

**Report By:**

National TAB  
1329 E. KEMPER ROAD  
SUITE 4210  
CINCINNATI, OH 45246



**Report: PRELIMINARY TAB**  
**Function: Test, Adjust, & Balance**  
**Date: 04/08/2025**  
**Completed By: National TAB**

**PROJECT**  
**04-07-25 FIVE GUYS TOLEDO, OH**

6920 CENTRAL AVE

TOLEDO, OH 43617

**Client**

Sunforest Building Company

# National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH

## Table Of Contents

Section	Page #
AHU/RTU	3
Kitchen Hood Type I	9
FAN - Exhaust	13
FAN - Supply	17
Checklist Data	18

# National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH

System/Unit: AHU/RTU



Asset: RTU1

AREA:DINING

Unit Data		
	Design	Actual
MFG	LENNOX	AMERICAN STANDARD
Serial Num	-	240460045MxX
Model Num	LGT150H4E	GCC150A3EHB3
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	37"x22"
Num Final Filter 1	-	4
Final Filter Size 1	-	20"x20"x2"

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	56
Horsepower	3.75	3.0
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	12.0

Drive Data	
	Actual
Motor Sheave Size	1VP60
Motor Bore Size	7/8"
Motor Sheave SetPt	0 OUT
Fan Sheave Size	BK95
Fan Sheave Bore	1"
Belt CL Distance	23"
Num of Belts	1
Belt Size	B-66
Belt Alignment	Good

Test Data		
	Design	Actual
SF CFM	4110	4129
SF RPM	-	1088
RA CFM	3310	3364
OA CFM	800	765
RL Voltage	-	211/212/210
RL Amperage	-	10.3/8.8/10.3
SF Rotation	-	CCW
SF System SetPt	-	60HZ
RA Damper Position	-	MECHANICAL LINKAGE
Min OA Damper Position	-	5.8 DCV
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	D

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.73"
Fan Suction SP	-	-1.20"
Fan Discharge SP	-	0.83"
Total ESP	---	1.56"
Fan Total SP	-	2.03"

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

Completed By: Gabe Merk on 04/08/2025



# National TAB

Project:04-07-25 FIVE GUYS TOLEDO, OH

## AHU/RTU



**Diffuser Supply (GRD)**

**RTU1/DINING**

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	DINING	S1	18X16	585	1	602	602	635	108.5
SGRD2	DINING	S1	18X16	585	1	584	584	621	106.2
SGRD3	DINING	S1	20X20	585	1	544	544	566	96.8
SGRD4	DINING	S1	22X20	585	1	552	552	584	99.8
SGRD5	DINING	S1	---	600	1	737	737	609	101.5
SGRD6	DINING	S1	20X20	585	1	520	520	559	95.6
SGRD7	DINING	S1	18X16	585	1	531	531	555	94.9
Total				4110		4070	4070	4129	100.46%

Completed By: Gabe Merk on 04/08/2025

# National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH

System/Unit: AHU/RTU



Asset: RTU2

AREA:KITCHEN

Unit Data		
	Design	Actual
MFG	LENNOX	AMERICAN STANDARD
Serial Num	-	233860040MX
Model Num	LGT092H4E	GCC090A3EHB3
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	37"x22"
Num Final Filter 1	-	4
Final Filter Size 1	-	20"x20"x2"

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	56
Horsepower	2	2
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	6.3

Drive Data	
	Actual
Motor Sheave Size	1VP60
Motor Bore Size	7/8"
Motor Sheave SetPt	0 OUT
Fan Sheave Size	BK115
Fan Sheave Bore	1"
Belt CL Distance	22"
Num of Belts	1
Belt Size	B66
Belt Alignment	GOOD

Test Data		
	Design	Actual
SF CFM	3000	2973
SF RPM	-	913
RA CFM	2600	2537
OA CFM	400	436
RL Voltage	-	212/212/211
RL Amperage	-	6.4/5.2/6.2
SF Rotation	-	CCW
SF System SetPt	-	60HZ
RA Damper Position	-	MECHANICALLY LINKED
Min OA Damper Position	-	2.0 VDC
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	D

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.46"
Fan Suction SP	-	-0.69"
Fan Discharge SP	-	0.69"
Total ESP	---	1.15"
Fan Total SP	-	1.38"

