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# LEON COUNTY COMMUNITY SERVICES BUILDING HVAC IMPROVEMENTS - PHASE I

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## LEON COUNTY DIVISION OF FACILITIES MANAGEMENT TALLAHASSEE, FLORIDA

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DECEMBER 8, 2009

### 100% CONSTRUCTION DOCUMENTS

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McGinniss & Fleming  
Engineering, Inc.

*Mechanical • Electrical • Fire Protection • Plumbing*

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**VENTILATION SCHEDULE PER FBC TABLE 403.3**

UNIT	ROOM # - SPACE FUNCTION	AREA SF OR NUMBER OF OCCUPANTS	RATE CHMSO FT OR CFM PER OCCUPANT	VENTILATION CFM	
				AVAIL	DESIGN
AHU-2A	1.1 - DIRECTOR/OFFICE	1	20	20	20
*	1.4 - WORK ROOM/OFFICE	1	20		20
*	1.2A - ASSISTANT/RECEP	1	20		20
*	1.2 - ASSISTANT/OFFICE	1	20		20
				TOTAL	80 (1)
AHU-2B	5.1 - LOBBY/RECEPTION	1	150P		15
*	5.1A - CORRIDOR	515 SF	0.1 CHMSF		52
				TOTAL	67
AHU-2C	1.3 - COPY ROOM	0 (3)	200P		0
*	2.5 - COPY ROOM	0 (3)	200P		0
*	2.2 - ASSISTANT/OFFICE	2	200P		40
*	2.3 - WORKROOM/OFFICE	4	200P		80
*	2.1 - DIRECTOR/OFFICE (2)	1	20		20
*	2.4 - OFFICE (2)	1	20		20
				TOTAL	160
AHU-2D	3.1 - WORK AREA/OFFICE	1	200P		20
*	3.1A - COFFEE AREA	NA	NA		NA
*	3.2 - DIRECTOR/OFFICE	1	200P		20
*	3.3 - ASSISTANT/OFFICE	1	200P		20
*	3.4A - OFFICER/OFFICE	1	200P		20
*	3.4B - OFFICER/OFFICE	1	200P		20
*	3.5 - DIRECTOR/OFFICE	1	200P		20
*	3.6 - INTERVIEW/OFFICE	1	200P		20
*	4.1 - SECRETARY/OFFICE	1	200P		20
*	4.1A - RECEPTION	2	150P		30
*	4.4 - FILE/T ROOM	NA	NA		NA
*	4.2A - CASE MGR/OFFICE (2)	1	20		20
*	4.2B - CASE MGR/OFFICE (2)	1	20		20
				TOTAL	230

NOTES:  
 1. AN ADDITIONAL 50 CFM OF OUTSIDE AIR IS SCHEDULED FOR THIS UNIT TO ACCOUNT FOR THE MECHANICAL ROOM AIR CONDITIONING AND PRESSURIZATION.  
 2. VENTILATION PROVIDED BY ZONE 2 EQUIPMENT AS OFFICE IS SERVED BY EXISTING DUCTLESS SYSTEM - NO MEANS OF VENTILATION OTHERWISE.  
 3. SPACES NORMALLY UNOCCUPIED - VENTILATION VIA ADJACENT SPACES.

ZONE 2 AIR SUMMARY:  
 - TOTAL OUTSIDE AIR VENTILATION: 537 CFM  
 MENS RESTROOM: 3 FIXTURES X 50 CFM/FIXTURE = 150 CFM  
 WOMENS RESTROOM: 3 FIXTURES X 50 CFM/FIXTURE = 150 CFM  
 JANITORS CLOSET WITH WOPSINK: 50 CFM  
 MINIMUM CODE EXHAUST FLOWRATE: 350 CFM  
 - DESIGN RESTROOM EXHAUST FLOWRATE: 350 CFM (175 CFM PER RESTROOM X 2)  
 - DESIGN TOTAL EXHAUST = 400 (INCLUDING JAN CLOSET)  
 - ZONE 2 PRESSURIZATION: TOTAL VENTILATION - EXHAUST = 537-400 (DESIGN) = 137 CFM (+VE)

**DIFFUSER & DOOR GRILLE SCHEDULE - NEW**

TYPE	DESCRIPTION	MODEL	REMARKS	DAMPER
(M)	ROUND DOUBLE WALL INSULATED DUCT SUPPLY AIR GRILLE: 17X8	LUNBAR RGS-3	STEEL CONSTRUCTION, WHITE ENAMEL FINISH WITH BI-DIRECTIONAL GRILLES	YES
(N)	ROUND DOUBLE WALL INSULATED DUCT SUPPLY AIR GRILLE: 17X3	LUNBAR RGS-3	STEEL CONSTRUCTION, WHITE ENAMEL FINISH WITH BI-DIRECTIONAL GRILLES	YES
(O)	LOUVERED FACE SQUARE SUPPLY DIFFUSER SURFACE MOUNT	TTTUS TOCA-AA	STEEL CONSTRUCTION, WHITE ENAMEL FINISH 12 X 12 MODULE SIZE, 6" Ø NECK, A3-2 DISCHARGE CONFRIG.	YES
(P)	PERFORATED FACE RETURN AIR GRILLE	TTTUS PFR	STEEL CONSTRUCTION, WHITE ENAMEL FINISH 24X24 LAY-IN MODULE SIZE, 10" Ø NECK	NO
(R)	DOUBLE DEFLECTION SUPPLY AIR GRILLE	TTTUS 272RL (2)	20 GA STEEL BORDER, SURFACE MOUNT, EXTRUDED ALUM. BLADES SPACED 3/4" WITH FRONT BLADES HORIZONTAL, 12 X 12	YES
(S)	RETURN AIR GRILLE	TTTUS 33RL	STEEL CONSTRUCTION, WHITE ENAMEL FINISH 24X24 SURFACE MOUNT	NO
(T)	RETURN AIR GRILLE	TTTUS 33RL	STEEL CONSTRUCTION, WHITE ENAMEL FINISH 24X24 SURFACE MOUNT	NO
(W)	RETURN AIR GRILLE (1)	TTTUS 3502L	STEEL CONSTRUCTION, SURFACE MOUNT, WHITE ENAMEL FINISH, 50X8	NO
(X)	DOUBLE DEFLECTION SUPPLY AIR GRILLE	TTTUS 272RL (2)	20 GA STEEL BORDER, SURFACE MOUNT, EXTRUDED ALUM. BLADES SPACED 3/4" WITH FRONT BLADES PARALLEL TO LONG DIM., 12 X 6	YES
(Y)	DOUBLE DEFLECTION SUPPLY AIR GRILLE	TTTUS 272RL	20 GA STEEL BORDER, SURFACE MOUNT, EXTRUDED ALUM. BLADES SPACED 3/4" WITH FRONT BLADES PARALLEL TO LONG DIM., 6X6	YES
(Z)	RETURN AIR GRILLE	TTTUS 56PL	EXTRUDED ALUMINUM, SURFACE MOUNT, STRIGHT BLADES SPACED 3/4", 6X4	YES
(11)	TRANSFER AIR GRILLE	TTTUS 25RL	STEEL CONST., 46" FIXED DEFLECTION, 1/2" BRIDGE SPACING, SURF. MOUNT, WHITE FINISH, 20X12	NO
DC-1	RETURN AIR DOOR GRILLE	TTTUS 7100L	STEEL, V-BLADES WITH AUX. INTERNAL FRAME, ENAMEL FINISH (COLOR CHOICE PER OWNER), 18" W X 14" H.	NO

NOTES:  
 1. PROVIDE BOOT ON (E) ROUND DUCT TO ACCOMMODATE GRILLE OR PROVIDE ROUNDED GRILLE FOR ROUND DUCT.  
 2. PROVIDE INSULATED BOOT TO ACCOMMODATE GRILLE (ROUND NECK TO RECTANGULAR/SQUARE GRILLE).

**DIFFUSER & GRILLE SCHEDULE - EXISTING**

TYPE	DESCRIPTION	MODEL	REMARKS	DAMPER
(A)	ROUND SUPPLY DIFFUSER 6" DIA. NECK	KREUGER RA-1	STEEL CONSTRUCTION, WHITE ENAMEL FINISH	YES
(B)	ROUND SUPPLY DIFFUSER 8" DIA. NECK	KREUGER RA-1	STEEL CONSTRUCTION, WHITE ENAMEL FINISH	YES
(C)	ROUND SUPPLY DIFFUSER 10" DIA. NECK	KREUGER RA-1	STEEL CONSTRUCTION, WHITE ENAMEL FINISH	YES
(D)	STRAIGHT BLADE SUPPLY AIR GRILLE	UNKNOWN	STEEL CONSTRUCTION, WHITE ENAMEL FINISH 12.5 X 24 W/ 750 AIR PATTERNS	YES
(E)	RETURN REGISTER 8" X 6" NECK	KREUGER S-80	STEEL CONSTRUCTION, WHITE ENAMEL FINISH	YES
(F)	RETURN REGISTER 10" X 8" NECK	KREUGER S-80	STEEL CONSTRUCTION, WHITE ENAMEL FINISH	YES
(G)	RETURN REGISTER 12" X 10" NECK	KREUGER S-80	STEEL CONSTRUCTION, WHITE ENAMEL FINISH	YES
(H)	RETURN REGISTER 24" X 12" NECK	KREUGER S-80	STEEL CONSTRUCTION, WHITE ENAMEL FINISH	YES
(J)	4WAY CEILING DIFFUSER 12" X 12" NECK	KREUGER SH-4	STEEL CONSTRUCTION, WHITE ENAMEL FINISH	YES
(K)	4WAY CEILING DIFFUSER 15" X 15" NECK	KREUGER SH-4	STEEL CONSTRUCTION, WHITE ENAMEL FINISH	YES
(L)	4WAY CEILING DIFFUSER 12" X 12" NECK	KREUGER SH-4	STEEL CONSTRUCTION, WHITE ENAMEL FINISH	YES
(U)	LOUVER SUPPLY GRILLE	UNKNOWN	UNKNOWN	UNK
(H)	RETURN AIR GRILLE	UNKNOWN	24 SQ. LAY IN, PERFORATED FACE	NO

NOTES:  
 1. INFORMATION BASED UPON AVAILABLE ASSEMBLYS  
 2. FIELD VERIFY PRIOR TO COMMENCING WORK.

**DX SPLIT SYSTEM SCHEDULE - EXISTING**

MARK	STATUS/POSITION	AHU-2B#2	ANTICOLLISION
	FAN SECTION	6000	
	TOTAL AIR (CFM)	5635	
	RETURN AIR (CFM)	3565	
	OUTSIDE AIR (CFM)	1025	
	FAN SPEED (RPM)	1025	
	TOTAL ESP (IN. WTR.)	5	
	FAN MOTOR (HP)	1.5	
	ELECTRIC (V/PH/Hz)	208/240	
	COOLING COIL/INDOOR SECTION		
	FACE AREA (SQ.FT)	410	
	LV AIR (SQ.FT)	81, 410E-4	
	CAPACITY (MBH/TOTAL)	68, 350-8	
	CAPACITY (MBH/INTL)	146, 2	
	CAPACITY (MBH/LAT1)	126.0	
	EER	19.2	
	MCA	8.0	
	MAX FUSE SIZE	81	
	HEATING CAPACITY	100	
	MCH (REVERSE CYCLE @ 27°F)	110.0	
	SUPPLEMENTAL HEATER (MBH/W)	78, 2723	
	ELECTRIC (V/PH/Hz)	208/240	
	COMPRESSOR SECTION	312	
	ELECTRIC (V/PH/Hz)	208/240	
	MCA	288, 280	
	MAX FUSE SIZE (AMPS)	100	
	FILTER TYPE	2" THROWAWAY	
	INDOOR UNIT	THANE	
	TWE	TWA 180	
	INDOOR UNIT	TWA 180	

NOTES:  
 1. DATA BASED UPON AVAILABLE ASSEMBLYS.

**ROOF VENT SCHEDULE**

DESIGNATION	SIZE	INTAKE
DESIGN AIR FLOW	CFM	230
DUCT OR THROU SIZE	IN.	10X10
THROU AREA	SF	0.6
DESIGN AIR PRESSURE DROP (MAX)	IN WG	0.05
FRONTAL CONSTRUCTION	SPUN ALUM	
BASIS OF DESIGN MANUFACTURER	GREENHECK	
BASIS OF DESIGN MANUFACTURER/MODEL	GRSF-10	
APPLICABLE NOTES		1, 2, 3

NOTES:  
 1. PROVIDE WITH OPTIONAL FLASHING FLANGE.  
 2. BRD SCREEN - 1/2" GALVANIZED STEEL MESH.  
 3. ALUMINUM CONSTRUCTION & FINISH.

**CONDENSATE PUMP UNIT SCHEDULE**

DESIGNATION	MODEL	SIZE
SYSTEMS SERVED	FCU-2	
MANUFACTURER	LITTLE GIANT	
MODEL	VOMA-20ULS	
TANK SIZE	2 QT	
FLOW RATE	GPH	25
DYNAMIC HEAD	FT	15
SHUT OFF HEAD	FT	20
DIMENSIONS (LXWXH)	IN.	10.5X5X7
ELECTRICAL CHARACTERISTICS	V/0/Hz	115/1/60
MOTOR HORSEPOWER	HP	1/30
MOTOR AMPS		1.5

FEATURES:  
 1. HIGH-IMPACT ABS LEAKPROOF TANK, STAINLESS STEEL SHAFT, AND SNAP-ACTION SWITCHES.  
 2. LOW-VOLTAGE SAFETY SWITCH AND FLOAT FOR CUT OFF OF AC UNIT DURING PUMP MALFUNCTION.

**SUPPLY AIR GRILLE CONNECTION SIZES**

AIR FLOW RANGE (CFM)	NECK SIZE SIZE (IN)
0-100	6"Ø
101-200	8"Ø
201-400	10"Ø
401-600	12"Ø

NOTES:  
 1. THIS SCHEDULE APPLIES WHERE NO SIZE IS SPECIFIED ON THE PLAN.  
 2. EQUIVALENT SQUAREFEET SIZES ARE ACCEPTABLE.

**NOTES**

DESIGNATION	FAN TYPE	AREA SERVED	ZONE	TYPE UNIT	MANUFACTURER	MODEL	FAN TYPE/CONNT.	DRIVE TYPE	AIR FLOW RATE	DESIGN STATIC PRESSURE	DESIGN FAN SPEED	SOUND POWER	ELECTRICAL CHARACTERISTICS	MOTOR HORSEPOWER	CONTROL NOTES
FCU-2A/PHU-2A	HT PUMP	ZONE 2 SE		CARRIER	25HCBS30	SCROLL/L1	DIRCT	GFM	730	IN	1725	NS	115/1/60	1/4	1
FCU-2B/PHU-2B	HT PUMP	ZONE 2 CENTER		CARRIER	25HCBS30	SCROLL/L2	DIRCT	GFM	730	IN	1725	NS	115/1/60	1/4	1
FCU-2C/PHU-2C	HT PUMP	ZONE 2 SW		CARRIER	25HCBS30	SCROLL/L1	DIRCT	GFM	730	IN	1725	NS	115/1/60	1/4	1
FCU-2D/PHU-2D	HT PUMP	ZONE 2 NORTH		CARRIER	25HCBS30	SCROLL/L2	DIRCT	GFM	730	IN	1725	NS	115/1/60	1/4	1

NOTE/OPTIONS:  
 1. REFRIGERANT SHALL BE R-410A.  
 2. UNIT SHALL VARY FAN SPEED FROM 80% TO 100% AND CAPACITY CONTROL WHERE TWO-SPEED COMPRESSOR IS SPECIFIED.  
 3. VARIABLE-SPEED INDOOR (ECM) FAN WITH HIGH STATIC PRESSURE CAPABILITY.  
 4. CONDENSATE PUMP UNIT - SEE SCHEDULE.

**FAN SCHEDULE - EXISTING (INCL. NEW WORK)**

DESIGNATION	AREA/UNIT SERVED	SERVICE	MANUFACTURER	MODEL	TYPE	FAN TYPE/CONNT.	DRIVE TYPE	AIR FLOW RATE	DESIGN STATIC PRESSURE	DESIGN FAN SPEED	SOUND POWER	ELECTRICAL CHARACTERISTICS	MOTOR HORSEPOWER	CONTROL NOTES
EF-1	RESTROOMS	EXHAUST	GREENHECK	G-100-4	ROOF	B.I. ALUM	DIRECT	GFM	0.6	RPM	1725	NS	1/4	1

NOTE: DATA OBTAINED VIA ASBUILT DRAWINGS. CONTRACTOR SHALL VERIFY SPEED CONTROLLER AND BACKUP PART DAMPER OPTIONS (AS SCHEDULED)

1. SPEED CONTROL  
 2. BACKUP PART DAMPER  
 CONTROL NOTES (NEW)

1. FAN WIRING SHALL BE UPDATED TO INCLUDE BOTH A SCHEDULING DEVICE VIA RELAY AND CURRENT TRANSDUCER, AND MONITORED FOR STATUS VIA THE CURRENT TRANSDUCER AND PLOT LIGHT. LOUVER PAN STATUS PANEL NEAR FCU-2D.

