

# UNIVERSITY OF TEXAS PERMIAN BASIN STC LECTURE HALL-FINISH OUT



2 UTPB CAMPUS - AERIAL VIEW



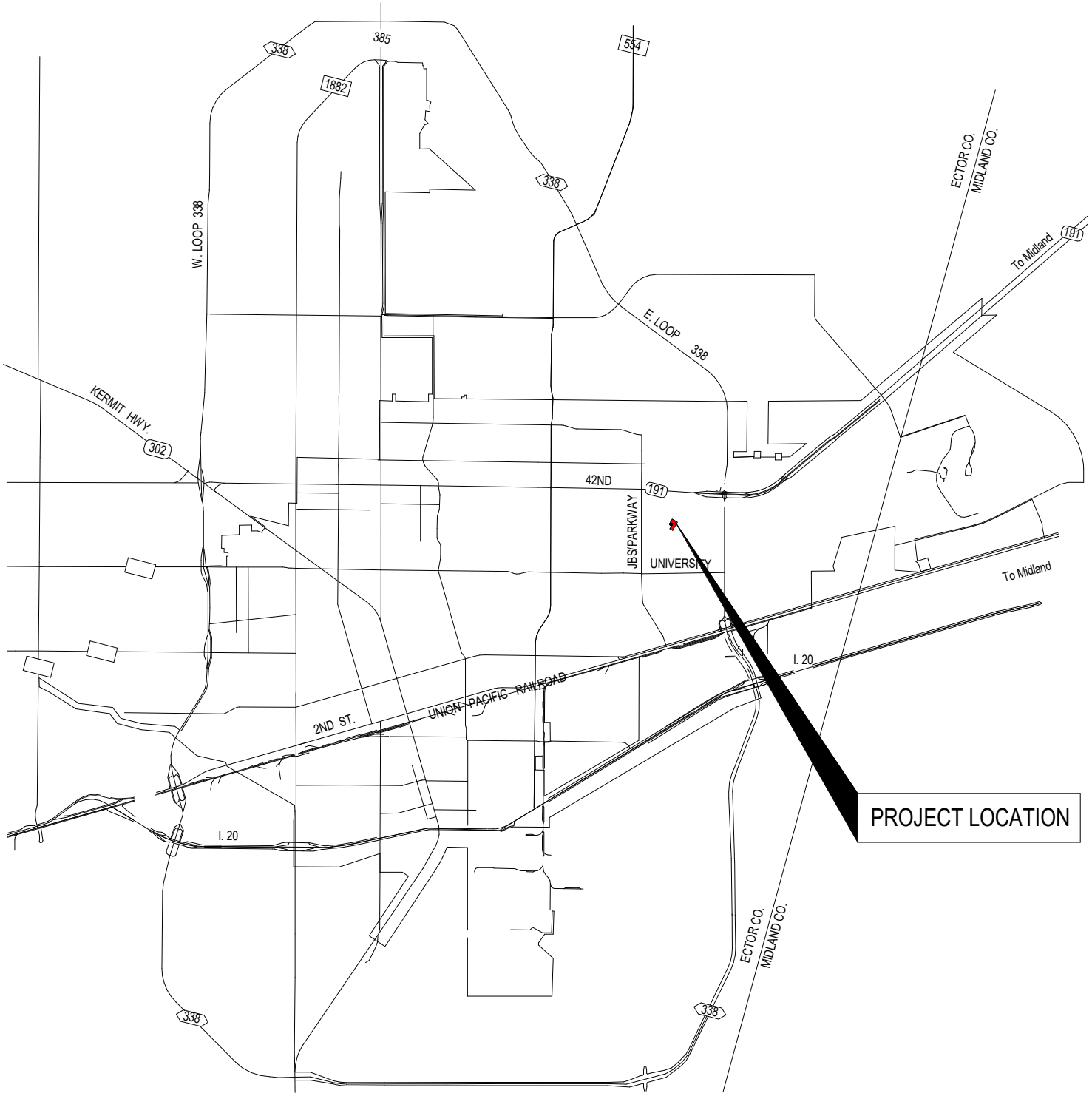
## Design Team

Agnew Associates, Inc.  
MPE Engineers  
Lubbock, Texas

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1 VICINITY MAP



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UNIVERSITY OF TEXAS PERMIAN BASIN  
STC LECTURE HALL-FINISH OUT  
PRESTON SMITH RD.  
ODESSA, TX 79762



Issue / Revisions:	No.	Date	Description
	1	04/18/22	100% CONSTRUCTION DOCUMENTS
	2		
	3		
	4		
	5		
	6		



COVER

G0.0



## 5 FLOOR PLAN - INTERIOR FINISHES

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

## 4 REFLECTED CEILING PLAN

## MATERIAL/FINISH NOTES

1. REFER TO INTERIOR ELEVATIONS IN ORDER TO LOCATE THE PAINTED SURFACES, ANY WALL PANELS ADDED TO THE FINISHED WALL SHALL BE MOUNTED AS INDICATED BY THE MANUFACTURE'S RECOMMENDATIONS.
2. REFER TO MATERIAL/ FINISH KEY TABLE FOR FINISH CODE DESCRIPTION.
3. DIRECT GLUE ALL CARPET EXCEPT OTHERWISE NOTED.

## ROOM FINISHES SCHEDULE

ROOM NUMBER	ROOM NAME	FLOOR	BASE	WALLS				WAINSCOT		CEILING TYPE	MILLWORK		NOTES
				NORTH	EAST	SOUTH	WEST	WNSCT	HEIGHT		CAB/SHELVES	CTR/TP/ SPLASH	
1102	DEMONSTRATION LAB	CPIT	RB-1	PT-1	PT-1	PT-1	PT-1	AWP-PW	VARIES	ACP-1			

**MATERIAL/FINISH KEY**

FINISH CODE	DESCRIPTION	CONTACT INFO
FLOORS		
CP1T	CARPET TILE.	
LVT-1	LUXURY VINYL TILE	
SW-1	STAR NOSING.	
BASE		
RB-1	RUBBER BASE COVE.	
WALLS		
AWP	ACOUSTICAL WALL PANEL FABRIC COVERED.	
AWP-PW	ACOUSTICAL WALL PANELS PREFINISHED.	
PT-1	PAINT TYPICAL. SHERWIN WILLIAMS.	
CEILING		
ACP-1	ACOUSTICAL CEILING PANEL.	
CABINETS/MILLWORK/SHELVES		
PL-1	PLASTIC LAMINATE/MILLWORK: WILSONART, 7576K-12, PREMIUM LAMINATE, MISSION MAPLE; FINE VELVET TEXTURE FINISH	
OTHER		
T-1	CERAMIC TILE TO VCT TRANSITION; SCHLUTER RENO-TK, CLEAR ANODIZED ALUMINUM.	
T-2	CARPET TILE TO VCT TRANSITION;	
T-3	CARPET TILE TO CERAMIC TILE.	

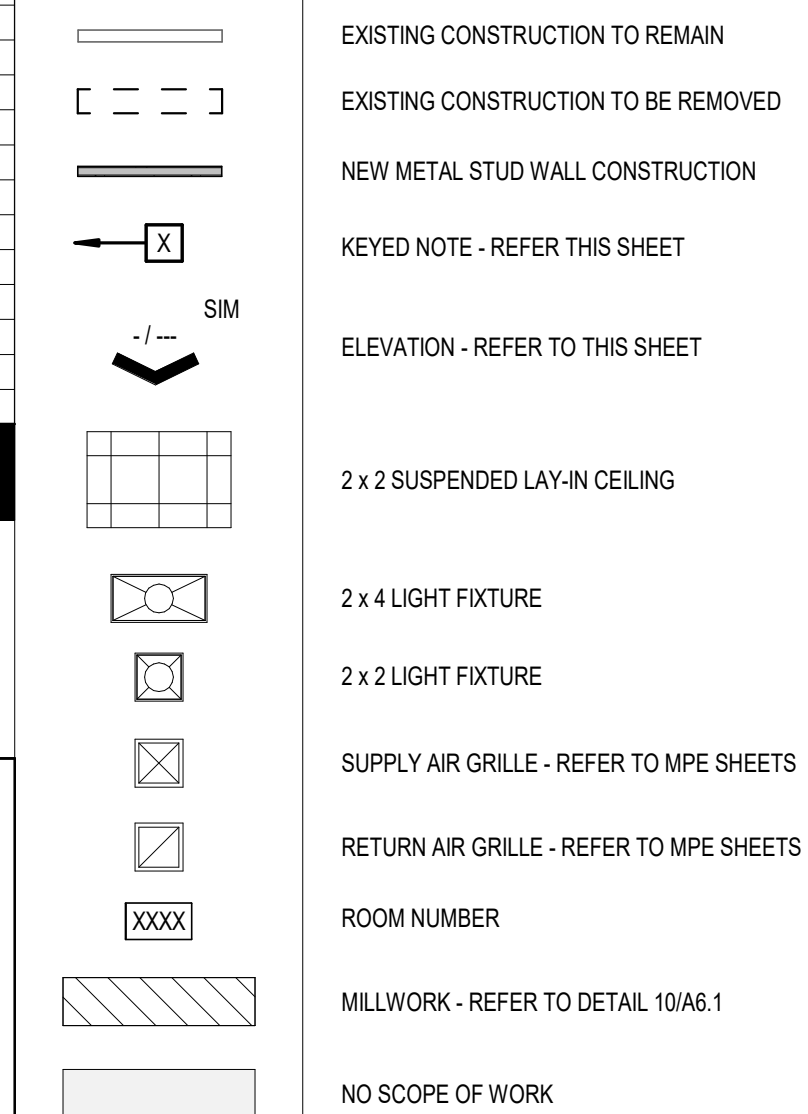
### MATERIAL/FINISH LEGEND



## GENERAL NOTES

- |    |   |
|----|---|
| A. | THE FOLLOWING NOTES APPLY TO ALL PLAN SHEETS.   |
| B. | CONTRACTOR SHALL VERIFY EXISTING CONSTRUCTION AND SHALL REPORT ANY DISCREPANCY TO THE ARCHITECT FOR CORRECTION BEFORE PROCEEDING WITH CONSTRUCTION.   |
| C. | BLOCKING SHALL BE REQUIRED IN ALL STUD WALLS TO RECEIVE ANY ITEMS REQUIRING A SECURE ANCHOR.  |
| D. | THE GENERAL CONTRACTOR WILL BE REQUIRED TO COORDINATE ALL TRADES AS NECESSARY TO INSTALL HANGING DEVICES FOR INSTALLATION OF ALL PIPING, MECHANICAL AND ELECTRICAL SYSTEMS.   |
| E. | REFER TO MPE SHEETS FOR ADDITIONAL REQUIREMENTS.  |
| F. | ANY EXPOSED FASTENERS TO MATCH ADJOINING SURFACES UNLESS NOTED OTHERWISE. ALL SPEAKERS, COVER PLATES, FIRE EQUIPMENT CABINETS, ACCESS DOORS, GRILLES, REGISTERS, AND ANY OTHER HANGING DEVICES REQUIRED. JOE FINISH TO MATCH COLOR. |

### PLAN LEGEND



X KEYED NOTES

- 1 REMOVE EXISTING WALL.
- 2 REMOVE ALL VCT FLOORING AND COVER RUBBER SHEA.
- 3 PROTECT EXISTING FIRE ALARM PULL STATION DURING CONSTRUCTION.
- 4 PROJECT EXISTING PROJECT SCREEN SWITCH TO BE REMOVED. PROVIDE BLANK PLATE COVER OVER EXISTING WALL BOX.
- 5 PROJECT EXISTING THERMOSTAT DURING CONSTRUCTION.
- 6 EXISTING CEILING PROJECTOR MOUNT TO BE RELOCATED. REFER TO ELECTRICAL FOR LOCATION.
- 7 EXISTING PROJECTION SCREEN TO BE REMOVED BY OWNER.
- 8 NEW TAPE, BED, AND FINISH TEXTURE THROUGHTOUT ALL WALL SURFACE. FINISH COLOR REFER TO INTERIOR FINISH TABLE.
- 9 DEMONSTRATION BENCH WITH EPOXY RESIN TOP AND INTEGRAL SINK.
- 10 12" DIAMETER UPRIGHT RODS WITH TWO HORIZONTAL RODS.
- 11 DOUBLE TURRET.
- 12 MARKER BOARD, REFER TO INTERIOR ELEVATION IN THIS SHEET FOR SIZE AND DISTANCE A.F.F.
- 13 PAPER TOWEL DISPENSER MOUNTED ON BENCH.
- 14 REFER TO MATERIAL/ FINISH KEY.
- 15 AUDIO/ VISUAL MOBILE STATION.
- 16 ACCESSIBLE SEATING LOCATION.
- 17 FIRE EXTINGUISHER CABINET.
- 18 REMOVE A SEGMENT OF THE EXISTING CONCRETE TO RUN NEW 2" ELECTRICAL CONDUIT TO THE DEMONSTRATION TABLE. PATCH CONCRETE AND MAKE FLUSH.
- 19 TABLE PROVIDED BY OWNER.
- 20 ELECTRICAL CONDUIT, REFER TO DETAIL 5/6-1.
- 21 PROJECT FIRE ALARM DEVICE DURING CONSTRUCTION.
- 22 NEW BLACK OUT WINDOW SHAD AND OPENINGS.
- 23 HEIGHT CHANGE, TEACHER STATION REFER INTERIOR ELEVATION 5/6-1.
- 24 NEW LVT FLOORING AND COVER RUBBER SHEA.
- 25 NEW PROJECTION SCREEN PROVIDED BY OWNER. COORDINATE WITH OWNER.
- 26 RCP TO GO AROUND PROJECTION SCREEN CASING.
- 27 BLACKOUT SHADES AT GLAZING AREA.
- 28 NEW SCREEN PROJECTOR. REFER TO ELECTRICAL.
- 29 CEILING MOUNTED CAMERA.
- 30 CEILING MOUNTED SPEAKERS.
- 31 2X2 SUSPENDED CEILING TILES TO BE CONTINUED.
- 32 RE-CONFIGURE CEILING GRID, AND RE-INSTALL EXISTING RETURN GRILL, AIR SUPPLY, LIGHTING, AND 2X2 SUSPENDED CEILING TILES.
- 33 3/8" METAL STUD WALL WITH 5/8" GYPSUM BOARD BOTH SIDES WILL EXTEND 6" MIN. ABOVE CEILING.

### 3 FLOOR PLAN - NEW

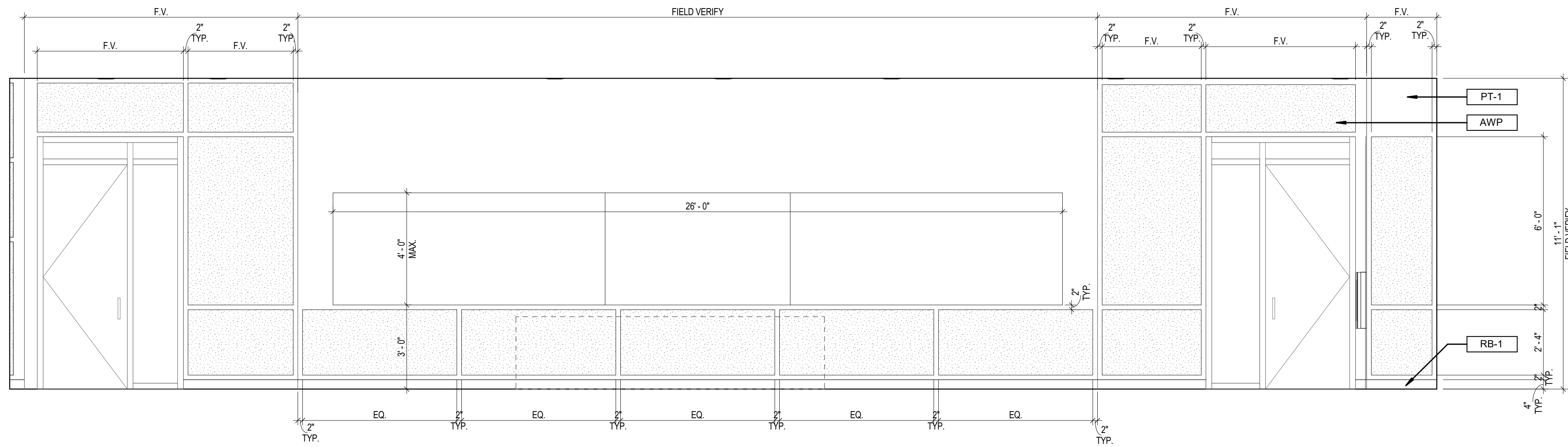
SCALE: 1/4" = 1'-0"

