

Addendum 2

Project: WJUSD ADULT ED CTE CLASSROOM RENOVATIONS

Project Number: 21-W04-01

Owner: Woodland Joint USD

A/E: Synthesis Partners, LLC

PO Box 1900

Yuba City, CA 95992

This Addendum has been prepared to clarify, modify, delete, or add to the drawings and/or specifications for the above referenced project, and revisions to items listed here shall supersede description thereof prior to the above stated date. All conditions not specifically referenced here shall remain the same. It is the obligation of the Prime Contractor to make subcontractors aware of any items herein that may affect submitted bids.

Acknowledge receipt of this addendum by inserting its number and date in the bidding documents. Failure to do so may subject bidder to disqualification.

All addenda items refer to the plans and specifications unless specifically noted otherwise.

The Bid Documents are hereby amended as follows:

PART A - BIDDING AND CONTRACT REQUIREMENTS

AD2A.01 N/A

PART B - TECHNICAL REQUIREMENTS

AD2B.01	Delete Section 064116, Part 2.1.D.1.b. Color core HPL is not required.
AD2B.02	Section 064116, Part 2.2.E.2. shall be revised to read: "Drawer Sides and Backs:
	Thermoset decorative panels with PVD or polyester edge banding."

PART C - DRAWINGS

AD2C.01	Added structural drawings (S0.1, S2.1, S2.2) for clarification of HVAC support framing.
AD2C.02	Revised Mechanical drawings to address DSA comments (M0.2, M0.5, M2.1, M5.1,
	M5.2). Revisions are clouded.
AD2C.03	Revised Plumbing drawing (P0.1) for corrected water heater model.
AD2C.04	Revised Electrical drawing (E1.1) to provide a scalable site plan.

PART D - RFI RESPONSES

- AD2D.01 There is new HVAC & Structural roof framing as part of this project. However, there is no Architectural Roof Plan or Division 07 Thermal & Moisture Protection Roofing Specification sections. Please provide Roofing Specifications and Architectural Roofing plan showing new roofing or new roofing Patch areas with details for unit curbs. If this is a patch job only, please also provide the existing roofing specifications and warranty information.
 - a. Existing roofing is TPO and is expected to be patched in-kind as required.
- AD2D.02 There is no Architectural Reflected Ceiling Plan or Division 09 Ceiling Specification indicating any ceiling work. Please provide an Architectural Reflected Ceilings plan if there is any work to the ceilings, except for the A1 finish schedule for new Paint finishes. Please confirm all new conduit for FA / Power & Lighting, is to be run exposed and painted on the existing ceilings?
 - a. Unless otherwise shown on the drawings, new conduit may be run exposed and painted to match the wall/ceiling surface.
- AD2D.03 Sheet A2.1 N13 calls for New Lockers. Note N13 refers you to detail 10/A9.1. There are currently no Specifications for Locker Type etc. Please provide Specifications for Metal Lockers.
 - a. Please refer to Addendum 1.
- AD2D.04 Section 064116, Part 1.1.B.2 refers to Section 123623.13 for the plastic laminate clad countertops, but there is no such section provided.
 - a. Section 123623.13 does not apply. Information on Plastic-Laminate Countertops may be found in Section 064116, Part 2.3.

03/30/23 Page 2 of 4

- AD2D.05 Section 064116, Part 2.3.F.1 refers to high-pressure laminate on a wood product core, but the color is shown as Formica Trespa Black craquele, CO_09 color rather than laminate. Formica does not manufacture Trespa. The color does not show up as a Formica color. Trespa is available in 13 mm or 20 mm panels rather than normal plastic laminate thicknesses, but countertops are sometimes (but not commonly) fabricated from Trespa Request: Please clarify if a HPL is desired for the countertops or if Trespa is desired.
 - a. Provide Trespa in 20mm panels wherever HPL countertops are referenced.
- AD2D.06 Roughly, when would the casework install?
 - a. Coordinate with the General Contractor for a specific schedule. Refer to project documents for preliminary construction schedule.
- AD2D.07 Please verify that this project does not have Skilled and Trained Workforce requirements.
 - a. STW requirements depend on many factors. It is not a direct requirement of the District or the project documents. Please verify this with your General Contractor.
- AD2D.08 Please verify that this is not a union job.
 - a. This is a Public project and therefore Prevailing Wage and other requirements do apply to this project. These requirements depend on many factors. It is not a direct requirement of the District or the project documents that this be a "Union job". Please verify this with your General Contractor.
- AD2D.09 Please verify that there is no 12623.13 Plastic Laminate Clad Countertops spec.
 - a. Section 123623.13 does not apply.
- AD2D.10 Please verify that plastic laminate material will not be color core.
 - a. Delete Section 064116, Part 2.1.D.1.b. Core color does not have to match the top finish.
- AD2D.11 Premium and metallic plastic laminate colors and finishes can vary dramatically in price and availability. Please verify I can price this using standard colors and finishes.
 - a. Section 064116, Part 2.1.D.1. lists "solid colors", "wood grains", and "patterns". Owner will select a solid gray color cabinet body color from the laminate manufacturer's standard color selections. No metallic or premium finishes will be required.
- AD2D.12 Please verify that T-mold is not required for the edge banding.
 - a. If plastic-laminate shelves are required, PVC T-mold is required for edges of plastic-laminate shelves. All shelving inside cabinets may be thermoset decorative panels.
- AD2D.13 Please verify that drawer bottoms can be MDF (not hardboard). MDF can receive melamine and therefore match the rest of the drawer box.
 - a. This is acceptable.
- AD2D.14 Please verify that our drawer boxes can be built using dowelled construction (not rabbeted).
 - a. This is acceptable.
- AD2D.15 The specs call out for flush overlay and for 5-knuckle hinges (which give a reveal overlay). Please clarify if the design intent is 5-knuckle/reveal overlay or concealed hinges/flush overlay.
 - a. Intent is for a narrow reveal overlay, approximately 1/2-inch. Hinges will be visible.
- AD2D.16 Please verify we are approved to use the standard hole system for the adjustable cabinet shelves (not metal standards). This is WI compliant for all grades.
 - a. This is acceptable.

03/30/23 Page 3 of 4

- AD2D.17 Please verify we are approved to use Pro Series 2.0 100# drawer guides (see attached). They meet the specs requirements.
 - a. No attachment was forwarded or received. Drawer guides that fully meet the requirements of the specifications will be accepted as equal.
- AD2D.18 Please provide a scalable Electrical Site Plan. Currently provide on E1.1 appears to be a picture and is NTS.
 - a. See revised E1.1 in this addendum for scaled site plan.
- AD2D.19 Sheet A2.3 has the Culinary Equipment schedule / Dental Equipment schedule / Manufacturing Equipment schedule. Please indicate on these schedules the OFCI items and if any equipment is to be CFCI equipment on these schedules? Please supply Installation Specifications for all OFCI equipment.
 - a. All equipment listed in the Manufacturing classroom will be installed by the Owner's third-party vendor.
 - b. All equipment listed in the Dental classroom will be installed by the Owner's third-party vendor except for the following: XRAY Pass Through Cabinet.
 - c. All equipment listed in the Culinary classroom will be installed by the Owner's third-party vendor except for the following: Condensate Hood, Exhaust Hood, Sinks, S/S Liner Panels.

List of Attachments

- Structural drawings (S0.1, S2.1, S2.2)
- Mechanical drawings (M0.2, M0.5, M2.1, M5.1, M5.2)
- Plumbing drawing (P0.1)
- Electrical drawing (E1.1)

ARCHITECT

Synthesis Partners, LLC PO Box 1900 Yuba City, CA 95992

March 30, 2023

DATE

03/30/23 Page 4 of 4

GENERAL NOTES

CODE: 2022 CALIFORNIA BUILDING CODE (CBC)

2. DESIGN LIVE LOADS:

DESIGN CRITERIA

AREA	LIVE LOAD	REMARKS
ROOF		
A) FLAT TO < 4:12	Lr = 20 PSF	REDUCIBLE PER CODE
B) 4:12 TO <u>≤</u> 12:12	Lr = 12-20 PSF	REDUCIBLE PER CODE
FLOOR	L = OPSF	REDUCIBLE PER CODE

3. SNOW DESIGN PARAMETERS

4. WIND DESIGN PARAMETERS:

ULTIMATE DESIGN WIND SPEED (3-SEC GUST)	Vult = 100 MPH
NOMINAL DESIGN WIND SPEED (3-SEC GUST)	Vasd = 77 MPH
RISK CATEGORY	III
EXPOSURE CATEGORY	C
INTERNAL PRESSURE COEFFICIENT	±0.18
ANALYSIS METHOD	DIRECTIONAL
	PROCEDURE

ROOF PRESSURE FOR COMPONENTS & CLADDING:

5. EARTHQUAKE DESIGN PARAMETERS:

4.1. SEISMIC IMPORTANCE FACTOR	le = 1.25
4.2. RISK CATEGORY	III
4.3. SOIL SITE CLASSIFICATION	'D'
4.4. SEISMIC DESIGN CATEGORY	'D'
4.5. MAPPED SPECTRAL RESPONSE ACCEL	
A) SHORT PERIOD	Ss = 1.011g
B) I-SEC PERIOD	Si = 0.354g
5.6 DESIGN SPECTRAL RESPONSE ACCEL	
A) SHORT PERIOD	5ds = 0.809g
B) I-SEC PERIOD	5di = 0.401g
5.7 SEISMIC FORCE RESISTING SYSTEM	MOOD SHEARMALLS
5.8 SEISMIC BASE SHEAR	V = N/A
5.9 SEISMIC RESPONSE COEFFICIENT	CS = N/A
5.10 RESPONSE MODIFICATION FACTOR	R = 6.5

5.11 COMPONENT AMPLIFICATION FACTOR A) CONDENSER & HVAC 5.12 COMPONENT RESPONSE MODIFICATION FACTOR

A) CONDENSER & HVAC Rp = 6.0

EQUIVALENT 5.13 ANALYSIS PROCEDURE LATERAL FORCE

Ap = 2.5

DEMOLITION

- SHORE OR BRACE TRUSSES, BEAMS COLUMNS, AND WALLS AS REQUIRED TO MAINTAIN THE STABLE INTEGRITY OF THE EXISTING STRUCTURE PRIOR TO DEMOLITION. IT IS THE CONTRUCTOR'S SOLE RESPONSIBILITY TO DESIGN AND PROVIDE COMPETENT SHORING AND BRACING FOR ALL LOADS IMPOSED DURING AND AFTER DEMOLITION THROUGH COMPLETION OF NEW CONSTRUCTION.
- ALL DIMENSIONS GIVEN TO AND OF THE EXISTING STRUCTURE ARE APPROXIMATE. VERIFY BY FIELD MEASUREMENTS THE DIMENSIONS OF THE EXISTING STRUCTURE. WHERE ACTUAL CONDITIONS DEVIATE FROM THE DETAILS SHOWN ON THE DRAWINGS, NOTIFY THE STRUCTURAL ENGINEER FOR INSTRUCTIONS PRIOR TO PROCEEDING WITH WORK.
- DEMOLITION AND REMOVAL OF EXISTING CONSTRUCTION SHALL BE MADE IN SUCH A MANNER AS TO AVOID OR MINIMIZE DAMAGE TO ADJACENT CONSTRUCTION.
- 4. EXTENT OF DEMOLITION IS TO BE AS INDICATED ON PLANS, SECTIONS AND DETAILS. DEMOLITION IS TO INCLUDE REMOVAL AND DISPOSAL CONSTRUCTION.

