

Date Saved : January 02 2011

<b>VISION AIR HANDLING UNIT FAX SHEET</b>		Date Saved : January 02 2011	
<b>JOB NAME</b>	CUYAZOXX 006	<b>REP. OFFICE</b>	HTS Engineering Ltd (Houston)
<b>JOB DESCRIPTION</b>	7011 SWF Air Handling Units	<b>SALESPERSON</b>	VSF
<b>MODEL NUMBER</b>	CAH014GDAC	<b>ENGINEER</b>	
<b>UNIT TAGGING</b>	OAHU 4900 CFM	<b>VERSION</b>	9.30
<b>Unit configuration</b>			
Supply external dimensions	(HxW) ins	42 x 74	
Exhaust external dimensions	(HxW) ins		
<b>FAN PERFORMANCE</b>			
Air volume	cfm	6800	
Altitude	ft	0	
Turning loss	in WC	0.00	
External static	in WC	1.00	
Total static	in WC	2.38	
Fan Qty - diameter / type	ins	1 - 18.03 / FC	
Fan power	HP	4.40 per fan	
Motor power	HP	5.00 per fan	
Motor voltage	V/Hz/Ph	460/50/3	
<b>COIL PERFORMANCE</b>			
Coil model		1st COIL	2nd COIL
Total capacity	Btu/hr	59W082B	59W1008B
Sensible capacity	Btu/hr	48901	32667
Entering db / wb	F	20.0 / -	38.0 / 79.0
Leaving db / wb	F	55.3 / -	53.0 / 53.4
Face area	sqft	13.29	13.88
Face velocity	fpm	512	466
Air pressure drop	in WC	0.17	0.95
EWTF / LWT	F	180.0 / 158.9	42.0 / 58.3
Flow rate	gpm	48.30	71.70
Glycol type / %	F	(0.0%)	(0.0%)
Water pressure drop	PSID	6.00	16.00
Suction temp / Refrig	F		
Steam pressure	psig		
<b>FILTER DATA</b>			
Type		STAGE 1	STAGE 2
Efficiency	Throwaway		
Face area	MEV 7		
Face velocity	ft/min		
<b>COMPONENT SUPPLY</b>			
Mining Box	APD (in WC)	WEIGHT (lbs)	COMPONENT RET/EXH
Hot Water Coil	0.17	183.85	APD (in WC)
Chilled Water Coil	0.85	871.87	WEIGHT (lbs)
Fan Section	0.00	388.22	
* Denotes a component static pressure based on the fan air volume rather than the individual component air volume.			
<b>SHIPPING SECTION DETAILS</b>			
Section 1	Length (ins)	Weight (lbs)	Length (ins)
Section 2	22	439	
Section 3	24	432	
Section 4	46	784	
<b>TOTALS (Lower level total length, entire unit total weight)</b>		130.00	2446.00
<b>UNIT SOUND</b>			
	63 Hz	125 Hz	250 Hz
Radiated	70	70	64
Unit discharge	78	78	74
Unit return	75	75	72
	500 Hz	1000 Hz	2000 Hz
	61	54	49
	78	74	69
	67	65	63
<b>NOTES</b>			
Unit material is Galvanized steel			
Insulation is R-13 Injected Foam			
Supply fan performance is certified in accordance with the Central Station Air-Handling Unit Certification Program, which is based on ARI Standard 435.			
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### 1 TYPE-D OUTSIDE AIR UNIT DATA

SCALE: NO SCALE

#### MECHANICAL EQUIPMENT NOTES

- THE TYPE "D" AIR UNIT IS USED FOR OUTSIDE AIR UNIT OAHU-1-NW.
- THE TYPE "E" AIR UNIT IS USED FOR OUTSIDE AIR UNIT OAHU-1-SW.