**2 REFLECTED CEILING PLAN - DEMOLITION**  
SCALE: 1/4" = 1'-0"

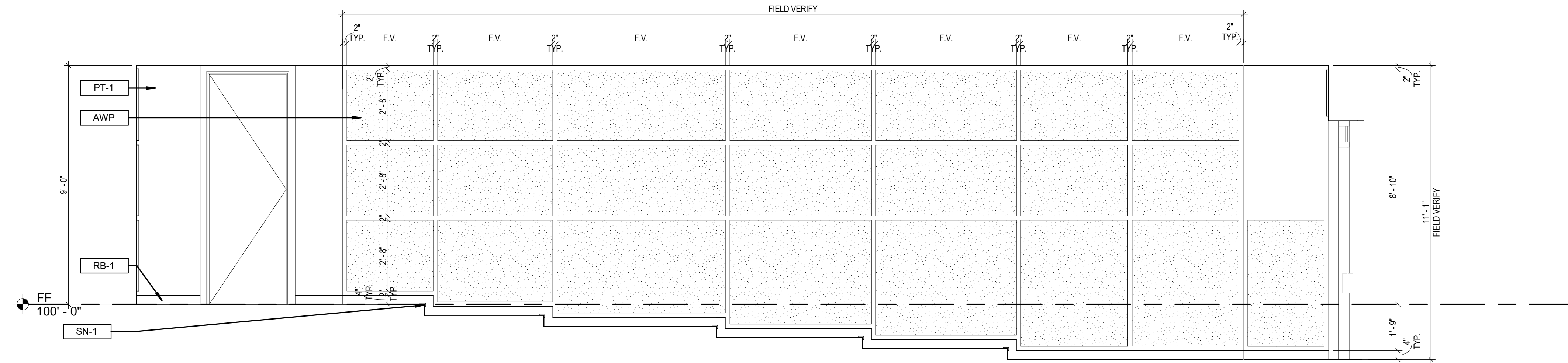
**1 FLOOR PLAN - DEMOLITION**  
SCALE: 1/4" = 1'-0"



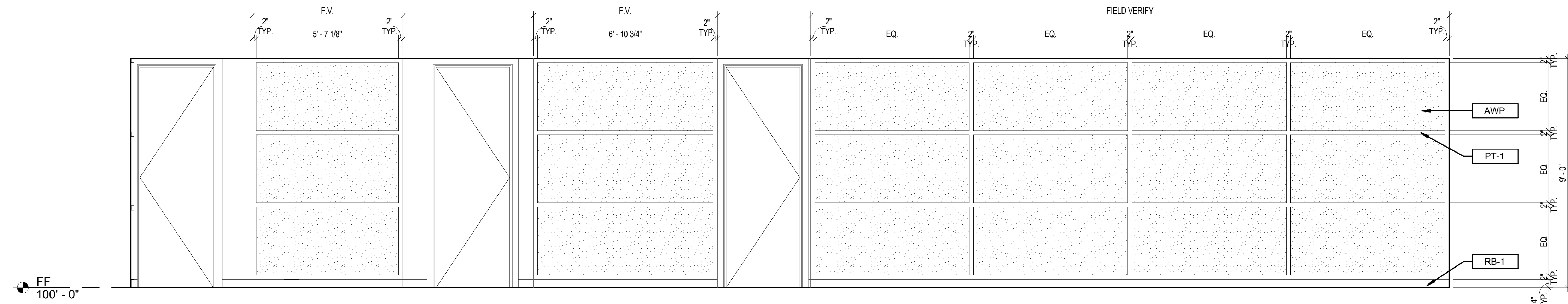
5/16/2022 10:26:44 AM D:\300\2021-28\UTPR STC Lecture Hall Floor 04/20/21-28\UTPR STC Lecture Hall Floor 04.rvt



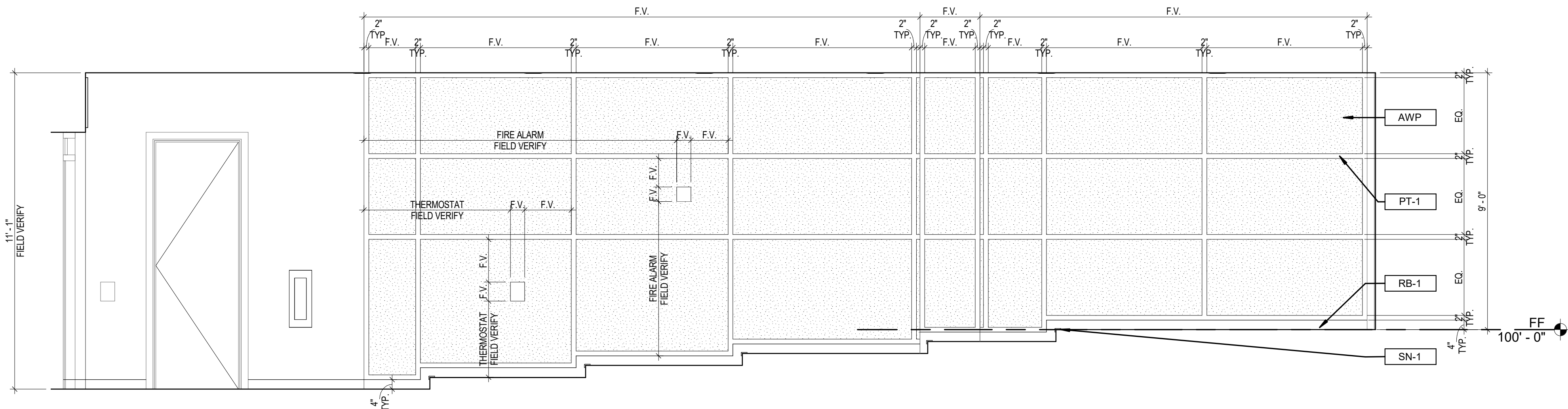
1 INTERIOR ELEVATION - NORTH  
SCALE: 3/8" = 1'-0"



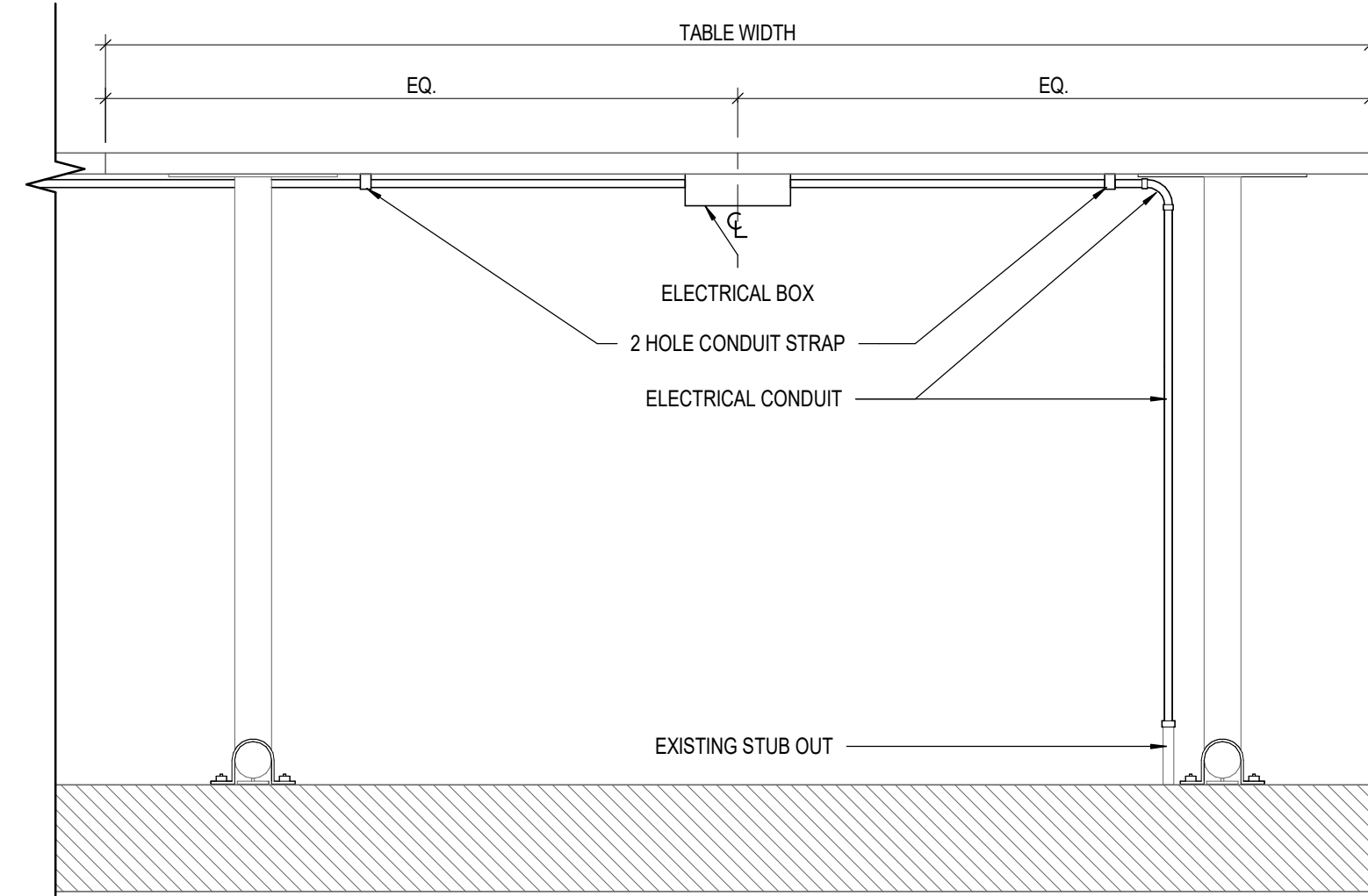
2 INTERIOR ELEVATION - WEST  
SCALE: 3/8" = 1'-0"



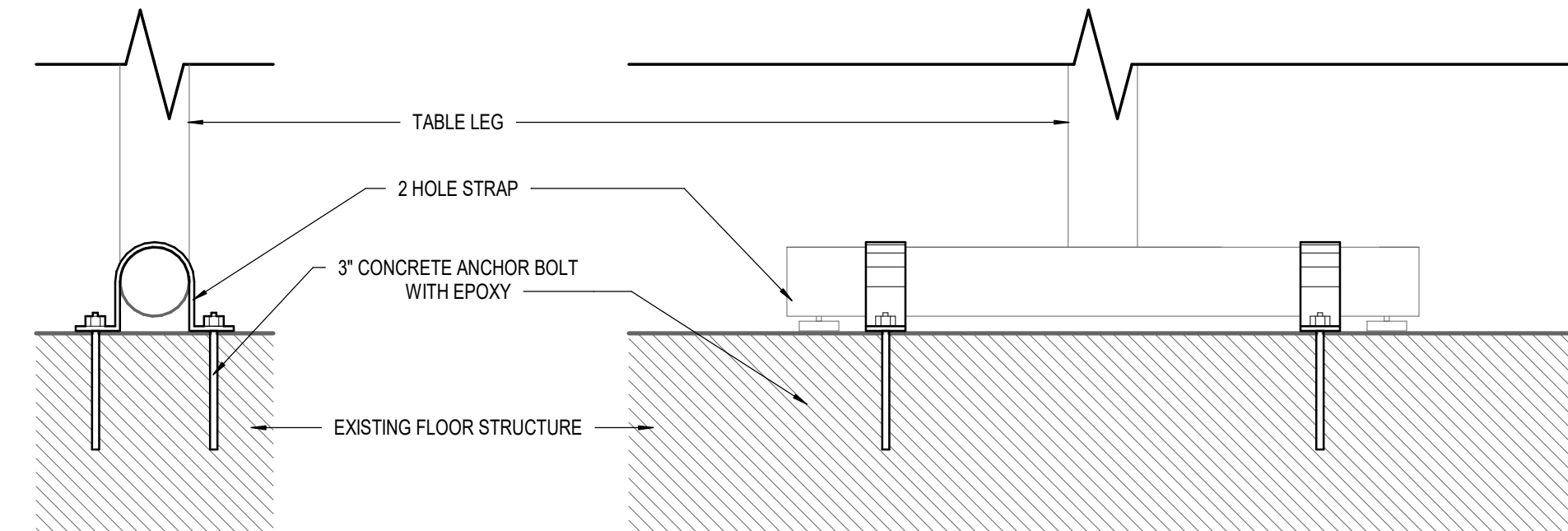
3 INTERIOR ELEVATION - SOUTH  
SCALE: 3/8" = 1'-0"



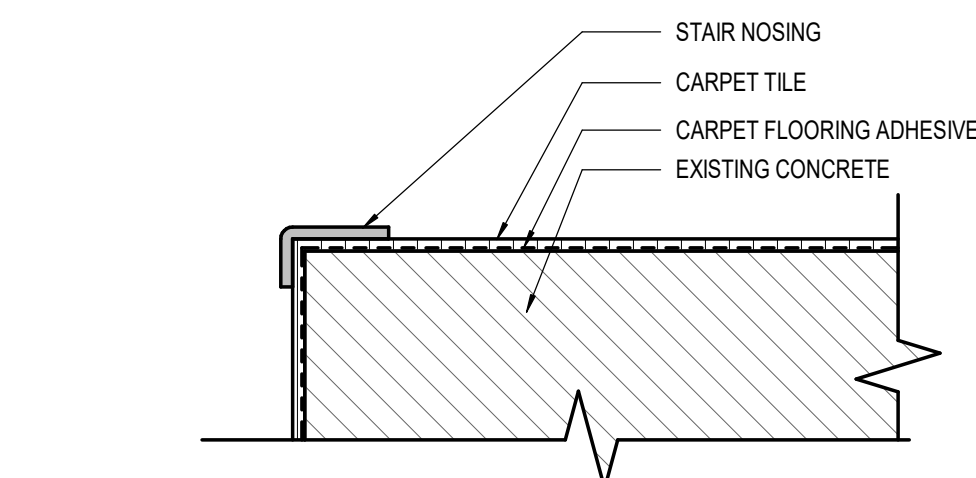
4 INTERIOR ELEVATION - EAST  
SCALE: 3/8" = 1'-0"



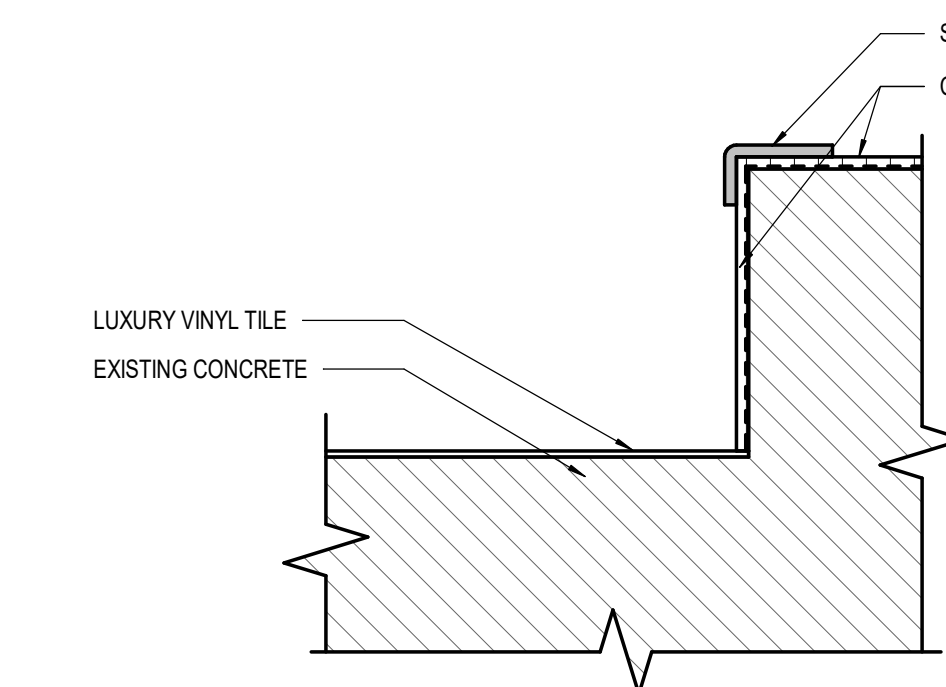
5 TABLE POWER SUPPLY  
SCALE: 1 1/2" = 1'-0"



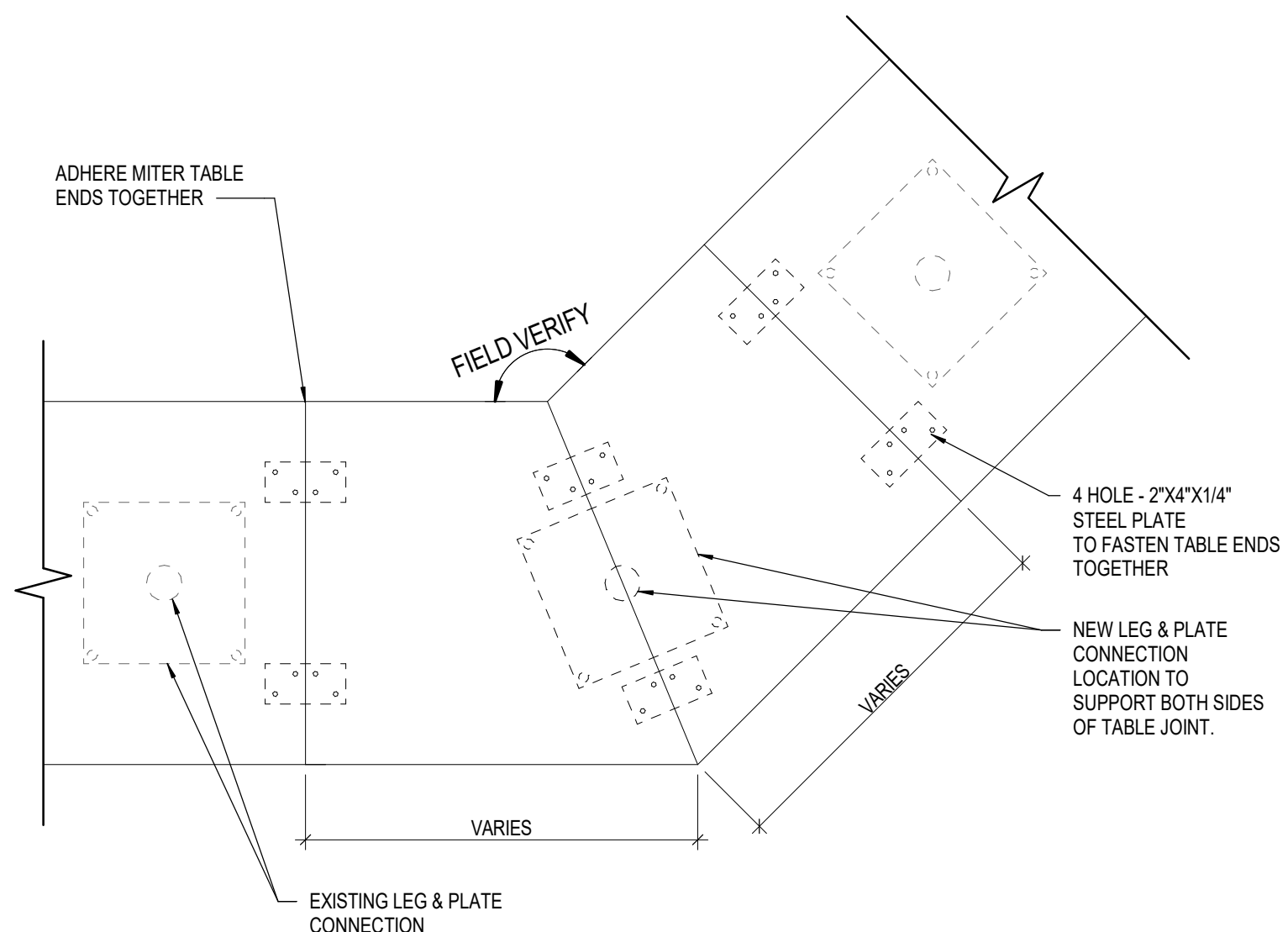
6 TABLE LEG ANCHOR  
SCALE: 3" = 1'-0"



