Report By:

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NATIONAL TAB

Comfort. Under control.

Report: TAB Report
Function: Test, Adjust, & Balance
Date: 6/3/2022

PROJECT

05-30 CULVERS - WILDWOOD, FL

5327 SUNDANCE TRAIL

WILDWOOD, FL

Client

Accurex

400 Ross Ave

Schofield, WI 54476

National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

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Preface

The summary below provides a quick understanding of how well your HVAC systems balanced in respect to the design criteria. The summary concludes with a quick understanding of your building environment and possible suggestions for each of your systems after testing has been performed. Our focus is to work with the trades to remedy any issues or deficiencies during the actual field balancing and not after the balancing has occurred. Our focus is to achieve a positive environment and outcome. The level of success is determined by the availability of the trades, possible parts needed, or time constraints. Also, enclosed are pictures of building assets and items listed below that will provide your team with more insight

Facility Identification and TAB Requirements

The mechanical equipment to be tested, adjusted, and balanced includes: All Roof Top Units (RTU), All Exhaust Fans (EF), All Kitchen Hoods, and all associated air devices.

RTU's

Each of the RTU's were measured at their terminal devices utilizing a flow hood. The sum of these readings is equal to the total flow for that particular unit. The total flow of each RTU was then adjusted to +/-10% of the specified design. Each terminal diffuser was balanced to within +/-10% of the engineer's design volume utilizing the provided hand damper located at the takeoff of the main & branch trunk line(s). Any equipment that fell outside of this tolerance is noted throughout the report.

Kitchen Exhaust Hood & Associated Fans

Each kitchen exhaust fan was measured at the hood filter bay utilizing a velocity matrix and a manufacturer's correction factor. Each filter velocity is multiplied by the manufacturer's corrected area. The sum of these readings equals the total flow of the exhaust fans. The total flow of the exhaust was then adjusted to +/-10% of the engineers design flow.

General Exhaust Fans

The general exhaust fans were measured by reading each air device with a flow hood. The total airflow for each fan is equivalent to the sum of these readings. Fan speed was then adjusted so that the airflow was within +/-10% of design. Each terminal device was balanced to within +/-10% of the design volume using the installed volume dampers. Any equipment that fell outside of this tolerance is noted throughout the report.

Final Building Tests

After completing the test and balance the final building pressure was measured. It was confirmed that the building pressure fell within acceptable tolerances of -0.02" wc to +0.02" wc and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report.

The hood capture was tested at the perimeter of the hood and the cook top level with the equipment heat on to ensure satisfactory hood capture and containment.

NATIONAL TAB

AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HVAC SUPPLY		HVAC RETURN		HVAC OUTDOOR		OA %		HOOD MAKE-UP		HOOD EXHAUST		GENERAL EXH.	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU-1	DINING	5200	5243	4300	4376	900	867	17.3%	16.5%						
RTU-2	KITCHEN	5000	4741	4050	3800	950	941	19.0%	19.8%						
RTU-OA	RTUs	3250	3279	1250	1259	2000	2020	61.5%	61.6%						
PRV-2	HOOD 2											1500	1395		
PRV-3	HOOD 1											1500	1545		
PRV-4	HOOD 3											350	319		
EF-1	MEN RR													220	208
EF-2	MOP ROOM													50	48
EF-3 (3)	WOMENS RR													210	206
TOTALS		13450	13263	9600	9435	3850	3828			0	0	3350	3259	480	462

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3850	3828
TOTAL EXHAUST	3830	3721
NET AIRFLOW	20	107

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.0025
SIDE	0.0025
REAR	0.002
AVERAGE	**0.0023**

FINAL CHECKS

ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✓

MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✓

PRESSURE FALLS WITHIN IMC TOLERANCE OF +/-0.02" W.C. ✓

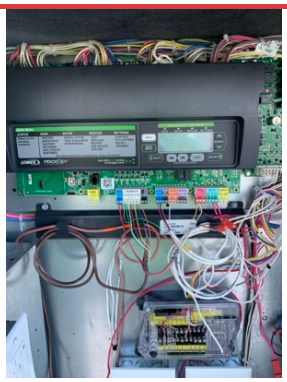
NOTES:

