Report By:

National TAB
1329 E. KEMPER ROAD
SUITE 4210
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NATIONAL TAB
INTELLIGENCE

Report: Inspections TAB Report

Function: Test, Adjust, & Balance

Date: 10/21/2023

PROJECT

10-16-23 CHICK-FIL-A #01527 - EXTON, PA (LIONSVILLE, FSU) REINVEST

211 EAGLEVIEW BLVD

EXTON, PA 19341

Client

Chick-fil-A (CFA)

5200 BUFFINGTON ROAD

ATLANTA, GA 30349-2998

National TAB

Project: 10-16-23 CHICK-FIL-A #01527 - EXTON, PA (LIONSVILLE, FSU) REINVEST

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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.

Inspections and Commissioning Light
The HVAC equipment, ductwork, and other building assets were inspected per Chick Fil A requirements. The results of this inspection is included in checklists within the report. Operational tests were also performed on the HVAC controls to ensure occupied and unoccupied sequence of operation.

RTU's (Roof Top Units) w/ Diffusers
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 (Halton)
Each kitchen exhaust fan was measured by taking static pressure at the exhaust plenum and comparing to OEM performance data. The total flow of the exhaust was then adjusted to tolerance of the engineer's design flow.

General Exhaust Fans w/ Grilles
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 measured. It was confirmed that the building pressure fell within acceptable tolerances 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
AC-1	KITCHEN	8000	7990	6000	6100	2000	1890	25.0%	23.7%						
AC-2	SIDE DINNING	2830	3054	2080	2254	750	800	26.5%	26.2%						
AC-3	MAIN DINING	4000	4113	3000	3112	1000	1001	25.0%	24.3%						
AC-4	MAIN DINING	2750	2815	2150	2234	600	581	21.8%	20.6%						
AC-5	PLAY AREA	2000	2003	1700	1683	300	320	15.0%	16.0%						
EF-1	HD1 L+R PRESS COOKER											1913	1933		
EF-2	HD2/HD3 FRYERS											1402	1448		
EF-3	RESTROOM													500	460
TOTALS		19580	19975	14930	15383	4650	4592			0	0	3315	3381	500	460

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	4650	4592
TOTAL EXHAUST	3815	3841
NET AIRFLOW	835	751

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	
SIDE	
REAR	
AVERAGE	**#DIV/0!**

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:

[1] Unable to get accurate building pressure. There are too many holes in the ceiling.

National TAB

Project: 10-16-23 CHICK-FIL-A #01527 - EXTON, PA (LIONSVILLE, FSU) REINVEST

System/Unit: AHU/RTU

Asset: AC 1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5623H08602
Model Num	LGT300S4E	LGT300S4MH1Y
Type	AC	AC
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	3
OA Filter Size 1	-	24X16
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTOR
Frame	-	215TZ
Horsepower	7.5	7.5
Motor Rpm	-	1765
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	20.4

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VP65
Motor Bore Size	-	1-3/8
Motor Sheave SetPt	-	2.5 TURNS OUT
Fan Sheave Size	-	BK110
Fan Sheave Bore	-	1-3/16"
Belt CL Distance	-	21.5"
Num of Belts	-	1
Belt Size	-	BX66
Belt Alignment	-	GOOD

Test Data		
	Design	**Actual**
SF CFM	8000	7990
SF RPM	-	953
RA CFM	6000	6100
OA CFM	2000	1890
RL Voltage	-	206.1/205.8/206.9
RL Amperage	-	15.2/15.1/15.5
SF Rotation	-	CCW
RA Damper Position	-	MECHANICAL LINKAGE
Min OA Damper Position	-	32%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	5.0MA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.42”
Fan Suction SP	-	-1.11”
Fan Discharge SP	-	0.30”
Total ESP	0.8	0.72”
Fan Total SP	-	1.41”

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

Completed By: Tyler Youells on 10/21/2023

Diffuser Supply (GRD)

