

Report By:

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



Report: TAB

Function: Test, Adjust, & Balance

Date: 04/30/2025

Completed By: National TAB

PROJECT

Clover Fine Arts Addition (Clover, SC)

1625 State HWY 55 E

Clover, SC 29710

Client

Action Mechanical Inc.

PO Box 7325

CHARLOTTE, NC 28241

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

Table Of Contents

Section	Page #
REMARKS	3
AHU/RTU	6
FAN - Exhaust	18
Heat Pump	21
GRD	23

Issue List

- EF1/2 no speed controller
- Veritable Flow on RTU-6



Clover Fine Arts Addition (Clover, SC)

Project Issue Information

Issue Name : EF1/2 no speed controller
Description : Spoke to the GC, electrical and mechanical EF-1/2 doesn't have a speed controller installed. Controls can only turn the motor on and off. EF 1 is running 30% HIGH and EF 2 is running 20% High
Created By : National TAB **Assigned To :** National TAB - Stephan Gabbert
Status : Open
Priority : Medium **Asset Tag :** EF1
Originated Date : 04/29/2025 - Jearod Ferrette - National TAB



Clover Fine Arts Addition (Clover, SC)

Project Issue Information

Issue Name : Veritable Flow on RTU-6
Description : RTU-6 Unit has mechanical damper and thermostat control and back office. If the thermostat is turned to 70 degrees or above the damper, shuts off and pushes all air to the first three diffusers. this may cause a lite whistling in the front office.
Created By : National TAB **Assigned To :** National TAB - Stephan Gabbert
Status : Open
Priority : InfoOnly **Asset Tag :** RTU6
Originated Date : 04/30/2025 - Jearod Ferrette - National TAB

Project Issue File Details



04/30/2025



04/30/2025

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

System/Unit: AHU/RTU



Asset: RTU1

AREA:ROOF

Unit Data		
	Design	Actual
MFG	TRANE	TRANE
Serial Num	-	242412789L
Model Num	WSC048	WSC048H4REA2FD0C1A2A6
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	11X26.5
Num PreFilter 1	-	2
PreFilter Size 1	-	20X35X2

Test Data		
	Design	Actual
SF CFM	1600	1595
RA CFM	1280	1259
OA CFM	320	336
RL Voltage	460	460
RL Amperage	2.5	0.60/0.63/0.65
OA Damper Position	-	0.50
Brake Horse Power	0.66	0.26

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Frame	-	NA
Horsepower	1.0	1
Motor Rpm	-	NA
Phase	3	NA
Rated Voltage	460	460
Rated Amperage	2.5	2.5
Service Factor	-	NA

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.22"
Fan Suction SP	-	-0.38"
Fan Discharge SP	-	0.23"
Total ESP	0.6	0.45"
Fan Total SP	-	0.61"
Cooling Coil P.D.	-	0.16* COIL/FILTERS DROP

Completed By: Jearod Ferrette on 04/30/2025

Unit Data - PHOTO LOG



04/29/2025

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

AHU/RTU



Diffuser Supply (GRD)

RTU1/ROOF

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
AHU1-SGRD1	CORRIDOR	D	12	400	1	464		396	99.0
AHU1-SGRD2	PERCUSSION	B	8	200	1	190		200	100.0
AHU1-SGRD3	PERCUSSION	B	8	200	1	202		195	97.5
AHU1-SGRD4	PERCUSSION	B	8	200	1	193		204	102.0
AHU1-SGRD5	PERCUSSION	B	8	200	1	195		205	102.5
AHU1-SGRD6	INSTRUMENT STORAGE	B	8	200	1	170		189	94.5
AHU1-SGRD7	INSTRUMENT STORAGE	B	8	200	1	196		206	103.0
Total				1600		1610	0	1595	99.69%

