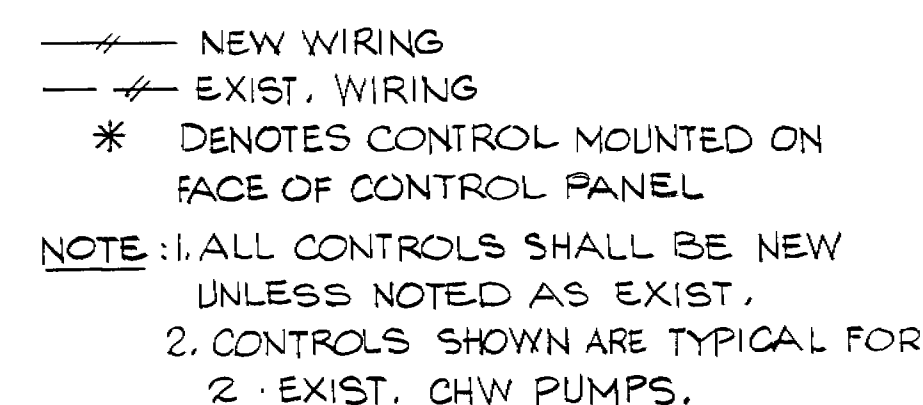


NOTES:

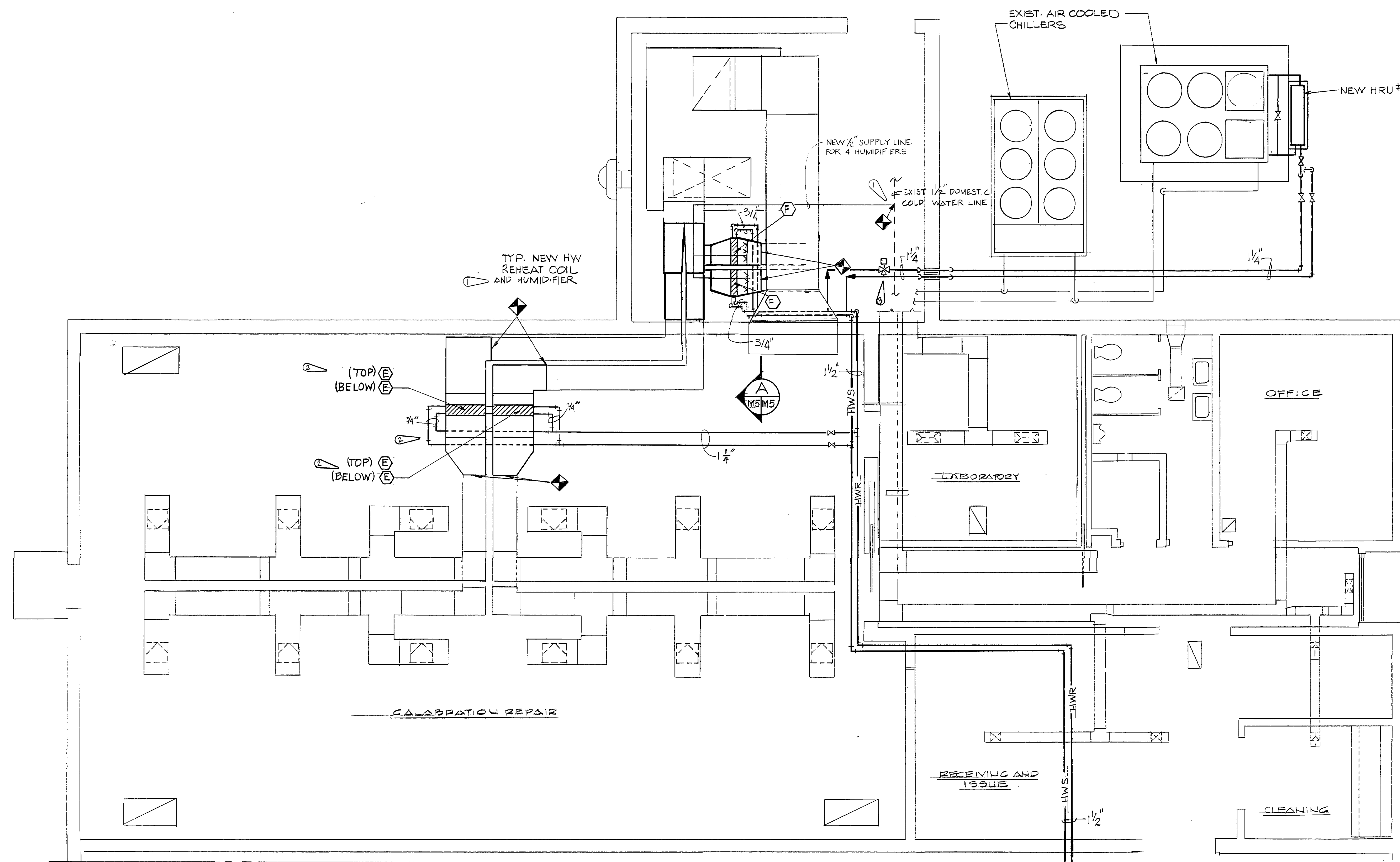
1. EXIST. AHU'S ARE TO BE REUSED. EXIST. CONTROLS SHALL BE REMOVED & NEW CONTROLS INSTALLED FOR EACH AHU & RESPECTIVE ZONES.
2. AHU-1 HAS 4 ZONES. AHU-2 HAS 6 ZONES.



* DENOTES CONTROL MOUNTED
ON FACE OF CONTROL PANEL

NOTE: ALL CONTROLS SHALL
BE NEW.