STRUCTURAL STEEL

- 1. FABRICATION, ERECTION AND MATERIALS SHALL CONFORM TO THE SPECIFICATIONS AND STANDARDS OF THE AISC, AS CONTAINED IN THE "AISC 360-10 SPECIFICATIONS OF STRUCTURAL STEEL BUILDING" & THE "AISC MANUAL OF STEEL CONSTRUCTION ", 14TH EDITION AND CALIFORNIA BUILDING CODE LATEST EDITION.
- 2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS, U.O.N.:

SHAPES SHAPES		
MIDE FLANGES (M, MT, S, M)	ASTM A992	
CHANNEL (C), MISC CHANNEL (MC), ANGLES (L)	ASTM A36	
HOLLOM STRUCTURAL STEEL (HSS)	ASTM A5 <i>00, G</i> r. B	
STEEL CIRCULAR PIPES (P)	ASTM A53, TYPE E OR S, GR. B	
PLATES & BARS	5	
COLUMN BASE PLATES	ASTM A36	
BRACE GUSSET PLATES	ASTM A36	
BEAM SHEAR CONNECTION PLATES	ASTM A36	
COLUMN CONTINUITY PLATES	ASTM A572. Gr. 50	
BEAM STIFFENER PLATES	ASTM A36	
DECK CLOSURE PLATES	ASTM A36	
STAINLESS STEEL PLATES & BARS	ASTM A276	
OTHER	ASTM A36	
NUTS, BOLTS, RODS & M	NASHERS	
GENERAL BOLTS	ASTM A325-N	
SLIP CRITICAL BOLTS (SEE NOTE #4 BELOW)	ASTM A325-SC	
HIGH STRENGTH BOLTS	ASTM A325-N OR A490	
MACHINE BOLTS (GENERAL USE)	ASTM A307	
BENT & HEADED ANCHOR BOLTS	ASTM F 1554,Gr.36,55,OR 105	
PARTIAL & FULLY THREADED ANCHOR RODS	ASTM F 1554,Gr.36,55,OR 105	
FULLY THREADED RODS (GENERAL USE)	ASTM A36 (A307 Gr. A for 3/8" Φ)	
MELDED SHEAR CONNECTORS	ASTM A 108, Gr. 1015 thru 1020	
MELDED TREADED STUDS	ASTM A 108, Gr. 1015 thru 1020	
NUTS FOR BOLTS & MACHINE BOLTS	ASTM A563	
HARDENED WASHERS	ASTM F436	
UNHARDENED MASHERS	ASTM F844	
PLAIN WASHERS	ASTM B 18.22.1	
BEVELED MASHERS	ASTM B 18.23.1	

BOLTED CONNECTIONS SHALL CONSIST OF UNFINISHED BOLTS PER THE TABLE ABOVE UNLESS NOTED OTHERWISE. ANCHOR BOLTS CAST IN CONCRETE OR MASONRY SHALL BE HEADED BOLTS W/ CUT THREAD, FULL DIAMETER BODY STYLE CONFORMING TO ASTM F 1554 U.N.O. UNLESS NOTED OTHERWISE, ANCHOR BOLTS SHALL BE GRADE 55 PER SI SUPPLEMENTARY REQUIREMENTS. ALL BOLTED CONNECTIONS AND BASE PLATES SHALL HAVE STANDARD CUT MASHERS UNLESS NOTED OTHERWISE. WASHERS AT BASE SHALL BE PLACED AT TOP AND BOTTOM OF PLATE.

4. "SLIP"-CRITICAL BOLTED CONNECTIONS: A) "SLIP-CRITICAL" CONNECTIONS (A325-SC DESIGN VALUES W/ SPECIAL INSPECTION) ARE REQUIRED AT ALL BRACED FRAME CONNECTIONS, AT ALL CONNECTIONS ALONG CHORD LINES AND DRAG LINES (AS NOTED ON PLANS) AND U.N.O. AT ALL BOLTS IN OVERSIZED OR SLOTTED

HOLES. B) THE SPECIAL INSPECTOR MUST BE PRESENT DURING INSTALLATION AND TIGHTENING OPERATION OF "SLIP-CRITICAL" CONNECTIONS.

ALL STRUCTURAL STEEL SHALL RECEIVE MINIMUM OF ONE SHOP COAT OF RED PRIMER W/ A MINIMUM DRY FILM THICKNESS OF 2.0 MILS. DO NOT SHOP PRIME OR PAINT AREAS TO BE FIELD WELDED, FIREPROOFED, GALVANIZED, TO RECEIVE SLIP-CRITICAL HIGH STRENGTH BOLTS, OR TO BE EMBEDDED IN CONCRETE. PRIOR TO PRIMING OR PAINTING, CLEAN STRUCTURAL STEEL & AS REQUIRED BY THE PRIMER & PAINT MANUFACTURER, PROVIDE ADDITIONAL PAINTING AS NOTED IN THE SPECIFICATIONS.

ALL STRUCTURAL STEEL SHALL BE ERECTED PLUMB AND TRUE TO LINE. TEMPORARY BRACING SHALL BE INSTALLED AND SHALL BE LEFT IN PLACE UNTIL OTHER MEANS ARE PROVIDED TO ADEQUATELY BRACE THE STRUCTURE. CONTRACTOR RESPONSIBLE FOR REVIEWING ALL BASE PLATE AND SUPPORT CONDITIONS DURING ERECTION AND BRACING AS REQUIRED. SEE AISC AND OSHA REQUIREMENTS.

PLACE NON-SHRINK GROUT UNDER ALL BASE PLATES BEFORE ADDING VERTICAL LOAD. SEE CONCRETE NOTES FOR NON-SHRINK GROUT REQUIREMENTS

STRUCTURAL STEEL BELOW GRADE SHALL HAVE 3" MINIMUM OF CONCRETE COVER.

9. PROVIDE ½" Φ STITCH BOLTS AND RING FILLS, SPACE AT NOT MORE THAN 24" CC FOR ALL DOUBLE ANGLE MEMBERS.

10. AT WOOD TO STEEL PARALLEL CONTACT, ATTACH W/2"中 WELDED THREADED STUDS AT MAXIMUM 32"CC. & 6" FROM ENDS OF WOOD MEMBER, TYPICAL UNLESS NOTED OTHERWISE.

1 1. HOLES FOR UNFINISHED BOLTS SHALL BE OF THE SAME NOMINAL DIAMETER OF THE BOLTS PLUS 1/6". USE STANDARD AISC GAGE AND PITCH FOR BOLTS EXCEPT AS NOTED OTHERWISE. HOLES FOR ANCHOR BOLTS EMBEDDED IN CONCRETE SHALL BE OF THE SAME NOMINAL BOLT DIAMETER PLUS $\frac{3}{16}$ " UNLESS NOTED OTHERWISE.

12. WELDING SHALL BE DONE BY THE ELECTRIC ARC PROCESS IN ACCORDANCE W/ AMERICAN WELDING SOCIETY STANDARDS, USING ONLY CERTIFIED MELDERS. ALL GROOVE WELDS SHALL HAVE COMPLETE PENETRATION UNLESS NOTED OTHERWISE. ALL EXPOSED WELDS SHALL BE GROUND SMOOTH. ALL MELDING TO BE DONE USING ETOXX ELECTRODES. IN ADDITION, MELDING OF ASTM A572 GRADE 50 STEEL AND ASTM A992 STEEL SHALL BE DONE W/ ELECTRODES CAPABLE OF DEPOSITING WELD METAL W/ A MAXIMUM DIFFUSIBLE HYDROGEN CONTENT OF 16ml/100g (HI6). WELD LENGTHS CALLED

FOR ON PLANS ARE THE NET EFFECTIVE LENGTHS REQUIRED.

13. MINIMUM FILLET WELDS: 3/6"@t<2"

1/4" @ t < 3/4" %6"@t>¾"

- 14. WELDING PROCEDURES SPECIFICATIONS (WPS) FOR SHOP AND FIELD PRE-QUALIFIED WELD JOINTS AND WELD JOINTS QUALIFIED BY TEST SHALL BE PREPARED FOR REVIEW PRIOR TO FABRICATION, ALL WELDING PROCEDURES THAT MEET THERE REQUIREMENTS OF AMS D 1.1 SEC. 5.1 SHALL BE CONSIDERED AS PRE-QUALIFIED. QUALIFICATION TESTING IS REQUIRED WHEN THE DEPTH OF A PARTIAL PENETRATION OR COMPLETE PENETRATION WELD IS 2" OR GREATER.
- 15. STRUCTURAL STEEL & FASTENERS THAT ARE PERMANENTLY EXPOSED TO MEATHER SHALL BE EITHER PRIMED AND PAINTED OR HOT DIPPED GALVANIZED IN ACCORDANCE W/ ASTM A780.
- 16. WHEN STRUCTURAL STEEL & CONNECTIONS WILL BE EXPOSED TO VIEW IN THE COMPLETED BUILDING, THEY SHALL BE FABRICATED, ERECTED & FINISHED IN COMPLIANCE W/ ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) GUIDELINES & SECTION 10 OF THE AISC 303-05 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".

- ALL SAWN LUMBER SHALL BE DOUGLAS FIR-LARCH AS GRADED BY THE WEST COAST LUMBER INSPECTION BUREAU (MCLIB) IN ACCORDANCE W/ STANDARD GRADING RULES NO. 17 TYPICAL UNLESS NOTED OTHERWISE. ALL MEMBERS SHALL HAVE A MINIMUM GRADE OF NO. 1 EXCEPT 2x4 AND 2x6 WALL STUDS, PLATES, AND BLOCKING MAY BE NO. 2.
- ALL STRUCTURAL SHEATHING USED FOR SHEARWALLS AND ROOF SHEATHING SHALL CONFORM TO THE REQUIREMENTS FOR THEIR TYPE IN DOC PS 1, DOC PS2 OR ANSI/APA PRP 210. EACH PANEL OR MEMBER SHALL BE IDENTIFIED FOR GRADE, BOND CLASSIFICATION, AND PERFORMANCE CATEGORY BY THE TRADEMARKS OF AN APPROVED TESTING AND GRADING AGENCY. ALL FOUNDATION PLATES OR SILLS ON CONCRETE SLABS WHICH ARE IN

DIRECT CONTACT W/ EARTH, AND PLATES OR SILLS ON CONCRETE OR MASONRY FOUNDATIONS, SHALL BE PRESSURE TREATED. 4. ALL WOOD SHALL HAVE A MOISTURE CONTENT OF NOT MORE THAN 19% WHEN

SHEATHING IS APPLIED. 5. 8" MINIMUM CLEARANCE SHALL BE MAINTAINED AT ALL EXTERIOR WALLS

BETWEEN FINISH GRADE AND BOTTOM OF WOOD WALLS. BEARING AND SHEARMALLS SHALL HAVE DOUBLE TOP PLATES LAPPED AT MALL CORNERS AND INTERSECTIONS AND PLATES SHALL BE INTERNAILED W/ (3)-16d AT SUCH LOCATIONS. FOR PLATE SPLICE DETAILS, SEE DRAWINGS. 7. SILL PLATE ANCHOR BOLTS SHALL BE INSTALLED W/ PLATE MASHERS

3x3x0.229 BETWEEN NUT AND PLATE. 8. PROVIDE SOLID BLOCKING BETWEEN JOIST AND RAFTERS AT ALL SUPPORTS.

