Report By:

National TAB
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Report: INITIAL REPORT

Function: Test, Adjust, & Balance

Date: 03/10/2026

Completed By: National TAB

PROJECT

03-09-26 Culvers - Brooklyn, OH

5080 Tiedeman Rd

Brooklyn, OH 44144

Client

Accurex

PO Box 410

Schofield, WI 54476

National TAB

Project: 03-09-26 Culvers - Brooklyn, OH

Table Of Contents

Project Summary

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.

Kitchen Exhaust Hood & Associated Fans
Each kitchen exhaust fan was measured at the hood filter bay utilizing a velocity matrix and a manufacturer's correction factor. Each filter velocity is multiplied by the manufacturer's corrected area. The sum of these readings equals the total flow of the exhaust fans. The total flow of the exhaust was then adjusted to within tolerance of the design flow. Any EF's that fell outside of this 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 of -0.02" wc to +0.02" wc and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report. The hood capture was tested at the perimeter of the hood and the cook top level with the equipment heat on to ensure satisfactory hood capture and containment.

CheckList List

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

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CheckList Information

Name :	STEP 1: INITIAL WALKTHROUGH	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/10/2026 - Natasha Louw - National TAB		

CheckList Item Details

INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design?

Comment:

Perforated diffusers are installed on the cook line? (4-ways will disrupt hood capture)

Comment:

All hood filters installed and accounted for?

Comment:

Hoods are wired and have power?

Comment:

Thermostats have power?

Comment:

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

Comment:

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CheckList Information

Name :	STEP 2: UNIT DATA AND EVAL	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/10/2026 - Natasha Louw - 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?

Comment:

Thermostat wire run from OCP on the RTU to the Ec terminal at the thermostat? If no, jumper can be installed from R to OCP temporarily. (The economizers will not open without OCP being energized.)

Comment:

Motors are all operating below the FLA rating?

Comment:

Are belts tight?

Comment:

If direct drive unit is the speed controller working.

Comment:

Is gas piping installed and valves turned on?

Comment:

Unit free of noticeable noise and vibration

Comment:

EF's

Rotation is correct?

Comment:

Belts are tight?

Comment:

Grease cup installed on hood fan?

Comment:

Hinge kit installed installed on hood fan?

Comment:

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

Comment:

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

Comment:

There is no major leakage around base of fan?

Comment:

Is the motor operating below the motor FLA rating?

Comment:

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

Comment:

Unit free of noticeable noise and vibration?

Comment:

The hood exhaust fans are installed in correct positions and are not switched?

Comment:

HOODS

Kitchen equipment installed in proper places?

Comment:

Can kitchen equipment be turned on for final smoke test?

Comment:

Second stage Grease Grabber filters are installed on the griddle hood?

Comment:

DOCUMENTATION

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

Comment:

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CheckList Information

Name :	STEP 3: TEST, ADJUST AND BALANCE	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/10/2026 - Natasha Louw - National TAB		

CheckList Item Details

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting?

Comment:

Is space comfortable in all areas?

Comment:

Is the space free of ventilation noise?

Comment:

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

Comment:

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CheckList Information

Name :	STEP 4: FINAL TESTS	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/10/2026 - Natasha Louw - National TAB		

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

List smoke candle type used

Comment:

Smoke test capture - Perimeter of hood

Comment:

Smoke test capture - Top of cooking surface

Comment:

WITNESS

Date test was completed

Comment:

TAB tech name / Firm

Comment:

Site super name / Firm

Comment:

Owner representative name / Firm (if Applicable)

Comment:

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

Comment:

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:

Thermostats are programmed?

Comment:

PRODIGY SETTINGS FOR RTU'S

Parameter 65 set to 0

Comment:

Parameter 78 set to 0

Comment:

Parameter 105 set to 6

Comment:

Parameter 156 set to 70 (Dining unit only)

Comment:

Parameter 156 set to 65 (Kitchen Unit Only)

Comment:

Parameter 170 set to 75 (Dining Unit Only)

Comment:

Parameter 170 set to 70 (Kitchen Unit Only)

Comment:

Parameter 131 set to the same % as OA minimum position?

