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BUILDING D SCIENCE LAB FUME HOODS ADDITION

FOR
CHIPOLA COLLEGE
MARIANNA, FL

MAY 21, 2026
CONSTRUCTION DOCUMENTS



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CODES AND STANDARDS

FLORIDA BUILDING CODE EIGHTH EDITION, 2023 ACCESSIBILITY
FLORIDA BUILDING CODE EIGHTH EDITION, 2023 BUILDING
FLORIDA BUILDING CODE EIGHTH EDITION, 2023 ENERGY CONSERVATION
FLORIDA BUILDING CODE EIGHTH EDITION, 2023 MECHANICAL
FLORIDA BUILDING CODE EIGHTH EDITION, 2023 PLUMBING
FLORIDA FIRE PREVENTION CODE EIGHTH EDITION, 2023
STATE REQUIREMENTS FOR EDUCATIONAL FACILITIES, 2014
NFPA 90A-2015
ASHRAE 62.1-2019

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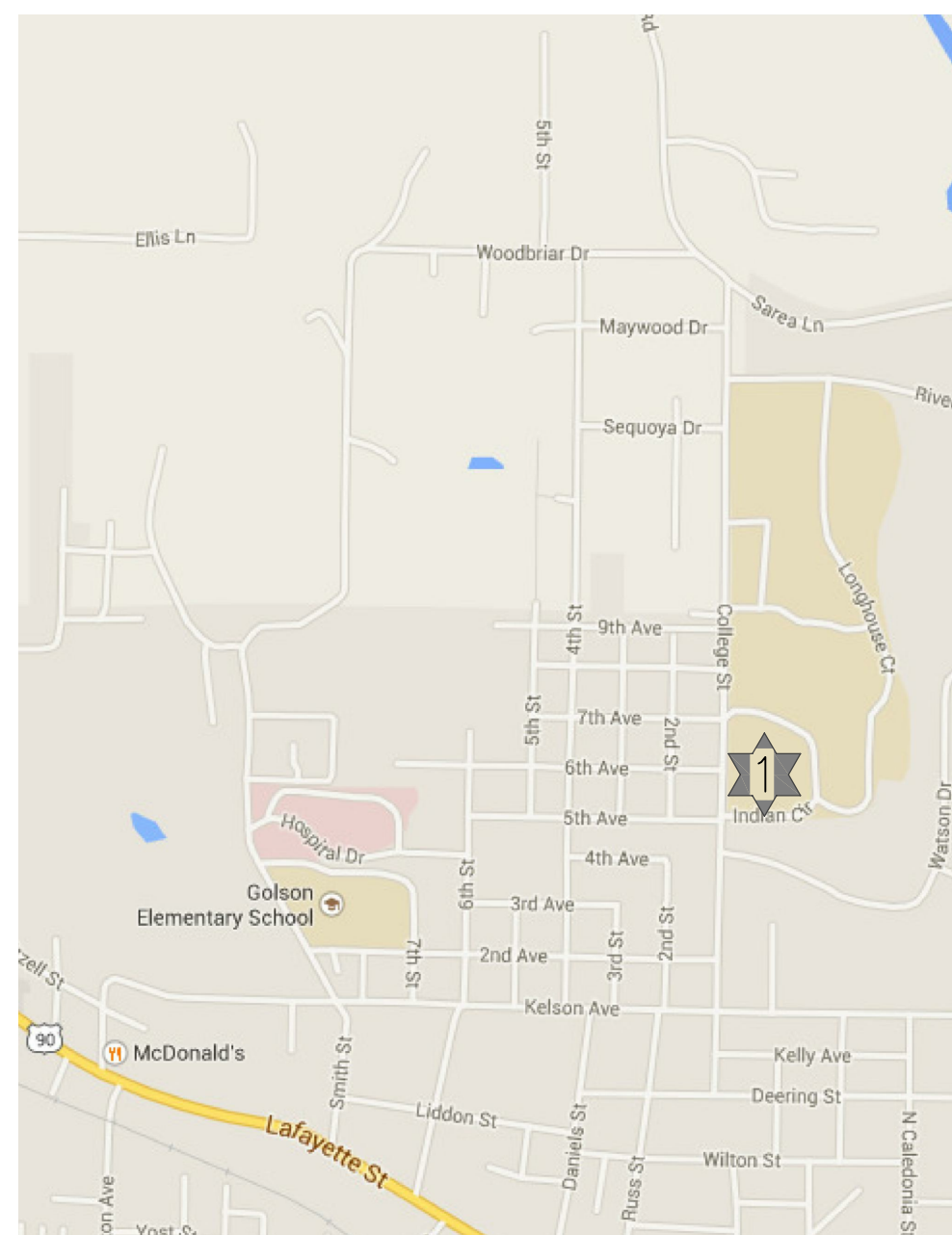
STATEMENT OF COMPLIANCE

TO THE BEST OF MY KNOWLEDGE, THESE DRAWINGS AND THE PROJECT MANUAL ARE COMPLETE AND COMPLY WITH THE FLORIDA BUILDING CODE

ENGINEER OF RECORD: STEVEN L. DAY, PE FL LICENSE 52607

PROJECT LOCATION

CHIPOLA COLLEGE
3094 INDIAN CIRCLE
MARIANNA, FL 32446



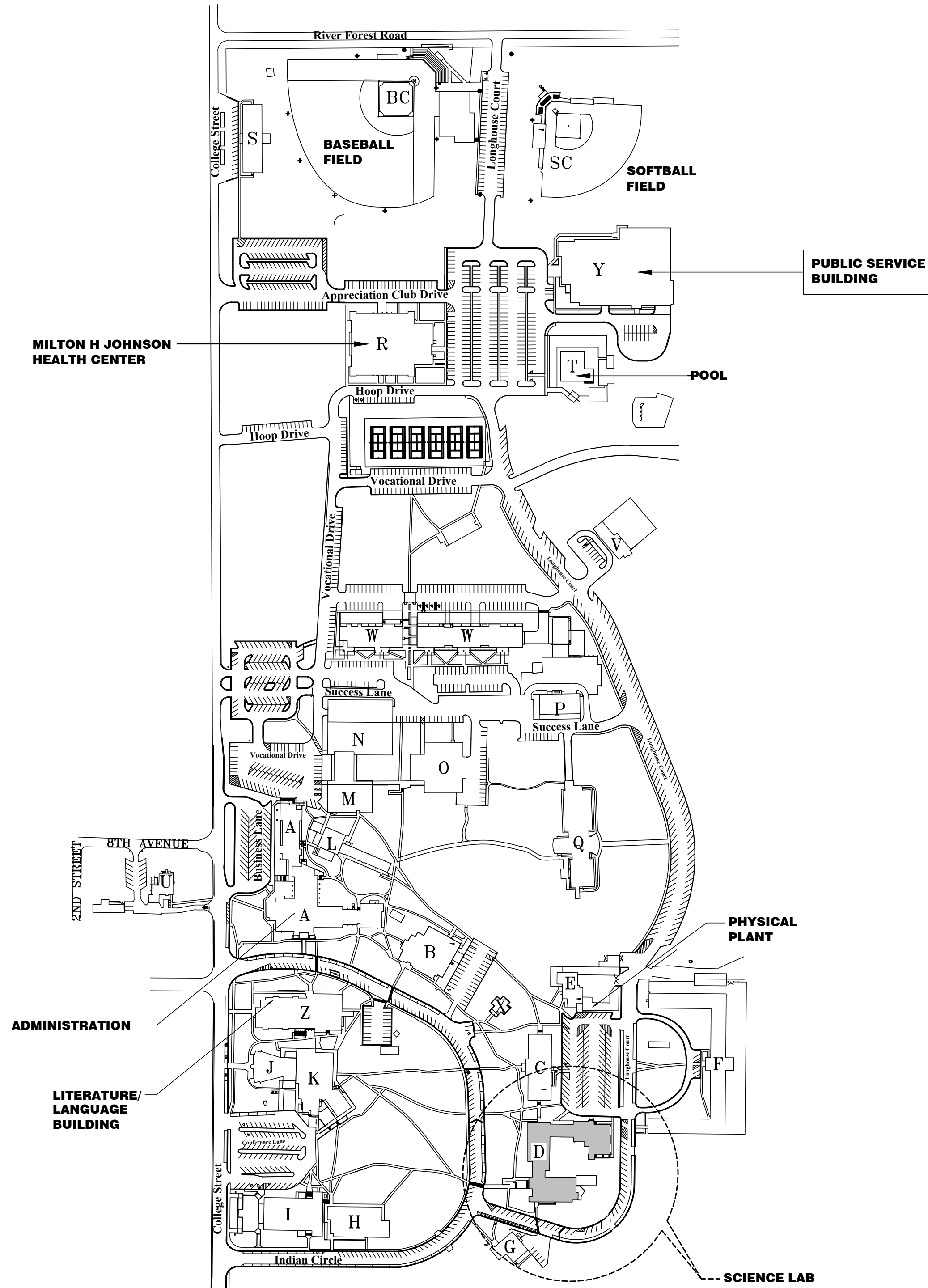
CAMPUS MAP

DESIGN TEAM

MECHANICAL/ELECTRICAL/PRIME: WATFORD ENGINEERING
ARCHITECTURAL: DONOFRO ARCHITECTS



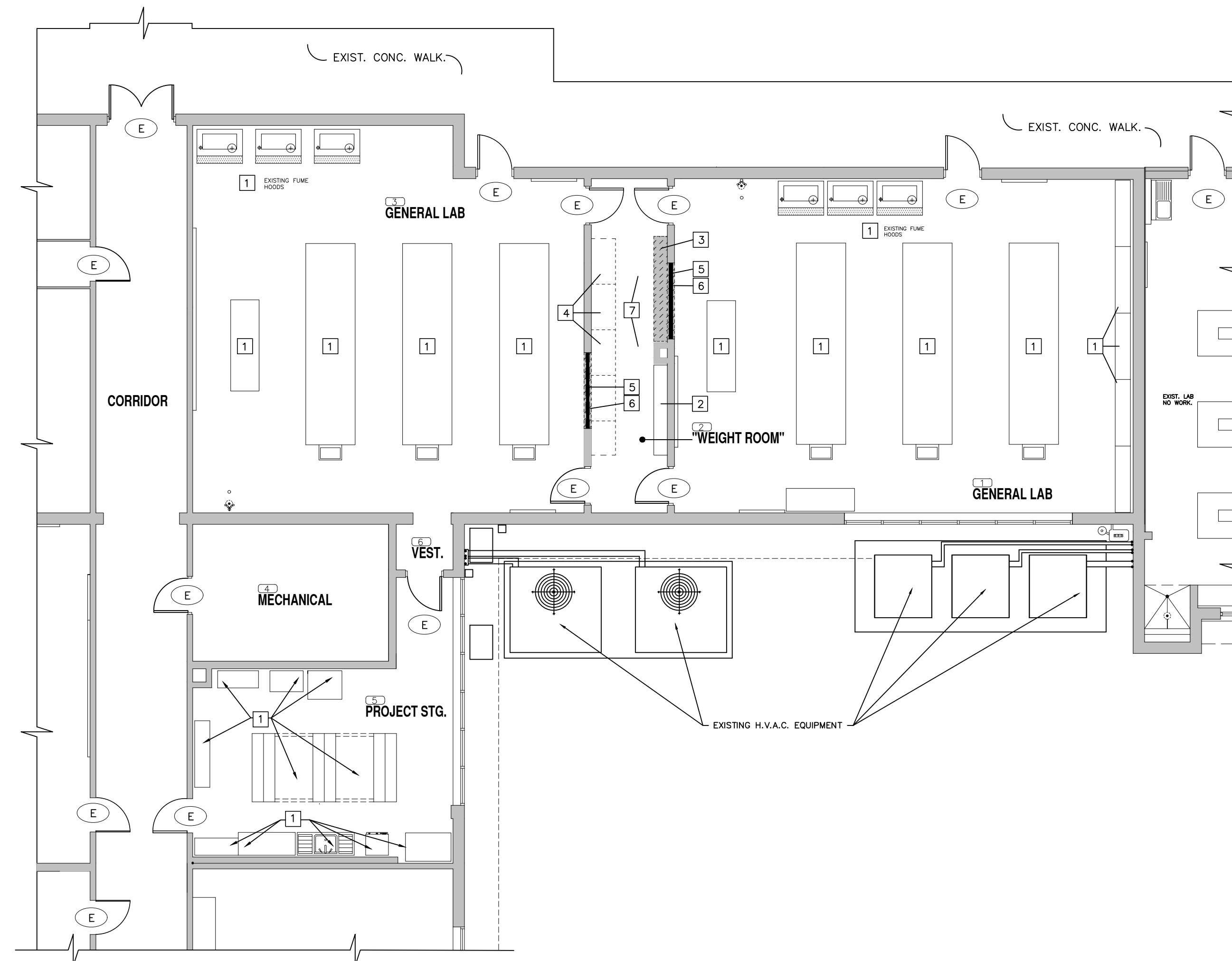
4452 Clinton Street, Marianna, Florida 32446
850.526.3447 Project Number: 2026-009
Florida Certificate of Authorization: 27825
David N Watford, PE Florida License 58208



CAMPUS PLAN
 NOT TO SCALE

GENERAL DEMOLITION PLAN NOTES

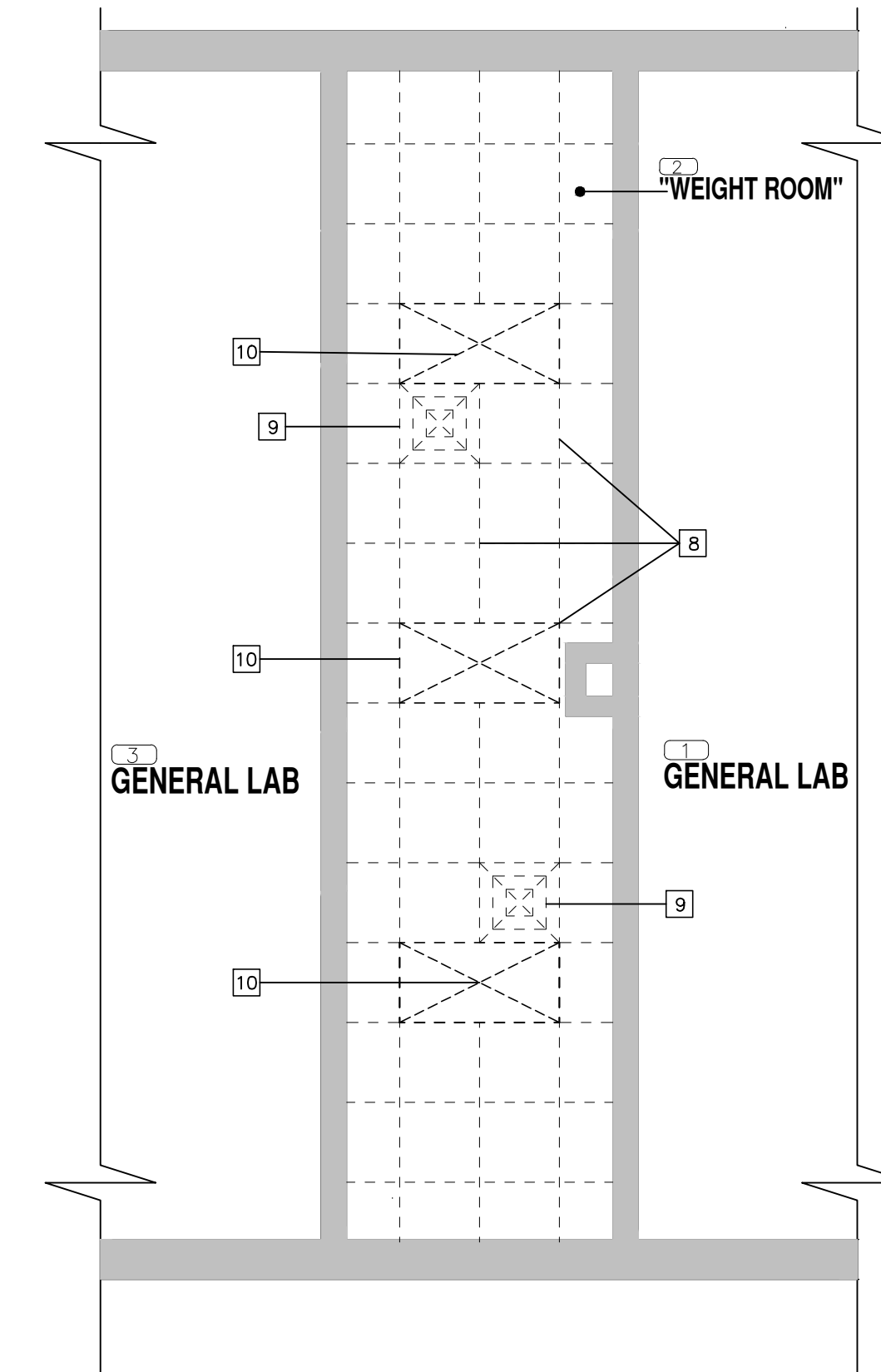
- | | |
|--|--|
| 1 EXISTING SCIENCE LAB CASEWORK OR EQUIPMENT TO REMAIN. NO WORK U.N.O. | 6 EXISTING C.M.U. WALL TO BE REMOVED & DISPOSED OF FROM FINISH FLOOR TO TOP OF WALL FULL WIDTH OF EXISTING M.O., AS PER SECTIONS & DETAILS |
| 2 EXISTING FIXED WOOD SHELVING TO REMAIN | 7 EXISTING L.V.P FLOOR & RUBBER WALL BASE TO BE REMOVED & DISPOSED OF THROUGHOUT ROOM |
| 3 EXISTING FIXED WOOD SHELVING TO BE REMOVED & DISPOSED OF | 8 REMOVE & DISPOSE OF EXISTING SUSPENDED METAL GRID AS REQ'D FOR NEW WORK THROUGHOUT ROOM # 2 |
| 4 EXISTING FIXED WOOD BASE CABINET & COUNTER TOP TO BE REMOVED & TURNED OVER TO THE OWNER AS SALVAGED ITEM | 9 REMOVE & DISPOSE OF EXISTING 2' X 2' ACOUSTICAL TILE THROUGHOUT ROOM # 2 |
| 5 EXISTING HOLLOW METAL WINDOW FRAME & GLASS GLAZING TO BE REMOVED & DISPOSED OF | 10 EXISTING LIGHT FIXTURES & H.V.A.C. SYSTEM DIFFUSERS TO BE REMOVED & REINSTALLED AS REQ'D. SEE M.E.P. SHEET |



