

| SUPPLY/RETURN FAN SCHEDULE |  |                   |                    |                            |                                      |                 |                |                |              |              |                |                 |         |                              |
|----------------------------|--|-------------------|--------------------|----------------------------|--------------------------------------|-----------------|----------------|----------------|--------------|--------------|----------------|-----------------|---------|------------------------------|
| DISCREMINATION             | SERVICE                                | LOCATION          | TYPE               | MAXIMUM AIR QUANTITY (CFM) | TOTAL STATIC PRESSURE (IN. OF WATER) | FAN MOTOR DATA  |                |                |              |              |                |                 | REMARKS |                              |
|                            |  |                   |                    |                            |                                      | MOTOR BHP       | MOTOR HP       | VOLTAGE        | PHASE        | STARTER TYPE | A. AFD         | B. AUTO TRANSF. |         | C. ACROSS THE LINE           |
| SF-1.1                     | COMED SUPPLY FAN                       | LEVEL 1           | MIXED FLOW         | 10,000                     | 0.85                                 | 2.75            | 3              | 460            | 3            |              |                |                 |         | 10,000KVA PER COMED          |
| SF-1.2                     | COMED SUPPLY FAN                       | LEVEL 1           | MIXED FLOW         | 10,000                     | 0.85                                 | 2.75            | 3              | 460            | 3            |              |                |                 |         | 10,000KVA PER COMED          |
| SF-1M.1                    | PARKING GARAGE SUPPLY                  | LEVEL 1 MEZZANINE | MIXED FLOW         | 29,500                     | 1.5                                  | 10.74           | 15             | 460            | 3            |              |                |                 |         |                              |
| <del>SF-5.1</del>          | <del>COMED SUPPLY FAN</del>            | <del>ROOF</del>   | <del>ROOFTOP</del> | <del>6,000</del>           | <del>0.5</del>                       | <del>0.86</del> | <del>1.5</del> | <del>460</del> | <del>3</del> | <del>A</del> | <del>YES</del> |                 |         | <del>4000KVA PER COMED</del> |
| <del>SF-5.2</del>          | <del>COMED SUPPLY FAN</del>            | <del>ROOF</del>   | <del>ROOFTOP</del> | <del>6,000</del>           | <del>0.5</del>                       | <del>0.86</del> | <del>1.5</del> | <del>460</del> | <del>3</del> | <del>A</del> | <del>YES</del> |                 |         | <del>4000KVA PER COMED</del> |
| <del>SF-5.3</del>          | <del>SWITCHBOARD ROOM SUPPLY FAN</del> | <del>ROOF</del>   | <del>ROOFTOP</del> | <del>2,000</del>           | <del>0.5</del>                       | <del>0.26</del> | <del>1/2</del> | <del>115</del> | <del>1</del> | <del>C</del> | <del>YES</del> |                 |         |                              |
| <del>SF-40.1</del>         | <del>COMED SUPPLY FAN</del>            | <del>ROOF</del>   | <del>ROOFTOP</del> | <del>6,000</del>           | <del>0.5</del>                       | <del>0.86</del> | <del>1.5</del> | <del>460</del> | <del>3</del> | <del>A</del> | <del>YES</del> |                 |         |                              |
| <del>SF-40.2</del>         | <del>COMED SUPPLY FAN</del>            | <del>ROOF</del>   | <del>ROOFTOP</del> | <del>6,000</del>           | <del>0.5</del>                       | <del>0.86</del> | <del>1.5</del> | <del>460</del> | <del>3</del> | <del>A</del> | <del>YES</del> |                 |         |                              |
| <del>SF-40.3</del>         | <del>SWITCHBOARD ROOM SUPPLY FAN</del> | <del>ROOF</del>   | <del>ROOFTOP</del> | <del>2,000</del>           | <del>0.5</del>                       | <del>0.49</del> | <del>1/2</del> | <del>115</del> | <del>1</del> | <del>C</del> | <del>YES</del> |                 |         |                              |
| SPF-5.1                    | STAIR PRESSURIZATION - EAST WING       | LEVEL 5           | MIXED FLOW         | 28,000                     | 1.0                                  | 9.62            | 10             | 460            | 3            |              |                |                 |         |                              |
| SPF-40.1                   | STAIR PRESSURIZATION - NORTH WING      | ROOF              | ROOFTOP            | 35,000                     | 1.0                                  | 16.91           | 15             | 460            | 3            |              |                |                 |         |                              |
| SPF-40.2                   | STAIR PRESSURIZATION - SOUTH WING      | ROOF              | ROOFTOP            | 35,000                     | 1.0                                  | 16.91           | 15             | 460            | 3            |              |                |                 |         |                              |
| GSF-1.1                    | GENERATOR SUPPLY FAN                   | LEVEL 1           | MIXED FLOW         | 37,500                     | 1.5                                  | 14.23           | 15             | 460            | 3            |              |                |                 |         |                              |
| GSF-1.2                    | GENERATOR SUPPLY FAN                   | LEVEL 1           | MIXED FLOW         | 37,500                     | 1.5                                  | 14.23           | 15             | 460            | 3            |              |                |                 |         |                              |
| SF-4M.1                    | SUPPLY AIR FLOOR LL THRU L4            | LEVEL 4 MEZZANINE | MIXED FLOW         | 30,000                     | 6.0                                  | 39.54           | 40             | 460            | 3            |              |                |                 |         |                              |
| SF-4M.2                    | SUPPLY AIR FLOOR LL THRU L4            | LEVEL 4 MEZZANINE | MIXED FLOW         | 30,000                     | 6.0                                  | 39.54           | 40             | 460            | 3            |              |                |                 |         |                              |
| SF-4M.3                    | SUPPLY AIR FLOOR LL THRU L4            | LEVEL 4 MEZZANINE | MIXED FLOW         | 30,000                     | 6.0                                  | 39.54           | 40             | 460            | 3            |              |                |                 |         |                              |
| SF-4M.4                    | SUPPLY AIR FLOOR LL THRU L4            | LEVEL 4 MEZZANINE | MIXED FLOW         | 30,000                     | 6.0                                  | 39.54           | 40             | 460            | 3            |              |                |                 |         |                              |
| REF-4M.1                   | RETURN AIR FLOOR 1 THRU 4              | LEVEL 4 MEZZANINE | MIXED FLOW         | 20,000                     | 2.0                                  | 9.25            | 10             | 460            | 3            |              |                |                 |         |                              |
| REF-4M.2                   | RETURN AIR FLOOR 1 THRU 4              | LEVEL 4 MEZZANINE | MIXED FLOW         | 20,000                     | 2.0                                  | 9.25            | 10             | 460            | 3            |              |                |                 |         |                              |
| REF-4M.3                   | RETURN AIR FLOOR 1 THRU 4              | LEVEL 4 MEZZANINE | MIXED FLOW         | 20,000                     | 2.0                                  | 9.25            | 10             | 460            | 3            |              |                |                 |         |                              |
| REF-4M.4                   | RETURN AIR FLOOR 1 THRU 4              | LEVEL 4 MEZZANINE | MIXED FLOW         | 20,000                     | 2.0                                  | 9.25            | 10             | 460            | 3            |              |                |                 |         |                              |
| REF-5.1                    | L1 ABC BUILDING - FUTURE N.L.C.        | ROOF              | MIXED FLOW         | 10,000                     | 3                                    | 7.9             | 10             | 460            | 3            |              |                |                 |         | FUTURE N.L.C.                |
| REF-5.2                    | L1 ABC BUILDING - FUTURE N.L.C.        | ROOF              | MIXED FLOW         | 10,000                     | 3                                    | 7.9             | 10             | 460            | 3            |              |                |                 |         | FUTURE N.L.C.                |
| REF-7.1                    | L4 GRAND BALLROOM                      | PENTHOUSE         | MIXED FLOW         | 35,650                     | 1.25                                 | 11.56           | 15             | 460            | 3            |              |                |                 |         |                              |
| REF-7.2                    | L4 GRAND BALLROOM                      | PENTHOUSE         | MIXED FLOW         | 35,650                     | 1.25                                 | 11.56           | 15             | 460            | 3            |              |                |                 |         |                              |
| REF-7.3                    | L2 JR. BALLROOM                        | PENTHOUSE         | MIXED FLOW         | 35,650                     | 1.25                                 | 11.56           | 15             | 460            | 3            |              |                |                 |         |                              |
| REF-7.4                    | L2 JR. BALLROOM                        | PENTHOUSE         | MIXED FLOW         | 35,650                     | 1.25                                 | 11.56           | 15             | 460            | 3            |              |                |                 |         |                              |
| RFU - A                    | END OF GUEST FLOOR CORRIDORS           | HOTEL FLOORS      | TANGENTIAL         | 110                        | 0.125                                | 30 W.           | 120            | 1              |              |              |                |                 |         |                              |

AN 05.11.17

**NOTES FOR ALL FANS:**

1. REFER TO SPECIFICATION FOR VIBRATION ISOLATION AND INERTIA BASE REQUIREMENTS.
2. NOT USED
3. INSTALLING CONTRACTOR SHALL COORDINATE UNIT & MOTOR LOCATION IN FIELD, INSURING REQUIRED CLEARANCES ARE MAINTAINED.
4. ALL FANS SHALL BE PROVIDED WITH PREMIUM EFFICIENCY MOTORS.
5. PROVIDE OSHA BELT/MOTOR GUARDS FOR ALL BELT DRIVE FANS.
6. PROVIDE FAN SPEED CONTROL FOR ALL DIRECT DRIVE FANS.
7. PROVIDE EITHER MOTORIZED OR BACKDRAFT DAMPERS AT ALL TERMINATION LOCATIONS FOR ALL FANS.
8. VFD'S TO BE PROVIDED BY MECHANICAL CONTRACTORS.
9. NOT USED
10. ALL FANS UNDER EMERGENCY POWER OR SMOKE EXHAUST SHALL BE RATED WITH HIGH TEMPERATURE.

