

**VERIZON SMALL BUILDING HVAC ALARM OPERATION**

ON A CALL FOR FAN OPERATION, THE "G" TERMINAL (HVAC FAILURE ALARM) SHALL BECOME HOT FROM THE THERMOSTAT OR TEMPERATURE CONTROLLER. DIFFERENTIAL PRESSURE SWITCH "DP" CONTACTS SHALL BE CLOSED WITH NO AIR FLOW, AND WILL PASS THE VOLTAGE TO TIME DELAY RELAY "TD1" (THIS TIME DELAY RELAY IS ADJUSTABLE FROM 1 TO 1023 SECONDS SET AT 15 SECONDS.) AFTER TIMING OUT, RELAY "R1" SHALL BE ENERGIZED. IF "DP" SENSES AIR FLOW, THE TIME DELAY RELAY "R1" SHALL NOT OPERATE.

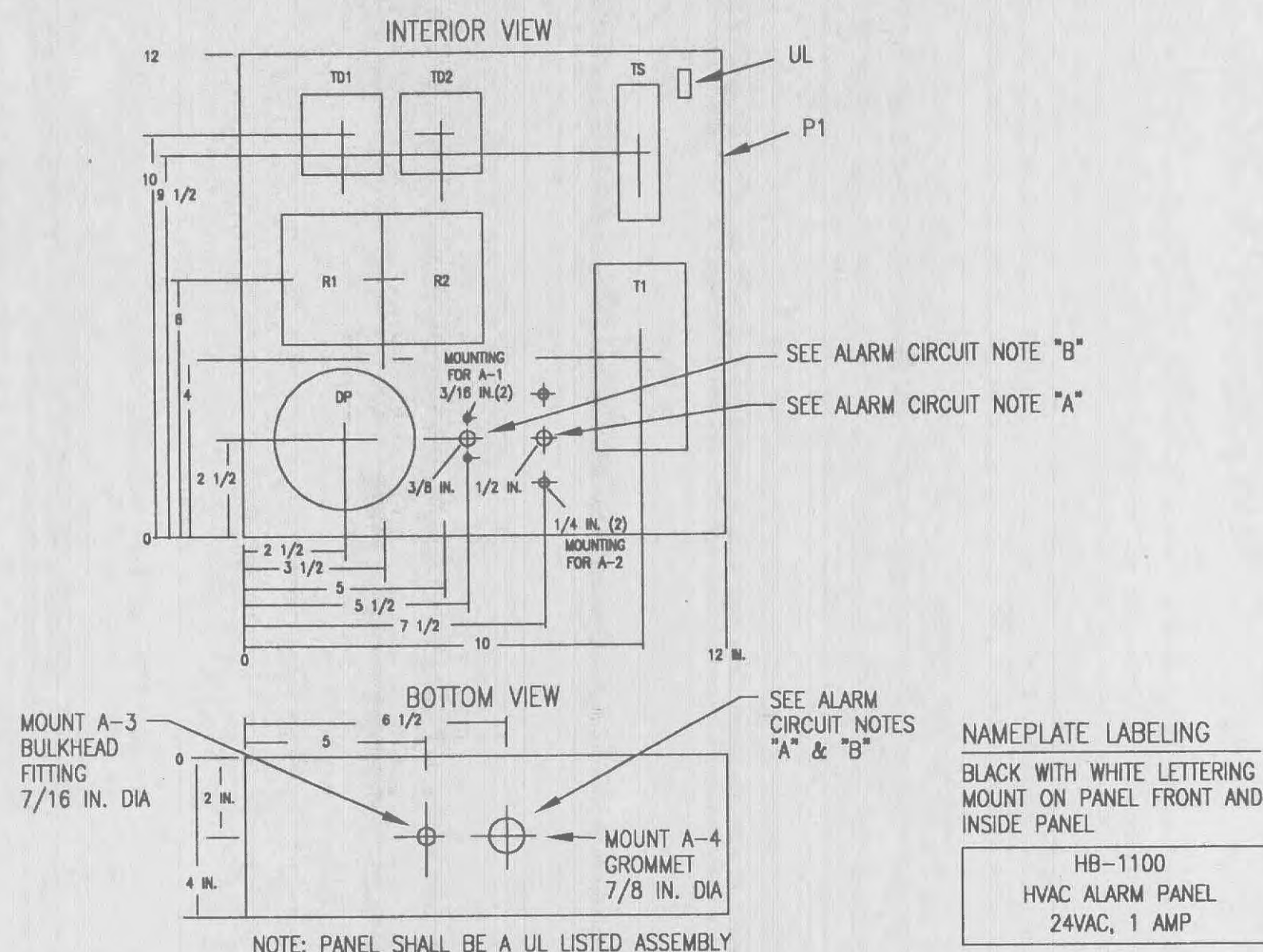
ON A CALL FOR COOLING, THE "Y" TERMINAL SHALL BECOME HOT FROM THE THERMOSTAT OR TEMPERATURE CONTROLLER. DISCHARGE AIR THERMOSTAT "T1" (SET AT 60F) SHALL PASS THIS VOLTAGE (IF THE DISCHARGE AIR TEMPERATURE IS ABOVE 60F) TO TIME DELAY RELAY "TD2" (THIS TIME DELAY RELAY IS ADJUSTABLE FROM 1 TO 1023 SECONDS SET AT 90 SECONDS.) AFTER TIMING OUT, RELAY "R2" SHALL BE ENERGIZED. IF DISCHARGE AIR TEMPERATURE IS BELOW 60F, THEN RELAY "R2" SHALL NOT OPERATE.

