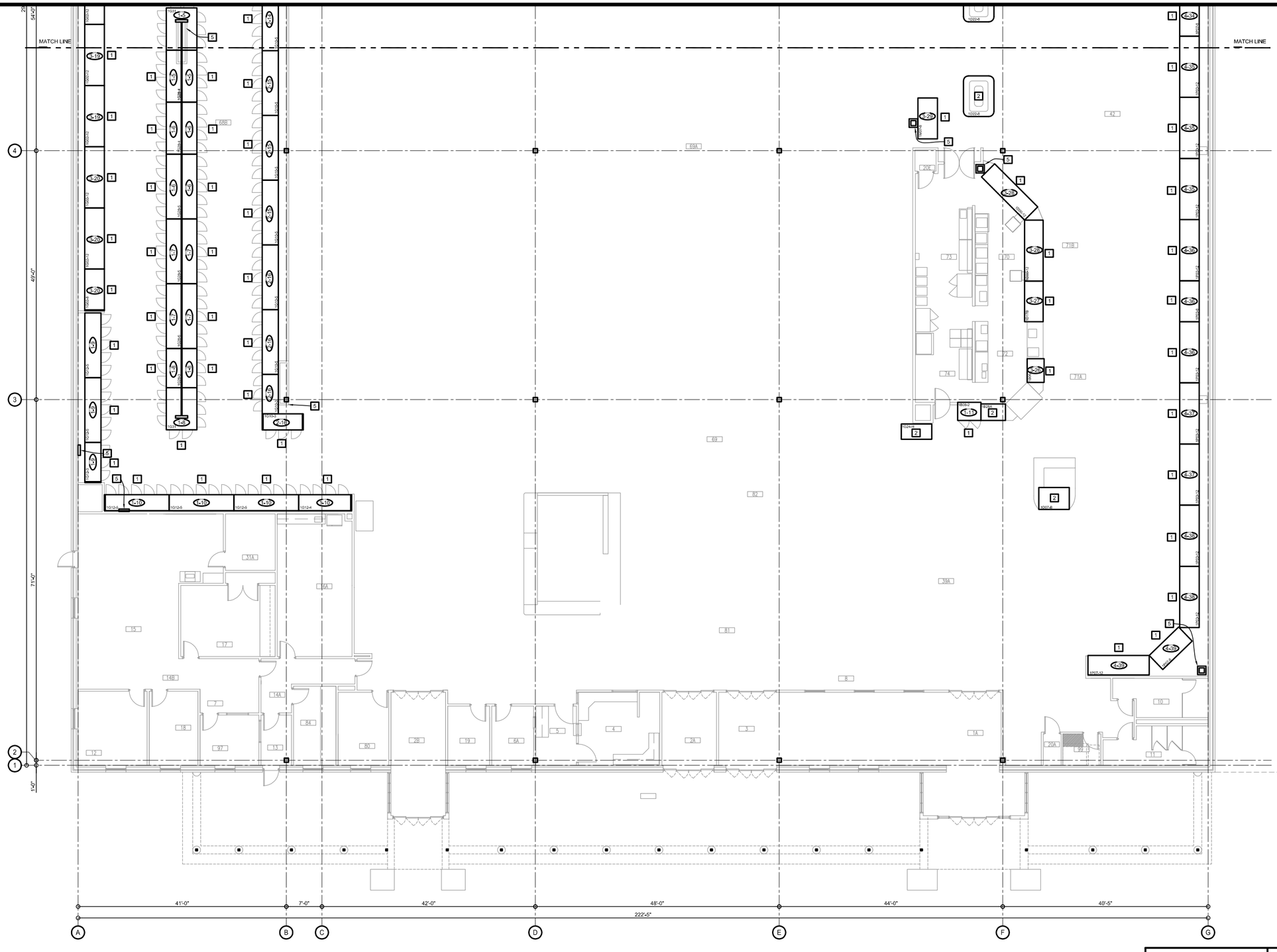


1 R1.1 ENLARGED REFRIGERATION PLAN-AREA A

0 4' 8' 16' 1/8"=1'-0"

SCALE: 1/8" = 1'-0"

