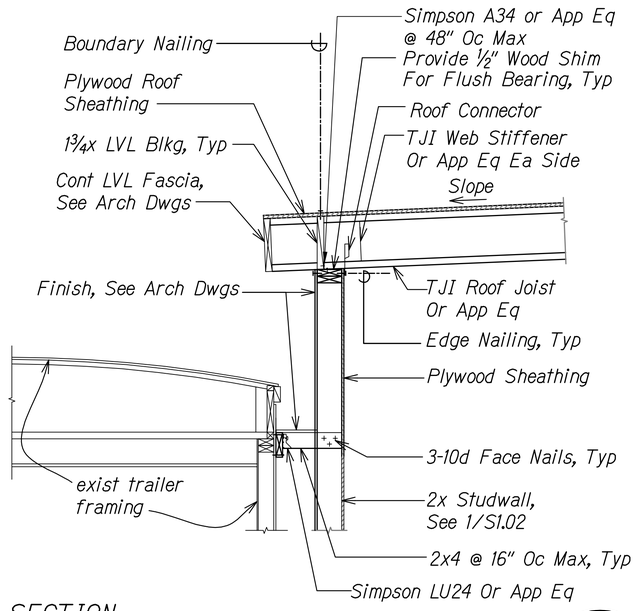
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Scale: 3/4" = 1'-0"



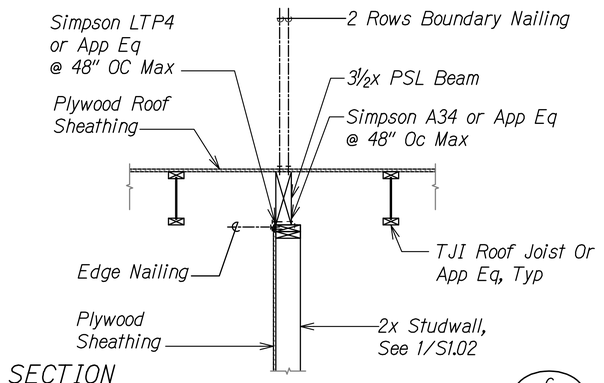
SECTION 3 S3.02
Scale: 3/4" = 1'-0"



SECTION 4 S3.02
Scale: 3/4" = 1'-0"



SECTION 5 S3.02
Scale: 3/4" = 1'-0"



SECTION 6 S3.02
Scale: 3/4" = 1'-0"

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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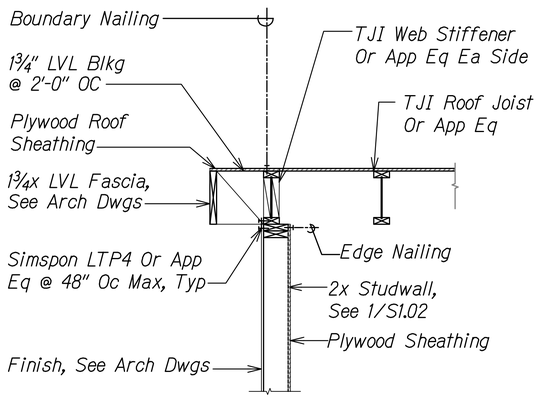
SECTIONS

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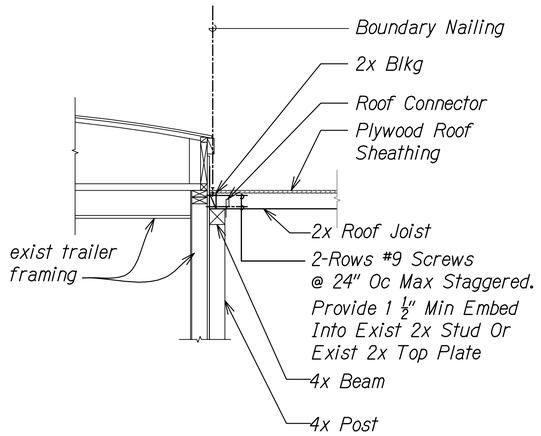
SHEET No. S3.02 OF 22 SHEETS

