

Report By:

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



Report: TAB Report
Function: Test, Adjust, & Balance
Date: 05/13/2025
Completed By: National TAB

PROJECT
Rosen Laundry (Orlando, FL)

4100 Destination Parkway

Orlando, FL 32819

Client

Shaw Mechanical Services
350 State Road 434 West

Longwood, FL 32750

National TAB

Project: Rosen Laundry (Orlando, FL)

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National TAB

Project: Rosen Laundry (Orlando, FL)
System/Unit: AHU/RTU



Asset: RTU-5

AREA:

Unit Data		
	Design	Actual
MFG	NA	CAPTIVE AIRE
Serial Num	-	6252085
Model Num	NA	CAS-HVAC4-E.904-30-40T
Configuration	VERTICAL	HORIZONTAL
Num OA Filters 1	-	8
OA Filter Size 1	-	20X20X2
Num PreFilter 1	-	24
PreFilter Size 1	-	20X20X2

Test Data		
	Design	Actual
SF CFM	8000	7796
RA CFM	4000	3861
OA CFM	4000	3935
RL Voltage	460	468V VFD
RL Amperage	-	9.6A VFD
SF Motor Freq(HZ)	-	60.6Hz
OA Damper Position	-	4.70VDC
Brake Horse Power	-	7.13

Motor Data		
	Design	Actual
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	254T
Horsepower	7.50	7.5
Motor Rpm	-	1170
Phase	3	3
Rated Voltage	460	230/460
Rated Amperage	-	20.2/10.1
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.16" [2]
Fan Suction SP	-	-0.92"
Fan Discharge SP	-	0.53"
Total ESP	1.00	0.69"
Fan Total SP	-	1.45"
Cooling Coil P.D.	-	0.76"

Completed By: Stephen Tassinaro on 05/13/2025

Notes:

- [1] Setpoint: 60.6Hz - Set via duct traverse.
- [2] Taken in return duct.

Written By: Stephen Tassinaro on 05/13/2025

Unit Data - PHOTO LOG



04/28/2025



05/13/2025

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Project: Rosen Laundry (Orlando, FL)

AHU/RTU



Diffuser Supply (GRD)

RTU-5/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	111	U	12	600	0	633	105.5
SGRD2		J1	16	1480	1549	1467	99.1
SGRD3		J1	16	1480	1466	1360	91.9
SGRD4		J1	16	1480	1571	1483	100.2
SGRD5		J1	16	1480	1586	1479	99.9
SGRD6		J1	16	1480	1474	1374	92.8
Total				8000	7646	7796	97.45%

Diffuser Ret/Exh (GRD)

RTU-5/

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	M	24X24	4000	1	3118	3861	3861	96.5
Total			4000		3118	3861	3861	96.52%

Completed By: Stephen Tassinaro on 05/13/2025

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Project: Rosen Laundry (Orlando, FL)
System/Unit: AHU/RTU



Asset: RTU-6

AREA:

Unit Data		
	Design	Actual
MFG	NA	CAPTIVE AIRE
Serial Num	-	6252085
Model Num	NA	CAS-HVAC4-E.904-30-40T
Configuration	VERTICAL	HORIZONTAL
Num OA Filters 1	-	8
OA Filter Size 1	-	20X20X2
Num PreFilter 1	-	24
PreFilter Size 1	-	20X20X2

Test Data		
	Design	Actual
SF CFM	8000	8065
RA CFM	4000	3921
OA CFM	4000	4144
RL Voltage	460	448V VFD
RL Amperage	-	9.0A VFD
SF Motor Freq(HZ)	-	58.6Hz
OA Damper Position	-	5.2V
Brake Horse Power	-	6.68

Motor Data		
	Design	Actual
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	254T
Horsepower	7.50	7.5
Motor Rpm	-	1170
Phase	3	3
Rated Voltage	460	230/460
Rated Amperage	-	20.2/10.1
Service Factor	-	1.15

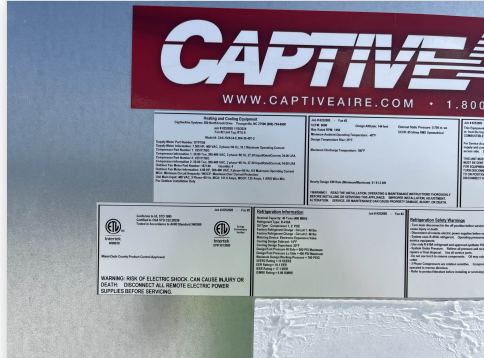
Performance Data		
	Design	Actual
MA Plenum SP	-	-0.22"
Fan Suction SP	-	-0.86"
Fan Discharge SP	-	0.47"
Total ESP	1.00	0.69"
Fan Total SP	-	1.33"
Cooling Coil P.D.	-	0.64"

