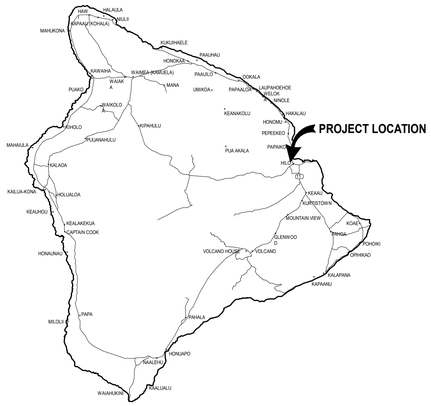


STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAI'I DISTRICT OFFICE
DHHL OFFICE IMPROVEMENTS
IFB-26-HHL-009

162 BAKER AVE, HILO, HI 96720

T.M.K.: (3) 2-1-023:157 & 158

APPROVAL			
REVIEWER NAME:		REVIEWER NAME:	
DATE:		DATE:	
☐	PLANNING	☐	PLUMBING
REVIEWER NAME:		REVIEWER NAME:	
DATE:		DATE:	
☐	ENGINEERING	☐	MECHANICAL
REVIEWER NAME:		REVIEWER NAME:	
DATE:		DATE:	
☐	DEM WASTEWATER	☐	FIRE
REVIEWER NAME:		REVIEWER NAME:	
DATE:		DATE:	
☐	DOH WASTEWATER	☐	STRUCTURAL
REVIEWER NAME:		REVIEWER NAME:	
DATE:		DATE:	
☐	DOH FOOD SAFETY	☐	BUILDING
REVIEWER NAME:			
DATE:			
☐	ELECTRICAL	☐	

ISLAND MAP

VICINITY MAP

GENERAL NOTES

1. THE INFORMATION CONTAINED HEREIN IS BASED UPON LIMITED FIELD INVESTIGATIONS AND AVAILABLE RECORD DRAWINGS.
2. DRAWINGS ARE INTENDED TO PROVIDE A GRAPHIC ILLUSTRATION OF DESIGN CONCEPT, ONLY, AND DEPICT THE GENERAL PLACEMENT OF CERTAIN COMPONENTS IN RELATION TO EACH OTHER.
3. FOR CLARITY, DETAIL DRAWINGS DO NOT SHOW ALL COMPONENTS OR ILLUSTRATE ALL FIELD CONDITIONS THAT MAY BE PRESENT.
4. CONTRACTOR SHALL TAKE MEASUREMENTS AND FIELD-VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
5. ALL CONSTRUCTION SHALL CONFORM TO THE FOLLOWING BUILDING CODES:

   2018 IBC
   2018 NFPA 1, UFC
   2018 UPC WITH STATE AMENDMENTS
   2015 IECC
   2020 NEC
   TITLE 11 CHAPTER 39

PREPARED FOR

DEPARTMENT OF HAWAIIAN HOME LANDS, STATE OF HAWAII

LAND DEVELOPMENT DIVISION
91-5420 KAPOLEI PARKWAY
KAPOLEI, HAWAII 96707

CONTACT:
KALI WATSON
CHAIRMAN, HAWAIIAN HOMES COMMISSION

PREPARED BY

ENGINEERS

HAWAII ENGINEERING GROUP, INC.
1088 BISHOP STREET, SUITE 2506
HONOLULU, HAWAII 96813

CONTACT:
CIVIL - GREGORY D. SANTORO, P.E.

STRUCTURAL - ATHER R. DAR, P.E.

ELECTRICAL - KENNETH R WELCH, P.E.

PROJECT DATA

COUNT	SHEET NO.	SHEET DESCRIPTION
1	T01	TITLE SHEET
2	G01	GENERAL NOTES, ABBREVIATIONS, & SYMBOLS
3	C01	CIVIL NOTES AND BMP DETAIL
4	C02	EROSION AND SEDIMENT CONTROL PLAN
5	C03	EXISTING SITE AND DEMO PLAN
6	C04	REVISED DRAINAGE PLAN
7	C05	CIVIL DETAILS
8	C06	CIVIL DETAILS
9	A01	SITE PLAN
10	A02	NEW FLOOR AND ROO PLAN
11	A03	DEMO PLAN
12	A04	CEILING AND LIFE SAFTEY PLAN
13	A05	EXTERIOR ELEVATIONS, SECTIONS, AND DOOR & WINDOW SCHEDULES
14	A06	INTERIOR ELEVATIONS AND MOUNTING HEIGHTS
15	A07	OHA BUILDING PLANS
16	A08	ROOM FINISH SHEDULE
17	S01	STRUCTRUAL NOTES
18.	S02	STRUCTURAL FLOOR PLANS
19	S03	STRUCTURAL DEMO FLOOR PLANS
20	S04	STRUCTURAL SECTIONS
21	S05	STRUCTURAL DETAILS
22	S06	STRUCTURAL DETAILS
23	P01	PLUMBING NOTES, SPEC AND LEGEND
24	P02	PLUMBING PLANS - OFFICE BLDG
25	P03	PLUMBING PLANS - OHA BLDG
26	P04	PLUMBING DETAIL AND ISO
27	M01	MECHANICAL NOTES, SPEC AND LEGEND
28	M02	MECHANICAL PLANS - OFFICE BLDG
29	M03	MECHANICAL PLANS - OHA BLDG
30	M04	MECHANICAL DIAGRAM AND DETAILS
31	E01	ELECTRICAL NOTES
32	E02	ELECTRICAL NOTES
33	E03	ELECTRICAL FLOOR PLAN
34	E04	ELECTRCIAL FLOOR PLAN - OHA BUILDING
35	E05	ELECTRICAL SCHEDULES

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH
DEPARTMENT OF PLANNING AND PERMITTING

DATE

INDEX TO DRAWINGS

OWNER:	DEPARTMENT OF HAWAIIAN HOME LANDS
TAX MAP KEY:	(3) 2-1-023:157 & 158 (?only?)
ZONING:	RS-10
STATE LAND USE:	URBAN
FLOOD ZONE:	X
SMA:	NOT IN SMA
LOT AREA:	?51,557 SQ. FT., (1.1836 ACRES)?
(E) OHA BUILDING:	960 SQ. FT.
(E) CLASSROOM C:	2,208 SQ. FT.
(E) CLASSROOM D:	960 SQ. FT.
(E) DHHL BUILDING:	4,896 SQ. FT.
(N) DHHL BLDG ADDITIONS:	**864 SQ. FT.**
TOTAL DHHL BLDG SQ. FT.:	5,760 SQ. FT.
OCCUPANCY GROUP:	(LESS THAN 300) B
CONSTRUCTION TYPE:	V-B
OCCUPANCY LOAD:	95, SEE SHEET A04
LOAD FACTORS:	400 NET, 15 NET
PLUMBING FIXTURES:	CONFERENCE ROOM = 88
MALE WC:	1 PER 125, 2 UNISEX WATER CLOSETS PROVIDED
FEMALE WC:	1 PER 65, 2 UNISEX WATER CLOSETS PROVIDED
LAVATORIES:	1 PER 200, 2 UNISEX LAVATORIES PROVIDED

REVISION NO.	DATE	REVISIONS	BY

ATHER R. DAR
Licensed
Professional
Engineer
7808-S
Hawaii, U.S.A.
Exp. Date: 4-30-28

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

DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAII HILO DISTRICT OFFICE
DHHL OFFICE IMPROVEMENTS
162 BAKER AVE, HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

TITLE SHEET

DESIGNED BY: KJ
DRAWN BY: KJ
CHECKED BY: AD
SUPV:
DATE: 05/08/26

HAWAII ENGINEERING GROUP, Inc.
Civil & Structural Engineers
1088 BISHOP STREET #2506
HONOLULU, HI 96813
Tel: 808-533-2092

JOB NO. 24-096

SHEET T01
1 OF 35 SHTS

FILE ________ DRAWE ________ FOLDER ________

GENERAL NOTES:

1. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, ETC. TO COMPLETE THE WORK INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN.

2. THE CONTRACTOR SHALL VERIFY NEW WORK REQUIREMENTS AT EXISTING CONDITION AND LOCATION.

3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES FOR CONSTRUCTION, INCLUDING, BUT NOT LIMITED TO SAFETY PRECAUTIONS. THE CONTRACTOR SHALL PROVIDE SAFE PASSAGEWAYS TO OCCUPIED SPACES AND ERECT SUCH BARRICADES AND COVERINGS FOR BUILDING OCCUPANTS, VISITORS AND WORK CREWS.

4. THE CONTRACT WORK ZONE PLAN DEFINES THE AREAS ACCESSIBLE, SHARED, RESTRICTED TO THE CONTRACTOR USE. THE CONTRACTOR IS STILL RESPONSIBLE FOR THE DEMOLITION, REPAIR AND REFINISH OF THOSE AREAS SHOWN AND SPECIFIED AS SUCH IN THESE SET OF DOCUMENTS.

5. CONTRACTOR SHALL NOT SHUTDOWN ANY UTILITY SYSTEM OF THE BUILDING WITHOUT PRIOR WRITTEN APPROVAL FROM THE CONTRACTING OFFICER AND SHALL PROVIDE 72 HOURS ADVANCE NOTICE OF ANY SHUTDOWN. HOURS AND THE TIME OF THE DAY FOR ANY PROPOSED SHUTDOWN SHALL BE THE SOLE DISCRETION OF THE CONTRACTING OFFICER.

6. THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING CONDITIONS, LANDSCAPE, WALKWAY, SURFACES AND AREAS WHICH ABUT THE PROPOSED WORK. RESTORE DAMAGED AREAS, SURFACES OR CONDITIONS TO ORIGINAL OR BETTER CONDITION AT NO COST.

7. PROVIDE SECURITY AND FACILITIES TO PROTECT WORK AND EXISTING FACILITIES FROM UNAUTHORIZED ENTRY, VANDALISM, AND THEFT.

8. PROTECT EXISTING FINISHED SURFACES FROM TRAFFIC, DIRT, WEAR, DAMAGE, OR MOVEMENT OF HEAVY OBJECTS, BY PROTECTING WITH DURABLE SHEET MATERIALS.

9. COORDINATE ACTIVITIES OF HEAVY NOISE AND VIBRATION WITH THE CONTRACTING OFFICER REPRESENTATIVE.

10. (E) INDICATES EXISTING DIMENSION. CONTRACTOR TO VERIFY ALL EXISTING DIMENSIONS.

11. TEMPORARY PASSAGEWAYS, IF REQUIRED, SHALL BE ACCESSIBLE AND COMPLY WITH THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG).

EROSION AND TEMPORARY DUST CONTROL:

1. FOR DRAIN INLETS OUTSIDE OF THE ROADWAY, USE FILTER SOCKS FOR SEDIMENT PROTECTION. FOR DRAIN INLETS WITHIN THE ROADWAY, USE ULTRA DRAIN GUARD WITH OVERFLOW BYPASS OR EQUIVALENT.

2. DURING CONSTRUCTION, PREVENTATIVE MEASURES SHALL BE USED TO CONTROL FORESEEABLE DUST, EROSION OR SEDIMENTATION PROBLEMS WHICH MAY ARISE AS THE JOB PROGRESSES.

3. FUGITIVE DUST AND SOLID WASTE DISPOSAL DURING GRUBBING AND GRADING ACTIVITIES SHALL MEET REQUIREMENTS OF ADMINISTRATIVE RULES, TITLE II, CHAPTER 60, AIR POLLUTION CONTROL AND CHAPTER 58, SOLID WASTE MANAGEMENT CONTROL.

4. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH.

BEST MANAGEMENT PRACTICES (BMP) NOTES:

1. EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO START OF PROJECT AND BE MAINTAINED UNTIL COMPLETION OF PROJECT.

2. CONTRACTOR TO PERIODICALLY INSPECT SILT FENCE, STABILIZED CONSTRUCTION ENTRANCE, CATCH BASIN AND INLET FILTERS, ESPECIALLY DURING HEAVY RAINFALL. CONTRACTOR SHALL ALSO ENSURE DRAINAGE THROUGH FILTER MATERIAL IS MAINTAINED.

3. THE FINAL LIFT OF EACH DAY'S WORK SHALL BE COMPACTED TO PREVENT EROSION OF FILL MATERIAL.

4. GOOD HOUSEKEEPING SHALL BE UTILIZED TO ENSURE PROTECTION OF ROADWAYS FROM MUD, DIRT, AND DEBRIS.

5. THE CONTRACTOR SHALL ENSURE THAT ALL TIRES OF CONSTRUCTION VEHICLES ARE SUFFICIENTLY CLEANED OFF SO THAT DIRT OR DEBRIS IS NOT TRACKED OFF THE CONSTRUCTION SITE. WASHING OFF TIRES WITH WATER WILL NOT BE ACCEPTABLE UNLESS THE RUNOFF IS CONTAINED AND DOES NOT ENTER THE STORM DRAIN SYSTEM OR ONTO THE STATE'S ROW.

6. AT THE END OF GRADING OPERATIONS AND AT THE COMPLETION OF PROJECT, CONTRACTOR SHALL INSPECT ALL CATCH BASIN, DRAIN INLET AND DRAIN MANHOLES SURROUNDING THE PROJECT SITE. ANY ACCUMULATED SEDIMENT AND DEBRIS FOUND IN THE STORM DRAIN STRUCTURES SHALL BE REMOVED. PLEASE NOTE THAT FLUSHING INTO THE DRAIN STRUCTURES IS PROHIBITED.

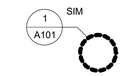
7. ANY DIRT OR GRASSED AREA DISTURBED SHALL BE RESTORED BY RE-GRASSING THE AREA OR BY SEEDED HYDROMULCH. THE GRASS SHALL BE FULLY ESTABLISHED AT COMPLETION OF PROJECT.

ABBREVIATIONS

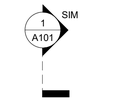
&	AND
∠	ANGLE
@	AT
℄	CENTERLINE
	CHANNEL
Ø	DIAMETER OR ROUND
%	PERCENT
	PERPENDICULAR
#	POUND OR NUMBER
℗	PROPERTY LINE
AB	ANCHOR BOLT
ABV	ABOVE
ACOUS	ACOUSTICAL
ACS	ACCESS CONTROL SYSTEM
ADA	AMERICANS WITH DISABILITIES ACT
ADDM	ADDENDUM
ADJ	ADJACENT, ADJUSTABLE
AFF	ABOVE FINISH FLOOR
ALUM	ALUMINUM
ALT	ALTERNATE
ANOD	ANODIZED
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
BOT	BOTTOM
CLG	CEILING
CLR	CLEAR(ANCE)
CMU	CONCRETE MASONRY UNIT(S)
COL	COLUMN
CONC	CONCRETE
COND	CONDITION
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
D	DEEP, DEPTH
DEMO	DEMOLISH
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DN	DOWN
DR	DOOR
DWG	DRAWING
DWR	DRAWER
EA	EACH
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EQ	EQUAL
EQUIP	EQUIPMENT
EXH	EXHAUST
EXP	EXPANSION
(E), EXIST	EXISTING
EXT	EXTERIOR
FD	FLOOR DRAIN
FFEL	FINISHED FLOOR ELEVATION
FIN	FINISH(ED)
FL	FLOOR
FOF	FACE OF FINISH
FR	FRAME
FT	FOOT, FEET
GA	GAUGE
GALV	GALVANIZED
GB	RAB BAR
GL	GLASS
GND	GROUND
HDW	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HT	HEIGHT
ID	INSIDE DIAMETER/ DIMENSION
IDS	INTRUSION DETECTION SYSTEM
INCL	INCLUD(ED), (ING), (SIVE)
INT	INTERIOR
KD	KNOCKED DOWN
KO	KNOCK-OUT
L	LENGTH, LONG
LBP	LEAD BASED PAINT
LT	LIGHT
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MOD	MODIFIED
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
MULL	MULLION
N	NORTH
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
NVR	NETWORK VIDEO RECORDER
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER/DIMENSION
OF/CI	OWNER FURNISHED-OWNER INSTALLED
OFF	OFFICE
OPNG	OPENING
OPP	OPPOSITE
PL	PROPERTY LINE
PNL	PANEL
PROP	PROPERTY
PT	POINT
PTN	PARTITION
R	RISER, RADIUS
REF	REFERENCE
REINF	REINFORCES, REINFORCING
REQD	REQUIRED
RM	ROOM
RO	ROUGH OPENING
SCHED	SCHEDULE
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SLDG	SLIDING
SPEC	SPECIFICATION
SQ	SQUARE
SST	STAINLESS STEEL
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPEND(ED)
SYMM	SYMMETRICAL
THK	THICK
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W	WEST, WIDE,WIDTH
W/	WITH
WDW	WINDOW
W/O	WITHOUT

SYMBOLS

WALL SECTION, ELEVATION, OR IMAGE

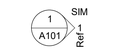


PLAN DETAIL REFERENCE



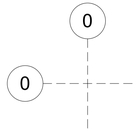
BUILDING SECTION

DETAIL SECTION



DETAIL REFERENCE DRAWING NUMBER

REVISION CLOUD AND NUMBER



COLUMN GRID LINE

DOOR TAG

WINDOW TAG

INTERIOR ELEVATION

NORTH ARROW

00 XX

KEY NOTE

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH
DEPARTMENT OF PLANNING AND PERMITTING

DATE

REVISION NO.	DATE	REVISIONS	BY

ATHER R. DAR
Licensed Professional Engineer
7808-S
Hawaii, U.S.A.
Exp. Date: 4-30-28

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

DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAII HILO DISTRICT OFFICE
DHHL OFFICE IMPROVEMENTS
162 BAKER AVE, HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

GENERAL NOTES, ABBREVIATIONS, & SYMBOLS

DESIGNED BY:	KJ
DRAWN BY:	KJ
CHECKED BY:	AD
SUPV.:	
DATE:	05/08/26

HAWAII ENGINEERING GROUP, Inc.
Civil & Structural Engineers
1088 BISHOP STREET #2506
HONOLULU, HI 96813
Tel: 808-533-2092

JOB NO. 24-096

SHEET G01
2 OF 35 SHTS

2020/CP-186

FILE _____ DRAWE _____ FOLDER _____

CONSTRUCTION NOTES:

1. ALL APPLICABLE CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1986 AND STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1984, AS AMENDED, OF THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTY OF HONOLULU AND THE COUNTIES OF KAUAI, MAUI, AND HAWAII.

2. THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM HIS SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.

3. NO CONTRACTOR SHALL PERFORM ANY CONSTRUCTION OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW INTO EXISTING CITY DRAINAGE SYSTEMS, OR ADJOINING PROPERTIES, STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATIONS OCCUR, THE CONTRACTOR MAY BE CITED AND THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS NECESSARY.

4. THE GENERAL CONTRACTOR/DEVELOPER/OWNER OF THE PROJECT SHALL BE RESPONSIBLE FOR CONFORMANCE WITH APPLICABLE PROVISIONS OF THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 54, "WATER QUALITY STANDARDS," AND TITLE 11, CHAPTER 55, "WATER POLLUTION CONTROL". BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED AT ALL TIMES DURING CONSTRUCTION.

   THE GENERAL CONTRACTOR/DEVELOPER/OWNER OF THE PROJECT SHALL OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE(S) FOR THE FOLLOWING:

   1) STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES THAT DISTURB ONE (1) ACRE OR MORE, AND
   2) DISCHARGES OF HYDROTESTING EFFLUENT, DEWATERING EFFLUENT, AND WELL DRILLING EFFLUENT TO STATE WATERS.

   IN ACCORDANCE WITH STATE LAW, ALL DISCHARGES RELATED TO PROJECT CONSTRUCTION OR OPERATIONS ARE REQUIRED TO COMPLY WITH STATE WATER QUALITY STANDARDS (HAWAII ADMINISTRATIVE RULES, CHAPTER 11-54). BEST MANAGEMENT PRACTICES SHALL BE USED TO MINIMIZE OR PREVENT THE DISCHARGE OF SEDIMENT, DEBRIS, AND OTHER POLLUTANTS TO STATE WATERS. PERMIT COVERAGE IS AVAILABLE FROM THE DEPARTMENT OF HEALTH, CLEAN WATER BRANCH AT HTTP://HEALTH.HAWAII.GOV/CWB. THE OWNER/DEVELOPER/CONTRACTOR IS RESPONSIBLE FOR OBTAINING OTHER FEDERAL, STATE, OR LOCAL AUTHORIZATIONS AS REQUIRED BY LAW.

PUBLIC HEALTH, SAFETY AND CONVENIENCE NOTES:

1. THE CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH, SAFETY AND ENVIRONMENTAL QUALITY.

2. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND ITS SURROUNDING AREAS FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH. THE CITY MAY REQUIRE SUPPLEMENTARY MEASURES AS NECESSARY.

3. NO CONTRACTOR SHALL PERFORM ANY CONSTRUCTION OPERATIONS SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW INTO EXISTING CITY DRAINAGE SYSTEMS, OR ADJOINING PROPERTIES, STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATION(S) OCCUR, THE CONTRACTOR MAY BE CITED AND THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS NECESSARY.

4. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, MARKERS, CONES, AND OTHER PROTECTIVE FACILITIES AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION, CONVENIENCE AND SAFETY OF THE PUBLIC. THE CONTRACTOR SHALL APPLY FOR A CONSTRUCTION PERMIT WITH A NOISE POLLUTION CONTROL PLAN.

5. THE CONTRACTOR ATTENTION IS DIRECTED TO TITLE II, ADMINISTRATIVE RULES, CHAPTER 46 PUBLIC HEALTH REGULATIONS DEPARTMENT OF HEALTH, STATE OF HAWAII "COMMUNITY NOISE CONTROL" IN WHICH MAXIMUM ALLOWABLE NOISE LEVELS HAVE BEEN SET. IF THE CONSTRUCTION ACTIVITIES FOR THIS PROJECT WILL EXCEED THE ALLOWABLE NOISE LEVELS, THE CONTRACTOR WILL BE REQUIRED TO OBTAIN A PERMIT FROM THE DIRECTOR OF THE DEPARTMENT OF PUBLIC HEALTH. THE CONTRACTOR SHALL OBTAIN A COPY OF CHAPTER 46Z E AND BECOME FAMILIAR WITH THE NOISE LEVEL RESTRICTIONS AND THE PROCEDURES FOR OBTAINING A PERMIT FOR CONSTRUCTION ACTIVITIES.

BEST MANAGEMENT PRACTICES (BMP):

1. AREA OF EXPOSED GROUND SHALL BE STRICTLY LIMITED.

2. INSTALL FILTER SOCKS.

3. DUST CONTROL SHALL BE DONE BY WATERING WITH TRUCKS OR A TEMPORARY SPRINKLER SYSTEM.

4. ALL EROSION CONTROL MEASURES SHALL BE CHECKED AND REPAIRED AS NECESSARY.

5. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED BY THE CONTRACTOR AFTER COMPLETION OF THE PROJECT TO FINAL ACCEPTANCE OR AS DIRECTED BY THE ENGINEER IN THE FIELD.

6. THE EROSION CONTROL (EC) AND BMP MEASURES (SHOWN ON C002) MUST BE IN PLACE PRIOR TO THE START OF GRADING WORK.

7. ALL EC AND BMP MEASURES (SHOWN ON C002) SHALL BE MAINTAINED DURING CONSTRUCTION AND UNTIL PERMANENT STABILIZATION OF THE SITE.

EROSION AND TEMPORARY DUST CONTROL NOTES:

1. DURING CONSTRUCTION, PREVENTATIVE MEASURES SHALL BE USED TO CONTROL FORESEEABLE DUST, EROSION OR SEDIMENTATION PROBLEMS WHICH MAY ARISE AS THE JOB PROGRESSES.

2. FUGITIVE DUST AND SOLID WASTE DISPOSAL DURING GRUBBING AND GRADING ACTIVITIES SHALL MEET REQUIREMENTS OF ADMINISTRATIVE RULES, TITLE II, CHAPTER 60, AIR POLLUTION CONTROL AND CHAPTER 58, SOLID WASTE MANAGEMENT CONTROL.

3. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARD AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH, THE CITY MAY REQUIRE SUPPLEMENTARY MEASURES AS NECESSARY.

APPROVED :

CHIEF, CIVIL ENGINEERING BRANCH — DATE
DEPARTMENT OF PLANNING AND PERMITTING

REVISION NO.	DATE	REVISIONS	BY

LICENSED PROFESSIONAL ENGINEER
GREGORY D. SANTORO
14472-C
HAWAII, U.S.A.
Exp. Date: 4-30-28

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

DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAI'I DISTRICT OFFICE DRAINAGE IMPROVEMENTS
162 BAKER AVE., HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

CIVIL NOTES AND DETAILS

DESIGNED BY:	GS
DRAWN BY:	DL
CHECKED BY:	GS
SUPV:	
DATE:	05/08/26

HAWAII ENGINEERING GROUP, Inc.
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1088 BISHOP STREET #2506
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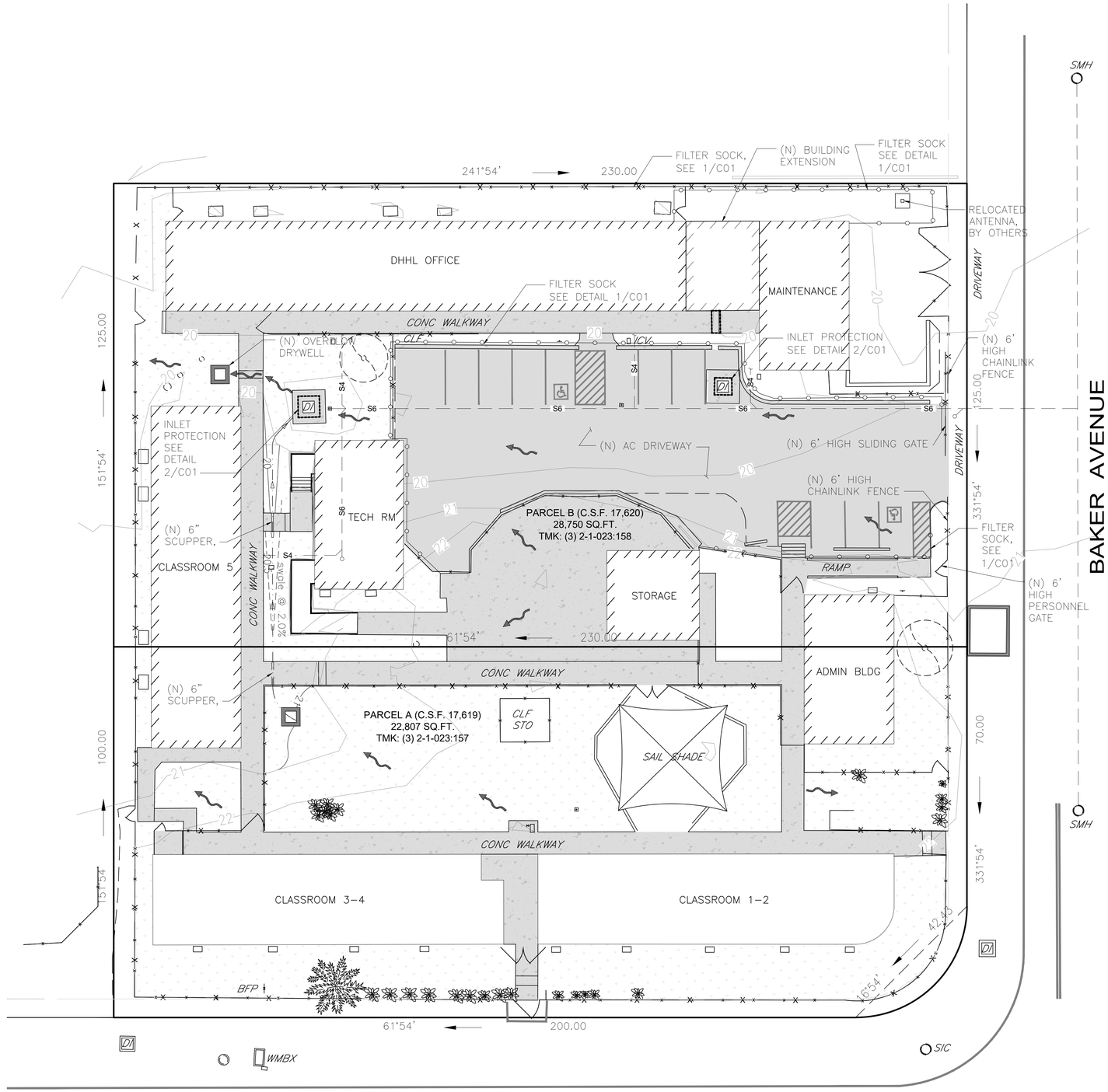
JOB NO. 24-096

SHEET C01
3 OF 35 SHTS

FILE _____ DRAWER _____ FOLDER _____



NOTES:

SEE BMP NOTES AND DETAILS ON SHEET C01.

ABBREVIATIONS:

AC	ASPHALT CONCRETE PAVEMENT
BFP	BACKFLOW PREVENTER
CONC	CONCRETE
DI	DRAIN INLET
(E) OR EXIST	EXISTING
ICV	IRRIGATION CONTROL VALVE
(N)	NEW
SMH	SEWER MANHOLE
WMBX	WATER METER BOX

LEGEND:

- PROPERTY LINE/ROW
- EXISTING CHAINLINK FENCE
- EXISTING 1-FT CONTOURS
- PROPOSED 1-FT CONTOURS
- PROPOSED .5-FT CONTOURS
- PROPOSED DIRT SWALE
- EXISTING BUILDING WALL
- PROPOSED A.C. PAVEMENT
- EXISTING CONCRETE
- GRASS
- DRAINAGE FLOW
- SPOT ELEVATION
- FILTER SOCK

1 / C02 EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1" = 15'

NORTH

GRAPHIC SCALE:

0 15' 30' 45'

SCALE: 1"=15'

APPROVED :

CHIEF, CIVIL ENGINEERING BRANCH DEPARTMENT OF PLANNING AND PERMITTING — DATE

REVISION NO.	DATE	REVISIONS	BY

LICENSED PROFESSIONAL ENGINEER 14472-C HAWAII, U.S.A. GREGORY D. SANTIAGO

Exp. Date: 4-30-28

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

DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAI'I DISTRICT OFFICE DRAINAGE IMPROVEMENTS

162 BAKER AVE., HILO, HI 96720

T.M.K.: (3) 2-1-023:157 & 158

EXISTING SITE AND DEMOLITION PLAN

DESIGNED BY:	GS
DRAWN BY:	DL
CHECKED BY:	GS
SUPV:	
DATE:	05/08/26

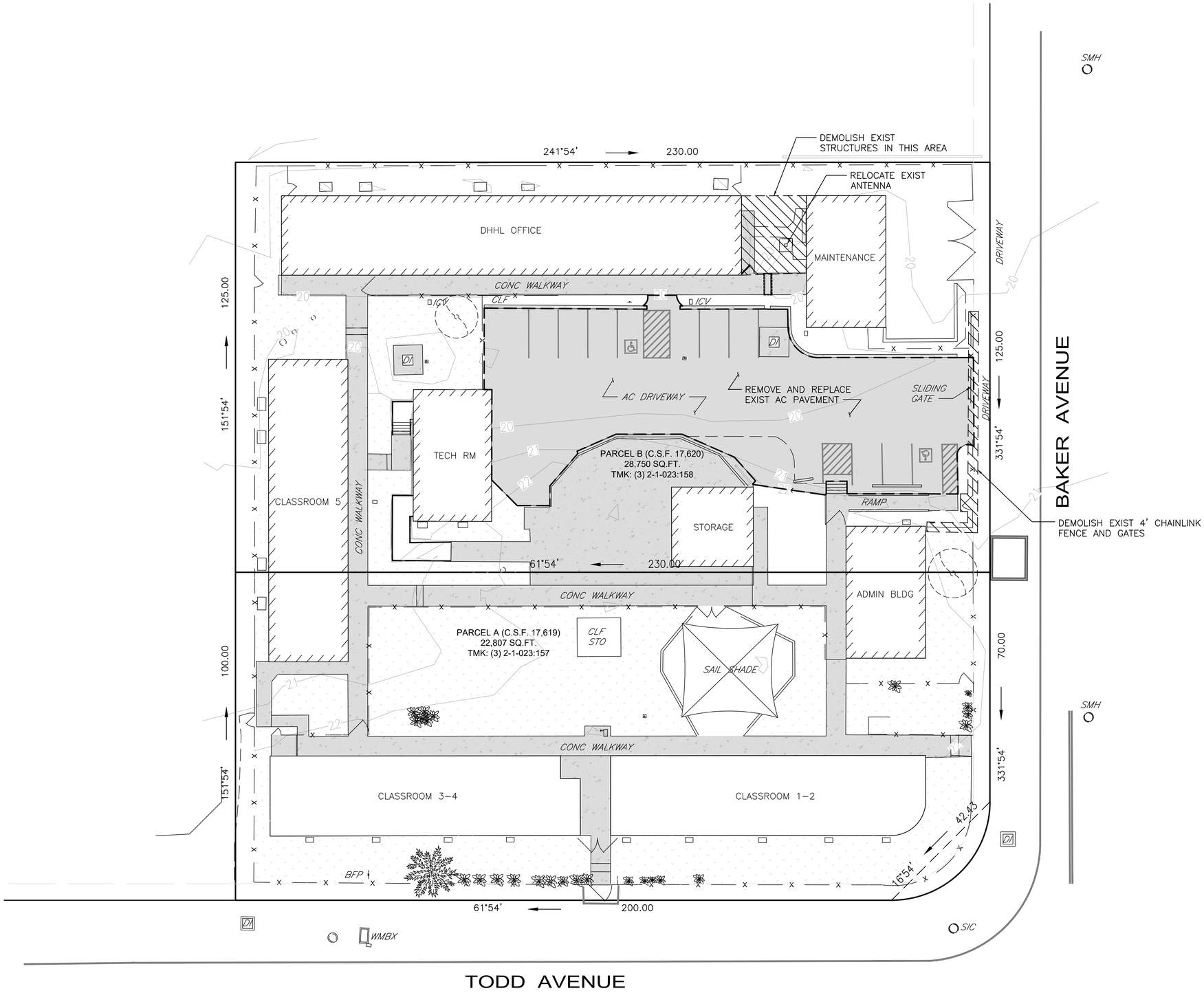
HAWAII ENGINEERING GROUP, Inc.
Civil & Structural Engineers
1088 BISHOP STREET #2506
HONOLULU, HI 96813
Tel: 808-533-2092

JOB NO. 24-096

SHEET C02

4 OF 35 SHTS

FILE _____ DRAWER _____ FOLDER _____



ABBREVIATIONS:

AC	ASPHALT CONCRETE PAVEMENT
BFP	BACKFLOW PREVENTER
CONC	CONCRETE
DI	DRAIN INLET
(E) OR EXIST	EXISTING
ICV	IRRIGATION CONTROL VALVE
(N)	NEW
SMH	SEWER MANHOLE
WMBX	WATER METER BOX

LEGEND:

- PROPERTY LINE/ROW
- EXISTING CHAINLINK FENCE
- EXISTING 1–FT CONTOURS
- EXISTING BUILDING WALL
- EXISTING A.C. PAVEMENT
- EXISTING CONCRETE
- GRASS
- DEMOLITION AREA
- LIMITS OF AC REPAVING

(E) PARKING STALLS:
STANDARD STALLS – 11
ADA STALLS – 2

1 / C03 EXISTING SITE AND DEMOLITION PLAN
SCALE: 1" = 15'

NORTH

GRAPHIC SCALE:
0 15' 30' 45'
SCALE: 1"=15'

APPROVED :

CHIEF, CIVIL ENGINEERING BRANCH DATE
DEPARTMENT OF PLANNING AND PERMITTING

REVISION NO.	DATE	REVISIONS	BY

LICENSED PROFESSIONAL ENGINEER 14472-C HAWAII, U.S.A.
Exp. Date: 4-30-28

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DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAI'I DISTRICT OFFICE DRAINAGE IMPROVEMENTS
162 BAKER AVE., HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

SITE LAYOUT AND UTILITY PLAN

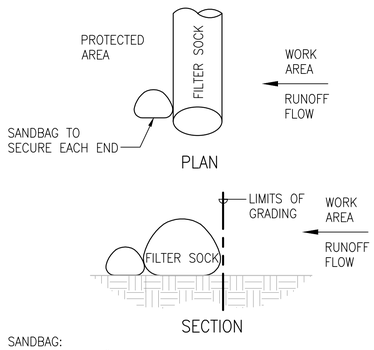
DESIGNED BY:	GS
DRAWN BY:	DL
CHECKED BY:	GS
SUPV:	
DATE:	05/08/26

HAWAII ENGINEERING GROUP, Inc.
Civil & Structural Engineers
1088 BISHOP STREET #2506
HONOLULU, HI 96813
Tel: 808-533-2092

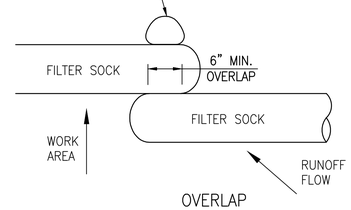
JOB NO. 24–096

SHEET C03
5 OF 35 SHTS

FILE ____ DRAWER ____ FOLDER ____

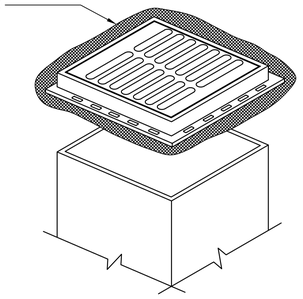


SANDBAG:
MIN. LENGTH=18"
MIN. WIDTH=12"
MIN. THICKNESS=3"
PLACE EVERY 6' TYP.

