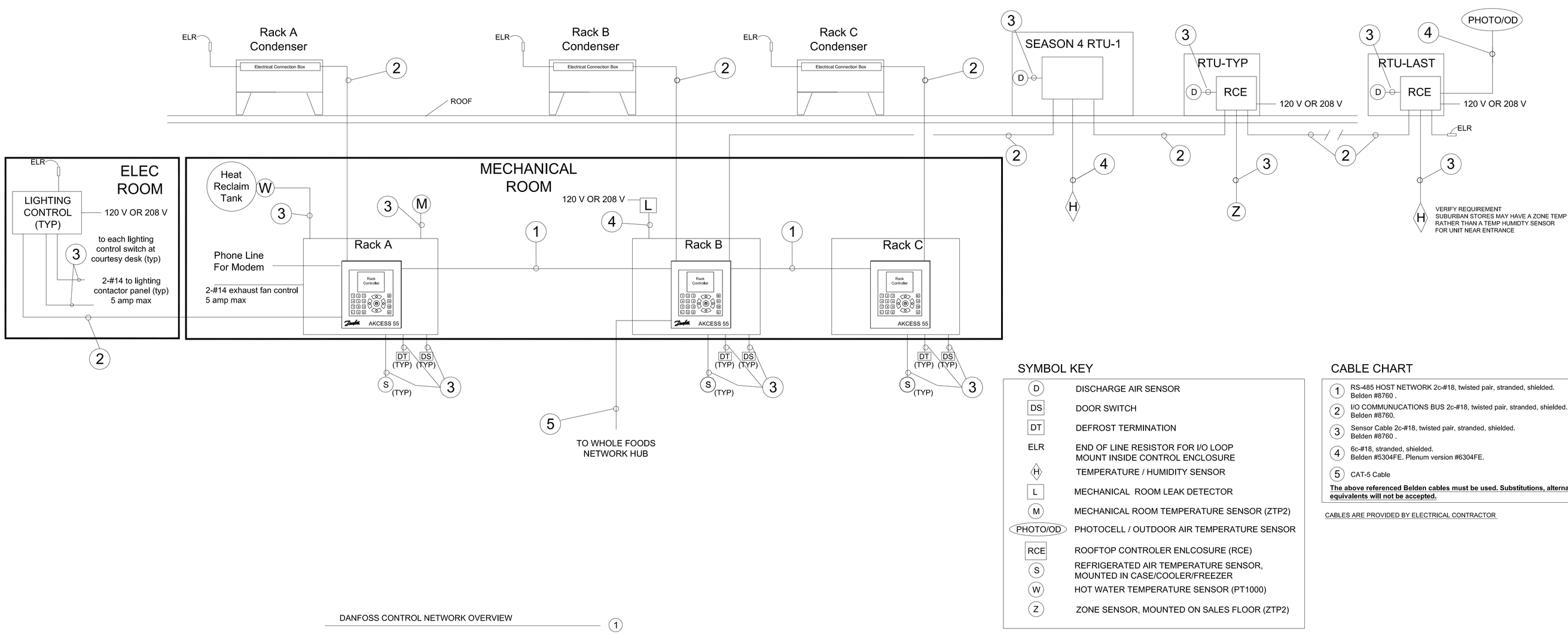


DANFOSS CONTROL NETWORK OVERVIEW (1)

NOTES
1) REFRIGERATION CONTRACTOR IS RESPONSIBLE FOR PROGRAMMING AND FINAL CONFIGURATRION OF EMS.

2) CONTACT DANFOSS REPRESENTITIVE PETER FLYNN (508)294 5221 FOR PARTS AND ADDITIONAL INFORMATION.