PROVIDE BLOCKING AT ALL CEILING LEVELS. 10. JOIST UNDER AND PARALLEL TO PARTITON SHALL BE DOUBLED AND NAILED

TOGETHER.

11. HOLES FOR BOLTS IN WOOD SHALL BE BORED W/ A BIT OF THE SAME NOMINAL DIAMETER AS THE BOLT PLUS 1/16". 12. HOLES FOR LAG SCREWS SHALL BE BORED AS FOLLOWS:

A. THE CLEARANCE HOLE FOR THE SHANK SHALL HAVE THE SAME DIAMETER AS THE SHANK, AND THE SAME DEPTH OF PENETRATION AS THE LENGTH OF UNTHREADED SHANK.

b. THE LEAD HOLE FOR THE THREADED PORTION SHALL HAVE A DIAMETER EQUAL TO 60% TO 70% OF THE SHANK DIAMETER AND A LENGTH EQUAL TO AT LEAST THE LENGTH OF THE THREADED PORTION.

13. LAG SCREMS AND MOOD SCREMS SHALL BE SCREMED AND NOT DRIVEN INTO PLACE. SOAP MAY BE USED TO LUBRICATE THE SCREWS.

14. ALL BOLTS AND LAG SCREWS SHALL BE PROVIDED W/ METAL WASHERS UNDER HEADS AND NUTS WHICH BEAR IN MOOD. APPLIES ALSO TO INSERTED EXPANDING FASTENERS, RED HEAD, ETC.

_	
M1 WASHERS	STEEL MASHER
2 ³ / ₄ " Φx ⁵ / ₁₆ "	3"x3"x¼"
3" Фх¾ ₆ "	3"x3"x ⁵ / ₁₆ "
3 ½" Фх¾ ₆ "	3 ½"x3 ½"x¾"
4" Φ×½"	3 ³ / ₄ "x3 ³ / ₄ "x ³ / ₈ "
	2 ³ / ₄ " Φx ⁵ / ₁₆ " 3" Φx ⁷ / ₁₆ " 3 ¹ / ₂ " Φx ⁷ / ₁₆ "

- 15. ALL BOLTS AND LAG SCREWS SHALL BE TIGHTENED AT INSTALLATION AND
- RETIGHTENED BEFORE CLOSING IN OR AT COMPLETION OF JOB.

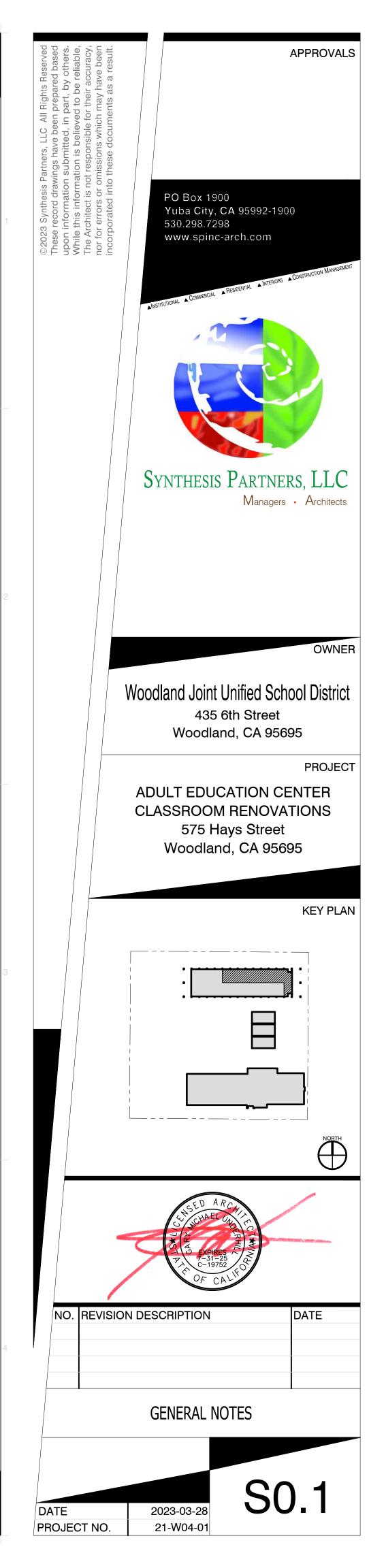
16. LAY ALL STRUCTURAL SHEATHING ON ROOF AND FLOORS W/ FACE GRAIN

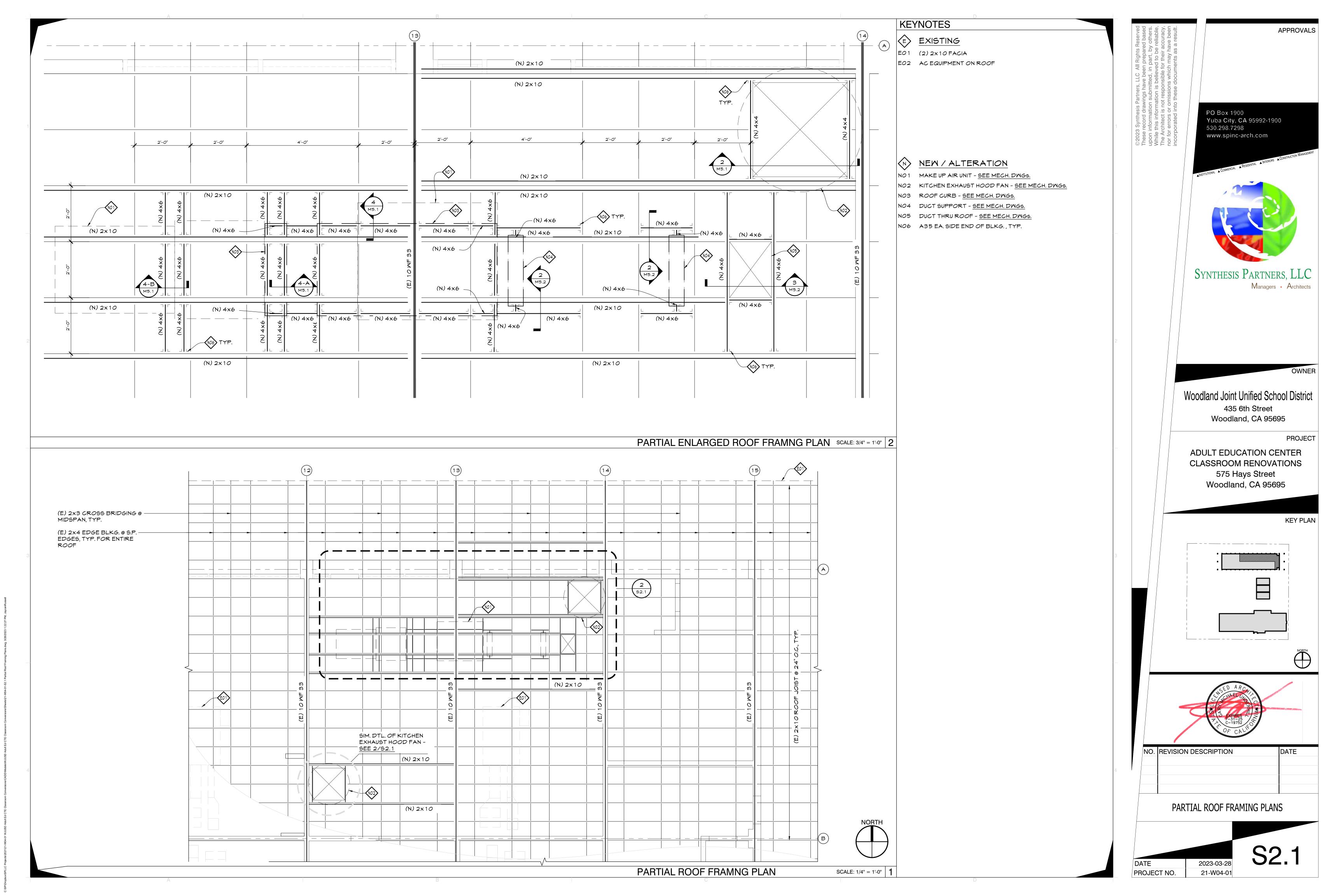
PERPENDICULAR TO SUPPORT TYPICAL UNLESS OTHERWISE. USE PLY-CLIPS AT UNSUPPORTED SHEATHING EDGES.

