

**STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS**

PLANS FOR

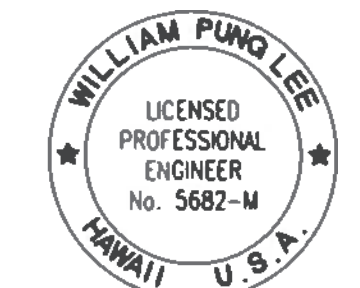
**REPLACE ADMIN TOWER  
5TH FLOOR AC SYSTEM**

AT

**DANIEL K. INOUE INTERNATIONAL AIRPORT  
HONOLULU, OAHU, HAWAII  
PROJECT NO. CO1328-43**



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS



*William Pung Lee*  
04/30/2024  
Licensed Expiration Date

This work was prepared by me or under my supervision.

DSGN.	DRWN.	CHKD.	APPD.

NO.	DATE	REVISIONS

**FINAL SUBMITTAL**

MARCH 3, 2023  
DATE

PROJECT TITLE :

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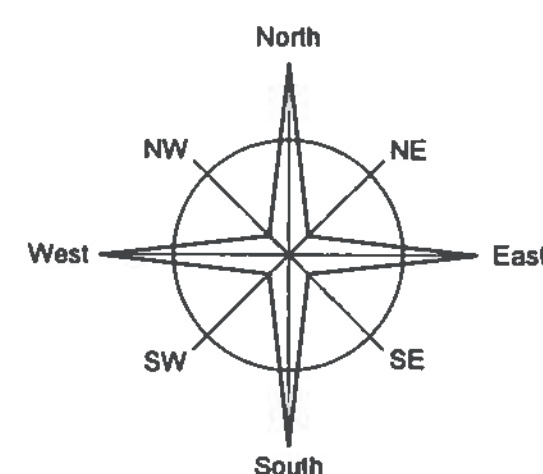
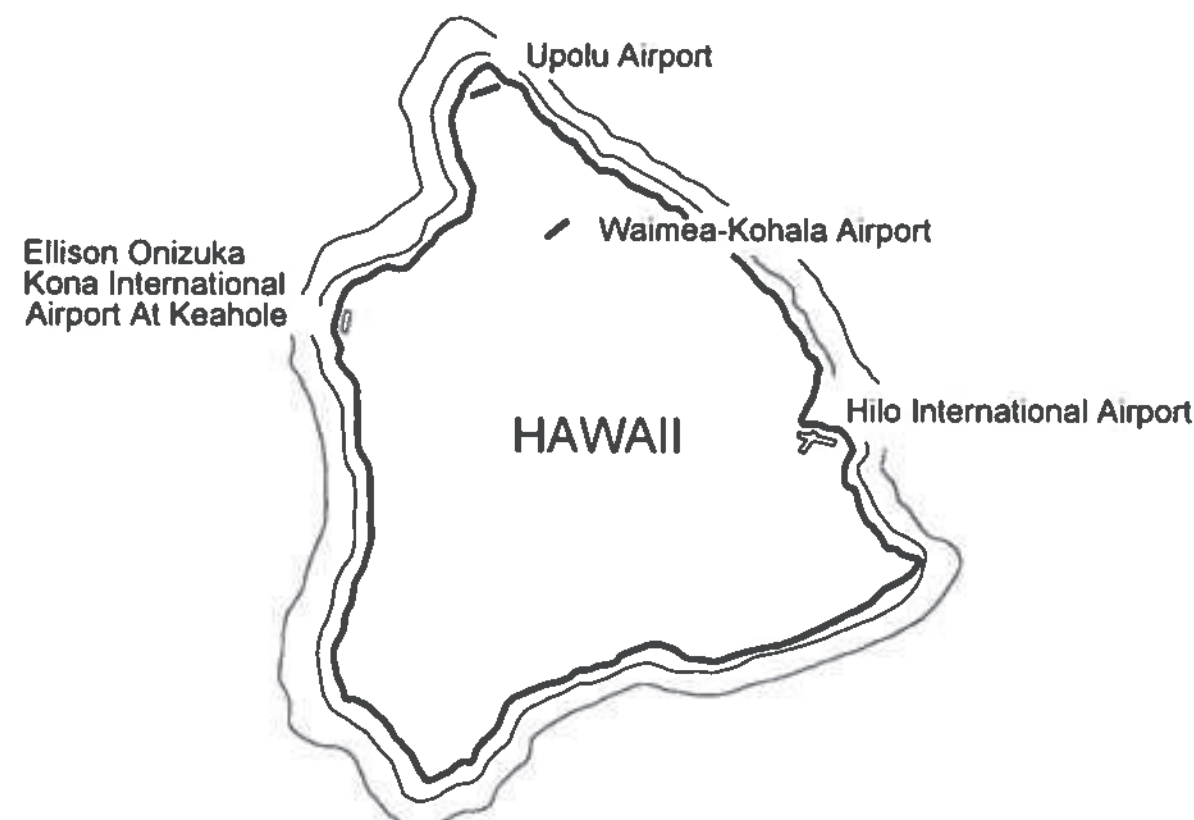
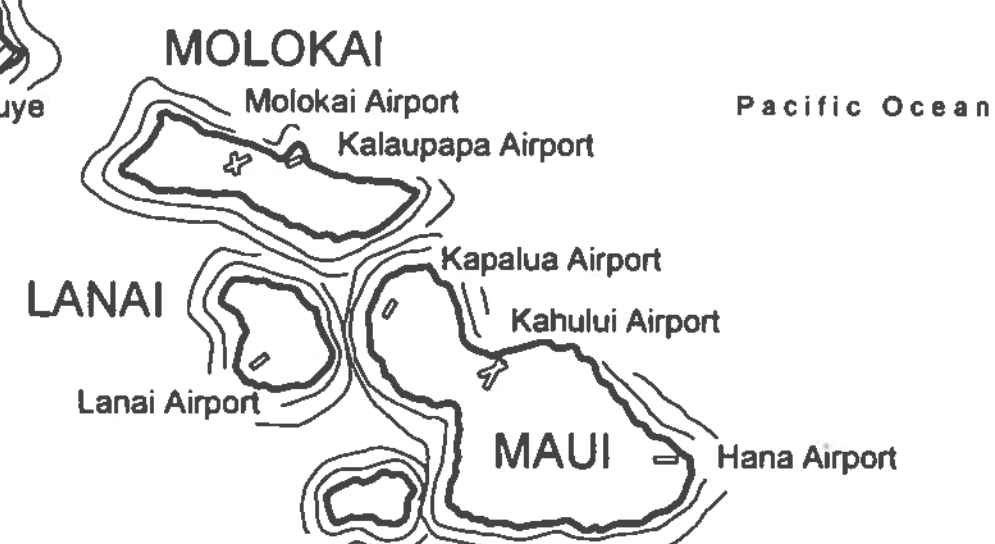
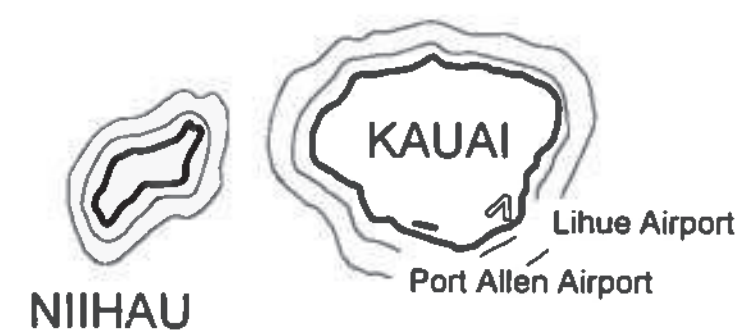
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**CO1328-43**

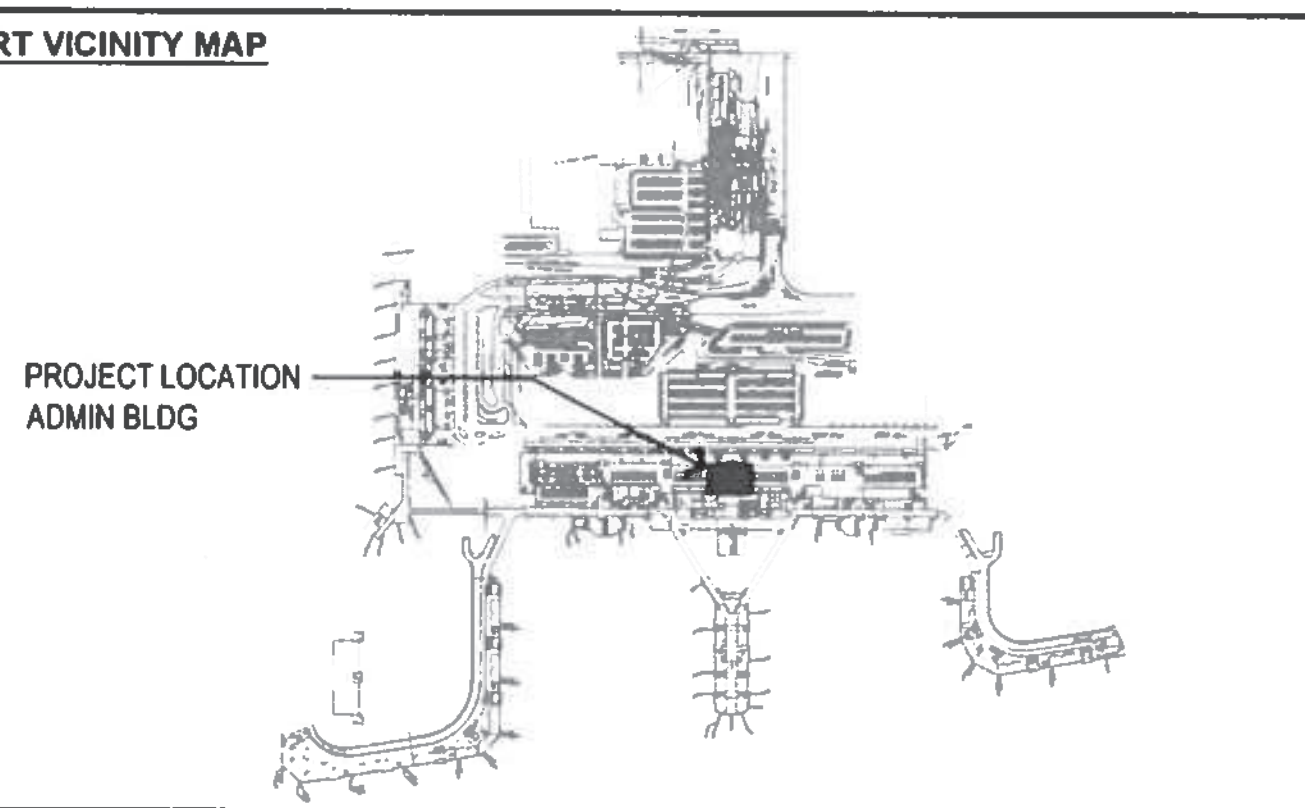
SHEET TITLE:

**PROJECT TITLE,  
LOCATION MAP,  
VICINITY MAP, INDEX OF  
DRAWINGS**

DATE:	DWG. NO.
MAR. 3, 2023	G-001
SHEET:	1 OF 16 SHEETS



**AIRPORT VICINITY MAP**



INDEX OF DRAWINGS		
	SHEET NO.	SHEET TITLE
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3	A-101	DEMOLITION FLOOR PLAN, DEMOLITION REFLECTED CEILING PLAN
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5	A-301	PARTIAL BUILDING SECTION AT 5TH FLOOR, DETAILS
6	M-001	MECHANICAL NOTES, LEGEND & ABBREVIATIONS
7	M-002	MECHANICAL NOTES
8	M-101	MECHANICAL DEMO WORK PLAN
9	M-201	MECHANICAL NEW WORK PLAN
10	M-501	MECHANICAL EQUIPMENT SCHEDULES, DETAILS
11	M-601	DDCS POINTS SCHEDULE, CONTROL SCHEMATIC
12	E-001	ELECTRICAL NOTES, LEGEND & ABBREVIATIONS
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14	E-102	ENLARGED MECH ROOM ELECTRICAL DEMO WORK PLAN
15	E-201	ELECTRICAL NEW WORK PLAN
16	E-202	ENLARGED MECH ROOM ELECTRICAL NEW WORK PLAN

DEPARTMENT OF TRANSPORTATION STATE OF HAWAII	
APPROVED:	DATE
<i>Mary Jo</i> DIRECTOR OF TRANSPORTATION	5/12/23

# ARCHITECTURAL GENERAL NOTES

## GENERAL NOTES

- CONSTRUCTION DOCUMENTS REASONABLY DESCRIBE THE INTENT OF THE QUALITY AND SCOPE OF THE CONSTRUCTION FOR THE PROJECT. WHERE DETAILS AND NOTES ARE NOT SHOWN, THE CONTRACTOR SHALL PROCEED FOLLOWING THE ACCEPTED QUALITY STANDARDS AND PROCEDURES OF THE CONSTRUCTION INDUSTRY IN HAWAII AS WELL AS THE GENERAL INTENT OF THE CONSTRUCTION DOCUMENTS. CLARIFICATIONS MAY BE SUBMITTED TO THE CONTRACTING OFFICER FOR REVIEW BEFORE PROCEEDING.
- WHERE NOT MORE SPECIFICALLY DESCRIBED, WORKMANSHIP SHALL CONFORM TO THE BEST STANDARDS AND BEST PRACTICES OF THE INDUSTRY, TRADE, OR TRADES INVOLVED, AND SHALL INCLUDE ALL ITEMS OF FABRICATION, CONSTRUCTION AND INSTALLATION REGULARLY FURNISHED OR REQUIRED FOR COMPLETION (INCLUDING ANY FINISH REQUIRED FOR SUCCESSFUL OPERATION AS INTENDED). IT SHALL BE THE GENERAL CONTRACTOR'S AND EACH SUBCONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE QUALITY OF WORKMANSHIP DESCRIBED HEREIN IS ACHIEVED. WORK SHALL BE EXECUTED BY MECHANICS SKILLED IN THEIR RESPECTIVE LINES OF WORK.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND QUALITY OF WORK, AND FOR THE COORDINATING AND SUPERVISION OF ALL CONSTRUCTION WORK UNDER THIS CONTRACT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK AMONG THE VARIOUS TRADES AS NECESSARY TO AVOID CONFLICTS AND TO ENSURE THAT ALL WORK IS IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL VERIFY AND CHECK ALL DIMENSIONS AND DETAILS IN THE DRAWINGS FOR DISCREPANCY. CONTRACTOR SHALL ALSO VERIFY ELEVATIONS AND CONDITIONS PRIOR TO BEGINNING ANY WORK AND SHALL NOTIFY THE CONTRACTING OFFICER, IN WRITING, OF ANY DISCREPANCIES AND/OR CONDITION WHICH WILL PREVENT HIM FROM FULFILLING THE TERMS OF CONTRACT. CONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR ALL CORRECTIONS AND REPAIRS DUE TO THEIR FAILURE TO DO SO.
- QUANTITIES SHOWN AND/OR INDICATED IN THE CONTRACT DOCUMENTS SHALL BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR ALL QUANTITIES.
- WHERE EXISTING CONDITIONS REQUIRE DETAILS AND/OR SPECIFICATIONS DIFFERENT FROM THE CONSTRUCTION DOCUMENTS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE STATE ENGINEER IN WRITING, SO THAT ALTERNATIVE METHODS AND MATERIALS MAY BE CONSIDERED.
- THE CONTRACTOR SHALL PROVIDE ALL REQUIRED DEMOLITION REMOVAL, TEMPORARY REMOVAL AND REPLACEMENT, CUTTING, PATCHING, ETC., AS REQUIRED TO FACILITATE THE SUBJECT CONSTRUCTION WORK COMPLETE. VERIFY AND COMPARE ALL DRAWINGS (ALL DISCIPLINES) FOR THE COMPLETE SCOPE OF DEMOLITION, REMOVAL, TEMPORARY REMOVAL AND REPLACEMENT, CUTTING, PATCHING, ETC. WORK.
- WORK INCIDENTAL TO THE CONTRACT AND NECESSARY TO COMPLETE THE PROJECT, ALTHOUGH NOT SPECIFICALLY REFERRED TO ON THE CONTRACT DOCUMENTS, SHALL BE FURNISHED AND PERFORMED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL PROTECT ALL ITEMS, IN AND ABOVE GROUND WITHIN THE PROJECT SITE FROM DAMAGE. DAMAGE TO BUILDINGS, SIDEWALKS, LANDSCAPING, LAWN, HOSEBIBBS, ETC. BY THE CONTRACTOR, HIS EMPLOYEES, SUBCONTRACTORS, AND EQUIPMENT, SHALL BE REPLACED AND/OR REPAIRED AT NO EXTRA COST TO THE STATE.
- FINISHED SURFACES THAT ARE DAMAGED, SCRATCHED, OR MARRED DUE TO ONGOING CONSTRUCTION PERFORMED BY THE CONTRACTOR, SHALL BE RESTORED AT NO EXPENSE TO THE STATE AND TO THE PPM'S SATISFACTION. CORRECT DAMAGE TO WORK OR OTHER TRADES BY CLEANING, REPAIRING, REPLACING, AND REFINISHING AS APPROVED BY A TRADE PROFESSIONAL AND LEAVE IN AN UNDAMAGED CONDITION.
- THE CONTRACTOR SHALL PATCH ALL SURFACES EXPOSED FROM CUTTING, AND/OR REMOVAL WORK. PATCHING SHALL MATCH THE MATERIAL AND FINISH OF THE ADJACENT SURFACES.
- THE CONTRACTOR SHALL KEEP THE PROJECT SITE AND ADJACENT COMMON AREAS NEAT, TIDY AND CLEAN AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADES, TEMPORARY COVER, DUST CONTROL PARTITIONS, ETC. TO SCREEN/ PROTECT AREAS OF OPERATION AND EQUIPMENT FROM NOISE, DUST AND DAMAGE.
- MAINTAIN NOISE POLLUTION TO 85 DECIBELS (DBS) OR BELOW PER OSHA 1910.95. IF THE CONTRACTOR BELIEVES NOISE POLLUTION WILL BECOME A PROBLEM, THE CONTRACTOR SHALL COORDINATE WITH THE STATE ENGINEER FOR RESOLUTION.
- ALL MATERIALS, ITEMS NOTED IN THE DRAWING ARE "NEW," UNLESS NOTED OTHERWISE.
- ALL MATERIAL/EQUIPMENT SHALL BE RATED FOR USE IN THE ENVIRONMENT IN WHICH INSTALLED.
- DEFINITIONS:
  - "PROVIDE" SHALL MEAN FURNISH AND INSTALL COMPLETE AND READY FOR INTENDED USE, NEW ITEM(S), AS DETAILS OR NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS.
  - "REMOVE" SHALL MEAN DETACH ITEMS FROM EXISTING CONSTRUCTION AND DISPOSE OF THEM OFF-SITE UNLESS INDICATED TO BE SALVAGED OR REINSTALLED.
  - "REMOVE AND SALVAGE" SHALL MEAN DETACH ITEMS FROM EXISTING CONSTRUCTION, IN A MANNER TO PREVENT DAMAGE OR CAUSING FURTHER DAMAGE, AND DELIVER TO THE STATE.
  - "REMOVE AND REINSTALL" SHALL MEAN DETACH ITEMS FROM EXISTING CONSTRUCTION, IN A MANNER TO PREVENT DAMAGE OR CAUSE FURTHER DAMAGE, PREPARE FOR REUSE, AND REINSTALL WHERE INDICATED.
  - "EXISTING" AND/OR "EXISTING TO REMAIN" SHALL MEAN LEAVE EXISTING ITEMS THAT ARE NOT TO BE REMOVED AND THAT ARE NOT OTHERWISE TO BE SALVAGED OR REINSTALLED.
- NO GYPSUM BOARD FROM CHINA SHALL BE ALLOWED ON THIS PROJECT. GYPSUM BOARD SHALL BE FIRE RATED MOISTURE RESISTANT PANELS. PERFORM WORK IN ACCORDANCE WITH THE APPROPRIATE GYPSUM ASSOCIATION STANDARD FOR "LEVELS OF GYPSUM BOARD FINISH" AND "APPLICATION AND FINISHING OF GYPSUM BOARD." GYPSUM BOARD USED IN CEILING SHALL HAVE ANTI-SAG PERFORMANCE.