S3.02

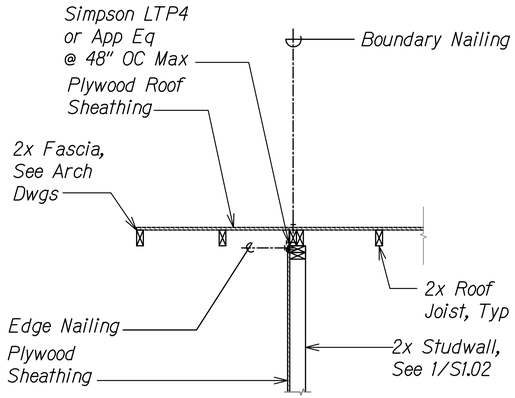
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	18	22



SECTION 1 S3.03
Scale: 3/4" = 1'-0"



SECTION 2 S3.03
Scale: 3/4" = 1'-0"



SECTION 3 S3.03
Scale: 3/4" = 1'-0"

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

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SECTIONS

WAIMALU FIELD OFFICE IMPROVEMENTS
Project No. HWY-O-01-2019
Scale: Date: November 2018

SHEET No. S3.03 OF 22 SHEETS

S3.03

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	19	22

ELECTRICAL SYMBOL LIST

EXISTING	NEW	DESCRIPTION
		LIGHT, FLUORESCENT/LED, CEILING RECESSED MOUNTED.
		LIGHT, FLUORESCENT/LED, CEILING RECESSED MOUNTED, WITH EMERGENCY BALLAST.
		LIGHT, FLUORESCENT/LED, CEILING SURFACE MOUNTED, WITH EMERGENCY BALLAST.
		FLOODLIGHT, WALL MOUNTED.
		NIGHT LIGHT, WALL MOUNTED.
		EXIT SIGN, SINGLE FACE, WALL SURFACE MOUNTED.
	$	SWITCH, FLUSH TUMBLER, WALL MOUNTED.
	$D	SWITCH, DIMMER, WALL MOUNTED.
	$3	SWITCH, 3-WAY, WALL MOUNTED.
	$M	MOTOR DISCONNECT SWITCH, H.P. RATED.
	OS	OCCUPANCY SENSOR SWITCH, WALL MOUNTED.
	OS	OCCUPANCY SENSOR SWITCH, CEILING MOUNTED.
	"a"	INDICATES FIXTURE OR DEVICE CONTROLLED BY SW. "a", OTHER LETTERS SIMILAR.
	J	JUNCTION BOX/OUTLET, CEILING MOUNTED.
	J	JUNCTION BOX, WALL MOUNTED.
		RECEPTACLE, DUPLEX, WALL MOUNTED, 20A, 125V, NEMA 5-20.
		RECEPTACLE, TWO-DUPLEX, WALL MOUNTED, 20A, 125V, NEMA 5-20.
		RECEPTACLE, DUPLEX, G.F.I. TYPE, WALL MTD., 20A, 125V, NEMA 5-20.
		TEL./DATA OUTLET, WALL MOUNTED.
PC		PHOTOCELL, WALL MOUNTED.
	D	DATA OUTLET, FLUSH CEILING MOUNTED.
	E	EQUIPMENT CONNECTION.
		EQUIPMENT DISCONNECT SWITCH, HORSEPOWER RATED.
		ELECTRIC PANEL.
		RACEWAY, CONCEALED ABOVE FINISH FLOOR, NUMBER OF HASHMARKS INDICATE NUMBER OF WIRES WITHIN.
		RACEWAY, CONCEALED BELOW FINISH FLOOR, NO HASHMARKS INDICATES TWO WIRES WITHIN.
		EXPOSED RACEWAY.
		FLEXIBLE RACEWAY.
		ARROW, HOMERUN TO PANEL OR CABINET.
		RACEWAY, STUBBED AND CAPPED.
2	2	ELECTRICAL NOTE INDICATOR.
	A 1/48	FIXTURE INDICATOR UPPER HALF: FIXTURE TYPE. LOWER HALF: NO. OF LAMPS & WATTS OR LENGTH.
	WP	INDICATES WEATHERPROOF.

MOUNTING HEIGHT SCHEDULE

DEVICE ON PLAN	MOUNTING HEIGHT	REFERENCE POINT					REMARKS
		FLOOR	CEILING	TO	CL	TOP	
$ $D $3	45"	•				•	MOUNTING HEIGHT SHALL BE TO TOP OF OPERABLE PART.
	18" *	•				BOTTOM	MOUNTING HEIGHT SHALL BE TO BOTTOM OF PLATE.
	18"	•				BOTTOM	MOUNTING HEIGHT SHALL BE TO BOTTOM OF PLATE.
	5'-6"	•				•	

* SPECIAL MOUNTING HEIGHTS INDICATED ON PLAN.

