Report By:

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

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 11/30/2023

PROJECT

10-23-23 LIFE STORAGE #657 WESTLAKE OH

1099 Bradley Road

Westlake, OH 44145

Client

Hartland Mechanical Services

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) 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.

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.

CheckList List

- SITE PICTURES
- TECH - STEP 1: INITIAL WALKTHROUGH
- TECH - STEP 2: UNIT DATA AND EVAL
- TECH - STEP 3: TEST, ADJUST AND BALANCE
- TECH - STEP 4: FINAL TESTS

10-23-23 LIFE STORAGE #657 WESTLAKE OH

CheckList Information

Name :	SITE PICTURES	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/23/2023 - Wale Odofin - National TAB		
Completed Date :	10/27/2023 - Mohammed Ouard - National TAB		

CheckList Item Details

STORE FRONT

Comment:

IMG_20231026_141320.j..
10/27/2023

FUR-1

Comment:

FUR1
10/26/2023

FUR-2

Comment:

FUR2
10/26/2023

FUR-3

Comment:

FUR3
10/26/2023

FUR 4

Comment:

FUR4
10/26/2023

FUR 5

Comment:

FUR5
10/26/2023

FUR-6

Comment:

FUR6
10/26/2023

EF-1

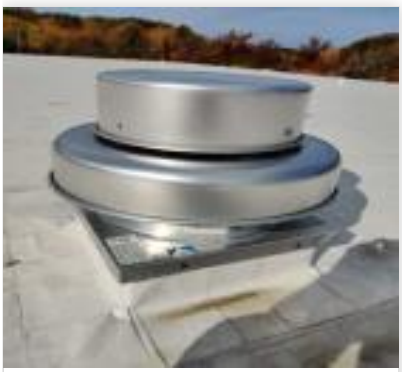
Comment:

IMG_20231024_101123.j..
10/27/2023

IMG_20231024_094907.j..
10/27/2023

EF-2

Comment:



IMG_20231026_113306.j..
10/27/2023

HRV-1

Comment:

HRV1
10/26/2023

HRV-2

Comment:

HRV2
10/26/2023

HRV-3

Comment:

HRV3
10/26/2023

HRV-4

Comment:

HRV4
10/26/2023

HRV-5

Comment:

HRV5
10/26/2023

HRV-6

Comment:

HRV6
10/26/2023

10-23-23 LIFE STORAGE #657 WESTLAKE OH

CheckList Information

Name :	TECH - STEP 1: INITIAL WALKTHROUGH	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/17/2023 - Wale Odofin - National TAB		

CheckList Item Details

INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design?	No

Comment:

Missing grilles .FUR1 missing number 14.FUR 2 Missing number 5 and 7.FUR3 is missing number 6.FUR5 is missing number 1 and 6.FUR 6is missing number 9 and 10.

All hood filters installed and accounted for?	N/A

Comment:

Hoods are wired and have power?	N/A

Comment:

Hood is free of alarms?	N/A

Comment:

Thermostats have power?	Yes

Comment:

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

Comment:

SUPERINTENDENT NOTIFIED ABOUT THE ISSUES .Issues are reported on facilibuid.

Notes/Comments :

Grilles installed but missing dampers to adjust air flow .readings were very high.

Date :11/30/2023

10-23-23 LIFE STORAGE #657 WESTLAKE OH

CheckList Information

Name :	TECH - STEP 2: UNIT DATA AND EVAL	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/17/2023 - Wale Odofin - 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?	N/A
Comment:	
DCV Max damper opening position is set to minimum?	N/A
Comment:	
Free cooling enthalpy set point set for lowest setting (Typically "D")	N/A
Comment:	
Motors are all operating below the FLA rating?	Yes
Comment:	
Are belts tight?	
Comment:	
No belts	
If direct drive unit is the speed controller working.	

Comment:

NA

Is gas piping installed and valves turned on?	Yes

Comment:

Yes

Unit free of noticeable noise and vibration	Yes

Comment:

Yes

EF's

Rotation is correct?	Yes

Comment:

Belts are tight?	