PARTIAL BUILDING DEMO PLAN
 1/8" = 1'-0"

DEMOLITION LEGEND

- EXISTING WALL CONSTRUCTION TO REMAIN
- EXISTING CONSTRUCTION TO BE REMOVED AND DISPOSED OF AS NOTED
- EXISTING DOOR AND FRAME TO REMAIN
- GENERAL DEMOLITION NOTE REFERENCE SYMBOL
- EXISTING 2' X 2' CEILING GRID AND ACOUSTICAL CEILING TILE TO BE REMOVED & DISPOSED OF AS NOTED
- EXISTING LIGHT FIXTURE TO BE REMOVED & REINSTALLED AS REQ'D. SEE M.E.P.
- EXISTING H.V.A.C. DIFFUSER TO BE REMOVED & REINSTALLED AS REQ'D. SEE M.E.P.



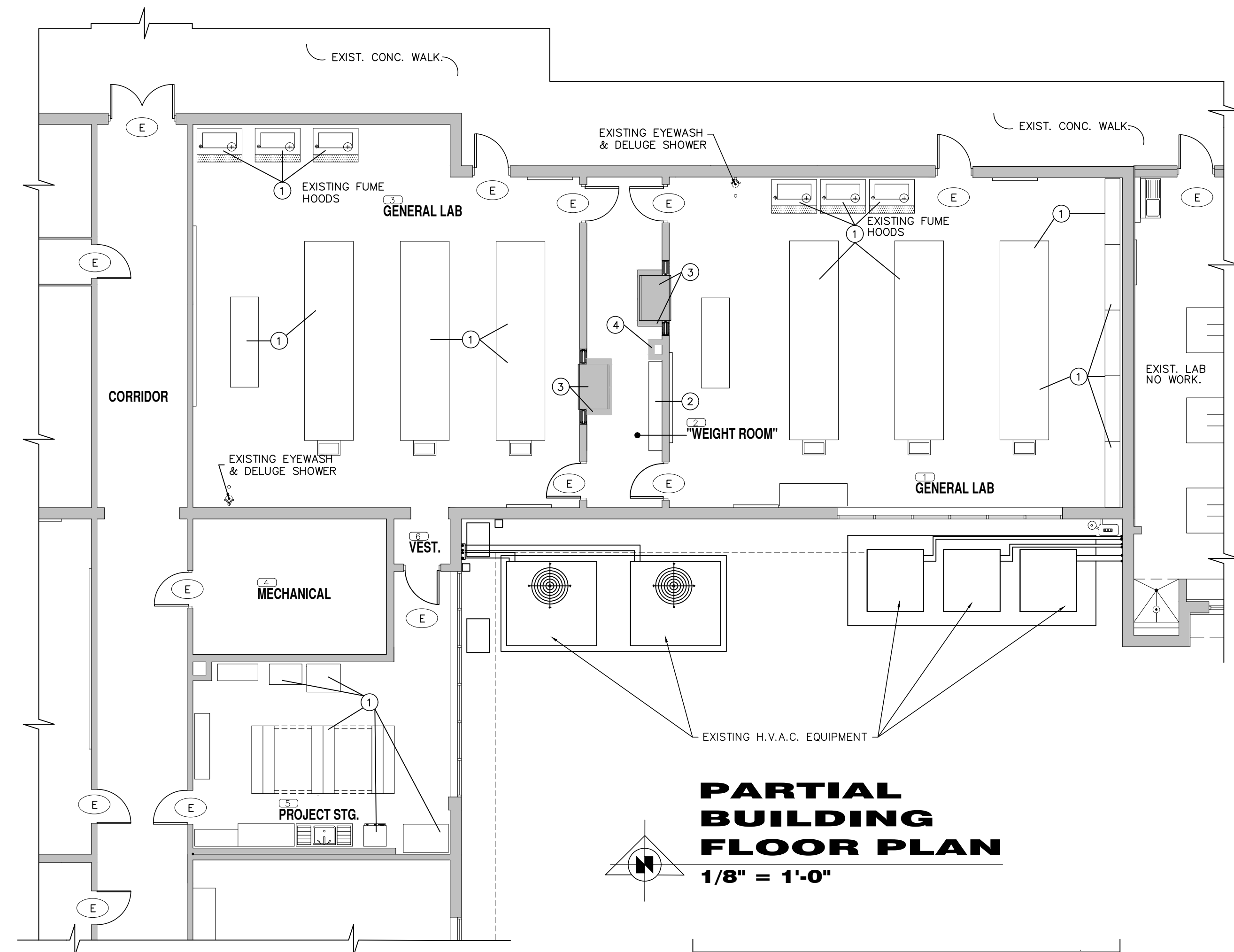
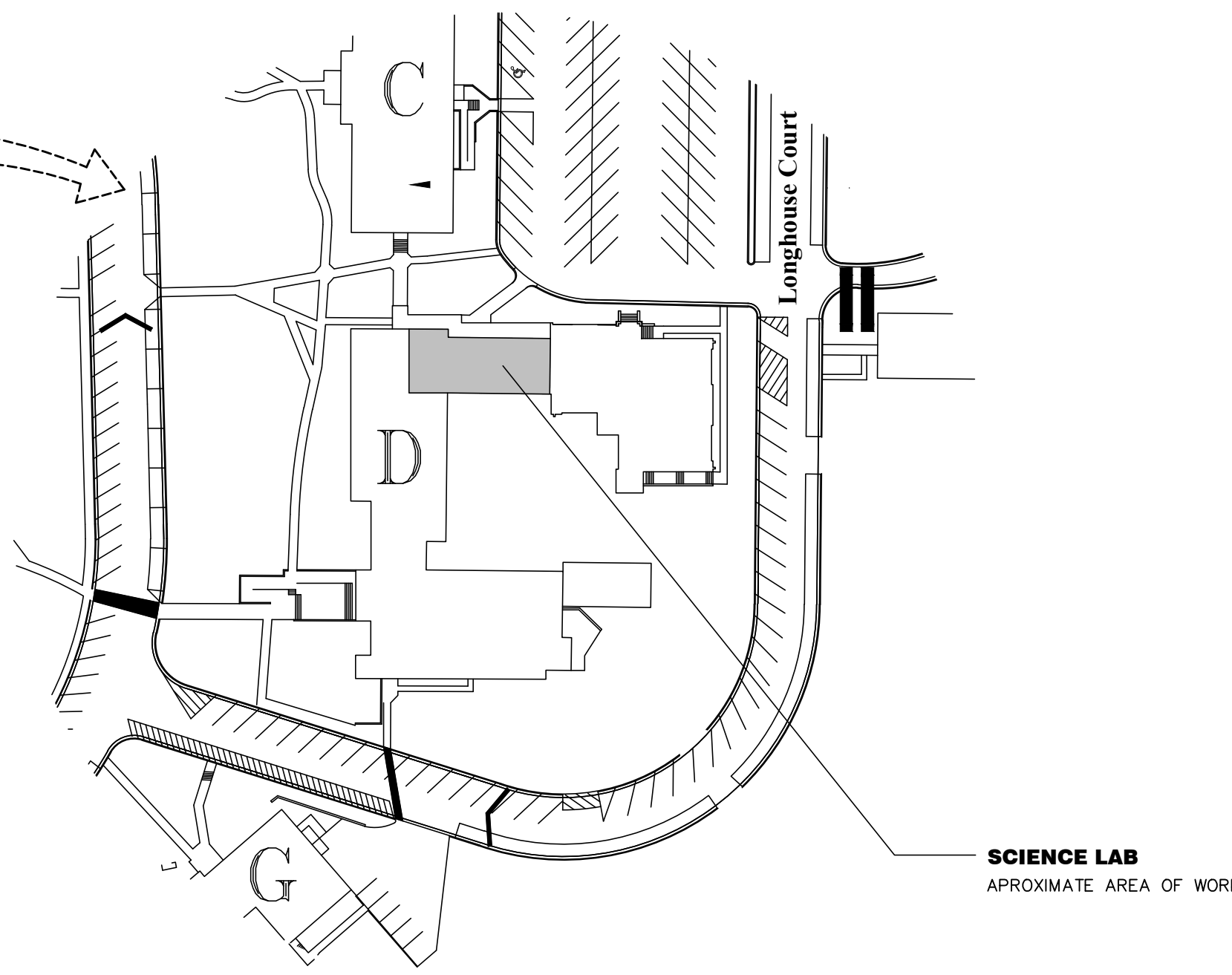
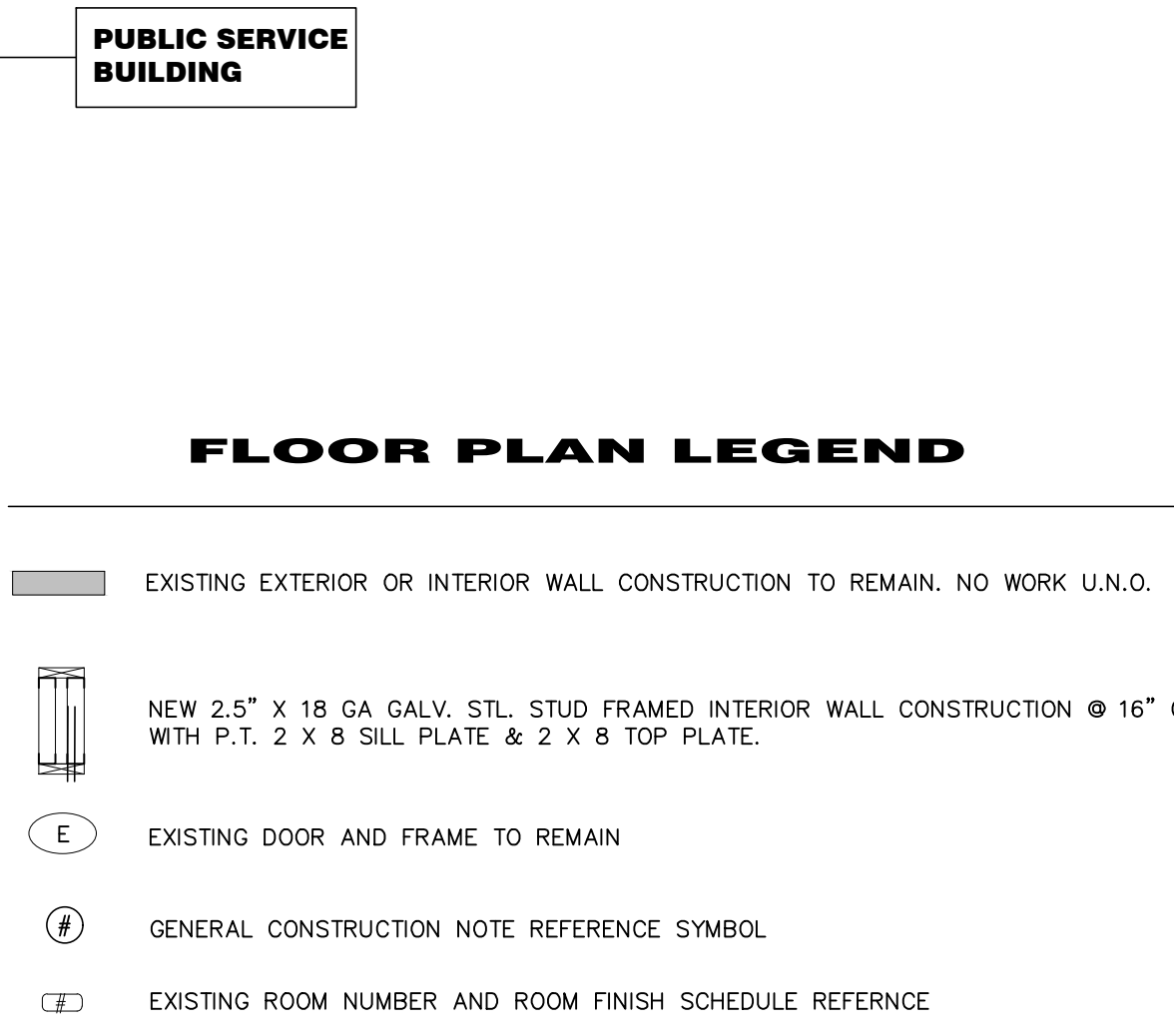
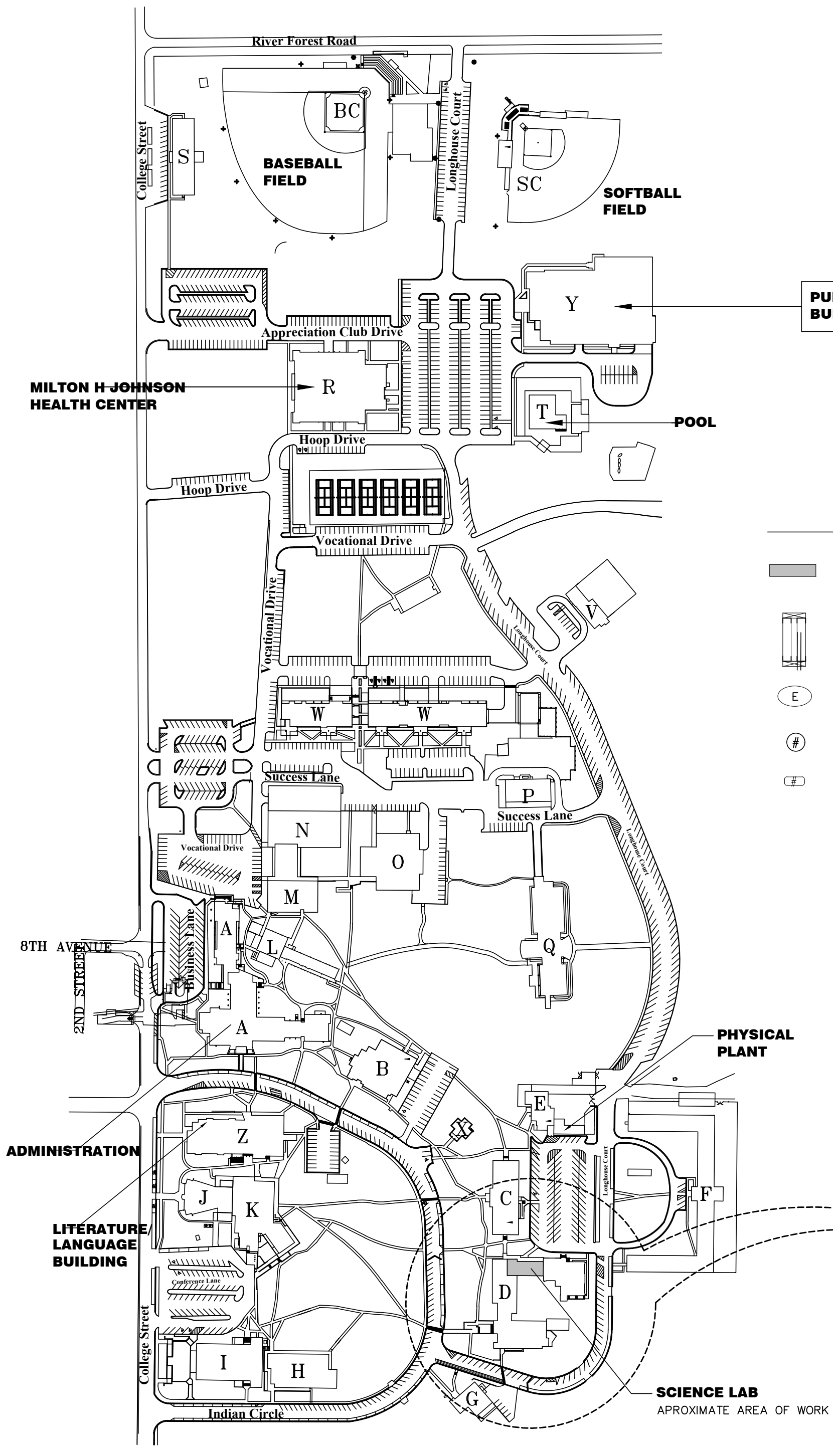
ENLARGED PARTIAL CEILING DEMO PLAN
 1/4" = 1'-0"