| EXHAUST FAN SCHEDULE |   |                      |            |                            |                                      |                |                    |         |       |              |        |                 |         |                      |
|----------------------|---|----------------------|------------|----------------------------|--------------------------------------|----------------|--------------------|---------|-------|--------------|--------|-----------------|---------|----------------------|
| DISCREMINATION       | SERVICE                                 | LOCATION             | TYPE       | MAXIMUM AIR QUANTITY (CFM) | TOTAL STATIC PRESSURE (IN. OF WATER) | FAN MOTOR DATA |                    |         |       |              |        |                 | REMARKS |                      |
|                      |   |                      |            |                            |                                      | MOTOR BHP      | MOTOR HP (PER FAN) | VOLTAGE | PHASE | STARTER TYPE | A. AFD | B. AUTO TRANSF. |         | C. ACROSS THE LINE   |
| EF-B1.1              | ABC FUEL TANK ROOM                      | LEVEL B1             | INLINE     | 300                        | 0.25                                 | 0.03           | 1/10               | 115     | 1     |              |        |                 |         |                      |
| EF-1.1               | L1 BOH. EXHAUST                         | LEVEL 1 LOADING DOCK | MIXED FLOW | 7,500                      | 1.0                                  | 1.8            | 3                  | 460     | 3     |              |        |                 |         |                      |
| EF-1.2               | COMED ROOM EXHAUST FAN                  | LEVEL 1 LOADING DOCK | MIXED FLOW | 10,000                     | 1.0                                  | 2.3            | 5                  | 460     | 3     |              |        |                 |         | 10,000 KVA PER COMED |
| EF-1.3               | COMED ROOM EXHAUST FAN                  | LEVEL 1 LOADING DOCK | MIXED FLOW | 10,000                     | 1.0                                  | 2.3            | 5                  | 460     | 3     |              |        |                 |         | 10,000 KVA PER COMED |
| EF-1.4               | DISHWASHER EXHAUST FAN                  | LEVEL 1              | INLINE     | 600                        | 0.75                                 | 0.17           | 1/2                | 115     | 1     |              |        |                 |         |                      |
| EF-1.5               | TRASH/ELEC STORAGE/C. EXHAUST FAN       | LEVEL 1              | INLINE     | 1040                       | 0.75                                 | 0.23           | 1/3                | 115     | 1     |              |        |                 |         |                      |
| EF-1.6               | COMPACTOR ROOM EXHAUST FAN              | LEVEL 1              | INLINE     | 465                        | 0.75                                 | 0.14           | 1/2                | 115     | 1     |              |        |                 |         |                      |
| EF-1.7               | ABC CARPENTER SHOP EXHAUST              | LEVEL B1             | INLINE     | 670                        | 1.25                                 | 0.32           | 1/2                | 115     | 1     |              |        |                 |         |                      |
| EF-1M.1              | PARKING GARAGE EXHAUST                  | LEVEL 1 MEZZANINE    | MIXED FLOW | 29,500                     | 1.5                                  | 12.5           | 15                 | 460     | 3     |              |        |                 |         |                      |
| EF-1M.2              | PARKING GARAGE EXHAUST                  | LEVEL 1 MEZZANINE    | MIXED FLOW | 7,500                      | 0.75                                 | 1.35           | 3                  | 460     | 3     |              |        |                 |         |                      |
| EF-2.1               | DISHWASHER EXHAUST FAN                  | LEVEL 2              | INLINE     | 1,400                      | 0.75                                 | 0.30           | 1/2                | 115     | 1     |              |        |                 |         |                      |
| EF-4M.1              | 4TH FLOOR DISHWASHER EXHAUST FAN        | LEVEL 4 MEZZANINE    | INLINE     | 600                        | 0.75                                 | 0.17           | 1/2                | 115     | 1     |              |        |                 |         |                      |
| EF-5.1               | COMED EXHAUST FAN                       | ROOF                 | ROOFTOP    | 6,000                      | 0.5                                  | 0.88           | 1                  | 460     | 3     |              |        |                 |         | 4000 KVA PER COMED   |
| EF-5.2               | COMED EXHAUST FAN                       | ROOF                 | ROOFTOP    | 6,000                      | 0.5                                  | 0.88           | 1                  | 460     | 3     |              |        |                 |         | 4000 KVA PER COMED   |
| EF-5.3               | SWITCHBOARD ROOM EXHAUST FAN            | ROOF                 | ROOFTOP    | 2,000                      | 0.5                                  | 0.40           | 1/2                | 115     | 1     |              |        |                 |         |                      |
| EF-40.1              | COMED EXHAUST FAN                       | ROOF                 | ROOFTOP    | 6,000                      | 0.5                                  | 0.88           | 1                  | 460     | 3     |              |        |                 |         | 4000 KVA PER COMED   |
| EF-40.2              | COMED EXHAUST FAN                       | ROOF                 | ROOFTOP    | 6,000                      | 0.5                                  | 0.88           | 1                  | 460     | 3     |              |        |                 |         | 4000 KVA PER COMED   |
| EF-40.3              | SWITCHBOARD ROOM EXHAUST FAN            | ROOF                 | ROOFTOP    | 2,000                      | 0.5                                  | 0.40           | 1/2                | 115     | 1     |              |        |                 |         |                      |
| EF-40.4              | L40 ELEV PENTHOUSE                      | ROOF                 | ROOFTOP    | 11,000                     | 0.5                                  | 1.71           | 2                  | 460     | 3     |              |        |                 |         |                      |
| EF-CC1               | ELEV MACHINE ROOM                       | CARPENTER            | INLINE     | 1,500                      | 0.25                                 | 0.16           | 3/4                | 115     | 1     |              |        |                 |         |                      |
| KEF-4.1              | L1 COMMUNITY KITCHEN EXHAUST            | ROOF                 | UPBLAST    | 9,150                      | 1.8                                  | 4.9            | 5.0                | 460     | 3     |              |        |                 |         |                      |
| REF-4.2              | L2 KITCHEN EXHAUST                      | ROOF                 | UPBLAST    | 2,050                      | 2.0                                  | 1.3            | 1.5                | 460     | 3     |              |        |                 |         |                      |
| KEF-4.3              | L4 KITCHEN EXHAUST                      | ROOF                 | UPBLAST    | 1,900                      | 1.5                                  | 0.8            | 1                  | 460     | 3     |              |        |                 |         |                      |
| KEF-5.1              | L1 ABC BUILDING - FUTURE KITCHEN N.L.C. | ROOF                 | UPBLAST    | 10,000                     | 3                                    | 7.9            | 10                 | 460     | 3     |              |        |                 |         | FUTURE N.L.C.        |
| KEF-5.2              | L1 ABC BUILDING - FUTURE KITCHEN N.L.C. | ROOF                 | UPBLAST    | 10,000                     | 3                                    | 7.9            | 10                 | 460     | 3     |              |        |                 |         | FUTURE N.L.C.        |
| KEF-7M.1             | L1 MAIN KITCHEN EXHAUST                 | ROOF                 | UPBLAST    | 11,500                     | 2.4                                  | 7.4            | 7.5                | 460     | 3     |              |        |                 |         |                      |
| KEF-33.1             | KITCHEN EXHAUST L 33                    | ROOF                 | UPBLAST    | 1,275                      | 1.5                                  | 0.46           | 1/2                | 115     | 1     |              |        |                 |         |                      |
| PE-7M.1              | L1 PIZZA EXHAUST                        | ROOF                 | UPBLAST    | 500                        | 2.25                                 | 0.47           | 1/2                | 115     | 1     |              |        |                 |         |                      |
| SEF-40.1             | CORRIDOR SMOKE EXHAUST                  | ROOF                 | ROOFTOP    | 7,500                      | 1.75                                 | 3.9            | 5                  | 460     | 3     |              |        |                 |         |                      |
| TEF-B1.1             | ABC MEN'S/WOMEN'S TOILET                | LEVEL B1             | INLINE     | 3,260                      | 1.25                                 | 1.31           | 2                  | 460     | 3     |              |        |                 |         |                      |
| TEF-1.1              | MEN'S/WOMEN'S TOILET                    | LEVEL 1              | INLINE     | 1,200                      | 0.75                                 | 0.27           | 1/2                | 115     | 1     |              |        |                 |         |                      |
| TEF-1.2              | MEN'S/WOMEN'S TOILET MARKET PLACE       | LEVEL 1 MEZZANINE    | INLINE     | 220                        | 0.5                                  | -              | 1/8                | 115     | 1     |              |        |                 |         |                      |
| TEF-4.1              | 1ST. 3RD FLOOR TOILETS AND ROOM 410C    | ROOF                 | ROOFTOP    | 2,170                      | 1.25                                 | 0.91           | 1                  | 115     | 1     |              |        |                 |         |                      |
| TEF-4.2              | FITNESS CENTER                          | ROOF                 | ROOFTOP    | 8700                       | 1.0                                  | 2.5            | 3                  | 460     | 3     |              |        |                 |         |                      |
| TEF-5.1              | GUEST ROOMS (EAST WING)                 | ROOF                 | ROOFTOP    | 6,600                      | 2.5                                  | 4.80           | 5                  | 460     | 3     |              |        |                 |         |                      |
| TEF-5.2              | GUEST ROOMS (EAST WING)                 | ROOF                 | ROOFTOP    | 6,600                      | 2.5                                  | 4.80           | 5                  | 460     | 3     |              |        |                 |         |                      |
| TEF-5.3              | ABC BUILDING TOILET EXHAUST FAN         | ROOF                 | ROOFTOP    | 6,530                      | 1.25                                 | 2.82           | 3                  | 460     | 3     |              |        |                 |         |                      |
| TEF-7.1              | MEN'S/WOMEN'S TOILET LEVEL 2 & 4        | ROOF                 | ROOFTOP    | 6,400                      | 1.5                                  | 2.82           | 3                  | 460     | 3     |              |        |                 |         |                      |
| TEF-33.1             | MEN'S/WOMEN'S TOILET LEVEL 33           | ROOF                 | ROOFTOP    | 800                        | 0.5                                  | 0.16           | 1/6                | 115     | 1     |              |        |                 |         |                      |
| TEF-40.1             | GUEST ROOMS                             | ROOF                 | MIXED FLOW | 28,100                     | 2.5                                  | 19.91          | 20                 | 460     | 3     |              |        |                 |         |                      |
| TEF-40.2             | GUEST ROOMS                             | ROOF                 | MIXED FLOW | 28,100                     | 2.5                                  | 19.91          | 20                 | 460     | 3     |              |        |                 |         |                      |

City Stamp

Metropolitan Pier and Expository Authority  
301 East Cermak Road, Chicago, IL 60616

McCormick Place HQ Hotel  
2121 South Prairie Avenue, Chicago, IL 60616

Goetsch Partners  
Architect  
224 South Michigan Avenue, Suite 1700 Chicago, IL 60604

Simonee Deary Design Group  
Interior Design  
605 North Michigan Avenue, Suite 350 Chicago, IL 60611

Magnusson Klemencic Associates, Inc.  
Structural Engineer  
111 South Wacker Drive, Suite 3390 Chicago, IL 60606

F.E. Moran  
Mechanical Design Build Contractor  
228 Carbon Drive, Northbrook, IL 60062

Cosentini Associates  
Electrical & Plumbing Engineer  
1060 West Division Street, Chicago, IL 60642

Great Lakes Plumbing and Heating  
Fire Protection Design Build Contractor  
4521 West Diversy Avenue, Chicago, IL 60639

Gibson  
Audio Visual, Security, & Telecommunications  
3100 Woodstock Drive, Downers Grove, IL 60515

Moody Nolan  
Associate Architect/LEED  
209 South LaSalle Street, Suite 820 Chicago, IL 60604

Site Design Group, Ltd.  
Landscape Design  
888 S. Michigan Avenue, Suite 1000 Chicago, IL 60605

Terra Engineering, Ltd.  
Civil Engineer  
225 West Ohio Street, 4th Floor Chicago, IL 60654

Anne Kusner Lighting Design, Ltd.  
Lighting Consultant  
900 Isabelle Street, Evanston, IL 60201

Catt Lyon Wayfinding + Design  
Wayfinding Graphics  
53 West Jackson Boulevard, Suite 362 Chicago, IL 60604

Ricca Design Studios  
Food Service/Laundry  
5325 South Valeria Way, Greenwood Village, CO 80111

SDI Engineering Corp.  
Structural Engineer (for ABC Building)  
309 West Washington Street, Suite 325 Chicago, IL 60606

Klein and Hoffman, Inc.  
Masonry Engineer (for ABC Building)  
150 South Wacker Drive, Suite 1900 Chicago, IL 60606

Date | Description

31 Jun 2015 ISSUED FOR 50% DD  
01 Jun 2015 ISSUED FOR 50% CD  
01 Aug 2015 ISSUED FOR FULL BUILDING PERMIT  
16 Oct 2015 ISSUED FOR 100% CD  
20 Nov 2015 BULLETIN 3  
29 Mar 2016 BULLETIN 6  
02 JUN 2016 REVISIONS TO FULL BUILDING PERMIT  
29 SEP 2016 BULLETIN 17  
11 MAY 2017 ISSUED FOR BULLETIN No.024

01 MAY 2019 RECORD SET

Seal / Signature

Project Name Project Number  
McCormick Place HQ Hotel 1400

Project Address  
2121 South Prairie Avenue  
Chicago, IL 60616

Scale  
N.T.S.