STOREFRONT

RTU 1

RTU 2

RTU OA



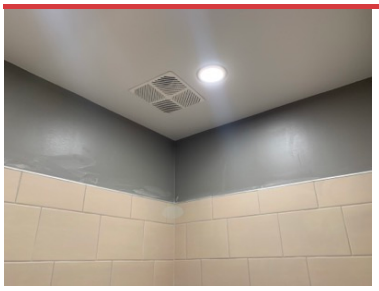
PRODIGY WIRING

Typical of 3 RTUs

PRV 2

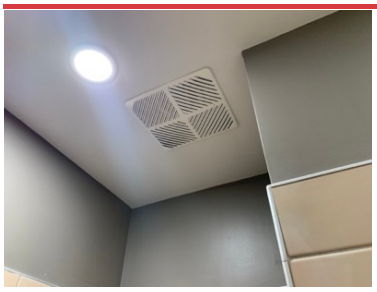
PRV 3

PRV 4

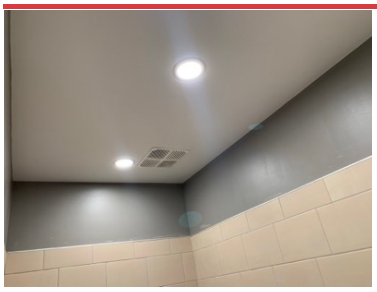


EF 1

EF 2



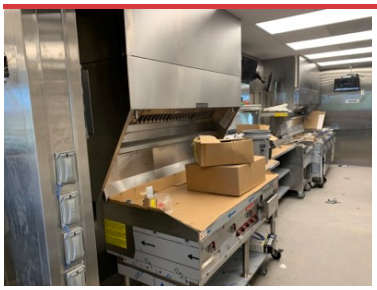
EF 3A



EF 3B

EF 3C

HOOD 1



HOOD 2

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CheckList Information

Name :	TECH - STEP 1: INITIAL WALKTHROUGH	**Status :**	NotSubmitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design?	Yes
Perforated diffusers are installed on the cook line? (4-ways will disrupt hood capture)	Yes
All hood filters installed and accounted for?	Yes
Hoods are wired and have power?	Yes
Thermostats have power?	Yes
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	YES
On the cookline diffusers neck is there 18" (12" minimum) straight rigid duct run attached?	YES

Notes/Comments :

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CheckList Information

Name :	TECH - STEP 2: UNIT DATA AND EVAL	**Status :**	NotSubmitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

UNIT DATA AND EVALUATION WHILE GATHERING UNIT DATA CHECK THE FOLLOWING:

RTU's/AHU's	
Economizers are assembled and functional?	Yes
Thermostat wire run from OCP on the RTU to the Ec terminal at the thermostat? If no, jumper can be installed from R to OCP temporarily. (The economizers will not open without OCP being energized.)	Yes
Motors are all operating below the FLA rating?	Yes
Are belts tight?	YES
If direct drive unit is the speed controller working.	N/A, BELT DRIVEN
Is gas piping installed and valves turned on?	No
Unit free of noticeable noise and vibration	Yes
EF's	
Rotation is correct?	Yes
Belts are tight?	YES
Grease cup installed on hood fan?	Yes
Hinge kit installed installed on hood fan?	Yes
Lean grease rated fans back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	Yes

Flex conduit is long enough so that fan can be completely tilted back?	Yes
There is no major leakage around base of fan?	No
Is the motor operating below the motor FLA rating?	Yes
For restroom fan(s) is the back draft damper installed and can it fully open?	Yes
Unit free of noticeable noise and vibration?	Yes
The hood exhaust fans are installed in correct positions and are not switched?	Yes
HOODS	
Kitchen equipment installed in proper places?	Yes
Can kitchen equipment be turned on for final smoke test?	No
Second stage Grease Grabber filters are installed on the griddle hood?	Yes
DOCUMENTATION	
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	Yes

Notes/Comments :

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CheckList Information

Name :	TECH - STEP 3: TEST, ADJUST AND BALANCE	**Status :**	NotSubmitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting?	Yes
Is space comfortable in all areas?	Yes
Is the space free of ventilation noise?	Yes
If deviations from design were necessary to resolve 1-3 what were they? Otherwise put "NA".	NA

Notes/Comments :

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CheckList Information

Name :	TECH - STEP 4: FINAL TESTS	**Status :**	NotSubmitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