ROOM LEGEND	
ROOM NO.	ROOM NAME
1A	ENTRY VESTIBULE
2A	EXIT VESTIBULE
2B	EXIT VESTIBULE
3	CART RETURN
4	CASHIER OFFICE
5	CASH COUNTING
6A	CUSTOMER SERVICE OFFICE
7	CUSTOMER WAITING
8	CART STORAGE
10	MEN'S TOILET ROOM
11	WOMEN'S TOILET ROOM
12	STORE DIRECTOR
13	ADMIN. ENTRY VESTIBULE
14A	ADMIN. CORRIDOR
14B	ADMIN. CORRIDOR
15	ADMINISTRATION OPEN OFFICE
16A	BREAK AREA
16B	BREAK AREA
17	TRAINING
18	STORE ADMIN.
19	STORE MANAGER
20A	JANITOR
20B	JANITOR
20C	JANITOR
20D	JANITOR
20E	JANITOR
21A	VESTIBULE
21B	VESTIBULE
23	DAMAGED MERCH
23A	DAMAGED SALES
25	WOMEN'S LOCKER
26B	WOMEN'S TOILET ROOM
27B	MEN'S TOILET ROOM
28	MEN'S LOCKER
30	CONT./STOCK STORAGE
31A	CISIC
31B	COMM SUB HUB
31C	FIRE RISER
31D	ELEC. DIST.
31E	MECHANICAL
32	SENSITIVE STORAGE
34	MEDICAL FOOD INSPECTION
35	RECEIVING MANAGER
36A	RECEIVING/STAGING
36B	CLASS IV MATERIAL STORAGE (INCL IN 38 AREA)
38	MHE CHARGING AREA (INCL IN 38 AREA)
39A	MASS DISPLAY AREA
42	PRODUCE SALES (INCLUDED IN 69)
43A	CHILL STORAGE GAS PRODUCE
43B	CHILL STORAGE NON GAS PRODUCE
44A	PROCESSING
44B	AMBIENT STORAGE
45	PRODUCE MANAGER
46	GROCERY MANAGER
55	MEAT PROCESSING
56	MEAT WRAPPING
57	MEAT MANAGER
58	MEAT SALES AREA (INCLUDED IN 69)
59	PRE-PACK, POULTRY & BULK MEAT STORAGE
66	DAIRY SALES AREA (INCLUDED IN 69)
67	DAIRY COOLER
68	FROZEN FOOD STORAGE
68B	FROZEN SALES (INCLUDED IN 69)
69	GENERAL SALES AREA
69A	GONDOLA SALES AREA (INCLUDED IN 69)
70	DELI SERVICE
71A	BAKERY SALES
71B	DELI SALES
72	BAKERY SERVICE
73	DELI PREP.
74	BAKERY PREP
75	DELI CHILL STORAGE
76	BAKERY FREEZER
80	BAGGER BREAK AREA
81	CHECKOUT
82	QUEUING
84	VENDOR OFFICE
97	SECT. OFFICE
98C	ROOF STAIR

NOT FOR CONSTRUCTION - PRELIMINARY DESIGN

ITEMS OF WORK		NOT COVERED		
		MAT		E
1	INSTALL REMOTE REFRIGERATION CASE.		●	
2	INSTALL SELF CONTAINED REFRIGERATION CASE		●	
3	INSTALL STANDARD PROFILE, DRAW THROUGH UNIT COOLER		●	
4	INSTALL LOW PROFILE, LOW VELOCITY UNIT COOLER		●	
5	REFRIGERATION PIPING DROP		●	
6	REFRIGERATION PIPING TRENCH		●	
7	PRE-ENGINEERED REFRIGERATION MECHANICAL CENTER		●	
8	REFRIGERATION CONDENSER		●	
9	REFRIGERATION PIPING ENTRY POINT, PROVIDE WEATHERPROOF ENCLOSURE		●	
10	NOT USED.			

TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, BASED ON AND LIMITED TO OUR NORMAL FUNCTIONS PERFORMED UNDER OUR CONTRACT WITH THE GOVERNMENT, IT IS OUR PROFESSIONAL OPINION THAT THIS PROJECT IS DESIGNED IN ACCORDANCE WITH APPLICABLE DOD REGULATIONS.

SYM.	D.O. NO.	ACTION	DATE	DESCRIPTION OF REVISION

CTA ARCHITECTS & ENGINEERS
13 NORTH 23RD STREET
BILLINGS MONTANA
1.406.248.7455

DEFENSE COMMISSARY AGENCY
DIRECTORATE OF PERFORMANCE AND POLICY
FACILITIES PROGRAMMING AND PLANNING DIVISION
FORT LEE, VIRGINIA
FACILITIES CONSTRUCTION AND SUSTAINMENT DIVISION
LACKLAND AFB, TEXAS