### 4 TYPE-E OUTSIDE AIR UNIT DATA

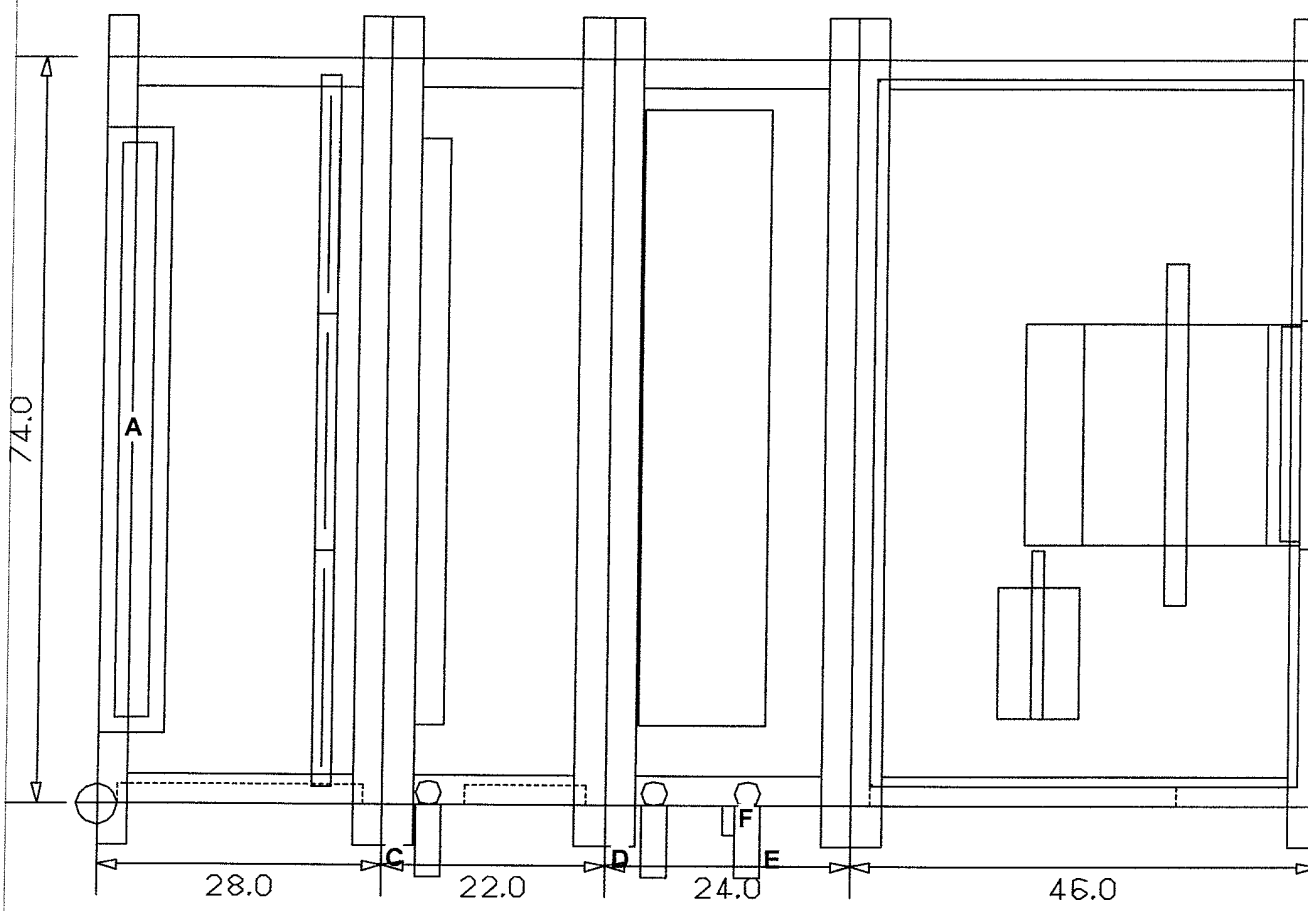
SCALE: NO SCALE

Date Saved : January 02 2011

<b>SKYLINE AIR HANDLING UNIT FAX SHEET</b>		Date Saved : January 02 2011	
<b>JOB NAME</b>	CUYAZOYY 007	<b>REP. OFFICE</b>	HTS Engineering Ltd (Houston)
<b>JOB DESCRIPTION</b>	7011 SWF Air Handling Units	<b>SALESPERSON</b>	VSF
<b>MODEL NUMBER</b>	CAH012GDAC	<b>ENGINEER</b>	
<b>UNIT TAGGING</b>	OAHU 4900 CFM	<b>VERSION</b>	9.30
<b>Unit configuration</b>			
Supply external dimensions	(HxW) ins	44 x 66	
Exhaust external dimensions	(HxW) ins		
<b>FAN PERFORMANCE</b>			
Air volume	cfm	6800	
Altitude	ft	0	
Turning loss	in WC	0.00	
External static	in WC	1.00	
Total static	in WC	2.46	
Fan Qty - diameter / type	ins	1 - 18.03 / FC	
Fan power	HP	4.18 per fan	
Motor power	HP	5.00 per fan	
Motor voltage	V/Hz/Ph	460/50/3	
<b>COIL PERFORMANCE</b>			
Coil model		1st COIL	2nd COIL
Total capacity	Btu/hr	59W082B	59W1008B
Sensible capacity	Btu/hr	44981	30993
Entering db / wb	F	20.0 / -	38.0 / 79.0
Leaving db / wb	F	58.8 / -	54.2 / 54.0
Face area	sqft	11.46	12.15
Face velocity	fpm	524	494
Air pressure drop	in WC	0.19	0.97
EWTF / LWT	F	180.0 / 158.9	42.0 / 58.2
Flow rate	gpm	42.60	62.70
Glycol type / %	F	(0.0%)	(0.0%)
Water pressure drop	PSID	4.90	11.60
Suction temp / Refrig	F		
Steam pressure	psig		
<b>FILTER DATA</b>			
Type		STAGE 1	STAGE 2
Efficiency	Throwaway		
Face area	MEV 7		
Face velocity	ft/min		
<b>COMPONENT SUPPLY</b>			