- DIMENSIONS:
  - ALL DIMENSIONS ARE TO FRAMING MEMBERS AT NEW CONDITIONS UNLESS OTHERWISE NOTED.
  - ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE. DO NOT MEASURE DRAWINGS.
  - ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD BEFORE PROCEEDING WITH THE WORK.
  - CONTRACTOR SHALL VERIFY EXISTING CONDITIONS. FABRICATION OF COMPONENTS AND MATERIALS SHALL BE BASED ON FIELD VERIFIED DIMENSIONS.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS AND CODES OF THE BUILDING CODE OF THE STATE OF HAWAII.
- THIS PROJECT SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY (ADA) GUIDELINES IN EFFECT AS OF THE DATE OF THIS PROJECTS' SOLICITATION.
- NO MATERIALS SHALL BE PLACED OR STORED IN THE EXISTING EXITS/EXISTING STAIRS (FIRE STAIR WELLS). ABSOLUTELY NO CUTTING, SANDING, GLUING OR OTHER WORK SHALL TAKE PLACE WITHIN SUCH STAIRWAYS.
- ODORS:** CONTRACTOR SHALL NOT USE CHEMICALS AND OTHER MATERIALS WHICH EMIT HAZARDOUS/NOXIOUS ODORS, SUCH AS "GOOF-OFF," JUST PRIOR TO AND DURING NORMAL BUSINESS HOURS. IF SUCH CHEMICALS MUST BE USED, THEY SHALL BE USED DURING AFTER BUILDING CLOSED HOURS, AND ALL OPEN CONTAINERS, RAGS, ETC. CONTAINING THESE CHEMICALS SHALL BE PROMPTLY REMOVED, WITH ENOUGH TIME ALLOTTED FOR SMELL TO DISSIPATE BEFORE NORMAL BUILDING OPERATION HOURS BEGIN. SUBMIT TO THE ENGINEER FOR REVIEWS, MSDS PRIOR TO USE.
- DUST:** CONTROL DUST IN WORKING AREA AND INVOLVED PORTION OF THE SITE, UTILIZE METHODOLOGIES TO MINIMIZE AIRBORNE PARTICLES OR FUGITIVE DUST. DO NOT TRACK DUST ONTO ACCESS PATHS.
- CONTRACTOR SHALL COORDINATE WITH THE CONTRACTING OFFICER, ANY WORK THAT WILL INTERFERE WITH OR DISRUPT BUILDING SERVICES. PROVIDE TEN WORKING (10) DAYS ADVANCE NOTICE OF ANY DISRUPTIONS. GENERAL CONTRACTOR SHALL COORDINATE WITH AIRPORT OR AIRPORT'S VENDORS ON SYSTEMS/EQUIPMENT UNDER THEIR CONTROL OR MAINTENANCE.
- WHERE WARRANTIES ARE SPECIFIED, CONTRACTOR'S BID SHALL INCLUDE FULL COMPLIANCE OF ALL CONDITIONS REQUIRED BY THE WARRANTIES. WHERE THE MANUFACTURER'S WARRANTY REQUIREMENTS AND/OR RECOMMENDATIONS VARY FROM THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS, THE CONTRACTOR IS EXPECTED TO COMPLY WITH STRICTER OF THE TWO PROVIDING REQUIREMENTS DO NOT VOID WARRANTY. CONTRACTOR SHALL INFORM THE CONTRACTING OFFICER IN WRITING, PROVIDE SHOP DRAWINGS, AND AS BUILT DRAWINGS WHERE PROPOSED CONSTRUCTION WILL DEVIATE FROM THE CONSTRUCTION DOCUMENTS.

# GENERAL SCOPE OF WORK

REPLACEMENT OF THE HVAC SYSTEM OF THE 5TH FLOOR OF THE ADMINISTRATIVE TOWER (BLDG 336).

REMOVE AND REPLACE SELECT AREAS OF THE EXISTING METAL SUSPENSION CEILING GRID SYSTEM TO FACILITATE THE REPLACEMENT OF THE HVAC DUCTS.

REMOVE AND REPLACE ALL EXISTING ACOUSTICAL CEILING PANELS.

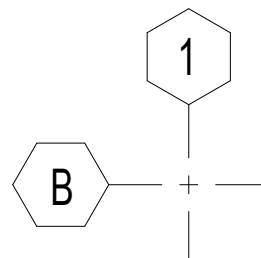
REMOVE AND REINSTALL ALL CEILING MOUNTED EQUIPMENT AND DEVICES UNLESS OTHERWISE INSTRUCTED.

## ABBREVIATIONS

<b>A</b>	AIR CONDITIONING	<b>M</b>	MAXIMUM
ACOUS	ACOUSTICAL	MECH	MECHANICAL
ACT	ACOUSTICAL CEILING TILE	MIN	MINIMUM
ADA	AMERICANS WITH DISABILITIES ACT	MISC	MISCELLANEOUS
ADJ	ADJUSTABLE	<b>N</b>	NOT APPLICABLE
ADMIN	ADMINISTRATION	NA	NOT IN CONTRACT
AFF	ABOVE FINISH FLOOR	NO OR #	NUMBER
ALUM	ALUMINUM	NTS	NOT TO SCALE
<b>B</b>		<b>O</b>	
BD	BOARD	OC	ON CENTER
BLDG	BUILDING	OH	OVERHANG
BLKG	BLOCKING	OPNG	OPENING
BOT	BOTTOM	OPP	OPPOSITE
<b>C</b>		<b>P</b>	
CAB	CABINET	P	PAINT
CEM	CEMENT	PLAS LAM	PLASTIC LAMINATE
CL	CENTER LINE	PLYWD	PLYWOOD
CLG	CEILING	PNL	PANEL
CLR	CLEAR	PTN	PARTITION
COL	COLUMN	PVC	POLYVINYL CHLORIDE
CONC	CONCRETE	<b>R</b>	
CONT	CONTINUOUS	RAD, R	RADIUS
CORR	CORRIDOR	RAR	RETURN AIR REGISTER
<b>D</b>		RCP	REFLECTED CEILING PLAN
DET	DETAIL	RD	ROOF DRAIN
DIA, Ø	DIAMETER	REF	REFRIGERATOR
DIM	DIMENSION	REINF	REINFORCEMENT
DWGS	DRAWINGS	REQ, REQ'D	REQUIRED
<b>E</b>		RH	RIGHT HAND
ELEV	ELEVATION	RM	ROOM
ELEC	ELECTRICAL	RO	ROUGH OPENING
EQ	EQUAL	<b>S</b>	
EQPT	EQUIPMENT	SAR	SUPPLY AIR REGISTER
EXST	EXISTING	SATC	SUSPENDED ACOUSTICAL TILE
EXT	EXTERIOR		CEILING
<b>F</b>		SCHED	SCHEDULE
FFL	FINISH FLOOR LEVEL	SCRN	SCREEN
FE	FIRE EXTINGUISHER	SERV	SERVICE
FIN	FINISH	SHT	SHEET
FL, FLR	FLOOR	SIM	SIMILAR
FOF	FACE OF FINISH	SL	SLOPE
FT	FEET	SPEC	SPECIFIED or SPECIFICATIONS
<b>G</b>		SS, SST	STAINLESS STEEL
GWB	GYPSUM WALL BOARD	STL	STEEL
GYP	GYPSUM	STRUCT	STRUCTURAL
<b>H</b>		SUSP	SUSPENDED
HM	HOLLOW METAL	<b>T</b>	
HP	HIGH POINT	TAG	TRANSFER AIR GRILLE
HORIZ	HORIZONTAL	THK	THICK
HR	HOUR	TMK	TAX MAP KEY
HT	HEIGHT / HARD TILE	TYP	TYPICAL
<b>I</b>		<b>U</b>	
INSUL	INSULATION	UNO	UNLESS NOTED OTHERWISE
INT	INTERIOR	<b>V</b>	
<b>J</b>		VCT	VINYL COMPOSITION TILE
JB	JUNCTION BOX	VERT	VERTICAL
JAN	JANITOR	<b>W</b>	
JT, JNT	JOINT	W	WIDE
<b>K</b>		W/	WITH
KIT	KITCHEN	WD	WOOD
<b>L</b>		WDWWIN	WINDOW
L	LONG		
LT	LIGHT		
LVR	LOUVER		

# ARCHITECTURAL REFERENCE SYMBOLS

## GRID LINES

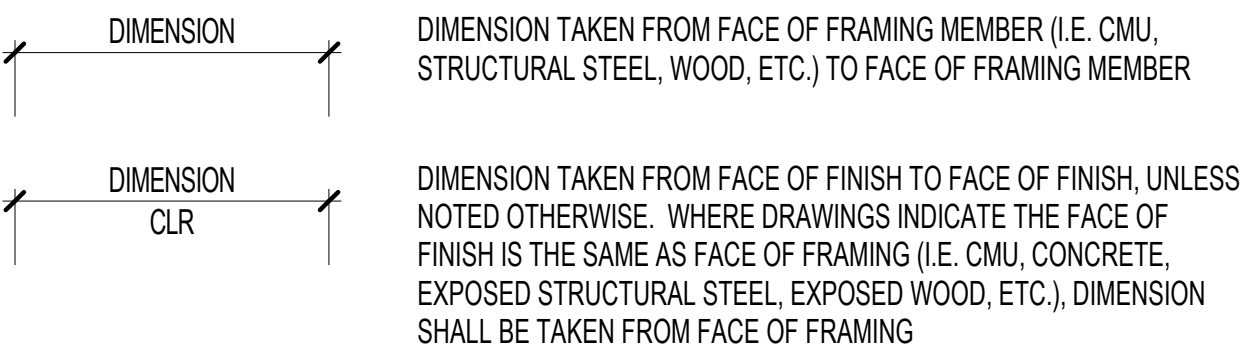


EXISTING CONSTRUCTION GRID LINE DESIGNATIONS ARE TO THE CENTER OF THE COLUMN, UNLESS NOTED OTHERWISE. GRID LINES IDENTIFIED BY A LETTER DESIGNATION RUN PARALLEL, AND GRID LINES IDENTIFIED BY A NUMBER DESIGNATION RUN PERPENDICULAR TO THOSE WITH LETTER DESIGNATIONS UNLESS NOTED OTHERWISE.

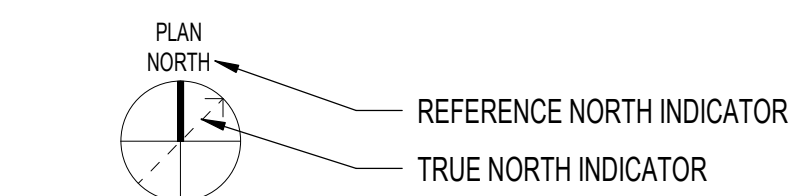
## SYMBOLS

- # DEMO WORK IDENTIFICATION SYMBOL
- # NEW WORK IDENTIFICATION SYMBOL

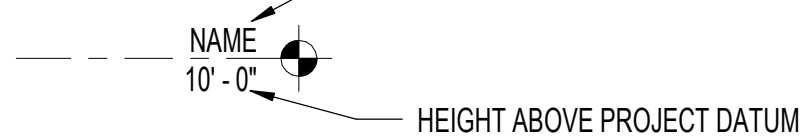
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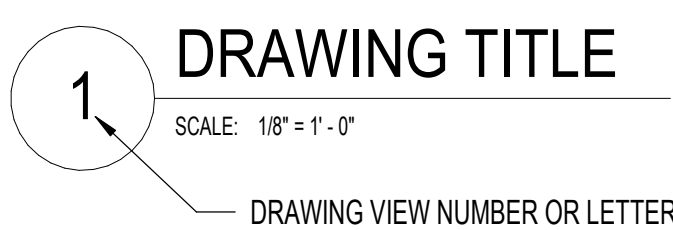
## MISCELLANEOUS SYMBOLS



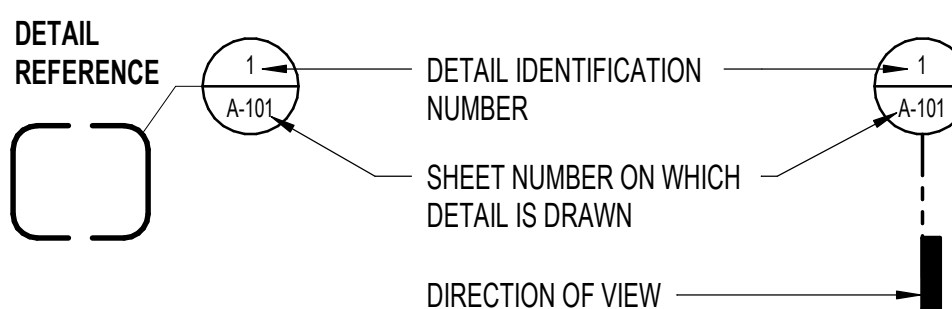
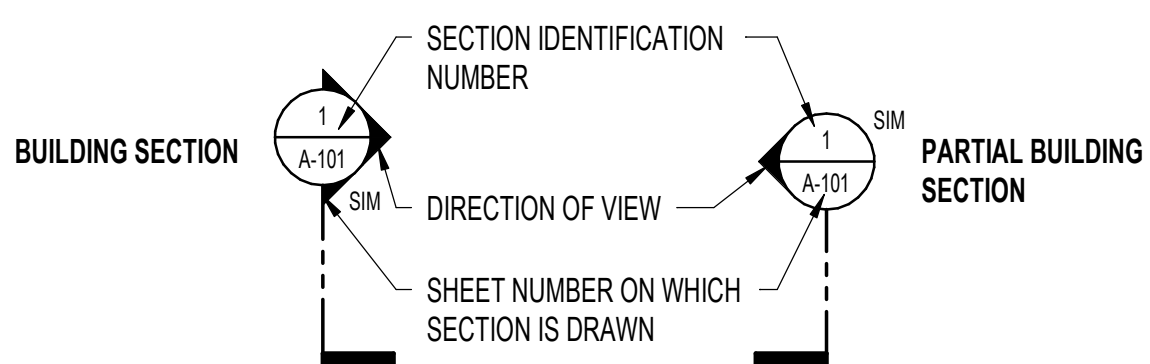
## DATUM SYMBOL



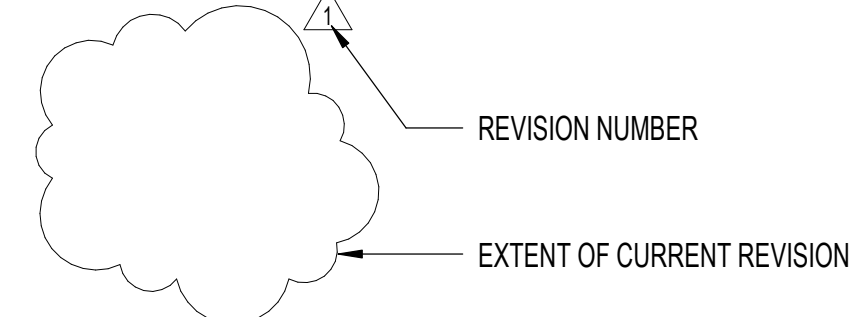
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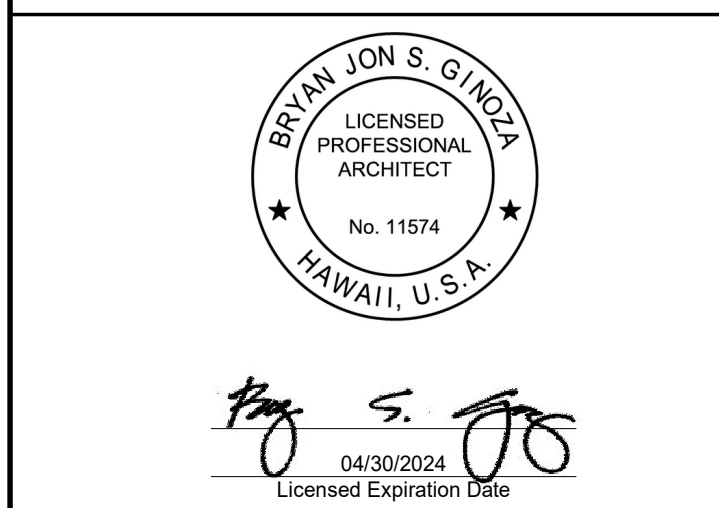
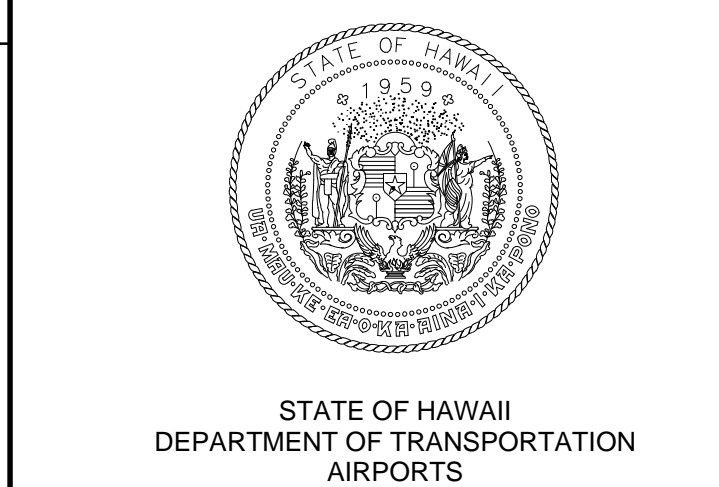
## SECTION / DETAIL CROSS REFERENCE CONVENTIONS



## REVISIONS



## FIRE SAFETY



This work was prepared by me or under my supervision.

DSGN.	DRWN.	CHKD.	APPD.
	DB	BG	BG

## KEY PLAN / NOTES:

NO.	DATE	REVISIONS

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MARCH 3, 2023  
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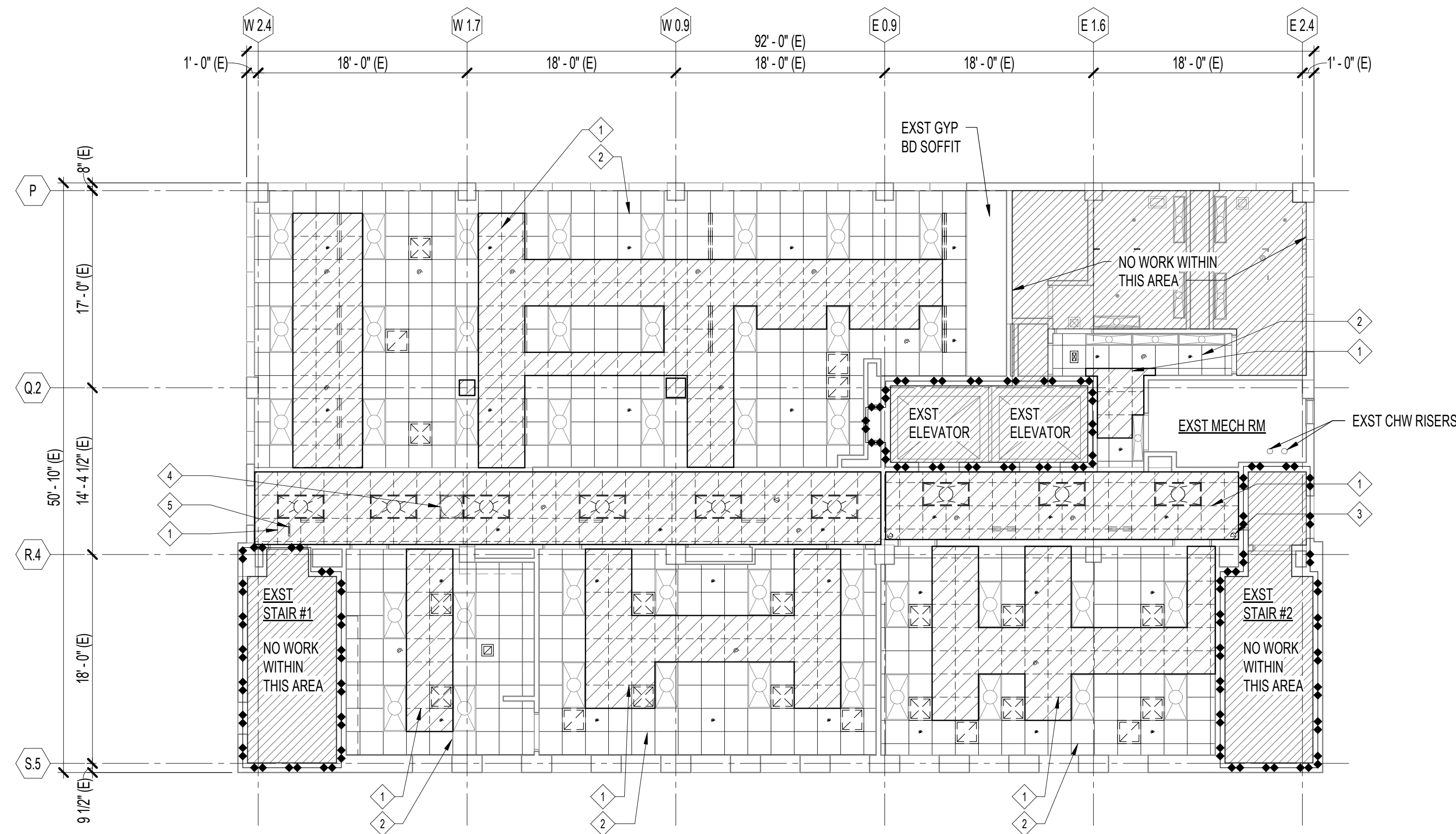
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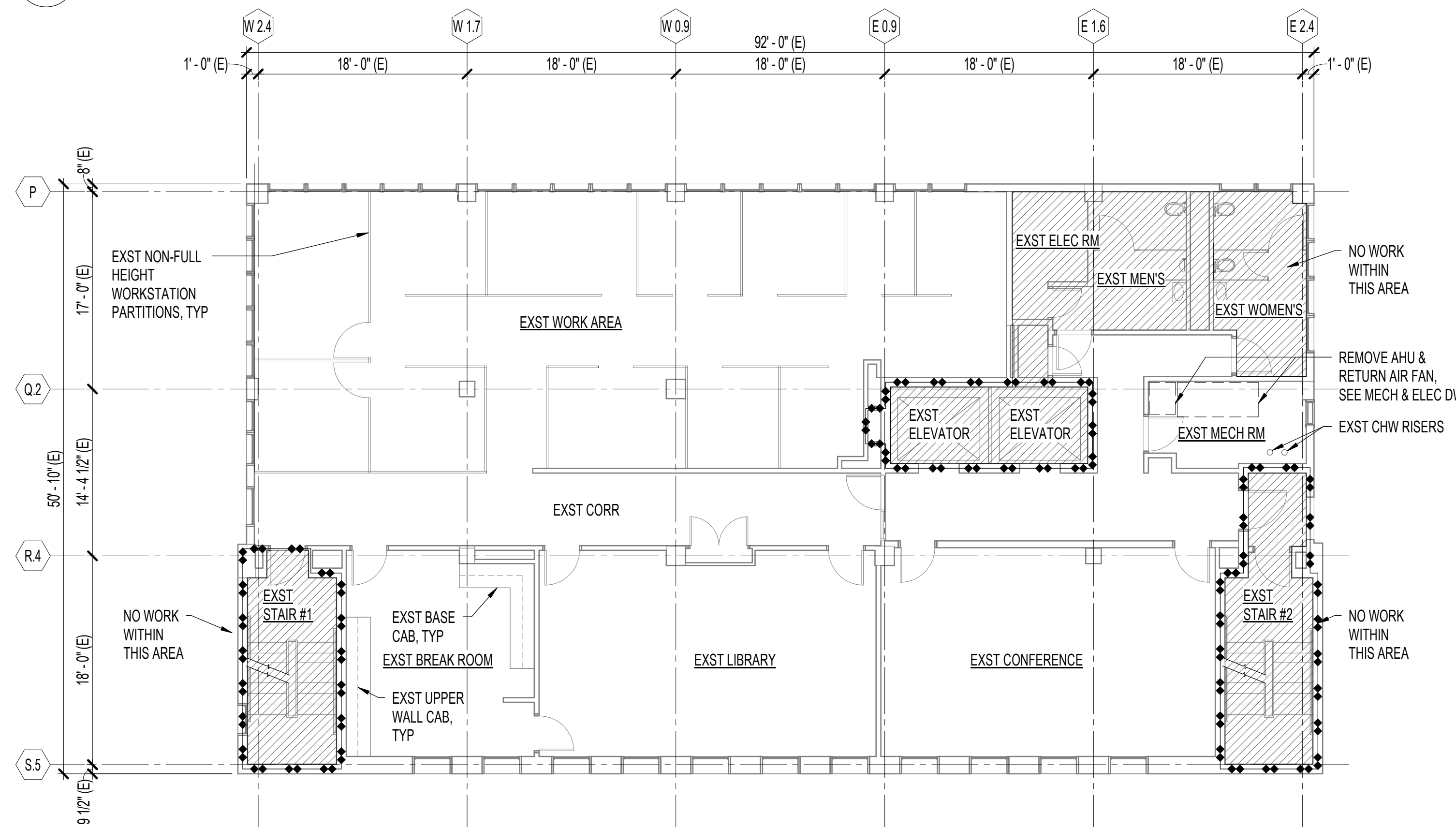
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GENERAL NOTES,  
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SHEET :	
2 OF 16 SHEETS	



