

E-Pak Technology, Inc.

EVAPORATIVE COOLED PACKAGED CHILLER
AND CHILLED WATER PLANTS

SUBMITTAL

JOB NUMBER: 110608A

JOB NAME: CYRUS ONE HOUSTON DATA CNTR

E-PAK MODEL ECC-530-268ST

DATE: AUGUST 26, 2011



E-PAK TECHNOLOGY, INC.

20 Haws Lane F-20
FLOURTOWN, PA 19031

**SUBMITTAL DATA**

Phone: 215-233-0608
Fax: 215-233-0608

PROJECT SUMMARY:

PROJECT NUMBER:	110608A	SOLD TO:	Cyrus One
PROJECT NAME:	Houston Data Center	SALES OFFICE:	HOME
PROJECT LOCATION:	Houston, TX	SALES ENGINEER:	Thomas White
DATE:	06/08/11	E-PAK CONTACT:	J. Guckin
ORDER DATE:	-	DESIGN ENGINEER:	RLB Engineers
ORDER NUMBER:	-	NOTES:	Final Proposal 82.8 WB

DESIGN CONDITIONS:

WET BULB, F:	82.8	TOTAL FLOW RATE, GPM:	577
TOTAL CAPACITY, TONS:	288.3	PRESSURE DROP, FT:	12
COMPRESSOR POWER:	249.5	FLUID TYPE:	H2O
TOTAL SYSTEM (kW):	297.5	FLUID PERCENT:	100%
TOTAL SYSTEM kW/TON:	1.03	FOULING FACTOR:	0.00010
SYSTEM EER:	11.6	SHIPPING WEIGHT: LBS.	44800
ENTERING FLUID TEMP, F:	60	OPERATING WEIGHT: LBS	56400
LEAVING FLUID TEMP, F:	48	REFRIGERANT TYPE:	R-134a
VOLTS (60 HZ / 3 PH)	460	SYSTEM CHARGE LBS. :	2300

PROPOSAL SUMMARY:

MODEL NO.:	ECC 530-268STT	NUMBER OF PRI. CHW PUMPS	0
		PUMP TDH IN FEET	0
		EACH PUMP % FLOW OF ENTIRE CHILLER PACKAGE	0%
		NUMBER OF SEC. CHW PUMPS	0
DUTY:	Air Conditioning	SEC. PUMP TDH IN FEET	0
	460 Volt Wye Delta	EACH PUMP % FLOW OF SECONDARY SYSTEM	0%
STARTER:	Starter		

