

**Report By:**

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SUITE 4210  
CINCINNATI, OH 45246

**NATIONAL**

**TAB**

Comfort. Under control.

**Report: FINAL TAB REPORT**  
**Function: Test, Adjust, & Balance**  
**Date: 8/5/2022**

**PROJECT**  
**07-11 CULVERS - FULSHEAR, TX**

6677 FLEWELLEN WAY

FULSHEAR, TX

**Client**

Accurex

400 Ross Ave

Schofield, WI 54476

# National TAB

Project: 07-11 CULVERS - FULSHEAR, TX

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## Project Summary

The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report is further detail about your building performance including recommendations, asset data, and pictures. 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 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.

### RTU's (Roof Top Units)

Each of the RTU's were measured at their terminal devices or via traverse to establish a total flow for that unit. Each RTU was adjusted to within tolerance of the engineer's design flow. Each outlet was then adjusted to within tolerance of the design flow. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. The outside air damper was adjusted until the airflow was within the design requirements. Any equipment that fell outside of that 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 within tolerance of the 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 tolerance of design. Each terminal device was balanced to within tolerance 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 recorded at +0.011" W.C. average. This pressure falls within the recommended tolerances by the International Mechanical Code of +0.02" W.C. to -0.02" W.C. The building is designed for a net positive pressure and this measurement coincides with that requirement.

The hood capture was tested at the perimeter of the hood and the cook top level with the equipment heat "off" and 100% capture was observed. Cooking equipment was not able to be turned on while the technician was on site.

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### 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	6150	5908	4400	4119	1750	1789	28.5%	30.3%						
RTU-2	KITCHEN	6225	5849	4525	4102	1700	1747	27.3%	29.9%						
PRV-1	RESTROOM													300	285
PRV-2	HD1 GRIDDLE											1500	1579		
PRV-3	HD2 FRYER											1500	1607		
EF-1A(X2)	EMP. RR/MOP RM.													150	142
<b>TOTALS</b>		12375	11757	8925	8221	3450	3536			0	0	3000	3186	450	427

#### NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3450	3536
TOTAL EXHAUST	3450	3613
<b>NET AIRFLOW</b>	<b>0</b>	<b>-77</b>

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H2O)
FRONT	0.002"
SIDE	
REAR	0.001"
<b>AVERAGE</b>	<b>#DIV/0!</b>

#### 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:

# 07-11 CULVERS - FULSHEAR, TX

## CheckList Information

**Name :** REMARKS **Status :** NotSubmitted  
**Assigned Organization :** National TAB **Asset :**  
**Requesting Organization :** National TAB

## CheckList Item Details

### PRIORITY (HIGH/LOW/INFO ONLY)

HIGH	Backdraft damper is not installed for the restroom exhaust fan
HIGH	Hinge kit on KEF(s) missing the tension wire to keep fan from hinging to far back (needs to be installed)



tension\_wire\_missing.jpeg

HIGH	PRV-2&3 ELECTRICAL CONDUIT RUN OVER FAN HOUSING. RECOMMEND RUNNING CONDUIT THROUGH CHASE ON SIDE OF HOUSING.
HIGH	RTUS MISSING GAS PIPE GROMMET. GROMMET IS LOCATED IN FURNACE SECTION
HIGH	Grease cup on KEF not installed



grease\_cup\_not\_installed.jpe  
g

Notes/Comments :



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## 07-11 CULVERS - FULSHEAR, TX

### CheckList Information

**Name :** SITE PICTURES **Status :** Submitted  
**Assigned Organization :** National TAB **Asset :**  
**Requesting Organization :** National TAB

### CheckList Item Details

#### STORE FRONT



IMG\_8474.jpeg

#### RTU-1



IMG\_8464.jpeg

RTU-2



**IMG\_8465.jpeg**

PRV-1



**IMG\_8469.jpeg**

PRV-2



**IMG\_8466\_1\_.jpeg**

PRV-3



IMG\_8468.jpeg

HOOD 1



IMG\_8471.jpeg

HOOD 2



IMG\_8470.jpeg

Notes/Comments :





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### 07-11 CULVERS - FULSHEAR, TX

#### CheckList Information

**Name :** TECH - STEP 1: INITIAL WALKTHROUGH **Status :** Submitted

**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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### 07-11 CULVERS - FULSHEAR, TX