No.	Description	Date

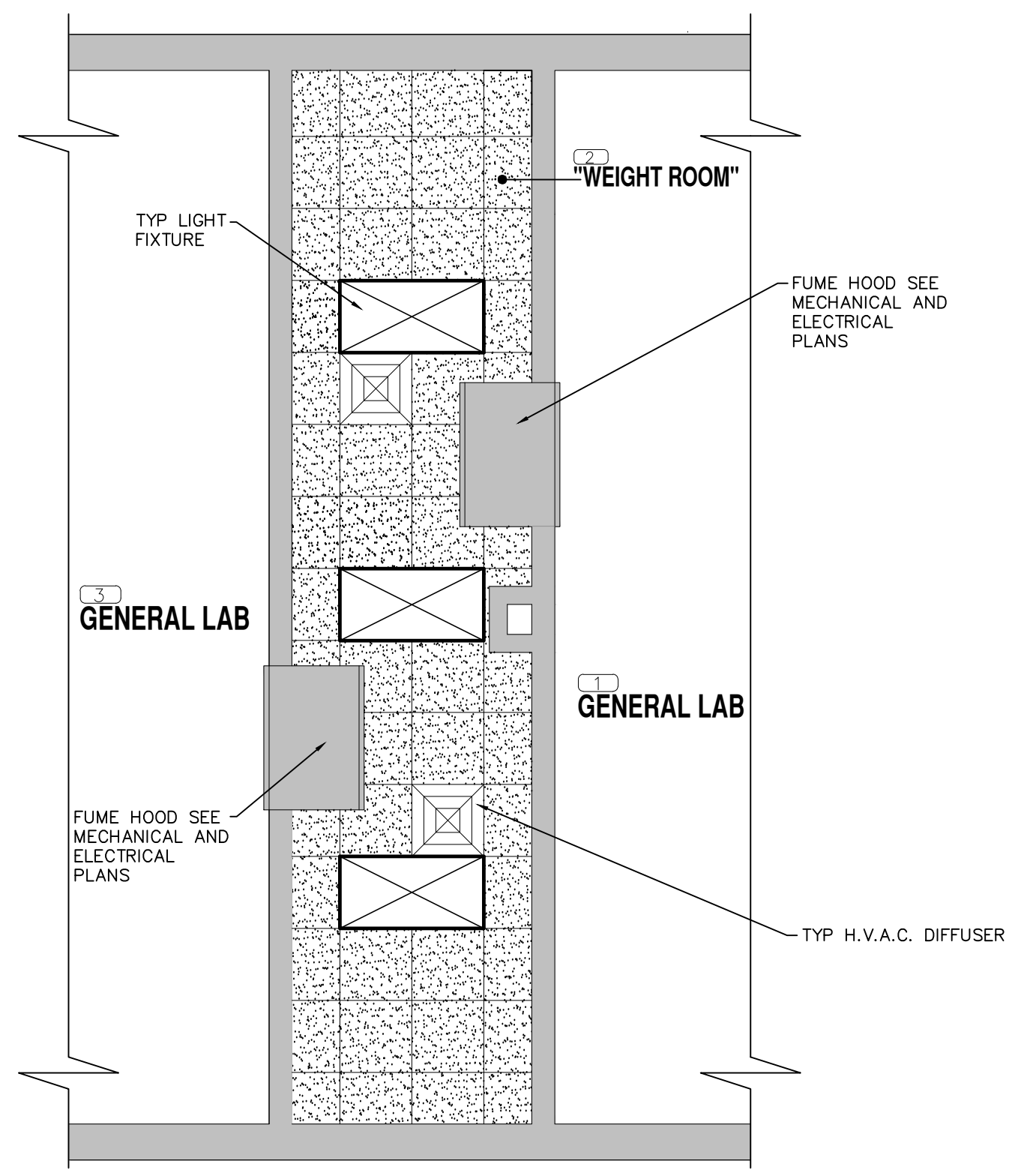
PROJECT NUMBER: 2026-009
 DATE: 5/21/2026
 DRAWN BY: L.J.D.
 DESIGNED BY: P.A.D. JR



ROOM FINISH SCHEDULE															
ROOM NO.	ROOM NAME	FLOORING		BASE		WALLS		CEILING		CHAIR RAIL	WAINSCOT	CEILING HEIGHT	REMARKS	NET SQUARE FOOTAGE	ROOM NO.
2	"WEIGHT ROOM"	RESIN EPOXY	QUARRY TILE	LVT/LVP	PAINTED WOOD	QUARRY TILE	PAINTED WOOD	PAINTED WOOD	PAINTED WOOD	PAINTED WOOD	PAINTED WOOD	7'-10"			2



- CONSTRUCTION NOTES**
- EXISTING SCIENCE LAB CASEWORK OR EQUIPMENT TO REMAIN & TO BE PROTECTED DURING CONSTRUCTION WORK
 - EXISTING FIXED WOOD SHELVING UNIT TO REMAIN & TO BE PROTECTED DURING CONSTRUCTION WORK
 - PROVIDE & INSTALL NEW FUME HOOD. SEE SECTION & DETAILS FOR SUPPORTING CONSTRUCTION. SEE MECH. & ELECTRICAL FOR REQ'D UTILITIES
 - EXISTING EXHAUST CHASE AND EXHAUST SYSTEM TO REMAIN



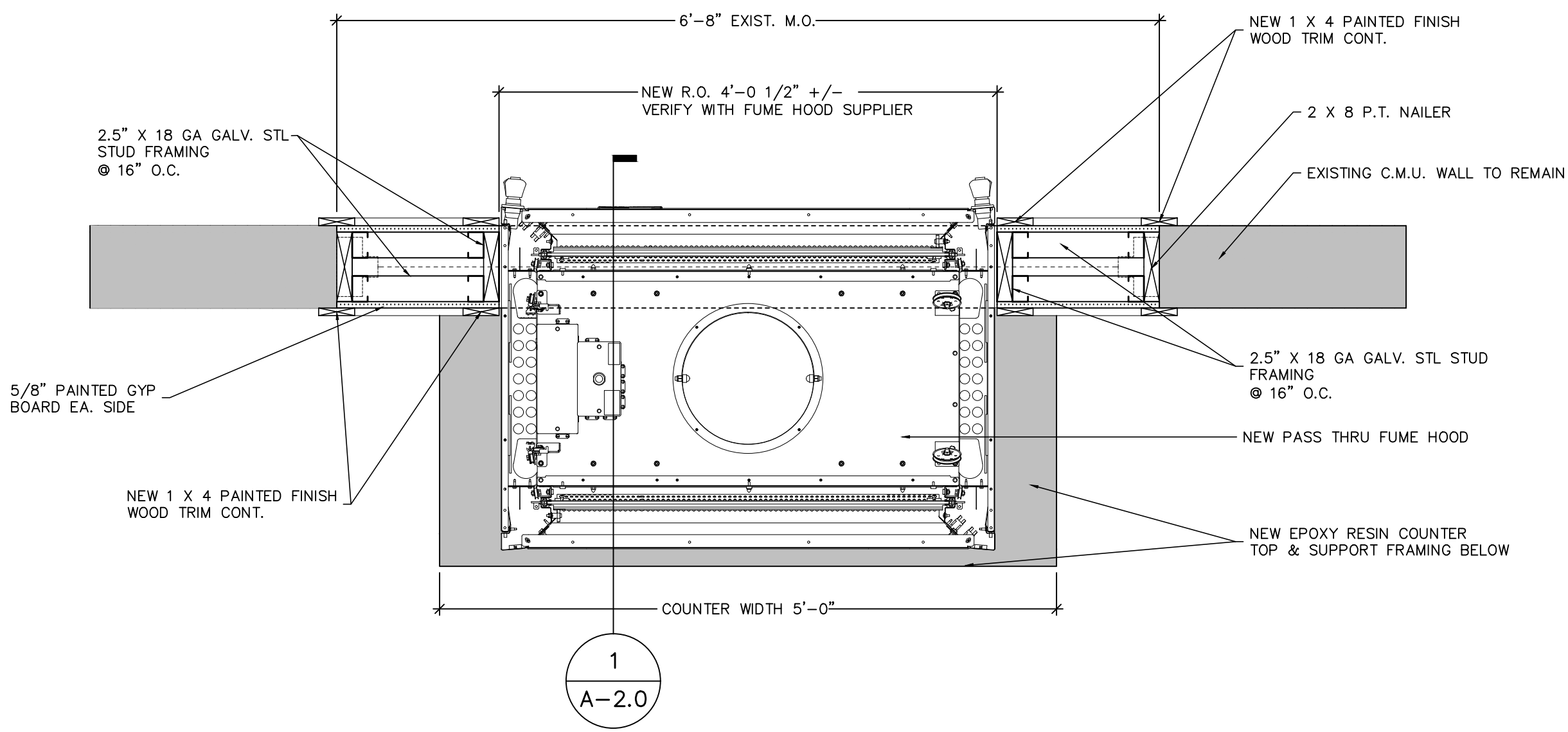
No.	Description	Date

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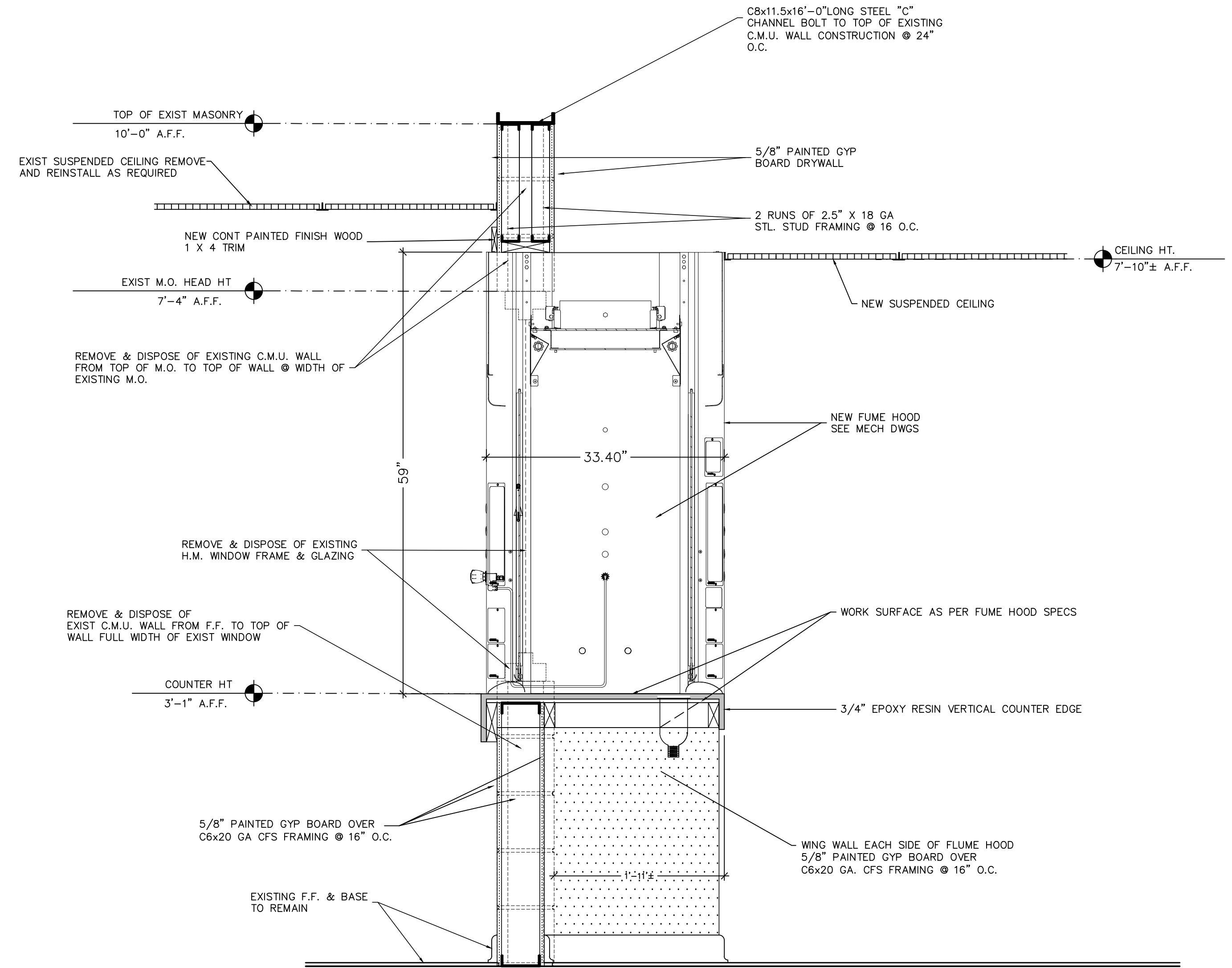
DONOFRO ARCHITECTS