FINAL TESTS	
HOOD CAPTURE TEST	
List equipment turned on for testing	NONE
List smoke candle type used	SMOKE EMITTER
Smoke test capture - Perimeter of hood	100%
Smoke test capture - Top of cooking surface	100%
WITNESS	
Date test was completed	06/02/2022
TAB tech name / Firm	STEPHEN TASSINARO / NTAB
Site super name / Firm	TEST RECORDED
Owner representative name / Firm (if Applicable)	N/A
Building pressure at front & back doors (All Systems On)	0.0023" AVG
ADDITIONAL	
Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)	YES
Thermostats are programmed?	Yes
PRODIGY SETTINGS FOR RTU'S	
Parameter 65 set to 0	Yes

Parameter 78 set to 0	Yes
Parameter 105 set to 6	Yes
Parameter 156 set to 70 (Dining unit only)	Yes
Parameter 156 set to 65 (Kitchen Unit Only)	Yes
Parameter 170 set to 75 (Dining Unit Only)	Yes
Parameter 170 set to 70 (Kitchen Unit Only)	Yes
Parameter 131 set to the same % as OA minimum position?	Yes
Parameter 117 set to the same % as OA minimum position?	Yes

Notes/Comments :

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Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: AHU/RTU

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Asset: RTU1 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5622C01944
Model Num	LCH-156-H4B	LCH156H4BE5Y
Type	-	RTU
Configuration	-	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	23.25X14
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTORS
Frame	-	56HZ
Horsepower	-	2.0
Motor Rpm	-	1755
Phase	3	3
Rated Voltage	208/230	200-230
Rated Amperage	-	6.0-5.7

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	3.75”
Motor Bore Size	-	7/8”
Motor Sheave SetPt	-	3.0 TURNS OUT
Fan Sheave Size	-	BK95
Fan Sheave Bore	-	1 3/16"
Belt CL Distance	-	20 5/8”
Num of Belts	-	1
Belt Size	-	BX59
Belt Alignment	-	GOOD

Test Data		
	Design	**Actual**
SF CFM	5200	5243
SF RPM	-	646
RA CFM	4300	4376
OA CFM	900	867
RL Voltage	-	209/210/212
RL Amperage	-	4.9/4.8/5.3
SF Rotation	-	CCW
RA Damper Position	-	100%
Min OA Damper Position	-	47%
Min OA Damper Type	-	ECONOMIZER
Brake Horse Power	-	1.75

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.26"
Fan Suction SP	-	-0.49"
Fan Discharge SP	-	0.26"
Total ESP	-	0.52"
Fan Total SP	-	0.75"

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	CONSTRUCTION FILTERS
Condensate Drain Installed	-	YES

Completed By: Stephen Tassinaro

Notes:

Diffuser Supply (GRD)

RTU1/DINING

Asset							
SGRD1	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	ENTRY	A4	6"	100	1	132	90
	FINAL CFM	**% to design**					
	90	90.0					
SGRD2	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	MENS RR	C3	6"	75	1	146	73
	FINAL CFM	**% to design**					
	73	97.3					
SGRD3	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	WOMENS RR	C3	6"	75	1	142	78
	FINAL CFM	**% to design**					
	78	104.0					
SGRD4	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	HALL	A4	10"	300	1	297	309
	FINAL CFM	**% to design**					
	309	103.0					
SGRD5	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	A4	8"	200	1	157	180
	FINAL CFM	**% to design**					
	180	90.0					
SGRD6	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	A4	10"	300	1	265	301
	FINAL CFM	**% to design**					
	301	100.3					
SGRD7	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	A4	10"	250	1	291	255
	FINAL CFM	**% to design**					
	255	102.0					
SGRD8	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	A4	10"	300	1	237	275
	FINAL CFM	**% to design**					
	275	91.7					
SGRD9	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	A4	8"	200	1	193	208
	FINAL CFM	**% to design**					
	208	104.0					
SGRD10	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	A3	8"	150	1	210	150
	FINAL CFM	**% to design**					
	150	100.0					
SGRD11	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	A4	10"	275	1	318	269
	FINAL CFM	**% to design**					
	269	97.8					
SGRD12	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	A4	10"	275	1	294	264