WHEN EITHER CONTACTS ON "R1" OR "R2" ARE MADE, IT WILL SEND AN ALARM TO TERMINALS AA AND BB IN THE BUILDING ALARM PANEL.

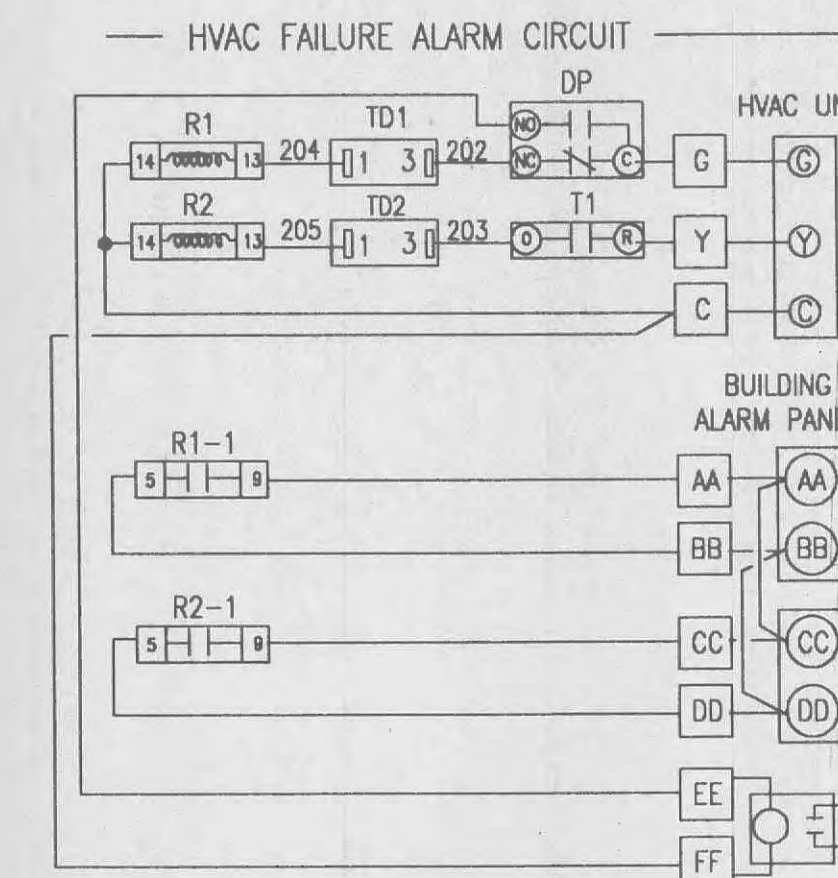
**CONTACT:**

HAVEL BROS. PO 11269, DISALLE  
FT. WAYNE, INDIANA 46825  
ATTN: MIKE BARRETT

TELE. NO. 219-487-7900



BILL OF MATERIAL			
TD-1	MARS #32394	A2	BARBER COLMAN AT-208
TD-2	MARS #32394	A3	PARKER C-375
R1	MAGNECRAFT W78AC5X-3	A4	AMERLOK 31F 20B3-BG2285
R2	MAGNECRAFT W78AC5X-3	A5	MARKEL U54BCNG000
R1	RDI 314BS	UL	UL LABEL
R2	RDI 314BS	P1	12X12X4 PANEL W/SCREW COVER
TS	CINCH 12-14C		
T1	BARBER COLMAN TC-4111		