Comment:

Parameter 117 set to the same % as OA minimum position?

Comment:

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CheckList Information

Name :	STEP 5: FINAL DOCUMENTATION	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/10/2026 - Natasha Louw - National TAB		

CheckList Item Details

FINAL DOCUMENTATION

Marked Data capture complete for all assets?

Comment:

Picture file sent to processing team or uploaded?

Comment:

Balance schedule complete and uploaded?

Comment:

Prelim report generated and reviewed?

Comment:

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Project: 03-09-26 Culvers - Brooklyn, OH

System/Unit: AHU/RTU

Asset: RTU1 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	ACCUREX	LENNOX
Serial Num	-	5625L03497
Model Num	XRT-70-15L-G-G0	LGT240H5MS1Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	3
OA Filter Size 1	-	25”X13”
Num Final Filter 1	-	6
Final Filter Size 1	-	24”X24”X2”

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTORS
Frame	-	184TZ
Horsepower	5.0	5.0
Motor Rpm	1800	1765
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	13.0

Drive Data	
	Actual
Motor Sheave Size	4.125”
Motor Bore Size	1”
Motor Sheave SetPt	3 TURNS OUT
Fan Sheave Size	8.125”
Fan Sheave Bore	1”
Belt CL Distance	20”
Num of Belts	1
Belt Size	BX61
Belt Alignment	GOOD

Test Data		
	Design	**Actual**
SF CFM	6150	
SF RPM	2503	979
RA CFM	4400	
OA CFM	1750	1802
RL Voltage	-	214/215/216
RL Amperage	-	12.18 VFD
SF Rotation	-	CCW
SF System SetPt	-	74 HZ
Min OA Damper Position	-	42%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	10 mA

Performance Data	
	Actual
MA Plenum SP	-0.47”
Fan Suction SP	-1.36”
Fan Discharge SP	0.66”
Total ESP	1.13"
Fan Total SP	2.02"

General	
	Actual
Fan Rotation Correct	PASS
Unit Filters Clean	FAIL
Condensate Drain Installed	PASS

Unit Data - PHOTO LOG

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Project:03-09-26 Culvers - Brooklyn, 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	ENTRANCE	SD-3	8"	150	1	134			-
SGRD2	RESTROOM	SD-4	8"	150	1	96			-
SGRD3	RESTROOM	SD-4	8"	150	1	92			-
SGRD4	DINING	SD-1	12"	450	1	269			-
SGRD5	DINING	SD-1	8"	150	1	164			-
SGRD6	DINING	SD-1	8"	150	1	177			-
SGRD7	DINING	SD-1	8"	150	1	147			-
SGRD8	DINING	SD-1	8"	150	1	89			-
SGRD9	DINING	SD-1	8"	150	1	117			-
SGRD10	DINING	SD-1	8"	150	1	129			-
SGRD11	DINING	SD-1	8"	150	1	135			-
SGRD12	DINING	SD-1	8"	150	1	119			-
SGRD13	DINING	SD-1	8"	150	1	185			-
SGRD14	DINING	SD-1	8"	150	1	206			-
SGRD15	DINING	SD-1	8"	150	1	123			-
SGRD16	DINING	SD-1	8"	150	1	104			-
SGRD17	DINING	SD-1	8"	150	1	156			-
SGRD18	DINING	SD-1	8"	150	1	129			-
SGRD19	DINING	SD-1	8"	150	1	143			-
SGRD20	DINING	SD-1	10"	300	1	95			-
SGRD21	DINING	SD-1	8"	150	1	228			-
SGRD22	DINING	SD-1	12"	450	1	170			-
SGRD23	SERVICE AREA	SD-1	10"	350	1	253			-
SGRD24	SERVICE AREA	SD-1	10"	350	1	240			-
SGRD25	SERVICE AREA	SD-1	10"	350	1	199			-
SGRD26	SERVICE AREA	SD-1	10"	350	1	188			-
SGRD27	DRIVE-TRHU	SD-1	12"	500	1	288			-
SGRD28	OFFICE	SD-1	8"	200	1	128			-
Total				6150		4503	0	0	0%