Comment:

Grease cup installed on hood fan?	N/A

Comment:

Hinge kit installed installed on hood fan?	N/A

Comment:

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

Comment:

Flex conduit is long enough so that fan can be completely tilted back?	N/A

Comment:

There is no major leakage around base of fan?	N/A

Comment:

Is the motor operating below the motor FLA rating?	N/A

Comment:

For restroom fan(s) is the back draft damper installed and can it fully open?	N/A

Comment:

Unit free of noticeable noise and vibration?	Yes

Comment:

MUA

Rotation is correct?	N/A

Comment:

Gas piping is installed and valves are in on position?	N/A

Comment:

Heater tested and is functional?	N/A

Comment:

Internal motorized damper is fully opening?	N/A

Comment:

Motor is operating below the FLA rating?	N/A

Comment:

Unit free of noticeable noise and vibration?	N/A

Comment:

HOODS

Kitchen equipment installed in proper places?	N/A

Comment:

Can kitchen equipment be turned on for final smoke test?	N/A

Comment:

DOCUMENTATION

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

Comment:

10-23-23 LIFE STORAGE #657 WESTLAKE OH

CheckList Information

Name :	TECH - STEP 3: TEST, ADJUST AND BALANCE	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/17/2023 - Wale Odofin - 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:	

10-23-23 LIFE STORAGE #657 WESTLAKE OH

CheckList Information

Name : TECH - STEP 4: FINAL TESTS **Status :** Not Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 10/17/2023 - Wale Odofin - National TAB

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

NA

List smoke candle type used

Comment:

NA

Smoke test capture - Perimeter of hood

Comment:

NA

Smoke test capture - Top of cooking surface

Comment:

NA

WITNESS

Date test was completed

Comment:

NA

TAB tech name / Firm

Comment:

Mohammed /National TAB

Site super name / Firm

Comment:

NA

Owner representative name / Firm (if Applicable)

Comment:

NA

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

Comment:

NA

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:

NA

Thermostats are programmed? Yes

Comment:

National TAB

Project: 10-23-23 LIFE STORAGE #657 WESTLAKE OH

System/Unit: AHU/RTU

Asset: FUR1 AREA:

Unit Data		
	Design	**Actual**
MFG	LENNOX	Armstrong air
Serial Num	-	1522H26383
Model Num	ML193UH090XE48C	EAC4x48C
Type	FURNACE	Furnance
Configuration	VERTICAL	Vertical
Num OA Filters 1	-	1
OA Filter Size 1	-	16x25x2

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	3/4	3/4
Motor Rpm	-	1050
Phase	1	1
Rated Voltage	120	115
Rated Amperage	-	8.4

Test Data		
	Design	**Actual**
SF CFM	1525	1409
SF RPM	1200	DD
RA CFM	1350	1246
OA CFM	175	163
RL Voltage	-	115
RL Amperage	-	5.4
SF Rotation	-	CCW
Min OA Damper Position	-	Dial 3.5 damper Marked

Performance Data		
	Design	**Actual**
Fan Suction SP	-	-0.08
Fan Discharge SP	-	0.032
Fan Total SP	-	0.11

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

National TAB

Project:10-23-23 LIFE STORAGE #657 WESTLAKE OH

AHU/RTU

Diffuser Supply (GRD)

FUR1/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	1ST FLR. SE/SW	S1	6"	100					-
SGRD2	1ST FLR. SE/SW	S1	8'	75					-
SGRD3	1ST FLR. SE/SW	S2	8	150					-
SGRD4	1ST FLR. SE/SW	S1	12	100					-
SGRD5	1ST FLR. SE/SW	S1	12	100					-
SGRD6	1ST FLR. SE/SW	S1	12	100					-
SGRD7	1ST FLR. SE/SW	S1	14	100					-
SGRD8	1ST FLR. SE/SW	S1	14	100					-
SGRD9	1ST FLR. SE/SW	S1	14	100					-
SGRD10	1ST FLR. SE/SW	S1	14	100					-
SGRD11	1ST FLR. SE/SW	S1	14	100					-
SGRD12	1ST FLR. SE/SW	S1	10	100					-
SGRD13	1ST FLR. SE/SW	S1	8	100					-
SGRD14	1ST FLR. SE/SW	S1	8	100					-
SGRD15	1ST FLR. SE/SW	S1	8	100					-
Total				1525		0	0	0	0%

National TAB

Project: 10-23-23 LIFE STORAGE #657 WESTLAKE OH

System/Unit: AHU/RTU

Asset: FUR2 AREA:

Unit Data		
	Design	**Actual**
MFG	LENNOX	Armstrong air
Serial Num	-	1522H08232
Model Num	ML193UH090XE48C	EAC4X48C
Type	FURNACE	FURNANCE
Configuration	VERTICAL	Vertical
Num OA Filters 1	-	1
OA Filter Size 1	-	16x25x2

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	3/4	3/4
Motor Rpm	-	1050
Phase	1	1
Rated Voltage	120	115
Rated Amperage	-	8.4

