

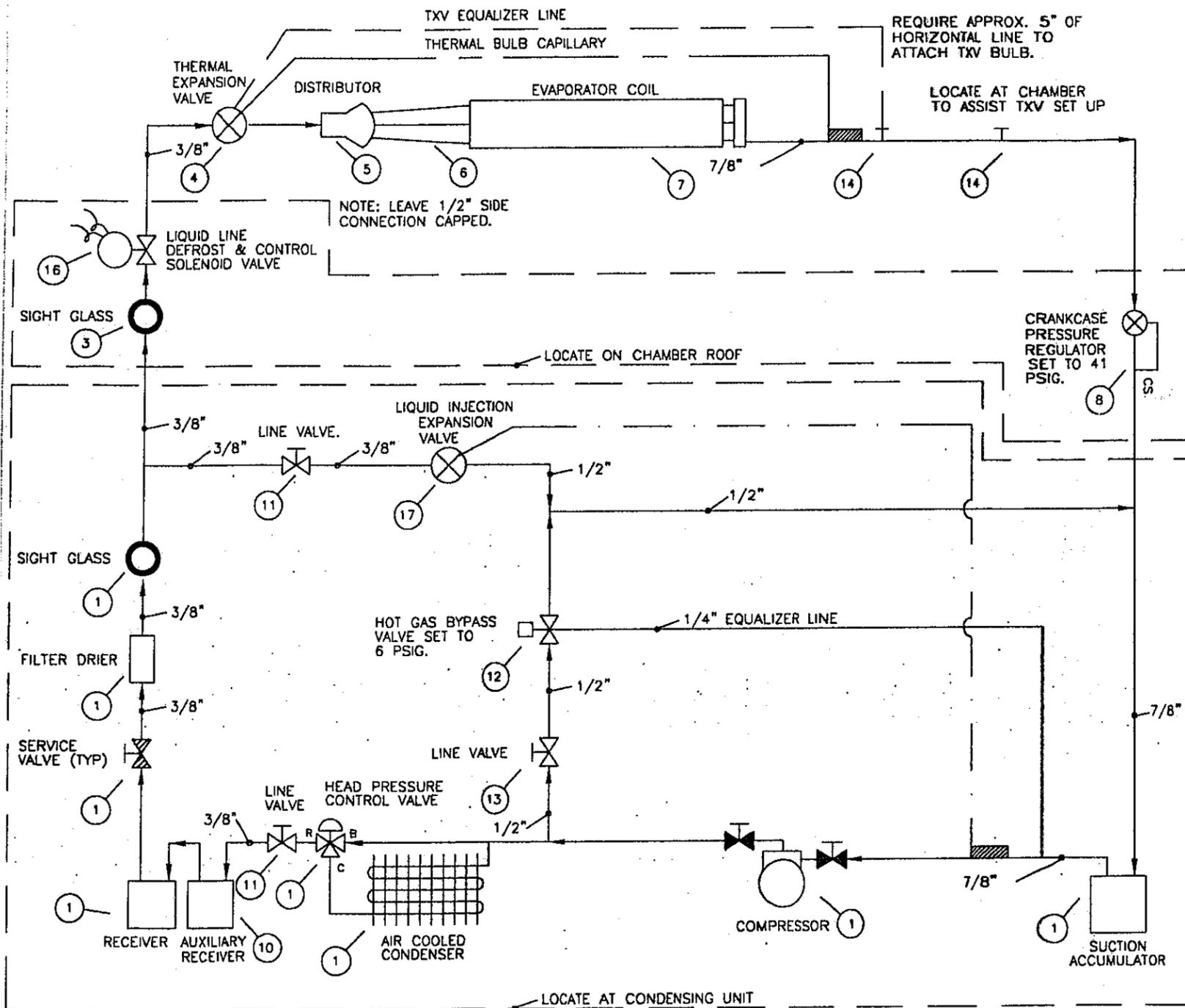
- NOTES:
- 1) DISTRIBUTOR TO BE MOUNTED VERTICALLY WITH FEEDER TUBES EXITING DOWNWARD.
 - 2) LOCATE ITEM 10 VIBRATION ELIMINATOR AS CLOSE TO SUCTION VALVE AS POSSIBLE & WITH AXIS PARALLEL TO SPIN AXIS OF COMPRESSOR.
 - 3) CAP ALL REFRIGERANT TUBING FOR SHIPMENT.
 - 4) ALL TUBING FITTINGS TO BE BRAZED WITH HARRIS STAY SILV 15 OR EQUIVALENT. PURGE LINES WITH DRY NITROGEN WHILE BRAZING.
 - 5) USE STAY BRITE OR EQUIVALENT ON COMPONENTS WHERE MANUFACTURER RECOMMENDS USE OF LOWER TEMPERATURE MATERIALS FOR JOINING.
 - 6) INSULATE HOT GAS & SUCTION LINES WITH 1/2" WALL ARMAFLEX.
 - 7) INSULATE LIQUID LINE OUTSIDE OF BUILDING WITH 1/2" WALL ARMAFLEX.
 - 8) LOCATE "P" TRAP AT BASE OF SUCTION LINE VERTICAL RISE & PUT REVERSE "P" TRAP AT TOP OF SUCTION LINE VERTICAL RISE.
 - 9) SLOPE HORIZONTAL SUCTION LINES & HOT GAS LINES 1/2" IN 10' IN THE DIRECTION OF FLOW.
 - 10) CHARGE SYSTEM WITH 16.3 POUNDS OF R-22 REFRIGERANT.

