

GENERAL NOTES

- 1. NOT USED.
2. NOTE USED.
3. ALL ELECTRICAL PREFABRICATED EQUIPMENT SHALL BE DESIGNED AND CONSTRUCTED IN SUCH A MANNER THAT ALL PORTIONS, ELEMENTS, SUB-ASSEMBLIES AND/OR PARTS OF SAID EQUIPMENT, AND THE EQUIPMENT AS A WHOLE INCLUDING ITS ATTACHMENTS, WILL RESIST A LOAD WHICH EXCEEDS THE FORCE LEVEL USED TO RESTRAIN AND ANCHOR THE EQUIPMENT TO THE SUPPORTING STRUCTURE.
4. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE LISTED BY UNDERWRITER'S LABORATORIES (UL) AND BEAR THEIR LABEL, OR LISTED AND CERTIFIED BY A NATIONALLY RECOGNIZED TESTING AUTHORITY WHERE UL DOES NOT HAVE A LISTING.
5. THE CONTRACTOR SHALL VISIT THE SITE INCLUDING ALL AREAS INDICATED ON THE DRAWINGS. HE SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AND BY SUBMITTING A BID, ACCEPTS THE CONDITIONS UNDER WHICH HE SHALL BE REQUIRED TO PERFORM HIS WORK.
6. IN SOME INSTANCES, IT MAY BE NECESSARY TO DEFER WORK IN CERTAIN AREAS AND LOCATIONS UNTIL SUCH TIME AS EXISTING FACILITIES CAN BE TEMPORARILY OR PERMANENTLY REARRANGED BY THE OWNER.
7. ALL INTERRUPTION OF ELECTRICAL POWER SHALL BE KEPT TO A MINIMUM. HOWEVER, WHEN AN INTERRUPTION IS NECESSARY, THE SHUTDOWN MUST BE COORDINATED WITH THE OWNER 14 DAYS PRIOR TO THE OUTAGE.
8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE TEMPORARY POWER FACILITIES AND CONNECTIONS FOR ALL FEEDERS OR SYSTEMS BEING DISCONNECTED IN ORDER TO MAINTAIN SYSTEMS IN OPERATION OR WHERE SAID FEEDERS OR SYSTEMS REQUIRE EMERGENCY STANDBY POWER.
9. SHOP DRAWINGS SHALL BE SUBMITTED WITHIN THIRTY DAYS AFTER AWARD OF THE CONTRACT.
10. AFTER ALL REQUIREMENTS OF THE SPECIFICATIONS AND/OR THE DRAWINGS HAVE BEEN FULLY COMPLETED, REPRESENTATIVES OF THE OWNER WILL INSPECT THE WORK.
11. THE CONTRACTOR SHALL FURNISH A ONE YEAR WRITTEN GUARANTEE OF MATERIALS AND WORKMANSHIP FROM THE DATE OF SUBSTANTIAL COMPLETION.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW AND TO COORDINATE WITH THE MECHANICAL, FIRE PROTECTION AND PLUMBING DRAWINGS FOR DUCTS, LINES AND EQUIPMENT.
13. ALL FINAL CONNECTIONS TO OWNER FURNISHED EQUIPMENT SHALL BE MADE BY THE CONTRACTOR.
14. COORDINATE WITH OTHER TRADES AS TO THE EXACT LOCATION OF THEIR RESPECTIVE EQUIPMENT, SUPPLY POWER AND MAKE CONNECTION TO MOTORS AND EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS AS INDICATED ON THE SINGLE LINE DIAGRAM, ELECTRICAL DRAWINGS, AND DRAWINGS OF OTHER TRADES.

- 15. EXACT METHOD AND LOCATION OF CONDUIT PENETRATION AND OPENINGS IN CONCRETE WALLS OR FLOORS OR STRUCTURAL STEEL MEMBERS SHALL BE AS DIRECTED BY THE STRUCTURAL ENGINEER.
16. CONNECTIONS TO MECHANICAL EQUIPMENT AND VIBRATING EQUIPMENT: LIQUID-TIGHT FLEXIBLE STEEL CONDUIT IN DRY INTERIOR LOCATIONS.
17. UTILITY PENETRATIONS OF ANY KIND IN FIRE AND SMOKE PARTITIONS AND CEILING ASSEMBLIES, SHALL BE FIRE-STOPPED AND SEALED WITH AN APPROVED MATERIAL SECURELY INSTALLED.
18. EQUIPMENT OUTLETS, LIGHTING FIXTURES, CONDUIT, WIRE, AND CONNECTION METHODS IN HVAC AIR-PLENUMS SHALL BE APPROVED FOR USE IN PLENUMS AND SHALL CONFORM TO THE CEC.
19. ROUTE EXPOSED CONDUIT AND CONDUIT ABOVE ACCESSIBLE CEILING SPACES PARALLEL AND PERPENDICULAR TO WALLS AND ADJACENT PIPING.
20. ALL CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM SIZE.
21. JUNCTION AND PULL BOXES: FOR INTERIOR DRY LOCATIONS, BOXES SHALL BE GALVANIZED ONE-PIECE, DRAWN STEEL, KNOCKOUT TYPE WITH REMOVABLE MACHINE SCREW SECURED COVERS FOR OUTSIDE, DAMP, OR SURFACE LOCATIONS.
22. WHERE CONDUIT ENTERS PANEL, PROVIDE GROUNDING CONDUCTOR BONDING CONDUIT GROUNDING BUSHING TO PANEL GROUND.
23. SERVICE EQUIPMENT SHALL BE FIELD MARKED WITH THE MAXIMUM AVAILABLE FAULT CURRENT, INCLUDING THE DATE THE FAULT CURRENT CALCULATION WAS PERFORMED, PER N.E.C. ARTICLE 110.24.
24. CONTRACTOR SHALL SEAL ANY AND ALL CONDUIT(S) OR RACEWAY(S) WHICH ENTER A BUILDING FROM AN UNDERGROUND DISTRIBUTION SYSTEM.
25. PROVIDE IDENTIFICATION LABEL INDICATING FEEDER SOURCE AT ALL PANELBOARDS AND SWITCHBOARDS.
26. ALL FLEXIBLE METAL CONDUIT AND LIQUID TIGHT FLEXIBLE METAL CONDUIT SHALL INCLUDE AN "EQUIPMENT BONDING JUMPER OF THE WIRE TYPE IN COMPLIANCE WITH NEC ARTICLE 250.102".
27. ELECTRICAL EQUIPMENT SHALL BE LISTED BY FUSD RECOGNIZED ELECTRICAL TESTING LABORATORY OR APPROVED BY THE DEPARTMENT.
28. NO PIPING, DUCTS OR EQUIPMENT FOREIGN TO ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE LOCATED WITHIN THE DEDICATED SPACE ABOVE THE ELECTRICAL EQUIPMENT.
29. WHENEVER A DISCREPANCY IN QUANTITY OR SIZE OF CONDUIT, WIRE, EQUIPMENT DEVICES, CIRCUIT BREAKERS, GROUND FAULT PROTECTION SYSTEMS, ETC. (ALL MATERIALS), ARISES ON THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIAL AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS TO ENSURE COMPLETE AND OPERABLE SYSTEMS AS REQUIRED BY THE OWNER AND ARCHITECT/ENGINEER.
30. MAXIMUM NUMBER OF CONDUCTORS IN OUTLET OR JUNCTION BOXES SHALL CONFORM TO THE CALIFORNIA ELECTRICAL CODE, ARTICLE 370.6, BUT IN NO CASE SHALL CONTAIN MORE THAN THE FOLLOWING NUMBER OF #12 AWG CONDUCTORS FOR THE SIZE OF BOX INDICATED.
31. SQUARE BY 1 1/2" D = 9 CONDUCTORS
4" SQUARE BY 2 1/8" D = 13 CONDUCTORS
4 11/16" SQUARE BY 1 1/2" D = 11 CONDUCTORS
4 11/16" SQUARE BY 2 1/8" D = 18 CONDUCTORS
ALL OUTLET BOXES CONTAINING MORE THAN ONE DEVICE SHALL BE GANGED. TWO DEVICES DOUBLE GANGED, MINIMUM.
32. STRAIGHT FEEDER, BRANCH CIRCUIT, AND CONDUIT RUNS SHALL BE PROVIDED WITH SUFFICIENT PULL BOXES OR JUNCTION BOXES TO LIMIT THE MAXIMUM LENGTH OF ANY SINGLE CABLE PULL TO 100 FEET. PULL BOXES SHALL BE SIZED PER CODE OR AS INDICATED ON DRAWINGS. LOCATIONS SHALL BE DETERMINED IN THE FIELD OR AS INDICATED ON THE DRAWINGS.

- 33. WHERE MULTI-HOMERUNS ARE INDICATED ON DRAWINGS INDICATING THE SAME PANELBOARD CIRCUIT NUMBER, PROVIDE JUNCTION BOX ABOVE ACCESSIBLE CEILING AND ROUTE ONE SET OF WIRES TO CIRCUIT BREAKER.
34. IDENTIFICATION NAMEPLATES SHALL BE MICARTA 1/8 INCH THICK AND OF APPROVED SIZE WITH BEVELED EDGES AND ENGRAVED WHITE LETTERS A MINIMUM OF 1/4 INCH HIGH ON BLACK BACKGROUND.
35. THE EXACT LOCATION OF ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE COORDINATED WITH THE ARCHITECTURAL ELEVATIONS, DETAILS, OR SECTIONS PRIOR TO INSTALLATION.
36. DRAWINGS ARE DIAGRAMMATIC ONLY AND DO NOT SHOW SPECIAL CONDUIT ROUTING OR LENGTHS REQUIRED FOR A COMPLETE INSTALLATION.
37. THE EQUIPMENT GROUNDING CONDUCTOR ALTHOUGH NOT SHOWN ON CONDUIT RUNS, SHALL BE INSTALLED AND RUN CONTINUOUS FROM PANEL TO LAST OUTLET.

MEP COMPONENT ANCHORAGE NOTES

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.
1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
3. 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.
A. 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.
B. 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 PRE-APPROVED 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 APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.
MP MD PP E - OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) # _____.

SHEET INDEX

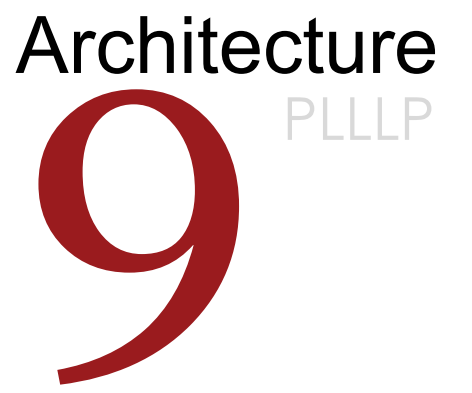
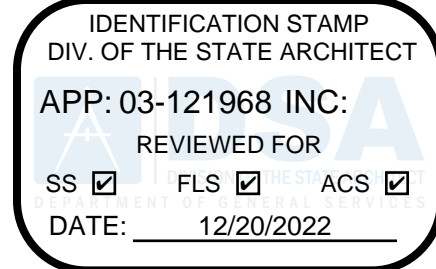
Table with 2 columns: SHT. NO. and DESCRIPTION. Rows include E0.1 GENERAL NOTES, E0.2 SYMBOLS LIST, E0.3 SINGLE LINE DIAGRAM, E0.4 PANEL SCHEDULE AND LIGHTING SCHEDULE, E0.5 TITLE-24 COMPLIANCE FORMS, E0.6 PHOTOMETRIC CALCULATIONS, E1.1 ELECTRICAL SITE PLAN, E2.1D DEMOLITION POWER FLOOR PLAN, E2.1 REMODEL POWER FLOOR PLAN, E2.2 DEMOLITION AND REMODEL LIGHTING PLANS, E2.3 REMODEL POWER ROOF PLAN, E3.1D DEMOLITION SIGNAL AND COMMUNICATION FLOOR PLAN, E3.1 REMODEL SIGNAL AND COMMUNICATION FLOOR PLAN, E4.1 ELECTRICAL DETAILS, E4.2 ELECTRICAL DETAILS, EF0.1 FIRE ALARM NOTES AND SYMBOLS LIST, EF0.2 FIRE ALARM RISER DIAGRAM AND CALCULATIONS, EF1.1 FIRE ALARM SITE PLAN, EF2.1D DEMOLITION FIRE ALARM PLANS, EF2.1 REMODEL FIRE ALARM PLANS, EF3.1 FIRE ALARM DETAILS, EF3.2 FIRE ALARM DETAILS.

SCOPE OF WORK

PROVIDE NEW LIGHTING, POWER AND LOW VOLTAGE SYSTEMS FOR THE MODERNIZATION OF THE CULINARY ART CLASSROOM, INCLUDING BUT NOT LIMITED TO LIGHTING, POWER, NEW CULINARY ARTS EQUIPMENT AND LOW VOLTAGE SYSTEM NOTED IN THE PLANS.

APPLICABLE CODES

- PARTIAL LIST OF APPLICABLE CODES
• 2019 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR
• 2019 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR (2018 INTERNATIONAL BUILDING CODE, VOL. 1 & 2, AND 2019 CALIFORNIA AMENDMENTS)
• 2019 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR (2017 NATIONAL ELECTRICAL CODE AND 2019 CALIFORNIA AMENDMENTS)
• 2019 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR (2018 IAPMO UNIFORM MECHANICAL CODE AND 2019 CALIFORNIA AMENDMENTS)
• 2019 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR (2018 IAPMO UNIFORM PLUMBING CODE AND 2019 CALIFORNIA AMENDMENTS)
• 2019 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 CCR
• 2019 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 CCR (2018 INTERNATIONAL FIRE CODE AND 2019 CALIFORNIA AMENDMENTS)
• 2019 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR (2018 INTERNATIONAL EXISTING BUILDING CODE AND 2019 CALIFORNIA AMENDMENTS)
• 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 CCR
• 2019 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 CCR
• TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS



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ARCHITECTS STAMP:

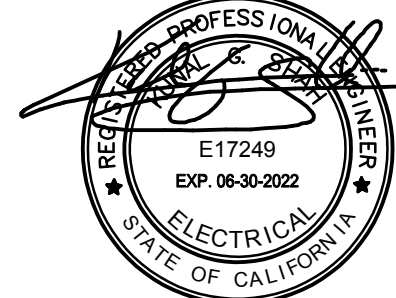


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CONSULTANTS STAMP:



SCHOOL DISTRICT:

BONITA UNIFIED SCHOOL DISTRICT

PROJECT:

SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

JOB NUMBER: 12.03.00

DATE: 08/25/21

REVISION: DATE:

REVISION: DATE:

DRAWING TITLE:

GENERAL NOTES & SHEET INDEX

DRAWING NO.:

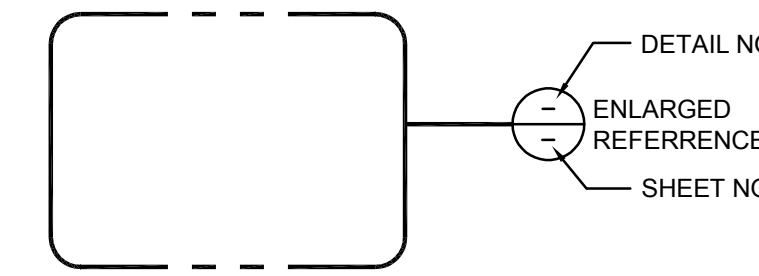
E0.1

SYMBOLS LIST

Table of symbols and descriptions for existing conduit, surface mounted panelboards, junction boxes, and various electrical components.

Table of symbols and descriptions for duplex grounding receptacles, magnetic motor starters, disconnect switches, and various electrical components.

Table of symbols and descriptions for surge protection devices, existing equipment, and relocated equipment.



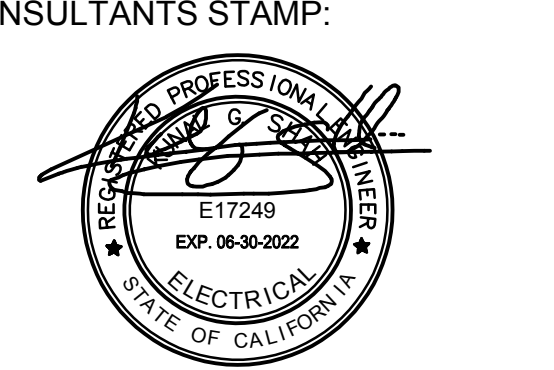
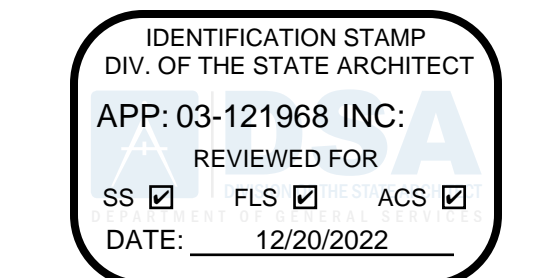
KEYNOTES
◇ TYPICAL REMODEL KEYNOTE SYMBOL
○ TYPICAL DEMOLITION KEYNOTE SYMBOL

ABBREVIATIONS

Table of abbreviations and their meanings, including AFF (Amperes Finished Floor), AWG (American Wire Gauge), and various electrical symbols.

DEMOLITION NOTES

- 1. IN GENERAL, THE DEMOLITION PLAN SHOWS ALL EXISTING EQUIPMENT TO BE REMOVED...
2. THE CONTRACTOR SHALL VISIT THE SITE SPECIFICALLY INCLUDING ALL AREAS INDICATED...
3. IT SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO DISCONNECT AND REMOVE ALL EXISTING RECEPTACLES...



SCHOOL DISTRICT: BONITA UNIFIED SCHOOL DISTRICT

PROJECT: SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

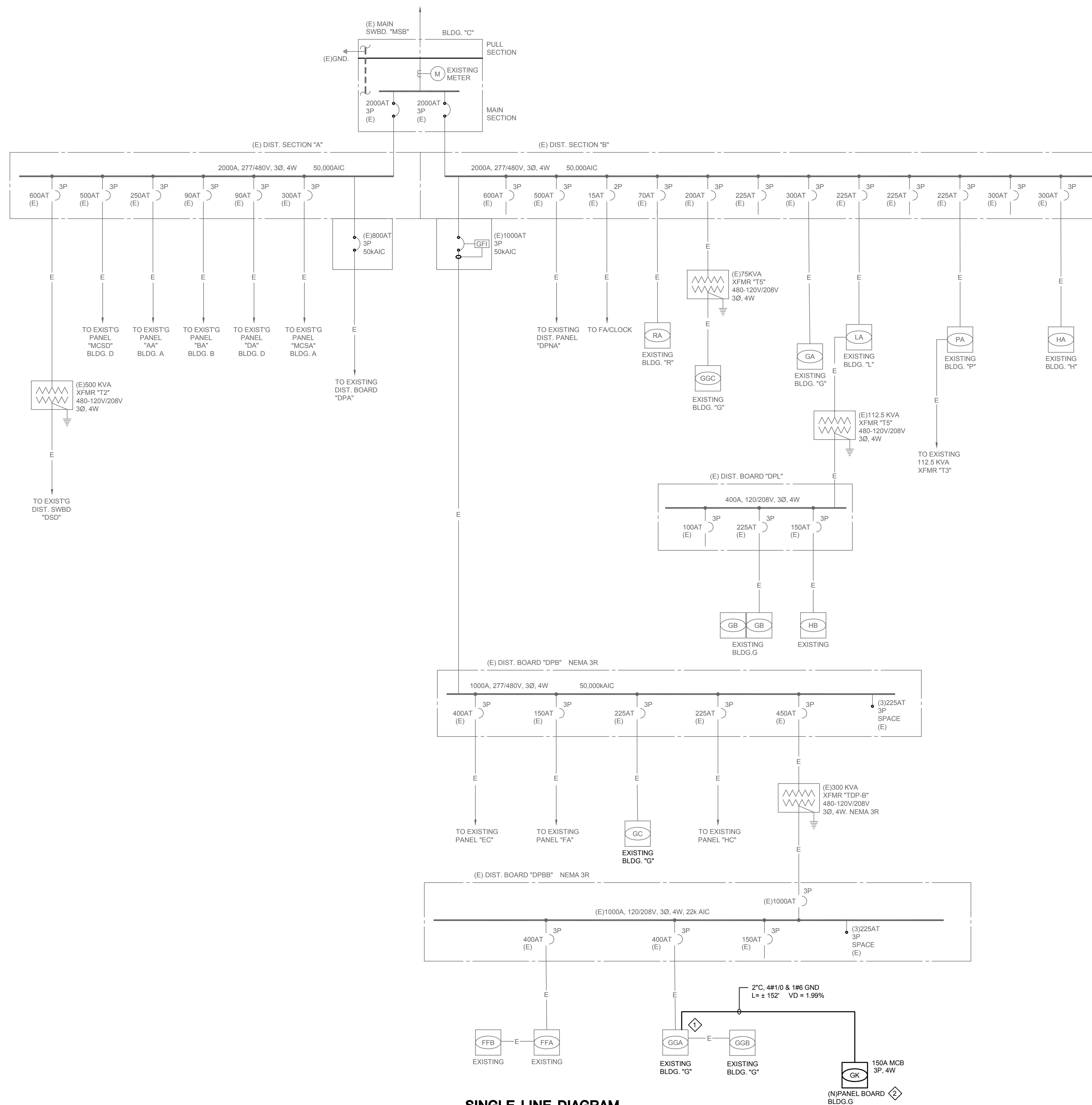
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DATE: 08/25/21
REVISION: DATE:
REVISION: DATE:

DRAWING TITLE: SYMBOLS LIST, ABBREVIATION AND DEMO NOTES

DRAWING NO.: E0.2

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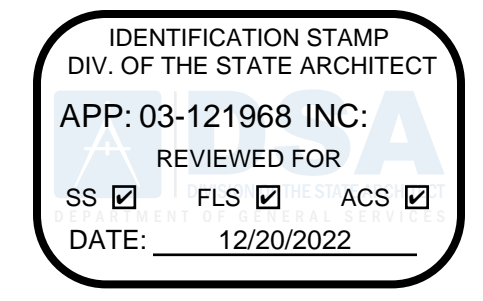
SINGLE LINE DIAGRAM

GENERAL NOTES

1. REFER TO E0.1 & E0.2 FOR FURTHER NOTES.
2. UNLESS OTHERWISE NOTED, ALL NEW ELECTRICAL EQUIPMENT SHALL BE RATED FOR 65k AIC.
3. THE FEEDER LENGTHS SHOWN ON THE SINGLE LINE DIAGRAM ARE FOR VOLTAGE DROP AND SHORT CIRCUIT CALCULATIONS ONLY, AND ARE NOT VALID FOR BIDDING OR CONSTRUCTION.
4. ALL BRANCH PANELBOARDS SHALL BE FULLY RATED.

SINGLE LINE NOTES

1. CONTRACTOR SHALL DISCONNECT AND REMOVE 3 SPARE CIRCUIT BREAKERS AND REPLACE WITH NEW 150AT/225AF, 3P CIRCUIT BREAKER. AIC RATING SHALL MATCH WITH THE EXISTING SYSTEM.
2. REFER TO SHEET E4.1 DETAIL #6 FOR RECESSED MOUNTED PANEL INSTALLATION.



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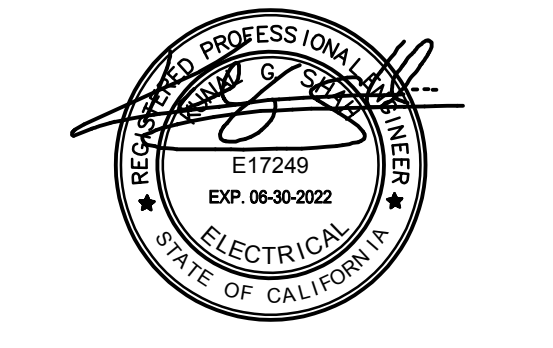
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SCHOOL DISTRICT:
BONITA UNIFIED SCHOOL DISTRICT

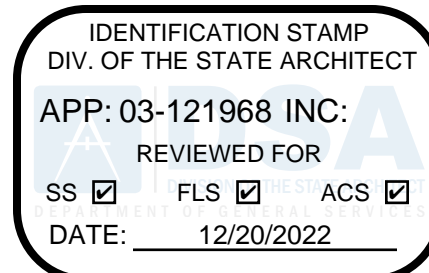
PROJECT:
SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

JOB NUMBER: 12.03.00
 DATE: 08/25/21
 REVISION: DATE: _____
 REVISION: DATE: _____

DRAWING TITLE:
SINGLE LINE DIAGRAM

DRAWING NO.:

E0.3



APP: 03-121968 INC: REVIEWED FOR DATE: 12/20/2022



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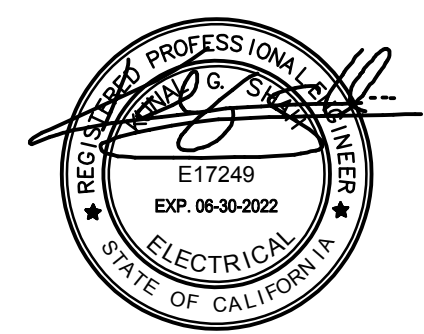


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SCHOOL DISTRICT:

BONITA UNIFIED SCHOOL DISTRICT

PROJECT: SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

JOB NUMBER: 12.03.00 DATE: 08/25/21

REVISION: DATE:

DRAWING TITLE: PANEL SCHEDULE AND LIGHTING SCHEDULE

DRAWING NO.:

E0.4

Panel schedule for GC (EXISTING) at BLDG. G ROOM "G4". Includes columns for description, voltage-ampers, and breaker types. Total load is 104976 VA.

Panel schedule for GK (NEW) at BLDG. G ROOM "G9". Includes columns for description, voltage-ampers, and breaker types. Total load is 41390 VA.

Panel schedule for GGA (EXISTING) at BLDG. G ROOM "G4". Includes columns for description, voltage-ampers, and breaker types. Total load is 114171 VA.

Panel schedule for GGB (EXISTING) at BLDG. G ROOM "G4". Includes columns for description, voltage-ampers, and breaker types. Total load is 25113 VA.

Lighting Fixture Schedules table with columns for Type Mark, Description, Lamp, Unit Watts, Manufacturer, Model, and Voltage.

- NOTES: 1. REFER TO LIGHTING FIXTURE SCHEDULE FOR TYPE OF FIXTURE TO BE PROVIDED AND INSTALLED. 2. REFER TO GENERAL NOTES, DRAWING E0.1 FOR ADDITIONAL REQUIREMENTS.

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STATE OF CALIFORNIA
Indoor Lighting
 NRCC-LTI-E CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTI-E
 This document is used to demonstrate compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6, and §141.0(b)(2) for indoor lighting scopes using the prescriptive path.
 Project Name: CULINARY ARTS CLASSROOM MODERNIZATION Report Page: (Page 1 of 7)
 Project Address: 800 W COVINA BLVD Date Prepared: 7/29/2021

A. GENERAL INFORMATION

01 Project Location (city): SAN DIMAS 04 Total Conditioned Floor Area (ft²): 1940
 02 Climate Zone: 9 05 Total Unconditioned Floor Area (ft²): 0
 03 Occupancy Types Within Project (select all that apply): 06 # of Stories (Habitable Above Grade): 1
 Office Retail Warehouse Hotel/Motel School Support Areas
 Parking Garage High-Rise Residential Relocatable Healthcare Other (Write in): See Table I

B. PROJECT SCOPE
 This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)(2) for alterations.

Scope of Work		Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05	06
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)	
<input type="checkbox"/> New Lighting System					
<input type="checkbox"/> New Lighting System - Parking Garage					
<input checked="" type="checkbox"/> Altered Lighting System	Area Category Method	1940	Area Category Method	0	
Total Area of Work (ft²)		1940		0	

Registration Number: Registration Date/Time: Registration Provider: Energysoft
 CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2319.1.003 Report Generated: 2021-07-29 09:03:42
 Schema Version: rev 20200601

STATE OF CALIFORNIA
Indoor Lighting
 NRCC-LTI-E CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTI-E
 Project Name: CULINARY ARTS CLASSROOM MODERNIZATION Report Page: (Page 4 of 7)
 Project Address: 800 W COVINA BLVD Date Prepared: 7/29/2021

H. INDOOR LIGHTING CONTROLS (Not including IAFs)
 *NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.
 EX: Conformance 1: Primary/Skylight Daylighting: Exempt because less than 120 watts of general lighting; EXCEPTION 1 to §130.1(a)(2)

	13
	Plan Sheet Showing Daylit Zones:

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS
 Each area complying using the Complete Building or Area Category Methods per §140.6(b) are included in this table. Column 06 indicates if additional lighting power allowances per §140.6(c) or adjustments per §140.6(e) are being used.

Conditioned Spaces	01	02	03	04	05	06
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft²)	Area (ft²)	Allowed Wattage (Watts)	Additional Allowance / Adjustment Area Category	PAF
CLASSROOM	Classroom, Lecture, or Training Vocational Area	0.7	1,940	1,358	No	No
TOTALS:			1,940	1,358	See Tables I, or P for detail	

J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM
 This section does not apply to this project.

K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE
 This section does not apply to this project.

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY
 This section does not apply to this project.

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING
 This section does not apply to this project.

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED ORNAMENTAL/SPECIAL EFFECTS
 This section does not apply to this project.

Registration Number: Registration Date/Time: Registration Provider: Energysoft
 CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2319.1.003 Report Generated: 2021-07-29 09:03:42
 Schema Version: rev 20200601

STATE OF CALIFORNIA
Indoor Lighting
 NRCC-LTI-E CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTI-E
 Project Name: CULINARY ARTS CLASSROOM MODERNIZATION Report Page: (Page 7 of 7)
 Project Address: 800 W COVINA BLVD Date Prepared: 7/29/2021

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
 I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Darshan Patel
 Documentation Author Signature: *DARSHAN PATEL*
 Company: PBS Engineers
 Address: 2100 E Route 66, Suite 210
 City/State/Zip: Glendora CA 91740
 Signature Date: 2021-07-29
 CEV/HERS Certification Identification (if applicable):
 Phone: (626) 650-0350

RESPONSIBLE PERSON'S DECLARATION STATEMENT
 I certify the following under penalty of perjury, under the laws of the State of California:
 1. The information provided on this Certificate of Compliance is true and correct.
 2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Kunal Gautam Shah
 Responsible Designer Signature: *Kunal Shah*
 Company: PBS Engineers, Inc.
 Address: 2100 East Route 66, Suite 210
 City/State/Zip: Glendora CA 91740
 Date Signed: 2021-07-29
 License: E17249
 Phone: (626) 650-0350

Registration Number: Registration Date/Time: Registration Provider: Energysoft
 CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2319.1.003 Report Generated: 2021-07-29 09:03:42
 Schema Version: rev 20200601

STATE OF CALIFORNIA
Indoor Lighting
 NRCC-LTI-E CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTI-E
 Project Name: CULINARY ARTS CLASSROOM MODERNIZATION Report Page: (Page 2 of 7)
 Project Address: 800 W COVINA BLVD Date Prepared: 7/29/2021

C. COMPLIANCE RESULTS
 If any cell in this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)(1)	Allowed Lighting Power per §140.6(b) (Watts)				Adjusted Lighting Power per §140.6(a) (Watts)				Compliance Results
	01	02	03	04	05	06	07	08	
Complete Building	Area Category Additional	Area Category Additional	Tailored	Total Allowed (Watts)	Total PAF Lighting Control Credits	Total Adjusted (Watts)	Total Adjusted (Watts)	Total Adjusted (Watts)	05 must be >= 08 §140.6
(See Table I)	(See Table I)	(See Table J)	(See Table K)			(See Table F)	(See Table P)		
				1,358	3	946	0	946	COMPLIES
Conditioned									COMPLIES
Unconditioned									COMPLIES

Controls Compliance (See Table H for Details)
 Rated Power Reduction Compliance (See Table Q for Details)

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.

F. INDOOR LIGHTING FIXTURE SCHEDULE
 This table includes all permanent designed lighting and all portable lighting in offices.

Designed Wattage: Conditioned Spaces

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change	Watts per luminaire	How is Wattage determined	Total Number of Luminaires	Excluded per §140.6(a)(3)	Design Watts	Field Inspector
									Pass Fail
L1	L1	No	No	21.5	CEC Default	36	No	774	<input type="checkbox"/>

Registration Number: Registration Date/Time: Registration Provider: Energysoft
 CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2319.1.003 Report Generated: 2021-07-29 09:03:42
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STATE OF CALIFORNIA
Indoor Lighting
 NRCC-LTI-E CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTI-E
 Project Name: CULINARY ARTS CLASSROOM MODERNIZATION Report Page: (Page 5 of 7)
 Project Address: 800 W COVINA BLVD Date Prepared: 7/29/2021

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE
 This section does not apply to this project.

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))
 This section does not apply to this project.

Q. RATEE POWER REDUCTION COMPLIANCE FOR ALTERATIONS
 This section does not apply to this project.

R. 80% LIGHTING POWER FOR ALL ALTERATIONS - CONTROLS EXCEPTIONS
 This section does not apply to this project.

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)
 This section does not apply to this project.

T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
 Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at: https://www.energy.ca.gov/titles/24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

Yes	No	Form/Title	Field Inspector
<input checked="" type="radio"/>	<input type="radio"/>	NRCI-LTI-01-E - Must be submitted for all buildings.	Pass Fail
<input type="radio"/>	<input checked="" type="radio"/>	NRCI-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room or a theater to be recognized for compliance.	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	<input type="checkbox"/>

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STATE OF CALIFORNIA
Indoor Lighting
 NRCC-LTI-E CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTI-E
 Project Name: CULINARY ARTS CLASSROOM MODERNIZATION Report Page: (Page 3 of 7)
 Project Address: 800 W COVINA BLVD Date Prepared: 7/29/2021

F. INDOOR LIGHTING FIXTURE SCHEDULE

LIE	LIE	No	No	21.5	CEC Default	8	No	172		
								946		
Total Designed Watts: CONDITIONED SPACES										946

*FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per §140.6(a)(3)(B) is adjusted to be 75% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.
 Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c). Wattage used must be the maximum rated for the luminaire, not the lamp.

G. MODULAR LIGHTING SYSTEMS
 This section does not apply to this project.

H. INDOOR LIGHTING CONTROLS (Not including IAFs)
 This table includes lighting controls for conditioned and unconditioned spaces. When a control having a * is shown, the notes section of this table provides more detail on how compliance is achieved. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.

Building Level Controls

01	02	03
Mandatory Demand Response §110.12(c)	Shut-off controls §130.1(c)	Field Inspector
		Pass Fail
Not Required <= 10,000 SF	See Area/Space Level Controls	<input type="checkbox"/>

Area Level Controls

04	05	06	07	08	09	10	11	12
Area Description	Complete Building or Area Category Primary Function Area	Area Controls §130.1(a)	Multi-Level Controls §130.1(b)	Shut-Off Controls §130.1(c)	Primary/Sky lit Daylighting §130.1(e)	Secondary Daylighting §130.8(d)	Interlocked Systems §130.8(a)(1)	Field Inspector
								Pass Fail
CULINARY ARTS CLASSROOM	Classroom, Lecture, or Training Vocational Area	Manual ON/OFF	Dimmer	Occupancy Sensor	N/A	N/A	No	<input type="checkbox"/>

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STATE OF CALIFORNIA
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CERTIFICATE OF COMPLIANCE NRCC-LTI-E
 Project Name: CULINARY ARTS CLASSROOM MODERNIZATION Report Page: (Page 6 of 7)
 Project Address: 800 W COVINA BLVD Date Prepared: 7/29/2021

U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
 Selections have been made based on information provided in this document. If any selection have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "A" in the form name must be completed through an Acceptance Test: Technician Certification Provider (ATCP). For more information visit: http://www.energy.ca.gov/titles/24/atcp/providers.html

Yes	No	Form/Title	Field Inspector
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	Pass Fail
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF)	<input type="checkbox"/>

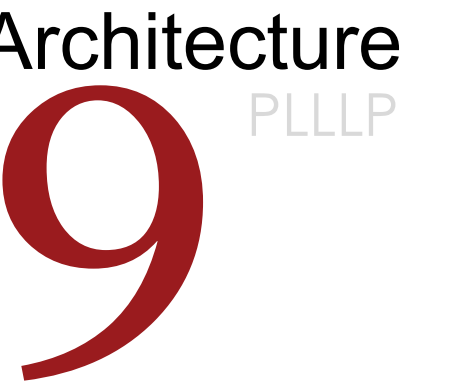
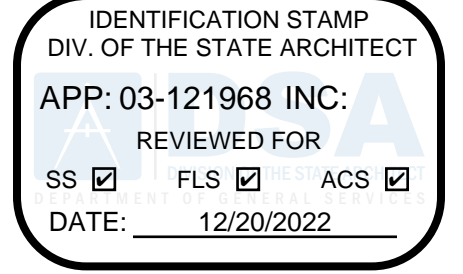
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STATE OF CALIFORNIA
Indoor Lighting
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CERTIFICATE OF COMPLIANCE NRCC-LTI-E
 Project Name: CULINARY ARTS CLASSROOM MODERNIZATION Report Page: (Page 6 of 7)
 Project Address: 800 W COVINA BLVD Date Prepared: 7/29/2021

U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
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Yes	No	Form/Title	Field Inspector
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	Pass Fail
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF)	<input type="checkbox"/>

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 Rancho Cucamonga, CA 91730
 a9contact@architecture9.com

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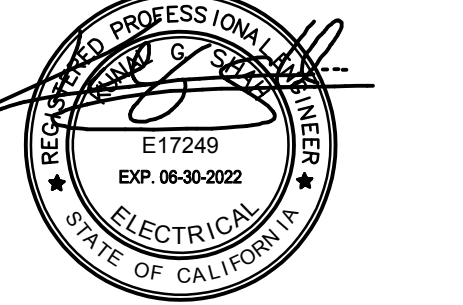


CONSULTANT:



2100 East Route 66, Suite 210
 Glendora, CA 91740
 T. 626.650.0350 F. 626.650.0352
 www.pbsengineers.com Job no. 2021-072-00

CONSULTANTS STAMP:



SCHOOL DISTRICT:
BONITA UNIFIED SCHOOL DISTRICT

PROJECT:
SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

JOB NUMBER: 12.03.00
 DATE: 08/25/21

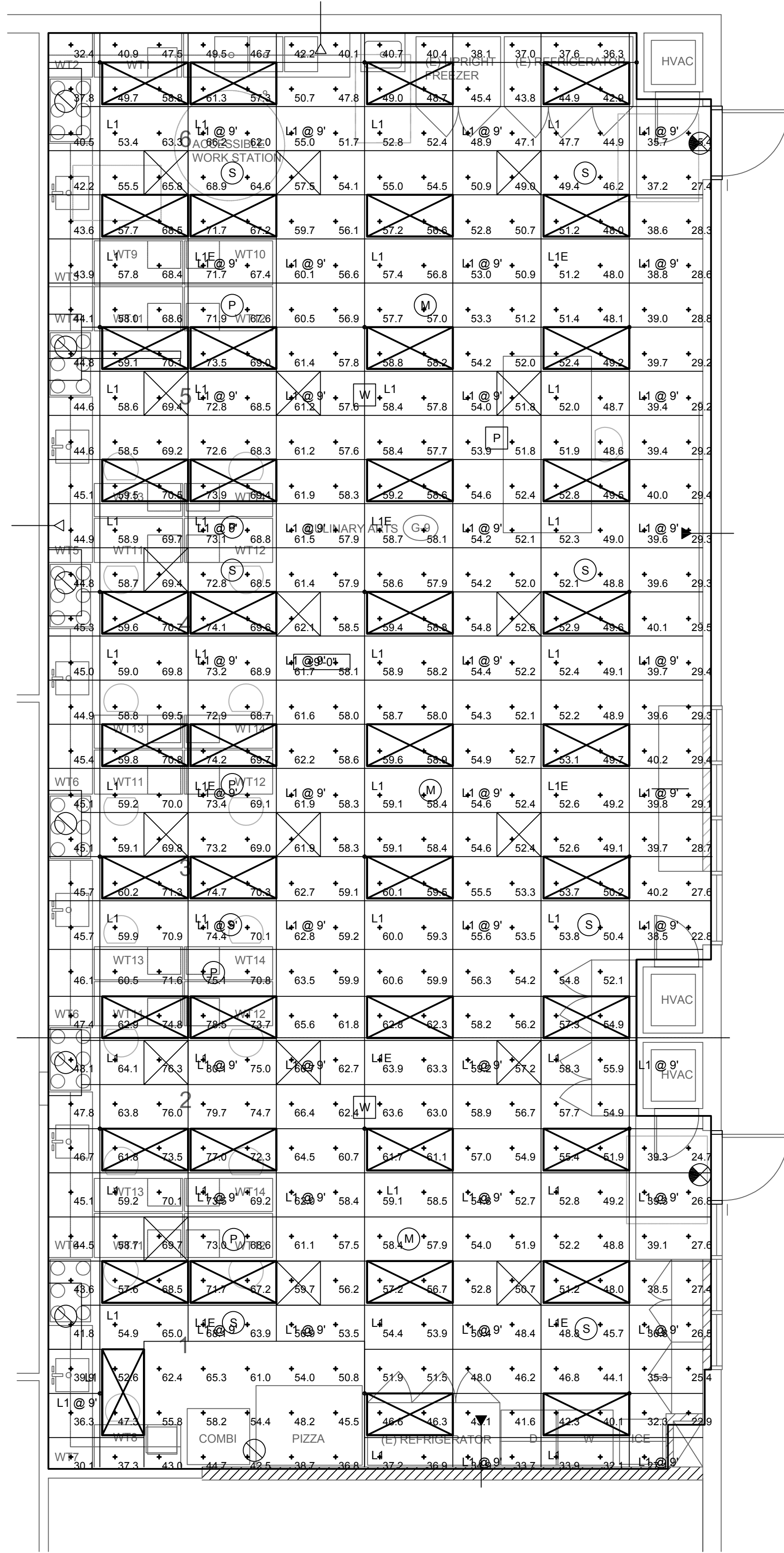
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 REVISION: DATE: _____

DRAWING TITLE:
TITLE-24 COMPLIANCE FORMS

DRAWING NO.:

E0.5

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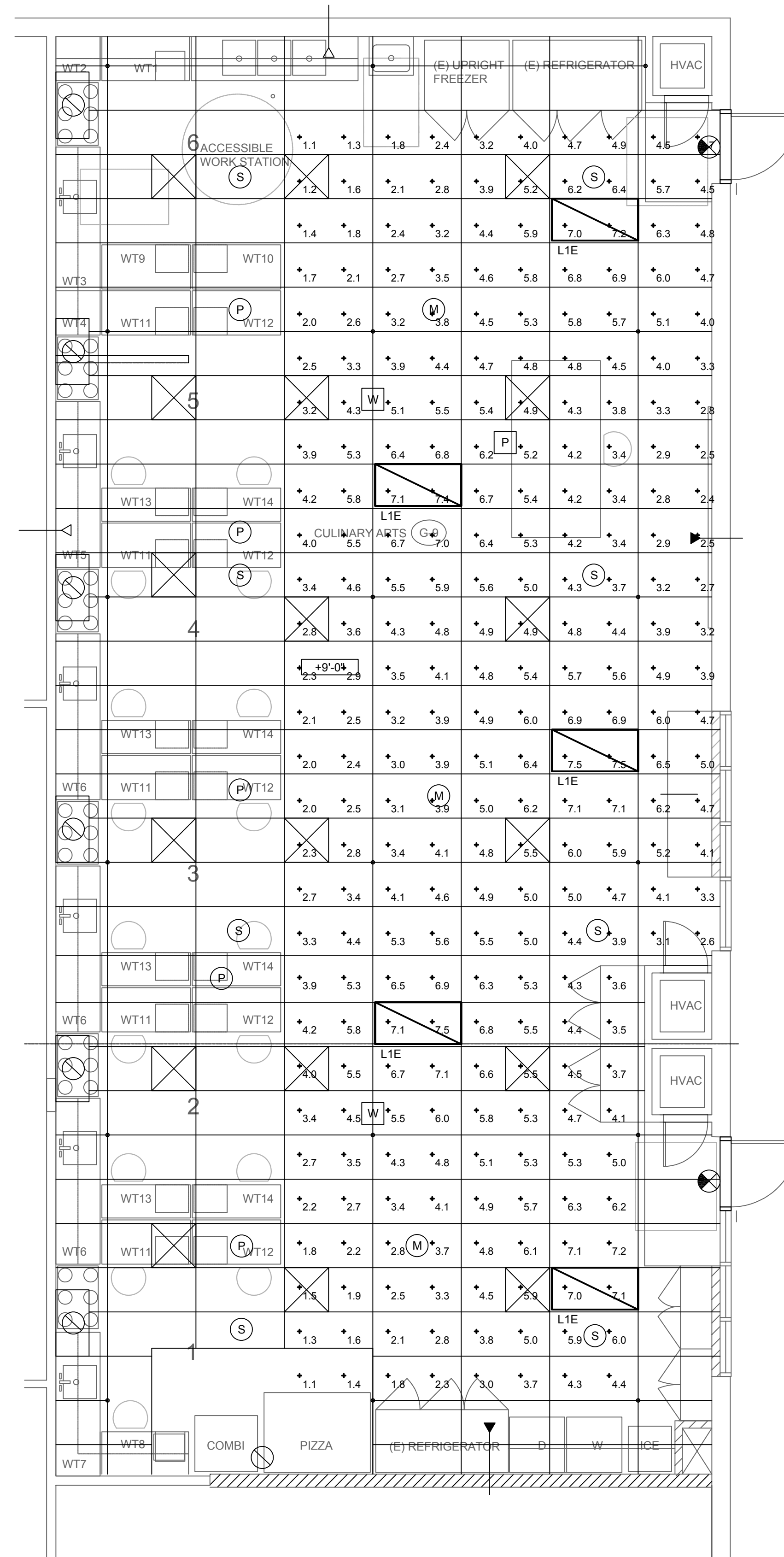
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage
⊗	L1 L1E	43	Lithonia Lighting	2WRTL XX L48 3000LM XX AFL XX 40K 80CRI	2WRTL L48 3000LM AFL 40K 80CRI	1	2727	0.9	21.48

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
CLASSROOM @ 2'-6" AFF	+	54.0 fc	80.1 fc	22.8 fc	3.5:1	2.4:1



NORMAL PHOTOMETRIC CALCULATION

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



Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage
⊗	L1E	5	Lithonia Lighting	2WRTL XX L48 3000LM XX AFL XX 40K 80CRI E10WLCP	2WRTL L48 3000LM AFL 40K 80CRI	1	2727	0.47	21.48

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
EMERGENCY - CLASSROOM	+	4.4 fc	7.5 fc	1.1 fc	6.8:1	4.0:1



EMERGENCY PHOTOMETRIC CALCULATION

SCALE: 1/4" = 1'-0" **2**

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DATE: 12/20/2022



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Rancho Cucamonga, CA 91730
a9contact@architecture9.com

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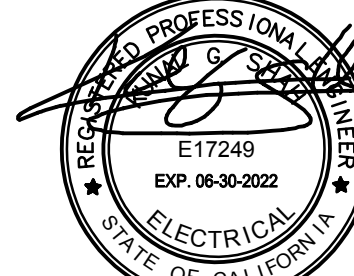


CONSULTANT:



2100 East Route 66, Suite 210
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T. 626.650.0350 F. 626.650.0352
www.pbsengineers.com Job no. 2021-072-00

CONSULTANTS STAMP:



SCHOOL DISTRICT:
**BONITA UNIFIED
SCHOOL DISTRICT**

PROJECT:
**SAN DIMAS
HIGH SCHOOL
CULINARY ARTS
CLASSROOM
MODERNIZATION**

JOB NUMBER: 12.03.00
DATE: 08/25/21

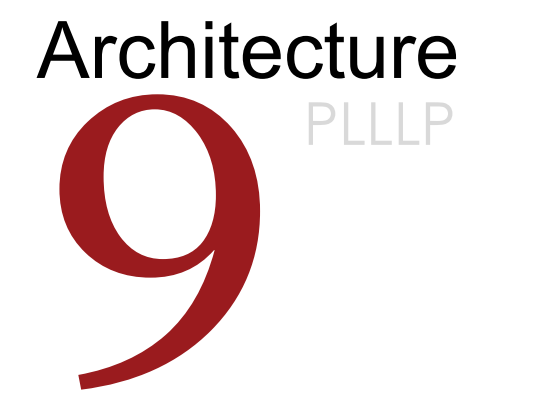
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REVISION: DATE:

DRAWING TITLE:
**PHOTOMETRIC
CALCULATIONS**

DRAWING NO.:

E0.6

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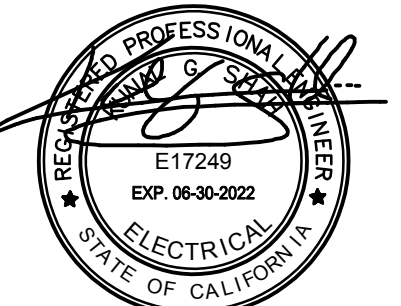
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SCHOOL DISTRICT:

BONITA UNIFIED SCHOOL DISTRICT

PROJECT:

SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

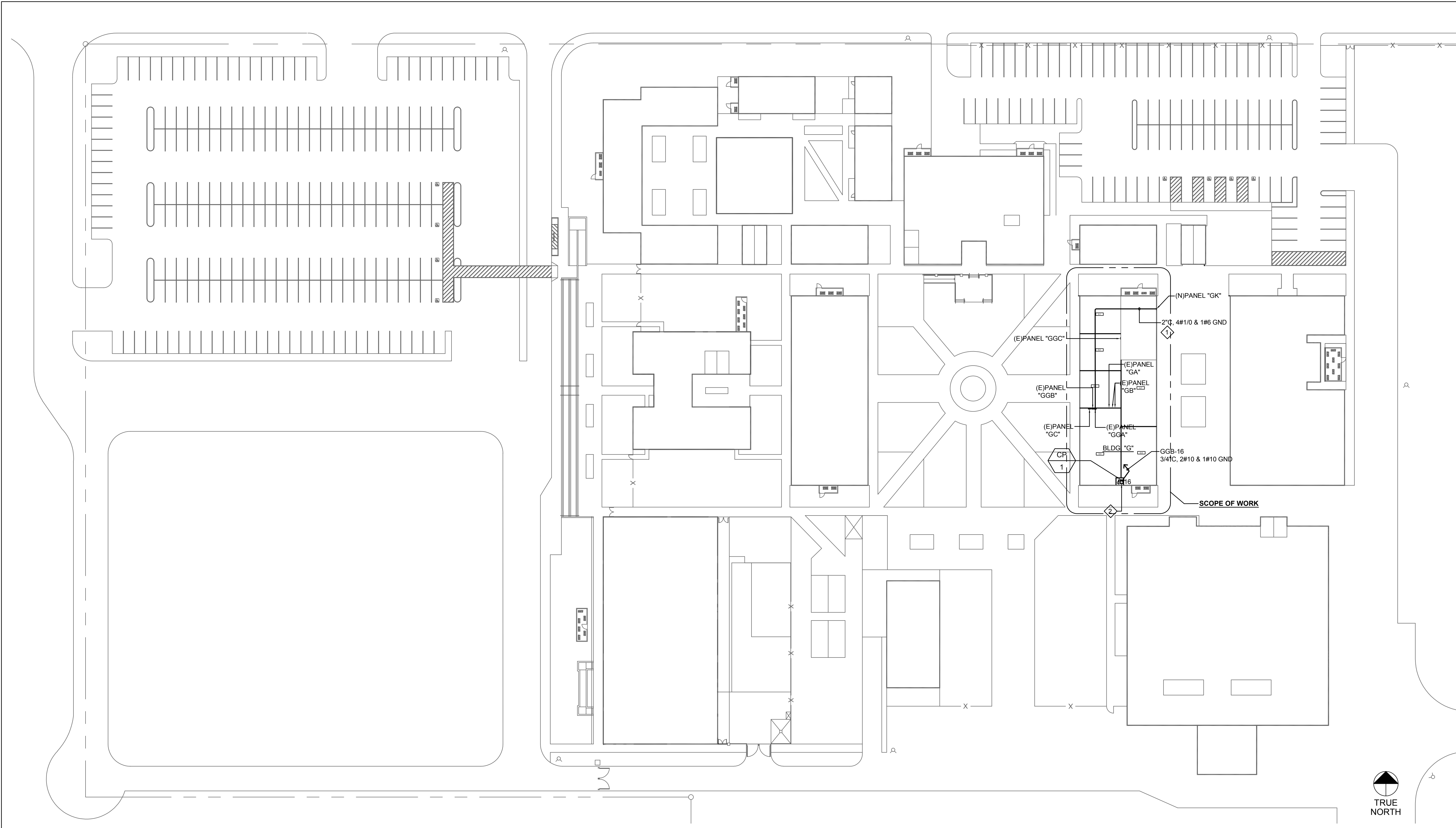
JOB NUMBER: 12.03.00
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REVISION: Δ DATE: _____
 REVISION: Δ DATE: _____

DRAWING TITLE:
ELECTRICAL SITE PLAN

DRAWING NO.:

E1.1



ELECTRICAL SITE PLAN

SCALE:
 1" = 40'-0"

1

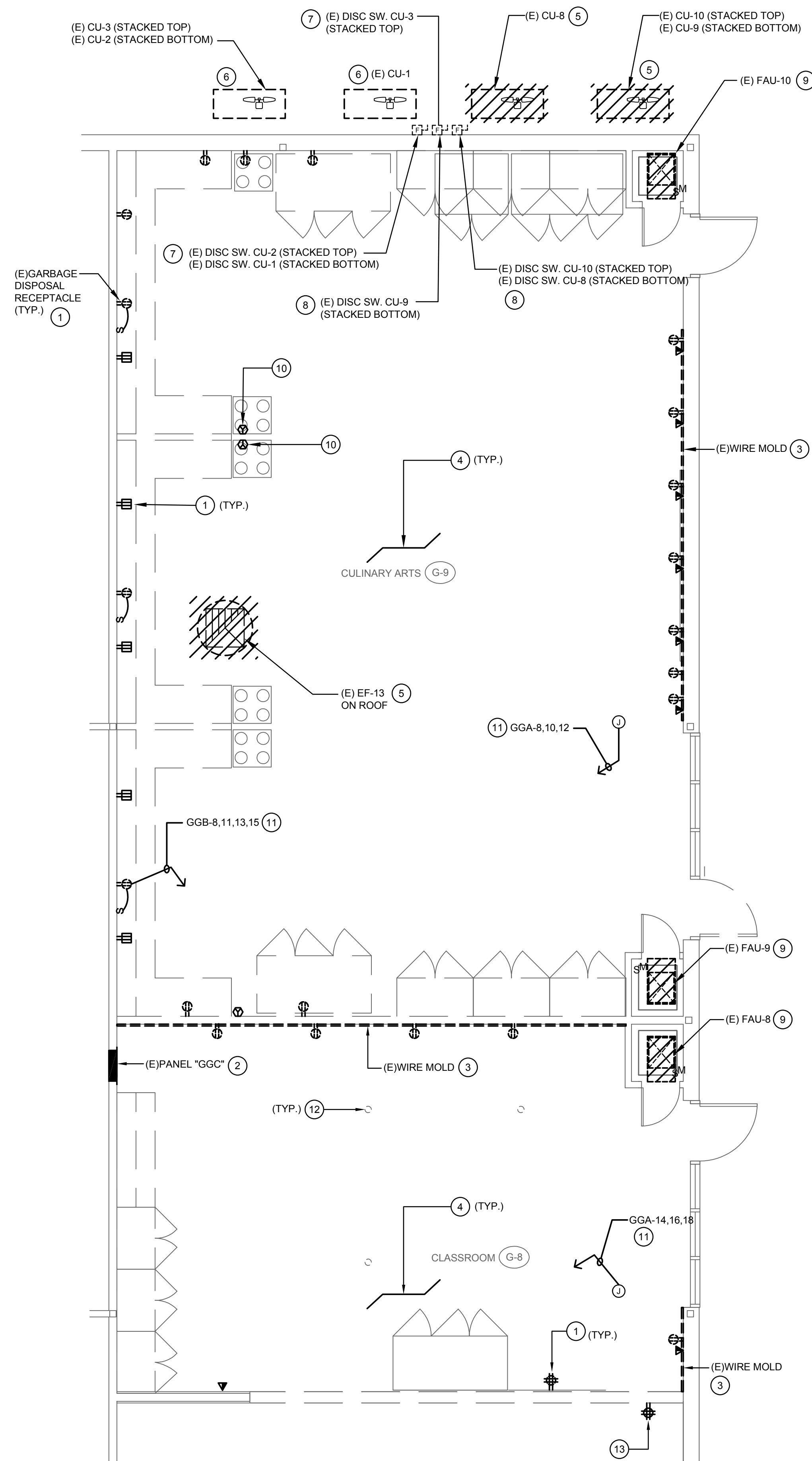
GENERAL NOTES

1. REFER TO E0.1 & E0.2 FOR FURTHER NOTES.

KEY NOTES

- ① CONDUIT ROUTING SHALL BE INSIDE THE CEILING SPACE. CONTRACTOR TO VERIFY EXISTING CEILING SPACE PRIOR TO CONSTRUCTION. REFER TO SHEET E4.1 DETAIL #4 FOR CONDUIT SUPPORT.
- ② PROVIDE NEMA 3R J-BOX WITH 120V, 20A MOTOR RATED SWITCH FOR CIRCULATING PUMP POWER CONNECTION. COORDINATION EXACT LOCATION WITH PLUMBING PLANS PRIOR TO CONSTRUCTION.

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GENERAL NOTES

- ALL ELECTRICAL EQUIPMENT SHALL BE DE-ENERGIZED PRIOR TO COMMENCING ANY DEMOLITION WORK
- FOLLOW ALL LOCKOUT/TAGOUT PROCEDURE PER NFPA 70E.
- ALL EXISTING DEVICES SHOWN ARE BASED ON ENGINEER'S FIELD OBSERVATION ONLY. ALL DEVICES MAY NOT HAVE BEEN ABLE TO BE OBSERVED. VERIFY AND REMOVE ALL HIDDEN DEVICES AS REQUIRED.
- DEMOLISH ELECTRICAL CIRCUITS AS NECESSARY TO ACCOMMODATE RENOVATION WORK. REMOVE ALL ELECTRICAL DEVICES (DISCONNECTS, STARTERS, WIRING, CONDUITS, ETC.) ASSOCIATED WITH EQUIPMENT REMOVED BY OTHERS. EXISTING CIRCUITS SERVING RECEPTACLES FOR A GIVEN AREA SHALL BE REUSED TO THE FULLEST EXTENT POSSIBLE AND SHALL SERVE THE NEW LAYOUT FOR THAT AREA. PROVIDE CIRCUIT MODIFICATIONS INDICATED OR AS OTHERWISE REQUIRED TO MAINTAIN THE CONTINUITY OF EXISTING CIRCUITS THAT REMAIN.
- REFER TO ARCHITECTURAL DEMOLITION PLANS FOR EXISTING BUILDINGS, WALLS, EQUIPMENT, ETC., TO BE DEMOLISHED. ALL ELECTRICAL DEVICES, ASSOCIATED CONDUITS AND WIRES SHALL BE DISCONNECTED AND REMOVED.
- NOT USED.

DEMO KEY NOTES

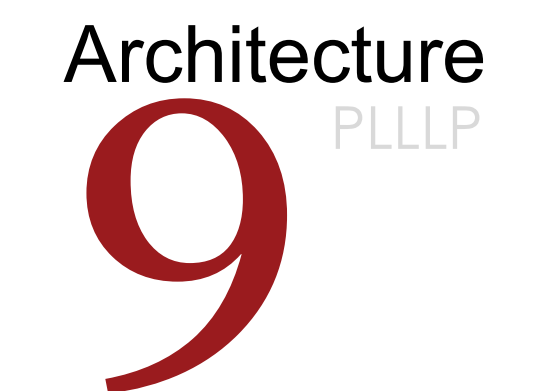
- DISCONNECT AND REMOVE EXISTING RECEPTACLE, CONDUIT AND WIRES. IF THE RECEPTACLE IS SHARING SAME CIRCUIT WITH OTHER DEVICES TO REMAIN CONTRACTOR SHALL EXTEND CONDUIT AND WIRES FROM THE REMAINING DEVICES BACK TO ORIGINAL CIRCUITS.
- DISCONNECT ALL CONDUIT AND WIRES IN THE EXISTING PANEL "GGC". CONTRACTOR SHALL ROTATE THE EXISTING PANEL "GGC" 180 DEGREES TO FACE THE PANEL TO G2 CLASS ROOM. RE-TERMINATE ALL EXISTING CONDUIT AND WIRES TO THEIR RESPECTIVE BRANCH CIRCUITS.
- DISCONNECT AND REMOVE EXISTING WIRE MOLD AND ALL ASSOCIATED CONNECTION. IF THERE ARE CIRCUITS SHARING SAME CIRCUIT WITH OTHER DEVICES TO REMAIN CONTRACTOR SHALL EXTEND CONDUIT AND WIRES FROM THE REMAINING DEVICES BACK TO ORIGINAL CIRCUITS.
- DISCONNECT POWER AND REMOVE ALL EXISTING EQUIPMENT, RECEPTACLE, CONDUIT AND WIRES IN THIS AREA. VERIFY AND COORDINATE ALL DEMOLITION WORKS WITH OTHER TRADES PRIOR TO CONSTRUCTION. ALL CIRCUITS IN THE EXISTING PANELBOARDS THAT ARE PART OF DEMOLITION WORKS SHALL BE MARKED AS SPARE CIRCUIT BREAKER. VERIFY AND COORDINATE ALL DEMOLITIONS WORKS WITH OTHER TRADES PRIOR TO CONSTRUCTION.
- EXISTING HVAC EQUIPMENT TO BE DEMOLISHED.
- NOT IN SCOPE OF WORK. EXISTING HVAC TO REMAIN AND PROTECTED IN PLACE.
- EXISTING DISCONNECT SWITCH AND ALL ASSOCIATED CONNECTION TO REMAIN UNLESS OTHERWISE NOTED. PROTECT IN PLACE DURING CONSTRUCTION.
- EXISTING DISCONNECT SWITCH TO BE RE-USE. CONTRACTOR SHALL DISCONNECT EXISTING CONDUIT AND WIRES CONNECTING TO MECHANICAL EQUIPMENT TO BE REMOVE. EXISTING HOMERUNS AND CIRCUIT TO REMAIN. COORDINATION DEMOLITION WORKS WITH MECHANICAL PRIOR TO ROUGH-IN AND CONSTRUCTION.
- EXISTING HVAC EQUIPMENT TO BE DEMOLISHED. EXISTING MOTOR RATED DISCONNECT SWITCH, HOMERUNS AND CIRCUIT TO BE REUSE. PROTECT IN PLACE DURING CONSTRUCTION. CONTRACTOR SHALL EXTEND CONDUIT AND WIRES TO NEW MECHANICAL EQUIPMENT. COORDINATE WITH MECHANICAL PRIOR TO ROUGH-IN AND CONSTRUCTION.
- DISCONNECT AND REMOVE EXISTING RECEPTACLE, CONDUIT AND WIRES. CIRCUITS IN THE EXISTING PANELBOARD SHALL BE MARKED AS SPARE CIRCUIT BREAKER.
- EXISTING J-BOX, HOMERUNS, CONDUITS TO REMAIN. CONTRACTOR SHALL CIRCUIT TRACE AND DISCONNECT ALL THE CONNECTED LOADS TO BE DEMOLISH. PROTECT IN PLACE DURING CONSTRUCTION. EXISTING HOMERUNS AND CIRCUITS ARE TO BE REUSE FOR THE REMODELING OF THE SPACE.
- DISCONNECT AND REMOVE EXISTING FLOOR RECEPTACLE. IF THE RECEPTACLE IS SHARING SAME CIRCUIT WITH OTHER DEVICES TO REMAIN CONTRACTOR SHALL EXTEND CONDUIT AND WIRES FROM THE REMAINING DEVICES BACK TO ORIGINAL CIRCUITS.
- DISCONNECT AND REMOVE EXISTING QUAD RECEPTACLE. CONTRACTOR SHALL PROTECT IN PLACE THE EXISTING CONDUIT, WIRES AND BOX DURING WALL DEMOLITION WORKS. EXISTING RECEPTACLE SHALL BE REINSTALLED TO NEW WALL DURING RENOVATION WORKS.

DEMOLITION POWER FLOOR PLAN

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

1

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 SS FLS ACS
 DATE: 12/20/2022



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 Rancho Cucamonga, CA 91730
 a9contact@architecture9.com

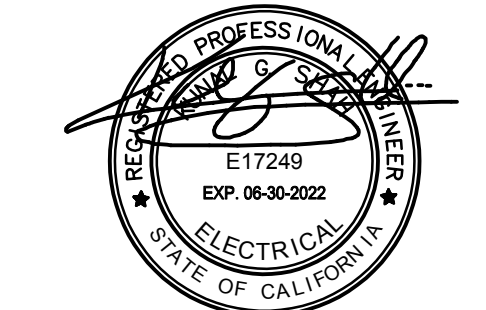
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CONSULTANT:

PBS ENGINEERS
 2100 East Route 66, Suite 210
 Glendora, CA 91740
 T. 626.650.0350 F. 626.650.0352
 www.pbsengineers.com Job no. 2021-072-00

CONSULTANTS STAMP:



SCHOOL DISTRICT:

BONITA UNIFIED SCHOOL DISTRICT

PROJECT:

SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

JOB NUMBER: 12.03.00
 DATE: 08/25/21

REVISION: DATE: _____
 REVISION: DATE: _____

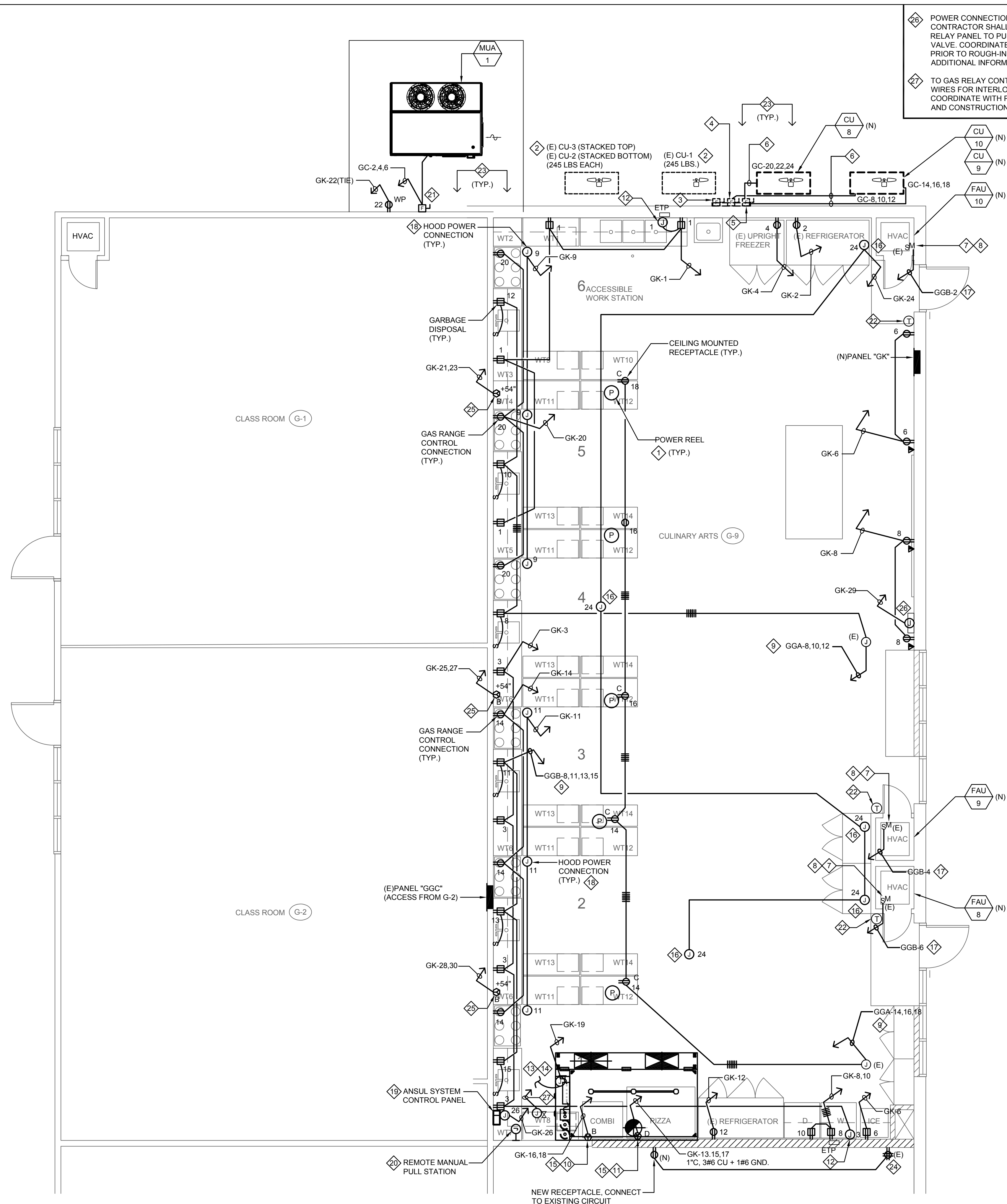
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DEMOLITION POWER FLOOR PLAN

DRAWING NO.:

E2.1D

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POWER CONNECTION TO GAS RELAY CONTROL PANEL. CONTRACTOR SHALL PROVIDE INTERLOCKING CONNECTION FROM RELAY PANEL TO PUSH BUTTON SWITCH AND GAS SOLENOID VALVE. COORDINATE LOCATION WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

TO GAS RELAY CONTROL PANEL. PROVIDE CONDUIT AND CONTROL WIRES FOR INTERLOCKING CONNECTION TO GAS RELAY PANEL. COORDINATE WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN AND CONSTRUCTION.

GENERAL NOTES

- REFER TO E0.1 & E0.2 FOR FURTHER NOTES.
- REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATION OF ALL EQUIPMENT AND DEVICES INCLUDING INTERLOCKING & OTHER SPECIFIC REQUIREMENTS.
- VERIFY EXACT LOCATION AND MOUNTING HEIGHT OF ALL EQUIPMENT, DEVICES, OUTLETS AND RECEPTACLES PER ARCHITECTURAL DRAWINGS PRIOR TO ROUTING THE CONDUITS.
- VERIFY EXACT LOCATION OF J-BOXES (POINT OF CONNECTION) FOR DIRECT CONNECTED EQUIPMENT WITH EQUIPMENT MANUFACTURER. VERIFY THEIR REQUIREMENTS PRIOR TO ROUTING ANY CONDUIT.
- PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES. CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC. 314.16.
- ALL ELECTRICAL OUTLETS AND EQUIPMENT THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WEATHERPROOF TYPE NEMA-3R.
- ALL RECEPTACLES LOCATED OUTDOORS SHALL BE GFCI, WP TYPE.
- ALL BRANCH CIRCUITS SHALL BE SIZED FOR MAXIMUM VOLTAGE DROP OF 3% AT DESIGN LOAD PER TITLE 24.
- FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
- PROVIDE INDIVIDUAL NEUTRAL FOR MULTI-WIRE BRANCH CIRCUIT.
- CONTRACTOR SHALL COORDINATE ALL EQUIPMENT POWER REQUIREMENTS WITH EQUIPMENT MANUFACTURER PRIOR TO ROUGH-IN.

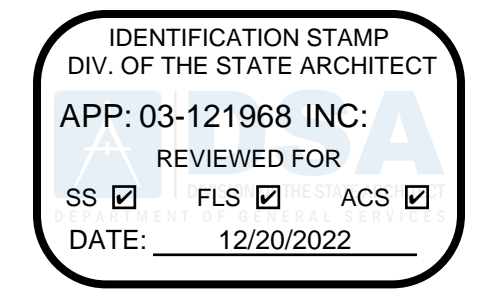
REMODEL KEY NOTES

- CONNECT POWER REEL TO CEILING MOUNTED RECEPTACLE. CONTRACTOR SHALL PROVIDE MOUNTING SUPPORT FOR POWER REEL. COORDINATE POWER REEL SUPPORT WITH THE ARCHITECT.
- NOT IN SCOPE OF WORK. EXISTING DEVICE TO REMAIN AND PROTECTED IN PLACE.
- EXISTING DISC SW. CU-2 (STACKED TOP) AND EXISTING DISC SW. CU-1 (STACKED BOTTOM) NOT IN SCOPE. PROTECT IN PLACE DURING CONSTRUCTION.
- EXISTING DISC SW. CU-3 (STACKED TOP) NOT IN SCOPE. PROTECT IN PLACE DURING CONSTRUCTION. EXISTING DISC SW. CU-9 (STACKED BOTTOM) TO BE RE-USE. CONTRACTOR SHALL PROVIDE NEW CONDUIT AND WIRES FROM THE EXISTING DISCONNECT SWITCH TO NEW MECHANICAL EQUIPMENT. REUSE EXISTING HOMERUNS AND CIRCUITS.
- EXISTING DISC SW. CU-10 (STACKED TOP) AND DISC SW. CU-8 (STACKED BOTTOM) TO BE RE-USE. CONTRACTOR SHALL PROVIDE NEW CONDUIT AND WIRES FROM THE EXISTING DISCONNECT SWITCH TO NEW MECHANICAL EQUIPMENT. REUSE EXISTING HOMERUNS AND CIRCUITS.
- PROVIDE 3/4" C, 3#12 CU + 1#12 GND.
- REUSE EXISTING MOTOR RATED SWITCH. CONTRACTOR SHALL PROVIDE NEW CONDUIT AND WIRES FROM THE EXISTING MOTOR RATED SWITCH TO NEW MECHANICAL EQUIPMENT. REUSE EXISTING HOMERUNS AND CIRCUITS. COORDINATE CONTROL REQUIREMENTS WITH MECHANICAL. PROVIDE CONNECTIONS AS REQUIRED.
- PROVIDE 3/4" C, 2#12 CU + 1#12 GND.
- CONTRACTOR SHALL REUSE EXISTING CIRCUITS AND EXTEND TO NEW RECEPTACLE AND/OR EQUIPMENT. CONTRACTOR TO VERIFY EXISTING CONDITION PRIOR TO ROUGH-IN. PROVIDE CONNECTIONS AS REQUIRED.
- PROVIDE 20A/250V, NEMA 6-20R, 2P, 3W RECEPTACLE AND 3/4" C, 2#12 CU + 1#12 GND. FOR COMBI OVEN. COORDINATE RECEPTACLE REQUIREMENTS PRIOR TO ROUGH-IN. PROVIDE FINAL CONNECTIONS AS REQUIRED.
- PROVIDE 50A/250V, NEMA 14-50R, 3P, 4W RECEPTACLE AND 1" C, 3#6 CU + 1#6 GND. FOR PIZZA OVEN. COORDINATE RECEPTACLE REQUIREMENTS PRIOR TO ROUGH-IN. PROVIDE FINAL CONNECTIONS AS REQUIRED.
- PROVIDE J-BOX FOR ELECTRONIC TRAP PRIMER POWER CONNECTION. PROVIDE STEP DOWN TRANSFORMER (120V-24V) FOR ELECTRONIC TRAP PRIMER AS REQUIRED.
- ROUTE POWER FROM MAU-2 AND SUPPLY FAN THROUGH HOOD CONTROL PANEL. REFER TO MECHANICAL PLANS FOR HOOD CONTROL REQUIREMENTS AND CONNECTION.
- PROVIDE INTER-CONNECTION BETWEEN HOOD SWITCH AND KITCHEN EXHAUST FAN (KEF) / MAKE UP AIR SYSTEM (MAU).
- PROVIDE INTERLOCKING TO SHUT-OFF ALL ELECTRICAL UNDER HOOD WHEN SYSTEM IS ACTIVATED. PROVIDE INTERLOCKING BETWEEN HOOD SYSTEM CONTROL BOX AND CIRCUIT BREAKER AT PANELBOARD. REFER TO HOOD DRAWINGS FOR CONTROL REQUIREMENTS.
- PROVIDE 120V POWER FOR DUCT DETECTOR. COORDINATE POWER CONNECTION WITH MECHANICAL AND FIRE ALARM PRIOR TO ROUGH-IN AND CONSTRUCTION. PROVIDE FINAL CONNECTIONS AS REQUIRED.
- CONTRACTOR SHALL REUSE EXISTING CIRCUIT. VERIFY IN FIELD PRIOR TO ROUGH-IN AND CONSTRUCTION.
- PROVIDE CEILING JUNCTION BOX FOR RESIDENTIAL HOOD POWER CONNECTION. COORDINATE ADDITIONAL REQUIREMENTS WITH MECHANICAL PRIOR TO ROUGH-IN.
- CONTRACTOR SHALL VERIFY EXACT LOCATION WITH ARCHITECT AND HOOD INSTALLER PRIOR TO ROUGH-IN AND CONSTRUCTION. PROVIDE INTERLOCKING CONTROL WIRES AND CONDUIT TO SHUT-OFF ALL ELECTRICAL UNDER HOOD WHEN SYSTEM IS ACTIVATED. PROVIDE INTERLOCKING BETWEEN SYSTEM CONTROL BOX AND SHUNT TRIP BREAKER AT ELECTRICAL PANELBOARD. ALL INTERLOCKING SYSTEM SHALL BE PROVIDED AS PER HOOD REQUIREMENTS. REFER TO MECHANICAL PLANS FOR CONTROL DETAILS.
- PROVIDE 4" OCTAGONAL BOX AND 1/2" CONDUIT FOR REMOTE MANUAL PULL STATION. COORDINATE LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. REFER TO MECHANICAL HOOD PLANS FOR ADDITIONAL CONTROL INFORMATION.
- PROVIDE 30AS/25AF, 3P, 480V NEMA 3R DISCONNECT SWITCH AND 1" C, 3#10CU + #10 GND. PROVIDE FINAL CONNECTIONS AS REQUIRED. REFER TO MECHANICAL PLANS FOR MAU-1 CONTROL REQUIREMENTS.
- PROVIDE BACK BOX AND CONDUIT FOR THERMOSTAT CONTROL WIRING. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- PAINT ALL NEW AND EXISTING BUILDING MOUNTED CONDUITS AND DEVICES ENCLOSURE.
- CONTRACTOR SHALL REINSTALL EXISTING QUAD RECEPTACLE THAT WAS REMOVED DURING DEMOLITION WORKS. TERMINATE TO EXISTING CIRCUIT.
- PROVIDE 30A/250V, NEMA 6-30R, 2P, 3W RECEPTACLE AND 3/4" C, 2#10 CU + #10 GND FOR FUTURE SALAMANDER BROILER. COORDINATE RECEPTACLE REQUIREMENTS PRIOR TO ROUGH-IN.



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

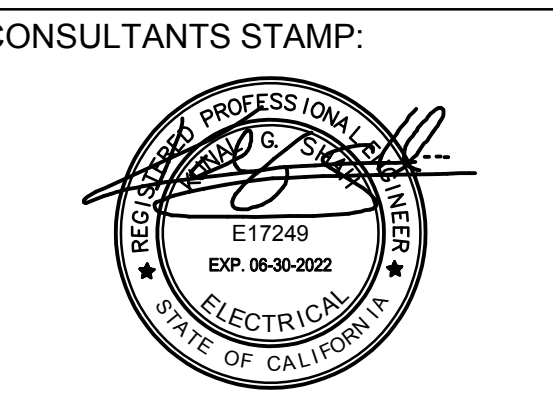
REMODEL POWER FLOOR PLAN



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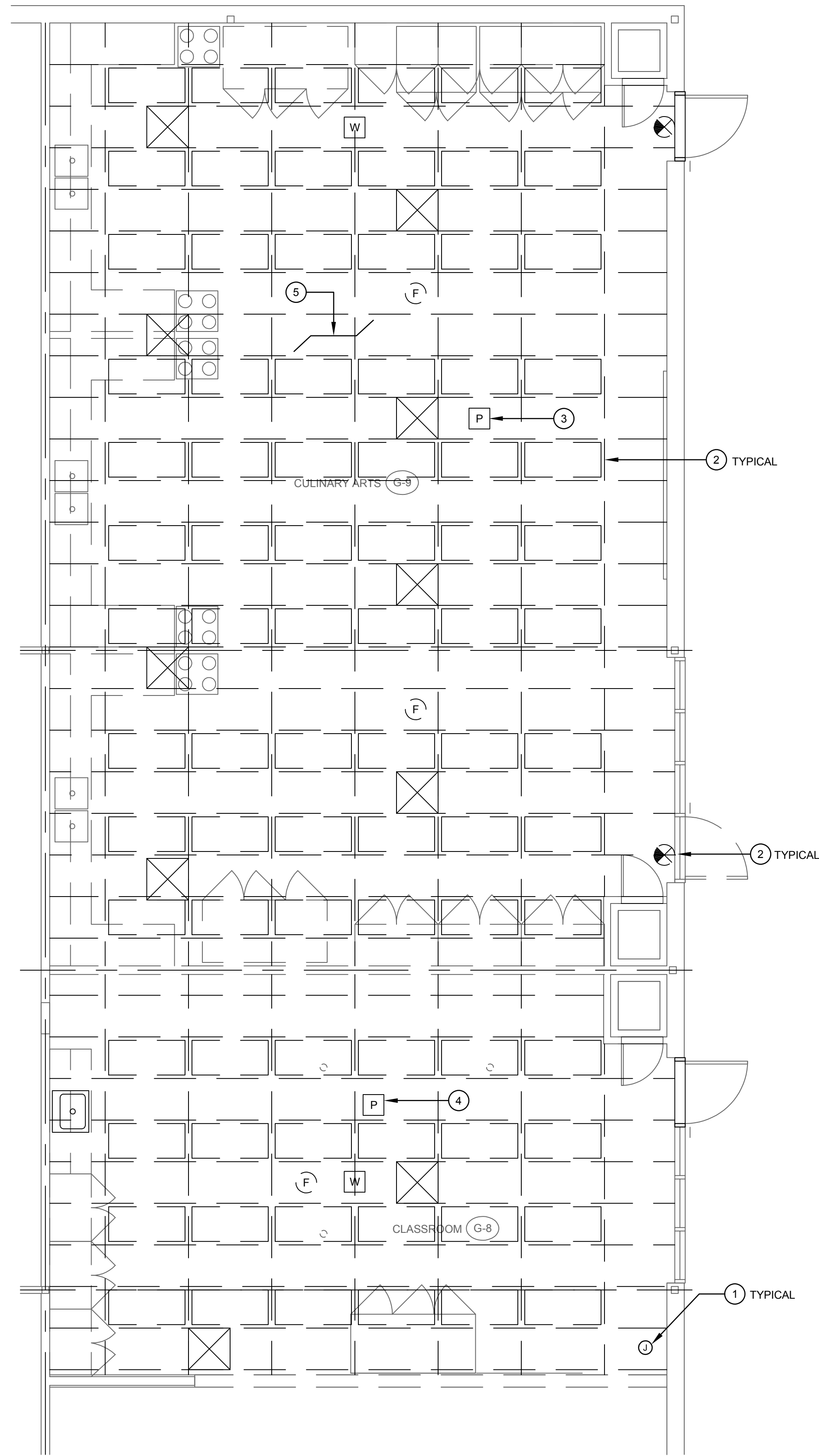
PROJECT:
SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

JOB NUMBER: 12.03.00
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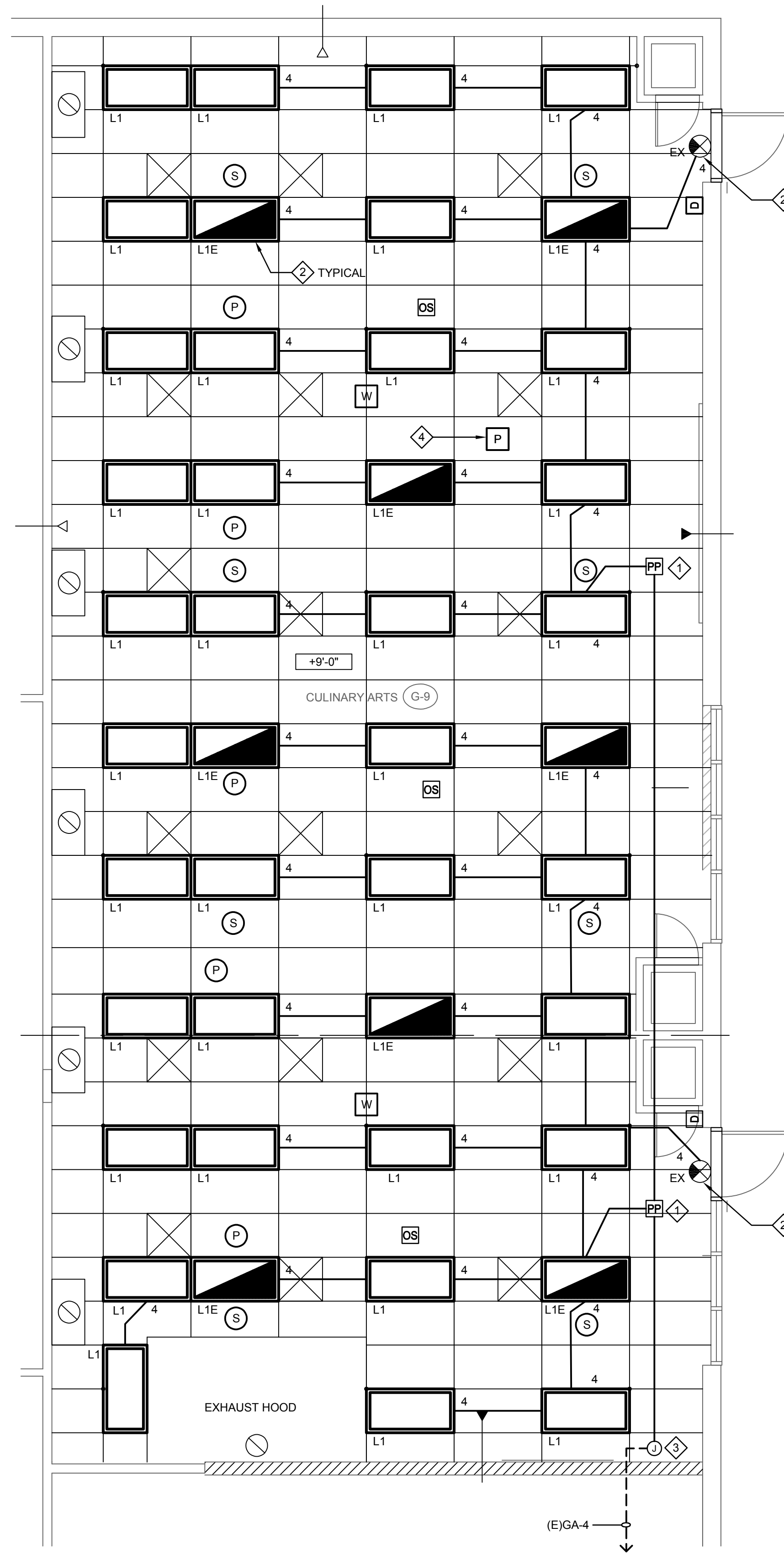
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E2.1

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DEMOLITION LIGHTING PLAN

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



REMODEL LIGHTING PLAN

SCALE: 1/4" = 1'-0" 2

GENERAL NOTES

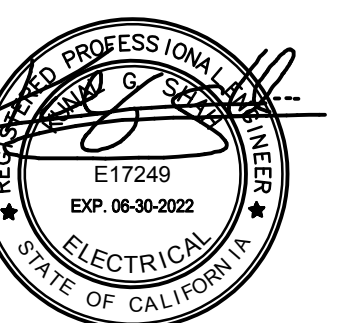
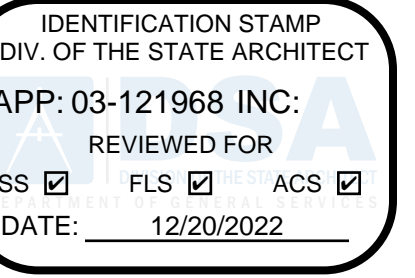
- REFER TO E0.1 & E0.2 FOR FURTHER NOTES.
- COORDINATE ALL LIGHTING FIXTURE LOCATIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWING PRIOR TO ROUGH IN. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO START OF WORK.
- ALL ELECTRICAL CIRCUIT WIRING SHALL BE PROVIDED WITH GROUND WIRE.
- ALL LIGHTING FIXTURES/EQUIPMENT SHALL BE U.L. LISTED, LABELED AND APPROVED BY THE CITY.
- PROVIDE UN-SWITCHED HOT WIRE TO EXIT SIGNS AND /OR EMERGENCY BATTERY PACK.
- ALL CONDUCTORS SHALL HAVE UNDERWRITER'S LABORATORIES, INC. (UL LISTED, 800 VOLTS INSULATION FOR TYPE SPECIFIED BELOW OR ELSEWHERE IN THE SPECIFICATIONS, ALL CONDUCTOR SHALL BE COPPER.
BRANCH CIRCUITS - LIGHTING AND POWER:
a. #10 AWG AND SMALLER, SOLID WIRE TYPE THW OR THHN / THWN, THHW (THHN FOR DRY LOCATION ONLY).
b. #8 AWG AND LARGER, STRANDED TYPE THW OR THHN / THHW.
- PROVIDE U.L. 924 CONTROL RELAY FOR EMERGENCY LIGHTING CONTROL.
- WHERE ROOM CONTROLLERS (RELAY POWER PACK MODULE) ARE SHOWN, PROVIDE POWER TO ROOM CONTROLLER FROM SAME CIRCUIT SHOWN TO POWER THE LIGHTS. CIRCUIT TO POWER THE LIGHTS SHALL FIRST BE WIRE TO ROOM CONTROLLER.
- EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS PER CEC 210.4(B) & (D).