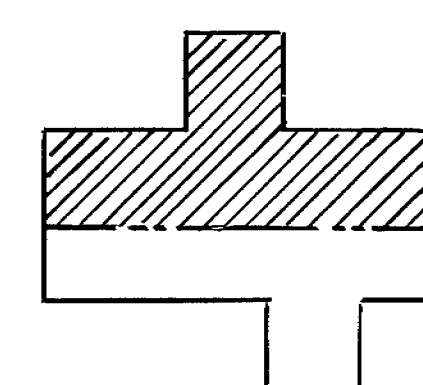
• BLDG 462-37



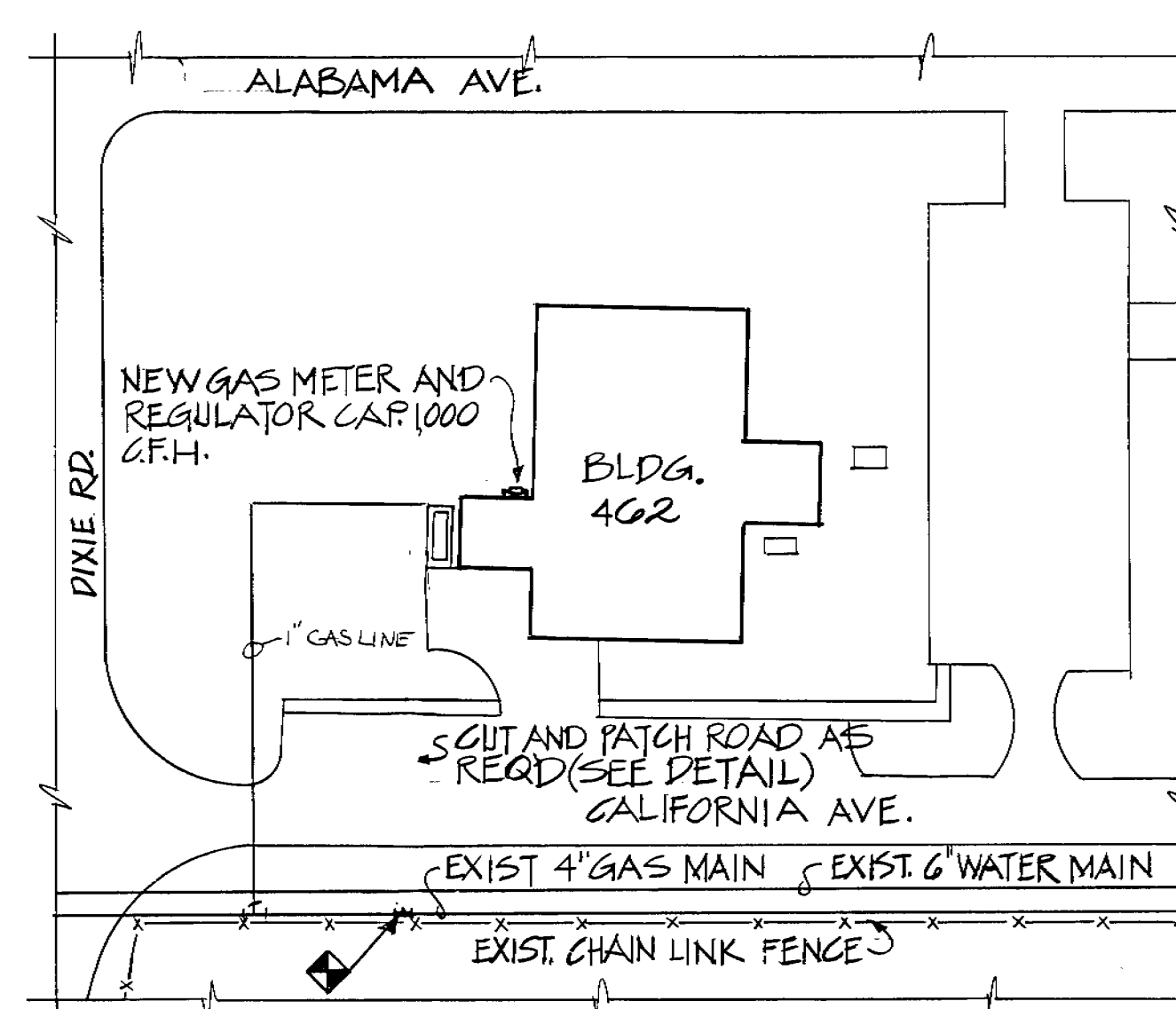
MATCHLINE - SEE DWG. M-4

PARTIAL HVAC NEW WORK PLAN

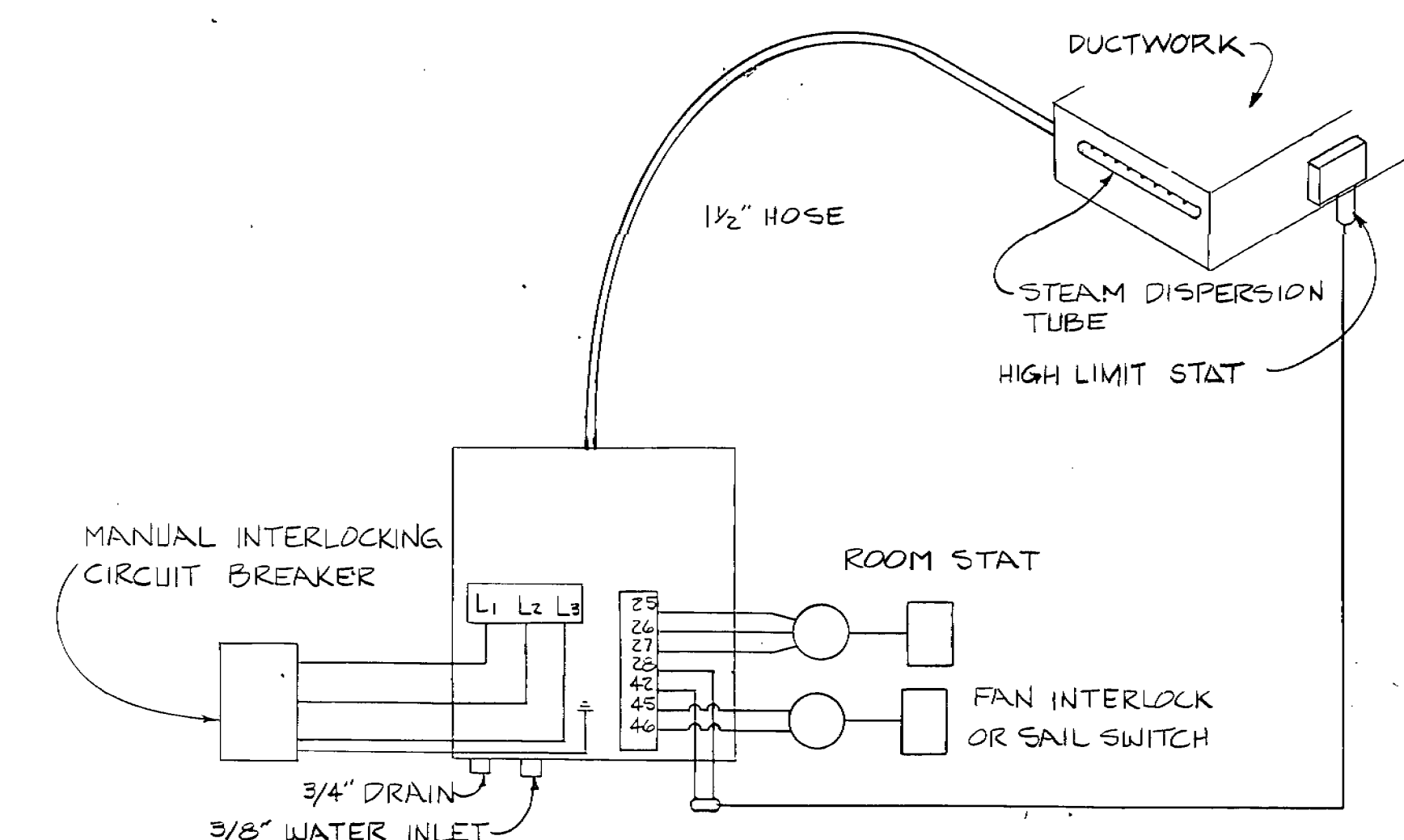
SC: 1/4" = 1'-0"



KEY PLAN



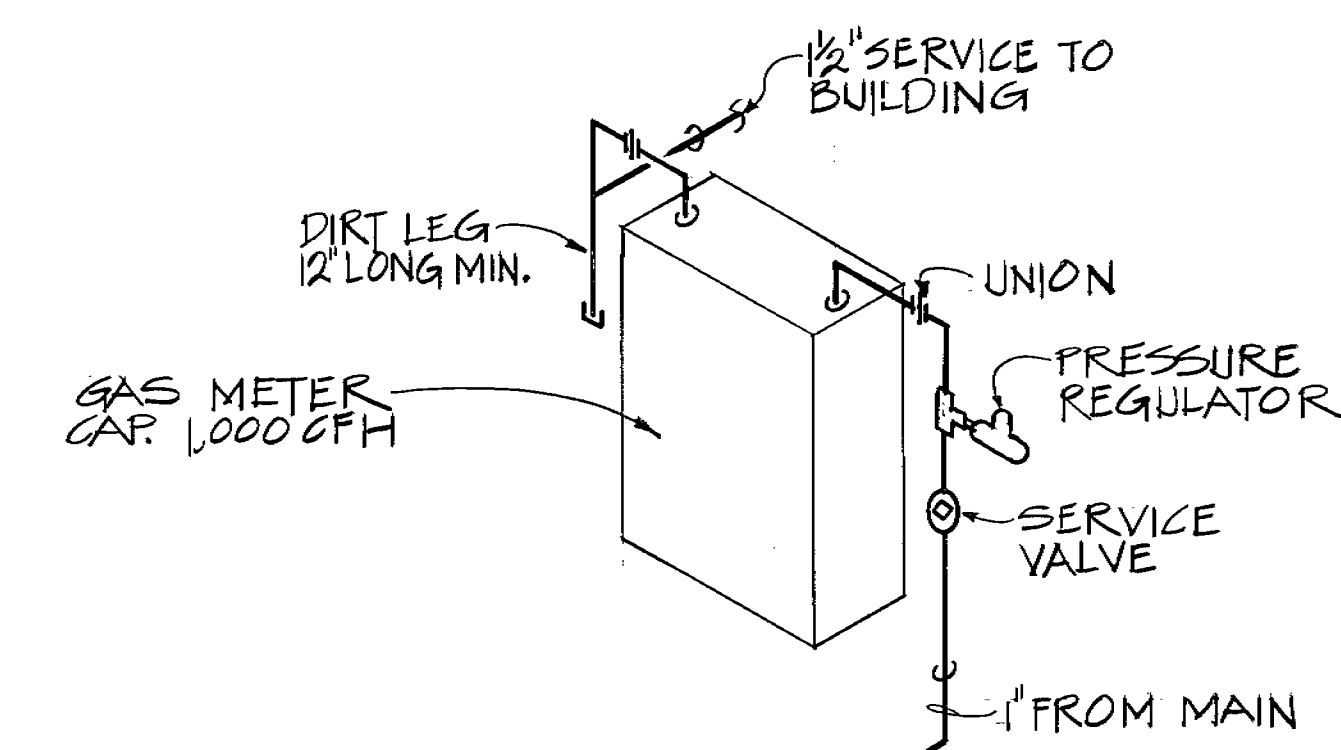
UTILITY SITE PLAN



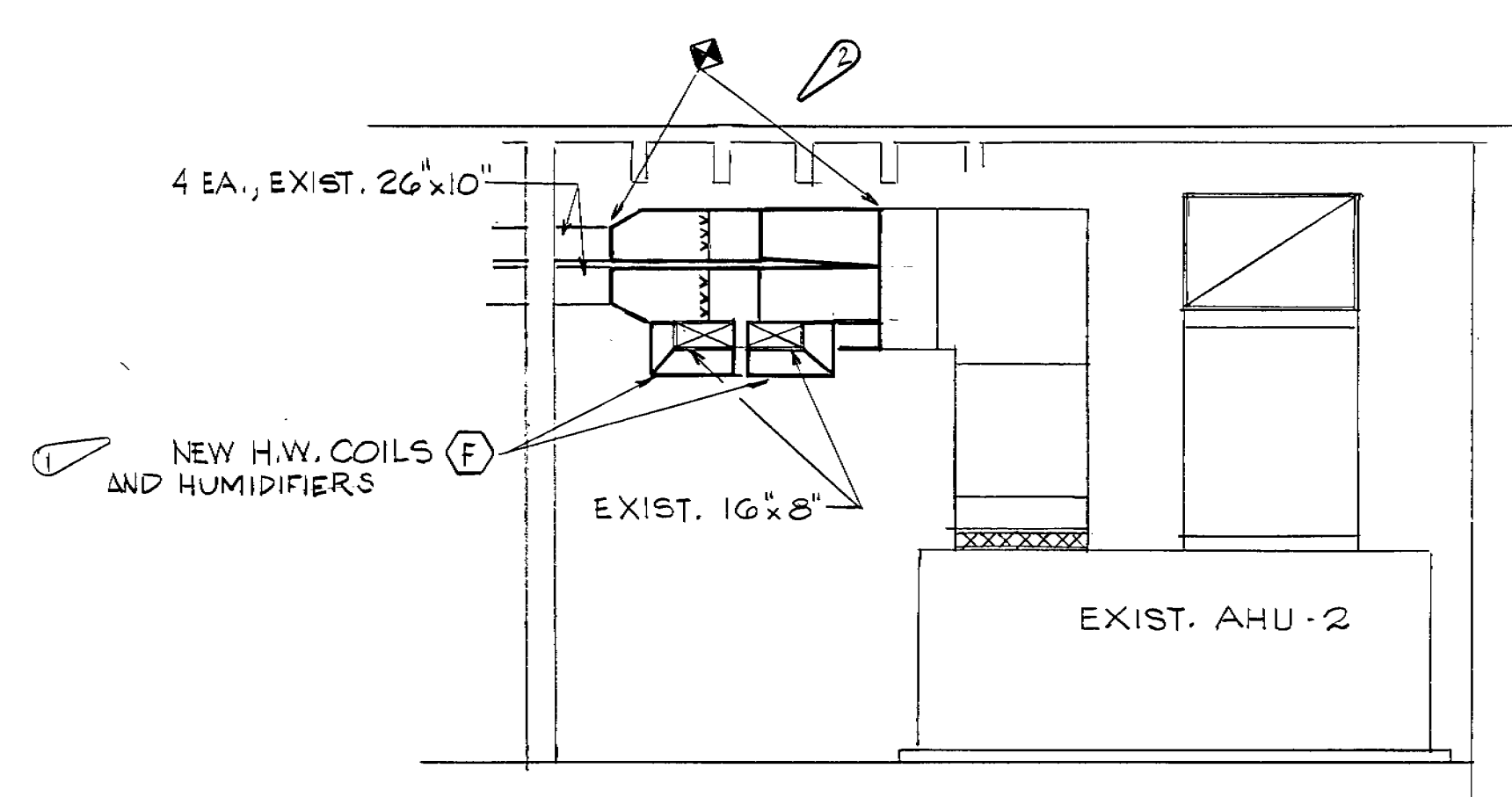
HUMIDIFIER WIRING DETAIL

NOT TO SCALE

ELECTRONIC STEAM HUMIDIFIER: SELF-CONTAINED WITH SOLID STATE ELECTRONIC SENSOR CONTROLLER (HUMIDISTAT) CAPABLE OF FULL MODULATING CONTROL TO PROVIDE TO 100% CAPACITY, SHALL HAVE AUTOMATIC FLUSH CYCLE, HIGH WATER CUT-OFF, ELECTRICAL TERMINALS FOR INSTALLATION OF CONTROLLING STAT, DUCT HI-LIMIT STAT, INTERLOCK SWITCH TO FAN MOTOR, STAINLESS STEEL DISPERSION TUBE, 1-1/2" DIAMETER STEAM HOSE, CAPABILITY OF BEING OPENED FOR INSPECTION, CLEANING AND REPAIRS. CAPACITY OF 5 LB/HR STEAM TO HOLD 30-45% RELATIVE HUMIDITY IN SPACE. SIMILAR AND EQUAL TO ARMSTRONG UNITS.



