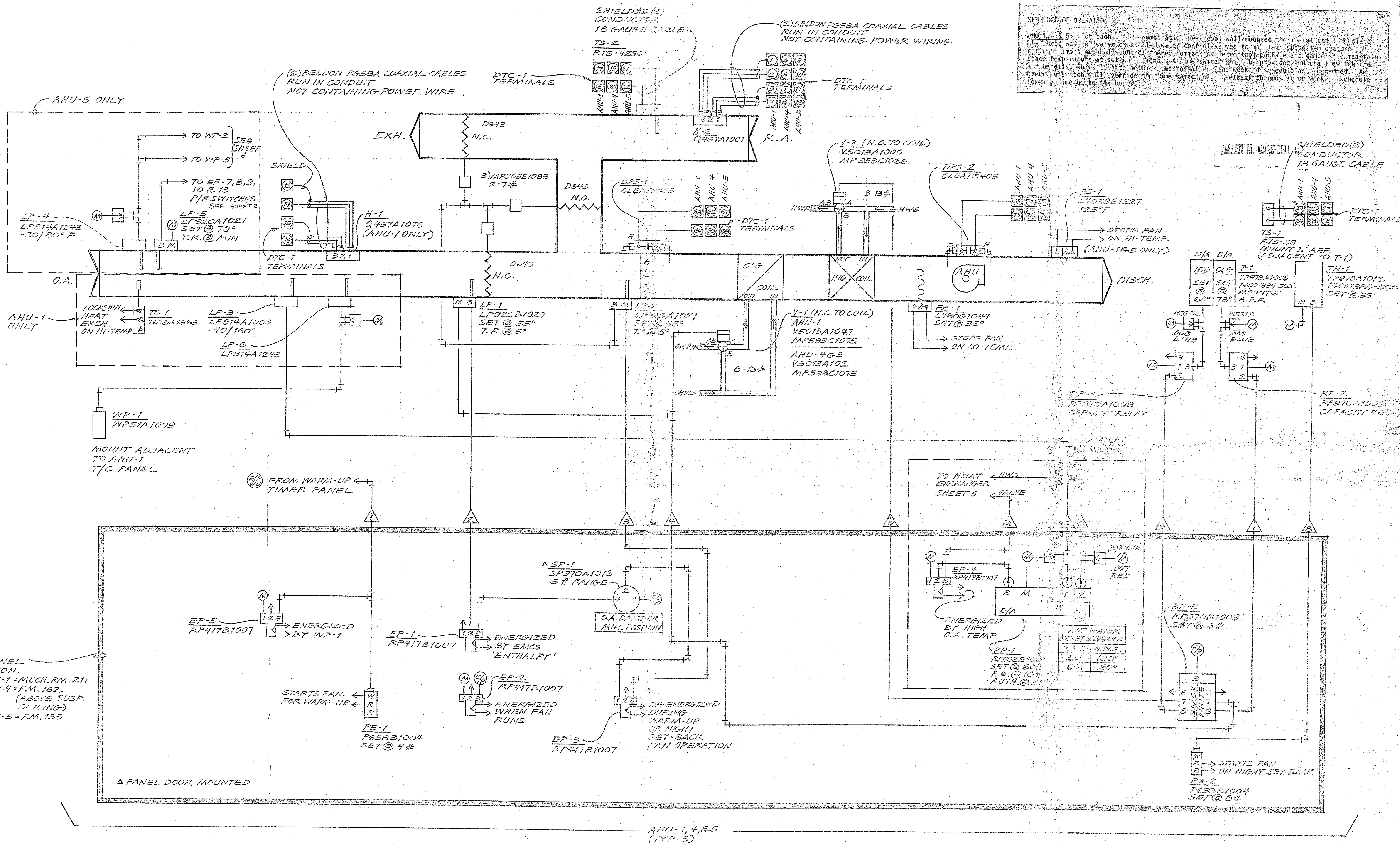


**SEQUENCE OF OPERATION**  
 AHU-1, 4 & 5: For each unit a combination heat/cool wall-mounted thermostat shall modulate the three-way hot water or chilled water control valves to maintain space temperature at set conditions or shall control the economizer cycle control package and dampers to maintain space temperature at set conditions. A time switch shall be provided and shall switch the air handling units to night setback thermostat and the weekend schedule as programmed. An override switch will override the time switch, night setback thermostat or weekend schedule for any time up to six hours.



**T/C PANEL LOCATION:**  
 AHU-1 = MECH. RM. 211  
 AHU-4 = RM. 162  
 (ABOVE SUSP. CEILING)  
 AHU-5 = RM. 153

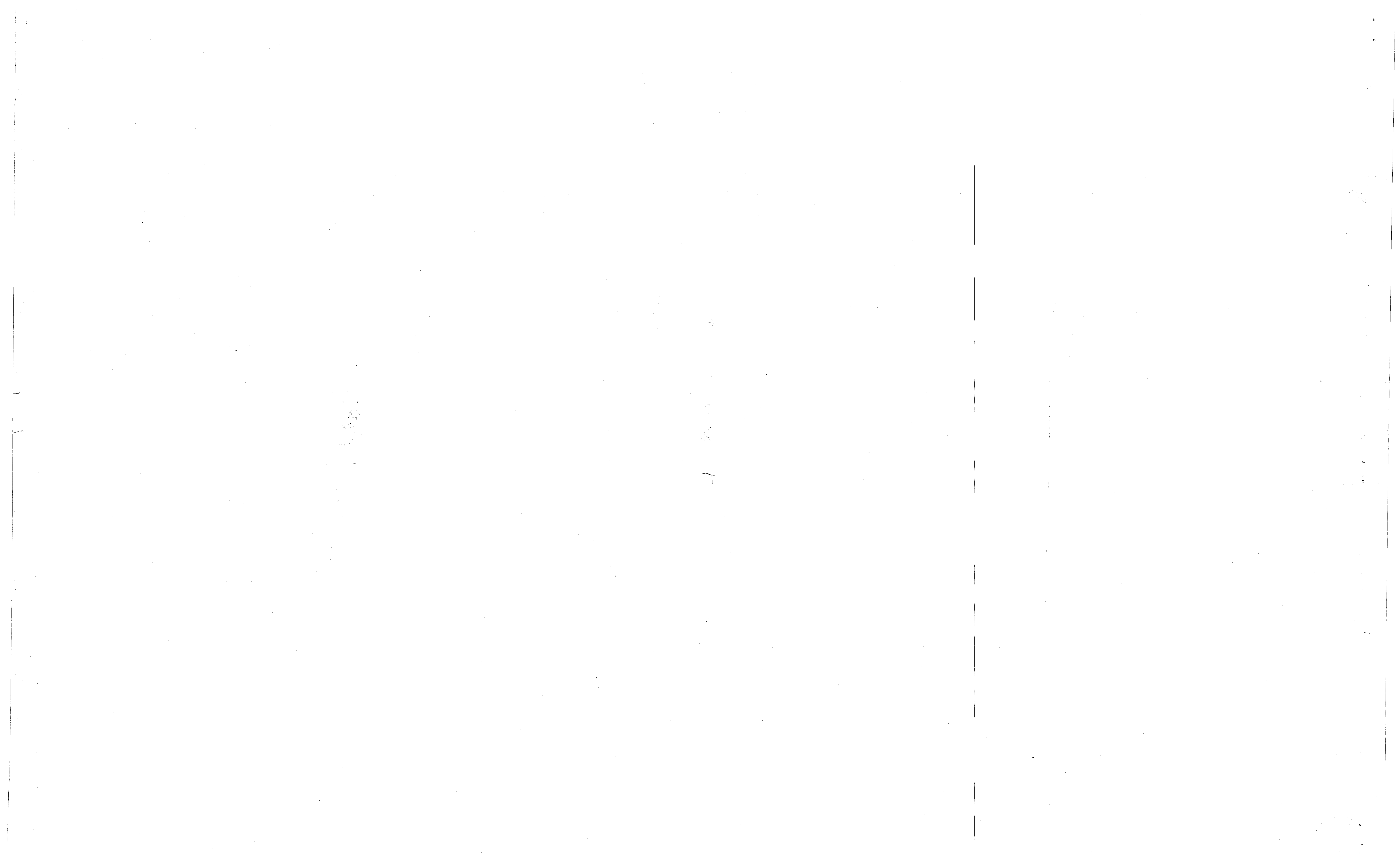
▲ PANEL DOOR MOUNTED

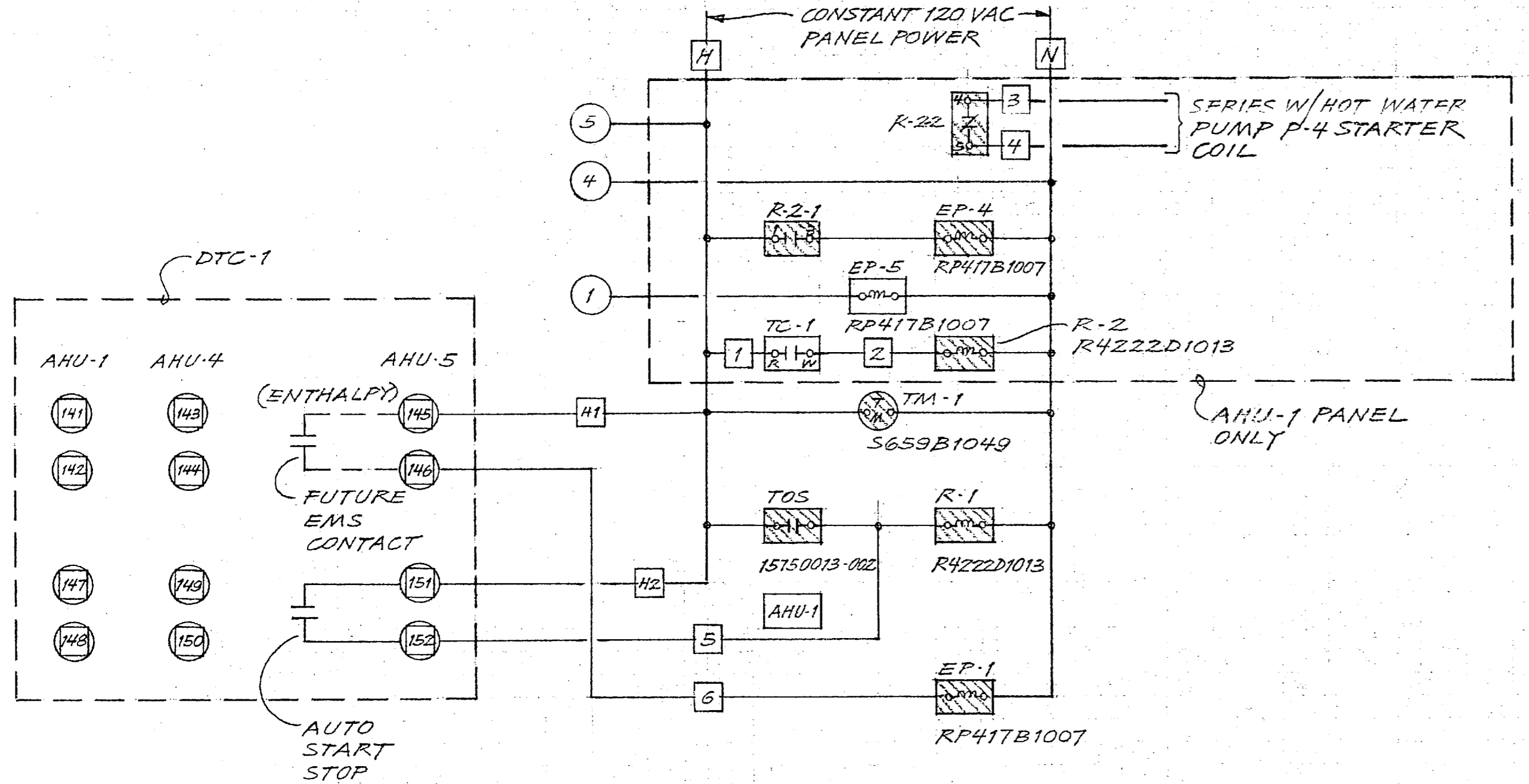
AHU-1, 4, 5  
 (TYP-3)

ARCHITECT: MBTB  
 ENGINEER: MBTB  
 CONTRACTOR: SVEEDEN CO.  
 APPLICATION ENGINEER: TOM WHITAKER

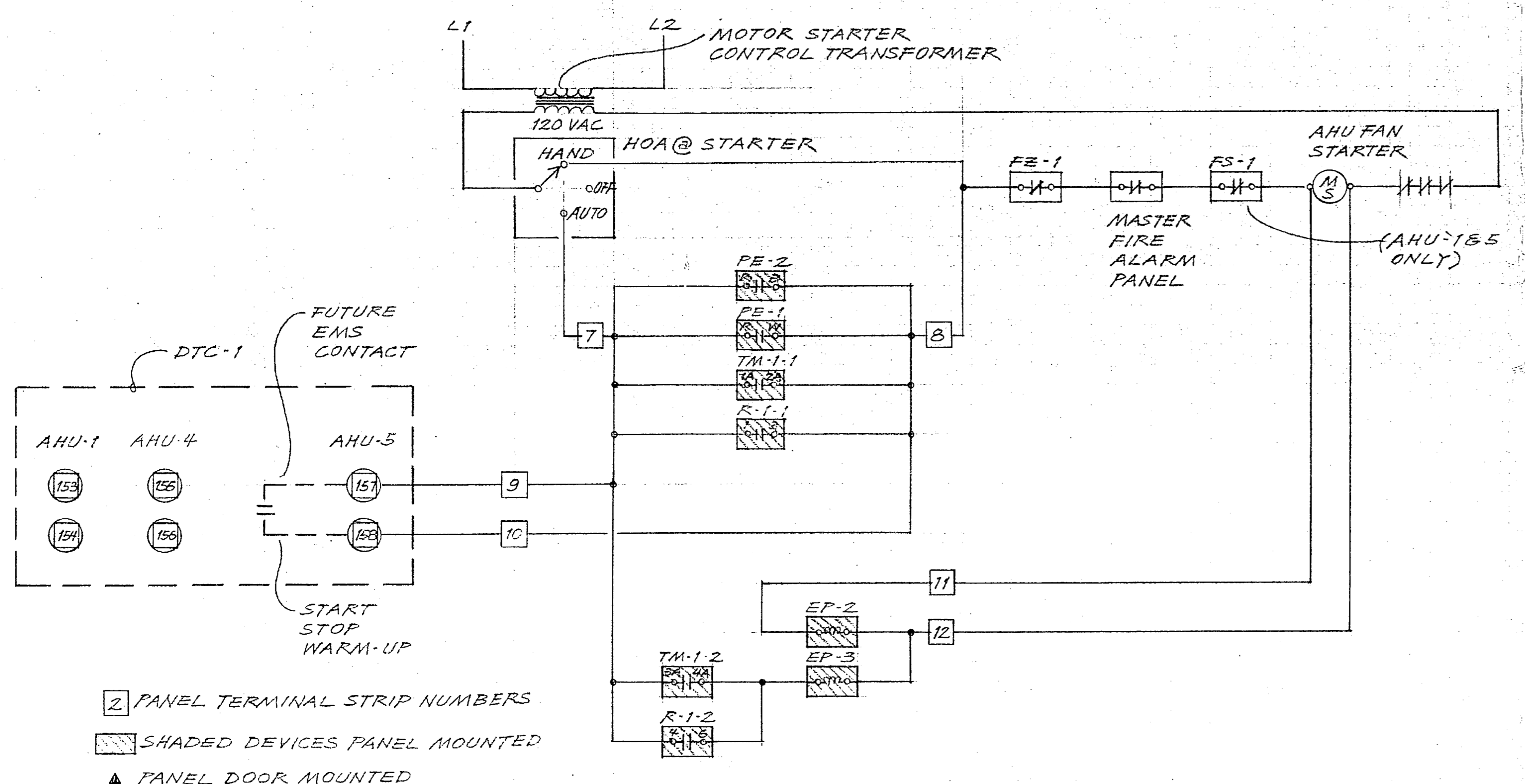
PRELIMINARY  
 NOT FOR CONSTRUCTION  
 SUBJECT TO APPROVAL  
 SEP 17 1992

C		SITS, SHARON ANITY RD. PHASICOTTE, N.C. 28711	
B		TANK/AUTO MAINT. FACILITY DUNCAN ST. & MAIN SERVICE RD. CAMP LEJEUNE, N.C.	
Revisions	Date	Appd.	
Supervised	Drawn By: W.R.W.	Date: 9-14-92	DRAWING 929-51618-1X1
Supervised By	Approved By:	Sheet 1 of 9	NUMBER