22	1	AUXILIARY RECEIVER. 10 LBS CAPACITY, 3/8" SAE REF. RESEARCH	1911
21	1	LINE VALVE. 3/8" ODS VIRGINIA KMP	RB3S
20	1	HOT GAS LINE SOLENOID VALVE NORMALLY CLOSED 1/2" ODF 120V COIL / MKC-1 SPORLAN	E9S240
19	1	LIQUID LINE SOLENOID VALVE NORMALLY CLOSED 3/8" ODF 120V COIL / MKC-1. SPORLAN	E5S130
18	1	WEATHER COVER. EGC	
17	1	CRANKCASE HEATER 40W 240V WITH MOUNTING HARDWARE. COPELAND	018-0031-02
16	1	HEAD PRESSURE CONTROL VALVE. 3/8" ODS. ALCO	HP5T3B
15	1	NOZZLE ORIFICE. SPORLAN	JR-1
14	4	ACCESS FITTINGS. WATSCO	AV3-346
13	1	CHECK VALVE. 1/2" ODS. WATSCO	MS-8
12	1	MODULATING HOT GAS CONTROL VALVE. 5/8" ODS. SPORLAN	SDR-3-10-S
11	2	LINE VALVE. 1/2" ODS. VIRGINIA KMP.	RB4S
10			
9	1	SUCTION ACCUMULATOR. 7/8" ODS. REFRIGERATION RESEARCH	HP 373B
8	1	CRANKCASE PRESSURE REGULATOR. 50/130 PSIG. WITH STRAINER. 7/8" ODS. ALCO	OPR-10
7	1	COIL. 10" H X 48" L - 6R, 8 FPI, 4 CIRCUIT, ALUMINUM FINS. SUPER RADIATOR	B50491 (LH)
6	4	FEEDER TUBES 1/4" SOFT COPPER.	PART OF ITEM 7
5	1	DISTRIBUTOR. 1651R-4-1/4"-* WITH ONE 1/2" SIDE CONNECTION. * SEE ITEM 15. SPORLAN	PART OF ITEM 7
4	1	THERMAL EXPANSION VALVE. EXTERNALLY EQUALIZED. 3/8" X 5/8" ODS. STRAIGHT BODY. MOP 100 ALCO	TCLE1HW100
3	2	SIGHT GLASS. 3/8" ODS. SPORLAN	SA-13S
2	1	FILTER DRIER. 3/8" ODS. ALCO	EK-163S
1	1	CONDENSING UNIT. AIR COOLED, R-22, HI TEMP. 1 1/2 HP, 208V-3-60 COPELAND	F3AD-A151 TFC-001
ITEM REQD		DESCRIPTION	PART NO.

This paper and the information contained herein are proprietary and the sole property of E.G.C. Neither shall be copied or duplicated in any manner and shall not be disclosed to outside parties without our written consent. It shall be used for reference to work under contract or proposals submitted by this corporation only.

ENVIRONMENTAL GROWTH CHAMBERS
Chagrin Falls, Ohio

ENVIRONMENTAL GROWTH CHAMBERS		
SCALE None	APPROVED BY	DRAWN BY EBJN
DATE 12/30/10		REVISED
REFRIGERATION SCHEMATIC		
ROOM D3-110 (5°C)		
REVISION	B	DRAWING NUMBER
	Y	0154RR-100