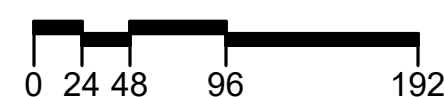
7 STAIR NOSING  
SCALE: 3" = 1'-0"



8 FLOORING TRANSITION  
SCALE: 3" = 1'-0"



9 TABLE VERTEX CONNECTION  
SCALE: 1 1/2" = 1'-0"







MECHANICAL ABBREVIATIONS			
ABBREV	DESCRIPTION	ABBREV	DESCRIPTION
AHV	AUTOMATIC AIR VENT ASSEMBLY	ID	INSIDE DIAMETER
ABV	ABOVE	IE	INVERT ELEVATION ( FLOW LINE)
A/C	AIR CONDITIONED	IN	INCHES
AD	ACCESS DOOR	INSUL	INSULATION
AF	AIR FLOW	IN WG	INCHES OF WATER
AFB	ABOVE FINISHED CEILING	KW	KILOWATT(S)
AFI	ABOVE FINISHED FLOOR	L	LONG LENGTH
AFG	ABOVE FINISHED GRADE	LAT	LEAVING AIR TEMPERATURE
AHU	AIR HANDLING UNIT	LAV	LAV OR LAVATORY
AMCA	AMERICAN INSTITUTE STANDARD INSTITUTE	LB	POUND
AM	AIR MOVING AND CONDITIONING ASSOCIATION	LINE FT	LINEAL FEET
AP	ACCESS PANEL	LPG	LIQUID PROPANE GAS
APPROX	APPROXIMATE	LRA	LOCKED ROTOR AMPS
ARCH	ARCHITECTURAL	LVR	LOUVER
ARI	AIR CONDITIONING & REFRIGERATION INSTITUTE	MAX	MAXIMUM
ASNE	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	MBD	MANUAL BALANCING DAMPER
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS	MBH	THOUSAND BTU / HR
AUX	AUXILIARY	MECH	MECHANICAL
		MO	NATURAL GAS (MEDIUM PRESSURE)
B	BOILER	MIN	MINIMUM
BCU	BLOWER COIL UNIT	MS	MOTOR STARTER
BD	BACK DRAFT DAMPER	NA	NOT APPLICABLE
BFC	BELOW FINISHED CEILING	NC	NORMALLY CLOSED
BFF	BELOW FINISHED FLOOR	NC	NOT IN TRACT
BFG	BELOW FINISHED GRADE	NO	NORMALLY OPEN
BFP	BACKFLOW PREVENTER	NTS	NOT TO SCALE
BHP	BRAKE HORSEPOWER	OA	OUTSIDE AIR
BIC	BACKWARD INCLINED	OAI	OUTSIDE AIR INTAKE HOOD
BLDG	BUILDING	OD	OPPOSED BLADE DAMPER
BOB	BOTTOM OF DUCT	OC	ON CENTER
BOF	BOTTOM OF PIPE	OD	OUTSIDE DIAMETER
BSMT	BASEMENT	PBD	PARALLEL BLADE DAMPER
BTU	BRITISH THERMAL UNIT	PCHP	PRIMARY CHILLED WATER PUMP
		PCHR	PRIMARY CHILLED WATER RETURN
CD	CONDENSATE DRAIN LINE OR CONTROL DAMPER	PCHS	PRIMARY CHILLED WATER SUPPLY
CFH	CUBIC FEET PER HOUR	PD	PRESSURE DROP
CFM	CUBIC FEET PER MINUTE	PH	PHASE
CH	CHILLER	PHL	PRESSURE HIGH LIMIT
CHP	CHILLED WATER PUMP	PLUMB	PLUMBING
CHR	CHILLED WATER RETURN	PNL	PANEL
CHS	CHILLED WATER SUPPLY	PPM	PARTS PER MILLION
CIRC	CIRCULATING	PRESS	PRESSURE
CL	CENTER LINE	PRV	POWER ROOF VENTILATOR
CLG	CEILING	PSIG	PRESSURE REDUCING VALVE
CM	CONSTRUCTION MANAGER	PSIG	POUND PER SQUARE INCH. (GAUGE)
CMU	CONCRETE MASONRY UNIT	QTY	QUANTITY
CO	CLEANOUT	RA	RETURN AIR
CONC	CONCRETE	RAG	RETURN AIR GRILLE
COND	CONDENSATE	RAH	RELIEF AIR HOOD
CONN	CONNECTION	REF	REFER
CONT	CONTINUATION	REQD	REQUIRED
CR	CONDENSATE RETURN	REV	REVISED OR REVISIONS
CRAC	COMPUTER ROOM AIR CONDITIONER	RH	RELATIVE HUMIDITY
CRH	COMPUTER ROOM AIR HANDLER	RHC	REHEAT COIL
CT	COILING TOWER	RM	ROOM
CWR	CONDENSING WATER RETURN	RPM	REVOLUTION PER MINUTE
CWS	CONDENSING WATER SUPPLY	RTU	ROOM T.O.P UNIT
CUS	CONDENSING UNIT	RVV	POWER ROOF VENTILATOR
CV	CONTROL VALVE	SA	SUPPLY AIR
CW	DOMESTIC COLD WATER	SAF	SUPPLY FAN
D	DRAIN	SCH	SCHEDULE
DB	DRY BULB	SCHP	SECONDARY CHILLED WATER PUMP
DEG	DEGREES	SD	SMOKE DAMPER
DG	DOOR GRILLE	SEC	SECOND
DN	DIA	SECT	SECTION
DIFF	DIFFUSER	SF	SQUARE FOOT
DMFR	DAMPER	SHT	SHEET
DNG	DOWN	SQ	SQUARE
DX	DIRECT EXPANSION	SS	SERVICE SINK, STAINLESS STEEL OR SANITARY SEWER
EA	EACH OR EXHAUST AIR	STD	STANDARD
EAG	EXHAUST GRILLE	STM	STEAM
EAT	ENTERING AIR TEMPERATURE	SURF	SURFACE
EDH	ELECTRIC DUCT HEATER	SUSP	SUSPEND OR SUSPENDED
EF	EXHAUST FAN	SW	SOFTENED WATER
EH	EXHAUST HOOD	SYS	SYSTEM
ELEC	ELECTRICAL	TEMP	TEMPERATURE
ELEV	ELEVATION	THL	TEMPERATURE HIGH LIMIT
EMERG	EMERGENCY	TLL	TEMPERATURE LOW LIMIT
ENT	ENTERING	TLP	TOTAL PRESSURE
EQ	EQUIPMENT	TSP	TOTAL STATIC PRESSURE
ESP	EXTERNAL STATIC PRESSURE	TSTAT	THERMOSTAT
EWT	ENTERING WATER TEMPERATURE	TU	TERMINAL UNIT
EVAP	EVAPORATOR	TXV	THERMOSTATIC EXPANSION VALVE
EX	EXISTING	TYP	TYPICAL
EXH	EXHAUST	UF	UNDERFLOOR
F	DEGREES FAHRENHEIT OR FIRE LINE	UH	UNDERGROUND
F	DEGREES FAHRENHEIT	UG	UNIT HEATER
FCU	FAN COIL UNIT OR FURNACE & COIL UNIT	UNO	UNLESS OTHERWISE NOTED
FD	FIRE DAMPER	V	VOLTS
FLEX	FLEXIBLE	VAV	VARIABLE AIR VOLUME
FLG	FLANGE	VB	VALVE BOX OR VACUUM BREAKER
FLR	FLOOR	VEL	VELOCITY
FM	FACTORY MUTUAL	VENT	VENTILATE
FO	FLAT OVAL DUCT	VERT	VERTICAL
FPB	FAN-POWERED BOX	VF	VENTILATION FAN
FPM	FOOT PER MINUTE	VOL	VOLUME
FS	FLOW SWITCH	VTR	VENT THRU ROOF
FT	FEET, FOOT		
G	NATURAL GAS (LOW PRESSURE)		
GAL	GALLON	W	WASTE OR WIDE, WIDTH
GALV	GALVANIZED	W	WITH
GC	GENERAL CONTRACTOR	WO	WITHOUT
GPM	GALLON PER HOUR	WB	WET BULB
H	HIGH, HEIGHT	WG	WATER GAUGE
HB	HOSE BIBB	WT	WEIGHT
HD	HEAD IN FEET		
HQA	HAND-OFF AUTO		
HP	HORSE POWER OR HEAT PUMP		
HR	HOUR		
HW	DOMESTIC HOT WATER		
HWP	HEATING WATER PUMP		
HVAC	HEATING / VENTILATING / AIR CONDITIONING		
HZ	HERTZ	Δ	DELTA
		Ø	PHASE OR ROUND