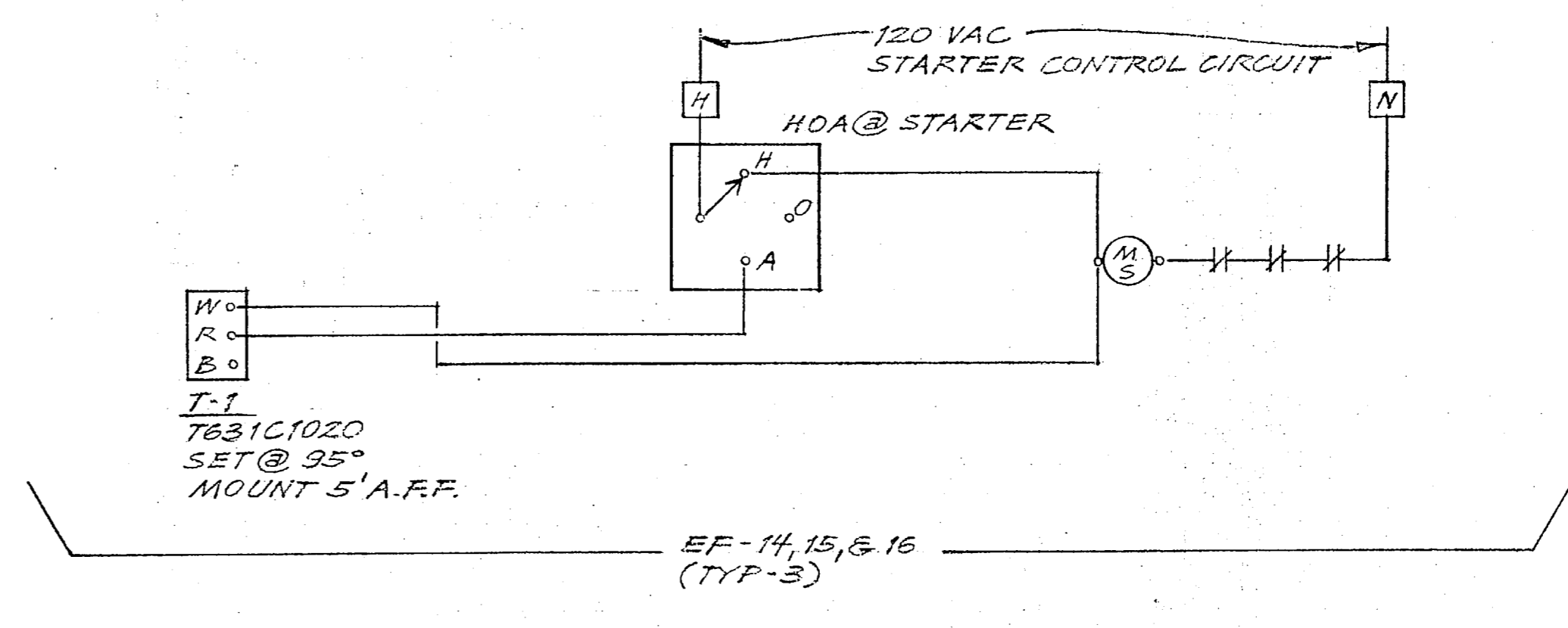
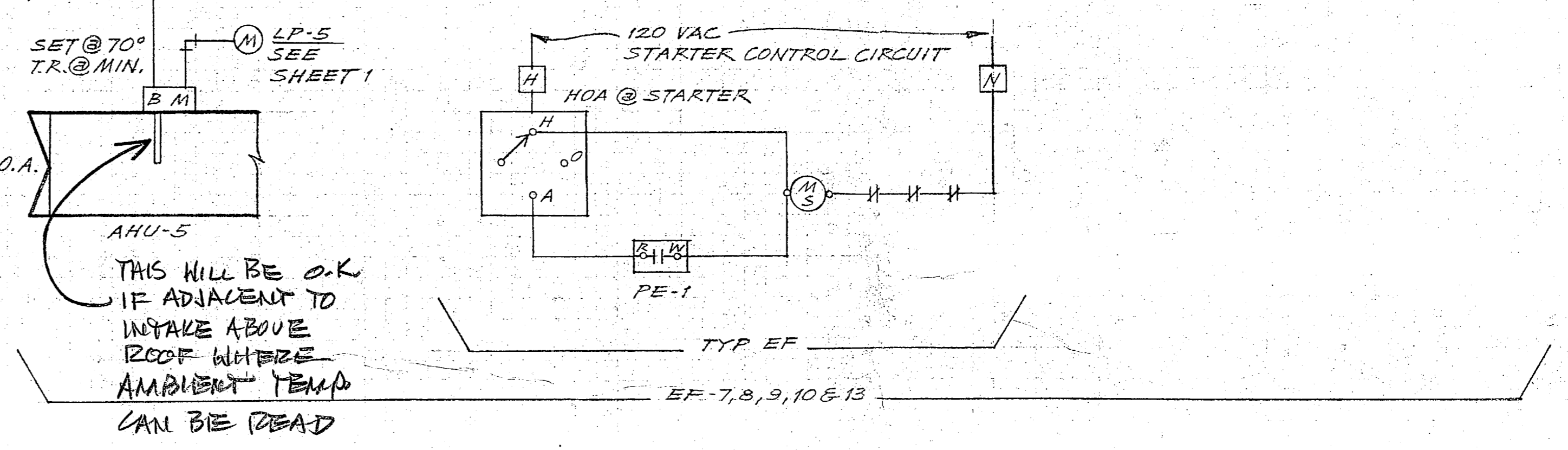
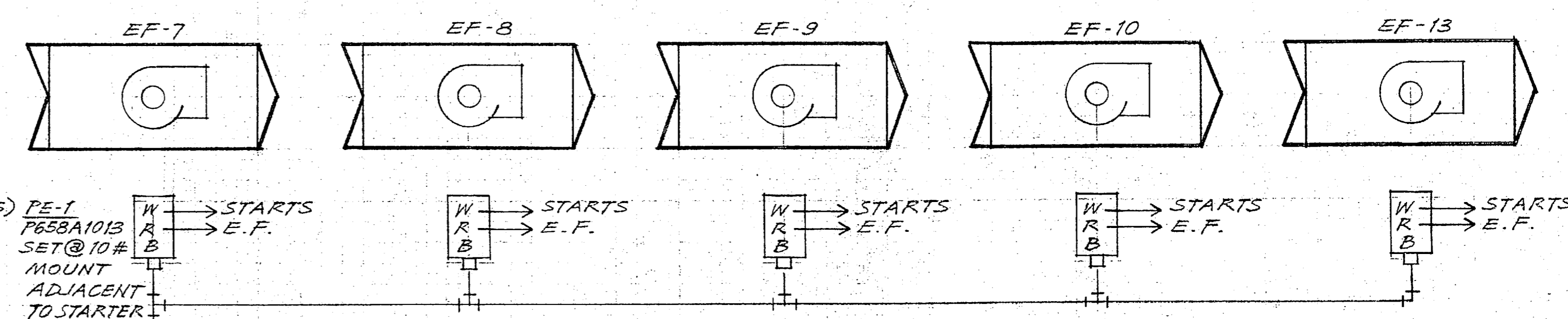


**SEQUENCE OF OPERATION**  
 Exhaust Fans: Exhaust fans #7, 8, 9, 10 & 13 shall be controlled with an outdoor thermostat with the bulb in the outside air set to start the fans above the preset condition. Exhaust fans #14, 15 & 16 shall be controlled with a wall mounted thermostat set to start the fans above the preset condition. All other exhaust fans will be controlled with manual starters.



2 PANEL TERMINAL STRIP NUMBERS  
 SHADED DEVICES PANEL MOUNTED  
 ▲ PANEL DOOR MOUNTED

AHU-1, 4 & 5 (TYP-3)

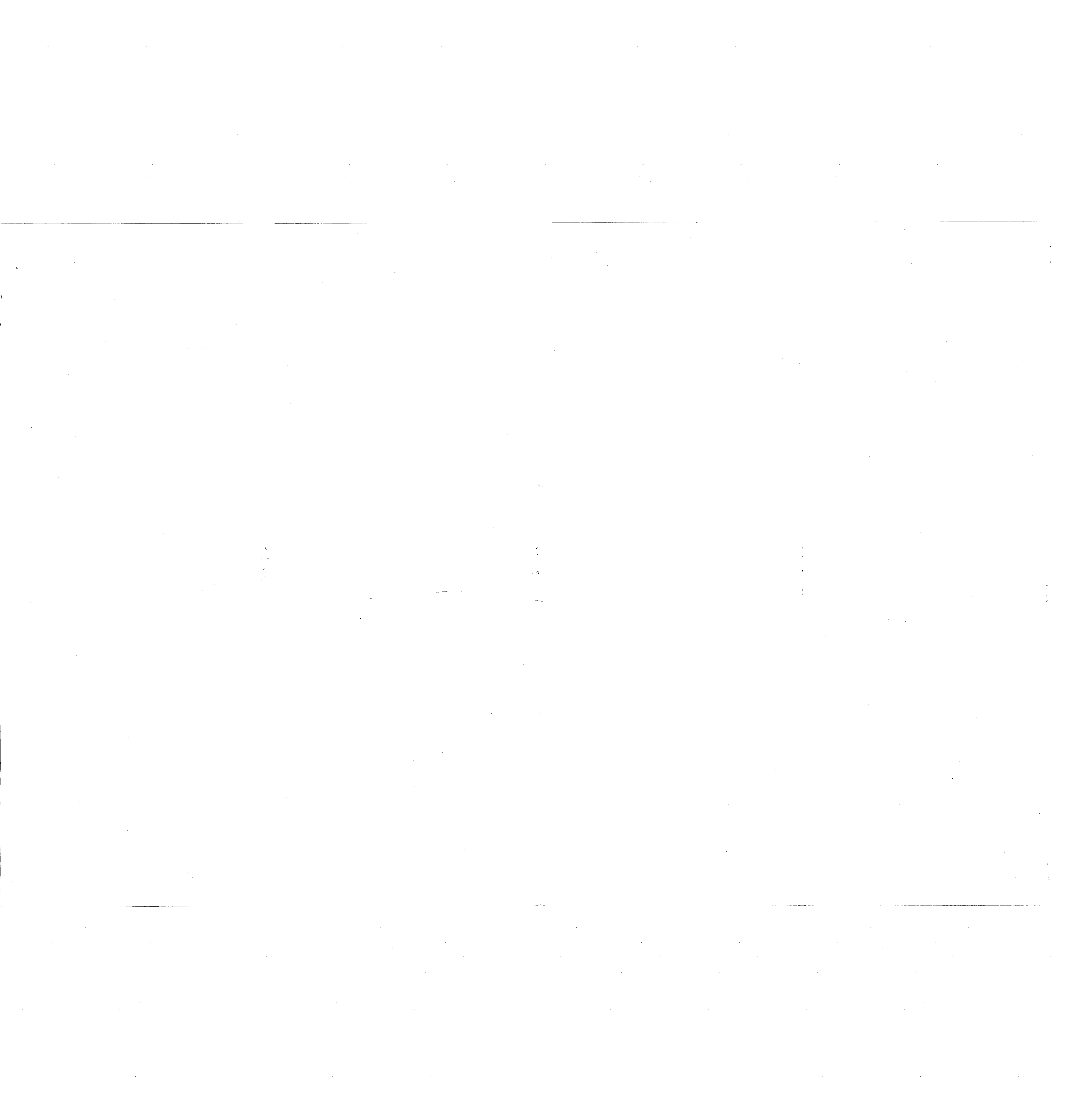


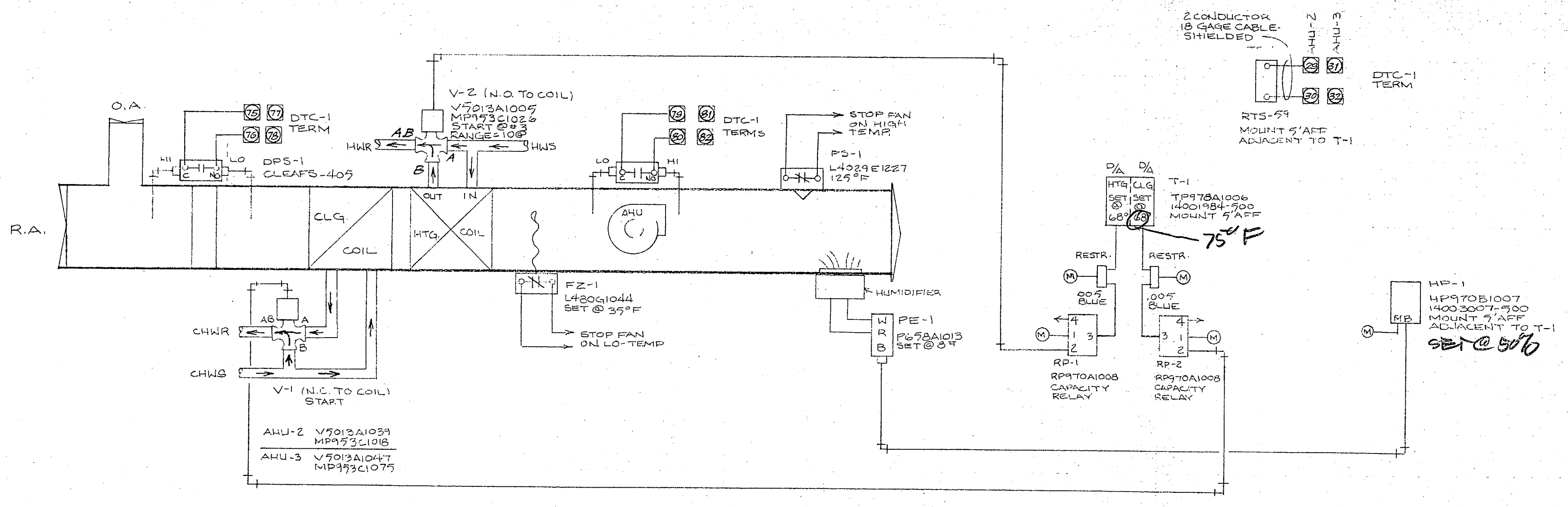
EF-14, 15, & 16 (TYP-3)

ARCHITECT: MBTB  
 ENGINEER: MBTB  
 CONTRACTOR: SNEEDEN CO.  
 APPLICATION ENGINEER: TOM WHITAKER

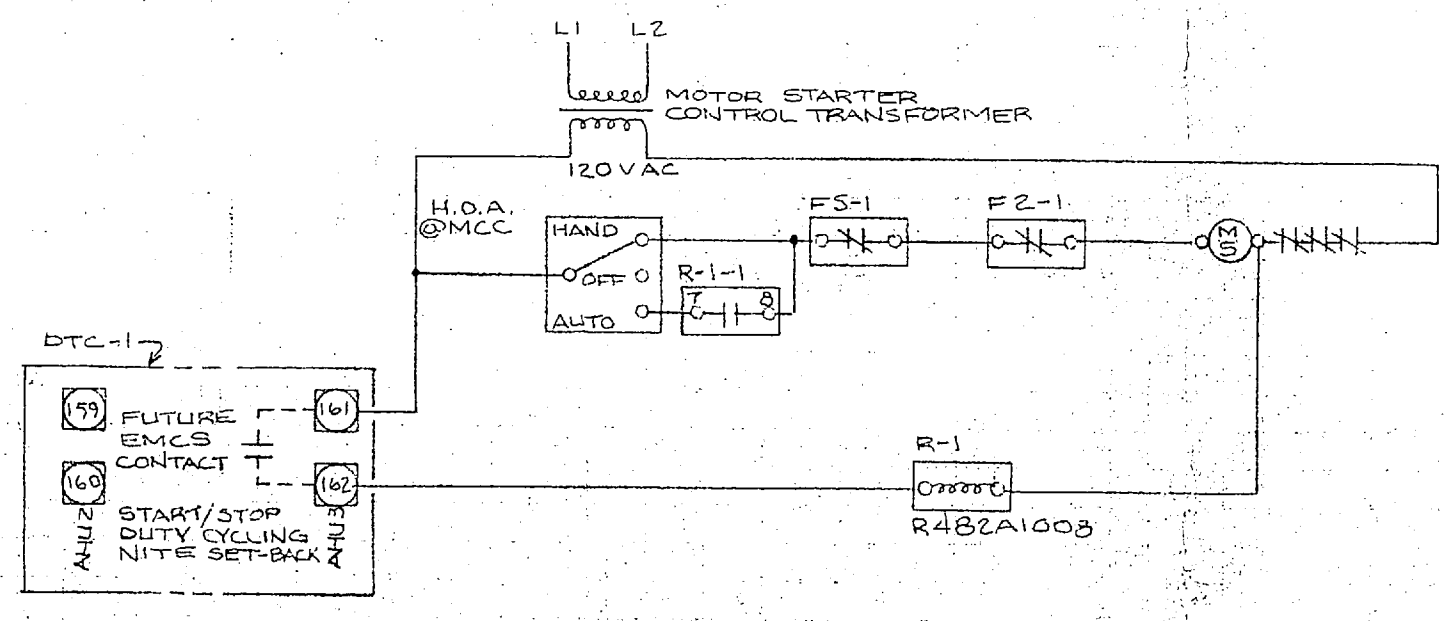
PRELIMINARY  
 NOT FOR CONSTRUCTION  
 SUBJECT TO APPROVAL  
 SEP 17 1982

HONEYWELL INC.			
517 S. SHARON ANITY RD. CHARLOTTE, N.C. 28211			
TANK/AUTO MAINT. FACILITY DUNCAN RD. & MAIN SERVICE RD. CAMP LEJEUNE, N.C.			
Revisions	Date	Appd.	Rev.
Superseded	Drawn By: H R W	Date: 9-15-82	DRAWING 939-81618-2X.I.
Superseded By	Approved By:	Sheet 2 Of 9	NUMBER

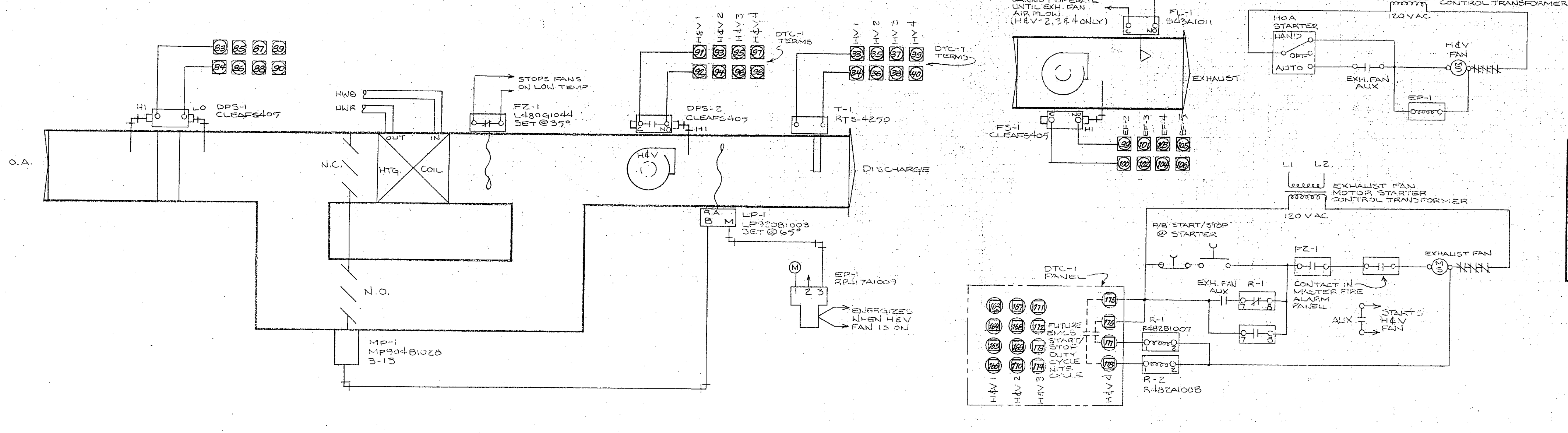




**SEQUENCE OF OPERATION**  
 AHU-2 & 3: For each unit, a combination heat/cool wall mounted thermostat shall modulate the three-way hot water or chilled water control valve to maintain space temperature at set conditions. For each unit, a wall mounted humidistat shall activate duct mounted atomizing type humidifiers to maintain set space humidity conditions. A freeze protection thermostat shall be provided on the leaving side of all hot water coils and shall stop the supply fan at a temperature of 35°F and below.



