

COOLING TOWER SCHEDULE	
UNIT DESIGNATION	COOLING TOWER #1
TYPE	FORCED DRAFT
SERVICE	HEAT EXCHANGER #1
D.A.D.B./D.A.W.B.	95/78°F
G.P.M.	960
E.W.T.	97°F
L.W.T.	85°F
MAX. P.D. FT. H ₂ O	10'
ACCESSORIES	
FLOW CONTROL VALVES	-
FAN SCREEN	ON INLET
HAND RAIL	YES
LADDER	YES
EAN	
NUMBER	2
H.P.	2 @ 10 HP EA.
VOLTAGE	480/3/60
SUMP HEATER	
K.W.	2 @ 8 KW EA.
VOLTAGE	460/3/60
CONTROL VOLTAGE	120/1/60
APPROX. SIZE	24'-1" L X 7'-4" W X 8'-4" H
OPERATING WEIGHT	16,140 LBS
MANUFACTURER	BALTIMORE AIR COIL
MODEL #	FXT-350

BOILER SCHEDULE			
UNIT DESIGNATION	BOILER #1	BOILER #2	BOILER #3
TYPE	COPPER FINNED	COPPER FINNED	COPPER FINNED
SERVICE	LOOP WATER	LOOP WATER	LOOP WATER
FUEL	NATURAL GAS	NATURAL GAS	NATURAL GAS
INPUT B.T.U.H.	1,800,000.	1,800,000.	1,800,000.
OUTPUT B.T.U.H.	1,512,000.	1,512,000.	1,512,000.
CONTROL VOLTAGE	120/1/60	120/1/60	120/1/60
ACCESSORIES			
GAS TRAIN TYPE	F.M. APPROVABLE	F.M. APPROVABLE	F.M. APPROVABLE
FLAME SAFE GUARD CONTROLS	ELECTRONIC	ELECTRONIC	ELECTRONIC
POWER VENT #	YES	YES	YES
OTHER	SEE SPECS	SEE SPECS	SEE SPECS
MANUFACTURER	LOCHINVAR	LOCHINVAR	LOCHINVAR
MODEL #	CHN 1800	CHN 1800	CHN 1800

* PROVIDE SIDEWALL VENT CAP KIT INCLUDING DRAFT FAN, BAROMETRIC DAMPER, VENT CAP AND CONTROL.

PUMP SCHEDULE				
UNIT DESIGNATION	PUMP #1	PUMP #2	PUMP #3	PUMP #4
TYPE	BASE MOUNTED	BASE MOUNTED	BASE MOUNTED	IN-LINE
SERVICE	LOOP WATER	LOOP WATER	COOLING TOWER	BOILER
G.P.M.	960	960	960	270
T.D.H. FT. H ₂ O	78'	78'	48'	25'
MOTOR				
TYPE	DRIP PROOF	DRIP PROOF	DRIP PROOF	DRIP PROOF
H.P.	25	25	15	3 HP
R.P.M.	1750	1750	1750	1750
VOLTAGE	480/3/60	480/3/60	480/3/60	480/3/60
MANUFACTURER	BELL & GOSSETT	BELL & GOSSETT	BELL & GOSSETT	BELL & GOSSETT
MODEL #	1510 - 5E	1510 - 5E	1510 - 5BC	SERIES 80-4X4X7

HEAT EXCHANGER SCHEDULE	
UNIT DESIGNATION	HEAT EXCHANGER #1
TYPE	PLATE & FRAME
SERVICE	CLOSED LOOP WATER / COOLING TOWER
CAPACITY B.T.U.H.	5,723,300
LOOP SIDE	
G.P.M.	960
E.W.T.	99°F
L.W.T.	87°F
MAX. P.D. FT. H ₂ O	11.5'
TOWER SIDE	
G.P.M.	960
E.W.T.	85°F
L.W.T.	97°F
MAX. P.D. FT. H ₂ O	11.5'
MANUFACTURER	POLARIS
MODEL #	560-1S

ELECTRIC HEATER SCHEDULE			
UNIT DESIGNATION	E.H. (A)	E.H. (B)	E.H. (C)
TYPE	SEMI-WALL RECESS.	CLG. RECESSED	CLG. RECESSED
SERVICE	STAIR	VESTIBULE	AIRLOCK
C.F.M.	245	425	425
FAN			
MIN. H.P.	-	-	-
CAPACITY K.W.	5.0 K.W.	4.0 K.W.	3.0 K.W.
VOLTAGE	277-1-60	277-1-60	277-1-60
UNIT LENGTH	18"	24"	24"
UNIT HEIGHT	22"	24"	24"
UNIT DEPTH	5 1/8"	9"	9"
ACCESSORIES			
THERMOSTAT	BUILT-IN	WALL MOUNTED	LOCKING COVER
MANUFACTURER	MARKEL	MARKEL	MARKEL
MODEL #	G3425	G3484	G3483

HOT WATER UNIT HEATER SCHEDULE		
UNIT DESIGNATION	U.H. (A)	U.H. (B)
TYPE	HORIZONTAL	HORIZONTAL
SERVICE	MECH. RM.	FIRE PUMP RM.
CAPACITY B.T.U.H.	63,000.	15,700
E.W.T.	160°F	160°F
G.P.M.	6.3	1.6
MAX. P.D. FT. H ₂ O	1.4	1.0
BLOWER		
TYPE		
C.F.M.	1340	370
H.P.	1 1/8 HP	1/25 HP
VOLTAGE	120-1-60	120-1-60
CONTROL VOLTAGE	120-1-60	120-1-60
ACCESSORIES		
SPACE THERMOSTAT	YES	YES
OTHER	SEE SPECS	SEE SPECS
MANUFACTURER	MODINE	MODINE
MODEL #	HS-86	HS-24

ELECTRIC UNIT HEATER SCHEDULE	
UNIT DESIGNATION	U.H. (B)
TYPE	HORIZONTAL
SERVICE	LAUNDRY AREA
CAPACITY B.T.U.H.	68,300.
K.W.	20
VOLTAGE	460-3-60
BLOWER	
TYPE	
C.F.M.	1300
H.P.	1/15 HP
VOLTAGE	208-1-60
CONTROL VOLTAGE	120-1-60
ACCESSORIES	
SPACE THERMOSTAT	YES
TRANSFORMER	YES
MANUFACTURER	MODINE
MODEL #	HE200

GAS FIRED UNIT HEATER SCHEDULE	
UNIT DESIGNATION	U.H. (C)
TYPE	HORIZONTAL
SERVICE	MECH. RM.
FUEL	NATURAL GAS
INPUT B.T.U.H.	30,000.
OUTPUT B.T.U.H.	22,500.
BLOWER	
TYPE	
C.F.M.	400
H.P.	8 MHP
VOLTAGE	120-1-60
CONTROL VOLTAGE	24V
ACCESSORIES	
SPACE THERMOSTAT	YES
POWER VENTER	
OTHER	SEE SPECS
MANUFACTURER	MODINE
MODEL #	PA30

WATER SOURCE HEAT PUMP SCHEDULE													
UNIT DESIGNATION	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
TYPE	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	HORIZONTAL	CONSOLE	HORIZONTAL	HORIZONTAL	HORIZONTAL
TOTAL C.F.M.	500	630	800	1000	1200	1400	1600	2000	230	320	400	800	1000
D.A. C.F.M.	SEE VENTILATION RISERS												
EXT. S.P.	.40"	.40"	.40"	.40"	.40"	.40"	.40"	.40"					
ACCESSORIES													
DISCONNECT SWITCH	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
CONDENSATE OVERFLOW PROT.									YES		YES	YES	YES
COOLING													
TOT. CAPACITY (B.T.U.H.)	13,667	16,849	24,231	29,218	35,048	40,664	45,332	59,535	6770	8830	11,490	22,661	29,812
SENS. CAPACITY (B.T.U.H.)	10,973	14,561	18,885	22,880	26,929	31,843	35,666	45,805	4965	7158	8362	16,626	22,037
E.A.D.B./E.A.W.B.	80/67°F	80/67°F	80/67°F	80/67°F	80/67°F	80/67°F	80/67°F	80/67°F	80/67°F	80/67°F	80/67°F	80/67°F	80/67°F
E.W.T.	90°F	90°F	90°F	90°F	90°F	90°F	90°F	90°F	90°F	90°F	90°F	90°F	90°F
G.P.M.	2.7	3.8	4.8	5.7	7.0	7.7	9.0	12.0	1.4	1.8	2.6	5.0	6.0
PRESS. DROP FT. H ₂ O	3.9	10.8	12.4	6.7	9.3	8.1	11.0	7.2	6.1	2.3	12.3	15.9	7.3
HEATING													
CAPACITY (B.T.U.H.)	15,451	22,585	29,292	34,880	42,640	47,103	56,548	75,010	9101	10,882	14,009	29,532	35,890
E.A.D.B.	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F
E.W.T.	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F
ELECTRICAL													
VOLTAGE	265-1-60	265-1-60	265-1-60	460-3-60	460-3-60	460-3-60	460-3-60	460-3-60	265-1-60	265-1-60	265-1-60	265-1-60	460-3-60
COMPRESSOR R.L.A./L.R.A.	4.8/27	6.5/42	9.2/55	4.0/3.0	4.6/30	5.5/39	5.7/39	8.0/62.	2.6/12.3	3.3/18.6	4.2/27	9.9/55	4.8/34
FAN F.L.A.	.80	.80	1.2	1.0	1.6	1.7	2.5	2.5	.38	.43	.65	2.1	1.7
UNIT M.C.A./MAX FUSE	7/15	9/15	13/20	6/15	8/15	9/15	10/15	13/20	3.6/15	4.6/15	5.9/15	14.5/20	7.6/15
MANUFACTURER	MCQUAY	MCQUAY	MCQUAY	MCQUAY	MCQUAY	MCQUAY	MCQUAY	MCQUAY	MCQUAY	MCQUAY	MCQUAY	MCQUAY	MCQUAY
MODEL #	FCV015	FCV019	FCV024	FCV030	FCV036	FCV042	FCV048	FCV060	CCH007	CHW009	CCH012	CCH024	CCH030

* PROVIDE OPTIONAL OUTSIDE AIR DAMPER INTERLOCKED W/FAN OPERATION FOR CONSOLE H.P. UNIT.

GENERAL MECHANICAL LEGEND	
SYMBOL	DESCRIPTION
—	SUPPLY DUCTWORK
----	RETURN DUCTWORK
-----	EXHAUST DUCTWORK
(F)	FIRE DAMPER
(S.D.)	SUPPLY AIR DIFFUSER
—	DAMPER - SEE PLANS FOR TYPE
E.H.	ELECTRIC WALL HEATER
(E.H.)	ELECTRIC UNIT HEATER - CEILING MOUNTED
(R)	RETURN OR EXHAUST AIR REGISTER - SEE PLANS
▲	UNDERCUT DOOR 3/4"
M.V.D.	MANUAL VOLUME DAMPER
(S.D.)	SMOKE DETECTOR
8" X 20"	8" X 20" NECK SUPPLY AIR DIFFUSER @ 200 C.F.M.
8" X 8"	8" X 8" RETURN AIR REGISTER @ 150 C.F.M.
6" X 6"	6" X 6" EXHAUST AIR REGISTER @ 100 C.F.M.
S.A.R.	SUPPLY AIR REGISTER (WALL)
E.R.	EXHAUST REGISTER (WALL)
T.G.	TRANSFER GRILLE
F.G.	FILTER GRILLE
—LS—	WATER SOURCE LOOP SUPPLY
—LR—	WATER SOURCE LOOP RETURN
—CD—	CONDENSATE DRAIN
(C.S.)	CIRCUIT SETTER FLOW MEASURING STATION
(V)	CHECK VALVE
— —	UNION
(B)	BALL OR BUTTERFLY VALVE
(G)	GATE VALVE
(D.S. & Y.)	D.S. & Y. GATE VALVE
(C.V.)	CONTROL VALVE - TWO WAY
(T)	SPACE THERMOSTAT
(T.C.)	SPACE THERMOSTAT W/ LOCKING OPAQUE COVER
(S)	WALL SWITCH FOR CONTROL
(E.D.U.)	EXHAUST DUCT UP - SEE PLANS
(E.D.D.)	EXHAUST DUCT DOWN - SEE PLANS
(R.F.)	ROUND FLUE - UP

WEST CAMPUS LIVING/LEARNING COMPLEX
ALABAMA A&M UNIVERSITY

SMITH, KRANERT, TOMBLIN
& ASSOCIATES, P.C.
ALBANY, ALABAMA

JOB NUMBER
94004

DATE / BY / REVISED
REVISIONS

SHEET TITLE
HVAC SCHEDULES & LEGEND

SHEET NUMBER
M-1
OF
22

ROOFTOP UNIT SCHEDULE

UNIT DESIGNATION	R.T.U.# 1	R.T.U.# 2	R.T.U.# 3	R.T.U.# 4	R.T.U.# 5	R.T.U.# 6
TYPE	PACKAGED DX	PACKAGED GAS HEAT / ELEC. COOL				
SERVICE	ACTIVITIES BLDG.	BALLROOM	BALLROOM	WT & AEROBIC RM.	CAFETERIA	KITCHEN
TOTAL C.F.M.	16000.	7800.	8000.	5000.	17,500.	7525
O.A. MINIMUM	2400.	2000.	2000.	750.	4350.	950
ACCESSORIES						
ECONOMIZER	0-100%	0-100%	0-100%	0-100%	0-100%	0-100%
CURB	YES	YES	YES	YES	YES	YES
FILTERS	30% EFF. 2" PLEAT.	30% EFF. 2" PLEAT.	30% EFF. 2" PLEAT.	30% EFF. 2" PLEAT.	30% EFF. 2" PLEAT.	30% EFF. 2" PLEAT.
DISCONNECT SWITCH	YES	YES	YES	YES	YES	YES
OTHER	SEE SPECS	SEE SPECS	SEE SPECS	SEE SPECS	SEE SPECS	SEE SPECS
SUPPLY FAN						
INTERNAL S.P.	1"				1.7"	
EXTERNAL S.P.	2.5"	.80"	.80"	.70"	.80"	.80"
TOTAL S.P.	3.5"				2.5"	
H.P.	15 HP	5 HP	5 HP	3 HP	15 HP	5 HP
VOLTAGE	460-3-60	460-3-60	460-3-60	460-3-60	460-3-60	460-3-60
RETURN AIR FAN	W/ VANES	EXHAUST	EXHAUST		RETURN	EXHAUST
EXT. S.P.	1.0"	.35"	.35"		.50"	.35"
H.P.	7.5 H.P.	3 @ 1/4 H.P. EA.	3 @ 1/4 H.P. EA.		3 HP	3 @ 1/4 H.P. EA.
VOLTAGE	460-3-60	460-3-60	460-3-60		460-3-60	460-3-60
COOLING COIL						
COOLING CAP. M.B.H.	488.MBH	252.MBH	252.MBH	148.6 MBH	618.5 MBH	226.5 MBH
SENSIBLE CAPACITY (MBH)	365.MBH	180.MBH	180.MBH	106.9 MBH	436. MBH	163. MBH
E.A.D.B./E.A.W.B.	80/67°F	80/67°F	80/67°F	80/67°F	80/67°F	80/67°F
L.A.D.B./L.A.W.B.	59/57.4°F	59.3/56.8°F	59.3/57.°F	60./57.7°F	57/55.6°F	60./57.5°F
HEATING COIL						
FUEL		NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS
HEATING CAP. INPUT		470,000.	470,000.	270,000.	1,000,000.	470,000.
HEATING CAP. OUTPUT		376,000.	376,000.	216,000.	800,000.	376,000.
E.A.D.B./L.A.D.B.		52.5/95°F	52.5/95°F	59.5/95°F	52.5/95°F	63./95°F
CONDENSING SECTION						
COMP. R.L.A./L.R.A.	2 @ 31/154 EA.	2 @ 17.8/120 EA.	2 @ 17.8/120 EA.	NO. 1 14.2/91 NO. 2 10/75	2 @ 42/214. EA.	2 @ 16.8/104 EA.
COND.FANS F.L.A./L.R.A.	4 @ 2.0/9.9 EA.	4.8/23	48/23	2 @ 1.5/3.4 EA.	4 @ 2.0/9.9 EA.	4.8/23
VOLTAGE	460-3-60	460-3-60	460-3-60	460-3-60	460-3-60	460-3-60
D.A.D.B.	95°F	95°F	95°F	95°F	95°F	95°F
MIN. E.E.R.	9.0	9.0	9.0	8.5	9.0	9.8
MANUFACTURER	McQUAY	McQUAY	McQUAY	McQUAY	McQUAY	McQUAY
MODEL #	RPS-045	GCS16-2753	GCS16-2753	GCS16-1603	RPS-050C	GCS16-2553

FAN TERMINAL UNIT SCHEDULE

UNIT DESIGNATION	F.T.-1	F.T.-2	F.T.-3	F.T.-4	F.T.-5	F.T.-6	F.T.-7	F.T.-8	F.T.-9	F.T.-10	F.T.-11
TYPE	SERIES / ELEC. HT.	SERIES / ELEC. HT.	SERIES / ELEC. HT.	SERIES / ELEC. HT.	SERIES / ELEC. HT.	SERIES / ELEC. HT.	SERIES / ELEC. HT.	SERIES / ELEC. HT.	SERIES / ELEC. HT.	SERIES / ELEC. HT.	SERIES / ELEC. HT.
SERVICE	LOBBY - A102	SALON	GAME ROOM	COMPUTER RM.	SNACK BAR	CONVENIENCE STORE	CORRIDOR/ RESTROOMS	RETAIL STORE	LOBBY	LOBBY - A122	MEN / WOMEN'S RESTROOM
C.F.M. MAX./MIN.	1775/1150	1250/850	2300/1500	2100/1050	2500/1250	800/525	1650/1050	700/450	1400/900	1785/1150	750/750
MAX. Δ P (BOX ONLY)	.18"	.15"	.18"	.18"	.21"	.11"	.15"	.09"	.20"	.18"	.10"
EXTERNAL Δ P TO BOX											
MAX. N.C.	30	30	30	30	30	30	30	30	30	30	30
H.P.	3/4 H.P.	1/2 H.P.	2 @ 1/2 H.P. EA.	2 @ 1/2 H.P. EA.	2 @ 1/2 H.P. EA.	1/4 H.P.	3/4 H.P.	1/2 H.P.	1/2 H.P.	3/4 H.P.	1/4 H.P.
VOLTAGE	277-1-60	277-1-60	277-1-60	277-1-60	277-1-60	277-1-60	277-1-60	277-1-60	277-1-60	277-1-60	277-1-60
HEATING COIL											
KW	10 KW	8 KW	15 KW	10 KW	12 KW	5 KW	10 KW	5 KW	9 KW	10 KW	7 KW
STAGES	2	1	2	2	2	1	2	1	1	2	1
CAPACITY (BTUH)	34,120	27,296	51,180	34,120	40,944	17,060	34,120	17,060	30,708	34,120	23,884
E.A.D.B. / L.A.D.B.	70/95° F	70/95° F	70/95° F	70/95° F	70/95° F	70/95° F	70/95° F	70/95° F	70/95° F	70/95° F	70/95° F
VOLTAGE	460-3-60	460-3-60	460-3-60	460-3-60	460-3-60	460-3-60	460-3-60	460-3-60	460-3-60	460-3-60	460-3-60
ACCESSORIES											
DISCONNECT	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
TRANSFORMER	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
MANUFACTURER	ENVIRONMENTAL TECH.	ENVIRONMENTAL TECH.	ENVIRONMENTAL TECH.	ENVIRONMENTAL TECH.	ENVIRONMENTAL TECH.	ENVIRONMENTAL TECH.	ENVIRONMENTAL TECH.	ENVIRONMENTAL TECH.	ENVIRONMENTAL TECH.	ENVIRONMENTAL TECH.	ENVIRONMENTAL TECH.
MODEL #	CFR-EH-12	CFR-EH-10	CFR-EH-14	CFR-EH-14	CFR-EH-14	CFR-EH-8	CFR-EH-12	CFR-EH-8	CFR-EH-10	CFR-EH-12	CFR-EH-8

SUPPLY FAN SCHEDULE

UNIT DESIGNATION	S.F.#1	S.F.#2	S.F.#3	S.F.#4	S.F.#5	S.F.#6,7
TYPE	IN-LINE	IN-LINE	IN-LINE	IN-LINE	IN-LINE	IN-LINE
SERVICE	VENTILATION	VENTILATION	VENTILATION	VENTILATION	VENTILATION	VENTILATION
C.F.M.	2000	3300	3075	2800	3750	3000
STATIC PRESSURE	.75"	.75"	.75"	.75"	.75"	.75"
MAX. SONES	14	12	15	15	15	15
H.P.	3/4 H.P.	1 H.P.	1 H.P.	1 1/2 H.P.	1 H.P.	1 H.P.
VOLTAGE	460-3-60	460-3-60	460-3-60	460-3-60	460-3-60	460-3-60
ACCESSORIES						
DAMPER TYPE	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT
DISCONNECT	YES	YES	YES	YES	YES	YES
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL #	BSQ-140	BSQ-180	BSQ-180	BSQ-180	BSQ-200	BSQ-180

EXHAUST FAN SCHEDULE

UNIT DESIGNATION	E.F.#1	E.F.#2,4,6,8,9	E.F.#3	E.F.#5	E.F.#7	E.F.#8	E.F.#10	E.F.#11	E.F.#12	E.F.#13	E.F.#14	E.F.#15	E.F.#16	E.F.#17	E.F.#18
TYPE	IN-LINE	IN-LINE	IN-LINE	IN-LINE	IN-LINE	IN-LINE	IN-LINE	IN-LINE	CLG.	CENTRIFUGAL	UPBLAST	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	UPBLAST
SERVICE		SEE ATTIC PLANS							FIRE PUMP	UTILITY	TLTS.	KITCHEN HOOD	TLTS.	KITCHEN AREA	DISHWASHER
C.F.M.	4525	7600	2400	3250	8800	2525	3500	1700	150	1475	1575	1475	1000	1000	1230
STATIC PRESSURE	1.0"	.125"	1.0"	1.0"	1.0"	1.0"	1.0"	.25"	.150"	.50"	1.0"	.50"	.50"	.75"	1.0"
MAX. SONES	15	19	15	15	15	13	14	14	4.1	7.0	10	7.0	8.5	8.0	8.5
H.P.	1 1/2 H.P.	1 1/2 H.P.	1 H.P.	1 1/2 H.P.	1 1/2 H.P.	1 H.P.	1 1/2 H.P.	1 1/2 H.P.	1475 WATTS	1/2 H.P.	1/2 H.P.	1/2 H.P.	1/2 H.P.	1/2 H.P.	1/2 H.P.
VOLTAGE	460-3-60	460-3-60	460-3-60	460-3-60	460-3-60	460-3-60	460-3-60	120-1-60	120-1-60	120-1-60	120-1-60	120-1-60	120-1-60	120-1-60	120-1-60
ACCESSORIES															
DAMPER TYPE	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT
DISCONNECT	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL #	BSQ-240 HP	BSQ-240	BSQ-180	BSQ-200	BSQ-240 HP	BSQ-180	BSQ-240 HP	BSQ-120	SP-117	GB-140	CUBE-180 HP	GB-140	GB-120	GB-140	CUBE-160 HP

RANGE HOOD SYSTEM SCHEDULE

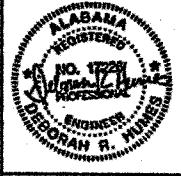
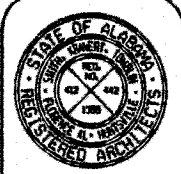
UNIT DESIGNATION	RANGE HOOD #1	RANGE HOOD #2
TYPE	AIR CURTAIN SHORT CIRCUIT	
SERVICE	COOKING EQUIP.	COOKING EQUIP.
CANOPY SIZE	142" X 120" X 32"	142" X 120" X 32"
EXHAUST FAN		
EXHAUST COLLAR	23" X 23"	23" X 23"
EXHAUST AIR C.F.M.	6000	6000
EXHAUST Δ P IN. H ₂ O	.625"	.625"
H.P.	2 HP	2 HP
VOLTAGE	460/3/60	460/3/60
SUPPLY FAN		
SUPPLY COLLAR	33" X 33"	33" X 33"
SUPPLY AIR CFM	5040	5040
SUPPLY Δ P IN. H ₂ O	.625"	.625"
H.P.	1 1/2 HP	1 1/2 HP
VOLTAGE	460/3/60	460/3/60
ACCESSORIES		
ADJUSTABLE ROOF SUPPORTS	YES	YES
FILTERS	U.L. GREASE	U.L. GREASE
DISCONNECT SWITCH	YES	YES
FIRE EXTING. SYSTEM	WET CHEMICAL	WET CHEMICAL
U.L. CONCENTRIC DUCT	YES	YES
MANUFACTURER	DUO-AIRE	DUO-AIRE
MODEL NO.	I-142-111	I-142-111

NOTES:

1. PROVIDE SYSTEM COMPLETE WITH U.L. CONCENTRIC DUCTWORK; MAKE-UP AIR UNIT; EXHAUST FAN W/ STARTER; ROOF CURB AND SHORT CIRCUIT RANGE HOOD.
2. CANOPY AND LINER TO BE MINIMUM OF 20 GAUGE STAINLESS STEEL.
3. ALL SEAMS, JOINTS AND PENETRATION OF HOOD SHALL BE EXTERNALLY CONTINUOUS WELDED.
4. EXHAUST DUCT SHALL BE 16 GAUGE WELDED.
5. MOTORS, FANS AND OUTLETS MUST BE RATED FOR CONTINUOUS OPERATION. MOTORS AND ELECTRICAL DEVICES SHALL BE LISTED FOR GREASY ATMOSPHERE.
6. SEE KITCHEN SUPPLIER & ARCHITECTURAL DRAWINGS FOR LOCATION OF PORTABLE FIRE EXTINGUISHER, WET CHEMICAL TANKS, MANUAL PULLS, SHUNT TRIP DEVICES AND FIRE ALARM SYSTEM.