Mining Box	APD (in WC)	WEIGHT (lbs)	COMPONENT RET/EXH
Hot Water Coil	0.19	78.66	APD (in WC)
Chilled Water Coil	0.97	506.35	WEIGHT (lbs)
Fan Section	0.00	515.43	
Plenum section	0.02	0.00	
* Denotes a component static pressure based on the fan air volume rather than the individual component air volume.			
<b>SHIPPING SECTION DETAILS</b>			
Section 1	Length (ins)	Weight (lbs)	Length (ins)
Section 1	138	2921	
<b>TOTALS (Lower level total length, entire unit total weight)</b>		138.00	2923.00
<b>UNIT SOUND</b>			
	63 Hz	125 Hz	250 Hz
Radiated	70	70	64
Unit discharge	78	78	74
Unit return	75	75	72
	500 Hz	1000 Hz	2000 Hz
	61	56	51
	78	74	69
	65	65	63
<b>NOTES</b>			
Unit material is Galvanized steel			
Insulation is R-13 Injected Foam			
Piping vestibule shipping section length(s) not included in the total unit shipping section length. Vestibules are not listed as separate sections, although vestibule weight is included in the total unit weight.			
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<b>Opening</b>	X	Y	Z	W(Width)	H(Height)
A Damper	0.00	2.00	14.00	70.00	20.00
B Hot water outlet	32.57	-7.00	40.31	2.50ins. MPS	-
C Hot water inlet	32.57	-7.00	10.66	2.50ins. MPS	-
D Cold water outlet	54.73	-7.00	41.69	2.50ins. MPS	-
E Cold water inlet	54.73	-7.00	11.31	2.50ins. MPS	-
F Condensate drain conn.	62.00	-2.90	7.00	1.25ins. MPS	-
G Fan discharge	121.00	25.66	20.41	22.68	19.68

Dimensions measured from (0)



NOTE: Base 4.00ins deep, Cross members extend 4ins on each side of the unit.