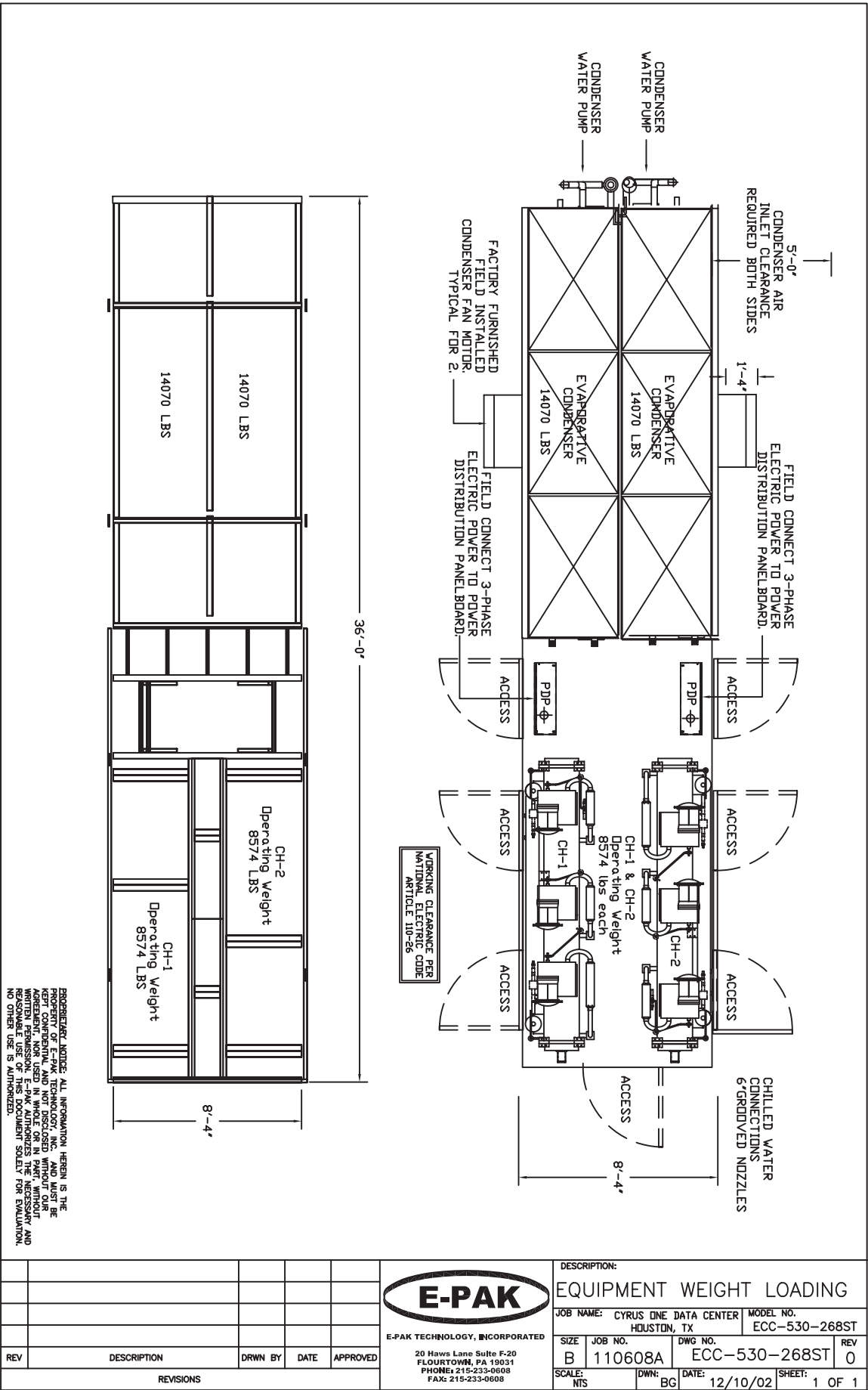
Dual Power Souece Each Panel

EQUIPMENT LOADS :	TYPE	Volts	POWER	MCA	RLA	LRA	BRKR
CHILLER #1 HXA271	Chiller 1	460	249.5 kW	513.175	-	-	671.1
Compressor 1	H-Screw	460	-	-	157.9	371	NA
Compressor 2	H-Screw	460	-	-	157.9	371	NA
Compressor 3	H-Screw	460	-	-	157.9	371	NA
CHILLER #2 HXA271	Chiller 2	460	-	0	-	-	0.0
Compressor 1	H-Screw	460	-	-	-	-	NA
Compressor 2	H-Screw	460	-	-	-	-	NA
Compressor 3	H-Screw	460	-	-	-	-	NA
Condenser #1	-	460	-	-	0	0	0.0
Condenser Fan 1	TEFC	460	25 HP	-	34	182	76.5
Condenser Fan 2	TEFC	460	-	-	-	-	N/A
Condenser Pump 1	TEFC	460	2 HP	-	3.4	46	7.7
Condenser Pump 2	TEFC	460	-	-	-	0	N/A
	ODP	460	-	-	0	0	0.0
	ODP	460	-	-	0	0	0.0
	ODP	460	-	-	0	0	0.0
	ODP	460	-	-	0	0	0.0
Auxilliary power	Trnsfrmr (Line/115V)	460	3 KVA	-	6.2	0	14.0
Totals	Totals	-	-	556.775	517.3	-	714.7