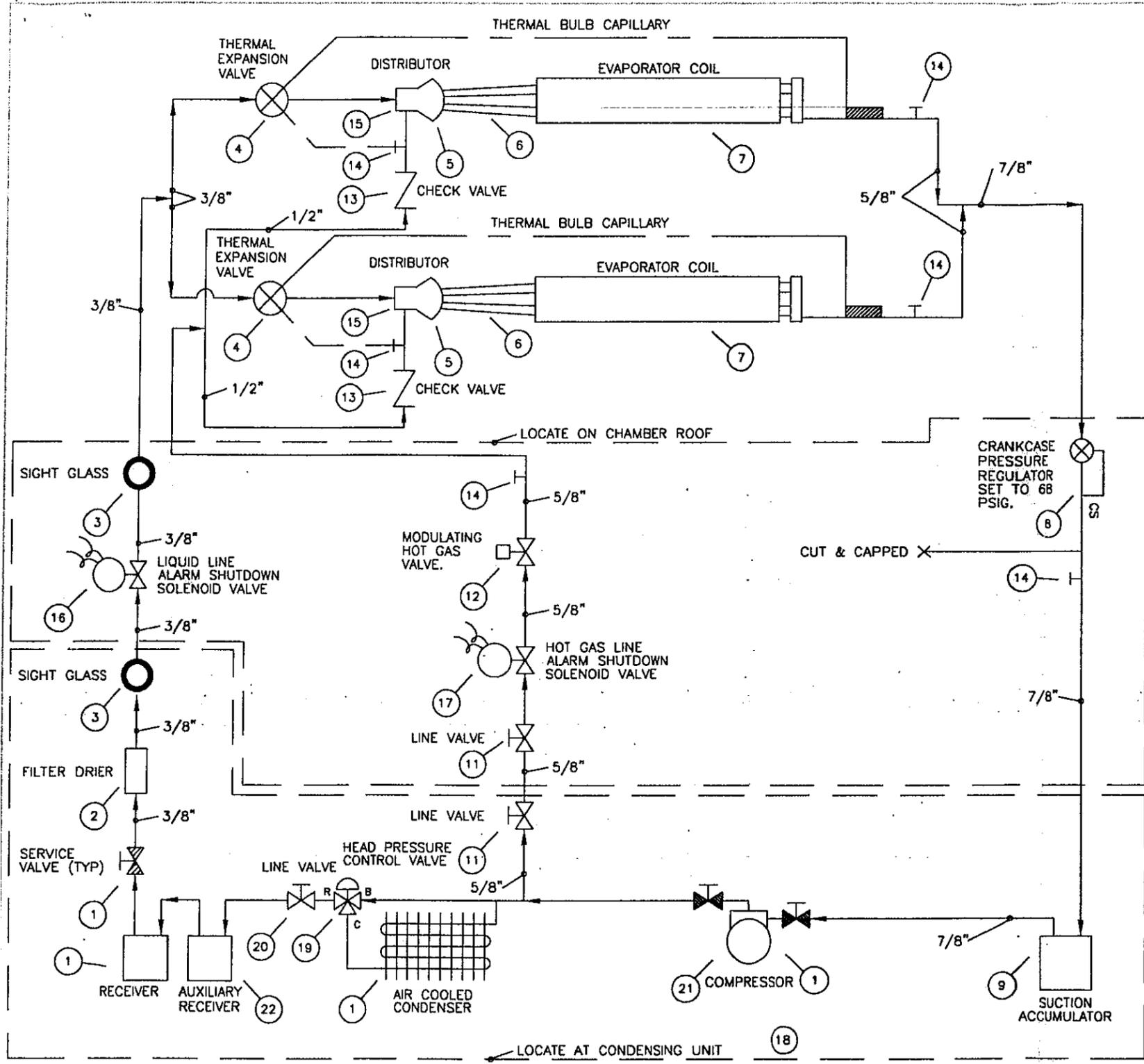


- NOTES:
- 1) DISTRIBUTOR TO BE MOUNTED VERTICALLY WITH FEEDER TUBES EXITING DOWNWARD.
 - 2) LOCATE ITEM 10 VIBRATION ELIMINATOR AS CLOSE TO SUCTION VALVE AS POSSIBLE & WITH AXIS PARALLEL TO SPIN AXIS OF COMPRESSOR.
 - 3) CAP ALL REFRIGERANT TUBING FOR SHIPMENT.
 - 4) ALL TUBING FITTINGS TO BE BRAZED WITH HARRIS STAY SILV 15 OR EQUIVALENT. PURGE LINES WITH DRY NITROGEN WHILE BRAZING.
 - 5) USE STAY BRITE OR EQUIVALENT ON COMPONENTS WHERE MANUFACTURER RECOMMENDS USE OF LOWER TEMPERATURE MATERIALS FOR JOINING.
 - 6) PRESSURE CHECK COMPLETED SUB ASSEMBLIES OR SYSTEM AT 175 PSIG WITH DRY NITROGEN.
 - 7) INSULATE LIQUID & HOT GAS LINES WITH 1/2" WALL ARMAFLEX.
 - 8) INSULATE SUCTION LINES WITH 3/4" WALL ARMAFLEX.
 - 9) CHARGE SYSTEM WITH 16.3 POUNDS OF R-404A REFRIGERANT.
 - 10) REFER TO "GENERAL NOTES FOR REFRIGERATION PIPING INSTALLATION" FOR INSTALLATION NOTES.

ITEM	REQD	DESCRIPTION	PART NO.
17	1	LIQUID INJECTION EXPANSION VALVE, INTERNALLY EQUALIZED, 3/8" X 5/8" STRAIGHT BODY. ALCO	LCL1B
16	1	LIQUID LINE SOLENOID VALVE, NORMALLY CLOSED, 3/8" ODS. 120V LOW FORCE COIL MKC-119. SPORLAN	E5S130
15			
14	4	ACCESS FITTINGS. WATSCO	AV3-346
13	1	LINE VALVE, 1/2" ODS. VIRGINIA KMP.	RB4S
12	1	HOT GAS BYPASS VALVE, 1/2" ODS. WITH 1/4" ODS EQUALIZER. SPORLAN	ADRSE-2
11	2	LINE VALVE, 3/8" ODS. VIRGINIA KMP.	RB3S
10	1	AUXILIARY RECEIVER, 6 LBS. CAPACITY, 1/4" SAE REFRIGERATION RESEARCH	1918
9	1	SUCTION ACCUMULATOR. PURCHASE MOUNTED ON ITEM 1	
8	1	CRANKCASE PRESSURE REGULATOR, 0/60 PSIG. WITH STRAINER, 7/8" ODS. ALCO	OPR-6
7	1	UNIT COOLER WITH 208 V FAN MOTORS. FOR USE WITH R-404A REFRIGERANT. CLIMATE CONTROL	LSF-070A
6	3	FEEDER TUBES 3/16" SOFT COPPER. PURCHASE MOUNTED ON ITEM 7	
5	1	DISTRIBUTOR. PURCHASE MOUNTED ON ITEM 7	
4	1	THERMAL EXPANSION VALVE, EXTERNALLY EQUALIZED, 3/8" ODF X 5/8" ODF. STRAIGHT BODY. ALCO	TCL1/2RZ
3	1	SIGHT GLASS, 3/8" ODS. SPORLAN	SA-13S
2	1	FILTER DRIER. PURCHASE MOUNTED ON ITEM 1	
1	1	CONDENSING UNIT, AIR COOLED, R-404A, MED/LOW TEMP 3 HP, 208V-3-60 COPELAND	VJAF-030H TFC-050
ITEM REQD		DESCRIPTION	PART NO.

This paper and the information contained herein are proprietary and the sole property of E.G.C. Neither shall be copied or duplicated in any manner and shall not be disclosed to outside parties without our written consent. It shall be used for reference to work under contract or proposals submitted by this corporation only.

ENVIRONMENTAL GROWTH CHAMBERS		
SCALE None	APPROVED BY	DRAWN BY EBN
DATE 12/30/10		REVISED
REFRIGERATION SCHEMATIC ROOM D3-110A (-20°C)		
V.A. MEDICAL CENTER	DRAWING NUMBER	015499 110



