

THOMPSON MIDDLE SCHOOL - HVAC REPLACEMENT

MURRIETA VALLEY UNIFIED SCHOOL DISTRICT

24040 HAYES AVENUE, MURRIETA, CA 92562

PBKWLC
 RANCHO CUCAMONGA
 8163 ROCHESTER AVENUE, SUITE 100
 RANCHO CUCAMONGA, CA 91730
 909-987-0909 P

GENERAL NOTES

PROJECT TEAM

1. THESE DRAWINGS DO NOT CONTAIN THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.
2. LOCATIONS OF ALL UTILITIES SHOWN ARE APPROXIMATE AND CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING ON THIS SITE TO AVOID INTERCEPTING EXISTING PIPING OR CONDUITS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREON OR NOT AND TO PROTECT THEM FROM DAMAGE. THE ARCHITECT IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN OR DETAILED AND INSTALLED BY ANY OTHER CONTRACT. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT SHOULD ANY UNIDENTIFIED CONDITIONS BE DISCOVERED. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE EXECUTION OF THIS WORK.
3. THESE DOCUMENTS AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, ARE THE PROPERTY OF WLC ARCHITECTS, INC. AND ARE NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF WLC ARCHITECTS, INC.
4. THE WORK SHOWN ON THESE DRAWINGS AS EXISTING CONDITIONS WAS PREPARED FROM INFORMATION FURNISHED BY THE OWNER. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, WLC ARCHITECTS, INC. IS NOT RESPONSIBLE FOR THE ACCURACY OR ADEQUACY OF ANY WORK SHOWN AS EXISTING NOR IS WLC ARCHITECTS, INC. RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO THESE DRAWINGS AS A RESULT.
5. EACH BIDDER SHALL POSSESS AT THE TIME OF BID A CLASS B OR THE APPROPRIATE CLASS C CONTRACTOR'S LICENSE PURSUANT TO PUBLIC CONTRACT CODE SECTION 3300 AND BUSINESS AND PROFESSIONS CODE SECTION 7028.15. THE SUCCESSFUL BIDDER MUST MAINTAIN THE LICENSE THROUGHOUT THE DURATION OF THIS CONTRACT.
6. FIRE SAFETY DURING CONSTRUCTION
- A. GENERAL: FIRE SAFETY DURING CONSTRUCTION SHALL COMPLY WITH CALIFORNIA FIRE CODE (CFC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 9, CHAPTER 5 AND CHAPTER 33.
- B. ACCESS ROADS: FIRE DEPARTMENT ACCESS ROADS SHALL BE ESTABLISHED AND MAINTAINED IN ACCORDANCE WITH CHAPTER 5, SECTION 501.4 AND CHAPTER 33, SECTION 3310.
- C. WATER SUPPLY: WATER MAINS AND HYDRANTS SHALL BE OPERATIONAL IN ACCORDANCE WITH CHAPTER 5, SECTION 501.4 AND CHAPTER 33, SECTION 3312.
- D. BUILDING ACCESS: ACCESS TO BUILDINGS FOR THE PURPOSE OF FIREFIGHTING SHALL BE PROVIDED. CONSTRUCTION MATERIAL SHALL NOT BLOCK ACCESS TO BUILDINGS, HYDRANTS OR FIRE APPLIANCES.
- E. ALTERATIONS OF BUILDINGS: SHALL COMPLY WITH APPLICABLE PROVISIONS OF CHAPTER 33.
- F. DEMOLITION OF BUILDINGS: SHALL COMPLY APPLICABLE PROVISIONS OF CHAPTER 33.
- G. FIRE WATCH: MAINTAIN FIRE WATCH WHEN REQUIRED BY THE BUILDING OFFICIAL AND WHEN EXISTING FIRE PROTECTION SYSTEMS ARE SHUT DOWN FOR ALTERATIONS IN ACCORDANCE WITH CHAPTER 33, SECTION 3304.5. FIRE WATCH SHALL REMAIN IN EFFECT UNTIL EXISTING FIRE PROTECTION SYSTEMS ARE RETURNED TO SERVICE OR AS ALLOWED BY THE BUILDING OFFICIAL.
7. PENETRATIONS TO FIRE RATED MATERIALS OR ASSEMBLIES SHALL BE RESTORED TO EQUAL RATING. FIRE STOP SYSTEMS AS LISTED BY UNDERWRITERS LABORATORIES SHALL BE INSTALLED PER FIRE RESISTANCE DIRECTORY. FIRE STOP SYSTEMS SHALL BE AS SPECIFIED.
8. NONRESIDENTIAL ENERGY STANDARDS COMPLIANCE STATEMENT (TITLE 24, PART 6):
- THE DESIGN INDICATED HEREIN COMPLIES WITH THE REQUIREMENTS OF THE ENERGY CONSERVATION STANDARDS OF TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS. THE PROPOSED BUILDING(S) WILL BE IN COMPLIANCE WITH THE ENERGY CONSERVATION STANDARDS PROVIDED IT (THEY) IS (ARE) BUILT ACCORDING TO THESE DRAWINGS AND SPECIFICATIONS AND PROVIDED ANY FUTURE IMPROVEMENTS ARE COMPLETED ACCORDING TO THE REQUIREMENTS OF TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS. THESE PLANS AND SPECIFICATIONS HAVE BEEN PREPARED TO INCLUDE ALL SIGNIFICANT ENERGY CONSERVATION FEATURES REQUIRED FOR COMPLIANCE WITH THE STANDARDS. BUILDING AREAS THAT ARE UNCONDITIONED AND/OR NOT SUBJECT TO THE STANDARDS ARE INDICATED ON THE PLANS.
8. (CONT) ENVELOPE MANDATORY MEASURES:
- A. INSTALLED INSULATING MATERIALS SHALL HAVE BEEN CERTIFIED BY THE MANUFACTURER TO COMPLY WITH THE CALIFORNIA QUALITY STANDARDS FOR INSULATING MATERIAL.
- B. ALL INSULATING MATERIALS SHALL BE INSTALLED IN COMPLIANCE WITH THE FLAME SPREAD RATING AND SMOKE DENSITY REQUIREMENTS OF TITLE 24, PART 2, CALIFORNIA CODE OF REGULATIONS, SECTIONS 720 AND 2603.
- C. ALL EXTERIOR JOINTS AND OPENINGS IN THE BUILDING ENVELOPE THAT ARE POTENTIAL AND OBSERVABLE SOURCES OF AIR LEAKAGE SHALL BE CAULKED, GASKETED, WEATHERSTRIPPED OR OTHERWISE SEALED.
- D. SITE CONSTRUCTED DOORS, WINDOWS, AND SKYLIGHTS SHALL BE CAULKED BETWEEN THE UNIT AND THE BUILDING, AND SHALL BE WEATHERSTRIPPED (EXCEPT FOR UNFRAMED GLASS DOORS AND FIRE DOORS).
- E. MANUFACTURED DOORS AND WINDOWS INSTALLED SHALL HAVE AIR INFILTRATION RATES CERTIFIED BY THE MANUFACTURER IN ACCORDANCE WITH TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS, SECTION 110.6.
- F. MANUFACTURED FENESTRATION PRODUCTS IN THE ENVELOPE OF THE BUILDING, INCLUDING, BUT NOT LIMITED TO, WINDOWS, SLIDING GLASS DOORS, FRENCH DOORS, SKYLIGHTS, CURTAIN WALLS, AND GARDEN WINDOWS MUST BE LABELED FOR U-VALUE IN ACCORDANCE WITH THE (NFRC) NATIONAL FENESTRATION RATING COUNCIL'S INTERIM U-VALUE RATING PROCEDURE.
- G. DEMISING WALL INSULATION SHALL BE INSTALLED IN ALL OPAQUE PORTIONS OF FRAMED WALLS (EXCEPT DOORS).
9. PROOF LOAD TESTS FOR EXPANSION TYPE ANCHOR BOLTS:
- A. ANCHOR DIAMETER REFERS TO THE THREAD SIZE FOR THE WEDGE CATEGORY ANCHOR.
- B. APPLY PROOF TEST LOADS TO WEDGE ANCHORS WITHOUT REMOVING THE NUT IF POSSIBLE. IF NOT, REMOVE NUT AND INSTALL A THREADED COUPLER TO THE SAME TIGHTNESS OF THE ORIGINAL NUT USING A TORQUE WRENCH AND APPLY LOAD.
- C. REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED CLOSE TO THE ANCHOR BEING TESTED, PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY THE FIXTURE(S).
- D. TEST EQUIPMENT IS TO BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.
- E. THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:
1. HYDRAULIC RAM METHOD: THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD. FOR WEDGE TYPE ANCHORS, A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE. DROP IN ANCHORS ARE ONLY TO BE TESTED WITH THIS METHOD.
2. TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN THE FOLLOWING LIMITS FOR WEDGE ANCHORS: ONE-HALF (1/2) TURN OF THE NUT.
11. POWDER DRIVEN CONCRETE FASTENERS:
- A. GENERAL: USE OF POWDER DRIVEN CONCRETE FASTENERS FOR TENSION LOADS IS LIMITED TO SUPPORT OF MINOR LOADS LIKE ACOUSTICAL CEILINGS, DUCT WORK, CONDUIT.
- B. ALLOWABLE LOADS: IN GENERAL, LOADS SHOULD BE LIMITED TO LESS THAN 100 POUNDS. HOWEVER, GREATER LOADS MAY BE PERMITTED FOR SPECIAL CASES WHEN APPROVED BY THE CHECKING SUPERVISOR OR FIRE ENGINEER.
- C. TESTING: THE OPERATOR, TOOL, AND FASTENER SHALL BE PREQUALIFIED BY THE PROJECT INSPECTOR. HE SHALL OBSERVE THE TESTING OF THE FIRST 10 FASTENER INSTALLATIONS. A TEST "PULL-OUT" LOAD OF NOT LESS THAN TWICE THE DESIGN LOAD, OR 200 POUNDS, WHICHEVER IS GREATER SHALL BE APPLIED TO THE PIN IN SUCH A MANNER AS NOT TO RESIST THE SPALLING TENDENCY OF THE CONCRETE AROUND THE PIN. THEREAFTER, RANDOM TESTS UNDER THE PROJECT INSPECTOR'S SUPERVISION SHALL BE MADE OF APPROXIMATELY 1 IN 10 PINS, EXCEPT THAT WHEN THE DESIGN LOAD EXCEEDS 100 POUNDS, ONE HALF OF THE PINS SHALL BE TESTED. SHOULD FAILURE OCCUR ON ANY PIN TESTED, ALL INSTALLATIONS MUST BE TESTED AND UNFAIR PINS REPLACED.
- D. ALL POWDER DRIVEN CONCRETE FASTENERS SHALL BE ONE OF THE FOLLOWING:
- HILTI, INC.
X-CP 72 PINS - WOOD PLATE - ICCES NO. 2379
X-U PINS - STEEL TRACK - ICCES NO. 2269
 - ITW RAMSET/REDHEAD
DRIVE PIN - WOOD PLATE - ICCES NO. 2690
DRIVE PIN - STEEL TRACK - ICCES NO. 1799
 - SIMPSON STRONG-TIE CO., INC.
PDPWL-300MG - WOOD PLATE - ICCES NO. 2138
PDP4-12S - STEEL TRACK - ICCES NO. 2138
12. SPECIFICATIONS FOR AUTOMATIC END WELDED STUDS
- A. MATERIAL: AUTOMATIC END WELDED STUDS SHALL BE NELSON GRANULAR FLUX-FILLED SHEAR CONNECTOR OR ANCHOR STUDS (OR APPROVED EQUAL). STUDS SHALL BE MANUFACTURED OF C-1010 THROUGH C-1026 COLD-DRAWN STEEL WHICH CONFORMS TO ASTM A29, ICCES ESR-2656.
- B. INSTALLATION: THE STUDS SHALL BE AUTOMATICALLY END WELDED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS IN SUCH A MANNER AS TO PROVIDE COMPLETE FUSION BETWEEN THE END OF THE STUD AND THE PLATE. THERE SHOULD BE NO POROSITY OR EVIDENCE OF LACK OF FUSION BETWEEN THE WELDED END OF THE STUD AND THE PLATE. THE STUD SHALL DECREASE IN LENGTH DURING WELDING APPROXIMATELY 1/8" FOR 5/8" AND UNDER AND 3/16" FOR OVER 5/8" DIAMETER. WELDING SHALL BE DONE ONLY BY QUALIFIED WELDERS APPROVED BY THE WELDING INSPECTOR.
- C. INSPECTION AND TESTS: INSPECTION, IN ACCORDANCE WITH TITLE 24, PART 2, SECTION 2213A.2. ALL THE SHOP AND FIELD WELDING OPERATIONS FOR THE AUTOMATIC END WELDED STUDS SHALL BE MADE BY A QUALIFIED WELDING INSPECTOR (APPROVED BY THE DIVISION OF THE STATE ARCHITECT). THE TYPE AND CAPACITY OF THE WELDING EQUIPMENT SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL BE CHECKED AND APPROVED BY A WELDING INSPECTOR.
- D. AT THE BEGINNING OF EACH DAY'S WORK, A MINIMUM OF TWO TEST STUD WELDS SHALL BE MADE WITH THE EQUIPMENT TO BE USED TO METAL WHICH IS THE SAME AS THE ACTUAL WORK PIECE. THE TEST STUDS SHALL BE SUBJECTED TO A 90 DEGREE BEND TEST BY STRIKING THEM WITH A HEAVY HAMMER AFTER THE ABOVE TEST, THE WELD SECTION SHALL NOT EXHIBIT ANY TEARING OUT OR CRACKING.
13. INSPECTOR OF RECORD REQUIREMENTS
- A. ONE OR MORE INSPECTORS EMPLOYED BY THE OWNER IN ACCORDANCE WITH THE REQUIREMENTS OF TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS WILL BE ASSIGNED TO THE WORK. THE INSPECTOR'S DUTIES ARE SPECIFICALLY DEFINED IN SECTION 4-342 OF SAID TITLE 24, PART 1 AND IN ADDITION SHALL BE AS STIPULATED IN INTERPRETATION OF REGULATION DOCUMENT IR A-8.
- B. INSPECTOR SHALL BE CERTIFIED AS A CLASS 3 INSPECTOR THROUGH THE DIVISION OF THE STATE ARCHITECT INSPECTOR EXAMINATION PROGRAM. INSPECTOR SHALL ALSO BE SPECIFICALLY APPROVED BY THE DIVISION OF THE STATE ARCHITECT FOR THIS PROJECT AT LEAST 10 DAYS PRIOR TO THE START OF ANY WORK FOR THIS PROJECT.
14. ALL WORK SHOWN ON THESE DRAWINGS SHALL COMPLY WITH THE REQUIREMENTS OF TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).
15. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR A CONSTRUCTION CHANGE DOCUMENT APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY TITLE 24, CCR, PART 1, SECTION 4-338.
16. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.
17. DRINKING WATER SHALL COMPLY WITH ALL LOCAL HEALTH DEPARTMENT REQUIREMENTS.
18. FOOD HANDLING FACILITIES SHALL COMPLY WITH ALL LOCAL HEALTH REQUIREMENTS AND THE CALIFORNIA RETAIL FOOD FACILITIES LAW.
19. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ADDITION, ALTERATION OR RECONSTRUCTION IS IN COMPLIANCE WITH THE REQUIREMENTS OF TITLE 24, CALIFORNIA CODE OF REGULATIONS. SHOULD ANY CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT IDENTIFIED BY THE CONTRACT DOCUMENTS WHEREIN THE FINAL WORK WOULD NOT COMPLY WITH THE REQUIREMENTS OF TITLE 24, CALIFORNIA CODE OF REGULATIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND THE ARCHITECT OF THE CONDITION IN WRITING. NECESSARY INFORMATION REQUIRED TO CORRECT THE CONDITIONS ENCOUNTERED WILL BE ISSUED BY THE ARCHITECT. A CHANGE ORDER MAY BE ISSUED TO ADJUST THE CONTRACT SUM OR TIME COMMENSURATE WITH THE AMOUNT OF ADDITIONAL WORK REQUIRED IF ANY. A CONSTRUCTION CHANGE DOCUMENT SHALL BE APPROVED BY THE DIVISION OF THE STATE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK REQUIRED BY THE CHANGE ORDER.
20. ALL SLOPE AND CROSS SLOPE OF ACCESSIBLE ROUTE PAVING INDICATED ON THESE DRAWINGS WAS DESIGNED IN COMPLIANCE WITH THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND THE ACCESSIBILITY STANDARDS OF THE CALIFORNIA BUILDING CODE, (CBC) TITLE 24 PART 2, CHAPTER 11B OF THE CALIFORNIA CODE OF REGULATIONS (CCR), STRICT EXECUTION OF THE SLOPE AND CROSS SLOPE OF ACCESSIBLE ROUTE PAVING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. SHOULD A CONDITION PRESENT ITSELF THAT WOULD RESULT IN AN INSTALLATION OTHER THAN WHAT IS INDICATED IN THESE DRAWINGS, WLC ARCHITECTS, INC. SHALL BE NOTIFIED IN WRITING AND A COMPLIANT RESOLUTION WILL BE FORMULATED.

PROJECT ADDRESS

TOVASHAL ELEMENTARY SCHOOL
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OWNER

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 41870 MCALBY COURT
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 PHONE: 909-987-0909 FAX: 909-980-9880

ARCHITECT

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STRUCTURAL ENGINEER

KNA STRUCTURAL ENGINEERS
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 IRVINE, CA 92618
 PHONE: 949-462-3200

MECHANICAL ENGINEER

DUFOE CONSULTING ENGINEERS
 10680 TREENA STREET #163
 SAN DIEGO, CA 92131
 PHONE: 858-368-8630 FAX: 866-517-3293

ELECTRICAL ENGINEER

JOHNSON CONSULTING ENGINEERS
 12875 BROOKPRINTER PLACE #300
 POWAY, CA 92064
 PHONE: 858-679-4030 FAX: 858-513-0559

GOVERNING CODES & AGENCY

2019 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 1

2019 CALIFORNIA BUILDING CODE (CBC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 2

2019 CALIFORNIA ELECTRICAL CODE (CEC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 3

2019 CALIFORNIA MECHANICAL CODE (CMC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 4

2019 CALIFORNIA PLUMBING CODE (CPC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 5

2019 CALIFORNIA ENERGY CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 6

(2018 INTERNATIONAL BUILDING CODE (IBC) W/ CALIFORNIA AMENDMENTS)

(2017 NATIONAL ELECTRIC CODE (NEC) W/ CALIFORNIA AMENDMENTS)

(2018 UNIFORM MECHANICAL CODE (UMC) W/ CALIFORNIA AMENDMENTS)

(2018 UNIFORM PLUMBING CODE (UPC) W/ CALIFORNIA AMENDMENTS)

2019 CALIFORNIA FIRE CODE (CFC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 9

2019 CALIFORNIA EXISTING BUILDING CODE OF REGULATIONS (CCR) TITLE 24, PART 10

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE (CAL GREEN) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 11

2019 CALIFORNIA REFERENCED STANDARDS CODE - CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 12

2010 AMERICANS WITH DISABILITY ACT (ADA) STANDARDS FOR ACCESSIBLE DESIGN (ADAS)

(2018 INTERNATIONAL FIRE CODE (IFC) W/ CALIFORNIA AMENDMENTS)

(2018 INTERNATIONAL EXISTING BUILDING CODE (IEBC) W/ CALIFORNIA AMENDMENTS)

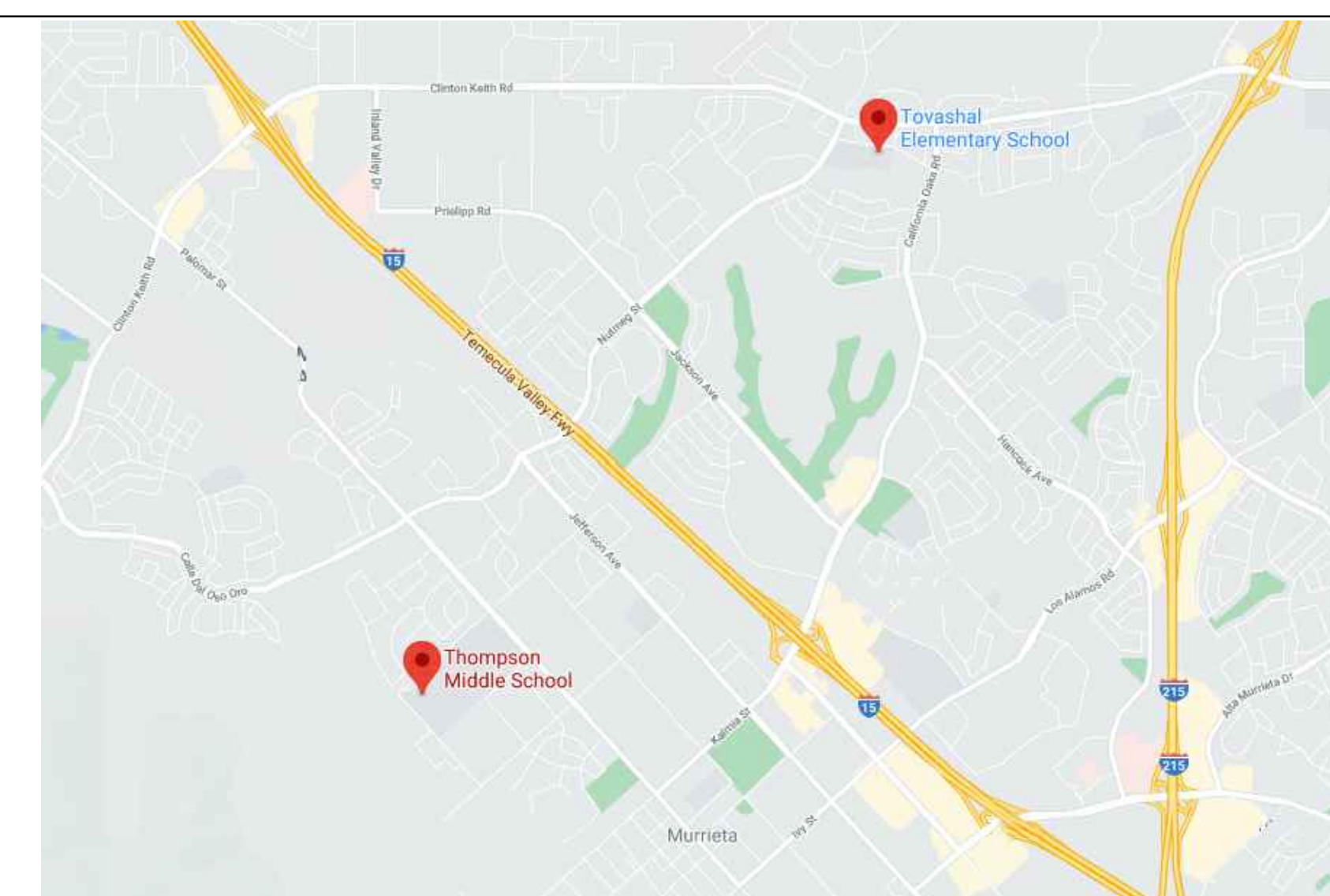
1990 STATE FIRE MARSHAL REGULATIONS (AS AMENDED TO DATE) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 19

SCOPE OF WORK

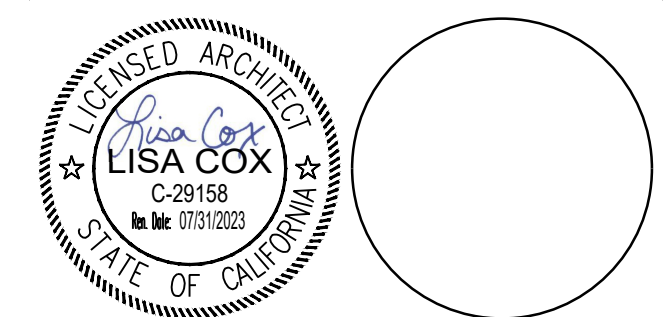
THE SCOPE OF THE WORK AS STATED BELOW IS FOR DSA PLAN REVIEW PURPOSES ONLY AND DOES NOT CONSTITUTE A DETAILED AND FULL EXPLANATION OF THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

GENERAL ALTERATION TO BUILDINGS A, B, C, D, AND E: REPLACEMENT OF ALL ROOFTOP HVAC PACKAGE UNITS.

VICINITY MAP



**THOMPSON MIDDLE SCHOOL
 HVAC REPLACEMENT
 MURRIETA VALLEY UNIFIED SCHOOL DISTRICT**
 24040 HAYES AVENUE
 MURRIETA, CA 92562



NO	DATE	BY	DESCRIPTION
REVISIONS			

DRAWN:	CHECKED:
DATE: 03/10/2021	SCALE:
PROJECT NUMBER: 1726300	

GENERAL NOTES & PROJECT DIRECTORY

DRAWING NUMBER: **A0.1**

DRAWING INDEX

DRAWING INDEX CODE

DRAWING REF NO	DESCRIPTION	DRAWING REF NO	DESCRIPTION	DRAWING REF NO	DESCRIPTION	DRAWING REF NO	DESCRIPTION
A0.1	GENERAL NOTES / PROJECT DIRECTORY	M-0.1	MECHANICAL LEGEND & GENERAL NOTES	E-1.0	ELECTRICAL LEGEND & NOTES		TOTAL SHEET COUNT: 29
A0.2	DRAWING INDEX	M-0.2	MECHANICAL TITLE 24 CALCULATIONS	E-6.1	ELECTRICAL ROOF PLAN - BLDG A		
A1.1	OVERALL SITE PLAN - FOR REFERENCE ONLY	M-0.3	MECHANICAL TITLE 24 CALCULATIONS	E-6.2	ELECTRICAL ROOF PLAN - BLDG B		
		M-0.4	MECHANICAL TITLE 24 CALCULATIONS	E-6.3	ELECTRICAL ROOF PLAN - BLDG C		
		M-0.5	MECHANICAL TITLE 24 CALCULATIONS	E-6.4	ELECTRICAL ROOF PLAN - BLDG D		
	STRUCTURAL	M-1.1	MECHANICAL SCHEDULES	E-6.5	ELECTRICAL ROOF PLAN - BLDG E		
S-0.1	GENERAL NOTES	M-2.A	MECHANICAL ROOF PLAN - BLDG A	E-6.6	MECHANICAL EQUIPMENT SCHEDULES		
S-2.A	BLDG A ROOF FRAMING PLAN	M-2.B	MECHANICAL ROOF PLAN - BLDG B				
S-2.B	BLDG B ROOF FRAMING PLAN	M-2.C	MECHANICAL ROOF PLAN - BLDG C				
S-2.C	BLDG C ROOF FRAMING PLAN	M-2.D	MECHANICAL ROOF PLAN - BLDG D				
S-2.D	BLDG D ROOF FRAMING PLAN	M-2.E	MECHANICAL ROOF PLAN - BLDG E				
S-2.E	BLDG E ROOF FRAMING PLAN	M-6.1	MECHANICAL DETAILS				
S-3.1	DETAILS						

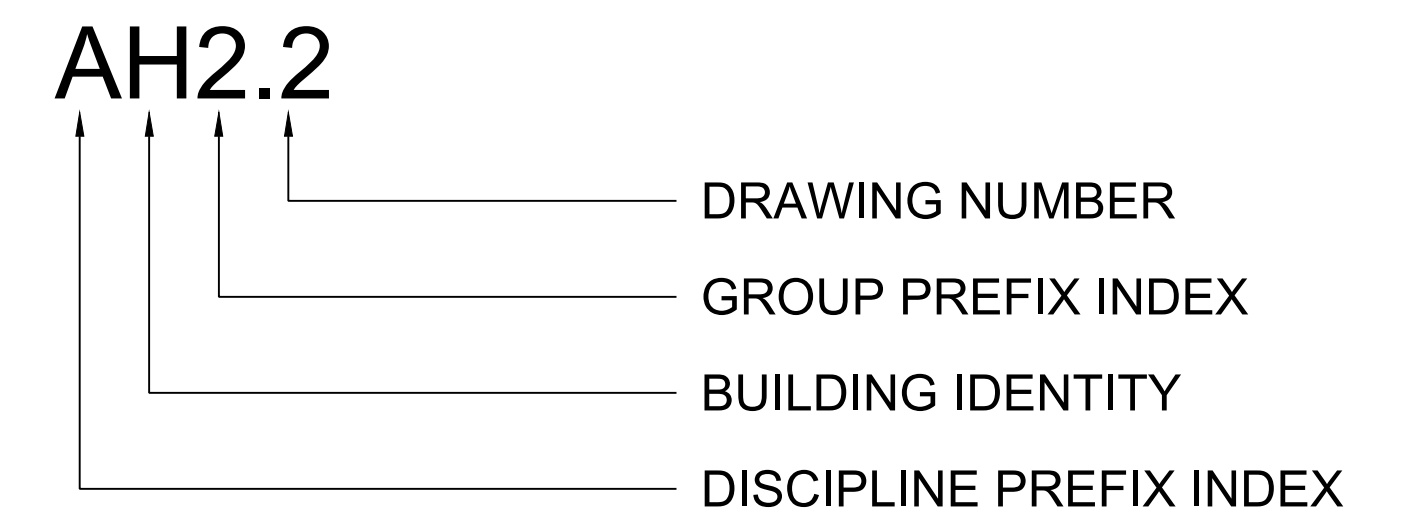
DRAWING DISCIPLINE PREFIX INDEX

- A. ARCHITECTURAL
- C. CIVIL
- D. INTERIOR DESIGN / FURNITURE
- E. ELECTRICAL
- F. FIRE PROTECTION / SPRINKLER SYSTEM
- G. GRAPHICS
- H. HAZARDOUS MATERIALS
- K. DIETARY / FOOD SERVICE
- L. LANDSCAPING
- M. MECHANICAL
- P. PLUMBING
- S. STRUCTURAL
- T. TELECOMMUNICATIONS

DRAWING GROUP PREFIX INDEX

- 0. GENERAL INFORMATION
- 1. SITE PLANS
- 2. FLOOR PLANS
- 3. REFLECTED CEILING PLANS
- 4. ROOF PLANS
- 5. EXTERIOR ELEVATIONS / SECTIONS
- 6. ENLARGED FLOOR PLANS
- 7. INTERIOR ELEVATIONS
- 8. CIRCULATION / STAIRS / ELEVATORS
- 9. 3D REPRESENTATIONS

DRAWING NUMBER CODE

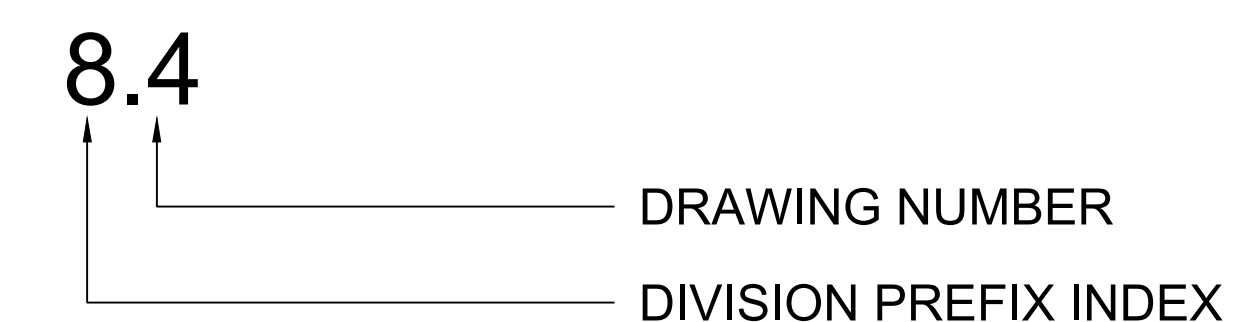


DISCIPLINE OR DRAWING GROUPS NOT INDICATED IN DRAWING INDEX ARE NOT APPLICABLE OR ARE INCLUDED IN THE 16 DIVISIONAL GROUPING OF THE DETAIL DRAWINGS. BUILDING IDENTITY DESIGNATIONS MAY OR MAY NOT BE UTILIZED. REFER TO KEY PLANS AND DRAWING INDEX FOR APPLICATION OF BUILDING DESIGNATIONS. THE DISCIPLINE AND DRAWING GROUPS ARE INTEGRAL WITH THE DETAIL DRAWINGS AND ARE NOT COMPLETE IN THEMSELVES. IN CASE OF DISCREPANCY BETWEEN THE INDEX AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.

DETAIL DRAWING PREFIX INDEX

- DIVISION 1 - GENERAL REQUIREMENTS
- DIVISION 2 - SITE WORK
- DIVISION 3 - CONCRETE
- DIVISION 4 - MASONRY
- DIVISION 5 - METALS
- DIVISION 6 - WOOD AND PLASTICS
- DIVISION 7 - THERMAL AND MOISTURE PROTECTION
- DIVISION 8 - DOORS AND WINDOWS
- DIVISION 9 - FINISHES
- DIVISION 10 - SPECIALTIES
- DIVISION 11 - EQUIPMENT
- DIVISION 12 - FURNISHINGS
- DIVISION 13 - SPECIAL CONSTRUCTION
- DIVISION 14 - CONVEYING SYSTEMS
- DIVISION 15 - MECHANICAL
- DIVISION 16 - ELECTRICAL

DETAIL DRAWING CODE

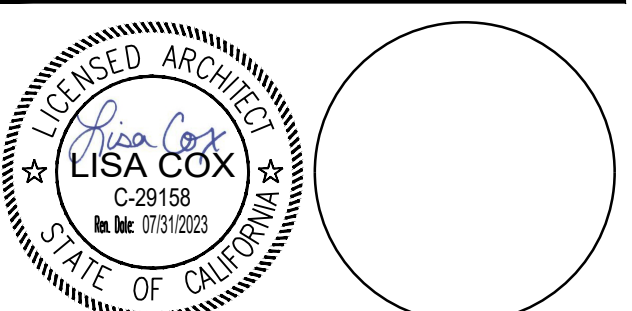


THE DIVISION PREFIX NUMBERS ARE THOSE IDENTIFIED BY THE 16 DIVISION GROUPING SYSTEM OF MASTER FORMAT AS PUBLISHED BY THE CONSTRUCTION SPECIFICATION INSTITUTE (CSI) AND SHALL NOT BE SOLELY REPRESENTATIVE OF REQUIREMENTS FOR ANY ONE DIVISION. THOSE DIVISIONS NOTED AS BEING OMITTED ARE NOT APPLICABLE OR ARE INCLUDED UNDER DISCIPLINE DRAWINGS. IN CASE OF DISCREPANCY BETWEEN THE INDEX AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.



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CONSULTANT	

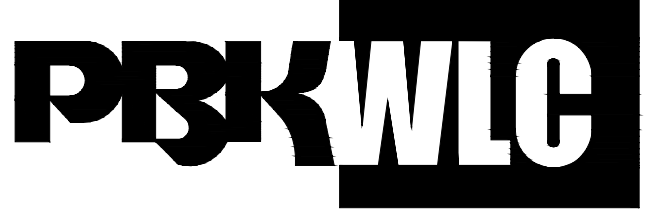
NO	DATE	BY	DESCRIPTION

REVISIONS	

DRAWN: WLC	CHECKED: WLC
DATE: 03/10/2021	SCALE: NONE
PROJECT NUMBER: 1726300	

DRAWING INDEX

DRAWING NUMBER: **A0.2**



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**THOMPSON MIDDLE SCHOOL
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CONSULTANT

NO	DATE	BY	DESCRIPTION
REVISIONS			

DRAWN: _____ CHECKED: _____
 DATE: 03/10/2021 SCALE: _____
 PROJECT NUMBER: 1726300

**OVERALL
 SITE PLAN**

DRAWING NUMBER: **A1.1**

EXG SURFACE TO REMAIN, TYP

EXG BUILDING - NOT IN SCOPE

EXG BUILDING - AREA OF WORK

EXISTING CONDITIONS NOTES:

BUILDINGS A, C, D, E1 AND E2 ARE TYPE V-B CONSTRUCTION, FULLY SPRINKLERED.