GAS METER CONNECTION DETAIL



SECTION A-A
NTS

④	AS-BUILT RECORD DRAWING	7 AUG 89	JRB
③	CHANGE ORDER #2	13 APR 89	J.A.C.
②	CHANGE ORDER #1	8 MAR 89	DK/GK
①	ADDENDUM #1	17 AUG 88	DK/E
NO.	REVISION	DATE	BY

TACTICAL AIR COMMAND

325TH CIVIL ENGINEERING SQUADRON
TYNDALL AFB, FL. 32403

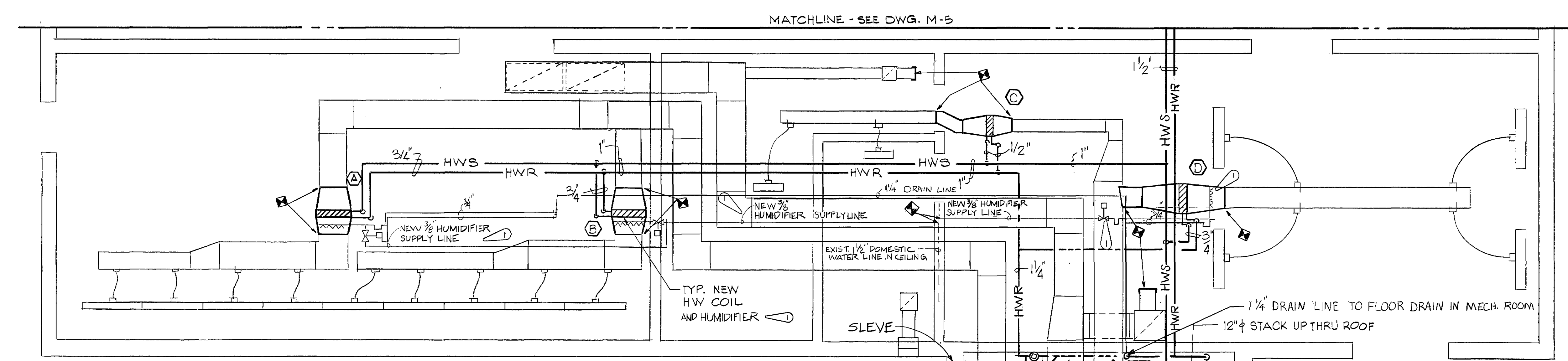
ALTER HVAC
BLDG'S. 1060 & 462

PARTIAL HVAC NEW WORK PLAN - BLDG. 462

DESIGNED BY: SEALE	DATE: JUN 88	DRAWING NUMBER: 462-M5	FILE LOCATION: 462-44
DRAWN BY: MILLS	SCALE: SHOWN	PROJECT NUMBER: TYN 880035	SHEET: 6 OF 7

ELECTRICAL LEGEND - NEW WORK:

- (M) MOTOR - BY MECH. - CONN. BY ELECT. CONTRACTOR -
- (J) JUNCTION BOX - SIZE AS REQ'D.
- ~ FLEXIBLE CONDUIT CONNECTION.
- ⊗ MOTOR CONTROLLER - MAGNETIC - "HAND-OFF-AUTO" - 1/2" START-STOP PUSHBUTTONS - NEMA CO.
- ▨ POWER PANEL - EXISTING.
- BRANCH CIRCUIT - EXPOSED.
- HOMERUN TO PANEL =
NOTE: CMT. SHOWN 2 #12-1/2" C. TO 20/1 BKR. (TYP.); #12-1/2" C.; ETC.; PER N.E.C. OR AS SHOWN. (* INDICATES W/FULL SIZE GROUND CONDUCTOR.)

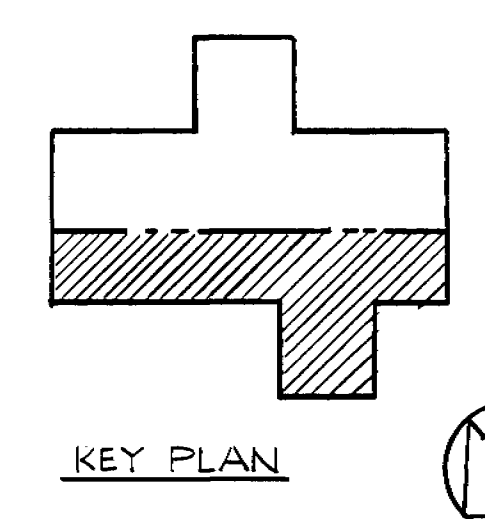


- LEGEND
- ⊗ GATE VALVE
 - ⊗ BUTTERFLY VALVE
 - ⊗ UNION
 - ⊗ SOLENOID VALVE
 - ⊗ 3-WAY AUTO. VALVE
 - ⊗ BALL VALVE
 - ⊗ BALANCING COCK W/ MEMORY STOP
 - ⊗ PRESSURE REDUCING VALVE
 - ⊗ GAS COCK
 - ⊗ STRAINER W/ BLOWDOWN VALVE
 - ⊗ RELIEF VALVE
 - ⊗ THERMOMETER
 - ⊗ PRESSURE GAGE W/ COCK
 - ⊗ CHECK VALVE
 - ~ FLEXIBLE PIPE CONNECTION
 - HWS - HOT WATER SUPPLY PIPING
 - HWR - HOT WATER RETURN PIPING
 - G - GAS PIPING
 - CONNECTION OF NEW TO EXIST. SYMBOL
 - DOMESTIC WATER
 - ⊗ HUMIDIFIER

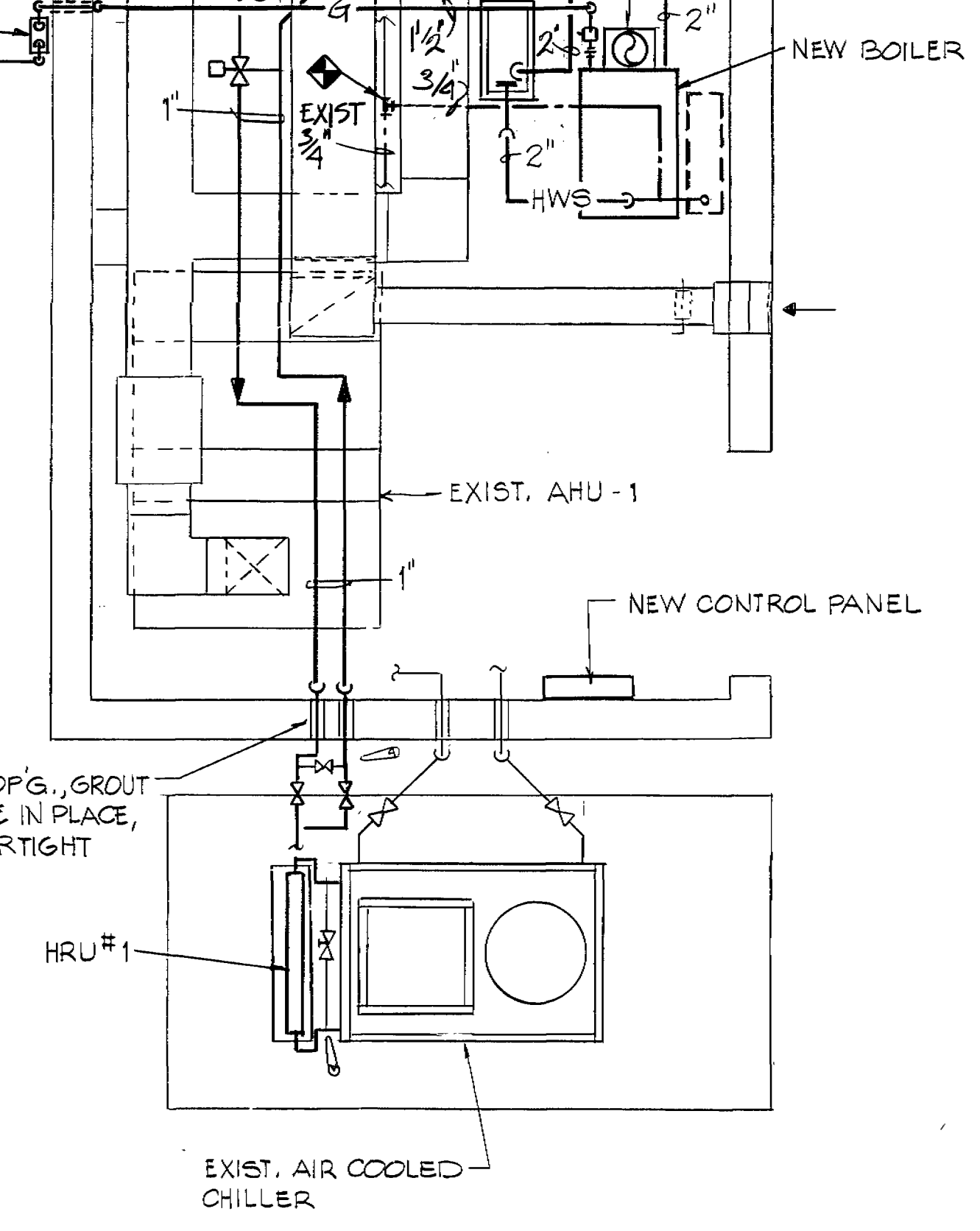
NOTE: CONTRACTOR SHALL REMOVE PORTIONS OF EXIST. CLG. & GRID AS REQ'D. TO PERFORM NEW WORK, & RE-INSTALL UPON COMPLETION. ANY CLG. TILE OR GRID DAMAGED, SHALL BE REPLACED W/ NEW @ CONTRACTOR'S EXPENSE.

PARTIAL HVAC NEW WORK PLAN

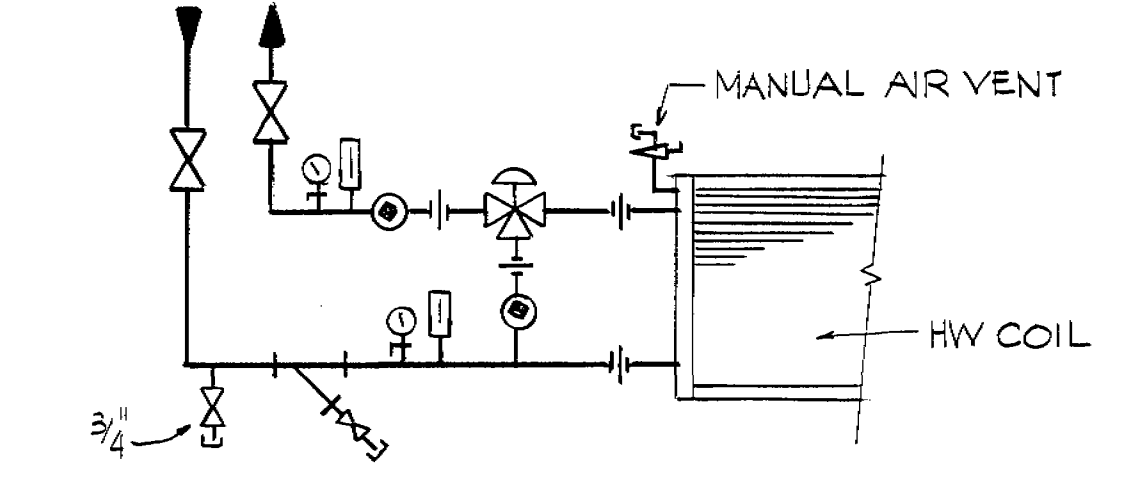
SC: 1/4" = 1'-0"



SAW CUT OF G., GROUT PIPE SLEEVE IN PLACE, SEAL WATER TIGHT - TYP.