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

System/Unit: AHU/RTU



Asset: RTU2

AREA:ROOF

Unit Data		
	Design	Actual
MFG	TRANE	TRANE
Serial Num	-	244510172D
Model Num	WSJ180	WSJ180A4S0N02D0A2A
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	17X65
Num PreFilter 1	-	8
PreFilter Size 1	-	20X24X2

Test Data		
	Design	Actual
SF CFM	4800	4790
RA CFM	3300	3279
OA CFM	1500	1511
RL Voltage	460	471/478/481
RL Amperage	-	3.15/3.23/3.25
OA Damper Position	-	12%

Performance Data		
	Design	Actual
MA Plenum SP	-	-1.17"
Fan Suction SP	-	-1.33"
Fan Discharge SP	-	0.28"
Total ESP	1.0	1.45"
Fan Total SP	-	1.61"
Cooling Coil P.D.	-	0.16* COIL/ FINAL FILTERS DROP

Motor Data		
	Design	Actual
Motor MFG	-	US MOTOR
Frame	-	NA
Horsepower	-	NA
Motor Rpm	-	NA
Phase	3	3
Rated Voltage	460	460
Rated Amperage	-	NA
Service Factor	-	NA

Completed By: Jearod Ferrette on 04/30/2025

Unit Data - PHOTO LOG



04/29/2025

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

AHU/RTU



Diffuser Supply (GRD)

RTU2/ROOF

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
RTU2-SGRD1	INSTRUMENT REPAIR	B	8	125	1	210		121	96.8
RTU2-SGRD2	BAND	D	12	500	1	430		480	96.0
RTU2-SGRD3	BAND	D	12	500	1	465		516	103.2
RTU2-SGRD4	BAND	D	12	500	1	479		522	104.4
RTU2-SGRD5	BAND	D	12	500	1	481		522	104.4
RTU2-SGRD6	PRACTICE	B	8	225	1	209		229	101.8
RTU2-SGRD7	MUSIC	A	6	75	1	111		76	101.3
RTU2-SGRD8	OFFICE	C	10	275	1	318		273	99.3
RTU2-SGRD9	BAND	D	12	525	1	479		529	100.8
RTU2-SGRD10	BAND	D	12	525	1	468		517	98.5
RTU2-SGRD11	BAND	D	12	525	1	422		495	94.3
RTU2-SGRD12	BAND	D	12	525	1	464		510	97.1
Total				4800		4536	0	4790	99.79%

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

System/Unit: AHU/RTU



Asset: RTU3

AREA:ROOF

Unit Data		
	Design	Actual
MFG	TRANE	TRANE
Serial Num	-	242412927L
Model Num	WSC120	WSC120H4RKB2FD0C1A2A
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	15X36
Num PreFilter 1	-	4
PreFilter Size 1	-	20X25X2

Test Data		
	Design	Actual
SF CFM	3200	3116
RA CFM	2200	2018
OA CFM	1000	1098
RL Voltage	460	477/480/478
RL Amperage	3.6	1.46/1.45/1.46
OA Damper Position	-	1-1/4 "
Brake Horse Power	1.43	1.11

Motor Data		
	Design	Actual
Motor MFG	-	US MOTOR
Frame	-	NA
Horsepower	2.75	2.75
Motor Rpm	-	NA
Phase	3	3
Rated Voltage	460	460
Rated Amperage	3.6	3.6
Service Factor	-	NA

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.52"
Fan Suction SP	-	-0.86"
Fan Discharge SP	-	0.21"
Total ESP	1.0	0.73"
Fan Total SP	-	1.07"
Cooling Coil P.D.	-	0.34* COIL/ FINAL FILTERS DROP

Completed By: Jearod Ferrette on 04/30/2025

Unit Data - PHOTO LOG



04/29/2025

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

AHU/RTU



Diffuser Supply (GRD)