DEMO KEY NOTES

- CONTRACTOR SHALL INTERCEPT EXISTING CONDUIT, WIRES AND EXTEND TO NEW LIGHTING LOCATION. CONTRACTOR TO VERIFY AND REUSE EXISTING LIGHTING CIRCUITS. PROTECT IN PLACE DURING CONSTRUCTION. IF THE EXISTING CIRCUIT IS SHARING SAME CIRCUIT WITH OTHER LIGHT FIXTURES TO REMAIN CONTRACTOR SHALL EXTEND CONDUIT AND WIRES FROM REMAINING LIGHT FIXTURES BACK TO ORIGINAL BRANCH CIRCUITS.
- CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING LIGHT FIXTURES, CONDUIT, WIRES AND ALL ASSOCIATED CONNECTION.
- EXISTING PROJECTOR MOUNTING BRACKET TO REMAIN. REMOVE AND REINSTALL PER ARCHITECTURAL.
- REMOVE EXISTING PROJECTOR AND ALL ASSOCIATED WIRING CONNECTIONS AND RETURN TO DISTRICT. IF THERE ARE CIRCUITS SHARING SAME CIRCUIT WITH OTHER DEVICES TO REMAIN CONTRACTOR SHALL EXTEND CONDUIT AND WIRES FROM THE REMAINING DEVICES BACK TO ORIGINAL CIRCUITS.
- REFER TO ARCHITECTURAL DEMOLITION PLAN FOR ADDITIONAL INFORMATION.

REMODEL KEY NOTES

- PROVIDE RELAY PACK MODULE (ROOM CONTROLLER), COORDINATE AND VERIFY REQUIREMENTS, MODEL # WITH MANUFACTURER PRIOR TO CONSTRUCTION. THE ELECTRICAL CIRCUIT TO POWER THE LIGHTS SHALL FIRST BE WIRE TO THE RELAY POWER PACK MODULE. PROVIDE FINAL CONNECTIONS AS REQUIRED.
- PROVIDE UNSWITCHED HOT WIRE TO LIGHT FIXTURE WITH EMERGENCY BATTERY PACK AND EXIT SIGNS. PROVIDE FINAL CONNECTIONS AS REQUIRED.
- CONTRACTOR SHALL INTERCEPT AND RE-USE EXISTING LIGHTING CIRCUIT AND CONNECT TO NEW LIGHT FIXTURES. CONTRACTOR SHALL VERIFY CONDITION PRIOR TO ROUGH-IN AND CONSTRUCTION.
- RE-INSTALL EXISTING PROJECTOR PER ARCHITECTURAL. CONTRACTOR SHALL TEST TO MAKE SURE THE EXISTING PROJECTOR IS WORKING PROPERLY FOR A COMPLETE OPERABLE SYSTEM.



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PROJECT:
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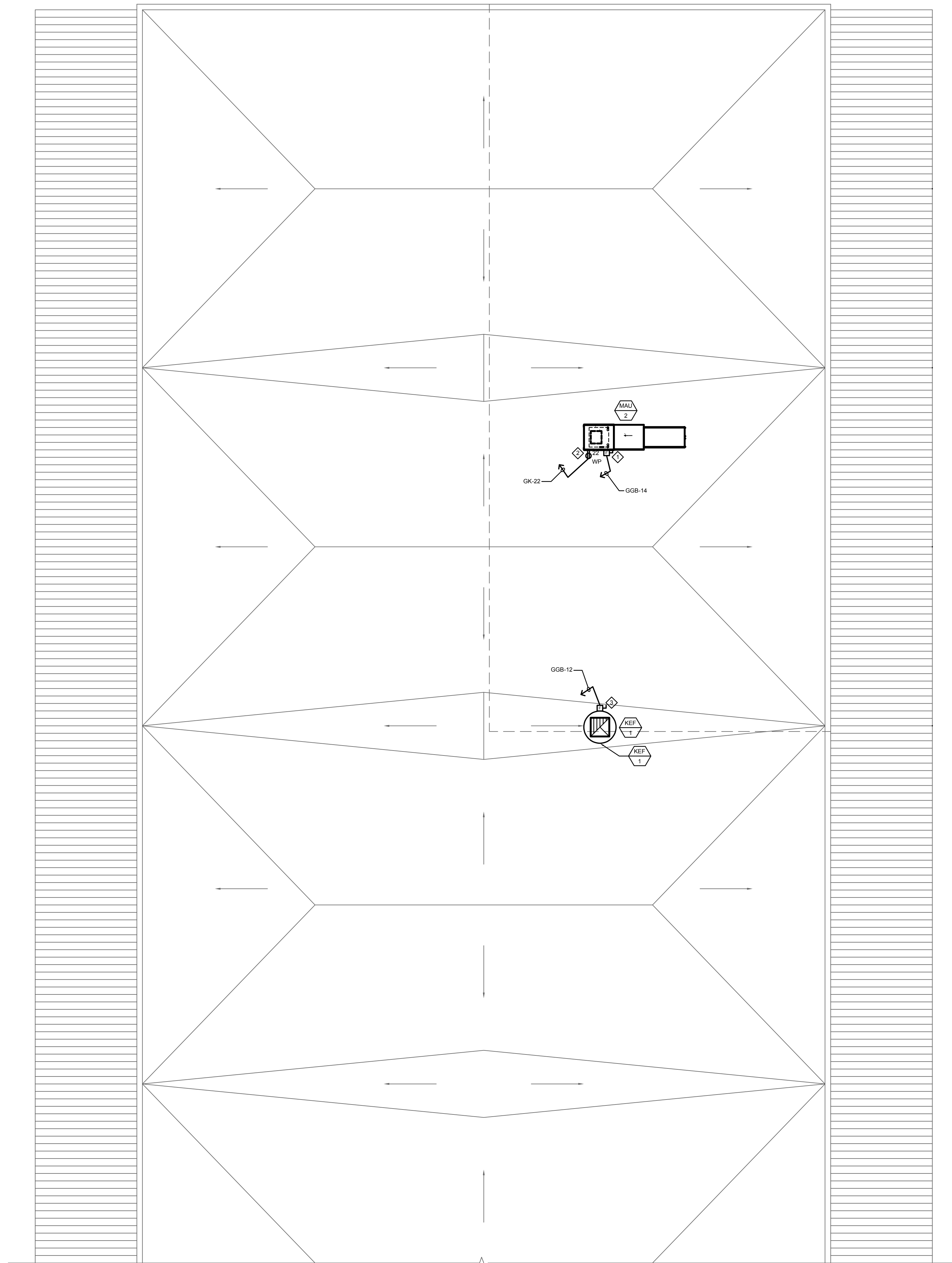
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DATE: 08/25/21

REVISION: DATE:
REVISION: DATE:

DRAWING TITLE:
DEMO & REMODEL
LIGHTING FLOOR
PLANS

DRAWING NO.:
E2.2

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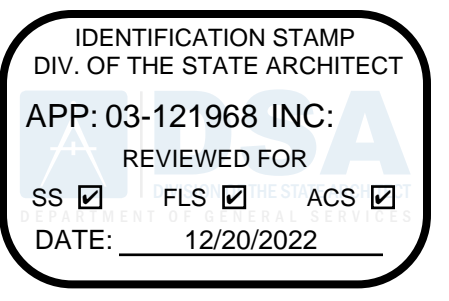


GENERAL NOTES

1. REFER TO E0.1 & E0.2 FOR FURTHER NOTES.
2. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATION OF ALL EQUIPMENT AND DEVICES INCLUDING INTERLOCKING & OTHER SPECIFIC REQUIREMENTS.
3. VERIFY EXACT LOCATION AND MOUNTING HEIGHT OF ALL EQUIPMENT, DEVICES, OUTLETS AND RECEPTACLES PER ARCHITECTURAL DRAWINGS PRIOR TO ROUTING THE CONDUITS.
4. VERIFY EXACT LOCATION OF J-BOXES (POINT OF CONNECTION) FOR DIRECT CONNECTED EQUIPMENT WITH EQUIPMENT MANUFACTURER. VERIFY THEIR REQUIREMENTS PRIOR TO ROUTING ANY CONDUIT.
5. ALL ELECTRICAL OUTLETS AND EQUIPMENT THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WEATHERPROOF TYPE NEMA-3R.
6. ALL RECEPTACLES LOCATED OUTDOORS SHALL BE GFCI, WP TYPE.
7. ALL BRANCH CIRCUITS SHALL BE SIZED FOR MAXIMUM VOLTAGE DROP OF 3% AT DESIGN LOAD PER TITLE 24.
8. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
9. PROVIDE INDIVIDUAL NEUTRAL FOR MULTI-WIRE BRANCH CIRCUIT.
10. CONTRACTOR SHALL COORDINATE ALL EQUIPMENT POWER REQUIREMENTS WITH EQUIPMENT MANUFACTURER PRIOR TO ROUGH-IN.

REMODEL KEY NOTES

1. PROVIDE 30AS/25AF, 1P, 120V NEMA 3R DISCONNECT SWITCH WITH NEMA 3R ENCLOSURE FOR MAU-2 POWER CONNECTION. PROVIDE 3/4"C, 2#10CU + 1#10 GND. MAU-2 SHALL BE INTERLOCK WITH KEF-1. PROVIDE FINAL CONNECTIONS AS REQUIRED. ROUTE POWER THROUGH HOOD CONTROL PANEL. REFER TO MECHANICAL PLANS FOR CONTROL REQUIREMENTS.
2. PROVIDE ROOF MOUNTED RECEPTACLE WITH NEMA 3R BOX AND WEATHER PROOF COVER.
3. PROVIDE 30AS/25AF, 1P, 120V MOTOR RATED SWITCH WITH NEMA 3R ENCLOSURE FOR KEF-1 POWER CONNECTION. PROVIDE 3/4"C, 2#10 CU + 1#10 GND. KEF-1 SHALL BE INTERLOCK WITH MAKE UP AIR UNIT (MAU-2). PROVIDE CONTROL WIRING CONNECTIONS AND RELAY FOR INTERLOCKING. ROUTE POWER THROUGH HOOD CONTROL PANEL. REFER TO MECHANICAL PLANS FOR CONTROL REQUIREMENTS.



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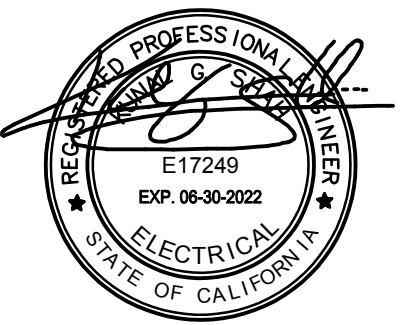


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JOB NUMBER: 12.03.00
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REVISION: DATE: _____
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DRAWING TITLE:
**REMODEL POWER
 ROOF PLAN**

DRAWING NO.:

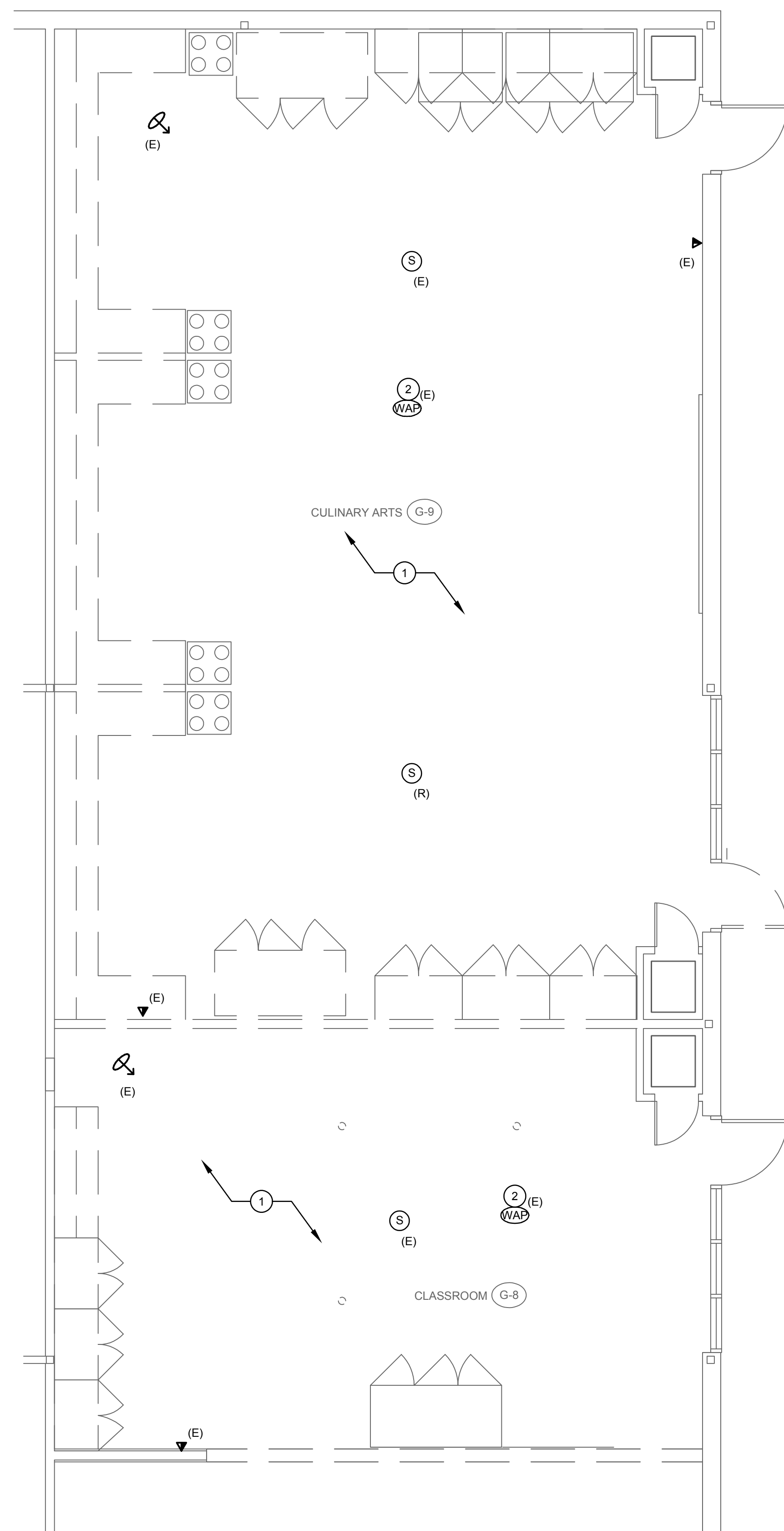
E2.3

REMODEL POWER ROOF PLAN



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

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DEMOLITION SIGNAL & COMMUNICATION FLOOR PLAN

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

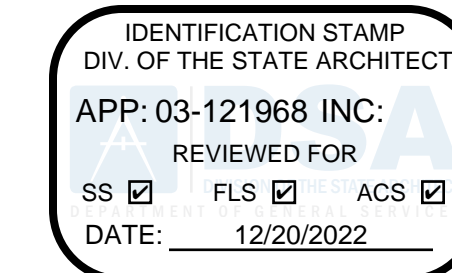
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GENERAL NOTES

- COORDINATE ALL DEMOLITION SCOPE OF WORK WITH OTHER DISCIPLINES

DEMO KEY NOTES

- EXISTING SECURITY SYSTEM DEVICES TO BE DISCONNECTED AND PROTECTED FOR THE REINSTALLATION. REFER TO REMODEL PLAN FOR THE ADDITIONAL INFORMATION. ALL CONDUIT AND WIRING FOR SUCH SYSTEMS TO BE REMOVED BACK TO SOURCE.
- EXISTING WIRELESS ACCESS POINT "WAP" DEVICE TO BE DISCONNECTED AND PROTECTED FOR THE REINSTALLATION. REFER TO REMODEL PLAN FOR THE ADDITIONAL INFORMATION.



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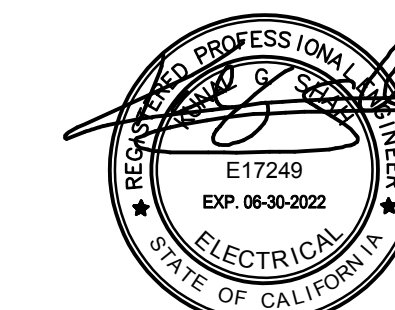


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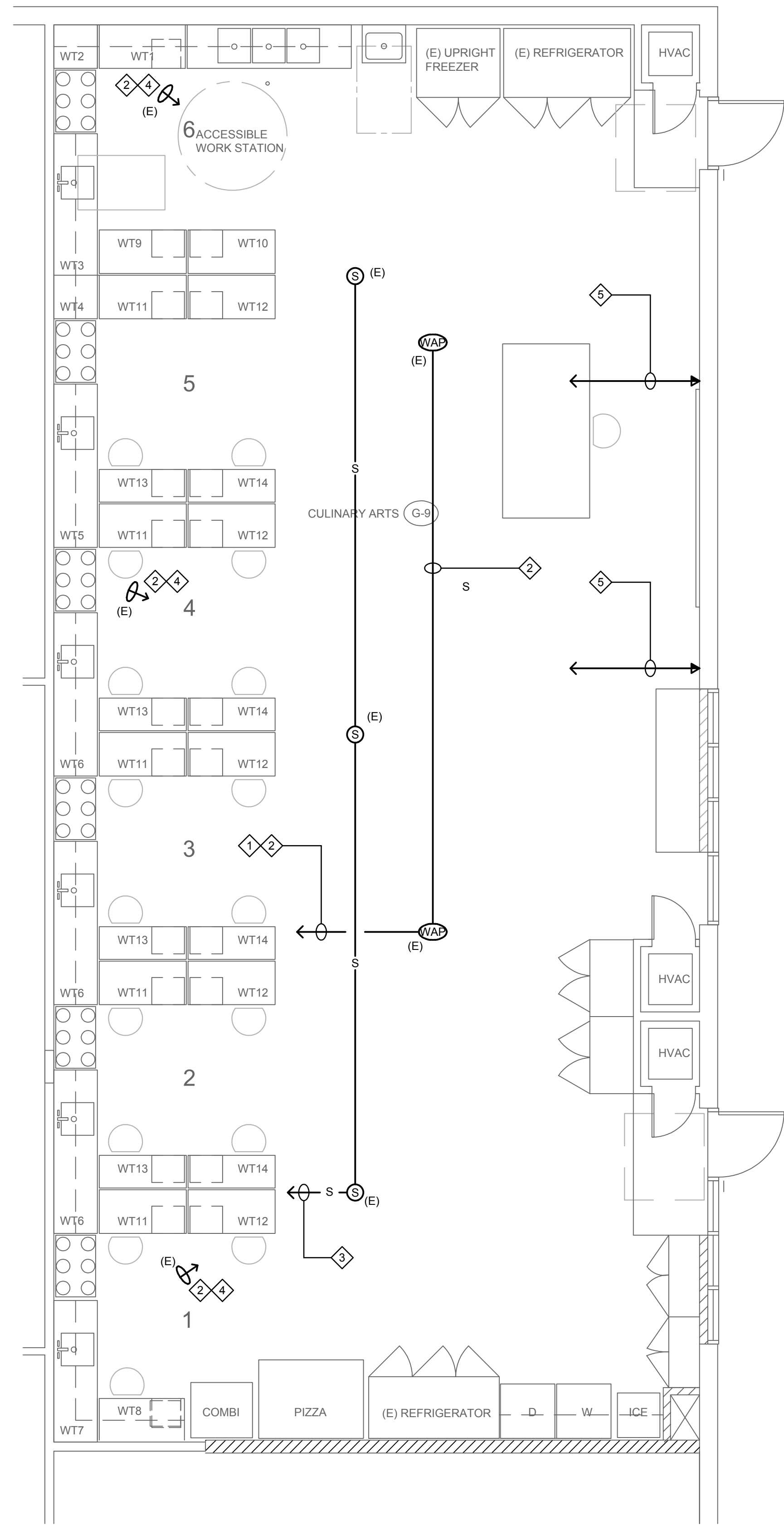
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**DEMO SIGNAL &
COMMUNICATION
FLOOR PLAN**

DRAWING NO.:

E3.1D

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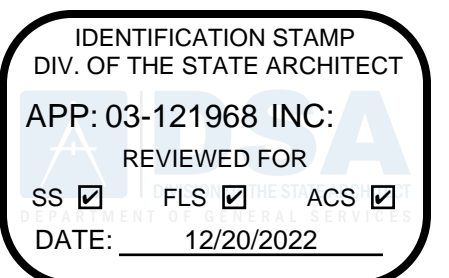
GENERAL NOTES

1. ALL CABLES SHALL BE ROUTED IN CONDUITS.
2. MINIMUM CONDUIT SIZE SHALL BE 3/4".
3. VERIFY PLACEMENT OF CEILING DEVICES WITH ARCHITECT REFLECTED CEILING PLAN.

REMODEL KEY NOTES

1. PROVIDE 1" C. WITH (2) CAT. 6A CABLES TERMINATE AT EXISTING DATA EQUIPMENT RACK.
2. PROVIDE 3/4" C. WITH (1) CAT. 6A CABLE
3. RECONNECT EXISTING PA SPEAKERS. PROVIDE 3/4" C. WITH SPEAKER CABLES TERMINATE AT EXISTING PA CABINET.
4. PROVIDE 3/4" C. TO SECURITY SYSTEM CABINET CABLES AS REQUIRED BY MANUFACTURER.
5. PROVIDE 3/4" C. (2) CAT. 6 DATA CABLE TO EXISTING IDF.

GENERAL NOTES



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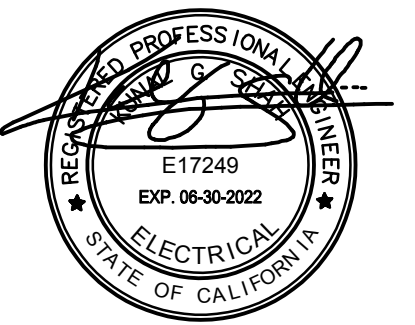
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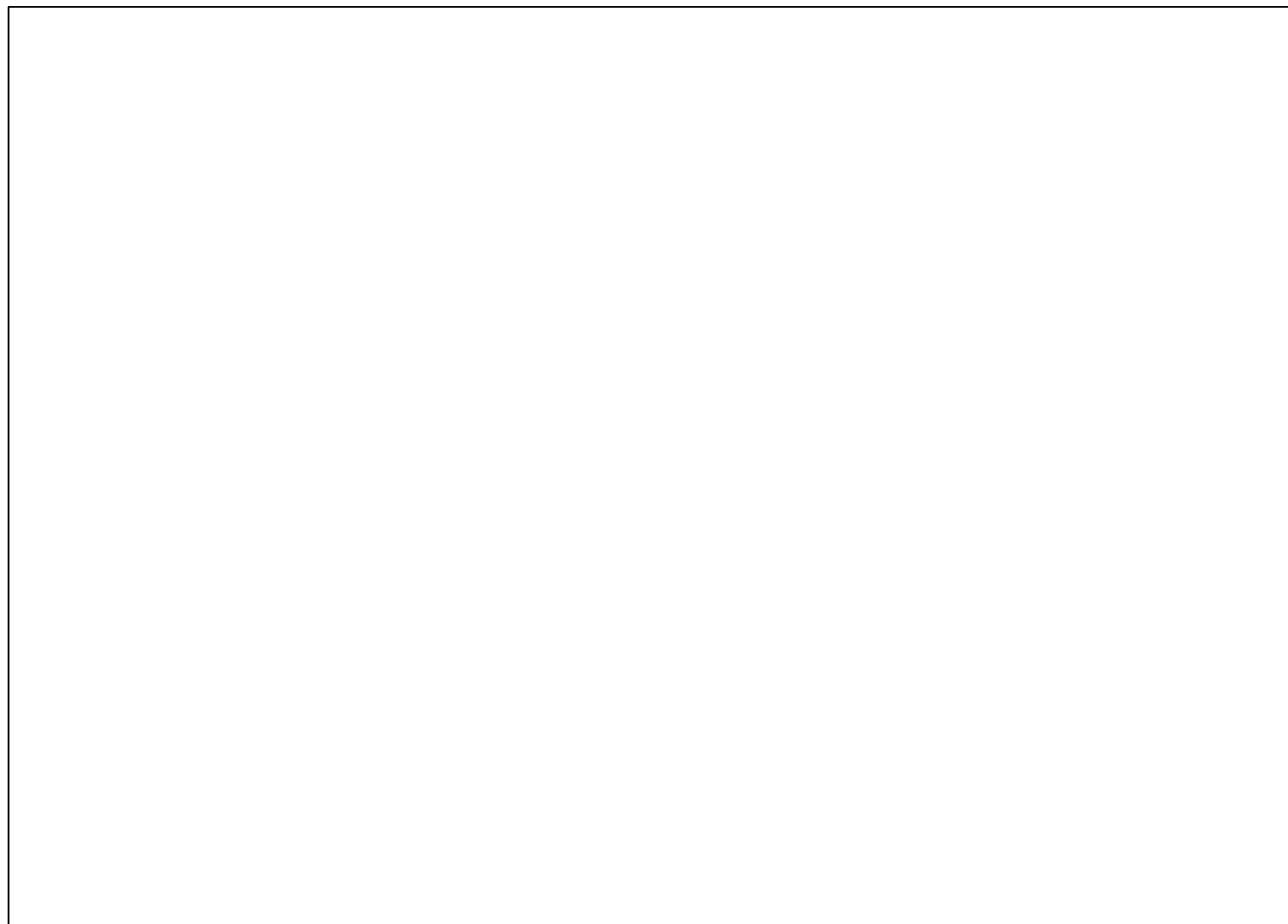
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**REMODEL SIGNAL
 & COMMUNICATION
 FLOOR PLAN**

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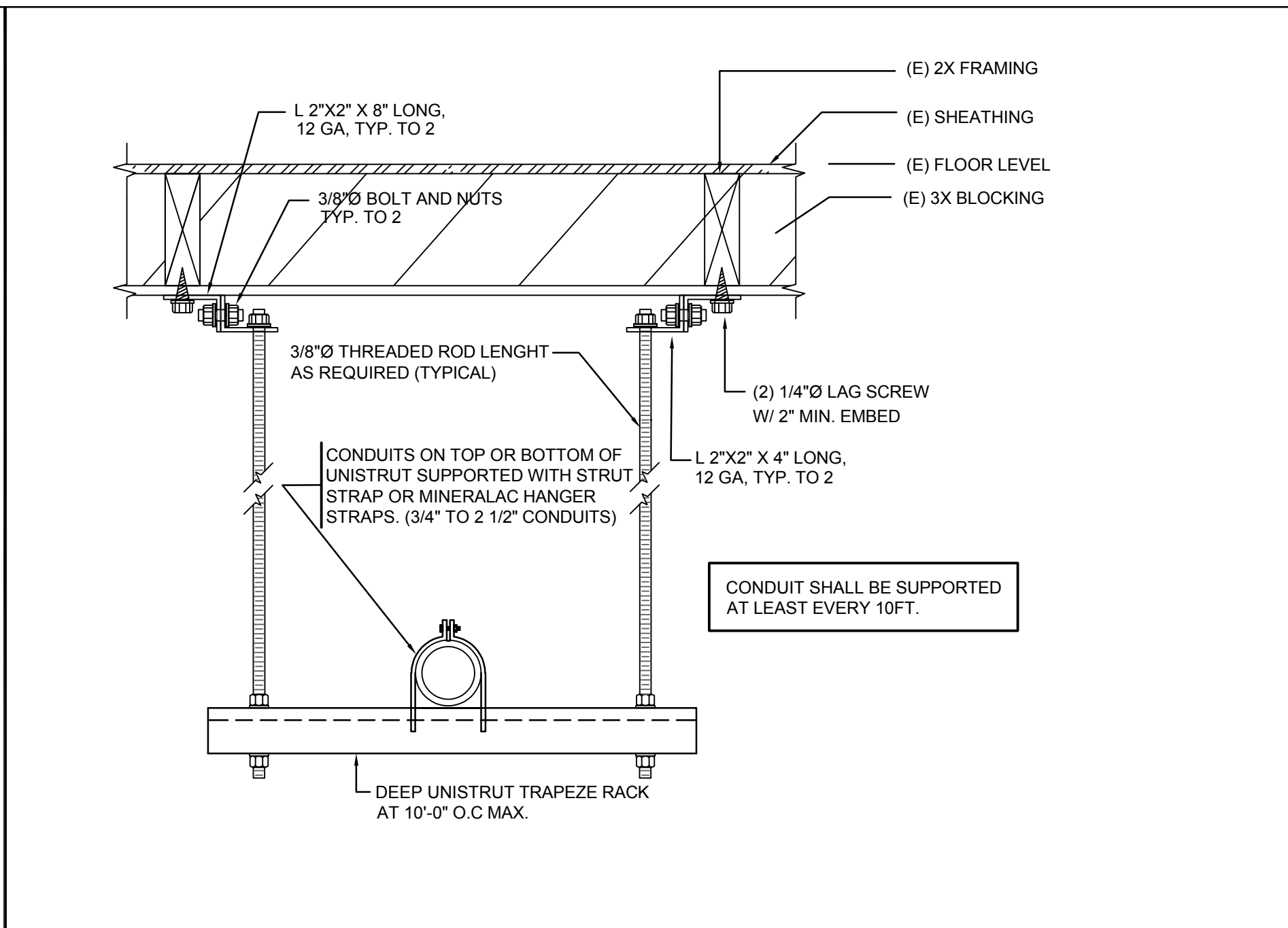
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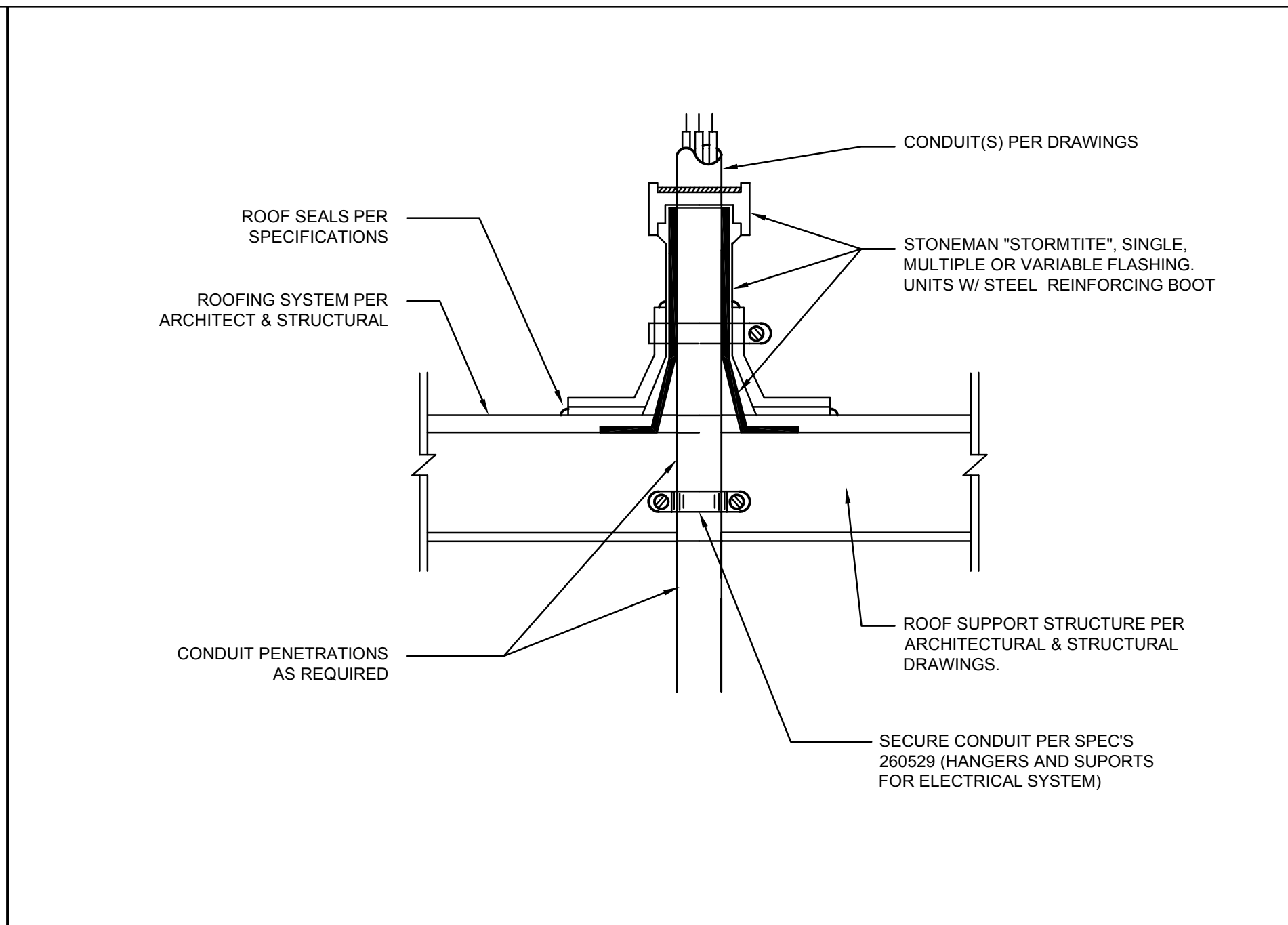
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NOT USED NOT TO SCALE **7**



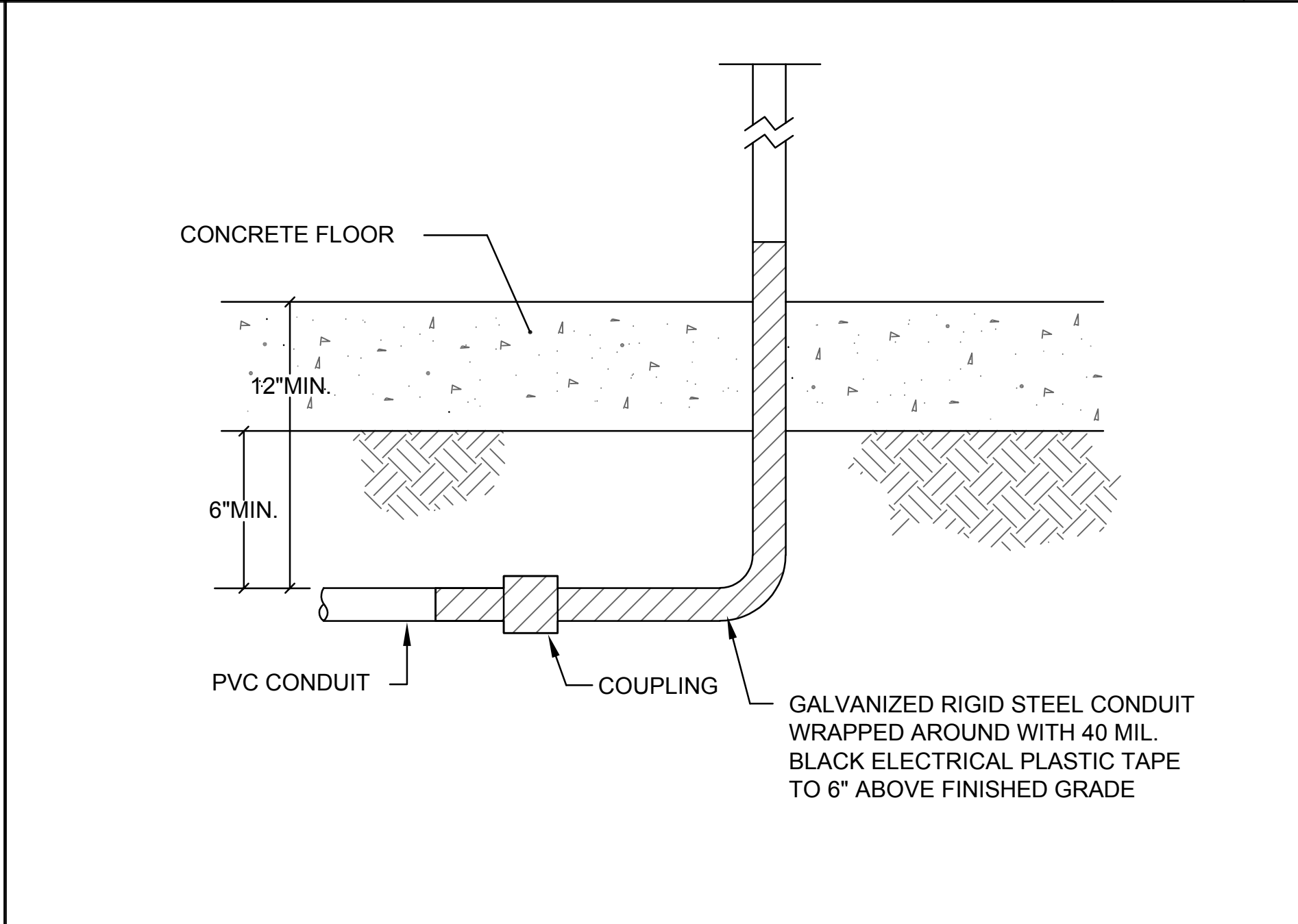
CONDUIT SUPPORT DETAIL NOT TO SCALE **4**



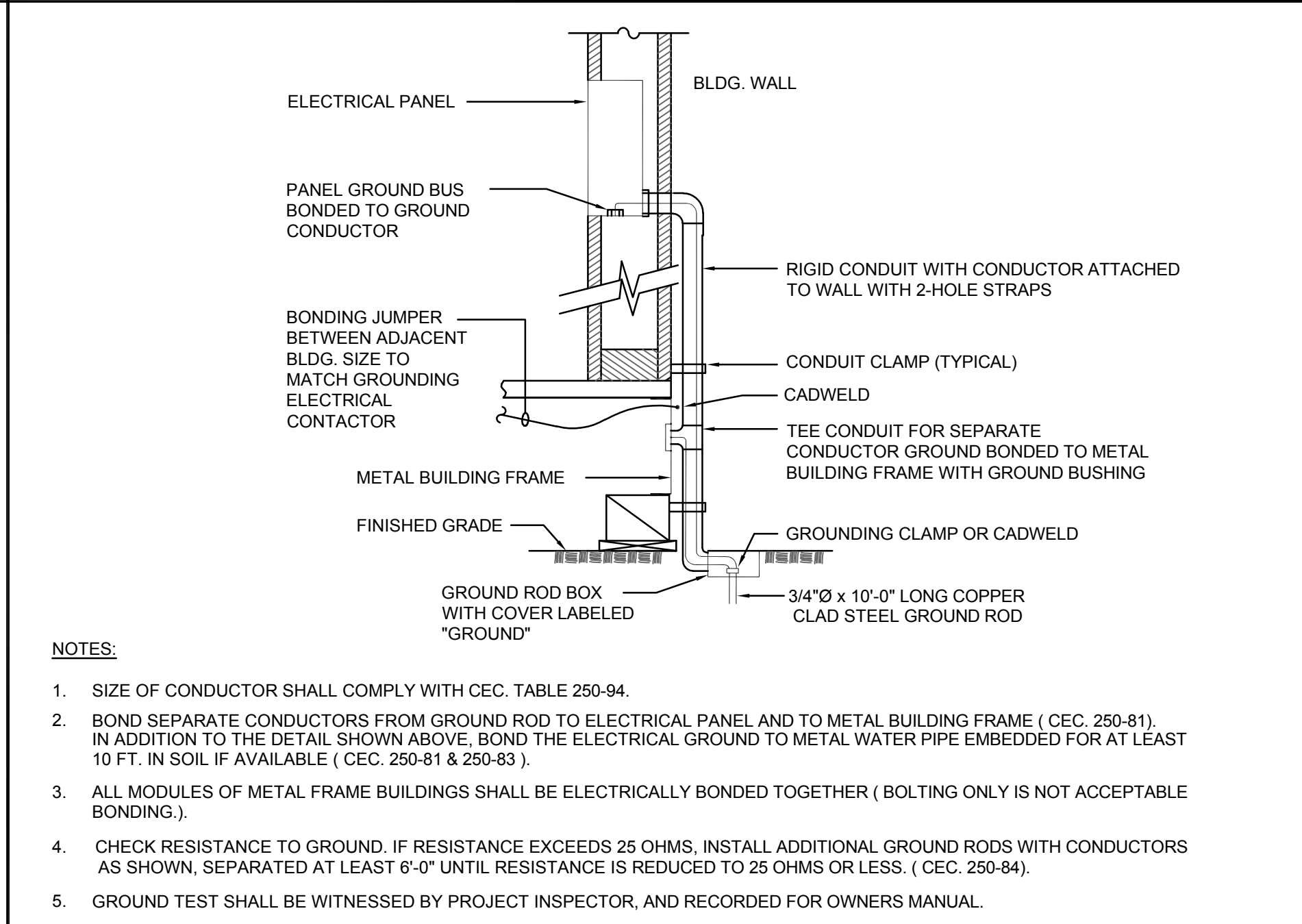
CONDUIT ROOF PENETRATION DETAIL NOT TO SCALE **1**



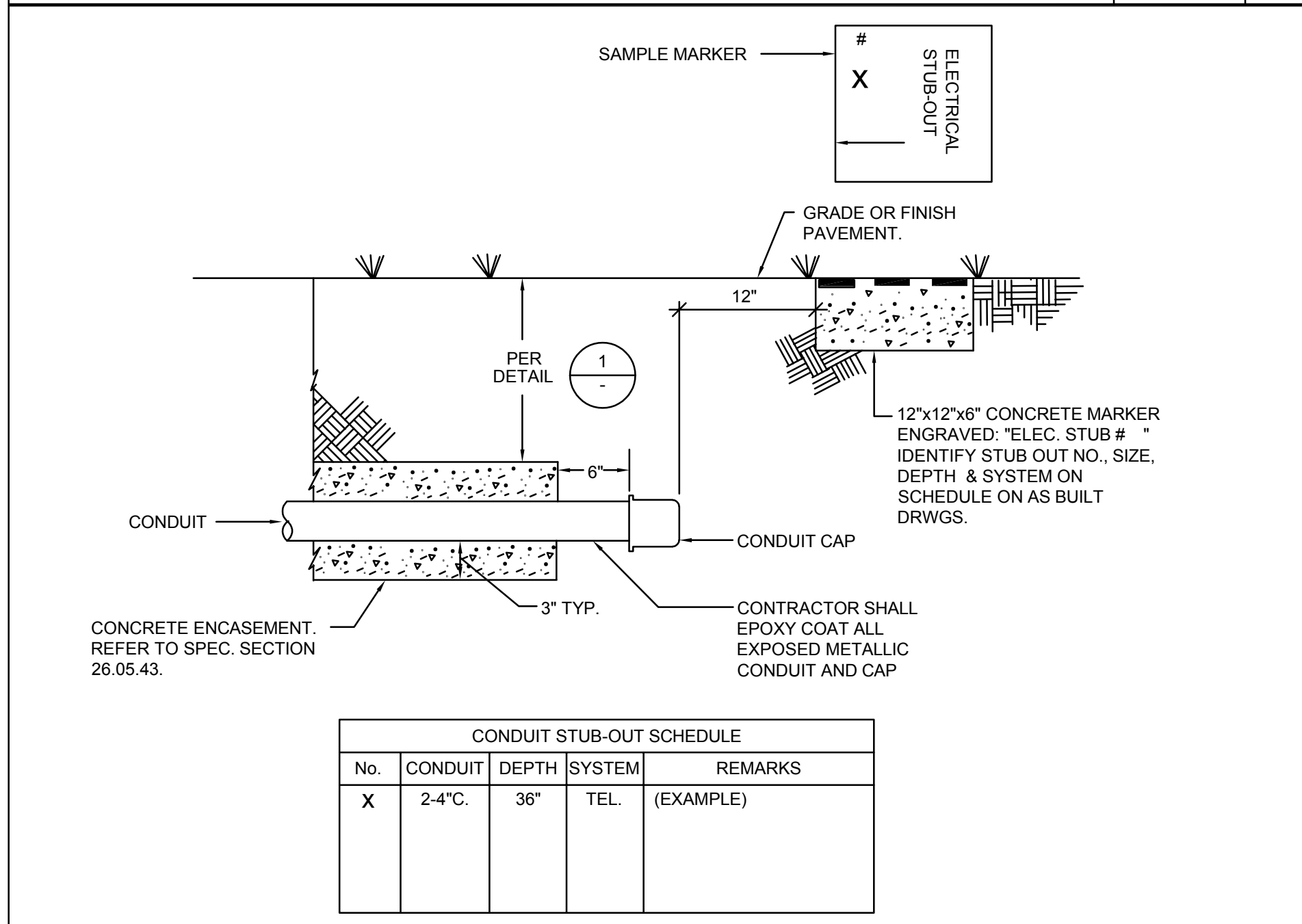
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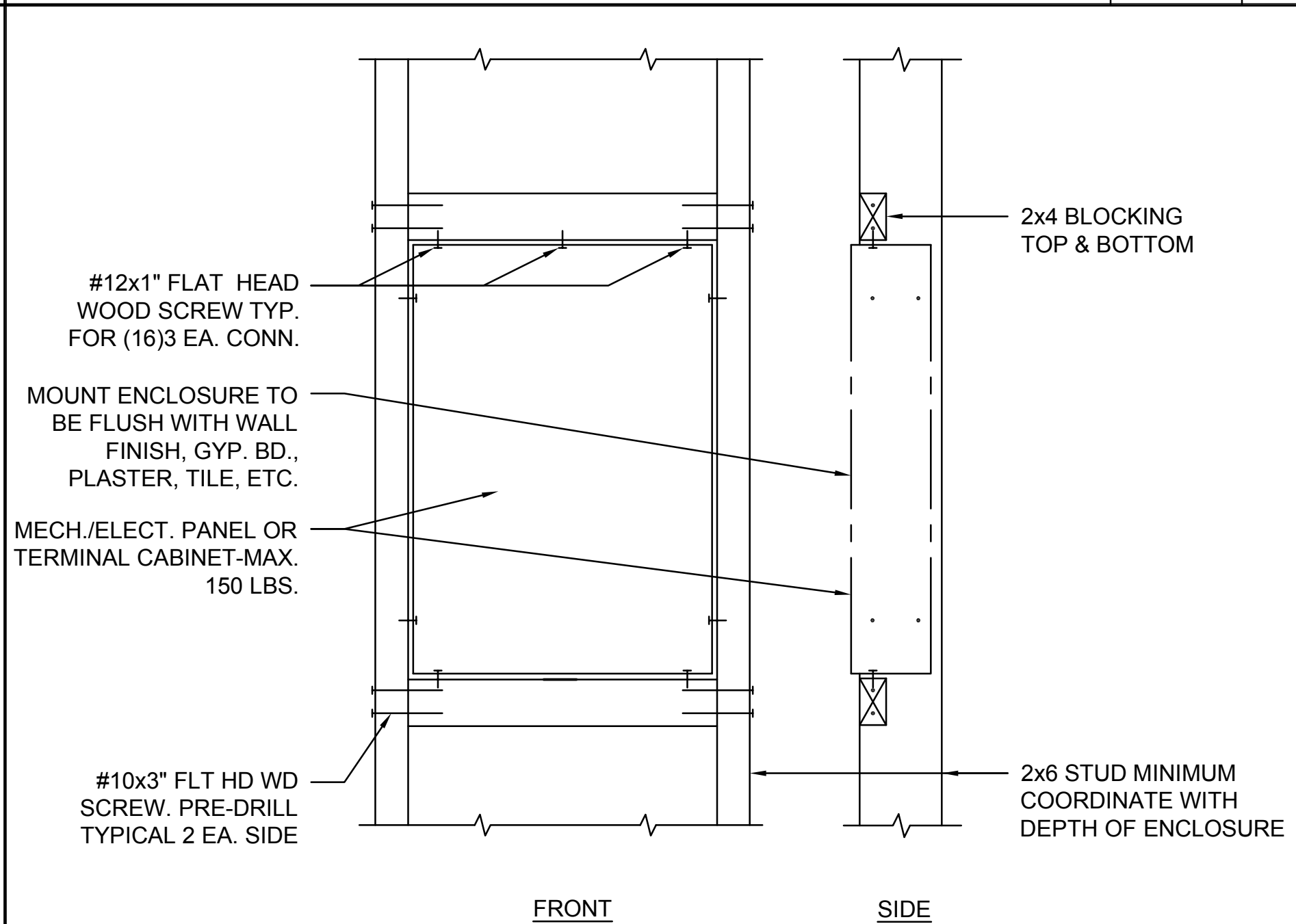
CONDUIT INSTALLED BELOW CONCRETE INSIDE BUILDING NOT TO SCALE **5**



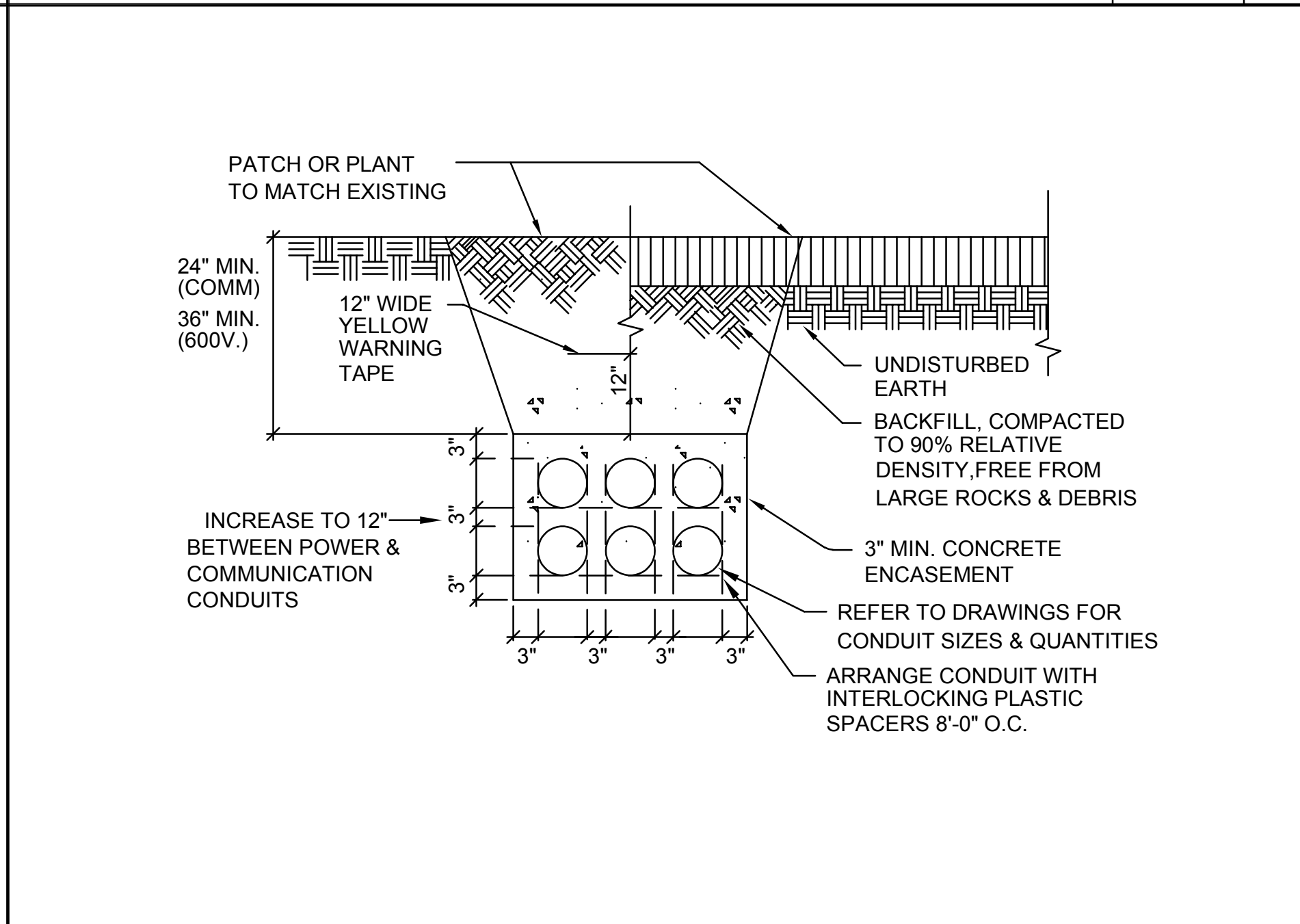
MODULAR BUILDING GROUNDING DETAIL NOT TO SCALE **2**



CONDUIT BELOW GRADE STUB-OUT DETAIL NOT TO SCALE **9**



RECESSED MOUNTED PANEL/CABINET WOOD FRAMING NOT TO SCALE **6**



UNDERGROUND MULTI-CONDUIT PLACEMENT DETAIL NOT TO SCALE **3**

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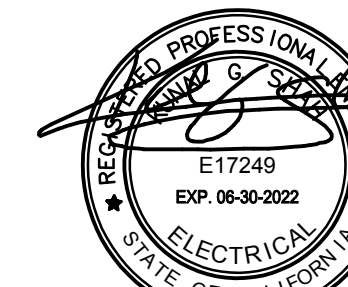
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JOB NUMBER: 12.03.00
DATE: 08/25/21

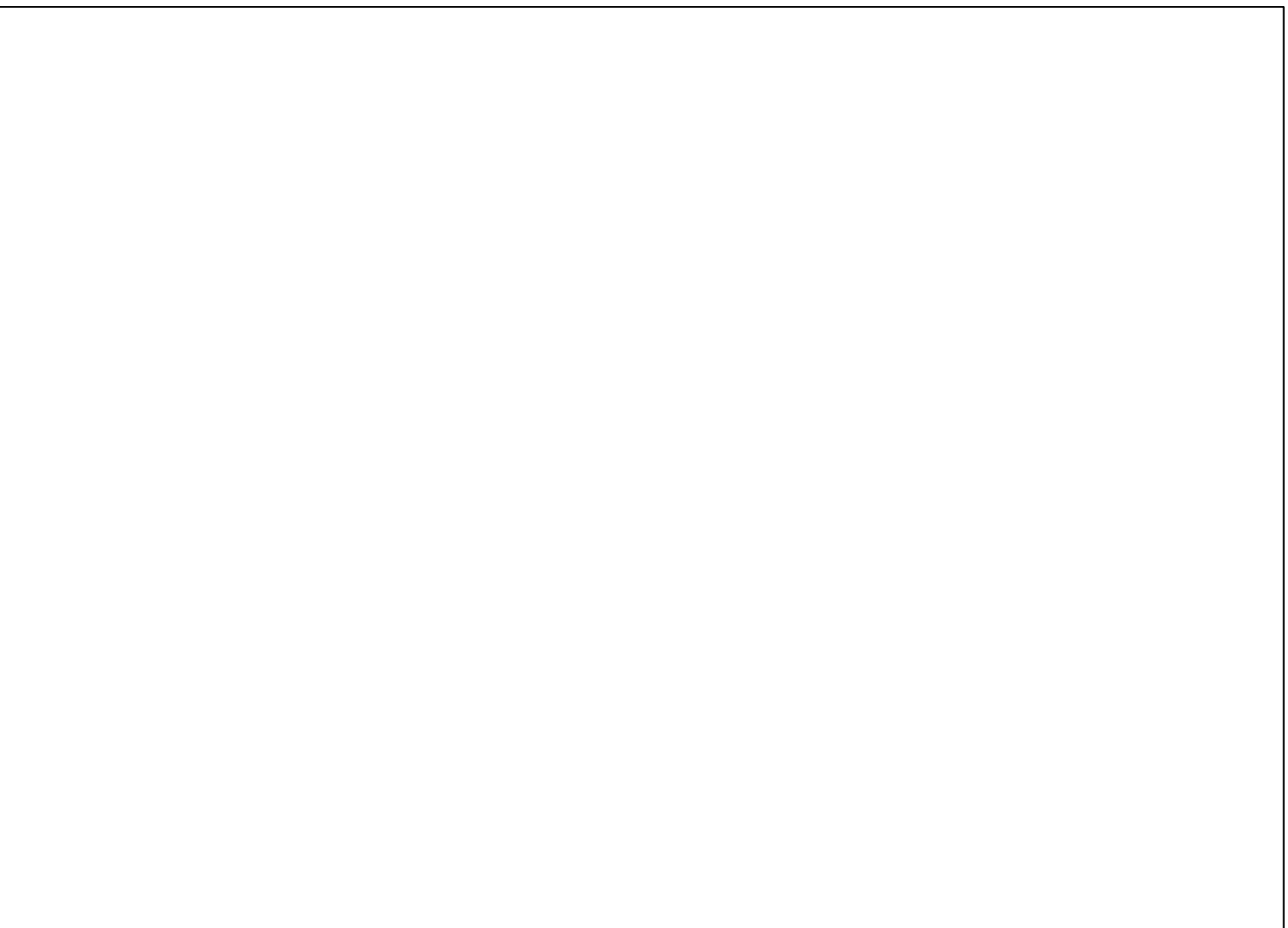
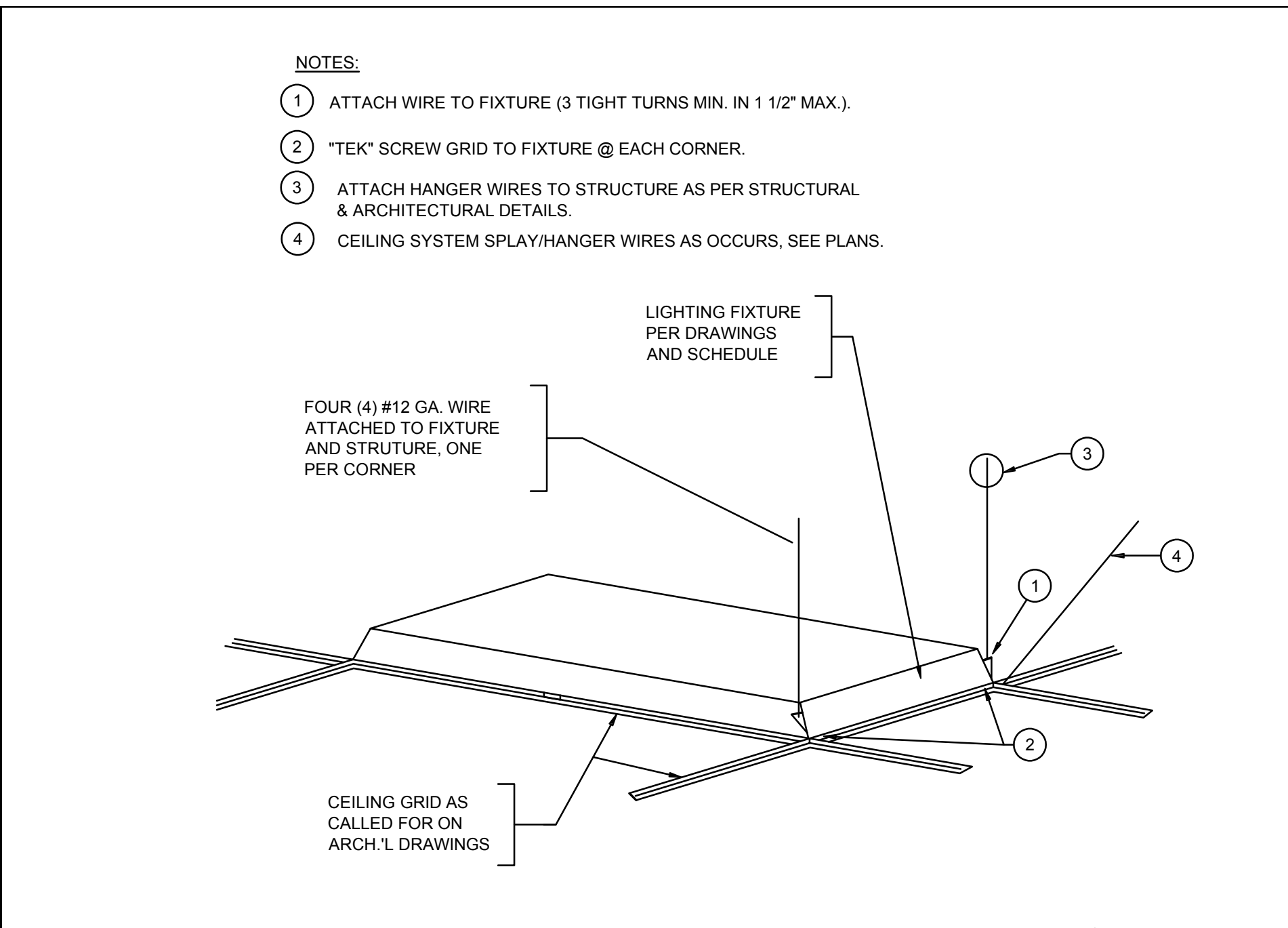
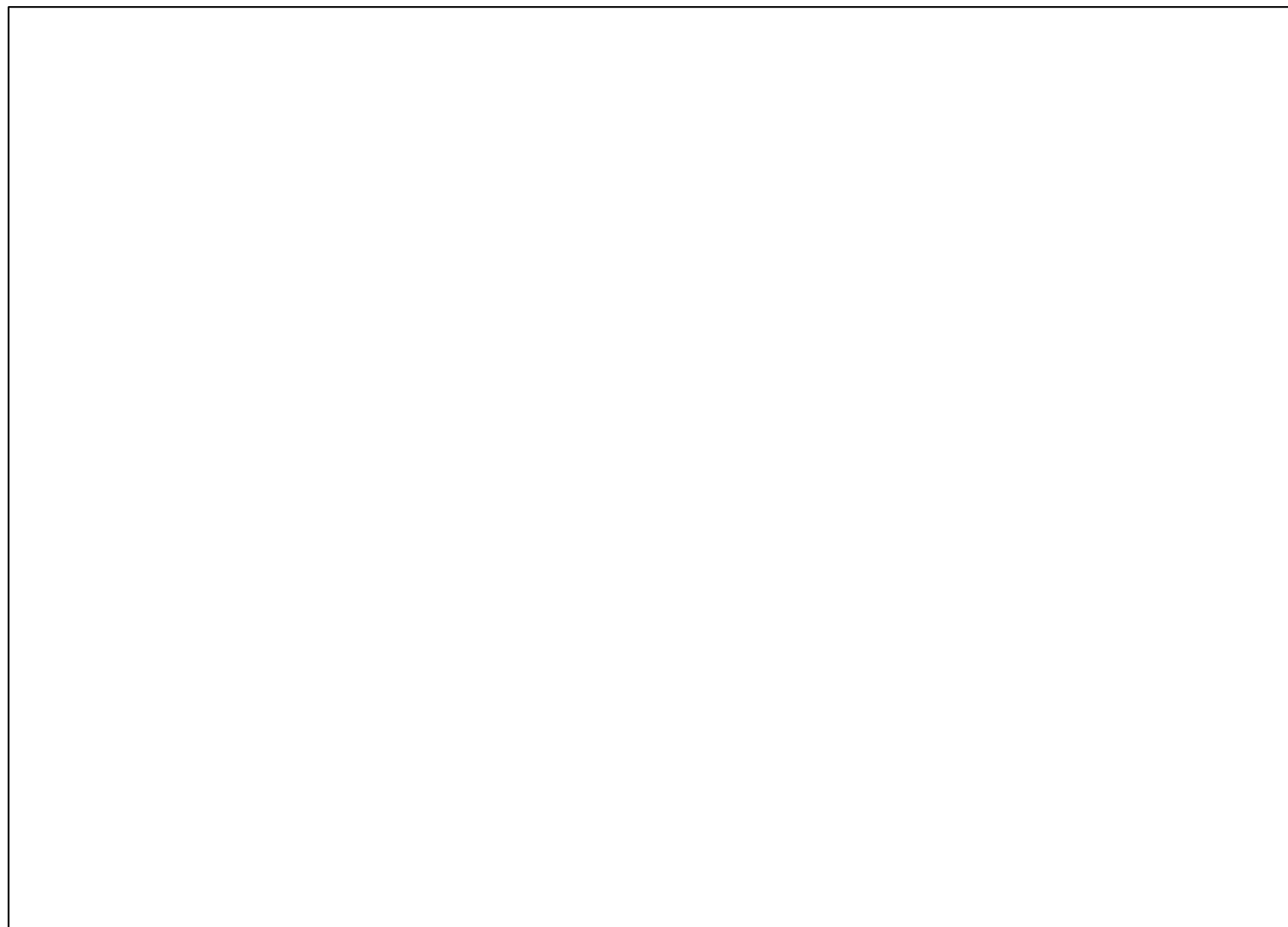
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DRAWING TITLE:
ELECTRICAL DETAILS

DRAWING NO.:

E4.1

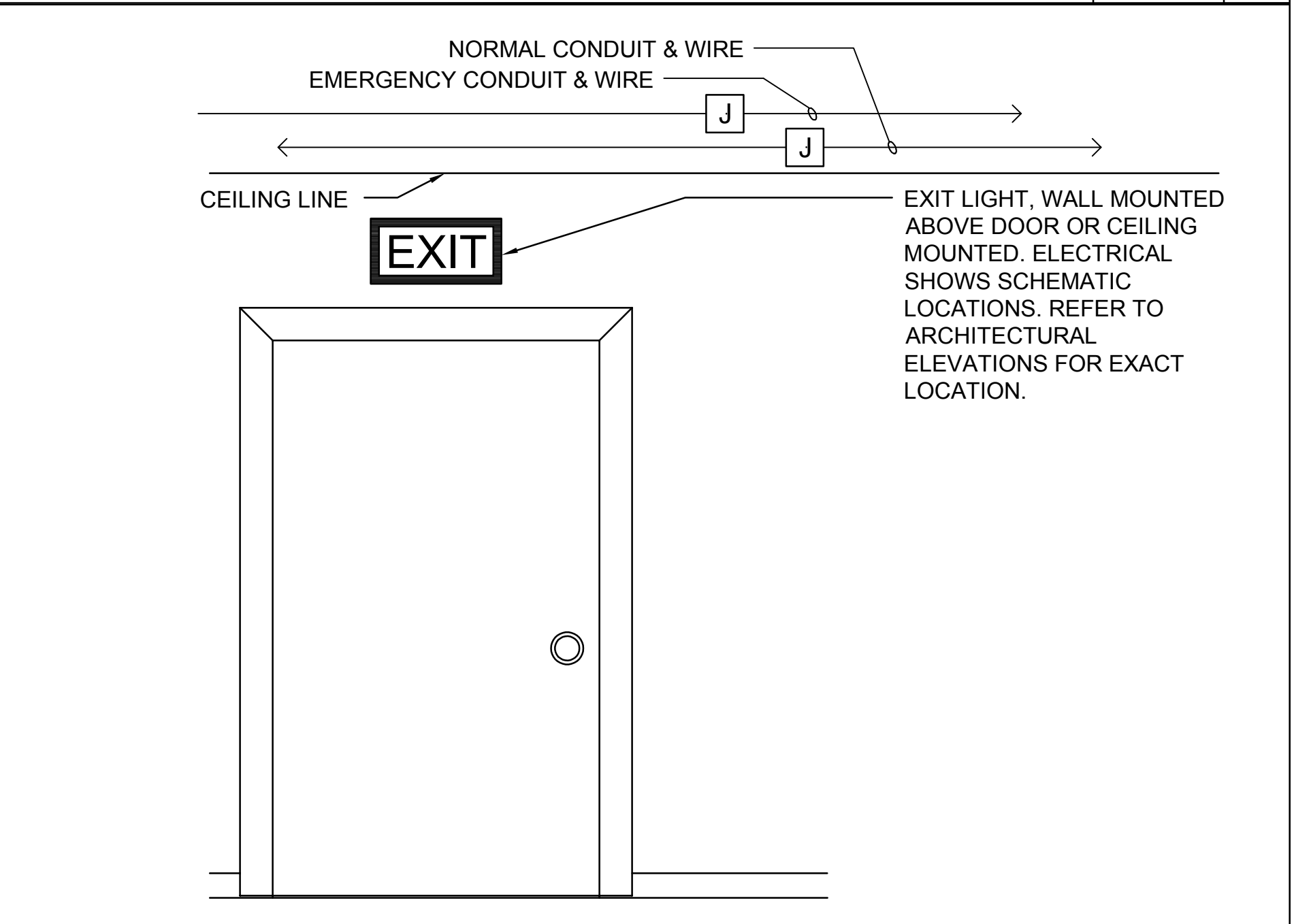
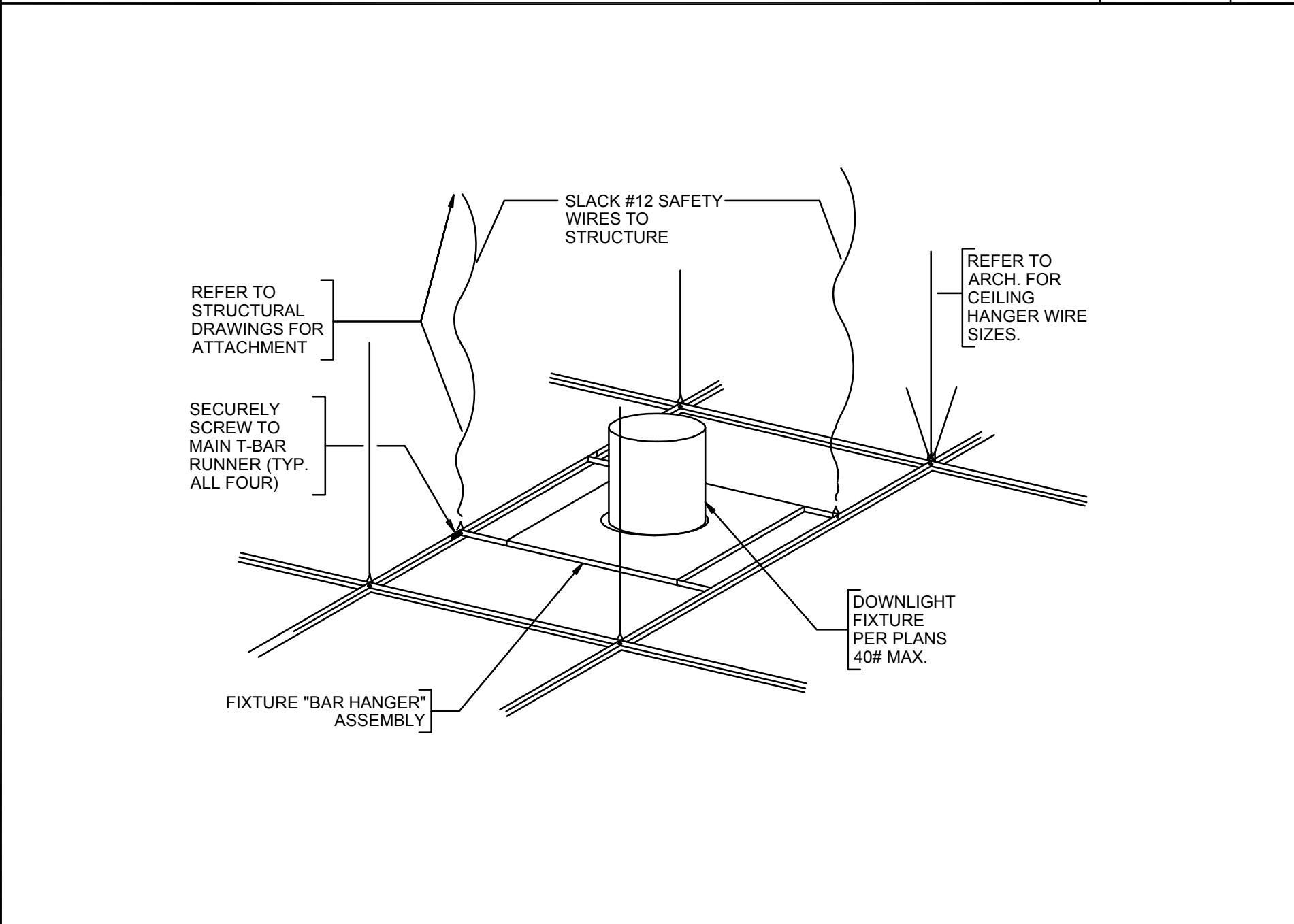
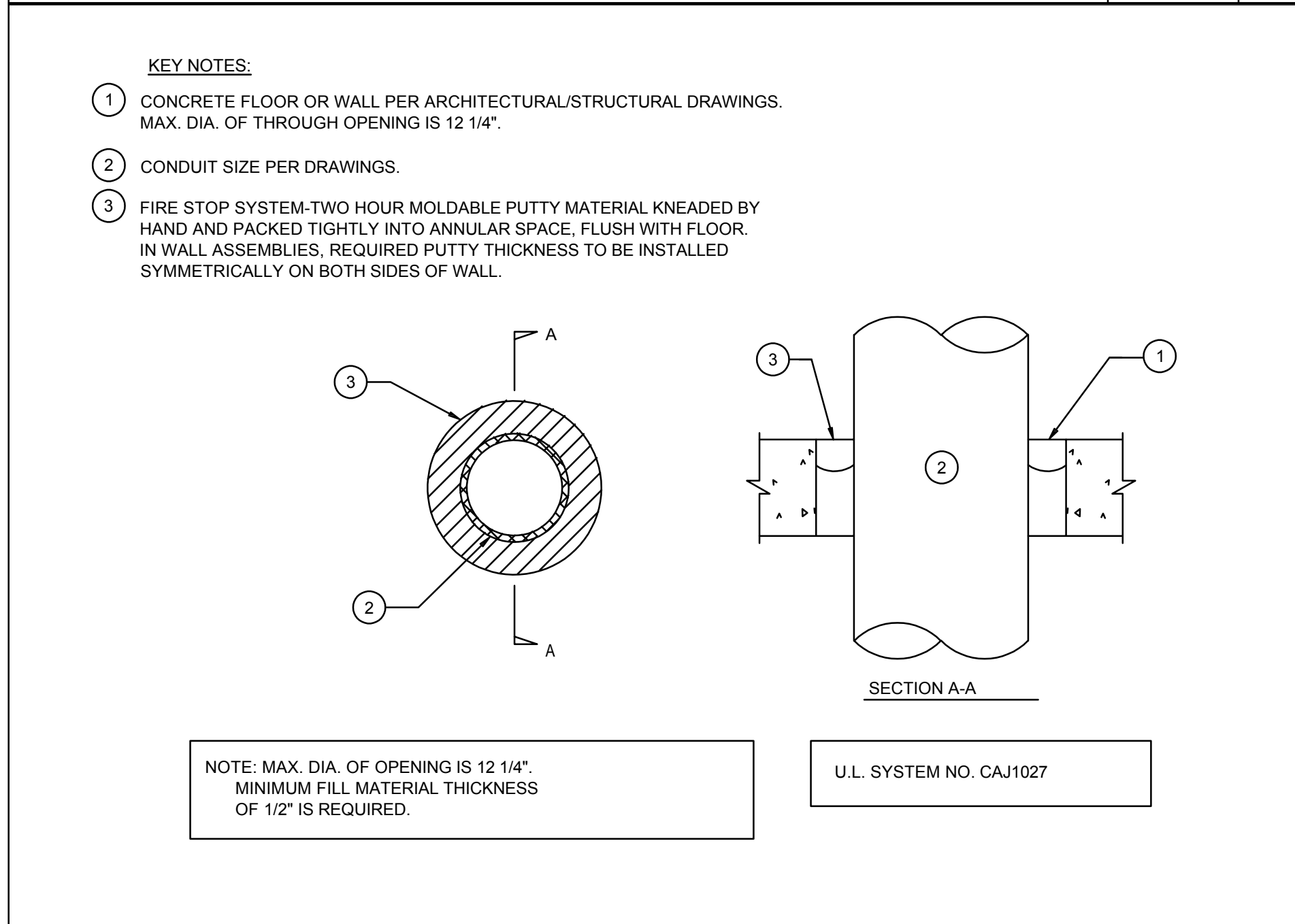
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NOT USED NOT TO SCALE **7**

RECESSED LAY-IN CEILING FIXTURE MOUNTING NOT TO SCALE **4**

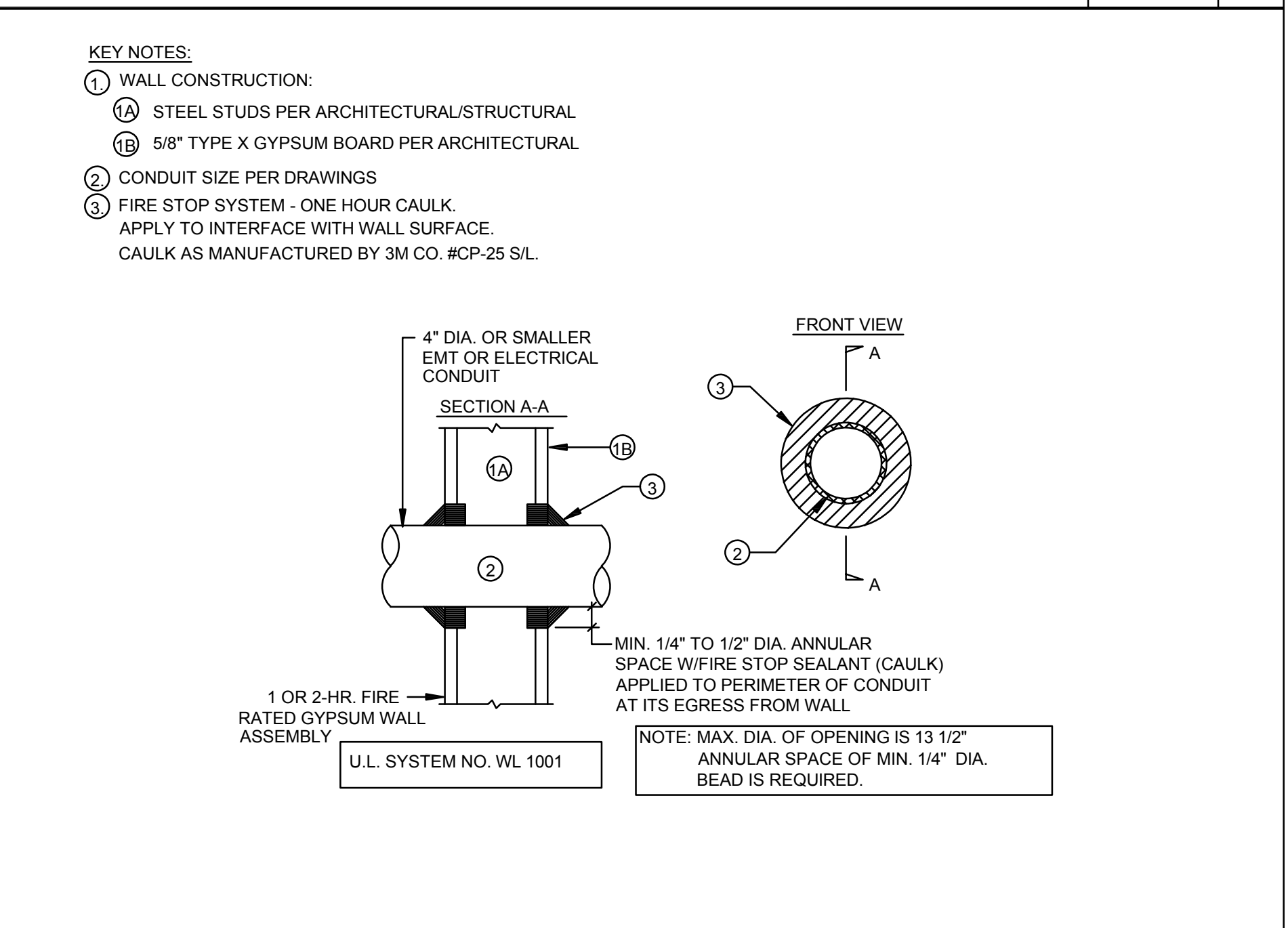
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CONDUIT PENETRATION THRU 2 HR. (TYPICAL) NOT TO SCALE **8**

RECESSED DOWN LIGHT AT LAY-IN GRID NOT TO SCALE **5**

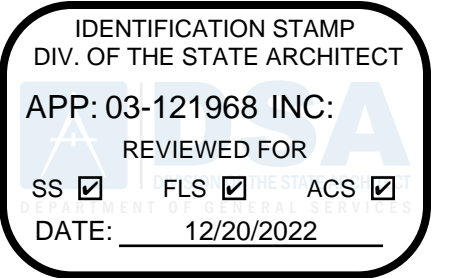
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NOT USED NOT TO SCALE **9**

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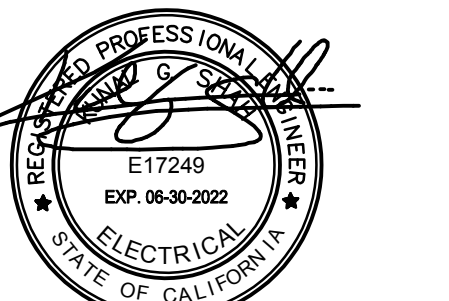
CONDUIT PENETRATION THRU 1 HR. (TYPICAL) NOT TO SCALE **3**



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www.pbsengineers.com Job no. 2021-072-00



SCHOOL DISTRICT:
BONITA UNIFIED SCHOOL DISTRICT

PROJECT:
SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

JOB NUMBER: 12.03.00
DATE: 08/25/21
REVISION: DATE: _____
REVISION: DATE: _____

DRAWING TITLE:
ELECTRICAL DETAILS

DRAWING NO.:

E4.2

FIRE ALARM WORK SCOPE

THE CONTRACTOR IS TO ACCOMPLISH THE FOLLOWING :

- INSTALL SMOKE DETECTORS, SPEAKERS/STROBES IN AREAS AS SHOWN ON THE PLAN DRAWINGS.
- RE-PROGRAM AND RE-TEST THE (E) FIRE ALARM CONTROL PANEL AND AL AFFECTED CIRCUITS. UPDATE THE GRAPHIC ANNUNCIATOR TO ACCEPT THE NEW BUILDING.