	FINAL CFM	% to design					
	264	96.0					
SGRD13	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
	DINING	A3	8"	150	1	206	158
	FINAL CFM	% to design					
	158	105.3					
SGRD14	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
	DINING	A3	8"	150	1	187	139
	FINAL CFM	% to design					
	139	92.7					
SGRD15	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
	DINING	A3	10"	300	1	307	324
	FINAL CFM	% to design					
	324	108.0					
SGRD16	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
	DINING	A4	10"	250	1	320	268
	FINAL CFM	% to design					
	268	107.2					
SGRD17	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
	DRINKS & CONDIMENTS	A3	10"	300	1	248	271
	FINAL CFM	% to design					
	271	90.3					
SGRD18	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
	DRINKS & CONDIMENTS	A4	8"	200	1	186	190
	FINAL CFM	% to design					
	190	95.0					
SGRD19	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
	ENTRY	A4	10"	250	1	310	271
	FINAL CFM	% to design					
	271	108.4					
SGRD20	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
	CUSTOMER ORDER AREA	A4	10"	300	1	271	310
	FINAL CFM	% to design					
	310	103.3					
SGRD21	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
	CUSTOMER SERVICE	E	8"	200	1	220	218
	FINAL CFM	% to design					
	218	109.0					
SGRD22	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
	CUSTOMER SERVICE	E	8"	200	1	222	211
	FINAL CFM	% to design					
	211	105.5					
SGRD23	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
	CUSTOMER SERVICE	E	8"	200	1	204	212
	FINAL CFM	% to design					
	212	106.0					
SGRD24	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
	CUSTOMER SERVICE	E	8"	200	1	208	219
	FINAL CFM	% to design					
	219	109.5					

Completed By:Brianna Biggs on

Asset	Notes

National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: AHU/RTU

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Asset: RTU2 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5622C01945
Model Num	LCH-156-H4B	LCH156H4BE5Y
Type	-	RTU
Configuration	-	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	23.25X14
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTORS
Frame	-	56HZ
Horsepower	-	2.0
Motor Rpm	-	1755
Phase	3	3
Rated Voltage	208/230	200-230
Rated Amperage	-	6.0-5.7

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	3.75"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	3.0 TURNS OUT
Fan Sheave Size	-	BK95
Fan Sheave Bore	-	1 3/16"
Belt CL Distance	-	20 5/8"
Num of Belts	-	1
Belt Size	-	BX59
Belt Alignment	-	GOOD

Test Data		
	Design	**Actual**
SF CFM	5000	4741
SF RPM	-	631
RA CFM	4050	3800
OA CFM	950	941
RL Voltage	-	209/210/208
RL Amperage	-	4.6/4.2/4.9
SF Rotation	-	CCW
RA Damper Position	-	100%
Min OA Damper Position	-	50%
Min OA Damper Type	-	OBD
Brake Horse Power	-	1.60

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.17"
Fan Suction SP	-	-0.42"
Fan Discharge SP	-	0.30"
Total ESP	-	0.47"
Fan Total SP	-	0.72"

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	CONSTRUCTION FILTERS
Condensate Drain Installed	-	YES

Completed By: Stephen Tassinaro

Notes:

Diffuser Supply (GRD)

RTU2/KITCHEN

Asset							
SGRD1	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DRIVE THRU	A4	12"	500	1	435	441
	FINAL CFM	**% to design**					
	464	92.8					
SGRD2	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	SUNDAE SERVICE	A4	10"	300	1	327	275
	FINAL CFM	**% to design**					
	278	92.7					
SGRD3	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	MOP ROOM	F4	12"	550	1	432	477
	FINAL CFM	**% to design**					
	502	91.3					
SGRD4	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	COOKLINE	F4	10"	300	1	309	377
	FINAL CFM	**% to design**					
	302	100.7					
SGRD5	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	COOKLINE	F4	10"	350	1	254	276
	FINAL CFM	**% to design**					
	321	91.7					
SGRD6	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	FOOD PREP	F4	10"	300	1	185	231
	FINAL CFM	**% to design**					
	271	90.3					
SGRD7	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	FOOD PREP	F4	10"	300	1	212	238
	FINAL CFM	**% to design**					
	271	90.3					
SGRD8	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	COOKLINE	F4	10"	350	1	331	332
	FINAL CFM	**% to design**					
	333	95.1					
SGRD9	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	COOKLINE	F4	10"	300	1	276	294
	FINAL CFM	**% to design**					
	308	102.7					
SGRD10	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DISHWASHING	A4	10"	300	1	320	310
	FINAL CFM	**% to design**					
	295	98.3					
SGRD11	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DISHWASHING	A4	10"	350	1	351	314
	FINAL CFM	**% to design**					
	328	93.7					
SGRD12	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	FOOD PREP	A4	10"	350	1	380	389