RTU3/ROOF

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
RTU3-SGRD1	CHORUS	C	10	350	1	283		335	95.7
RTU3-SGRD2	CHORUS	C	10	263	1	322		259	98.5
RTU3-SGRD3	CHORUS	C	10	262	1	219		253	96.6
RTU3-SGRD4	CHORUS	C	10	350	1	383		351	100.3
RTU3-SGRD5	PRACTICE	B	8	225	1	166		215	95.6
RTU3-SGRD6	CHORUS	C	10	350	1	365		348	99.4
RTU3-SGRD7	CHORUS	C	10	350	1	377		348	99.4
RTU3-SGRD8	CHORUS	C	10	350	1	346		337	96.3
RTU3-SGRD9	CHORUS	C	10	350	1	340		333	95.1
RTU3-SGRD10	CHORUS	C	10	350	1	304		337	96.3
Total				3200		3105	0	3116	97.38%

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

System/Unit: AHU/RTU



Asset: RTU4

AREA:ROOF

Unit Data		
	Design	Actual
MFG	TRANE	TRANE
Serial Num	-	242412819L
Model Num	WSC036	WSC036H4RBA2FD0C1A2A
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	11X26.5
Num PreFilter 1	-	2
PreFilter Size 1	-	20X35X2

Test Data		
	Design	Actual
SF CFM	1200	1146
RA CFM	1100	1039
OA CFM	100	107
RL Voltage	460	478/477/478
RL Amperage	1.7	0.47/0.48/0.47
OA Damper Position	-	3/8"
Brake Horse Power	0.39	0.207

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Frame	-	NA
Horsepower	0.75	0.75
Motor Rpm	-	NA
Phase	3	3
Rated Voltage	460	460
Rated Amperage	1.7	1.7
Service Factor	-	NA

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.27"
Fan Suction SP	-	-0.35"
Fan Discharge SP	-	0.15"
Total ESP	0.6	0.42"
Fan Total SP	-	0.50"
Cooling Coil P.D.	-	0.08* COIL/ FINAL FILTERS DROP

Completed By: Jearod Ferrette on 04/30/2025

Unit Data - PHOTO LOG



04/29/2025

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

AHU/RTU



Diffuser Supply (GRD)

RTU4/ROOF

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
RTU4-SGRD1	ENTRY	D	12	425	1	355		400	94.1
RTU4-SGRD2	ENTRY	D	12	425	1	393		410	96.5
RTU4-SGRD3	OFFICE	C	10	250	1	296		239	95.6
RTU4-SGRD4	STORAGE	A	6	100	1	116		97	97.0
Total				1200		1160	0	1146	95.5%

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

System/Unit: AHU/RTU



Asset: RTU5

AREA:ROOF

Unit Data		
	Design	Actual
MFG	TRANE	TRANE
Serial Num	-	242412957L
Model Num	WSC048	WSC048H4REA2FD0C1A2A
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	11X26.5
Num PreFilter 1	-	2
PreFilter Size 1	-	20X35X2

Test Data		
	Design	Actual
SF CFM	1600	1591
RA CFM	1450	1434
OA CFM	150	157
RL Voltage	460	478/480/479
RL Amperage	2.5	0.64/0.63/0.64
OA Damper Position	-	3/8
Brake Horse Power	0.66	0.256

Motor Data		
	Design	Actual
Motor MFG	-	US MOTOR
Frame	-	NA
Horsepower	1.0	1.0
Motor Rpm	-	NA
Phase	3	3
Rated Voltage	460	460
Rated Amperage	2.5	2.5
Service Factor	-	NA

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.26"
Fan Suction SP	-	-0.41"
Fan Discharge SP	-	0.21"
Total ESP	0.6	0.47"
Fan Total SP	-	0.62"
Cooling Coil P.D.	-	0.15* COIL/ FINAL FILTERS DROP

Completed By: Jearod Ferrette on 04/30/2025

Unit Data - PHOTO LOG



04/29/2025

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

AHU/RTU



Diffuser Supply (GRD)