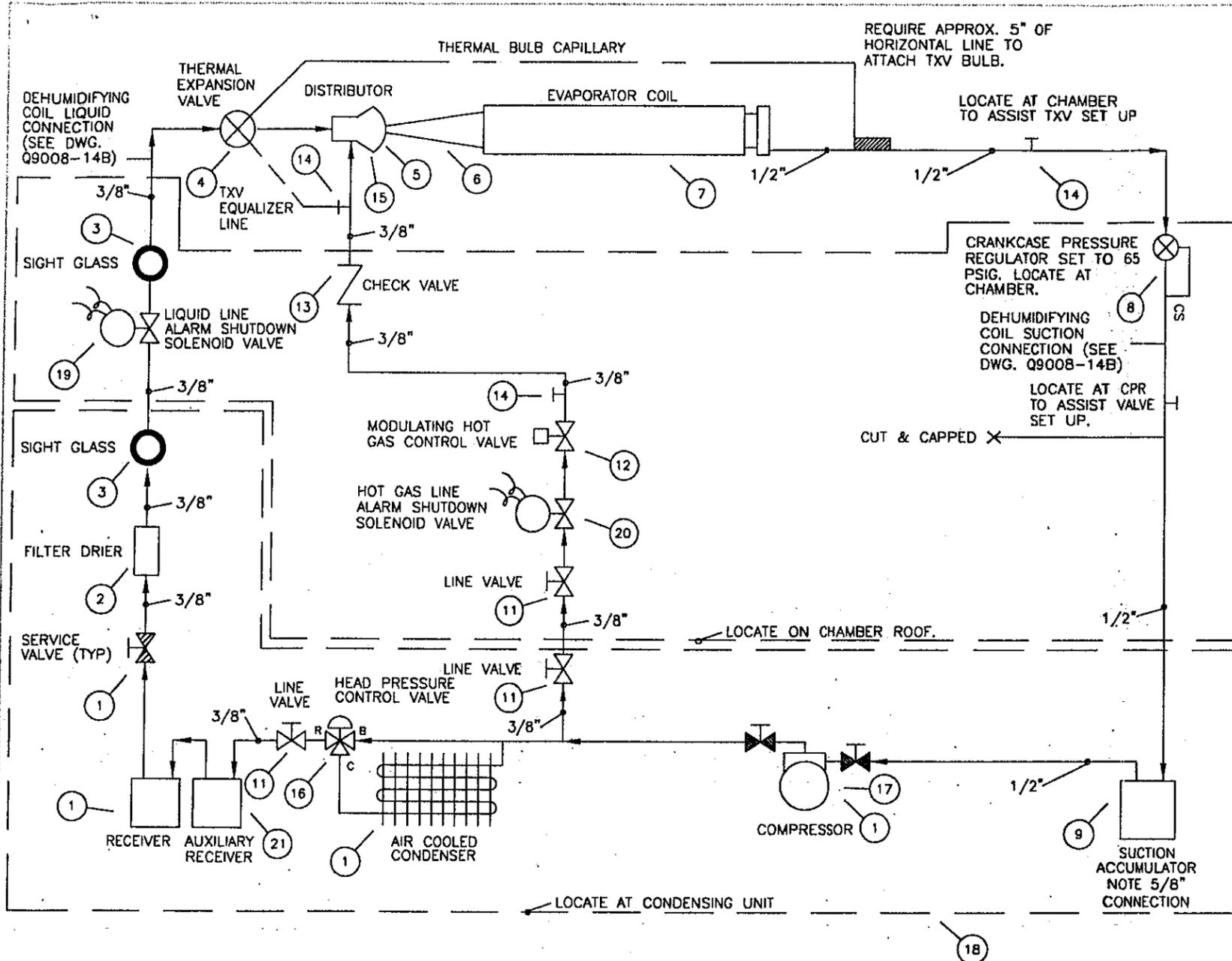
- NOTES:
- 1) DISTRIBUTOR TO BE MOUNTED VERTICALLY WITH FEEDER TUBES EXITING DOWNWARD.
 - 2) LOCATE ITEM 10 VIBRATION ELIMINATOR AS CLOSE TO SUCTION VALVE AS POSSIBLE & WITH AXIS PARALLEL TO SPIN AXIS OF COMPRESSOR.
 - 3) INSULATE SUCTION & HOT GAS LINES WITH 1/2" WALL ARMAFLEX.
 - 4) SLOPE HORIZONTAL SUCTION LINES & HOT GAS LINES TOWARDS FLOW.
 - 5) PRESSURE CHECK COMPLETED SUB ASSEMBLIES OR SYSTEM AT 175 PSIG WITH DRY NITROGEN.
 - 6) CAP ALL REFRIGERANT TUBING FOR SHIPMENT.
 - 7) CHARGE SYSTEM WITH 19.2 POUNDS OF R-22 REFRIGERANT.
 - 8) ALL TUBING FITTINGS TO BE BRAZED WITH HARRIS STAY SILV 15 OR EQUIVALENT. PURGE LINES WITH DRY NITROGEN WHILE BRAZING.
 - 9) USE STAY BRITE OR EQUIVALENT ON COMPONENTS WHERE MANUFACTURER RECOMMENDS USE OF LOWER TEMPERATURE MATERIALS FOR JOINING.
 - 10) REFER TO "GENERAL NOTES FOR REFRIGERATION PIPING INSTALLATION" FOR INSTALLATION NOTES.

22	1	AUXILIARY RECEIVER. 6 LBS CAPACITY, 3/8" SAE TYPE 3	5315
		REF. RESEARCH	
21	1	CRANKCASE HEATER 40 W. @ 240V. COMPLETE WITH MOUNTING HARDWARE.	018-0031-02
		COPELAND	
20	1	LINE VALVE. 3/8" ODS.	RB3S
		VIRGINIA KMP	
19	1	HEAD PRESSURE CONTROL VALVE. 1/2" ODF	HP5T3B
		ALCO	
18	1	WEATHER COVER.	
		E.G.C.	
17	1	HOT GAS LINE SOLENOID VALVE. NORMALLY CLOSED, 1/2" ODF. 120V MKC-2 COIL.	E9S240
		SPORLAN	
16	1	LIQUID LINE SOLENOID VALVE, NORMALLY CLOSED 3/8" ODF 120V MKC-1 COIL.	E5S130
		SPORLAN	
15	2	NOZZLE ORIFICE.	JR-3/4
		SPORLAN	
14	6	ACCESS FITTINGS.	AV3-346
		WATSCO	
13	2	CHECK VALVE 1/2" ODS.	MS-8
		MAGNICHECK	
12	1	MODULATING HOT GAS VALVE. 5/8" ODS.	SDR-3-10-S
		SPORLAN	
11	2	LINE VALVE. 5/8" ODS.	RB5S
		VIRGINIA KMP.	
10			
9	1	SUCTION ACCUMULATOR, 7/8" ODS.	HP 3738
		REFRIGERATION RESEARCH	
8	1	CRANKCASE PRESSURE REGULATOR. 50/130 PSIG. WITH STRAINER. 7/8" ODS.	OPR-10
		ALCO	
7	2	COIL. 10" H X 36" L -6R, 8 FPI, 4 CIRCUITS, 1/2" TUBES, ALUMINUM FIN.	B50491 (LH)
		SUPER RADIATOR	
6	8	FEEDER TUBES 1/4" SOFT COPPER.	PART OF ITEM 7
5	2	DISTRIBUTOR, 1651R-4-1/4"-* WITH ONE 1/2" SIDE SIDE CONNECTION. * SEE ITEM 15	PART OF ITEM 7
		SPORLAN	
4	2	THERMAL EXPANSION VALVE. EXTERNALLY EQUALIZED. 3/8" ODF X 5/8" ODF. STRAIGHT BODY.	TCLE1HW100
		ALCO	
3	2	SIGHT GLASS. 3/8" ODS.	SA-13S
		SPORLAN	
2	1	FILTER DRIER. 3/8" ODS.	EK-163S
		ALCO	
1	1	CONDENSING UNIT. AIR COOLED, R-22, HI TEMP 2 HP, 208V-3-60	F3AD-A201 TFC-001
		COPELAND	
ITEM REQD		DESCRIPTION	PART NO.

This paper and the information contained herein are proprietary and the sole property of E.G.C. Neither shall be copied or duplicated in any manner and shall not be disclosed to outside parties without our written consent. It shall be used for reference to work under contract or proposals submitted by this corporation only.