**B** DEMOLITION REFLECTED CEILING PLAN  
1/8" = 1'-0"



**A** DEMOLITION FLOOR PLAN  
1/8" = 1'-0"

**CEILING DEMOLITION LEGEND**

- # DEMOLITION NOTE AS INDICATED IN THE DRAWINGS.
- INDICATES ITEMS TO BE REMOVED AND/OR RELOCATED AS INDICATED IN THE DRAWINGS.
- TYPICAL SATC
- # DEMOLITION NOTE AS INDICATED IN THE DRAWINGS.
- INDICATES ITEMS TO BE REMOVED AND/OR RELOCATED AS INDICATED IN THE DRAWINGS.
- TYPICAL SATC
- SMOKE DETECTOR TO BE REMOVED
- SEMI-RECESSED FIRE SPRINKLER HEAD TO BE REMOVED
- TYPICAL CEILING AIR DEVICES TO BE REMOVED
- TYPICAL RECESSED LIGHT FIXTURES TO BE REMOVED & REINSTALLED
- EXST RECESSED LIGHT FIXTURES

**DEMOLITION WORK KEY NOTES:**

- 1 REMOVE SUSPENDED METAL CEILING GRID & CEILING PANELS AS INDICATED. RESUPPORT SECTIONS OF THE EXST CEILING GRID THAT BECAME UNSUPPORTED DUE TO REMOVAL WORK. SECTIONS MUST BE RESUPPORTED SUCH THAT HANGARS ARE NO MORE THAN 48" OC EACH WAY. SEE ALSO MECH & ELEC DWGS FOR CEILING ITEM(S) TO BE REMOVED.
- 2 REMOVE CEILING PANELS. EXST SUSPENDED METAL CEILING GRID TO REMAIN. SEE ALSO MECH & ELEC DWGS FOR CEILING ITEM(S) TO BE REMOVED.
- 3 REMOVE & REINSTALL CEILING MOUNTED CAMERA, TYP. SEE ELEC DWGS
- 4 REMOVE & REINSTALL CEILING MOUNTED FULL DOME SECURITY MIRROR
- 5 REMOVE CEILING MOUNTED ILLUMINATED EXIT SIGN, TYP. SEE ELEC DWGS

**DEMOLITION NOTE:**

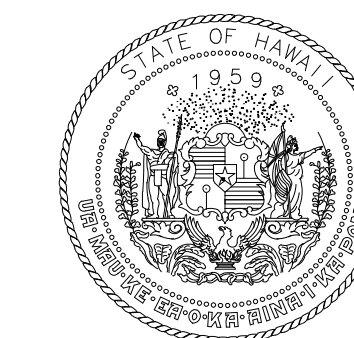
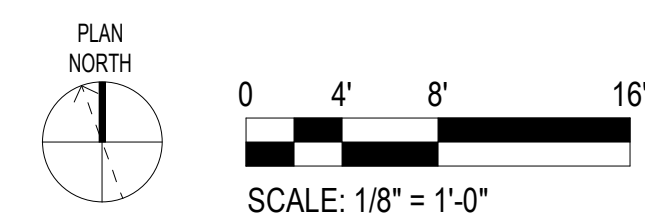
1. PRESENCE OF HAZARDOUS MATERIALS IN THE EXISTING CONDITIONS HAVE BEEN IDENTIFIED. COORDINATE DEMOLITION WORK WITH ENVIRONMENTAL REQUIREMENTS IN TARGETED HAZARDOUS MATERIAL SURVEY REPORT. SEE SPECIFICATION SECTION 01715 EXISTING CONDITIONS - ASBESTOS/LEAD HAZARDOUS MATERIAL SURVEY

**FLOOR PLAN LEGEND**

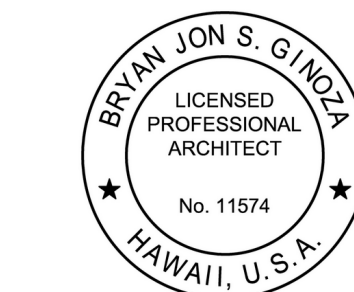
- ITEMS TO REMAIN
- ITEMS TO BE REMOVED

**NOTE:**

1. PROTECT EXST FLOORING AND WALLS WITHIN PROJECT AREA



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*Bryan S. Ginoza*  
04/30/2024  
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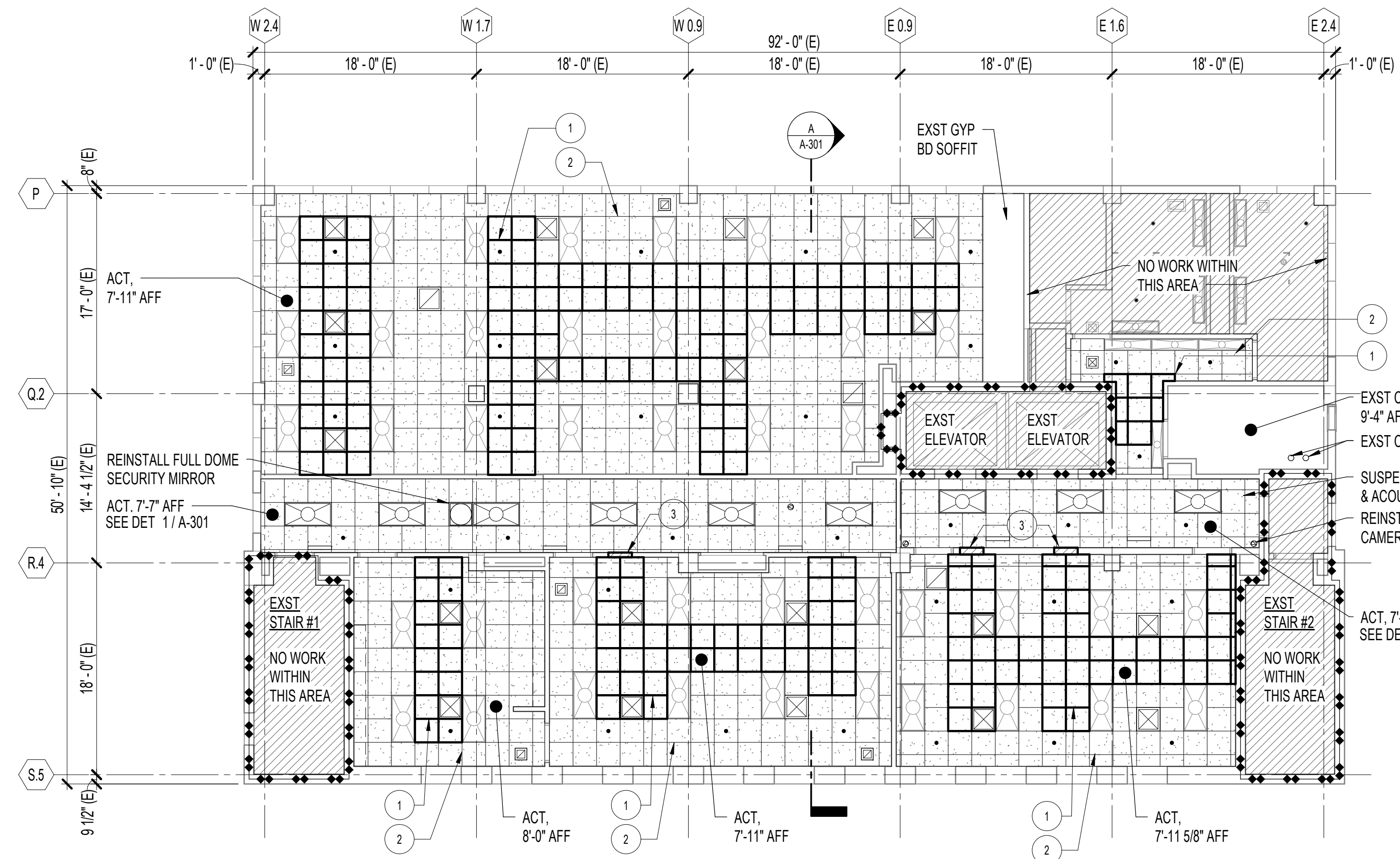
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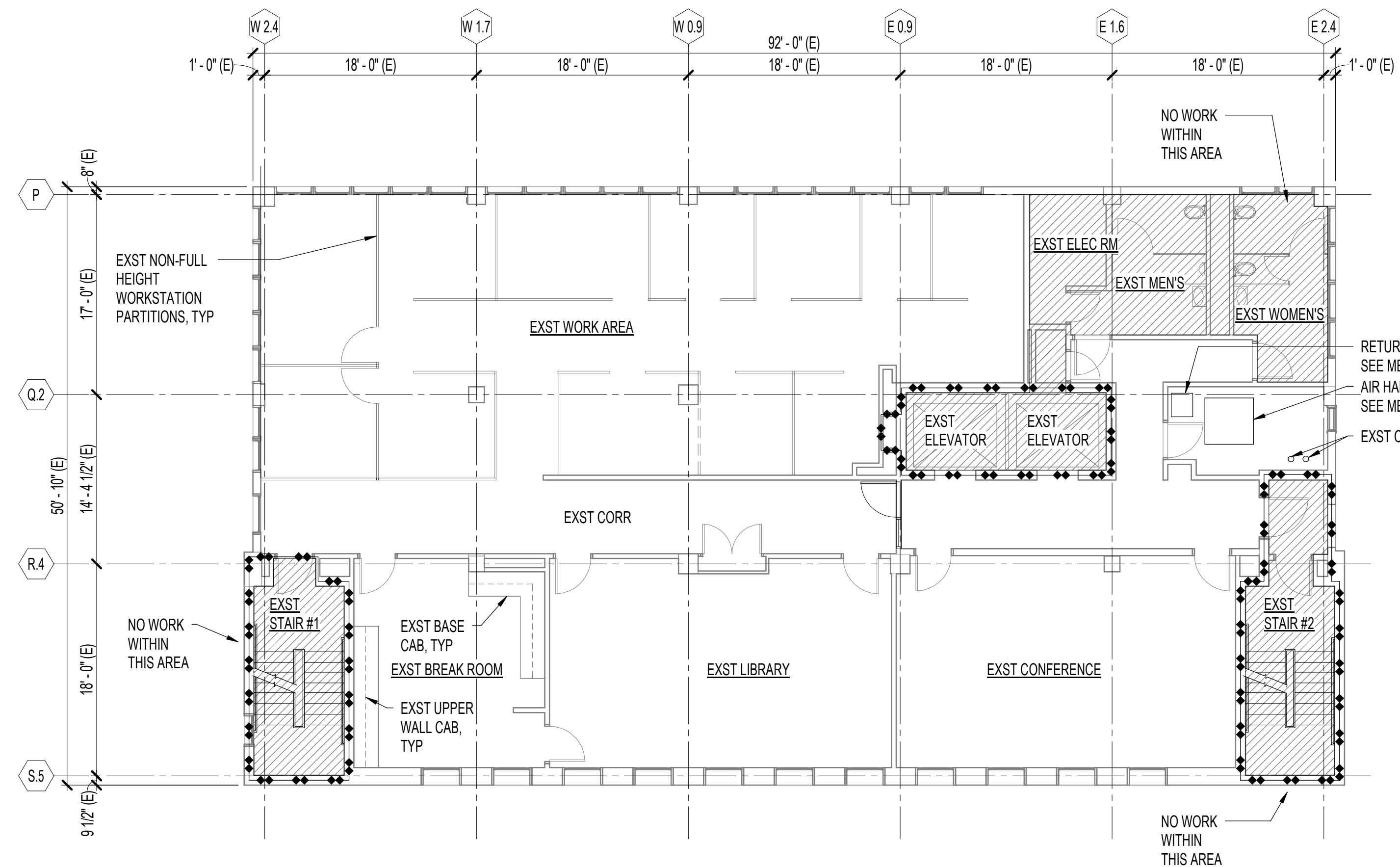
**SHEET TITLE:**

**DEMOLITION FLOOR  
PLAN, DEMOLITION  
REFLECTED CEILING  
PLAN**

DATE :	DWG. NO.
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3 OF 16 SHEETS	



**B REFLECTED CEILING PLAN**  
1/8" = 1'-0"



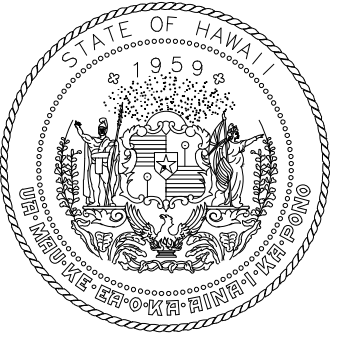
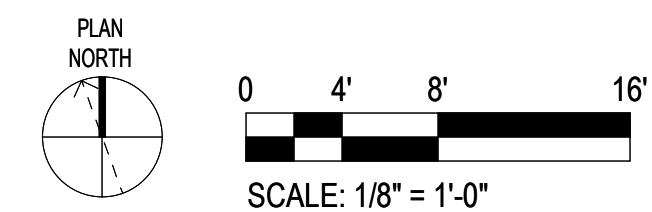
**A FLOOR PLAN**  
1/8" = 1'-0"

**CEILING LEGEND**

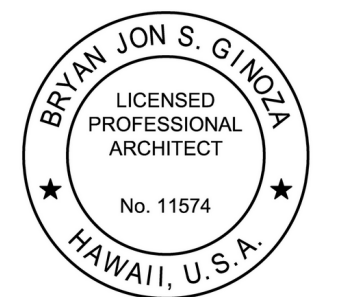
- SATC; 24" X 24" X 5/8"
- REINSTALL CEILING MOUNTED CAMERA, SEE ELEC DWGS
- SEMI-RECESSED FIRE SPRINKLER HEAD, SEE MECH DWGS
- EXST LIGHT FIXTURES, SEE ELEC DWGS
- REINSTALL LIGHT FIXTURES, SEE ELEC DWGS
- TYPICAL CEILING AIR DEVICES, SEE MECH DWGS

**REFLECTED CEILING PLAN KEY NOTE:**

- 1 INSTALL SUSPENDED METAL CEILING GRID & ACOUSTICAL CEILING PANELS, SEE DET 1 / A-301
- 2 INSTALL ACOUSTICAL CEILING PANELS IN EXST SUSPENDED METAL CEILING GRID SYSTEM
- 3 PATCH WALL OPENING, MATCH EXST WALL SYSTEM, SEE DET 2 / A-301



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS



*Bryan S. Ginoza*  
04/30/2024  
Licensed Expiration Date

This work was prepared by me or under my supervision.

DSGN.	DRWN.	CHKD.	APPD.
	DB	BG	BG

**KEY PLAN / NOTES:**

NO.	DATE	REVISIONS

**FINAL SUBMITTAL**

MARCH 3, 2023  
DATE

**PROJECT TITLE :**

**REPLACE ADMIN TOWER  
5TH FLOOR AC SYSTEM**

AT  
DANIEL K. INOUE INTERNATIONAL AIRPORT  
HONOLULU, OAHU, HAWAII

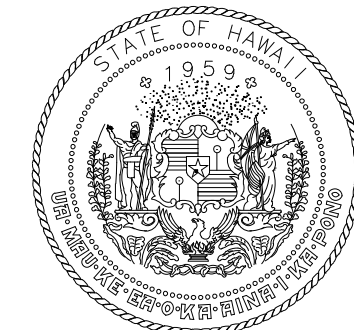
**PROJECT NO.:**

**CO1328-43**

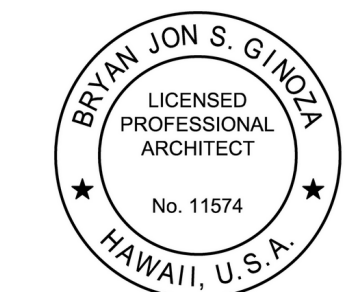
**SHEET TITLE:**

**FLOOR PLAN,  
REFLECTED CEILING  
PLAN**

DATE :	DWG. NO.
MAR. 3, 2023	A-102
SHEET :	
4 OF 16 SHEETS	



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS



*Bryan Jon S. Ginoza*  
04/30/2024  
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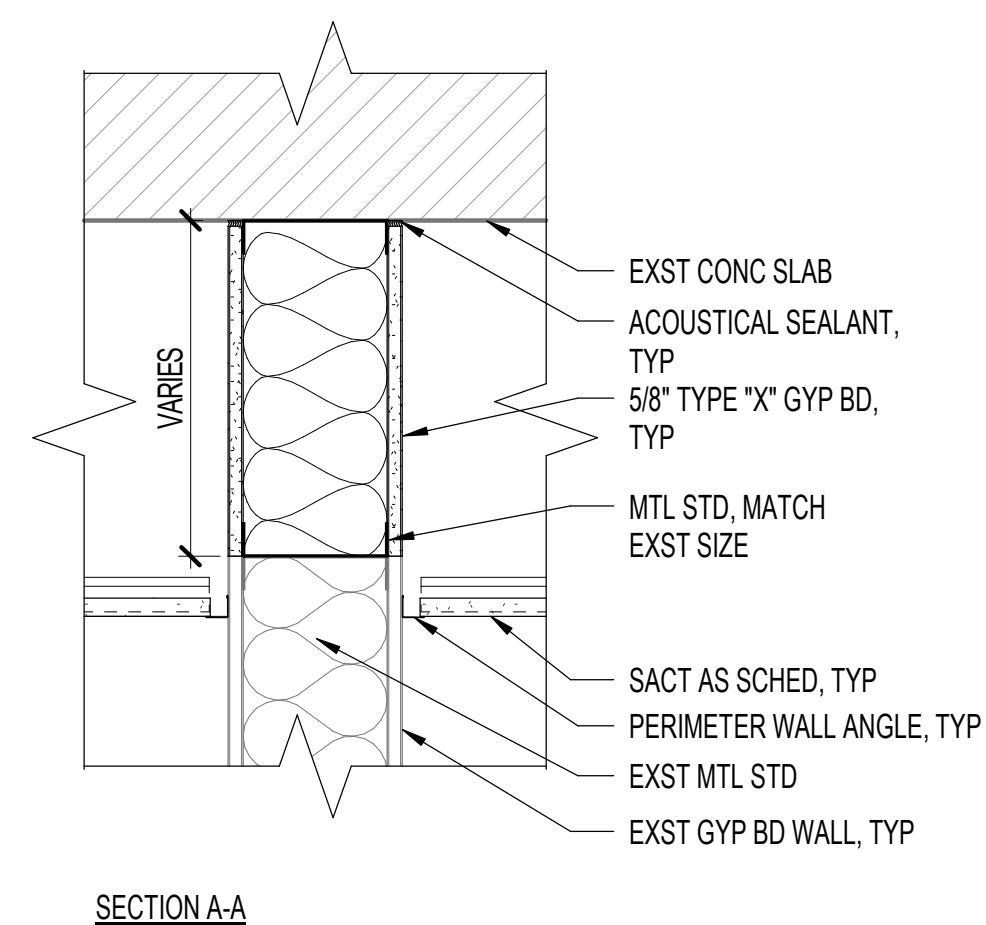
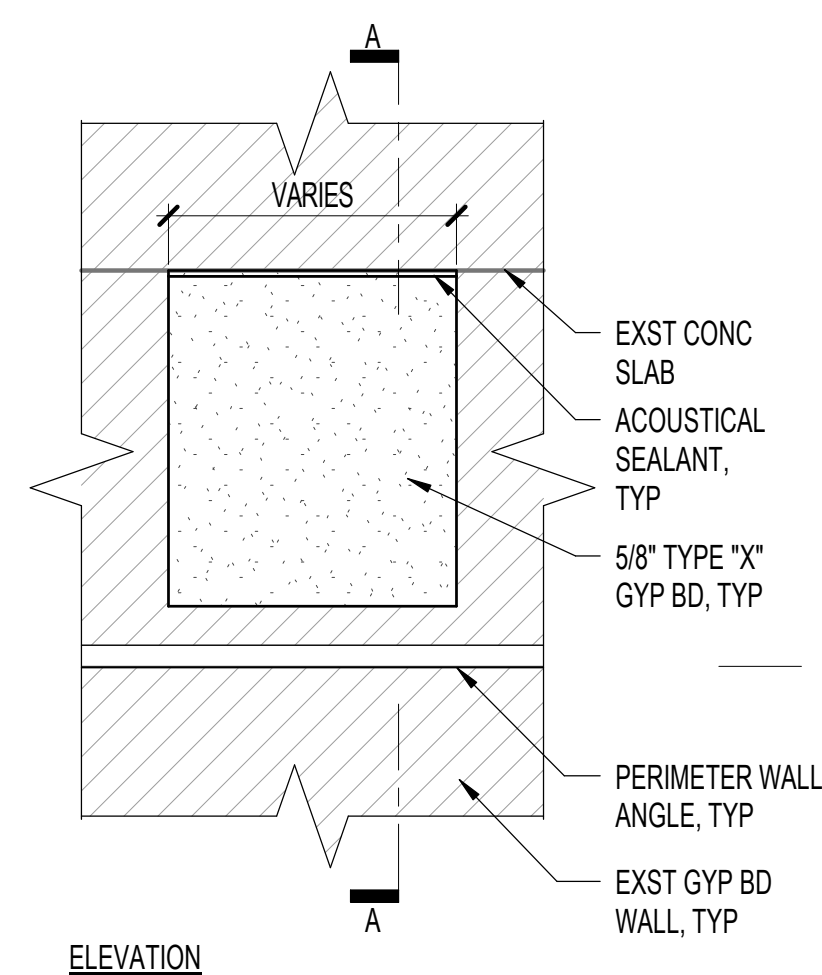
**PROJECT NO.:**