#### CheckList Information

**Name :** TECH - STEP 2: UNIT DATA AND EVAL **Status :** Submitted

**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.)	WIRE RUN FROM OCP TO Ec BY NTAB.
Motors are all operating below the FLA rating?	YES
Are belts tight?	YES
If direct drive unit is the speed controller working.	N/A
Is gas piping installed and valves turned on?	YES
Unit free of noticeable noise and vibration	YES

##### EF's

Rotation is correct?	YES
Belts are tight?	YES
Grease cup installed on hood fan?	PRV-3 GREASE CUP NOT INSTALLED



IMG\_8462.jpeg

Hinge kit installed installed on hood fan?

YES BUT HINGE KITS ARE MISSING WIRE TO KEEP FROM HINGING ALL THE WAY.



IMG\_8467.jpeg

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?

YES

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?

RESTROOM FAN MISSING BACKDRAFT DAMPER.

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?

KITCHEN EQUIPMENT NOT STARTED AT TIME OF BALANCE.

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 :**

PRV-2&3 ELECTRICAL CONDUIT RUN OVER FAN HOUSING. RECOMMEND RUNNING CONDUIT THROUGH CHASE ON SIDE OF HOUSING. RTUS MISSING GAS PIPE GROMMET. GROMMET IS LOCATED IN FURNACE SECTION.



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### 07-11 CULVERS - FULSHEAR, TX

#### CheckList Information

**Name :** TECH - STEP 3: TEST, ADJUST AND BALANCE **Status :** Submitted

**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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### 07-11 CULVERS - FULSHEAR, TX

#### CheckList Information

<b>Name :</b>	TECH - STEP 4: FINAL TESTS	<b>Status :</b>	Submitted
<b>Assigned Organization :</b>	National TAB	<b>Asset :</b>	
<b>Requesting Organization :</b>	National TAB		

#### CheckList Item Details

##### FINAL TESTS

##### HOOD CAPTURE TEST

List equipment turned on for testing	NONE
List smoke candle type used	45 SECOND SMOKE CARTRIDGE
Smoke test capture - Perimeter of hood	100%
Smoke test capture - Top of cooking surface	100%

##### WITNESS

Date test was completed	07/12/2022
TAB tech name / Firm	WESLEY JOHN / NATIONAL TAB
Site super name / Firm	ROB BRUSS / CAMPBELL CONSTRUCTION
Owner representative name / Firm (if Applicable)	N/A
Building pressure at front & back doors (All Systems On)	FRONT 0.002" / BACK 0.001"

##### 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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# National TAB

Project: 07-11 CULVERS - FULSHEAR, TX

System/Unit: AHU/RTU



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Asset: RTU1

AREA:DINING

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5622C08920
Model Num	LGH-240-H4B	LGH240H4BS4Y
Type	-	RTU
Configuration	-	VERTICAL DISCHARGE
Num OA Filters 1	-	3
OA Filter Size 1	-	16x24
Num Final Filter 1	-	6
Final Filter Size 1	-	24x24x2

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Frame	-	184TZ
Horsepower	-	5
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	208/230	208
Rated Amperage	-	13.8

Drive Data		
	Design	Actual
Motor Sheave Size	-	1VP50
Motor Bore Size	-	1 1/8"
Motor Sheave SetPt	-	1.0 TURN OPEN
Fan Sheave Size	-	BK100
Fan Sheave Bore	-	1 3/16"
Belt CL Distance	-	20 1/2"
Num of Belts	-	1
Belt Size	-	BX61
Belt Alignment	-	CORRECT

Test Data		
	Design	Actual
SF CFM	6150	5908
SF RPM	-	870
RA CFM	4400	4119
OA CFM	1750	1789
RL Voltage	-	207/209/210
RL Amperage	-	9.7/9.6/9.9
SF Rotation	-	CCW
RA Damper Position	-	66%
Min OA Damper Position	-	34%
Min OA Damper Type	-	OPPOSED BLADE

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.76"
Fan Suction SP	-	-1.02"
Fan Discharge SP	-	0.51"
Total ESP	-	1.27"
Fan Total SP	-	1.53"

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

Completed By: Wesley John

Notes:

# National TAB

Project:07-11 CULVERS - FULSHEAR, TX

## AHU/RTU



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### Diffuser Supply (GRD)