ENVIRONMENTAL GROWTH CHAMBERS
Chagrin Falls, Ohio

ENVIRONMENTAL GROWTH CHAMBERS		
SCALE None	APPROVED BY	DRAWN BY BJN
DATE 12/30/10		REVISED
REFRIGERATION SCHEMATIC		
ROOMS B4-130, E4-209 & F4-224 (5°C)		
V.A.MEDICAL CENTER	DRAWING NUMBER	



21	1	AUXILIARY RECEIVER, TYPE 3, 6 LBS CAPACITY, 3/8" SAE	REF. RESEARCH	5315
20	1	HOT GAS LINE SOLENOID VALVE NORMALLY CLOSED 3/8" ODF 120V COIL # MKC-1	SPORLAN	E5S130
19	1	LIQUID LINE SOLENOID VALVE NORMALLY CLOSED 3/8" ODF 120V COIL # MKC-1.	SPORLAN	E3S130
18	1	WEATHER COVER.	EGC	
17	1	CRANKCASE HEATER 35W 240V WITH MOUNTING HARDWARE.	COPELAND	518-0020-01
16	1	HEAD PRESSURE CONTROL VALVE, 3/8" ODS.	ALCO	HP5T3B-225
15	1	NOZZLE ORIFICE.	SPORLAN	JR-1/2
14	4	ACCESS FITTINGS.	WATSCO	AV3-346
13	1	CHECK VALVE, 3/8" ODS.	WATSCO	MS-6
12	1	MODULATING HOT GAS CONTROL VALVE, 5/8" ODS.	SPORLAN	SDR-3-10-S
11	3	LINE VALVE, 3/8" ODS.	VIRGINIA KMP.	RB3S
10				
9	1	SUCTION ACCUMULATOR, 5/8" ODS.	REFRIGERATION RESEARCH	HP 3702
8	1	CRANKCASE PRESSURE REGULATOR, 50/130 PSIG. WITH STRAINER, 5/8" ODS.	ALCO	OPR-6
7	1	COIL, 10" H X 36" L - 4R, B FPI, 2 CIRCUIT, ALUMINUM FINS.	SUPER RADIATOR	B49139 (LH)
6	2	FEEDER TUBES 1/4" SOFT COPPER.		PART OF ITEM 7
5	1	DISTRIBUTOR, 1651R-2-1/4"-* WITH ONE 1/2" SIDE CONNECTION. * SEE ITEM 15.	SPORLAN	PART OF ITEM 7
4	1	THERMAL EXPANSION VALVE, EXTERNALLY EQUALIZED, 3/8" X 5/8" ODS. STRAIGHT BODY. MOP 100	ALCO	TCLE1HW100
3	2	SIGHT GLASS, 3/8" ODS.	SPORLAN	SA-13S
2	1	FILTER DRIER, 3/8" ODS.	ALCO	EK-083S
1	1	CONDENSING UNIT, AIR COOLED, R-22, HI TEMP. 1/2 HP, 208V-1-60	COPELAND	F3AH-A056 IAV-001
ITEM REQD		DESCRIPTION		PART NO.

NOTES:

- 1) DISTRIBUTOR TO BE MOUNTED VERTICALLY WITH FEEDER TUBES EXITING DOWNWARD.
- 2) LOCATE ITEM 10 VIBRATION ELIMINATOR AS CLOSE TO SUCTION VALVE AS POSSIBLE & WITH AXIS PARALLEL TO SPIN AXIS OF COMPRESSOR.
- 3) CAP ALL REFRIGERANT TUBING FOR SHIPMENT.
- 4) ALL TUBING FITTINGS TO BE BRAZED WITH HARRIS STAY SILV 15 OR EQUIVALENT. PURGE LINES WITH DRY NITROGEN WHILE BRAZING.
- 5) USE STAY BRITE OR EQUIVALENT ON COMPONENTS WHERE MANUFACTURER RECOMMENDS USE OF LOWER TEMPERATURE MATERIALS FOR JOINING.
- 6) INSULATE HOT GAS & SUCTION LINES WITH 1/2" WALL ARMAFLEX.
- 7) INSULATE LIQUID LINE OUTSIDE OF BUILDING WITH 1/2" WALL ARMAFLEX.
- 8) LOCATE "P" TRAP AT BASE OF SUCTION LINE VERTICAL RISE & PUT REVERSE "P" TRAP AT TOP OF SUCTION LINE VERTICAL RISE.
- 9) SLOPE HORIZONTAL SUCTION LINES & HOT GAS LINES 1/2" IN 10' IN THE DIRECTION OF FLOW.
- 10) CHARGE SYSTEM WITH 9.3 POUNDS OF R-22 REFRIGERANT.

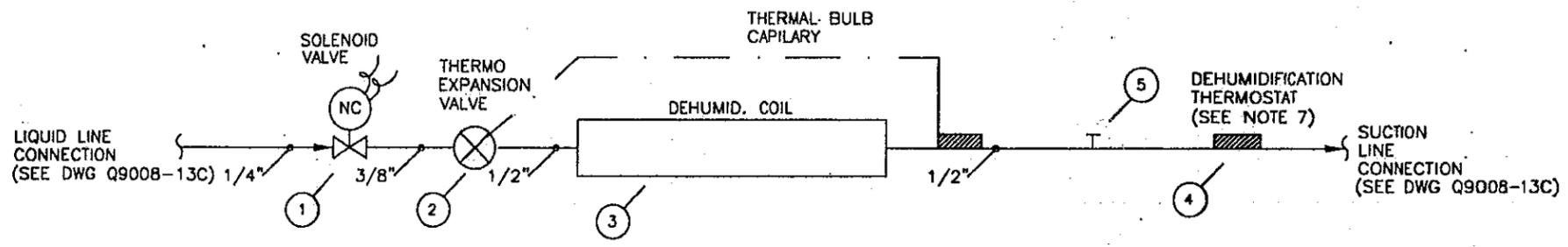
This paper and the information contained herein are proprietary and the sole property of E.G.C. Neither shall be copied or duplicated in any manner and shall not be disclosed to outside parties without our written consent. It shall be used for reference to work under contract or proposals submitted by this corporation only.

ENVIRONMENTAL GROWTH CHAMBERS
Chagrin Falls, Ohio

ENVIRONMENTAL GROWTH CHAMBERS			
SCALE None	APPROVED BY	DRAWN BY BJN	
DATE 12/30/10		REVISED	
REFRIGERATION SCHEMATIC			
ROOM E4-211 (37C, 20% TO 90%)			
V.A.MEDICAL CENTER		DRAWING NUMBER	

R A T REVISION B V

- NOTES:
- 1) CAP ALL REFRIGERANT TUBING FOR SHIPMENT.
 - 2) ALL TUBING FITTINGS TO BE BRAZED WITH HARRIS STAY SILV 15 OR EQUIVALENT. PURGE LINES WITH DRY NITROGEN WHILE BRAZING.
 - 3) USE STAY BRITE OR EQUIVALENT ON COMPONENTS WHERE MANUFACTURER RECOMMENDS USE OF LOWER TEMPERATURE MATERIALS FOR JOINING.
 - 4) PRESSURE CHECK COMPLETED SUB ASSEMBLIES OR SYSTEM AT 175 PSIG WITH DRY NITROGEN.
 - 5) INSULATE SUCTION & HOT GAS LINES WITH 1/2" WALL ARMAFLEX.
 - 6) FOR INSTALL, REFER TO "GENERAL NOTES FOR REFRIGERATION PIPING INSTALLATION".
 - 7) INSTALL THERMOSTAT BULB ON FIRST VERTICAL TUBE OF SECOND PHASE OF DEHUMIDIFYING COIL & INSULATE. MOUNT THERMOSTAT ON BACK PANEL OF EVAPORATOR NEAR ACCESS HOLE FOR SCHRADER FITTING. SET THERMOSTAT TO OPEN @ 40°F.