RANGE HOOD SCHEDULE

UNIT DESIGNATION	RANGE HOOD #3
TYPE	BACK SHELF
SERVICE	COOKING EQUIPMENT
CANOPY SIZE	71" L X 32" W X 44" H
EXHAUST FAN	E.F.#18
EXHAUST AIR C.F.M.	1230
EXHAUST Δ P IN. H ₂ O	.625"
SUPPLY AIR C.F.M.	925
SUPPLY Δ P IN. H ₂ O	.625"
VOLTAGE	460-3-60
ACCESSORIES	
FIRE EXTING. SYSTEM	WET CHEMICAL
U.L. CONCENTRIC DUCTWORK	YES
MANUFACTURER	DUO-AIRE
MODEL #	AS-71



WEST CAMPUS LIVING/LEARNING COMPLEX
ALABAMA A&M UNIVERSITY

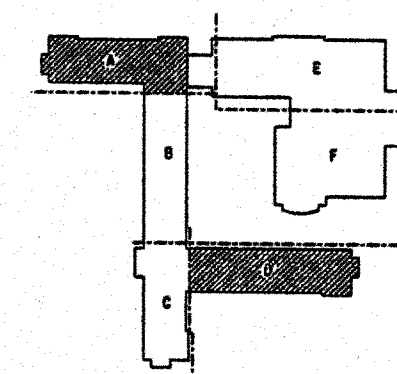
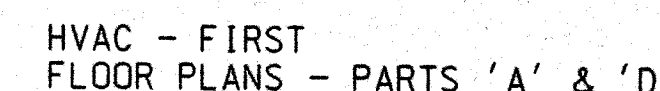
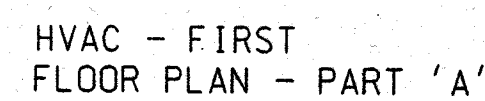
SMITH, KRANER, TOMBLIN
& ASSOCIATES
FLORENCE, ALABAMA

JOB NUMBER
94084

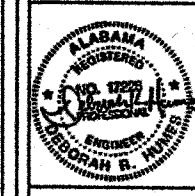
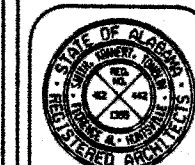
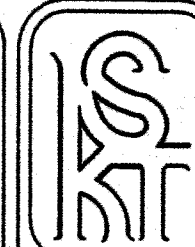
DATE / BY / CHECKED BY
08/01/88 / JH / JH

SHEET TITLE
HVAC SCHEDULES

SHEET NUMBER
M-2
OF
22



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WEST CAMPUS LIVING/LEARNING COMPLEX
ALABAMA A&M UNIVERSITY

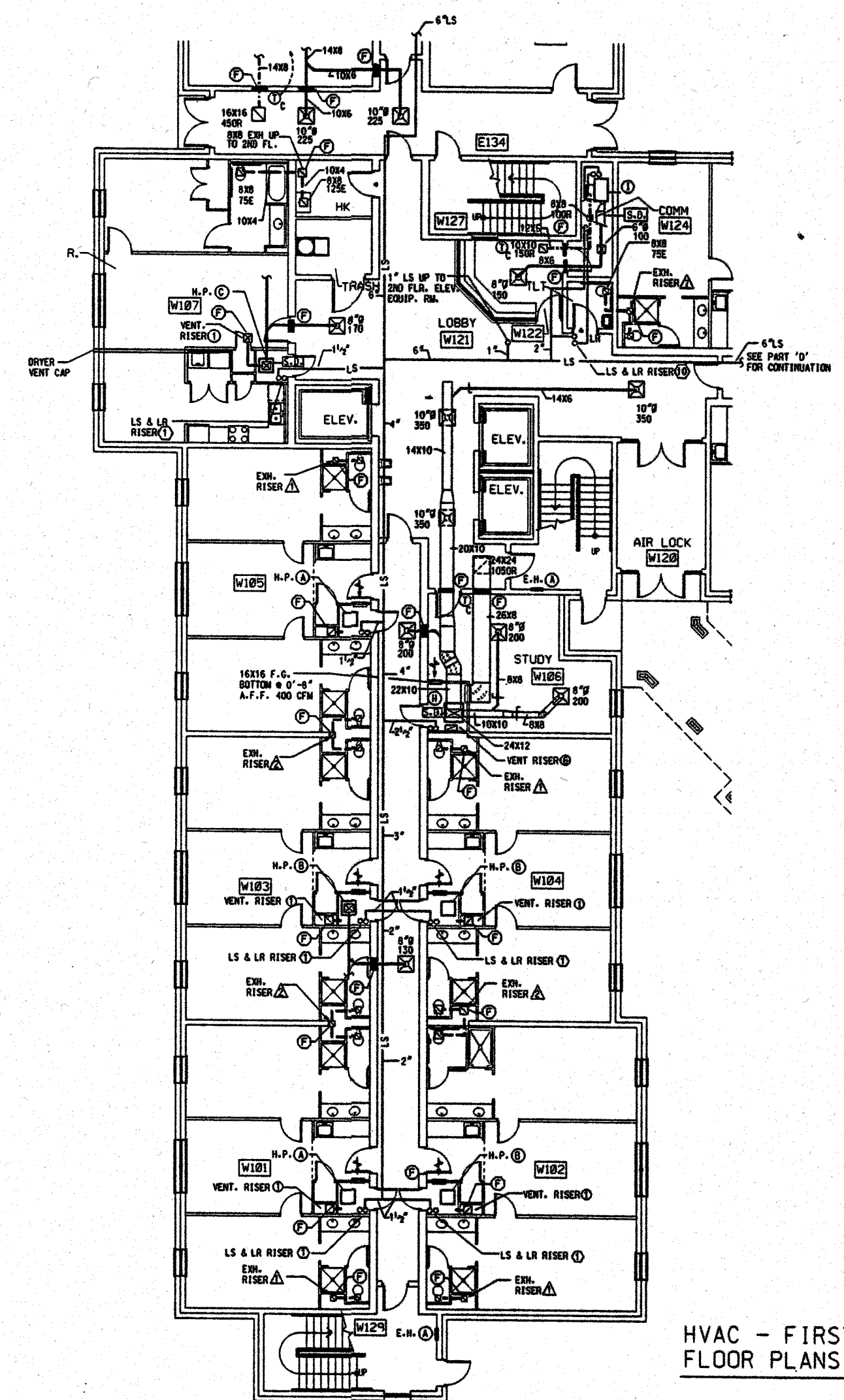
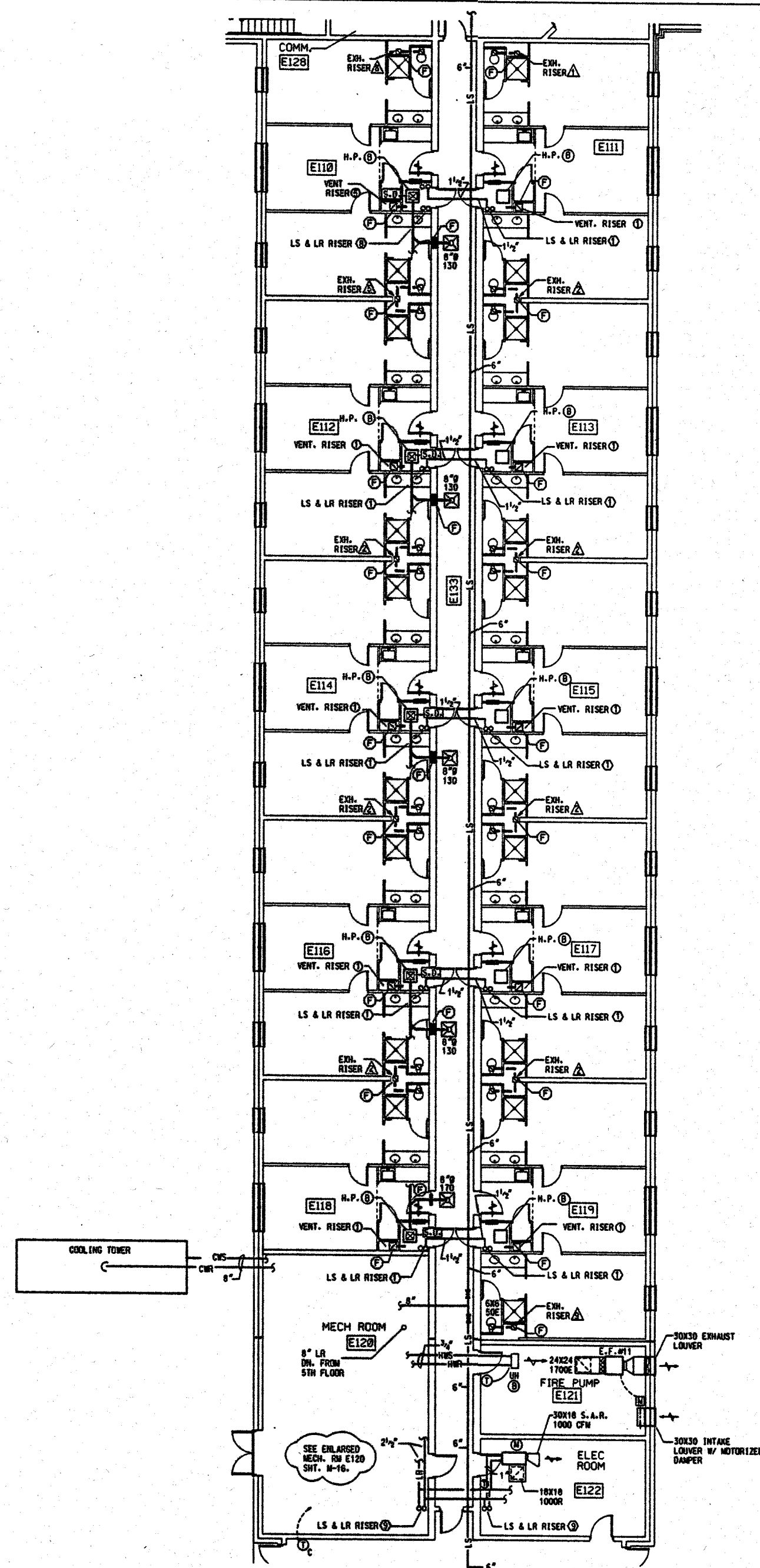
SMITH, KRANERT, TOMBLIN
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A.I.A.
FLORENCE, ALABAMA

JOB NUMBER
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DATE	BY	REVISION

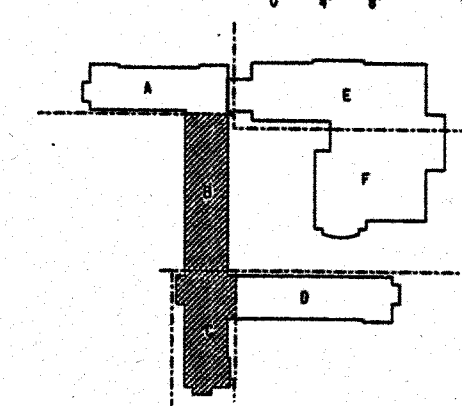
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HVAC FIRST FLOOR PLAN
PART 'B' & 'C'

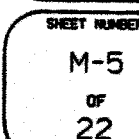
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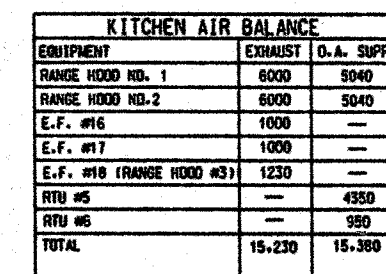


HVAC - FIRST FLOOR PLANS - PART 'B' & 'C'

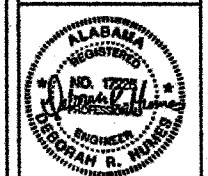
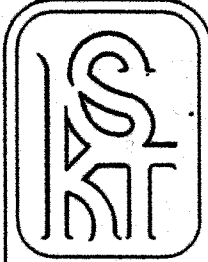
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KEY PLAN **NO**



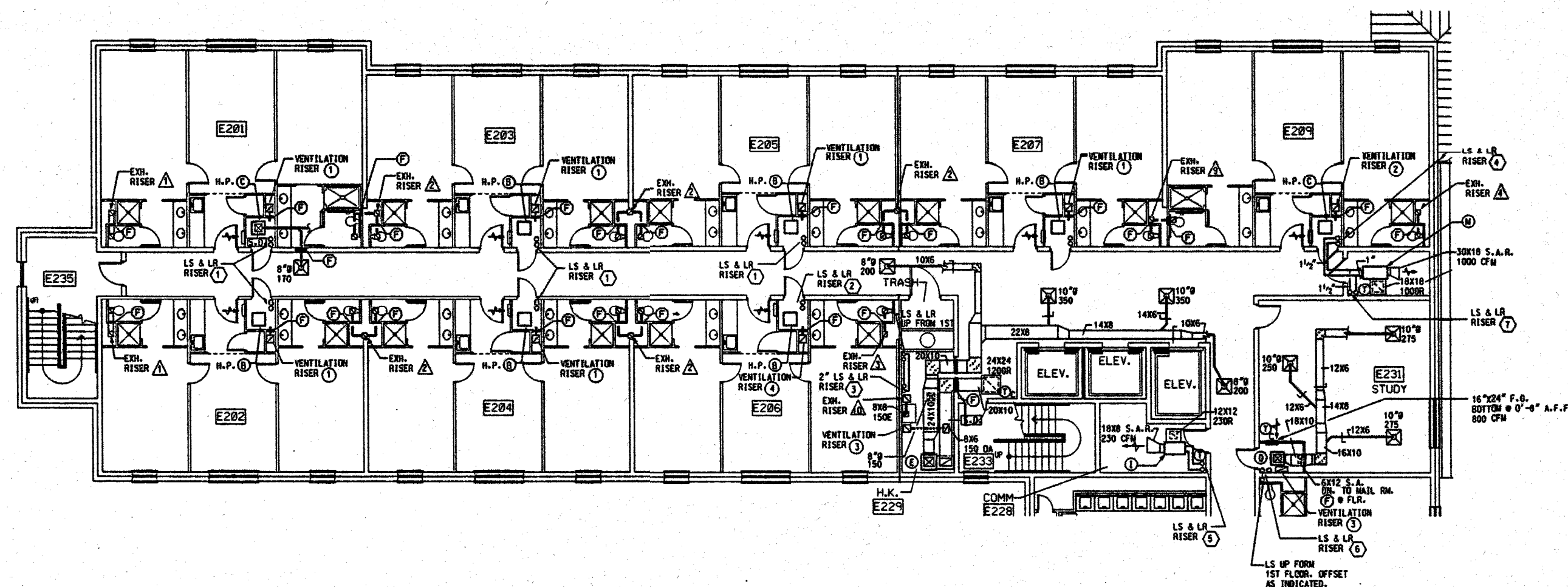
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ALABAMA A&M UNIVERSITY
SMITH, KRANERT, TOMBLIN
& ASSOCIATES, P.C.
ARCHITECTS, P.C.
FLORENCE, ALABAMA

JOB NUMBER
94004

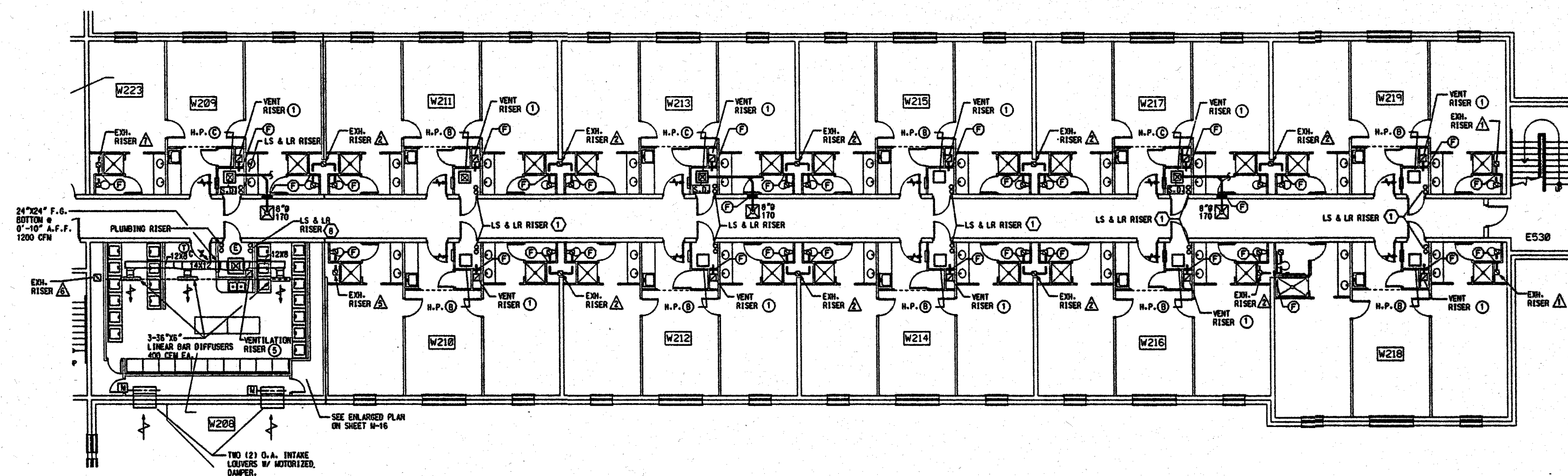
DATE	BY	REVISION

SHEET TITLE
HVAC SECOND FLOOR PLAN PART 'A' & 'D'

SHEET NUMBER
M-7
OF
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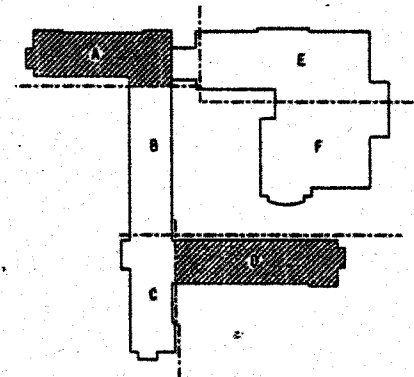
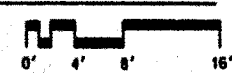


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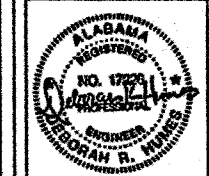
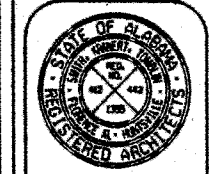
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HVAC - SECOND FLOOR PLANS - PARTS 'A' & 'D'