Description  
MECHANICAL SCHEDULES

Project Name Project Number  
McCormick Place HQ Hotel 1400



| AIR HANDLING UNIT SCHEDULE |  |          |                           |                                   |                            |                         |                         |  |  |        |             |                 |                  |         |             |       |                              |   |                          |             |                 |                  |         |         |             |       |                              |   |                          |                              |  |  |  |  |  |  |  |
|----------------------------|--|----------|---------------------------|-----------------------------------|----------------------------|-------------------------|-------------------------|--|--|--------|-------------|-----------------|------------------|---------|-------------|-------|------------------------------|---|--------------------------|-------------|-----------------|------------------|---------|---------|-------------|-------|------------------------------|---|--------------------------|------------------------------|--|--|--|--|--|--|--|
| DESIGNATION                | SERVICE  | LOCATION | SUPPLY AIR QUANTITY (CFM) | RETURN/EXHAUST AIR QUANTITY (CFM) | OUTSIDE AIR QUANTITY (CFM) | SUPPLY FAN TOTAL STATIC | RETURN FAN TOTAL STATIC | COOLING COIL DESIGNATION (SEE COOLING COIL SCHEDULE) | HEATING COIL DESIGNATION (SEE HEATING COIL SCHEDULE) | FILTER | SUPPLY FAN  |                 |                  |         |             |       | RETURN FAN                   |   |                          |             |                 |                  | REMARKS |         |             |       |                              |   |                          |                              |  |  |  |  |  |  |  |
|                            |  |          |                           |                                   |                            |                         |                         |  |  |        | NO. OF FANS | FAN BHP PER FAN | MOTOR HP PER FAN | VOLTAGE | FLA PER FAN | PHASE | UNIT DISCONNECT SWITCH (Y/N) | SCNLE FT. CONN. W/ DISCONN SWITCH (Y/N) | EMERG. POWER REQ'D (Y/N) | NO. OF FANS | FAN BHP PER FAN | MOTOR HP PER FAN |         | VOLTAGE | FLA PER FAN | PHASE | UNIT DISCONNECT SWITCH (Y/N) | SCNLE FT. CONN. W/ DISCONN SWITCH (Y/N) | EMERG. POWER REQ'D (Y/N) |                              |  |  |  |  |  |  |  |
| AHU-B1.1                   | L1 SERVER ROOM                                     | L1       | 5500                      | 5500                              | 0                          | 1.5                     |                         | CC-R1.1  | --   |        | 1           | 2.25            | 3                | 460     |             | 3     | Y                            | Y                                       | Y                        |             |                 |                  |         |         |             |       |                              |   |                          |                              |  |  |  |  |  |  |  |
| AHU-B1.2                   | L1 NET/POP ROOM                                    | L1       | 4125                      | 4125                              | 0                          | 1.5                     |                         | CC-B1.2  | --   |        | 1           | 1.25            | 1.5              | 460     |             | 3     | Y                            | Y                                       | Y                        |             |                 |                  |         |         |             |       |                              |   |                          |                              |  |  |  |  |  |  |  |
| AHU-1M.1                   | L1 MAIN KITCHEN, L1 LOBBY, L1 OFFICE & MARKETPLACE | LEVEL 1M | 20,000                    | 18,000                            | 10,000                     | 4.45                    | 1.1                     | SEC-1M.1   | HC-1M.1  |        | 1           | 17.94           | 20               | 460     | 24.0        | 3     | YES                          | YES                                     | Y                        | 1           | 5.27            | 7.5              | 460     | 8.85    | 3           | Y     | Y                            | Y                                       | 9.820                    |                              |  |  |  |  |  |  |  |
| AHU-4M.1                   | SEGMENT B - FLRS LL, 1, 2, 3, & 4                  | LEVEL 4M | 120,000                   | 80,000                            | 40,000                     | 5                       |                         | CC-4.1   | HC-4.1   |        | 88          | 25.7            | 5                | 460     |             | 3     | YES                          | YES                                     | Y                        |             |                 |                  |         |         |             |       |                              |   | 19.445                   | SEE M7-101 FOR ADDL FAN INFO |  |  |  |  |  |  |  |
| AHU-7M.1                   | L4 GRAND BALLROOM                                  | LEVEL 7M | 37,500                    | 35,700                            | 12,500                     | 5.5                     |                         | CC-7.1   | HC-7.1   |        | 6           | 7.7             | 10               | 460     | 17.30       | 3     | YES                          | YES                                     | Y                        |             |                 |                  |         |         |             |       |                              |   | 18.640                   |                              |  |  |  |  |  |  |  |
| AHU-7M.2                   | L4 GRAND BALLROOM                                  | LEVEL 7M | 37,500                    | 35,700                            | 12,500                     | 5.5                     |                         | CC-7.2   | HC-7.2   |        | 6           | 7.7             | 10               | 460     | 17.30       | 3     | YES                          | YES                                     | Y                        |             |                 |                  |         |         |             |       |                              |   | 18.640                   |                              |  |  |  |  |  |  |  |
| AHU-7M.3                   | L2 JR. BALLROOM                                    | LEVEL 7M | 37,500                    | 35,700                            | 12,500                     | 5.5                     |                         | CC-7.3   | HC-7.3   |        | 6           | 7.7             | 10               | 460     | 17.30       | 3     | YES                          | YES                                     | Y                        |             |                 |                  |         |         |             |       |                              |   | 18.640                   |                              |  |  |  |  |  |  |  |
| AHU-7M.4                   | L2 JR. BALLROOM                                    | LEVEL 7M | 37,500                    | 35,700                            | 12,500                     | 5.5                     |                         | CC-7.4   | HC-7.4   |        | 6           | 7.7             | 10               | 460     | 17.30       | 3     | YES                          | YES                                     | Y                        |             |                 |                  |         |         |             |       |                              |   | 18.640                   |                              |  |  |  |  |  |  |  |
| AHU-21.1                   | L21 ELEVATOR MACHINE ROOM                          | LEVEL 21 | 4625                      | 4625                              | 0                          | 1.86                    |                         | CC-21.1  | --   |        | 1           | 2.77            | 3                | 460     | 4.1         | 3     | Y                            | Y                                       | Y                        |             |                 |                  |         |         |             |       |                              |   |                          |                              |  |  |  |  |  |  |  |
| AHU-40.1                   | L40 ELEVATOR MACHINE ROOM                          | LEVEL 40 | 4625                      | 4625                              | 0                          | 1.86                    |                         | CC-40.1  | --   |        | 1           | 2.77            | 3                | 460     | 4.1         | 3     | Y                            | Y                                       | Y                        |             |                 |                  |         |         |             |       |                              |   |                          |                              |  |  |  |  |  |  |  |
| AHU-40.2                   | L40 ELEVATOR MACHINE ROOM                          | LEVEL 40 | 4625                      | 4625                              | 0                          | 1.86                    |                         | CC-40.2  | --   |        | 1           | 2.77            | 3                | 460     | 4.1         | 3     | Y                            | Y                                       | Y                        |             |                 |                  |         |         |             |       |                              |   |                          |                              |  |  |  |  |  |  |  |
| MUA-7M.1                   | L1 KITCHEN HOOD, L2 KITCHEN HOOD & L4 KITCHEN HOOD | LEVEL 7M | 9,000                     | 0                                 | 9,000                      | 5.5                     |                         | --   | HC-7.5   |        | --          | 7.36            | 7.5              | 460     | 8.85        | 3     | YES                          | YES                                     | Y                        |             |                 |                  |         |         |             |       |                              |   | 15.420                   |                              |  |  |  |  |  |  |  |
| MUA-7M.2                   | L1 KITCHEN HOOD, L2 KITCHEN HOOD & L4 KITCHEN HOOD | LEVEL 7M | 9,000                     | 0                                 | 9,000                      | 5.5                     |                         | --   | HC-7.6   |        | --          | 7.36            | 7.5              | 460     | 8.85        | 3     | YES                          | YES                                     | Y                        |             |                 |                  |         |         |             |       |                              |   | 15.420                   |                              |  |  |  |  |  |  |  |
| MAU-5.1                    | GUEST ROOMS  | LEVEL 5  | 5,500                     | 0                                 | 5,500                      | 6.5                     |                         | CC-5.1   | HC-5.1   |        | 8.7         | 10              | 460              |         | 3           | YES   | YES                          | Y                                       |                          |             |                 |                  |         |         |             |       |                              |   |                          |                              |  |  |  |  |  |  |  |
| MAU-5.2                    | GUEST ROOMS  | LEVEL 5  | 5,500                     | 0                                 | 5,500                      | 6.5                     |                         | CC-5.2   | HC-5.2   |        | 8.7         | 10              | 460              |         | 3           | YES   | YES                          | Y                                       |                          |             |                 |                  |         |         |             |       |                              |   |                          |                              |  |  |  |  |  |  |  |
| MAU-40.1                   | GUEST ROOMS  | LEVEL 41 | 34,000                    | 0                                 | 34,000                     | 6.5                     |                         | CC-40.1  | HC-40.1  |        | 47.8        | 50              | 460              |         | 3           | YES   | YES                          | Y                                       |                          |             |                 |                  |         |         |             |       |                              |   | 18.5 HP ON EM POWER      |                              |  |  |  |  |  |  |  |
| MAU-40.2                   | GUEST ROOMS  | LEVEL 41 | 34,000                    | 0                                 | 34,000                     | 6.5                     |                         | CC-40.2  | HC-40.2  |        | 47.8        | 50              | 460              |         | 3           | YES   | YES                          | Y                                       |                          |             |                 |                  |         |         |             |       |                              |   | 18.5 HP ON EM POWER      |                              |  |  |  |  |  |  |  |
| RTU-5.1                    | L1 ABC BUILDING (FUTURE - N.1.C.)                  | ROOF     | 10,000                    |                                   |                            |                         |                         |  |  |        |             |                 |                  |         |             |       |                              |   |                          |             |                 |                  |         |         |             |       |                              |   |                          |                              |  |  |  |  |  |  |  |
| RTU-5.2                    | L1 ABC BUILDING (FUTURE - N.1.C.)                  | ROOF     | 10,000                    |                                   |                            |                         |                         |  |  |        |             |                 |                  |         |             |       |                              |   |                          |             |                 |                  |         |         |             |       |                              |   |                          |                              |  |  |  |  |  |  |  |
| RTU-5.3                    | L2-4 ABC BUILDING                                  | ROOF     | 30,000                    | 27,000                            | 10,000                     | 6                       | 1.9                     | CC-5.3   | HC-5.3   |        | 1           | 29.4            | 40               | 460     | 46.3        | 3     | YES                          | YES                                     | Y                        | 1           | 12.1            | 15               | 460     | 18.1    | 3           | Y     | Y                            | Y                                       | 15.320                   |                              |  |  |  |  |  |  |  |
| RTU-5.4                    | L2-4 ABC BUILDING                                  | ROOF     | 30,000                    | 20,000                            | 10,000                     | 6                       | 1.9                     | CC-5.4   | HC-5.4   |        | 1           | 29.4            | 40               | 460     | 46.3        | 3     | YES                          | YES                                     | Y                        | 1           | 12.1            | 15               | 460     | 18.1    | 3           | Y     | Y                            | Y                                       | 15.320                   |                              |  |  |  |  |  |  |  |
| RTU-5.5                    | L5 ABC BUILDING                                    | ROOF     | 21,000                    | 20,000                            | 7,000                      | 5.2                     | 1.9                     | CC-5.5   | HC-5.5   |        | 1           | 21.15           | 30               | 460     | 34.30       | 3     | N                            | YES                                     | N                        | 1           | 9.44            | 15               | 460     | 18.1    | 3           | N     | Y                            | N                                       | 14,500                   |                              |  |  |  |  |  |  |  |
| RTU-5.6                    | CORPORATE CENTER PEDWAY                            | ROOF     | 10,000                    | 9,500                             | 3,000                      | 3.8                     | 1.1                     | CC-5.6   | HC-5.6   |        | 8.7         | 10              | 460              | 12.0    | 3           | YES   | YES                          | Y                                       | 1                        | 4.0         | 5               | 460              | 6.7     | 3       | Y           | Y     | Y                            |   |                          |                              |  |  |  |  |  |  |  |
| MAU-5.3                    | L1 ABC BUILDING (FUTURE - N.1.C.)                  | ROOF     | 10,000                    |                                   |                            |                         |                         |  |  |        |             |                 |                  |         |             |       |                              |   |                          |             |                 |                  |         |         |             |       |                              |   |                          |                              |  |  |  |  |  |  |  |
| MAU-5.4                    | L1 ABC BUILDING (FUTURE - N.1.C.)                  | ROOF     | 10,000                    |                                   |                            |                         |                         |  |  |        |             |                 |                  |         |             |       |                              |   |                          |             |                 |                  |         |         |             |       |                              |   |                          |                              |  |  |  |  |  |  |  |
| RTU-33.1                   | L33 HOTEL RESTAURANT                               | ROOF     | 7,500                     | 5,200                             | 7,500                      | 3.65                    | 0.6                     | CC-33.1  | HC-33.1  |        | 1           | 8.58            | 10               | 460     | 12.0        | 3     | Y                            | Y                                       | Y                        | 1           | 1.56            | 2                | 460     | 2.6     | 3           | Y     | Y                            | Y                                       | 5,900                    |                              |  |  |  |  |  |  |  |

- NOTES:
- REFER TO SPECIFICATION SECTION 230548 "VIBRATION AND SEISMIC CONTROLS FOR HVAC PIPING AND EQUIPMENT" FOR SUPPLY FAN VIBRATION ISOLATION REQUIREMENTS.
  - FOR FACTORY PRE-FABRICATED AIR HANDLING UNIT ACCESSORIES & COMPONENTS, REFER TO SPECIFICATION.
  - FOR FIELD FABRICATED AIR HANDLING UNITS CASING CONSTRUCTION, COOLING COIL DRAIN PAN REQUIREMENTS, ETC., REFER TO SPECIFICATIONS.
  - PROVIDE COIL FREEZE STAT & FAIL CLOSED LOW LEAK INTAKE DAMPERS FOR FREEZE PROTECTION.
  - ALL AHUS SHALL BE FURNISHED WITH MERV 7 PREFILTERS AND MERV 13 FINAL FILTERS. FILTERS SIZE SHALL BE AS REQUIRED BY UNIT MANUFACTURER.
  - PROVIDE CONDENSATE TRAP PER MANUFACTURER'S RECOMMENDATIONS.
  - COOLING CAPACITY RATED AT A.R.I. RATINGS, AMBIENT AIR 95 F.
  - SEE SPECIFICATION SECTION 230900 FOR CONTROLS.
  - MUA-5.1, 5.2, 40.1, & 40.2 TO BE PROVIDED WITH ENERGY RECOVERY RUN AROUND COIL WITH A MINIMUM 50% TOTAL EFFICIENCY IN HEATING. PROVIDE 25% PROPYLENE GLYCOL IN ENERGY RECOVERY SYSTEM.
  - MECHANICAL CONTRACTOR TO PROVIDE VFD'S FOR ALL AHUS AND MUA'S.
  - MANUFACTURER TO PROVIDE PLENUM FANS FOR ALL AHUS AND MUA'S.
  - MANUFACTURER TO PROVIDE 24" ACCESS SECTION WHENEVER POSSIBLE BETWEEN ALL HEATING AND COOLING COIL SECTIONS.
  - PROVIDE CONCRETE PADS AS REQUIRED TO ACCOMMODATE DRAIN TRAP HEIGHTS.
  - PROVIDE PREMIUM EFFICIENCY FAN MOTORS.
  - PROVIDE FULL AIR SIDE ECONOMIZER.
  - PROVIDE INDIVIDUAL ISOLATION DAMPERS FOR EACH FAN FOR ALL UNITS WITH MULTIPLE FANS.
  - PROVIDE TREAD PLATE FLOOR LINER IN ALL SECTIONS.
  - PROVIDE 2" PERFORATED ACOUSTICAL LINER IN AHU DISCHARGE PLENUM SECTION.
  - PROVIDE DRAIN BETWEEN BLOWER SECTION AND COIL ON ALL AIR HANDLING UNITS FOR PURPOSES OF CLEANING COILS. DRAIN SHALL BE INDIRECTLY PIPED TO OPEN SITE DRAIN NEARBY.