SOUND LEVEL = 66 dBA @ 50 ft

OUTDOOR DESIGN CONDITIONS = 112.6° F Dry Bulb Temp & 82.8° F Wet Bulb Temp





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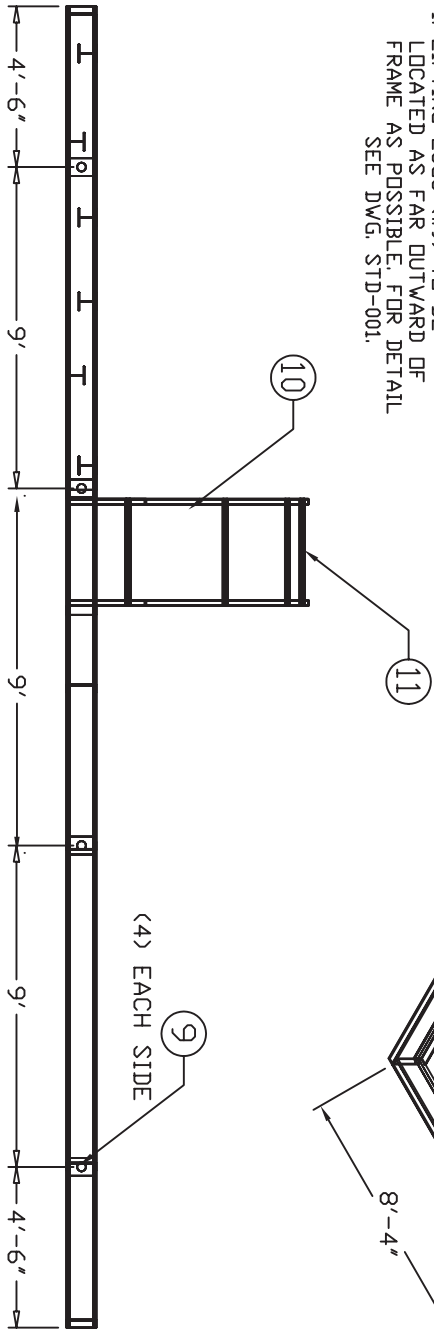
REVISIONS					EQUIPMENT WEIGHT LOADING				
REV	DESCRIPTION	DRWN BY	DATE	APPROVED	DESCRIPTION	JOB NAME: CYRUS ONE DATA CENTER HOUSTON, TX	MODEL NO. ECC-530-268ST	SIZE B	JOB NO. 110608A
								DWG NO. ECC-530-268ST	REV 0
						SCALE: NTS	DWN: BG	DATE: 12/10/02	SHEET: 1 OF 1