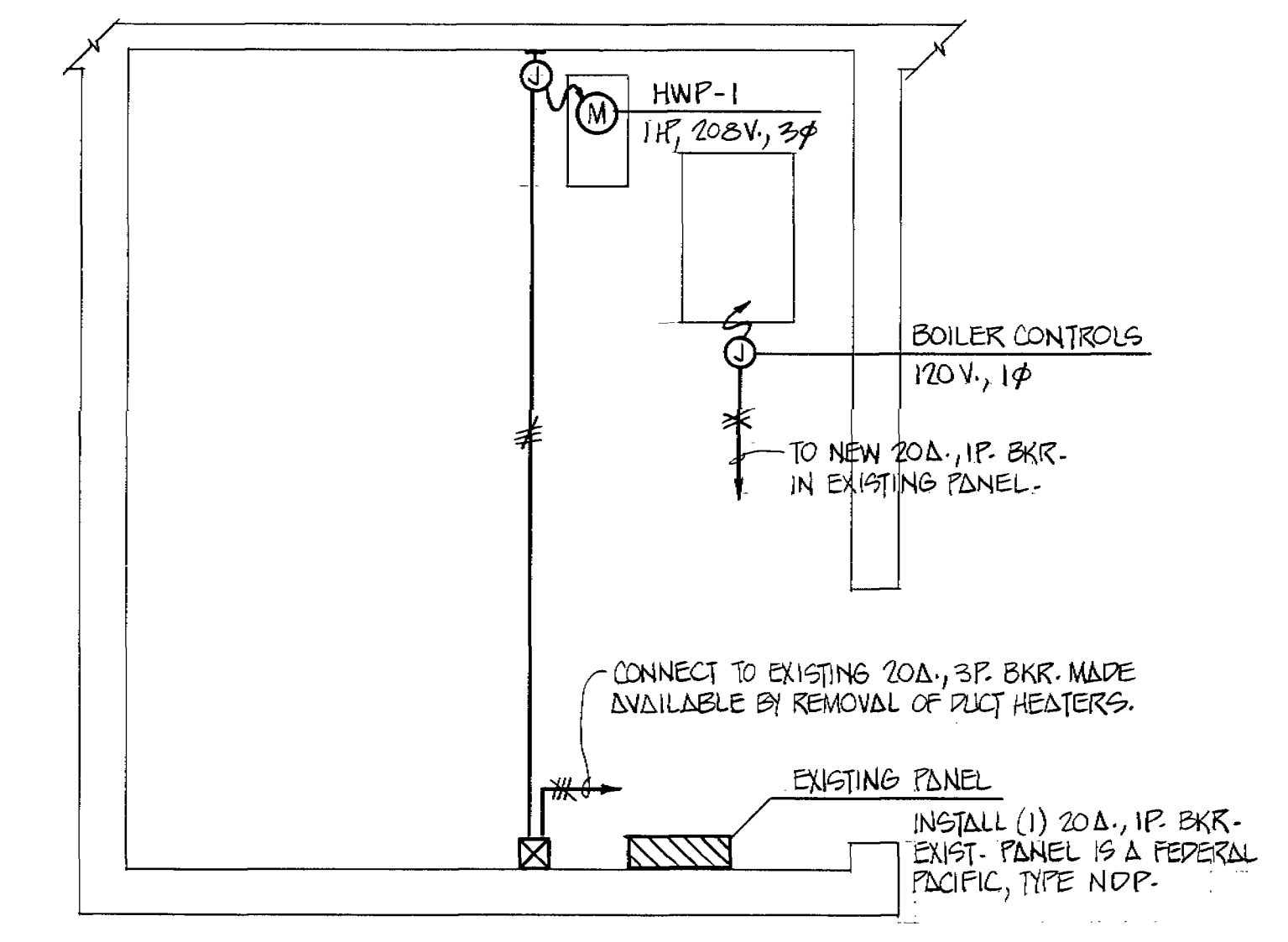
HOT WATER COIL PIPING DIAGRAM



PARTIAL ELECTRICAL NEW WORK PLAN

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

NOTE: REMOVE FLEX. CONNECTIONS, WIRING & DISCONNECT SWITCHES AT TEN (10) DUCT HEATERS & ABANDON CONDUIT - SEE MECHANICAL PLAN, SHEET M-3.



HEAT RECOVERY UNIT SCHEDULE

MARK	GPM	WATER TEMP. (°F.)	MAX. P.D. (FT.)	GPM PER TON	REMARKS
HRU-1	4	115 140	9	.23	
HRU-2	11	115 140	9	.21	

DUCT MOUNTED HOT WATER COIL SCHEDULE

MARK	CFM	HEATING CAPACITY (BTU/H)	MAX. FACE VEL. (FPM)	MAX. P.D. ACROSS COIL (IN.)	ENT. WATER TEMP. (°F.)	LVG. WATER TEMP. (°F.)	GPM	MAX. P.D. THRU COIL (FT.)	REMARKS
A	1780	45000	500	.15	140	115	4	5	
B	2225	55000	500	.15	140	115	5	5	
C	370	7000	500	.15	140	115	1	5	
D	860	24,000	500	.15	140	115	2	5	
E	2920	73,000	500	.15	140	115	6	5	4 EA.
F	1000	25,000	500	.15	140	115	2	5	2 EA.

PUMP SCHEDULE

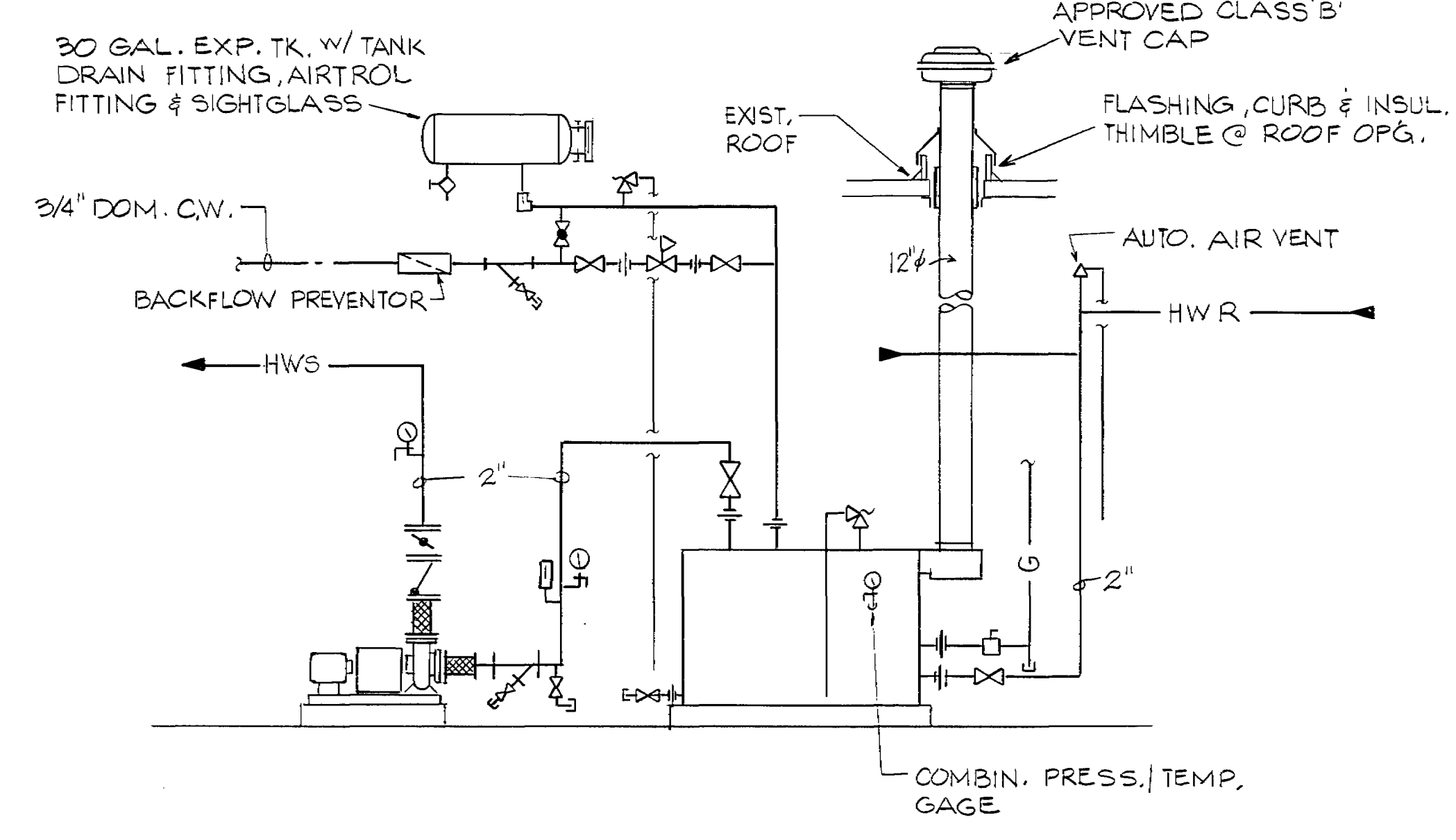
MARK	GPM	APPROX. TOTAL HEAD (FT.)	MAX. RPM	MOTOR HP	SERVICE	TYPE PUMP	REMARKS
HWP-1	40	40	1750	1	HOT WATER	END SUCTION; FLEX. CPL.	

BOILER SCHEDULE

MARK	NAT. GAS INPUT (MBH)	A.G.A. OUTPUT (MBH)	GPM	ENT. WATER TEMP. (°F.)	LVG. WATER TEMP. (°F.)	EXPANSION TANK CAPACITY (GAL)	MIN. BOILER EFFICIENCY	REMARKS
B-1	780	631.8	40	115	140	30	65%	

BOILER PIPING DIAGRAM

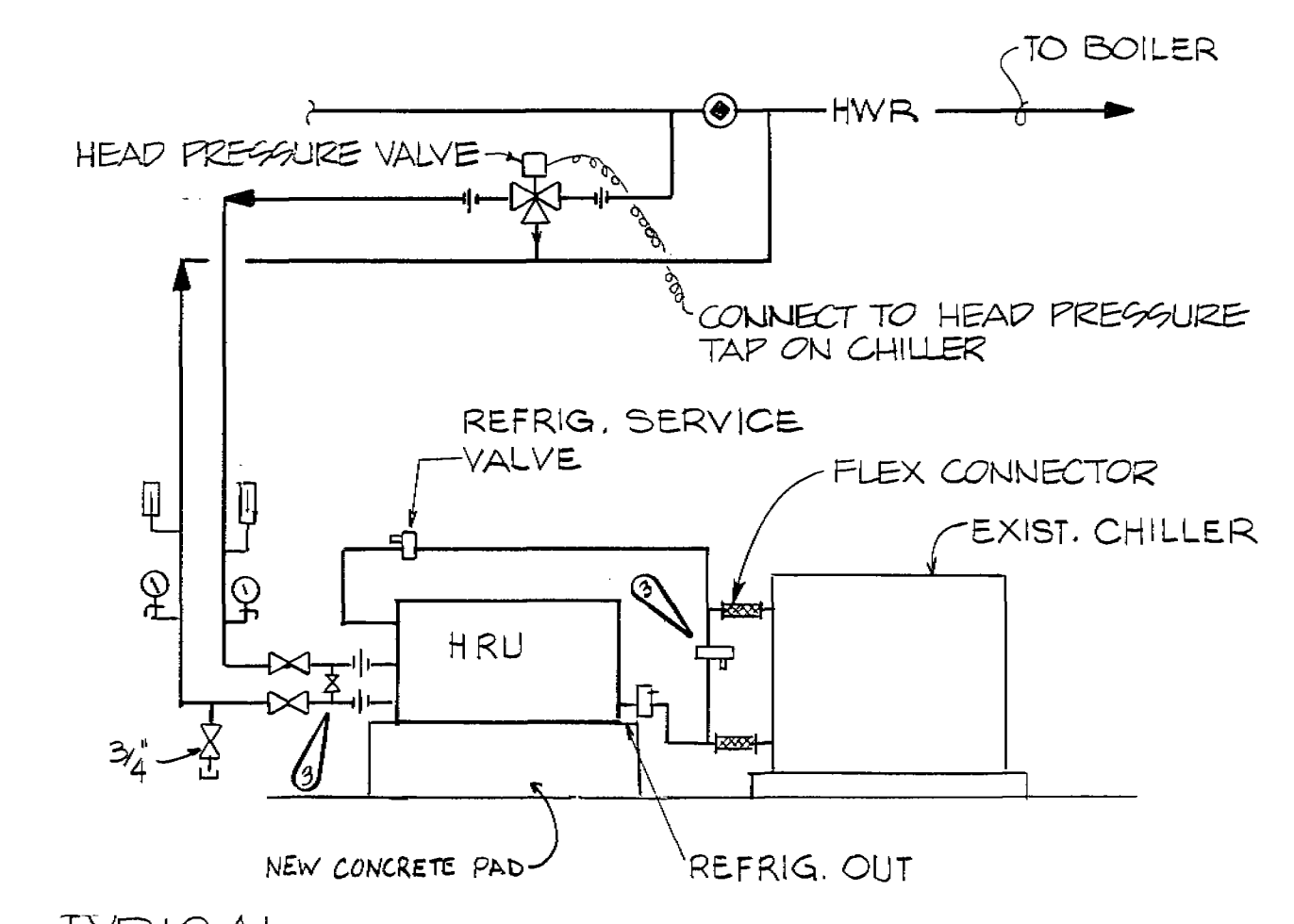
NTS



SEQUENCE OF OPERATION
THE HEAT RECOVERY UNIT SHALL PREHEAT HOT WATER RETURN TO THE BOILER USING HOT GAS FROM THE CHILLER. HEAD PRESSURE CONTROL VALVE HPV SHALL MODULATE TO BYPASS WATER FLOW AROUND THE HEAT RECOVERY UNIT IF CHILLER HEAD PRESSURE DROPS BELOW IT'S SETTING.