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System/Unit: AHU/RTU

Asset: RTU2 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	ACCUREX	LENNOX
Serial Num	-	5625L03496
Model Num	XRT-70-15L-G-G0	LGT240H5MS1Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	3
OA Filter Size 1	-	25"X13"
Num Final Filter 1	-	6
Final Filter Size 1	-	24"X24"X2"

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTORS
Frame	-	184TZ
Horsepower	5.0	5.0
Motor Rpm	1800	1765
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	13.0

Drive Data	
	Actual
Motor Sheave Size	4.125"
Motor Bore Size	1"
Motor Sheave SetPt	3 TURNS OUT
Fan Sheave Size	8.125"
Fan Sheave Bore	1"
Belt CL Distance	20"
Num of Belts	1
Belt Size	BX61
Belt Alignment	GOOD

Test Data		
	Design	**Actual**
SF CFM	6150	
SF RPM	2503	
RA CFM	4450	
OA CFM	1700	1756
RL Voltage	-	215/213/214
RL Amperage	-	10.59 VFD
SF Rotation	-	CCW
SF System SetPt	-	64 HZ
Min OA Damper Position	-	38%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	10 mA

Performance Data	
	Actual
MA Plenum SP	-0.35”
Fan Suction SP	-0.84”
Fan Discharge SP	0.52”
Total ESP	0.87"
Fan Total SP	1.36"

General	
	Actual
Fan Rotation Correct	GOOD
Unit Filters Clean	FAIL
Condensate Drain Installed	GOOD

Unit Data - PHOTO LOG

03/11/2026

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Project:03-09-26 Culvers - Brooklyn, 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	DRIVE-THRU	SD-1	12"	600	1	534		534	89.0
SGRD2	DRIVE-THRU	SD-1	12"	600	1	493		493	82.2
SGRD3	KITCHEN	SD-5	8"	200	1	204		204	102.0
SGRD4	KITCHEN	SD-5	12"	375	1	783		783	208.8
SGRD5	KITCHEN	SD-5	12"	400	1	371		371	92.8
SGRD6	KITCHEN	SD-5	12"	400	1	397		397	99.3
SGRD7	KITCHEN	SD-5	10"	250	1	344		344	137.6
SGRD8	KITCHEN	SD-5	10"	275	1	433		433	157.5
SGRD9	KITCHEN	SD-5	8"	125	1	266		266	212.8
SGRD10	RESTROOM	SD-1	6"	75	1	128		128	170.7
SGRD11	KITCHEN	SD-5	12"	350	1	593		593	169.4
SGRD12	KITCHEN	SD-5	12"	350	1	436		436	124.6
SGRD13	KITCHEN	SD-5	12"	350	1	520		520	148.6
SGRD14	DRY GOODS	SD-1	12"	600	1	457		457	76.2
SGRD15	DRY GOODS	SD-1	12"	600	1	521		521	86.8
SGRD16	UTILITY ROOM	SD-1	12"	600	1	585		585	97.5
Total				6150		7065	0	7065	114.88%

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System/Unit: FAN - Exhaust

Asset: EF1 AREA:MOP ROOM

Unit Data		
	Design	**Actual**
MFG	ACCUREX	GREENHECK
Model Num	XCR-B80	SP-B80
Serial Num	-	28149193
Type	CEILING	CEILING

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Horsepower	0	NL
Motor Rpm	-	900
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.16

Test Data		
	Design	**Actual**
CFM	75	71
Fan RPM	881	900
System SetPt	-	MAX
RL Voltage	-	115
RL Amperage	-	0.1
Fan Inlet SP	-	NA
Fan Discharge SP	-	ATM

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Unit Data - PHOTO LOG

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Project:03-09-26 Culvers - Brooklyn, OH

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF1/MOP ROOM

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	MOP ROOM	EF-1A	6"	75					-
Total				75		0	0	0	0%

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Project: 03-09-26 Culvers - Brooklyn, OH

System/Unit: FAN - Exhaust

Asset: PRV1 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRED-090-VG	XRED-090-VG
Serial Num	-	28153660
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Horsepower	0.1	0.1
Motor Rpm	-	1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.38