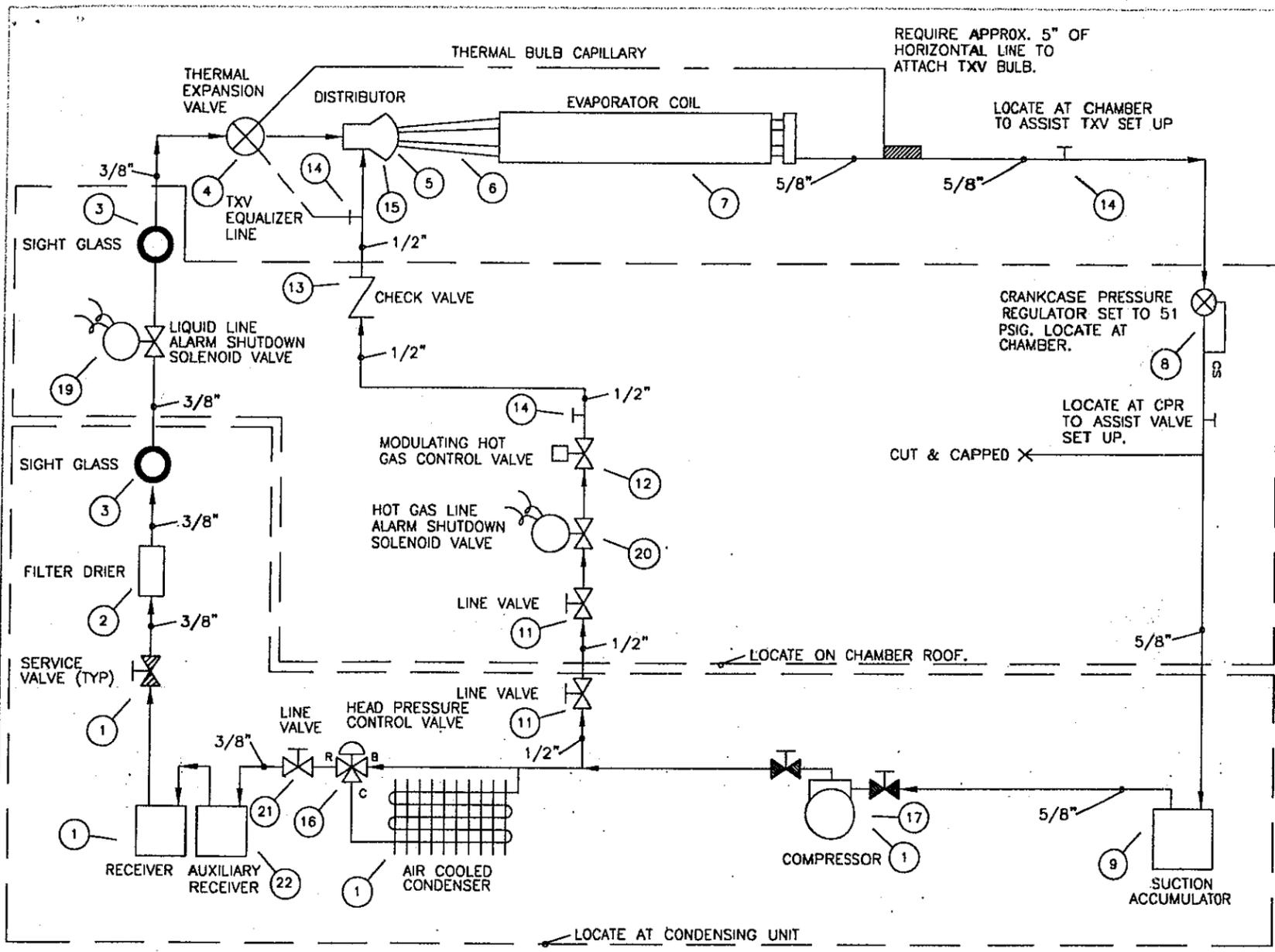


5	1	SCHRADER FITTING.	E.G.C.	AV3-346
4	1	DEHUMIDIFICATION THERMOSTAT. SEE NOTE 7 BARBER COLMAN		TC-4111
3	1	DEHUMIDIFYING COIL, STAGGERED, 3 PASS 7 1/2" X 30"	E.G.C.	
2	1	DEHUMID COIL TXV 3/8" X 1/2" ODS. STRAIGHT BODY ALCO		TCL1/2HW
1	1	DEHUMID COIL SOLENOID 1/4" ODF X 3/8" ODM .101" DIAM PORT, BUY WITH MKC-119 COIL (120V) SPORLAN		A3S1
ITEM REQD		DESCRIPTION		PART NO.

This paper and the information contained herein are proprietary and the sole property of E.G.C. Neither shall be copied or duplicated in any manner and shall not be disclosed to outside parties without our written consent. It shall be used for reference to work under contract or proposals submitted by this corporation only.