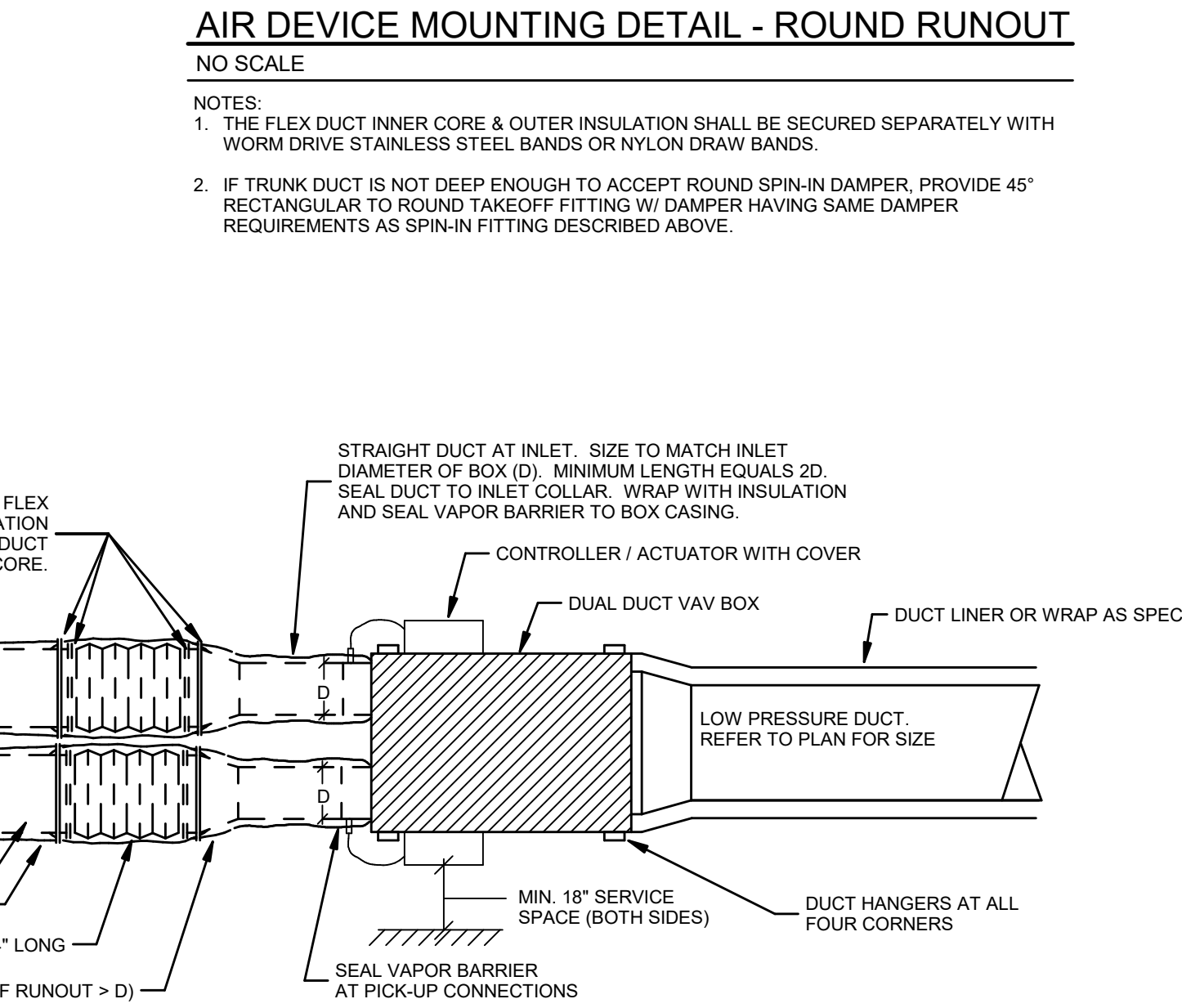
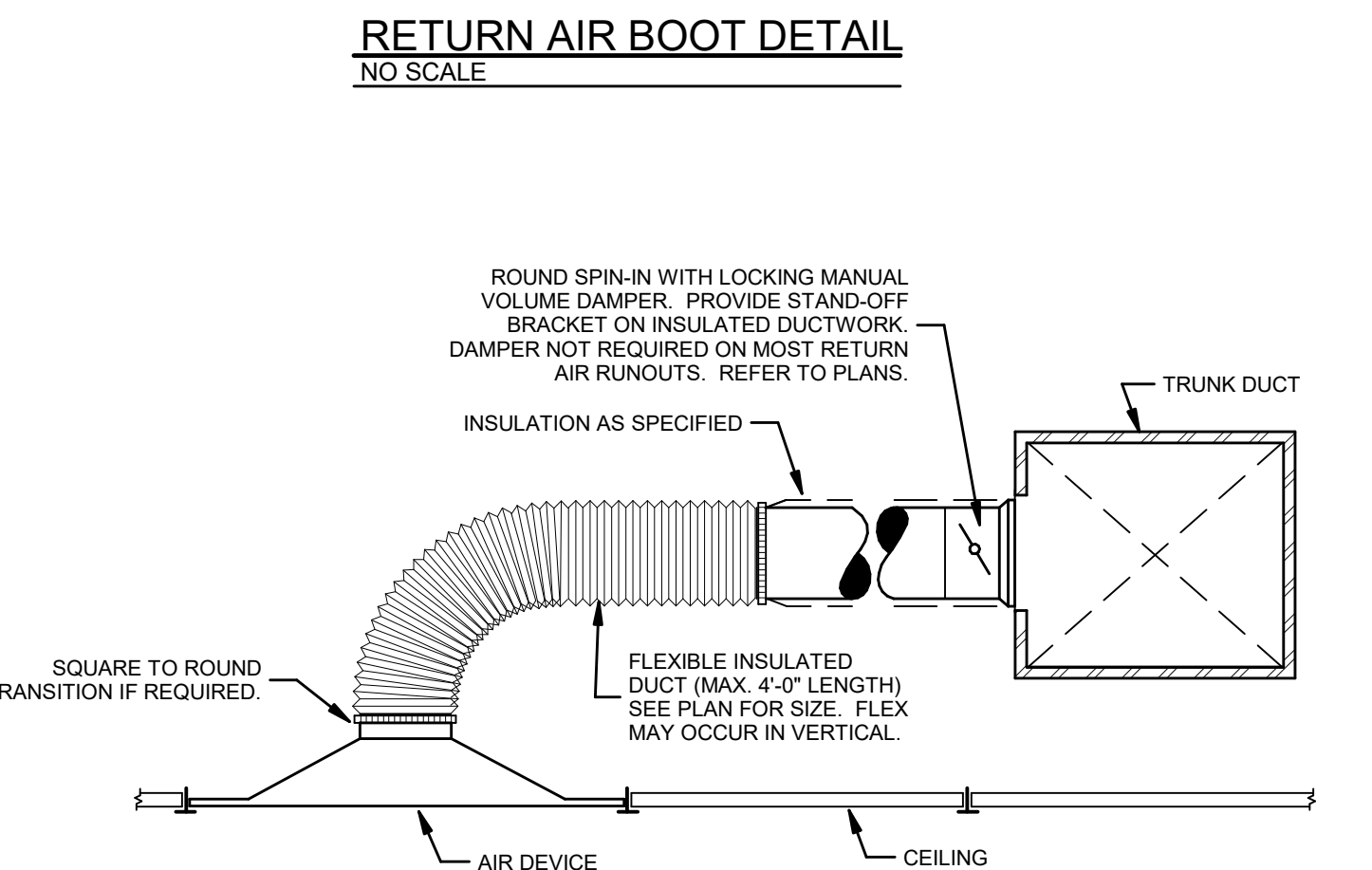
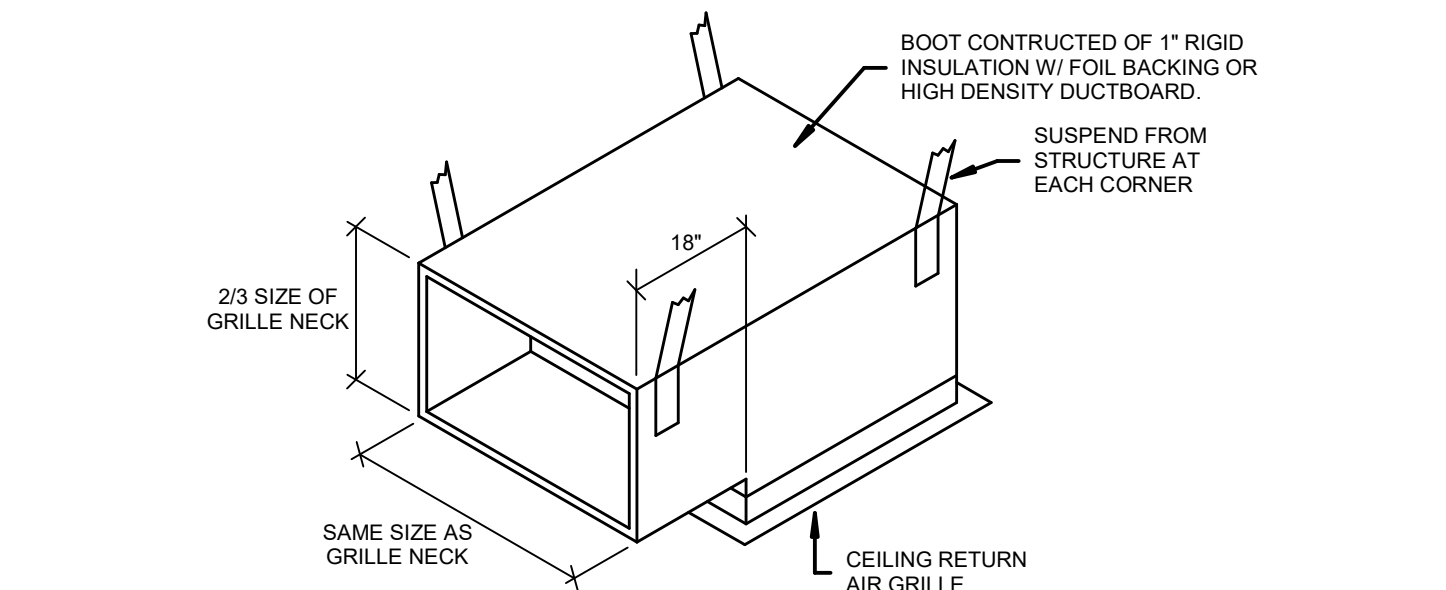
MECHANICAL LEGEND	
GENERAL	HEATING PIPING
SYMBOL	SYMBOL DESCRIPTION
-----	EXISTING COMPONENT TO REMAIN
-----	EXISTING COMPONENT TO BE REMOVED
—+—	DROP
—+—	RISE
—+—	RISE OFF TOP
—+—	DROP OFF BOTTOM
—+—	BRANCH OFF TOP
—+—	BRANCH OFF BOTTOM
—+—	BRANCH OFF SIDE
—+—	CAP
—+—	BLIND FLANGE
—+—	CONCENTRIC REDUCER
—+—	ECCENTRIC REDUCER
—+—	SLEEVE
—+—	GUIDE
—+—	ANCHOR
—+—	FLOW DIRECTION
—+—	GRADE DOWNWARD
—+—	CONNECT TO EXISTING
VALVES & ACCESSORIES	DUCTWORK & ACCESSORIES
SYMBOL	SYMBOL DESCRIPTION
—+—	BALL VALVE
—+—	BUTTERFLY VALVE
—+—	MOTORIZED BUTTERFLY VALVE
—+—	GATE VALVE
—+—	GAS COCK
—+—	GLOBE VALVE
—+—	CHECK VALVE
—+—	PRESSURE REDUCING VALVE
—+—	MOTORIZED 2-WAY CONTROL VALVE
—+—	MOTORIZED 3-WAY CONTROL VALVE
—+—	THERMOSTATIC MIXING VALVE
—+—	SOLENOID VALVE
—+—	VALVE BOX
—+—	WATER METER
—+—	BACKFLOW PREVENTER
—+—	BALANCING VALVE
—+—	UNION
—+—	STRAINER W/ BLOW DOWN
—+—	GAS PRESSURE REGULATOR
—+—	THERMOMETER
—+—	PRESSURE GAUGE W/ GAUGE COCK
—+—	PETE'S PLUG
—+—	FLOW SWITCH
—+—	PRESSURE SWITCH
—+—	AQUASTAT
—+—	AUTO AIR VENT
—+—	VACUUM RELIEF VALVE
—+—	TEMPERATURE & PRESSURE RELIEF
—+—	PRESSURE RELIEF VALVE
—+—	FLEXIBLE CONNECTION
—+—	FLOW MEASURING DEVICE
—+—	TEST WELL
—+—	EXPANSION JOINT
COOLING PIPING	DUCTWORK & ACCESSORIES
SYMBOL	SYMBOL DESCRIPTION
—+—	CHILLED WATER RETURN
—+—	CHILLED WATER SUPPLY
—+—	PRIMARY CHILLED WATER RETURN
—+—	PRIMARY CHILLED WATER SUPPLY
—+—	CONDENSING WATER RETURN
—+—	CONDENSING CHILLED WATER SUPPLY
—+—	REFRIGERANT LIQUID
—+—	REFRIGERANT SUCTION
—+—	REFRIGERANT HOT GAS
—+—	MAKEUP WATER
—+—	CONDENSATE DRAIN
MISC. PIPING	DUCTWORK & ACCESSORIES
SYMBOL	SYMBOL DESCRIPTION
—+—	COMPRESSED AIR
—+—	INSTRUMENT AIR
—+—	NATURAL GAS - LOW PRESSURE (<1 PSI)
—+—	NATURAL GAS - MED. PRESSURE (>1 PSI)
—+—	LIQUID PROPANE GAS
—+—	RECTANGULAR DUCT (FIRST DIM VISIBLE)
—+—	ROUND DUCT (FIRST DIM VISIBLE)
—+—	FLAT OVAL DUCT (FIRST DIM VISIBLE)
—+—	RECTANGULAR SUPPLY DUCT TURNED UP
—+—	RECTANGULAR RETURN OR EXHAUST DUCT TURNED UP
—+—	RECTANGULAR SUPPLY DUCT TURNED DOWN
—+—	RECTANGULAR RETURN OR EXHAUST DUCT TURNED DOWN
—+—	ROUND SUPPLY DUCT TURNED UP
—+—	ROUND SUPPLY DUCT TURNED DOWN
—+—	ROUND RETURN OR EXHAUST DUCT TURNED UP
—+—	ROUND RETURN OR EXHAUST DUCT TURNED DOWN
—+—	OVAL SUPPLY DUCT TURNED UP
—+—	OVAL SUPPLY DUCT TURNED DOWN
—+—	OVAL RETURN OR EXHAUST DUCT TURNED UP
—+—	OVAL RETURN OR EXHAUST DUCT TURNED DOWN
—+—	CHANGE OF ELEVATION IN DIRECTION INDICATED (D=DROP, R=RISE)
—+—	DIFFUSER W/ AIR PATTERN
—+—	RETURN, EXHAUST OR TRANSFER AIR GRILLE
—+—	SIDEWALL SUPPLY GRILLE OR REGISTER
—+—	SIDEWALL RETURN, EXHAUST OR TRANSFER AIR GRILLE
—+—	LINEAR AIR DEVICE
—+—	MANUAL BALANCING DAMPER
—+—	MANUAL BALANCING DAMPER WITH CONCEALED REGULATOR
—+—	MOTORIZED DAMPER
—+—	HOOR FIRE DAMPER
—+—	COMBINATION FIRE / SMOKE DAMPER
—+—	SMOKE DAMPER
—+—	HORIZONTAL FIRE DAMPER
—+—	FLEX DUCT
—+—	FLEX CONNECTION
—+—	ACCESS DOOR
—+—	MITERED ELBOW (TURNING VANES UNO)
—+—	RADIUS ELBOW (1/4 RADIUS UNO)
—+—	CONCENTRIC TRANSITION (1 IN 4 MAX SLOPE)
—+—	ECCENTRIC TRANSITION (1 IN 4 MAX SLOPE)

MECHANICAL GENERAL DEMOLITION NOTES	
A	SIZE AND LOCATION OF EXISTING EQUIPMENT, DUCTWORK, PIPING, ETC. SHOWN FOR REFERENCE ONLY. FIELD VERIFY EXACT CONDITIONS PRIOR TO BID.
B	REMOVE SLEEVES AND PATCH ALL WALLS, FLOORS, AND CEILINGS TO REMAIN WHERE PIPING AND/OR DUCTWORK HAS BEEN REMOVED. PATCHES IN READY CONSTRUCTION SHALL MATCH EXISTING MATERIAL TO ENSURE RATING INTEGRITY.
C	COORDINATE DEMOLITION WITH GENERAL CONTRACTOR. OWNER SHALL HAVE FIRST RIGHTS TO ALL REMOVED COMPONENTS. THE REMAINING ITEMS SHALL BE COMPLETELY REMOVED BACK TO ACTUAL FLOOR LOCATION. REMOVE ALL ASSOCIATED HANGERS, SUPPORTS, POWER, CONTROLS, ETC.

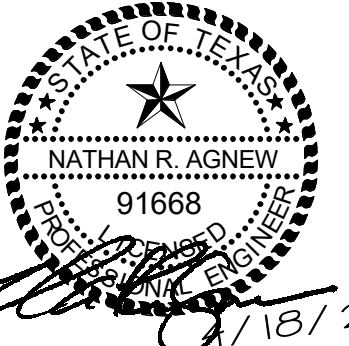
# MECHANICAL GENERAL NOTES

- A IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR, SUB-CONTRACTORS, MANUFACTURERS AND SUPPLIERS TO ADHERE TO THE REQUIREMENTS OF THE FOLLOWING GENERAL NOTES. IF CONFLICT OCCURS, CONTACT AE PRIOR TO COMMENCEMENT OF WORK.
- B EVERY EFFORT HAS BEEN MADE TO MAKE THESE DOCUMENTS CONCISE AND COORDINATED, TO DEFINE WORK IN THE MOST LOGICAL PLACE AND TO ELIMINATE REDUNDANCY. THE SCOPE OF WORK IS DEFINED THROUGHOUT THE ENTIRE SET OF DRAWINGS & SPECIFICATIONS AND IS NOT LIMITED TO JUST ONE SERIES OF DRAWINGS OR DIVISION OF SPECIFICATIONS. REVIEW THE MECHANICAL CONTRACT DOCUMENTS TO DETERMINE EACH CONTRACTOR'S SCOPE OF WORK. NO ADDITIONAL COST SHALL BE INCURRED BY THE OWNER FOR CONTRACTORS' FAILURE TO UNDERSTAND THE FULL SCOPE OF WORK. IF CONFLICT OCCURS, CONTACT AE PRIOR TO COMMENCEMENT OF WORK.
- C PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT AS REQUIRED TO INSTALL COMPLETE AND OPERABLE SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED, AS REQUIRED BY ALL APPLICABLE CODES, AND PER MANUFACTURER'S DIRECTIONS.
- D NO CUTTING SHALL BE DONE TO ANY OF THE STRUCTURAL MEMBERS THAT WOULD TEND TO LESSEN THEIR STRENGTH, UNLESS SPECIFIC PERMISSION IS GRANTED BY THE ARCHITECT.
- E ALL PIPING AND DUCTWORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN PIPING AND DUCTWORK AROUND OBSTRUCTIONS AND AS REQUIRED FOR SERVICE SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- F COORDINATE CONSTRUCTION OF ALL WORK WITH ARCHITECTURAL, CIVIL, STRUCTURAL, PLUMBING, ELECTRICAL WORK, ETC. SHOW ON ALL OTHER CONTRACT DOCUMENT DRAWINGS.
- G VERIFY AND COORDINATE ALL FINAL EQUIPMENT TYPES AND CONNECTING SERVICES WITH ACTUAL EQUIPMENT SUBMITTED AND APPROVED & OWNER PROVIDED EQUIPMENT.
- H ALL OPENINGS IN FIRE WALLS FOR PIPING, PIPING, CONDUCITS, ETC., SHALL BE FIRE STOPPED WITH A SPECIFIED PRODUCT SIMILAR TO 3M, OR APPROVED EQUAL.
- I UNLESS OTHERWISE SHOWN, LOCATE ALL ROOM THERMOSTATS, SENSORS, AND HUMIDISTATS 4'-0" ABOVE FINISHED FLOOR. LOCATIONS ADJACENT TO DOORS SHALL MAINTAIN A MINIMUM OF 2' FROM FRAME.
- J ALL DUCTWORK DIMENSIONS AS SHOWN ON THE DRAWINGS, ARE INTERNAL CLEAR DIMENSIONS AND DUCTS SHALL BE INCREASED TO COMPENSATE FOR DUCT LINER THICKNESS, WHERE DUCT LINER IS SPECIFIED.
- K COORDINATE MD, DIFFUSER, REGISTER, AND GRILLE LOCATIONS WITH ARCHITECTURAL. REFLECTED CEILING PLANS, LIGHTING, AND OTHER CEILING ITEMS. MD'S SHALL BE FULLY ACCESSIBLE. MAKE MINOR DUCT MODIFICATIONS AS REQUIRED.
- L LOCATE ALL MECHANICAL EQUIPMENT FOR UNOBSTRUCTED ACCESS TO UNIT ACCESS PANELS, CONTROLS, AND VALVING. MAINTAIN THE MINIMUM SERVICE CLEARANCE PER MANUFACTURER.
- M RUNS OF FLEXIBLE DUCT SHALL NOT EXCEED 4 FEET OR BEND GREATER THAN 90°.
- N PROVIDE ACCESS DOORS IN DUCTWORK FOR ALL FIRE BAMPERS, SMOKE DAMPERS, HUMIDIFIERS, COILS, AND OTHER ITEMS LOCATED IN DUCTWORK WHICH REQUIRE SERVICE AND/OR INSPECTION.
- O PROVIDE ACCESS PANELS IN WALLS AND CEILINGS TO ALLOW ADEQUATE ACCESS TO EQUIPMENT, VALVES, TRAPS, DAMPERS, CLEANOUTS, CONTROLS, ETC.
- P LOCATE ALL TEMPERATURE, PRESSURE, AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH STRAIGHT SECTION OF PIPE OR FLOW UPSTREAM AND DOWNSTREAM AS REQUIRED BY THE MANUFACTURER FOR GOOD ACCURACY.

DOUBLE DUCT VAV BOX SCHEDULE						
MARK	MIXED CFM MAX. / MIN.	COLD CFM MAX. / MIN.	HOT CFM MAX. / MIN.	INLET SIZE		EXAMPLE: METALRAIR
				COLD	HOT	
DD-T1-16	1760 / 430	1760 / 0	375 / 0	14"	6"	DH514
EX. DD-T1-02	2000 / 1150	2000 / 0	750 / 0	---	---	---
NOTES:						
1. BAS CONTRACTOR SHALL COORDINATE 24V TRANSFORMER REQUIREMENTS WITH BOX MANUFACTURER.						
2. FOR UNITING MAKE MIXED AIR/FLOW REQUIREMENTS BLENDING. UNITS MAY BE PROGRAMMED FOR COLD DECK MAX EUAL TO MIXED AIR MAXIMUM. SCHEDULED VALUES INDICATE THE MAXIMUM FLOW REQUIRED PER THE LOAD CALCULATIONS AND PRESSURE REQUIREMENTS.						
AIR DISTRIBUTION SCHEDULE						
MARK	TYPE	FRAME	SIZE	FINISH	MATERIAL	EXAMPLE
S-3	SUPPLY	SM	---	WHITE	STEEL	TITUS TDC
S-22	SUPPLY	TB	24x24	WHITE	STEEL	TITUS TMS
NO#1	RETURN	TB	24x24	WHITE	STEEL	TITUS PAR W/ RA ROOT
1. TB = LAY-IN T-BAR						
2. VERIFY FRAME TYPE WITH CEILING INSTALLER'S LAYOUT.						