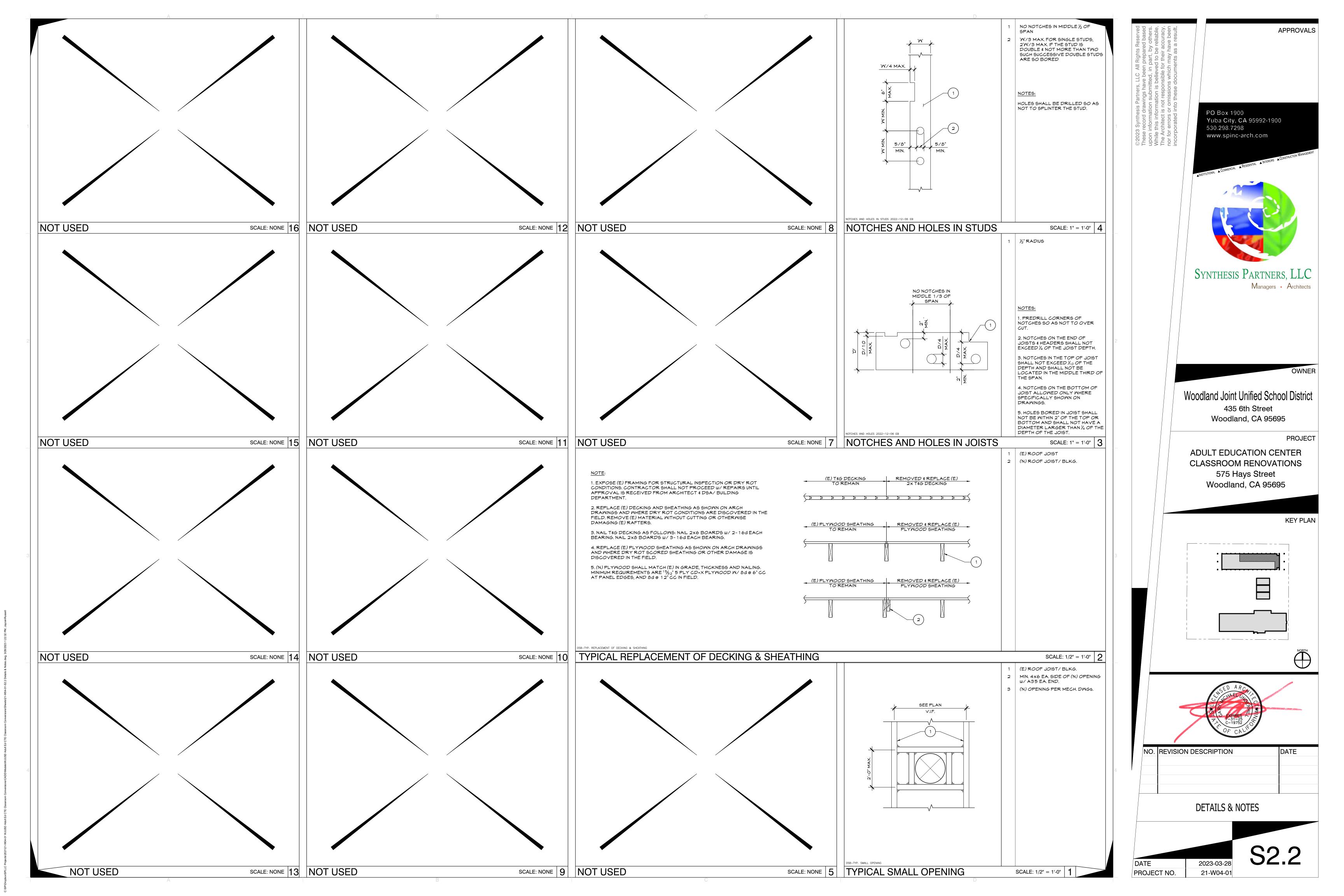
17. CONNECTOR HARDWARE MODEL NUMBER ARE THOSE FOR SIMPSON

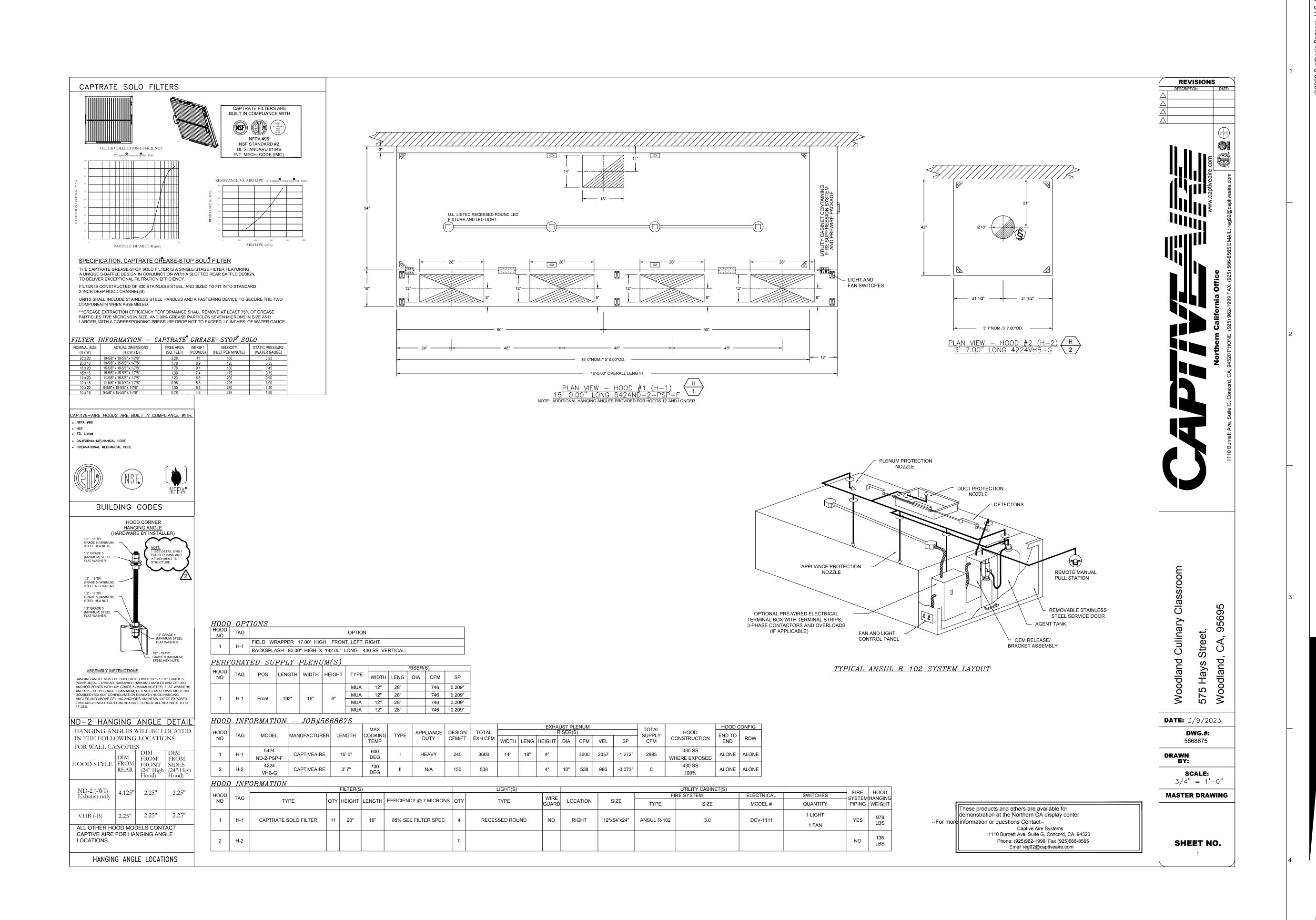
STRONG-TIE COMPANY. ALL JOIST HANGERS SHALL BE SIMPSON U SERIES UNLESS NOTED OTHERWISE. EQUIVALENT CONNECTORS W/ ICC ACCEPTANCE MAY BE SUBMITTED FOR REVIEW AS AN ALTERNATE.

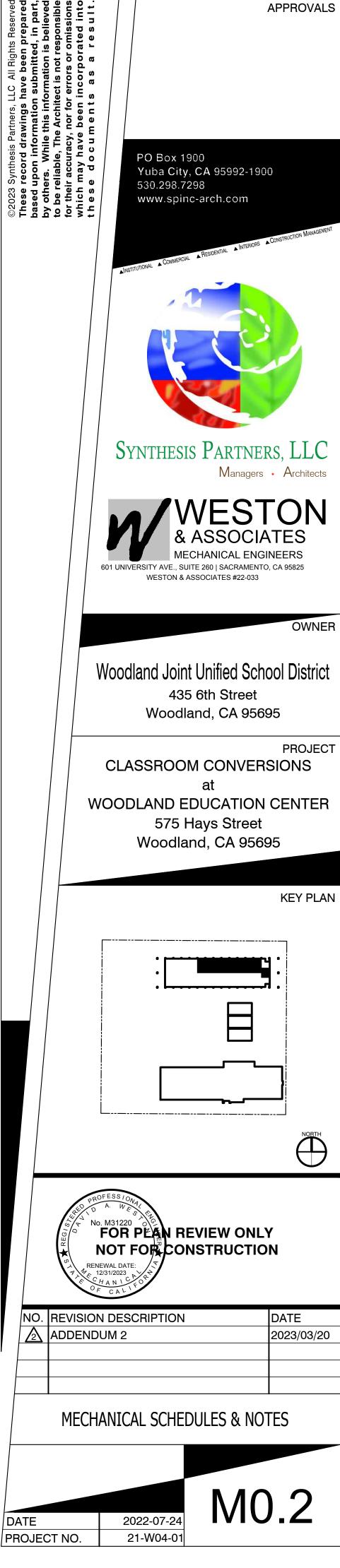
- 18. NOTIFY ARCHITECT AFTER WALL, FLOOR, AND ROOF SHEATHING NAILING HAS BEEN COMPLETED AND A MINIMUM OF 48 HOURS PRIOR TO CONCEALING SHEATHING.
- 19. FASTENERS, NUTS AND WASHERS IN CONTACT W/ SBX/DOT AND ZINC BORATE TREATED MOOD IN INTERIOR DRY CONDITIONS MAY BE CARBON STEEL. FASTENERS IN OTHER PRESERVATIVE-TREATED MOOD (ANCHOR BOLTS, NAILS, SCREMS) SHALL BE APPROVED SILICON BRONZE OR COPPER, STAINLESS STEEL OR HOT-DIPPED ZING-COATED STEEL PER CBC 2304.9.5.











FAN #3 A2-IBT-200-20D - HEATER (MAU-1)

1. INDIRECT BENT TUBE GAS FIRED HEATER WITH 20" MIXED FLOW DIRECT DRIVE FAN, 1 FURNACE, ELECTRONIC FULL MODULATION, CONSTANT 80% EFFICIENCY, AND 6:1 MAX TURNDOWN FOR NG, (5:1 MAX TURNDOWN FOR LP). STAINLESS STEEL BURNER AND HEAT EXCHANGER.

2. EVAP COOLER (LPD CELLEK) – WINTAKE HOOD WIEZ FILTERS.

3. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT. 4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.

IBT - US PATENT 877119 B2.

5. GAS PRESSURE GAUGE, 0 TO +10 INCHES WC., 2.5" DIAMETER, 1/8" THREAD SIZE, REAR THREAD.
6. SEPARATE 120V ELECTRICAL CONNECTION FOR ALL IBT HEATERS WITH 1 MODULE FOR STANDING POWER. 120V MUST BE RUN BY ELECTRICIAN FROM 5. SELECTION OF A SUITCH.

7. MOTORIZED BACK DRAFT DAMPER 22.75" X 24" FOR SIZE 2 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, LF120S ACTUATOR INCLUDED.

8. LAYER CONTROL FOR IBT EVAP.

9. FREEZE PROTECTION DRAIN CONTROL KIT FOR EVAPORATIVE COOLERS. INCLUDES 3-WAY WATER SOLENOID VALVE 8316G064 (SHIPPED LOOSE),
PRESSURE SWITCH INSTALLED UPSTREAM OF 2WAY SOLENOID IN UNIT, BRASS TEE AND 2 NPT HALF INCH NIPPLES. FIELD WIRING REQUIRED BY OTHERS
FOR 3-WAY VALVE. FOR BOTH CELDEK AND STANDARD V-BANK TYPE CONFIGURATIONS.

10. USED WITH SIZE 1 AND SIZE 2 SIDE DISCHARGE IBT MODULES.

11. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.