City Stamp

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Metropolitan Pier and Expository Authority  
301 East Cermak Road, Chicago, IL 60616

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McCormick Place HQ Hotel  
2121 South Prairie Avenue, Chicago, IL 60616

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Goettsch Partners  
Architect  
224 South Michigan Avenue, Suite 1700 Chicago, IL 60604

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Simeone Deary Design Group  
Interior Design  
605 North Michigan Avenue, Suite 350 Chicago, IL 60611

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Magnusson Klemencic Associates, Inc.  
Structural Engineer  
111 South Wacker Drive, Suite 3390 Chicago, IL 60606

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F.E. Moran  
Mechanical Design Build Contractor  
226 Carlson Drive, Northbrook, IL 60062

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Cosentini Associates  
Electrical & Plumbing Engineer  
1080 West Division Street, Chicago, IL 60642

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Great Lakes Plumbing and Heating  
Fire Protection Design Build Contractor  
4521 West Diversy Avenue, Chicago, IL 60639

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Gibson  
Audio Visual, Security, & Telecommunications  
3100 Woodcreek Drive, Downers Grove, IL 60515

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Moody Nolan  
Associate Architect/LEED  
209 South LaSalle Street, Suite 820 Chicago, IL 60604

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Site Design Group, Ltd.  
Landscape Design  
888 S. Michigan Avenue, Suite 1000 Chicago, IL 60605

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Terra Engineering, Ltd.  
Civil Engineer  
225 West Ohio Street, 4th Floor Chicago, IL 60654

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Anne Kustner Lighting Design, Ltd.  
Lighting Consultant  
900 Isabella Street Evanston, IL 60201

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Catt Lyon Wayfinding + Design  
Wayfinding Graphics  
53 West Jackson Boulevard, Suite 302 Chicago, IL 60604

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Ricca Design Studios  
Food Service/Laundry  
5325 South Valentia Way, Greenwood Village, CO 80111

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SDI Engineering Corp.  
Structural Engineer (for ABC Building)  
309 West Washington Street, Suite 325 Chicago, IL 60606

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Klein and Hoffman, Inc.  
Masonry Engineer (for ABC Building)  
150 South Wacker Drive, Suite 1900 Chicago, IL 60606

| Date        | Description                       |
|-------------|-----------------------------------|
| 21 Jun 2015 | ISSUED FOR 50% CD                 |
| 01 Jun 2015 | ISSUED FOR 50% CD                 |
| 07 Aug 2015 | ISSUED FOR FULL BUILDING PERMIT   |
| 18 Oct 2015 | ISSUED FOR 100% CD                |
| 4 Nov 2015  | FULL BLDG PERMIT CORRECTIONS 2    |
| 20 Nov 2015 | BULLETIN 3                        |
| 25 MAR 2015 | BULLETIN 5                        |
| 02 JUN 2016 | REVISIONS TO FULL BUILDING PERMIT |
| 04 OCT 2016 | BULLETIN 16                       |
| 11 MAY 2017 | ISSUED FOR BULLETIN No.024        |
| 01 MAY 2019 | RECORD SET                        |

Seal / Signature

Project Name Project Number  
McCormick Place HQ Hotel 14100

Project Address  
2121 South Prairie Avenue  
Chicago, IL 60616

Scale  
N.T.S.

Description  
MECHANICAL SCHEDULES

M7.102



| HOT WATER HEATING COIL SCHEDULE |                                   |          |                    |                    |                                  |                           |                 |                                    |                                    |                                    |                        |                           |                     |                           |         |                              |
|---------------------------------|-----------------------------------|----------|--------------------|--------------------|----------------------------------|---------------------------|-----------------|------------------------------------|------------------------------------|------------------------------------|------------------------|---------------------------|---------------------|---------------------------|---------|------------------------------|
| DESIGNATION                     | SERVICE                           | LOCATION | AIR QUANTITY (CFM) | ENT. AIR TEMP. (F) | WATER SIDE                       |                           |                 |                                    |                                    |                                    | HEATING CAPACITY (MMB) | TOTAL FACE AREA (SQ. FT.) | FACE VELOCITY (FPM) | NO. OF ROWS/ FNS PER INCH | REMARKS |                              |
|                                 |                                   |          |                    |                    | LVG. AIR TEMPERATURE (DEGREES F) | TEMP. DROP (IN. OF WATER) | FLOW RATE (GPM) | ENT. WATER TEMPERATURE (DEGREES F) | LVG. WATER TEMPERATURE (DEGREES F) | MAXIMUM INLET TEMP. (FT. OF WATER) |                        |                           |                     |                           |         | MAX. WORKING PRESSURE (PSIG) |
| HC-1M.1                         | L1 LOBBY/MARKETPLACE              | AHU-1M.1 | 20,000             | 16.4               | 64                               | 0.11                      | 72              | 190                                | 150                                | 2.5                                | 150                    | 1,025                     | 48                  | 417                       | 1/11    | (1)                          |
| HC-4.1M                         | L4M PODIUM                        | AHU-4.1  | 120,000            | 45.6               | 69                               | 0.11                      | 230             | 190                                | 150                                | 2.9                                | 300                    | 3,300                     | 243                 | 494                       | 1/8     | (1)                          |
| HC-5.1A                         | EAST WING GUEST ROOMS - PREHEAT   | MAU-5.1  | 9,000              | -10.0              | 65                               | 0.23                      | 51              | 190                                | 150                                | 1.0                                | 300                    | 731                       | 18.2                | 495                       | 2/11    | (1)                          |
| HC-5.1B                         | EAST WING GUEST ROOMS - PREHEAT   | MAU-5.1  | 9,000              | 55                 | 75                               | 0.1                       | 10              | 190                                | 150                                | 1.0                                | 300                    | 143                       | 18.2                | 495                       | 1/8     | (1)                          |
| HC-5.2A                         | EAST WING GUEST ROOMS - PREHEAT   | MAU-5.2  | 9,000              | -10.0              | 65                               | 0.23                      | 51              | 190                                | 150                                | 1.0                                | 300                    | 731                       | 18.2                | 495                       | 2/11    | (1)                          |
| HC-5.2B                         | EAST WING GUEST ROOMS             | MAU-5.2  | 9,000              | 55                 | 75                               | 0.1                       | 10              | 190                                | 150                                | 1.0                                | 300                    | 143                       | 18.2                | 495                       | 1/8     | (1)                          |
| HC-5.3                          | ABC BUILDING                      | RTU-5.3  | 30,000             | 43.6               | 73.7                             | 0.13                      | 53              | 190                                | 150                                | 1.1                                | 150                    | 1005                      | 59.3                | 506                       | 1/8     | (1)                          |
| HC-5.4                          | ABC BUILDING                      | RTU-5.4  | 30,000             | 43.6               | 73.7                             | 0.13                      | 53              | 190                                | 150                                | 1.1                                | 150                    | 1005                      | 59.3                | 506                       | 1/8     | (1)                          |
| HC-7.1                          | L4 GRAND BALLROOM AND PREFUNCTION | AHU-7.1  | 37,500             | 45.6               | 69                               | 0.11                      | 71              | 190                                | 150                                | 11.3                               | 300                    | 1,015                     | 77.5                | 484                       | 1/8     | (1)                          |
| HC-7.2                          | L4 GRAND BALLROOM AND PREFUNCTION | AHU-7.2  | 37,500             | 45.6               | 69                               | 0.11                      | 71              | 190                                | 150                                | 11.3                               | 300                    | 1,015                     | 77.5                | 484                       | 1/8     | (1)                          |
| HC-7.3                          | L2 JR BALLROOM AND PREFUNCTION    | AHU-7.3  | 37,500             | 45.6               | 69                               | 0.11                      | 71              | 190                                | 150                                | 11.3                               | 300                    | 1,015                     | 77.5                | 484                       | 1/8     | (1)                          |
| HC-7.4                          | L2 JR BALLROOM AND PREFUNCTION    | AHU-7.4  | 37,500             | 45.6               | 69                               | 0.11                      | 71              | 190                                | 150                                | 11.3                               | 300                    | 1,015                     | 77.5                | 484                       | 1/8     | (1)                          |
| HC-7.6                          | L2-4 KITCHEN HOOD MAU             | MAU-7.1  | 9,000              | -10.0              | 65                               | 0.23                      | 51              | 190                                | 150                                | 1.0                                | 300                    | 731                       | 18.2                | 495                       | 2/11    | (1)                          |
| HC-7.7                          | L2-4 KITCHEN HOOD MAU             | MAU-7.2  | 9,000              | -10.0              | 65                               | 0.23                      | 51              | 190                                | 150                                | 1.0                                | 300                    | 731                       | 18.2                | 495                       | 2/11    | (1)                          |
| HC-5.6                          | CORPORATE CENTER LOBBY AND BRIDGE | RTU-5.6  | 10,000             | 50                 | 80                               | 0.14                      | 17              | 180                                | 140                                | 2.3                                | 150                    | 330                       | 20.0                | 500                       | 1/9     | (1)                          |
| HC-40.1A                        | WEST WING GUEST ROOMS             | MAU-40.1 | 31,500             | -10.0              | 65                               | 0.23                      | 180             | 190                                | 150                                | 1.0                                | 300                    | 2,560                     | 63.7                | 495                       | 2/11    | (1)                          |
| HC-40.1B                        | WEST WING GUEST ROOMS             | MAU-40.1 | 31,500             | 55                 | 75                               | 0.1                       | 48              | 190                                | 150                                | 1.0                                | 300                    | 680                       | 63.7                | 495                       | 1/8     | (1)                          |
| HC-40.2A                        | WEST WING GUEST ROOMS             | MAU-40.2 | 31,500             | -10.0              | 65                               | 0.23                      | 180             | 190                                | 150                                | 1.0                                | 300                    | 2,560                     | 63.7                | 495                       | 2/11    | (1)                          |
| HC-40.2B                        | WEST WING GUEST ROOMS             | MAU-40.2 | 31,500             | 55                 | 75                               | 0.1                       | 48              | 190                                | 150                                | 1.0                                | 300                    | 680                       | 63.7                | 495                       | 1/8     | (1)                          |
| HC-33.1                         | L33 RESTAURANT                    | RTU-33.1 | 7,500              | 36.4               | 71.3                             | 0.13                      | 16              | 190                                | 150                                | 3.7                                | 150                    | 295                       | 15.7                | 478                       | 1/9     | (1)                          |

(1) ALL HOT WATER COILS SIZED USING 30% PG

| CHILLED WATER COOLING COIL SCHEDULE |                                   |          |                    |           |           |                             |                 |                                    |                                    |                                    |                              |                              |                                 |                     |                     |                             |         |    |
|-------------------------------------|-----------------------------------|----------|--------------------|-----------|-----------|-----------------------------|-----------------|------------------------------------|------------------------------------|------------------------------------|------------------------------|------------------------------|---------------------------------|---------------------|---------------------|-----------------------------|---------|----|
| DESIGNATION                         | SERVICE                           | LOCATION | AIR QUANTITY (CFM) | AIR SIDE  |           | AIR FRACTION (IN. OF WATER) | FLOW RATE (GPM) | WATER SIDE                         |                                    |                                    |                              | TOTAL COOLING CAPACITY (MMB) | SENSIBLE COOLING CAPACITY (MMB) | NUMBER OF COIL ROWS | FACE VELOCITY (FPM) | MAX. NUMBER OF FNS PER INCH | REMARKS |    |
|                                     |                                   |          |                    | ENT. TEMP | LVG. TEMP |                             |                 | LVG. WATER TEMPERATURE (DEGREES F) | LVG. WATER TEMPERATURE (DEGREES F) | MAXIMUM PRESS. DROP (FT. OF WATER) | MAX. WORKING PRESSURE (PSIG) |                              |                                 |                     |                     |                             |         |    |
| CC-B1.1                             | B1 SERVER                         | AHU-B1.1 | 5,500              | 75.0      | 62.5      | 55.0                        | 54.5            | 0.55                               | 13                                 | 40                                 | 60                           | 4                            | 150                             | 90                  | 90                  | 4                           | 412     | 9  |
| CC-B1.2                             | B1 POP ROOM                       | AHU-B1.2 | 4,125              | 75.0      | 62.5      | 55.0                        | 54.5            | 0.55                               | 13                                 | 40                                 | 60                           | 4                            | 150                             | 90                  | 90                  | 4                           | 412     | 9  |
| CC-1M.1                             | L1 LOBBY/MARKETPLACE AHU          | AHU-1M.1 | 20,000             | 85.0      | 68.8      | 53.0                        | 52.5            | 0.64                               | 143                                | 40                                 | 60                           | 6.9                          | 150                             | 1,007               | 686                 | 6                           | 418     | 10 |
| CC-4.1                              | L4 PODIUM                         | AHU-4M.1 | 120,000            | 81.3      | 66.7      | 53.0                        | 52.5            | 0.87                               | 734                                | 40                                 | 60                           | 19.4                         | 300                             | 5,145               | 3,710               | 6                           | 494     | 11 |
| CC-5.1                              | EAST WING GUEST ROOMS             | AHU-5.1  | 9,000              | 88.0      | 78.0      | 55.0                        | 54.5            | 0.88                               | 108                                | 40                                 | 60                           | 17.3                         | 300                             | 757                 | 343                 | 6                           | 495     | 9  |
| CC-5.2                              | EAST WING GUEST ROOMS             | AHU-5.2  | 9,000              | 88.0      | 78.0      | 55.0                        | 54.5            | 0.88                               | 108                                | 40                                 | 60                           | 17.3                         | 300                             | 757                 | 343                 | 6                           | 495     | 9  |
| CC-5.3                              | ABC BUILDING                      | RTU-5.3  | 30,000             | 81.3      | 66.7      | 52.5                        | 51.0            | 0.78                               | 129                                | 40                                 | 60                           | 9.7                          | 150                             | 1294                | 911                 | 6                           | 506     | 10 |
| CC-5.4                              | ABC BUILDING                      | RTU-5.4  | 30,000             | 81.3      | 66.7      | 52.5                        | 51.0            | 0.78                               | 129                                | 40                                 | 60                           | 9.7                          | 150                             | 1294                | 911                 | 6                           | 506     | 10 |
| CC-7.1                              | L4 GRAND BALLROOM AND PREFUNCTION | AHU-7.1  | 37,500             | 81.3      | 66.7      | 53.0                        | 52.5            | 0.79                               | 233                                | 40                                 | 60                           | 12.2                         | 300                             | 1,632               | 1,175               | 6                           | 484     | 10 |
| CC-7.2                              | L4 GRAND BALLROOM AND PREFUNCTION | AHU-7.2  | 37,500             | 81.3      | 66.7      | 53.0                        | 52.5            | 0.79                               | 233                                | 40                                 | 60                           | 12.2                         | 300                             | 1,632               | 1,175               | 6                           | 484     | 10 |
| CC-7.3                              | L2 JR BALLROOM AND PREFUNCTION    | AHU-7.3  | 37,500             | 81.3      | 66.7      | 53.0                        | 52.5            | 0.79                               | 233                                | 40                                 | 60                           | 12.2                         | 300                             | 1,632               | 1,175               | 6                           | 484     | 10 |
| CC-7.4                              | L2 JR BALLROOM AND PREFUNCTION    | AHU-7.4  | 37,500             | 81.3      | 66.7      | 53.0                        | 52.5            | 0.79                               | 233                                | 40                                 | 60                           | 12.2                         | 300                             | 1,632               | 1,175               | 6                           | 484     | 10 |
| CC-5.6                              | CORPORATE CENTER LOBBY AND BRIDGE | RTU-5.6  | 10,000             | 78.5      | 65.6      | 53.4                        | 52.7            | 0.84                               | 47                                 | 42                                 | 58                           | 5.9                          | 150                             | 375                 | 266                 | 5                           | 500     | 12 |
| CC-21.1                             | ELEVATOR MECHANIC ROOM            | AC-21.1  | 5,500              | 75.0      | 62.5      | 55.0                        | 54.0            | 0.55                               | 17                                 | 40                                 | 60                           | 4.3                          | 300                             | 120                 | 120                 | 4                           | 412     | 9  |
| CC-40.1                             | WEST WING GUEST ROOMS             | MAU-40.1 | 31,500             | 88.0      | 78.0      | 55.0                        | 54.0            | 0.88                               | 378                                | 40                                 | 60                           | 12.3                         | 300                             | 2,650               | 1,200               | 6                           | 495     | 9  |
| CC-40.2                             | WEST WING GUEST ROOMS             | MAU-40.2 | 31,500             | 88.0      | 78.0      | 55.0                        | 54.0            | 0.88                               | 378                                | 40                                 | 60                           | 12.3                         | 300                             | 2,650               | 1,200               | 6                           | 495     | 9  |
| CC-33.1                             | L33 RESTAURANT                    | RTU-33.1 | 7,500              | 83.0      | 69.3      | 52.3                        | 51.8            | 0.77                               | 39                                 | 40                                 | 60                           | 13.4                         | 150                             | 391                 | 243                 | 6                           | 478     | 10 |