GENERAL ELECTRICAL NOTES:

1. ELECTRICAL CONTRACTOR SHALL VISIT SITE AND VERIFY EXISTING ELECTRICAL INSTALLATION AND NEW DESIGN PRIOR TO BID.
2. ELECTRICAL CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, DISCONNECT AND RECONNECT ALL EXISTING ELECTRICAL INSTALLATIONS IN CONFLICT WITH NEW CONSTRUCTION.
3. ALL EXISTING ELECTRICAL INSTALLATIONS ADJACENT TO THE PROJECT AREA SHALL BE MAINTAINED. DISCONNECT AND RE-CONNECT AS REQUIRED. PROVIDE TEMPORARY CONNECTIONS AS REQUIRED.
4. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL HIS WORK WITH OTHER TRADES.
5. ELECTRICAL CONTRACTOR SHALL VERIFY AND CONFIRM LOCATION OF ALL WIRING DEVICES AND LIGHTING FIXTURES W/ARCH. PRIOR TO ROUGH-IN.
6. CIRCUIT NUMBERS INDICATED ARE FOR THE PURPOSE OF CIRCUIT GROUPING AND MAY NOT REFLECT ACTUAL PANEL CIRCUIT NUMBER ASSIGNMENT. ELECTRICAL CONTRACTOR SHALL BALANCE PANEL LOAD AND ASSIGN CIRCUITS ACCORDINGLY. PROVIDE NEW TYPEWRITTEN PANEL DIRECTORY USING ROOM NAMES AND NUMBERS.
7. WIRE COUNT IN RACEWAYS NOT INDICATED. ELECTRICAL CONTRACTOR SHALL PROVIDE NUMBER OF WIRES AS REQUIRED IN NEW RACEWAYS AND ADDITIONAL WIRES AS REQUIRED IN EXISTING RACEWAYS.
8. PAINT ALL EXPOSED RACEWAYS AND OUTLET BOXES TO MATCH SURROUNDING FINISH.
9. ALL MULTIWIRE BRANCH CIRCUITS SHALL BE IN ACCORDANCE WITH NEC ARTICLE 210.4. ALL CIRCUITS SHALL HAVE INDIVIDUAL NEUTRALS.
10. EXISTING CONDITION SHOWN ON DRAWINGS ARE TAKEN FROM PAST DESIGN DRAWINGS AND VISUAL FIELD INVESTIGATION. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS SHOWN. DEVIATIONS SHALL BE SHOWN ON AS-BUILT DRAWINGS.
11. ALL NEW RACEWAYS IN CEILING SPACE SHALL BE PROPERLY SUPPORTED.
12. ALL NEW RECESSED LIGHT FIXTURES SHALL BE SUPPORTED FROM CONCRETE SLAB WITH TWO 12 GAGE WIRES ATTACHED AT OPPOSING CORNERS OF THE LIGHT FIXTURE PER IBC SECTION 1621.
13. ALL PENETRATIONS THROUGH FIRE RATED WALLS AND SLABS SHALL BE SEALED TO MAINTAIN THE INTEGRITY OF THE FIRE RATING USING A U.L. LISTED FIRE STOPPING SYSTEM.
14. REFINISH AND PATCH TO MATCH ALL EXISTING WALL AND CEILING SURFACES DAMAGED OR SCRATCHED BY ELECTRICAL REMOVAL AND INSTALLATION WORK. NEW TOUCH-UP PAINT WORK SHALL BLEND INTO AND MATCH EXISTING FINISH.
15. ALL NEW WIRES SHALL BE # 12 AWG, UNLESS OTHERWISE NOTED.
16. ALL FEEDER WIRING SHALL INCLUDE AN INSULATED GREEN GROUNDING CONDUCTOR SIZED PER TABLE 250.122 OF THE NATIONAL ELECTRICAL CODE. THIS CONDUCTOR SHALL BE CARRIED IN ALL RACEWAYS AND SHALL BE ATTACHED TO THE PANEL GROUND BUS.
17. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL JUNCTION AND PULL BOXES REQUIRED FOR THE INSTALLATION OF ELECTRICAL DEVICES AND EQUIPMENT, WHETHER OR NOT SPECIFICALLY INDICATED ON THE PLANS. SIZING OF THESE BOXES SHALL BE PER THE NATIONAL ELECTRICAL CODE.
18. THE TERM "WIRING" SHALL INCLUDE RACEWAY, CONDUCTORS, EQUIPMENT, AND WIRING.
19. THE TERM "PROVIDE" SHALL MEAN "FURNISH AND INSTALL".
20. ALL EXTERIOR RACEWAYS SHALL BE GALVANIZED RIGID STEEL..