BUILDING B IS TYPE V-A CONSTRUCTION, FULLY SPRINKLERED.

ALL ROOFS ARE CLASS "B", BUILT UP ROOF CONSTRUCTION.

DEMOLITION NOTES:

DEMOLITION WORK IS TO BE CONFINED TO THE MINIMUM AREA REQUIRED FOR REMOVAL OF OLD AND INSTALLATION OF NEW ROOFTOP UNITS AND RELATED COMPONENTS PER THE STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS CONTAINED HEREIN.

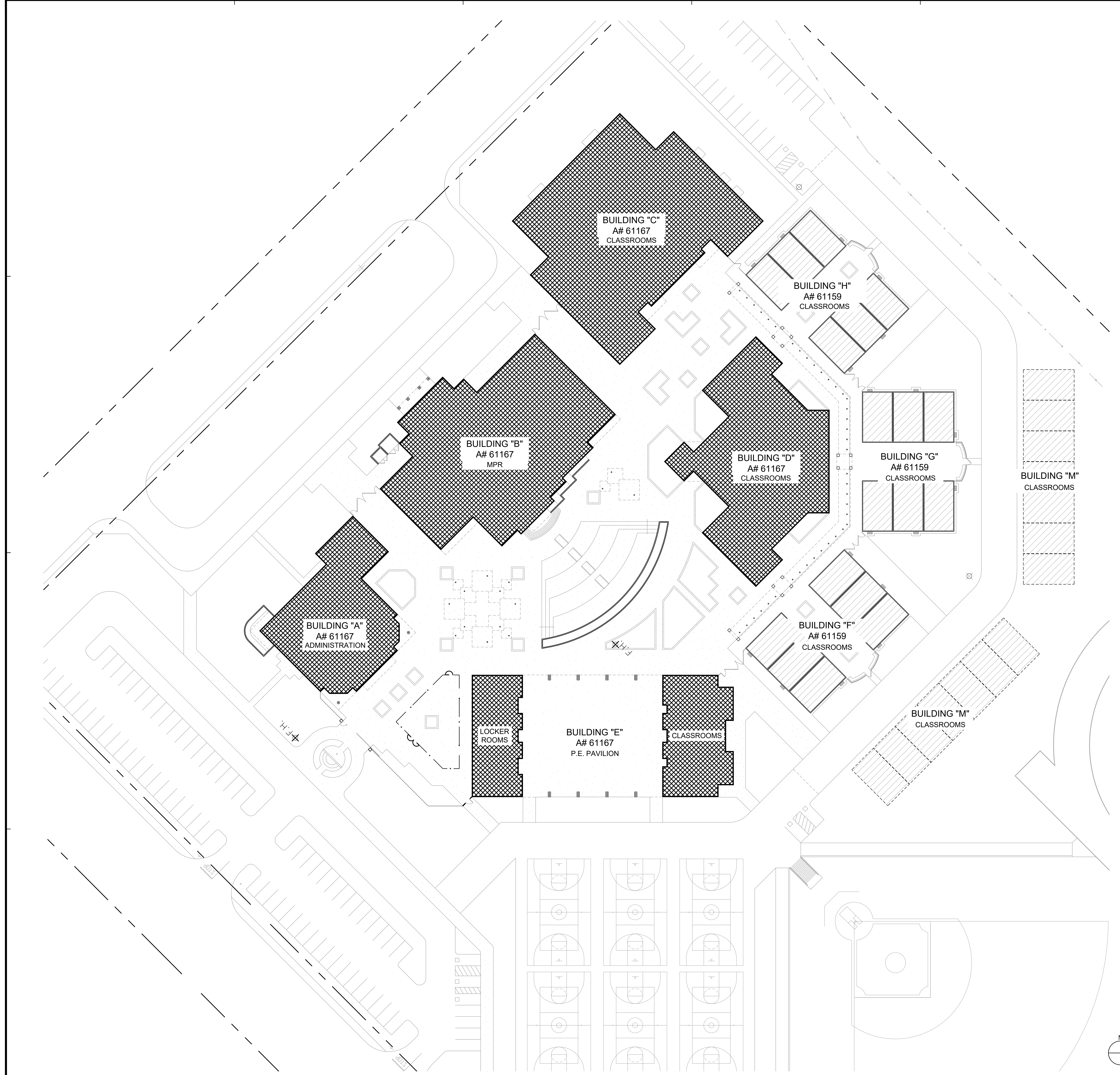
ALL EXISTING SURFACES ARE TO BE PROTECTED AND PRESERVED IN THEIR EXISTING STATE. IN THE EVENT OF DAMAGE DURING DEMOLITION OR CONSTRUCTION, AFFECTED SURFACES ARE TO BE REPAIRED TO MATCH EXISTING ADJACENT.

NEW WORK NOTES:

WHERE ADAPTER CURBS ARE IMPLEMENTED:

- ALL FASTENERS TO BE FURNISHED WITH CLIMASEAL COATING AND NEOPRENE WASHERS AS APPLICABLE.
- SEAL JOINTS WITH NON-SAG SINGLE COMPONENT POLYURETHANE SEALANT COMPLIANT WITH ASTM C920, TYPE S, GRADE NS, CLASS 25.
- STEEL TO BE PRIME PAINTED AND FINISHED WITH MINIMUM 3 COATS OF PAINT AS FOLLOWS. PRODUCTS TO BE DUNN EDWARDS AS SPECIFIED OR EQUIVALENT FROM SHERWIN WILLIAMS OR VISTA PAINT CORPORATION. COLOR TO MATCH EXISTING ADJACENT.
 1ST COAT - BRPR00 BLOC-RUST PREMIUM.
 2ND COAT - ASHL50 ARISTOSHIELD
 3RD COAT - ASHL50 ARISTOSHIELD

LEGEND



OVERALL SITE PLAN

1" = 30'-0" 1

REFERENCE NOTES

LIST OF ABBREVIATIONS

ADD'L.	ADDITIONAL
ALT.	ALTERNATE
ADI	AMERICAN CONCRETE INSTITUTE
APA	AMERICAN PLYWOOD ASSOCIATION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
A.B.	ANCHOR BOLT(S)
APPROX.	APPROXIMATELY
ARCH.	ARCHITECT / ARCHITECTURAL
Ø	AT
B. PL.	BASE PLATE
BM	BEAM
BRG.	BEARING
BTWN.	BETWEEN
BLK.	BLOCK
BLKG.	BLOCKING
B.E.	BOTH ENDS
BOT. OR BOTT.	BOTTOM
B.N.	BOUNDARY NAILS
BLDG.	BUILDING
C	CAMBER
CBC	CALIFORNIA BUILDING CODE
CIP	CAST IN PLACE
CLG.	CEILING
CJ	CEILING JOIST OR CONSTRUCTION JOINT OR CONTROL JOINT
CJP	COMPLETE JOINT PENETRATION WELD
CL	CENTER LINE
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CMU	CONCRETE MASONRY UNIT
COND.	CONDITION
CONN.	CONNECTION
CONSTR.	CONSTRUCTION
CONT'D	CONTINUED
CONT.	CONTINUOUS
CONTR.	CONTRACTOR
CSK.	COUNTERSINK
DL	DEAD LOAD
DP.	DEEP
DEMO.	DEMOLISH
DTL. OR DET.	DETAIL
DIAG.	DIAGONAL
DIA. OR Ø	DIAMETER
DM.	DIMENSION
DO	DITTO
DBL.	DOUBLE
D.F.	DOUGLAS FIR
DWLL.	DOWEL
DN.	DOWN
DWG.	DRAWING
EA.	EACH
E.F.	EACH FACE
E.S.	EACH SIDE
E.W.	EACH WAY
E.N.	EDGE NAIL(S)
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EMBED.	EMBEDMENT
ENG.	ENGINEER
EQ.	EQUAL
EQUIP.	EQUIPMENT
EXCAV.	EXCAVATION
(E)	EXISTING
EXP.	EXPANSION
EJ	EXPANSION JOINT
ES	EVALUATION SERVICE
ESR	EVALUATION SERVICE REPORT
EXT.	EXTERIOR
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD OR FACE OF SLAB
F.S.	FAIR SIDE
FIN.	FINISH
F.F.	FINISHED FLOOR
FMWS	FLAT HEAD WOOD SCREW
FLR.	FLOOR
FD	FLOOR DRAIN
FTG.	FOOTING
FNDN.	FOUNDATION
FRMG.	FRAMING
GALV.	GALVANIZE
GA.	GAUGE
GLU-LAM	GLUED LAMINATED
GLB	GLUED LAMINATED BEAM
GR.	GRADE
HGR.	HANGER
HR.	HARDROCK
HDR.	HEADER
HT.	HEIGHT
HD.	HOLD DOWN
HSS	HOLLOW STRUCTURAL SECTION
HORIZ.	HORIZONTAL
INFO.	INFORMATION
I.D.	INSIDE DIAMETER
INT.	INTERIOR
IBC	INTERNATIONAL BUILDING CODE
ICC	INTERNATIONAL CODE COUNCIL
INV.	INVERT
JST.	JOIST
KP	KING POST
KSI	KIPS PER SQUARE INCH
LAM.	LAMINATED
LDGR.	LEDGER
LT. WT. OR LW	LIGHT WEIGHT
LL	LIVE LOAD
LG.	LONG OR LENGTH
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LO-HY	LOW HYDROGEN
M.B.	MACHINE BOLT(S)
MFR.	MANUFACTURER
MAS.	MASONRY
M.O.	MASONRY OPENING
MATL.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MTL.	METAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MJ	MECHANICAL UNIT
N.F.	NEAR FACE
N.S.	NEAR SIDE
NSA	NELSON STUD ANCHOR
(N)	NEW
NIC.	NOT IN CONTRACT
NTS.	NOT TO SCALE
NO. OR #	NUMBER
O.C.	ON CENTER
OPNG.	OPENING
OPP.	OPPOSITE
O.H.	OPPOSITE HAND
O.D.	OUTSIDE DIAMETER
PHWS	PAN HEAD WOOD SCREW
P.J.	PANEL JOINT
Ø	PENNY
PIL.	PLASTER
PL. OR E	PLATE (STEEL OR WOOD)
PLY.	PLYWOOD
PWJ	PLYWOOD WEB JOIST
PCF	POUNDS PER CUBIC FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PTDF	PRESSURE TREATED DOUGLAS FIR
PL	PROPERTY LINE
RAD.	RADIUS
RFR.	RAFTER
REF.	REFERENCE
REIN.	REINFORCING
REQ'D	REQUIRED
REQM'T	REQUIREMENT
RF.	ROOF
R.D.	ROOF DRAIN

LIST OF ABBREVIATIONS (CONT'D)

RO.	ROUGH
R.O.	ROUGH OPENING
SCHED.	SCHEDULE
SEC.	SECTION
SEL.	SELECT
SEP.	SEPARATION
SFRS.	STRUCTURAL FORCE RESISTING SYSTEM
SHTG.	SHATHING
SHT.	SHEET
S.M.	SHEET METAL
SMS	SHEET METAL SCREWS
SIM.	SIMILAR
SIMP.	SIMPSON
SPEC.	SPECIFICATION
SPECS.	SPECIFICATION
SQ.	SQUARE
STGR.	STAGGER
S.S.	STAINLESS STEEL
SPC	STANDARD PIPE COLUMN
STD.	STANDARD
STL.	STEEL
STIFF.	STIFFENER
STRIR.	STRIPP
STRUCT.	STRUCTURAL
SYM.	SYMMETRICAL
TSS	TAPERED STEEL GIRDER
THK.	THICK
K OR KIP	1,000 POUNDS
THRU	THROUGH
TN	TOE NAIL
T&G	TONGUE AND GROOVE
T&B	TOP AND BOTTOM
T.O.F.	TOP OF FOOTING
T.O.L.	TOP OF LEDGER
T.O.S.	TOP OF STEEL OR TOP OF SHEATHING
T.O.W.	TOP OF WALL
TL	TOTAL LOAD
TS	TUBE STEEL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
VERT.	VERTICAL
WT.	WEIGHT
WWF	WELDED WIRE FABRIC
W/	WITH
W/O	WITHOUT
WD.	WOOD
WIJ	WOOD-I-JOIST
WP	WORK POINT
W.S.	WOOD SCREW

GENERAL

- THESE STRUCTURAL DRAWINGS AND SPECIFICATIONS, INCLUDING ANY ADDENDA (COLLECTIVELY "THE PLANS") INCORPORATE ALL LEGAL AND INDUSTRY REQUIREMENTS AND STANDARDS INCLUDING WITHOUT LIMITATION THE FOLLOWING:
 - THE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 1 (CALIFORNIA ADMINISTRATIVE CODE), 2019 EDITION.
 - THE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2 (CALIFORNIA BUILDING CODE), 2019 EDITION.
 - OTHER REGULATING AGENCIES WHICH MAY HAVE AUTHORITY OVER ANY PORTION OF THE WORK, INCLUDING THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, AND THOSE CODES AND STANDARDS LISTED IN THESE NOTES AND SPECIFICATIONS.
 - THE FUNCTIONALITY STANDARDS SET FORTH IN TITLE 7 OF THE CALIFORNIA CIVIL CODE (THE "RIGHT TO REPAIR ACT").
 - THE MANUFACTURER'S REQUIREMENTS OR RECOMMENDATIONS FOR ANY INCORPORATED PRODUCTS.
 - THE MOST CURRENT APPROVED ISSUES OF ANY NOTED SPECIFICATIONS, CODES AND STANDARDS, INCLUDING SUPPLEMENTS, UNLESS NOTED OTHERWISE.
- THE PLANS REPRESENT ONLY THE FINISHED STRUCTURE, AND THEY ARE NOT INTENDED TO INDICATE OR REQUIRE ANY CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES. IN PARTICULAR AND WITHOUT LIMITATION, THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR ANY AND ALL EXCAVATION, DEMOLITION, SHORING AND ERECTION PROCEDURES AND FOR ANY AND ALL SAFETY PROGRAMS AND PRECAUTIONS.
- IN USING THE PLANS FOR BIDDING OR CONSTRUCTION PURPOSES, THE CONTRACTOR IS REQUIRED TO REVIEW ALL OF THE PROJECT'S CONSTRUCTION DOCUMENTS AS A WHOLE IN ORDER TO IDENTIFY ALL REQUIREMENTS THAT DIRECTLY OR INDIRECTLY AFFECT ITS PORTION OF THE STRUCTURAL WORK, EVEN REQUIREMENTS LOCATED IN SECTIONS DESIGNATED AS APPLICABLE TO OTHER TRADES. IN CASE OF CONFLICTS, THE CONTRACTOR SHALL EITHER OBTAIN DIRECTION FROM AN APPROPRIATE OWNER REPRESENTATIVE OR OTHERWISE APPLY THE MORE STRINGENT REQUIREMENT.
- IN INTERPRETING THE PLANS, THE FOLLOWING GENERAL RULES APPLY:
 - WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DRAWINGS.
 - SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
 - WORK NOT PARTICULARLY SHOWN OR SPECIFIED SHALL BE THE SAME AS SIMILAR PARTS THAT ARE SHOWN OR SPECIFIED.
 - SCALED DIMENSIONS AND GRAPHICALLY SHOWN LOCATIONS ARE TO BE CONSIDERED ONLY APPROXIMATE.
- IN IMPLEMENTING THE PLANS, THE FOLLOWING GENERAL RULES APPLY:
 - BECAUSE THE PLANS ARE INTENDED TO SET FORTH THE REQUIREMENTS FOR CONSTRUCTION IN ONLY AN INDUSTRY-STANDARD LEVEL OF QUALITY AND DETAIL, AND THEREFORE ARE INTENDED TO BE SUPPLEMENTED BY APPROPRIATE REQUESTS FOR CLARIFICATION AND INFORMATION, ERRORS AND OMISSIONS ARE TO BE EXPECTED AND ANTICIPATED; AND THE CONTRACTOR IS REQUIRED TO CAREFULLY REVIEW THE PLANS FOR ERRORS AND OMISSIONS AND TO BRING THESE ERRORS AND OMISSIONS TO THE ATTENTION OF AN APPROPRIATE OWNER REPRESENTATIVE IN A TIMELY MANNER AND ASSUMES THE RISK OF THE CONSEQUENCES OF FAILING TO DO SO BEFORE BIDDING OR OTHERWISE PROCEEDING.
 - THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION, AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR INCONSISTENCIES.
- SUBMITTALS WILL BE REVIEWED BY THE STRUCTURAL ENGINEER, IF AT ALL, ONLY PURSUANT TO THE INDUSTRY-STANDARD PROTOCOL SET FORTH IN AIA DOCUMENT A201, AND IN NO EVENT WILL THE SUBMITTAL REVIEW PROCESS RELIEVE OR LESSEN THE SUBMITTING CONTRACTOR'S RESPONSIBILITY FOR AN INAPPROPRIATE SUBMITTAL.
- IN NO EVENT WILL ANY SITE VISITS BY THE STRUCTURAL ENGINEER CONCERN CONSTRUCTION MEANS AND METHODS OR CONSTRUCTION SAFETY, AND ALL SUCH MATTERS SHALL REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- COPIES OF THE PLANS PROVIDED IN ANY ELECTRONIC FORM ARE SUBJECT TO THE SAME PROVISIONS AS THE OTHER INSTRUMENTS OF SERVICE PREPARED BY OR ON BEHALF OF STRUCTURAL ENGINEER FOR THE PROJECT, INCLUDING WITHOUT LIMITATION THE ENGINEER'S COMMON LAW, STATUTORY OR OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS. A RECIPIENT IS GRANTED AT MOST A TRANSFERABLE NONEXCLUSIVE LICENSE TO REUSE THE PLANS SOLELY FOR PROJECT PURPOSES; AND NO RECIPIENT IS AUTHORIZED TO USE OR TO ALLOW THE USE OF ALL OR ANY PORTION OF THESE PLANS FOR ANY OTHER PURPOSE, AND ANY USE FOR ANY OTHER PURPOSE WOULD CONSTITUTE ACTIONABLE PLAGIARISM. STRUCTURAL ENGINEER PROVIDES DOCUMENTS IN AN ELECTRONIC FORM ONLY IN ITS STANDARD FORMATS AND CONVENTIONS AND WITH NO GUARANTEE OF COMPATIBILITY WITH ANY RECIPIENT'S SOFTWARE OR HARDWARE, AND ANY USE WITH OR CONVERSION TO OTHER FORMATS OR CONVENTIONS, OR THE USE WITH ANY PARTICULAR SOFTWARE OR HARDWARE, IS AT THE RECIPIENT'S SOLE RISK.

PROJECT DESIGN CRITERIA

- BASIC DESIGN LOADS:
 - ROOF LIVE LOAD: 20 PSF (REDUCIBLE)
 - (E) ROOF DEAD LOAD, BLDG. A, B, C, D, E: 17 PSF
- RAIN LOADS
 - RAIN INTENSITY, $i = 2.50$ IN/HR
- SNOW LOADS
 - GROUND SNOW LOAD, $P_g = 0$
- WIND LOADS
 - RISK CATEGORY: III
 - EXPOSURE CATEGORY: C
 - BASIC DESIGN WIND SPEED (3-SECOND GUST), $V = 102$ MPH
 - VELOCITY PRESSURE EXPOSURE COEFFICIENT, $K_z = 0.85$ (0-15 FT)
 - TOPOGRAPHIC FACTOR, $K_{zt} = 1.0$
 - WIND DIRECTIONALITY FACTOR, $K_d = 0.85$
 - GROUND ELEVATION FACTOR, $K_e = 1.00$
 - GUST EFFECT FACTOR, $G = 0.85$

A. WIND ON ROOFTOP EQUIPMENT (ASCE 7-16, CH. 29)

$q_s = 0.00256 K_z K_{zt} K_d V_{ult}^2 = 19.24$ PSF

$F_u = q_s (GC_r) A_f = 36.56$ PSF x A_f LATERAL
 $= 28.86$ PSF x A_f UPLIFT

COEFFICIENT FOR LATERAL, $(GC_r) = 1.9$
 COEFFICIENT FOR UPLIFT, $(GC_r) = 1.5$

5. EARTHQUAKE LOADS

SEISMIC DESIGN CRITERIA

$S_s = 1.564$
 $S_1 = 0.583$
 SITE CLASS: D
 $F_a = 1.2$
 $F_v = 1.717$
 $S_{ps} = 1.251$
 $S_{p1} = 0.667$

RISK CATEGORY: III
 SEISMIC DESIGN CATEGORY: D

SEISMIC DESIGN REQUIREMENTS

NON-STRUCTURAL COMPONENTS

SEISMIC DESIGN FORCE

$$F_p = \frac{0.4q_s S_{ps} W_p}{(R_p/I_p)} (1+2 R)$$

F_p IS NOT REQUIRED TO BE TAKEN AS GREATER THAN

$F_p = 1.6S_{ps} W_p$

AND F_p SHALL NOT BE TAKEN AS LESS THAN

$F_p = 0.3S_{ps} W_p$

AC UNITS" $q_s = 2.6$, $R_p = 6$ [ASCE 7-16 TABLE 13.6-1]
 $I_p = 1.0$ [ASCE 7-16 13.1.3]

DIMENSIONS

- DIMENSIONS SHALL BE DEFINED TO INCLUDE BOTH HORIZONTAL DIMENSIONS AND VERTICAL DIMENSIONS (ELEVATIONS).
- WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DRAWINGS.
- SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT NOTED ON STRUCTURAL DRAWINGS.
- SEE ARCHITECTURAL AND/OR CIVIL DRAWINGS FOR FINISH FLOOR ELEVATIONS.
- SEE ARCHITECTURAL DRAWINGS FOR ALL TOP OF SHEATHING AND/OR ROOF ELEVATIONS.
- THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES OR INCONSISTENCIES.

EXISTING CONDITIONS

- ALL INFORMATION SHOWN ON THE PLANS RELATIVE TO EXISTING CONDITIONS IS GIVEN AS THE BEST PRESENT KNOWLEDGE FROM PLANS SUPPLIED BY THE OWNER, BUT WITHOUT GUARANTEE OF ACCURACY.
- WHERE ACTUAL CONDITIONS ARE NOT IN ACCORDANCE WITH THE INFORMATION PRESENTED, THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY. NO MODIFICATIONS OF THE PLANS FOR NEW CONSTRUCTION SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT.
- PER AS-BUILTS, ALL (E) STRUCTURAL LUMBER IS DOUGLAS FIR OF THE FOLLOWING GRADES: STRUCTURAL LIGHT FRAMING 2"-4" THICK, 2" TO 4" WIDE, NO.2 $F_b = 1450$ psi
STRUCTURAL JOISTS & PLANKS 2"-4" THICK 5" & WIDER, NO. 1 $F_b = 1500$ psi
- PER AS-BUILTS, (E) STRUCTURAL STEEL PROPERTIES CONFORM TO THE FOLLOWING:
 STRUCTURAL SHAPES, PLATES ASTM A-36
 PIPE COLUMNS ASTM 1-53 GRADE B
 STEEL TUBE ASTM A-500 GRADE B
 BOLTS ASTM A307

STRUCTURAL STEEL AND MISCELLANEOUS METAL

- ALL PORTIONS OF WORK PERTAINING TO STRUCTURAL STEEL CONSTRUCTION SHALL CONFORM TO TITLE 24, PART 2, CHAPTER 22A.
- BOLTS SHALL CONFORM TO THE FOLLOWING, UNLESS NOTED OTHERWISE:
 - MISCELLANEOUS CONNECTIONS: ASTM A-307
- SQUARE AND RECTANGULAR HOLLOW STRUCTURAL SECTIONS (HSS) SHALL CONFORM TO ASTM A-500, GRADE B.
- STRUCTURAL STEEL SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
- ALL WELDING SHALL CONFORM TO THE STRUCTURAL WELDING CODE - STEEL, AWS D1.1 AND STRUCTURAL WELDING CODE SEISMIC SUPPLEMENT AWS D1.8, BY THE AMERICAN WELDING SOCIETY. WELDING RODS SHALL BE E70XX.
- ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS.
- ALL STRUCTURAL STEEL AND MISCELLANEOUS METAL ITEMS, INCLUDING CONNECTORS, EXPOSED TO WEATHER SHALL BE HOT-DIPPED GALVANIZED, AFTER FABRICATION.

COLD-FORMED STEEL FRAMING

- ALL PORTIONS OF WORK PERTAINING TO COLD-FORMED STEEL CONSTRUCTION SHALL CONFORM TO TITLE 24, PART 2, CHAPTER 22A.
- ALL SHEET METAL SCREWS SHALL PROTRUDE 3 EXPOSED THREADS MINIMUM THROUGH BASE METAL FRAMING. SHEET METAL SCREWS SHALL BE PER ICC ESR-3223 OR EQUIVALENT.
- ALL LIGHT GAUGE METAL FRAMING SHALL BE GALVANIZED AND SHALL CONFORM TO ASTM A-653 SS, GRADE 50, CLASS 1, WITH A MINIMUM YIELD STRENGTH OF 50 KSI FOR 16 GAUGE AND HEAVIER FRAMING, AND ASTM A-653 SS, GRADE 33, WITH A MINIMUM YIELD STRENGTH OF 33 FOR 18 GAUGE AND LIGHTER FRAMING.
- WELDING SHALL BE IN ACCORDANCE WITH THE STRUCTURAL WELDING CODE - SHEET STEEL, AWS D1.3, BY THE AMERICAN WELDING SOCIETY.

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NO	DATE	BY	DESCRIPTION
REVISIONS			

DRAWN: NP	CHECKED: JR
DATE: 03/10/2021	SCALE:
PROJECT NUMBER: 1726300	

GENERAL NOTES

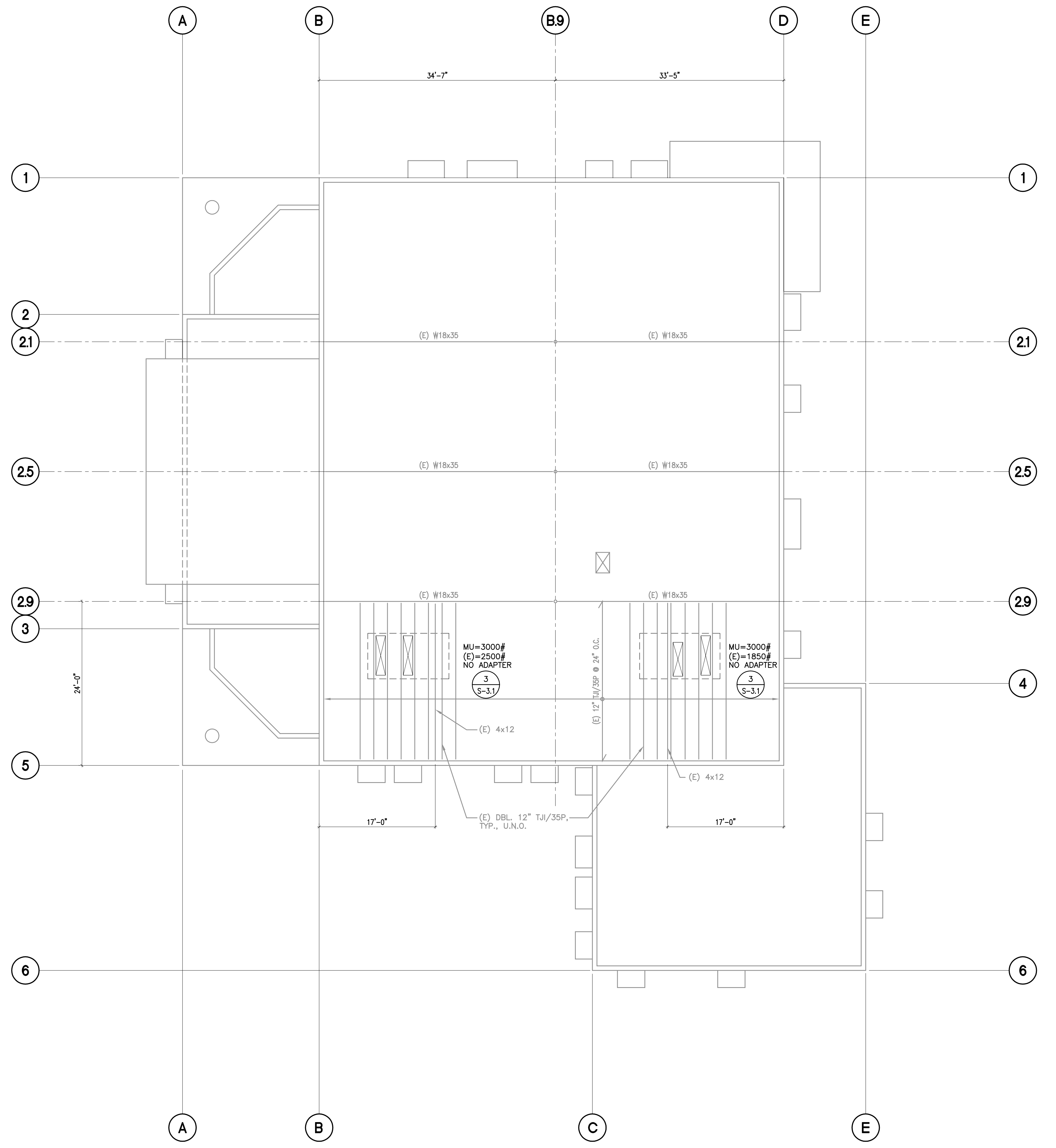
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ROOF FRAMING PLAN NOTES

- SEE SHEET S0.1 FOR GENERAL NOTES.
- MU INDICATES NEW MECHANICAL UNIT. EXISTING WEIGHT OF UNIT BEING REPLACED IS SHOWN. USE OF ADAPTER CURB WHERE APPLICABLE IS INDICATED. WEIGHT INCLUDES NEW UNIT PLUS ACCESSORIES AND ADAPTER CURB WHERE OCCURS. FOR WEIGHT OF (E) CURB, SEE MECHANICAL DRAWINGS.
- SEE MECHANICAL DRAWINGS FOR ADDITIONAL UNIT INFORMATION.
- ALL FRAMING IS EXISTING. ANY DIMENSIONS NOTED ARE FOR INFORMATION ONLY AND SUBJECT TO FIELD VERIFICATION.
- WHERE EXISTING TJI/3SP HAVE BEEN REPLACED WITH STANDARD STRUCTURES JOISTS, EQUIVALENT SERIES IS SSI 324 (SAME DEPTH AS SHOWN FOR TJI).

LEGEND

- : INDICATES EXISTING SPAN OF JOISTS
- : INDICATES EXISTING EXTENT OF JOISTS.

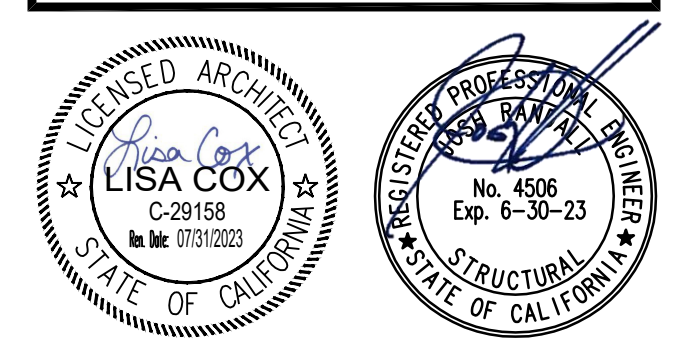


BUILDING A - ROOF FRAMING PLAN
 SCALE: 1/8" = 1'-0"



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 DATE: 03/10/2021 SCALE:
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**ROOF FRAMING PLAN
 BLDG. A**

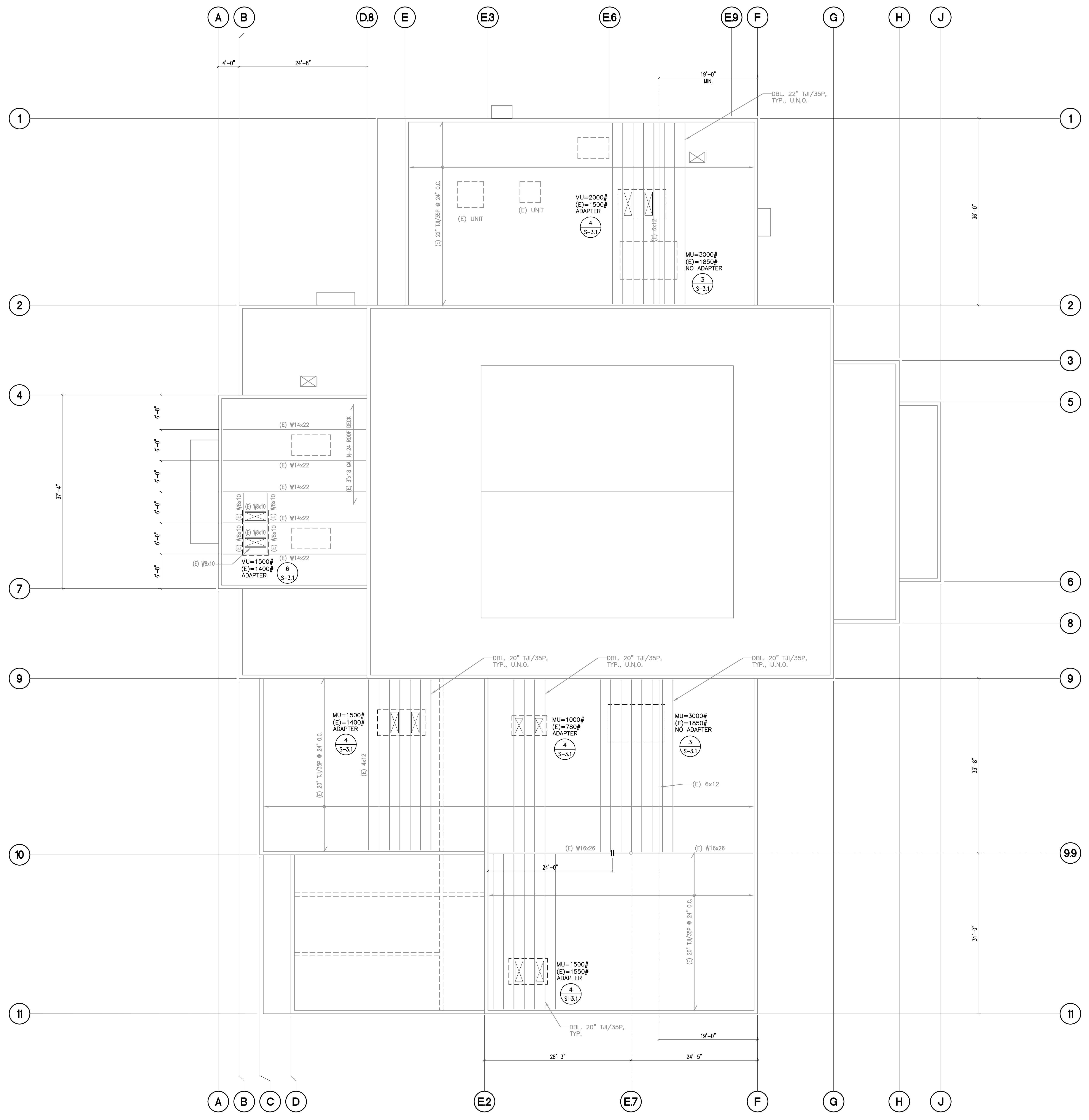
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ROOF FRAMING PLAN NOTES

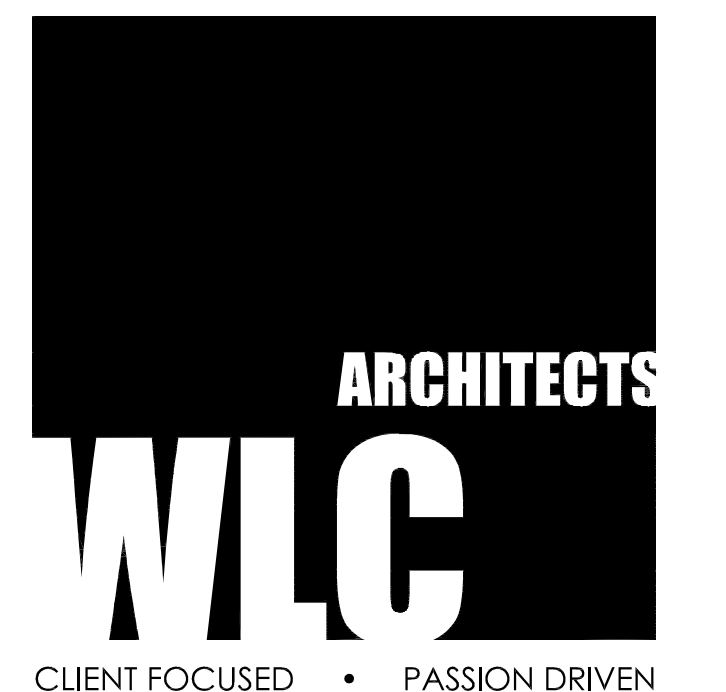
- SEE SHEET S0.1 FOR GENERAL NOTES.
- MU INDICATES NEW MECHANICAL UNIT. EXISTING WEIGHT OF UNIT BEING REPLACED IS SHOWN. USE OF ADAPTER CURB WHERE APPLICABLE IS INDICATED. WEIGHT INCLUDES NEW UNIT PLUS ACCESSORIES AND ADAPTER CURB WHERE OCCURS. FOR WEIGHT OF (E) CURB, SEE MECHANICAL DRAWINGS.
- SEE MECHANICAL DRAWINGS FOR ADDITIONAL UNIT INFORMATION.
- ALL FRAMING IS EXISTING. ANY DIMENSIONS NOTED ARE FOR INFORMATION ONLY AND SUBJECT TO FIELD VERIFICATION.
- WHERE EXISTING TJI/35P HAVE BEEN REPLACED WITH STANDARD STRUCTURES JOISTS, EQUIVALENT SERIES IS SSI 324 (SAME DEPTH AS SHOWN FOR TJI).