AHU-Z 4 & AHU-3  
(TYP-2)



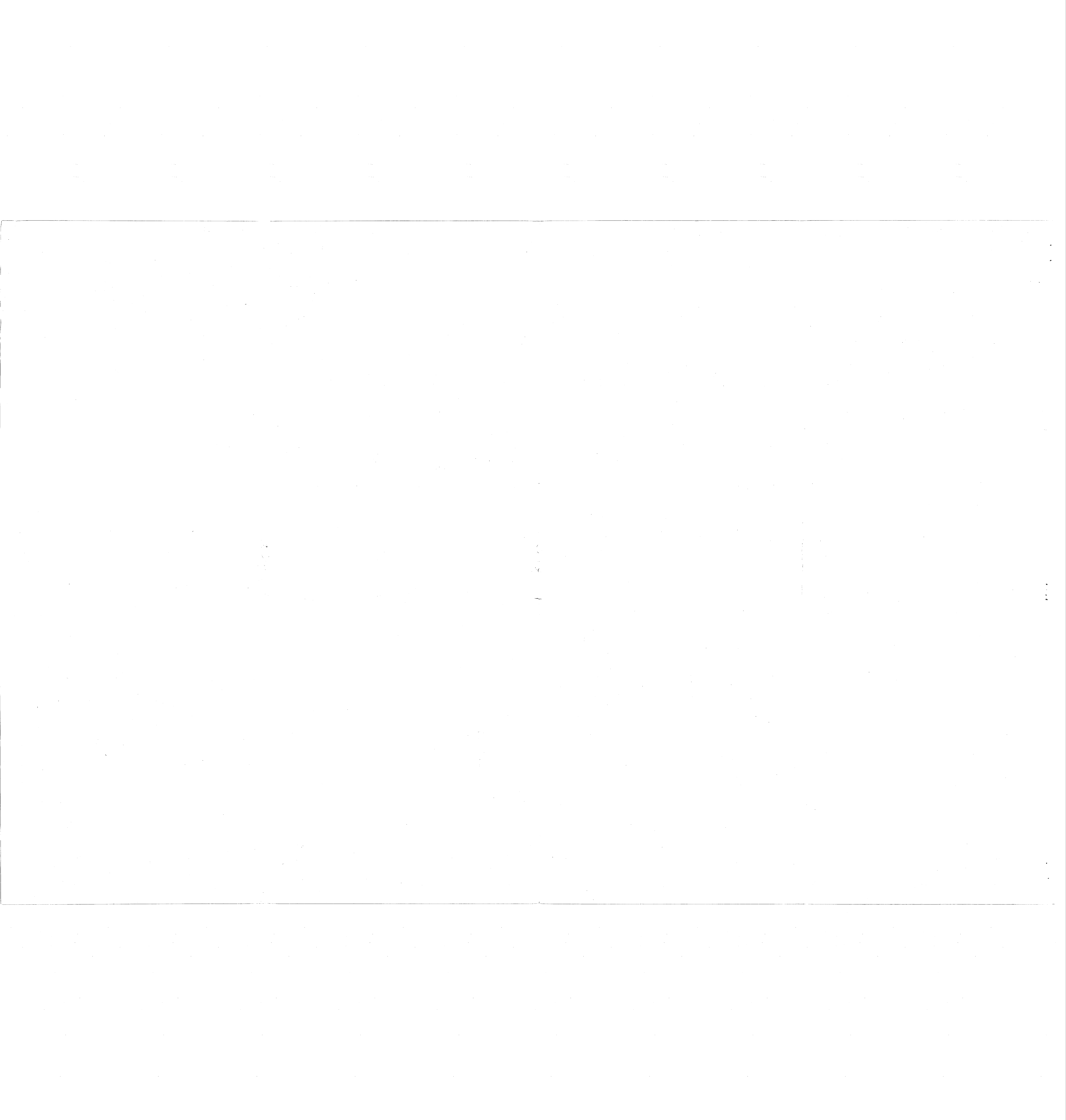
**SEQUENCE OF OPERATION**  
 Heating & Ventilating Units: Each heat and vent unit shall be interlocked to start when its respective exhaust fan is started. A duct mounted thermostat shall maintain the supply air temperature at the preset condition by modulating the heat and vent unit hot water coil face and bypass dampers. A freeze protection thermostat shall be provided on the leaving side of the hot water coils and shall stop the supply and exhaust fan at a temperature of 35°F and below. A fail switch shall be provided in the heat and vent unit discharge duct to deactivate the battery charger on a failure in air flow. Activation of the fire alarm system shall shut-off all air handling unit fans.

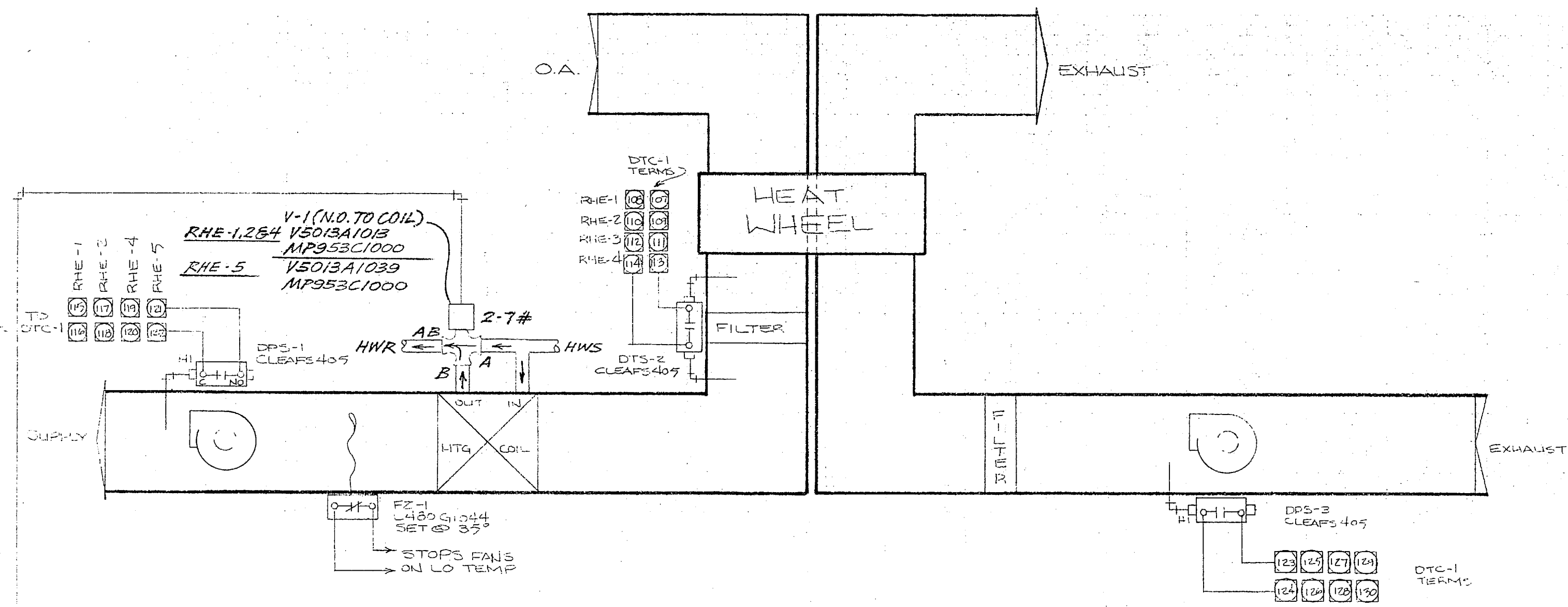
H&V UNITS  
(TYP-2)

ARCHITECT: MBTB  
 ENGINEER: MBTB  
 CONTRACTOR: SNEEDEN CO.  
 APPLICATION ENGINEER: TOM WHITAKER

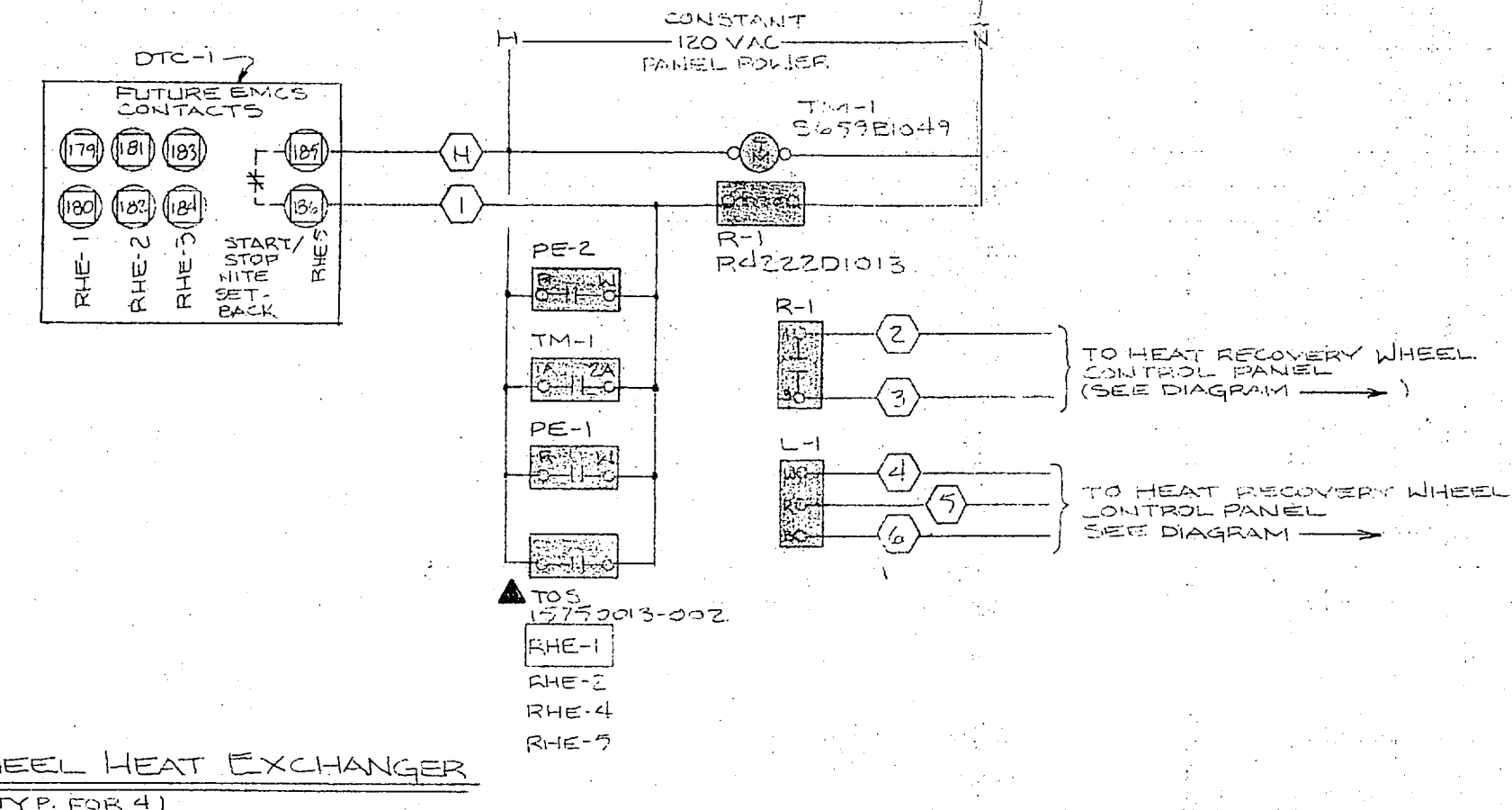
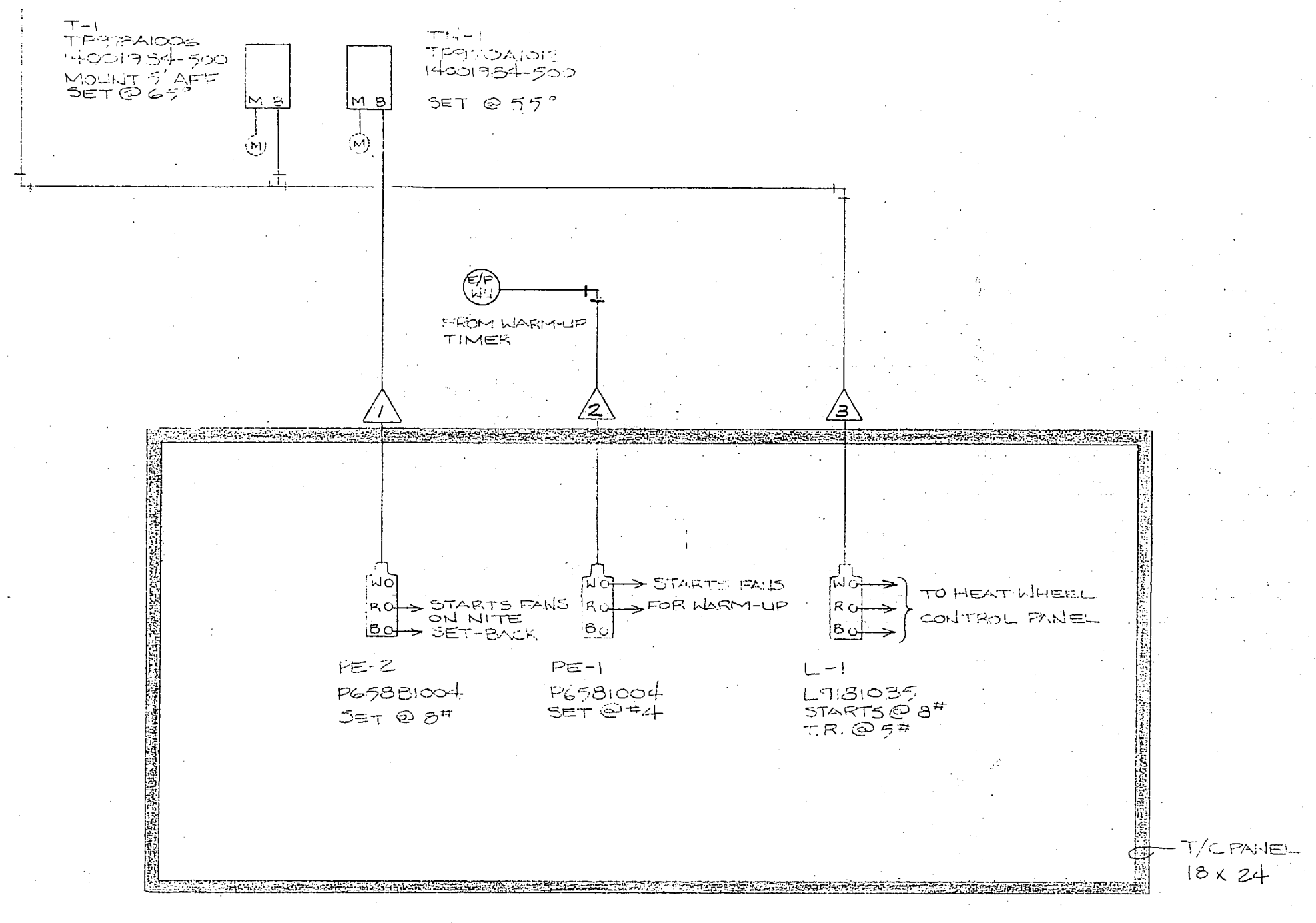
PRELIMINARY  
 NOT FOR CONSTRUCTION  
 SUBJECT TO APPROVAL  
 SEP 17 1982

HONEYWELL, INC.			
C			571 S. SHARON AMITY RD., CHARLOTTE, N.C. 28211
B			TANK/AUTO MAINT. FACILITY
A			DUNLAW ST. & MAIN SERVICE RD., CAMP LEJEUNE, N.C.
Revisions	Date	Appd.	
Supersedes	Drawn By: C.M.K.	Date: 9-16-82	Drawn No: 939-B1618-5X1
Superseded By	Approved By:	Sheet 3 Of 9	NUMBER

