

CONTRACTOR

32x16 SUPPLY DUCT DOWN FROM **ABBREVIATIONS**:

GAS FURNACE WITH SPLIT SYSTEM AC ABOVE FINISHED FLOOR ABOVE FINISHED ROOF **BOTTOM OF DUCT CEILING DIFFUSER CUBIC FEET PER MINUTE** CABLE OPERATED DAMPER

7 CONTRACTOR, UP TO ATTIC. REFER TO HVAC DUCTWORK ATTIC PLAN, H-200, FOR

14x10 EXHAUST DUCT FROM KITCHEN HOOD, BY FOOD SERVICE EQUIPMENT

8) CONTRACTOR, UP TO ATTIC. REFER TO HVAC DUCTWORK ATTIC PLAN, H-200, FOR

PROVIDE DUCT TRANSITION AS REQUIRED TO CONNECT TO

EXISTING EXHAUST PAN AND DUCTWORK TO REMAIN

PROVIDE 16x4 EXHAUST AIR

12 DISHWASHER HOOD. REFER TO HVAC DUCTWORK ATTIC PLAN, H-200 FOR CONTINUATION.

RETURN UP TO ATTIC. SEE HVAC DUCTWORK ATTIC PLAN, H-200 FOR CONTINUATION.

LOCATE FAN COIL UNIT SO THAT 14 IT FALLS BETWEEN EXISTING

DUCTWORK RUNS EXPOSED IN SPACE.

DUCTWORK SHALL RUN 16 BETWEEN EXISTING ROOF

INSTALL CABINET HEATER 17 RECESSED IN BULKHEAD

PROVIDE DUCT OFFSET TO 18 TRANSITION BETWEEN ATTIC SPACE AND MECHANICAL ROOM.

PROVIDE DUCT OFFSET TO TRANSITION BETWEEN 19 MECHANICAL ROOM AND JUST BELOW CEILING IN ADJACENT

PROVIDE DUCT PRESSURE

SENSOR PER MANUFACTURER'S RECOMMENDATIONS FOR CONTROL VAV SYSTEM.

CONDENSING UNITS EXHAUST AIR EXHAUST AIR DUCT EXHAUST FAN MINI SPLIT SYSTEM HEAT PUMP FALSE CEILING LEVEL FIRE DAMPER FINISH FLOOR LEVEL FLEX FLEXIBLE DUCT **FOB FLAT ON BOTTOM FLAT ON TOP** FIRE SMOKE DAMPER KITCHEN EXHAUST DUCT KITCHEN MAKE-UP AIR DUCT MAKE-UP AIR UNIT / VENTILATION UNIT **OUTSIDE AIR OPEN END DUCT RETURN AIR RETURN AIR DUCT** ROOF TOP AIR CONDITIONING UNIT SUPPLY AIR SAD **SUPPLY AIR DUCT** THERMOSTAT

NOTE: THIS DRAWING IS PROVIDED AS REFERENCE FOR COORDINATION ONLY. IT IS NOT INTENDED TO REPLACE DESIGN, FABRICATION, OR SHOP DRAWINGS OR TO RELIEVE CONTRACTOR OF COORDINATION RESPONSIBILITY.