VIEW: Top  
DRAWN: January-02-2011 (07:53)  
JOB NAME: 7011 SWF Air Handling Units  
UNIT TAGGING: OAHU-1-NW  
MODEL: CAH014GDAC

### 2 TYPE-D OUTSIDE AIR UNIT PLAN VIEW

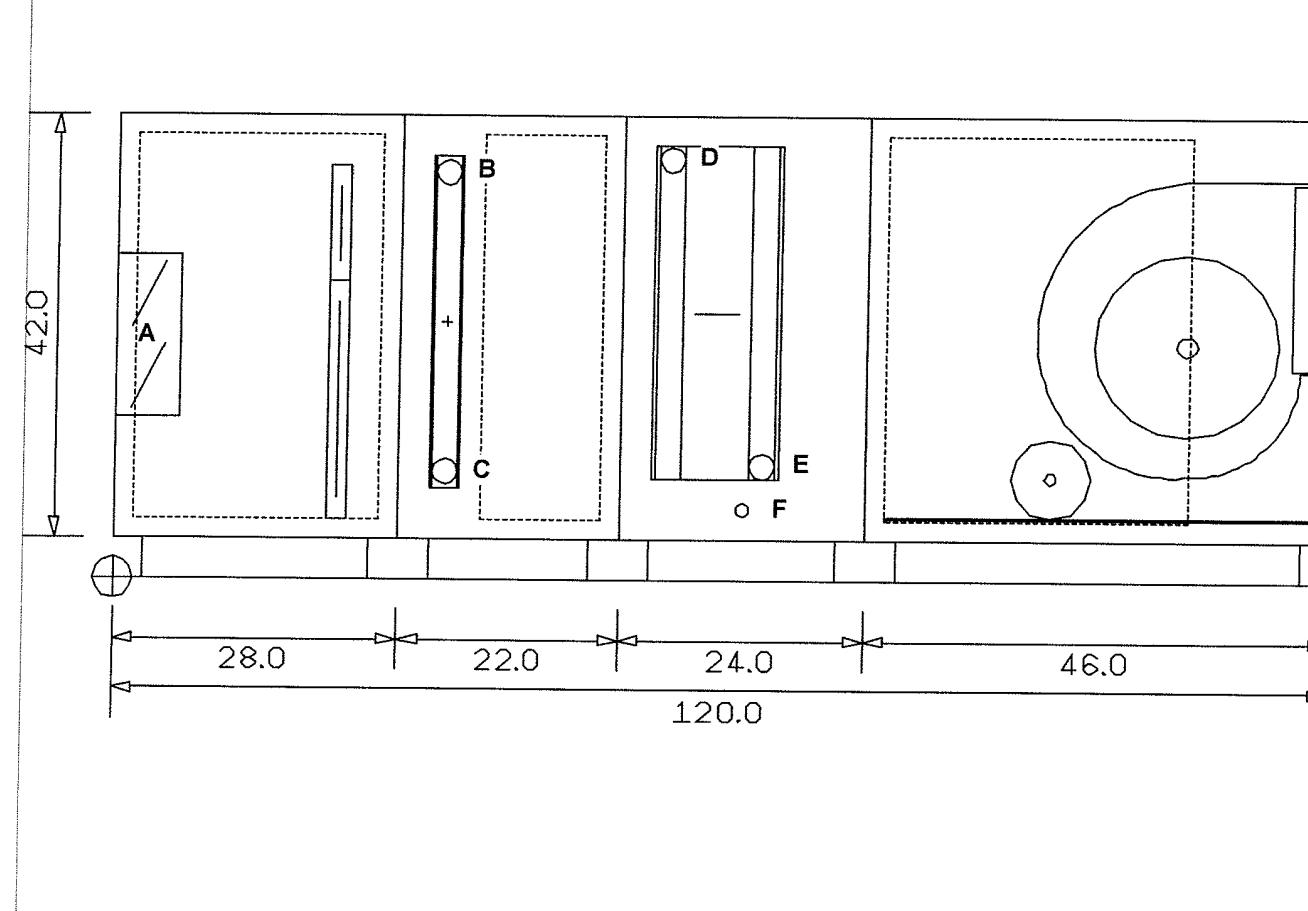
SCALE: NO SCALE

#### MECHANICAL EQUIPMENT GENERAL NOTES

- THE TYPE "D" AND TYPE "E" OUTSIDE AIR UNITS SHALL BE PRICED AS "ALTERNATE 1" IN THE CONTRACTORS PROPOSAL.