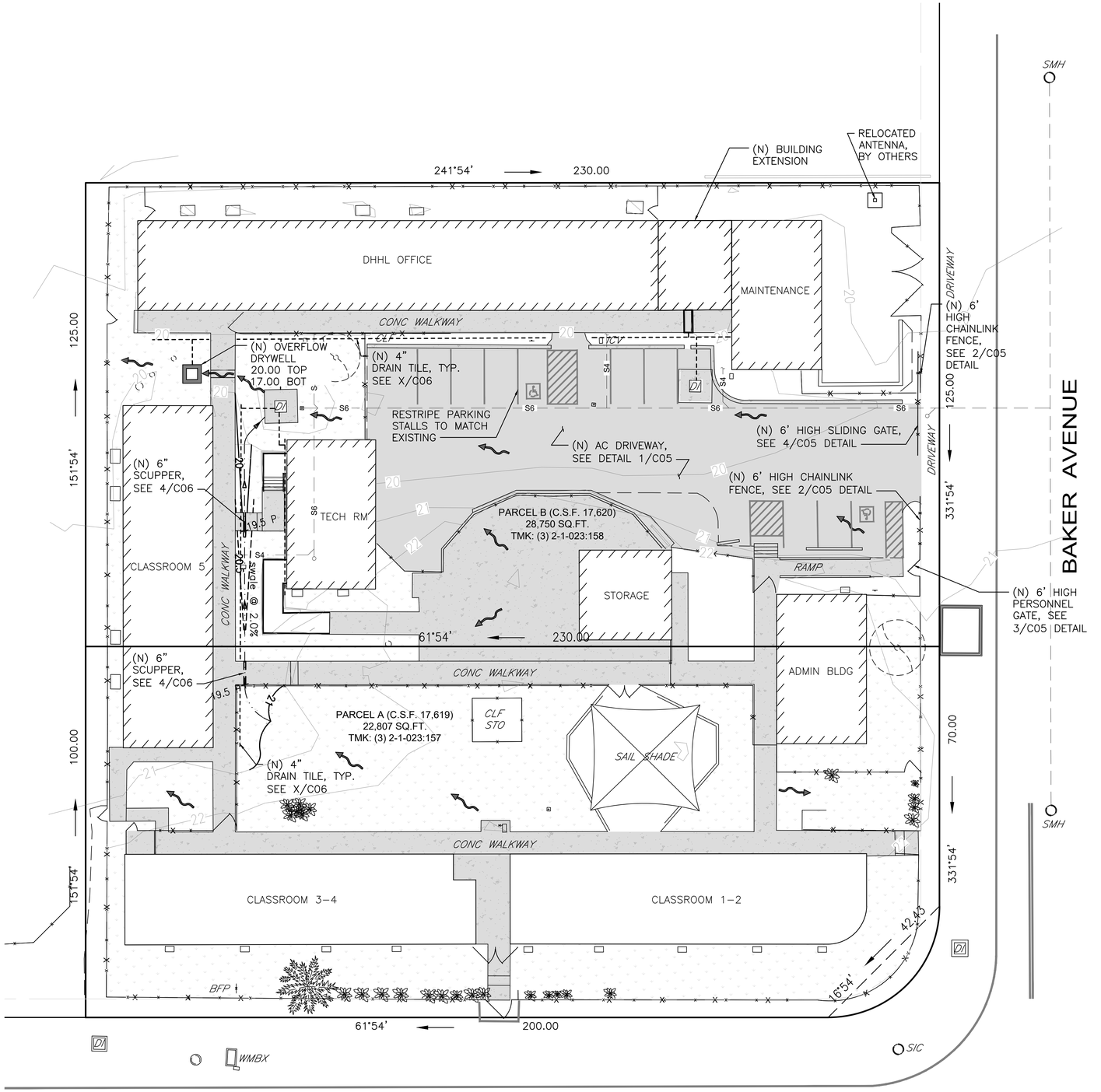


1 / C01 FILTER SOCK DETAIL
NOT TO SCALE

STORM DRAIN INLET PROTECTION (WRAP INLET GRATE IN GEOTEXTILE FABRIC)



2 / C01 INLET PROTECTION DETAIL
NOT TO SCALE



3 / C04 PROPOSED SITE, GRADING AND DRAINAGE PLAN
SCALE: 1" = 15'

GRAPHIC SCALE:
0 15' 30' 45'
SCALE: 1"=15'

NOTES:

ALL EXISTING SEWER LINES SHALL BE INSPECTED BY CLOSED CIRCUIT TELEVISION (CCTV) IN STRICT ACCORDANCE WITH THE DEPARTMENT OF WATER SUPPLY (DWS) CCTV POLICY. ALL SEWER CLEANOUT COVERS/CAPS TO BE REPLACED.

THE SEWER LINE CONDITION REPORT SHALL INCLUDE (STATION) LOCATIONS, PIPE SIZES, AND CONDITION OF THE PIPE FOR ALL EXISTING SEWER LINES. THE REPORT SHALL ALSO INCLUDE A MAP SHOWING AREAS OF CONCERN ALONG WITH THE PROPOSED SOLUTIONS AND COST ESTIMATES FOR EACH AREA OF CONCERN.

ABBREVIATIONS:

AC	ASPHALT CONCRETE PAVEMENT
BFP	BACKFLOW PREVENTER
CONC	CONCRETE
DI	DRAIN INLET
(E) OR EXIST	EXISTING
ICV	IRRIGATION CONTROL VALVE
(N)	NEW
SMH	SEWER MANHOLE
WMBX	WATER METER BOX

LEGEND:

- PROPERTY LINE/ROW
- x EXISTING CHAINLINK FENCE
- 20 EXISTING 1-FT CONTOURS
- 20 PROPOSED 1-FT CONTOURS
- 20.5 PROPOSED .5-FT CONTOURS
- PROPOSED DIRT SWALE
- EXISTING BUILDING WALL
- PROPOSED A.C. PAVEMENT
- EXISTING CONCRETE
- GRASS
- DRAINAGE FLOW
- 19.5 P SPOT ELEVATION

(N) PARKING STALLS:
STANDARD STALLS – 11
ADA STALLS – 2

APPROVED :

CHIEF, CIVIL ENGINEERING BRANCH DATE
DEPARTMENT OF PLANNING AND PERMITTING

REVISION NO.	DATE	REVISIONS	BY

LICENSED PROFESSIONAL ENGINEER 14472-C HAWAII, U.S.A.
Exp. Date: 4-30-28

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

DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAI'I DISTRICT OFFICE DRAINAGE IMPROVEMENTS
162 BAKER AVE., HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

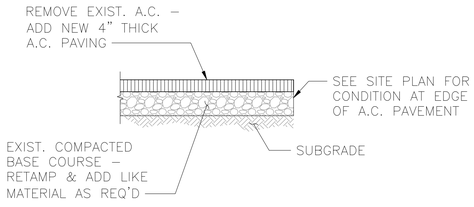
SITE GRADING, UTILITY PLAN AND DRAINAGE PLAN

DESIGNED BY:	GS
DRAWN BY:	DL
CHECKED BY:	GS
SUPV:	
DATE:	05/08/26

HAWAII ENGINEERING GROUP, Inc.
Civil & Structural Engineers
1088 BISHOP STREET #2506
HONOLULU, HI 96813
Tel: 808-533-2092

JOB NO. 24-096
SHEET C04
6 OF 35 SHTS

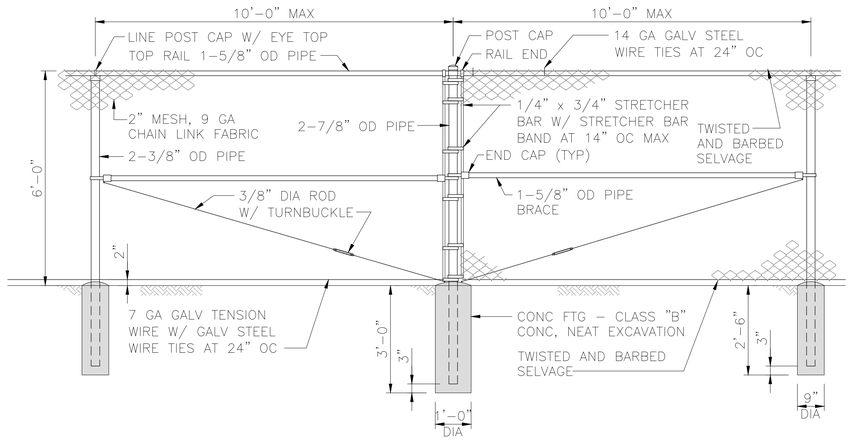
FILE ____ DRAWER ____ FOLDER ____



NOTES:

1. THE BASE COURSE GRAVEL SHALL BE COMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY (ASTM D1557).
2. ALL MATERIAL FOR THE PAVEMENT SECTION SHALL BE IN ACCORDANCE WITH SECTIONS 29-32 (SUBBASES AND BASES) AND SECTIONS 33-38 (SURFACINGS AND PAVEMENTS) FROM THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1986, CITY AND COUNTY OF HONOLULU.

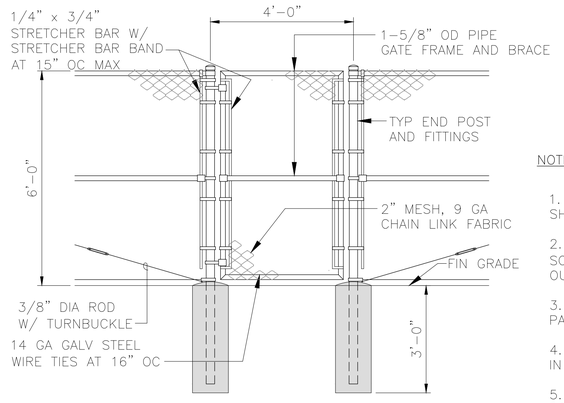
1 C05 A.C. PAVEMENT DETAIL
NOT TO SCALE



NOTES:

1. POSTS AND BRACES SHALL BE SCHEDULE 40 (STANDARD WEIGHT) PIPE. SIZES SPECIFIED ARE OUTSIDE DIAMETER.
2. ALL FENCING MATERIAL SHALL BE GALVANIZED STEEL.
3. TOP RAIL COUPLINGS SHALL BE LOCATED WITHIN 6" OF LINE POSTS.
4. TOP OF CONCRETE FOOTING SHALL BE CROWNED TO SHED WATER.

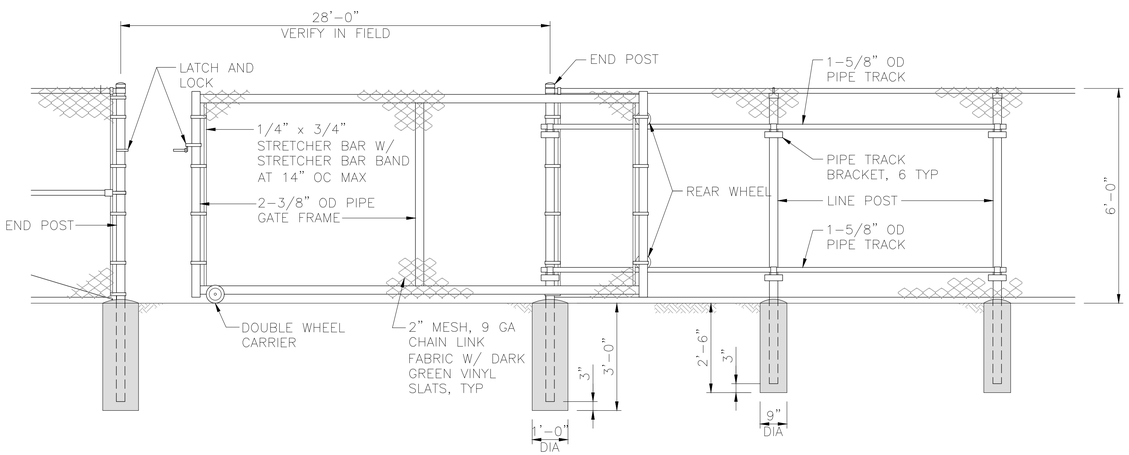
2 C05 6' HIGH CHAIN LINK FENCE DETAIL
NOT TO SCALE



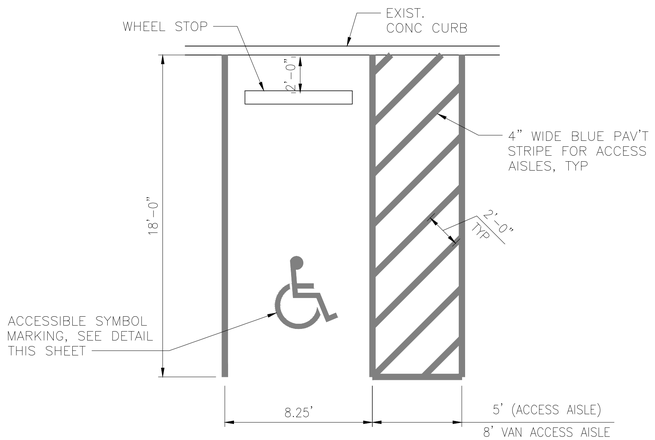
NOTES:

1. ALL FENCING MATERIAL INCLUDING GATE HARDWARE SHALL BE GALVANIZED STEEL.
2. POSTS, BRACES AND GATE FRAMES SHALL BE SCHEDULE 40 (STD WT) PIPE. SIZES SPECIFIED ARE OUTSIDE DIAMETER.
3. GATE SHALL BE PROVIDED WITH PROVISIONS FOR PADLOCKING.
4. CORNER FITTINGS FOR GATE FRAMES MAY BE USED IN LIEU OF WELDING.
5. GATE SHALL HAVE KNUCKLED SELVAGE TOP AND BOTTOM.
6. TOP OF CONCRETE FOOTING SHALL BE CROWNED TO SHED WATER.

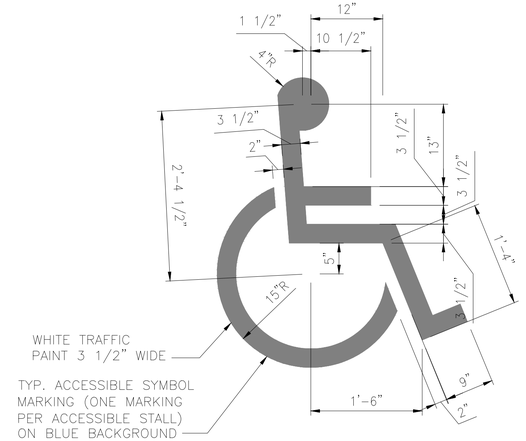
3 C05 TYPICAL PERSONNEL GATE DETAIL
NOT TO SCALE



4 C05 6' HIGH SLIDING GATE DETAIL
NOT TO SCALE



5 C05 TYPICAL ADA PARKING STRIPING DETAIL
NOT TO SCALE



6 C05 ACCESSIBLE SYMBOL MARKING DETAIL
NOT TO SCALE

APPROVED :

CHIEF, CIVIL ENGINEERING BRANCH DEPARTMENT OF PLANNING AND PERMITTING — DATE

REVISION NO.	DATE	REVISIONS	BY

GREGORY D. SANTOS LICENSED PROFESSIONAL ENGINEER 14472-C HAWAII, U.S.A.
Exp. Date: 4-30-28

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DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAI'I DISTRICT OFFICE DRAINAGE IMPROVEMENTS
162 BAKER AVE., HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

CIVIL DETAILS

DESIGNED BY:	GS
DRAWN BY:	DL
CHECKED BY:	GS
SUPV:	
DATE:	05/08/26

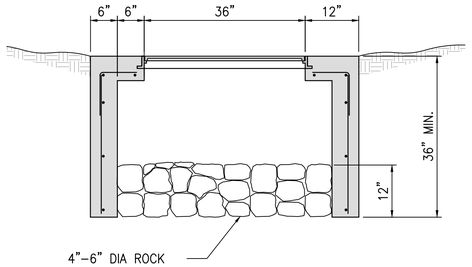
HAWAII ENGINEERING GROUP, Inc. Civil & Structural Engineers
1088 BISHOP STREET #2506 HONOLULU, HI 96813 Tel: 808-533-2092

JOB NO. 24-096
SHEET C05
7 OF 35 SHTS

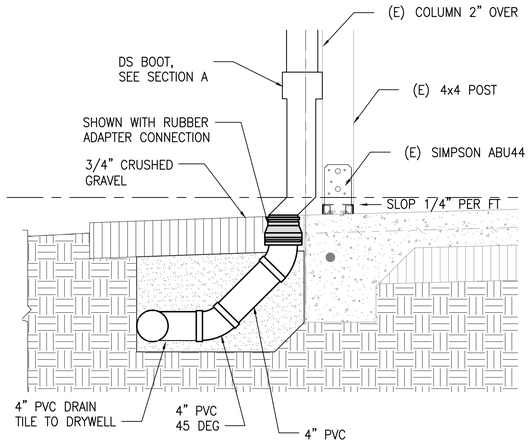
FILE ____ DRAWER ____ FOLDER ____

NOTES:

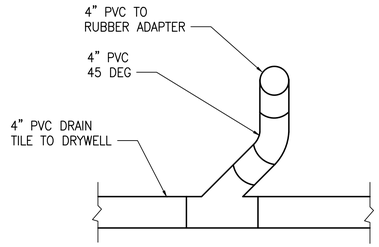
1. CONCRETE 3,000 CLASS "A" AT 28 DAYS MINIMUM.
2. CAST IRON FRAMES, COVERS, AND MANHOLE RUNGS SHALL CONFORM TO ASTM A48, CLASS 30.
3. CONFORMS TO THE COUNTY OF HAWAII STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.



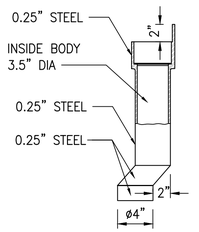
3 / C06 OVERFLOW DRYWELL DETAIL
NOT TO SCALE



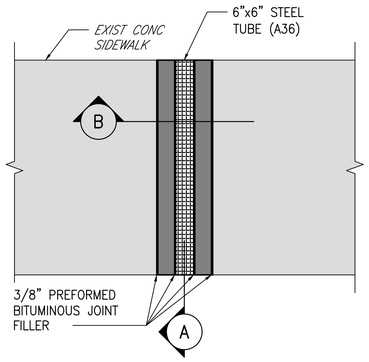
4 / C06 DRAIN TILE DETAIL
NOT TO SCALE

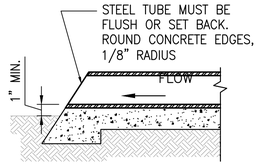


PLAN (DRAIN TILE)



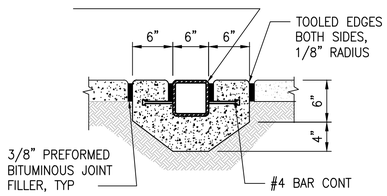
SECTION A (DS BOOT)





SECTION A

6"x6"x3/8" STEEL TUBE (A36) W/ 1/2" DIA STUDS @ 24" OC SET W/ 2% MIN. SLOPE. STEEL TUBE SHALL BE GIVEN ONE SHOP COAT PAINT NO. 1 PER STD. SPEC. 1002. PAINT EXPOSED METAL W/ TWO COATS OF SSPC PAINT NO. 5 PET STD. SPEC. SECTION 1002. TOP OF STEEL TUBE TO BE FUSH W/ ADJACENT SIDEWALK

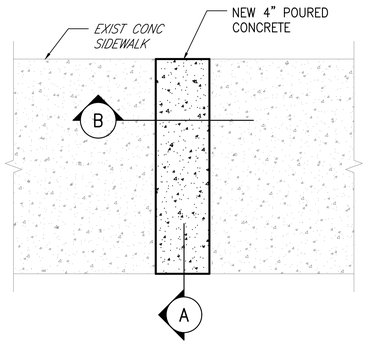


SECTION B

NOTES:

EXISTING SIDEWALK SHALL BE SAW CUT TO ITS FULL DEPTH. REMOVED AND DISPOSED OF AS PART OF SIDEWALK SCUPPER INSTALLATION.

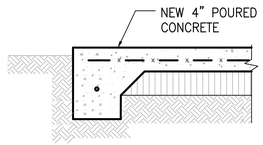
1 / C06 SIDEWALK SCUPPER DETAIL
NOT TO SCALE



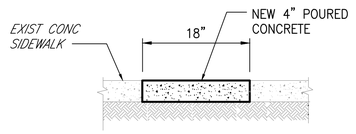
NOTES:

EXISTING SIDEWALK SHALL BE SAW CUT TO ITS FULL DEPTH. REMOVED AND DISPOSED OF AS PART OF NEW CONCRETE SIDEWALK INSTALLATION.

2 / C06 CONCRETE SIDEWALK REPAIR DETAIL
NOT TO SCALE



SECTION A



SECTION B

APPROVED :

CHIEF, CIVIL ENGINEERING BRANCH DATE
DEPARTMENT OF PLANNING AND PERMITTING

REVISION NO.	DATE	REVISIONS	BY

LICENSED PROFESSIONAL ENGINEER 14472-C HAWAII, U.S.A.
Exp. Date: 4-30-28

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

DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAI'I DISTRICT OFFICE DRAINAGE IMPROVEMENTS
162 BAKER AVE., HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

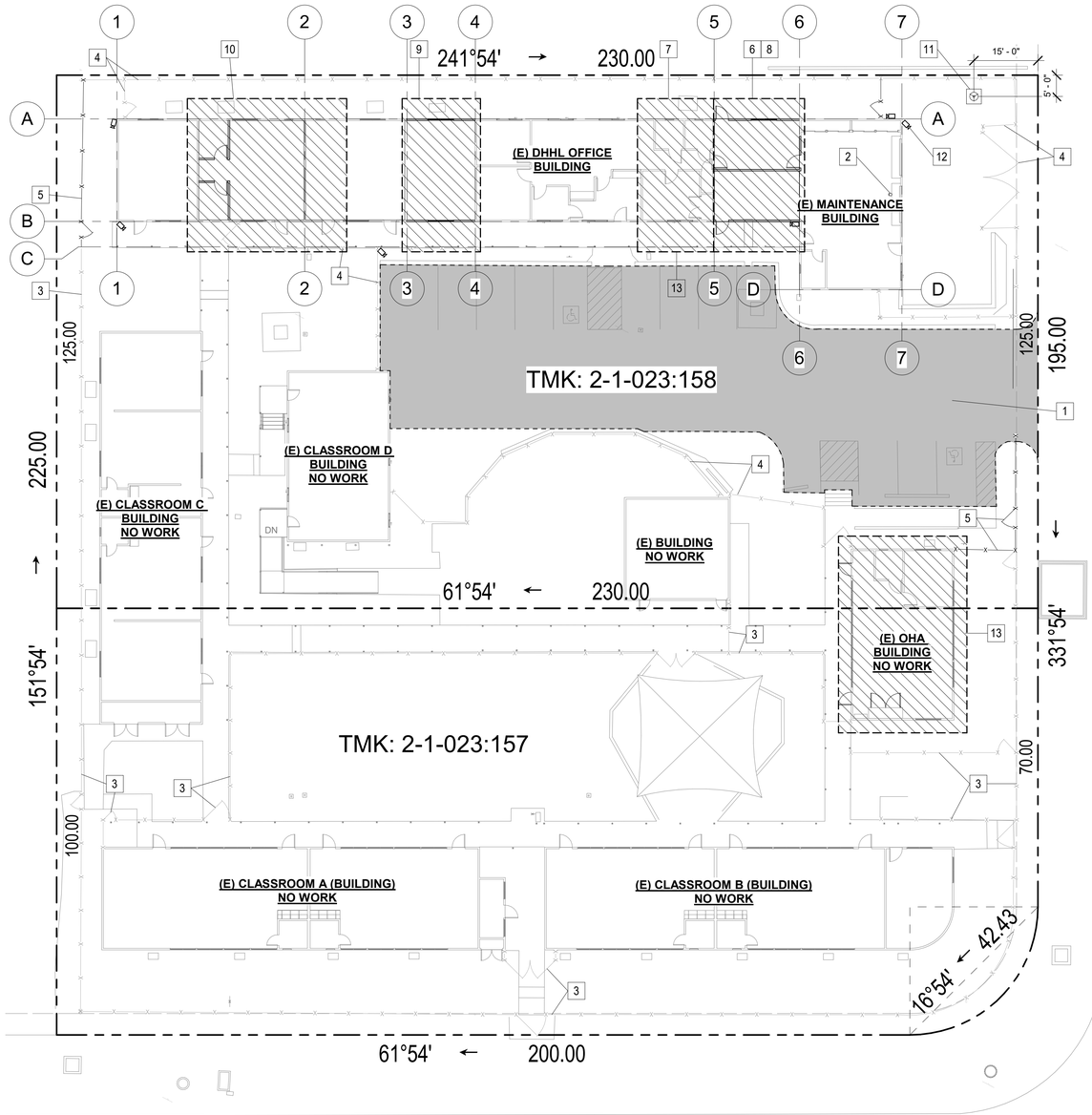
CIVIL DETAILS

DESIGNED BY:	GS
DRAWN BY:	DL
CHECKED BY:	GS
SUPV:	
DATE:	05/08/26

HAWAII ENGINEERING GROUP, Inc.
Civil & Structural Engineers
1088 BISHOP STREET #2506
HONOLULU, HI 96813
Tel: 808-533-2092

JOB NO. 24-096
SHEET C06
8 OF 35 SHTS

FILE ____ DRAWER ____ FOLDER ____



BAKER AVE

TODD AVE

KEYNOTES

1. AREA OF WORK RESURFACE PARKING LOT SEE CIVIL DRAWINGS FOR DETAILS
2. SECURITY CAMERA IN GARAGE AREA SEE ELECTRICAL DRAWINGS
3. (E) 4'H FENCE & GATES
4. (E) 6'H FENCE & GATES
5. 6'H FENCE & GATES, REMOVE (E) 4'H FENCE WHERE OCCURS
6. AREA OF WORK NEW ROOM ENCLOSE FOR OFFICES
7. AREA OF WORK RENOVATE EXISTING KITCHEN AND RESTROOMS SEE A100
8. AREA OF WORK FOR DHHL BUIDLING: NEW RAIN GUTTER SPOUT INTO DRY WELLS SEE CIVIL DWGS FOR DETAILS
9. AREA OF WORK ENCLOSE EXISTING SPACE FOR NEW CONFENENCE ROOM SEE A100 - UNPERMITTED BUILT SPACE
10. AREA OF WORK RELOCATE EXISTING CHAPTER SCHOOL ADMIN OFFICE TO OHA BUILDING SEE A100
11. RELOCATE (E) FAA ANTENNA - BY HDOT, DHHL TO COORDINATE
12. CCTV, SEE ELECTRICAL
13. AREA OF WORK FOR OHA BUILDING: CARPET w/VCT, REPLACE BROKEN SPLIT AC, REPLACE BATHROOM FIXTURES, AND FIX TELECOM CABINET DOORS

1/A01 **OVERALL SITE PLAN**
SCALE: 1/16" = 1'-0"

16' 12' 8' 4' 0 16' 32'
1/16" = 1'-0"

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH
DEPARTMENT OF PLANNING AND PERMITTING

DATE

REVISION NO.	DATE	REVISIONS	BY

Licensed Professional Engineer 7808-S
ATHER R. DAR
Hawaii, U.S.A.
Exp. Date: 4-30-28

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

DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAII HILO DISTRICT OFFICE
DHHL OFFICE IMPROVEMENTS
162 BAKER AVE, HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

SITE PLAN

DESIGNED BY:	KJ
DRAWN BY:	KJ
CHECKED BY:	AD
SUPV:	
DATE:	05/08/26

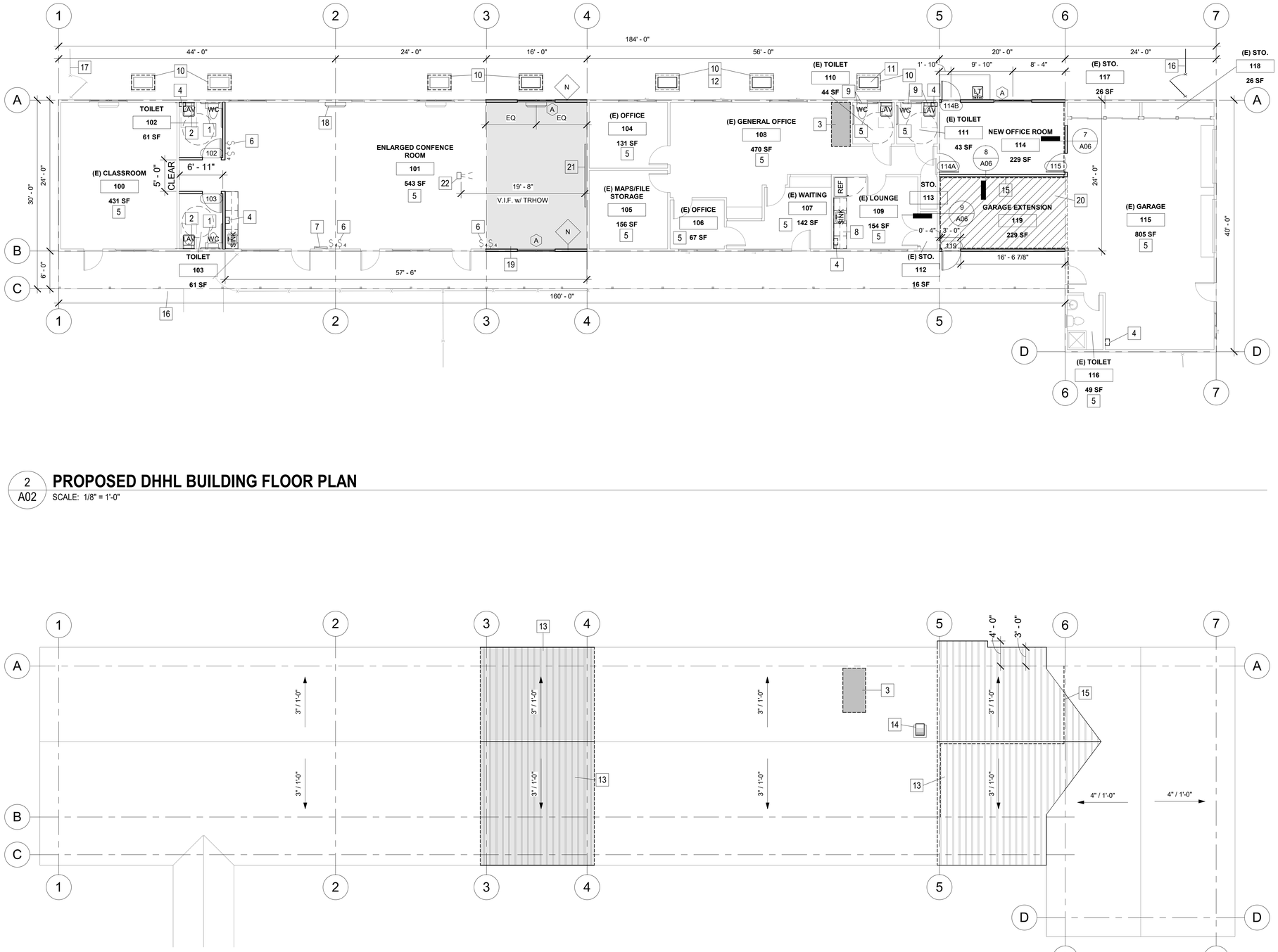
HAWAII ENGINEERING GROUP, Inc.
Civil & Structural Engineers
1088 BISHOP STREET #2506
HONOLULU, HI 96813
Tel: 808-533-2092

JOB NO. 24-096

SHEET A01
9 OF 35 SHTS

2020/CP-186

FILE _____ DRAWE _____ FOLDER _____



2 / A02 PROPOSED DHHL BUILDING FLOOR PLAN

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

3 / A02 PROPOSED DHHL BUILDING ROOF PLAN

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

NORTH

A
D ROOM INTERIOR ELEV B
C

8' 6' 4' 2' 0 8' 16'

1/8" = 1'-0"

KEYNOTES - NEW

1. TOILETRY CABINETS
2. MIRROR OVER THE SINK
3. PATCH ROOF LEAK AND CEILING
4. INSTANT WATER HEATER
5. CLEAN AND PAINT INTERIOR WALLS
6. LIGHT SWITCHES SEE ELEC DWGS FOR DETAILS
7. (E) ELEC. PANEL
8. CABINETS, FIXTURES, AND APPLIANCES
9. FIXTURES AND GRAB BARS
10. HVAC COVERS, SEE STRUCTURAL
11. REPLACE CONDENSER, SEE MECHANICAL
12. SPLIT A/C, SEE MECHANICAL
13. ROOF TO MATCH (E) ROOF
14. GOOSENECK VENT FOR (E) AHU
15. 1HR FIRE SEPERATION, (2) LAYERS 5/8" TYPE "X" GYB. BD. FROM SLAB TO ROOF SHEATHING
16. 6'-0" HIGH FENCE AND GATE
17. (E) 6'-0" HIGH FENCE AND GATE
18. RELOCATE AC, SEE MECHANICAL
19. UNPERMITTED BUILT SPACE
20. 1 HR CEILING
21. PROJECTOR SCREEN (PS)
22. CEILING MOUNTED PROJECTOR

LEGEND

- SPILT AC SEE MENCHANICAL DRAWINSG
- NEW WINDOW TAG
- NEW DOOR TAG
- NEW 2X4 WOOD STUD WALL
- NEW IWH

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH
DEPARTMENT OF PLANNING AND PERMITTING

DATE

REVISION NO.	DATE	REVISIONS	BY

Licensed Professional Engineer 7808-S
ATHER R. DAR
Hawaii, U.S.A.
Exp. Date: 4-30-28

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

DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAII HILO DISTRICT OFFICE
DHHL OFFICE IMPROVEMENTS
162 BAKER AVE, HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

NEW FLOOR PLAN AND ROOF PLAN

DESIGNED BY:	KJ
DRAWN BY:	KJ
CHECKED BY:	AD
SUPV:	
DATE:	05/08/26

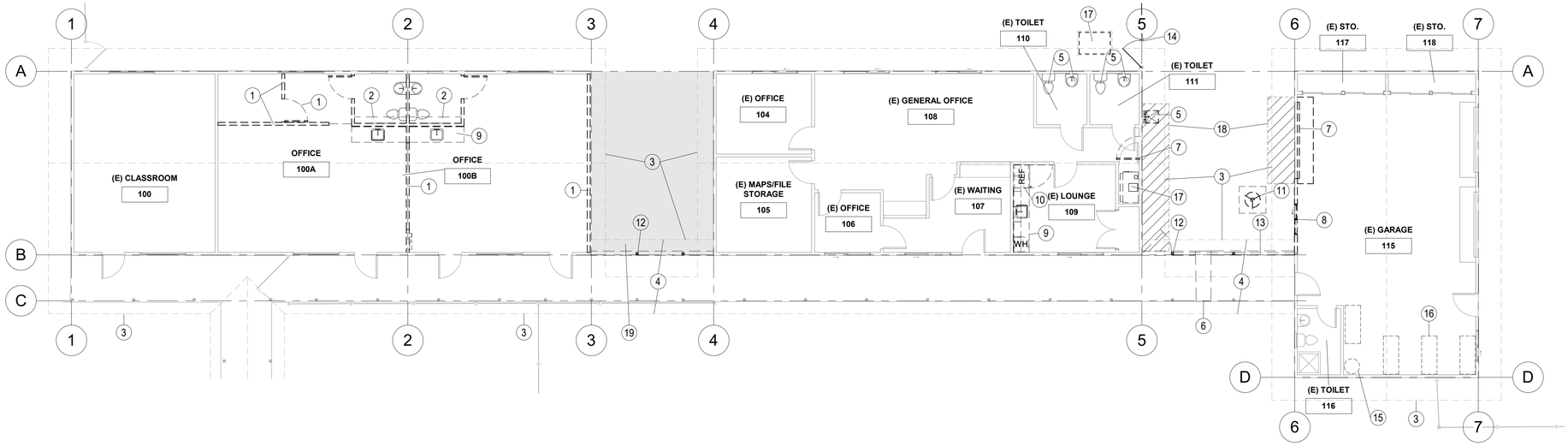
HAWAII ENGINEERING GROUP, Inc.
Civil & Structural Engineers
1088 BISHOP STREET #2506
HONOLULU, HI 96813
Tel: 808-533-2092

JOB NO. 24-096

SHEET A02
10 OF 35 SHTS

2020/CP-186

FILE _____ DRAWE _____ FOLDER _____



2 A03 EXISTING DHHL BUILDING

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

KEYNOTES - DEMO

1. REMOVE WALL
2. REMOVE WALL CABINET
3. EXISTING ROOF LINE
4. REMOVE CANOPY
5. REMOVE PLUMBING FIXTURE
6. REMOVE DRAIN, SEE CIVIL
7. REMOVE DOOR
8. REMOVE WINDOW
9. REMOVE CABINET AND FIXTURES
10. REMOVE APPLIANCES AND WATER HEATER
11. RELOCATE ANTENNA - BY HDOT, DHHL TO COORDINATE
12. REMOVE COLUMNS AND BEAM ABOVE
13. REMOVE PRIVACY FENCE AND GATE
14. REMOVE CHAIN LINK FENCE AND GATE
15. REMOVE WATER HEATER
16. REMOVE STEEL SHELVING
17. REMOVE AHU AND HVAC CONDENSER
18. REMOVE (E) CONC SLAB
19. UNPERMITTED BUILT SPACE

NORTH

A / D ROOM INTERIOR ELEV B / C

8' 4' 2' 0 8' 16'

1/8" = 1'-0"

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH
DEPARTMENT OF PLANNING AND PERMITTING

DATE

REVISION NO.	DATE	REVISIONS	BY

ATHER R. DAR
Licensed Professional Engineer
7808-S
Hawaii, U.S.A.