LEGEND

- : INDICATES EXISTING SPAN OF JOISTS OR METAL DECK
- : INDICATES EXISTING EXTENT OF JOISTS.

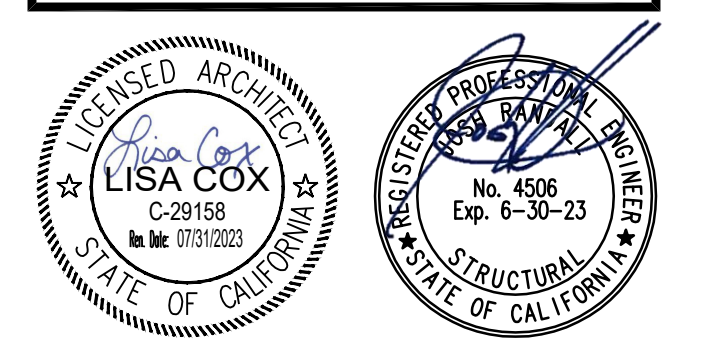


BUILDING B - ROOF FRAMING PLAN
 SCALE: 1/8" = 1'-0"



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 DATE: 03/10/2021 SCALE:
 PROJECT NUMBER: 1726300

**ROOF FRAMING PLAN
 BLDG. B**

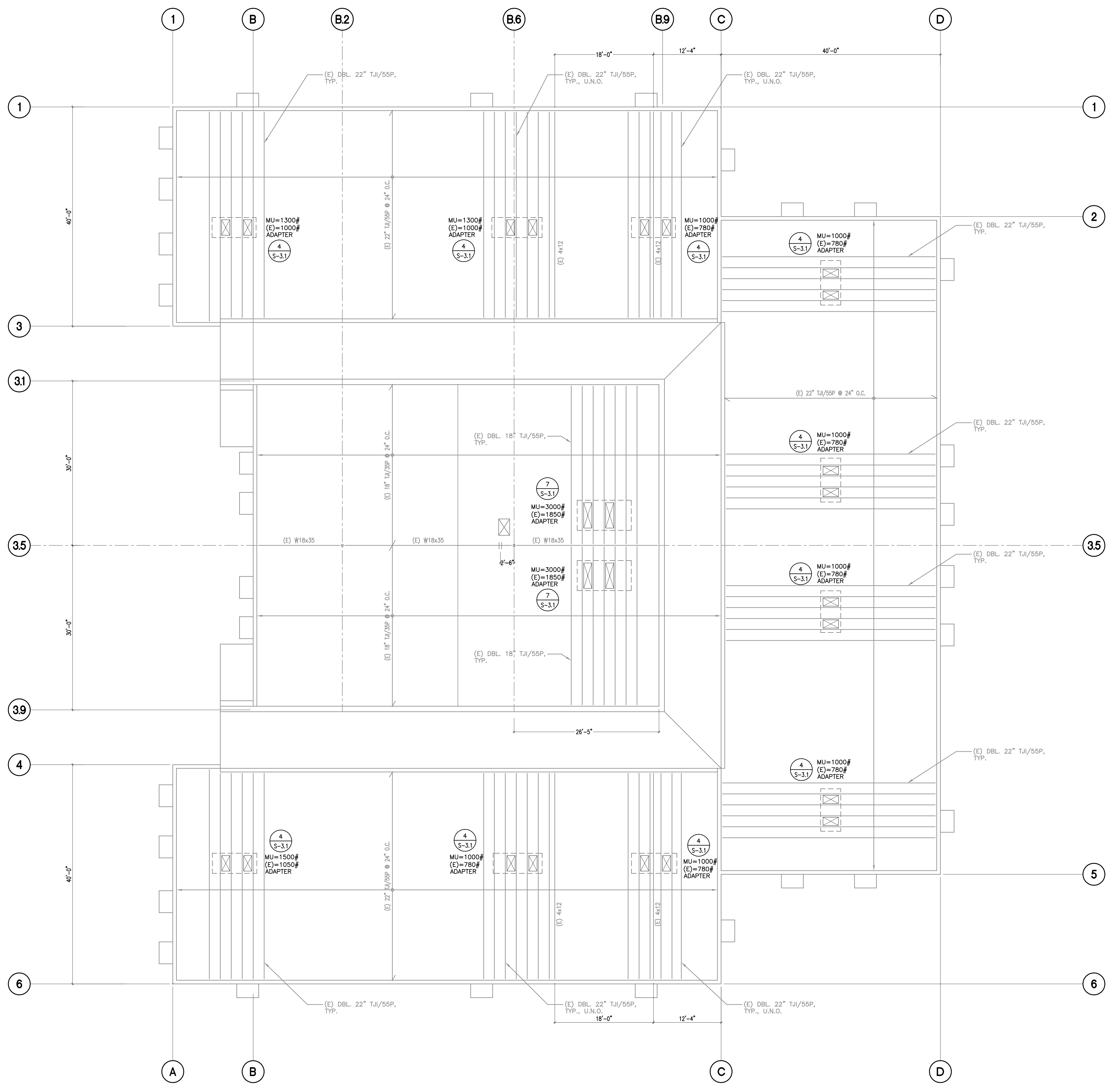
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ROOF FRAMING PLAN NOTES

- SEE SHEET S0.1 FOR GENERAL NOTES.
- MU INDICATES NEW MECHANICAL UNIT. EXISTING WEIGHT OF UNIT BEING REPLACED IS SHOWN. USE OF ADAPTER CURB WHERE APPLICABLE IS INDICATED. WEIGHT INCLUDES NEW UNIT PLUS ACCESSORIES AND ADAPTER CURB WHERE OCCURS. FOR WEIGHT OF (E) CURB, SEE MECHANICAL DRAWINGS.
- SEE MECHANICAL DRAWINGS FOR ADDITIONAL UNIT INFORMATION.
- ALL FRAMING IS EXISTING. ANY DIMENSIONS NOTED ARE FOR INFORMATION ONLY AND SUBJECT TO FIELD VERIFICATION.
- WHERE EXISTING TJI/35P HAVE BEEN REPLACED WITH STANDARD STRUCTURES JOISTS, EQUIVALENT SERIES IS SSI 324 (SAME DEPTH AS SHOWN FOR TJI).
- WHERE EXISTING TJI/55P HAVE BEEN REPLACED WITH STANDARD STRUCTURES JOISTS, EQUIVALENT SERIES IS SSI 424 (SAME DEPTH AS SHOWN FOR TJI).

LEGEND

- : INDICATES EXISTING SPAN OF JOISTS
- : INDICATES EXISTING EXTENT OF JOISTS.

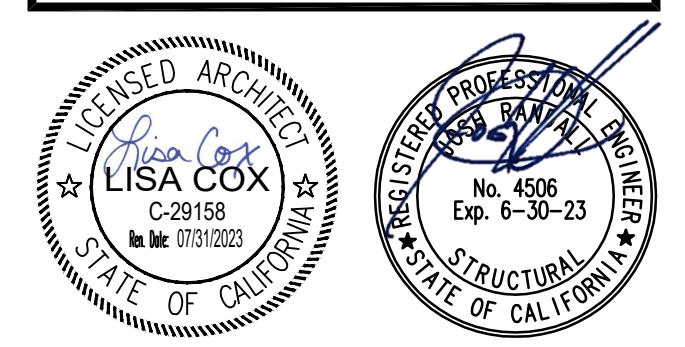


BUILDING C - ROOF FRAMING PLAN
 SCALE: 1/8" = 1'-0"



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**ROOF FRAMING PLAN
 BLDG. C**

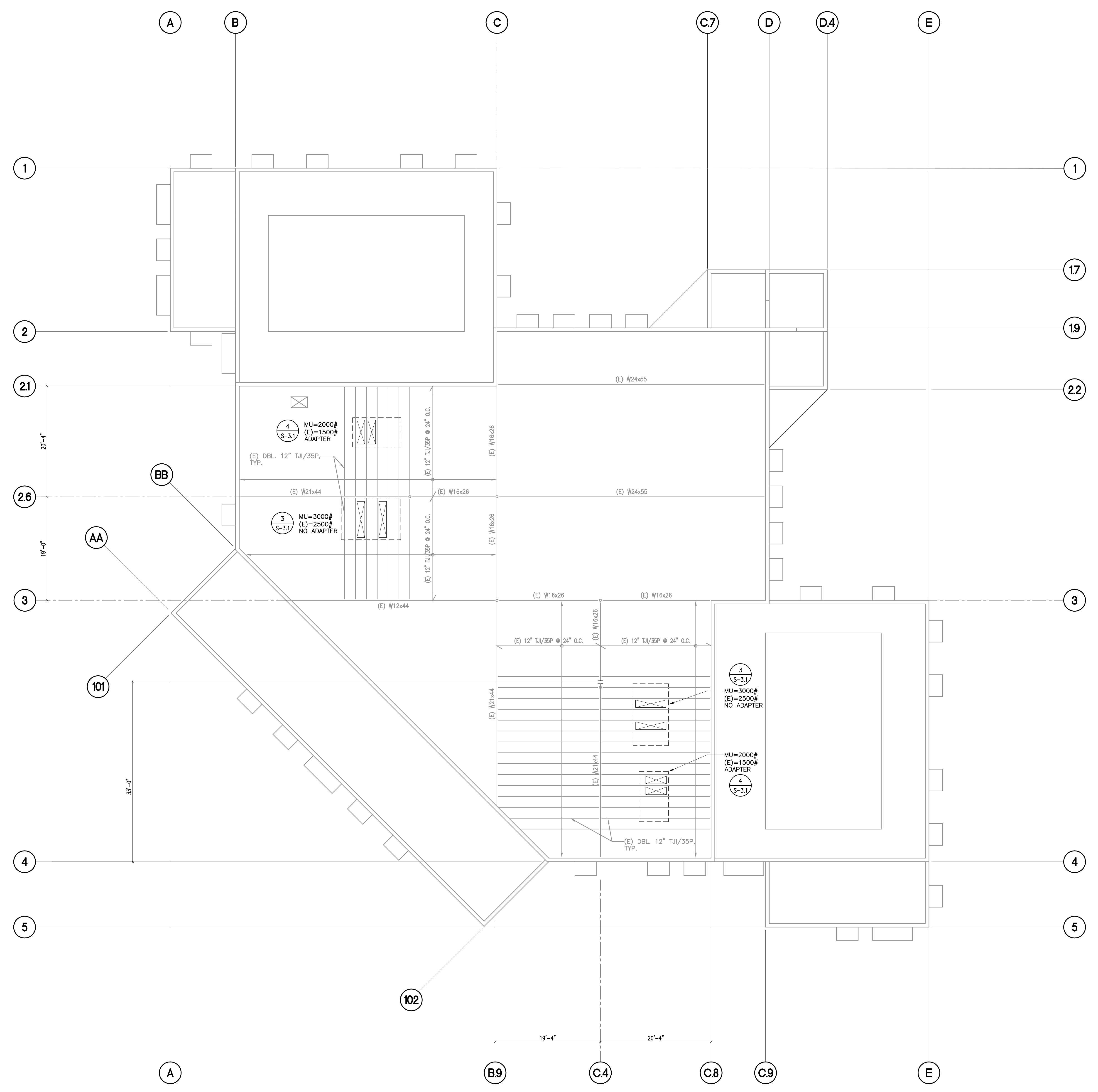
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ROOF FRAMING PLAN NOTES

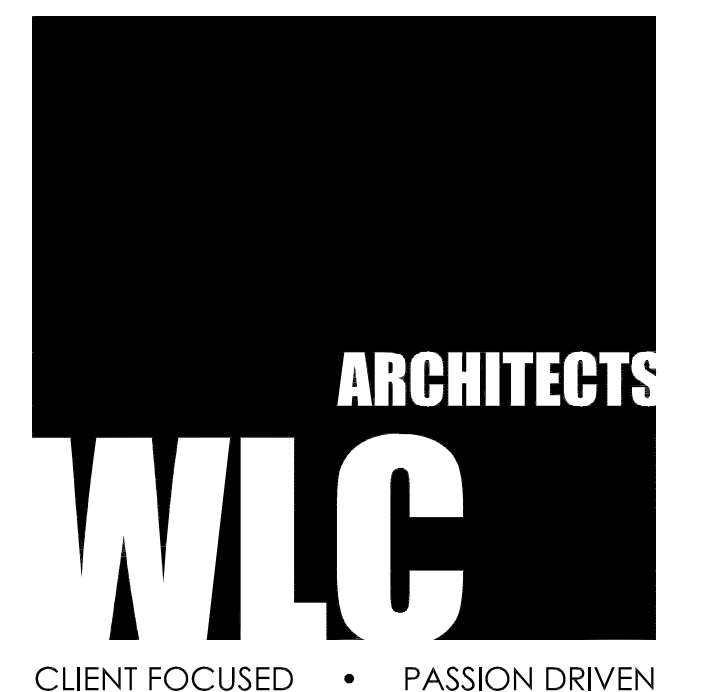
- SEE SHEET S0.1 FOR GENERAL NOTES.
- MU INDICATES NEW MECHANICAL UNIT. EXISTING WEIGHT OF UNIT BEING REPLACED IS SHOWN. USE OF ADAPTER CURB WHERE APPLICABLE IS INDICATED. WEIGHT INCLUDES NEW UNIT PLUS ACCESSORIES AND ADAPTER CURB WHERE OCCURS. FOR WEIGHT OF (E) CURB, SEE MECHANICAL DRAWINGS.
- SEE MECHANICAL DRAWINGS FOR ADDITIONAL UNIT INFORMATION.
- ALL FRAMING IS EXISTING. ANY DIMENSIONS NOTED ARE FOR INFORMATION ONLY AND SUBJECT TO FIELD VERIFICATION.
- WHERE EXISTING TJ/35P HAVE BEEN REPLACED WITH STANDARD STRUCTURES JOISTS, EQUIVALENT SERIES IS SSI 324 (SAME DEPTH AS SHOWN FOR TJ).

LEGEND

- : INDICATES EXISTING SPAN OF JOISTS
- : INDICATES EXISTING EXTENT OF JOISTS.

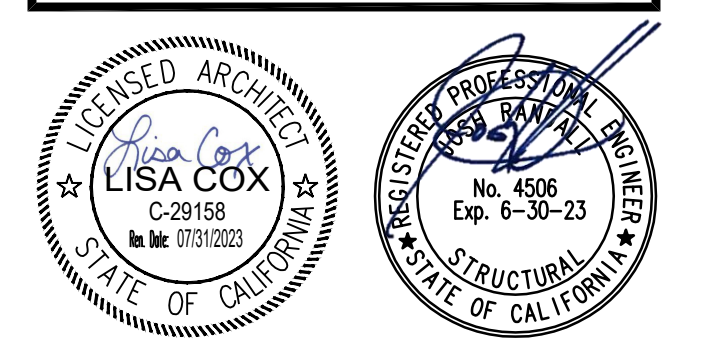


BUILDING D - ROOF FRAMING PLAN
 SCALE: 1/8" = 1'-0"



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**ROOF FRAMING PLAN
 BLDG. D**

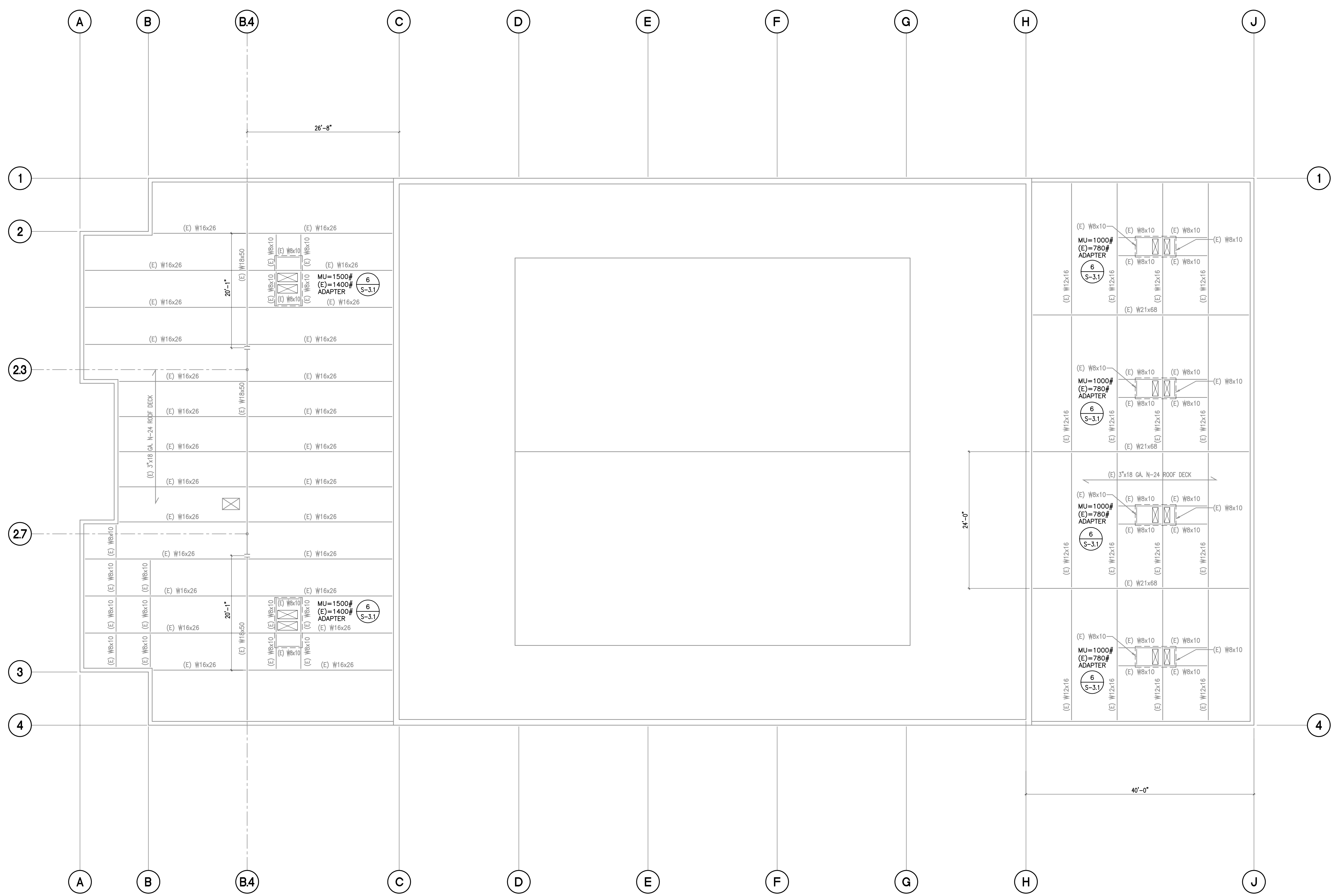
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ROOF FRAMING PLAN NOTES

- SEE SHEET S0.1 FOR GENERAL NOTES.
- MU INDICATES NEW MECHANICAL UNIT. EXISTING WEIGHT OF UNIT BEING REPLACED IS SHOWN. USE OF ADAPTER CURB WHERE APPLICABLE IS INDICATED. WEIGHT INCLUDES NEW UNIT PLUS ACCESSORIES AND ADAPTER CURB WHERE OCCURS. FOR WEIGHT OF (E) CURB, SEE MECHANICAL DRAWINGS.
- SEE MECHANICAL DRAWINGS FOR ADDITIONAL UNIT INFORMATION.
- ALL FRAMING IS EXISTING. ANY DIMENSIONS NOTED ARE FOR INFORMATION ONLY AND SUBJECT TO FIELD VERIFICATION.

LEGEND

← : INDICATES EXISTING SPAN OF METAL DECK

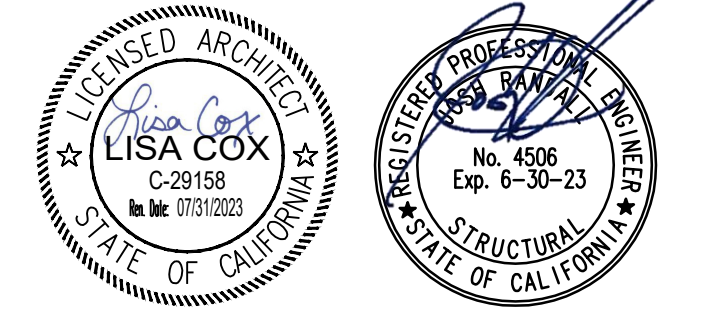


BUILDING E - ROOF FRAMING PLAN
 SCALE: 1/8" = 1'-0"



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**ROOF FRAMING PLAN
 BLDG. D**

DRAWING NUMBER: **S-2.E**

DSA NOTES

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26, AND 30:

- ALL PERMANENT EQUIPMENT AND COMPONENTS.
- TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
- TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

- COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVING A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
- COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8, AND 2019 CBC, SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G., OSHPD OPM FOR 2019 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

MP MD PP E - OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

MP MD PP E - OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVED (OPM#) #0052-13 (B-LINE / TOLCO).

PROJECT SHEET INDEX	
M-0.1	MECHANICAL LEGEND, NOTES AND SHEET INDEX
M-0.2	MECHANICAL TITLE 24 CALCULATIONS
M-0.3	MECHANICAL TITLE 24 CALCULATIONS
M-0.4	MECHANICAL TITLE 24 CALCULATIONS
M-0.5	MECHANICAL TITLE 24 CALCULATIONS
M-1.1	MECHANICAL SCHEDULES
M-2.A	MECHANICAL ROOF PLAN - BLDG A
M-2.B	MECHANICAL ROOF PLAN - BLDG B
M-2.C	MECHANICAL ROOF PLAN - BLDG C
M-2.D	MECHANICAL ROOF PLAN - BLDG D
M-2.E	MECHANICAL ROOF PLAN - BLDG E
M-5.1	MECHANICAL DETAILS

GENERAL NOTES

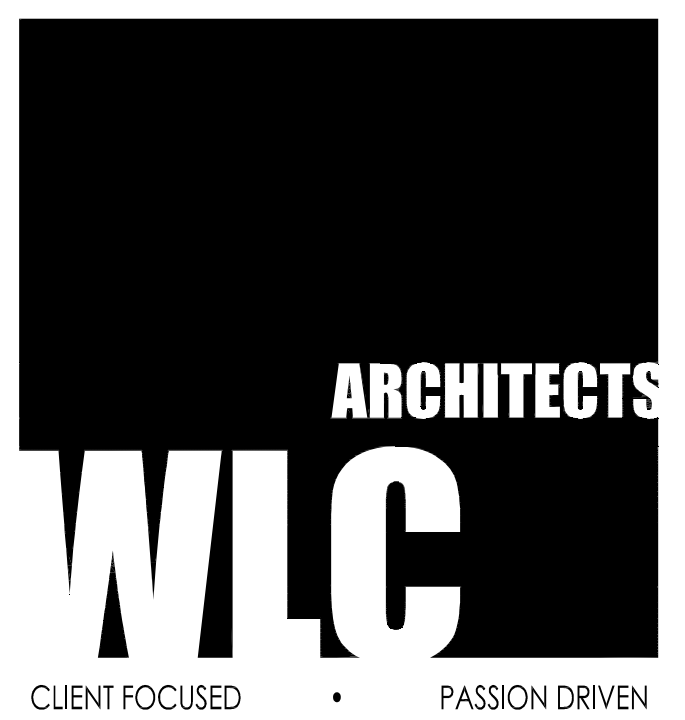
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH CITY CODES, 2019 CALIFORNIA BUILDING CODE, 2019 CALIFORNIA MECHANICAL CODE, 2019 CALIFORNIA ENERGY CODE, 2019 CALIFORNIA FIRE CODE, 2019 CALIFORNIA GREEN BUILDING STANDARDS, NFPA 90 & 91, STATE AND LOCAL FIRE DEPARTMENT REGULATIONS, AND ALL OTHER APPLICABLE CODES AS SHOWN ON SHEET G1-1.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION AND PROVIDE REPAIR OF ADJACENT EXISTING SURFACES, EQUIPMENT, AREAS, AND PROPERTY THAT MAY BE DAMAGED AS A RESULT OF ANY DEMOLITION AND/OR NEW WORK.
- THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, EQUIPMENT, TRANSPORTATION, AND SERVICES NECESSARY FOR THE COMPLETION OF THE WORK. ALL MATERIALS & WORK SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES AND GOVERNING REGULATIONS AND SHALL MEET WITH THE APPROVAL OF THE CITY AND STATE FIRE MARSHALL.
- ALL DRAWINGS ARE CONSIDERED TO BE PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO ANY CONSTRUCTION, INCLUDING ARCHITECTURAL, STRUCTURAL, AIR CONDITIONING, PLUMBING, AND ELECTRICAL. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF CONSTRUCTION SO THAT A CLARIFICATION MAY BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENT SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE, AND AT NO EXPENSE TO THE OWNER.
- DO NOT SCALE DRAWINGS - ALL DIMENSIONS AND JOB SITE CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOB SITE PRIOR TO BID SUBMITTAL. START OF CONSTRUCTION AND / OR FABRICATION OF MATERIALS. IF DISCREPANCIES ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED FOR CLARIFICATION.
- CONTRACTOR SHALL COORDINATE ALL DUCT, PIPE AND EQUIPMENT LOCATIONS WITH PLUMBING, ELECTRICAL, STRUCTURAL, AND ALL OTHER TRADES.
- ALL DUCTWORK SHALL BE CONSTRUCTED, ERECTED & TESTED IN ACCORDANCE WITH THE MOST RESTRICTIVE OF LOCAL REGULATIONS AND PROCEDURES DETAILED IN THE A.S.H.R.A.E. HANDBOOK OF FUNDAMENTALS OR THE APPLICABLE STANDARDS ADOPTED BY S.M.A.C.N.A. PROVIDE RECTANGULAR DUCTS OF GALVANIZED STEEL & PREFABRICATED SPIRAL LOCKSEAM DUCTS AND FITTINGS.
- DUCT MATERIALS SHALL COMPLY WITH ANSISMACNA 006-2006 HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE, 3RD EDITION.
- PROVIDE DUCT MANUAL VOLUME DAMPERS IN EACH BRANCH DUCT AND IN EACH MAIN DUCT TO PROVIDE FOR COMPLETE AIR BALANCE OF THE SYSTEM. PROVIDE ADEQUATE ACCESS AND IDENTIFICATION.
- WHERE INTERNAL ACOUSTICAL DUCT LINER IS INDICATED, DUCT DIMENSIONS ARE NET CLEAR - e.g. AFTER LINER HAS BEEN INSTALLED.
- ALL DUCTWORK AND PIPING SHALL BE INSULATED CONSISTENTLY WITH THE REQUIREMENTS OF SECTIONS 120.3, 120.4, & 120.7 OF THE 2019 ENERGY EFFICIENCY STANDARDS (E.E.S.) AND TABLES 503.7.1(10) AND 503.7.1(11) OF 2019 C.M.C.
- INSULATION MATERIAL SHALL MEET THE CALIFORNIA QUALITY STANDARD PER SECTION 110.8 OF E.E.S.
- ROOM THERMOSTATS SHALL BE CAPABLE OF BEING SET TO MAINTAIN SPACE TEMPERATURE SET POINTS FROM 55 °F. TO 85 °F. AND BE CAPABLE OF OPERATING THE HEATING AND COOLING IN SEQUENCE. THERMOSTATS SHALL BE ADJUSTABLE TO PROVIDE A TEMPERATURE RANGE OF UP TO 10°F. BETWEEN FULL HEATING AND FULL COOLING BEING SUPPLIED. CONTROLS SHALL HAVE CAPABILITY OF TERMINATING ALL HEATING AT A TEMPERATURE NOT MORE THAN 70 °F. AND COOLING AT A TEMPERATURE NOT LESS THAN 78 °F.
- TEMPERATURE CONTROL SYSTEM SHALL OPERATE IN ACCORDANCE WITH THE BASE BUILDING SEQUENCE OF OPERATION.
- WALL MOUNTED THERMOSTATS SHALL BE MOUNTED 48" A.F.F. TO THE HIGHEST OPERABLE PART. TEMPERATURE SENSORS SHALL BE WALL MOUNTED 60" A.F.F.
- PROVIDE SMOKE DETECTORS IN MAIN SUPPLY AIR DUCTS OF AIR MOVING SYSTEMS EXCEEDING 2000 CFM PER SECTION 606.0 2019 C.M.C.
- OUTSIDE AIR INTAKES SHALL BE LOCATED A MINIMUM OF 25 FEET AWAY FROM EXHAUST OUTLETS, PLUMBING VENTS, COOLING TOWERS, COMBUSTION EQUIPMENT STACKS, AREAS THAT MAY COLLECT VEHICULAR EXHAUST OR OTHER NOXIOUS FUMES, AND OTHER SOURCES OF CONTAMINATION.
- HVAC UNITS SHUTDOWN TO BE ACCOMPLISHED USING THE BUILDING'S FIRE ALARM SYSTEM.
- SEE PLUMBING DRAWINGS FOR PRIMARY AND SECONDARY CONDENSATE DRAINS.
- NO COMBUSTION VENTS, DRYER VENTS, RANGE HOOD VENTS, OR HEATING DUCTS ARE PERMITTED IN AREA SEPARATION WALLS.
- MATERIAL EXPOSED WITHIN A DUCT OR PLENUM SHALL COMPLY WITH SECTION 602.2 OF 2019 C.M.C.
- ALL OUTLETS FOR FUTURE CONNECTIONS SHALL BE INSTALLED SO AS TO PERMIT EASY CONNECTION. COORDINATE DUCTWORK, STRUCTURAL CONDITIONS AND ARCHITECTURAL LAYOUT.
- SEE ARCHITECTURAL DRAWINGS FOR ROOF ACCESS AND ADDITIONAL ENERGY CONSERVATION NOTES.
- SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF CEILING DIFFUSERS AND GRILLES.
- ALL CEILING DIFFUSERS SHALL BE 4-WAY THROW UNLESS SHOWN OTHERWISE.
- PACKAGED A.C. UNITS : A FULLY INTEGRATED ECONOMIZER MUST BE PROVIDED FOR EACH SYSTEM DELIVERING OVER 54,000 BTU/HR COOLING.
- AIRCRAFT CABLE SHALL BE PRE-STRETCHED.
- ALL H.V.A.C. SYSTEMS SHALL MEET THE CONTROL REQUIREMENTS PER SECTIONS 110.2 AND 120.2 OF E.E.S.
- ALL H.V.A.C. EQUIPMENT AND APPLIANCES SHALL MEET THE REQUIREMENTS PER SECTIONS 110.1-110.3, 110.5, 120.1-120.4 TITLE 24 ENERGY STANDARDS.
- H.V.A.C. EQUIPMENT AND SYSTEMS SHALL MEET THE ACCEPTANCE REQUIREMENTS PER SECTION 120.5 OF 2019 E.E.S. AS SPECIFIED BY THE REFERENCE NONRESIDENTIAL APPENDIX. ALL RELATED ACCEPTANCE DOCUMENTS SHALL BE SUBMITTED BY CONTRACTOR TO THE CITY INSPECTOR DURING CONSTRUCTION AND PRIOR TO OCCUPANCY.
- A COMPLETE REPORT OF COMMISSIONING PROCESS ACTIVITIES UNDERTAKEN THROUGH THE DESIGN, CONSTRUCTION, AND REPORTING RECOMMENDATIONS FOR POST-CONSTRUCTION PHASES OF THE BUILDING PROJECT SHALL BE COMPLETED AND PROVIDED TO THE OWNER OR REPRESENTATIVE.
- ISOLATE ALL HVAC REFRIGERANT PIPES SIZE 1-1/4" AND LARGER WITHIN MECHANICAL EQUIPMENT ROOMS. OUTSIDE EQUIPMENT ROOMS THIS PIPING SHALL BE ISOLATED FOR THE GREATER OF 50 FT. OR 100 PIPE DIAMETERS FROM ROTATING EQUIPMENT. THE FIRST THREE PIPE SUPPORTS SHALL HAVE COMBINATION SPRING AND RUBBER ISOLATION HANGERS WITH THE SAME DEFLECTION AS THE EQUIPMENT ISOLATORS. ALL OTHER ISOLATED PIPING WITHIN EQUIPMENT ROOMS SHALL BE ISOLATED WITH A 3/4" MINIMUM DEFLECTION ISOLATOR.
- SYSTEMS CONTAINING ECONOMIZERS: ECONOMIZER TO HAVE INTEGRATED CONTROLS THAT PROVIDE PARTIAL COOLING DURING ECONOMIZER MODE. WHEN ADDITIONAL MECHANICAL COOLING WOULD BE REQUIRED TO MEET ROOM TEMPERATURE SETPOINT, ECONOMIZER TO COME COMPLETE WITH DIRECT DRIVE ACTUATOR.
- ALL AIR DISTRIBUTION SYSTEM DUCTS AND PLENUMS MUST BE INSTALLED, SEALED AND INSULATED PER 2019 C.E.C. SECTION 120.4(a).
- ALL DUCTWORK SHALL BE SEALED TO A LEAKAGE RATE NOT TO EXCEED 6% OF THE NOMINAL AIR HANDLER AIRFLOW RATE. TO BE CONFIRMED THROUGH FIELD VERIFICATION AND DIAGNOSTIC TESTING DURING C/A PER 2019 C.E.C. SECTION 140.4(i).

