**Report By:**

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

NATIONAL TAB

Comfort. Under control.

**Report: TAB REPORT**
**Function: Test, Adjust, & Balance**
**Date: 6/30/2022**

# PROJECT

## 06-27 FAMILY DOLLAR - JASPER, AR

409 COURT ST

JASPER, AR

**Client**

Oliphant Heating
208 WOLLARD BLVD

RICHMOND, MO

# National TAB

**Project: 06-27 FAMILY DOLLAR - JASPER, AR**

## Table Of Contents

Preface

The summary below provides a quick understanding of how well your HVAC systems balanced in respect to the design criteria. The summary concludes with a quick understanding of your building environment and possible suggestions for each of your systems after testing has been performed. 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. Our focus is 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. Also, enclosed are pictures of building assets and items listed below that will provide your team with more insight.

Facility Identification and TAB Requirements

The mechanical equipment to be tested, adjusted, and balanced includes: All Roof Top Units (RTU), All Exhaust Fans (EF), and all associated air devices.

RTU's

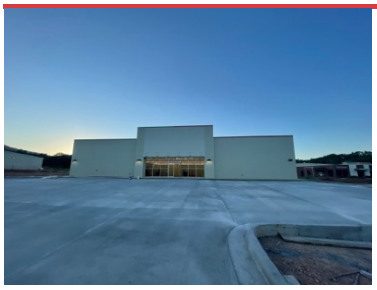
Each of the RTU's were measured at their terminal devices utilizing a flow hood. The sum of these readings is equal to the total flow for that particular unit. The total flow of each RTU was then adjusted to +/-10% of the specified design. Each terminal diffuser was balanced to within +/-10% of the engineer's design volume utilizing the provided hand damper located at the takeoff of the main & branch trunk line(s). Any equipment that fell outside of this tolerance is noted throughout the report.

General Exhaust Fans

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 +/-10% of design. Each terminal device was balanced to within +/-10% 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 recorded at____" W.C. average. The building is designed for a net positive pressure and this measurement does coincides with that requirement.



**STOREFRONT**

**ROOFTOP**

**RTU1**

Unit picture

**RTU2**

Unit picture

**RTU3**

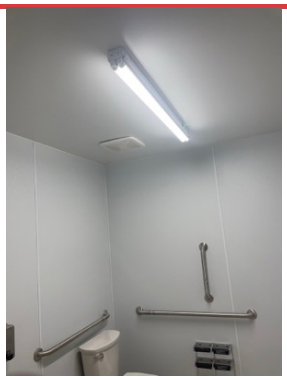
Unit picture

**RTU4**

Unit picture

**EF1**

Unit picture



**EF2**

Unit picture

NATIONAL TAB

## AIR BALANCE SCHEDULE

| UNIT | AREA SERVED | HVAC SUPPLY | | HVAC RETURN | | HVAC OUTDOOR | | OA % | | HOOD MAKE-UP | | HOOD EXHAUST | | GENERAL EXH. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DESIGN | ACTUAL | DESIGN | ACTUAL | DESIGN | ACTUAL | DESIGN | ACTUAL | DESIGN | ACTUAL | DESIGN | ACTUAL | DESIGN | ACTUAL |
| RTU-1 | STORAGE | 1400 | 1291 | 1250 | 1139 | 150 | 152 | 10.7% | 11.8% | | | | | | |
| RTU-2 | WEST SALES | 2800 | 2970 | 2150 | 2317 | 650 | 653 | 23.2% | 22.0% | | | | | | |
| RTU-3 | EAST SALES | 2800 | 2867 | 2150 | 2216 | 650 | 651 | 23.2% | 22.7% | | | | | | |
| RTU-4 | SOUTH SALES | 3500 | 3802 | 2725 | 3021 | 775 | 781 | 22.1% | 20.5% | | | | | | |
| EF-1 | RESTROOM | | | | | | | | | | | | | 75 | 72 |
| EF-2 | RESTROOM | | | | | | | | | | | | | 75 | 81 |
| **TOTALS** | | 10500 | 10930 | 8275 | 8693 | 2225 | 2237 | | | 0 | 0 | 0 | 0 | 150 | 153 |