% VOLTAGE DROP

$$VD = \frac{2 \times K \times I \times D}{CM} \quad \%VD = \frac{VD}{24}$$

OPERATING VOLTAGE = 24-VD

D : DISTANCE, FEET (LENGTH ONE WAY FROM THE POWER SUPPLY).

K : DIRECT CURRENT CONSTANT. CONDUCTOR RESISTANCE IN OHMS PER 1000 FEET. COPPER=12.9 ALUM=21.2

I : TOTAL LOAD CURRENT (AMPERES) IN 100%.

CM : CIRCULAR MILS OF THE CIRCUIT CONDUCTOR AS LISTED IN CHAPTER 9, TABLE 8

24 : 24 VOLT DC

SEQUENCE OF OPERATION

DEVICE	MANUAL PULL STATION	AREA SMOKE/HEAT DETECTOR	120VAC POWER FAILURE	DUCT SMOKE DETECTOR	SPRINKLER POST INDICATOR SWITCH
SOUND CONTROL PANEL TROUBLE BUZZER	ON WIRING FAULT	ON WIRING FAULT	YES	ON WIRING FAULT	YES
ACTIVATE RELAY FOR MONITORING (ALARM OR TROUBLE)	YES	YES	YES	YES	YES
SOUND SPRINKLER BELL	NO	NO	NO	NO	NO
ANNUNCIATE AT CENTRAL STATION FACP (ALARM OR TROUBLE)	YES	YES	YES	YES	YES
ANNUNCIATE AT REMOTE FA ANNUNCIATOR (ALARM OR TROUBLE)	YES	YES	YES	YES	YES
ACTIVATE AUDIBLE/VISUAL ALARM SIGNAL THROUGHOUT BUILDING	YES	YES	NO	YES	NO
SHUT DOWN ALL AIR HANDLING (HVAC) UNITS	-	YES	NO	YES	NO
RELEASE ALL ELECTRO MAGNETICALLY HELD DOORS THROUGHOUT BUILDING	YES	YES	YES	NO	YES
ACTIVATE ELEVATOR SHAFT SMOKE DAMPER	NO	NO	NO	NO	NO
CLOSE SMOKE/FIRE DAMPER	NO	NO	NO	NO	NO
SOUND SPRINKLER BELL	NO	YES	YES	YES	NO

CONDUIT AND WIRE SPECIFICATIONS

LABEL	DESCRIPTION OF CONTENTS	CONDUIT SIZE (UNO)
F1	(1)-2/16	3/4" MIN.
F2	(2)-#12THWN CU WIRES	3/4" MIN.
F3	(1)-2/16 PLUS (2)-#12THWN CU WIRES	3/4" MIN.
F4	(4)-#12THWN CU WIRES	3/4" MIN.
F5	(1)-2/16 PLUS (4)-#12THWN CU WIRES	3/4" MIN.
F6	(6)-#12THWN CU WIRES	1" MIN.
F7	(1)-2/16 PLUS (6)-#12THWN CU WIRES	1" MIN.
F8	(8)-#12THWN CU WIRES	1" MIN.
F9	(1)-2/16 PLUS (8)-#12THWN CU WIRES	1" MIN.
F10	(2)-2/16	3/4" MIN.
F11	(2)-2/16 PLUS (2)-#12THWN CU WIRES	3/4" MIN.
F12	(2)-2/16 PLUS (4)-#12THWN CU WIRES	3/4" MIN.
F20	(3)-2/16 PLUS	3/4" MIN.
F#-1	PLUS (1)-2/14 TWISTED PAIR SHLD. WIRES	1" MIN.
F#-2	PLUS (2)-2/14 TWISTED PAIR SHLD. WIRES	1" MIN.
F#-3	PLUS (3)-2/14 TWISTED PAIR SHLD. WIRES	1" MIN.
+C1	(2)-#16THHN STRANDED WIRES	3/4" MIN.
+C2	(4)-#16THHN STRANDED WIRES	3/4" MIN.
+C3	(6)-#16THHN STRANDED WIRES	1" MIN.

NOTES:
 1. 2/16 = WESTPENN CABLE #990; INSIDE ONLY.
 2. 2/16 = ALLSTAR CABLE #321682-S1-Q; UNDERGROUND.
 3. #12 = GENERAL CABLE; 12AWG THHN STRANDED
 4. #16 = GENERAL CABLE; 16AWG THHN STRANDED
 5. "THWN", "AQUASEAL", OR EQUAL TO BE USED IN WET LOCATIONS.
 6. ALL WIRING TO BE LISTED FOR USE AS REQUIRED BY TITLE 24CEC, ART. 760.
 7. WHERE CONDUIT IS INSTALLED, CONDUIT FILL SHALL COMPLY WITH 2019 NEC FILL TABLE C.1 (BASED ON TABLE 1, CHAPTER 9)

CONTRACTOR SUBMITTAL REQUIREMENT

FIRE ALARM SYSTEM

- EVIDENCE OF QUALIFICATION FOR SYSTEM INSTALLER. CERTIFICATE FROM FIRE ALARM SYSTEM MANUFACTURER INDICATING THE COMPANY IS FACTORY AUTHORIZED AND CERTIFIED TO INSTALL THE FIRE ALARM SYSTEM AS SPECIFIED ON DRAWINGS.
- SITE PLAN SHOWING CONDUIT AND WIRING BETWEEN BUILDINGS.
- FLOOR PLANS SHOWING DEVICES AND WIRING.
- DRAWINGS SHOWING a) RISER DIAGRAM, b) BATTERY AND VOLTAGE DROP CALCULATIONS, c) TYPICAL DEVICE WIRING DIAGRAMS, d) EQUIPMENT AND WIRING LEGEND, e) APPLICABLE CODES REFERENCE, f) SEQUENCE OF OPERATION.
- EQUIPMENT CUT SHEETS WITH CSFM LISTING SHEETS.

ALL OTHER LOW VOLTAGE SYSTEMS

- EVIDENCE OF QUALIFICATION FOR SYSTEM INSTALLER.
- SITE PLAN SHOWING CONDUIT AND WIRING BETWEEN BUILDINGS.
- FLOOR PLANS SHOWING DEVICES AND WIRING.
- DRAWINGS SHOWING a) RISER DIAGRAM/BLOCK DIAGRAMS, b) TYPICAL DEVICES WIRING DIAGRAMS, c) MAJOR EQUIPMENT ELEVATION, d) EQUIPMENT AND WIRING LEGEND, e) CALCULATION (IF REQUIRED).
- EQUIPMENT CUT SHEETS WITH CLEAR IDENTIFICATION.
- BILL OF MATERIALS.

GENERAL NOTES

- SITE PLAN, FLOOR PLANS, RISER DIAGRAMS, WIRING DIAGRAMS, CALCULATIONS MUST BE SUBMITTED IN AUTO CAD FORMAT. THE CONTRACTOR SHALL COMPLY WITH OWNER'S LABELING FORMAT AND STANDARDS.
- AFTER COMPLETION OF THE PROJECT, THE CONTRACTOR MUST SUBMIT (4) FOUR COPIES OF "AS-BUILT" CONSTRUCTION DRAWINGS WITH PROJECT CLOSING DOCUMENTS INCLUDING TEST REPORT AS REQUIRED PER SPECIFICATION.
- REFER TO ADDITIONAL REQUIREMENT IN RESPECTIVE SYSTEM SPECIFICATION.

COMPLETE FIRE ALARM SYSTEM APPROVAL REQUESTED SUBMITTAL PER DSA GL 2

DSA NOTES, STANDARDS AND GUIDES

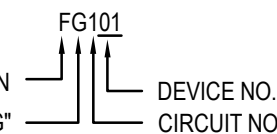
- ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH C.E.C. ARTICLE 760, POWER LIMITED FIRE PROTECTIVE SIGNALING CIRCUITS.
- FIRE ALARM DEVICES SHALL BE INSTALLED PER N.F.P.A. 72, 2016 EDITION.
- FIRE ALARM SYSTEM SHALL BE CONNECTED TO DEDICATED POWER SUPPLY WITH CIRCUIT BREAKER WITH LOCK-ON DEVICE AND SHALL INCORPORATE INTERNAL RECHARGEABLE BATTERIES TO PROVIDE A STAND BY OPERATION 100% OF APPLICABLE COMPONENTS FOR 24 HOURS) AND ALARM OPERATION (100% OF APPLICABLE COMPONENTS FOR 5 MINUTES; 15 MINUTES FOR EVAC) AFTER 24 HOURS OF STANDBY OPERATION IN ACCORDANCE WITH N.F.P.A. CHAPTER 10, 2016 EDITION.
- ALL WIRING, ANNUNCIATING DEVICES AND ANNUNCIATOR PANEL SHALL BE SUPERVISED AT THE PRINCIPAL POINT OF ANNUNCIATION. (FIA PANEL TO SUPERVISE ALL CIRCUITS AND INITIATING DEVICES)
- POINT AND COMMON ANNUNCIATION AND T-TAPPING IS PROHIBITED.
- PROVIDE ALL NECESSARY BACK BOXES FOR FIA DEVICES, TYPE 45 OR AS REQUIRED.
- VERTICAL RUNS OF FIRE ALARM SYSTEM CONDUCTORS AND CABLES SHALL BE ENCLOSED IN METAL RACEWAYS.
- UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE DSA-CERTIFIED PROJECT INSPECTOR.
- A STAMPED SET OF APPROVED FIRE ALARM PLANS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.
- ANY DEVIATION FROM APPROVED PLANS, INCLUDING THE SUBMITTAL OF DEVICES, SHALL BE APPROVED BY THE DSA.
- ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OF RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- ALL DEVICES ON THE FIRE ALARM SYSTEM SHALL BE APPROVED AND LISTED BY THE CALIFORNIA STATE FIRE MARSHAL.
- CERTIFICATE OF COMPLIANCE SHALL BE SUBMITTED TO THE DSA. AN ACCEPTABLE TEST WITNESSED BY THE DSA SHALL BE PERFORMED PRIOR TO FINAL APPROVAL PER NFPA 72 2016 CHAPTER 14.4.1.1 TESTING.
- ALL CONDUCTORS SHALL BE POWER LIMITED COPPER AND INSTALLED WITHIN A METALLIC RACEWAY. CONDUITS SHALL BE A MINIMUM SIZE OF 3/4".
- SEAL ALL CONDUIT PENETRATIONS THROUGH THE FIRE RATED WALLS AND FLOORS WITH APPROVED SAME RATING FIRE RATED CAULK.
- PROVIDE SUPPORT FOR ALL CONDUITS AND VERTICAL WIRING AS REQUIRED BY N.E.C.
- REFER TO FIRE ALARM SPECS FOR MANUFACTURERS CUT SHEETS AND CALIFORNIA STATE FIRE MARSHAL LISTINGS.
- UPON COMPLETION OF THE INSTALLATION A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE ENFORCING AGENCY.
- THE FIRE ALARM SYSTEM SHALL CONFORM TO THE C.E.C. ARTICLE 760, DEVICES SHALL BE INSTALLED PER 2016 NFPA 72, PROVIDE ALL WIRING BY THE ELECTRICAL CONTRACTOR.
- WIRING SHALL NOT BE LOOPED THROUGH DEVICES; WIRE MUST BE CUT FOR IN AND OUT.
- ALL DEVICES IN THE ALARM SYSTEM SHALL BE COMPATIBLE AND INSTALLED TO MANUFACTURERS SPECIFICATIONS.
- AREAS HAVING MORE THAN 2 STROBES IN THE FIELD OF VIEW SHALL BE SYNCHRONIZED.
- SMOKE DETECTORS AND HEAT DETECTOR LOCATIONS ARE BASED ON SMOOTH CEILING WITH MAXIMUM HEIGHT OF 10 FEET UNLESS OTHERWISE NOTED.
- STROBE LOCATION IS BASED ON 10 FOOT CEILING HEIGHT AND ARE INSTALLED ACCORDING TO NFPA 72, 2016 EDITION REQUIREMENTS UNLESS OTHERWISE NOTED.
- WALL-MOUNTED STROBES SHALL HAVE THEIR BOTTOM LENS NOT LESS THAN 80 INCHES ABOVE FINISHED FLOOR AND NO GREATER THAN 96 INCHES TO THE TOP OF THE LENS ABOVE FINISHED FLOOR.
- TOP OF PULL STATIONS SHALL BE MOUNTED AT 48" ABOVE FLOOR LEVEL.
- ALL FIRE ALARM DEVICES ON THE CAMPUS SHALL BE SYNCHRONIZED.
- ALL FIRE ALARM CIRCUITS SHALL BE LABELED AT CONNECTIONS AND AT JUNCTION BOXES. ALL CONCEALED CONDUIT, JUNCTION BOXES AND COVERS SHALL BE RED IN COLOR. ALL CONDUIT SHALL BE CONCEALED WHERE POSSIBLE. ALL EXPOSED CONDUITS SHALL NOT BE RED AND SHALL BE WIREMOLD 700 OR EQUAL.
- FIRE ALARM DRAWINGS ARE SCHEMATIC IN NATURE ONLY. CONTRACTOR TO ROUTE CONDUIT AS FIELD CONDITIONS INDICATE.
- CONDUIT AND JUNCTION/BACK BOXES ARE NOT TO BE USED FOR UNRELATED WIRING. ALL WIRING SHALL BE IN CONDUIT. ALL CONDUIT SIZES INDICATED IN DRAWINGS ARE MINIMUM.
- FIRE ALARM SYSTEM SHALL BE INSTALLED BY FACTORY NOTIFIER OR APPROVED EQUAL AUTHORIZED REPRESENTATIVE.
- PER CFC 901.5.1: OCCUPANCY TO ANY PORTION OF BUILDING/STRUCTURE PROHIBITED UNTIL THE REQUIRED SYSTEM IS INSTALL AND CERTIFIED.
- PER CFC LATEST CODE SECTION: RECORD (AS-BUILT) DRAWINGS SHALL BE MAINTAINED ON PREMISES MINIMUM THREE (3) YEARS.
- PER CFC 907.8.4: SMOKE DETECTOR(S) SHALL BE TESTED BY MANUFACTURER'S CALIBRATED SENSITIVITY TEST METHOD. SENSITIVITY TEST INSTRUMENT OR OTHER CALIBRATED SENSITIVITY TEST METHOD, SENSITIVITY REPORT SHALL REMAIN ON PREMISE WITH RECORD DRAWING.
- VISIBLE DEVICES SHOULD NOT EXCEED TWO FLASHES PER SECOND AND SHOULD NOT BE SLOWER THAN ONE FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELLA. VISIBLE DEVICES WITHIN 55' FROM EACH OTHER SHALL BE SYNCHRONIZED.
- CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CHANGE ORDERS APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.
- A "DSA CERTIFIED" PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, CALIFORNIA BUILDING STANDARD ADMINISTRATIVE CODE (PART 1, TITLE 24, CCR).
- A DSA INSPECTOR WITH CLASS 2 - RBIP CERTIFICATION IS REQUIRED FOR THIS PROJECT.
- THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CHANGE ORDER, OR A SEPARATE SET OF PLANS AND SPECIFICATION, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT BEFORE PROCEEDING WITH THE WORK. (REFERENCE: SECTION 4-317 (c), CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 24, CCR))
- AUTOMATIC FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION AS REQUIRED BY NFPA 72 AS AMENDED BY ARTICLE 91. THE SUPERVISION STATION SHOULD BE LISTED AS EITHER UL/ULX OR UL/US BY UNDERWRITERS LABORATORY OR SHALL MEET THE REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011. SUPERVISION OF SYSTEM AND LEASED TELEPHONE LINES SHALL BE ARRANGED BY OWNER.
- PROJECT INSPECTOR SHALL PROVIDE DSA DISTRICT FIELD ENGINEER, OWNER (AOR) & LOCAL FIRE AUTHORITY WITH COPY OF FIRE ALARM RECORD OF COMPLETION.
- AUDIBLE APPLIANCES SHALL PROVIDE 15 dba. ABOVE AMBIENT NOISE LEVELS IN ALL OCCUPIED AREAS.
- CUTTING, BORING, SAW CUTTING, OR DRILLING THROUGH THE NEW OR EXISTING STRUCTURAL ELEMENTS TO BE DONE ONLY WHEN SO DETAILED IN THE DRAWINGS OR ACCEPTED BY THE LAUSD ARCHITECT AND STRUCTURAL ENGINEER WITH DAS APPROVAL.
- AN INSPECTOR WHO IS SPECIFICALLY QUALIFIED IN MECHANICAL & ELECTRICAL WORK WILL BE REQUIRED FOR THIS PROJECT.
- CUTTING, BORING, SAW CUTTING, OR DRILLING THROUGH THE NEW OR EXISTING STRUCTURAL MEMBERS ARE TO BE DONE ONLY WHEN SO DETAILED IN THE DRAWINGS, OR ACCEPTED BY THE ARCHITECT AND STRUCTURAL ENGINEER WITH APPROVAL OF DSA.

FIRE ALARM SYMBOL LIST

SYMBOL	MFG.	PART NO.	DESCRIPTION	MNTG. HEIGHT/ DETAILS	CSFM LISTING NO.
(E) FACP	NOTIFIER	AM-2020	(E) FIRE ALARM CONTROL PANEL		EXISTING
(E) ANN	NOTIFIER	LCD-80	(E) REMOTE ANNUNCIATOR		EXISTING
(E) FAPS	NOTIFIER	FPCS-24S8	(E) REMOTE POWER SUPPLY		EXISTING
CM	NOTIFIER	FCM-1	CONTROL MODULE	WALL /CEILING MOUNTED	7300-0028:0219
MM	NOTIFIER	FMM-1	MONITOR MODULE	WALL /CEILING MOUNTED	7300-0028:0219
☒	SYSTEM SENSOR	SPSV	WALL MOUNTED MULTI FIRE SPEAKER/STROBE	WALL MOUNTED	7320-1653:0201
SC	NOTIFIER	FCO-951	MULTI-CRITERIA FIRE/CO SMOKE DETECTOR	ON CEILING	7272-0028:0510
	SYSTEM SENSOR	B200S	STANDARD BASE		7300-1653:0238
A	NOTIFIER	FST-851	AREA HEAT DETECTOR (ADDRESSABLE) - ATTIC	ABOVE CEILING	7270-0028:0196
	NOTIFIER	B710LP	STANDARD BASE		7300-0028:0173

DEVICE IDENTIFICATION

F=INITIATION, N= NOTIFICATION
 G = CLASSROOM BUILDING "G"
 FG101



CENTRAL MONITORING STATION

MONITORING STATION PROVIDER:
 BAY ALARM, 740 S. ROCHESTER AVE. SUITE D, ONTARIO, CA 91761
 CONTACT NUMBER: +1-800-470-1000

SAN DIMAS HIGH SCHOOL ACCOUNT NUMBER: 4076732

IDENTIFICATION STAMP

DIV. OF THE STATE ARCHITECT

APP: 03-121968 INC:

REVIEWED FOR

SS FLS ACS

DATE: 12/20/2022

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CONSULTANTS STAMP:



SCHOOL DISTRICT:

BONITA UNIFIED
 SCHOOL DISTRICT


PROJECT:

SAN DIMAS
 HIGH SCHOOL
 CULINARY ARTS
 CLASSROOM
 MODERNIZATION

JOB NUMBER: 12.03.00

DATE: 08/25/21

REVISION:  DATE: _____

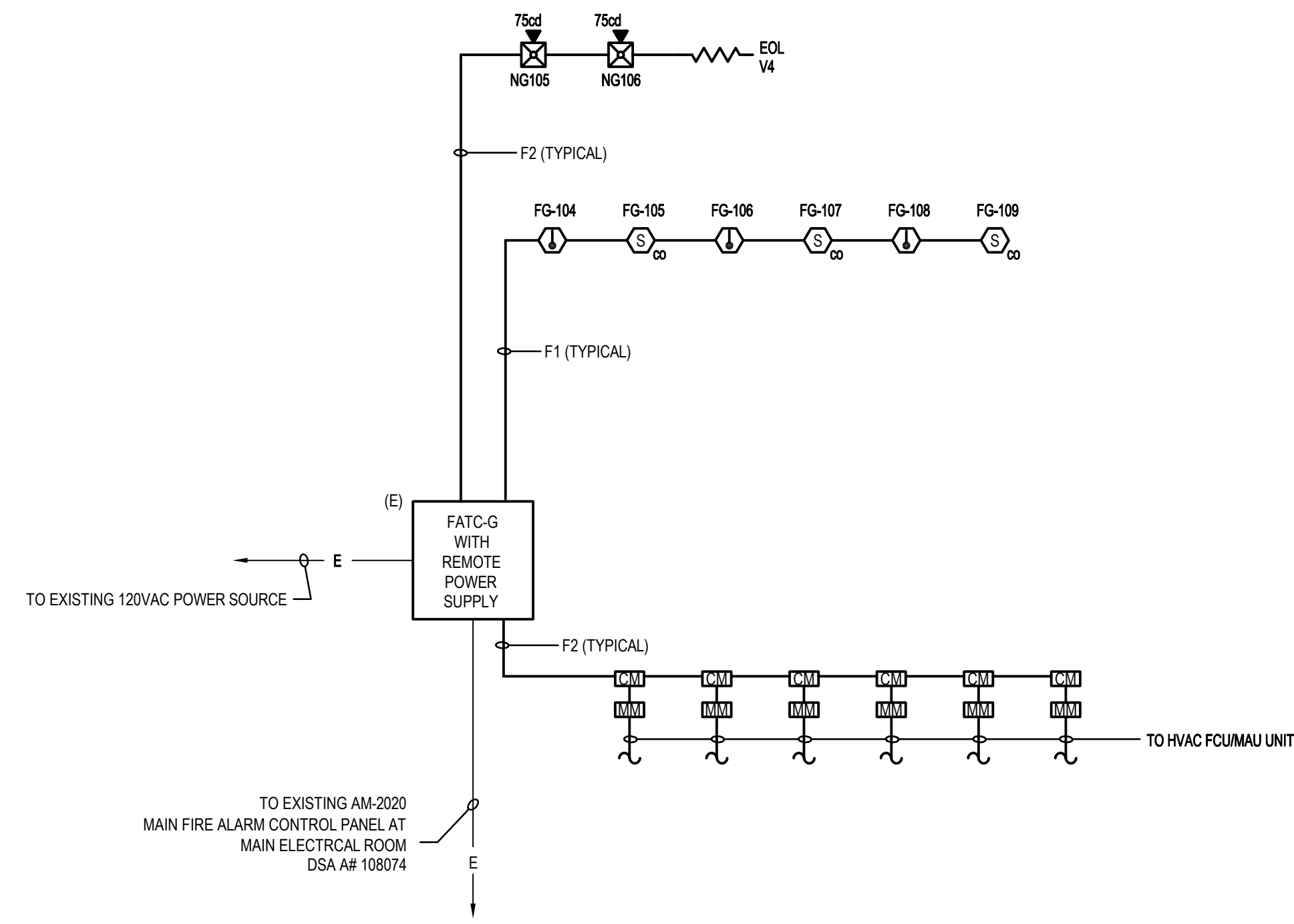
REVISION:  DATE: _____

DRAWING TITLE:

FIRE ALARM
 NOTES &
 SYMBOLS LIST

DRAWING NO.:

EF0.1



FIRE ALARM SYSTEM WIRING DIAGRAM

NOTE: NOT TO SCALE

Battery Calculations
San Dimas Highschool
BUILDING G, FAPS-G

Description	Quantity	Standby (Amps)	Total Standby (Amps)	Alarm (Amps)	Total Alarm (Amps)
(E) FACP	0	x 0.031000	0.000000	0.223000	0.000000
(E) FNM-1	1	x 0.000200	0.000200	0.000200	0.000200
(E) FCM-1	1	x 0.000300	0.000300	0.000300	0.000300
(E) FRM-1	1	x 0.000300	0.000300	0.000300	0.000300
(E) PULL STATION	0	x 0.000300	0.000000	0.000300	0.000000
(E) STROBE 15CD	0	x 0.000000	0.000000	0.041000	0.000000
(E) STROBE 30CD	6	x 0.000000	0.000000	0.065000	0.390000
(E) STROBE 75CD	1	x 0.000000	0.000000	0.118000	0.118000
(E) STROBE 110CD	0	x 0.000000	0.000000	0.155000	0.000000
(E) HORN/STROBE 15CD	0	x 0.000000	0.000000	0.093000	0.000000
(E) HORN/STROBE 30CD	0	x 0.000000	0.000000	0.144000	0.000000
(E) HORN/STROBE 60CD	0	x 0.000000	0.000000	0.157000	0.000000
(E) HORN/STROBE 110CD	0	x 0.000000	0.000000	0.197000	0.000000
(E) HORN (WP)	2	x 0.000000	0.000000	0.050000	0.100000
(E) HORN	0	x 0.000000	0.000000	0.050000	0.000000
(E) SMOKE DETECTOR	10	x 0.000200	0.002000	0.000200	0.002000
(E) HEAT DETECTOR	6	x 0.000200	0.001200	0.000200	0.001800
(E) FCPS (ALTRONIX)	1	x 0.005000	0.005000	0.001750	0.001750
(E) UDACT	1	x 0.100000	0.000000	0.100000	0.000000
(E) UZC-256	1	x 0.035000	0.000000	0.035000	0.000000
(N) SPEAKER/STROBE 75CD	2	x 0.000000	0.000000	0.158000	0.318000
(N) SMOKE DETECTOR (CO)	3	x 0.000200	0.000600	0.000200	0.000800
(N) HEAT DETECTOR	3	x 0.000200	0.000600	0.000200	0.000800
Total:			0.011400		0.930150
Battery Calculation	Time Multiplier		Amp Hours		
Standby Hours	24	x 0.011400	=	0.27360000	
Alarm Hours (5 Minutes)	0.083	x 0.930150	=	0.07720245	
Total Amp Hours			=	0.35080245	
Battery Used (2) (7AH)			=	14.00000000	
Battery Spare (Ah)			=	13.6491976	

Worst Case Voltage Drop Calculations
San Dimas Highschool
BUILDING G, FAPS-G CIRCUIT 4

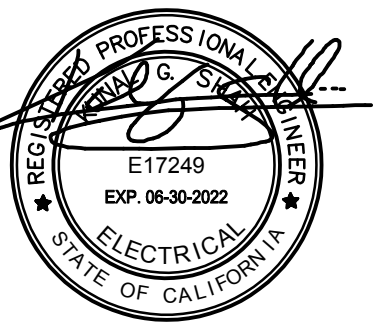
Description	Quantity	Alarm (Amps)	Total Alarm (Amps)
SPEAKER/STROBE 75CD	2	x 0.158000	= 0.316000
Total Current Draw:			= 0.316000
Wire Size 14	0	x 4110	= 0
Wire Size 12	1	x 6530	= 6530
Wire Used Circular Mills			= 6530
Distance to End of Circuit:			= 200
Multiplier			= 21.6
Voltage			= 24
Multiplier			= 4.168
Percentage Voltage Drop			= 0.871

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APP: 03-121968 INC:
REVIEWED FOR
SS FLS ACS
DATE: 12/20/2022

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Rancho Cucamonga, CA. 91730
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T. 626.650.0350 F. 626.650.0352
www.pbsengineers.com Job no. 2021-072-00



SCHOOL DISTRICT:
BONITA UNIFIED SCHOOL DISTRICT

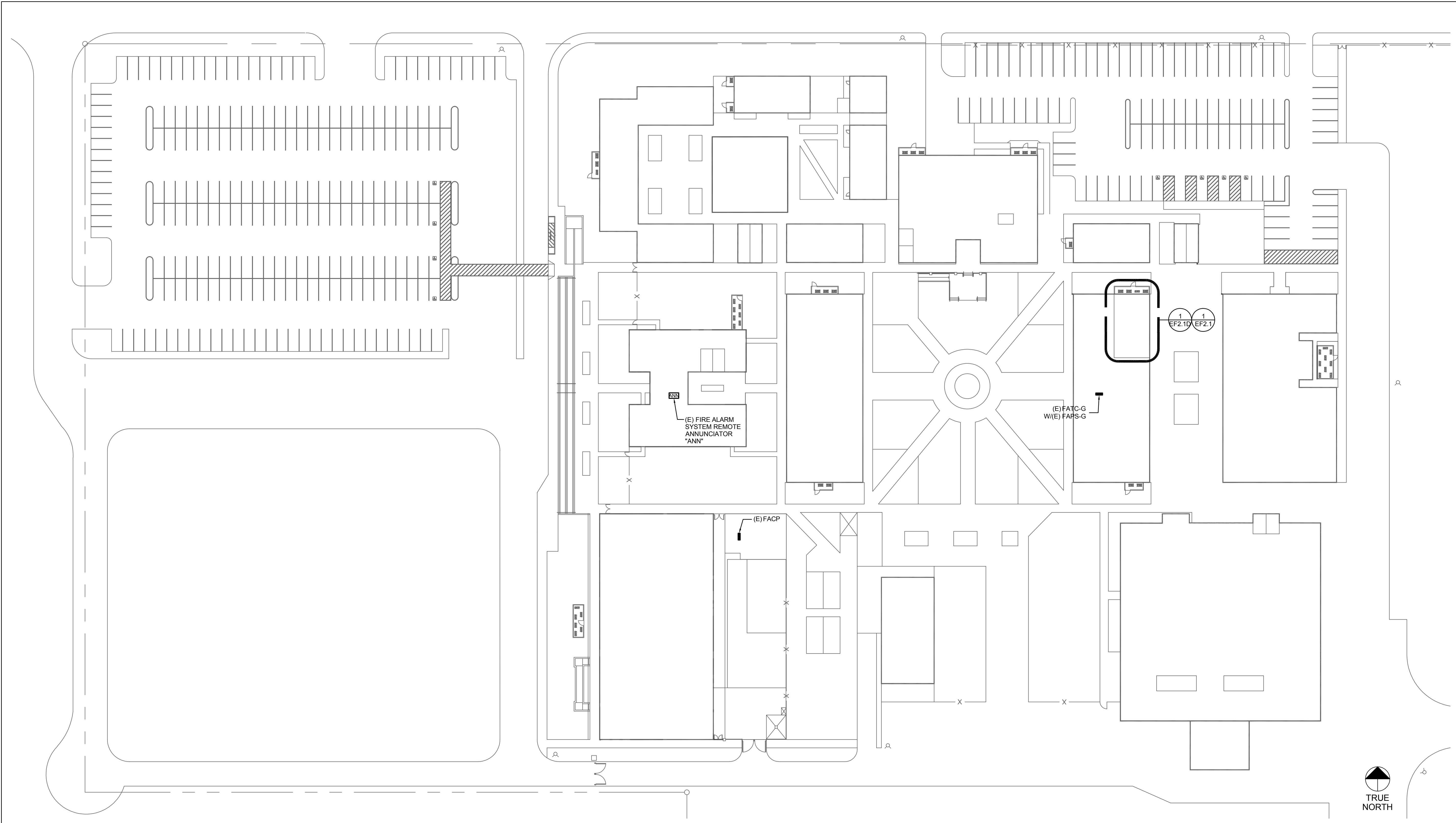
PROJECT:
SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

JOB NUMBER: 12.03.00
DATE: 08/25/21
REVISION: DATE: _____
REVISION: DATE: _____

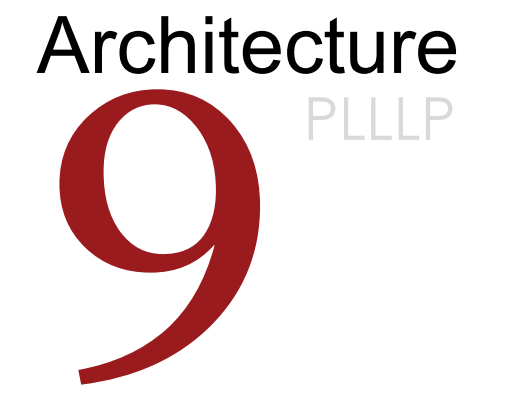
DRAWING TITLE:
F.A. VOLTAGE DROP CALCULATIONS & BATTERY SIZING

DRAWING NO.:
EF0.2

P:\P-2021\2021-072-00 San Dimas HS Culinary Arts-Classroom Mod\10_BIM-CAD\MEP\EF1.dwg 2/16/2022 1:37 PM Katherine M. Kilbom



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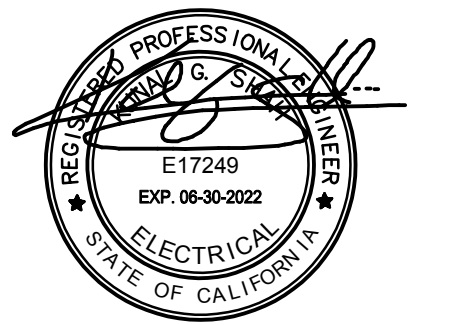
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PROJECT:
SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

FIRE ALARM SITE PLAN

SCALE:
1" = 40'-0"

1

GENERAL NOTES

- 1. THE NEW FIRE ALARM SYSTEM DEVICES ARE TO BE INTERCONNECTED AND PROGRAMMED TO OPERATE AT THE CAMPUS WIDE FACP.

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DATE: 08/25/21

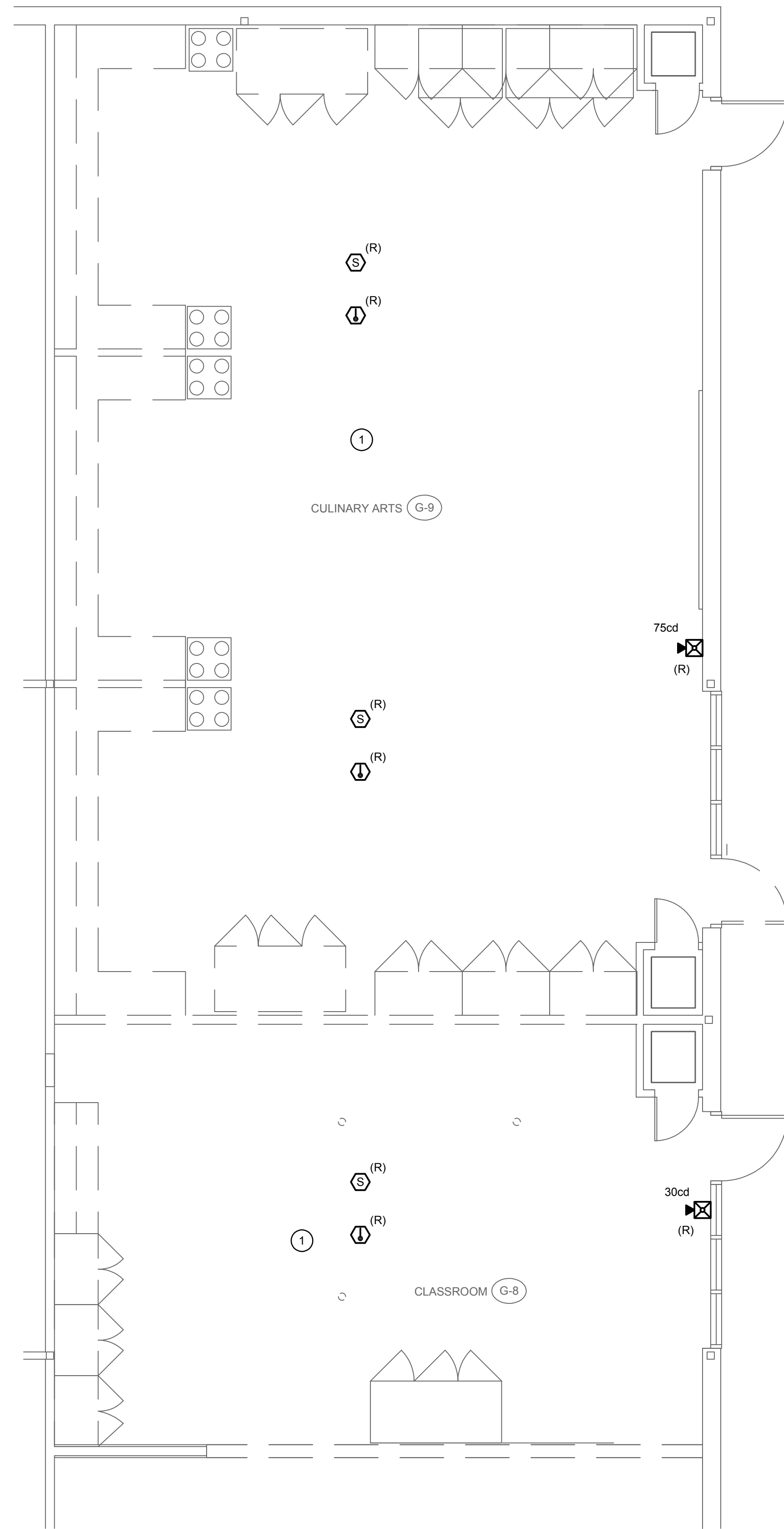
REVISION: DATE: _____
REVISION: DATE: _____

DRAWING TITLE:
FIRE ALARM SITE PLAN

DRAWING NO.:

EF1.1

P:\P-2021\2021-072-00 San Dimas HS Culinary Arts Classroom Mod\10_BIM-CAD\MEP\EF2.1D.dwg 2/16/2022 1:58 PM Katherine M. Kliona



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

1

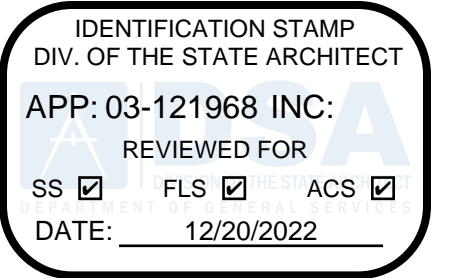
GENERAL NOTES

- EXISTING FIRE ALARM SYSTEM NOT IN AREA OF WORK SHALL REMAIN OPERATIONAL AT ALL TIMES.
- EXISTING FIRE ALARM SYSTEM IN AREA SCOPE OF WORK TO BE DEMO BACK TO SOURCE.

DEMO KEY NOTES

- EXISTING DEVICES TO BE DEMO. CONDUITS AND WIRES TO BE REMOVED BACK TO SOURCE.

DEMOLITION SIGNAL & COMMUNICATION FLOOR PLAN



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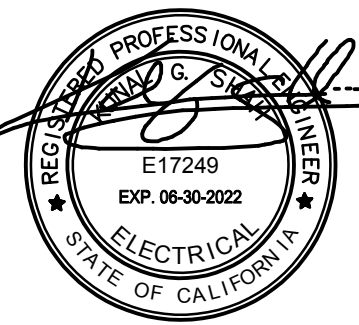


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PROJECT:

SAN DIMAS
HIGH SCHOOL
CULINARY ARTS
CLASSROOM
MODERNIZATION

JOB NUMBER: 12.03.00
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REVISION: DATE: _____
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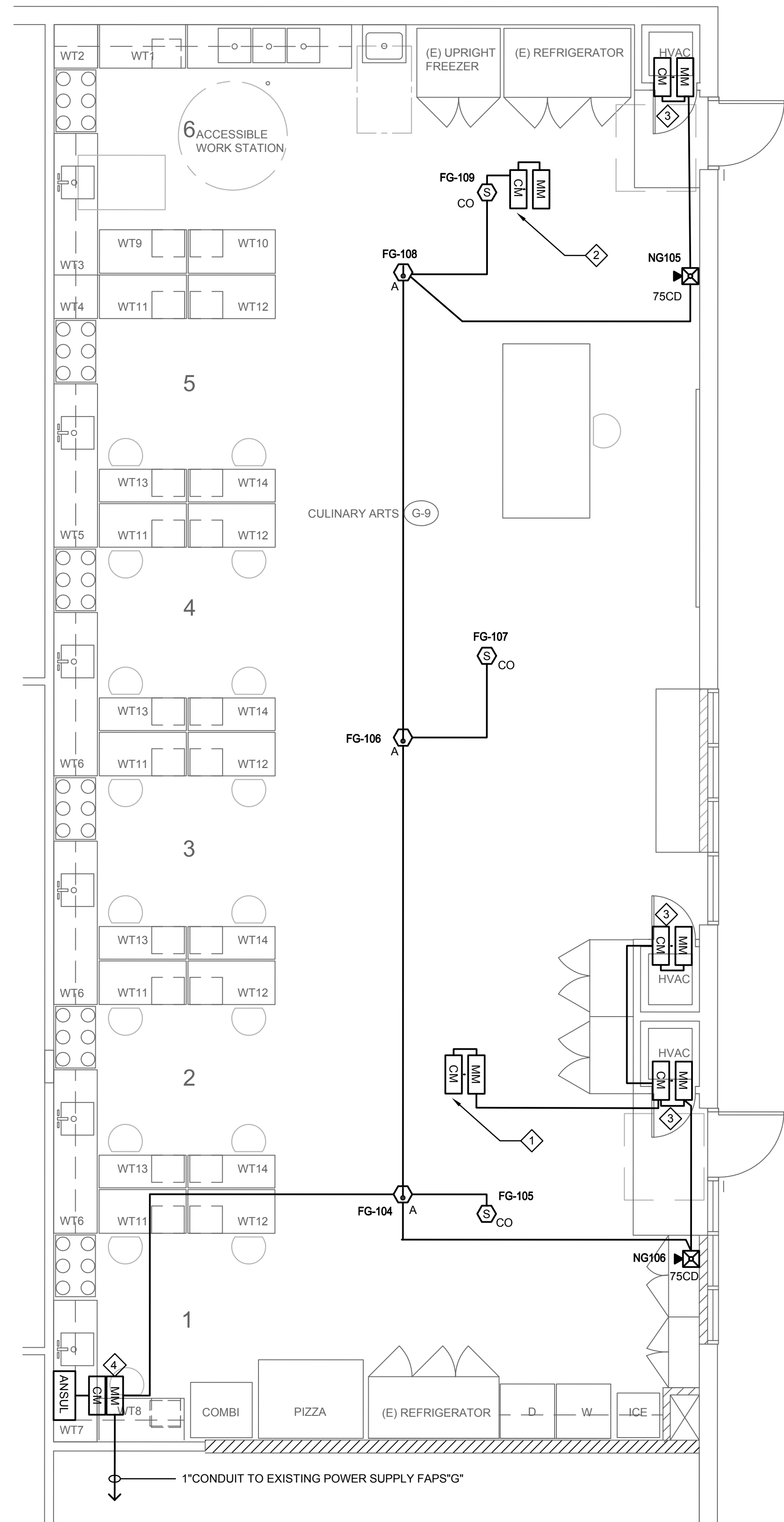
DRAWING TITLE:

DEMO
FIRE ALARM
FLOOR PLAN

DRAWING NO.:

EF2.1D

P:\P-2021\2021-072-00 San Dimas HS Culinary Arts Classroom Mod\10_BM-CAD\MEP\EF2.1.dwg 2/16/2022 1:37 PM Katherine M. Kilbom

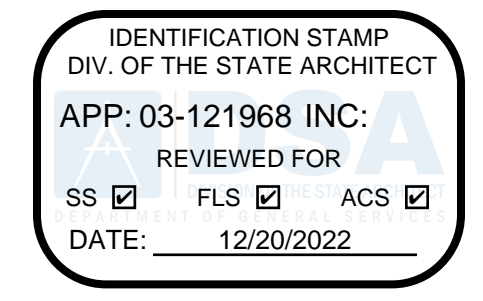


GENERAL NOTES

1. ALL INITIATING AND AUDIBLE DEVICES SHALL BE CLASS "B" WIRING SYSTEM, IN CLASS "B" CONDUIT SYSTEM. PROVIDE WIRES PER MANUFACTURERS SPECIFICATIONS.
2. CONDUIT SHALL BE MINIMUM OF 3/4", UNLESS OTHERWISE NOTED. FOR WIRING SEE MANUFACTURER SPECIFICATIONS.
3. FOR DEVICES LOCATION AND QUANTITY REFER TO THE FLOOR PLANS.
4. THE FIRE ALARM SYSTEM DEVICES SHALL BE OPERATED AT 24V D.C. ALL DEVICES SHALL BE SUPPLIED FROM THE FIRE ALARM BATTERY UNIT, UNLESS OTHERWISE NOTED.
5. THE FIRE ALARM SYSTEM SHALL CONFORM TO ARTICLE 760 OF CALIFORNIA ELECTRICAL CODE UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM.
6. THE FIRE ALARM SYSTEM TEST SHALL BE PERFORMED IN THE PRESENCE OF THE IOR AND ENGINEER.
7. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED CONTROL AND MONITOR RELAY MODULES NEEDED TO ALLOW THE NEW FIRE ALARM SYSTEM TO COMMUNICATE WITH THE EXISTING BUILDING SYSTEM THAT MUST REMAIN SUCH AS, TAMPER SWITCHES, FLOW SWITCHES, CONTROL MODULES, ETC.
8. THE ELECTRICAL CONTRACTOR SHALL ESTABLISH A FINE WATCH PROTOCOL WITH DSA/IOI FOR ALL INSTANCES WHEN THE CAMPUS FIRE ALARM SYSTEM IS NOT IN OPERATION.
9. ALL SURFACE MOUNTED RACEWAYS SHALL BE WIRE MOLD AND PAINTED TO MATCH BUILDING SURFACE.
10. ALL CONDUITS ROUTED BETWEEN BUILDING SHALL BE A MINIMUM OF 1" CONDUIT.
11. REFER TO FIRE ALARM SITE PLAN, SHEET EF1.1 AND RISER DIAGRAM SHEET EF02 FOR ADDITIONAL INFORMATION.
12. CONTRACTOR SHALL COORDINATE THE NEW FA SYSTEM DEVICES TO BE INTEGRATED INTO THE EXISTING CAMPUS WIDE FA SYSTEM. PROGRAM THE EXISTING FACP TO ACCEPT THE NEW DEVICES.

REMODEL KEY NOTES

- 1 PROVIDE MONITOR AND CONTROL MODULE FOR INTERFACE WITH MUA-1 FOR FAN SHUTDOWN.
- 2 PROVIDE MONITOR AND CONTROL MODULE FOR INTERFACE WITH MUA-2 FOR FAN SHUTDOWN.
- 3 PROVIDE MONITOR AND CONTROL MODULE FOR INTERFACE WITH FCU FOR HVAC SHUTDOWN.
- 4 PROVIDE MONITOR AND CONTROL MODULE FOR INTERFACE WITH ANSUL SYSTEM.



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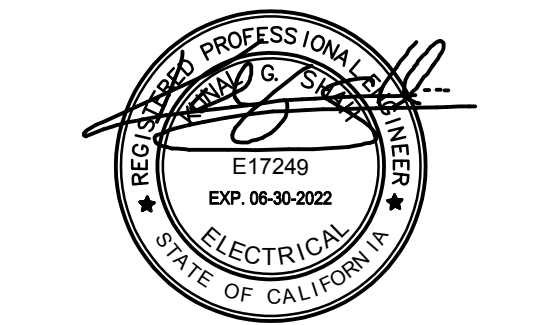
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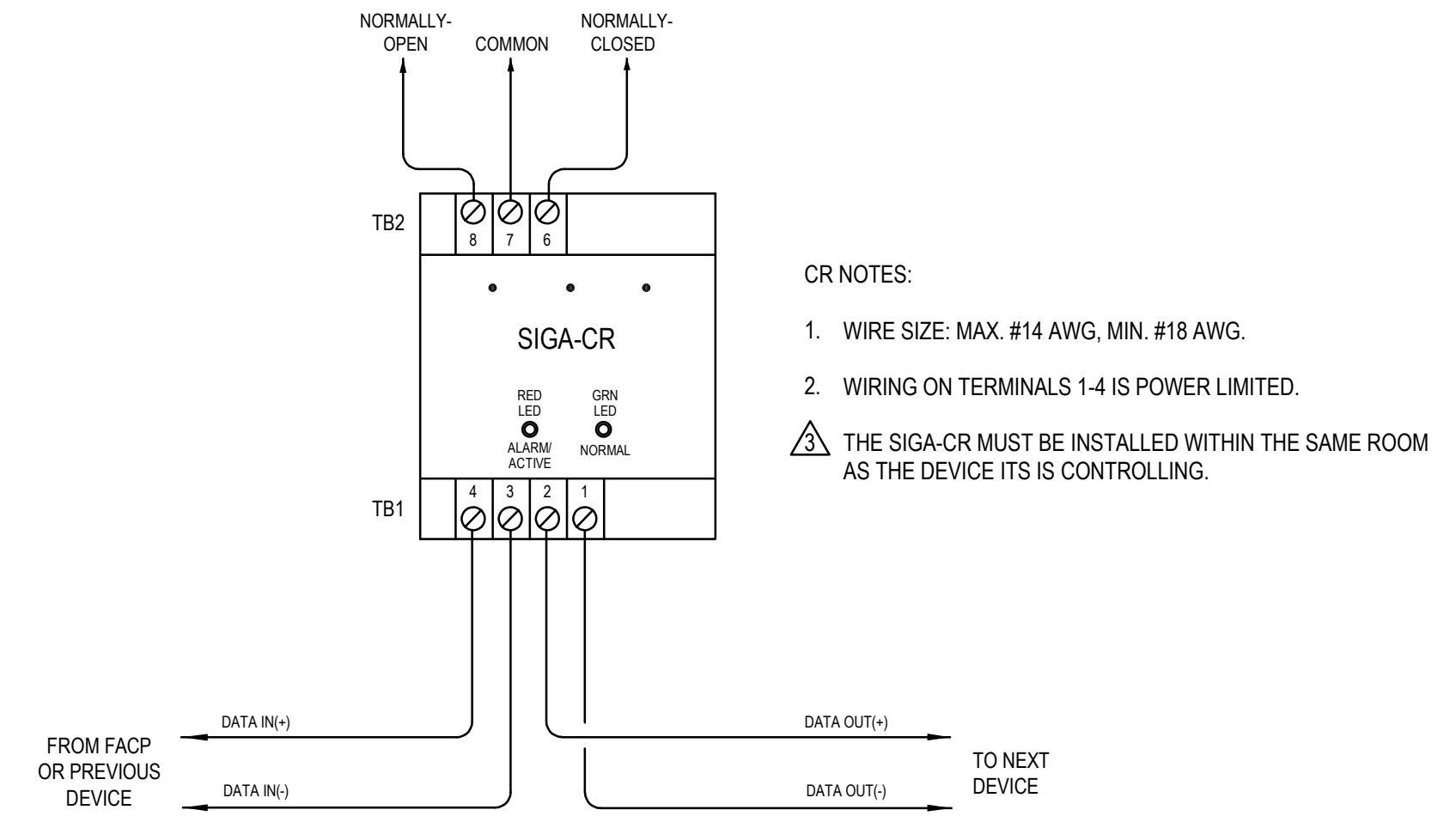
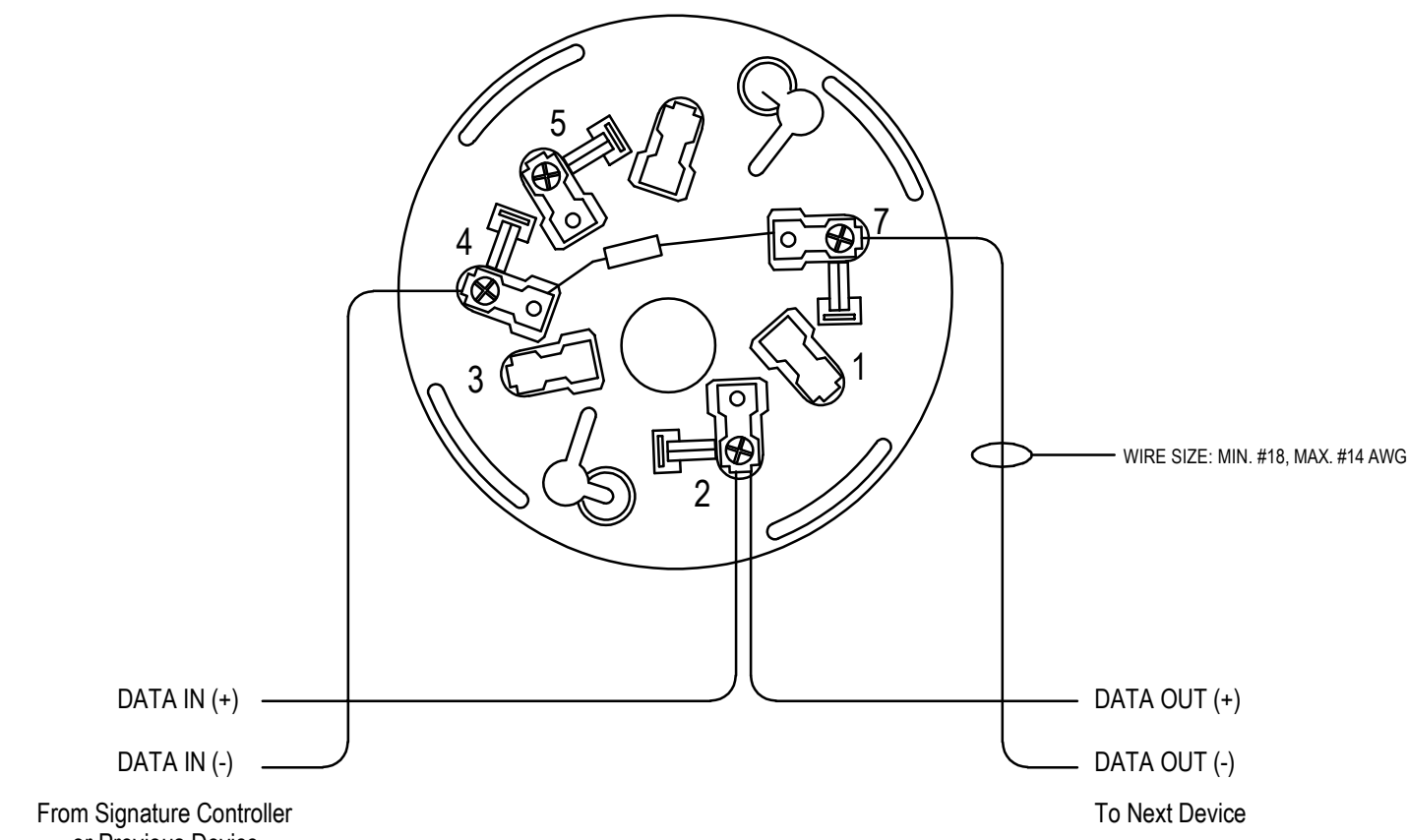
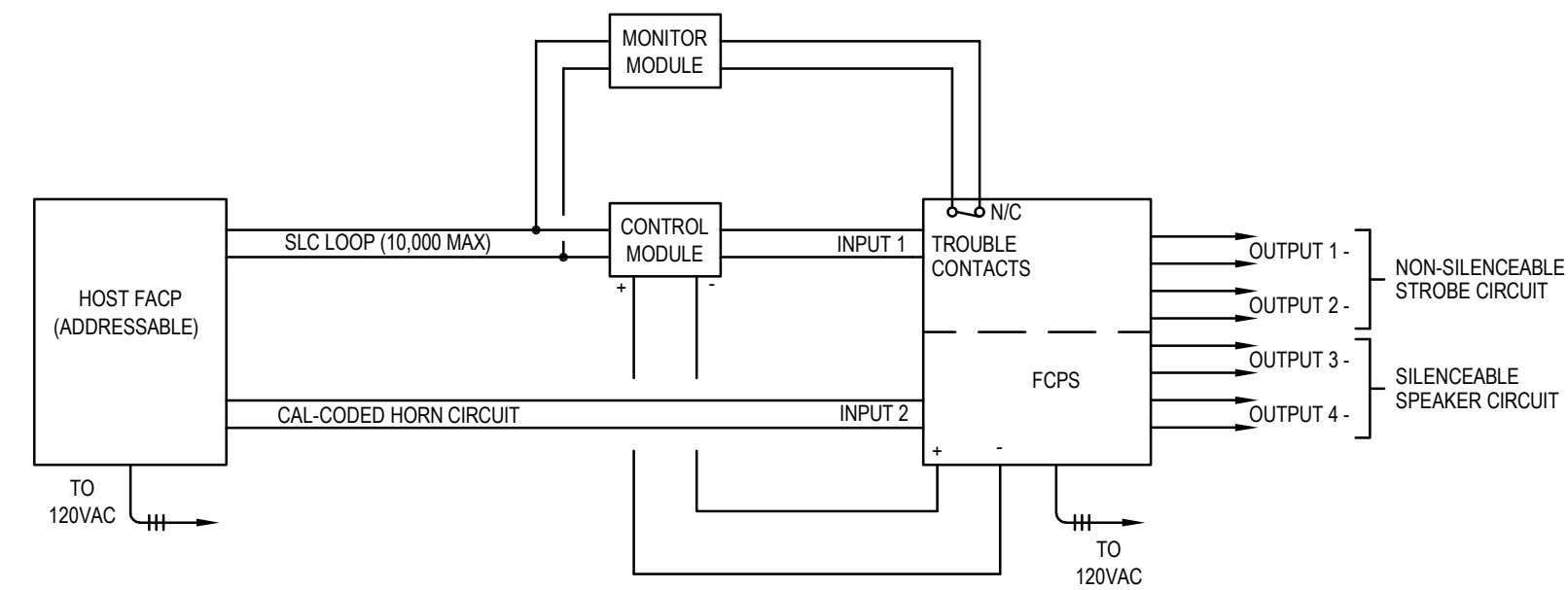
PROJECT:
SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

JOB NUMBER: 12.03.00
 DATE: 08/25/21
 REVISION: DATE: _____
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DRAWING TITLE:
REMODEL FIRE ALARM FLOOR PLAN

DRAWING NO.:
EF2.1





TYPICAL FACP/FCPS INTERFACING WIRING DIAGRAM

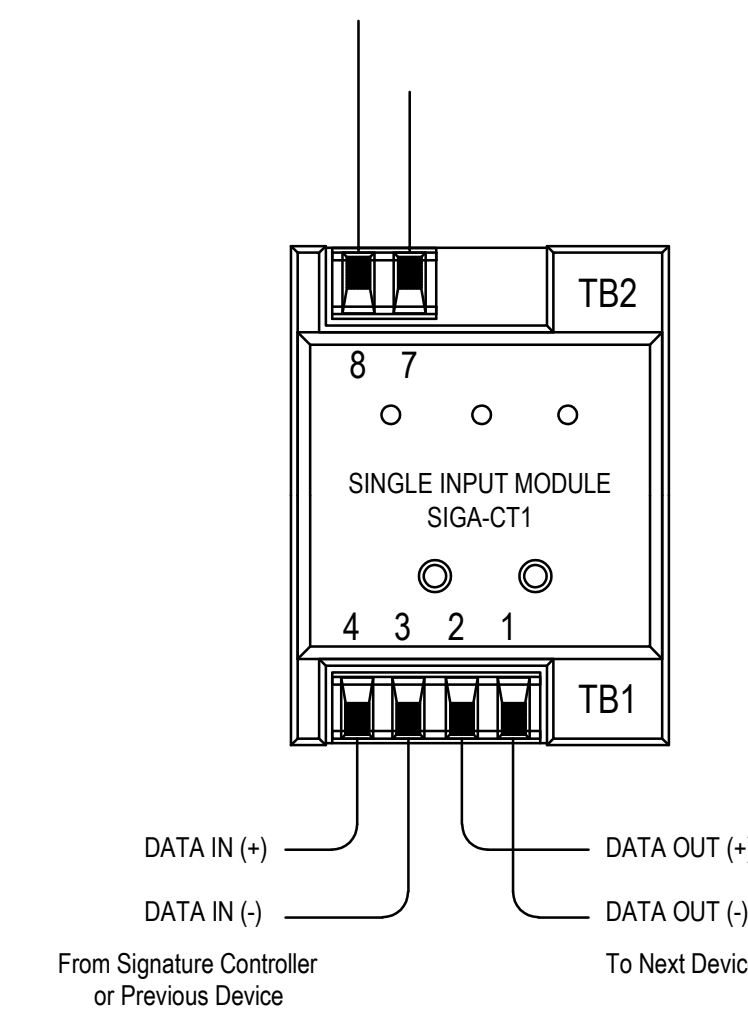
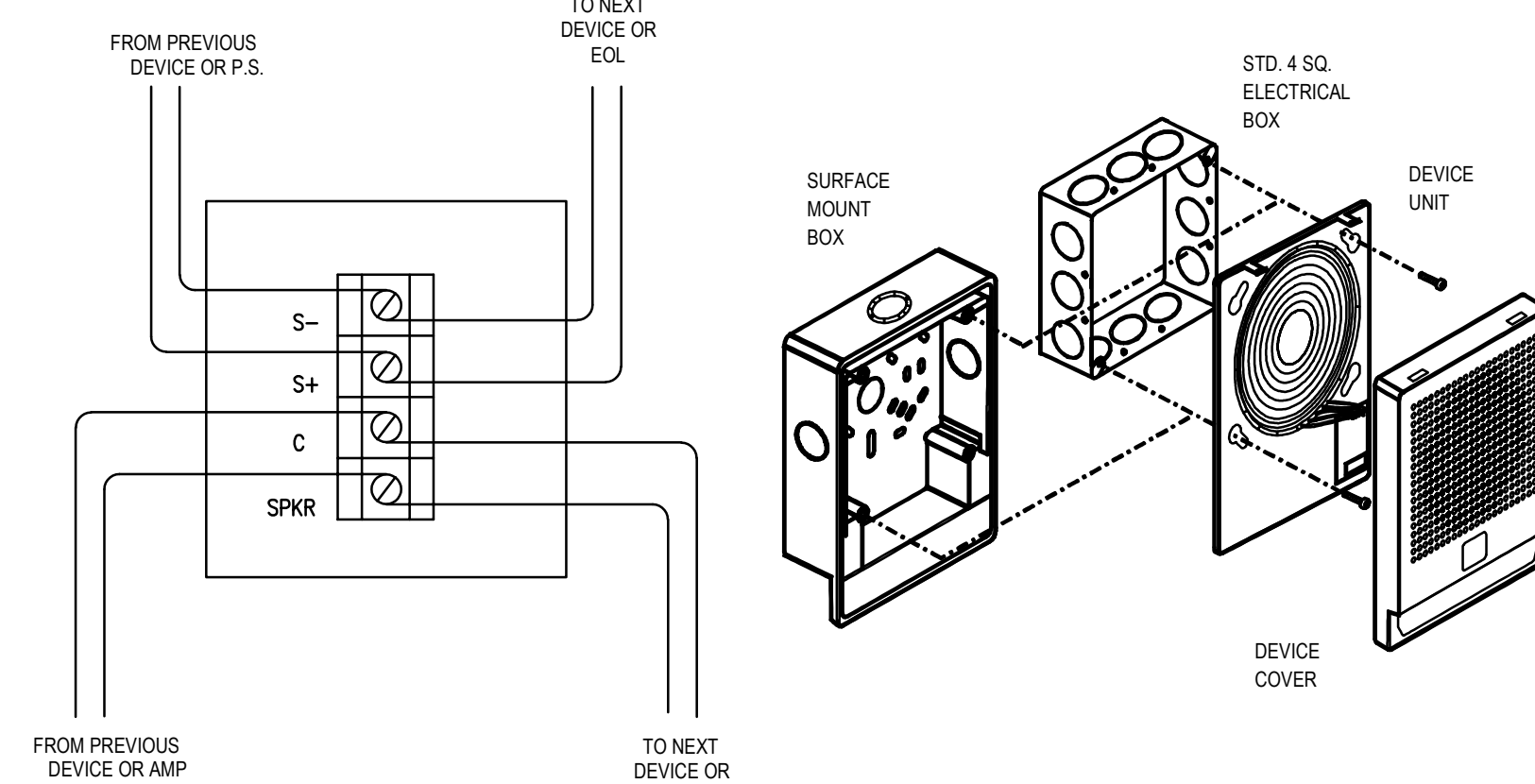
NOT TO SCALE 7

ADDRESS. SMOKE/HEAT DETECTOR DETAIL

NOT TO SCALE 4

RELAY MODULE WIRING DIAGRAM

NOT TO SCALE 1



NOT USED.

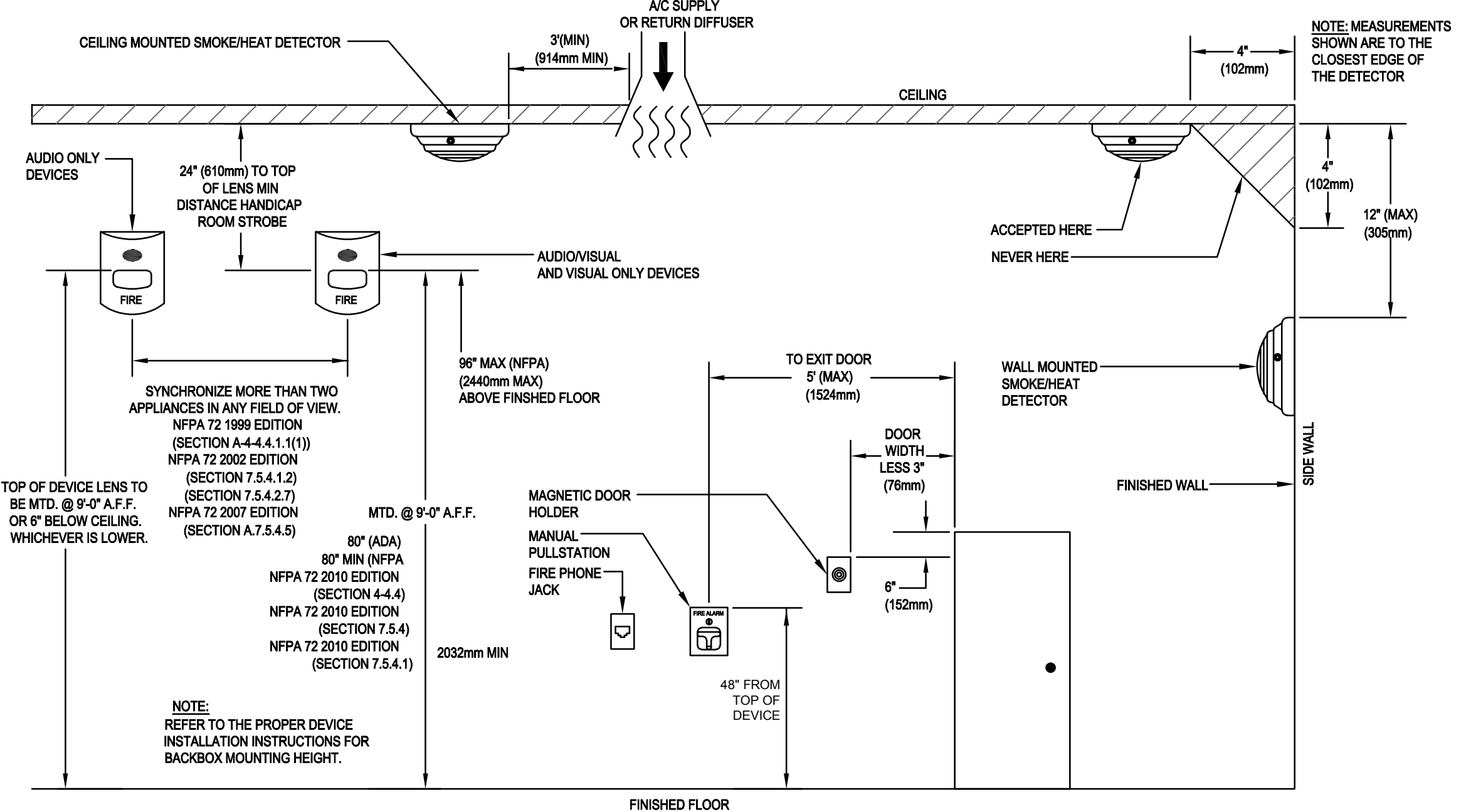
NOT TO SCALE 8

TYP. WALL-MOUNT INDOOR SPEAKER/STROBE DETAIL

NOT TO SCALE 5

MONITOR MODULE WIRING DIAGRAM

NOT TO SCALE 2

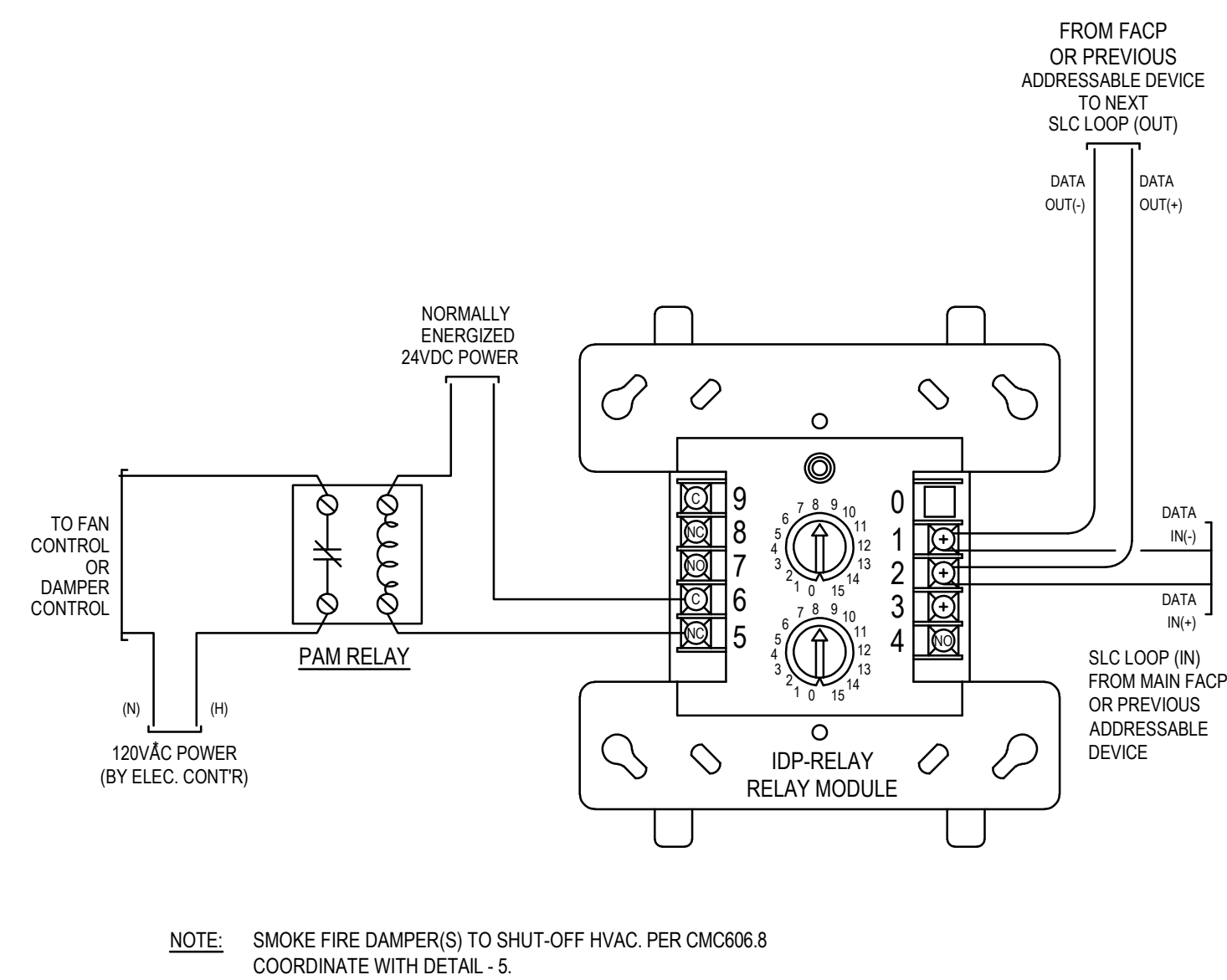


FIRE ALARM EQUIPMENT MOUNTING DETAIL

NOT TO SCALE 6

FAN/DAMPER CONTROL WIRING DETAIL

NOT TO SCALE 3



NOTE: SMOKE FIRE DAMPER(S) TO SHUT-OFF HVAC, PER CM606.8 COORDINATE WITH DETAIL -5.

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LICENSED ARCHITECT
STEVEN GEISLER
CSC 410
5-31-22
STATE OF CALIFORNIA

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CONSULTANTS STAMP:

REGISTERED PROFESSIONAL ENGINEER
STEVEN GEISLER
E17249
EXP. 06-30-2022
ELECTRICAL
STATE OF CALIFORNIA

SCHOOL DISTRICT:

BONITA UNIFIED
SCHOOL DISTRICT

PROJECT:

SAN DIMAS
HIGH SCHOOL
CULINARY ARTS
CLASSROOM
MODERNIZATION

JOB NUMBER: 12.03.00
DATE: 08/25/21

REVISION: [x] DATE: _____
REVISION: [x] DATE: _____

DRAWING TITLE:
FIRE ALARM DETAILS

DRAWING NO.:

EF3.1

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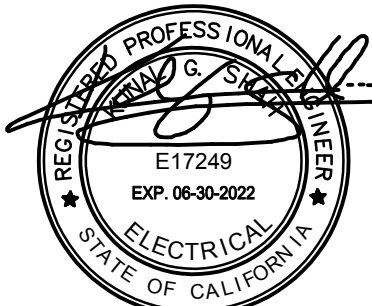
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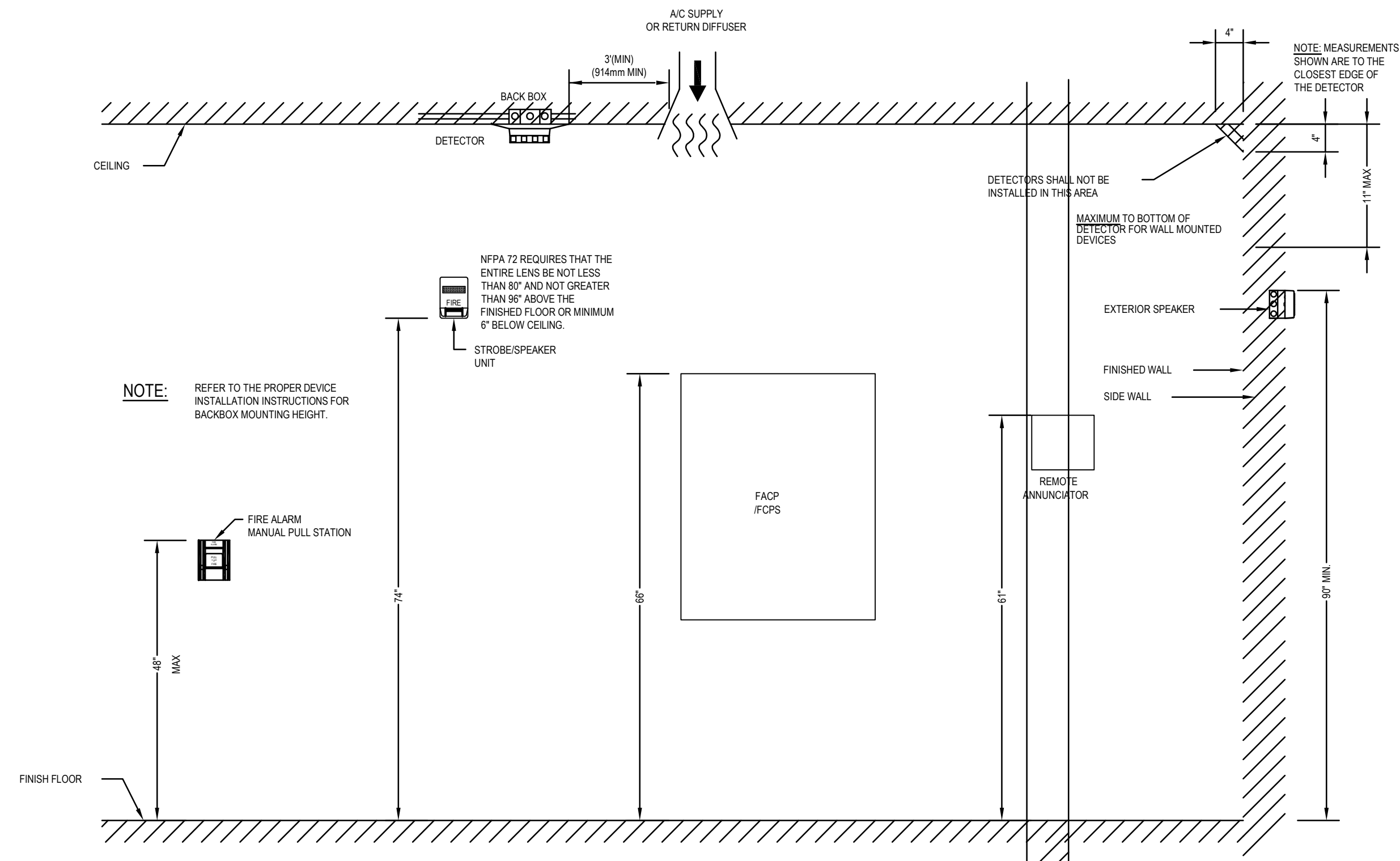
JOB NUMBER: 12.03.00
 DATE: 08/25/21

REVISION: Δ DATE: _____
 REVISION: Δ DATE: _____

DRAWING TITLE:
FIRE ALARM DETAILS

DRAWING NO.:

EF3.2



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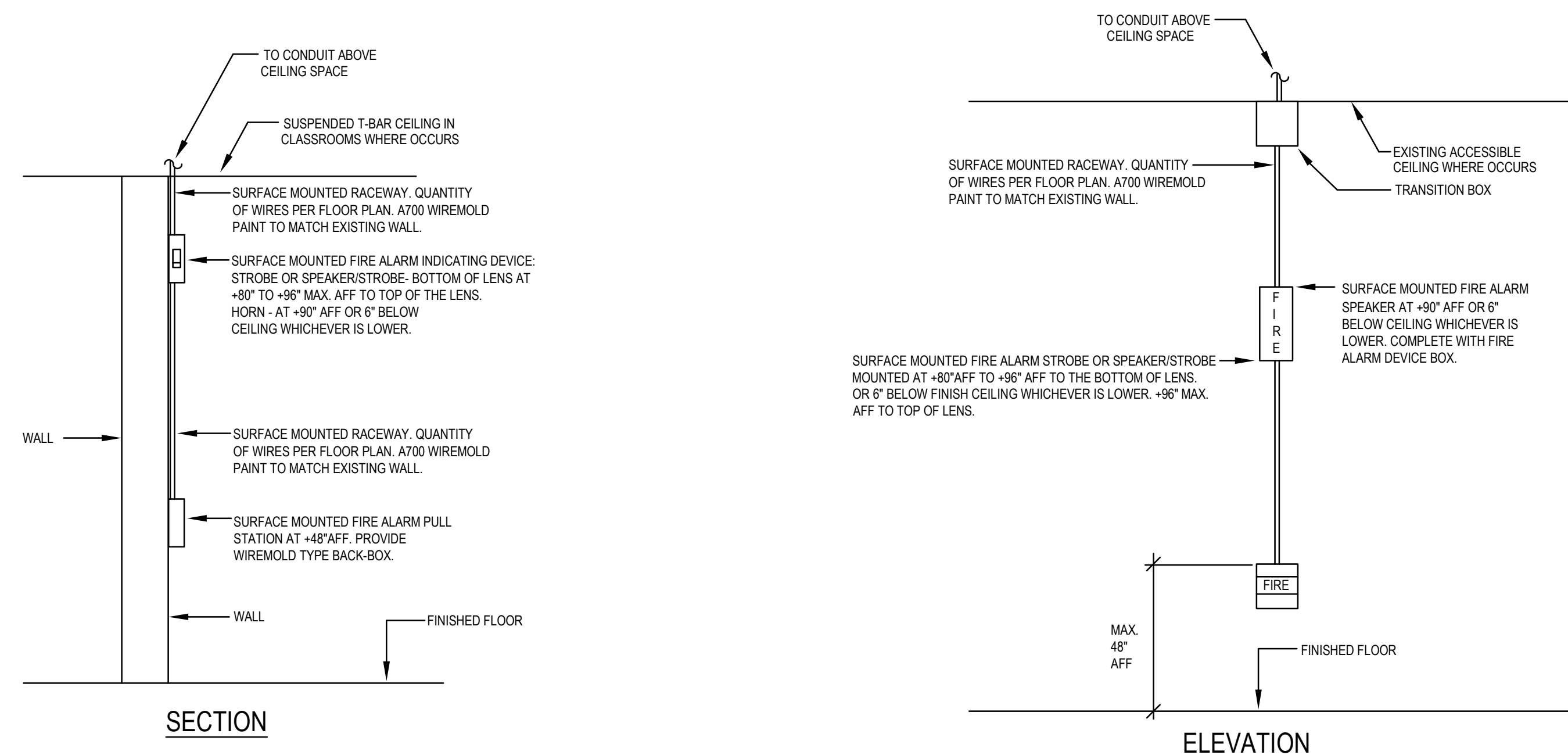
NOT TO SCALE 3

NOT USED.

NOT TO SCALE 4

FIRE ALARM EQUIPMENT MOUNTING DETAIL

NOT TO SCALE 1



NOT USED.

NOT TO SCALE 5

FA SPEAKER/STROBE & PULL STATION MOUNTING

NOT TO SCALE 2

GENERAL NOTES

LEGEND

SHEET INDEX

- 1. VARIANCES BETWEEN ACTUAL CONDITIONS AND DRAWINGS - THE OWNER OR THE OWNER'S DESIGNATED REPRESENTATIVE, AND THE OWNER'S CONSULTANTS WILL ASSUME NO RESPONSIBILITY FOR VARIANCES BETWEEN ACTUAL EXISTING CONDITIONS AND CONDITIONS DEPICTED AS EXISTING ON THE DRAWINGS...

- 17.6. BEFORE ORDERING ANY PIECE OF EQUIPMENT, THE CONTRACTOR SHALL PROVIDE EQUIPMENT SUBMITTALS, AND SHOP DRAWINGS WITH EQUIPMENT DIMENSIONS, AND SITE CLEARANCE AVAILABLE...