Tallahassee, Florida

DATE: December 8, 2009

REVISIONS:

DESIGNED BY: GM  
 DRAWN BY: GMLTB

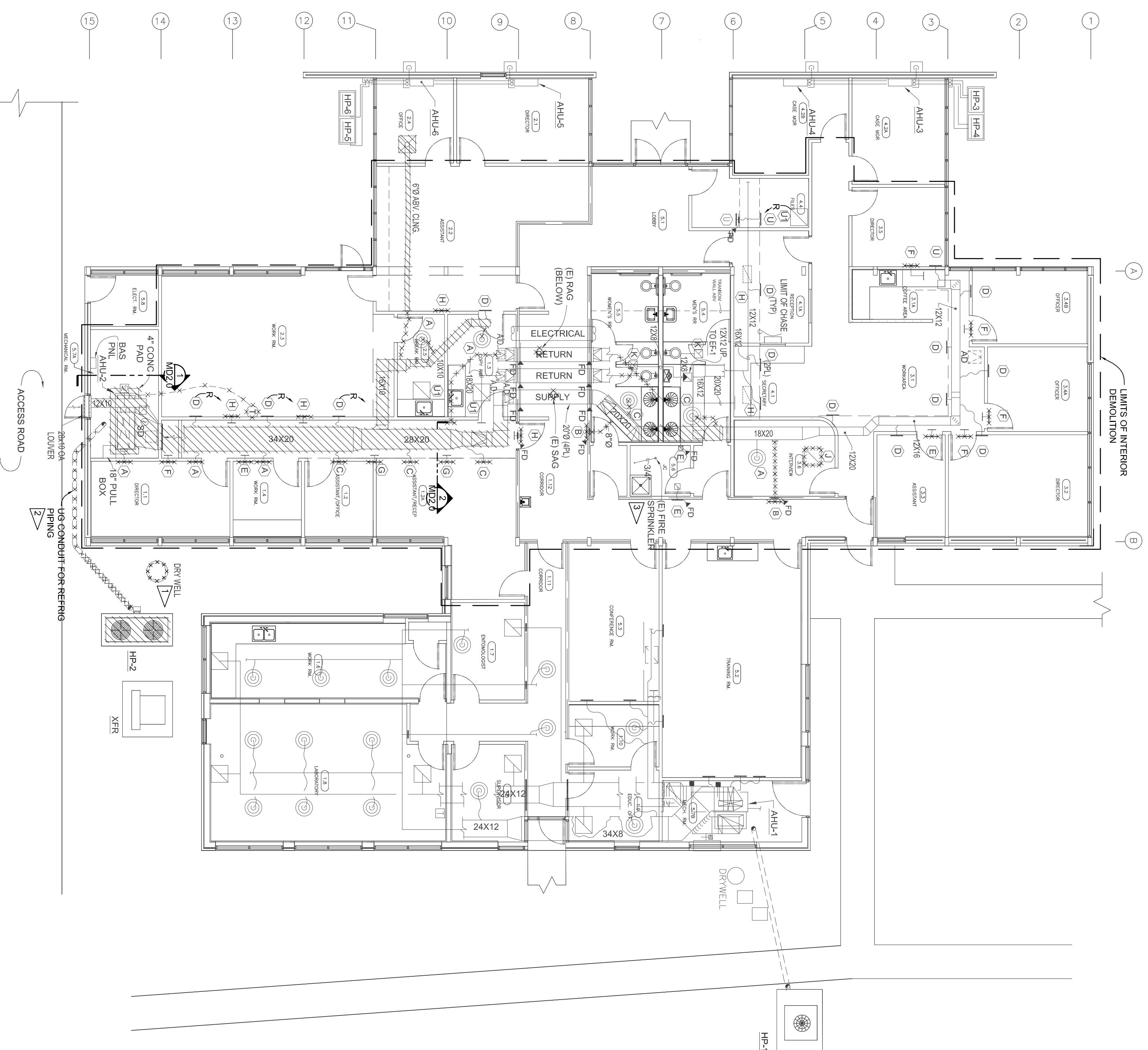
SUBMITTAL:  
 100% Construction Documents

SHEET TITLE:  
 MECHANICAL SYMBOLS AND SCHEDULES

11.1

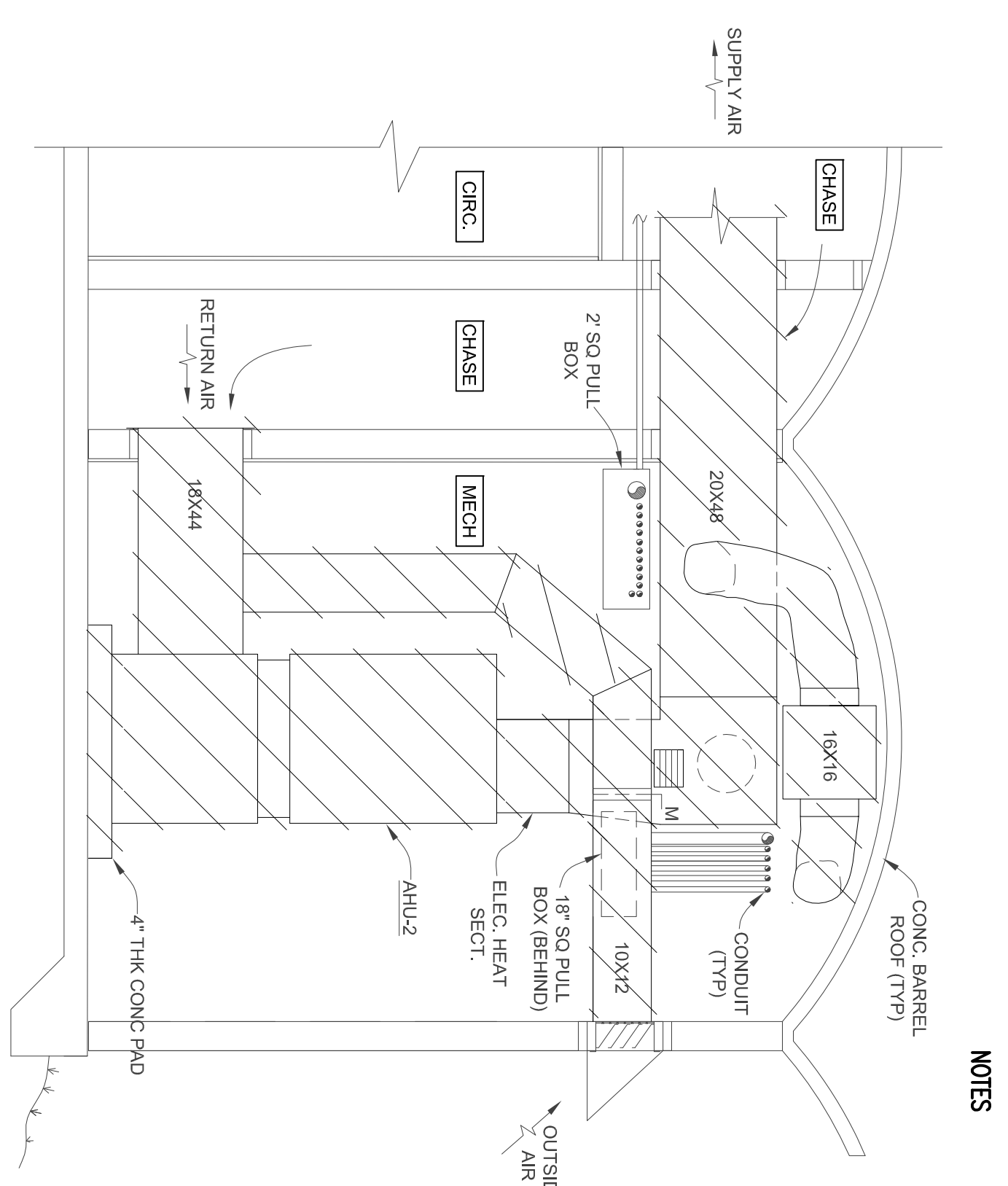
SHEET NUMBER: 914

**McCinniss & Fleming Engineering, Inc.**  
 Mechanical - Electrical - Fire Protection - Plumbing  
 1401 Massachusetts Road  
 Tallahassee, Florida 32308  
 EF 401990



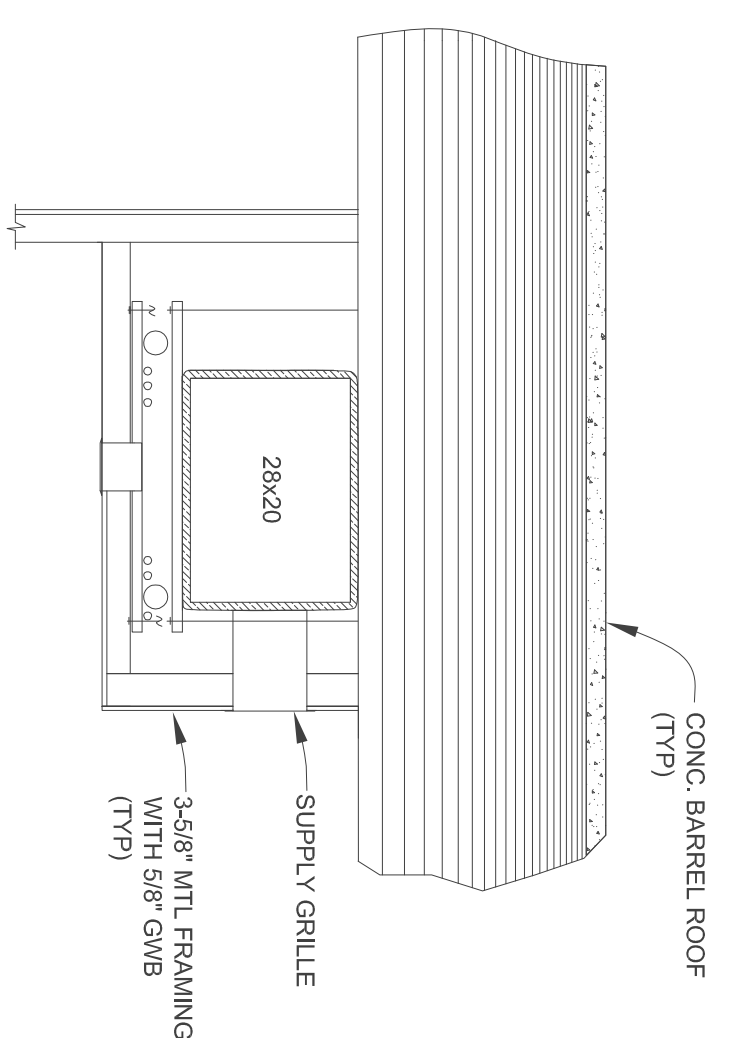
**HVAC PLAN - DEMOLITION**

- SCALE: 1/8"=1'-0"
- GENERAL DEMOLITION NOTES:
1. ONLY LIMITED ACCESS TO THE MAIN DUCT CHASE WITHIN THE OCCUPIED SPACE WILL BE PROVIDED BY THE OWNER TO MINIMIZE REPAIR/RECONSTRUCTION AND INTERFERENCE WITH OPERATIONS.
  2. DEMOLITION TO BE COORDINATED IN ADVANCE WITH OWNER AND NEW WORK PLANS.
- DEMOLITION FLAG NOTES:
1. RETAIN & REUSE EXISTING DRYWELL COVER. DEMOLISH DRYWELL CAN.
  2. REMOVE COPPER REFRIGERANT PIPING FROM ALL CONDUIT AND REMOVE CONDUIT IN NEW WORK AREA INCLUDING IN MECHANICAL ROOM FLUSH WITH THE FLOOR.
  3. REPERMUTE SPRINKLER TO ACCOMMODATE NEW DUCTWORK.



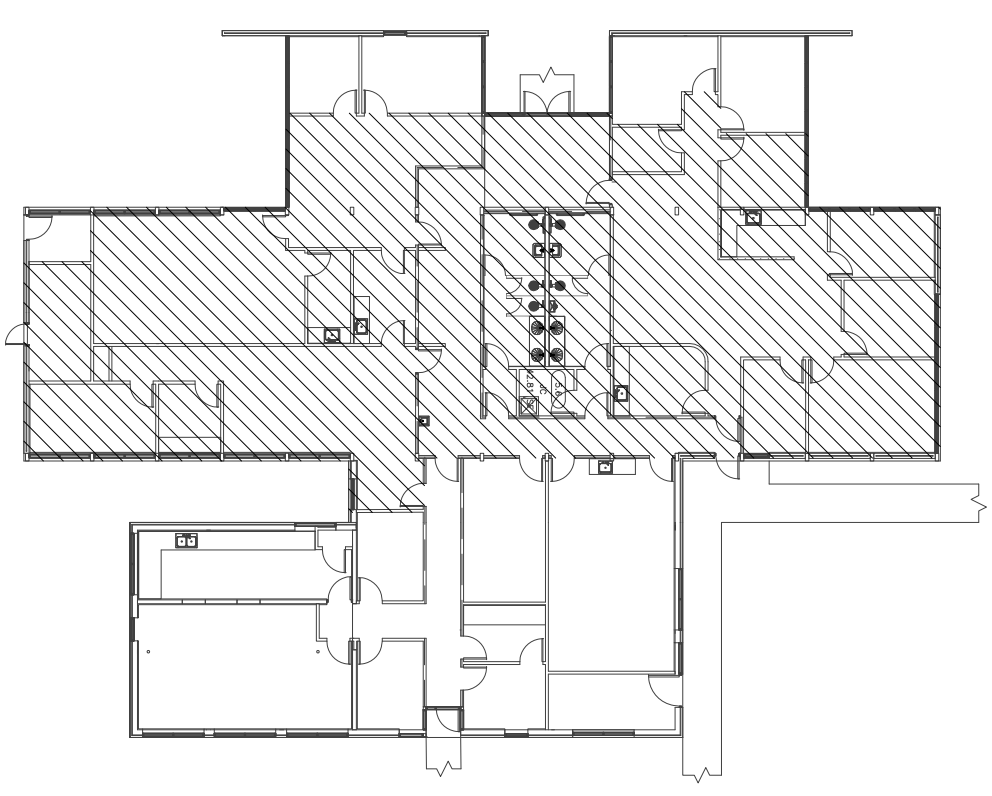
**SECTION 1/MD2.0**

- SCALE: 1/2"=1'-0"
- DEMOLITION GENERAL NOTES:
1. DEMOLISH EXISTING AHU, CONCRETE PAD, REFRIGERANT AND CONDENSATE PIPING, DUCTWORK, ETC. IN THE MECHANICAL ROOM AND BEYOND.
  2. RETAIN EXISTING OUTSIDE AIR LOUVER AND EXTERIOR RAIN SHIELD. DEMOLISH CONCRETE PAD AND EXTERIOR RAIN SHIELD.
  3. WORK AND/OR EXISTING ELECTRICAL CONDUITS AND PULL BOXES AS THEY REMAIN.



**SECTION 2/MD2.0**

- SCALE: 1/2"=1'-0"
- DEMOLITION GENERAL NOTES:
1. DEMOLISH DUCT IN CHASE. RETAIN HANGERS AND DO NOT DISTURB EXISTING CONDUIT, LIGHTS, ETC.



**KEY PLAN**

N.T.S.