**NET BUILDING AIRFLOW CALCULATION**

| TOTALS | DESIGN | ACTUAL |
|---|---|---|
| TOTAL OA | 2225 | 2237 |
| TOTAL EXHAUST | 150 | 153 |
| **NET AIRFLOW** | 2075 | 2084 |

| DOOR TESTED | BUILDING PRESSURE MEASUREMENTS (IN. H20) |
|---|---|
| FRONT | 0.012 |
| SIDE | NA |
| REAR | 0.015 |
| **AVERAGE** | **0.0135** |

**FINAL CHECKS**

ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✔

MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✔

PRESSURE FALLS WITHIN IMC TOLERANCE OF +/-0.02" W.C. ✔

NOTES:

# National TAB

**Project: 06-27 FAMILY DOLLAR - JASPER, AR**

## System/Unit: AHU/RTU

Comfort. Under control.

**Asset: RTU1** AREA:STORAGE

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | CARRIER | CARRIER |
| **Serial Num** | - | 1522C09728 |
| **Model Num** | HC | 48GCEM05F2M5A6F0C0 |
| **Type** | - | RTU |
| **Configuration** | - | VERTICAL |
| **Num OA Filters 1** | - | 1 METAL MESH |
| **OA Filter Size 1** | - | 14X28 |
| **Num Final Filter 1** | - | 2 |
| **Final Filter Size 1** | - | 16X25X2 |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | [1] |
| **Frame** | - | [1] |
| **Horsepower** | - | [1] |
| **Motor Rpm** | - | [1] |
| **Phase** | 3 | [1] 1 |
| **Rated Voltage** | 208 | [1] 208/230 |
| **Rated Amperage** | - | [1] 7.1 |

| Drive Data | | |
|---|---|---|
| | **Design** | **Actual** |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **SF CFM** | 1400 | 1291 |
| **SF RPM** | - | 1534 |
| **RA CFM** | 1250 | 1139 |
| **OA CFM** | 150 | 152 |
| **RL Voltage** | - | 210/210/211 |
| **RL Amperage** | - | 2.9/3.4/3.5 |
| **SF Rotation** | - | CCW |
| **RA Damper Position** | - | 3.15V |
| **Min OA Damper Position** | - | 14% |
| **Min OA Damper Type** | - | ECONOMIZER |
| **OA Enthalpy Setpt** | - | ES5 |

| Performance Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MA Plenum SP** | - | -0.27" |
| **Fan Suction SP** | - | -0.40" |
| **Fan Discharge SP** | - | 0.15 |
| **Total ESP** | 1.0" | 0.37" |
| **Fan Total SP** | - | 0.55" |

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

Completed By: Jacob Davidson

Notes:[1] MOTOR LABEL NOT ACCESSIBLE. INFORMATION TAKEN FROM UNIT LABEL MOTOR SPEED SET AT POSITION A 6.9DCV 90%

# National TAB

**Project:06-27 FAMILY DOLLAR - JASPER, AR**

## AHU/RTU

Comfort. Under control.

### Diffuser Supply (GRD)

**RTU1/STORAGE**

| Asset | | | | | | | |
|---|---|---|---|---|---|---|---|
| SGRD1 | **Location** | **Type** | **Size** | **DESIGN CFM** | **AK** | **CFM(1)** | **CFM(2)** |
| | STORAGE | D | 14X6 | 275 | 0.785 | 369 | 341 |
| | **FINAL CFM** | **% to design** | | | | | |
| | 265 | 96.4 | | | | | |
| SGRD2 | **Location** | **Type** | **Size** | **DESIGN CFM** | **AK** | **CFM(1)** | **CFM(2)** |
| | STORAGE | D | 14X6 | 275 | 0.785 | 259 | 309 |
| | **FINAL CFM** | **% to design** | | | | | |
| | 248 | 90.2 | | | | | |
| SGRD3 | **Location** | **Type** | **Size** | **DESIGN CFM** | **AK** | **CFM(1)** | **CFM(2)** |
| | STORAGE | D | 14X6 | 275 | 0.785 | 234 | 258 |
| | **FINAL CFM** | **% to design** | | | | | |
| | 203 | 73.8 | | | | | |
| SGRD4 | **Location** | **Type** | **Size** | **DESIGN CFM** | **AK** | **CFM(1)** | **CFM(2)** |
| | STORAGE | D | 14X6 | 275 | 0.785 | 241 | 349 |
| | **FINAL CFM** | **% to design** | | | | | |
| | 271 | 98.5 | | | | | |
| SGRD5 | **Location** | **Type** | **Size** | **DESIGN CFM** | **AK** | **CFM(1)** | **CFM(2)** |
| | OFFICE | A | 8" | 100 | 1 | 198 | 134 |
| | **FINAL CFM** | **% to design** | | | | | |
| | 104 | 104.0 | | | | | |
| SGRD6 | **Location** | **Type** | **Size** | **DESIGN CFM** | **AK** | **CFM(1)** | **CFM(2)** |
| | RESTROOM | C | 8" | 50 | 1 | 212 | 73 |
| | **FINAL CFM** | **% to design** | | | | | |
| | 54 | 108.0 | | | | | |
| SGRD7 | **Location** | **Type** | **Size** | **DESIGN CFM** | **AK** | **CFM(1)** | **CFM(2)** |
| | RESTROOM HALL | A | 8" | 100 | 1 | 196 | 120 |
| | **FINAL CFM** | **% to design** | | | | | |
| | 93 | 93.0 | | | | | |
| SGRD8 | **Location** | **Type** | **Size** | **DESIGN CFM** | **AK** | **CFM(1)** | **CFM(2)** |
| | RESTROOM | C | 8" | 50 | 1 | 182 | 71 |
| | **FINAL CFM** | **% to design** | | | | | |
| | 53 | 106.0 | | | | | |

**Completed By:Jacob Davidson on**

| Asset | Notes |
|---|---|
| RTU1 | [1] MOTOR LABEL NOT ACCESSIBLE. INFORMATION TAKEN FROM UNIT LABEL MOTOR SPEED SET AT POSITION A 6.9DCV 90% |

# National TAB

**Project: 06-27 FAMILY DOLLAR - JASPER, AR**

## System/Unit: AHU/RTU

Comfort. Under control.

**Asset: RTU2** AREA:WEST SALES

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | CARRIER | CARRIER |
| **Serial Num** | - | 1622P80757 |
| **Model Num** | HC | 48HCED08F2M5A6F0J0 |
| **Type** | - | RTU |
| **Configuration** | - | VERTICAL |
| **Num OA Filters 1** | - | 1 |
| **OA Filter Size 1** | - | 19.25X35 |
| **Num Final Filter 1** | - | 4 |
| **Final Filter Size 1** | - | 20X20X2 |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | MARATHON |
| **Frame** | - | 56HZ |
| **Horsepower** | - | NL |
| **Motor Rpm** | - | 1670 |
| **Phase** | 3 | 3 |
| **Rated Voltage** | 208 | 208-230/460 |
| **Rated Amperage** | - | 6.7-6.6/3.3 |

| Drive Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor Sheave Size** | - | 4" |
| **Motor Bore Size** | - | 5/8" |
| **Motor Sheave SetPt** | - | 5 TURNS OUT |
| **Fan Sheave Size** | - | 7" |
| **Fan Sheave Bore** | - | 1" |
| **Belt CL Distance** | - | 16.75" |
| **Num of Belts** | - | 1 |
| **Belt Size** | - | A48 |
| **Belt Alignment** | - | VERIFIED |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **SF CFM** | 2800 | 2970 |
| **SF RPM** | - | 722 |
| **RA CFM** | 2150 | 2317 |
| **OA CFM** | 650 | 653 |
| **RL Voltage** | - | 208/209/209 |
| **RL Amperage** | - | 3.2/3.5/3.9 |
| **SF Rotation** | - | CCW |
| **RA Damper Position** | - | 4.0V HIGH<br>4.85V LOW |
| **Min OA Damper Position** | - | 25% HIGH<br>35% LOW |
| **Min OA Damper Type** | - | ECONOMIZER |
| **OA Enthalpy Setpt** | - | ES5 |

| Performance Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MA Plenum SP** | - | -0.43" |
| **Fan Suction SP** | - | -0.56" |
| **Fan Discharge SP** | - | 0.39" |
| **Total ESP** | 1.0" | 0.82" |
| **Fan Total SP** | - | 0.95" |

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

Completed By: Jacob Davidson

Notes:

# National TAB

**Project:06-27 FAMILY DOLLAR - JASPER, AR**

## AHU/RTU

Comfort. Under control.

### Diffuser Supply (GRD)

**RTU2/WEST SALES**

| Asset | | | | | | | |
|---|---|---|---|---|---|---|---|
| SGRD1 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 350 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 400 | | 388 | 367 | 104.9 | |
| SGRD2 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 350 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 317 | | 366 | 346 | 98.9 | |
| SGRD3 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 350 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 472 | | 412 | 384 | 109.7 | |
| SGRD4 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 350 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 452 | | 394 | 373 | 106.6 | |
| SGRD5 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 350 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 432 | | 405 | 383 | 109.4 | |
| SGRD6 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 350 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 353 | | 384 | 363 | 103.7 | |
| SGRD7 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 350 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 412 | | 412 | 384 | 109.7 | |
| SGRD8 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 350 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 389 | | 391 | 370 | 105.7 | |

**Completed By:Jacob Davidson on**

| Asset | Notes |
|---|---|

# National TAB

**Project: 06-27 FAMILY DOLLAR - JASPER, AR**

## System/Unit: AHU/RTU

Comfort. Under control.

**Asset: RTU3** AREA:EAST SALES

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | CARRIER | CARRIER |
| **Serial Num** | - | 1622P80758 |
| **Model Num** | HC | 48HCED08F2M5A6F0J0 |
| **Type** | - | RTU |
| **Configuration** | - | VERTICAL |
| **Num OA Filters 1** | - | 1 |
| **OA Filter Size 1** | - | 19.25X35 |
| **Num Final Filter 1** | - | 4 |
| **Final Filter Size 1** | - | 20X20X2 |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | MARATHON |
| **Frame** | - | 56HZ |
| **Horsepower** | - | NL |
| **Motor Rpm** | - | 1670 |
| **Phase** | 3 | 3 |
| **Rated Voltage** | 208 | 208-230/460 |
| **Rated Amperage** | - | 6.7-6.6/3.3 |

| Drive Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor Sheave Size** | - | 4" |
| **Motor Bore Size** | - | 5/8" |
| **Motor Sheave SetPt** | - | 5 TURNS OUT |
| **Fan Sheave Size** | - | 7" |
| **Fan Sheave Bore** | - | 1" |
| **Belt CL Distance** | - | 16.75" |
| **Num of Belts** | - | 1 |
| **Belt Size** | - | A48 |
| **Belt Alignment** | - | VERIFIED |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **SF CFM** | 2800 | 2867 |
| **SF RPM** | - | 721 |
| **RA CFM** | 2150 | 2216 |
| **OA CFM** | 650 | 651 |
| **RL Voltage** | - | 209/209/210 |
| **RL Amperage** | - | 3.0/3.2/3.6 |
| **SF Rotation** | - | CCW |
| **RA Damper Position** | - | 3.4V HIGH<br>4.3V LOW |
| **Min OA Damper Position** | - | 17% HIGH<br>28% LOW |
| **Min OA Damper Type** | - | ECONOMIZER |
| **OA Enthalpy Setpt** | - | ES5 |

| Performance Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MA Plenum SP** | - | -0.44" |
| **Fan Suction SP** | - | -0.69" |
| **Fan Discharge SP** | - | 0.37" |
| **Total ESP** | 1.0" | 0.81" |
| **Fan Total SP** | - | 1.06" |

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

Completed By: Jacob Davidson

Notes:

# National TAB

**Project:06-27 FAMILY DOLLAR - JASPER, AR**

## AHU/RTU

Comfort. Under control.

### Diffuser Supply (GRD)

**RTU3/EAST SALES**

| Asset | | | | | | | |
|---|---|---|---|---|---|---|---|
| SGRD1 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 350 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 383 | | 381 | 360 | 102.9 | |
| SGRD2 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 350 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 385 | | 386 | 364 | 104.0 | |
| SGRD3 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 350 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 382 | | 382 | 361 | 103.1 | |
| SGRD4 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 350 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 385 | | 384 | 363 | 103.7 | |
| SGRD5 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 350 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 364 | | 366 | 346 | 98.9 | |
| SGRD6 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 350 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 376 | | 376 | 355 | 101.4 | |
| SGRD7 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 350 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 392 | | 388 | 367 | 104.9 | |
| SGRD8 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 350 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 373 | | 371 | 351 | 100.3 | |

**Completed By:Jacob Davidson on**

| Asset | Notes |
|---|---|

# National TAB

**Project: 06-27 FAMILY DOLLAR - JASPER, AR**

## System/Unit: AHU/RTU

Comfort. Under control.

**Asset: RTU4** AREA:SOUTH SALES

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | CARRIER | CARRIER |
| **Serial Num** | - | 1622P80628 |
| **Model Num** | HC | 48HCED11F2M5A6F0J0 |
| **Type** | - | RTU |
| **Configuration** | - | VERTICAL |
| **Num OA Filters 1** | - | 1 METAL MESH |
| **OA Filter Size 1** | - | 19.25X35 |
| **Num Final Filter 1** | - | 4 |
| **Final Filter Size 1** | - | 20X20X2 |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | MARATHON |
| **Frame** | - | 56HZ |
| **Horsepower** | - | NL |
| **Motor Rpm** | - | 1750 |
| **Phase** | 3 | 3 |
| **Rated Voltage** | 208 | 230/460 |
| **Rated Amperage** | - | 9.2/4.6 |

| Drive Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor Sheave Size** | - | 4.75" |
| **Motor Bore Size** | - | 7/8" |
| **Motor Sheave SetPt** | - | 5 TURNS OUT |
| **Fan Sheave Size** | - | 7" |
| **Fan Sheave Bore** | - | 1" |
| **Belt CL Distance** | - | 17" |
| **Num of Belts** | - | 1 |
| **Belt Size** | - | AX49 |
| **Belt Alignment** | - | VERIFIED |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **SF CFM** | 3500 | 3802 |
| **SF RPM** | - | 848 |
| **RA CFM** | 2725 | 3021 |
| **OA CFM** | 775 | 781 |
| **RL Voltage** | - | 204/204/205 |
| **RL Amperage** | - | 4.9/5.4/6.0 |
| **SF Rotation** | - | CCW |
| **RA Damper Position** | - | 4.1V HIGH 5.1V LOW |
| **Min OA Damper Position** | - | 26% HIGH 38% LOW |
| **Min OA Damper Type** | - | ECONOMIZER |
| **OA Enthalpy Setpt** | - | ES5 |

| Performance Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MA Plenum SP** | - | -0.68" |
| **Fan Suction SP** | - | -0.89" |
| **Fan Discharge SP** | - | 0.34" |
| **Total ESP** | 1.0" | 1.02" |
| **Fan Total SP** | - | 1.23" |

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

Completed By: Jacob Davidson

Notes:

# National TAB

**Project:06-27 FAMILY DOLLAR - JASPER, AR**

## AHU/RTU

Comfort. Under control.

