

| ROOF TOP UNIT SCHEDULE          |                                |        |  |
|---------------------------------|--------------------------------|--------|--|
| TAG                             | RTU-1.N                        |        |  |
| SERVICE                         | PSHOP AREA                     |        |  |
| DESCRIPTION                     | CUSTOM, PACKAGED ROOF TOP UNIT |        |  |
| SUPPLY FAN                      |                                |        |  |
| AIR FLOW RATE (L/s / CFM)       | 1,510                          | 3,200  |  |
| E.S.P. (Pa / in.WC)             | 436                            | 1.75   |  |
| TYPE                            | PLENUM, VFD                    |        |  |
| MOTOR SIZE (kW / HP)            | 1.12                           | 1.5    |  |
| EXHAUST FAN                     |                                |        |  |
| AIR FLOW RATE (L/s / CFM)       | 1,510                          | 3,200  |  |
| E.S.P. (Pa / in.WC)             | 374                            | 1.50   |  |
| TYPE                            | PLENUM                         |        |  |
| MOTOR SIZE (kW / HP)            | 1.12                           | 1.5    |  |
| HEATING                         |                                |        |  |
| TYPE                            | NATURAL GAS                    |        |  |
| CAPACITY CONTROL METHOD         | 4:1 MODULATING                 |        |  |
| CAPACITY OUTPUT (kW / MBH)      | 58.6                           | 200.0  |  |
| INPUT (kW / MBH)                | 46.9                           | 160.0  |  |
| REQUIRED L.A.T.(WINTER, C / F)  | 15.6                           | 60.0   |  |
| COOLING                         |                                |        |  |
| TYPE                            | DIRECT EXPANSION, R410A        |        |  |
| COMPRESSORS                     | 2 SCROLL                       |        |  |
| NOMINAL CAPACITY (kW / MBH)     | 28.9                           | 98.5   |  |
| REQUIRED L.A.T.(SUMMER, C / F)  | 12.8                           | 55.0   |  |
| FILTERS                         |                                |        |  |
| PREFILTER EFFICIENCY            | MERV 8                         |        |  |
| FINAL FILTER EFFICIENCY         | MERV 14                        |        |  |
| ECONOMIZER                      |                                |        |  |
| DIFF ENTHALPY CONTROL           |                                |        |  |
| VENTILATION DATA                |                                |        |  |
| MIN. O.A. FLOW RATE (L/s / CFM) | 519                            | 1,100  |  |
| PHYSICAL DATA                   |                                |        |  |
| WEIGHT (kg / lbs)               | 1,179                          | 2,600  |  |
| LENGTH (m / in.)                | 3.76                           | 148.00 |  |
| WIDTH (m / in.)                 | 1.35                           | 53.00  |  |
| HEIGHT (m / in.)                | 1.52                           | 60.00  |  |

| FAN SCHEDULE   |                          |      |       |                           |                     |                 |                                   |       |      |                        |   |  |  |
|--|--------------------------|------|-------|---------------------------|---------------------|-----------------|-----------------------------------|-------|------|------------------------|---|--|--|
| TAG  | SERVICE                  | TYPE | RPM   | AIR FLOW RATE (L/s) (CFM) | E.S.P. (Pa) (in.WC) | MOTOR (kW) (HP) | MANUFACTURER SUPPLIED ACCESSORIES |       |      |                        |   |  |  |
| EF-1.N   | LUNCH AND PRINT ROOMS    | R    | 1511  | 224                       | 475                 | 187             | 0.75                              | 0.124 | 1/6  | AS, BD, DS, FC, BS, HC | 1 |  |  |
| EF-2.N   | BASEMENT PESTICIDE       | R    | 1511  | 224                       | 475                 | 187             | 0.75                              | 0.124 | 1/6  | AS, BD, DS, FC, BS, HC | 1 |  |  |
| TF-1.1.N   | VAV-1.2.N LEADERSHIP     | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| TF-1.2.N   | VAV-1.4.N LEADERSHIP     | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| TF-1.3.N   | VAV-1.5.N MEETING        | CE   | 1,050 | 142                       | 300                 | 50              | 0.20                              | 0.082 | 0.11 | DS, IG                 |   |  |  |
