

Report By:

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



Report: TAB Report
Function: Test, Adjust, & Balance
Date: 10/23/2025
Completed By: National TAB

PROJECT

Wyler Hyundai Beavercreek (Dayton, OH)

2170 Heller Drive

Dayton, OH 45434

Client

Cincinnati Air Conditioning Co.

2080 Northwest Dr

Cincinnati, OH 45231

National TAB

Project: Wyler Hyundai Beavercreek (Dayton, OH)

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Issue List

- RTU-7 closed OA and return damper
- RTU-8 low on flow



Wyler Hyundai Beavercreek (Dayton, OH)

Project Issue Information

Issue Name : RTU-7 closed OA and return damper
Description : RTU-7 has no incoming air because the return air and outside air dampers in the unit are stuck shut. They are unresponsive to economizer controls
Created By : National TAB **Assigned To :** National TAB - Corey Dick
Status : Open
Priority : Urgent **Asset Tag :**
Originated Date : 10/22/2025 - Aaron Cosby - National TAB

Project Issue File Details





Wyler Hyundai Beavercreek (Dayton, OH)

Project Issue Information

Issue Name : RTU-8 low on flow
Description : Unit supplies 7.5k out of 10k design airflow. The filters and coil are dirty, but after removing half of the filters and testing again flow only went up 300cfm. The OA damper modulates freely, but with it fully closed and the units exhaust off no significant change in flow was noticed. Proportional balance was done
Created By : National TAB **Assigned To :** National TAB - Corey Dick
Status : Open
Priority : Urgent **Asset Tag :**
Originated Date : 10/23/2025 - Aaron Cosby - National TAB

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Project: Wyler Hyundai Beaver Creek (Dayton, OH)

System/Unit: AHU/RTU



Asset: (E)RTU-5

AREA:109 WAITING F&I

Unit Data		
	Design	Actual
MFG	NA	LENNOX
Serial Num	-	5616E01948
Model Num	NA	KGA036S4B
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	14"X10"
Num PreFilter 1	-	4
PreFilter Size 1	-	20"X16"X2"

Motor Data		
	Design	Actual
Horsepower	-	0.25
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	3.0

Test Data		
	Design	Actual
SF CFM	1300	1283
SF RPM	-	1035
RA CFM	-	1183
OA CFM	108	100
RL Voltage	-	212/214/216
RL Amperage	-	1.9/2.1/2.3
SF System SetPt	-	3 TURNS OUT
OA Damper Position	-	2" MANUALLY OPENED

Performance Data		
	Design	Actual
Fan Suction SP	-	-0.34"
Fan Discharge SP	-	0.44"
Total ESP	0.8	0.60"
Fan Total SP	-	0.78"

Completed By: Aaron Cosby on 10/23/2025

Notes:
MA SP -0.16"

Written By: Aaron Cosby on 10/23/2025

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Project: Wyler Hyundai Beaver Creek (Dayton, OH)

AHU/RTU



Diffuser Supply (GRD)

(E)RTU-5/109 WAITING F&I

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
5-1	116 NEW VEHICLE DEL	CD-8		216	60	199	92.1
5-2	116 NEW VEHICLE DEL	CD-8		216	70	231	106.9
5-3	116 NEW VEHICLE DEL	CD-8		216	150	201	93.1
5-4	116 NEW VEHICLE DEL	CD-8		216	143	222	102.8
5-5	116 NEW VEHICLE DEL	CD-8		216	370	219	101.4
5-6	116 NEW VEHICLE DEL	CD-8		216	428	211	97.7
Total				1296	1221	1283	99%

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Project: Wyler Hyundai Beavercreek (Dayton, OH)

System/Unit: AHU/RTU



Asset: (E)RTU-6

AREA:101 SHOWROOM #2

Unit Data		
	Design	Actual
MFG	NA	LENNOX
Serial Num	-	5616E01949
Model Num	NA	KGA036S4B
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	14"X10"
Num PreFilter 1	-	4
PreFilter Size 1	-	20"X16"X2"

Motor Data		
	Design	Actual
Horsepower	-	0.25
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	1.7

Test Data		
	Design	Actual
SF CFM	1200	1192
SF RPM	-	1035
RA CFM	-	972
OA CFM	244	220
RL Voltage	-	214/216/216
RL Amperage	-	1.9/1.9/2.0
SF System SetPt	-	2 TURNS OUT
OA Damper Position	-	5" MANUALLY OPENED

Performance Data		
	Design	Actual
Fan Suction SP	-	-0.74"
Fan Discharge SP	-	0.21"
Total ESP	0.8	0.27"
Fan Total SP	-	0.95"

Completed By: Aaron Cosby on 10/23/2025

Notes:
MA SP -0.06"

Written By: Aaron Cosby on 10/23/2025

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

AHU/RTU



Diffuser Supply (GRD)

(E)RTU-6/101 SHOWROOM #2

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
6-1	113 OFFICE MGR	CD-10		270	251	295	109.3
6-2	109 WAITING F&I	CD-8		235	179	230	97.9
6-3	114 OFFICE F&I #1	CD-8		230	157	239	103.9
6-4	109 WAITING F&I	CD-8		235	166	213	90.6
6-5	115 OFFICE F&I #2	CD-8		230	158	215	93.5
Total				1200	911	1192	99.33%

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Project: Wyler Hyundai Beaver Creek (Dayton, OH)

System/Unit: AHU/RTU



Asset: RTU-2

AREA:129 PARTS STORAGE

Unit Data		
	Design	Actual
MFG	NA	ICP COMMERCIAL
Serial Num	-	P243333862
Model Num	NA	RGV102HE3A0AAA
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	35"X18"
Num PreFilter 1	-	4
PreFilter Size 1	-	20"X20"X2"

Motor Data		
	Design	Actual
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	7.5

Test Data		
	Design	Actual
SF CFM	4300	4184
SF RPM	1713	1438
RA CFM	-	4140
OA CFM	44	44
RL Voltage	-	213/213/215
RL Amperage	-	6.2/6.2/6.3
SF System SetPt	-	8.4VDC
OA Damper Position	-	2.0V

Performance Data		
	Design	Actual
Fan Suction SP	-	-1.20"
Fan Discharge SP	-	0.81"
Total ESP	1.0	1.71"
Fan Total SP	-	2.01

Completed By: Aaron Cosby on 10/23/2025

Notes:
MA SP -0.90"