Table with 3 columns: SYMBOL, ABBREV., DESCRIPTION. Lists various mechanical symbols like SQUARE OR RECTANGULAR DUCT, ROUND DUCT, FLEXIBLE ROUND DUCT, etc.

Table with 2 columns: SHT. NO., DESCRIPTION. Lists sheet numbers 1 to 10 and their corresponding descriptions like GENERAL NOTES, MECHANICAL SCHEDULES, etc.

SCOPE OF WORK

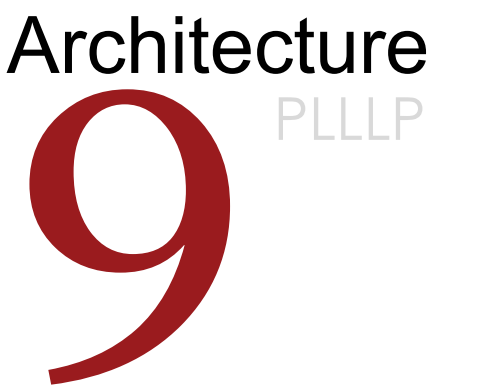
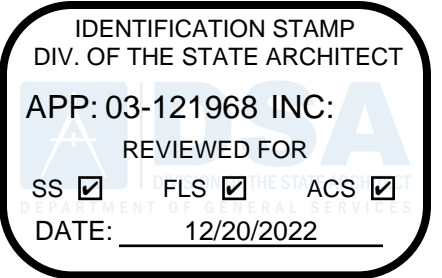
- 1. REMOVE REPLACE (3) SPLIT DX SYSTEMS SERVING THE EXPANDED CULINARY CLASSROOM.

APPLICABLE CODES

- PART 1 2019 BUILDING STANDARDS ADMINISTRATIVE CODE, TITLE 24 C.C.R. (2018 INTERNATIONAL BUILDING CODE & CALIFORNIA AMENDMENTS)

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS...



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CONSULTANTS STAMP



SCHOOL DISTRICT:

BONITA UNIFIED SCHOOL DISTRICT

PROJECT:

SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

JOB NUMBER: 12.03.00 DATE: 08/25/21

REVISION: DATE:

DRAWING TITLE: GENERAL NOTES, LEGEND, CODES & SHEET INDEX

DRAWING NO.:

MO.1

FORCED AIR FURNACE UNIT AND EVAPORATOR SCHEDULE

TAG	MFR & MODEL #	AREA SERVICED	HEATING CAPACITY INPUT/OUTPUT (BTU/HR)	SA (CFM)	OSA (CFM)	ESP	AFUE(%)	ELECTRICAL					OPER. WT (LBS)		APPROXIMATE WxLxH (IN)		TAG	MFR & MODEL #	COOLING CAPACITY		INTERLOCK WITH	OPER. WT (LBS)		APPROXIMATE WxLxH (IN)		ANCHORAGE DETAIL	REMARKS
								V	PH	HZ	MCA	MOCP	ORIGINAL	NEW	ORIGINAL	NEW			TOTAL (MBH)	SEN (MBH)		ORIGINAL	NEW				
FAU 8	CARRIER 59SP5A080E21-20	CULINARY CLASSROOM	80,000/78,000	1,600	400	0.6	95	115	1	60	13.6	15	185	170	21x28-1/2x40	21x29-1/2x35	CC 8	CARRIER CNPVP6124ALA	41,330	38,530	CU 8	60	85	20-3/4x28-1/2x24-9/16	24-1/2x21x32-1/2	1 M-3.2	1, 2, 3, 4, 5, 6
FAU 9	CARRIER 59SP5A080E21-20	CULINARY CLASSROOM	80,000/78,000	1,600	400	0.6	95	115	1	60	13.6	15	185	170	21x28-1/2x40	21x29-1/2x35	CC 9	CARRIER CNPVP6124ALA	41,330	38,530	CU 9	60	85	20-3/4x28-1/2x24-9/16	24-1/2x21x32-1/2	1 M-3.2	1, 2, 3, 4, 5, 6
FAU 10	CARRIER 59SP5A080E21-20	CULINARY CLASSROOM	80,000/78,000	1,600	400	0.6	95	115	1	60	13.6	15	185	170	21x28-1/2x40	21x29-1/2x35	CC 10	CARRIER CNPVP6124ALA	41,330	38,530	CU 10	60	85	20-3/4x28-1/2x24-9/16	24-1/2x21x32-1/2	1 M-3.2	1, 2, 3, 4, 5, 6

1. PROVIDE WIRED T-STAT. (CARRIER CONNECT WI-FI THERMOSTAT OR APPROVED EQUAL.) 2. PROVIDE CONDENSATE NEUTRALIZER KIT FOR CONDENSING FURNACE. 3. PROVIDE CONCENTRIC VENT KIT FOR COMBUSTION AIR INTAKE AND FLUE EXHAUST. 4. PROVIDE ADP 2 INCH BASE FILTER RACK FOR FIELD PROVIDED MERV 13 FILTER. 5. PROVIDE LOW-VOLTAGE OVERFLOW SWITCH TO SECONDARY DRAIN CONNECTION OF EVAPORATOR COIL. (MODEL SS3 OR APPROVED EQUAL.) 6. TIED INTO AREA SMOKE DETECTOR SYSTEM FOR UNIT SHUTDOWN. THE AREA TYPE SMOKE DETECTORS SHALL SEND A SIGNAL TO THE BUILDING FIRE ALARM SYSTEM WHICH SHALL SEQUENCE THE SHUT-DOWN OF THE UNIT PER CMC 608.0 EXCEPTION 1.

NOTE: - INSTALL UNITS AND PROVIDE ALL ACCESSORIES AS PER MANUFACTURER GUIDELINES.

SPLIT SYSTEM CONDENSING UNIT SCHEDULE (OUTDOOR)

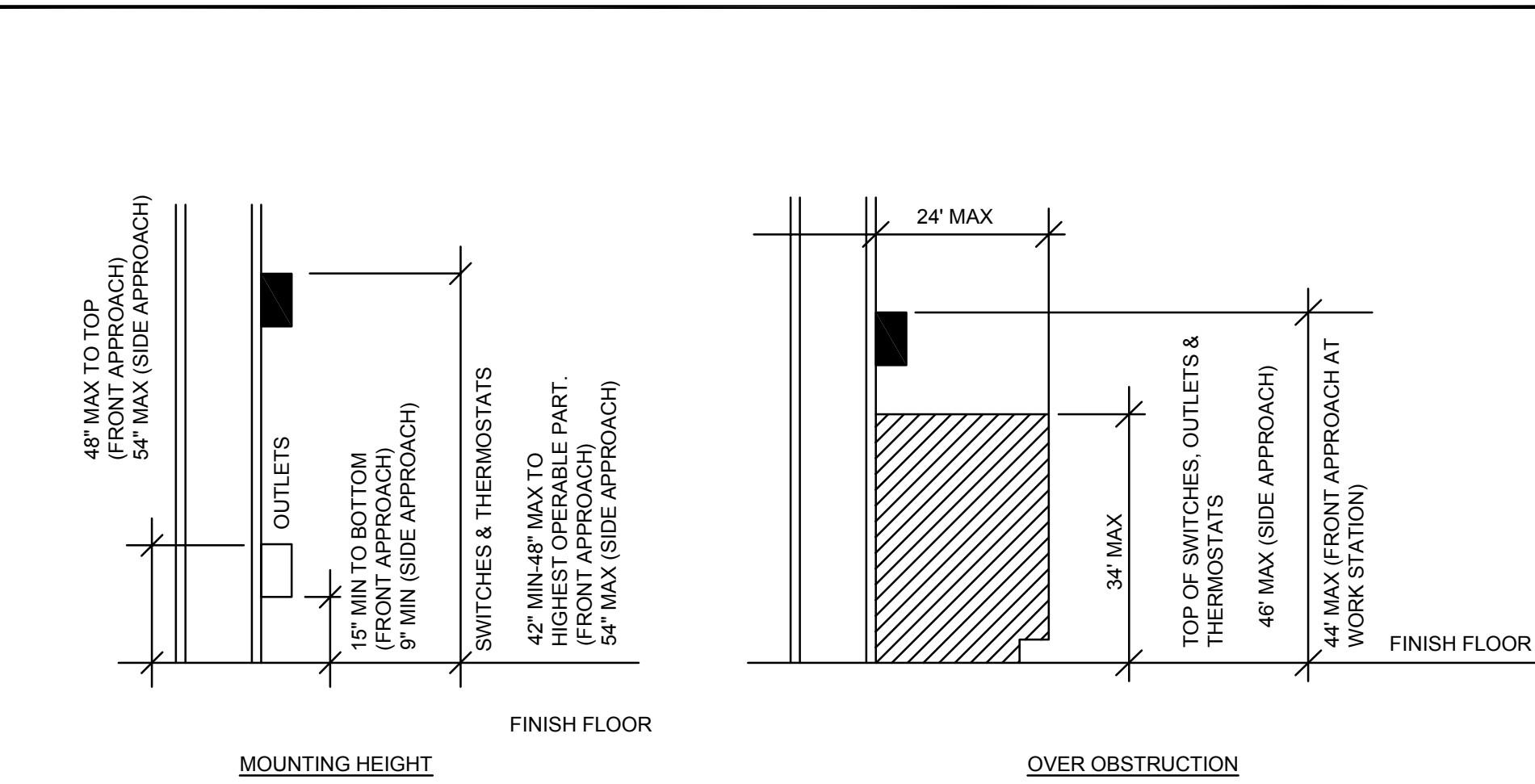
TAG	MFR & MODEL #	LOCATION	COOLING CAPACITY		ELECTRICAL					SEER/EEER	OPER. WT (LBS)		APPROXIMATE WxLxH (IN)		INTERLOCK WITH	ANCHORAGE DETAIL	REMARKS
			TOT(BTU/HR)	SEN(BTU/HR)	V	PH	HZ	MCA	MOCP		ORIGINAL	NEW	ORIGINAL	NEW			
CU 8	CARRIER 24AHA448006	GROUND	41,330	38,530	460	3	60	8.4	15	14.0/11.7	285	250	35x30x40	45x17x37	FAU 8	5 M-3.2	1, 2
CU 9	CARRIER 24AHA448006	GROUND	41,330	38,530	460	3	60	8.4	15	14.0/11.7	285	250	35x30x40	45x17x37	FAU 9	5 M-3.2	1, 2
CU 10	CARRIER 24AHA448006	GROUND	41,330	38,530	460	3	60	8.4	15	14.0/11.7	285	250	35x30x40	45x17x37	FAU 10	5 M-3.2	1, 2

1. 3/8" LIQUID REFRIGERANT LINE. 7/8" SUCTION REFRIGERANT LINE. CONFIRM LINE SIZES IN FIELD BASED ON TOTAL EQUIVALENT LENGTH OF REFRIGERANT PIPING LENGTHS INSTALLED. 2. PROVIDE NEOPRENE PAD

DIFFUSER SCHEDULE

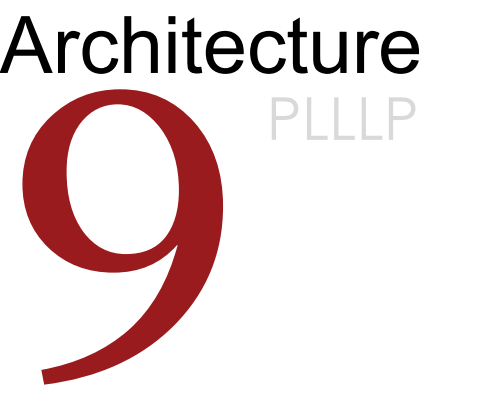
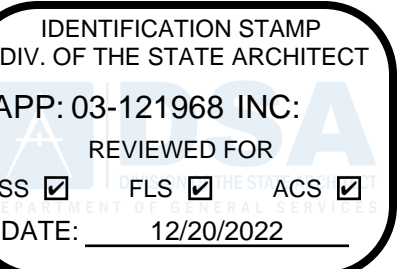
SYMBOL	MANUFACTURER & MODEL NO.	TYPE	NECK SIZE (IN)	OVERALL VISIBLE DIMENSION (INxIN)	CFM RANGE	OBD	MAX NC	NOTES	REMARKS
A	TITUS PAR	STEEL PERFORATED PANEL / T-BAR / CEILING RETURN	6"Ø	24x24	0-100	N	< 25	T-BAR	1 2
A	TITUS PAR		8"Ø	24x24	101-180	N	< 25	T-BAR	1 2
A	TITUS PAR		10"Ø	24x24	181-285	N	< 25	T-BAR	1 2
A	TITUS PAR		12"Ø	24x24	286-410	N	< 25	T-BAR	1 2
A	TITUS PAR		14"Ø	24x24	411-560	N	< 25	T-BAR	1 2
A	TITUS PAR		16"Ø	24x24	561-730	N	< 25	T-BAR	1 2
A	TITUS PAR		18 x 18	24x24	731-1180	N	< 25	T-BAR	1 2
B	TITUS MCD	STEEL MODULAR CORE / SQUARE SUPPLY CEILING DIFFUSER	6 x 6	24x24	0-125	N	< 25	T-BAR	1 2
B	TITUS MCD		8 x 8	24x24	126-220	N	< 25	T-BAR	1 2
B	TITUS MCD		10 x 10	24x24	221-350	N	< 25	T-BAR	1 2
B	TITUS MCD		12 x 12	24x24	351-500	N	< 25	T-BAR	1 2
B	TITUS MCD		14 x 14	24x24	501-680	N	< 25	T-BAR	1 2
B	TITUS MCD		16 x 16	24x24	681-855	N	< 25	T-BAR	1 2
B	TITUS MCD	18 x 18	24x24	856-1000	N	< 25	T-BAR	1 2	
C	CAPTIVE AIRE DI-DSP	DROP-IN PERFORATED SUPPLY PLENUM DIFFUSER	12"Ø	24x24	600	N	< 30	T-BAR	1 2

REMARKS:
 1 PROVIDE SQUARE TO ROUND NECK ADAPTORS AS REQUIRED ON PLANS. 2 CONTRACTOR TO COORDINATE WITH ARCHITECT FOR BORDER, COLOR, & FINISHES.



NOTE: 1. ALL CONDUIT & WIRING SHALL BE CONCEALED WITHIN CEILING AND WALL. NO EXPOSED CONDUIT OR WIRING WILL BE ACCEPTED. 2. ALL LOW VOLTAGE CONTROL WIRING SHALL BE BY CONTROL CONTRACTOR.

THERMOSTAT/ HUMIDSTAT MOUNTING DETAIL NOT TO SCALE 1



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 a9contact@architecture9.com

ARCHITECTS STAMP:



CONSULTANT:



CONSULTANTS STAMP



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BONITA UNIFIED SCHOOL DISTRICT

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SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

JOB NUMBER: 12.03.00
 DATE: 08/25/21

REVISION: DATE: _____
 REVISION: DATE: _____

DRAWING TITLE:
MECHANICAL SCHEDULES

DRAWING NO.:

M0.2

KITCHEN MAKE UP AIR UNIT

ITEM NO.	MANUFACTURER MODEL NO.	AREA SERVED	LOCATION	FUNCTION	FAN TYPE	DRIVE	AIR FLOW CFM	E.S.P. IN. H ₂ O	EST. FAN RPM	EST. FAN BHP	DX COOLING PERFORMANCE					DX REHEAT PERFORMANCE		INDIRECT GAS HTG					ELECTRICAL MOTOR DATA					NOISE LEVEL SONES	WEIGHT (LBS)	MOUNTING DETAIL	REMARKS
											TOTAL CAPACITY	SENS. CAPACITY	REF. TYPE	EAT °F/FWB	LAT °F/FWB	MAX REHEAT CAPACITY	LAT °F/FWB	BTU INPUT	BTU OUTPUT	EAT °F	LAT °F	AFUE	HP	V-Ø-HZ	FLA	MCA	MOCp				
MUA-1	CAPTIVE AIRE CASRTU2-1.150-18 -7.5T-DOAS	KITCHEN	ON GROUND	MAKEUP AIR	PLENUM	DIRECT	2525	0.5	-	1.37	102,000 BTUH	102,000 BTUH	R410A	100	59.6	60,000 BTUH	70.0	150,000 BTUH	120,000 BTUH	36.0	72.0	80%	5.0	460-3-60	-	20.8	25	-	1291	M3.2	1 2 3 4 5 6 7 9
MUA-2	CAPTIVE AIRE AI-15D	KITCHEN	ROOFTOP	MAKEUP AIR	PLENUM	DIRECT	1450	0.5	1580	0.5790	NOT APPLICABLE					NOT APPLICABLE		NOT APPLICABLE					1.0	115-1-60	11.6	14.5	25	-	345	M3.3	2 4 5 8 8 9

REMARKS:

1 KITCHEN EXHAUST FANS AND MAKEUP AIR FAN TO BE INTERLOCKED TO AUTOMATICALLY OPERATE UPON DETECTION OF Δ15°F FROM ROOM TEMPERATURE SENSOR AND DUCT LOCATED TEMPERATURE SENSOR IN ACCORDANCE TO IMC 507.2.1.1. MANUAL SWITCH ACTIVATION ALSO TO BE PROVIDED.

2 OPERATING WEIGHT INCLUDES SUM OF FAN WEIGHT AND ALL CURBS AND ACCESSORIES.

3 PROVIDE DISCHARGE AIR TEMPERATURE SENSOR - WIRED IN UNIT, MOUNTED IN SUPPLY DUCT.

4 PROVIDE OUTSIDE AIR TEMPERATURE SENSOR, DIRTY FILTER ON/OFF SWITCH.

5 PROVIDE 2" MERV 8 AND 4" MERV 13, 8-20x20x2 FILTERS.

6 V-BANK TA-13 FILTERS W/INTAKE EZ FILTERS - OUTDOOR

7 HORIZONTAL DISCHARGE.

8 DOWN DISCHARGE.

9 TIED INTO AREA SMOKE DETECTOR SYSTEM FOR UNIT SHUTDOWN. THE AREA TYPE SMOKE DETECTORS SHALL SEND A SIGNAL TO THE BUILDING FIRE ALARM SYSTEM WHICH SHALL SEQUENCE THE SHUT-DOWN OF THE UNIT PER CMG 608.0 EXCEPTION 1.

KITCHEN EXHAUST FAN SCHEDULE

ITEM NO.	MANUFACTURER & MODEL NO.	AREA SERVED	LOCATION	FAN TYPE	DRIVE	MOTOR ENCL.	AIR QTY CFM	ESP IN H ₂ O	FAN RPM	ELECTRICAL			FLA	NOISE LEVEL SONES	WEIGHT (LBS)	MTG. DETAIL	REMARKS
										B.H.P.	H.P.	V-Ø-HZ					
KEF-1	CAPTIVEAIRE DU85HFA	HOOD #1	ROOF	ROOFTOP UPPLAST	DIRECT	ODP, PREMIUM	1575	1.00	1309	0.3940	0.750	115-1-60	8.9	12	100	M3.2	1 2 3 4 5 6 7

REMARKS

1 THERMAL OVERLOAD MOTOR. 2 BACK DRAFT DAMPER. 3 INTERLOCK EXHAUST FAN WITH MUA-1. 4 FIRE SUPPRESSION SYSTEM AND KITCHEN HOOD EXHAUST SYSTEM.

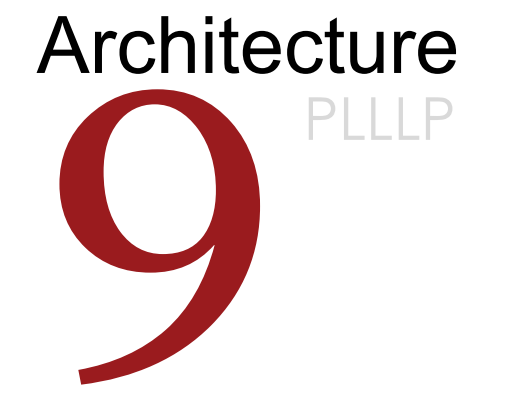
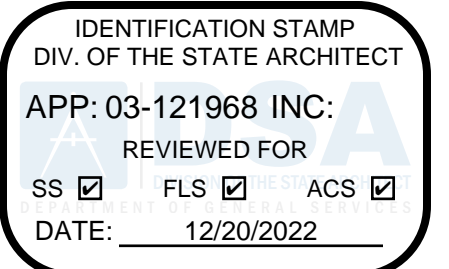
5 ROOF CURB PROVIDED BY CAPTIVEAIRE. 6 UL705 AND UL762 AND ULC-S645 7 HIGH HEAT OPERATION 300F (149C) 8 NEMA 3R SAFETY DISCONNECT SWITCH.

* FURNISHED BY CAPTIVEAIRE. INTERLOCKING CONTROL FURNISHED AND INSTALLED BY CAPTIVEAIRE. REFER TO SHEETS M3.5 AND M3.6.

AIR BALANCE SCHEDULE

EQUIPMENT	EXHAUST AIR (CFM)	MAKE-UP AIR (CFM)	SUPPLY AIR (CFM)	RETURN AIR (CFM)	OUTSIDE AIR (CFM)	REMARKS
KEF-1 (SERVES H-2; QTY: 1)	(1575)					INTERLOCK KEF-1 & MUA-1
H-1 (QTY: 6)	(3600)					
MUA-1		(2525)				
MUA-2		(1450)				
FAU-8			(1600)	(1200)	(400)	
FAU-9			(1600)	(1200)	(400)	
FAU-10			(1600)	(1200)	(400)	
SUB-TOTAL	(5175)	(3975)			(1200)	
TOTAL =	(5175)	(3975)				PRESSURIZATION IS NEUTRAL

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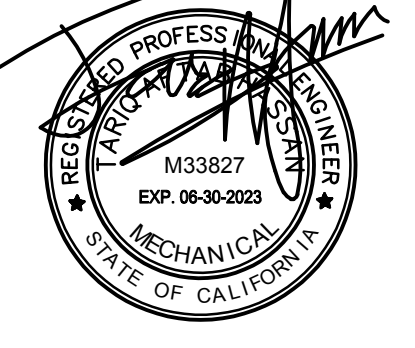
ARCHITECTS STAMP:



CONSULTANT:



CONSULTANTS STAMP



SCHOOL DISTRICT:
BONITA UNIFIED SCHOOL DISTRICT

PROJECT:
SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

JOB NUMBER: 12.03.00
DATE: 08/25/21

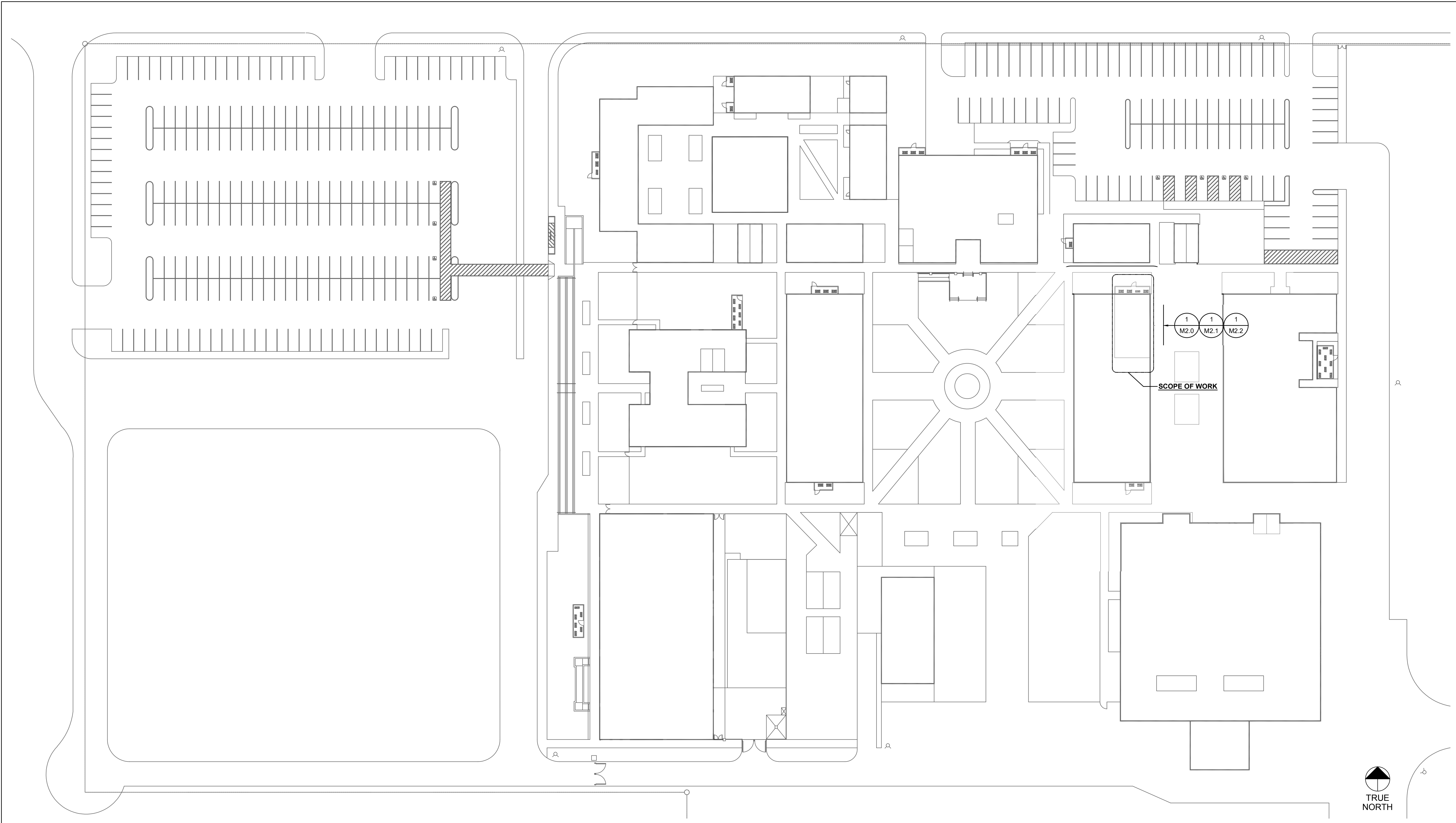
REVISION: DATE: _____
REVISION: DATE: _____

DRAWING TITLE:
MECHANICAL SCHEDULES

DRAWING NO.:

M0.3

P:\P-2021\2021-072-00 San Dimas HS Culinary Arts Classroom Mod\10_BIM-CAD\MEP\M1.1.dwg 2/15/2022 10:50 AM Katherine M. Kilono



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-121968 INC:
REVIEWED FOR
SS FLS ACS
DATE: 12/20/2022

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9 PLLLP

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CONSULTANTS STAMP



SCHOOL DISTRICT:

**BONITA UNIFIED
SCHOOL DISTRICT**

PROJECT:

**SAN DIMAS
HIGH SCHOOL
CULINARY ARTS
CLASSROOM
MODERNIZATION**



MECHANICAL SITE PLAN

SCALE:
1" = 40'-0"

1

GENERAL NOTES

1. REFER TO MECHANICAL ENLARGED PLANS FOR MECHANICAL LAYOUT.

KEY NOTES

JOB NUMBER: 12.03.00
DATE: 08/25/21

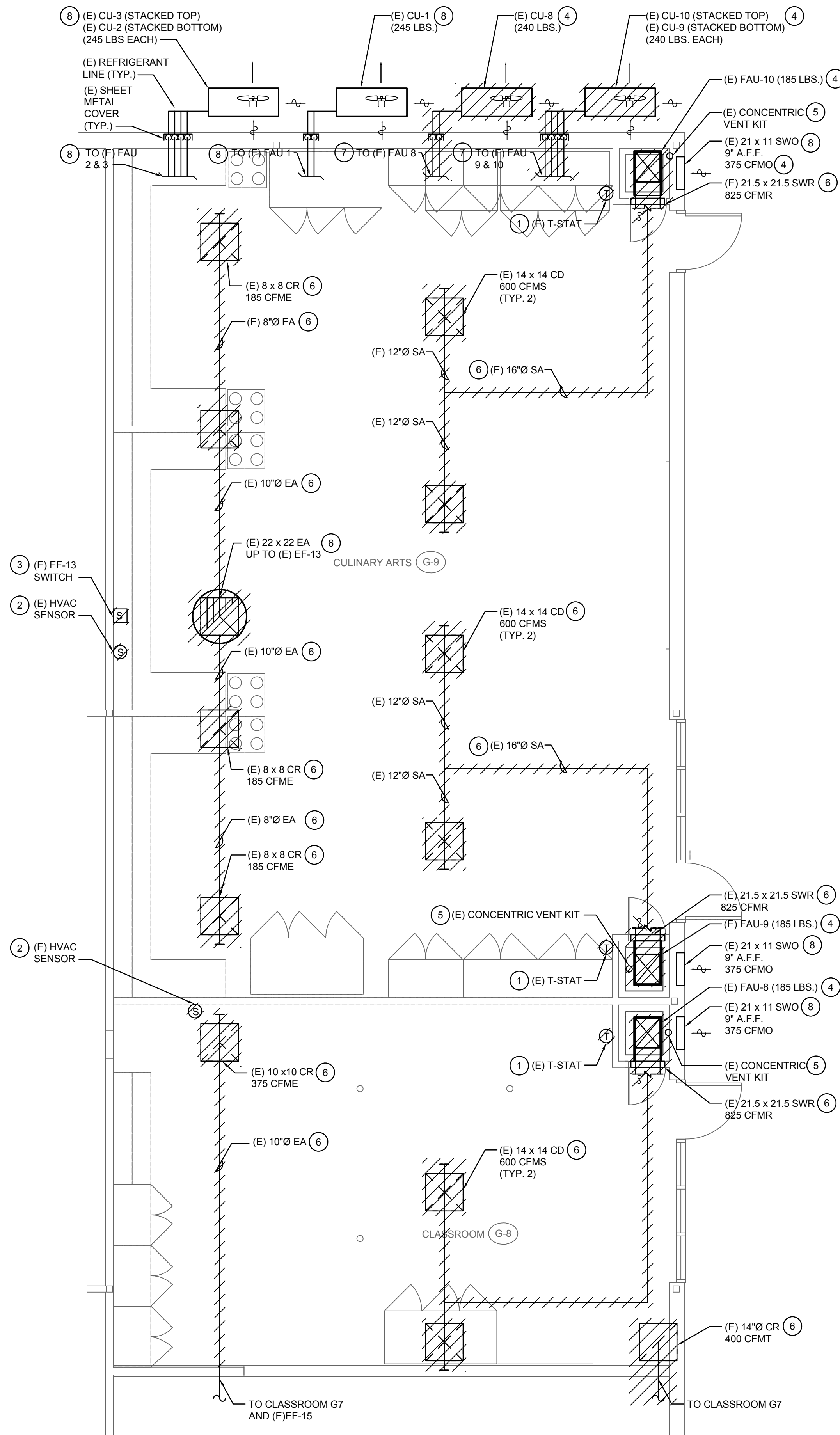
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REVISION: DATE: _____

DRAWING TITLE:
**MECHANICAL
SITE PLAN**

DRAWING NO.:

M1.1

P:\P-2021\2021-072-00 San Dimas HS Culinary Arts Classroom Mod\10_BIM-CAD\MEP\102.Dwg 2/15/2022 10:00 AM Katherine M. Kilbano



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

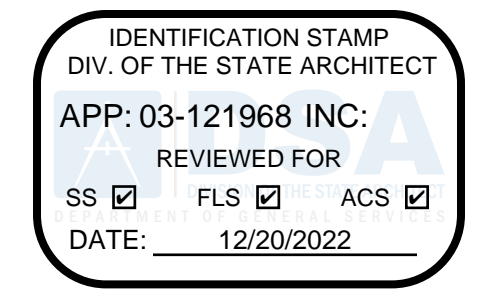
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GENERAL DEMOLITION NOTES

1. CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY THE SCOPE OF DEMOLITION AND NEW WORK.
2. DEMOLITION IS INDICATED AS A CONVENIENCE FOR THE CONTRACTOR AND MAY NOT INDICATE THE FULL SCOPE OF DEMOLITION TO COMPLETE THE NEW WORK.
3. ANY VENTS, CONDUIT, & GAS LINES LOCATED ON THE ROOF THAT ARE NOT SHOWN ON THIS SHEET AND/OR NOT EXPLICITLY INDICATED TO BE DEMOLISHED, SHALL REMAIN AND BE PROTECTED IN PLACE. CONTRACTOR TO FIELD VERIFY EXISTING ROOF CONDITIONS, AND TAKE MEASURES TO DEMOLISH ON THE ITEMS INDICATED. SEE ELECTRICAL AND PLUMBING DRAWINGS FOR DETAILS.
4. PATCH AND REPAIR EXISTING SURFACES AS REQUIRED TO COMPLETE THE NEW WORK.
5. ALL EXISTING EXPOSED GAS PIPING, ELECTRICAL CONDUIT, AND DUCTWORK NO LONGER BEING USED SHALL BE REMOVED FROM THE EQUIPMENT CLOSET, CLASSROOMS, AND ROOF.
6. BEFORE COMMENCEMENT OF WORK, CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS AND DIMENSIONS OF ALL EXISTING EQUIPMENT AND ELECTRICAL SERVICES IN THE AREA OF CONSTRUCTION. NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES.

DEMO KEY NOTES

- 1 EXISTING T-STAT TO BE DEMOLISHED.
- 2 EXISTING SENSOR TO BE DEMOLISHED.
- 3 EXISTING SWITCH TO BE DEMOLISHED.
- 4 EXISTING HVAC EQUIPMENT TO BE DEMOLISHED.
- 5 EXISTING CONCENTRIC VENT KIT TO BE DEMOLISHED. ROOF OPENING WILL BE REUSED.
- 6 EXISTING DUCTWORK AND AIR DISTRIBUTION DEVICE TO BE DEMOLISHED.
- 7 EXISTING REFRIGERANT PIPING TO BE DEMOLISHED. WALL OPENING WILL BE REUSED.
- 8 NOT IN SCOPE OF WORK. EXISTING DEVICE TO REMAIN AND PROTECTED IN PLACE.



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SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

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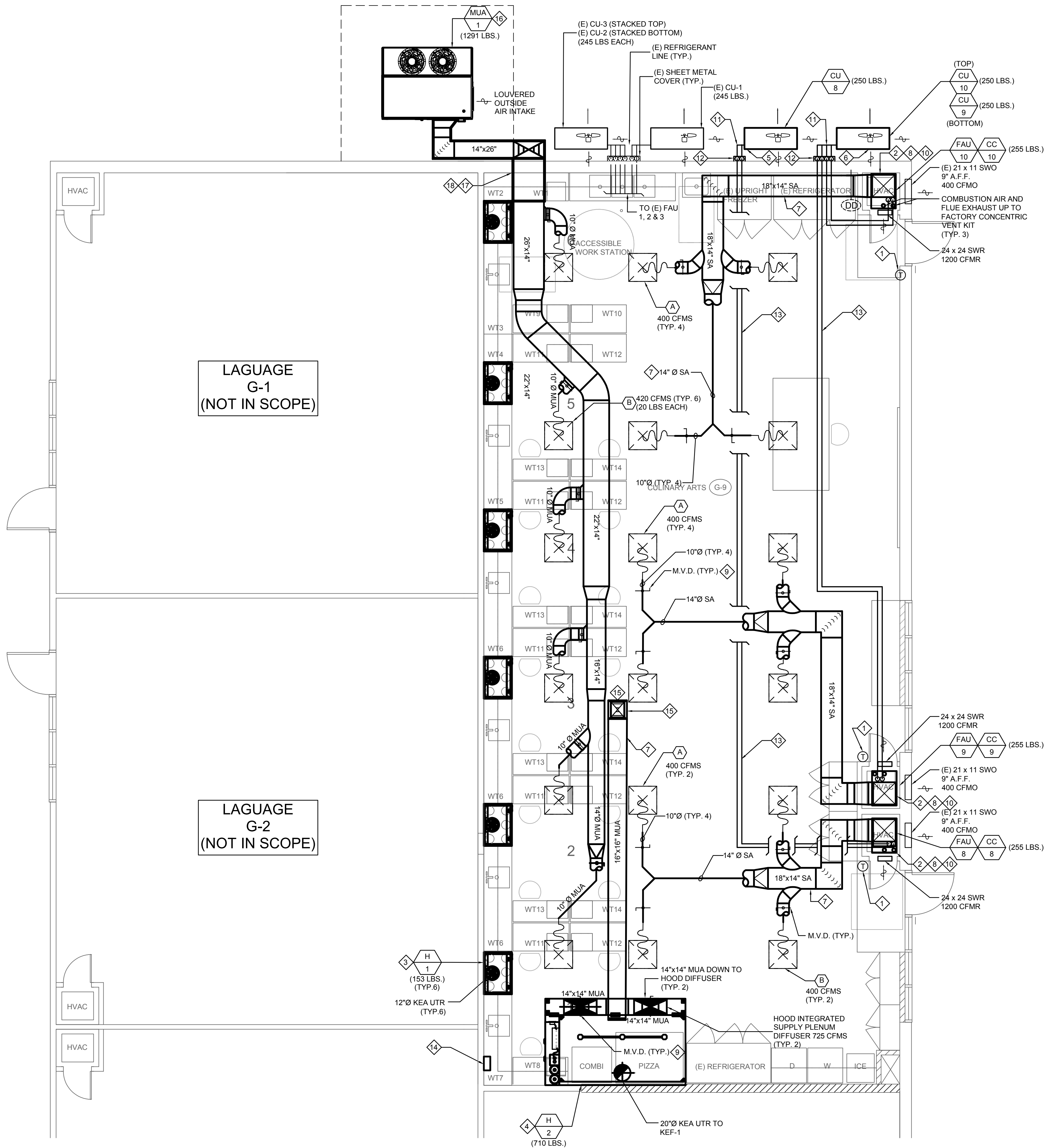
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DRAWING TITLE:
DEMOLITION MECHANICAL FLOOR PLANS

DRAWING NO.:

M2.0

P:\P-2021\2021-072-00 San Dimas HS Culinary Arts Classroom Mod\10_BIM-CAD\MEP\W2.1.dwg 2/15/2022 10:00 AM Katherine M. Kilbom



LAGUAGE G-1 (NOT IN SCOPE)

LAGUAGE G-2 (NOT IN SCOPE)

GENERAL REMODEL NOTES

1. CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES AS NECESSARY PRIOR TO INSTALLATION.
2. CONTRACTOR SHALL MAINTAIN PROPER CLEARANCES FROM ALL ELECTRICAL EQUIPMENT AND SERVICE CLEARANCES FOR MECHANICAL EQUIPMENT.
3. CONTRACTOR SHALL INSTALL REFRIGERANT PIPING SUCH THAT EQUIPMENT AND ALL APPURTENANCES ARE EASILY SERVICEABLE.
4. FRESH AIR INTAKES SHALL BE 10'-0" MIN AWAY FROM ALL EXHAUST OUTLETS, PLUMBING VENTS, AND FLUES.
5. CONTRACTOR SHALL COORDINATE EXACT EQUIPMENT PAD SIZES AND LOCATIONS WITH OTHER TRADES PRIOR TO INSTALLATION.
6. CONTRACTOR SHALL INSULATE ALL REFRIGERANT PIPING INCLUDING JOINTS & PIPING SUPPORTS AND ALL DUCTWORK. INSULATION WALL THICKNESS SHALL BE PER 2019 ENERGY CODE REQUIREMENT. PROVIDE WEATHER JACKETING FOR ALL EXTERIOR REFRIGERANT PIPING.
7. BEFORE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS AND DIMENSIONS OF ALL EXISTING EQUIPMENT, ELECTRICAL SERVICE IN THE AREA OF CONSTRUCTION, AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
8. NEW SUPPLY AND RETURN GRILLES SHALL NOT BE LOCATED WITHIN 36" OF AN EXISTING FIRE ALARM (FA) DETECTOR/ DEVICE.
9. CONTRACTOR TO HAVE ALL SALVAGE RIGHTS TO ALL DEMOLISHED COMPONENTS AND EQUIPMENT. SALVAGE RIGHTS TO BE REFLECTED IN THE BID PROPOSAL TO THE "DISTRICT" BY WAY OF A BID COST REDUCTION. THE "DISTRICT" DOES NOT WANT ANY DEMOLISHED COMPONENTS OR EQUIPMENT BACK.

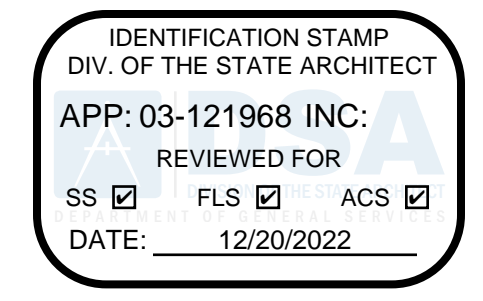
REMODEL KEY NOTES

1. PROVIDE HARDWIRED THERMOSTAT. MOUNT AT 48" A.F.F. REFER TO MECHANICAL SCHEDULE FOR TSTAT MODEL. SEE DETAIL 1/M0.2.
2. CLOSET TYPE FORCED AIR FURNACE UNIT AND EVAPORATOR COIL. SEE DETAIL 1/M3.2.
3. RESIDENTIAL KITCHEN EXHAUST HOOD WITH INTEGRATED EXHAUST FAN. SEE SHEET M4.1.
4. TYPE I KITCHEN EXHAUST HOOD WITH ANSUL SYSTEM. SEE SHEET M4.2.
5. OUTDOOR CONDENSING UNIT ON GRADE. SEE DETAIL 5/M3.2.
6. STACKED OUTDOOR CONDENSING UNITS. SEE DETAIL 5/M3.2.
7. CEILING HUNG DUCTWORK. SEE DETAIL 3/M3.1.
8. INTERLOCK TO (E) AREA SMOKE DETECTION SYSTEM FOR SHUTDOWN.
9. MANUAL VOLUME DAMPER.
10. PROVIDE FACTORY CONCENTRIC VENT KIT FOR FORCED AIR FURNACE UNIT COMBUSTION AIR INTAKE AND FLUE EXHAUST. REUSE EXISTING OPENING. SEE DETAIL 7/M3.1.
11. 3/8" (RL) AND 5/8" (RS) FROM OUTDOOR CONDENSING UNIT TO INDOOR CLOSET FURNACE EVAPORATOR COIL. SEE DETAIL 7/M3.2.
12. WALL MOUNTED REFRIGERANT PIPING. PROVIDE SHEET METAL COVER ON REFRIGERANT PIPING. SEE DETAIL 6/M3.1.
13. CEILING HUNG REFRIGERANT PIPING. SEE DETAIL 5/M3.1.
14. ANSUL SYSTEM CONTROL PANEL. CONTRACTOR TO FIELD VERIFY ITS LOCATION.
15. 16"x16" MUA UP TO ROOF AND TRANSITION TO MUA-2.
16. PROVIDE PACKAGED DEDICATED OUTSIDE AIR UNIT MOUNTED ON 6" CONCRETE PAD. UNIT SHALL BE INSTALLED WITH SMOOTH DUCTS TRANSITION TO SUPPLY(L) AIR DUCT OPENING. SEE DETAIL 2/M3.2.
17. PROVIDE 29"x17" WALL OPENING FOR SUPPLY AIR DUCT. REFER TO DETAIL 13/S0.3 FOR DUCT OPENING TO THE SHEAR WALL.
18. PROVIDE DOUBLE WALL INSULATED DUCTWORK FOR EXPOSED DUCTWORK OUTSIDE THE BUILDING.



SCALE: 1/4" = 1'-0" 2

REMODEL MECHANICAL PLAN



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SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

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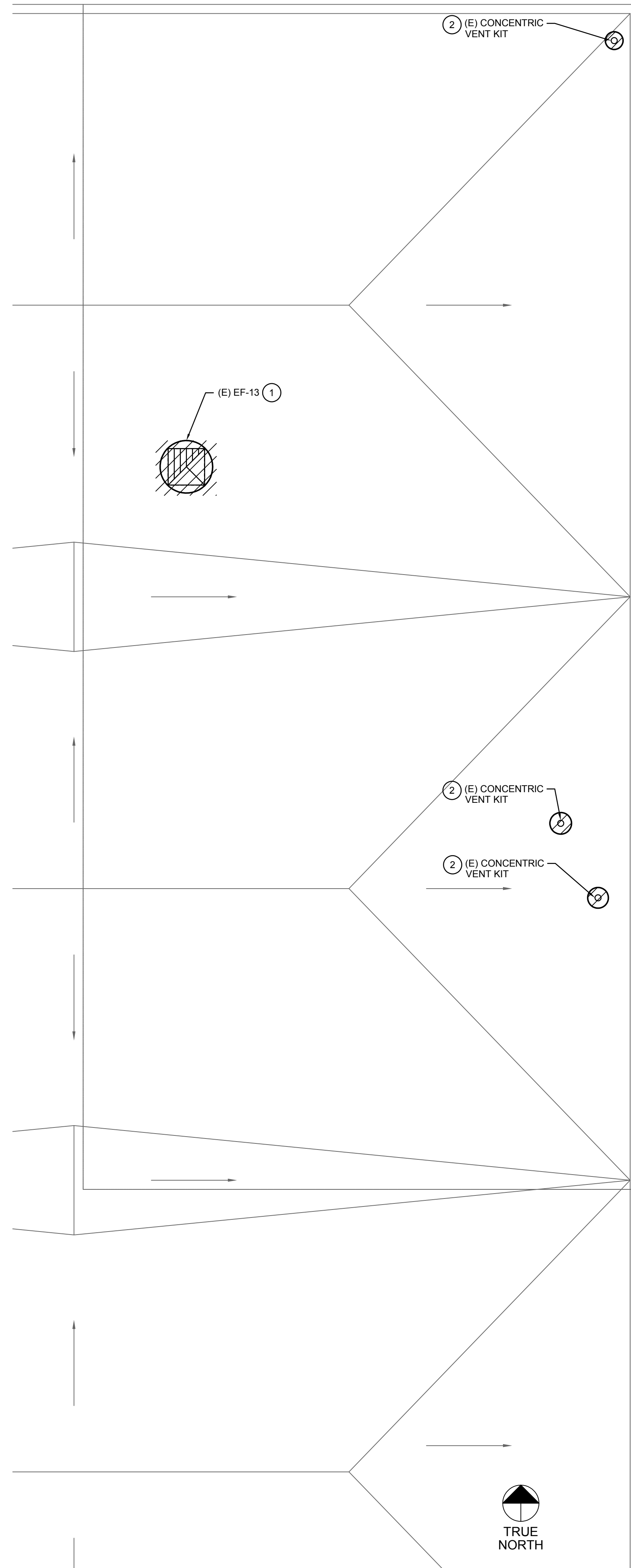
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DRAWING TITLE:
REMODEL MECHANICAL FLOOR PLANS

DRAWING NO.:

M2.1

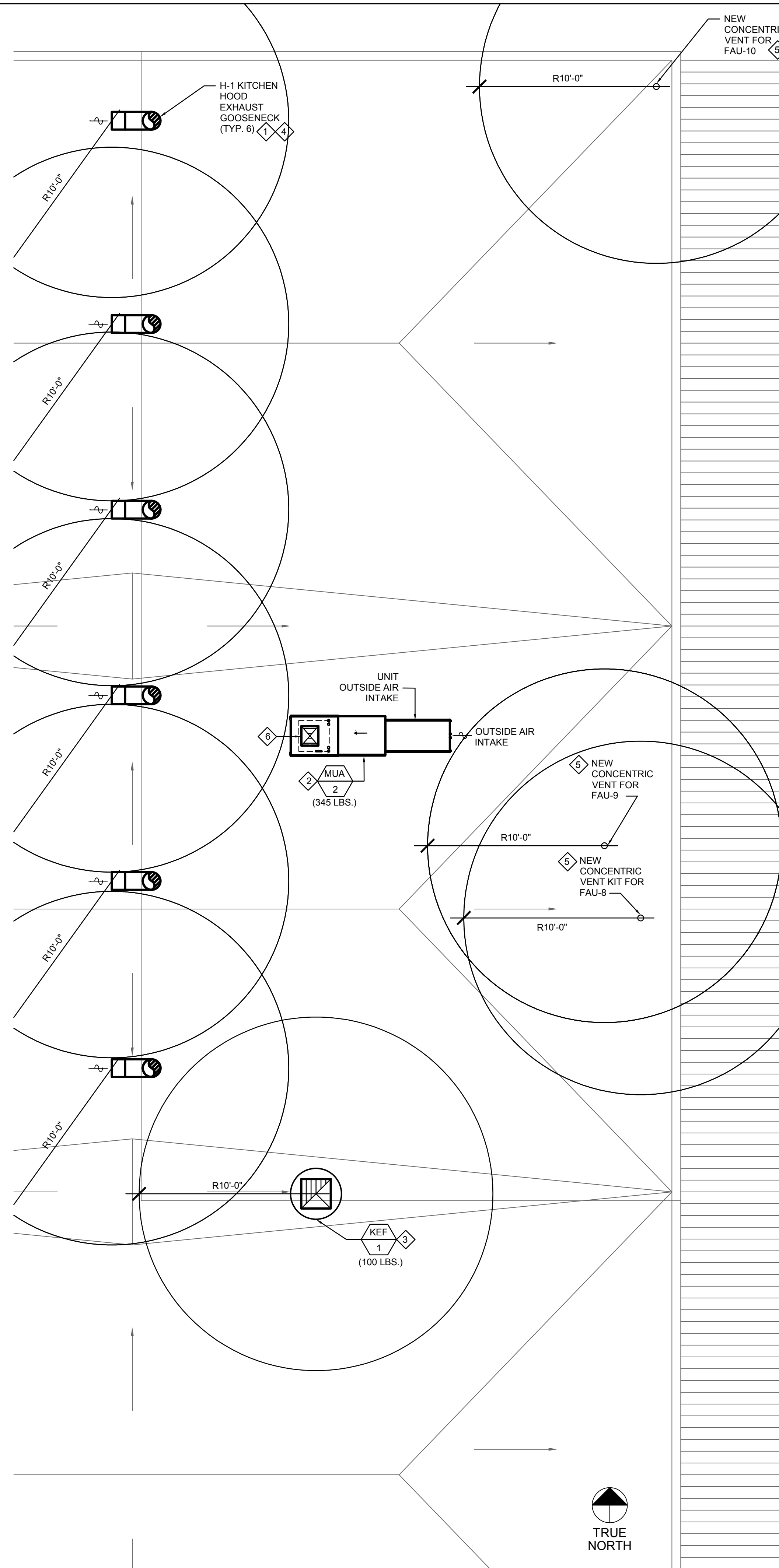
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DEMOLITION MECHANICAL ROOF PLAN

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

1



REMODEL MECHANICAL ROOF PLAN

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

2

GENERAL DEMOLITION NOTES

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DEMO KEY NOTES

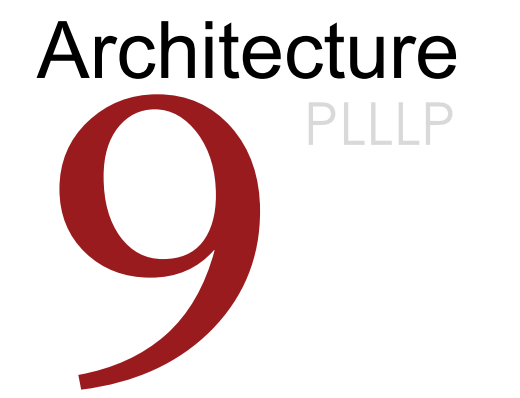
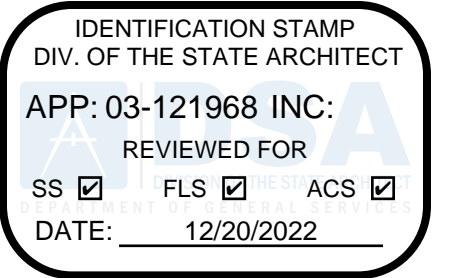
- EXISTING ROOFTOP EXHAUST FAN TO BE DEMOLISHED. PATCH AND REPAIR THE OPENING.
- EXISTING CONCENTRIC VENT KIT TO BE DEMOLISHED. EXISTING OPENING TO BE REUSED FOR NEW CONCENTRIC VENT KIT.

GENERAL REMODEL NOTES

- CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES AS NECESSARY PRIOR TO INSTALLATION.
- CONTRACTOR SHALL MAINTAIN PROPER CLEARANCES FROM ALL ELECTRICAL EQUIPMENT AND SERVICE CLEARANCES FOR MECHANICAL EQUIPMENT.
- CONTRACTOR SHALL INSTALL REFRIGERANT PIPING SUCH THAT EQUIPMENT AND ALL APPURTENANCES ARE EASILY SERVICEABLE.
- FRESH AIR INTAKES SHALL BE 10'-0" MIN AWAY FROM ALL EXHAUST OUTLETS, PLUMBING VENTS, AND FLUES.
- CONTRACTOR SHALL COORDINATE EXACT EQUIPMENT PAD SIZES AND LOCATIONS WITH OTHER TRADES PRIOR TO INSTALLATION.
- CONTRACTOR SHALL INSULATE ALL REFRIGERANT PIPING INCLUDING JOINTS & PIPING SUPPORTS AND ALL DUCTWORK. INSULATION WALL THICKNESS SHALL BE PER 2019 ENERGY CODE REQUIREMENT. PROVIDE WEATHER JACKETING FOR ALL EXTERIOR REFRIGERANT PIPING.
- BEFORE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS AND DIMENSIONS OF ALL EXISTING EQUIPMENT, ELECTRICAL SERVICE IN THE AREA OF CONSTRUCTION, AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
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REMODEL KEY NOTES

- 12"Ø EXHAUST GOOSE FROM RESIDENTIAL HOOD (TAG: H-1) BELOW.
- ROOFTOP MAKE UP AIR FAN UNIT. SEE DETAIL 4/M3.2.
- ROOFTOP EXHAUST FAN. SEE DETAIL 6/M3.2.
- KITCHEN EXHAUST GOOSENECK. SEE DETAIL 3/M3.2.
- FORCE AIR FURNACE CONCENTRIC VENT KIT. SEE DETAIL 7/M3.1.
- 11"x13" MUA TRANSITION TO 16"x16" MUA DUCT DOWN TYPE 1 HOOD (TAG: H-2) BELOW.



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SCHOOL DISTRICT:

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SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

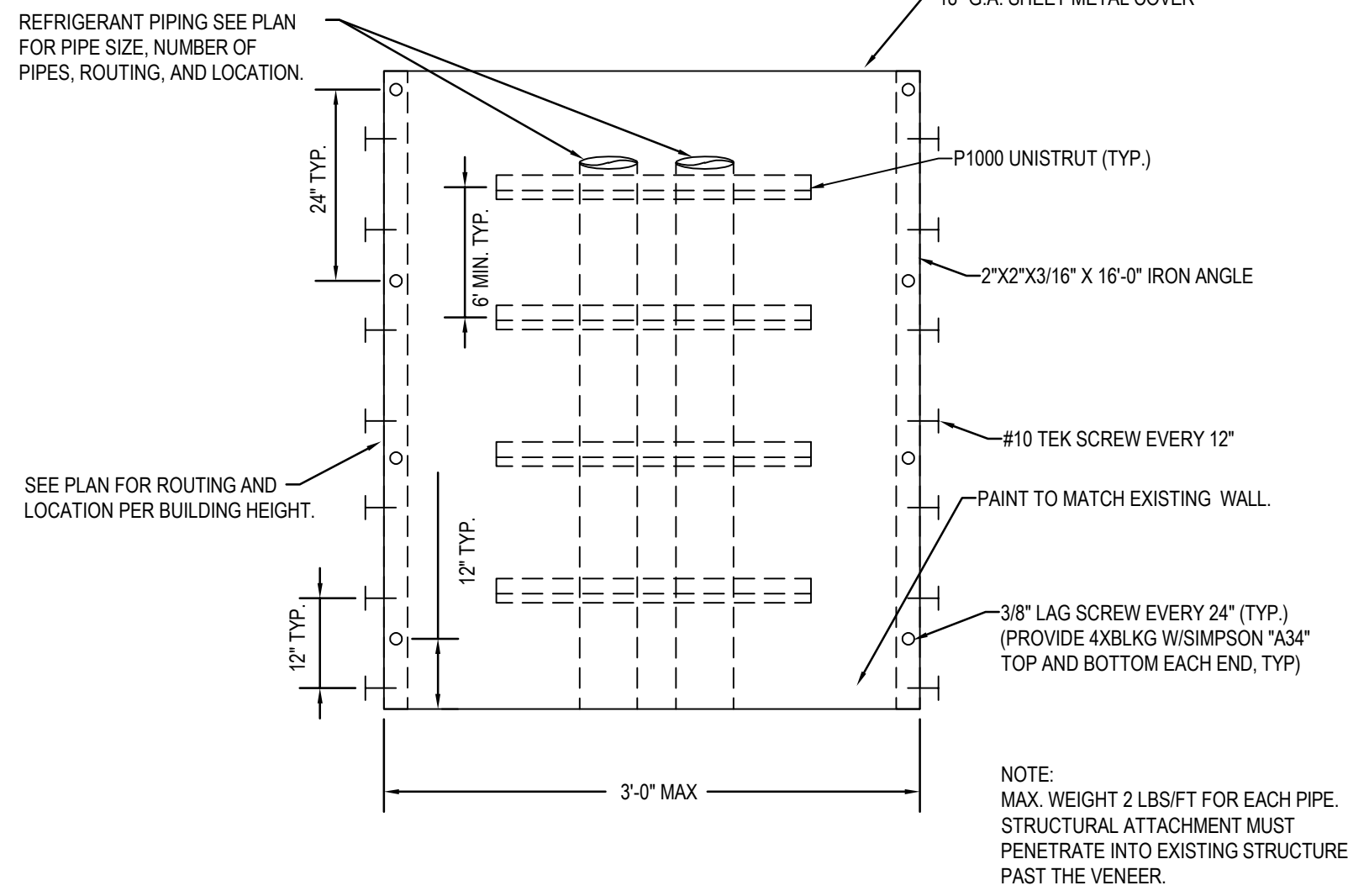
JOB NUMBER: 12.03.00
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DRAWING TITLE:
MECHANICAL DEMO AND REMODEL ROOF PLAN

DRAWING NO.:

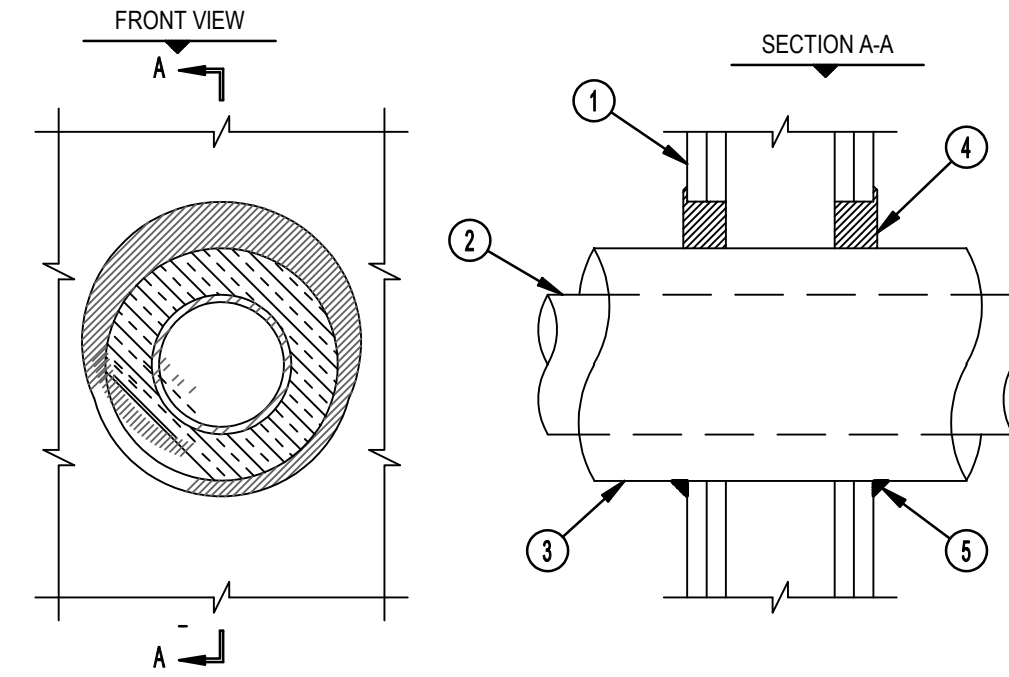
M2.2



U.L. SYSTEM NO. WL5029 INSULATED METAL PIPE THROUGH 1-HR. OR 2-HR. GYPSUM WALL ASSEMBLY

F RATING = 1-HR. AND 2-HR.
T RATING = 1/2 HR., 1-HR., AND 1-3/4 HR. (SEE U.L. FIRE RESISTANCE DIRECTORY)

L RATING AT AMBIENT = 4 CFMSQ. FT.
L RATING AT 400°F = LESS THAN 1 CFMSQ. FT.



- NOTES:
1. GYPSUM WALL ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING)(2-HR. SHOWN).
 2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
 - A. MAXIMUM 10" DIAMETER STEEL PIPE (SCHEDULE 40 OR THINNER).
 - B. MAXIMUM 6" DIAMETER COPPER PIPE.
 - C. MAXIMUM 4" DIAMETER EMT.
 - D. MAXIMUM 4" DIAMETER STEEL CONDUIT.
 3. MAXIMUM 2" THICK GLASS FIBER PIPE INSULATION WITH AN ALL SERVICE JACKET.
 4. HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT:
 - A. MINIMUM 5/8" DEPTH, FOR A 1-HR. FIRE-RATING.
 - B. MINIMUM 1-1/4" DEPTH, FOR A 2-HR. FIRE-RATING.
 5. MINIMUM 1/2" CROWN HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT AT PIPE INSULATION/WALL INTERFACE.
 6. SIMILAR FOR CONDENSER WATER PIPES.

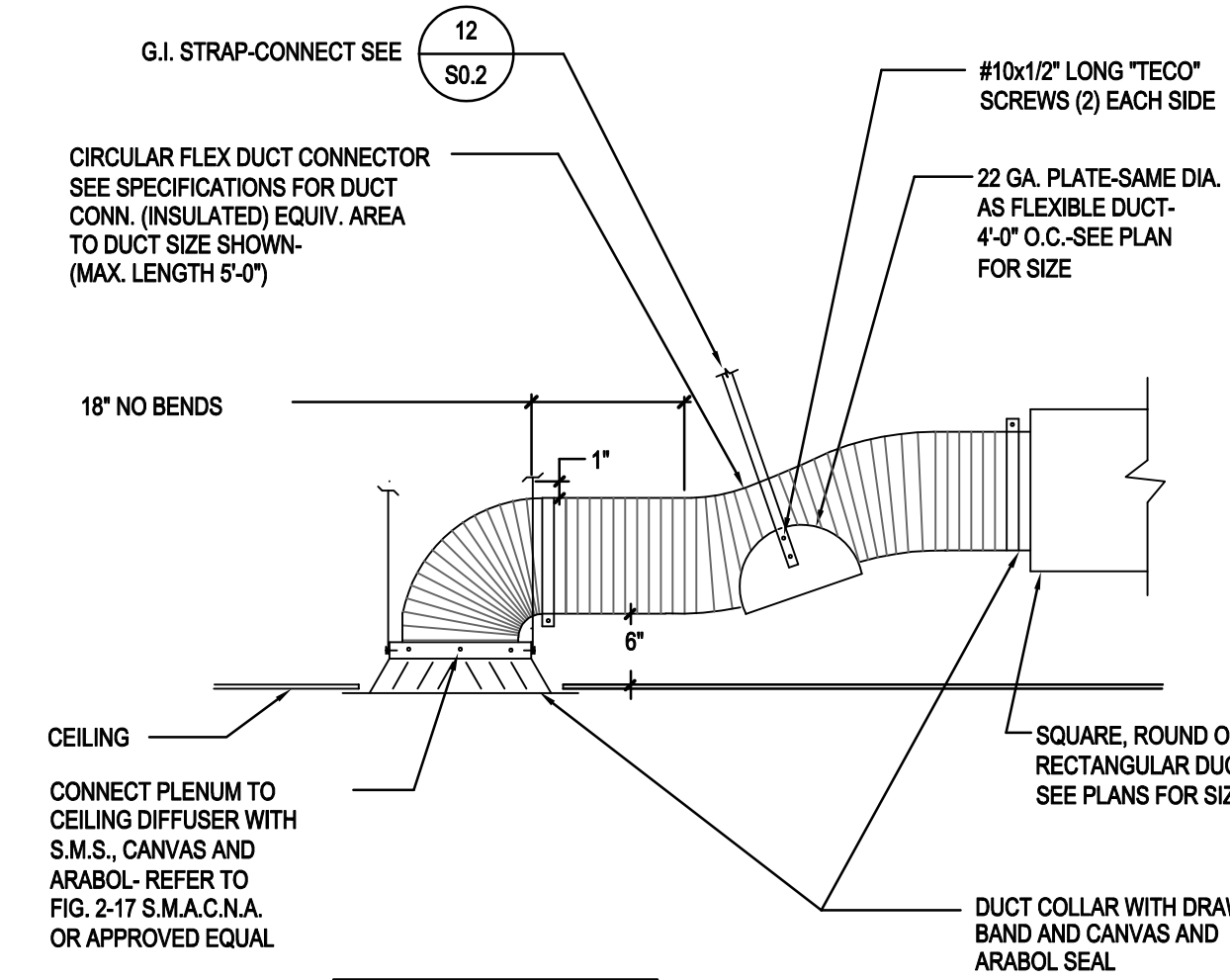
NOTES: 1. MAXIMUM DIAMETER OF OPENING = 9".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1-1/2".

PIPE THRU WALL DETAIL

NOT TO SCALE 4

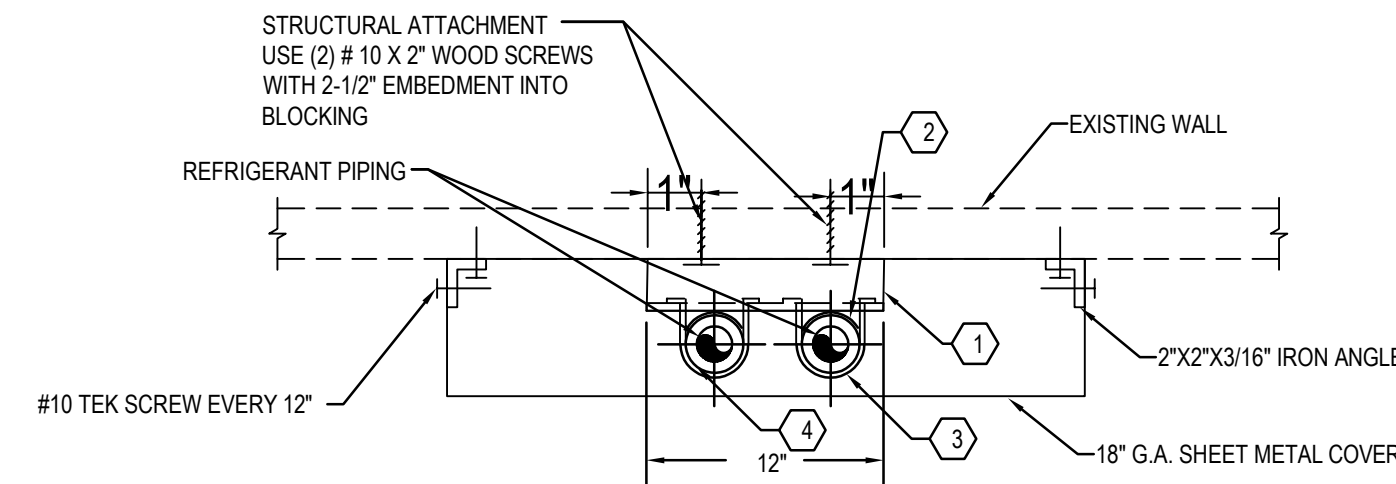
DUCT DIFFUSER

NOT TO SCALE 1

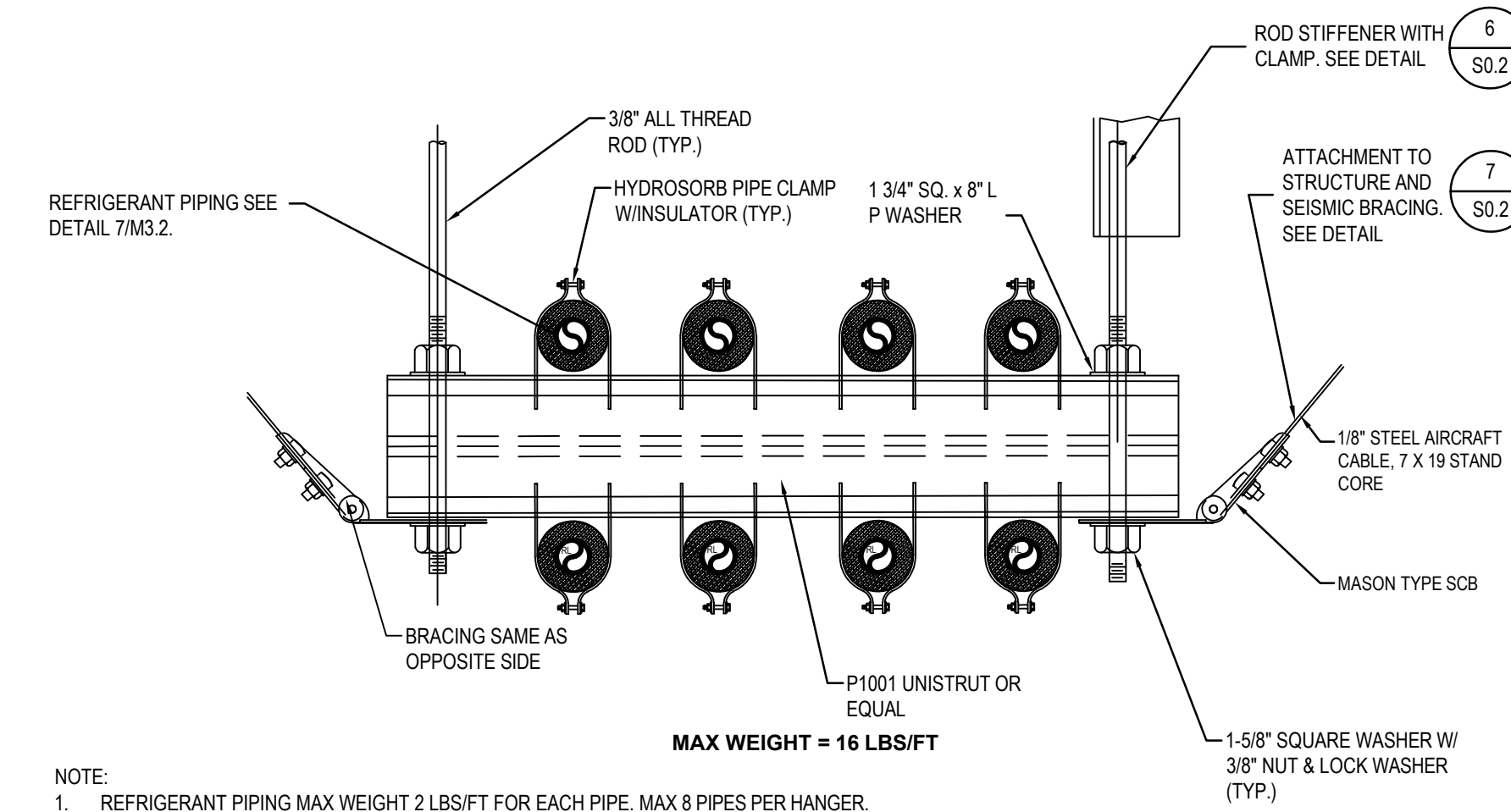


NOTE: ALSO TYPICAL FOR RETURN AND EXHAUST REGISTERS

REMARK: REFER TO MECHANICAL DETAIL #3.M3.1 FOR HANGER STRAPS TABLE FOR SIZES AND GAUGES.



- MATERIAL LIST (UNISTRUT OR EQUAL PRODUCT)
1. P1000 CHANNEL AT 6'-0" MIN.
 2. 4" WIDE 18 GAUGE GALVANIZED SHEET ROLLED TO CONFORM TO PIPE INSULATION O.D.
 3. UNISTRUT PIPE CLAMP (P1109 THRU P1126 BASED ON O.D. OF PIPE INSULATION) OR APPROVED EQUAL.
 4. PROVIDE CUSH-A-THERM OR APPROVED EQUAL @ ALL SUPPORTS.



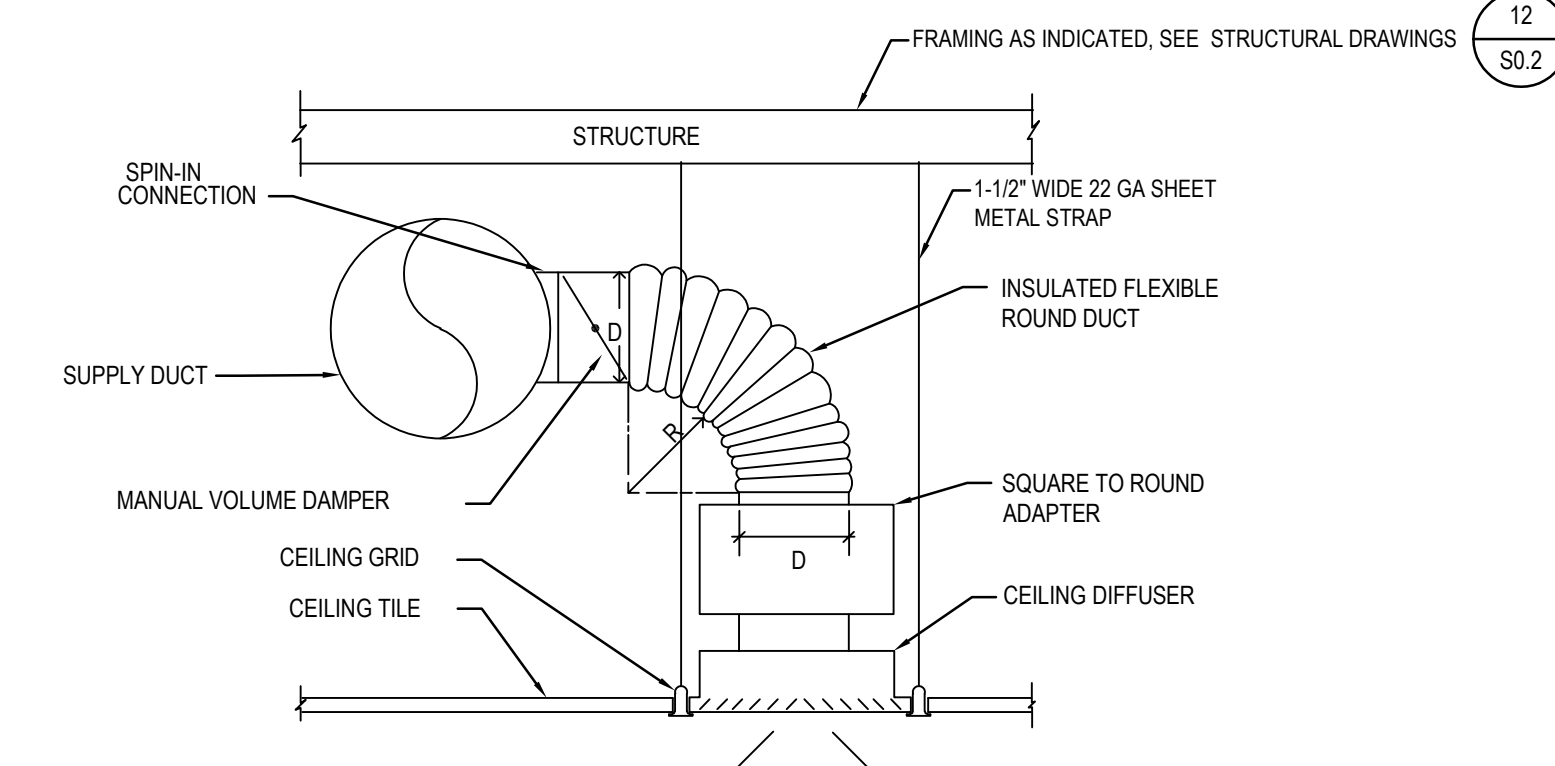
- NOTE:
1. REFRIGERANT PIPING MAX WEIGHT 2 LBS/FT FOR EACH PIPE. MAX 8 PIPES PER HANGER.
 2. PIPE HANGER SUPPORT SHALL BE 6'-0" MAX O.C. AND EACH CHANGE OF DIRECTION.
 3. PROVIDE CUSH-A-THERM OR APPROVED EQUAL @ ALL SUPPORTS.

CEILING REFRIGERANT PIPING DETAIL

NOT TO SCALE 5

DUCT TAKEOFF

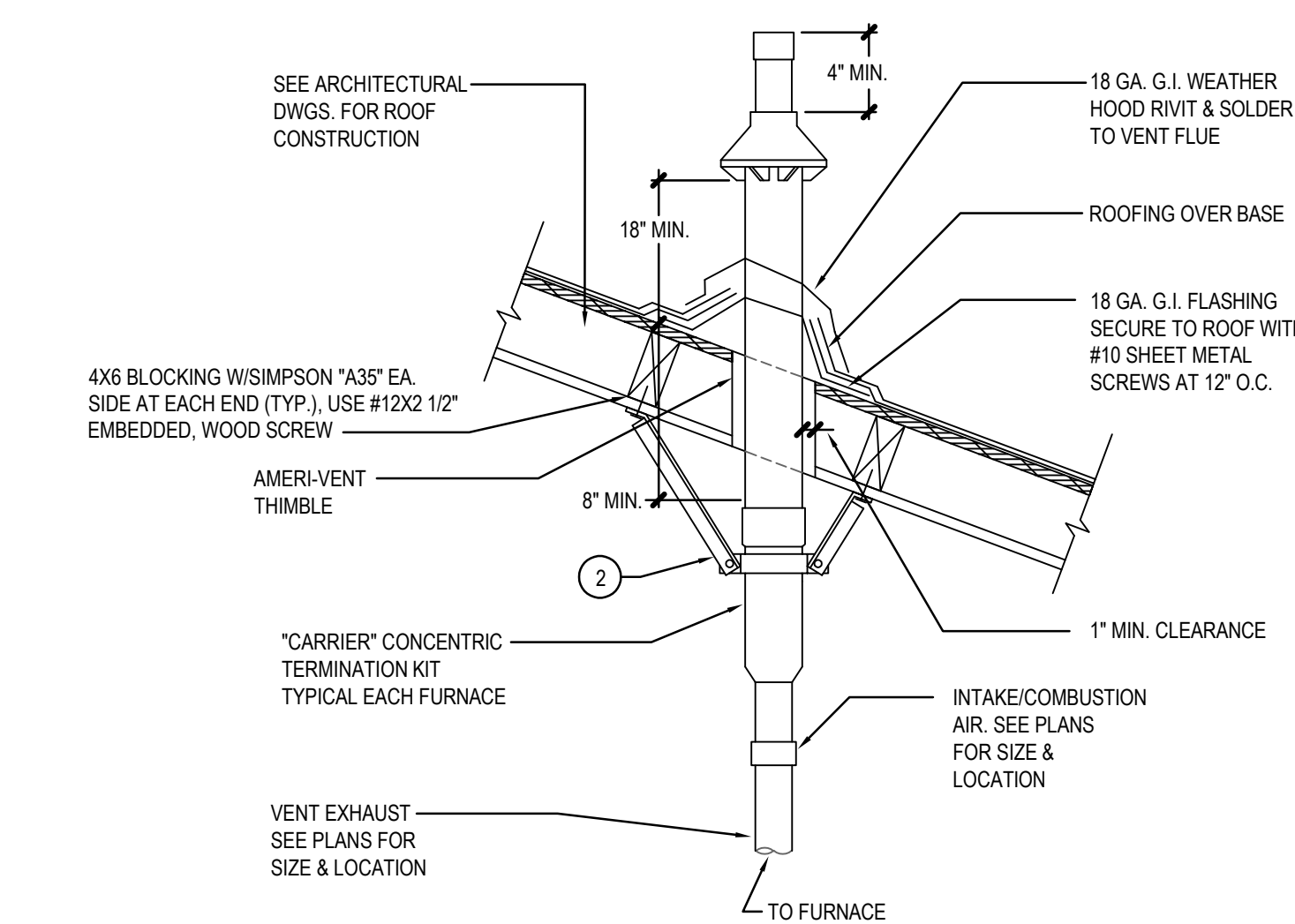
NOT TO SCALE 2



- NOTES:
1. WHERE HEADROOM PERMITTED (R-D) CONNECTION TO DIFFUSER SHALL BE MADE AS SHOWN.
 2. FLEXIBLE DUCTS 5'-0" MAXIMUM IN LENGTH.