| TF-1.4.N   | VAV-1.6.N LEADERSHIP     | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| TF-1.5.N   | VAV-1.7.N MEETING        | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| TF-1.6.N   | VAV-1.8.N LEADERSHIP     | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| TF-1.7.N   | VAV-1.10.N MEETING       | CE   | 1,000 | 189                       | 400                 | 50              | 0.20                              | 0.119 | 0.16 | DS, IG                 |   |  |  |
| TF-1.8.N   | CW-FC-105 MEETING        | CE   | 1,050 | 142                       | 300                 | 50              | 0.20                              | 0.082 | 0.11 | DS, IG                 |   |  |  |
| TF-1.9.N   | CW-FC-116A MEETING       | CE   | 1,000 | 189                       | 400                 | 50              | 0.20                              | 0.119 | 0.16 | DS, IG                 |   |  |  |
| TF-1.10.N  | CW-FC-118 LARGE MEETING  | CE   | 1,000 | 189                       | 400                 | 50              | 0.20                              | 0.119 | 0.16 | DS, IG                 |   |  |  |
| TF-1.11.N  | CW-FC-119 LARGE MEETING  | CE   | 1,000 | 189                       | 400                 | 50              | 0.20                              | 0.119 | 0.16 | DS, IG                 |   |  |  |
| TF-1.12.N  | AC-1 ECC                 | CE   | 1,000 | 189                       | 400                 | 50              | 0.20                              | 0.119 | 0.16 | DS, IG                 |   |  |  |
| TF-1.13.N  | AC-1 ECC                 | CE   | 1,000 | 189                       | 400                 | 50              | 0.20                              | 0.119 | 0.16 | DS, IG                 |   |  |  |
| TF-2.1.N   | VAV-2.1.N LEADERSHIP     | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| TF-2.2.N   | VAV-2.2.N LEADERSHIP     | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| TF-2.2.N   | VAV-2.3.N LEADERSHIP     | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| TF-2.4.N   | VAV-2.4.N LEADERSHIP     | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| TF-2.5.N   | VAV-2.5.N LEADERSHIP     | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| TF-2.6.N   | VAV-2.6.N LEADERSHIP     | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| TF-2.7.N   | VAV-2.7.N LEADERSHIP     | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| TF-2.8.N   | VAV-2.8.N MEETING ROOM   | CE   | 1,050 | 142                       | 300                 | 50              | 0.20                              | 0.082 | 0.11 | DS, IG                 |   |  |  |
| TF-2.9.N   | VAV-2.9.N LEADERSHIP     | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| TF-2.10.N  | VAV-2.10.N EPR COORD     | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| TF-2.11.N  | VAV-2.11.N LEADERSHIP    | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| TF-2.12.N  | VAV-2.12.N MEETING       | CE   | 1,050 | 142                       | 300                 | 50              | 0.20                              | 0.082 | 0.11 | DS, IG                 |   |  |  |
| TF-2.13.N  | VAV-2.13.N MEETING       | CE   | 1,050 | 142                       | 300                 | 50              | 0.20                              | 0.082 | 0.11 | DS, IG                 |   |  |  |
| TF-2.14.N  | VAV-2.14.N DUTY TO ACCOM | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| TF-2.15N   | CW-FC-211LARGE MEETING   | CE   | 1,000 | 189                       | 400                 | 50              | 0.20                              | 0.119 | 0.16 | DS, IG                 |   |  |  |
| TF-2.16.N  | LEADERSHIP PSCHP         | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| TF-2.16.N  | LEADERSHIP PSCHP         | CE   | 900   | 94                        | 200                 | 50              | 0.20                              | 0.052 | 0.07 | DS, IG                 |   |  |  |
| FAN TYPES: C CENTRIFUGAL TA TUBE AXIAL R ROOF W WALL I IN-LINE MF MIXED FLOW CE CEILING EXHAUST CF CENTRIFUGAL UP BLAST CP CEILING FAN   |                          |      |       |                           |                     |                 |                                   |       |      |                        |   |  |  |