Written By: Aaron Cosby on 10/21/2025

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-2/129 PARTS STORAGE

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
2-1	129 PARTS STORAGE	SDG	22X10	744	567	689	92.6
2-2	129 PARTS STORAGE	SDG	14X6	331	222	321	97.0
2-3	129 PARTS STORAGE	SDG	22X10	744	568	701	94.2
2-4	129 PARTS STORAGE	SDG	14X6	331	311	327	98.8
2-5	129 PARTS STORAGE	SDG	22X10	744	549	699	94.0
2-6	131 WOMEN TECH	CD-8		100	67	94	94.0
2-7	133 TECH BREAK RM	CD-8		150	92	155	103.3
2-8	132 MENS TECH	CD-8		150	86	148	98.7
2-9	132 MENS TECH	CD-8		150	101	162	108.0
2-10	129 PARTS STORAGE	SDG	14X4	200	152	215	107.5
2-11	129 PARTS STORAGE	SDG	14X6	331	302	344	103.9
2-12	128 PARTS TECH	CD-8		100	92	95	95.0
2-13	128 PARTS MGR	CD-8		125	106	135	108.0
2-14	128 PARTS TECH	CD-8		100	89	99	99.0
Total				4300	3304	4184	97.3%

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Project: Wyler Hyundai Beavercreek (Dayton, OH)

System/Unit: AHU/RTU



Asset: RTU-3

AREA:120 SERVICE WRITERS

Unit Data		
	Design	Actual
MFG	NA	ICP COMMERCIAL
Serial Num	-	C242008677
Model Num	NA	RGV072HFEA0AAA
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28"X14"
Num PreFilter 1	-	4
PreFilter Size 1	-	16"X16"X2"

Motor Data		
	Design	Actual
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	5.5

Test Data		
	Design	Actual
SF CFM	2400	2391
SF RPM	2485	2286
RA CFM	-	2261
OA CFM	137	130
RL Voltage	-	212/214/215
RL Amperage	-	3.8/3.9/3.5
SF System SetPt	-	9.2 VDC
OA Damper Position	-	2.5V

Performance Data		
	Design	Actual
Fan Suction SP	-	-0.51"
Fan Discharge SP	-	0.23"
Total ESP	1.00	0.74"

Completed By: Aaron Cosby on 10/21/2025

Notes:
-0.43" MA SP

Written By: Aaron Cosby on 10/21/2025

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Project: Wyler Hyundai Beaver Creek (Dayton, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-3/120 SERVICE WRITERS

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
3-1	120 SERVICE WRITERS	CD-8		162	204	175	108.0
3-2	121 SERVICE MGR	CD-8		110	113	113	102.7
3-3	122 CUST WAITING #2	SL-10		325	96	301	92.6
3-4	122 CUST WAITING #2	SL-10		325	85	326	100.3
3-5	126 PARTS CASHIER	CD-8		135	218	148	109.6
3-6	122 CUST WAITING #2	CD-8		225	163	207	92.0
3-7	122 CUST WAITING #2	CD-8		225	245	245	108.9
3-8	120 SERVICE WRITERS	CD-8		162	153	153	94.4
3-9	120 SERVICE WRITERS	CD-8		180	187	187	103.9
3-10	122 CUST WAITING #2	CD-10		300	283	283	94.3
3-11	144 JANITOR	CD-6		50	51	51	102.0
3-12	123 UNISEX RR	CD-6		40	44	44	110.0
3-13	125 UNISEX RR #2	CD-6		40	42	42	105.0
3-14	124 RESTROOM #1	CD-6		40	41	41	102.5
3-15	148 UNISEX RR #4	CD-6		40	39	39	97.5
3-16	149 UNISEX RR #5	CD-6		40	36	36	90.0
Total				2399	2000	2391	99.67%

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Project: Wyler Hyundai Beavercreek (Dayton, OH)

System/Unit: AHU/RTU



Asset: RTU-4

AREA:104 BREAK RM

Unit Data		
	Design	Actual
MFG	NA	ICP COMMERCIAL
Serial Num	-	C243609854
Model Num	NA	RGV060HFEA0AAA
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28"X14"X2"
Num PreFilter 1	-	2
PreFilter Size 1	-	16"X25"X2"

Motor Data		
	Design	Actual
Phase	-	1
Rated Voltage	-	208
Rated Amperage	-	9.2

Test Data		
	Design	Actual
SF CFM	2000	1981
SF RPM	2363	2055
RA CFM	-	1499
OA CFM	495	482
RL Voltage	-	214/215/212
RL Amperage	-	6.7
SF System SetPt	-	8.7 VDC
OA Damper Position	-	5.0V

Performance Data		
	Design	Actual
Fan Suction SP	-	-0.72"
Fan Discharge SP	-	0.67"
Total ESP	1.00	1.01"
Fan Total SP	-	1.39"

Completed By: Aaron Cosby on 10/23/2025

Notes:
-0.34 MA SP

Written By: Aaron Cosby on 10/21/2025

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Project: Wyler Hyundai Beaver Creek (Dayton, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-4/104 BREAK RM

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
4-1	104 BREAK RM	CD-8		233	233	233	100.0
4-2	104 BREAK RM	CD-8		233	200	213	91.4
4-3	104 BREAK RM	CD-8		233	226	226	97.0
4-4	112 BUSINESS OFFICE	CD-8		175	233	183	104.6
4-5	112 BUSINESS OFFICE	CD-8		175	212	172	98.3
4-6	107 GENERAL MGR	CD-8		105	153	95	90.5
4-7	107 GENERAL MGR	CD-8		105	191	114	108.6
4-8	108 GENERAL MGR RR	CD-6		40	123	44	110.0
4-9	141 TRAINING RM	CD-8		175	231	192	109.7
4-10	141 TRAINING RM	CD-8		175	193	163	93.1
4-11	141 TRAINING RM	CD-8		175	212	171	97.7
4-12	141 TRAINING RM	CD-8		175	218	175	100.0
Total				1999	2425	1981	99.1%

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Project: Wyler Hyundai Beaver Creek (Dayton, OH)

System/Unit: AHU/RTU



Asset: RTU-7

AREA:119 SERVICE WRITE-UP

Unit Data		
	Design	Actual
MFG	NA	ICP COMMERCIAL
Serial Num	-	C242008689
Model Num	NA	RGV072HFEA0AAA
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28"X14"
Num PreFilter 1	-	4
PreFilter Size 1	-	16"X16"X2"

Motor Data		
	Design	Actual
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	5.5