#### RTU1/DINING

Asset	Location	Type	DESIGN CFM	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	MAIN ENTRY	SD4	150	192	202	143	95.3
SGRD2	MENS RR	SD4	150	252	259	158	105.3
SGRD3	WOMENS RR	SD4	150	228	244	157	104.7
SGRD4	HALL	SD1	450	510	537	439	97.6
SGRD5	DINING	SD1	150	237	255	152	101.3
SGRD6	DINING	SD1	150	139	140	143	95.3
SGRD7	DINING	SD1	150	155	166	140	93.3
SGRD8	DINING	SD1	150	140	147	137	91.3
SGRD9	DINING	SD1	150	152	160	162	108.0
SGRD10	DINING	SD1	150	102	108	138	92.0
SGRD11	DINING	SD1	150	155	164	160	106.7
SGRD12	DINING	SD1	150	114	119	136	90.7
SGRD13	DINING	SD1	150	43	45	137	91.3
SGRD14	DRINKS & CONDIMENT NTS	SD1	300	253	275	305	101.7
SGRD15	SIDE ENTRY	SD1	150	249	258	157	104.7
SGRD16	CUSTOMER ORDER AREA	SD1	450	327	339	411	91.3
SGRD17	DINING	SD1	150	192	204	153	102.0
SGRD18	DINING	SD1	150	215	223	148	98.7
SGRD19	DINING	SD1	150	141	143	139	92.7
SGRD20	DINING	SD1	150	188	197	157	104.7
SGRD21	DINING	SD1	150	179	188	160	106.7
SGRD22							

	DINING	SD1	150	114	120	137	91.3
SGRD23	<b>Location</b>	<b>Type</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>CFM(2)</b>	<b>FINAL CFM</b>	<b>% to design</b>
	CUSTOMER SERVICE	SD1	350	328	347	322	92.0
SGRD24	<b>Location</b>	<b>Type</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>CFM(2)</b>	<b>FINAL CFM</b>	<b>% to design</b>
	CUSTOMER SERVICE	SD1	350	392	408	319	91.1
SGRD25	<b>Location</b>	<b>Type</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>CFM(2)</b>	<b>FINAL CFM</b>	<b>% to design</b>
	CUSTOMER SERVICE	SD1	350	137	144	328	93.7
SGRD26	<b>Location</b>	<b>Type</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>CFM(2)</b>	<b>FINAL CFM</b>	<b>% to design</b>
	CUSTOMER SERVICE	SD1	350	215	223	320	91.4
SGRD27	<b>Location</b>	<b>Type</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>CFM(2)</b>	<b>FINAL CFM</b>	<b>% to design</b>
	DRIVE THRU	SD1	500	256	267	461	92.2
SGRD28	<b>Location</b>	<b>Type</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>CFM(2)</b>	<b>FINAL CFM</b>	<b>% to design</b>
	OFFICE	SD1	200	176	182	189	94.5

Completed By: Brianna Biggs on

Asset	Notes
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# National TAB

Project: 07-11 CULVERS - FULSHEAR, TX

System/Unit: AHU/RTU



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Asset: RTU2

AREA: KITCHEN

### Unit Data

	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5622C08912
Model Num	LGH-240-H4B	LGH240H4BS4Y
Type	-	RTU
Configuration	-	VERTICAL DISCHARGE
Num OA Filters 1	-	3
OA Filter Size 1	-	16x24
Num Final Filter 1	-	6
Final Filter Size 1	-	24x24x2

### Motor Data

	Design	Actual
Motor MFG	-	US MOTORS
Frame	-	184TZ
Horsepower	-	5
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	208/230	208
Rated Amperage	-	13.8

### Drive Data

	Design	Actual
Motor Sheave Size	-	1VP50
Motor Bore Size	-	1 1/8"
Motor Sheave SetPt	-	1.0 TURN OPEN
Fan Sheave Size	-	BK100
Fan Sheave Bore	-	1 3/16"
Belt CL Distance	-	20 1/2"
Num of Belts	-	1
Belt Size	-	BX61
Belt Alignment	-	CORRECT

### Test Data

	Design	Actual
SF CFM	6225	5849
SF RPM	-	871
RA CFM	4525	4102
OA CFM	1700	1747
RL Voltage	-	209/210/211
RL Amperage	-	9.0/9.0/9.3
SF Rotation	-	CCW
RA Damper Position	-	68%
Min OA Damper Position	-	32%
Min OA Damper Type	-	OPPOSED BLADE