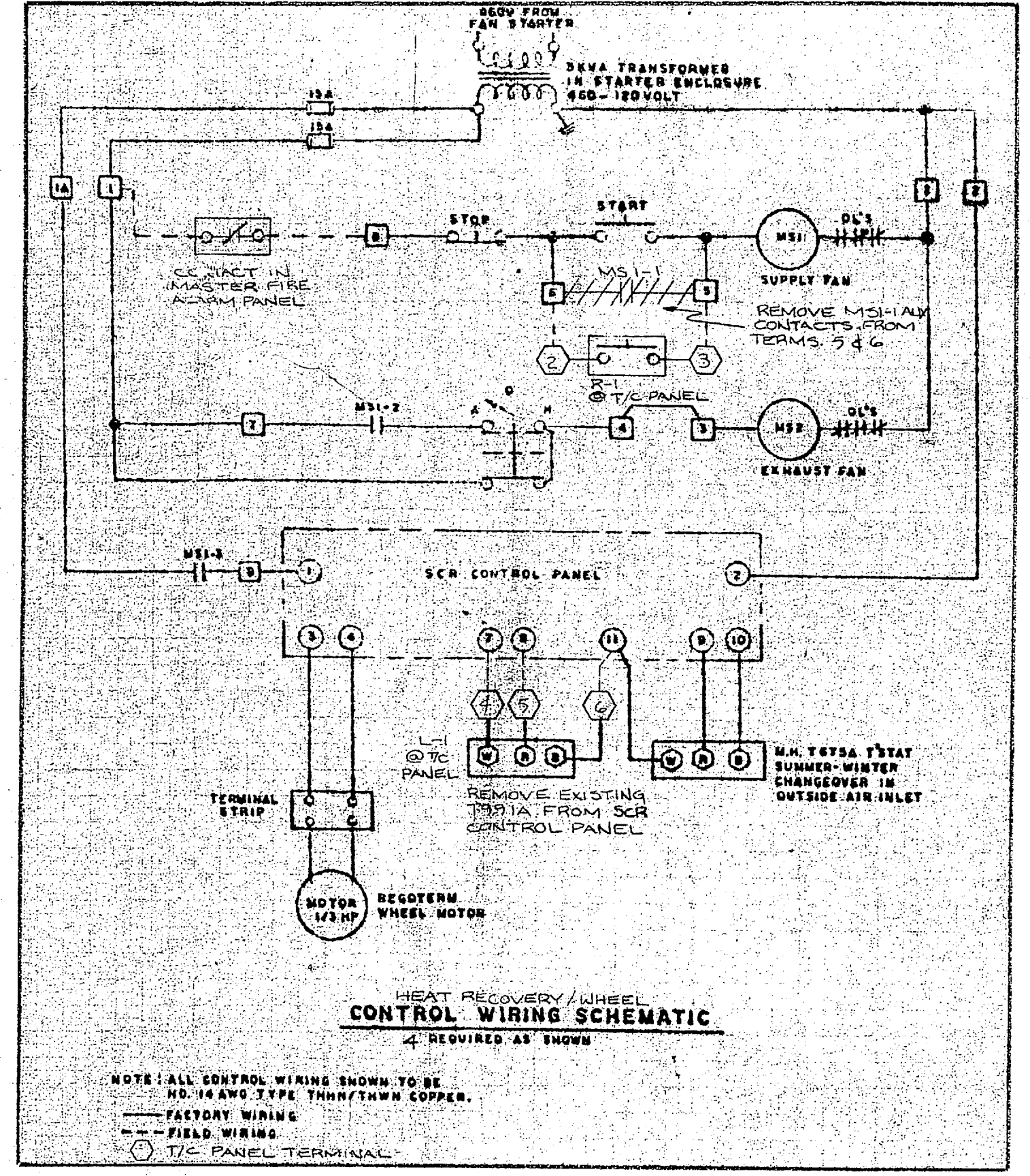




**SEQUENCE OF OPERATION**  
 Rotary Wheel Heat Exchanger RHE-1, 2, 4 & 5: For each rotary wheel heat exchanger, a heating wall mounted thermostat, through a variable speed controller provided with the unit, shall modulate the rotating speed of the heat exchanger wheel to maintain the space preset conditions. On a continued fall in space temperature below the set conditions, the thermostat shall modulate the three-way hot water valve open to maintain space preset conditions. On a rise in space temperature, the reverse shall occur. A time switch shall be provided and shall activate the rotary heat exchanger wheel, and supply and exhaust fans for daytime operation. The time switch shall switch the rotary wheel heat exchanger to night setback thermostat or weekend schedules programmed. An override switch shall override the time switch, night setback thermostat, or weekend schedule for up to six hours. A freeze protection thermostat shall be provided on the leaving side of all hot water coils and shall stop the supply and exhaust fan at a temperature of 35°F and below. Activation of the fire alarm system shall shut-off all rotary wheel heat exchanger fans.



**ROTARY WHEEL HEAT EXCHANGER**  
 (TYP. FOR 4)  
 RHE-1  
 RHE-2  
 RHE-4  
 RHE-5

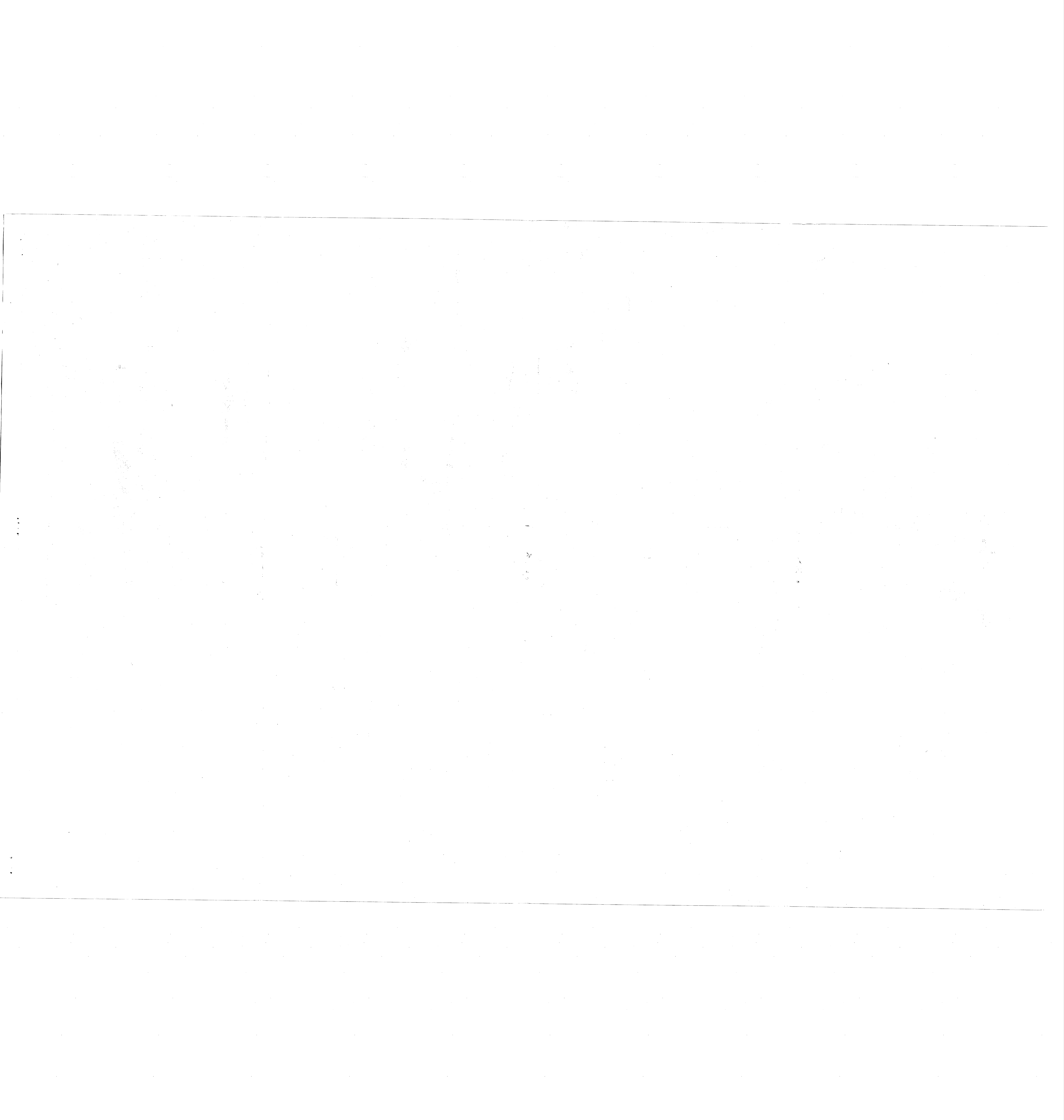


**LEGEND**  
 ▲ PANEL DOOR MNT.  
 ◻ SHADED AREA = FIELD MNTD DEVICE  
 ○ T/C PANEL TERMINALS  
 ○ DTC-1 TERM.

ARCHITECT: MBTB  
 ENGINEER: MBTB  
 CONTRACTOR: SKEEDEN CO.  
 APPLICATION ENGINEER: TOM WHITAKER

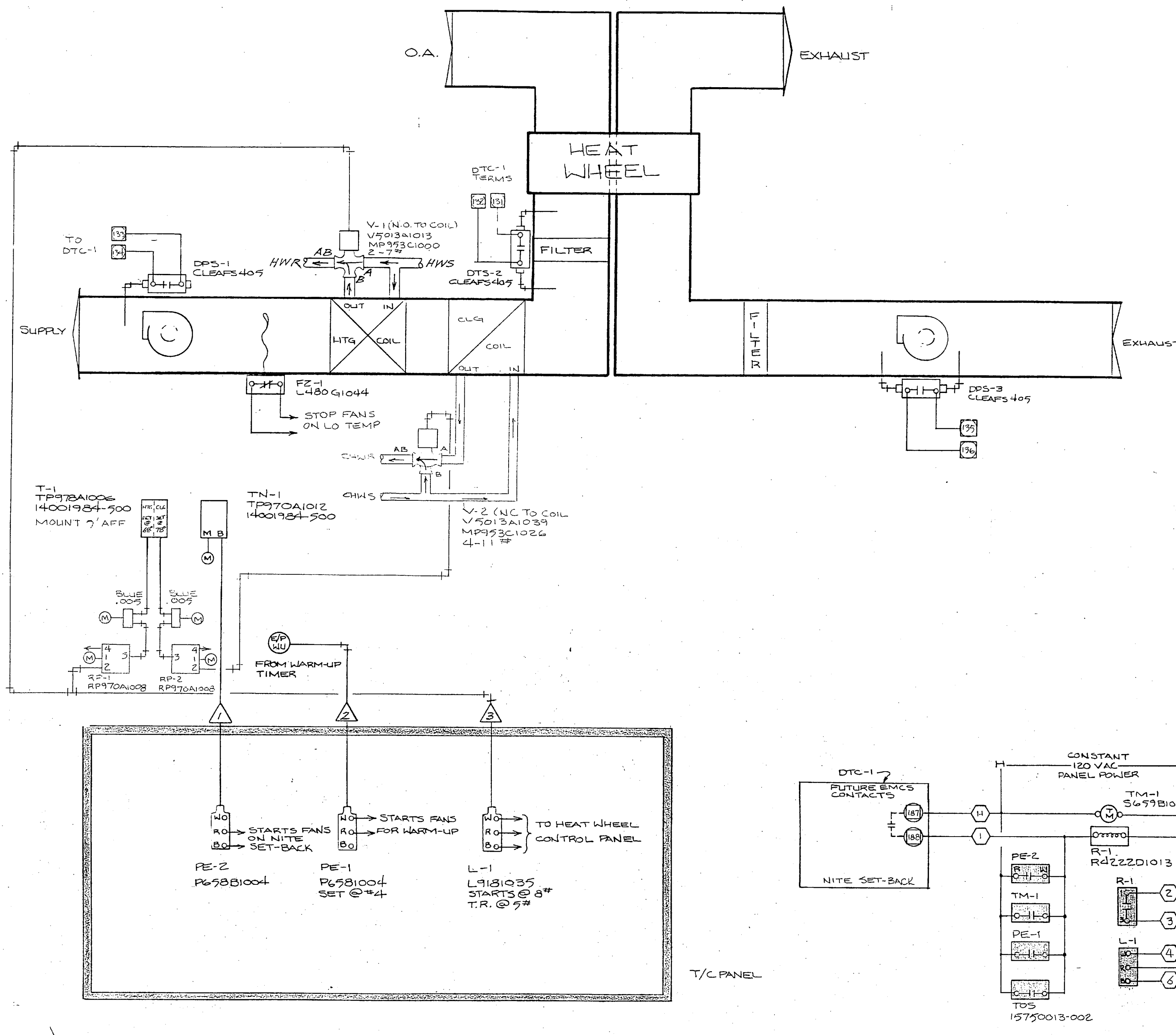
PRELIMINARY  
 NOT FOR CONSTRUCTION  
 SUBJECT TO APPROVAL  
 SEP 17 1982

C		HONEYWELL, INC.	
B		917 S. SHARON AVENUE, CHARLOTTE, NC	
A		TANK/AUTO MAIN FACILITY DUNLAN ST. & MAIN SERVICE RD. CAMP LEJEUNE, N. C.	
Revisions	Drawn By:	Date	Appd.
Supersedes	Approved By:	Date 3-14-82	Sheet 4 of 9
Superseded By			DRAWING NUMBER 939-81618-4 XI





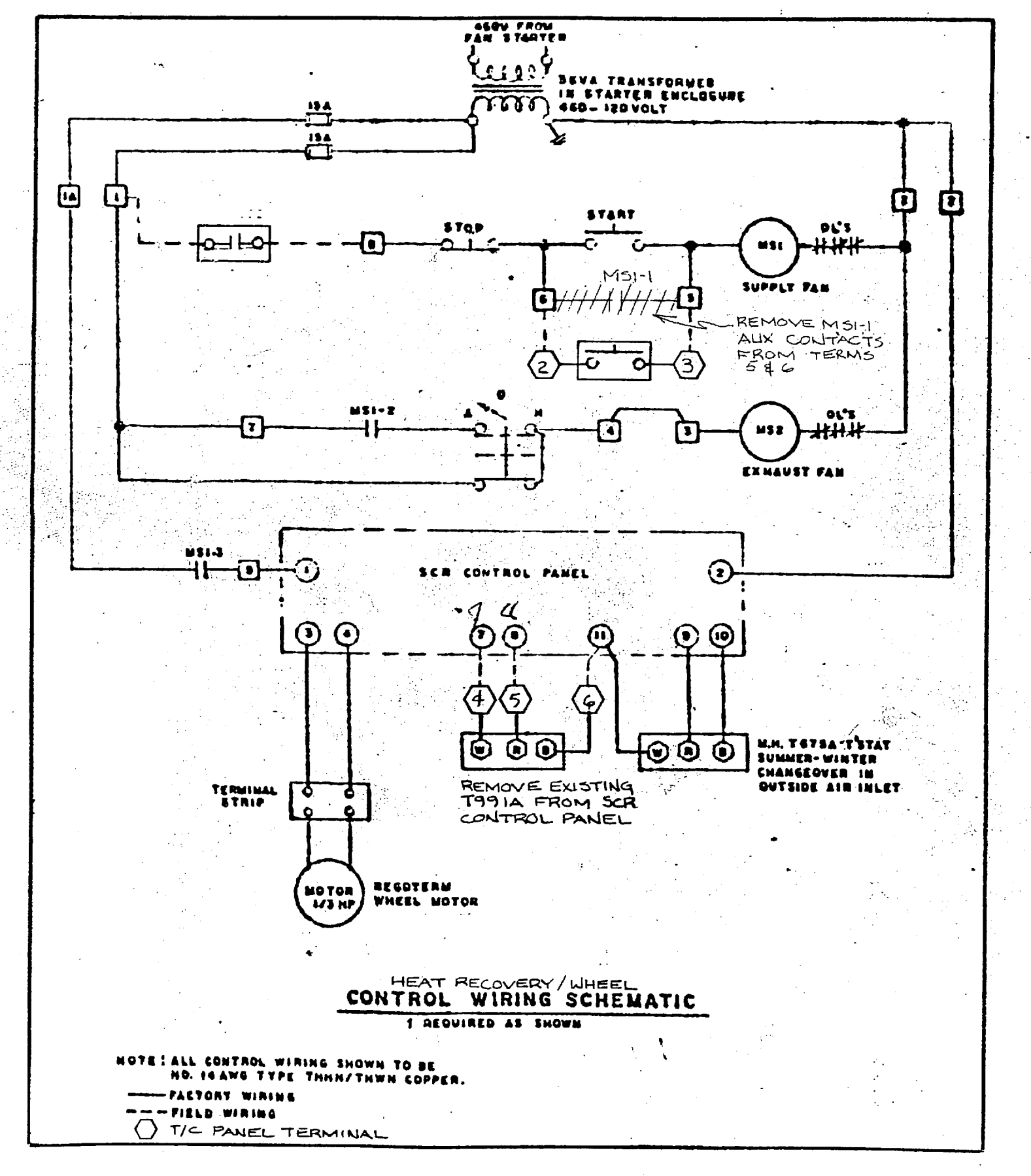
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21



ROTARY WHEEL HEAT EXCHANGER  
(TYP-1) RHE-3

**SEQUENCE OF OPERATION**  
 Rotary Wheel Heat Exchanger RHE-3: A combination heating/cooling wall mounted thermostat shall modulate the rotating speed of the heat exchanger wheel or modulate the three-way hot or chilled water valves to maintain the space pre-set conditions as follows: on a fall in space temperature, the rotating speed of the heat exchanger wheel shall be increased at maximum rotation and on a continued fall in space temperature, the three-way modulating hot water valve shall modulate open to maintain space conditions. On a rise in space temperature above space preset conditions, the rotating speed of the heat exchanger wheel shall be modulated. On a continued rise in space temperature, the three-way chilled water valve shall be modulated to the open position to maintain space pre-set conditions. A time switch shall be provided and shall switch the air handling units to the setback thermostat and the weekend schedule as programmed. An override switch shall override the time switch night setback thermostat or weekend schedule for any time up to six hours. A freeze protection thermostat shall be provided on the leaving side of all hot water coils and shall stop the supply fan at a temperature of 35°F and below. Activation of the fire alarm system shall shut-off all rotary wheel heat exchanger fans.