| ABBREVIATIONS: BG BELT GUARD MB MIXING BOX WITH DAMPERS AND ACTUATORS SD SCROLL DRAIN AS SC ADJUSTABLE SHEAVES NSW NON-SPARKING WHEEL FC FACTORY CURB IG INLET GRILLE SH SPRING HANGERS BS BIRDSCREEN VP VIBRATION PADS MC MOUNTING COLLAR BD INSULATED BACKDRAFT DAMPER SM SPRING MOUNT WH WEATHERPROOF HOUSING F FILTER WC WALL CAP RC ROOF CAP E EPOXY COATING DS DISCONNECT SWITCH AD ACCESS DOOR H INLET HOOD IH INSULATED HOUSING HC HINGED CURB CAP |                          |      |       |                           |                     |                 |                                   |       |      |                        |   |  |  |
| NOTES: 1. CONTROLLED BY BUILDING AUTOMATION SYSTEM (BAS). TIE INTO EXISTING BAS SYSTEM SUCH THAT HOURS OF OPERATION CAN BE ADJUSTED.   |                          |      |       |                           |                     |                 |                                   |       |      |                        |   |  |  |

| EXISTING FAN COIL AIR FLOW SCHEDULE                   |              |         |                                 |                                    |        |      | NOTES |
|---|--------------|---------|---------------------------------|------------------------------------|--------|------|-------|
| TAG   | MANUFACTURER | MODEL   | AIR FLOW RATE<br>(L/s)<br>(CFM) | FAN PERFORMANCE<br>(Pa)<br>(in.WC) | E.S.P. |      |       |
| MAIN FLOOR  |              |         |                                 |                                    |        |      |       |
| CW-FC-101   | ENGINEER AIR | JM-1500 | 620                             | 1314                               | 75     | 0.30 |       |
| CW-FC-102   |              |         | 620                             | 1314                               | 125    | 0.50 |       |
| CW-FC-103   | ENGINEER AIR | JM-1000 | 470                             | 966                                | 75     | 0.30 |       |
| CW-FC-104   | ENGINEER AIR | JM-1000 | 520                             | 1132                               | 75     | 0.30 |       |
| CW-FC-105   | ENGINEER AIR | JM-1500 | 550                             | 1,165                              | 75     | 0.30 |       |
| CW-FC-106   | ENGINEER AIR | JM-1500 | 660                             | 1,368                              | 75     | 0.30 |       |
| CW-FC-107A  | ENGINEER AIR | JM-1500 | 580                             | 1,229                              | 125    | 0.50 |       |
| CW-FC-107B  | ENGINEER AIR | JM-1500 | 500                             | 1,060                              | 125    | 0.50 |       |
| CW-FC-108A  | ENGINEER AIR | JM-1500 | 520                             | 1,132                              | 125    | 0.50 |       |
| CW-FC-108B  | ENGINEER AIR | JM-1500 | 540                             | 1,144                              | 125    | 0.50 |       |
| CW-FC-109   | ENGINEER AIR | JM-1000 | 300                             | 636                                | 75     | 0.30 |       |
| CW-FC-110   | ENGINEER AIR | JM-1500 | 790                             | 1674                               | 75     | 0.30 |       |
| CW-FC-111   | ENGINEER AIR | JM-2000 | 640                             | 1992                               | 75     | 0.30 |       |
| CW-FC-112   | ENGINEER AIR | JM-1000 | 455                             | 954                                | 125    | 0.50 |       |
| CW-FC-113   | ENGINEER AIR | JM-1000 | 560                             | 1,188                              | 75     | 0.30 |       |
| CW-FC-114   | ENGINEER AIR | JM-1000 | 480                             | 1017                               | 75     | 0.30 |       |
| CW-FC-115A  | ENGINEER AIR | JM-1500 | 570                             | 1,208                              | 125    | 0.50 |       |
| CW-FC-115B  | ENGINEER AIR | JM-1500 | 590                             | 1,230                              | 125    | 0.50 |       |
| CW-FC-116A  | ENGINEER AIR | JM-1000 | 490                             | 1,038                              | 125    | 0.50 |       |
| CW-FC-116B  | ENGINEER AIR | JM-1500 | 600                             | 1,271                              | 125    | 0.50 |       |
| CW-FC-117   | ENGINEER AIR | JM-2000 | 900                             | 1,907                              | 125    | 0.50 |       |
| CW-FC-118   | ENGINEER AIR | JM-1500 | 850                             | 1,769                              | 125    | 0.50 |       |
| CW-FC-119   | ENGINEER AIR |         | 465                             | 955                                | 125    | 0.50 |       |