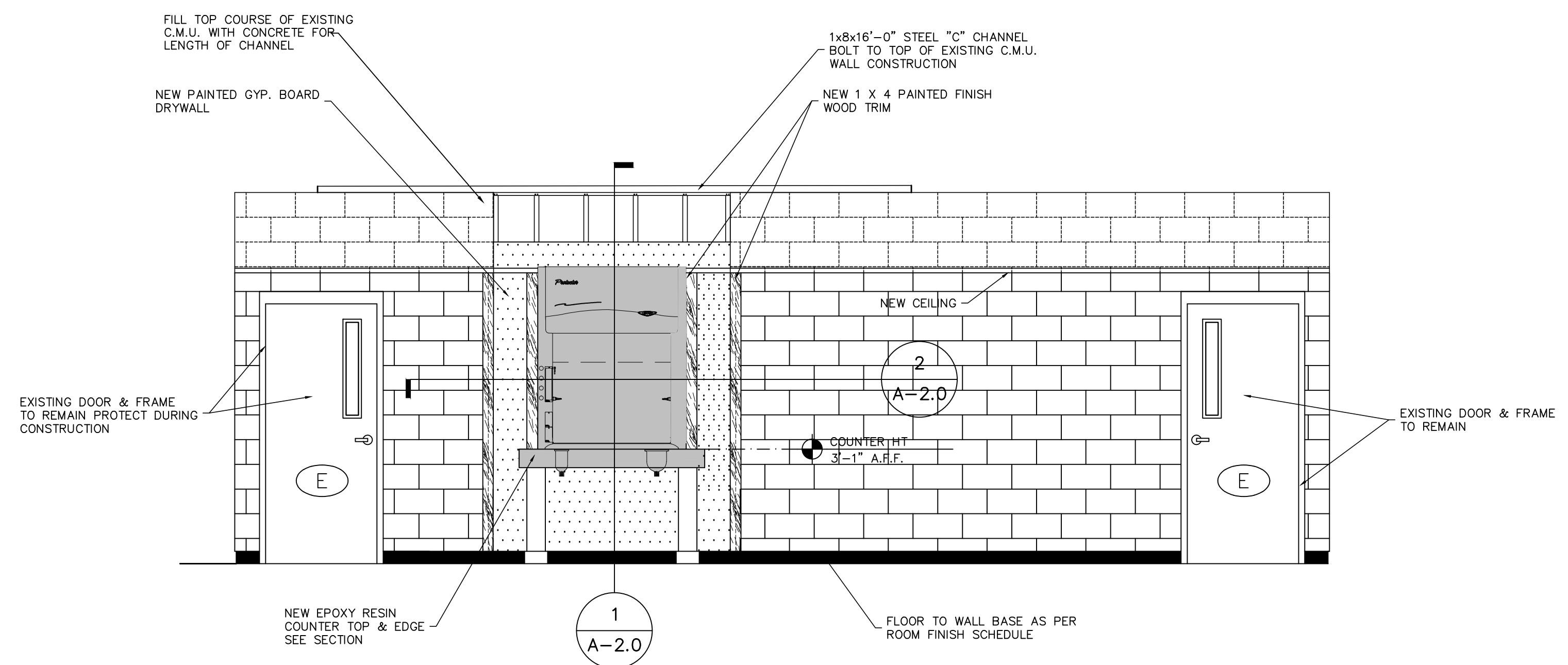
ARCHITECTURAL FLOOR PLAN
 REFLECTED CEILING PLAN



2 PLAN SECTION DETAIL
 A-2.0 1" = 1'-0"



1 CONSTRUCTION WALL SECTION
 A-2.0 1" = 1'-0"



1 INTERIOR ELEVATION
 A-2.0 3/8" = 1'-0" WEST WALL STORAGE ROOM # 2
 EAST WALL STORAGE ROOM # 2 SIMILAR

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FUME HOOD ADDITIONS
 3094 Indian Circle
 Marianna, FL 32446

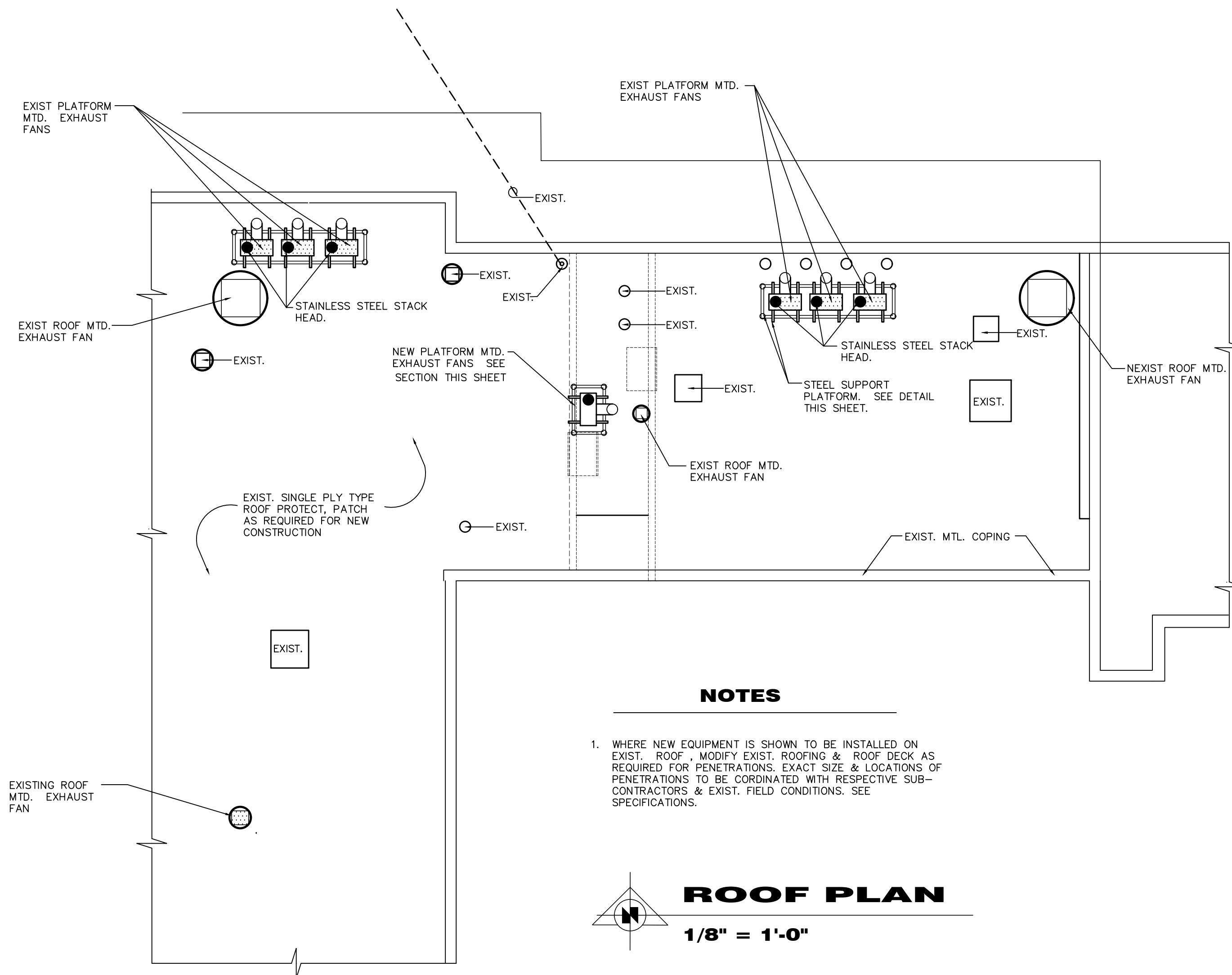
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 DRAWN BY: L.J.D.
 DESIGNED BY: P.A.D., JR.

DONOFRO
ARCHITECTS

ARCHITECTURAL
 DETAIL
 SECTION
 INTERIOR ELEVATION

A200

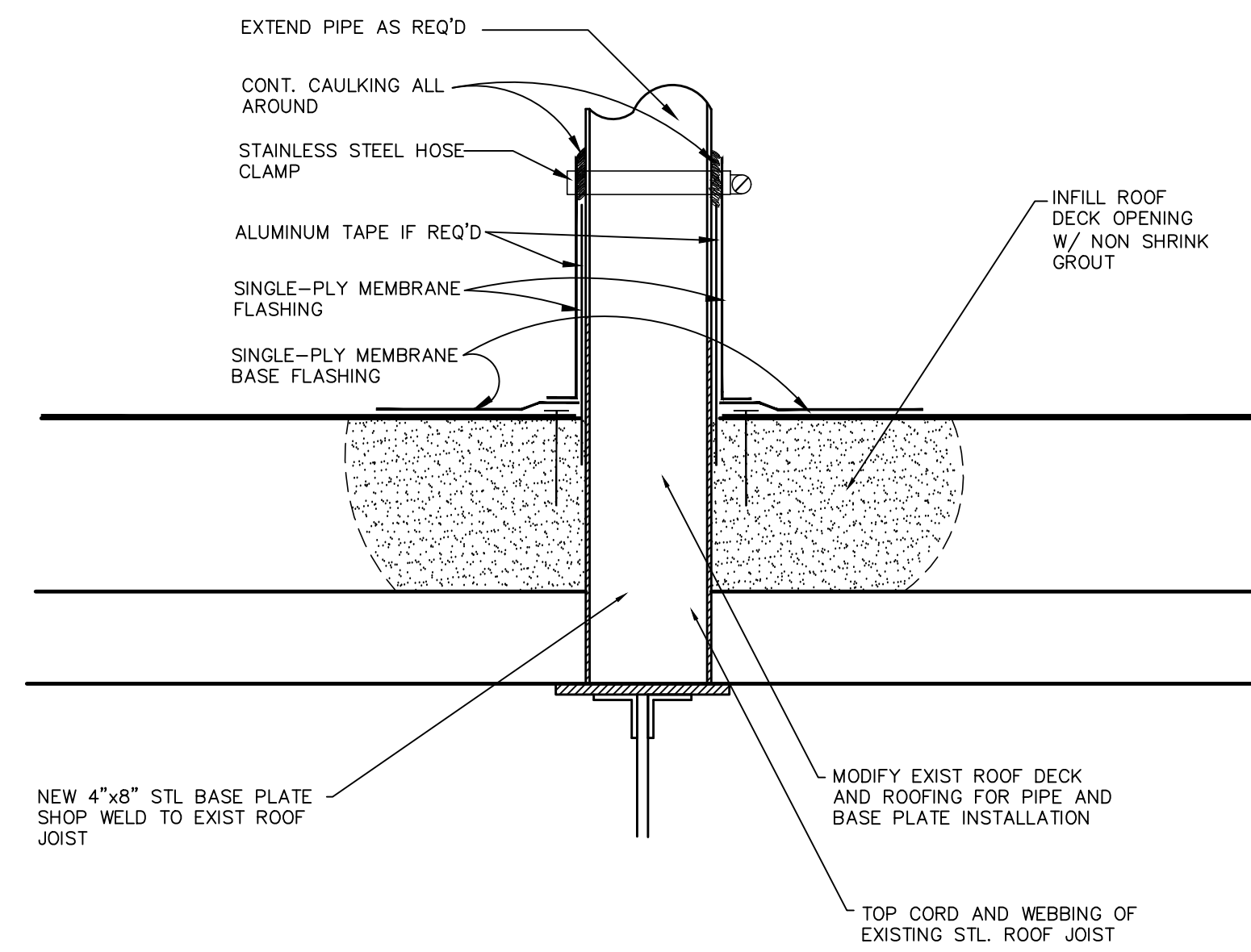


NOTES

- WHERE NEW EQUIPMENT IS SHOWN TO BE INSTALLED ON EXIST. ROOF, MODIFY EXIST. ROOFING & ROOF DECK AS REQUIRED FOR PENETRATIONS. EXACT SIZE & LOCATIONS OF PENETRATIONS TO BE COORDINATED WITH RESPECTIVE SUB-CONTRACTORS & EXIST. FIELD CONDITIONS. SEE SPECIFICATIONS.

ROOF PLAN

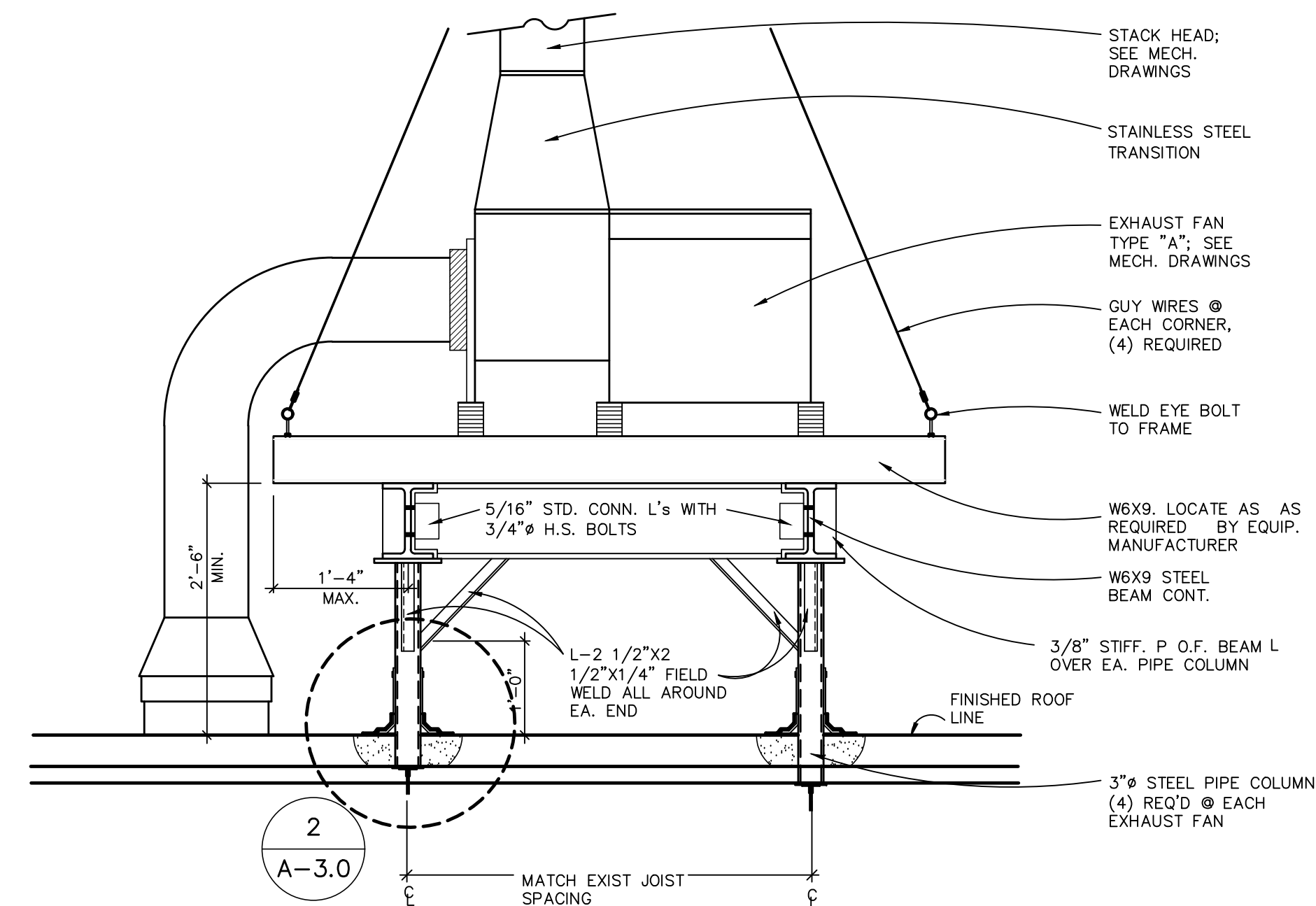
1/8" = 1'-0"



2
A-3.0
PIPE COLUMN SUPPORT DETAIL
NOT TO SCALE

NOTE !

COORDINATE EXACT LOCATION OF PIPE COLUMN SUPPORT WITH EXIST. STRUCTURAL CONDITIONS. ATTACH PIPE COLUMN SUPPORT TO EXIST. STEEL JOIST W/ STEEL BASE PLATE WELDED TO TOP CORD OF JOISTS.