**CO1328-43**

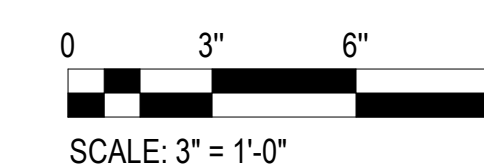
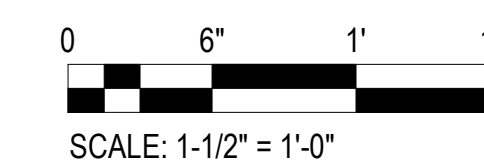
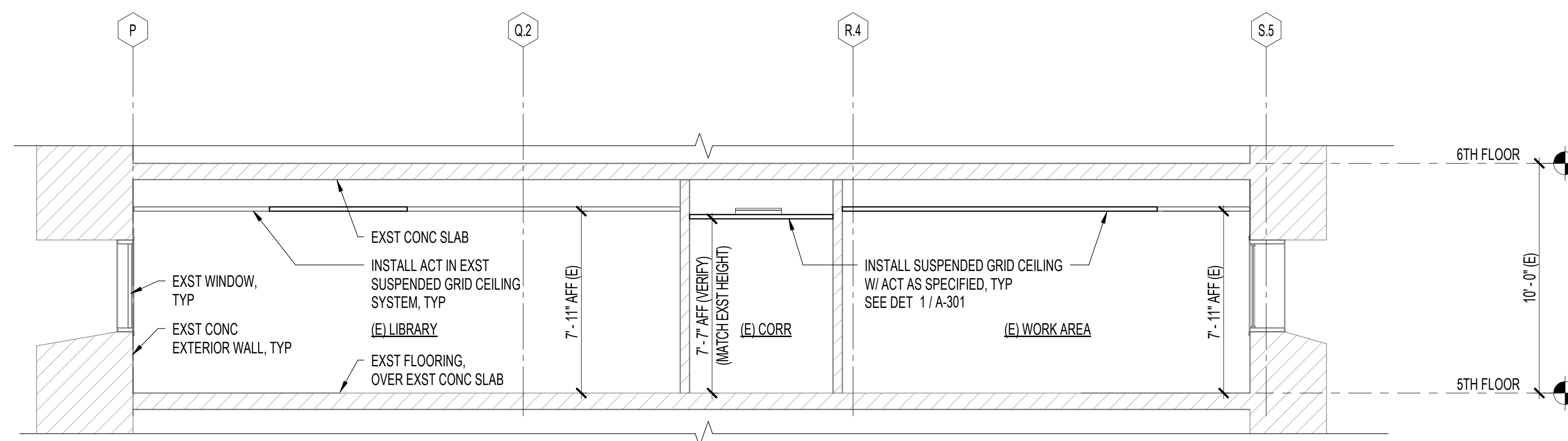
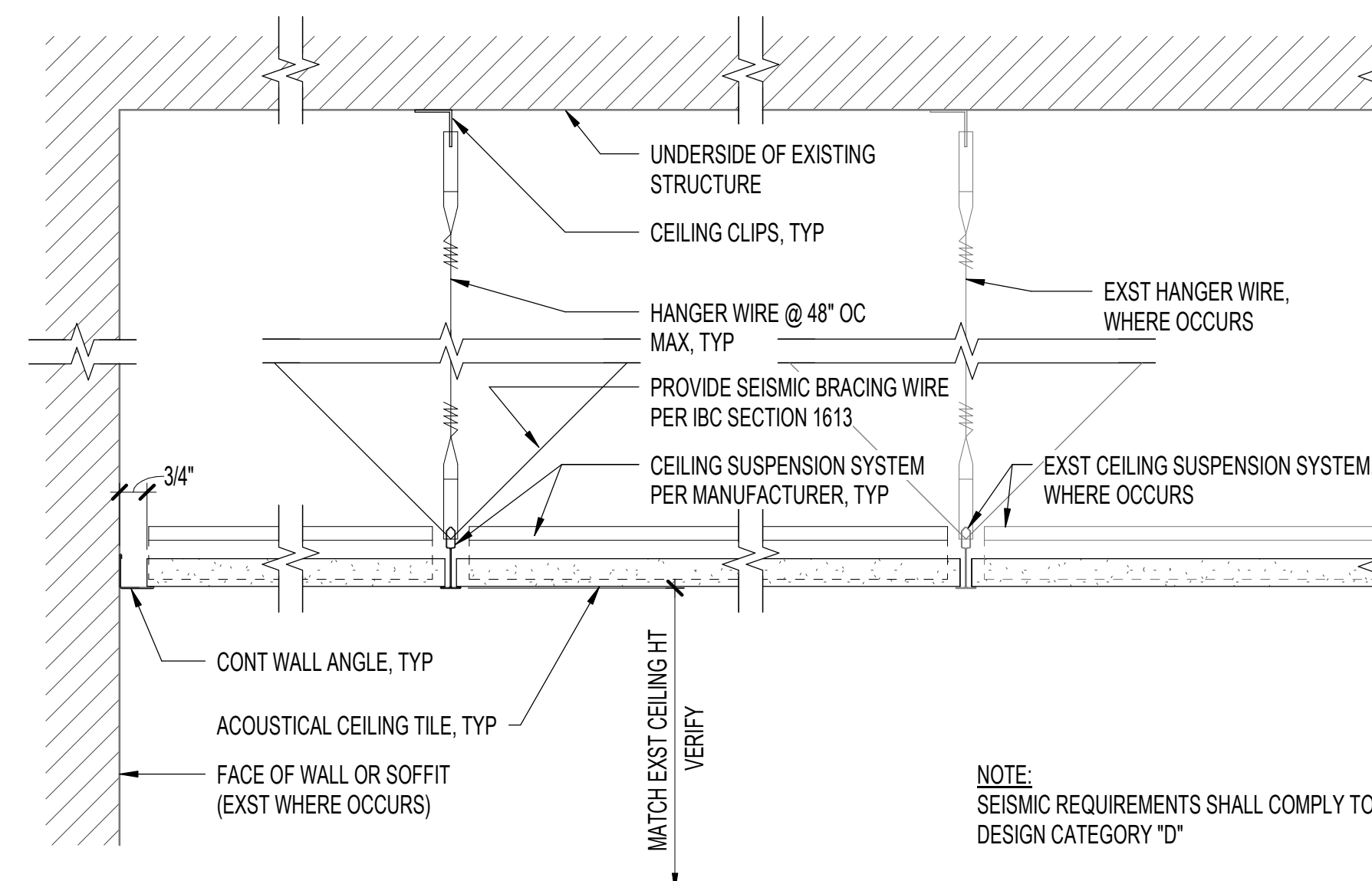
**SHEET TITLE:**

**PARTIAL BUILDING  
SECTION AT 5TH  
FLOOR, DETAILS**

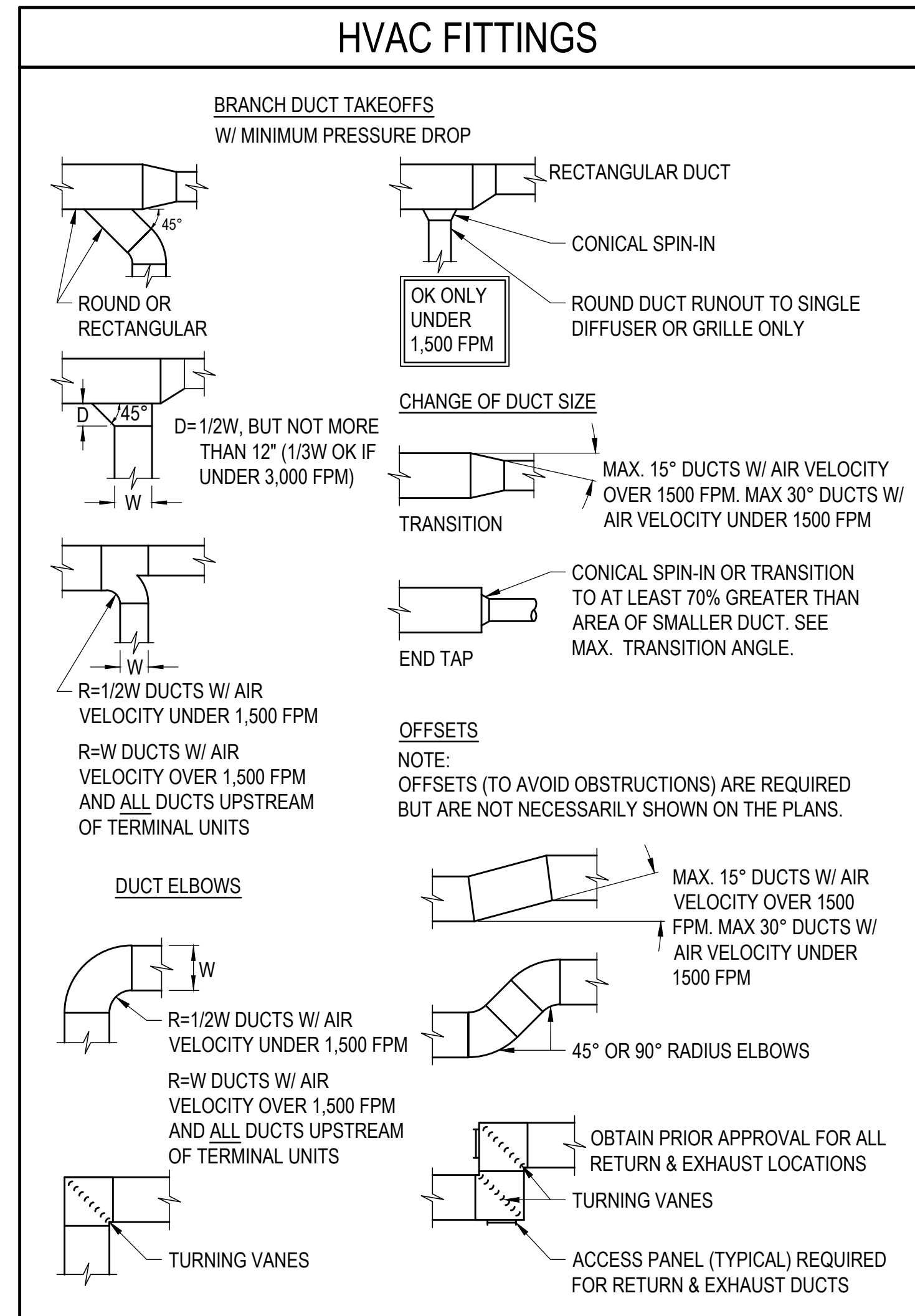
DATE :	DWG. NO.
<b>MAR. 3, 2023</b>	<b>A-301</b>
SHEET :	
5 OF 16 SHEETS	



**2** INFILL WALL OPENING DETAIL  
1 1/2" = 1'-0"



ABBREVIATIONS			
ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
AAT	AMBIENT AIR TEMPERATURE	HZ	HERTZ
AAV	AUTOMATIC AIR VENT	ID	INSIDE DIAMETER
ABV	ABOVE	IN	INCH OR INCHES
ACM	ASBESTOS CONTAINING MATERIALS	IND	INDIRECT
AD	ACCESS DOOR	INSUL	INSULATION
AFF	ABOVE FINISH FLOOR	INV	INVERT
AHU	AIR HANDLING UNIT	KW	KILOWATT
AP	ACCESS PANEL	KWH	KILOWATT HOUR
ARCH	ARCHITECT/ARCHITECTURAL	LBS	POUNDS
BDD	BACKDRAFT DAMPER	LF	LINEAL FOOT
BHP	BRAKE HORSEPOWER	MAX	MAXIMUM
BLDG	BUILDING	MBH	THOUSANDS BTU PER HOUR
BTU	BRITISH THERMAL UNIT	MCA	MINIMUM CIRCUIT AMPACITY
BTUH	BRITISH THERMAL UNIT PER HOUR	MECH	MECHANICAL
BV	BALANCING VALVE	MFR	MANUFACTURER
CAP	CAPACITY	MIN	MINIMUM OR MINUTES
CC	COOLING COIL	MISC	MISCELLANEOUS
CD	CEILING DIFFUSER	MOCP	MAXIMUM OVERCURRENT PROTECTION
CFM	CUBIC FEET PER MINUTE	N/A	NOT APPLICABLE
CLG	CEILING	NC	NORMALLY CLOSED
CMU	CONCRETE MASONRY UNIT	N.I.C.	NOT IN CONTRACT
CO	CLEANOUT	NO	NORMALLY OPEN
CONC	CONCRETE	NTS	NOT TO SCALE
CONN	CONNECT OR CONNECTION	OA	OUTSIDE AIR
CONST	CONSTRUCTION	OBD	OPPOSED BLADE DAMPER
CONT	CONTINUATION	O/C	ON CENTER
DB	DRY BULB	OD	OUTSIDE DIAMETER
DBA	A-WEIGHTED DECIBELS	OPER	OPERATING
Ø	DIAMETER OR PHASE	PD	PRESSURE DROP
DDC	DIRECT DIGITAL CONTROL	PH OR	PHASE
DEMO	DEMOLISH	POC	POINT OF CONNECTION
DIA	DIAMETER	PSI	POUNDS PER SQUARE INCH
DIM	DIMENSION	PSIG	POUNDS PER SQUARE INCH GAUGE
DN	DOWN	RA	RETURN AIR
DWG	DRAWING	RAG	RETURN AIR GRILLE
(E)	EXISTING	REQD	REQUIRED
EA	EACH	REV	REVISION(S)
EA	EXHAUST AIR	RPM	REVOLUTION PER MINUTE
EF	EXHAUST FAN	SA	SUPPLY AIR
EFF	EFFICIENCY	SD	SMOKE DETECTOR
ELEC	ELECTRIC OR ELECTRICAL	SENS	SENSIBLE
ELEV	ELEVATION	SHT	SHEET
EMCS	ENERGY MANAGEMENT CONTROL SYSTEM	SIM	SIMILAR
EQUIP	EQUIPMENT	SP	STATIC PRESSURE
ESP	EXTERNAL STATIC PRESSURE	SQ	SQUARE
EXH	EXHAUST	SQ FT	SQUARE FOOT/FEET
EXST	EXISTING	SS	STAINLESS STEEL
F	FAHRENHEIT	STD	STANDARD
FCU	FAN COIL UNIT	T	TEMPERATURE
F.D.	FIRE DAMPER	TAB	TEST, ADJUST & BALANCE
FD	FLOOR DRAIN	THK	THICK
FDPR	FIRE DAMPER	TSP	TOTAL STATIC PRESSURE
FF	FINISH FLOOR	TSTAT	THERMOSTAT
FLA	FULL LOAD AMPS	TU	TERMINAL UNIT
FLR	FLOOR	TYP	TYPICAL
FPI	FINS PER INCH	V	VENT OR VOLTS
FPM	FEET PER MINUTE	VAC	VOLTAGE ALTERNATING CURRENT
FPS	FEET PER SECOND	VAV	VARIABLE AIR VOLUME
FSD	FIRE SMOKE DAMPER	VD	VOLUME DAMPER
FT	FEET	VEL	VELOCITY
GA	GAGE OR GAUGE	VFD	VARIABLE FREQUENCY DRIVE
GAL	GALLONS	W/	WITH
GALV	GALVANIZED	W/O	WITHOUT
GPM	GALLONS PER MINUTE	W.C.	WATER COLUMN
H	HEIGHT	WG	WATER GAGE
HP	HORSEPOWER	WPD	WATER PRESSURE DROP
HR	HOUR	WT	WEIGHT
HVAC	HEATING, VENTILATION & AIR CONDITIONING		



### ENERGY CODE COMPLIANCE

CITY & COUNTY OF HONOLULU  
REVISED ORDINANCE CHAPTER 32  
HONOLULU COUNTY CODE 1990, AS AMENDED

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

✓ MECHANICAL COMPONENT SYSTEMS

SIGNATURE: *William Pung Lee* DATE: 3/3/2023

NAME: WILLIAM PUNG LEE, P.E.

TITLE: MECHANICAL PRINCIPAL

P.E. NUMBER: 5682-M

### MECHANICAL SYSTEM COMMISSIONING

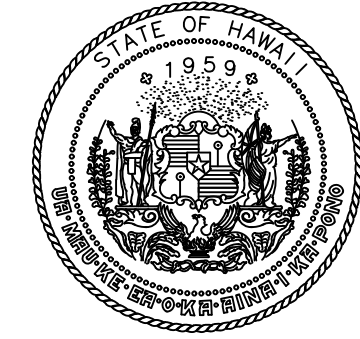
- A COMMISSIONING PLAN SHALL BE DEVELOPED IN ACCORDANCE WITH IECC SECTION 503.2.9.1.1, AS LOCALLY AMENDED.
- SYSTEMS ADJUSTMENTS AND BALANCING SHALL BE DONE IN ACCORDANCE WITH IECC SECTION 503.2.9.2, AS LOCALLY AMENDED.
- PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY THE DESIGN PROFESSIONAL SHALL PROVIDE A WRITTEN STATEMENT OF SYSTEM COMPLETION IN ACCORDANCE WITH IECC SECTIONS 503.9.1 THROUGH 503.9.2, AS LOCALLY AMENDED.