SHOULD READ SAME AS  
FOR RHE-1, 2, 4 & 5



HEAT RECOVERY WHEEL  
CONTROL WIRING SCHEMATIC  
1 REQUIRED AS SHOWN

**NOTE:** ALL CONTROL WIRING SHOWN TO BE NO. 18 AWG TYPE THHN/THWN COPPER.  
 - - - FACTORY WIRING  
 - - - FIELD WIRING  
 ○ T/C PANEL TERMINAL

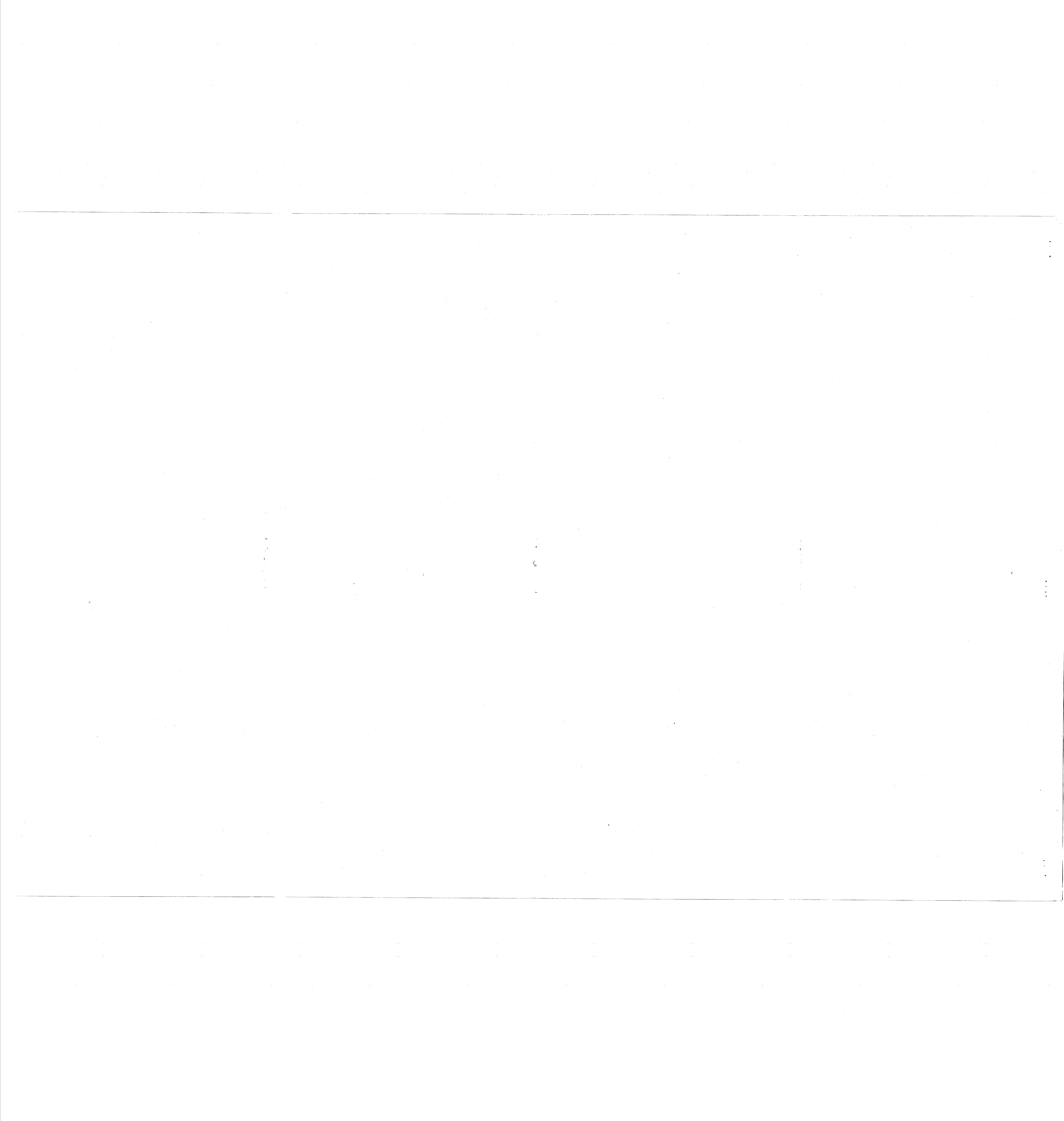
**LEGEND**  
 ▲ PANEL DOOR MNT.  
 ▭ SHADED AREAS = PANEL MNTD DEVICE  
 ○ T/C PANEL TERMINALS  
 ○ DTC-1 TERM

ARCHITECT: MBTB  
 ENGINEER: MBTB  
 CONTRACTOR: SNEEDEN CO.  
 APPLICATION ENGINEER: TOM WHITAKER

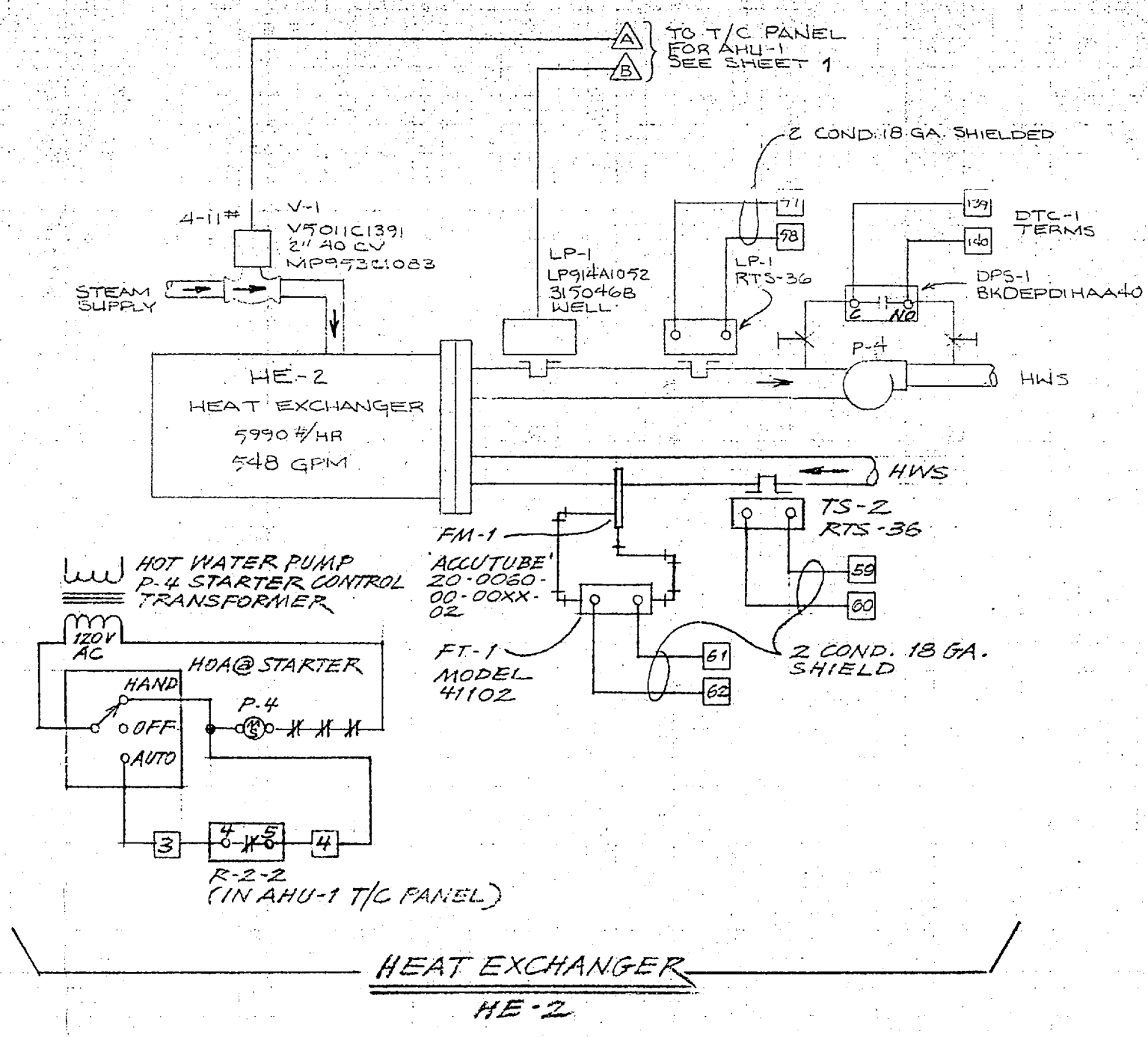
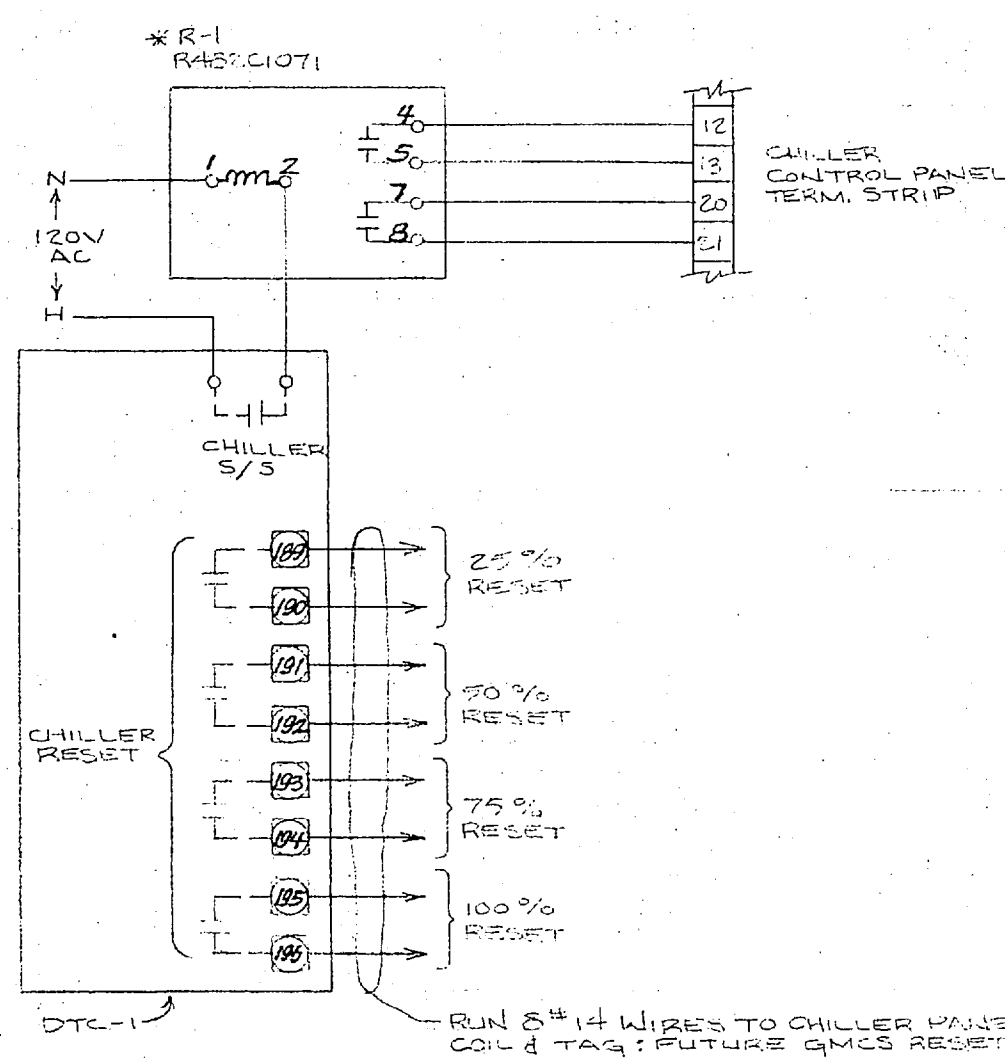
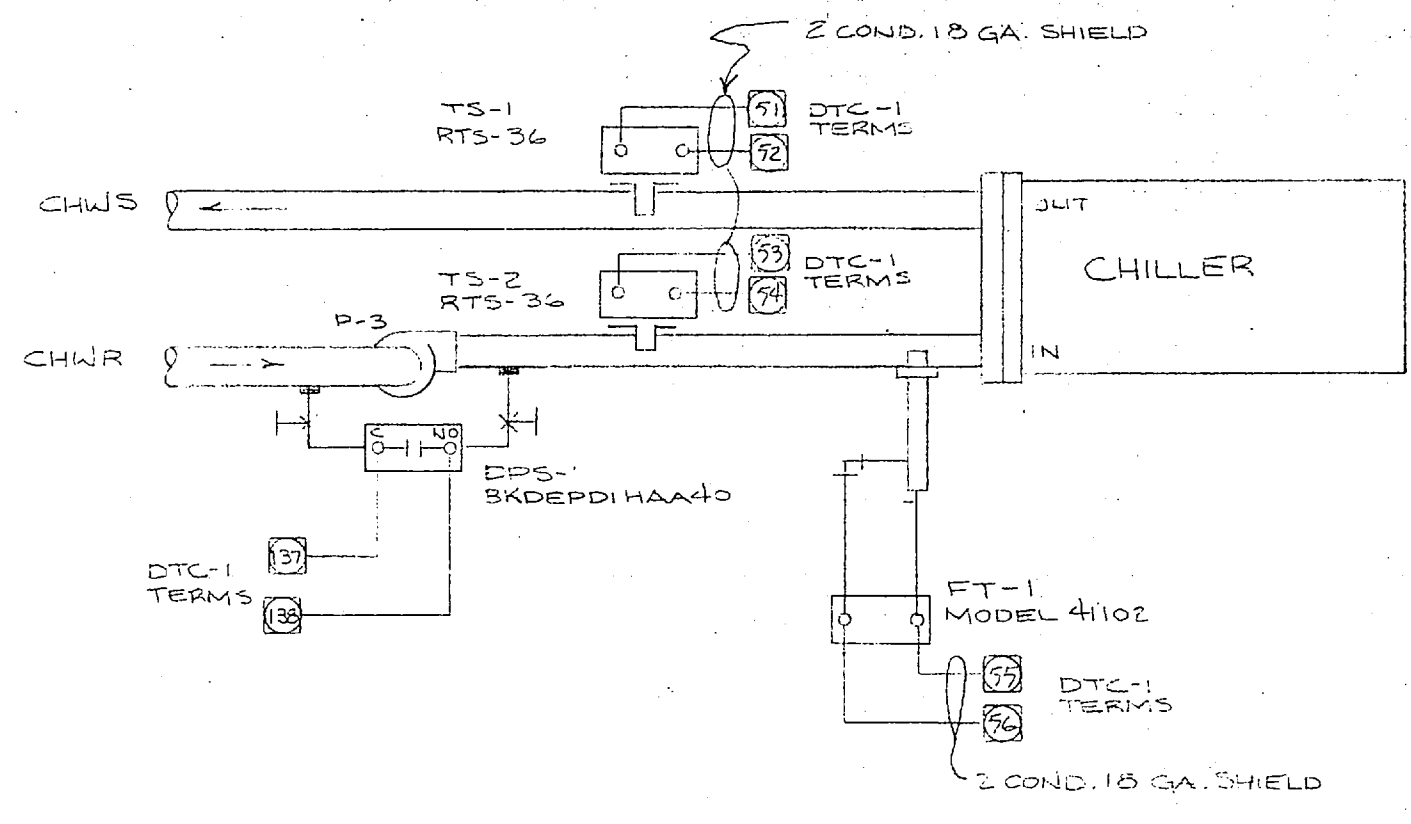
PRELIMINARY  
 NOT FOR CONSTRUCTION  
 SUBJECT TO APPROVAL  
 SEP 17 1982

HONEYWELL, INC.			
C			717 S. SHARON AMITY RD. CHARLOTTE NC
B			TANK / AUTO MAIN FACILITY
A			DUNCAN ST. & MAIN SERVICE RD. CAMP LEJEUNE N.C.
Revisions	Date	Appd.	
Supersedes	Drawn By: CEM	Date: 9-14-82	DRAWING NUMBER: 939-81618-5X1
Superseded By	Approved By:	Sheet 5 OF 9	Rev.