	FINAL CFM	% to design					
	351	100.3					
SGRD13	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
	OFFICE	D1	9"	225	1	443	205
	FINAL CFM	% to design					
	212	94.2					
SGRD14	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
	EMPLOYEE RR	C1	4"	25	1	228	138
	FINAL CFM	% to design					
	26	104.0					
SGRD15	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
	DRY GOODS	A4	8"	150	1	202	128
	FINAL CFM	% to design					
	136	90.7					
SGRD16	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
	DRY GOODS	A4	8"	200	1	200	202
	FINAL CFM	% to design					
	205	102.5					
SGRD17	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
	UTILITY	D1	7"	150	1	256	125
	FINAL CFM	% to design					
	138	92.0					

Completed By:Brianna Biggs on

Asset	Notes

National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU-OA3 AREA:RTUs

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5622C01949
Model Num	LCH-156-H4B	LCH156H4BJ5Y
Type	-	RTU
Configuration	-	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	31X17
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2
Num Final Filter 2	-	N/A
Final Filter Size 2	-	N/A

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTORS
Frame	-	56HZ
Horsepower	-	2.0
Motor Rpm	-	1755
Phase	3	3
Rated Voltage	208/230	200-230
Rated Amperage	-	6.0-5.7

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	MVL40B
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	5.0 TURNS OUT
Fan Sheave Size	-	BK95
Fan Sheave Bore	-	1 3/16”
Belt CL Distance	-	21.0"
Num of Belts	-	1
Belt Size	-	BX59
Belt Alignment	-	GOOD

Test Data		
	Design	**Actual**
SF CFM	3250	3279
SF RPM	-	578
RA CFM	1250	1259
OA CFM	2000	2020
RL Voltage	-	209/211/209
RL Amperage	-	4.5/4.6/4.8
SF Rotation	-	CCW
RA Damper Position	-	3/4
Min OA Damper Position	-	100%
Min OA Damper Type	-	OBD
Brake Horse Power	-	1.63

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.13"
Fan Suction SP	-	-0.43"
Fan Discharge SP	-	0.05"
Total ESP	-	0.18"
Fan Total SP	-	0.48"

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	CONSTRUCTION FILTERS
Condensate Drain Installed	-	YES

Completed By: Stephen Tassinaro

Notes:

Asset	Notes

National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF1 AREA:MENS RR

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	SPA-110	XCR-A200
Serial Num	-	19686902
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	-	1/40
Motor Rpm	-	900
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.46
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	220	208
Fan RPM	900	DD
Fan Rotation	-	CORRECT
Motor RPM	-	DD
System SetPt	-	SPEED CONTROLLER
RL Voltage	-	119
RL Amperage	-	0.4
Total ESP	0.1"	INACCESSIBLE
Fan Inlet SP	-	-
Fan Discharge SP	-	-

Completed By: Stephen Tassinaro

Notes:

Asset	Notes

National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF2 AREA:MOP ROOM

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	SPA-110	XCR-B50
Serial Num	-	19686905
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	625
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.13
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	50	48
Fan RPM	625	DD
Fan Rotation	-	CORRECT
Motor RPM	-	DD
System SetPt	-	SPEED CONTROLLER
RL Voltage	-	120
RL Amperage	-	0.1
Total ESP	0.1"	-
Fan Inlet SP	-	-
Fan Discharge SP	-	-

Completed By: Stephen Tassinaro

Notes:[1] FAN IS NOT POWERED AT THIS TIME. EC AWARE. // RESOLVED.