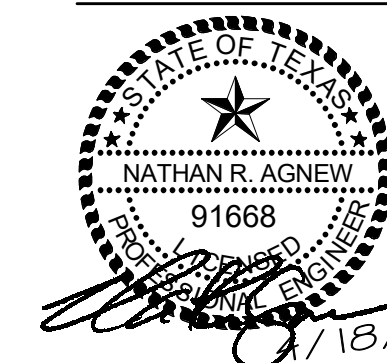


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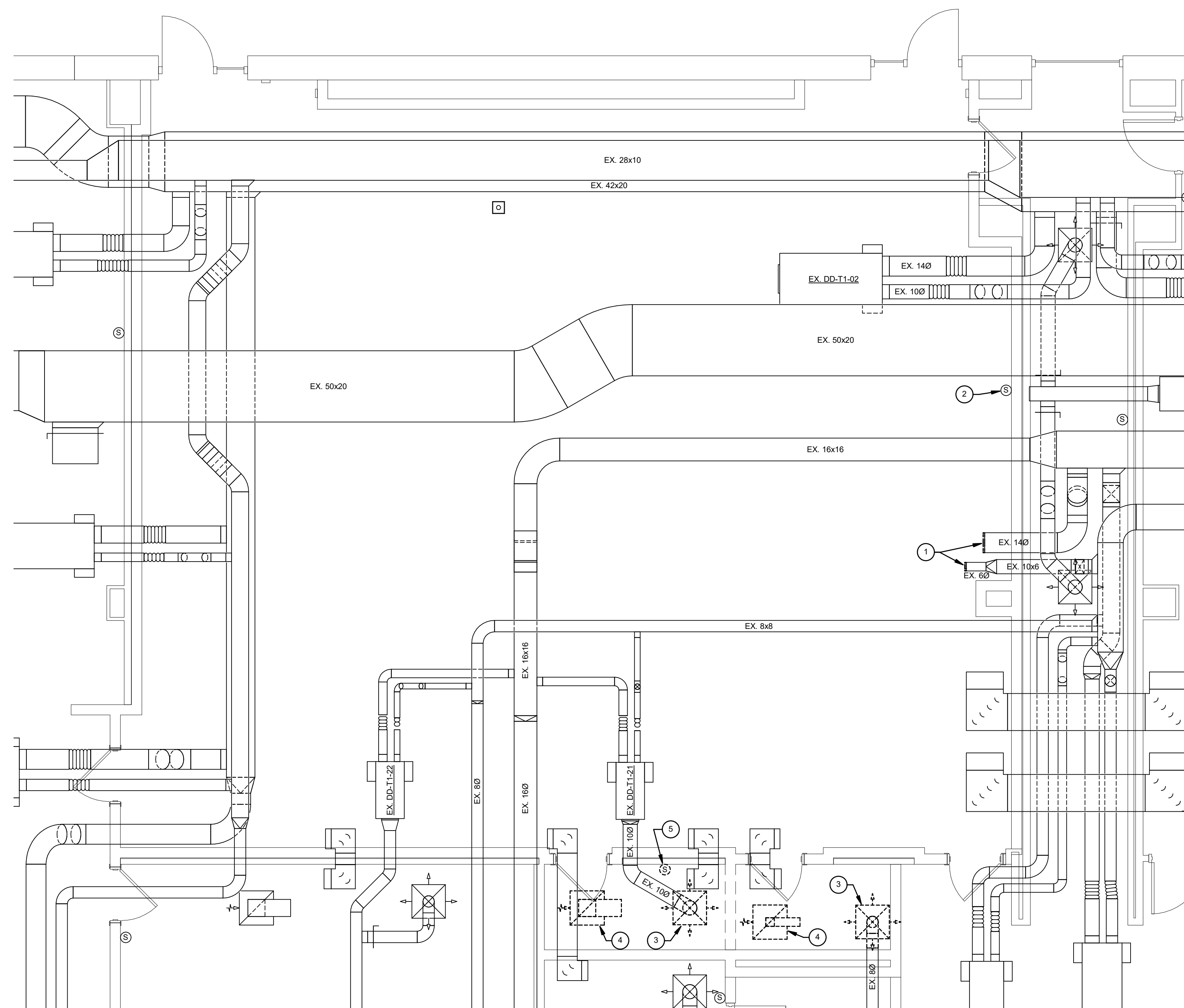


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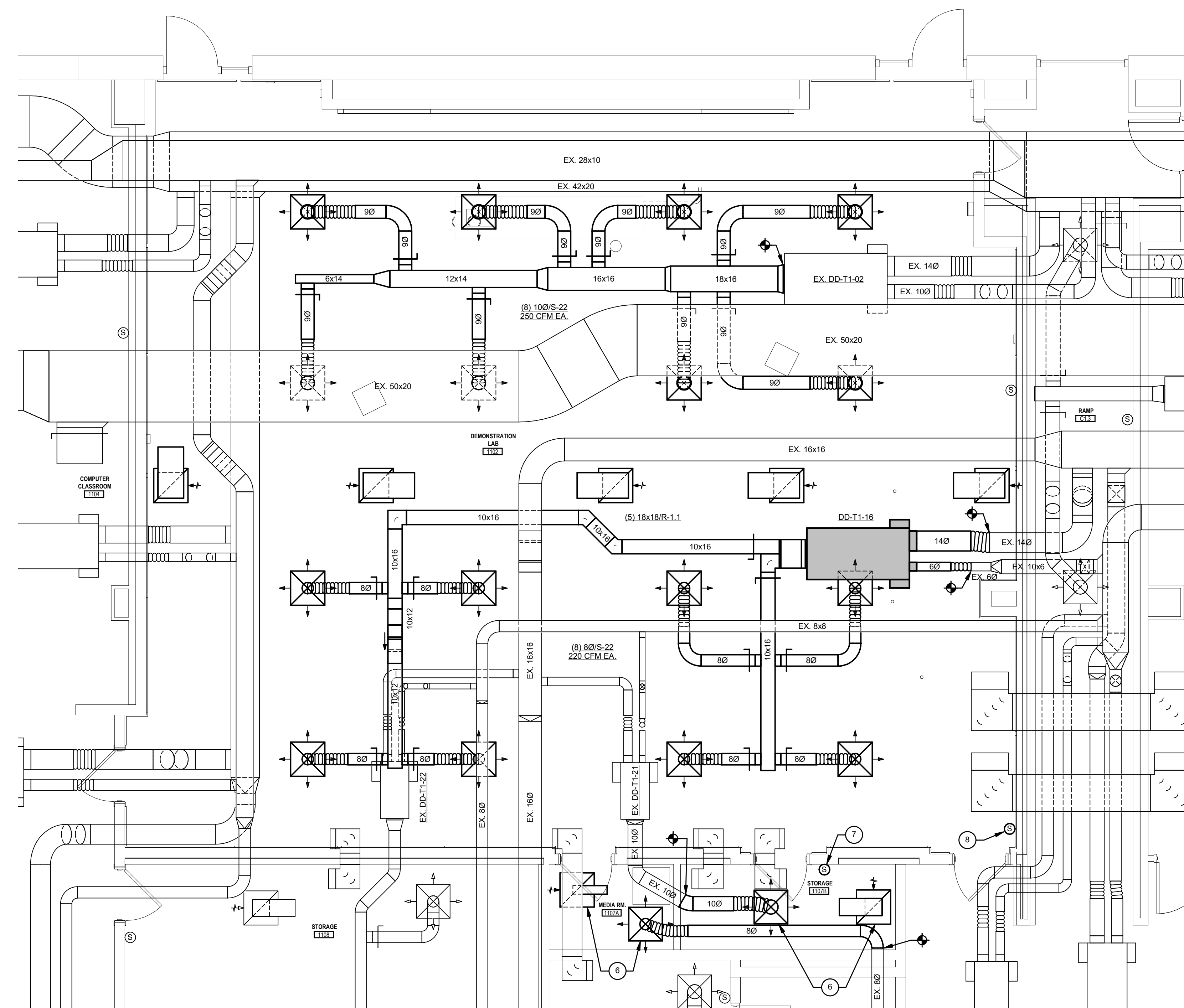
MECHANICAL PLAN

## M1.1

- 1 REMOVE EXISTING DUCT CAP.
- 2 REMOVE EXISTING ROOM SENSOR DURING INSTALLATION OF WALL FINISHES. REINSTALL UPON COMPLETION
- 3 EXISTING DIFFUSER TO BE RELOCATED. MODIFY EXISTING DUCTWORK AS REQUIRED.
- 4 EXISTING GRILLE TO BE RELOCATED.
- 5 EXISTING TEMPERATURE SENSOR TO BE RELOCATED.
- 6 RELOCATED AIR DISTRIBUTION DEVICE.
- 7 RELOCATED TEMPERATURE SENSOR.
- 8 NEW TEMPERATURE SENSOR FOR DD-T1-10.



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



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

GENERAL NOTE:

COORDINATE FIELD INSTALLATION OF NEW VAV BOX CONTROLS WITH SIEMENS





PLUMBING ABBREVIATIONS	
ABBREV	DESCRIPTION
AAV	AUTOMATIC AIR VENT ASSEMBLY
ABV	ABOVE
A/C	AIR CONDITIONED
AD	ACCESS DOOR
AFC	ABOVE FINISHED CEILING
AFB	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AH	AIR HANDLING UNIT
ANSI	AMERICAN NATIONAL STANDARD INSTITUTE
AP	ACCESS PANEL
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASCE	AMERICAN SOCIETY OF PLUMBING ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
AUX	AUXILIARY
AV	ACID VENT
AW	ACID WASTE
AWWA	AMERICAN WATER WORKS ASSOCIATION
B	BOILER
BCU	BLOWER COIL UNIT
BFC	BELOW FINISHED CEILING
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSEPOWER
BLDG	BUILDING
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BSMT	BASEMENT
BTU	BRITISH THERMAL UNIT
BV	BALL VALVE
CA	COMPRESSED AIR
CD	CONDENSATE DRAIN LINE OR CONTROL DAMPER
CFH	CUBIC FEET PER HOUR
CI	CAST IRON
CIRC	CIRCULATING
CL	CENTER LINE
CLG	CEILING
CM	CONSTRUCTION MANAGER
CMU	CONCRETE MASONRY UNIT
CN	CLEANOUT
CONC	CONCRETE
COND	CONDENSATE
CONN	CONNECTION
CONT	CONTINUATION
CT	COOLING TOWER
CU	COPPER
CW	DOMESTIC COLD WATER
D	DRAIN
DCO	DOUBLE CLEANOUT
DCW	DOMESTIC COLD WATER
DEG	DEGREES
DF	DRINKING FOUNTAIN
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RETURN
DI	DEIONIZED WATER
DIA	DIAMETER
DN	DOWN
DSN	DOWNSPOUT
DWS	DOWNSPOUT NOZZLE
DWG	DRAWING
EA	EACH OR EXHAUST AIR
ELEC	ELECTRICAL
ELEV	ELEVATION
EMERG	EMERGENCY
ENT	ENTERING
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EWI	ELECTRIC WATER HEATER
EWV	ENTERING WATER TEMPERATURE
EX	EXISTING
F	DEGREES FAHRENHEIT OR FIRE LINE
°F	DEGREES FAHRENHEIT
FCU	FAN COIL UNIT OR FURNACE & COIL UNIT
FD	FLOOR DRAIN
FF	FINISH FLOOR
FG	FINISH GRADE
FHC	FIRE HOSE CABINET
FLX	FLEXIBLE
FLG	FLANGE
FLR	FLOOR
FM	FACTORY MUTUAL
FS	FLOOR SINK OR FLOW SWITCH
FT	FEET, FOOT
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GPH	GALLON PER HOUR
GPM	GALLON PER MINUTE
GW	GREASE WASTE
GV	GREASE VENT
H	HIGH, HEIGHT
HBB	HOSE BIBB
HD	HEAD IN FEET
HP	HORSE POWER OR HEAT PUMP
HR	HOUR
HTR	HEATER
HVAC	HEATING / VENTILATING / AIR CONDITIONING
HW	DOMESTIC HOT WATER
HWP	HEATING WATER PUMP
HWR	DOMESTIC HOT WATER RETURN
HWRP	HOT WATER RECIRCULATING PUMP
HZ	HERTZ
ID	INSIDE DIAMETER
IE	INVERT ELEVATION / FLOW LINE
IN	INCHES
INSUL	INSULATION
IN W	INCHES OF WATER
KW	KILOWATT(S)
L	LONG, LENGTH
LA	LEAVING TEMPERATURE
LAV	LAV OR LAVATORY
LB	POUND
LF	LINEAL FOOT
LPG	LIQUID PROPANE GAS
LRA	LOCKED ROTOR AMPS
MA	MEDICAL AIR
MAX	MAXIMUM
MOP	MOP BASIN
MBH	THOUSAND BTU / HR
MECH	MECHANICAL
MIN	MINIMUM
MS	MOTOR STARTER
MTD	MOUNTED
MV	MEDICAL VACUUM
N	NITROGEN
N2O	NITROUS OXIDE
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NG	NATURAL GAS
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
O	OXYGEN
OA	OUTSIDE AIR
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OVERFLOW DRAIN
OH	OVERHEAD
PD	PRESSURE DROP
PRV	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSIG	POUND PER SQUARE INCH, (GAUGE)
PH	PHASE
PLUMB	PLUMBING
PNL	PANEL
PPM	PARTS PER MILLION
QTY	QUANTITY
RD	ROOF DRAIN
RE	REFER
REQ'D	REQUIRED
REV	REVISED OR REVISIONS
ROOM	ROOM
RO	REVERSE OSMOSIS
RPM	REVOLUTION PER MINUTE
RV	POWER ROOF VENTILATOR
RV	ROOF TOP UNIT
SCH	SCHEDULE
SD	STORM DRAIN
SEC	SECOND
SECT	SECTION
SF	SQUARE FOOT
SHT	SHEET
SQ	SQUARE
SS	SERVICE SINK, STAINLESS STEEL OR SANITARY
SEVER	SEVER
STD	STANDARD
STM	STEAM
SURF	SURFACE
SUSP	SUSPEND OR SUSPENDED
SW	SOFTENED WATER
SYS	SYSTEM
TEMP	TEMPERATURE
THL	TEMPERATURE HIGH LIMIT
TL	TEMPERATURE LOW LIMIT
TP	TOTAL PRESSURE
TSP	TOTAL STAT. PRESSURE
TSTAT	THERMOSTAT
TMY	THERMOSTATIC MIXING VALVE
TYP	TYPICAL
U	URNAL
UF	UNDERFLOOR
UG	UNDERGROUND
UH	UNIT HEATER
UNL	UNLESS OTHERWISE NOTED
V	V (OLT)BS
V	VALVE BOX OR VACUUM BREAKER
VEL	VELOCITY
VENT	VENTILATE
VERT	VERTICAL
VOL	VOLUME
VTR	VENT THRU ROOF
W	WASTE OR WIDE, WIDTH
W	WITH
W/O	WITHOUT
WAGD	WASTE ANESTHESIA GAS DISPOSAL
WG	WATER CLOSET
WALL CLECO	WALL CLOSURE
WH	WATER HEATER OR W/AL HYDRANT
WG	WATER GAUGE
WT	WEIGHT
Δ	DELTA
Ø	PHASE or ROUND

PLUMBING LEGEND	
GENERAL	
SYMBOL	DESCRIPTION
—	EXISTING COMPONENT TO REMAIN
-----	EXISTING COMPONENT TO BE REMOVED
—+—	DROP
—O—	RISE
—O—	RISE OFF TOP
—+—	DROP OFF BOTTOM
—+—	BRANCH OFF TOP
—+—	BRANCH OFF BOTTOM
—+—	BRANCH OFF SIDE
—□—	CAP
—□—	BLIND FLANGE
—□—	CONCENTRIC REDUCER
—□—	ECCENTRIC REDUCER
—□—	SLEEVE
—□—	GUIDE
—X—	ANCHOR
—▶—	FLOW DIRECTION
—▽—	GRADE DOWNWARD
—●—	CONNECT TO EXISTING
—A—	COMPRESSED AIR
—H—	INSTRUMENT AIR
—G—	NATURAL GAS - LOW PRESSURE (<1 PSI)
—MG—	NATURAL GAS - MED. PRESSURE (>1 PSI)
DRAIN, WASTE, & VENT	
SYMBOL	DESCRIPTION
—W—	GREASE WASTE
—G—	SOIL WASTE, OR SANITARY SEWER
—V—	VENT
—SD—	STORM DRAIN
—FM—	FORCED MAIN
—AW—	ACID WASTE
—AV—	ACID VENT
—D—	INDIRECT DRAIN
—C—	CLEANOUT
—DC—	DOUBLE CLEANOUT
—WC—	WALL CLEANOUT
—C—	END OF LINE CLEANOUT
● VTR	VENT THRU ROOF
—RD—	ROOF DRAIN
—OFD—	OVERFLOW DRAIN
—FD—	FLOOR DRAIN
—FS—	FLOOR SINK
—HD—	HUB DRAIN
—OSD—	OPEN SITE DRAIN
DOMESTIC WATER	
SYMBOL	DESCRIPTION
—	DOMESTIC COLD WATER LINE
—	DOMESTIC HOT WATER LINE
—	HOT WATER RETURN LINE
—140°—	HOT WATER LINE W/ TEMP INDICATED
—SW—	SOFT WATER LINE
—RO—	REVERSE OSMOSIS
—DI—	DEIONIZED WATER
—WH—	WALL HYDRANT
—HB—	HOSE BIBB
VALVES & ACCESSORIES	
SYMBOL	DESCRIPTION
—●—	BALL VALVE
—●—	BUTTERFLY VALVE
—●—	GATE VALVE
—●—	GAS COCK
—●—	GLOBE VALVE
—●—	CHECK VALVE
—●—	PRESSURE REDUCING VALVE
—●—	MOTORIZED 2-WAY CONTROL VALVE
—●—	MOTORIZED 3-WAY CONTROL VALVE
—●—	THERMOSTATIC MIXING VALVE
—●—	SOLENOID VALVE
—●—	VALVE BOX
—●—	WATER METER
—●—	BACKFLOW PREVENTER
—●—	ANGLE VALVE
—●—	BALANCING VALVE
—●—	UNION
—●—	STRAINER W/ BLOW DOWN
—●—	GAS PRESSURE REGULATOR
—●—	THERMOMETER
—●—	PRESSURE GAUGE W/ GAUGE COCK
—●—	PETES RULE
—●—	FLOW SWITCH
—●—	PRESSURE SWITCH
—●—	AQUASTAT
—●—	AUTO AIR VENT
—●—	TRAP PRIMER
—●—	VACUUM RELIEF VALVE
—●—	TEMPERATURE & PRESSURE RELIEF
—●—	PRESSURE RELIEF VALVE
—●—	FLEXIBLE CONNECTION
FIRE PROTECTION	
SYMBOL	DESCRIPTION
—F—	FIRE MAIN
—S—	AUTO FIRE SPRINKLER
—●—	WET FIRE SPRINKLER ALARM ASSEMBLY RISER
—●—	DRY FIRE SPRINKLER ALARM ASSEMBLY RISER
—●—	SIAMSE FIRE DEPARTMENT CONNECTION
—●—	FIRE HYDRANT
—●—	FIRE PUMP TEST CONNECTION
—●—	UPRIGHT SPRINKLER
—●—	PENDENT SPRINKLER
—●—	SIDEWALL SPRINKLER
—●—	FIRE HOSE CABINET
LABORATORY SERVICES	
SYMBOL	DESCRIPTION
—CO—	CARBON DIOXIDE
—LA—	LABORATORY AIR
—LV—	LABORATORY VACUUM
—N—	NITROGEN

PLUMBING GENERAL DEMOLITION NOTES	
A	SIZE AND LOCATION OF EXISTING EQUIPMENT, PIPING, ETC. SHOWN FOR REFERENCE ONLY. FIELD VERIFY EXACT CONDITIONS PRIOR TO BID.
B	REMOVE SLEEVES AND PATCH ALL WALLS, FLOORS, AND CEILINGS TO REMAIN WHERE PIPING HAS BEEN REMOVED. PATCHES IN RATED CONSTRUCTION SHALL MATCH EXISTING MATERIAL TO ENSURE RATING INTEGRITY.
C	COORDINATE DEMOLITION WITH GENERAL CONTRACTOR. OWNER SHALL HAVE FIRST RIGHTS TO ALL REMOVED COMPONENTS. THE REMAINING ITEMS SHALL BE COMPLETELY REMOVED BACK TO ACTIVE SERVICE LOCATION. REMOVE ALL ASSOCIATED HANGERS, SUPPORTS, POWER, CONTROLS, ETC.