Exp. Date: 4-30-28

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DHHL OFFICE IMPROVEMENTS
162 BAKER AVE, HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

DEMO PLAN

DESIGNED BY:	KJ
DRAWN BY:	KJ
CHECKED BY:	AD
SUPV:	
DATE:	05/08/26

HAWAII ENGINEERING GROUP, Inc.
Civil & Structural Engineers
1088 BISHOP STREET #2506
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JOB NO. 24-096

SHEET A03
11 OF 35 SHTS

2020/CP-186

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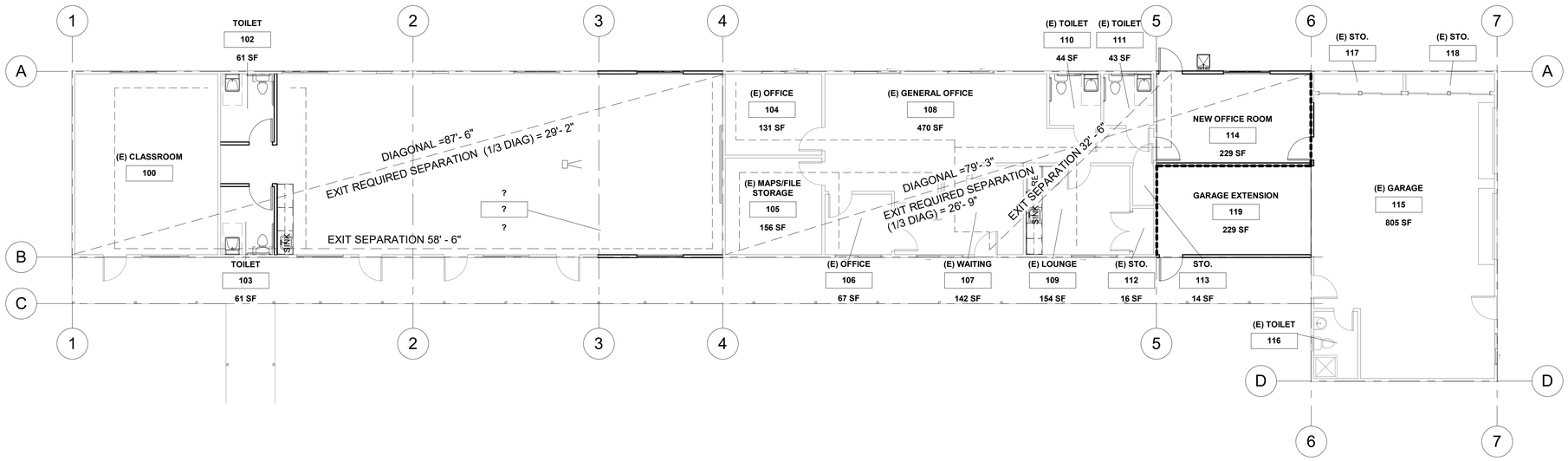


1 / A04 **DHHL BUILDING LIFE SATETY PLAN**

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

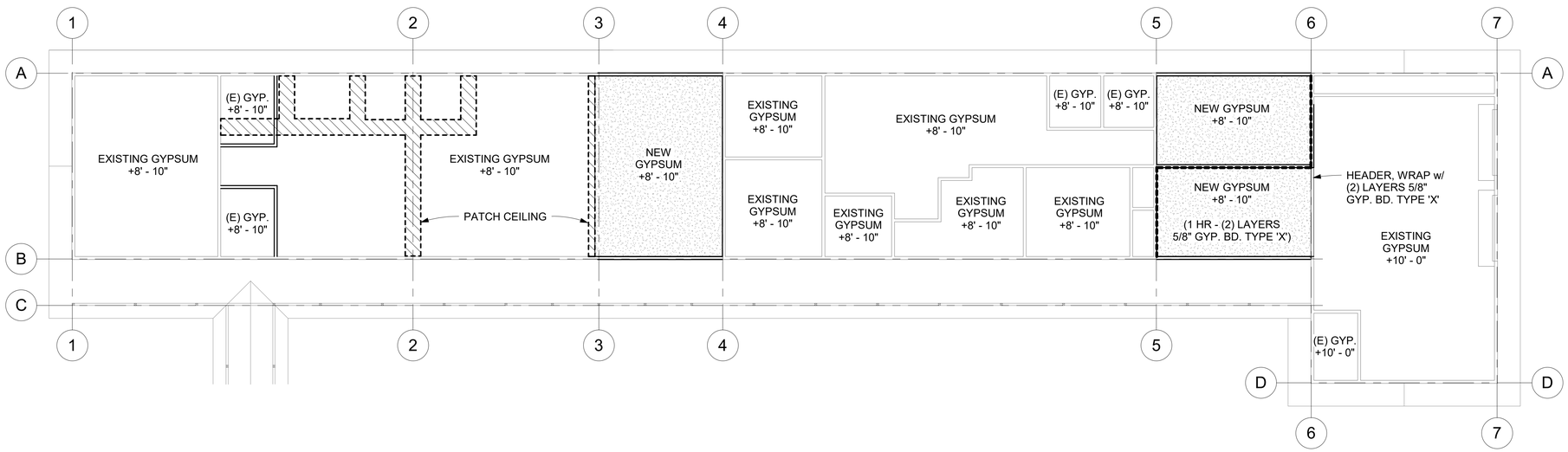
OCCUPANCY LOAD			
ROOM NAME (IBC USE)	SF	OCCUPY LOAD RATIO	OCCUPANTS (SF / OCCUP LOAD)
CONFENCE ROOM#1	1323 SF	1 PER / 15 SF	88
(E) OFFICE 1	131 SF	1 PER / 400 SF	1
(E) OFFICE 2	67 SF	1 PER / 400 SF	1
(E) MAPS/FILE STORAGE	156 SF	1 PER / 400 SF	1
(E) WAITING	142 SF	1 PER / 400 SF	1
(E) GENERAL OFFICE	470 SF	1 PER / 400 SF	2
RENOVATED LOUNGE	154 SF	1 PER / 400 SF	1
WOMEN	44 SF		
MEN	43 SF		
RESTROOM	61 SF		
RESTROOM	61 SF		

CONFENCE ROOMS

DESCRIPTION	REQUIRED	PROVIDED
EXIT SEPARATION	29' - 2" (MIN 1/3 OF DIAG)	60' - 0"
TRAVEL DISTANCE	300' MAX	SEE ANALYSIS ON PLAN
EGRESS WIDTH	32" MIN	36"
DEAD END	50' MAX	N/A

OFFICE ROOMS

DESCRIPTION	REQUIRED	PROVIDED
EXIT SEPARATION	20' - 0" (MIN 1/3 OF DIAG)	24' - 10"
TRAVEL DISTANCE	300' MAX	SEE ANALYSIS ON PLAN
EGRESS WIDTH	32" MIN	36"
DEAD END	50' MAX	N/A



2 / A04 **DHHL BUILDING CEILING PLAN**

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

NORTH

A
D ROOM INTERIOR ELEV B
C

6" 0" 4" 2" 0 8" 16"
1/8" = 1'-0"

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH
DEPARTMENT OF PLANNING AND PERMITTING

DATE

REVISION NO.	DATE	REVISIONS	BY

ATHER R. DAR
Licensed Professional Engineer
7808-S
Hawaii, U.S.A.
Exp. Date: 4-30-28

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CEILING AND LIFE SAFETY PLANS

DESIGNED BY:	KJ
DRAWN BY:	KJ
CHECKED BY:	AD
SUPV:	
DATE:	05/08/26

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JOB NO. 24-096

SHEET A04
12 OF 35 SHTS

2020/CP-186

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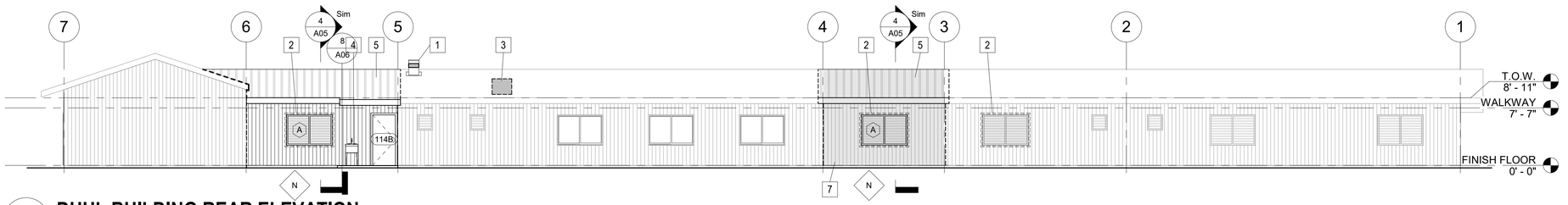
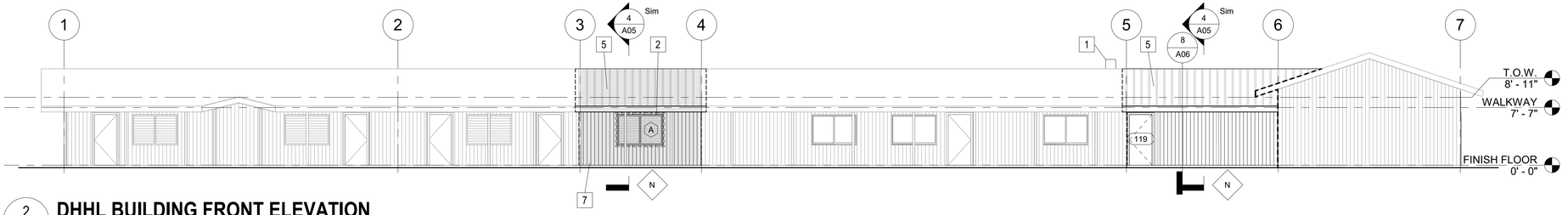


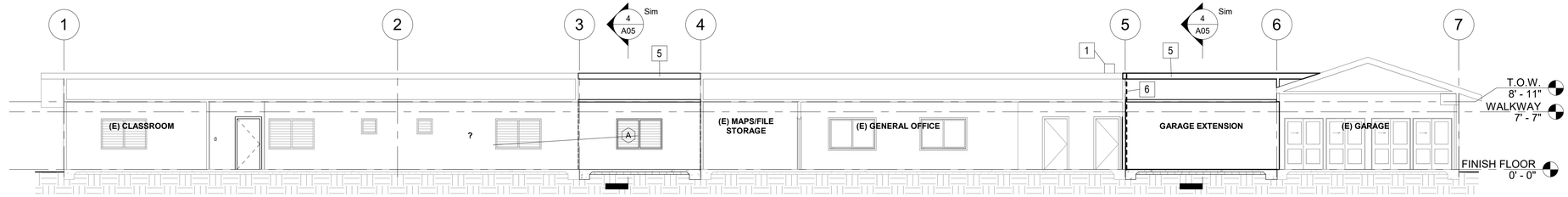
1 A05 **DHHL BUILDING REAR ELEVATION**

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



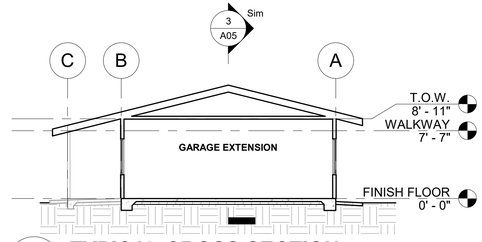
2 A05 **DHHL BUILDING FRONT ELEVATION**

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



3 A05 **CROSS SECTION**

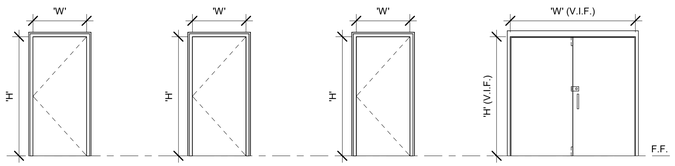
SCALE: 1/8" = 1'-0"



4 A05 **TYPICAL CROSS SECTION**

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

DOOR SCHEDULE						
NUMBER	TYPE	STYLE	H	W	Thickness	COMMENTS
102	1	SOLID CORE FLUSH	6' - 8"	3' - 0"	0' - 2"	HDWR SET 2
103	1	SOLID CORE FLUSH	6' - 8"	3' - 0"	0' - 2"	HDWR SET 2
114A	1	SOLID CORE FLUSH	6' - 8"	3' - 0"	0' - 2"	HDWR SET 3
114B	2	THERMAL CORE FLUSH	6' - 8"	3' - 0"	0' - 2"	HDWR SET 4
115	3	THERMAL CORE FLUSH	6' - 8"	3' - 0"	0' - 2"	HDWR SET 5
119	2	THERMAL CORE FLUSH	6' - 8"	3' - 0"	0' - 2"	HDWR SET 1
O-01A	2	THERMAL CORE FLUSH	6' - 8"	3' - 0"	0' - 2"	HDWR SET 4
O-01B	2	THERMAL CORE FLUSH	6' - 8"	3' - 0"	0' - 2"	HDWR SET 4
O-01C	4	SOLID CORE FLUSH	6' - 8"	7' - 0"	0' - 2"	HDWR SET 6



TYPE - 1
SWING WOOD DOOR
SC FLUSH DOOR

TYPE - 2
SWING METAL DOOR
TC FLUSH DOOR

TYPE - 3
SWING METAL DOOR
TC FLUSH DOOR
45 MIN. FIRE RATING

TYPE - 4
DOUBLE SWING WOOD DOOR
SC FLUSH DOOR

HARDWARE SET 1:
- LEVER PASSAGE LOCK SET
- DEADBOLT

HARDWARE SET 2:
- LEVER PRIVACY DOOR LOCK w/ OCCUPANCY INDICATOR

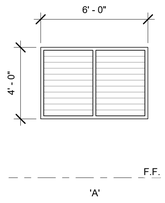
HARDWARE SET 3:
- LEVER PASSAGE SET

HARDWARE SET 4:
- CLOSURE
- RIM EXIT DEVICE w/ KEYED ENTRY LEVER

HARDWARE SET 5:
- CLOSURE
- LEVER PASSAGE LOCK SET
- DEADBOLT

HARDWARE SET 6:
- PULL HANDLE (RIGHT PANEL)
- JIMMY PROOF DEADLOCK (RIGHT PANEL)
- TOP & BOTTOM FLUSH BOLTS (LEFT PANEL)

WINDOW SCHEDULE						
NOTE	TYPE	H	W	HEAD HT.	SILL HT.	COMMENTS
A	JALOUISE	4' - 0"	6' - 0"	6' - 8"	2' - 8"	SECURITY SCREEN, SEE DETAIL 6/S06



'A'
JALOUSIE WINDOW

1/8" = 1'-0"

KEYNOTES - ELEV

1. GOOSENECK VENT FOR (E) AHU
2. SECURITY SCREEN TO MATCH (E)
3. PATCH ROOF LEAK
4. UTILIY SINK UNDER 4' EAVE
5. ROOF TO MATCH (E) ROOF
6. 1HR FIRE SEPERATION, (2) LAYERS 5/8" TYPE "X" GYB. BD. FROM SLAB TO ROOF SHEATHING
7. UNPERMITTED BUILT SPACE

LEGEND

- NEW WINDOW TAG
- NEW DOOR TAG
- N — NEW 2X4 WOOD STUD WALL

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH
DEPARTMENT OF PLANNING AND PERMITTING

DATE

REVISION NO.	DATE	REVISIONS	BY

ATHER R. DAR — Licensed Professional Engineer 7808-S — Hawaii, U.S.A.

Exp. Date: 4-30-28

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DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAII HILO DISTRICT OFFICE
DHHL OFFICE IMPROVEMENTS
162 BAKER AVE, HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

EXTERIOR ELEVATIONS, SECTIONS, AND DOOR & WINDOW SCHEDULES

DESIGNED BY:	KJ
DRAWN BY:	KJ
CHECKED BY:	AD
SUPV:	
DATE:	05/08/26

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Civil & Structural Engineers
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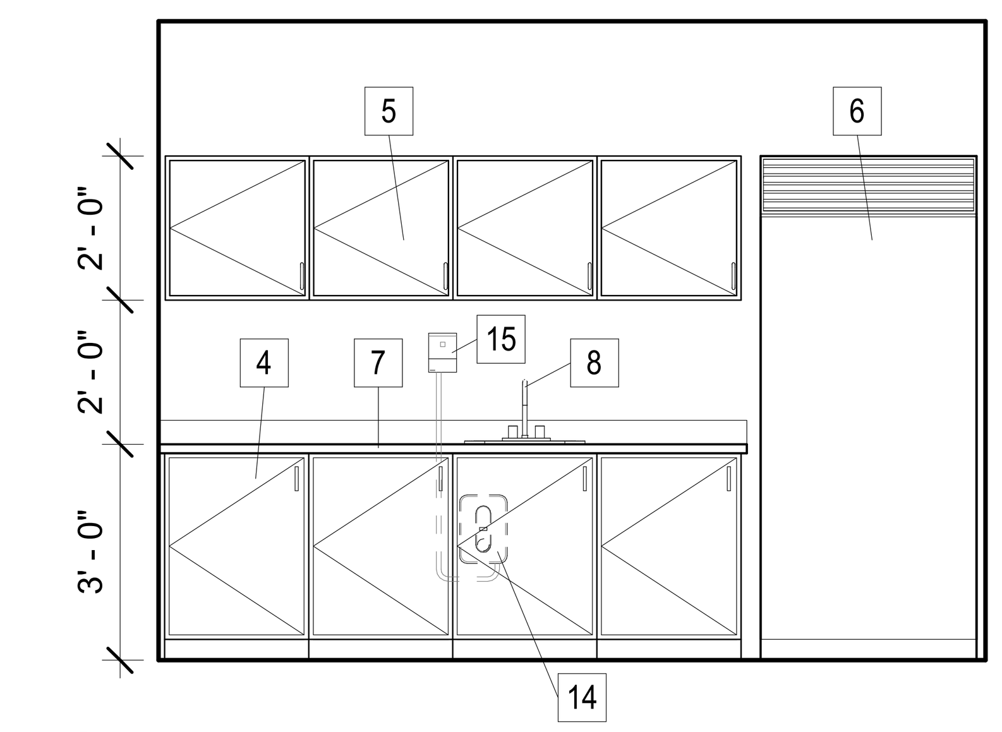
Tel: 808-533-2092

JOB NO. 24-096

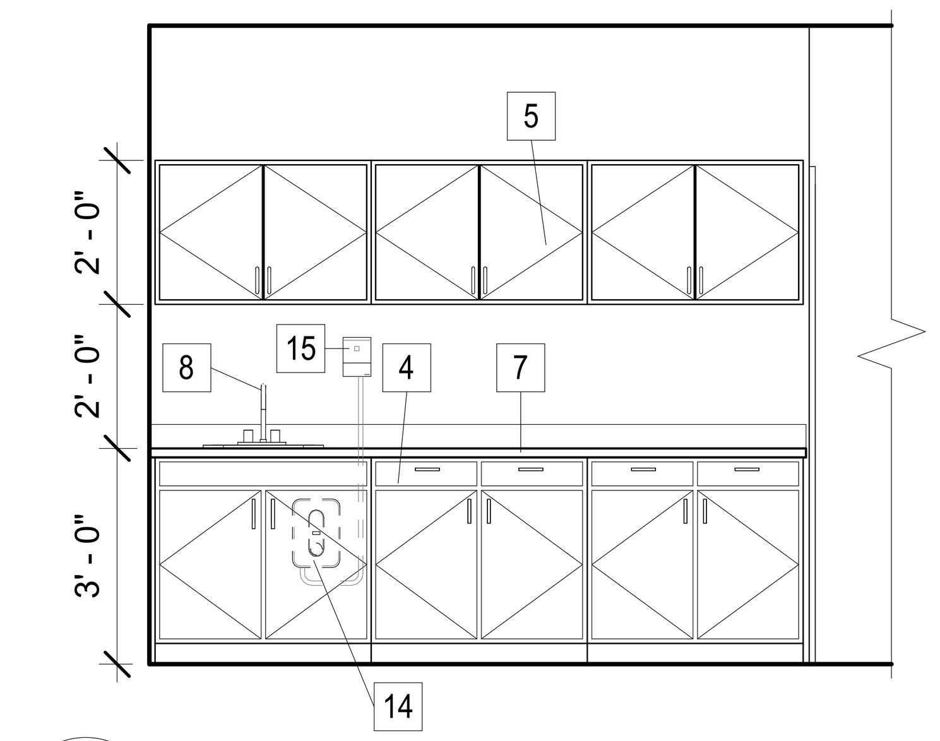
SHEET A05
13 OF 35 SHTS

2020/CP-186

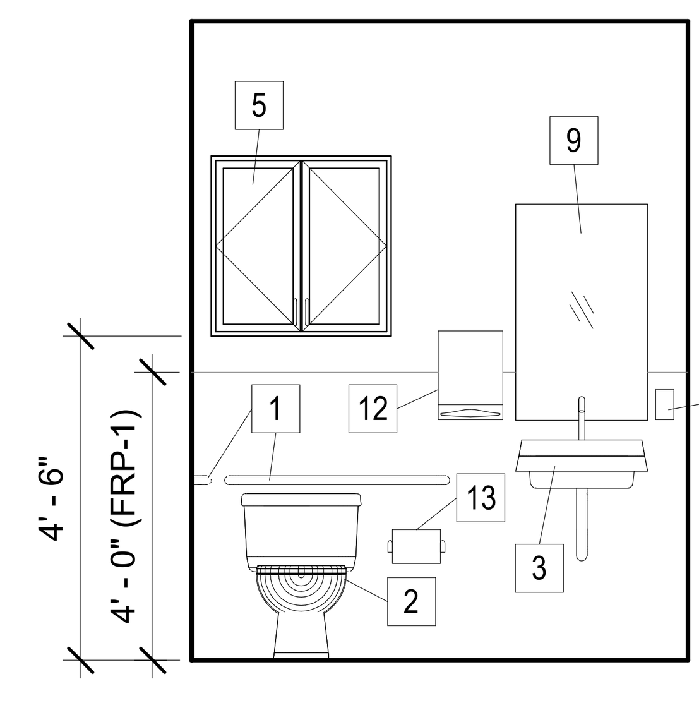
FILE _____ DRAWE _____ FOLDER _____



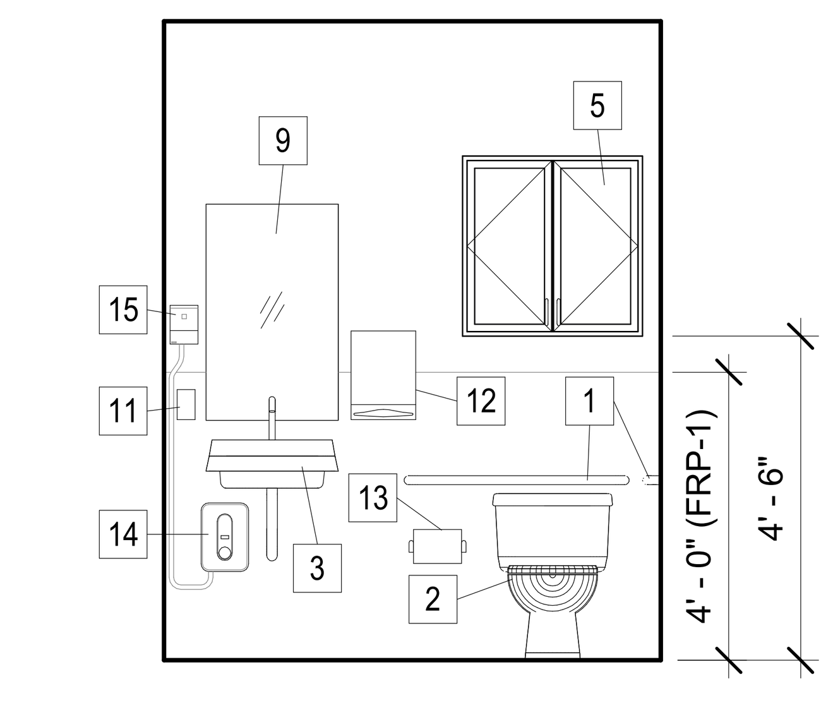
1 A06 **LOUNGE**
SCALE: 3/8" = 1'-0"



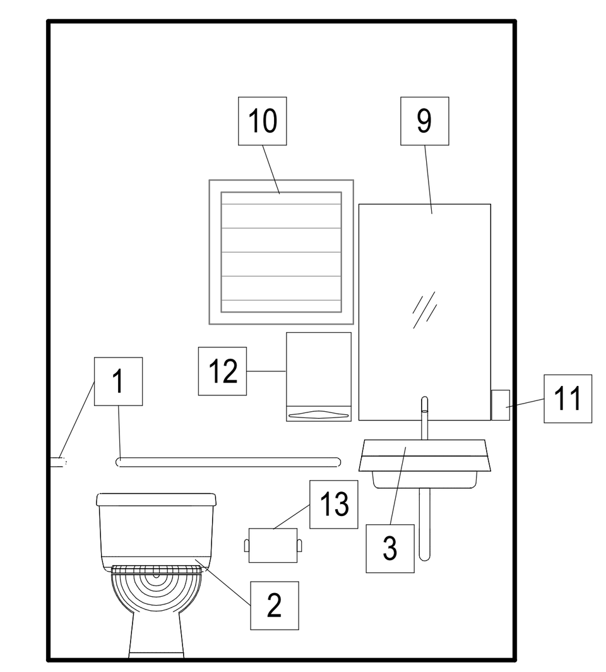
2 A06 **CONFERENCE**
SCALE: 3/8" = 1'-0"



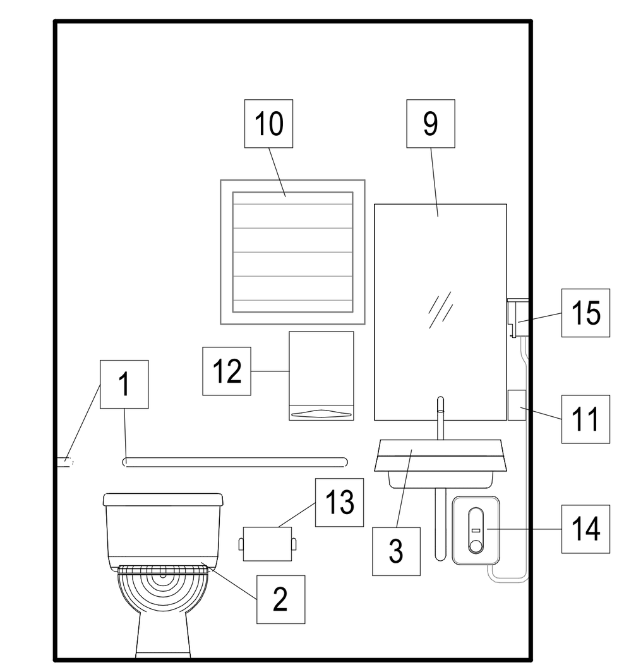
3 A06 **TOILET - 103**
SCALE: 3/8" = 1'-0"



4 A06 **TOILET - 102**
SCALE: 3/8" = 1'-0"



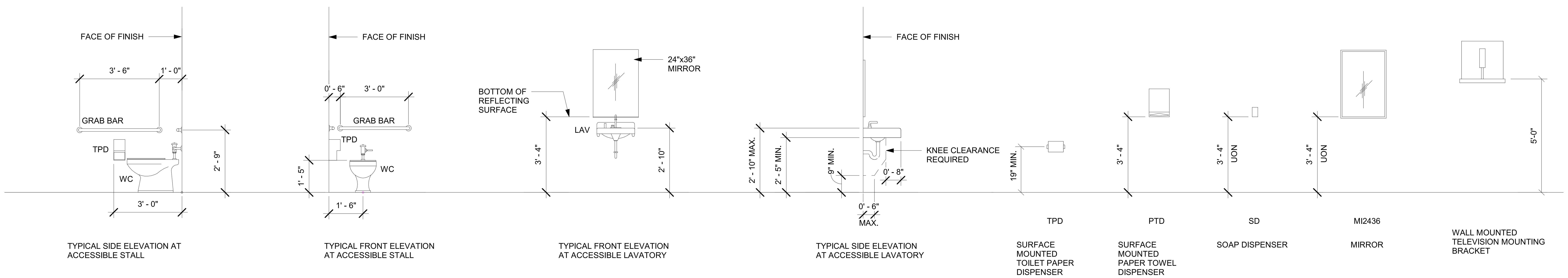
5 A06 **(E) TOILET - 110**
SCALE: 3/8" = 1'-0"

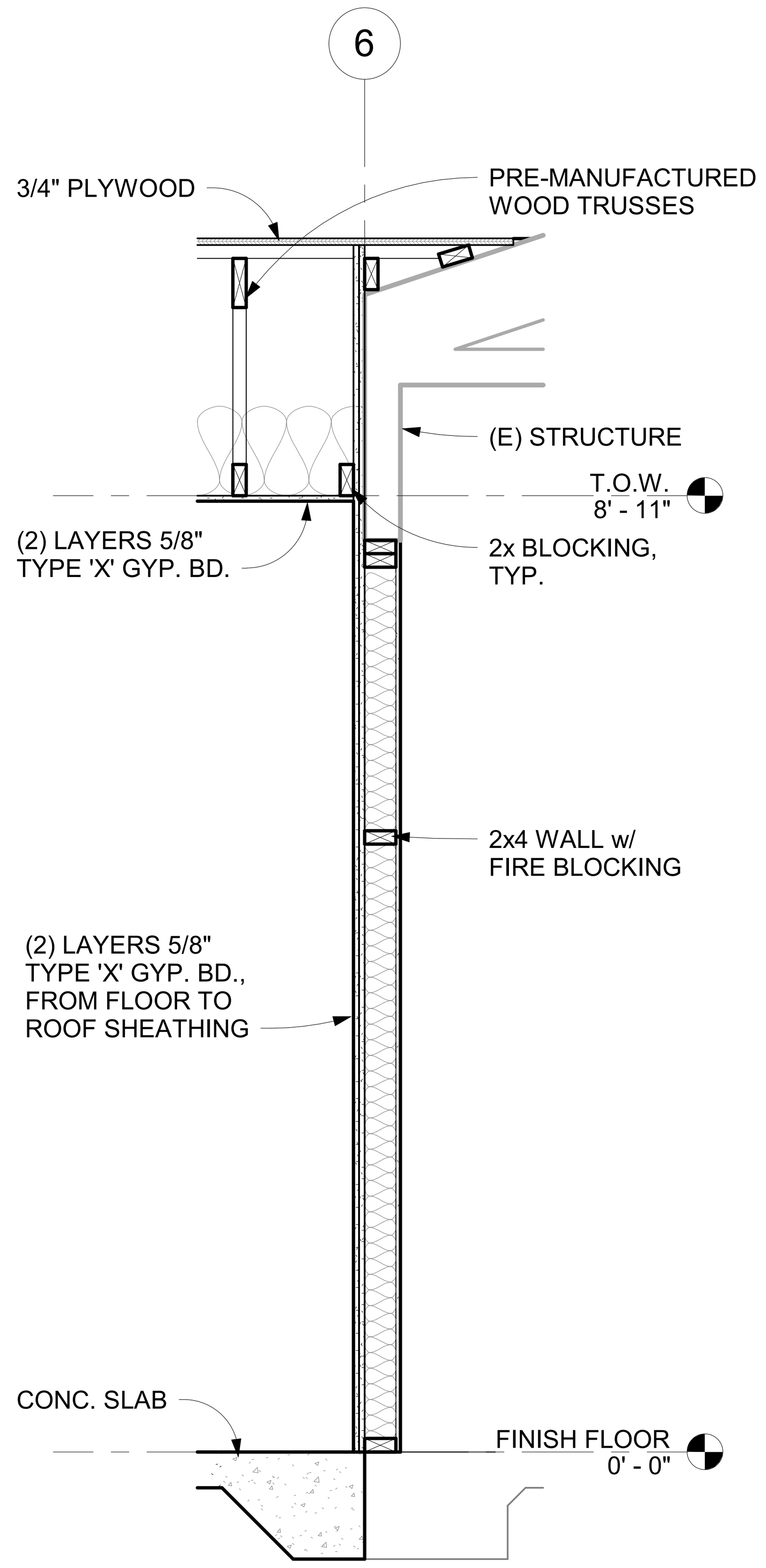


6 A06 **(E) TOILET - 111**
SCALE: 3/8" = 1'-0"

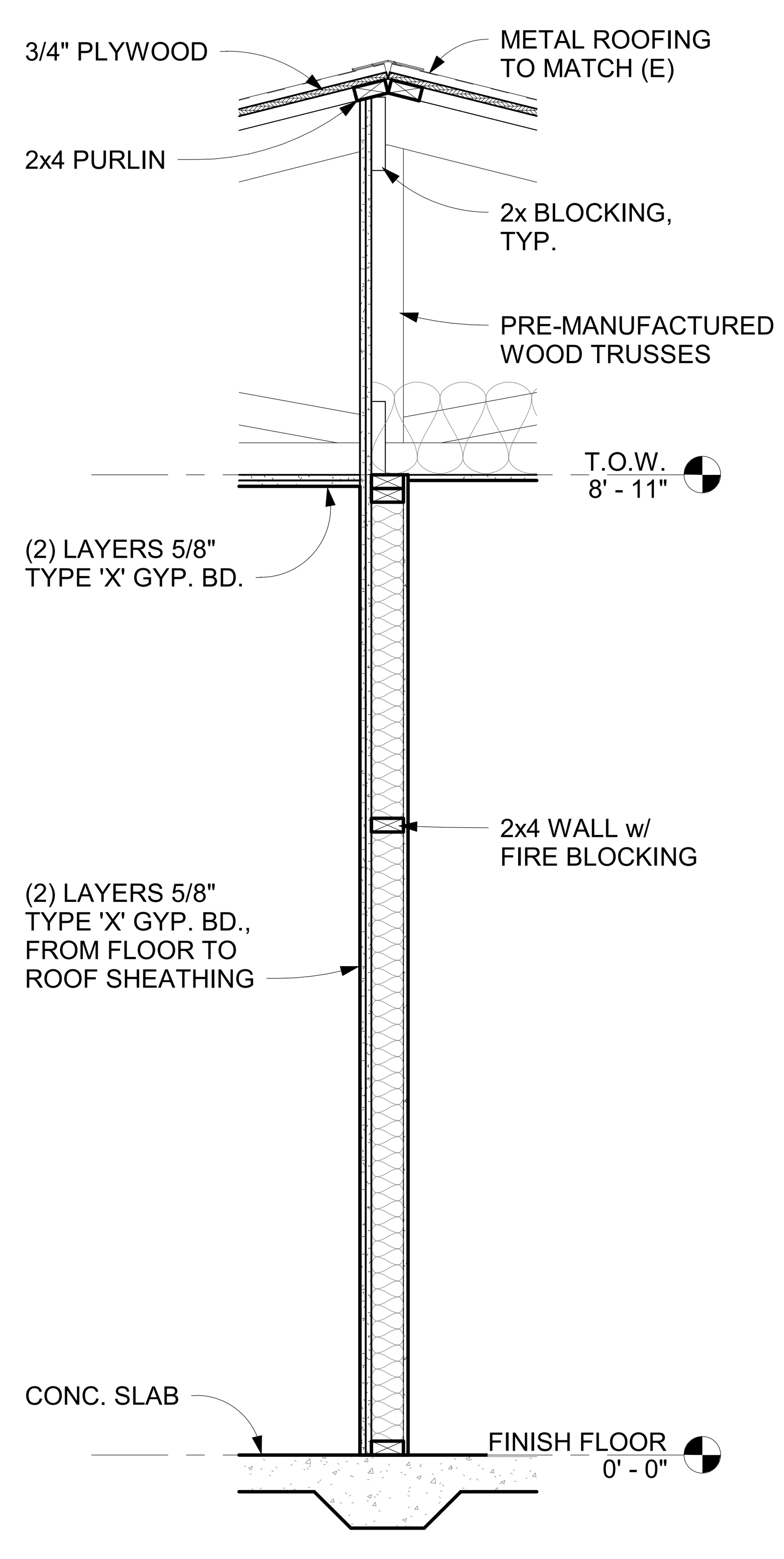
KEYNOTES - INT ELEV

1. ADA GRAB BARS
2. ADA TOILET
3. ADA LAVATORY
4. BASE CABINETS
5. WALL CABINETS
6. REFRIGERATOR
7. SOLID SURFACE COUNTERTOP
8. SINK w/ FAUCET
9. ADA MIRROR
10. (E) WINDOW
11. SOAP DISPENSER
12. PAPER TOWEL DISPENSER
13. TOILET PAPER
14. INTANT HOT WATER HEATER
15. IWH SWITCH

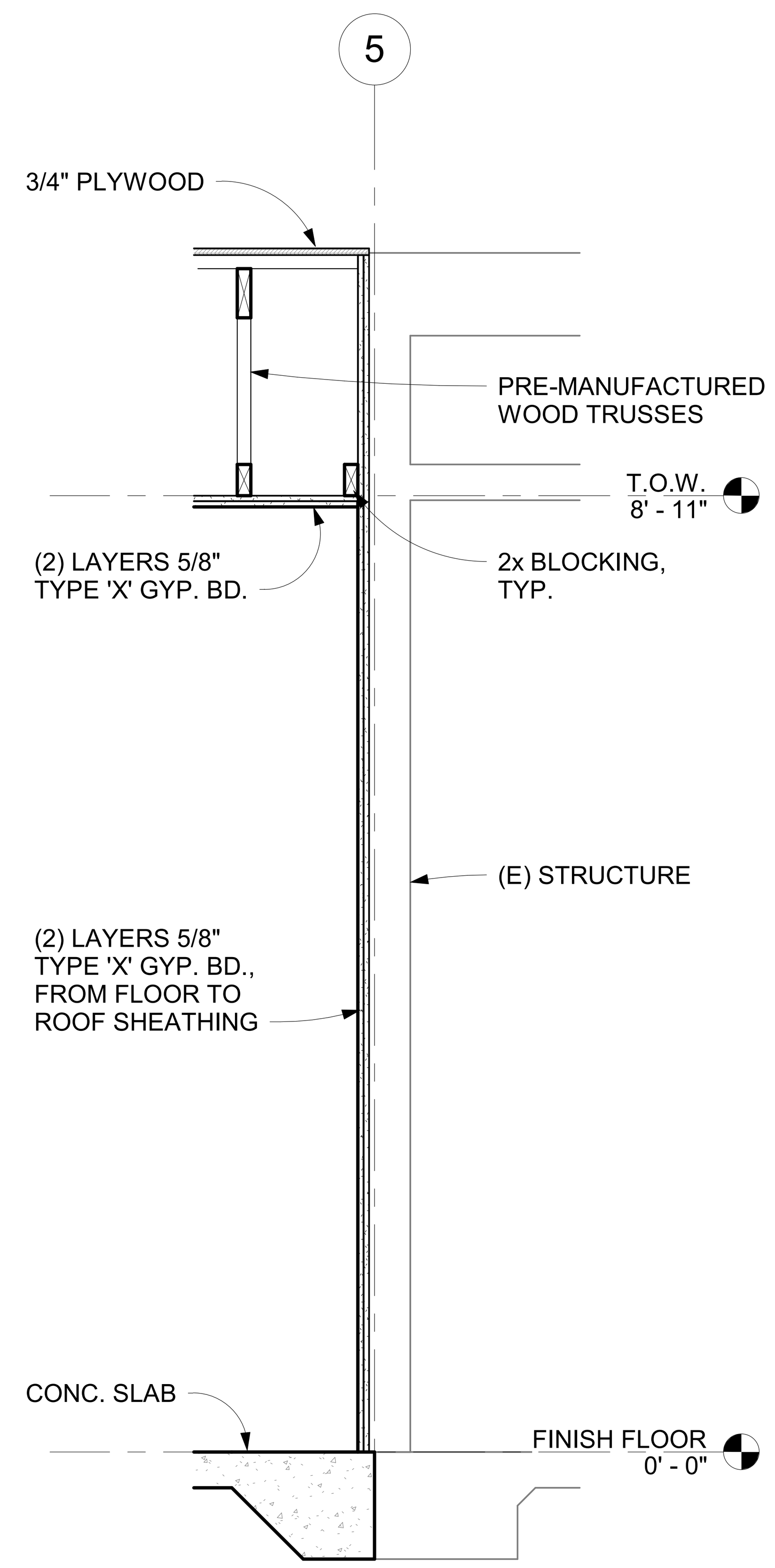




7 A06 **1-HR FIRE WALL 1**
SCALE: 3/4" = 1'-0"



8 A06 **1-HR FIRE WALL 2**
SCALE: 3/4" = 1'-0"



9 A06 **1-HR FIRE WALL 3**
SCALE: 3/4" = 1'-0"

3/8" = 1'-0"

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH
DEPARTMENT OF PLANNING AND PERMITTING
DATE

REVISION NO.	DATE	REVISIONS	BY

Licensed Professional Engineer 7808-S
Hawaii, U.S.A.
Exp. Date: 4-30-28

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EAST HAWAII HILO DISTRICT OFFICE
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162 BAKER AVE, HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