**NOTES**

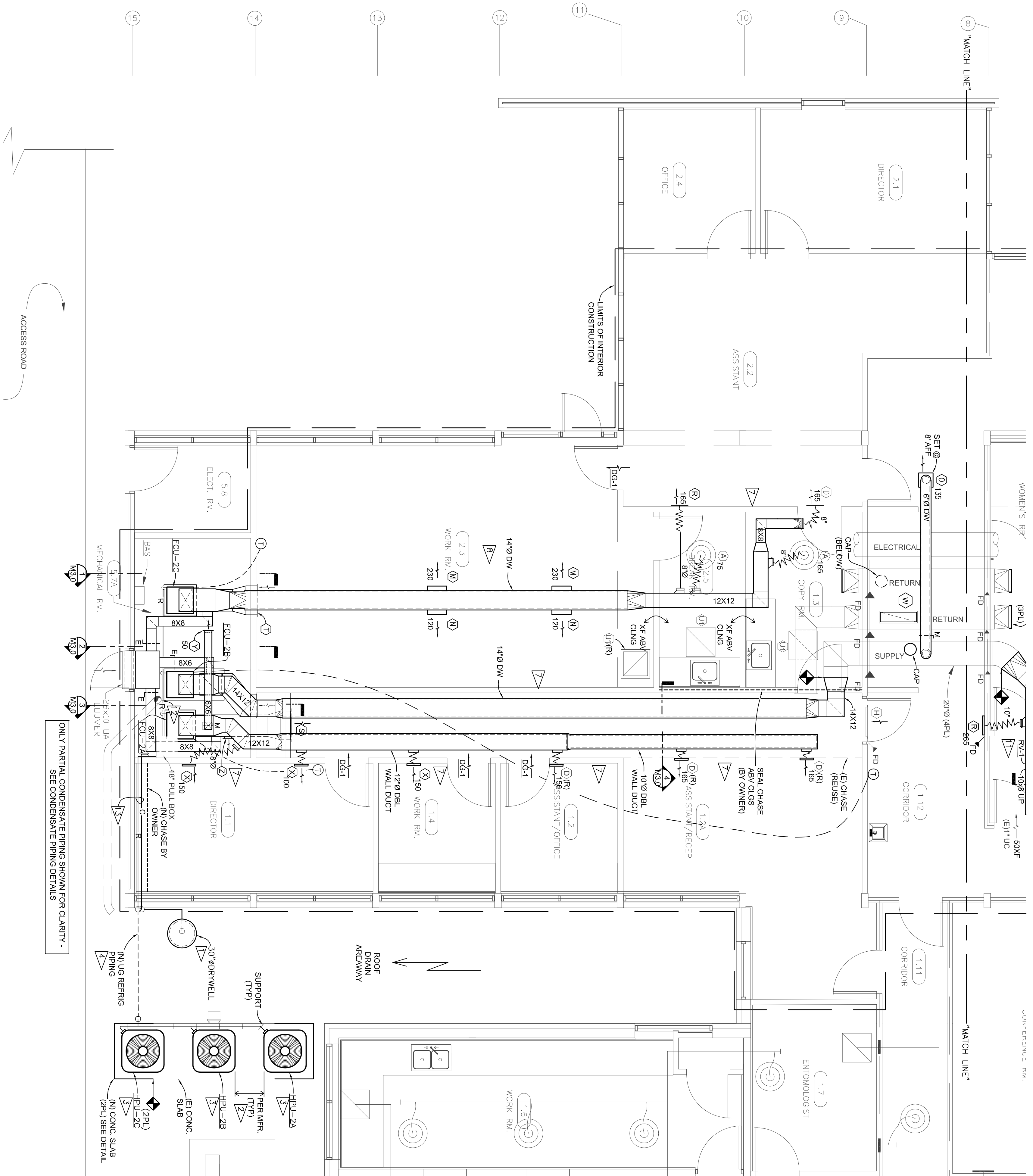
**McCinniss & Fleming**  
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 EF #419390

**LEON COUNTY**  
 COMMUNITY SERVICES BLDG.  
 HVAC IMPROVEMENTS - PHASE I  
 Tallahassee, Florida

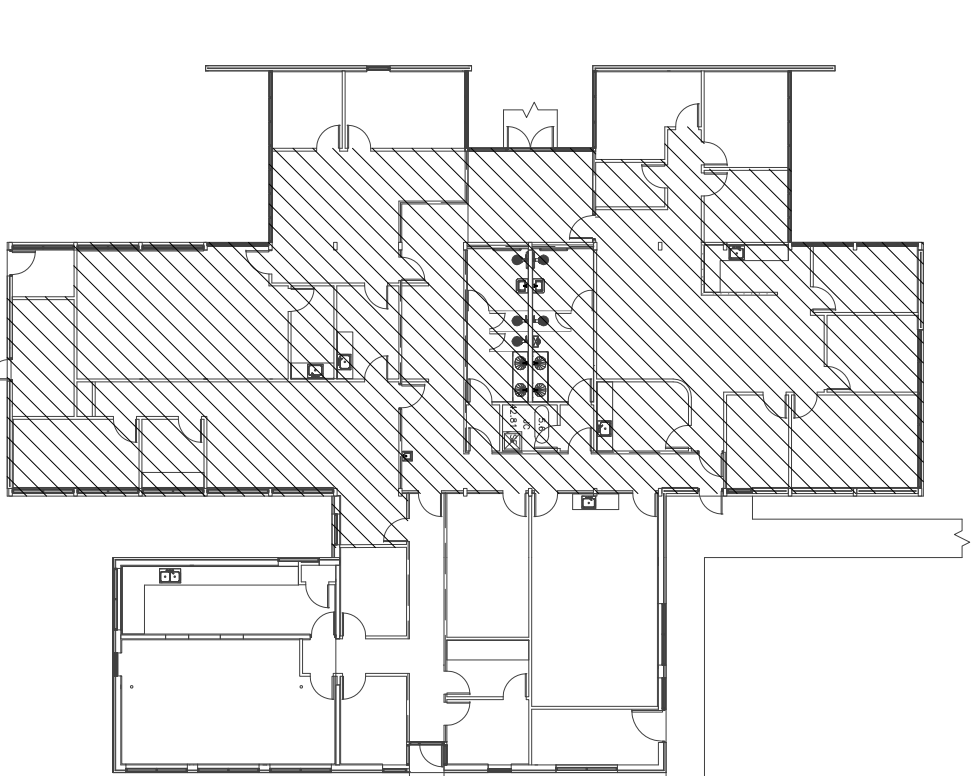
DATE: December 8, 2009  
 DESIGNED BY: GM  
 DRAWN BY: TB  
 SUBMITTED: 100% Construction Documents  
 SHEET TITLE: MECHANICAL HVAC DEMOLITION PLAN  
 SHEET: MD2.0

JOB NUMBER: 914

- CONSTRUCTION FLAG NOTES:**
- 1 PROVIDE NEW DRYWELL AND LOCATE APPROX WHERE SHOWN AND 16" FROM BUILDING - MOSTLY OUT OF ROOF DRAIN AREAWAY - AND SET TOP ELEVATION AT OR ABEY BLDG SLAB ELEVATION. SEE DETAIL.
  - 2 LAYOUT/SPACE UNITS TO COMPLY WITH THE MANUFACTURER'S SPACING REQUIREMENTS.
  - 3 PLACE CONDENSING UNITS ON ELASTOMERIC PADS (4" SQ. X 1/4" THK. - ONE PER CORNER) AND SECURE UNIT TO CONCRETE WITH 1/4" Ø EXPANSION BOLTS (ONE PER CORNER).
  - 4 FIELD VERIFY EXISTING UTILITIES PRIOR TO INSTALLING NEW REFRIGERANT PIPING. USE STEEL SLEEVES AT WALL PENETRATIONS. ORGANIZE PIPING IN TRENCH, INSULATE VAPOR LINES AND USE PROTECTIVE WRAPPING. SEE SPECS. BURY 12" DP & PROVIDE 6" SAND COVER & 6" GRAVEL ON TOP.
  - 5 LOCATE CONCRETE PAD AND UNIT TO PROVIDE THE MANUFACTURER'S REQUISITE CLEARANCE TO THE WALL.
  - 6 ROUTE NEW REFRIGERANT AND CONDENSATE PIPING ON WALL. VERTICALLY AS NEEDED THEN HORIZONTALLY AND TO FACILITATE CHASE CONSTRUCTION BY OWNER. SECURE PIPING TO WALL WITH STANDAFFS TO ACCOMMODATE INSULATION. COORDINATE ROUTING WITH OWNER IN ADVANCE.
  - 7 SUSPEND DUCT FROM BOTTOM OF BARREL ROOF SECTIONS USING CONCRETE INSERTS.
  - 8 SLOPE HORIZONTAL CONDENSATE PIPING 1/4" PER FT. TO DRAIN.
  - 9 CENTER DRYWELL IN AVAILABLE SPACE AND LOCATE TOP OF DRYWELL AT SAME ELEVATION AS SIDEWALK.
  - 10 VERIFY EXISTING UTILITIES. EXACT LOCATION NOT CRITICAL.
  - 11 ROOF VENT PROVIDED BY MECH CONTRACTOR AND INSTALLED BY ROOFING CONTRACTOR. VENT MUST BE NEAR APEX OF BARREL ROOF. SEE SECTION AND 10' FROM EXISTING EXHAUST FAN.
  - 12 CUT 6" PVC CONDUIT FLUSH OR BELOW CONCRETE FLOOR AND FILL WITH CONCRETE. FINISH FLUSH TO FLOOR.
  - 13 ROUTE AND SECURE REFRIG PIPING ALONG WALL WITH METAL FRAMING CHANNEL AND CLAMPS. ROUTE CONDENSATE CLOSE TO WALL, SUPPORT FROM FLOOR, AND SLOPE 1/4" PER FOOT. COORDINATE PIPING LAYOUT WITH OWNER IN ADVANCE TO FACILITATE CHASE CONSTRUCTION.
  - 14 LOCATE GRILLE APPROX 2" BELOW LOBBY CEILING AND BETWEEN EXISTING MTL FRAMING.



HVAC NEW WORK PLAN - SOUTH  
SCALE: 1/4" = 1'-0"



KEY PLAN  
N.T.S.

**McCinniss & Fleming**  
Engineering, Inc.  
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1401 Meigsdale Road  
Tallahassee, Florida 32308  
EF #403940

**LEON COUNTY**  
COMMUNITY SERVICES BLDG.  
HVAC IMPROVEMENTS - PHASE I

Tallahassee, Florida

DATE: December 8, 2009

REVISED:

DESIGNED BY: GM  
DRAWN BY: GM/TB

SUBMITTAL: 100% Construction Documents

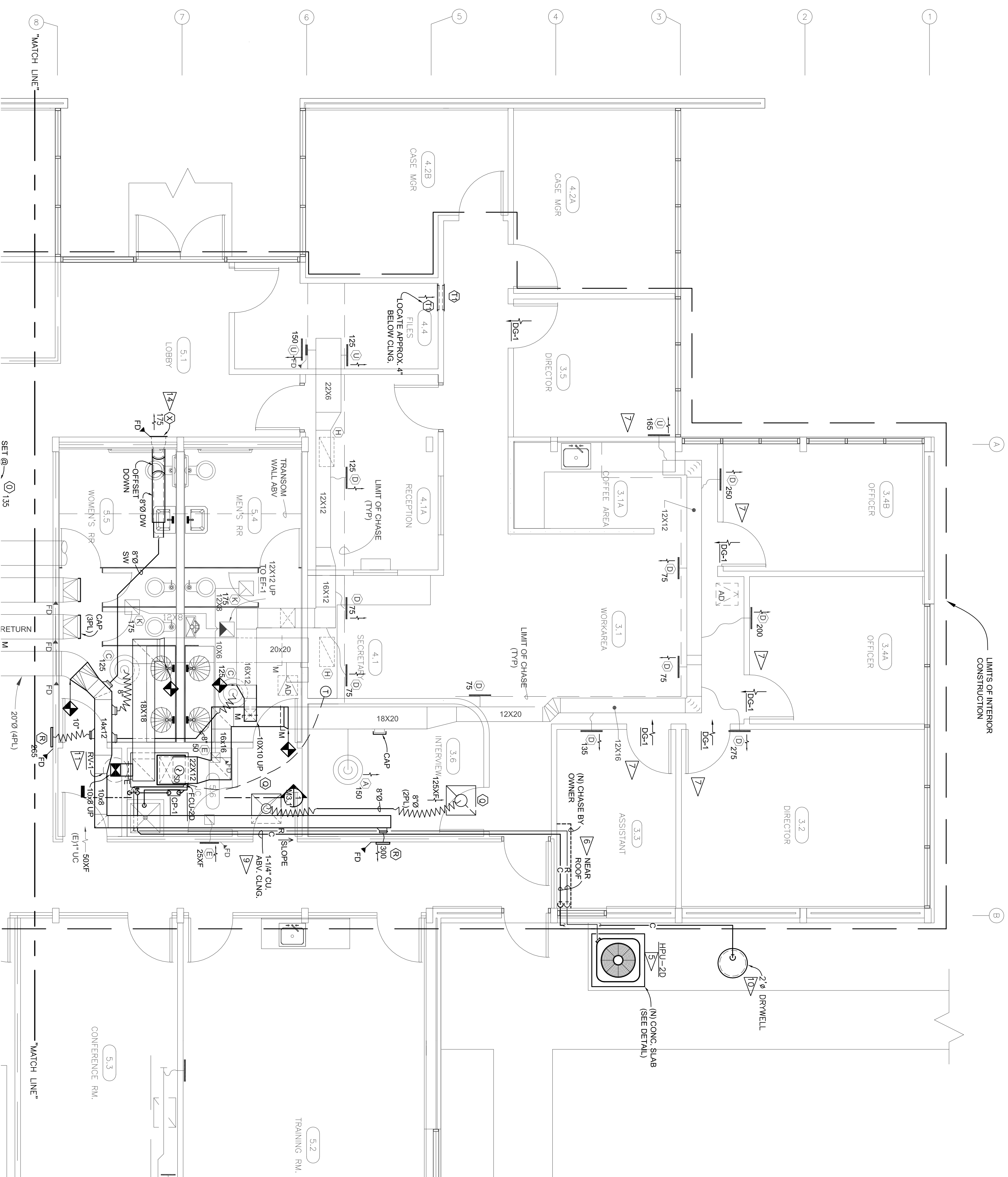
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HVAC NEW WORK PLAN - SOUTH

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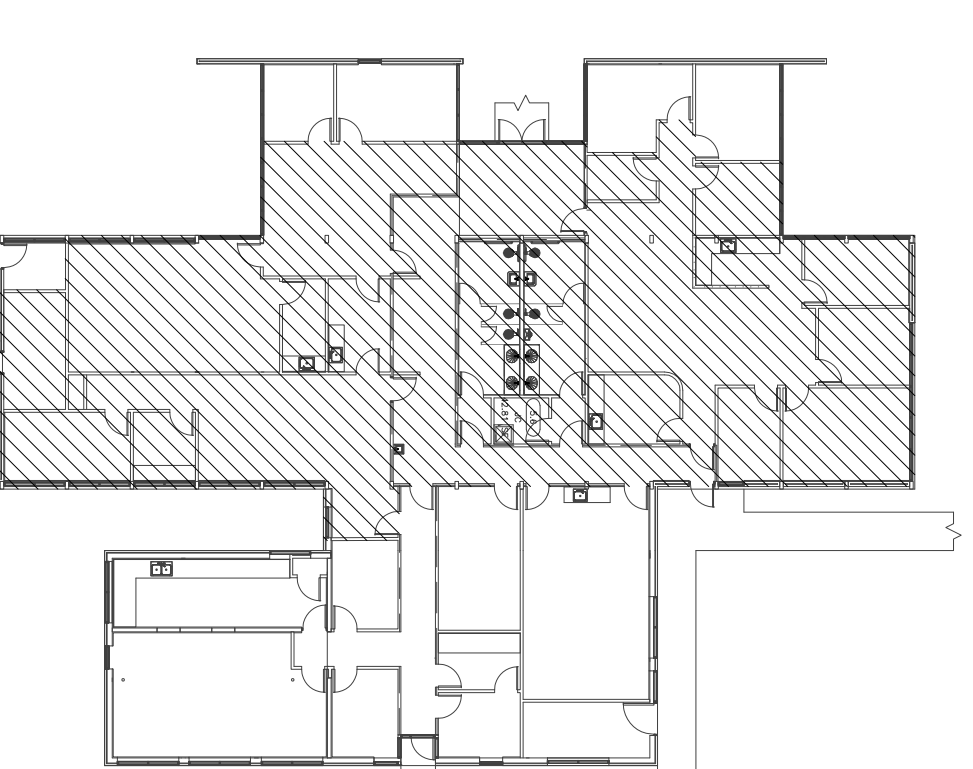
**M3.0**

JOB NUMBER: 914

- CONSTRUCTION FLAG NOTES:**
- 1 PROVIDE NEW DRYWELL AND LOCATE APPROX WHERE SHOWN AND 16" FROM BUILDING - MOSTLY OUT OF ROOF DRAIN AREAWAY - AND SET TOP ELEVATION AT OR ABV. BLDG SLAB ELEVATION. SEE DETAIL.
  - 2 LAYOUT/SPACE UNITS TO COMPLY WITH THE MANUFACTURER'S SPACING REQUIREMENTS.
  - 3 PLACE CONDENSING UNITS ON ELASTOMERIC PADS (4" SQ. X 1/4" THK. - ONE PER CORNER) AND SECURE UNIT TO CONCRETE WITH 1/4" Ø EXPANSION BOLTS (ONE PER CORNER).
  - 4 FIELD VERIFY EXISTING UTILITIES/CONDITIONS PRIOR TO INSTALLING NEW REFRIGERANT PIPING. USE STEEL SLEEVES AT WALL PENETRATIONS. ORGANIZE PIPING IN TRENCH, INSULATE VAPOR LINES AND USE PROTECTIVE WRAPPING. SEE SPECS. BURY 12" DP & SAND COVER & 6" GRAVEL ON TOP.
  - 5 LOCATE CONCRETE PAD AND UNIT TO PROVIDE THE MANUFACTURER'S REQUISITE CLEARANCE TO THE WALL. SECURE UNIT TO THE CONCRETE PAD WITH 4EA 1/4" Ø EXPANSION BOLTS.
  - 6 ROUTE NEW REFRIGERANT AND CONDENSATE PIPING ON WALL. VERTICALLY AS NEEDED THEN HORIZONTALLY AND TO FACILITATE CHASE CONSTRUCTION BY OWNER. SECURE PIPING TO WALL WITH STANDOFFS TO ACCOMMODATE INSULATION. COORDINATE ROUTING WITH OWNER IN ADVANCE.
  - 7 OWNER TO REPAIR HOLES IN CHASEWALLS WHERE FORMER GRILLES WERE LOCATED.
  - 8 SUSPEND DUCT FROM BOTTOM OF BARREL ROOF SECTIONS USING CONCRETE INSERTS.
  - 9 SLOPE HORIZONTAL CONDENSATE PIPING 1/4" PER FT. TO DRAIN.
  - 10 CENTER DRYWELL IN AVAILABLE SPACE AND LOCATE TOP OF DRYWELL AT SAME ELEVATION AS SIDEWALK.
  - 11 VERIFY EXISTING UTILITIES. EXACT LOCATION NOT CRITICAL.
  - 12 ROOF VENT PROVIDED BY MECH CONTRACTOR AND INSTALLED BY ROOFING CONTRACTOR. VENT MUST BE NEAR AREA OF BARREL ROOF. SEE SECTION AND 10' FROM EXISTING EXHAUST FAN.
  - 13 CUT & PVC CONDUIT FLUSH OR BELOW CONCRETE FLOOR AND FILL WITH CONCRETE. FINISH FLUSH TO FLOOR.
  - 14 ROUTE AND SECURE REFRIG PIPING ALONG WALL WITH METAL FRAMING CHANNEL AND CLAMPS. ROUTE CONDENSATE CLOSE TO WALL, SUPPORT FROM FLOOR AND SLOPE 1/4" PER FOOT. COORDINATE PIPING LAYOUT WITH OWNER IN ADVANCE TO FACILITATE CHASE CONSTRUCTION.
  - 15 LOCATE GRILLE APPROX 2" BELOW LOBBY CEILING AND BETWEEN EXISTING MTL FRAMING.



HVAC NEW WORK PLAN - NORTH  
SCALE: 1/4" = 1'-0"



KEY PLAN

N.T.S.

**McCinniss & Fleming**  
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BR #419390

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COMMUNITY SERVICES BLDG.  
HVAC IMPROVEMENTS - PHASE I

Tallahassee, Florida

DATE: December 8, 2009

REVISED:

DESIGNED BY: GM  
DRAWN BY: GM/TB

SUBMITTAL: 100% Construction Documents

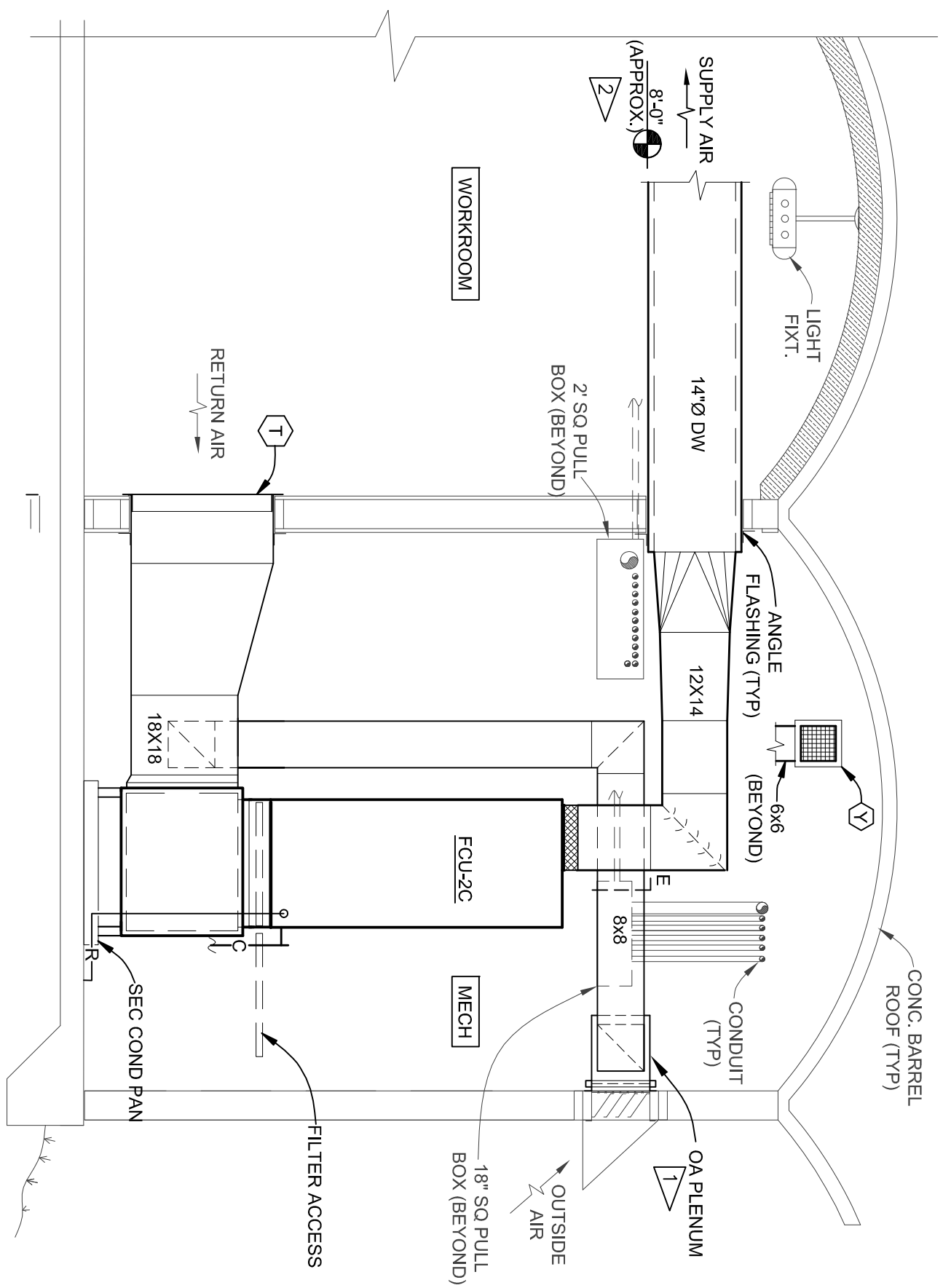
SHEET TITLE: MECHANICAL  
HVAC NEW WORK PLAN - NORTH

SHEET:

**M3.1**

JOB NUMBER: 914

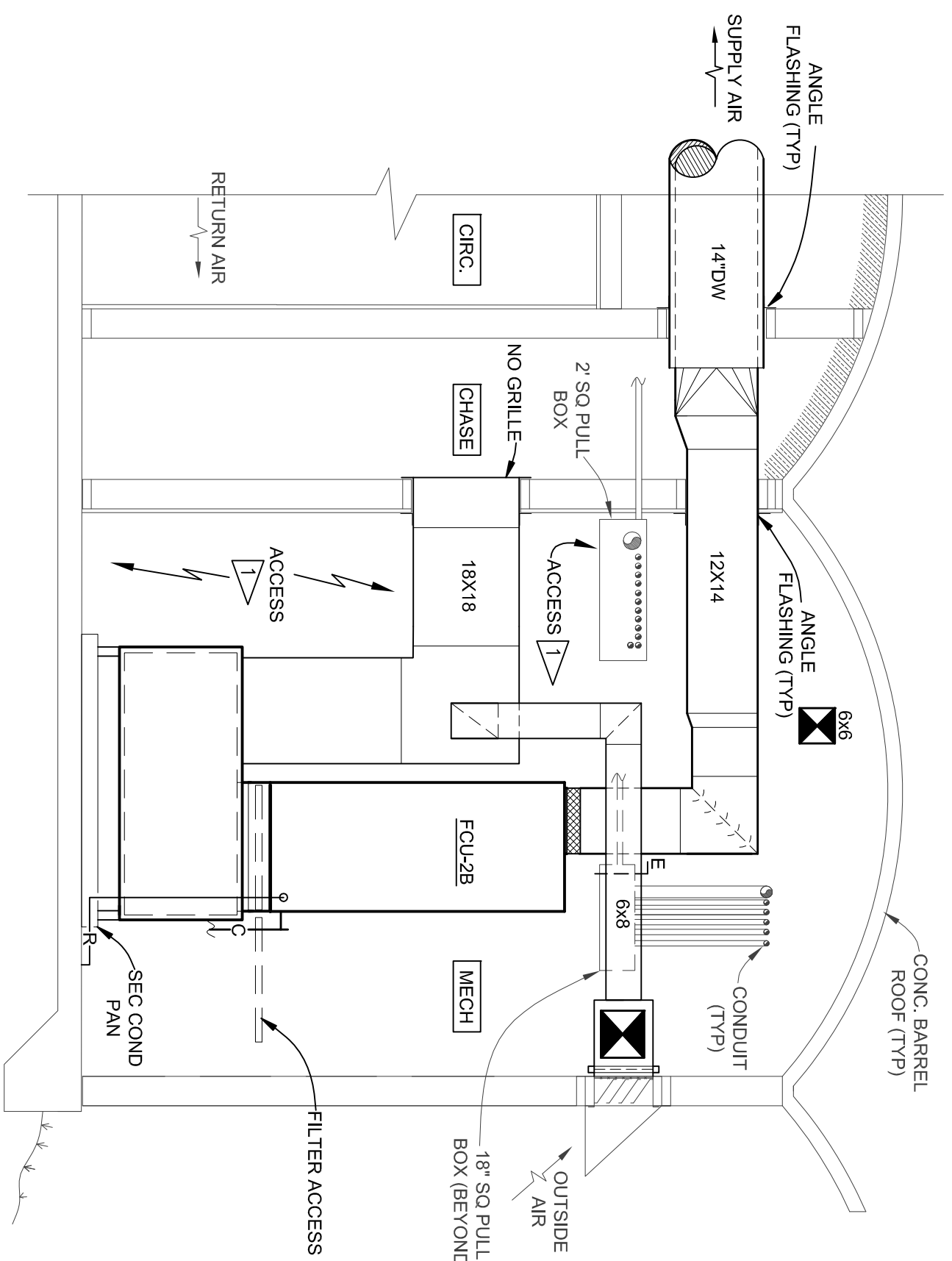




**SECTION 1/M3.0**  
SCALE: 1/2"=1'-0"

CONSTRUCTION FLAG NOTES:

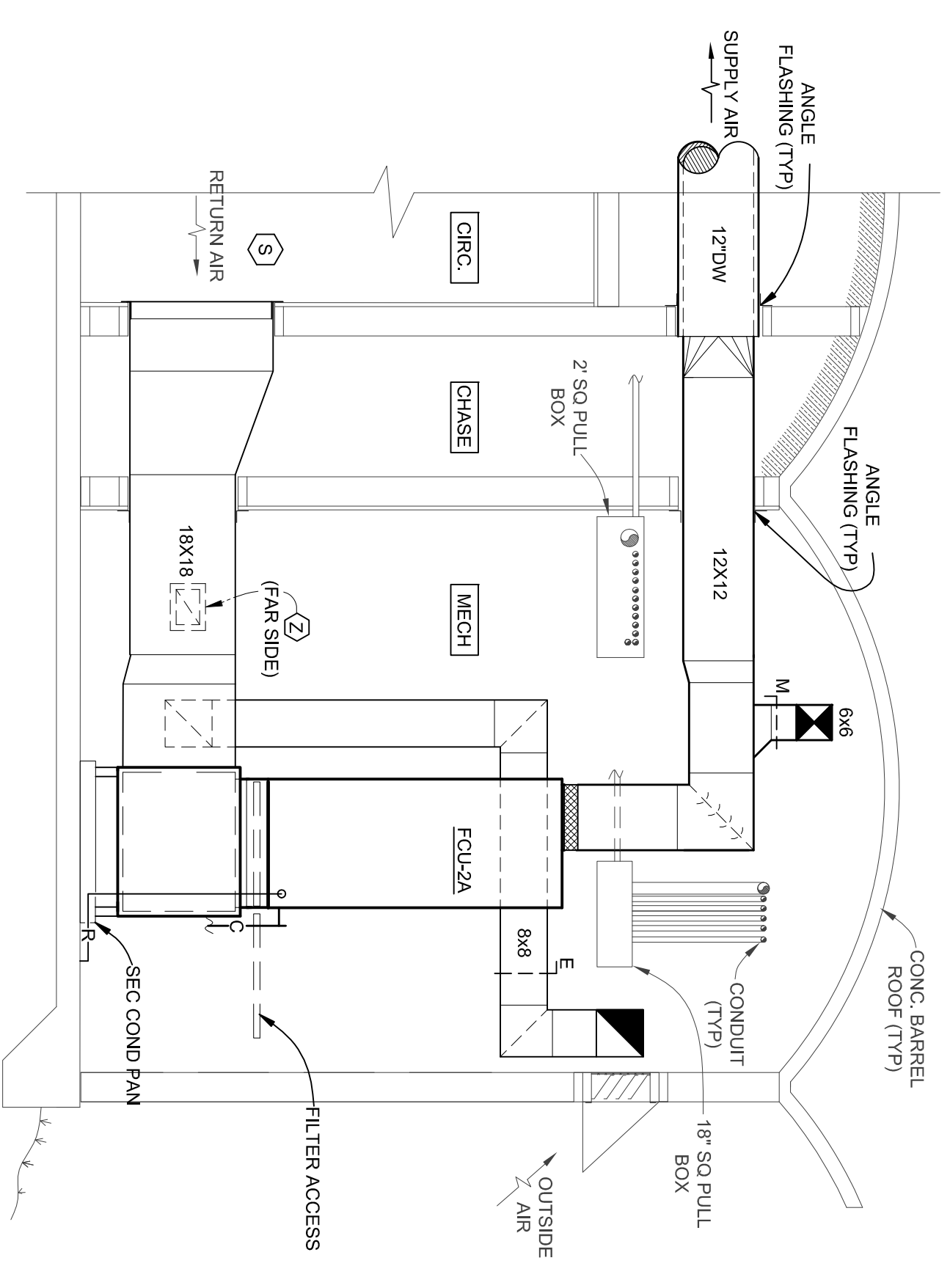
- 1. PROVIDE A SHEET METAL PLENUM SAME SIZE AS OA LOUVER FRAME, I.E. FULL SIZE. FASTEN AND SEAL PLENUM TO FRAME. PROVIDE REMOVABLE 1" FILTER BAG AND FABRICATE FILTER MADE FROM INSECT SCREEN WITH 1/4" HARDWARE CLOTH FOR REINFORCING. REMOVE EXISTING INSECT SCREEN FROM LOUVER.
- 2. ELEVATION IS AS SHOWN; HOWEVER, INSTALLED ELEVATION MAY BE SLIGHTLY LESSMORE TO ACCOMMODATE EXISTING LIGHTING AND CEILING CONFIGURATION.



**SECTION 2/M3.0**  
SCALE: 1/2"=1'-0"

CONSTRUCTION FLAG NOTES:

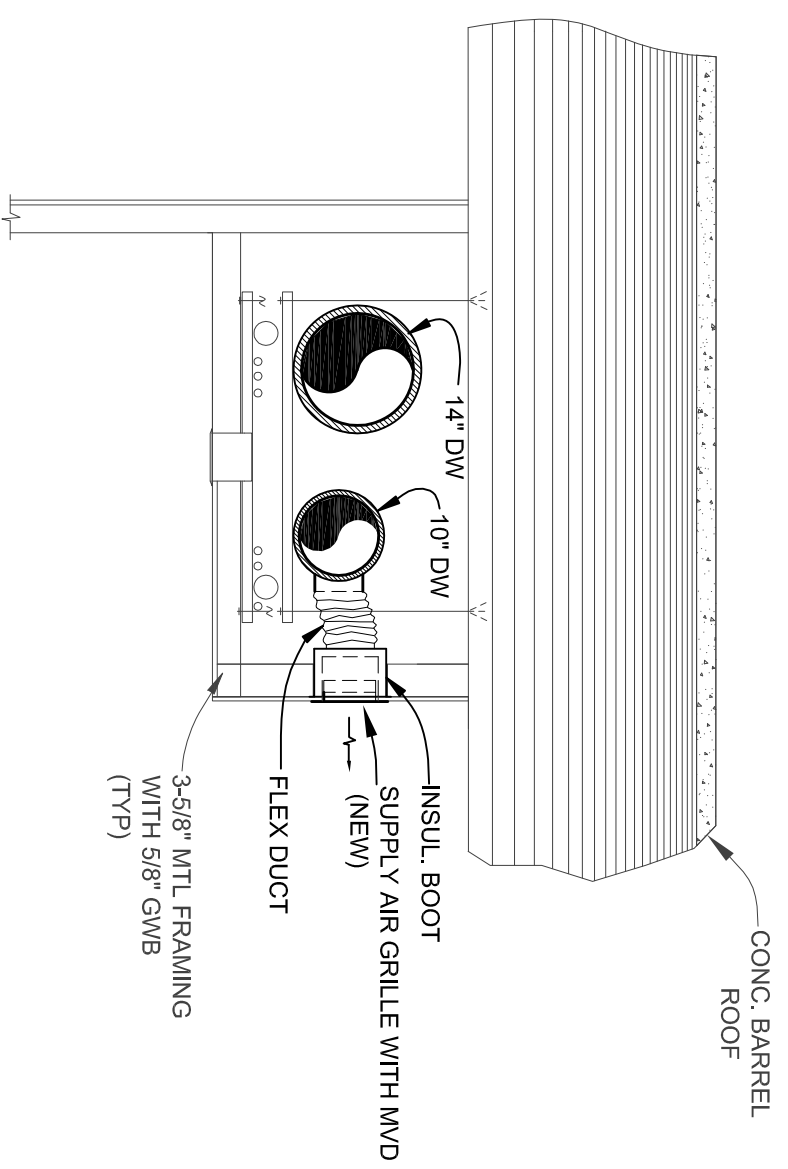
- 1. LOCATE RETURN AIR DUCT TO PROVIDE BOTH REAR ACCESS TO UNIT AND CLEARANCE TO PULL-BOX ABOVE.