| CW-FC-121   | ENGINEER AIR | JM-1000 | 400                             | 848                                | 125    | 0.50 |       |
| SECOND FLOOR  |              |         |                                 |                                    |        |      |       |
| CW-FC-209   | ENGINEER AIR | JM-1500 | 800                             | 1,685                              | 125    | 0.50 |       |
| CW-FC-210   | ENGINEER AIR | JM-2000 | 900                             | 1,932                              | 125    | 0.50 |       |
| CW-FC-211   | ENGINEER AIR |         | 500                             | 1,090                              | 125    | 0.50 |       |
| CW-FC-212   | ENGINEER AIR |         | 330                             | 742                                | 125    | 0.50 |       |
| CW-FC-213   | ENGINEER AIR | JM-1500 | 540                             | 1,144                              | 75     | 0.30 |       |
| CW-FC-214   | ENGINEER AIR | JM-1500 | 540                             | 1,144                              | 75     | 0.30 |       |
| CW-FC-215B  | ENGINEER AIR | JM-2000 | 640                             | 1,730                              | 125    | 0.50 |       |
| CW-FC-216A  | ENGINEER AIR | JM-1500 | 540                             | 1,144                              | 125    | 0.50 |       |
| CW-FC-216B  | ENGINEER AIR | JM-1500 | 720                             | 1,525                              | 125    | 0.50 |       |
| CW-FC-218   | ENGINEER AIR | JM-2-C  | 600                             | 1,272                              | 125    | 0.50 |       |
| CW-FC-219   | ENGINEER AIR | JM-1000 | 400                             | 848                                | 125    | 0.50 |       |
| CW-FC-220   | ENGINEER AIR |         | 400                             | 848                                | 125    | 0.50 |       |
| NOTES:  |              |         |                                 |                                    |        |      |       |
| 1. FAN COIL IS EXISTING                               |              |         |                                 |                                    |        |      |       |
| 2. FANCOIL IS EXISTING AND RELOCATED                  |              |         |                                 |                                    |        |      |       |
| 3. ESTIMATED FC CAPACITY BASED ON EXISTING DUCT SIZES |              |         |                                 |                                    |        |      |       |

| ENERGY RECOVERY VENTILATORS                            |                       |       |  |
|--|-----------------------|-------|--|
| TAG  | ERV-1.N               |       |  |
| SERVICE  | ECC VENTILATION       |       |  |
| DESCRIPTION  | CEILING HUNG ERV UNIT |       |  |
| SUPPLY FAN   |                       |       |  |
| AIR FLOW RATE (L/s / CFM)                              | 153                   | 325   |  |
| E S.P. (Pa / in WC)                                    | 187                   | 0.75  |  |
| RETURN FAN   |                       |       |  |
| AIR FLOW RATE (L/s / CFM)                              | 153                   | 325   |  |
| E S.P. (Pa / in WC)                                    | 187                   | 0.75  |  |
| SPEED  |                       |       |  |
| HEAT EXCHANGER (WINTER)                                |                       |       |  |
| EFFECTIVENESS (%)                                      | 50.0                  |       |  |
| FILTERS SECTION  |                       |       |  |
| FILTER DEPTH / TYPE                                    | 1" PLEATED            |       |  |
| AVERAGE EFFICIENCY                                     | 30-40% ASHRAE         |       |  |
| PHYSICAL DATA  |                       |       |  |
| LENGTH (m / in)  | 0.91                  | 36.00 |  |
| WIDTH (m / in)   | 0.43                  | 17.00 |  |
| HEIGHT (m / in)  | 0.58                  | 23.00 |  |
| ELECTRICAL DATA  |                       |       |  |
| VOLTAGE/PHASE/FLA                                      | 115/1                 |       |  |
| NOTES:   |                       |       |  |
| 1. PROVIDE WALL CONTROLLER OFF/STANDBY/LO/HIGH CONTROL |                       |       |  |
| 2. PROVIDE DAMPER DEFROST OPTION.                      |                       |       |  |

| SPLIT AC UNIT SCHEDULE   |          |                        |                           |                          |                          |          |              |    |             |