KEY PLAN





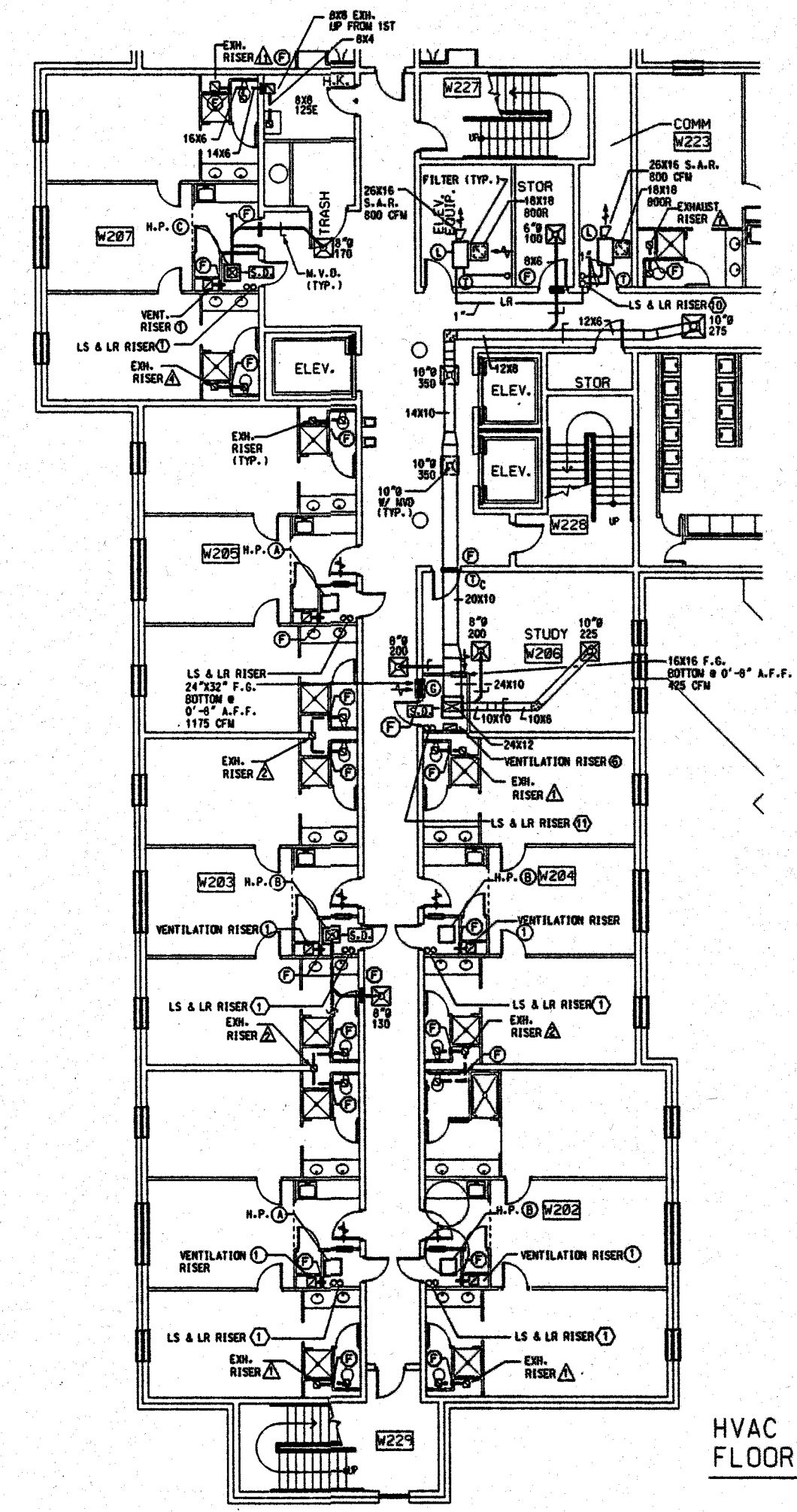
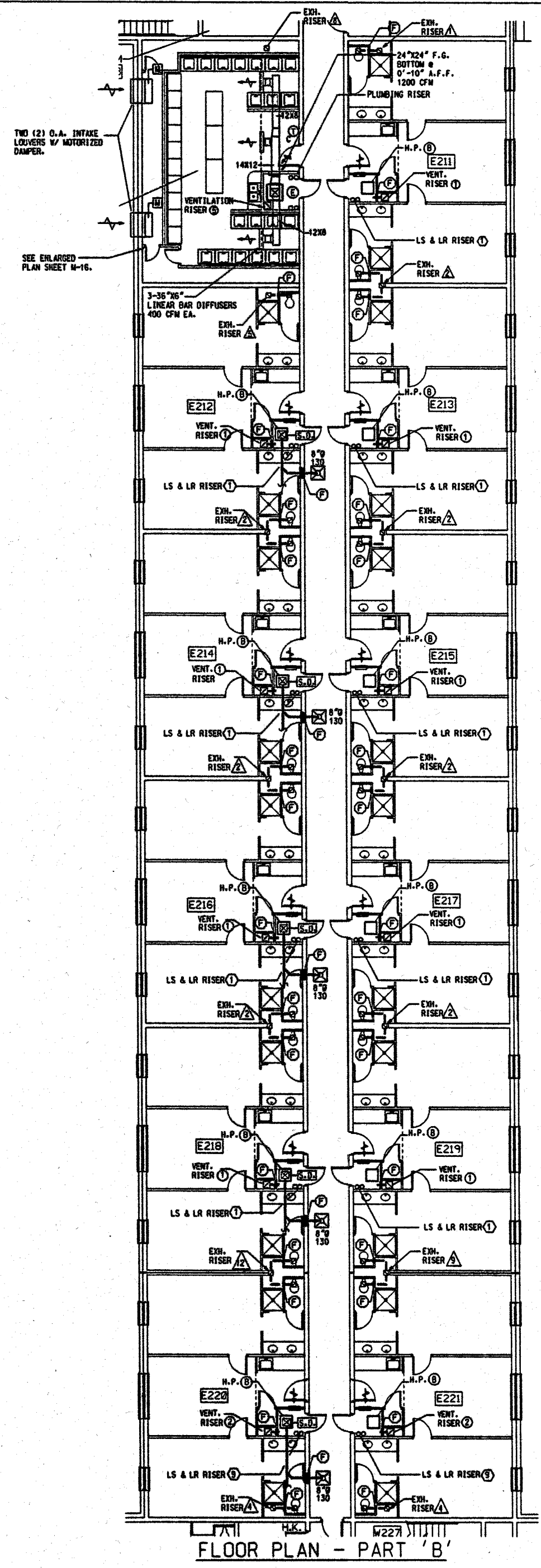
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& ASSOCIATES
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ARCHITECTS, P.C.
HUNTSVILLE

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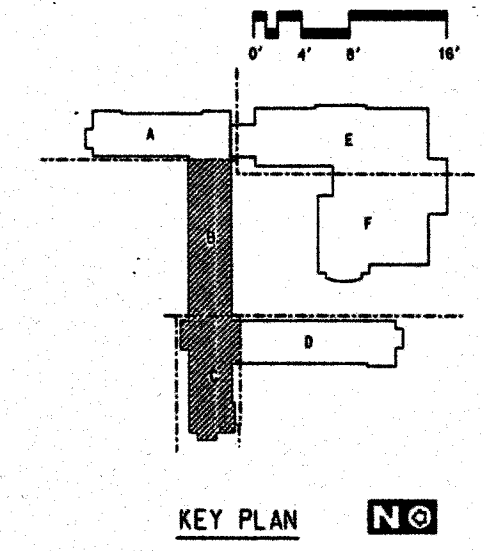
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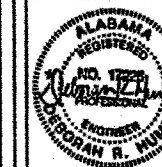
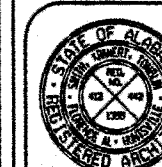
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HVAC SECOND
FLOOR PLAN
PART 'B' & 'C'

SHEET NUMBER
M-8
OF
22



HVAC - SECOND
FLOOR PLAN - PART 'B' & 'C'





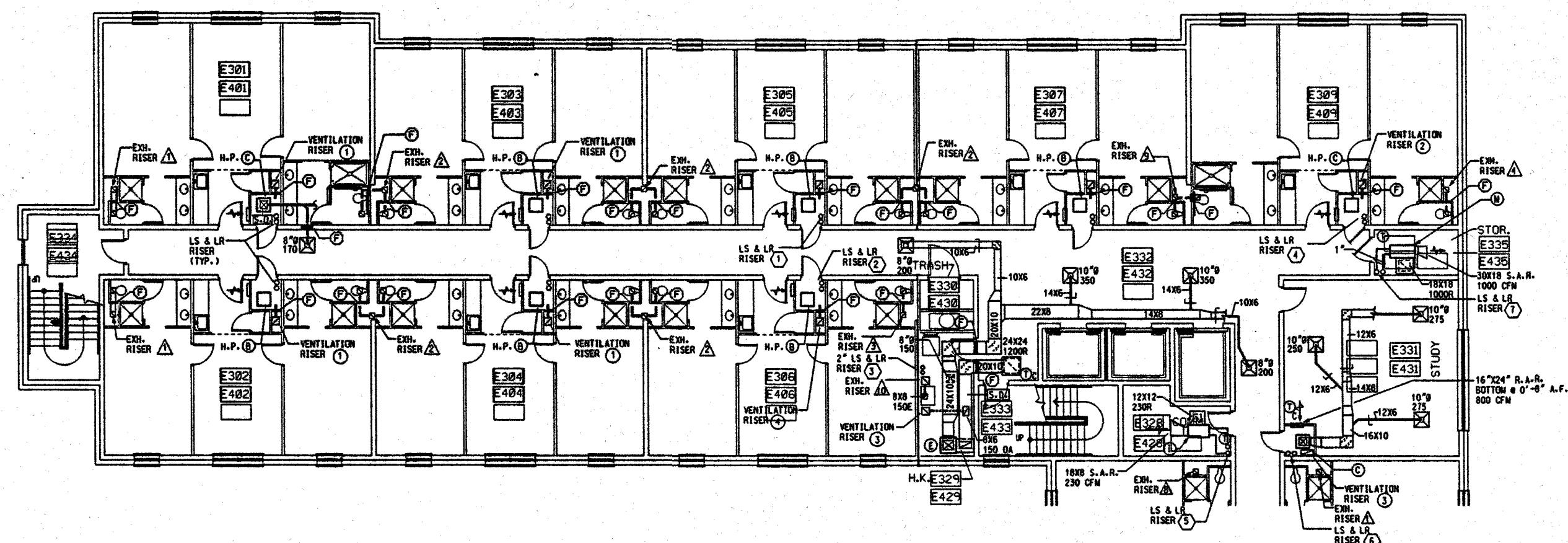
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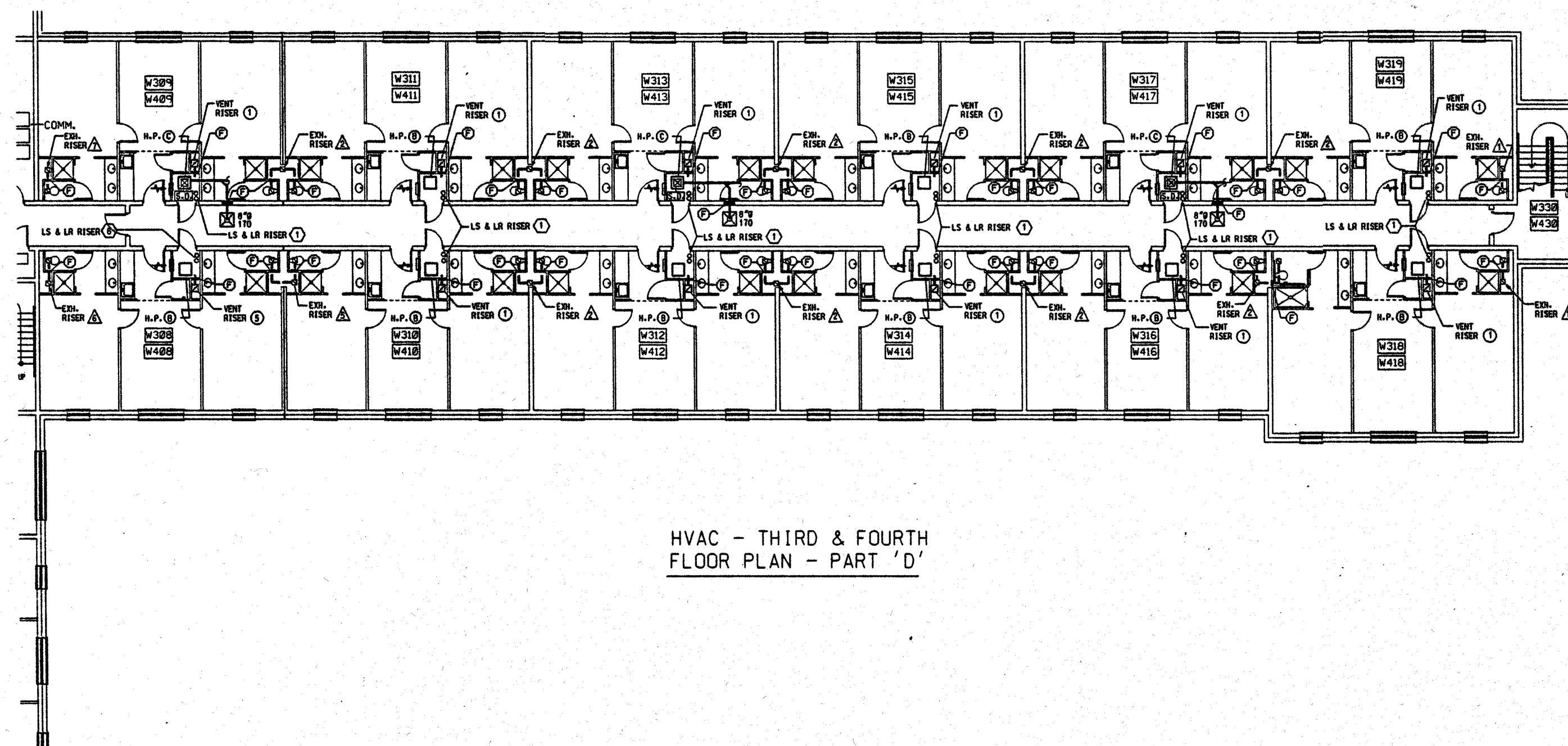
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SHEET TITLE
HVAC THIRD & FOURTH FLOOR PLANS PARTS 'A' & 'D'

SHEET NUMBER
M-9
OF
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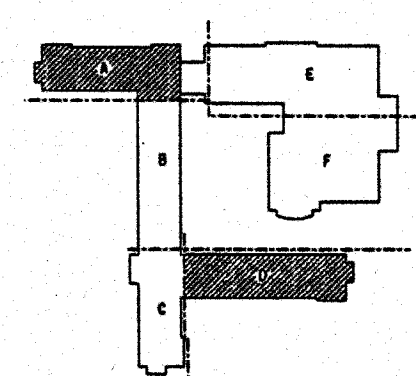


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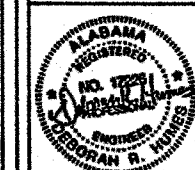
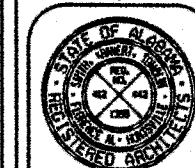


HVAC - THIRD & FOURTH FLOOR PLAN - PART 'D'

HVAC - THIRD & FOURTH FLOOR PLANS - PARTS 'A' & 'D'



KEY PLAN



WEST CAMPUS LIVING/LEARNING COMPLEX
ALABAMA A&M UNIVERSITY

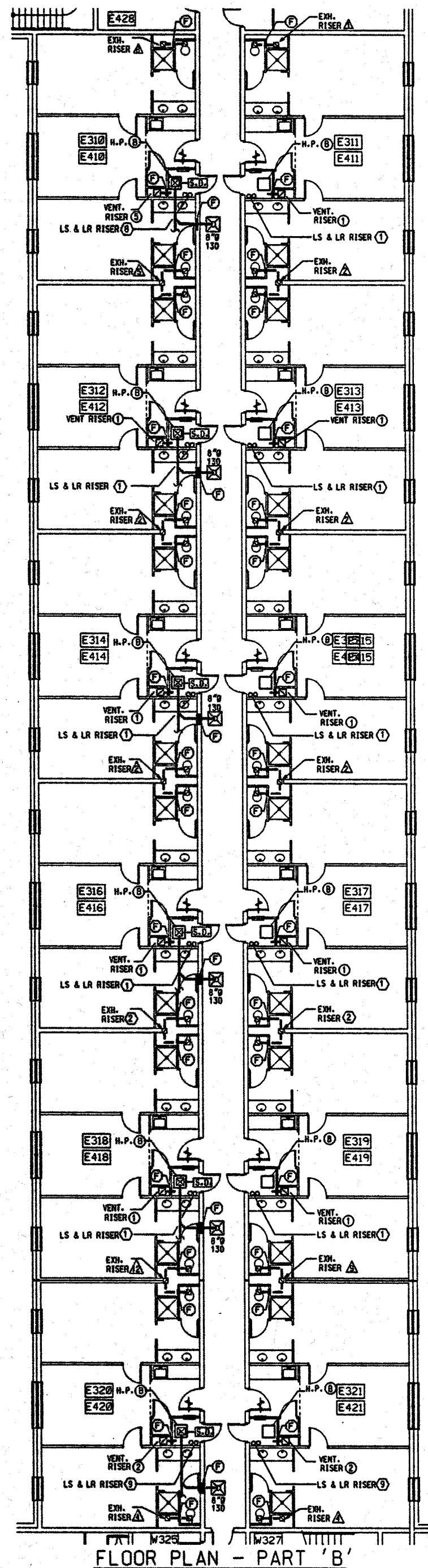
SMITH, KRANER, TOMBLIN
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ALABAMA
FLORENCE
HUNTSVILLE

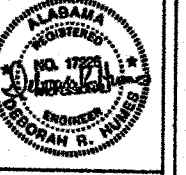
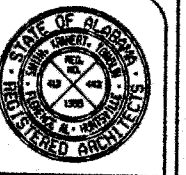
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DATE	BY	CHKD	APPD

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HVAC THIRD & FOURTH
FLOOR PLAN
PART 'B' & 'C'

SHEET NUMBER
M-10
OF
22





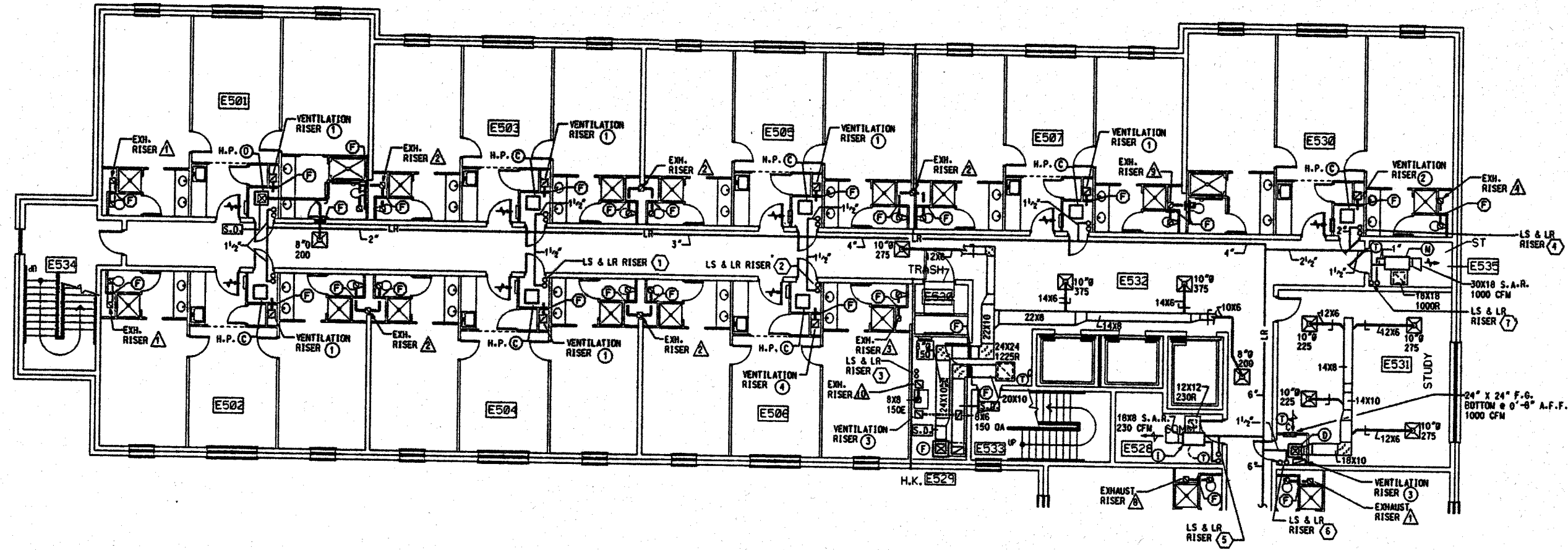
WEST CAMPUS LIVING/LEARNING COMPLEX
ALABAMA A&M UNIVERSITY
SMITH, KRANERT, TOMBLIN
& ASSOCIATES, P.C.
ARCHITECTS, P.C.
ALABAMA
FLORENCE
HUNTSVILLE

JOB NUMBER
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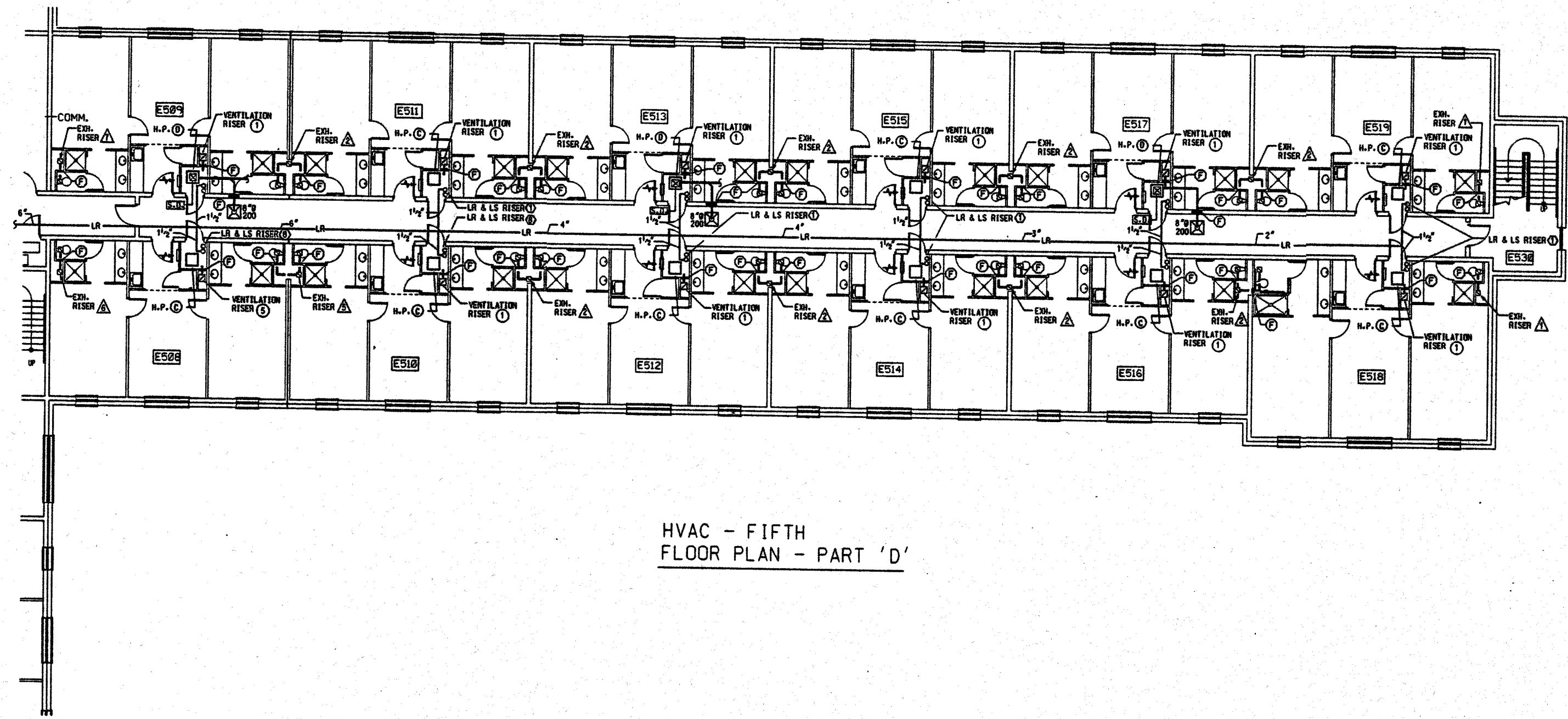
DATE	BY	CHKD	APP'D