MECHANICAL DEMOLITION NOTES

- FIELD VERIFY AND REVIEW WITH THE ENGINEER EXISTING AND ABANDONED PIPING, DUCTWORK, MECHANICAL EQUIPMENT, CONTROLS AND THERMOSTATS. EXISTING DUCTWORK, MECHANICAL EQUIPMENT, CHILLED WATER, HEATING HOT WATER AND CONDENSATE PIPING, CONTROLS EQUIPMENT AND TUBING WHICH IS NOT INDICATED FOR REUSE SHALL BE DEMOLISHED AND REMOVED. ABANDONED MECHANICAL EQUIPMENT, DUCTWORK AND PIPING SHALL BE DEMOLISHED AND REMOVED. ABANDONED CONTROLS ACTUATORS, TUBING & WIRING, THERMOSTATS AND CONTROL PANELS SHALL BE DEMOLISHED AND REMOVED. ALL ABANDONED MECHANICAL CURBS AND PLATFORMS INCLUDING BUT NOT LIMITED TO CONCRETE, WOOD & STEEL SHALL BE DEMOLISHED AND REMOVED.
- FIELD VERIFY SIZES OF ALL EXISTING DUCTWORK SHOWN TO REMAIN AND BE REUSED. IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- PATCH, INFILL AND REPAIR WITH LIKE MATERIALS TO NEW CONDITION ALL EXISTING MECHANICAL EQUIPMENT, CHILLED AND HOT WATER PIPING, DUCTWORK, PNEUMATIC TUBING AND CONDENSATE PIPING PENETRATIONS WHICH ARE NOT BEING REUSED OR WHICH HAVE BEEN DEMOLISHED. WHERE MECHANICAL CURBS & PLATFORMS HAVE BEEN DEMOLISHED, THE CONTRACTOR SHALL REPAIR, REFRESH, AND RESTORE ALL SURFACES & ADJOINING SURFACES TO A LEVEL, FLUSH AND UNIFORM APPEARANCE. FOR DEMOLISHED ROOF MOUNTED EQUIPMENT THE CONTRACTOR SHALL PATCH THE ROOF WITH LIKE MATERIALS ACCORDING TO THEIR RESPECTIVE ARCHITECTURAL SPEC SECTION.
- THE EXTENDED SCOPE OF DEMOLITION AND NEW WORK WILL REQUIRE CLOSE COORDINATION BETWEEN ALL TRADES. EXISTING UTILITIES TO REMAIN, SUCH AS CABLE TRAYS, CONDUIT, FIRE PROTECTION PIPING, ETC MAY HAVE TO BE RELOCATED OR ALTERED TO INSTALL NEW UTILITIES. CONTRACTOR SHALL TAKE PROVISIONS FOR THIS FACT AND IDENTIFY CONFLICTS AND PROPOSE SOLUTIONS TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

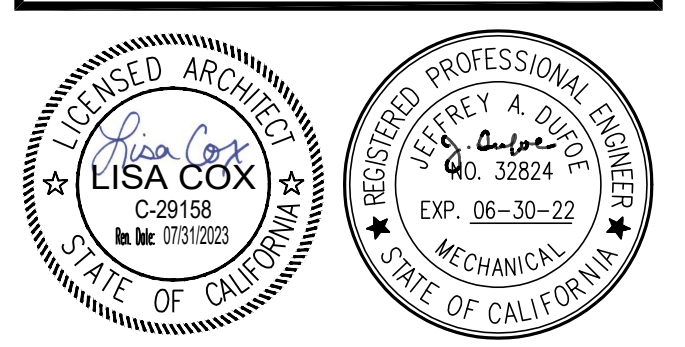
MECHANICAL LEGEND

SYMBOL	ABBREV.	DESCRIPTION
	10 x 6	DUCTWORK (1ST NUMBER INDICATES SIDE SHOWN, DOUBLE OR SINGLE LINE)
	M.V.D.	MANUAL VOLUME DAMPER
	M.O.D.	MOTOR OPERATED DAMPER
	F.S.D.	COMBINATION FIRE AND SMOKE DAMPER AUTOMATIC FIRE AND SMOKE DAMPER
	F.C.	FLEXIBLE CONNECTION (DUCTWORK)
		LINED DUCTWORK (OR PLENUM)
		STAINLESS STEEL DUCTWORK (OR PLENUM)
		RECTANGULAR DUCT UP
		RECTANGULAR DUCT DOWN
		DUCT TRANSITION (RECTANGULAR TO ROUND)
		FLEXIBLE DUCTWORK
	S.A.	SUPPLY AIR DUCT
	R.A./O.A.	RETURN AIR DUCT/OUTSIDE AIR DUCT
	E.A.	EXHAUST AIR DUCT
		PIPE DOWN
		PIPE UP
	T'STAT	THERMOSTAT (NUMBER INDICATES EQUIPMENT OR ZONE SERVED)
	S.D.	SMOKE DETECTOR (DUCT MOUNTED)
	C.H.W.R.	CHILLED WATER RETURN
	C.H.W.S.	CHILLED WATER SUPPLY
	H.H.W.R.	HEATING HOT WATER RETURN
	H.H.W.S.	HEATING HOT WATER SUPPLY
	F.S.	FLOW SWITCH
	E.R.	ECCENTRIC REDUCER
	C.R.	CONCENTRIC REDUCER
	BL.V.	BALANCING VALVE
	B.V.	BALL VALVE
	BF.V.	BUTTERFLY VALVE
	CH.V.	CHECK VALVE
	C.V. (2W)	CONTROL VALVE (2-WAY)
	C.V. (3W)	CONTROL VALVE (3-WAY)
	F.M.	ELECTROMAGNETIC FLOW METER
	A.F.C.V.	AUTOMATIC FLOW CONTROL VALVE
	F.C.V.	FLOW CONTROL VALVE
	P.R.V.	PRESSURE REDUCING VALVE
	P.I.C.V. (2W)	PRESSURE INDEPENDENT CONTROL VALVE (2-WAY)
	P.S.V.	PRESSURE SUSTAINING VALVE
	G.V.	GATE VALVE
	GL.V.	GLOBE VALVE
	T.D.V.	TRIPLE DUTY VALVE (COMB. SHUT-OFF, CHECK & BALANCING)
	P.R.V.	PRESSURE RELIEF VALVE
	P.G.	PRESSURE GAUGE WITH GAUGE COCK
	STR.	STRAINER W/ DRAIN VALVE & 3/4" HOSE END & CAP
	B.F.	BLIND FLANGE
	TH.	THERMOMETER
	T.W.	TEST WELL (PETE'S PLUG - PRESSURE AND/OR TEMPERATURE)
	U.	UNION
	A.L.	ACOUSTICAL DUCT LINER ABOVE FINISH FLOOR
	C.F.M. CONC. CONTR.	CUBIC FEET PER MINUTE CONCRETE CONTRACTOR ACOUSTICAL DUCT LINER DOWN
	D.N.	DOWN
	EXH.	EXHAUST
	FLR.	FLOOR
	FT.	FEET OR FOOT
	H.O.A. ISO.	HANDS - OFF - AUTOMATIC ISOLATION
	L.O.D. O.A.	LIMIT OF DEMOLITION OUTSIDE AIR
	P.O.C.	POINT OF CONNECTION
	QTY.	QUANTITY
	REQ'D.	REQUIRED
	RET.	RETURN
	SHT.	SHEET
	TYP.	TYPICAL
	U.N.O.	UNLESS NOTED OTHERWISE
	U.T.R.	UP THRU ROOF
	V.F.D.	VARIABLE FREQUENCY DRIVE
	V.T.R.	VENT THRU ROOF
	W.	WITH
	RTU	ROOFTOP UNIT



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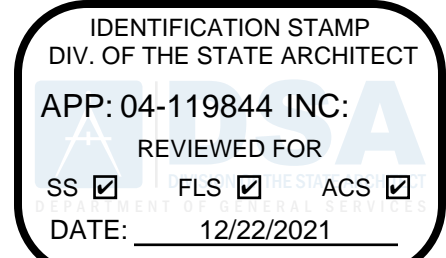


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PROJECT NUMBER: 1726200	

MECHANICAL LEGEND & GENERAL NOTES

DRAWING NUMBER: **M-0.1**



Mechanical Systems Certificate of Compliance page 1 of 57. Project Name: Mechanical Systems, Project Address: 12/23/2020.

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS) Table with columns for Equipment, Rating, Efficiency, and Design Efficiency. Includes rows for AC-1C through AC-2D.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Report Generated: 2020-12-23 15:53:25.

Mechanical Systems Certificate of Compliance page 2 of 57. Project Name: Mechanical Systems, Project Address: 12/23/2020.

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS) Table with columns for Name or Item Tag, Size Category, Rating, Efficiency Unit, and Design Efficiency. Includes rows for AC-7E through AC-6E.

G. PUMPS This section does not apply to this project.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Report Generated: 2020-12-23 15:53:25.

Mechanical Systems Certificate of Compliance page 3 of 57. Project Name: Mechanical Systems, Project Address: 12/23/2020.

H. FAN SYSTEMS & AIR ECONOMIZERS Table with columns for System Name, Fan Name or Item Tag, Fan Function, City, and Design HP. Includes rows for AC-1C, AC-2C, AC-3C, and AC-4C.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Report Generated: 2020-12-23 15:53:25.

Mechanical Systems Certificate of Compliance page 4 of 57. Project Name: Mechanical Systems, Project Address: 12/23/2020.

H. FAN SYSTEMS & AIR ECONOMIZERS Table with columns for System Name, Fan Name or Item Tag, Fan Function, City, and Design HP. Includes rows for AC-1D, AC-2D, AC-3D, and AC-4D.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Report Generated: 2020-12-23 15:53:25.

Mechanical Systems Certificate of Compliance page 5 of 57. Project Name: Mechanical Systems, Project Address: 12/23/2020.

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS) Table with columns for Name or Item Tag, Equipment Category, Equipment Type, and Heating/Cooling Output. Includes rows for AC-1A through AC-7B.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Report Generated: 2020-12-23 15:53:25.

Mechanical Systems Certificate of Compliance page 6 of 57. Project Name: Mechanical Systems, Project Address: 12/23/2020.

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS) Table with columns for Name or Item Tag, Size Category, Rating, Efficiency Unit, and Design Efficiency. Includes rows for AC-4C through AC-11C.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Report Generated: 2020-12-23 15:53:25.

Mechanical Systems Certificate of Compliance page 7 of 57. Project Name: Mechanical Systems, Project Address: 12/23/2020.

H. FAN SYSTEMS & AIR ECONOMIZERS Table with columns for System Name, Fan Name or Item Tag, Fan Function, City, and Design HP. Includes rows for AC-5B, AC-6B, AC-7B, and AC-8B.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Report Generated: 2020-12-23 15:53:25.

Mechanical Systems Certificate of Compliance page 8 of 57. Project Name: Mechanical Systems, Project Address: 12/23/2020.

H. FAN SYSTEMS & AIR ECONOMIZERS Table with columns for System Name, Fan Name or Item Tag, Fan Function, City, and Design HP. Includes rows for AC-10C, AC-11C, AC-12C, and AC-13C.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Report Generated: 2020-12-23 15:53:25.

Mechanical Systems Certificate of Compliance page 9 of 57. Project Name: Mechanical Systems, Project Address: 12/23/2020.

G. COMPLIANCE RESULTS Table with columns for Equipment, Heating Output, Cooling Output, and Total Heating/Cooling Load. Includes rows for AC-1A through AC-7B.

D. EXCEPTIONAL CONDITIONS This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Report Generated: 2020-12-23 15:53:25.

Mechanical Systems Certificate of Compliance page 10 of 57. Project Name: Mechanical Systems, Project Address: 12/23/2020.

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS) Table with columns for Name or Item Tag, Size Category, Rating, Efficiency Unit, and Design Efficiency. Includes rows for AC-1A through AC-3C.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Report Generated: 2020-12-23 15:53:25.

Mechanical Systems Certificate of Compliance page 11 of 57. Project Name: Mechanical Systems, Project Address: 12/23/2020.

H. FAN SYSTEMS & AIR ECONOMIZERS Table with columns for System Name, Fan Name or Item Tag, Fan Function, City, and Design HP. Includes rows for AC-2B, AC-3B, AC-4B, and AC-8B.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Report Generated: 2020-12-23 15:53:25.

Mechanical Systems Certificate of Compliance page 12 of 57. Project Name: Mechanical Systems, Project Address: 12/23/2020.

H. FAN SYSTEMS & AIR ECONOMIZERS Table with columns for System Name, Fan Name or Item Tag, Fan Function, City, and Design HP. Includes rows for AC-7C, AC-8C, AC-9C, and AC-10C.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Report Generated: 2020-12-23 15:53:25.

Mechanical Systems Certificate of Compliance page 13 of 57. Project Name: Mechanical Systems, Project Address: 12/23/2020.

A. GENERAL INFORMATION Table with columns for Project Location, Climate Zone, Occupancy Types, and Mechanical Controls. Includes rows for AC-1 through AC-9.

B. PROJECT SCOPE This table includes mechanical systems or components that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4.6 or §141.4(b)(2) for alterations.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Report Generated: 2020-12-23 15:53:25.

Mechanical Systems Certificate of Compliance page 14 of 57. Project Name: Mechanical Systems, Project Address: 12/23/2020.

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS) Table with columns for Name or Item Tag, Size Category, Rating, Efficiency Unit, and Design Efficiency. Includes rows for AC-3D through AC-6E.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Report Generated: 2020-12-23 15:53:25.

Mechanical Systems Certificate of Compliance page 15 of 57. Project Name: Mechanical Systems, Project Address: 12/23/2020.

H. FAN SYSTEMS & AIR ECONOMIZERS Table with columns for System Name, Fan Name or Item Tag, Fan Function, City, and Design HP. Includes rows for AC-2A, AC-3A, AC-4A, and AC-8A.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Report Generated: 2020-12-23 15:53:25.

Mechanical Systems Certificate of Compliance page 16 of 57. Project Name: Mechanical Systems, Project Address: 12/23/2020.

H. FAN SYSTEMS & AIR ECONOMIZERS Table with columns for System Name, Fan Name or Item Tag, Fan Function, City, and Design HP. Includes rows for AC-AC, AC-1C, AC-2C, and AC-3C.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Report Generated: 2020-12-23 15:53:25.



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THOMPSON MIDDLE SCHOOL HVAC REPLACEMENT MURRIETA VALLEY UNIFIED SCHOOL DISTRICT 24040 HAYES AVE MURRIETA, CA 92562

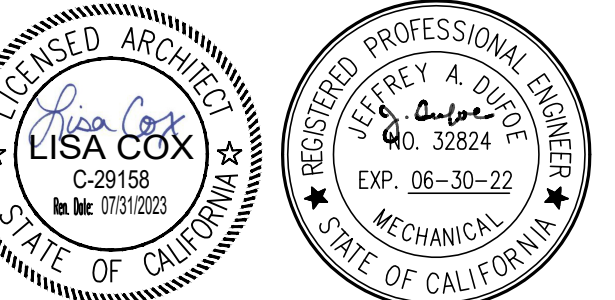


Table with columns for NO, DATE, BY, DESCRIPTION, and REVISIONS. Includes rows for DRAWN: RV, CHECKED: JD, DATE: 03/10/2021, SCALE, PROJECT NUMBER: 1726200.

MECHANICAL TITLE 24 CALCULATIONS REV: 20200601

DRAWING NUMBER: M-0.2

Table with columns: Space Name, Occupancy Type, Conditioned Floor Area, # of Showers/Head/Toilets, # of people, Required Min OA CFM, Required Min CFM, Provided per Design CFM, DCV or Sensor Controls, and DCV or Sensor Controls per 120.1613, 120.1605, and 120.1613.

Registration Number: [Redacted] Registration Date/Time: [Redacted] Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601 Report Generated: 2020-12-23 15:53:25

Table with columns: Question number, Answer (Yes/No), and Description of ductwork and piping requirements.

Registration Number: [Redacted] Registration Date/Time: [Redacted] Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601 Report Generated: 2020-12-23 15:53:25

Table with columns: Question number, Answer (Yes/No), and Description of ductwork and piping requirements.

Registration Number: [Redacted] Registration Date/Time: [Redacted] Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601 Report Generated: 2020-12-23 15:53:25

Table with columns: Question number, Answer (Yes/No), and Description of ductwork and piping requirements.

Registration Number: [Redacted] Registration Date/Time: [Redacted] Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601 Report Generated: 2020-12-23 15:53:25

Table with columns: Space Name, Occupancy Type, Conditioned Floor Area, # of Showers/Head/Toilets, # of people, Required Min OA CFM, Required Min CFM, Provided per Design CFM, DCV or Sensor Controls, and DCV or Sensor Controls per 120.1613, 120.1605, and 120.1613.

Registration Number: [Redacted] Registration Date/Time: [Redacted] Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601 Report Generated: 2020-12-23 15:53:25

Table with columns: Question number, Answer (Yes/No), and Description of ductwork and piping requirements.

Registration Number: [Redacted] Registration Date/Time: [Redacted] Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601 Report Generated: 2020-12-23 15:53:25

Table with columns: Question number, Answer (Yes/No), and Description of ductwork and piping requirements.

Registration Number: [Redacted] Registration Date/Time: [Redacted] Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601 Report Generated: 2020-12-23 15:53:25

Table with columns: Question number, Answer (Yes/No), and Description of ductwork and piping requirements.

Registration Number: [Redacted] Registration Date/Time: [Redacted] Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601 Report Generated: 2020-12-23 15:53:25

Table with columns: Space Name, Occupancy Type, Conditioned Floor Area, # of Showers/Head/Toilets, # of people, Required Min OA CFM, Required Min CFM, Provided per Design CFM, DCV or Sensor Controls, and DCV or Sensor Controls per 120.1613, 120.1605, and 120.1613.

Registration Number: [Redacted] Registration Date/Time: [Redacted] Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601 Report Generated: 2020-12-23 15:53:25

Table with columns: Question number, Answer (Yes/No), and Description of ductwork and piping requirements.

Registration Number: [Redacted] Registration Date/Time: [Redacted] Registration Provider: Energysoft
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Table with columns: Question number, Answer (Yes/No), and Description of ductwork and piping requirements.

Registration Number: [Redacted] Registration Date/Time: [Redacted] Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601 Report Generated: 2020-12-23 15:53:25

Table with columns: Question number, Answer (Yes/No), and Description of ductwork and piping requirements.

Registration Number: [Redacted] Registration Date/Time: [Redacted] Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601 Report Generated: 2020-12-23 15:53:25

Table with columns: Space Name, Occupancy Type, Conditioned Floor Area, # of Showers/Head/Toilets, # of people, Required Min OA CFM, Required Min CFM, Provided per Design CFM, DCV or Sensor Controls, and DCV or Sensor Controls per 120.1613, 120.1605, and 120.1613.

Registration Number: [Redacted] Registration Date/Time: [Redacted] Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601 Report Generated: 2020-12-23 15:53:25

Table with columns: Question number, Answer (Yes/No), and Description of ductwork and piping requirements.

Registration Number: [Redacted] Registration Date/Time: [Redacted] Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601 Report Generated: 2020-12-23 15:53:25

Table with columns: Question number, Answer (Yes/No), and Description of ductwork and piping requirements.

Registration Number: [Redacted] Registration Date/Time: [Redacted] Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601 Report Generated: 2020-12-23 15:53:25

Table with columns: Question number, Answer (Yes/No), and Description of ductwork and piping requirements.

Registration Number: [Redacted] Registration Date/Time: [Redacted] Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601 Report Generated: 2020-12-23 15:53:25

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LISA COX
REGISTERED PROFESSIONAL ARCHITECT
REGISTERED PROFESSIONAL ENGINEER
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959-986-8630 | fax 959-981-7293 | www.dufoe.com

MECHANICAL
TITLE 24
CALCULATIONS
DRAWING NUMBER: M-0.4

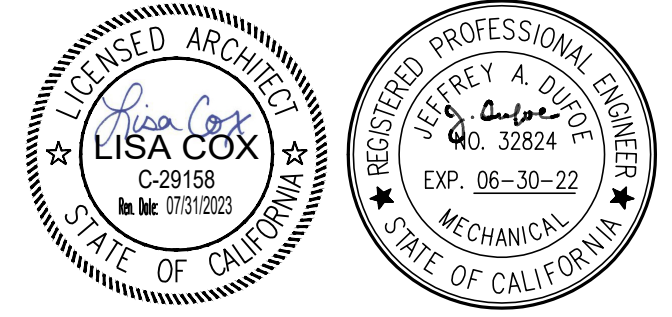
GAS ROOFTOP PACKAGED AC UNITS

UNIT NO.	MANUFACTURER & MODEL NO.	SERVICE	C.F.M.	OSA (CFM)	E.S.P. (IN. WC)	COOLING			HEATING			INDOOR MOTOR B.H.P.	ELECTRICAL			POWER EXHAUST				OPERATING WEIGHT LBS	CURB ADAPTER WEIGHT LBS	EXISTING CURB WEIGHT LBS	REMARKS	
						TOTAL (MBH)	SENSIBLE (MBH)	E.E.R. / S.E.E.R.	INPUT (MBH)	OUTPUT (MBH)	A.F.U.E. (%)		V./PH./HZ.	M.C.A.	M.O.P.	V./PH./HZ.	H.P.	F.L.A.	M.C.A.					M.O.C.P.
AC 1-A	TRANE YHD-210	BUILDING A	7,000	735	0.6	214.84	170.54	11.8 / 14.0	250.00	200.00	80	4.37	460/3/60	42	50	460/3/60	2	6.5	8.1	14.6	3,000	N/A	250	1 3 4 7 8 10 12 13
AC 2-A	TRANE YHD-180	BUILDING A	6,000	570	0.6	180.52	142.17	12.0 / 15.0	250.00	200.00	80	2.98	460/3/60	33	45	460/3/60	2	6.5	8.1	14.6	3,000	N/A	220	1 3 4 7 8 10 12 13
AC 1-B	TRANE YHC-120	BUILDING B	4,000	360	0.5	113.97	94.06	12.4 / 15.2	150.00	120.00	80	1.34	460/3/60	22	25	460/3/60	2	4.5	5.6	10.1	1,700	300	200	1 3 4 5 8 10 12 13
AC 2-B	TRANE YHC-102	BUILDING B	3,400	450	0.6	98.14	77.86	12.5 / 14.7	120.00	96.00	80	1.35	460/3/60	22	25	460/3/60	1	2.8	3.5	6.3	1,390	110	200	1 3 4 5 8 10 12 13
AC 3-B	TRANE YHC-102	BUILDING B	3,400	480	0.6	98.14	77.86	12.5 / 14.7	120.00	96.00	80	1.35	460/3/60	22	25	460/3/60	1	2.8	3.5	6.3	1,390	110	200	1 3 4 5 8 10 12 13
AC 4-B	TRANE YHC-102	BUILDING B	3,400	888	0.6	98.14	77.86	12.5 / 14.7	120.00	96.00	80	1.35	460/3/60	22	25	460/3/60	1	2.8	3.5	6.3	1,390	110	200	1 3 4 5 8 10 12 13
AC 5-B	TRANE YHC-060	BUILDING B	2,000	555	0.6	61.00	45.83	12.8 / 15.0	60.00	49.00	82	0.86	460/3/60	14	20	460/3/60	N/A	N/A	N/A	N/A	870	130	100	1 3 4 5 8 9 12 14
AC 6-B	TRANE YHH-180	BUILDING B	6,000	1,050	0.6	180.52	142.17	12.0 / 15.0	250.00	200.00	80	2.98	460/3/60	33	45	460/3/60	2	6.5	8.1	14.6	3,000	N/A	220	2 3 4 6 8 10 12 15
AC 7-B	TRANE YHH-180	BUILDING B	6,000	1,050	0.6	180.52	142.17	12.0 / 15.0	250.00	200.00	80	2.98	460/3/60	33	45	460/3/60	2	6.5	8.1	14.6	3,000	N/A	220	2 3 4 6 8 10 12 15
AC 1-C	TRANE YHC-074	BUILDING C	2,500	525	0.5	73.93	60.08	13.1 / 16.0	80.00	64.80	81	0.87	460/3/60	18	20	460/3/60	N/A	N/A	N/A	N/A	1,170	130	100	1 3 4 5 8 9 12 13
AC 2-C	TRANE YHC-074	BUILDING C	2,500	600	0.5	73.93	60.08	13.1 / 16.0	80.00	64.80	81	0.87	460/3/60	18	20	460/3/60	N/A	N/A	N/A	N/A	1,170	130	100	1 3 4 5 8 9 12 13
AC 3-C	TRANE YHC-060	BUILDING C	2,000	450	0.5	61.00	45.83	12.8 / 15.0	60.00	49.00	82	0.86	460/3/60	14	20	460/3/60	N/A	N/A	N/A	N/A	870	130	100	1 3 4 5 8 9 12 14
AC 4-C	TRANE YHC-060	BUILDING C	2,000	450	0.5	61.00	45.83	12.8 / 15.0	60.00	49.00	82	0.86	460/3/60	14	20	460/3/60	N/A	N/A	N/A	N/A	870	130	100	1 3 4 5 8 9 12 14
AC 5-C	TRANE YHC-060	BUILDING C	2,000	450	0.6	61.00	45.83	12.8 / 15.0	60.00	49.00	82	0.86	460/3/60	14	20	460/3/60	N/A	N/A	N/A	N/A	870	130	100	1 3 4 5 8 9 12 14
AC 6-C	TRANE YHC-060	BUILDING C	2,000	450	0.5	61.00	45.83	12.8 / 15.0	60.00	49.00	82	0.86	460/3/60	14	20	460/3/60	N/A	N/A	N/A	N/A	870	130	100	1 3 4 5 8 9 12 14
AC 7-C	TRANE YHC-060	BUILDING C	2,000	450	0.5	61.00	45.83	12.8 / 15.0	60.00	49.00	82	0.86	460/3/60	14	20	460/3/60	N/A	N/A	N/A	N/A	870	130	100	1 3 4 5 8 9 12 14
AC 8-C	TRANE YHC-060	BUILDING C	2,000	450	0.5	61.00	45.83	12.8 / 15.0	60.00	49.00	82	0.86	460/3/60	14	20	460/3/60	N/A	N/A	N/A	N/A	870	130	100	1 3 4 5 8 9 12 14
AC 9-C	TRANE YHC-060	BUILDING C	2,000	450	0.5	61.00	45.83	12.8 / 15.0	60.00	49.00	82	0.86	460/3/60	14	20	460/3/60	N/A	N/A	N/A	N/A	870	130	100	1 3 4 5 8 9 12 14
AC 10-C	TRANE YHC-092	BUILDING C	3,000	450	0.5	92.00	68.36	12.6 / 15.0	120.00	96.00	80	1.18	460/3/60	20	25	460/3/60	1	2.8	3.5	6.3	1,370	130	100	1 3 4 5 8 10 12 13
AC 11-C	TRANE YHD-150	BUILDING C	5,000	780	0.6	152.39	119.70	12.1 / 15.0	150.00	120.00	80	2.43	460/3/60	30	40	460/3/60	2	6.5	8.1	14.6	2,800	200	220	1 3 4 5 8 10 12 13
AC 12-C	TRANE YHD-150	BUILDING C	5,000	510	0.6	152.39	119.70	12.1 / 15.0	150.00	120.00	80	2.43	460/3/60	30	40	460/3/60	2	6.5	8.1	14.6	2,800	200	220	1 3 4 5 8 10 12 13
AC 1-D	TRANE YHC-120	BUILDING D	4,000	465	0.6	113.97	94.06	12.4 / 15.2	150.00	120.00	80	1.34	460/3/60	22	25	460/3/60	2	4.5	5.6	10.1	1,700	300	200	1 3 4 5 8 10 12 13
AC 2-D	TRANE YHC-120	BUILDING D	4,000	660	0.6	113.97	94.06	12.4 / 15.2	150.00	120.00	80	1.34	460/3/60	22	25	460/3/60	2	4.5	5.6	10.1	1,700	300	200	1 3 4 5 8 10 12 13
AC 3-D	TRANE YHD-210	BUILDING D	7,000	1,020	0.6	214.84	170.54	11.8 / 14.0	250.00	200.00	80	4.37	460/3/60	42	50	460/3/60	2	6.5	8.1	14.6	3,000	N/A	250	1 3 4 7 8 10 12 13
AC 4-D	TRANE YHD-210	BUILDING D	7,000	780	0.6	214.84	170.54	11.8 / 14.0	250.00	200.00	80	4.37	460/3/60	42	50	460/3/60	2	6.5	8.1	14.6	3,000	N/A	250	1 3 4 7 8 10 12 13
AC 1-E	TRANE YHC-102	BUILDING E	3,400	1,550	0.6	98.14	77.86	12.5 / 14.7	120.00	96.00	80	1.35	460/3/60	22	25	460/3/60	1	2.8	3.5	6.3	1,390	110	200	1 3 4 5 8 10 12 15
AC 2-E	TRANE YHC-102	BUILDING E	3,400	1,550	0.6	98.14	77.86	12.5 / 14.7	120.00	96.00	80	1.35	460/3/60	22	25	460/3/60	1	2.8	3.5	6.3	1,390	110	200	1 3 4 5 8 10 12 15
AC 3-E	TRANE YHC-060	BUILDING E	2,000	255	0.5	61.00	45.83	12.8 / 15.0	60.00	49.00	82	0.86	460/3/60	14	20	460/3/60	N/A	N/A	N/A	N/A	870	130	100	1 3 4 5 8 9 12 14
AC 4-E	TRANE YHC-060	BUILDING E	2,000	270	0.5	61.00	45.83	12.8 / 15.0	60.00	49.00	82	0.86	460/3/60	14	20	460/3/60	N/A	N/A	N/A	N/A	870	130	100	1 3 4 5 8 9 12 14
AC 5-E	TRANE YHC-060	BUILDING E	2,000	270	0.5	61.00	45.83	12.8 / 15.0	60.00	49.00	82	0.86	460/3/60	14	20	460/3/60	N/A	N/A	N/A	N/A	870	130	100	1 3 4 5 8 9 12 14
AC 6-E	TRANE YHC-060	BUILDING E	2,000	270	0.5	61.00	45.83	12.8 / 15.0	60.00	49.00	82	0.86	460/3/60	14	20	460/3/60	N/A	N/A	N/A	N/A	870	130	100	1 3 4 5 8 9 12 14

- ① VERTICAL DUCT DISCHARGE PACKAGED DX AC UNIT. ② HORIZONTAL DUCT DISCHARGE PACKAGED DX AC UNIT. ③ ELECTRICAL TO PROVIDE FUSED DISCONNECT. ④ PROVIDE THERMOSTAT INSTALLED AT 48" AFF. ⑤ PROVIDE WITH UNIT CURB ADAPTER. ⑥ PLACE NEW UNIT ON EXISTING PLATFORM.
- ⑦ NO CURB ADAPTER REQUIRED, REUSE EXISTING CURB. ⑧ FURNISH WITH FACTORY PROVIDED CO2 MONITORING FOR DEMAND CONTROL VENTILATION ⑨ PROVIDE WITH UNIT WITH MODULATING ECONOMIZER WITH FAULT DETECTION & DIAGNOSTIC SYSTEM. ⑩ PROVIDE UNIT WITH MODULATING ECONOMIZER AND POWER EXHAUST WITH FAULT DETECTION & DIAGNOSTIC SYSTEM.
- ⑪ NOT USED.
- ⑫ EXISTING UNIT THERMOSTAT TO BE REPLACED. CONTRACTOR TO INSTALL NEW WIFI THERMOSTAT "VENSTAR T2800SCH" AND CONNECT TO DISTRICT 2.4 GHZ WIFI NETWORK. PROVIDE ANY NECESSARY INTERFACE CARDS.
- ⑬ EXISTING SMOKE DETECTORS DUCT MOUNTED OR UNIT MOUNTED SHALL BE REMOVED AND RE-INSTALLED. PROVIDE NECESSARY HARDWARE FOR UNIT SHUT DOWN. COORDINATE WITH FIRE ALARM VENDOR. ⑭ PROVIDE WITH ULTRA LOW NOx OPTION

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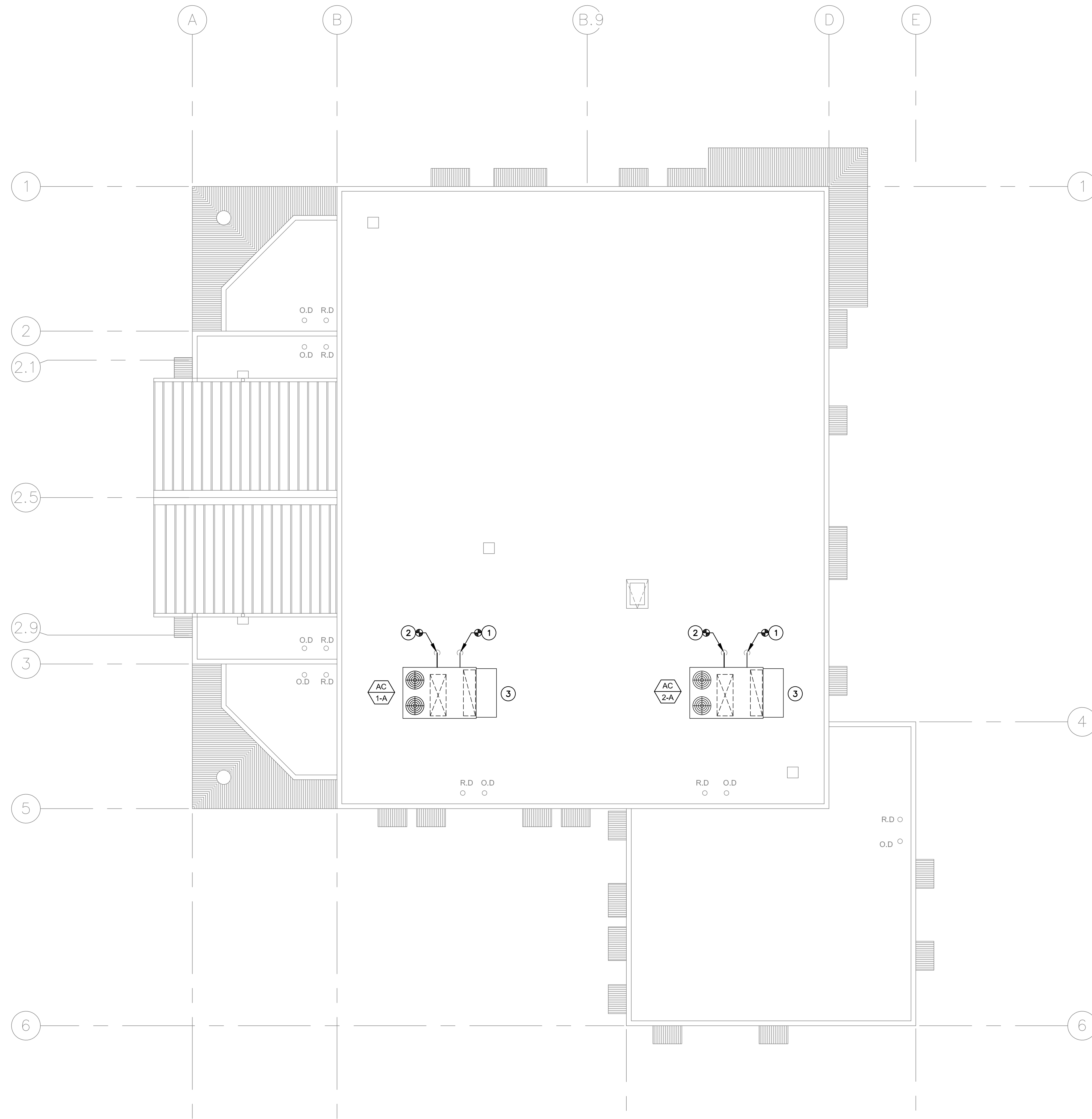
Dufoe
 consulting engineers
 San Diego | Temecula
 10900 Trava Street, Suite 103 San Diego, CA 92131
 619-368-8630 Fax 619-517-3251 www.dufoe.com

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REVISIONS			

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DATE: 03/10/2021	SCALE:
PROJECT NUMBER: 1726200	

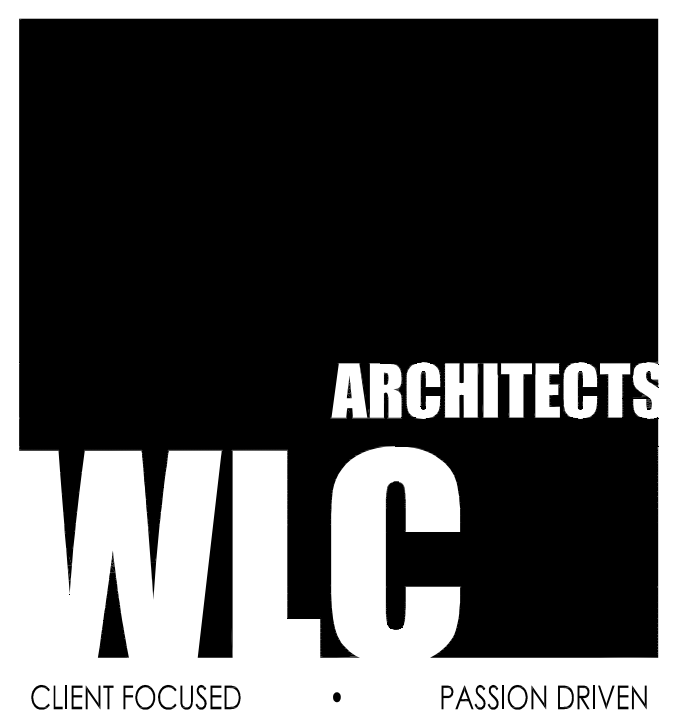
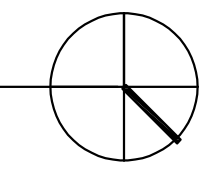
MECHANICAL SCHEDULES

DRAWING NUMBER: **M-1.1**



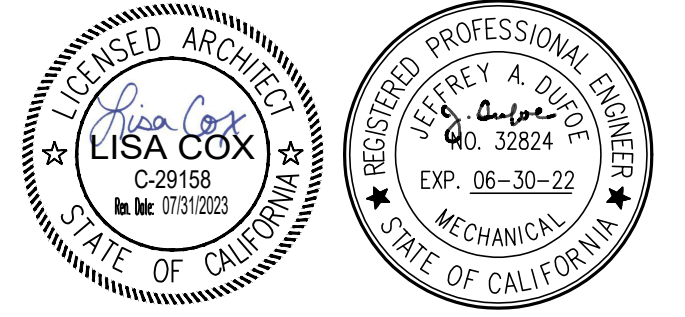
- NOTES:
- 1 CONNECT NEW 1" CONDENSATE DRAIN TO EXISTING MAIN.
 - 2 CONNECT NEW 1" GAS TO EXISTING MAIN.
 - 3 RTU OUTSIDE AIR INTAKE. REFER TO SCHEDULE SHEET M-1.1.