Test Data		
	Design	Actual
SF CFM	2400	
SF RPM (Initial)	-	
SF RPM	2485	
RA CFM	-	
OA CFM	97	
Relief CFM	-	
RL Voltage	-	
RL Amperage	-	
VFD Max SetPt	-	
VFD Min SetPt	-	
SF Motor Freq(HZ)	-	
SF Flow Station (Kv)	-	
OA Flow Station (Kv)	-	
SF System SetPt	-	
RA Flow Station (Kv)	-	
OA Damper Position	-	
Brake Horse Power	2.43	

Performance Data		
	Design	Actual
Fan Suction SP	-	
Fan Discharge SP	-	
Total ESP	1.00	
Fan Total SP	-	
Pre-Filter P.D.	-	
Final Filters P.D.	-	
Cooling Coil P.D.	-	
CHW Coil P.D.	-	
PreHeat Coil P.D.	-	
Heating Coil P.D.	-	
HW Coil P.D.	-	
Heat Wheel (Sup) P.D.	-	
OA Temp (db/wb)	-	
RA Temp (db/wb)	-	
MA Temp (db/wb)	-	
SA Temp (db/wb)	-	

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Project: Wyler Hyundai Beaver Creek (Dayton, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-7/119 SERVICE WRITE-UP

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
7-1	119 SERVICE WRITE-UP	SDG	22X6	600			-
7-2	119 SERVICE WRITE-UP	SDG	22X6	600			-
7-3	119 SERVICE WRITE-UP	SDG	22X6	600			-
7-4	119 SERVICE WRITE-UP	SDG	22X6	600			-
Total				2400	0	0	0%

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Project: Wyler Hyundai Beavercreek (Dayton, OH)

System/Unit: AHU/RTU



Asset: RTU-8

AREA:137 SERVICE AREA #2

Unit Data		
	Design	Actual
MFG	NA	ICP COMMERCIAL
Serial Num	-	P240920090
Model Num	NA	RGV300HEJA0AAA
Configuration	-	VERTICAL
Num OA Filters 1	-	4
OA Filter Size 1	-	15"X23"
Num PreFilter 1	-	9
PreFilter Size 1	-	16"X25"X2"

Motor Data		
	Design	Actual
Phase	-	3
Rated Voltage	-	460
Rated Amperage	-	5.6

Test Data		
	Design	Actual
SF CFM	10000	7579
SF RPM	2178	2134
RA CFM	-	MODULATING FREELY
OA CFM	231	MODULATING FREELY
RL Voltage	-	494/501/495
RL Amperage	-	4.9/5.3/5.5
SF System SetPt	-	9.8VDC
OA Damper Position	-	MODULATING FREELY

Performance Data		
	Design	Actual
Fan Suction SP	-	-0.65"
Fan Discharge SP	-	0.06"
Total ESP	1.00	0.32"
Fan Total SP	-	0.71"

Completed By: Aaron Cosby on 10/23/2025

Notes:
MA SP -0.26"

Written By: Aaron Cosby on 10/23/2025

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-8/137 SERVICE AREA #2

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
8-1	137 SERVICE AREA #2	SDG	22X4	310	211	211	68.1
8-2	137 SERVICE AREA #2	SDG	22X4	310	202	202	65.2
8-3	137 SERVICE AREA #2	SDG	22X4	310	219	219	70.6
8-4	137 SERVICE AREA #2	SDG	22X10	883	632	632	71.6
8-5	137 SERVICE AREA #2	SDG	22X10	883	628	628	71.1
8-6	137 SERVICE AREA #2	SDG	22X4	310	224	224	72.3
8-7	137 SERVICE AREA #2	SDG	22X4	310	214	214	69.0
8-8	137 SERVICE AREA #2	SDG	22X10	883	630	630	71.3
8-9	140 EV BATTERY RM	SDG	14X4	250	215	215	86.0
8-10	137 SERVICE AREA #2	SDG	22X10	780	652	652	83.6
8-11	137 SERVICE AREA #2	SDG	22X10	780	646	646	82.8
8-12	137 SERVICE AREA #2	SDG	22X10	780	601	601	77.1
8-13	137 SERVICE AREA #2	SDG	22X10	780	610	610	78.2
8-14	137 SERVICE AREA #2	SDG	22X4	471	403	403	85.6
8-15	137 SERVICE AREA #2	SDG	22X10	780	605	605	77.6
8-16	137 SERVICE AREA #2	SDG	22X10	780	600	600	76.9
8-17	139 SHOP EQUIPMENT	SDG	14X4	200	141	141	70.5
8-18	136 STORAGE	SDG	14X4	200	146	146	73.0
Total				10000	7579	7579	75.79%

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Project: Wyler Hyundai Beavercreek (Dayton, OH)

System/Unit: AHU/RTU



Asset: RTU-9

AREA:SERVICE #1/DETAIL AREAS

Unit Data		
	Design	Actual
MFG	NA	ICP COMMERCIAL
Serial Num	-	P233034547
Model Num	NA	RGV150HE3A0AAA
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	20"X29"
Num PreFilter 1	-	4
PreFilter Size 1	-	16"X16"X2"

Motor Data		
	Design	Actual
Phase	-	3
Rated Voltage	-	460
Rated Amperage	-	5.6

Test Data		
	Design	Actual
SF CFM	5000	5117
SF RPM	1808	1554
RA CFM	-	5064
OA CFM	53	53
RL Voltage	-	490/494/500
RL Amperage	-	4.3
SF System SetPt	-	8.6VDC
OA Damper Position	-	2.0 V

Performance Data		
	Design	Actual
Fan Suction SP	-	-1.32"
Fan Discharge SP	-	0.84"
Total ESP	1.00	1.66"
Fan Total SP	-	2.16"

Completed By: Aaron Cosby on 10/23/2025

Notes:
MA SP -0.82"

Written By: Aaron Cosby on 10/22/2025

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-9/SERVICE #1/DETAIL AREAS

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
9-1	143 SPRINKLER RM	SDG	22X6	625	633	633	101.3
9-2	134 SERVICE AREA #1	SDG	22X6	625	641	641	102.6
9-3	134 SERVICE AREA #1	SDG	22X6	625	622	622	99.5
9-4	134 SERVICE AREA #1	SDG	22X6	625	658	658	105.3
9-5	135 DETAIL AREA	SDG	22X6	625	633	633	101.3
9-6	135 DETAIL AREA	SDG	22X6	625	639	639	102.2
9-7	135 DETAIL AREA	SDG	22X6	625	650	650	104.0
9-8	135 DETAIL AREA	SDG	22X6	625	641	641	102.6
Total				5000	5117	5117	102.34%