3) FOR PARASENSE INFORMATION CALL (603) 230 9511

SYMBOL KEY

D	DISCHARGE AIR SENSOR
DS	DOOR SWITCH
DT	DEFROST TERMINATION
ELR	END OF LINE RESISTOR FOR I/O LOOP MOUNT INSIDE CONTROL ENCLOSURE
H	TEMPERATURE / HUMIDITY SENSOR
L	MECHANICAL ROOM LEAK DETECTOR
M	MECHANICAL ROOM TEMPERATURE SENSOR (ZTP2)
PHOTO/OD	PHOTOCELL / OUTDOOR AIR TEMPERATURE SENSOR
RCE	ROOFTOP CONTROLER ENLCOSURE (RCE)
S	REFRIGERATED AIR TEMPERATURE SENSOR, MOUNTED IN CASE/COOLER/FREEZER
W	HOT WATER TEMPERATURE SENSOR (PT1000)
Z	ZONE SENSOR, MOUNTED ON SALES FLOOR (ZTP2)

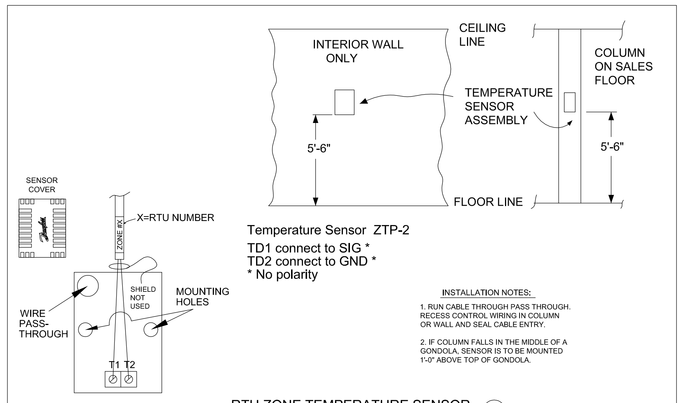
NOTE: This drawing is intended to show the logical, rather than physical, relationship of components.

CABLE CHART

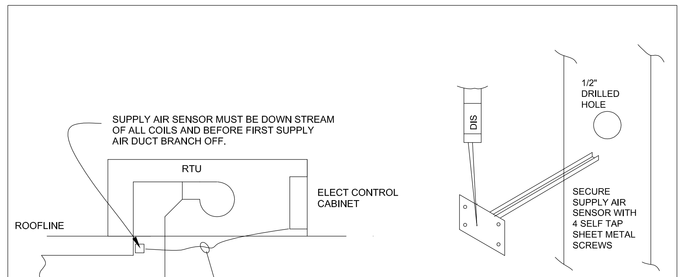
1	RS-485 HOST NETWORK 2c-#18, twisted pair, stranded, shielded. Belden #8760 .
2	I/O COMMUNUCATIONS BUS 2c-#18, twisted pair, stranded, shielded. Belden #8760.
3	Sensor Cable 2c-#18, twisted pair, stranded, shielded. Belden #8760 .
4	6c-#18, stranded, shielded. Belden #5304FE. Plenum version #6304FE.
5	CAT-5 Cable

The above referenced Belden cables must be used. Substitutions, alternates, or equivalents will not be accepted.