SHEET TITLE
HVAC FIFTH
FLOOR PLAN
PARTS 'A' & 'D'

SHEET NUMBER
M-11
OF
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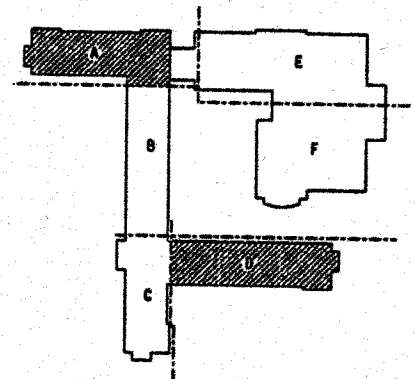
HVAC - FIFTH
FLOOR PLAN - PART 'A'



HVAC - FIFTH
FLOOR PLAN - PART 'D'

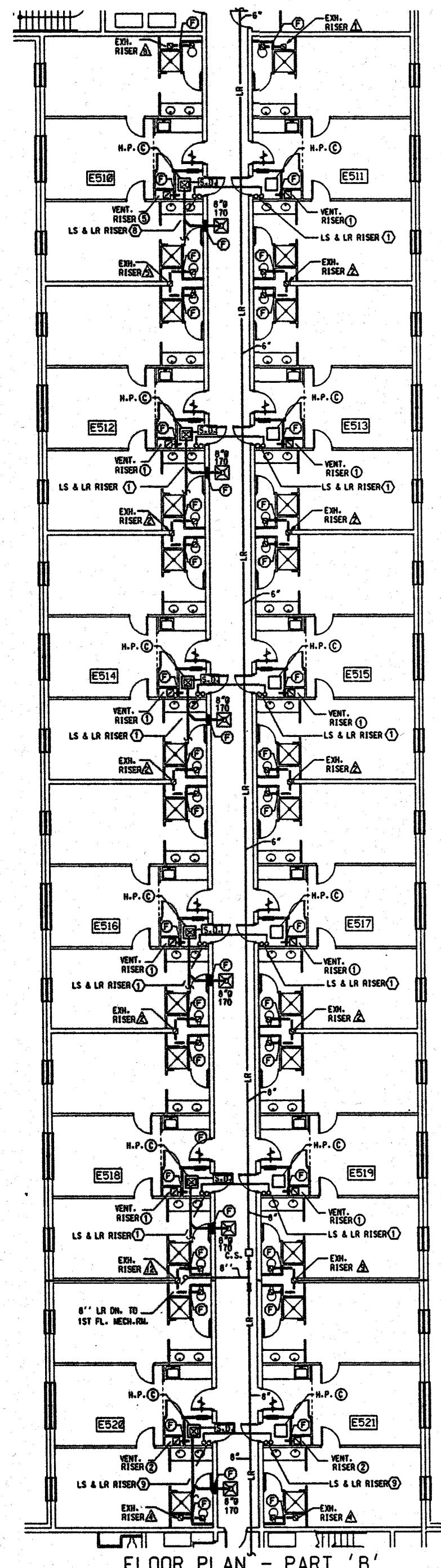
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FLOOR PLANS - PARTS 'A' & 'D'

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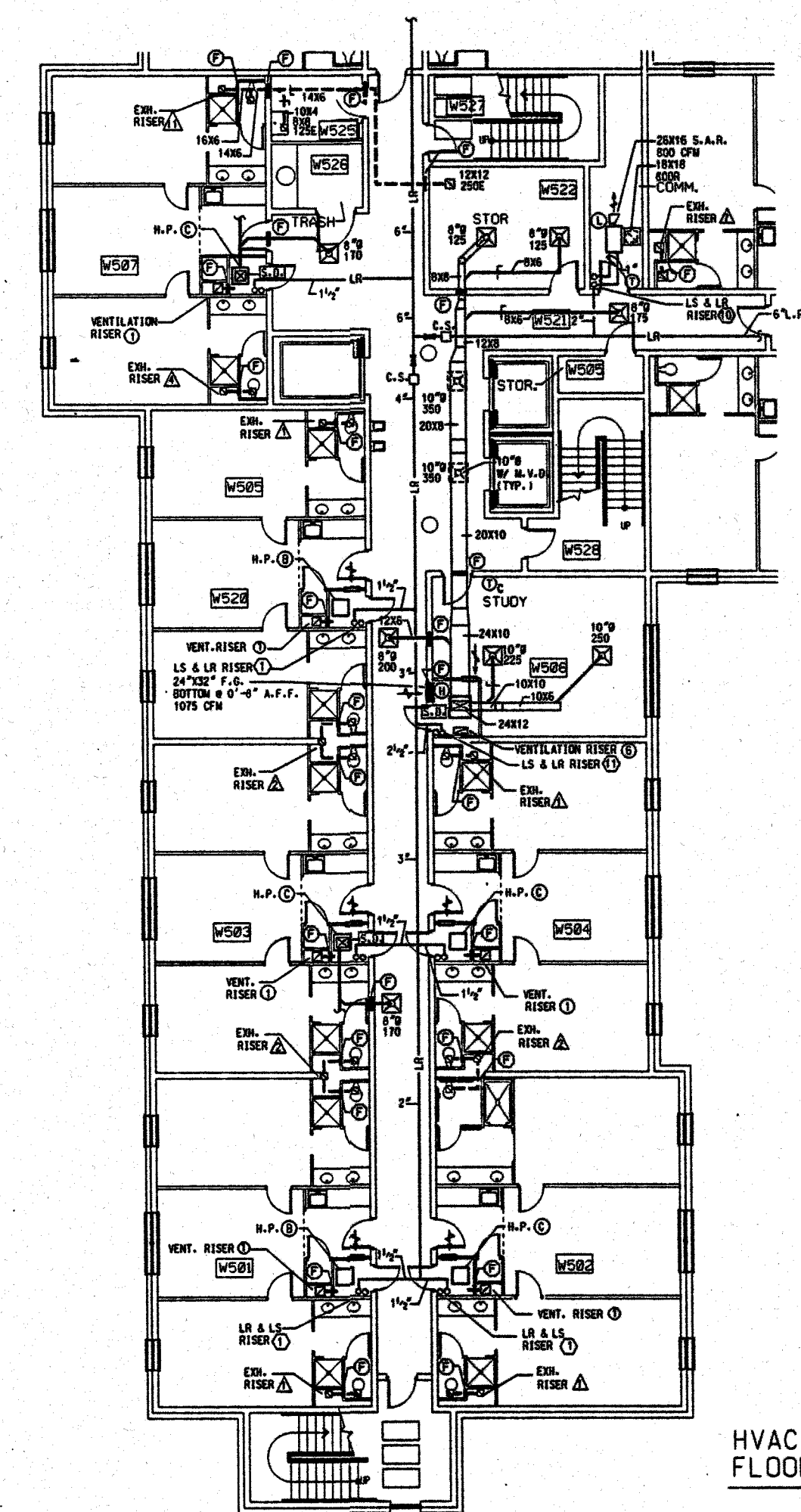


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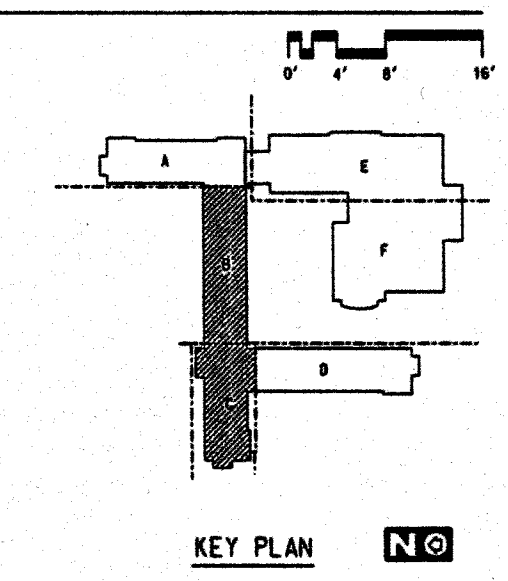


FLOOR PLAN - PART 'B'



FLOOR PLAN - PART 'C'

HVAC - FIFTH FLOOR PLANS - PART 'B' & 'C'



KEY PLAN



WEST CAMPUS LIVING/LEARNING COMPLEX
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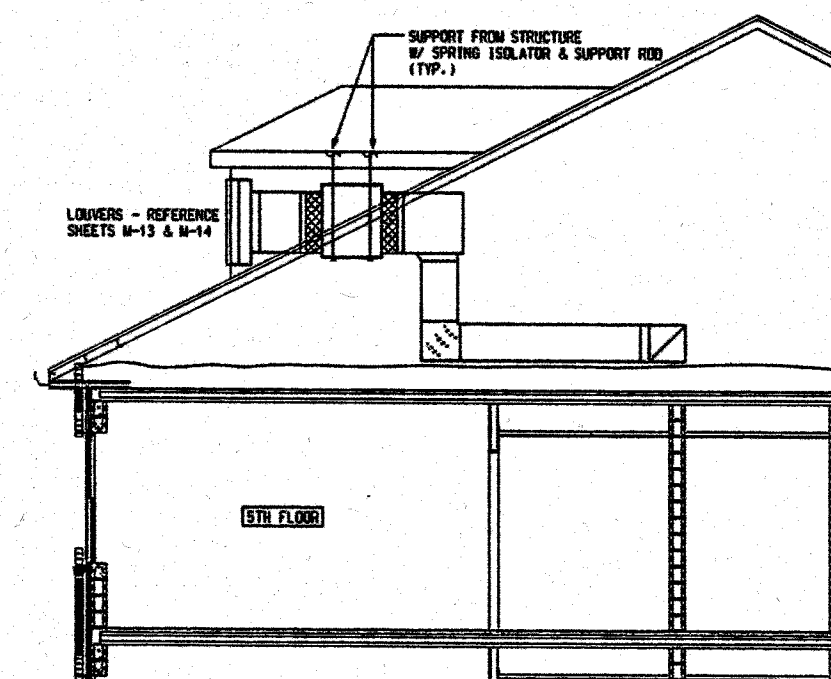
SMITH, KRANER, TOMBLIN
& ASSOCIATES
ARCHITECTS, P.C.
FLORENCE, ALABAMA

JOB NUMBER
94004

DATE / BY / CHECKED BY / DATE
REVISED

SHEET TITLE
HVAC FIFTH FLOOR PLAN
PART 'B' & 'C'

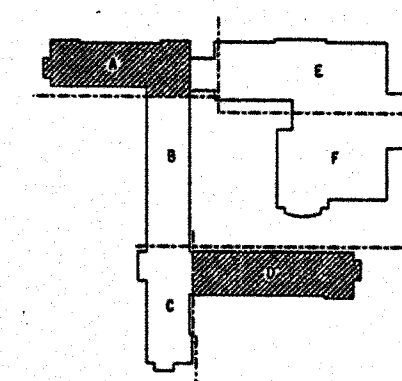
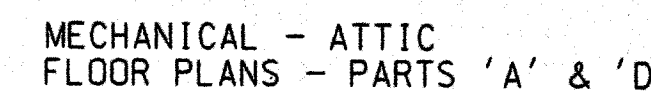
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SECTION

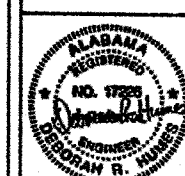
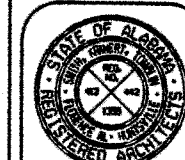


0' 4'



KEY PLAN





WEST CAMPUS LIVING/LEARNING COMPLEX
ALABAMA A&M UNIVERSITY

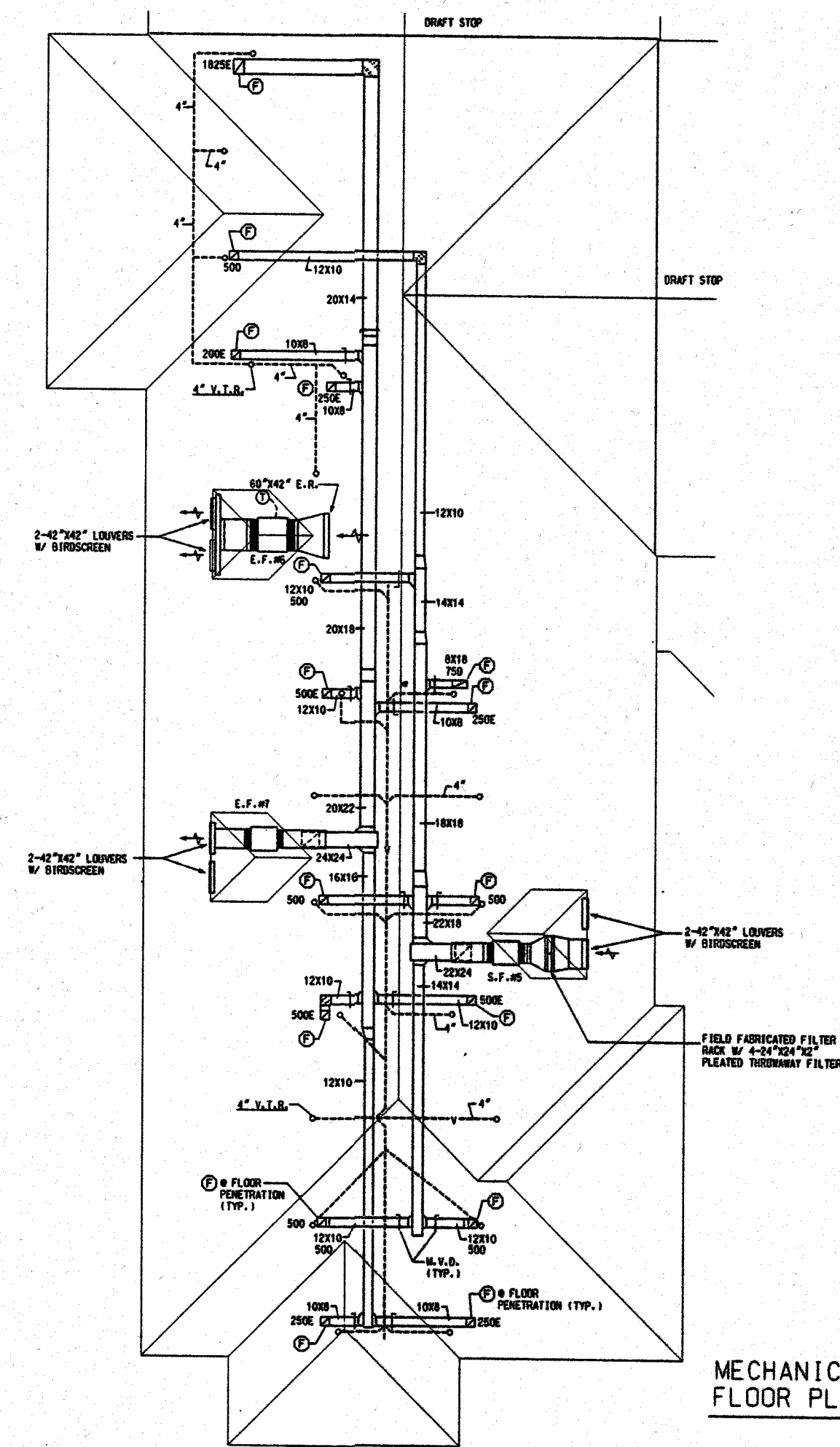
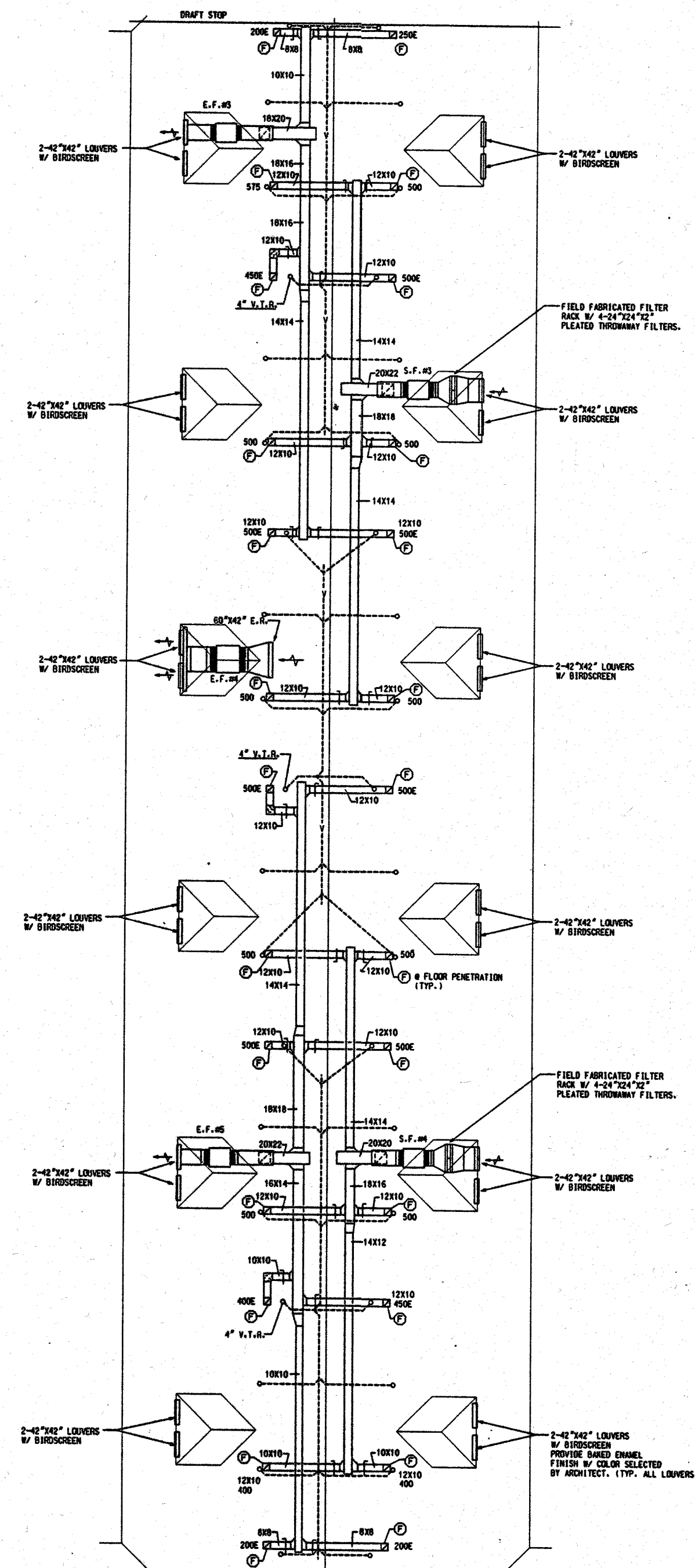
SMITH, KRANERT, TOMBLIN
ARCHITECTS, P.C.
FLORENCE, ALABAMA

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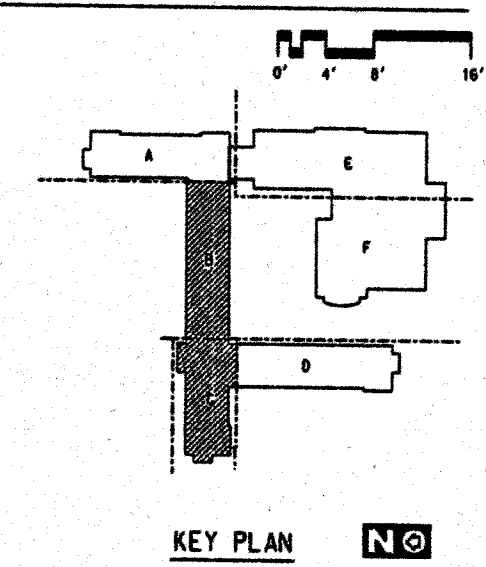
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MECHANICAL ATTIC PLAN
PARTS B & C