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

System/Unit: AHU/RTU



Asset: RTU-1A 1

AREA:101 SHOWROOM #2

Unit Data		
	Design	Actual
MFG	NA	ICP COMMERCIAL
Serial Num	-	P243836644
Model Num	NA	RGV120HE3A0AAA
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	35"x19"
Num PreFilter 1	-	4
PreFilter Size 1	-	20"X20"X2"

Motor Data		
	Design	Actual
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	12.6

Test Data		
	Design	Actual
SF CFM	4000	3603
SF RPM	1979	1919
RA CFM	-	3110
OA CFM	482	493
RL Voltage	208-230	217/216/214
RL Amperage	-	2.4
VFD Max SetPt	-	
SF System SetPt	-	9.7 VDC
OA Damper Position	-	3.9 V

Performance Data		
	Design	Actual
Fan Suction SP	-	-0.44"
Fan Discharge SP	-	0.57"
Total ESP	1.25	0.82"
Fan Total SP	-	1.01"

Completed By: Aaron Cosby on 10/23/2025

Notes:
MA SP -0.25"

Written By: Aaron Cosby on 10/23/2025

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-1A 1/101 SHOWROOM #2

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
1A-1	101 SHOWROOM #2			500	242	456	91.2
1A-2	106 HALL #2	CD-8	8	100	91	98	98.0
1A-3	101 SHOWROOM #2			500	356	482	96.4
1A-4	101 SHOWROOM #2	SL-10		560	498	511	91.3
1A-5	101 SHOWROOM #2	SL-10		560	500	509	90.9
1A-6	101 SHOWROOM #2	SL-10		560	466	516	92.1
1A-7	101 SHOWROOM #2	SL-10		560	509	519	92.7
1A-8	101 SHOWROOM #2	SL-10		560	510	512	91.4
Total				3900	3172	3603	92.38%

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Project: Wyler Hyundai Beavercreek (Dayton, OH)

System/Unit: AHU/RTU



Asset: RTU-1B 1

AREA:100 SHOWROOM #1

Unit Data		
	Design	Actual
MFG	NA	ICP COMMERCIAL
Serial Num	-	P243836646
Model Num	NA	RGV120HE3A0AAA
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	35"X19"
Num PreFilter 1	-	4
PreFilter Size 1	-	20"X20"X2"

Motor Data		
	Design	Actual
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	12.6

Test Data		
	Design	Actual
SF CFM	4399	4555
SF RPM	1979	1761
RA CFM	-	3817
OA CFM	775	738
RL Voltage	208-230	216/215/212
RL Amperage	-	7.8
SF System SetPt	-	8.9 VDC
OA Damper Position	-	3.4 V

Performance Data		
	Design	Actual
Fan Suction SP	-	-1.26"
Fan Discharge SP	-	1.04"
Total ESP	1.25	1.86"
Fan Total SP	-	2.30"

Completed By: Aaron Cosby on 10/23/2025

Notes:
MA SP -0.82"

Written By: Aaron Cosby on 10/23/2025

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-1B 1/100 SHOWROOM #1

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
1B-1	100 SHOWROOM #1	CD-12	12	500	322	546	109.2
1B-2	100 SHOWROOM #1	CD-12	12	500	355	544	108.8
1B-3	100 SHOWROOM #1	CD-12	12	500	372	539	107.8
1B-4	100 SHOWROOM #1	CD-12	12	500	339	534	106.8
1B-5	100 SHOWROOM #1	CD-12	12	500	445	550	110.0
1B-6	100 SHOWROOM #1	CD-12	12	500	356	512	102.4
1B-7	100 SHOWROOM #1	CD-6		100	69	96	96.0
1B-8	100 SHOWROOM #1	CD-6		100	82	92	92.0
1B-9	100 SHOWROOM #1	CD-6		100	101	101	101.0
1B-10	100 SHOWROOM #1	SL-10	10	333	152	311	93.4
1B-11	100 SHOWROOM #1	SL-10	10	333	212	319	95.8
1B-12	100 SHOWROOM #1	SL-10	10	333	198	315	94.6
1B-13	100 SHOWROOM #1	CD-8	8	100	NOT INSTALLED	96	96.0
Total				4399	3003	4555	103.55%

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

System/Unit: FAN - Exhaust



Asset: EF-1

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-B90
Serial Num	-	176780550
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	73	80
RL Voltage	-	115
RL Amperage	-	0.1

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Motor Rpm	700	700
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.19

Completed By: Aaron Cosby on 10/23/2025

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

System/Unit: FAN - Exhaust



Asset: EF-2

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-B150
Serial Num	-	181664766
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	75	81
RL Voltage	-	115
RL Amperage	-	0.1

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Motor Rpm	1050	700
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.19

Completed By: Aaron Cosby on 10/20/2025

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

System/Unit: FAN - Exhaust



Asset: EF-3

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-B150
Serial Num	-	183954286
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	75	73
RL Voltage	-	115
RL Amperage	-	0.1

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Motor Rpm	1050	700
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.19

Completed By: Aaron Cosby on 10/20/2025

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

System/Unit: FAN - Exhaust



Asset: EF-4

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-B150
Serial Num	-	24151
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	150	163
RL Voltage	-	115
RL Amperage	-	0.4

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Horsepower	-	0.0025
Motor Rpm	1050	900
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.45

Completed By: Aaron Cosby on 10/20/2025

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

System/Unit: FAN - Exhaust



Asset: EF-5

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-B150
Serial Num	-	176502486
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	200	182
RL Voltage	-	115
RL Amperage	1.8	1.7

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Motor Rpm	900	1050
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.8

Completed By: Aaron Cosby on 10/20/2025

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

System/Unit: FAN - Exhaust



Asset: EF-6

AREA:SERVICE AREA

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	USF-13-3-BG
Serial Num	-	24137700
Type	UNIV SINGLE WIDTH	UNIV SINGLE WIDTH

Motor Data		
	Design	Actual
Horsepower	-	2
Phase	-	3
Voltage (rated)	-	460
Amperage (rated)	-	4.3

Test Data		
	Design	Actual
CFM	2100	1899
RL Voltage	-	[1]
RL Amperage	-	[1]
Suction ESP	-	[1]
Discharge ESP	-	ATM
Total ESP	4.0	[1]