TYPICAL HEAT RECOVERY UNIT PIPING DIAGRAM

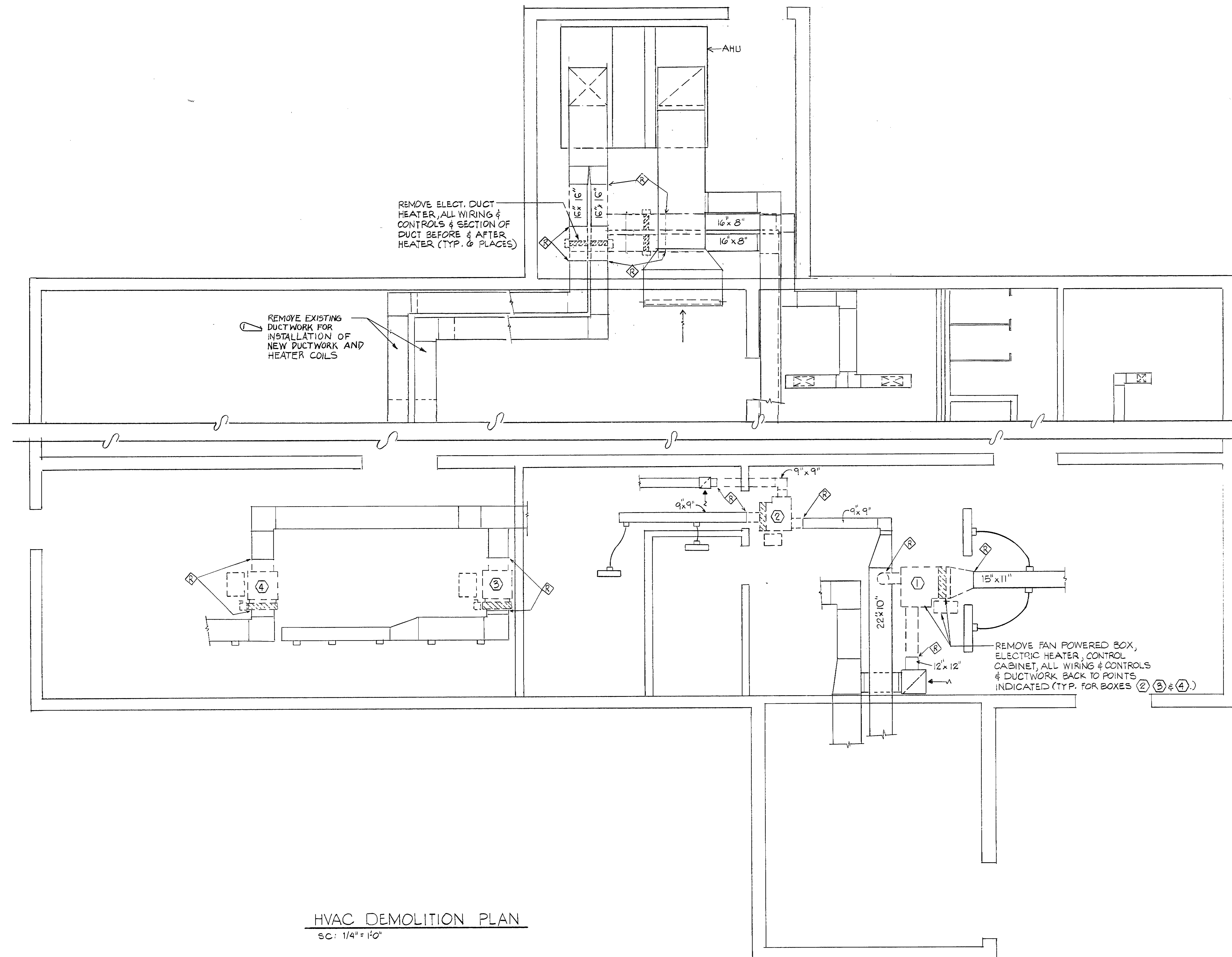
NTS



④	AS-BUILT RECORD DRAWINGS	7AUG89	JRB					
③	CHANGE ORDER #2	8APR89	J.A.C.					
①	ADDENDUM #1	17AUG88	DK/ES					
NO.	REVISION	DATE	BY					
TACTICAL AIR COMMAND								
325 TH CIVIL ENGINEERING SQUADRON								
TYNDALL A.F.B. FL. 32403								
ALTER HVAC								
BLDG'S. 1060 & 462								
PARTIAL HVAC NEW WORK PLAN - BLDG. 462								
4	DESIGNED BY	SEALE	DATE	JUN 88	DRAWING NUMBER	462-M-4	FILE LOCATION	462-83
	DRAWN BY	MILLS	SCALE	SHOWN	PROJECT NUMBER	TYN 86-0035	SHEET	5 OF 7

SEALE ENGINEERING
1800 N. PALAFOX ST.
PENSACOLA, FL 32501

M-4



HVAC DEMOLITION PLAN
 SC: 1/4" = 1'-0"

LEGEND

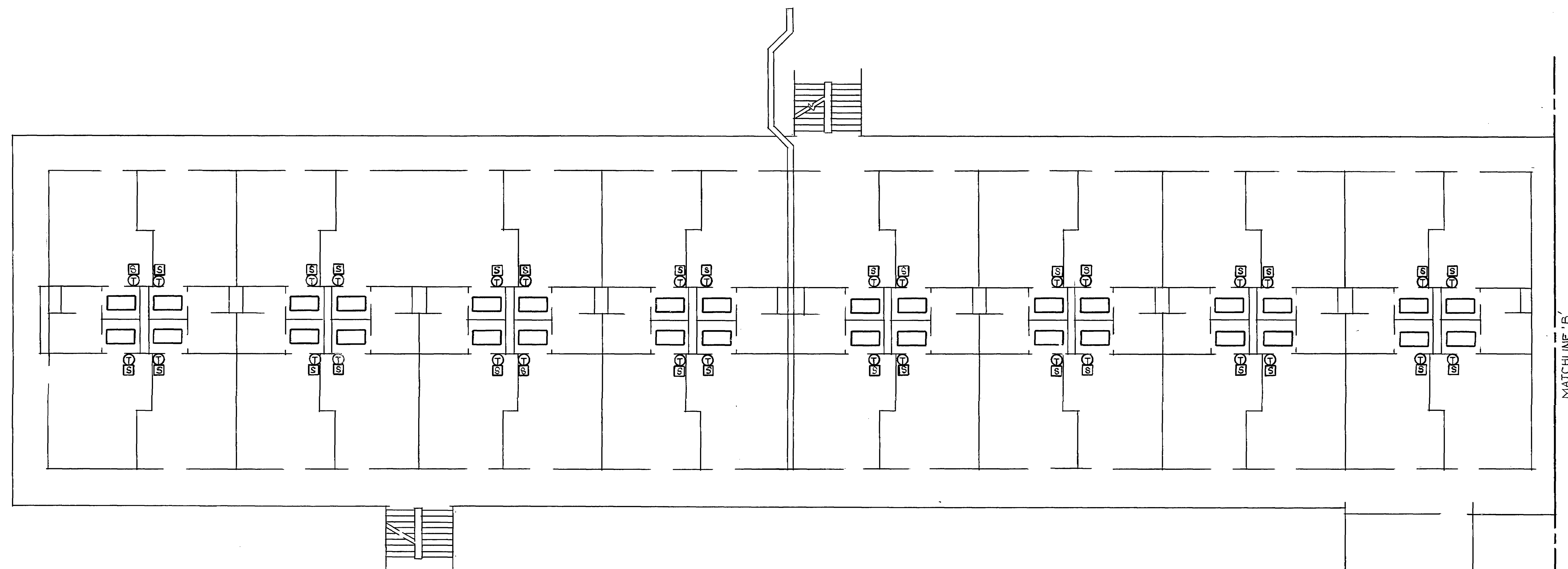
- ◊ REMOVE AND REPLACE DUCTWORK UP TO THIS POINT
- NEW VAV BOXES

4	AS-BUILT RECORD DRAWING	7 AUG 89	JRS	
1	CHANGE ORDER #1	8 MAR 89	DK/GE	
NO.	REVISION	DATE	BY	
TACTICAL AIR COMMAND				
325 TH CIVIL ENGINEERING SQUADRON				
TYNDALL A.F.B. FL. 32403				
ALTER HVAC				
BLDG. 1060 & 462				
HVAC DEMOLITION PLAN - BLDG. 462				
3	DESIGNED BY SEALE	DATE JUN 88	DRAWING NUMBER 462-M3	FILE LOCATION 462-42
	DRAWN BY MILLS	SCALE SHOWN	PROJECT NUMBER TYN 860035	SHEET 4 OF 7