ENVIRONMENTAL GROWTH CHAMBERS
Chagrin Falls, Ohio

REVISION		ENVIRONMENTAL GROWTH CHAMBERS	
DATE 12-28-10		DRAWN BY EBN	
REVISION		REVISED	
REVISION		DEHUMIDIFICATION SCHEMATIC	
REVISION		ROOM E4-211 (37°C, 20% TO 90%)	
REVISION		V.A.MEDICAL CENTER	
REVISION		DRAWING NUMBER	



- NOTES:
- 1) DISTRIBUTOR TO BE MOUNTED VERTICALLY WITH FEEDER TUBES EXITING DOWNWARD.
 - 2) LOCATE ITEM 10 VIBRATION ELIMINATOR AS CLOSE TO SUCTION VALVE AS POSSIBLE & WITH AXIS PARALLEL TO SPIN AXIS OF COMPRESSOR.
 - 3) CAP ALL REFRIGERANT TUBING FOR SHIPMENT.
 - 4) ALL TUBING FITTINGS TO BE BRAZED WITH HARRIS STAY SILV 15 OR EQUIVALENT. PURGE LINES WITH DRY NITROGEN WHILE BRAZING.
 - 5) USE STAY BRITE OR EQUIVALENT ON COMPONENTS WHERE MANUFACTURER RECOMMENDS USE OF LOWER TEMPERATURE MATERIALS FOR JOINING.
 - 6) INSULATE HOT GAS & SUCTION LINES WITH 1/2" WALL ARMAFLEX.
 - 7) INSULATE LIQUID LINE OUTSIDE OF BUILDING WITH 1/2" WALL ARMAFLEX.
 - 8) REFER TO "GENERAL NOTES FOR REFRIGERATION PIPING INSTALLATION" FOR INSTALLATION NOTES.
 - 9) SLOPE HORIZONTAL SUCTION LINES & HOT GAS LINES 1/2" IN 10" IN THE DIRECTION OF FLOW.
 - 10) CHARGE SYSTEM WITH 12.3 POUNDS OF R-22 REFRIGERANT.

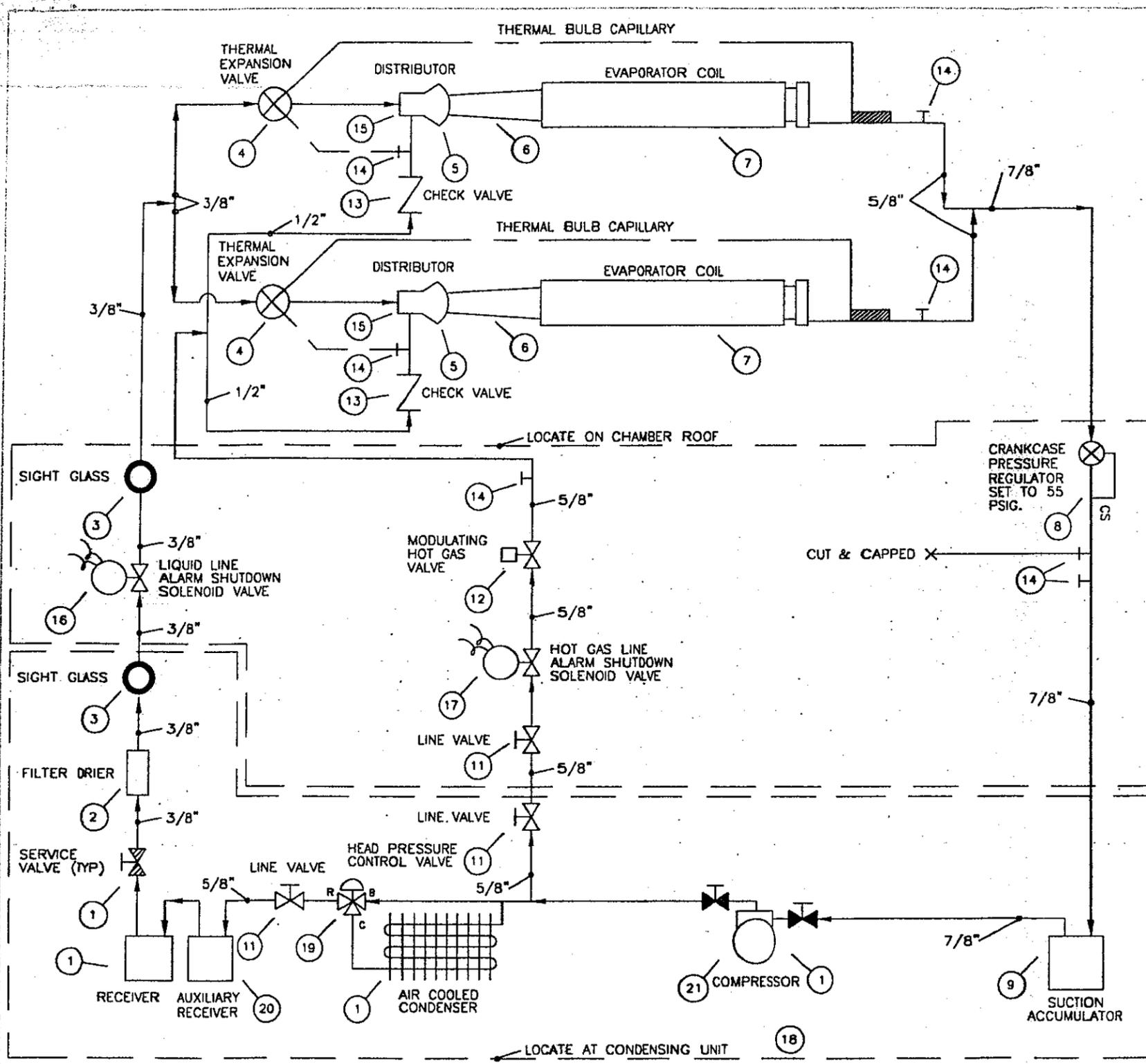
ITEM	REQD	DESCRIPTION	PART NO.
22	1	AUXILIARY RECEIVER. TYPE 3, 6 LBS CAPACITY, 3/8" SAE REF. RESEARCH	5315
21	1	LINE VALVE. 3/8" ODS VIRGINIA KMP	RB3S
20	1	HOT GAS LINE SOLENOID VALVE NORMALLY CLOSED 1/2" ODF 120V COIL # MKC-1 SPORLAN	E6S140
19	1	LIQUID LINE SOLENOID VALVE NORMALLY CLOSED 3/8" ODF 120V COIL # MKC-1. SPORLAN	E3S130
18	1	WEATHER COVER. EGC	
17	1	CRANKCASE HEATER 45W 208V WITH MOUNTING HARDWARE. COPELAND	518-0022-01
16	1	HEAD PRESSURE CONTROL VALVE. 3/8" ODS. ALCO	HP5T3B
15	1	NOZZLE ORIFICE. SPORLAN	JR-3/4
14	4	ACCESS FITTINGS. WATSCO	AV3-346
13	1	CHECK VALVE. 1/2" ODS. WATSCO	MS-8
12	1	MODULATING HOT GAS CONTROL VALVE. 5/8" ODS. SPORLAN	SDR-3-10-S
11	2	LINE VALVE. 1/2" ODS. VIRGINIA KMP.	RB4S
10			
9	1	SUCTION ACCUMULATOR. 5/8" ODS. REFRIGERATION RESEARCH	HP 3702
8	1	CRANKCASE PRESSURE REGULATOR. 0/60 PSIG. WITH STRAINER. 5/8" ODS. ALCO	OPR-6
7	1	COIL. 10" H X 36" L - 6R, 8 FPI, 4 CIRCUIT, ALUMINUM FINS. SUPER RADIATOR	B50491 (LH)
6	4	FEEDER TUBES 1/4" SOFT COPPER.	PART OF ITEM 7
5	1	DISTRIBUTOR. 1651R-4-1/4"-* WITH ONE 1/2 SIDE CONNECTION. * SEE ITEM 15. SPORLAN	PART OF ITEM 7
4	1	THERMAL EXPANSION VALVE. EXTERNALLY EQUALIZED. 3/8" X 5/8" ODS. STRAIGHT BODY. MOP 100 ALCO	TCLE1HW100
3	2	SIGHT GLASS. 3/8" ODS. SPORLAN	SA-13S
2	1	FILTER DRIER. 3/8" ODS. ALCO	EK-083S
1	1	CONDENSING UNIT. AIR COOLED, R-22, MED TEMP. 1 HP, 208V-1-60 COPELAND	F3AM-A102 TFC-001