Completed By: Stephen Tassinaro on 05/13/2025

Unit Data - PHOTO LOG



05/13/2025



04/28/2025

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Project: Rosen Laundry (Orlando, FL)

AHU/RTU



Diffuser Supply (GRD)

RTU-6/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1		J3	16	2700	3361	2778	102.9
SGRD2		J3	16	2700	574	2699	100.0
SGRD3		J3	16	2600	3862	2588	99.5
Total				8000	7797	8065	100.81%

Diffuser Ret/Exh (GRD)

RTU-6/

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	M	24X24	4000	1	4355	3921	3921	98.0
Total			4000		4355	3921	3921	98.02%

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Project: Rosen Laundry (Orlando, FL)
System/Unit: FAN - Exhaust



Asset: EF-1

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	CUBE-300XP-20-1-40-X
Serial Num	-	25726271 24K
Type	CRE	CENTRIFUGAL

Test Data		
	Design	Actual
CFM	3000	2873
Fan RPM	-	1107
RL Voltage	460	491/492/491
RL Amperage	-	2.6/2.6/2.6
Suction ESP	-	-0.85"
Discharge ESP	-	ATM
Total ESP	2.0	0.85"
Brake Horse Power	-	1.79

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56H
Horsepower	2.0	2.0
Motor Rpm	1151	1770
Phase	3	3
Voltage (rated)	460	208-230/460
Amperage (rated)	-	5.8/2.9
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	VP44
Motor Bore Size	5/8"
Motor Sheave SetPt	2.5 TURNS OUT
Fan Sheave Size	5.5"
Fan Sheave Bore	1 7/16"
Belt CL Distance	11.0"
Num of Belts	1
Belt Size	A34

Completed By: Stephen Tassinaro on 05/13/2025

Unit Data - PHOTO LOG



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Project: Rosen Laundry (Orlando, FL)
System/Unit: FAN - Exhaust



Asset: EF-2

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	CUBE-300XP-20-1-40-X
Serial Num	-	2572673 24K
Type	CRE	CENTRIFUGAL

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56H
Horsepower	2.0	2.0
Motor Rpm	1769	1770
Phase	3	3
Voltage (rated)	460	208-230/460
Amperage (rated)	-	5.8/2.9
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	VP44
Motor Bore Size	5/8"
Motor Sheave SetPt	3.5 TURNS OUT
Fan Sheave Size	5.5"
Fan Sheave Bore	1 7/16"
Belt CL Distance	11.125"
Num of Belts	1
Belt Size	A34

Test Data		
	Design	Actual
CFM	2500	2395
Fan RPM	-	996
RL Voltage	460	491/492/493
RL Amperage	-	2.6/2.7/2.6
Suction ESP	-	-0.53" [1]
Discharge ESP	-	ATM
Total ESP	2.0	0.53"
Brake Horse Power	-	1.82

Completed By: Stephen Tassinaro on 05/13/2025

Notes:
[1] Static pressure reading low. Potentially due to lack of exhaust grille and very short duct run.

Written By: Stephen Tassinaro on 05/13/2025

Unit Data - PHOTO LOG



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Project: Rosen Laundry (Orlando, FL)
System/Unit: FAN - Exhaust



Asset: EF-3-1

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	USF-10-5-B6-0-02-02
Serial Num	-	25742559 24K
Type	CRE	CENTRIFUGAL

Test Data		
	Design	Actual
CFM	1200	1123
System SetPt	-	50Hz
RL Voltage	460	319V VFD
RL Amperage	-	1.3A VFD
Suction ESP	-	-3.83"
Discharge ESP	-	0.09"
Total ESP	3.0	3.92"

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	143T
Horsepower	1.5	1.5
Motor Rpm	2941	3500
Phase	3	3
Voltage (rated)	460	460
Amperage (rated)	-	1.9
Service Factor	-	1.15

Completed By: Stephen Tassinaro on 05/13/2025

Unit Data - PHOTO LOG



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National TAB

Project: Rosen Laundry (Orlando, FL)
System/Unit: FAN - Exhaust



Asset: EF-3-2

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	USF-10-5-B6-0-02-02
Serial Num	-	25742554 24K
Type	-	CENTRIFUGAL