Completed By: Aaron Cosby on 10/23/2025

Notes:

[1]- Unable to reach without 14' ladder

Written By: Aaron Cosby on 10/23/2025

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

System/Unit: FAN - Exhaust



Asset: EF-7

AREA:136 STORAGE

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	CUE-095-6
Serial Num	-	25388516
Type	CEILING	UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Frame	-	[1]
Horsepower	-	[1]
Motor Rpm	-	[1]
Phase	-	[1]
Voltage (rated)	-	[1]
Amperage (rated)	-	[1]
Service Factor	-	[1]

Test Data		
	Design	Actual
CFM	200	90
System SetPt	-	HIGH
RL Voltage	-	[1]
RL Amperage	-	[1]
Suction ESP	-	[1]
Discharge ESP	-	ATM
Total ESP	0.25	[1]

Completed By: Aaron Cosby on 10/23/2025

Notes:

[1]- Unable to reach without a 14' ladder. A 12' allowed for speed setting identification

Written By: Aaron Cosby on 10/23/2025

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

System/Unit: FAN - Exhaust



Asset: EF-8

AREA:124 UNISEC ACC RR #1

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-B90
Serial Num	-	183954286
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	75	69
RL Voltage	-	115
RL Amperage	-	0.1

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Motor Rpm	-	700
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	0.19

Completed By: Aaron Cosby on 10/20/2025

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

System/Unit: FAN - Exhaust



Asset: EF-9

AREA:125 UNISEX ACC RR #2

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-B90
Serial Num	-	183954286
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	75	71
RL Voltage	-	115
RL Amperage	-	0.1

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Motor Rpm	-	700
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	0.19

Completed By: Aaron Cosby on 10/21/2025

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

System/Unit: FAN - Exhaust



Asset: EF-10

AREA:148 UNISEX RR #4

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-B90
Serial Num	-	181664766
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	75	76
RL Voltage	-	115
RL Amperage	-	0.1

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Motor Rpm	-	700
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	0.19

Completed By: Aaron Cosby on 10/21/2025

National TAB

Project: Wyler Hyundai Beaver Creek (Dayton, OH)

System/Unit: FAN - Exhaust



Asset: EF-11

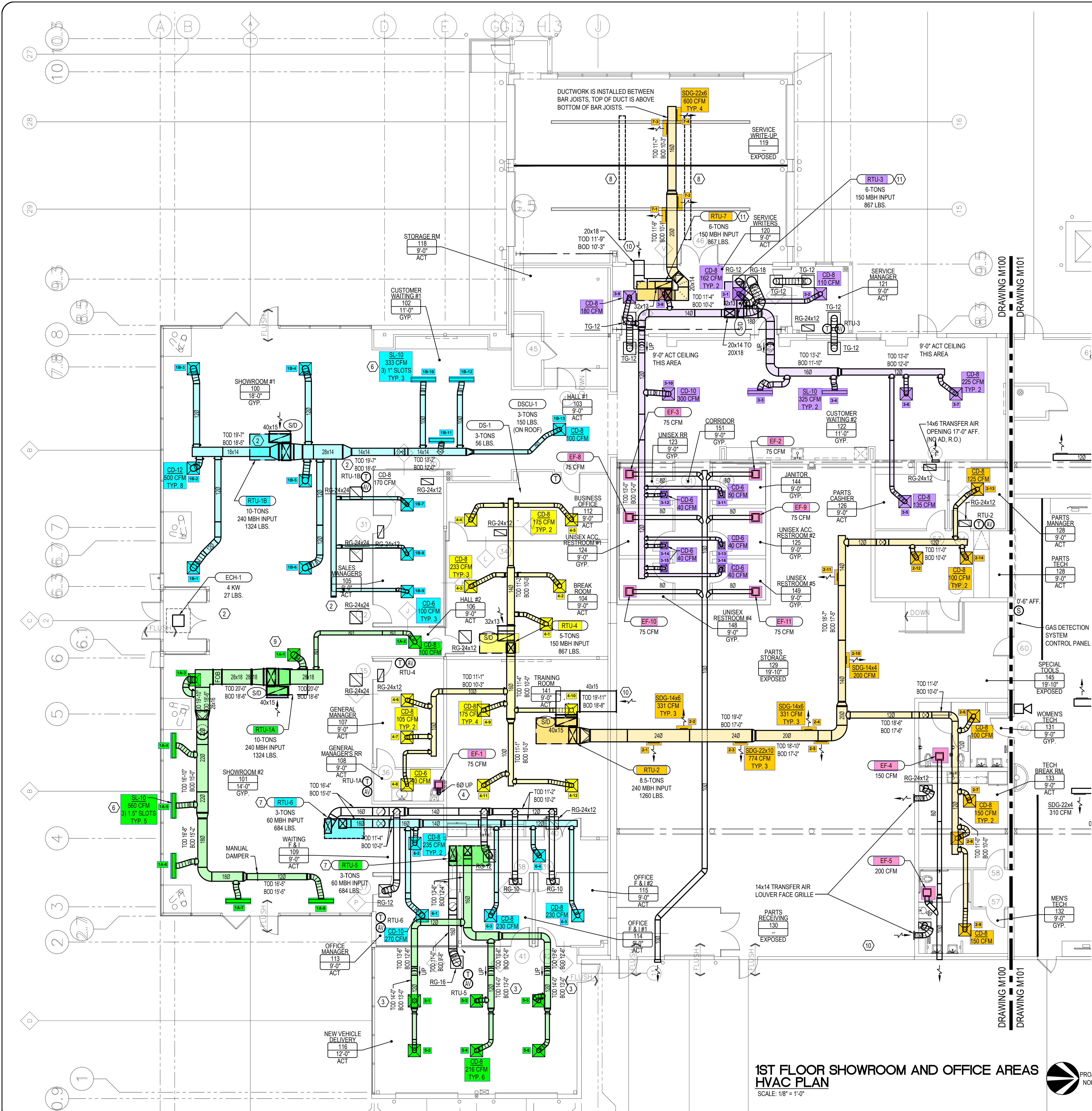
AREA:149 UNISEX RR #5

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-B90
Serial Num	-	183954286
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	75	81
RL Voltage	-	115
RL Amperage	-	0.1

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Motor Rpm	-	700
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	0.19