E-PAK

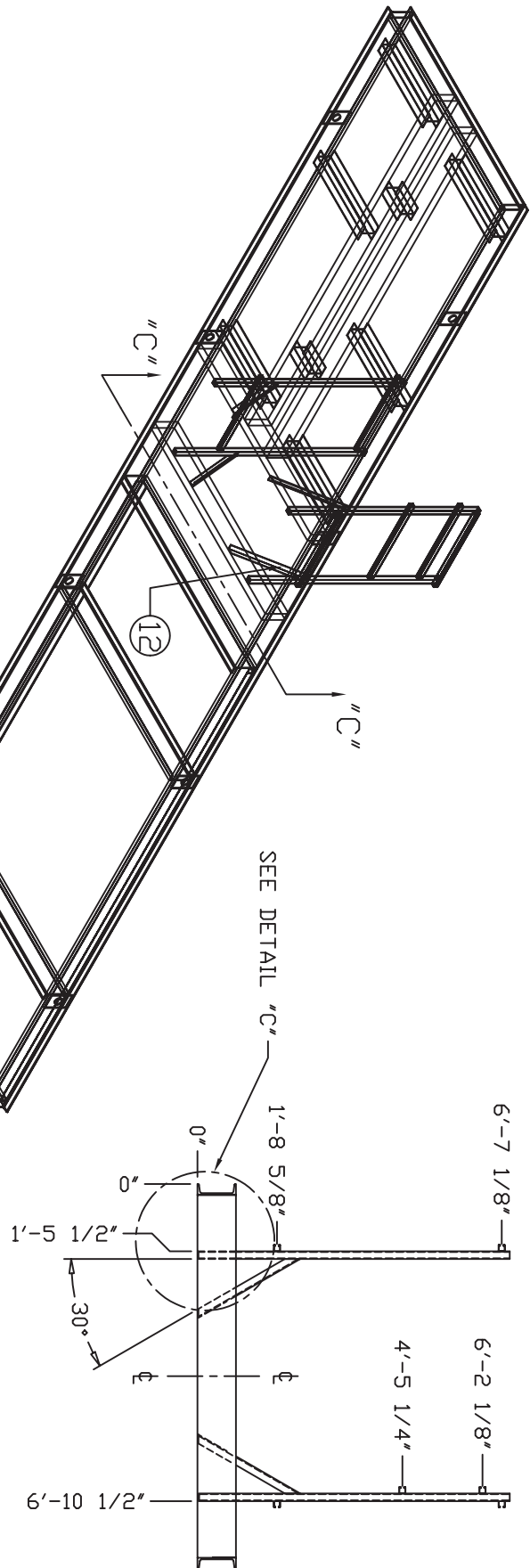
E-PAK TECHNOLOGY, INCORPORATED

20 Howe Lane Suite F-20
FLOURTOWN, PA 19031
PHONE: 215-233-0608
FAX: 215-233-0608

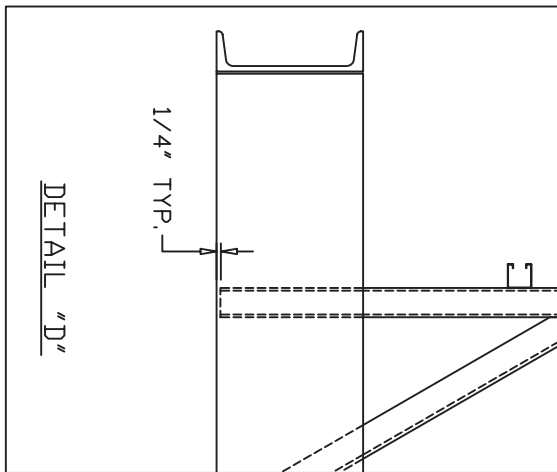
FRONT ELEVATION



NOTE:
1. LIFTING LUGS (#9) TO BE
LOCATED AS FAR OUTWARD OF
FRAME AS POSSIBLE. FOR DETAIL
SEE DWG. STD-001.



SECTION "C"-C"



REV	DESCRIPTION	DRWN BY	DATE	APPROVED

E-PAK

E-PAK TECHNOLOGY, INCORPORATED
20 HAWS LANE
SUITE F-20
FLOURTOWN, PA 19031
PHONE: 215-233-0608
FAX: 215-233-0608

DESCRIPTION:				
BASE FRAME FABRICATION				
JOB NAME: CYRUS ONE DATA CENTER			MODEL NO. ECC-530-268ST	
SIZE	JOB NO.	DWG NO.	REV	
B	110608A	21216B-S1.DWG	0	
SCALE:	DWN:	DATE:	SHEET:	
NONE	AV	11/12/02	3 OF 4	

JOB NAME: #110608A Cyrus One Houston

Bill of Material for Steel Frame

ITEM NO.	ITEM NAME	LENGTH, ft	QTY	COMMENTS	E-PAK PART #	WEIGHT, lb
1	Channel C10x20	37'- 0"	2			1480
2	Channel C10x20	8' - 0"	5	to be cut at assembly		800
3	Tube steel 3x10x3/16	8' - 0"	2	to be cut at assembly		266
4	Tube steel 3x10x3/16	13' - 3 3/4"	2			442
5	W-BEAM W6x15	3' - 1 3/4 "	6			283
6	W-BEAM W6x15	1' - 1"	2			32
7	Angle L3x3x1/4	2' - 2"	4			43
8	Angle L3x3x1/4	8' - 8 7/8"	2			86
9	Lifting lug #10		8	see dwg. Std-001		57
10	Tube steel 2x2x1/8	6' - 9"	4			138
11	Power Strut PS-400-EH	3' - 0"	6			25
12	Angle L2x2x3/16	2' - 8"	4			34
13	Angle 1-23/32"x 1 5/8" x 1/8"	34"	1			45
14	Angle L1x1x1/8	1' - 11 3/8"	4			6
15	Diamond plate 3/16" thk	6' - 8 1/2" x 1'-3 7/8"	2			137
16						
17						
18						
19						0
20						0
21						0
22						0
23						0
24						0
25						0
26						0
27						0
28						0
29						0
30						0

3874

A. VORONA

Cyrus One Houston Equipment Weights

	Ship Weight	Opr Weight	
Carrier 30 HXA 271	7621	8574	
Carrier 30 HXA 271	7621	8574	
Evapco LSCB 268	10470	14070	
Evapco LSCB 268	10470	14070	
Steel Base	3875	3875	
Enclosure	1500	1500	
Misc Electrical equip		700	
Refrigeration Pipe		400	
Total	41557	51763	