NOTES:  
 1. REFER TO SPECIFICATION SECTION 238216 **AIR COILS**.  
 2. FACE VELOCITY THROUGH THE COOLING COIL SHALL BE 500 FPM MAXIMUM.  
 3. APPROXIMATELY 100 GPM TO FOOD SERVICE EQUIPMENT AND MISC PFCU'S SERVICING IT ROOMS.(LOCATION NOT YET SHOWN)

| PUMP SCHEDULE |  |                  |          |                 |                                |                        |            |                  |         |       |              |        |                             |               |         |
|---------------|--|------------------|----------|-----------------|--------------------------------|------------------------|------------|------------------|---------|-------|--------------|--------|-----------------------------|---------------|---------|
| DESIGNATION   | SERVICE  | LOCATION         | TYPE     | FLOW RATE (GPM) | TOTAL PUMP HEAD (FT. OF WATER) | CASING PRESSURE (PSIG) | MOTOR DATA |                  |         |       |              |        |                             |               | REMARKS |
|               |  |                  |          |                 |                                |                        | BRK. HP    | MINIMUM MOTOR HP | VOLTAGE | PHASE | STARTER TYPE | A. VFD | TRANS. CAP. ACROSS THE LINE | EMERG. POWER  |         |
| CHWP-B1.1     | PRIMARY HX CHILLED WATER PUMP - HIGH PRESSURE LOOP     | LEVEL B1         | VERTICAL | 1800            | 120                            | 300                    | 71.4       | 100              | 480     | 3     | A            | NO     | 3,400                       | 1, 2, 3, 4    |         |
| CHWP-B1.2     | PRIMARY HX CHILLED WATER PUMP - HIGH PRESSURE LOOP     | LEVEL B1         | VERTICAL | 1800            | 120                            | 300                    | 71.4       | 100              | 480     | 3     | A            | NO     | 3,400                       | 1, 2, 3, 4    |         |
| CHWP-B1.3     | PRIMARY HX CHILLED WATER PUMP - HIGH PRESSURE LOOP     | LEVEL B1         | VERTICAL | 1800            | 120                            | 300                    | 71.4       | 100              | 480     | 3     | A            | NO     | 3,400                       | 1, 2, 3, 4    |         |
| CHWP-B1.4     | PRIMARY HX CHILLED WATER PUMP - LOW PRESSURE LOOP      | LEVEL B1         | VERTICAL | 1100            | 120                            | 175                    | 47.6       | 60               | 480     | 3     | A            | NO     | 1,600                       | 1, 2, 3, 4    |         |
| CHWP-B1.5     | PRIMARY HX CHILLED WATER PUMP - LOW PRESSURE LOOP      | LEVEL B1         | VERTICAL | 1100            | 120                            | 175                    | 47.6       | 60               | 480     | 3     | A            | NO     | 1,600                       | 1, 2, 3, 4    |         |
| CHWP-B1.6     | PRIMARY HX CHILLED WATER PUMP - LOW PRESSURE LOOP      | LEVEL B1         | VERTICAL | 1100            | 120                            | 175                    | 47.6       | 60               | 480     | 3     | A            | NO     | 1,600                       | 1, 2, 3, 4    |         |
| HWP-B1.1      | PRIMARY HX HEATING HOT WATER PUMP - HIGH PRESSURE LOOP | LEVEL B1         | VERTICAL | 1150            | 120                            | 300                    | 50         | 60               | 480     | 3     | A            | YES    | 2,300                       | 1, 2, 3, 4, 5 |         |
| HWP-B1.2      | PRIMARY HX HEATING HOT WATER PUMP - HIGH PRESSURE LOOP | LEVEL B1         | VERTICAL | 1150            | 120                            | 300                    | 50         | 60               | 480     | 3     | A            | YES    | 2,300                       | 1, 2, 3, 4, 5 |         |
| HWP-B1.3      | PRIMARY HX HEATING HOT WATER PUMP - HIGH PRESSURE LOOP | LEVEL B1         | VERTICAL | 1150            | 120                            | 300                    | 50         | 60               | 480     | 3     | A            | YES    | 2,300                       | 1, 2, 3, 4, 5 |         |
| HWP-B1.4      | PRIMARY HX HEATING HOT WATER PUMP - LOW PRESSURE LOOP  | LEVEL B1         | VERTICAL | 600             | 120                            | 175                    | 26         | 30               | 480     | 3     | A            | YES    | 1,600                       | 1, 2, 3, 4, 5 |         |
| HWP-B1.5      | PRIMARY HX HEATING HOT WATER PUMP - LOW PRESSURE LOOP  | LEVEL B1         | VERTICAL | 600             | 120                            | 175                    | 26         | 30               | 480     | 3     | A            | YES    | 1,600                       | 1, 2, 3, 4, 5 |         |
| HWP-B1.6      | PRIMARY HX HEATING HOT WATER PUMP - LOW PRESSURE LOOP  | LEVEL B1         | VERTICAL | 600             | 120                            | 175                    | 26         | 30               | 480     | 3     | A            | YES    | 1,600                       | 1, 2, 3, 4, 5 |         |
| ERP-5.1       | MAU-5.1 & 5.2 ENERGY RECOVERY PUMP                     | L5 MECH RM       | INLINE   | 65              | 60                             | 175                    | 2.46       | 3                | 480     | 3     | A            | YES    | 220                         | 1, 2, 3, 4, 5 |         |
| ERP-40.1      | MAU-40.1 & 40.2 ENERGY RECOVERY PUMP                   | L40 MECH RM      | INLINE   | 370             | 60                             | 175                    | 7.45       | 10               | 480     | 3     | A            | YES    | 360                         | 1, 2, 3, 4, 5 |         |
| RP-B1.1       | AHU-B1.1 CC EMERGENCY RECIRC PUMP (SERVER ROOM)        | LEVEL B1         | INLINE   | 15              | 60                             | 175                    | 1 1/2      | 480              | 3       | C     | YES          |        | 1, 2, 3                     |               |         |
| RP-B1.2       | AHU-B1.2 CC EMERGENCY RECIRC PUMP (NET POP ROOM)       | LEVEL B1         | INLINE   | 5               | 60                             | 175                    | 1 1/2      | 480              | 3       | C     | YES          |        | 1, 2, 3                     |               |         |
| RP-21.1       | AHU-21.1 CC EMERGENCY RECIRC PUMP                      | L21 ELEV MACH RM | INLINE   | 15              | 60                             | 175                    | 1 1/2      | 480              | 3       | C     | YES          |        | 1, 2, 3                     |               |         |
| RP-40.1       | AHU-40.1 EMERGENCY RECIRC PUMP (ELEVATOR MACHINE ROOM) | LEVEL 40         | INLINE   | 15              | 60                             | 175                    | 1 1/2      | 480              | 3       | C     | YES          |        | 1, 2, 3                     |               |         |
| RP-40.2       | AHU-40.2 EMERGENCY RECIRC PUMP (ELEVATOR MACHINE ROOM) | LEVEL 40         | INLINE   | 15              | 60                             | 175                    | 1 1/2      | 480              | 3       | C     | YES          |        | 1, 2, 3                     |               |         |

NOTES:  
 1. REFER TO SECTION 230548 "VIBRATION AND SEISMIC CONTROLS FOR HVAC PIPING AND EQUIPMENT" FOR PUMP VIBRATION ISOLATION AND INERTIA BASE REQUIREMENTS.  
 2. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL MOTOR STARTERS.  
 3. MECHANICAL CONTRACTOR TO PROVIDE ALL VFD'S.  
 4. FLOW RATES INCLUDE 10% BYPASS TO SYSTEM FILTER  
 5. 30% PG

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 Masonry Engineer (for ABC Building)  
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| DESIGNATION |   |          | SERVICE         |                     |                         | LOCATION                 |                 |                         | PLATE AND FRAME HEAT EXCHANGER SCHEDULE (WATER TO WATER) |            |                 |                                  |                        |                |                 |                         |                          |            |                 |                                  |                        |                |               |        |        |            |  |                              | REMARKS |         |  |
|-------------|---|----------|-----------------|---------------------|-------------------------|--------------------------|-----------------|-------------------------|--|------------|-----------------|----------------------------------|------------------------|----------------|-----------------|-------------------------|--------------------------|------------|-----------------|----------------------------------|------------------------|----------------|---------------|--------|--------|------------|--|------------------------------|---------|---------|--|
| DESIGNATION | SERVICE                                       | LOCATION | FLOW RATE (GPM) | ENTRANCE GLYCOL (%) | INLET TEMP. (DEGREES F) | OUTLET TEMP. (DEGREES F) | COLD WATER SIDE |                         |  |            |                 |                                  |                        |                |                 |                         | WARM WATER SIDE          |            |                 |                                  |                        |                |               |        |        |            | DIMENSIONS OVERALL FRAME SIZE (INCHES) |                              |         | REMARKS |  |
|             |   |          |                 |                     |                         |                          | FLOW RATE (GPM) | INLET TEMP. (DEGREES F) | OUTLET TEMP. (DEGREES F)                                 | LOAD (MBH) | MAX P.D. (PSIG) | P.S.L.G. WORKING PRESSURE (PSIG) | SURFACE AREA (SQ. FT.) | FOULING FACTOR | FLOW RATE (GPM) | INLET TEMP. (DEGREES F) | OUTLET TEMP. (DEGREES F) | LOAD (MBH) | MAX P.D. (PSIG) | P.S.L.G. WORKING PRESSURE (PSIG) | SURFACE AREA (SQ. FT.) | FOULING FACTOR | NO. OF PLATES | HEIGHT | LENGTH | WIDTH      | OPERATING WEIGHT (LBS)                 | MIN. WORKING PRESSURE (PSIG) |         |         |  |
| HX B1-5     | PRIMARY CHILLED WATER HX - HIGH PRESSURE LOOP | LEVEL B1 | 1500            | 25                  | 36                      | 56                       | 15000           | 9.95                    | 300  | 5841       | 0.0001          | 1500                             | 60                     | 40             | 15000           | 8.02                    | 300                      | 5841       | 0.0001          | 527                              | 87                     | 133            | 31            | 12,700 | 300    | NOTE 1.2,3 |  |                              |         |         |  |
| HX B1-6     | PRIMARY CHILLED WATER HX - HIGH PRESSURE LOOP | LEVEL B1 | 1500            | 25                  | 36                      | 56                       | 15000           | 9.95                    | 300  | 5841       | 0.0001          | 1500                             | 60                     | 40             | 15000           | 8.02                    | 300                      | 5841       | 0.0001          | 527                              | 87                     | 133            | 31            | 12,700 | 300    | NOTE 1.2,3 |  |                              |         |         |  |
| HX B1-7     | PRIMARY CHILLED WATER HX - LOW PRESSURE LOOP  | LEVEL B1 | 1000            | 25                  | 36                      | 56                       | 10000           | 11.6                    | 150  | 4108       | 0.0001          | 1000                             | 60                     | 40             | 10000           | 14                      | 150                      | 4108       | 0.0001          | 725                              | 108                    | 135            | 25            | 12100  | 150    | NOTE 1.2,3 |  |                              |         |         |  |
| HX B1-8     | PRIMARY CHILLED WATER HX - LOW PRESSURE LOOP  | LEVEL B1 | 1000            | 25                  | 36                      | 56                       | 10000           | 11.6                    | 150  | 4108       | 0.0001          | 1000                             | 60                     | 40             | 10000           | 14                      | 150                      | 4108       | 0.0001          | 725                              | 108                    | 135            | 25            | 12100  | 150    | NOTE 1.2,3 |  |                              |         |         |  |