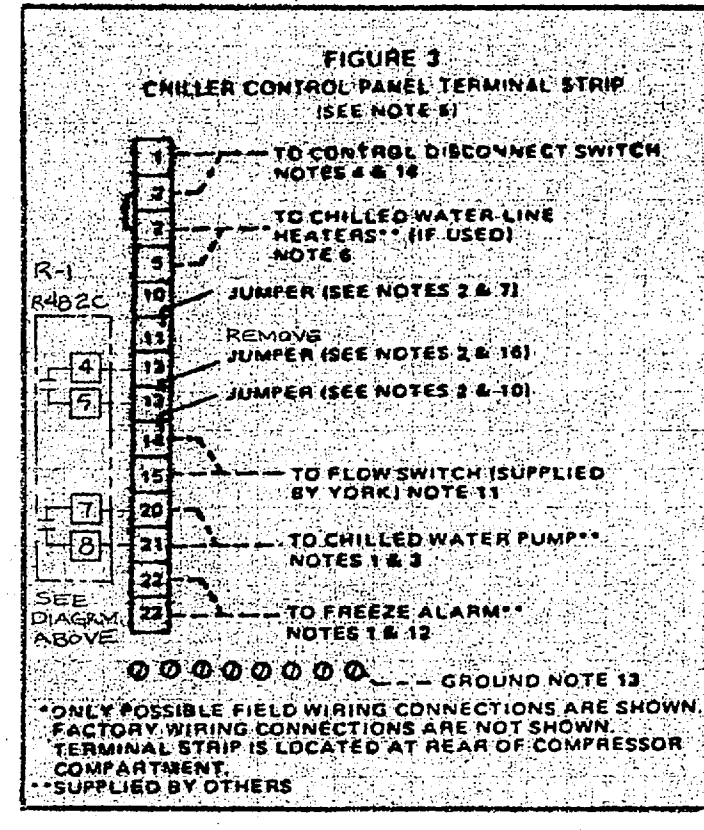
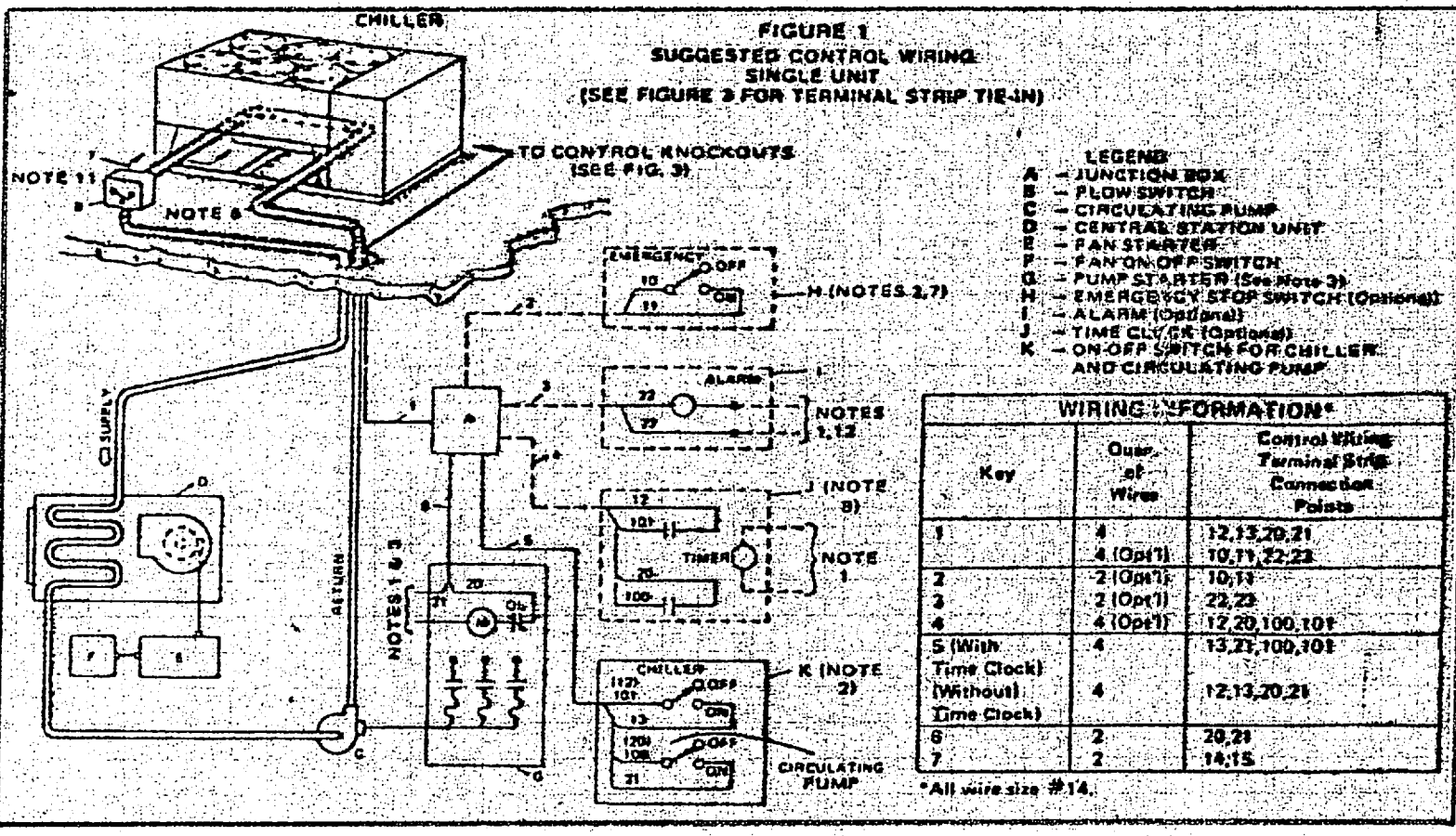
81-288-012



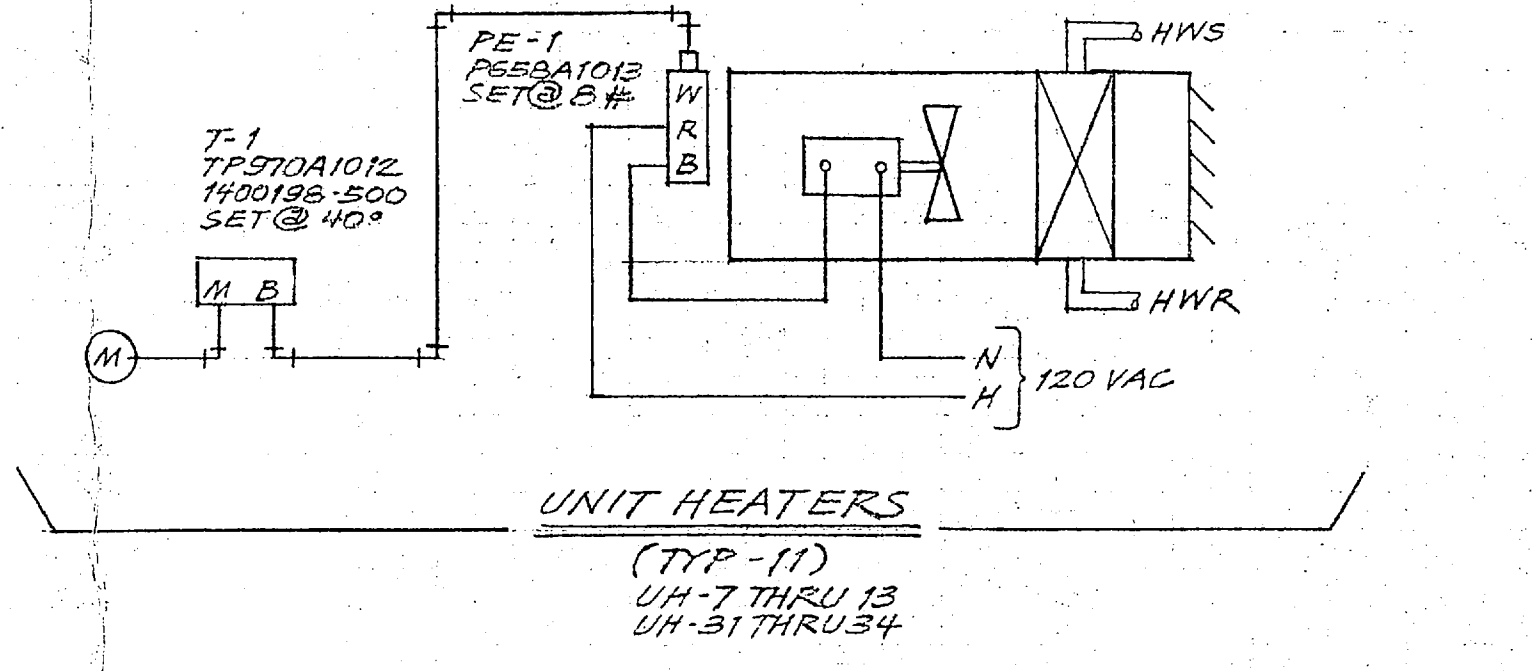
**SEQUENCE OF OPERATION**  
 Chiller: The chiller shall be activated with a manual control. The chilled water pump shall be interlocked to run with the chiller. The leaving chilled water temperature shall be maintained with packaged controls provided with the chiller. A flow switch shall deactivate the chiller on a failure in water flow.



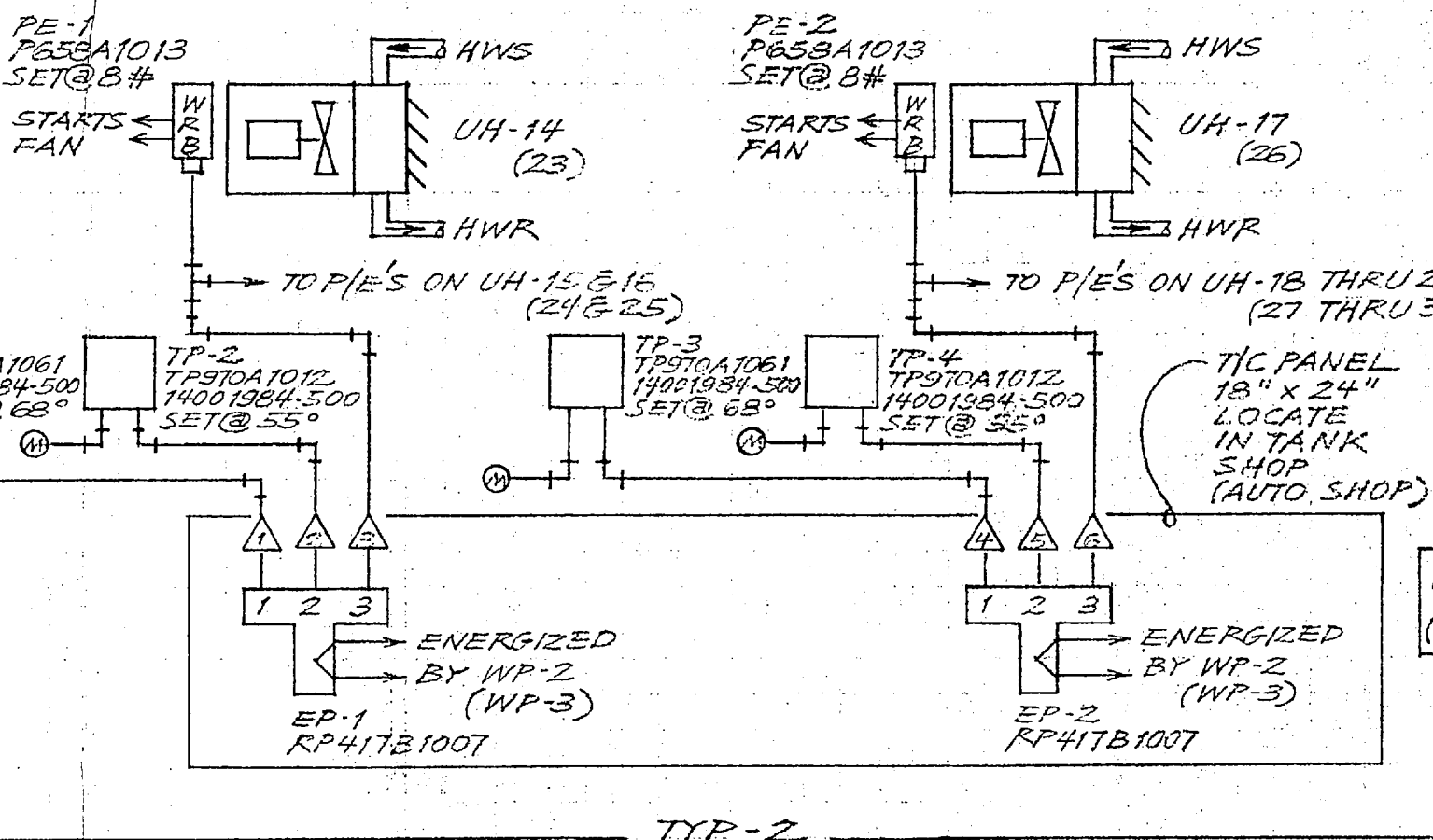
**SEQUENCE OF OPERATION**  
 Heat Exchanger - Tank/Auto: An outdoor thermostat shall activate steam valve. Leaving hot water shall be maintained by modulating the steam supply valve. The steam valve shall be modulated through a sub-master thermostat, with remote bulb located in the heat exchanger leaving hot water. The hot water temperature shall be reset by outdoor air temperature. The hot water pump shall be manually activated.



**SEQUENCE OF OPERATION**  
 Unit Heaters Numbers 17 thru 13 and 31 thru 34: Wall mounted thermostats shall cycle the unit heater fans to maintain space conditions.



**SEQUENCE OF OPERATION**  
 Unit Heaters Numbers 14 thru 16, 17 thru 22, 23 thru 25 and 26 thru 30: Wall mounted thermostats shall cycle the unit heater fans to maintain space conditions during working hours. A time switch shall be provided and shall switch the unit heaters to rise setback and the weekend schedule as programmed.



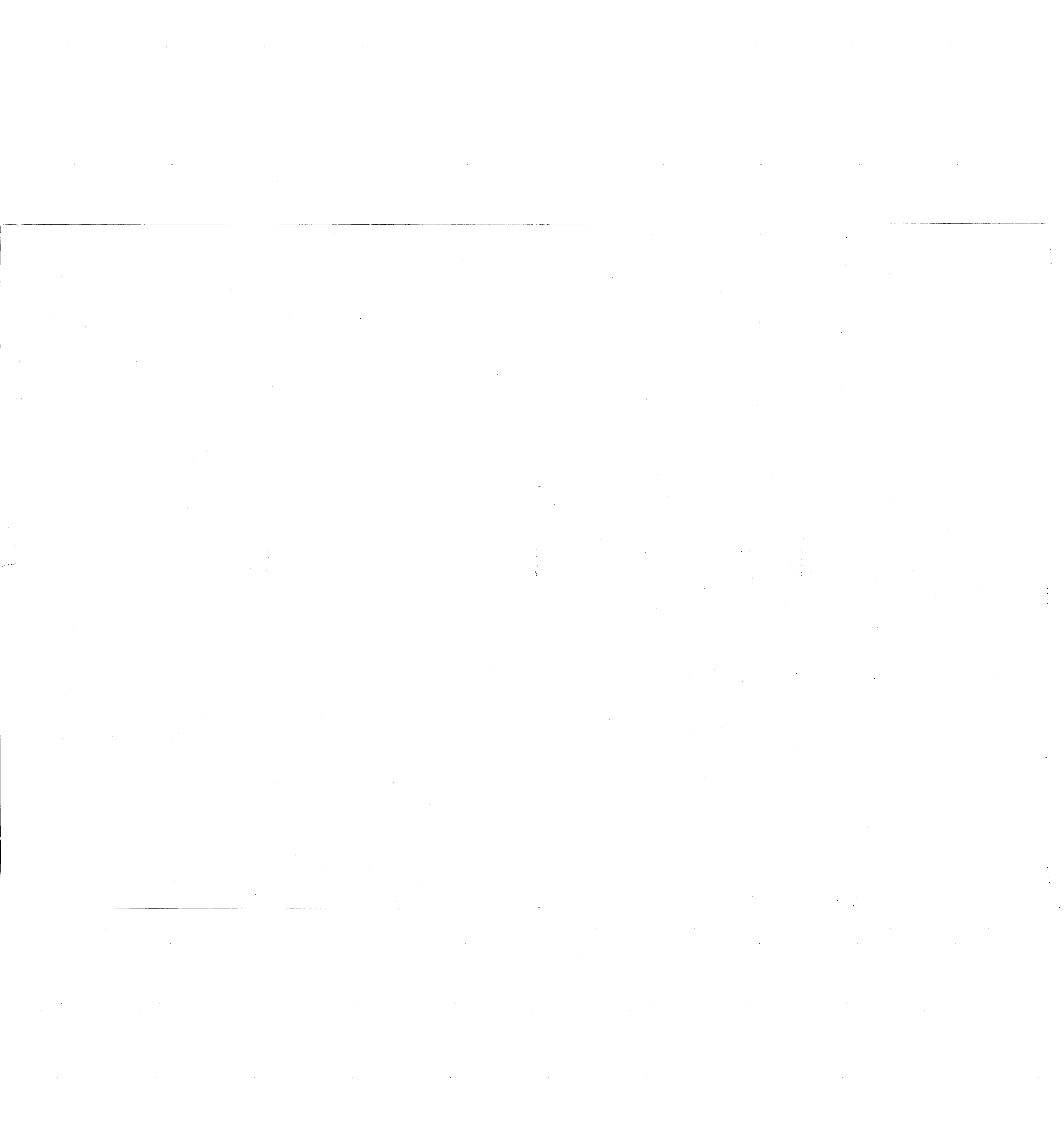
- NOTES:**
- Control Power 250 VA @ 120/20 volt @ maximum
  - Devices must have a minimum rating of 100VA at 115 volts A.C.
  - Chilled water pump starting circuit limited between terminals 20 and 21.
  - Control and Main power electrical shall be displayed on Form 100 as prescribed to this drawing (A) and (B).
  - Field wiring to be in accordance with the N.E.C. as well as all other applicable codes and specifications.
  - Up to 500 watts maximum of chilled water flow freeze protection heaters may be installed. For installation refer to heater in excess of 500 watts may be installed, an appropriate separately listed device must be used and terminals 2 and 3 used as intended in order to operate.
  - If an optional field supplied emergency stop switch is supplied, it must be wired in between terminals 10 and 11. This will stop the unit without shutdown. If an emergency stop switch is not used, emergency stop switch jumper bar install.
  - The emergency stop switch shall be on and off at all times hours of the day. It shall be wired with the contacts when obtain emergency stop switch in order to stop on-off switch contacts.
  - When an optional York dual unit stand-up kit is installed in the inverted between terminals 2, 12 and 14. If it is not used, a factory installed jumper bar shall be used between terminals 2 and 12.
  - The flow switch is provided by York (Y) and is not used.
  - The flow switch is optional for others.
  - Ground control panel in field.
  - External contact for automatically cycling unit on and off. These contacts will stop the unit with no provisions. If a reset is not used install factory installed jumper bar instead.
  - Device from factory required & original wiring to be done in the field.
  - Use correct transformer for field mounting.