Asset	Notes

National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF-A3 AREA:WOMENS RR

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XCR-B70	XCR-B70
Serial Num	-	19686910
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	675
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.15
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	70	71
Fan RPM	-	DD
Fan Rotation	-	CORRECT
Motor RPM	-	DD
System SetPt	-	SPEED CONTROLLER
RL Voltage	-	119
RL Amperage	-	0.1
Total ESP	0.1"	INACCESSIBLE
Fan Inlet SP	-	-
Fan Discharge SP	-	-

Completed By: Stephen Tassinaro

Notes:

Asset	Notes

National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF-B3 AREA:WOMENS RR

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XCR-B70	XCR-B70
Serial Num	-	19686911
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	675
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.15
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	70	68
Fan RPM	-	DD
Fan Rotation	-	CORRECT
Motor RPM	-	DD
System SetPt	-	SPEED CONTROLLER
RL Voltage	-	120
RL Amperage	-	0.1
Total ESP	0.1"	INACCESSIBLE
Fan Inlet SP	-	-
Fan Discharge SP	-	-

Completed By: Stephen Tassinaro

Notes:

Asset	Notes

National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF-C3 AREA:EMPLOYEE RR

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XCR-B70	XCR-B70
Serial Num	-	19686912
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	675
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.15
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	70	67
Fan RPM	-	DD
Fan Rotation	-	CORRECT
Motor RPM	-	DD
System SetPt	-	SPEED CONTROLLER
RL Voltage	-	119
RL Amperage	-	0.1
Total ESP	0.1"	-
Fan Inlet SP	-	-
Fan Discharge SP	-	-

Completed By: Stephen Tassinaro

Notes:[1] FAN NOT POWERED. EC AWARE. // RESOLVED.

Asset	Notes

National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: PRV2 AREA:HOOD 1

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRUB-161XP-15	XRUB-160XP-15-1-26-G
Serial Num	-	19687551
Type	UPBLAST	CENTRIFUGAL
Configuration	VERTICAL	UPBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	WEG
Frame	-	56
Horsepower	1.5	1.5
Motor Rpm	1725	1760
Phase	3	3
Voltage (rated)	208	230/460
Amperage (rated)	-	4.20/2.10
Service Factor	-	1.15

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	VP44
Motor Bore Size	-	5/8”
Motor Sheave SetPt	-	MAXIMIZED
Fan Sheave Size	-	3.0”
Fan Sheave Bore	-	1.0”
Belt CL Distance	-	6.0”
Num of Belts	-	1
Belt Size	-	AX24

Test Data		
	Design	**Actual**
CFM	1500	1395
Fan RPM	2411	2412
Fan Rotation	-	CW
Motor RPM	-	1769
RL Voltage	-	208/209/209
RL Amperage	-	3.3/3.3/3.5
Suction ESP	-	-0.77"
Discharge ESP	-	ATM
Total ESP	2.337"	0.77"

Completed By: Stephen Tassinaro

Notes:[1] SEVERE FAN BLADE INTERERENCE. MC AWARE AND WORKING ON FAN. // RESOLVED.

Asset	Notes

National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: PRV3 AREA:HOOD 2

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRUB-141-7	XRUB-140-7-1-26-G
Serial Num	-	19687552
Type	UPBLAST	CENTRIFUGAL
Configuration	VERTICAL	UPBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	WEG
Frame	-	56
Horsepower	0.75	0.75
Motor Rpm	1725	1760
Phase	3	3
Voltage (rated)	208	230/460
Amperage (rated)	-	2.30/1.15
Service Factor	-	1.25

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	VP34
Motor Bore Size	-	5/8”
Motor Sheave SetPt	-	2.5 TURNS OUT
Fan Sheave Size	-	AK41
Fan Sheave Bore	-	3/4”
Belt CL Distance	-	5 5/8”
Num of Belts	-	1
Belt Size	-	AP23

Test Data		
	Design	**Actual**
CFM	1500	1545
Fan RPM	1377	1260
Fan Rotation	-	CW
Motor RPM	-	1777
RL Voltage	-	209/210/211
RL Amperage	-	1.6/1.7/1.6
Suction ESP	-	-0.86"
Discharge ESP	-	ATM
Total ESP	1.0"	0.86"

Completed By: Stephen Tassinaro

Notes:

Asset	Notes

National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: PRV4 AREA:HOOD 3

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRED - 090 -D	XRED-095-6-VG-1-17-X
Serial Num	-	19687547
Type	-	CENTRIFUGAL
Configuration	-	DOWNBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Frame	-	N/L
Horsepower	-	1/6
Motor Rpm	-	300-1750
Phase	-	1
Voltage (rated)	-	115/208-230/277
Amperage (rated)	-	2.2/1.3/1.1
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	-	319
Fan RPM	-	DD
Fan Rotation	-	CORRECT
Motor RPM	-	DD
System SetPt	-	SPEED CONTROLLER
RL Voltage	-	119
RL Amperage	-	0.65
Total ESP	-	0.31"
Fan Inlet SP	-	-0.31"
Fan Discharge SP	-	ATM

Completed By: Stephen Tassinaro

Notes:

Asset	Notes

National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: Kitchen Hood Type I

Comfort. Under control.

Asset: HD1 AREA:FRYER

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XXEP-6.92-S	XXEP-83.00-S
Job / Serial Num	-	19692610
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	83"	83"
Hood Width	23"	23"

Test Data Exhaust		
	Design	**Actual**
Filter Type	XTRACTOR	XTRACTOR
Filter Size 1	16X16	16X16
Filter Qty 1	5	5
Filter AK factor size 1	1.53	1.53
Filter Total AK Area	7.65	7.65
Filter1 FPM	-	213
Filter2 FPM	-	198
Filter3 FPM	-	192
Filter4 FPM	-	191
Filter5 FPM	-	218
Filter Ave FPM(corr)	-	202
CFM	-	1545

Cooking Equipment		
	Design	**Actual**
Item 1	-	FRYER
Item 2	-	FRYER

Performance Data		
	Design	**Actual**
Smoke Generation Type	-	SMOKE EMITTER
Hood Capture %	-	100%
End Panels Installed (Y/N)	-	YES

General		
	Design	**Actual**
Third Party Witness	-	TEST RECORDED
Third Party Company	-	TEST RECORDED
Tech Witness	-	STEPHEN TASSINARO

Completed By: Stephen Tassinaro

Notes:

Asset	Notes

National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: Kitchen Hood Type I

Comfort. Under control.

Asset: HD2 AREA:GRILL

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XGEP-5.33-S	XGEP-64.00-S
Job / Serial Num	-	19692611
Type	TYPE I LOW PROXIMITY	TYPE I CANOPY
Hood length	64"	64"
Hood Width	23"	23"

Test Data Exhaust		
	Design	**Actual**
Filter Type	GREASE GRABBER	GREASE GRABBER
Filter Size 1	16X16	16X16
Filter Qty 1	4	4
Filter AK factor size 1	1.53	1.53
Filter Total AK Area	6.12	6.12
Filter1 FPM	-	229
Filter2 FPM	-	268
Filter3 FPM	-	200
Filter4 FPM	-	214
Filter Ave FPM(corr)	-	228
CFM	-	1395

Cooking Equipment		
	Design	**Actual**
Item 1	-	GRIDDLE
Item 2	-	GRIDDLE

Performance Data		
	Design	**Actual**
Smoke Generation Type	-	SMOKE EMITTER
Hood Capture %	-	100%
End Panels Installed (Y/N)	-	YES

General		
	Design	**Actual**
Third Party Witness	-	TEST RECORDED
Third Party Company	-	TEST RECORDED
Tech Witness	-	STEPHEN TASSINARO

Completed By: Stephen Tassinaro

Notes:

Asset	Notes

National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: Kitchen Hood Type II

Comfort. Under control.