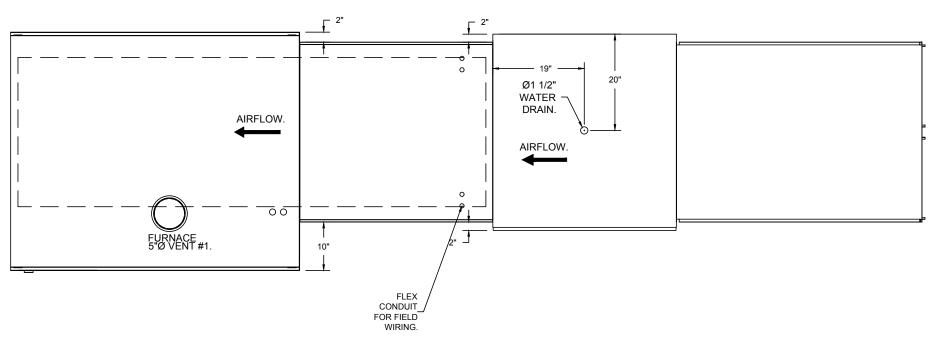
12. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER/EVAP SECTION). 13. 2 YEAR ENTIRE UNIT PARTS WARRANTY, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY

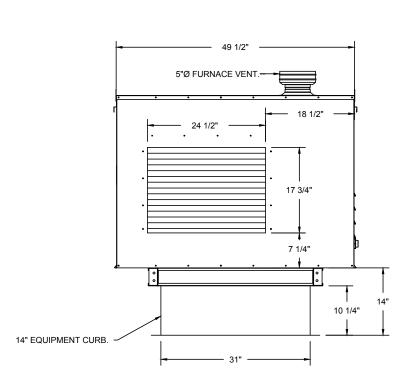
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE 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 26" x 26".

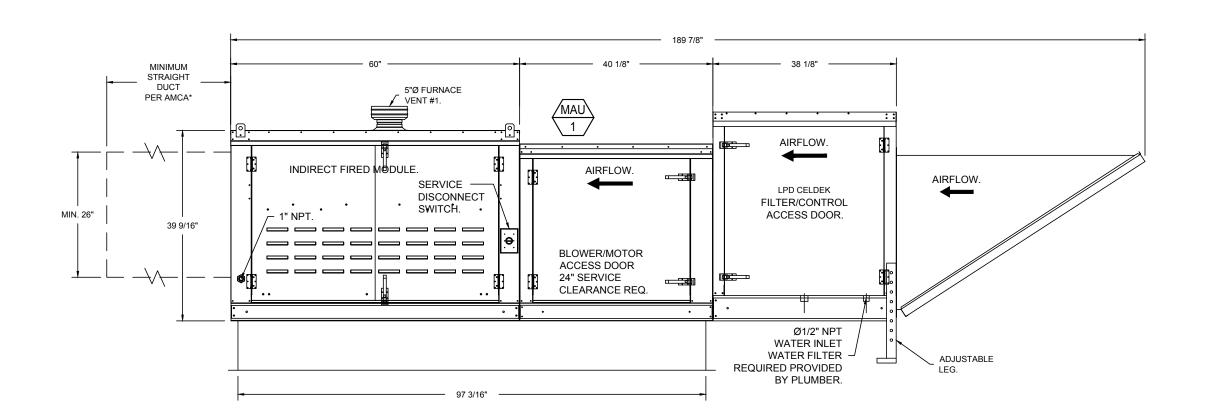
SUPPLY SIDE HEATER INFORMATION:

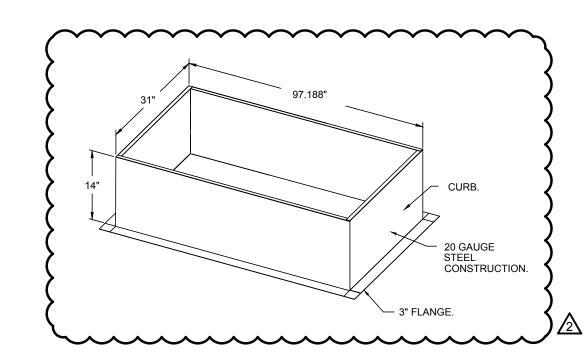
WINTER TEMPERATURE = 34°F. TEMP. RISE = 41°F. BTUS CALCULATED OFF ACTUAL AIR DENSITY
OUTPUT BTUS AT ALTITUDE OF 0.0 FT. = 153705.
INPUT BTUS AT ALTITUDE OF 0.0 FT. = 189759. OUTPUT BTUs AT ALTITUDE OF 68 FT. = 153327. INPUT BTUs AT ALTITUDE OF 68 FT. = 189293.



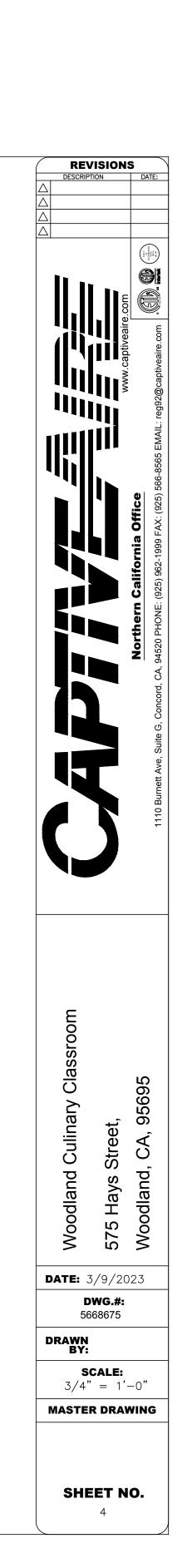


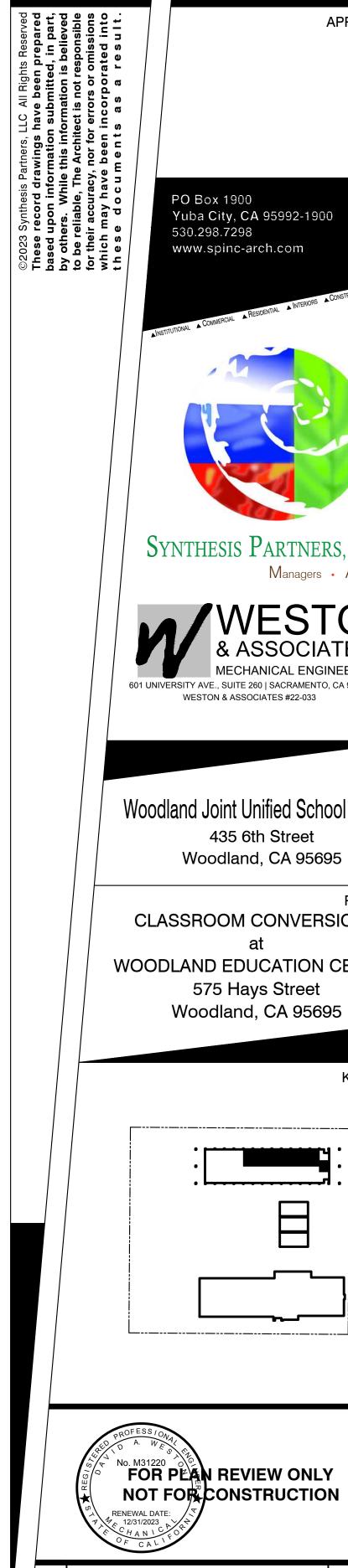






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1110 Burnett Ave, Suite G, Concord, CA 94520 Phone: (925)962-1999, Fax (925)566-8565 Email reg92@captiveaire.com





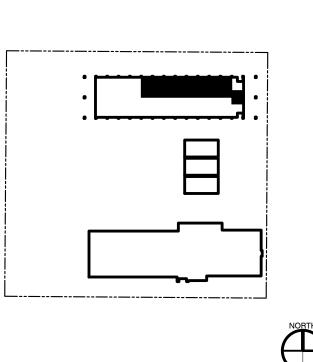
APPROVALS PO Box 1900 Yuba City, CA 95992-1900 530.298.7298 www.spinc-arch.com Synthesis Partners, LLC 601 UNIVERSITY AVE., SUITE 260 | SACRAMENTO, CA 95825 WESTON & ASSOCIATES #22-033