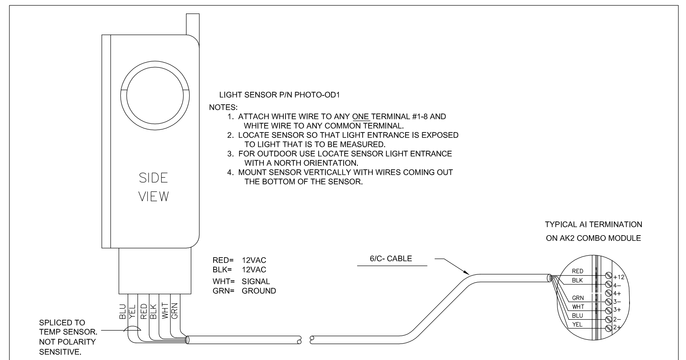
CABLES ARE PROVIDED BY ELECTRICAL CONTRACTOR



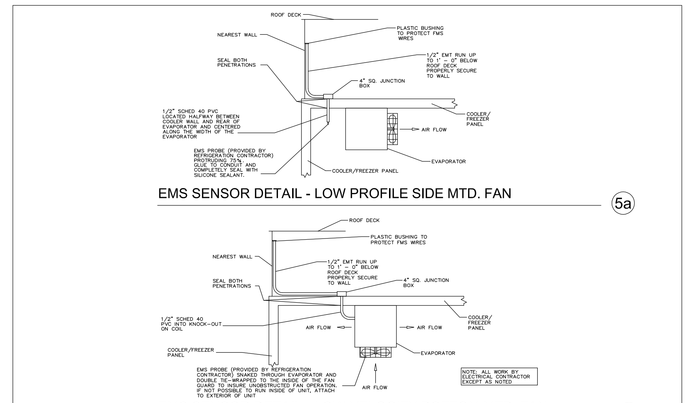
RTU ZONE TEMPERATURE SENSOR (2)

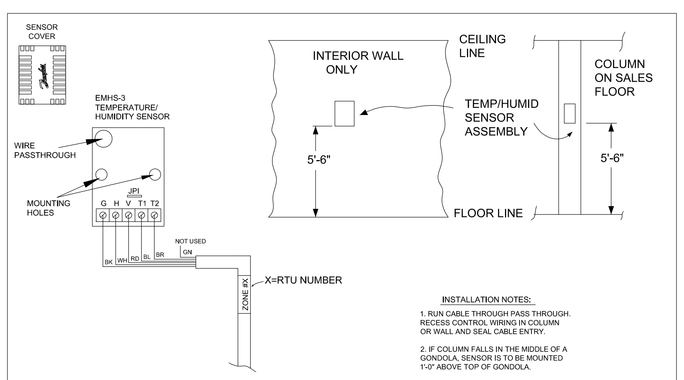


DISCHARGE AIR TEMPERATURE SENSOR (3)

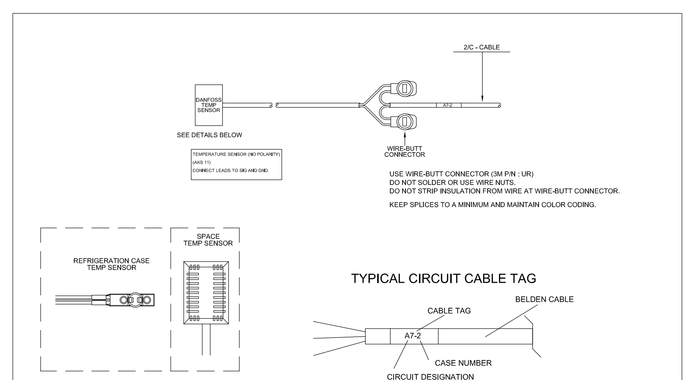


OUTDOOR TEMPERATURE & LIGHT SENSOR WIRING (4)

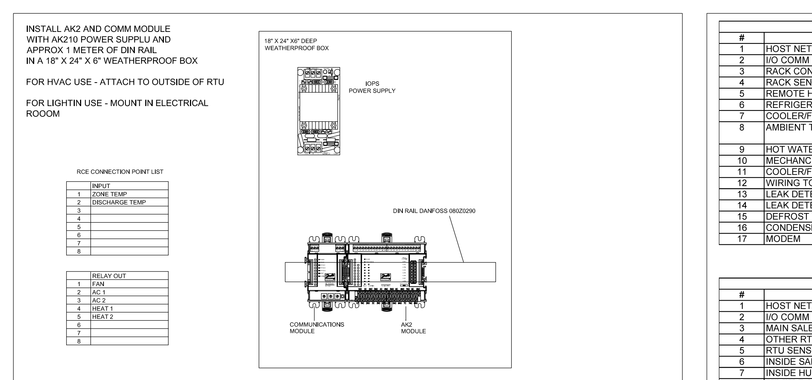




RTU TEMPERATURE / HUMIDITY SENSOR (6)