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

Completed By: Chase Wright on 04/08/2025



# National TAB

Project:04-07-25 FIVE GUYS TOLEDO, OH

## AHU/RTU



**Diffuser Supply (GRD)**

**RTU2/KITCHEN**

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	HOOD 1	ACPSP	6"X129"	614	4.19	651	651	628	102.3
SGRD2	HOOD 2	ACPSP	6"X105"	560	3.46	386	386	550	98.2
SGRD3	KITCHEN	S1		150	1	221	221	146	97.3
SGRD4	KITCHEN	S1		325	1	356	356	325	100.0
SGRD5	KITCHEN	S1		326	1	445	445	331	101.5
SGRD6	KITCHEN	S1		325	1	363	363	313	96.3
SGRD7	KITCHEN	S3		400	1	243	243	373	93.3
SGRD8	KITCHEN	S3		150	1	175	175	152	101.3
SGRD9	KITCHEN	S3		100	1	174	174	102	102.0
SGRD10	KITCHEN	S3		50	1	173	173	53	106.0
Total				3000		3187	3187	2973	99.1%

Completed By: Gabe Merk on 04/08/2025

# National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH

## System/Unit: Kitchen Hood Type I



Asset: HD1

AREA:FRYER HOOD

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5424 ND-2-ACPSP-F	5424 ND-2
Job / Serial Num	-	6879563
Type	TYPE I - CANOPY	TYPE 1 CANOPY
Hood length	108"	105"
Hood Width	54"	54"
Supply Plenum Type	-	ACPSP
Supply Plenum Width	14"	14"
Supply Plenum Length	129"	105"

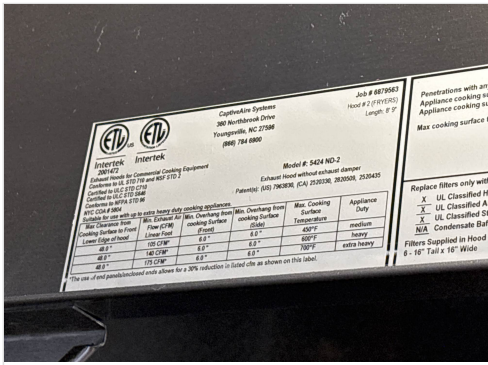
Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO
Filter Size 1	16X16	16"X16"
Filter Qty 1	6	6
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	11.34	9.72
Filter1 FPM	-	149
Filter2 FPM	-	154
Filter3 FPM	-	182
Filter4 FPM	-	186
Filter5 FPM	-	157
Filter6 FPM	-	154
Filter Ave FPM(corr)	-	264
CFM	1662	1584

Cooking Equipment	
	Actual
Item 1	FRYER

Test Data Supply		
	Design	Actual
Total Area	12.54	10.2
Kv factor (Vel)	0.89	0.89
Num of Readings	-	12
Reading1 FPM	-	92
Reading2 FPM	-	99
Reading3 FPM	-	114
Reading4 FPM	-	104
Reading5 FPM	-	132
Reading6 FPM	-	129
Reading7 FPM	-	105
Reading8 FPM	-	103
Reading9 FPM	-	79
Reading10 FPM	-	107
Reading11 FPM	-	129
Reading12 FPM	-	131
Ave FPM(corr)	-	98
CFM	1247	1125

Completed By: Gabe Merk on 04/08/2025

# Unit Data - PHOTO LOG



04/08/2025



04/08/2025

# National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH

## System/Unit: Kitchen Hood Type I



Asset: HD2

AREA:GRILL HOOD

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5424 ND2-ACPSP-F	5424 ND-2
Job / Serial Num	-	6879563
Type	TYPE I - CANOPY	TYPE 1 CANOPY
Hood length	108"	117"
Hood Width	54"	54"
Supply Plenum Type	-	ACPSP
Supply Plenum Width	14"	14"
Supply Plenum Length	105"	129"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO
Filter Size 1	16X16	16"X16"
Filter Qty 1	6	7
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	9.72	11.34
Filter1 FPM	-	148
Filter2 FPM	-	159
Filter3 FPM	-	180
Filter4 FPM	-	185
Filter5 FPM	-	161
Filter6 FPM	-	156
Filter7 FPM	-	173
Filter Ave FPM(corr)	-	269
CFM	1852	1882

Cooking Equipment	
	Actual
Item 1	GRILL

Test Data Supply		
	Design	Actual
Total Area	10.20	12.54
Kv factor (Vel)	0.89	0.89
Num of Readings	-	12
Reading1 FPM	-	135
Reading2 FPM	-	116
Reading3 FPM	-	99
Reading4 FPM	-	120
Reading5 FPM	-	102
Reading6 FPM	-	107
Reading7 FPM	-	147
Reading8 FPM	-	113
Reading9 FPM	-	144
Reading10 FPM	-	107
Reading11 FPM	-	121
Reading12 FPM	-	105
Ave FPM(corr)	-	105
CFM	1574	1480