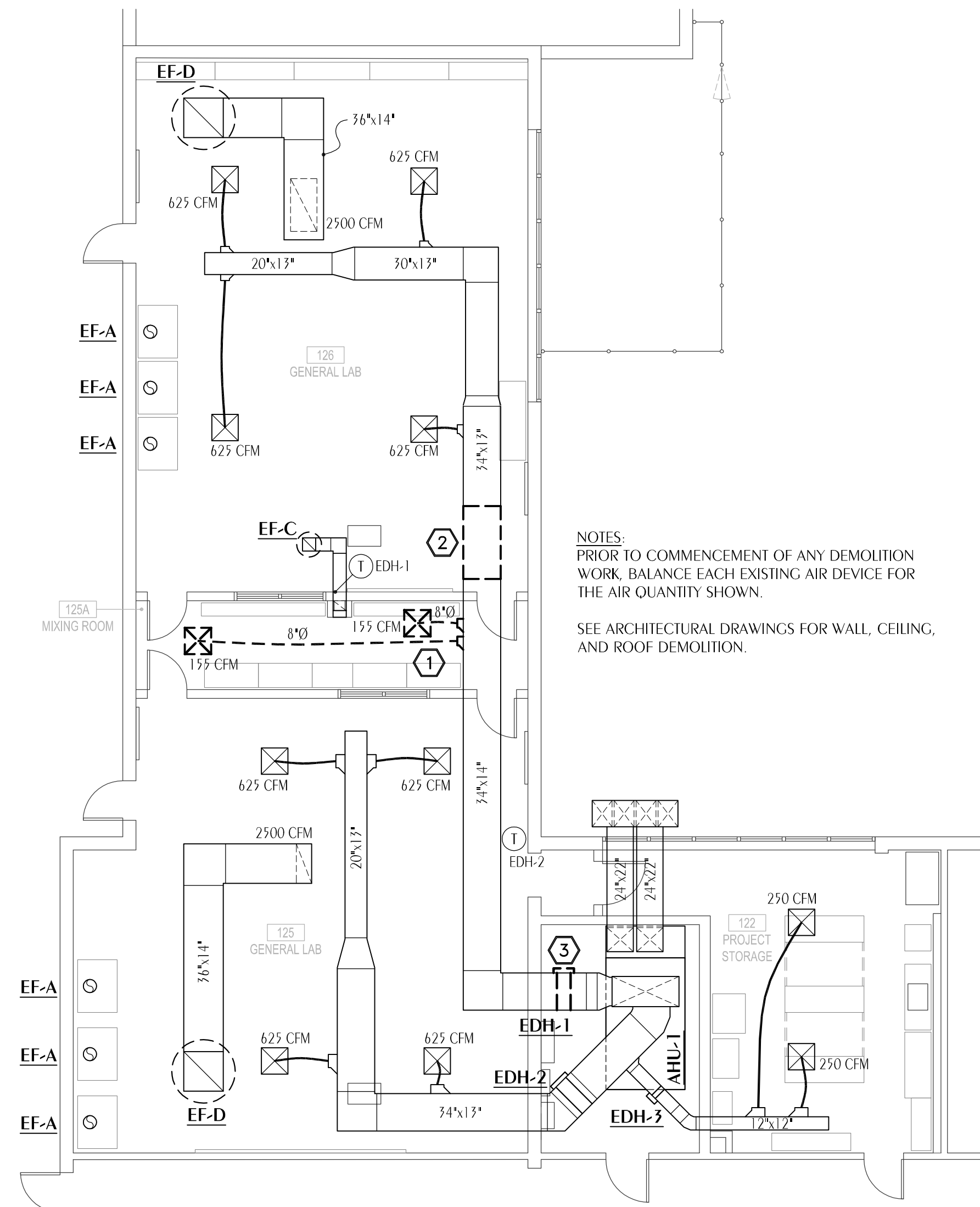


1
A-3.0
PIPE COLUMN SUPPORT DETAIL
NOT TO SCALE

No.	Description	Date

PROJECT NUMBER: 2026-009
 DATE: 5/21/2026
 DRAWN BY: L.J.D.
 DESIGNED BY: P.A.D. JR





1 HVAC DEMOLITION FLOOR PLAN
 M100 SCALE: 1/8" = 1'-0"

SHEET NOTES

- 1 REMOVE TWO CEILING DIFFUSERS AND SET ASIDE FOR REINSTALLATION IN NEW CEILING. REMOVE FLEXIBLE DUCT AND TWO TAKE-OFFS. REPAIR AND INSULATE SUPPLY AIR TRUNK TO MATCH ADJACENT EXISTING.
- 2 REMOVE RECTANGULAR SUPPLY AIR DUCT AS REQUIRED FOR RELOCATION OF EXISTING ELECTRIC DUCT HEATER (EDH-1) AS SHOWN IN THE NEW WORK PLAN ON SHEET M200.
- 3 CAREFULLY REMOVE 55 kW ELECTRIC DUCT HEATER (EDH-1) AND SET ASIDE FOR REINSTALLATION IN A NEW LOCATION AS SHOWN ON SHEET M200. REPAIR AND INSULATE SUPPLY AIR DUCT TO MATCH ADJACENT EXISTING.

GENERAL NOTES

1. ALL DUCT DIMENSIONS ARE NET INSIDE.
2. VERIFY COLLAR SIZES ON ALL AIR TERMINALS, EQUIPMENT OUTLETS AND INLETS, TRANSITION DUCTWORK AS NECESSARY. EXTERNALLY INSULATE TRANSITIONS AT EQUIPMENT CONNECTIONS.
3. FIELD VERIFY CLEAR SPACE AVAILABLE, ROUTING PATH, AND CONFLICTS WITH STRUCTURE AND THE WORK OF OTHER TRADES PRIOR TO FABRICATING DUCTWORK. PROVIDE OFFSETS IN DUCTWORK AS REQUIRED, WHETHER SPECIFICALLY INDICATED ON DRAWINGS OR NOT. SUBMIT SHOP DRAWINGS ON DUCTWORK LAYOUT PRIOR TO COMMENCING WORK. MAINTAIN CLEARANCE AROUND ALL LIGHT FIXTURES AS REQUIRED TO REMOVE AND SERVICE FIXTURES. COORDINATE WITH ROOF TRUSSES/STRUCTURE. PRESSURE TEST ALL NEW DUCTWORK FOR LEAKS.
4. CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND DUCTWORK SUCH THAT MANUFACTURERS' RECOMMENDED CLEARANCES ARE MET FOR ALL ACCESS PANELS, AND EQUIPMENT.
5. PROVIDE DUCT FLEX CONNECTIONS & VIBRATION ISOLATION FOR ALL UNITS NOT INTERNALLY ISOLATED.
6. ALL SUPPLY, RETURN, EXHAUST AND OUTSIDE AIR INTAKE DUCTWORK SHALL BE GALVANIZED SHEET METAL.
7. PROVIDE ACCESS PANELS IN CEILINGS AS REQUIRED FOR MAINTENANCE AND ADJUSTMENT OF EQUIPMENT LOCATED ABOVE CEILING.
8. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING LOCATION OF ALL EQUIPMENT AND UTILITIES INCLUDING ARRANGEMENT OF EXISTING CHILLED AND HOT WATER SITE PIPING.
9. BALANCE EXISTING AHU AND EXHAUST FANS PRIOR TO COMMENCING DEMOLITION WORK.

DUCTWORK NOTES

1. ALL ROUND FLEXIBLE DUCT SHALL BE FLEXMASTER TYPE 8M ACOUSTICAL FLEX OR ENGINEER APPROVED EQUAL. MAXIMUM LENGTH OF ANY FLEXIBLE DUCT RUNOUT SHALL BE 5'-0". WHERE LENGTH REQUIRED EXCEEDS 5'-0". INSTALL EXTERNALLY INSULATED ROUND SNAPLOCK DUCT FOR BALANCE OF DISTANCE TO SPIN-IN TAP AT MAIN DUCT TRUNK.
2. SEAL ALL DUCT PENETRATIONS OF WALLS AIRTIGHT, REGARDLESS OF WHETHER WALLS ARE FIRE RATED OR NOT.
3. ALL NEW SUPPLY AIR DUCTWORK (EXCEPT FLEXIBLE TAKEOFFS TO SUPPLY AIR DIFFUSERS) SHALL BE LOW PRESSURE RECTANGULAR, SMACNA STATIC PRESSURE CLASS 2" W.G., SEAL CLASS A, EXTERNALLY INSULATED UNLESS OTHERWISE INDICATED. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
4. WHEN ROUTING DUCTWORK OVER LIGHTS, PROVIDE A MINIMUM 6" CLEARANCE BETWEEN DUCT AND LIGHTS.

HVAC LEGEND

- EX 10"x8" EXISTING DUCTWORK OR EQUIPMENT TO BE REMOVED
- EX 10"x8" EXISTING DUCTWORK OR EQUIPMENT TO REMAIN.
- 10"x8" NEW RECTANGULAR DUCT WORK. SIZES SHOWN ARE INSIDE CLEAR. SEE 'DUCTWORK & INSULATION NOTES' ON THIS SHEET.
- 10'0" LONG RADIUS ELBOW IN ROUND LABORATORY FUME HOOD EXHAUST DUCT. TURNING RADIUS SHALL BE MINIMUM 1-1/2 TIMES THE DUCT DIAMETER.
- 8'0" FACTORY FABRICATED AND INSULATED FLEXIBLE ROUND DUCT. SIZE SHOWN IS INSIDE CLEAR DIMENSION.
- RECTANGULAR BRANCH DUCT TAKEOFF FROM RECTANGULAR MAIN DUCT. TAKEOFF SHALL BE MADE WITH A 45 DEGREE COLLAR.
- MVD MANUAL VOLUME DAMPER (MVD) OR AUTOMATIC CONTROL DAMPER (ACD) IN RECTANGULAR DUCT. PROVIDE OPPOSED BLADE TYPE WITH LOCKING QUADRANT REGULATOR. ACD SHALL BE LOW VOLTAGE AND WIRED BY THE MECHANICAL CONTRACTOR.
- RECTANGULAR TO ROUND DUCT TRANSITION.
- RECTANGULAR SUPPLY OR OUTSIDE AIR DUCTWORK IN SECTION.
- RECTANGULAR RETURN OR EXHAUST AIR DUCTWORK IN SECTION.
- EXISTING CEILING DIFFUSER. BALANCE FOR AIR FLOW INDICATED.
- 500 CFM TRANSFER GRILLE. EGG CRATE FACE WITH 1/2"x1/2"x1/2" ALUMINUM CORE. RECTANGULAR NECK SIZE AS INDICATED. ITTUS MODEL 50F OR APPROVED EQUIVALENT.
- 16"x16" TC
- SUPPLY AND OUTSIDE AIR FLOW.
- ↔ TRANSFER AND EXHAUST AIR FLOW.
- EDH-# ELECTRIC DUCT HEATER. SEE 'ELECTRIC DUCT HEATER SCHEDULE - EXISTING' ON THIS SHEET AND 'ELECTRIC DUCT HEATER - NEW' ON SHEET M200.
- EF-# EXHAUST FAN. SEE 'FAN SCHEDULE - EXISTING' ON THIS SHEET AND 'FAN SCHEDULE - NEW' 'LABORATORY FUME HOOD EXHAUST FAN DETAIL' ON SHEET M200.
- AHU-# AIR HANDLING UNIT. SEE 'CUSTOM AIR HANDLING UNIT SCHEDULE - EXISTING' ON THIS SHEET.
- EX. EXISTING

FAN SCHEDULE - EXISTING

UNIT	TYPE	CFM	MAX. FAN RPM	ESP (IN. H2O)	MAX. MOTOR POWER	CONTROL	ELECTRICAL VOLTS/PHASE
EF-A	BELT-DRIVEN CENTRIFUGAL	833	1400	0.91	1/2	AHU AND WALL SWITCH	120/1
EF-B	BELT-DRIVEN CENTRIFUGAL	600	1000	0.38	1/6	WALL SWITCH	120/1
EF-C	DIRECT-DRIVE CENTRIFUGAL	300	1050	0.38	1/8	WALL SWITCH	120/1
EF-D	BELT-DRIVEN CENTRIFUGAL	2500	600	0.36	1/3	AHU AND WALL SWITCH	120/1

EXISTING DATA PROVIDED FOR REFERENCE ONLY.

ELECTRIC DUCT HEATER SCHEDULE - EXISTING

UNIT EDH	CFM	NUMBER OF CONTROL STEPS	ELECTRICAL			AREA SERVED
			VOLTS/PHASE	HERTZ	KW	
1	2815	4	208/3	60	55	RM. 126 GENERAL LAB
2	3000	4	208/3	60	55	RM. 125 GENERAL LAB
3	500	SCR	208/3	60	10	RM. 122 PROJECT STORAGE

EXISTING DATA PROVIDED FOR REFERENCE ONLY.

CUSTOM AIR HANDLING UNIT SCHEDULE - EXISTING

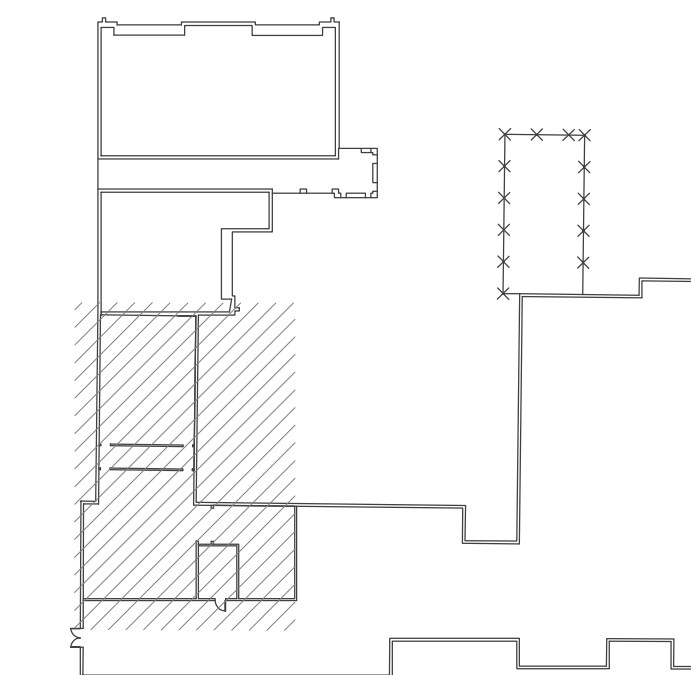
UNIT DESIGNATION	TYPE	MANUFACTURER	MODEL NUMBER	FAN DATA				CHILLED WATER COIL DATA												NOTES			
				MAX. AIR FLOW (CFM)	MIN. AIR FLOW (CFM)	MIN. OA DAMPER (CFM)	TOTAL SP (IN. H2O)	EXTERNAL SP (IN. H2O)	MAXIMUM FAN MOTOR HORSEPOWER	MAX. FACE VELOCITY (FPM)	COIL TOTAL CAPACITY (MBH)	COIL SENSIBLE CAPACITY (MBH)	MAX. AIR SIDE PRESSURE DROP (IN)	AIR SIDE				WATER SIDE					
				(°F) DB	(°F) WB	(°F) DB	(°F) WB	FLOW (GPM)	EWI (°F)	LWT (°F)	MAX. WPD (FT H2O)	CONTROL VALVE (BY DOC CONTRACTOR)	CONTROL VALVE PRESSURE DROP										
AHU-1	PF-CV	TRANE	CSAA014UA	5810	5810	5810	4.041	0.600	4.0 (x2)	576.9	233.8	1.151	88.0	80.0	52.1	52.0	84	42.0	55.7	10.5	TWO WAY PRESSURE INDEPENDENT	11.5 FT	1,2,3

- SCHEDULE LEGEND:
- HDT - HORIZONTAL DRAW THRU
 - SDU - STACKED DEHUMIDIFICATION UNIT
 - FC - FORWARD CURVED
 - PF - PLENUM FAN
 - BC - BACKWARD CURVED

- SZVAV - VARIABLE AIR VOLUME, SINGLE ZONE
- VAV - VARIABLE AIR VOLUME, MULTIPLE ZONES
- CV - CONSTANT VOLUME

- SCHEDULE NOTES:
1. ESP DOES NOT INCLUDE PRESSURE DROP THROUGH AHU CASING OR COILS.
 2. TOTAL SP INCLUDES PRESSURE DROP THROUGH CASING AND COILS.
 3. 208V/3 PHASE

EXISTING DATA PROVIDED FOR REFERENCE ONLY.