1 MECHANICAL ROOF PLAN - BLDG A
 1/8" = 1'-0"



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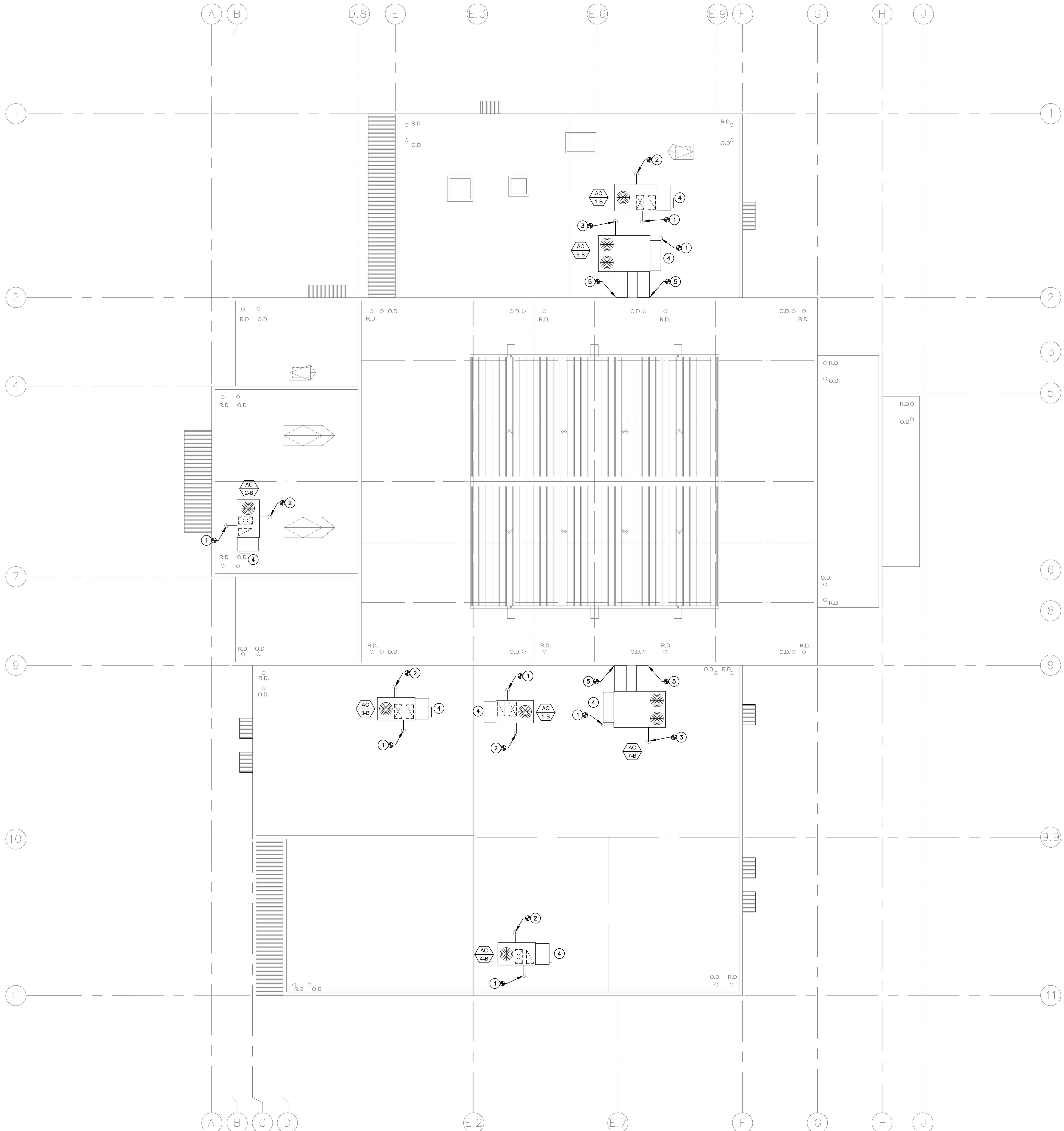


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REVISIONS			

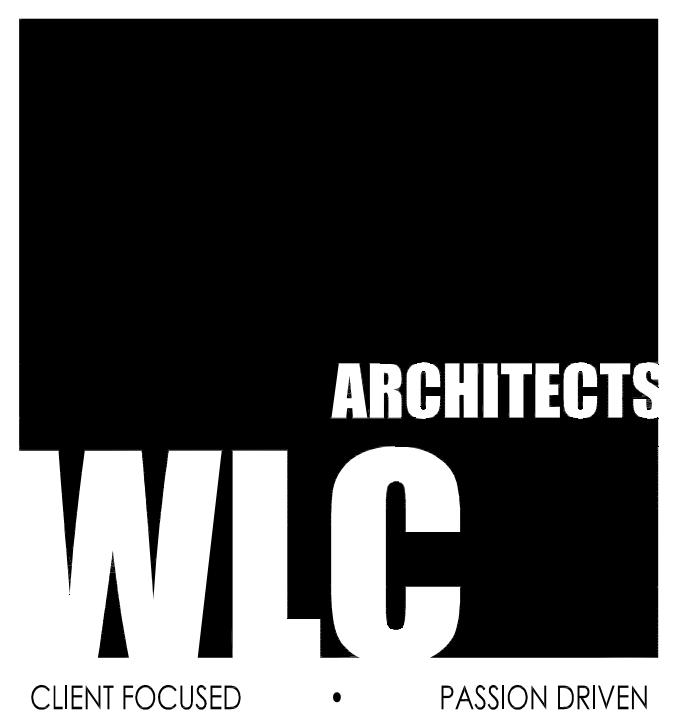
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DATE: 03/10/2021	SCALE:
PROJECT NUMBER: 1726200	

**MECHANICAL
 ROOF PLAN -
 BLDG A**

DRAWING NUMBER: **M-2.A**



- NOTES:
- 1 CONNECT NEW 1" CONDENSATE DRAIN TO EXISTING MAIN.
 - 2 CONNECT NEW 3/4" GAS TO EXISTING MAIN.
 - 3 CONNECT NEW 1" GAS TO EXISTING MAIN.
 - 4 RTU OUTSIDE AIR INTAKE. REFER TO SCHEDULE SHEET M-1.1.
 - 5 CONNECT NEW 28" x 48" SUPPLY AND 28" x 48" RETURN DUCT TO EXISTING.



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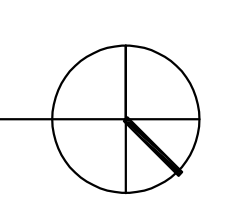
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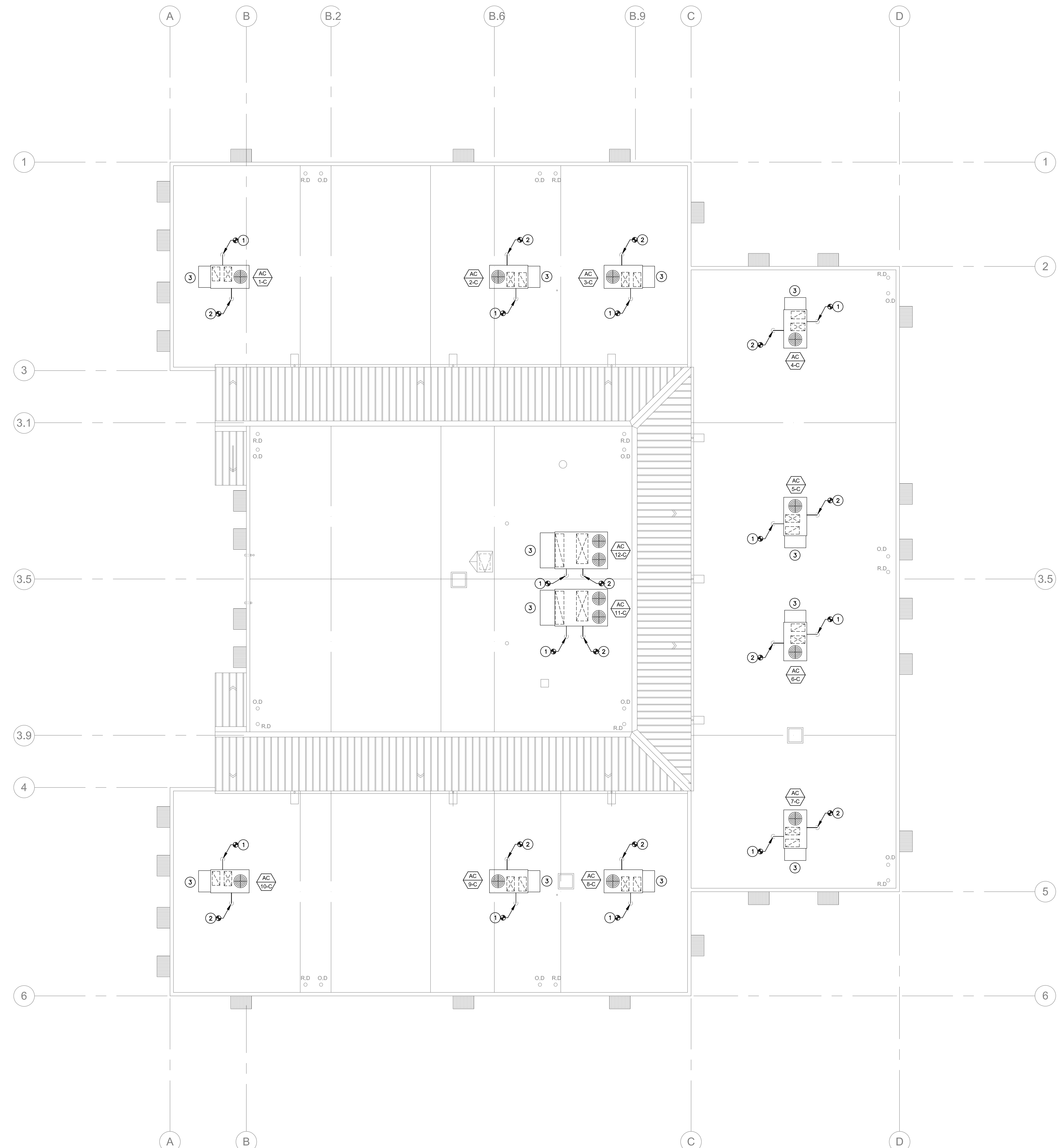
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 DATE: 03/10/2021 SCALE:
 PROJECT NUMBER: 1726200

**MECHANICAL
 ROOF PLAN -
 BLDG B**

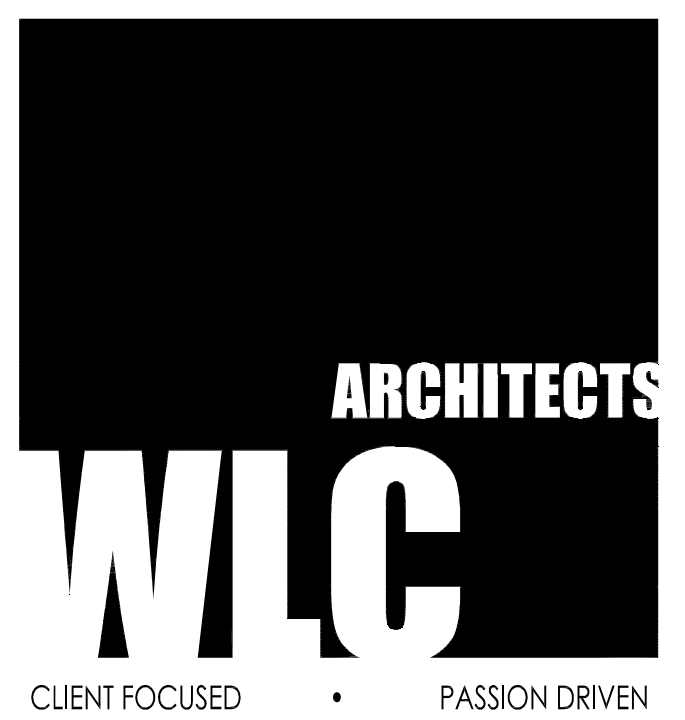
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1 MECHANICAL ROOF PLAN - BLDG B
 1/8" = 1'-0"



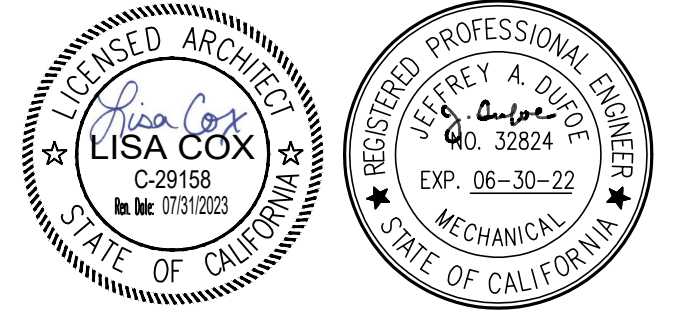


- NOTES:
- 1 CONNECT NEW 1" CONDENSATE DRAIN TO EXISTING MAIN.
 - 2 CONNECT NEW 3/4" GAS TO EXISTING MAIN.
 - 3 RTU OUTSIDE AIR INTAKE. REFER TO SCHEDULE SHEET M-1.1.



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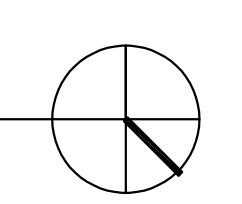
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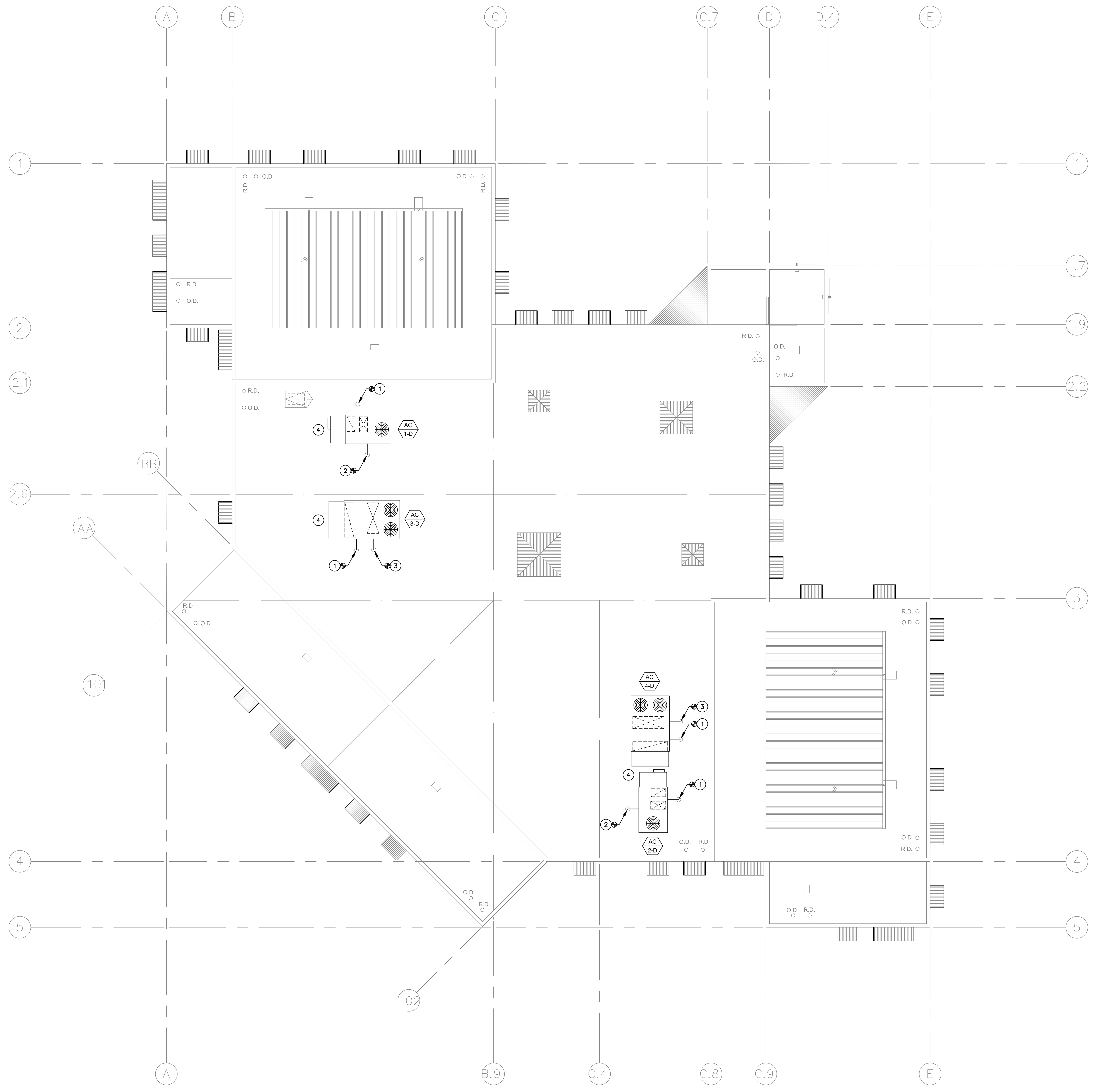
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 PROJECT NUMBER: 1726200

**MECHANICAL
 ROOF PLAN -
 BLDG C**

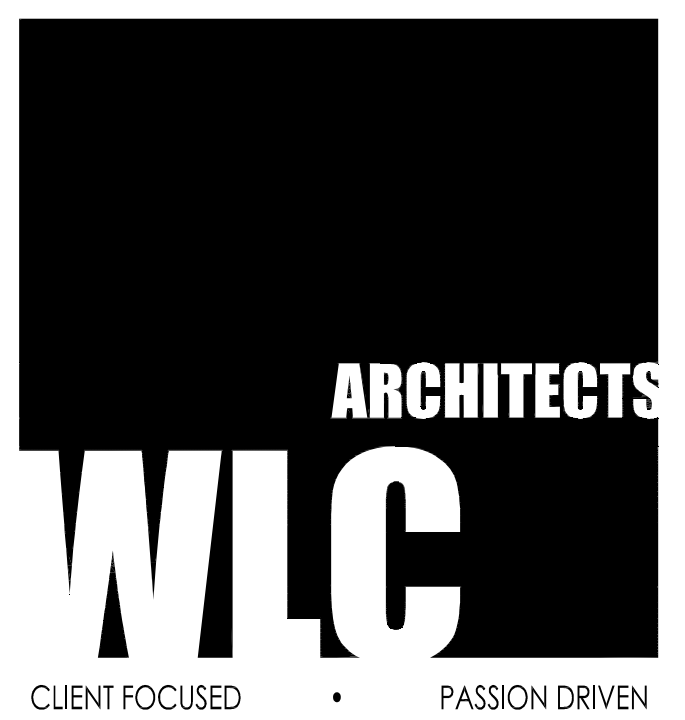
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1 MECHANICAL ROOF PLAN - BLDG C
 1/8" = 1'-0"



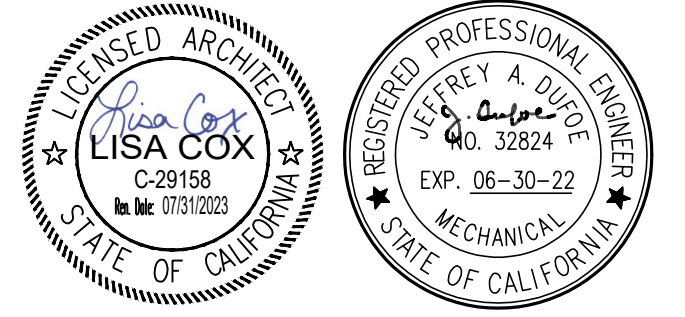


- NOTES:
- 1 CONNECT NEW 1" CONDENSATE DRAIN TO EXISTING MAIN.
 - 2 CONNECT NEW 3/4" GAS TO EXISTING MAIN.
 - 3 CONNECT NEW 1" GAS TO EXISTING MAIN.
 - 4 RTU OUTSIDE AIR INTAKE. REFER TO SCHEDULE SHEET M-1.1.



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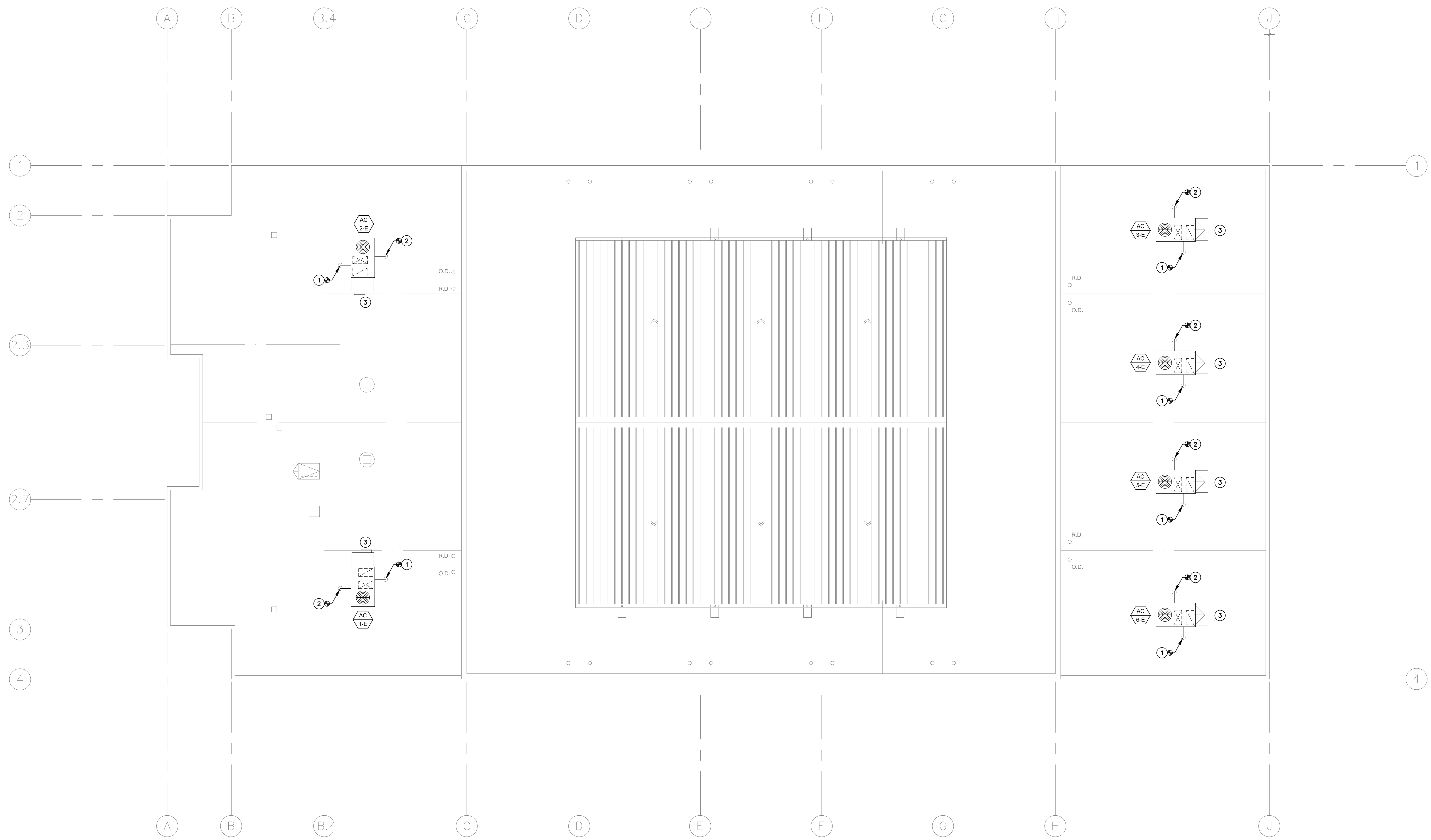
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REVISIONS			

DRAWN: RV CHECKED: JD
 DATE: 03/10/2021 SCALE:
 PROJECT NUMBER: 1726200

**MECHANICAL
 ROOF PLAN -
 BLDG D**

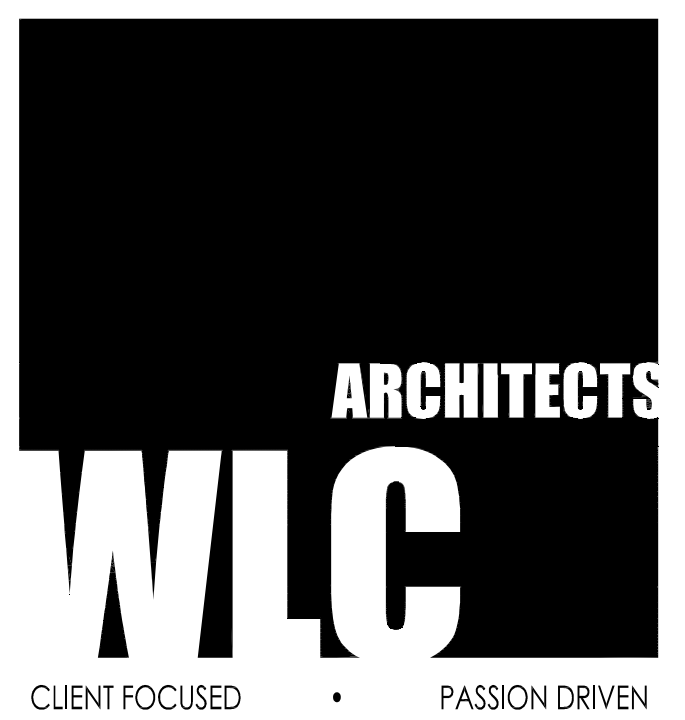
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1 MECHANICAL ROOF PLAN - BLDG D
 1/8" = 1'-0"



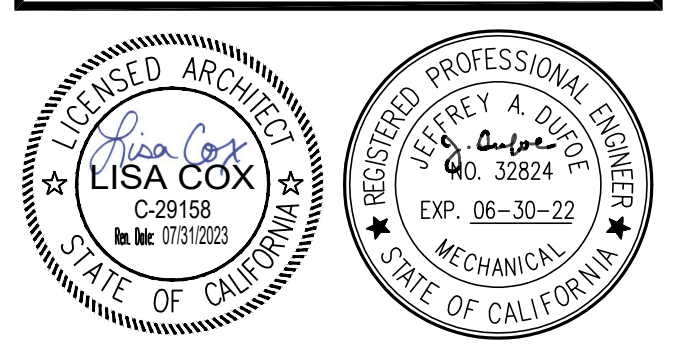
1 MECHANICAL ROOF PLAN - BLDG E
 1/8" = 1'-0"

- NOTES:**
- ① CONNECT NEW 1" CONDENSATE DRAIN TO EXISTING MAIN.
 - ② CONNECT NEW 3/4" GAS TO EXISTING MAIN.
 - ③ RTU OUTSIDE AIR INTAKE. REFER TO SCHEDULE SHEET M-1.1.