### Performance Data

	Design	Actual
MA Plenum SP	-	-0.82"
Fan Suction SP	-	-1.09"
Fan Discharge SP	-	0.53"
Total ESP	-	1.35"
Fan Total SP	-	1.62"

### General

	Design	Actual
Fan Rotation Correct	-	YES
Unit Filters Clean	-	YES
Condensate Drain Installed	-	YES

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Notes:

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Project:07-11 CULVERS - FULSHEAR, TX

## AHU/RTU



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**Diffuser Supply (GRD)**

**RTU2/KITCHEN**

Asset	Location	Type	DESIGN CFM	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	SUNDAE SERVICE	SD1	600	421	450	572	95.3
SGRD2	SUNDAE SERVICE	SD1	600	399	453	556	92.7
SGRD3	COOKLINE	SD5	275	246	279	269	97.8
SGRD4	COOKLINE	SD5	250	146	154	234	93.6
SGRD5	FOOD PREP	SD5	400	421	449	387	96.8
SGRD6	FOOD PREP	SD5	400	147	161	381	95.3
SGRD7	COOKLINE	SD5	375	72	80	348	92.8
SGRD8	COOKLINE	SD5	200	546	583	188	94.0
SGRD9	FOOD PREP	SD5	350	508	546	342	97.7
SGRD10	DISHWASHING	SD5	350	684	735	330	94.3
SGRD11	DISHWASHING	SD5	350	413	443	329	94.0
SGRD12	EMPLOYEE RR	SD4	75	90	101	72	96.0
SGRD13	DRY GOODS	SD1	600	241	261	549	91.5
SGRD14	DRY GOODS	SD1	200	332	373	189	94.5
SGRD15	DRY GOODS	SD1	600	381	426	556	92.7
SGRD16	UTILITY ROOM	SD1	600	302	385	547	91.2

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Asset	Notes
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# National TAB

Project: 07-11 CULVERS - FULSHEAR, TX  
System/Unit: FAN - Exhaust



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Asset: EF-A1

AREA:MOP ROOM

Unit Data		
	Design	Actual
<b>MFG</b>	ACCUREX	ACCUREX
<b>Model Num</b>	XCR-B80	XCR-B80
<b>Serial Num</b>	-	19862130
<b>Type</b>	CEILING	CENTRIFUGAL
<b>Configuration</b>	VERTICAL	CEILING

Test Data		
	Design	Actual
<b>CFM</b>	75	69
<b>Fan RPM</b>	885	900
<b>Fan Rotation</b>	-	CW
<b>Motor RPM</b>	-	900
<b>System SetPt</b>	-	MEDIUM
<b>RL Voltage</b>	-	117
<b>RL Amperage</b>	-	0.11
<b>Total ESP</b>	0.125"	NA
<b>Fan Inlet SP</b>	-	N/A

Motor Data		
	Design	Actual
<b>Motor MFG</b>	-	GREENHECK
<b>Frame</b>	-	NL
<b>Horsepower</b>	-	NL
<b>Motor Rpm</b>	900	900
<b>Phase</b>	1	1
<b>Voltage (rated)</b>	115	115
<b>Amperage (rated)</b>	-	0.16
<b>Service Factor</b>	-	NL

Completed By: Wesley John

Notes:

Asset	Notes

# National TAB

Project: 07-11 CULVERS - FULSHEAR, TX  
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF-A1

AREA:EMPLOYEE RESTROOM

Unit Data		
	Design	Actual
<b>MFG</b>	ACCUREX	BROAN
<b>Model Num</b>	XCR-B80	AE80BL-B
<b>Serial Num</b>	-	NL
<b>Type</b>	CEILING	CENTRIFUGAL
<b>Configuration</b>	VERTICAL	CEILING

Test Data		
	Design	Actual
<b>CFM</b>	75	73
<b>Fan RPM</b>	885	DIRECT DRIVE
<b>Fan Rotation</b>	-	CW
<b>Motor RPM</b>	-	DIRECT DRIVE
<b>System SetPt</b>	-	SINGLE SPEED
<b>RL Voltage</b>	-	118
<b>RL Amperage</b>	-	0.34
<b>Total ESP</b>	0.125"	N/A
<b>Fan Inlet SP</b>	-	NA