WALL MOUNTED REFRIGERANT PIPING

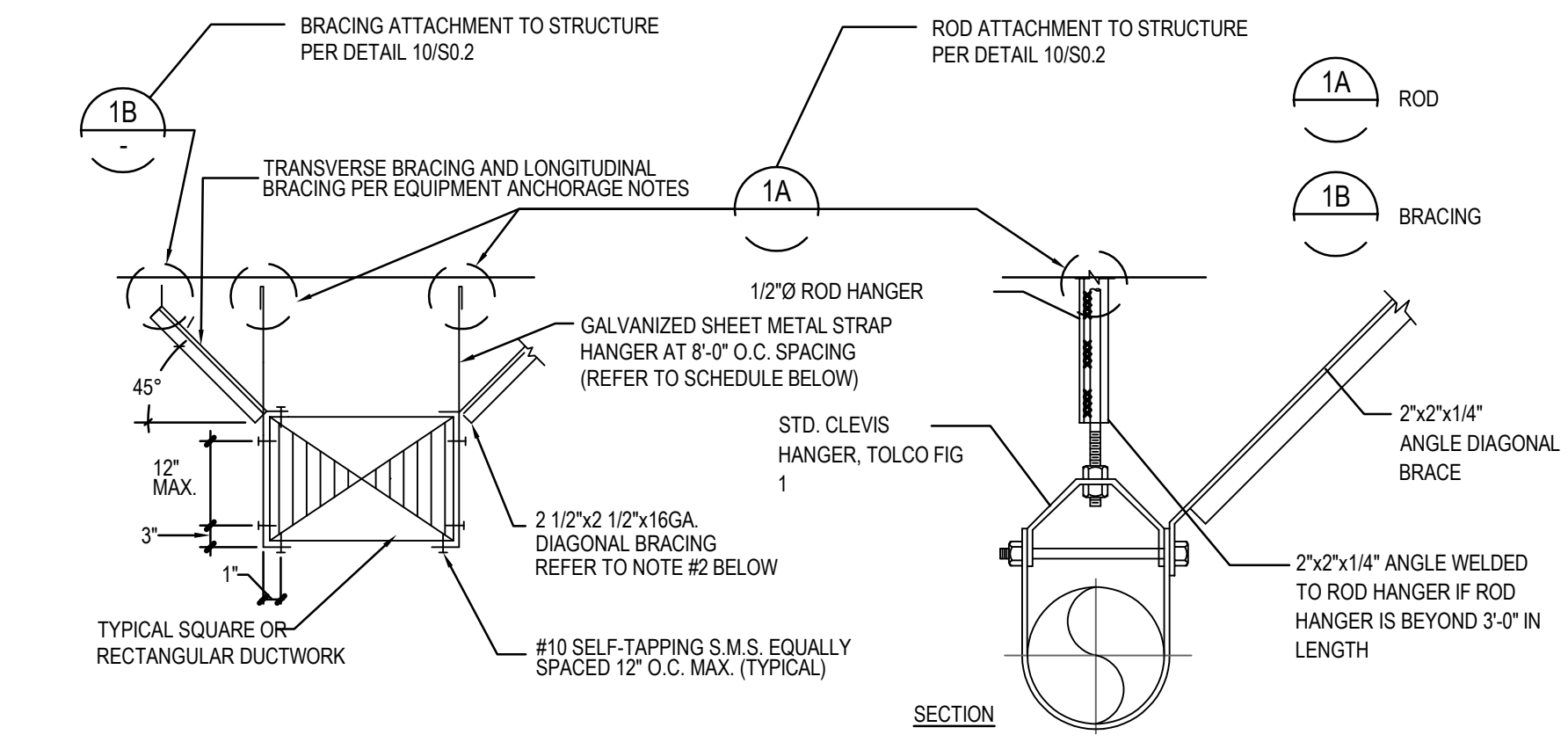
NOT TO SCALE 6



- DETAIL NOTES:
1. SUBMIT COMPLETE SHOP DRAWINGS FOR ENGINEER APPROVAL PRIOR TO FABRICATION AND INSTALLATION.
 2. FLUE SHALL BE SUPPORTED WITH "B-LINE" FIG. B3140 STANDARD PIPE CLAMP. FURNISH AND INSTALL TWO (2) 2"x2"x1/8" STEEL SUPPORT ANGLES. LENGTH AS REQUIRED AND SECURE TO PIPE CLAMP AND STRUCTURE. SECURE ANGLES TO

CONCENTRIC VENT KIT

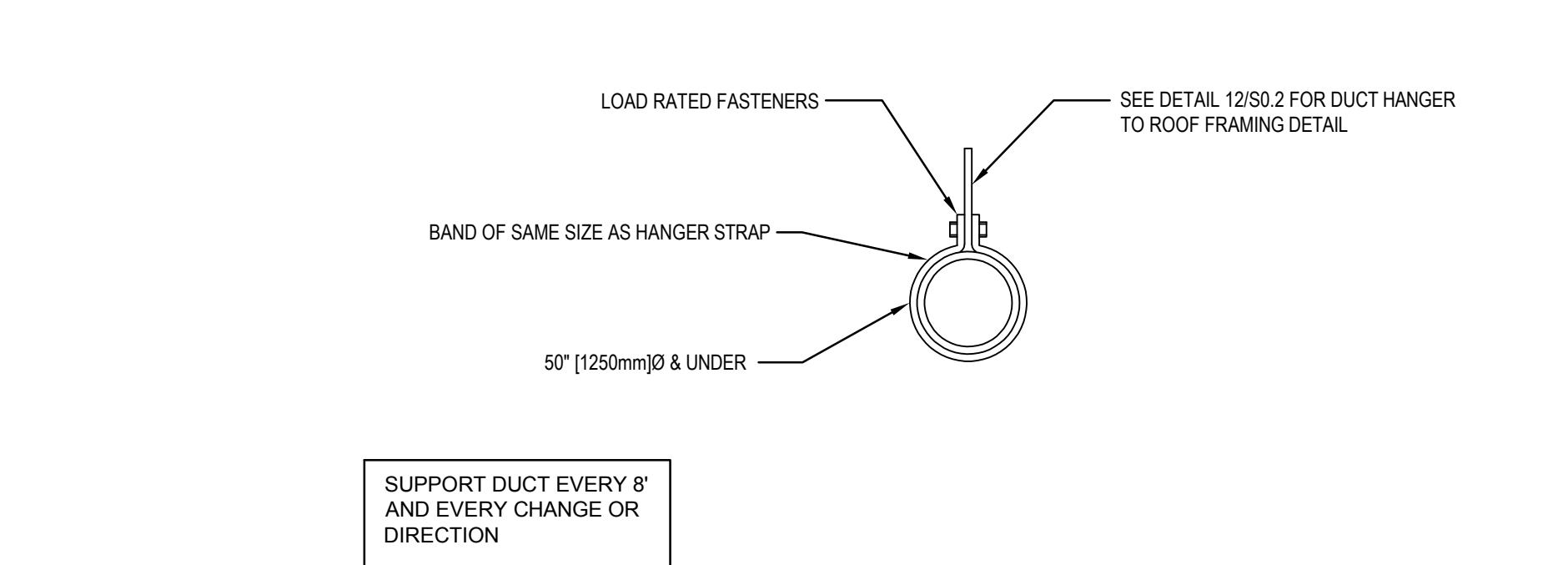
NOT TO SCALE 7



RECTANGULAR DUCT			ROUND DUCT		
MAX. HALF OF DUCT PERIMETER/IN.	PAIR AT 8 FT. SPACING	MAX. LOAD EACH HANGER/LBS.	DIAMETER /INCHES	STRAP AT 12 FT. SPACING	MAX. LOAD EACH HANGER/LBS.
P/2 =72	1"x 20 GA.	50	UP TO 24"	1"x 22 GA.	50

- NOTES:
1. EXCERPT FROM TABLES 5.1 & 5.2 FROM THE SMACNA HVAC DUCT CONSTRUCTION AND STANDARD.
 2. PROVIDE TRANSVERSE BRACING AT 40 FT. AND LONGITUDINAL BRACING AT 80 FT. (2008 SMACNA SEISMIC RESTRAINT MANUAL, 3RD EDITION) NO BRACING REQUIRED IF DUCT IS SUSPENDED 12" OR LESS IN LENGTH. NOT REQUIRED WITH CROSS SECTIONAL AREAS LESS THAN 6.0 SF FOR RECTANGULAR AND 28" DIA. FOR ROUND DUCTS.

DUCT HANGER AND ROD



SUPPORT DUCT EVERY 8' AND EVERY CHANGE OR DIRECTION

MAX. DUCT Ø IN. [mm]	QUANTITY/SIZE	MAX. LOAD LBS. [kg]	MAX. SPACING IN. [mm]
26 [650]	ONE 1 [25] x 22 GA STRAP	260 [119]	144 [3600]
36 [900]	ONE 1 [25] x 18 GA STRAP	420 [190]	144 [3600]
50 [1250]	ONE 1 [25] x 16 GA STRAP	700 [317]	144 [3600]

NOTE: TABULATED DATA FROM SMACNA ALLOWS FOR DUCT REINFORCING AND INSULATION, BUT NO EXTERNAL LOAD.

DUCT TAKEOFF

NOT TO SCALE 3

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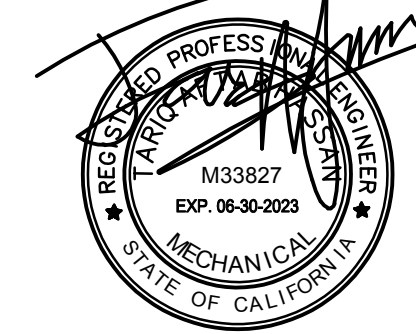


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BONITA UNIFIED
SCHOOL DISTRICT

PROJECT:

SAN DIMAS
HIGH SCHOOL
CULINARY ARTS
CLASSROOM
MODERNIZATION

JOB NUMBER: 12.03.00

DATE: 08/25/21

REVISION: DATE:

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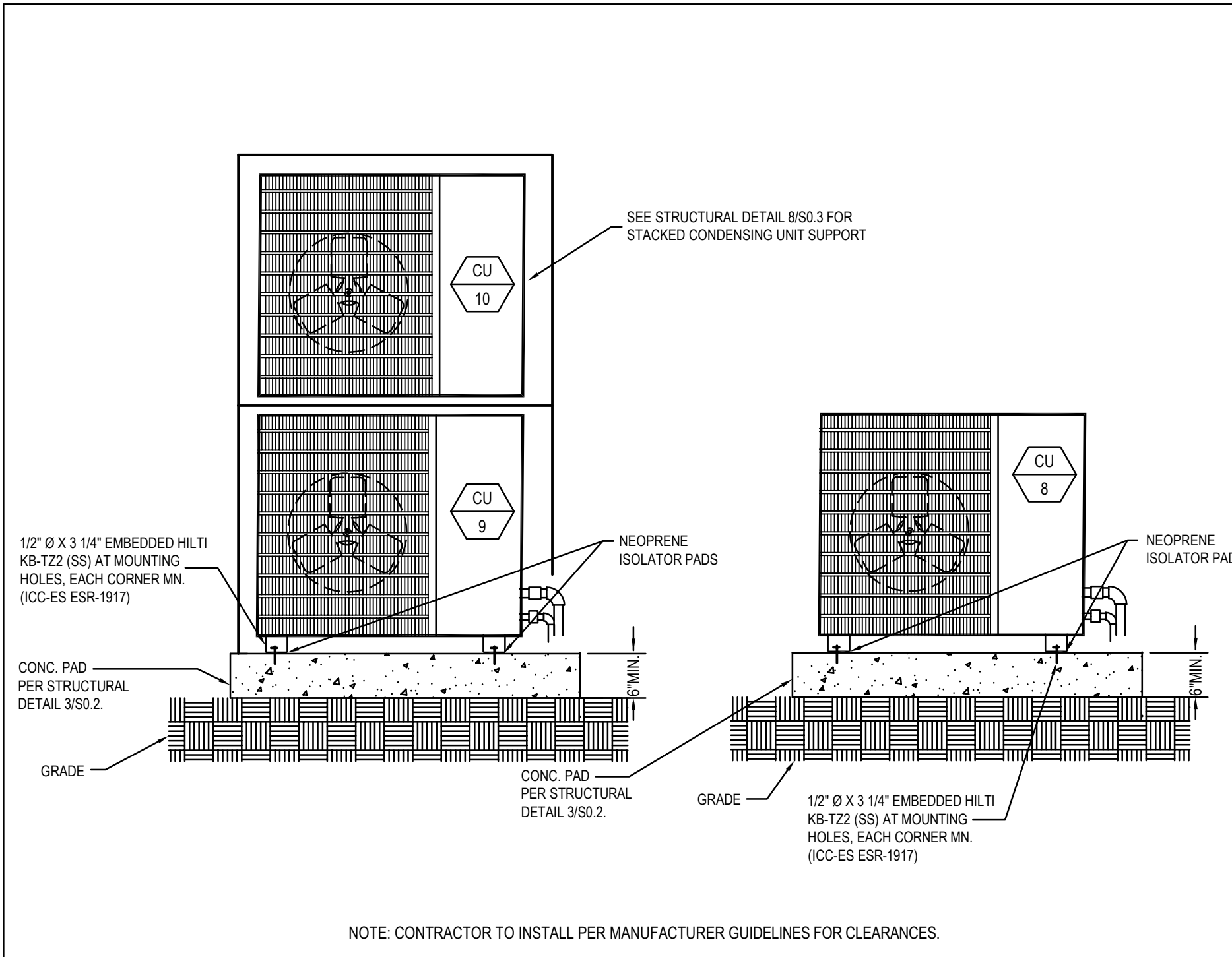
DRAWING TITLE:

MECHANICAL DETAILS

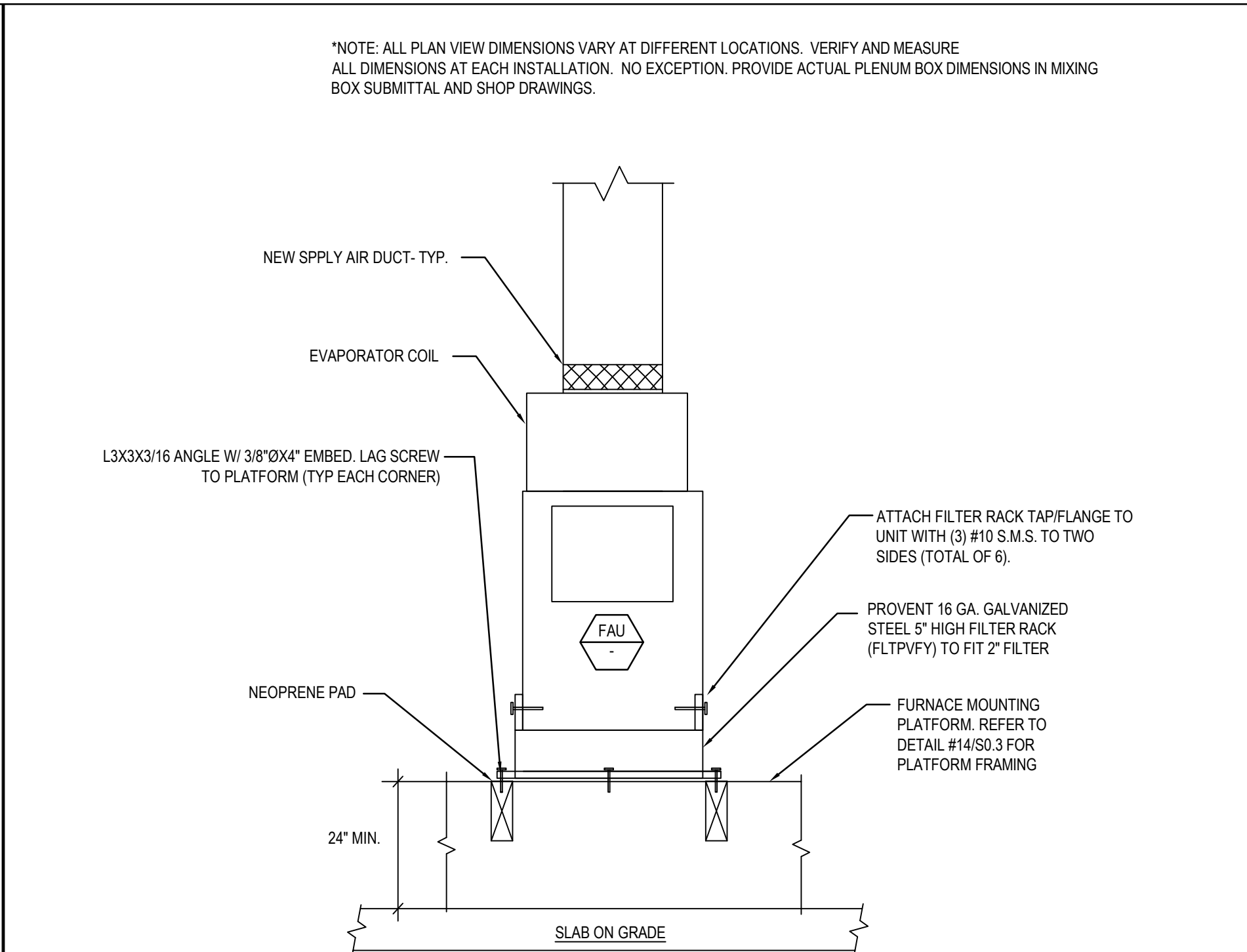
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M3.1

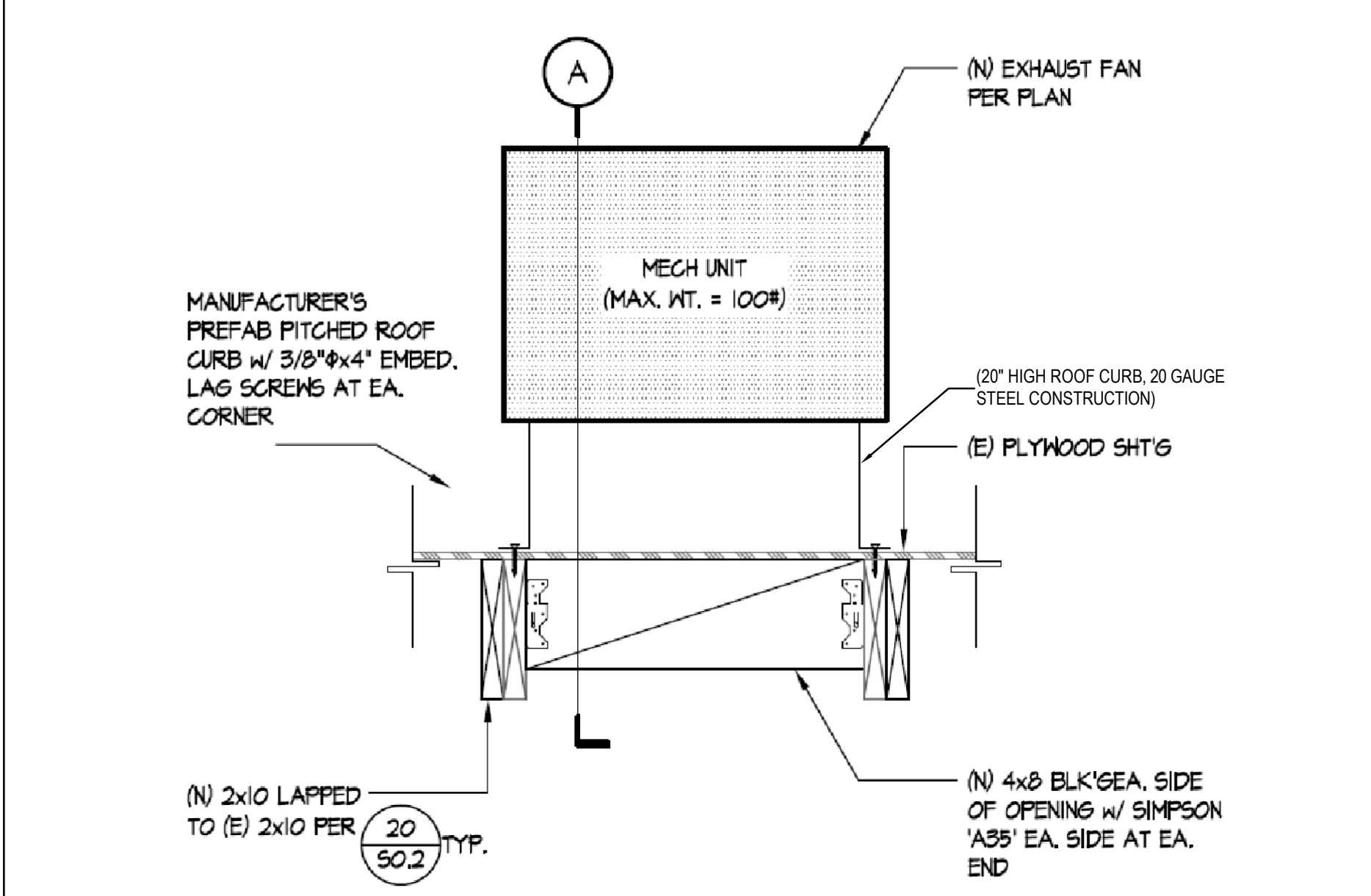
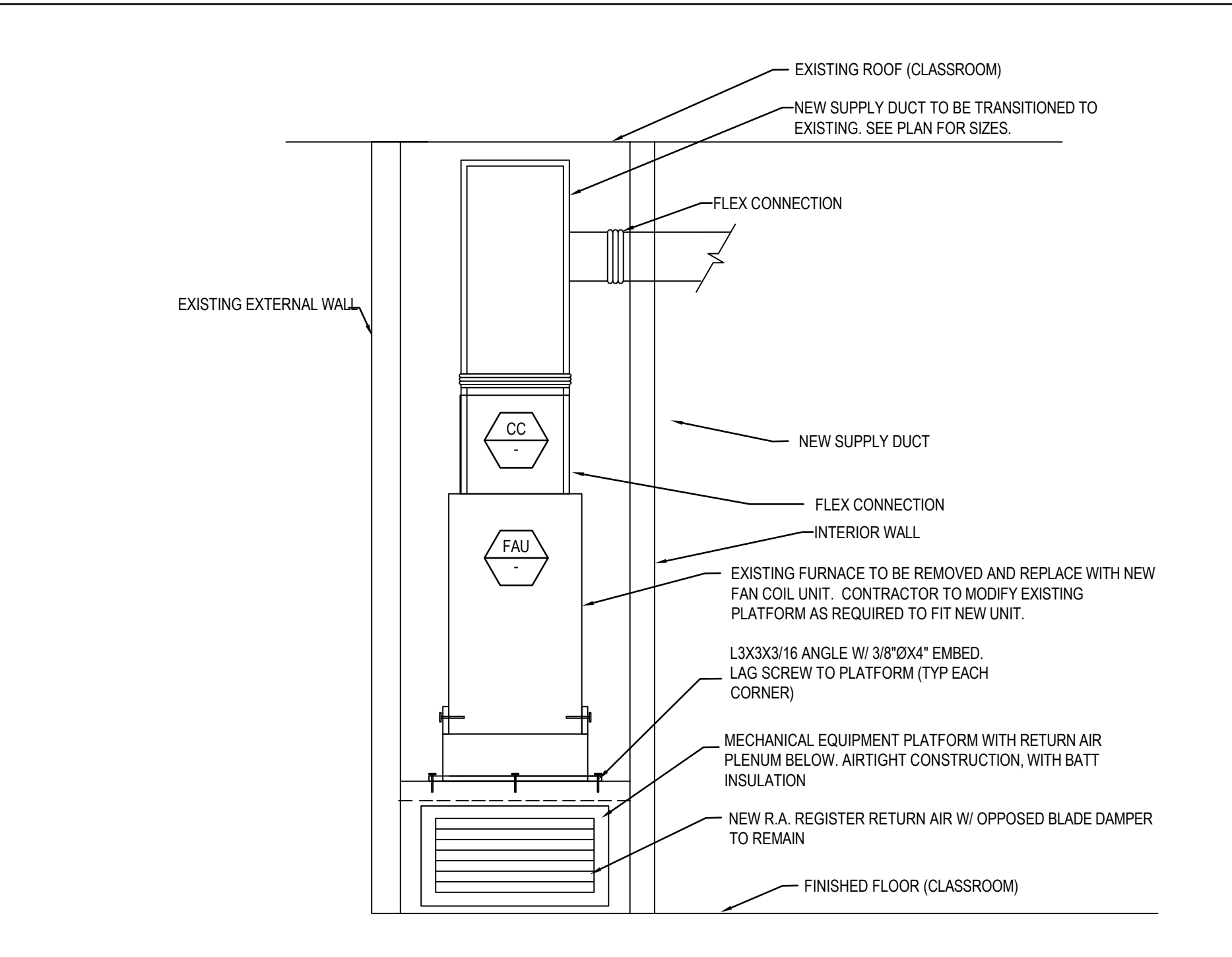
P:\P-2021\021-072-00 San Dimas HS Culinary Arts-Classroom Mod\10_BIM-CAD\MEP\M3.2.dwg 2/15/2022 10:00 AM Katherine M. Kilgus



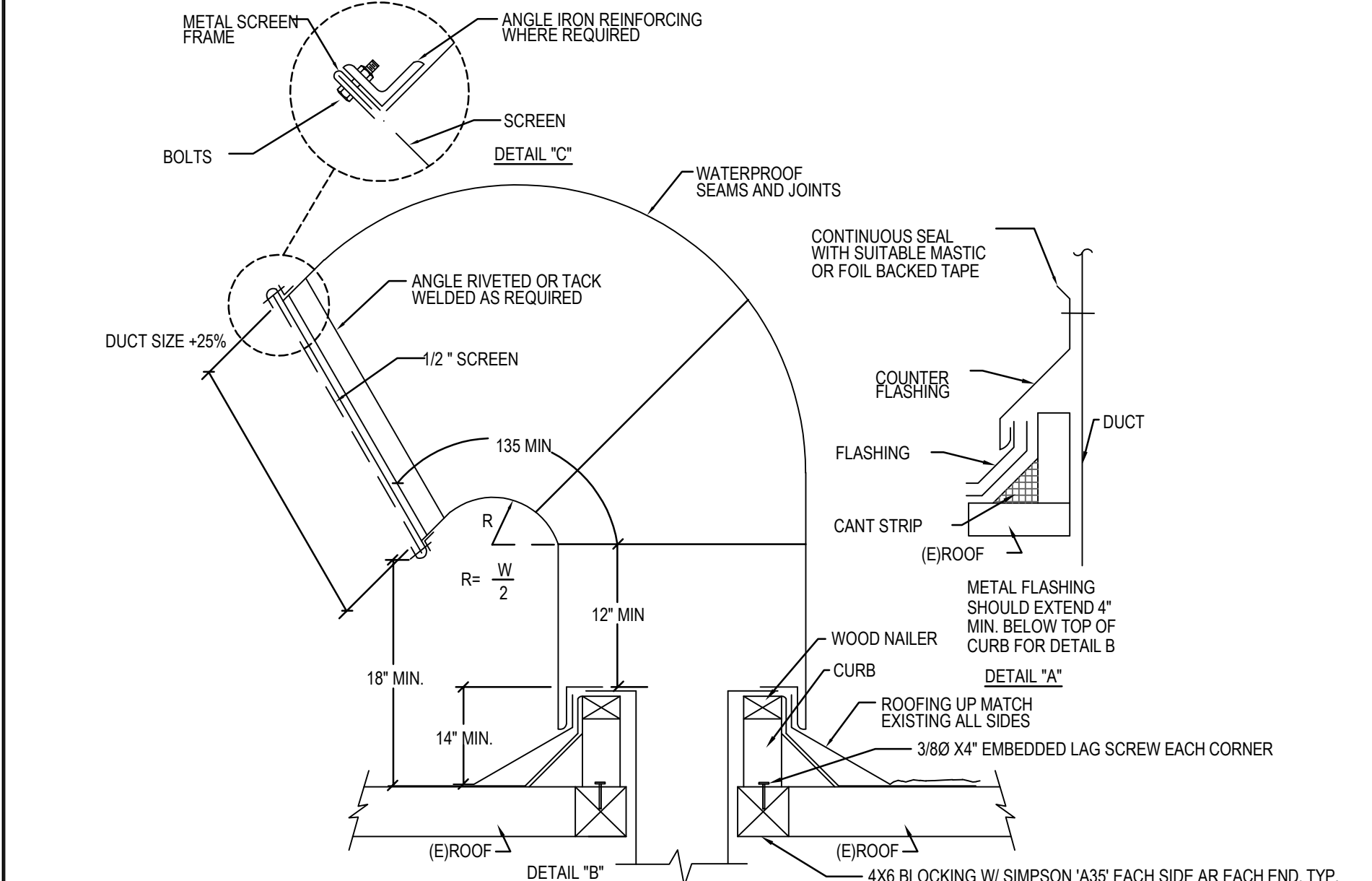
GROUND STACKED CONDENSING UNIT NOT TO SCALE 5



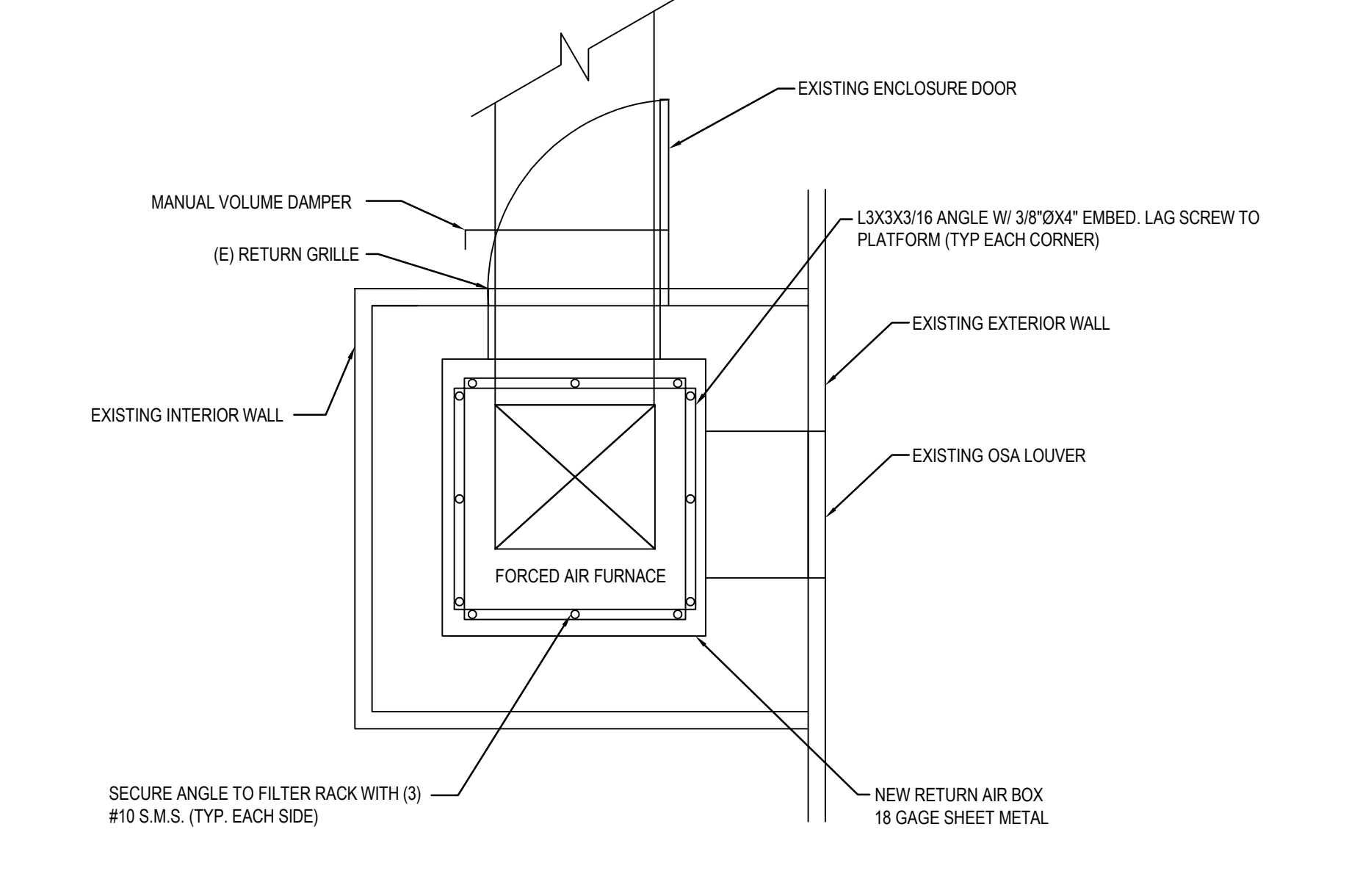
GOOSENECK NOT TO SCALE 3



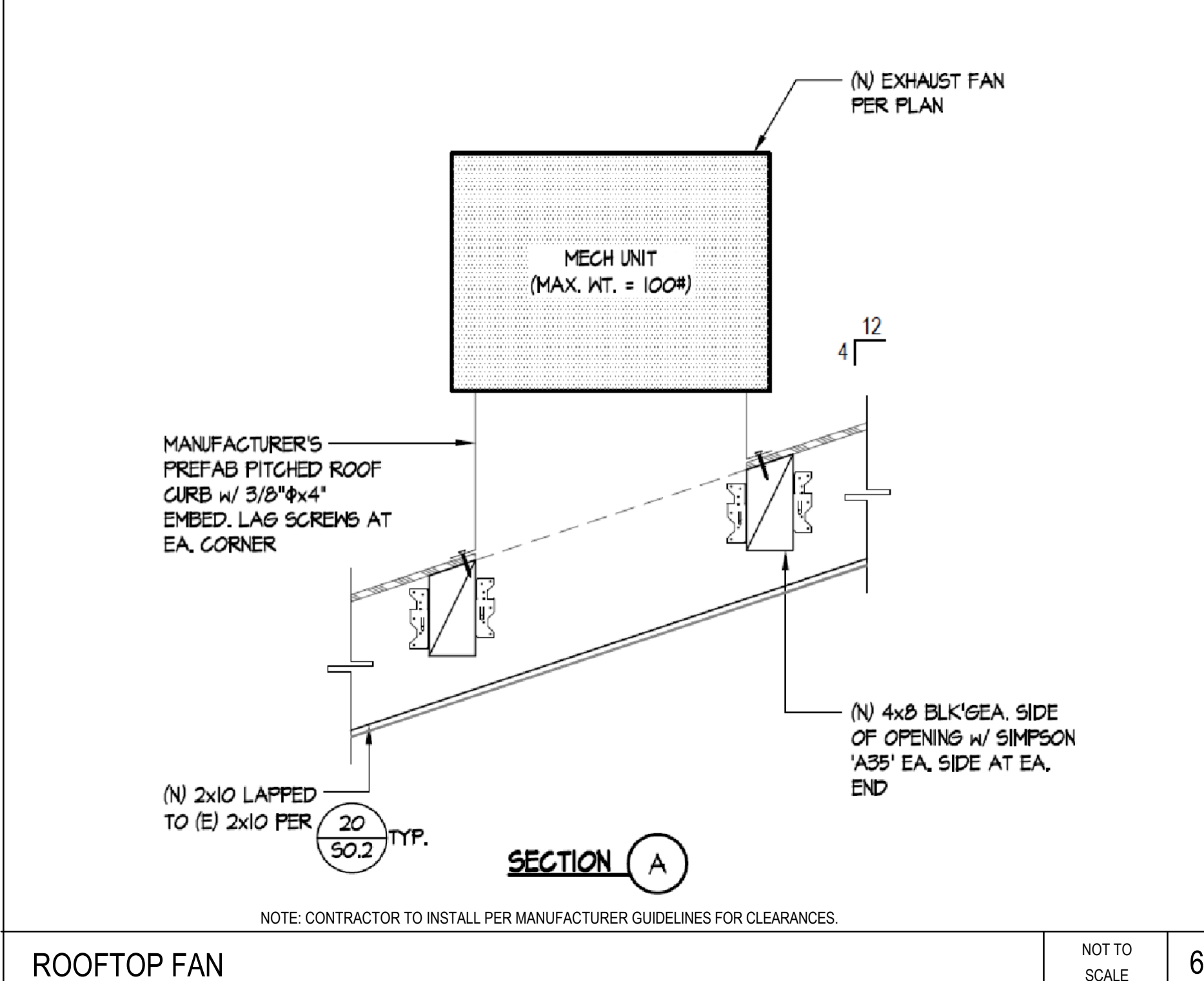
ROOFTOP FAN NOT TO SCALE 6



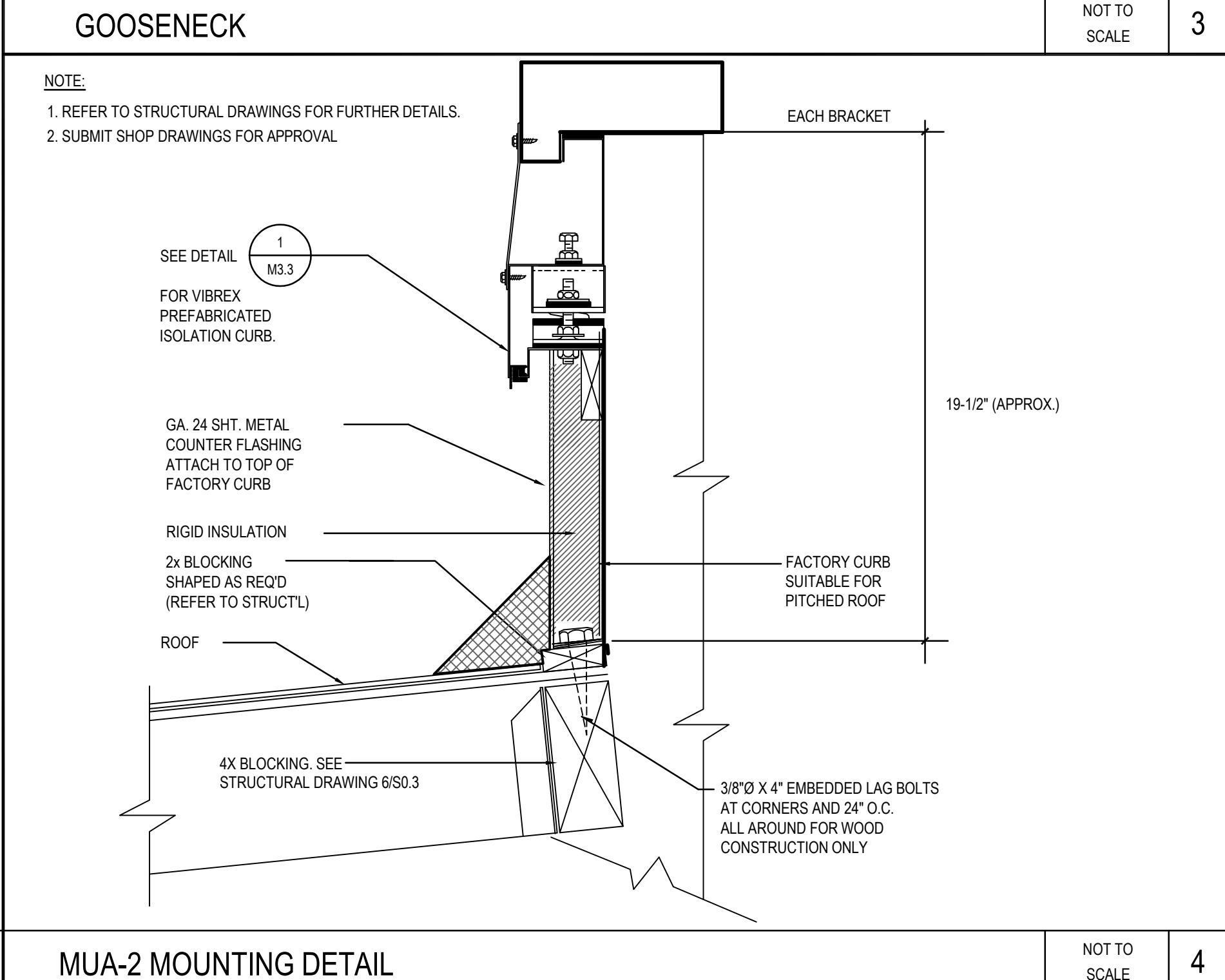
MUA-2 MOUNTING DETAIL NOT TO SCALE 4



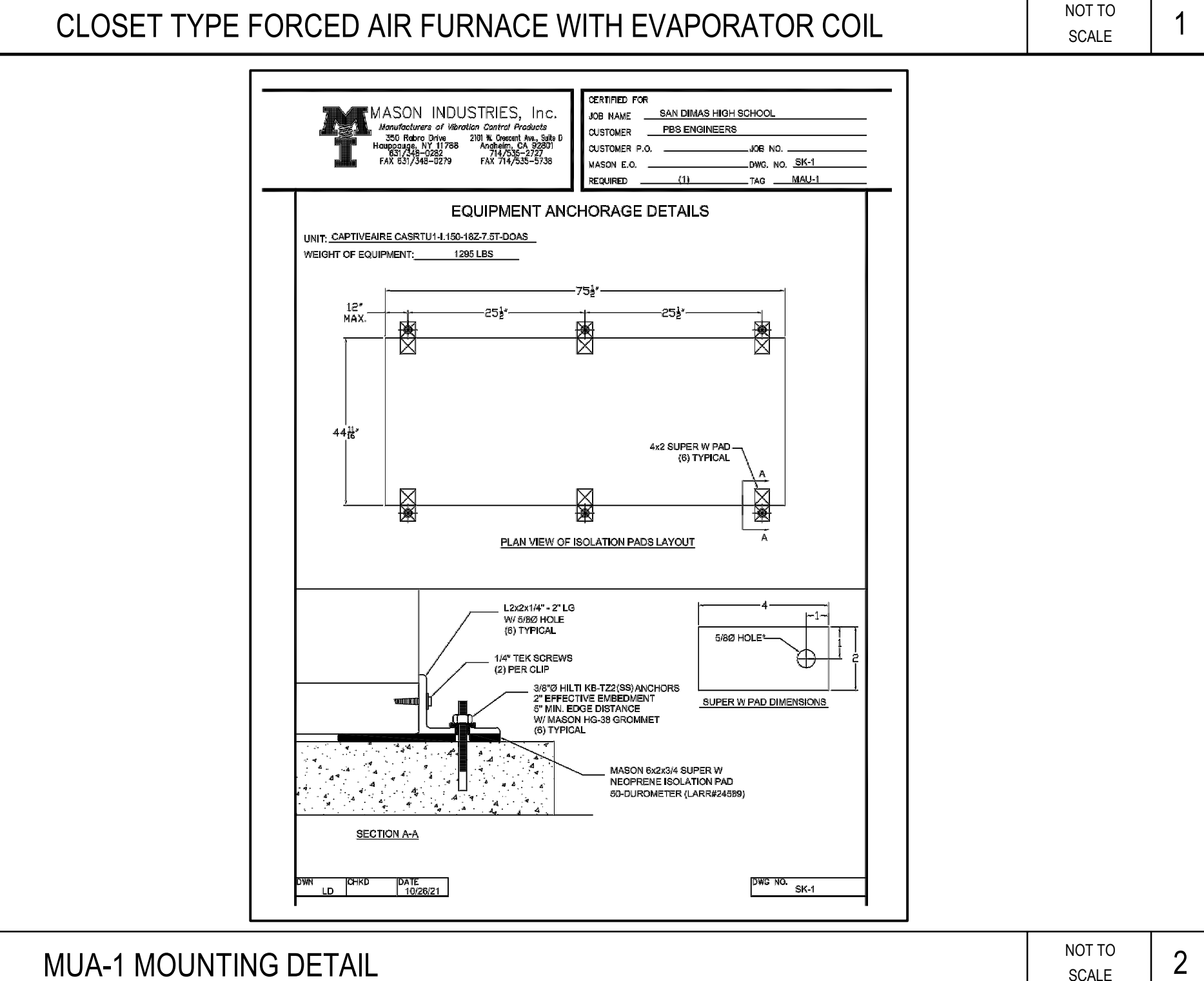
MUA-1 MOUNTING DETAIL NOT TO SCALE 2



ROOFTOP FAN NOT TO SCALE 6



MUA-2 MOUNTING DETAIL NOT TO SCALE 4



MUA-1 MOUNTING DETAIL NOT TO SCALE 2

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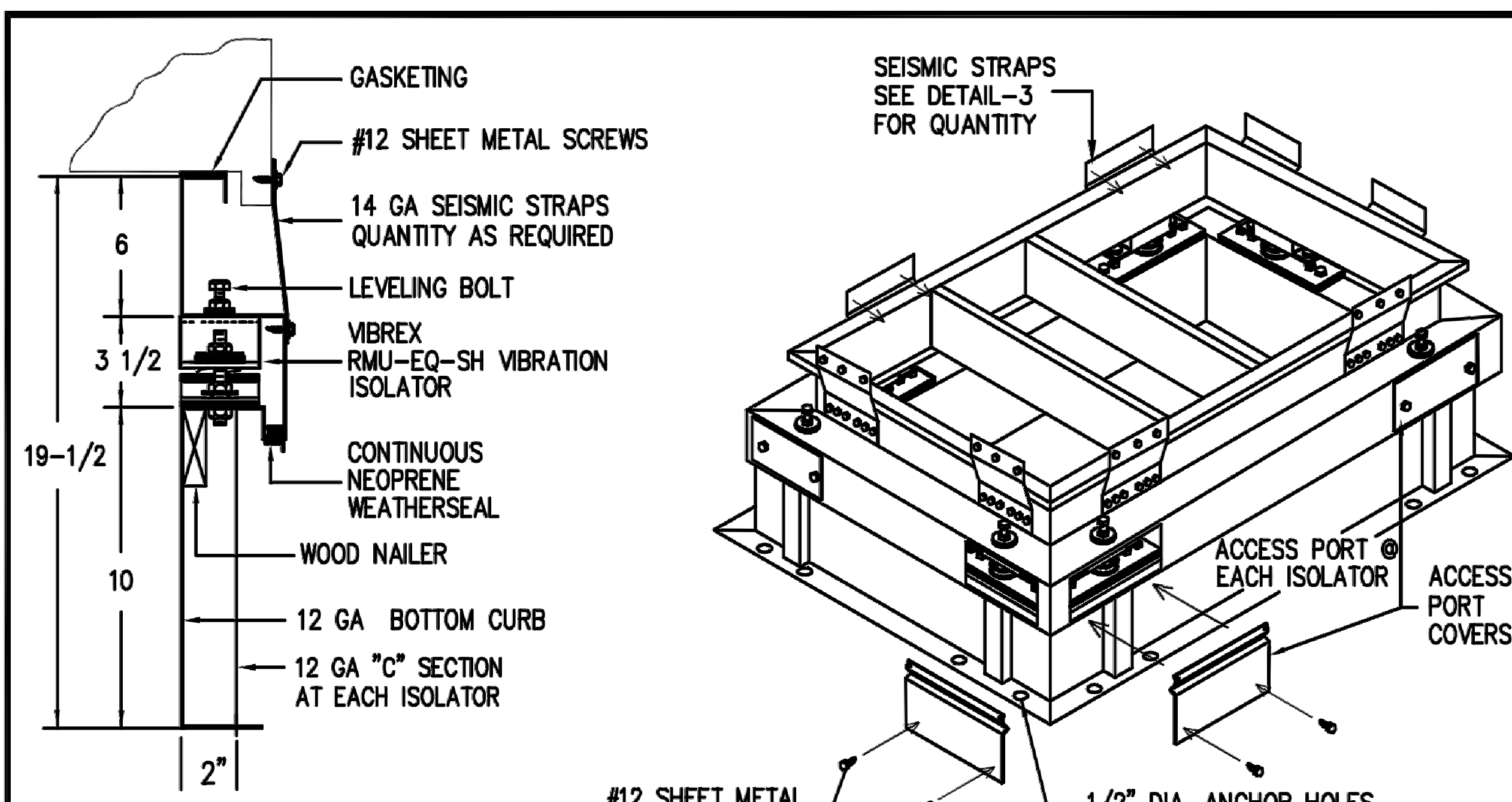
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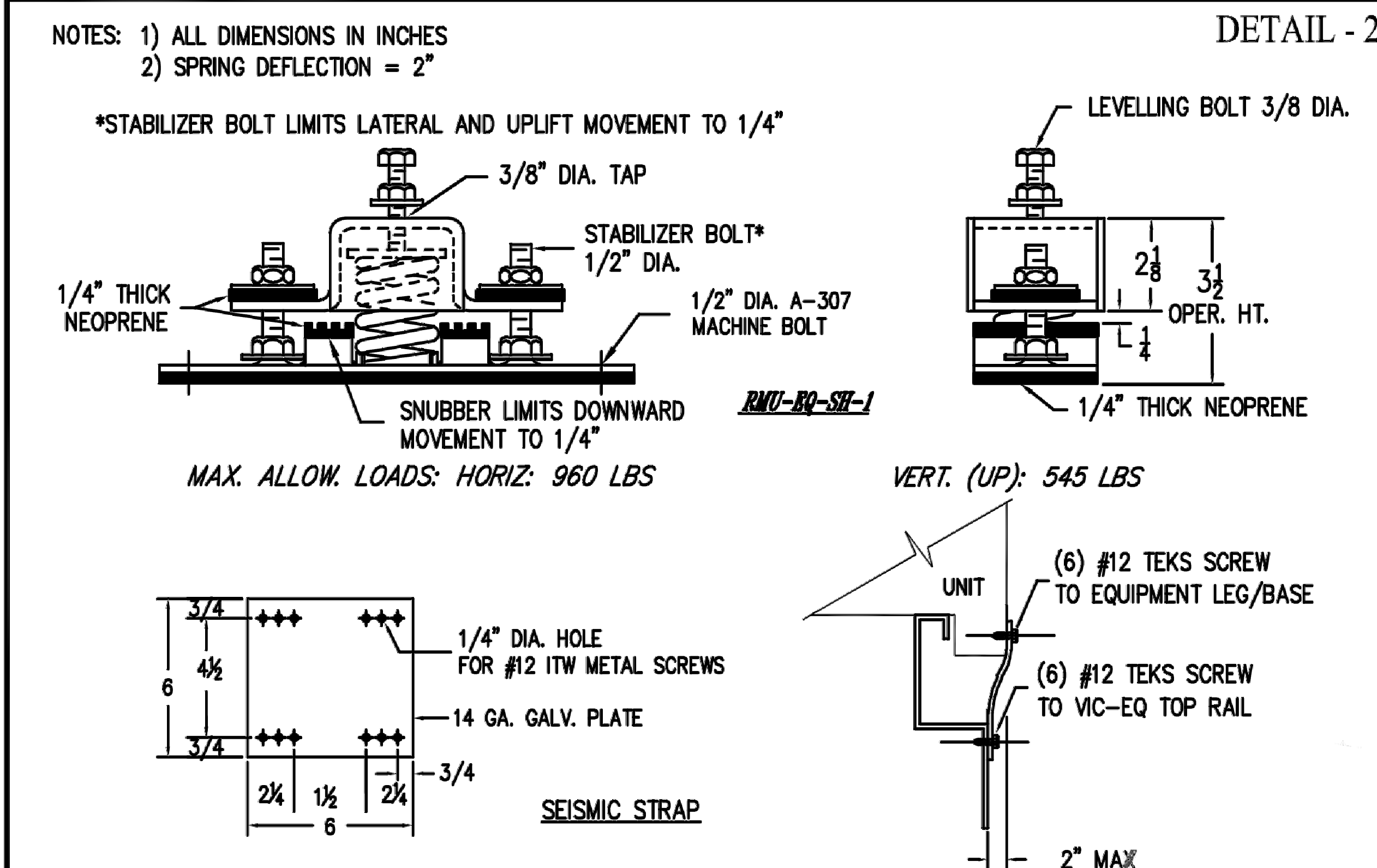
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M3.3

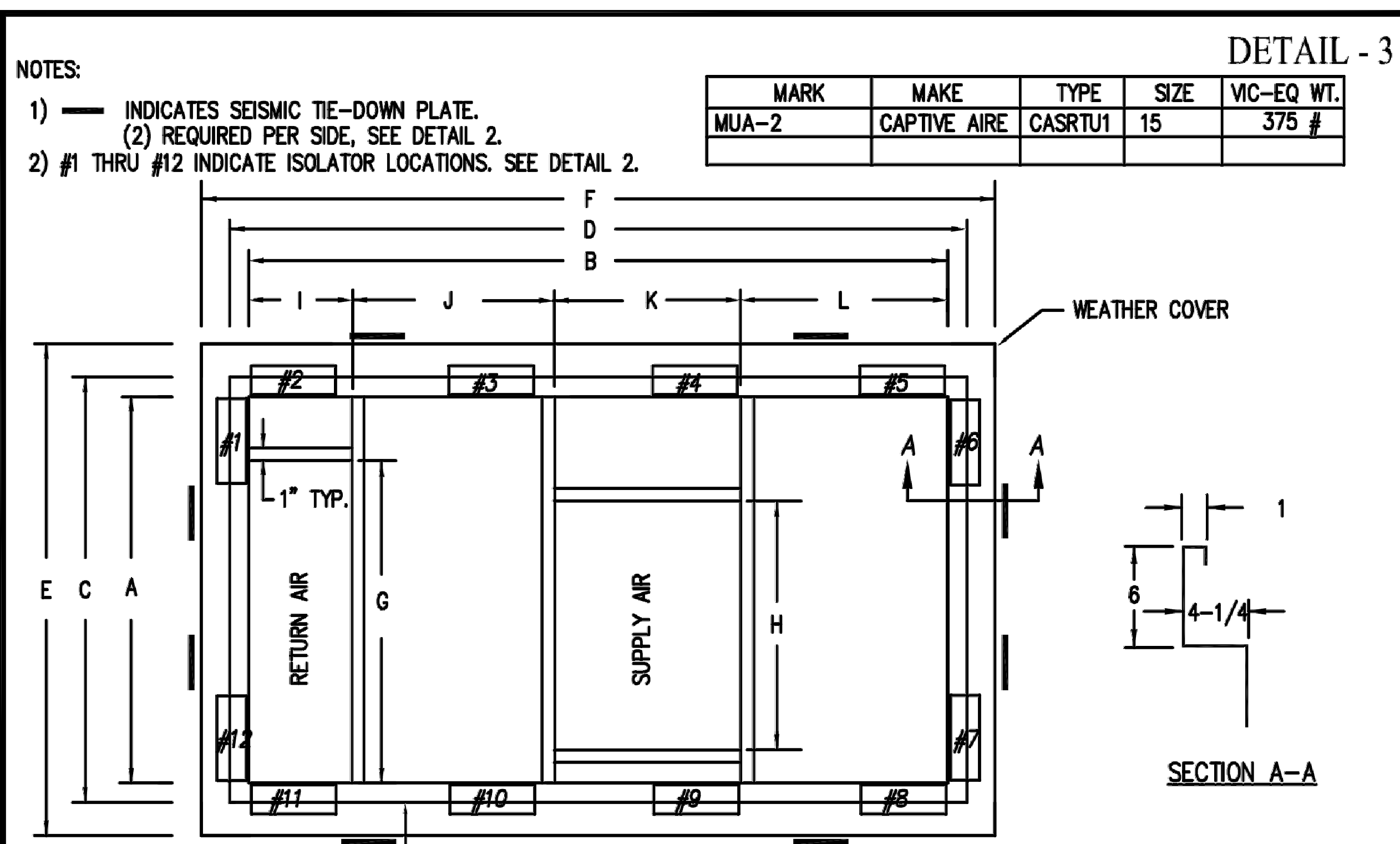


NOTES:
 1. FOR ANCHOR REQUIREMENTS AND DETAILS OF ISOLATORS AND SEISMIC STRAPS, SEE DETAIL 2, 3.
 2. SUBMITTED ROOF CURBS ARE LEVEL. PITCHED ROOF CURBS ARE AVAILABLE UPON REQUEST TO MATCH ROOF SLOPE.
 3. NOT FOR CONSTRUCTION, ALL DIMENSIONS REQUIRE FINAL REVIEW AT COMMENCEMENT OF PROJECT

DETAIL - 1

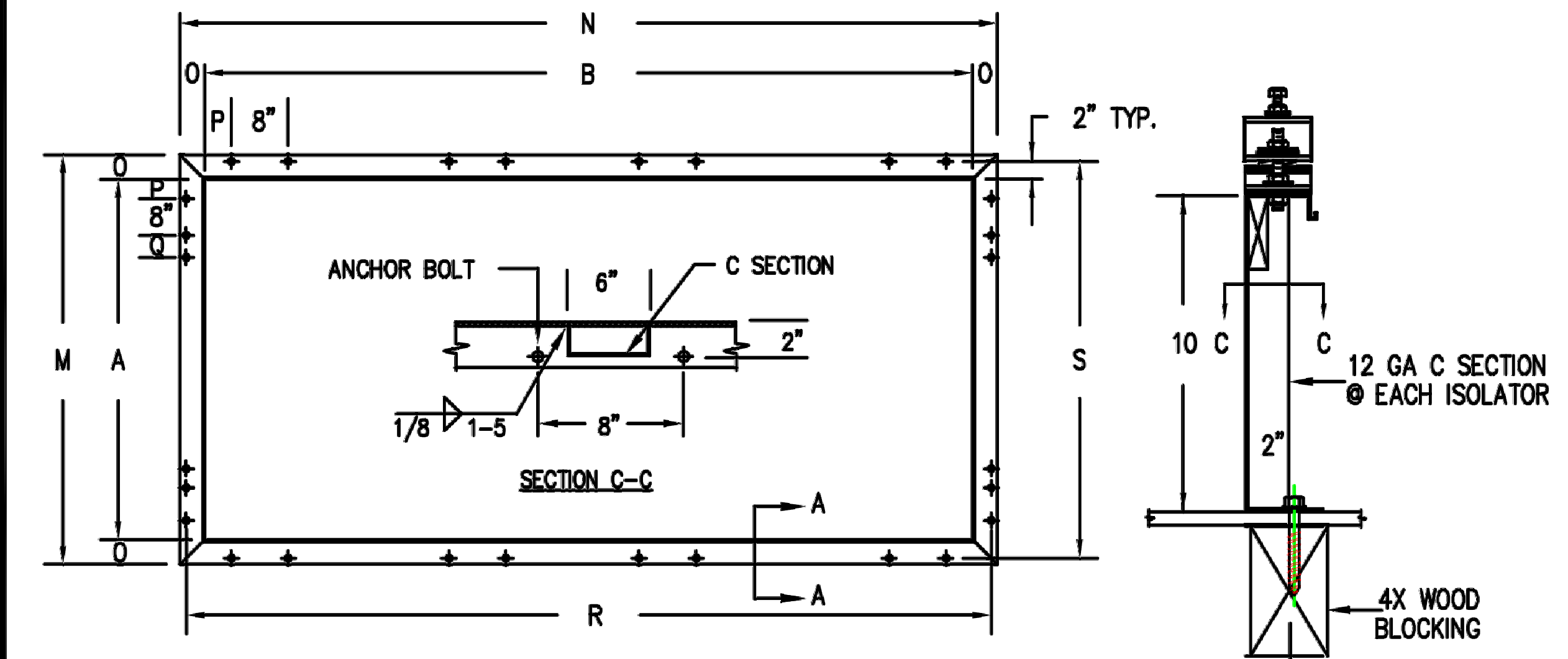


DETAIL - 2



TOP SECTION PLAN VIEW

A	B	C	D	E	F	G	H	I	J	K	L
39	69	41	71	47-1/2	77-1/2	30-1/4	22-1/4	11-3/4	24-15/16	21-5/8	10-11/16
					M	N	O	P	Q	R	S
					45	75	3	3	3	73	43



BOTTOM SECTION FOOTPRINT

NOTES:
 1. R & S DIMENSIONS ARE CENTERLINES OF ANCHOR HOLES IN CURB BOTTOM FLANGE.
 2. FOR ANCHORAGE, USE 3/8" DIA. LAG BOLT MIN. 3" LONG IN MIN. 4 X 4 DOUGLAS FIR,

M. W. SAUSSE & CO., INC.
 28774 Whitherspoon Pkwy. Valencia, CA 91355
 Phone: (661) 257-3311 Fax: (661) 257-7673

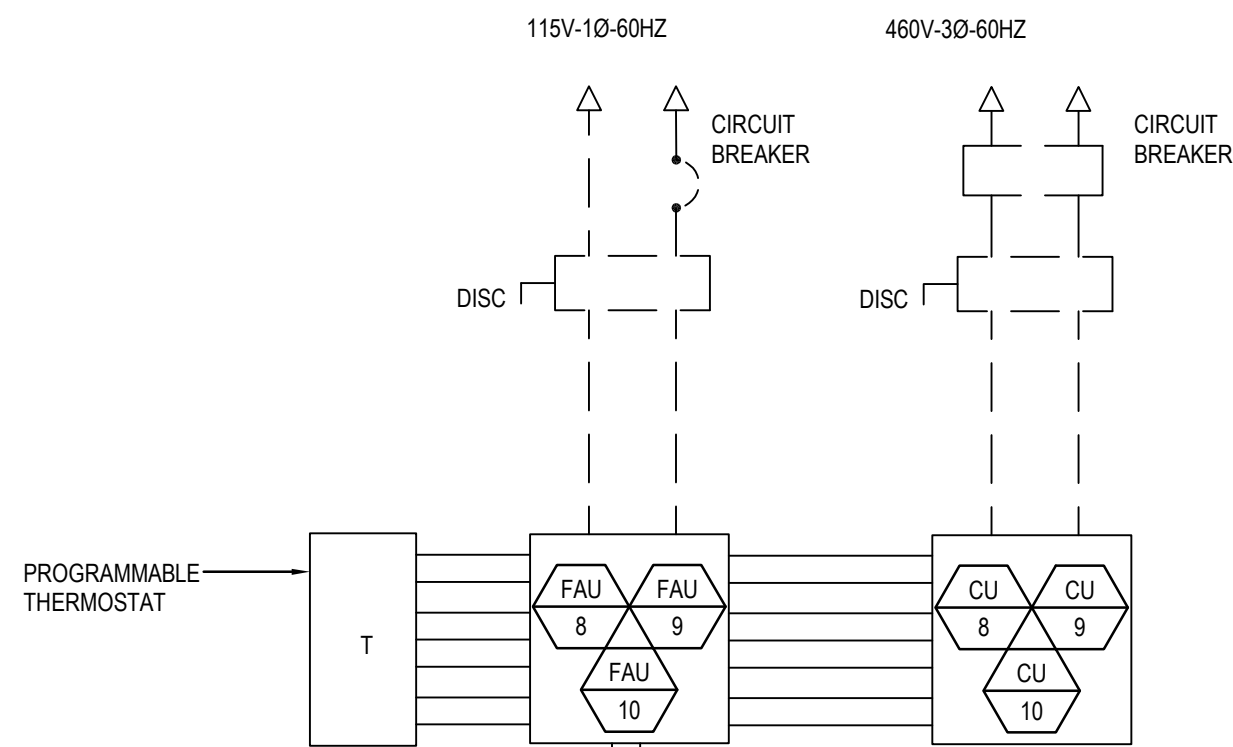
JOB NAME: BUSD SAN DIMAS HS
 CUST:
 CUST. P.O.:
 MECH. ENGR.: PBS
 MARK: MUA-2



REVISIONS:

A:	
B:	
C:	
D:	

DRN: DMW
 DATE: 9/22/21
 DRAWING NO.:
 -2

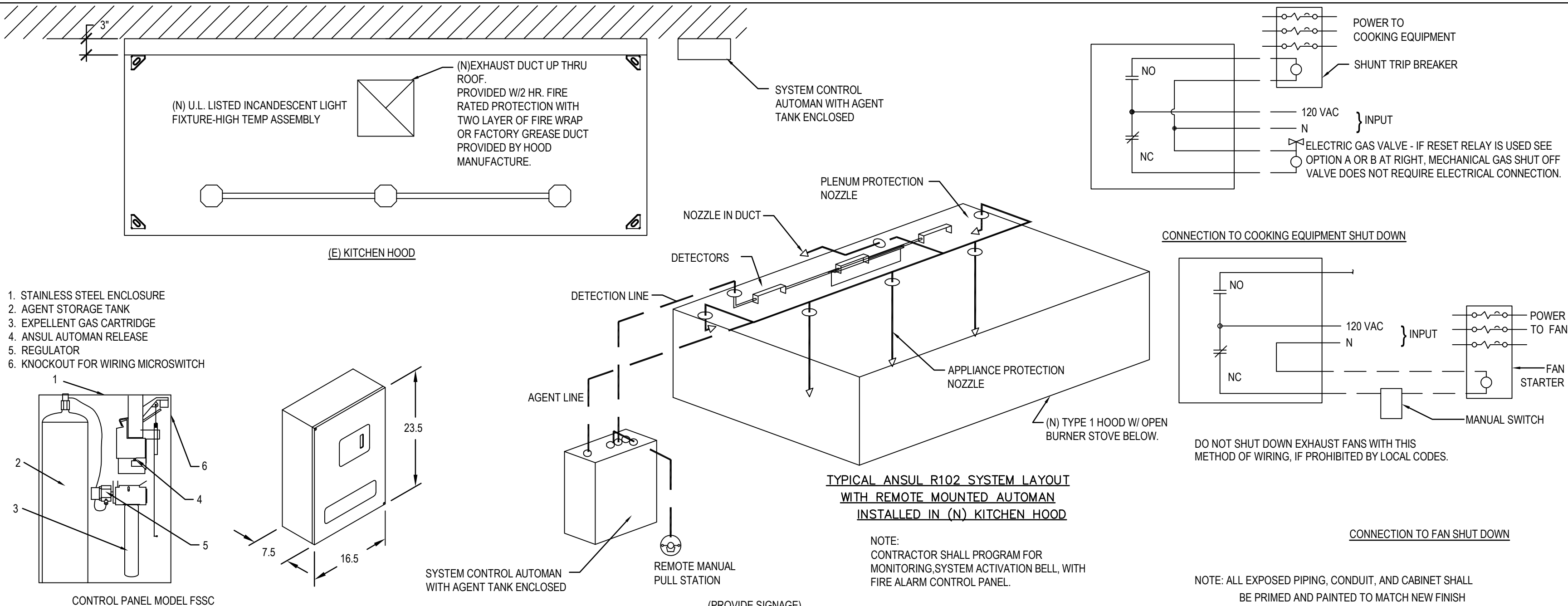


TIE EACH FORCED AIR FURNANCE INTO (E) AREA SMOKE DETECTION SYSTEM TO SHUT DOWN EACH INDIVIDUAL UNIT UPON SMOKE DETECTION-SEE EQUIPMENT SCHEDULE FOR APPLICABILITY

LOW VOLTAGE WIRING NUMBER OF WIRES PER MANUFACTURERS RECOMMENDATIONS

FORCED AIR UNIT CONTROL

NOT TO SCALE 5



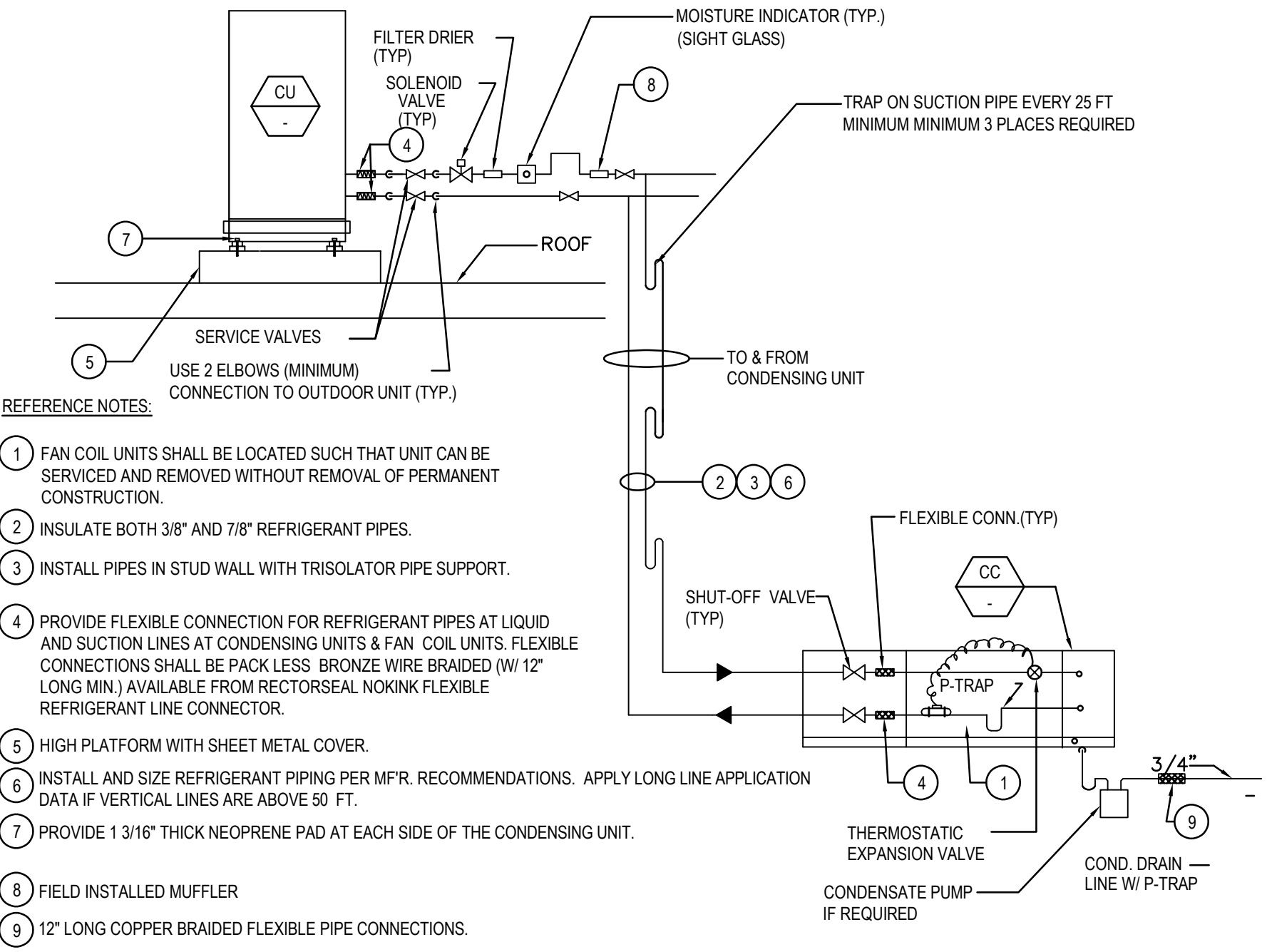
TYPICAL ANSUL R102 SYSTEM LAYOUT WITH REMOTE MOUNTED AUTOMAN INSTALLED IN (N) KITCHEN HOOD

NOTE: CONTRACTOR SHALL PROGRAM FOR MONITORING SYSTEM ACTIVATION BELL, WITH FIRE ALARM CONTROL PANEL.

NOTE: ALL EXPOSED PIPING, CONDUIT, AND CABINET SHALL BE PRIMED AND PAINTED TO MATCH NEW FINISH

TYPE 1 HOOD ANSUL FIRE SUPPRESSION SYSTEM

NOT TO SCALE 1

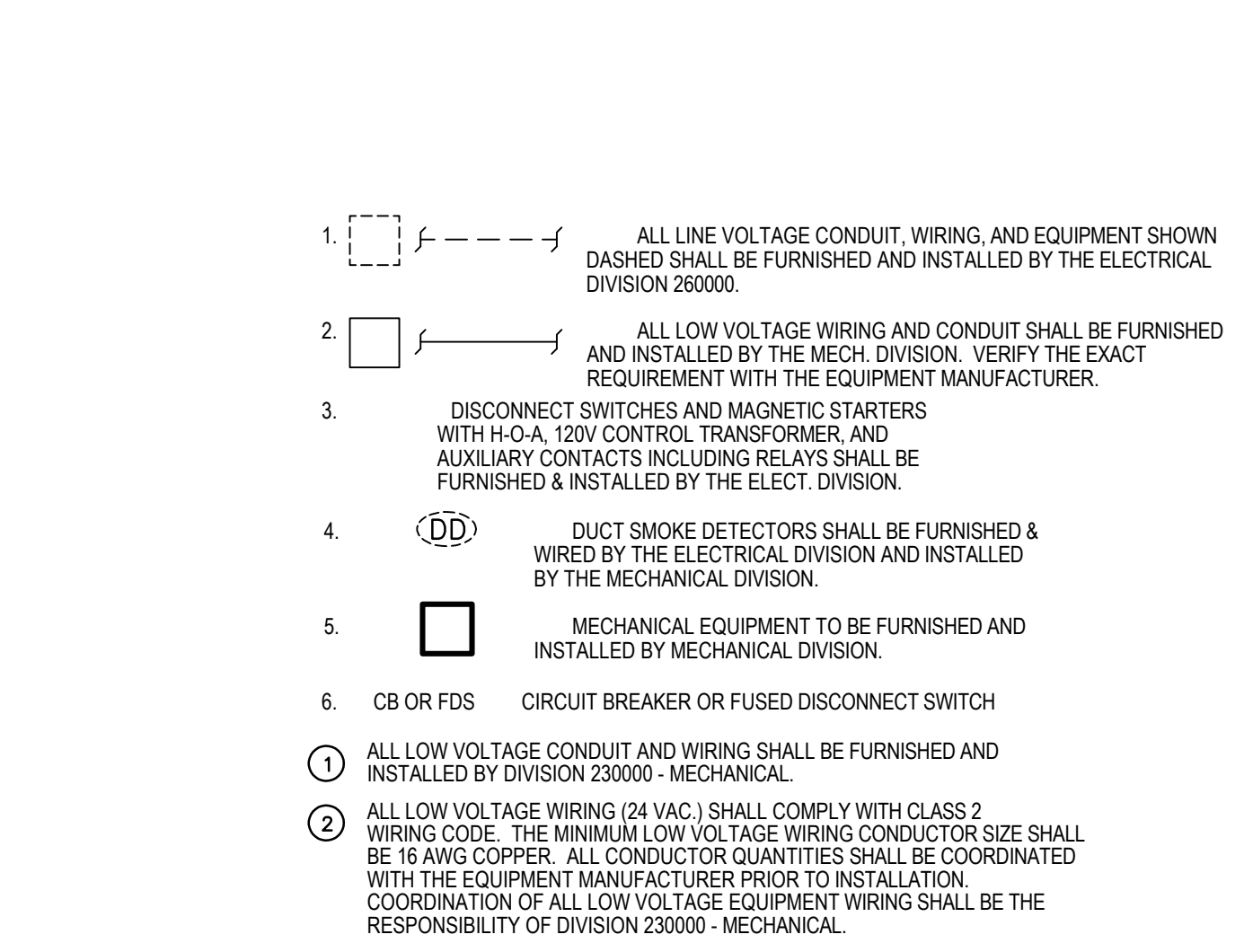


REFERENCE NOTES:

- FAN COIL UNITS SHALL BE LOCATED SUCH THAT UNIT CAN BE SERVICED AND REMOVED WITHOUT REMOVAL OF PERMANENT CONSTRUCTION.
- INSULATE BOTH 3/8" AND 7/8" REFRIGERANT PIPES.
- INSTALL PIPES IN STUD WALL WITH TRISOLATOR PIPE SUPPORT.
- PROVIDE FLEXIBLE CONNECTION FOR REFRIGERANT PIPES AT LIQUID AND SUCTION LINES AT CONDENSING UNITS & FAN COIL UNITS. FLEXIBLE CONNECTIONS SHALL BE PACK LESS BRONZE WIRE BRAIDED (W/ 12" LONG MIN.) AVAILABLE FROM RECTORSEAL NOKON FLEXIBLE REFRIGERANT LINE CONNECTOR.
- HIGH PLATFORM WITH SHEET METAL COVER.
- INSTALL AND SIZE REFRIGERANT PIPING PER MFR. RECOMMENDATIONS. APPLY LONG LINE APPLICATION DATA IF VERTICAL LINES ARE ABOVE 50 FT.
- PROVIDE 1 3/16" THICK NEOPRENE PAD AT EACH SIDE OF THE CONDENSING UNIT.
- FIELD INSTALLED MUFFLER
- 12" LONG COPPER BRAIDED FLEXIBLE PIPE CONNECTIONS.