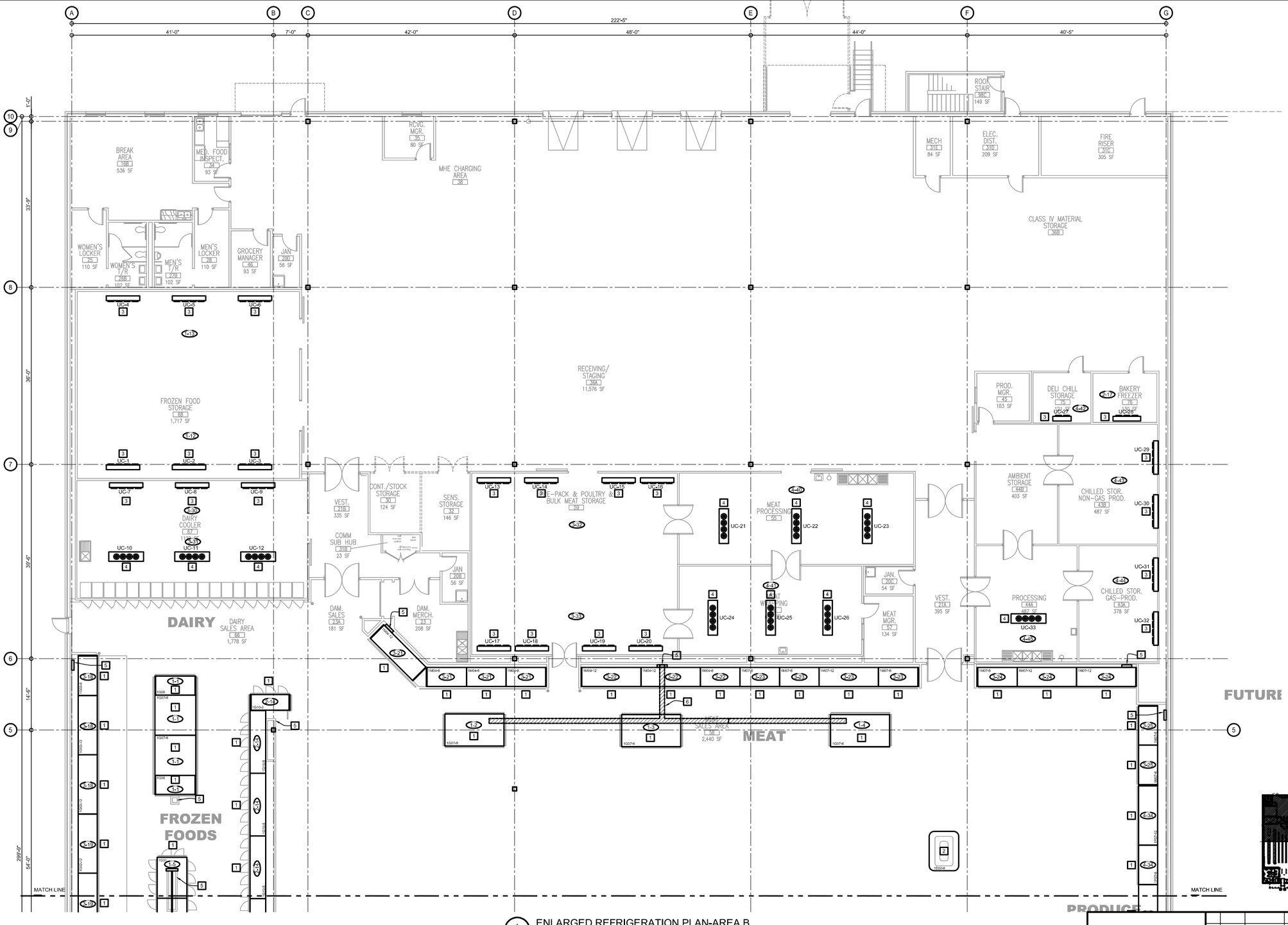
DESIGNED BY: NW
DRAWN BY: NW
REVIEWED BY: RA

DESIGN-BUILD
NEW COMMISSARY
RFP DOCUMENTS
ENLARGED REFRIGERATION PLAN AREA 'A'
FORT POLK
LA

SUBMITTED BY: CTA ARCHITECTS ENGINEERS
ENGINEER: CTA ARCHITECTS ENGINEERS

SOL. NO.
DATE: JANUARY 3, 2012
PROJECT NO. DE10MP01
DRAWING NUMBER R1.1
SHEET NO. 1 OF 4
SEQUENCE NO. -

FILE: DEFAC FORT POLK
FILE NAME: FPCR-R1.1.DWG
LAST REVISED: JAN 03, 2012 - 3:15 PM



1 R1.2 ENLARGED REFRIGERATION PLAN-AREA B

1/8"=1'-0"

0 4' 8' 16'

SCALE: 1/8" = 1'-0"

ROOM LEGEND	
ROOM NO.	ROOM NAME
1A	ENTRY VESTIBULE
2A	EXIT VESTIBULE
2B	EXIT VESTIBULE
3	CART RETURN
4	CASHIER OFFICE
5	CASH COUNTING
6A	CUSTOMER SERVICE OFFICE
7	CUSTOMER WAITING
8	CART STORAGE
10	MEN'S TOILET ROOM
11	WOMEN'S TOILET ROOM
12	STORE DIRECTOR
13	ADMIN. ENTRY VESTIBULE
14A	ADMIN. CORRIDOR
14B	ADMIN. CORRIDOR
15	ADMINISTRATION OPEN OFFICE
16A	BREAK AREA
16B	BREAK AREA
17	TRAINING
18	STORE ADMIN.
19	STORE MANAGER
20A	JANITOR
20B	JANITOR
20C	JANITOR
20D	JANITOR
20E	JANITOR
21A	VESTIBULE
21B	VESTIBULE
23	DAMAGED MERCH
23A	DAMAGED SALES
25	WOMEN'S LOCKER
26B	WOMEN'S TOILET ROOM
27B	MEN'S TOILET ROOM
28	MEN'S LOCKER
30	CONT./STOCK STORAGE
31A	CISIC
31B	COMM SUB HUB
31C	FIRE RISER
31D	ELEC. DIST.
31E	MECHANICAL
32	SENSITIVE STORAGE
34	MEDICAL FOOD INSPECTION
35	RECEIVING MANAGER
36A	RECEIVING/STAGING
36B	CLASS IV MATERIAL STORAGE (INCL IN 38 AREA)
38	MHE CHARGING AREA (INCL IN 38 AREA)
39A	MASS DISPLAY AREA
42	PRODUCE SALES (INCLUDED IN 69)
43A	CHILL STORAGE GAS PRODUCE
43B	CHILL STORAGE NON GAS PRODUCE
44A	PROCESSING
44B	AMBIENT STORAGE
45	PRODUCE MANAGER
46	GROCERY MANAGER
55	MEAT PROCESSING
56	MEAT WRAPPING
57	MEAT MANAGER
58	MEAT SALES AREA (INCLUDED IN 69)
59	PRE-PACK, POULTRY & BULK MEAT STORAGE
66	DAIRY SALES AREA (INCLUDED IN 69)
67	DAIRY COOLER
68	FROZEN FOOD STORAGE
68B	FROZEN SALES (INCLUDED IN 69)
69	GENERAL SALES AREA
69A	GONDOLA SALES AREA (INCLUDED IN 69)
70	DELI SERVICE
71A	BAKERY SALES
71B	DELI SALES
72	BAKERY SERVICE
73	DELI PREP.
74	BAKERY PREP
75	DELI CHILL STORAGE
76	BAKERY FREEZER
80	BAGGER BREAK AREA
81	CHECKOUT
82	QUEUING
84	VENDOR OFFICE
97	SECT. OFFICE
98C	ROOF STAIR