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4/30/20
EXP. DATE

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL SYMBOL LIST, GENERAL ELECTRICAL NOTES

WAIMALU FIELD OFFICE IMPROVEMENTS
Project No. HWY-O-01-2019
Scale: As Noted Date: November 2018

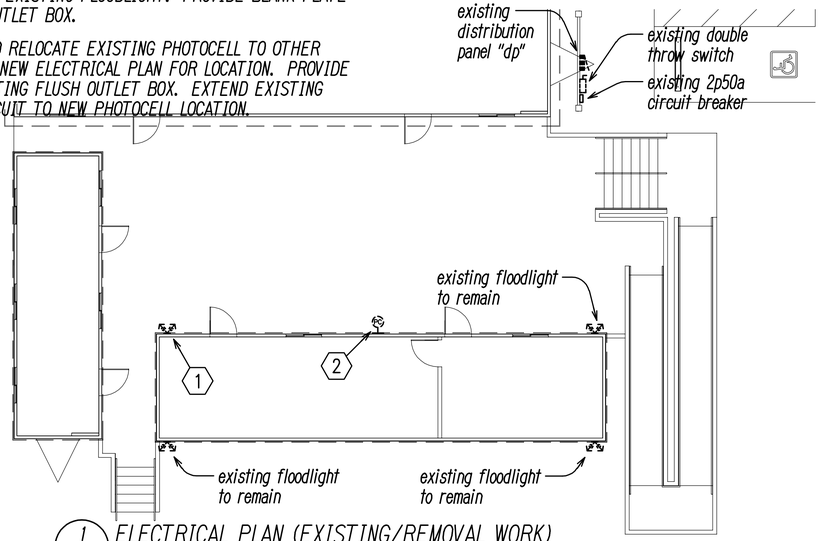
SHEET No. E1.01 OF 22 SHEETS

E1.01

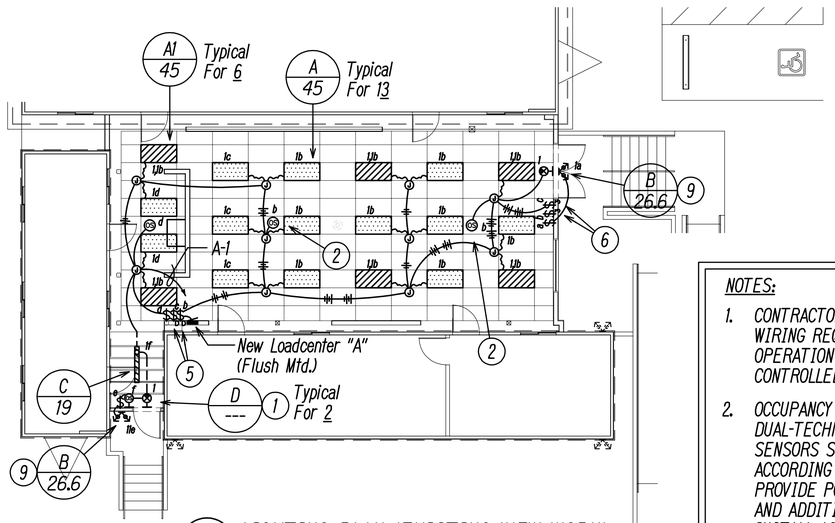
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	20	22

ELECTRICAL NOTES: EXISTING/REMOVAL WORK

1. DISCONNECT AND REMOVE EXISTING FLOODLIGHT. PROVIDE BLANK PLATE OVER EXISTING FLUSH OUTLET BOX.
2. DISCONNECT, REMOVE AND RELOCATE EXISTING PHOTOCELL TO OTHER SIDE OF BUILDING. SEE NEW ELECTRICAL PLAN FOR LOCATION. PROVIDE BLANK PLATE OVER EXISTING FLUSH OUTLET BOX. EXTEND EXISTING PHOTOCELL CONTROL CIRCUIT TO NEW PHOTOCELL LOCATION.



