

T&B Services, Ltd.

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- Testing & Balancing
- System Analysis
- Air • Hydronics
- Sound • Vibration

BALANCE REPORT

DSF#: 06A3T

PROJECT: ADMINISTRATION BLDG. HVAC/CEILING REPLACEMENT
UNIVERSITY OF WISCONSIN-STOUT
MENOMONIE, WISCONSIN

ARCHITECT: LIEN & PETERSON ARCHITECTS, INC.
EAU CLAIRE, WISCONSIN

ENGINEER: APEX ENGINEERING
EAU CLAIRE, WISCONSIN

CONTRACTOR: CERTIFIED, INC.
ALTOONA, WISCONSIN

CERTIFICATION OF REPORT

THIS IS TO CERTIFY THAT THE ATTACHED REPORT IS A TRUE AND ACCURATE REPRESENTATION OF THE FINAL OPERATING CONDITIONS OF EQUIPMENT AND AIR DISTRIBUTION SYSTEMS, IN ACCORDANCE WITH PLANS DATED

11-15-06



BY: Douglas J. Hermans, P.E.

DATE: November 15, 2007

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Administration Building HVAC/Ceiling Replacement
UW Stout
Menomonie, Wisconsin

DSF #: 06A3T

Summary

| | <u>Design</u> | <u>Actual</u> |
|----------------|---------------|---------------|
| AHU-1: | 26,000 cfm | 26,064 cfm |
| RF-1: | 24,250 cfm | 22,965 cfm |
| EF-1: | 1,500 cfm | 904 cfm |
| CW Coil AHU-1: | 54.75 gpm | 53.0 gpm |
| | 54.75 gpm | 55.8 gpm |
| CW Coil AHU-2: | 26.0 gpm | 26.2 gpm |

Difiencies

AHU-1: System incorporates a separate minimum outside air and minimum relief opening/damper. The supply fan is being controlled off of system static with the return fan tracking off of a differential flow set point. The minimum outside air damper is controlled to open and close to maintain a minimum outside air set point. The relief damper is currently set up to track the minimum outside damper and with the system at minimum outside air, the outside air damper is being driven to 100% open but is short on air. This is being caused by the fact that when at minimum outside air the discharge of the retrun fan is under a negative pressure and air is being drawn in from the minimum relief opening/damper. Total outside will be at design (differential flow set point) but the minimum outside air AMD will be reading a flow that is short on air.

EF-1: Fan is existing and is currently at 60% of design with the motor fully loaded.

FAN EQUIPMENT TEST REPORT

 PROJECT UW Stout-Administration Bldg.

 SYSTEM AHU-1 EQUIPMENT LOCATION 3rd Floor Mech.

 FAN MANUFACTURER McQuay
 MODEL OR SERIAL NO. CAH053GDDM

| | DESIGN | ACTUAL |
|---------------------------------|--|----------------|
| TOTAL CFM | 26000 | 26064 |
| MIN O.A. | 1750 | 1120 * |
| RETURN CFM | 24250 | 24944 |
| FAN SUCTION PRESSURE (TP) | | -1.79" |
| FAN DISCHARGE PRESSURE (SP) | | +1.99" |
| FAN STATIC PRESSURE | 3.8 | 3.78" |
| FAN RPM | | 1072 @ 56.8 Hz |
| FAN PULLY - SIZE, TYPE MFGR. | 2B5V136 B2 3/16 Browning | |
| BELT QUANTITY / SIZE C-C | (2) 5VX1320 48.5" | |
| FILTER SIZE & QUANTITY | (8) 20x24x2 (8) 24x20x4 (12) 20x20x2 (12) 20x20x4 | |

VFD @ 56.8 Hz
 Static Set Point: 1.1"
 Reading @ 56.8 Hz: 1.08"
 (On 100% outside air, VFD increases to 60.0 Hz and system static decreases to 0.99")
 Min O.A.:
 32x18=4.0
 @ 280 fpm/1120 cfm
 AMD: 1100 cfm

 MTR MANUFACTURER Baldor
 MODEL OR SERIAL NO. EM2539T-8

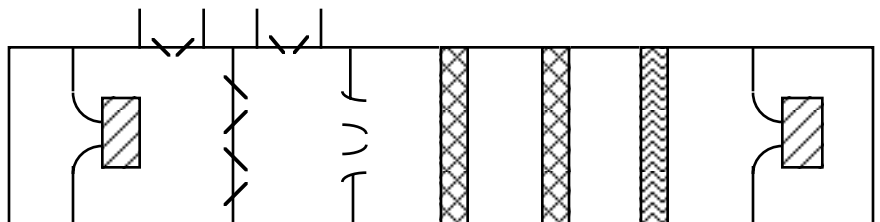
| | RATED | ACTUAL |
|------------------------------------|----------------------------|----------------|
| MOTOR H.P. | 40 | 40.0 |
| BHP | 30.0 | 31.9 |
| OPERATING AMPERAGE, L1-L2-L3 | 107 | 82.4 |
| VOLTAGE | 200 | 208 |
| RPM | 1775 | 1693 @ 56.8 Hz |
| MOTOR SHEAVE - SIZE, TYPE MFGR. | 2B5V86 B 2 1/8 Browning | |
| O.L. HEATERS | VFD | |
| SF | 1.15 | |
| FRAME | 34T | |
| PF / EFF | 85.0/94.5 | |

* Differential volume set point is @ 1750 cfm. Min O.A. damper is wide open. Min relief damper which is also wide open due to tracking min O.A. damper is drawing air in due to negative pressure in plenum.

REMARKS

Unit Total:

- 1) 38x8=2.11 @ 2069 fpm/4366 cfm
- 2) 36x8=2.00 @ 1941 fpm/3882 cfm
- 3) 52x14=5.06 @ 1644 fpm/8319 cfm
- 4) 60x14=5.83 @ 1629 fpm/9497 cfm

 Total: 26064 cfm
 AMD: 26573 cfm


| | | | | | | | | |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|
| 100% O.A.: | -0.64" | +0.94" | -1.48" | -1.72" | -2.10" | -2.61" | -3.14" | +1.57" |
| Min O.A.: | -0.75" | -0.01" | -0.27" | -0.46" | -0.82" | -1.36" | -1.79" | +1.99" |

TERMINAL UNIT TEST REPORT

PROJECT UW Stout-Administration Bldg.

SYSTEM AHU-1 AREA SERVED 1st Floor

| LOCATION | DESIGN SIZE | ACTUAL SIZE | DESIGN | | TEST 1 | TEST | FINAL | | COMPUTER READING |
|----------|-------------|-------------|-----------------|------|--------|------|-------|------|------------------|
| | | | INLET VEL PRESS | CFM | | | COEF. | CFM | |
| VAV-1 | 10 | .550 | | 950 | | | 2.287 | 933 | 941 |
| | | | | 285 | | | | 311 | 280 |
| VAV-2 | 10 | .550 | | 950 | | | 0.922 | 1000 | 985 |
| | | | | 285 | | | | 287 | 277 |
| VAV-3 | 10 | .550 | | 1120 | | | 1.780 | 1109 | 1117 |
| | | | | 340 | | | | 325 | 318 |
| VAV-4 | 8 | .350 | | 560 | | | 2.073 | 561 | 558 |
| | | | | 170 | | | | 177 | 172 |
| VAV-5 | 4 | .090 | | 135 | | | 0.956 | 139 | 138 |
| | | | | 45 | | | | 43 | 42 |
| VAV-6 | 4 | .090 | | 75 | | | 0.770 | 77 | 74 |
| | | | | 25 | | | | 28 | 25 |
| VAV-7 | 5 | .140 | | 345 | | | 1.386 | 361 | 362 |
| | | | | 105 | | | | 105 | 104 |
| VAV-8 | 4 | .090 | | 180 | | | 0.849 | 179 | 180 |
| | | | | 55 | | | | 57 | 54 |
| VAV-9 | 4 | .090 | | 180 | | | 0.970 | 181 | 185 |
| | | | | 55 | | | | 53 | 51 |
| VAV-10 | 4 | .090 | | 190 | | | 0.933 | 186 | 187 |
| | | | | 60 | | | | 57 | 53 |

TERMINAL UNIT TEST REPORT

PROJECT UW Stout-Administration Bldg.

SYSTEM AHU-1 AREA SERVED 1st Floor

| LOCATION | DESIGN SIZE | ACTUAL SIZE | DESIGN | | TEST 1 | TEST | FINAL | | COMPUTER READING |
|----------|-------------|-------------|-----------------|------|--------|------|-------|------|------------------|
| | | | INLET VEL PRESS | CFM | | | COEF. | CFM | |
| VAV-11 | 4 | .090 | | 110 | | | 0.925 | 105 | 103 |
| | | | | 35 | | | | 38 | 35 |
| VAV-12 | 5 | .140 | | 240 | | | 1.197 | 248 | 254 |
| | | | | 75 | | | | 85 | 73 |
| VAV-13 | 4 | .090 | | 130 | | | 0.997 | 132 | 127 |
| | | | | 40 | | | | 43 | 37 |
| VAV-14 | 4 | .090 | | 165 | | | 0.817 | 164 | 163 |
| | | | | 50 | | | | 55 | 47 |
| VAV-15 | 4 | .090 | | 90 | | | 0.628 | 85 | 87 |
| | | | | 30 | | | | 32 | 28 |
| VAV-16 | 4 | .090 | | 110 | | | 0.821 | 115 | 112 |
| | | | | 35 | | | | 36 | 35 |
| VAV-17 | 4 | .090 | | 205 | | | 0.978 | 217 | 210 |
| | | | | 65 | | | | 69 | 63 |
| VAV-18 | 10 | .550 | | 1100 | | | 1.780 | 1110 | 1105 |
| | | | | 330 | | | | 334 | 330 |
| VAV-19 | 6 | .200 | | 385 | | | 2.208 | 377 | 378 |
| | | | | 120 | | | | 127 | 122 |
| VAV-20 | 4 | .090 | | 205 | | | 0.949 | 202 | 207 |
| | | | | 65 | | | | 71 | 62 |

DIFFUSER AND GRILLE TEST REPORT

 PROJECT UW Stout-Administration Bldg.

 SYSTEM AHU-1 AREA SERVED 1st Floor

| LOCATION | NO. | SIZE | A _K | DESIGN | | TEST 1 | TEST | TEST | FINAL | | REMARKS |
|----------|-----|------|----------------|--------|-----|--------|------|------|-------|-----|---------|
| | | | | VEL | CFM | | | | VEL | CFM | |
| (VAV-1) | | | | | | | | | | | |
| 101 | 1 | | | | 350 | 320 | | | | 347 | |
| 101 | 2 | | | | 200 | 191 | | | | 194 | |
| 101 | 3 | | | | 200 | 183 | | | | 200 | |
| 101 | 4 | | | | 200 | 165 | | | | 192 | |
| (VAV-2) | | | | | | | | | | | |
| 101 | 1 | | | | 350 | 430 | | | | 361 | |
| 101 | 2 | | | | 200 | 248 | | | | 215 | |
| 101 | 3 | | | | 200 | 195 | | | | 209 | |
| 101 | 4 | | | | 200 | 192 | | | | 215 | |
| (VAV-3) | | | | | | | | | | | |
| 103 | 1 | | | | 280 | 305 | | | | 270 | |
| 103 | 2 | | | | 280 | 241 | | | | 281 | |
| 103 | 3 | | | | 280 | 301 | | | | 285 | |
| 103 | 4 | | | | 280 | 295 | | | | 273 | |
| (VAV-4) | | | | | | | | | | | |
| 103B | 1 | | | | 280 | 261 | | | | 281 | |
| 103B | 2 | | | | 280 | 278 | | | | 280 | |
| (VAV-5) | | | | | | | | | | | |
| 103C | 1 | | | | 135 | 163 | | | | 139 | |

DIFFUSER AND GRILLE TEST REPORT

 PROJECT UW Stout-Administration Bldg.

 SYSTEM AHU-1 AREA SERVED 1st Floor

| LOCATION | NO. | SIZE | A _K | DESIGN | | TEST 1 | TEST | TEST | FINAL | | REMARKS |
|----------|-----|------|----------------|--------|-----|--------|------|------|-------|-----|---------|
| | | | | VEL | CFM | | | | VEL | CFM | |
| (VAV-14) | | | | | | | | | | | |
| 103S | 1 | | | | 55 | 69 | | | | 54 | |
| 103R | 2 | | | | 55 | 74 | | | | 56 | |
| 103Q | 3 | | | | 55 | 64 | | | | 54 | |
| (VAV-15) | | | | | | | | | | | |
| 103U | 1 | | | | 45 | 64 | | | | 43 | |
| 103T | 2 | | | | 45 | 65 | | | | 42 | |
| (VAV-16) | | | | | | | | | | | |
| 103W | 1 | | | | 70 | 79 | | | | 75 | |
| 103V | 2 | | | | 40 | 58 | | | | 40 | |
| (VAV-17) | | | | | | | | | | | |
| 103Z | 1 | | | | 205 | 235 | | | | 217 | |
| (VAV-18) | | | | | | | | | | | |
| 125 | 1 | | | | 275 | 250 | | | | 266 | |
| 125 | 2 | | | | 275 | 338 | | | | 277 | |
| 125 | 3 | | | | 275 | 290 | | | | 281 | |
| 125 | 4 | | | | 275 | 260 | | | | 286 | |
| (VAV-19) | | | | | | | | | | | |
| 125B | 1 | | | | 192 | 170 | | | | 185 | |
| 125B | 2 | | | | 192 | 148 | | | | 192 | |

DIFFUSER AND GRILLE TEST REPORT

PROJECT UW Stout-Administration Bldg.

SYSTEM AHU-1 AREA SERVED 1st Floor

| LOCATION | NO. | SIZE | A _K | DESIGN | | TEST 1 | TEST | TEST | FINAL | | REMARKS |
|----------|-----|------|----------------|--------|-----|--------|------|------|-------|-----|---------|
| | | | | VEL | CFM | | | | VEL | CFM | |
| (VAV-20) | | | | | | | | | | | |
| 125C | 1 | | | | 205 | 244 | | | | 202 | |
| (VAV-21) | | | | | | | | | | | |
| 125D | 1 | | | | 235 | 252 | | | | 235 | |
| (VAV-22) | | | | | | | | | | | |
| 125E | 1 | | | | 260 | 285 | | | | 265 | |
| (VAV-23) | | | | | | | | | | | |
| 125F | 1 | | | | 215 | 348 | | | | 209 | |
| (VAV-24) | | | | | | | | | | | |
| 125G | 1 | | | | 200 | 234 | | | | 197 | |
| (VAV-25) | | | | | | | | | | | |
| 125H | 1 | | | | 200 | 245 | | | | 205 | |
| (VAV-26) | | | | | | | | | | | |
| 125J | 1 | | | | 200 | 220 | | | | 210 | |
| (VAV-27) | | | | | | | | | | | |
| 125K | 1 | | | | 180 | 213 | | | | 182 | |
| (VAV-28) | | | | | | | | | | | |
| 125M | 1 | | | | 200 | 181 | | | | 199 | |
| 125M | 2 | | | | 180 | 186 | | | | 179 | |
| 125M | 3 | | | | 180 | 205 | | | | 185 | |

TERMINAL UNIT TEST REPORT

PROJECT UW Stout-Administration Bldg.

SYSTEM AHU-1 AREA SERVED 2nd Floor

| LOCATION | DESIGN SIZE | ACTUAL SIZE | DESIGN | | TEST 1 | TEST | FINAL | | COMPUTER READING |
|----------|-------------|-------------|-----------------|-----|--------|------|-------|-----|------------------|
| | | | INLET VEL PRESS | CFM | | | COEF. | CFM | |
| VAV-29 | 5 | .140 | | 240 | | | 1.391 | 237 | 240 |
| | | | | 75 | | | | 77 | 73 |
| VAV-30 | 5 | .140 | | 275 | | | 1.237 | 287 | 282 |
| | | | | 85 | | | | 89 | 80 |
| VAV-31 | 4 | .090 | | 85 | | | 0.718 | 90 | 87 |
| | | | | 30 | | | | 36 | 34 |
| VAV-32 | 4 | .090 | | 180 | | | 0.862 | 186 | 180 |
| | | | | 55 | | | | 56 | 53 |
| VAV-33 | 6 | .200 | | 480 | | | 1.548 | 493 | 486 |
| | | | | 145 | | | | 155 | 147 |
| VAV-34 | 6 | .200 | | 390 | | | 2.320 | 387 | 385 |
| | | | | 120 | | | | 116 | 114 |
| VAV-35 | 6 | .200 | | 390 | | | 2.062 | 381 | 385 |
| | | | | 120 | | | | 118 | 122 |
| VAV-36 | 6 | .200 | | 390 | | | 2.272 | 392 | 285 |
| | | | | 120 | | | | 112 | 114 |
| VAV-37 | 6 | .200 | | 390 | | | 2.305 | 382 | 380 |
| | | | | 120 | | | | 117 | 115 |
| VAV-38 | 6 | .200 | | 400 | | | 1.416 | 406 | 401 |
| | | | | 120 | | | | 124 | 113 |

TERMINAL UNIT TEST REPORT

PROJECT UW Stout-Administration Bldg.

SYSTEM AHU-1 AREA SERVED 2nd Floor

| LOCATION | DESIGN SIZE | ACTUAL SIZE | DESIGN | | TEST 1 | TEST | FINAL | | COMPUTER READING |
|----------|-------------|-------------|-----------------|-----|--------|------|-------|-----|------------------|
| | | | INLET VEL PRESS | CFM | | | COEF. | CFM | |
| VAV-39 | 5 | .140 | | 315 | | | 1.290 | 315 | 316 |
| | | | | 95 | | | | 86 | 89 |
| VAV-40 | 5 | .140 | | 300 | | | 1.119 | 299 | 302 |
| | | | | 90 | | | | 105 | 86 |
| VAV-41 | 4 | .090 | | 110 | | | 0.897 | 110 | 109 |
| | | | | 35 | | | | 39 | 34 |
| VAV-42 | 8 | .350 | | 680 | | | 1.870 | 664 | 674 |
| | | | | 205 | | | | 199 | 202 |
| VAV-43 | 6 | .200 | | 390 | | | 2.365 | 385 | 389 |
| | | | | 120 | | | | 121 | 121 |
| VAV-44 | 6 | .200 | | 390 | | | 2.208 | 391 | 382 |
| | | | | 120 | | | | 111 | 115 |
| VAV-45 | 4 | .090 | | 195 | | | 0.898 | 195 | 202 |
| | | | | 60 | | | | 58 | 56 |
| VAV-46 | 5 | .140 | | 275 | | | 1.208 | 268 | 275 |
| | | | | 85 | | | | 82 | 82 |
| VAV-47 | 8 | .350 | | 510 | | | 1.87 | 520 | 515 |
| | | | | 155 | | | | 160 | 153 |
| VAV-48 | 5 | .140 | | 265 | | | 1.294 | 273 | 267 |
| | | | | 80 | | | | 81 | 76 |

DIFFUSER AND GRILLE TEST REPORT

 PROJECT UW Stout-Administration Bldg.

 SYSTEM AHU-1 AREA SERVED 2nd Floor

| LOCATION | NO. | SIZE | A _K | DESIGN | | TEST 1 | TEST | TEST | FINAL | | REMARKS |
|----------|-----|------|----------------|--------|-----|--------|------|------|-------|-----|---------|
| | | | | VEL | CFM | | | | VEL | CFM | |
| (VAV-38) | | | | | | | | | | | |
| 203G | 1 | | | | 400 | 476 | | | | 406 | |
| (VAV-39) | | | | | | | | | | | |
| 203H | 1 | | | | 315 | 340 | | | | 315 | |
| (VAV-40) | | | | | | | | | | | |
| 203J | 1 | | | | 220 | 250 | | | | 214 | |
| 203L | 2 | | | | 80 | 100 | | | | 85 | |
| (VAV-41) | | | | | | | | | | | |
| 203K | 1 | | | | 110 | 132 | | | | 110 | |
| (VAV-42) | | | | | | | | | | | |
| 210 | 1 | | | | 340 | 320 | | | | 335 | |
| 210 | 2 | | | | 340 | 365 | | | | 329 | |
| (VAV-43) | | | | | | | | | | | |
| 210A | 1 | | | | 390 | 356 | | | | 385 | |
| (VAV-44) | | | | | | | | | | | |
| 210B | 1 | | | | 390 | - | | | | 391 | |
| (VAV-45) | | | | | | | | | | | |
| 210C | 1 | | | | 195 | 235 | | | | 195 | |
| (VAV-46) | | | | | | | | | | | |
| 210D | 1 | | | | 275 | 314 | | | | 268 | |

TERMINAL UNIT TEST REPORT

 PROJECT UW Stout-Administration Bldg.

 SYSTEM AHU-1 AREA SERVED 3rd Floor

| LOCATION | DESIGN SIZE | ACTUAL SIZE | DESIGN | | TEST 1 | TEST | FINAL | | COMPUTER READING |
|----------|-------------|-------------|-----------------|------|--------|------|-------|------|------------------|
| | | | INLET VEL PRESS | CFM | | | COEF. | CFM | |
| VAV-53 | 5 | .140 | | 340 | | | 1.225 | 313 | 315 |
| | | | | 105 | | | | 116 | 105 |
| VAV-54 | 6 | .200 | | 370 | | | 1.970 | 369 | 385 |
| | | | | 115 | | | | 119 | 113 |
| VAV-55 | 8 | .350 | | 690 | | | 2.192 | 700 | 703 |
| | | | | 210 | | | | 222 | 215 |
| VAV-56 | 8 | .350 | | 660 | | | 1.970 | 657 | 658 |
| | | | | 200 | | | | 197 | 192 |
| VAV-57 | 6 | .200 | | 475 | | | 1.467 | 489 | 482 |
| | | | | 145 | | | | 151 | 148 |
| VAV-58 | 6 | .200 | | 475 | | | 1.875 | 482 | 480 |
| | | | | 145 | | | | 157 | 148 |
| VAV-59 | 6 | .200 | | 475 | | | 1.508 | 487 | 491 |
| | | | | 145 | | | | 135 | 135 |
| VAV-60 | 6 | .200 | | 355 | | | 2.064 | 349 | 349 |
| | | | | 110 | | | | 114 | 104 |
| VAV-61 | 6 | .200 | | 485 | | | 1.303 | 496 | 491 |
| | | | | 150 | | | | 154 | 148 |
| VAV-62 | 10 | .550 | | 1100 | | | 1.755 | 1104 | 1091 |
| | | | | 330 | | | | 327 | 320 |

DIFFUSER AND GRILLE TEST REPORT

 PROJECT UW Stout-Administration Bldg.

 SYSTEM AHU-1 AREA SERVED 3rd Floor

| LOCATION | NO. | SIZE | A _K | DESIGN | | TEST 1 | TEST | TEST | FINAL | | REMARKS |
|----------|-----|------|----------------|--------|-----|--------|------|------|-------|-----|---------|
| | | | | VEL | CFM | | | | VEL | CFM | |
| (VAV-53) | | | | | | | | | | | |
| 301 | 1 | | | | 170 | 159 | | | | 159 | |
| 301 | 2 | | | | 170 | 154 | | | | 154 | |
| (VAV-54) | | | | | | | | | | | |
| 303A | 1 | | | | 185 | 195 | | | | 195 | |
| 303B | 2 | | | | 185 | 174 | | | | 174 | |
| (VAV-55) | | | | | | | | | | | |
| 303C | 1 | | | | 345 | 293 | | | | 352 | |
| 303C | 2 | | | | 345 | 346 | | | | 348 | |
| (VAV-56) | | | | | | | | | | | |
| 303D | 1 | | | | 330 | 375 | | | | 330 | |
| 303D | 2 | | | | 330 | 411 | | | | 327 | |
| (VAV-57) | | | | | | | | | | | |
| 303E | 1 | | | | 475 | 420 | | | | 489 | |
| (VAV-58) | | | | | | | | | | | |
| 303F | 1 | | | | 475 | 490 | | | | 482 | |
| (VAV-59) | | | | | | | | | | | |
| 303G | 1 | | | | 475 | 541 | | | | 487 | |
| (VAV-60) | | | | | | | | | | | |
| 303H | 1 | | | | 355 | - | | | | 349 | |

DIFFUSER AND GRILLE TEST REPORT

 PROJECT UW Stout-Administration Bldg.

 SYSTEM AHU-1 AREA SERVED 3rd Floor

| LOCATION | NO. | SIZE | A _K | DESIGN | | TEST 1 | TEST | TEST | FINAL | | REMARKS |
|----------|-----|------|----------------|--------|-----|--------|------|------|-------|-----|---------|
| | | | | VEL | CFM | | | | VEL | CFM | |
| (VAV-61) | | | | | | | | | | | |
| 303L | 1 | | | | 255 | 288 | | | | 259 | |
| 303K | 2 | | | | 230 | 257 | | | | 237 | |
| (VAV-62) | | | | | | | | | | | |
| 325 | 1 | | | | 275 | 281 | | | | 279 | |
| 325 | 2 | | | | 275 | 275 | | | | 280 | |
| 325 | 3 | | | | 275 | 241 | | | | 265 | |
| 325 | 4 | | | | 275 | 314 | | | | 280 | |
| (VAV-63) | | | | | | | | | | | |
| 325A | 1 | | | | 455 | 464 | | | | 453 | |
| 325A | 2 | | | | 455 | 398 | | | | 450 | |
| (VAV-64) | | | | | | | | | | | |
| 325C | 1 | | | | 315 | 344 | | | | 317 | |
| (VAV-65) | | | | | | | | | | | |
| 325E | 1 | | | | 200 | 234 | | | | 203 | |
| (VAV-66) | | | | | | | | | | | |
| 3256G | 1 | | | | 300 | 327 | | | | 301 | |
| 325G | 2 | | | | 300 | 302 | | | | 298 | |
| 325G | 3 | | | | 300 | 268 | | | | 299 | |
| 325G | 4 | | | | 300 | 318 | | | | 313 | |

FAN EQUIPMENT TEST REPORT

PROJECT UW Stout-Administration Bldg.

SYSTEM AHU-1 (Return) EQUIPMENT LOCATION AHU-1

FAN MANUFACTURER McQuay
 MODEL OR SERIAL NO. CAH053 GDDM

| | DESIGN | ACTUAL |
|---------------------------------|------------------------------|--------|
| TOTAL CFM | 24250 | 22965 |
| MIN O.A. | - | - |
| RETURN CFM | - | - |
| FAN SUCTION PRESSURE (TP) | | -0.64" |
| FAN DISCHARGE PRESSURE (SP) | | +0.94" |
| FAN STATIC PRESSURE | | 1.58" |
| FAN RPM | | 685 |
| FAN PULLY - SIZE, TYPE MFGR. | 2B5V136 B1 15/16 Browning | |
| BELT QUANTITY / SIZE | (2) BX123 | |
| C-C | 47.5 | |
| FILTER SIZE & QUANTITY | - | |

VFD @ 60 Hz

MTR MANUFACTURER Baldor
 MODEL OR SERIAL NO. EM25133-8

| | RATED | ACTUAL |
|------------------------------------|---------------------------|--------|
| MOTOR H.P. | 15.0 | 15.0 |
| BHP | 11.6 | 13.4 |
| OPERATING AMPERAGE, L1-L2-L3 | 40.7 | 35.0 |
| VOLTAGE | 200 | 208 |
| RPM | 1765 | 1773 |
| MOTOR SHEAVE - SIZE, TYPE MFGR. | 2B5V52 B1 5/8 Browning | |
| O.L. HEATERS | VFD | |
| SF | 1.15 | |
| FRAME | 254T | |
| PF / EFF | 85/93 | |

REMARKS

Unit Total:

60x36=15.0 @ 1531 fpm/22965 cfm

AMD: 23150 cfm

DIFFUSER AND GRILLE TEST REPORT

 PROJECT UW Stout-Administration Bldg.

 SYSTEM AHU-1 (Return) AREA SERVED _____

| LOCATION | NO. | SIZE | A _K | DESIGN | | TEST 1 | TEST | TEST | FINAL | | REMARKS |
|-----------|-----|-------|----------------|--------|-------|------------|------|------|-------|-------|---------|
| | | | | VEL | CFM | | | | VEL | CFM | |
| 1st Floor | 1 | 44x36 | 11.0 | -1507 | 9475* | 1453/15983 | | | 1453 | 15983 | ** |
| 2nd Floor | 2 | | | | 8300 | | | | | | |
| 3rd Floor | 3 | | | | 8225 | | | | 6982 | | |
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* Design grille total adds up to 26240 cfm. Design supply minus design outside air = 24250 cfm. Proportioned air to available flow.
 ** No way to accurately read individual flows for 1st and 2nd floors

FAN EQUIPMENT TEST REPORT

 PROJECT UW Stout-Administration Bldg.

 SYSTEM AHU-2 EQUIPMENT LOCATION Basement Mech.

 FAN MANUFACTURER McQuay
 MODEL OR SERIAL NO. CAH012 GDAC

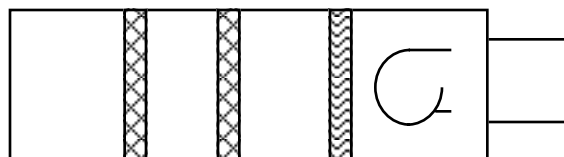
| | DESIGN | ACTUAL |
|---------------------------------|--|--------|
| TOTAL CFM | 6860 | 6914 |
| MIN O.A. | 660 | 668 |
| RETURN CFM | 6200 | 6246 |
| FAN SUCTION PRESSURE (TP) | | -2.01" |
| FAN DISCHARGE PRESSURE (SP) | | +0.65" |
| FAN STATIC PRESSURE | | 2.66" |
| FAN RPM | 2.0 | 978 |
| FAN PULLY - SIZE, TYPE MFGR. | 2B5V90 w/ B1 15/16 Browning | |
| BELT QUANTITY / SIZE C-C | (2) B46 13.25 | |
| FILTER SIZE & QUANTITY | (3) 12x24x2 (3) 12x24x12 (2) 24x24x2 (2) 24x24x12 | |

 MTR MANUFACTURER Baldor
 MODEL OR SERIAL NO. EM3311T-8

| | RATED | ACTUAL |
|------------------------------------|-------------------------------|--------------------|
| MOTOR H.P. | 5.0 | 7.5 |
| BHP | 3.6 | 5.72 |
| OPERATING AMPERAGE, L1-L2-L3 | 22.3 | 15.5 16.8 16.8 |
| VOLTAGE | 200 | 208 |
| RPM | 1770 | 1772 |
| MOTOR SHEAVE - SIZE, TYPE MFGR. | 2BK55H w/ H 1 3/8 Browning | |
| O.L. HEATERS | B28.0 | |
| SF | 1.15 | |
| FRAME | 213T | |
| PF / EFF | 79.0/91.7 | |

REMARKS

Min O.A.
 OA: 45.0°F
 RA: 75.0°F
 MA: 72.1°F = 9.67%



-0.76" -1.33" -1.70" -2.01" +0.65"

DIFFUSER AND GRILLE TEST REPORT

PROJECT UW Stout-Administration Bldg.

SYSTEM AHU-2 AREA SERVED _____

| LOCATION | NO. | SIZE | A _K | DESIGN | | TEST 1 | TEST | TEST | FINAL | | REMARKS |
|----------|-----|------|----------------|--------|-----|--------|------|------|-------|-----|---------|
| | | | | VEL | CFM | | | | VEL | CFM | |
| (HC-101) | | | | | | | | | | | |
| | 1 | | | | 225 | 168 | | | | 203 | |
| | 2 | | | | 225 | 182 | | | | 205 | |
| | 3 | | | | 225 | 195 | | | | 206 | |
| | 4 | | | | 225 | 222 | | | | 211 | |
| | 5 | | | | 225 | 212 | | | | 221 | |
| (HC-102) | | | | | | | | | | | |
| | 1 | | | | 160 | 193 | | | | 170 | |
| | 2 | | | | 160 | 183 | | | | 175 | |
| (HC-103) | | | | | | | | | | | |
| | 1 | | | | 200 | 235 | | | | 212 | |
| (HC-104) | | | | | | | | | | | |
| | 1 | | | | 245 | 270 | | | | 243 | |
| (HC-105) | | | | | | | | | | | |
| | 1 | | | | 125 | 161 | | | | 130 | |
| | 2 | | | | 125 | 161 | | | | 125 | |
| (HC-106) | | | | | | | | | | | |
| | 1 | | | | 145 | 238 | | | | 155 | |
| (HC-107) | | | | | | | | | | | |
| | 1 | | | | 145 | 109 | | | | 156 | |

EXHAUST FAN TEST REPORT

PROJECT UW Stout-Administration Bldg.

| | | | | | | |
|-----------------------------|--------|------------------|--|--|--|--|
| EXH. FAN NO. OR LOCATION | | Existing EF-1 | | | | |
| MANUFACTURER | | Trane | | | | |
| TYPE OR SIZE | | DB-16 | | | | |
| FAN CFM | DESIGN | 1500 | | | | |
| | ACTUAL | 904 | | | | |
| TOTAL STATIC PRESS. | DESIGN | - | | | | |
| | ACTUAL | -0.31"/+0.19" | | | | |
| FAN RPM | DESIGN | - | | | | |
| | ACTUAL | 1410 | | | | |
| BELTS | | (1) 4L38 | | | | |
| MOTOR HP | DESIGN | - | | | | |
| | ACTUAL | 1/4 | | | | |
| AMPS | DESIGN | 4.4 | | | | |
| | ACTUAL | 4.3 | | | | |
| VOLTAGE | DESIGN | 115 | | | | |
| | ACTUAL | 121 | | | | |
| MOTOR RPM | DESIGN | 1725 | | | | |
| | ACTUAL | 1731 | | | | |
| SHEAVE | MOTOR | 1VL34 x 1/2 | | | | |
| | FAN | Inacc. | | | | |
| | | | | | | |

CIRCULATING WATER PUMP TEST REPORT

 PROJECT UW Stout-Administration Bldg.

 SYSTEM Existing Hot Water Pump PUMP LOCATION OR NUMBER 18-P5

 PUMP MANUFACTURER Bell & Gossett 1531
 MODEL OR SERIAL NO. 2AB 5 3/8 BF

| | | DESIGN | ACTUAL |
|--|-----------|--------|----------|
| PUMP GPM | | 70 | 70 |
| PUMP RPM | | | 1771 |
| DISCHARGE PRESSURE (Ft. H ₂ O) | No Flow | | 118.0 ft |
| | Full Flow | | 100.0 ft |
| SUCTION PRESSURE (Ft. H ₂ O) | No Flow | | 85.8 ft |
| | Full Flow | | 73.8 ft |
| TOTAL HEAD (F.T.H ₂ O) * | No Flow | | 32.2 ft |
| | Full Flow | 25 | 26.2 ft |
| | | | |
| | | | |
| | | | |

* TOTAL HEAD (FT H₂O) = PUMP DIFFERENTIAL x 2.307
 (If differential is in psig)

 MOTOR MANUFACTURER Bell & Gossett
 MODEL OR SERIAL NUMBER Ser: 110-8-LH

| | RATED | ACTUAL | | |
|------------------------------|-------------|--------|-----|-----|
| MOTOR HP | | 1 1/2 | | |
| BHP | | | | |
| OPERATING AMPERAGE, L1-L2-L3 | 4.4-4.0/2.0 | 3.1 | 2.9 | 2.9 |
| VOLTAGE | 208-220/440 | 208 | | |
| RPM | 1750 | 1771 | | |
| O.L.HEATERS | - | | | |
| | | | | |
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REMARKS:

FLOW INDICATOR DATA SHEET

PROJECT UW Stout-Administration Bldg.

SYSTEM Hot Water AREA SERVED Basement

| UNIT SERVED | INDICATOR SIZE | DESIGN | | FINAL | | METER READING | |
|-------------|----------------|-------------------|-----|-------------------|------|---------------|-----------|
| | | INDICATOR READING | GPM | INDICATOR READING | GPM | IN. WATER | FT. WATER |
| HC-101 | 3/4S B&G | | 2.5 | 0 | 1.67 | | 0.55 |
| HC-102 | 3/4S B&G | | 0.9 | 44 | 0.87 | | 3.6 |
| HC-103 | 3/4S B&G | | 2.1 | 16 | 2.0 | | 1.75 |
| HC-104 | 3/4S B&G | | 0.8 | 50 | 0.79 | | 5.63 |
| HC-105 | 3/4S B&G | | 0.7 | 50 | 0.82 | | 6.1 |
| HC-106 | 3/4S B&G | | 0.3 | 50 | 0.82 | | 6.05 |
| HC-107 | 3/4S B&G | | 0.3 | 50 | 0.90 | | 7.2 |
| HC-108 | 3/4S B&G | | 0.6 | 50 | 0.89 | | 7.0 |
| HC-109 | 3/4S B&G | | 0.6 | 50 | 1.0 | | 9.0 |
| HC-110 | 3/4S B&G | | 4.6 | 0 | 2.4 | | 1.11 |
| HC-112 | 3/4S B&G | | 1.0 | 50 | 0.95 | | 8.02 |
| HC-113 | 3/4S B&G | | 1.6 | 36 | 1.57 | | 5.4 |
| HC-114 | 3/4S B&G | | 1.8 | 24 | 1.78 | | 2.5 |
| HC-118 | 3/4S B&G | | 1.5 | 0 | 1.48 | | 0.43 |
| | | | | | | | |

REMARKS: _____

FLOW INDICATOR DATA SHEET

PROJECT UW Stout-Administration Bldg.

SYSTEM Hot Water AREA SERVED 1st Floor

| UNIT SERVED | INDICATOR SIZE | DESIGN | | FINAL | | METER READING | |
|-------------|----------------|-------------------|-----|-------------------|------|---------------|-----------|
| | | INDICATOR READING | GPM | INDICATOR READING | GPM | IN. WATER | FT. WATER |
| DC-2 | 3/4 Taco | 9.0 | 1.8 | 0 | 1.3 | 4.7 | |
| DC-28 | 1/2 Taco | 1.42 | 0.4 | 40 | 0.37 | 1.2 | |
| DC-27 | 1/2 Taco | 3.2 | 0.6 | 30 | 0.57 | 2.9 | |
| DC-26 | 1/2 Taco | 3.2 | 0.6 | 35 | 0.60 | 3.2 | |
| DC-25 | 1/2 Taco | 3.2 | 0.6 | 25 | 0.57 | 2.9 | |
| DC-24 | 1/2 Taco | 3.2 | 0.6 | 15 | 0.59 | 3.1 | |
| DC-23 | 1/2 Taco | 4.4 | 0.7 | 0 | 0.66 | 3.8 | |
| DC-22 | 1/2 Taco | 3.2 | 0.6 | 0 | 0.59 | 3.1 | |
| DC-21 | 1/2 Taco | 3.2 | 0.6 | 0 | 0.58 | 3.0 | |
| DC-18 | 1/2 Taco | 4.4 | 0.7 | 15 | 0.69 | 4.3 | |
| DC-19 | 1/2 Taco | 0.8 | 0.3 | 45 | 0.30 | 0.8 * | |
| DC-20 | 1/2 Taco | 0.36 | 0.2 | 55 | 0.24 | 0.5 * | |
| DC-14 | 1/2 Taco | 0.36 | 0.2 | 45 | 0.24 | 0.5 * | |
| DC-15 | 1/2 Taco | 0.09 | 0.1 | 57 | 0.24 | 0.5 * | |
| DC-16 | 1/2 Taco | 0.09 | 0.1 | 40 | 0.18 | 0.3 * | |

REMARKS: * Approximate readings. Accuracy of differential pressure readings this low is questionable

FLOW INDICATOR DATA SHEET

PROJECT UW Stout-Administration Bldg.

SYSTEM Hot Water AREA SERVED 1st Floor

| UNIT SERVED | INDICATOR SIZE | DESIGN | | FINAL | | METER READING | |
|-------------|----------------|-------------------|-----|-------------------|------|---------------|-----------|
| | | INDICATOR READING | GPM | INDICATOR READING | GPM | IN. WATER | FT. WATER |
| DC-13 | 1/2 Taco | 1.42 | 0.4 | 35 | 0.38 | 1.25 | |
| DC-12 | 1/2 Taco | 3.2 | 0.6 | 12 | 0.57 | 2.9 | |
| DC-11 | 1/2 Taco | 0.8 | 0.3 | 35 | 0.30 | 0.8 | |
| DC-10 | 1/2 Taco | 4.4 | 0.7 | 15 | 0.65 | 3.8 | |
| DC-9 | 1/2 Taco | 3.2 | 0.6 | 20 | 0.58 | 3.0 | |
| DC-8 | 1/2 Taco | 3.2 | 0.6 | 20 | 0.60 | 3.2 | |
| DC-3 | 1/2 Taco | 5.64 | 0.8 | 0 | 0.78 | 5.3 | |
| DC-7 | 1/2 Taco | 4.4 | 0.7 | 20 | 0.70 | 4.4 | |
| DC-5 | 1/2 Taco | 0.09 | 0.1 | 45 | 0.24 | 0.5 * | |
| DC-6 | 1/2 Taco | 0.09 | 0.1 | 45 | 0.27 | 0.6 * | |
| DC-4 | 1/2 Taco | 10.76 | 1.1 | 0 | 0.98 | 8.5 | |
| DC-1 | 3/4 Taco | 9.0 | 1.8 | 0 | 1.26 | 4.4 | |
| DC-17 | 1/2 Taco | 0.36 | 0.2 | 48 | 0.21 | 0.4 * | |
| | | | | | | | |
| | | | | | | | |

REMARKS: * Approximate readings. Accuracy of differential pressure readings this low is questionable

FLOW INDICATOR DATA SHEET

PROJECT UW Stout-Administration Bldg.

SYSTEM Hot Water 2nd Floor AREA SERVED 1st Floor Serving 2nd

| UNIT SERVED | INDICATOR SIZE | DESIGN | | FINAL | | METER READING | |
|-------------|----------------|-------------------|------|-------------------|------|---------------|-----------|
| | | INDICATOR READING | GPM | INDICATOR READING | GPM | IN. WATER | FT. WATER |
| 225A | 1/2 Taco | 1.15 | 0.36 | 52 | 0.37 | 1.2 | |
| 225B | 1/2 Taco | 2.05 | 0.48 | 45 | 0.47 | 2.0 | |
| 210A | 1/2 Taco | 2.05 | 0.48 | 45 | 0.49 | 2.1 | |
| 210B | 1/2 Taco | 2.05 | 0.48 | 35 | 0.47 | 2.0 | |
| 210E | 1/2 Taco | 2.05 | 0.48 | 35 | 0.47 | 2.0 | |
| 210D | 1/2 Taco | 2.05 | 0.48 | 30 | 0.49 | 2.1 | |
| 203G | 1/2 Taco | 6.27 | 0.84 | 10 | 0.83 | 6.1 | |
| 203F | 1/2 Taco | 2.05 | 0.48 | 30 | 0.47 | 2.0 | |
| 203E | 1/2 Taco | 2.05 | 0.48 | 35 | 0.47 | 2.0 | |
| 203M | 1/2 Taco | 2.05 | 0.48 | 38 | 0.47 | 2.0 | |
| 203D | 1/2 Taco | 2.05 | 0.48 | 37 | 0.47 | 2.0 | |
| 203C | 1/2 Taco | 2.05 | 0.48 | 40 | 0.47 | 2.0 | |
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REMARKS: _____

FLOW INDICATOR DATA SHEET

PROJECT UW Stout-Administration Bldg.

SYSTEM Hot Water AREA SERVED 2nd Floor

| UNIT SERVED | INDICATOR SIZE | DESIGN | | FINAL | | METER READING | |
|-------------|----------------|-------------------|-----|-------------------|------|---------------|-----------|
| | | INDICATOR READING | GPM | INDICATOR READING | GPM | IN. WATER | FT. WATER |
| DC-51 | 1/2 Taco | 2.22 | 0.5 | 33 | 0.49 | 2.1 | |
| DC-52 | 1/2 Taco | 2.22 | 0.5 | 32 | 0.51 | 2.3 | |
| DC-50 | 1/2 Taco | 3.2 | 0.6 | 15 | 0.59 | 3.1 | |
| DC-43 | 1/2 Taco | 1.42 | 0.4 | 40 | 0.37 | 1.2 | |
| DC-44 | 1/2 Taco | 1.42 | 0.4 | 37 | 0.37 | 1.2 | |
| DC-47 | 1/2 Taco | 2.22 | 0.5 | 23 | 0.50 | 2.2 | |
| DC-46 | 1/2 Taco | 2.22 | 0.5 | 0 | 0.47 | 2.0 | |
| DC-45 | 1/2 Taco | 1.42 | 0.4 | 30 | 0.38 | 1.3 | |
| DC-48 | 1/2 Taco | 0.36 | 0.2 | 33 | 0.24 | 0.5 * | |
| DC-49 | 1/2 Taco | 0.36 | 0.2 | 40 | 0.21 | 0.4 * | |
| DC-42 | 1/2 Taco | 1.42 | 0.4 | 36 | 0.37 | 1.2 | |
| DC-39 | 1/2 Taco | 0.36 | 0.2 | 35 | 0.24 | 0.5 * | |
| DC-38 | 1/2 Taco | 1.42 | 0.4 | 0 | 0.37 | 1.2 | |
| | | | | | | | |
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REMARKS: * Approximate readings. Accuracy of differential pressure readings this low is questionable

FLOW INDICATOR DATA SHEET

PROJECT UW Stout-Administration Bldg.

SYSTEM Hot Water AREA SERVED 2nd Floor

| UNIT SERVED | INDICATOR SIZE | DESIGN | | FINAL | | METER READING | |
|-------------|----------------|-------------------|-----|-------------------|------|---------------|-----------|
| | | INDICATOR READING | GPM | INDICATOR READING | GPM | IN. WATER | FT. WATER |
| DC-40 | 1/2 Taco | 0.36 | 0.2 | 25 | 0.21 | 0.4 * | |
| DC-36 | 1/2 Taco | 1.42 | 0.4 | 32 | 0.37 | 1.2 | |
| DC-41 | 1/2 Taco | 0.09 | 0.1 | 0 | 0.24 | 0.5 * | |
| DC-35 | 1/2 Taco | 1.42 | 0.4 | 33 | 0.37 | 1.2 | |
| DC-37 | 1/2 Taco | 1.42 | 0.4 | 25 | 0.38 | 1.3 | |
| DC-30 | 1/2 Taco | 0.36 | 0.2 | 42 | 0.24 | 0.5 * | |
| DC-34 | 1/2 Taco | 1.42 | 0.4 | 30 | 0.37 | 1.2 | |
| DC-33 | 1/2 Taco | 2.22 | 0.5 | 22 | 0.50 | 2.2 | |
| DC-31 | 1/2 Taco | 0.09 | 0.1 | 40 | 0.24 | 0.5 * | |
| DC-32 | 1/2 Taco | 0.36 | 0.2 | 45 | 0.26 | 0.6 * | |
| DC-29 | 1/2 Taco | 0.36 | 0.2 | 60 | 0.24 | 0.5 * | |
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REMARKS: * Approximate readings. Accuracy of differential pressure readings this low is questionable

FLOW INDICATOR DATA SHEET

PROJECT UW Stout-Administration Bldg.

SYSTEM Hot Water AREA SERVED 2nd Floor serving 3rd

| UNIT SERVED | INDICATOR SIZE | DESIGN | | FINAL | | METER READING | |
|-------------|----------------|-------------------|------|-------------------|------|---------------|-----------|
| | | INDICATOR READING | GPM | INDICATOR READING | GPM | IN. WATER | FT. WATER |
| 325C | 1/2 Taco | 1.15 | 0.36 | 38 | 0.37 | 1.2 | |
| 325 | 1/2 Taco | 2.05 | 0.48 | 35 | 0.49 | 2.1 | |
| 325A | 1/2 Taco | 8.19 | 0.96 | 15 | 0.94 | 7.9 | |
| 325G | 1/2 Taco | 8.19 | 0.96 | 0 | 0.95 | 8.1 | |
| 303H | 1/2 Taco | 2.05 | 0.48 | 32 | 0.47 | 2.0 | |
| 303G | 1/2 Taco | 1.15 | 0.36 | 40 | 0.35 | 1.1 | |
| 303F | 1/2 Taco | 3.2 | 0.60 | 38 | 0.61 | 3.3 | |
| 303E | 1/2 Taco | 0.51 | 0.24 | 60 | 0.28 | 0.7 * | |
| 303D | 1/2 Taco | 2.05 | 0.48 | 30 | 0.49 | 2.1 | |
| 303C | 1/2 Taco | 2.05 | 0.48 | 33 | 0.47 | 2.0 | |
| | | | | | | | |
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| | | | | | | | |

REMARKS: * Approximate readings. Accuracy of differential pressure readings this low is questionable

FLOW INDICATOR DATA SHEET

PROJECT UW Stout-Administration Bldg.

SYSTEM Hot Water AREA SERVED 3rd Floor

| UNIT SERVED | INDICATOR SIZE | DESIGN | | FINAL | | METER READING | |
|-------------|----------------|-------------------|-----|-------------------|------|---------------|-----------|
| | | INDICATOR READING | GPM | INDICATOR READING | GPM | IN. WATER | FT. WATER |
| DC-64 | 1/2" Taco | 3.2 | 0.6 | 50 | 0.56 | 2.8 | |
| DC-62 | 1/2" Taco | 7.2 | 0.9 | 35 | 0.89 | 7.0 | |
| DC-65 | 1/2" Taco | 0.36 | 0.2 | 53 | 0.24 | 0.5 * | |
| DC-63 | 1/2" Taco | 7.2 | 0.9 | 32 | 0.87 | 6.7 | |
| DC-66 | 1/2" Taco | 22.76 | 1.6 | 0 | 1.53 | 20.9 | |
| DC-67 | 1/2" Taco | 0.09 | 0.1 | 55 | 0.21 | 0.4 * | |
| DC-60 | 1/2" Taco | 1.42 | 0.4 | 60 | 0.37 | 1.2 | |
| DC-59 | 1/2" Taco | 2.22 | 0.5 | 55 | 0.52 | 2.4 | |
| DC-61 | 1/2" Taco | 1.42 | 0.4 | 60 | 0.37 | 1.2 | |
| DC-58 | 1/2" Taco | 2.22 | 0.5 | 60 | 0.50 | 2.2 | |
| DC-57 | 1/2" Taco | 2.22 | 0.5 | 52 | 0.51 | 2.3 | |
| DC-54 | 1/2" Taco | 0.8 | 0.3 | 53 | 0.30 | 0.8 * | |
| DC-53 | 1/2" Taco | 2.22 | 0.5 | 50 | 0.49 | 2.1 | |
| DC-55 | 1/2" Taco | 7.2 | 0.9 | 35 | 0.92 | 7.6 | |
| DC-56 | 1/2" Taco | 3.2 | 0.6 | 47 | 0.57 | 2.9 | |

REMARKS: * Approximate readings. Accuracy of differential pressure readings this low is questionable

FLOW INDICATOR DATA SHEET

PROJECT UW Stout-Administration Bldg.

SYSTEM Chilled Water AREA SERVED _____

| UNIT SERVED | INDICATOR SIZE | DESIGN | | FINAL | | METER READING | |
|----------------|----------------|-------------------|-------|-------------------|------|---------------|-----------|
| | | INDICATOR READING | GPM | INDICATOR READING | GPM | IN. WATER | FT. WATER |
| AHU-1 / Top | 4" Taco | 0.96 | 54.75 | 0 | 53.0 | 0.9 | |
| AHU-1 / Bottom | 4" Taco | 0.96 | 54.75 | 0 | 55.8 | 1.0 | |
| | | | | | | | |
| | | | | | | | |
| AHU-2 | 2" Taco | 8.0 | 26.0 | 45 | 26.2 | 8.1 | |
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REMARKS: * Main Bldg FMD: 117 gpm