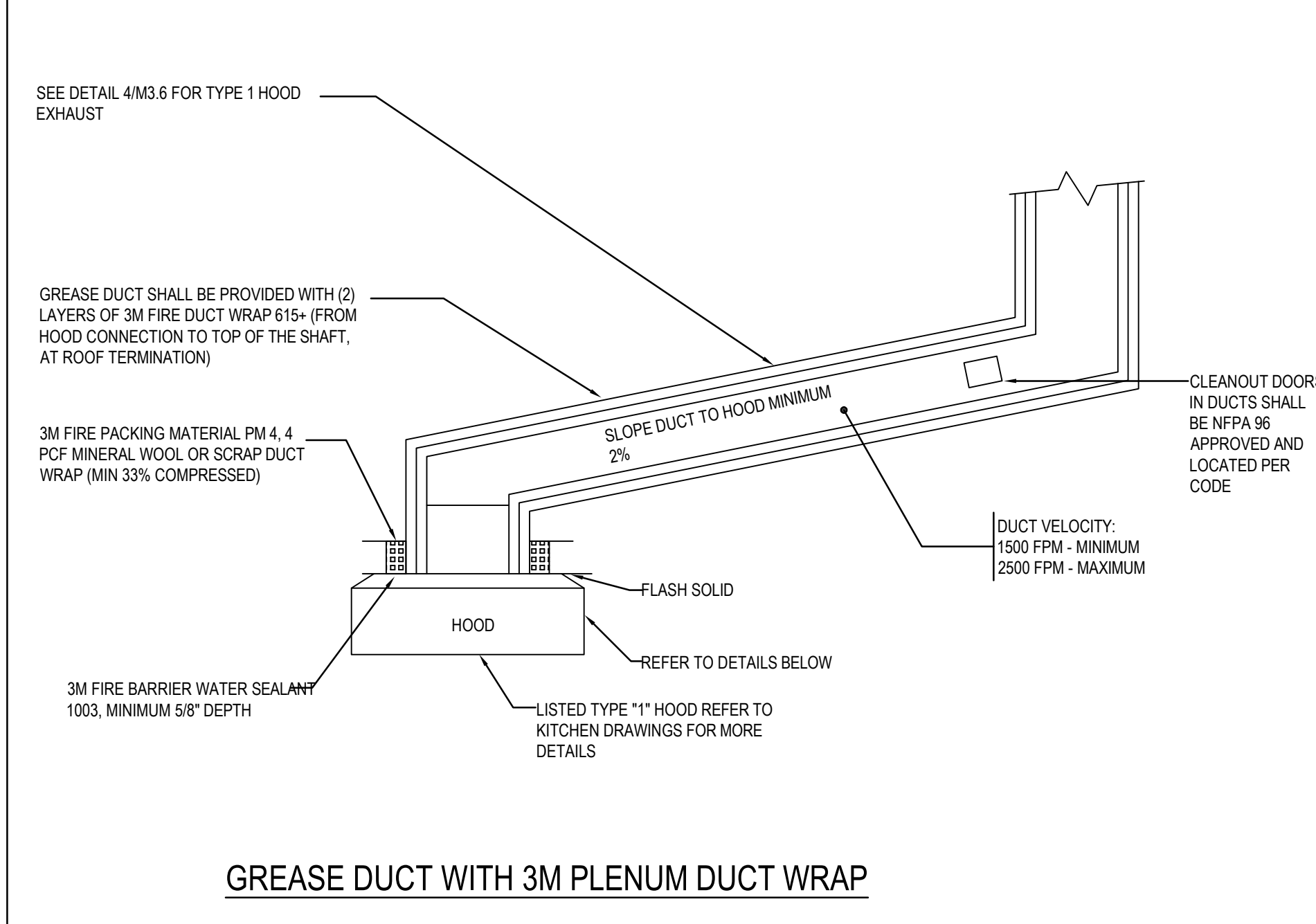
REFRIGERANT PIPING DIAGRAM

NOT TO SCALE 6



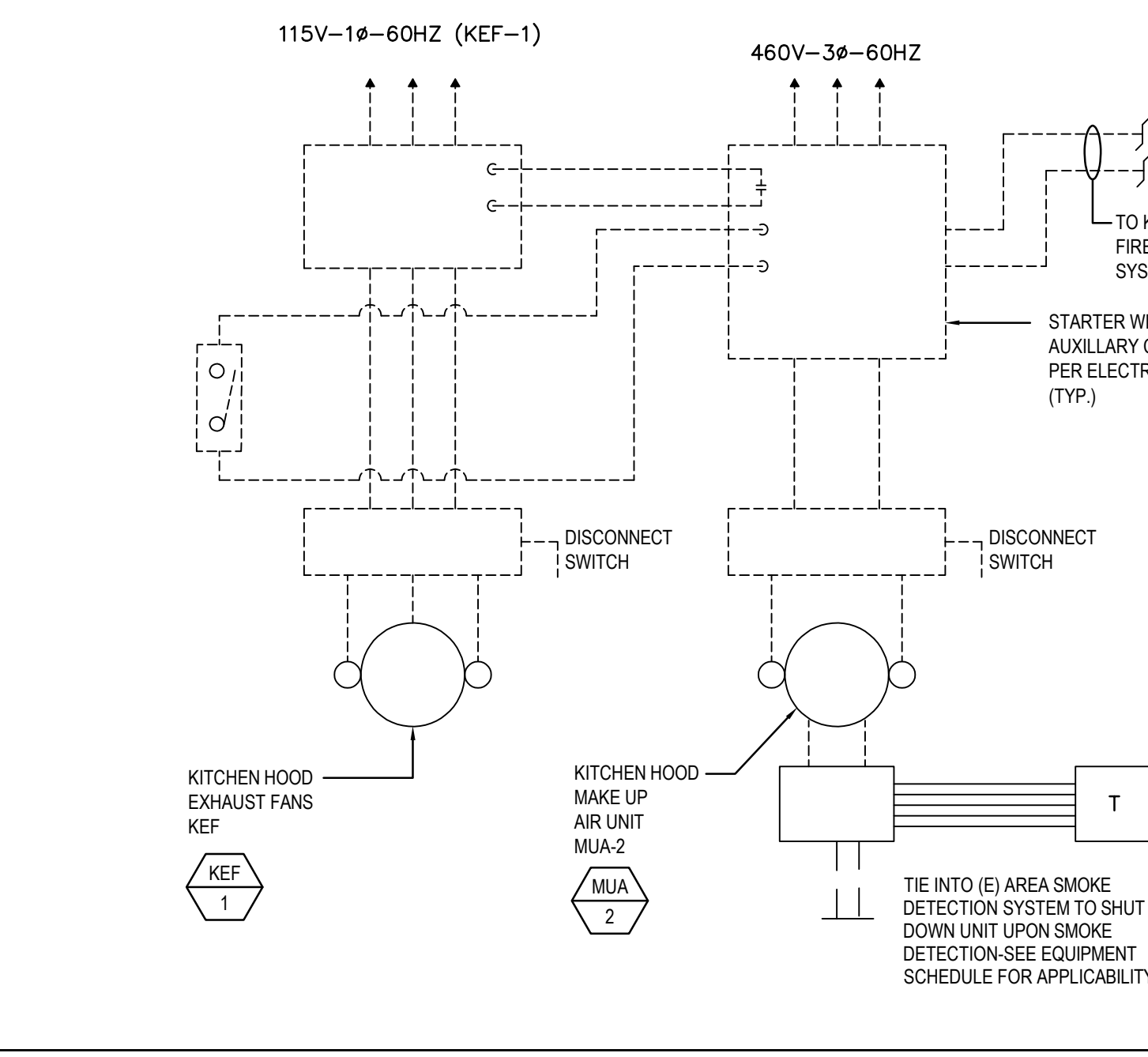
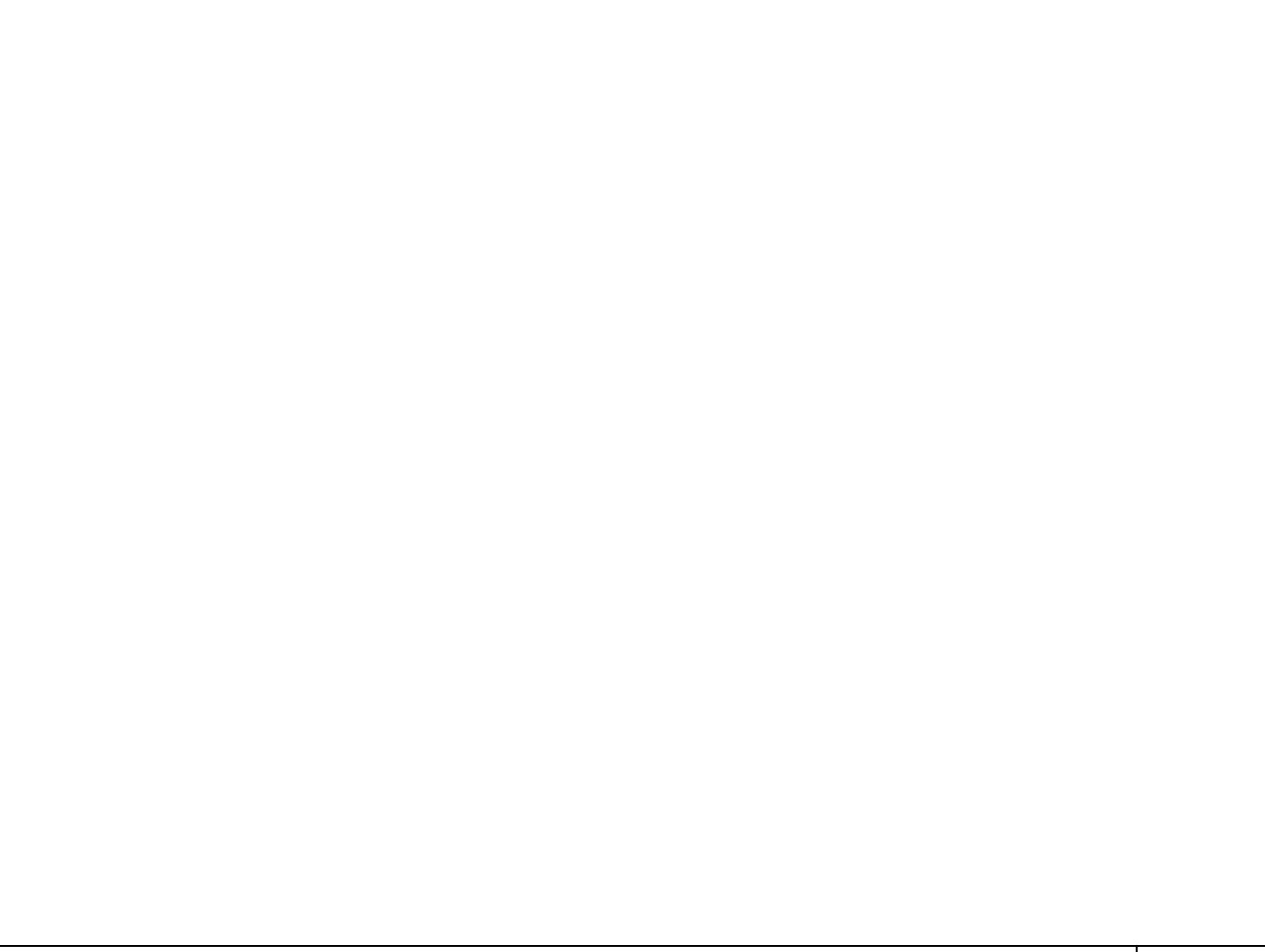
WIRING LEGEND

NOT TO SCALE 3



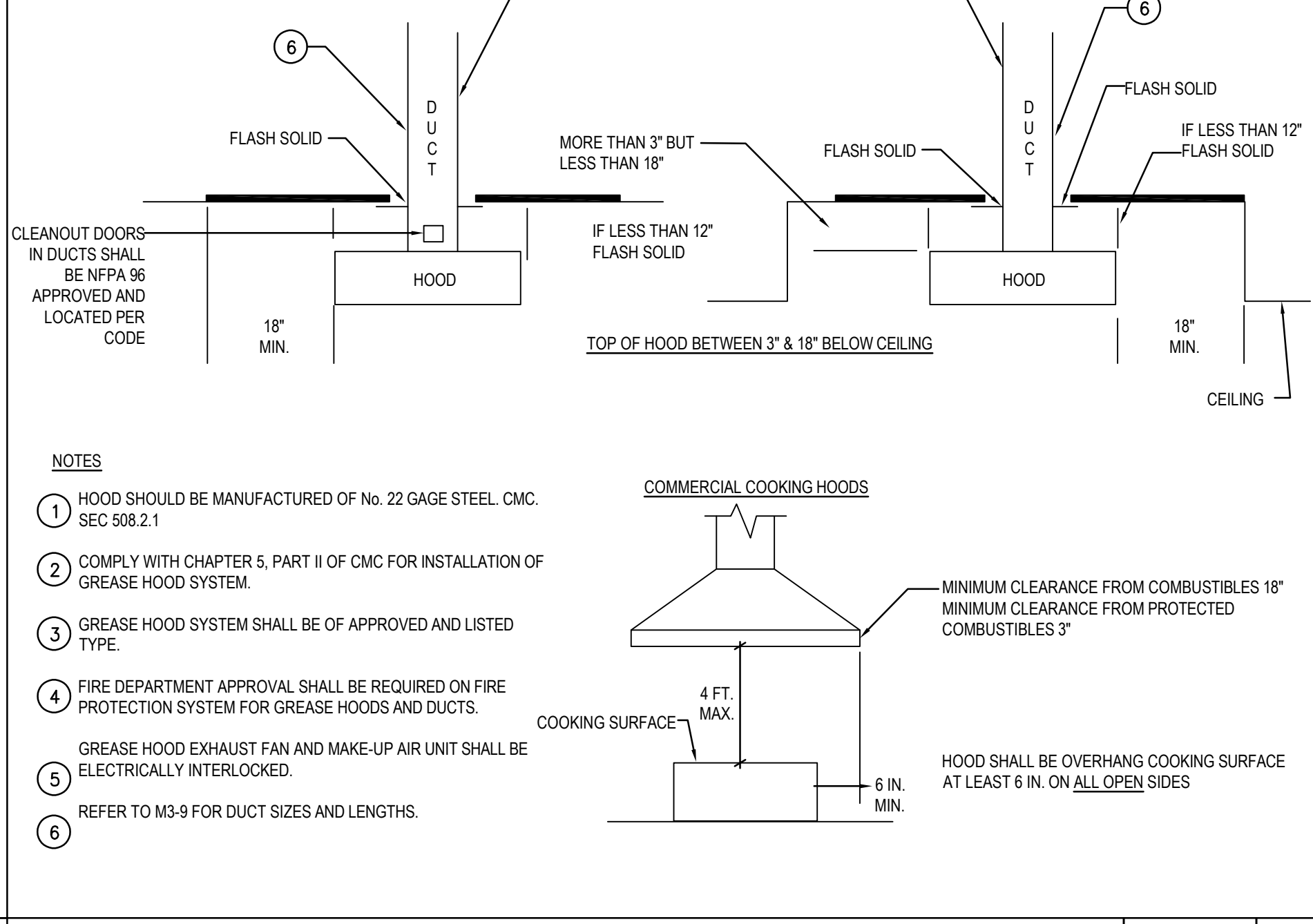
GREASE DUCT WITH 3M PLENUM DUCT WRAP

2



MUA-2 AND KEF-1 CONTROL

NOT TO SCALE 4



KITCHEN DUCT WRAP

NOT TO SCALE 2

NOT USED

NOT TO SCALE 7

MUA-2 AND KEF-1 CONTROL

NOT TO SCALE 4

KITCHEN DUCT WRAP

NOT TO SCALE 2

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PROJECT:
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DATE: 08/25/21

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DRAWING TITLE:
CAPTIVEAIRE DRAWINGS

DRAWING NO.:

M4.1

FOR QUESTIONS, CALL THE
Eastern LA & Orange Cty Mech
REGION 144
PHONE: (714) 503-0777
EMAIL: reg144@captiveaire.com

REVISIONS		
NO.	DESCRIPTION	DATE

CAPTIVEAIRE
www.captiveaire.com
Eastern LA & Orange Cty Mech
3002 Dow Avenue, Suite 410, Tustin, CA 92780 PHONE: (714) 503-0777 EMAIL: reg144@captiveaire.com

Culinary Classroom - San Dimas HS R4
800 W Covina Blvd,
San Dimas, CA, 91773

DATE: 9/24/2021
DWG.#: 5103027
DRAWN BY: JG-144
SCALE: NOT TO SCALE
MASTER DRAWING

SHEET NO. 1

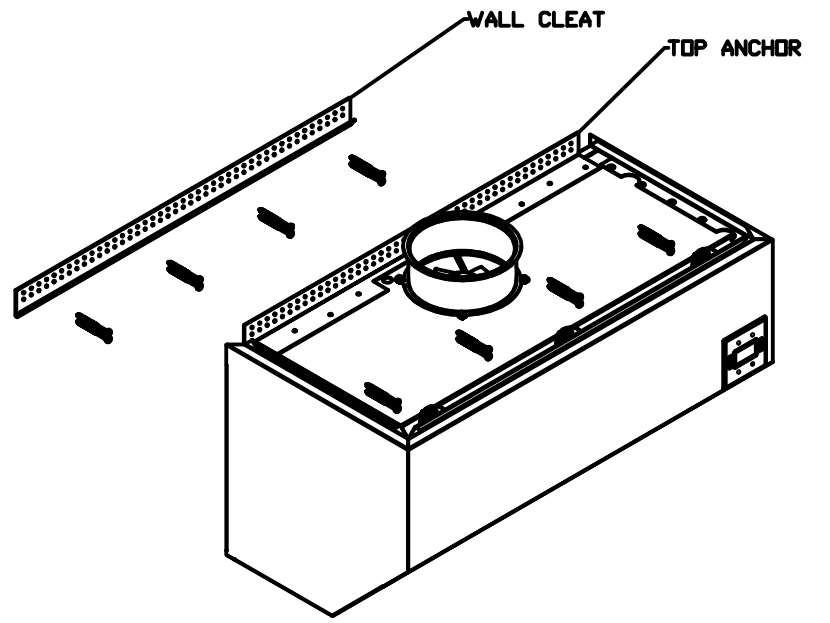
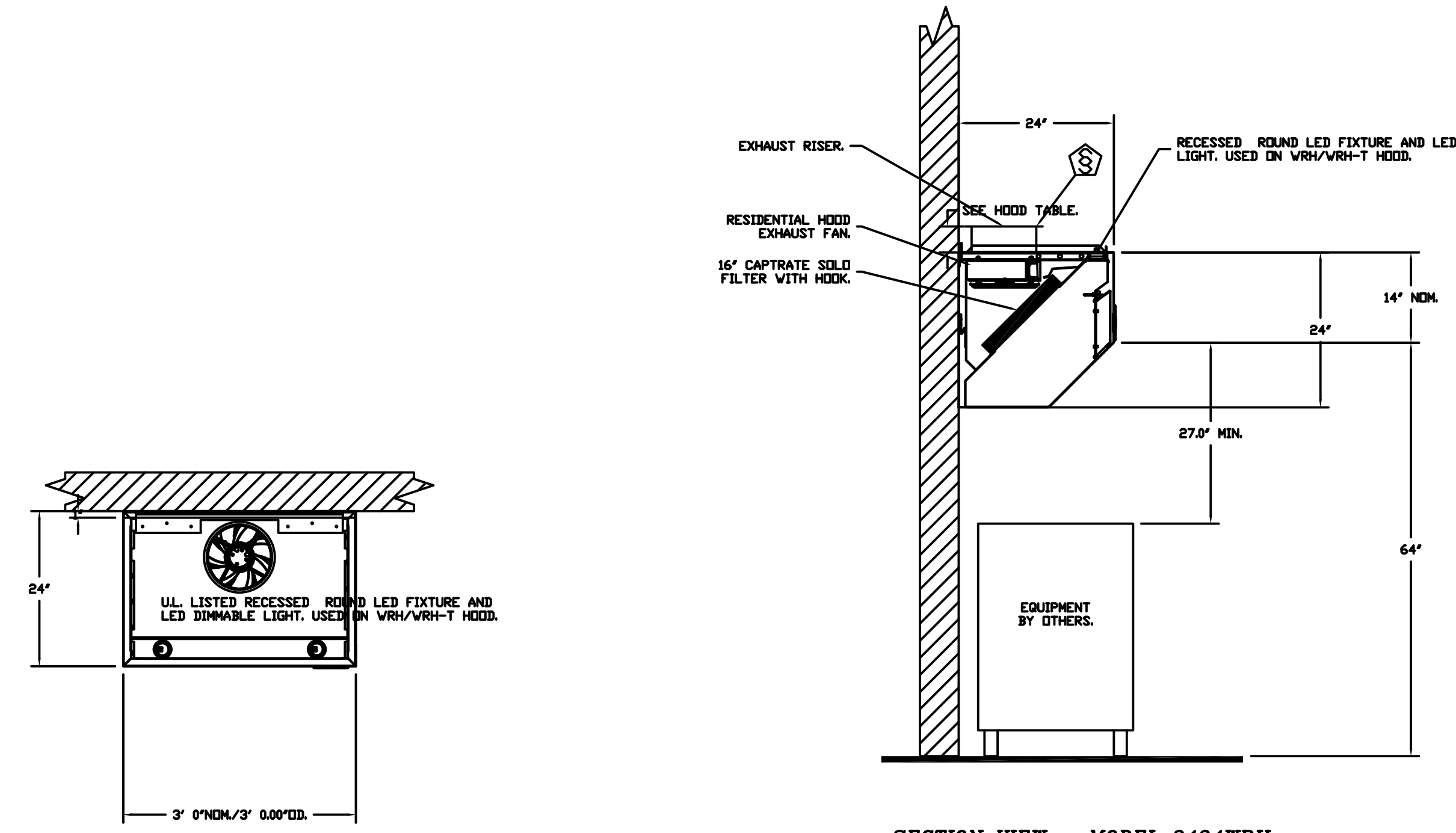
HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)				TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG		
										WIDTH	LENG	HEIGHT	DIA			CFM	VEL	SP
1	H-2	6024 ND-2-PSP-F	CAPTIVEAIRE	9' 0"	450 DEG	I	MEDIUM	175	1575	4'	14'	1575	1473	-0.510'	1450	430 SS WHERE EXPOSED	ALONE	ALONE
2	H-1	2424 WRH	CAPTIVEAIRE	3' 0"	450 DEG	R	MEDIUM	200	600	4'	10'	600	1100	-0.374'	0	430 SS 100%	ALONE	ALONE
3	H-1	2424 WRH	CAPTIVEAIRE	3' 0"	450 DEG	R	MEDIUM	200	600	4'	10'	600	1100	-0.374'	0	430 SS 100%	ALONE	ALONE
4	H-1	2424 WRH	CAPTIVEAIRE	3' 0"	450 DEG	R	MEDIUM	200	600	4'	10'	600	1100	-0.374'	0	430 SS 100%	ALONE	ALONE
5	H-1	2424 WRH	CAPTIVEAIRE	3' 0"	450 DEG	R	MEDIUM	200	600	4'	10'	600	1100	-0.374'	0	430 SS 100%	ALONE	ALONE
6	H-1	2424 WRH	CAPTIVEAIRE	3' 0"	450 DEG	R	MEDIUM	200	600	4'	10'	600	1100	-0.374'	0	430 SS 100%	ALONE	ALONE
7	H-1	2424 WRH	CAPTIVEAIRE	3' 0"	450 DEG	R	MEDIUM	200	600	4'	10'	600	1100	-0.374'	0	430 SS 100%	ALONE	ALONE

HOOD OPTIONS		
HOOD NO	TAG	OPTION
1	Pizza Hood	RISER SENSOR INSTALL 6IN PLEN.
2	H-1	RESIDENTIAL HOOD EXHAUST FAN.
3	H-2	RESIDENTIAL HOOD EXHAUST FAN.
4	H-3	RESIDENTIAL HOOD EXHAUST FAN.
5	H-4	RESIDENTIAL HOOD EXHAUST FAN.
6	H-5	RESIDENTIAL HOOD EXHAUST FAN.
7	H-6	RESIDENTIAL HOOD EXHAUST FAN.

PERFORATED SUPPLY PLENUM(S)			RISER(S)								
HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	WIDTH	LENG	DIA	CFM	SP
1	Pizza Hood	Front	120"	14"	6"	MUA	12"	28"	725	0.171'	
						MUA	12"	28"	725	0.171'	

HOOD NO	TAG	TYPE	FILTER(S)				LIGHT(S)				UTILITY CABINET(S)				FIRE SYSTEM	HOOD HANGING WEIGHT	
			QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	TYPE	SIZE	MODEL #			QUANTITY
1	H-2	CAPTRATE SOLO FILTER	6	20"	16"	85% SEE FILTER SPEC	3	L55 SERIES E26	ND	RIGHT	12"x60"x24"	TANK FS	4.0/4.0	SC-31110MA_M44	1 LIGHT 1 FAN	YES	814 LBS
2	H-1	CAPTRATE SOLO FILTER	2	16"	16"	85% SEE FILTER SPEC	2	RECESSED ROUND	ND							NO	153 LBS
3	H-1	CAPTRATE SOLO FILTER	2	16"	16"	85% SEE FILTER SPEC	2	RECESSED ROUND	ND							NO	153 LBS
4	H-1	CAPTRATE SOLO FILTER	2	16"	16"	85% SEE FILTER SPEC	2	RECESSED ROUND	ND							NO	153 LBS
5	H-1	CAPTRATE SOLO FILTER	2	16"	16"	85% SEE FILTER SPEC	2	RECESSED ROUND	ND							NO	153 LBS
6	H-1	CAPTRATE SOLO FILTER	2	16"	16"	85% SEE FILTER SPEC	2	RECESSED ROUND	ND							NO	153 LBS
7	H-1	CAPTRATE SOLO FILTER	2	16"	16"	85% SEE FILTER SPEC	2	RECESSED ROUND	ND							NO	153 LBS

FIRE SYSTEM INFORMATION - JOB#5103027						
FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		TANK FS	4.0/4.0	8	FIRE CABINET RIGHT	RIGHT, HOOD 1



MOUNTING HARDWARE

1. FASTENER

MOUNTING INSTRUCTIONS

WALL RESIDENTIAL HOOD MUST BE SECURED TO WALL USING BOTH TOP ANCHOR AND WALL CLEAT. MARK LOCATIONS FOR WALL CLEAT ON WALL. DRILL PILOT HOLES FOR FASTENERS. AFTER INSTALLATION OF WALL CLEAT ON WALL, MOUNT HOOD ON WALL CLEAT. USE FASTENERS THROUGH TOP ANCHOR TO DRAW HOOD CLOSER TO THE WALL AND SECURE HOOD TO WALL.
 A. WHEN INSTALLING INTO CONCRETE/MASONRY WALL, USE 3/16" x 3-1/4" SCREW, #90161A631.
 B. WHEN INSTALLING INTO METAL STUDS, USE #10 x 3" SELF DRILLING SCREWS, #90064A464.
 C. WHEN INSTALLING INTO WOODEN STUDS, USE #9 x 3" SCREWS, #90252A234.
 D. WHEN FASTENER LANDS ONLY ON DRYWALL, USE 3/16" x 3" LONG TOGGLE BOLTS, #97121A019.

FASTENERS ARE INCLUDED IN WRH INSTALLATION KIT SHIPPED WITH THE HOOD

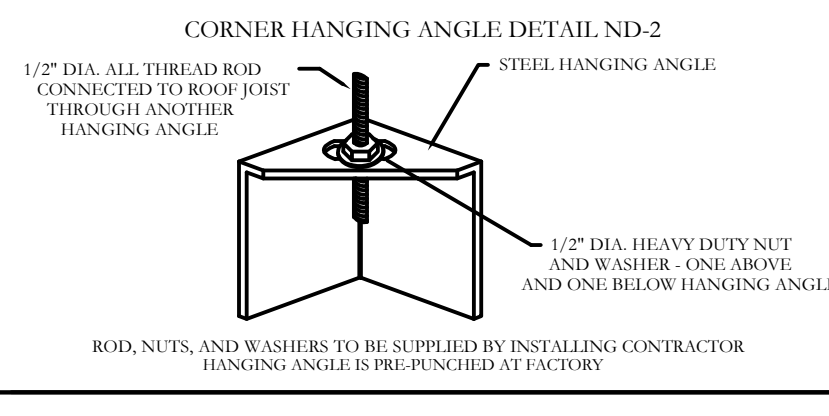
NOTE:

WALL RESIDENTIAL HOODS 30" AND 36" LONG, MUST USE TWO (2) STUDS MINIMUM, FASTENED WITH TOP ANCHOR AND WALL CLEAT OF WALL RESIDENTIAL HOOD.

WALL RESIDENTIAL HOODS 48" TO 72" LONG, MUST USE THREE (3) STUDS MINIMUM, FASTENED WITH TOP ANCHOR AND WALL CLEAT OF WALL RESIDENTIAL HOOD.

WALL RESIDENTIAL HOOD IS INTENDED FOR INSTALLATION OVER RESIDENTIAL APPLIANCES ONLY.

FOR QUESTIONS, CALL THE
CAPTIVEAIRE
SOUTHERN CALIFORNIA OFFICE
Region 144
3002 DOW AVE., SUITE 410
TUSTIN, CA 92780
PHONE: (714) 646-6668
REG144@CAPTIVEAIRE.COM



CAPTIVEAIRE HOODS ARE BUILT IN COMPLIANCE WITH

 UL 710 & ULCT10 STANDARDS
 E.T.L. LISTED 102900319PRT-001

CAPTRATE & KLEEN-GARD FILTERS ARE BUILT IN COMPLIANCE WITH

 CAPTRATE® GREASE-STOP® SOLO FILTER INFORMATION

NOM. SIZE (H x W)	ACTUAL DIMENSIONS (H x W x D)	FREE AREA (SQ. FEET)	WEIGHT (LBS)
20 x 20	19.5/8" x 19.5/8" x 1.7/8"	2.28	11
20 x 16	19.5/8" x 15.5/8" x 1.7/8"	1.78	8.9
16 x 20	15.5/8" x 19.5/8" x 1.7/8"	1.78	9.1
16 x 16	15.5/8" x 15.5/8" x 1.7/8"	1.39	7.4

CAPTRATE® GREASE-STOP® COMBO FILTER INFORMATION

NOM. SIZE (H x W)	ACTUAL DIMENSIONS (H x W x D)	FREE AREA (SQ. FEET)	WEIGHT (LBS)
20 x 20	19.5/8" x 19.5/8" x 1.7/8"	2.28	15
20 x 16	19.5/8" x 15.5/8" x 1.7/8"	1.78	12
16 x 20	15.5/8" x 19.5/8" x 1.7/8"	1.78	12
16 x 16	15.5/8" x 15.5/8" x 1.7/8"	1.39	10

KLEEN-GARD® SS BAFFLE TYPE FILTER INFORMATION

NOM. SIZE (H x W)	ACTUAL DIMENSIONS (H x W x D)	FREE AREA (SQ. FEET)	WEIGHT (LBS)
20 x 20	19.5/8" x 19.5/8" x 1.7/8"	2.23	11
20 x 16	19.5/8" x 15.5/8" x 1.7/8"	1.73	8.9
16 x 20	15.5/8" x 19.5/8" x 1.7/8"	1.73	9.1
16 x 16	15.5/8" x 15.5/8" x 1.7/8"	1.35	7.4

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-121968 INC:
REVIEWED FOR
SS FLS ACS
DATE: 12/20/2022

Architecture
9 PLLLP

8816 Foothill Boulevard, Suite 103-224
Rancho Cucamonga, CA 91730
a9contact@architecture9.com

ARCHITECTS STAMP:



CONSULTANT:

PBS ENGINEERS
2100 East Route 66, Suite 210
Glendora, CA 91740
T. 626.650.0350 F. 626.650.0352
www.pbsengineers.com Job No. 2021-072-00

CONSULTANTS STAMP



SCHOOL DISTRICT:

BONITA UNIFIED SCHOOL DISTRICT

PROJECT:
SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

JOB NUMBER: 12.03.00
DATE: 08/25/21

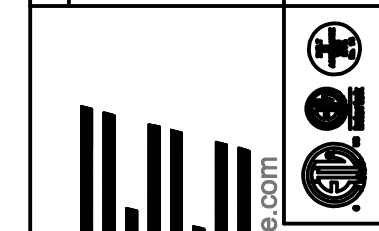
REVISION: Δ DATE: _____
REVISION: Δ DATE: _____

DRAWING TITLE:
CAPTIVEAIRE DRAWING

DRAWING NO.:

M4.2

REVISIONS	
DESCRIPTION	DATE



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www.captiveaire.com
Eastern LA & Orange City Mech
3002 Dow Avenue, Suite 410, Tustin, CA 92780 PHONE: (714) 503-0777 EMAIL: reg144@captiveaire.com

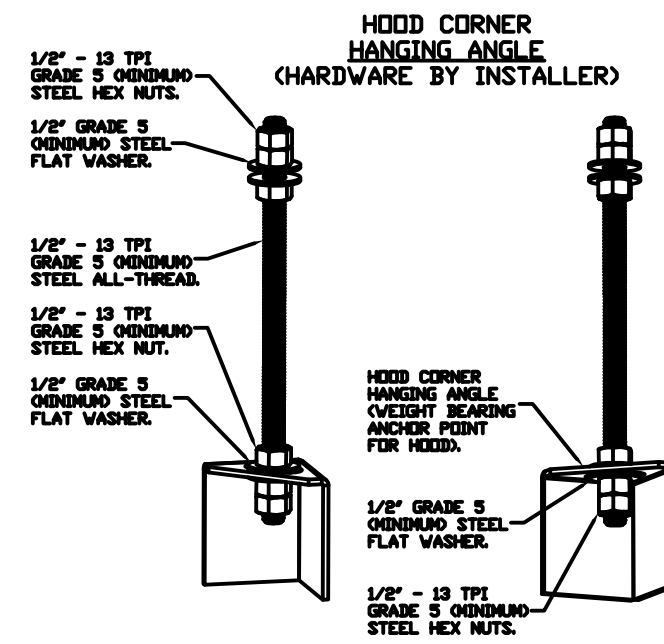
Culinary Classroom - San Dimas HS R4
800 W Covina Blvd,
San Dimas, CA, 91773

DATE: 9/24/2021
DWG.#: 5103027
DRAWN BY: JG-144
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 2

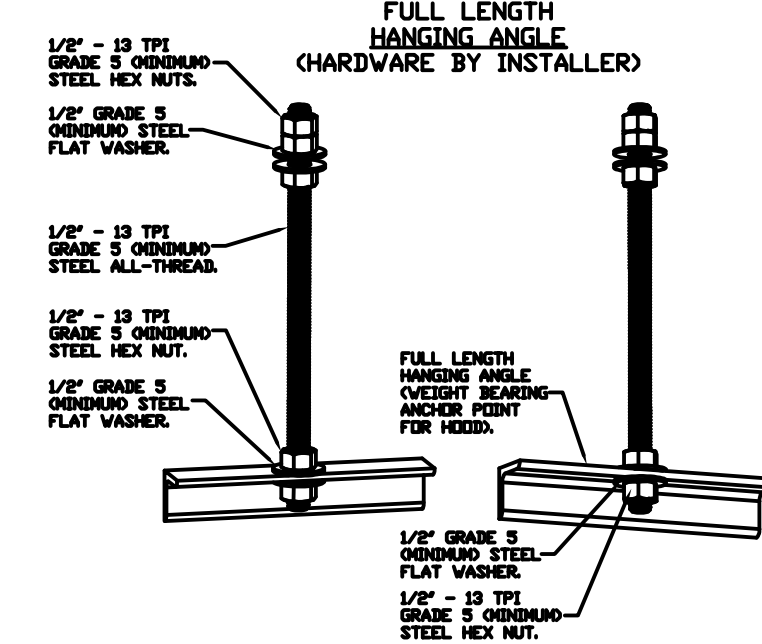
PATENT NUMBERS

AC-PSP (UNITED STATES) - US PATENT 7962830 B2.
AC-PSP WALL (CANADA) - CA PATENT 2820509.
AC-PSP ISLAND (CANADA) - CA PATENT 2520330.



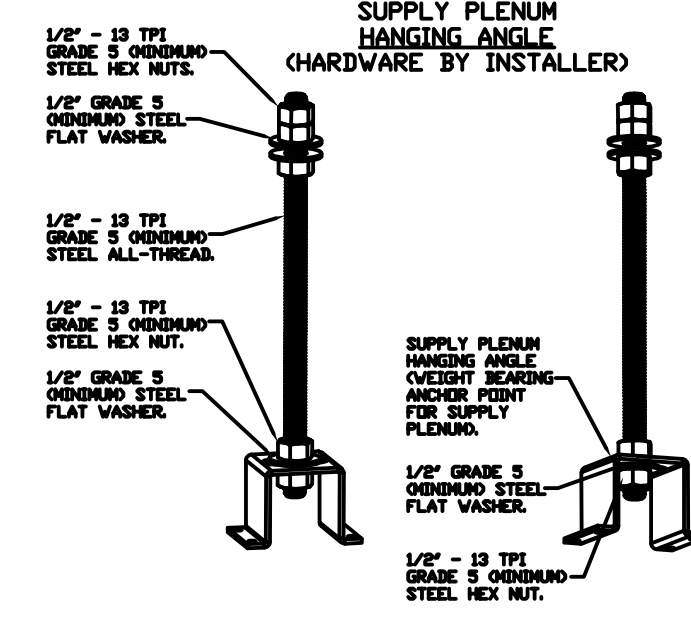
ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



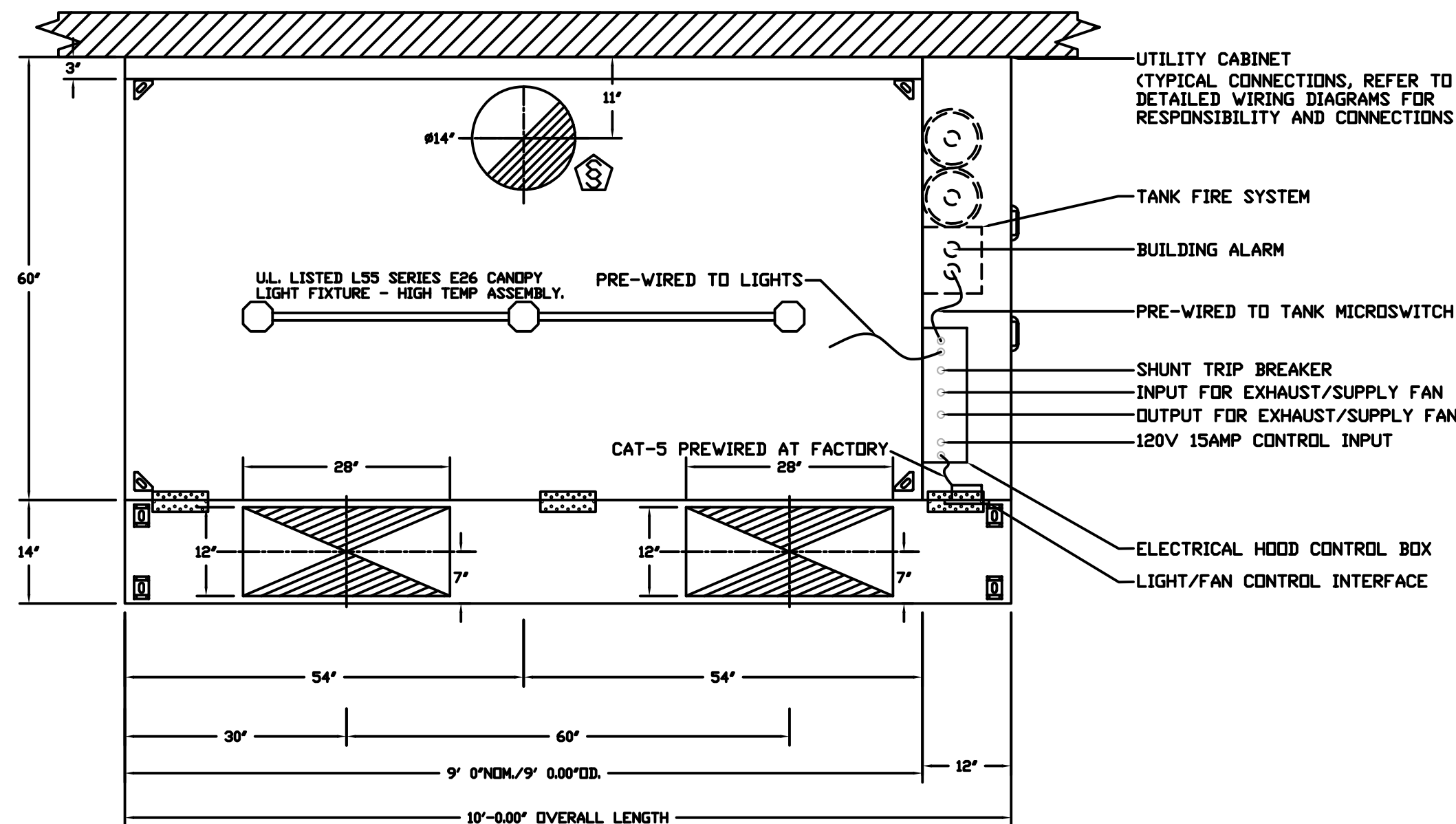
ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR FULL LENGTH HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

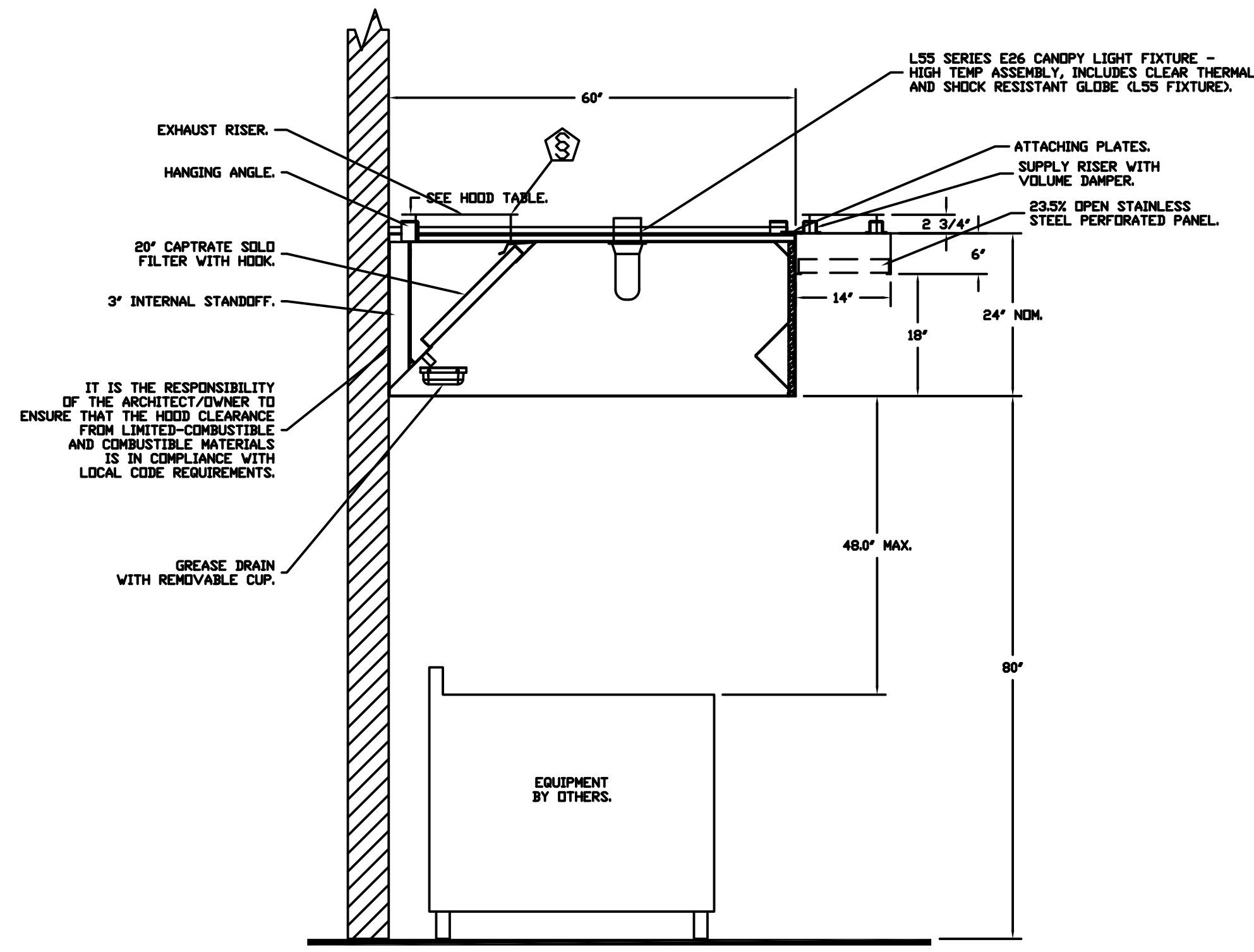


ASSEMBLY INSTRUCTIONS

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PLAN VIEW - HOOD #1 (Pizza Hood)
9' 0.00" LONG 6024ND-2-PSP-F

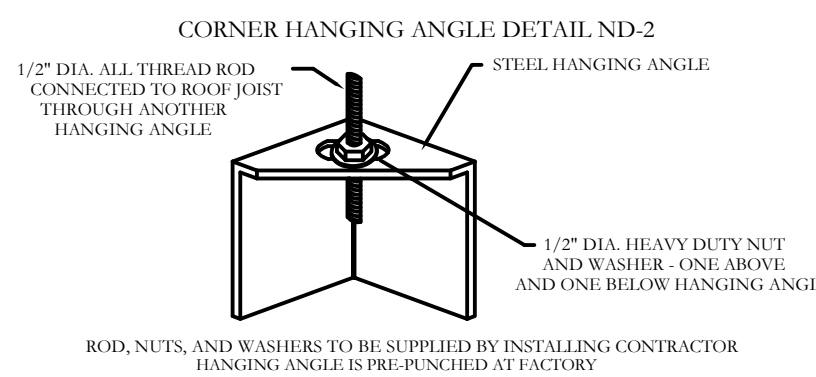


SECTION VIEW - MODEL 6024ND-2-PSP-F
HOOD - #1 (Pizza Hood)

FOR QUESTIONS, CALL THE CAPTIVEAIRE SOUTHERN CALIFORNIA OFFICE

Region 144

3002 DOW AVE., SUITE 410
TUSTIN, CA 92780
PHONE: (714) 646-0608
REG144@CAPTIVEAIRE.COM



CAPTIVEAIRE HOODS ARE BUILT IN COMPLIANCE WITH

NEMA #96
UL 710 & UL710 STANDARDS
E.T.L. LISTED 102900319PRT-001

CAPTRATE® & KLEEN-GARD FILTERS ARE BUILT IN COMPLIANCE WITH

NEMA #96
NSF STANDARD #2
UL STANDARD #1046
INT. MECH. CODE: (IMC)

CAPTIVEAIRE® GREASE-STOP® SOLO FILTER INFORMATION

NOM. SIZE (H x W)	ACTUAL DIMENSIONS (H x W x D)	FREE AREA (SQ. FEET)	WEIGHT (LBS)
20 x 20	19.5/8" x 19.5/8" x 1.7/8"	2.78	11
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KLEEN-GARD® SS BAFFLE TYPE FILTER INFORMATION

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16 x 16	15.5/8" x 15.5/8" x 1.7/8"	1.35	7.4

ARCHITECTS STAMP:



CONSULTANT:



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T. 626.650.0350 F. 626.650.0352
www.pbsengineers.com Job no. 2021-072-00

CONSULTANTS STAMP



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BONITA UNIFIED SCHOOL DISTRICT

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SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

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DRAWING TITLE:
CAPTIVEAIRE DRAWING

DRAWING NO.:

M4.3

REVISIONS	
DESCRIPTION	DATE

CAPTIVEAIRE
www.captiveaire.com
Eastern LA & Orange Cty Mech
3002 Dow Avenue, Suite 410, Ustin, CA 92780 PHONE: (714) 503-0777 EMAIL: reg144@captiveaire.com

Culinary Classroom - San Dimas HS R4
800 W Covina Blvd,
San Dimas, CA, 91773

DATE: 9/24/2021
DWG.#: 5103027
DRAWN BY: JG-144
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 3

EXHAUST FAN INFORMATION - JOB#5103027

FAN UNIT NO.	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL.	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	PIZZA OVEN	1	DUBSHFA	CAPTIVEAIRE	1575	1.000	1309	TEAD-ECM	0.750	0.3940	1	115	8.9	498 FPM	93	12

MUA FAN INFORMATION - JOB#5103027

FAN UNIT NO.	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL.	HP	BHP	PHASE	VOLT	FLA	MCA	MDCP	WEIGHT (LBS)	SONES
3	PIZZA OVEN	1	A1-15D	15MF-1-MDD	A1	-	1450	0.500	1580	TEAD-ECM	1.000	0.5790	1	115	11.6	14.5A	25A	345	18.7

DOAS/RTU FAN SCHEDULE - JOB#5103027

FAN UNIT NO.	TAG	QTY	DOAS/RTU MODEL #	MANUFACTURER	BLOWER	RETURN AIR CFM	MAX OUTSIDE AIR CFM	TOTAL CFM	ESP	HP	BHP	PHASE	VOLT	MCA	MDCP	WEIGHT (LBS)
2	RES HOODS	1	CASRTU1-1150-18-7.5T-DOAS	CAPTIVEAIRE	18Z-1	0	2525	2525	0.500	5.000	1.3660	3	460	20.8A	25A	1291

DOAS/RTU COOLING SCHEDULE

FAN UNIT NO.	TAG	COMPRESSOR				OUTDOOR FAN				INDOOR COIL		OUTSIDE AIR DB TEMP	OUTSIDE AIR WB TEMP	MIXED AIR DB TEMP	MIXED AIR WB TEMP	LEAVING DB TEMP	LEAVING WB TEMP	LEAVING DP TEMP	TOTAL CAPACITY	SENSIBLE CAPACITY	LATENT CAPACITY	REHEAT LEAVING DB TEMP	REHEAT LEAVING WB TEMP	DESIRED REHEAT CAPACITY	MAX REHEAT CAPACITY	REHEAT LEAVING RELATIVE HUMIDITY	MOISTURE REMOVAL RATE	IEER
		TONNAGE	VOLTAGE	PHASE	MOTOR VOLTAGE	MOTOR #	MOTOR FREQUENCY	MOTOR QTY	ROWS	FACE AREA																		
2	RES HOODS	7.5	380-480	3	380-480	3	60	2	5	6.2 SOFT	100.0°F	70.0°F	100.0°F	70.0°F	59.6°F	56.5°F	54.6°F	102.0 MBH	102.0 MBH	0.0 MBH	70.0°F	60.4°F	28.3 MBH	60 MBH	58	0 LBS/HR	18.6	

DOAS/RTU HEATING SCHEDULE

FAN UNIT NO.	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
2	RES HOODS	150000	120000	43°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	80

FAN OPTIONS

FAN UNIT NO.	TAG	QTY	DESCRIPTION
1	PIZZA OVEN	1	GREASE BOX.
		1	FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS.
		1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCD), CCV ROTATION.
		1	2 YEAR PARTS WARRANTY.
		1	INLET PRESSURE GAUGE, 0-35".
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE.
		1	TOTAL CFM MONITORING FOR DOAS.
		1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU. QNTY 1 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #28, #47, #A, OR #E2 OPTION PREWIRE MUST BE SELECTED. DO NOT PROVIDE SUPPLY STARTER IN PREWIRE.
		1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED.
		1	2" MERV 13 FILTERS FOR SIZE 1 RTU. QTY. 4.
2	RES HOODS	1	2" MERV 8 FILTERS SIZE 1 RTU. QTY. 4.
		1	OVERHEAT STAT.
		1	RTU SIZE 1 DOWN DISCHARGE.
		1	RTU FIXED 100% OA INTAKE CONTROL.
		1	RTU SIZE 1 NO RETURN.
		1	SIZE 1 RTU CURB DUCT HANGER.
		1	COMMERCIAL SMOKE DETECTOR/ALARM INTERLOCK (SUPPLIED BY OTHERS).
		1	ECM BUILDING SP CONTROL RTU MUA BOARD.
		1	CLOGGED FILTER SWITCH WITH NOTIFICATION ON HMI.
		1	7.5 TON MODULATING COOLING OPTION, 460/480V. R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS.
3	PIZZA OVEN	1	ECM FAN DOAS - 3 PHASE.
		1	7.5 TON MODULATING REHEAT OPTION SPACE DEWPOINT CONTROL.
		1	5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS).
		1	GRAVITY BACKDRAFT DAMPER FOR SIZE 1 HOUSING.
		1	ECM WIRING PACKAGE - DD SUPPLY - MODBUS CONTROL-MSC- (TELCD).

FAN ACCESSORIES

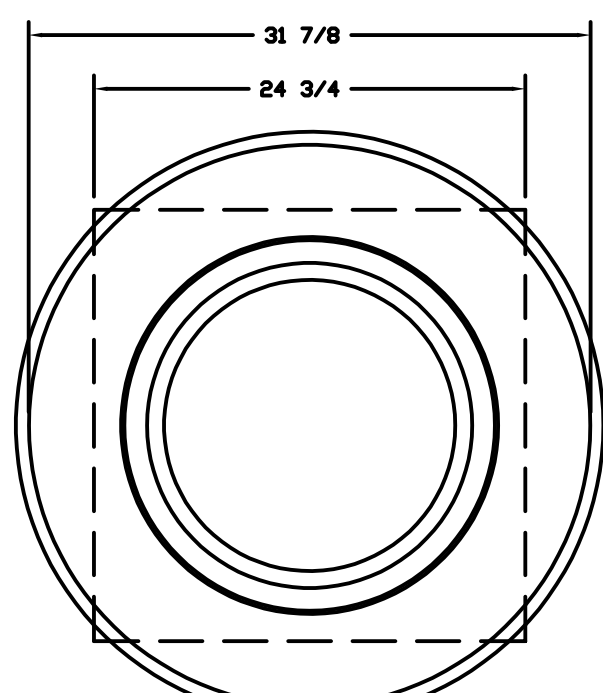
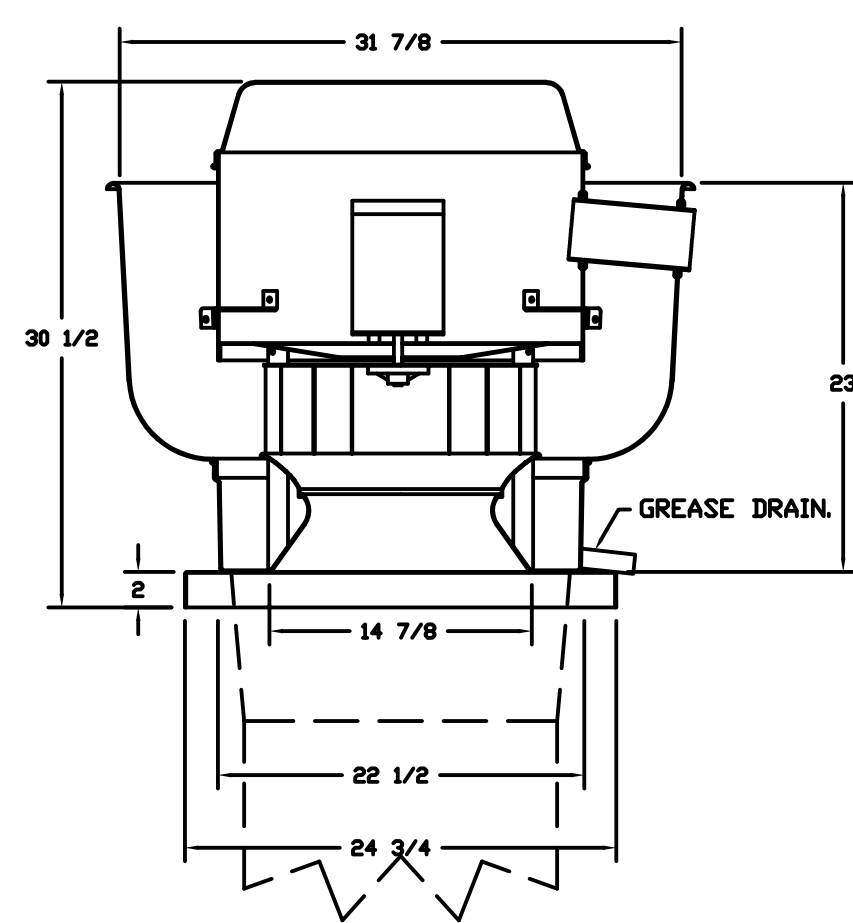
FAN UNIT NO.	TAG	EXHAUST			SUPPLY		
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER
1	PIZZA OVEN	YES					
3	PIZZA OVEN					YES	

CURB ASSEMBLIES

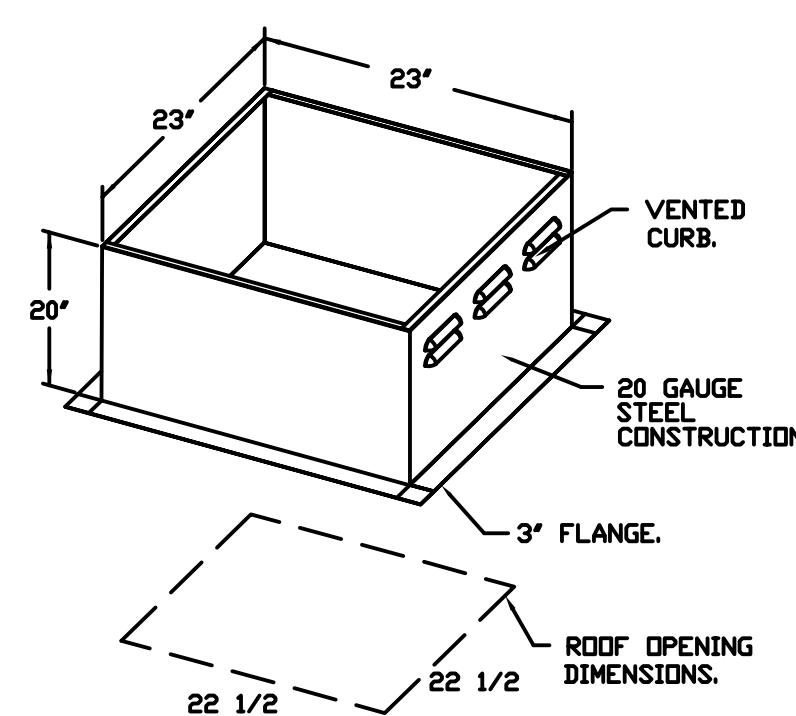
NO.	DN FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1		36 LBS	CURB	23,000"W X 23,000"L X 20,000"H ALONG LENGTH, RIGHT VENTED HINGED.
2	# 2		51 LBS	CURB	41,000"W X 71,000"L X 12,000"H ALONG WIDTH, RIGHT INSULATED.
3	# 3	PIZZA OVEN	39 LBS	CURB	21,000"W X 21,000"L X 8,000"H ALONG LENGTH, RIGHT.
4	# 3		16 LBS	RAIL	4,000"W X 4,000"L X 36,000"H ALONG LENGTH, RIGHT.
4	# 3		16 LBS	CURB	17,500"W X 17,500"L X 9,000"H ALONG LENGTH, RIGHT.

ASHRAE 62.4 DEHUMIDIFICATION DESIGN CONDITIONS
EAT DB 81.2°F
EAT WB 72.8°F
LAT DB 62.2°F
LAT WB 61°F

FAN KEFB1 DUBSHFA - EXHAUST FAN (PIZZA OVEN)



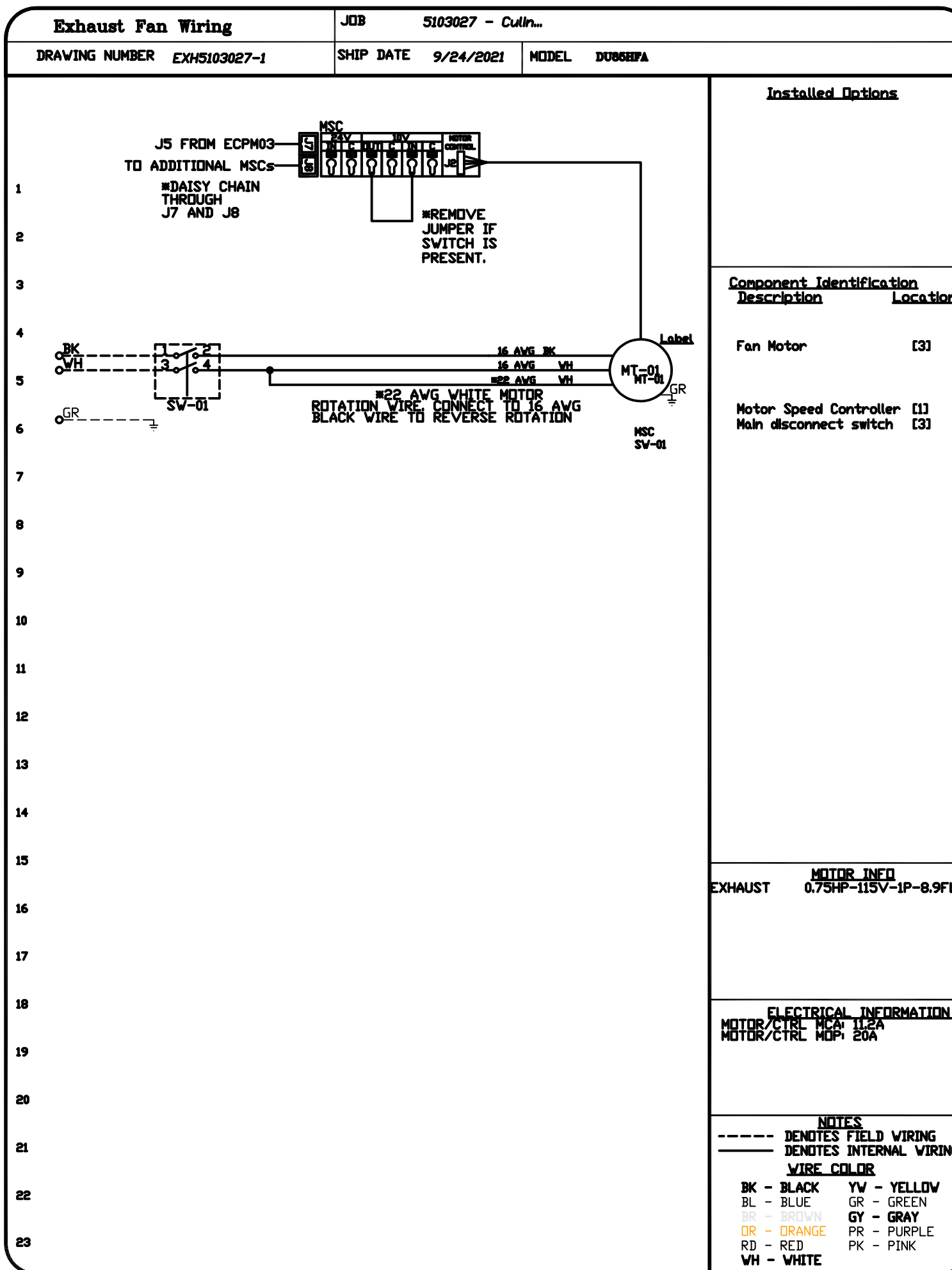
TOP VIEW



PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.
SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE.

FEATURES:

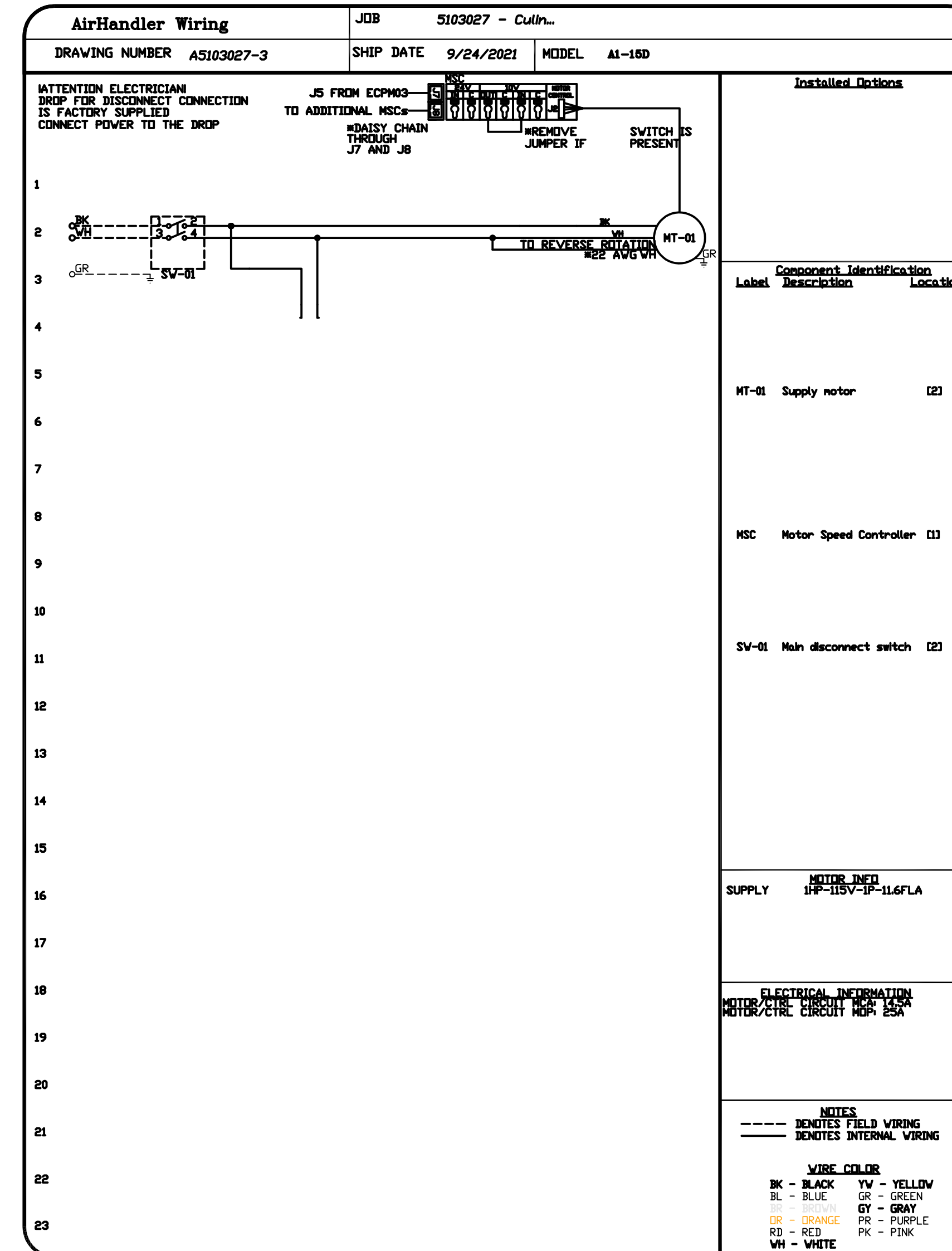
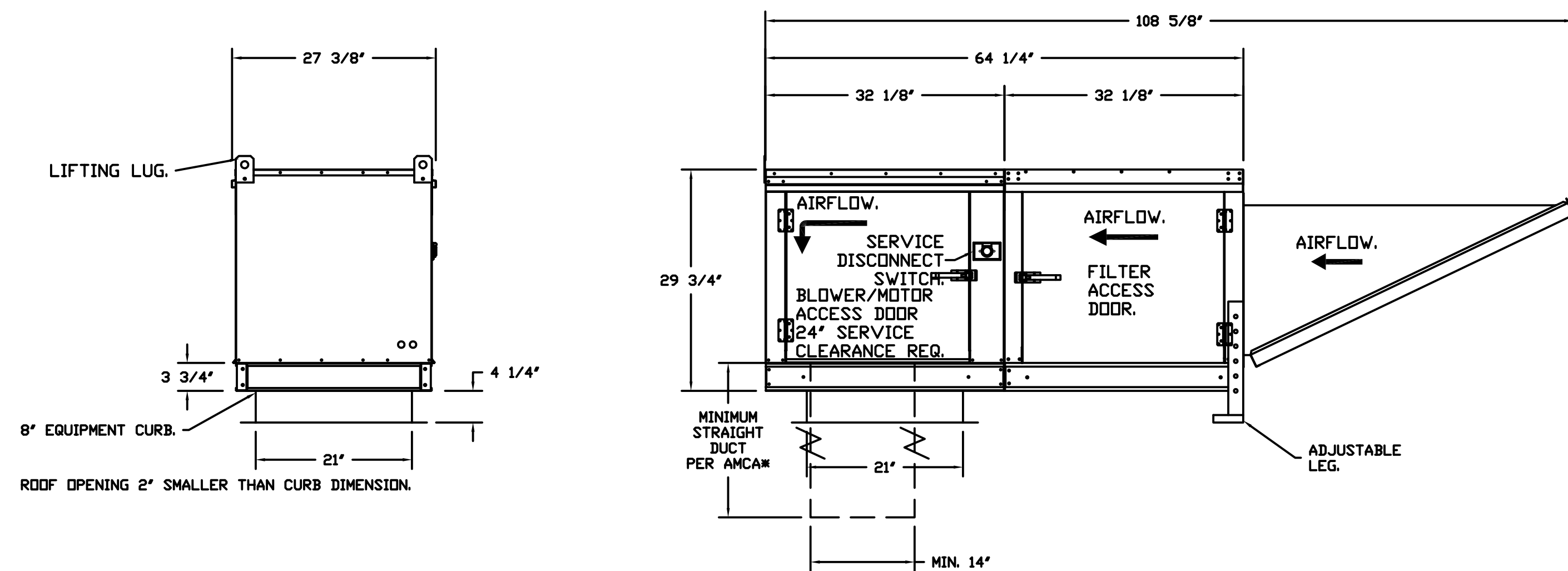
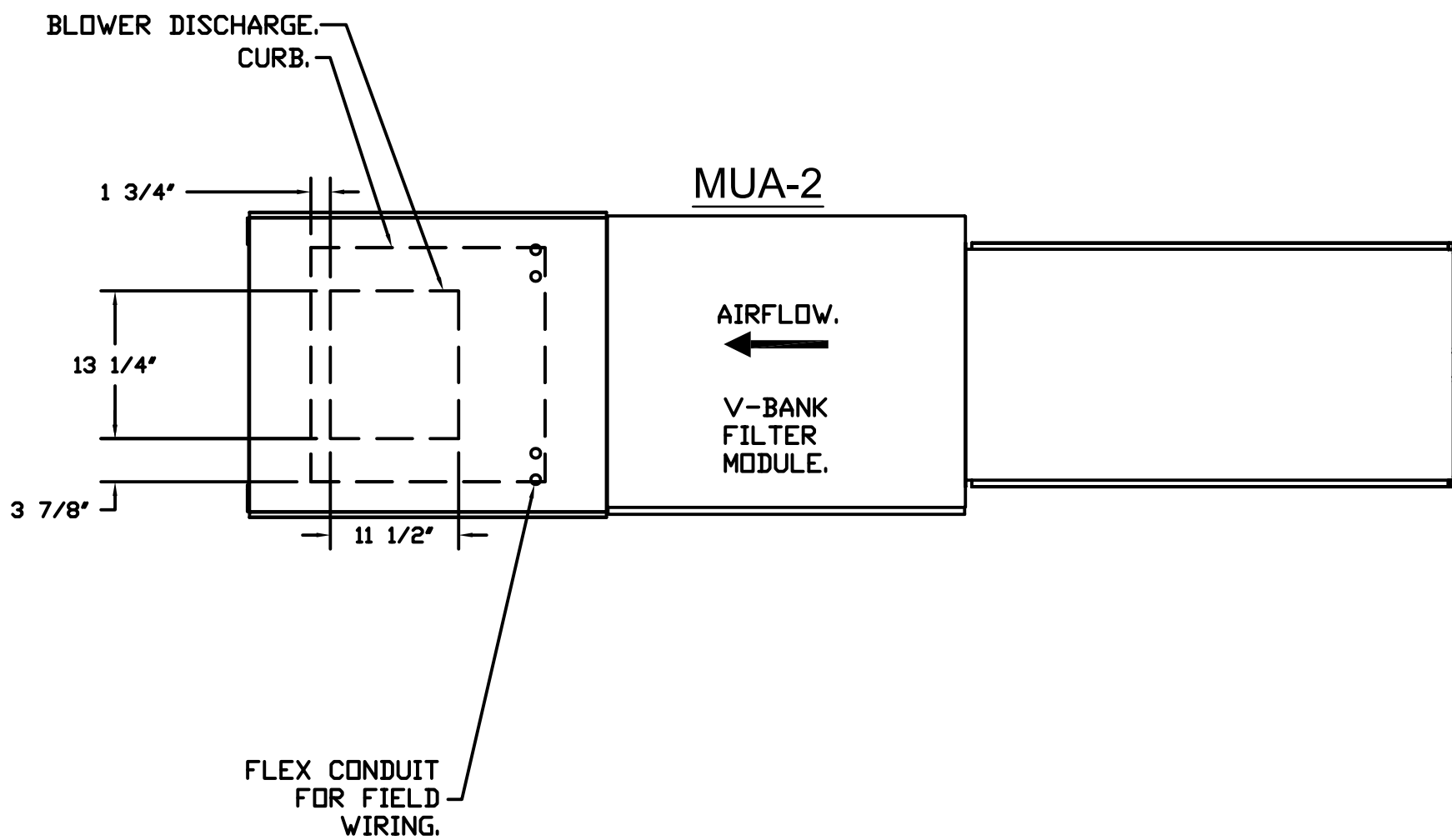
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-5645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.
- NORMAL TEMPERATURE TEST**
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DEGRADATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.
- ABNORMAL FLARE-UP TEST**
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.
- OPTIONS**
GREASE BOX.
FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS.
ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCD), CCV ROTATION.
2 YEAR PARTS WARRANTY.



SHEET NO. 3

P:\P-2021\2021-072-00 San Dimas HS Culinary Arts Classroom Mod\10_BIM-CAD\MEP\M4.4.dwg 2/15/2022 9:53 AM Katherine M. Milano

- FAN #3 AI-15D - SUPPLY FAN (PIZZA OVEN)
1. UNTEMPERED SUPPLY UNIT WITH 15" MIXED FLOW DIRECT DRIVE FAN IN SIZE #1 HOUSING.
 2. V-BANK TA-13 FILTERS W/INTAKE HOOD WITH EZ FILTERS - OUTDOOR.
 3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
 4. GRAVITY BACK DRAFT DAMPER, 16" WIDE X 18" HIGH, STANDARD GALVANIZED CONSTRUCTION, 1 1/4" REAR FLANGE, FOR SIZE 1 UNTEMPERED FAN HOUSING (S181).
 5. ECM WIRING PACKAGE MODBUS CONTROL FOR SUPPLY EC MOTORS. MSC CONTROLLER. ***DO NOT ORDER UNDER WARRANTY, SEE PART NUMBER "CAS MSC"***.
 6. HINGED DOUBLE WALL INSULATED DDDR ASSEMBLY (BURNER/BLOWER SECTION).
 7. 2 YEAR PARTS WARRANTY.
- NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 14" x 14".



REVISIONS	
DESCRIPTION	DATE

CAPTIVEAIRE
www.captiveaire.com
Eastern LA & Orange Cty Mech
3002 Dow Avenue, Suite 410, Tustin, CA 92780 PHONE: (714) 503-0777 EMAIL: reg144@captiveaire.com

Culinary Classroom - San Dimas HS R4
800 W Covina Blvd,
San Dimas, CA, 91773

DATE: 9/24/2021
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DRAWN BY: JG-144
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 4

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-121968 INC:
REVIEWED FOR:
SS FLS ACS
DATE: 12/20/2022

Architecture PLLLP
9
8816 Foothill Boulevard, Suite 103-224
Rancho Cucamonga, CA 91730
a9contact@architecture9.com

ARCHITECTS STAMP:

CONSULTANT:

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Glendora, CA 91740
T. 626.650.0350 F. 626.650.0352
www.pbsengineers.com Job no. 2021-072-00

CONSULTANTS STAMP:

SCHOOL DISTRICT:
BONITA UNIFIED SCHOOL DISTRICT

PROJECT:
SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

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CAPTIVEAIRE DRAWING

DRAWING NO.:

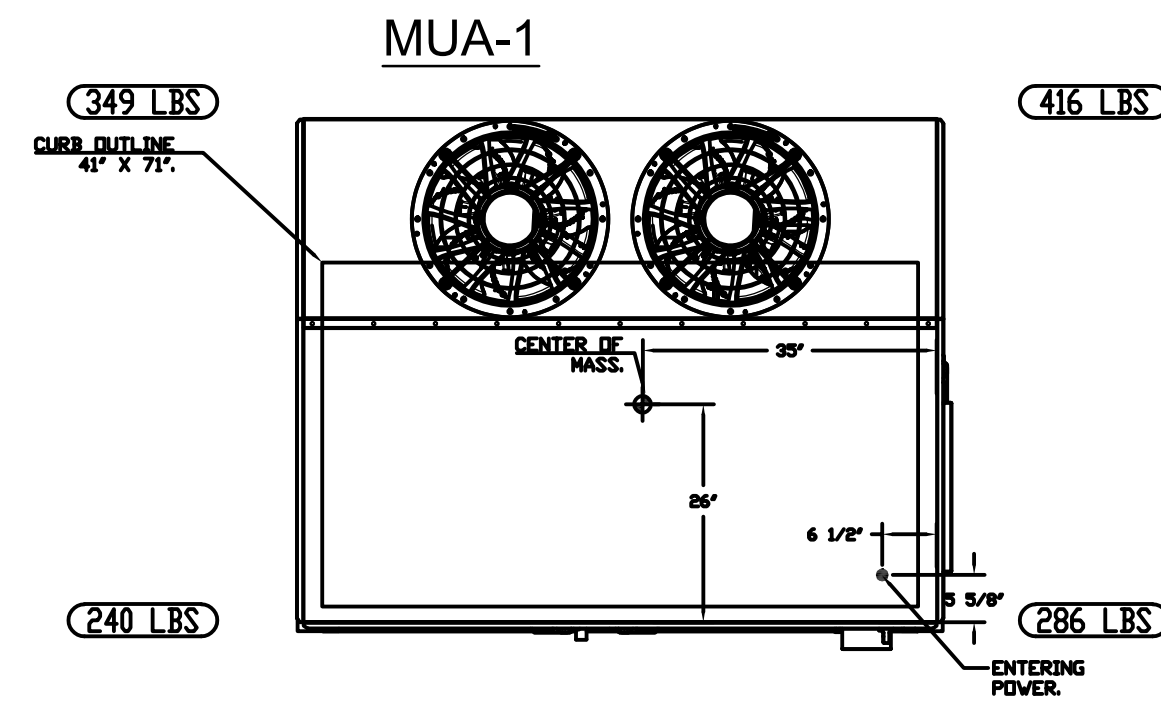
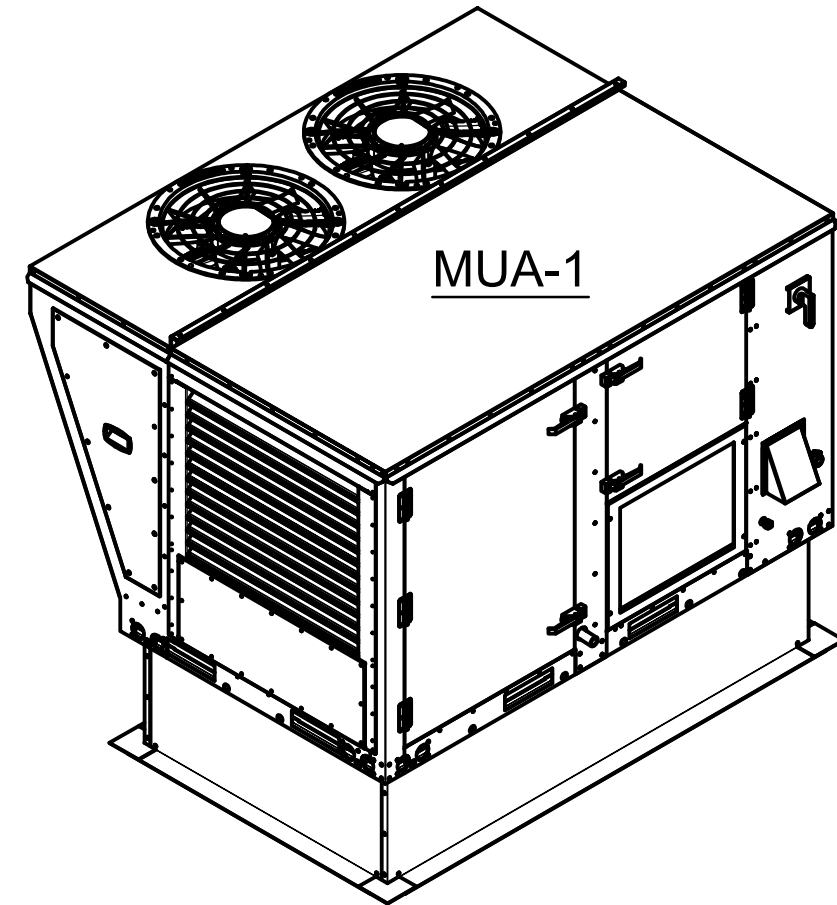
M4.4

FAN #2 CASRTU1-I.150-18Z-7.5T-DDAS - HEATER (RES HOODS)

NOTES:

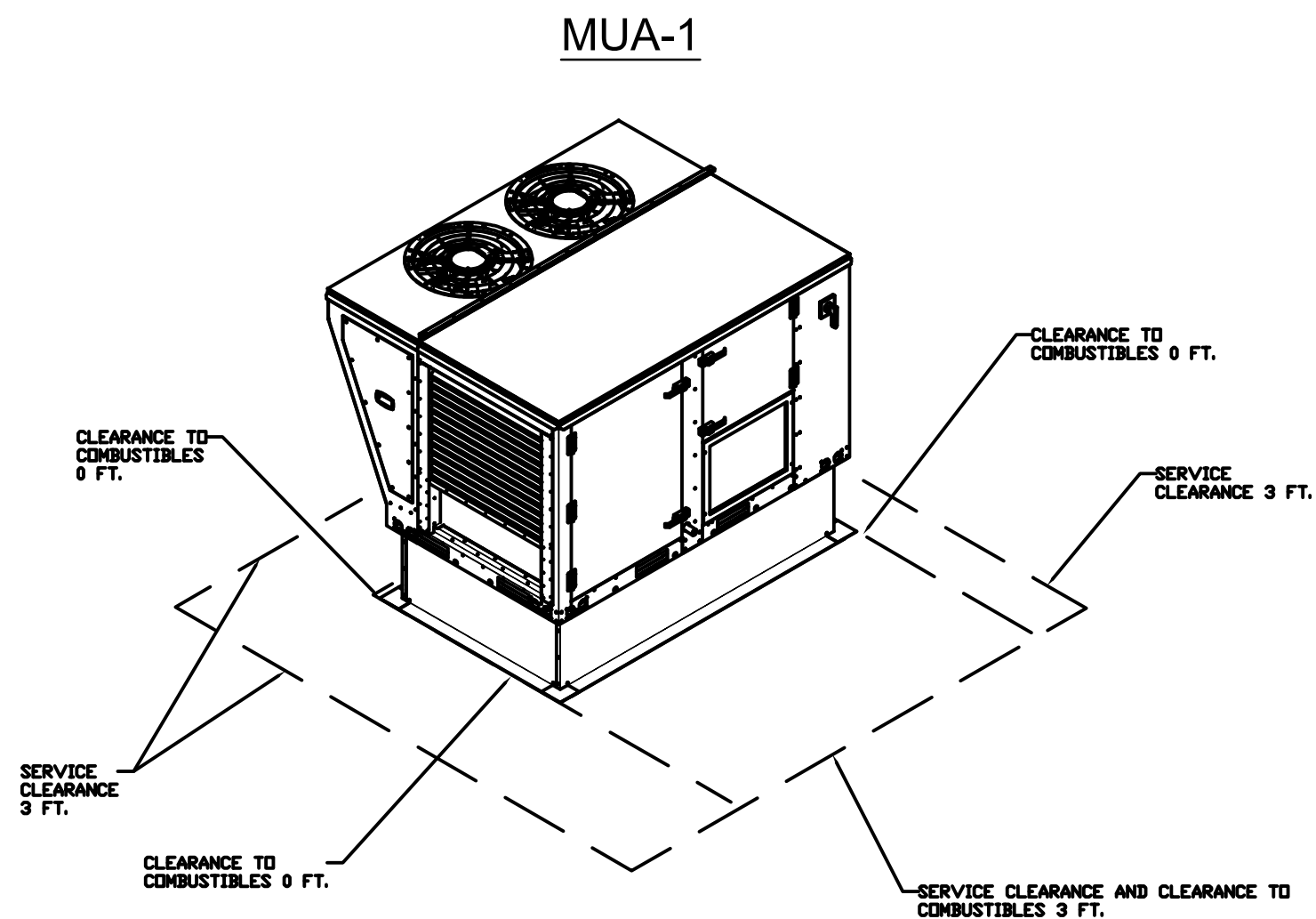
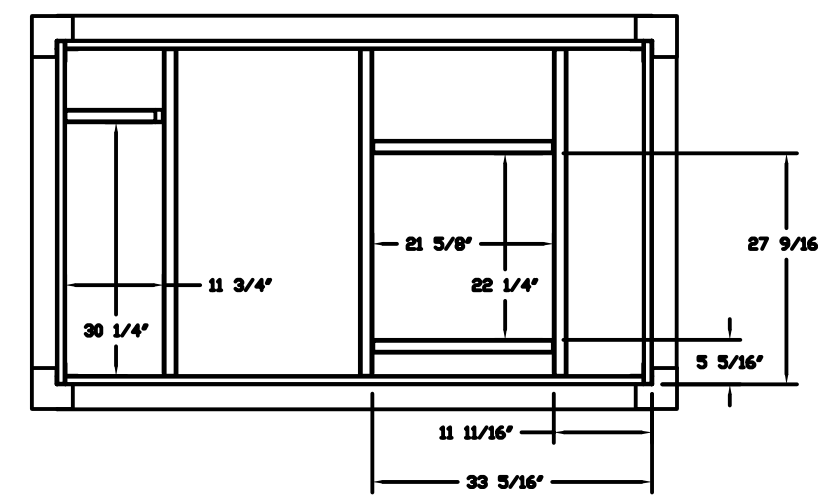
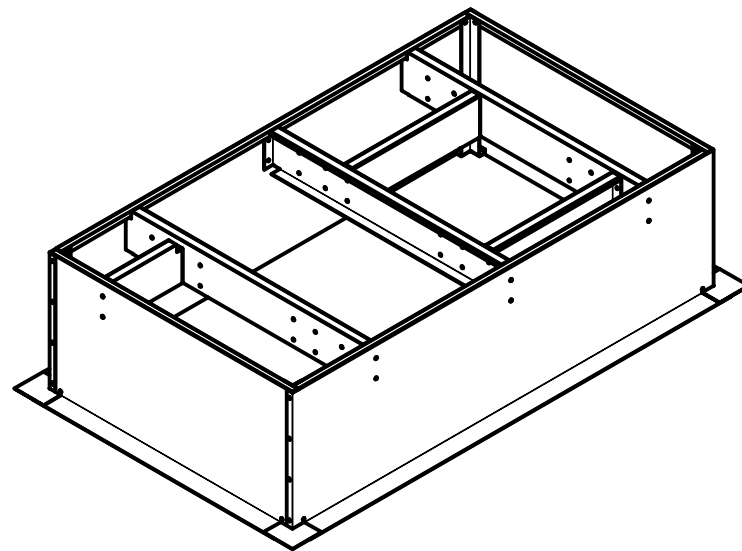
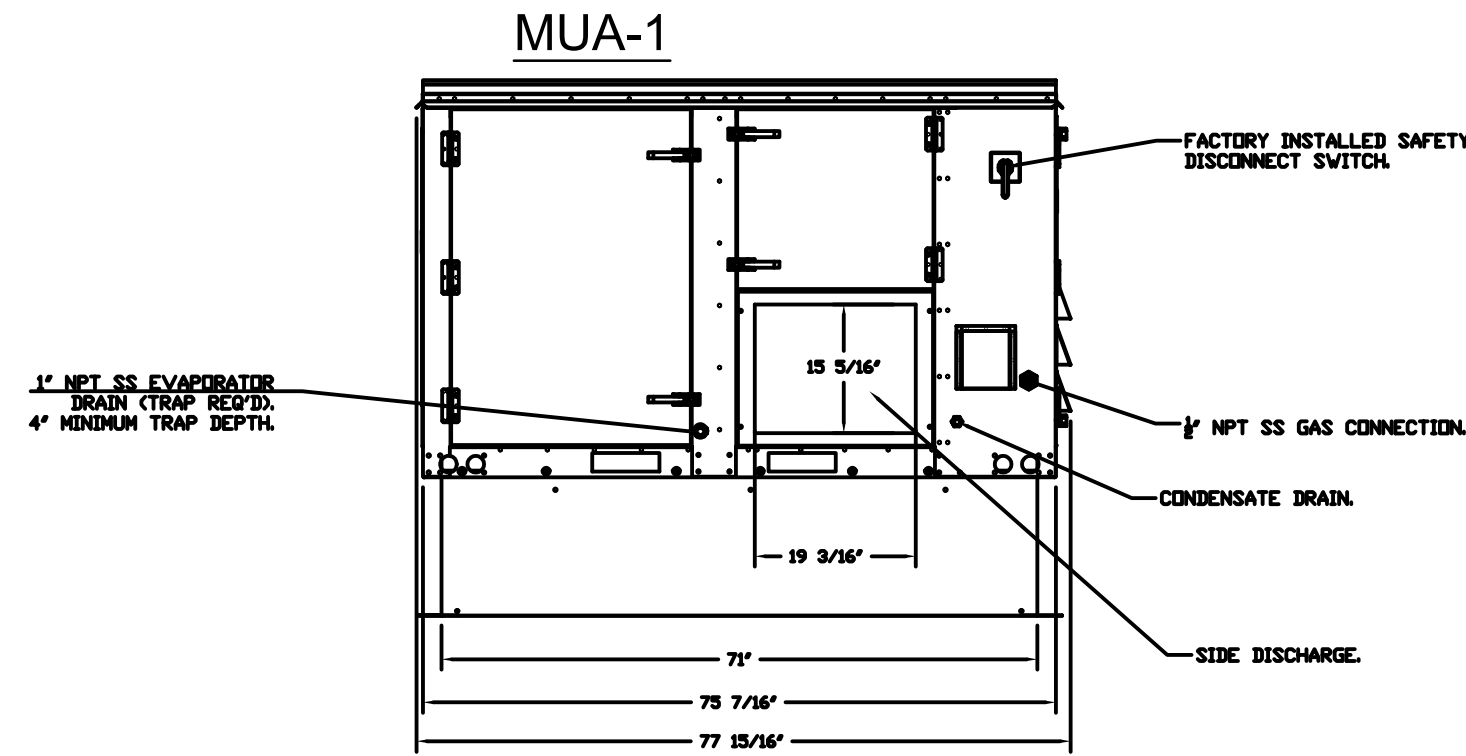
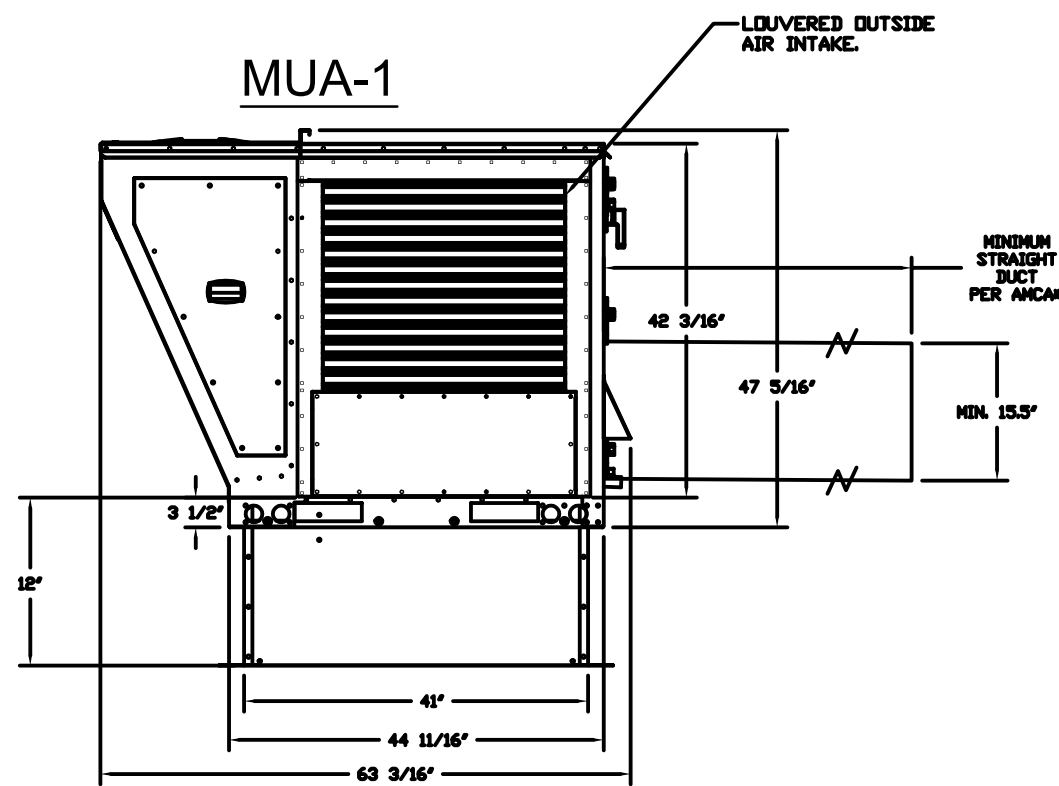
- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
- DENOTES CORNER WEIGHT.
- ROOF OPENING MUST BE 2' SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.

*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 15.5' x 19.25'.



OPTIONS

- INLET PRESSURE GAUGE, 0-35".
- MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE.
- RTU TOTAL CFM MONITORING.
- SINGLE POINT ELECTRICAL CONNECTION FOR RTU. 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #28, #47, "MA", OR "E2" PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE.
- CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED.
- 2" MERV 13 FILTERS FOR RTU1 (QTY. 4).
- 2" MERV 8 FILTERS FOR RTU1 (QTY. 4).
- OVERHEAT STAT.
- RTU FIXED 100% OA INTAKE CONTROL.
- RTU1 NO RETURN.
- RTU1 CURB DUCT HANGER.
- COMMERCIAL SMOKE DETECTOR/ALARM INTERLOCK - ALARM SUPPLIED BY OTHERS.
- ECM BUILDING SP CONTROL RTU MUA BOARD.
- CLOGGED FILTER SWITCH - NOTIFICATION ON HMI.
- 7.5 TON MODULATING COOLING OPTION, 460/480V, R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS.
- ECM FAN DDAS - 3 PHASE.
- 7.5 TON MODULATING REHEAT OPTION - SPACE DEWPOINT CONTROL.
- RTU1 SIDE DISCHARGE.
- 5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS).