DP	DWYER 1910-00		
A1	MAMAC A-520		



**NOTE "A":**

IF PANEL IS UNIT MOUNTED THIS CAPILLARY WILL BE ROUTED THRU HOLE IN BACK OF PANEL MARKED A-2. IF WALL MOUNTED, ROUTE THRU HOLE W/A-4.

**NOTE "B":**

IF PANEL IS UNIT MOUNTED, THIS 1/4 IN. TUBE A-5 WILL BE ROUTED THRU HOLE IN BACK OF PANEL MARKED A-1. A-1, WILL BE MOUNTED TO HOLE AND TUBE ATTACHED. IF WALL MOUNTED, ROUTE THRU HOLE W/A-4 THE A-1 WILL MOUNT AT DUCT.

**NOTE "C":**

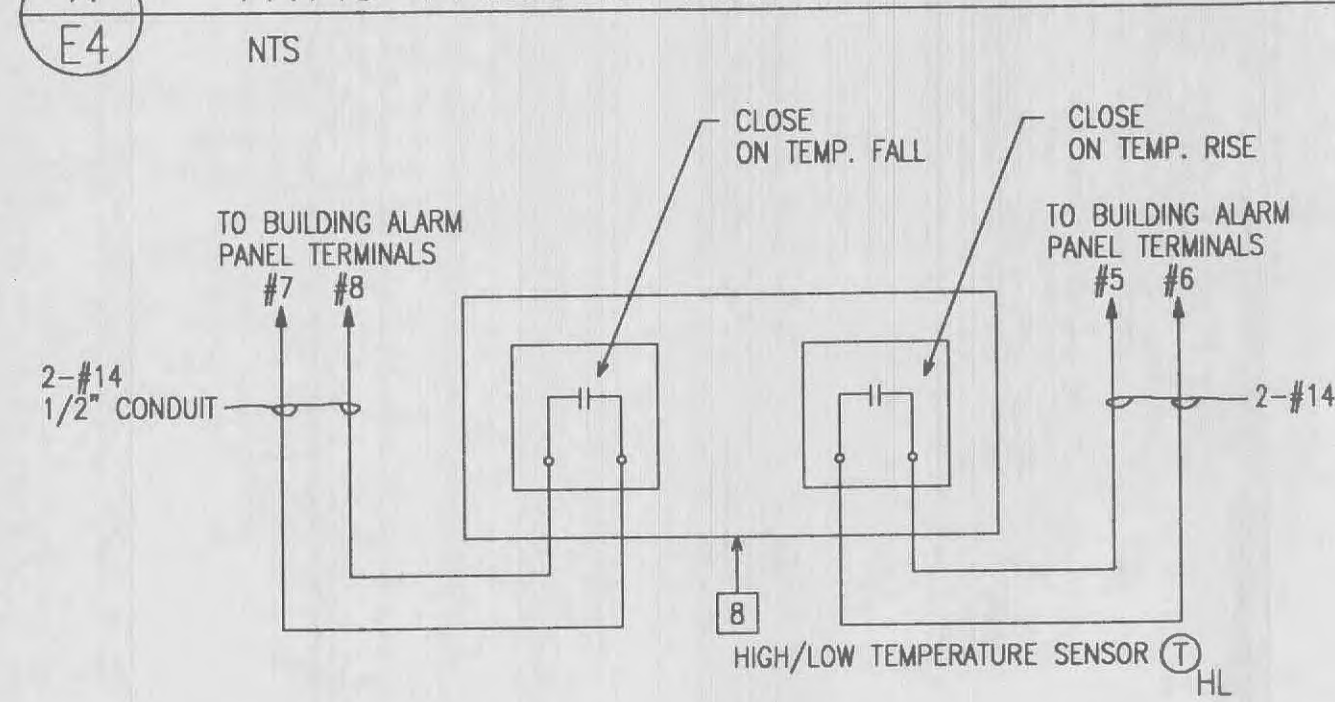
WIRE TO TERMINALS 9, 10 FOR HVAC-1  
11, 12 FOR HVAC-2  
13, 14 FOR HVAC-3 (FUTURE)