NOTES:  
 1. NOT USED  
 2. PROVIDE 4" HOUSEKEEPING PAD.  
 3. SIZED FOR 50% OF COOLING PEAK CAPACITY.

| TAG | TYPE                       | SERVICE | TYPICAL LOCATION                 | NOTES        |
|-----|----------------------------|---------|----------------------------------|--------------|
|     | DOUBLE DEFLECTION          | SUPPLY  | BOH OPEN CEILING                 | NAILOR 61DH  |
|     | PLAQUE DIFFUSER            | SUPPLY  | ACOUSTIC CEILING                 | NAILOR UNI   |
|     | CONTINUOUS LINEAR FLOWLINE | SUPPLY  |                                  | NAILOR FLH   |
|     | LAY-IN LINEAR SLOT         | SUPPLY  | TOILET ROOMS                     | NAILOR FTH   |
|     | LINEAR SLOT                | SUPPLY  | PARKING GARAGE                   | NAILOR 5010  |
|     | DRUM LOUVER                | SUPPLY  |                                  | NAILOR 45D12 |
|     | FIXED BLADE GRILLE         | RETURN  | BOH OPEN CEILING                 | NAILOR 61DH  |
|     | PERFORATED                 | RETURN  | ACOUSTIC CEILING                 | NAILOR 4360  |
|     | FIXED BLADE GRILLE         | RETURN  | AHU WALL RETURN                  | NAILOR 6145  |
|     |                            |         |                                  |              |
|     | FIXED BLADE GRILLE         | EXHAUST | BOH OPEN CEILING, PARKING GARAGE | NAILOR 61DH  |
|     | PERFORATED                 | EXHAUST | ACOUSTIC CEILING                 | NAILOR 4360  |
|     | LAY-IN LINEAR SLOT         | EXHAUST | TOILET ROOMS                     | NAILOR FTH   |

NOTES:  
 1. AIR OUTLETS AND INLETS SHALL BE SIZED TO MAINTAIN REQUIRED N.C. LEVELS AT OCCUPIED ZONE.  
 2. AIR OUTLETS AND INLETS SHALL BE SIZED FOR MAX 500 FPM.  
 3. ALL AIR OUTLETS AND INLETS IN DRYWALL CEILING SHALL HAVE MUDDED-IN TYPE FRAME.

| DESIGNATION | SERVICE   | LOCATION | SHELL AND TUBE STEAM TO WATER HEAT EXCHANGER |                 |                         |                          |                        |                 |                         |                          |                  |                         |                              |                            |                     |                       | REMARKS |                 |                       |                          |                              |
|-------------|---|----------|--|-----------------|-------------------------|--------------------------|------------------------|-----------------|-------------------------|--------------------------|------------------|-------------------------|------------------------------|----------------------------|---------------------|-----------------------|---------|-----------------|-----------------------|--------------------------|------------------------------|
|             |   |          | CAPACITY (MBH)                               | FLOW RATE (GPM) | INLET TEMP. (DEGREES F) | OUTLET TEMP. (DEGREES F) | HEATING CAPACITY (MBH) | FLOW RATE (GPM) | INLET TEMP. (DEGREES F) | OUTLET TEMP. (DEGREES F) | NUMBER OF PASSES | MAX. PRESS. DROP (PSIG) | MIN. WORKING PRESSURE (PSIG) | NET SURFACE AREA (SQ. FT.) | SHELL DIA. (INCHES) | SHELL LENGTH (INCHES) |         | FLOW RATE (GPM) | INLET PRESSURE (PSIG) | OUTLET TEMP. (DEGREES F) | MIN. WORKING PRESSURE (PSIG) |
| HX B1-1     | PRIMARY HEATING HOT WATER HX - HIGH PRESSURE LOOP | LEVEL B1 | 20160  | 1050            | 30% PG                  | 150                      | 190                    | 20160           | 2                       | 2                        | 300              | 163                     | 28                           | 48                         | 23000               | 115                   | 350     | 350             | 300                   | 4,800                    | NOTE 1.2,3                   |
| HX B1-2     | PRIMARY HEATING HOT WATER HX - HIGH PRESSURE LOOP | LEVEL B1 | 20160  | 1050            | 30% PG                  | 150                      | 190                    | 20160           | 2                       | 2                        | 300              | 163                     | 28                           | 48                         | 23000               | 115                   | 350     | 350             | 300                   | 4,800                    | NOTE 1.2,3                   |
| HX B1-3     | PRIMARY HEATING HOT WATER HX - LOW PRESSURE LOOP  | LEVEL B1 | 10560  | 550             | 30% PG                  | 150                      | 190                    | 10560           | 2                       | 2                        | 150              | 72.4                    | 24                           | 48                         | 12000               | 115                   | 350     | 350             | 150                   | 4,000                    | NOTE 1.2,3                   |
| HX B1-4     | PRIMARY HEATING HOT WATER HX - LOW PRESSURE LOOP  | LEVEL B1 | 10560  | 550             | 30% PG                  | 150                      | 190                    | 10560           | 2                       | 2                        | 150              | 72.4                    | 24                           | 48                         | 12000               | 115                   | 350     | 350             | 150                   | 4,000                    | NOTE 1.2,3                   |

NOTES:  
 1. NOT USED  
 2. PROVIDE 4" HOUSEKEEPING PAD.  
 3. SIZED FOR 50% OF HEATING PEAK CAPACITY.

| DESIGNATION | SERVICE | LOCATION  | FOUR PIPE FAN COIL UNIT SCHEDULE |                        |                       |                                    |                                   |                                       |                       |                                    |                                   |                        | REMARKS |                              |            |         |       |      |
|-------------|---------|-----------|----------------------------------|------------------------|-----------------------|------------------------------------|-----------------------------------|---------------------------------------|-----------------------|------------------------------------|-----------------------------------|------------------------|---------|------------------------------|------------|---------|-------|------|
|             |         |           | AIR QUANTITY (CFM)               | COOLING CAPACITY (MBH) | WATER FLOW RATE (GPM) | INT. WATER TEMPERATURE (DEGREES F) | A/C WATER TEMPERATURE (DEGREES F) | MAX. WATER PRESS. DROP (FT. OF WATER) | WATER FLOW RATE (GPM) | INT. WATER TEMPERATURE (DEGREES F) | A/C WATER TEMPERATURE (DEGREES F) | HEATING CAPACITY (MBH) |         | MIN. WORKING PRESSURE (PSIG) | NOMINAL HP | VOLTAGE | PHASE | RPM  |
| FCU-A       | HOTEL   | SEE PLANS | 280                              | 8.3                    | 0.83                  | 40                                 | 60                                | 5.9                                   | 0.78                  | 190                                | 150                               | 14.5                   | 300     | 1/15                         | 115        | 1       | NO    | 1, 2 |
| FCU-B       | HOTEL   | SEE PLANS | 390                              | 11.0                   | 1.09                  | 40                                 | 60                                | 9.2                                   | 0.97                  | 190                                | 150                               | 18.1                   | 300     | 1/15                         | 115        | 1       | NO    | 1, 2 |
| FCU-C       | HOTEL   | SEE PLANS | 570                              | 17.9                   | 1.78                  | 40                                 | 60                                | 13.1                                  | 1.53                  | 190                                | 150                               | 28.3                   | 300     | 1/5                          | 115        | 1       | NO    | 1, 2 |
| FCU-D       |         | NOT USED  |                                  |                        |                       |                                    |                                   |                                       |                       |                                    |                                   |                        |         |                              |            |         |       |      |

NOTES:  
 1. UNIT SELECTED AT MEDIUM FAN SPEED.  
 2. LOCATE UNITS TO PROVIDE ALL MANUFACTURER'S RECOMMENDED CLEARANCES FOR MAINTENANCE ACCESS.

| DESIGNATION | SERVICE | LOCATION       | UNIT TYPE  | ENT. AIR FLOW (CFM) @ 70F | RET. AIR INLET (MBH) | RET. AIR OUTPUT (MBH) | OUTLET VELOCITY (FPM) | AIR TEMP. RISE | MAX. MOUNTING HEIGHT (FT) | HEAT THROW (FT) @ MAX. A/C HIT | MOTOR TYPE | MOTOR HP | ELECTRICAL SERVICE | MOTOR RPM | REMARKS |
|-------------|---------|----------------|------------|---------------------------|----------------------|-----------------------|-----------------------|----------------|---------------------------|--------------------------------|------------|----------|--------------------|-----------|---------|
| UH-B1.1     | HEATING | PARKING GARAGE | HORIZONTAL | 5440                      | 400                  | 320                   | 1016                  | 54             | 19                        | 69                             | PSC        | 3/4      | 120V1P             | 1125      |         |
| UH-B1.2     | HEATING | PARKING GARAGE | HORIZONTAL | 5440                      | 400                  | 320                   | 1016                  | 54             | 19                        | 69                             | PSC        | 3/4      | 120V1P             | 1125      |         |
| UH-B1.3     | HEATING | PARKING GARAGE | HORIZONTAL | 5440                      | 400                  | 320                   | 1016                  | 54             | 19                        | 69                             | PSC        | 3/4      | 120V1P             | 1125      |         |
| UH-B1.4     | HEATING | PARKING GARAGE | HORIZONTAL | 5440                      | 400                  | 320                   | 1016                  | 54             | 19                        | 69                             | PSC        | 3/4      | 120V1P             | 1125      |         |
| UH-B1.5     | HEATING | PARKING GARAGE | HORIZONTAL | 5440                      | 400                  | 320                   | 1016                  | 54             | 19                        | 69                             | PSC        | 3/4      | 120V1P             | 1125      |         |
| UH-B1.6     | HEATING | PARKING GARAGE | HORIZONTAL | 5440                      | 400                  | 320                   | 1016                  | 54             | 19                        | 69                             | PSC        | 3/4      | 120V1P             | 1125      |         |

NOTES:

| DESIGNATION | SERVICE | LOCATION                 | UNIT TYPE    | AIR QUANTITY (CFM) | HOT WATER CABINET UNIT HEATER AND UNIT HEATER |                       |                                    |                                    |                        |                                       |                       |          |       |          |           |      |         | REMARKS |
|-------------|---------|--------------------------|--------------|--------------------|---|-----------------------|------------------------------------|------------------------------------|------------------------|---------------------------------------|-----------------------|----------|-------|----------|-----------|------|---------|---------|
|             |         |                          |              |                    | FINAL AIR TEMPERATURE (DEGREES F)             | WATER FLOW RATE (GPM) | ENT. WATER TEMPERATURE (DEGREES F) | LVC. WATER TEMPERATURE (DEGREES F) | HEATING CAPACITY (MBH) | MAX. WATER PRESS. DROP (FT. OF WATER) | MINIMUM FAN HP OR RPM | WARRANTY | PHASE | BOD ANTR | UNIT SIZE |      |         |         |
| CUH-1.1     | HEATING | L1 Stair 8               | Wall Mounted | 1060               | 114   | 6.2                   | 190                                | 150                                | 60                     | 2.35                                  | 2@1/10                | 1050     | 120   | 1        | VULCAN    | 10   | 1, 2, 4 |         |
| CUH-1.2     | HEATING | L1 Stair 5 & 6           | Wall Mounted | 430                | 122   | 2.98                  | 190                                | 150                                | 28                     | .41                                   | 1@1/10                | 1050     | 120   | 1        | VULCAN    | 4    | 1, 2, 4 |         |
| CUH-1.3     | HEATING | L1 Stair 3 & 4           | Wall Mounted | 860                | 117   | 5.46                  | 190                                | 150                                | 55                     | 1.10                                  | 2@1/10                | 1050     | 120   | 1        | VULCAN    | 8    | 1, 2, 4 |         |
| CUH-1.4     | HEATING | L1 Multiple Entry        | Clg Recessed | 335                | 122   | 2.28                  | 190                                | 150                                | 20                     | .26                                   | 1@1/15                | 1050     | 120   | 1        | VULCAN    | 3    | 1, 2, 4 |         |
| CUH-1.5     | HEATING | L1 Stair 9               | Wall Mounted | 230                | 125   | 1.64                  | 190                                | 150                                | 10                     | .15                                   | 1@1/15                | 1050     | 120   | 1        | VULCAN    | 2    | 1, 2, 4 |         |
| CUH-1.6     | HEATING | Entry Lobby 101A         | Clg Recessed | 1230               | 117   | 7.56                  | 190                                | 150                                | 68                     | 4.2                                   | 1@1/10                | 1050     | 120   | 1        | VULCAN    | 12   | 1, 2, 4 |         |
| CUH-1.7     | HEATING | Function Entry 101C      | Clg Recessed | 1230               | 117   | 7.56                  | 190                                | 150                                | 72                     | 4.2                                   | 1@1/10                | 1050     | 120   | 1        | VULCAN    | 12   | 1, 2, 4 |         |
| CUH-1.8     | HEATING | Great Room Entry         | Clg Recessed | 335                | 122   | 2.28                  | 190                                | 150                                | 20                     | .26                                   | 1@1/15                | 1050     | 120   | 1        | VULCAN    | 3    | 1, 2, 4 |         |
| CUH-1.9     | HEATING | Great Room Entry         | Clg Recessed | 335                | 122   | 2.28                  | 190                                | 150                                | 20                     | .26                                   | 1@1/15                | 1050     | 120   | 1        | VULCAN    | 3    | 1, 2, 4 |         |
| CUH-1.10    | HEATING | Vestibule 121B           | Clg Recessed | 630                | 129   | 4.8                   | 190                                | 150                                | 37                     | 1.10                                  | 1@1/10                | 1050     | 120   | 1        | VULCAN    | 6    | 1, 2, 4 |         |
| CUH-ABC1    | HEATING | ABC L1 Stair 3           | Wall Mounted | 630                | 129   | 4.8                   | 190                                | 150                                | 40                     | 1.10                                  | 1@1/10                | 1050     | 120   | 1        | VULCAN    | 6    | 1, 2, 4 |         |
| CUH-ABC2    | HEATING | ABC L1 Corr A-116        | Wall Mounted | 230                | 125   | 1.64                  | 190                                | 150                                | 15                     | .15                                   | 1@1/15                | 1050     | 120   | 1        | VULCAN    | 2    | 1, 2, 4 |         |
| CUH-ABC3    | HEATING | ABC L1 Stair 2           | Wall Mounted | 1060               | 114   | 6.2                   | 190                                | 150                                | 60                     | 2.35                                  | 2@1/10                | 1050     | 120   | 1        | VULCAN    | 10   | 1, 2, 4 |         |
| UH-5.1      | HEATING | 5th Floor Mech Room      | Suspended    | 900                | 105   | 4.4                   | 190                                | 150                                | 37                     | .17                                   | 1@1/10                | 1050     | 120   | 1        | VULCAN    | HV40 | 1, 2, 3 |         |
| UH-5.2      | HEATING | 5th Floor Switch Gr Room | Suspended    | 900                | 105   | 4.4                   | 190                                | 150                                | 37                     | .17                                   | 1@1/10                | 1050     | 120   | 1        | VULCAN    | HV40 | 1, 2, 3 |         |
| UH-7M.1     | HEATING | 7th Floor Mech Room      | Suspended    | 550                | 103   | 2.7                   | 190                                | 150                                | 25                     | .09                                   | 1@1/10                | 1050     | 120   | 1        | VULCAN    | HV36 | 1, 2, 3 |         |
| UH-7M.2     | HEATING | 7th Floor Mech Room      | Suspended    | 550                | 103   | 2.7                   | 190                                | 150                                | 25                     | .09                                   | 1@1/10                | 1050     | 120   | 1        | VULCAN    | HV36 | 1, 2, 3 |         |
| UH-40.1     | HEATING | 40th Floor Mech Room     | Suspended    | 750                | 103   | 3.5                   | 190                                | 150                                | 30                     | .12                                   | 1@1/10                | 1050     | 120   | 1        | VULCAN    | HV48 | 1, 2, 3 |         |
| UH-40.2     | HEATING | 40th Floor Mech Room     | Suspended    | 750                | 103   | 3.5                   | 190                                | 150                                | 30                     | .12                                   | 1@1/10                | 1050     | 120   | 1        | VULCAN    | HV48 | 1, 2, 3 |         |
| UH-40.3     | HEATING | 40th Floor Mech Room     | Suspended    | 750                | 103   | 3.5                   | 190                                | 150                                | 30                     | .12                                   | 1@1/10                | 1050     | 120   | 1        | VULCAN    | HV48 | 1, 2, 3 |         |

NOTES:  
 1. FURNISH AND INSTALL AQUASTAT ON HEATING HOT WATER RETURN PIPING.  
 2. HW SYSTEM - 30% PG  
 3. UNIT FED FROM HIGH PRESSURE HW SYSTEM  
 4. UNIT FED FROM LOW PRESSURE HW SYSTEM

City Stamp

Metropolitan Pier and Expository Authority  
 301 East Cermak Road, Chicago, IL 60616

McCormick Place HQ Hotel  
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Goetsch Partners  
 Architects  
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Simeone Deary Design Group  
 Interior Design  
 605 North Michigan Avenue, Suite 350 Chicago, IL 60611

Magnusson Klemencic Associates, Inc.  
 Structural Engineer  
 111 South Wacker Drive, Suite 3390 Chicago, IL 60606

F.E. Moran  
 Mechanical Design/ Contractor  
 226 Carbon Drive, Northbrook, IL 60062

Cosentini Associates  
 Electrical & Plumbing Engineer  
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Great Lakes Plumbing and Heating  
 Fire Protection Design/ Contractor  
 4521 West Diversy Avenue, Chicago, IL 60639

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 Audio Visual, Security, & Telecommunications  
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 Civil Engineer  
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 Lighting Consultant  
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Catt Lyon Wayfinding + Design  
 Wayfinding/ Graphics  
 53 West Jackson Boulevard, Suite 302 Chicago, IL 60604

Ricca Design Studios  
 Food Service/Laundry  
 5325 South Valente Way, Greenwood Village, CO 80111

SDI Engineering Corp.  
 Structural Engineer (for ABC Building)  
 309 West Washington Street, Suite 325 Chicago, IL 60606

Klein and Hoffman, Inc.  
 Masonry Engineer (for ABC Building)  
 150 South Wacker Drive, Suite 1900 Chicago, IL 60606

31 Jan 2015 ISSUED FOR 50% DD  
 01 Jun 2015 ISSUED FOR 50% CD  
 01 Aug 2015 ISSUED FOR FULL BUILDING PERMIT  
 16 Oct 2015 ISSUED FOR 100% CD  
 26 APR 2016 BULLETIN 9

01 MAY 2019 RECORD SET

Seal / Signature

Project Name McCormick Place HQ Hotel Project Number 14400

Project Address 2121 South Prairie Avenue Chicago, IL 60616

Scale N.T.S.