Test Data		
	Design	Actual
CFM	1200	1151
System SetPt	-	50Hz
RL Voltage	-	319V VFD
RL Amperage	-	1.3A VFD
Suction ESP	-	-3.66"
Discharge ESP	-	0.10"
Total ESP	-	3.76"

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	143T
Horsepower	1.5	1.5
Motor Rpm	-	3500
Phase	3	3
Voltage (rated)	460	460
Amperage (rated)	-	1.9
Service Factor	-	1.15

Completed By: Stephen Tassinaro on 05/13/2025

Unit Data - PHOTO LOG



04/28/2025



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Project: Rosen Laundry (Orlando, FL)
System/Unit: FAN - Exhaust



Asset: EF-3-3

AREA:

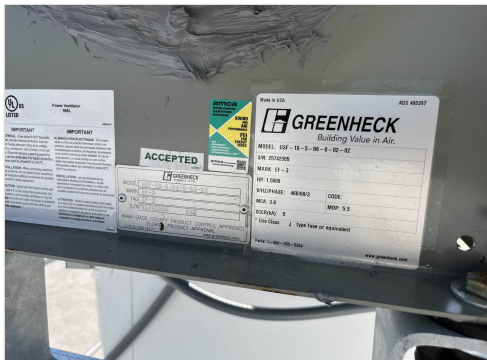
Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	USF-10-5-B6-0-02-02
Serial Num	-	25742555 24K
Type	-	CENTRIFUGAL

Test Data		
	Design	Actual
CFM	1200	1173
System SetPt	-	50Hz
RL Voltage	-	319V VFD
RL Amperage	-	1.2A VFD
Suction ESP	-	-3.83"
Discharge ESP	-	0.13"
Total ESP	-	3.96"

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	143T
Horsepower	1.5	1.5
Motor Rpm	-	3500
Phase	3	3
Voltage (rated)	460	460
Amperage (rated)	-	1.9
Service Factor	-	1.15

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Unit Data - PHOTO LOG



04/28/2025



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Project: Rosen Laundry (Orlando, FL)
System/Unit: FAN - Exhaust



Asset: EF-3-4

AREA:

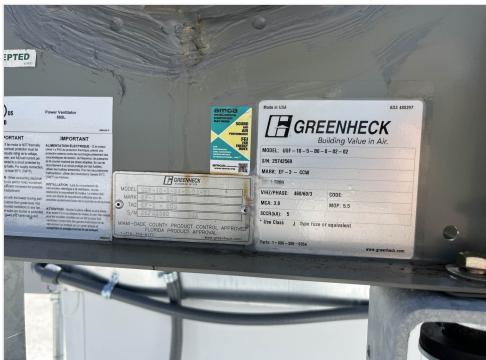
Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	USF-10-5-B6-0-02-02
Serial Num	-	25742560 24K
Type	-	CENTRIFUGAL

Test Data		
	Design	Actual
CFM	1200	1189
System SetPt	-	50Hz
RL Voltage	-	318V VFD
RL Amperage	-	1.3A
Suction ESP	-	-3.75"
Discharge ESP	-	0.10"
Total ESP	-	3.85"

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	143T
Horsepower	1.5	1.5
Motor Rpm	-	3500
Phase	3	3
Voltage (rated)	460	460
Amperage (rated)	-	1.9
Service Factor	-	1.15

Completed By: Stephen Tassinaro on 05/13/2025

Unit Data - PHOTO LOG



04/28/2025



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Project: Rosen Laundry (Orlando, FL)
System/Unit: Fan Coil



Asset: FCU-1

AREA:IDF ROOM 110

Unit Data		
	Design	Actual
MFG	NA	DAIKEN
Model Num	NA	AMST24BU1300AA
Serial Num	-	2407264284
Configuration	-	VERTICAL

Test Data		
	Design	Actual
SFAN CFM	750	722
Motor Speed SetPt	-	TAP 6
RL Voltage	208	208
RL Amperage	-	1.9
RA CFM	750	722
OA CFM	0	0

Motor Data		
	Design	Actual
Horsepower	0.75	0.75
Phase	1	1
Voltage (rated)	208	208/240
Amperage (rated)	-	4.6