Completed By: Gabe Merk on 04/08/2025

# Unit Data - PHOTO LOG



04/08/2025



04/08/2025

# National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH  
System/Unit: FAN - Exhaust



Asset: EF1

AREA:FRYER HOOD

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU180HFA	DU180HFA
Serial Num	-	6879563
Type	UPBLAST	UPBLAST
Configuration	CEILING	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	WEG
Frame	-	182T
Horsepower	2.0	2.0
Motor Rpm	-	1170
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	6.44
Service Factor	-	1.25

Test Data		
	Design	Actual
CFM	1662	1581
Fan RPM	-	700
Fan Rotation	-	CCW
Motor RPM	-	700
System SetPt	-	35.9Hz
RL Voltage	-	117 VFD
RL Amperage	-	3.0VFD
Total ESP	1.375"	0.54"
Fan Inlet SP	-	-0.54"
Fan Discharge SP	-	ATM

Completed By: Gabe Merk on 04/08/2025

## Unit Data - PHOTO LOG



04/07/2025



04/07/2025

# National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH  
System/Unit: FAN - Exhaust



Asset: EF2

AREA:GRILL

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	CASRE15DD	CASRE15DD
Serial Num	-	6879563
Type	UTILITY	UTILITY SET
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	1852	1882
Fan RPM	-	1468
Fan Rotation	-	CCW
Motor RPM	-	1468
System SetPt	-	50.5Hz
RL Voltage	-	112 VFD
RL Amperage	-	3.3 VFD
Total ESP	0.5"	INACCESSIBLE
Fan Inlet SP	-	INACCESSIBLE
Fan Discharge SP	-	ATM

Motor Data		
	Design	Actual
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	145T
Horsepower	2.0	2
Motor Rpm	-	1745
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	5.64
Service Factor	-	1.15

Completed By: Gabe Merk on 04/08/2025

### Unit Data - PHOTO LOG



# National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH  
System/Unit: FAN - Exhaust



Asset: EF3

AREA:TOILET

Unit Data		
	Design	Actual
MFG	GREENHECK	TWIN CITY
Model Num	G-095-E	ACXD-090BE
Serial Num	-	17121-2-00001
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	225	222
Fan RPM	-	INACCESSIBLE
Fan Rotation	-	CCW
Motor RPM	-	INACCESSIBLE
System SetPt	-	VIA DIAL
RL Voltage	-	123
RL Amperage	-	0.4
Total ESP	0.50"	0.19"
Fan Inlet SP	-	-0.19"
Fan Discharge SP	-	ATM

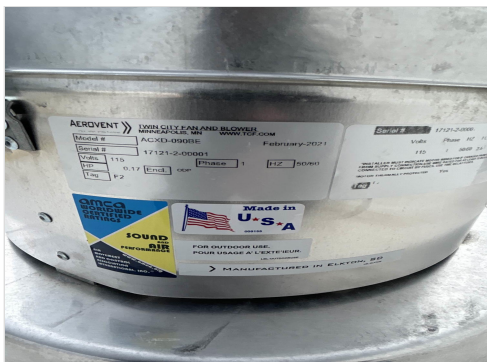
Motor Data		
	Design	Actual
Motor MFG	-	MCMILLAN
Frame	-	NA
Horsepower	1.30	1/6
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	2.6
Service Factor	-	NA

Completed By: Gabe Merk on 04/08/2025

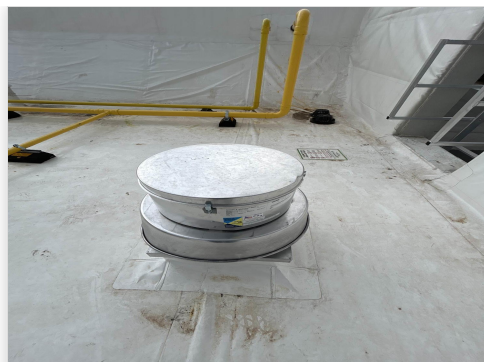
Notes:  
EF3 DESIGNED AT 375 CFM. AIR DEFICE TOTALS= 225 CFM. ADJUSTED UNITS DESIGN TO REFLECT AIR DEVICE TOTALS.