### Diffuser Supply (GRD)

**RTU4/SOUTH SALES**

| Asset | | | | | | | |
|---|---|---|---|---|---|---|---|
| SGRD1 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 440 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 431 | | 490 | 467 | 106.1 | |
| SGRD2 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 440 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 440 | | 507 | 484 | 110.0 | |
| SGRD3 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 435 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 557 | | 493 | 470 | 108.0 | |
| SGRD4 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 435 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 589 | | 504 | 481 | 110.6 | |
| SGRD5 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 435 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 546 | | 490 | 467 | 107.4 | |
| SGRD6 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 435 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 539 | | 501 | 478 | 109.9 | |
| SGRD7 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 440 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 441 | | 497 | 474 | 107.7 | |
| SGRD8 | **Location** | **Type** | **MFG** | **Size** | **Model Num** | **DESIGN CFM** | **AK** |
| | SALES | B | SUPPLY | 12" | NA | 440 | 1 |
| | **VEL(1)** | **CFM(1)** | **VEL(2)** | **CFM(2)** | **FINAL CFM** | **% to design** | |
| | | 440 | | 504 | 481 | 109.3 | |

**Completed By:Jacob Davidson on**

| Asset | Notes |
|---|---|

# National TAB

**Project: 06-27 FAMILY DOLLAR - JASPER, AR**

## System/Unit: FAN - Exhaust

Comfort. Under control.

**Asset: EF1** AREA:RESTROOM

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | GREENHECK | BROAN |
| **Model Num** | SP-B110 | LP80-B |
| **Serial Num** | - | NL |
| **Type** | CEILING | CEILING |
| **Configuration** | VERTICAL | VERTICAL |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | BROAN |
| **Frame** | - | NL |
| **Horsepower** | 80W | NL |
| **Motor Rpm** | - | NL |
| **Phase** | 1 | 1 |
| **Voltage (rated)** | 120 | 120 |
| **Amperage (rated)** | - | 0.3 |
| **Service Factor** | - | 1 |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **CFM** | 75 | 72 |
| **Fan RPM** | - | UTO |
| **Fan Rotation** | - | CW |
| **Motor RPM** | - | NA |
| **System SetPt** | - | NA |
| **RL Voltage** | - | 123 |
| **RL Amperage** | - | 0.19 |
| **Total ESP** | 0.25" | UTO |
| **Fan Inlet SP** | - | UTO |
| **Fan Discharge SP** | - | UTO |

Completed By: Jacob Davidson

Notes:HARD CEILING MOUNTED SINGLE SPEED FAN

| Asset | Notes |
|---|---|

# National TAB

**Project: 06-27 FAMILY DOLLAR - JASPER, AR**

## System/Unit: FAN - Exhaust

Comfort. Under control.

**Asset: EF2** AREA:RESTROOM

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | GREENHECK | BROAN |
| **Model Num** | SP-B110 | LP80-B |
| **Serial Num** | - | NL |
| **Type** | CEILING | CEILING |
| **Configuration** | VERTICAL | VERTICAL |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | BROAN |
| **Frame** | - | NL |
| **Horsepower** | - | NL |
| **Motor Rpm** | - | NL |
| **Phase** | 3 | 1 |
| **Voltage (rated)** | 120 | 120 |
| **Amperage (rated)** | - | 0.30 |
| **Service Factor** | - | 1 |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **CFM** | 75 | 81 |
| **Fan RPM** | - | NA |
| **Fan Rotation** | - | CW |
| **Motor RPM** | - | NA |
| **System SetPt** | - | NA |
| **RL Voltage** | - | 122 |
| **RL Amperage** | - | 0.19 |
| **Total ESP** | 0.25" | UTO |
| **Fan Inlet SP** | - | UTO |
| **Fan Discharge SP** | - | UTO |

Completed By: Jacob Davidson

Notes:HARD CEILING MOUNTED SINGLE SPEED FAN

| Asset | Notes |
|---|---|