Test Data		
	Design	**Actual**
CFM	375	388
Fan Rotation	-	CW
Motor RPM	-	1312
System SetPt	-	75%
RL Voltage	-	115
RL Amperage	-	1.2
Total ESP	0.50"	0.44”
Fan Inlet SP	-	-0.44”
Fan Discharge SP	-	ATM

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Unit Data - PHOTO LOG

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FAN - Exhaust

Diffuser Ret/Exh (GRD)

PRV1/RESTROOM

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	RESTROOM	EG-1	8X8	150	1	232	162	162	108.0
EGRD2	RESTROOM	EG-1	8X8	150	1	212	155	155	103.3
EGRD3	RESTROOM	EG-1	8X8	75	1	91	71	71	94.7
Total				375		535	388	388	103.47%

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System/Unit: FAN - Exhaust

Asset: PRV2 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XCUE-140-VG	XCUE-140-VG
Serial Num	-	281660118
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Horsepower	1.0	1.0
Motor Rpm	-	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	11.5

Test Data		
	Design	**Actual**
CFM	1500	1542
Fan Rotation	-	CW
Motor RPM	-	1138
System SetPt	-	6.6 VDC
RL Voltage	-	115
RL Amperage	-	3.8
Total ESP	1.80"	0.41"
Fan Inlet SP	-	-0.41"
Fan Discharge SP	-	ATM

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Unit Data - PHOTO LOG

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Project: 03-09-26 Culvers - Brooklyn, OH

System/Unit: FAN - Exhaust

Asset: PRV3 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XCUE-140-VG	XCUE-140-VG
Serial Num	-	281660119
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Horsepower	1.0	1.0
Motor Rpm	-	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	11.5

Test Data		
	Design	**Actual**
CFM	1500	1637
Fan Rotation	-	CW
Motor RPM	-	1121
System SetPt	-	6.5 VDC
RL Voltage	-	115
RL Amperage	-	3.7
Total ESP	1.0"	0.45"
Fan Inlet SP	-	-0.45"
Fan Discharge SP	-	ATM

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Unit Data - PHOTO LOG

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Project: 03-09-26 Culvers - Brooklyn, OH

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XXEC-64-S	XXEC-64-S
Job / Serial Num	-	28157423
Type	TYPE 1 CANOPY	TYPE I LOW PROXIMITY
Hood length	64"	64"
Hood Width	30"	26"

Test Data Exhaust		
	Design	**Actual**
Filter Type	X-TRACTOR	X-TRACTOR
Filter Size 1	16X16	16"X16"
Filter Qty 1	4	4
Filter AK factor size 1	1.53	1.53
Filter Total AK Area	6.12	6.12
Filter1 FPM	-	278
Filter2 FPM	-	228
Filter3 FPM	-	239
Filter4 FPM	-	265
Filter Ave FPM(corr)	-	252
CFM	1500	1542

Cooking Equipment	
	Actual
Item 1	GRIDDLE

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Unit Data - PHOTO LOG

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Project: 03-09-26 Culvers - Brooklyn, OH

System/Unit: Kitchen Hood Type I

Asset: HD2 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XXEC-83-S	XXEC-83-S
Job / Serial Num	-	28157422
Type	TYPE 1 CANOPY	TYPE I LOW PROXIMITY
Hood length	83"	83"
Hood Width	30"	26"

Test Data Exhaust		
	Design	**Actual**
Filter Type	X-TRACTOR	X-TRACTOR
Filter Size 1	16X16	16"X16"
Filter Qty 1	5	5
Filter AK factor size 1	1.53	1.53
Filter Total AK Area	7.65	7.65
Filter1 FPM	-	233
Filter2 FPM	-	214
Filter3 FPM	-	211
Filter4 FPM	-	180
Filter5 FPM	-	232
Filter Ave FPM(corr)	-	214
CFM	1500	1637