<b>Opening</b>	X	Y	Z	W(Width)	H(Height)
A Damper	0.00	2.00	14.00	70.00	20.00
B Hot water outlet	32.57	-7.00	40.31	2.50ins. MPS	-
C Hot water inlet	32.57	-7.00	10.66	2.50ins. MPS	-
D Cold water outlet	54.73	-7.00	41.69	2.50ins. MPS	-
E Cold water inlet	54.73	-7.00	11.31	2.50ins. MPS	-
F Condensate drain conn.	62.00	-2.90	7.00	1.25ins. MPS	-
G Fan discharge	121.00	25.66	20.41	22.68	19.68

Dimensions measured from (0)



NOTE: Base 4.00ins deep, Cross members extend 4ins on each side of the unit.

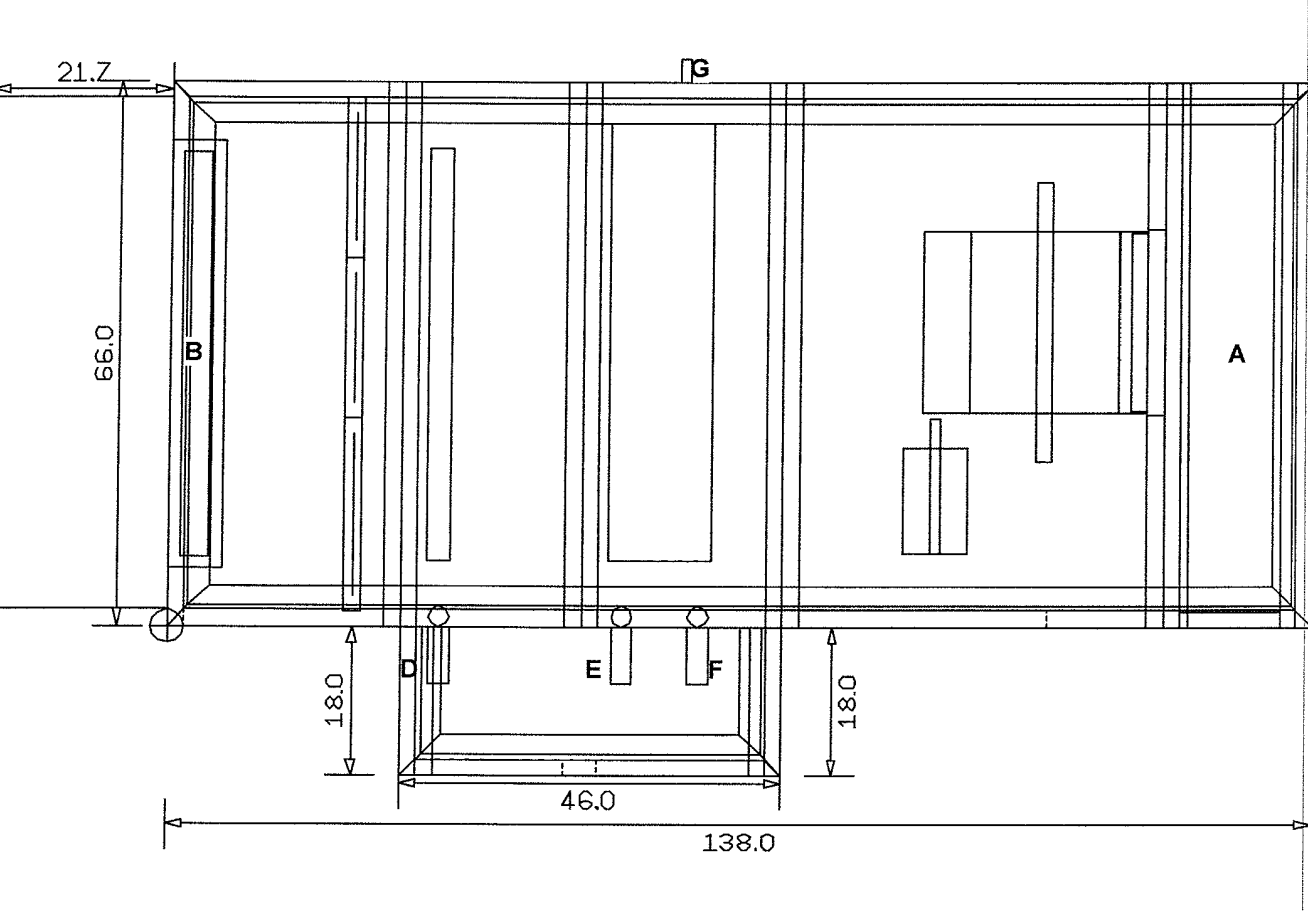
VIEW: Right Side  
DRAWN: January-02-2011 (07:53)  
JOB NAME: 7011 SWF Air Handling Units  
UNIT TAGGING: OAHU-1-SW  
MODEL: CAH014GDAC