INTERIOR ELEVATIONS AND MOUNTING HEIGHTS

DESIGNED BY: KJ
DRAWN BY: KJ
CHECKED BY: AD
SUPV:
DATE: 05/08/26

HAWAII ENGINEERING GROUP, Inc.
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JOB NO. 24-096

SHEET A06
14 OF 35 SHTS

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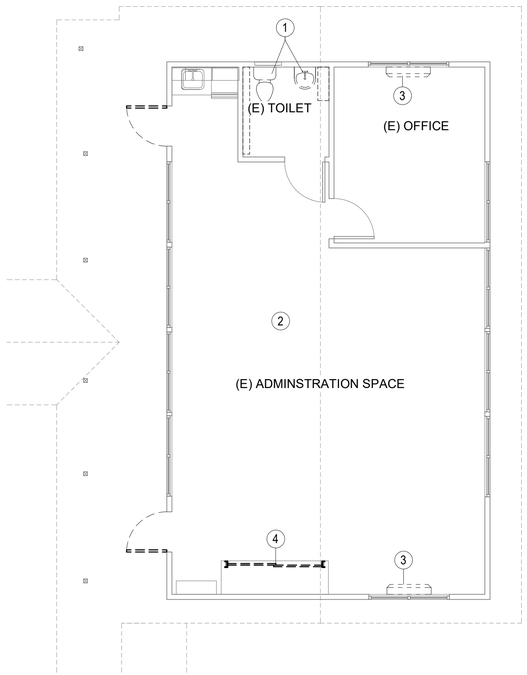
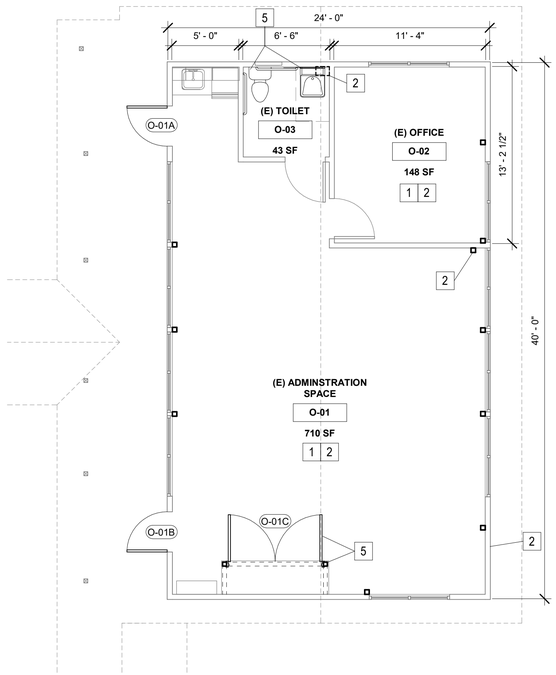


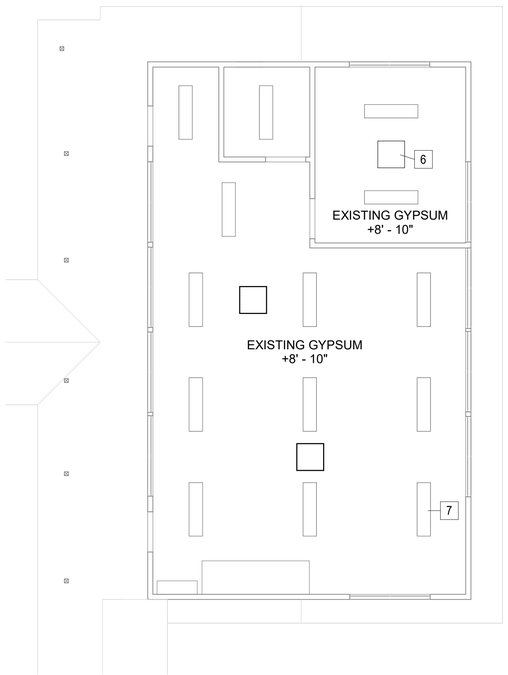
1 A07 OHA DEMO PLAN

SCALE: 3/16" = 1'-0"



3 A07 OHA PROPOSED PLAN

SCALE: 3/16" = 1'-0"



4 A07 OHA CEILING PLAN

SCALE: 3/16" = 1'-0"

OHA BUILDING NEW KEYNOTES

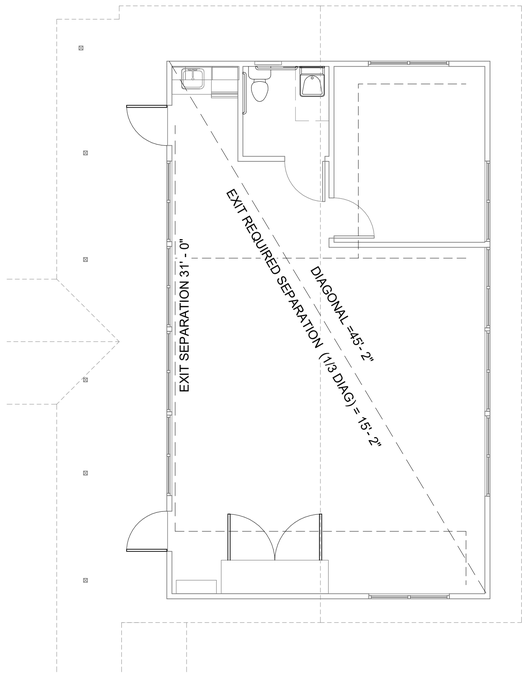
1. CLEAN AND REPAINT WALLS
2. NEW VCT FLOORING
3. NEW ADA FIXTURES
4. REPLACE SLIT AC
5. 4x4 POSTS & FRAME w/ SIMPSON HARDWARE, AND DOOR
6. FCU, SEE MECHANICAL
7. REPLACE (E) LIGHTS
8. NEW IWH
9. REPAINT EXTERIOR
10. UPGRADE CAT5 WIRING TO CAT6

OHA BUILDING DEMO KEYNOTES

1. REMOVE FIXTURES
2. REMOVE CARPET
3. REMOVE SPLIT AC
4. REMOVE (E) IT CLOSET DOORS

LEGEND

- SPILT AC SEE MENCHANICAL DRAWINSG
- NEW WINDOW TAG
- NEW DOOR TAG
- N — NEW 2X4 WOOD STUD WALL
- NEW IWH



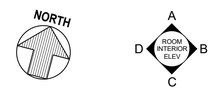
2 A07 OHA LIFE SAFETY PLAN

SCALE: 3/16" = 1'-0"

OFFICE ROOMS

DESCRIPTION	REQUIRED	PROVIDED
EXIT SEPARATION	20' - 0" (MIN 1/3 OF DIAG)	24' - 10"
TRAVEL DISTANCE	300' MAX	SEE ANALYSIS ON PLAN
EGRESS WIDTH	32" MIN	36"
DEAD END	50' MAX	N/A

OCCUPANCY LOAD			
ROOM NAME (IBC USE)	SF	OCCUP LOAD RATIO	OCCUPANTS (SF / OCCUP LOAD)
(E) TOILET	45 SF		
(E) OFFICE	144 SF	1 PER / 400 SF	1
(E) ADMINSTRATION SPACE	715 SF	1 PER / 400 SF	1



APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH
DEPARTMENT OF PLANNING AND PERMITTING

DATE

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Licensed Professional Engineer 7808-S
Exp. Date: 4-30-28

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OHA BUILDING PLANS

DESIGNED BY:	KJ
DRAWN BY:	KJ
CHECKED BY:	AD
SUPV:	
DATE:	05/08/26

HAWAII ENGINEERING GROUP, Inc.
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JOB NO. 24-096

SHEET A07
15 OF 35 SHTS

2020/CP-186

FILE ____ DRAWE ____ FOLDER ____

ROOM FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR FINISH	BASE	WALL FINISH				CEILING FINISH
				A	B	C	D	
100	(E) CLASSROOM	VT-1	VB-1	P-1	P-1	P-1	P-1	P-4
101	ENLARGED CONFENCE ROOM	VT-2	VB-2	P-1	P-3	P-1	P-3	P-4
102	TOILET	VT-3	VB-2	P-2/FRP-1	P-2/FRP-1	P-2/FRP-1	P-2/FRP-1	P-4
103	TOILET	VT-3	VB-2	P-2/FRP-1	P-2/FRP-1	P-2/FRP-1	P-2/FRP-1	P-4
104	(E) OFFICE	VT-1	VB-1	P-1	P-1	P-1	P-1	P-4
105	(E) MAPS/FILE STORAGE	VT-1	VB-1	P-1	P-1	P-1	P-1	P-4
106	(E) OFFICE	VT-1	VB-1	P-1	P-1	P-1	P-1	P-4
107	(E) WAITING	VT-1	VB-1	P-1	P-1	P-1	P-1	P-4
108	(E) GENERAL OFFICE	VT-1	VB-1	P-1	P-1	P-1	P-1	P-4
109	(E) LOUNGE	VT-1	VB-1	P-1	P-1	P-1	P-1	P-4
110	(E) TOILET	VT-1	VB-1	P-2	P-2	P-2	P-2	P-4
111	(E) TOILET	VT-1	VB-1	P-2	P-2	P-2	P-2	P-4
112	(E) STO.	VT-1	VB-1	P-1	P-1	P-1	P-1	P-4
113	STO.	VT-1	VB-1	P-1	P-1	P-1	P-1	P-4
114	NEW OFFICE ROOM	VT-2	VB-2	P-1	P-1	P-1	P-1	P-4
115	(E) GARAGE	NONE	NONE	P-5	P-5	P-5	P-5	P-4
116	(E) TOILET	VT-1	VB-1	P-5	P-5	P-5	P-5	P-4
117	(E) STO.	NONE	NONE	P-5	P-5	P-5	P-5	P-4
118	(E) STO.	NONE	NONE	P-5	P-5	P-5	P-5	P-4
119	GARAGE EXTENSION	NONE	NONE	P-5	P-5	P-5	P-5	P-4
O-01	(E) ADMINSTRATION SPACE	VT-2	VB-2	P-1	P-1	P-1	P-1	P-4
O-02	(E) OFFICE	VT-2	VB-2	P-1	P-1	P-1	P-1	P-4
O-03	(E) TOILET	VT-3	VB-2	P-2	P-2	P-2	P-2	P-4

MATERIAL SCHEDULE

MARK	MANUFACTURER	MODEL	UNDER MATERIAL / LOCATION	COLOR	SHEEN	PRIMER	STYLE	TYPE	SIZE	THICKNESS	COMMENTS
EXTERIOR PAINT											
EP-1	PPG INDUSTRIES	INC 649-10	WOOD T1-11 SIDING	MATCH (E)	SATIN	SURE GRIP INTERIOR/EXTERIOR UNIVERSAL PRIMER/SEALER	N/A	N/A	N/A	N/A	
EP-2	PPG INDUSTRIES	INC 649-10	WOOD TRIM	MATCH (E)	SATIN	SURE GRIP INTERIOR/EXTERIOR UNIVERSAL PRIMER/SEALER	N/A	N/A	N/A	N/A	
EP-3	PPG INDUSTRIES	INC 649-10	WOOD FASCIA & SOFFIT	MATCH (E)	SATIN	SURE GRIP INTERIOR/EXTERIOR UNIVERSAL PRIMER/SEALER	N/A	N/A	N/A	N/A	
FLOORING											
VT-1	(E) FLOORING	N/A	CONCRETE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	CLEAN (E) PER MANUF. RECOMMENDATION
VT-2	ARMSTRONG FLOORING - COMMERCIAL	STANDARD EXCELON IMPERIAL	CONCRETE	TAUPE	N/A	N/A	51901	TILES	12"x12"	.125"	
VT-3	ARMSTRONG FLOORING - COMMERCIAL	MEDINTONE	CONCRETE	FEATHERSMOOTH	N/A	N/A	H2004	HOMOGENOUS SHEET	6.5' TO 65.5'	.080"	
PAINT											
P-1	PPG INDUSTRIES	INC 13-510	GYPSUM BOARD	PARAFFIN	SEMI-GLOSS	PURE PERFORMANCE INTERIOR LATEX PRIMER	N/A	N/A	N/A	N/A	
P-2	PPG INDUSTRIES	INC 13-510	GYPSUM BOARD	CRUMB COOKIE	SEMI-GLOSS	PURE PERFORMANCE INTERIOR LATEX PRIMER	N/A	N/A	N/A	N/A	
P-3	PPG INDUSTRIES	INC 13-510	GYPSUM BOARD	FLAGSTONE	SEMI-GLOSS	PURE PERFORMANCE INTERIOR LATEX PRIMER	N/A	N/A	N/A	N/A	
P-4	PPG INDUSTRIES	INC 13-510	GYPSUM BOARD	DELICATE WHITE	SEMI-GLOSS	PURE PERFORMANCE INTERIOR LATEX PRIMER	N/A	N/A	N/A	N/A	
P-5	PPG INDUSTRIES	INC 13-510	GYPSUM BOARD	THIN ICE	SEMI-GLOSS	PURE PERFORMANCE INTERIOR LATEX PRIMER	N/A	N/A	N/A	N/A	
WALL COVERING											
FRP-1	MARLITE	STANDARD FRP	GYPSUM BOARD	BISCUIT	N/A	N/A	P 440N	PEBBLED	48" HIGH	.090"	
VB-1	(E) WALL BASE	N/A	GYPSUM BOARD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	CLEAN (E) PER MANUF. RECOMMENDATION
VB-2	ARMSTRONG FLOORING - COMMERCIAL	COVED WALL BASE	GYPSUM BOARD	GREIGE	N/A	N/A	R41GR	BASE BOARD	4" HIGH	.125"	

FFE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	SIZE (HxDxW)	COMMENTS
SPECIALTY EQUIPMENT					
GB	GRAB BARS	AMERICAN SPECIALTIES, INC	3701-36 & 3701-42	36" & 42"	SEE SHEET A06
MI	MIRROR	AMERICAN SPECIALTIES, INC	0620-2436	24" X 36"	SEE SHEET A06
P	PROJECTOR	EPSON	EX3290 WVGA 3LCD	3.2" x 9.2" x 11.9"	CEILING MOUNTED
PS	PROJECTOR SCREEN	VIVID STORM	SLIMLINE TENSION SCREEN	150"	AMBIENT LIGHT REJECTING SCREEN MATERIL
PTD	PAPER TOWEL DISPENSER	AMERICAN SPECIALTIES, INC	0210	11" x 8" x 4"	SEE SHEET A06
REF	REFRIGERATOR	SAMSUNG	RT18DG6700SR	66 3/4" x 28 3/4" x 31 7/8"	SEE SHEET A06
SD	SOAP DISPENSER	GEORGIA-PACIFIC	52060	13 1/8" x 7 1/8" x 4 5/8"	SEE SHEET A06
TPD	TOILET PAPER DISPENSER	BOBRICK	B-2888	11" x 6 1/16" x 5 15/16"	SEE SHEET A06
PLUMBING FIXTURES					
IWH	INSTANT WATER HEATER	SEE MECH.	SEE MECH.	SEE MECH.	
LAV	LAVATORY	SEE MECH.	SEE MECH.	SEE MECH.	
LT	UTILITY SINK	SEE MECH.	SEE MECH.	SEE MECH.	
SINK	DROP-IN SINK	SEE MECH.	SEE MECH.	SEE MECH.	
WC	WATER CLOSET	SEE MECH.	SEE MECH.	SEE MECH.	
CASEWORK					
BC	BASE CABINET	BELLMONT CABINET COMPANY OR EQUAL	1900 SERIES	SEE PLANS/INTERIOR ELEVATIONS	SHOP DRAWING REQUIRED
CNTR	COUNTERTOP w/ BACKSPLASH	CORIAN OR EQUAL	SOLID SURFACE	SEE PLANS/INTERIOR ELEVATIONS	SHOP DRAWING REQUIRED
UC-1	UPPER WALL CABINET	BELLMONT CABINET COMPANY OR EQUAL	1900 SERIES	SEE PLANS/INTERIOR ELEVATIONS	SHOP DRAWING REQUIRED
UC-2	UPPER WALL CABINET	BELLMONT CABINET COMPANY OR EQUAL	1900 SERIES	SEE PLANS/INTERIOR ELEVATIONS	SHOP DRAWING REQUIRED

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH — DATE
DEPARTMENT OF PLANNING AND PERMITTING

REVISION NO.	DATE	REVISIONS	BY

ATHER R. DAR — Licensed Professional Engineer 7808-S — Hawaii, U.S.A.

Exp. Date: 4-30-28

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

DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAII HILO DISTRICT OFFICE
DHHL OFFICE IMPROVEMENTS
162 BAKER AVE, HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

ROOM FINISH SCHEDULE

DESIGNED BY: KJ
DRAWN BY: KJ
CHECKED BY: AD
SUPV:
DATE: 05/08/26

HAWAII ENGINEERING GROUP, Inc.
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Tel: 808-533-2092

JOB NO. 24-096

SHEET A08
16 OF 35 SHTS

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FILE _____ DRAWE _____ FOLDER _____

GENERAL:

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE DRAWINGS AND SPECIFICATIONS.

2. THE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, WIND, SEISMIC, ETC. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING AND PROTECTION OF ADJACENT PROPERTY STRUCTURES, STREETS AND UTILITIES.

4. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT AND BE RESOLVED BEFORE PROCEEDING WITH THE WORK.

5. SHOP DRAWINGS REQUIRED BY THE SPECIFICATIONS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO FABRICATIONS.

6. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOF. LOADS SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. PROVIDE ADEQUATE SHORING, RESHORING AND/OR BRACING WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH.

7. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.

8. DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWINGS.

9. DESIGN CRITERIA

A. STRUCTURAL DESIGN IS BASED ON THE PROVISIONS OF THE 2018 IBC AS AMMENDED BY THE COUNTY OF HAWAII

B. LIVE
1. ROOF = 20 PSF (4:12 ROOF SLOPE)
2. FLOOR = 40 PSF

C. WIND = 140 MPH, EXPOSURE C
Kz = 0.85
Kzt = 1.0
Kd = 0.85

D. SEISMIC = SEISMIC DESIGN CATEGORY D
SDS = 0.989 g
SD1 = 0.68 g

10. SPECIAL INSPECTION REQUIREMENTS

CONCRETE ... REQUIRED
REINFORCING ... REQUIRED
TERMITE PROTECTION ... REQUIRED
COMPLETE LOAD PATH AND UPLIFT TIES ... REQUIRED

11. THE CONTRACTOR SHALL ANTICIPATE THE NEED FOR LOCALIZED STRUCTURAL STRENGTHENING DUE TO REQUIRED PENETRATIONS MADE TO EXISTING STRUCTURAL ELEMENTS. THIS SHALL NOT BE A BASIS FOR ANY COST OR TIME IMPACT.

12. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AS WELL AS NEW WORK. ANY DISCREPANCIES SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE ENGINEER.

13. THESE DRAWINGS REPRESENT THE EXISTING CONDITIONS AND THE NEW WORK TO BE PERFORMED, BASED ON THE BEST AVAILABLE INFORMATION. SOME MODIFICATIONS AND REVISIONS IN THE DESIGN MAY BE REQUIRED DUE TO UNFORESEEN FIELD CONDITIONS WHEN CONCEALED AREAS ARE UNCOVERED DURING CONSTRUCTION.

GRADING & SITEWORK:

1. THE SURROUNDING AREAS SHOULD BE GRADED SO AS TO ENSURE DRAINAGE AWAY FROM THE STRUCTURE.

2. ALL BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 90% OPTIMUM DENSITY.

3. ALL WATER SHALL BE REMOVED FROM FOUNDATION EXCAVATIONS PRIOR TO PLACING OF CONCRETE.

4. ALL EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY THE INSPECTOR PRIOR TO PLACEMENT OF STEEL OR CONCRETE.

FOUNDATION:

1. ANCHOR BOLTS SHALL COMPLY WITH ASTM A554 GRADE 36 UNLESS NOTED OTHERWISE.

2. CONTRACTOR SHALL PROVIDE FOR DESIGN AND INSTALLATION OF ALL CRIBBING, SHEATHING, AND SHORING NECESSARY TO SAFELY RETAIN EXCAVATIONS AND EARTH BANKS.

3. PROVIDE TERMITE PROTECTION PER IBC, SECTION 2303.1.8 AS AMENDED AND ADOPTED BY THE COUNTY OF HAWAII.

4. CENTER FOOTING ON COLUMN, UNLESS NOTED OTHERWISE.

5. UNLESS NOTED OTHERWISE, FOOTING REINFORCING BARS ARE BOTTOM BARS.

6. FOOTING THICKNESSES ARE MINIMUM THICKNESSES ONLY AND MAY BE INCREASED DUE TO SPECIFIC CONDITIONS.

7. CLEAN AND MOISTEN FOOTING TRENCHES PRIOR TO POURING CONCRETE.

8. DO NOT PLACE CONDUITS AND UTILITY LINES IN FOOTING TRENCHES.

REINFORCING STEEL:

1. ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN CONFORMANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318-05), THE CRSI "MANUAL OF STANDARD PRACTICE," AND THE "ACI DETAILING MANUAL - 2004" (SP-66) AS MODIFIED BY THE PROJECT DRAWINGS AND SPECIFICATIONS.

2. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.

3. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 WITH THE FOLLOWING GRADES:

A. #2 TIES ..... GRADE 20 OR BETTER
B. #3 AND #4 ..... GRADE 40
C. #5 AND LARGER ..... GRADE 60

4. REINFORCING SPLICES SHALL BE MADE ONLY WHERE INDICATED ON THE DRAWINGS.

5. DOWELS BETWEEN FOOTING AND WALL OR COLUMNS SHALL BE THE SAME GRADE, SIZE AND SPACING OR NUMBER AS THE VERTICAL REINFORCING RESPECTIVELY, U.O.N.

6. REINFORCING BARS SHALL BE IN AS LONG AS PRACTICABLE AND AS DETAILED AND SHALL BE LAPPED AT SPLICES AND CORNERS NOT LESS THAN 48 BAR DIAMETER (24" MINIMUM), UNLESS OTHERWISE SHOWN.

MINIMUM SPLICE & EMBEDMENT LENGTHS

BAR SIZE	LAP SPLICE		EMBEDMENT		
			STRAIGHT		
	BOTTOM BAR OR WALL BAR	TOP BAR	BOTTOM BAR OR WALL BAR	TOP BAR	WITH STANDARD HOOK
#3, #4	24"	30"	18"	24"	12"
#5	30"	38"	22"	30"	14"
#6	36"	46"	28"	36"	18"
#7	50"	66"	40"	50"	20"

NOTES:
(1) LENGTHS ARE FOR CONCRETE WITH REBAR SPACED 6 BAR DIAMETERS MINIMUM. INCREASE 25% FOR BARS SPACED LESS THAN 6 BAR DIAMETERS.

(2) "TOP BARS ARE HORIZONTAL BARS WITH 12" OR MORE OF CONCRETE CAST BELOW.

7. CONTRACTOR SHALL SUBMIT REINFORCING BAR LAYOUTS AND DETAILS FOR ARCHITECT'S REVIEW PRIOR TO FABRICATION. FABRICATE FROM REVIEWED DRAWINGS ONLY.

8. ANCHOR BOLTS, DOWELS AND OTHER EMBEDDED ITEMS ARE TO BE SECURELY TIED IN PLACE BEFORE CONCRETE IS POURED.

9. WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. WELDED WIRE FABRIC IN SUSPENDED SLABS SHALL HAVE FY= 60 KSI. LAP 6" MINIMUM OR ONE FULL MESH, WHICHEVER IS GREATER FOR SLABS ON GRADE.

10. WELDING OF REINFORCING STEEL IS NOT PERMITTED UNLESS OTHERWISE SHOWN ON THE DRAWINGS. WELDING OF REINFORCING STEEL SHALL CONFORM TO AWS D1.4-79 "AWS STRUCTURAL WELDING CODE - REINFORCING STEEL" OF THE AMERICAN WELDING SOCIETY.

11. ALL REINFORCING STEEL SHALL HAVE THE FOLLOWING MINIMUM CONCRETE COVERAGE:
A. CONCRETE PLACED AGAINST EARTH.....3"
B. CONCRETE WITH FORMED SURFACES IN CONTACT WITH EARTH.....2"
C. CONCRETE EXPOSED TO WEATHER.....3"
D. SLABS, WALLS AND JOIST NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH (#11 OR SMALLER) .....3/4"
E. BEAMS, COLUMNS, AND GIRDERS NOT EXPOSED OR IN CONTACT WITH EARTH.....1-1/2"

LUMBER & WOOD FRAMING:

1. ALL FRAMING LUMBER SHALL BE DOUGLAS FIR-LARCH EXCEPT WHEN NOTED. ALL LUMBER SHALL BE GRADED IN ACCORDANCE WITH THE RULES OF THE WCLIB OR WWPA AND SHALL BEAR A GRADE MARK. LUMBER GRADES SHALL BE AS FOLLOWS:

2X4 & 2X6 STUDS..... NO. 2
2X ROOF OR FLOOR JOIST..... NO. 1
4X HEADERS & BEAMS..... NO. 1
4X POST OR GREATER..... NO. 1

2. ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURED TREATED.

3. DO NOT BORE OR NOTCH JOISTS, RAFTERS OR BEAMS, EXCEPT WHERE SHOWN IN DETAILS. OBTAIN ENGINEER'S APPROVAL FOR ANY HOLES OR NOTHCES.

4. PROVIDE METAL WASHERS UNDER ALL BOLT HEADS AND NUTS BEARING ON WOOD.

5. ALL BOLTS SHALL BE GALVANIZED. BOLT HOLES SHALL BE 1/16" LARGER DIAMETER THAN NORMAL SIZE OF BOLT USED.

6. APPROVED CROSS BRIDGING OR SOLID BLOCKING SHALL BE SPACED AT 8'-0" O.C. MAX. WHEN MEMBERS ARE 10" OR MORE IN DEPTH.

7. ALL CONNECTORS REFERENCES, UNLESS NOTED OTHERWISE ARE FROM "SIMPSON STRONG-TIE COMPANY" CATALOG, LATEST EDITION. ALL BOLTING AND NAILING SHALL BE PER SIMPSON CATALOG. STEEL PLATES FOR FABRICATED CONNECTIONS SHALL BE ASTM A36.

8. PROVIDE 15# FELT BELOW ALL PLATES RESTING ON CONCRETE OR MASONRY.

WOOD PANEL SHEATHING:

1. WOOD STRUCTURAL PANELS SHALL COMPLY WITH 2018 IBC MINIMUM STANDARDS AND QUALITY SECTION 2303.

2. ALL PLYWOOD SHALL BE DOUGLAS FIR, STRUCTURAL I.

3. SILLS AND PLATES AT SHEAR WALLS SHALL BE CONTINUOUS AND FREE OF CUTS AND NOTCHES. PERFORATIONS SHALL BE ALLOWED WITH A MAXIMUM OF 1-3/4" DIAMETER AND SHALL BE LOCATED AS CLOSE TO CENTER AS POSSIBLE. SILL BOLTS TO ENTER CONCRETE 7" MINIMUM AND 12" MAXIMUM FROM ENDS OF SILL AND CORNERS.

NAILS & FASTENERS:

1. ALL CONNECTORS SHALL BE SIMPSON HARDWARE, ANY CHANGES SHALL BE APPROVED BY THE ENGINEER AND BUILDING OFFICIAL.

2. USE FULL NAILING/BOLTING AT ALL CONNECTORS.

3. ALL BOLTS TO BE A307 UNLESS NOTED OTHERWISE.

NAILING SCHEDULE:

JOIST TO SILL OR GIRDER - TOENAIL	3-8D
BRIDGING TO JOIST - TOENAIL EACH END	2-8D
1X6 SUBFLOOR OR LESS TO EACH JOIST - FACE NAIL	2-8D
WIDER THAN 1X6 SUBFLOOR TO EACH JOIST - FACE NAIL	3-8D
2" SUBFLOOR TO JOIST OR GIRDER - BLIND AND FACE NAIL	2-16D
SOLE PLATE TO JOIST OR BLOCKING - FACE NAIL	6D @ 16"
STUD TO TOP PLATE - END NAILING	2-16D
STUD TO SOLE PLATE - TOE NAIL END NAIL	4-8D OR 2-16D
CORNER STUDS, DOUBLE STUDS AND ANGLES	16D @ 24"
TOP PLATES, LAPS AND INTERSECTIONS - FACE NAILS	2-16D
TOP PLATE SPLICES	24-16D EACH SIDE OF SPLICE
CONTINOUS HEADER - TWO PIECES	16D @ 16" ALONG EACH EDGE
CEILING JOIST TO PLATE - TOE NAIL	4-8D
CONTINOUS HEADER TO STUD - TOE NAIL	4-8D
CEILING JOIST, LAPS OVER PARTITIONS - FACE NAIL	3-16D
CEILING JOIST TO PARALLEL RAFTERS - FACE NAIL	3-16D
RAFTERS TO PLATE - TOE NAIL	3-8
D1" BRACE TO EACH STUD AND PLATE - FACE NAIL	2-8D
1X8 SHEATING OR LESS TO EACH BEARING - FACE NAIL	2-8D
WIDER THAN 1" SHEATHING TO EACH BEARING - FACE NAIL	2-8D
BUILT UP CORNER STUDS	16D @ 24"
2" PLANKS	2-16D @ EACHING BEARING
FASTENING OF BUILT UP BEAMS	
2-2X	16D @ 12" STAGGERED
3-2X OR UP TO 5-2X	1/2" DIA. M.B. @ 18" STAGGERED FASTENINGS SHALL BE PLACED AT A MAXIMUM OF 1/4 THE BEAM DEPTH FROM TOP OR BOTTOM EDGES.

CONSTRUCTION NOTES:

1. ALL APPLICABLE CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1986 AND STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1984, AS AMENDED, OF THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTY OF HONOLULU AND THE COUNTIES OF KAUAI, MAUI, AND HAWAII.

2. THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM HIS SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.

3. NO CONTRACTOR SHALL PERFORM ANY CONSTRUCTION OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW INTO EXISTING CITY DRAINAGE SYSTEMS, OR ADJOINING PROPERTIES, STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATIONS OCCUR, THE CONTRACTOR MAY BE CITED AND THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS NECESSARY.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER QUALITY AND WATER POLLUTION CONTROL STANDARDS CONTAINED IN HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 54, "WATER QUALITY STANDARDS", AND TITLE 11, CHAPTER 55, "WATER POLLUTION CONTROL".

5. THE CONTRACTOR SHALL NOTIFY THE CIVIL ENGINEERING BRANCH, DEPARTMENT OF PLANNING AND PERMITTING, TO ARRANGE FOR INSPECTIONAL SERVICES AND SUBMIT FOUR (4) SETS OF APPROVED CONSTRUCTION PLANS SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION WORK.

6. CONFINED SPACE FOR ENTRY BY CITY PERSONNEL, INCLUDING INSPECTORS, INTO A PERMIT REQUIRED CONFINED SPACE AS DEFINED IN 29 CFR PART 1910.146(B), THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING:

I. ALL SAFETY EQUIPMENT REQUIRED BY THE CONFINED SPACE REGULATIONS APPLICABLE TO ALL PARTIES OTHER THAN THE CONSTRUCTION INDUSTRY, TO INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING:

A. FULL BODY HARNESSES FOR UP TO TWO PERSONNEL.

B. LIFELINE AND ASSOCIATED CLIPS.

C. INGRESS/EGRESS AND FALL PROTECTION EQUIPMENT.

D. TWO-WAY RADIOS (WALKIE-TALKIES) IF OUT OF LINE-OF-SIGHT.

E. EMERGENCY (ESCAPE) RESPIRATOR (10 MINUTE DURATION).

F. CELLULAR TELEPHONE TO CALL FOR EMERGENCY ASSISTANCE.

G. CONTINUOUS GAS DETECTOR (CALIBRATED) TO MEASURE OXYGEN, HYDROGEN SULFIDE, CARBON

H. PERSONAL MULTI-GAS DETECTOR TO BE CARRIED BY INSPECTOR.

II. CONTINUOUS FORCED AIR VENTILATION ADEQUATE TO PROVIDE SAFE ENTRY CONDITIONS.

III. ONE ATTENDANT/RESCUE PERSONNEL TOPSIDE (TWO, IF CONDITIONS WARRANT IT).

7. PURSUANT TO CHAPTER 6E, HRS, IN THE EVENT ANY ARTIFACTS OR HUMAN REMAINS ARE UNCOVERED DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL IMMEDIATELY SUSPEND WORK AND NOTIFY THE HONOLULU POLICE DEPARTMENT, THE STATE DEPARTMENT OF LAND AND NATURAL RESOURCES-HISTORIC PRESERVATION DIVISION. IN ADDITION, FOR NON-CITY PROJECTS, THE CONTRACTOR SHALL INFORM THE CIVIL ENGINEERING BRANCH, DEPARTMENT OF PLANNING AND PERMITTING AND FOR CITY PROJECTS, NOTIFY THE RESPONSIBLE CITY AGENCY.

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH DEPARTMENT OF PLANNING AND PERMITTING — DATE

REVISION NO.	DATE	REVISIONS	BY

ATHER R. DAR — Licensed Professional Engineer — 7808-S — Hawaii, U.S.A.