NOT FOR CONSTRUCTION - PRELIMINARY DESIGN

ITEMS OF WORK		EXCEPT CATEGORIES		
		MAR	T	S
1	INSTALL REMOTE REFRIGERATION CASE.		●	
2	INSTALL SELF CONTAINED REFRIGERATION CASE		●	
3	INSTALL STANDARD PROFILE, DRAW THROUGH UNIT COOLER		●	
4	INSTALL LOW PROFILE, LOW VELOCITY UNIT COOLER		●	
5	REFRIGERATION PIPING DROP		●	
6	REFRIGERATION PIPING TRENCH		●	
7	PRE-ENGINEERED REFRIGERATION MECHANICAL CENTER		●	
8	REFRIGERATION CONDENSER		●	
9	REFRIGERATION PIPING ENTRY POINT, PROVIDE WEATHERPROOF ENCLOSURE		●	
10	NOT USED.			

TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, BASED ON AND LIMITED TO OUR NORMAL FUNCTIONS PERFORMED UNDER OUR CONTRACT WITH THE GOVERNMENT, IT IS OUR PROFESSIONAL OPINION THAT THIS PROJECT IS DESIGNED IN ACCORDANCE WITH APPLICABLE DOD REGULATIONS.

SYM.	D.O. NO.	ACTION	DATE	DESCRIPTION OF REVISION

CTA ARCHITECTS & ENGINEERS
13 NORTH 23RD STREET
BILLINGS MONTANA
1.406.248.7455

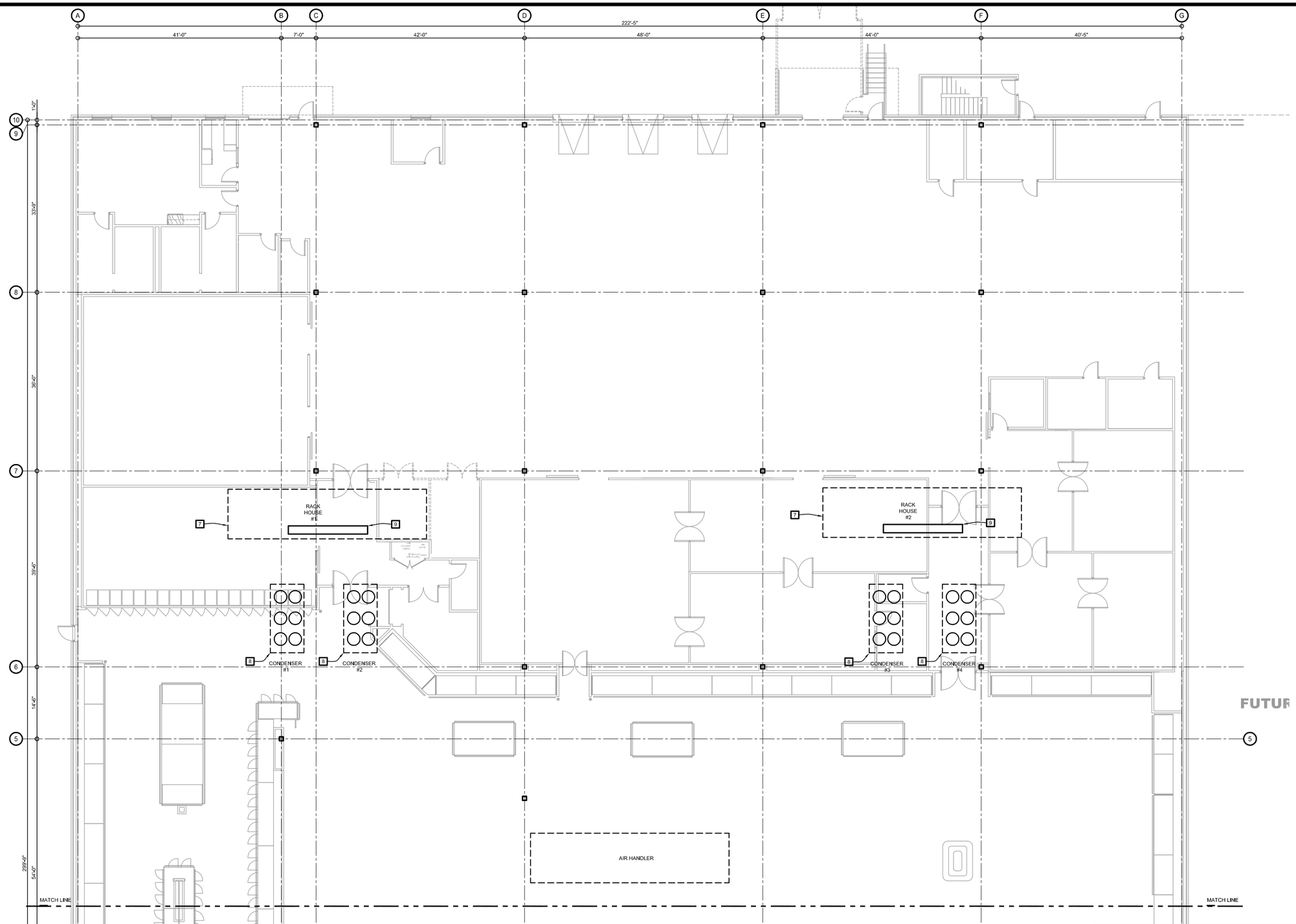
DEFENSE COMMISSARY AGENCY
DIRECTORATE OF PERFORMANCE AND POLICY
FACILITIES PROGRAMMING AND PLANNING DIVISION
FORT LEE, VIRGINIA
FACILITIES CONSTRUCTION AND SUSTAINMENT DIVISION
LACKLAND AFB, TEXAS