AC 1/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
AC 1-SGRD1	KITCHEN	A	14	825	1	871	842	842	102.1
AC 1-SGRD2	KITCHEN	A	14	625	1	865	623	623	99.7
AC 1-SGRD3	KITCHEN	A	14	825	1	675	808	808	97.9
AC 1-SGRD4	KITCHEN	A	14	825	1	594	832	832	100.8
AC 1-SGRD5	KITCHEN	A	14	625	1	633	579	579	92.6
AC 1-SGRD6	KITCHEN	A	12	500	1	56	527	527	105.4
AC 1-SGRD7	KITCHEN	A	12	500	1	495	498	498	99.6
AC 1-SGRD8	KITCHEN	A	14	825	1	836	808	808	97.9
AC 1-SGRD9	KITCHEN	A	12	475	1	651	467	467	98.3
AC 1-SGRD10	KITCHEN	A	12	325	1	583	367	355	109.2
AC 1-SGRD11	KITCHEN	A	12	475	1	467	471	471	99.2
AC 1-SGRD12	KITCHEN	A	12	425	1	502	412	424	99.8
AC 1-SGRD13	WH	A	8	200	1	266	201	201	100.5
AC 1-SGRD14	WH	A	8	125	1	195	127	127	101.6
AC 1-SGRD15	WH	A	12	425	1	453	428	428	100.7
Total				8000		8142	7990	7990	99.88%

National TAB

Project: 10-16-23 CHICK-FIL-A #01527 - EXTON, PA (LIONSVILLE, FSU)
REINVEST

System/Unit: AHU/RTU

Asset: AC 2 AREA:MECH ROOM

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5623H02599
Model Num	LGT102H4E	LGT102H4EH1Y
Type	AC	AC
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	24X16
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	EBM PABST
Frame	-	NL
Horsepower	3.75	3300W
Motor Rpm	-	2200
Phase	-	3
Rated Voltage	-	200
Rated Amperage	-	8.7

Test Data		
	Design	**Actual**
SF CFM	2830	3054
SF RPM	-	60%
RA CFM	2080	2254
OA CFM	750	800
RL Voltage	-	213.5/213.9/212.7
RL Amperage	-	2.33/2.37/2.33
SF Rotation	-	CW
RA Damper Position	-	MECHANICAL LINKAGE
Min OA Damper Position	-	30%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	5.0MA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.27”
Fan Suction SP	-	-0.55”
Fan Discharge SP	-	0.38”
Total ESP	0.8	0.65”
Fan Total SP	-	0.93”

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

Completed By: Tyler Youells on 10/21/2023

Notes:
[1] DIFFUSER DESIGN CFM VALUES NOT PROVIDED FOR RESTROOMS/MECH. BALANCED TO COMFORT

Written By: Tyler Youells on 10/21/2023

AHU/RTU

Diffuser Supply (GRD)

AC 2/MECH ROOM

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
AC 2-SGRD1	SERVING	A	12	600	1	826	676	590	98.3
AC 2-SGRD2	DINING	A	16	525	1	738	616	538	102.5
AC 2-SGRD3	DINING	A	16	525	1	172	148	502	95.6
AC 2-SGRD4	DINING	A	16	525	1	840	688	526	100.2
AC 2-SGRD5	DINING	A	16	525	1	397	340	531	101.1
AC 2-SGRD6	WOMENS	J	8	NL	1	311	249	154	-
AC 2-SGRD7	MENS	J	8	NL	1	292	246	158	-
AC 2-SGRD8	MECH ROOM			NL	1	79	70	55	-
Total						3655	3033	3054	

Diffuser Ret/Exh (GRD)

AC 2/MECH ROOM

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
AC 2-EGRD1	MECH	NA	NA	NL	1	101	56	56	-
Total						101	56	56	

National TAB

Project: 10-16-23 CHICK-FIL-A #01527 - EXTON, PA (LIONSVILLE, FSU)
REINVEST

System/Unit: AHU/RTU

Asset: AC 3 AREA:MAIN DINNING/DRIVE THRU

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5615C06439
Model Num	LGH120H4BH3Y	LGH120H4BH3Y
Type	AC	AC
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	24X16
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	INTERTEK
Frame	-	56HZ
Horsepower	-	3
Motor Rpm	-	1745
Phase	-	3
Rated Voltage	-	200
Rated Amperage	-	7.8

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VP50
Motor Bore Size	-	0.875"
Motor Sheave SetPt	-	3 TURNS OUT
Fan Sheave Size	-	7"
Fan Sheave Bore	-	1'
Belt CL Distance	-	21.5"
Num of Belts	-	1
Belt Size	-	A58
Belt Alignment	-	GOOD

Test Data		
	Design	**Actual**
SF CFM	4000	4113
SF RPM	-	886
RA CFM	3000	3112
OA CFM	1000	1001
RL Voltage	-	213.7/212.8/213.2
RL Amperage	-	7.68/7.54/7.59
SF Rotation	-	CCW
RA Damper Position	-	MECHANICAL LINKAGE
Min OA Damper Position	-	24%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	19.0 MA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.39”
Fan Suction SP	-	-0.88”
Fan Discharge SP	-	0.32”
Total ESP	-	0.71”
Fan Total SP	-	1.20”