TRANSFER GRILLE

VARIABLE AIR VALVE

VOLUME DAMPER

TOP OF DUCT

VAV

ADDRESS

RENOVATIONS **ADDITIONS**

DESCRIPTION

ISSUED FOR REVIEW & COMMENT 05/09/2019

DATE

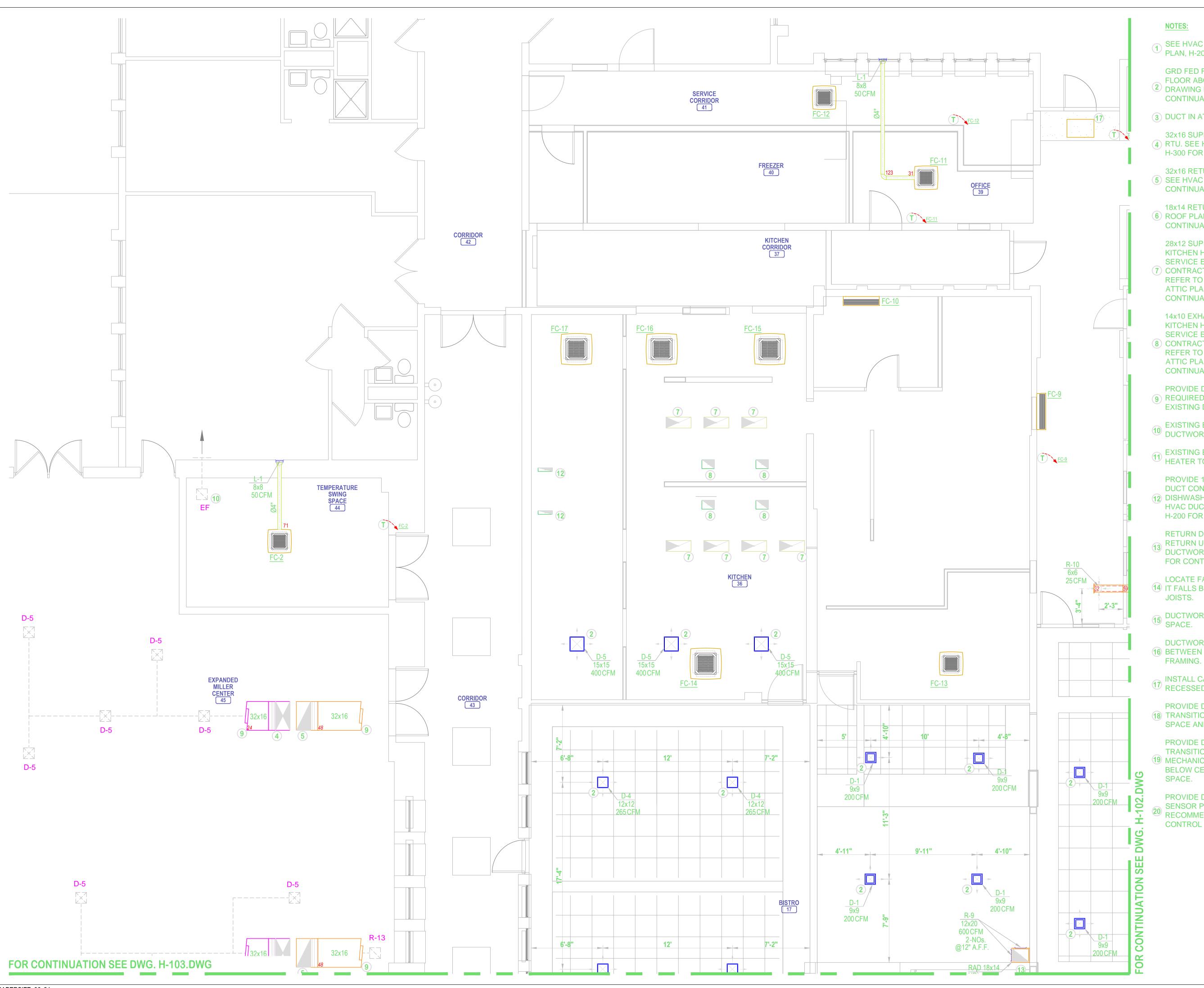
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Drawn: Checked 05/09/2019 1/4"=1'-0" Scale:

> HVAC DUCTWORK PLAN - GENERAL

SHEET TITLE

H-100



- SEE HVAC DUCTWORK ATTIC PLAN, H-20 FOR CONTINUATION
 - GRD FED FROM DUCT ON ATTIC
- FLOOR ABOVE. SEE ATTIC PLAN 2 DRAWING H-200 FOR CONTINUATION.
- (3) DUCT IN ATTIC SPACE.
- 32x16 SUPPLY DUCT DOWN FROM 4 RTU. SEE HVAC ROOF PLAN, H-300 FOR CONTINUATION.
- 32x16 RETURN DUCT UP TO RTU. (5) SEE HVAC ROOF PLAN, H-300 FOR CONTINUATION.
- 18x14 RETURN DUCT, SEE HVAC 6 ROOF PLAN, H-300 FOR CONTINUATION.
- 28x12 SUPPLY DUCT FROM KITCHEN HOOD, BY FOOD
- SERVICE EQUIPMENT 7 CONTRACTOR, UP TO ATTIC. REFER TO HVAC DUCTWORK ATTIC PLAN, H-200, FOR CONTINUATION.
- 14x10 EXHAUST DUCT FROM KITCHEN HOOD, BY FOOD
- SERVICE EQUIPMENT (8) CONTRACTOR, UP TO ATTIC. REFER TO HVAC DUCTWORK ATTIC PLAN, H-200, FOR CONTINUATION.
- PROVIDE DUCT TRANSITION AS REQUIRED TO CONNECT TO EXISTING DUCT.
- EXISTING EXHAUST PAN AND DUCTWORK TO REMAIN
- EXISTING ELECTRIC WALL HEATER TO REMAIN
- PROVIDE 16x4 EXHAUST AIR DUCT CONNECTION TO
- 12 DISHWASHER HOOD. REFER TO HVAC DUCTWORK ATTIC PLAN, H-200 FOR CONTINUATION.
- RETURN DUCT FROM LOW RETURN UP TO ATTIC. SEE HVAC DUCTWORK ATTIC PLAN, H-200 FOR CONTINUATION.
- LOCATE FAN COIL UNIT SO THAT 14 IT FALLS BETWEEN EXISTING JOISTS.
- DUCTWORK RUNS EXPOSED IN SPACE.
- DUCTWORK SHALL RUN

 16 BETWEEN EXISTING ROOF
- 17 INSTALL CABINET HEATER RECESSED IN BULKHEAD
- PROVIDE DUCT OFFSET TO 18 TRANSITION BETWEEN ATTIC SPACE AND MECHANICAL ROOM.
- PROVIDE DUCT OFFSET TO TRANSITION BETWEEN 19 MECHANICAL ROOM AND JUST BELOW CEILING IN ADJACENT
- PROVIDE DUCT PRESSURE SENSOR PER MANUFACTURER'S
- RECOMMENDATIONS FOR CONTROL VAV SYSTEM.



ABBREVIATIONS:

- GAS FURNACE WITH SPLIT SYSTEM AC ABOVE FINISHED FLOOR
- **AFR ABOVE FINISHED ROOF**
 - **BOTTOM OF DUCT**
 - **CEILING DIFFUSER**
- **CFM CUBIC FEET PER MINUTE**
- CABLE OPERATED DAMPER
- CONDENSING UNITS **EXHAUST AIR**
- **EXHAUST AIR DUCT**
- **EXHAUST FAN**
- MINI SPLIT SYSTEM HEAT PUMP
- **FALSE CEILING LEVEL**
- FIRE DAMPER
- FINISH FLOOR LEVEL
- **FLEX FLEXIBLE DUCT**
- **FLAT ON BOTTOM**
- **FLAT ON TOP** FIRE SMOKE DAMPER
- KITCHEN EXHAUST DUCT
- KITCHEN MAKE-UP AIR DUCT
- MAU MAKE-UP AIR UNIT / VENTILATION UNIT
- **OUTSIDE AIR** OED **OPEN END DUCT**
- **RETURN AIR**
- RETURN AIR DUCT
- ROOF TOP AIR CONDITIONING UNIT
- **SUPPLY AIR**
- SAD **SUPPLY AIR DUCT**
- **THERMOSTAT**
- TRANSFER GRILLE

RESPONSIBILITY.

- TOP OF DUCT
- VAV VARIABLE AIR VALVE **VOLUME DAMPER**

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ADDRESS

RENOVATIONS **ADDITIONS**

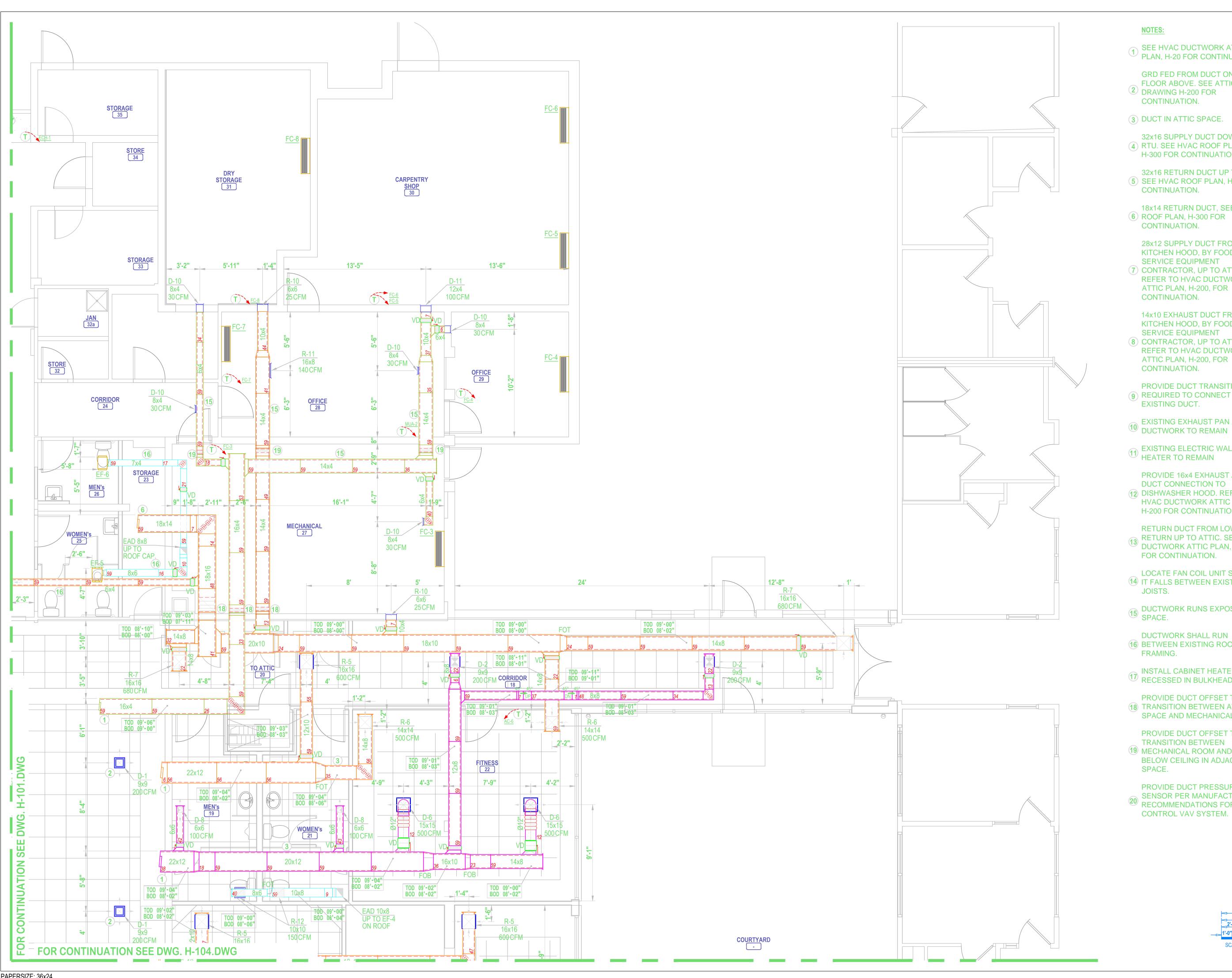
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HVAC DUCTWORK PLAN - PART A

SHEET TITLE

H-101



- SEE HVAC DUCTWORK ATTIC PLAN, H-20 FOR CONTINUATION
- GRD FED FROM DUCT ON ATTIC FLOOR ABOVE. SEE ATTIC PLAN
- 2 DRAWING H-200 FOR CONTINUATION.
- (3) DUCT IN ATTIC SPACE.
- 32x16 SUPPLY DUCT DOWN FROM 4 RTU. SEE HVAC ROOF PLAN, H-300 FOR CONTINUATION.
- 32x16 RETURN DUCT UP TO RTU. (5) SEE HVAC ROOF PLAN, H-300 FOR CONTINUATION.
- 18x14 RETURN DUCT, SEE HVAC (6) ROOF PLAN, H-300 FOR CONTINUATION.

28x12 SUPPLY DUCT FROM KITCHEN HOOD, BY FOOD

- SERVICE EQUIPMENT (7) CONTRACTOR, UP TO ATTIC. REFER TO HVAC DUCTWORK ATTIC PLAN, H-200, FOR CONTINUATION.
- 14x10 EXHAUST DUCT FROM KITCHEN HOOD, BY FOOD SERVICE EQUIPMENT
- (8) CONTRACTOR, UP TO ATTIC. REFER TO HVAC DUCTWORK ATTIC PLAN, H-200, FOR CONTINUATION.
- PROVIDE DUCT TRANSITION AS 9 REQUIRED TO CONNECT TO EXISTING DUCT.
- EXISTING EXHAUST PAN AND
- EXISTING ELECTRIC WALL HEATER TO REMAIN
- PROVIDE 16x4 EXHAUST AIR
- DUCT CONNECTION TO 12 DISHWASHER HOOD. REFER TO HVAC DUCTWORK ATTIC PLAN, H-200 FOR CONTINUATION.
- RETURN DUCT FROM LOW RETURN UP TO ATTIC. SEE HVAC DUCTWORK ATTIC PLAN, H-200 FOR CONTINUATION.
- LOCATE FAN COIL UNIT SO THAT (14) IT FALLS BETWEEN EXISTING JOISTS.
- DUCTWORK RUNS EXPOSED IN SPACE.
- DUCTWORK SHALL RUN 16 BETWEEN EXISTING ROOF FRAMING.
- 17 INSTALL CABINET HEATER RECESSED IN BULKHEAD
- PROVIDE DUCT OFFSET TO 18 TRANSITION BETWEEN ATTIC SPACE AND MECHANICAL ROOM.
- PROVIDE DUCT OFFSET TO TRANSITION BETWEEN
- 19 MECHANICAL ROOM AND JUST BELOW CEILING IN ADJACENT SPACE.
- PROVIDE DUCT PRESSURE SENSOR PER MANUFACTURER'S RECOMMENDATIONS FOR CONTROL VAV SYSTEM.



ABBREVIATIONS:

AFR

CFM

GAS FURNACE WITH SPLIT SYSTEM AC ABOVE FINISHED FLOOR **ABOVE FINISHED ROOF BOTTOM OF DUCT CEILING DIFFUSER CUBIC FEET PER MINUTE** CABLE OPERATED DAMPER

COD CONDENSING UNITS **EXHAUST AIR EAD EXHAUST AIR DUCT**

EXHAUST FAN MINI SPLIT SYSTEM HEAT PUMP **FALSE CEILING LEVEL**

FIRE DAMPER FINISH FLOOR LEVEL

FLEX FLEXIBLE DUCT **FOB FLAT ON BOTTOM FOT FLAT ON TOP FSD** FIRE SMOKE DAMPER

KITCHEN EXHAUST DUCT KITCHEN MAKE-UP AIR DUCT

MAU MAKE-UP AIR UNIT / VENTILATION UNIT **OUTSIDE AIR OED OPEN END DUCT**

RETURN AIR RAD **RETURN AIR DUCT**

ROOF TOP AIR CONDITIONING UNIT **SUPPLY AIR** SAD **SUPPLY AIR DUCT**

THERMOSTAT TRANSFER GRILLE TOP OF DUCT

VARIABLE AIR VALVE VAV **VOLUME DAMPER**

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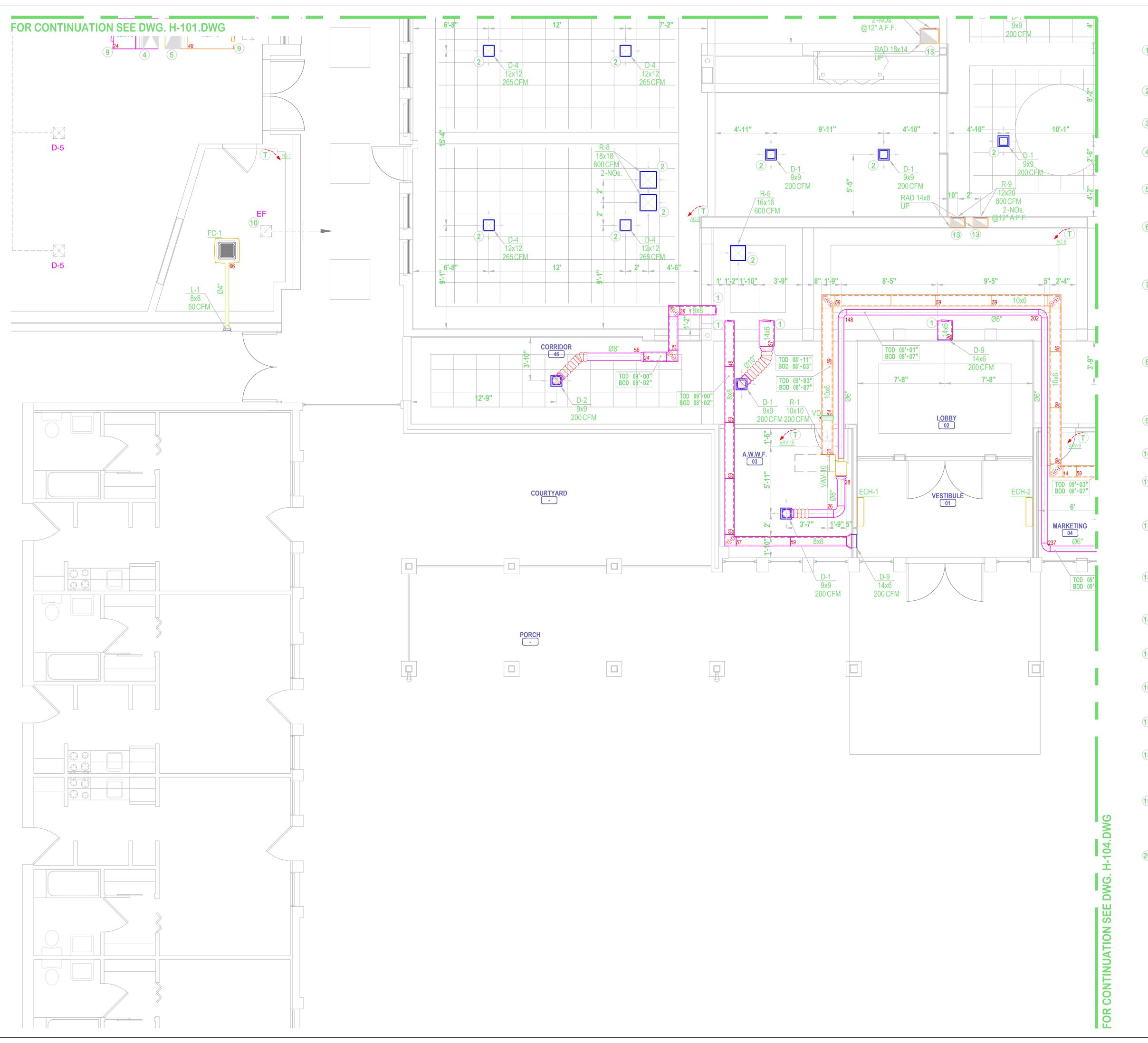
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HVAC DUCTWORK PLAN - PART B

SHEET TITLE

H-102



1 SEE HVAC DUCTWORK ATTIC PLAN, H-20 FOR CONTINUATION

GRD FED FROM DUCT ON ATTIC FLOOR ABOVE. SEE ATTIC PLAN DRAWING H-200 FOR

3 DUCT IN ATTIC SPACE.

CONTINUATION.

32x16 SUPPLY DUCT DOWN FROM 4 RTU. SEE HVAC ROOF PLAN, H-300 FOR CONTINUATION.

32x16 RETURN DUCT UP TO RTU.5 SEE HVAC ROOF PLAN, H-300 FOR CONTINUATION.

18x14 RETURN DUCT, SEE HVAC
6 ROOF PLAN, H-300 FOR
CONTINUATION.

28x12 SUPPLY DUCT FROM KITCHEN HOOD, BY FOOD

SERVICE EQUIPMENT

ONTRACTOR, UP TO ATTIC.
REFER TO HVAC DUCTWORK
ATTIC PLAN, H-200, FOR
CONTINUATION.

14x10 EXHAUST DUCT FROM KITCHEN HOOD, BY FOOD SERVICE EQUIPMENT

8 CONTRACTOR, UP TO ATTIC. REFER TO HVAC DUCTWORK ATTIC PLAN, H-200, FOR CONTINUATION.

PROVIDE DUCT TRANSITION AS

9 REQUIRED TO CONNECT TO
EXISTING DUCT.

10 EXISTING EXHAUST PAN AND DUCTWORK TO REMAIN

EXISTING ELECTRIC WALL HEATER TO REMAIN

PROVIDE 16x4 EXHAUST AIR

DUCT CONNECTION TO
DISHWASHER HOOD. REFER TO
HVAC DUCTWORK ATTIC PLAN,
H-200 FOR CONTINUATION.

RETURN DUCT FROM LOW
RETURN UP TO ATTIC. SEE HVAC
DUCTWORK ATTIC PLAN, H-200
FOR CONTINUATION.

LOCATE FAN COIL UNIT SO THAT

14 IT FALLS BETWEEN EXISTING
JOISTS.

DUCTWORK RUNS EXPOSED IN SPACE.

DUCTWORK SHALL RUN

16 BETWEEN EXISTING ROOF FRAMING.

17 INSTALL CABINET HEATER RECESSED IN BULKHEAD

PROVIDE DUCT OFFSET TO

18 TRANSITION BETWEEN ATTIC
SPACE AND MECHANICAL ROOM.

PROVIDE DUCT OFFSET TO TRANSITION BETWEEN

19 MECHANICAL ROOM AND JUST

BELOW CEILING IN ADJACENT SPACE.

PROVIDE DUCT PRESSURE

SENSOR PER MANUFACTURER'S
RECOMMENDATIONS FOR
CONTROL VAV SYSTEM.

CONTRACTOR

ABBREVIATIONS:

GAS FURNACE WITH SPLIT SYSTEM AC ABOVE FINISHED FLOOR **AFR** ABOVE FINISHED ROOF **BOTTOM OF DUCT CEILING DIFFUSER CFM CUBIC FEET PER MINUTE** CABLE OPERATED DAMPER CONDENSING UNITS **EXHAUST AIR EAD EXHAUST AIR DUCT EXHAUST FAN** MINI SPLIT SYSTEM HEAT PUMP **FALSE CEILING LEVEL** FIRE DAMPER FD FINISH FLOOR LEVEL **FLEX** FLEXIBLE DUCT **FOB FLAT ON BOTTOM** FOT **FLAT ON TOP** FIRE SMOKE DAMPER KITCHEN EXHAUST DUCT KITCHEN MAKE-UP AIR DUCT MAU MAKE-UP AIR UNIT / VENTILATION UNIT **OUTSIDE AIR** OED **OPEN END DUCT RETURN AIR RETURN AIR DUCT** ROOF TOP AIR CONDITIONING UNIT **SUPPLY AIR** SAD **SUPPLY AIR DUCT THERMOSTAT**

VAV

VD

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TRANSFER GRILLE

VOLUME DAMPER

VARIABLE AIR VALVE

TOP OF DUCT

ADDRESS

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HVAC DUCTWORK PLAN - PART C

SHEET TITLE

H-103



1 SEE HVAC DUCTWORK ATTIC PLAN, H-20 FOR CONTINUATION

GRD FED FROM DUCT ON ATTIC

2 PLOOR ABOVE. SEE ATTIC PLAN DRAWING H-200 FOR CONTINUATION.

3 DUCT IN ATTIC SPACE.

32x16 SUPPLY DUCT DOWN FROM 4 RTU. SEE HVAC ROOF PLAN, H-300 FOR CONTINUATION.

32x16 RETURN DUCT UP TO RTU.

5 SEE HVAC ROOF PLAN, H-300 FOR CONTINUATION.

18x14 RETURN DUCT, SEE HVAC

6 ROOF PLAN, H-300 FOR
CONTINUATION.

28x12 SUPPLY DUCT FROM KITCHEN HOOD, BY FOOD SERVICE EQUIPMENT

7 CONTRACTOR, UP TO ATTIC. REFER TO HVAC DUCTWORK ATTIC PLAN, H-200, FOR CONTINUATION.

14x10 EXHAUST DUCT FROM KITCHEN HOOD, BY FOOD SERVICE EQUIPMENT

8 CONTRACTOR, UP TO ATTIC. REFER TO HVAC DUCTWORK ATTIC PLAN, H-200, FOR CONTINUATION.

PROVIDE DUCT TRANSITION AS REQUIRED TO CONNECT TO EXISTING DUCT.

10 EXISTING EXHAUST PAN AND DUCTWORK TO REMAIN

EXISTING ELECTRIC WALL HEATER TO REMAIN

PROVIDE 16x4 EXHAUST AIR

DUCT CONNECTION TO

DISHWASHER HOOD. REFER TO HVAC DUCTWORK ATTIC PLAN, H-200 FOR CONTINUATION.

RETURN DUCT FROM LOW
RETURN UP TO ATTIC. SEE HVAC
DUCTWORK ATTIC PLAN, H-200
FOR CONTINUATION.

LOCATE FAN COIL UNIT SO THAT

14 IT FALLS BETWEEN EXISTING
JOISTS.

DUCTWORK RUNS EXPOSED IN SPACE.

DUCTWORK SHALL RUN

16 BETWEEN EXISTING ROOF

17 INSTALL CABINET HEATER RECESSED IN BULKHEAD

FRAMING.

PROVIDE DUCT OFFSET TO

18 TRANSITION BETWEEN ATTIC
SPACE AND MECHANICAL ROOM.

PROVIDE DUCT OFFSET TO TRANSITION BETWEEN

19 MECHANICAL ROOM AND JUST BELOW CEILING IN ADJACENT SPACE.

PROVIDE DUCT PRESSURE
SENSOR PER MANUFACTURER'S
RECOMMENDATIONS FOR

CONTROL VAV SYSTEM.

CONTRACTOR

GAS FURNACE WITH SPLIT SYSTEM AC

ABOVE FINISHED FLOOR

ABOVE FINISHED ROOF

CUBIC FEET PER MINUTE

CABLE OPERATED DAMPER

MINI SPLIT SYSTEM HEAT PUMP

BOTTOM OF DUCT

CEILING DIFFUSER

CONDENSING UNITS

EXHAUST AIR DUCT

FALSE CEILING LEVEL

FINISH FLOOR LEVEL

FIRE SMOKE DAMPER

KITCHEN EXHAUST DUCT

KITCHEN MAKE-UP AIR DUCT

MAKE-UP AIR UNIT / VENTILATION UNIT

ROOF TOP AIR CONDITIONING UNIT

EXHAUST AIR

EXHAUST FAN

FIRE DAMPER

FLEXIBLE DUCT

FLAT ON TOP

OUTSIDE AIR

RETURN AIR

SUPPLY AIR

OPEN END DUCT

RETURN AIR DUCT

SUPPLY AIR DUCT

TRANSFER GRILLE

VOLUME DAMPER

VARIABLE AIR VALVE

THERMOSTAT

TOP OF DUCT

FLAT ON BOTTOM

ABBREVIATIONS:

AFF **AFR** CD **CFM** COD **EAD FLEX FOB FOT FSD** KED **KMD** MAU OED RAD RTU SAD TOD

VAV

REV

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HVAC DUCTWORK PLAN - PART D

SHEET TITLE

H-104

SHEET NO.

2'-0" SCALE 1/4" = 1'-0"