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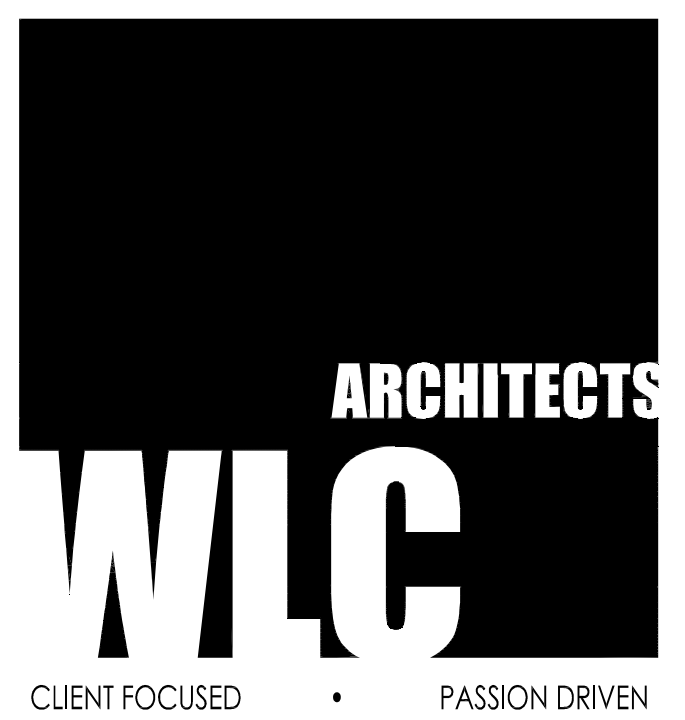


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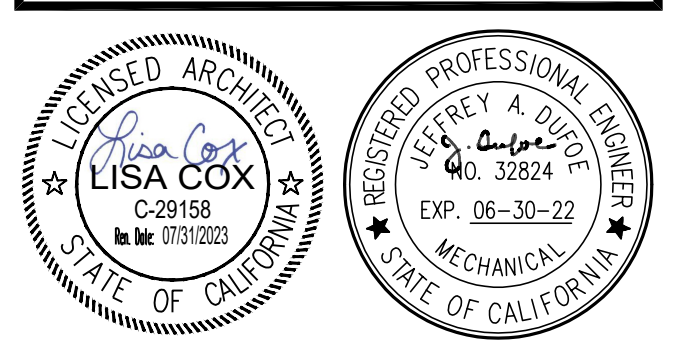
**MECHANICAL
 ROOF PLAN -
 BLDG E**

DRAWING NUMBER: **M-2.E**



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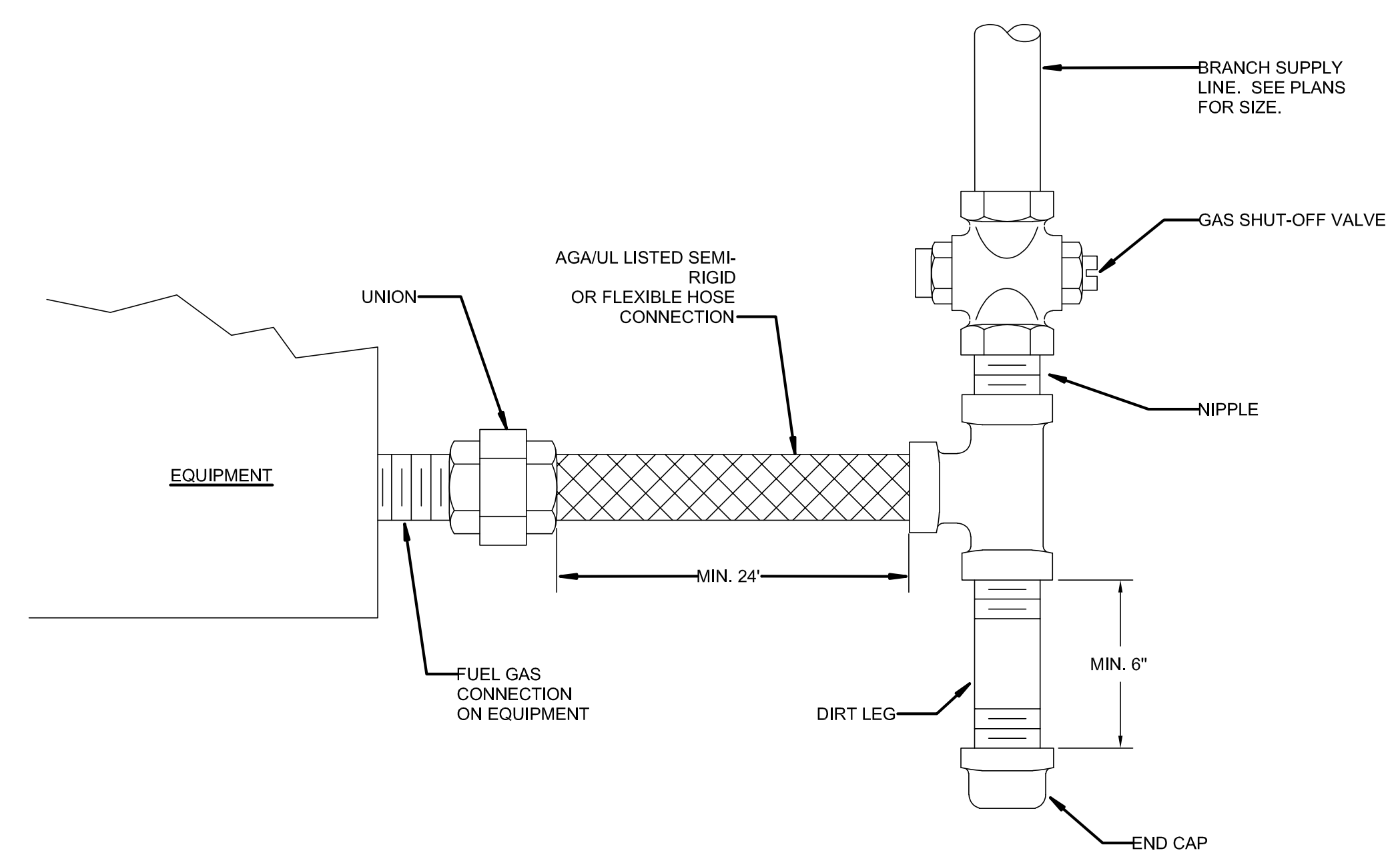


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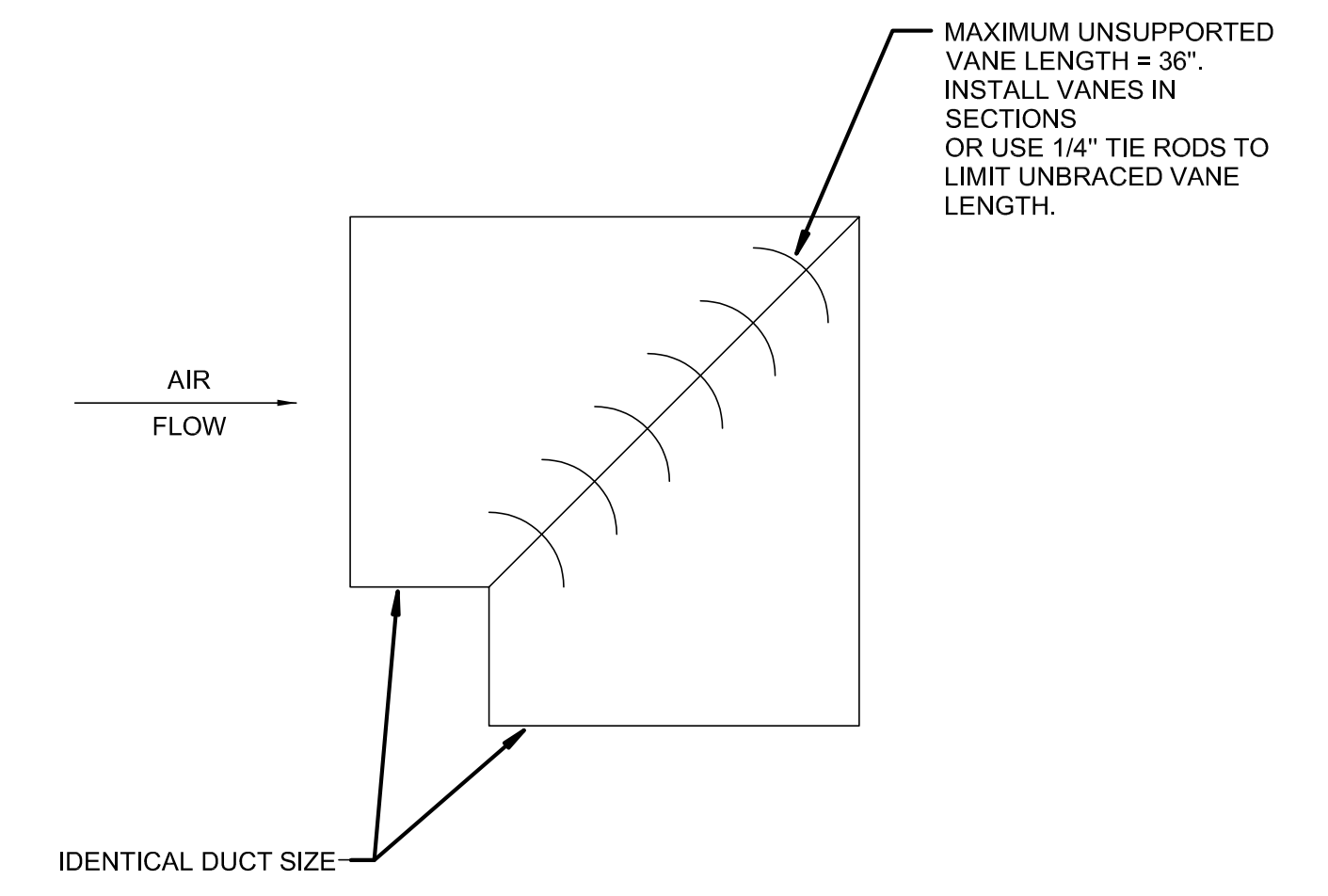
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DATE: 03/10/2021	SCALE:
PROJECT NUMBER: 1726200	

**MECHANICAL
 DETAILS**

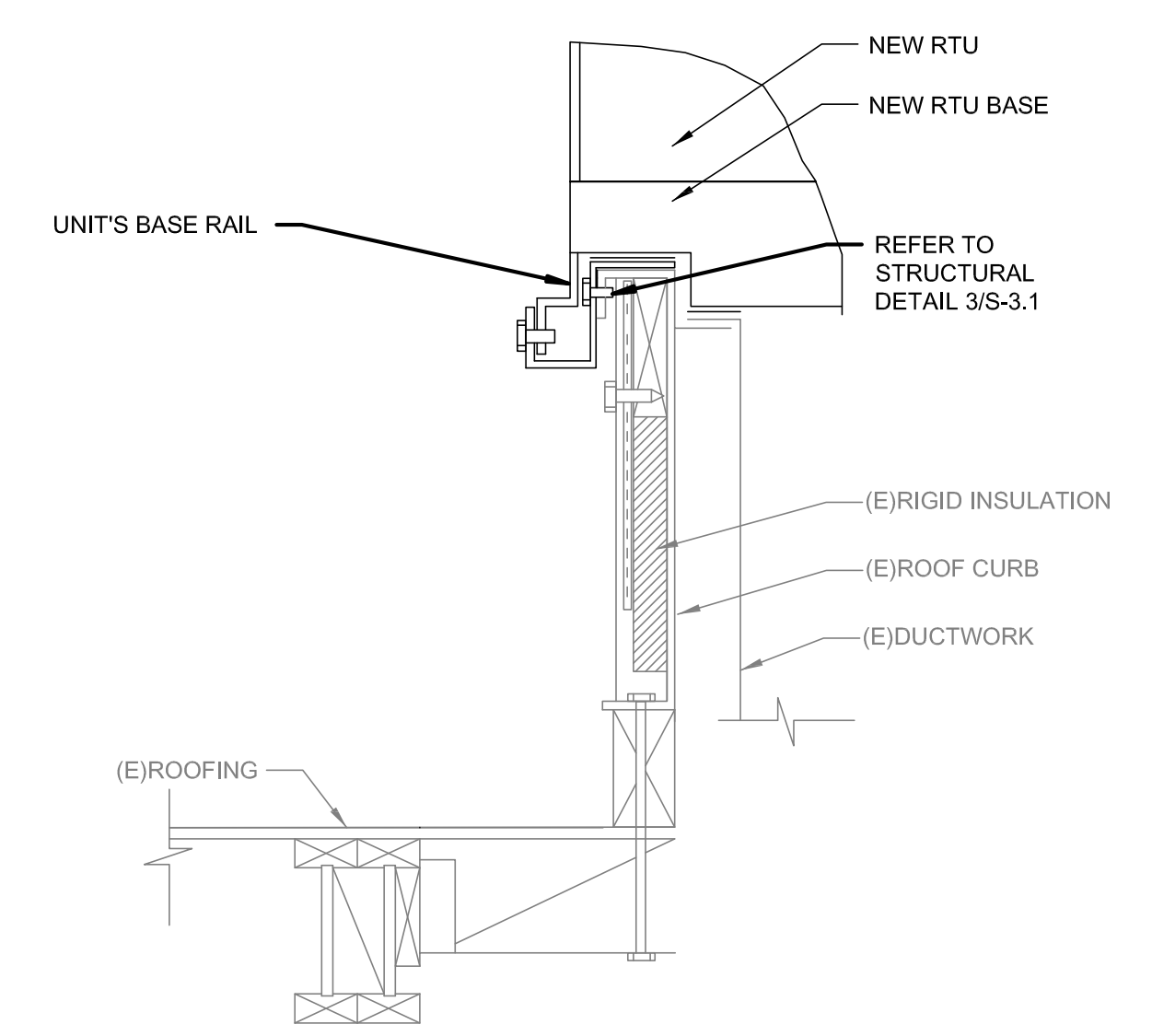
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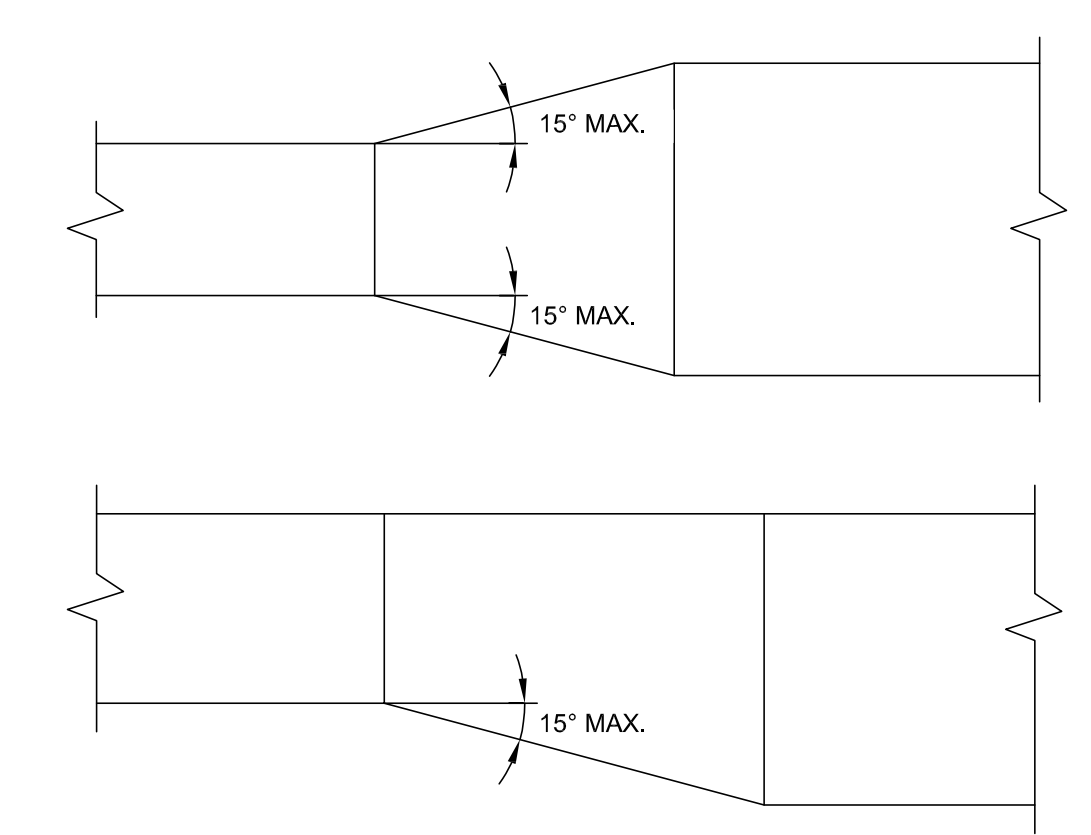
5 EQUIPMENT FUEL GAS CONNECTION DETAIL
 NONE



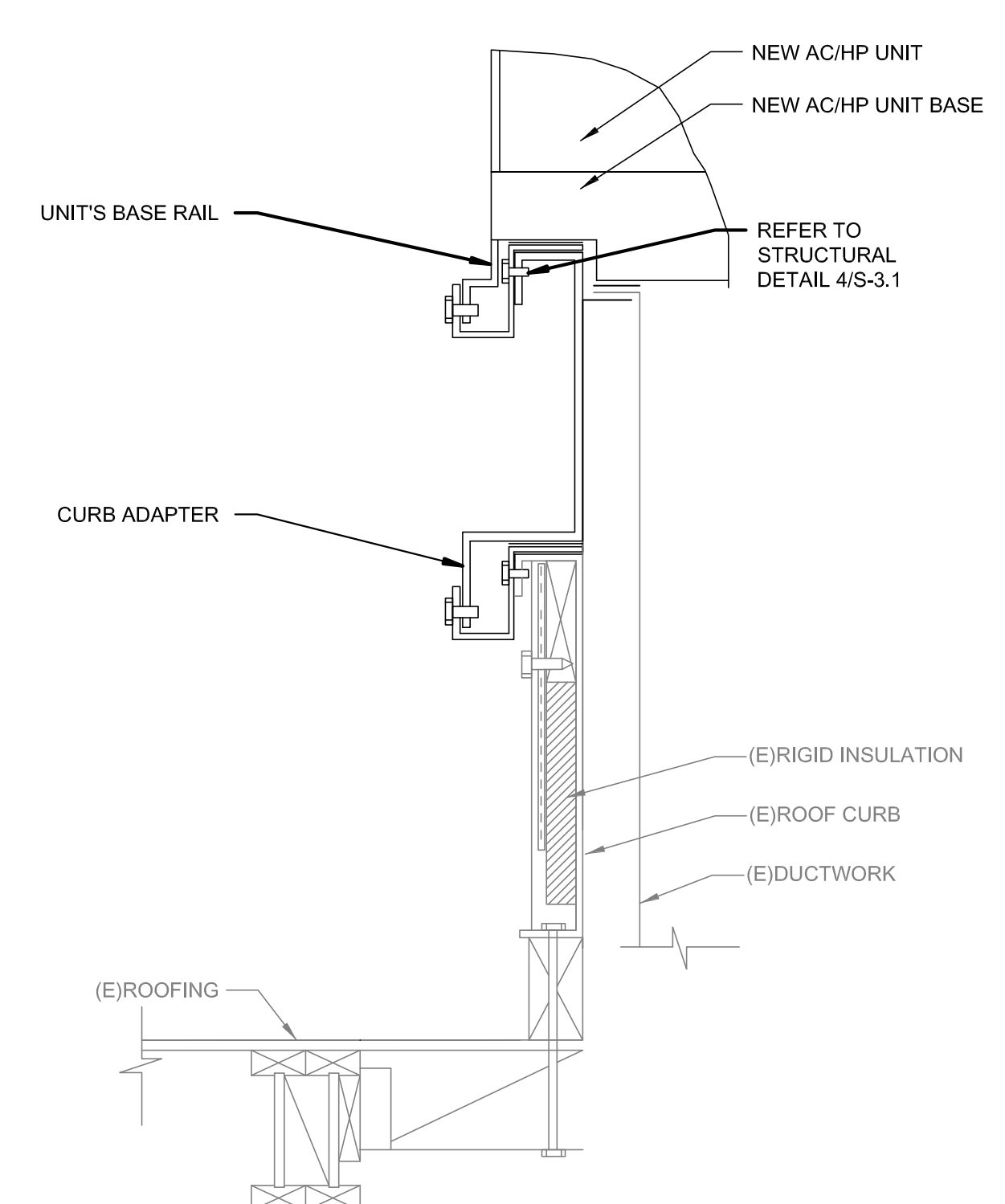
1 FILTERED ELBOW WITH TURNING VANES DETAIL
 NONE



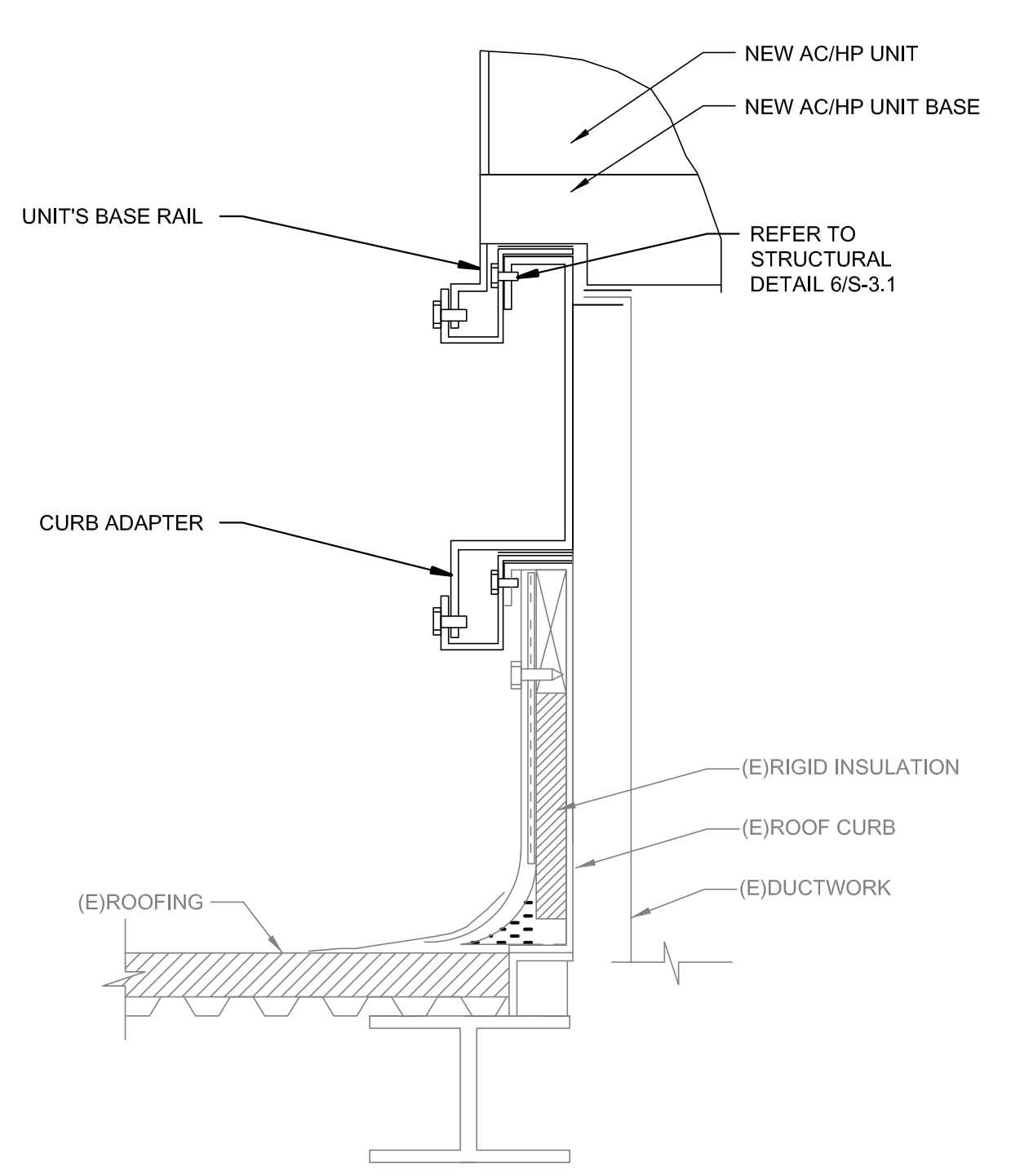
6 RTU AND EXISTING ROOF CURB DETAIL
 NONE



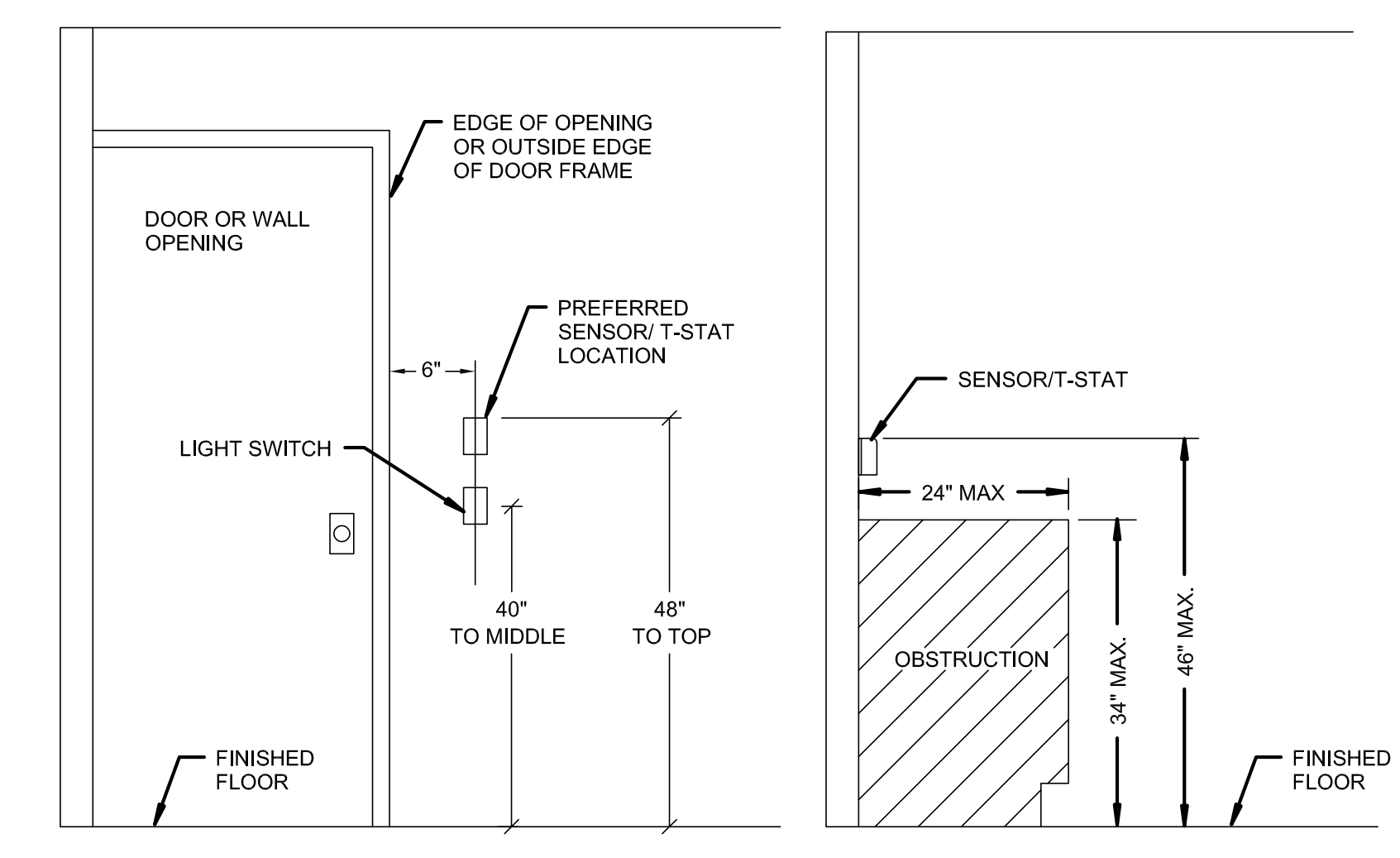
2 DUCT TRANSITION DETAIL
 NONE



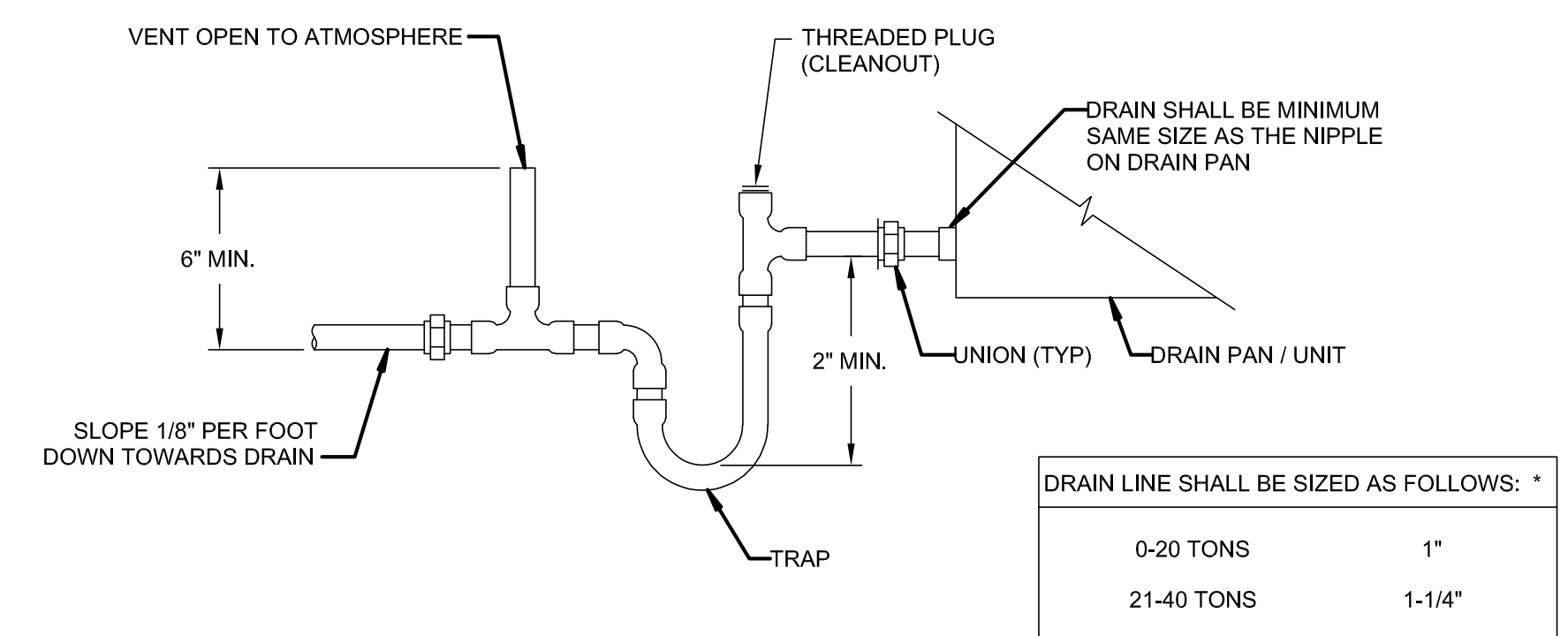
8 RTU, CURB ADAPTER, AND EXISTING ROOF CURB DETAIL
 NONE



7 RTU, CURB ADAPTER, AND EXISTING ROOF CURB DETAIL
 NONE



3 THERMOSTAT MOUNTING DETAIL
 NONE



4 CONDENSATE DRAIN DETAIL
 NONE

* BUT NOT LESS THAN FULL SIZE EQUIP. CONN.

ABBREVIATIONS

A	AMPERE (AMPS)
AC	ALTERNATING CURRENT
AF	AMPS-FRAME (RATING)
AIC	AMP INTERRUPTING CURRENT
AM	AMMETER
AS	AMP SWITCH (RATED SWITCH RATING)
AT	AMPS-TRIP (RATING)
AWG	AMERICAN WIRE GAUGE
BC	BARE COPPER
BLDG	BUILDING
C	CONDUIT
CB	CIRCUIT BREAKER
CO	CONDUIT ONLY
CT	CURRENT TRANSFORMER
CU	COPPER
COI	CONTRACTOR FURNISHED OWNER INSTALLED
COCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
DPDT	DOUBLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
DWG	DRAWING
EX	EXISTING
FLA	FULL LOAD AMPS
FVR	FULL VOLTAGE REVERSING
FVNR	FULL VOLTAGE NON-REVERSING
GFI	GROUND FAULT INTERRUPTER
GRD/GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HZ	HERTZ
KW	KILOWATT
LCL	LONG CONTINUOUS LOAD
LRA	LOCKED ROTOR AMPS
LTG	LIGHTING
MCA	MINIMUM CIRCUIT AMPACITY
MCC	MOTOR CONTROL CENTER
MCM (KCM)	THOUSAND CIRCULAR MILS
MECH	MECHANICAL
NC	NORMALLY CLOSED
NF	NON-FUSED
NO	NORMALLY OPEN/NUMBER
NOCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
P	POLE
PH	PHASE
POC	POINT OF CONNECTION
FRS	PVC COATED RIGID STEEL (CONDUIT)
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE DUCT
SUBD	SWITCHBOARD
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
V	VOLT
VA	VOLT-AMPERES
VM	VOLTMETER
VL	VERIFY LOCATION
W	WIRE/WIRES
WP	WEATHERPROOF (NEMA TYPE 3R)
WT	WATERTIGHT
XP	EXPLOSION PROOF (RATED FOR AREA HAZARD)

ELECTRICAL SYMBOL LEGEND

DISTRIBUTION EQUIPMENT	
	DRAW OUT TYPE EQUIPMENT
	VACUUM CIRCUIT BREAKER, RATING AS NOTED.
	AIR INTERRUPTER SWITCH AND FUSE
	AIR INTERRUPTER
	FUSE
	POWER TRANSFORMER, RATING AS NOTED
	POWER CIRCUIT BREAKER DRAWOUT
	AUTOMATIC TRANSFER SWITCH, SEE SCHEDULE
	AMMETER
	VOLTMETER
	CIRCUIT BREAKER 200AF 200 AMP FRAME 200AT 200 AMP TRIP 3P 3 POLE 1000AIC 1000 AMPS INTERRUPTING CURRENT
	FUSED SWITCH 200AS 200 AMP SWITCH 200AF 200 AMP FUSE 3P 3 POLE
	UTILITY COMPANY METER

POWER	
	DUPLEX RECEPTACLE, FLOOR MOUNTED
	DUPLEX RECEPTACLE, WALL MOUNTED, 48" AFF. (UON)
	RECEPTACLE, WALL MOUNTED HORIZONTALLY, 48" AFF. (UON)
	FOURPLEX RECEPTACLE, WALL MOUNTED, 48" AFF. (UON)
	PROVIDE (2) DUPLEX RECEPTACLE CEILING MOUNTED LOCATE ADJACENT TO PROJECTOR FIELD VERIFY EXACT LOCATION PRIOR TO ROUGH-IN.
	SINGLE RECEPTACLE, WALL MOUNTED 48" AFF. (UON)
	SINGLE RECEPTACLE (CLOCK HANGER TYPE) WALL MOUNTED 41"-0" AFF. (UON)
	SWITCH CONTROLLED DUPLEX RECEPTACLE 48" AFF. (UON)
	DUPLEX GROUND FAULT INTERRUPTING RECEPTACLE 48" AFF. (UON)
	DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT 48" AFF. (UON)
	DUPLEX RECEPTACLE IN WEATHERPROOF ENCLOSURE 48" AFF. (UON)
	DUPLEX RECEPTACLE IN WEATHERPROOF 'LOCKING' ENCLOSURE 48" AFF. (UON) (SEE TYPICAL DETAILS E3 SERIES SHEETS AND SPECIFICATIONS FOR REQUIRED TYPE)
	DUPLEX RECEPTACLE (ORANGE) ISOLATED GROUND WALL MOUNTED 48" AFF. (UON)
	FOURPLEX RECEPTACLE (ORANGE) ISOLATED GROUND WALL MOUNTED 48" AFF. (UON)
	JUNCTION BOX, CEILING OR WALL MOUNTED
	FUSED DISCONNECT SWITCH, WHERE SHOWN NF = NON-FUSED.
	MANUAL MOTOR STARTER WITH OVERLOAD PROTECTION 48" AFF. OR ON EQUIPMENT (UON)
	MOTOR CONNECTION, NUMERAL INDICATES HORSEPOWER
	MECHANICAL EQUIPMENT TAG (SEE MECHANICAL DRAWINGS FOR DESCRIPTION)
	CONDUIT AND WIRE, CONCEALED IN CEILING OR WALL
	CONDUIT AND WIRE, CONCEALED IN OR UNDER FINISHED FLOOR OR UNDER FINISHED GRADE.
	FLEXIBLE CONDUIT CONNECTION
	BRANCH CIRCUIT HOMERUN TO PANEL, SLASHES INDICATE NUMBER OF CONDUCTORS, EQUIPMENT GROUND WIRE NOT INDICATED UON. #2 CONDUCTORS ARE MINIMUM, NO HASH MARKS = MIN (2) #2
	3/4" CONDUIT STUBBED FROM DEVICE TO ABOVE ACCESSIBLE CEILING
	BRANCH CIRCUIT HOMERUN, NUMBER INDICATES INCREASED CONDUCTOR SIZE, CONDUCTORS SHALL REMAIN AS INDICATED FOR SIZE THROUGHOUT THE ENTIRE CIRCUIT.
	CONDUIT DROP.
	CONDUIT RISER.
	PANELBOARD, SURFACE MOUNTED.
	PANELBOARD, RECESSED
	STEP-DOWN TRANSFORMER
	DISTRIBUTION SWITCHBOARD

GENERAL PROJECT NOTES:

- UNLESS WHERE OTHERWISE NOTED, ALL WORK INDICATED ON THESE DRAWINGS SHALL BE CONSIDERED NEW WORK.
- UNLESS WHERE OTHERWISE NOTED, ALL DIMENSIONS ARE TO BE CENTERLINE OF THE DEVICE.
- "GENERAL NOTES" SHOWN ON AN INDIVIDUAL DRAWING APPLY TO ALL WORK SHOWN ON THAT SHEET. "KEY NOTES" ONLY APPLY TO SPECIFIC ITEMS WHERE ANNOTATED AT SPECIFIC LOCATIONS. SOME KEY NOTES MAY NOT APPLY TO ANY SPECIFIC ITEMS.
- UNLESS SPECIFICALLY SHOWN ON THESE PLANS, NO STRUCTURAL MEMBER SHALL BE CUT, NEITHER DRILLED NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER AND THE DIVISION OF THE STATE ARCHITECT.

MEP COMPONENT ANCHORAGE NOTE:

MEP COMPONENT ANCHORAGE NOTE
 ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA- APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC SECTIONS 1611A.18 THROUGH 1611A.126 AND ASCE 7-16 CHAPTERS 13, 26, AND 30.