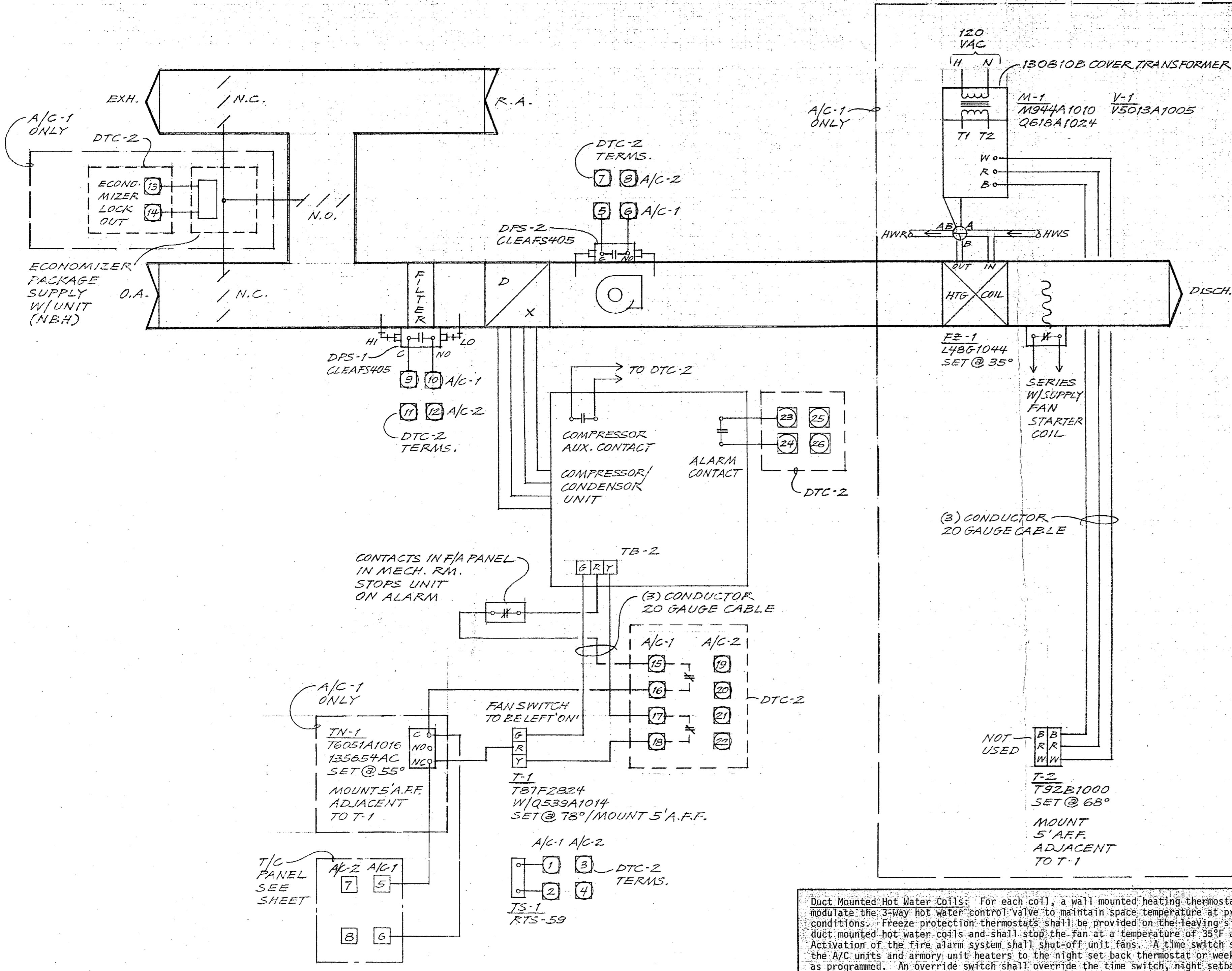
CHILLER

ARCHITECT: MBTB  
 ENGINEER: MBTB  
 CONTRACTOR: SNEEDEN CO.  
 APPLICATION ENGINEER: TOM WHITAKER

PRELIMINARY  
 NOT FOR CONSTRUCTION  
 SUBJECT TO APPROVAL  
 SEP 17 1982

C		HONEYWELL, INC.	
B		517 S. SHARON AMITY RD.	
A		CHARLOTTE, N.C. 28211	
Revisions		Date	Appd.
Superseded	Drawn By: H.R.W.	Date: 9-16-82	NUMBER
Superseded By	Approved By:	Sheet 6 Of 9	DRAWING 939-81618-6XC





SEQUENCE OF OPERATION  
 A/C-2: A cooling wall mounted thermostat shall cycle the compressor(s) as required to maintain the space temperature during the cooling cycle. A time switch shall switch the unit to weekend schedule as programmed. An override switch shall override the time switch for any time up to six hours.

SEQUENCE OF OPERATION  
 A/C-1: A cooling wall mounted thermostat shall cycle the compressor(s) as required to maintain the space temperature during the cooling cycle or shall control the economizer cycle control package provided with the unit to maintain space temperature at pre-set conditions.

Duct Mounted Hot Water Coils: For each coil, a wall mounted heating thermostat shall modulate the 3-way hot water control valve to maintain space temperature at present conditions. Freeze protection thermostats shall be provided on the leaving side of all duct mounted hot water coils and shall stop the fan at a temperature of 35°F and below. Activation of the fire alarm system shall shut-off unit fans. A time switch shall switch the A/C units and armory unit heaters to the night set back thermostat or weekend schedule as programmed. An override switch shall override the time switch, night setback thermostat, or weekend schedule for any time up to six hours.

PROVIDE W/ OUTSIDE AIR COMPENSATION TO REDUCE WARM-UP TIME

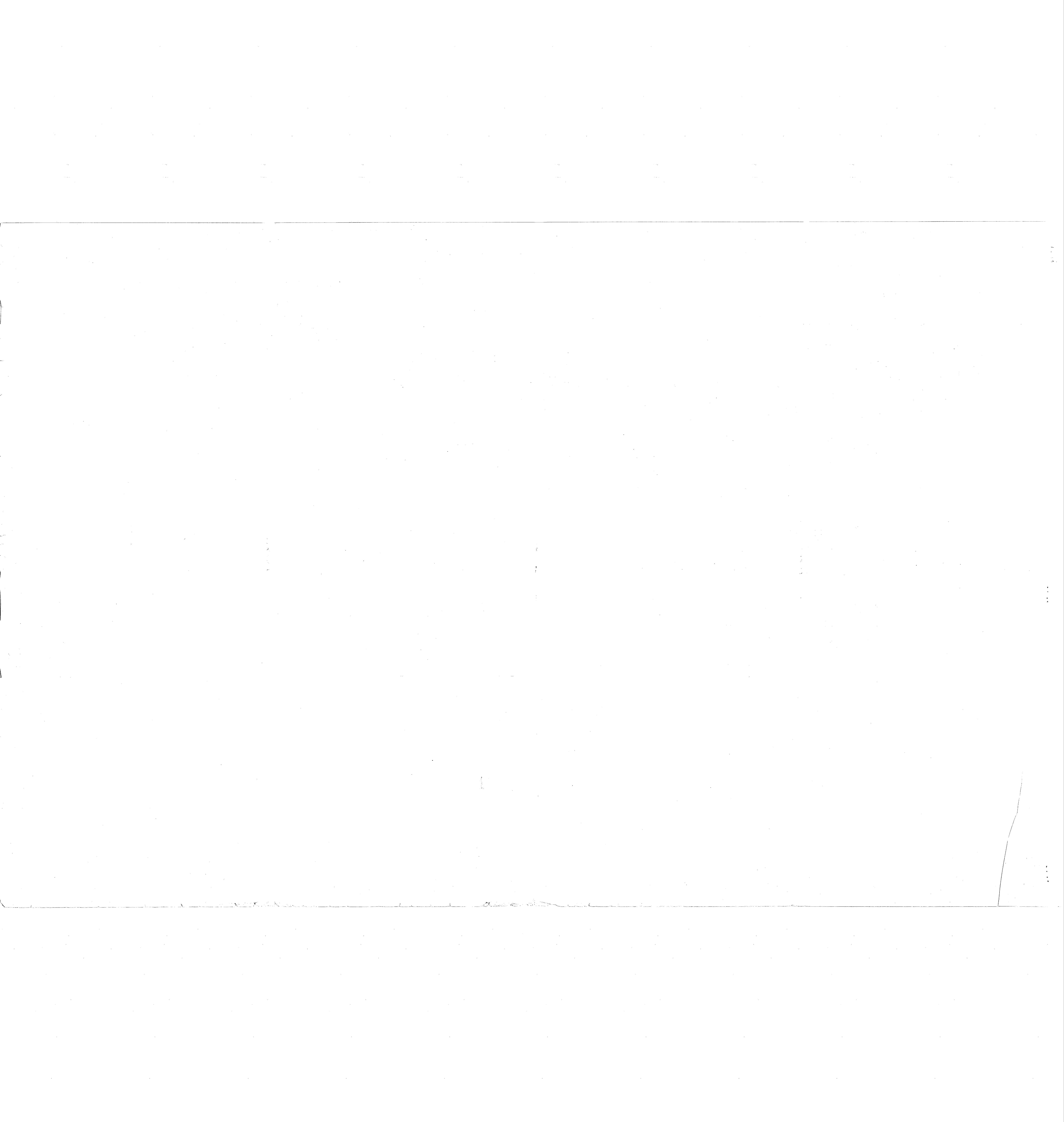
A/C 1 & 2  
 READY ISSUE

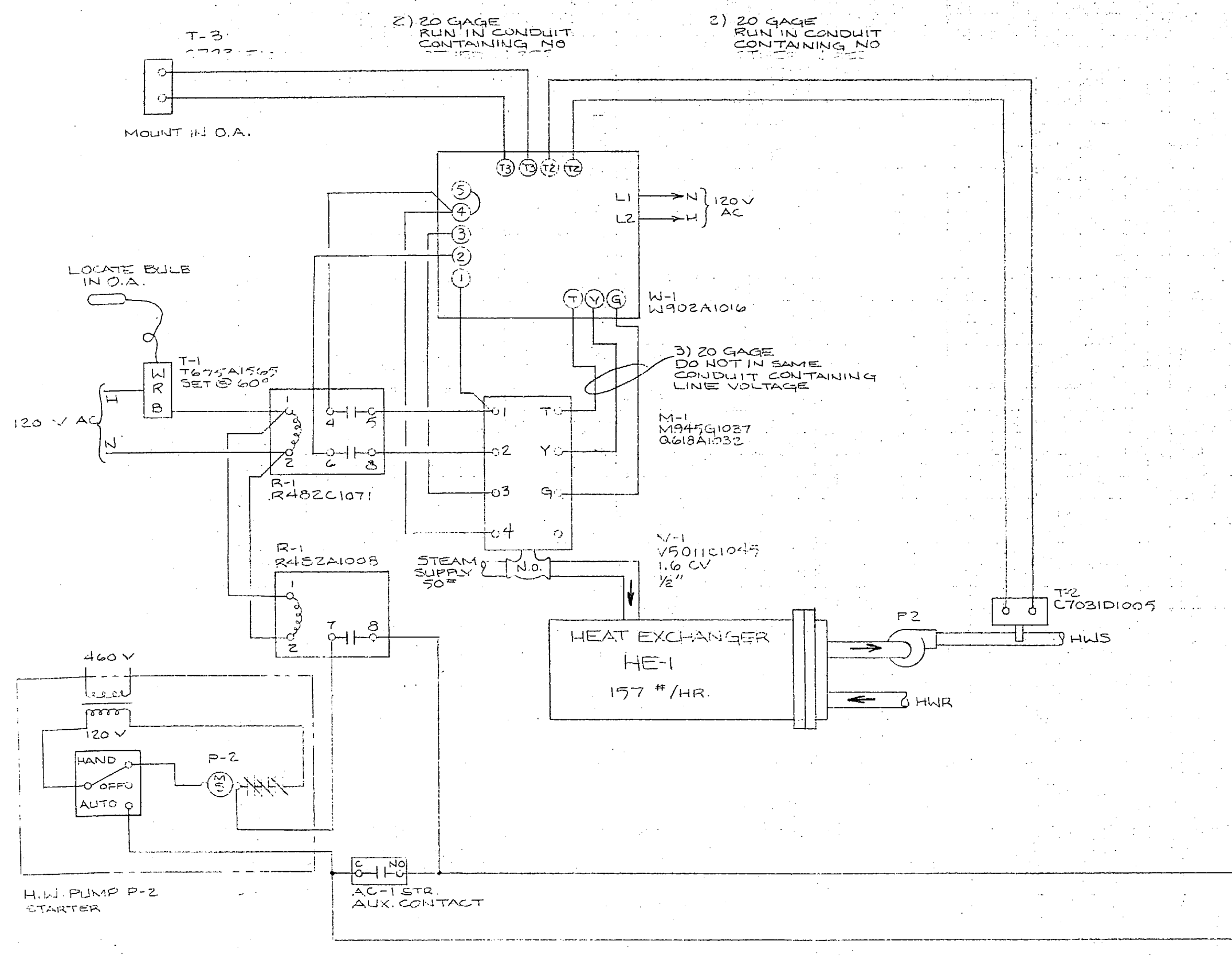
ARCHITECT: MBTB  
 ENGINEER: MBTB  
 CONTRACTOR: SNEEDEN CO.  
 APPLICATION ENGINEER: TOM WHITAKER

PRELIMINARY  
 NOT FOR CONSTRUCTION  
 SUBJECT TO APPROVAL

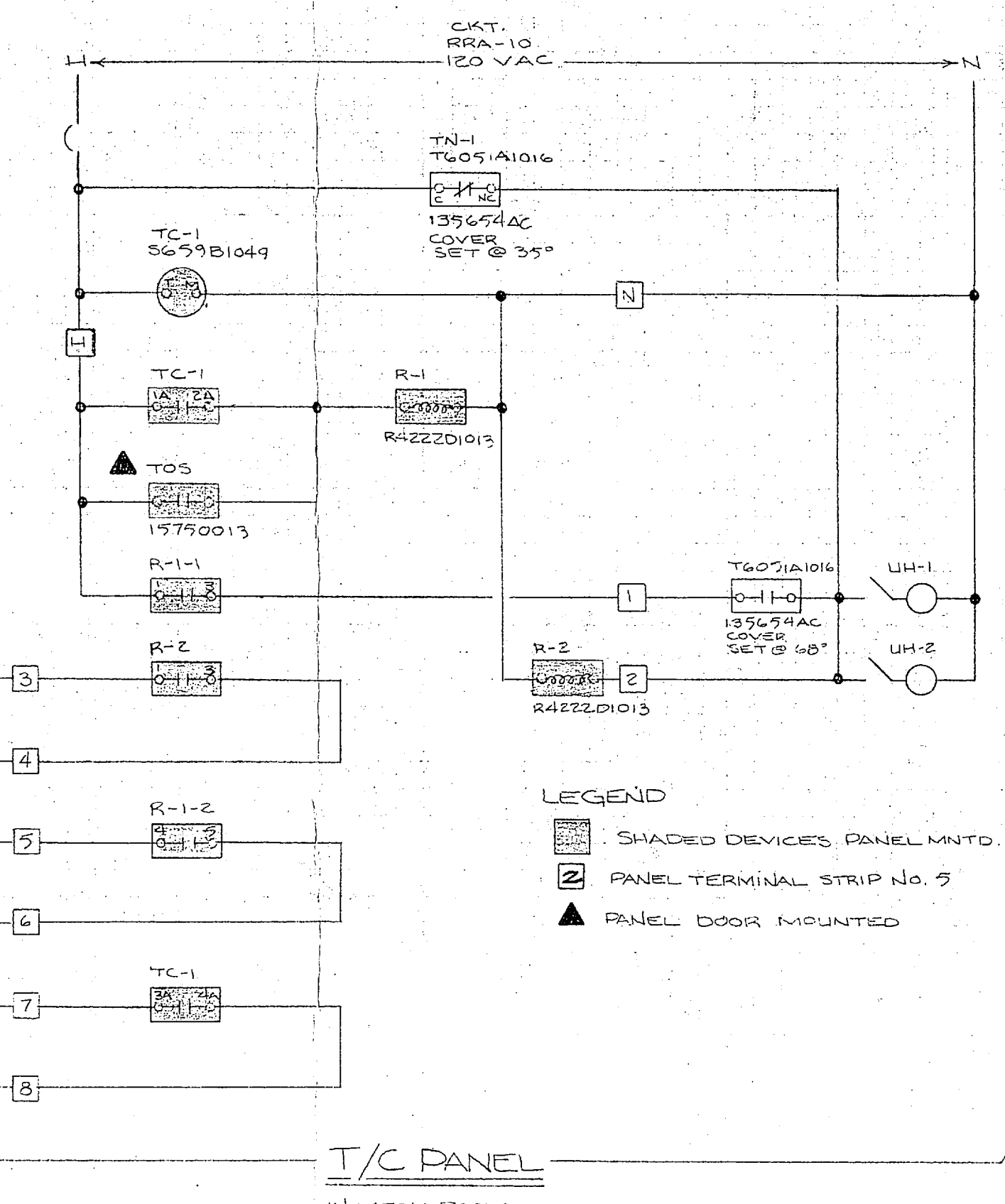
SEP 17 1982

HONEYWELL, INC.			
C			5775 SHARON AMITY RD. CHARLOTTE, N.C. 28211
B			TANK/AUTO MAINT FACILITY
A			DUNCAN ST. & MAIN SERVICE RD. CAMP LEJEUNE, N.C.
Revisions	Date	Appd.	
Supersedes	Drawn By: H.R.W.	Date: 9-15-82	DRAWING NUMBER 999-81618-7X1
Superseded By	Approved By:	Sheet 7 Of 9	Rev.