Test Data		
	Design	**Actual**
SF CFM	1550	1484
SF RPM	1200	DD
RA CFM	1270	1208
OA CFM	280	276
RL Voltage	-	115
RL Amperage	-	5.1
SF Rotation	-	CCW
Min OA Damper Position	-	5 damper Marked

Performance Data		
	Design	**Actual**
Fan Suction SP	-	-0.07
Fan Discharge SP	-	0.032
Total ESP	0.40"	
Fan Total SP	-	0.1

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

National TAB

Project:10-23-23 LIFE STORAGE #657 WESTLAKE OH

AHU/RTU

Diffuser Supply (GRD)

FUR2/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	1ST FLR. NW	S1	6"	75					-
SGRD2	1ST FLR. NW	S1	6"	75					-
SGRD3	1ST FLR. NW	S1	6"	75					-
SGRD4	1ST FLR. NW	S1	6"	75					-
SGRD5	1ST FLR. NW	S1	6"	75					-
SGRD6	1ST FLR. NW	S1	6"	75					-
SGRD7	1ST FLR. NW	S2	8"X6"	125					-
SGRD8	1ST FLR. NW	S1	6"	75					-
SGRD9	1ST FLR. NW	S1	16"	75					-
SGRD10	1ST FLR. NW	S1	6	75					-
SGRD11	1ST FLR. NW	S1	10	75					-
SGRD12	1ST FLR. NW	S1	10	125					-
SGRD13	1ST FLR. NW	S1	10	125					-
SGRD14	1ST FLR. NW	S1	12	75					-
SGRD15	1ST FLR. NW	S1	6	75					-
SGRD16	1ST FLR. NW	S1	10	75					-
SGRD17	1ST FLR. NW	S2	10	125					-
SGRD18	1ST FLR. NW	S2	10	125					-
Total				1600		0	0	0	0%

National TAB

Project: 10-23-23 LIFE STORAGE #657 WESTLAKE OH

System/Unit: AHU/RTU

Asset: FUR3 AREA:

Unit Data		
	Design	**Actual**
MFG	LENNOX	Armstrong air
Serial Num	-	1522H26387
Model Num	ML193UH090XE48C	EaC4X48C
Type	FURNACE	FURNANCE
Configuration	VERTICAL	Vertical
Num OA Filters 1	-	1
OA Filter Size 1	-	16x25x2

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	3/4	3/4
Motor Rpm	-	1050
Phase	1	1
Rated Voltage	120	115
Rated Amperage	-	8.4

Test Data		
	Design	**Actual**
SF CFM	1550	1455
SF RPM	1200	DD
RA CFM	1360	1261
OA CFM	190	194
RL Voltage	-	115
RL Amperage	-	5.6
SF Rotation	-	CCW
Min OA Damper Position	-	4 damper Marked

Performance Data		
	Design	**Actual**
Fan Suction SP	-	-0.07
Fan Discharge SP	-	0.035
Total ESP	0.4"	
Fan Total SP	-	0.1

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

National TAB

Project:10-23-23 LIFE STORAGE #657 WESTLAKE OH

AHU/RTU

Diffuser Supply (GRD)

FUR3/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	1ST FLR. NE	S2	NA	150					-
SGRD2	1ST FLR. NE	S2	NA	175					-
SGRD3	1ST FLR. NE	S1	NA	100					-
SGRD4	1ST FLR. NE	S1	NA	75					-
SGRD5	1ST FLR. NE	S1	NA	100					-
SGRD6	1ST FLR. NE	S1	NA	75					-
SGRD7	1ST FLR. NE	S1	NA	100					-
SGRD8	1ST FLR. NE	S1	NA	100					-
SGRD9	1ST FLR. NE	S1	9"	125					-
SGRD10	1ST FLR. NE	S1	9"	125					-
SGRD11	1ST FLR. NE	S1	6"	75					-
SGRD12	1ST FLR. NE	S1	6"	75					-
SGRD13	1ST FLR. NE	S1	8"	100					-
SGRD14	1ST FLR. NE	S1	8"	100					-
Total				1475		0	0	0	0%

National TAB

Project: 10-23-23 LIFE STORAGE #657 WESTLAKE OH

System/Unit: AHU/RTU

Asset: FUR4 AREA:

Unit Data		
	Design	**Actual**
MFG	LENNOX	Armstrong air
Serial Num	-	1522C51314
Model Num	ML193UH090XE48C	EAC4x48C
Type	FURNACE	FURNANCE
Configuration	VERTICAL	Vertical
Num OA Filters 1	-	1
OA Filter Size 1	-	16x25x2