- ALL PERMANENT EQUIPMENT AND COMPONENTS.
- TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. PERMANENTLY ATTACHED SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
- TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

- COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVING A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
- COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

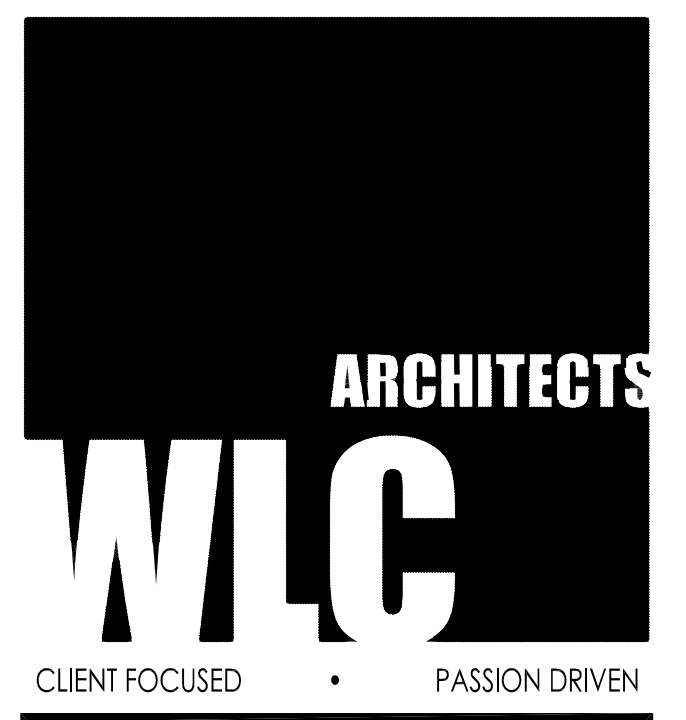
THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE
 PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8 AND 2019 CBC, SECTIONS 1611A.124, 1611A.125 AND 1611A.126.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A FREAPPROVED INSTALLATION GUIDE (E.G. OSHPD OFM FOR 2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

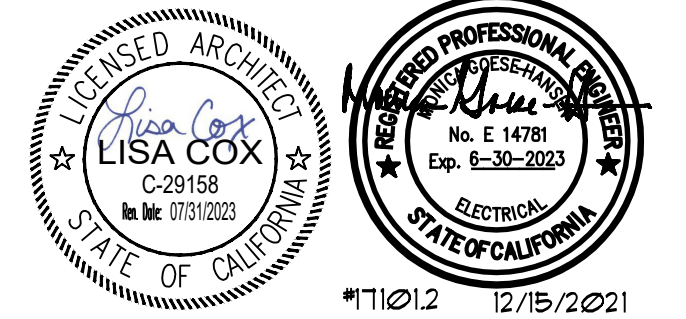
MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E).

- OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.
- OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD FRE-APPROVED (OFM) *



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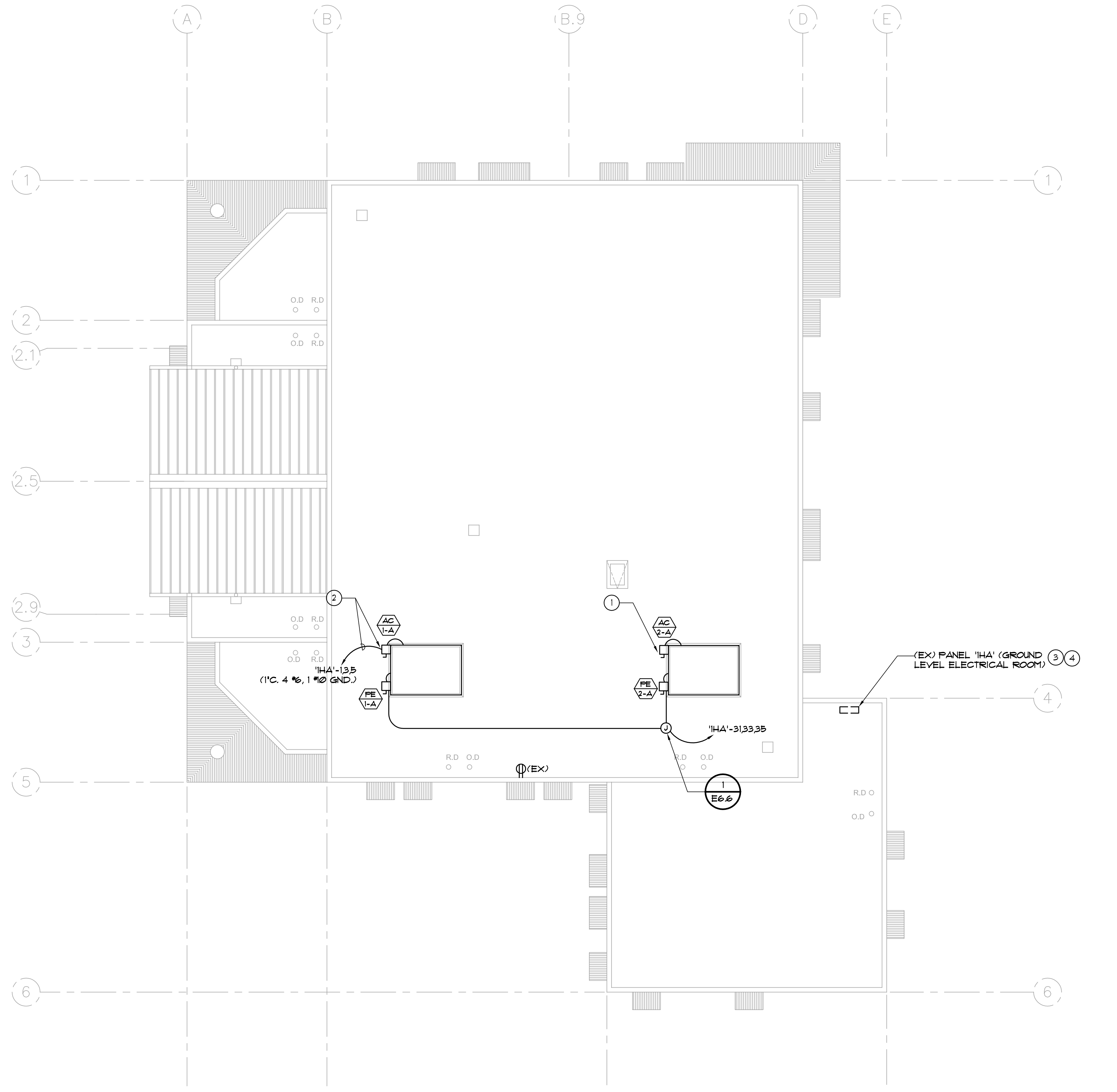
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**ELECTRICAL
 LEGEND & NOTES**

DRAWING NUMBER: **E-1.0**



1 ELECTRICAL ROOF PLAN - BLDG A
 1/8" = 1'-0"

GENERAL NOTES:

1. REFERENCE MECHANICAL PLANS FOR EXACT EQUIPMENT LOCATIONS PRIOR TO ROUGH-IN.
2. WHERE DRAWINGS SHOW EXISTING CONDITIONS, THEY HAVE BEEN DERIVED FROM EXISTING DRAWINGS AND/OR SITE INVESTIGATIONS. AN ATTEMPT HAS BEEN MADE TO SHOW ALL EXISTING ELECTRICAL EQUIPMENT LOCATIONS AND CHARACTERISTICS THAT WOULD AFFECT NEW WORK, AS ACCURATELY AS POSSIBLE. HOWEVER THIS DOES NOT RELIEVE THE ELECTRICAL CONTRACTOR FROM RESPONSIBILITY OF A THOROUGH SITE INVESTIGATION PRIOR TO SUBMITTING FINAL BID, TO ASCERTAIN ALL EXISTING CONDITIONS AND LIMITATIONS.
3. COORDINATE THE POINT OF CONNECTION FOR EACH AC UNIT WITH MECHANICAL CONTRACTOR.
4. REFER TO MECHANICAL EQUIPMENT SCHEDULE ON E66 FOR DISCONNECT SWITCH AND FUSES REQUIREMENTS FOR ALL NEW AC UNITS.
5. FIELD VERIFY EXACT PANEL, CIRCUIT, CONDUIT AND CONDUCTOR INFORMATION FOR EACH EXISTING UNIT.
6. ALL NON-HVAC ITEMS ATTACHED TO THE EXISTING UNITS SHALL BE CAREFULLY DISCONNECTED AND REMOVED, RE-INSTALL IN AN ALTERNATE LOCATION UPON COMPLETION OF NEW UNIT INSTALLATION. THE ITEMS SHALL BE TRANSFERRED AND RE-INSTALLED ON THE NEW UNIT IN THE SAME LOCATION AS REQUIRED. REPLACE EXISTING FLEX CONDUIT AS REQUIRED.
7. FIELD VERIFY EXACT LOCATION PRIOR TO DISCONNECT SWITCH INSTALLATION. COORDINATE WITH MECHANICAL CONTRACTOR AS REQUIRED.

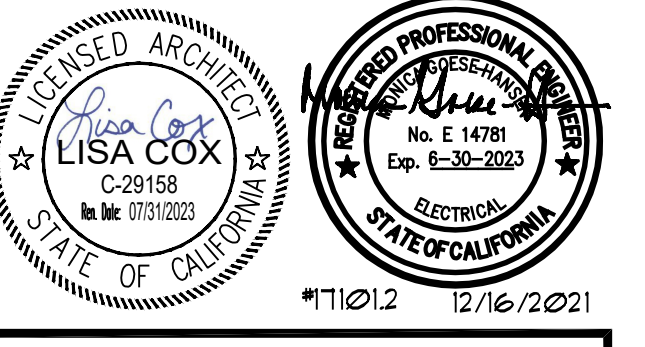
KEY NOTES:

1. DISCONNECT AND REMOVE EXISTING ELECTRICAL CONNECTION TO EXISTING AC UNITS BEING REMOVED, INCLUDING DISCONNECT SWITCH, UP J-BOX DUPLEX RECEPTACLE AND FLEX CONNECTOR CONDUIT. EXISTING WIRING SHALL BE SAFED-OFF PROTECTED AND RE-INSTALLED. PROVIDE NEW DISCONNECT SWITCH AND FUSES PER HVAC SCHEDULE. EXTEND EXISTING FEEDER TO NEW DISCONNECT AND AC UNIT AS REQUIRED.
2. DISCONNECT AND REMOVE EXISTING ELECTRICAL CONNECTION TO EXISTING AC UNITS BEING REMOVED, INCLUDING DISCONNECT SWITCH, UP J-BOX DUPLEX RECEPTACLE AND FLEX CONNECTOR CONDUIT. EXISTING WIRING SHALL BE REMOVED COMPLETELY BACK TO SOURCE. PROVIDE NEW DISCONNECT SWITCH, FUSES, CONDUIT AND WIRING PER HVAC SCHEDULE. CONNECT NEW CONDUCTORS TO NEW 60A/3P BREAKER, DISCONNECT SWITCH AND AC UNIT AS REQUIRED.
3. PROVIDE (1) 25A/3P BREAKERS IN EXISTING SPACE #1, #3 AND #5, MATCH EXISTING BREAKER TYPE AND RATING.
4. DISCONNECT AND REMOVE EXISTING 80A/3P BREAKER AT CIRCUIT #1, #3, #5. REPLACE WITH A 60A/3P BREAKER. MATCH EXISTING BREAKER SIZE AND RATING.



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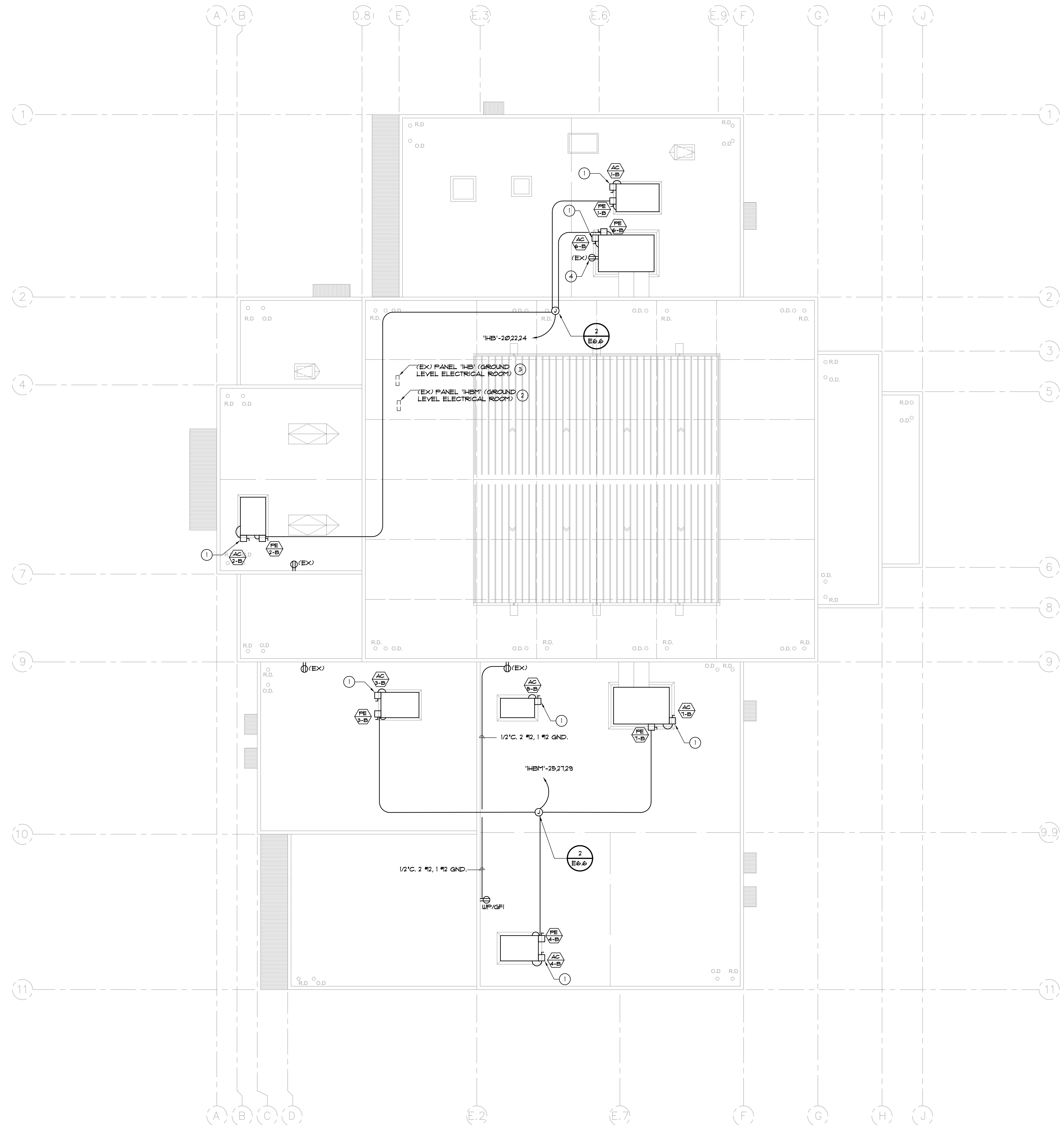
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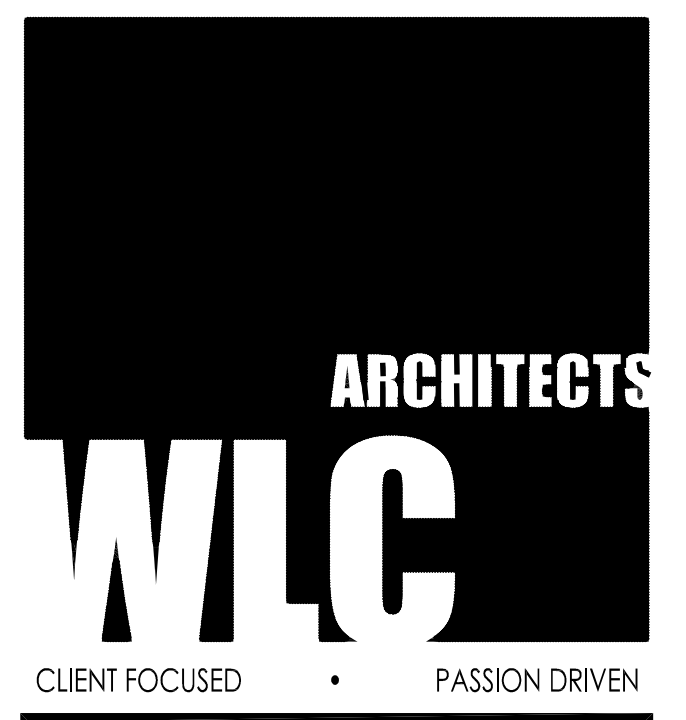
**ELECTRICAL
 ROOF PLAN -
 BLDG A**

DRAWING NUMBER: **E-6.1**



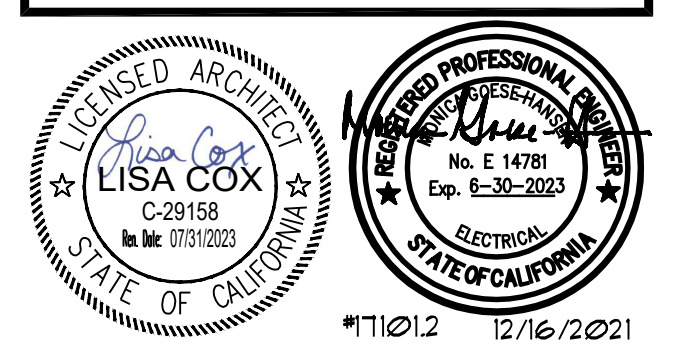
- GENERAL NOTES:**
1. REFERENCE MECHANICAL PLANS FOR EXACT EQUIPMENT LOCATIONS PRIOR TO ROUGH-IN.
 2. WHERE DRAWINGS SHOW EXISTING CONDITIONS, THEY HAVE BEEN DERIVED FROM EXISTING DRAWINGS AND/OR SITE INVESTIGATIONS. AN ATTEMPT HAS BEEN MADE TO SHOW ALL EXISTING ELECTRICAL EQUIPMENT LOCATIONS AND CHARACTERISTICS THAT WOULD AFFECT NEW WORK, AS ACCURATELY AS POSSIBLE. HOWEVER THIS DOES NOT RELIEVE THE ELECTRICAL CONTRACTOR FROM RESPONSIBILITY OF A THOROUGH SITE INVESTIGATION, PRIOR TO SUBMITTING FINAL BID, TO ASCERTAIN ALL EXISTING CONDITIONS AND LIMITATIONS.
 3. COORDINATE THE POINT OF CONNECTION FOR EACH AC UNIT WITH MECHANICAL CONTRACTOR.
 4. REFER TO MECHANICAL EQUIPMENT SCHEDULE ON E6.6 FOR DISCONNECT SWITCH AND FUSES REQUIREMENTS FOR ALL NEW AC UNITS.
 5. FIELD VERIFY EXACT PANEL, CIRCUIT, CONDUIT AND CONDUCTOR INFORMATION FOR EACH EXISTING UNIT.
 6. ALL NON-HVAC ITEMS ATTACHED TO THE EXISTING UNITS SHALL BE CAREFULLY DISCONNECTED AND REMOVED. RE-INSTALL IN AN ALTERNATE LOCATION. UPON COMPLETION OF NEW UNIT INSTALLATION, THE ITEMS SHALL BE TRANSFERRED AND RE-INSTALLED ON THE NEW UNIT IN THE SAME LOCATION AS REQUIRED. REPLACE EXISTING FLEX CONDUIT AS REQUIRED.
 7. FIELD VERIFY EXACT LOCATION PRIOR TO DISCONNECT SWITCH INSTALLATION. COORDINATE WITH MECHANICAL CONTRACTOR AS REQUIRED.

- KEY NOTES:**
1. DISCONNECT AND REMOVE EXISTING ELECTRICAL CONNECTION TO EXISTING AC UNITS BEING REMOVED, INCLUDING DISCONNECT SWITCH, UP J-BOX DUPLEX RECEPTACLE AND FLEX CONNECTOR CONDUIT. EXISTING WIRING SHALL BE SAFE-OFF PROTECTED AND RE-INSTALLED. PROVIDE NEW DISCONNECT SWITCH AND FUSES PER HVAC SCHEDULE. EXTEND EXISTING FEEDER TO NEW DISCONNECT AND AC UNIT AS REQUIRED.
 2. PROVIDE (1) 25A/3P BREAKERS IN EXISTING SPACE #5, #1 AND #3. MATCH EXISTING BREAKER TYPE AND RATING.
 3. DISCONNECT AND REMOVE EXISTING (3) 20A/1P BREAKERS AT CIRCUIT #2, #22 AND #24. REPLACE WITH (1) 30A/3P BREAKER. MATCH EXISTING BREAKER TYPE AND RATING.
 4. DISCONNECT AND REMOVE EXISTING RECEPTACLE MOUNTED TO THE EXISTING UNIT. SAFE-OFF EXISTING CIRCUIT AND PROTECT IN PLACE. RE-INSTALL THE RECEPTACLE ON NEW UNIT AS REQUIRED. EXISTING CONDUIT SHALL BE REPLACED WITH NEW CONDUIT AND EXTEND EXISTING CIRCUIT TO THE RECEPTACLE AS REQUIRED.



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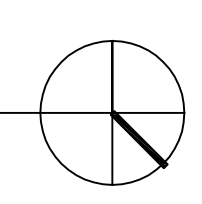
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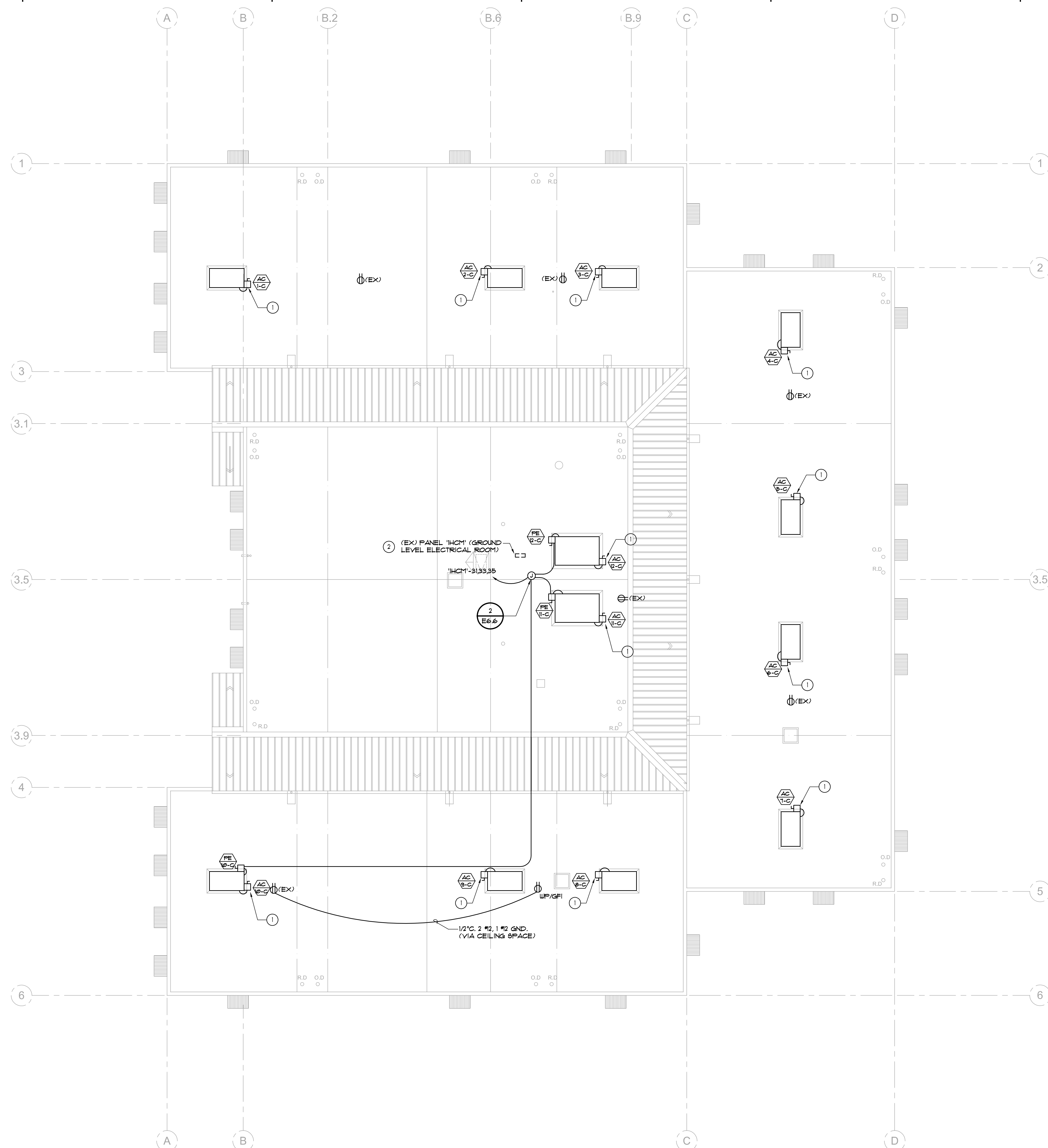
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**ELECTRICAL
 ROOF PLAN -
 BLDG B**

DRAWING NUMBER: **E-6.2**

1 ELECTRICAL ROOF PLAN - BLDG B
 1/8" = 1'-0"



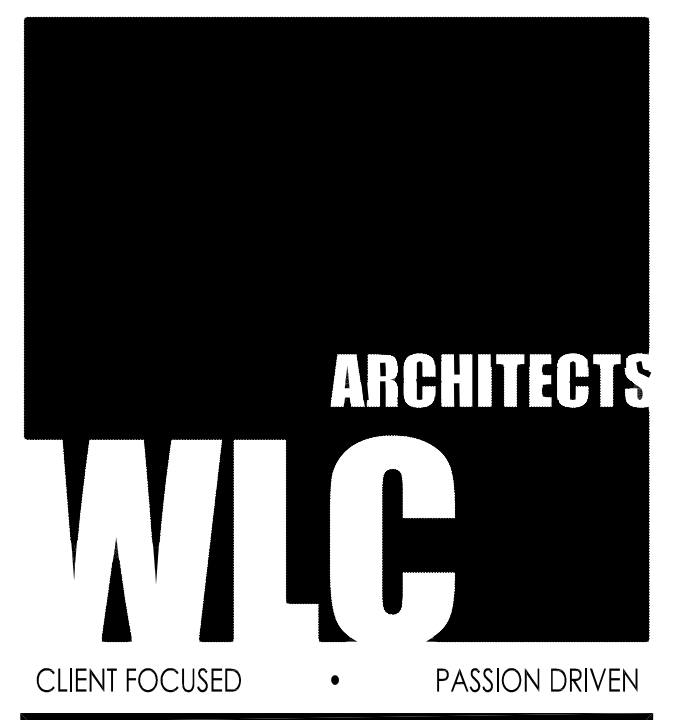


GENERAL NOTES:

1. REFERENCE MECHANICAL PLANS FOR EXACT EQUIPMENT LOCATIONS PRIOR TO ROUGH-IN.
2. WHERE DRAWINGS SHOW EXISTING CONDITIONS, THEY HAVE BEEN DERIVED FROM EXISTING DRAWINGS AND/OR SITE INVESTIGATIONS, AN ATTEMPT HAS BEEN MADE TO SHOW ALL EXISTING ELECTRICAL EQUIPMENT LOCATIONS AND CHARACTERISTICS THAT WOULD AFFECT NEW WORK, AS ACCURATELY AS POSSIBLE, HOWEVER THIS DOES NOT RELIEVE THE ELECTRICAL CONTRACTOR FROM RESPONSIBILITY OF A THOROUGH SITE INVESTIGATION, PRIOR TO SUBMITTING FINAL BID TO ASCERTAIN ALL EXISTING CONDITIONS AND LIMITATIONS.
3. COORDINATE THE POINT OF CONNECTION FOR EACH AC UNIT WITH MECHANICAL CONTRACTOR.
4. REFER TO MECHANICAL EQUIPMENT SCHEDULE ON E6.6 FOR DISCONNECT SWITCH AND FUSES REQUIREMENTS FOR ALL NEW AC UNITS.
5. FIELD VERIFY EXACT PANEL, CIRCUIT, CONDUIT AND CONDUCTOR INFORMATION FOR EACH EXISTING UNIT.
6. ALL NON-HVAC ITEMS ATTACHED TO THE EXISTING UNITS SHALL BE CAREFULLY DISCONNECTED AND REMOVED, RE-INSTALL IN AN ALTERNATE LOCATION, UPON COMPLETION OF NEW UNIT INSTALLATION, THE ITEMS SHALL BE TRANSFERRED AND RE-INSTALLED ON THE NEW UNIT IN THE SAME LOCATION AS REQUIRED, REPLACE EXISTING FLEX CONDUIT AS REQUIRED.
7. FIELD VERIFY EXACT LOCATION PRIOR TO DISCONNECT SWITCH INSTALLATION, COORDINATE WITH MECHANICAL CONTRACTOR AS REQUIRED.

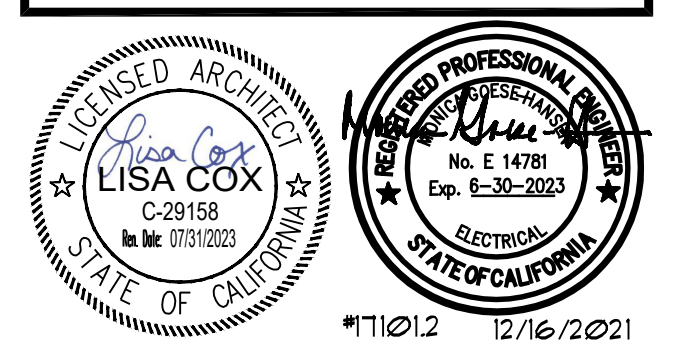
KEY NOTES:

- 1 DISCONNECT AND REMOVE EXISTING ELECTRICAL CONNECTION TO EXISTING AC UNITS BEING REMOVED, INCLUDING DISCONNECT SWITCH, WP J-BOX, DUPLEX RECEPTACLE AND FLEX CONNECTOR CONDUIT, EXISTING WIRING SHALL BE SAFED-OFF PROTECTED AND RE-INSTALLED. PROVIDE NEW DISCONNECT SWITCH AND FUSES PER HVAC SCHEDULE, EXTEND EXISTING FEEDER TO NEW DISCONNECT AND AC UNIT AS REQUIRED.
- 2 PROVIDE (1) 30A/3P BREAKERS IN EXISTING SPACE #5, #9 AND #5, MATCH EXISTING BREAKER TYPE AND RATING.



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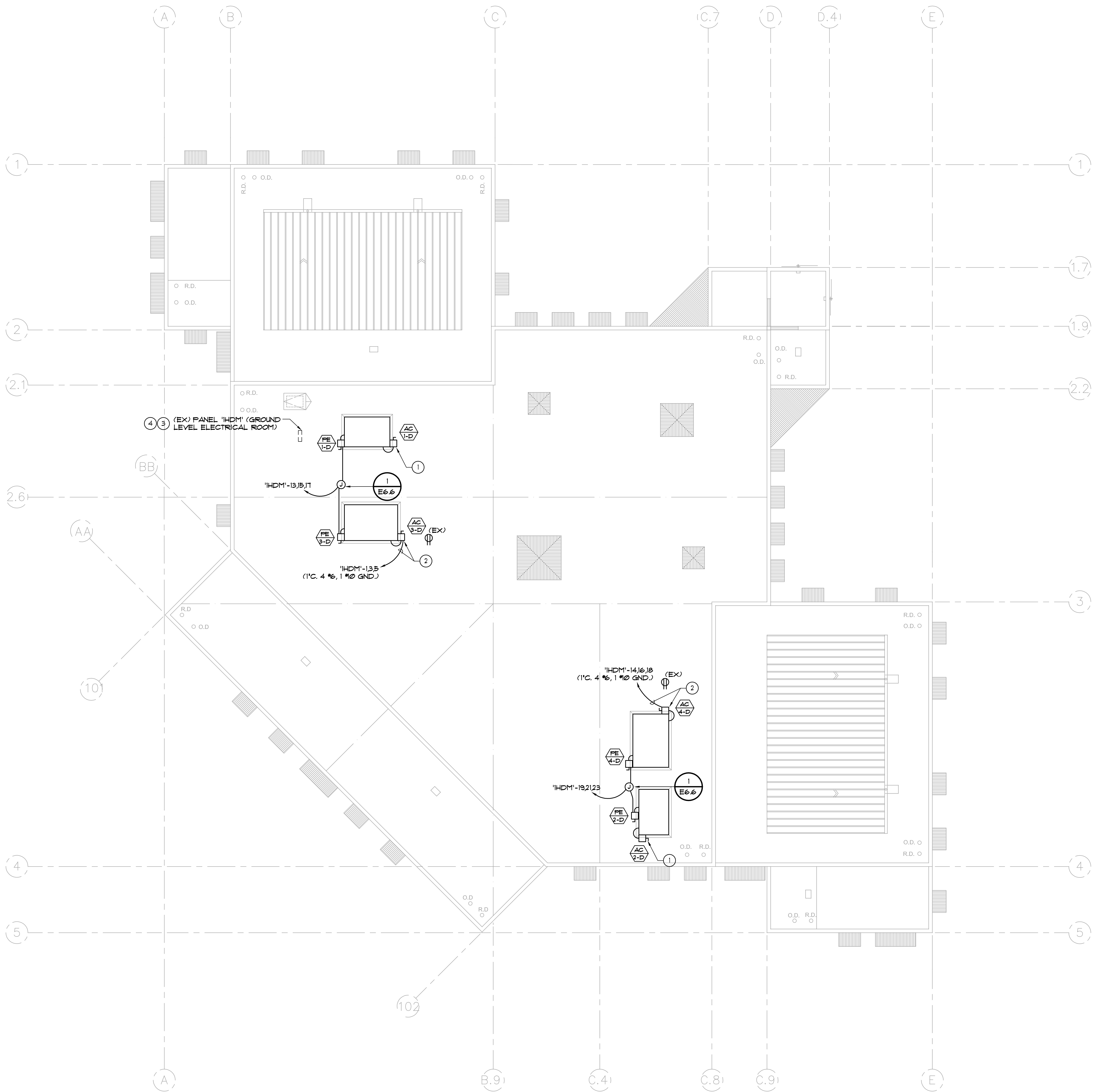
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 PROJECT NUMBER: 1726300

**ELECTRICAL
 ROOF PLAN -
 BLDG C**

DRAWING NUMBER: **E-6.3**

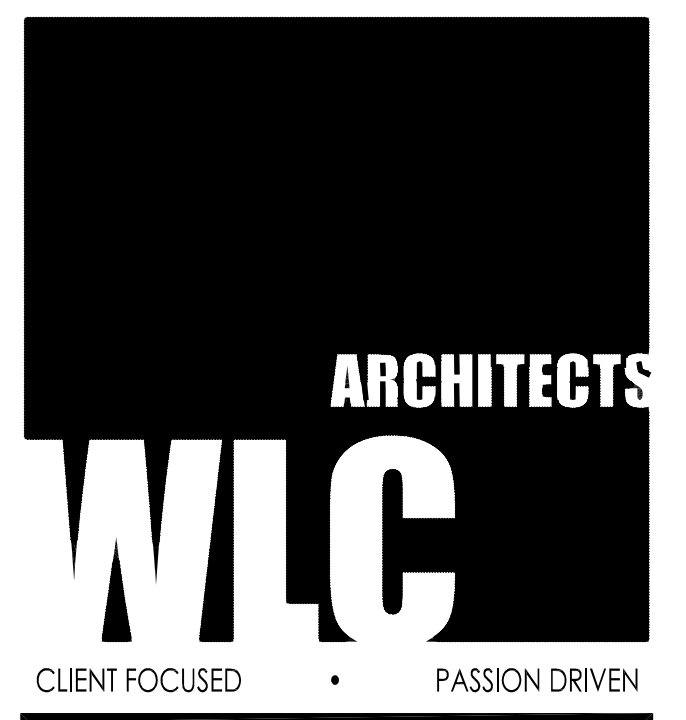
1 ELECTRICAL ROOF PLAN - BLDG C
 1/8" = 1'-0"



- GENERAL NOTES:**
1. REFERENCE MECHANICAL PLANS FOR EXACT EQUIPMENT LOCATIONS PRIOR TO ROUGH-IN.
 2. WHERE DRAWINGS SHOW EXISTING CONDITIONS, THEY HAVE BEEN DERIVED FROM EXISTING DRAWINGS AND/OR SITE INVESTIGATIONS, AN ATTEMPT HAS BEEN MADE TO SHOW ALL EXISTING ELECTRICAL EQUIPMENT LOCATIONS AND CHARACTERISTICS THAT WOULD AFFECT NEW WORK, AS ACCURATELY AS POSSIBLE, HOWEVER THIS DOES NOT RELIEVE THE ELECTRICAL CONTRACTOR FROM RESPONSIBILITY OF A THOROUGH SITE INVESTIGATION, PRIOR TO SUBMITTING FINAL BID, TO ASCERTAIN ALL EXISTING CONDITIONS AND LIMITATIONS.
 3. COORDINATE THE POINT OF CONNECTION FOR EACH AC UNIT WITH MECHANICAL CONTRACTOR.
 4. REFER TO MECHANICAL EQUIPMENT SCHEDULE ON E6.6 FOR DISCONNECT SWITCH AND FUSES REQUIREMENTS FOR ALL NEW AC UNITS.
 5. FIELD VERIFY EXACT PANEL, CIRCUIT, CONDUIT AND CONDUCTOR INFORMATION FOR EACH EXISTING UNIT.
 6. ALL NON-HVAC ITEMS ATTACHED TO THE EXISTING UNITS SHALL BE CAREFULLY DISCONNECTED AND REMOVED. RE-INSTALL IN AN ALTERNATE LOCATION. UPON COMPLETION OF NEW UNIT INSTALLATION, THE ITEMS SHALL BE TRANSFERRED AND REINSTALLED ON THE NEW UNIT IN THE SAME LOCATION AS REQUIRED. REPLACE EXISTING FLEX CONDUIT AS REQUIRED.
 7. FIELD VERIFY EXACT LOCATION PRIOR TO DISCONNECT SWITCH INSTALLATION. COORDINATE WITH MECHANICAL CONTRACTOR AS REQUIRED.