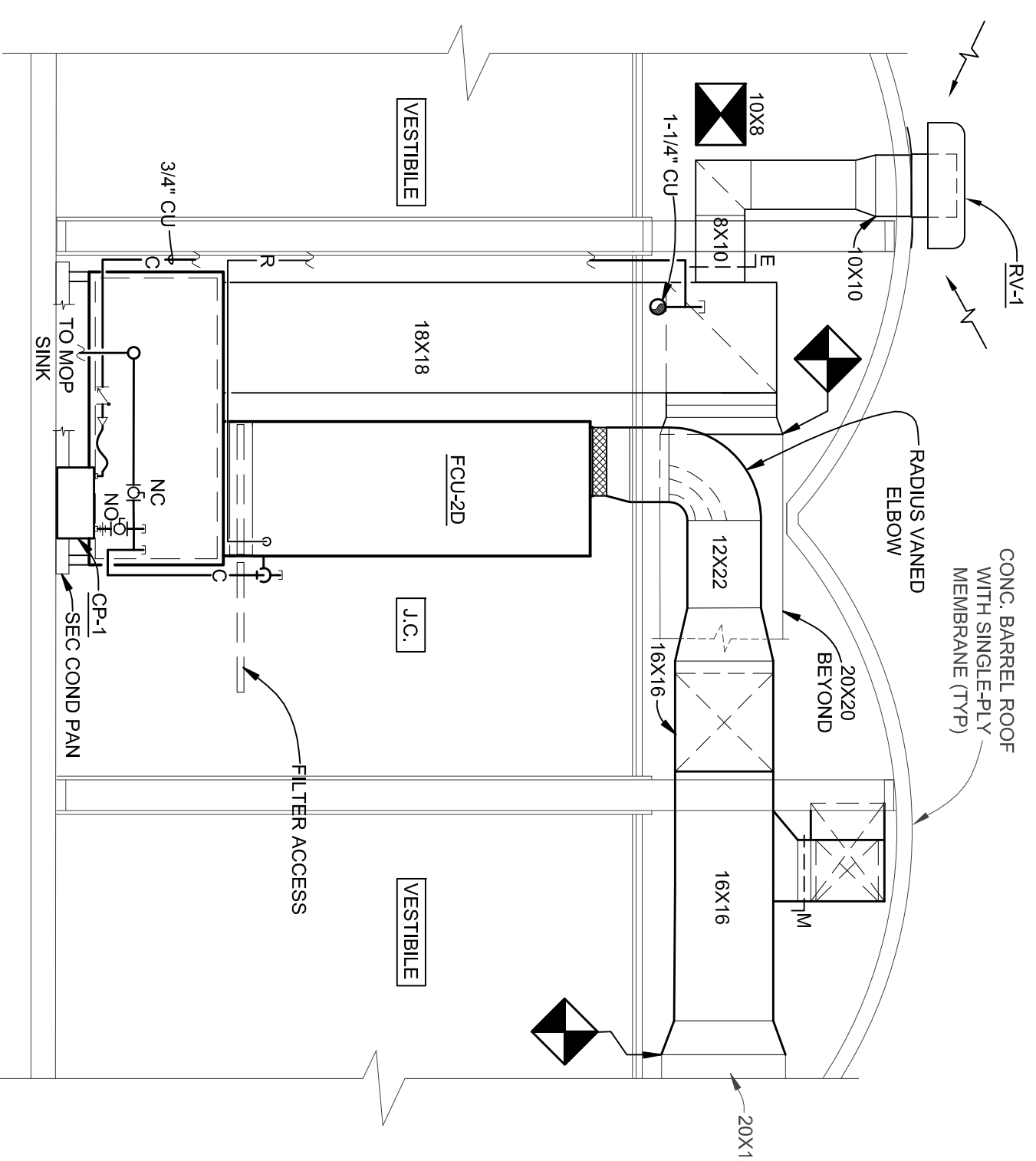
**SECTION 3/M3.0**  
SCALE: 1/2"=1'-0"

CONSTRUCTION FLAG NOTES:

- 1. LOCATE UNIT TO ACCOMMODATE FIELD CONDITIONS AND TO COMPLY WITH THE MANUFACTURER'S REQUIREMENTS FOR SERVICE.
- 2. ROUTE REFRIGERANT PIPING IN EXISTING 6" U.G. CONDUIT.
- 3. SEE DETAIL FOR CONDENSATE PIPING AND TERMINATE AT DRAINWELL.
- 4. ROUTE OUTSIDE AIR DUCT TO ALLOW ACCESS TO PULL BOX. MAY RUN DUCT ABOVE PULL BOX IF NECESSARY.



**SECTION 4/M3.0**  
SCALE: 1/2"=1'-0"



**SECTION 1/M3.1**  
SCALE: 1/2"=1'-0"

CONSTRUCTION FLAG NOTES:

- 1. LOCATE FCU UNIT TO ACCOMMODATE FIELD CONDITIONS AND TO COMPLY WITH THE MANUFACTURER'S REQUIREMENTS FOR SERVICE.
- 2. PROVIDE CONDENSATE TRAP IN DISCHARGE AND DRAIN INTO AUTOMATIC CONDENSATE COLLECTION UNIT. PRE DISCHARGE FROM TRAP INTO THE NEW OVERHEAD CONDENSATE COLLECTION UNIT AND YIELD THE MOP SINK FOR MAINTENANCE AND PERIODS WHEN THE PUMP HAS MALFUNCTIONED.

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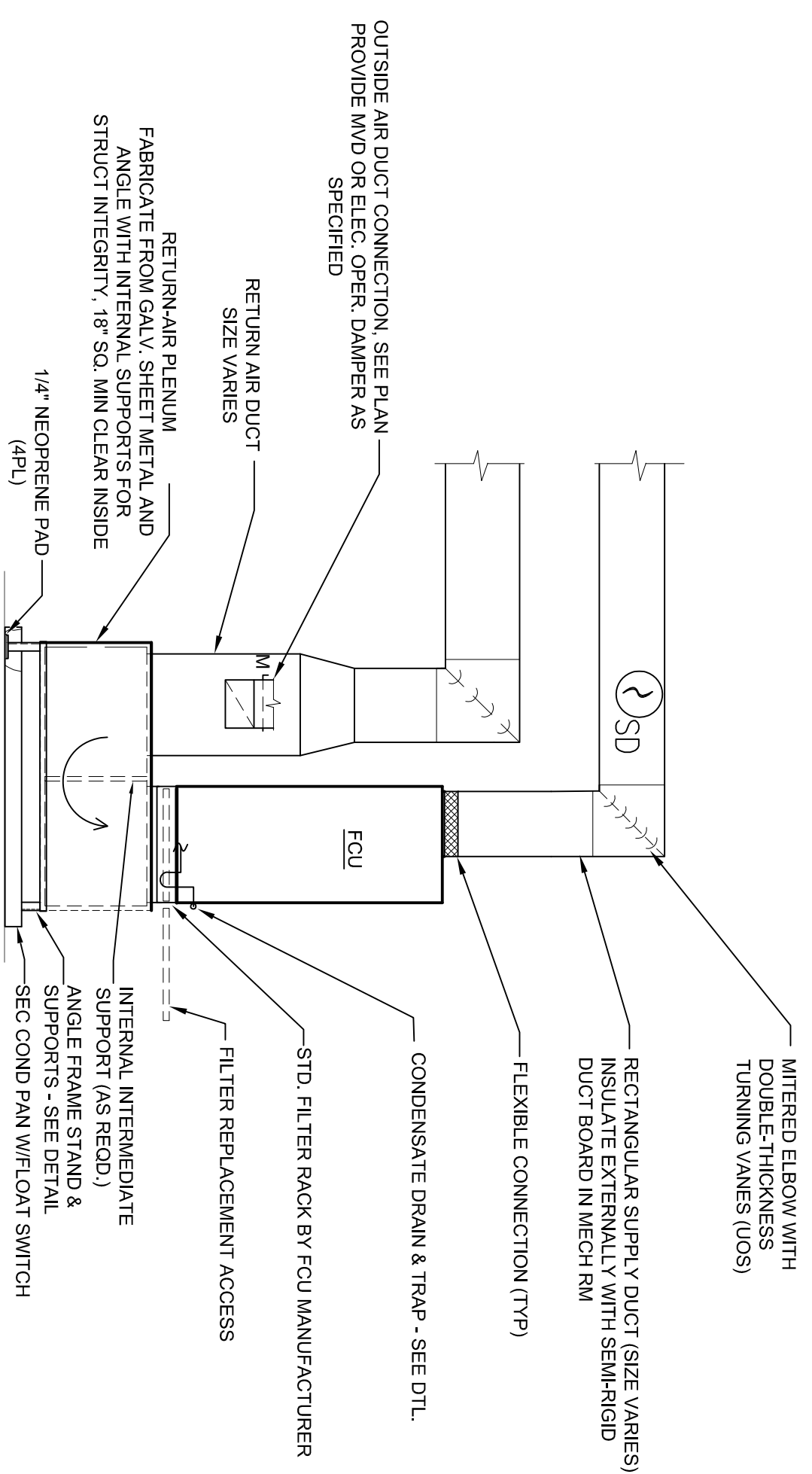
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SHEET TITLE: MECHANICAL SECTIONS

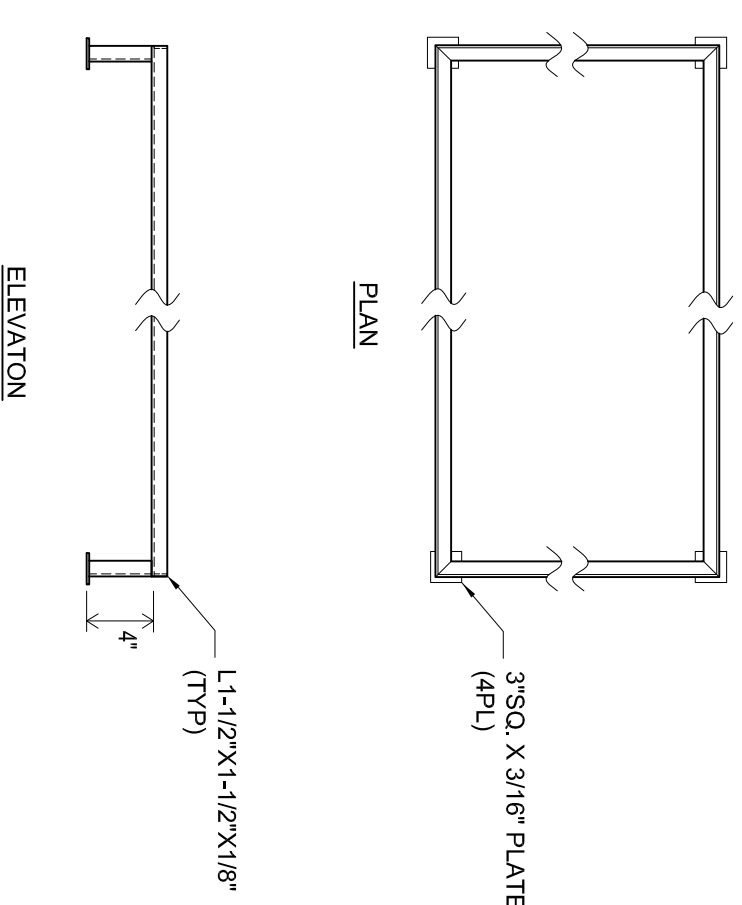
SHEET: **M3.2**



### FCU DETAIL WITH VERTICAL RETURN DUCT

SCALE: NTS

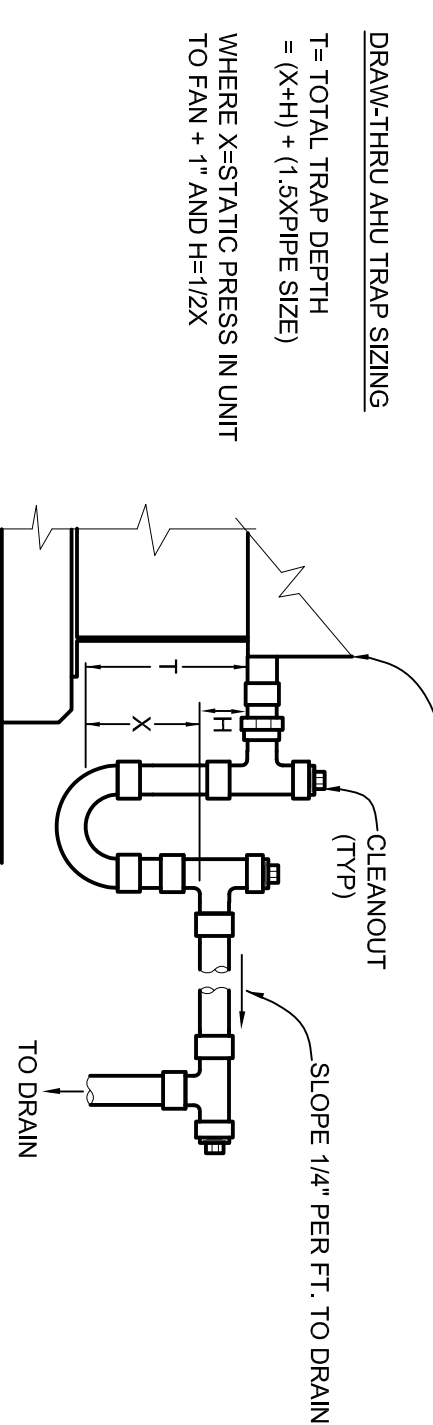
- NOTES:
1. LOCATE UNITS AND PROVIDE ACCESS PER THE MANUFACTURER'S RECOMMENDATIONS.
  2. LOCATE UNITS TO ALLOW FOR FILTER REMOVAL/REPLACEMENT.
  3. INSULATE PLENUM INTERIOR WITH 1" THK SEMIRIGID DUCT BOARD WITH FOLSCRIM FACE. FOL FACE TOWARDS AIR STREAM. SECURE WITH MECHANICAL FASTENERS (STICK PINS), TAPE AND INSULATION. PROVIDE INSULATION TO ALL EXPOSED SURFACES AND PENETRATIONS. PROVIDE INSULATION IF CONDENSATION FORMS. ALTERNATE INSULATION - 1.5" THK ELASTOMERIC FOAM INSULATION WITH JOINTS, SEAMS, ETC. SEALED AIR TIGHT.
  4. SEAL ALL DUCTWALL PENETRATIONS SMOKE TIGHT.
  5. PROVIDE AND INSTALL SMOKE DETECTORS ON UNITS WHERE INDICATED.



### ANGLE FRAME DETAIL

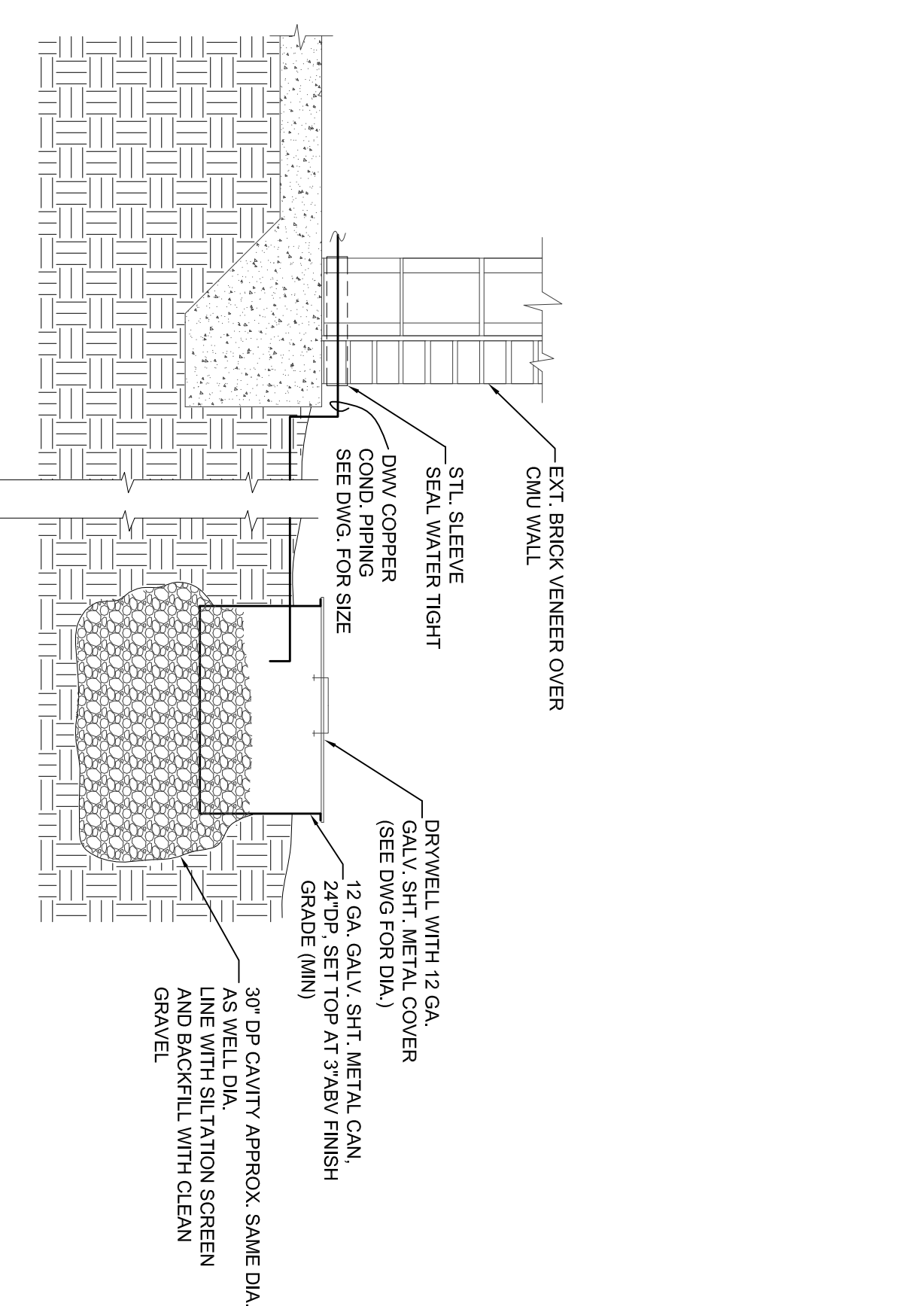
SCALE: NTS

- NOTES:
1. DIMENSION FRAME SO PLENUM WILL REST INSIDE FRAME.
  2. FABRICATE FROM GALVANIZED STEEL. ANGLE OR 1/4" THICK ALUMINUM ANGLE. WELD ALL INTERSECTIONS.
  3. COLD GALVANIZING SPRAY PAINT OR EQUAL.