TEMPERATURE SENSOR CONNECTION (7)



RCE / LIGHTING ELECTRICAL ENCLOSURE LAYOUT (8)

REFRIGERATION CONTROL EQUIPMENT

#	DESCRIPTION	EC	HC	HM	RC	RM	COMMENTS
1	HOST NETWORK WIRING	F/I					
2	I/O COMM BUS WIRING	F/I					
3	RACK CONTROLLER					F/I	
4	RACK SENSORS					F/I	
5	REMOTE HEADER BOARDS					F/I	
6	REFRIGERATED CASE SENSORS					F/I	
7	COOLER/FREEZER SENSORS				F/I		
8	AMBIENT TEMP/PHOTO SENSOR				F/I		INSTALL FACING NORTH AT REFRG END OF CONDENSER IN AIRFLOW
9	HOT WATER TEMP SENSOR				F/I		
10	MECHANICAL ROOM TEMP SENSOR				F/I		
11	COOLER/FREEZER DOOR SWITCH				F/I		
12	WIRING TO FIELD INSTALLED SENSORS/SWITCHES	F/I					
13	LEAK DETECTION UNIT				F/I		PARASENSE UNIT
14	LEAK DETECTION WIRING	F/I					
15	DEFROST TERMINATION WIRING	F/I					
16	CONDENSER BOARDS				F/I		
17	MODEM				I	F	

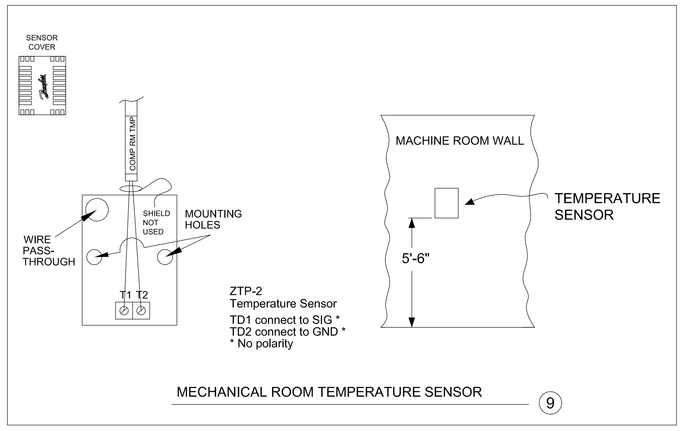
HVAC CONTROL EQUIPMENT

#	DESCRIPTION	EC	HC	HM	RC	RM	COMMENTS
1	HOST NETWORK WIRING	F/I					
2	I/O COMM BUS WIRING	F/I					
3	MAIN SALES RTU CONTROL BOARDS		F/I				
4	OTHER RTU RCE CONTROL ENCLOSURE ASSEMBLY		F/I				FIELD FABRICATE - SEE DETAIL
5	RTU SENSORS		F/I				SUPPLY/RETURN TEMP, AIRFLOW
6	INSIDE SALES TEMP SENSORS		F/I				
7	INSIDE HUMIDITY SENSORS		F/I				
8	WIRING TO FIELD INSTALLED SENSORS	F/I					