|--|----------|------------------------|---------------------------|--------------------------|--------------------------|----------|--------------|----|-------------|
| TAG  | SERVICE  | DESCRIPTION            | INDOOR UNIT               |                          |                          |          | OUTDOOR UNIT |    | REFRIGERANT |
|  |          |                        | AIR FLOW RATE (L/s) (CFM) | TOTAL COOLING (kW) (MBH) | TOTAL HEATING (kW) (MBH) | SOUND DB |              |    |             |
| AC-1.N / CU-1.N  | ECC      | CONCEALED CEILING HUNG | 483                       | 1024                     | 10.5                     | 36       | 11.1         | 38 | R410A       |
| AC-2.N / CU-2.N  | EQUIP RM | WALL HUNG CONSOLE      | 519                       | 1,100                    | 10.5                     | 36       | -            | -  | R410A       |
| AC-3.N / CU-3.N  | TELECOM  | WALL HUNG CONSOLE      | 411                       | 870                      | 5.3                      | 18       | -            | -  | R410A       |
| NOTES: 1. PROVIDE PACKAGED CONTROLS AND ROOM CONTROLLER/STAT. 2. DDC SHALL MONITOR AVAILABLE ALARMS AND SPACE TEMPERATURE. 3. UNITS SHALL BE CAPABLE OF -40C AMBIENT TEMPERATURE OPERATION. 4. PROVIDE CONDENSATE LIFT PUMP KIT FOR EACH SYSTEM. 5. REFER TO SPECIFICATIONS FOR FURTHER DETAILS. |          |                        |                           |                          |                          |          |              |    |             |

| ELECTRIC HEATING COIL SCHEDULE  |                               |           |       |                  |         |                |      |                |      |      |       |
|---|-------------------------------|-----------|-------|------------------|---------|----------------|------|----------------|------|------|-------|
| TAG   | SERVICE                       | FLOW RATE |       | AIR SIDE         |         |                |      | HEATING OUTPUT |      |      |       |
|   |                               | (L/s)     | (CFM) | PRESS. DROP (Pa) | (in.WC) | ENT. TEMP. (C) | (F)  | LVG. TEMP. (C) | (F)  | (kW) | (MBH) |
| RHC-1-N   | QUIT ROOM                     | 50        | 106   | 12               | 0.05    | 12.8           | 55.0 | 23.9           | 75.0 | 0.7  | 2.3   |
| RHC-2-N   | LEADERSHIP                    | 90        | 190   | 12               | 0.05    | 12.8           | 55.0 | 23.9           | 75.0 | 1.2  | 4.1   |
| RHC-3-N   | LEADERSHIP                    | 90        | 190   | 12               | 0.05    | 12.8           | 55.0 | 23.9           | 75.0 | 1.2  | 4.1   |
| RHC-4-N   | FIT TO WORK/<br>CLINICAL EXAM | 231       | 490   | 12               | 0.05    | 12.8           | 55.0 | 23.9           | 75.0 | 3.1  | 10.6  |
| RHC-5-N   | IMMUNIZATION                  | 142       | 300   | 12               | 0.05    | 12.8           | 55.0 | 23.9           | 75.0 | 1.9  | 6.5   |
| RHC-6-N   | CLINICAL EXAM                 | 158       | 330   | 12               | 0.05    | 12.8           | 55.0 | 23.9           | 75.0 | 2.1  | 7.1   |
| RHC-7-N   | COMMUNICATION                 | 302       | 640   | 12               | 0.05    | 12.8           | 55.0 | 23.9           | 75.0 | 4.1  | 13.8  |
| RHC-8-N   | OPEN OFFICE                   | 302       | 640   | 12               | 0.05    | 12.8           | 55.0 | 23.9           | 75.0 | 4.1  | 13.8  |
| RHC-9-N   | WAITING/RECORD                | 156       | 330   | 12               | 0.05    | 12.8           | 55.0 | 23.9           | 75.0 | 2.1  | 7.1   |
| RHC-10-N  | ECC                           | 153       | 325   | 12               | 0.05    | -2.2           | 28.0 | 18.3           | 65.0 | 3.8  | 13.0  |
|   |                               |           |       |                  |         |                |      |                |      |      |       |
| NOTES:  |                               |           |       |                  |         |                |      |                |      |      |       |
| 1. DUCT HEATERS SHALL BE EQUIPPED WITH AIR FLOW PROVING SWITCH AND HIGH TEMPERATURE CUTOFF. |                               |           |       |                  |         |                |      |                |      |      |       |
| 2. PROVIDE MODULATING CONTROLS AND WALL THERMOSTAT.   |                               |           |       |                  |         |                |      |                |      |      |       |