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

Completed By: Tyler Youells on 10/21/2023

Notes:
[1] NOT ALL DIFFUSER DESIGN VALUES PROVIDED. DIFFUSERS WITH MISSING DESIGN VALUES BALANCED TO COMFORT AND TYPICAL CFM DESIGN VALUES

Written By: Tyler Youells on 10/21/2023

AHU/RTU

Diffuser Supply (GRD)

AC 3/MAIN DINNING/DRIVE THRU

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
AC 3-SGRD1	VESTIBULE	C	10	NL	1	302	336	356	-
AC 3-SGRD2	DINING	A	12	325	1	411	456	343	105.5
AC 3-SGRD3	DINING	A	12	325	1	345	394	315	96.9
AC 3-SGRD4	DRIVE THRU	A	12	NL	1	246	277	373	-
AC 3-SGRD5	DRIVE THRU	A	12	500	1	347	399	524	104.8
AC 3-SGRD6	DRIVE THRU	A	12	500	1	241	273	514	102.8
AC 3-SGRD7	DRIVE THRU	A	16	NL	1	556	636	655	-
AC 3-SGRD8	DINING	A	12	325	1	405	454	352	108.3
AC 3-SGRD9	DINING	A	12	325	1	372	409	355	109.2
AC 3-SGRD10	DINING	A	12	325	1	502	565	326	100.3
Total						3727	4199	4113	

Diffuser Ret/Exh (GRD)

AC 3/MAIN DINNING/DRIVE THRU

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
AC 3-EGRD1	VESTIBULE	K	10	NL	1	263	226	226	-
Total						263	226	226	

National TAB

Project: 10-16-23 CHICK-FIL-A #01527 - EXTON, PA (LIONSVILLE, FSU)
REINVEST

System/Unit: AHU/RTU

Asset: AC 4 AREA:MAIN DINNING

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5623H02600
Model Num	LGT092H4E	LGT092H4EH1Y
Type	AC	AC
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	24X16
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	EBMPABST
Frame	-	NL
Horsepower	0.375	3300W
Motor Rpm	-	2200
Phase	-	3
Rated Voltage	-	200
Rated Amperage	-	8.7

Test Data		
	Design	**Actual**
SF CFM	2750	2815
SF RPM	-	55%
RA CFM	2150	2234
OA CFM	600	581
RL Voltage	-	213.3/213.6/212.8
RL Amperage	-	2.11/2.12/2.15
SF Rotation	-	CW
RA Damper Position	-	MECHANICAL LINKAGE
Min OA Damper Position	-	30%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	5.0 MA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.19”
Fan Suction SP	-	-0.44”
Fan Discharge SP	-	0.27”
Total ESP	0.8	0.46”
Fan Total SP	-	0.71”

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

Completed By: Tyler Youells on 10/21/2023

Notes:
[1] DIFFUSER DESIGN VALUES NOT PROVIDED. DIFFUSERS BALANCED TO TYPICAL CFA CFM VALUES

Written By: Tyler Youells on 10/21/2023

Diffuser Supply (GRD)

AC 4/MAIN DINNING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
AC 4-SGRD1	DINING	A	12	NL	1	372	421	386	-
AC 4-SGRD2	DINING	A	12	NL	1	215	598	387	-
AC 4-SGRD3	DINING	A	12	NL	1	983	466	371	-
AC 4-SGRD4	DINING	A	12	NL	1	224	442	389	-
AC 4-SGRD5	VESTIBULE	C	12	NL	1	467	561	556	-
AC 4-SGRD6	DINING	A	12	NL	1	454	315	386	-
AC 4-SGRD7	DINING	A	12	NL	1	517	335	340	-
Total						3232	3138	2815	

Diffuser Ret/Exh (GRD)

AC 4/MAIN DINNING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	VESTIBULE	K	12	NL	1	509	411	411	-
Total						509	411	411	

National TAB

Project: 10-16-23 CHICK-FIL-A #01527 - EXTON, PA (LIONSVILLE, FSU)
REINVEST

System/Unit: AHU/RTU

Asset: AC 5 AREA:PLAY AREA

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5616B09469
Model Num	LGH060H4EH4Y	LGH060H4EH4Y
Type	AC	AC
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	34X16
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	GENTEQ
Frame	-	NA
Horsepower	-	1
Motor Rpm	-	NL
Phase	-	1
Rated Voltage	-	208
Rated Amperage	-	7.4

