



# Certificate of Appropriateness

Milwaukee Historic Preservation Commission/200 E. Wells Street/Milwaukee, WI 53202/phone 414-286-5712/fax 414-286-3004

**Property** 2650 N. DOWNER AV. Downer Ave HD  
**Description of work** Build exterior air intake as grille into soffit over the entry into the second storefront from the north. Install air handling units on low roof, facing west. Install kitchen exhaust fan and ductwork on east/rear of building in alley. See attached plans.  
**Date issued** 2/20/2018 PTS ID 114306 COA: HVAC

In accordance with the provisions of Section 320-21 (11) and (12) of the Milwaukee Code of Ordinances, the Milwaukee Historic Preservation Commission has issued a certificate of appropriateness for the work listed above. The work was found to be consistent with preservation guidelines. The following conditions apply to this certificate of appropriateness:

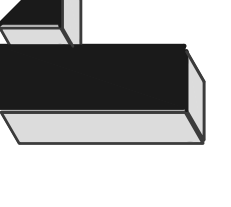
**Rooftop equipment must be painted. Rooftop ductwork must also be painted if will be visible above the parapet.**

All work must be done in a craftsman-like manner, and must be completed within one year of the date this certificate was issued. Staff must approve any changes or additions to this certificate before work begins. Work that is not completed in accordance with this certificate may be subject to correction orders or citations. If you require technical assistance, please contact Historic Preservation staff as follows: Phone: (414) 286-5712 E-mail: HPC@milwaukee.gov.

If permits are required, you are responsible for obtaining them from the Milwaukee Development Center. If you have questions about permit requirements, please consult the Development Center's web site, [www.milwaukee.gov/build](http://www.milwaukee.gov/build), or call (414) 286-8210.

City of Milwaukee Historic Preservation Staff

Copies to: Development Center, Ald. Nik Kovac, Contractor, Inspector Paul Wolfgramm (286-2590)



**W.H. JACKLIN, INC.**  
MECHANICAL CONTRACTORS  
and ENGINEERS

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(P) 414-355-6800  
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# STONE CREEK COFFEE

2650 N. DOWNER AVENUE  
MILWAUKEE, WI

REVISIONS

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DATE  
SEPTEMBER 28, 2017

PROJECT NO.  
S17179

## HVAC FIRST FLOOR PLAN

SHEET NUMBER  
**M-1**

| TAG | FLOOR | AREA SERVED       | LOCATION          | MANUFACTURER AND MODEL | HEATING CAPACITY |               |           |               | COOLING COIL  |                   |              |        | ELECTRICAL |             |             |                         | TOTAL COOLING CAPACITY (MBTU) | CONDENSING UNIT WEIGHT (LBS) | NOTES |       |       |
|-----|-------|-------------------|-------------------|------------------------|------------------|---------------|-----------|---------------|---------------|-------------------|--------------|--------|------------|-------------|-------------|-------------------------|-------------------------------|------------------------------|-------|-------|-------|
|     |       |                   |                   |                        | INPUT (MBTU)     | OUTPUT (MBTU) | AREA (SQ) | VENTING (CFM) | AREFLOW (CFM) | MIN. O.A. (IN.WC) | ESP. (IN.WC) | FAN HP | KW         | EAT (60/80) | LAT (60/80) | COOLING CAPACITY (MBTU) |                               |                              |       | VOLTS | PHASE |
| F-1 | FIRST | SERVING & SEATING | SERVING & SEATING | CARRIER 88SCC086S21-20 | 80.0             | 73.0          | 92.1      | 2-1/2"        | 1800          | 350               | 0.5          | 0.75   | 4.00       | 80.0/87.0   | 55.0/54.0   | 48.0                    | 120                           | 1                            | 11.7  | CL-1  | 160   |
| F-2 | FIRST | SERVING & SEATING | SERVING & SEATING | CARRIER 88SCC086S21-20 | 80.0             | 73.0          | 92.1      | 2-1/2"        | 1800          | 350               | 0.5          | 0.75   | 4.00       | 80.0/87.0   | 55.0/54.0   | 48.0                    | 120                           | 1                            | 11.7  | CL-1  | 160   |
| F-3 | FIRST | SOJIN AREA        | KITCHEN & SEATING | CARRIER 88SCC086S21-20 | 80.0             | 75.0          | 92.1      | 2-1/2"        | 1800          | 400               | 0.5          | 0.75   | 4.00       | 80.0/87.0   | 55.0/54.0   | 48.0                    | 120                           | 1                            | 11.7  | CL-1  | 160   |

NOTES  
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### CONDENSING UNIT SCHEDULE

| TAG  | SERIES               | LOCATION | MANUFACTURER AND MODEL | NOM. TON | SEER | AMBIENT TEMP. (DEG.F) | DB (DEG.F) | WB (DEG.F) | DX COIL INLET TEMP. (DEG.F) | DRY BULB (DEG.F) | WET BULB (DEG.F) | COOLING CAPACITY (MBTU) | LIQUID LINE (IN) | REFRIG. SECTION (IN) | VOLTS | PHASE | HZ     | MECA | MOCP | REFRIG. WEIGHT (LBS) | NOTES |
|------|----------------------|----------|------------------------|----------|------|-----------------------|------------|------------|-----------------------------|------------------|------------------|-------------------------|------------------|----------------------|-------|-------|--------|------|------|----------------------|-------|
| CU-1 | SEE FURNACE SCHEDULE | ROOF     | CARRIER 24ABR348       | 4.0      | 13.0 | 95.0                  | 80.0       | 67.0       | 48.0                        | 38               | 1-1/8            | 208                     | 1                | 60                   | 25.2  | 40    | R-410A | 189  |      |                      |       |
| CU-2 | SEE FURNACE SCHEDULE | ROOF     | CARRIER 24ABR348       | 4.0      | 13.0 | 95.0                  | 80.0       | 67.0       | 48.0                        | 38               | 1-1/8            | 208                     | 1                | 60                   | 25.2  | 40    | R-410A | 189  |      |                      |       |
| CU-3 | SEE FURNACE SCHEDULE | ROOF     | CARRIER 24ABR348       | 4.0      | 13.0 | 95.0                  | 80.0       | 67.0       | 48.0                        | 38               | 1-1/8            | 208                     | 1                | 60                   | 25.2  | 40    | R-410A | 189  |      |                      |       |

NOTES:  
1. PROVIDE LOW AMBIENT PRESSURE CONTROLS.  
2. REFRIGERANT LINE SIZES SHOWN FOR STANDARD INSTALLATION. WHEN EQUIVALENT LENGTH EXCEEDS 80 FT REFER TO MANUFACTURERS TONGUE APPLICATION GUIDE TO VERIFY CORRECT LINE SIZES.

### EXHAUST FAN SCHEDULE

| TAG   | AREA SERVED        | LOCATION | MANUFACTURER AND MODEL | AREFLOW (CFM) | SP. IN. (IN) | FAN TYPE | HPM | DRIVE  | WINDS | VOL. T. | PH | AMPS | WEIGHT | NOTES |
|-------|--------------------|----------|------------------------|---------------|--------------|----------|-----|--------|-------|---------|----|------|--------|-------|
| CEF-1 | WOMEN TOILET ROOM  | CEILING  | BROAN R64              | 80            | 0.20         | -        | 48  | DIRECT | 48    | 120     | 1  | 8    | 3      |       |
| CEF-2 | MEN'S TOILET ROOM  | CEILING  | BROAN R64              | 80            | 0.20         | -        | 48  | DIRECT | 48    | 120     | 1  | 8    | 3      |       |
| CEF-3 | FAMILY TOILET ROOM | CEILING  | BROAN R64              | 80            | 0.20         | -        | 48  | DIRECT | 48    | 120     | 1  | 8    | 3      |       |
| CEF-4 | ELECTRICAL CLOSET  | CEILING  | BROAN R64              | 80            | 0.20         | -        | 48  | DIRECT | 48    | 120     | 1  | 8    | 3      |       |
| CEF-5 | JANITORS CLOSET    | CEILING  | BROAN R64              | 80            | 0.20         | -        | 48  | DIRECT | 48    | 120     | 1  | 8    | 3      |       |

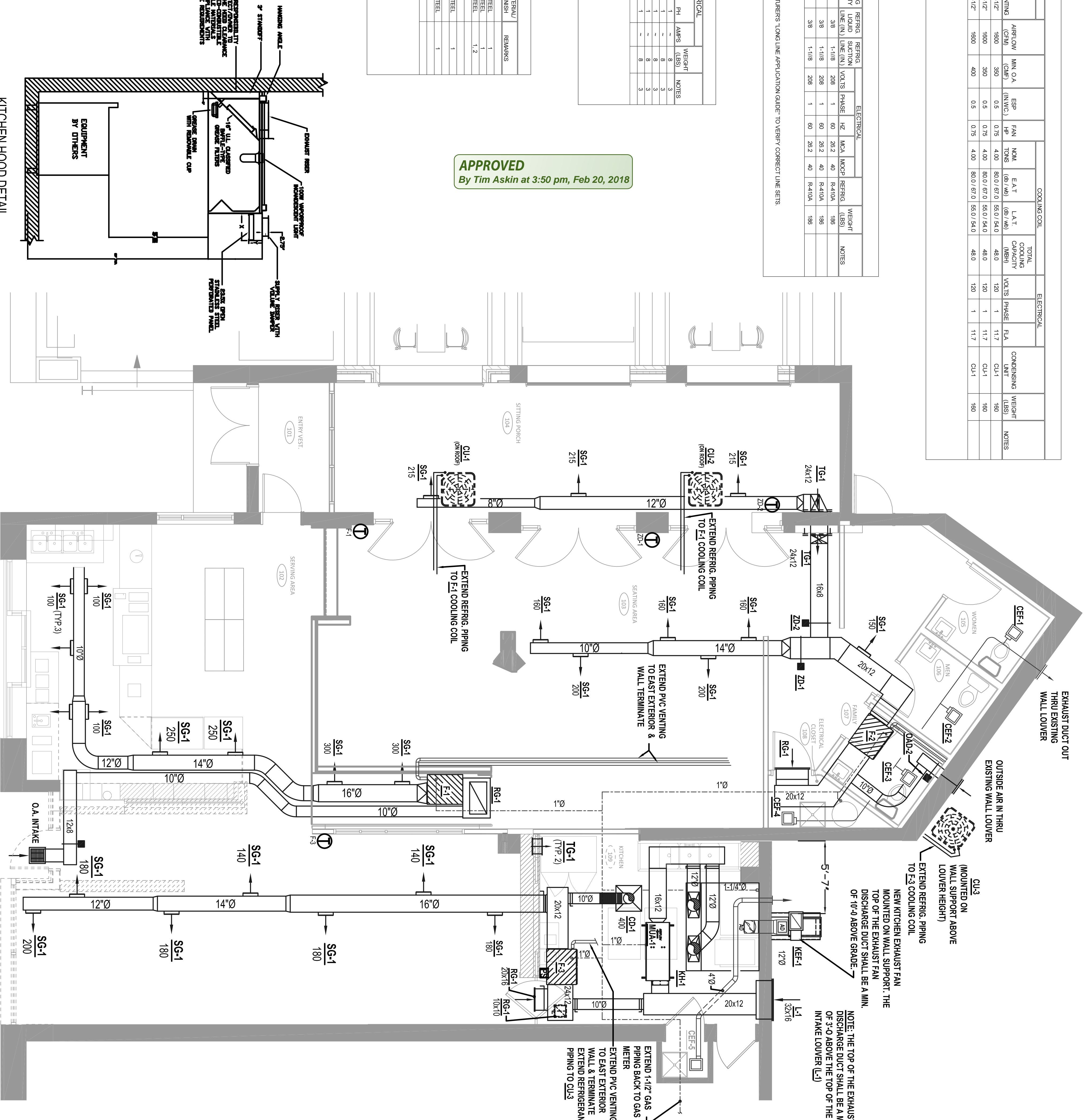
NOTES:  
1. PROVIDE HANGING ISOLATOR ROOFS AND DISCONNECT SWITCH.  
2. EXHAUST FAN TO BE INTERLOCKED WITH WALL SWITCH BY ELECTRICAL CONTRACTOR.

### GRILLE & DIFFUSER SCHEDULE

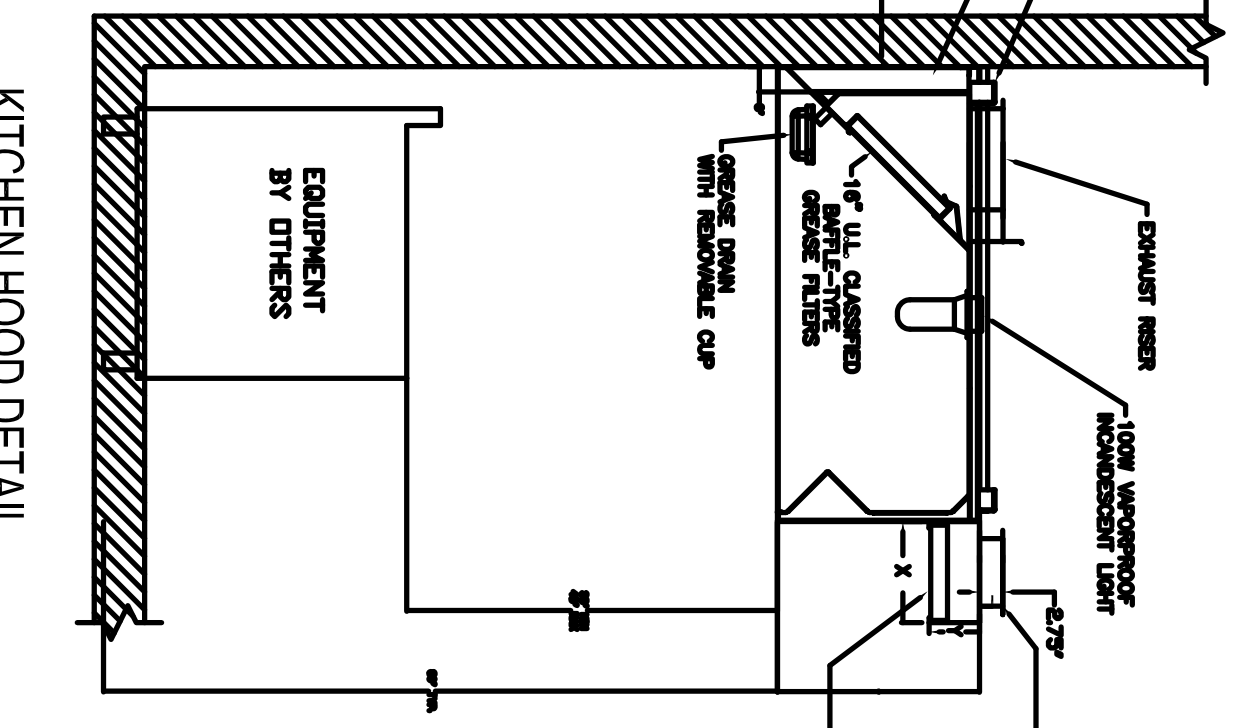
| TAG  | SERVICE  | MANUFACTURER AND MODEL | TYPE                            | SIZE     | LENGTH | DAMPERS | MATERIAL | REMARKS |
|------|----------|------------------------|---------------------------------|----------|--------|---------|----------|---------|
| SG-1 | SUPPLY   | SPRIGAL DUCT GRILLE    | SPRIGAL DUCT GRILLE             | 20x6     | -      | NO      | STEEL    | 1       |
| SG-2 | SUPPLY   | SPRIGAL DUCT GRILLE    | SPRIGAL DUCT GRILLE             | 28x6     | -      | NO      | STEEL    | 1       |
| SG-3 | SUPPLY   | PRICE 930              | DOUBLE DEFLECTION SUPPLY GRILLE | 14x8     | -      | NO      | STEEL    | 1, 2    |
| RS-1 | RETURN   | PRICE 930              | SURFACE MTD GRILLE              | SEE PLAN | -      | NO      | STEEL    | 1       |
| TS-1 | TRANSFER | PRICE 930              | SURFACE MTD GRILLE              | 14x2     | -      | NO      | STEEL    | 1       |

NOTES:  
1. COORDINATE EXACT LOCATIONS AND FRAME TYPE WITH ARCHITECTURAL REFLECTED CEILING PLAN.  
2. PROVIDE WITH VOLUME DAMPER IN DUCTWORK.

**APPROVED**  
By Tim Askin at 3:50 pm, Feb 20, 2018

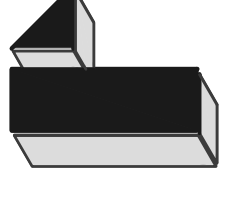


1st FLOOR HVAC PLAN  
SCALE: 1/4" = 1'-0"



KITCHEN HOOD DETAIL





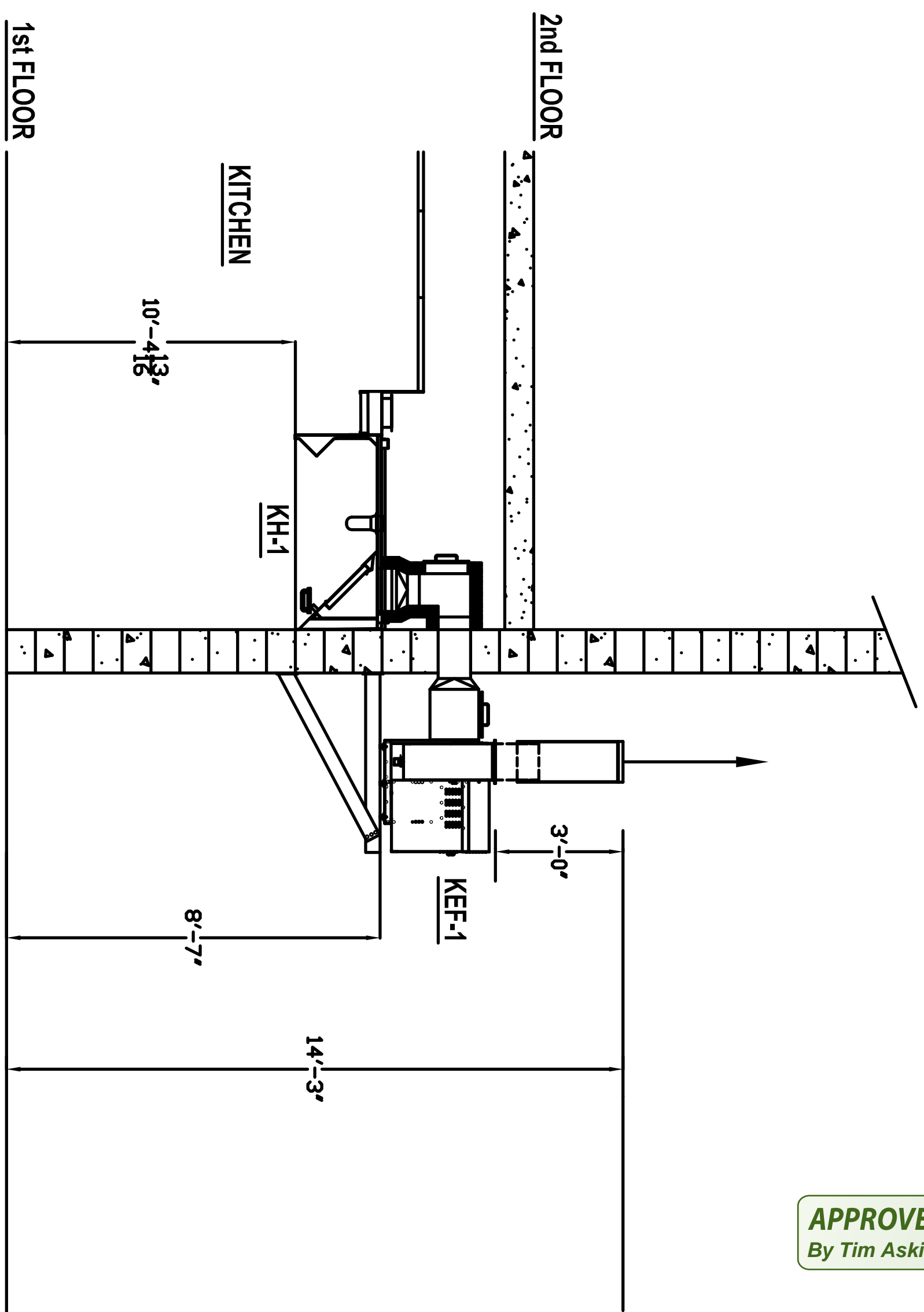
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MILWAUKEE, WI

**APPROVED**  
By Tim Askin at 3:50 pm, Feb 20, 2018



## KITCHEN EXHAUST FAN & HOOD DETAIL



**UNIFLEX** Product Information Sheet

**FyreWrap® Elite® 1.5**  
Duct Insulation – Grease  
Duct ASTM E2336 System

**Introduction:** FyreWrap® Elite® 1.5 is a non-toxic, non-flammable, fire-resistant, and grease-resistant insulation system for grease ducts. It is designed to meet or exceed the requirements of the International Building Code (IBC) and the National Fire Protection Association (NFPA) for grease duct insulation. FyreWrap® Elite® 1.5 is made of a non-toxic, non-flammable, fire-resistant, and grease-resistant material that is resistant to fire, smoke, and heat. It is also resistant to grease, oil, and other contaminants. FyreWrap® Elite® 1.5 is available in a variety of thicknesses and is easy to install. It is a cost-effective solution for grease duct insulation that provides long-term protection and safety.

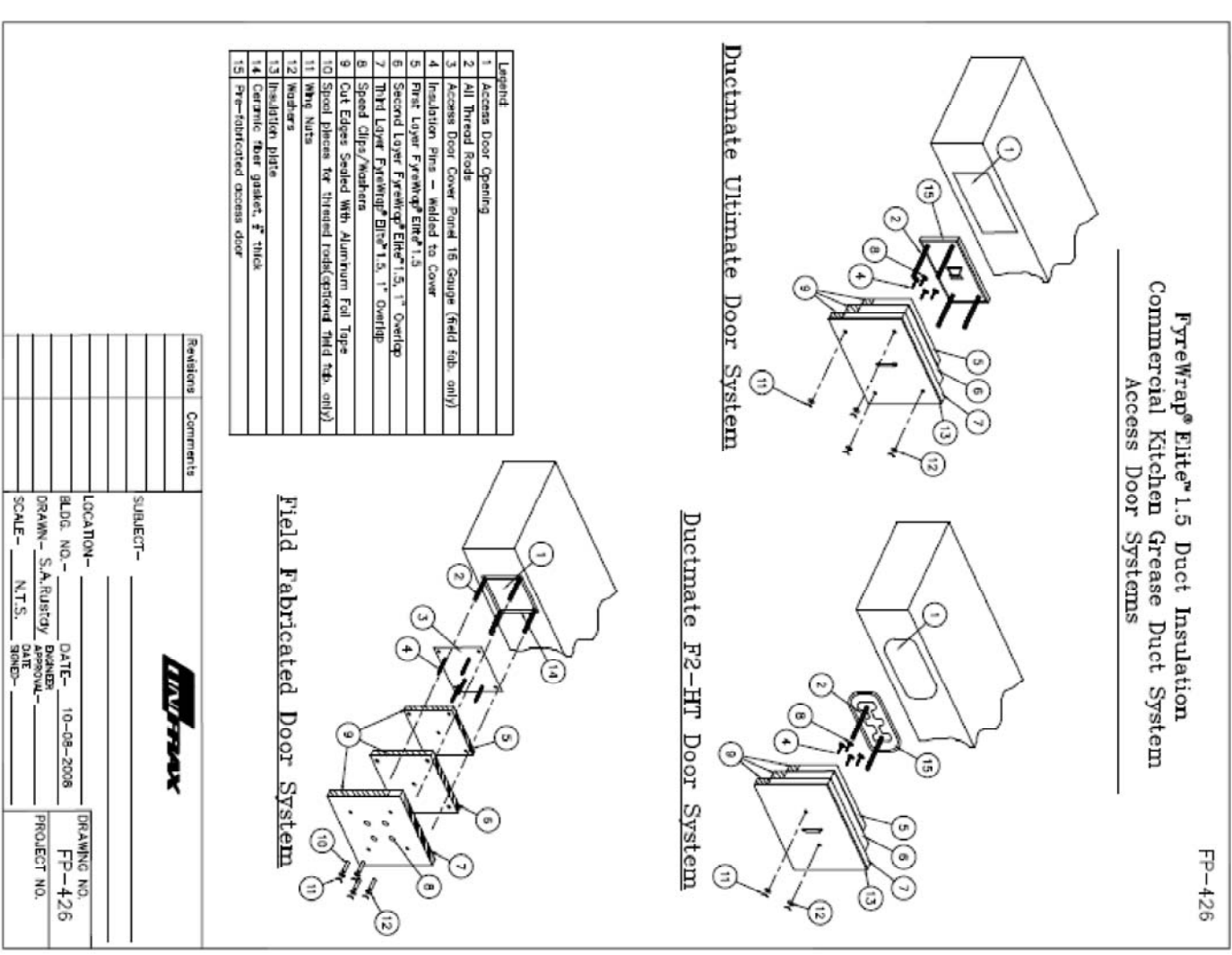
**Key Features:**

- Meets or exceeds the requirements of the International Building Code (IBC) and the National Fire Protection Association (NFPA) for grease duct insulation.
- Fire-resistant and non-flammable.
- Grease-resistant and non-toxic.
- Easy to install.
- Long-term protection and safety.

**Typical Product Properties:**

|                   |                   |                   |                   |
|-------------------|-------------------|-------------------|-------------------|
| ASTM E2336 (ASTM) | ASTM E2336 (ASTM) | ASTM E2336 (ASTM) | ASTM E2336 (ASTM) |
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| ASTM E2336 (ASTM) | ASTM E2336 (ASTM) | ASTM E2336 (ASTM) | ASTM E2336 (ASTM) |
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**UNIFLEX**



REVISIONS

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DATE  
SEPTEMBER 28, 2017

PROJECT NO.  
S17179

HVAC  
DETAILS

SHEET NUMBER  
**M-2**



## HVAC NOTES

General:

1. Everything essential for the completion of the work implied to be covered by these notes to make the system ready for normal and proper operation must be furnished and installed by the HVAC Contractor.
  2. Any omission from either, the plan, the equipment specifications, or the temperature control sequences of minor details necessary for the proper installation and operation of the systems shall not relieve the HVAC Contractor from furnishing such detail in full and extended four year compressor warranties included.
  3. The HVAC Contractor shall take all necessary and sufficient precautions against the occurrence of any accidents causing injuries or damages to any person property during the progress of the work. He shall be responsible for the payments of money for damages resulting in case of such accidents.
  4. All new cutting and patching required for deckwork shall be done by the contractor. The responsibility of the contractor shall be to cut and patching of exterior walls is also by owner.
  5. All work shall be guaranteed for a period of one year from time of completion by the installing HVAC Contractor. All of conditioning equipment shall have extended four year compressor warranties included.
1. Precedence in installing equipment, ductwork and piping in close quarters is established by the general contractor, but no contractor has exclusive right-of-way in installing his work.

A. All interior and exterior wall cutting and patching is by the Owner. Coordination of all roof, interior and exterior wall cutting is by the HVAC contractor.

Punching Contractor shall provide water connection of points shown on plan for extension by Electrical Contractor.

B. Punching Contractor shall provide floor drains at locations indicated on openings or as directed by HVAC Contractor for condensate removal.

A. All required power 120V/1 phase, 277V/1 phase and 3 phase and 480V/3 phase wiring and disconnects are by Electrical Contractor. All auxiliary equipment, switches selector switches, speed switches, contactors, etc. are installed by the Electrical Contractor. See temperature control sequence for further

HVAC Contractor shall provide all starters to Electrical Contractor for installation. Motors shall be sized by the starter manufacturer for the rated full load amps of the motor. All starters shall have adequate interlocks for automatic temperature controls, including holding coils and transformers as required. See drawings for starter locations.

C. HVAC Contractor shall provide contactors as required for all electric heating interlock requirements. HVAC Contractor shall provide electrical lockers to be installed by the Electrical Contractor, as shown on plan. See temperature controls

1. All work shall conform with all state and local codes. HVAC contractor shall secure and pay for any required permits and plan approvals as may be necessary for completion of this project.

### Shop Drawings and O&M Manuals:

1. HVAC Contractor shall provide 3 bound copies of shop drawings and wiring diagrams for all equipment to general contractor for reference only. HVAC Contractor shall also submit 3 complete bound sets of operation & maintenance manuals to owner upon completion of work. Contractor shall instruct owner's representative as to proper operation and maintenance uses.

1. Contractor shall provide 3 complete sets of report drawings at completion of project for owners adjustments of air handling and hydraulic equipment. These adjustments are to be made in cooperation with the owner.

2. Submit (3) shop drawings, a complete report to the engineer for approval. Report shall contain equipment specifications, design and actual conditions for all furnished equipment, all gasses, registers and diffusers, all fan RPM's, pump GPM's, pump heads, and all voltage characteristics for motor driven equipment.

3. Any portion of the systems used for temporary movement of air or heating must be provided with specified filters. All ductwork must be isolated from duct with temporary filters over all return or duct openings which MUST be maintained at the HVAC contractor's expense, if equipment is used for temporary heating or cooling. New filters must be provided before final balancing.

### Ductwork:

1. All ductwork shall be sheet metal and shall conform with the latest edition of ASHRAE & SMACNA standards. All ductwork shall also be sealed to meet Class B requirements (all transverse and longitudinal joints). All outside ductwork as well as ductwork located in unconditioned spaces shall meet Class C requirements. Provide a manual lockable volume damper at each inlet or outlet whether shown on plan or not.

2. If a return air plenum design is utilized then the plenum area and all headers within heating coil wiring ducts shall be insulated with non-combustible 1.5 inch of mineral wool insulation. All unconditioned spaces, and all outdoor air ductwork with 1" convoluted duct liner, 1.5 LB/CF density. Equal to other-flexible liner-Clastic and suitable for velocities up to 6000 FPM. All seams shall be butted and butted together tight to prevent erosion by the air stream and condensation. Adhesive shall be E. Foater 81-20 or as recommended by insulation manufacturer. Mechanical fasteners shall be galv nuts, welded pins, etc. 16" on center at top and sides when height exceeds 24". All ductwork sizes shown are clear inside dimensions.

4. All flexible ductwork shall be insulated low pressure ducts, Thermaxx type MK-E or approved equal. Ductwork shall meet the Class 1 requirements of NFPA 90-4 and be labeled by Underwriters Laboratory, Inc. with a flame spread rating of 25 or less and a smoke developed rating of 50 or less.

5. Volume dampers shall be as constructed of 22 gauge steel and manufactured by Sola Air or approved equal. Damper shaft shall be polished steel. Dampers shall be of same size as ducts they are installed in and be compatible with quadrant operator constructed of galvanized steel. All dampers shall be factory type volume dampers shall be listed B91. Rectangular volume dampers shall be listed B20.

6. Access Doors shall be as manufactured by Sola Air or approved equal. Access doors shall be of size as indicated on drawings. Access doors on insulated ductwork shall be Sola Air Model SAH-26. Access doors on non-insulated ductwork shall be constructed of 18 gauge sheet metal fastened to adjacent ductwork with sheetmetal screws on 1" centers.

7. Provide flexible duct connectors which are listed and approved for such uses, that are not over 14 ft in length, and convey air with a temperature less than 250 deg. F.

8. Provide duct insulation as required per EPC 402.21/ECC 503.2.7. All supply and return air ducts and plenums shall be insulated with a minimum of R-5 insulation when located in unconditioned spaces and a minimum of R-6 insulation when located outside the building. When located within a building envelope assembly, the duct or plenum shall be separated from the building exterior or unconditioned or exempt spaces by a minimum of R-6 insulation. If the building is a low rise (3 stories above grade or less, 3 dwelling units or more) residential building, a minimum of R-6 insulation is required when air ducts and plenums are located in unconditioned spaces.

### Outside Air Intakes

All outside air intakes openings shall follow IMC 401.4. Provide outside air intakes openings for ventilation, doors and operable windows of least 10ft horizontally from outside that emit products of combustion & exhaust vents, or locate the intake openings a minimum of 3ft below contaminant source.

### Piping:

1. All gas piping installations shall comply with NFPA 54-2009, National Fuel Gas Code. All piping shall conform with ASME and ANSI

2. Gas Piping and Gas Vent Piping From Regulators:  
A. All gas piping shall be schedule 40 A120 black pipe. All gas piping 2 1/2" and larger shall have black fittings. All gas piping 2" and smaller shall have screened fittings.

B. Verify gas pressure and gas meter location in field.  
C. Support gas piping on foot of 8 foot hangers and at every change in direction with hanger roller type pipe stands on top of supplemental piece of rubber membrane material 12"x 12".

APPROVED

By Tim Askin at 3:50 pm, Feb 20, 2018

D. Paint all exterior gas piping with (1)one coat of gray medium paint.

E. Test all gas piping with soap and water solution.  
F. Provide a shut-off gas cock, pressure regulator and g det lag for every piece of heating equipment. Make final connection to heating equipment with union.

G. Route gas vent piping from regulator through roof with 1/2" minimum net penetration provided by roofing contractor. Provide all damper, etc. insulation required for a complete water tight installation.  
H. No gas piping shall be routed in or through a return air plenum.

3. Condensate Piping:  
A. All condensate drain piping shall be schedule 40 fittings within building subject to condensation with 1" thick preformed fiberglass pipe insulation as manufactured by Kermela, or equal, of 3 to 4 lb/cu ft density and 1/2" factor of 25 or below. Install as recommended by manufacturer.  
4. Support all piping and equipment neatly and in approved manner to allow for expansion, contraction and vibration. Maximum spacing of supports for horizontal piping shall be 8'-0" for sizes 1/2" to 2" and 10'-0" for sizes 2 1/2" and larger. Also support piping at all changes of direction.

5. "Unauthorized" work must be provided on pipes through exterior walls and where indicated. Where unauthorized work are shown for insulated pipes, insulation shall be bulged up against seams on both sides. All openings shall be 1/2" larger than diameter of pipe or insulation.

### Equipment:

1. See equipment schedules for equipment types, sizes and areas served.  
2. Install all equipment where indicated on drawings and per manufacturer's instructions.  
3. Install all standard combustion gas fired equipment a minimum of 7'-0" above the floor, hang from non-combustible supports, or support from structural equipment frames. High efficiency condensing type equipment may be located at floor level.  
4. Provide duct silencers where indicated on the plans. Duct liner (2" min.) may be substituted for the silencers if prior approval is received by the engineer.  
5. All mechanical equipment shall also be listed and labeled by the listing agencies approved by the State of Wisconsin Department of Safety & Professional Services Division of Industry Services, whichever is more stringent.

### Appliance Access

Access for equipment shall comply with IMC 306.5 & FRC 306.5 Provide a permanent access for appliance installed on roofs or elevated structures with equipment located at a height exceeding 18ft. Permanent ladders used to provide access shall meet the requirements of IMC 306.5. Access shall not require climbing over obstructions greater than 30inches, or walking on roofs with a slope greater than 4/12

### Type "B" Vent Duct:

1. All type "B" venting shall be Manufacture listed chimney complete with all necessary accessories such as flashing pipe ported with wood nailer, clean out tee, tall cone flashing, storm collar, and Belmont cap. Extend stack a minimum of three feet above roof. All other venting shall be sheet metal complete with all necessary accessories such as clean out tee, tall cone flashing, storm collar and Breaker cap.

### Control Dampers:

1. All control dampers shall be 16 gauge galvanized steel construction with 4, 6 or 8 inch blades. Equal to Honeywell D640 dampers.

### Backdraft Dampers:

1. All backdraft dampers not provided with equipment shall be as manufactured by Sola Air. Dampers shall be Model 1001 or equal. Frames and blades shall be .064 mill finish extruded aluminum. Bearings shall be brass. Pivot pins shall be steel. Provide counter balance as required for installation.

Fire Dampers:  
1. All fire dampers shall be Sola Air Model 150A or equal. Frames shall be 22 gauge roll-formed galvanized steel. Blades shall be interlocking and constructed of 22 gauge roll-formed galvanized steel with stainless steel spring and UL listed fusible link.

Diffusers, Grilles and Registers:  
1. Grilles, registers and diffusers shall be of types as indicated on the equipment specifications and of sizes as indicated on drawings.  
2. Install grilles, registers and diffusers where indicated on drawings and as recommended by SMACNA.  
3. Coordinate exact location of grilles, registers and diffusers in ceilings with lighting and recessed ceiling plans.

### EQUIPMENT SPECIFICATIONS:

NOTE: The schedules are a guide line for the equipment specifications. All relevant information shall be verified with shop drawings by installing contractor.

### TEMPERATURE CONTROLS:

Provide a complete Carrier Mite temperature control system to operate the new rooftop units, hot water reheat, VAV boxes, boiler, The control system has been reviewed & designed by Auer Steel. See control specifications for details

Provide libraries of sensor training for the temperature control system.

Provide and install all line and low voltage control wiring in accordance with all state, local, and NEC codes. Low voltage wiring must be run in EMT conduit, and low voltage wiring in finished areas must be run concealed or in EMT conduit, if exposed.

Mechanical system controls shall be located a minimum of 4ft inches, and a minimum of 15 inches above the finished floor, insulated if inhibitor or not the floor space allows a forward approach by a wheel chair or if the clear floor space allows a parallel approach.

Smoke Detection Systems shall comply with IMC 608 – Provide a duct smoke detection system in new duct systems, with appropriate controls, unless (1) the return air rate is 2000 cfm or less (See balancing report SP5 384.03.0), OR (2) the air distribution system is incapable of spreading smoke beyond the enclosing walls, floor and ceiling of the room or space in which the smoke is generated. The smoke detector system shall shut down the air distribution system upon detection. Smoke detectors shall be connected to a fire alarm system. The activation of a smoke detector shall activate all exhaust fans and the detection system shall be return duct. By definition in IMC 202, an air distribution system consists of "...air-handling equipment that circulates air within a room or space and includes systems made up of one or more air-handling units." Multiple systems shall have the return air ducted separately for any one space. Multiple systems shall have the 2,000 cfm return air criteria.

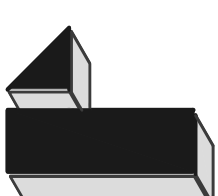
### BALANCING:

Provide balancing of the air & water systems installed for this project. Balancing shall be performed by an independent balancing company certified to perform balancing of air & water systems

### KITCHEN EXHAUST SYSTEM NOTES

1. Type 1 duct to be 16 ga. (0.0507) metal
2. Type 1 duct from kitchen & penetrations to be listed type with self-cleaning liquid type hood at 1,500 cfm
3. Type 1 duct to have 5/8" per 12" slope if < 75' 1" per 12" & 7/8" toward the hood or approved equal
4. Duct penetrations to have door operable without hood
5. Duct schedule (min. 7" x 7" each) located a minimum of away 20' horizontally
6. Duct supports to be provided on wall & edge ribs of runs for used for kitchen hoods. Supports to be within 10' of the roof construction
7. Duct enclosure equal sized Type 1 duct shall be equivalent of F-700 type Elm 1.5 Duct Insulator - Greened Duct SYSTEM E2338 System
8. Ducts to have convoluted openings with approved type to be listed on access openings. "ACCESS PANEL, NO NOT OPENING"
9. Maximum hood metal thickness 20 ga. (0.0377) for stainless steel
10. Fire suppression system to be installed for kitchen hoods. Owner shall have the fire suppression contractor provide a code required system. This contractor shall submit to the power agency a separate plan for approval & obtain a permit
11. All balance shall be performed after installation of fire hoods & exhaust fans
12. Operation & maintenance manuals will be provided & kept on file
13. Hood systems to operate automatically whenever cooking operations occur. This shall be accomplished by a temperature sensor located in each Type Hood. Temperature sensor provided by hood manufacturer.
14. Makeup air system shall be automatically controlled to start and operate automatically with exhaust system
15. Provide fireproofing at all metal wall penetrations
16. Dishwasher exhaust ductwork to be constructed of aluminum & all seams to be gasket tight
17. Exhaust ductwork & kitchen hood installation shall conform to IMC Section 506 Commercial Kitchen Hood Ventilation System Ducts & Exhaust Equipment
18. Bottom of exhaust hoods to be finished at 6" R.F.F.
19. Exhaust hoods shall be listed in accordance with UL 710
20. Provide fireproofing at all wall penetrations
21. Grease separator (ANSI) to:

- a. Be located on the bottom of the horizontal duct or the bottom-most section of the duct run
  - b. Have a length and width of not less than 12 inches (305 mm). Where the greatest duct size is less than 12 inches (305 mm) is a dimension, the reservoir shall not be more than 2 inches (51 mm) greater than duct in final dimension
  - c. Have 2 inches (51 mm) clearance between grease duct in clear space from 12 inches in a dimension. The clearance shall be not more than 2 inches (51 mm) greater than duct in final dimension
  - d. Have a slope of not less than 1 inch (25.4 mm)
  - e. Have a bottom that is sloped to a point for drainage
- Be provided with a manual opening constructed in accordance with Section 503.3 and installed to provide direct access to the reservoir. This manual opening shall be located on a side or end of the hood or on a point downstream of the reservoir



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STONE CREEK COFFEE

2650 N. DOWNER AVENUE  
MILWAUKEE, WI

REVISIONS

| NO. | DESCRIPTION |
|-----|-------------|
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|     |             |
|     |             |

DATE  
SEPTEMBER 28, 2017

PROJECT NO.  
S17179

HVAC  
SPECIFICATION

SHEET NUMBER  
M-3