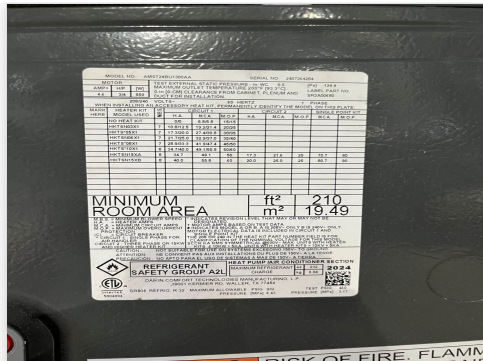
Performance Data		
	Design	Actual
Suction ESP	-	-0.31"
Discharge ESP	-	0.11"
Total ESP	0.50	0.42"

Completed By: Stephen Tassinaro on 05/13/2025

Unit Data - PHOTO LOG



04/28/2025



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Project: Rosen Laundry (Orlando, FL)

Fan Coil



Diffuser Supply (GRD)

FCU-1/IDF ROOM 110

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	112	A	8	115	229	107	93.0
SGRD2	110	L	10	400	312	369	92.3
SGRD3	107	A	6	85	147	79	92.9
SGRD4	108	A	6	150	308	167	111.3
Total				750	996	722	96.27%

Diffuser Ret/Exh (GRD)

FCU-1/IDF ROOM 110

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	C		350	1	510	380	350	100.0
EGRD2	F	12X12	400	1	368	403	366	91.5
Total			750		878	783	716	95.47%

Completed By: Stephen Tassinaro on 05/13/2025

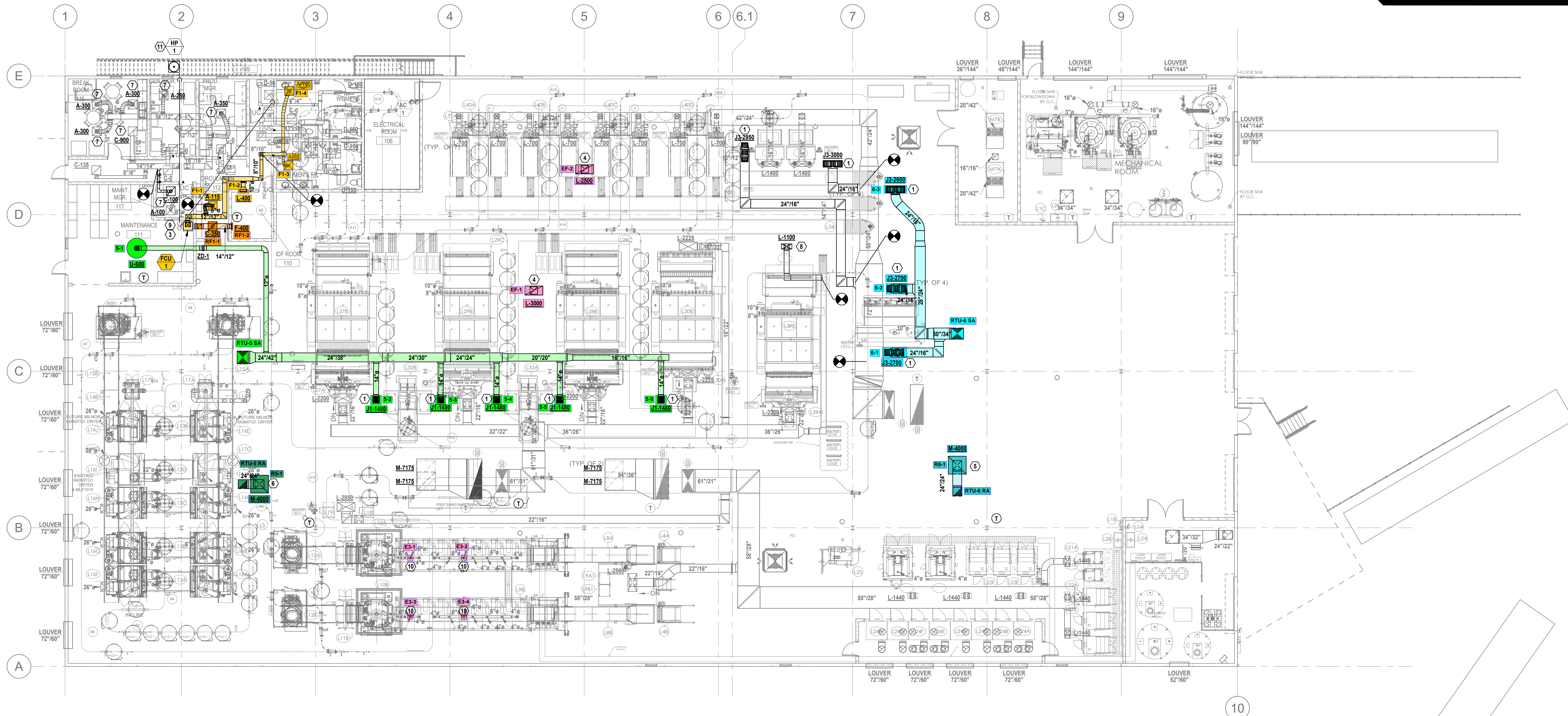
Asset	Notes	Date	Written By
SGRD4	No accessible damper - existing ductwork.	05/13/2025	Stephen Tassinaro