REVISIONS	
DESCRIPTION	DATE

CAPTIVEAIRE
 Eastern LA & Orange Cty Mech
 www.captiveaire.com
 3002 Dow Avenue, Suite 410, Tustin, CA 92780 PHONE: (714) 503-0777 EMAIL: reg144@captiveaire.com

Culinary Classroom - San Dimas HS R5
 800 W Covina Blvd,
 San Dimas, CA, 91773

DATE: 10/13/2021
 DWG.#: 5135753
 DRAWN BY: Jake.galas
 SCALE: 1/2" = 1'-0"
 MASTER DRAWING
 SHEET NO. 5

IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 APP: 03-121968 INC:
 REVIEWED FOR:
 SS FLS ACS
 DATE: 12/20/2022

Architecture
 PLLLP
9
 8816 Foothill Boulevard, Suite 103-224
 Rancho Cucamonga, CA. 91730
 a9contact@architecture9.com

ARCHITECTS STAMP:

CONSULTANT:
PBS ENGINEERS
 2100 East Route 66, Suite 210
 Glendora, CA 91740
 T. 626.650.0350 F. 626.650.0352
 www.pbsengineers.com Job no. 2021-072-00

CONSULTANTS STAMP:

SCHOOL DISTRICT:
BONITA UNIFIED SCHOOL DISTRICT

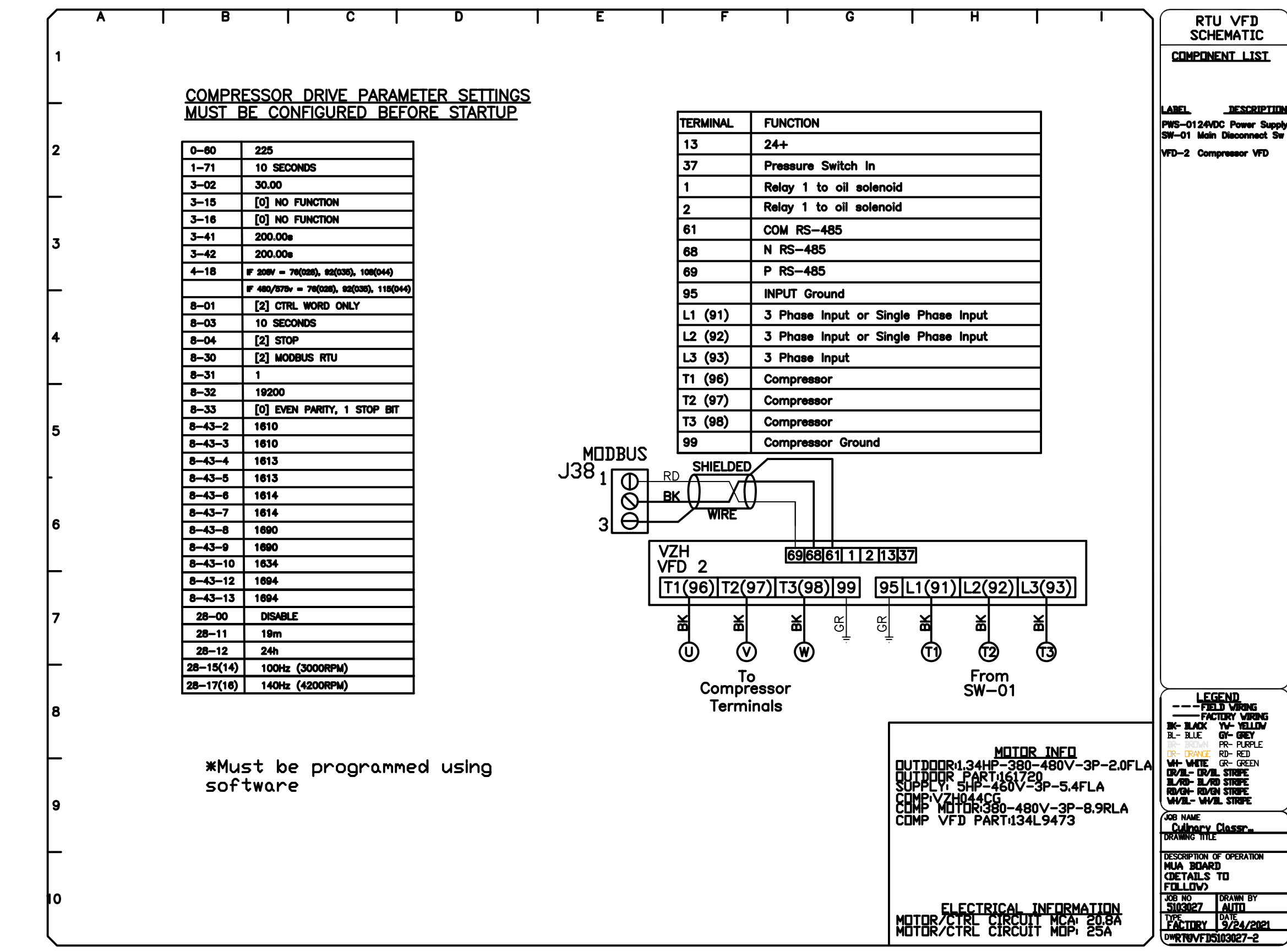
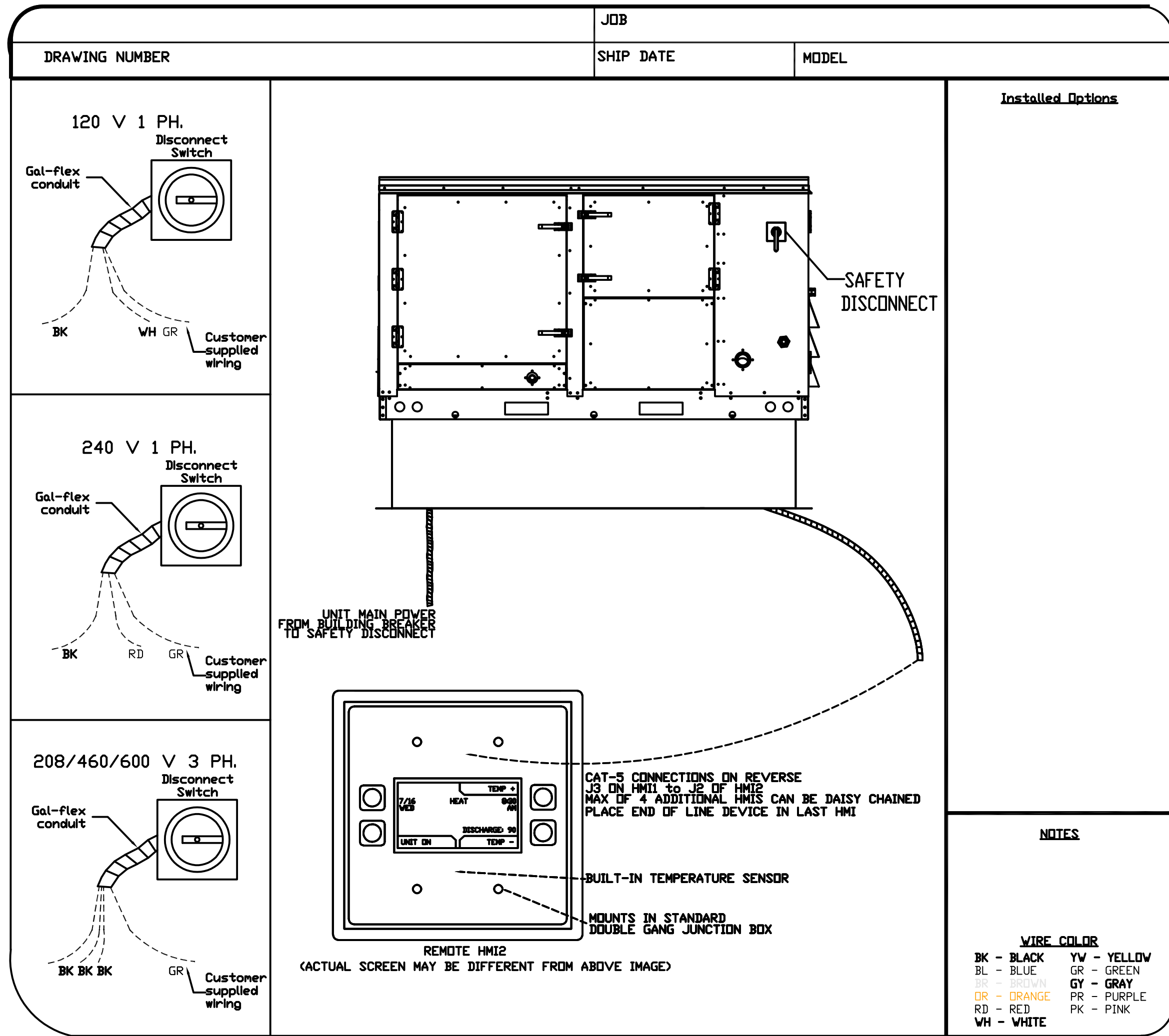
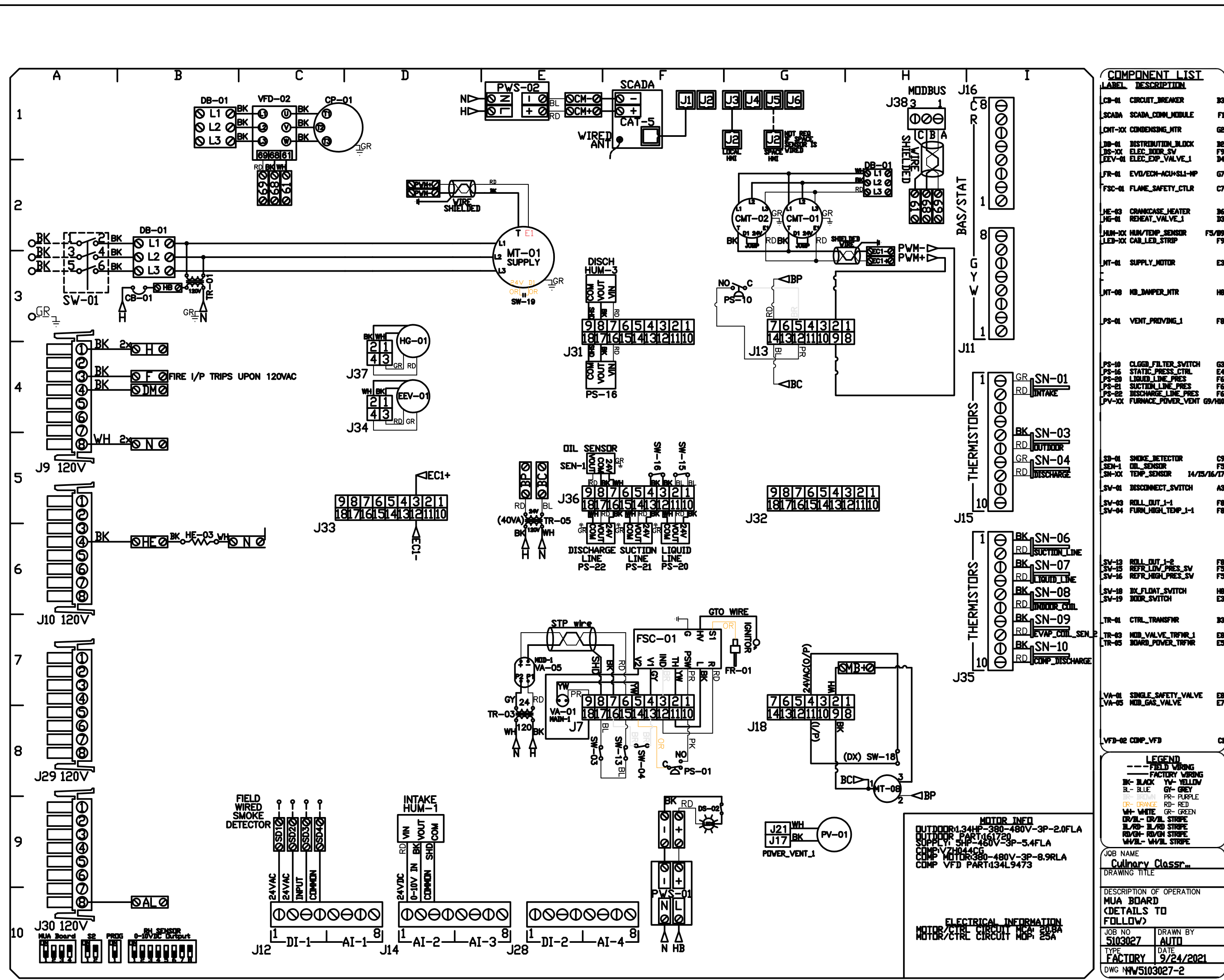
PROJECT:
SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

JOB NUMBER: 12.03.00
 DATE: 08/25/21
 REVISION: DATE: _____
 REVISION: DATE: _____

DRAWING TITLE:
CAPTIVEAIRE DRAWING

DRAWING NO.:

M4.5



REVISIONS

NO.	DESCRIPTION	DATE

CAPTIVEAIRE

Eastern LA & Orange Cty Mech
3002 Dow Avenue, Suite 410, Tustin, CA 92780 PHONE: (714) 503-0777 EMAIL: reg144@captiveaire.com

Culinary Classroom - San Dimas HS R4
800 W Covina Blvd,
San Dimas, CA, 91773

DATE: 9/24/2021
DWG.#: 5103027
DRAWN BY: JG-144
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
6

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-121968 INC:
REVIEWED FOR
SS [X] FLS [X] ACS [X]
DATE: 12/20/2022

Architecture PLLLP

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Rancho Cucamonga, CA 91730
a9contact@architecture9.com

ARCHITECTS STAMP:

CONSULTANT:

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2100 East Route 66, Suite 210
Glendora, CA 91740
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www.pbsengineers.com Job no. 2021-072-00

CONSULTANTS STAMP

SCHOOL DISTRICT:
BONITA UNIFIED SCHOOL DISTRICT

PROJECT:
SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

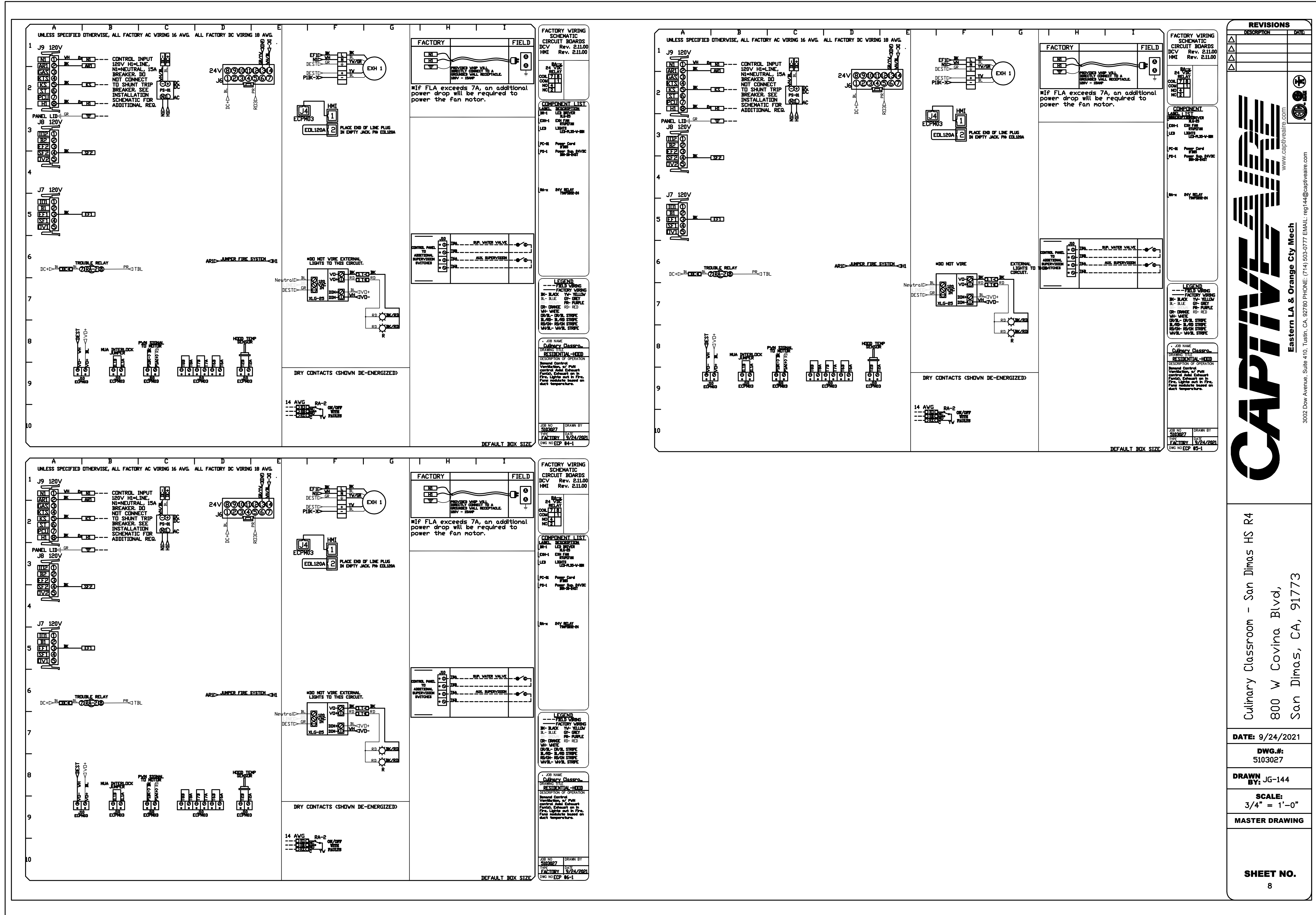
JOB NUMBER: 12.03.00
DATE: 08/25/21

REVISION: DATE: _____
REVISION: DATE: _____

DRAWING TITLE:
CAPTIVEAIRE DRAWING

DRAWING NO.:

M4.6



CAPTIVEAIRE

Eastern LA & Orange Cty Mech
3002 Dow Avenue, Suite 410, Tustin, CA 92780 PHONE: (714) 503-0777 EMAIL: reg144@captiveaire.com

Culinary Classroom - San Dimas HS R4
800 W Covina Blvd,
San Dimas, CA, 91773

DATE: 9/24/2021
DWG.#: 5103027
DRAWN BY: JG-144
SCALE: 3/4" = 1'-0"
MASTER DRAWING

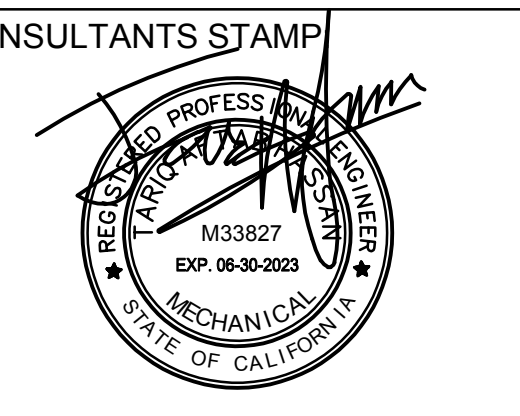
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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-121968 INC:
REVIEWED FOR
SS FLS ACS
DATE: 12/20/2022

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8816 Foothill Boulevard, Suite 103-224
Rancho Cucamonga, CA 91730
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www.pbsengineers.com Job no. 2021-072-00



SCHOOL DISTRICT:
BONITA UNIFIED SCHOOL DISTRICT

PROJECT:
SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

JOB NUMBER: 12.03.00
DATE: 08/25/21
REVISION: DATE: _____
REVISION: DATE: _____

DRAWING TITLE:
CAPTIVEAIRE DRAWING

DRAWING NO.:

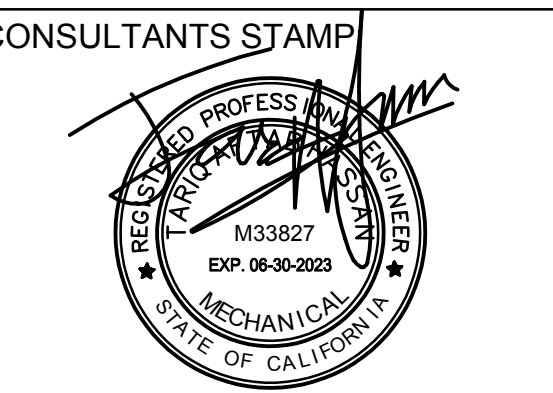
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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-121968 INC:
REVIEWED FOR
SS FLS ACS
DATE: 12/20/2022

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8816 Foothill Boulevard, Suite 103-224
Rancho Cucamonga, CA 91730
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www.pbsengineers.com Job no. 2021-072-00



SCHOOL DISTRICT:
BONITA UNIFIED SCHOOL DISTRICT

PROJECT:
SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

JOB NUMBER: 12.03.00
DATE: 08/25/21

REVISION: Δ DATE: _____
REVISION: Δ DATE: _____

DRAWING NO.:

M4.9

REVISIONS	
NO.	DESCRIPTION

CAPTIVE
Eastern LA & Orange Cty Mech
www.captiveaire.com
3002 Dow Avenue, Suite 410, Tustin, CA 92780 PHONE: (714) 930-0777 EMAIL: reg144@captiveaire.com

Culinary Classroom - San Dimas HS R4
800 W Covina Blvd,
San Dimas, CA, 91773

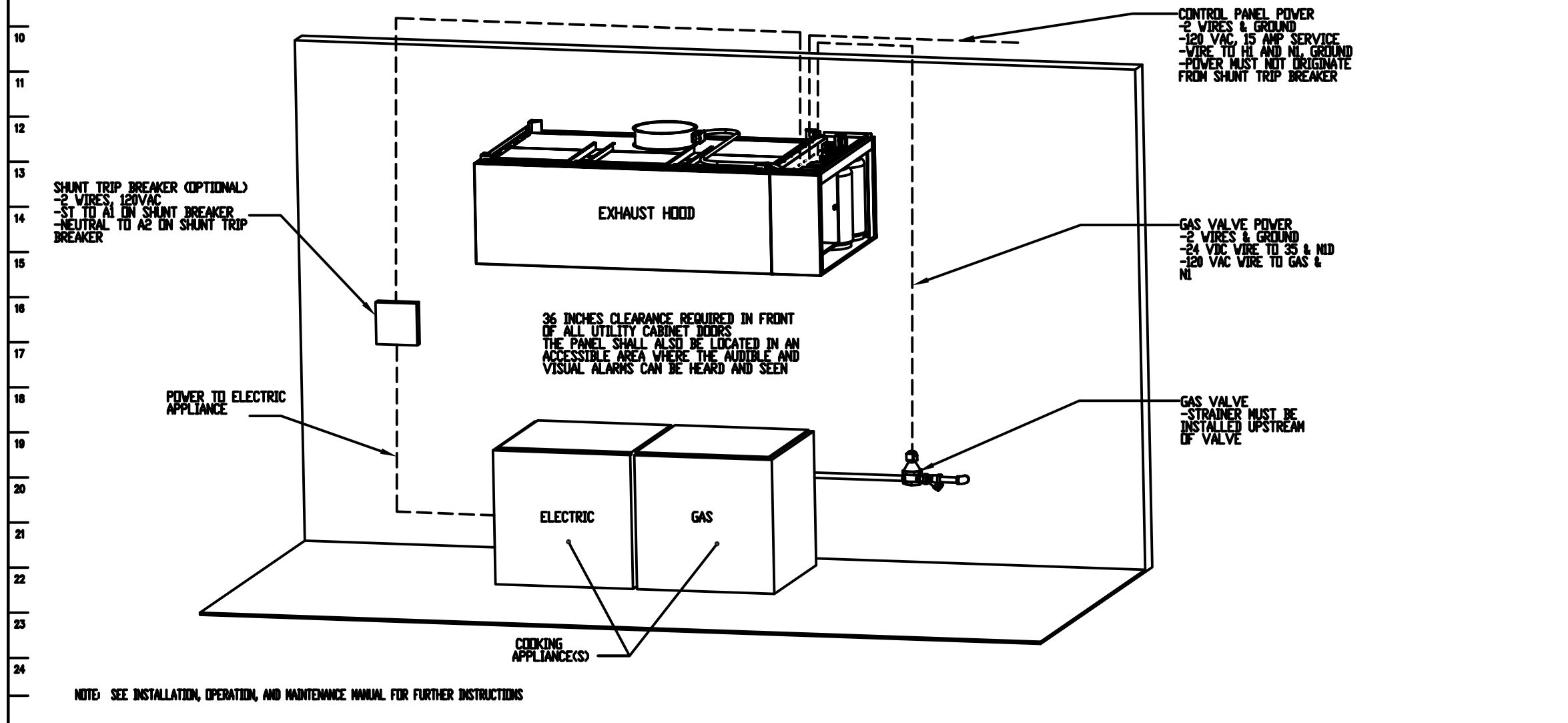
DATE: 9/24/2021
DWG.#: 5103027
DRAWN BY: JG-144
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 9

JOB NO: 5103027 MODEL NUMBER SC-311110MA_MA4 DRAWN BY: [Redacted] SCHEMATIC TYPE: INSTALL DATE: 9/24/2021 DWG NO: ECP-87-3

TANK PROTECTION ELECTRICAL DETAIL
DESCRIPTION OF OPERATION: Fire System R4, Tank P2 - 42/42, Tank-based Fire Protection System equipped with Electronic Detection utilizing COBE based on a Carbon Release Mechanism. Installed in Hood Utility Cabinet with integral hood pressure panel.
02/10/2021 Rev. 2
FS-1: MASTER

ELECTRICAL CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
SHUNT TRIP BREAKER (OPTIONAL)	ST & N	BREAKER COIL (ALL L&S)	120 VAC	< 4 AMPS	ST TO AL IN SHUNT BREAKER COIL, AND NEUTRAL TO A2 IN SHUNT TRIP BREAKER COIL.
CONTROL PANEL POWER	H & N + GROUND	CIRCUIT BREAKER	120 VAC	15 AMPS	CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER.
US APPLIANCE KILL SWITCH (OPTIONAL)	KTS & N	KTS & N	120 VAC	< 4 AMPS	KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES.
REMOTE 120VAC ANSUL AUTOMN (OPTIONAL)	AUL, ALE	SOLENOID	120V VAC	< 6 AMPS	120V TO AUL, ALE TO ANSUL ELECTRIC AUTOMN, ANSUL SOLENOID TO NEUTRAL.
GAS VALVE	24 VAC OR 120 VAC	RED/RED/GREEN	24 VAC OR 120 VAC	< 1.0 AMPS	IF 24 VAC - 2 WIRES & GROUND AND TO RED, 25 TO RED, AND GREEN TO GROUND. IF 120 VAC - 2 WIRES & GROUND GAS TO RED, N TO RED, AND GREEN TO GROUND.



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO: 5103027 MODEL NUMBER SC-311110MA_MA4 DRAWN BY: [Redacted] SCHEMATIC TYPE: INSTALL DATE: 9/24/2021 DWG NO: ECP-87-2

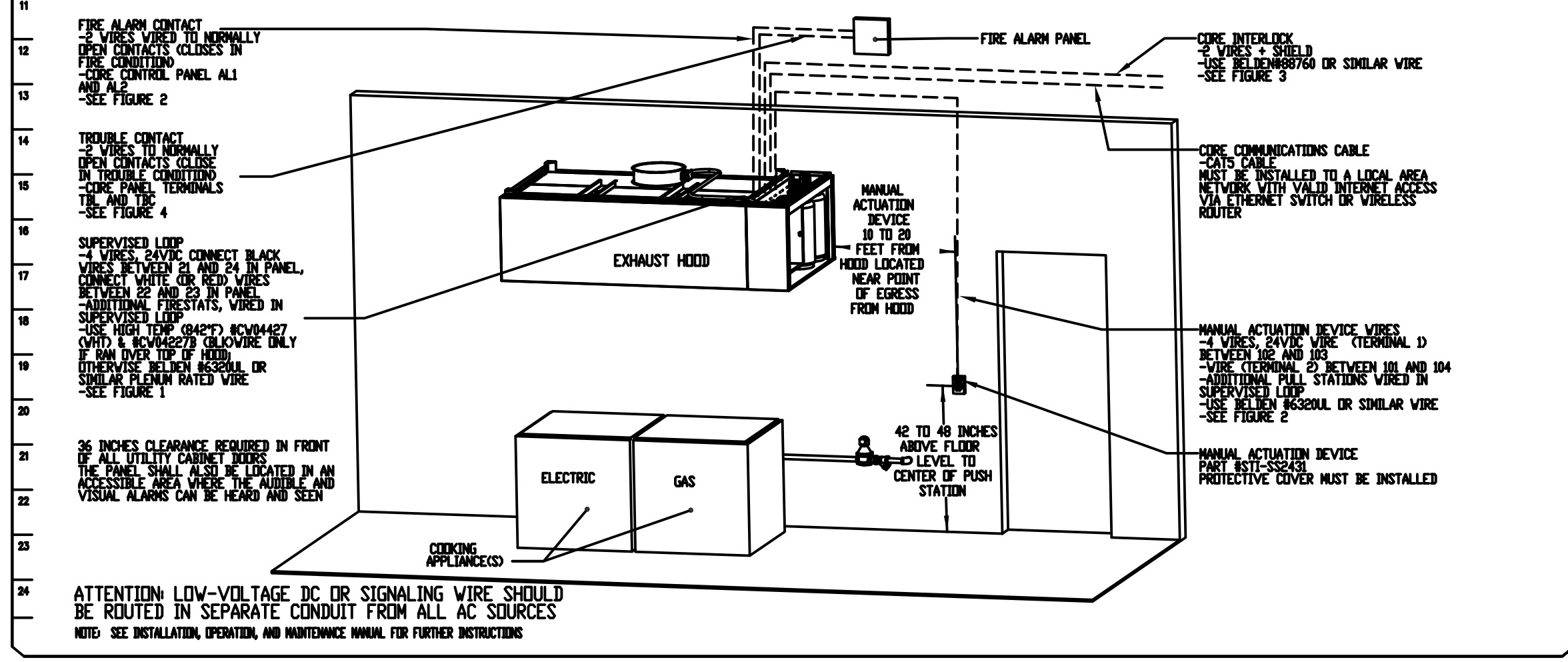


DESCRIPTION OF OPERATION:
3 Phase w/ control Fan, 1 Exhaust Fan, Exhaust on In Fire, Lights out In Fire, Two Relays On/Off with Supply Fan (4 contacts), Fan(s) On/Off Thermostatically Controlled. Room temperature sensor shipped loose for field installation. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD.

JOB NO: 5103027 MODEL NUMBER SC-311110MA_MA4 DRAWN BY: [Redacted] SCHEMATIC TYPE: INSTALL DATE: 9/24/2021 DWG NO: ECP-87-4

TANK PROTECTION LOW-VOLTAGE DETAIL
DESCRIPTION OF OPERATION: Fire System R4, Tank P2 - 42/42, Tank-based Fire Protection System equipped with Electronic Detection utilizing COBE based on a Carbon Release Mechanism. Installed in Hood Utility Cabinet with integral hood pressure panel.
02/10/2021 Rev. 2
FS-1: MASTER

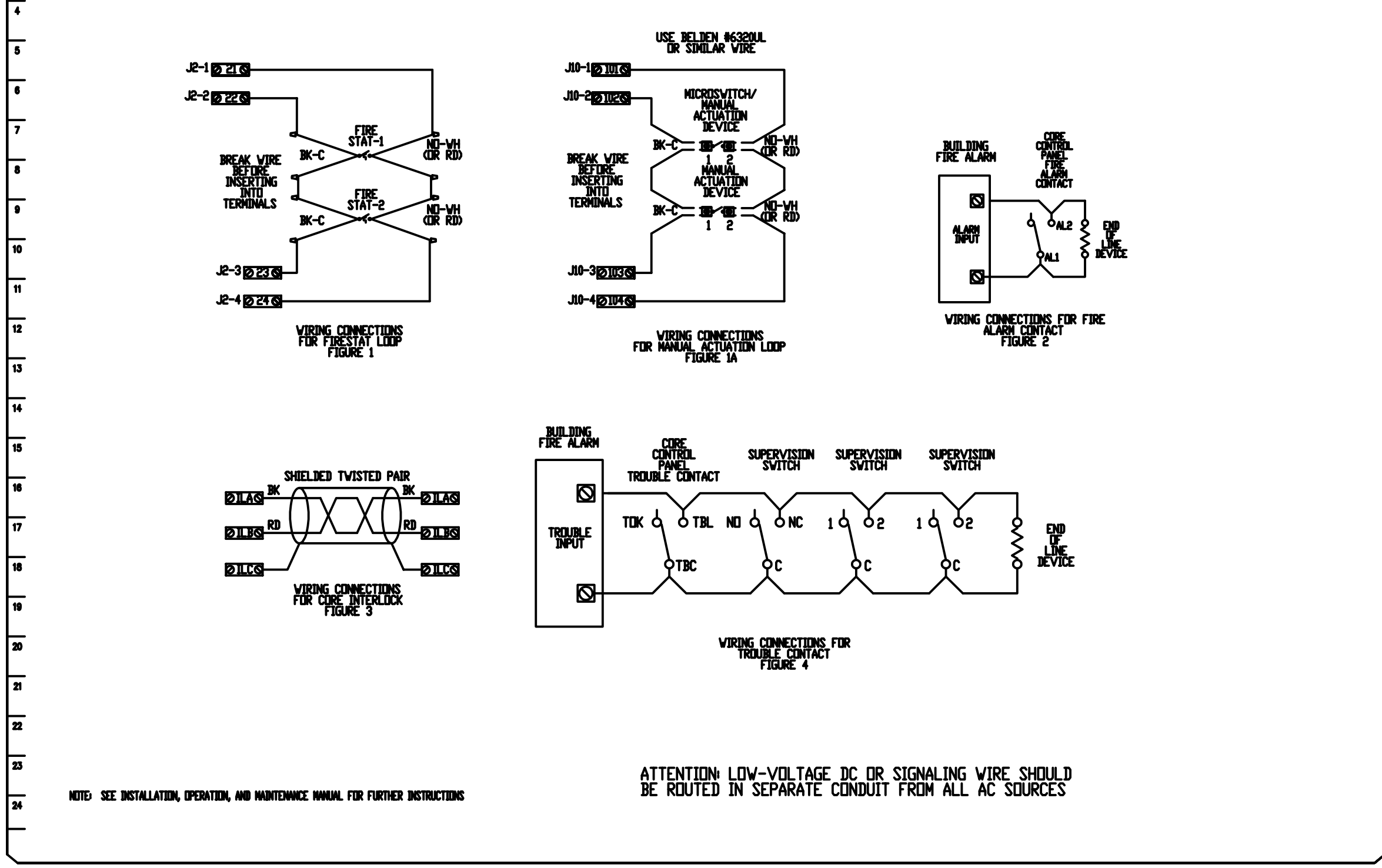
ALARM CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
MANUAL ACTUATION DEVICES	101 AND 104 102 AND 103	1 & 2	24 VDC	< 1.0 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103. WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104. WIRE SUPPLY TO 101 AND 104 TO 102 IN WIRE MANUAL ACTUATION DEVICE IS INSTALLED.
MANUAL ACTUATION DEVICE COVER	N/A	N/A	N/A	N/A	MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED.
REMOTE FIRESTAT SENSORS	21 AND 24 22 AND 23	BLACK AND WHITE	24 VDC	< 1.0 AMPS	WIRE FIRESTAT SENSORS TO BLACK AND WHITE BETWEEN CORE PANEL TERMINALS 22 AND 23. WIRE FIRESTAT SENSORS TO 21 AND 24 TO 22 IN WIRE FIRESTAT SENSORS. WIRE SUPPLY TO 21 AND 24 TO 22 IN WIRE FIRESTAT SENSORS. WIRE SUPPLY TO 21 AND 24 TO 22 IN WIRE FIRESTAT SENSORS.
FIRE ALARM CONTACT	ALL, AL2	VARIES	24V MAX (DC/AC)	UP TO 1 AMP	FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL.
CORE INTERLOCKS	ILA, ILB, ILC	ILA, ILB, ILC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (O) ILA, TO CORE SYSTEM (O) ILB, TO CORE SYSTEM (O) ILB, TO CORE SYSTEM (O) ILC, TO CORE SYSTEM (O) ILC. USE BELDEN 80869 OR SIMILAR WIRE.
TROUBLE CONTACT	TBC, TBL, TDK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBC & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION.
CORE COMMUNICATIONS CABLE	RJ-45 Jack	INTERNET CONNECTION	SIGNAL	< 1.0 AMPS	TYPICAL CONNECTION CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION.



ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES
NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

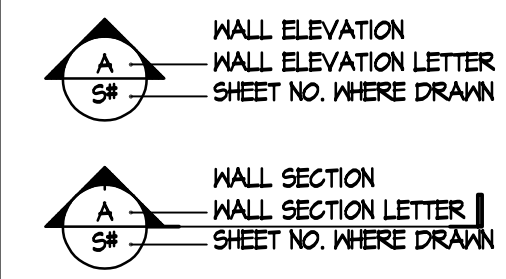
JOB NO: 5103027 MODEL NUMBER SC-311110MA_MA4 DRAWN BY: [Redacted] SCHEMATIC TYPE: INSTALL DATE: 9/24/2021 DWG NO: ECP-87-5

TANK PROTECTION LOW-VOLTAGE FIGURES
DESCRIPTION OF OPERATION: Fire System R4, Tank P2 - 42/42, Tank-based Fire Protection System equipped with Electronic Detection utilizing COBE based on a Carbon Release Mechanism. Installed in Hood Utility Cabinet with integral hood pressure panel.
02/10/2021 Rev. 17
FS-1: MASTER



LEGEND

Table with 3 columns: Abbreviation, Description, and Material/Type. Includes items like ANCHOR BOLT, BEAM, BOUNDARY NAILING, etc.



PROOF LOAD TESTS FOR EXPANSION TYPE ANCHOR BOLTS

- 1. ANCHOR DIAMETER REFERS TO THE TREAD SIZE FOR THE WEDGE & SHELL CATEGORIES, AND TO THE ANCHOR OUTSIDE DIAMETER FOR THE SLEEVE CATEGORY.
2. APPLY PROOF TEST LOADS TO WEDGE & SLEEVE ANCHORS WITHOUT REMOVING THE NUT IF POSSIBLE...

EXPANSION ANCHORS TEST VALUES table with columns: ANCHOR DIA. (in), TORQUE (ft-lbs), and EMBED. (in). Rows for 3/8" and 1/2" diameters.

LUMBER:

- 1. ALL STRUCTURAL LUMBER SHALL BE DOUGLAS FIR OF THE GRADES INDICATED UNLESS OTHERWISE NOTED.
2. LUMBER SHALL BE KILN-DRY (KD) OR SURFACE-DRY (S-DRY) TO A MAXIMUM MOISTURE CONTENT OF 14 PERCENT.

HEADER SIZE NON BEARING WALL (SOLID MEMBER)
3'-0" or less stud width x 4"
3'-1" to 6'-0" stud width x 6"
6'-1" to 8'-0" stud width x 8"

STRUCTURAL OBSERVATION:

- 1. VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM SHALL BE PROVIDED BY THE STRUCTURAL ENGINEER OF RECORD FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS.
2. STRUCTURAL OBSERVATION SHALL BE PROVIDED BY THE STRUCTURAL ENGINEER OF RECORD AT THE FOLLOWING PHASES AS A MINIMUM.

MECHANICAL UNIT FRAMING NOTES

- 1. THE GENERAL CONTRACTOR SHALL COORDINATE THE MECHANICAL UNIT TYPE AND QUANTITY WITH THE MECHANICAL AND STRUCTURAL DRAWINGS.
2. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO FULLY COORDINATE THE SUPPORT FRAME DIMENSIONS (LENGTH AND WIDTH) WHERE THE NEW MECHANICAL UNIT ATTACHES DIRECTLY TO THE SUPPORT FRAMING.

SPECIAL INSPECTION:

- 1. GENERAL: THE OWNER SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PERFORM INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED UNDER SECTION 1005A.
2. REPORT REQUIREMENTS: THE INSPECTOR OF RECORD AND SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS...

STRUCTURAL STEEL:

- 1. STEEL SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING A.S.T.M. DESIGNATIONS:
GENERAL SHAPES & PLATES - ASTM A-36
STEEL TUBE - ASTM A-500 GRADE B, Fy=46 KSI

DESIGN LOADS:

- ROOF DESIGN LOADS:
1. ROOF LIVE LOAD (REDUCIBLE PER SECTION 1607A.1.2.1) - 20 P.S.F.
2. ROOF DEAD LOAD - 20 P.S.F.
WIND DESIGN DATA:
1. BASIC WIND SPEED - 105 MPH

GENERAL:

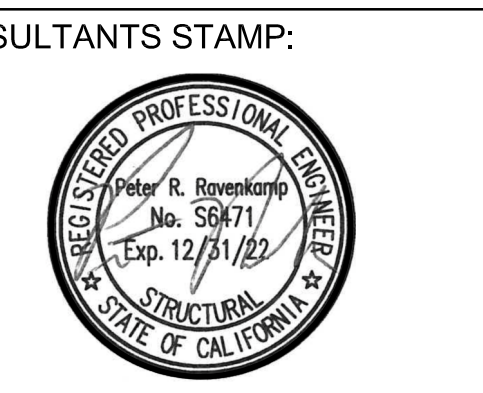
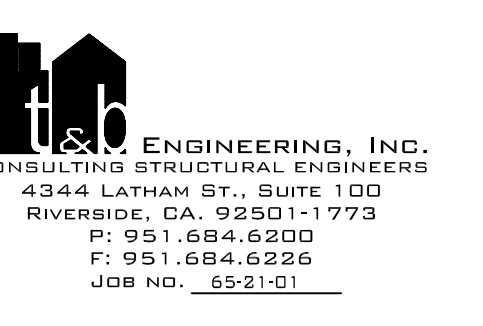
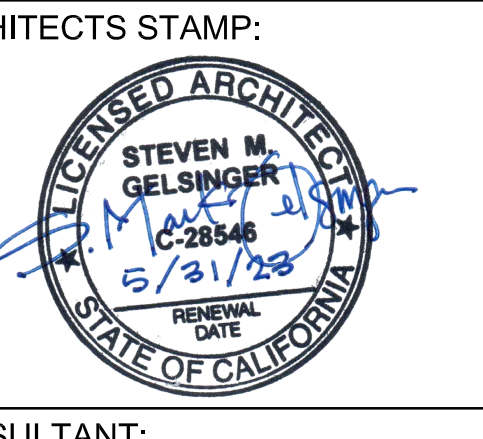
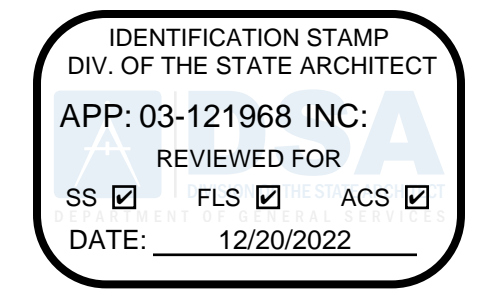
- 1. ALL CONSTRUCTION SHALL COMPLY WITH THE 2019 C.A.C. TITLE 24, PART I, AND 2019 C.B.C. TITLE 24, PART 2, FOR PSA'S.
2. FRAMING CONDITIONS NOT SPECIFICALLY SHOWN OR INDICATED SHALL BE FRAMED SIMILAR TO DETAILS SHOWN FOR THE RESPECTIVE MATERIALS OR CONDITIONS.

CONCRETE:

- 1. THE MINIMUM STRENGTH OF CONCRETE AT END OF 28 DAYS SHALL BE:
SLABS ON GRADE - 4000 PSI - 50 PCF
MAXIMUM WATER-CEMENT MATERIALS RATIO - 0.45

FOUNDATIONS:

- 1. ALL FILL SHALL BE COMPACTED TO A MINIMUM OF 90% IN ACCORDANCE WITH THE SPECIFICATIONS.
2. MAXIMUM ALLOWABLE SOIL BEARING PRESSURE: 1500 PSF



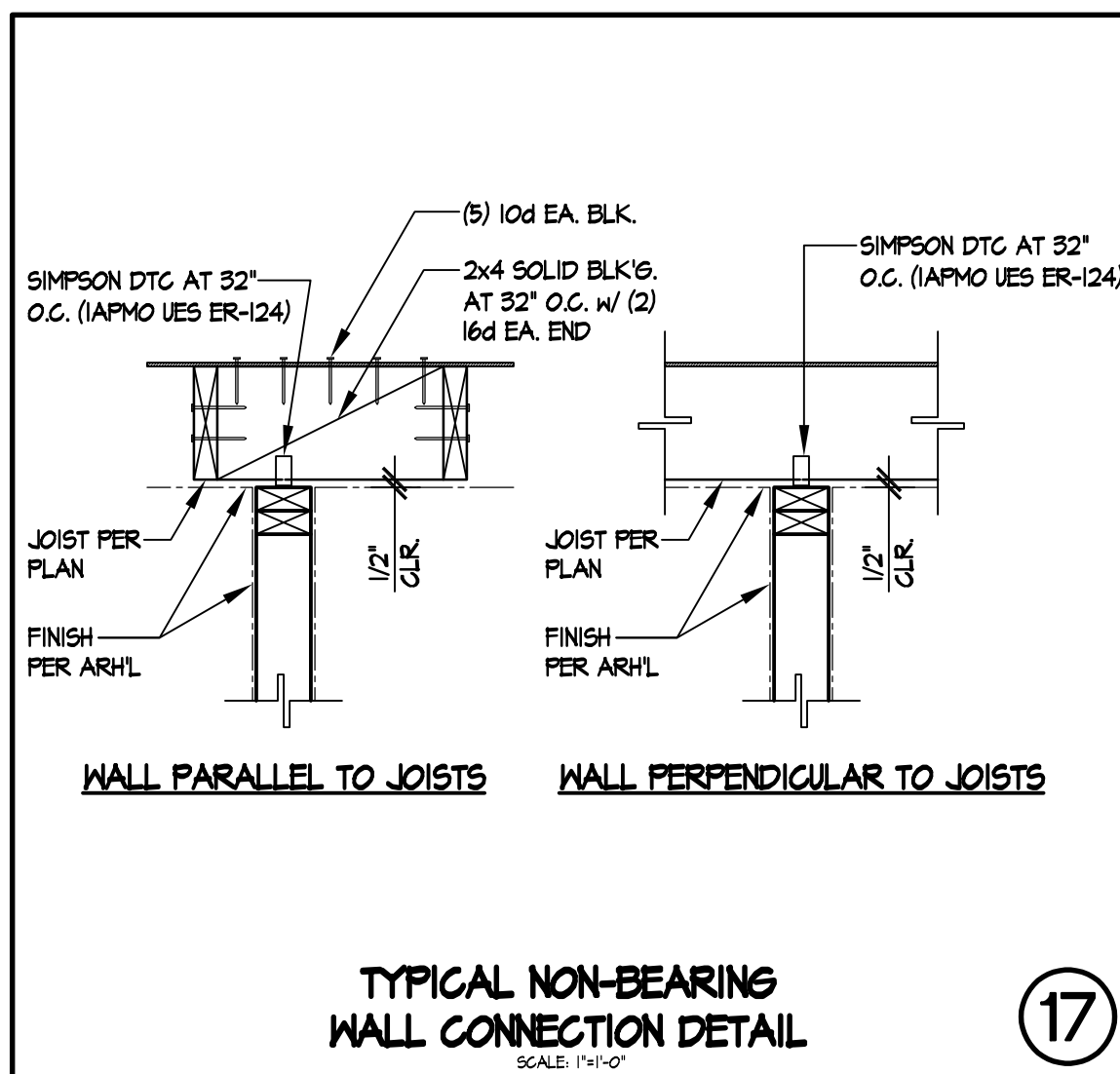
SCHOOL DISTRICT:
BONITA UNIFIED SCHOOL DISTRICT
115 W. ALLEN AVE., SAN DIMAS CA 91773
(909) 971-8200

PROJECT:
SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

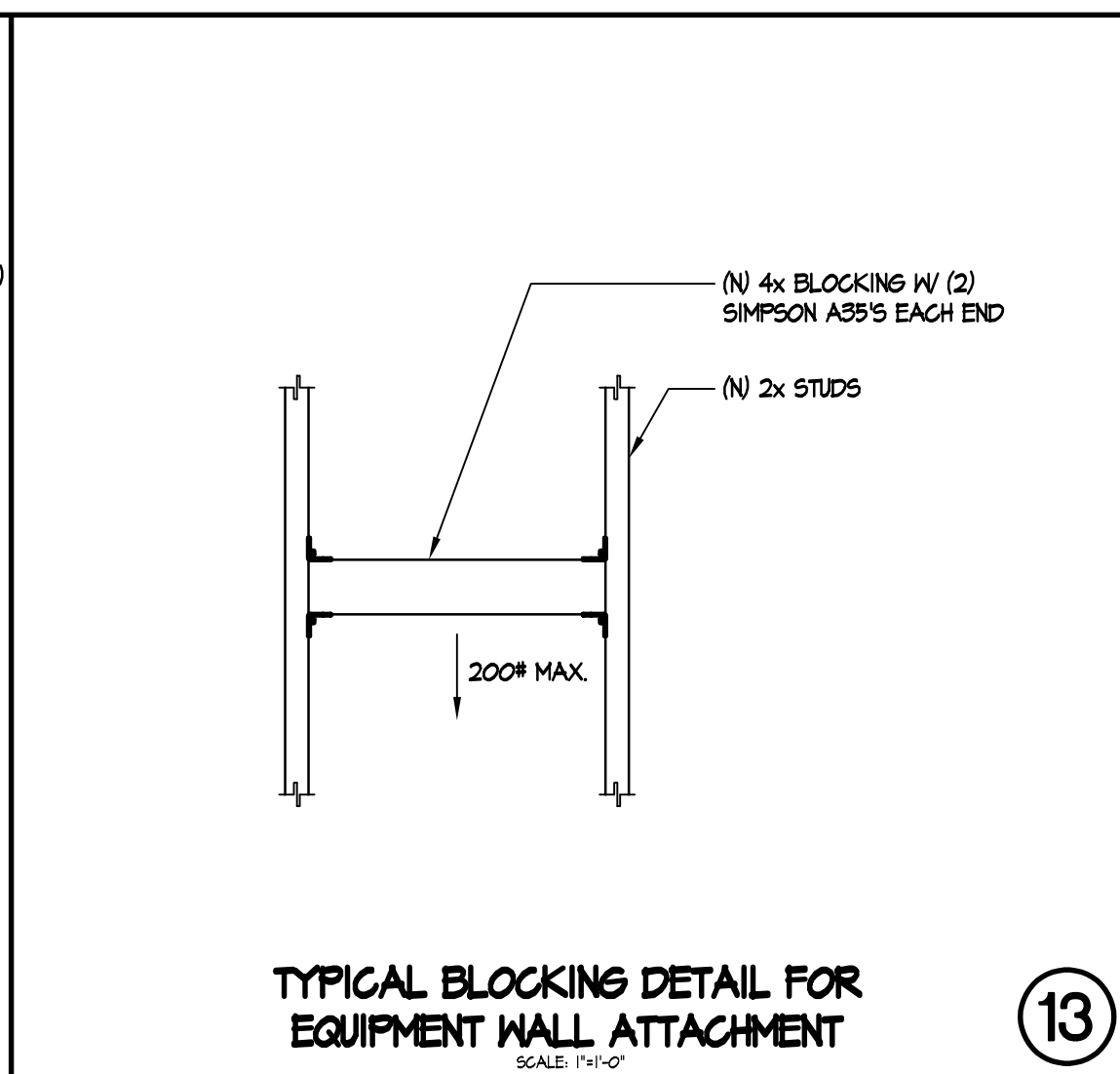
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DATE: 11/15/2021
REVISION: DATE:
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DRAWING TITLE:
GENERAL NOTES

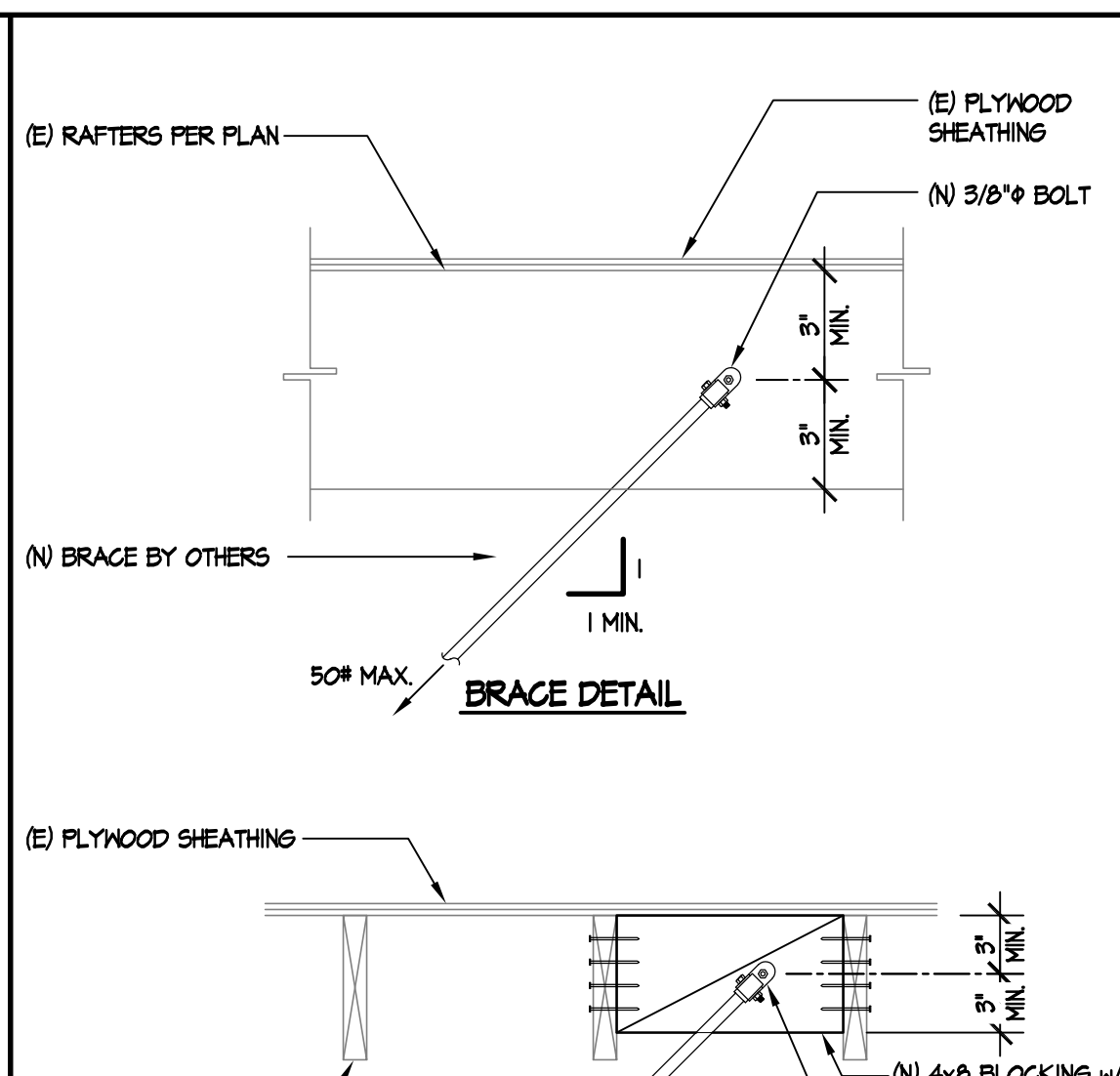
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S0.1



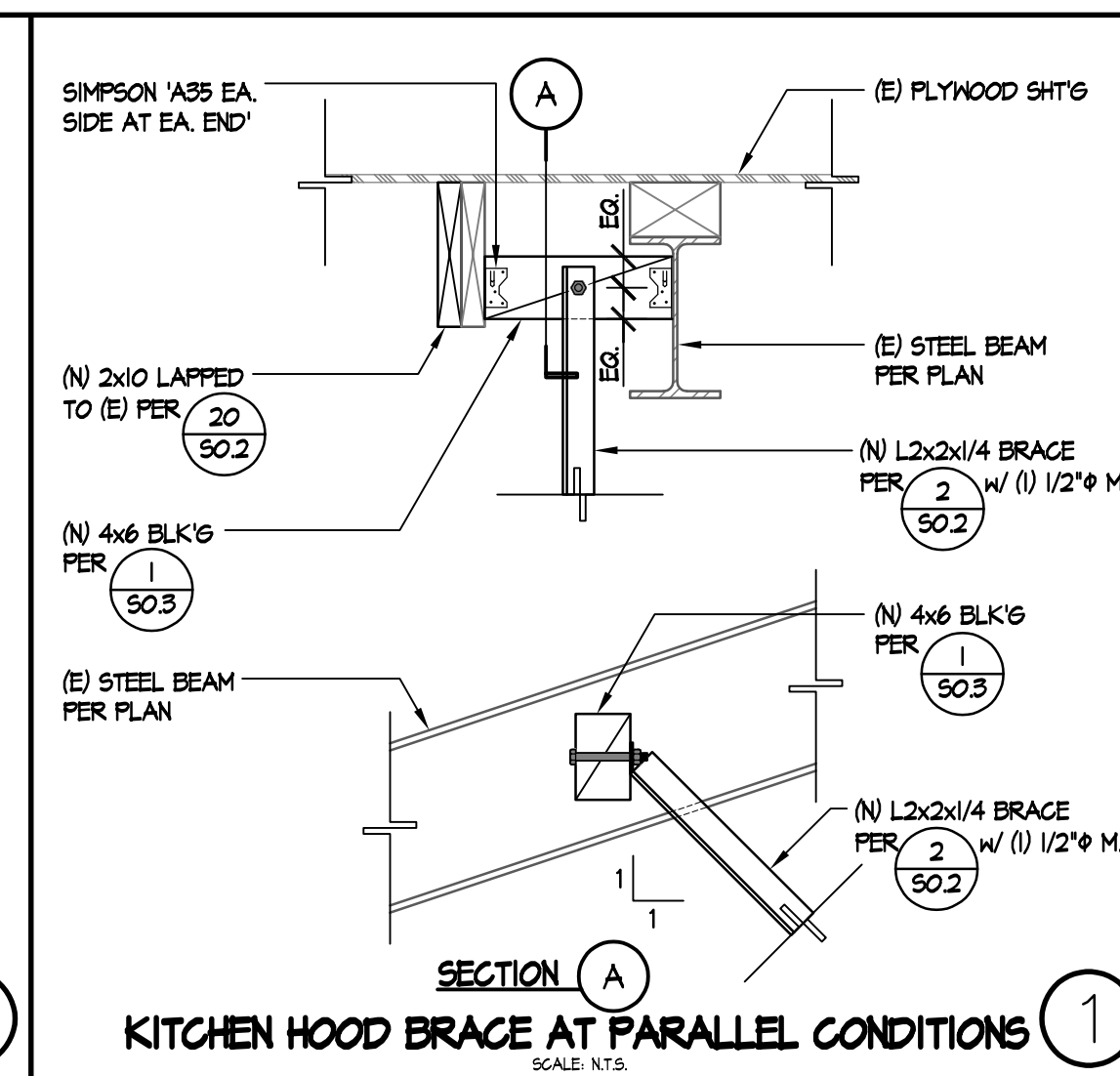
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SCALE: 1/4\"/>



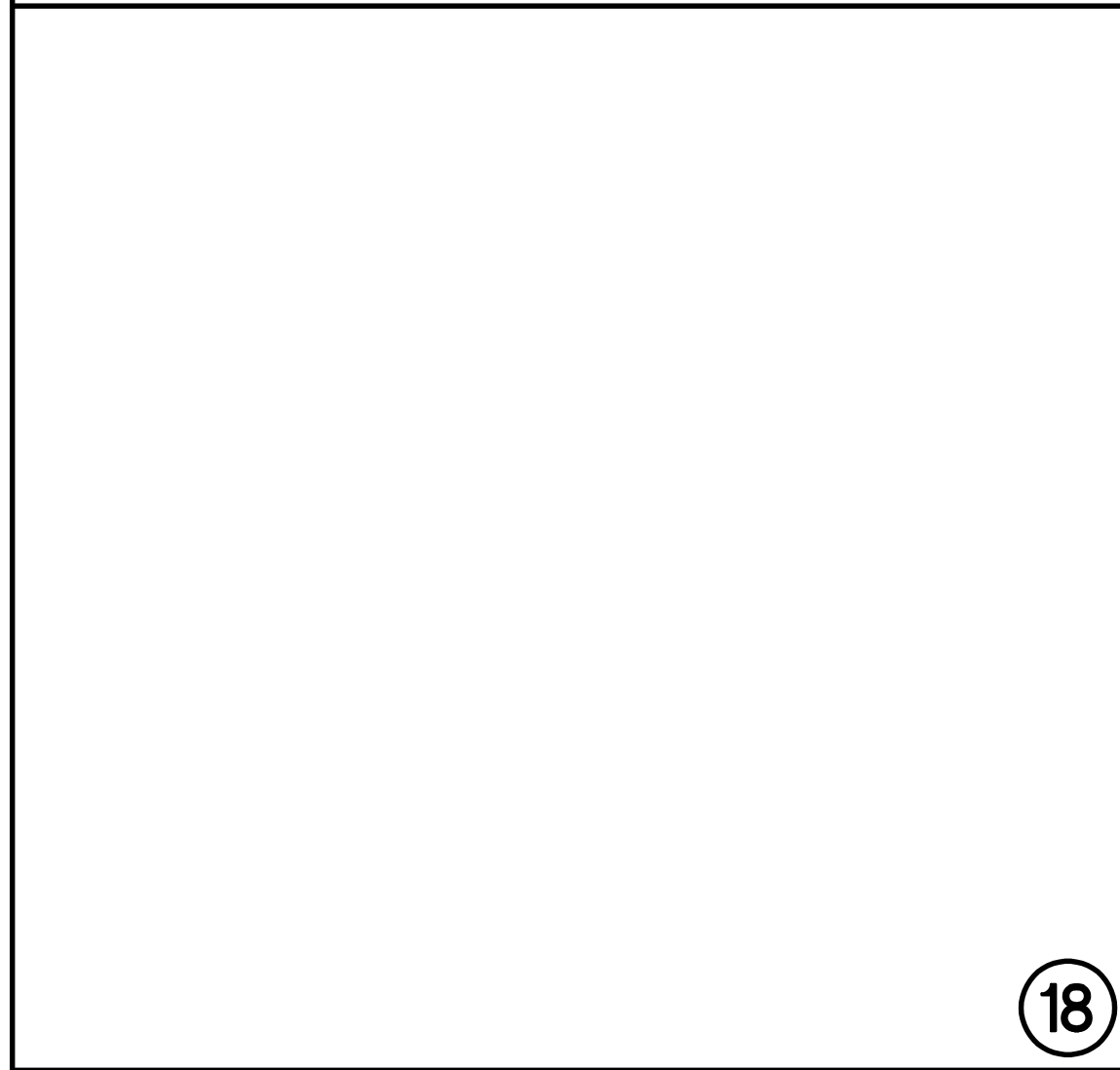
TYPICAL BLOCKING DETAIL FOR EQUIPMENT WALL ATTACHMENT
SCALE: 1/4\"/>



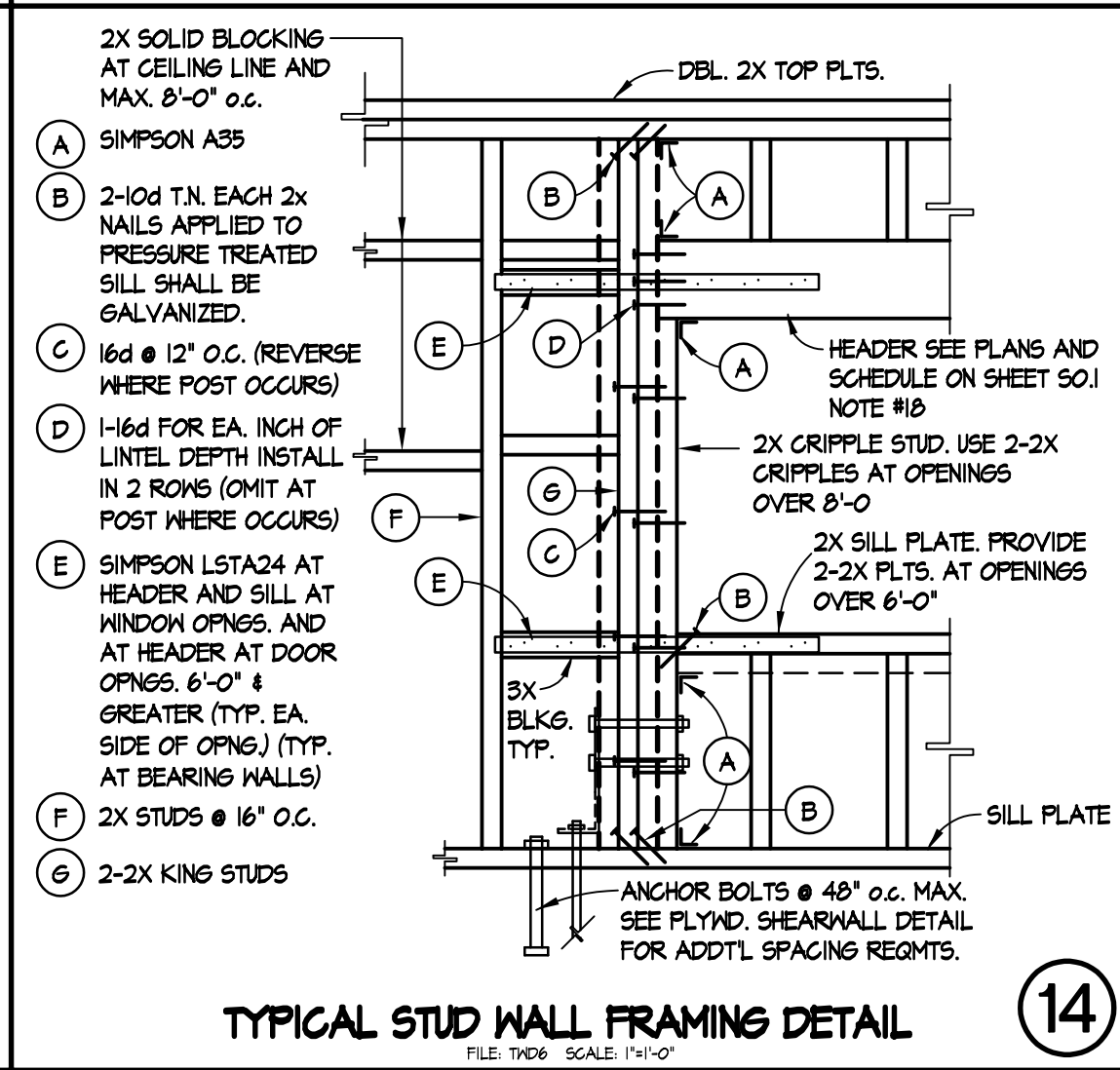
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SCALE: 1/4\"/>