KEY PLAN - BLDG. D
 NO SCALE

NOT FOR CONSTRUCTION
 PRELIMINARY

Steven L Day, PE Florida License 52607

Construction Documents

Chipola College
**BUILDING D SCIENCE LAB
 FUME HOOD ADDITIONS**

3094 Indian Circle
 Marianna, FL 32446

No.	Description	Date

PROJECT NUMBER: 2026-009
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 DRAWN BY: SLD
 DESIGNED BY: SLD

**HVAC DEMOLITION,
 LEGEND, AND NOTES**

NOT FOR CONSTRUCTION
 PRELIMINARY

Steven L Day, PE Florida License 52607

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 FUME HOOD ADDITIONS**
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 Marianna, FL 32446

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HVAC NEW WORK

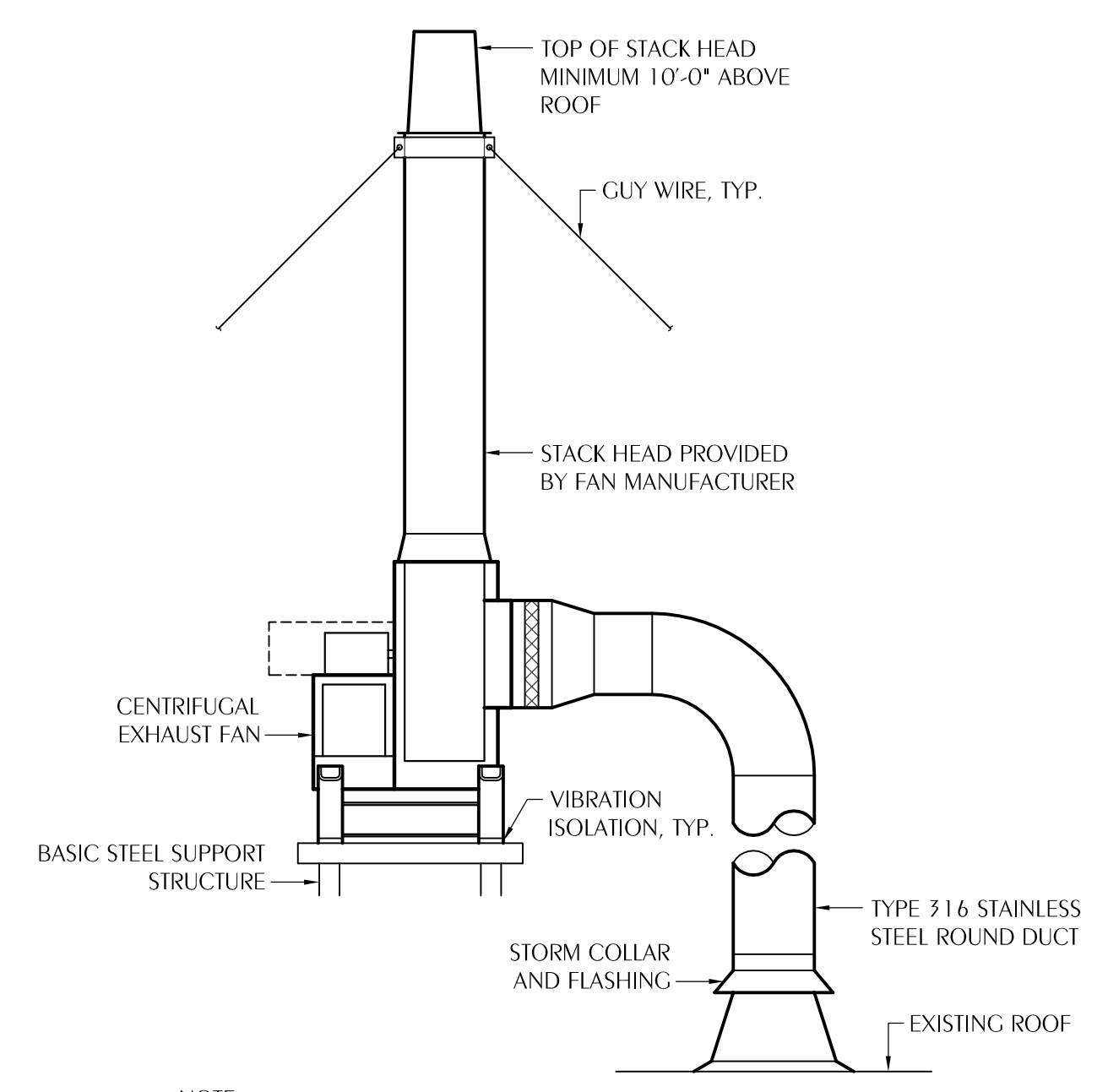
SHEET NOTES

- DEMOLISH WALL AND INTERIOR WINDOW AS NECESSARY AND INSTALL OWNER-SUPPLIED PASS-THROUGH LABORATORY FUME HOOD IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. SEE ARCHITECTURAL DRAWINGS. CONNECT 12"Ø EXHAUST DUCT.
- REBALANCE EACH OF 6 EXHAUST FANS (EF-A) FOR 575 CFM. PROVIDE NEW LABELING TO INDICATE MAXIMUM SASH OPENING HEIGHT TO MAINTAIN A MINIMUM OF 120 FPM FACE VELOCITY.
- ROUTE 18" LABORATORY FUME HOOD EXHAUST DUCT THROUGH ROOF AND CONNECT TO EF-1. SEE LABORATORY FUME HOOD EXHAUST FAN DETAIL ON THIS SHEET.
- NEW LOCATION FOR EXISTING 55 KW ELECTRIC DUCT HEATER (EDH-1). MODIFY EXISTING SUPPLY AIR DUCT AS NECESSARY FOR INSTALLATION. PROVIDE CONTROL WIRING NECESSARY FOR HEATER ZONE TEMPERATURE CONTROL OF ROOM 126 - GENERAL LABORATORY.
- REPAIR AND INSULATE SUPPLY AIR DUCT TO MATCH ADJACENT EXISTING AFTER REMOVAL OF ELECTRIC DUCT HEATER.
- REINSTALL EXISTING CEILING DIFFUSER AND BALANCE FOR 155 CFM.

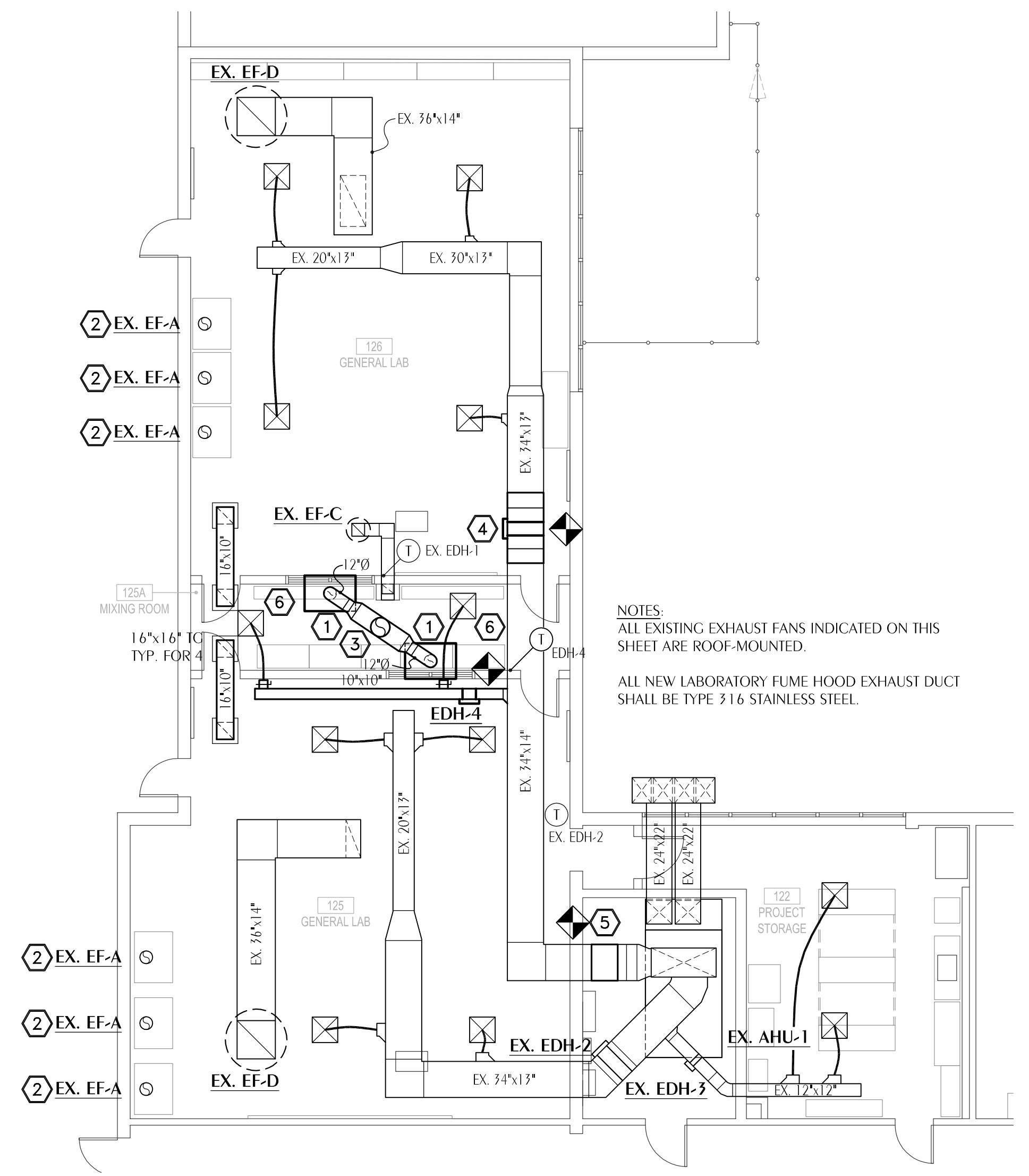
DIRECT DIGITAL CONTROLS GENERAL NOTES

- CONTROLS FOR THE NEW EQUIPMENT SHALL BE TIED INTO AND FULLY INTEGRATED WITH THE EXISTING TRANE DDC SYSTEM.
- THE CONTROLS SCOPE OF WORK INDICATED ON THIS SHEET SHALL BE PERFORMED BY OTHERS AND IS TO BE CONSIDERED NOT IN CONTRACT. COORDINATION OF THE CONTROLS WORK WITH THE WORK OF THE MECHANICAL AND OTHER SUB CONTRACTOR SHALL BE INCLUDED IN THIS CONTRACT. RELOCATED ELECTRIC DUCT HEATER 'EDH-1', NEW ELECTRIC DUCT HEATER 'EDH-4', AND NEW LABORATORY FUME HOOD EXHAUST FAN 'EF-1' SHALL BE INTEGRATED INTO THE EXISTING DDC SYSTEM TO OPERATE AS NOTED IN THE 'SEQUENCE OF OPERATION' ON THIS SHEET.
- THE DDC CONTRACTOR SHALL RE-PROGRAM THE EXISTING DDC CONTROLS TO PERFORM THE INDICATED SEQUENCES. ALL OTHER FUNCTIONS REQUIRED BY THE CONTRACT DOCUMENTS, AND ALL OTHER FUNCTIONS REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM. THE DDC CONTRACTOR SHALL PROVIDE NEW SENSORS AND DEVICES WHERE NECESSARY TO COMPLETE THE SCOPE OF WORK. THE DDC CONTRACTOR SHALL COORDINATE WITH THE OWNER FURNISHED EQUIPMENT TO VERIFY THE EXTENT OF NEW DEVICES REQUIRED.
- THE CONTRACTOR SHALL TURN OVER ALL EXISTING CONTROLLERS, SENSORS, ETC NOT TO BE REUSED TO THE OWNER FOR USE AS SPARE INVENTORY.
- ALL SEQUENCES ARE SUBJECT TO SAFETIES. DDC CONTRACTOR SHALL PROVIDE ALL NECESSARY AND CUSTOMARY SAFETIES.
- ALL WIRING SHALL BE IN CONDUIT. ALL CONDUIT SHALL BE IN ACCORDANCE WITH ELECTRICAL SPECIFICATIONS, REQUIREMENTS FOR 120 VAC CIRCUITS.
- ALL CONTROL TUBING SHALL BE RUN IN CONDUIT. ALL CONDUIT SHALL BE IN ACCORDANCE WITH ELECTRICAL SPECIFICATIONS, REQUIREMENTS FOR 120 VAC CIRCUITS.
- CONDUIT SHALL BE RUN PERPENDICULAR AND PARALLEL TO BUILDING LINES IN A FIRST CLASS WORKMANSHIP LIKE MANNER.
- THE DDC CONTRACTOR IS CO-RESPONSIBLE, ALONG WITH THE TAB CONTRACTOR FOR COORDINATING THE PROPER INSTALLATION OF WELLS, PRESSURE TAPS, AND P/T TAPS IN ALL LOCATIONS INDICATED AND OTHERWISE AS REQUIRED FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM.
- THE DDC CONTRACTOR AND THE TAB CONTRACTOR SHALL UTILIZE P/T'S TO CALIBRATE INSTRUMENTS TO CERTIFIED PRESSURE GAGES, PRESSURE METERS AND THERMOMETERS.
- FIELD VERIFY ALL QUANTITIES, LOCATIONS, ETC WITH EXISTING CONDITIONS.

LABORATORY FUME HOOD EXHAUST FAN DETAIL
 M100 SCALE: NONE



NOTE:
 BASIC STRUCTURAL STEEL SUPPORT AND ROOF FLASHING BY GENERAL CONTRACTOR. SUPPLEMENTAL STEEL SUPPORTS, VIBRATION ISOLATION PADS, AND ANCHORING TO STRUCTURAL SUPPORT BY MECHANICAL CONTRACTOR. SEE ARCHITECTURAL DRAWINGS FOR DETAILS.



2 HVAC NEW WORK FLOOR PLAN
 M200 SCALE: 1/8" = 1'-0"

UNIT	TYPE	CFM	MAX. FAN RPM	ESP (IN. H2O)	MAX. MOTOR POWER	SONES/dB (MAX.)	BASIS OF DESIGN	MODEL	CONTROL	ELECTRICAL VOLTS/PHASE	NOTES
EF-1	LEF	1550	1380	0.6	3 HP	64 dBA	GREENHECK	VK-CH-15-100-9	OPERATED DURING OCCUPIED MODE	208/3	1, 2, 3, 4, 5

- CEF - LABORATORY EXHAUST FAN PROVIDE SOLID STATE SPEED CONTROLLER.
- PROVIDE BACK DRAFT DAMPER.
- PROVIDE THERMAL OVERLOAD.
- PROVIDE DIRECT DRIVE FAN.
- PROVIDE VIBRATION ISOLATION HANGERS.

UNIT EDH	CFM	NUMBER OF CONTROL STEPS	ELECTRICAL			AREA SERVED
			VOLTS/PHASE	HERTZ	KW	
4	310	SCR	208/3	60	4.5	RM. 125A MIXING ROOM

NOTE:
 ELECTRIC HEATER OUTPUT AS RATED AT VOLTAGE INDICATED.

DDC NOTES - SEQUENCE OF OPERATION

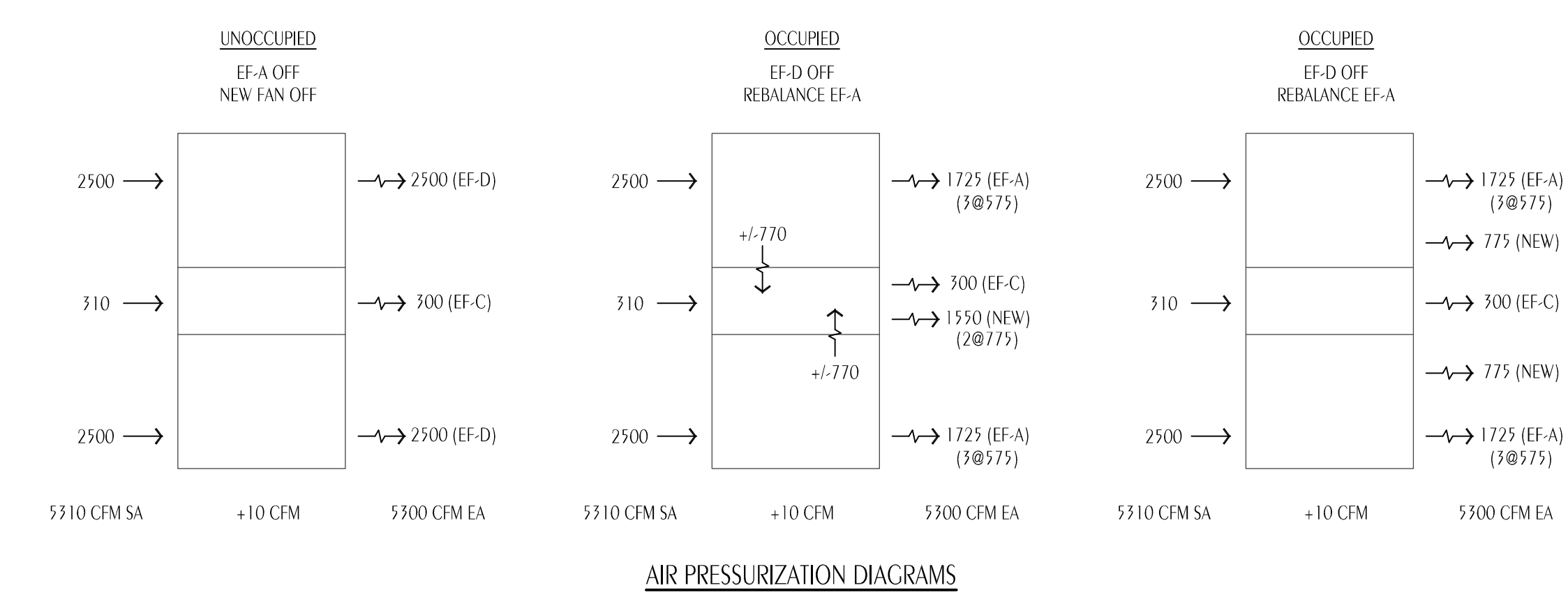
EXISTING AIR HANDLING UNIT 'AHU-1' AND EXISTING EXHAUST FAN 'EF-C' SHALL OPERATE CONTINUOUSLY DURING OCCUPIED AND UNOCCUPIED HOURS.