### CONDENSATE TRAP DETAIL

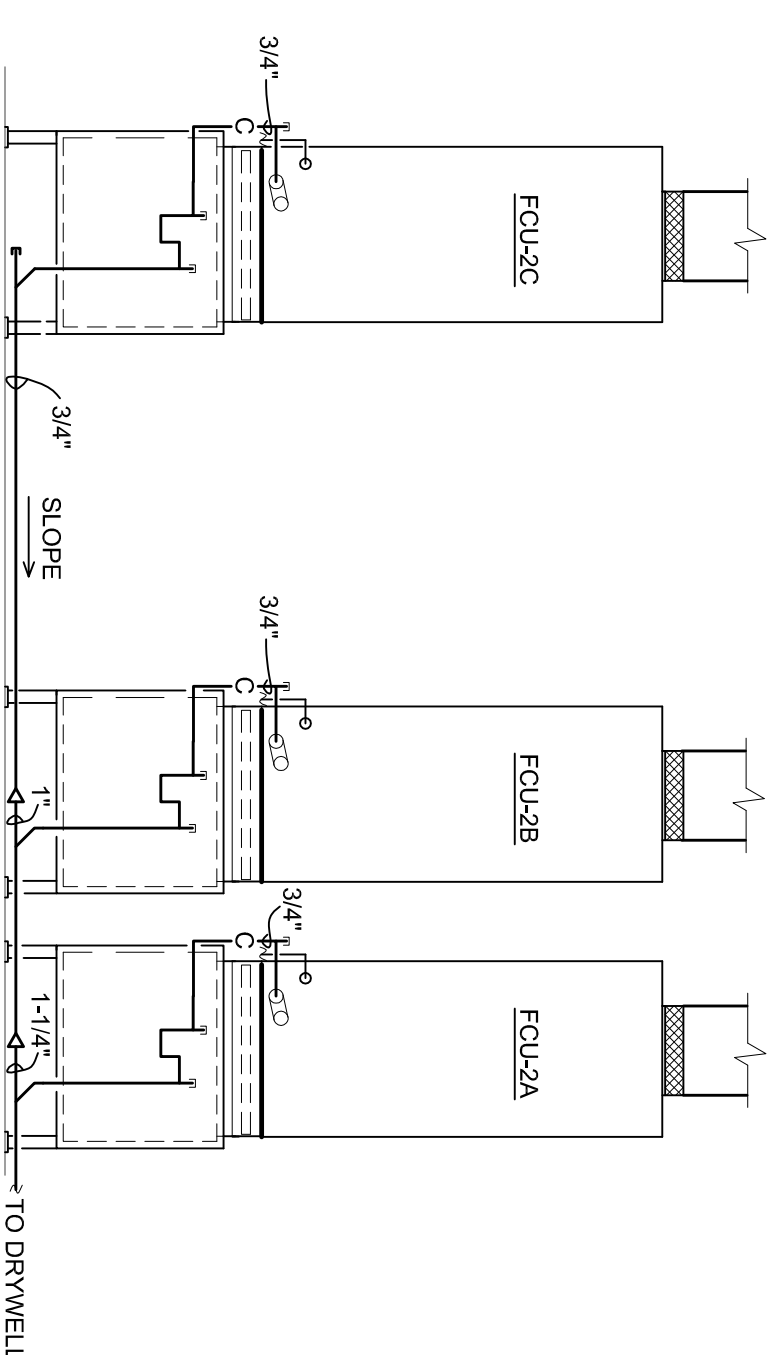
SCALE: NTS



### CONDENSATE DRYWELL & PIPING DETAIL

SCALE: NTS

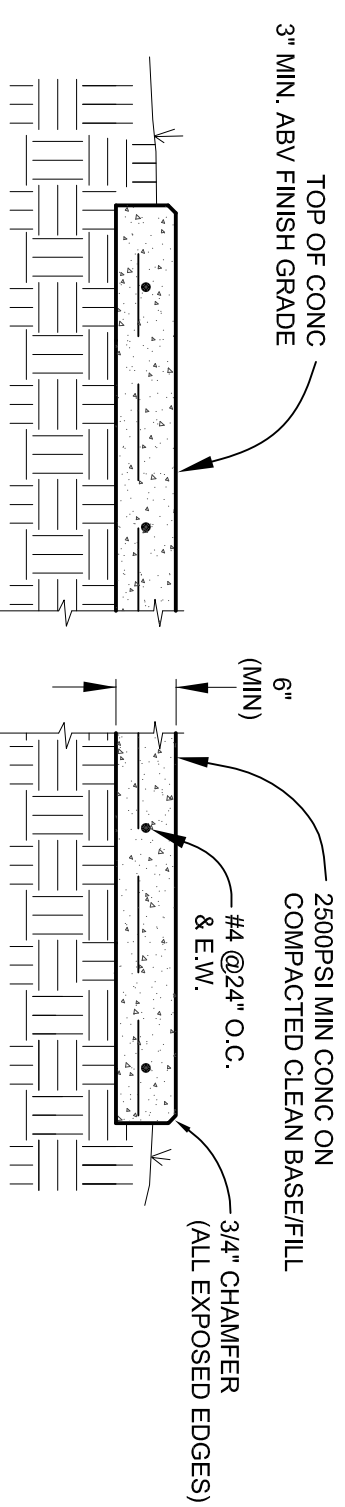
- NOTES:
1. REUSE EXISTING DRYWELL COVER IF IN GOOD CONDITION.
  2. LOCATION OF DRYWELL TO BE FIELD DETERMINED. LOCATE FOR GOOD DRAINAGE AND PROPER SLOPE OF CONDENSATE PIPING.
  3. SLOPE CAVITY FOR ROCK BACKFILL AWAY FROM BLDG SLAB WHERE NEEDED.



### CONDENSATE PIPING DETAIL FOR FCU2A/B/C

SCALE: NTS

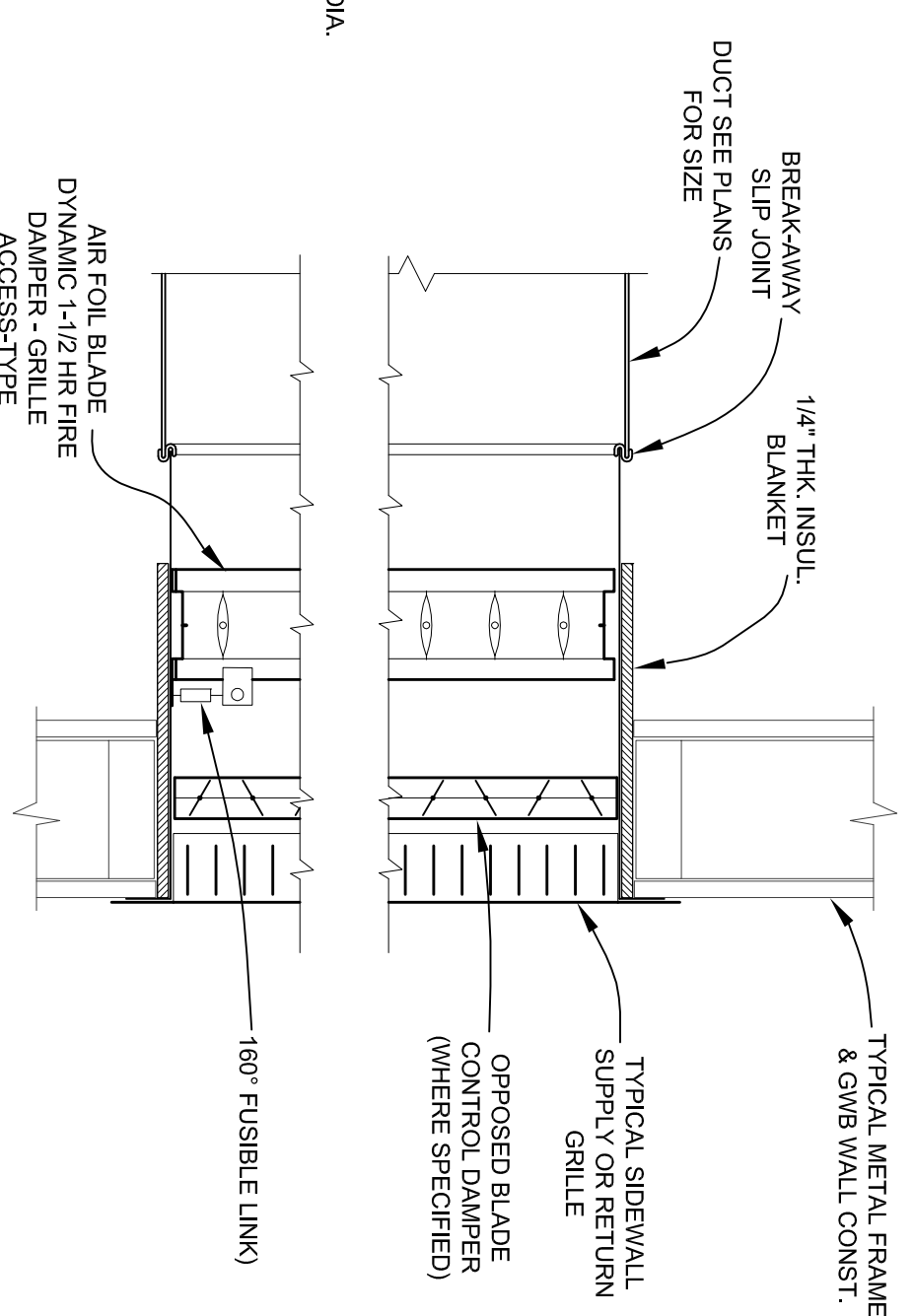
- NOTES:
1. CONDENSATE PIPING SHALL BE DMV COPPER WITH SWEAT JOINTS.
  2. CONFIGURE P-TRAP FOR EACH UNIT PER TRAP DETAIL.
  3. LOCATE PIPING TO FACILITATE ACCESS TO UNIT, FILTER, ETC.
  4. SLOPE HORIZONTAL PIPING 1/4" PER FOOT MINIMUM.
  5. SECURE PIPING TO FLOOR WITH 3/8" Ø ROD AND COPPER PIPE CLAMPING RINGS.
  6. INSULATE INTERIOR PIPING WITH 3/4" CLOSED CELL FOAM INSULATION AND SEAL ALL JOINTS, SEAMS, ETC. AIR TIGHT.
  7. SECONDARY CONDENSATE DRAIN PANS NOT SHOWN FOR CLARITY.



### CONCRETE PAD DETAIL

SCALE: NTS

- NOTES:
1. NEW CONCRETE SLAB SHALL BE 6" WIDER THAN UNIT ON ALL SIDES.
  2. MIN COVER TO STEEL IS 3". SUPPORT STEEL ON CHAIRS.
  3. IF EXTENDING AN EXISTING SLAB, DOVEL INTO SLAB WITH #4 BARS. NEW SLAB SHALL BE 3" MINIMUM NEW SLAB ELEVATION SHALL MATCH EXISTING SLAB.



### FIRE DAMPER DETAIL

SCALE: NTS

- NOTES:
1. DAMPERS SHALL BE CONSTRUCTED, TESTED AND LABELED IN ACCORDANCE WITH UNDERWRITERS LABORATORIES SPACED STANDARD 553 FOR DYNAMIC SYSTEMS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE UL LISTING AND LABELING INSTRUCTIONS AGAINST AIRBLOW IN ANY INSTALLATION CONFIGURATION, I.E. DUCTED, UNDUCTED, VERTICAL, HORIZONTAL, HORIZONTAL AIRFLOW UP, OR HORIZONTAL, AIRFLOW DOWN.
  2. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE UL INSTALLATION INSTRUCTION SHEET PROVIDED WITH THE DAMPER.
  3. IF CURTAIN-TYPE DAMPER IS USED IT SHALL BE A STYLE "B" SO DAMPER BLADES ARE OUT OF THE AIRSTREAM (WHEN OPEN) AND OUT-OF-WALL TYPE.

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## LEGEND



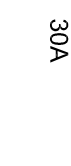


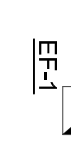


## ABBREVIATIONS

AC	ABOVE CEILING ABOVE CASEWORK, ALTERNATING CURRENT
AFB	ABOVE FINISHED FLOOR
BFC	BELOW FINISHED CEILING
CKT	CIRCUIT
EC	EMPTY CONDUIT (3/4" MINIMUM) WITH NYLON PULLWIRE
EM	EMERGENCY
EMCS	ENERGY MANAGEMENT CONTROL SYSTEM
ETR	EXISTING TO REMAIN
EX	EXISTING
FA	FIRE ALARM
GFI	GROUND FAULT INTERRUPTER
IC	INTERROOM
J	JUNCTION
JNL	JUNCTION
PNL	PANEL
R	RELAY
REF	REFRIGERATOR
T	TRANSFORMER, THERMOSTAT
VSD	VARIABLE SPEED DRIVE
WP	WEATHERPROOF (NEMA 3R)




## LIGHTING CONTROLS

	WALL SWITCH OCCUPANCY SENSOR, 120/277VAC, 800/1200W (SENSOR SWITCH #WSD-V)
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## CONTROLS &amp; MECHANICAL EQUIPMENT

	DISCONNECT SWITCH, NON-FUSIBLE, SIZE AND NEMA TYPE AS NOTED.
	DISCONNECT SWITCH, FUSIBLE, SIZE AND NEMA TYPE AS NOTED, FUSE AS NOTED OR PER MANUFACTURER'S RECOMMENDATION FOR EQUIPMENT SERVED. NON-FUSED SWITCH MAY BE USED IF UNIT IS UL TESTED WITH BREAKER PROTECTION
	ENERGY MANAGEMENT CONTROL SYSTEM PANEL
	CONNECT TO EXHAUST FAN, EXHAUST FAN 1 INDICATED
	POWER CONNECTION, FRESH AIR DAMPER, DAMPER PROVIDED BY OTHERS
	DUCT SMOKE DETECTOR
	SPEED CONTROLLER FOR FRACTIONAL HORSEPOWER MOTOR
	TIME CLOCK


## POWER, PANELS &amp; POWER EQUIPMENT

	PANELBOARD 208 VOLT - SURFACE MOUNTED - SEE PANELBOARD SCHEDULE
	POWER DISTRIBUTION PANEL OR 480 VOLT - SEE PANELBOARD SCHEDULE
	SURGE PROTECTIVE DEVICE





## LIGHTING OUTLETS

	LIGHTING FIXTURE, MOUNTING AND TYPE AS SHOWN IN FIXTURE SCHEDULE. SEE SCHEDULE FOR SPECIFIC REQUIREMENTS.
	EXIT LIGHT - NUMBER AND DIRECTION OF FACES AS SHOWN BY COLORED IN SECTION. SHOW SINGLE FACE. PROVIDE ARROWS AS INDICATED ON ELECTRICAL PLANS OR FIRE PROTECTION PLANS. SEE FIXTURE SCHEDULE.
	WALL MOUNTED LIGHTING FIXTURE











## WALL OUTLETS

	DUPLEX RECEPTACLE, 20A, 125V, 2 POLE, 3 WIRE, MOUNT 1'-6" AFF. NEMA 5-20R
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## HOMERUNS TO PANELS

	ARROW INDICATES CIRCUIT HOMERUNS IN CONDUIT
	LPA-2,4 - ARROW INDICATES HOMERUN TO CIRCUIT NUMBERS 2 & 4 IN PANEL "LPA"
	NOTE: NUMBER OF HOMERUNS SHOWN ON THE PLANS ARE THE NUMBER OF HOMERUNS REQUIRED. DO NOT RUN MORE THAN THREE HOMERUNS IN ONE CONDUIT. DO NOT RUN 2 CIRCUITS ON THE SAME PHASE IN ONE CONDUIT. CONDUIT STUBBED OUT ABOVE CEILING OR AS NOTED - PROVIDE BUSHING ON CONDUIT END.
	INDICATES CONTINUATION OF RUN SHOWN ON ANOTHER PLAN VIEW

## CIRCUITING AND BRANCH CIRCUITS

	CIRCUITS SHOWN - INDICATES 1 #12 PHASE CONDUCTOR, 1 #12 NEUTRAL & 1 #12 GND - 3#4" C, 10' TO 20' AMP, 1 POLE BREAKER ON CIRCUIT NO. 3, IN PANEL 12A.
	LPA-2,4 - INDICATES 2 #12 PHASE CONDUCTORS, 1 #12 NEUTRAL & 1 #12 GND - 3#4" C, 10' TO 20' AMP, 1 POLE BREAKER ON CIRCUIT NO. 2 & 4 IN PANEL 12A.
	LPA-2,4,6 - INDICATES 3 #12 PHASE CONDUCTORS, 1 #12 NEUTRAL & 1 #12 GND - 3#4" C, 10' TO 20' AMP, 1 POLE BREAKERS ON CIRCUIT NO. 2, 4 & 6 IN PANEL 12A, ETC.
	10's - INDICATES ALL CONDUCTORS ARE TO BE MINIMUM #10 GAUGE. CONDUIT PER NEC OR AS INDICATED.
	NEUTRALS SHALL NOT BE SMALLER SIZE THAN PHASE CONDUCTORS UNLESS SPECIFICALLY INDICATED OTHERWISE.
	INSULATED GROUNDING CONDUCTORS SHALL BE USED IN ALL CIRCUITS SIZED IN ACCORDANCE WITH NEC ARTICLE 250.
	2 #12, 1 #12 GROUND SHALL BE RUN IN 1" OR MORE 1/2" CONDUIT IN WALL OR AS REQUIRED BY NEC. MORE THAN #12 CONDUCTORS SHALL BE RUN IN CONDUIT SIZED IN ACCORDANCE WITH NEC.
	CONCEALED OVERHEAD OR IN WALLS.
	CONCEALED IN OR BELOW FLOORS OR GRADE.
	EXPOSED SURFACE MOUNTED METAL RACEWAY.