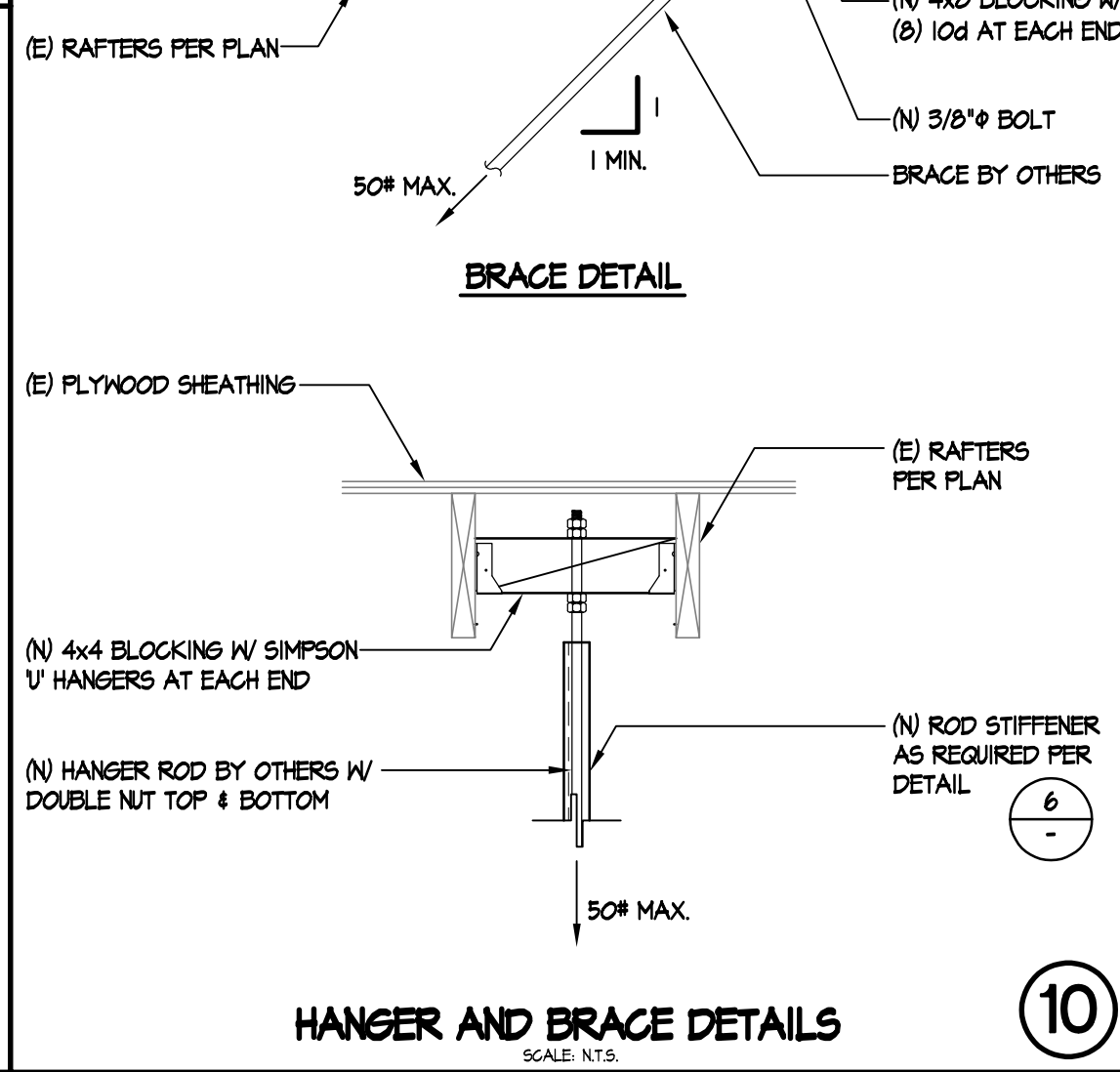
KITCHEN HOOD BRACE AT PARALLEL CONDITIONS
SCALE: NTS



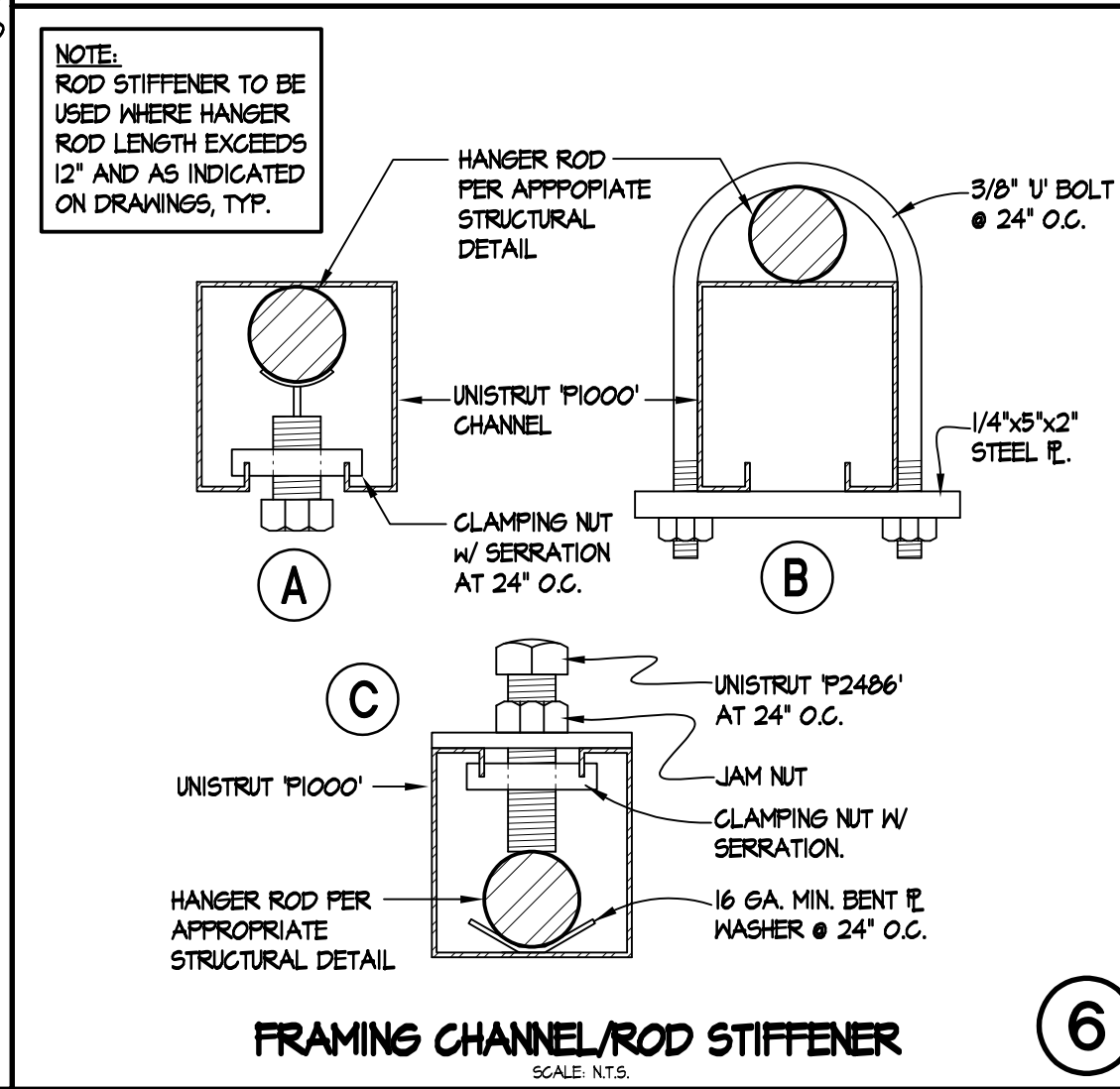
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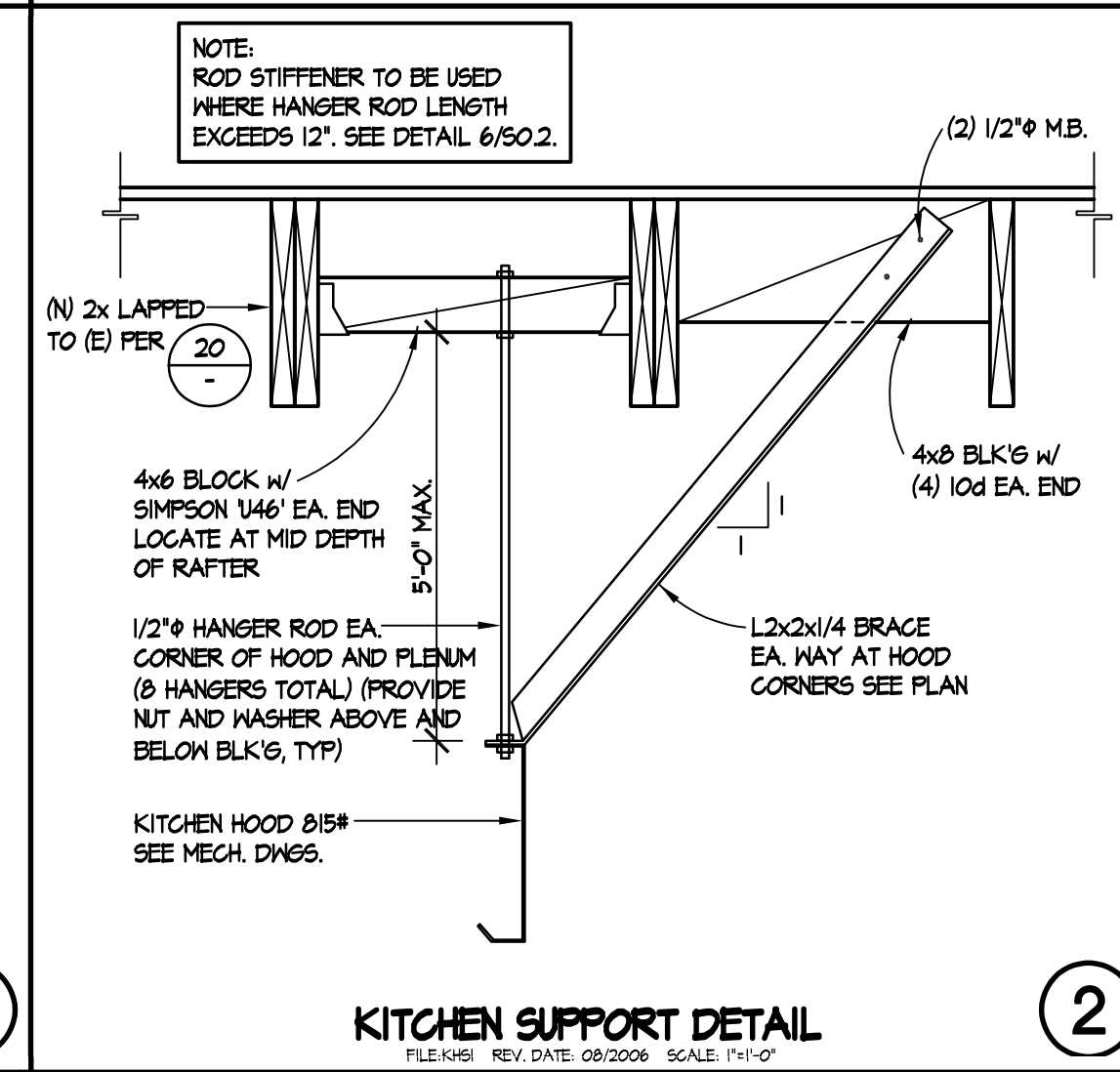
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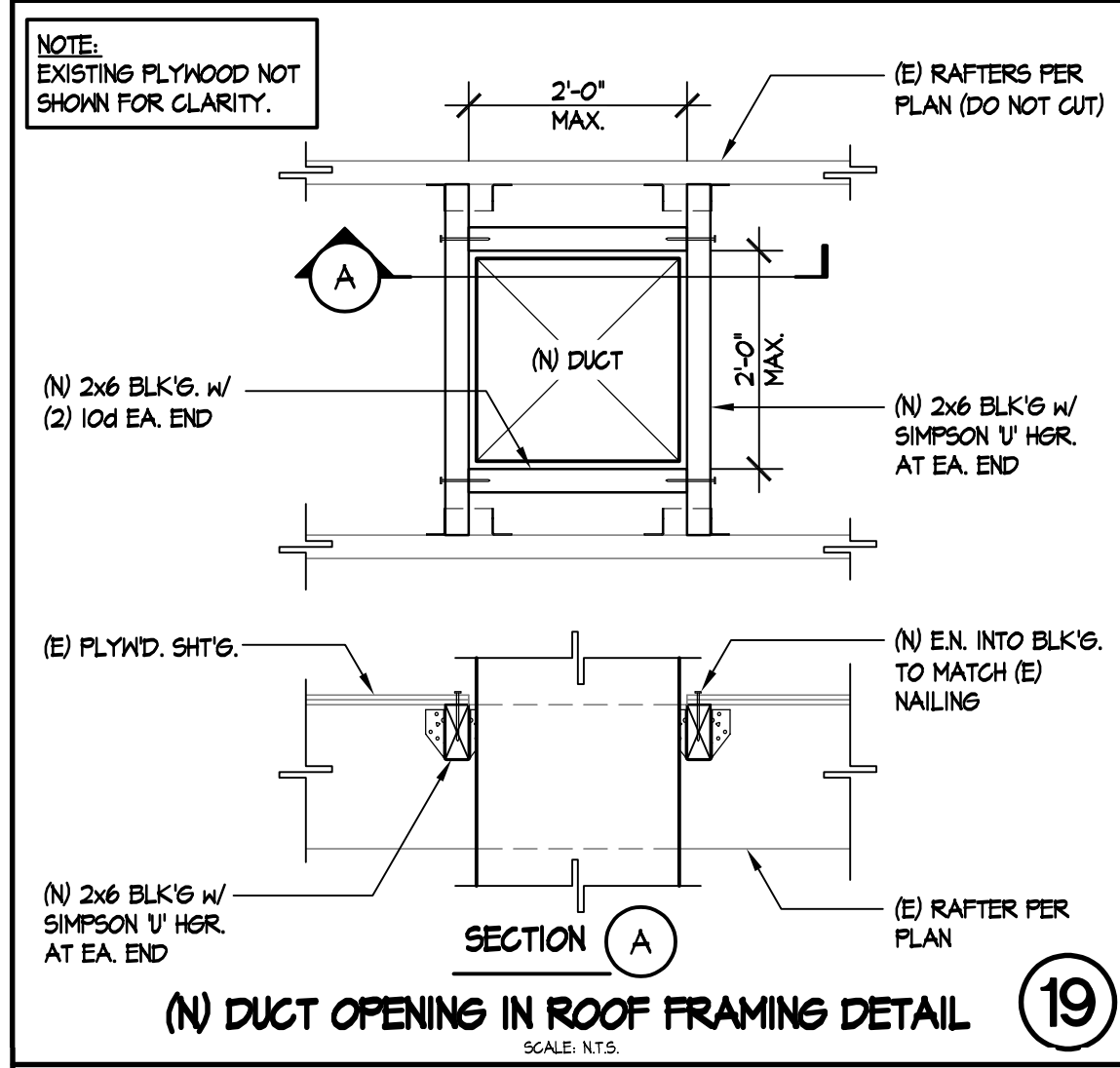
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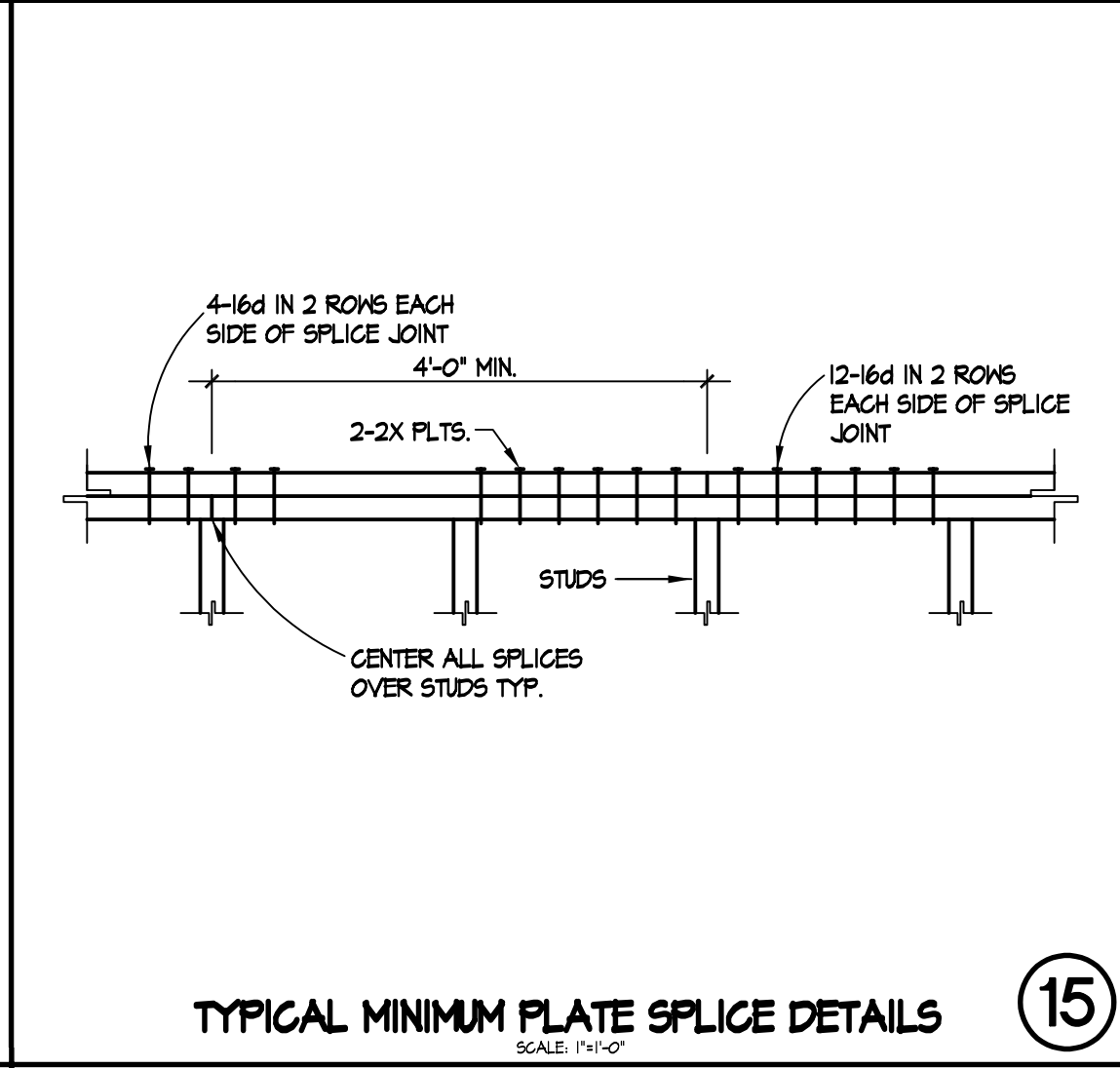
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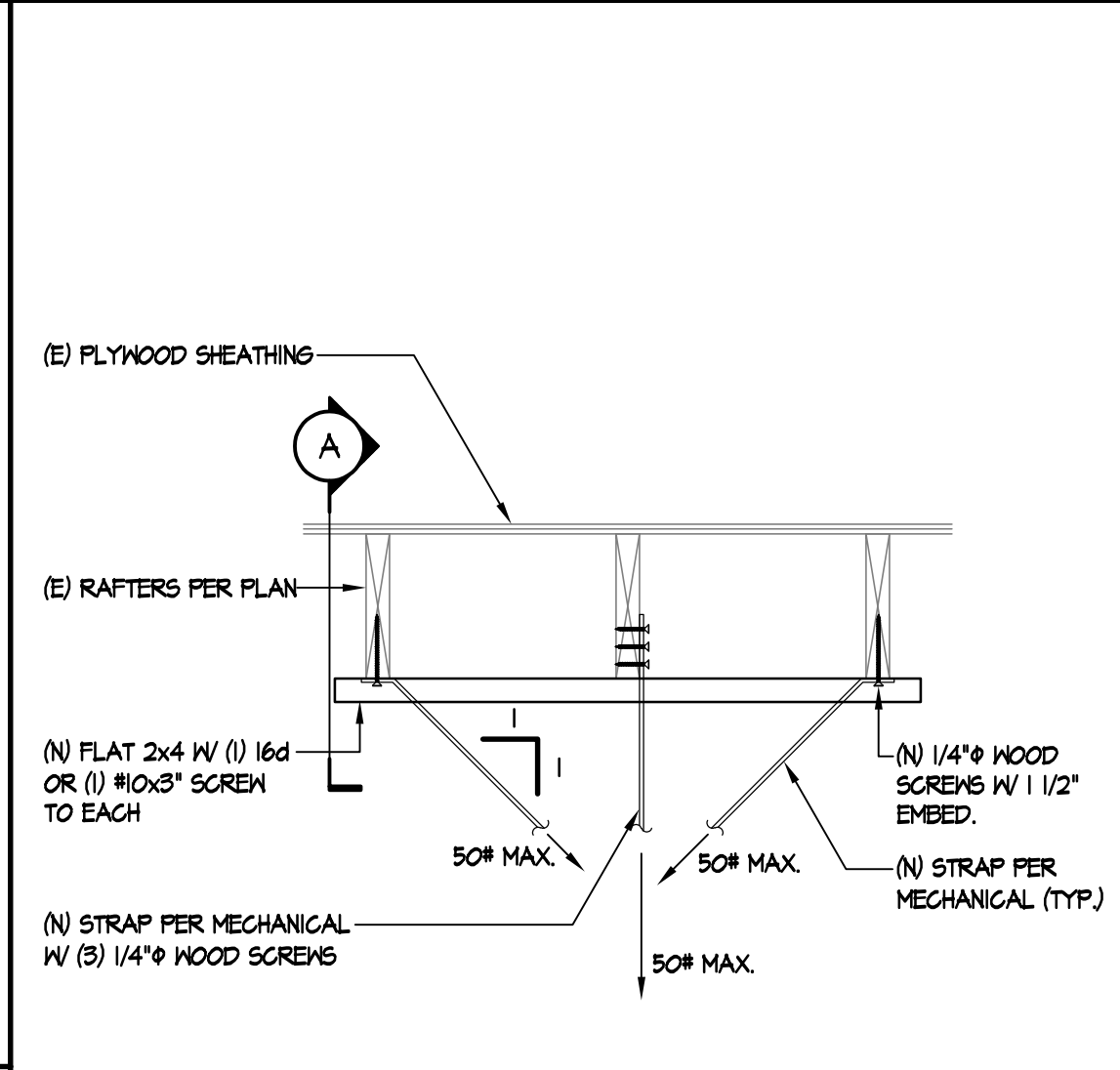
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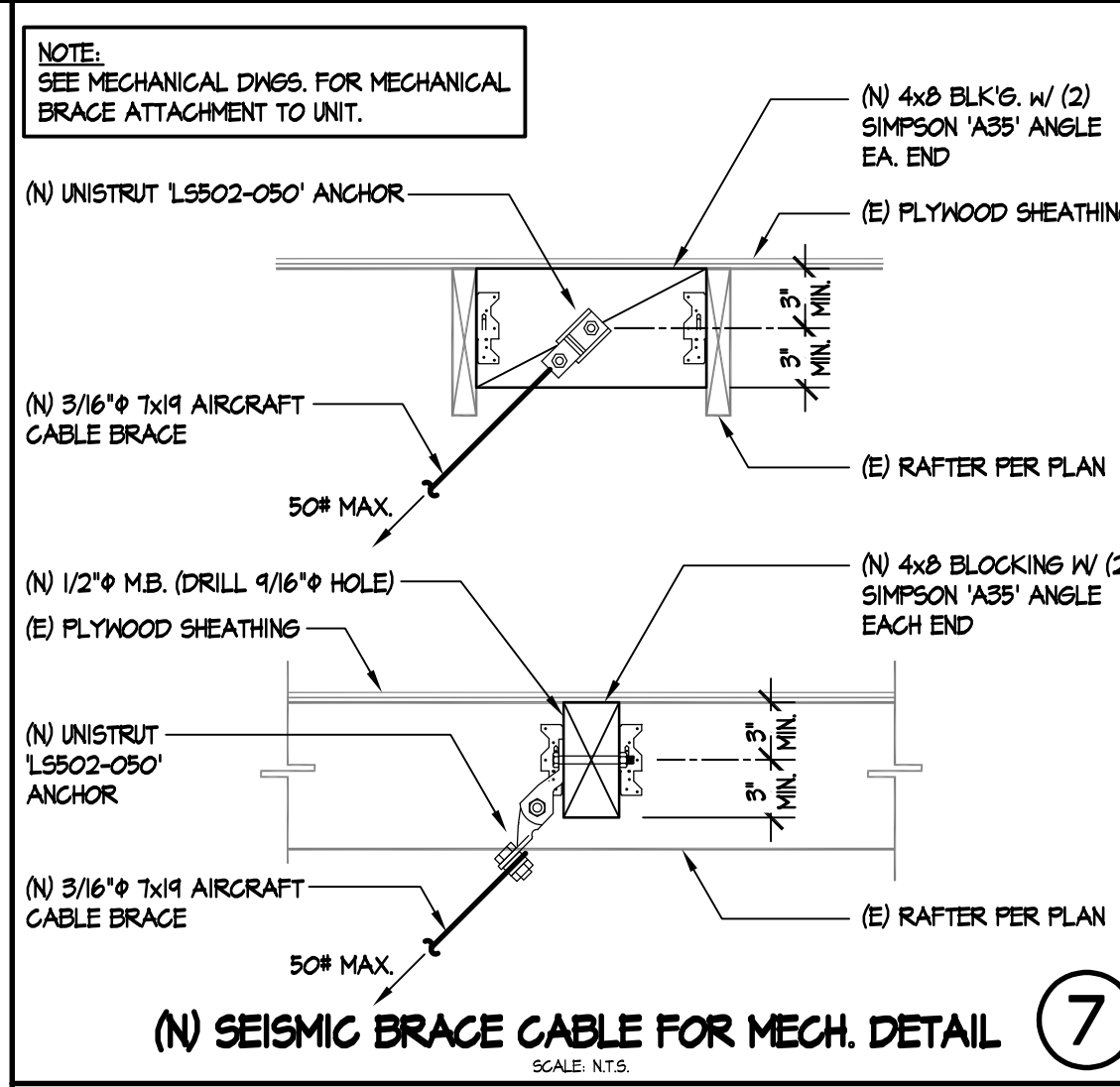
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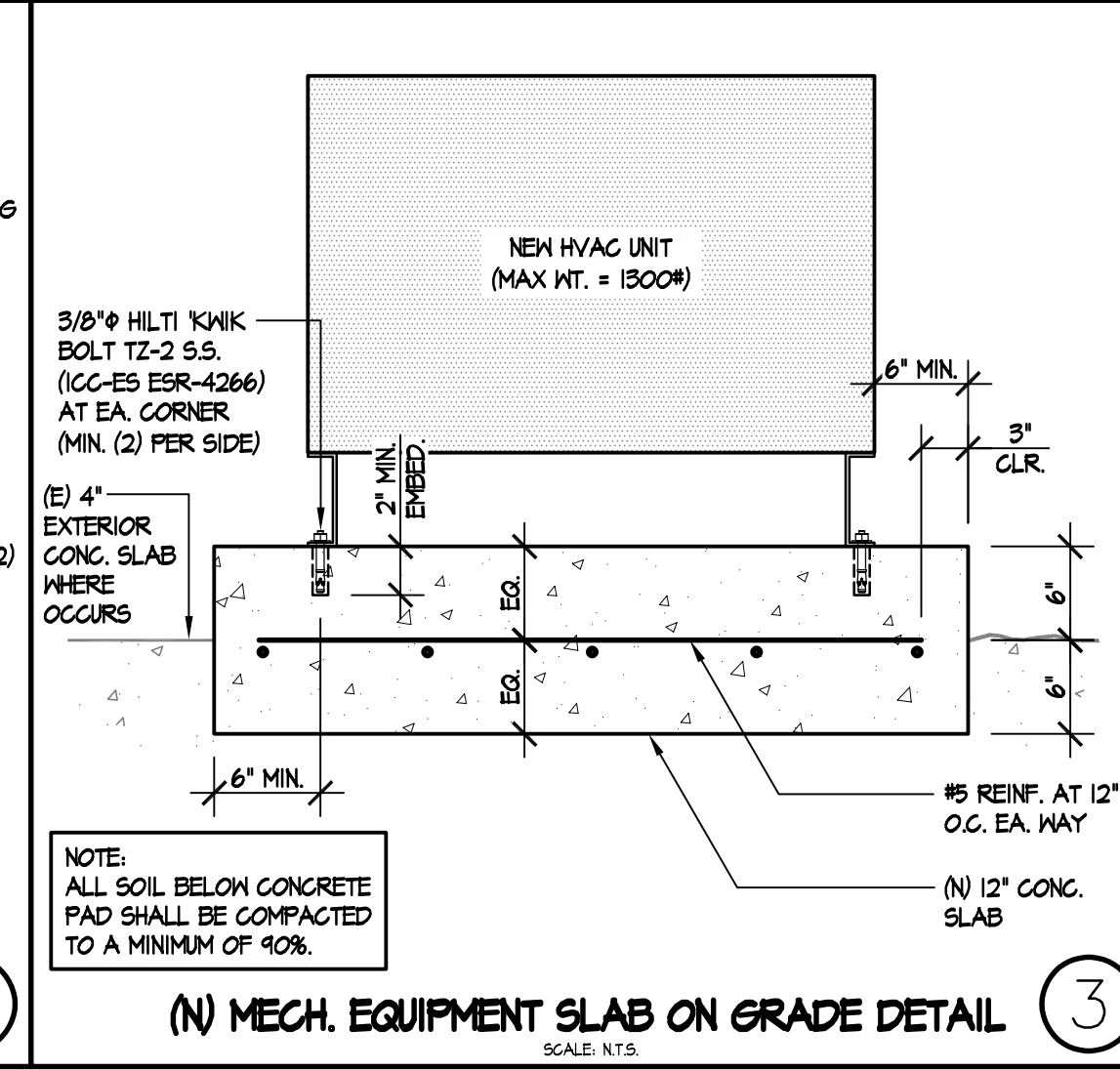
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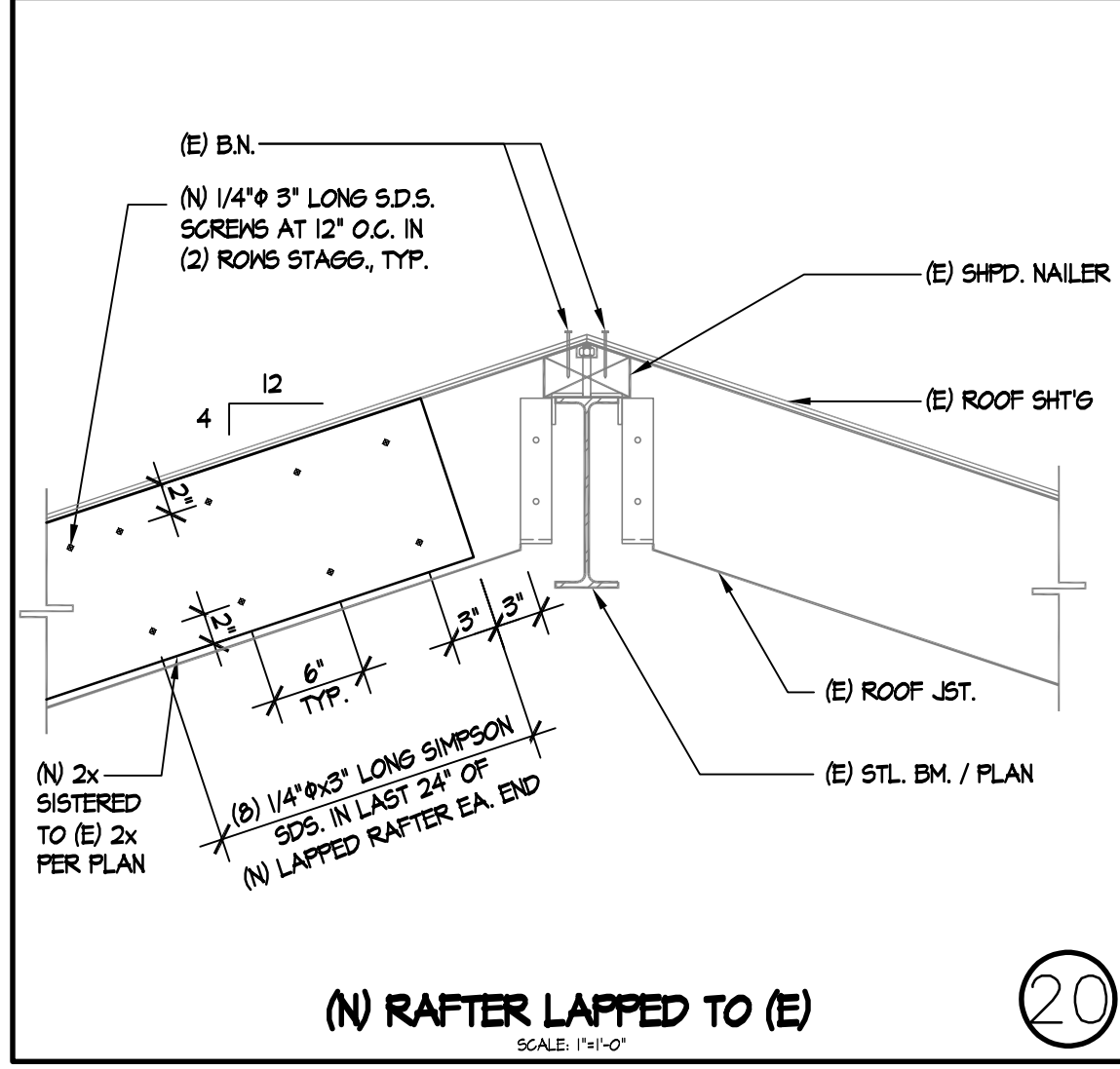
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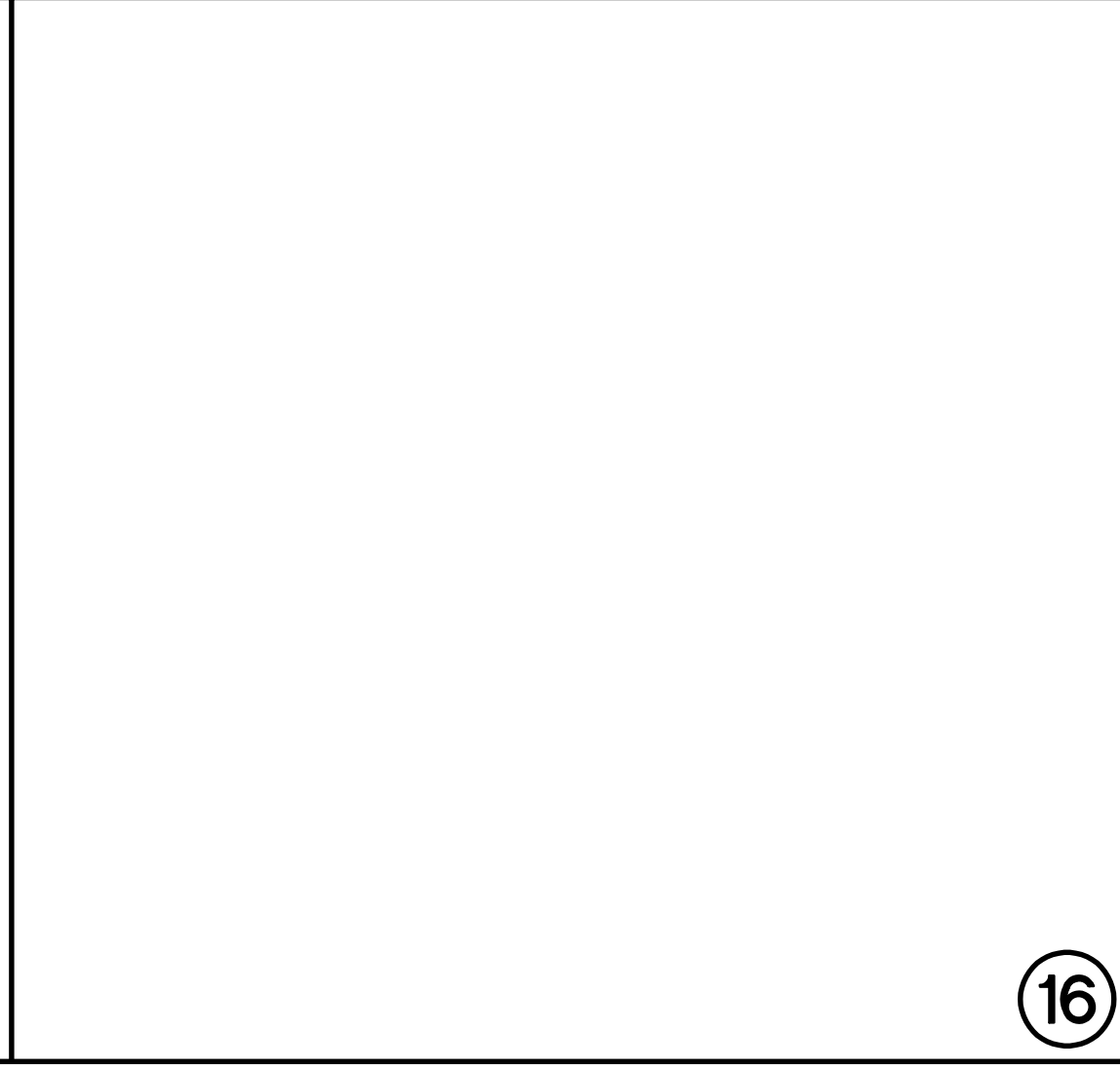
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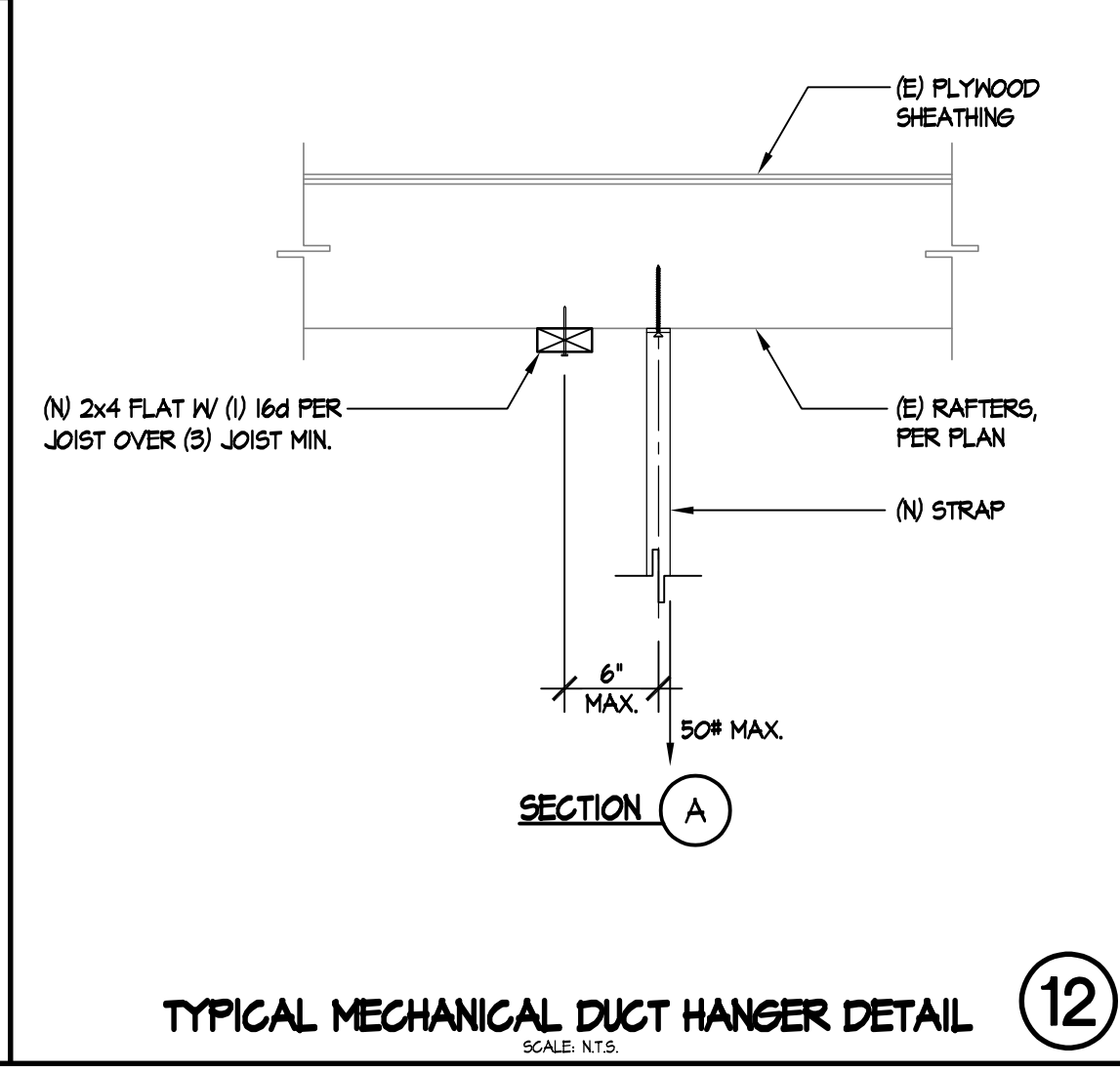
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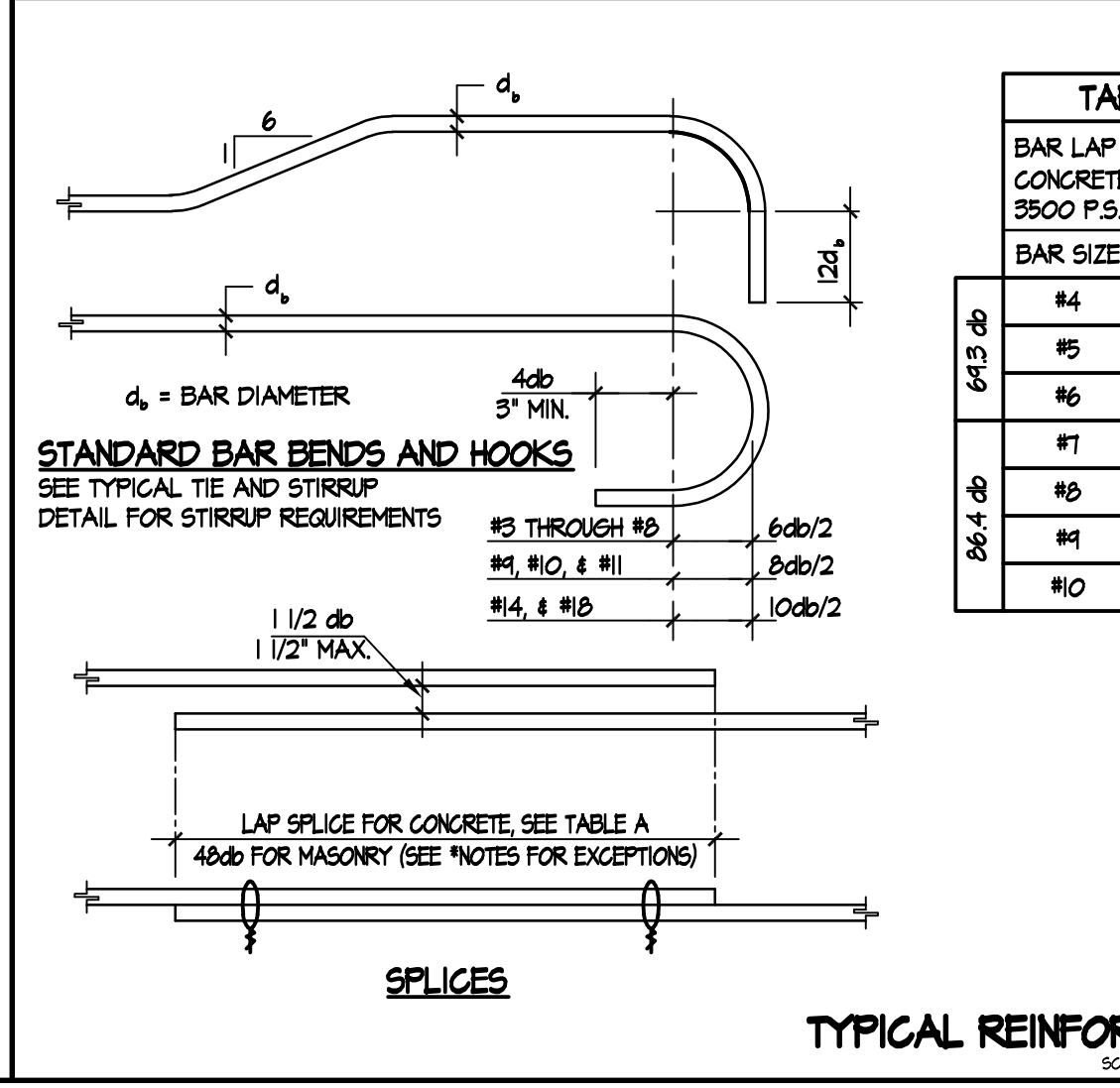
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16



12



4

TABLE A - LAP SPLICE LENGTH

BAR LAP SPLICES IN CONCRETE (CLASS B) 3500 P.S.I.	BAR LAP	
	BAR SIZE	BAR LAP
6x3 db	#4	35"
	#5	43"
	#6	52"
	#7	75"
	#8	86"
6x4 db	#9	91"
	#10	108"
	6x4.5 db	#4
#5		41"
#6		44"
#7		71"
#8		81"
6x5 db	#9	91"
	#10	101"

TABLE B - DEVELOPMENT LENGTH

BAR SIZE	STRAIGHT BARS		HOOKED BARS	
	3500 PSI	4000 PSI	3500 PSI	4000 PSI
#4	27"	25"	11"	10"
#5	33"	31"	13"	12"
#6	40"	37"	16"	15"
#7	58"	54"	18"	17"
#8	66"	62"	21"	19"
#9	75"	70"	23"	22"
#10	84"	78"	26"	24"

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STATE OF CALIFORNIA

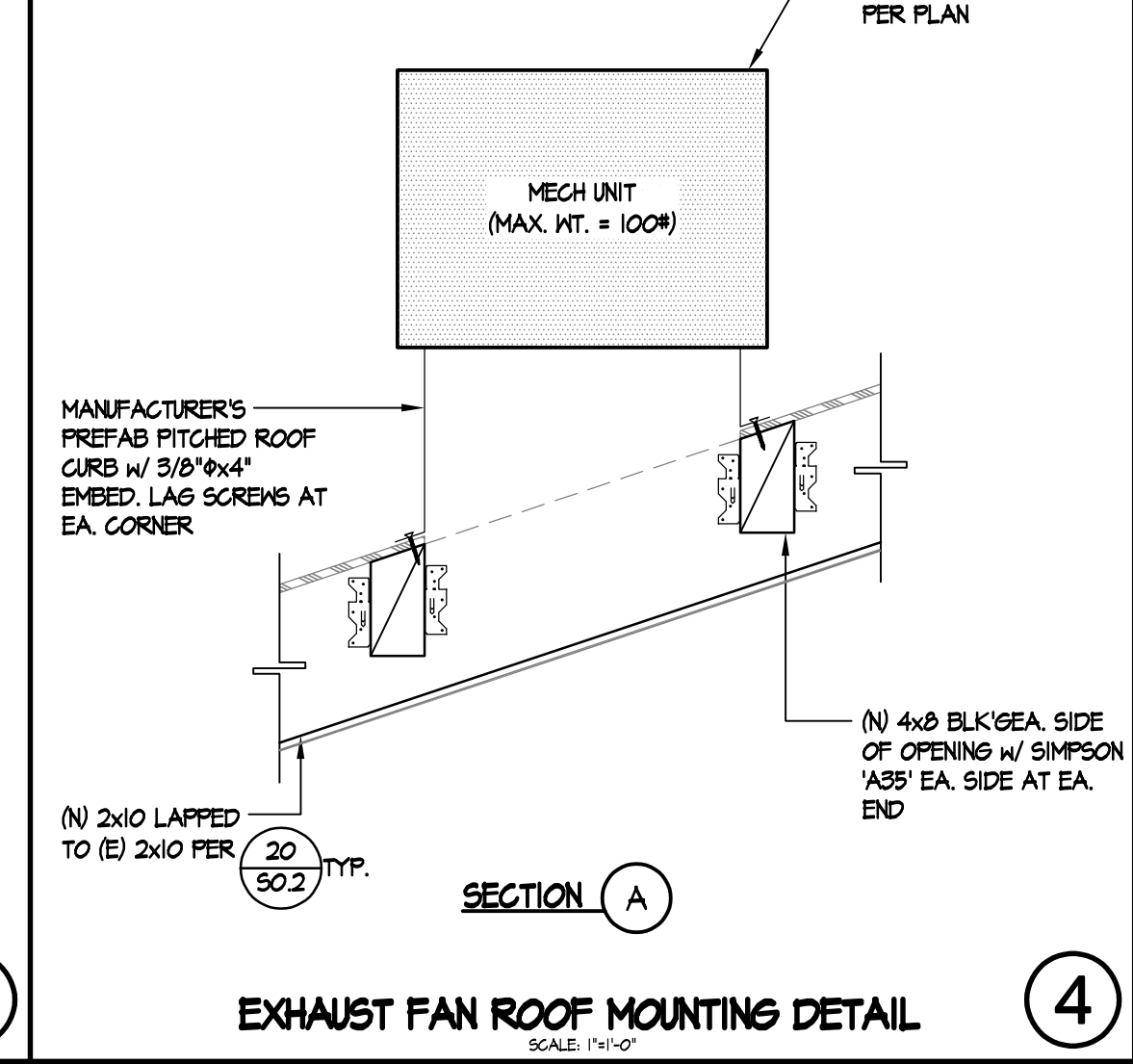
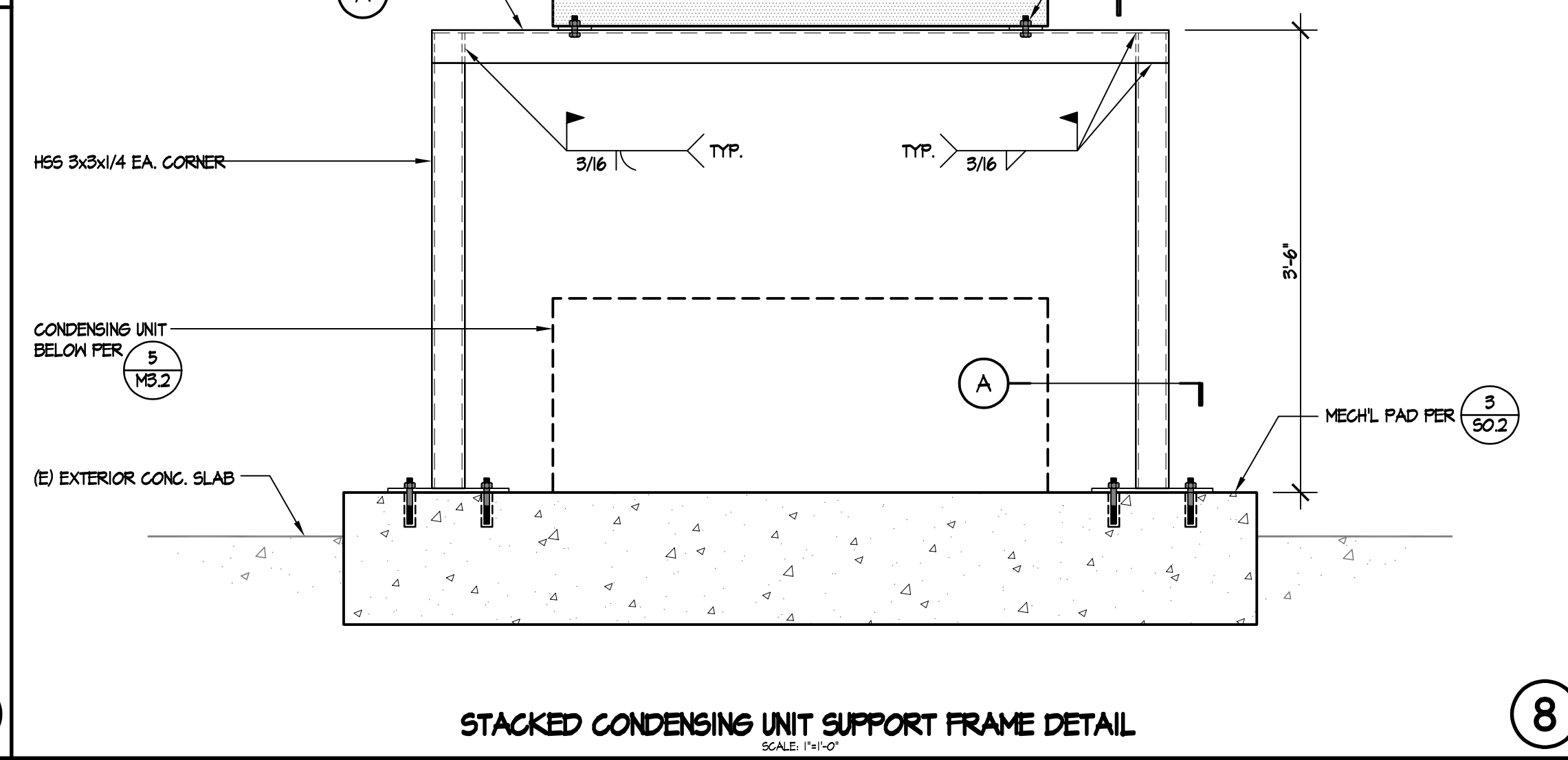
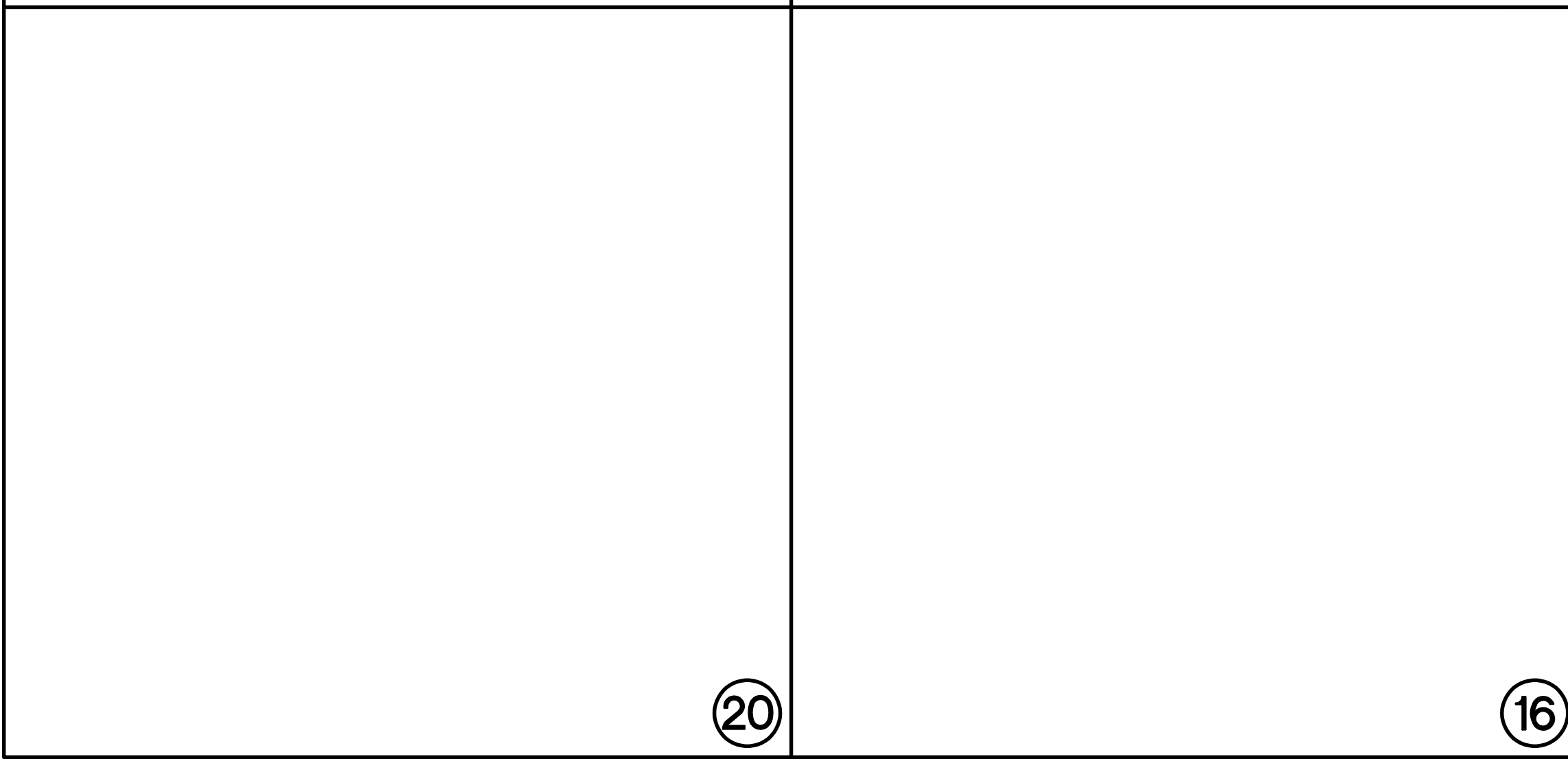
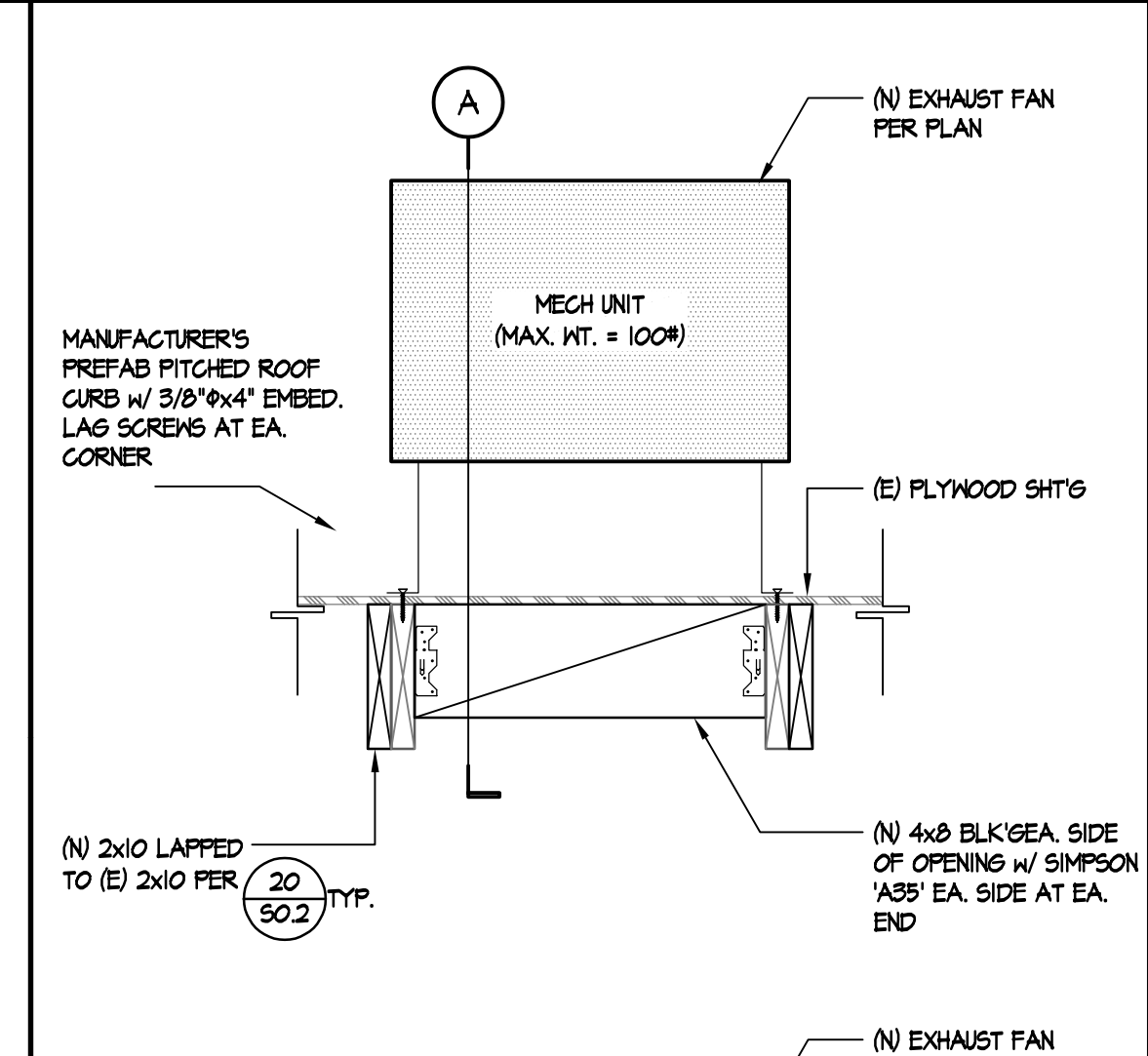
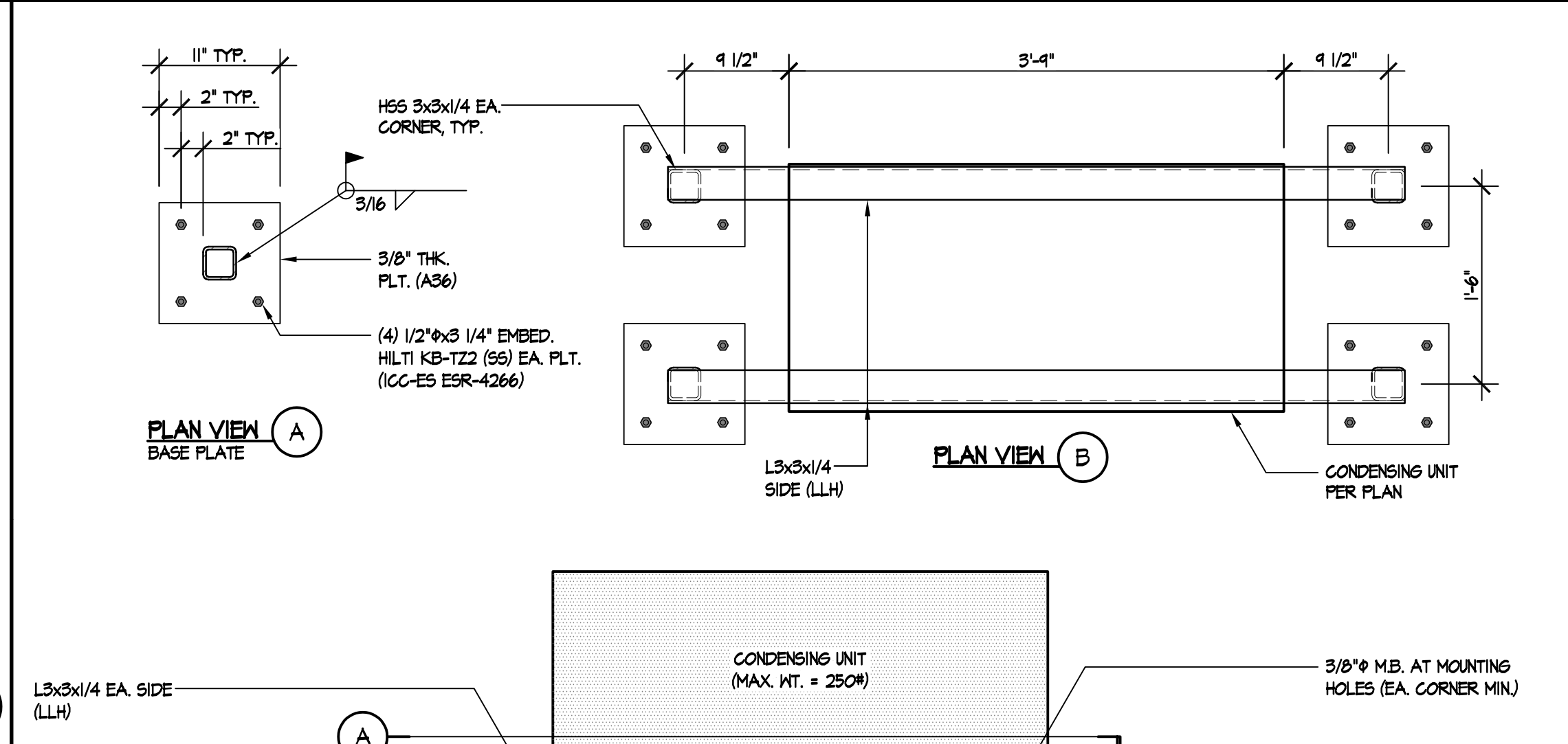
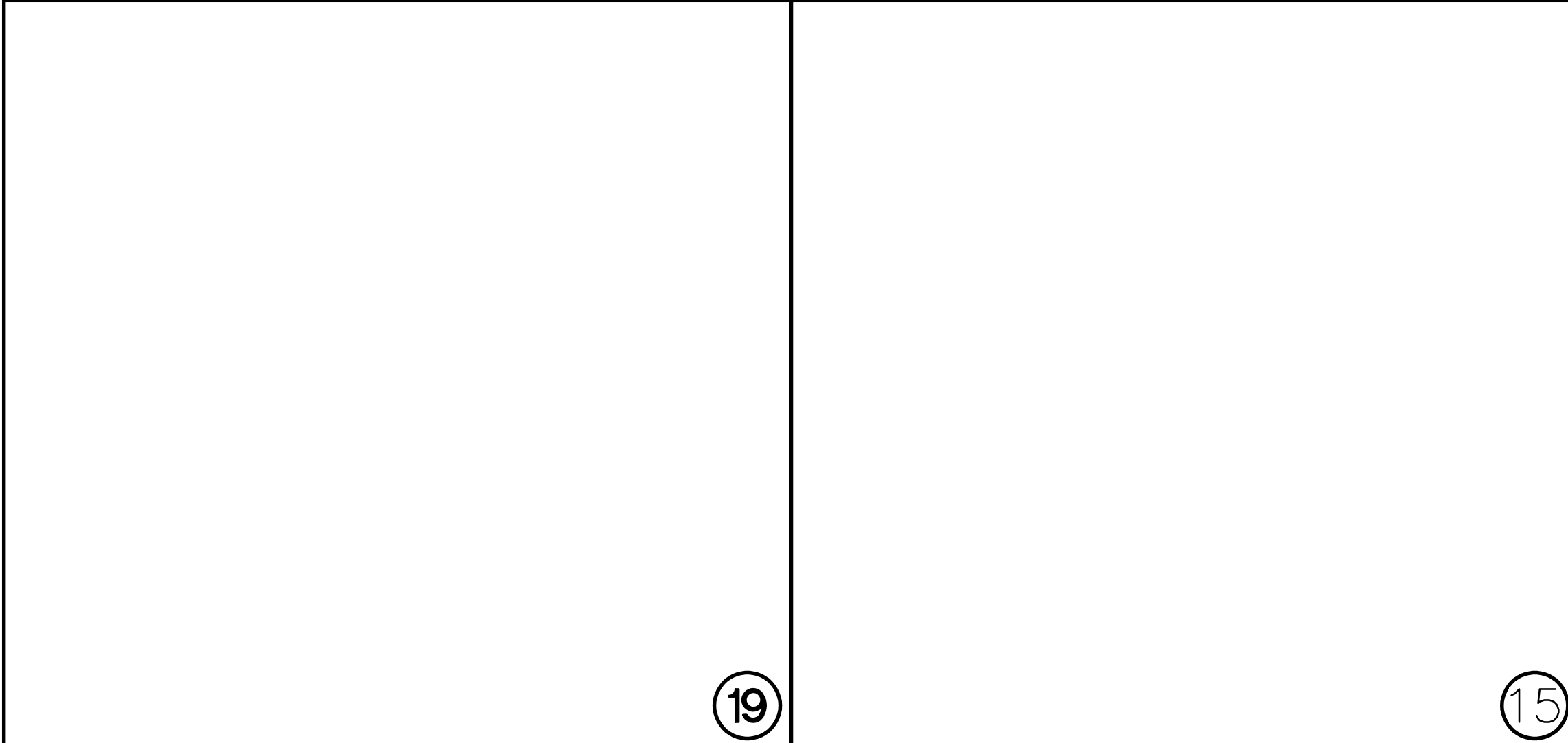
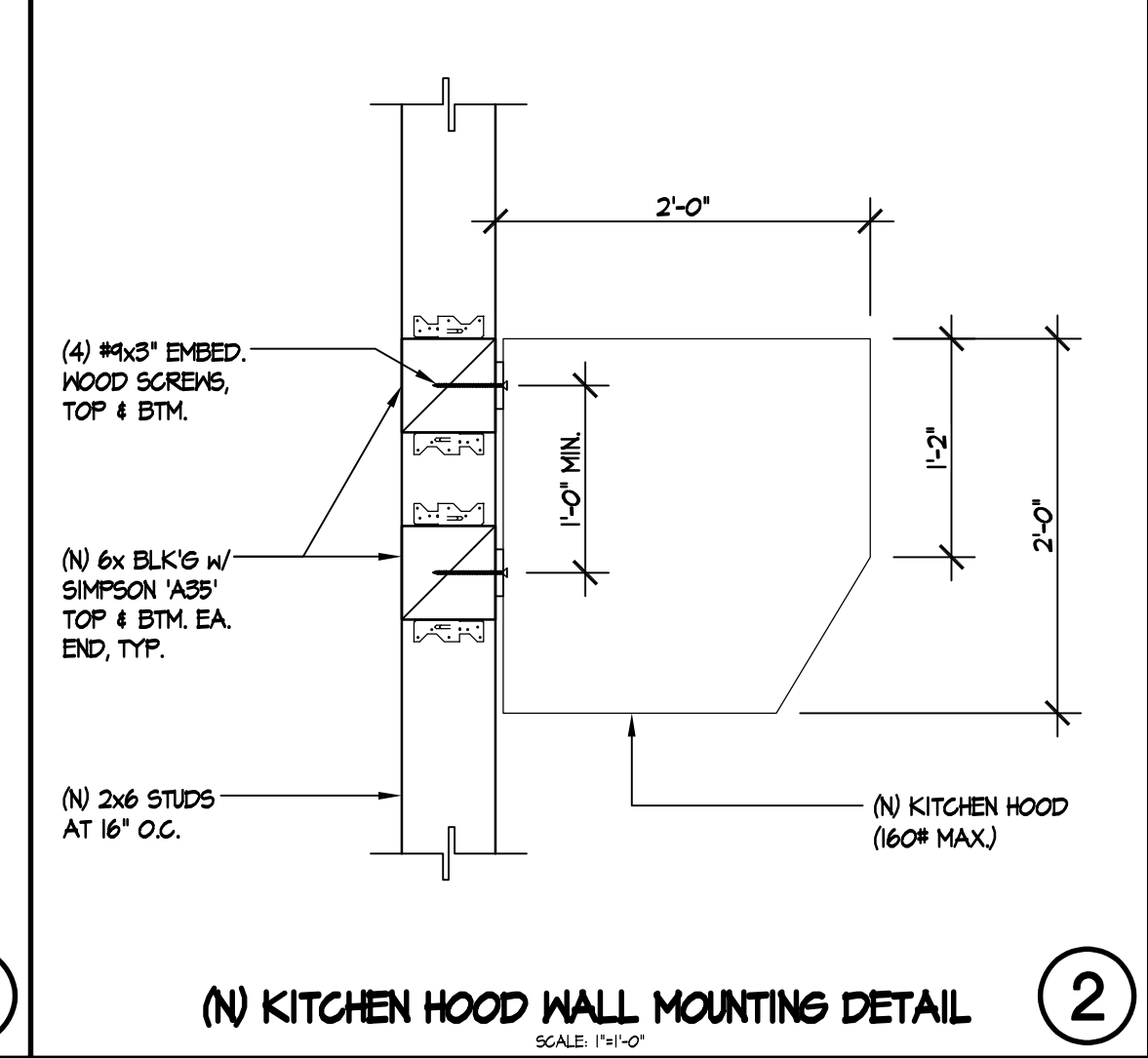
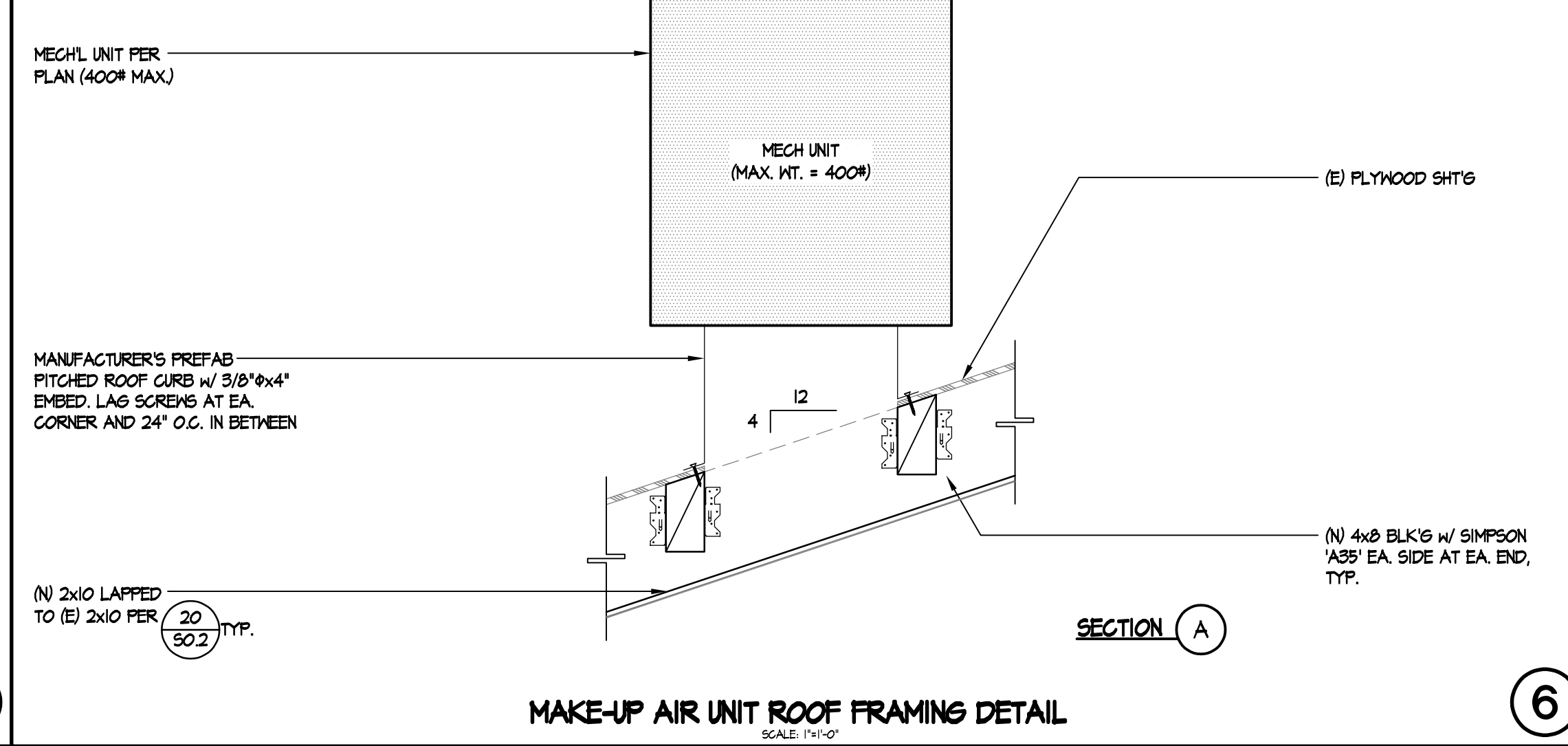
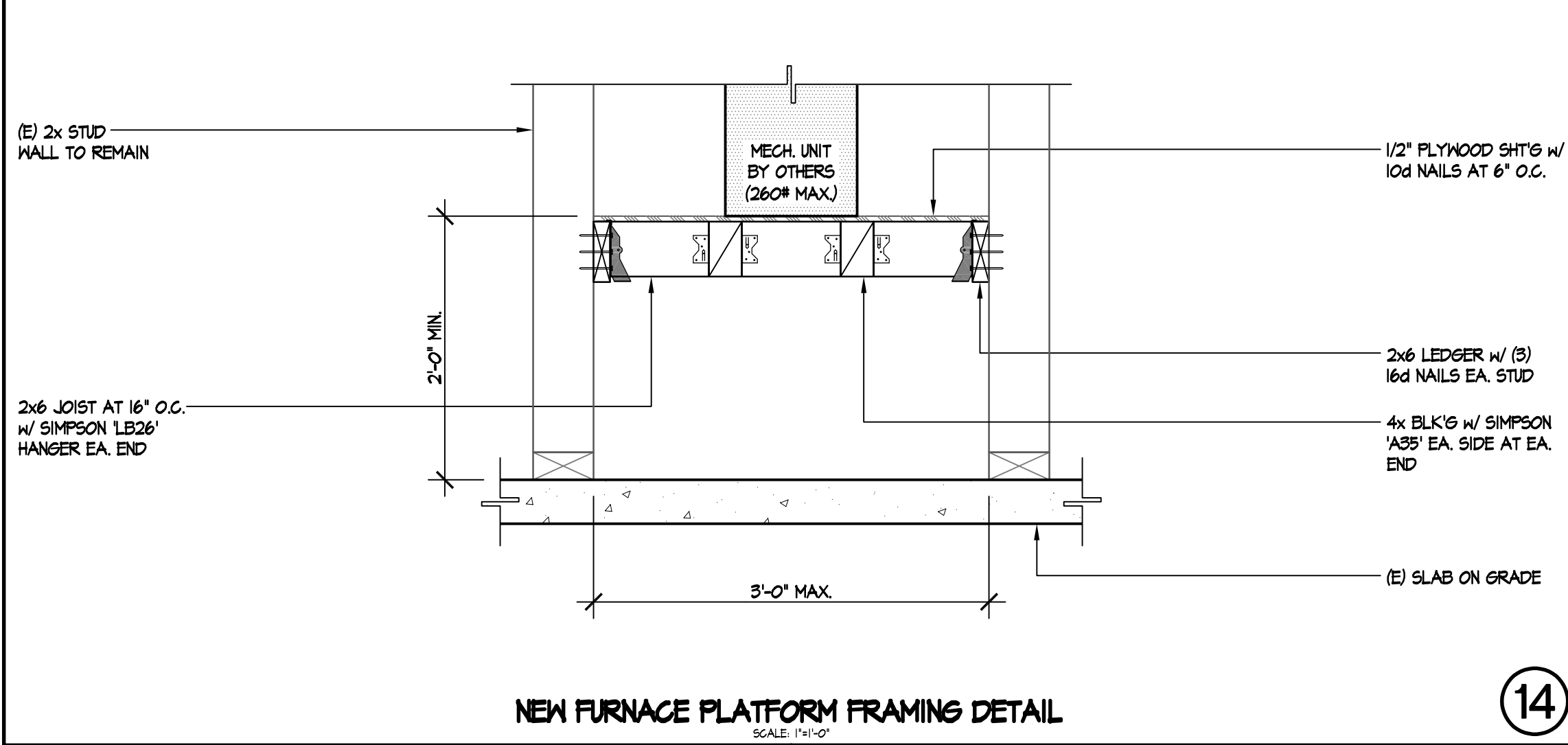
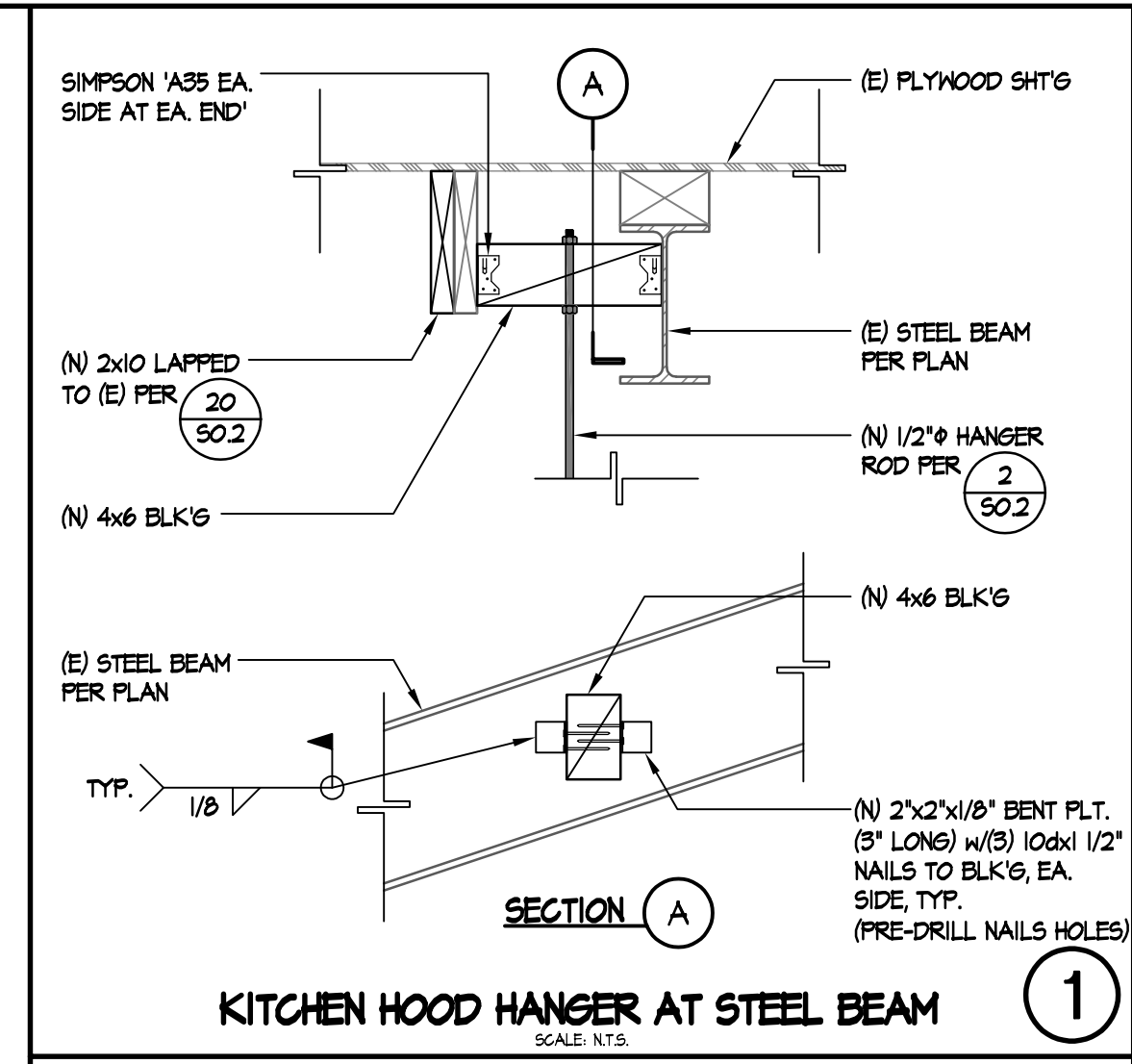
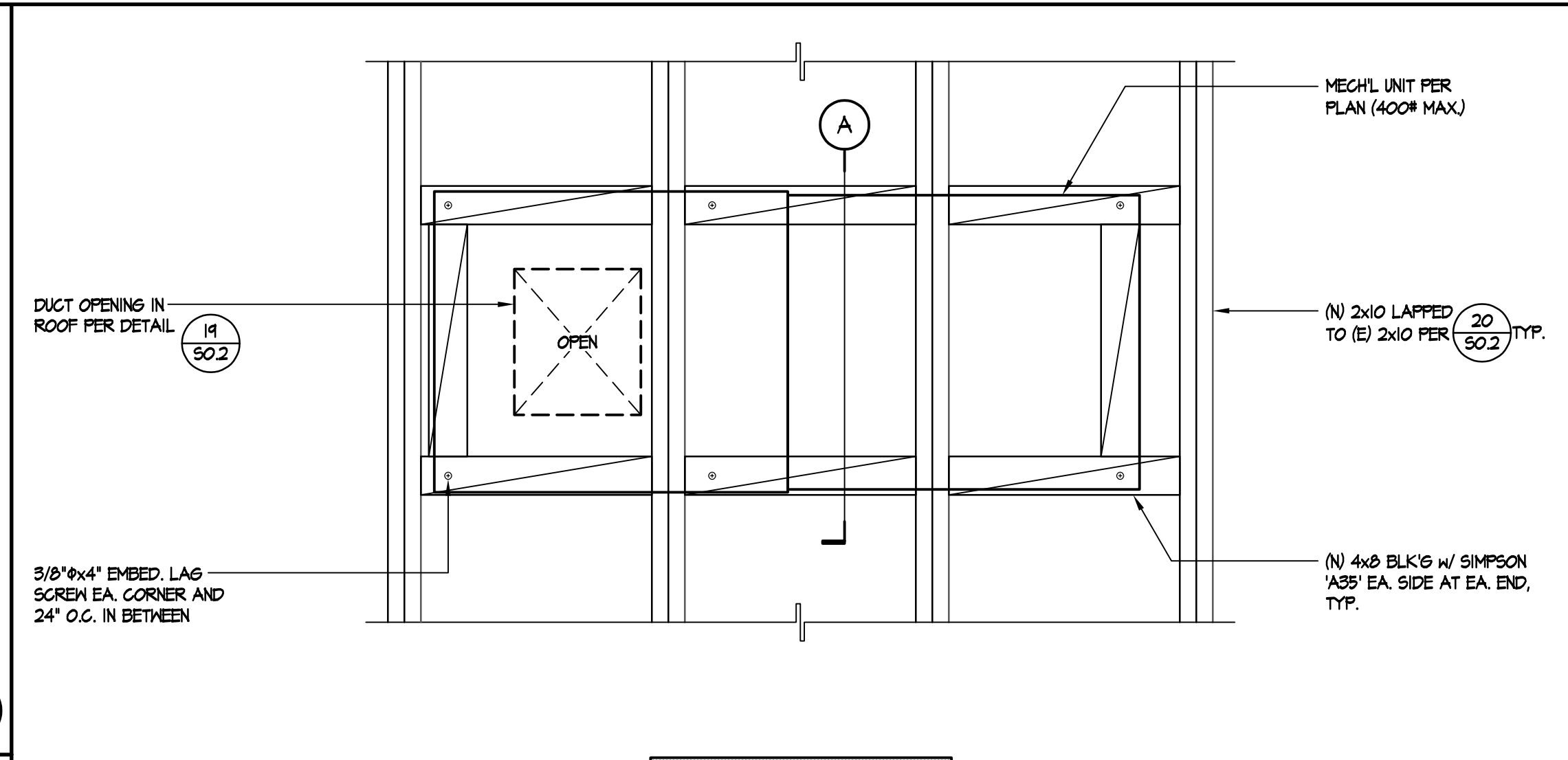
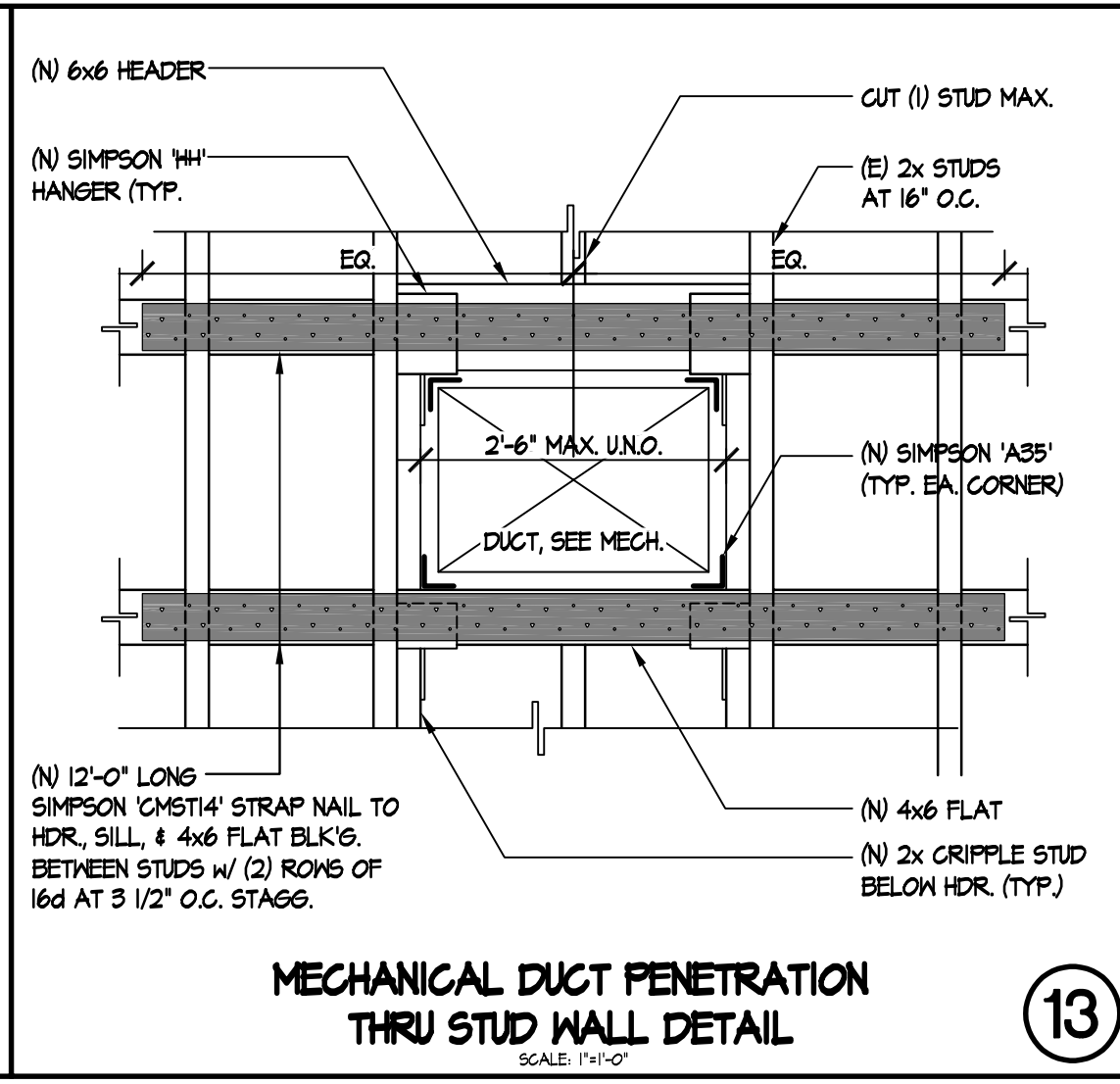
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115 W. ALLEN AVE.,
SAN DIMAS CA 91773
(909) 971-8200

PROJECT:
SAN DIMAS HIGH SCHOOL CULINARY ARTS CLASSROOM MODERNIZATION

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REVISION: DATE: _____

DRAWING TITLE:
DETAILS

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S0.2



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Peter R. Brownkamp
No. 50471
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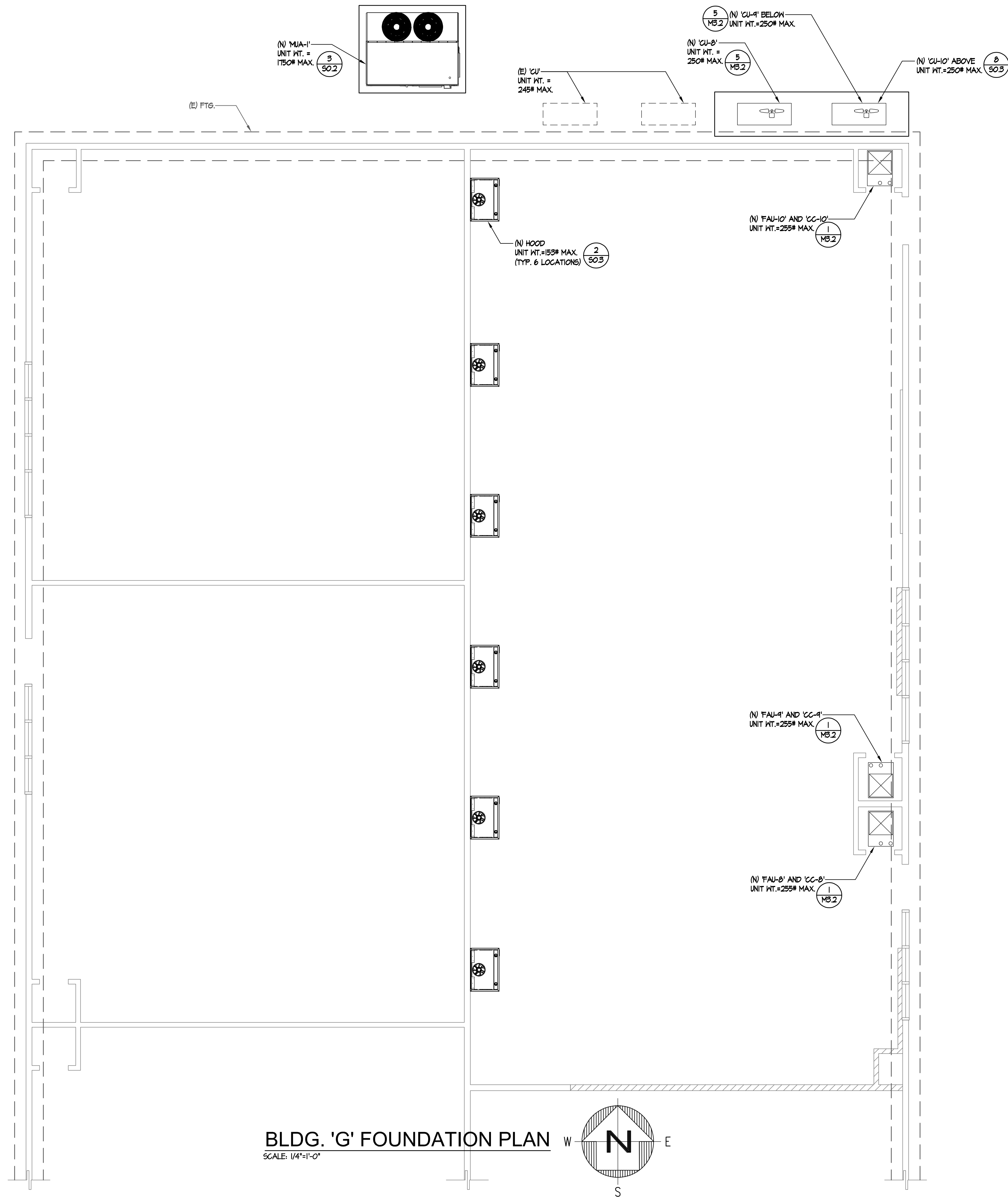
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(909) 971-8200

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DETAILS

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S0.3

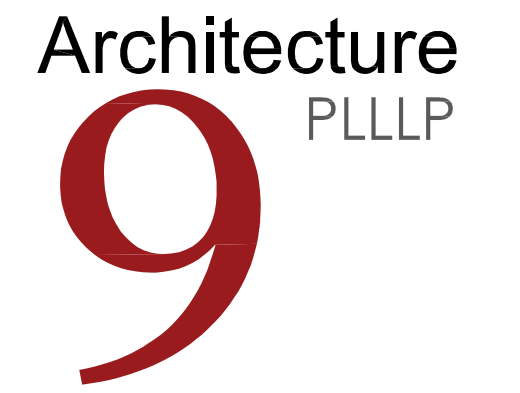


BLDG. 'G' FOUNDATION PLAN
SCALE: 1/4"=1'-0"

FOUNDATION PLAN NOTES

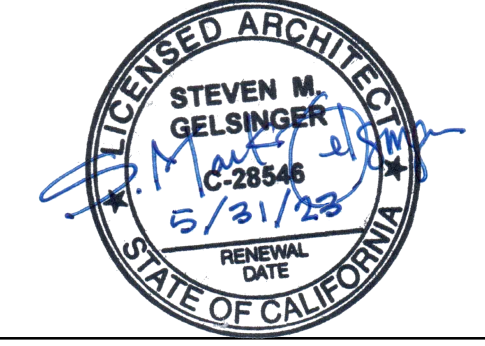
- SEE GENERAL NOTES AND ABBREVIATIONS ON SHEET SO1.
- VERIFY ALL DIMENSIONS AND SLAB ELEVATIONS WITH ARCHITECTURAL DRAWINGS.
- ALL DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE.
- TYPICAL FOUNDATION FORMING DETAILS PER 1/50.2.
- CONTRACTOR TO DEMO PLUMBING AT PAD FOOTINGS AND REPLACE W/ NEW PLUMBING IF PAD FOOTINGS INTERFERE W/ EXISTING PLUMBING LINES.

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PROJECT:

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CLASSROOM
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JOB NUMBER:
DATE: 11/15/2021

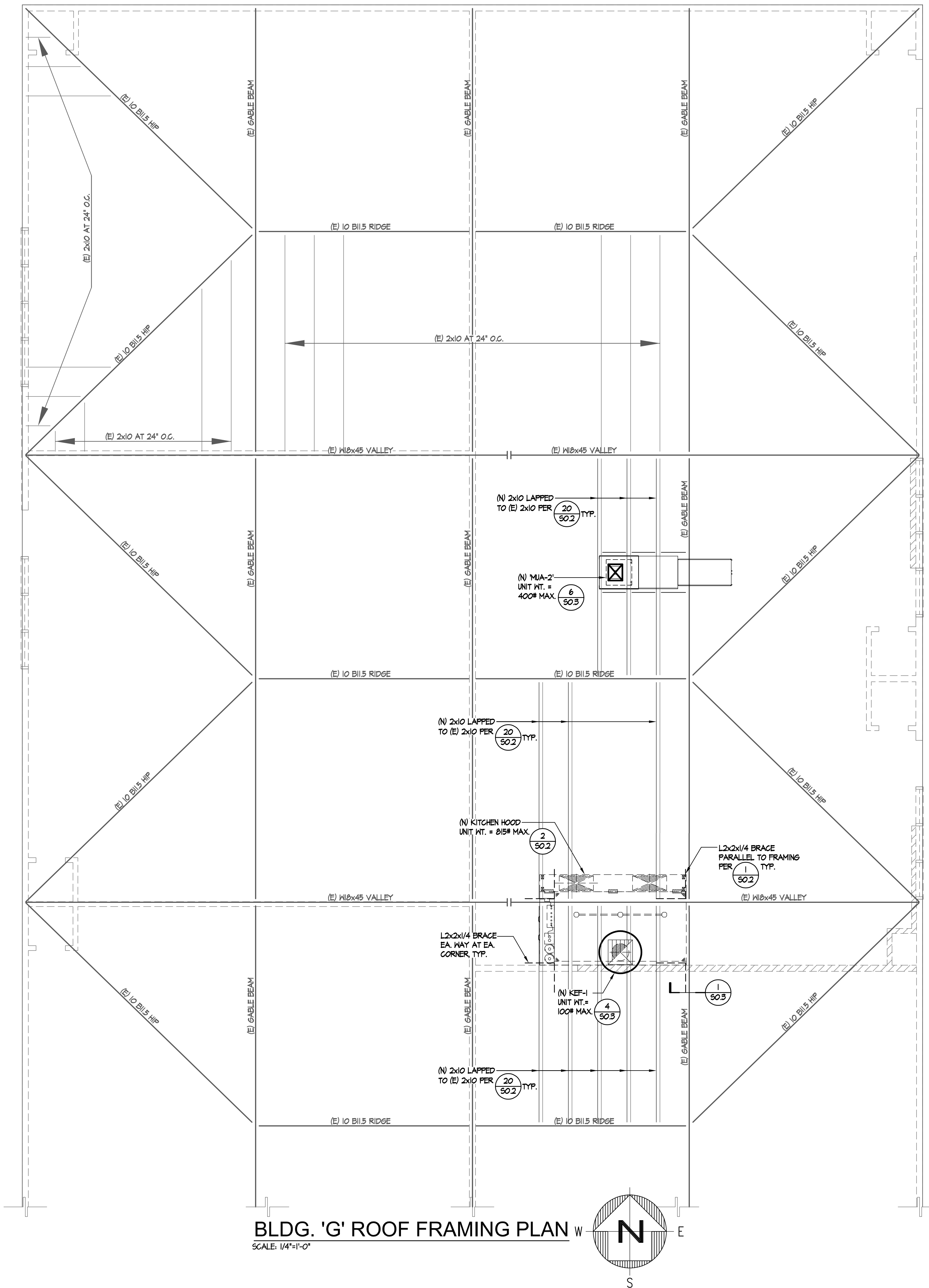
REVISION: Δ DATE: _____
REVISION: Δ DATE: _____

DRAWING TITLE:

**BUILDING 'G'
FOUNDATION PLAN**

DRAWING NO.:

S1.1



BLDG. 'G' ROOF FRAMING PLAN W N E S
SCALE: 1/4"=1'-0"

ROOF FRAMING PLAN NOTES

- SEE HEADER SCHEDULE SHEET 501 LUMBER NOTE #10 FOR ALL HEADERS AND LINTEL SIZES NOT IDENTIFIED. FOR HEADER FRAMING DETAIL SEE DETAIL 14/50.2.
- ALL SOFFIT AND CEILING FRAMING WHICH IS HUNG FROM ROOF RAFTERS SHALL NOT BE INSTALLED UNTIL ALL ROOF LOADS WHICH MAY CAUSE DEFLECTION ARE INSTALLED. THE CONTRACTOR SHALL MAKE A FINAL CHECK FOR PLUMB PRIOR TO INSTALLATION OF THE SOFFIT AND CEILING COVERINGS, AND MAKE ANY REQUIRED ADJUSTMENTS.
- FRAMING AT WALL OPENINGS PER TYPICAL STUD WALL FRAMING DETAIL 14/50.2.
- WHERE ROOFING IS TO BE REPLACED, EXISTING ROOFING SHALL BE REMOVED ENTIRELY AND REPLACED. IT IS NOT ACCEPTABLE TO INSTALL NEW ROOFING OVER EXISTING.

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REVISION: DATE: _____

DRAWING TITLE:
BUILDING 'G' ROOF FRAMING PLAN

DRAWING NO.:
S2.1