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	3/4	3/4
Motor Rpm	-	1050
Phase	1	1
Rated Voltage	120	115
Rated Amperage	-	8.4

Test Data		
	Design	**Actual**
SF CFM	1550	1399
SF RPM	1200	1050
RA CFM	1375	1216
OA CFM	175	183
RL Voltage	-	115
RL Amperage	-	4.6
SF Rotation	-	Counterclockwise
Min OA Damper Position	-	4 damper Marked

Performance Data		
	Design	**Actual**
Fan Suction SP	-	-.09
Fan Discharge SP	-	0.14
Total ESP	0.40"	
Fan Total SP	-	

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

Notes:
Diffuser 4-14 is at 71% .unable to push more air without compromising unit total .

Written By: Mohammed Ouard on 10/24/2023

National TAB

Project:10-23-23 LIFE STORAGE #657 WESTLAKE OH

AHU/RTU

Diffuser Supply (GRD)

FUR4/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	2ND FLR. SE/SW	S1		100		101	95	95	95.0
SGRD2	2ND FLR. SE/SW	S1		75		68	70	70	93.3
SGRD3	2ND FLR. SE/SW	S1		100		90	90	90	90.0
SGRD4	2ND FLR. SE/SW	S1		100		91	91	91	91.0
SGRD5	2ND FLR. SE/SW	S1		100		126	92	92	92.0
SGRD6	2ND FLR. SE/SW	S1		100		40	92	92	92.0
SGRD7	2ND FLR. SE/SW	S1		100		146	92	92	92.0
SGRD8	2ND FLR. SE/SW	S1		100		134	91	91	91.0
SGRD9	2ND FLR. SE/SW	S1		100		104	92	92	92.0
SGRD10	2ND FLR. SE/SW	S1		100		90	90	90	90.0
SGRD11	2ND FLR. SE/SW	S1		100		75	91	91	91.0
SGRD12	2ND FLR. SE/SW	S1		100		76	90	90	90.0
SGRD13	2ND FLR. SE/SW	S1		75		69	68	68	90.7
SGRD14	2ND FLR. SE/SW	S1		100		37	71	71	71.0
SGRD15	2ND FLR. SE/SW	S1		100		68	91	91	91.0
SGRD16	2ND FLR. SE/SW	S1		100		92	92	92	92.0
Total				1550		1407	1398	1398	90.19%

National TAB

Project: 10-23-23 LIFE STORAGE #657 WESTLAKE OH

System/Unit: AHU/RTU

Asset: FUR5 AREA:

Unit Data		
	Design	**Actual**
MFG	LENNOX	Armstrong air
Serial Num	-	1522C51316
Model Num	ML193UH090XE48C	EAC4x48c
Type	FURNACE	Furnance
Configuration	VERTICAL	Vertica
Num OA Filters 1	-	1
OA Filter Size 1	-	26x25x2

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	3/4	3/4
Motor Rpm	-	1050
Phase	1	1
Rated Voltage	120	115
Rated Amperage	-	8.4

Test Data		
	Design	**Actual**
SF CFM	1550	1727
SF RPM	1200	DD
RA CFM	1270	1248
OA CFM	280	279
RL Voltage	-	115
RL Amperage	-	5.2
SF Rotation	-	CCW
Min OA Damper Position	-	4 damper Marked

Performance Data		
	Design	**Actual**
Fan Suction SP	-	-.07
Fan Discharge SP	-	.035
Total ESP	0.4"	
Fan Total SP	-	0.1

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

National TAB

Project:10-23-23 LIFE STORAGE #657 WESTLAKE OH

AHU/RTU

Diffuser Supply (GRD)

FUR5/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	2ND FLR. NW	S1		75					-
SGRD2	2ND FLR. NW	S1		125					-
SGRD3	2ND FLR. NW	S1		100					-
SGRD4	2ND FLR. NW	S1		75					-
SGRD5	2ND FLR. NW	S1		100					-
SGRD6	2ND FLR. NW	S2		125					-
SGRD7	2ND FLR. NW	S1		75					-
SGRD8	2ND FLR. NW	S1		75					-
SGRD9	2ND FLR. NW	S1		75					-
SGRD10	2ND FLR. NW	S1		75					-
SGRD11	2ND FLR. NW	S2		125					-
SGRD12	2ND FLR. NW	S2		125					-
SGRD13	2ND FLR. NW	S1		75					-
SGRD14	2ND FLR. NW2ND FLR. NW	S1		75					-
SGRD15	2ND FLR. NW	S1		75					-
SGRD16	2ND FLR. NW	S2		125					-
SGRD17	2ND FLR. NW	S2		125					-
Total				1625		0	0	0	0%