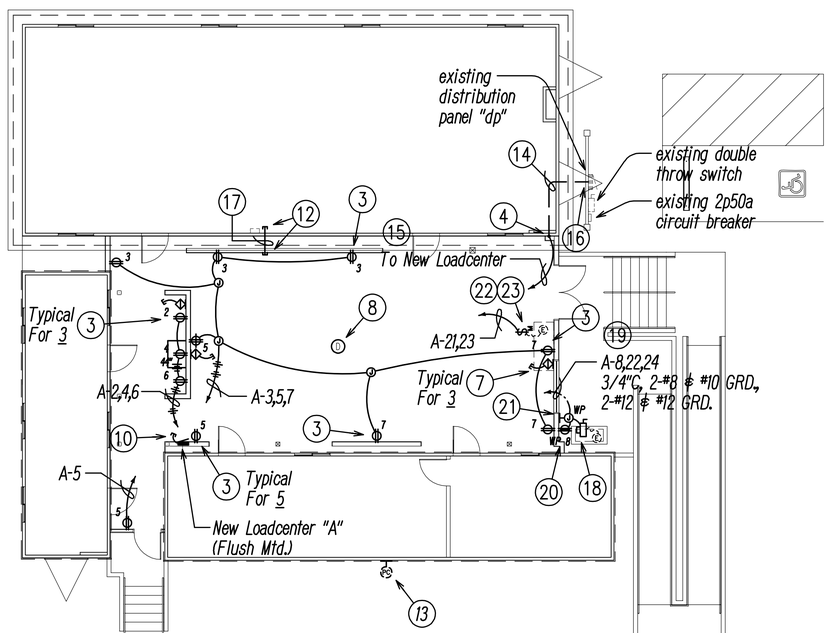
1 E1.02 ELECTRICAL PLAN (EXISTING/REMOVAL WORK)
SCALE: 1/8" = 1' - 0"



2 E1.02 LIGHTING PLAN (EXISTING/NEW WORK)
SCALE: 1/8" = 1' - 0"

NOTES:

1. CONTRACTOR SHALL PROVIDE ALL WIRING REQUIRED FOR PROPER OPERATION OF OCCUPANCY SENSOR CONTROLLED LIGHT FIXTURES.
2. OCCUPANCY SENSORS SHALL BE DUAL-TECHNOLOGY TYPE OCCUPANCY SENSORS SHALL BE SELECTED ACCORDING TO AREA COVERAGE. PROVIDE POWER PACKS, ACCESSORIES AND ADDITIONAL WIRING AS REQUIRED. INSTALL ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. FIELD ADJUST SENSITIVITY SETTINGS UNTIL ACCEPTED BY USER.