RTU5/ROOF

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
RTU5-SGRD1	TOILET	A	6	50	1	107		51	102.0
RTU5-SGRD2	CORRIDOR	D	12	500	1	420		505	101.0
RTU5-SGRD3	TOILET	A	6	50	1	112		48	96.0
RTU5-SGRD4	CORRIDOR	D	12	500	1	384		480	96.0
RTU5-SGRD5	TOILET	A	6	50	1	117		50	100.0
RTU5-SGRD6	TOILET	A	6	50	1	119		53	106.0
RTU5-SGRD7	CORRIDOR	D	12	400	1	391		404	101.0
Total				1600		1650	0	1591	99.44%

Completed By: Jearod Ferrette on 04/30/2025

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

System/Unit: AHU/RTU



Asset: RTU6

AREA:

Unit Data		
	Design	Actual
MFG	TRANE	TRANE
Serial Num	-	242412833L
Model Num	WSC036	WSC036H4RBA2FD0C1A2A
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	11X26X5
Num PreFilter 1	-	2
PreFilter Size 1	-	20X35X2

Test Data		
	Design	Actual
SF CFM	1200	1213
RA CFM	1050	1055
OA CFM	150	158
RL Voltage	460	472/472/472
RL Amperage	1.7	0.50/0.51/0.50
OA Damper Position	-	3/8"
Brake Horse Power	0.39	0.220

Motor Data		
	Design	Actual
Motor MFG	-	US MOTOR
Frame	-	NA
Horsepower	0.75	075
Motor Rpm	-	NA
Phase	3	3
Rated Voltage	460	460
Rated Amperage	1.7	1.7
Service Factor	-	NA

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.04"
Fan Suction SP	-	-0.12"
Fan Discharge SP	-	0.54"
Total ESP	0.6	0.58"
Fan Total SP	-	0.66"
Cooling Coil P.D.	-	0.08* COIL/ FINAL FILTERS DROP

Completed By: Jearod Ferrette on 04/30/2025

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

AHU/RTU



Diffuser Supply (GRD)

RTU6/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
RTU6-SGRD1	CLASSROOM	D	6	520	1	631	641	525	101.0
RTU6-SGRD2	CLASSROOM	A	12	80	1	187	188	82	102.5
RTU6-SGRD3	CLASSROOM	A	12	80	1	108	130	83	103.8
RTU6-SGRD4	CLASSROOM	D	6	520	1	0	279	523	100.6
Total				1200		926	1238	1213	101.08%

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

System/Unit: FAN - Exhaust



Asset: EF1

AREA:ROOF

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	G-095-D	G-095-D
Serial Num	-	202PL46374
Type	RESTROOM	RESTROOM
Configuration	VERTICLE	VERTICLE

Motor Data		
	Design	Actual
Motor MFG	-	US MOTOR
Frame	-	487
Horsepower	0.125	0.125
Motor Rpm	1600	1600
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.7
Service Factor	-	1

Test Data		
	Design	Actual
CFM	400	526
Fan RPM	-	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	DD/HIGH
RL Voltage	-	115
RL Amperage	-	1.7
Total ESP	-	0.28
Fan Discharge SP	-	-0.28

Completed By: Jearod Ferrette on 04/30/2025

Notes:

SPEED CONTROLLER NOT INSTALLED. PER CONTROLS, THEY CAN ONLY TURN ON AND OFF THE MOTOR, UNIT IS RUNNING 30% HIGH

Written By: Jearod Ferrette on 04/30/2025

Unit Data - PHOTO LOG



04/29/2025

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF1/ROOF

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EF1-EGRD1	TOILET	UPBLAST	1	100	1	128		121	121.0
EF1-EGRD2	TOILET	UPBLAST	1	100	1	130		128	128.0
EF1-EGRD3	TOILET	UPBLAST	1	100	1	40		117	117.0
EF1-EGRD4	TOILET	UPBLAST	1	100	1	175		160	160.0
Total				400		473	0	526	131.5%

Completed By: Jearod Ferrette on 04/30/2025

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

System/Unit: FAN - Exhaust



Asset: EF2

AREA:

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	SP-A390	SP-A390

Test Data		
	Design	Actual
CFM	300	366

Motor Data		
	Design	Actual
Motor MFG	-	NA
Horsepower	-	NA
Motor Rpm	-	NA
Phase	-	NA
Voltage (rated)	-	NA
Amperage (rated)	-	NA

Completed By: Jearod Ferrette on 04/30/2025

Notes:
NO SPEED CONTROLLER INSTALLED, UNIT IS RUNNING 20% HIGH

Written By: Jearod Ferrette on 04/30/2025

Unit Data - PHOTO LOG



04/29/2025

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

System/Unit: Heat Pump



Asset: 3-IHP1

AREA:CLASSROOM

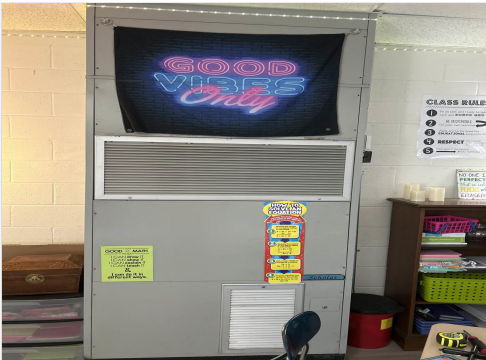
Unit Data		
	Design	Actual
Unit MFG	NA	NA
Model Num	NA	NA
Type	WALL	WALL
Configuration	WALL MOUNTED	WALL MOUNTED
Num Filters Size 1	-	1
Filter Size 1	-	16.25X32.5

Test Data		
	Design	Actual
SA CFM	1200	1197
RA CFM	-	1043
OA CFM	-	154

Motor Data		
	Design	Actual
Motor MFG	-	GREEN WHEEL
Frame	-	NA
Horsepower	-	0.01
Motor Rpm	-	NA
Phase	-	1
Voltage	-	208
Amperage	-	0.2

Completed By: Jearod Ferrette on 04/30/2025

Unit Data - PHOTO LOG



04/30/2025

National TAB

Project: Clover Fine Arts Addition (Clover, SC)

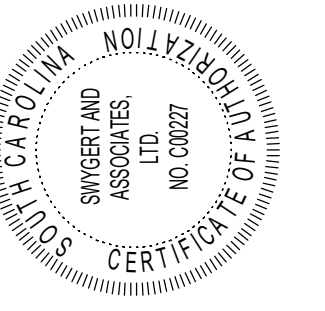
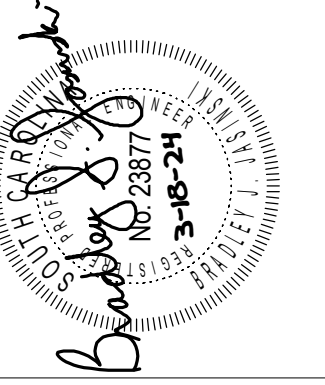
Heat Pump



Diffuser Supply (GRD)

3-IHP1/CLASSROOM

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	CLASSROOM	C	10	300	415	302	100.7
SGRD2	CLASSROOM	C	10	300	323	305	101.7
SGRD3	CLASSROOM	C	10	300	284	299	99.7
SGRD4	CLASSROOM	C	10	300	197	291	97.0
Total				1200	1219	1197	99.75%



These drawings are the property of Jumper Carter Sease Architects/PA, and may not be reproduced, copied or used in whole or in part without written consent of the architect. Any infringement will be subject to legal action.

**CLOVER HIGH SCHOOL
9TH GRADE FINE ARTS ADDITION
CLOVER SCHOOL DISTRICT
1625 STATE HWY 55 E, CLOVER, SC 29710**

BID DOCUMENTS

No	Description	Date

DRAWN BY: BJJ

CHECKED BY: BJJ

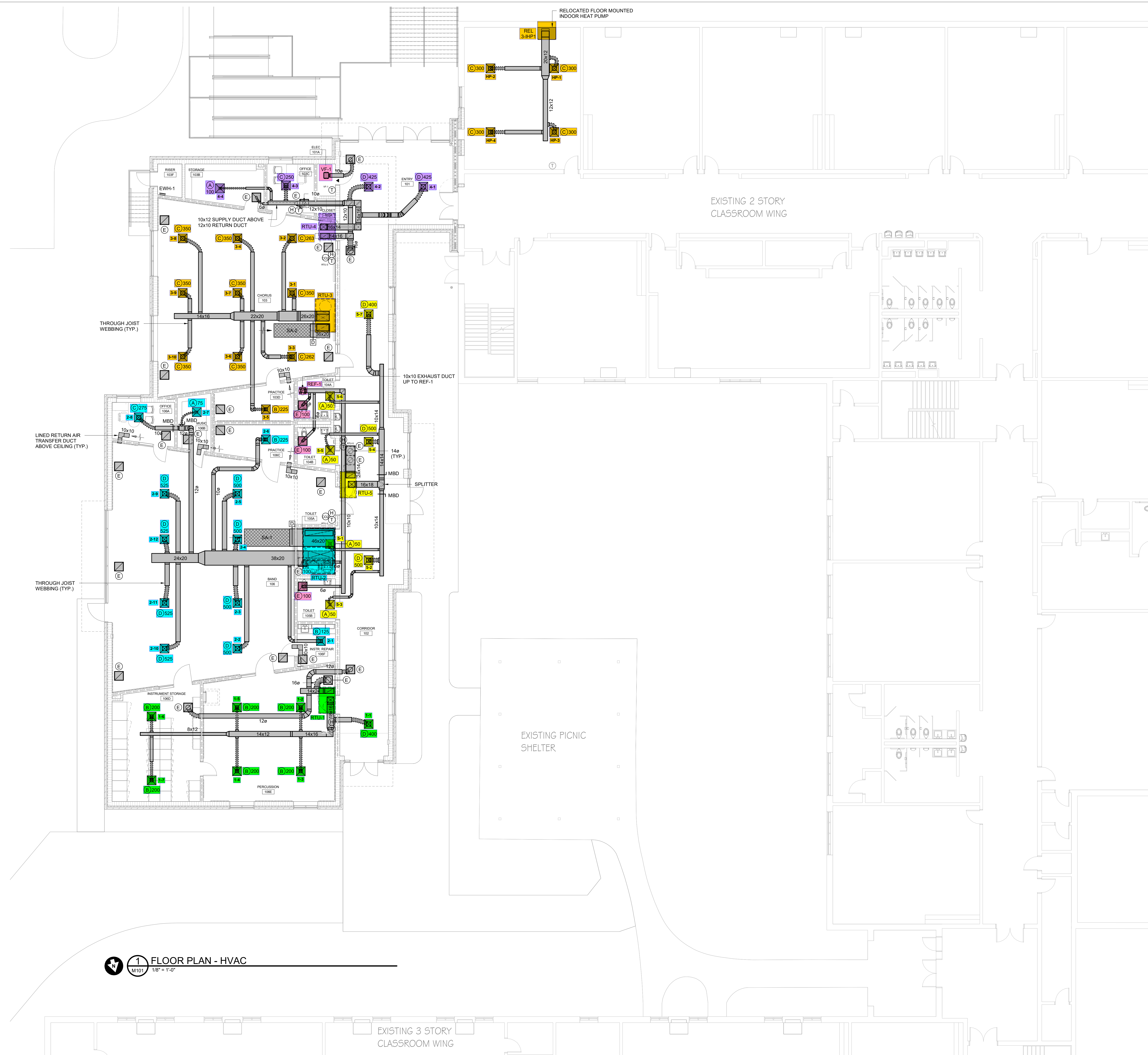
COMM NO: 21024

DATE: MARCH 18, 2024

SHEET TITLE: FLOOR PLAN - HVAC

SHEET NO:

M101



1 FLOOR PLAN - HVAC
M101 1/8" = 1'-0"

Swygert & Associates
CONSULTING ENGINEERS

DBA Swygert & Assoc., Ltd. Telephone: (803) 791-9300
Post Office Box 11666 Facsimile: (803) 791-6830
Columbia, S.C. 29211 mail@swygert-associates.com

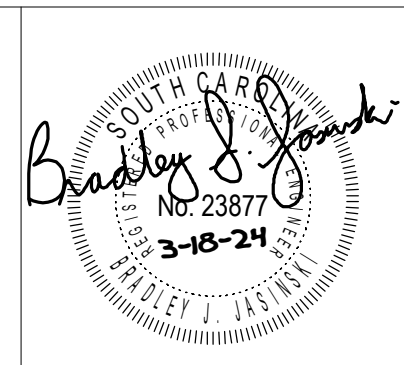
Jumper

Carter

Sease

ARCHITECTS

412 Meeting Street
West Columbia
South Carolina



CLOVER HIGH SCHOOL
9TH GRADE FINE ARTS ADDITION
CLOVER SCHOOL DISTRICT
1625 STATE HWY 55 E, CLOVER, SC 29710

BID DOCUMENTS

No	Description	Date

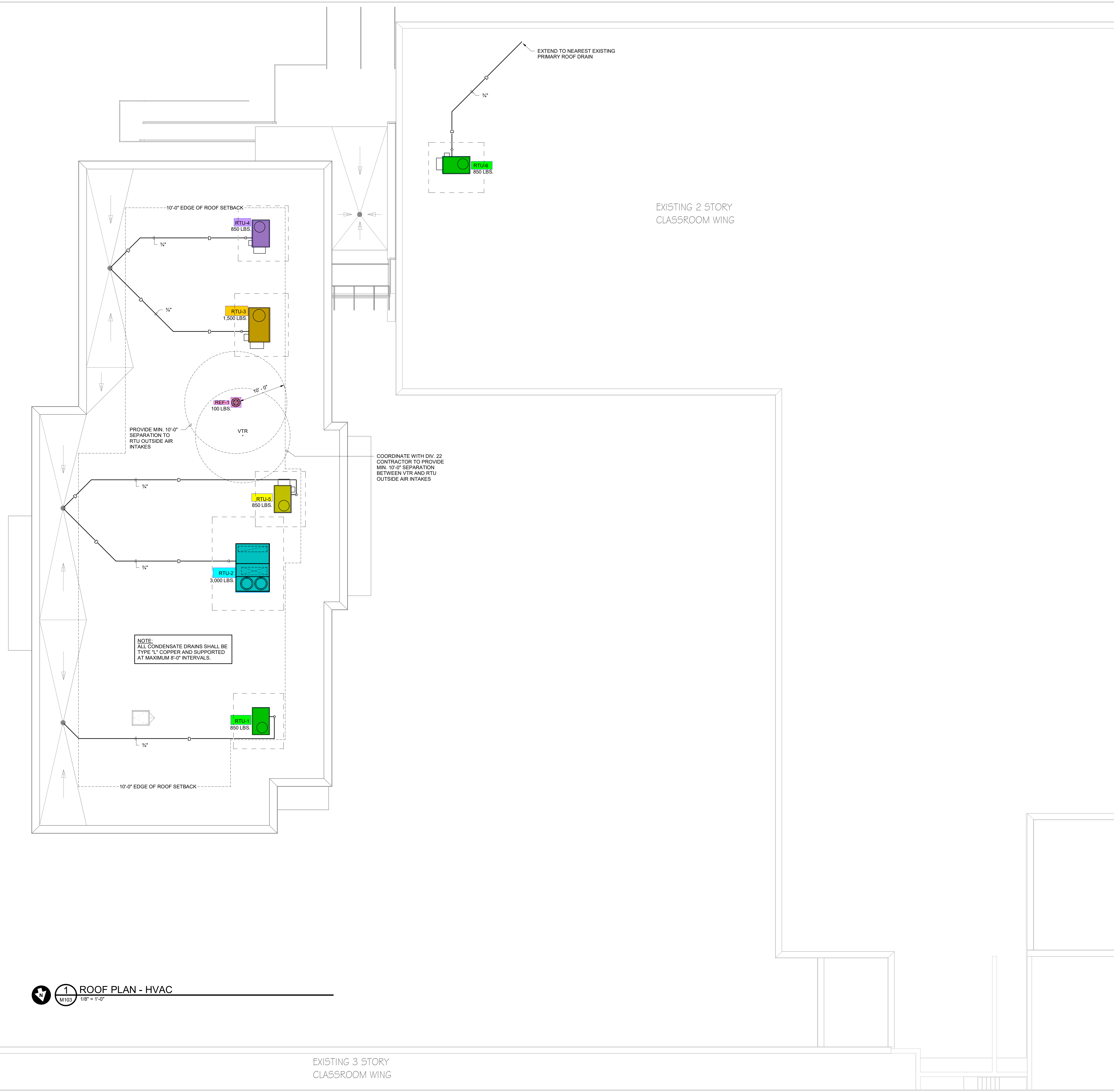
DRAWN BY: BJJ
 CHECKED BY: BJJ
 COMM NO: 21024
 DATE: MARCH 18, 2024
 SHEET TITLE: SECOND FLOOR PLAN - HVAC

SHEET NO:
M102



1 SECOND FLOOR PLAN - HVAC
 1/8" = 1'-0"

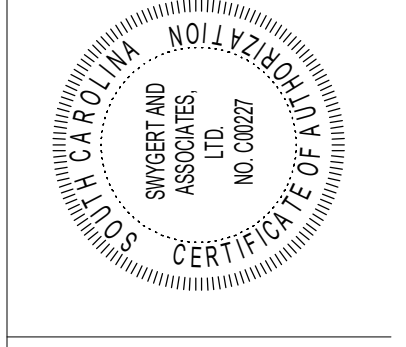
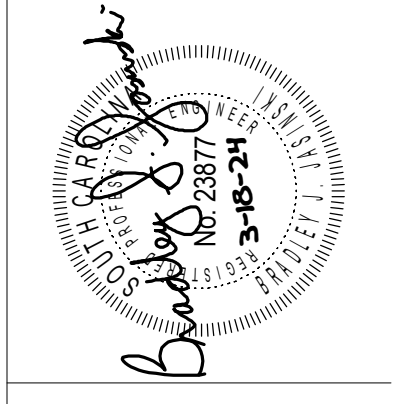
these drawings are the property of jumper carter sease architects/pa, and may not be reproduced, copied or used in whole or in part without written consent of the architect, any infringement will be subject to legal action



1 ROOF PLAN - HVAC
M103 1/8" = 1'-0"

**Jumper
Carter
Sease**
ARCHITECTS

412 Meeting Street
West Columbia
South Carolina



These drawings are the property of Jumper Carter Sease Architects/PA, and may not be reproduced, copied or used in whole or in part without written consent of the architect. Any infringement will be subject to legal action.

**CLOVER HIGH SCHOOL
9TH GRADE FINE ARTS ADDITION
CLOVER SCHOOL DISTRICT
1625 STATE HWY 55 E, CLOVER, SC 29710**

BID DOCUMENTS

No	Description	Date

DRAWN BY: **BJJ**
 CHECKED BY: **BJJ**
 COMM NO: **21024**
 DATE: **MARCH 18, 2024**
 SHEET TITLE: **ROOF PLAN - HVAC**

SHEET NO:
M103

Swygert & Associates
CONSULTING ENGINEERS
DBA Swygert & Assoc., Ltd. Telephone: (803) 791-9300
Post Office Box 11666 Fax: (803) 791-6830
Columbia, S.C. 29211 mail@swygert-associates.com