National TAB

Project: 10-23-23 LIFE STORAGE #657 WESTLAKE OH

System/Unit: AHU/RTU

Asset: FUR6 AREA:

Unit Data		
	Design	**Actual**
MFG	LENNOX	Armstrong air
Serial Num	-	1522c51317
Model Num	ML193UH090XE48C	EAC4x48C
Type	FURNACE	FURNANCE
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	16x25x2

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	3/4	3/4
Motor Rpm	-	1050
Phase	1	1
Rated Voltage	120	115
Rated Amperage	-	8.4

Test Data		
	Design	**Actual**
SF CFM	1550	1568
SF RPM	1200	1050
RA CFM	1360	1370
OA CFM	190	198
RL Voltage	-	115
RL Amperage	-	5.2
SF Rotation	-	CCW
Min OA Damper Position	-	4.5 damper Marked

Performance Data		
	Design	**Actual**
Fan Suction SP	-	-.08
Fan Discharge SP	-	.035
Total ESP	0.40"	-
Fan Total SP	-	0.11

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

Notes:
Unable to balance to 10% of design .Missing dampers on Grilles # 9,10 and 13.

Written By: Mohammed Ouard on 10/25/2023

National TAB

Project:10-23-23 LIFE STORAGE #657 WESTLAKE OH

AHU/RTU

Diffuser Supply (GRD)

FUR6/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	2ND FLR. NE	S1	NA	125		97	97	97	77.6
SGRD2	2ND FLR. NE	S1	NA	100		88	88	92	92.0
SGRD3	2ND FLR. NE	S1	NA	125		72	72	88	70.4
SGRD4	2ND FLR. NE	S1	NA	100		78	78	78	78.0
SGRD5	2ND FLR. NE	S1	NA	75		50	50	65	86.7
SGRD6	2ND FLR. NE	S1	NA	125		118	118	118	94.4
SGRD7	2ND FLR. NE	S1	NA	125		98	98	98	78.4
SGRD8	2ND FLR. NE	S1	NA	100		149	149	95	95.0
SGRD9	2ND FLR. NE	S1	NA	150		200	200	200	133.3
SGRD10	2ND FLR. NE	S2	NA	100		233	233	233	233.0
SGRD11	2ND FLR. NE	S1	NA	75		61	61	68	90.7
SGRD12	2ND FLR. NE	S1	NA	75		77	77	77	102.7
SGRD13	2ND FLR. NE	S1	NA	75		89	89	89	118.7
SGRD14	2ND FLR. NE	S1	NA	100		71	71	79	79.0
SGRD15	2ND FLR. NE	S1	NA	100		89	89	91	91.0
Total				1550		1570	1570	1568	101.16%

National TAB

Project: 10-23-23 LIFE STORAGE #657 WESTLAKE OH

System/Unit: Energy Recovery Unit

Asset: HRV1 AREA:

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	MINICORE5-VG-FM	MINICORE5-VG-FM
Serial Num	-	20167141
Service	ERV	ERV
Type	VERTICAL	VERTICAL
Num Exh-Filters 1	-	1
Exh-Filter Size 1	-	15x20x2
Num OA-Filters 1	-	1
OA-Supply Size 1	-	15x20x2

Exhaust Fan Motor Data		
	Design	**Actual**
Motor MFG	-	Vari green
Frame	-	NL
Horsepower	-	0.25
Motor Rpm	-	1750
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	2.85
Service Factor	-	1.25

OA Fan Motor Data		
	Design	**Actual**
Motor MFG	-	Vari Green
Frame	-	NL
Horsepower	-	0.25
Motor Rpm	-	1750
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	2.85
Service Factor	-	1.25

Exhaust Fan Test Data		
	Design	**Actual**
Exh-ERU CFM	175	167
Exh-ERU Rotation	-	CCW
Exh-ERU System SetPt	-	4 damper Marked
RL Voltage	-	121
RL Amperage	-	2.8

OA Fan Test Data		
	Design	**Actual**
OA-ERU CFM	175	163
OA-ERU System SetPt	-	3.5 damper Marked
RL Voltage	-	121
RL Amperage	-	2.8

National TAB

Project: 10-23-23 LIFE STORAGE #657 WESTLAKE OH

System/Unit: Energy Recovery Unit

Asset: HRV2 AREA:

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	MINICORE5-VG-FM	MINICORE5-VG-FM
Serial Num	-	20167143
Service	ERV	ERV
Type	-	Vertical
Num Exh-Filters 1	-	1
Exh-Filter Size 1	-	15x2x2
Num OA-Filters 1	-	1
OA-Supply Size 1	-	15x20x2

Exhaust Fan Motor Data		
	Design	**Actual**
Motor MFG	-	Var Green
Frame	-	NL
Horsepower	-	0.25
Motor Rpm	-	1750
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	2.85
Service Factor	-	1.25

OA Fan Motor Data		
	Design	**Actual**
Motor MFG	-	Vari Green
Frame	-	NL
Horsepower	-	0.25
Motor Rpm	-	1750
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	2.85
Service Factor	-	1.25

Exhaust Fan Test Data		
	Design	**Actual**
Exh-ERU CFM	280	275
Exh-ERU Rotation	-	Ccw
Exh-ERU System SetPt	-	5 damper Marked
RL Voltage	-	121
RL Amperage	-	2.7

OA Fan Test Data		
	Design	**Actual**
OA-ERU CFM	280	276
OA-ERU RPM	-	DD
OA-ERU Rotation	-	CCW
OA-ERU System SetPt	-	5 damper marked
RL Voltage	-	121
RL Amperage	-	2.8

National TAB

Project: 10-23-23 LIFE STORAGE #657 WESTLAKE OH

System/Unit: Energy Recovery Unit

Asset: HRV3 AREA:

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	MINICORE5-VG-FM	MINICORE5-VG-FM
Serial Num	-	20167145
Service	-	ERV
Type	-	Vertical
Num Exh-Filters 1	-	1
Exh-Filter Size 1	-	15x20x2
Num OA-Filters 1	-	1
OA-Supply Size 1	-	15x20x2

Exhaust Fan Motor Data		
	Design	**Actual**
Motor MFG	-	Vari Green
Frame	-	NL
Horsepower	-	0.25
Motor Rpm	-	1750
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	2.85
Service Factor	-	1.25

OA Fan Motor Data		
	Design	**Actual**
Motor MFG	-	Vari Green
Frame	-	NL
Horsepower	-	0.25
Motor Rpm	-	1750
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	2.85
Service Factor	-	1.25

OA Fan Drive Data		
	Design	**Actual**
Belt Size	-	
Belt Tension (deflection)	-	

Exhaust Fan Test Data		
	Design	**Actual**
Exh-ERU CFM	190	193
Exh-ERU RPM	-	DD
Exh-ERU Rotation	-	Ccw
Motor RPM	-	DD
Exh-ERU System SetPt	-	4.5 Marked
RL Voltage	-	121
RL Amperage	-	2.8

OA Fan Test Data		
	Design	**Actual**
OA-ERU CFM	190	194
OA-ERU RPM	-	DD
OA-ERU Rotation	-	CCW
OA-ERU System SetPt	-	4 Marked
RL Voltage	-	121
RL Amperage	-	2.7

National TAB

Project: 10-23-23 LIFE STORAGE #657 WESTLAKE OH

System/Unit: Energy Recovery Unit

Asset: HRV4 AREA:

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	MINICORE5-VG-FM	MINICORE5-VG-FM
Serial Num	-	20167142
Service	-	Vertical
Type	ERV	ERV
Num Exh-Filters 1	-	1
Exh-Filter Size 1	-	15x20x2
Num OA-Filters 1	-	1
OA-Supply Size 1	-	15x20x2

Exhaust Fan Motor Data		
	Design	**Actual**
Motor MFG	-	Vari Green
Frame	-	NL
Horsepower	-	0.25
Motor Rpm	-	1750
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	2.85
Service Factor	-	1.25

Exhaust Fan Drive Data		
	Design	**Actual**
Belt MFG	-	
Belt Size	-	
Belt Tension (deflection)	-	

OA Fan Motor Data		
	Design	**Actual**
Motor MFG	-	Vari Green
Frame	-	NL
Horsepower	-	0.25
Motor Rpm	-	1750
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	2.85
Service Factor	-	1.25

OA Fan Drive Data		
	Design	**Actual**
Belt Size	-	
Belt Tension (deflection)	-	

Exhaust Fan Test Data		
	Design	**Actual**
Exh-ERU CFM	175	151
Exh-ERU Rotation	-	CCW
Exh-ERU System SetPt	-	5.5 Marked
RL Voltage	-	121
RL Amperage	-	2.9