### 3 TYPE-D OUTSIDE AIR UNIT ELEVATION

SCALE: NO SCALE

<b>Opening</b>	X	Y	Z	W(Width)	H(Height)
A Supply outlet	122.00	2.00	6.00	62.00	14.00
B Damper	0.00	2.00	18.00	62.00	20.00
C Hot water outlet	32.57	-7.00	42.31	2.50ins. MPS	-
D Hot water inlet	32.57	-7.00	12.66	2.50ins. MPS	-
E Cold water outlet	54.73	-7.00	43.69	2.50ins. MPS	-
F Cold water inlet	54.73	-7.00	13.31	2.50ins. MPS	-
G Condensate drain conn.	62.00	68.90	9.00	1.25ins. MPS	-

Dimensions measured from (0)



NOTE: Curb Ready Base 6.00ins deep, Lifting Lugs extend 4ins on each side of the unit.

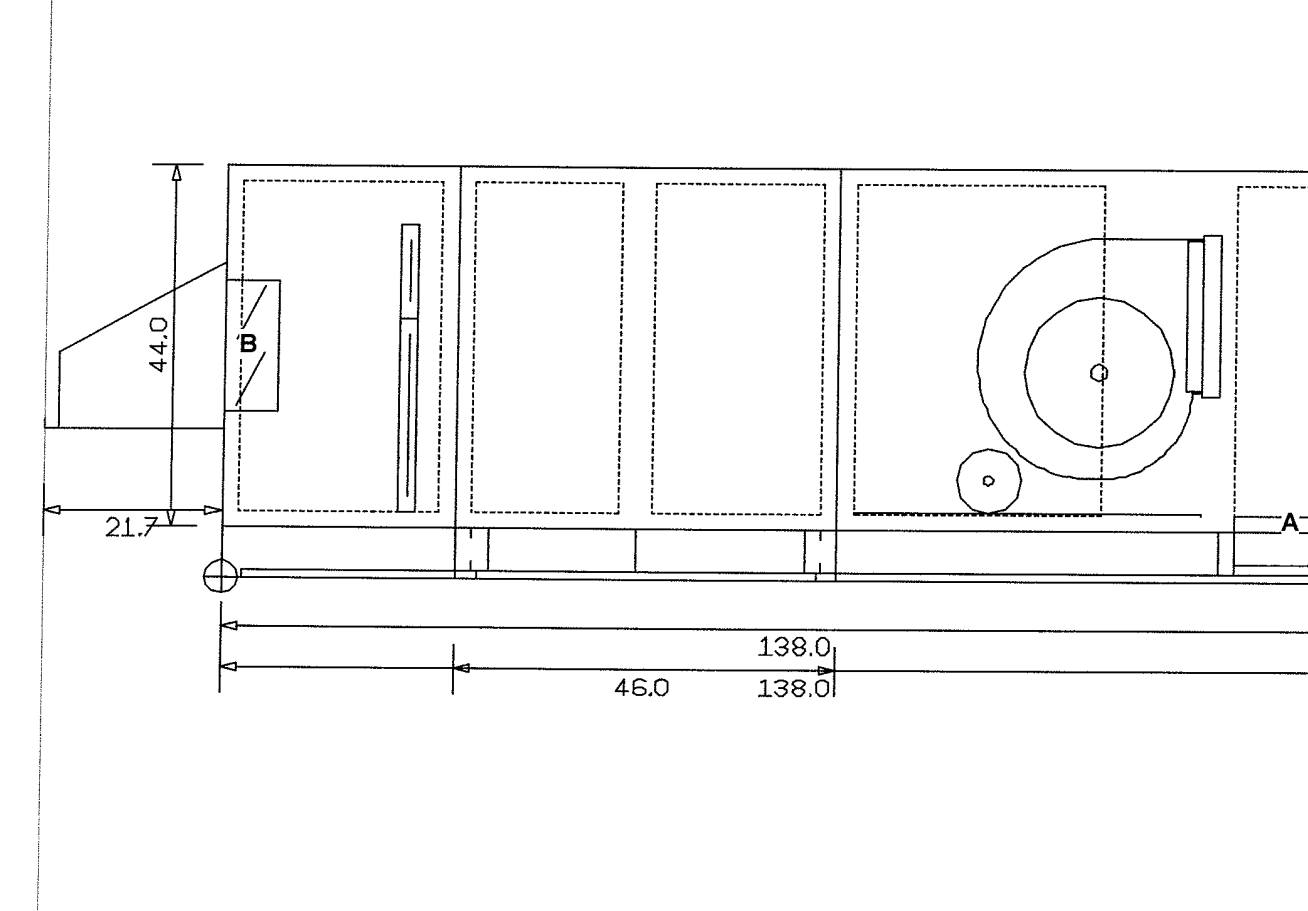
NOTE: Opening dimensions shown are for unit only, refer to curb drawing for duct opening dimensions.  
Field fitting of hoods are required.  
VIEW: Top  
DRAWN: January-02-2011 (07:53)  
JOB NAME: 7011 SWF Air Handling Units  
UNIT TAGGING: OAHU-1-SW  
MODEL: CAH012GDAC