Asset: HD3 AREA:DISHWASHING

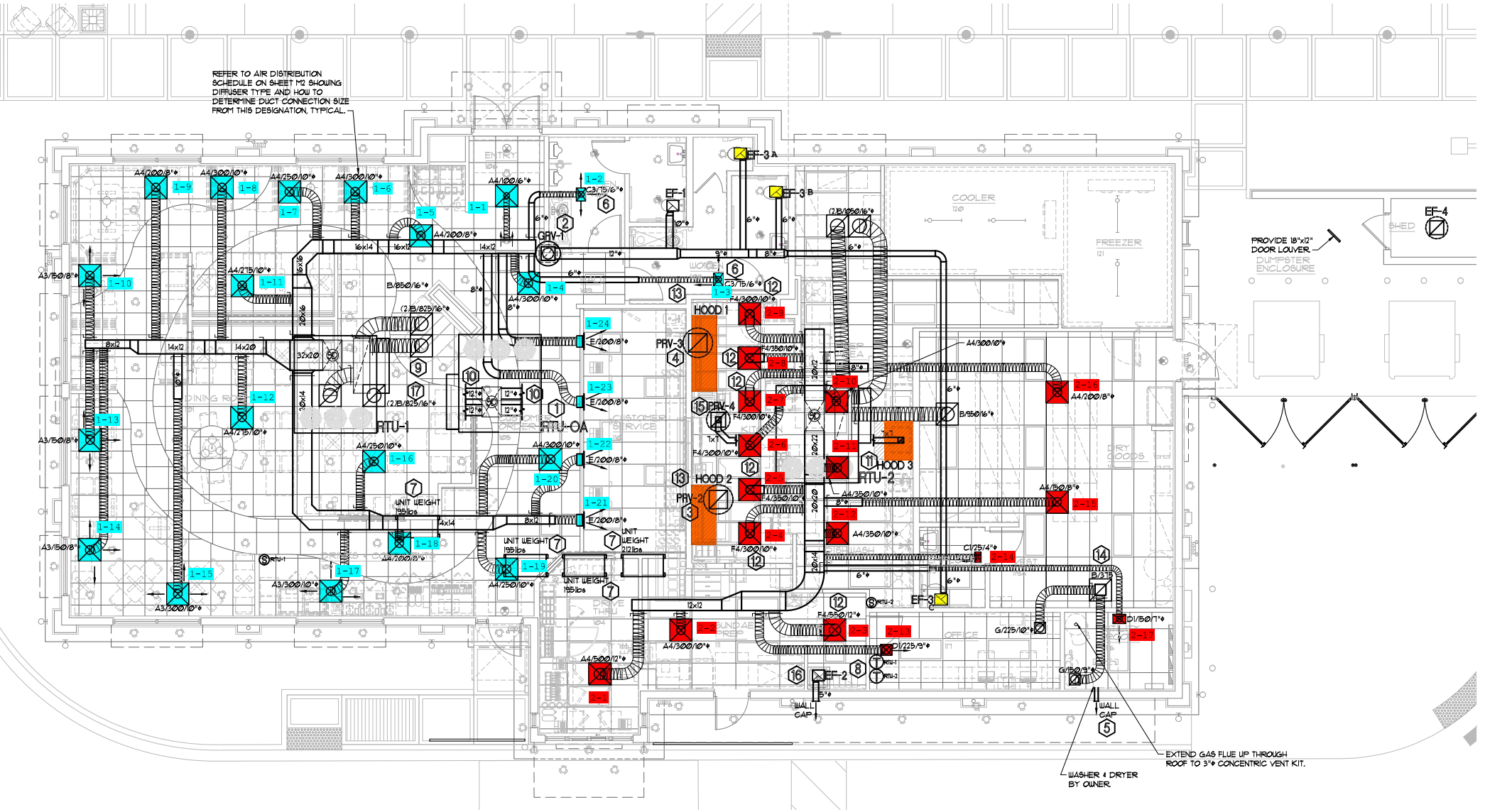
Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XD3-3.5-S	XD3-42.00-S
Serial Num	-	19692612
Type	TYPE II CANOPY	TYPE II CANOPY
Hood length	42"	42"
Hood Width	42"	42"

Test Data		
	Design	**Actual**
Exhaust CFM	350	319

Completed By: Stephen Tassinaro

Notes:

Asset	Notes


REFER TO AIR DISTRIBUTION SCHEDULE ON SHEET M2 SHOWING DIFFUSER TYPE AND HOW TO DETERMINE DUCT CONNECTION SIZE FROM THIS DESIGNATION, TYPICAL.
RTU-1
RTU-OA
RTU-2
GRV-1
EF-1
EF-2
EF-3
EF-3 A
EF-3 B
EF-4
HOOD 1
HOOD 2
HOOD 3
PRV-2
PRV-3
PRV-4
UNIT WEIGHT 195lbs
UNIT WEIGHT 212lbs
PROVIDE 18"x12" DOOR LOUVER
DUMPSTER ENCLOSURE
WALL CAP
WASHER & DRYER BY OWNER
EXTEND GAS FLUE UP THROUGH ROOF TO 3"ø CONCENTRIC VENT KIT.