SHEET NUMBER
M-14
OF
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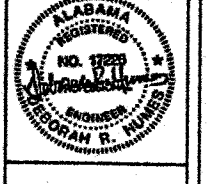
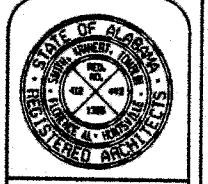
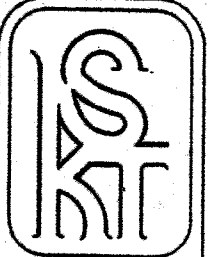
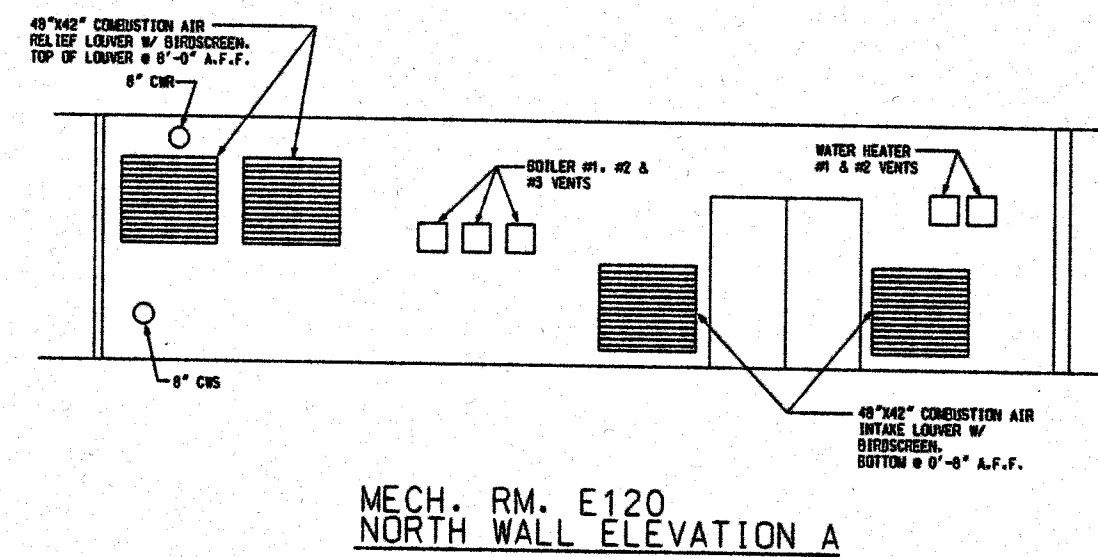
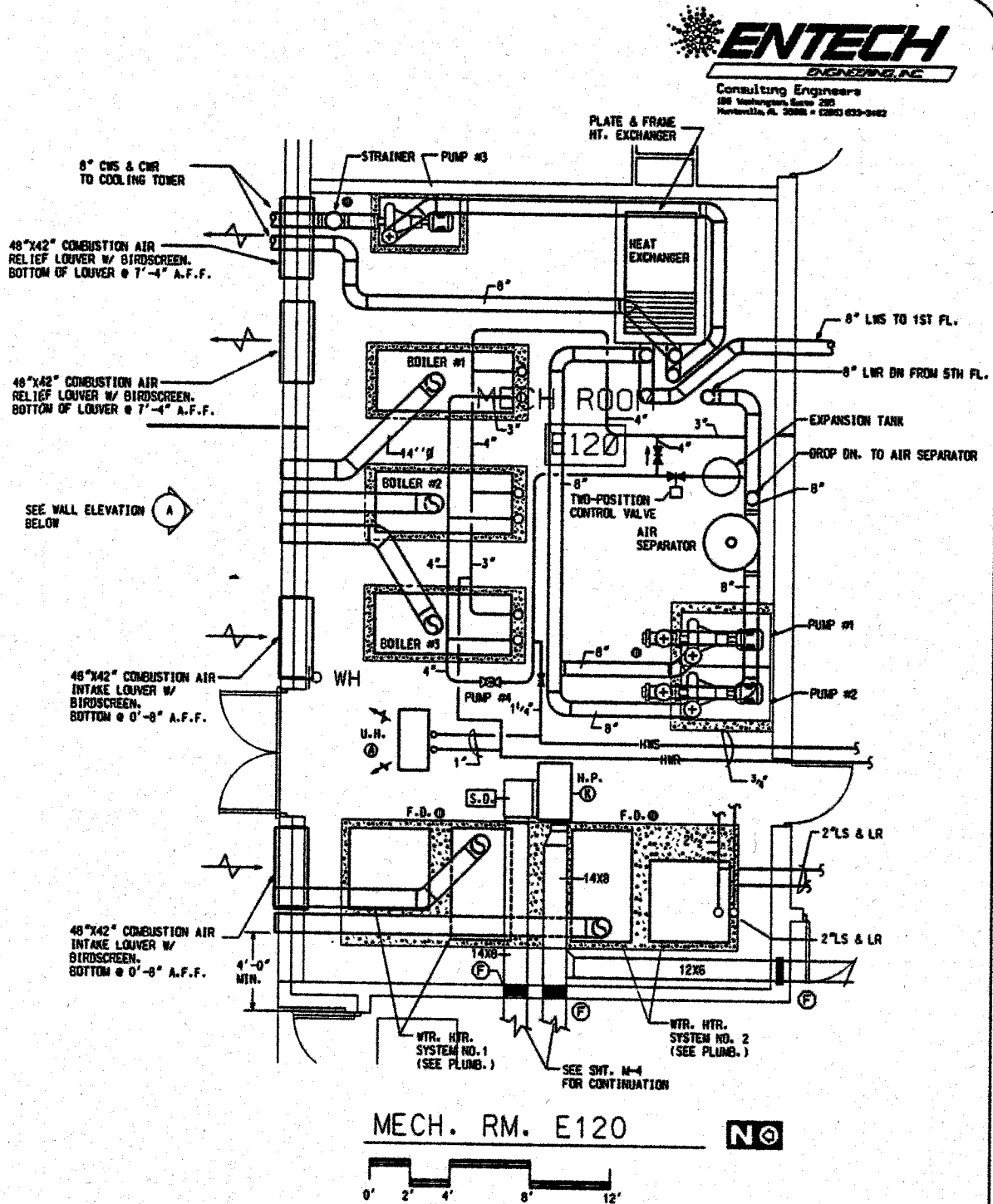
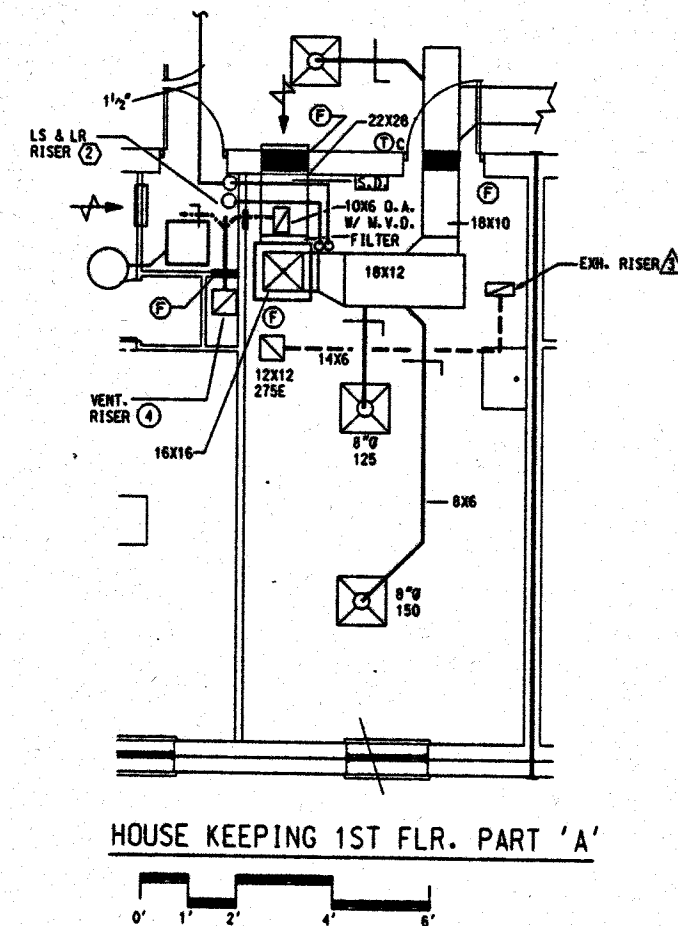
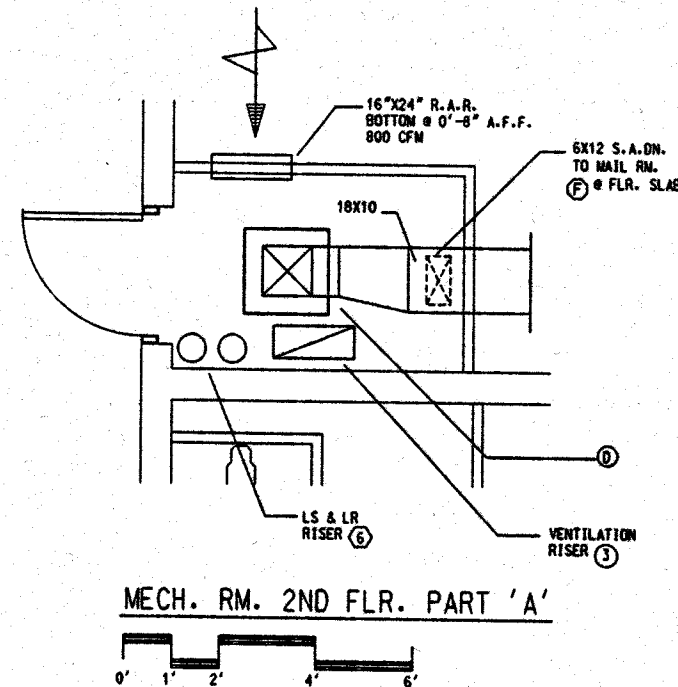
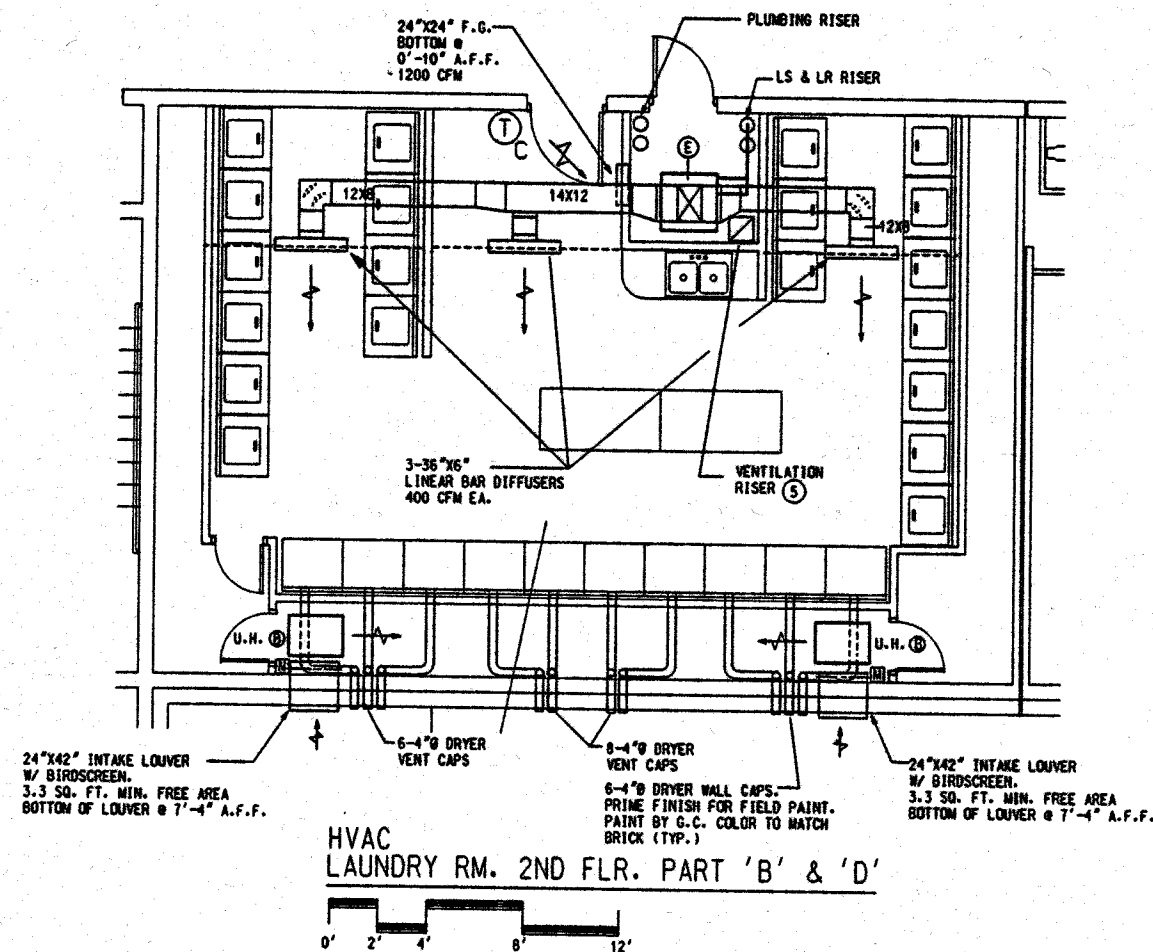
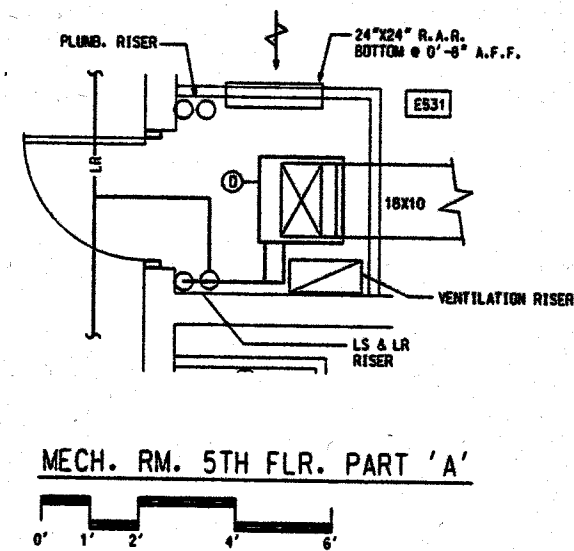
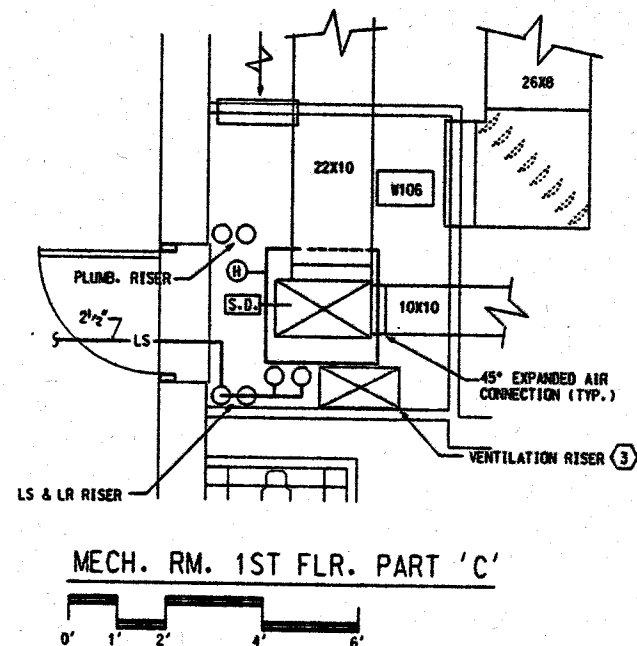
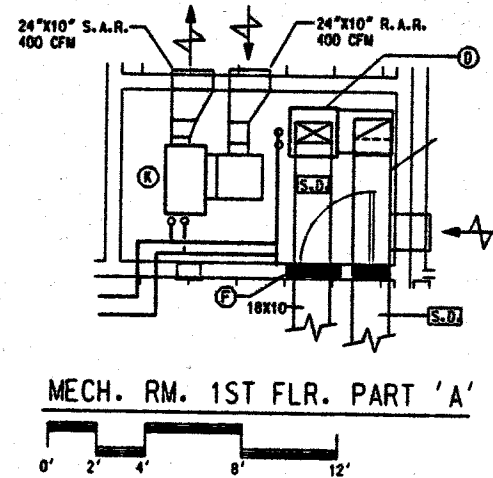


MECHANICAL - ATTIC
FLOOR PLANS - PART 'B' & 'C'



SMITH, KRANERT, TOMBLIN
& ASSOCIATES A.I.A. ARCHITECTS, P.C.





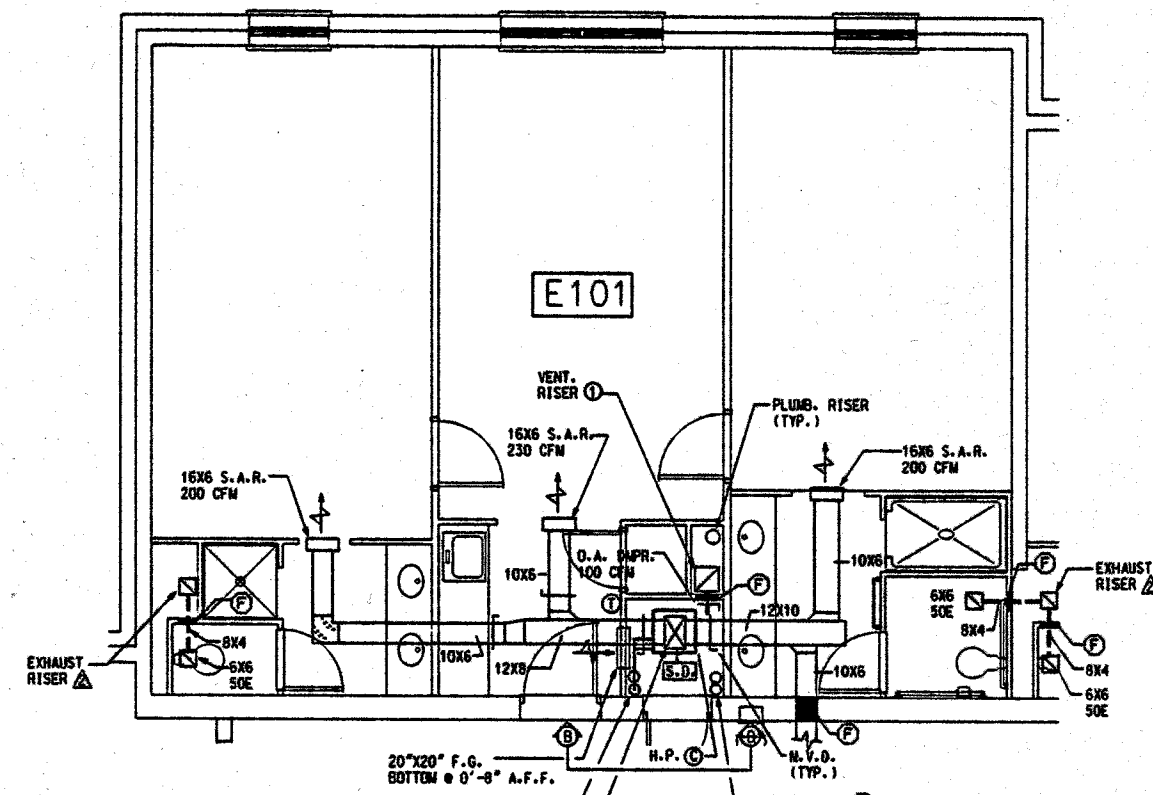
WEST CAMPUS LIVING/LEARNING COMPLEX
ALABAMA A&M UNIVERSITY
SMITH, KRANERT, TOMBLIN
& ASSOCIATES
FLORENCE, ALABAMA

JOB NUMBER
94004

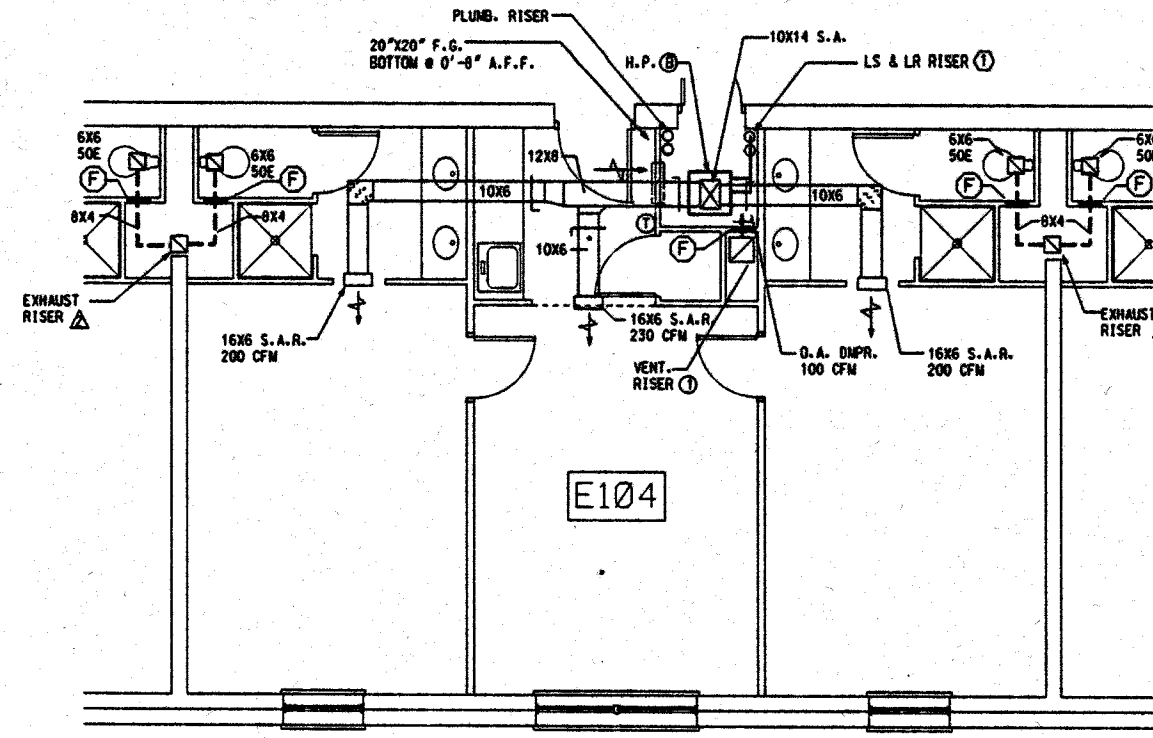
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REVISED
BY

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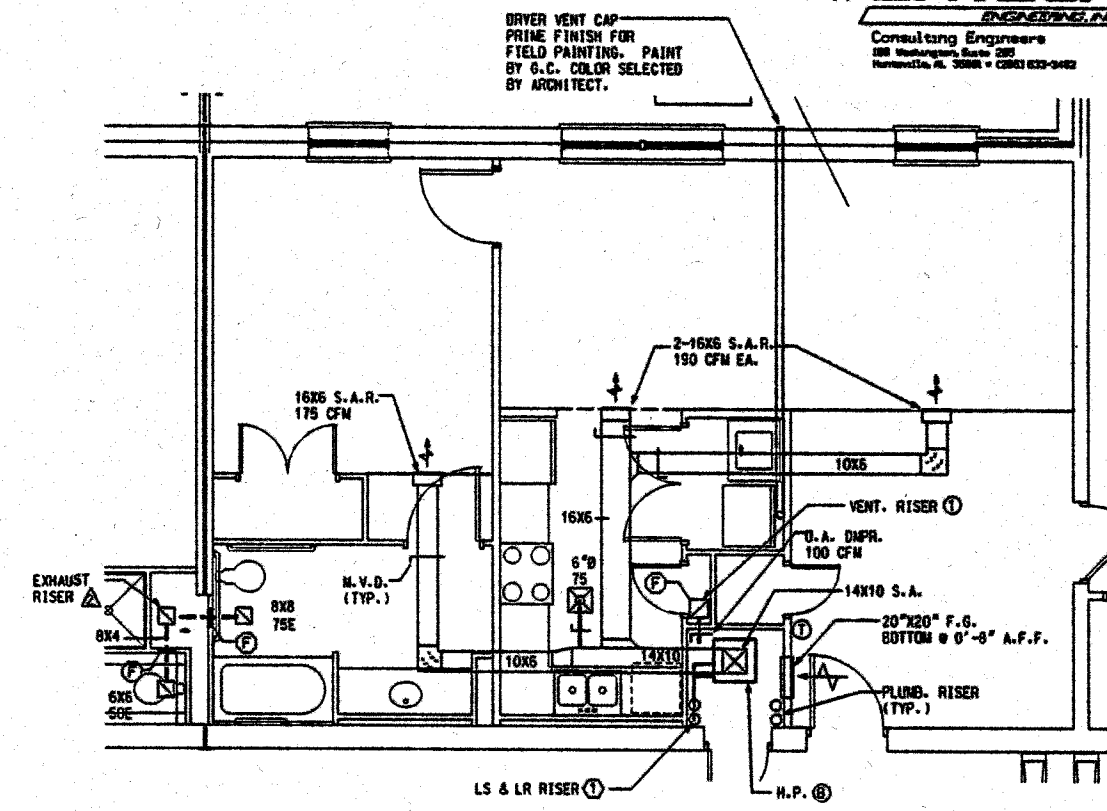
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M-16
OF
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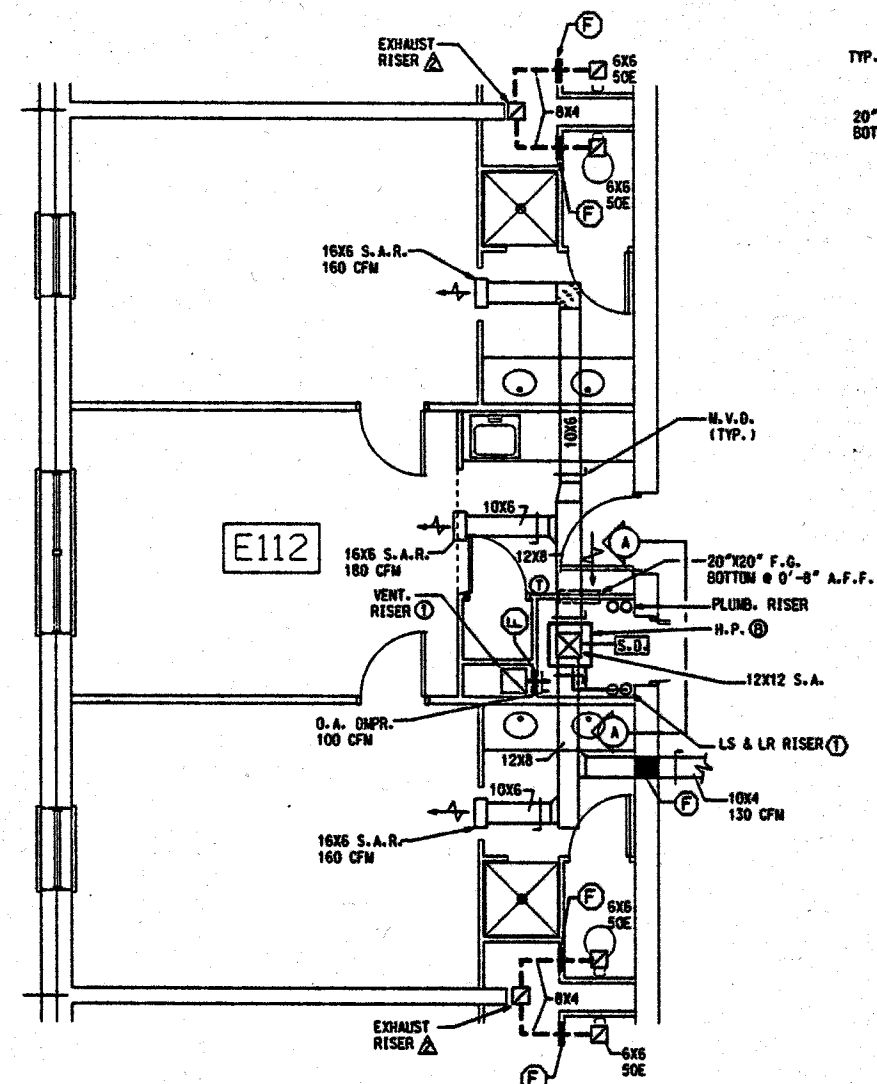
HVAC - E101
PARTIAL LARGE SCALE PLAN