### GENERAL NOTES


- CONFORM TO ALL REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE (IBC), UNIFORM PLUMBING CODE, UNIFORM FIRE CODE, NATIONAL ELECTRIC CODE, ENERGY CONSERVATION CODE, THE LATEST CITY & COUNTY OF HONOLULU/STATE OF HAWAII AMENDMENTS AND ORDINANCES, AND ALL OTHER AGENCIES HAVING JURISDICTION. THE AIR CONDITIONING AND VENTILATION SYSTEMS SHALL COMPLY WITH TITLE 11, ADMINISTRATIVE RULES DEPT. OF HEALTH, CHAPTER 39 - AIR CONDITIONING AND VENTILATION REQUIREMENTS. COMPLY WITH ALL EQUIPMENT MANUFACTURER'S RECOMMENDATIONS AND OTHER APPLICABLE REGULATIONS.
- WORK SHALL CONFORM TO ALL APPLICABLE CODES AND STANDARDS UNLESS CONTRACT DOCUMENTS ARE MORE STRINGENT.
- ALL WORK SHOWN ON THESE DRAWINGS ARE NEW UNLESS OTHERWISE NOTED.
- EXISTING CONDITIONS AND DIMENSIONS SHOWN ON THESE DRAWINGS ARE APPROXIMATE. BIDDERS SHALL VISIT THE PREMISES AND THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL DETAILS OF WORK AND WORKING CONDITIONS BEFORE SUBMITTING THEIR BID. REASONABLE MODIFICATIONS IN LOCATION AND ARRANGEMENTS TO SUIT JOB CONDITIONS SHALL NOT CONSTITUTE BASIS FOR REQUESTING OF ADDITIONAL FUNDS FROM THE OWNER.
- PRIOR TO ORDERING MATERIALS AND PROCURING EQUIPMENT, SUCCESSFUL BIDDER (CONTRACTOR) SHALL BE REQUIRED TO VERIFY ALL CONDITIONS, INCLUDING BUT NOT LIMITED TO EQUIPMENT, MATERIALS, SIZES, DIMENSIONS, INVERTS, AND VOLTAGES THAT AFFECT HIS WORK. SUBMIT A LETTER TO THE ENGINEER CONFIRMING THAT THIS WAS DONE. IF WRITTEN CONFIRMATION IS NOT RECEIVED BY THE ENGINEER, SHOP DRAWINGS AND OTHER SUBMITTALS WILL BE RETURNED WITHOUT REVIEW. SHOW ALL DISCREPANCIES ON SHOP DRAWINGS AND NOTIFY THE ENGINEER IN WRITING OF SUCH DISCREPANCIES PRIOR TO PROCUREMENT.
- REMOVE ALL UNUSED PIPING AND DUCTWORK UNLESS SPECIFICALLY INDICATED AS "ABANDONED IN PLACE." ALL ABANDONED PIPING AND DUCTWORK SHALL BE CAPPED AT BOTH ENDS.
- 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 OWNER.
- ALL FASTENERS, SUPPORTS, 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.
- REFER TO PROJECT MANUAL (SPECIFICATIONS) FOR ADDITIONAL REQUIREMENTS. PLANS AND SPECIFICATIONS SHALL BE TAKEN TOGETHER. PROVIDE ALL WORK CALLED FOR IN EITHER.
- FURNISH ALL EQUIPMENT, MATERIALS, LABOR, TOOLS, ETC., REQUIRED FOR THE INSTALLATION OF THE COMPLETE AND OPERATING SYSTEM. ALL EQUIPMENT AND MATERIALS SHALL BE NEW UNLESS OTHERWISE NOTED.
- DO NOT ALLOW ANY WORK TO BE COVERED UP OR ENCLOSED UNTIL INSPECTED, TESTED AND APPROVED BY STATE'S REPRESENTATIVE OR AUTHORITY HAVING JURISDICTION.
- THIS CONTRACT REQUIRES THE FIRE PROTECTION, EMCS, 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:
  - GRAVITY FLOW; SEWER, STORM DRAIN, AND CONDENSATE DRAIN PIPING.
  - EQUIPMENT AND DUCTWORK.
  - FORCED AND PRESSURE PIPING SUCH AS WATER AND FIRE SPRINKLER PIPING.
- PROVIDE ACCESS PANELS IN NON-ACCESSIBLE CEILINGS FOR MECHANICAL ITEMS REQUIRING SERVICING AND MAINTENANCE SUCH AS, BUT NOT LIMITED TO VOLUME DAMPERS, FIRE/SMOKE DAMPERS, FIRE DAMPERS, CONDENSATE DRAINS, VALVES, ETC. PROVIDE FIRE-RATED ACCESS PANELS WHERE REQUIRED. COORDINATE TYPE OF ACCESS PANEL WITH WALL OR CEILING CONTRACTOR. ACCESS PANELS SHALL BE 30"x30" MINIMUM UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL PROVIDE DIELECTRIC UNIONS, NIPPLES OR FLANGES AT CONNECTION POINTS FOR ALL DISSIMILAR METALS.
- DRAWINGS ARE DIAGRAMMATIC AND MAY NOT SHOW ALL OFFSETS IN PIPING. COORDINATE THIS WORK WITH THE WORK OF OTHER TRADES AND PROVIDE ALL NECESSARY OFFSETS.
- ALL PENETRATIONS OF REQUIRED FIRE-RATED WALLS, PARTITIONS, AND FLOORS SHALL BE PROVIDED WITH FIRE STOPPING MATERIAL PER IBC.
- ALL PENETRATIONS OF REQUIRED FIRE-RATED WALLS, PARTITIONS, AND FLOORS SHALL BE PROVIDED WITH FIRE STOPPING MATERIAL AS REQUIRED AND IN ACCORDANCE WITH ASTM E 814, FM P7825, AND UL 1479.
- NO CUTTING OR DRILLING OF ANY STRUCTURAL MEMBERS WILL BE PERMITTED WITHOUT THE APPROVAL OF THE ARCHITECT.
- INSTALLATION SHALL BE GUARANTEED TO BE FREE OF DEFECTS FOR ONE (1) YEAR FROM FINAL DATE OF ACCEPTANCE OF THE PROJECT AS A WHOLE.

### APPLICABLE CODES & STANDARDS

- BUILDING CODE OF THE CITY & COUNTY OF HONOLULU AND STATE OF HAWAII (INTERNATIONAL BUILDING CODE 2018 AS AMENDED AND ADOPTED)
- BUILDING ENERGY CONSERVATION CODE OF THE CITY & COUNTY OF HONOLULU AND STATE OF HAWAII (INTERNATIONAL ENERGY CONSERVATION CODE 2018 AS AMENDED AND ADOPTED)
- ASHRAE 62.1-2016, VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY
- HAWAII ADMINISTRATIVE RULES CHAPTER 39 OF TITLE 11 - AIR CONDITIONING AND VENTILATING, 1983
- NFPA 13, 2016 EDITION, INSTALLATION OF SPRINKLER SYSTEMS
- FIRE CODE OF THE CITY & COUNTY OF HONOLULU AND STATE OF HAWAII (NFPA 1, 2018 EDITION AS AMENDED AND ADOPTED)



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS



LICENSED PROFESSIONAL ENGINEER  
No. 5682-M  
HAWAII U.S.A.

*William Pung Lee*  
04/30/2024  
Licensed Expiration Date

This work was prepared by me or under my supervision.

DSGN.	DRWN.	CHKD.	APPD.

NO.	DATE	REVISIONS

## FINAL SUBMITTAL

MARCH 3, 2023  
DATE

### PROJECT TITLE :

**REPLACE ADMIN TOWER  
5TH FLOOR AC SYSTEM**

AT  
DANIEL K. INOUE INTERNATIONAL AIRPORT  
HONOLULU, OAHU, HAWAII

### PROJECT NO.:

**CO1328-43**

### SHEET TITLE:

**MECHANICAL NOTES,  
LEGEND &  
ABBREVIATIONS**

DATE :	DWG. NO.
<b>MAR. 3, 2023</b>	<h1>M-001</h1>
SHEET :	
6 OF 16 SHEETS	

\\C:\P\MAN\COM\PROJECTS\HON200454\DOT-A MAINTENANCE AND REPAIR\ID1010.DWG\$00 RESOURCE\BORDERTEMPLATE\FRONT\TAOGG 22X34 - BORDER\CSG 22X34 STANDARD BORDER.DWG

## AUTOMATIC FIRE SPRINKLER SYSTEM NOTES

1. PROVIDE COMPLETE FIRE SPRINKLER COVERAGE IN ACCORDANCE WITH NFPA 13, CURRENT EDITION.
2. THESE FIRE SPRINKLER PLANS SUBMITTED FOR CONDITIONAL APPROVAL OF THE FIRE DEPARTMENT AND THE CITY & COUNTY OF HONOLULU DEPARTMENT OF DESIGN & CONSTRUCTION. SIX (6) SETS OF COMPLETE WORKING PLANS (SHOP DRAWINGS) AND HYDRAULIC CALCULATIONS, PREPARED IN ACCORDANCE WITH NFPA 13, AND REVIEWED BY A REGISTERED ENGINEER SHALL BE SUBMITTED TO THE FIRE DEPARTMENT, DEPARTMENT OF DESIGN & CONSTRUCTION, AND HAWAII INSURANCE RATING BUREAU FOR APPROVAL BEFORE INSTALLATION. SHOP DRAWINGS SHALL SHOW COMPONENTS OF FIRE SPRINKLER SYSTEM TO BE INSTALLED ALONG STRUCTURE, BEAMS, ETC., TO MINIMIZE VISUAL EXPOSURE TO THE GREATEST EXTENT POSSIBLE.
3. FIRE SPRINKLER SYSTEM SHALL BE SUPERVISED, CONFORMING TO 2018 NFPA 1 AND ITS AMENDMENTS. VALVE MONITORING, WATER FLOW AND TROUBLE SIGNALS SHALL BE MONITORED ON THE ISLAND OF OAHU.
4. OCCUPANCY HAZARD CLASSIFICATION SHALL BE IN ACCORDANCE WITH NFPA 13, EXCEPT THAT UNASSIGNED AND LOFT SPACES SHALL BE CLASSIFIED AS ORDINARY HAZARD.
5. FIRE SPRINKLER CONTRACTOR SHALL COORDINATE WITH MECHANICAL AND ELECTRICAL CONTRACTORS AND SHALL OFFSET HIS PIPING TO FIT WORK FROM ALL DISCIPLINES IN SPACE AVAILABLE.
6. SPARE SPRINKLERS SHALL BE PROVIDED AND STORED IN A CABINET IN A LOCATION APPROVED BY THE FIRE CHIEF AS FOLLOWS:
 

1 TO 300 SPRINKLERS	6 HEADS
301 TO 1000 SPRINKLERS	12 HEADS
OVER 1001 SPRINKLERS	24 HEADS

 IN ADDITION, THREE (3) SPRINKLER STOPPERS AND A SPECIAL SPRINKLER WRENCH SHALL BE PROVIDED AND KEPT IN THE CABINET TO BE USED IN THE REMOVAL AND INSTALLATION OF SPRINKLERS. NFPA 1, 2006 AS AMENDED.
7. FIRE SPRINKLERS AND PIPING INDICATED ON THESE PLANS ARE INTENDED TO SHOW GENERAL ROUTING OF PIPING AND TO PROVIDE CONTROL OF CEILING APPEARANCE. THEY ARE NOT TO BE INTERPRETED TO MEAN COMPLETE LAYOUT OF THE SPRINKLER SYSTEM. FIRE SPRINKLER LOCATIONS SHALL NOT BE ALTERED EXCEPT WITH THE APPROVAL OF THE ARCHITECT AND ENGINEER.
8. ALL SHUT-OFF VALVES THAT CONTROL WATER SUPPLY TO THE FIRE SPRINKLER SYSTEM OR PORTIONS THEREOF SHALL BE PROVIDED WITH TAMPER SWITCHES.
9. SOLENOID VALVES AND LOCAL ALARMS SHALL BE SUITABLE FOR 115 VOLTS, SINGLE PHASE.
10. WHEN VALVES ARE INSTALLED IN A HORIZONTAL POSITION, THE VALVE STEM SHALL BE INSTALLED IN AN UPRIGHT POSITION. IF THIS IS NOT POSSIBLE BECAUSE OF SPACE AND HEADROOM CONSTRAINTS, THE VALVE STEM SHALL BE INSTALLED IN AN INCLINED POSITION ABOVE THE HORIZONTAL CENTERLINE OF THE PIPE.
11. EXPOSED PIPING SHALL PROVIDE MAXIMUM HEADROOM CLEARANCE; OFFSET SHALL BE PROVIDED TO ACHIEVE MAXIMUM HEADROOM CLEARANCE.
12. PROVIDE SEISMIC PROTECTION FOR PIPING TO PREVENT DAMAGE FROM EARTHQUAKES PER NFPA 13.
13. STRUCTURES UNDERGOING CONSTRUCTION, ALTERATION, OR DEMOLITION OPERATIONS, INCLUDING THIS IN UNDERGROUND LOCATIONS, SHALL COMPLY WITH NFPA 241, STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS, AND 2018 NFPA 1, CHAPTER 16.

## FIRE SAFETY NOTES

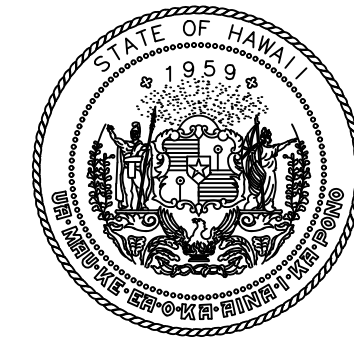
- 10.8.1.1 AS NECESSARY DURING EMERGENCIES, MAINTENANCE, DRILLS, PRESCRIBED TESTING, ALTERATIONS, OR RENOVATIONS, PORTABLE OR FIXED FIRE EXTINGUISHING SYSTEM OR DEVICE OR ANY FIRE-WARNING SYSTEMS SHALL BE PERMITTED TO BE MADE INOPERATIVE OR INACCESSIBLE. A FIRE WATCH SHALL BE REQUIRED AS SPECIFIED IN SECTIONS 13.3.4.3.5.2(3), 13.7.1.4.4, 16.5.4, 20.2.3.6, 34.6.3.3, 41.2.2.5, 41.2.2.6, 41.2.4, 41.3.4, 41.4.1, 34.5.4.3, AND 25.1.8 AT NO COST TO THE AUTHORITY HAVING JURISDICTION.
- 16.1 GENERAL REQUIREMENTS.
  - 16.1.1 STRUCTURES UNDERGOING 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.
  - 16.1.2 A FIRE PROTECTION PLAN SHALL BE ESTABLISHED WHERE REQUIRED BY THE AHJ.
  - 16.1.3 IN BUILDINGS UNDER CONSTRUCTION, ADEQUATE ESCAPE FACILITIES SHALL BE MAINTAINED AT ALL TIMES FOR THE USE OF CONSTRUCTION WORKERS. ESCAPE FACILITIES SHALL CONSIST OF DOORS, WALKWAYS, STAIRS, RAMPS, FIRE ESCAPES, LADDERS, OR OTHER APPROVED MEANS OR DEVICES ARRANGED IN ACCORDANCE WITH THE GENERAL PRINCIPLES OF CHAPTER 14 AND NFPA 101, LIFE SAFETY CODE, INsofar AS THEY CAN REASONABLY BE APPLIED TO BUILDINGS UNDER CONSTRUCTION. [101:4.6.10.2]
  - 16.1.4 FIRE DEPARTMENT ACCESS ROADS PROVIDED IN ACCORDANCE WITH 18.2.3 SHALL BE PROVIDED AT THE START OF A PROJECT AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
- 16.4.3 FIRE PROTECTION DURING CONSTRUCTION
  - 16.4.3.1 WATER SUPPLY
    - 16.4.3.1.1 A WATER SUPPLY FOR FIRE PROTECTION, EITHER TEMPORARY OR PERMANENT, SHALL BE MADE AVAILABLE AS SOON AS COMBUSTIBLE MATERIAL ACCUMULATES AND BE MAINTAINED OPERATIONAL AT ALL TIMES DURING ALTERATION.
    - 16.4.4.1 WHERE BUILDING IS PROTECTED BY FIRE-PROTECTION SYSTEMS, SUCH SYSTEMS SHALL BE MAINTAINED OPERATIONAL AT ALL TIMES DURING ALTERATION.
    - 16.4.4.2 WHERE ALTERATION REQUIRES MODIFICATION OF A PORTION OF A FIRE PROTECTION SYSTEM, THE REMAINDER OF THE SYSTEM SHALL BE KEPT IN SERVICE AND THE FIRE DEPARTMENT SHALL BE NOTIFIED.
    - 16.4.4.3 WHEN IT IS NECESSARY TO SHUT DOWN THE SYSTEM, THE AUTHORITY HAVING JURISDICTION SHALL HAVE THE AUTHORITY TO REQUIRE ALTERNATE MEASURES OF PROTECTION UNTIL THE SYSTEM IS RETURNED TO SERVICE.
    - 16.4.4.4 THE FIRE DEPARTMENT SHALL BE NOTIFIED WHEN THE SYSTEM IS SHUT DOWN AND WHEN THE SYSTEM IS RETURNED TO SERVICE.

## FIRE PROTECTION NOTES

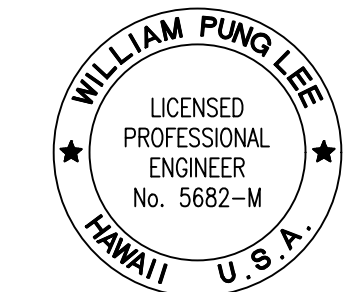
1. TWO (2) SETS OF COMPLETE WORKING PLANS STAMPED AND SIGNED BY A HAWAII LICENSED MECHANICAL ENGINEER SHALL BE SUBMITTED TO THE FIRE PROTECTION SPECIAL INSPECTOR (FPSI) FOR CODE COMPLIANCE REVIEW. ONE (1) SET WITH THE FPSI APPROVAL STAMP SHALL BE SUBMITTED TO THE DPP BUILDING DIVISION ALONG WITH FPSI FINAL REPORT/LETTER PRIOR TO CLOSING OF THE BUILDING PERMIT.
2. CONTRACTOR SHALL PERFORM THE FOLLOWING BEFORE INSTALLATION. NO INSTALLATION SHALL BEGIN UNLESS THE SHOP DRAWINGS HAVE BEEN APPROVED.
  - A. SUBMIT SIX (6) SETS OF COMPLETE WORKING DRAWINGS TO THE ENGINEER AND SPECIAL INSPECTOR FOR REVIEW AND APPROVAL.
  - B. ALL DRAWINGS SHALL BE STAMPED BY DIRECT BUSINESS CONNECTIONS INC. AND FIRE SPRINKLER CONTRACTOR'S LICENSED ENGINEER.
  - C. TWO SETS OF COMPLETE WORKING PLANS AND HYDRAULIC CALCULATIONS, STAMPED AND SIGNED BY A HAWAII LICENSED MECHANICAL ENGINEER SHALL BE SUBMITTED AS APPLICABLE TO THE FIRE PROTECTION SPECIAL INSPECTOR (FPSI) FOR CODE COMPLIANCE REVIEW. ONE (1) SET OF PLANS WITH FPSI APPROVAL STAMP SHALL BE SUBMITTED TO THE CITY AND COUNTY OF HONOLULU DEPT OF PLANNING AND PERMITTING BUILDING DIVISION ALONG WITH THE FPSI FINAL REPORT/LETTER PRIOR TO CLOSING OF THE BUILDING REPORT.
3. PROVIDE COMPLETE WET PIPE FIRE SPRINKLER PROTECTION FOR ENTIRE DESIGNATED SPACE FINISHING AREA PER NFPA 13.
4. OCCUPANCY HAZARD CLASSIFICATION SHALL BE LIGHT HAZARD IN ACCORDANCE WITH NFPA 13.
5. FIRE SPRINKLER HEADS AND PIPING INDICATED ON FLOOR PLANS ARE INTENDED TO SHOW GENERAL ROUTING OF PIPING AND TO PROVIDE CONTROL OF CEILING APPEARANCE. THEY SHOULD NOT BE INTERPRETED TO MEAN COMPLETE LAYOUT OF SPRINKLER SYSTEM (REFER TO NOTE NO. 3 ABOVE). FIRE SPRINKLER HEAD LOCATIONS SHALL NOT BE ALTERED EXCEPT WITH THE APPROVAL OF THE ARCHITECT AND ENGINEER.
6. WHERE FIRE SPRINKLER HEADS ARE NOT SHOWN, THE CONTRACTOR SHALL DESIGN AND INSTALL A COMPLETE LAYOUT OF FIRE SPRINKLER HEADS TO PROVIDE AN EFFICIENT LAYOUT AND COVERAGE.
7. ALL NEW FIRE SPRINKLER BRANCH PIPING SHALL CONNECT TO EXISTING (POC) PIPING 2" AND LARGER.
8. UNLESS OTHERWISE SHOWN ON DRAWINGS, HEADS SHALL BE LOCATED IN THE CENTER OF CEILING PANELS.
9. CONTROL OR POWER CABLES USED WITH AIR CONDITIONING EQUIPMENT IN PLENUM SPACES SHALL COMPLY WITH THE TYPE OF MATERIALS AND INSTALLATION REQUIREMENTS OF NFPA 70.