DESIGNED BY: NW
DRAWN BY: NW
REVIEWED BY: RA

DESIGN-BUILD
NEW COMMISSARY
RFP DOCUMENTS
ENLARGED REFRIGERATION PLAN AREA 'B'
FORT POLK
LA

SUBMITTED BY: CTA ARCHITECTS ENGINEERS
ENGINEER: CTA ARCHITECTS ENGINEERS

SOL. NO.
DATE: JANUARY 3, 2012
PROJECT NO. DE10MP01
DRAWING NUMBER R1.2
SHEET NO. 2 OF 4
SEQUENCE NO. -



1 R1.3 PARTIAL REFRIGERATION ROOF PLAN

1/8"=1'-0"

0 4' 8' 16'

SCALE: 1/8" = 1'-0"

ITEMS OF WORK		REFER TO SCHEDULE		
		RFQ	A	C
1	NOT USED.			
2	NOT USED.			
3	NOT USED.			
4	NOT USED.			
5	NOT USED.			
6	NOT USED.			
7	PRE-ENGINEERED REFRIGERATION MECHANICAL CENTER LOCATED ON ROOF		●	
8	REFRIGERATION CONDENSER LOCATED ON ROOF		●	
9	REFRIGERATION PIPING ENTRY POINT. PROVIDE WEATHERPROOF ENCLOSURE		●	
10	NOT USED.			

NOT FOR CONSTRUCTION - PRELIMINARY DESIGN

TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, BASED ON AND LIMITED TO OUR NORMAL FUNCTIONS PERFORMED UNDER OUR CONTRACT WITH THE GOVERNMENT, IT IS OUR PROFESSIONAL OPINION THAT THIS PROJECT IS DESIGNED IN ACCORDANCE WITH APPLICABLE DOD REGULATIONS.

SYM.	D.O. NO.	ACTION	DATE	DESCRIPTION OF REVISION

CTA ARCHITECTS & ENGINEERS
13 NORTH 23RD STREET
BILLINGS MONTANA
1.406.248.7455

DEFENSE COMMISSARY AGENCY
DIRECTORATE OF PERFORMANCE AND POLICY
FACILITIES PROGRAMMING AND PLANNING DIVISION
FORT LEE, VIRGINIA
FACILITIES CONSTRUCTION AND SUSTAINMENT DIVISION
LACKLAND AFB, TEXAS

DESIGNED BY: NW
DRAWN BY: NW
REVIEWED BY: RA

DESIGN-BUILD NEW COMMISSARY

RFP DOCUMENTS

REFRIGERATION PARITIAL ROOF PLAN

FORT POLK
LA

SUBMITTED BY: CTA ARCHITECTS ENGINEERS

ENGINEER: CTA ARCHITECTS ENGINEERS

SOL. NO.