# PLUMBING GENERAL NOTES

A. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR, SUB-CONTRACTORS, MANUFACTURERS AND SUPPLIERS TO ADHERE TO THE REQUIREMENTS OF THE FOLLOWING GENERAL NOTES. IF CONFLICT OCCURS, CONTACT AVE PRIOR TO COMMENCEMENT OF WORK.

B. EVERY EFFORT HAS BEEN MADE TO MAKE THESE DOCUMENTS CONCISE AND COORDINATED, TO DEFINE WORK IN THE MOST LOGICAL PLACE AND TO ELIMINATE REDUNDANCY. THE SCOPE OF WORK IS DEFINED THROUGHOUT THE ENTIRE SET OF DRAWINGS & SPECIFICATIONS AND IS NOT LIMITED TO JUST ONE SERIES OF DRAWINGS OR DIVISION OF SPECIFICATIONS. REVIEW THE SCOPE OF WORK OF CONTRACT DOCUMENTS TO DETERMINE EACH CONTRACTOR'S SCOPE OF WORK. NO ADDITIONAL COST SHALL BE INCURRED BY THE OWNER FOR CONTRACTORS' FAILURE TO UNDERSTAND THE FULL SCOPE OF WORK. IF CONFLICT OCCURS, CONTACT AVE PRIOR TO COMMENCEMENT OF WORK.

C. PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT AS REQUIRED TO INSTALL COMPLETE AND OPERABLE PLUMBING SYSTEM AS INDICATED ON THE DRAWINGS AS SPECIFIED, AS REQUIRED BY ALL APPLICABLE CODES, AND PER MANUFACTURER'S DIRECTIONS.

D. NO CUTTING SHALL BE DONE TO ANY OF THE STRUCTURAL MEMBERS THAT WOULD TEND TO LESSEN THEIR STRENGTH, UNLESS SPECIFIC PERMISSION IS GRANTED BY THE ARCHITECT.

E. ALL PIPING SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN PIPING AROUND OBSTRUCTIONS AND AS REQUIRED FOR SERVICE SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

F. COORDINATE CONSTRUCTION OF ALL WORK WITH ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL WORK, ETC., SHOWN ON ALL OTHER CONTRACT DOCUMENT DRAWINGS.

G. ALL OPENINGS IN FIRE WALLS FOR DUCTWORK, PIPING, CONDUIITS, ETC., SHALL BE FIRE STOPPED WITH A SPECIFIED PRODUCT SIMILAR TO 3M, OR APPROVED EQUAL.

H. RUN ALL SOIL, WASTE, AND VENT PIPING WITH 1/4 MINIMUM GRADE UNLESS OTHERWISE NOTED. HORIZONTAL VENT PIPING SHALL BE GRADED TO DRIP BACK TO THE SOIL OR WASTE PIPE BY GRAVITY.

I. VERIFY & COORDINATE ALL FINAL EQUIPMENT SIZE AND CONNECTING SERVICES WITH ACTUAL EQUIPMENT SUBMITTED AND APPROVED AND OWNER PROVIDED EQUIPMENT.

J. PROVIDE SHUTOFF VALVES IN ALL DOMESTIC WATER PIPING SYSTEM BRANCHES. REFER TO DRAWINGS FOR ADDITIONAL VALVE LOCATIONS.

K. INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES, AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.

L. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND ELEVATION OF FLOOR DRAINS. GRATE SHALL BE FLUSH W/ ADJACENT FINISHED FLOOR SURFACE.

M. PROVIDE CLEANSOUTS IN SANITARY AND STORM DRAINAGE SYSTEMS AT ENDS OF RUNS. AT EACH 100' OF CATCH BASIN, CLEANOUTS SHALL BE PROVIDED AT EACH 100' DEVELOPED FEET & ELSEWHERE AS INDICATED. ALL CLEANSOUTS SHALL BE FULL SIZE OF PIPE FOR 4" AND SMALLER AND SHALL BE 4" FOR PIPE SIZES LARGER THAN 4".

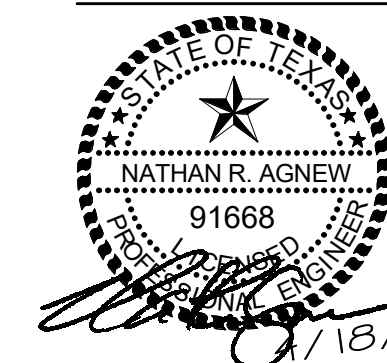
N. PROVIDE ACCESS PANELS IN WALLS & CEILINGS TO ALLOW ADEQUATE ACCESS TO EQUIPMENT, VALVES, TRAPS, DAMPERS, CLEANSOUTS, CONTROLS, ETC.

O. COORDINATE WITH ELECTRICAL AS REQUIRED TO MAINTAIN 36" OF CLEAR SERVICE SPACE FOR 120V, 208V, AND 230V DEVICES AND 42" CLEAR SPACE FOR 480V DEVICES. THIS SHALL INCLUDE SWITCH GEARS. THIS INSTRUCTION DOES NOT APPLY TO ELECTRICAL PANELS. ELEVATION OF SERVICE SPACE SHALL BE DETERMINED BY THE SPECIFIC ELECTRICAL DEVICE.

P. COORDINATE WITH ELECTRICAL AS REQUIRED TO ROUTE NO DUCT OR PIPE DIRECTLY OVER DEVICES SUCH AS PANELBOARDS, MOTOR CONTROL CENTERS AND SWITCHBOARDS UNLESS IT IS A MINIMUM OF 6" ABOVE THE TOP OF THE DEVICE, OR PROTECTION FROM DAMAGE FROM THE PIPE IS OTHERWISE PROVIDED. THIS SHALL INCLUDE NOT ONLY PROTECTION FROM LEAKS, BUT FROM BREAKAGE.



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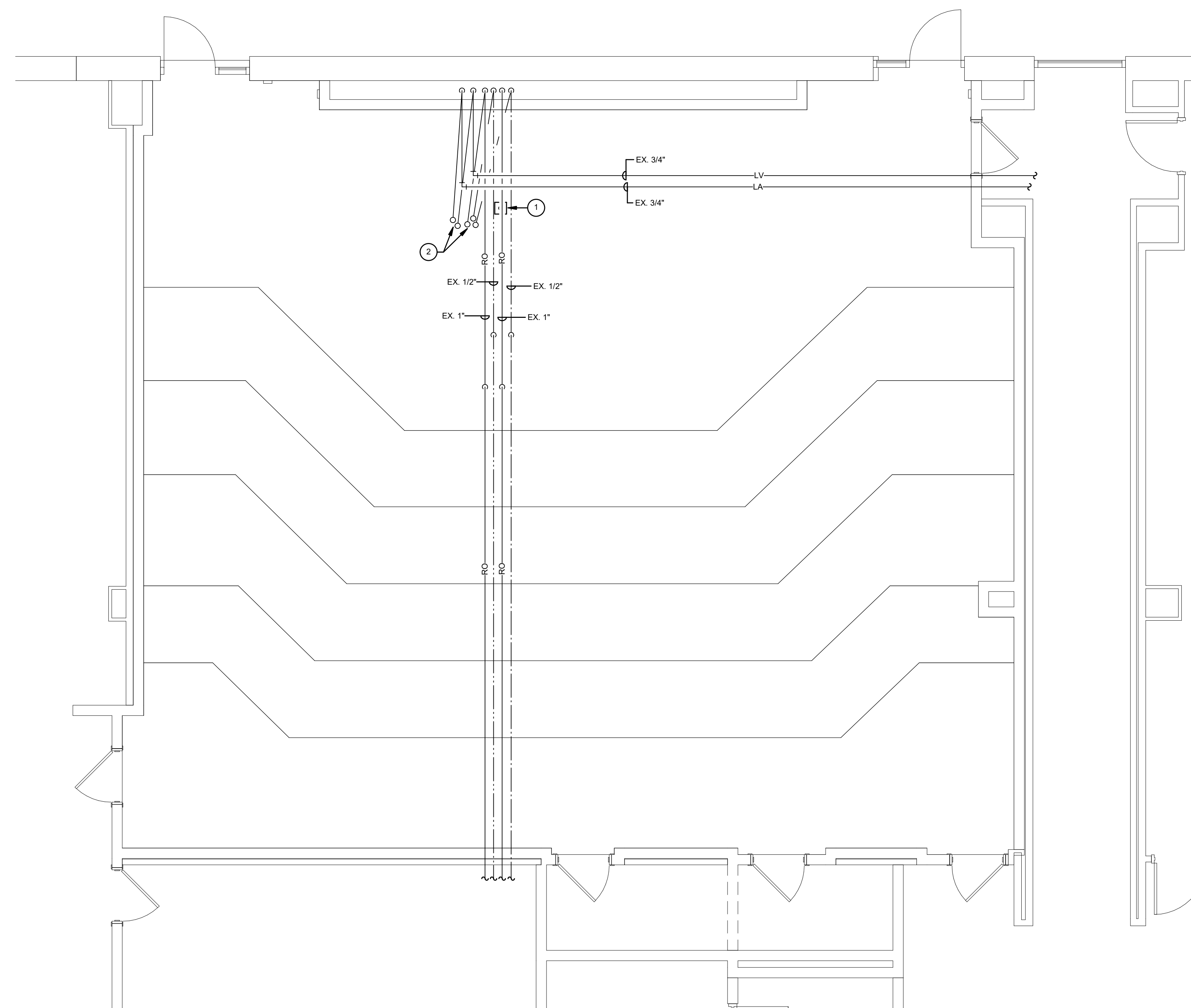


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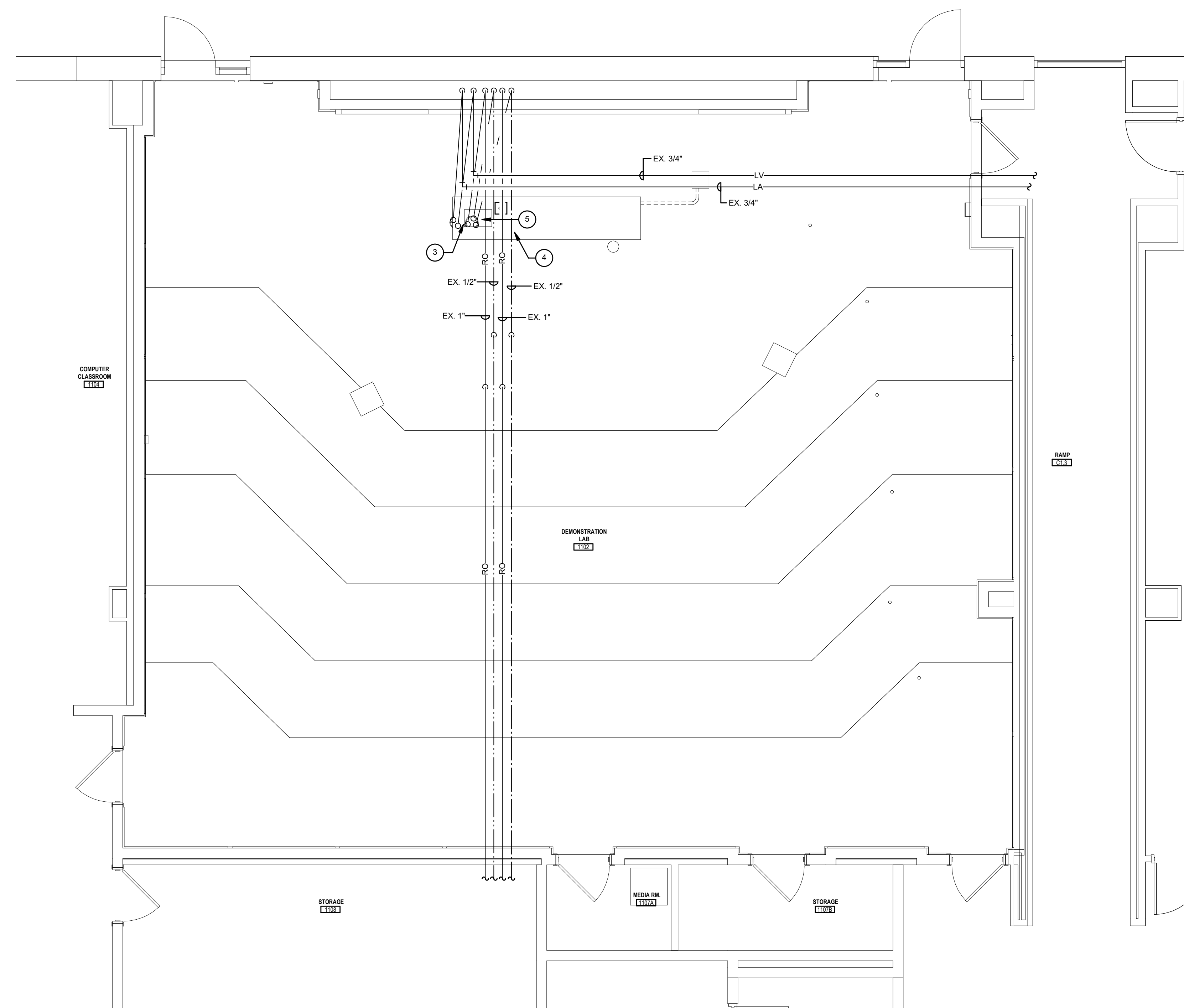
## PLUMBING PLANS

P1.1

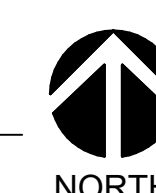
- 1 CLEAN EXISTING FLOOR SINK.
- 2 MODIFY EXISTING 1/2" RØD, 3/4" DCW, 3/4" DCW, 3/4" L & 3/4" LV ROUGH-INS, AS REQUIRED, FOR EXTENSION TO LAB SINK & BENCH EXISTING GAS TURBINES. FIELD VERIFY SIZES OF EXISTING LINES.
- 3 EXTEND EXISTING 1/2" RØD, 3/4" DCW & 3/4" DCW TO SINK FAUCETS. PROVIDE BALL VALVE IN DCW & DHW LINES TO FAUCET. PROVIDE BALL VALVE & FLOW CONTROL IN LINE TO SINK ROSETTE.
- 4 EXTEND EXISTING 3/4" L & 3/4" LV TO BENCH-MOUNTED GAS TURBINES. PROVIDE BALL VALVE IN EACH SERVICE LINE.
- 5 PROVIDE 1-1/2" ACID WASTE WITH P-TRAP FROM SINK DRAIN TO INDIRECT WASTE AT FLOOR SINK.



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



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



THE ENTIRE BUILDING IS PROTECTED WITH AN AUTOMATIC SPRINKLER SYSTEM. MODIFY EXISTING SYSTEM, AS REQUIRED, TO PROTECT RENOVATED AREAS. ALL MODIFICATIONS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND NFPA REGULATIONS. REFER TO DIV. 21.