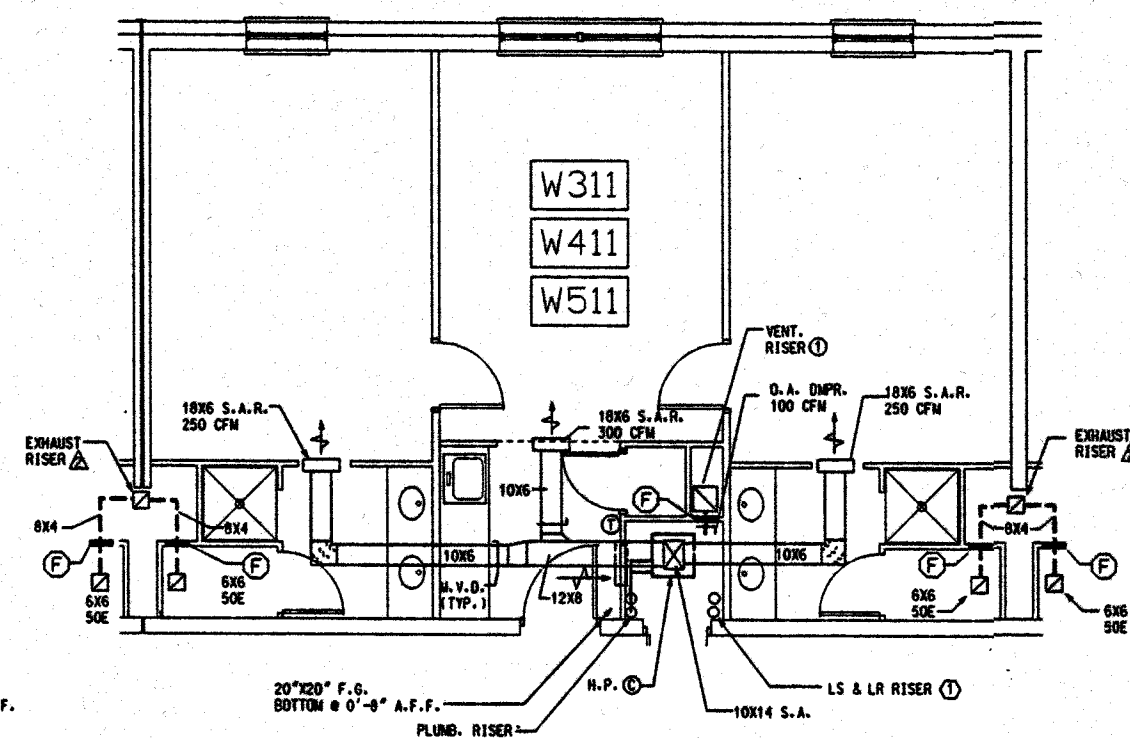
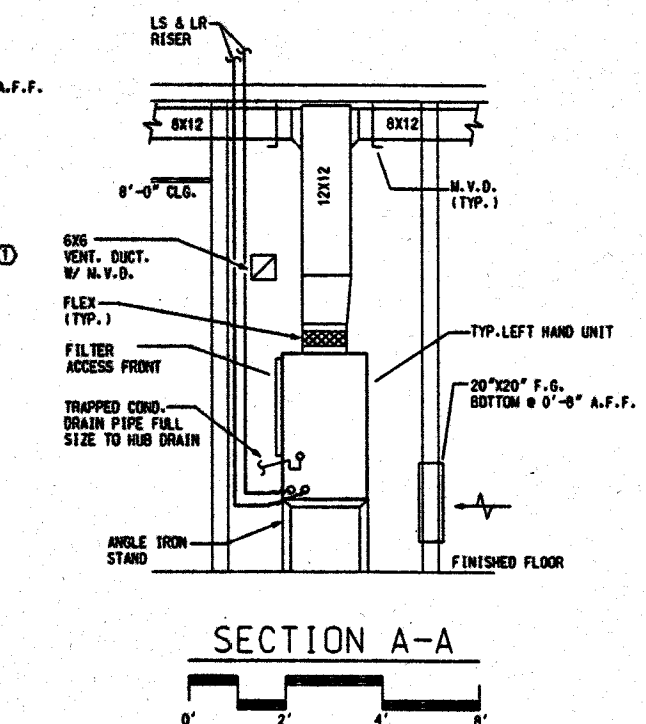
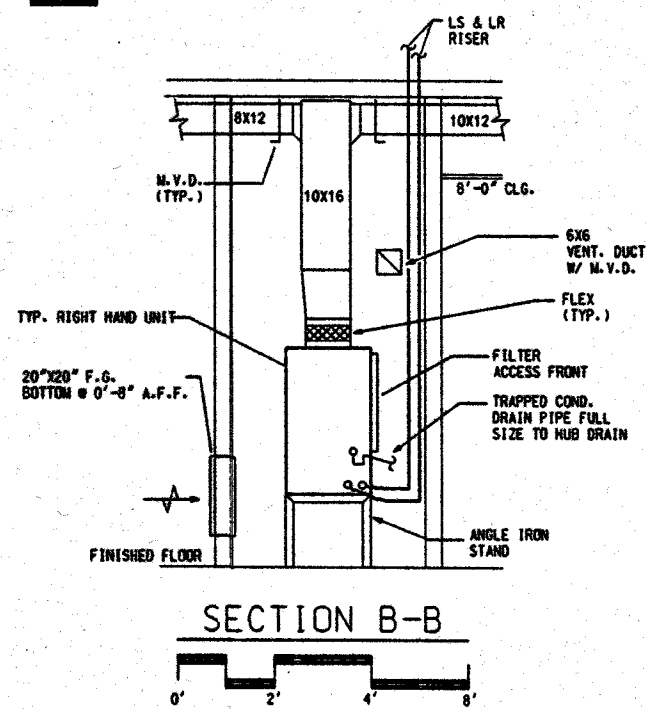
HVAC - E104
PARTIAL LARGE SCALE PLAN



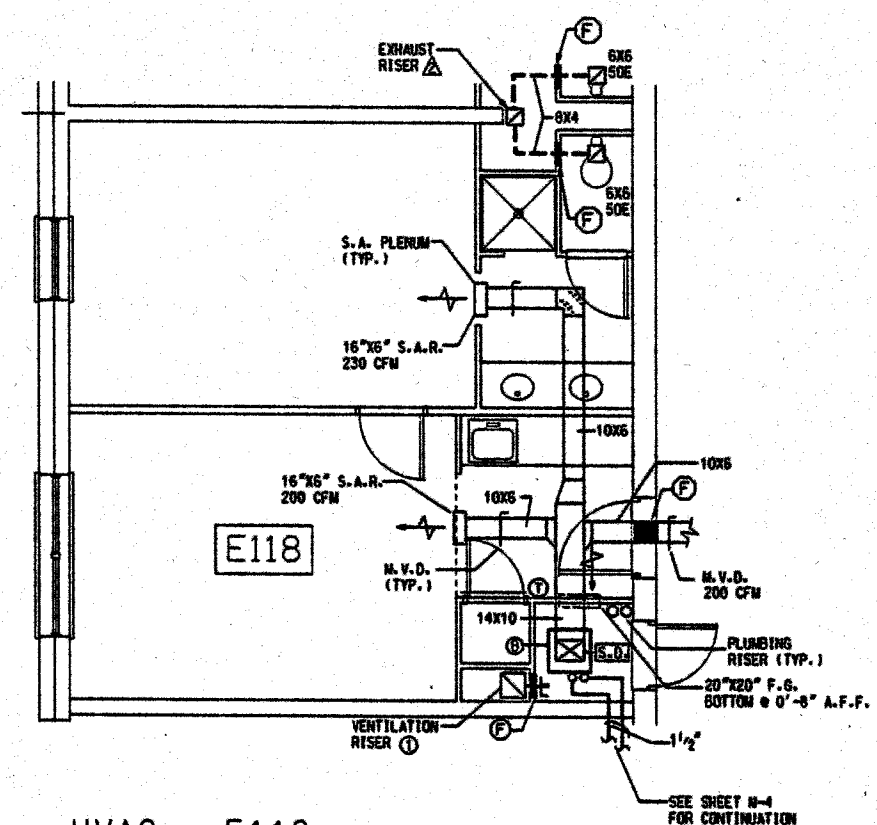
HVAC - E107 (W107 SIMILAR)
PARTIAL LARGE SCALE PLAN



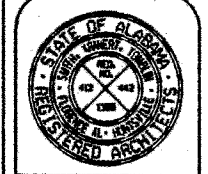
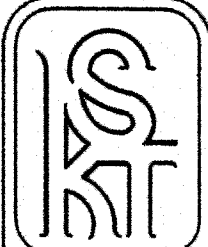
HVAC - E112
PARTIAL LARGE SCALE PLAN



HVAC - W511
PARTIAL LARGE SCALE PLAN



HVAC - E118
PARTIAL LARGE SCALE PLAN



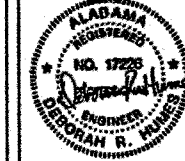
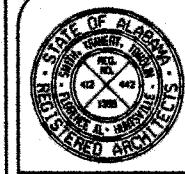
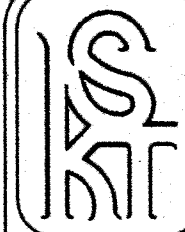
WEST CAMPUS LIVING/LEARNING COMPLEX
ALABAMA A&M UNIVERSITY
SMITH, KRANERT, TOMBLIN
& ASSOCIATES A.I.A. ARCHITECTS, P.C.
FLORENCE ALABAMA

JOB NUMBER
94804

REVISION	DATE	BY	CHKD

SHEET TITLE
HVAC
TYPICAL
DORM SUITES

SHEET NUMBER
M-17
OF
22



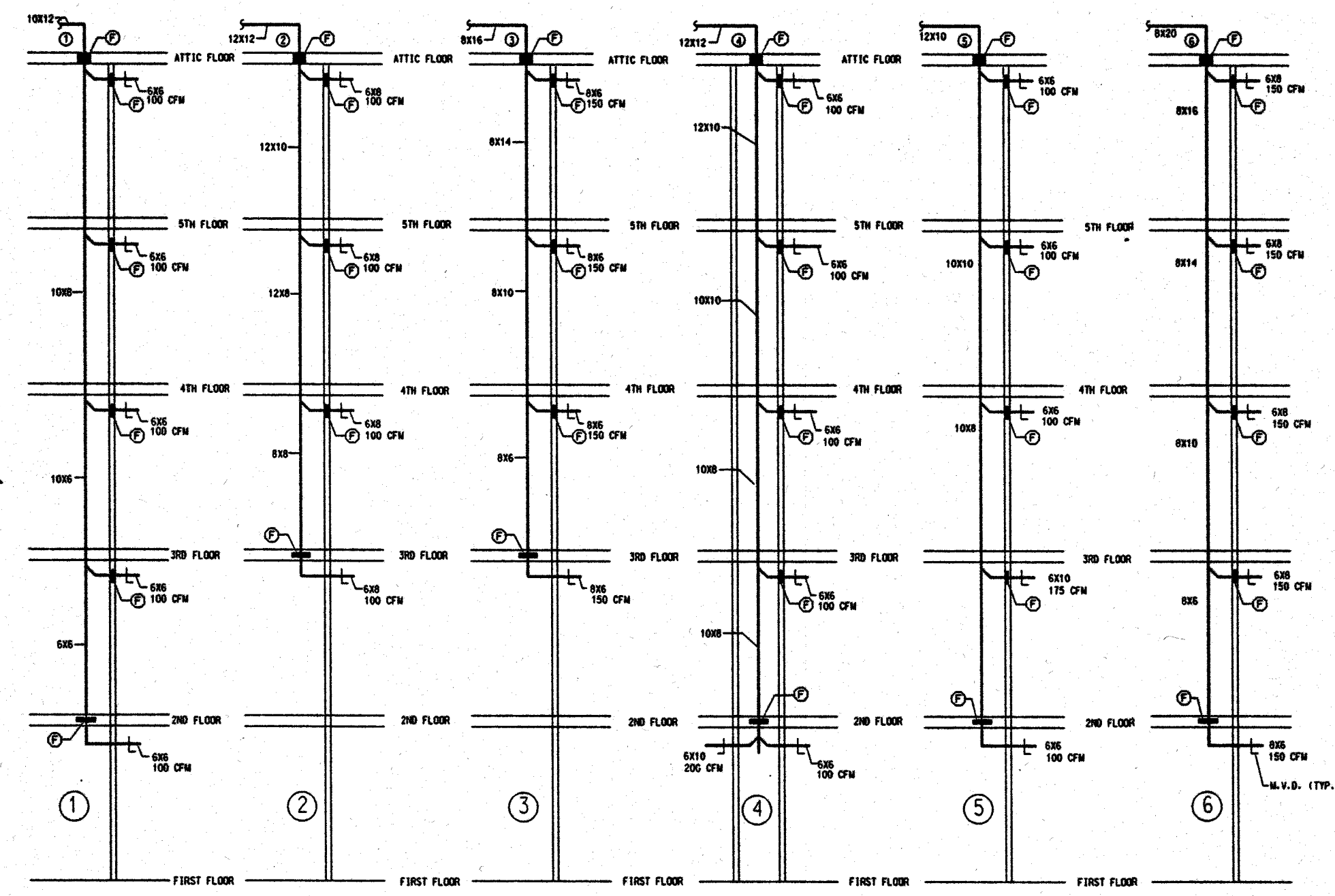
WEST CAMPUS LIVING/LEARNING COMPLEX
ALABAMA A&M UNIVERSITY
SMITH, KRANERT, TOMBLIN
& ASSOCIATES, P.C.
ARCHITECTS, P.C.
FLORENCE, ALABAMA