Exp. Date: 4-30-28

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

DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAII HILO DISTRICT OFFICE
DHHL OFFICE IMPROVEMENTS
162 BAKER AVE, HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

STRUCTRUAL NOTES

DESIGNED BY:	YK
DRAWN BY:	KJ
CHECKED BY:	AD
SUPV:	
DATE:	05/08/26

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Tel: 808-533-2092

JOB NO. 24-096

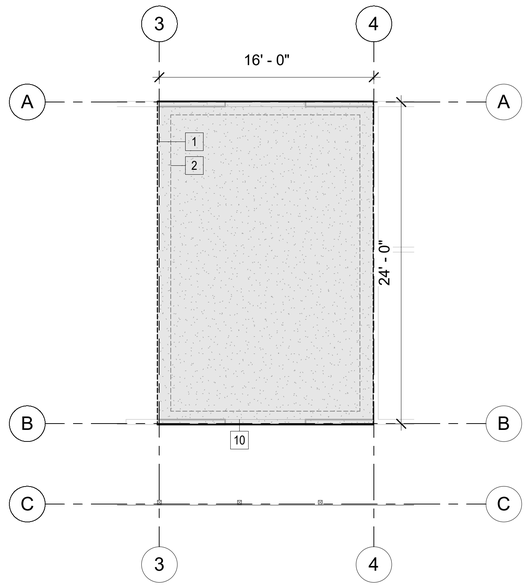
SHEET S01
17 OF 35 SHTS

2020/CP-186

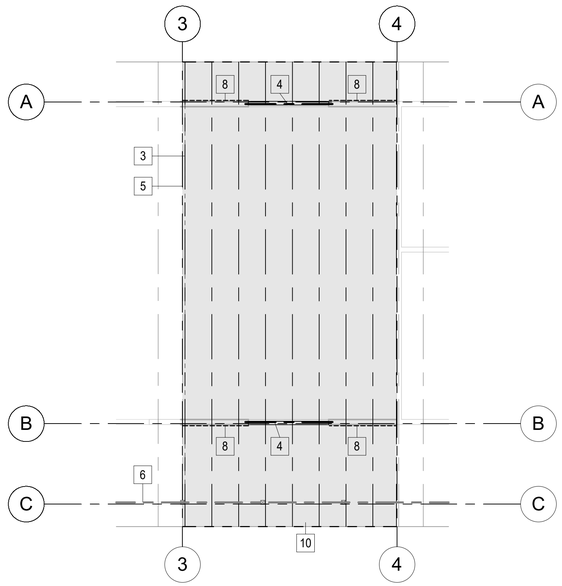
FILE _____ DRAWE _____ FOLDER _____

STRUCTURAL PLAN KEYNOTES

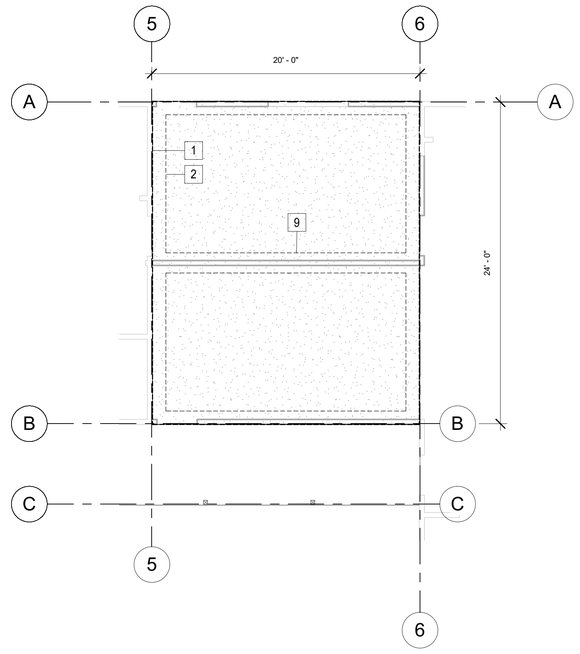
1. (N) SLAB FOUNDATION
2. (N) TURN-DOWN SLAB
3. (N) 2X OVERFRAMING
4. (N) 4x8 HEADER
5. (E) RAFTER
6. (E) BEAM
7. (N) 4x12 BEAM
8. SHEAR WALL PANELING
9. THICKENED SLAB
10. UNPERMITTED BUILT SPACE



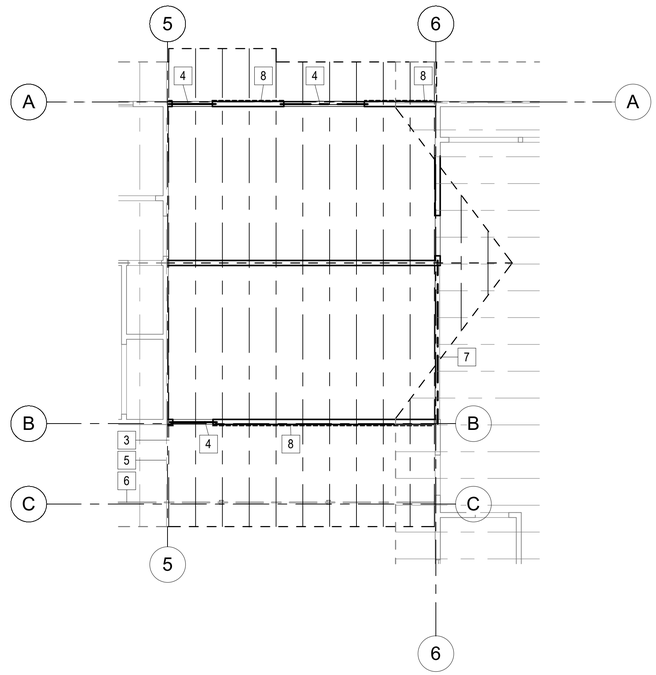
1 S02 CONFERENCE FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



3 S02 CONFERENCE ROOF PLAN
SCALE: 3/16" = 1'-0"

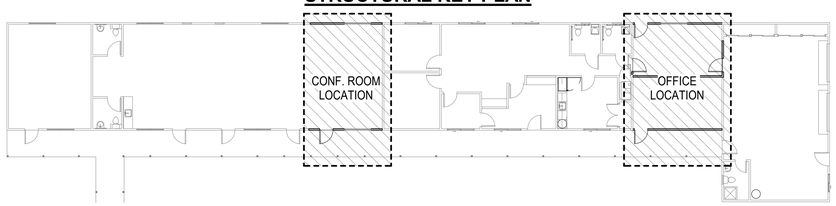


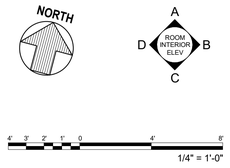
4 S02 OFFICE FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



5 S02 NEW OFFICE ROOF PLAN
SCALE: 3/16" = 1'-0"

STRUCTURAL KEY PLAN





APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH
DEPARTMENT OF PLANNING AND PERMITTING

DATE

REVISION NO.	DATE	REVISIONS	BY

Licensed Professional Engineer 7808-S
Exp. Date: 4-30-28

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DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAII HILO DISTRICT OFFICE
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STRUCTURAL FLOOR PLANS

DESIGNED BY:	YK
DRAWN BY:	KJ
CHECKED BY:	AD
SUPV:	
DATE:	05/08/26

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JOB NO. 24-096

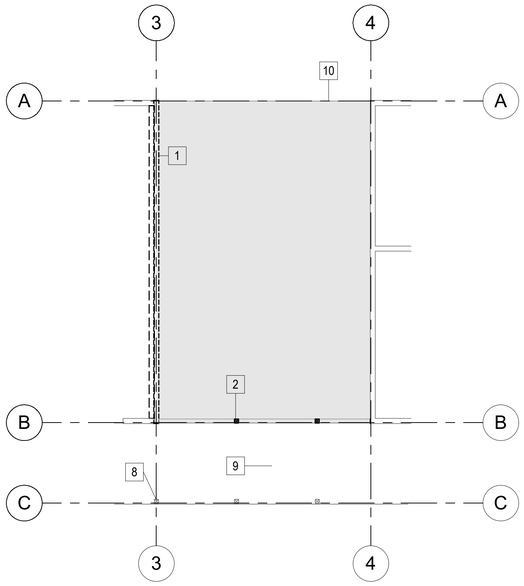
SHEET S02
18. OF 35 SHTS

2020/CP-186

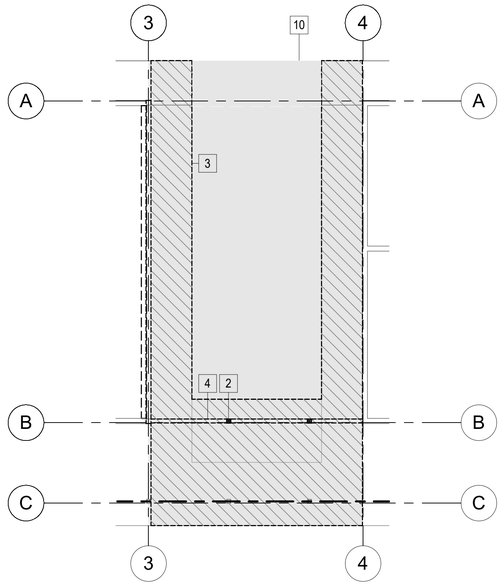
FILE _____ DRAWE _____ FOLDER _____

DEMO FLOOR PLAN KEYNOTES

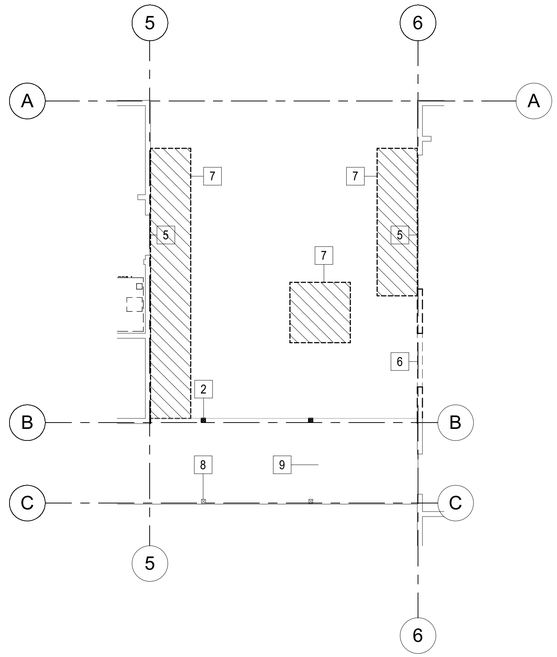
1. REMOVE (E) WALL
2. REMOVE (E) COLUMN
3. REMOVE (E) ROOF FRAMING
4. REMOVE (E) BEAM
5. REMOVE (E) DOOR
6. REMOVE (E) WINDOW
7. REMOVE (E) SLAB
8. (E) COLUMN
9. (E) FOUNDATION
10. UNPERMITTED BUILT SPACE



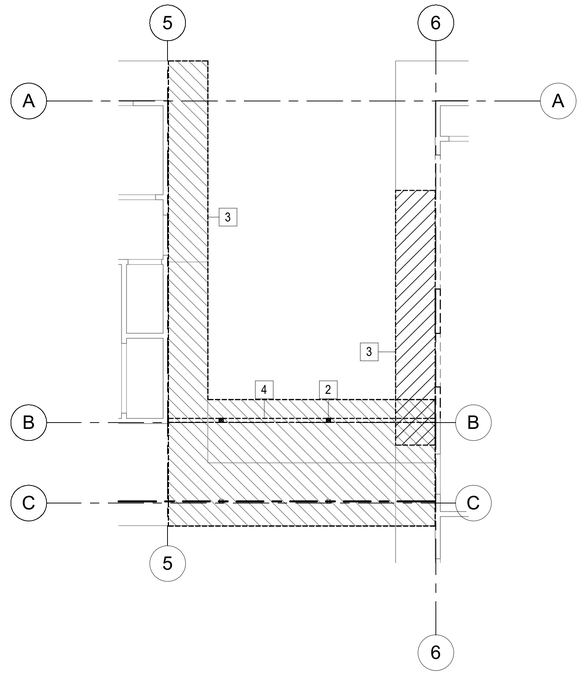
1 S03 CONFERENCE FOUNDATION DEMO PLAN
SCALE: 3/16" = 1'-0"



3 S03 CONFERENCE ROOF DEMO PLAN
SCALE: 3/16" = 1'-0"

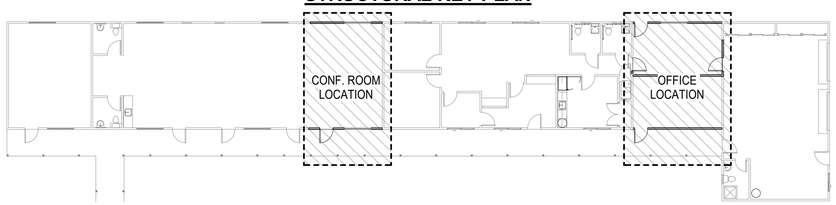


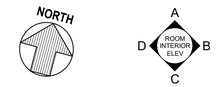
2 S03 NEW OFFICE FOUNDATION DEMO PLAN
SCALE: 3/16" = 1'-0"



4 S03 NEW OFFICE ROOF DEMO PLAN
SCALE: 3/16" = 1'-0"

STRUCTURAL KEY PLAN





APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH
DEPARTMENT OF PLANNING AND PERMITTING

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7808-S
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Exp. Date: 4-30-28

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STRUCTURAL DEMO FLOOR PLANS

DESIGNED BY:	YK
DRAWN BY:	KJ
CHECKED BY:	AD
SUPV:	
DATE:	05/08/26

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JOB NO. 24-096

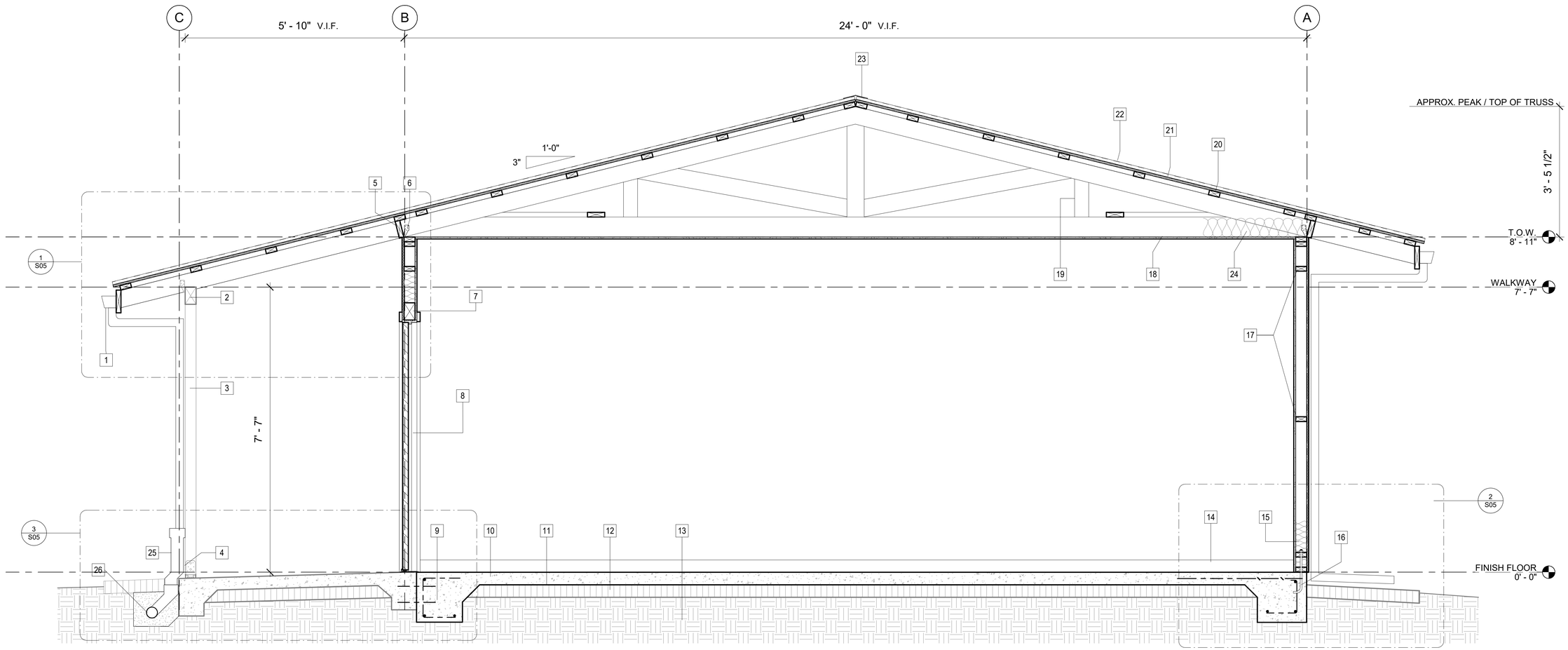
SHEET S03
19 OF 35 SHTS

2020/CP-186

FILE _____ DRAWE _____ FOLDER _____

BUILDING SECTION KEYNOTES

1 GUTTER	7 4X6 HEADER	13 COMPACTED STRL. FILL	19 PRE-INGINEERED TRUSS	25 DOWNSPOUT BOOT
2 4x6 BM. w/ SIMPSON H7	8 DOOR	14 VINYL BASE BD.	20 2x4 PERLIN 2' O.C.	26 RAIN COLLECTION SYSTEM, SEE CIVAL
3 4x4 POST	9 1' - 4" CONCRETE FOOTING w/ 3 #4 CONT. & #3 TIES @ 32 O.C.	15 INSULATION	21 1/2" PLYWOOD SHEATHING	
4 SIMPSON ABU44	10 4" THICK. CONC. SLAB w/ 6x6/10/10 W.W.M	16 1/2"x12" A.B @ 48" O.C. & 12" FROM ENDS	22 26 GA. PRE-PAINTED CORR. MTL. ROOF	
5 2x FREEZE BD. w/ SCREEN VENTS BTWN. EVERY OTHER RAFTER, TYP	11 6 ML VAPOR BARRIER	17 2x BLOCKING	23 SHT. MTL. RIDGE CAP	
6 SIMPSON H7, TYP	12 4" COMPACTED BASE COURSE	18 1/2" GYP. BD	24 6" INSULATION	



1 TRANSVERSE SECTION
S04 SCALE: 3/4" = 1'-0"

1' 0 1' 2'
3/4" = 1'-0"

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SHEET S04
20 OF 35 SHTS

2020/CP-186

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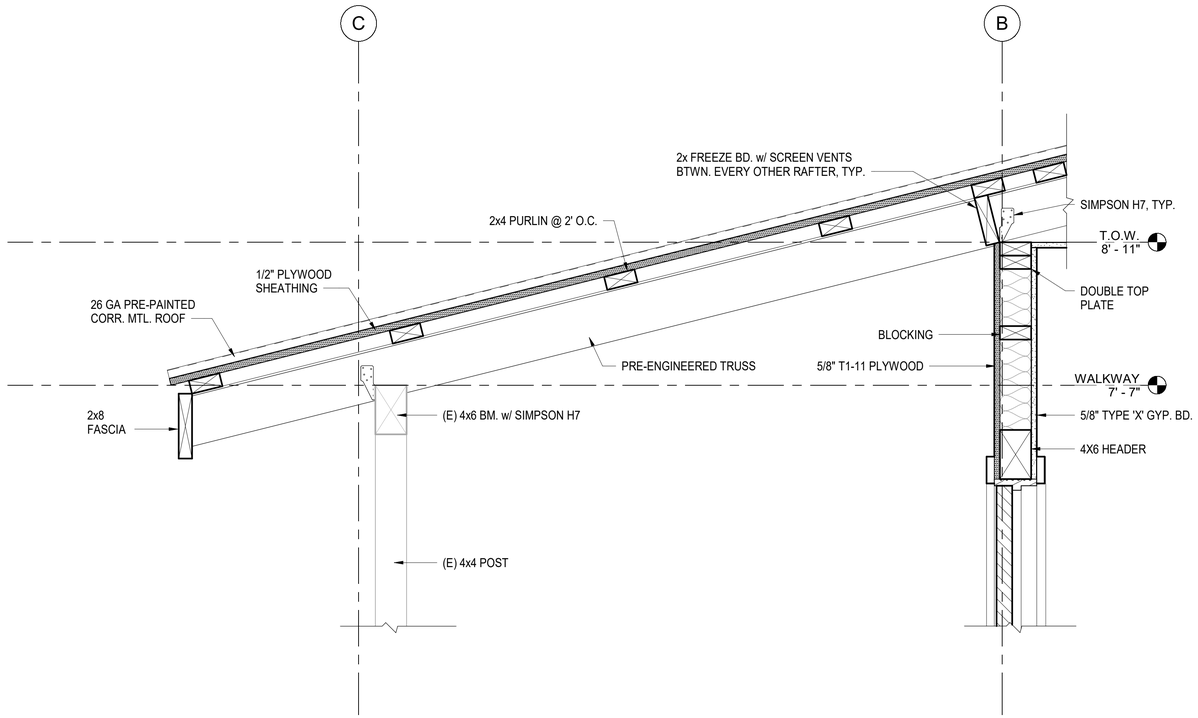
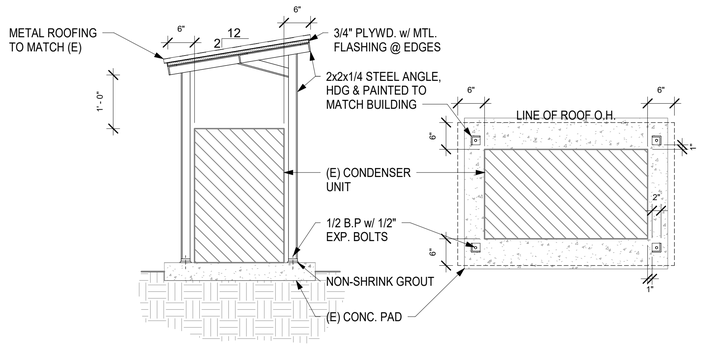


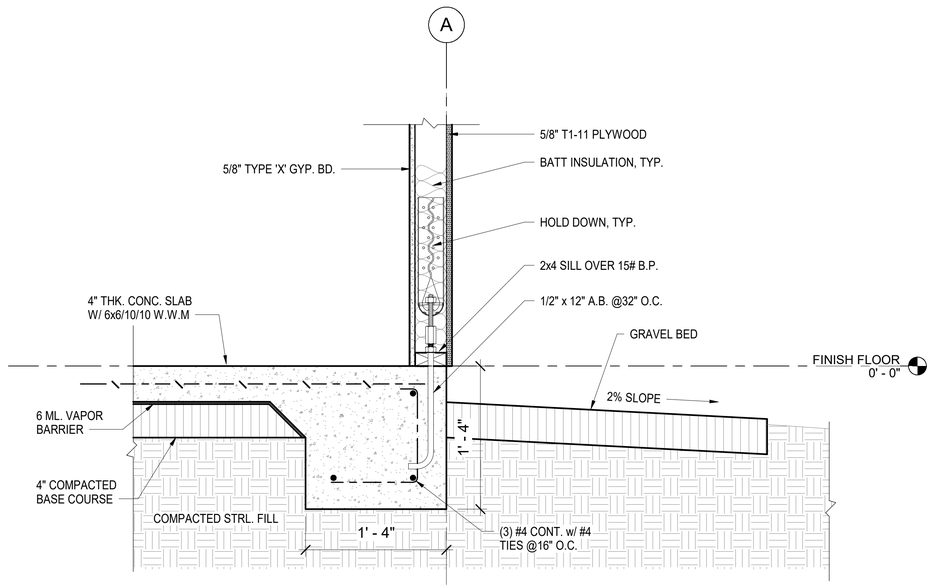
1 S05 WALKWAY DETAIL - ROOF

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



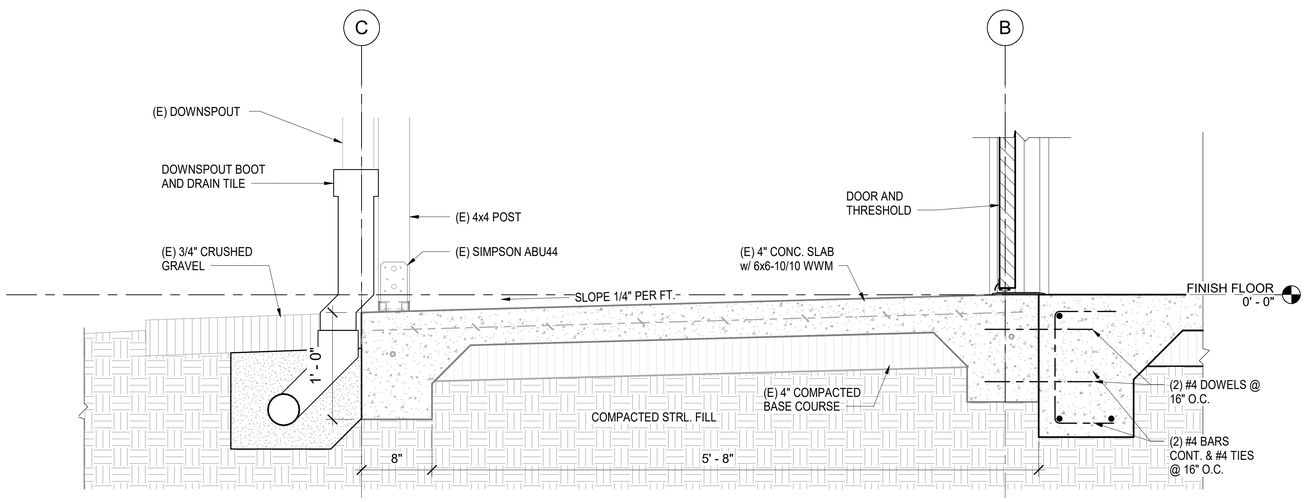
4 S05 CONDENSER CANOPY DETAIL

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



2 S05 TYPICAL FOOTING DETAIL

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



3 S05 WALKWAY DETAIL - FOUNDATION

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

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

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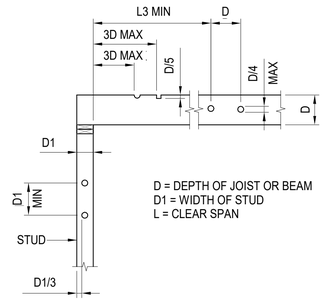
SHEET S05
21 OF 35 SHTS

2020/CP-186

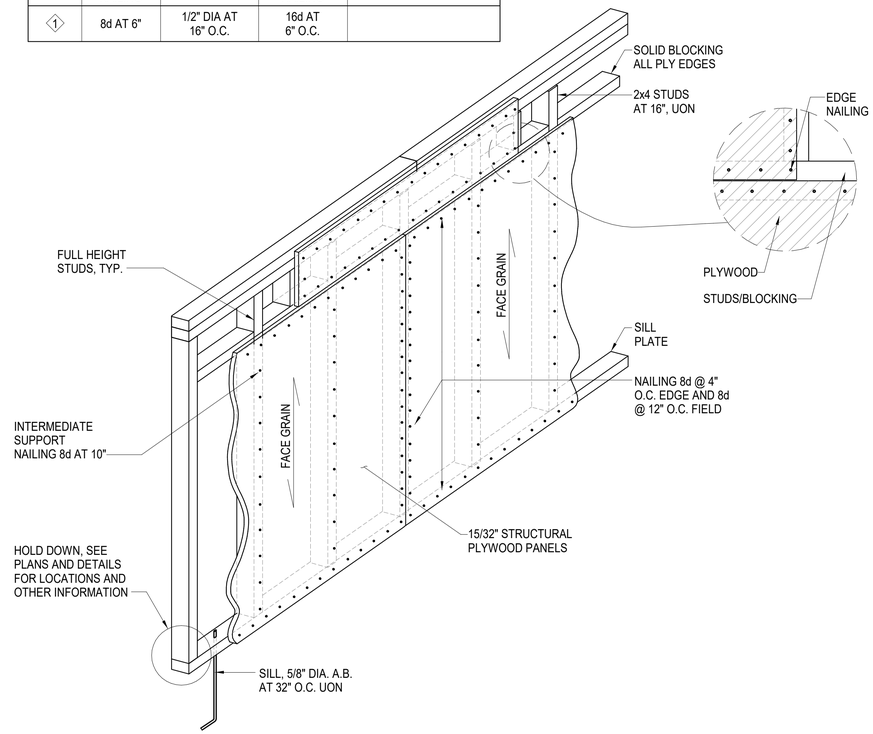
FILE ____ DRAWE ____ FOLDER ____



5 S06 ALLOWABLE HOLES AND NOTCHES

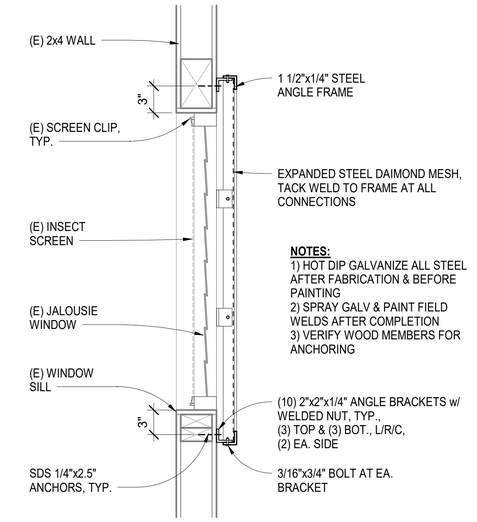
SCALE: 1/2" = 1'-0"

SHEAR WALL SCHEDULE				
TYPE	EDGE NAILING	SILL BOLTS	SILL NAILING	REMARKS
◇1	8d AT 6"	1/2" DIA AT 16" O.C.	16d AT 6" O.C.	



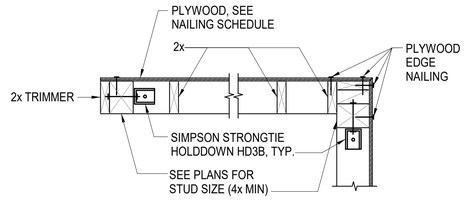
3 S06 TYPICAL SHEARWALL DETAIL

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



6 S06 SECURITY SCREEN SECTION

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

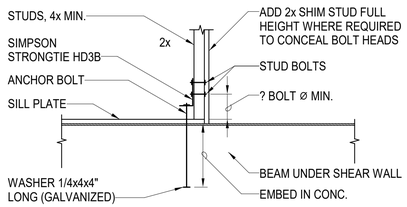


END CONDITION **CORNER CONDITION**

NOTE: TO BE READ WITH TYPICAL ELEVATION OF HOLDDOWN AT FLOOR.

2 S06 TYPICAL PLAN OF HOLD DOWN A FLOOR

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

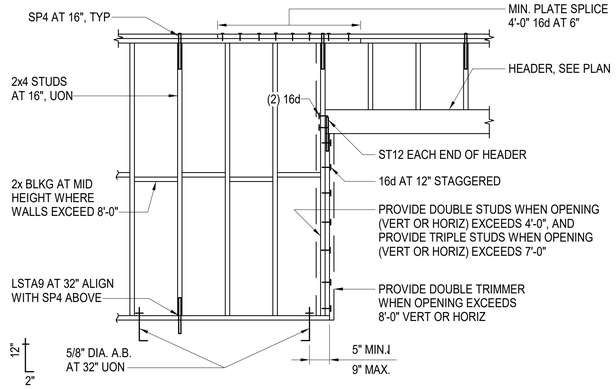


HOLD DOWN SCHEDULE			
TYPE	ANCHOR DIA.	STUD BOLT DIA.*	AB CONC. EMBED
HD3B	5/8"	(2) 5/8"	6"
HD5B	5/8"	(2) 3/4"	11"
HD9B	7/8"	(3) 7/8"	15"

* SIMPSON SDS 1/4x3" SCREWS

1 S06 TYPICAL HOLD DOWN DETAIL AT CONC SUPP

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



4 S06 TYPICAL STUD WALL FRAMING

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

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DATE

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STRUCTURAL DETAILS

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SUPV:	
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JOB NO. 24-096

SHEET S06
22 OF 35 SHTS

2020/CP-186

FILE ____ DRAWE ____ FOLDER ____

GENERAL NOTES:

1. ALL WORK SHOWN ON THESE DRAWINGS ARE NEW UNLESS OTHERWISE NOTED AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
2. AS-BUILTS OF UNDERGROUND UTILITIES DO NOT EXIST. PRIOR TO ORDERING MATERIALS AND PROCURING EQUIPMENT, SUCCESSFUL BIDDER (CONTRACTOR) SHALL BE REQUIRED TO VERIFY ALL EXISTING BELOW GRADE CONDITIONS SUCH AS INVERTS AND EXISTING PIPE ROUTE THAT AFFECT HIS WORK (VIA SUCH METHODS AS TONING/SCANNING, ETC). SHOW ALL DISCREPANCIES ON SHOP DRAWINGS AND NOTIFY THE ENGINEER IN WRITING OF SUCH DISCREPANCIES PRIOR TO PROCUREMENT.
3. THIS CONTRACT REQUIRES THE PLUMBING AND MECHANICAL SUBCONTRACTORS TO CAREFULLY COORDINATE THEIR WORK WITH EACH OTHER, THE GENERAL CONTRACTOR AND OTHER TRADES. PRIORITY SHALL BE GIVEN IN THE FOLLOWING ORDER:
   A. GRAVITY FLOW: SEWER PIPING.
   B. EQUIPMENT.
   C. FORCED AND PRESSURE PIPING SUCH AS WATER PIPING.
4. CONTRACTOR SHALL PROVIDE DIELECTRIC UNIONS AT CONNECTION POINTS FOR PIPING OF DISSIMILAR METALS.
5. FOR ALL FLOOR, WALL PARTITION, CEILING AND ROOF PENETRATIONS, SEE ARCHITECTURAL DRAWINGS FOR DETAILS.
6. ALL PENETRATIONS OF REQUIRED FIRE RATED WALLS, PARTITIONS AND FLOORS SHALL BE PROVIDED WITH FIRE STOPPING MATERIAL PER IBC.
7. NO CUTTING OR DRILLING OF ANY STRUCTURAL MEMBERS WILL BE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.
8. ALL FASTENERS, SUPPORTS, PIPE HANGERS, SPRING ISOLATORS, AND MISCELLANEOUS STEEL ITEMS INCLUDING BUT NOT LIMITED TO BOLTS, NUTS, SCREWS, RODS, PLATES, AND ANGLES, ETC. SHALL BE GALVANIZED UNLESS OTHERWISE NOTED OR SPECIFIED.

PLUMBING NOTES:

1. ALL HORIZONTAL WASTE, AND SEWER PIPE SHALL BE SLOPED AT 1/4" PER FOOT UNLESS OTHERWISE NOTED.
2. WHEN VALVES ARE INSTALLED IN HORIZONTAL POSITION, VALVE STEM SHALL BE INSTALLED IN AN UPRIGHT POSITION. IF THIS IS NOT POSSIBLE BECAUSE OF SPACE AND HEADROOM CONSTRAINTS, VALVE STEM SHALL BE INSTALLED IN AN INCLINED POSITION ABOVE THE HORIZONTAL CENTERLINE OF THE PIPE.
3. CONTRACTOR SHALL PROVIDE DIELECTRIC UNIONS AT CONNECTION POINTS FOR ALL DISSIMILAR PIPING.
4. ALL COPPER PIPES SHALL USE NON-CORROSIVE FLUX, NON-LEAD SOLDER.
5. ALL PENETRATIONS OF REQUIRED FIRE RATED WALLS, PARTITIONS AND FLOORS SHALL BE PROVIDED WITH FIRE STOPPING MATERIAL, SEE ARCH.
6. SUPPORT HORIZONTAL LINES OF COPPER TUBING AND PLASTIC DWV WITH HANGERS SPACED NOT MORE THAN 6 FEET, CENTER TO CENTER FOR ALL PIPE SIZES. ALL PIPES SHALL BE SUPPORTED AT ELBOWS, BRANCHES AND RISERS.

PLUMBING SPECIFICATIONS:

1. FOR ALL PLUMBING FIXTURES PROVIDE SUPPLY STOPS, P-TRAPS, ESCUTCHEONS, AND ACCESSORIES AS NECESSARY TO MAKE A COMPLETE AND FUNCTIONAL SYSTEM. FOR ALL OWNER FURNISHED CONTRACTOR INSTALLED (OFCI) FIXTURES, CONTRACTOR SHALL CONSULTANT WITH THE OWNER FOR THOSE FIXTURE DETAILS.
2. FOR PLUMBING FIXTURE SPECS, SEE PLUMBING FIXTURE CONNECTION SCHEDULE
3. WATER HAMMER ARRESTOR (WHA): SIZE A, PDI STANDARD NO 201 APPROVED. MAINTENANCE FREE, LEAD FREE TYPE AND SHALL NOT REQUIRE ACCESS PANEL.
4. BALL VALVE (BV): 125 PSI SWP, FULL PORT BALL VALVE, BRONZE 2-PIECE BODY, STAINLESS STEEL BALL, VIRGIN TFE SEAT, SCREWED ENDS, STAINLESS STEEL LEVER HANDLE WITH INTEGRAL STOP AND WITH STEM EXTENSION TO ACCOMMODATE INSULATION WHERE REQUIRED. LEAD FREE. MODEL: NIBCO T-585-66-LF OR APPROVED EQUAL.
5. HOT AND COLD WATER PIPE: TYPE L SEAMLESS COPPER ASTM-B88 WITH WROUGHT COPPER OR CAST COPPER ALLOY SOLDER FITTING. SOLDER AND BRAZING FLUX SHALL BE LEAD FREE TYPE. UNDERGROUND PIPE IS TYPE K.
6. SOIL, WASTE AND VENT PIPE: CAST IRON SOIL, WASTE AND VENT PIPING TO BE TYLER PIPE NO-HUB PIPE AND FITTINGS OR APPROVED EQUAL. CONFORM TO CISP 301-72 AND PROVIDE CAST IRON MG COUPLING.
7. PIPING INSULATION (INSULATE ALL PIPES WITH OPERATING TEMPERATURES BELOW 60 DEGREES F AND ABOVE 105 DEGREES F): MEET 25/50 FLAME SPREAD AND SMOKE DEVELOPMENT RATING ASTM-84. INSTALL PER MANUFACTURER'S RECOMMENDATION.
   HOT WATER PIPING (TEMP GREATER THAN 105'F):
   - MAXIMUM "K" FACTOR OF 0.23 (BTU x INCH)/(h x S.F. x 'F) AT A MEAN TEMPERATURE OF 100 DEGREES F
   - MINIMUM INSULATION THICKNESS: PIPE SIZE 1" OR SMALLER SHALL BE MINIMUM OF 1". PIPE SIZE LARGER THAN 1" SHALL MATCH THE PIPE DIAMETER UP TO 2".

   COLD WATER PIPE (TEMP BELOW 60'F):
   - MAXIMUM "K" FACTOR OF 0.23 (BTU x INCH)/(h x S.F. x 'F) AT A MEAN TEMPERATURE OF 75 DEGREES F, INSULATION THICKNESS SHALL BE MINIMUM OF 1".

PLUMBING SPECIFICATIONS(CONT'D):

10. SHOP DRAWINGS: CONTRACTOR SHALL SUBMIT TO THE ENGINEER, 1/4" SCALED SHOP DRAWINGS CREATED IN AUTOCAD SHOWING ALL INTENDED INVERTS (PER FIELD VERIFIED SCANNING/ TONING), PIPE ROUTES, ISOMETRIC DIAGRAMS, SIZES, EQUIPMENT FOR REVIEW AND APPROVAL PRIOR TO ORDERING ANY MATERIALS.
11. WARRANTY: ALL WORK AND MATERIAL EXECUTED UNDER THIS PROJECT SCOPE OF WORK SHALL BE GUARANTEED TO BE FREE OF DEFECT AND SHALL BE UNDER WARRANTY FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF THIS PROJECT. SHOULD ANY EQUIPMENT OR MATERIAL FAIL WITHIN THIS PERIOD, CONTRACTOR SHALL REPAIR/REPLACE THAT ITEM AT NO COST TO THE OWNER.
12. DISINFECTION AND TESTING:
    - ALL DOMESTIC WATER PIPING SHALL BE DISINFECTION AND THOROUGHLY FLUSHED AND DRAINED AFTER INSTALLED PER UPC 2018.
    - ALL WATER PIPING SHALL BE PRESSURE TESTED UNDER A WATER PRESSURE NOT LESS THEN THE WORKING PRESSURE PER UPC 2018.
    - ALL SANITARY SHALL BE WATER TESTED AND AIR TESTED PER UPC 2018.
13. ALL FLOOR PENETRATIONS MUST BE CORE BORED, SLEEVED, GROUTED, SEALED AND MADE WATERPROOF. SLEEVES MUST EXTEND A MINIMUM OF 4"AFF. ALL PENETRATION MUST BE SCANNED USING NONDESTRUCTIVE VERIFICATION.
14. ANY DAMAGE DONE TO THE EXISTING CONDITION BY THIS WORKS SHALL BE REPAIR/REPLACED BY CONTRACTOR WITHOUT ADDITION COST TO THE OWNER.

PLUMBING LEGEND:

	AFF	ABOVE FINISHED FLOOR
	ABV	ABOVE
	AP	ACCESS PANEL
	BEL	BELOW
	BM	BEAM
——⋈——	BV	BALL VALVE
	CLG	CEILING
	CONN	CONNECT OR CONNECTION
	CONT	CONTINUATION
	COTG	CLEAN OUT TO GRADE
——·——	CW	COLD WATER
	DN	DOWN
	(E)	EXISTING
	EWH	ELECTRICAL WATER HEATER
	FD	FLOOR DRAIN
	GC	GENERAL CONTRACTOR
—⊣⊢—	HB	HOSE BIBB (@ 24" AFG)
——·——·——	HW	HOT WATER SUPPLY

0.00	HS	HAND SINK
	INV	INVERT ELEVATION, FEET
	LVL	LEVEL
	MS	MOP SINK
	POC	POINT OF CONNECTION
——————	S OR GW	SOIL OR GREASE WASTE
	SK	SINK
	TC	TIME CLOCK
— — — — —	V	VENT
	VIF	VERIFY IN FIELD
	VTR	VENT THRU ROOF

DEMO PLUMBING FIXTURE SUMMARY

FIXTURE	QUANTITY	FU EACH	TOTAL FU
WATER CLOSET (WC)	3	1.7	5.1
LAVATORY (LAV)	5	0.6	3.0
KITCEHN SINK (SK)	3	1.6	4.8
LAUNDRY TRAY	1	1.6	1.6
TOTAL PROPOSED FIXTURE UNITS	12		14.5

PROPOSED PLUMBING FIXTURE SUMMARY

FIXTURE	QUANTITY	FU EACH	TOTAL FU
WATER CLOSET (WC)	3	1.7	5.1
LAVATORY (LAV)	5	0.6	3.0
KITCEHN SINK (SK)	2	1.6	3.2
LAUNDRY TRAY	1	1.6	1.6
TOTAL PROPOSED FIXTURE UNITS	11		12.9

PLUMBING FIXTURE LOCAL CONNECTION SCHEDULE

FIXTURE	SYMBOL	WASTE	VENT	COLD WATER	HOT WATER	MAXIMUM CONSUMPTION	REMAKRS
WATER CLOSET	WC	4"	2"	1/2"	-	1.6 GPF	FLOOR MOUNTED, FLISH TANK. [KOHLER K-3589 OR APPROVED EQUAL]
LAVATORY	LAV	2"	1-1/2"	1/2"	1/2"	0.5 GPM	OVAL BASIN, COUNTERTOP. [KOHLER K-2196 BOWL WITH K-12182 FACUET OR APPROVED EQUAL]
KITCHEN SINK	SK	2"	1-1/2"	1/2"	-	2.2 GPM	STAINLESS STEEL, SINGLE COMPARTMENT. [ELKAY ELUHA211545 WITH LK 6000 FACUET OR APPROVED EQUAL]
LAUNTRY TRAY	LT	2"	1-1/2"	1/2"	1/2"	2.2 GPM	FLOOR MOUINTED, WITH 20 GALLON CAPACITY [MUSTEE 14 UTILATUB WITH GLACIER BAY 4211N OR APPROVED EQUAL]

NOTES:
1. ALL PLUMBING FIXTURES SHALL BE OWNER FURNISHED AND CONTRACTOR INSATLLED.
2. ALL UNDERGROUND SOIL, WASTE AND VENT PIPE SIZE SHALL BE 2" MINIMUM.
3. SEE ARCHITECTURAL DRAWING FOR REGULAR AND ACCESSIBLE FIXTURE HEIGHTS AND LOCATION.
4. ACCESSIBLE LAVATORIES AND SINKS EXPOSED WASTE AND WATER PIPING BELOW COUNTER AND ABOVE FINISHED FLOOR SHALL BE INSULATED.