Completed By: Aaron Cosby on 10/21/2025



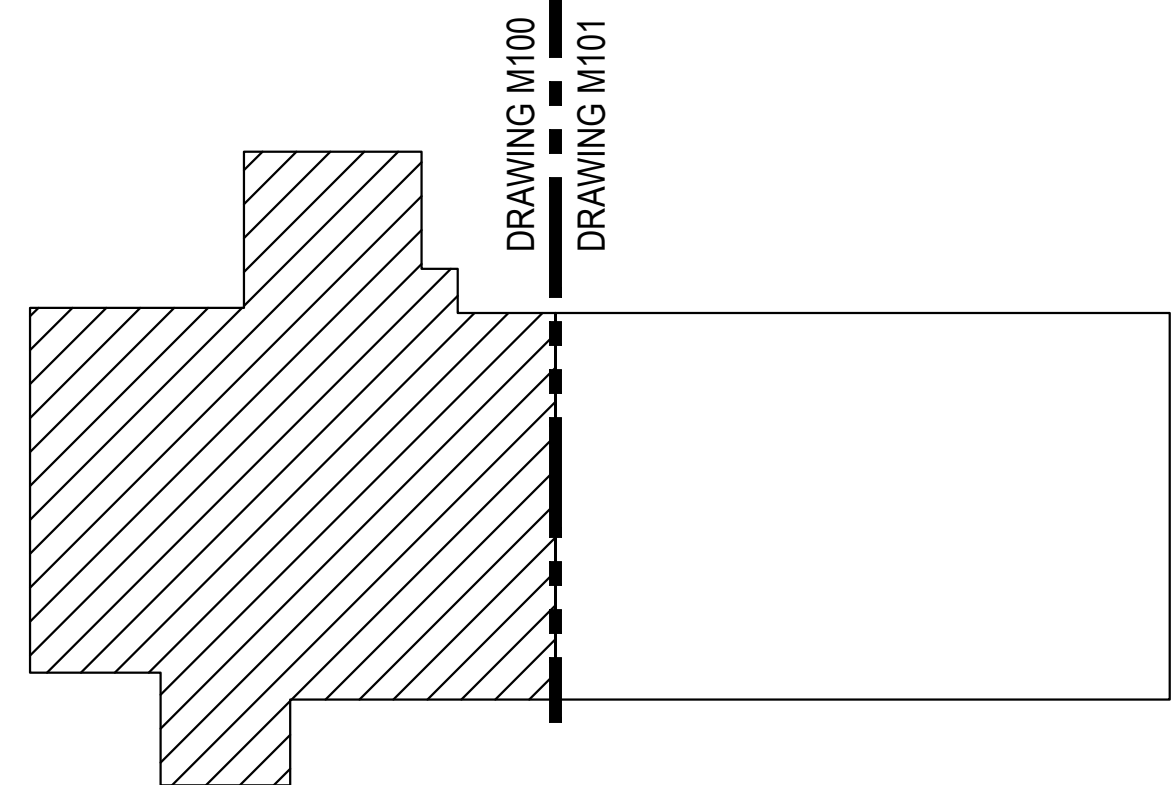
1ST FLOOR SHOWROOM AND OFFICE AREAS HVAC PLAN
SCALE: 1/8" = 1'-0"



GENERAL NOTES

- DUCTWORK TO BE GALVANIZED, FABRICATED AND INSTALLED PER SMACNA AND SECTION M-603 OF THE 2017 OBC. DUCTWORK SHALL BE CONSTRUCTED WITH A MINIMUM THICKNESS AS SPECIFIED IN SMACNA HVAC, "DUCT CONSTRUCTION STANDARD - METAL AND FLEXIBLE," PER 2017 OBC-M603.4.
- UNLESS OTHERWISE NOTED ON THE MECHANICAL PLAN, DUCT DIMENSIONS INDICATE CLEAR INSIDE MEASUREMENTS. VERIFY EXACT ROUTING OF ALL DUCTWORK WITH EXISTING CONDITIONS AND MAINTAIN CLEAR INSIDE DIMENSIONS.
- COORDINATE EXACT LOCATION OF AIR DEVICES WITH REFLECTED CEILING PLAN, LIGHTING LAYOUT AND EXISTING CONDITIONS.
- BRANCH DUCT TO DIFFUSER TO BE SAME SIZE AS DIFFUSER NECK.
- COORDINATE EXACT LOCATION OF THERMOSTATS WITH FURNITURE PLAN AND OWNER.
- FOR PURPOSES OF CLARITY AND LEGIBILITY, DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC ALTHOUGH SIZE AND LOCATION OF EQUIPMENT ARE SHOWN TO SCALE WHEREVER POSSIBLE.
- ANY DISCREPANCIES OR EXISTING CONDITIONS DISCOVERED DURING CONSTRUCTION THAT PROHIBIT THE SUCCESSFUL COMPLETION OF WORK INDICATED ON THIS PLAN MUST BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY.
- DUCTWORK INSULATION SHALL CONFORM WITH SECTION M-604 OF THE 2017 OBC. COVERINGS AND LININGS, INCLUDING ADHESIVES, SHALL HAVE A FLAME SPREAD INDEX NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX NOT MORE THAN 50 WHEN TESTED WITH ACCORDANCE WITH ASTM E 84, UL 723, ASTM E 2231 AND ASTM C 411. INTERNAL DUCT LINING SHALL BE DURABLE AND TESTED IN ACCORDANCE WITH UL161.
- ALL DUCT JOINTS, SEAMS & CONNECTIONS SHALL BE SEALED & FASTENED PER SECTION 603.9 2017 OMC.
- EQUIPMENT TO BE INSTALLED PER MANUFACTURER'S GUIDELINES.
- DUCT SHALL BE SUPPORTED WITH APPROVED HANGERS AT INTERVALS NOT EXCEEDING 10 FEET. (SECT. 603.10 2017 OMC)
- ALL FIELD-INSTALLED POWER AND CONTROL WIRING FOR ALL MECHANICAL EQUIPMENT AND APPLIANCES SHALL BE IN ACCORDANCE WITH NFPA-70 AND THE NATIONAL ELECTRICAL CODE.
- THESE DRAWINGS DO NOT ADDRESS OR IMPLY THE STATUS OF THE STRUCTURE AND ITS ABILITY TO SUPPORT ROOFTOP EQUIPMENT SHOWN. THE CINCINNATI AIR CONDITIONING COMPANY DOES NOT PERFORM ANY DESIGN, SPECIFICATION, INSPECTION, OR INSTALLATION OF STRUCTURAL REINFORCEMENTS TO SUPPORT ROOFTOP EQUIPMENT.