2 E1.02 ELECTRICAL PLAN (EXISTING/NEW WORK)
SCALE: 1/8" = 1' - 0"

ELECTRICAL NOTES: NEW WORK

1. MOUNT EXIT SIGN ABOVE DOOR.
2. WIRE OCCUPANCY SENSORS FOR TANDEM OPERATION. ACTIVATION OF ANY OCCUPANCY SENSOR IN THE AREA SHALL KEEP ALL LIGHTS IN ROOM/AREA ON. PROVIDE ADDITIONAL WIRES AS REQUIRED. VERIFY WIRING WITH EQUIPMENT SUPPLIER.
3. PROVIDE NEW FLUSH OUTLET BOX, RECEPTACLE AND CONCEALED WIRING.
4. DRILL THROUGH EXISTING DECK TO INSTALL NEW FEEDER RACEWAY. ROUTE UP TO CEILING SPACE.
5. PROVIDE 3-WAY DIMMER SWITCHES, 8A RATED, LUTRON #DVSTV-IV OR APPROVED EQUAL.
6. PROVIDE 3-WAY PADDLE SWITCHES, 15A RATED, LUTRON #CA-3PS-IV OR APPROVED EQUAL.
7. PROVIDE NEW FLUSH OUTLET BOX, DATA OUTLET AND CONCEALED WIRING. STUB 1" RACEWAY INTO CEILING SPACE.
8. PROVIDE NEW CEILING MOUNTED FLUSH DATA OUTLET.
9. INSTALL NEW FLOODLIGHT ON NEW FLUSH OUTLET BOX.
10. PROVIDE 3-1" STUBS INTO CEILING FOR FUTURE WIRING. PROVIDE INSULATED END BUSHINGS.
11. STUB RACEWAY IN CEILING SPACE. PROVIDE INSULATED END BUSHING.
12. DRILL THROUGH WALL ABOVE CEILING. PATCH TO MATCH EXISTING CONDITION. MAINTAIN FIRE RATING OF WALL.
13. REINSTALL EXISTING PHOTOCELL ON NEW SURFACE MTD. CAST OUTLET BOX IN NEW LOCATION. PROVIDE WIRING TO INTERCEPT EXISTING PHOTOCELL CONTROL CIRCUIT.
14. ROUTE NEW RACEWAY UNDER TRAILER.
15. ROUTE NEW RACEWAY IN CEILING SPACE.
16. CONNECT NEW RACEWAY TO EXISTING PANEL.
17. PROVIDE NEW 1-1/2"C WITH PULLSTRING IN CEILING FOR TELECOM CABLING BY OTHERS.
18. PROVIDE NEW NEMA 3R, 2P60A, NON-FUSIBLE DISCONNECT SWITCH FOR A/C UNIT (BY OTHERS). MOUNT ON FLUSH OUTLET BOX @ 5'-6" A.F.F. TO TOP. VERIFY EXACT LOCATION WITH USERS.
19. ROUTE WIRING IN FLOOR SPACE OF TRAILER.
20. PROVIDE NEW FLUSH OUTLET BOX, GFCI TYPE RECEPTACLE, CAST METAL WEATHERPROOF, IN-USE TYPE COVER AND CONCEALED WIRING. MOUNT ON WALL @ 18" A.F.F..
21. PROVIDE FLUSH OUTLET BOX WITH GASKETED COVER. MOUNT ON WALL @ APPROX. 18" A.F.F..
22. PROVIDE NEW OUTLET BOX, MOTOR DISCONNECT SWITCH AND HOMERUN WIRING FOR FCU (BY OTHERS). MOUNT IN CEILING SPACE. VERIFY EXACT LOCATION WITH USERS.
23. VERIFY WIRING REQUIREMENTS WITH A/C SUPPLIER. PROVIDE INTERUNIT WIRING TO ACCU IF REQUIRED.

GRAPHIC SCALE
0 2' 4' 6' 8' 16' 24'
SCALE: 1/8"=1'-0"

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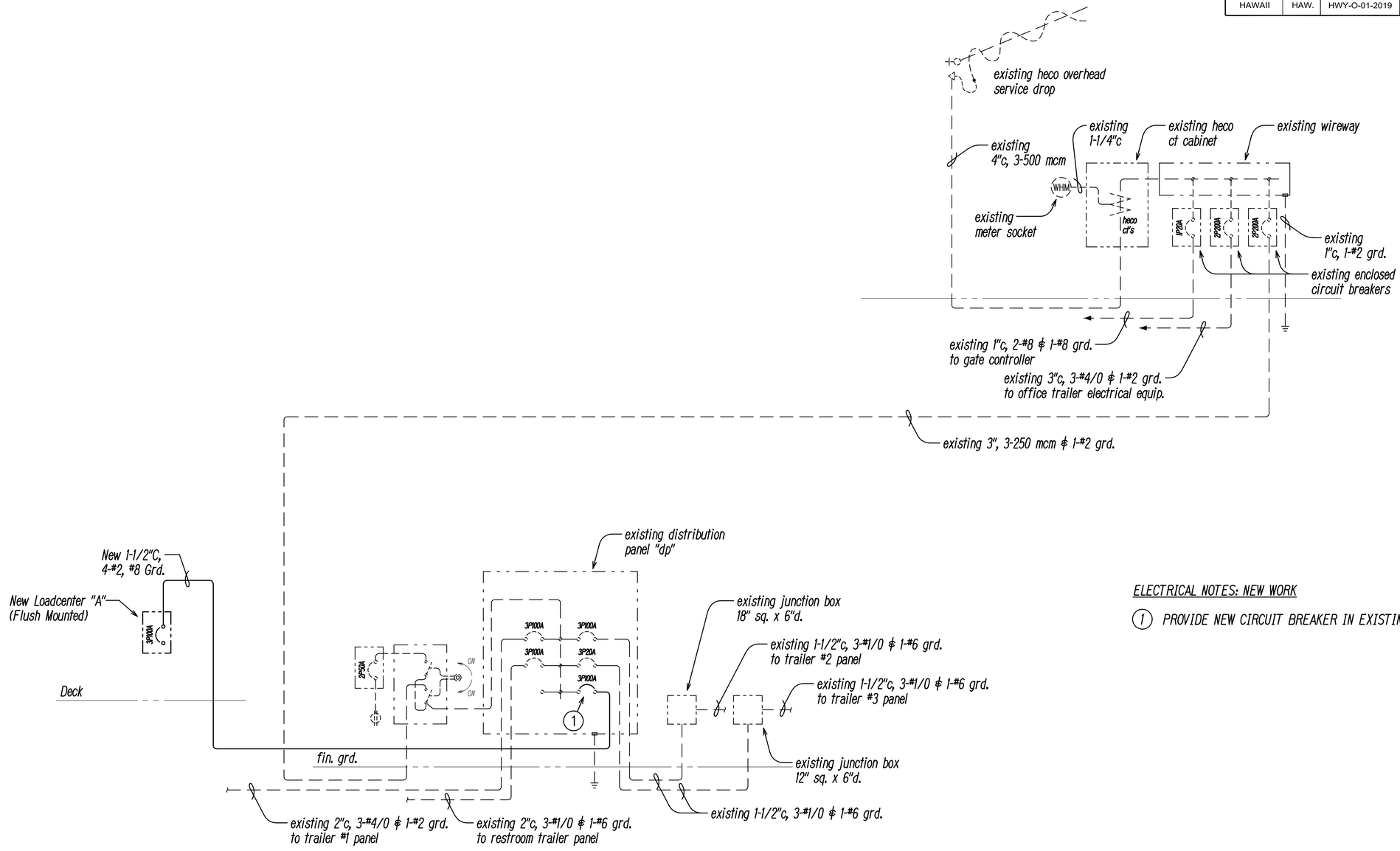
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL PLANS (EXISTING/NEW WORK)