WATER HEATER SCHEDULE

MARK	DESCRIPTION	LOCATION	SERVICE	TEMP RISE	ELECTRICAL				BASIS OF DESIGN	WEIGHT (LBS)
					WATTS	V	PH	AMPS		
IWH	TANKLESS WATER HEATER	RESTROOM	LAVATORY	57.0 F @ 0.5 GPM	4,160	208	1	20	CHRONOMITE CM-20L, OR APPROVED EQUAL	10
IWH-1	TANKLESS WATER HEATER	RESTROOM	SINK & LAVATORY	43.0 F @ 1.0 GPM	6,240	208	1	30	CHRONOMITE CM-30L, OR APPROVED EQUAL	10

NOTES:
SET TO 110° F, (ADJ.), PROVIDE INTEGRAL DISCONNECT IN FACTORY.
TANKLESS HEATER SHALL HAS A LOW FLOW ACTIVATION (0.20 GPM)
BUILT IN ANTI-SCALED WITHOUT TMV. UNIONS. UL AND UPC LISTED.

REVISION NO.	DATE	REVISIONS	BY

RAY S. C. AU
LICENSED PROFESSIONAL ENGINEER
No. 17348-M
HAWAII, U.S.A.
Exp. Date: 4-30-28

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

DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAI'I DISTRICT OFFICE IMPROVEMENTS
162 BAKER AVE., HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

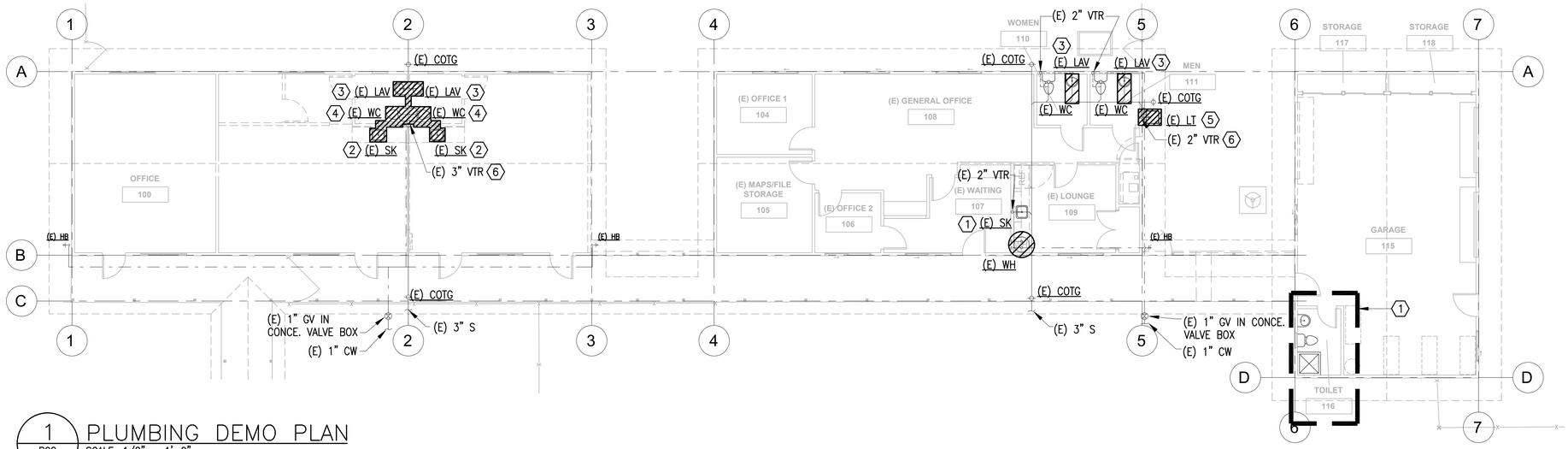
PLUMBING NOTES, SPEC AND LEGEND

DESIGNED BY: RA
DRAWN BY: GRE
CHECKED BY: RA
SUPV:
DATE: 05/08/26

HAWAII ENGINEERING GROUP, Inc.
Civil & Structural Engineers
1088 BISHOP STREET #2506
HONOLULU, HI 96813
Tel: 808-533-2092

JOB NO. 24-096
SHEET P01
23 OF 35 SHTS

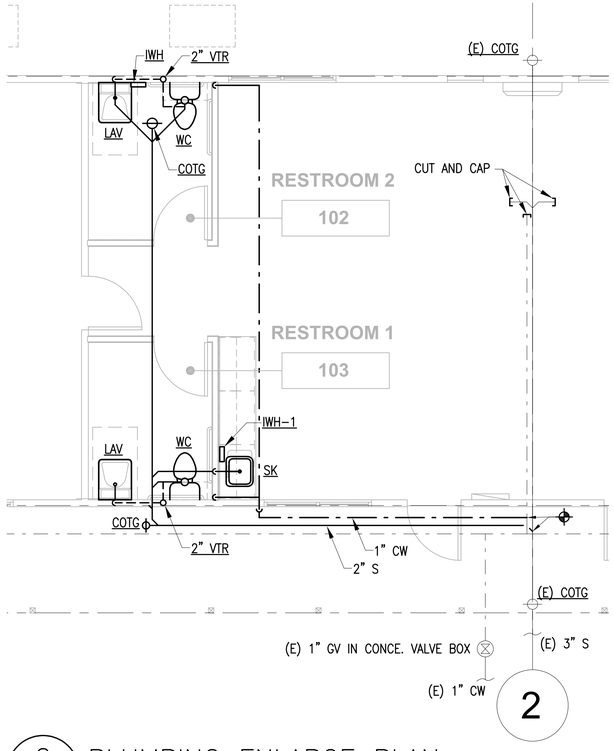
FILE _____ DRAWER _____ FOLDER _____



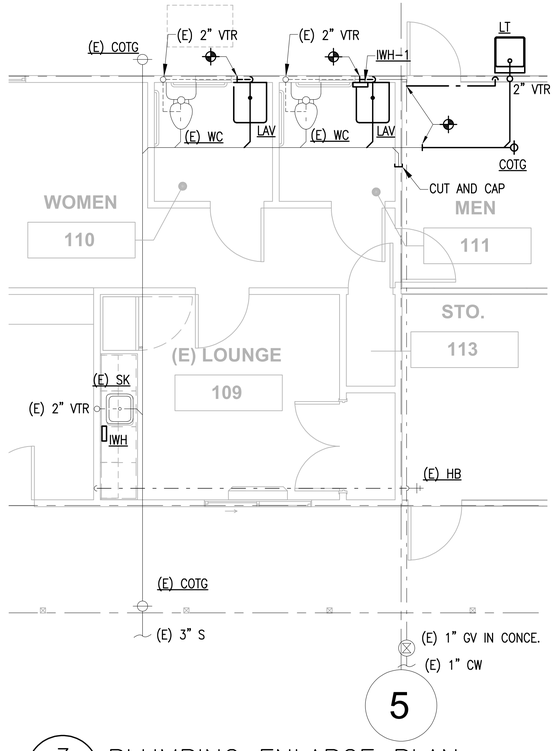
1 / P02 PLUMBING DEMO PLAN
SCALE: 1/8" = 1'-0"

PLUMBING KEYNOTES:

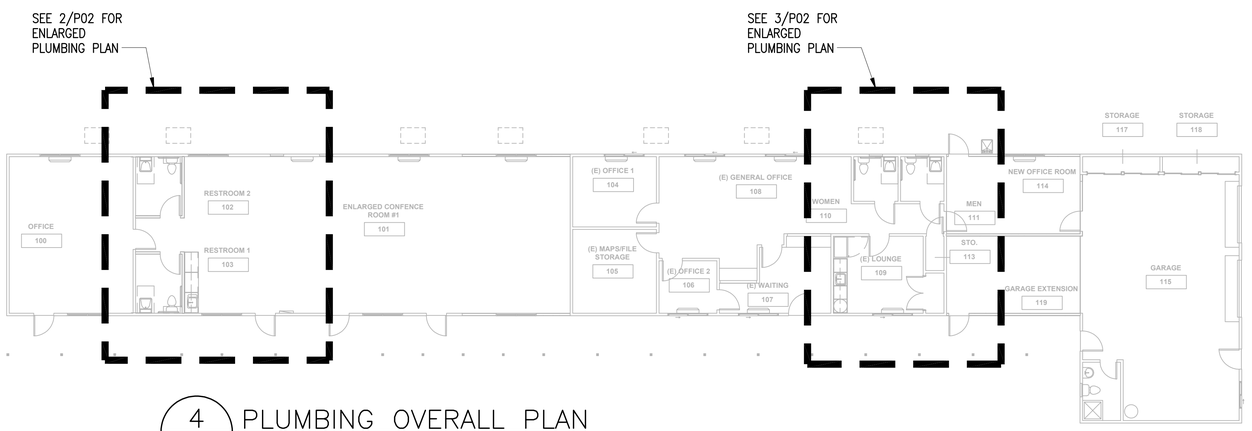
1. EXISTING PLUMBING FIXTURES REMAIN AS IT, NO PLUMBING RELATED WORK.
2. REMOVE (E) KITCHEN SINK, FAUCET, TRAP ARM, P-TRAP, TAILPIECE, ANGLE STOPS AND ALL RELATED WASTE, VENT AND WATER DISTRIBUTION PIPING.
3. REMOVE (E) LAVATORY, FAUCET, TRAP ARM, P-TRAP, TAILPIECE, ANGLE STOPS AND ALL RELATED WASTE, VENT AND WATER DISTRIBUTION PIPING.
4. REMOVE (E) WATER CLOSET, CLOSET BEND, FLUSH VALVE ASSEMBLY, AND ALL RELATED COMPONENTS.
5. REMOVE (E) LAUNDRY TRAY, FAUCET, TRAP ARM, P-TRAP, TAILPIECE, ANGLE STOPS AND ALL RELATED WASTE, VENT AND WATER DISTRIBUTION PIPING.
6. DEMO AND REMOVE (E) WATER, WASTE AND VENT PIPES AS SHOWN HATCHED. CAU AND CAP ALL UN-USED PIPES. PATCH AND REPAIR ALL UN-USED PENETRATION TO MATCH WITH ADJACENT FINISHING.
7. DEMO AND REMOVE (E) WATER HEATER AS SHOWN HATCHED.
8. ALL EXISTING PIPING ROUTING AND SIZING SHOWN ON PLAN ARE FOR REFERENCE PURPOSE ONLY, CONTRACTOR SHALL FILED VERIFY ALL EXISTING TO BE RE-USED PIPING ROUTING, SIZING AND CONDITION. FOR ANY CRACK / LEAK (BY CAMERA OR TONING), CONTRACTOR SHALL REPAIR / REPLACE DAMAGED / NON-REUSABLE PIPING.



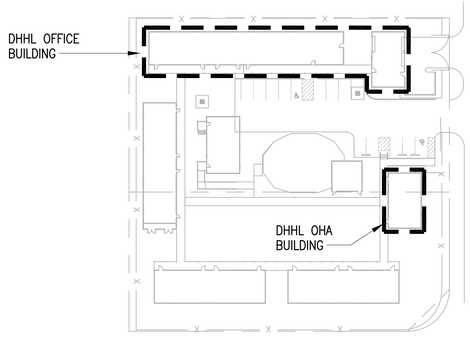
2 / P02 PLUMBING ENLARGE PLAN
SCALE: 1/4" = 1'-0" RM 102 & 103



3 / P02 PLUMBING ENLARGE PLAN
SCALE: 1/4" = 1'-0" RM 109, 110 & 111



4 / P02 PLUMBING OVERALL PLAN
SCALE: 3/32" = 1'-0"



SITE PLAN
SCALE: NOT TO SCALE

REVISION NO.	DATE	REVISIONS	BY

RAY S. C. AU
LICENSED PROFESSIONAL ENGINEER
No. 17348-M
HAWAII, U.S.A.
Exp. Date: 4-30-28

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DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAI'I DISTRICT OFFICE IMPROVEMENTS
162 BAKER AVE., HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

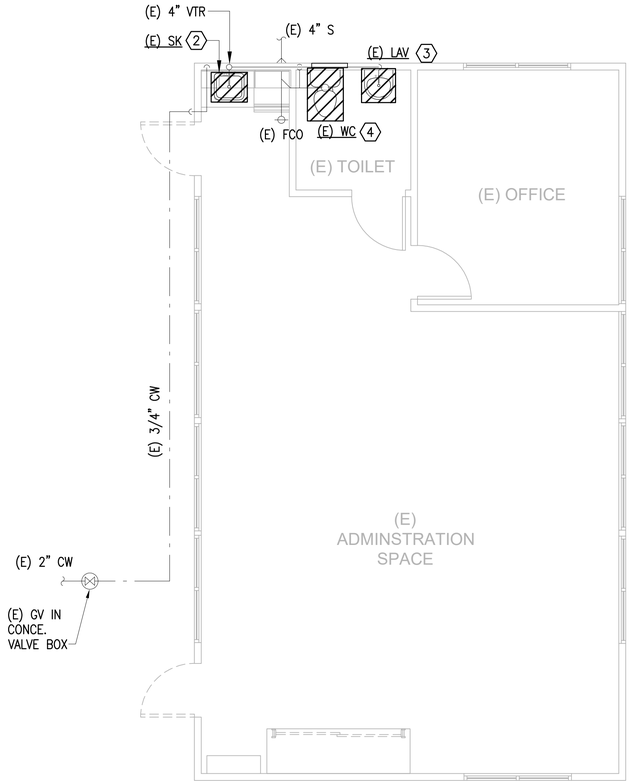
PLUMBING PLANS _ OFFICE BLDG

DESIGNED BY:	RA
DRAWN BY:	GRE
CHECKED BY:	RA
SUPV:	
DATE:	05/08/26

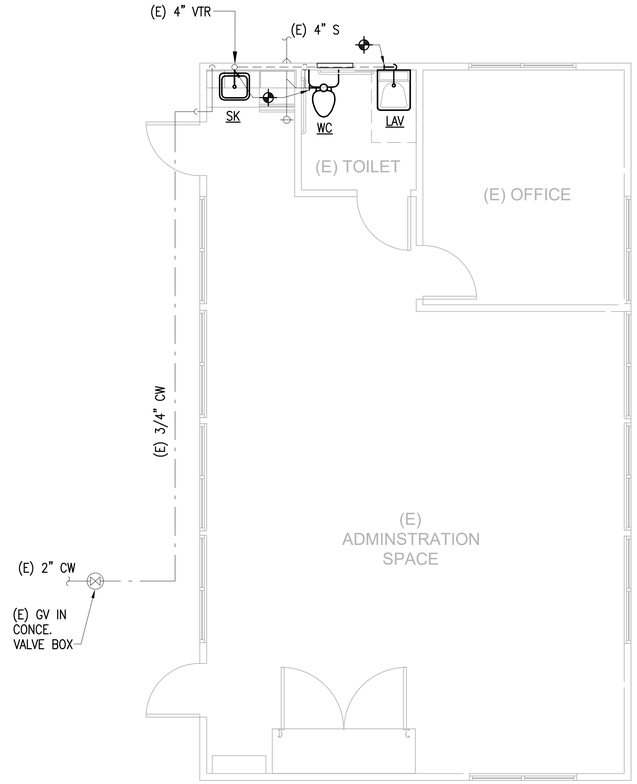
HAWAII ENGINEERING GROUP, Inc.
Civil & Structural Engineers
1088 BISHOP STREET #2506
HONOLULU, HI 96813
Tel: 808-533-2092

JOB NO. 24-096
SHEET P02
24 OF 35 SHTS

FILE _____ DRAWER _____ FOLDER _____



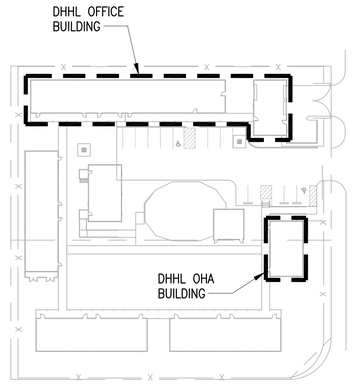
1 P03 PLUMBING DEMO PLAN
SCALE: 1/4" = 1'-0"



2 P03 PLUMBING DEMO PLAN
SCALE: 1/4" = 1'-0"

PLUMBING KEYNOTES:

1. EXISTING PLUMBING FIXTURES REMAIN AS IT, NO PLUMBING RELATED WORK.
2. REMOVE (E) KITCHEN SINK, FAUCET, TRAP ARM, P-TRAP, TAILPIECE, ANGLE STOPS AND ALL RELATED WASTE, VENT AND WATER DISTRIBUTION PIPING.
3. REMOVE (E) LAVATORY, FAUCET, TRAP ARM, P-TRAP, TAILPIECE, ANGLE STOPS AND ALL RELATED WASTE, VENT AND WATER DISTRIBUTION PIPING.
4. REMOVE (E) WATER CLOSET, CLOSET BEND, FLUSH VALVE ASSEMBLY, AND ALL RELATED COMPONENTS.
5. ALL EXISTING PIPING ROUTING AND SIZING SHOWN ON PLAN ARE FOR REFERENCE PURPOSE ONLY, CONTRACTOR SHALL FILED VERIFY ALL EXISTING TO BE RE-USED PIPING ROUTING, SIZING AND CONDITION. FOR ANY CRACK / LEAK (BY CAMERA OR TONING), CONTRACTOR SHALL REPAIR / REPLACE DAMAGED / NON-REUSABLE PIPING.



SITE PLAN
SCALE: NOT TO SCALE

REVISION NO.	DATE	REVISIONS	BY

RAY S. C. AU
LICENSED PROFESSIONAL ENGINEER
No. 17348-M
HAWAII, U.S.A.
Exp. Date: 4-30-28

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DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAI'I DISTRICT OFFICE IMPROVEMENTS
162 BAKER AVE., HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

PLUMBING PLANS _ OHA BLDG

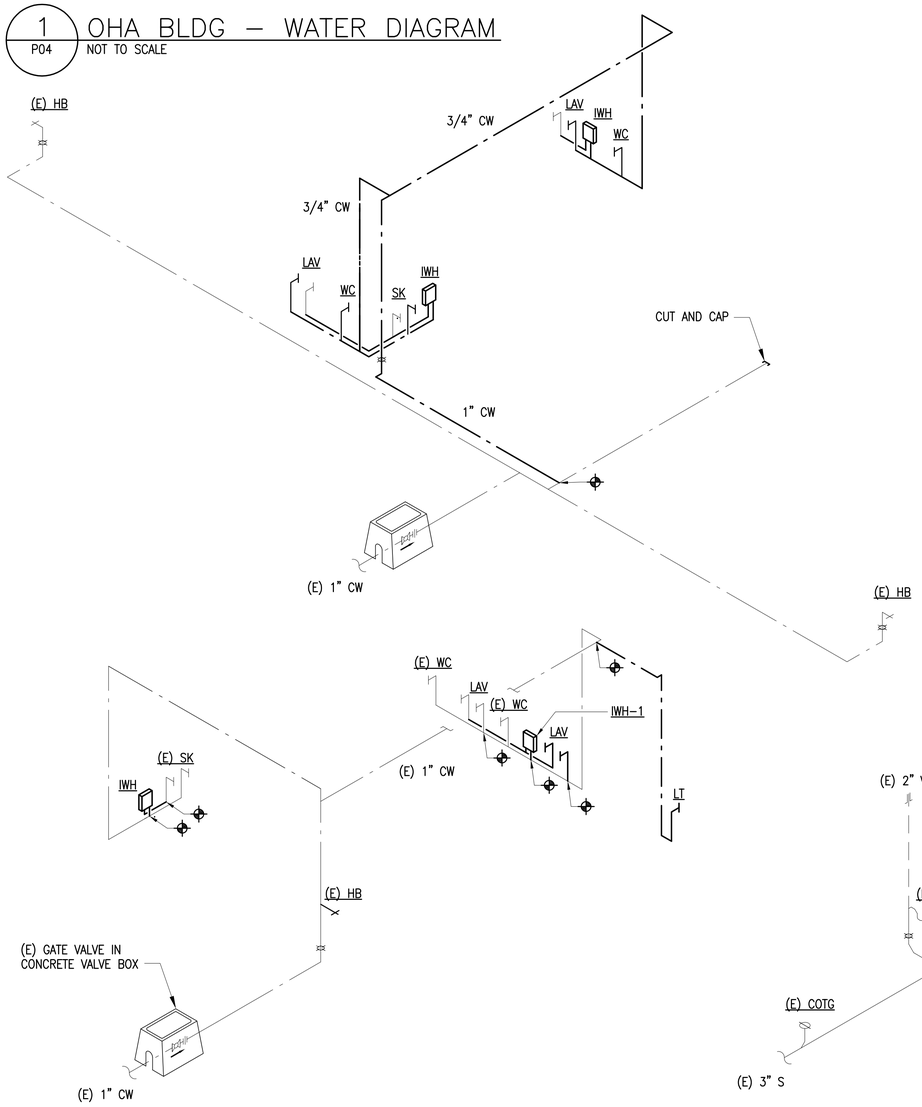
DESIGNED BY:	RA
DRAWN BY:	GRE
CHECKED BY:	RA
SUPV:	
DATE:	05/08/26

HAWAII ENGINEERING GROUP, Inc.
Civil & Structural Engineers
1088 BISHOP STREET #2506
HONOLULU, HI 96813
Tel: 808-533-2092

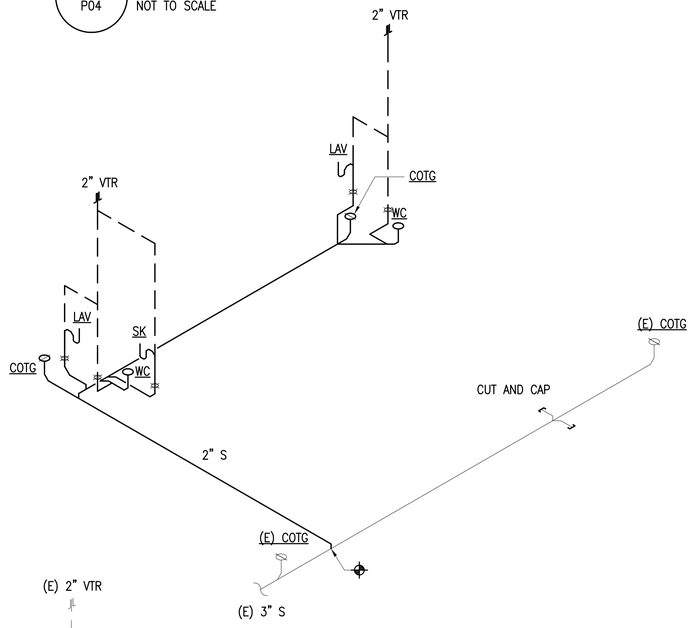
JOB NO. 24-096
SHEET P03
25 OF 35 SHTS

FILE _____ DRAWER _____ FOLDER _____

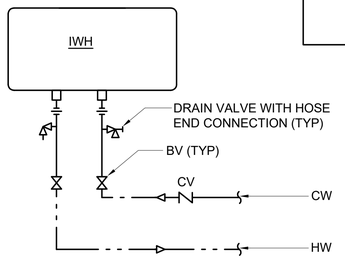
1 OHA BLDG – WATER DIAGRAM
P04 NOT TO SCALE



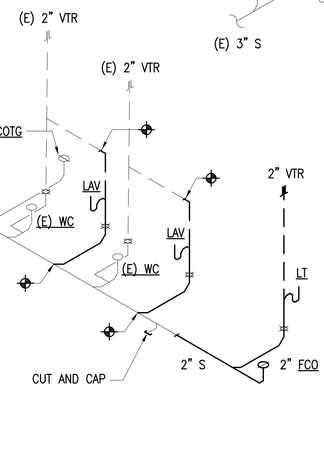
2 OHA BLDG – SANITARY WASTE DIAGRAM
P04 NOT TO SCALE



5 TANKLESS WATER HEATER DETAILS
P04 NOT TO SCALE

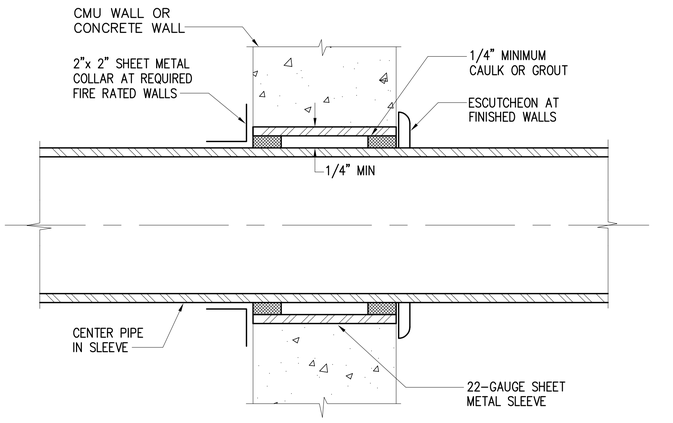


NOTE:
1. IWH INSTALLATION SHALL FOLLOW THE MANUFACTURER'S INSTRUCTION.
2. THE INSTALLATION MUST CONFORM WITH LOCAL CODES

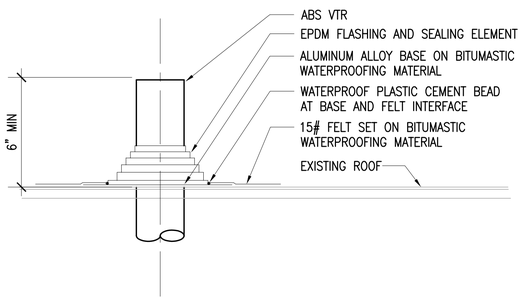


3 OFFICE BLDG – WATER DIAGRAM
P04 NOT TO SCALE

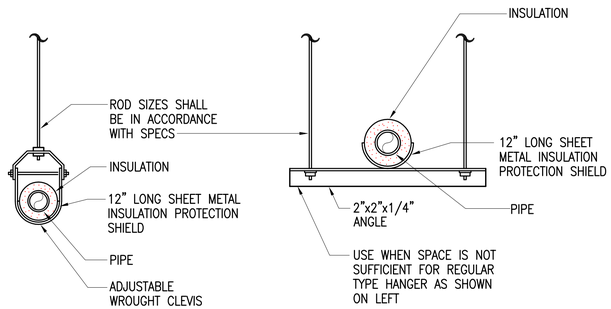
4 OFFICE BLDG – SANITARY WASTE DIGRAM
P04 NOT TO SCALE



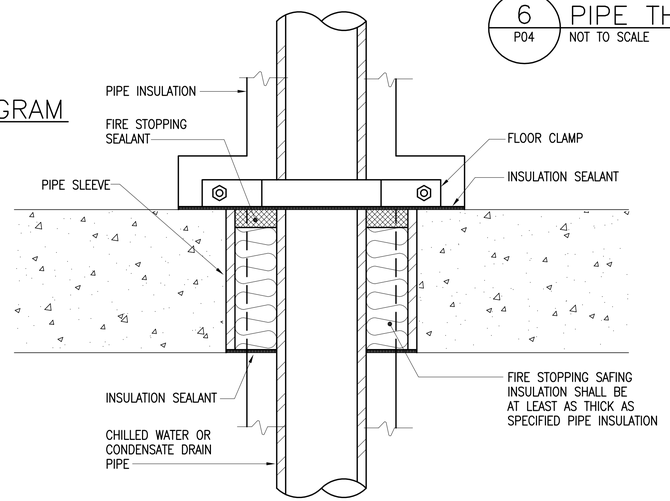
6 PIPE THRU INTERIOR CONCRETE WALL DETAIL
P04 NOT TO SCALE



7 VENT THRU ROOF DETAIL
P04 NOT TO SCALE



8 PIPE HANGER DETAIL
P04 NOT TO SCALE



9 PIPE THRU FLOOR DETAIL
P04 NOT TO SCALE

REVISION NO.	DATE	REVISIONS	BY

RAY S. C. AU
LICENSED PROFESSIONAL ENGINEER
No. 17348-M
HAWAII, U.S.A.
Exp. Date: 4-30-28

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DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAI'I DISTRICT OFFICE IMPROVEMENTS
162 BAKER AVE., HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

PLUMBING DETAILS AND ISO

DESIGNED BY:	RA
DRAWN BY:	GRE
CHECKED BY:	RA
SUPV.	
DATE:	05/08/26

HAWAII ENGINEERING GROUP, Inc.
Civil & Structural Engineers
1088 BISHOP STREET #2506
HONOLULU, HI 96813
Tel: 808-533-2092

JOB NO. 24-096
SHEET P04
26 OF 35 SHTS

FILE ____ DRAWER ____ FOLDER ____

GENERAL NOTES:

1. ALL WORK SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF THE BUILDING CODE, PLUMBING CODE AND FIRE CODE OF THE COUNTY OF HAWAII, THE HEALTH DEPARTMENT REGULATIONS AND APPLICABLE NFPA STANDARDS.
2. ALL WORK SHOWN ON THESE DRAWINGS ARE NEW UNLESS OTHERWISE NOTED.
3. ALL CONDITIONS AND DIMENSIONS SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND FOR REFERENCE ONLY, CONTRACTOR SHALL VISIT THE PREMISES AND THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL DETAILS OF WORK AND WORKING CONDITIONS. SHOW ALL DISCREPANCIES ON SHOP DRAWINGS OR NOTIFY THE ENGINEER IN WRITING OF SUCH DISCREPANCIES PRIOR TO PROCUREMENT.
4. ALL UTILITIES AND APPURTENANCES SHALL BE PROTECTED AT ALL TIMES DURING CONSTRUCTION, AND IF DAMAGED, SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
5. THIS CONTRACT REQUIRES THE CONTRACTORS TO CAREFULLY COORDINATE THEIR WORK WITH ALL OTHER TRADES. PRIORITY SHALL BE GIVEN IN THE FOLLOWING ORDER:
   A. GRAVITY FLOW: SANITARY PIPING.
   B. EQUIPMENT AND DUCTWORK.
   C. FORCED AND PRESSURE PIPING SUCH AS WATER PIPING.
7. CONTRACTOR SHALL PROVIDE DIELECTRIC UNIONS AT CONNECTION POINTS FOR PIPING OF DISSIMILAR METALS.
8. CONTRACTOR SHALL PROVIDE RE-BALANCING SERVICE (AS REQURIED) DURING ONE-YEAR GUARANTEE PERIOD TO SATISFY USER'S REQUIREMENTS. TEST AND BALANCE REPORT SHALL BE INCLUDED.
9. FOR ALL WALL PARTITION PENETRATIONS, SEE ARCHITECTURAL DRAWINGS FOR DETAILS.
10. ALL PENETRATIONS OF REQUIRED FIRE RATED WALLS, PARTITIONS AND FLOORS SHALL BE PROVIDED WITH FIRE STOPPING MATERIAL PER IBC.
11. NO CUTTING OR DRILLING OF ANY STRUCTURAL MEMBERS WILL BE PERMITTED.
12. ALL SYSTEMS, DUCTWORKS AND PIPING, ETC SHALL BE PROVIDED WITH SEISMIC BRACE IN ACCORDANCE WITH THE CURRENT BUILDING CODE AND THEIR RESPECTIVE SEISMIC ZONE LOCATION (ZONE 2).
13. CONTRACTOR SHALL SCHEDULE, TAG AND LABEL ALL VALVES AND PIPING. ALL PIPING SHALL BE LABELED WITH DIRECTION OF FLOW.
14 ALL STEEL SHALL BE HOT DIPPED GALVANIZED.
15. ALL DUCT DIMENSION ARE NET DIMENSION. TURNING VANES OR RADIUS ELBOWS SHALL BE PROVIDED AT EACH BEND AND ELBOW. PROVIDE DUCT REDUCER (AS NEEDED) AND FLEXIBLE CONNECTION AT THE DUCT-EQUIPMENT CONNECTION.
16. EQUIPMENT AND DEVICES THAT REQUIRE SERVICE CLEARANCE INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING: EXHAUST FAN, DAMPERS, VALVES, ETC. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CAREFULLY PLAN AND COORDINATE THE WORK TO PROVIDE THE REQUIRED SERVICE CLEARANCES FOR THESE DEVICES. PROVIDE ACCESS PANELS TO CONCEALED SPACES (WHETHER SHOWN ON THE PLANS OR NOT) TO ALLOW ACCESS. PROVIDE FIRE RATED ACCESS PANELS AS REQUIRED. COORDINATE TYPE OF ACCESS PANEL WITH WALL OR CEILING CONTRACTOR. DO NOT BLOCK ACCESS BY INSTALLING EQUIPMENT, DUCTWORK, PIPING, CABLE TRAYS, CONDUITS, ETC., INSTALLATION SHALL PROVIDE SERVICE CLEARANCE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS IN FRONT OF SUCH DEVICES.

HAWAII COUNTY CODE - BUILDING ENERGY EFFICIENCY STANDARDS
2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) WITH HAWAII STATE AND COUNTY AMENDMENTS

I CERTIFY THAT THE DESIGN IS IN CONFORMANCE WITH THE BUILDING ENERGY EFFICIENCY STANDARDS PERTAINING TO:

CHAPTER 4 [CE] - COMMERCIAL ENERGY EFFICIENCY

Signature: _____ Date: 12/30/2025

Name: RAY S.C. AU
Title: MECHANICAL ENGINEER
License No.: NO. 17348-M

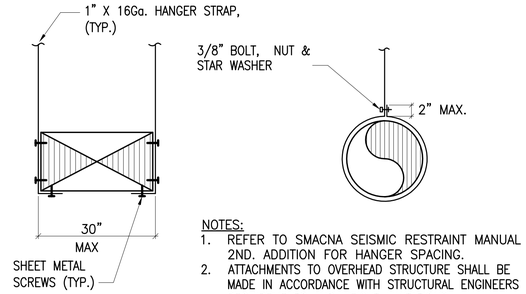
RAY S. C. AU LICENSED PROFESSIONAL ENGINEER No. 17348-M HAWAII, U.S.A.

MECHANICAL NOTES AND SPECIFICATIONS:

1. VOLUME DAMPERS [VD] SHALL BE PROVIDED FOR AIR BALANCING, SEE PLANS FOR LOCATIONS. FOR ALL VD AT GYP BOARD CEILING, PROVIDE CONCEAL VOLUME DAMPER [CVD], YOUNG REGULATOR.
2. WHEN VALVES ARE INSTALLED IN A HORIZONTAL POSITION, VALVE STEMS SHALL BE INSTALLED IN A UPRIGHT POSITION. IF THIS IS NOT POSSIBLE BECAUSE OF SPACE AND HEADROOM CONSTRAINTS, VALVE STEMS SHALL BE INSTALLED IN A INCLINED POSITION ABOVE THE HORIZONTAL CENTERLINE OF THE PIPE.
3. ALL MOTOR CONTROLLERS AND CONTROL PANELS SHALL BE INSTALLED WITH CLEARANCE SPACES IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE.
4. ALL CONTROL WIRING SHALL BE BE PROVIDED BY HVAC CONTRACTOR AND SHALL BE PLACED IN CONDUIT AND SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE. NO EMT ALLOWED FOR CONDUIT EXPOSED TO WEATHER.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEST OF THE INSTALLED WORK, AND SHALL PROVIDE ALL LABOR, EQUIPMENT AND INSTRUMENTS AND SHALL CONDUCT PRESSURE TESTS AND OPERATING TESTS ON THE PIPING SYSTEMS AND EQUIPMENT. DURING PRESSURE TEST, ALL ITEMS IN PIPING SYSTEMS NOT DESIGNED FOR TEST PRESSURES SHALL BE REMOVED FROM, OR ISOLATED FROM THE SYSTEM AND BE RECONNECTED OR UNBLOCKED AFTER TESTS ARE COMPLETED.
6. DUCTWORKS: SHALL BE ASTM A 653 GALVANIZED STEEL SHEET, G90 IN ACCORDANCE WITH ASTM A90. THE THICKNESS OF THE SHEET METAL AND SIZE AND SPACING OF THE STIFFENERS USED SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE SMACNA DUCT CONSTRUCTION STANDARD.
7. EXECUTION:
   A. ALL EQUIPMENTS SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTION AND RECOMMENDATION.
   B. PROVIDE MINIMUM REQUIRED ACCESS CLEARANCE PER MANUFACTURER'S RECOMMENDATION.
   C. DUCT CONNECTION TO FANS SHALL BE FLEXIBLE TYPE WITH MINIMUM OF 4" FREE SPACE BETWEEN COLLARS CONNECTED.
   D. SYSTEM BALANCING: A "NEED" OR "AABC" CERTIFIED TEST AND BALANCING REPORT WILL BE REQUIRED UPON OWNER REQUEST.
      i. BALANCE ALL AIR CONDITIONING SYSTEM AND FAN SYSTEM TO NO LESS THEN THE DESIGNED CFM.
      ii. BALANCE ALL AIR DEVICES TO WITHIN PLUS/MINUS 10% OF THE DESIGNED CFM.
   E. PROVIDE NECESSARY SUPPORT AND VIBRATION ISOLATION TO ALL SYSTEMS AS REQUIRED.
10. WARRANTY: ALL WORK AND MATERIAL EXECUTED UNDER THIS PROJECT SCOPE OF WORK SHALL BE GUARANTEED TO BE FREE OF DEFECT AND SHALL BE UNDER WARRANTY FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF THIS PROJECT. SHOULD ANY EQUIPMENT OR MATERIAL FAIL WITHIN THIS PERIOD, CONTRACTOR SHALL REPAIR/REPLACE THAT ITEM AT NO COST TO THE OWNER.