**NOTE "D":**

IF SEPERATE ALARM INDICATION IS REQUIRED FOR BCI, WIRE TO TERMINALS 11 & 7 ON R1 & R2

**HVAC FAILURE ALARM CIRCUIT**

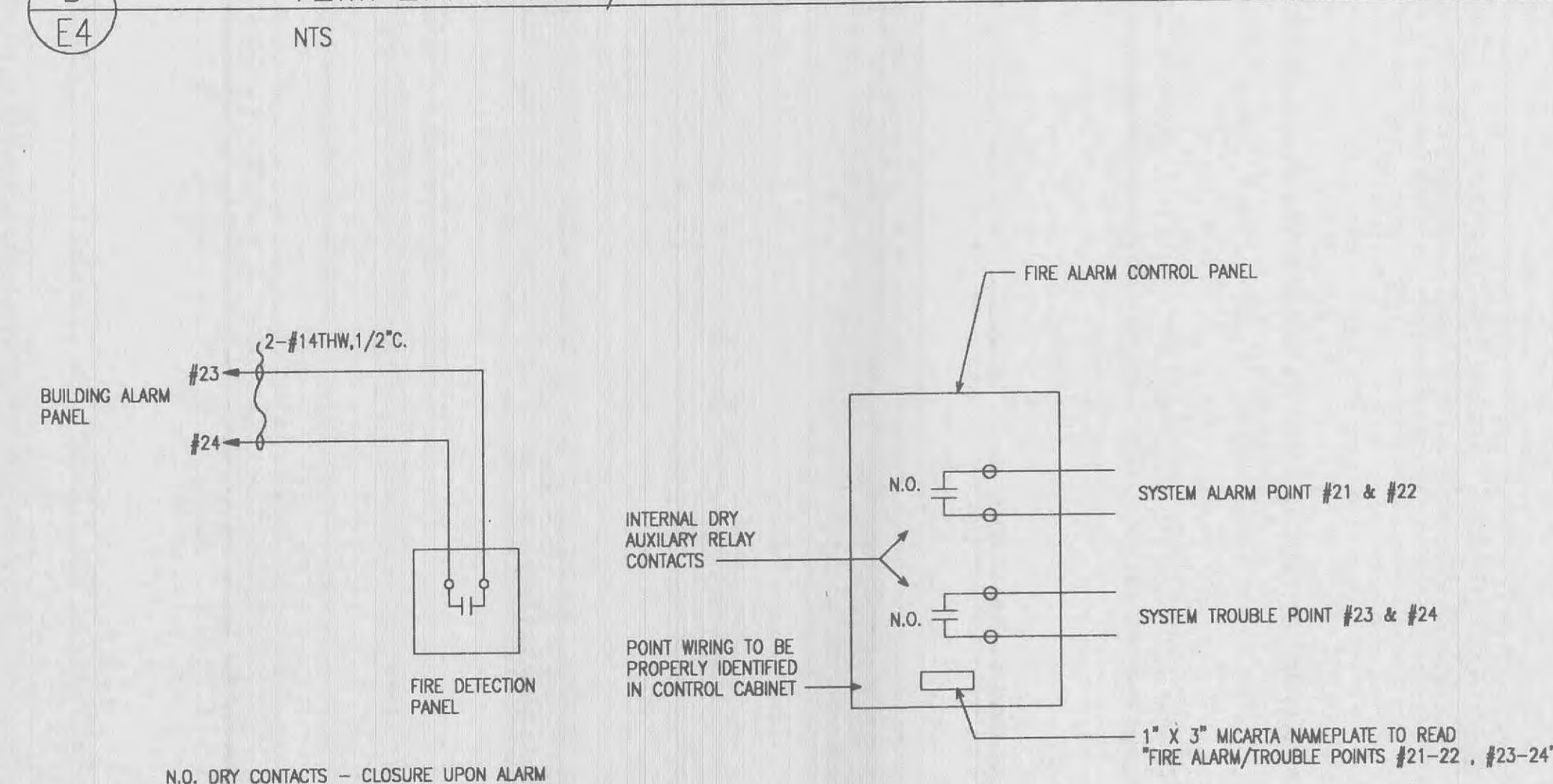
**(A) HVAC FAILURE ALARM DETAILS**



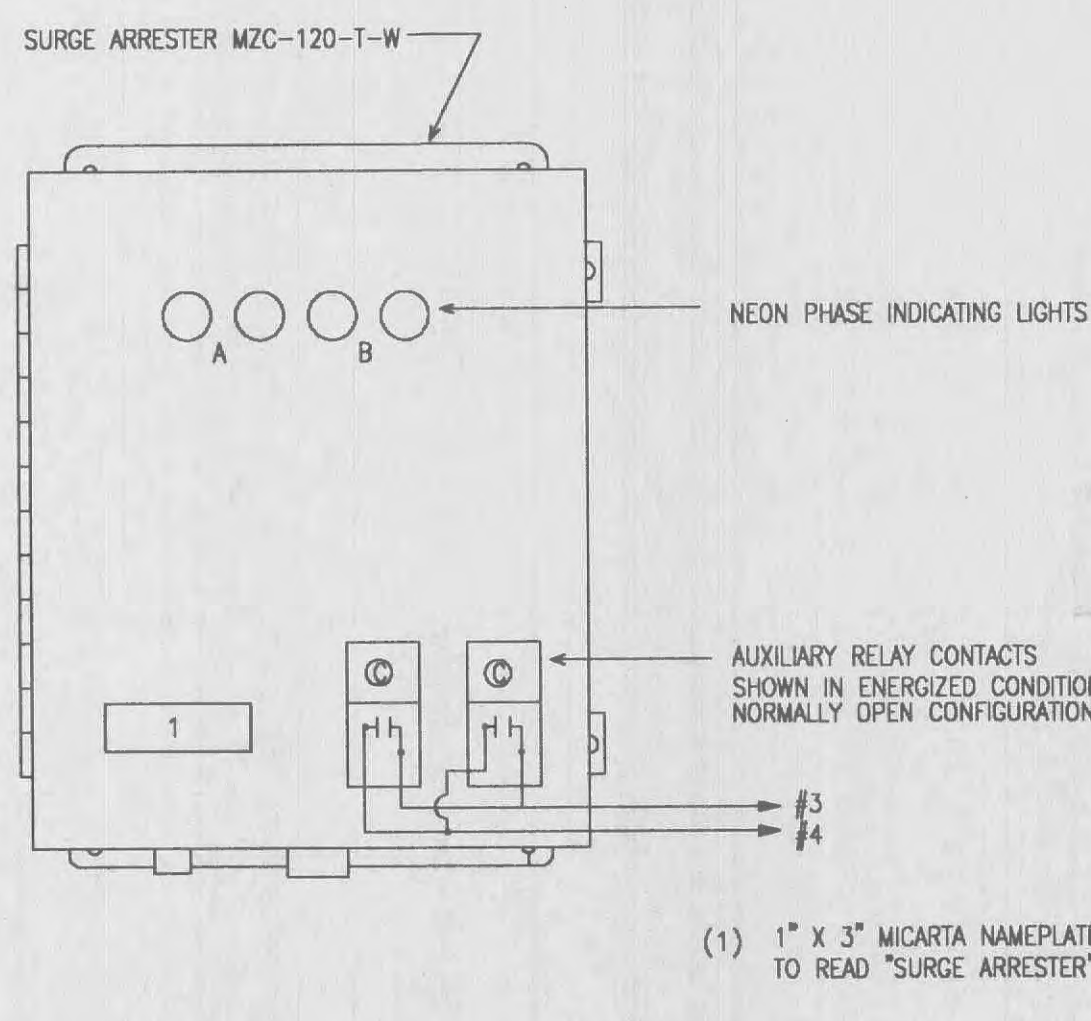
TEMPERATURE ALARM CIRCUIT

MOUNTING DETAIL

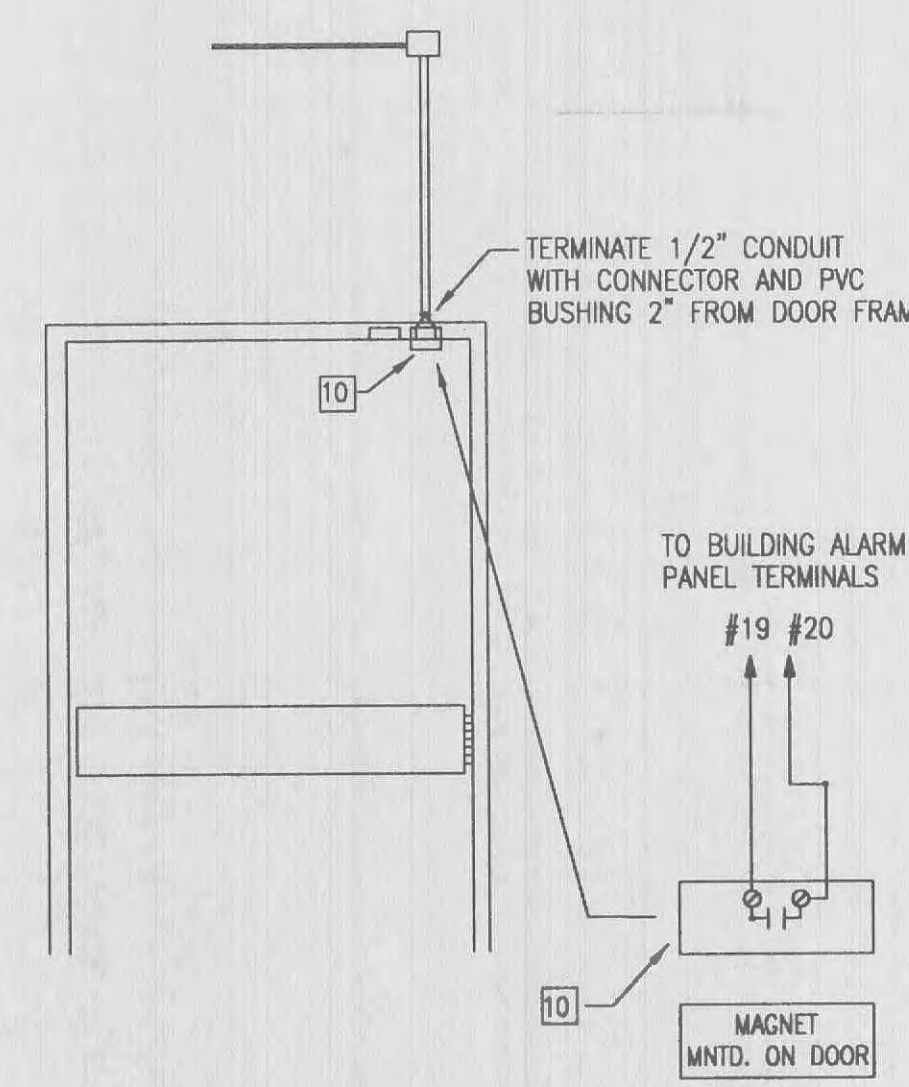
**(B) TEMPERATURE / HUMIDITY BUILDING ALARM SENSOR DETAILS**



**(D) FIRE