This paper and the information contained herein are proprietary and the sole property of E.G.C. Neither shall be copied or duplicated in any manner and shall not be disclosed to outside parties without our written consent. It shall be used for reference to work under contract or proposals submitted by this corporation only.

ENVIRONMENTAL GROWTH CHAMBERS
Chagrin Falls, Ohio

ENVIRONMENTAL GROWTH CHAMBERS			
SCALE None	APPROVED BY	DRAWN BY BJN	
DATE 12/30/10		REVISED	
REFRIGERATION SCHEMATIC			
ROOM E4-225 (5°C)			
V.A.MEDICAL CENTER		DRAWING NUMBER	

REVISION	BY



- NOTES:
- 1) DISTRIBUTOR TO BE MOUNTED VERTICALLY WITH FEEDER TUBES EXITING DOWNWARD.
 - 2) LOCATE ITEM 10 VIBRATION ELIMINATOR AS CLOSE TO SUCTION VALVE AS POSSIBLE & WITH AXIS PARALLEL TO SPIN AXIS OF COMPRESSOR.
 - 3) INSULATE SUCTION & HOT GAS LINES WITH 1/2" WALL ARMAFLEX.
 - 4) SLOPE HORIZONTAL SUCTION LINES & HOT GAS LINES TOWARDS FLOW.
 - 5) PRESSURE CHECK COMPLETED SUB ASSEMBLIES OR SYSTEM AT 175 PSIG WITH DRY NITROGEN.
 - 6) CAP ALL REFRIGERANT TUBING FOR SHIPMENT.
 - 7) CHARGE SYSTEM WITH 13.2 POUNDS OF R-22 REFRIGERANT.
 - 8) ALL TUBING FITTINGS TO BE BRAZED WITH HARRIS STAY SILV 15 OR EQUIVALENT. PURGE LINES WITH DRY NITROGEN WHILE BRAZING.
 - 9) USE STAY BRITE OR EQUIVALENT ON COMPONENTS WHERE MANUFACTURER RECOMMENDS USE OF LOWER TEMPERATURE MATERIALS FOR JOINING.
 - 10) REFER TO "GENERAL NOTES FOR REFRIGERATION PIPING INSTALLATION" FOR INSTALLATION NOTES.

21	1	CRANKCASE HEATER 40 W. @ 240V. COPELAND	018-0031-02
20	1	AUXILIARY RECEIVER. TYPE 3, 6 LBS CAPACITY, 3/8" SAE REF. RESEARCH	5315
19	1	HEAD PRESSURE CONTROL VALVE. 1/2" ODF ALCO	HP5T4B
18	1	WEATHER COVER. E.G.C.	
17	1	HOT GAS LINE SOLENOID VALVE. NORMALLY CLOSED, 5/8" ODF. 120V MKC-2 COIL. SPORLAN	E10S250
16	1	LIQUID LINE SOLENOID VALVE, NORMALLY CLOSED 3/8" ODF 120V MKC-1 COIL. SPORLAN	E6S130
15	2	NOZZLE ORIFICE. SPORLAN	JR-3/4
14	7	ACCESS FITTINGS. WATSCO	AV3-346
13	2	CHECK VALVE 1/2" ODS. MAGNICHECK	MS-8
12	1	MODULATING HOT GAS VALVE. 5/8" ODS. SPORLAN	SDR-3-10-S
11	3	LINE VALVE. 5/8" ODS. VIRGINIA KMP.	RB5S
10			
9	1	SUCTION ACCUMULATOR. 7/8" ODS. REFRIGERATION RESEARCH	HP 3738
8	1	CRANKCASE PRESSURE REGULATOR. 50/130 PSIG. WITH STRAINER. 7/8" ODS. ALCO	OPR-10
7	2	COIL. 10" H X 48" L -4R, 8 FPI, 2 CIRCUITS, 1/2" TUBES, COPPER FIN. SUPER RADIATOR	B45777 (LH)
6	4	FEEDER TUBES 1/4" SOFT COPPER.	PART OF ITEM 7
5	2	DISTRIBUTOR, 1651R-2-1/4"-* WITH ONE 1/2" SIDE SIDE CONNECTION. * SEE ITEM 15 SPORLAN	PART OF ITEM 7
4	2	THERMAL EXPANSION VALVE. EXTERNALLY EQUALIZED. 3/8" ODF X 5/8" ODF. STRAIGHT BODY. ALCO	TGLE1HW100
3	2	SIGHT GLASS. 3/8" ODS. SPORLAN	SA-13S
2	1	FILTER DRIER. 3/8" ODS. ALCO	EK-163S
1	1	CONDENSING UNIT. AIR COOLED, R-22, HI TEMP 3 HP, 208V-3-60 COPELAND	F3AD-A301 TFC-001
ITEM REQD		DESCRIPTION	PART NO.

This paper and the information contained herein are proprietary and the sole property of E.G.C. Neither shall be copied or duplicated in any manner and shall not be disclosed to outside parties without our written consent. It shall be used for reference to work under contract or proposals submitted by this corporation only.

ENVIRONMENTAL GROWTH CHAMBERS

ENVIRONMENTAL GROWTH CHAMBERS

SCALE None APPROVED BY DRAWN BY BJN
DATE 12/30/10 REVISED

REFRIGERATION SCHEMATIC
ROOM C4-110 (5°C)

V.A.MEDICAL CENTER

DRAWING NUMBER