Woodland Joint Unified School District 435 6th Street

PROJECT CLASSROOM CONVERSIONS

WOODLAND EDUCATION CENTER 575 Hays Street Woodland, CA 95695

KEY PLAN

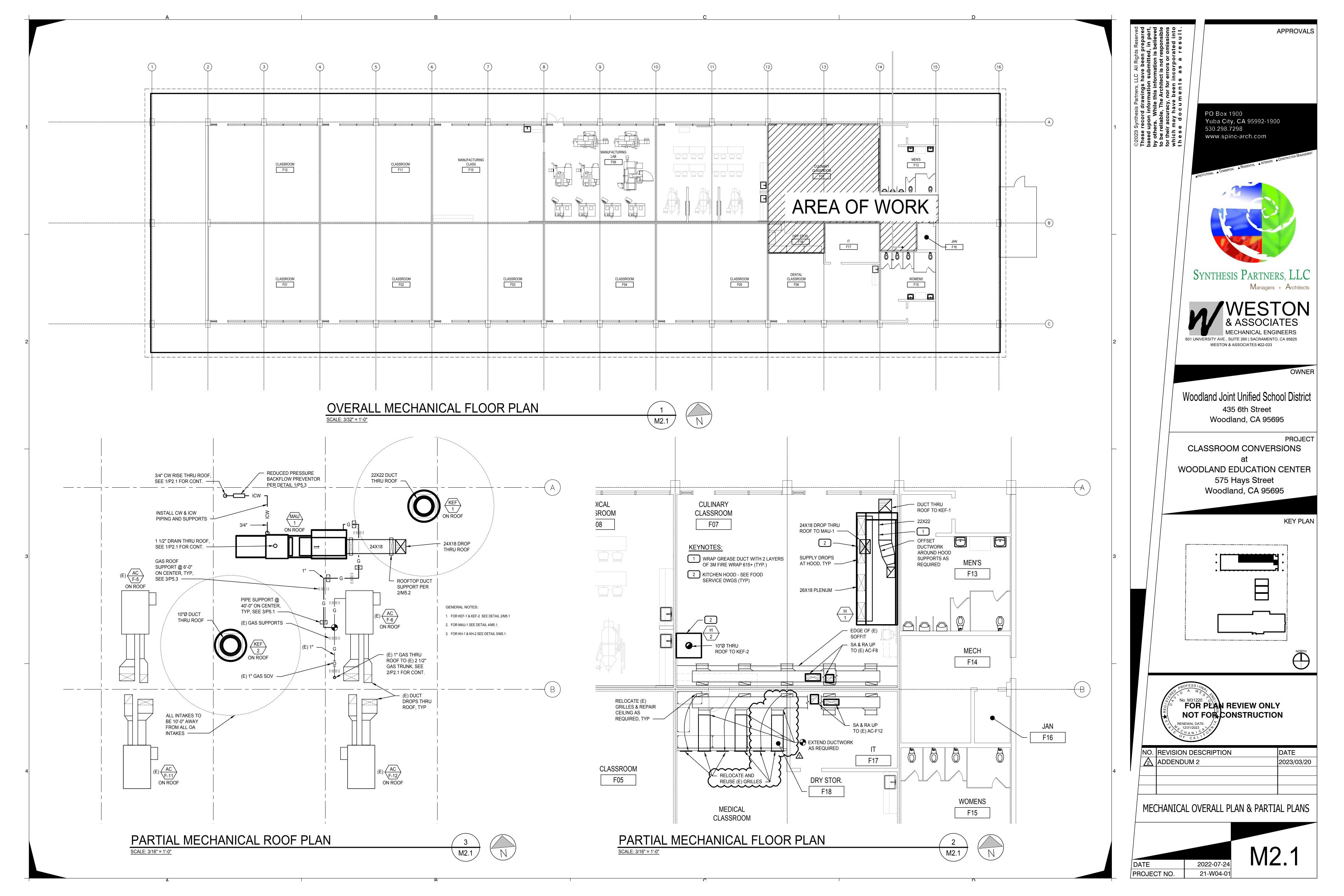


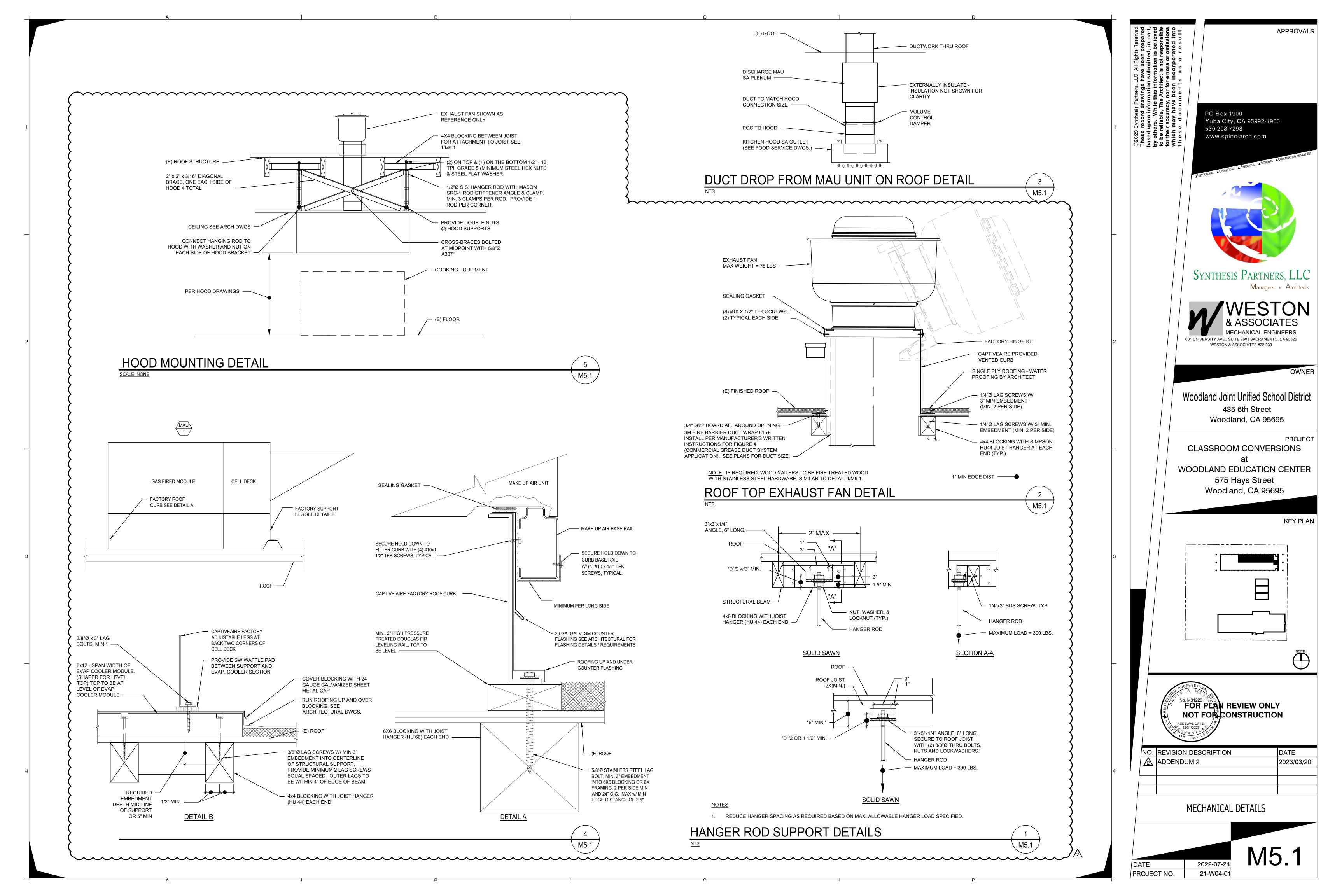
FOR PEAN REVIEW ONLY NOT FOR CONSTRUCTION

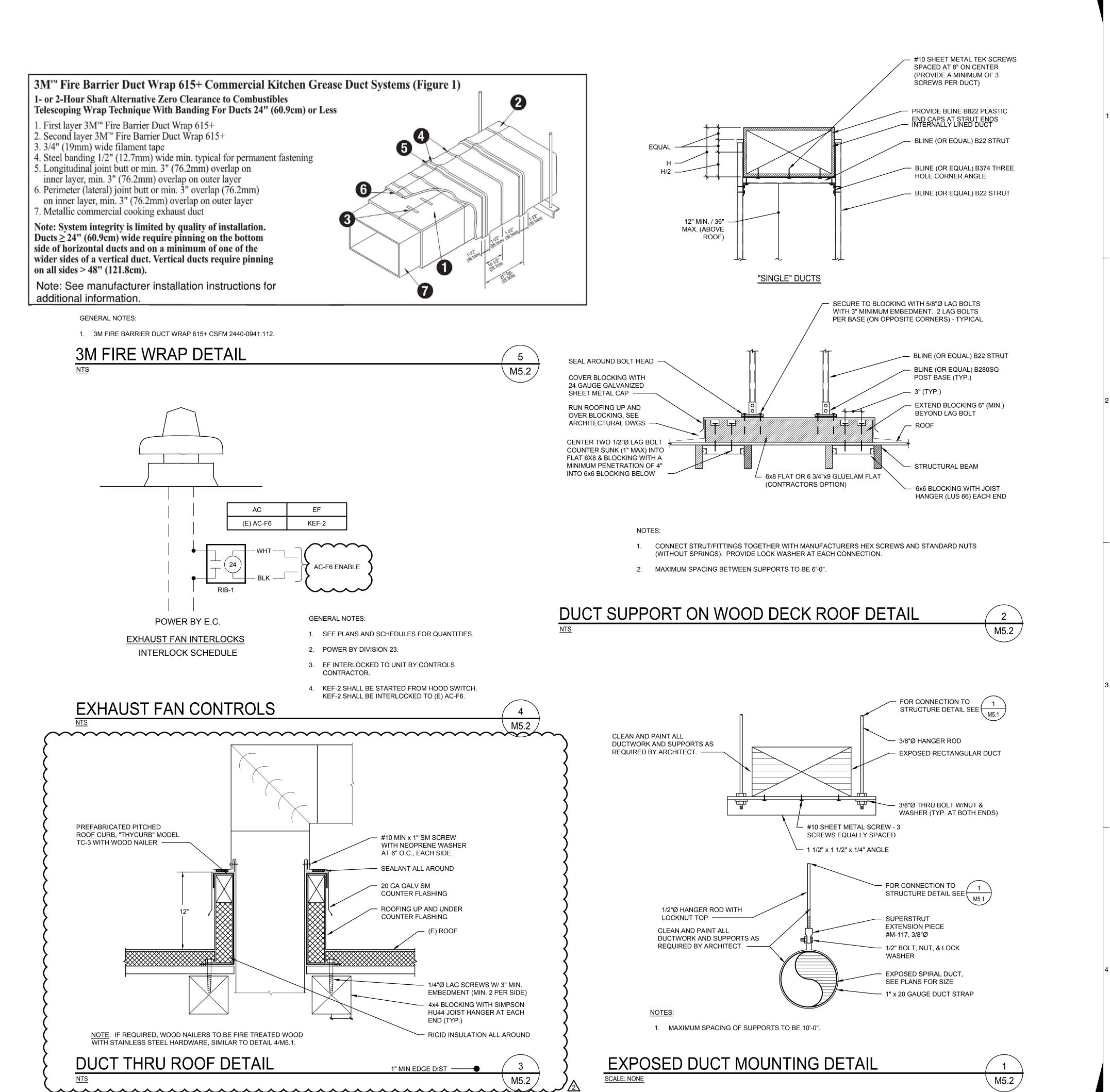
DATE NO. REVISION DESCRIPTION ADDENDUM 2 2023/03/20

MECHANICAL SCHEDULES & NOTES

2022-07-24 PROJECT NO. 21-W04-01







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APPROVALS

ANCHORAGE / BRACING NOTES

ALL MECHANICAL AND PLUMBING COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONTRACT DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC, SECTION 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16, CHAPTERS 13, 26 AND 30:

- ALL PERMANENT EQUIPMENT AND COMPONENTS
- TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS, OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTION EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
- TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONET IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.
- 4. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS OR HAS A CENTER MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

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

- 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 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 AND DUCTWORK SYSTEM BRACING NOTE

PIPING AND DUCTWORK SHALL BE BRACED TO COMPLY THE FORCE AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTION 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 ATTACHMENT 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. SMACNA OR OSHPD OPM), 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.

PLUMBING PIPING (PP),

PP - OPTION 1:

DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTED AND DETAILS.

X PP -OPTION 2:

SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM#), MASON OPM-0043-13 SEISMIC RESTRAINT SYSTEMS GUIDELINE.

EQUIPMENT LIST

GAS WATER HEATER:

120V/1Ø POWER

"AO SMITH" CYCLONE HE MODULATING BURNER CONDENSING GAS FIRED WATER HEATER, MODEL BTX-80. HEATER SHALL BE RATED AT 76,000 BTUH INPUT AND PROVIDE 95 GPH RECOVERY AT

90°F TEMPERATURE RISE. TANK SHALL BE 50 GALLON CAPACITY AND BE CONSTRUCTED IN ACCORDANCE WITH ASME CODE.

PROVIDE WITH MODEL BTX-80 CONCENTRIC VENT INTAKE/FLUE KIT. METAL EXHAUST ELBOW ASSEMBLY, AND MODEL BTX-80 CONDENSATE DRAIN NEUTRALIZATION KIT.

SHIPPING WEIGHT = 225 LBS. / MAXIMUM OPERATING WEIGHT = 650 LBS.

SET OUTLET TEMPERATURE TO 140°F.

SEE DETAIL 1/P-5.1 FOR MOUNTING

DOMESTIC WATER CIRCULATING PUMP: BELL AND GOSSET MODEL NBF-9U. PUMP TO BE AS FOLLOWS:

- LEAD FREE BRONZE CIRCULATING PUMP 3/4" FLANGED CONNECTIONS
- PUMP TO BE CAPABLE OF PROVIDING 3 GPM AT 5 FEET HEAD
- 120V / 1Ø/ 60 Hz 41W / 0.40 FLA • PROVIDE WITH COMBINATION TC-1 AUTOMATIC TIMER KIT AND AQS-3/4" AQUASTAT.

OPERATING WEIGHT < 15 LBS.