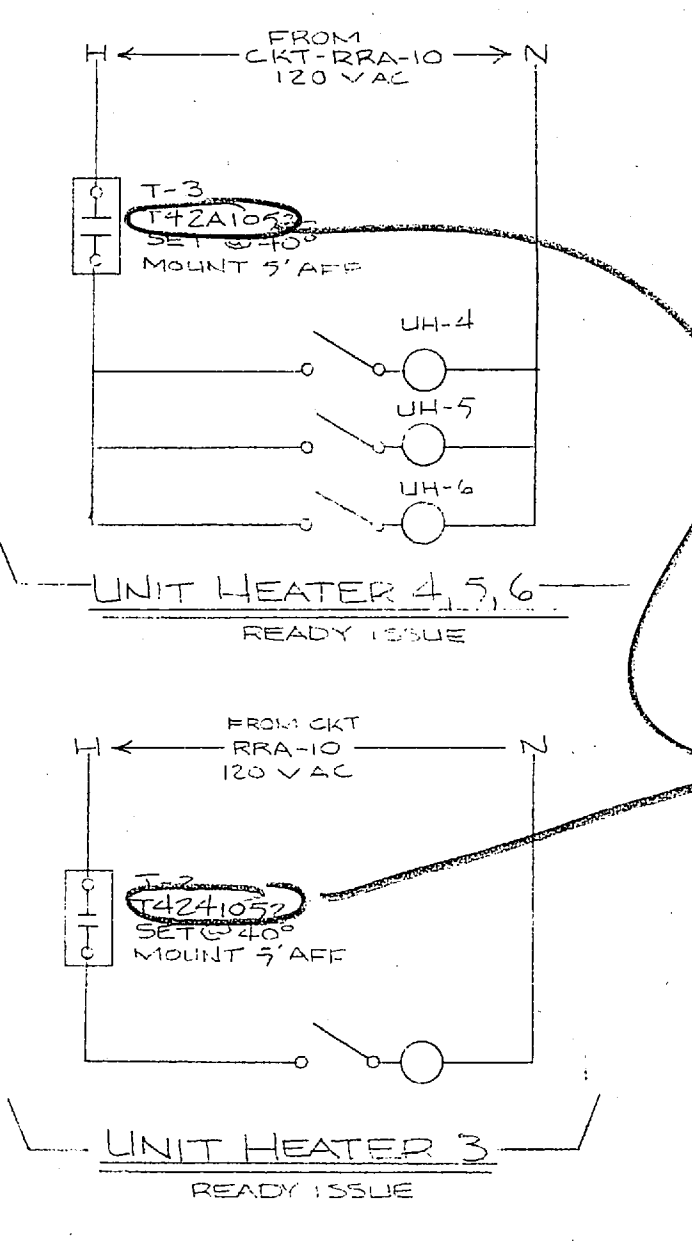
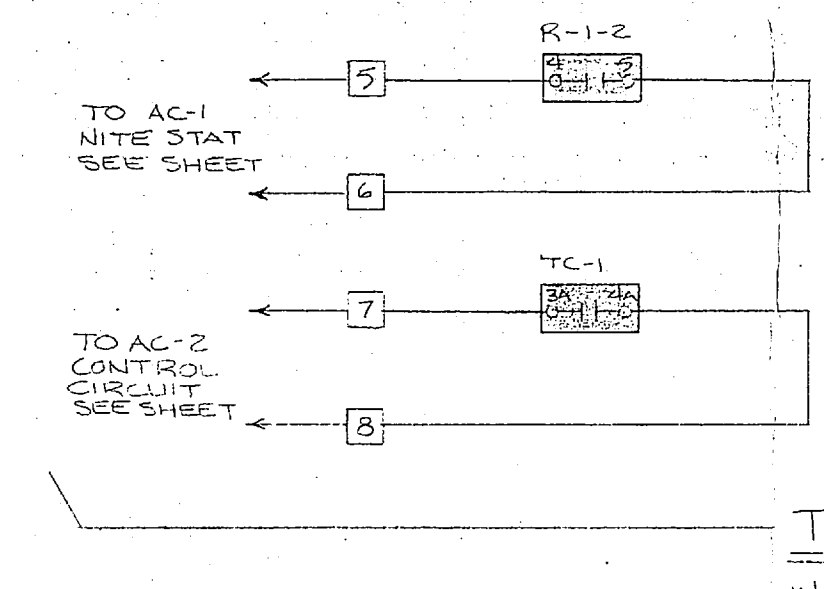




**SEQUENCE OF OPERATION**  
 Heat Exchanger - Ready Issue: An outdoor thermostat shall activate the steam valve. Leaving hot water shall be maintained by modulating the steam supply valve. The steam valve shall be modulated through a sub-master thermostat, with remote sensor located in the heat exchanger leaving hot water. The hot water temperature shall be reset by outdoor air temperature. Heating hot water pump shall be activated by an outdoor thermostat in conjunction with any one of the following: either A/C unit aux. contactor in starters or night thermostat.



**LEGEND**  
 [Shaded Box] SHADED DEVICES PANEL MNTD.  
 [Strip Box] PANEL TERMINAL STRIP No. 3  
 [Triangle] PANEL DOOR MOUNTED



*DOES NOT MEET SPEC*

**UNIT HEATERS NO. 1 & 2, READY ISSUE**  
 SPACE TSTAT SHALL CONTROL UNIT HEATED FAN TO MAINTAIN SPACE AT 68°F. NITE SETBACK TSTAT (TRU) TIME SWITCH SHALL CONTROL UNIT HEATED FANS TO MAINTAIN SPACE TEMP. @ 55°F. PROVIDE OVERRIDE SWITCH FOR UNIT HEATER CONTROL WITH OVERRIDE CAPABILITY UP TO 6 HOURS.

**SEQUENCE OF OPERATION**  
 Unit Heaters: A wall mounted thermostat shall cycle the unit heater fans to maintain space conditions during working hours.

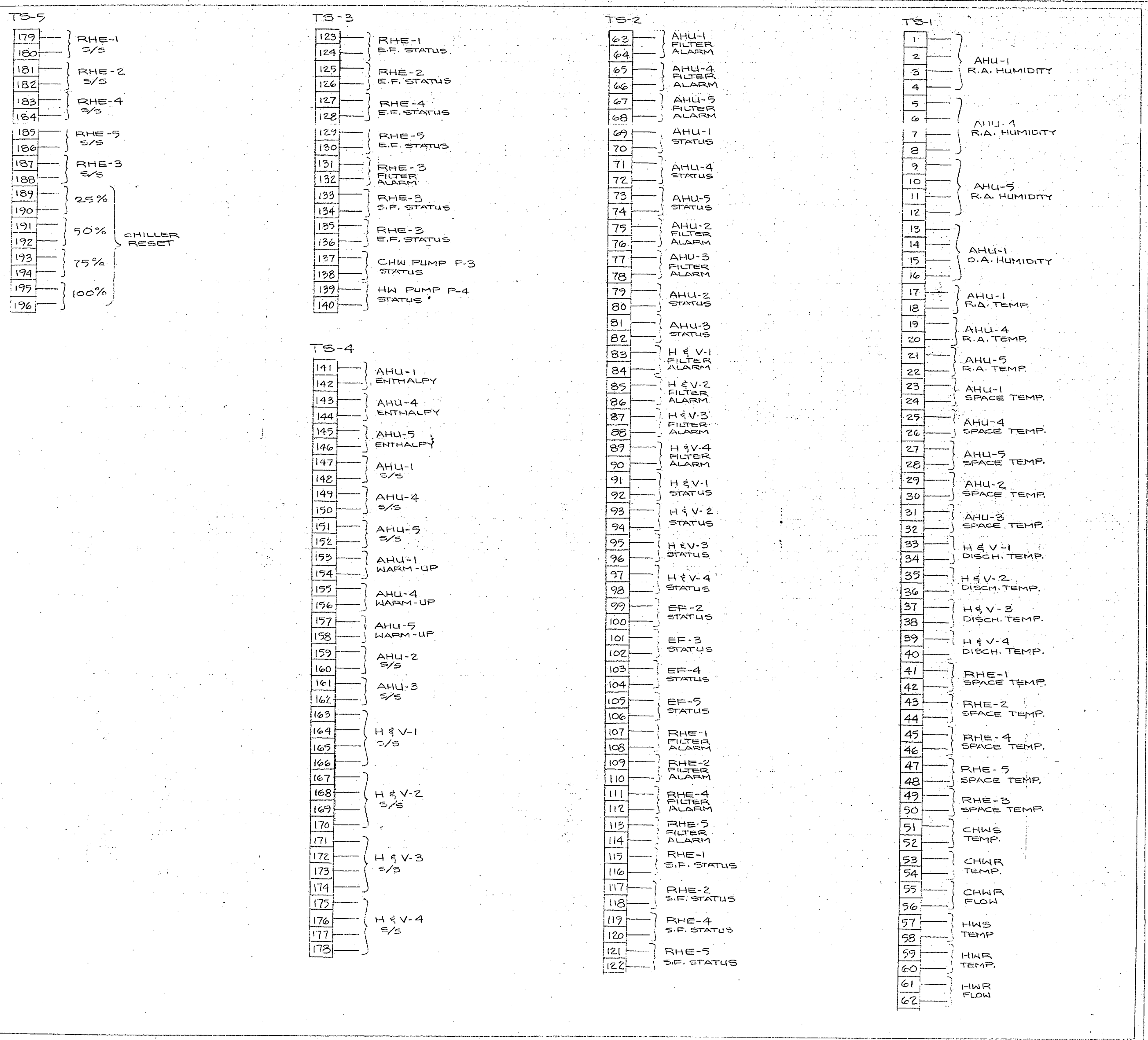
ARCHITECT: MBTB  
 ENGINEER: MBTB  
 CONTRACTOR: SNEEDEN CO.  
 APPLICATION ENGINEER: TOM WHITAKER

PRELIMINARY  
 NOT FOR CONSTRUCTION  
 SUBJECT TO APPROVAL  
 SEP 17 1988

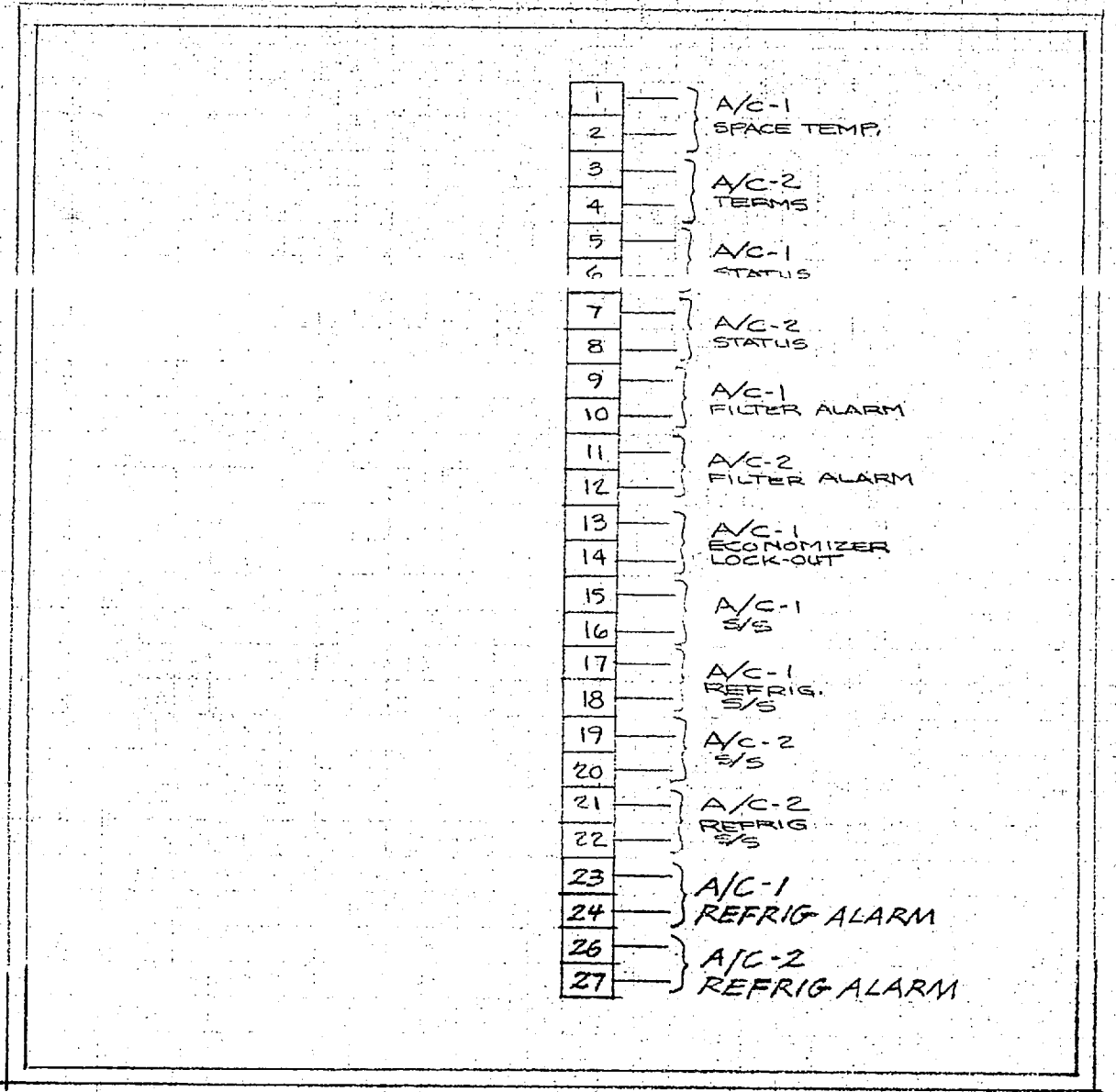
HONEYWELL, INC.			
717 S. SHARON AVENUE RD. CHARLOTTE, NC 28211			
TANK / AUTO MAINT. FACILITY			
DUNCAN ST. & MAIN SERVICE RD.			
CAMP LEJEUNE, N. C.			
Revisions	Date	Appd.	Rev.
Supersedes	Drawn By: GEM	Date: 7-19-82	939-81618-8XI
Superseded By	Approved By:	Sheet 8 Of 9	



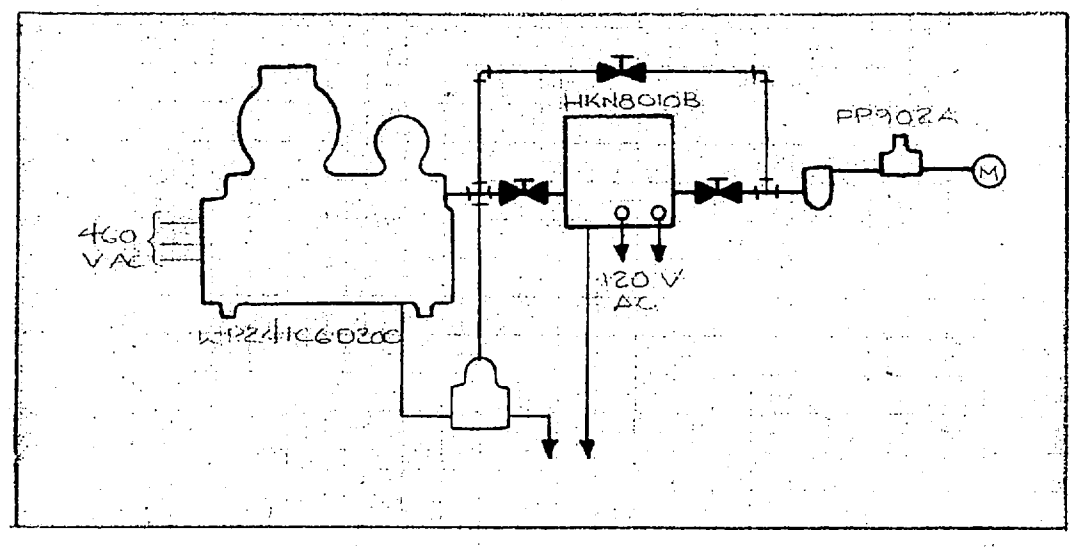




**DTC-1**  
MOUNT IN MECH. ROOM  
TANK/AUTO  
36" x 24"



**DTC-2**  
LOCATED IN READY  
ISSUE MECH. ROOM  
18" x 24"



**TEMP CONTROL AIR COMPRESSOR**  
LOCATED IN TANK/AUTO MECH RM.

ARCHITECT: M&T  
ENGINEER: M&T  
CONTRACTOR: SNEEDEN CO.  
APPLICATION ENGINEER: TOM WHITAKER

PRELIMINARY  
NOT FOR CONSTRUCTION  
SUBJECT TO APPROVAL  
SEP 17 1982

HONEYWELL, INC.			
C			517 S. SHARON AMITY RD. CHARLOTTE N.C. 28211
B			TANK/AUTO MAINT. FACILITY
A			DUNCAN ST. & MAIN SERVICE RD. CAMP. LEJUNE, N.C.
Revisions	Date	Appd.	
Superseded By	Drawn BY:CEM	Date 9-16-82	DRAWING NUMBER 939-81615-9XI
	Approved By:	Sheet 9 Of 9	Rev.