Test Data		
	Design	**Actual**
SF CFM	2000	2003
SF RPM	-	82%
RA CFM	1700	1683
OA CFM	300	320
RL Voltage	-	212.3
RL Amperage	-	7.2
SF Rotation	-	CW
RA Damper Position	-	MECHANICAL LINKAGE
Min OA Damper Position	-	7%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	19.0 MA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.14”
Fan Suction SP	-	-0.47”
Fan Discharge SP	-	0.28”
Total ESP	-	0.42”
Fan Total SP	-	0.75”

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

Completed By: Tyler Youells on 10/21/2023

Notes:
[1] DIFFUSER DESIGN VALUES NOT PROVIDED. BALANCED ALL DIFFUSERS PROPORTIONALLY/ TYPICAL FOR CFA PLAYLAND AREA.

Written By: Tyler Youells on 10/21/2023

AHU/RTU

Diffuser Supply (GRD)

AC 5/PLAY AREA

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
AC 5-SGRD1	PLAYLAND	A	12	NL	1	512	580	511	-
AC 5-SGRD2	PLAYLAND	A	12	NL	1	487	554	488	-
AC 5-SGRD3	PLAYLAND	A	12	NL	1	467	532	478	-
AC 5-SGRD4	PLAYLAND	A	12	NL	1	313	348	526	-
Total						1779	2014	2003	

National TAB

Project: 10-16-23 CHICK-FIL-A #01527 - EXTON, PA (LIONSVILLE, FSU) REINVEST

System/Unit: FAN - Exhaust

Asset: EF1 AREA:HOOD 1 L/R

Unit Data		
	Design	**Actual**
MFG	LOREN COOK	LOREN COOK
Model Num	150 CPS	150 CPS
Serial Num	-	050SK38956-00/0004501
Type	BELT	UTILITY
Configuration	UTILITY	UPBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR RELIANCE
Frame	-	56
Horsepower	3/4	0.75
Motor Rpm	-	1725
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	8.2
Service Factor	-	1.25

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	MVL44
Motor Bore Size	-	0.625
Motor Sheave SetPt	-	4.0 TURNS OUT
Fan Sheave Size	-	4.75"
Fan Sheave Bore	-	1"
Belt CL Distance	-	12"
Num of Belts	-	1
Belt Size	-	A38

Test Data		
	Design	**Actual**
CFM	1913	1933
Fan RPM	-	1225
Fan Rotation	-	CCW
Motor RPM	-	1769
RL Voltage	-	122
RL Amperage	-	7.71
Suction ESP	-	-0.62”
Discharge ESP	-	ATM
Total ESP	0.75	0.62”

Completed By: Tyler Youells on 10/21/2023

National TAB

Project: 10-16-23 CHICK-FIL-A #01527 - EXTON, PA (LIONSVILLE, FSU)
REINVEST

System/Unit: FAN - Exhaust

Asset: EF2 AREA:HOODS 2/3

Unit Data		
	Design	**Actual**
MFG	LOREN COOK	LOREN COOK
Model Num	150 CPS	150 CPS
Serial Num	-	050SK37078-00/0000703
Type	BELT	UTILITY
Configuration	UTILITY	UPBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR RELIANCE
Frame	-	56
Horsepower	3/4	0.75
Motor Rpm	-	1725
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	8.2
Service Factor	-	1.25

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VL44
Motor Bore Size	-	0.625"
Motor Sheave SetPt	-	1 TURN OUT
Fan Sheave Size	-	AK54
Fan Sheave Bore	-	1"
Belt CL Distance	-	12"
Num of Belts	-	1
Belt Size	-	A38

Test Data		
	Design	**Actual**
CFM	-	1448
Fan RPM	-	1294
Fan Rotation	-	CCW
Motor RPM	-	1762
RL Voltage	-	122.3
RL Amperage	-	7.88
Suction ESP	-	0.99”
Discharge ESP	-	ATM
Total ESP	-	-0.99”