WAIMALU FIELD OFFICE IMPROVEMENTS
Project No. HWY-O-01-2019
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SHEET No. E1.02 OF 22 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	21	22



1 / E1.03 ONE LINE DIAGRAM
NOT TO SCALE

ELECTRICAL NOTES: NEW WORK

(1) PROVIDE NEW CIRCUIT BREAKER IN EXISTING SPACE.

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STATE OF HAWAII
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ONE LINE DIAGRAM

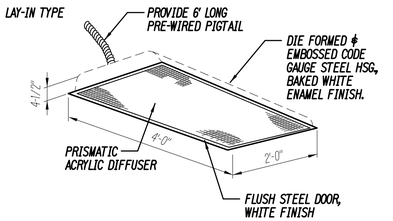
WAIMALU FIELD OFFICE IMPROVEMENTS
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Scale: As Noted Date: November 2018

SHEET No. E1.03 OF 22 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-2019	2019	22	22

LAY-IN TYPE



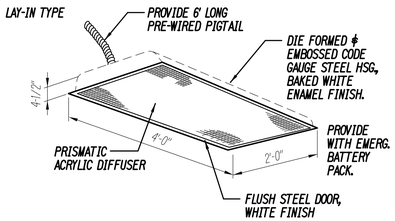
DRIVER:
120/277V, 0-10V ELECTRONIC DIMMING

LAMP:
45 WATT, LED, 5526 LUMEN 4000K COLOR TEMP.

MANUFACTURER:
COLUMBIA
* LJT24-40HLG-FSA12-ED-U
LIGHTOLIER, METALUX, DAY-BRITE, LITHONIA OR APPROVED EQUAL.

FIXTURE TYPE "A"

LAY-IN TYPE



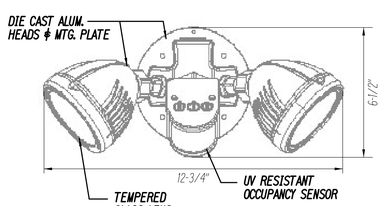
DRIVER:
120/277V, 0-10V ELECTRONIC DIMMING

LAMP:
45 WATT, LED, 5526 LUMEN 4000K COLOR TEMP.

MANUFACTURER:
COLUMBIA
* LJT24-40HLG-FSA12-ED-U-ELL14
LIGHTOLIER, METALUX, DAY-BRITE, LITHONIA OR APPROVED EQUAL.

FIXTURE TYPE "A1"

SURFACE MTD.



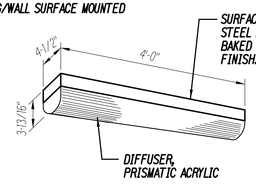
DRIVER:
120V, LED

LAMP:
26.6 WATT, LED, 2104 LUMEN 3000K COLOR TEMP.