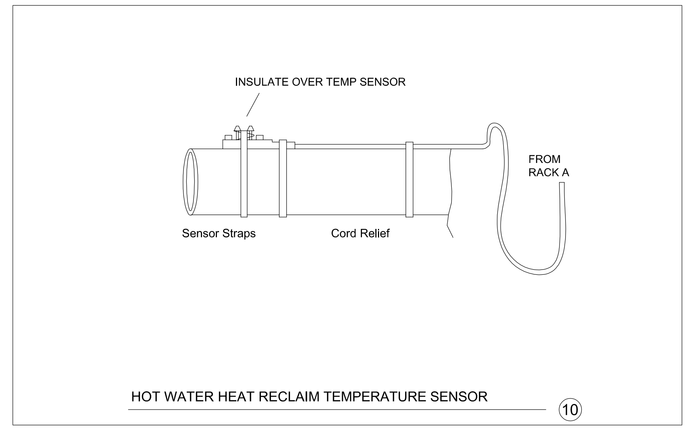
LIGHTING CONTROL EQUIPMENT

#	DESCRIPTION	EC	HC	HM	RC	RM	COMMENTS
1	HOST NETWORK WIRING	F/I					
2	I/O COMM BUS WIRING	F/I					
3	LIGHT LEVEL SENSORS	F/I					
4	LIGHTING OVERIDE SWITCH PANEL	F/I					INSTALL AT CUSTOMER SERVICE
5	WIRING TO FIELD INSTALLED SENSORS	F/I					
6	WIRING FOR FIELD INSTALLED EQUIPMENT	F/I					
7	LIGHTING CONTACTORS	F/I					
8	LIGHTING ELECTRICAL ENCLOSURE ASSEMBLY	F/I					FIELD FABRICATE - SEE DETAIL

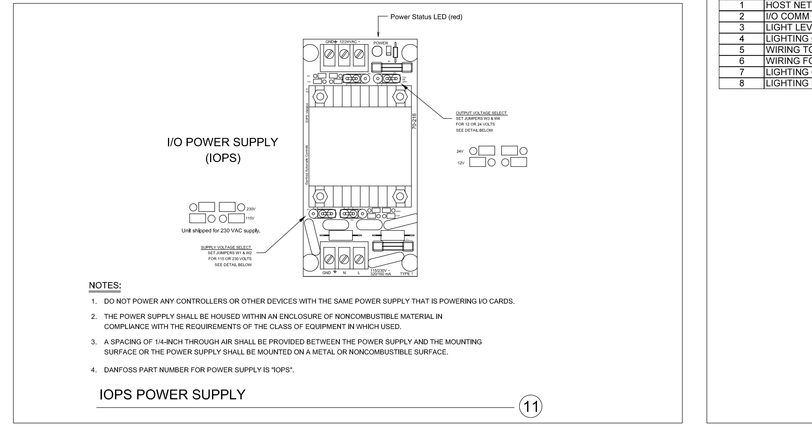
LEGEND	
EC	ELECTRICAL CONTRACTOR
F	FURNISH
HC	HVAC CONTRACTOR
HM	HVAC MANUFACTURER
I	INSTALL
RC	REFRIGERATION CONTRACTOR
RM	REFRIGERATION MANUFACTURER



MECHANICAL ROOM TEMPERATURE SENSOR (9)



HOT WATER HEAT RECLAIM TEMPERATURE SENSOR (10)



IOPS POWER SUPPLY (11)

RESPONSIBILITY CHART (8)

VISION ENGINEERING
27 BARON RD. FRANKLIN, MA 02038

BL Companies
ARCHITECTURE
ENGINEERING
PLANNING
LANDSCAPE ARCHITECTURE
LAND SURVEYING
ENVIRONMENTAL SCIENCES
ANALYTICAL SERVICES

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

WHOLE FOODS MARKET

ISSUED FOR CONSTRUCTION

PROPOSED GROCERY STORE
2 SOMERSET STREET
PORTLAND, CUMBERLAND COUNTY, MAINE

No.	Date	Desc.

REVISIONS No.	Date	Desc.

ARCHITECT/ENGINEER SEAL

Designed	LJR
Drawn	LJR
Checked	
Approved	
Scale	AS NOTED
Project No.	04C0829
Date	04-24-06
CAD File	

Title

REFRIGERATION CONTROL DIAGRAM

Sheet No.

R3.1

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