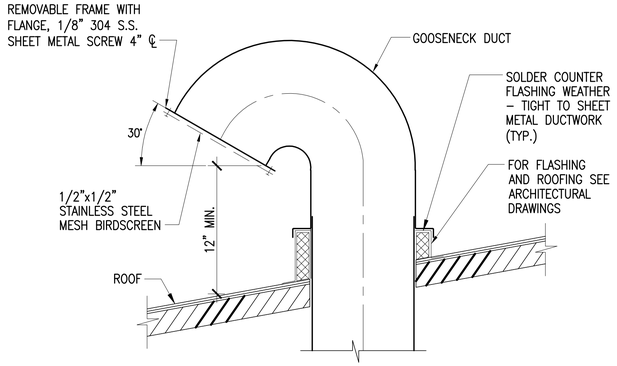
MECHANICAL LEGEND:

AFF	ABOVE FINISHED FLOOR
BDD	BACKDRAFT DAMPER
BOD	BOTTOM OF DUCT
CDR	CONDENSATE DRAIN
CONN	CONNECT OR CONNECTION
CONT	CONTINUATION
CVD	CONCEALED VOLUME DAMPER
DN	DOWN
DL	DOOR LOUVER
EF	EXHAUST FAN
ER	EXHAUST REGISTER
EXH	EXHAUST
FLXC	FLEX CONNECTION
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
$	WALL MOUNTED ON/OFF SWITCH (AT 42" AFF)
OAR	OUTSIDE AIR REGISTER
POC	POINT OF CONNECTION
SF	SUPPLY FAN
VD	VOLUME DAMPER
WL	WALL LOUVER

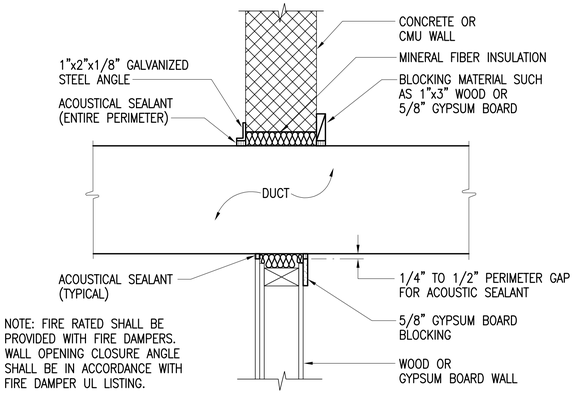


NOTES:
1. REFER TO SMACNA SEISMIC RESTRAINT MANUAL 2ND. ADDITION FOR HANGER SPACING.
2. ATTACHMENTS TO OVERHEAD STRUCTURE SHALL BE MADE IN ACCORDANCE WITH STRUCTURAL ENGINEERS REQUIREMENTS AND WEIGHT LIMITATIONS.

1 / M01 DUCT SUPPORT DETAILS
NOT TO SCALE

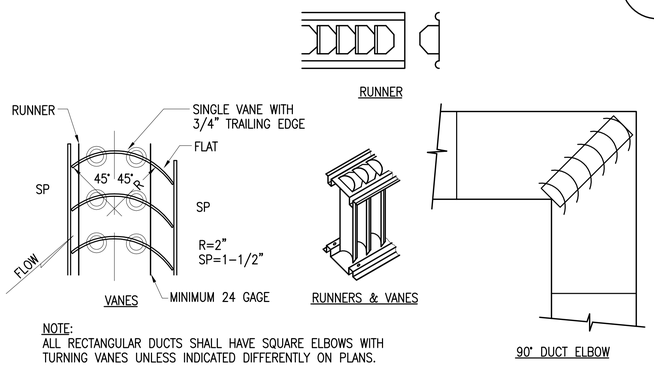


2 / M01 GOOSENECK DETAIL
NOT TO SCALE



NOTE: FIRE RATED SHALL BE PROVIDED WITH FIRE DAMPERS. WALL OPENING CLOSURE ANGLE SHALL BE IN ACCORDANCE WITH FIRE DAMPER UL LISTING.

3 / M01 TYPICAL DUCT THRU WALL DETAIL
NOT TO SCALE



NOTE:
ALL RECTANGULAR DUCTS SHALL HAVE SQUARE ELBOWS WITH TURNING VANES UNLESS INDICATED DIFFERENTLY ON PLANS.

5 / M01 DUCT ELBOW DETAILS
NOT TO SCALE

REVISION NO.	DATE	REVISIONS	BY

RAY S. C. AU LICENSED PROFESSIONAL ENGINEER No. 17348-M HAWAII, U.S.A.
Exp. Date: 4-30-28

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

DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAI'I DISTRICT OFFICE IMPROVEMENTS
162 BAKER AVE., HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

MECHANICAL NOTES, SPEC AND LEGEND

DESIGNED BY:	RA
DRAWN BY:	GRE
CHECKED BY:	RA
SUPV:	
DATE:	05/08/26

HAWAII ENGINEERING GROUP, Inc.
Civil & Structural Engineers
1088 BISHOP STREET #2506
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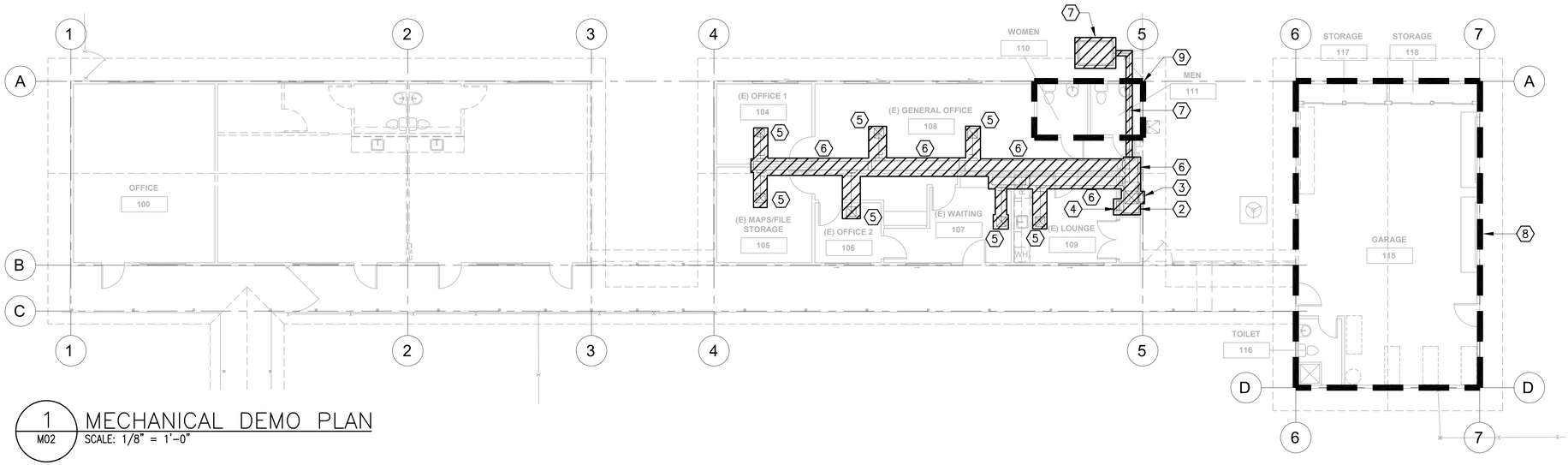
Tel: 808-533-2092

JOB NO. 24-096
SHEET M01
27 OF 35 SHTS

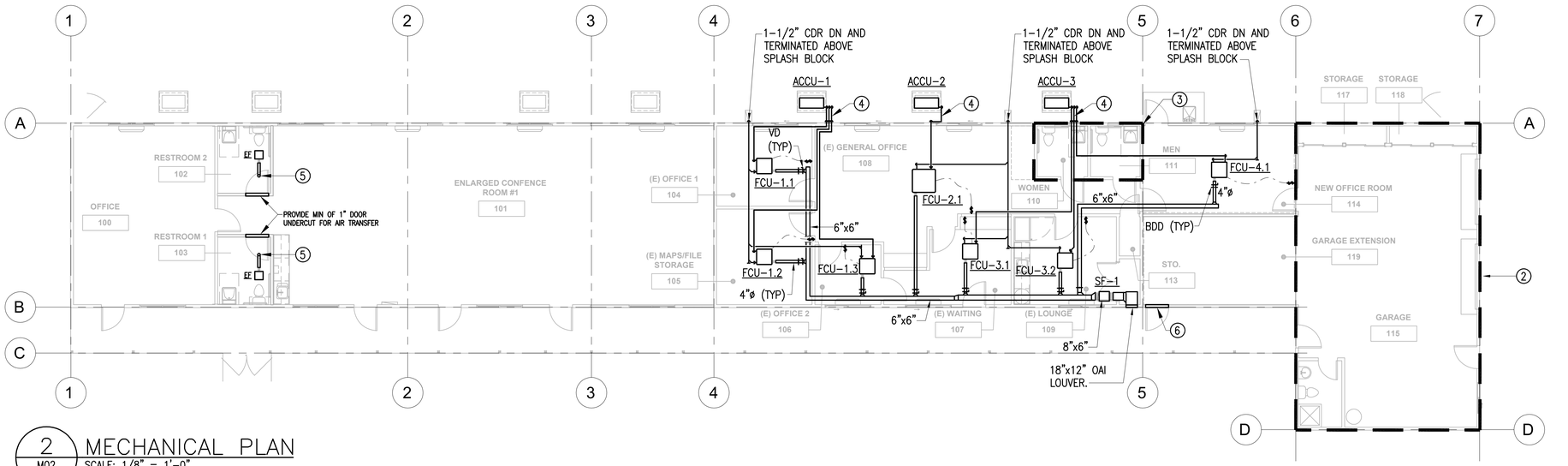
FILE _____ DRAWER _____ FOLDER _____



1 M02 MECHANICAL DEMO PLAN
SCALE: 1/8" = 1'-0"

DEMO MECHANICAL KEY NOTES:

1. ALL (E) CONDITION SHOWN ON DRAWINGS ARE FOR REFERENCE PURPOSE ONLY, CONTRACTOR SHALL FIELD VERIFY ALL (E) CONDITION PRIOR START OF WORK.
2. DEMO (E) AHU-1 WITH ALL ASSOCIATED COMPONENTS AS SHOWN HATCHED DEMO (E) DUCT WORK AS SHOWN HATCHED.
3. DEMO (E) 14"x10" INTAKE LOUVER AS SHOWN HATCHED, PATCH AND REPAIR EXITING WALL OPENING TO MATCH WITH ADJACENT FINISHES.
4. DEMO (E) RETURN AIR REGISTER AND ASSOCIATED DUCTWORKS AS SHOWN HATCHED.
5. DEMO (E) SUPPLY AIR DIFFUSER AS SHOWN HATCHED.
6. DEMO (E) DUCTWORK AS SHOWN HATCHED.
7. DEMO (E) ACCU AND IT'S ASSOCIATED COMPONENTS AND REFRIGERANT PIPES. PATCH AND REPAIR ALL UN-USED PENETRATIONS.
8. EXISTING GARAGE SPACE REMAIN AS IT, NO MECHANICAL RELATED WORK.
9. EXISTING RESTROOM [110 & 111] REMAIN AS IT, NO MECHANICAL RELATED WORK.



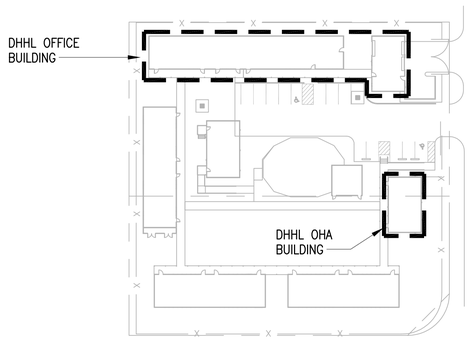
2 M02 MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

MECHANICAL KEY NOTES:

1. ALL (E) CONDITION SHOWN ON DRAWINGS ARE FOR REFERENCE PURPOSE ONLY, CONTRACTOR SHALL FIELD VERIFY ALL (E) CONDITION PRIOR START OF WORK.
2. EXISTING GARAGE SPACE REMAIN AS IT, NO MECHANICAL RELATED WORK.
3. EXISTING RESTROOM [110 & 111] REMAIN AS IT, NO MECHANICAL RELATED WORK.
4. SEE DETAIL 1/M03 FOR ALL REFRIGERANT PIPING DETAILS.
5. 4"ø EXH DUCT UP THROUGH ROOF AND TERMINATED WITH GOOSENECK END, SEE 6/M02 FOR DETAILS.
6. FULL LOUVERED DOOR, SEE ARCH DWGS FOR DOOR DETAILS.

SEQUENCE OF OPERATION:

- ALL FCU AND SF-1 SHALL BE OPERATE BASED ON SPACES' OPERATION SCHEDULE VIA UNIT CONTROLLER.
- ALL FCU SHALL BE SET AT 72'F (USER ADJUSTABLE).
- SF-1 SHALL BE INTERLOCK WITH ALL FCU AND FAN SHALL BE OFF WHEN ALL FCU IS DE-ENERGIZED.
- RESTROOM EF SHALL BE INTERLOCK WITH LIGHT SWITCH WITH 30 SECOND DELAY OFF.



SITE PLAN
SCALE: NOT TO SCALE

REVISION NO.	DATE	REVISIONS	BY

RAY S. C. AU
LICENSED PROFESSIONAL ENGINEER
No. 17348-M
HAWAII, U.S.A.
Exp. Date: 4-30-28

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DEPARTMENT OF HAWAIIAN HOME LANDS

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T.M.K.: (3) 2-1-023:157 & 158

MECHANICAL PLANS _ OFFICE BLDG

DESIGNED BY: RA
DRAWN BY: GRE
CHECKED BY: RA
SUPV.
DATE: 05/08/26

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Tel: 808-533-2092

JOB NO. 24-096
SHEET M02
28 OF 35 SHTS

FILE _____ DRAWER _____ FOLDER _____

DEMO MECHANICAL KEY NOTES:

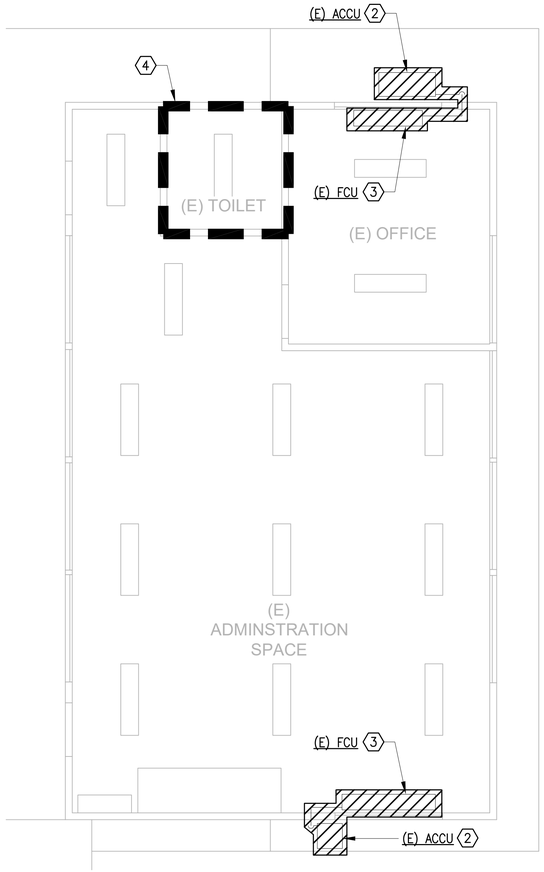
1. ALL (E) CONDITION SHOWN ON DRAWINGS ARE FOR REFERENCE PURPOSE ONLY, CONTRACTOR SHALL FIELD VERIFY ALL (E) CONDITION PRIOR START OF WORK.
2. DEMO (E) ACCU AND IT'S ASSOCIATED COMPONENTS AND REFRIGERANT PIPES. PATCH AND REPAIR ALL UN-USED PENETRATIONS.
3. DEMO (E) FCU AND IT'S ASSOCIATED COMPONENTS AND REFRIGERANT PIPES. PATCH AND REPAIR ALL UN-USED PENETRATIONS.
4. EXISTING RESTROOM [(E) TOILET] REMAIN AS IT, NO MECHANICAL RELATED WORK.

MECHANICAL KEY NOTES:

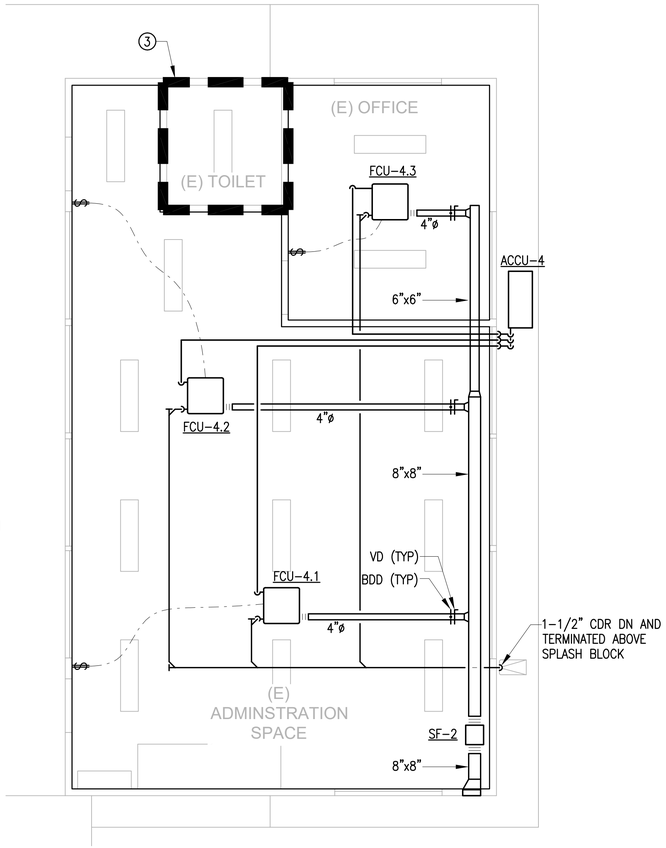
1. ALL (E) CONDITION SHOWN ON DRAWINGS ARE FOR REFERENCE PURPOSE ONLY, CONTRACTOR SHALL FIELD VERIFY ALL (E) CONDITION PRIOR START OF WORK.
2. SEE DETAIL 1/M03 FOR ALL REFRIGERANT PIPING DETAILS.
3. EXISTING RESTROOM [(E) TOILET] REMAIN AS IT, NO MECHANICAL RELATED WORK.

SEQUENCE OF OPERATION:

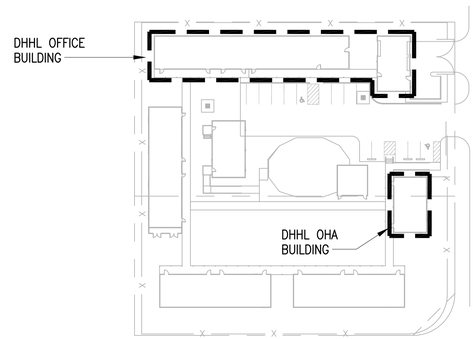
- ALL FCU AND SF-1 SHALL BE OPERATE BASED ON SPACES' OPERATION SCHEDULE VIA UNIT CONTROLLER.
- ALL FCU SHALL BE SET AT 72°F (USER ADJUSTABLE).
- SF-1 SHALL BE INTERLOCK WITH ALL FCU AND FAN SHALL BE OFF WHEN ALL FCU IS DE-ENERGIZED.
- RESTROOM EF SHALL BE INTERLOCK WITH LIGHT SWITCH WITH 30 SECOND DELAY OFF.



1 M03 MECHANICAL DEMO PLAN
SCALE: 1/4" = 1'-0"



2 M03 MECHANICAL PLAN
SCALE: 1/4" = 1'-0"



SITE PLAN
SCALE: NOT TO SCALE

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MECHANICAL PLANS _ OHA BLDG

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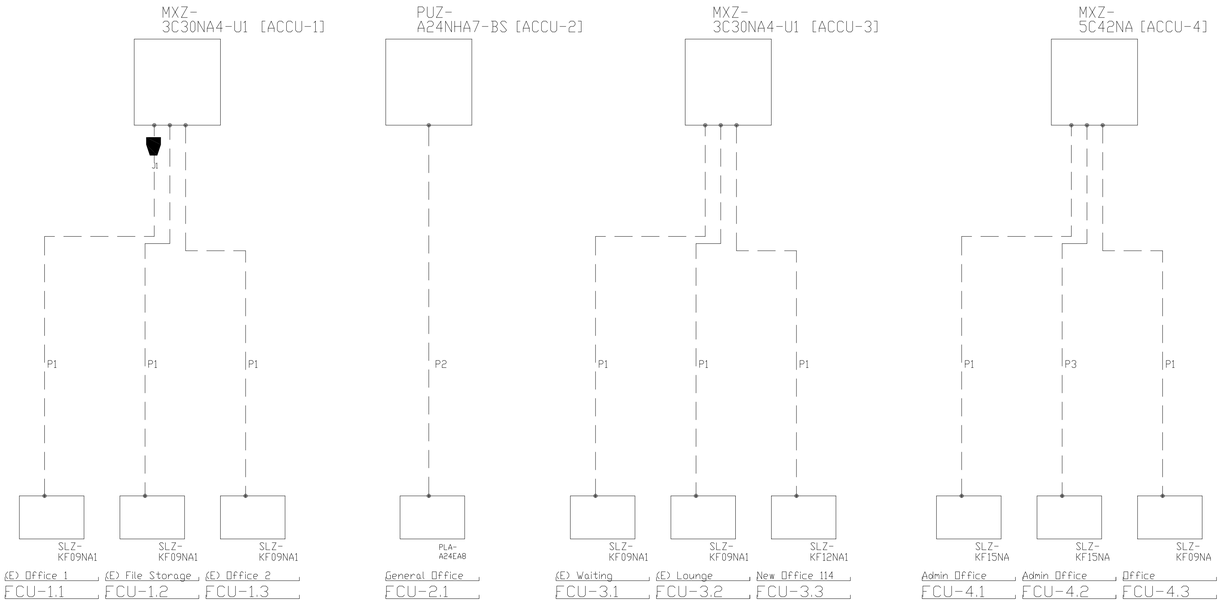
JOB NO. 24-096
SHEET M03
29 OF 35 SHTS

FILE _____ DRAWER _____ FOLDER _____



PIPING AND CONTROLS	
SYMBOL	BRANCH PIPE MODEL NAME
J1	MAC-A455JP-E
SYMBOL	LIQUID PIPE/GAS PIPE SIZE
P1	1/4 / 3/8
P2	3/8 / 5/8
P3	1/4 / 1/2
SYMBOL	MODEL NUMBER
MA	PAR-42MAAUB

NOTE:
1. THIS DRAWING IS SCHEMATIC IN NATURE. FINAL ROUTING OF PIPING & WIRING SHALL BE DETERMINED BY THE INSTALLING CONTRACTOR
2. ADDITIONAL REFRIGERANT CHARGE IS NEEDED DEPENDING ON THE SIZE AND LENGTH OF EXTENDED PIPING.
3. INSTALL TWINNING Y'S WITHIN 15 DEGREES OF LEVEL AND WITH 20 INCHES OF STRAIGHT PIPE ON CONVERGING CONNECTION – REFERENCE INSTALLATION MANUAL FOR ADDITIONAL DETAILS INCLUDING BUT NOT LIMITED TO SPECIAL TRAPPING REQUIREMENTS WHEN TWINNING, AND PIPE SLOPE REQUIREMENTS

1 / M04 REFRIGERANT PIPING DIAGRAM
NOT TO SCALE

FANS

DESIGNATION	LOCATION	SERVICE	TYPE	CFM	ESP INCHES	FAN RPM	VOLTS	PHASE	Hz	WEIGHT LB	BASIS OF DESIGN	
											MAKE	MODEL
SF-1	CEILING	OUTSITE AIR	INLINE	240	0.25	1,124	208	1	60	50	GREENHECK	SQ-90-VG
SF-2	CEILING	OUTSITE AIR	INLINE	100	0.25	1,750	208	1	60	40	GREENHECK	SQ-70-VG
EF	BATHROOM	BATHROOM EXHAUST	CEILING MOUNTED	110	0.25	1,203	120	1	60	10	PANASONIC	FV-0511VKSL2

NOTES:
1. FAN MOTOR SHALL BE PROVIDED WITH THERMAL OVERLOAD PROTECTION.
2. SF-1 & SF-2 SHALL BE PROVIDED WITH CORROSION-RESISTANT COATING AND NEOPRENE HANGING ISOLATORS.
3. EF SHALL BE PROVIDED WITH 10 WATT DIMMABLE LED CHIP PANEL / 3000 KELVIN WARM WHITE.

AIR COOLED CONDENSATING UNIT SCHEDULE

DESIGNATION	Maker and Model Number	Nominal Cooling Capacity (BTU/h)	Cooling Efficiency EER [SEER]	Design Cooling Outdoor Temp DB (°F)	Refrig Pipe Dim High/Low Pressure (inch)	Corrected Cooling Total Capacity (BTU/h)	Sound Pressure (dBA)	Preliminary Added Field Charge	Electrical 208/230			
									Voltage / Phase	MCA	RFS	MOCP
ACCU-1	MITSUBISHI MXZ-3C30NA4-U1	28,400	10.1 [17.6]	88.0	1/4 / 1/2	26,241.2	52/56	0.3	208/230V / 1-phase	22.1	25	25
ACCU-2	MITSUBISHI PUZ-A24NHA7-BS	24,000	0 [24.7]	88.0	3/8 / 5/8	23,870.3	47/48	0.0	208/230V / 1-phase	19	25	26
ACCU-3	MITSUBISHI MXZ-3C30NA4-U1	28,400	10.1 [17.6]	88.0	1/4 / 1/2	26,241.2	52/56	0.3	208/230V / 1-phase	22.1	25	25

NOTE:
PROVIDE WITH FACOTRY CORROSION RESISTANCE COATING.
ADDED FIELD CHARGE LISTED IS IN ADDITION TO FACTORY CHARGE, THIS MUST BE UPDATED BASED UPON FINAL AS-BUILT PIPING LAYOUT.

FAN COIL UNIT SCHEDULE

DESIGNATION	Model	Type	Nominal Cooling Capacity (BTU/h)	Cooling Design Entering Temp DB/WB (°F)	Estimated Cooling Coil LAT (°F)	Refrig Pipe Dim Liquid/Suction (inch)	Peak Fan Airflow (cfm)	Outdoor Air Airflow (cfm)	Sound Pressure (dBA)	Voltage / Phase	Electrical MCA/MFS	Associated ACCU
FCU-1.1	MITSUBISHI SLZ-KF09NA1	Ceiling-Cassette (Four-Way)	8700	80.0 / 67.0	58.1	1/4 / 3/8	335	30	31	208/230V/1-phase	Powered by Outdoor	ACCU-1
FCU-1.2	MITSUBISHI SLZ-KF09NA1	Ceiling-Cassette (Four-Way)	8700	80.0 / 67.0	58.2	1/4 / 3/8	335	30	31	208/230V/1-phase	Powered by Outdoor	
FCU-1.3	MITSUBISHI SLZ-KF09NA1	Ceiling-Cassette (Four-Way)	8700	80.0 / 67.0	58.2	1/4 / 3/8	335	30	31	208/230V/1-phase	Powered by Outdoor	
FCU-2.1	MITSUBISHI PLA-A24EA8	Ceiling-Cassette (Four-Way)	24000	80.0 / 67.0	55.9	3/8 / 5/8	810	60	36	208/230V/1-phase	Powered by Outdoor	ACCU-2
FCU-3.1	MITSUBISHI SLZ-KF09NA1	Ceiling-Cassette (Four-Way)	8500	80.0 / 67.0	58.3	1/4 / 3/8	335	30	31	208/230V/1-phase	Powered by Outdoor	ACCU-3
FCU-3.2	MITSUBISHI SLZ-KF09NA1	Ceiling-Cassette (Four-Way)	8500	80.0 / 67.0	58.3	1/4 / 3/8	335	30	31	208/230V/1-phase	Powered by Outdoor	
FCU-3.3	MITSUBISHI SLZ-KF12NA1	Ceiling-Cassette (Four-Way)	11400	80.0 / 67.0	55.5	1/4 / 3/8	335	30	34	208/230V/1-phase	Powered by Outdoor	
FCU-4.1	MITSUBISHI SLZ-KF15NA.TH	Ceiling-Cassette (Four-Way)	12300	80.0 / 67.1	56.8	1/4 / 1/2	405	35	39	208/230V/1-phase	Powered by Outdoor	ACCU-4
FCU-4.2	MITSUBISHI SLZ-KF15NA.TH	Ceiling-Cassette (Four-Way)	12300	80.0 / 67.2	56.8	1/4 / 1/2	405	35	39	208/230V/1-phase	Powered by Outdoor	
FCU-4.3	MITSUBISHI SLZ-KF09NA1	Ceiling-Cassette (Four-Way)	7900	80.0 / 67.3	58.9	1/4 / 3/8	335	30	31	208/230V/1-phase	Powered by Outdoor	

NOTE:
WALL-MOUNTED CONTROLLER SHALL BE PROVIDED PER FCU; MODEL PAR-42MAAUB OR APPROVED EQUAL.
EACH FCU SHALL BE PROVIDED WITH AN INTEGRAL CONDENSATE LIFT PUMP AND POWERED BY THE ASSOCIATED FCU.

REVISION NO.	DATE	REVISIONS	BY

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MECHANICAL DIAGRAM AND SCHEDULE

DESIGNED BY: RA
DRAWN BY: GRE
CHECKED BY: RA
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DATE: 05/08/26

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Civil & Structural Engineers
1088 BISHOP STREET #2506
HONOLULU, HI 96813
Tel: 808-533-2092

JOB NO. 24-096
SHEET M04
30 OF 35 SHTS

FILE ____ DRAWER ____ FOLDER ____

SUMMARY:

SECTION INCLUDES: ELECTRICAL REQUIREMENTS FOR CONDUIT, BOXES, WIRING, LUMINAIRES, GROUNDING AND BONDING.

REFERENCES:

1. ANSI C80.1 - RIGID STEEL CONDUIT, ZINC COATED.
2. ANSI C80.3 - ELECTRICAL METALLIC TUBING, ZINC COATED.
3. ANSI/NEMA FB 1 - FITTINGS, CAST METAL BOXES, AND CONDUIT BODIES FOR CONDUIT AND CABLE ASSEMBLIES
4. ANSI/NFPA 70 - NATIONAL ELECTRICAL CODE (2017 EDITION)
5. NECA "STANDARD OF INSTALLATION"
6. NEMA TC 2 - ELECTRICAL PLASTIC TUBING (EPT) AND CONDUIT (EPC-40 AND EPC-80)
7. NEMA TC 3 - PVC FITTINGS FOR USE WITH RIGID PVC CONDUIT AND TUBING

DESIGN REQUIREMENTS:

1. WIRING AND CONDUIT SIZE: ANSI/NFPA 70.
2. ILLUMINATION - IEC RP-20-98: A PARKING LOT IS TO BE LIGHTED TO A MINIMUM HORIZONTAL ILLUMINANCE OF 0.20-FC WITH A MAXIMUM TO MINIMUM RATIO OF 20:1. THE VERTICAL ILLUMINANCE OF 5-FT ABOVE THE GROUND IS TO BE AT LEAST 0.1-FC AT THE LOCATION OF MINIMUM HORIZONTAL ILLUMINANCE ON THE PAVEMENT
3. TIMECLOCK FOR BUILDING LIGHTS AND PHOTOCELL FOR PARKING LOT LIGHTS.

REGULATORY REQUIREMENTS:

1. CONFORM TO INTERNATIONAL BUILDING (2018) CODE, NFPA 1 UNIFORM FIRE CODE, AND NFPA 101 LIFE SAFETY CODE.
2. CONFORM TO REQUIREMENTS OF ANSI/NFPA 70 (2017 EDITION).
3. FURNISH PRODUCTS LISTED AND CLASSIFIED BY A RECOGNIZED TEST LABORATORY (SUCH AS UNDERWRITERS LABORATORIES, INC.) AS SUITABLE FOR PURPOSE SPECIFIED AND SHOWN.
4. CONFORM TO HAWAII REVISED STATUE § 201-8.5 (2013) NIGHT SKY PROTECTION STRATEGY.
5. HONOLULU CITY AND COUNTY ENERGY CONSERVATION CODE (AMENDMENT TO IECC 2018).

SCOPE OF WORK:

1. THE SPECIFICATIONS DESCRIBE THE QUALITY AND CHARACTER OF THE MATERIALS AND METHODS OF INSTALLATION.
2. THE DRAWINGS INCLUDE PLANS OF THE BUILDING, WITH DIAGRAMMATIC LAYOUTS SHOWING APPROXIMATE LOCATIONS OF EQUIPMENT AND DEVICES. BEFORE INSTALLING, STUDY ADJACENT ARCHITECTURAL FEATURES, AND MAKE INSTALLATION IN THE MOST LOGICAL MANNER IN ACCORDANCE WITH CODE AND REGULATORY REQUIREMENTS.
3. THE ELECTRICAL SYMBOLS, NOTES, INSTRUCTIONS AND SCHEDULES ON THE DRAWINGS ARE INCLUDED AS PART OF THESE SPECIFICATIONS.
4. SHOULD THERE BE OMISSIONS OR DISCREPANCIES IN THE PLANS AND SPECIFICATIONS, OR DISCREPANCIES FROM ACTUAL SITE CONDITIONS, BRING THEM TO THE ATTENTION OF THE CONTRACTING OFFICER. IF PROJECT CONDITIONS, INCLUDING CHANGES INITIATED BY OTHER TRADES OR DISCOVERY OF CONDITIONS UNKNOWN AT TIME OF DESIGN WHICH REQUIRE UNSPECIFIED MATERIALS AND METHODS OR REARRANGEMENT OF WORK, PREPARE DRAWINGS SHOWING PROPOSED CHANGES TO MEET PROJECT CONDITIONS. OBTAIN PERMISSION OF THE CONTRACTING OFFICER BEFORE PROCEEDING.

PRODUCTS - CONDUIT REQUIREMENTS:

1. MINIMUM SIZE: 3/4 INCH UNLESS OTHERWISE SPECIFIED.
2. EXTERIOR LOCATIONS: USE PVC SCHEDULE 80 WITH EXPANSION JOINTS
3. CONCEALED: USE ELECTRICAL METALLIC TUBING.
4. EXPOSED: USE RIGID STEEL CONDUIT AND ELECTRICAL METALLIC TUBING. USE RIGID STEEL CONDUIT WHERE SUBJECT TO PHYSICAL DAMAGE.
5. METAL CONDUIT NEC TYPE RMC OR IMC
6. RIGID STEEL CONDUIT: ANSI C80.1.
7. FITTINGS AND CONDUIT BODIES: ANSI/NEMA FB 1; ALL STEEL FITTINGS.
8. FLEXIBLE METAL CONDUIT (NEC TYPE FMC)
9. DESCRIPTION: INTERLOCKED STEEL OR ALUMINUM CONSTRUCTION.
10. FITTINGS: ANSI/NEMA FB 1.
11. LIQUIDTIGHT FLEXIBLE METAL CONDUIT (NEC TYPE LFMC): USE LIQUID TIGHT FLEXIBLE CONDUIT WITH WATERTIGHT CONNECTORS IN DAMP OR WET LOCATIONS.
12. DESCRIPTION: INTERLOCKED STEEL OR ALUMINUM CONSTRUCTION WITH NEOPRENE OR PVC JACKET.
13. FITTINGS: ANSI/NEMA FB 1.
14. ELECTRICAL METALLIC TUBING (EMT)
15. DESCRIPTION: ANSI C80.3; GALVANIZED TUBING.
16. FITTINGS AND CONDUIT BODIES: ANSI/NEMA FB 1, STEEL COMPRESSION OR SET SCREW TYPE.
17. NONMETALLIC CONDUIT: NEC TYPE RNC
18. DESCRIPTION: NEMA TC 2, SCHEDULE 40 OR SCHEDULE 80 PVC.
19. FITTINGS AND CONDUIT BODIES: NEMA TC 3.

PRODUCT - PULL AND JUNCTION BOXES:

1. SHEET METAL BOXES: NEMA OS 1, GALVANIZED STEEL.
2. SURFACE MOUNTED CAST METAL BOX: NEMA 250, TYPE 4 OR 6, FLAT-FLANGED, SURFACE MOUNTED JUNCTION BOX:
3. MATERIAL: GALVANIZED CAST IRON OR CAST ALUMINUM.
4. COVER: FURNISH WITH GROUND FLANGE, NEOPRENE GASKET, AND STAINLESS STEEL COVER SCREWS.

PRODUCT - PULL AND JUNCTION BOXES (CONT.):

5. IN-GROUND CAST METAL BOX: NEMA 250, TYPE 6, OUTSIDE OR INSIDE FLANGED, RECESSED COVER BOX FOR FLUSH MOUNTING:
6. MATERIAL: GALVANIZED CAST IRON OR CAST ALUMINUM.
7. COVER: NONSKID COVER WITH NEOPRENE GASKET AND STAINLESS STEEL COVER SCREWS.
8. COVER LEGEND: "ELECTRIC".
9. FIBERGLASS HAND HOLES: DIE MOLDED GLASS FIBER HAND HOLES:
10. CABLE ENTRANCE: PRE-CUT 6 INCH X 6 INCH CABLE ENTRANCE AT CENTER BOTTOM OF EACH SIDE.
11. COVER: GLASS FIBER WEATHERPROOF COVER WITH NONSKID FINISH.

PRODUCT LUMINAIRES:

1. FURNISH PRODUCTS AS SCHEDULED ON DRAWINGS. APPROVED EQUIVALENT MAY BE SUBSTITUTED.
2. ACCESSORIES & COVER SYSTEMS: A FIXTURE SERIES IS SPECIFIED IN THE LUMINAIRE SCHEDULE. PROVIDE ALL ACCESSORY COMPONENTS INCLUDING POWER FEEDS, END PIECES, CORNER PIECES AND INTERSECTION PIECES FOR A COMPLETE INSTALLATION TO MATCH CONFIGURATION SHOWN ON DRAWINGS.
3. INSTALL SURFACE MOUNTED LUMINAIRES PLUMB AND ADJUST TO ALIGN WITH BUILDING LINES AND WITH EACH OTHER. SECURE TO PREVENT MOVEMENT.
4. INSTALL WALL MOUNTED LUMINAIRES AT HEIGHT AS INDICATED ON DRAWINGS.
5. INSTALL ACCESSORIES FURNISHED WITH EACH LUMINAIRE. USE SEALANT WHERE SURFACE FINISH PREVENTS GASKET SEALS.
6. MAKE WIRING CONNECTIONS TO BRANCH CIRCUIT USING BUILDING WIRE WITH INSULATION SUITABLE FOR TEMPERATURE CONDITIONS WITHIN LUMINAIRE.