Completed By: Tyler Youells on 10/21/2023

National TAB

Project: 10-16-23 CHICK-FIL-A #01527 - EXTON, PA (LIONSVILLE, FSU)
REINVEST

System/Unit: FAN - Exhaust

Asset: EF3 AREA:RESTROOMS

Unit Data		
	Design	**Actual**
MFG	LOREN COOK	LOREN COOK
Model Num	ACED 100C15DH	ACEH 100C15DH
Serial Num	-	050PK74143-00/0000701
Type	DD	CRE
Configuration	DOWNBLAST	DOWNBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTOR
Frame	-	48Y
Horsepower	1/8	0.125
Motor Rpm	-	1600
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	1.7
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	500	460
Fan RPM	-	1600
Fan Rotation	-	CCW
Motor RPM	-	1600
System SetPt	-	FULL SPEED
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	0.375	0.46”
Fan Inlet SP	-	-0.46”
Fan Discharge SP	-	ATM

Completed By: Tyler Youells on 10/21/2023

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF3/RESTROOMS

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD 1	MENS RR	K	8	250	1	301	232	232	92.8
EGRD 2	WOMENS RR	K	8	250	1	197	228	228	91.2
Total				500		498	460	460	92%

National TAB

Project: 10-16-23 CHICK-FIL-A #01527 - EXTON, PA (LIONSVILLE, FSU) REINVEST

System/Unit: Kitchen Hood Type I

Asset: HD 2 AREA:

Unit Data		
	Design	**Actual**
MFG	HALTON	HALTON
Model Num	KVL-C-IC	KVL-C-IC
Job / Serial Num	-	118375-342
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	42"	42"
Hood Width	34"	34"

Test Data Exhaust		
	Design	**Actual**
Filter Size 1	S.S FILTERS (KSA)	FULL KSA
Filter Qty 1	2	2
TAB SP	0.30"	0.337"
CFM	701	749

Cooking Equipment		
	Design	**Actual**
Item 1	-	2X SINGLE FRYERS

Test Data Supply		
	Design	**Actual**
TAB SP	0.29"	0.285"

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National TAB

Project: 10-16-23 CHICK-FIL-A #01527 - EXTON, PA (LIONSVILLE, FSU)
REINVEST

System/Unit: Kitchen Hood Type I

Asset: HD 3 AREA:

Unit Data		
	Design	**Actual**
MFG	HALTON	HALTON
Model Num	KVL-C-IC	KVL-C-IC
Job / Serial Num	-	118375-393
Type	TYPE I CANOPY	TYPE I LOW PROXIMITY
Hood length	42"	42"
Hood Width	34"	34"

Test Data Exhaust		
	Design	**Actual**
Filter Size 1	S.S FILTERS (KSA)	FULL KSA
Filter Qty 1	2	2
TAB SP	0.30"	0.293"
CFM	701	699

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

Test Data Supply		
	Design	**Actual**
TAB SP	0.29"	0.256"

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National TAB

Project: 10-16-23 CHICK-FIL-A #01527 - EXTON, PA (LIONSVILLE, FSU)
REINVEST

System/Unit: Kitchen Hood Type I

Asset: HD L1 AREA:

Unit Data		
	Design	**Actual**
MFG	HALTON	HALTON
Model Num	KVL-2-IC	KVL-2-IC
Job / Serial Num	-	118375-254
Type	TYPE I CANOPY	TYPE I LOW PROXIMITY
Hood length	107"	107"
Hood Width	37"	37"

Test Data Exhaust		
	Design	**Actual**
Filter Size 1	S.S FILTERS (KSA)	FULL KSA
Filter Qty 1	5	5
TAB SP	0.13"	
CFM	1204	

Cooking Equipment		
	Design	**Actual**
Item 1	-	4X PRESSURE FRYER
Item 2	-	2X GRILLE

Test Data Supply		
	Design	**Actual**
TAB SP	0.30"	0.302"

Completed By: Tyler Youells on 10/21/2023

National TAB

Project: 10-16-23 CHICK-FIL-A #01527 - EXTON, PA (LIONSVILLE, FSU)
REINVEST

System/Unit: Kitchen Hood Type I

Asset: HD R1 AREA:

Unit Data		
	Design	**Actual**
MFG	HALTON	HALTON
Model Num	KVL-2-IC	KVL-2-IC
Job / Serial Num	-	118375-296
Type	TYPE I CANOPY	TYPE I LOW PROXIMITY
Hood length	63"	63"
Hood Width	37"	37"

Test Data Exhaust		
	Design	**Actual**
Filter Size 1	S.S FILTERS (KSA)	FULL KSA
Filter Qty 1	3	3
TAB SP	0.13"	0.121"
CFM	709	686

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

Test Data Supply		
	Design	**Actual**
TAB SP	0.30	0.303"

Completed By: Tyler Youells on 10/21/2023