Motor Data		
	Design	Actual
<b>Motor MFG</b>	-	NL
<b>Frame</b>	-	NL
<b>Horsepower</b>	-	NL
<b>Motor Rpm</b>	900	NL
<b>Phase</b>	1	1
<b>Voltage (rated)</b>	115	120
<b>Amperage (rated)</b>	-	0.5
<b>Service Factor</b>	-	NL

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Notes:

Asset	Notes

# National TAB

Project: 07-11 CULVERS - FULSHEAR, TX  
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV1

AREA:RESTROOM

Unit Data		
	Design	Actual
<b>MFG</b>	ACCUREX	ACCUREX
<b>Model Num</b>	XRED-095-D	XRED-090-VG-1-17-X
<b>Serial Num</b>	-	19872570
<b>Type</b>	DOWNBLAST	CENTRIFUGAL
<b>Configuration</b>	HORIZONTAL	DOWNBLAST

Motor Data		
	Design	Actual
<b>Motor MFG</b>	-	BROAD-OCEAN
<b>Frame</b>	-	NL
<b>Horsepower</b>	0.0667	0.10
<b>Motor Rpm</b>	1550	1750
<b>Phase</b>	1	1
<b>Voltage (rated)</b>	115	115
<b>Amperage (rated)</b>	-	1.38
<b>Service Factor</b>	-	NL

Test Data		
	Design	Actual
<b>CFM</b>	300	285
<b>Fan RPM</b>	1479	DIRECT DRIVE
<b>Fan Rotation</b>	-	CW
<b>Motor RPM</b>	-	DIRECT DRIVE
<b>System SetPt</b>	-	6/10
<b>RL Voltage</b>	-	119
<b>RL Amperage</b>	-	1.0
<b>Total ESP</b>	0.5"	0.32"
<b>Fan Inlet SP</b>	-	-0.32"
<b>Fan Discharge SP</b>	-	ATM

Completed By: Wesley John

Notes:

# National TAB

Project:07-11 CULVERS - FULSHEAR, TX

## FAN - Exhaust



Comfort. Under control.

**Diffuser Ret/Exh (GRD)**

**PRV1/RESTROOM**

Asset	Location	Size	DESIGN CFM	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	MENS RR	10X10	150	152	222	140	93.3
	WOMENS RR	10X10	150	303	234	145	96.7

Completed By: Brianna Biggs on

Asset	Notes

# National TAB

Project: 07-11 CULVERS - FULSHEAR, TX  
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV2

AREA:HD1 GRIDDLE

Unit Data		
	Design	Actual
<b>MFG</b>	ACCUREX	ACCUREX
<b>Model Num</b>	XRUB-160XP-15	XRUB-160XP-15-1-26-G
<b>Serial Num</b>	-	19873047
<b>Type</b>	UPLBAST	CENTRIFUGAL
<b>Configuration</b>	VERTICAL	UPBLAST

Test Data		
	Design	Actual
<b>CFM</b>	1500	1579
<b>Fan RPM</b>	2411	2277
<b>Fan Rotation</b>	-	CW
<b>Motor RPM</b>	-	1772
<b>RL Voltage</b>	-	213/211/211
<b>RL Amperage</b>	-	3.7/3.5/3.5
<b>Suction ESP</b>	-	-2.04"
<b>Discharge ESP</b>	-	ATM
<b>Total ESP</b>	2.337"	2.04"

Motor Data		
	Design	Actual
<b>Motor MFG</b>	-	WEG
<b>Frame</b>	-	NA
<b>Horsepower</b>	1.5	1.5
<b>Motor Rpm</b>	1725	1725
<b>Phase</b>	3	3
<b>Voltage (rated)</b>	208	208
<b>Amperage (rated)</b>	-	NA
<b>Service Factor</b>	-	NA

Drive Data		
	Design	Actual
<b>Motor Sheave Size</b>	-	4"
<b>Motor Bore Size</b>	-	5/8"
<b>Motor Sheave SetPt</b>	-	1.0 TURN OPEN
<b>Fan Sheave Size</b>	-	AK30
<b>Fan Sheave Bore</b>	-	1"
<b>Belt CL Distance</b>	-	6 1/4"
<b>Num of Belts</b>	-	1
<b>Belt Size</b>	-	AX24