INSTALLATION:

1. INSTALL CONDUIT IN ACCORDANCE WITH NECA "STANDARD OF INSTALLATION."
2. INSTALL NONMETALLIC CONDUIT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
3. ARRANGE SUPPORTS TO PREVENT MISALIGNMENT DURING WIRING INSTALLATION.
4. SUPPORT CONDUIT USING COATED STEEL OR MALLEABLE IRON STRAPS, LAY-IN ADJUSTABLE HANGERS, CLEVIS HANGERS, AND SPLIT HANGERS.
5. GROUP RELATED CONDUITS. SUPPORT USING CONDUIT RACK. CONSTRUCT RACK USING STEEL CHANNEL. PROVIDE SPACE ON EACH FOR 25 PERCENT ADDITIONAL CONDUITS.
6. FASTEN CONDUIT SUPPORTS TO BUILDING STRUCTURE AND SURFACES UNDER PROVISIONS OF SECTION 16 19 00.
7. DO NOT SUPPORT CONDUIT WITH WIRE OR PERFORATED PIPE STRAPS. REMOVE WIRE USED FOR TEMPORARY SUPPORTS.
8. DO NOT ATTACH CONDUIT TO CEILING SUPPORT WIRES.
9. ARRANGE CONDUIT TO MAINTAIN HEADROOM AND PRESENT NEAT APPEARANCE.
10. ROUTE CONDUIT PARALLEL AND PERPENDICULAR TO WALLS.
11. MAINTAIN ADEQUATE CLEARANCE BETWEEN CONDUIT AND PIPING.
12. MAINTAIN 12 INCH CLEARANCE BETWEEN CONDUIT AND SURFACES WITH TEMPERATURES EXCEEDING 104 DEGREES F.
13. CUT CONDUIT SQUARE USING SAW OR PIPE CUTTER; DE-BURR CUT ENDS.
14. BRING CONDUIT TO SHOULDER OF FITTINGS. FASTEN SECURELY.
15. JOIN NONMETALLIC CONDUIT USING CEMENT AS RECOMMENDED BY MANUFACTURER. WIPE NONMETALLIC CONDUIT DRY AND CLEAN BEFORE JOINING. APPLY FULL EVEN COAT OF CEMENT TO ENTIRE AREA INSERTED IN FITTING. ALLOW JOINT TO CURE FOR 20 MINUTES MINIMUM.
16. USE CONDUIT HUBS OR SEALING LOCKNUTS TO FASTEN CONDUIT TO SHEET METAL BOXES IN DAMP AND WET LOCATIONS, AND TO CAST BOXES.
17. INSTALL NO MORE THAN EQUIVALENT OF THREE 90-DEGREE BENDS BETWEEN BOXES. USE CONDUIT BODIES TO MAKE SHARP CHANGES IN DIRECTION AS AROUND BEAMS. USE FACTORY ELBOWS OR USE HYDRAULIC ONE-SHOT BENDER TO FABRICATE BENDS IN METAL CONDUIT LARGER THAN 2 INCH TRADE SIZE.
18. AVOID MOISTURE TRAPS. PROVIDE JUNCTION BOX WITH DRAIN FITTING AT LOW POINTS IN CONDUIT SYSTEM.
19. PROVIDE SUITABLE FITTINGS TO ACCOMMODATE EXPANSION AND DEFLECTION WHERE CONDUIT CROSSES SEISMIC CONTROL AND EXPANSION JOINTS.
20. PROVIDE SUITABLE PULL STRING IN EACH EMPTY CONDUIT EXCEPT SLEEVES AND NIPPLES.
21. USE SUITABLE CAPS TO PROTECT INSTALLED CONDUIT AGAINST ENTRANCE OF DIRT AND MOISTURE.
22. GROUND AND BOND CONDUIT UNDER PROVISIONS
23. MATERIALS AND FINISHES: PROVIDE ADEQUATE CORROSION RESISTANCE.
24. PROVIDE MATERIALS, SIZES, AND TYPES OF ANCHORS, FASTENERS AND SUPPORTS TO CARRY THE LOADS OF EQUIPMENT AND CONDUIT. CONSIDER WEIGHT OF WIRE IN CONDUIT WHEN SELECTING PRODUCTS.
25. ANCHORS AND FASTENERS:
26. CONCRETE STRUCTURAL ELEMENTS: USE PRECAST INSERT SYSTEM, EXPANSION ANCHORS, AND PRESET INSERTS.
27. STEEL STRUCTURAL ELEMENTS: USE BEAM CLAMPS, SPRING STEEL CLIPS, STEEL RAMSET FASTENERS, AND WELDED FASTENERS.
28. CONCRETE SURFACES: USE SELF-DRILLING ANCHORS AND EXPANSION ANCHORS.
29. HOLLOW MASONRY, PLASTER, AND GYPSUM BOARD PARTITIONS: USE TOGGLE BOLTS AND HOLLOW WALL FASTENERS.
30. SOLID MASONRY WALLS: USE EXPANSION ANCHORS AND PRESET INSERTS.
31. SHEET METAL: USE SHEET METAL SCREWS.
32. WOOD ELEMENTS: USE WOOD SCREWS.
33. EXTERIOR STEEL WALL: USE STAINLESS STEEL.

BUILDING WIRE AND CABLE:

1. DESCRIPTION: SINGLE CONDUCTOR INSULATED WIRE.
2. CONDUCTOR: COPPER.
3. INSULATION VOLTAGE RATING: 600 VOLTS.
4. INSULATION TYPE: ANSI/NFPA 70; TYPE XHHW INSULATION FOR FEEDERS AND BRANCH CIRCUITS LARGER THAN #8 AWG; TYPE THHN/THWN INSULATION FOR FEEDERS AND BRANCH CIRCUITS #8 AWG AND SMALLER.
5. COMPLETELY AND THOROUGHLY SWAB RACEWAY BEFORE INSTALLING WIRE.
6. USE ONLY BUILDING WIRE IN RACEWAY FOR PANEL AND EQUIPMENT FEEDERS, AND EXPOSED BRANCH CIRCUIT WIRING. USE WIRING METHODS INDICATED ON DRAWINGS.
7. IDENTIFY WIRE AND CABLE AND CONDUCTOR WITH CIRCUIT NUMBER OR OTHER DESIGNATION INDICATED ON DRAWINGS. BOND PRODUCTS AND METAL ACCESSORIES TO BRANCH CIRCUIT EQUIPMENT GROUNDING CONDUCTOR.

WIRING CONNECTORS:

1. USE SPLIT BOLT CONNECTORS, SOLDERLESS PRESSURE CONNECTORS, OR COMPRESSION CONNECTORS.
2. IDENTIFY CONDUIT WITH BREAKER CIRCUIT OR SUBPANEL NAME.
3. MAKE ELECTRICAL CONNECTIONS IN ACCORDANCE WITH EQUIPMENT MANUFACTURER'S INSTRUCTIONS.
4. MAKE CONDUIT CONNECTIONS TO EQUIPMENT USING FLEXIBLE CONDUIT. USE LIQUID TIGHT FLEXIBLE CONDUIT WITH WATERTIGHT CONNECTORS IN DAMP OR WET LOCATIONS.
5. MAKE WIRING CONNECTIONS USING WIRE AND CABLE WITH INSULATION SUITABLE FOR TEMPERATURES ENCOUNTERED IN HEAT PRODUCING EQUIPMENT.
6. PROVIDE RECEPTACLE OUTLET WHERE CONNECTION WITH ATTACHMENT PLUG IS INDICATED. PROVIDE CORD AND CAP WHERE FIELD-SUPPLIED ATTACHMENT PLUG IS INDICATED.
7. PROVIDE SUITABLE STRAIN-RELEIF CLAMPS AND FITTINGS FOR CORD CONNECTIONS AT OUT BOXES AND EQUIPMENT CONNECTION BOXES.
8. INSTALL DISCONNECT SWITCHES, CONTROLLERS, CONTROL STATIONS, AND CONTROL DEVICES AS INDICATED.
9. MODIFY EQUIPMENT CONTROL WIRING WITH TERMINAL BLOCK JUMPERS AS INDICATED.
10. PROVIDE INTERCONNECTING CONDUIT AND WIRING BETWEEN DEVICES AND EQUIPMENT WHERE INDICATED OR REQUIRED.
11. USE SOLID CONDUCTOR FOR FEEDERS AND BRANCH CIRCUITS 10 AWG AND SMALLER. PROVIDE A SEPARATE, INSULATED CONDUCTOR WITHIN EACH FEEDER AND BRANCH CIRCUIT RACEWAY, INCLUDING SWITCH LEGS. TERMINATE EACH END ON SUITABLE LUG, BUS, OR BUSHING
12. USE STRANDED CONDUCTORS FOR CONTROL CIRCUITS.
13. USE CONDUCTOR NOT SMALLER THAN 12 AWG FOR POWER AND LIGHTING CIRCUITS.
14. USE CONDUCTOR NOT SMALLER THAN 14 AWG FOR CONTROL CIRCUITS.
15. USE 10 AWG CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS LONGER THAN 75 FEET.
16. PULL ALL CONDUCTORS INTO RACEWAY AT SAME TIME.
17. USE SUITABLE WIRE PULLING LUBRICANT FOR BUILDING WIRE 4 AWG AND LARGER.
18. PROTECT EXPOSED CABLE FROM DAMAGE.
19. SUPPORT CABLES ABOVE ACCESSIBLE CEILING USING SPRING METAL CLIPS OR PLASTIC CABLE TIES TO SUPPORT CABLES FROM STRUCTURE. DO NOT REST CABLE ON CEILING PANELS.
20. USE SUITABLE CABLE FITTINGS AND CONNECTORS.
21. NEATLY TRAIN WIRING INSIDE BOXES, EQUIPMENT, AND PANEL BOARDS.
22. CLEAN CONDUCTOR SURFACES BEFORE INSTALLING LUGS AND CONNECTORS.
23. MAKE SPLICES, TAPS, AND TERMINATIONS TO CARRY FULL AMPACITY OF CONDUCTORS WITH NO PERCEPTIBLE TEMPERATURE RISE.
24. USE COMPRESSION CONNECTORS FOR COPPER CONDUCTOR SPLICES AND TAPS, 6 AWG AND LARGER. TAPE UNINSULATED CONDUCTORS AND CONNECTOR WITH ELECTRICAL TAPE TO 150 PERCENT OF INSULATION RATING OF CONDUCTOR.
25. USE SOLDERLESS PRESSURE CONNECTORS WITH INSULATING COVERS FOR COPPER CONDUCTOR SPLICES AND TAPS, 8 AWG AND SMALLER.

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH
DEPARTMENT OF PLANNING AND PERMITTING

DATE

REVISION NO.	DATE	REVISIONS	BY

KENNETH R WELCH
LICENSED PROFESSIONAL ENGINEER
No. PE-14751-E
Hawaii, U.S.A.

Exp. Date: 4-30-28

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DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAII HILO DISTRICT OFFICE
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ELECTRICAL NOTES

DESIGNED BY:	KW
DRAWN BY:	KJ
CHECKED BY:	KW
SUPV:	
DATE:	05/08/26

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Tel: 808-533-2092

JOB NO. 24-096

SHEET E01
31 OF 35 SHTS

2020/CP-186

FILE _____ DRAWE _____ FOLDER _____

ELECTRICAL CONNECTIONS:

1. PROVIDE RECEPTACLE OUTLET WHERE CONNECTION WITH ATTACHMENT PLUG IS INDICATED. PROVIDE CORD AND CAP WHERE FIELD-SUPPLIED ATTACHMENT PLUG IS INDICATED.

2. PROVIDE SUITABLE STRAIN-RELIEF CLAMPS AND FITTINGS FOR CORD CONNECTIONS AT OUTLET BOXES AND EQUIPMENT CONNECTION BOXES.

3. INSTALL DISCONNECT SWITCHES, CONTROLLERS, CONTROL STATIONS, AND CONTROL DEVICES AS INDICATED.

4. PROVIDE INTERCONNECTING CONDUIT AND WIRING BETWEEN DEVICES AND EQUIPMENT WHERE INDICATED OR REQUIRED.

5. MEASURE TIGHTNESS OF BOLTED CONNECTIONS AND COMPARE TORQUE MEASUREMENTS WITH MANUFACTURER'S RECOMMENDED VALUES.

6. VERIFY CONTINUITY OF EACH BRANCH CIRCUIT CONDUCTOR.

INTERFACE WITH OTHER PRODUCTS:

1. INSTALL CABLE, ELECTRICAL BOXES, LUMINAIRES, AND CONDUIT TO PRESERVE FIRE RESISTANCE RATING OF PARTITIONS AND OTHER ELEMENT.

2. COORDINATE CONDUIT PENETRATIONS THROUGH ROOF WITH PIPING AND DUCTWORK. USE PREFABRICATED ROOF PENETRATION ACCESSORIES. COORDINATE WITH ROOFING INSTALLER. COORDINATE CONDUIT PENETRATIONS, BOX AND LUMINAIRE, INSTALLATION THROUGH ARCHITECTURAL ELEMENTS WITH TERMITE CONTROL BARRIER SYSTEM.

3. FIELD QUALITY CONTROL

4. PERFORM FIELD INSPECTION AND TESTING TO VERIFY INSTALLATION.

5. VERIFY THAT INTERIOR OF BUILDING HAS BEEN PROTECTED FROM WEATHER.

PROTECTION OF EQUIPMENT:

1. ELECTRICAL EQUIPMENT SHALL BE PROTECTED FROM THE WEATHER, IN PARTICULAR, DRIPPING OR SPLASHING WATER. AT ALL TIMES DURING SHPME4T, STORAGE AND CONSTRUCTION. MANUFACTURER'S RECOMMENDATIONS WITH REGARD TO STORAGE, PROTECTION, AND HANDLING SHALL BE FOLLOWED.

2. SHOULD ANY APPARATUS BE SUBJECTED TO POSSIBLE INJURY DUE TO WATER, IT SHALL BE THOROUGHLY DRIED AND SUBJECT TO A DIELECTRIC TEST. AT EXPENSE OF CONTRACTOR, TO ASCERTAIN THE SUITABILITY OF THE APPARATUS OR IT SHALL BE REPLACED WITHOUT ADDITIONAL COST TO THE OWNER.

WORKING CLEARANCE:

1. THE SIZE OF ELECTRICAL EQUIPMENT SHOWN ON THE DRAWINGS IS BASE ON DIMENSIONS OF A PARTICULAR MANUFACTURER. WHILE OTHER MANUFACTURERS MAYBE ACCEPTABLE IT IS THE RESPONSIBILITY OF THE TRADE TO DETERMINE IF THE EQUIPMENT PROPOSED WILL FIT IN THE ALLOCATED SPACE.

2. INSTALL ALL EQUIPMENT TO PERMIT ACCESS TO ALL SURFACES. MAINTAIN PROPER CLEARANCE TO MEET ALL SAFETY AND OPERATING CODES, ALL REQUIREMENTS DICTATED BY OPERATION, CONTROL, ADJUSTMENT, MAINTENANCE AND POSSIBLE REPLACEMENT OF EQUIPMENT IN DETERMINING CLEARANCE.

3. SHOULD THERE BE APPARENT VIOLATIONS OF NEC CLEARANCE NOTIFY THE ENGINEER BEFORE PROCEEDING WITH CONNECTION OR PLACEMENT OF EQUIPMENT.

WIRING DEVICES:

1. A. SWITCHES: HEAVY DUTY AC. RATED 20 AMPERES, 120/277 VOLTS. SINGLE POLE DOUBLE POLE OR THREE-POLE AS NOTED ON DRAWINGS OR AS REQUIRED FOR THE SWITCHING ARRANGEMENTS IN EACH SPACE. HUBBELL #L22'-', SLATS #72'AG.. OR ANY U.L LISTED. COORDINATE SWITCH COLORS WITH COVER PLATE AS DECREED BELOW UNDER "PLATES".

2. SWITCHES. SPECIAL PURPOSE - RESERVED

3. RECEPTACLES: THREE WIRE DUPLEX (ROUNDING TYPE 120 VOLT RATED. 20 AMPERE. UNLESS OTHERWISE NOTED. HUBBELL # 5362, SLATS #5252AG, OR APPROVED EQUAL COORDINATE RECEPTACLE COLOR WITH COVER PLATE AS DESCRIBED BELOW UNDER "PLATES". SIMPLEX, 20 AMPERE 120 VOLT SPECIFICATION GRADE HUBBELL #5361, SLATS 8536 AG OR APPROVED EQUAL.

4. DUST AND MOISTURE RESISTANT SHALL BE MELAMINE PLASTIC BODY. GREY NYLON FACE BACKED BY FABRIC REINFORCED NEOPRENE GASKETS TO PROVIDE WIPING ACTION ON CAP BLADES. PASS & SEYMOUR #6307 OR APPROVED EQUAL GROUND FAULT CIRCUIT INTERRUPTS SHALL BE NYLON FACE CLASS A. NEMA 5.2CR. SPECIFICATION GRADE HUBBELL #GF6362', SLATER SP-20-F- OR APPROVED EQUAL

5. CORROSION RESISTANT SHALL BE SIMILAR AND APPROVED EQUAL TO STANDARD RECEPTACLE FABRICATED FROM YELLOW MELAMINE PLASTIC WITH YELLOW NYLON FACE AND EXPOSED METAL PARTS FINISHED TO RESET CORROSION. NEMA 5-20R HUBBELL (52CM61).

6. ISOLATED GROUND SHALL BE DUPLEX SIMPLE (THREE WIRE GROUNDING TYPE SPECIFICATION GRADE ORANGE FACE GROUND CONTACT FULLY ISOLATED FROM STRAP AND MADE WITH SCREW TERMINAL HUBBELL #IGS262 OR ANY U.L LISTED.

7. RECEPTACLES, SPECIAL PURPOSE: SHALL BE AS SCHEDULED ON DRAWINGS.

8. PLATES: PROVIDE METAL PLATES. FOR ALL OUTLET BOXES. PLATES SHALL BE OF SUITABLE CONFIGURATION FOR THE NUMBER AND TYPE OF DEVICES SERVED, SHALL BE ONE PIECE SHALL OVERLAP ALL BOX EDGE AND ROOM SURFACES, AND SHALL BE SMOOTH FINISH TYPE.

9. STANDARD INTERIOR: STEEL IVORY FINISHED ON LIGHT COLORED WALLS AND DARK BROWN FOR RECEPTACLE INSTALLED ON WOOD WAINSCOT PORTION OF WALL.

10. INTERIOR AND EXTERIOR DAMP LOCATIONS: NEMA-3R ENCLOSURE

11. ACCEPTABLE MANUFACTURES: SLATE. HUBBELL SEYMOUR. LEVITON. NOTE: NOT ALL ITEMS AVAILABLE FROM ALL LISTED SUPPLIERS.

CIRCUIT DISCONNECTS:

1. SAFETY SWITCHES: SAFETY SWITCHES SHALL CONSIST OF OF A BOX, FRONT COVER AND CURRENT PROTECTOR DEVICE MANUFACTURED AND ASSEMBLED IN ACCORDANCE WITH NEMA STANDARDS WITH U.L LISTING AND LABEL. CIRCUIT PROTECTOR DEVICE SHALL BE HEAVY DUTY, QUICK MAKE - BREAK FUSED OR UNFUSED SWITCH RATED FOR MOTOR CIRCUITS AND/OR SERVICE ENTRANCE DUTY IF REQUIRED. UNITS SHALL BE FURNISHED FOR SURFACE MOUNTING WITH EITHER GENERAL PURPOSE OR RAIN TIGHT ENCLOSURES. AS REQUIRED. FUSED UNITS SHALL BE FURNISHED COMPLETE WITH PROPER FUSES.

FIRE ALARM NOTES:

ROH
SEC. 18-5.2 RETENTION OF PLANS

ONE SET OF APPROVED PLANS, SPECIFICATIONS, AND COMPUTATIONS SHALL BE RETAINED BY THH BUILDING OFFICIAL FOR A PERIOD OF NOT LESS THAN 90 DAYS FROM DATE OF COMPLETION OF THE WORK COVERED THEREIN, AND ONE SET OF APPROVED PLANS SHALL BE RETURNED TO THE APPLICANT, AND SAID SET SHALL BE KEPT ON THE SITE OF THE BUILDING OR WORK AT ALL TIMES DURING WHICH THE WORK AUTHORIZED THEREBY IS IN PROGRESS. (SEC. 18-5.2 R.O. 1978 (1983 ED.); AM. ORD. 93-59)

NFPA 1 2012-
1.14 PLAN REVIEW

1.14.4 REVIEW AND APPROVAL BY THE AHJ SHALL NOT RELIEVE THE APPLICANT OF THE RESPONSIBILITY OF COMPLIANCE WITH THIS CODE.

1.3.6.3 REPAIRS, RENOVATIONS, ALTERATIONS, RECONSTRUCTION, CHANGE OF OCCUPANCY, AND ADDITIONS TO BUILDINGS SHALL CONFORM TO THIS CODE, NFPA 101, AND THE BUILDING CODE.

LIABILITY
1.9.4 THIS CODE SHALL NOT BE CONSTRUED TO RELIEVE FROM OR LESSEN THE RESPONSIBILITY OF ANY PERSON OWNING, OPERATING, OR CONTROLLING ANY BUILDING OR STRUCTURE FOR ANY DAMAGES TO PERSONS OR PROPERTY CAUSED BY DEFECTS, NOR SHALL THE CODE ENFORCEMENT AGENCY OF ITS PARENT JURISDICTION BE HELD AS ASSUMING ANY SUCH LIABILITY BY REASON OF THE INSPECTIONS AUTHORIZED BY THIS CODE OR ANY PERMITS OR CERTIFICATES ISSUES UNDER THIS CODE.

FIRE SAFETY NOTE
16.1.1 STRUCTURES UNDERGROUND CONSTRUCTION, ALTERATION, OR DEMOLITION OPERATIONS, INCLUDING THOSE IN UNDERGROUND LOCATIONS, SHALL COMPLY WITH NFPA 241, STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS, AND THIS CHAPTER. 2018 NFPA 1.

DETECTION, ALARM, AND COMMUNICATIONS SYSTEMS
13.7.1.1 WHERE BUILDING FIRE ALARM SYSTEMS OR AUTOMATIC FIRE DETECTORS ARE REQUIRED BY OTHER SECTIONS OF THIS CODE, THEY SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH NFPA 70, NFPA 72, NATIONAL FIRE ALARM AND SIGNALING CODE, AND SECTION 13.7.

13.7.1.4.10.5 UNLESS OTHERWISE PROVIDED IN 13.7.1.4.10.5.1 THROUGH 13.7.1.4.10.5.8, NOTIFICATION SIGNALS FOR OCCUPANTS TO EVACUATE SHALL BE MADE AUDIBLE AND VISIBLE SIGNALS IN ACCORDANCE WITH NFPA 72 AND ICC/ANSI A117.1, AMERICAN NATIONAL STANDARD FOR ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES, OR OTHER MEANS OF NOTIFICATION ACCEPTABLE TO THE AHJ SHALL BE PROVIDED.

ACCESS AND WATER SUPPLY
18.1 GENERAL. FIRE DEPARTMENT ACCESS AND WATER SUPPLIES SHALL COMPLY WITH THIS CHAPTER.

CITY AND COUNTY OF HONOLULU
REVISED ORDINANCE OF HONOLULU 2021
CHAPTER 168

TO THE BEST OF MY KNOWLEDGE, THIS PROJECT'S DESIGN SUBSTANTIALLY CONFORMS TO THE BUILDING ENERGY CODE FOR:

____ BUILDING COMPONENT SYSTEMS
_X_ ELECTRICAL COMPONENT SYSTEMS
____ MECHANICAL COMPONENT SYSTEMS

SIGNATURE: _____ DATE: 04/02/2025
NAME: KENNETH R. WELCH
TITLE: ELECTRICAL ENGINEER
LICENSE NO.: 14751-E

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH DEPARTMENT OF PLANNING AND PERMITTING — DATE

REVISION NO.	DATE	REVISIONS	BY

KENNETH R WELCH
LICENSED PROFESSIONAL ENGINEER
No. PE-14751-E
Hawaii, U.S.A.
Exp. Date: 4-30-28

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DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAII HILO DISTRICT OFFICE
DHHL OFFICE IMPROVEMENTS
162 BAKER AVE, HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

ELECTRICAL NOTES

DESIGNED BY:	KW
DRAWN BY:	KJ
CHECKED BY:	KW
SUPV:	
DATE:	05/08/26

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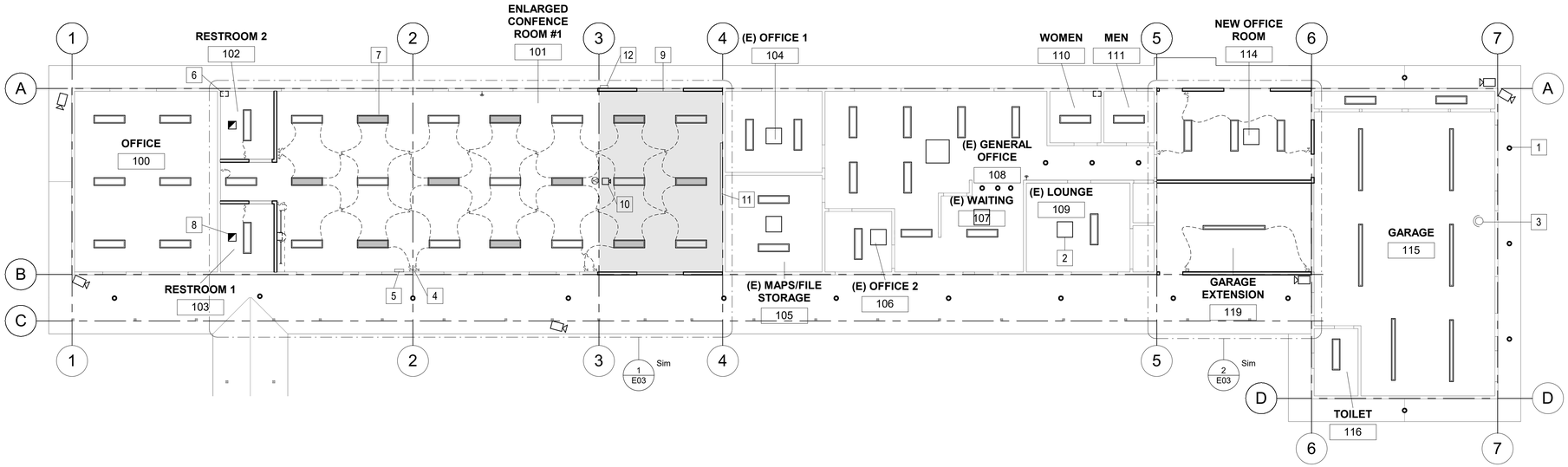
JOB NO. 24-096
SHEET E02
32 OF 35 SHTS

2020/CP-186

FILE _____ DRAWE _____ FOLDER _____



3 E03 OVERALL LIGHTING PLAN

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

1 E03 CONFERENCE POWER PLAN

SCALE: 3/16" = 1'-0"

2 E03 NEW OFFICE POWER PLAN

SCALE: 3/16" = 1'-0"

ELECTRICAL KEY PLAN

NOTE:
TEST ALL RECEPTACLES AND REPLACE ANY DAMAGED OR NON-WORKING RECEPTACLES.

ELECTRICAL PLAN KEYNOTES

1. REPLACE LIGHTS
2. FCU, SEE MECHANICAL
3. CCTV
4. REWORK SWITCHES
5. MOVE ELECTRICAL PANEL
6. INSTANT WATER HEATER
7. REWORK LIGHT LOCATIONS
8. EXHAUST FAN
9. UNPERMITTED BUILT SPACE
10. CEILING MOUNTED PROJECTOR
11. WALL MOUNTED PROJECTOR SCREEN
12. REPLACE A/C DISSCONNECT

ELECTRICAL LEGEND

- SURFACE MOUNTED 1x4 LED LIGHT FIXTURE, **LUMINAIRE A**
- SURFACE MOUNTED 1x8 LED LIGHT FIXTURE, **LUMINAIRE B**
- 6"Ø RECESSED LED CAN LIGHT FIXTURE, **LUMINAIRE C**
- CELL PHONE AMPLIFIER
- DUPLEX RECEPTICAL
- SWITCH
- 3-WAY SWITCH
- CCTV
- 180 DEGREE CCTV
- IWH
- EXHAUST FAN
- CEILING MOUNTED PROJECTOR
- WALL MOUNTED PROJECTOR SCREEN
- CEILING RECEPTACLE / DATA OUTLET COMBO
- DATA OUTLET

NORTH

4' 2' 0 4' 8'
3/16" = 1'-0"

16' 12' 8' 4' 0 16' 32'
1/16" = 1'-0"

APPROVED:

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DEPARTMENT OF PLANNING AND PERMITTING

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ELECTRICAL FLOOR PLAN

DESIGNED BY:	KW
DRAWN BY:	KJ
CHECKED BY:	KW
SUPV:	
DATE:	05/08/26

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JOB NO. 24-096

SHEET E03
33 OF 35 SHTS

2020/CP-186

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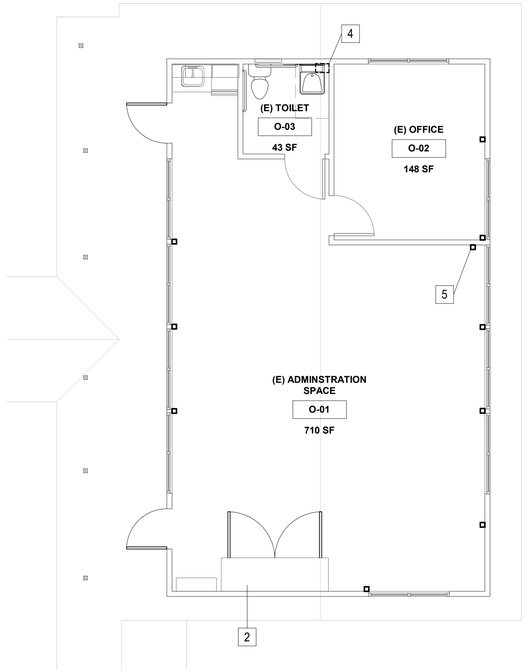
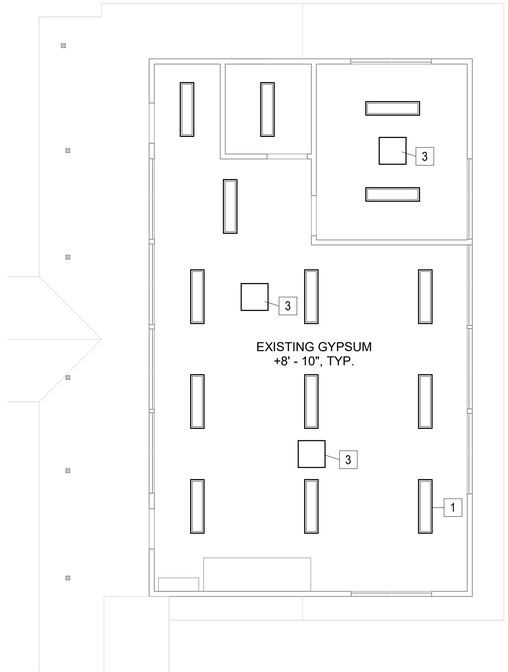


1 E04 **OHA POWER PLAN**
SCALE: 3/16" = 1'-0"



2 E04 **OHA LIGHTING PLAN**
SCALE: 3/16" = 1'-0"

NOTE:
TEST ALL RECEPTACLES AND REPLACE ANY DAMAGED OR NON-WORKING RECEPTACLES.

OHA ELECTRICAL KEYNOTES

1. NEW LED LIGHT FIXTURES
2. REPAIR TELECOM CABINET DOORS AND LOCKS
3. FCU, SEE MECHANICAL
4. NEW IWH
5. UPGRADE CAT5 WIRING TO CAT6

ELECTRICAL LEGEND

- SURFACE MOUNTED 1x4 LED LIGHT FIXTURE, **LUMINAIRE A**
- SURFACE MOUNTED 1x8 LED LIGHT FIXTURE, **LUMINAIRE B**
- 6"ø RECESSED LED CAN LIGHT FIXTURE, **LUMINAIRE C**
- CELL PHONE AMPLIFIER
- DUPLEX RECEPTICAL
- SWITCH
- 3-WAY SWITCH
- CCTV
- 180 DEGREE CCTV
- IWH
- EXHAUST FAN
- CEILING MOUNTED PROJECTOR
- WALL MOUNTED PROJECTOR SCREEN
- CEILING RECEPTACLE / DATA OUTLET COMBO
- DATA OUTLET

NORTH

A / D ROOM INTERIOR ELEV B / C

4' 2' 0 4' 8'
3/16" = 1'-0"

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DEPARTMENT OF PLANNING AND PERMITTING

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ELECTRCIAL FLOOR PLANS - OHA BUILDING

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SHEET E04
34 OF 35 SHTS

2020/CP-186

FILE _____ DRAWE _____ FOLDER _____

TYPE	LAMP	MOUNTING	DESCRIPTION
A	INTEGRAL LED 26.7 WATT 3195 LM 85 CRI 4000K	CEILING MOUNTED	4' SURFACE MOUNTED LED VOLUMETRIC WITH 0-10V DIMMING, 120-277V LITHONIA LIGHTING #STL4 30L EZ1 LP840 SC1 OR EQUAL

TYPE	LAMP	MOUNTING	DESCRIPTION
B	INTEGRAL LED 26.7 WATT 3195 LM 85 CRI 4000K	CEILING MOUNTED	8' SURFACE MOUNTED LED VOLUMETRIC WITH 0-10V DIMMING, 120-277V LITHONIA LIGHTING #STL4 30L EZ1 LP840 SC1 OR EQUAL

TYPE	LAMP	MOUNTING	
C	INTEGRAL LED 26.7 WATT 3195 LM 85 CRI 4000K	RECESSED IN SOFFIT	5"/6" ROUND EQUIVALENT LED MODULE, 120V 4000K LITHONIA LIGHTING #65BEMW LED 40K L7XRLED T24 OR EQUAL

Panel Name: PANEL F — Panel Amperage: 225
Voltage & Phase: 120/208Y—3Ø — Panel A.I.C. Rating: 14kAIC
Mounting: Flush — Other: MLO

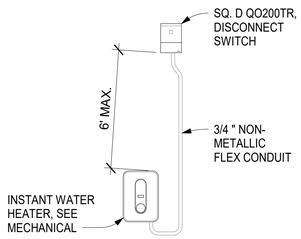
Description	Brk	Phase		Brk	Description
LITE CLASS RM.	20	1	A	2	20	LITE RESOURCE RM
LITE CLASS RM.	20	3	B	4	20	LITE RESOURCE RM
LITE CLASS RM.	20	5	C	6	20	LITE RESOURCE RM
LITE CLASS RM.	20	7	A	8	20	LITE RESOURCE RM
LITE CLASS RM.	20	9	B	10	20	LITE RESOURCE RM
ACCU-5	30	11	C	12	30	ACCU-7
ACCU	30	13	A	14	30	ACCU-7
AHU	20	15	B	16	20	AHU
ACCU-6	30	17	C	18	20	LITE RESOURCE RM
ACCU	30	19	A	20	20	LITE RESOURCE RM
AHU	20	21	B	22	20	LITE RESOURCE RM
RECP AND EXHAUST FAN	20	23	C	24	20	LITE RESOURCE RM
RECEP (CLASS RM)	20	25	A	26	20	LITES (RESOURCE RM)
RECEP (CLASS RM)	20	27	B	28	20	LITES (RESOURCE RM)
RECEP (CLASS RM)	20	29	C	30	20	LITES (RESOURCE RM)
RECEP (CLASS RM)	20	31	A	32	20	RECEP - CNTR GFCI
RECEP TV	20	33	B	34	20	RECEP - CNTR GFCI
RECEP (CLASS RM)	20	35	C	36	20	EMERG. LITES (RESOURCE RM)
RECEP - CNTR GFCI	20	37	A	38	20	
RECEP COMP EQT	20	39	B	40	40	OVEN-RANGE
RECEP (CLASS RM)	20	41	C	42	40	OVEN-RANGE

Panel Name: PANEL B — Panel Amperage: 225
Voltage & Phase: 120/208Y—3Ø — Panel A.I.C. Rating: 14kAIC
Mounting: Flush — Other: MB

Description	Brk	Phase		Brk	Description
LITE CLASS RM.	20	1	A	2	20	LITE RESOURCE RM
LITE CLASS RM.	20	3	B	4	20	LITE RESOURCE RM
LITE CLASS RM.	20	5	C	6	20	LITE RESOURCE RM
LITE CLASS RM.	20	7	A	8	20	LITE RESOURCE RM
LITE CLASS RM.	20	9	B	10	20	LITE RESOURCE RM
ACCU-5	30	11	C	12	30	ACCU-7
ACCU	30	13	A	14	30	ACCU-7
AHU	20	15	B	16	20	AHU
ACCU-6	30	17	C	18	20	LITE RESOURCE RM
ACCU	30	19	A	20	20	LITE RESOURCE RM
AHU	20	21	B	22	20	LITE RESOURCE RM
RECP AND EXHAUST FAN	20	23	C	24	20	LITE RESOURCE RM
RECEP IT HUB	20	25	A	26	20	RECEPT OFFICE
	20	27	B	28	20	RECEPT OFFICE
	20	29	C	30	20	RECEPT OFFICE
	20	31	A	32	20	RECEP - HALLWAY
	20	33	B	34	20	
	20	35	C	36	20	
	20	37	A	38	20	
	20	39	B	40	40	
	20	41	C	42	40	

Panel Name: PANEL A — Panel Amperage: 225
Voltage & Phase: 120/208Y—3Ø — Panel A.I.C. Rating: 14kAIC
Mounting: Flush — Other: MLO

Description	Brk	Phase		Brk	Description
LITE CLASS RM.	20	1	A	2	20	LITE RESOURCE RM
LITE CLASS RM.	20	3	B	4	20	LITE RESOURCE RM
LITE CLASS RM.	20	5	C	6	20	LITE RESOURCE RM
LITE CLASS RM.	20	7	A	8	20	LITE RESOURCE RM
LITE CLASS RM.	20	9	B	10	20	LITE RESOURCE RM
ACCU-5	30	11	C	12	30	ACCU-7
ACCU	30	13	A	14	30	ACCU-7
AHU	20	15	B	16	20	AHU
ACCU-6	30	17	C	18	20	LITE RESOURCE RM
ACCU	30	19	A	20	20	LITE RESOURCE RM
AHU	20	21	B	22	20	LITE RESOURCE RM
RECP AND EXHAUST FAN	20	23	C	24	20	LITE RESOURCE RM
RECEP (CLASS RM)	20	25	A	26	20	
	20	27	B	28	20	
	20	29	C	30	20	
	20	31	A	32	20	
	20	33	B	34	20	
	20	35	C	36	20	
	20	37	A	38	20	
	20	39	B	40	40	
	20	41	C	42	40	



1 / E05 **IWH DISCONNECT SWITCH**
SCALE: N.T.S.

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH — DATE
DEPARTMENT OF PLANNING AND PERMITTING

REVISION NO.	DATE	REVISIONS	BY

KENNETH R WELCH — LICENSED PROFESSIONAL ENGINEER — No. PE-14751-E — Hawaii, U.S.A.
Exp. Date: 4-30-28

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

DEPARTMENT OF HAWAIIAN HOME LANDS

EAST HAWAII HILO DISTRICT OFFICE
DHHL OFFICE IMPROVEMENTS
162 BAKER AVE, HILO, HI 96720
T.M.K.: (3) 2-1-023:157 & 158

ELECTRICAL SCHEDULES

DESIGNED BY:	KW
DRAWN BY:	KJ
CHECKED BY:	KW
SUPV:	
DATE:	05/08/26

HAWAII ENGINEERING GROUP, Inc.
Civil & Structural Engineers
1088 BISHOP STREET #2506
HONOLULU, HI 96813
Tel: 808-533-2092

JOB NO. 24-096
SHEET E05
35 OF 35 SHTS

2020/CP-186

FILE _____ DRAWE _____ FOLDER _____