SHEET REFERENCE NOTES:

- 1) EXTEND SUPPLY DUCT DOWN SO THAT DIFFUSER HEIGHT FROM FINISH FLOOR MATCHES EXISTING DIFFUSERS IN AREA.
- 2) ALL EXISTING DUCTWORK, PIPING AND EQUIPMENT TO REMAIN. NOT SHOWN FOR CLARITY.
- 3) MOUNT VERTICAL FAN COIL UNIT AS SHOWN IN DETAIL ON SHEET M-4.0. COORDINATE EXACT LOCATION OF UNIT AND THERMOSTAT WITH ELECTRICAL CONTRACTOR. SEE MANUFACTURER'S RECOMMENDATION FOR LINE SIZE. ROUTE TO HEAT PUMP ON 6" PAD ON GRADE. DO NOT EXCEED PIPE LENGTHS FOR REFRIGERANT PIPING AS RECOMMENDED BY THE MANUFACTURER.
- 4) KEEP GRILLE AS HIGH AS POSSIBLE FOR 20" X 20" EXHAUST DUCT UP TO EXHAUST FAN ON ROOF.
- 5) EXTEND RETURN AIR DUCTS DOWN SO THAT RETURN GRILLE IS 12'-0" ABOVE FINISHED FLOOR.
- 6) EXTEND RETURN AIR DUCTS DOWN AS LOW AS POSSIBLE WITHOUT BLOCKING THE CLEARANCES FOR THE EQUIPMENT BELOW. FINAL HEIGHT TO BE APPROVED BY OWNER.
- 7) REBALANCE EXISTING GRILLES TO NEW VALUES SHOWN.
- 8) SHIFT EXISTING DIFFUSER. BRING DOWN TO MATCH HEIGHT OF EXISTING DIFFUSERS IN AREA.
- 9) PROVIDE WITH LITTLE GIANT CONDENSATE PUMP. ROUTE CONDENSATE TO JANITOR'S SINK.
- 10) MODIFY DUCTWORK WHERE TUNNEL WASHER EXHAUST FAN WAS REMOVED TO CREATE A FULLY FUNCTIONING EXHAUST SYSTEM. EXISTING 6" ROUND UP TO NEW UTILITY FANS ON ROOF. SEE SHEET M-2.2 FOR NEW FAN LOCATION.
- 11) HEAT PUMP LOCATED ON GRADE UNDERNEATH STAIRS. INSTALL HEAT PUMP ON PAD PER DETAIL ON SHEET M-4.0.

GENERAL NOTES:

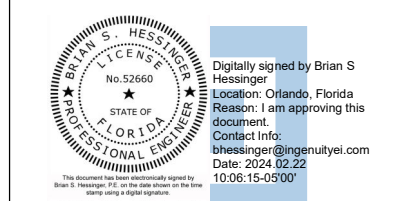
1. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS AND ADJUST DUCT ROUTING AS NECESSARY TO FIT WITHIN CURRENT STRUCTURAL LAYOUT.
2. THE FINAL LOCATION OF GRILLES/DIFFUSERS ARE TO BE APPROVED BY OWNER BEFORE CONSTRUCTION BEGINS.



1 FLOOR PLAN - MECHANICAL
3/32" = 1'-0"

02/22/2024 ISSUE FOR PERMIT

NO	REVISION/ SUBMISSION	DATE



2023 Rosen Laundry HVAC Enhancement
4100 Destination Parkway, Orlando, FL 32819

CA# 26306



DRAWN BY: CJZ CHECKED/APPROVED BY: BSH
123364.00

FLOOR PLAN - MECHANICAL

BRIAN S HESSINGER
PE 52660
SHEET NUMBER:
M-2.0