- ### DRAWING NOTES
- NO WORK IN THIS AREA.
 - DUCTWORK INSTALLED AS HIGH AS POSSIBLE BELOW BAR JOISTS.
 - DUCTWORK INSTALLED BETWEEN BAR JOISTS.
 - EXHAUST DUCT UP THROUGH ROOF WITH TALL CONE FLASHING, STORM COLLAR, AND CHINA CAP WITH BIRDSCREEN. ROOFING WORK BY OTHERS.
 - EXHAUST DUCT UP THROUGH ROOF WITH DECKTITE FLASHING, STORM COLLAR, AND CHINA CAP WITH BIRDSCREEN. ROOFING WORK BY OTHERS.
 - LINEAR SLOT DIFFUSERS ARE COLOR BLACK.
 - RELOCATED, EXISTING RTU. REMOVED FOR BUILDING DEMOLITION; THEN REINSTALLED.
 - DEMO EXISTING INFRARED TUBE HEATER. FIELD VERIFY ON SITE WITH G.C. TO DETERMINE IF C.A.C. OR ROOFER WILL CAP ABANDONED FLUES OR COMBUSTION AIR ROOF STACKS.
 - SUPPLY AIR MAIN RUNNING NORTH / SOUTH BETWEEN BAR JOISTS. TOP OF DUCT IS ABOVE BOTTOM OF BAR JOISTS.
 - INSTALL WIRE MESH OVER RETURN AIR DUCT OPENING.
 - NO STRUCTURAL REINFORCEMENT REQUIRED PER STRUCTURAL ENGINEER'S LETTER.



KEY PLAN
SCALE: NTS



REVISIONS	
DATE	DESCRIPTION
12/08/23	ISSUE FOR PERMIT
02/15/24	ISSUED WITH REVISIONS CLOUDED
02/23/24	ISSUED WITH REVISIONS CLOUDED
05/06/24	ISSUED WITH REVISIONS CLOUDED
09/25/24	GENERAL REVISIONS

PROFESSIONAL STAMP

JEFF WILKINSON, P.E. COMMERCIAL REFRIGERATION CONTRACTOR
 2170 HELLER DR., DAYTON, OHIO 45424
 SINCE 1978
 9381 Northpark Rd., Cincinnati, Ohio 45241
 Phone: 513-233-2422 Fax: 513-233-2424

DRAWING SCALE: AS NOTED

DATE DRAWN: 12/08/23

DRAWN BY: C. BLICKENSCHPER

JOB #: C-6297

DRAWING #: 6274

SHEET #: M100

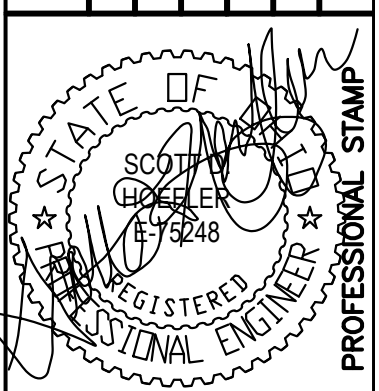


**1ST FLOOR SERVICE AREAS
HVAC PLAN**
SCALE: 1/8" = 1'-0"

GENERAL NOTES	
A.	PLEASE REFER TO SHEET M101 FOR GENERAL NOTES, LEGENDS, AND ABBREVIATIONS.
B.	SERVICE AREAS ARE CLASSIFIED FROM FLOOR TO 18" AFF. OTHERWISE UNCLASSIFIED PER NEC 511

- DRAWING NOTES**
- NO WORK IN THIS AREA.
 - HORN / STROBE FOR GAS DETECTION SYSTEM. INSTALL AT 8'-0" AFF.
 - INSTALL WIRE MESH OVER RETURN AIR DUCT OPENING.
 - INSTALL DUCTWORK FOR VEHICLE EXHAUST SYSTEM AS HIGH AS POSSIBLE.
 - DUCT CONNECTION FOR VEHICLE EXHAUST HOSE. SEE DRAWING M103 FOR VEHICLE EXHAUST SYSTEM DETAILS.
 - CUT DISCHARGE END OF VEHICLE EXHAUST DUCT AT A 45° ANGLE. COVER OPENING WITH BIRDSCREEN.
 - RELOCATED HVLV FAN. COORDINATE LOCATION AND ELEVATION WITH LIGHTING.
 - MAKE DUCT CONNECTIONS TO SIDE OF ROOFTOP UNIT. SUPPLY AND RETURN AIR DUCTS SHALL PENETRATE BUILDING WALL AS HIGH AS POSSIBLE. COORDINATE WITH EXISTING STRUCTURAL CONDITIONS. ALL EXTERIOR DUCTWORK SHALL HAVE 2" LINER. DUCT SIZE SHOWN IS EXTERIOR DUCT DIMENSIONS. CONCRETE PAD FOR ROOFTOP UNIT BY OTHERS.
 - MAKE DUCT CONNECTIONS TO SIDE OF ROOFTOP UNIT. INSTALL POWER EXHAUST UNIT ON RETURN AIR DUCT RISER AND SUPPORT WITH UNISTRUT LEGS. SUPPLY AND RETURN AIR DUCTS SHALL PENETRATE BUILDING WALL AS HIGH AS POSSIBLE. COORDINATE WITH EXISTING STRUCTURAL CONDITIONS. ALL EXTERIOR DUCTWORK SHALL HAVE 2" LINER. DUCT SIZE SHOWN IS EXTERIOR DUCT DIMENSIONS. CONCRETE PAD FOR ROOFTOP UNIT BY OTHERS.
 - RTU-8'S POWER EXHAUST ACCESSORY IS CAPABLE OF PROVIDING EXHAUST (10,000 CFM) IN EXCESS OF THE REQUIRED GENERAL EXHAUST FOR VEHICLE REPAIR GARAGES (11,069 SQFT. x 0.75 CFM/SQFT. = 8,302 CFM). RTU-8 IS ALSO CAPABLE OF PROVIDING 10,000 CFM OF 100% OUTSIDE AIR INTO THE SUPPLY DUCTWORK (VIA THE MANUFACTURER'S ECONOMIZER ACCESSORY) SIMULTANEOUSLY WITH POWER EXHAUST OPERATION AS PART OF AN ALTERNATE ENGINEERED DESIGN PER OMC SECTION 106.5. FOR ENERGY CONSERVATION, RTU-8 SHALL ONLY OPERATE ITS POWER EXHAUST ACCESSORY IF A CO2 SENSOR DETECTS 25 PPM CO₂, 0.3 PPM OF NO₂, OR IF OUTDOOR CONDITIONS ARE SUITABLE FOR "FREE NON-MECHANICAL" COOLING. IN EITHER OF THESE CASES THE RTU-8 ECONOMIZER PROVIDES MAKE-UP AIR COMPRISED OF 100% OUTDOOR AIR. THE 25 PPM CO₂ THRESHOLD IS BASED UPON THE EXPOSURE LIMIT REFERENCED BY THE AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH) AND OSHA (THRESHOLD LIMIT VALUE (TLV): 25 PPM, 29 MG/M3 TWA). THESE TWO ORGANIZATIONS HAVE THE MOST CONSERVATIVE THRESHOLD LIMIT VALUE OF THE MAJOR GOVERNMENT AGENCIES WHO LIST CO₂ THRESHOLDS (OSHA = 25 PPM, NIOSH = 35PPM, ACGIH = 25 PPM). THE 0.3 PPM NO₂ THRESHOLD IS BASED UPON REFERENCING THE MOST STRINGENT EXPOSURE LIMIT REFERENCED BY THE ACGIH, NIOSH AND OSHA (OSHA = 1 PPM, NIOSH = 1 PPM, ACGIH = 0.2 PPM) WHILE ALSO TAKING INTO ACCOUNT THE RESOLUTION OF THE SENSORS (0.1 PPM). AN AUDIO VISUAL ALARM WILL BE INSTALLED TO ALARM AT EITHER A SUSTAINED ABOVE THRESHOLD PPM VALUE OR A VALUE BEYOND THE THRESHOLD VALUE DEPENDING UP ON OUTPUT TYPE AVAILABLE ON SENSOR SYSTEM.