DETECTION ALARMS**



**(E) SURGE ARRESTER ALARM**



**(F) DOOR ALARM**

MASTER BUILDING ALARM SCHEDULE		
TERMINALS	ALARM FUNCTION	REMARKS
1 - 2	COMMERCIAL POWER FAILURE	
3 - 4	SURGE ARRESTOR	
5 - 6	HIGH TEMPERATURE	
7 - 8	LOW TEMPERATURE	
9 - 10	HVAC FAILURE #1	
11 - 12	HVAC FAILURE #2	
13 - 14	HVAC FAILURE #3	FUTURE
15 - 16	SPARE	
17 - 18	SPARE	
19 - 20	OPEN DOOR	
21 - 22	FIRE ALARM	
23 - 24	SYSTEM TROUBLE	
25 - 26	SPARE	
27 - 28	SPARE	
29 - 30	SPARE	
31 - 32	SPARE	
33 - 34	SPARE	
35 - 36	SPARE	
37 - 38	SPARE	
39 - 40	SPARE	

Revision	Date	No.

**Notice**

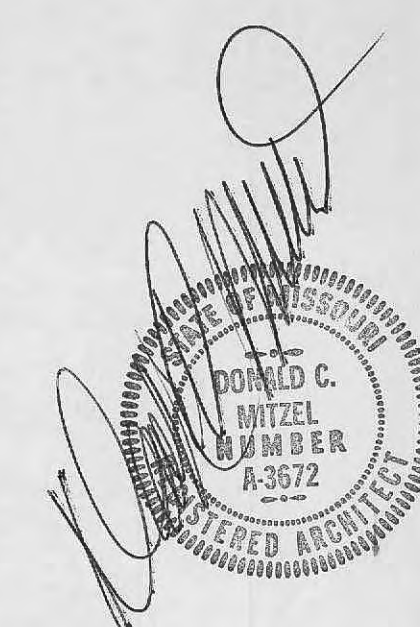
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DRAWINGS SHALL NOT BE SCALED.

QUESTIONS ON DIMENSIONS SHALL BE REFERRED TO THE ARCHITECT'S OFFICE.

CONTRACTORS SHALL VERIFY AND COORDINATE ALL DIMENSIONS, DETAILS, AND JOB CONDITIONS.

NOTE: CONTRACTOR SHALL PROVIDE AN INTERIOR CLEAR, NO BUILD ZONE BETWEEN 8'-0" & 9'-0" A.F.F. (I.E. NO DUCTS, DIFFUSERS, HANGERS OR FIXTURES ETC.)



**Verizon inc.**  
Addition to R.S.U. Building Hillman Remote  
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**ALARM DETAILS**

Scale	AS NOTED	
Date	04-23-01	Comm No. 001998
In Charge	DCM	
Drawn By	RLC	
Checked By	SBS	

**E4**