EXPANSION TANK:

WATTS MODEL DETA5 LEAD FREE EXPANSION TANK. TANK TO BE AS FOLLOWS:

- ASME SECTION VIII CONSTRUCTION FDA APPROVED FIXED BUTYL BLADDER
- INTEGRAL BLADDER INTEGRITY MONITOR TANK TO BE 3.5 GALLONS WITH A 2.3 GALLON ACCEPTANCE VOLUME
- 3/4" INLET CONNECTION MAXIMUM OPERATING PRESSURE OF 150 PSIG
- MAXIMUM OPERATING WEIGHT = <40 LBS
- SEE DETAIL 3-P5.1 FOR MOUNTING.

TANKLESS ELECTRIC WATER HEATER:

"CHRONOMITE" MICRO-LOW FLOW TANKLESS WATER HEATER, MODEL CM40L/208 WITH DIGITAL MICRO PROCESSING TEMPERATURE CONTROL CAPABLE OF MAINTAINING OUTLET TEMPERATURE. WATER HEATER TO BE 8320 WATTS, 208V/1Ø, 40 AMPS. HEATER TO BE CAPABLE OF A TEMPERATURE RISE OF 57°F AT 1.0 GPM.

UNIT WEIGHT = 5 LBS.

SET OUTLET TEMPERATURE TO 105°F.

PLUMBING GENERAL NOTES

- MECHANICAL AND PLUMBING DETAILS APPLY TO ALL BUILDINGS WHETHER REFERENCED
- PROVIDE FIRE STOPPING ASSEMBLY PROTECTION FOR PIPE PENETRATIONS OF RATED ASSEMBLIES. FIRE STOP RATING SHALL MATCH RATED ASSEMBLY BEING PENETRATED
- PLUMBING AND FIRE SPRINKLER PIPING SHALL OFFSET OVER OR UNDER DUCTS. COORDINATE WITH HEATING CONTRACTOR.
- PLUMBING CONTRACTOR TO OFFSET PIPING AROUND SKYLIGHTS.
- PLUMBING CONTRACTOR TO OFFSET PIPING AROUND ROOF ACCESS LADDERS.
- PIPING SHALL NOT PENETRATE INTO, OVER, OR THROUGH IT CLOSETS OR ELECTRICAL ROOMS UNLESS IT SERVES THAT SPECIFIC ROOM.
- DRAWINGS SHALL BE CONSIDERED DIAGRAMMATIC IN NATURE AND ARE NOT INTENDED TO SHOW EVERY OFFSET, FITTING, OR STRUCTURAL DIFFICULTY THAT MAY BE ENCOUNTERED DURING INSTALLATION OF WORK. THE CONTRACTORS SHALL COORDINATE LOCATION OF ALL PLUMBING PIPING WITH ALL OTHER TRADES ON THIS PROJECT. LOCATION OF ALL ITEMS NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. EXACT LOCATIONS NECESSARY TO SECURE BEST CONDITIONS AND RESULTS MUST BE DETERMINED AT THE JOB SITE AND SHALL HAVE THE APPROVAL OF THE ARCHITECT BEFORE BEING INSTALLED.
- ALL VALVES SHALL BE FULL LINE SIZES UNLESS NOTED OTHERWISE.
- PROVIDE WALL CLEANOUT AT ALL SINKS, LAVATORIES, AND URINALS.
- PIPING SHALL BE SUPPORTED IN ACCORDANCE TO SMACNA "GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL AND PLUMBING PIPING SYSTEMS".
- ALL NEW SANITARY WASTE PIPING SHALL HAVE A MINIMUM BURRY DEPTH OF 18" AND BE SLOPED AT 1/4" PER FOOT MINIMUM UNLESS OTHERWISE NOTED. PIPING SHALL BE UNIFORMLY SLOPPED BETWEEN UPPER TERMINAL OF PIPE AND THE POINT OF CONNECTION TO THE SITE PIPING (AS INDICATED ON CIVIL PLANS) TO ACHIEVE MAXIMUM SLOPE POSSIBLE
- ACCESS PANELS SHALL BE PROVIDED AS NECESSARY TO PROPERLY ACCESS THE PLUMBING SYSTEM INCLUDING VALVES, EQUIPMENT, HOPPER DRAINS, AND INDIRECT
- HVAC EQUIPMENT IS SHOWN FOR THE COORDINATION OF UTILITIES ONLY. REFER TO "M" SHEETS FOR ADDITIONAL INFORMAITON.
- PROVIDE WATER HAMMER ARRESTORS (WHA) AT ALL FIXTURES AS INDICATED IN THE
- REFERENCE ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS, EXACT LOCATIONS
- CONCEAL ALL PIPING IN WALL FURRINGS, PARTITIONS, ABOVE CEILINGS, EXCEPT IN

APPLICABLE CODES

ALL WORK PERFORMED UNDER THIS CONTRACT IS TO CONFIRM TO THE FOLLOWING CODES AND

- CALIFORNIA ADMINISTRATIVE CODE, 2022
- CALIFORNIA MECHANICAL CODE, 2019
- CALIFORNIA FIRE CODE, 2019
- CALIFORNIA ELECTRICAL CODE, 2019
- CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS, 2019

THE ABOVE CODES AND REGULATIONS REFER TO THE LATEST EDITION OR REVISION IF FORCE ON THE DATE OF THE CONTRACT, UNLESS OTHERWISE STATED. NOTHING ON THE DRAWINGS IS TO BE CONSTRUED AS REQUIRING OR PERMITTING WORK THAT IS CONTRARY TO THE LISTED CODES AND REGULATIONS, OR OTHER LOCAL, STATE OR FEDERAL CODES OR REGULATIONS

GAS PIPE SIZING

GAS LOAD (EACH) (MBH)	QUANITY	TOTAL GAS LOAD (MBH)	DESCRIPTION
60	12	720	(E) AC- UNITS
190	1	190	MAU-1
76	1	76	GWH-1
OVERALL GAS	S DEMAND	986	

OVERALL GAS DEMAND	900			
GAS MAIN SIZING AT 175' TOTAL DEVELOPED LENGTH				
GAS DEMAND (MBH)	PIPE SIZE	NOTES:		
63	3/4"	SEE FLOOR PLAN FOR EQUIPMENT LOCATIONS.		
119	1"			
244	1-1/4"			
366	1-1/2"			
704	2"			
1,120	2 1/2"			
1,980	3"			
		<u> </u>		

GAS PIPE SIZING BASED ON TABLE 1215.2(1) CPC-2019 (PRESSURE DROP OF 1 PSI), 250 FOOT COLUMN. GPR OUTLET PRESSURE AT 7" WC. RUNOUTS TO APPLIANCES LESS THAN 6" SHALL BE SAME SIZE AS APPLIANCE CONNECTION. PROVIDE A SHUT-OFF VALVE AHEAD OF UNION AND WITHIN 3'-0" OF APPLIANCE CONNECTOR.

PLUMBING LEGEND

ABBREVIATIONS

ABOVE CEILING FT FEET POD POINT OF DISCONNECT FIXTURE UNITS PRESSURE REDUCING VALVE ACCESS DOOR ABOVE FINISHED FLOOR NATURAL GAS PS PRESSURE SWITCH ABOVE FINISHED GRADE GCO GRADE CLEAN OUT PSI POUNDS PER SQUARE INCH GD GARBAGE DISPOSER ACCESS PANEL POUNDS PER SQUARE INCH GAUGE AQUASTAT GLOBE VALUE PLUGGED TEE ARCHITECT RISE / RISER **GAS METER**

ARCH ACID VENT GPH GALLONS PER HOUR **ROOF DRAIN** RET AVTR ACID VENT THRU ROOF **GALLONS PER MINUTE** RETURN **ACID WASTE** GAS PRESSURE REGULATOR **ROUGH IN ONLY** BELOW FINISHED FLOOR **GPRV** GAS PRESSURE REGULATOR VALVE ROOM BFP **GSCK** RO REVERSE OSMOSIS WATER BACKFLOW PREVENTER GAS COCK **BUTTERFLY VALVE** GAS SEISMIC VALVE RELIEF VALVE RWI **BELOW GRADE** GATE VALVE RAINWATER LEADER BALL VALVE GREASE WASTE PIPING SCD SECONDARY CONDENSATE DRAIN SCH SCHEDULE COMPRESSED AIR CAPACITY HOPPER DRAIN COLD SOFT WATER CATCH BASIN HIGH PRESSURE NATURAL GAS STORM DRAIN

SHEET METAL SCREW

SHUT OFF VALVE

STAINLESS STEEL

STANDARD

STRAINER

TO ABOVE

TO BELOW

TEMPERATURE

THERMOMETER

TRAP PRIMER

TEMPERED WATER

UNDER COUNTER

UNDER FLOOR

UNDERGROUND

SANITARY VENT

MEDICAL VACUUM

VENT THRU ROOF

SANITARY WASTE

WASTE ANESTHESIA GAS DISPOSAL

ITEM TO BE REMOVED / DEMOED

VALVE BOX

VENT RISER

WASTE DROP

WATER CLOSET

WASTE DROP

WALL HYDRANT

WATER METER

WET STANDPIPE

WATER HAMMER ARRESTER

WALL CLEAN OUT

WITH

WITHOUT

UNION OR FLANGE

UNLESS NOTED OTHERWISE

TYPICAL

URINAL

UG

W/O

WCO

THERMOSTATIC MIXING VALVE

CAP CB **CBV** CALIBRATED BALANCE VALVE HW DOMESTIC HOT WATER SHOWER CD SHT CONDENSATE DRAIN DOMESTIC HOT WATER RETURN HOT SOFT WATER CUBIC FEET PER HOUR **ICW** INDUSTRIAL COLD WATER SHWR HOT SOFT WATER RETURN CAST IRON INDUSTRIAL HOT WATER

LAVATORY

LABORATORY GAS

LEAVING WATER TEMPERATURE

MEDIUM PRESSURE NATURAL GAS

OWNWER FURNISHED CONTRACTOR

OVERFLOW RAIN WATER LEADER

PRESSURE & TEMPERATURE RELIEF

OVERFLOW ROOF DRAIN

LOW PRESSUE

MEDICAL AIR

MANUFACTURER

MISCELLANEOUS

MEDICAL GAS COLUMN

MAXIMUM

MINIMUM

NITROGEN

NITROUS OXIDE

NORMALLY CLOSED

NOT IN CONTRACT

NOT TO SCALE

OXYGEN

ON CENTER

OVERHEAD

PROPERTY LINE

PRESSURE GAUGE

POINT OF CONNECTION

PIPE ANCHOR

POUNDS

LBS

LWT

MGC

MPG

OFCI

ORD

P&TRV

PLBG

POC

DOMESTIC COLD WATER LINE

VALVE PIPING

CKV CHECK VALUE INDUSTRIAL HOT WATER RETURN CENTER LINE INSIDE DIAMETER SMS CLG CEILING INVERT ELEVATION SOV CMP CORRUGATED METAL PIPE INDIRECT WASTE CO CLEANOUT LABORATORY AIR

CARBON DIOXIDE

CAP ON END OF PIPE

CLEANOUT TO FLOOR

CLEANOUT TO GRADE

CONCENTRIC REDUCER

DOMESTIC COLD WATER

DOMESTIC COLD WATER

DRINKING FOUNTAIN

DEIONIZED WATER

DOMESTIC HOT WATER

ELECTRIC WATER HEATER

FLEXIBLE CONNECTION

FIRE HOSE RACK & CABINET

FLOOR CLEAN OUT

FEET PER MINUTE

FLOOR SINK

FIRE SPRINKLER HEAD

FIRE SPRINKLER PIPE

ENTERING WATER TEMPERATURE

DOMESTIC HOT WATER RETURN

CIRCULATING PUMP

CONTROL VALVE

CLINIC SINK

DECK DRAIN

DROP

DETAIL

DRAWING

FXISTING

FROM ABOVE

FROM BELOW

FLOOR DRAIN

FLOOR

ABC

AD

AFG

BFF

BFV

BLV

CO2

COP

COTF

COTG

CP

CR

CSK

CV

CW

DCW

DD

DET

DHW

DHWR

DWG

EWH

EWT

FB

FCO

FD

FLR

FPM

FSH

FS

FSP

DRAINS IN WALLS.