SIX (6) LABORATORY FUME HOOD EXHAUST FANS 'EF-A' AND NEW LABORATORY FUME HOOD EXHAUST 'EF-1' SHALL OPERATE CONTINUOUSLY ONLY DURING OCCUPIED HOURS.

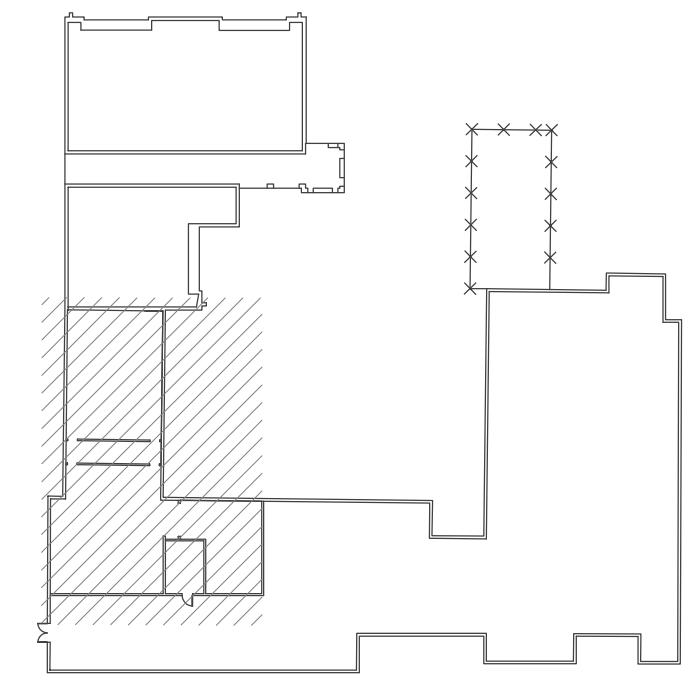
TWO (2) EXISTING GENERAL EXHAUST FANS 'EF-D' SHALL OPERATE CONTINUOUSLY ONLY DURING UNOCCUPIED HOURS.

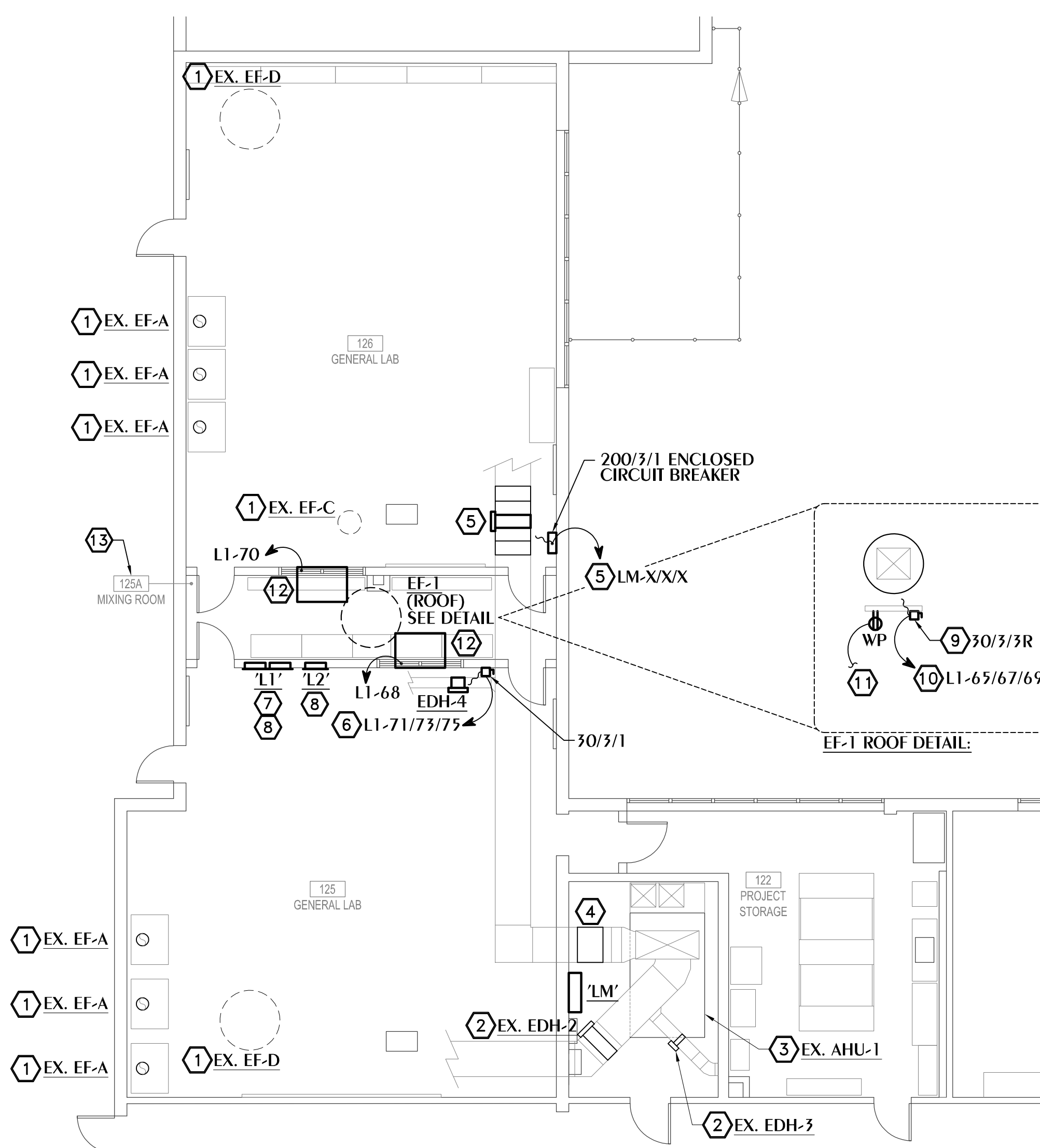
ALL NEW, RELOCATED, AND EXISTING ELECTRIC DUCT HEATERS SHALL OPERATE AS FOLLOWS:

REHEAT CONTROL: THE DDC SHALL STAGE THE ELECTRIC REHEAT CONTROL FOR EACH ZONE TO MAINTAIN ZONE TEMPERATURE SET POINT.



KEY PLAN - BLDG. D
 NO SCALE





1 ELECTRICAL NEW WORK POWER PLAN
 E100 SCALE: 1/8" = 1'-0"

SHEET NOTES

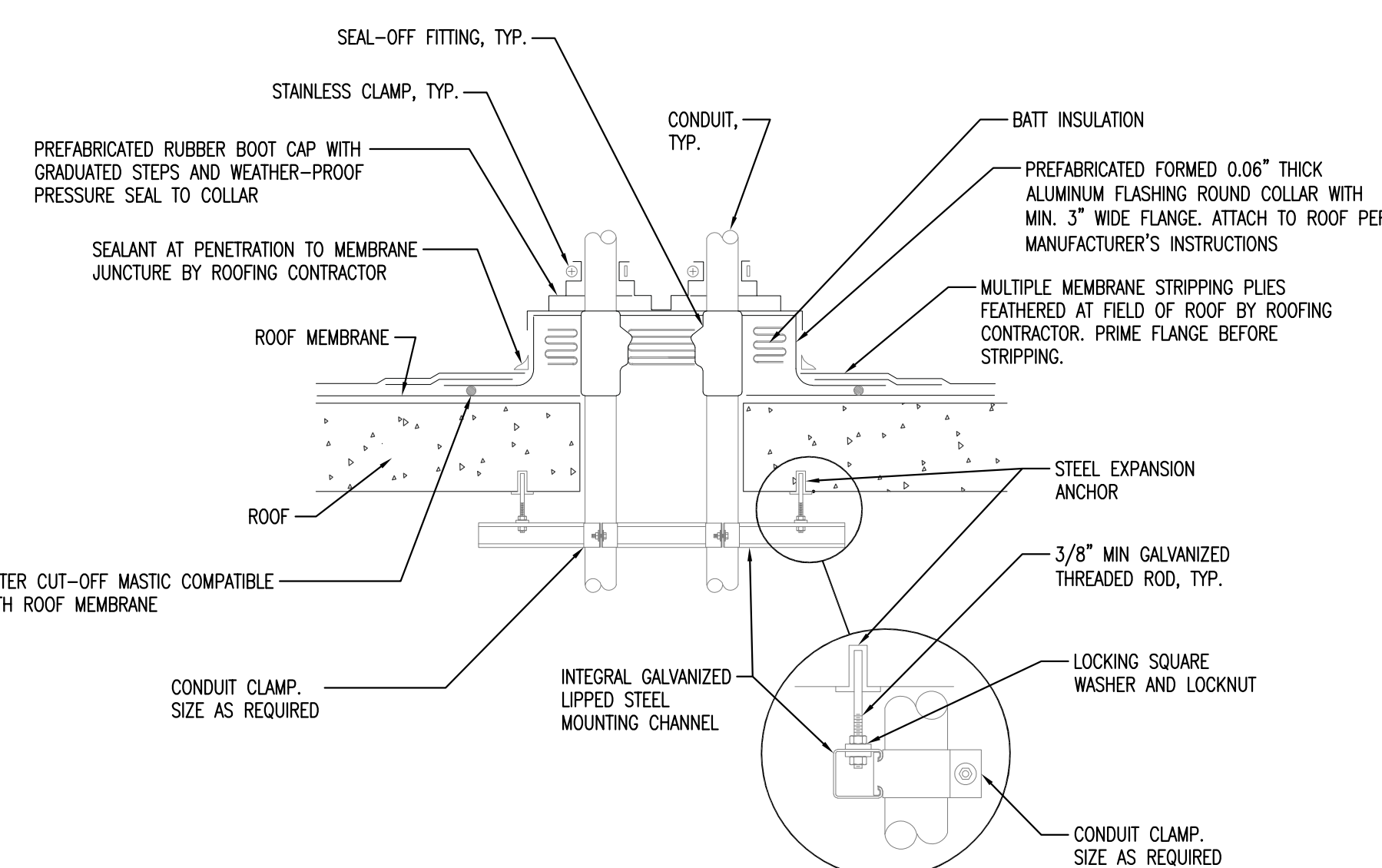
- 1 EXISTING EXHAUST FAN TO REMAIN. NO WORK.
- 2 EXISTING DUCT HEATER TO REMAIN. NO WORK.
- 3 EXISTING AIR HANDLING UNIT TO REMAIN. NO WORK.
- 4 EXISTING DUCT HEATER 'EDH-1' TO BE REMOVED FROM EXISTING DUCTWORK AND RELOCATED. EC TO ELECTRICALLY DISCONNECT DUCT HEATER TO ALLOW MECHANICAL CONTRACTOR TO REMOVE AND REINSTALL IN NEW LOCATION. EC TO REMOVE EXISTING CIRCUIT BACK TO SOURCE. EXISTING DUCT HEATER IS FED FROM 200/3 CIRCUIT BREAKER LOCATED IN EXISTING PANEL 'LM'. SEE NOTE #5, THIS SHEET.
- 5 RELOCATED DUCT HEATER TO BE INSTALLED BY MECHANICAL CONTRACTOR AND CONNECTED BY EC. EC TO INSTALL NEW 200/3 ENCLOSED CIRCUIT BREAKER IN NEMA 1 ENCLOSURE TO SERVE AS LOCAL DISCONNECT. COORDINATE WITH OWNER/MECHANICAL CONTRACTOR TO ENSURE THAT ENCLOSED CIRCUIT BREAKER IS MOUNTED IN A LOCATION ABOVE CEILING THAT WILL BE READILY ACCESSIBLE BY REMOVING A CEILING TILE, AND NOT IN CONFLICT WITH NEW OR EXISTING DUCTWORK. MOUNT ENCLOSED CIRCUIT BREAKER TO NEARBY CMU WALL IF POSSIBLE. EC TO PROVIDE ANY UNISTRUT OR OTHER STRUCTURE NEEDED FOR INSTALLATION. INSTALL 3#3/0, 1#6 GND, IN 2" CONDUIT FROM EXISTING 200/3 BREAKER IN PANEL 'LM' TO NEW DUCT HEATER LOCATION. COORDINATE NEW CONDUIT ROUTING WITH OWNER.
- 6 EC TO INSTALL NEW 30/3/1 NON-FUSED DISCONNECT IN ACCESSIBLE LOCATION ABOVE CEILING FOR NEW DUCT HEATER 'EDH-4'. DUCT HEATER TO BE FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR. EC TO MAKE ALL ELECTRICAL CONNECTIONS AND INSTALL 3#12, 1#12 GND, IN 3/4" CONDUIT FROM NEW DISCONNECT TO NEW 20/3 HACR BREAKER IN SPACES INDICATED OF EXISTING PANEL 'L1'. PRIOR TO ROUGH-IN, COORDINATE WITH MECHANICAL CONTRACTOR TO ENSURE THAT DISCONNECT CAN BE EASILY SWITCHED TO THE FULLY-ON OR FULLY-OFF POSITION WITHOUT CONFLICT WITH NEW OR EXISTING DUCTWORK UPON PROJECT COMPLETION. EC TO MOUNT NEW DISCONNECT TO NEARBY EXISTING CMU WALL IF POSSIBLE AND TO PROVIDE ANY UNISTRUT OR OTHER STRUCTURE NEEDED FOR INSTALLATION.
- 7 PER AS-BUILT DRAWINGS, EXISTING PANEL 'L1' IS SQUARE D, #NOOD, 225A, 120/208V, 3Ø, 4W, TWO SECTION PANELBOARD. WHERE NEW BREAKERS REQUIRED, EC TO FIELD VERIFY EXACT SIZE AND TYPE OF BREAKER REQUIRED.
- 8 EXISTING PANELBOARDS TO REMAIN. WHERE PANELBOARD COVERS EXHIBIT CORROSION OR FINISH DETERIORATION, CONTRACTOR SHALL REPLACE COVERS WITH NEW OEM UNITS. FIELD REFINISHING IS NOT ACCEPTABLE UNLESS APPROVED BY ENGINEER. REPLACEMENT COVERS SHALL MATCH EXISTING MANUFACTURER AND MODEL.
- 9 EC TO INSTALL 30/3/3R, NON-FUSED DISCONNECT FOR NEW ROOFTOP MOUNTED EXHAUST FAN 'EF-1' THAT IS TO BE FURNISHED/INSTALLED BY OTHERS. EC TO COORDINATE WITH MECHANICAL CONTRACTOR/EXHAUST FAN MANUFACTURER TO DETERMINE IF DISCONNECT SWITCH CAN BE MOUNTED DIRECTLY TO EXHAUST FAN OR CURB WITHOUT VOIDING EQUIPMENT WARRANTY. IF NOT, INSTALL UNISTRUT STRUCTURE PER DETAIL #4, THIS SHEET.
- 10 EC TO INSTALL 3#12, 1#12 GND, IN 3/4" CONDUIT FROM NEW 'EF-1' DISCONNECT SWITCH TO NEW 20/3 HACR BREAKER IN SPACES INDICATED OF EXISTING PANEL 'L1'. COORDINATE WITH OWNER FOR ROUTING OF NEW CONDUIT. PER MECHANICAL DESIGN, NEW EXHAUST FAN IS TO OPERATE CONTINUOUSLY DURING BUILDING OCCUPANCY. COORDINATE WITH MECHANICAL CONTRACTOR FOR CONTROLS INTERLOCK.
- 11 EC TO INSTALL WEATHERPROOF, GFCI, SERVICE RECEPTACLE IN EXTRA-DUTY RATED, IN-USE TYPE ENCLOSURE. CONNECT TO NEAREST 120V SOURCE, AHEAD OF LOCAL SWITCH, FOR POWER. SEE DETAIL #4, THIS SHEET.
- 12 EC TO INSTALL 2#12, 1#12 GND, IN 3/4" CONDUIT TO NEW 20/1 BREAKER IN SPACE INDICATED OF EXISTING PANEL 'L1' FOR NEW PASS-THROUGH FUME HOOD. PER MECHANICAL DESIGN, FUME HOOD WILL BE EXHAUSTED USING NEW EXHAUST FAN 'EF-1' WHICH IS TO OPERATE CONTINUOUSLY DURING BUILDING OCCUPANCY VIA DDC. EC TO COORDINATE WITH CONTROLS CONTRACTOR, AND TO FURNISH ALL REQUIRED RELAYS TO ALLOW FAN TO BE INTERLOCKED WITH BUILDING DDC CONTROL PANEL.
- 13 TO FACILITATE INSTALLATION OF PASS-THROUGH FUME HOODS AND NEW EXHAUST FAN DUCTWORK, THE CEILINGS AND PORTIONS OF THE WALLS OF 'MIXING ROOM 125A' ARE TO BE REMOVED BY OTHERS. EC TO COORDINATE WITH GC TO ENSURE THAT ANY ELECTRICAL, TELECOM, AND/OR FIRE ALARM CIRCUITS, LIGHTING FIXTURES, AND ANY FIRE ALARM/DATA/SECURITY DEVICES FOUND IN OR ABOVE CEILING ARE PROTECTED OR REMOVED DURING CONSTRUCTION AND REINSTALLED/RESTORED TO PRE-PROJECT FUNCTIONALITY UPON PROJECT COMPLETION. IF PARTIAL WALL DEMOLITION EXPOSES ELECTRICAL CIRCUITS OR REQUIRES THE REMOVAL OF RECEPTACLES, EC TO ENSURE THAT THE REMAINING PORTION OF THE AFFECTED CIRCUIT MAINTAINS CONTINUITY AND FUNCTIONALITY.