## AC&V NOTES

1. EQUIPMENT, DUCTWORK AND PIPING SHOWN INDICATES GENERAL LAYOUT REQUIREMENTS. SHOP DRAWINGS SHALL INDICATE SERVICE/ ACCESS SPACE REQUIREMENTS, ADDITIONAL OFFSETS, DROPS, RISES, ETC., REQUIRED TO FIT AVAILABLE SPACE AND AVOID LOCAL OBSTRUCTIONS. MECHANICAL CONTRACTOR SHALL COORDINATE WITH PLUMBING CONTRACTOR, FIRE SPRINKLER CONTRACTOR, AND ELECTRICAL CONTRACTOR AND OFFSET HIS DUCTWORK AND PIPING TO FIT WORK FROM ALL DISCIPLINES IN SPACE AVAILABLE.
2. FLEXIBLE CONNECTION SHALL BE PROVIDED BETWEEN DUCTWORK AND AIR HANDLING UNITS, RETURN AIR AND OUTSIDE AIR FANS, AND OTHER SIMILAR AIR MOVING EQUIPMENT.
3. LARGE DUCTS (OVER 30" IN ONE DIMENSION) SHALL BE REINFORCED WITH GALVANIZED ANGLE IRONS ON ALL SIDES TO PREVENT LOW RUMBLE VIBRATION PER SMACNA "DUCT CONSTRUCTION STANDARDS."
4. ALL DUCT DIMENSIONS ARE INSIDE DIMENSIONS: LAYOUTS AND INSTALLATION SHALL ACCOUNT FOR DUCT WRAP THICKNESS OR LINER INSULATION THICKNESS, SEE SPECS.
5. TURNING VANES AND EXTRACTORS SHALL BE INSTALLED IN ALL CHANGES IN DIRECTION OF AIR FLOW.
6. SPLITTER DAMPERS SHALL BE INSTALLED IN DUCT TEES WHERE BRANCH DUCTS DO NOT HAVE THE SAME AIR FLOW CAPACITIES. VOLUME DAMPERS SHALL BE PROVIDED TO BALANCE AIR IN ALL DUCT BRANCHES IN ACCORDANCE WITH ENERGY CONSERVATION CODE.
7. PROVIDE FIRE DAMPERS AND/OR FIRE/SMOKE DAMPERS FOR ALL FLOOR PENETRATIONS OR PENETRATIONS THROUGH FIRE-RATED WALLS PER INTERNATIONAL BUILDING CODE REQUIREMENTS. FIRE DAMPERS SHALL BE 90% OUT OF AIR STREAM. PROVIDE DUCT ACCESS PANELS FOR FIRE DAMPERS AND FIRE/SMOKE DAMPERS WHERE REQUIRED.
8. FIRE DAMPERS SHALL BE INSULATED WHEN LOCATED IN INSULATED SUPPLY AND RETURN AIR DUCTS. INSULATION SHALL BE IN ACCORDANCE WITH SMACNA. FIRE DAMPERS SHALL NOT BE INSULATED WHEN INSTALLED IN NON-INSULATED DUCTWORK.
9. PROVIDE DUCTWORK REDUCER FITTINGS AT AIR DEVICE CONNECTIONS AS REQUIRED.
10. ENTIRE HVAC SYSTEM SHALL HAVE SEISMIC RESTRAINTS INCLUDING HANGERS, VIBRATION ISOLATION, AND FLEXIBLE CONNECTIONS. REFER TO VIBRATION ISOLATION SCHEDULES AND DETAILS.
11. ALL CONTROL WIRING SHALL BE PLACED IN CONDUIT AND SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE. NO EMT ALLOWED FOR CONDUIT EXPOSED TO WEATHER.
12. WHERE AIRFLOWS ARE INDICATED TO EXISTING AND/OR NEW AIR DEVICES ON THE PLANS, THEY SHALL BE BALANCED TO THE AIRFLOWS INDICATED.
13. AIR CONDITIONING CONTRACTOR SHALL INSULATE ALL PIPING THAT COLLECTS CONDENSATE INCLUDING WASTE PIPE, ETC., FROM POINT OF CONNECTION TO TOP OF CONCRETE FLOOR SLAB ON GRADE. INSULATE FLOOR DRAIN, FLOOR SINK, AND/OR ROOF DRAIN BODIES EXPOSED TO AIR BELOW THE SLAB.
14. ALL AIR CONDITIONING SUPPLY AND RETURN AIR DUCTS SHALL BE INSULATED WITH 1-1/2" THICK FIBERGLASS INSULATION WITH VAPOR BARRIER JACKET.



STATE OF HAWAII  
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AIRPORTS



*William Pung Lee*  
04/30/2024  
Licensed Expiration Date

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DSGN.	DRWN.	CHKD.	APPD.

NO.	DATE	REVISIONS

## FINAL SUBMITTAL

MARCH 3, 2023  
DATE

### PROJECT TITLE :

**REPLACE ADMIN TOWER  
5TH FLOOR AC SYSTEM**

AT  
DANIEL K. INOUE INTERNATIONAL AIRPORT  
HONOLULU, OAHU, HAWAII

### PROJECT NO.:

**CO1328-43**

### SHEET TITLE:

**MECHANICAL NOTES,**

DATE :

**MAR. 3, 2023**

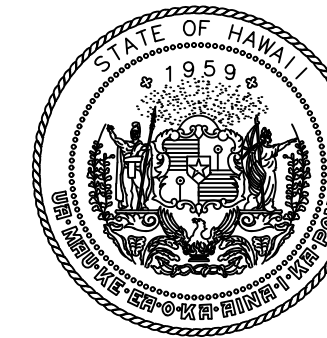
SHEET :

7 OF 16 SHEETS

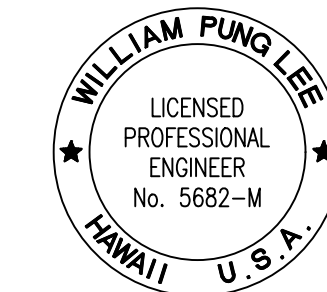
DWG. NO.

**M-002**





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HONOLULU, OAHU, HAWAII

PROJECT NO.:

**CO1328-43**

SHEET TITLE:

**MECHANICAL NEW  
WORK PLAN**

DATE :

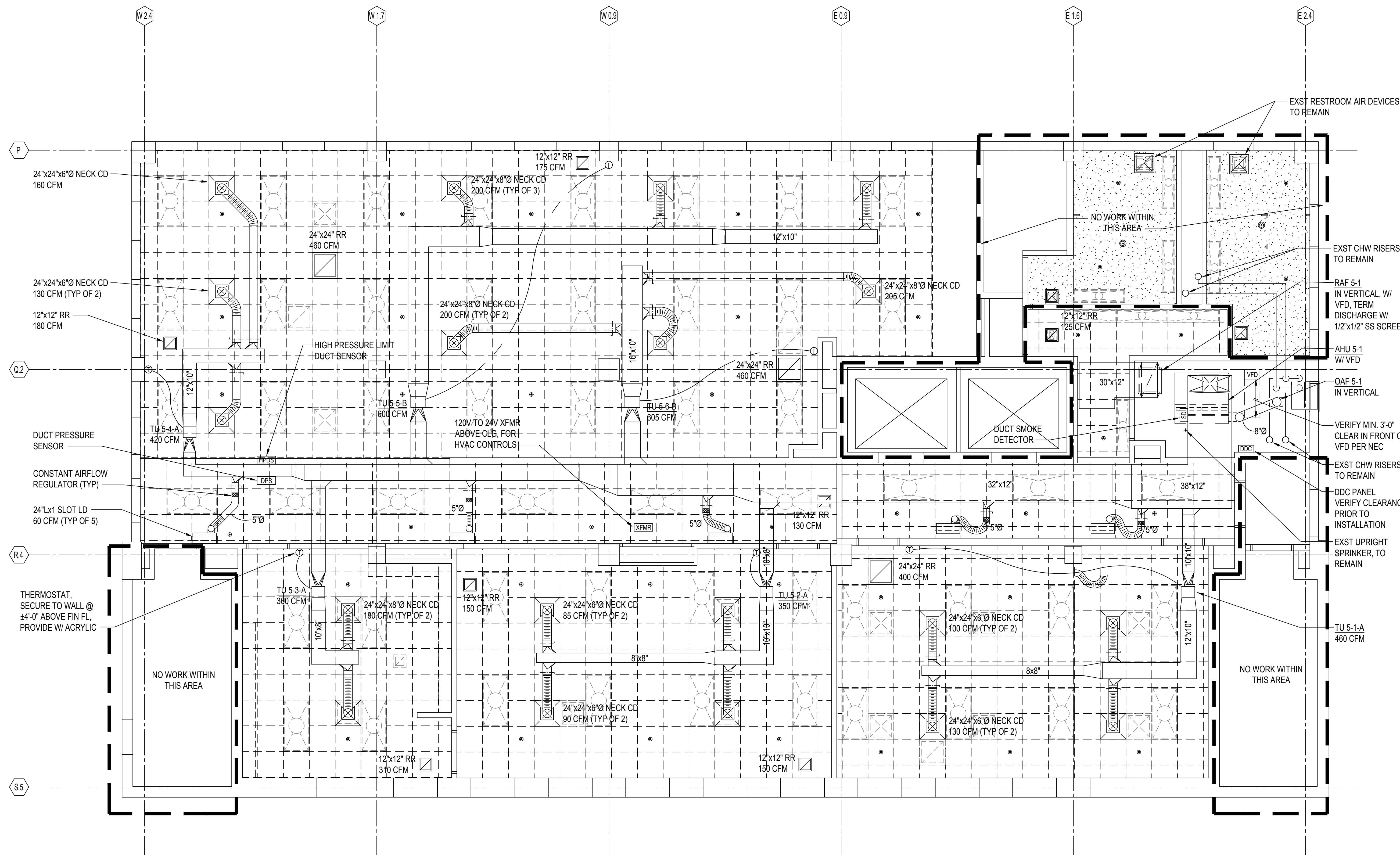
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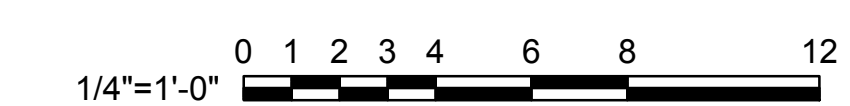
9 OF 16 SHEETS

DWG. NO.

**M-201**



**1 MECHANICAL NEW WORK PLAN**  
M-101 SCALE: 1/4" = 1'-0"



I:\COFFMAN\PROJECTS\HONOLULU\2024\454 DOT-A MAINTENANCE AND REPAIR\IDQ10.DWG\SGS00 RESOURCE\BORDERTEMPLATES\FRONT\AOCG 22X34 - BORDERS\CGG 22X34 STANDARD BORDER.DWG

### AIR HANDLER SCHEDULE (CHW)

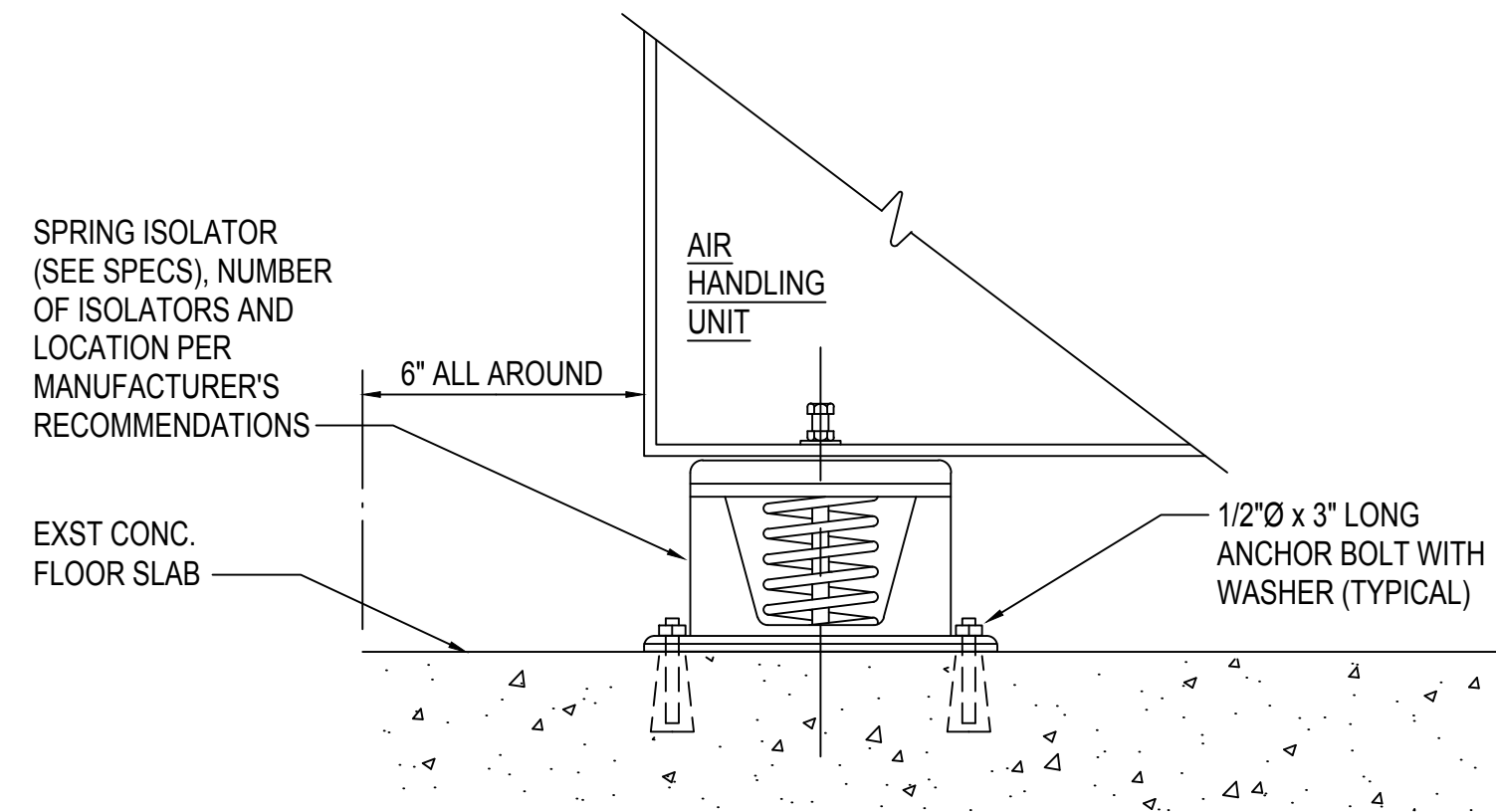
UNIT NO	LOCATION	SENSIBLE COOL CAP (BTU/HR)	LATENT COOL CAP (BTU/HR)	TOTAL COOL CAP (BTU/HR)	SUPPLY AIR (CFM)	OUTSIDE AIR (CFM)	COIL FACE VELOCITY (FPM)	NO ROWS	FINS PER INCH	ENT AIR TEMP (°F)		CHILLED WATER				FILTER			TOTAL SP (IN. H2O)	FAN RPM	HP	VOLTS	PH	OPR WT (POUNDS)	REMARKS
										db	wb	ENT (°F)	LVG (°F)	GPM	PD (FT)	TYPE	MERV	AREA (SQ FT)							
AHU 5-1	MECH RM	69,800	15,700	85,500	3,100	450	500 (MAX)	6	11	77.2	64.5	45.0	55.0	17.1	0.7	4" THK THROWAWAY	13	7.64	2.5	1252	3	460	3	1,580	PROVIDE WITH NEEDLEPOINT BIPOLAR IONIZATION SYSTEM IN SUPPLY DUCT, VFD, ISOLATORS

### FAN SCHEDULE

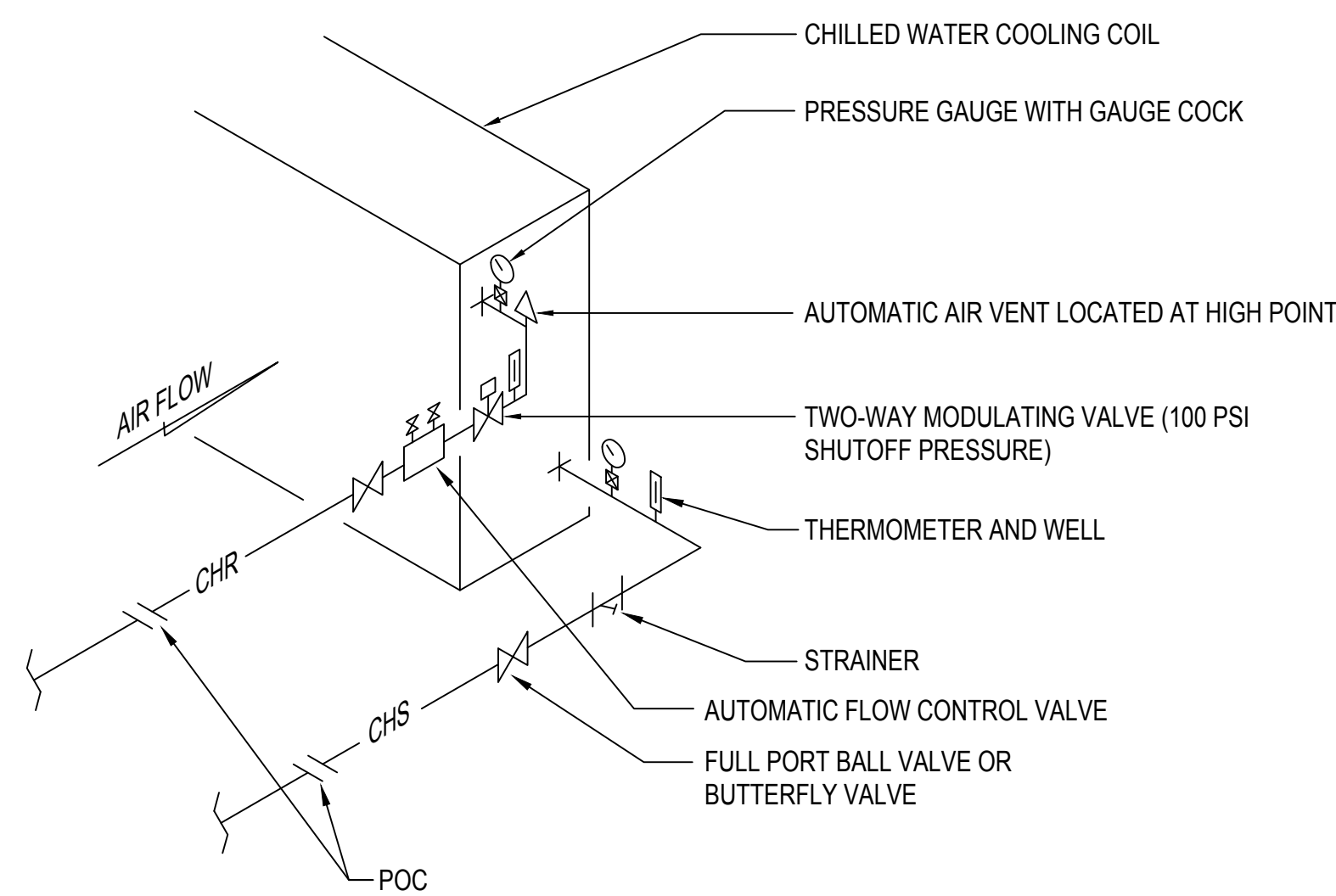
UNIT NO	LOCATION	SERVICE	TYPE	CFM	SP INCHES	WHEEL DIAMETER INCHES	TIP SPEED FPM	OUTLET VELOCITY FPM	DRIVE	FAN RPM	HP	VOLTS	PH	SONES	OPR WT POUNDS	REMARKS
RAF 5-1	MECH RM	RETURN AIR	CENTRIFUGAL INLINE	2,650	0.25	16.75	5,000	830	DIRECT	1140	3/4	208	3	12.5	150	PROVIDE WITH VFD, ISOLATORS
OAF 5-1	MECH RM	OUTSIDE AIR	CENTRIFUGAL INLINE	450	0.25	--	--	--	DIRECT	--	485 W	115	1	--	150	PROVIDE WITH SOLID STATE SPEED CONTROLLER, ISOLATORS

### HIGH VELOCITY TERMINAL UNIT SCHEDULE

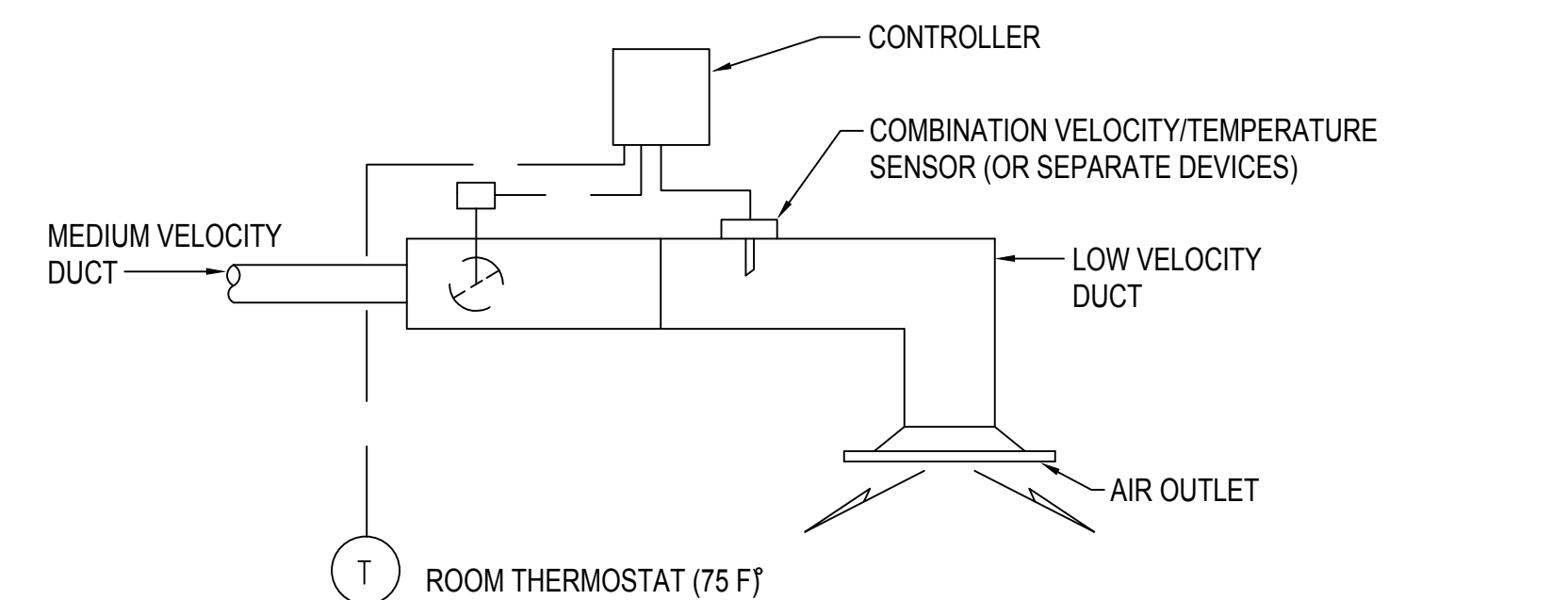
TYPE	NOMINAL AIRFLOW (CFM)	MAX. DISCHARGE/RADIATED S.P.L. BY OCTAVE BAND (RE: 10-12 WATT) TESTED AT 1.5" H2O INLET S.P.							MAX. WIDE OPEN S.P. (EXCLUSIVE OF DOWNSTREAM)	AIR INLET SIZE, INCHES	REMARKS					
		2	3	4	5	6	7									
A	400	62	59	65	54	61	48	53	42	41	38	40	28	0.25"	5"Ø	PROVIDE WITH INTEGRAL SOUND ATTENUATOR
B	600	65	60	67	56	61	49	54	42	45	37	45	30	0.25"	6"Ø	PROVIDE WITH INTEGRAL SOUND ATTENUATOR
C	800	67	61	68	57	62	50	55	42	48	36	50	31	0.25"	7"Ø	PROVIDE WITH INTEGRAL SOUND ATTENUATOR
D	1000	69	61	69	58	63	53	55	41	50	34	53	31	0.25"	8"Ø	PROVIDE WITH INTEGRAL SOUND ATTENUATOR
E	1360	69	67	68	60	67	54	55	42	51	36	57	34	0.25"	10"Ø	PROVIDE WITH INTEGRAL SOUND ATTENUATOR