- SPECIFICAITONS/NOTES. WHA SHALL BE SIZED AND PER THE PLUMBING & DRAINAGE INSTITUTE (PDI). WHA SHALL BE INSTALLED IN WALLS (NOT ABOVE CEILINGS).
- OF PLUMBING FIXTURES, AND PLUMBING FIXTURE MOUNTING HEIGHTS.
- MECHANICAL ROOMS OR WHERE NOTED OTHERWISE.
- PROVIDE A TRAP PRIMER AT ALL FLOOR DRAINS AND FLOOR SINKS.

- CALIFORNIA BUILDING CODE. 2019
- CALIFORNIA PLUMBING CODE, 2019

WHICH MAY BE APPLICABLE.

SYMBOLS

PLUMBING

PLATE

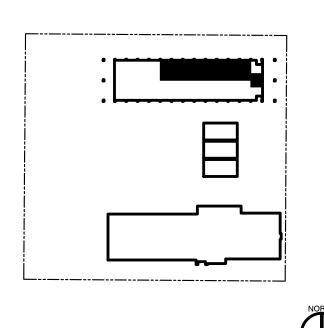
l	DOMESTIC HOT WATER		ITEM TO BE ABANDONED IN PLACE
	DOMESTIC HOT WATER HEAT TRACE		BALL VALVE
	DOMESTIC HOT WATER RETURN		BALANCE VALVE
TW	TEMPERED WATER	——Ф	BUTTERFLY VALVE
—— ——NPW—— — ——	NON POTABLE WATER		CHECK VALVE
	INDUSTRIAL COLD WATER LINE		LEVER HANDLE GAS COCK
IHW	INDUSTRIAL HOT WATER		PRESSURE REDUCING VALVE
IHWR	INDUSTRIAL HOT WATER RETURN		SOLENOID VALVE W/ MOTOR ACTUATOR
————	SOIL OR WASTE LINE BELOW GRADE		STRAINER
	SOIL OR WASTE LINE ABOVE GRADE	Φ	PRESSURE GAUGE
	INDIRECT WASTE LINE	 Q	FRESSURE GAUGE
GW	GREASE WASTE LINE		THERMOMETER
——————————————————————————————————————	ACID WASTE LINE	—————	UNION
	VENT LINE	————T&P———	TEMP & PRESSURE RELIEF LINE
AV	ACID VENT LINE	————	VALVE BOX
	RAINWATER LEADER LINE		CAP (END OF PIPE)
ORWL	OVERFLOW RAINWATER LEADER LINE		CIRCULATING PUMP
CD	CONDENSATE DRAIN	₹ -	ANGLE VALVE
G	NATURAL GAS LINE (LOW PRESSURE)	* -	PRESSURE OR TEMP. RELIEF VALVE
VAC	DENTAL VACUUM	Ø	DIAMETER
———DA———	DENTAL COMPRESSED AIR	Ф COTF	CLEANOUT TO FLOOR
	COMPRESSED AIR	ф сотб	CLEANOUT TO GRADE
	FLOW IN DIRECTION OF ARROW	II CO	CLEANOUT
───	REDUCER	\bigcirc	FLOOR DRAIN
-	RISER DOWN (ELBOW)		FLOOR SINK
o	RISER UP (ELBOW)	Þ	GAS TURRET
——→——	R, D RISE OR DROP	\rightarrow	HOSE BIBB
───	GATE VALVE		POINT OF CONNECTION
ROOM NAME	ROOM NAME AND NUMBER		POINT OF DISCONNECTION

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PROJECT CLASSROOM CONVERSIONS

WOODLAND EDUCATION CENTER

KEY PLAN





NO. REVISION DESCRIPTION DATE ADDENDUM 2 2023/03/20

PLUMBING LEGNED & NOTES

2022-07-24 PROJECT NO. 21-W04-01

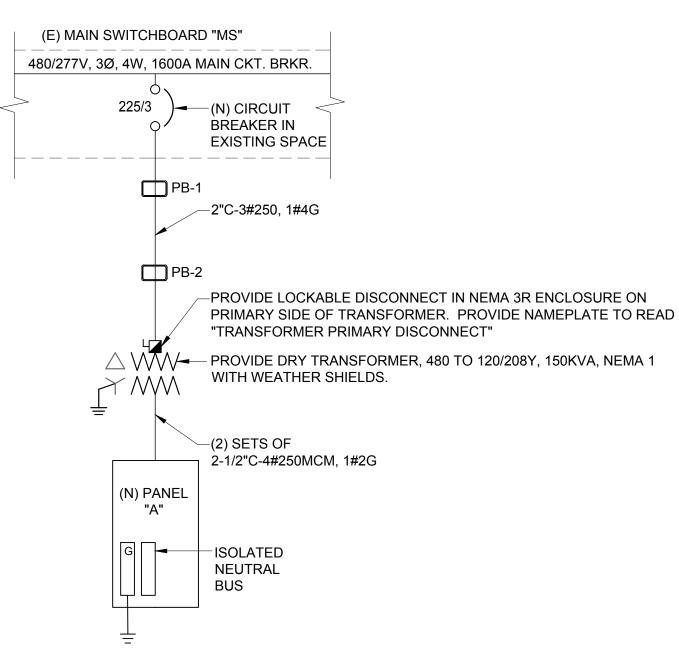
SITE PLAN - ELECTRICAL

E1.1 1" = 40'-0"



POWER CONDUIT RUN

E1.1 N.T.S.



ONE LINE DIAGRAM - POWER E1.1

NUMBERED NOTES:

1 PROVIDE (N) CIRCUIT BREAKER IN (E) SPACE. REFER TO ONE LINE DIAGRAM - POWER.

2 REFER TO ONE LINE DIAGRAM - POWER.

3 DIRECTIONAL BORE.

PROVIDE N40 PULLBOX, STEEL LID WITH HOLD-DOWN BOLTS AND (2) EXTENSION - SEE 3/E5.1.

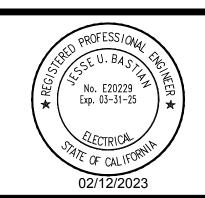
5 REFER TO BUILDING PHOTO BELOW FOR CONTIUNATION.

6 BRING (N) FEEDER UP COLUMN, AND CONTINUE RUN SIMILAR TO (E) CONDUITS. PROVIDE SUPPORT SIMILAR TO (E) CONDUIT SUPPORT.

7 TRENCH PER 4/E5.1.

NEW PANEL "A" SCHEDULE POWER SOURCE: MAIN SWITCHBOARD VIA TRANSFORMER "TR" LOCATION: SEE PLAN SYSTEM: NORMAL BRANCH MOUNTING: SURFACE TYPE: VOLTAGE: 208Y/120 VOLT, REMARKS: 500A 600 10k AIC MIN. SYMM. 3 PHASE, 4 WIRES PANEL TYPE AMPS NEMA 1 LOAD SERVED CB CKT PHASE CKT kVA LOAD SERVED CB **RCPT - 104** 0.8 **RCPT - 106** 60/3 20/1 B 4 7.0 3.2 7.0 **CNC MILL RCPT - 106** 0.8 20/1 7.0 ROUTER 20/1 **ROUTER** 1.4 20/1 7.2 **ROUTER** 1.4 75/3 7.2 20/1 **ROUTER** 1.4 20/1 **SPARE** PROOFING CABINET 3.2 **CNC MILL** 3.2 3.2 **CNC MILL** 3.2 DOUGH SHEETER RECEPT REFRIGERATOR 20/1 **CNC LATHE** 3.2 MANUFACTURING AIR COMPRESSOR 2.4 41 20/1 1.5 1.0 RECEPT PREP TABLE **DENTAL CHAIR** 20/1 0.6 20/1 43 A 1.0 DENTAL CHAIR 20/1 20/3 KEF-1 DENTAL CHAIR 0.7 20/1 LIGHT EXHAUST HOOD MAU-1 KEF-2 0.2 0.5 RECEPT MEAT SLICER COCOON 20/1 DENTAL CAMERA 20/1 RECEPT MIXER DENTAL VACUUM RCPT TOP STOVE BURNER 1.5 RCPT TOP STOVE BURNER DENTAL AUTCLAVE 20/1 RCPT TOP STOVE BURNER DENTAL AIR COMPRESSOR RCPT TOP STOVE BURNER RCPT FOOD PROCESSOR 20/1 1.2 20/1 20/1 RECEPT MICROWAVE 20/1 **DENTAL AUTCLAVE** 20/1 20/1 GWH-1/CP-1 FIRE SUPPRESSION SYST. 0.3 20/1 20/1 [1] GAS SHUTDOWN 0.3 SHUNT TRIP POWER 20/1 20/1 3.1 3.1 C 84 SPACE PFB 83 CONNECTED LOAD [1] PROVIDE WITH RED HANDEL AND LOCKING DEVICE PHASE A= 57.3 kVA PHASE B= 58.2 kVA PHASE C= 56.1 kVA TOTAL = 171.6 kVATOTAL = 476.7 Amperes

APPROVALS PO Box 1900 Yuba City, CA 95992-1900 530.298.7298 www.spinc-arch.com Synthesis Partners, LLC Managers • Architects M. NEILS ENGINEERING, INC. Electrical Engineers | Lighting Designers 100 Howe Ave., Suite 235N Sacramento, CA 95825-8217 www.mneilsengineering.com Tel: (916) 923-4400 Fax: (916) 923-4410 PROJECT #: 22133.21 Woodland Joint Unified School District 435 6th Street Woodland, CA 95695 PROJECT CLASSROOM CONVERSIONS WOODLAND EDUCATION CENTER 575 Hays Street Woodland, CA 95695 **KEY PLAN**



NO. REVISION DESCRIPTION DATE

SITE PLAN - ELECTRICAL ONE LINE DIAGRAM, PANEL SCHEDULE

2022-07-29 DATE PROJECT NO. 21-W04-01