Written By: Tara Metcalf on 04/03/2025

### Unit Data - PHOTO LOG



04/07/2025



04/07/2025

# National TAB

Project:04-07-25 FIVE GUYS TOLEDO, OH

## FAN - Exhaust



**Diffuser Ret/Exh (GRD)**

**EF3/TOILET**

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	TOILET	E1		75	1	169	72	72	96.0
EGRD2	TOILET	E1		75	1	137	76	76	101.3
EGRD3	TOILET	E1		75	1	120	74	74	98.7
Total				225		426	222	222	98.67%

Completed By: Gabe Merk on 04/08/2025

# National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH  
System/Unit: FAN - Supply



Asset: MUA1

AREA:MUA

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	A2-D.500-20D-MPU	A2-D.500-20D-MPU
Serial Num	-	6879563
Type	MUA	MUA
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	2821	2838
SF RPM	-	1245
Motor RPM	-	1245
SF System SetPt	-	42.7Hz
RL Voltage	-	107 VFD
RL Amperage	-	5.4VFD
Total ESP	-	0.37"
Fan Discharge SP	-	0.37"

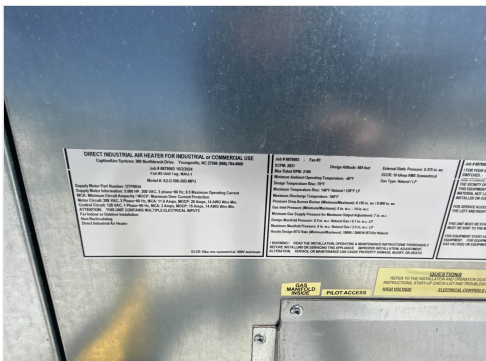
Motor Data		
	Design	Actual
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	182T
Horsepower	3.0	3.0
Motor Rpm	-	1750
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	8.6
Service Factor	-	1.15

General	
	Actual
Fan Rotation Correct	YES

Gas Heat		
	Design	Actual
Heater Operates (y/n)	-	YES
Flame Status (pass/fail)	-	PASS
Inlet Air Temp SetPt	55	55
Discharge Air Temp SetPt	60	60
Air Flow Switch SP Actual	-	0.32"

Completed By: Gabe Merk on 04/08/2025

### Unit Data - PHOTO LOG



04/08/2025



04/08/2025

## CheckList List

- TECH - STEP 1: INITIAL WALKTHRU
- TECH - STEP 2: UNIT DATA AND EVAL
- TECH - STEP 3: TEST, ADJUST AND BALANCE
- TECH - STEP 4: FINAL TESTS
- TECH - STEP 5: FINAL DOCUMENTATION



04-07-25 FIVE GUYS TOLEDO, OH

CheckList Information

**Name :** TECH - STEP 1: INITIAL WALKTHRU **Status :** Completed

**Assigned Organization :** National TAB **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 03/28/2025 - Tara Metcalf - National TAB

**Completed Date :** 04/08/2025 - Gabe Merk - National TAB

CheckList Item Details

INITIAL SITE WALKTHROUGH

**All diffusers and grilles are installed and match design?** No

**Comment:**

All diffusers and grilles installed but returns do not match R1 type specified.

**All hood filters installed and accounted for?** Yes

**Comment:**

**Hoods are wired and have power?** Yes

**Comment:**

**Hood is free of alarms?** Yes

**Comment:**

**Thermostats have power?** Yes

**Comment:**

**Have trades/general contractor been notified about any issues and are they created on FaciliBuild?**

**Comment:**

Yes.



04-07-25 FIVE GUYS TOLEDO, OH

**CheckList Information**

**Name :** TECH - STEP 2: UNIT DATA AND EVAL **Status :** Completed  
**Assigned Organization :** National TAB **Asset :**  
**Requesting Organization :** National TAB  
**Created Date :** 03/28/2025 - Tara Metcalf - National TAB  
**Completed Date :** 04/08/2025 - Gabe Merk - 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

Comment:

DCV Max damper opening position is set to minimum? Yes

Comment:

Free cooling enthalpy set point set for lowest setting (Typically "D") Yes

Comment:

Motors are all operating below the FLA rating? Yes

Comment:

Are belts tight?

Comment:

YES

If direct drive unit is the speed controller working.