1 M-501 NOT TO SCALE  
**TYPICAL AIR CONDITIONING UNIT MOUNTING DETAIL**



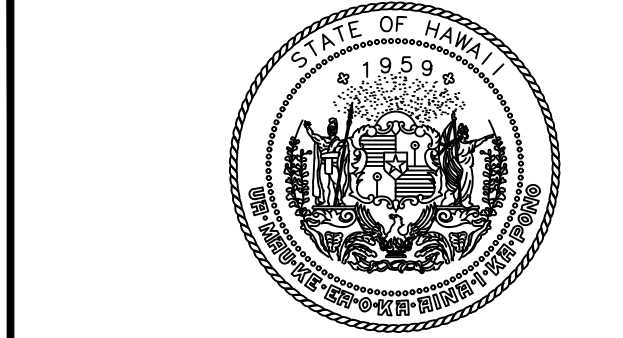
2 M-501 NOT TO SCALE  
**AIR HANDLING UNIT COIL PIPING DIAGRAM**



- CONTROLLER INFORMATION TO EMCS
- SUPPLY AIR VELOCITY
  - SUPPLY AIR TEMPERATURE
  - SPACE TEMPERATURE
  - MAXIMUM VELOCITY SET POINT
  - MINIMUM VELOCITY SET POINT
  - COOLING THERMOSTAT SET POINT

- CONTROLLER COMMANDS ACCEPTED FROM EMCS
- COOLING THERMOSTAT SET POINT
  - MAXIMUM VELOCITY SET POINT
  - MINIMUM VELOCITY SET POINT

3 M-503 NOT TO SCALE  
**TYPICAL VAV TERMINAL UNIT CONTROL DIAGRAM**



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS



*William Pung Lee*  
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NO. DATE REVISIONS

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5TH FLOOR AC SYSTEM**

AT  
DANIEL K. INOUE INTERNATIONAL AIRPORT  
HONOLULU, OAHU, HAWAII

### PROJECT NO.:

**CO1328-43**

### SHEET TITLE:

**MECHANICAL  
EQUIPMENT  
SCHEDULES, DETAILS**

DATE :

**MAR. 3, 2023**

SHEET :

10 OF 16 SHEETS

DWG. NO.

**M-501**

I:\COPFMAN\PROJECTS\HONOLULU\2024\454 DOT-A MAINTENANCE AND REPAIR\ID1010.DWG\SGS00 RESOURCE\BORDERTEMPLATES\FRONTDOCTAOCGG 22X34 - BORDERS\CGG 22X34 STANDARD BORDER.DWG



## ELECTRICAL NOTES

- INSTALLATION SHALL COMPLY WITH THE 2017 NATIONAL ELECTRICAL CODE, NFPA 72, LOCAL AMENDMENTS, AND NECA STANDARDS OF INSTALLATION.
- CUT AND PATCH THE EXISTING CEILING AND WALLS AS REQUIRED TO INSTALL NEW BRANCH CIRCUITS. ANY PATCHES SHALL BE FINISHED TO MATCH THE EXISTING ADJACENT SURFACES. REPLACE ANY DAMAGED CEILING TILES AS REQUIRED.
- ALL CONDUCTORS INSTALLED IN EXTERIOR SPACES SHALL BE XHHW, INTERIOR WIRING MAY BE THHW/THHN. ALL WIRING SHALL BE GASOLINE AND OIL RESISTANT II.
- CONDUCTORS SHALL BE #12 AWG COPPER MINIMUM OR AS INDICATED ON THE EQUIPMENT SCHEDULE. HOME RUN CONDUCTORS SHALL BE #10 AWG COPPER MINIMUM OR AS REQUIRED BY NEC. MINIMUM SIZE FOR 20A BRANCH CIRCUIT MEASURED FROM THE PANELBOARD TO THE FURTHEST DEVICE ON THE CIRCUIT UNLESS NOTED ON DRAWINGS:
  - 10 AWG CONDUCTORS FOR 120V BRANCH CIRCUITS GREATER THAN 75'.
  - 8 AWG CONDUCTORS FOR 120V BRANCH CIRCUITS GREATER THAN 175'.

TRANSITION TO #12 AWG WITHIN 15' OF DEVICE IF SMALL CONDUCTOR IS REQUIRED FOR DEVICE TERMINATION.
- CONTRACTOR SHALL PROVIDE AND INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL NEW CONDUITS.
- EXISTING EQUIPMENT INFORMATION SHOWN ON THESE DRAWINGS SHOULD BE FIELD VERIFIED. CONFIRM EQUIPMENT LOCATIONS WITH OWNER AND ADJUST AS REQUIRED.
- ALL CONDUCTOR SIZES SHOWN ARE BASED ON COPPER.
- MAINTAIN MINIMUM 6" CLEARANCE BETWEEN CONDUIT AND PIPING. MAINTAIN 12" CLEARANCE BETWEEN CONDUIT AND HEAT SOURCES SUCH AS FLUES, HEATING PIPES, AND HEATING APPLIANCES.
- PROVIDE TYPED, UPDATED PANEL SCHEDULES FOR NEW PANELS AND PANELS WITH CIRCUIT MODIFICATIONS FROM THIS PROJECT.
- VERIFY CEILING TYPES THROUGHOUT; PROVIDE ALL MOUNTING ACCESSORIES, TRIM, FLANGES, OUTLET BOXES, ETC. FOR A COMPLETE AND FINISHED INSTALLATION.
- ALL EQUIPMENT AND MATERIALS ARE UL LISTED WHERE LISTING IS AVAILABLE FOR THAT TYPE OF EQUIPMENT OR CONFORM TO ANSI OR NEMA STANDARDS.
- WORKMANSHIP SHALL CONFORM TO CONSTRUCTION PRACTICES RECOMMENDED BY THE AMERICAN ELECTRICIANS HANDBOOK BY CROFT (LATEST EDITION) AND WILL BE SUBJECTED TO THE APPROVAL OF THE AGENCY THAT HAS JURISDICTION AND THE ENGINEER OF RECORD.
- ALL METALLIC ENCLOSURES, RACEWAYS AND ELECTRICAL EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH REQUIREMENTS OF NEC ARTICLE 250, WITH GROUND WIRE IN EVERY RACEWAY. RACEWAY SHALL BE SIZED IN ACCORDANCE WITH NEC TABLE 250-122.
- TEST COMPLETED INSTALLATION AND CORRECT ALL DEFICIENCIES FOUND IN THE SYSTEM OR INSTALLATION.
- ALL EXISTING CIRCUITS AFFECTED DURING ELECTRICAL INSTALLATION SHALL BE RESTORED TO THEIR ORIGINAL OPERATING CONDITION.
- THE CONTRACTOR SHALL MAKE EVERY EFFORT TO VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO DEMOLITION, DIGGING, TRENCHING, OR SIMILAR OPERATIONS. COORDINATE WITH THE CONSTRUCTION MANAGER OR OWNERS REPRESENTATIVE TO REVIEW EACH WORK AREA PRIOR TO BEGINNING WORK.
- ALL EXISTING CONDITIONS SHOWN ON THE DRAWINGS ARE FROM THE BEST AVAILABLE AS-BUILT DRAWINGS AND LIMITED SITE-SURVEY. CONTRACTOR SHALL FIELD VERIFY THE ACTUAL CONDITION BEFORE CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
- ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL RACEWAY AND CONNECTIONS BETWEEN RESPECTIVE DEVICES, FIXTURES, AND EQUIPMENT. CONTRACTOR TO DETERMINE EXACT ROUTING OF RACEWAY CONNECTIONS BETWEEN RESPECTIVE DEVICES, FIXTURES, AND EQUIPMENT.
- PROVIDE CIRCUIT IDENTIFICATION LABEL ON DEVICES, LIGHT SWITCHES, AND EQUIPMENT.
- PROVIDE DEDICATED NEUTRAL CONDUCTOR FOR EACH 120V BRANCH CIRCUIT.

## DEMOLITION NOTES

- THE DEMOLITION DRAWINGS ARE INTENDED TO SHOW THE GENERAL SCOPE OF WORK AND DO NOT NECESSARILY SHOW EVERY DEVICE, THE CONTRACTOR SHALL FIELD VERIFY OTHER ELECTRICAL SERVICES THAT MAY BE ENCOUNTERED DURING DEMOLITION AND SHALL REMOVE OR REROUTE THESE ITEMS DIRECTED.
- THE CONTRACTOR SHALL VERIFY PRIOR TO BEGINNING WORK THAT THE ELECTRICAL POWER AND LIGHTING DISTRIBUTION SYSTEM ARE IN PROPER WORKING ORDER. ANY ELECTRICAL DEVICES FOUND TO BE IN A NON-WORKING CONDITION SHALL BE REPLACED OR REPAIRED AS NECESSARY.
- REMOVE ALL UNUSED WIRING FROM DEMOLITION AREA, INCLUDING DISCONNECTED UNDER THIS CONTRACT AND WIRING UNCOVERED BY DEMOLITION.
- MAINTAIN CIRCUIT CONTINUITY AS REQUIRED FOR ALL ELECTRICAL EQUIPMENT TO REMAIN, INCLUDING THOSE OUTSIDE OF PROJECT LIMITS. COORDINATE WITH NEW WORK AND RE-ROUTE CONDUIT AND WIRE AS REQUIRED TO AVOID CONFLICT WITH NEW WORK.
- ALL MATERIALS REMOVED REMAIN THE PROPERTY OF THE OWNER IF THE OWNER CHOOSES TO DISCARD THESE MATERIALS THEN THE CONTRACTOR SHALL DISPOSE OF THEM AS DIRECTED.

## ELECTRICAL ABBREVIATIONS

AFG	ABOVE FINISHED GRADE	MLO	MAIN LUGS ONLY
AIC	AMPERE-INTERRUPTING CAPACITY	MTD	MOUNT OR MOUNTED
AMP, A	AMPERE	MTG	MOUNTING
BKR	BREAKER	(N)	NEW
BKBD	BACKBOARD	NEC	NATIONAL ELECTRICAL CODE
BLDG	BUILDING	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
C	CONDUIT, CONDUCTOR		
CKT	CIRCUIT	NO., #	NUMBER
CT	COUNTERTOP	O.C.	ON CENTER
D	DEPTH	OCPD	OVER CURRENT PROTECTION DEVICE
DISC	DISCONNECT	PFB	PROVISION FOR FUTURE BREAKER
DIST	DISTRIBUTION	PNL	PANEL
EHH	ELECTRIC HANDHOLE	PVC	POLYVINYL CHLORIDE
EP	EXPLOSION PROOF	RM	ROOM
ENCL	ENCLOSURE	SN	SOLID NEUTRAL
(E),EXIST	EXISTING	SURF	SURFACE
GFI	GROUND FAULT INTERRUPTER	SW	SWITCH
FLA	FULL LOAD AMPERE	S/S	STAINLESS STEEL 316
GRD	GROUND	THK	THICK
GRS	GALVANIZED RIGID STEEL	TYP	TYPICAL
H	HIGH	UON	UNLESS OTHERWISE NOTED
HH	HANDHOLE	V	VOLTS
HECO	HAWAIIAN ELECTRIC COMPANY	W	WIRE, WIDE, WATTS
HP	HORSEPOWER	WP	WEATHERPROOF
HT	HEIGHT	XFMR	TRANSFORMER
JB	JUNCTION BOX	Ø	PHASE
KVA	KILO-VOLT AMPERE	'	FOOT, FEET
KV	KILO-VOLT	"	INCH, INCHES
KW	KILOWATT	&	AND
MIN	MINIMUM	Ω	OHM

## ELECTRICAL SYMBOL LIST (NOT ALL MAY BE USED)

SYMBOLS	DESCRIPTION
	JUNCTION BOX, 4-11/16"SQ. X 2-1/8"D, CEILING MOUNTED
	JUNCTION BOX, 4-11/16"SQ. X 2-1/8"D, WALL MOUNTED
	PANELBOARD, CABINET, OR AS NOTED
	DISCONNECT SWITCH, HEAVY DUTY TYPE HORSEPOWER RATED
	TRANSFORMER
	CROSSED OUT ITEMS DENOTES REMOVAL WORK
	EXISTING WORK
	RACEWAY AND CONDUCTORS - EXPOSED
	RACEWAY AND CONDUCTORS - CONCEALED
	RACEWAY AND CONDUCTORS - BELOW FLOOR OR GRADE
	RACEWAY AND LOW VOLATGE CONDUCTORS
	FLEXIBLE RACEWAY AND CONDUCTORS. LIQUID TIGHT IN WET/DAMP LOCATIONS
	HOMERUN RACEWAY & WIRING, TO PANEL OR CABINET
	HATCH MARKS INDICATE NO. OF CURRENT CARRYING CONDUCTORS. NO HATCH MARK INDICATES TWO CURRENT CARRYING CONDUCTOR PLUS A GROUND WIRE.
	MOTOR CONNECTION
	EQUIPMENT CONNECTION
	GROUND CONNECTION
	TELECOM BACKBOARD
	DUCT SECTION INDICATOR, SEE DUCT SECTION "A" INDICATED.
	NOTE INDICATOR, SEE NOTE "1" INDICATED.
	HANDHOLE SIZE AND TYPE AS NOTED
	COMBINATION STARTER/DISCONNECT SWITCH, HEAVY DUTY TYPE HORSEPOWER RATED
	MANUAL MOTOR STARTER
	VARIABLE FREQUENCY DRIVE

## ENERGY CODE COMPLIANCE

CITY AND COUNTY OF HONOLULU  
REVISED ORDINANCES OF HONOLULU 1990  
CHAPTER 32

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

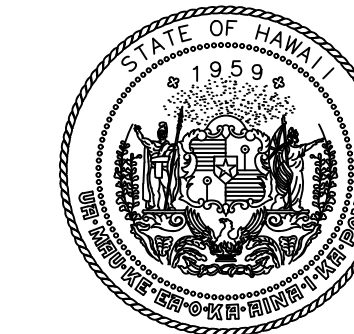
BUILDING COMPONENT SYSTEMS  
 ELECTRICAL COMPONENT SYSTEMS  
 MECHANICAL COMPONENT SYSTEMS

SIGNATURE: \_\_\_\_\_ DATE: 4-27-22

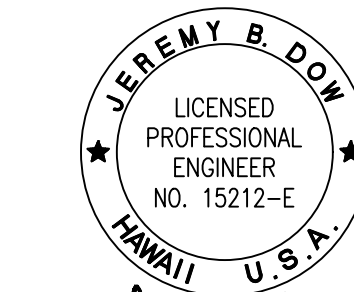
NAME: JEREMY B. DOW

TITLE: MANAGER, ELECTRICAL ENGINEERING

P.E. NUMBER: 15212-E



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS



04/30/2024  
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DSGN. DRWN. CHKD. APPD.

NO. DATE REVISIONS

## FINAL SUBMITTAL

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DATE

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AT  
DANIEL K. INOUE INTERNATIONAL AIRPORT  
HONOLULU, OAHU, HAWAII

## PROJECT NO.:

CO1328-43

## SHEET TITLE:

## ELECTRICAL NOTES, LEGEND & ABBREVIATIONS

DATE :

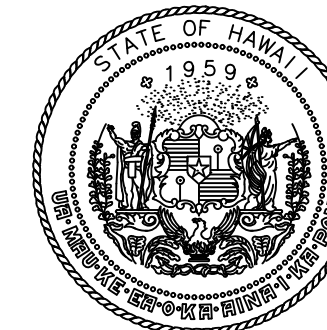
MAR. 3, 2023

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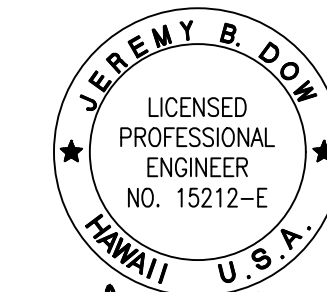
12 OF 16 SHEETS

DWG. NO.

E-001



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS



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HONOLULU, OAHU, HAWAII

PROJECT NO.:

**CO1328-43**

SHEET TITLE:

**ELECTRICAL DEMO  
WORK PLAN**

DATE :

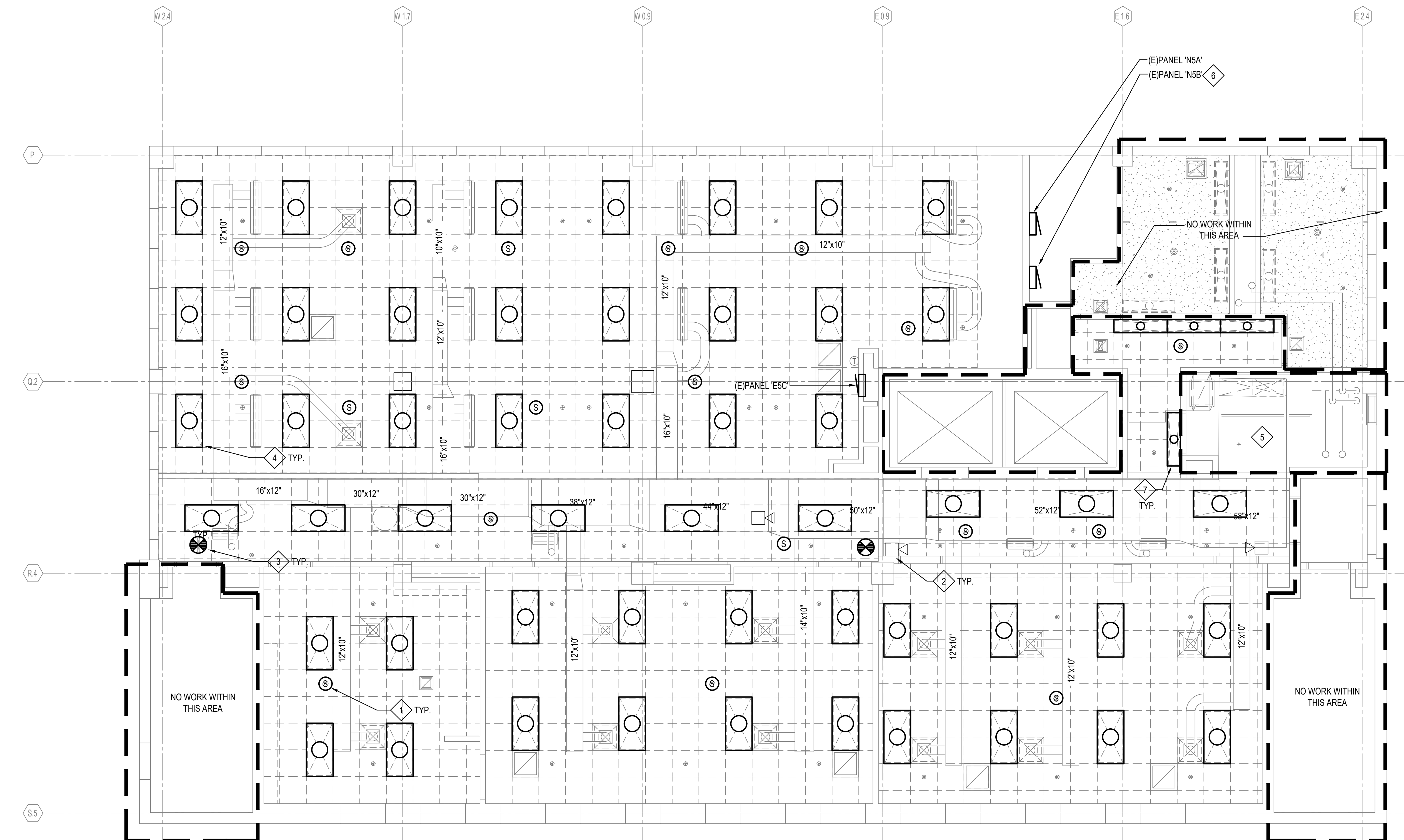
**MAR. 3, 2023**

SHEET :

13 OF 16 SHEETS

DWG. NO.