## JUNCTION BOXES, FLOOR AND CEILING OUTLETS

	JUNCTION BOX IN OR ABOVE CEILING
	JUNCTION BOX IN WALL - MOUNT 1'-6" UNLESS NOTED OTHERWISE
	THERMOSTAT OR EMCS DEVICE, FLUSH, JUNCTION BOX, HEIGHT TO MATCH WALL SWITCHES, SINGLE GANG TRIM, STUB UP 3/4" EXT. ABOVE CEILING WITH PULL STRING, AND MARK ABOVE CEILING THWAC CONTROLS.

## GENERAL NOTES

- PASSING SHALL BE COORDINATED AND IN COMPLIANCE WITH ALL PHASING DRAWINGS AND NOTES.
- ALL CONDUCTORS SHALL BE INSTALLED IN METAL CONDUIT OR TUBING. CONDUIT FOR BURIAL IN SOIL OR UNDER CONCRETE SHALL BE PLASTIC. FLEXIBLE CONDUIT INSTALLED OUT-OF-DOORS, IN ANY MECHANICAL EQUIPMENT ROOM, OR IN NORMALLY WET AREAS, SHALL BE LIQUID TIGHT FLEX WITH SUITABLE FITTINGS.
- COORDINATE WITH ALL MECHANICAL TRADES FOR SPACE REQUIREMENTS IN MECHANICAL ROOMS, CORRIDORS, SHEDS, ABOVE CEILING, ETC. THIS INCLUDES SPACE ABOVE PANELS WHERE DUCTS AND PIPING ARE PROHIBITED.
- FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT, SEE MECHANICAL PLANS.
- WHERE WALL SWITCHES AND CONTROL DEVICES SUCH AS THERMOSTATS ARE SHOWN NEAR EACH OTHER (CONTROL DEVICES SUCH AS THERMOSTATS ARE SHOWN ON THE MECHANICAL DRAWINGS) THEY SHALL BE MOUNTED WITH THE CONTROL DEVICE DIRECTLY BESIDE THE SWITCH.
- THE LOCATION OF FIXTURES IN MECHANICAL, ELECTRICAL, MACHINE ROOMS, ETC. ARE SHOWN FOR BID PURPOSES ONLY. FIXTURES SHALL BE INSTALLED SO AS TO COORDINATE WITH ALL TRADES AND SHALL BE ARRANGED FOR MAXIMUM LIGHTING DISTRIBUTION OF THE AREA.
- CONDUIT SHALL BE INSTALLED TIGHT TO DECK WHERE INSTALLED ABOVE CEILING, RELOCATE INCIDENTAL HANGERS, BRACKETS, ETC. WHERE IN CONFLICT. MAXIMIZE USE OF SPACE.
- PROVIDE CONDUIT EXPANSION FITTINGS WITH BONDING JUMPERS FOR ALL CONDUITS PASSING THROUGH EXPANSION JOINTS.
- ALL CEILING MOUNTED AND WALL MOUNTED EQUIPMENT OR DEVICES SHALL BE LOCATED TO AVOID DOOR SWINGS WHERE REQUIRED.
- OUTLET BOXES OVER 16 SQUARE INCHES IN SIZE AND FIRE WALLS MUST BE 2 SIDED WITH SAME CONSTRUCTION AS WALL SYSTEM. WHERE RECEPTACLES ARE ON OPPOSITE SIDES OF A FIRE WALL THERE MUST BE A 2" HORIZONTAL SEPARATION BETWEEN THEM.
- DO NOT MOUNT OUTLETS BACK TO BACK. THEY SHALL BE INSTALLED IN SEPARATE STUD SPACES.
- CONDUIT SHALL PASS THROUGH WALLS AT 90 DEGREES AND SHALL BE RUN PARALLEL AND PERPENDICULAR TO WALLS.
- BRANCH CIRCUITS AND HOMERUNS SHALL BE #12 WIRE AND 1/2" CONDUIT MINIMUM. EVERY CONDUIT SHALL HAVE A GREEN GROUND WIRE (#12 MINIMUM), NO MORE THAN 3 PHASE CONDUCTORS SHALL BE INSTALLED IN ONE CONDUIT UNLESS NOTED OTHERWISE.
- COLOR OF ALL NORMAL BRANCH RECEPTACLES, SWITCHES, ETC. TO BE ALMOND OR "OFFICE WHITE". COVERPLATES SHALL BE NYLON.
- MOUNTING HEIGHTS OF WALL OUTLETS ABOVE FINISHED FLOOR SHALL BE AS INDICATED IN THE LEGEND AND IN THE FOLLOWING TABLE UNLESS NOTED OTHERWISE ON THE PLANS. MOUNTING HEIGHTS ARE TO CENTERLINE OF DEVICE).
 

SWITCHES (GENERAL):	3'-10" TO 4'-0"
TELEPHONE AND DATA OUTLETS:	1'-6" (EXCEPT WHERE SHOWN AT COUNTERTOPS)
- MAINTAIN NEC MINIMUM CLEARANCE IN FRONT OF ALL SAFETY SWITCHES AND PANELBOARDS.
- PRIOR TO ANY ROUGH-IN CONTRACTOR SHALL PROVIDE SCALED DRAWINGS WITH ACTUAL DIMENSIONS OF APPROVED EQUIPMENT, SHOWING LOCATIONS AND PROPER CLEARANCES OF ALL ELECTRICAL PANELS, TRANSFORMERS, COMMUNICATION CABINETS, ETC. FOR APPROVAL. DRAWINGS WILL SHOW MECHANICAL, PLUMBING AND ARCHITECTURAL FEATURES AS WELL AS ELECTRICAL EQUIPMENT.
- PRIOR TO ROUGH-IN CONTRACTOR SHALL PROVIDE SCALED WALL ELEVATIONS, WHERE ALL ALARM, SIGNAL CABINETS, ETC. ARE INSTALLED IN OTHER THAN MECHANICAL AND ELECTRICAL CLOSETS FOR APPROVAL.
- ALL UNDERGROUND CONDUIT RUNS ENTERING THE BUILDING SHALL BE SEALED TO PREVENT THE ENTRANCE OF MOISTURE AND GASSES.
- CONDUIT FOR RECEPTACLE CIRCUITS SHALL BE RUN OVERHEAD UNLESS NOTED OTHERWISE.
- PROVIDE CONDUIT AND OUTLET BOXES AS REQUIRED FOR THERMOSTATS AND SENSORS. THERMOSTATS AND SENSORS ARE SHOWN ON MECHANICAL DRAWINGS.
- ALL ITEMS ON PLANS ARE NEW UNLESS NOTED OTHERWISE.
- EXISTING PANELS TO REMAIN SHALL HAVE THEIR PANEL SCHEDULES UPDATED AND RETYPED AFTER COMPLETION OF NEW WORK.
- ALL CONDUITS PENETRATING ROOF SHALL BE SEALED BY THE ELECTRICAL CONTRACTOR, USING SEALING METHOD APPROVED BY THE ROOFING INSTALLER.
- ALL WALL PENETRATIONS SHALL BE SEALED TO MAINTAIN THE RATING OF THE WALL.
- WHERE RECEPTACLES ARE INDICATED TO BE EQUIPPED WITH GROUND FAULT INTERRUPTING CIRCUITRY, IT SHALL BE INTEGRAL TO THE DEVICE AND HAVE A TEST/RESET MECHANISM INTEGRAL WITH THE DEVICE. REMOVE TEST/RESET OR THE INTERRUPTING OF ADDITIONAL RECEPTACLES UTILIZING GF SENSING OF A SINGLE RECEPTACLE IS NOT ACCEPTABLE.
- ALL WALL AND CEILING DEVICES SHOWN ON THE NEW WORK PLANS REQUIRE CONCEALED RACEWAYS AND RECESSED METAL BOXES UNLESS NOTED OTHERWISE. COORDINATE WITH DEMOLITION TO REUSE EXISTING BOXES IN CMU WALLS WHERE THE CONDUITS AND BOXES ARE ACCEPTABLE. WHERE NEW BOXES OR RACEWAYS ARE REQUIRED IN EXISTING HOLLOW CELL CMU WALLS, CUT-IN BOXES AND FISH APPROVED FLEXIBLE METAL CONDUIT WITHIN THE CELL TO THE FIRST JUNCTION ABOVE CEILING.

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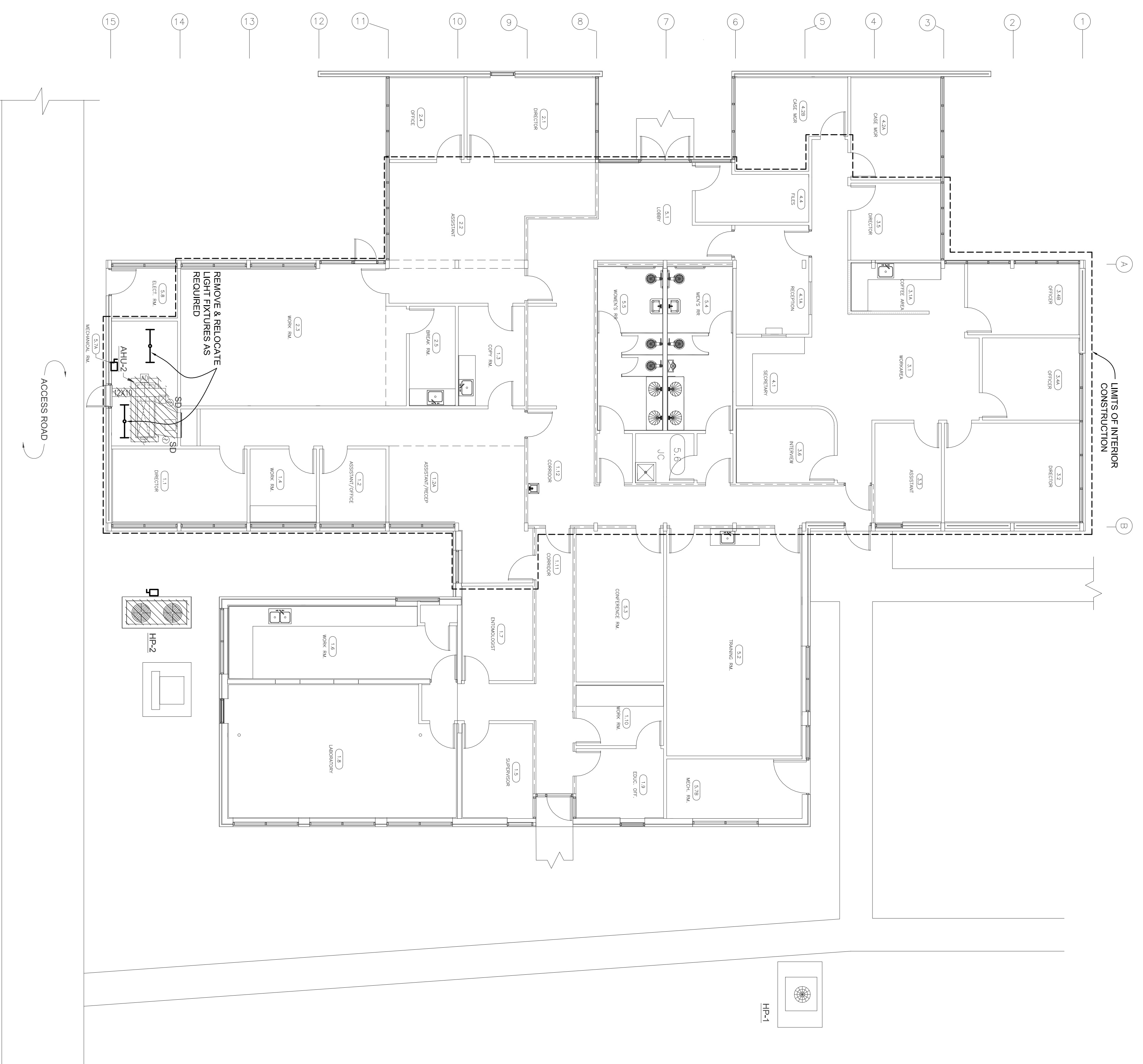
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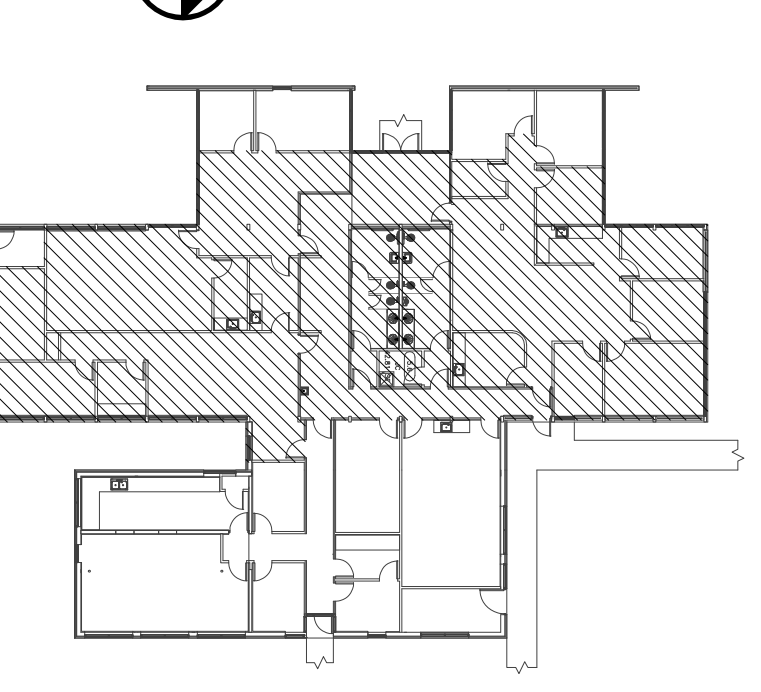
**NOTES**