Description MECHANICAL SCHEDULES



### Marriott VAV Schedule - ABC Building

| Tag1     | Tag2  | Model | ControlType | Fluid type | Unit Size   | Outlet Size | Primary Max AF (cfm) | Primary Min AF (cfm) | Inlet SP (in wg) | Outlet SP (in wg) | Min Inlet SP (in wg) | HW Hg AF (cfm) | HW EWT (F) | HW EAT (F) | HW Rows | HW Fluid Flow (gpm) | HW AFV @Min (fpm) | HW AFV @Max (fpm) | HW Total Heat (mbh) | HW LMT (F) | HW LWT (F) | HW DT (F) | HW FV (fpm) | Total HW Air PD @Min (in wg) | Total HW Air PD @Max (in wg) | HW FF or MMFF | HW Connection Size (in) | Note:           |
|----------|-------|-------|-------------|------------|-------------|-------------|----------------------|----------------------|------------------|-------------------|----------------------|----------------|------------|------------|---------|---------------------|-------------------|-------------------|---------------------|------------|------------|-----------|-------------|------------------------------|------------------------------|---------------|-------------------------|-----------------|
| VAV B-01 | D3ORW | D     | 30% EG      | 6          | 10 X 10     | 330         | 0                    | 0.5                  | 0.2              | 0.05              | 330                  | 190            | 55         | 1          | 0.26    | 475.2               | 475.2             | 7.2               | 75                  | 132.5      | 57.5       | 0.43      | 0.04        | 0.07                         | 0.07                         | 10            | 0.5                     |                 |
| VAV B-02 | D3ORW | D     | 30% EG      | 6          | 10 X 10     | 170         | 0                    | 0.5                  | 0.2              | 0.02              | 170                  | 190            | 55         | 1          | 0.1     | 244.8               | 244.8             | 3.8               | 75                  | 113.2      | 76.8       | 0.17      | 0.01        | 0.02                         | 0.02                         | 10            | 0.5                     |                 |
| VAV B-03 | D3ORW | D     | 30% EG      | 4          | 10 X 10     | 100         | 0                    | 0.5                  | 0.2              | 0.03              | 100                  | 190            | 55         | 1          | 0.15    | 144                 | 144               | 4                 | 92.1                | 135.1      | 54.9       | 0.25      | 0.02        | 0.01                         | 0.01                         | 10            | 0.5                     |                 |
| VAV B-04 | D3ORW | D     | 30% EG      | 6          | 10 X 10     | 290         | 0                    | 0.5                  | 0.2              | 0.04              | 290                  | 190            | 55         | 1          | 0.25    | 417.6               | 417.6             | 6.8               | 76.9                | 133.6      | 56.4       | 0.42      | 0.04        | 0.06                         | 0.06                         | 10            | 0.5                     |                 |
| VAV B-05 | D3ORW | D     | 30% EG      | 6          | 10 X 10     | 400         | 0                    | 0.5                  | 0.2              | 0.07              | 400                  | 190            | 55         | 1          | 0.4     | 576                 | 576               | 9.2               | 76.1                | 143.2      | 46.8       | 0.67      | 0.1         | 0.1                          | 0.1                          | 10            | 0.5                     |                 |
| VAV B-06 | D3ORW | D     | 30% EG      | 6          | 10 X 10     | 340         | 0                    | 0.75                 | 0.2              | 0.05              | 340                  | 190            | 55         | 1          | 0.3     | 489.6               | 489.6             | 7.7               | 76.1                | 136.9      | 53.1       | 0.5       | 0.06        | 0.08                         | 0.08                         | 10            | 0.5                     |                 |
| VAV B-07 | D3ORW | D     | 30% EG      | 8          | 12 X 12 1/2 | 570         | 0                    | 0.75                 | 0.2              | 0.02              | 570                  | 190            | 55         | 1          | 0.48    | 547.2               | 547.2             | 13                | 76.3                | 133.4      | 56.6       | 0.8       | 0.2         | 0.09                         | 0.09                         | 10            | 0.5                     |                 |
| VAV B-08 | D3001 | D     |             |            | 8           | 12 X 12 1/2 | 500                  | 0                    | 0.75             | 0.2               | 0.02                 |                |            |            | 0       |                     |                   |                   |                     |            |            |           |             |                              |                              |               |                         | No Heating Coil |
| VAV B-09 | D3ORW | D     | 30% EG      | 8          | 12 X 12 1/2 | 490         | 0                    | 0.75                 | 0.2              | 0.02              | 490                  | 190            | 55         | 1          | 0.35    | 470.4               | 470.4             | 11.1              | 75.8                | 125.4      | 64.6       | 0.59      | 0.11        | 0.07                         | 0.07                         | 10            | 0.5                     |                 |
| VAV B-10 | D3ORW | D     | 30% EG      | 6          | 10 X 10     | 150         | 0                    | 0.75                 | 0.2              | 0.02              | 150                  | 190            | 55         | 1          | 0.1     | 216                 | 216               | 3.6               | 77.6                | 115.1      | 74.9       | 0.17      | 0.01        | 0.02                         | 0.02                         | 10            | 0.5                     |                 |
| VAV B-11 | D3ORW | D     | 30% EG      | 8          | 12 X 12 1/2 | 560         | 0                    | 0.75                 | 0.2              | 0.02              | 560                  | 190            | 55         | 1          | 0.48    | 537.6               | 537.6             | 13                | 76.5                | 133.7      | 56.3       | 0.8       | 0.2         | 0.09                         | 0.09                         | 10            | 0.5                     |                 |
| VAV B-12 | D3ORW | D     | 30% EG      | 6          | 10 X 10     | 250         | 0                    | 0.75                 | 0.2              | 0.03              | 250                  | 190            | 55         | 1          | 0.16    | 360                 | 360               | 5.4               | 75                  | 122.5      | 67.5       | 0.27      | 0.02        | 0.04                         | 0.04                         | 10            | 0.5                     |                 |
| VAV B-13 | D3ORW | D     | 30% EG      | 6          | 10 X 10     | 400         | 0                    | 0.75                 | 0.2              | 0.07              | 400                  | 190            | 55         | 1          | 0.4     | 576                 | 576               | 9.2               | 76.1                | 143.2      | 46.8       | 0.67      | 0.1         | 0.1                          | 0.1                          | 10            | 0.5                     |                 |
| VAV B-14 | D3ORW | D     | 30% EG      | 12         | 18 X 12 1/2 | 1450        | 0                    | 0.75                 | 0.2              | 0.01              | 1450                 | 190            | 55         | 1          | 2.1     | 928                 | 928               | 33.3              | 76.4                | 157        | 33         | 3.53      | 4.31        | 0.23                         | 0.23                         | 10            | 0.5                     |                 |
| VAV B-15 | D3ORW | D     | 30% EG      | 12         | 18 X 12 1/2 | 1170        | 0                    | 0.75                 | 0.2              | 0.01              | 1170                 | 190            | 55         | 1          | 2.1     | 748.8               | 748.8             | 31.3              | 79.6                | 159.4      | 30.6       | 3.53      | 4.31        | 0.16                         | 0.16                         | 10            | 0.5                     |                 |
| VAV B-16 | D3ORW | D     | 30% EG      | 10         | 14 X 12 1/2 | 980         | 0                    | 0.75                 | 0.2              | 0.01              | 980                  | 190            | 55         | 1          | 1.1     | 806.4               | 806.4             | 22.2              | 75.9                | 148.6      | 41.4       | 1.85      | 1.07        | 0.18                         | 0.18                         | 10            | 0.5                     |                 |
| VAV B-17 | D3ORW | D     | 30% EG      | 6          | 10 X 10     | 150         | 0                    | 0.75                 | 0.2              | 0.02              | 150                  | 190            | 55         | 1          | 0.15    | 216                 | 216               | 4.6               | 83                  | 128        | 62         | 0.25      | 0.02        | 0.02                         | 0.02                         | 10            | 0.5                     |                 |
| VAV 1-01 | D3ORW | D     | 30% EG      | 6          | 10 X 10     | 340         | 0                    | 0.75                 | 0.2              | 0.05              | 340                  | 190            | 55         | 1          | 0.3     | 489.6               | 489.6             | 7.8               | 76.1                | 136.9      | 53.1       | 0.5       | 0.06        | 0.08                         | 0.08                         | 10            | 0.5                     |                 |
| VAV 1-02 | D3ORW | D     | 30% EG      | 6          | 10 X 10     | 340         | 0                    | 0.75                 | 0.2              | 0.05              | 340                  | 190            | 55         | 1          | 0.3     | 489.6               | 489.6             | 7.8               | 76.1                | 136.9      | 53.1       | 0.5       | 0.06        | 0.08                         | 0.08                         | 10            | 0.5                     |                 |
| VAV 1-03 | D3ORW | D     | 30% EG      | 10         | 14 X 12 1/2 | 970         | 0                    | 0.75                 | 0.2              | 0.01              | 970                  | 190            | 55         | 1          | 1.1     | 798.2               | 798.17            | 22.1              | 76                  | 148.8      | 41.2       | 1.85      | 1.07        | 0.18                         | 0.18                         | 10            | 0.5                     |                 |
| VAV 1-04 | D3ORW | D     | 30% EG      | 10         | 14 X 12 1/2 | 1050        | 0                    | 0.75                 | 0.2              | 0.01              | 1050                 | 190            | 55         | 1          | 1.35    | 864                 | 864               | 24                | 76                  | 153.6      | 36.4       | 2.27      | 1.59        | 0.2                          | 0.2                          | 10            | 0.5                     |                 |
| VAV 2-01 | D3001 | D     |             |            | 6           | 10 X 10     | 250                  | 0                    | 0.75             | 0.2               | 0.03                 |                |            |            | 0       |                     |                   |                   |                     |            |            |           |             |                              |                              |               |                         | No Heating Coil |
| VAV 2-02 | D3ORW | D     | 30% EG      | 16         | 28 X 12 1/2 | 2140        | 0                    | 0.75                 | 0.2              | 0.01              | 2140                 | 190            | 55         | 1          | 5.9     | 617.1               | 880.46            | 48.9              | 84.8                | 173.1      | 16.9       | 4.96      | 5.33        | 0.11                         | 0.21                         | 10            | 0.875                   |                 |
| VAV 2-03 | D3ORW | D     | 30% EG      | 10         | 14 X 12 1/2 | 910         | 0                    | 0.75                 | 0.2              | 0.01              | 910                  | 190            | 55         | 1          | 0.97    | 748.8               | 748.8             | 20.9              | 76.2                | 146        | 44         | 1.64      | 0.85        | 0.16                         | 0.16                         | 10            | 0.5                     |                 |
| VAV 2-04 | D3ORW | D     | 30% EG      | 12         | 18 X 12 1/2 | 1185        | 0                    | 0.75                 | 0.2              | 0.01              | 1185                 | 190            | 55         | 1          | 1.1     | 758.4               | 758.4             | 26.6              | 75.7                | 140.4      | 49.6       | 1.85      | 1.24        | 0.16                         | 0.16                         | 10            | 0.5                     |                 |
| VAV 2-05 | D3ORW | D     | 30% EG      | 10         | 14 X 12 1/2 | 1125        | 0                    | 0.75                 | 0.2              | 0.01              | 1125                 | 190            | 55         | 1          | 1.6     | 925.7               | 925.71            | 25.3              | 75.9                | 157.2      | 32.8       | 2.69      | 2.2         | 0.23                         | 0.23                         | 10            | 0.5                     |                 |
| VAV 2-06 | D3ORW | D     | 30% EG      | 14         | 24 X 12 1/2 | 1640        | 0                    | 0.75                 | 0.2              | 0.01              | 1640                 | 190            | 55         | 1          | 2.5     | 787.2               | 787.2             | 42.2              | 78.7                | 155.3      | 34.7       | 4.21      | 7.27        | 0.17                         | 0.17                         | 10            | 0.5                     |                 |
| VAV 2-07 | D3ORW | D     | 30% EG      | 10         | 14 X 12 1/2 | 940         | 0                    | 0.75                 | 0.2              | 0.01              | 940                  | 190            | 55         | 1          | 1.1     | 773.5               | 773.49            | 21.5              | 76.5                | 149.2      | 40.8       | 1.85      | 1.07        | 0.17                         | 0.17                         | 10            | 0.5                     |                 |
| VAV 2-08 | D3ORW | D     | 30% EG      | 6          | 10 X 10     | 190         | 0                    | 0.75                 | 0.2              | 0.02              | 190                  | 190            | 55         | 1          | 0.1     | 273.6               | 273.6             | 3.9               | 73.7                | 111.6      | 78.4       | 0.17      | 0.01        | 0.03                         | 0.03                         | 10            | 0.5                     |                 |
| VAV 2-09 | D3ORW | D     | 30% EG      | 8          | 12 X 12 1/2 | 620         | 0                    | 0.75                 | 0.2              | 0.02              | 620                  | 190            | 55         | 1          | 0.6     | 595.2               | 595.2             | 14.5              | 76.9                | 139.8      | 50.2       | 1.01      | 0.31        | 0.11                         | 0.11                         | 10            | 0.5                     |                 |
| VAV 2-10 | D3ORW | D     | 30% EG      | 10         | 14 X 12 1/2 | 930         | 0                    | 0.75                 | 0.2              | 0.01              | 930                  | 190            | 55         | 1          | 1.1     | 765.3               | 765.26            | 21.5              | 76.6                | 149.3      | 40.7       | 1.85      | 1.07        | 0.16                         | 0.16                         | 10            | 0.5                     |                 |
| VAV 2-11 | D3ORW | D     | 30% EG      | 14         | 24 X 12 1/2 | 1510        | 0                    | 0.75                 | 0.2              | 0.01              | 1510                 | 190            | 55         | 1          | 1.47    | 724.8               | 724.8             | 36                | 77                  | 140.1      | 49.9       | 2.48      | 2.64        | 0.15                         | 0.15                         | 10            | 0.5                     |                 |
| VAV 2-12 | D3ORW | D     | 30% EG      | 10         | 14 X 12 1/2 | 1030        | 0                    | 0.75                 | 0.2              | 0.01              | 1030                 | 190            | 55         | 1          | 1.35    | 847.5               | 847.54            | 24                | 76.3                | 153.8      | 36.2       | 2.27      | 1.59        | 0.19                         | 0.19                         | 10            | 0.5                     |                 |
| VAV 2-13 | D3ORW | D     | 30% EG      | 14         | 24 X 12 1/2 | 1840        | 0                    | 0.75                 | 0.2              | 0.01              | 1840                 | 190            | 55         | 1          | 2.5     | 883.2               | 883.2             | 44                | 77                  | 153.9      | 36.1       | 4.21      | 7.27        | 0.21                         | 0.21                         | 10            | 0.5                     |                 |
| VAV 2-14 | D3ORW | D     | 30% EG      | 10         | 14 X 12 1/2 | 980         | 0                    | 0.75                 | 0.2              | 0.01              | 980                  | 190            | 55         | 1          | 1.1     | 806.4               | 806.4             | 22                | 75.9                | 148.6      | 41.4       | 1.85      | 1.07        | 0.18                         | 0.18                         | 10            | 0.5                     |                 |
| VAV 2-15 | D3ORW | D     | 30% EG      | 4          | 10 X 10     | 100         | 0                    | 0.75                 | 0.2              | 0.03              | 100                  | 190            | 55         | 1          | 0.05    | 144                 | 144               | 2.5               | 76.6                | 103.4      | 86.6       | 0.09      | 0           | 0.01                         | 0.01                         | 10            | 0.5                     |                 |
| VAV 2-16 | D3ORW | D     | 30% EG      | 6          | 10 X 10     | 270         | 0                    | 0.75                 | 0.2              | 0.04              | 270                  | 190            | 55         | 1          | 0.2     | 388.8               | 388.8             | 6.1               | 75.8                | 127.8      | 62.2       | 0.34      | 0.03        | 0.05                         | 0.05                         | 10            | 0.5                     |                 |
| VAV 2-17 | D3ORW | D     | 30% EG      | 4          | 10 X 10     | 70          | 0                    | 0.75                 | 0.2              | 0.01              | 70                   | 190            | 55         | 1          | 0.05    | 100.8               | 100.8             | 2.2               | 83.7                | 109.2      | 80.8       | 0.09      | 0           | 0.01                         | 0.01                         | 10            | 0.5                     |                 |
| VAV 2-18 | D3ORW | D     | 30% EG      | 8          | 12 X 12 1/2 | 540         | 0                    | 0.75                 | 0.2              | 0.02              | 540                  | 190            | 55         | 1          | 0.41    | 518.4               | 518.4             | 12.3              | 75.9                | 129.5      | 60.5       | 0.69      | 0.15        | 0.08                         | 0.08                         | 10            | 0.5                     |                 |
| VAV 2-19 | D3ORW | D     | 30% EG      | 8          | 12 X 12 1/2 | 470         | 0                    | 0.75                 | 0.2              | 0.02              | 470                  | 190            | 55         | 1          | 0.35    | 451.2               | 451.2             | 11.1              | 76.5                | 126.1      | 63.9       | 0.59      | 0.11        | 0.07                         | 0.07                         | 10            | 0.5                     |                 |
| VAV 2-20 | D3ORW | D     | 30% EG      | 10         | 14 X 12 1/2 | 840         | 0                    | 0.75                 | 0.2              | 0.01              | 840                  | 190            | 55         | 1          | 0.66    | 691.2               | 691.2             | 18                | 74.7                | 134.7      | 55.3       | 1.11      | 0.4         | 0.14                         | 0.14                         | 10            | 0.5                     |                 |
| VAV 2-21 | D3ORW | D     | 30% EG      | 6          | 10 X 10     | 260         | 0                    | 0.75                 | 0.2              | 0.04              | 260                  | 190            | 55         | 1          | 0.2     | 374.4               | 374.4             | 6.1               | 76.4                | 128.3      | 61.7       | 0.34      | 0.03        | 0.05                         | 0.05                         | 10            | 0.5                     |                 |
| VAV 2-22 | D3ORW | D     | 30% EG      | 6          | 10 X 10     | 170         | 0                    | 0.75                 | 0.2              | 0.02              | 170                  | 190            | 55         | 1          | 0.1     | 244.8               | 244.8             | 3.9               | 75.4                | 113.2      | 76.8       | 0.17      | 0.01        | 0.02                         | 0.02                         | 10            | 0.5                     |                 |
| VAV 3-01 | D3001 | D     |             |            | 8           | 12 X 12 1/2 | 500                  | 0                    | 0.75             | 0.2               | 0.02                 |                |            |            | 0       |                     |                   |                   |                     |            |            |           |             |                              |                              |               |                         | No Heating Coil |
| VAV 3-02 | D3ORW | D     | 30% EG      | 16         | 28 X 12 1/2 | 2140        | 0                    | 0.75                 | 0.2              | 0.01              | 2140                 | 190            | 55         | 1          | 2.8     | 880.5               | 880.46            | 48.9              | 76                  | 154.3      | 35.7       | 2.36      | 1.27        | 0.21                         | 0.21                         | 10            | 0.875                   |                 |
| VAV 3-03 | D3ORW | D     | 30% EG      | 10         | 14 X 12 1/2 | 1145        | 0                    | 0.75                 | 0.2              | 0.01              | 1145                 | 190            | 55         | 1          | 1.6     | 942.2               | 942.17            | 26.1              | 75.7                | 157        | 33         | 2.69      | 2.2         | 0.23                         | 0.23                         | 10            | 0.5                     |                 |
| VAV 3-04 | D3ORW | D     | 30% EG      | 10         | 14 X 12 1/2 | 910         | 0                    | 0.75                 | 0.2              | 0.01              | 910                  | 190            | 55         | 1          | 0.97    | 748.8               | 748.8             | 20.9              | 76.2                | 146        | 44         | 1.64      | 0.85        | 0.16                         | 0.16                         | 10            | 0.5                     |                 |
| VAV 3-05 | D3ORW | D     | 30% EG      | 10         | 14 X 12 1/2 | 1055        | 0                    | 0.75                 | 0.2              | 0.01              | 1055                 | 190            | 55         | 1          | 1.35    | 868.1               | 868.11            | 24.1              | 76                  | 153.5      | 36.5       | 2.27      | 1.59        | 0.2                          | 0.2                          | 10            | 0.5                     |                 |
| VAV 3-06 | D3ORW | D     | 30% EG      | 12         | 18 X 12 1/2 | 1440        | 0                    | 0.75                 | 0.2              | 0.01              | 1440                 | 190            | 55         | 1          | 3       | 921.6               | 921.6             | 35.9              | 78                  | 165.4      | 24.6       | 5.05      | 8.57        | 0.23                         | 0.23                         | 10            | 0.5                     |                 |
| VAV 3-07 | D3ORW | D     | 30% EG      | 8          | 12 X 12 1/2 | 650         | 0                    | 0.75                 | 0.2              | 0.02              | 650                  | 190            | 55         | 1          | 0.41    | 624                 | 624               | 12.5              | 73.2                | 126.6      | 63.4       | 0.69      | 0.15        | 0.11                         | 0.11                         | 10            | 0.5                     |                 |