**E-101**



**DEMOLITION WORK KEY NOTES**

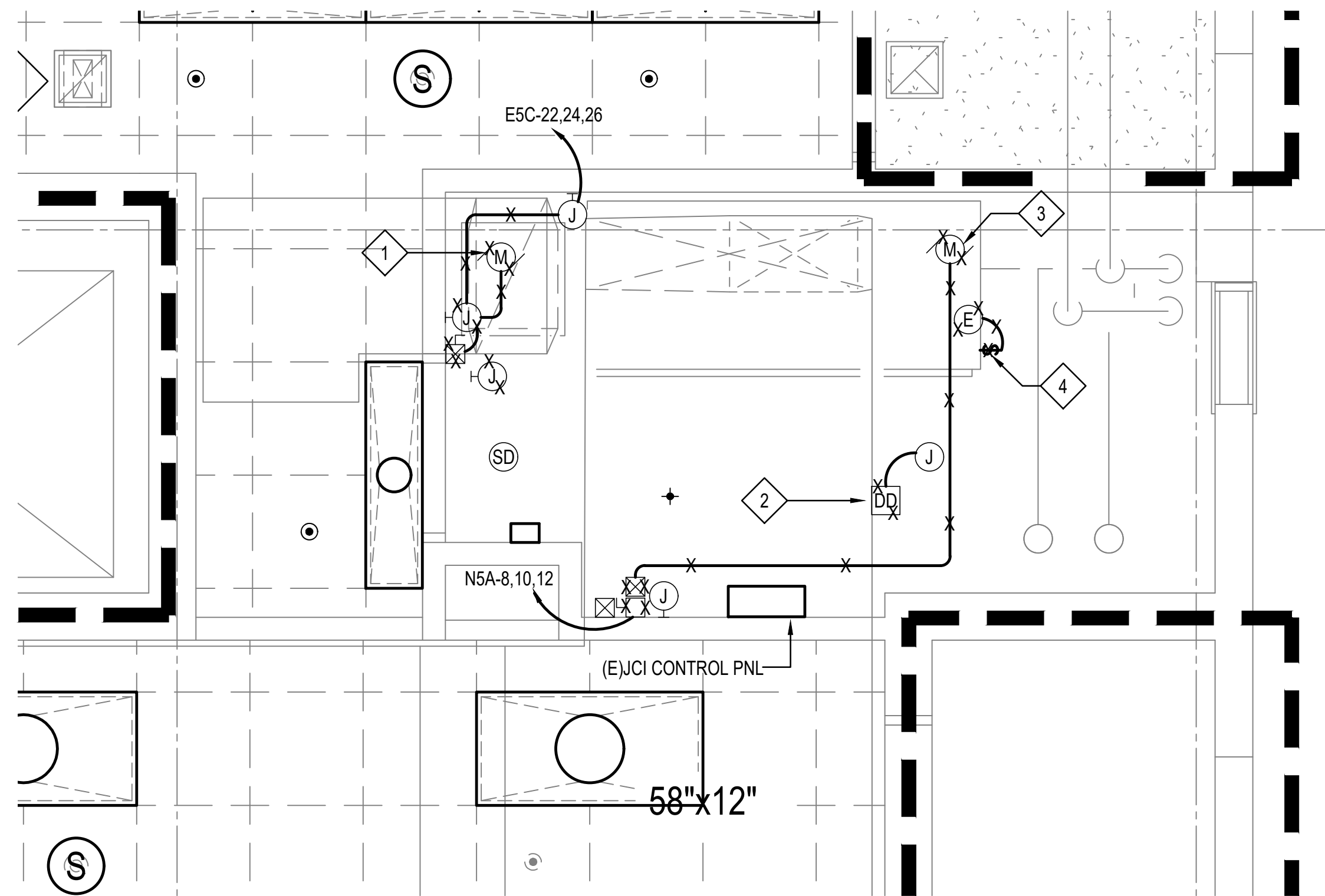
- 1 REMOVE EXISTING SMOKE DETECTOR. TEMPORARILY STORE (E)SMOKE DETECTOR FOR RE-INSTALLATION ON NEW CEILING. EXISTING FA CIRCUIT TO REMAIN AND BE RE-USED.
- 2 REMOVE EXISTING CCTV CAMERA. TEMPORARILY STORE (E)CCTV CAMERA FOR RE-INSTALLATION ON NEW CEILING. EXISTING CCTV CAMERA CIRCUIT TO REMAIN AND BE RE-USED.
- 3 REMOVE EXISTING EXIT SIGN. TEMPORARILY STORE (E)EXIT SIGN FOR RE-INSTALLATION ON NEW CEILING. EXISTING EXIT SIGN LT CIRCUIT TO REMAIN AND BE RE-USED.
- 4 REMOVE EXISTING 2'X 4' LIGHT FIXTURE. TEMPORARILY STORE (E)LIGHT FIXTURE FOR RE-INSTALLATION ON NEW CEILING. EXISTING LTG CIRCUIT TO REMAIN AND BE RE-USED.
- 5 REFER TO ENLARGED MECH ROOM PLAN ON SHEET E-102 FOR ADDITIONAL DEMO WORK.
- 6 REMOVE (E)2P40A CIRCUIT BREAKER AT CKT NOS. 16,18.
- 7 REMOVE EXISTING 1'X4' LIGHT FIXTURE. TEMPORARILY STORE (E)LIGHT FIXTURE FOR RE-INSTALLATION ON NEW CEILING. EXISTING LTG CIRCUIT TO REMAIN AND BE RE-USED.

**1 ELECTRICAL DEMO WORK PLAN**  
E-101 SCALE: 1/4" = 1'-0"



1/4"=1'-0" 0 1 2 3 4 6 8 12

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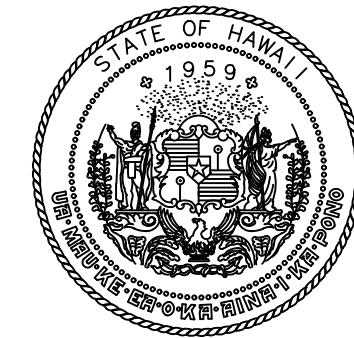


**1 ENLARGED MECH ROOM ELECTRICAL DEMO WORK PLAN**  
 E-102 SCALE: 1/2" = 1'-0"

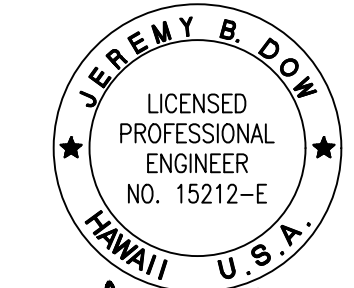


**DEMOLITION WORK KEY NOTES**

- 1 DISCONNECT (E)RETURN AIR SUPPLY FAN . REMOVE VFD AND ASSOCIATED CONDUIT AND WIRING. (E)HOMERUN CKT TO BE RE-USED.
- 2 REMOVE EXISTING DUCT SMOKE DETECTOR. EXISTING FA CIRCUIT TO REMAIN AND BE RE-USED.
- 3 DISCONNECT (E)AHU. REMOVE (E)DISCONNECT SWITCH. (E)HOMERUN CKT TO BE RE-USED.
- 4 REMOVE EXISTING UV LIGHT SW AND ASSOCIATED CONDUIT AND WIRING BACK TO SOURCE.
- 5 NOT USED.



STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 AIRPORTS



04/30/2024  
 Licensed Expiration Date

This work was prepared by me or under my supervision.

DSGN.	DRWN.	CHKD.	APPD.
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NO.	DATE	REVISIONS
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**FINAL SUBMITTAL**

MARCH 3, 2023  
 DATE

PROJECT TITLE :

**REPLACE ADMIN TOWER  
 5TH FLOOR AC SYSTEM**

AT  
 DANIEL K. INOUE INTERNATIONAL AIRPORT  
 HONOLULU, OAHU, HAWAII

PROJECT NO.:

**CO1328-43**

SHEET TITLE:

**ENLARGED MECH  
 ROOM ELECTRICAL  
 DEMO WORK PLAN**

DATE :

**MAR. 3, 2023**

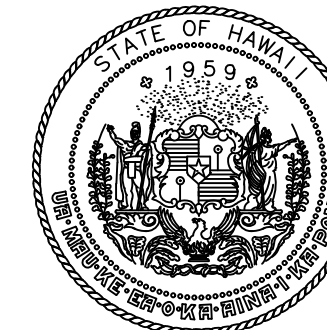
SHEET :

14 OF 16 SHEETS

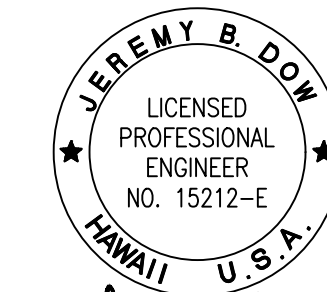
DWG. NO.

**E-102**





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DEPARTMENT OF TRANSPORTATION  
AIRPORTS



04/30/2024  
Licensed Expiration Date

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DSGN. DRWN. CHKD. APPD.

NO. DATE REVISIONS

**FINAL SUBMITTAL**

MARCH 3, 2023  
DATE

PROJECT TITLE :

**REPLACE ADMIN TOWER  
5TH FLOOR AC SYSTEM**

AT  
DANIEL K. INOUE INTERNATIONAL AIRPORT  
HONOLULU, OAHU, HAWAII

PROJECT NO.:

**CO1328-43**

SHEET TITLE:

**ELECTRICAL NEW  
WORK PLAN**

DATE :

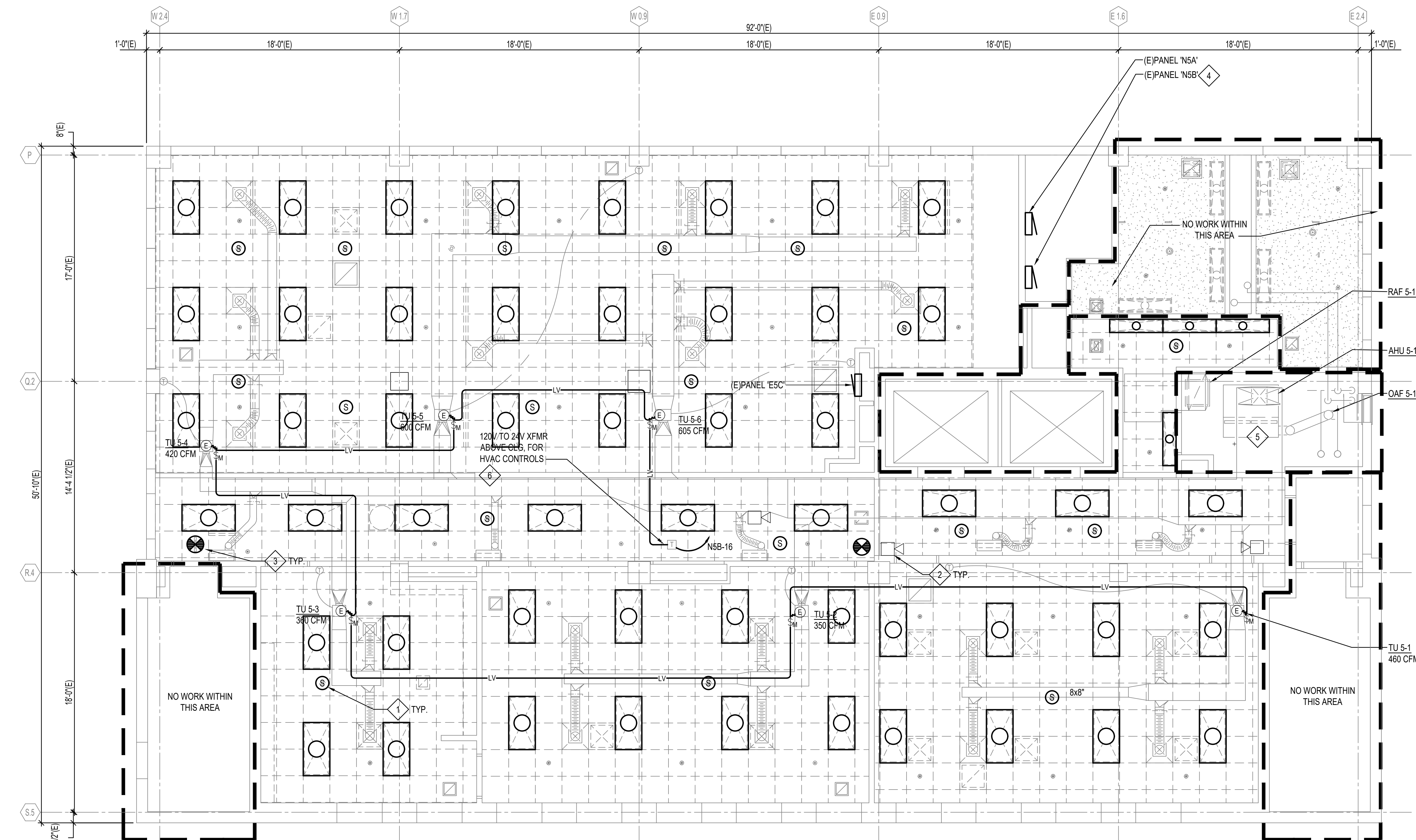
**MAR. 3, 2023**

SHEET :

15 OF 16 SHEETS

DWG. NO.

**E-201**



**NEW WORK KEY NOTES**

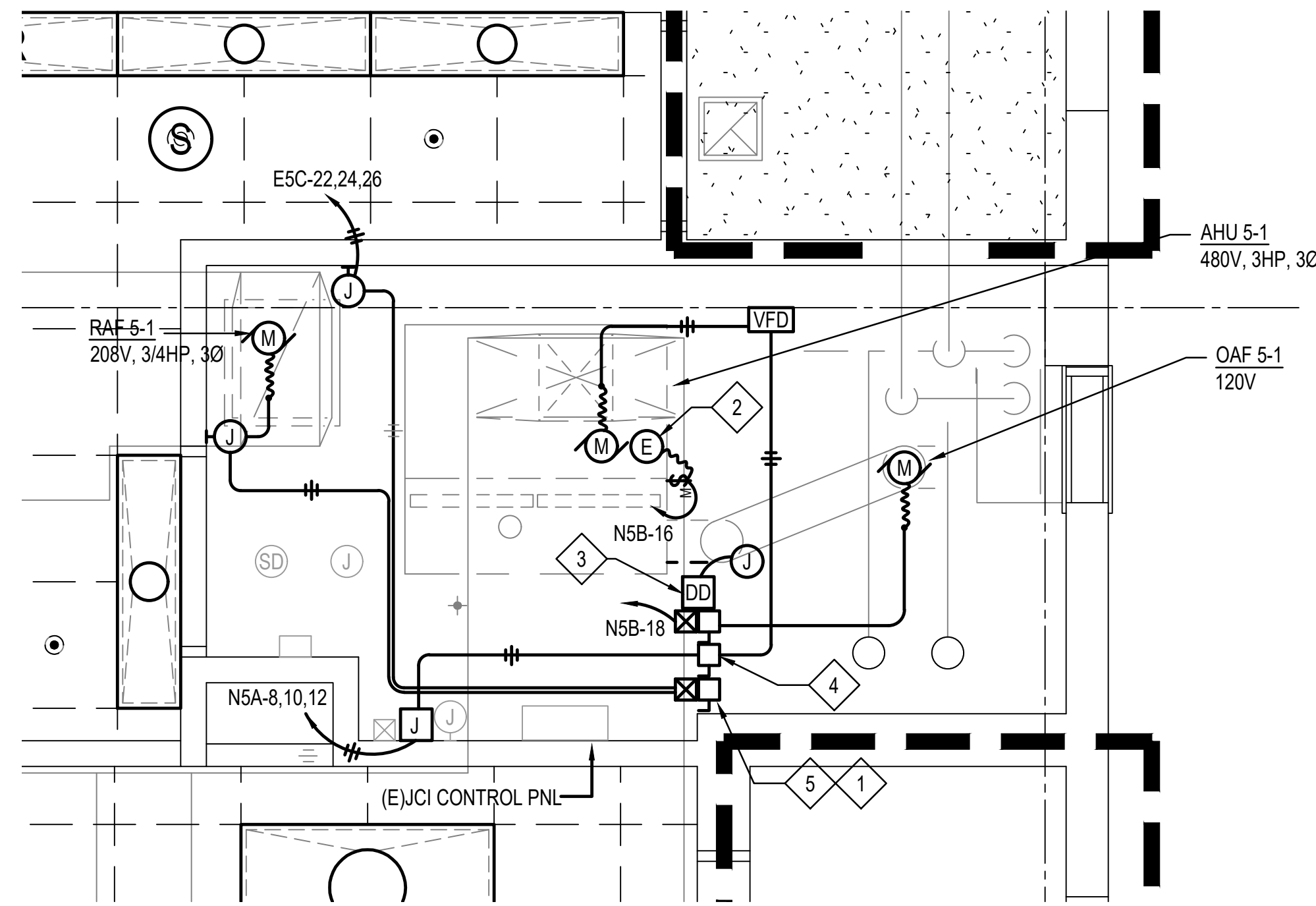
- 1 RE-INSTALL SMOKE DETECTOR TO NEW CEILING AND RECONNECT TO EXISTING FA CIRCUIT.
- 2 REINSTALL CCTV CAMERA AND RECONNECT TO EXISTING CCTV CIRCUIT.
- 3 REINSTALL EXIT SIGN AND RECONNECT TO EXISTING LIGHTING CIRCUIT.
- 4 PROVIDE NEW TWO 1P20A CIRCUIT BREAKERS AT (E)SPACE NOS. 16 AND 18. BREAKER AIC RATING AND TYPE TO MATCH EXISTING. UPDATE PANEL DIRECTORY TO REFLECT REVISED CIRCUITING.
- 5 REFER TO ENLARGED MECH ROOM PLAN ON SHEET E-102 FOR ADDITIONAL NEW WORK.
- 6 PROVIDED BY MECHANICAL CONTRACTOR.

**1 ELECTRICAL NEW WORK PLAN**  
E-201 SCALE: 1/4" = 1'-0"



1/4"=1'-0" 0 1 2 3 4 6 8 12

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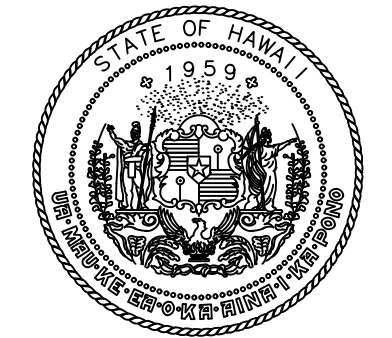
**NEW WORK KEY NOTES**

- 1 PROVIDE 1-5/8" SQ. SUPPORT CHANNELS FOR EQUIPMENT MOUNTING (TYP.)
- 2 PROVIDE 120V CONNECTION FOR AHU STERILIZER.
- 3 CONNECT (N)DUCT DETECTOR TO (E)FA INITIATING CKT.
- 4 3P30A, 480V FUSED DISC SW. W/3-8.0A DTFD FUSES.
- 5 3P30A 208V FUSED DISC SW. W/3-6.25A DTFD FUSES.
- 6 INTERCEPT (E)AHU CKT WITH NEW 12"SQ X 6"D J-BOX. VERIFY INTERCEPT POINT IN FIELD. EXTEND CKT TO NEW AHU 5-1.

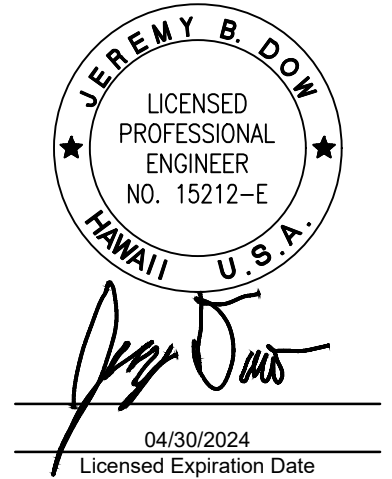
**1 ENLARGED MECH ROOM ELECTRICAL NEW WORK PLAN**  
 E-202 SCALE: 1/2" = 1'-0"



1/2"=1'-0"



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 DEPARTMENT OF TRANSPORTATION  
 AIRPORTS



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DSGN.	DRWN.	CHKD.	APPD.
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NO.	DATE	REVISIONS
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**FINAL SUBMITTAL**

MARCH 3, 2023  
 DATE

PROJECT TITLE :

**REPLACE ADMIN TOWER  
 5TH FLOOR AC SYSTEM**

AT  
 DANIEL K. INOUE INTERNATIONAL AIRPORT  
 HONOLULU, OAHU, HAWAII

PROJECT NO.:

**CO1328-43**

SHEET TITLE:

**ENLARGED MECH  
 ROOM ELECTRICAL  
 NEW WORK PLAN**

DATE :

**MAR. 3, 2023**

SHEET :

16 OF 16 SHEETS

DWG. NO.

**E-202**

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