ELECTRICAL GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION. REFER TO 'A' DRAWINGS FOR REQUIRED RACEWAYS, EXACT SIZE, AND LOCATION OF EQUIPMENT WHICH IS FURNISHED BY OTHERS AND CONNECTED BY ELECTRICAL.
2. RECEPTACLES, SWITCHES AND COVERPLATES COLOR SHALL BE SELECTED BY THE ARCHITECT FROM STANDARD COLORS.
3. FINAL CONNECTION TO ALL MOTORS SHALL BE WITH FLEXIBLE CONDUIT CONNECTION.
4. ALL PANELBOARDS, BACKBOARDS, TERMINAL CABINETS, ETC., SHALL HAVE CUSTOM ENGRAVED MICARTA NAMEPLATE MECHANICALLY AFFIXED IDENTIFYING SYSTEM.
5. GENERAL CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING ANY WORK, AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. FAILURE TO DO SO INDICATES THAT THE CONTRACTOR ACCEPTS THE CONDITIONS AS THEY EXIST, AND SHALL PERFORM THE WORK REQUIRED AS SHOWN AND SPECIFIED.
6. THE ELECTRICAL CONTRACTOR SHALL OBTAIN AND REVIEW THE HVAC AND SPECIAL EQUIPMENT SUBMITTALS PRIOR TO SUBMITTING THE ELECTRICAL SUBMITTALS. ANY ELECTRICAL EQUIPMENT, CONDUIT, AND WIRE SIZE CHANGES RESULTING FROM THIS REVIEW SHALL ALSO BE SUBMITTED FOR APPROVAL.
7. FURNISH ALL EQUIPMENT AND LABOR, PERFORM ALL LABOR WITH SUPERVISION, BEAR ALL EXPENSES, AS NECESSARY FOR THE SATISFACTORY COMPLETION OF ALL WORK READY FOR OPERATION.
8. COMPLY WITH ALL LOCAL CODE, LAWS, AND ORDINANCES APPLICABLE TO ELECTRICAL WORK, THE STATE BUILDING CODE, 2020 NATIONAL ELECTRIC CODE, AND 2023 FBC 8TH EDITION. OBTAIN ALL PERMITS REQUIRED BY LOCAL ORDINANCES.
9. OBTAIN ARCHITECT'S/ENGINEER'S APPROVAL OF ALL LIGHT FIXTURES, SWITCHES, RECEPTACLES, PANELBOARDS, ETC., PRIOR TO PURCHASING.
10. TERMINATIONS FOR ALL EQUIPMENT SHOWN TO HAVE TEMPERATURE RATING OF 75deg C PER NEC 2020 ART. 110.14 & TABLE 310.15(B)16).
11. WHERE USED, PROVIDE MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE CIRCUIT BREAKERS SERVING MULTI-WIRE BRANCH CIRCUITS IN ACCORDANCE WITH NEC 210.4(B).

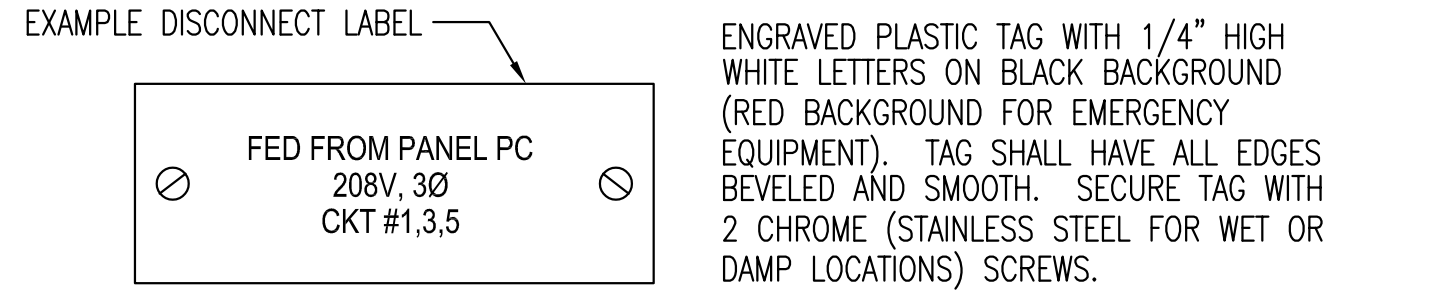
DEMOLITION NOTES

1. ALL EXISTING SYSTEMS AND CONDITIONS SHOWN ON THE PLANS ARE APPROXIMATE. THE EXISTING ELECTRICAL CIRCUITS OF POWER, RECEPTACLES, LIGHTING, ETC. BEING REMOVED MAY NOT BE SHOWN ON THESE DOCUMENTS, BUT ARE TO BE REMOVED AS REQUIRED TO BUILD THIS PROJECT AND TO PERMIT NEW FINISHES, WALLS, ETC. THE CONTRACTOR SHALL FIELD-VERIFY ALL CONDITIONS PRIOR TO BEGINNING ANY WORK AND SHALL NOTIFY THE ARCHITECT OF DISCREPANCIES. FAILURE TO DO SO INDICATES THAT THE CONTRACTOR ACCEPTS THE CONDITIONS AS THEY EXIST AND SHALL PERFORM ANY ADDITIONAL WORK NECESSARY TO PERFORM THE WORK AS SHOWN AND SPECIFIED.
2. IF A DEVICE IS BEING REMOVED AND THE CIRCUIT FEEDS OTHER LOADS FROM THE DEVICE, THEN THE WIRING SHALL BE MADE CONTINUOUS TO THE REMAINING LOADS. NO CIRCUIT CONTINUITY SHALL BE LOST.
3. IF A DEVICE IS BEING REMOVED AND NOT PART OF A DEMO WALL, THAT LOCATION SHALL BE RESTORED TO MATCH ADJACENT SURFACE.
4. REMOVE ALL DISCONNECTS, WIRING, AND CONDUITS SERVING MECHANICAL EQUIPMENT BEING REMOVED OR RELOCATED.
5. CONTRACTOR TO REMOVE ALL CONDUITS, AND ASSOCIATED WIRING FROM DEVICES BEING REMOVED BACK TO PANEL UNLESS NOTED OTHERWISE. WHEN ALL LOADS ON EXISTING BREAKERS ARE REMOVED, RELABEL BREAKER AS 'SPARE'.

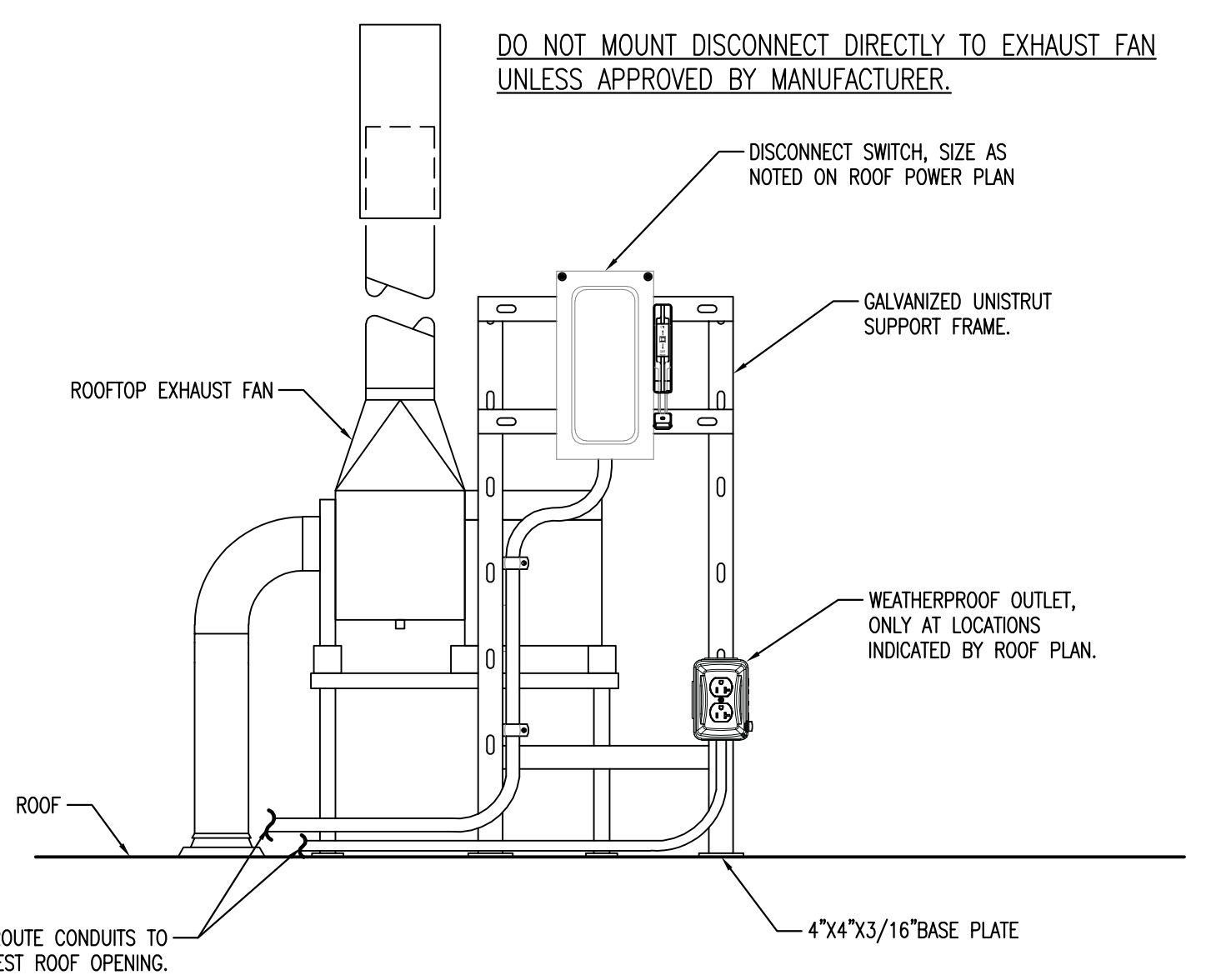


- NOTE:**
1. MAINTAIN A MINIMUM CLEARANCE OF 12" ON ALL SIDES OF ROOF PENETRATION FROM WALLS, CURBS, AND OTHER PROJECTIONS TO FACILITATE PROPER FLASHING.
 2. FLANGES OF ADJACENT FLASHINGS SHALL NOT BE CUT OR OVERLAPPED
 3. VERIFY ROOF AND STRUCTURAL SYSTEM WITH ARCHITECT.
 4. COORDINATE FLASHING INSTALLATION WITH ROOFING CONTRACTOR TO ENSURE PROPER METHODS AND MATERIALS ARE USED TO MAINTAIN ROOF WARRANTY.

2 ROOF PENETRATION DETAIL
 E100 SCALE: NONE



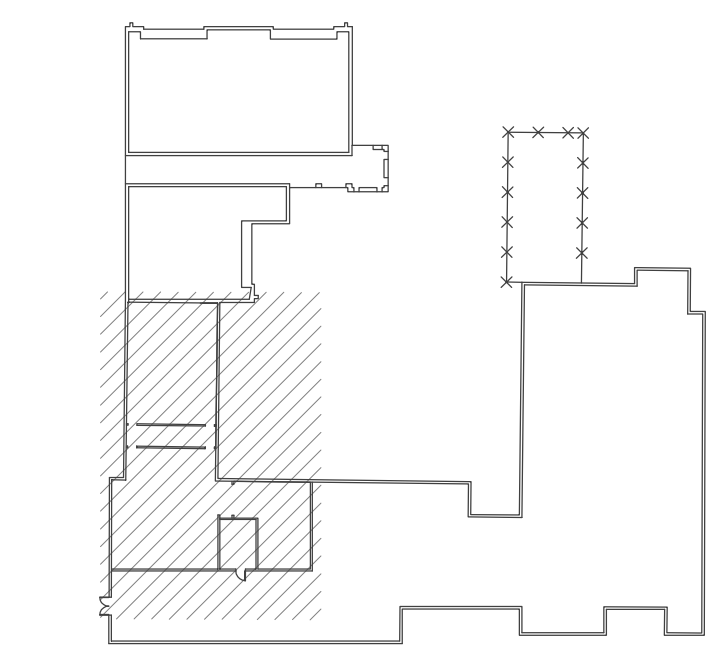
3 TYPICAL DISCONNECT LABELING DETAIL
 E100 SCALE: NONE



4 ROOF MOUNTED DISCONNECT SWITCH DETAIL
 E100 SCALE: NONE

ELECTRICAL LEGEND

- PANELS AND POWER**
- 120/208 VOLT PANELBOARD
 - EXISTING 120/208 VOLT PANELBOARD
 - NON-FUSIBLE DISCONNECT SWITCH, XX/YY/Z WHERE X INDICATES AMPERAGE, Y INDICATES # OF POLES, AND Z INDICATES NEMA RATING
- WALL OUTLETS**
- WP-20 DUPLEX WEATHER-RESISTANT (WR) RECEPTACLE - 20 AMP, 125 VOLT, GFI, 2 POLE, 5 WIRE GROUNDING TYPE, NEMA 5-20R, MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE; PROVIDE WEATHERPROOF BOX FOR RECEPTACLE. DEVICE MUST COMPLY WITH NEC 406.9
- BRANCH CIRCUITING**
- RUN CONCEALED UNDER FLOOR OR IN GRADE
 - RUN CONCEALED IN CEILING OR WALLS
 - HOMERUN TO PANEL ANY CIRCUIT WITHOUT FURTHER IDENTIFICATION INDICATES 2#12, 1#12 GROUND - 3/4" C.; 3#12, 1#12 GROUND - 3/4" C.; 4#12, 1#12 GROUND - 3/4" C. ETC. AS PER NEC. LETTERS AND NUMERALS INDICATE PANEL AND CIRCUIT NUMBER.
 - LIQUID-TIGHT FLEXIBLE CONDUIT CONNECTION
 - SURFACE MOUNTED CONDUIT, RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES



KEY PLAN - BLDG. D
 NO SCALE



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 Florida Certificate of Authorization: 27825

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Construction Documents

Chipola College
**BUILDING D SCIENCE LAB
 FUME HOOD ADDITIONS**
 3094 Indian Circle
 Marianna, FL 32446

No.	Description	Date

PROJECT NUMBER: 2026-009
 DATE: 5/21/2026
 DRAWN BY: SBH
 DESIGNED BY: ALD

**ELECTRICAL GENERAL
 NOTES AND NEW WORK
 POWER PLAN**