JOB NUMBER
94004

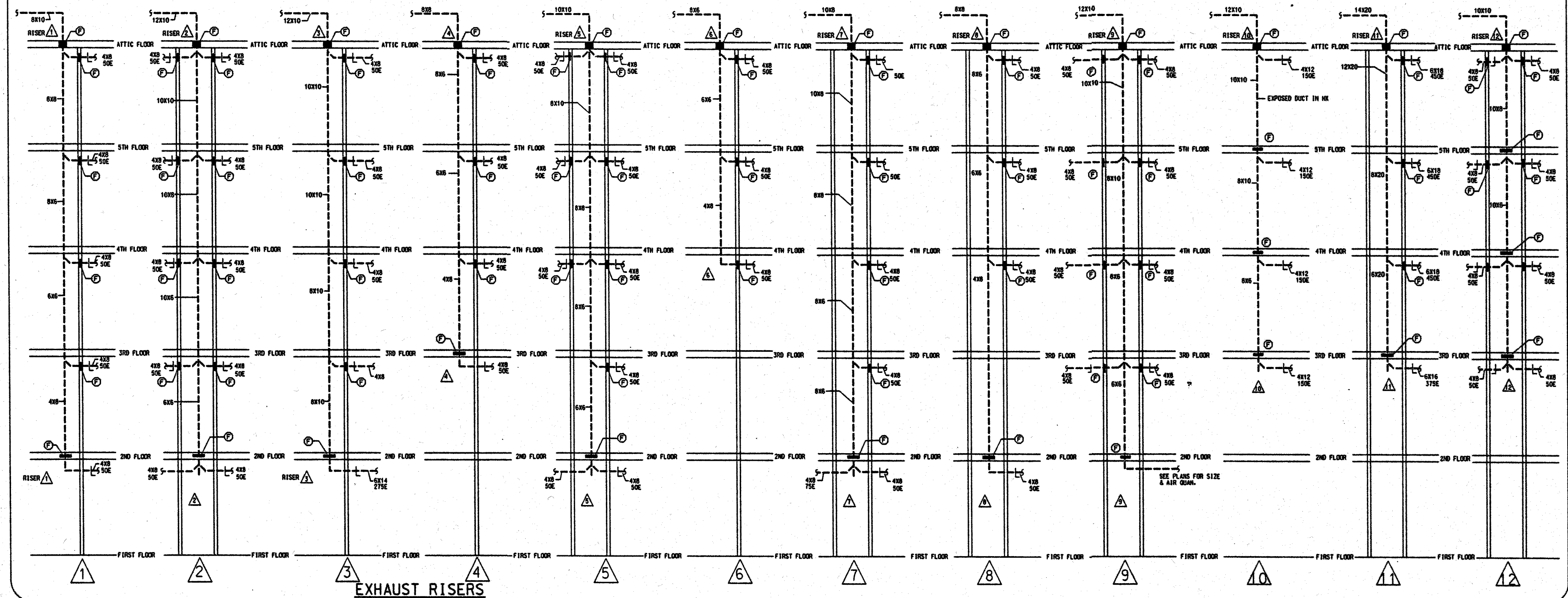
DATE	BY	REVISION

SHEET TITLE
OUTDOOR AIR & EXHAUST RISERS

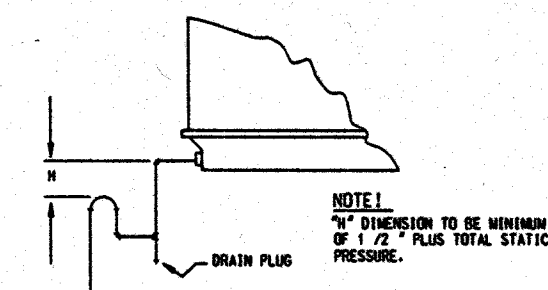
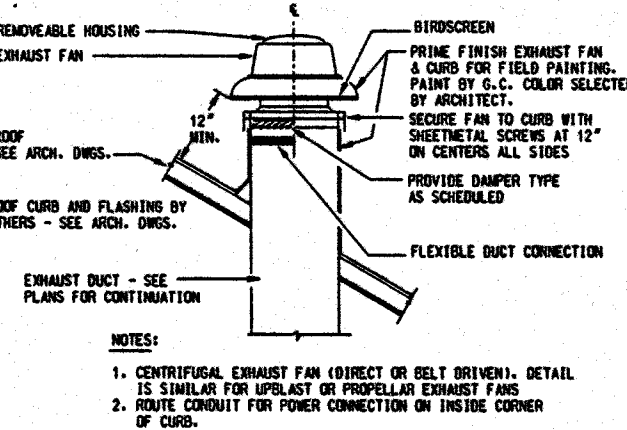
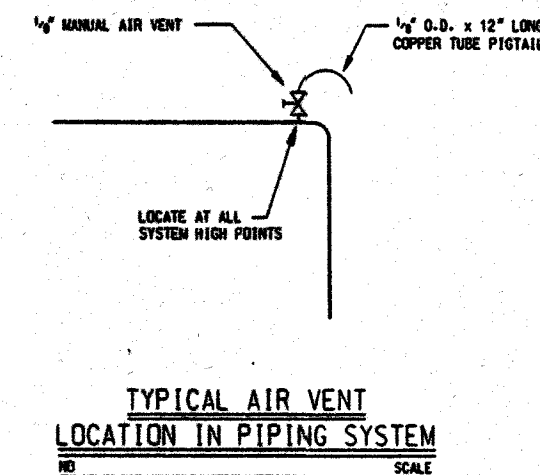
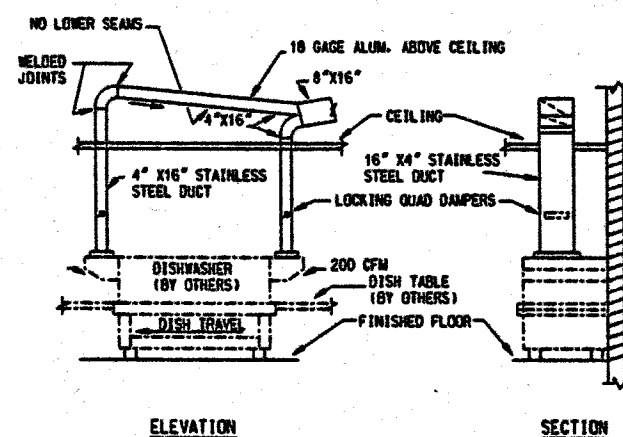
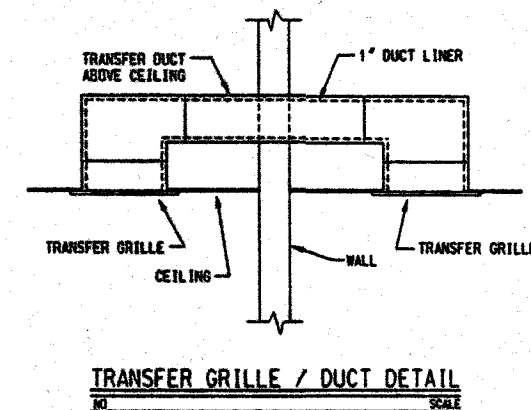
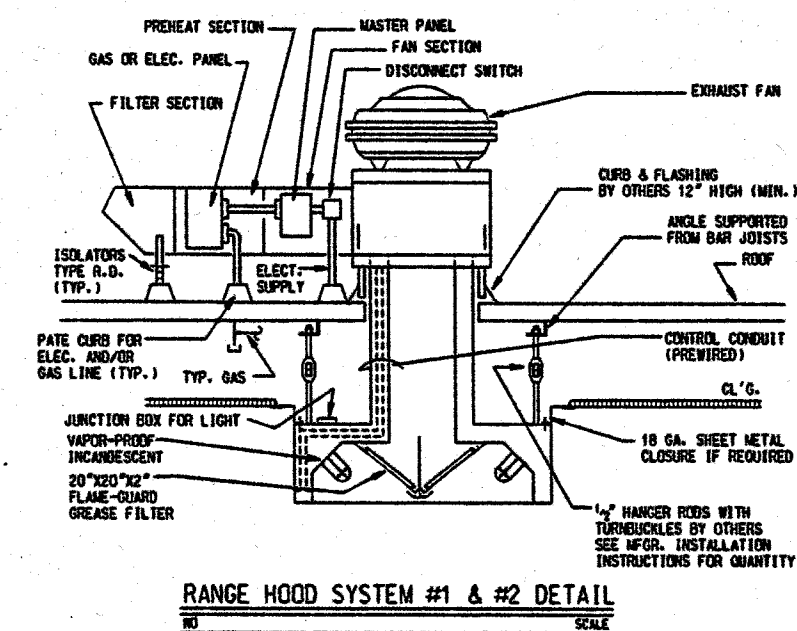
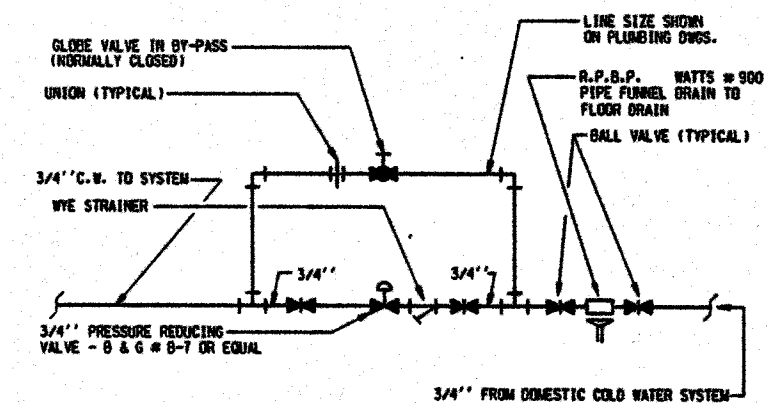
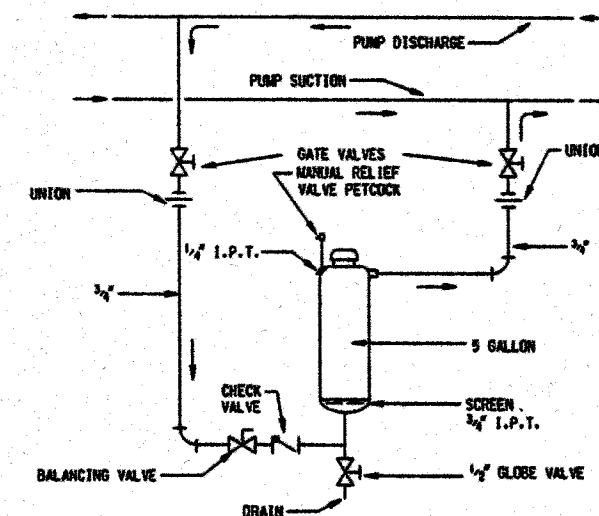
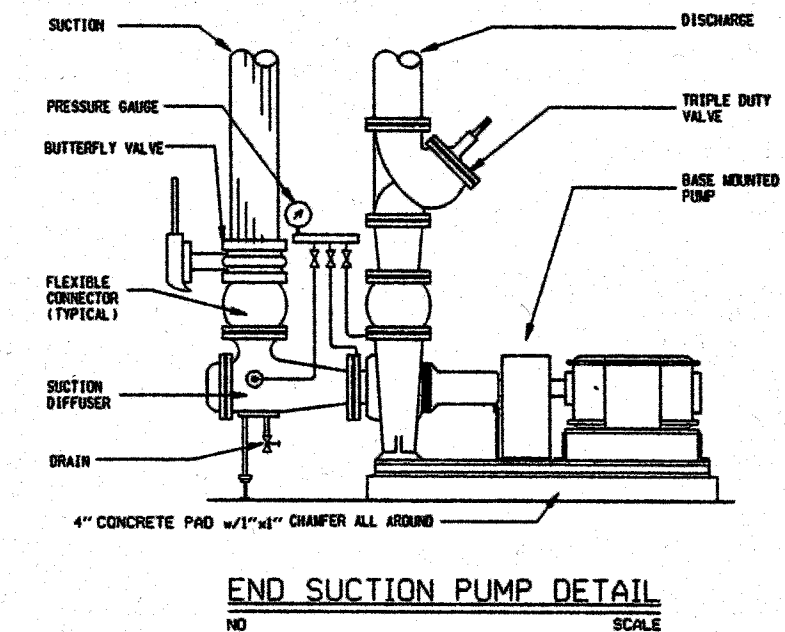
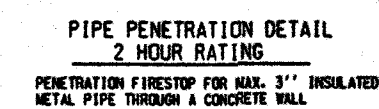
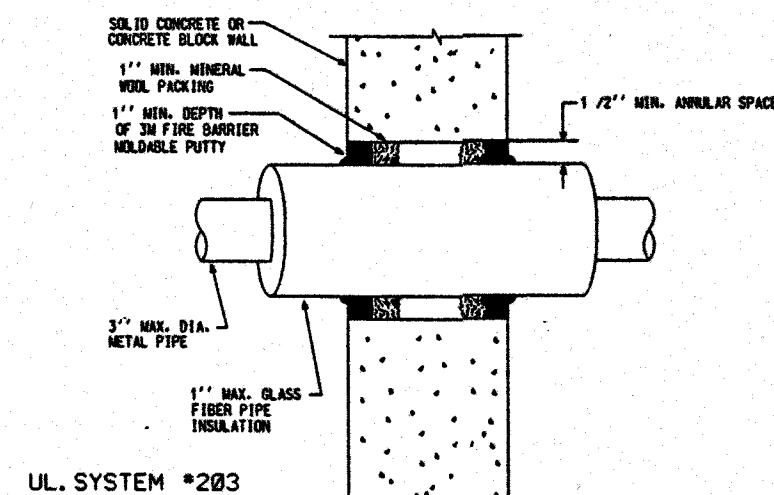
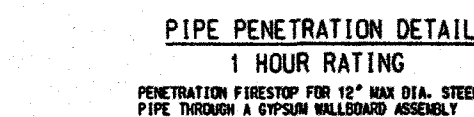
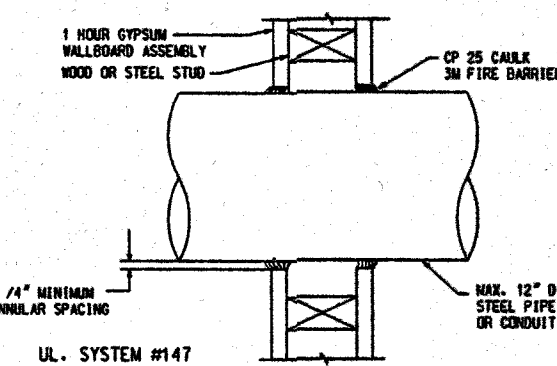
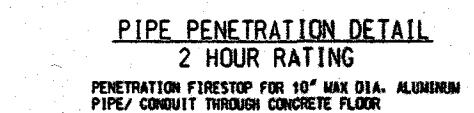
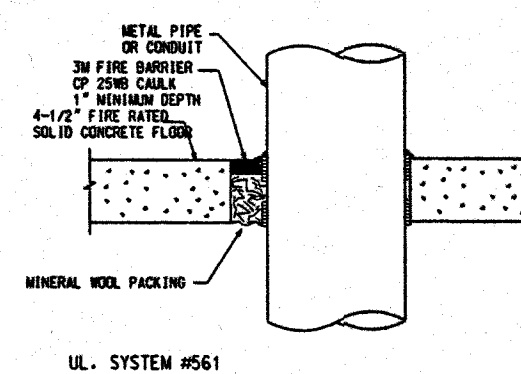
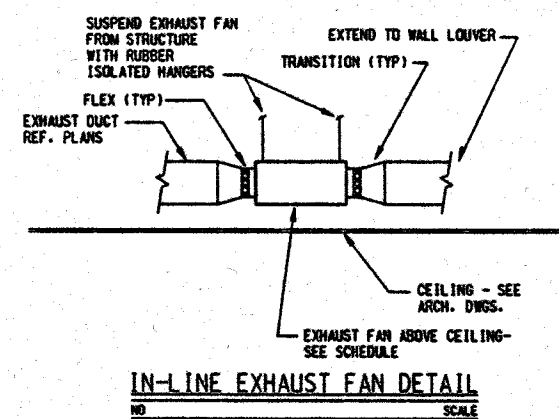
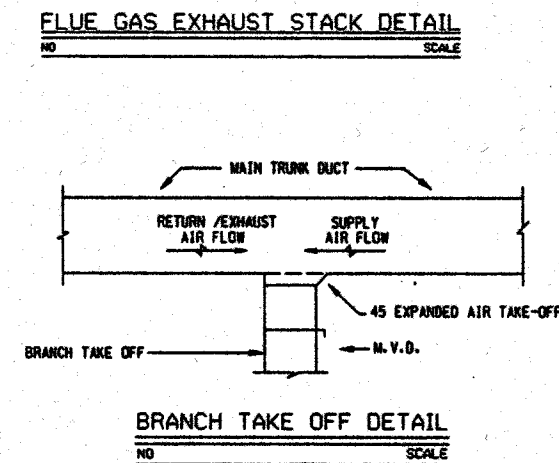
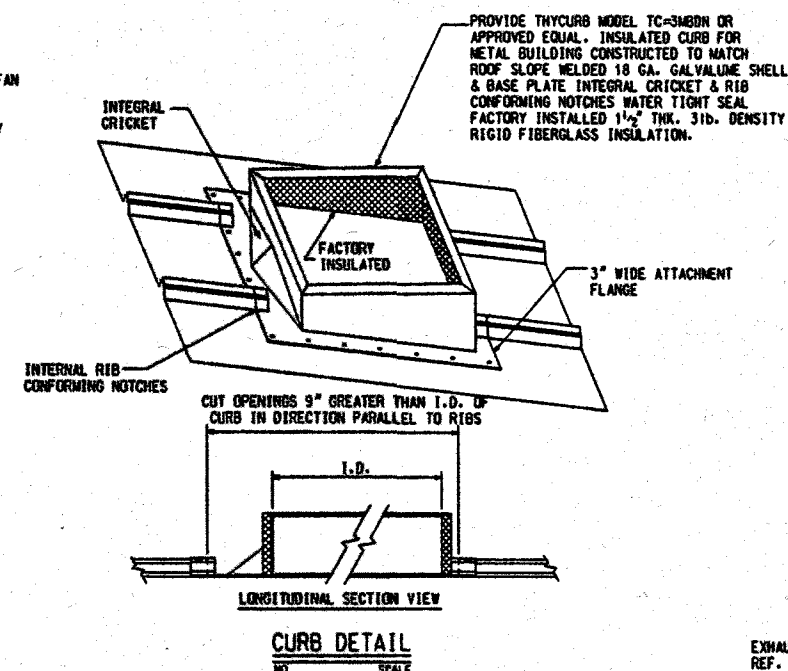
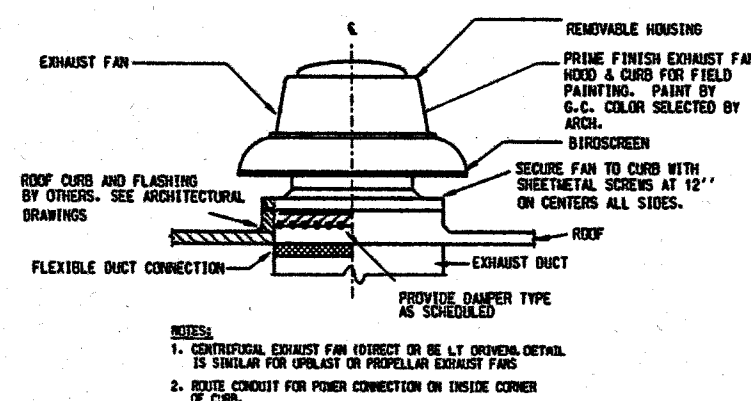
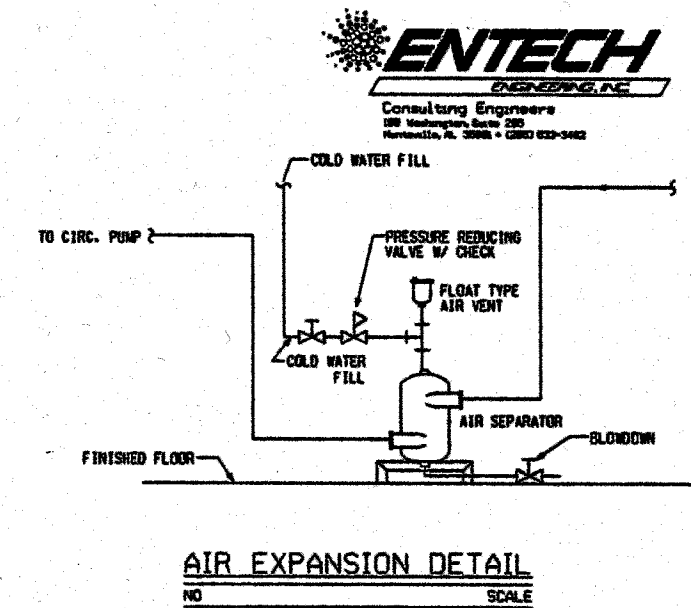
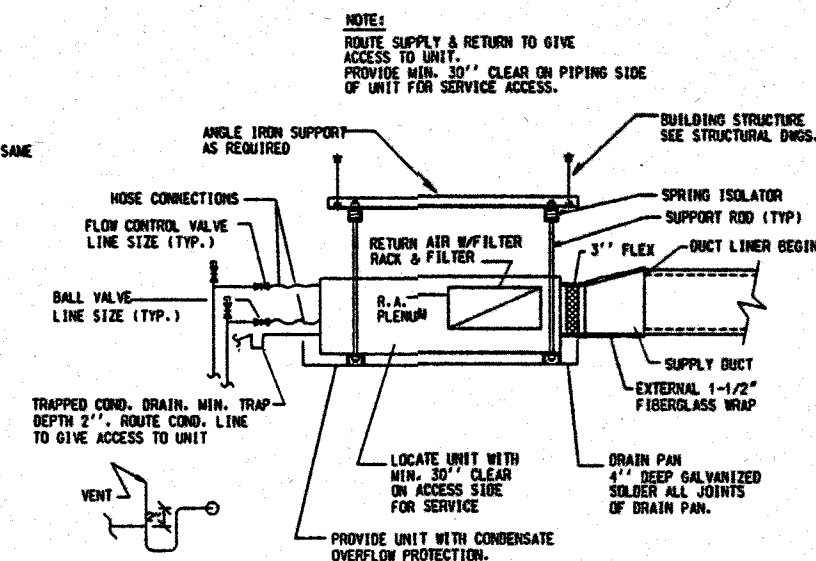
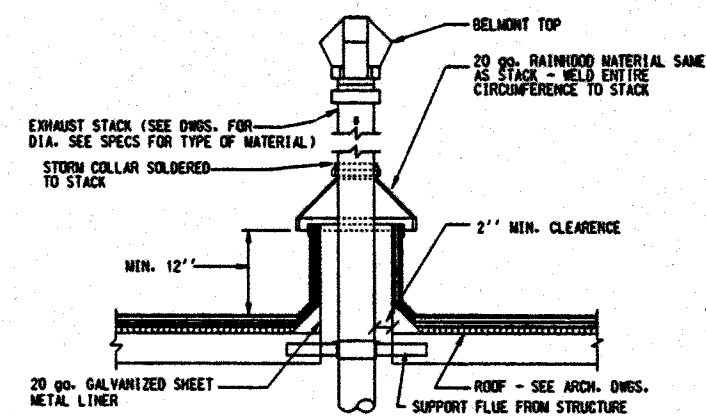
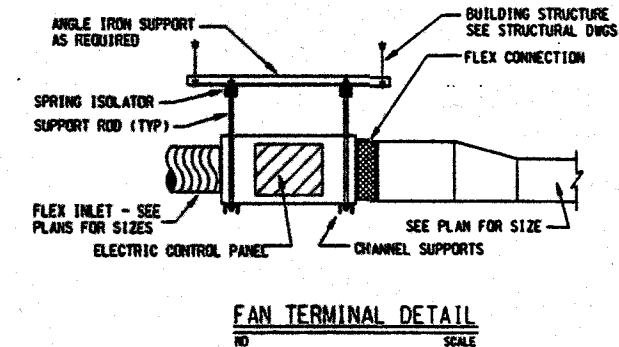
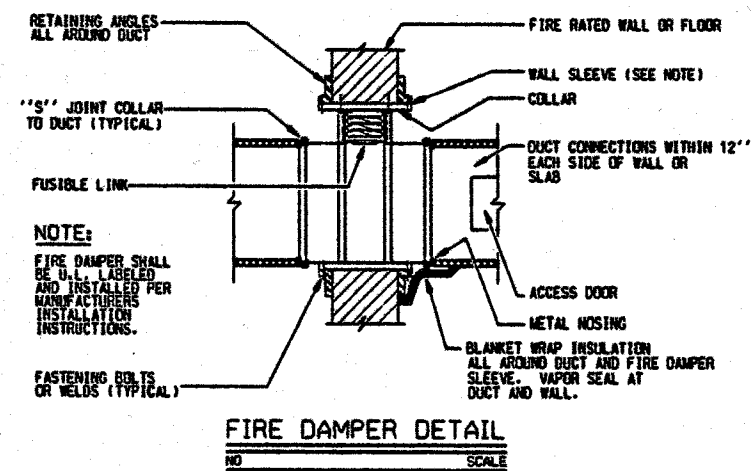
SHEET NUMBER
M-18
OF
22

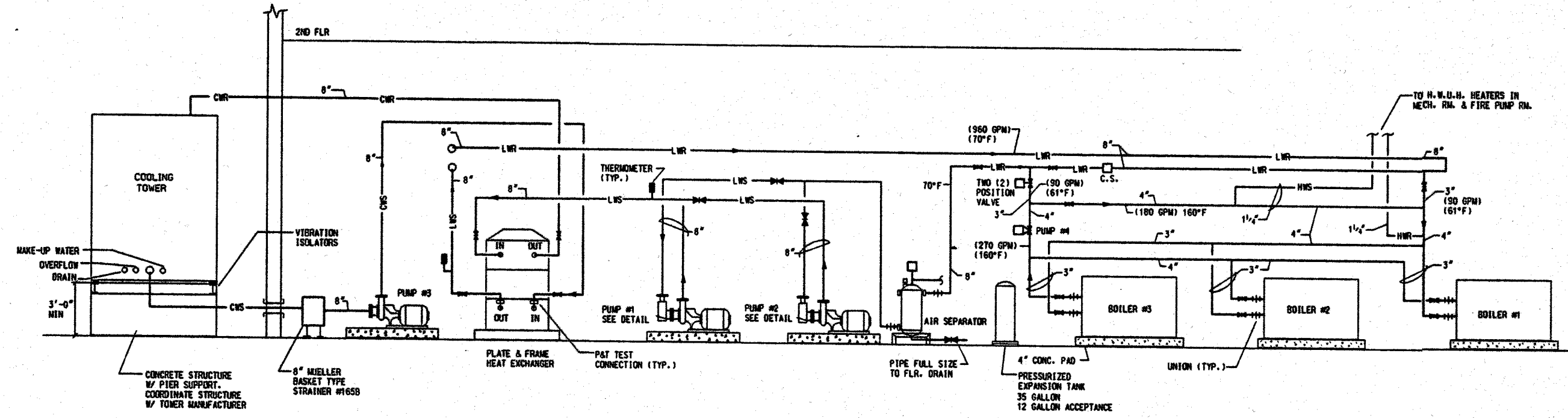
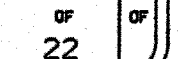
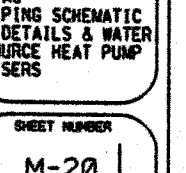
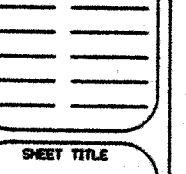
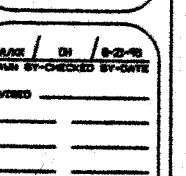
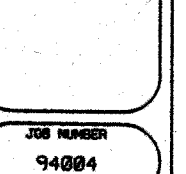
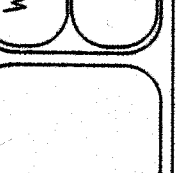
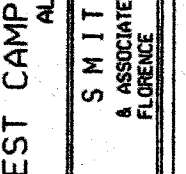
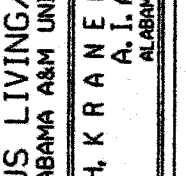
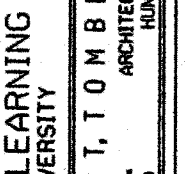
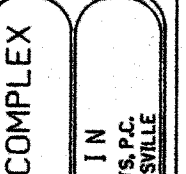
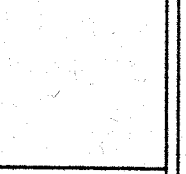
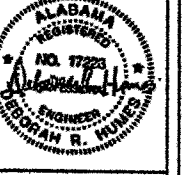
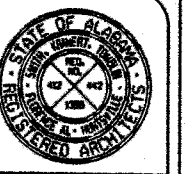