Completed By: Wesley John

Notes:

Asset	Notes

# National TAB

Project: 07-11 CULVERS - FULSHEAR, TX  
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV3

AREA:HD2 FRYER

Unit Data		
	Design	Actual
<b>MFG</b>	ACCUREX	ACCUREX
<b>Model Num</b>	XRUB-140-7	XRUB-140-7-1-26-G
<b>Serial Num</b>	-	19873403
<b>Type</b>	UPBLAST	CENTRIFUGAL
<b>Configuration</b>	VERTICAL	UPBLAST

Test Data		
	Design	Actual
<b>CFM</b>	1500	1607
<b>Fan RPM</b>	1377	1013
<b>Fan Rotation</b>	-	CW
<b>Motor RPM</b>	-	1783
<b>RL Voltage</b>	-	213/212/211
<b>RL Amperage</b>	-	1.5/1.7/1.8
<b>Suction ESP</b>	-	-0.83"
<b>Discharge ESP</b>	-	ATM
<b>Total ESP</b>	1.0"	0.83"

Motor Data		
	Design	Actual
<b>Motor MFG</b>	-	WEG
<b>Frame</b>	-	56
<b>Horsepower</b>	0.75	0.75
<b>Motor Rpm</b>	1725	1725
<b>Phase</b>	3	3
<b>Voltage (rated)</b>	208	208
<b>Amperage (rated)</b>	-	2.54
<b>Service Factor</b>	-	1.00

Drive Data		
	Design	Actual
<b>Motor Sheave Size</b>	-	VP34
<b>Motor Bore Size</b>	-	5/8"
<b>Motor Sheave SetPt</b>	-	5.0 TURNS OPEN
<b>Fan Sheave Size</b>	-	AK41
<b>Fan Sheave Bore</b>	-	3/4"
<b>Belt CL Distance</b>	-	5"
<b>Num of Belts</b>	-	1
<b>Belt Size</b>	-	AP23

Completed By: Wesley John

Notes:

Asset	Notes

# National TAB

Project: 07-11 CULVERS - FULSHEAR, TX

## System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD1

AREA:GRIDDLE

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XGEP-64-S	XGEP-64.00-S
Job / Serial Num	-	19856085
Type	TYPE I LOW PROXIMITY	TYPE I LOW PROXIMITY
Hood length	64"	64
Hood Width	23"	23

Performance Data		
	Design	Actual
Smoke Generation Type	-	45 SECOND SMOKE CARTRIDGE
Hood Capture %	-	100
End Panels Installed (Y/N)	-	YES

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	-	301
Filter2 FPM	-	218
Filter3 FPM	-	230
Filter4 FPM	-	283
Filter Ave FPM(corr)	-	258
CFM	-	1579

General		
	Design	Actual
Third Party Witness	-	ROB BRUSS
Third Party Company	-	CAMPBELL CONSTRUCTION
Tech Witness	-	WESLEY JOHN

Cooking Equipment		
	Design	Actual
Item 1	-	GRIDDLE

Completed By: Wesley John

Notes:

Asset	Notes

# National TAB

Project: 07-11 CULVERS - FULSHEAR, TX

## System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD2

AREA:FRYER

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XXEP-83-S	XXEP-83.00-S
Job / Serial Num	-	19856078
Type	TYPE I LOW PROXIMITY	TYPE I LOW PROXIMITY
Hood length	83"	83
Hood Width	23"	23

Performance Data		
	Design	Actual
Smoke Generation Type	-	45 SECOND SMOKE CARTRIDGE
Hood Capture %	-	100
End Panels Installed (Y/N)	-	YES

Test Data Exhaust		
	Design	Actual
Filter Type	X-TRACTOR	X-TRACTOR
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	-	230
Filter2 FPM	-	199
Filter3 FPM	-	193
Filter4 FPM	-	191
Filter5 FPM	-	238
Filter Ave FPM(corr)	-	210
CFM	-	1607

General		
	Design	Actual
Third Party Witness	-	ROB BRUSS
Third Party Company	-	CAMPBELL CONSTRUCTION
Tech Witness	-	WESLEY JOHN

Cooking Equipment		
	Design	Actual
Item 1	-	FRYERS

Completed By: Wesley John

Notes:

Asset	Notes