MANUFACTURER:
HUBBELL
* WL-2LK-I-DB
SENSOR: * WS-DB
LIGHTOLIER, METALUX, LITHONIA EQUAL.

FIXTURE TYPE "B"

CEILING/WALL SURFACE MOUNTED



BALLAST:
120/277V, ELECTRONIC LED DRIVER

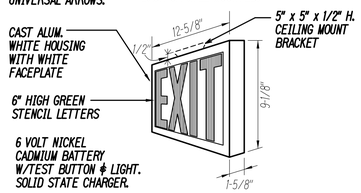
LAMP:
19 WATT, 2616 LUMENS, 4000K COLOR TEMP.

MANUFACTURER:
COLUMBIA
* LCL4-40LW-EUF-ELL14
LIGHTOLIER, METALUX, LITHONIA OR APPROVED EQUAL.

FIXTURE TYPE "C"

SINGLE FACE, UNIVERSAL ARROWS.

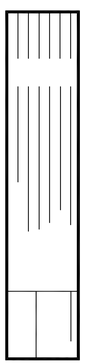
CEILING SURFACE, STEM, BACK OR WALL MOUNTED.

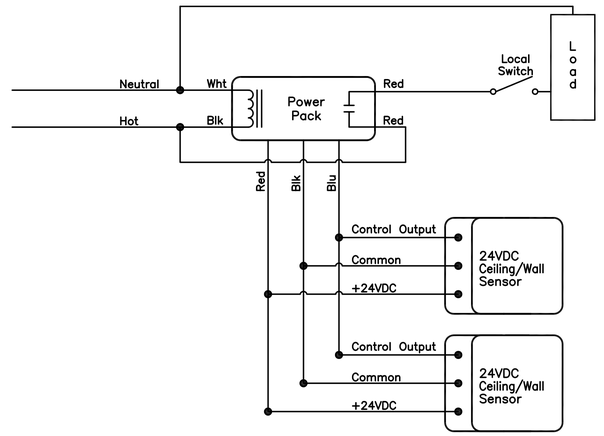


MANUFACTURER:
DUAL-LITE
* SE-S-G-W-E
EMERGI-LITE, SURE-LITE, LITHONIA EQUAL.

LAMP:
120/277V, LIGHT EMITTING DIODE

FIXTURE TYPE "D"





1 / E1.04 MULTI-OCCUPANCY SENSOR CONTROL DIAGRAM
NOT TO SCALE

NEW LOADCENTER SCHEDULE

208Y/120 VOLTS, 3 PHASE, 4WSN
BREAKER MIN. A.I.C. 10,000
FLUSH MTG. 100A MAIN BKR.

CKT. NO.	USE	CIRCUIT BREAKER POLES	CIRCUIT BREAKER AMPS	CONNECTED LOAD (KVA) A	B	C	WIRE SIZE
1	LIGHTING	1	20	0.9			12
2	RECEP. - COPIER	1	20	1.2			6
3	RECEP.	1	20		1.2		12
4	RECEP. - MICROWAVE	1	20		1.2		6
5	RECEP.	1	20			1.2	12
6	RECEP. - REFRIG.	1	20			1.2	12
7	RECEP.	1	20	1.2			12
8	RECEP. (NEAR A/C)	1	20	1.2			12
9	SPARE	1	20		---		---
10	SPARE	1	20		---		---
11	SPARE	1	20			---	---
12	SPARE	1	20			---	---
13	PFB	1	50	---			---
14	PFB	1	50	---			---
15	PFB	1	50		---		---
16	PFB	1	50		---		---
17	PFB	1	50			---	---
18	PFB	1	50			---	---
19	PFB	1	50	---			---
20	PFB	1	50	---			---
21	FCU	2	15		0.1		12
22	A/C	2	50		2.9		8
23	FCU	---	15			0.1	12
24	A/C	---	50			2.9	8
	TOTAL LOAD/ PHASE			4.5	5.4	5.4	
	TOTAL LOAD			15.3 KVA			
	DEMAND FACTOR			0.7			
	DEMAND LOAD			10.7 KVA			

PFB - PROVISION FOR FUTURE BREAKER

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MISCELLANEOUS ELECTRICAL DETAILS

WAIMALU FIELD OFFICE IMPROVEMENTS
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SHEET No. E1.04 OF 22 SHEETS

E1.04