Cooking Equipment	
	Actual
Item 1	FRYER

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Unit Data - PHOTO LOG

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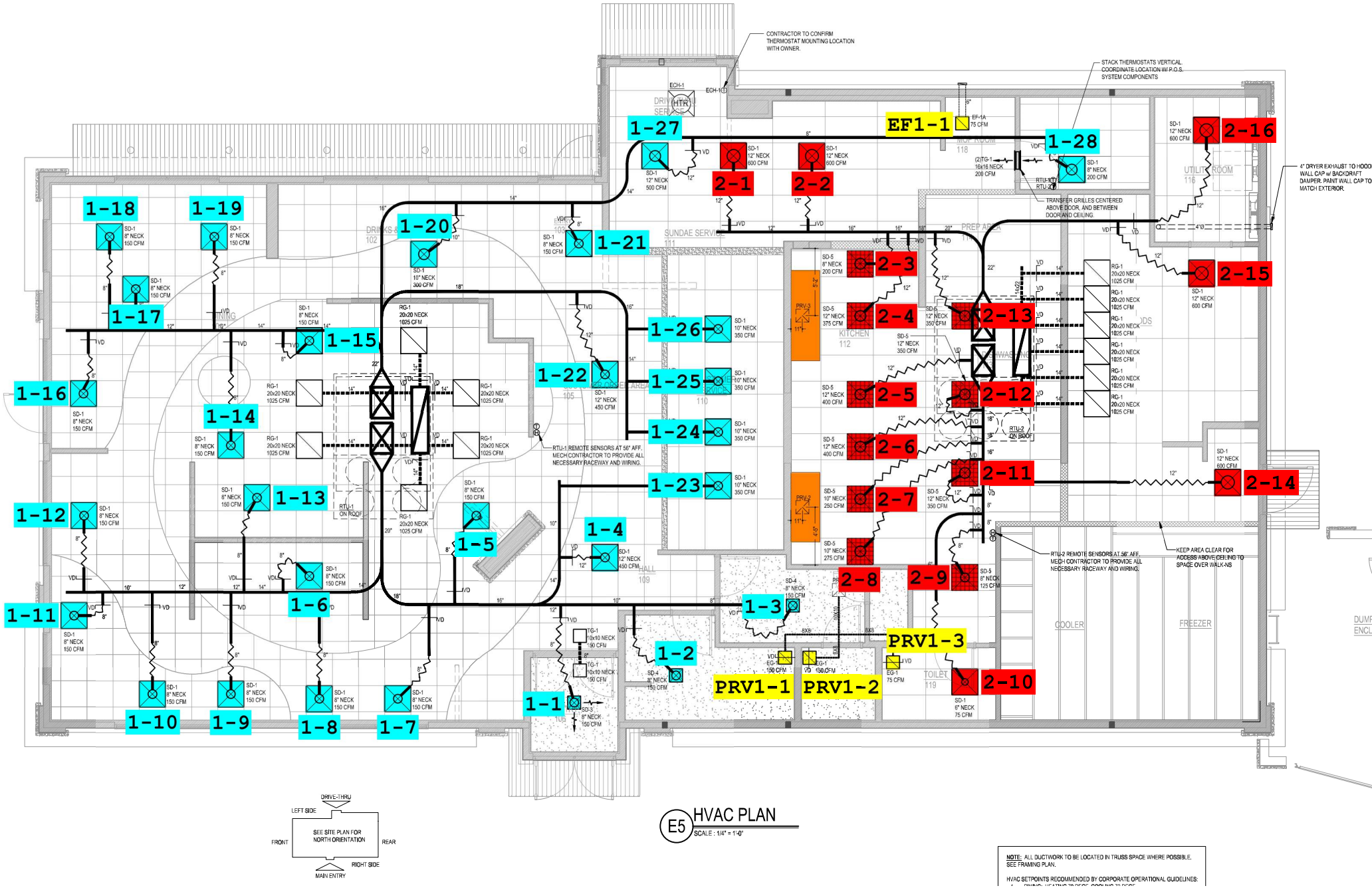

E5 HVAC PLAN
SCALE : 1/4" = 1'-0"

NOTE: ALL DUCTWORK TO BE LOCATED IN TRUSS SPACE WHERE POSSIBLE. SEE FRAMING PLAN.

HVAC SETPOINTS RECOMMENDED BY CORPORATE OPERATIONAL GUIDELINES: