SECTION 15732 - PACKAGED ROOFTOP AIR-CONDITIONING UNITS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals: Product Data and Shop Drawings.
B. Comply with ASHRAE 15.
C. EER: Equal to or greater than prescribed by the energy code adopted by the Authority Having Jurisdiction.
D. Warranties: Submit a written warranty, signed by the manufacturer, agreeing to the repair or replacement of components that fail within 5 years of Substantial Completion.

PART 2 - PRODUCTS

2.1 PACKAGED UNITS, 5 TO 20 TONS

A. Factory assembled and tested, consisting of compressors, condensers, evaporator coils, condenser and evaporator fans, refrigeration and temperature controls, filters, and dampers.
   1. Refer to Rooftop Heating/Cooling Unit Schedule on drawing M600 for capacities, and manufacturers.
   2. Evaporator Fans: Belt or direct driven, forward curved centrifugal.
   3. Exhaust/Relief Fans: Direct drive, forward curved centrifugal or propeller.
   4. Condenser Fans: Direct drive propeller.
   5. Refrigerant Coils: Aluminum fins and copper coil.
   6. Compressors: Serviceable hermetic or fully hermetic, with safety controls, hot gas bypass, and timed off controls.
   7. Heat Exchangers: Gas fired, with gas controls, electronic ignition, high limit cutout, and forced draft proving switch.
   8. Economizer controls (Comparative Enthalpy, 100% capacity).
   9. Smoke Detectors: Photoelectric in supply and/or return as called for in schedule on sheet M600.
   10. Operating Controls: Two stage heating and two stage cooling on units 7-1/2 tons and over.
   11. Roof curb.
   12. Control Wiring from T-stat to rooftop unit: Shall be 18ga / 7 conductor, rated for plenum applications.
   13. Control Wiring from T-stat to remote sensor: Shall be a separate 18ga / 2 conductor shielded, rated for plenum applications.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install units level and plumb and firmly anchored.
B. Connect gas piping to burner with pipe same size as gas train inlet, and provide union with sufficient clearance for burner removal and service.
C. Install ducts to termination in roof mounting frames. Terminate ducts through roof structure.
D. Connect units to wiring systems and to ground.

END OF SECTION 15732

SECTION 15810 - DUCTS AND ACCESSORIES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals: Product Data for fire and smoke dampers.
B. Comply with NFPA 90A for systems serving spaces more than 25,000 cu. ft. in volume or building Types II, IV, and V construction more than 3 stories in height.
C. Comply with NFPA 90B for systems serving spaces in 1 or 2 family dwellings or serving spaces less than 25,000 cu. ft..
D. Comply with NFPA 96, "Ventilation Control and Fire Protection of Commercial Cooking Operations," for kitchen hood ducts.
E. Comply with UL 181 and UL 181A for ducts and closures.
F. Testing, Adjusting, and Balancing Agency Qualifications: AABC certified (to be furnished by Tenant).

PART 2 - PRODUCTS

2.1 DUCTS

A. Spiral Duct: Spiral Lock Seam, without insulation, G90 galvanized finish, ASTM A-653/924
   1. Basis of Design Manufacturers: Lindab SPIROsafe, alternates to the basis of design must be submitted for review.
   2. Fittings: Factory produced standing seam construction with internal sealing. Fittings with a major axis of 36" or smaller shall be 20 gauge. Fittings with a major axis of 37"-48" shall be 18 gauge.
B. Galvanized Steel Sheet: Forming steel, ASTM A 653/653M, G90 coating designation.
C. Duct Liner: ASTM C 1071, Type II, with an airstream surface coated with a temperature resistant coating. Thickness: 1-1/2 inch. R-value : 8.
   1. Adhesive: ASTM C 916, Type I.
   2. Mechanical Fasteners: Galvanized steel pin, length as required to penetrate liner plus a 1/8 inch projection maximum into the airstream.
D. Joint and Seam Tape: Comply with UL 181A.
E. Joint and Seam Sealant: Comply with UL 181A.
F. Rectangular Metal Duct Fabrication: Comply with SMACNA's "HVAC Duct Construction Standard" for metal thickness, reinforcing types and intervals, tie rod applications, and joint types and intervals.

2.2 ACCESSORIES

A. Volume-Control Dampers: Factory fabricated volume control dampers, complete with required hardware and accessories. Single blade and multiple opposed blade, standard leakage rating, and suitable for horizontal or vertical applications.
B. Fire Dampers: Factory-fabricated fire dampers, complete with required hardware and accessories. UL labeled according to UL 555, "Fire Dampers".
C. Flexible Connectors: Flame retardant or noncombustible fabrics, coatings, and adhesives complying with UL 181, Class 1.
D. Flexible Ducts: Factory fabricated, insulated, round duct, with an outer jacket enclosing 2 inch thick, glass fiber insulation, R-value: 6.0, around a continuous inner liner.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Duct System Pressure Class: Construct and install each duct system with 2 inch positive and negative duct pressure classifications.
B. Conceal ducts from view in finished and occupied spaces. Except where noted as exposed.
C. Avoid passing through electrical equipment spaces and enclosures.
D. Support and connect metal ducts according to SMACNA's "HVAC Duct Construction Standard".
E. Install duct accessories according to applicable portions of details of construction as shown in SMACNA standards.
F. Install liner and/or insulation on ductwork per the material schedule on sheet M010.
G. Install volume control dampers in lined duct with methods to avoid damage to liner and to avoid erosion of duct liner.
H. Install fire and smoke dampers according to manufacturer's UL approved written instructions.
I. Install fusible links in fire dampers.
J. Provide saddle taps at tees for exposed ductwork.

3.2 TESTING, ADJUSTING, AND BALANCING

A. The Tenant will supply an independent balance agent to to balance and adjust the HVAC installation. The balance agent will be responsible for any pulley or belt changes required.
B. The GC is to have trained staffed available during the balancing to correct issues noted by the balance agent.
C. The balance agent is to balance airflow within distribution systems, including submains, branches, and terminals to indicated quantities +/- 10%. The hood exhaust system shall be balanced to a tolerance of -0+10% and the make-up air system to a tolerance of -10+0%.
D. The balance agent is to supply a copy of the balance report to the Tenant, engineer and general contractor for review.

END OF SECTION 15810

SECTION 15855 - DIFFUSERS, REGISTERS, AND GRILLES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals: None.

PART 2 - PRODUCTS

2.1 OUTLETS AND INLETS

A. All air terminal devices:
   1. Refer to Grills, Registers, and Diffusers Schedule for equipment schedule
   2. Manufacturer: As scheduled (NO SUBSTITUTIONS)
   3. Material: As scheduled.
   4. Finish: As scheduled.
   5. Mounting: As scheduled.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Coordinate location and installation with duct installation and installation of other ceiling and wall mounted items.
B. Locate ceiling diffusers, registers, and grilles, as indicated on the architectural "reflected ceiling plans." Unless otherwise indicated, locate units in center of acoustical ceiling panels.

END OF SECTION 15855

# HVAC GENERAL NOTES

A GENERAL NOTES APPLY TO HVAC SHEETS.
B WORK SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AS APPROVED AND AMENDED BY THE AUTHORITY HAVING JURISDICTION, INCLUDING APPLICABLE SECTIONS OF NFPA, THE MECHANICAL CODE, AND ANY INTERIM AMENDMENTS AT THE TIME OF THE PROPOSAL. PURCHASE PERMITS ASSOCIATED WITH THE WORK. OBTAIN INSPECTIONS REQUIRED BY CODE. SEE ARCHITECTURAL SHEETS FOR THE PREVAILING CODES.
C CONTRACTOR AND SUBCONTRACTORS SHALL REVIEW A COMPLETE SET OF THE CONSTRUCTION DOCUMENTS.
D COORDINATE WORK WITH THE WORK OF OTHER TRADES, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND OF THE EXISTING CONDITIONS AT THE PROJECT SITE.
E DRAWINGS FOR THE MECHANICAL WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWING SHALL NOT BE SCALED FOR EXACT MEASUREMENTS, REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, OFFSETS, ACCESSORIES, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.
F DUCT DIMENSIONS ON PLANS INDICATE DIMENSIONS OF INTERNAL FREE AREA.
G PERFORATED CEILING DIFFUSERS SHALL BE 4-WAY UNLESS NOTED OTHERWISE.
H COORDINATE ROOF WORK WITH THE OWNER'S CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
I UNLESS NOTED OTHERWISE RECTANGULAR DUCT ELBOWS GREATER THAN 45° SHALL BE MITERED ELBOWS WITH DOUBLE-THICKNESS TURNING VANES AND RECTANGULAR DUCT ELBOWS 45° OR LESS SHALL BE RADIUSED ELBOWS WITH AN INSIDE RADIUS OF AT LEAST 1/2 THE WIDTH OF THE DUCT.
J REPLACE AIR FILTERS WITH NEW, CLEAN MERV 8 AIR FILTERS AT TURNOVER.
K THE TERM "FURNISH" MEANS SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS. THE TERM "INSTALL" DESCRIBES THE OPERATIONS AT THE PROJECT SITE INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTING, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS. THE TERM "PROVIDE" MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
L PROVIDE LABELING CALLED FOR IN THE HVAC DRAWINGS USING ENGRAVED PHENOLIC PLATES.
M PROVIDE P3000 12 GA. UNISTRUT WITH PG FINISH FOR DUCT SUPPORTS AND OTHER UNISTRUT IN AREAS EXPOSED TO VIEW. SLOTTED UNISTRUT AND OTHER UNISTRUT WITH HOLES IS NOT ACCEPTABLE.
N UPON COMPLETION, THE GENERAL CONTRACTOR SHALL COMPILE PROJECT CLOSE OUT DOCUMENTATION AND TRAIN BUILDING OPERATIONS PERSONNEL FOR ALL MECHANICAL COMPONENTS, EQUIPMENT AND SYSTEMS GOVERNED BY THE ENERGY CODE. CLOSE OUT DOCUMENTATION SHALL INCLUDE: RECORD DOCUMENTS, O&M MANUALS, APPLICABLE WSEC MECHANICAL EQUIPMENT COMPLIANCE REPORTS AND CALCULATIONS.

# HVAC MATERIAL SCHEDULE

| | APPLICATION | ALLOWABLE MATERIAL |
|---|---|---|
| DUCT | | |
| | CONCEALED, GENERAL EXHAUST | RECT. OR ROUND AS SHOWN |
| | CONCEALED, RETURN | RECT. OR ROUND AS SHOWN, LINED OR INSULATED |
| | CONCEALED, SUPPLY | RECT. OR ROUND AS SHOWN, LINED OR INSULATED |
| | CONCEALED, TYPE I HOOD EXHAUST | RECTANGULAR 16 GA. BLACK IRON W/ WRAP OR UL 1978 FACTORY-MANUFACTURED DUCT W/ WRAP (SUBMIT SHOP DRAWINGS FOR FACTORY-MANUFACTURED DUCT PRIOR TO ORDERING FOR APPROVAL) |
| | EXPOSED GENERAL EXHAUST | RECTANGULAR, NO EXPOSED DUCT-SEALING MASTIC |
| | EXPOSED RETURN | RECTANGULAR, NO EXPOSED DUCT-SEALING MASTIC |
| | EXPOSED SUPPLY | RECT. LINED OR ROUND AS SHOWN, NO EXPOSED DUCT-SEALING MASTIC |

# HVAC ABBREVIATIONS

| | |
|---|---|
| (E) | EXISTING |
| ABV | ABOVE |
| ADA | AMERICANS WITH DISABILITIES ACT |
| AFF | ABOVE FINISHED FLOOR |
| AFG | ABOVE FINISHED GRADE |
| AHJ | AUTHORITY HAVING JURISDICTION |
| BFF | BELOW FINISHED FLOOR |
| BFG | BELOW FINISHED GRADE |
| BOH | BACK OF HOUSE |
| CLG | CEILING |
| CTE | CONNECT TO EXISTING |
| DN | DOWN |
| EXT'G | EXISTING |
| FLR | FLOOR |
| FOH | FRONT OF HOUSE |
| GYP | GYPSUM BOARD |
| NTS | NOT TO SCALE |
| O/H | OVERHEAD |
| OBD | OPPOSED BLADE DAMPER |
| TYP | TYPICAL |
| U/G | UNDERGROUND |
| UNO | UNLESS NOTED OTHERWISE |
| VFD | VARIABLE FREQUENCY DRIVE |
| VSC | VARIABLE SPEED CONTROLLER |
| W/ | WITH |
| WIC | WALK-IN COOLER |
| C02AS | TENANT'S CO2 ALARM SUPPLIER |
| GC | GENERAL CONTRACTOR |
| HES | TENANT'S HVAC EQUIPMENT SUPPLIER |
| HS | TENANT'S HOOD SUPPLIER |
| KES | TENANT'S KITCHEN EQUIPMENT SUPPLIER |
| LL | LANDLORD |
| SPS | TENANT'S SODA POP SUPPLIER |
| TAB | TENANT'S TEST AND BALANCE VENDOR |
| TCC | TENANT'S CABLING CONTRACTOR |
| TDC | TENANT'S DUCT CLEANER |
| TEMS | TENANT'S ENERGY MANAGEMENT SYSTEM SUPPLIER |
| TLS | TENANT'S LIGHT/LAMP SUPPLIER |
| TMB | TENANT'S MENU BOARD SUPPLIER |
| TMS | TENANT'S MILLWORK SUPPLIER |
| TP | TENANT'S PHONE SUPPLIER |
| TRS | TENANT'S RAILING SUPPLIER |
| TSV | TENANT'S SIGN VENDOR |
| TUV | TENANT'S UV SNAITIZER SUPPLIER |
| WCS | TENANT'S WALK-IN COOLER SUPPLIER |
| WHS | TENANT'S WATER HEATER SUPPLIER |

# HVAC SYMBOLS

CEILING DIFFUSER
CEILING-MOUNTED RETURN OR EXHAUST REGISTER
SUPPLY REGISTER
RETURN GRILLE
FLEXIBLE DUCT
MITERED CORNER WITH TURNING VANES
DUCTWORK INTERNAL FREE DIMENSIONS (WIDTH/HEIGHT) RECTANGULAR TO ROUND DUCT TRANSITION
DUCT-MOUNTED SMOKE DETECTOR
MOTOR-OPERATED DAMPER
MANUAL VOLUME DAMPER
GREASE DUCT CLEANOUT
MITERED CORNER WITHOUT TURNING VANES
GRIDPOINT THERMOSTAT
GRIDPOINT ZONE SENSOR MODULE
GRIDPOINT SUPPLY PROBE
PLAN NOTE: SEE PLAN NOTES LISTED ON THE SAME SHEET FOR NOTE MEANING
CONNECT TO EXISTING
EQUIPMENT TAG: SEE EQUIPMENT SCHEDULE ON SHEET M600 FOR EQUIPMENT INFORMATION
AUDIO/VISUAL REMOTE SMOKE DETECTOR ANNUNCIATOR WITH REMOTE KEY OPERATED RESET
GRILL, REGISTER, OR DIFFUSER TAG: TAG / NECK SIZE / AIRFLOW [CFM]


Consultant:

EVERJ ENGINEERING, INC.
1509 BUCK TRAIL LANE
WORTHINGTON, OH 43085
www.everjengineering.com

Contact: Joshua Everett
(240) 319-0822
jeverett@everjengineering.com


JOSHUA EVERETT STATE OF WASHINGTON 22014636 REGISTERED PROFESSIONAL ENGINEER

02/17/2023


COPYRIGHT 2022
THIS DRAWING IS AN INSTRUMENT OF SERVICE AND AS SUCH REMAINS THE PROPERTY OF CHIPOTLE MEXICAN GRILL, INC.. PERMISSION FOR USE OF THIS DOCUMENT IS LIMITED AND CAN BE EXTENDED ONLY BY WRITTEN AGREEMENT WITH CHIPOTLE MEXICAN GRILL, INC..



CHIPOTLE MEXICAN GRILL, INC.
PO BOX 182566
COLUMBUS, OH 43218-2566
TELEPHONE: 614.318.2400
INTERNET: WWW.CHIPOTLE.COM


STORE NO.: 46-4565
WALLA WALLA
1715 SE MEADOWBROOK ST.
COLLEGE PLACE, WA 99324

Issue Record:

| | |
|---|---|
| 02/17/2023 | PERMIT ISSUE |

A Revisions:

Drawn: JAE
Checked: JAE

Project No.: 220050

Contents: HVAC SPECIFICATIONS

M010

# HVAC PLAN NOTES

1 SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR CEILING MOUNTED EQUIPMENT LOCATION. TYPICAL.

2 PAINT DUCTWORK VISIBLE THROUGH DINING ROOM SUPPLY REGISTERS BLACK. TYPICAL.

3 NOT USED.

4 26/16 DUCT UP FOR TRANSITION TO RTU-1 RETURN CONNECTION IN ROOF CURB. RTU-1 SHALL HAVE AN INTEGRAL SMOKE DETECTOR MOUNTED IN THE RETURN AIR STREAM. INTERLOCK SMOKE DETECTOR TO RTU-1 OPERATION.

5 18/24 DUCT UP FOR RTU-2 RETURN SIDE-INLET CONNECTION. REFER TO THE ROOF PLAN FOR CONTINUATION. RTU-2 SHALL HAVE AN INTEGRAL SMOKE DETECTOR MOUNTED IN THE RETURN AIR STREAM. INTERLOCK SMOKE DETECTOR TO RTU-2 OPERATION.

6 26/16 DUCT UP FROM BUILDING SUPPLY THROUGH ROOF. TRANSITION TO RTU-1 SUPPLY CONNECTION IN ROOF CURB.

7 24/18 DUCT UP FROM BUILDING SUPPLY TO RTU-2 SIDE-INLET SUPPLY CONNECTION. REFER TO THE ROOF PLAN FOR CONTINUATION

8 14/14 DUCT UP THROUGH ROOF. TRANSITION TO MAU-1 SUPPLY CONNECTION IN ROOF CURB.

9 24/10 DUCT UP FROM HOOD. TRANSITION TO 16/16 AS SHOWN AND EXTEND THROUGH ROOF TO EF-1 COMPLIANT WITH NFPA 96. PROVIDE RADIUSED ELBOWS WITH AN INSIDE RADIUS OF 0.5W AT ELBOWS IN GREASE DUCT.

10 8/6 DUCT UP THROUGH ROOF TO EF-2.

11 28/6 DUCT DOWN TO MAKEUP AIR PSP DUCT CONNECTION. TRANSITION TO SUPPLY PLENUM OPENING SIZE. TYPICAL FOR 3.

12 8" DIA. DUCT DOWN TO AC PSP DUCT CONNECTION. TRANSITION TO SUPPLY PLENUM OPENING SIZE. TYPICAL. CAP UNUSED DUCT CONNECTIONS.

13 INSTALL GRIDPOINT THERMOSTATS FURNISHED BY TEMS FOR RTU-1 AND RTU-2 AT THIS LOCATION AT 48" AFF. COORDINATE WITH ELECTRICAL SWITCHING IN THIS AREA. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.

14 INSTALL GRIDPOINT ZONE SENSOR MODULE FURNISHED BY TEMS FOR RTU-1 AT THIS LOCATION 60" AFF DIRECTLY TO WALL (NO JUNCTION BOX). COORDINATE LOCATION WITH EQUIPMENT. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.

15 INSTALL GRIDPOINT ZONE SENSOR MODULE FURNISHED BY TEMS FOR RTU-2 AT THIS LOCATION 66" AFF DIRECTLY TO WALL (NO JUNCTION BOX). COORDINATE LOCATION WITH EQUIPMENT. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.

16 INSTALL GRIDPOINT SUPPLY PROBE FURNISHED BY TEMS FOR RTU-1 IN THE SUPPLY DUCTWORK UPSTREAM FROM THE FIRST BRANCH CONNECTION. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.

17 INSTALL GRIDPOINT SUPPLY PROBE FURNISHED BY TEMS FOR RTU-2 IN THE SUPPLY DUCTWORK UPSTREAM FROM THE FIRST BRANCH CONNECTION. COORDINATE SENSOR LOCATION SO THAT IT IS ACCESSIBLE FROM THE LAY-IN CEILING AREA OF THE KITCHEN. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.

# HVAC PLAN NOTES

18 INSTALL REMOTE TEMPERATURE SENSOR FOR HOOD HD-1 AT THIS LOCATION 66" AFF. COORDINATE LOCATION WITH EQUIPMENT. PROVIDE (2) #18 G. THERMISTOR CABLE FROM TEMPERATURE SENSOR TO HOOD CONTROL PANEL.

19 INSTALL KITCHEN HOOD, HD-1. SUPPORT HOOD PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL HOOD ACCORDING TO THE REQUIREMENTS OF ITS LISTING, IN COMPLIANCE WITH NFPA 96, THE BUILDING CODE, AND AUTHORITIES HAVING JURISDICTION. HOOD SHALL HAVE AN INTEGRAL DUCT COLLAR TEMPERATURE SENSOR TO AUTOMATICALLY ENERGIZE THE EXHAUST AND MAKEUP AIR FANS IF COOKING TEMPERATURES ARE DETECTED. EXHAUST DUCT SYSTEM TO BE WELDED OR FACTORY-MANUFACTURED WATER AND AIR TIGHT. INSTALL CLEANOUTS PER CODE AND AS SHOWN. INSTALL HOOD PER DETAILS 2, 4, AND 9/M700. CHIPOTLE WILL PROVIDE AN INDEPENDENT TESTING AGENCY FOR TESTING THE INTEGRITY OF THE GREASE DUCT SYSTEM.

20 INSTALL REMOTE CONDENSING UNIT FOR WALK-IN COOLER ON ROOF AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL REFRIGERANT LINE SET, THERMOSTATIC EXPANSION VALVE, SOLENOID VALVE, TEMPERATURE CONTROL, SIGHT GLASS, FILTER DRIER, PRESSURE CONTROL, LOW AMBIENT CONTROLS, AND WEATHERPROOF HOUSING. TRAP AND SLOPE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS. INSTALLATION SHALL COMPLY WITH ASHRAE/ANSI STANDARD 15. INSTALL THE REFRIGERANT LINE SET UNDER THE ROOF DECK TO WITHIN 3' OF THE CONDENSING UNIT. CUT 2-1/2" HOLE IN WALK-IN COOLER ROOF FOR REFRIGERANT LINE SET AND SEAL PER THE COOLER MANUFACTURER'S INSTALLATION INSTRUCTIONS AFTER LINE SET IS INSTALLED.

21 INSTALL REMOTE CONDENSER FOR ICE MACHINE ON ROOF AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL REFRIGERANT LINE SET, THERMOSTATIC EXPANSION VALVE, SOLENOID VALVE, TEMPERATURE CONTROL, SIGHT GLASS, FILTER DRIER, PRESSURE CONTROL, LOW AMBIENT CONTROLS, AND WEATHERPROOF HOUSING. TRAP AND SLOPE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS. SEAL PIPING PENETRATIONS THROUGH ROOF. INSTALLATION SHALL COMPLY WITH ASHRAE/ANSI STANDARD 15. INSTALL THE REFRIGERANT LINE SET UNDER THE ROOF DECK TO WITHIN 3' OF THE REMOTE CONDENSER. IF REFRIGERANT PIPING TO ICE MAKER IS EXPOSED TO PUBLIC VIEW CONCEAL WITHIN A STAINLESS STEEL SHROUD AS SHOWN IN THE ARCHITECTURAL DRAWINGS.

22 INSTALL ROOFTOP EQUIPMENT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

23 INSTALL EXHAUST FAN EF-1 PER DETAIL 5/M700 AND AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL GREASE VIROGUARD SYSTEM FURNISHED BY CHIPOTLE ON EXHAUST FAN, EF-1.

24 PROVIDE SUPPLY DIFFUSER CONNECTION TO SUPPLY SYSTEM PER DETAIL 1/M700. TYPICAL.

25 INSTALL THE AUDIO/VISUAL REMOTE SMOKE DETECTOR ANNUNCIATOR WITH REMOTE KEY OPERATED RESET FURNISHED BY THE HES. WIRE A UNIT BACK TO EACH SMOKE DETECTOR. MOUNT UNIT 60" AFF. TYPICAL.

# HVAC PLAN NOTES

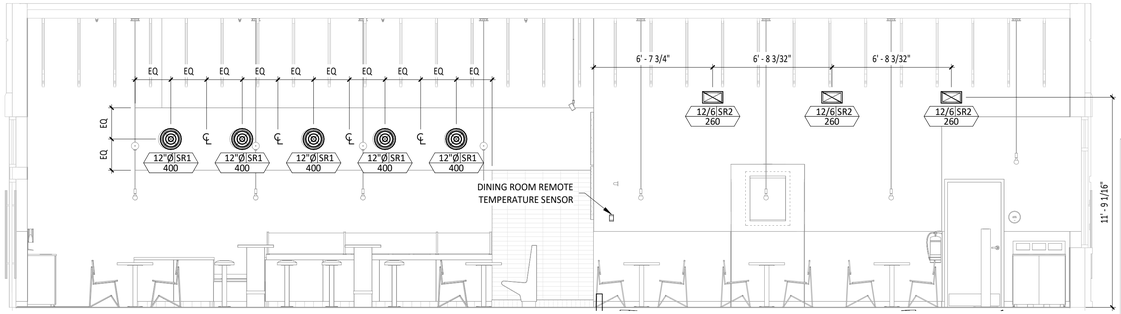
26 INSTALL REME HALO AIR PURIFIER FURNISHED BY TUV IN RTU PER DETAIL 6/M700. SEE ELECTRICAL DRAWINGS FOR POWER CONNECTION INFORMATION. INSTALL UV WARNING STICKERS ON FACE OF ENCLOSURE PER DETAIL AND ON ANY RTU ACCESS DOOR(S) THROUGH WHICH THE REME HALO WOULD BE VISIBLE IF OPENED.

27 MAINTAIN 10' CLEARANCE BETWEEN WATER HEATER FLUE TERMINATION AND OUTSIDE AIR INTAKES. MAINTAIN 10' CLEARANCE BETWEEN WATER HEATER COMBUSTION AIR INTAKE AND EXHAUST FAN EF-1 DISCHARGE. SEE PLUMBING DRAWINGS FOR MORE INFORMATION ON WATER HEATER FLUE AND COMBUSTION AIR TERMINATIONS.

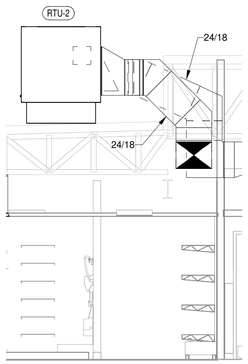
28 ADJUST SUPPLY REGISTERS SO THAT SUPPLY AIR HITS WALL ON OPPOSITE SIDE OF ROOM AT APPROXIMATELY 7' AFF WITH NO DRAFTS FELT IN THE DINING ROOM.

29 DUCTWORK SHALL PENETRATE THE VERTICAL PORTION OF THE ROOF AND DROP DOWN APPROXIMATELY AS SHOWN. COORDINATE WITH ALL FIELD-CONDITIONS AND EXISTING STRUCTURE AS REQUIRED.

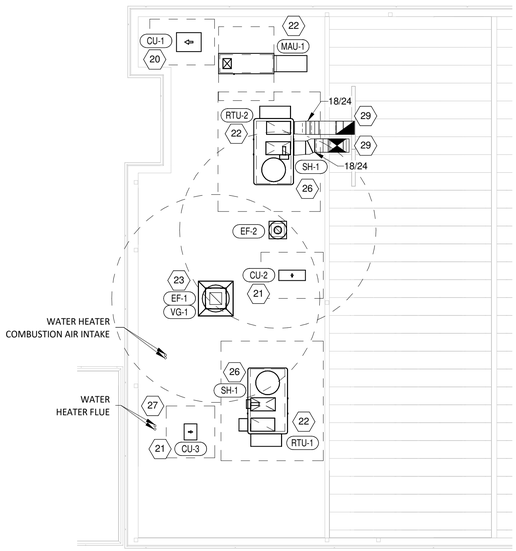
30 ADJUST THE THROW OF THE DIFFUSER SUCH THAT THE AIRFLOW IS DIRECTED THROUGH THE JOIST SPACE AND WASH THE EXTERIOR WALL. ADJUST TO MINIMIZE NOISE DURING OPERATION.



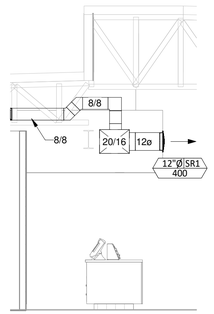

5 M100 **HVAC DINING ROOM SECTION**
1/4" = 1'-0"



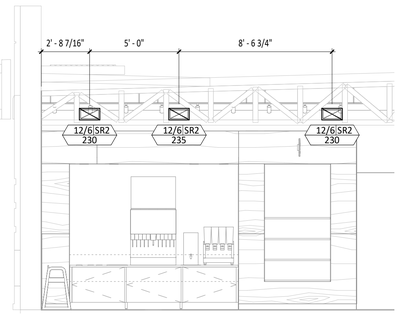

6 M100 **DUCTWORK THROUGH ROOF SECTION**
1/4" = 1'-0"



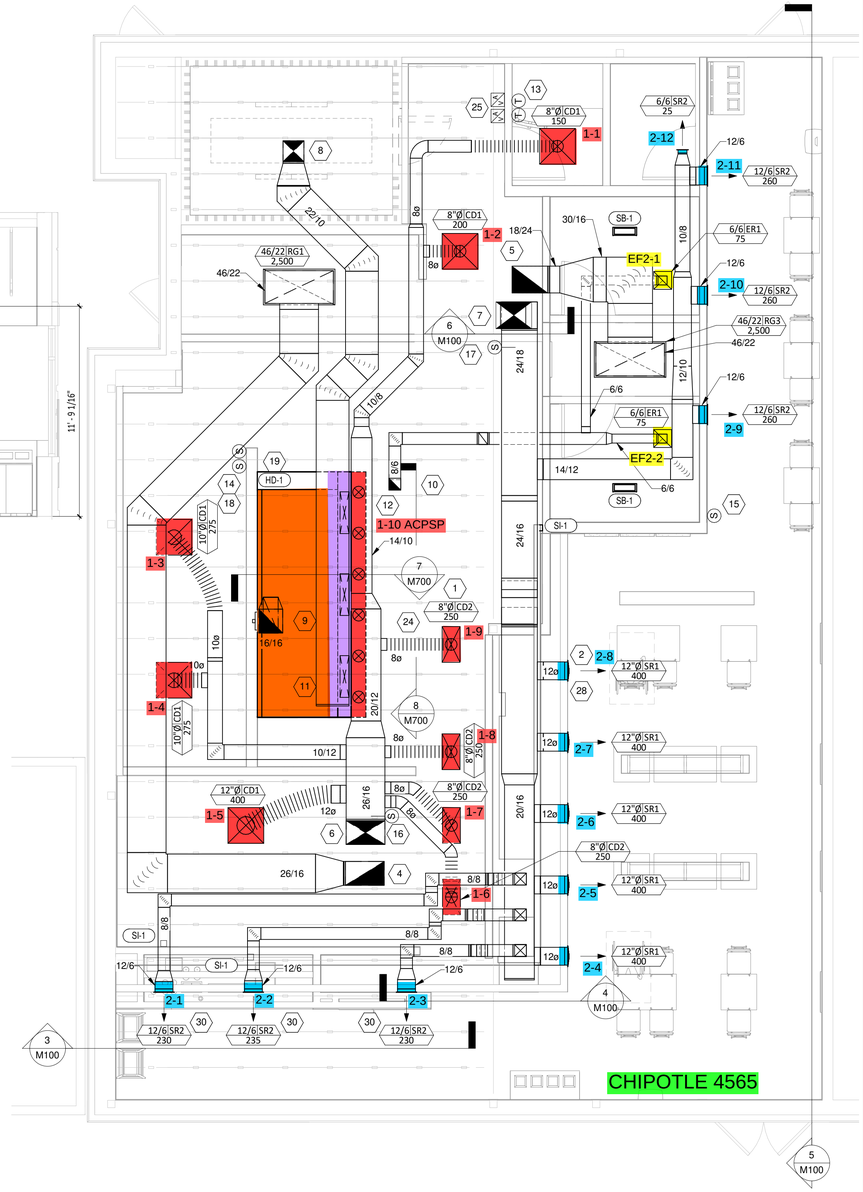

2 M100 **HVAC ROOF PLAN**
1/8" = 1'-0"




4 M100 **HVAC DUCTWORK SECTION**
1/4" = 1'-0"




3 M100 **HVAC DINING ROOM SECTION**
1/4" = 1'-0"




3 M100 **HVAC FLOOR PLAN**
1/4" = 1'-0"


Consultant:

EVERJ ENGINEERING, INC.
1509 BUCK TRAIL LANE
WORTHINGTON, OH 43085
www.everjengineering.com

Contact: Joshua Everett
(240) 319-0822
jeverett@everjengineering.com

JOSHUA EVERETT STATE OF WASHINGTON 22014636 REGISTERED PROFESSIONAL ENGINEER

02/17/2023



COPYRIGHT 2022
THIS DRAWING IS AN INSTRUMENT OF SERVICE AND AS SUCH REMAINS THE PROPERTY OF CHIPOTLE MEXICAN GRILL, INC.. PERMISSION FOR USE OF THIS DOCUMENT IS LIMITED AND CAN BE EXTENDED ONLY BY WRITTEN AGREEMENT WITH CHIPOTLE MEXICAN GRILL, INC..



CHIPOTLE MEXICAN GRILL, INC.
PO BOX 182566
COLUMBUS, OH 43218-2566
TELEPHONE: 614.318.2400
INTERNET: WWW.CHIPOTLE.COM


STORE NO.: 46-4565
WALLA WALLA
1715 SE MEADOWBROOK ST.
COLLEGE PLACE, WA 99324

Issue Record:

| | |
|---|---|
| 02/17/2023 | PERMIT ISSUE |

Revisions:

Drawn: JAE
Checked: JAE

Project No.: 220050

Contents: HVAC PLAN

M100

## VIROGUARD SCHEDULE

| TAG | COUNT | DESCRIPTION | DUCT CONNECTION SIZE | FAN | FURNISHED BY | INSTALLED BY | BASIS FOR DESIGN MANUFACTURER |
|---|---|---|---|---|---|---|---|
| VG-1 | 1 | VIROGUARD HOOD EXHAUST FAN ROOFTOP CONTAINMENT SYSTEM | 14" x 14" | CAPTIVE-AIRE DU85HFA | TDC | GC | ENVIROMATIC |

## SANITIZING EQUIPMENT SCHEDULE

| TAG | COUNT | DESCRIPTION | FURNISHED BY | INSTALLED BY | BASIS FOR DESIGN MANUFACTURER | BASIS FOR DESIGN MODEL | REMARKS |
|---|---|---|---|---|---|---|---|
| SB-1 | 2 | BATHROOM AIR PURIFICATION UNIT | TUV | GC | RGF ENVIRONMENTAL GROUP | BRU ASSEMBLY | SEE ELECTRICAL SHEETS FOR CONNECTION INFORMATION |
| SH-1 | 2 | HVAC AIR PURIFICATION UNIT | TUV | GC | RGF ENVIRONMENTAL GROUP | REME-HALO | SEE DETAIL 6/M700 FOR INSTALLATION INFORMATION. |
| SI-1 | 3 | ICE MACHINE TREATMENT SYSTEM | TUV | GC | RGF ENVIRONMENTAL GROUP | IMS-B-GA | SEE PLUMBING DRAWINGS FOR INSTALLATION INFORMATION. |

## AIR TERMINAL SCHEDULE

| TAG | DESCRIPTION | FACE SIZE | MATERIAL | FINISH | MOUNTING | FURNISHED BY | INSTALLED BY | BASIS FOR DESIGN MANUFACTURER | BASIS FOR DESIGN MODEL | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|
| CD1 | PERFORATED CEILING DIFFUSER | 24" X 24" | ALUMINUM | WHITE | LAY-IN CEILING | GC | GC | NAILOR | 4320A TYPE L | PROVIDE WITH INTEGRAL OBD |
| CD2 | PERFORATED CEILING DIFFUSER | 24" X 12" | ALUMINUM | WHITE | LAY-IN CEILING | GC | GC | NAILOR | 4320A TYPE L | PROVIDE WITH INTEGRAL OBD, REMOVE 4-WAY DEFLECTORS |
| ER1 | PERFORATED CEILING EXHAUST | 12" X 12" | ALUMINUM | WHITE | SURFACE MOUNT | GC | GC | NAILOR | 4330R TYPE S | PROVIDE INTEGRAL OBD |
| RG1 | PERFORATED CEILING RETURN | 48" X 24" | ALUMINUM | WHITE | LAY-IN CEILING | GC | GC | NAILOR | 4330R TYPE L | |
| RG3 | PERFORATED CEILING RETURN | 48" X 24" | ALUMINUM | WHITE | SURFACE MOUNT | GC | GC | NAILOR | 4330R TYPE S | |
| SR1 | ADJUSTABLE TURBO NOZZLE | SEE NECK SIZE | ALUMINUM | WHITE | WALL | GC | GC | AIR CONCEPTS | ANR-12 | PROVIDE WITH CONCEALED MOUNTING AND FACE-ACCESSIBLE OBD |
| SR2 | DOUBLE DEFLECTION SUPPLY REGISTER | SEE NECK SIZE | ALUMINUM | WHITE | WALL | GC | GC | NAILOR | 51DH | PROVIDE WITH INTEGRAL OBD |

## FAN SCHEDULE

| TAG | DESCRIPTION | AIRFLOW | E.S.P. | WEIGHT | ELECTRICAL MOTOR POWER | ELECTRICAL V/P/H | FURNISHED BY | INSTALLED BY | BASIS FOR DESIGN MANUFACTURER | BASIS FOR DESIGN MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EF-1 | UPBLAST UL762 EXHAUST FAN | 2,550 CFM | 1.20 in-wg | 400 lb | 2 hp | 208/3/60 | HS | GC | CAPTIVE-AIRE | DU180HFA | DIRECT DRIVE UL762 UPBLAST EXHAUST FAN FURNISHED WITH WEATHERPROOF DISCONNECT AND VENTED ROOF CURB |
| EF-2 | DOWNBLAST RESTROOM EXHAUST FAN | 150 CFM | 0.60 in-wg | 100 lb | 0.18 hp | 120/1/60 | HS | GC | CAPTIVE-AIRE | DR12HFA | DIRECT DRIVE DOWNBLAST RESTROOM EXHAUST FAN FURNISHED WITH INTEGRAL DISCONNECT, SPEED CONTROL, BACKDRAFT DAMPER, AND CURB |

## CONDENSING UNIT SCHEDULE

| TAG | DESCRIPTION | NUMBER OF COMPRESSORS | NUMBER OF CIRCUITS | REFRIGERANT TYPE | REFRIGERANT CHARGE | WEIGHT | ELECTRICAL MOCP | ELECTRICAL FLA | ELECTRICAL V/P/H | FURNISHED BY | INSTALLED BY | BASIS FOR DESIGN MANUFACTURER | BASIS FOR DESIGN MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CU-1 | CONDENSING UNIT - WALK-IN COOLER | 1 | 1 | R-404A | 10.4 lb | 250 lb | 15 A | 9 A | 208/3/60 | WCS | GC | HARFORD | KPCL99MZOP-3E | FURNISHED WITH WALK-IN COOLER |
| CU-2 | REMOTE CONDENSER - LOW CAPACITY ICE MAKER | 0 | 1 | R-404A | 11.46 lb | 100 lb | | | 120/1/60 | KES | GC | HOSHIZAKI | URC-9F | FURNISHED WITH ICE MAKER |
| CU-3 | REMOTE CONDENSER - SODA MACHINE ICE MAKER | 0 | 1 | R-404A | 3.86 lb | 100 lb | | | 120/1/60 | KES | GC | HOSHIZAKI | URC-5F | FURNISHED WITH ICE MAKER |

## MAKEUP AIR UNIT SCHEDULE

| TAG | DESCRIPTION | AIRFLOW | E.S.P. | HEATING INPUT | HEATING OUTPUT | HEATING EAT | WEIGHT | ELECTRICAL MOTOR POWER | ELECTRICAL V/P/H | FURNISHED BY | INSTALLED BY | BASIS FOR DESIGN MANUFACTURER | BASIS FOR DESIGN MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAU-1 | DIRECT-FIRED MAKEUP AIR UNIT | 1,300 CFM | 0.75 in-wg | 225,000 Btu/h | 220,000 Btu/h | 5 °F | 650 lb | 1 hp | 208/3/60 | HS | GC | CAPTIVE-AIRE | A1-D.250-15D | 12.5:1 MAX TURNDOWN. FURNISHED WITH DISCONNECT, ROOF CURB, SCREEN INTAKE, AND WASHABLE ALUMINUM FILTERS |

## KITCHEN HOOD SCHEDULE

| TAG | DESCRIPTION | MAX COOKING TEMP. | EXHAUST PLENUM AIRFLOW | EXHAUST PLENUM E.S.P. | EXHAUST PLENUM DUCT COLLARS NO. | EXHAUST PLENUM DUCT COLLARS WIDTH | EXHAUST PLENUM DUCT COLLARS LENGTH | PERFORATED SUPPLY PLENUMS LENGTH | PERFORATED SUPPLY PLENUMS WIDTH | MAU PLENUM AIRFLOW | MAU PLENUM DUCT COLLARS NO. | MAU PLENUM DUCT COLLARS WIDTH | MAU PLENUM DUCT COLLARS LENGTH | AC PLENUM AIRFLOW | AC PLENUM DUCT COLLARS NO. | AC PLENUM DUCT COLLARS DIAMETER | NO. OF LIGHT FIXTURES | WEIGHT | FURNISHED BY | INSTALLED BY | BASIS FOR DESIGN MANUFACTURER | BASIS FOR DESIGN MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HD-1 | TYPE I CANOPY HOOD WITH PERFORATED MAU AND AC SUPPLY PLENUMS | 600 °F | 2,550 CFM | 0.97 in-wg | 1 | 10" | 2' - 0" | 12' - 9" | 4' - 3" | 13' - 9" | 1' - 7" | 1,300 CFM | 3 | 6" | 2' - 4" | 700 CFM | 6 | 8" | 8 | 1,150 lb | HS | GC | CAPTIVE-AIRE | 5424 ND-2-ACPSP-F | MAT'L: 18 GA. TYPE 430 SS. FURNISHED WITH VERTICAL END PANELS, VAPORPROOF INCANDESCENT LIGHT FIXTURES, 16" TALL HE SS FILTERS, INTEGRAL UTILITY CABINET, ANSUL SYSTEM, DUCT COLLAR TEMPERATURE SENSOR, PREWIRE PACKAGE, SPARE FIRE SYSTEM DRY CONTACT, AND 4-POLE 20A CONTACTOR |

## ROOFTOP UNIT SCHEDULE

| TAG | DESCRIPTION | NOMINAL CAPACITY | EER | AIRFLOW TOTAL | AIRFLOW OA | AIRFLOW E.S.P. | NET COOLING CAPACITY TOTAL | NET COOLING CAPACITY SENSIBLE | EAT DB | EAT WB | COND. EAT | HEATING CAPACITY INPUT | HEATING CAPACITY OUTPUT | HEATING CAPACITY EAT | NUMBER OF COMPRESSORS | NUMBER OF CIRCUITS | REFRIGERANT TYPE | REFRIGERANT CHARGE | WEIGHT | ELECTRICAL MOCP | ELECTRICAL FLA | ELECTRICAL V/P/H | FURNISHED BY | INSTALLED BY | BASIS FOR DESIGN MANUFACTURER | BASIS FOR DESIGN MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RTU-1 | KITCHEN ROOFTOP UNIT | 8.5 ton | 11 | 3,000 CFM | 500 CFM | 0.80 in-wg | 88,020 Btu/h | 67,400 Btu/h | 77.6 °F | 63.8 °F | 105 °F | 120,000 Btu/h | 97,200 Btu/h | 58.8 °F | 2 | 2 | R-410A | 9.5 lb | 1,450 lb | 60 A | 48 A | 208/3/60 | HES | GC | TRANE | YSJ102 | FURNISHED WITH COMP. ENTHALPY ECON. WITH CLASS 1 MOTORIZED DAMPERS, BAROMETRIC RELIEF, RET. SMOKE DETECTOR W/ REMOTE KEYED ANNUNCIATOR/RESET, M.O.D., MERV-8 FILTERS, CURB, HAIL GUARD, TOOLLESS HINGED ACCESS PANELS, DISCONNECT, & UNIT-MOUNTED CONVENIENCE RECEPTACLE |
| RTU-2 | DINING ROOM ROOFTOP UNIT | 10 ton | 11 | 3,500 CFM | 1,000 CFM | 0.80 in-wg | 102,760 Btu/h | 93,720 Btu/h | 81.1 °F | 63.6 °F | 105 °F | 200,000 Btu/h | 160,200 Btu/h | 51.2 °F | 2 | 2 | R-410A | 10.1 lb | 1,500 lb | 70 A | 54 A | 208/3/60 | HES | GC | TRANE | YSJ120 | HORIZONTAL DISCHARGE UNIT. FURNISHED WITH COMP. ENTHALPY ECON. WITH CLASS 1 MOTORIZED DAMPERS, BAROMETRIC RELIEF, RET. SMOKE DETECTOR W/ REMOTE KEYED ANNUNCIATOR/RESET, M.O.D., MERV-8 FILTERS, CURB, HAIL GUARD, TOOLLESS HINGED ACCESS PANELS, DISCONNECT, & UNIT-MOUNTED CONVENIENCE RECEPTACLE |

## ECONOMIZER FUNCTIONS

- ECONOMIZERS ARE CONFIGURED FOR PARTIAL COOLING OPERATION EVEN WHERE ADDITIONAL MECHANICAL COOLING IS REQUIRED TO MEET THE LOAD.
- WITH MULTIPLE-STAGE EQUIPMENT, CONTROLS ARE CONFIGURED WITH AIR ECONOMIZERS WITH THE FIRST STAGE OF COOLING.
- USE OF ECONOMIZER SHALL NOT INCREASE BUILDING HEATING ENERGY USAGE.
- MODULATING OUTDOOR AIR AND RETURN AIR DAMPERS ARE CONFIGURED TO PROVIDE UP TO 100% OUTDOOR AIR FOR COOLING.
- CONTROL OF ECONOMIZER DAMPERS IS NOT BASED ONLY ON MIXED AIR TEMPERATURE; OR EXCEPTION APPLIED FOR SYSTEMS WITH COOLING CAPACITY ≤ 65 MBH.
- HIGH LIMIT SHUTOFF FOR COMPARATIVE ENTHALPY ECONOMIZER SHALL BE WHEN THE OUTDOOR AIR ENTHALPY EXCEEDS THE RETURN AIR ENTHALPY, OR 75°F.
- RELIEF AIR OUTLETS ARE SIZED AND CONFIGURED TO RELIEVE EXCESS BUILDING AIR DURING AIR ECONOMIZER OPERATION TO PREVENT BUILDING OVER-PRESSURIZATION.
- RELIEF AIR OUTLETS ARE LOCATED TO AVOID RECIRCULATION INTO THE BUILDING.

## CONTROL FUNCTIONS

A. THE MAIN COOKING EXHAUST FAN AND MAKE-UP AIR UNIT SHALL BE INTERLOCKED TO OPERATE TOGETHER. THIS CONTROL CIRCUIT IS ACTIVATED BY A SWITCH AND INCLUDES A FIRE PROTECTION OVERRIDE.

B. THE TEMPERATURE IN EACH ZONE IS CONTROLLED BY SPACE TEMPERATURE SENSORS CONNECTED TO THE THERMOSTATS LOCATED IN THE OFFICE. ALL ZONES SHALL OPERATE WITH CONTINUOUS FAN OPERATION DURING OCCUPIED TIMES AND INTERMITTENTLY AS NEEDED TO MAINTAIN SET POINTS DURING UNOCCUPIED TIMES. OUTSIDE AIR DAMPERS SHALL BE OPEN CONTINUOUSLY WHEN EITHER IN OCCUPIED MODE OR WHEN THE HOOD SYSTEM IS ON AND SHALL BE CLOSED DURING UNOCCUPIED PERIODS.

C. THE THERMOSTATS SHALL DETERMINE OCCUPIED/UNOCCUPIED STATUS BASED ON THE SCHEDULE IN THE ENERGY MANAGEMENT SYSTEM. THIS SHALL INCLUDE AUTOMATIC START CONTROLS TO BRING THE SPACE UP TO DESIGN TEMPERATURE JUST PRIOR TO SCHEDULED OCCUPANCY, AND STOP CONTROLS TO REDUCE THE HEATING SETPOINT AND INCREASE COOLING SETPOINT BY 2°F PRIOR TO SCHEDULED OCCUPIED PERIODS.

D. PROVIDE DOOR SWITCHES FOR ALL DOORS THAT LEAD TO THE EXTERIOR. WHEN THE DOOR HAS BEEN OPEN FOR GREATER THAN FIVE MINUTES, THE HEATING AND COOLING TO THE SPACE SHALL BE DISABLED.

## AIR BALANCE SCHEDULE

| TAG | SUPPLY FLOW | RETURN FLOW | EXHAUST FLOW | SUBTOTAL |
|---|---|---|---|---|
| EF-1 | 0 CFM | 0 CFM | 2,550 CFM | -2,550 CFM |
| EF-2 | 0 CFM | 0 CFM | 150 CFM | -150 CFM |
| MAU-1 | 1,300 CFM | 0 CFM | 0 CFM | 1,300 CFM |
| RTU-1 | 3,000 CFM | 2,500 CFM | 0 CFM | 500 CFM |
| RTU-2 | 3,500 CFM | 2,500 CFM | 0 CFM | 1,000 CFM |
| NET PRESSURIZATION | | | | 100 CFM |


Consultant:

EVERJ ENGINEERING, INC.
1509 BUCK TRAIL LANE
WORTHINGTON, OH 43085
www.everjengineering.com

Contact: Joshua Everett
(240) 319-0822
jeverett@everjengineering.com


JOSHUA EVERETT STATE OF WASHINGTON 22014636 REGISTERED PROFESSIONAL ENGINEER

02/17/2023


COPYRIGHT 2022
THIS DRAWING IS AN INSTRUMENT OF SERVICE AND AS SUCH REMAINS THE PROPERTY OF CHIPOTLE MEXICAN GRILL, INC.. PERMISSION FOR USE OF THIS DOCUMENT IS LIMITED AND CAN BE EXTENDED ONLY BY WRITTEN AGREEMENT WITH CHIPOTLE MEXICAN GRILL, INC..



CHIPOTLE MEXICAN GRILL, INC.
PO BOX 182566
COLUMBUS, OH 43218-2566
TELEPHONE: 614.318.2400
INTERNET: WWW.CHIPOTLE.COM


STORE NO.: 46-4565
WALLA WALLA
1715 SE MEADOWBROOK ST.
COLLEGE PLACE, WA 99324

Issue Record:

| | |
|---|---|
| 02/17/2023 | PERMIT ISSUE |

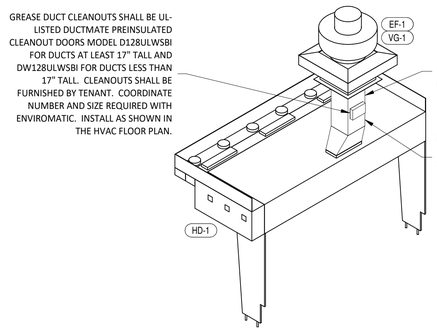
Revisions:

Drawn: JAE
Checked: JAE

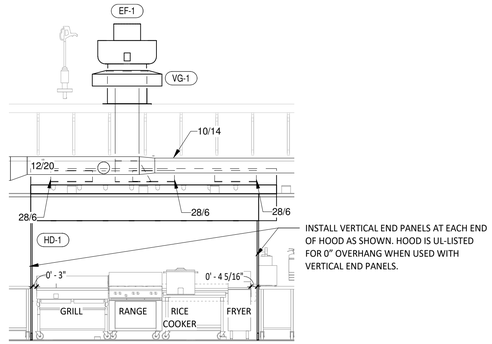
Project No.: 220050

Contents: HVAC SCHEDULES

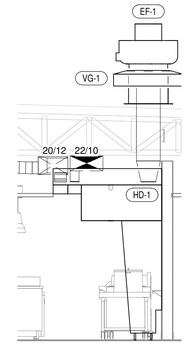
M600



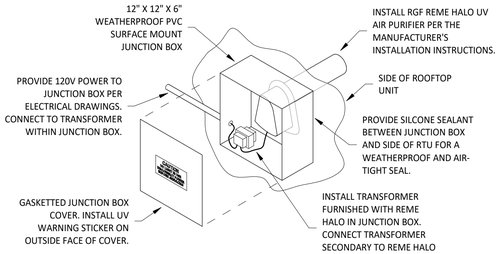

9/M700 **HOOD EXHAUST ISOMETRIC**
NOT TO SCALE




8/M700 **HOOD ELEVATION**
1/4" = 1'-0"




7/M700 **DUCT SECTION AT HOOD**
1/4" = 1'-0"



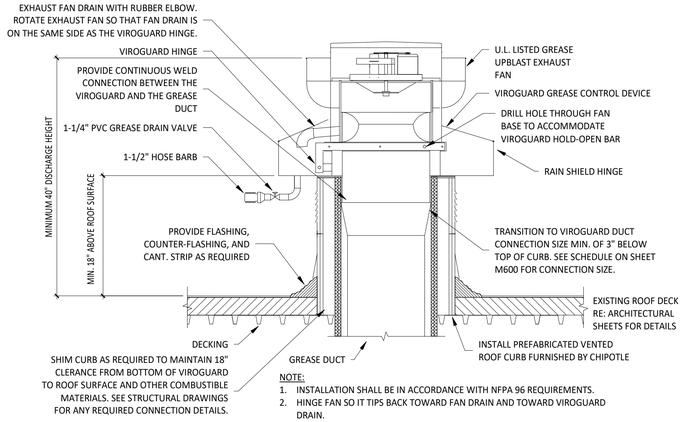

**INSTALLATION LOCATION**

INSTALL AIR PURIFIER WITH JUNCTION BOX ON OUTSIDE FACE OF ROOFTOP UNIT AND WITH UV LAMP TUBE EXTENDING INTO THE INTERIOR OF THE ROOFTOP UNIT. FIELD VERIFY EXACT LOCATION TO AVOID DAMAGING, TOUCHING, OR INTERFERING WITH ANY RTU INTERIOR COMPONENTS. INSTALLATION LOCATION SHALL BE AS FOLLOWS:

**TRANE**: INSTALL INTO THE SUPPLY AIR STREAM THROUGH THE REMOVABLE PANEL COVERING THE HORIZONTAL DISCHARGE SUPPLY AIR OPENING.

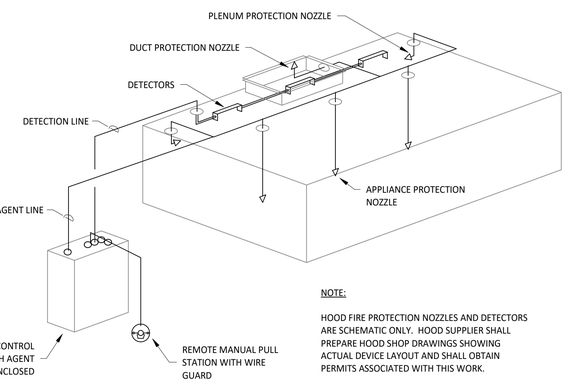
**YORK**: INSTALL INTO THE SUPPLY AIR PLENUM FROM THE BACK SIDE OF THE UNIT JUST ABOVE THE HEAT EXCHANGER.

6/M700 **UV AIR PURIFIER INSTALLATION**
NOT TO SCALE




NOTE:
1. INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 96 REQUIREMENTS.
2. HINGE FAN SO IT TIPS BACK TOWARD FAN DRAIN AND TOWARD VIROGUARD DRAIN.

5/M700 **GREASE EXHAUST FAN**
NOT TO SCALE



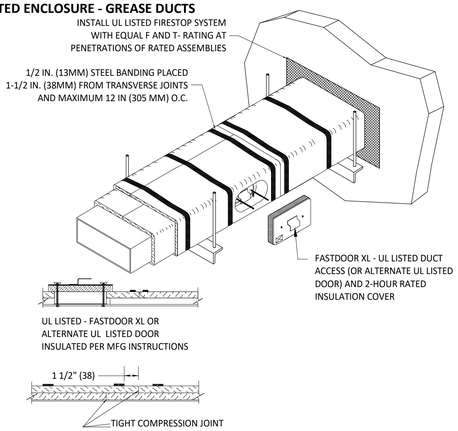

NOTE:

HOOD FIRE PROTECTION NOZZLES AND DETECTORS ARE SCHEMATIC ONLY. HOOD SUPPLIER SHALL PREPARE HOOD SHOP DRAWINGS SHOWING ACTUAL DEVICE LAYOUT AND SHALL OBTAIN PERMITS ASSOCIATED WITH THIS WORK.

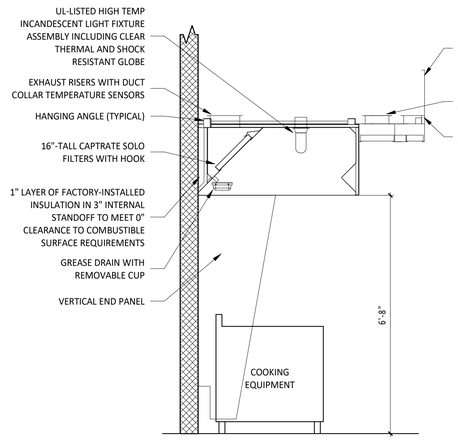
4/M700 **FIRE SUPPRESSION SYSTEM SCHEMATIC**
NOT TO SCALE

**FIRE RATED ENCLOSURE - GREASE DUCTS**

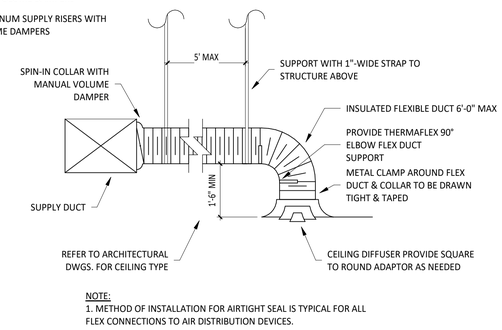
1. THERMAL CERAMICS FIREMASTER FASTWRAP XL IS TESTED TO ASTM E2336 AND UL LISTED PER HNKT.G18 TO PROVIDE ZERO CLEARANCE TO COMBUSTIBLES AND TO PROVIDE A 1- OR 2-HOUR ENCLOSURE. THROUGH PENETRATIONS FIRESTOP SYSTEMS ARE TESTED IN ACCORDANCE WITH ASTM E 814 (UL 1479). ICC CODE EVALUATION PER REPORT UL ER 14229-01.
2. COMPLIANT TO THE FOLLOWING CODES:
   NFPA 96
   INTERNATIONAL MECHANICAL CODES
   UNIFORM MECHANICAL CODE.
   CALIFORNIA MECHANICAL CODE
3. INSULATION APPLIED IN TWO LAYERS WITH TIGHT COMPRESSION JOINT ON BOTH LAYERS AT ALL JOINTS.
4. MINIMUM 16 GAUGE CARBON STEEL (OR 18 GAGE STAINLESS STEEL) RECTANGULAR OR ROUND GREASE EXHAUST DUCT
5. INSTALL UL LISTED AND LIQUID TIGHT THERMAL CERAMICS FASTDOOR XL ACCESS DOORS, OR ALTERNATE DOOR UL LISTED PER UL1978, AT ALL CHANGES IN DIRECTION AND AT MINIMUM EVERY 20 FT ON HORIZONTAL RUNS.
6. SUPPORT HANGER SYSTEMS DO NOT NEED TO BE WRAPPED PROVIDED THE HANGER RODS ARE MINIMUM OF 3/8 IN. DIAMETER AND SUPPORTS ARE MINIMUM 2 X 2 X 1/8 IN. STEEL ANGLE OR SMACNA EQUIVALENT SUPPORT SYSTEM.
7. THERMAL CERAMICS DUCT WRAP SHALL BE INSTALLED DIRECTLY ONTO THE DUCT AND APPLIED FROM THE HOOD CONNECTION TO THE CONNECTION TO THE FAN.
8. THERMAL CERAMICS DUCT ENCLOSURE SYSTEM SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND UL LISTINGS.




3/M700 **FIREMASTER DUCT WRAP - UL HNKT-G18**
NOT TO SCALE




2/M700 **HOOD SECTION VIEW**
NOT TO SCALE




NOTE:
1. METHOD OF INSTALLATION FOR AIRTIGHT SEAL IS TYPICAL FOR ALL FLEX CONNECTIONS TO AIR DISTRIBUTION DEVICES.

1/M700 **DIFFUSER CONNECTION**
NOT TO SCALE

Consultant:
EVERJ ENGINEERING, INC.
1509 BUCK TRAIL LANE
WORTHINGTON, OH 43085
www.everjengineering.com

Contact: Joshua Everett
(240) 319-0822
jeverett@everjengineering.com

JOSHUA EVERETT STATE OF WASHINGTON 22014636 REGISTERED PROFESSIONAL ENGINEER

02/17/2023

COPYRIGHT 2022
THIS DRAWING IS AN INSTRUMENT OF SERVICE AND AS SUCH REMAINS THE PROPERTY OF CHIPOTLE MEXICAN GRILL, INC.. PERMISSION FOR USE OF THIS DOCUMENT IS LIMITED AND CAN BE EXTENDED ONLY BY WRITTEN AGREEMENT WITH CHIPOTLE MEXICAN GRILL, INC..

CHIPOTLE MEXICAN GRILL, INC.
PO BOX 182566
COLUMBUS, OH 43218-2566
TELEPHONE: 614.318.2400
INTERNET: WWW.CHIPOTLE.COM

STORE NO.: 46-4565
WALLA WALLA
1715 SE MEADOWBROOK ST.
COLLEGE PLACE, WA 99324

Issue Record:
02/17/2023 PERMIT ISSUE

Revisions:

Drawn: JAE
Checked: JAE

Project No.
220050

Contents:
HVAC DETAILS

M700

## Air System Sizing Summary for RTU-2

Project Name: 220050-Chipotle-WallaWalla_WA
Prepared by: Everj Engineering, Inc.
02/17/2023
09:32AM

### Air System Information

| | | | |
|---|---|---|---|
| Air System Name | RTU-2 | Number of zones | 1 |
| Equipment Class | PKG ROOF | Floor Area | 1121.0 ft² |
| Air System Type | SZCAV | Location | Hanford, Washington |

### Sizing Calculation Information

| | | | |
|---|---|---|---|
| Calculation Months | Jan to Dec | Zone CFM Sizing | Sum of space airflow rates |
| Sizing Data | Calculated | Space CFM Sizing | Individual peak space loads |

### Central Cooling Coil Sizing Data

| | | | | | |
|---|---|---|---|---|---|
| Total coil load | 6.9 | Tons | Load occurs at | Aug 1500 | |
| Total coil load | 82.5 | MBH | OA DB / WB | 100.0 / 67.0 | °F |
| Sensible coil load | 82.5 | MBH | Entering DB / WB | 81.1 / 63.6 | °F |
| Coil CFM at Aug 1500 | 3500 | CFM | Leaving DB / WB | 58.6 / 55.4 | °F |
| Max block CFM | 3500 | CFM | Coil ADP | 56.1 | °F |
| Sum of peak zone CFM | 3500 | CFM | Bypass Factor | 0.100 | |
| Sensible heat ratio | 1.000 | | Resulting RH | 53 | % |
| CFM/Ton | 508.8 | | Design supply temp. | 58.0 | °F |
| ft²/Ton | 163.0 | | Zone T-stat Check | 1 of 1 | OK |
| BTU/(hr·ft²) | 73.6 | | Max zone temperature deviation | 0.0 | °F |
| Water flow @ 10.0 °F rise | N/A | | | | |

### Central Heating Coil Sizing Data

| | | | | | |
|---|---|---|---|---|---|
| Max coil load | 94.9 | MBH | Load occurs at | Des Htg | |
| Coil CFM at Des Htg | 3500 | CFM | BTU/(hr·ft²) | 84.6 | |
| Max coil CFM | 3500 | CFM | Ent. DB / Lvg DB | 51.2 / 76.9 | °F |
| Water flow @ 20.0 °F drop | N/A | | | | |

### Supply Fan Sizing Data

| | | | | | |
|---|---|---|---|---|---|
| Actual max CFM | 3500 | CFM | Fan motor BHP | 0.00 | BHP |
| Standard CFM | 3408 | CFM | Fan motor kW | 0.00 | kW |
| Actual max CFM/ft² | 3.12 | CFM/ft² | Fan static | 0.00 | in wg |

### Outdoor Ventilation Air Data

| | | | | | |
|---|---|---|---|---|---|
| Design airflow CFM | 1000 | CFM | CFM/person | 17.54 | CFM/person |
| CFM/ft² | 0.89 | CFM/ft² | | | |



## Air System Sizing Summary for RTU-1

Project Name: 220050-Chipotle-WallaWalla_WA
Prepared by: Everj Engineering, Inc.
02/17/2023
09:30AM

### Air System Information

| | | | |
|---|---|---|---|
| Air System Name | RTU-1 | Number of zones | 1 |
| Equipment Class | PKG ROOF | Floor Area | 1227.0 ft² |
| Air System Type | SZCAV | Location | Hanford, Washington |

### Sizing Calculation Information

| | | | |
|---|---|---|---|
| Calculation Months | Jan to Dec | Zone CFM Sizing | Sum of space airflow rates |
| Sizing Data | Calculated | Space CFM Sizing | Individual peak space loads |

### Central Cooling Coil Sizing Data

| | | | | | |
|---|---|---|---|---|---|
| Total coil load | 6.3 | Tons | Load occurs at | Jul 1600 | |
| Total coil load | 75.2 | MBH | OA DB / WB | 99.2 / 66.8 | °F |
| Sensible coil load | 66.8 | MBH | Entering DB / WB | 77.6 / 63.8 | °F |
| Coil CFM at Jul 1600 | 3000 | CFM | Leaving DB / WB | 56.4 / 55.1 | °F |
| Max block CFM | 3000 | CFM | Coil ADP | 54.1 | °F |
| Sum of peak zone CFM | 3000 | CFM | Bypass Factor | 0.100 | |
| Sensible heat ratio | 0.889 | | Resulting RH | 58 | % |
| CFM/Ton | 478.8 | | Design supply temp. | 55.9 | °F |
| ft²/Ton | 195.8 | | Zone T-stat Check | 1 of 1 | OK |
| BTU/(hr·ft²) | 61.3 | | Max zone temperature deviation | 0.0 | °F |
| Water flow @ 10.0 °F rise | N/A | | | | |

### Central Heating Coil Sizing Data

| | | | | | |
|---|---|---|---|---|---|
| Max coil load | 49.9 | MBH | Load occurs at | Des Htg | |
| Coil CFM at Des Htg | 3000 | CFM | BTU/(hr·ft²) | 40.6 | |
| Max coil CFM | 3000 | CFM | Ent. DB / Lvg DB | 58.8 / 74.6 | °F |
| Water flow @ 20.0 °F drop | N/A | | | | |

### Supply Fan Sizing Data

| | | | | | |
|---|---|---|---|---|---|
| Actual max CFM | 3000 | CFM | Fan motor BHP | 0.00 | BHP |
| Standard CFM | 2921 | CFM | Fan motor kW | 0.00 | kW |
| Actual max CFM/ft² | 2.44 | CFM/ft² | Fan static | 0.00 | in wg |

### Outdoor Ventilation Air Data

| | | | | | |
|---|---|---|---|---|---|
| Design airflow CFM | 500 | CFM | CFM/person | 62.50 | CFM/person |
| CFM/ft² | 0.41 | CFM/ft² | | | |



## Air System Design Load Summary for RTU-2

Project Name: 220050-Chipotle-WallaWalla_WA
Prepared by: Everj Engineering, Inc.
02/17/2023
09:32AM

| | DESIGN COOLING | | | DESIGN HEATING | | |
|---|---|---|---|---|---|---|
| | COOLING DATA AT Aug 1500<br>COOLING OA DB / WB 100.0 °F / 67.0 °F | | | HEATING DATA AT DES HTG<br>HEATING OA DB / WB 5.0 °F / 3.1 °F | | |
| ZONE LOADS | Details | Sensible (BTU/hr) | Latent (BTU/hr) | Details | Sensible (BTU/hr) | Latent (BTU/hr) |
| Window & Skylight Solar Loads | 342 ft² | 21074 | - | 342 ft² | - | - |
| Wall Transmission | 521 ft² | 1124 | - | 521 ft² | 2284 | - |
| Roof Transmission | 1121 ft² | 3219 | - | 1121 ft² | 4838 | - |
| Window Transmission | 342 ft² | 4722 | - | 342 ft² | 13200 | - |
| Skylight Transmission | 0 ft² | 0 | - | 0 ft² | 0 | - |
| Door Loads | 66 ft² | 3306 | - | 66 ft² | 1975 | - |
| Floor Transmission | 1121 ft² | 0 | - | 1121 ft² | 1999 | - |
| Partitions | 0 ft² | 0 | - | 0 ft² | 0 | - |
| Ceiling | 0 ft² | 0 | - | 0 ft² | 0 | - |
| Overhead Lighting | 646 W | 2029 | - | 0 | 0 | - |
| Task Lighting | 0 W | 0 | - | 0 | 0 | - |
| Electric Equipment | 0 W | 0 | - | 0 | 0 | - |
| People | 57 | 10091 | 11685 | 0 | 0 | 0 |
| Infiltration | - | 0 | 0 | - | 0 | 0 |
| Miscellaneous | - | 3565 | 0 | - | 0 | 0 |
| Safety Factor | 5% / 5% | 2457 | 584 | 10% | 2430 | 0 |
| >> Total Zone Loads | - | 51587 | 12269 | - | 26727 | 0 |
| Zone Conditioning | - | 54648 | 12269 | - | 26899 | 0 |
| Plenum Wall Load | 0% | 0 | - | 0 | 0 | - |
| Plenum Roof Load | 0% | 0 | - | 0 | 0 | - |
| Plenum Lighting Load | 0% | 0 | - | 0 | 0 | - |
| Return Fan Load | 3500 CFM | 0 | - | 3500 CFM | 0 | - |
| Ventilation Load | 1000 CFM | 27899 | -12267 | 1000 CFM | 67975 | 0 |
| Supply Fan Load | 3500 CFM | 0 | - | 3500 CFM | 0 | - |
| Space Fan Coil Fans | - | 0 | - | - | 0 | - |
| Duct Heat Gain / Loss | 0% | 0 | - | 0% | 0 | - |
| >> Total System Loads | - | 82547 | 2 | - | 94874 | 0 |
| Central Cooling Coil | - | 82547 | 0 | - | 0 | 0 |
| Central Heating Coil | - | 0 | - | - | 94874 | - |
| >> Total Conditioning | - | 82547 | 0 | - | 94874 | 0 |
| Key: | Positive values are clg loads<br>Negative values are htg loads | | | Positive values are htg loads<br>Negative values are clg loads | | |



## Air System Design Load Summary for RTU-1

Project Name: 220050-Chipotle-WallaWalla_WA
Prepared by: Everj Engineering, Inc.
02/17/2023
09:30AM

| | DESIGN COOLING | | | DESIGN HEATING | | |
|---|---|---|---|---|---|---|
| | COOLING DATA AT Jul 1600<br>COOLING OA DB / WB 99.2 °F / 66.8 °F | | | HEATING DATA AT DES HTG<br>HEATING OA DB / WB 5.0 °F / 3.1 °F | | |
| ZONE LOADS | Details | Sensible (BTU/hr) | Latent (BTU/hr) | Details | Sensible (BTU/hr) | Latent (BTU/hr) |
| Window & Skylight Solar Loads | 56 ft² | 3364 | - | 56 ft² | - | - |
| Wall Transmission | 1045 ft² | 2004 | - | 1045 ft² | 4580 | - |
| Roof Transmission | 1227 ft² | 3678 | - | 1227 ft² | 5296 | - |
| Window Transmission | 56 ft² | 653 | - | 56 ft² | 1778 | - |
| Skylight Transmission | 0 ft² | 0 | - | 0 ft² | 0 | - |
| Door Loads | 24 ft² | 171 | - | 24 ft² | 466 | - |
| Floor Transmission | 1227 ft² | 0 | - | 1227 ft² | 2489 | - |
| Partitions | 0 ft² | 0 | - | 0 ft² | 0 | - |
| Ceiling | 0 ft² | 0 | - | 0 ft² | 0 | - |
| Overhead Lighting | 1168 W | 3754 | - | 0 | 0 | - |
| Task Lighting | 0 W | 0 | - | 0 | 0 | - |
| Electric Equipment | 0 W | 0 | - | 0 | 0 | - |
| People | 8 | 2030 | 3640 | 0 | 0 | 0 |
| Infiltration | - | 0 | 0 | - | 0 | 0 |
| Miscellaneous | - | 32515 | 11750 | - | 0 | 0 |
| Safety Factor | 5% / 5% | 2408 | 770 | 10% | 1461 | 0 |
| >> Total Zone Loads | - | 50577 | 16160 | - | 16069 | 0 |
| Zone Conditioning | - | 53195 | 16160 | - | 15903 | 0 |
| Plenum Wall Load | 0% | 0 | - | 0 | 0 | - |
| Plenum Roof Load | 0% | 0 | - | 0 | 0 | - |
| Plenum Lighting Load | 0% | 0 | - | 0 | 0 | - |
| Return Fan Load | 3000 CFM | 0 | - | 3000 CFM | 0 | - |
| Ventilation Load | 500 CFM | 13641 | -7808 | 500 CFM | 33973 | 0 |
| Supply Fan Load | 3000 CFM | 0 | - | 3000 CFM | 0 | - |
| Space Fan Coil Fans | - | 0 | - | - | 0 | - |
| Duct Heat Gain / Loss | 0% | 0 | - | 0% | 0 | - |
| >> Total System Loads | - | 66836 | 8352 | - | 49876 | 0 |
| Central Cooling Coil | - | 66836 | 8353 | - | 0 | 0 |
| Central Heating Coil | - | 0 | - | - | 49876 | - |
| >> Total Conditioning | - | 66836 | 8353 | - | 49876 | 0 |
| Key: | Positive values are clg loads<br>Negative values are htg loads | | | Positive values are htg loads<br>Negative values are clg loads | | |



Consultant:
EVERJ ENGINEERING, INC.
1509 BUCK TRAIL LANE
WORTHINGTON, OH 43085
www.everjengineering.com

Contact: Joshua Everett
(240) 319-0822
jeverett@everjengineering.com

JOSHUA EVERETT STATE OF WASHINGTON 22014636 REGISTERED PROFESSIONAL ENGINEER

02/17/2023

COPYRIGHT 2022
THIS DRAWING IS AN INSTRUMENT OF SERVICE AND AS SUCH REMAINS THE PROPERTY OF CHIPOTLE MEXICAN GRILL, INC.. PERMISSION FOR USE OF THIS DOCUMENT IS LIMITED AND CAN BE EXTENDED ONLY BY WRITTEN AGREEMENT WITH CHIPOTLE MEXICAN GRILL, INC..

CHIPOTLE MEXICAN GRILL, INC.
PO BOX 182566
COLUMBUS, OH 43218-2566
TELEPHONE: 614.318.2400
INTERNET: WWW.CHIPOTLE.COM

STORE NO.: 46-4565
WALLA WALLA
1715 SE MEADOWBROOK ST.
COLLEGE PLACE, WA 99324

Issue Record:

| | |
|---|---|
| 02/17/2023 | PERMIT ISSUE |

Revisions:

Drawn: JAE
Checked: JAE

Project No.: 220050

Contents:

HVAC LOAD CALCULATIONS

M701