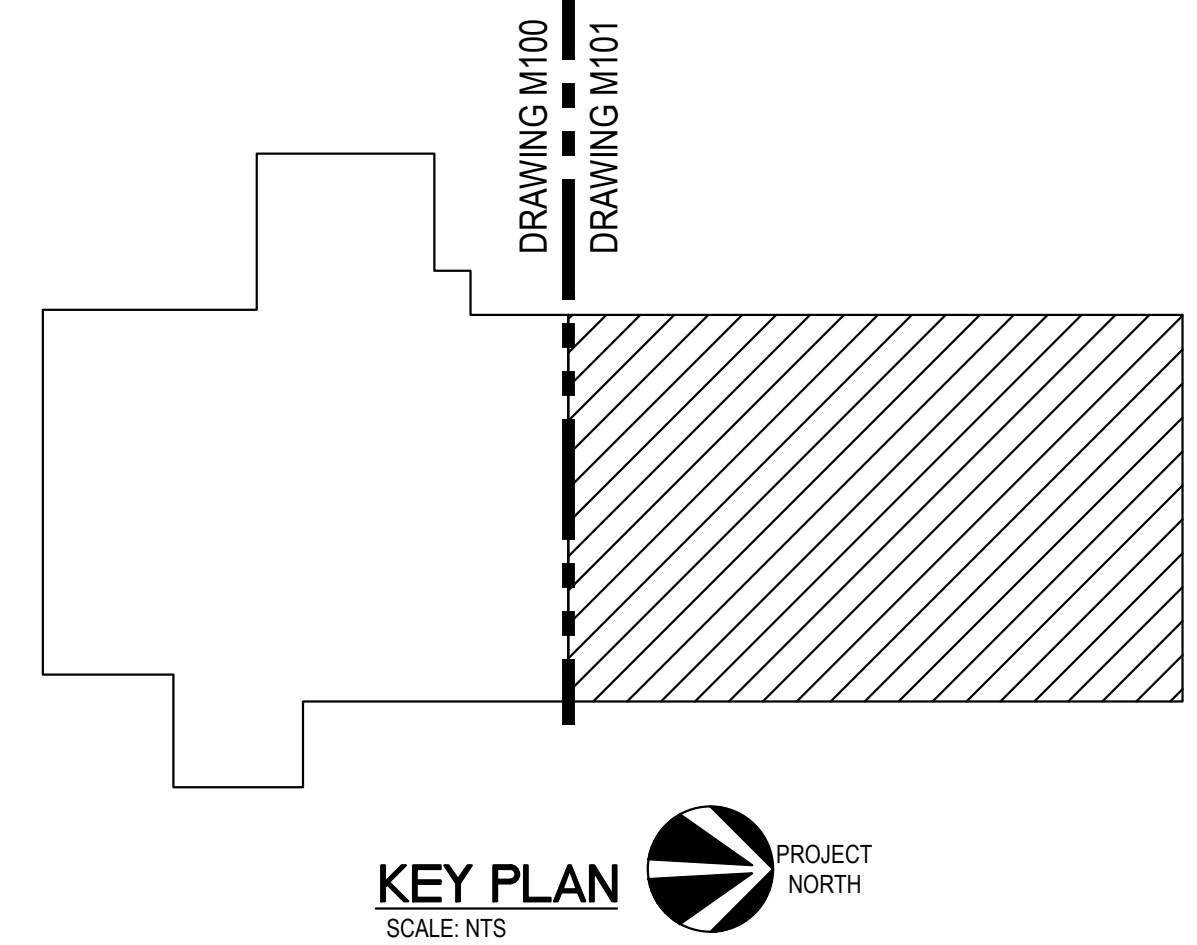
DATE:	DESCRIPTION:
02/15/24	ISSUED WITH REVISIONS CLOURED
02/23/24	ISSUED WITH REVISIONS CLOURED
05/06/24	ISSUED WITH REVISIONS CLOURED
10/08/24	REVISION SET (M800 M100 M102 RE-USED)



The Cincinnati Air Conditioning Co.
 145 COMBELL AVENUE • P.O. BOX 89 • CINCINNATI, OHIO 45224
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 Since 1938
 2884 Northmont Rd., Cincinnati, Ohio 45231

JEFF WILKINSON OF BEAVERCREEK
 2170 HELLER DR.
 DAYTON, OHIO 45424
 SERVICE AREAS HVAC PLAN

DRAWING SCALE:	AS NOTED
DATE DRAWN:	12/08/23
DRAWN BY:	C. BLICKENSPPER
JOB #	C-6297
DRAWING #	6274
SHEET #	M101



KEY PLAN
SCALE: NTS