OA Fan Test Data		
	Design	**Actual**
OA-ERU CFM	175	183
OA-ERU Rotation	-	CW
OA-ERU System SetPt	-	4 markedMarked
RL Voltage	-	122
RL Amperage	-	2.9

National TAB

Project: 10-23-23 LIFE STORAGE #657 WESTLAKE OH

System/Unit: Energy Recovery Unit

Asset: HRV5 AREA:

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	MINICORE5-VG-FM	MINICORE5-VG-FM
Serial Num	-	20167144
Service	ERV	ERV
Type	-	Vertical
Num Exh-Filters 1	-	1
Exh-Filter Size 1	-	15x20x2
Num OA-Filters 1	-	1
OA-Supply Size 1	-	15x20x2

Exhaust Fan Motor Data		
	Design	**Actual**
Motor MFG	-	Vari Green
Frame	-	NL
Horsepower	-	0.25
Motor Rpm	-	1750
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	2.85
Service Factor	-	1.25

OA Fan Motor Data		
	Design	**Actual**
Motor MFG	-	Vari Green
Frame	-	NL
Horsepower	-	0.25
Motor Rpm	-	1750
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	2.85
Service Factor	-	1.25

Exhaust Fan Test Data		
	Design	**Actual**
Exh-ERU CFM	280	277
Exh-ERU Rotation	-	CCW
Exh-ERU System SetPt	-	6 marked
RL Voltage	-	121
RL Amperage	-	2.9

OA Fan Test Data		
	Design	**Actual**
OA-ERU CFM	280	279
OA-ERU RPM	-	DD
OA-ERU Rotation	-	CCW
OA-ERU System SetPt	-	4 Marked
RL Voltage	-	121
RL Amperage	-	2.9

National TAB

Project: 10-23-23 LIFE STORAGE #657 WESTLAKE OH

System/Unit: Energy Recovery Unit

Asset: HRV6 AREA:

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	MINICORE5-VG-FM	MINICORE5-VG-FM
Serial Num	-	20167146
Service	-	NL
Type	-	Vertical
Num Exh-Filters 1	-	1
Exh-Filter Size 1	-	15x20x2
Num OA-Filters 1	-	1
OA-Supply Size 1	-	15x20x2

Exhaust Fan Motor Data		
	Design	**Actual**
Motor MFG	-	Vari Green
Frame	-	NL
Horsepower	-	0.25
Motor Rpm	-	1750
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	2.85
Service Factor	-	1.25

OA Fan Motor Data		
	Design	**Actual**
Motor MFG	-	VariGreen
Frame	-	NL
Horsepower	-	0.25
Motor Rpm	-	1750
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	2.85
Service Factor	-	1.25

Exhaust Fan Test Data		
	Design	**Actual**
Exh-ERU CFM	190	192
Exh-ERU Rotation	-	CCW
Exh-ERU System SetPt	-	6 Marked
RL Voltage	-	123.9
RL Amperage	-	3.4

OA Fan Test Data		
	Design	**Actual**
OA-ERU CFM	190	198
OA-ERU RPM	-	DD
OA-ERU Rotation	-	CCW
OA-ERU System SetPt	-	4.5 Marked
RL Voltage	-	123
RL Amperage	-	3.4

National TAB

Project: 10-23-23 LIFE STORAGE #657 WESTLAKE OH

System/Unit: FAN - Exhaust

Asset: EF1 AREA:

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	SEI	AE80B-B
Serial Num	-	
Type	WALL MOUNTED	
Configuration	VERTICAL	

Motor Data		
	Design	**Actual**
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	-	
Phase	1	
Voltage (rated)	208	
Amperage (rated)	-	
Service Factor	-	

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	
Motor Bore Size	-	
Motor Sheave SetPt	-	
Fan Sheave Size	-	
Fan Sheave Bore	-	
Belt CL Distance	-	
Num of Belts	-	
Belt Size	-	

Test Data		
	Design	**Actual**
CFM	8200	
Fan RPM	884	
Fan Rotation	-	
Motor RPM	-	
RL Voltage	-	
RL Amperage	-	
Suction ESP	-	
Discharge ESP	-	
Total ESP	0.30"	

National TAB

Project: 10-23-23 LIFE STORAGE #657 WESTLAKE OH

System/Unit: FAN - Exhaust

Asset: EF2 AREA:

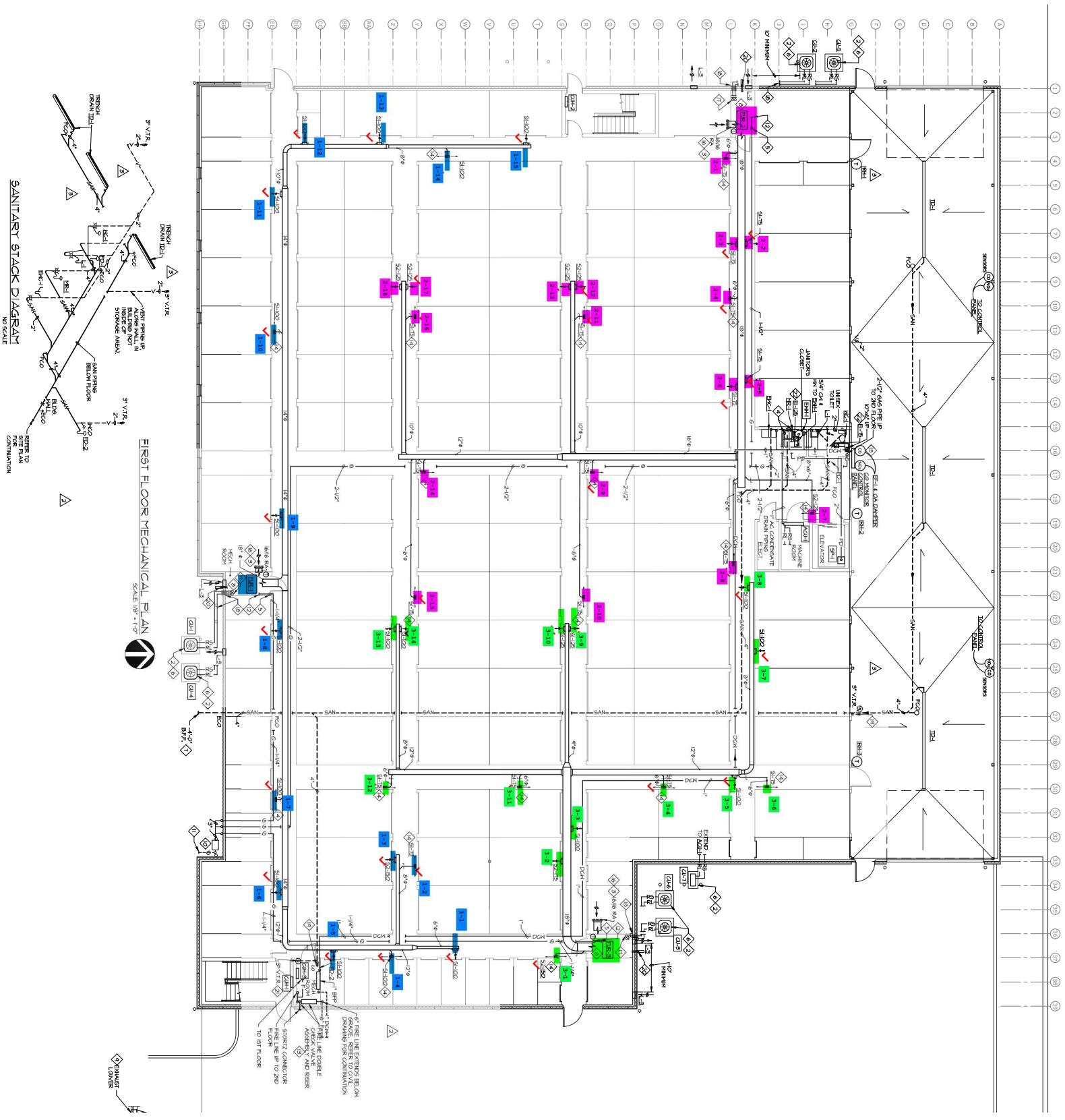
Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	G-080-D	6-095-D-1-17-x
Serial Num	-	20163394
Type	DOWNBLAST	Downblast
Configuration	VERTICAL	Vertical

Motor Data		
	Design	**Actual**
Motor MFG	-	McMillan electric
Frame	-	NL
Horsepower	-	0.125
Motor Rpm	-	1050
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	2.6
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	75	82
Fan RPM	1550	DD
Fan Rotation	-	Clockwise
Motor RPM	-	DD
RL Voltage	-	121
RL Amperage	-	2.6

Notes:
EF2 is serving strictly the bathroom 75cfm.

Written By: Mohammed Ouard on 10/26/2023


SANITARY STACK DIAGRAM
NO SCALE
FIRST FLOOR MECHANICAL PLAN
SCALE: 1/8" = 1'-0"