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ELECTRICAL ABBREVIATIONS			
ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
A	AMPERE(S)	KVAR	KILOVOLT AMPERE REACTIVE
ABV	ABOVE	KW	KILOWATT
AC	ABOVE COUNTER	KWH	KILOWATT HOUR
A/C	AIR CONDITIONING	LB	POUND
AIC	AMPERE INTERRUPTING CAPACITY	LPS	LOW PRESSURE SODIUM
AFF	ABOVE FINISHED FLOOR	M	MANHOLE
AFG	ABOVE FINISHED GRADE	MAX	MAXIMUM
AHU	AIR HANDLING UNIT	MCC	MOTOR CONTROL CENTER
ATS	AUTOMATIC TRANSFER SWITCH	MDP	MAIN DISTRIBUTION PANEL
BFF	BELOW FINISHED FLOOR	MECH	MECHANICAL
BFG	BELOW FINISHED GRADE	MH	MOUNTING HEIGHT
BLDG	BUILDING	MIN	MINIMUM
C	CONDUIT	MLO	MAIN LUGS ONLY
CB	CIRCUIT BREAKER	MTG	MOUNTING
CCTV	CLOSED CIRCUIT TELEVISION	MV	MERCURY VAPOR
CKT	CIRCUIT	NA	NON APPLICABLE
COND	CONDUCTOR	NC	NORMALLY CLOSED
CPU	CENTRAL PROCESSING UNIT	NF	NON FUSED
DCP	DATA COLLECTION PANEL	NO	NORMALLY OPEN
DIA	DIAMETER	NL	NIGHT LIGHT
DIST	DISTRIBUTION	OC	ON CENTER
DN	DOWN	OFCl	
DWGS	DRAWINGS	OH	OVERHEAD/RNISHED CONTRACTOR INSTALLED
EC	EMPTY CONDUIT	P	POLE
EDF	ELECTRIC DRINKING FOUNTAIN	PA	PUBLIC ADDRESS
EF	EXHAUST FAN	PB	PUSHBUTTON
EQMT	EQUIPMENT	PBX	PRIVATE BUILDING EXCHANGE
EWC	ELECTRIC WATER COOLER	PC	PULL CHAIN
EXH	EXHAUST	P/C	PHOTOCELL
EXP	EXPLOSION PROOF	PDP	POWER DISTRIBUTION PANEL
EXTG	EXISTING	PNL	PANELBOARD
F/A	FIRE ALARM	PSI	POUNDS PER SQUARE INCH
FC	FOOTCANDLES	PWR	POWER
FCU	FAN COIL UNIT	S	SECURITY
FLUOR	FLUORESCENT	SN	SOLID NEUTRAL
FN	FULL NEUTRAL	SGFT	SQUARE FOOT
FT	FEET, FOOT	SW	SWITCH
GALV	GALVANIZED	SWBD	SWITCHBOARD
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TC	TIME CLOCK
GFI	GROUND FAULT INTERRUPTER	TELE	TELEPHONE
GND	GROUND	TP	TAMPER RESISTANT
GRD	GALVANIZED RIGID STEEL	TSTAT	THERMOSTAT
HID	HIGH INTENSITY DISCHARGE	TV	TELEVISION
HP	HORSEPOWER	UH	UNIT HEATER
HOA	HAND OFF AUTOMATIC	UON	UNLESS OTHERWISE NOTED
HPS	HIGH PRESSURE SODIUM	UPE	UNDERGROUND PRIMARY ELECTRIC
HVAC	HEATING/VENTILATING/AIR CONDITIONING	V	VOLT(S)
HZ	HERTZ	VP	VAPOR PROOF
IC	INTERCOM	W	WIRE
ID	INSIDE DIAMETER	WAP	WIRELESS ACCESS POINT
IMC	INTERMEDIATE STEEL CONDUIT	WP	WEATHERPROOF
IN	INCHES	XFMR	TRANSFORMER
INC	INCANDESCENT	XPD	TRANSPONDER
IG	ISOLATED GROUND	Z	IMPEDANCE
JB	JUNCTION BOX	1P	ONE POLE
KV	KILOVOLT	2P	TWO POLE
KVA	KILOVOLT AMPERE	3P	THREE POLE
KVAC	KILOVOLT AMPERE CAPACITIVE	Ø	PHASE

## ELECTRICAL GENERAL NOTES

A IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR, SUB-CONTRACTORS, MANUFACTURERS AND SUPPLIERS TO ADHERE TO THE REQUIREMENTS OF THE FOLLOWING GENERAL NOTES. IF CONFLICT OCCURS, CONTACT A/E PRIOR TO COMMENCEMENT OF WORK.

B EVERY EFFORT HAS BEEN MADE TO MAKE THESE DOCUMENTS COMPLETE AND COORDINATED, TO DEFINE WORK IN THE MOST ACCURATE PLACE AND TO ELIMINATE REDUNDANCY. THE SCOPE OF WORK IS DEFINED THROUGHOUT THE ENTIRE SET OF DRAWINGS & SPECIFICATIONS AND IS NOT LIMITED TO JUST ONE SERIES OF DRAWINGS OR DIVISION OF SPECIFICATIONS. REVIEW THE ENTIRE SET OF CONTRACT DOCUMENTS TO DETERMINE EACH CONTRACTOR'S SCOPE OF WORK. NO ADDITIONAL COST SHALL BE INCURRED BY THE OWNER FOR CONTRACTORS FAILURE TO UNDERSTAND THE FULL SCOPE OF WORK. IF CONFLICT OCCURS, CONTACT A/E PRIOR TO COMMENCEMENT OF WORK.

C PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT AS REQUIRED TO INSTALL COMPLETE AND OPERABLE SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED, AS REQUIRED BY ALL APPLICABLE CODES, AND PER MANUFACTURER'S DIRECTIONS.

D SIZE AND LOCATION OF EXISTING EQUIPMENT, CONDUIT, WIRING, ETC. SHOWN FOR REFERENCE ONLY. FIELD VERIFY EXACT CONDITIONS PRIOR TO BID.

E NO CUTTING SHALL BE DONE TO ANY OF THE STRUCTURAL MEMBERS THAT WOULD TEND TO LESSEN THEIR STRENGTH, UNLESS SPECIFIC PERMISSION IS GRANTED BY THE ARCHITECT.

F REMOVE SLEEVES AND PATCH ALL WALLS, FLOORS, AND CEILINGS TO REMAIN WHERE CONDUIT AND/OR ELECTRICAL EQUIPMENT HAS BEEN REMOVED. PATCHES IN RATED CONSTRUCTION SHALL MATCH EXISTING MATERIAL TO ENSURE RATING INTEGRITY.

G COORDINATE DEMOLITION WITH GENERAL CONTRACTOR. OWNER SHALL HAVE FIRST ACCESS TO ALL REMOVED COMPONENTS. THE REMAINING ITEM SHALL BE COMPLETELY REMOVED BACK TO ACTIVE SERVICE LOCATION. REMOVE ALL ASSOCIATED HANGERS, SUPPORTS, POWER, CONTROLS, ETC.

H PROVIDE SMOOTH CONCRETE FILL AND PATCH FOR ALL FLOOR MOUNTED OUTLETS BOXES AND FLOOR CHASES NOT BEING REUSED FOR NEW CONSTRUCTION IS COMPLETE.

I COORDINATE CONSTRUCTION OF ALL WORK WITH ARCHITECTURAL, CIVIL, STRUCTURAL, PLUMBING, ELECTRICAL WORK, ETC., SHOWN ON ALL OTHER CONTRACT DOCUMENT DRAWINGS.

J ALL OPENINGS IN FIRE WALLS FOR BOXES, CONDUITS, ETC., SHALL BE FIRE STOPPED WITH A SPECIFIED PRODUCT SIMILAR TO 3M, OR APPROVED EQUAL.

K PROVIDE UPDATED CIRCUIT DIRECTORIES FOR ALL EXISTING PANELBOARDS WHERE NEW CIRCUITS ARE ADDED OR EXISTING CIRCUITS ARE DEMOLISHED.

L ALL CONDUCTORS SHALL BE INSTALLED IN RIGID METAL RACEWAY AS DESCRIBED IN THE SPECIFICATIONS. METAL CLAD, TYPE MC CABLE IS NOT AN ACCEPTABLE WIRING METHOD.

M PROVIDE DEDICATED NEUTRAL CONDUCTORS FOR ALL CIRCUITS REQUIRING A NEUTRAL CONNECTION. SHARING NEUTRAL CONDUCTORS BETWEEN PHASES IS PROHIBITED.

N ALL OUTLET DEVICE AND JUNCTION BOXES AND ASSOCIATED CONDUIT INDICATED IN NEW BLOCK WALLS SHALL BE CONCEALED IN THE BLOCK WALL. SURFACE MOUNTED BOXES AND CONDUIT ARE NOT ACCEPTABLE AND WILL BE NOTED FOR CORRECTION ON SITE INSPECTION SUPPORT LISTS.

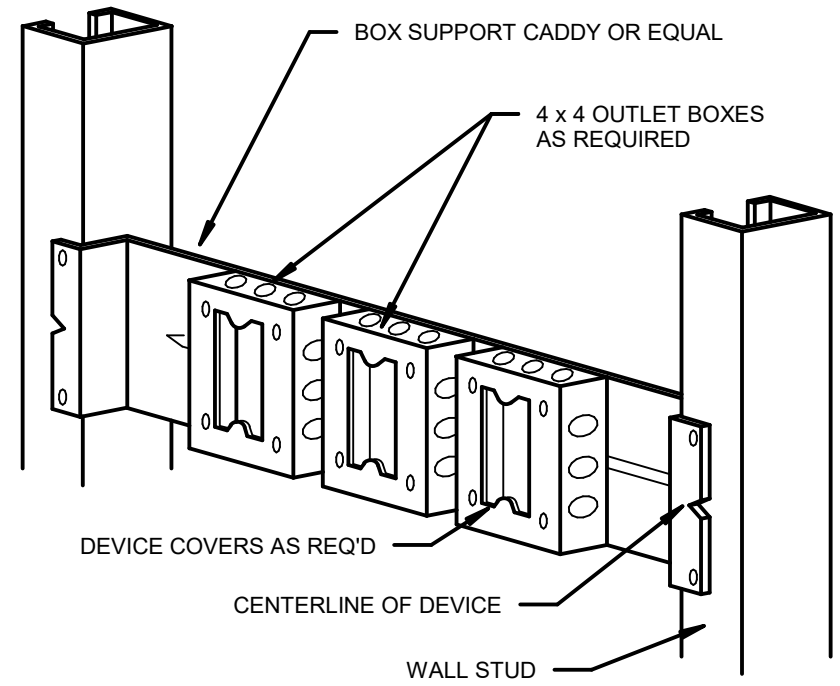
O FASTEN JUNCTION AND PULL BOXES TO OR PUNCH FROM BUILDING STRUCTURE. DO NOT SUPPORT BOXES BY CONDUITS.

BRANCH CIRCUIT AND SERVICE CONDUCTOR SIZING SCHEDULE					
BRANCH CIRCUIT/FEEDER IDENTIFICATION	OVERCURRENT DEVICE	PHASE AND NEUTRAL CONDUCTORS (AWG/kcmil)	EQUIPMENT GROUNDING CONDUCTORS (AWG/kcmil)	GROUNDING ELECTRODE CONDUCTOR (AWG/kcmil)	CONDUIT
< F20	20	12	12	---	1/2"
< F25	25	10	10	---	1/2"
< F30	30	10	10	---	1/2"
< F35	35	8	10	---	1"
< F40	40	8	10	---	1"
< F45	45	8	10	---	1"
< F50	50	8	10	8	1"
< F60	60	6	10	8	1"
< F70	70	4	8	8	1-1/4"
< F80	80	4	8	8	1-1/4"
< F90	90	2	8	8	1-1/4"
< F100	100	2	8	8	1-1/4"
< F125	125	1/0	6	6	2"
< F150	150	1/0	6	6	2"
< F175	175	2/0	6	4	2"
< F200	200	3/0	6	4	2"
< F225	225	4/0	4	2	2-1/2"
< F250	250	250 kcmil	4	2	2-1/2"
< F300	300	350 kcmil	4	2	3"
< F350	350	500 kcmil	2	1/0	4"
< F400	400	(2) 3/0	(2) 1/0	(2) 1/0	(2) 2-1/2"
< F450	450	(2) 4/0	(2) 2	1/0	(2) 2-1/2"
< F500	500	(2) 250 kcmil	(2) 2	1/0	(2) 2-1/2"
< F600	600	(2) 350 kcmil	(2) 1/0	2/0	(2) 3"
< F700	700	(2) 500 kcmil	(2) 1/0	2/0	(2) 4"
< F800	800	(3) 300 kcmil	(3) 1/0	2/0	(3) 3"
< F1000	1000	(3) 400 kcmil	(3) 2/0	3/0	(3) 3"
< F1200	1200	(4) 350 kcmil	(4) 3/0	3/0	(4) 3"
< F1600	1600	(5) 400 kcmil	(5) 4/0	3/0	(5) 3"
< F2000	2000	(6) 400 kcmil	(6) 250 kcmil	3/0	(6) 3"
< F2500	2500	(7) 500 kcmil	(7) 350 kcmil	3/0	(7) 4"
< F3000	3000	(8) 500 kcmil	(8) 400 kcmil	3/0	(8) 4"
< F4000	4000	(11) 500 kcmil	(11) 500 kcmil	3/0	(11) 4"

NOTES:

- WHERE BRANCH CIRCUIT OR FEEDER IS NOT DESIGNATED ON THE DRAWINGS, BRANCH CIRCUIT OR FEEDER SHALL BE SIZED TO MATCH THE OVERCURRENT DEVICE LISTED ABOVE.
- GROUNDING ELECTRODE CONDUCTORS FOR SEPARATELY DERIVED SYSTEMS SHALL BE SELECTED BASED ON THE SECONDARY FEEDER OVERCURRENT DEVICE RATING.