DATE: JANUARY 3, 2012

PROJECT NO. DE10MP01

DRAWING NUMBER R1.3

SHEET NO. 3 OF 4

SEQUENCE NO. -

FILE: DECAY-FT.POLK
FILE NAME: POLK001.s.dwg
REFERENCE FILES: REF-FT.POLK

REFRIGERATION EQUIPMENT AND PIPING SCHEDULE

SYSTEM NUMBER	CIRCUIT NO.	REFRIG TYPE	COOLING EQUIPMENT SERVED: EQUIP. NO.	COOLING EQUIPMENT SERVED: DESCRIPTION	REQUIRED CAPACITY: EA CIRCUIT-MBH	REQUIRED CAPACITY: TOTAL-BTUH	SST (F) [9]	REFRIGERANT LINE SIZE: LIQUID LINE	REFRIGERANT LINE SIZE: SUCTION LINE	REFRIGERANT LINE SIZE: SUCTION RISER	DEFROST TYPE	ELEC. DEFROST VOLT/PH/AMPS [4]	FAN VOLT/PH/AMPS [4]	LIGHTS AMPS@115V	TEMP. CONTROL VALVE	CONTROL NOTES	COMPRESSOR DISCH	CONDENSER LIQUID	CONDENSER UNIT NO.	SYSTEM NUMBER	REMARKS
	1	R-404A	1G06, 1G07-8	WIDE ISLAND	13.5 [8]		-20°	[5]	[5]	[5]	EL	208/X/X [2]	115/1/X [2]	[8]	[3]	[1]					
	2	R-404A	1G07-8	WIDE ISLAND	4.2		-20°				EL	208/X/X	115/1/X								
	3	R-404A	1G07-8	WIDE ISLAND	4.2		-20°				EL	208/X/X	115/1/X								
	4	R-404A	1G07-8	WIDE ISLAND	4.2		-20°				EL	208/X/X	115/1/X								
	5	R-404A	1G28-4, 1G31	16 DRS	17.8		-19°				EL	208/X/X	115/1/X								
	6	R-404A	1G28-4,5	18 DRS	20.1		-19°				EL	208/X/X	115/1/X								
	7	R-404A	1G28-5	20 DRS	22.3		-19°				EL	208/X/X	115/1/X								
CS-1	8	R-404A	1G28-3, 1G31	14 DRS	15.6	223.9	-19°				EL	208/X/X	115/1/X							CS-1	
	9	R-404A	1G12-3,5	13 DRS	17.6		-17°				EL	208/X/X	115/1/X								
	10	R-404A	1G12-4,5	19 DRS	25.7		-17°				EL	208/X/X	115/1/X								
	11	R-404A	1B08-2	2 DRS	2.5		-17°				EL	208/X/X	115/1/X								
	12	R-404A	UC 1-3	1/2 FROZEN FOOD STORAGE	38.1		-20°				EL	208/X/X	208/1/X								
	13	R-404A	UC 4-6	1/2 FROZEN FOOD STORAGE	38.1		-20°				EL	208/X/X	208/1/X								
				SPARE REFRIGERATION STUB													[6]	[6]	ACC-1		[7]
	14	R-404A	1G10-3,5	18 DRS	22.5 [8]		-7°	[5]	[5]	[5]	EL	208/X/X [2]	115/1/X [2]	[8]	[3]	[1]					
	15	R-404A	1G10-5	15 DRS	18.8		-7°				EL	208/X/X	115/1/X								
CS-2	16	R-404A	1G10-3,5	16 DRS	20.0	72.1	-7°				EL	208/X/X	115/1/X							CS-2	
	17	R-404A	UC 28	BAKERY FREEZER	10.8		-14°				EL	208/X/X	208/1/X								
				SPARE REFRIGERATION STUB													[6]	[6]	ACC-2		[7]
	18	R-404A	1G02-8,12	32' DAIRY MULTI-DECK	33.6 [8]		+24°	[5]	[5]	[5]	OC		115/1/X [2]	[8]	[3]	[1]					
	19	R-404A	1G02-12	36' DAIRY MULTI-DECK	37.8		+24°				OC		115/1/X								
	20	R-404A	1G02-8,12	32' DAIRY MULTI-DECK	33.6		+24°				OC		115/1/X								
	21	R-404A	1M04-8,12	36' DELI MULTI-DECK	41.9		+26°				OC		115/1/X								
	22	R-404A	1M04-8,12	32' DELI MULTI-DECK	37.3		+26°				OC		115/1/X								
	23	R-404A	1M07-8,12	36' MEAT MULTI-DECK	49.3		+26°				OC		115/1/X								
	24	R-404A	1M07-8,12	32' MEAT MULTI-DECK	43.8		+26°				OC		115/1/X								
	25	R-404A	1M07-8	16' MEAT MULTI-DECK	21.9		+26°				OC		115/1/X								
CS-3	26	R-404A	1B06	6' BAKERY DISPLAY CASE	2.7	465.9	+22°				OC		115/1/X							CS-3	
	27	R-404A	1D17-B	8' SANDWICH	6.0		+20°				OC		115/1/X								
	28	R-404A	1D00-12	24' DELI CASE	12.0		+18°				OC		115/1/X								
	29	R-404A	1M07-8	8' MEAT MULTI-DECK	11.0		+26°				OC		115/1/X								
	30	R-404A	UC 7-9	1/2 DAIRY CHILL STORAGE	32.3		+24°				OC		115/1/X								
	31	R-404A	UC 10-12	1/2 DAIRY CHILL STORAGE	32.3		+24°				OC		115/1/X								
	32	R-404A	UC 13-16	1/2 PRE-PACK POULTRY/ MEAT STORAGE	35.2		+24°				EL	208/X/X [2]	208/1/X								
	33	R-404A	UC 17-20	1/2 PRE-PACK POULTRY/ MEAT STORAGE	35.2		+24°				EL	208/X/X	208/1/X								
				SPARE REFRIGERATION STUB													[6]	[6]	ACC-3		[7]
	34	R-404A	1P07-8, 12	20' PRODUCE MULTI-DECK	25.8 [8]		+26°	[5]	[5]	[5]	OC		115/1/X [2]	[8]	[3]	[1]					
	35	R-404A	1P03-12	36' PRODUCE SINGLE-DECK	32.8		+34°				OC		115/1/X								
	36	R-404A	1P03-8,12	32' PRODUCE SINGLE-DECK	29.1		+34°				OC		115/1/X								
	37	R-404A	1P03-12	24' PRODUCE SINGLE-DECK	21.8		+34°				OC		115/1/X								
	38	R-404A	1P03-12	24' PRODUCE SINGLE-DECK	21.8		+34°				OC		115/1/X								
	39	R-404A	1P07-8,12	20' PRODUCE MULTI-DECK	25.8		+26°				OC		115/1/X								
CS-4	40	R-404A	UC 21-23	MEAT PROCESSING	46.6	328.8	+30°				OC		115/1/X							CS-4	
	41	R-404A	UC 24-26	MEAT WRAPPING	36.5		+30°				OC		115/1/X								
	42	R-404A	UC 27	DELI CHILL STORAGE	10.2		+24°				OC		115/1/X								
	43	R-404A	UC 29-30	CHILL NON-GAS PRODUCE	27.6		+30°				OC		115/1/X								
	44	R-404A	UC 31,32	CHILL GAS PRODUCE	23.1		+30°				OC		115/1/X								
	45	R-404A	UC 33	PRODUCE PROCESSING	27.7		+30°				OC		115/1/X								
				SPARE REFRIGERATION STUB													[6]	[6]	ACC-4		[7]
5		R-404A	1D22-8	6' MEAT/DELI ISLAND	SELF-CONTAINED																
6		R-404A	1D22-8	6' MEAT/DELI ISLAND	SELF-CONTAINED																
7		R-404A	1B28-A		SELF-CONTAINED																
8		R-404A	1D07-B		SELF-CONTAINED																
9		R-404A	1G24-H	MULTI-DECK GRAB-N-GO	SELF-CONTAINED																

SHEET NOTES

[1] TEMPERATURE CONTROLLED BY EPR VALVE. RMCS LOW TEMPERATURE SAFETY SHUTDOWN.