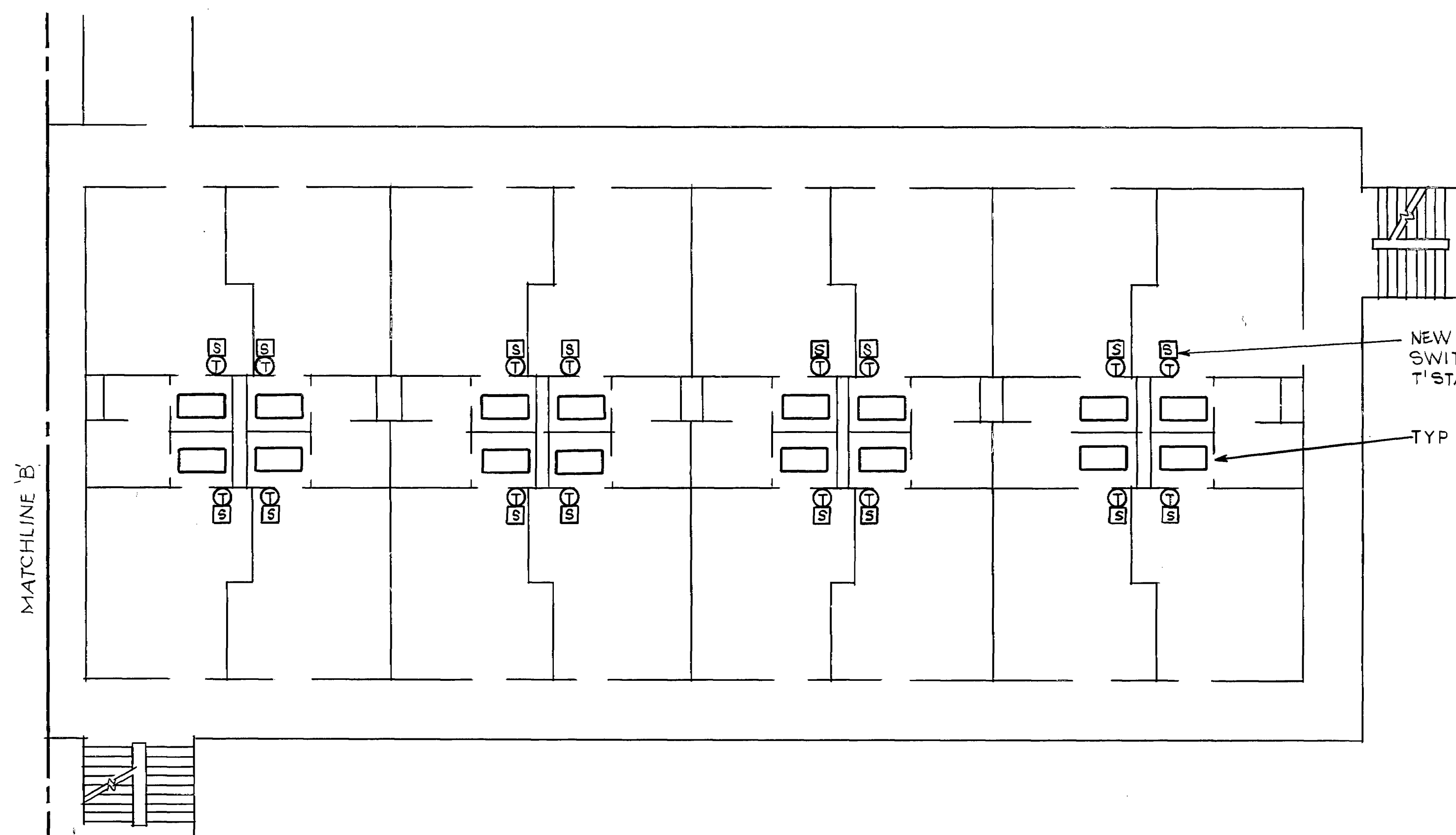
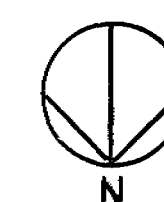
SEALE ENGINEERING
 1800 N. PALAFOX ST.
 PENSACOLA, FL 32501

M-3

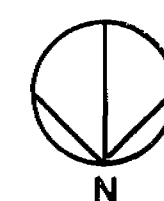
BLDG 462-40



TYP. SECOND/ THIRD FLOOR PLAN
1/8" = 1'-0"

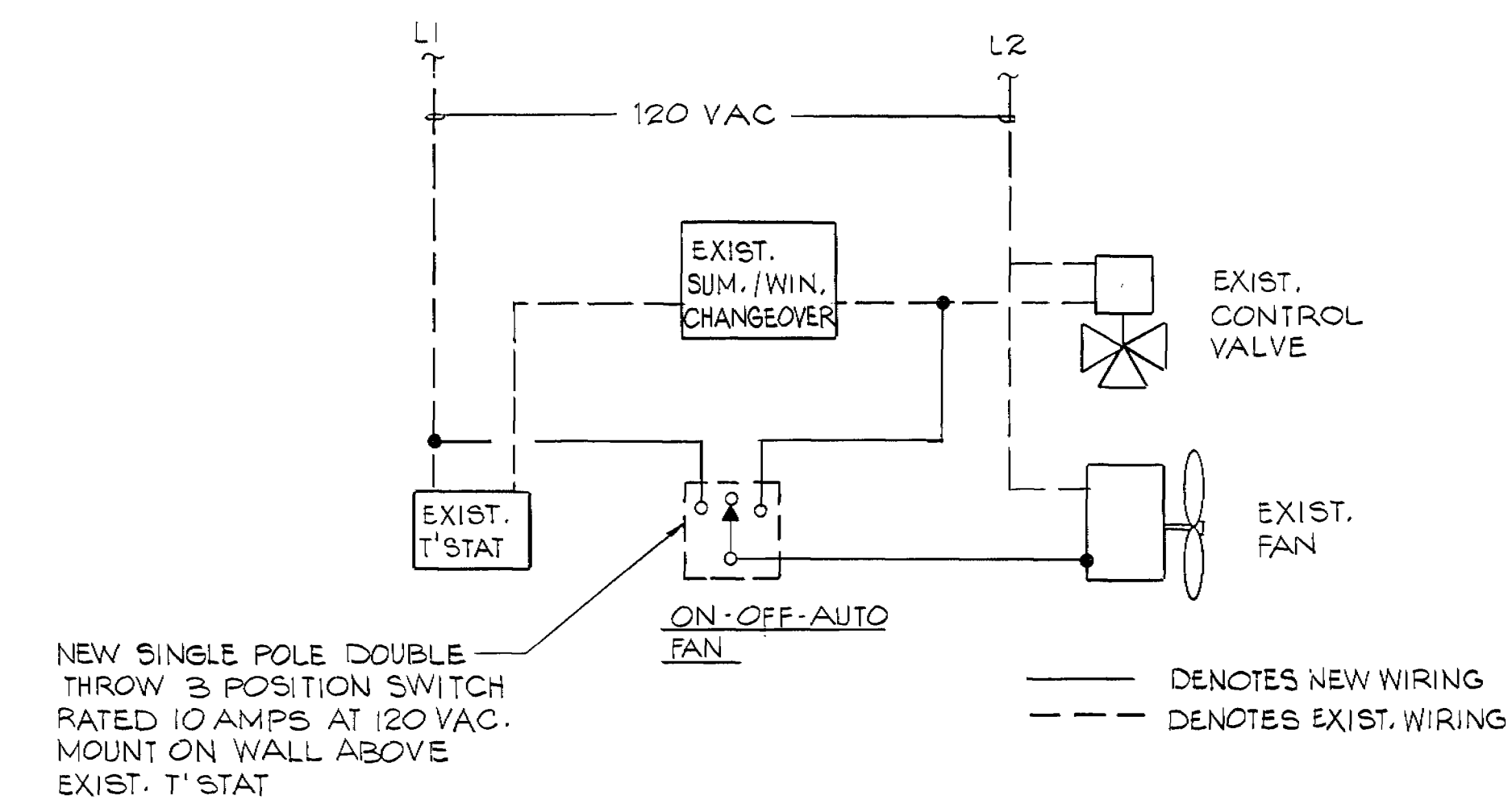


TYP. SECOND/ THIRD FLOOR PLAN
1/8" = 1'-0"



NEW 'ON-OFF-AUTO' FAN
SWITCH, MOUNT OVER EXIST.
T' STAT (TYP.)

TYP. EXIST. FAN COIL UNIT



TYPICAL FAN COIL UNIT CONTROL REVISION

SEQUENCE OF OPERATION

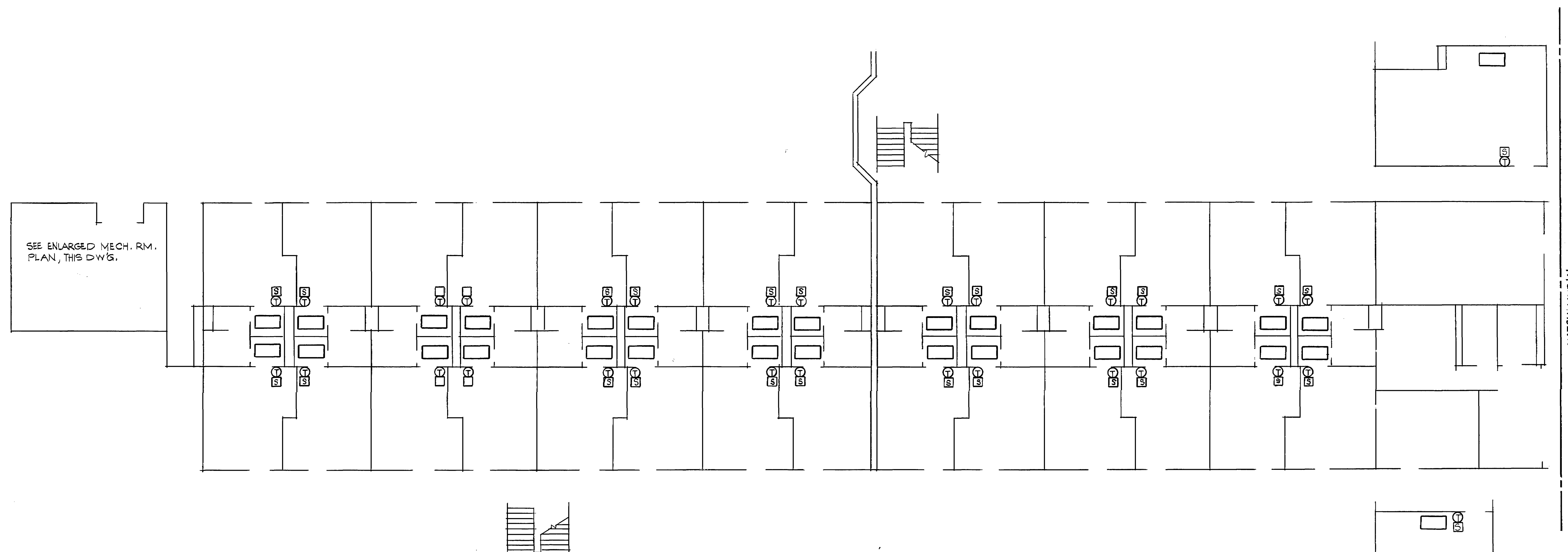
THE EXISTING CONTROL SYSTEM SHALL BE REVISED WITH A NEW "ON-OFF-AUTO" SWITCH. WHEN THE SWITCH IS PLACED IN THE "ON" POSITION, THE EXISTING FAN SHALL RUN CONTINUOUSLY. IN THE "AUTO" POSITION, THE FAN SHALL RUN WHEN THE EXISTING THERMOSTAT CALLS FOR HEATING OR COOLING.