- DEMOLITION NOTES - GENERAL**
1. ALL ELECTRICAL ITEMS SHOWN ON DEMOLITION PLANS ARE TO BE REMOVED. MATERIALS ASSOCIATED WITH ITEMS SHOWN TO BE REMOVED, THIS SHALL INCLUDE BUT NOT BE LIMITED TO CONDUIT AND RACEWAYS (BOTH SURFACE MOUNTED AND CONCEALED), ACCESSIBLE, WIRE, DEVICES AND CONDUITS TO BE REMOVED SHALL BE IDENTIFIED AND MARKED WITH RED TAPE AND REFERENCED TO OTHER DEMOLITION INSTRUCTION (MECHANICAL, PARTITIONS, ETC.) TO REVIEW AND DETERMINE WHERE ADDITIONAL DEMOLITION WORK MAY BE REQUIRED.
  2. REMOVE ALL CONDUIT STUBUPS IN FLOOR. CUT OR GRIND CONDUITS ABSOLUTELY FLAT AND READY FOR FLOOR FINISH. FINISH SHALL BE AS SPECIFIED.
  3. ALL REMOVED ELECTRICAL EQUIPMENT, INCLUDING PULL BOXES, DISCONNECTS, TRANSFORMERS, ETC. SHALL BE IDENTIFIED AND MARKED BY THE CONTRACTOR OFFICER ON THE SITE OF THE PROJECT. ITEMS TO BE REMOVED SHALL BE IDENTIFIED AND MARKED WITH RED TAPE AND REFERENCED TO OTHER DEMOLITION INSTRUCTION (MECHANICAL, PARTITIONS, ETC.) TO REVIEW AND DETERMINE WHERE ADDITIONAL DEMOLITION WORK MAY BE REQUIRED.
  4. BLANKING PLATES SHALL MATCH NEW PLATES INSTALLED.
  5. WHERE EXISTING CIRCUITS ARE REMOVED BY THE ADDITION OR REMOVAL OF CONDUIT OR PIPING, THE OLD WIRE SHALL BE REMOVED TO THE POINT OF DISCONNECT OR TO THE POINT OF ENTRY INTO THE BUILDING. ALL WIRE SHALL BE IDENTIFIED AND MARKED WITH RED TAPE AND REFERENCED TO OTHER DEMOLITION INSTRUCTION (MECHANICAL, PARTITIONS, ETC.) TO REVIEW AND DETERMINE WHERE ADDITIONAL DEMOLITION WORK MAY BE REQUIRED.
  6. IF ANY EXISTING ELECTRICAL EQUIPMENT THAT IS TO REMAIN BECOMES ISOLATED BY THE REMOVAL OF WALLS, CEILINGS, ELECTRICAL EQUIPMENT, ETC., IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO RELOCATE AND RECONNECT SUCH EQUIPMENT TO MAINTAIN THE ELECTRICAL SYSTEM IN ACCORDANCE WITH SPECIFICATIONS. ANY REQUIRED WORK SHALL BE IN ACCORDANCE WITH SPECIFICATIONS.
  7. NOTICES AND HVAC SERVICES SHALL BE REMOVED BY A LICENSED MECHANICAL CONTRACTOR. ALL ELECTRICAL CONNECTIONS SHALL BE COORDINATE REMOVAL OF CONTROL DEVICES AND ASSOCIATED BACKWAY DISCONNECTS AND REMOVED BY A QUALIFIED ELECTRICIAN.
  8. RELOCATE EXISTING ELECTRICAL EQUIPMENT AS REQUIRED TO AVOID NEW CONDUIT. ALL LINE VOLTAGE WIRES SHALL BE IDENTIFIED AND MARKED WITH RED TAPE AND REFERENCED TO OTHER DEMOLITION INSTRUCTION (MECHANICAL, PARTITIONS, ETC.) TO REVIEW AND DETERMINE WHERE ADDITIONAL DEMOLITION WORK MAY BE REQUIRED.
  9. WHILE REMOVING ALL ELECTRICAL ITEMS INSIDE THE INDICATED ALTERATION AREA, RECONNECT CIRCUITS TO MAINTAIN INTEGRITY OF EXISTING CIRCUITS AND CONTINUED OPERATION OF LIGHTING, EQUIPMENT AND DEVICES TO REMAIN.
  10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CUTTING OR PATCHING OF WALLS, CEILINGS, FLOORS, AND OTHER SURFACES. ALL CUTS SHALL BE FINISHED TO ORIGINAL CONDITION.
  11. ANY ITEM ABOVE CEILING IN EXISTING CORRIDORS OR ROOMS WHICH NEED TO BE RELOCATED FOR INSTALLATION OF NEW ELECTRICAL EQUIPMENT SHALL BE RELOCATED AND RECONNECTED AS REQUIRED. THIS RELOCATION SHALL BE MINIMAL DISTANCE POSSIBLE. CONTRACTING OFFICER SHALL BE NOTIFIED BEFORE BEGINNING WORK.
  12. ABANDONED CONDUIT SHALL BE REMOVED WHERE POSSIBLE. ABANDONED CONDUIT IN SLAB OR CONCRETE WALLS WHICH CANNOT BE REMOVED SHALL HAVE WIRES TIEED FROM THEM. CUT OR CONDUIT RUSH WITH GROUND OR TROWEL SMOOTH, READY FOR NEW FINISH.
  13. EXISTING CONDUITS WHICH PENETRATE EXTERIOR WALLS SHALL BE REMOVED AND EXTERIOR WALL PATCHED WITH LIKE MATERIALS.
  14. ANY AND ALL LIVES OR DAMAGED SURFACES DUE TO DEMOLITION WORK SHALL BE PATCHED BY A SKILLED CARPENTER.
  15. WHERE ITEMS ARE DESIGNATED EXISTING TO REMAIN, THEY SHALL BE IDENTIFIED AND MARKED WITH RED TAPE AND REFERENCED TO OTHER DEMOLITION INSTRUCTION (MECHANICAL, PARTITIONS, ETC.) TO REVIEW AND DETERMINE WHERE ADDITIONAL DEMOLITION WORK MAY BE REQUIRED. REMAIN, NEW DEVICES AND WALL PLATES SHALL BE INSTALLED AND NEW THIN CONDUITS INSTALLED IN EXISTING HOLES.



**BUILDING 'A' ELECTRICAL DEMOLITION PLAN**  
SCALE: 1/8"=1'-0"

**KEY PLAN**



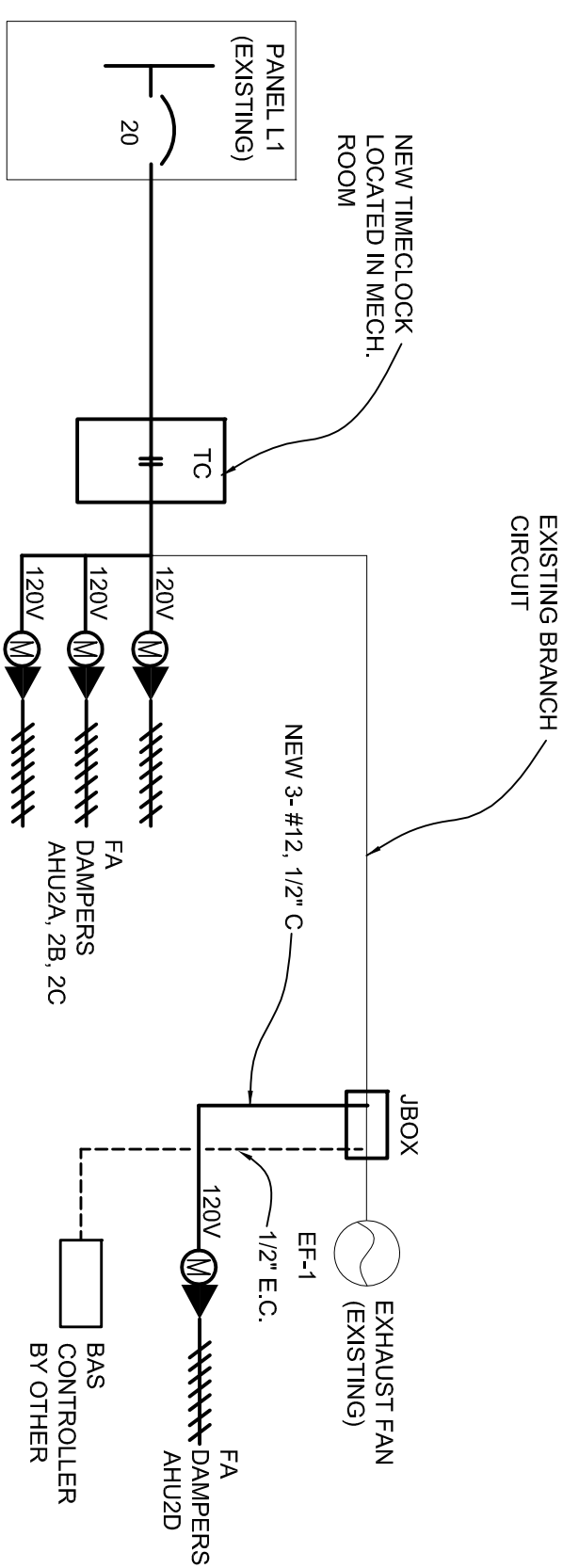
**McCinniss & Fleming**  
Engineering, Inc.  
Mechanical - Electrical - Fire Protection - Plumbing  
1401 Mevillee Road  
Tallahassee, Florida 32308  
EF #419390

**LEON COUNTY**  
COMMUNITY SERVICES BLDG.  
HVAC IMPROVEMENTS - PHASE I  
Tallahassee, Florida

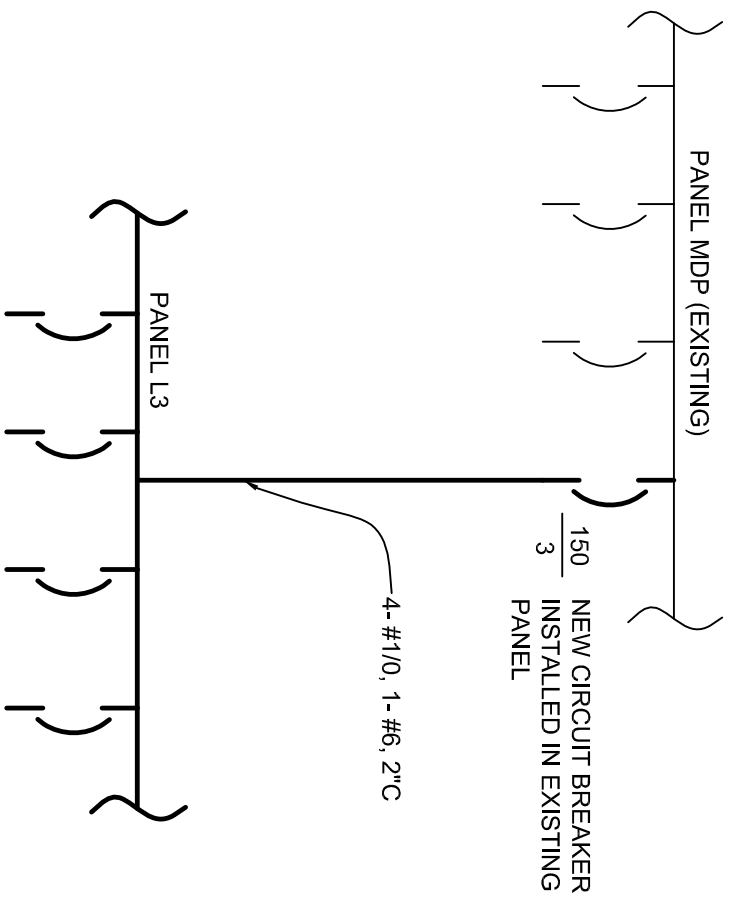
DATE: December 8, 2009  
DESIGNED BY: CKF  
DRAWN BY: TEB  
SUBMITTAL: 100% Construction Documents  
SHEET TITLE: ELECTRICAL DEMOLITION PLAN  
SHEET: EDD2.0







EF CONTROL DIAGRAM  
NOT TO SCALE



LINE DIAGRAM  
NOT TO SCALE

LOAD / REMARKS	CIR. NO.	BREAKERS OR AMP/POLES	H.P. OR AMP/POLES K.W.	LIGHTING			AMPS PER PHASE			SPECIAL			BREAKERS OR AMP/POLES NO.	LOAD / REMARKS
				ØA	ØB	ØC	ØA	ØB	ØC	ØA	ØB	ØC		
SPACE	11	100	3										SPACE	
NEW PANEL L3	3	150	3										EXISTING LOAD	
SPACE	5	250	3										EXISTING LOAD	
EXISTING LOAD	7	100	3										SPACE	
EXISTING LOAD	9	100	3										SPACE	
EXISTING LOAD	9	100	3										SPACE	
EXISTING LOAD	11	100	2										SPACE	
EXISTING LOAD	11	100	2										SPACE	
EXISTING LOAD	13	100	2										EXISTING LOAD (VSS)	

**DISTRIBUTION PANEL BOARD SCHEDULE**  
**LEON COUNTY COMMUNITY SERVICES Tallahassee, Florida**  
**PANEL MDP**  
 Location: ROOM 98  
 Service: 3 Phase 4 Wire  
 Main Bkr: 1000 A 3 P  
 Lugs Only: A  
 35,000 A/C Min. at 240 Volts  
 60 Hz.

Remarks:  
 EXISTING PANEL: SIEMENS TYPE SS PROVIDE NEW TYPE F008 THREE POLE CIRCUIT BREAKER AS INDICATED TO FEED NEW PANELBOARD L3.

LOAD / REMARKS	CIR. NO.	BREAKERS OR AMP/POLES	H.P. OR AMP/POLES K.W.	LIGHTING			AMPS PER PHASE			SPECIAL			BREAKERS OR AMP/POLES NO.	LOAD / REMARKS
				ØA	ØB	ØC	ØA	ØB	ØC	ØA	ØB	ØC		
EXISTING LOAD	1	35	2										HPU-2A	
EXISTING LOAD	3	35	2										HPU-2B	
EXISTING LOAD	7	35	2										HPU-2C	
EXISTING LOAD	9	35	2										HPU-2C	
EXISTING LOAD	11	35	2										HPU-2C	
EXISTING LOAD	13	35	2										HPU-2C	
EXISTING LOAD	15	35	2										HPU-2C	
EXISTING LOAD	17	35	2										HPU-2C	
EXISTING LOAD	19	35	2										HPU-2C	
EXISTING LOAD	21	35	2										HPU-2C	
EXISTING LOAD	23	35	2										HPU-2C	
EXISTING LOAD	25	35	2										HPU-2C	
EXISTING LOAD	27	35	2										HPU-2C	
EXISTING LOAD	29	35	2										HPU-2C	
EXISTING LOAD	31	35	2										HPU-2C	
EXISTING LOAD	33	35	2										HPU-2C	
EXISTING LOAD	35	35	2										HPU-2C	
EXISTING LOAD	37	35	2										HPU-2C	
EXISTING LOAD	39	35	2										HPU-2C	
EXISTING LOAD	41	35	2										HPU-2C	

**PANELBOARD SCHEDULE**  
**PROJECT Location**  
 Panel: PANEL L2  
 Location: ROOM 29  
 Service: 3 Phase 4 Wire  
 Main Bkr: 2080/120V  
 Lugs Only: 250 A  
 10,000 A/C Min. at 240 Volts  
 60 Hz.

Remarks:  
 EXISTING PANEL: SIEMENS TYPE S1 PROVIDE NEW TYPE CIRCUIT BREAKERS AS INDICATED TO FEED NEW HVAC EQUIPMENT

LOAD / REMARKS	CIR. NO.	BREAKERS OR AMP/POLES	H.P. OR AMP/POLES K.W.	LIGHTING			AMPS PER PHASE			SPECIAL			BREAKERS OR AMP/POLES NO.	LOAD / REMARKS
				ØA	ØB	ØC	ØA	ØB	ØC	ØA	ØB	ØC		
EXISTING LOAD	1	35	2										HPU-2A	
EXISTING LOAD	3	35	2										HPU-2B	
EXISTING LOAD	7	35	2										HPU-2C	
EXISTING LOAD	9	35	2										HPU-2C	
EXISTING LOAD	11	35	2										HPU-2C	
EXISTING LOAD	13	35	2										HPU-2C	
EXISTING LOAD	15	35	2										HPU-2C	
EXISTING LOAD	17	35	2										HPU-2C	
EXISTING LOAD	19	35	2										HPU-2C	
EXISTING LOAD	21	35	2										HPU-2C	
EXISTING LOAD	23	35	2										HPU-2C	
EXISTING LOAD	25	35	2										HPU-2C	
EXISTING LOAD	27	35	2										HPU-2C	
EXISTING LOAD	29	35	2										HPU-2C	
EXISTING LOAD	31	35	2										HPU-2C	
EXISTING LOAD	33	35	2										HPU-2C	
EXISTING LOAD	35	35	2										HPU-2C	
EXISTING LOAD	37	35	2										HPU-2C	
EXISTING LOAD	39	35	2										HPU-2C	
EXISTING LOAD	41	35	2										HPU-2C	

**PANELBOARD SCHEDULE**  
**LEON COUNTY COMMUNITY SERVICES Tallahassee, Florida**  
**PANEL L3**  
 Location: ROOM 7A  
 Service: 3 Phase 4 Wire  
 Main Bkr: 2080/120V  
 Lugs Only: 150 A  
 10,000 A/C Min. at 240 Volts  
 60 Hz.

Remarks:  
 SURFACE MOUNTED PANEL  
 FLUSH MOUNTED PANEL  
 200% NEUTRAL BAR

# E4.0

LEON COUNTY  
 COMMUNITY SERVICES BLDG.  
 HVAC IMPROVEMENTS - PHASE I  
 Tallahassee, Florida

DATE: December 8, 2009

REVISID:

DESIGNED BY: TEB  
 DRAWN BY: TEB

SUBMITTAL: 100% Construction Documents

SHEET TITLE: ELECTRICAL SCHEDULES AND DIAGRAMS

# E4.0

McGinniss & Fleming  
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 Mechanical - Electrical - Fire Protection - Plumbing  
 1401 Massachusetts Road  
 Tallahassee, Florida 32308  
 BR #419390