[2] ELECTRICAL AMPS AND PHASE VARY DEPENDING ON EQUIPMENT MANUFACTURER USED.

[3] SPORLAN SORIT OR EQUIVALENT. SIZE BASED ON BTU CAPACITY AND SUCTION TEMPERATURE OF SYSTEM.

[4] THESE ARE STANDARD ELECTRICAL CHARACTERISTICS BUT MAY VARY DEPENDING ON EQUIPMENT MANUFACTURER USED.

[5] REFRIGERATION PIPE SIZE DEPENDANT ON BTU LOAD OF SYSTEM AND EQUIVALENT LENGTH OF PIPE. KEEP VELOCITIES OF HORIZONTAL PIPING ABOVE 700 F.P.M., ABOVE 1500 F.P.M. FOR SUCTION RISERS, AND BELOW 100 F.P.M. FOR LIQUID LINES. MAXIMUM PRESSURE DROP FOR COMBINED SUCTION AND SUCTION RISER IS 2.5 LBS. FOR MEDIUM TEMP SYSTEM AND 1.3 LBS FOR LOW TEMP SYSTEMS . MAXIMUM TEMPERATURE DROP FOR LIQUID LINE SHOULD BE 5.0 LBS.

[6] COMPRESSOR DISCHARGE LINES VELOCITIES SHOULD TRY TO MAINTAIN 1500 F.P.M. CONDENSER LIQUIED LINE VELOCITIES SHOULD BE NEAR OR BELOW 100 F.P.M.

[7] REFRIGERANT PIPING TO H.R.C. AND H.R.W.H. SHALL BE THE SAME SIZE AS COMPRESSOR SYSTEM DISCHARGE PIPING, REFRIGERANT PIPING FROM H.R.C. AND H.R.W.H. SHALL BE SAME SIZE AS SYSTEM CONDENSER LIQUID PIPING.

[8] DEPENDANT ON EQUIPMENT MANUFACTURER USED.

[9] SUCTION TEMPERATURES ARE A GUIDELINE. DEPENDING ON MANUFATURER USED, SUCTION TEMPERATURES MAY VARY. THE MOST ENERGY EFFICIENT CASES AVAILABLE SHALL BE USED.

REFRIGERATION ABBREVIATIONS

CS	COMPRESSOR SYSTEM
EPR	EVAPORATOR PRESSURE REGULATOR
F.P.M.	FEET PER MINUTE
HRC	HEAT RECLAIM COIL
HRWH	HEAT RECMAIL WATER HEATER
LBS.	POUNDS
PH	PHASE
RMCS	REFRIGERATION MONITORING AND CONTROL SYSTEM
SST	SATURATED SUCTION TEMPERATURE
V	VOLTS

REFRIGERATION COMPRESSOR SYSTEM SCHEDULE

SYSTEM NUMBER	CIRCUITS SERVED	INSTALLED CAPACITY BTUH [1]	SST °F	CONDENSING TEMP °F	NOMINAL HEAT REJECTION BTUH	COMPRESSOR (S) HP - MINIMUM [4]	VOLTS/PHASE	RLA TOTAL	REFRIG. TYPE	COMPRESSORS: NUMBERS	COMPRESSORS: EER	COMPRESSORS: KW	COMPRESSORS: FLA	HEAT RECLAIM: HRC MARK NO.	HEAT RECLAIM: SYS. CAP.-BTUH (1000)	REMARKS
CS-1	1-13	40,000			[3]	6				[2]	[3]	[3]	[3]	HRWH-1		CS-1 AND CS-2 IN LOW TEMP RACK HOUSE ON ROOF
		45,600				7										
		45,600				7										
		61,500	-22	105		10	480/3	[3]	R-404A							
CS-2	14-17	20,500			[3]	3				[2]	[3]	[3]	[3]	HRWH-2		CS-1 AND CS-2 IN LOW TEMP RACK HOUSE ON ROOF
		23,800				3.5										
		38,900	-16	105		5.5	480/3	[3]	R-404A							
CS-3	18-33	70,000			[3]	6.5				[2]	[3]	[3]	[3]	HRC-2		CS-3 AND CS-4 IN MEDIUM TEMP RACK HOUSE ON ROOF
		115,000				10										
		115,000				10										
		121,000				12										
		121,000	+16	110		12	480/3	[3]	R-404A							
CS-4	34-45	59,000			[3]	5				[2]	[3]	[3]	[3]	HRC-1		CS-3 AND CS-4 IN MEDIUM TEMP RACK HOUSE ON ROOF
		95,500				7.5										
		118,000				10										
		118,000	+22	110		10	480/3	[3]	R-404A							

NOTES:
[1] TOTAL COMPRESSOR CAPACITY SHALL EXCEED LOAD BY A MINIMUM OF 10%.
[2] DEPENDENT ON COMPRESSOR MANUFACTURER USED.
[3] DEPENDENT ON COMPRESSOR MODEL(S) USED.
[4] DISPLAY CASE MANUFACTURER SHALL SUBMIT ACTUAL COMPRESSORS TO BE FURNISHED AND INSTALLED. CAPACITY STEPS SHALL BE COORDINATED WITH RMCS MANUFACTURER TO MAINTAIN A MINIMUM OF ONE CYCLE PER DAY AND A MAXIMUM OF 100 CYCLES PER DAY ON EACH COMPRESSOR.