NO.	REVISION	DATE	BY
1	AS-BUILT RECORD DRAWING	7 AUG 89	JRB
TACTICAL AIR COMMAND			
325TH CIVIL ENGINEERING SQUADRON			
TYNDALL A.F.B. FL. 32403			
ALTER H.V.A.C. BUILDING			
1060 & 462			
SECOND/THIRD FLOOR PLANS			
BLDG. 1060			
DESIGNED BY	VS	DATE	JUN 88
DRAWN BY	DM	SCALE	SHOWN
PROJECT NUMBER	TYN 86-0035	DRAWING NUMBER	462-M2
FILE LOCATION	462-41	SHEET	3 OF 7

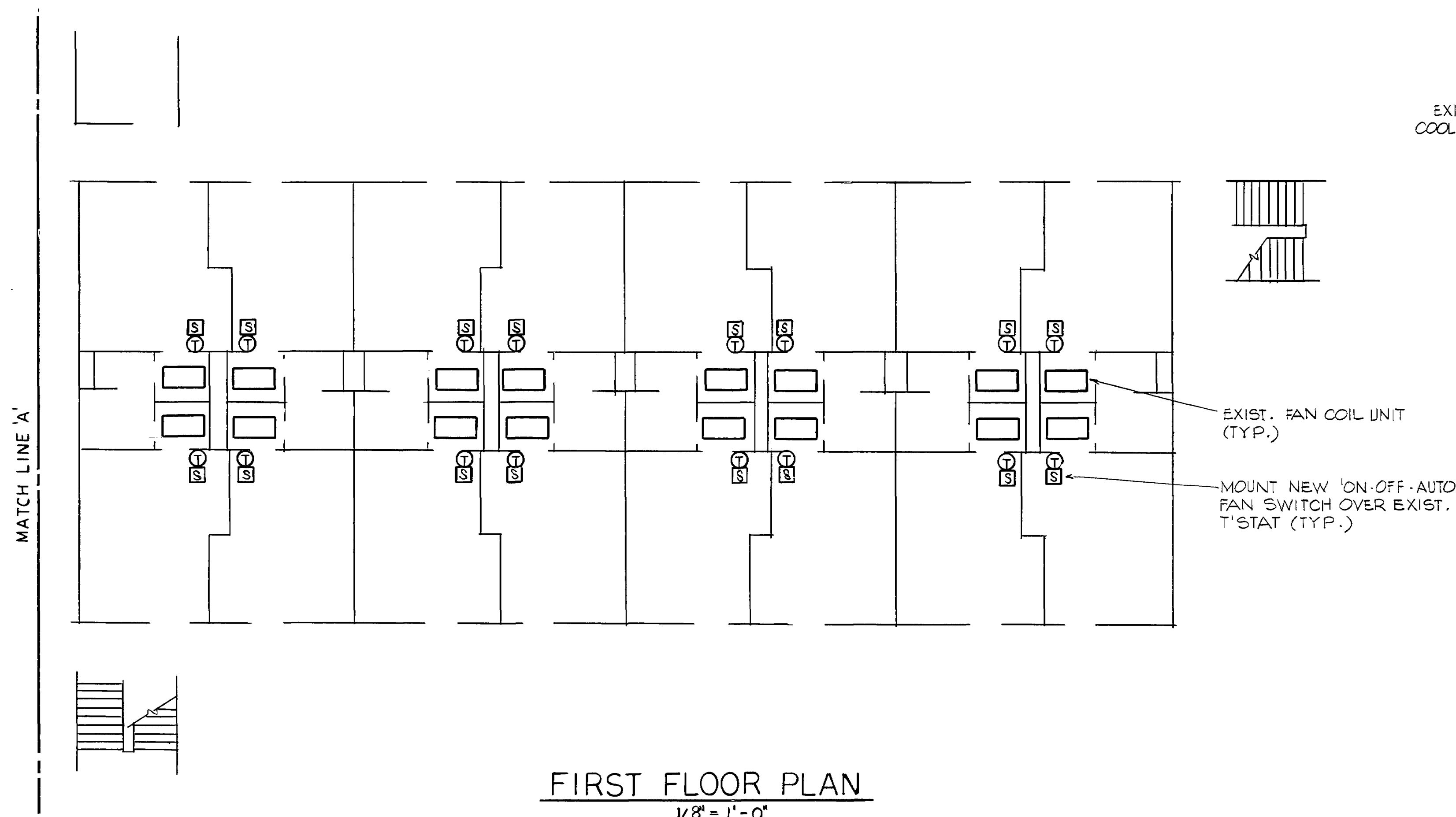
SEALE ENGINEERING
1800 N. PALAFOX ST.
PENSACOLA, FL 32501

M-2

BLDG 462-41



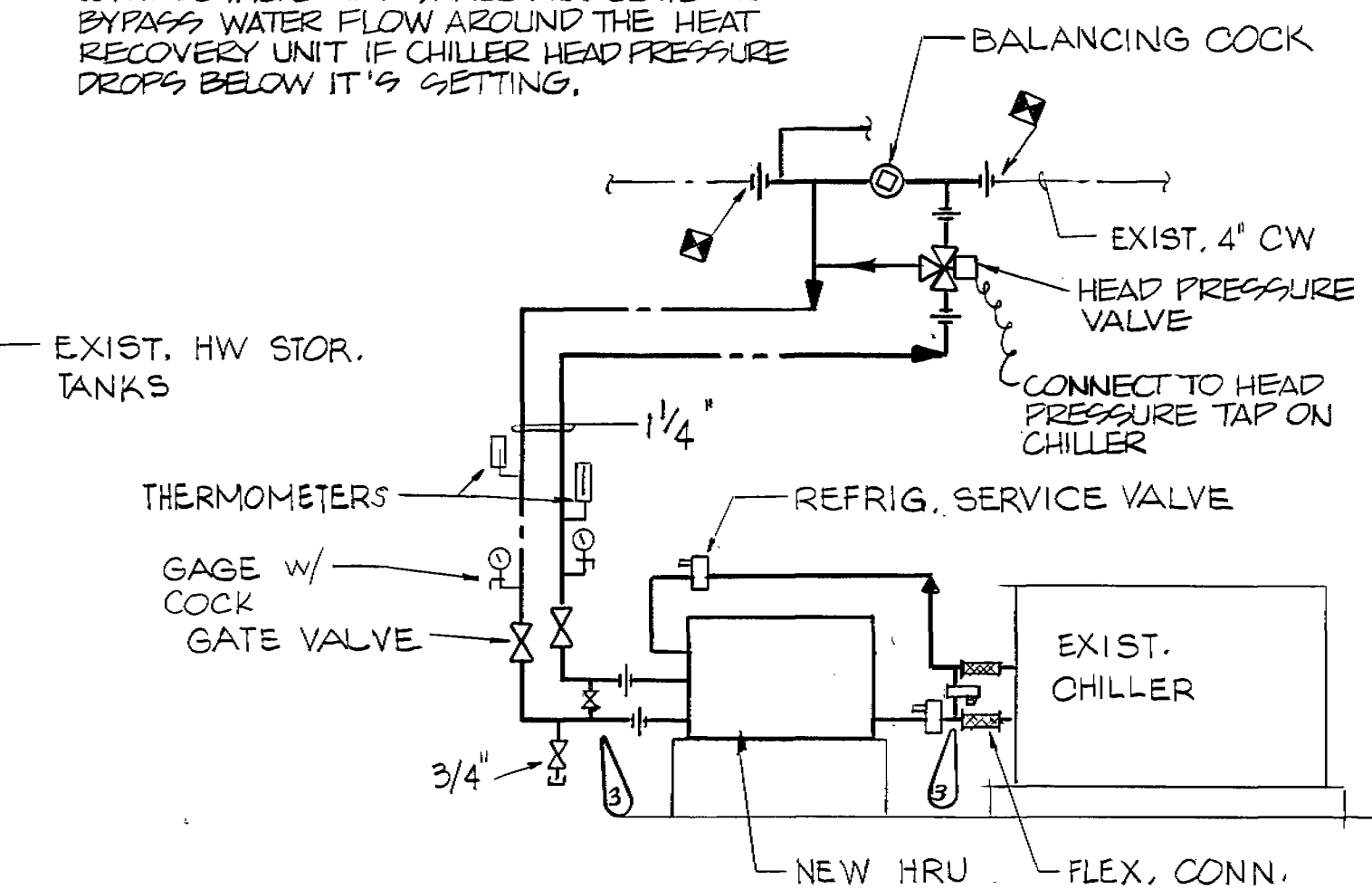
FIRST FLOOR PLAN
1/8" = 1'-0"



ENLARGED MECH. RM. PLAN
1/4" = 1'-0"

SEQUENCE OF OPERATION

THE HEAT RECOVERY UNIT SHALL PREHEAT HOT WATER RETURN TO THE BOILER USING HOT GAS FROM THE CHILLER. HEAD PRESSURE CONTROL VALVE HPV SHALL MODULATE TO BYPASS WATER FLOW AROUND THE HEAT RECOVERY UNIT IF CHILLER HEAD PRESSURE DROPS BELOW ITS SETTING.



HEAT RECOVERY UNIT PIPING DIAGRAM
NTS

HEAT RECOVERY UNIT SCHEDULE					
MARK	GPM	WTR. TEMP. (°F.)		MAX. P.D. (FT.)	GPM PER TON
		ENT.	LVG.		
HRU	8	75	140	2	.08
REMARKS					

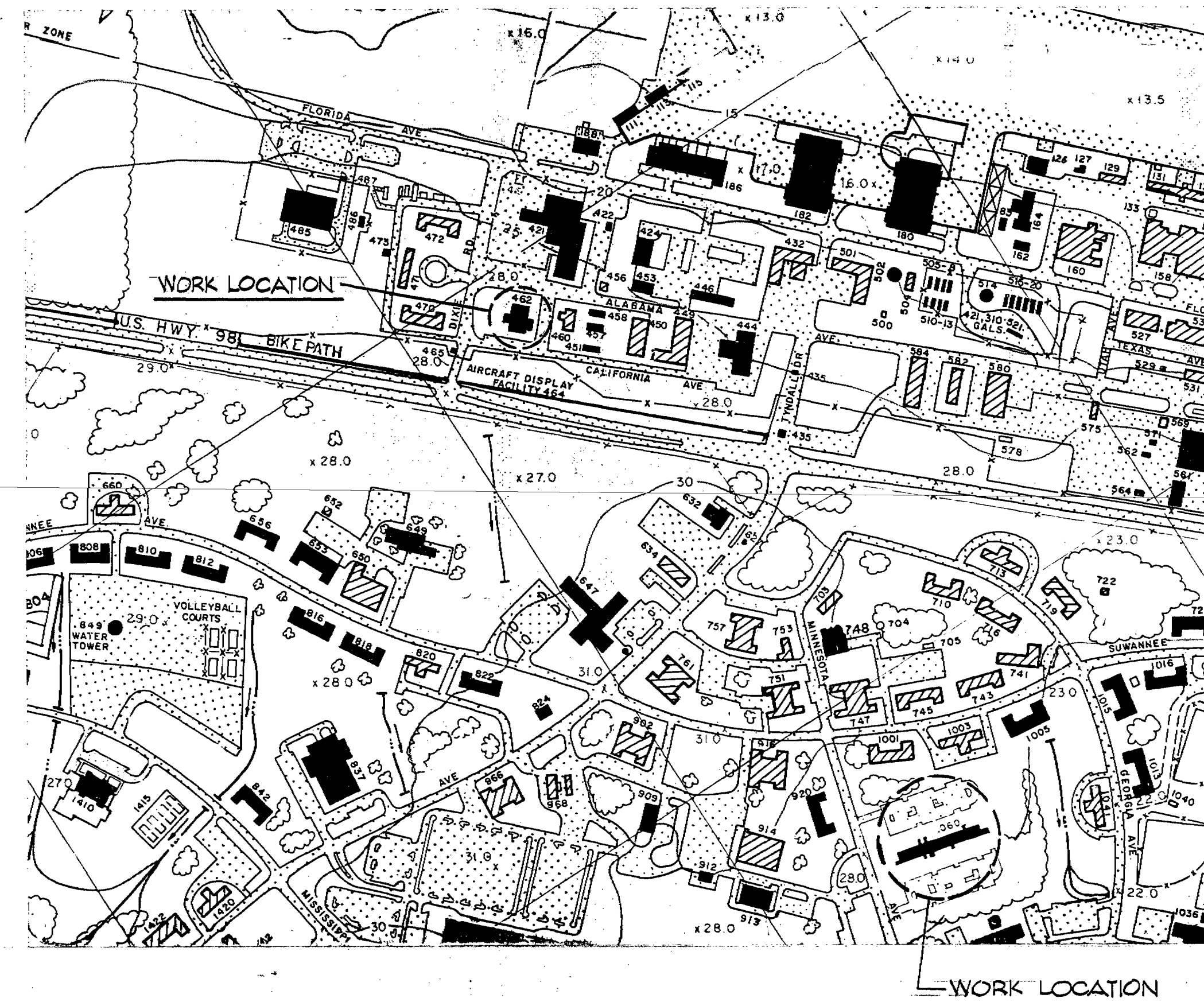
- LEGEND
- R — REFRIGERANT PIPING
 - C — DOMESTIC COLD WATER PIPING
 - H — DOMESTIC HOT WATER PIPING
 - U — UNION
 - TT TEMPERATURE TRANSMITTER
 - ⊞ CONNECTION OF NEW TO EXIST. SYMBOL
 - ⊞ THERMOSTAT ; SWITCH