**Comment:**

N/A

---

**Is gas piping installed and valves turned on?**

Yes

**Comment:**

---

**Unit free of noticeable noise and vibration**

Yes

**Comment:**

---

**EF's**

---

**Rotation is correct?**

Yes

**Comment:**

---

**Belts are tight?**

**Comment:**

N/A

---

**Grease cup installed on hood fan?**

Yes

**Comment:**

---

**Hinge kit installed installed on hood fan?**

Yes

**Comment:**

---

**Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?**

Yes

**Comment:**

---

**Flex conduit is long enough so that fan can be completely tilted back?**

Yes

**Comment:**

---

**There is no major leakage around base of fan?**

Yes

**Comment:**

---

**Is the motor operating below the motor FLA rating?**

Yes

**Comment:**

---

<b>For restroom fan(s) is the back draft damper installed and can it fully open?</b>	Yes
--	-----

---

**Comment:**

---

<b>Unit free of noticeable noise and vibration?</b>	Yes
---	-----

---

**Comment:**

---

**MUA**

---

---

<b>Rotation is correct?</b>	Yes
-----------------------------	-----

---

**Comment:**

---

<b>Gas piping is installed and valves are in on position?</b>	Yes
---	-----

---

**Comment:**

---

<b>Heater tested and is functional?</b>	Yes
---	-----

---

**Comment:**

---

<b>Internal motorized damper is fully opening?</b>	Yes
--	-----

---

**Comment:**

---

<b>Motor is operating below the FLA rating?</b>	Yes
---	-----

---

**Comment:**

---

<b>Unit free of noticeable noise and vibration?</b>	Yes
---	-----

---

**Comment:**

---

**HOODS**

---

---

<b>Kitchen equipment installed in proper places?</b>	Yes
--	-----

---

**Comment:**

---

<b>Can kitchen equipment be turned on for final smoke test?</b>	Yes
---	-----

---

**Comment:**

**DOCUMENTATION**

**Have trades/general contractor been notified about any issues and are they created on FaciliBuild?**

Yes

**Comment:**



04-07-25 FIVE GUYS TOLEDO, OH

**CheckList Information**

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

**Assigned Organization :** National TAB      **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 03/28/2025 - Tara Metcalf - National TAB

**Completed Date :** 04/08/2025 - Gabe Merk - National TAB

**CheckList Item Details**

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting? Yes

Comment:

Is space comfortable in all areas? Yes

Comment:

Is the space free of ventilation noise? Yes

Comment:

If deviations from design were necessary to resolve 1-3 what were they? Otherwise put "NA".

Comment:

N/A



04-07-25 FIVE GUYS TOLEDO, OH

CheckList Information

**Name :** TECH - STEP 4: FINAL TESTS **Status :** Completed

**Assigned Organization :** National TAB **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 03/28/2025 - Tara Metcalf - National TAB

**Completed Date :** 04/08/2025 - Gabe Merk - National TAB

CheckList Item Details

**FINAL TESTS**

**HOOD CAPTURE TEST**

**List equipment turned on for testing**

**Comment:**

GRILL/FRYER

**List smoke candle type used**

**Comment:**

COOKING SMOKE

**Smoke test capture - Perimeter of hood**

**Comment:**

100%

**Smoke test capture - Top of cooking surface**

**Comment:**

100%

**WITNESS**

**Date test was completed**

04/08/2025

**Comment:**

---

**TAB tech name / Firm**

**Comment:**

GABE M / NTI

---

**Site super name / Firm**

**Comment:**

N/A

---

**Owner representative name / Firm (if Applicable)**

**Comment:**

NICK (MANAGER)/ 5 GUYS

---

**Building pressure at front & back doors (All Systems On)**

**Comment:**

0.02"/-0.02"

---

**ADDITIONAL**

---

**Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)**

**Comment:**

NO, MEASURED PRESSURE IS AFFECTED BY STRONG WINDS AGAINST SIDE AND REAR OF BUILDING.

---

**Thermostats are programmed?**

Yes

**Comment:**

---



04-07-25 FIVE GUYS TOLEDO, OH

CheckList Information

**Name :** TECH - STEP 5: FINAL DOCUMENTATION      **Status :** Completed

**Assigned Organization :** National TAB      **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 03/28/2025 - Tara Metcalf - National TAB

**Completed Date :** 04/08/2025 - Gabe Merk - National TAB

CheckList Item Details

FINAL DOCUMENTATION

Marked Data capture complete for all assets? Yes

Comment:

Picture file sent to processing team or uploaded? Yes

Comment:

Balance schedule complete and uploaded? Yes

Comment:

Prelim report generated and reviewed? Yes

Comment:

FINAL DOCUMENTATION

Marked Data capture complete for all assets? Yes

Comment:

Picture file sent to processing team or uploaded? Yes

Comment:

**Balance schedule complete and uploaded?**

Yes

**Comment:**

**Prelim report generated and reviewed?**

Yes

**Comment:**