REFRIGERATION AIR COOLED CONDENSER SCHEDULE

MARK NO.	NOM. CFM	COMPRESSOR SYSTEM CAPACITY MBH	HEAT OF COMPRESSION FACTOR	ELEVATION CORRECTION FACTOR	MIN. CAPACITY GROSS HEAT REJECTION MBH	ΔT	ENT. AIR TEMP °F	CONDENSING TEMP °F	REFRIG. TYPE	FAN QTY	FAN HP EA	VOLTS/ PHASE	FLA TOTAL	MAX. FINS/INCH	DRIVE	REMARKS
ACC-1	[1]	164.7 [2]	[3]	1.00	253.992 [2]	10	95	105	R-404A	4 [1]	1 [1]	480/3	[1]	10	DIRECT	
ACC-2		163.3		1.00	244.082	10	95	105	R-404A	4	1	480/3		10	DIRECT	
ACC-3		443.0		1.00	588.487	15	95	110	R-404A	6	1	480/3		10	DIRECT	
ACC-4		460.5		1.00	593.496	15	95	110	R-404A	6	1	480/3		10	DIRECT	

NOTES:
[1] DEPENDENT ON CONDENSER MANUFACTURER USED.
[2] VALUES MAY VARY BASED ON COMPRESSOR MODELS USED.
[3] VALUES MAY VARY IF SUCTION TEMPERATURE OF COMPRESSOR SYSTEMS CHANGE FROM WHAT IS SHOWN ON PLANS.

HOT WATER HEAT RECLAIM SCHEDULE

MARK NO.	LOCATION	HEAT OF REJECTION MBH MIN	HEAT OF REJECTION MBH MAX	MAX. REFRIG. PRESS. DROP THROUGH UNIT	REFRIG. TYPE	COMPRESSOR SYSTEM MARK NO.	REMARKS
HRWH-1	MECH CENTER	[1]	[1]	5 PSI	R-404A	CS-1	HEAT RECLAIM WATER HEATER #1 [2]
HRWH-2	MECH CENTER	[1]	[1]	5 PSI	R-404A	CS-2	HEAT RECLAIM WATER HEATER #2 [2]

NOTES:
[1] VALUES MAY VARY BASED ON COMPRESSOR MODELS USED.
[2] H.R.C. PIPING SIZE SHALL MATCH THE DISCHARGE AND CONDESATE SIZE OF THE SYSTEM IT IS ATTACHED TO.

HEAT RECLAIM COIL SCHEDULE

MARK NO.	LOCATION	CFM	HEAT OF REJECTION MBH MIN	HEAT OF REJECTION MBH MAX	MAX. FACE VEL.-FPM	ΔP H20	MAX. REFRIG. PRESS. DROP THROUGH COIL	REFRIG. TYPE	NO. OF CIR	MAX. FINS/INCH	COMPRESSOR SYSTEM MARK NO.	REMARKS
HRC-1	ROOF	-	[1]	[1]	-	-	5.0 PSI	R-404A	1	12 FPI	CS-4	HEAT RECLAIM COIL AHU-1 [2]
HRC-2	ROOF	-	[1]	[1]	-	-	5.0 PSI	R-404A	1	12 FPI	CS-3	HEAT RECLAIM COIL AHU-1 [2]

NOTES:
[1] DEPENDENT ON COMPRESSOR MODEL(S) USED. MAX CAPITY IS 40% OF COMPRESSOR CAPACITY.
[2] H.R.C. PIPING SIZE SHALL MATCH THE DISCHARGE AND CONDESATE SIZE OF THE SYSTEM IT IS ATTACHED TO.

NOT FOR CONSTRUCTION - PRELIMINARY DESIGN

TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, BASED ON AND LIMITED TO OUR NORMAL FUNCTIONS PERFORMED UNDER OUR CONTRACT WITH THE GOVERNMENT, IT IS OUR PROFESSIONAL OPINION THAT THIS PROJECT IS DESIGNED IN ACCORDANCE WITH APPLICABLE DOD REGULATIONS.

SYM.	D.O. NO.	ACTION	DATE	DESCRIPTION OF REVISION

CTA ARCHITECTS & ENGINEERS
13 NORTH 23RD STREET
BILLINGS MONTANA
1.406.248.7455

DEFENSE COMMISSARY AGENCY
DIRECTORATE OF PERFORMANCE AND POLICY
FACILITIES PROGRAMMING AND PLANNING DIVISION
FORT LEE, VIRGINIA
FACILITIES CONSTRUCTION AND SUSTAINMENT DIVISION
LACKLAND AFB, TEXAS

DESIGNED BY: NW
DRAWN BY: NW
REVIEWED BY: RA

DESIGN-BUILD
NEW COMMISSARY
RFP DOCUMENTS
REFRIGERATION SCHEDULE
FORT POLK
LA

SUBMITTED BY: CTA ARCHITECTS ENGINEERS
ENGINEER: CTA ARCHITECTS ENGINEERS

SOL. NO.
DATE: JANUARY 3, 2012
PROJECT NO. DE10MP01
DRAWING NUMBER R2.1
SHEET NO. 1 OF 4
SEQUENCE NO. -

CTA# DECA2_FTPOLK
FILE NAME SFLDr2.1.dwg
DIRECTORY DECA\DECA2FTPOLK