SEALE ENGINEERING
1800 N. PALAFOX ST.
PENSACOLA, FL 32501

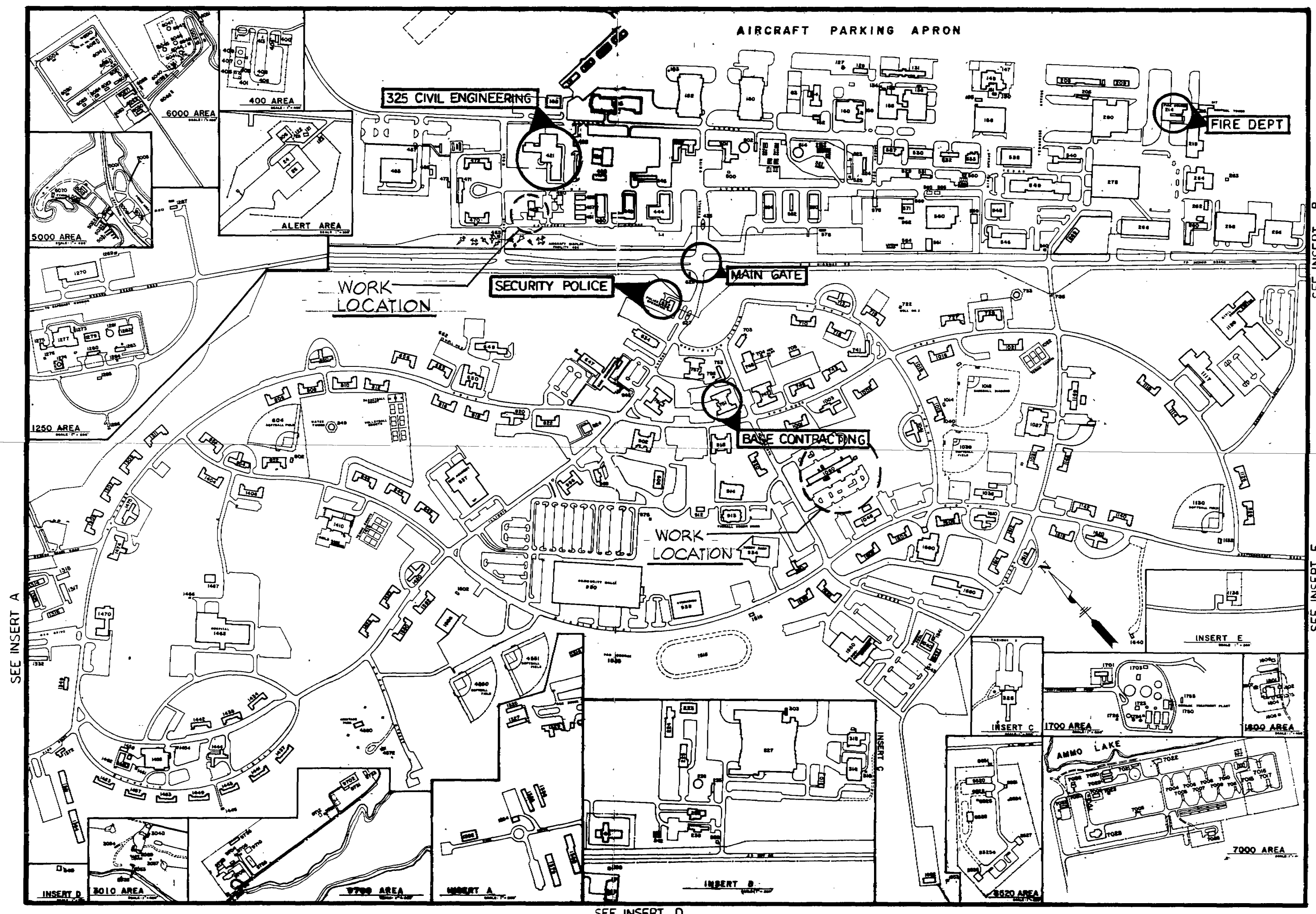
DESIGNED BY	J.S.	DATE	JUN 88	DRAWING NUMBER	462-M1	FILE LOCATION	462-40
DRAWN BY	DM	SCALE	SHOWN	PROJECT NUMBER	TYN20035	SHEET	2 OF 7

④	AS-BUILT RECORD DRAWING	7AUG89	JRB
⑤	CHANGE ORDER # 2	13 APR 89	J.A.C.
NO.	REVISION	DATE	BY
TACTICAL AIR COMMAND			
325 TH CIVIL ENGINEERING SQUADRON			
TYNDALL A.F.B. FL. 32403			
ALTER H.V.A.C. BUILDING			
1060 & 462			
FIRST FLOOR PLAN			
BLDG. 1060			

ALTER HVAC BLDG 1060 AND 462 AT TYNDALL AIR FORCE BASE



SITE PLAN
SCALE:



LOCATION PLAN
NO SCALE

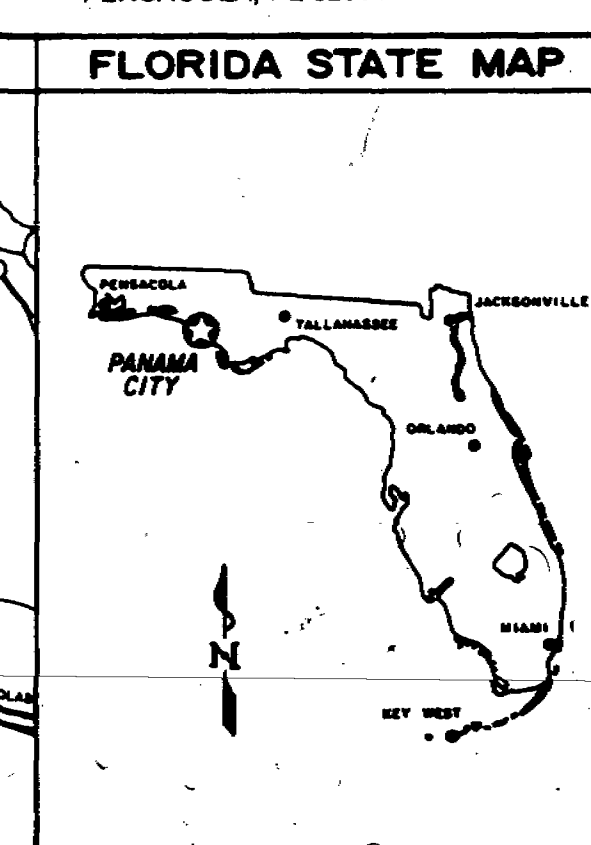
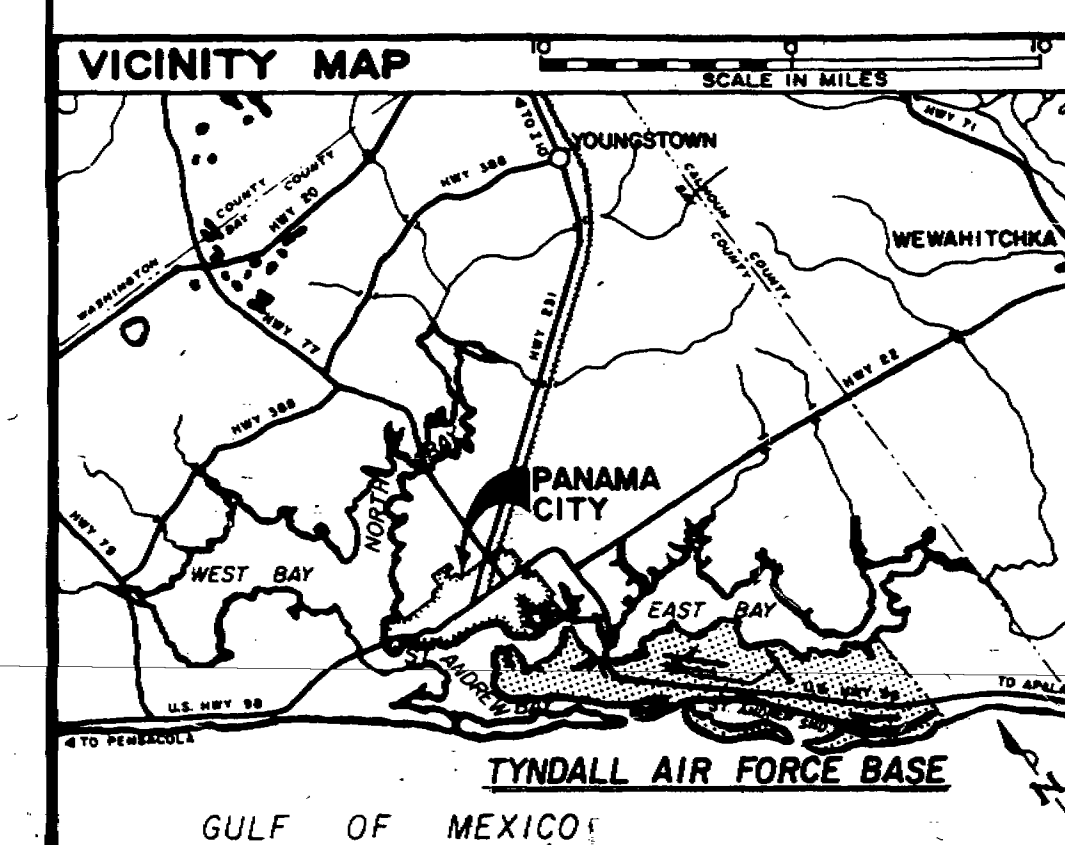
SYMBOLS

ABBREVIATIONS

INDEX OF DRAWINGS

REF. No.	TITLE	SHT. No.
T-1	TITLE SHEET	1
M-1	1ST FLOOR PLAN - BLDG. 1060	2
M-2	2ND & 3RD FLOOR PLAN - BLDG. 1060	3
M-3	HVAC DEMOLITION PLAN - BLDG. 462	4
M-4	PARTIAL NEW WORK PLAN - BLDG. 462	5
M-5	PARTIAL NEW WORK PLAN - BLDG. 462	6
M-6	HVAC CONTROLS	7

SEALE ENGINEERING
1800 N. PALAFOX ST.
PENSACOLA, FL 32501



COORDINATION AS-BUILT RECORD DRAWING 7AUG89 JES CHANGE ORDER #2 13 APR 89 J.A.C. CHANGE ORDER #1 8 MAR 89 PK/GE APPENDUM #1 17 AUG 88 PK/ES			
NO.	REVISION	DATE	BY
TACTICAL AIR COMMAND 325th CIVIL ENGINEERING SQUADRON TYNDALL AFB, FL 32403 ALTER HVAC BLDGS. 1060 & 462			
TITLE SHEET DESIGNED BY SEALE APPROVED <i>[Signature]</i> BASE CIVIL ENGINEER DATE JUN 88 SCALE AS-SHOWN PROJECT NUMBER 462-61 SHEET 1 OF 7			