O.A. VENTILATION RISERS



EXHAUST RISERS

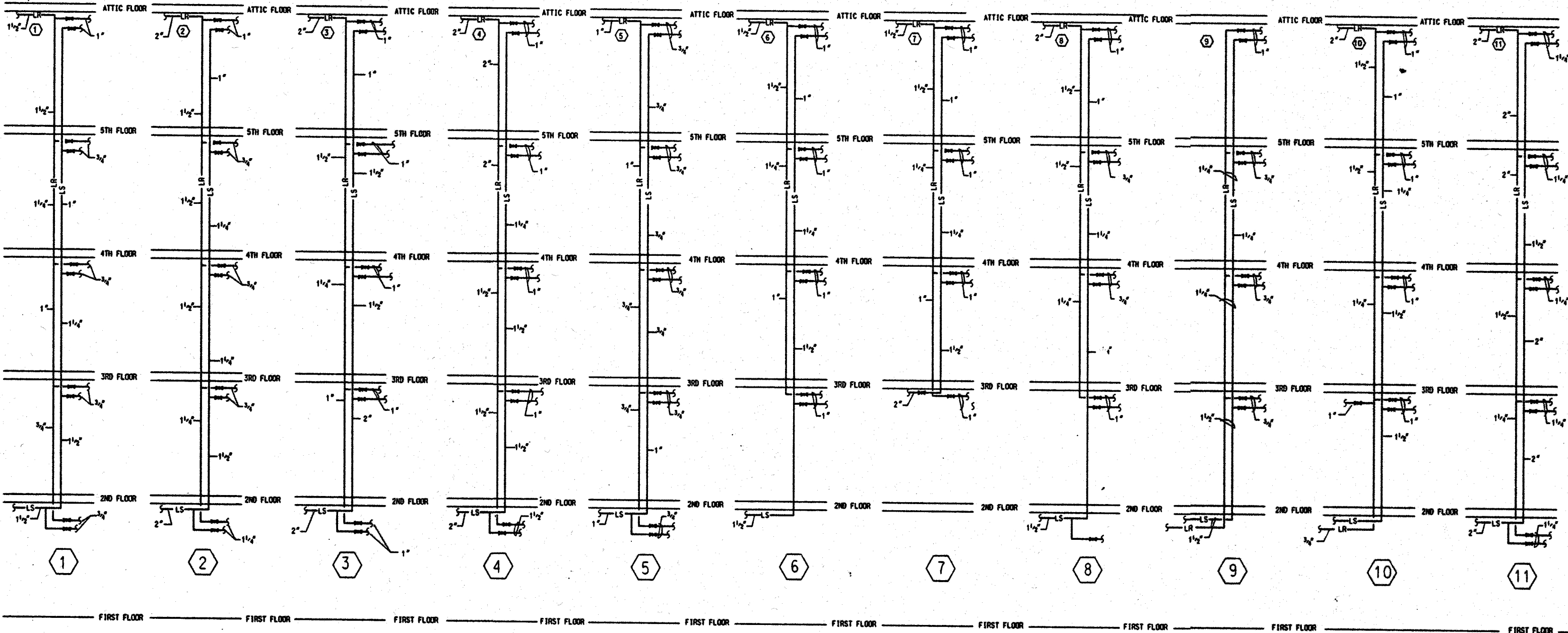




WATER SOURCE HEAT PUMP PIPING SCHEMATIC

CONNECTION SCHEDULE (SEE SCHEMATIC FOR ADDITIONAL DEVICES)	
EQUIPMENT	DEVICES REQUIRED (ITEMS NOTED IN FLOW DIRECTION)
WTR. HT. EXCH. TOWER SIDE IN	B.V., T.W., TH., T & P
WTR. HT. EXCH. TOWER SIDE OUT	T & P, TH., T.W., B.V.
WTR. HT. EXCH. LR IN	B.V., T.W., TH., T & P
WTR. HT. EXCH. LS OUT	T & P, TH., T.W., B.V.
COOLING TOWER IN	B.V. & T & P
COOLING TOWER OUT	B.V. & T&P

LEGEND	
T & P	T & P TEST
TH.	THERMOMETER
T.W.	THERMAL WELL
P.G.	PRESSURE GAGE
CH. V.	CHECK VALVE
B.V.	BALL OR BUTTERFLY VALVE



WATER SOURCE HEAT PUMP RISERS

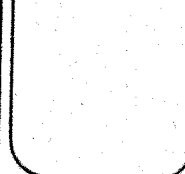
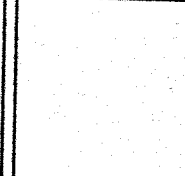
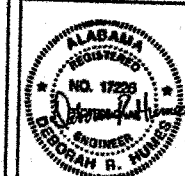
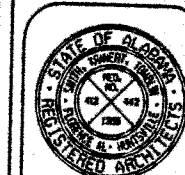
WEST CAMPUS LIVING/LEARNING COMPLEX
ALABAMA A&M UNIVERSITY
SMITH, KRANER, T. & B. BLIN
ARCHITECTS, P.C.
FLORENCE, ALABAMA

JOB NUMBER
94004

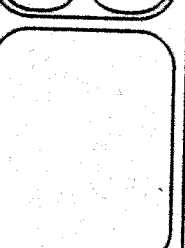
DATE / BY / CHECKED BY
REVISED

SHEET TITLE
HVAC PIPING SCHEMATIC
& DETAILS & WATER
SOURCE HEAT PUMP
RISERS

SHEET NUMBER
M-20
OF
22



WEST CAMPUS LIVING/LEARNING COMPLEX
ALABAMA A&M UNIVERSITY
SMITH, KRANERT, TOMBLIN
& ASSOCIATES
A.I.A. ARCHITECTS, P.C.
FLORENCE ALABAMA
HUNTSVILLE

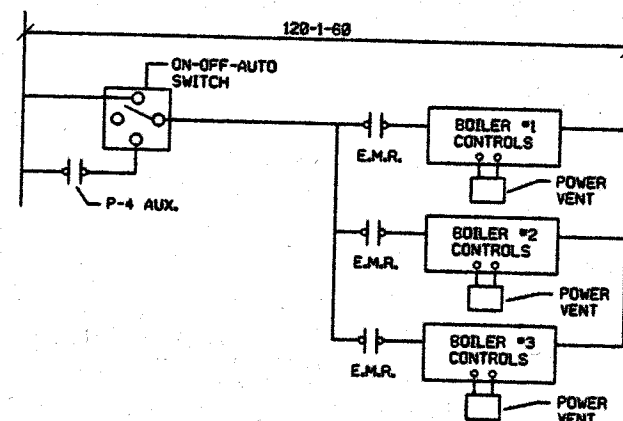


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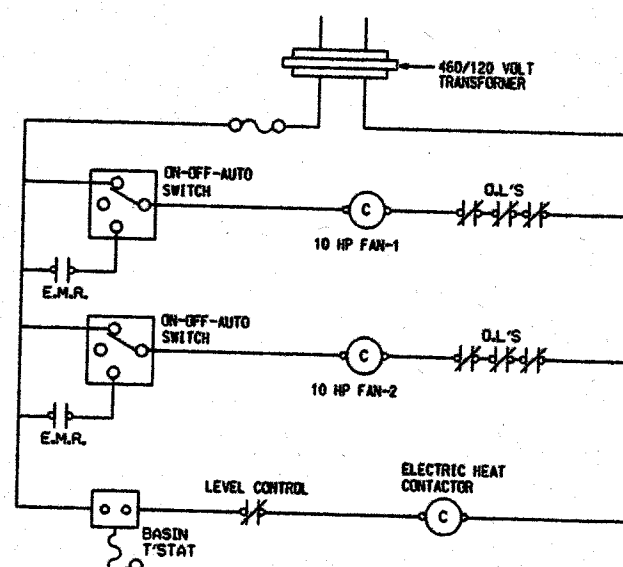
DATE	BY	CHECKED BY	DATE

SHEET TITLE
HVAC CONTROLS

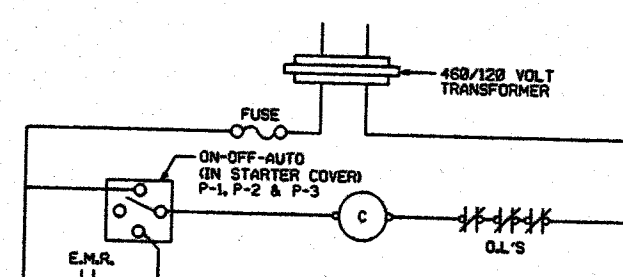
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M-21
OF
22



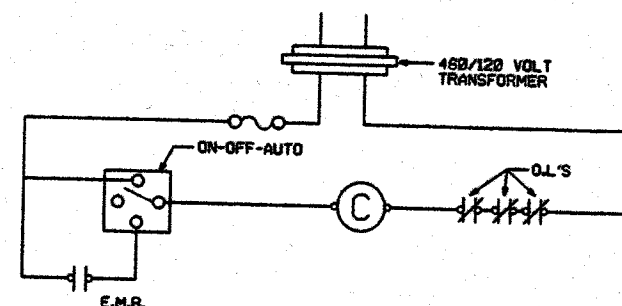
BOILER CONTROL #1, #2, #3



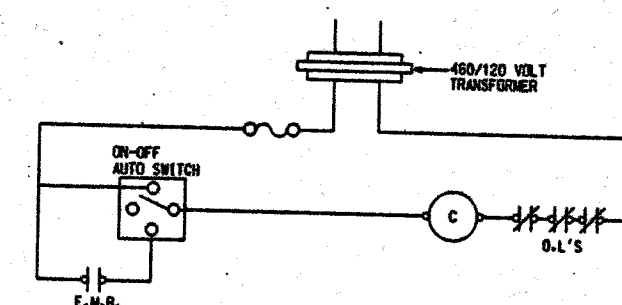
COOLING TOWER FAN CONTROL



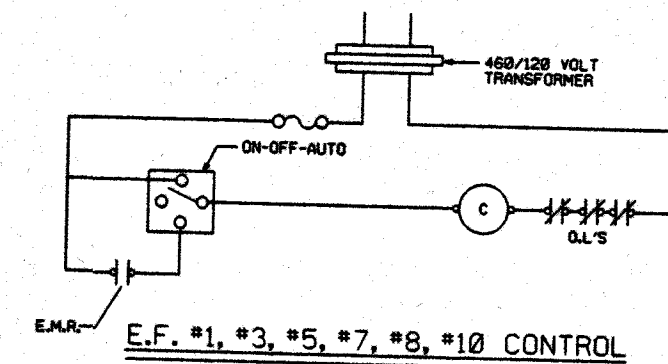
PUMP P-1, P-2 & P-3 CONTROL



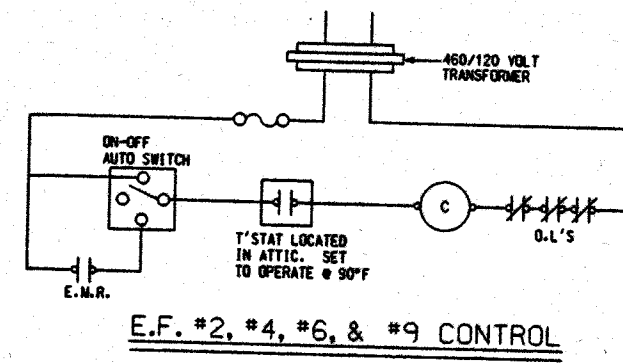
BOILER CIRCULATING PUMP P-4



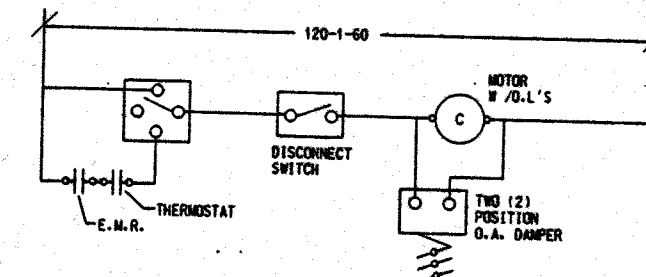
S.F. #1, #2, #3, #4, #5, #6 & #7 CONTROLS



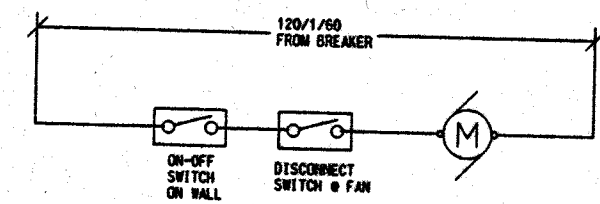
E.F. #1, #3, #5, #7, #8, #10 CONTROL



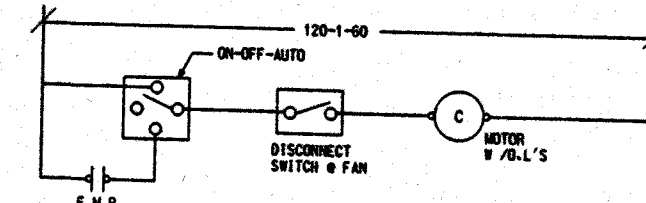
E.F. #2, #4, #6, & #9 CONTROL



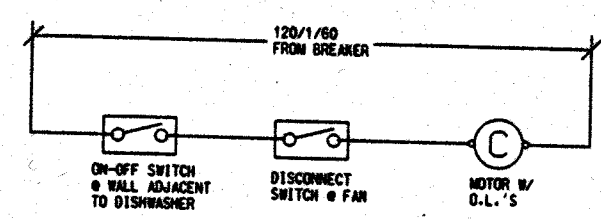
E.F. #11 CONTROL



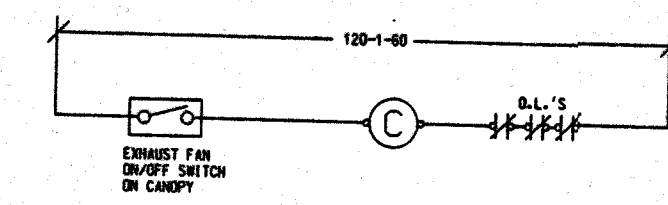
E.F. #12 CONTROL



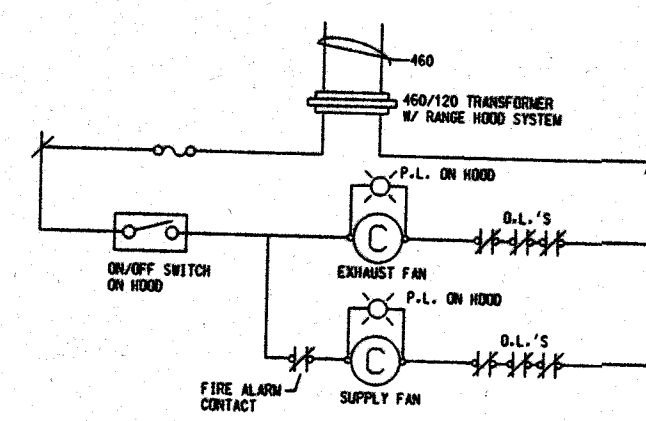
E.F. #13, #15, #16 CONTROL



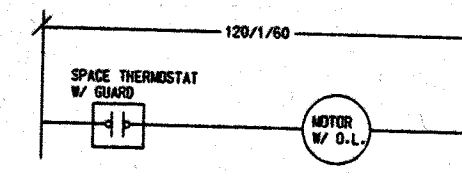
E.F. #17 CONTROL



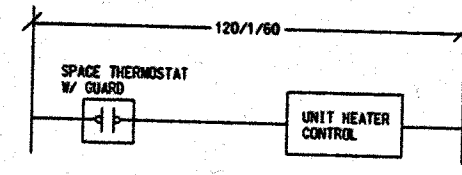
RANGE HOOD E.F. #14 & E.F. #18 CONTROLS



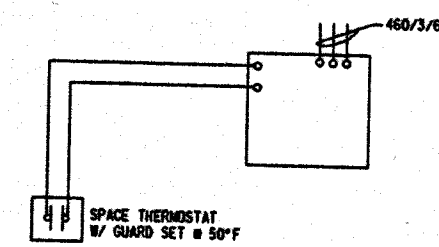
RANGE HOOD NO. 1 & NO. 2 CONTROL



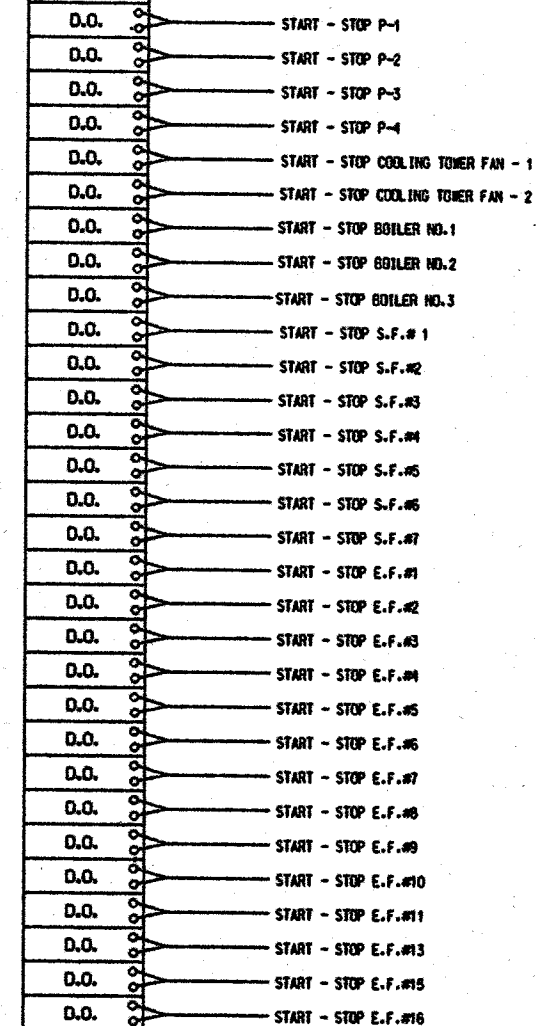
H.W. UNIT HEATER CONTROL



GAS FIRED UNIT HEATER CONTROL



ELECTRIC UNIT HEATER CONTROL



460-3-60
277-1-60 POWER

HEAT PUMP UNIT

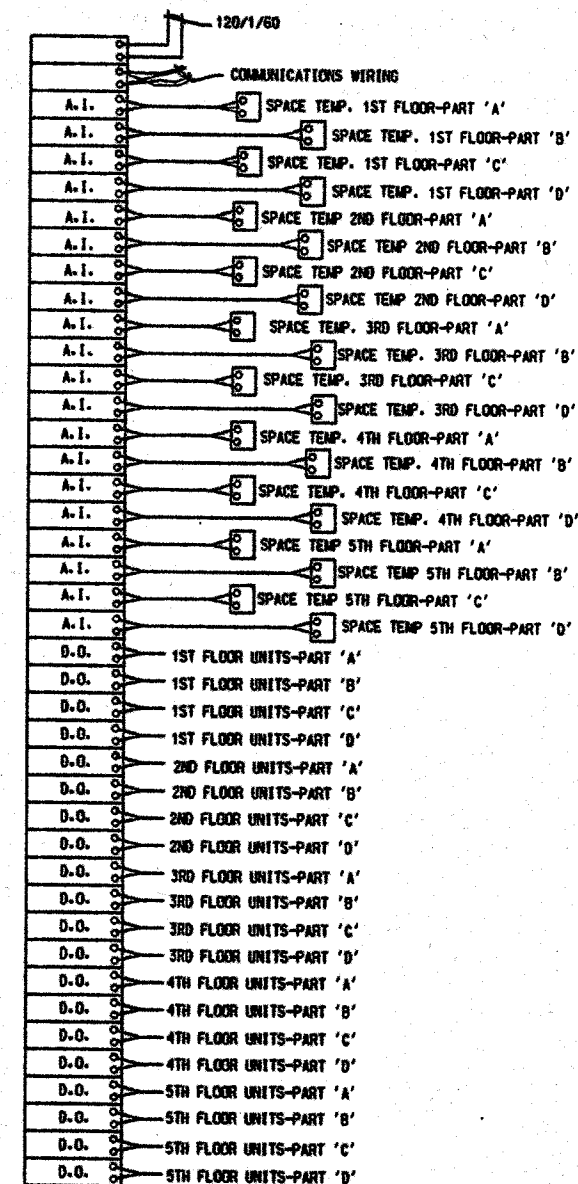
O W2 G W1 Y1 E L U A P R C

F.A. CONTACT FOR UNITS WITH SMOKE DETECTORS *

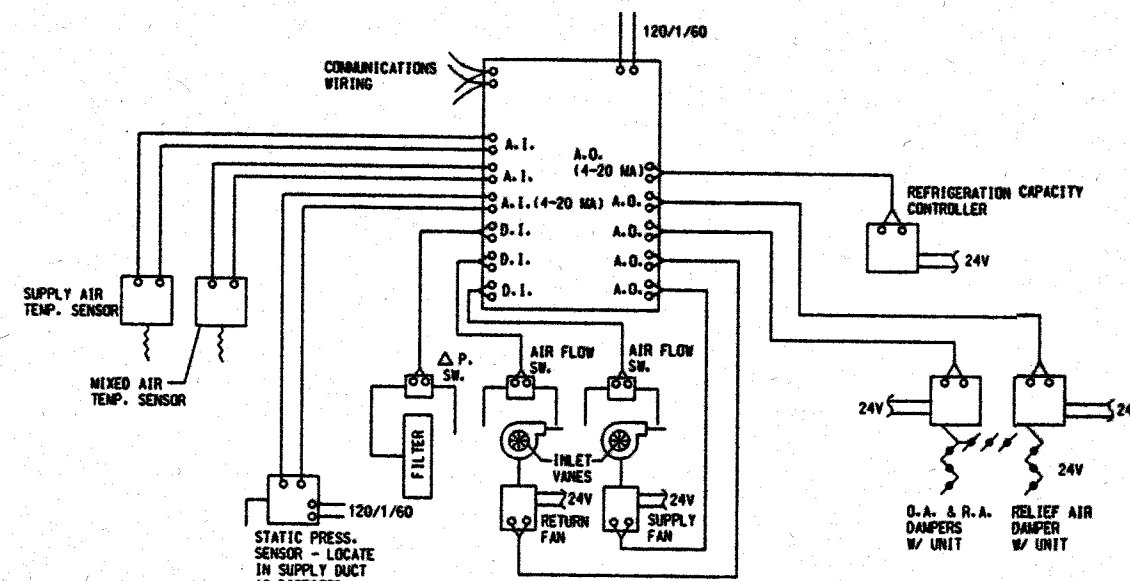
SPACE T' STAT

GROUND

E.W.R.



* LOCATE SMOKE DETECTORS IN SUPPLY DUCTWORK FROM HVAC SUITE UNITS SERVING CORRIDORS.
SUITS INCLUDE: E101, E201, E301, E401, E501, E110, E112, E114, E116, E118, E212, E214, E216, E218, E220, E370, E312, E316, E318, E320, E410, E412, E416, E418, E420, E510, E512, E514, E516, E518, E520, W103, W107, W203, W207, W303, W307, W403, W407, W503, W507, W109, W113, W117, W209, W213, W309, W313, W317, W409, W413, W417, W509, W513, W517.



120V/60

COMMUNICATIONS WIRING

CONTROL MODULE

A.I.

A.I.

D.I.

A.I. (4-20 MA)

A.O. (4-20 MA)

D.O.

D.O.

D.O.

D.O.

D.O.

D.O.

FIRE ALARM (F.A.) CONTACT

DISC. SWITCH

460/3/50

CONTROL PANEL W/ UNIT

D.O. CONTROL ELECTRIC HEAT & SUPPLY FAN. SEE SCHEDULE FOR E.H. STAGES.

AIR FLOW SENSOR

DAMPER OPERATOR

ELECTRIC H.R.

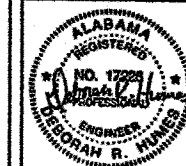
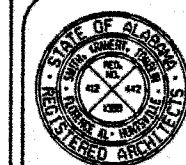
S.A.

R.A. FILTER

AIR FLOW SW.

DISCHARGE AIR TEMP. SENSOR

SPACE TEMP. SENSOR

[illegible]

WEST CAMPUS LIVING/LEARNING COMPLEX
ALABAMA A&M UNIVERSITY

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ARCHITECTS, P.C.
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HVAC CONTROLS

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