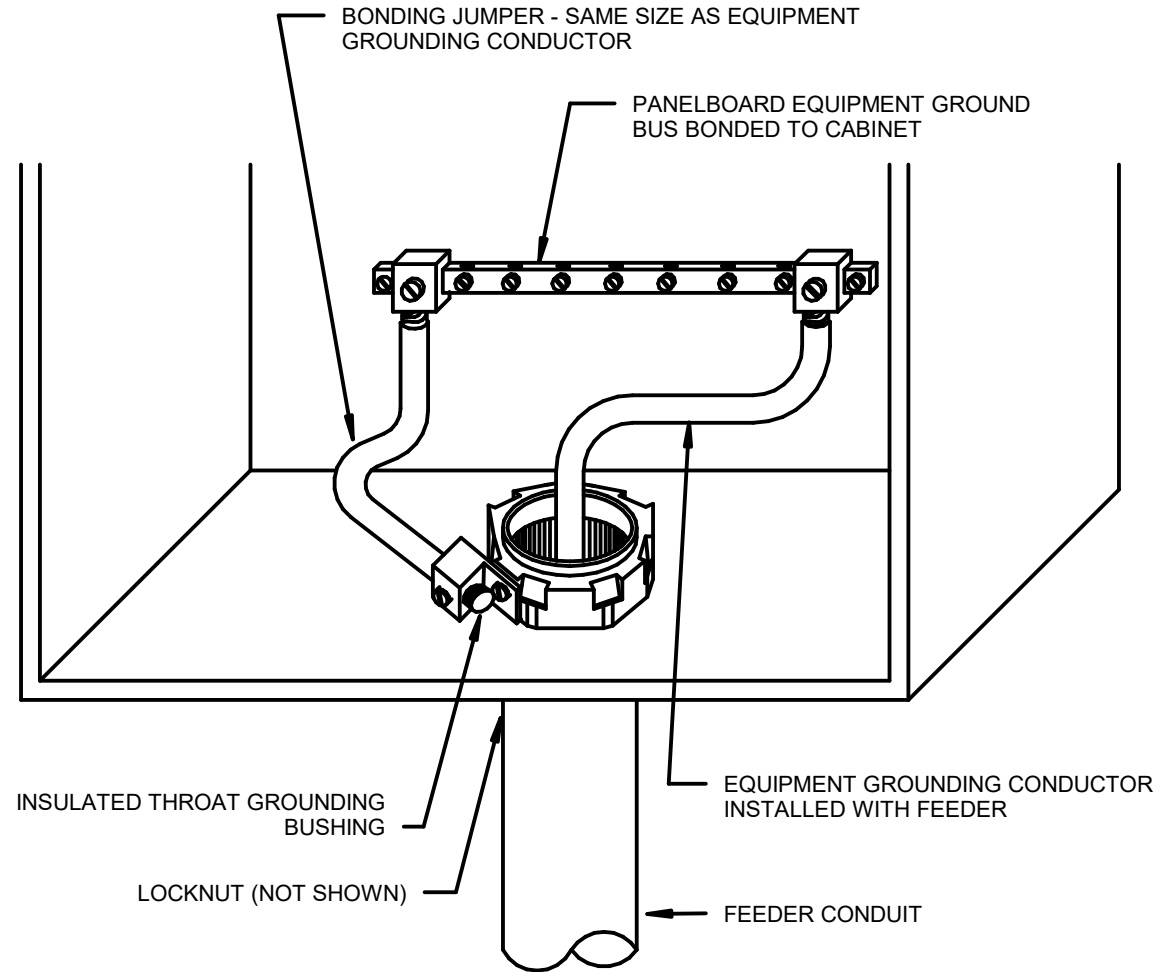


**MULTIPLE OUTLET BOX DETAIL**

NO SCALE

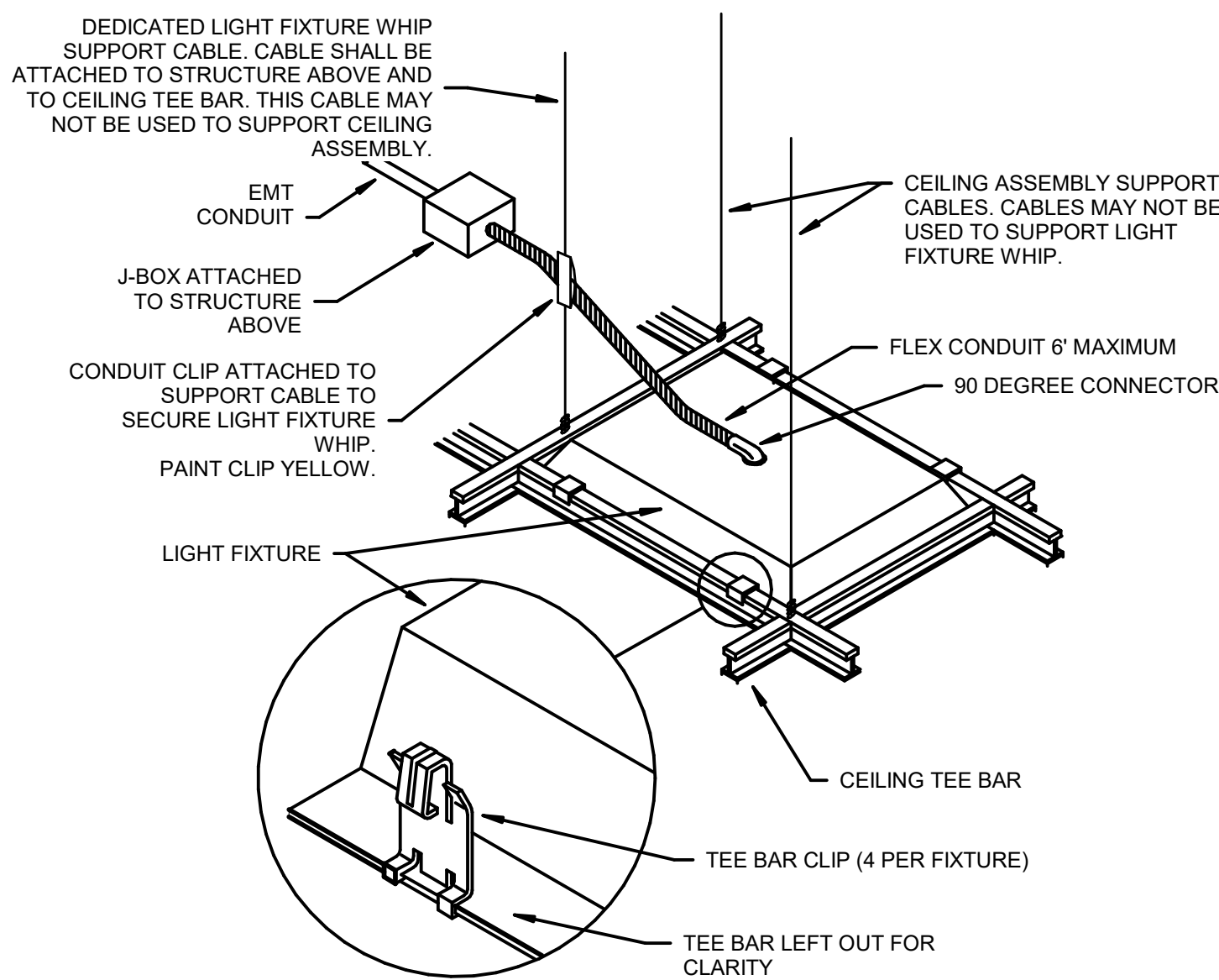
**NOTE:**

- BOXES MUST BE ON OPPOSITE SIDE OF STUD AS INDICATED.
- IN FIRE RATED CONSTRUCTION, BOXES MUST BE SEPARATED BY A MINIMUM OF 24" OR BOXES SHALL BE PROTECTED WITH WALL OPENING PROTECTIVE MATERIAL COMPLYING WITH ANSI/UL 263 (QCSN).
- BOXES LARGER THAN 2 GANG SHALL NOT BE USED IN RATED CONSTRUCTION.



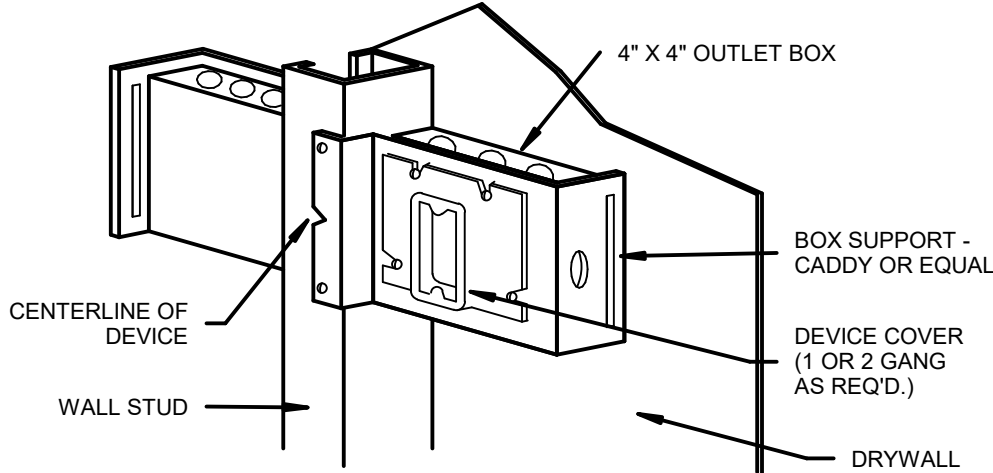
**PANELBOARD BONDING DETAIL**

NO SCALE



**LAY-IN LIGHT FIXTURE DETAIL**

NO SCALE

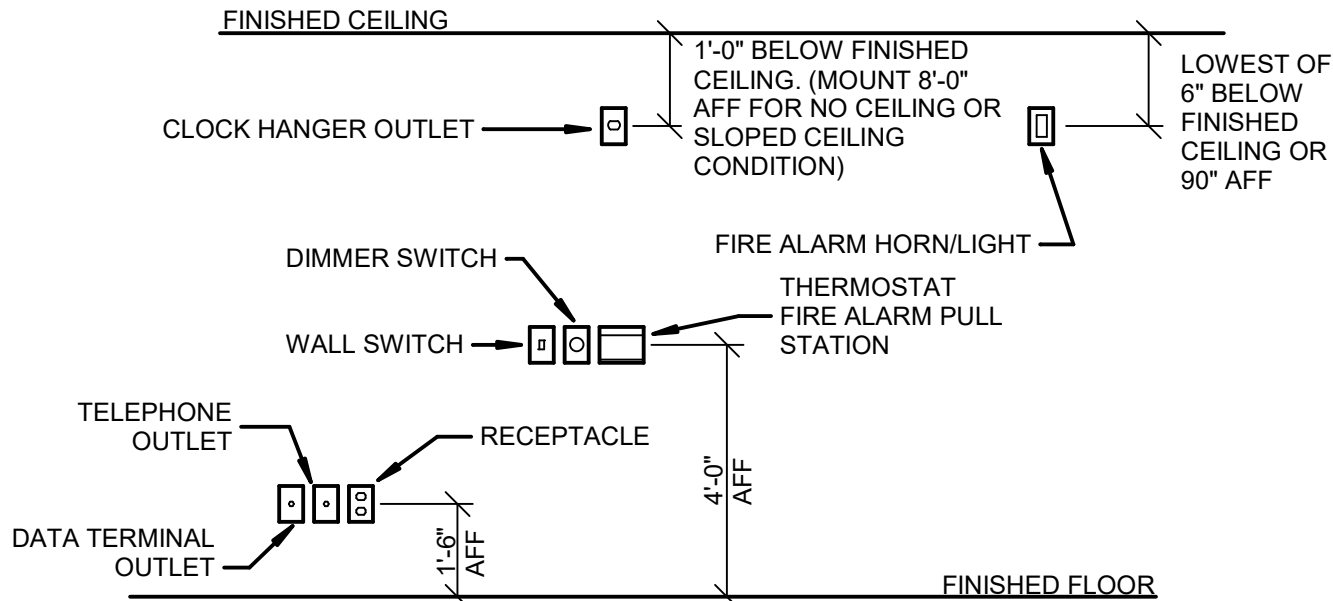


**1 OR 2 GANG "BACK TO BACK" BOX DETAIL**

NO SCALE

**NOTES:**

- TYPICAL FOR OUTLET BOXES IN NON-RATED CONSTRUCTION ONLY.
- IN FIRE RATED CONSTRUCTION, BOXES MUST BE SEPARATED BY A MINIMUM OF 24" OR BOXES SHALL BE PROTECTED WITH WALL OPENING PROTECTIVE MATERIAL COMPLYING WITH ANSI/UL 263 (QCSN).
- BOXES LARGER THAN 2 GANG SHALL NOT BE USED IN RATED CONSTRUCTION.



**NOTE:** VERIFY ALL HEIGHTS WITH ARCHITECT

**WIRING DEVICE MOUNTING HEIGHTS - TYPICAL**

NO SCALE

**LIGHT FIXTURE SCHEDULE**

TYPE	VOLTAGE	MOUNTING	MANUFACTURER	MODEL NO.	LAMPS	DELIVERED LUMENS	INPUT WATTS	NOTES
A	120/277	RECESSED	METALUX	24FP6435C	LED	6100	60 VA	
A1	120/277	RECESSED	METALUX	24FP6435C	LED	6100	60 VA	1
C	120/277	SURFACE	AMETRIX	A06-SI-A-1-LED-35K-D-UNV-W-AK06	LED	7900	82 VA	2
D	120/277	RECESSED	PORTFOLIO	LD4B15D010-EU4B10208035-4LBM1LI	LED	1500	16 VA	
X	120/277	SURFACE	SURE-LITES	CX61-SD-R	LED	---	5 VA	

**LIGHT FIXTURE GENERAL NOTES**

- PROVIDE EMERGENCY DRIVERS WHERE INDICATED ON THE SCHEDULE. FOR LINEAR FIXTURES, DRIVER SHALL PROVIDE A MINIMUM LIGHT OUTPUT OF 1400 LUMENS FOR 90 MINUTES. FOR DOWNLIGHT FIXTURES, DRIVER SHALL PROVIDE A MINIMUM LIGHT OUTPUT OF 900 LUMENS FOR 90 MINUTES. FIXTURE SHALL NOT BE A NIGHT LIGHT UNLESS NOTED OTHERWISE.
- EACH LIGHT FIXTURE TYPE SHALL BE BINNED WITHIN A THREE-STEP MACADAM ELLIPSE TO ENSURE COLOR CONSISTENCY AMONG LUMINAIRES.

**LIGHT FIXTURE NOTES**

- PROVIDE FIXTURE WITH BODINE GTD2 UL 924 TRANSFER RELAY.
- VERIFY EXACT PLACEMENT WITH THE OWNER AND AV SYSTEM INSTALLER.

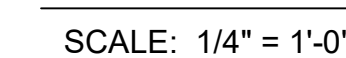
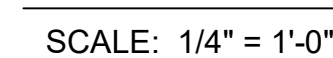


STATE OF TEXAS  
 REESE WRIGHT  
 79805  
 REGISTERED  
 PROFESSIONAL ENGINEER  
 MECHANICAL ENGINEERING

## DEMOLITION AND LIGHTING PLANS

## E1.1

- A. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLAN.
- B. INSTALL A CONTINUOUS, NON-SWITCHED HOT CONNECTION TO ALL NEW EMERGENCY DRIVERS AND EXIT SIGNS.
- C. VERIFY THE EXACT MOUNTING HEIGHT OF ALL WALL MOUNTED LIGHT FIXTURES WITH THE ARCHITECTURAL ELEVATIONS.
- D. ALL OCCUPANCY SENSORS, WITH THE EXCEPTION OF THE FOLLOWING LOCATIONS, SHALL BE SET TO VACANCY MODE FOR LOCAL ON-AUTOMATIC OFF DELAYERS, STAIRS, RESTROOMS, BUILDING PRIMARY ENTRANCES, LOBBIES AND OTHER AREAS AS INDICATED ON THE PLAN.







- 1 CEILING MOUNTED RECEPTACLE TO SERVE OVERHEAD PROJECTOR. VERIFY EXACT LOCATION WITH THE AV SYSTEM INSTALLER.
- 2 CEILING RECEPTACLE TO SERVE PROJECTOR SCREEN. VERIFY EXACT LOCATION WITH THE AV SYSTEM INSTALLER. INSTALL CONTROL WIRING IN 1/2" CONDUIT TO SCREEN CONTROL SWITCH NOTED 8.
- 3 PROJECTOR SCREEN CONTROL SWITCH PROVIDED WITH PROJECTOR SCREENS. VERIFY EXACT LOCATION WITH THE AV SYSTEM INSTALLER.
- 4 EXISTING FLOOR BOX LOCATION. PROVIDE NEW QUADRAPLEX RECEPTACLE AND CIRCUIT INDICATED. PROVIDE 4 COMMUNICATIONS OUTLETS IN EXISTING BOX. PROVIDE 3 - 1" CONDUITS TO MAIN AV RACK IN ROOM 1107A. VERIFY ALL REQUIREMENTS WITH THE AV SYSTEM INSTALLER.
- 5 J-BOX AND RECEPTACLE TO SERVE CAMERA LOCATION. INSTALL 1 - 1-1/4" CONDUIT FROM J-BOX TO ABOVE CEILING.
- 6 EXISTING CONDUIT STUB-UP LOCATION. PROVIDE NEW CIRCUIT WITH NEUTRAL INDICATED FOR NEW FURNITURE. CONNECT CIRCUITS TO NEW FURNITURE AS DIRECTED BY THE FURNITURE INSTALLER.
- 7 J-BOX, RECEPTACLE AND COMMUNICATIONS OUTLETS TO SERVE NEW AV SYSTEM RACK. INSTALL 2 - 1-1/4" CONDUITS FROM J-BOX TO ABOVE CEILING. VERIFY EXACT LOCATION AND ALL REQUIREMENTS WITH THE AV SYSTEM INSTALLER.
- 8 NEW FIRE ALARM DEVICE. PROVIDE WIRING IN 3/4" CONDUIT TO EXISTING SYSTEM LOOP/NOTIFICATION CIRCUIT.
- 9 CONNECT NEW VAV BOX TO EXISTING 120V VAV BOX CIRCUIT.

A. PROVIDE 3/4" CONDUIT TO 6" ABOVE THE NEAREST ACCESSIBLE CEILING OR TO THE STRUCTURE IN OPEN CEILING AREAS FOR ALL COMMUNICATIONS DEVICES INDICATED. INSTALL CATEGORY 6 COMMUNICATIONS WIRING FROM EACH OUTLET TO THE NEAREST PANEL IN THE RACEWAY. VERIFY ALL WIRING MEETS THE SPECIFICATIONS FOR ALL REQUIREMENTS. VERIFY THE EXACT LOCATION OF NEAREST IDF LOCATION WITH THE OWNER.

3. VERIFY ALL DEVICE MOUNTING HEIGHTS FOR DEVICES LOCATED IN MILLWORK WITH ARCHITECTURAL ELEVATIONS. FOR ALL DEVICES NOT INDICATED ON THE ARCHITECTURAL ELEVATIONS, VERIFY THE EXACT LOCATION AND MOUNTING HEIGHT WITH THE ARCHITECT PRIOR TO INSTALLATION.

4. VERIFY THE EXACT LOCATION OF ALL FLOOR MOUNTED DEVICES WITH THE ARCHITECT AND/OR OWNER PRIOR TO ROUGH-IN INSTALLATION.

THE WORK INDICATED ON THIS SHEET IS ONLY A PORTION OF THE COMPLETE WORK TO BE COMPLETED BY THE DIVISION 25 CONTRACTOR. REFERENCE TO THE AUDIO VISUAL DRAWINGS FOR ADDITIONAL WORK REQUIRED. VERIFY THE EXACT LOCATION, MOUNTING HEIGHTS AND CONNECTION REQUIREMENTS OF ALL AUDIO VISUAL EQUIPMENT WITH THE AUDIO VISUAL DRAWINGS. PROVIDE ALL CONNECTIONS REQUIRED FOR COMPLETE OPERATION OF AUDIO VISUAL PRESENTATION SYSTEM.

c. CIRCUITS INDICATED TO EXISTING PANELS ARE FOR GROUPING AND REFERENCE ONLY. RE-USE EXISTING 20A-1P CIRCUIT BREAKERS AND PROVIDE NEW 20A-1P CIRCUIT BREAKERS AS NECESSARY TO SERVE CIRCUITS INDICATED. VERIFY CIRCUIT NUMBERS AND ALL EXISTING PANEL CONDITIONS AT THE JOBSITE. PROVIDE UPDATED CIRCUIT DIRECTORIES TO ALL EXISTING PANELS AND PROVIDE TO THE OWNER.

A. PROVIDE A COMPLETE AND OPERATIONAL FIRE ALARM SYSTEM AS INDICATED ON THE DRAWINGS AND AS DETAILED IN DIVISION 28 OF THE SPECIFICATIONS. PROVIDE ALL LABOR AND MATERIALS NECESSARY TO CONNECT ALL NEW DEVICES TO THE EXISTING FIRE ALARM SYSTEM. RECERTIFY EXISTING SYSTEM AFTER COMPLETING WORK.

B. PROVIDE ALL FIRE ALARM WIRING IN 3/4" CONDUIT. PROVIDE COMPLETE CONDUIT LAYOUT WITH FIRE ALARM SUBMITTAL.

C. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS OF ALL TEMPERATURE CONTROL DEVICES.