### 5 TYPE-E OUTSIDE AIR UNIT PLAN VIEW

SCALE: NO SCALE

<b>Opening</b>	X	Y	Z	W(Width)	H(Height)
A Supply outlet	122.00	2.00	6.00	62.00	14.00
B Damper	0.00	2.00	18.00	62.00	20.00
C Hot water outlet	32.57	-7.00	42.31	2.50ins. MPS	-
D Hot water inlet	32.57	-7.00	12.66	2.50ins. MPS	-
E Cold water outlet	54.73	-7.00	43.69	2.50ins. MPS	-
F Cold water inlet	54.73	-7.00	13.31	2.50ins. MPS	-
G Condensate drain conn.	62.00	68.90	9.00	1.25ins. MPS	-

Dimensions measured from (0)



NOTE: Curb Ready Base 6.00ins deep, Lifting Lugs extend 4ins on each side of the unit.

NOTE: Opening dimensions shown are for unit only, refer to curb drawing for duct opening dimensions.  
Field fitting of hoods are required.  
VIEW: Right Side  
DRAWN: January-02-2011 (07:53)  
JOB NAME: 7011 SWF Air Handling Units  
UNIT TAGGING: OAHU-1-SW  
MODEL: CAH012GDAC

### 6 TYPE-E OUTSIDE AIR UNIT ELEVATION

SCALE: NO SCALE

AIR HANDLING UNIT REPLACEMENT PROJECT  
 MMRA BUILDING, 7011 SW FREWAY  
 HOUSTON, TX

REDDING  
 LINDEN  
 BURR  
 CONSULTING ENGINEERS  
 800 TRAVIS, SUITE 2000  
 HOUSTON, TEXAS 77002  
 TEL: 713.237.9800  
 FAX: 713.237.9801  
 WWW.REDDINGBURR.COM  
 Texas Registered Engineering Firm E-113

DATE: 01/10/2011  
 PROJECT #: 10467.01  
 SHEET #: M-4.40

ISSUED FOR PRICING