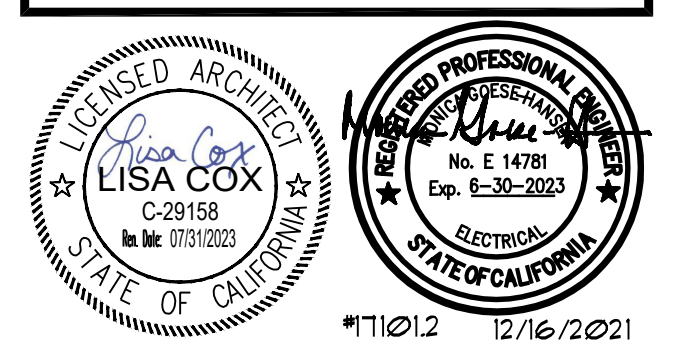
- KEY NOTES:**
1. DISCONNECT AND REMOVE EXISTING ELECTRICAL CONNECTION TO EXISTING AC UNITS BEING REMOVED, INCLUDING DISCONNECT SWITCH, WP J-BOX DUPLEX RECEPTACLE AND FLEX CONNECTOR CONDUIT. EXISTING WIRING SHALL BE SAFFED-OFF PROTECTED AND RE-INSTALLED. PROVIDE NEW DISCONNECT SWITCH AND FUSES PER HVAC SCHEDULE. EXTEND EXISTING FEEDER TO NEW DISCONNECT AND AC UNIT AS REQUIRED.
 2. DISCONNECT AND REMOVE EXISTING ELECTRICAL CONNECTION TO EXISTING AC UNITS BEING REMOVED, INCLUDING DISCONNECT SWITCH, WP J-BOX DUPLEX RECEPTACLE AND FLEX CONNECTOR CONDUIT. EXISTING WIRING SHALL BE REMOVED COMPLETELY BACK TO SOURCE. PROVIDE NEW DISCONNECT SWITCH, FUSES, CONDUIT AND WIRING PER HVAC SCHEDULE. CONNECT NEW CONDUCTORS TO NEW 60A/3P BREAKER, DISCONNECT SWITCH AND AC UNIT AS REQUIRED.
 3. DISCONNECT AND REMOVE EXISTING 60A/3P BREAKERS AT CIRCUIT (1, 3, 5) AND CIRCUIT (14, 16, 18). REPLACE WITH 60A/3P BREAKERS. MATCH EXISTING BREAKER TYPE AND RATING.
 4. PROVIDE (2) 20A/3P BREAKERS IN EXISTING SPACE #3, #13. MATCH EXISTING BREAKER TYPE AND RATING.

1 ELECTRICAL ROOF PLAN - BLDG D
 1/8" = 1'-0"



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**ELECTRICAL
 ROOF PLAN -
 BLDG D**

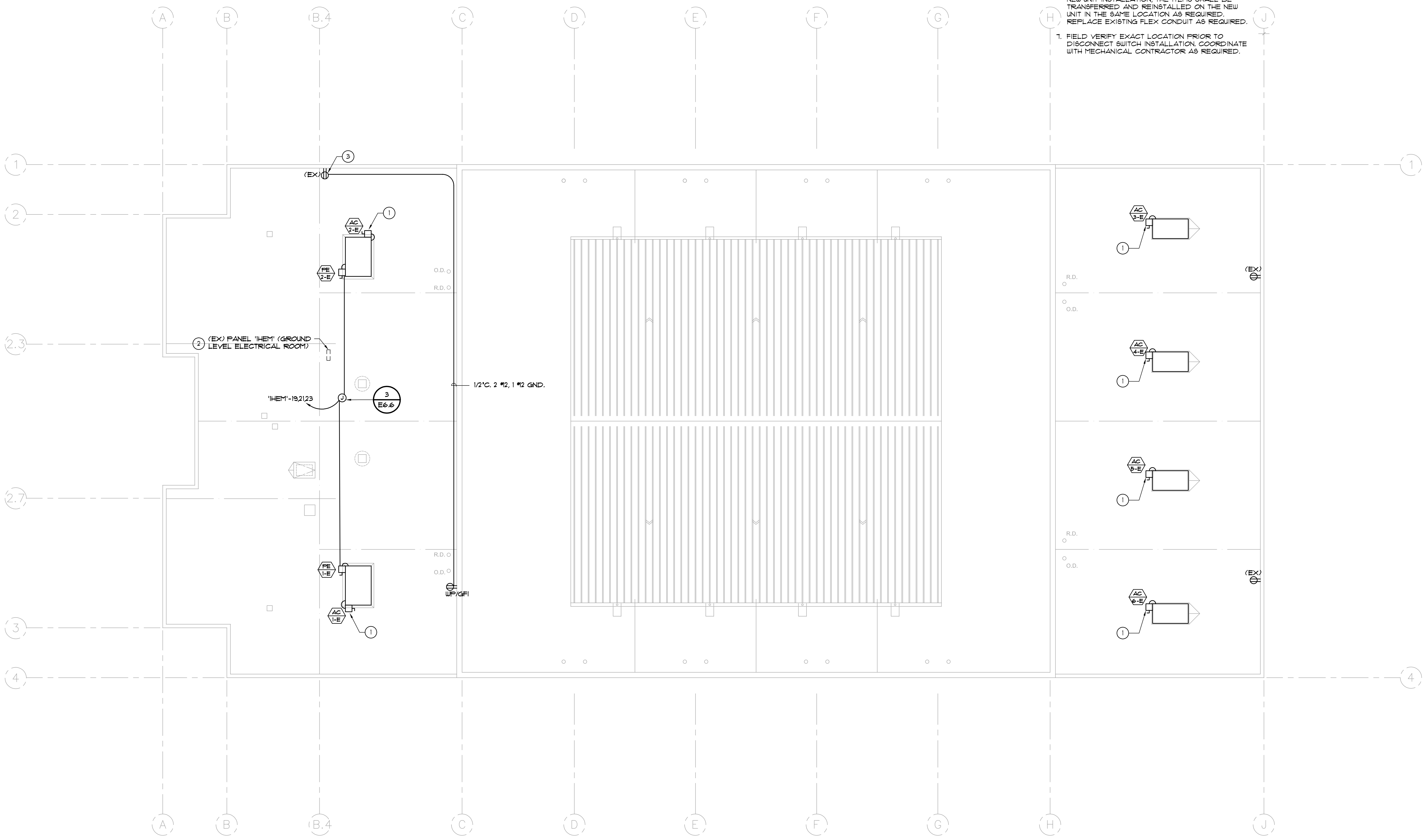
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GENERAL NOTES:

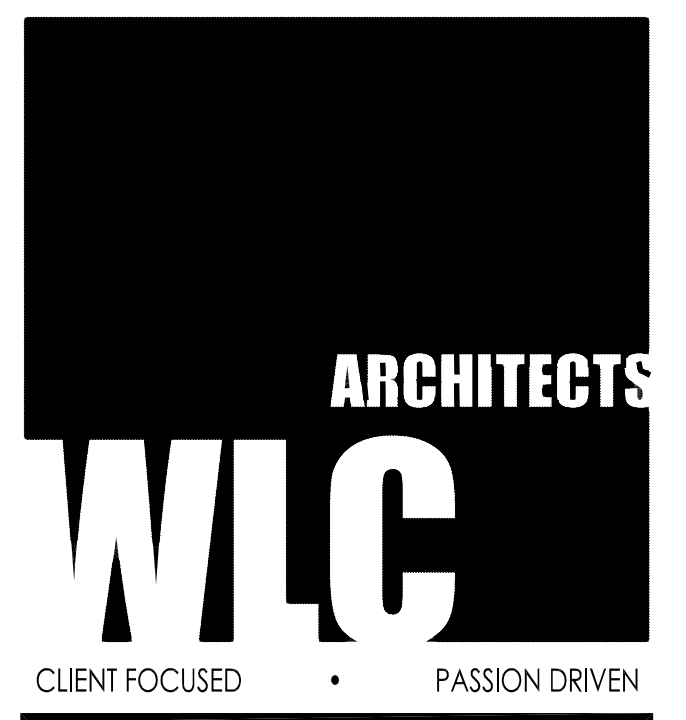
1. REFERENCE MECHANICAL PLANS FOR EXACT EQUIPMENT LOCATIONS PRIOR TO ROUGH-IN.
2. WHERE DRAWINGS SHOW EXISTING CONDITIONS, THEY HAVE BEEN DERIVED FROM EXISTING DRAWINGS AND/OR SITE INVESTIGATIONS. AN ATTEMPT HAS BEEN MADE TO SHOW ALL EXISTING ELECTRICAL EQUIPMENT LOCATIONS AND CHARACTERISTICS THAT WOULD AFFECT NEW WORK, AS ACCURATELY AS POSSIBLE. HOWEVER THIS DOES NOT RELIEVE THE ELECTRICAL CONTRACTOR FROM RESPONSIBILITY OF A THOROUGH SITE INVESTIGATION, PRIOR TO SUBMITTING FINAL BID, TO ASCERTAIN ALL EXISTING CONDITIONS AND LIMITATIONS.
3. COORDINATE THE POINT OF CONNECTION FOR EACH AC UNIT WITH MECHANICAL CONTRACTOR.
4. REFER TO MECHANICAL EQUIPMENT SCHEDULE ON E6.6 FOR DISCONNECT SWITCH AND FUSES REQUIREMENTS FOR ALL NEW AC UNITS.
5. FIELD VERIFY EXACT PANEL, CIRCUIT, CONDUIT AND CONDUCTOR INFORMATION FOR EACH EXISTING UNIT.
6. ALL NON-HVAC ITEMS ATTACHED TO THE EXISTING UNITS SHALL BE CAREFULLY DISCONNECTED AND REMOVED. RE-INSTALL IN AN ALTERNATE LOCATION, UPON COMPLETION OF NEW UNIT INSTALLATION, THE ITEMS SHALL BE TRANSFERRED AND REINSTALLED ON THE NEW UNIT IN THE SAME LOCATION AS REQUIRED. REPLACE EXISTING FLEX CONDUIT AS REQUIRED.
7. FIELD VERIFY EXACT LOCATION PRIOR TO DISCONNECT SWITCH INSTALLATION. COORDINATE WITH MECHANICAL CONTRACTOR AS REQUIRED.

KEY NOTES:

1. DISCONNECT AND REMOVE EXISTING ELECTRICAL CONNECTION TO EXISTING AC UNITS BEING REMOVED, INCLUDING DISCONNECT SWITCH, UP J-BOX DUPLEX RECEPTACLE AND FLEX CONNECTOR CONDUIT. EXISTING WIRING SHALL BE SAFED-OFF PROTECTED AND RE-INSTALLED. PROVIDE NEW DISCONNECT SWITCH AND FUSES PER HVAC SCHEDULE. EXTEND EXISTING FEEDER TO NEW DISCONNECT AND AC UNIT AS REQUIRED.
2. PROVIDE (1) 20A/3P BREAKER IN EXISTING SPACE #B-123. MATCH EXISTING BREAKER TYPE AND RATING.
3. REPLACE EXISTING WEATHER PROOF RECEPTACLE WITH NEW SURFACE MOUNTED WEATHER PROOF RECEPTACLE WITH COVER.

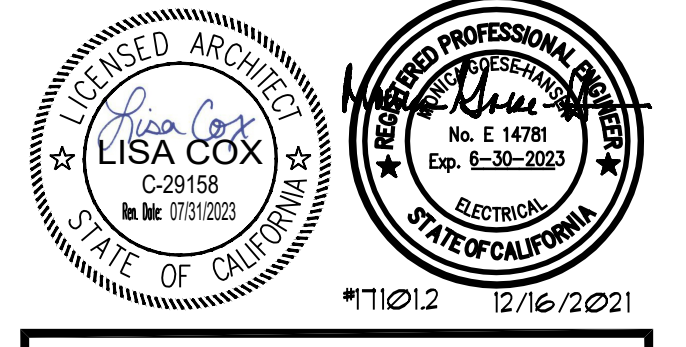


1 ELECTRICAL ROOF PLAN - BLDG E
 1/8" = 1'-0"



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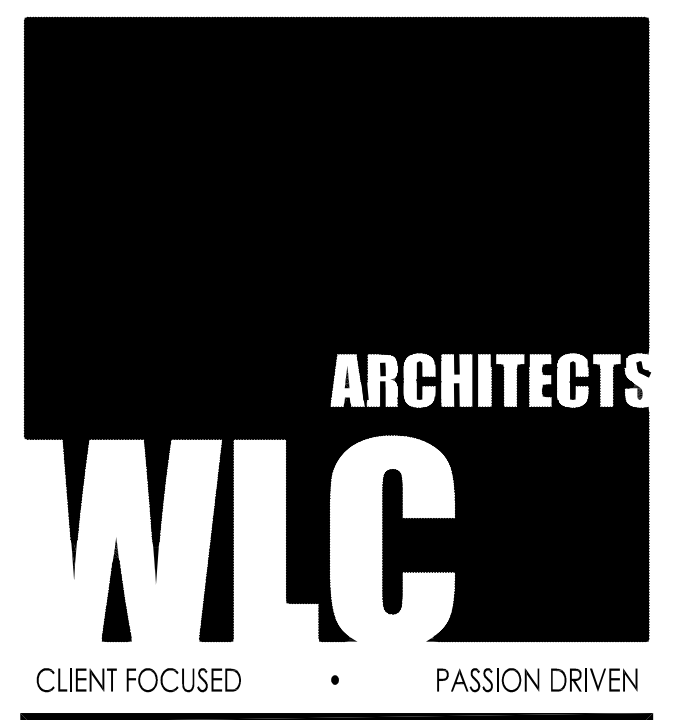
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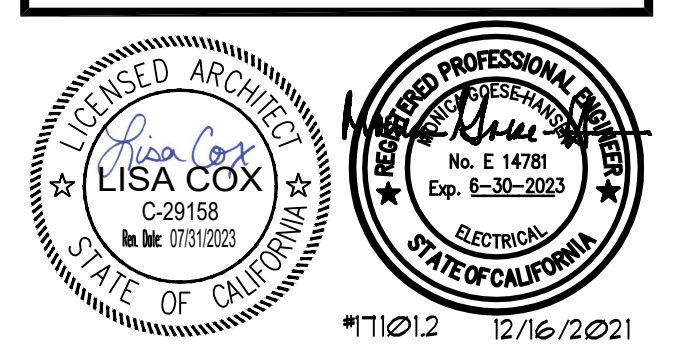
**ELECTRICAL
 ROOF PLAN -
 BLDG E**

DRAWING NUMBER: **E-6.5**



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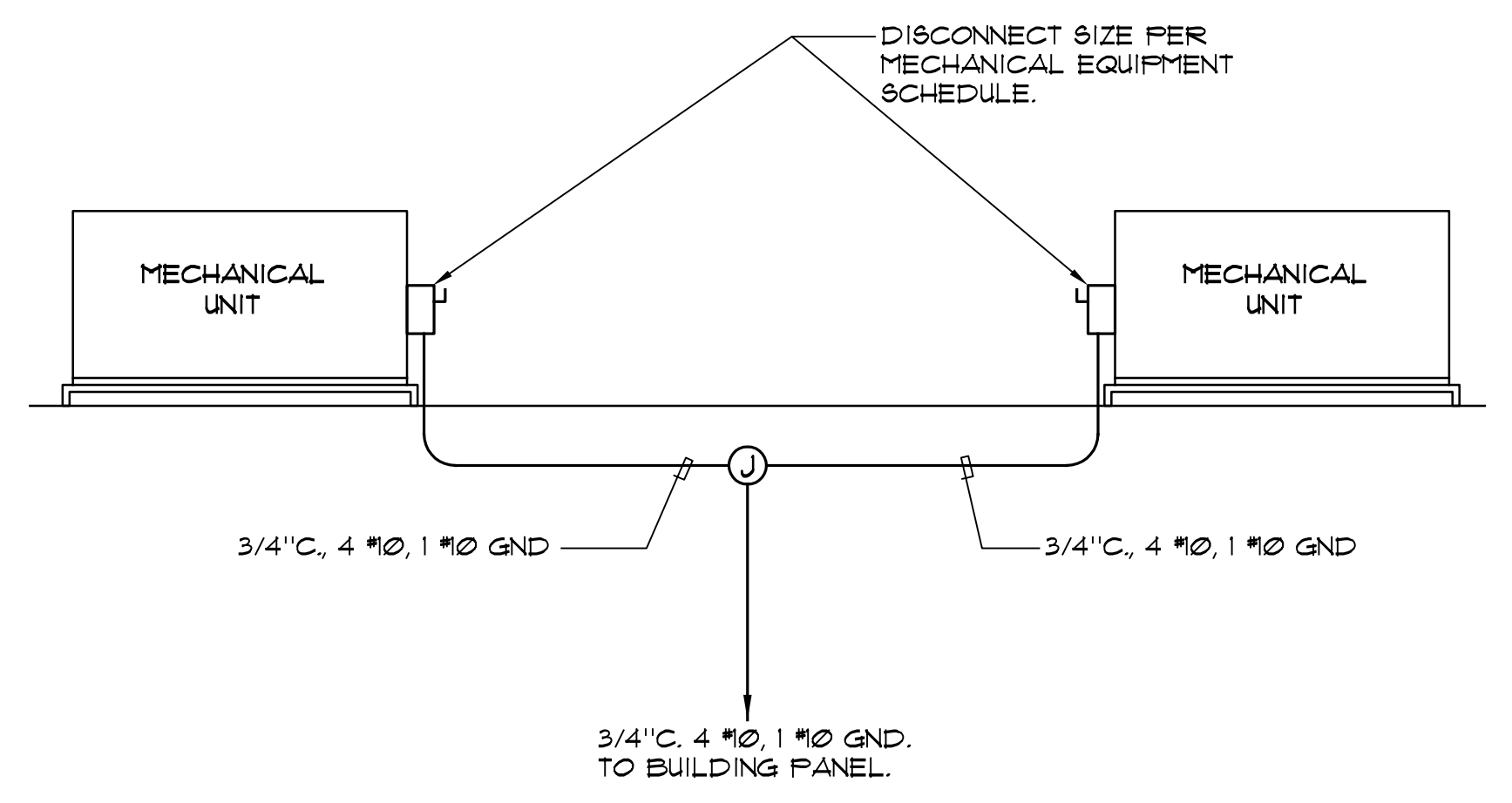
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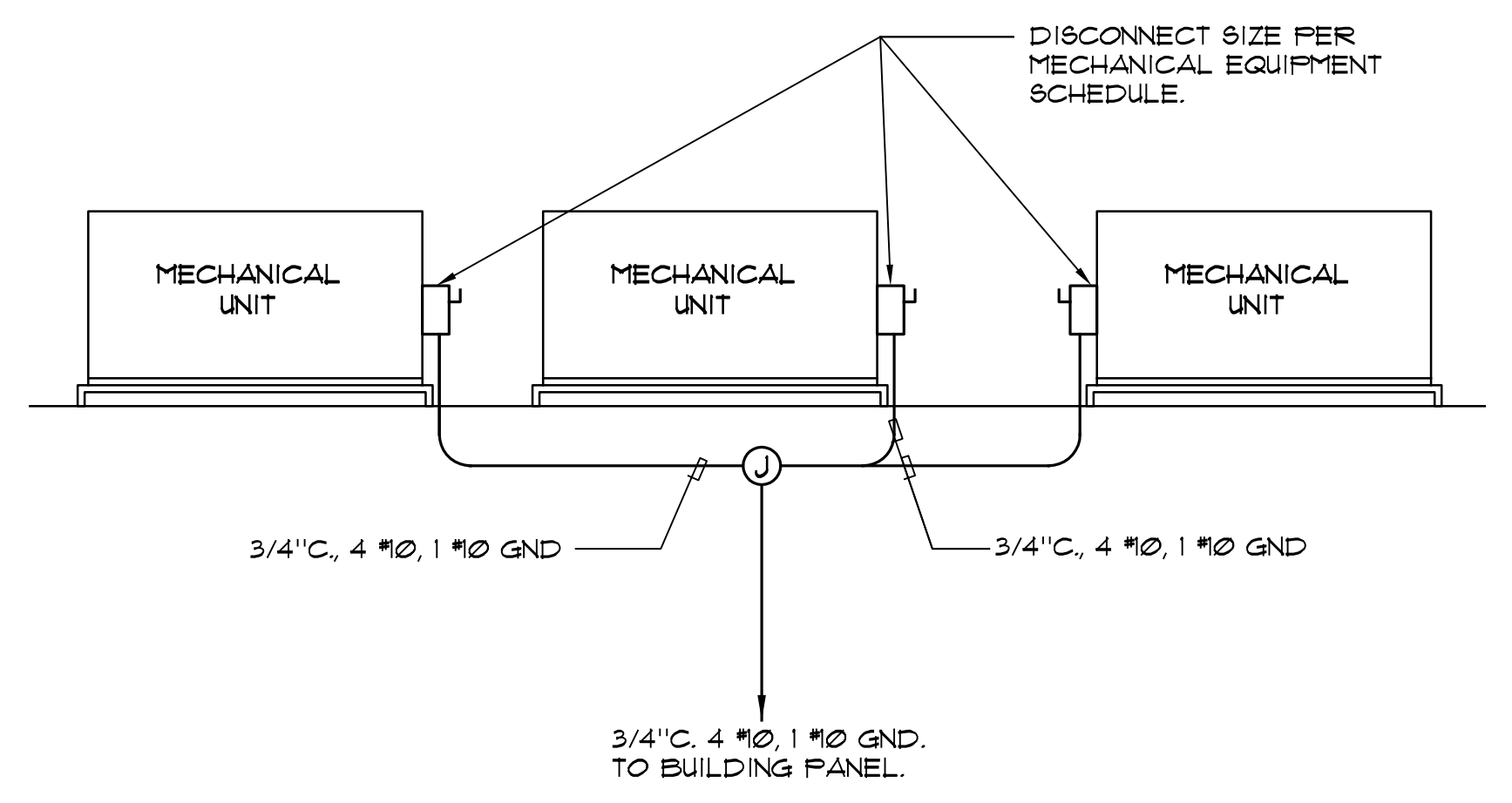
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MECHANICAL EQUIPMENT SCHEDULES

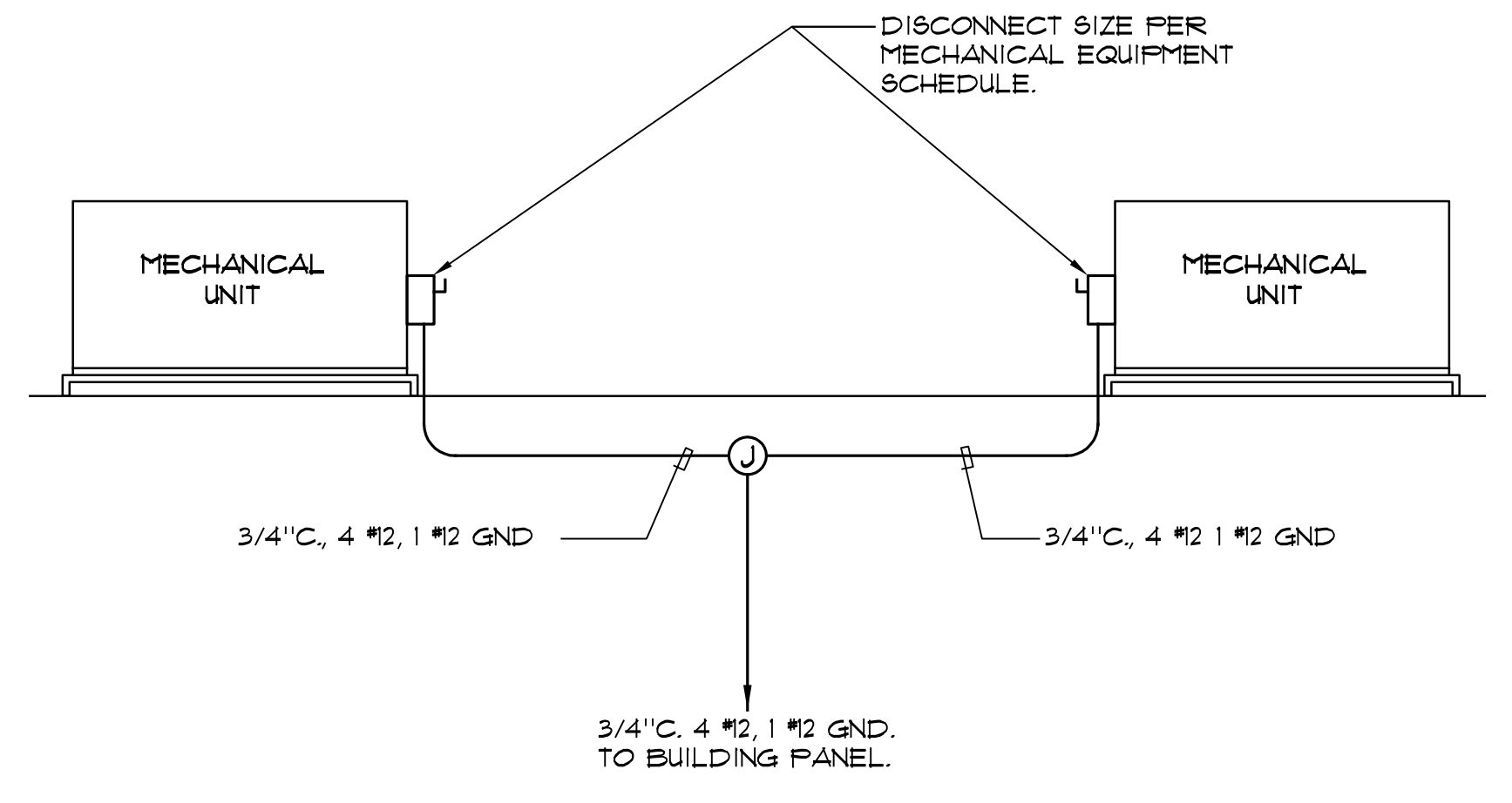
DRAWING NUMBER: **E-6.6**



TYPICAL MECHANICAL UNIT COMBINATION FEEDER DETAIL 2 UNITS
 NO SCALE



TYPICAL MECHANICAL UNIT COMBINATION FEEDER DETAIL 3 UNITS
 NO SCALE



TYPICAL MECHANICAL UNIT COMBINATION FEEDER DETAIL 2 UNITS
 NO SCALE

MECHANICAL EQUIPMENT SCHEDULE

MARK	VOLTAGE/ PHASE	CONDUIT/ WIRE	FUSE	DISC. SWITCH	PANEL	REMARKS
FE 1-A	480V/3PH	3/4\"C. 4 #10, 1 #10 GND.	146	30A/3P/3R	SEE PLAN 01	MCA
FE 2-A	480V/3PH	3/4\"C. 4 #10, 1 #10 GND.	146	30A/3P/3R	SEE PLAN 01	MCA
FE 1-B	480V/3PH	3/4\"C. 4 #10, 1 #10 GND.	101	30A/3P/3R	SEE PLAN 06	MCA
FE 2-B	480V/3PH	3/4\"C. 4 #10, 1 #10 GND.	63	30A/3P/3R	SEE PLAN 03	MCA
FE 3-B	480V/3PH	3/4\"C. 4 #10, 1 #10 GND.	63	30A/3P/3R	SEE PLAN 03	MCA
FE 4-B	480V/3PH	3/4\"C. 4 #10, 1 #10 GND.	63	30A/3P/3R	SEE PLAN 03	MCA
AC 1-A	480V/3PH	3/4\"C. 4 #10, 1 #10 GND.	146	30A/3P/3R	SEE PLAN 01	MCA
AC 1-B	480V/3PH	3/4\"C. 4 #10, 1 #10 GND.	146	30A/3P/3R	SEE PLAN 01	MCA
FE 1-C	480V/3PH	3/4\"C. 4 #10, 1 #10 GND.	63	30A/3P/3R	SEE PLAN 03	MCA
FE 1-C	480V/3PH	3/4\"C. 4 #10, 1 #10 GND.	146	30A/3P/3R	SEE PLAN 01	MCA
FE 2-C	480V/3PH	3/4\"C. 4 #10, 1 #10 GND.	146	30A/3P/3R	SEE PLAN 01	MCA
FE 1-D	480V/3PH	3/4\"C. 4 #10, 1 #10 GND.	101	30A/3P/3R	SEE PLAN 06	MCA
FE 2-D	480V/3PH	3/4\"C. 4 #10, 1 #10 GND.	101	30A/3P/3R	SEE PLAN 06	MCA
FE 3-D	480V/3PH	3/4\"C. 4 #10, 1 #10 GND.	146	30A/3P/3R	SEE PLAN 01	MCA
FE 4-D	480V/3PH	3/4\"C. 4 #10, 1 #10 GND.	146	30A/3P/3R	SEE PLAN 01	MCA
FE 1-E	480V/3PH	3/4\"C. 4 #12, 1 #12 GND.	63	30A/3P/3R	SEE PLAN 03	MCA
FE 2-E	480V/3PH	3/4\"C. 4 #12, 1 #12 GND.	63	30A/3P/3R	SEE PLAN 03	MCA

MECHANICAL EQUIPMENT SCHEDULE

MARK	VOLTAGE/ PHASE	CONDUIT/ WIRE	FUSE	DISC. SWITCH	PANEL	REMARKS
AC 1-A	480V/3PH	1\"C. 4 #1, 1 #10 GND.	50	60A/3P/3R	EXISTING 42	MCA ①
AC 2-A	480V/3PH	EXISTING	45	60A/3P/3R	EXISTING 33	MCA ①
AC 1-B	480V/3PH	EXISTING	25	30A/3P/3R	EXISTING 22	MCA ①
AC 2-B	480V/3PH	EXISTING	25	30A/3P/3R	EXISTING 22	MCA ①
AC 3-B	480V/3PH	EXISTING	25	30A/3P/3R	EXISTING 22	MCA ①
AC 4-B	480V/3PH	EXISTING	25	30A/3P/3R	EXISTING 22	MCA ①
AC 1-C	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 2-C	480V/3PH	EXISTING	45	60A/3P/3R	EXISTING 33	MCA ①
AC 1-D	480V/3PH	EXISTING	45	60A/3P/3R	EXISTING 33	MCA ①
AC 2-D	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 18	MCA ①
AC 3-D	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 18	MCA ①
AC 4-D	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 1-E	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 2-E	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 3-E	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 4-E	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 1-F	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 2-F	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 3-F	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 4-F	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 1-G	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 2-G	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 3-G	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 4-G	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 1-H	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 2-H	480V/3PH	EXISTING	25	30A/3P/3R	EXISTING 20	MCA ①
AC 3-H	480V/3PH	EXISTING	40	60A/3P/3R	EXISTING 30	MCA ①
AC 4-H	480V/3PH	EXISTING	40	60A/3P/3R	EXISTING 30	MCA ①
AC 1-I	480V/3PH	EXISTING	25	30A/3P/3R	EXISTING 22	MCA ①
AC 2-I	480V/3PH	EXISTING	25	30A/3P/3R	EXISTING 22	MCA ①
AC 3-I	480V/3PH	1\"C. 4 #1, 1 #10 GND.	50	60A/3P/3R	EXISTING 42	MCA ①
AC 4-I	480V/3PH	1\"C. 4 #1, 1 #10 GND.	50	60A/3P/3R	EXISTING 42	MCA ①
AC 1-J	480V/3PH	EXISTING	25	30A/3P/3R	EXISTING 22	MCA ①
AC 2-J	480V/3PH	EXISTING	25	30A/3P/3R	EXISTING 22	MCA ①
AC 3-J	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 4-J	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 1-K	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①
AC 2-K	480V/3PH	EXISTING	20	30A/3P/3R	EXISTING 14	MCA ①

KEY NOTES:
 ① EXISTING DUCT SMOKE DETECTOR TO BE DISCONNECT AND REMOVED FROM EXISTING FIRE ALARM CIRCUIT. PROTECT DETECTOR AND EXISTING WIRING IN PLACE. TEMPORARILY EXTEND EXISTING CIRCUIT FROM THE LAST ACTIVE DEVICE TO THE NEXT ACTIVE DEVICE TO MAINTAIN FIRE ALARM CIRCUIT CONTINUITY. TEST TO ENSURE PROPER FUNCTIONALITY. RE-INSTALL DUCT SMOKE DETECTOR IN DUCT WORK WHEN DUCT WORK IS COMPLETED AND NEW UNIT IS SET AND EXTEND EXISTING WIRING TO NEW UNIT FOR UNIT SHUT OFF AS REQUIRED. RE-TEST FIRE ALARM SYSTEM UPON COMPLETION OF FIRE ALARM WORK. EXISTING DUCT SMOKE DETECTOR: NOTIFIER MDNR C9PM LISTING 9240-1653-0203