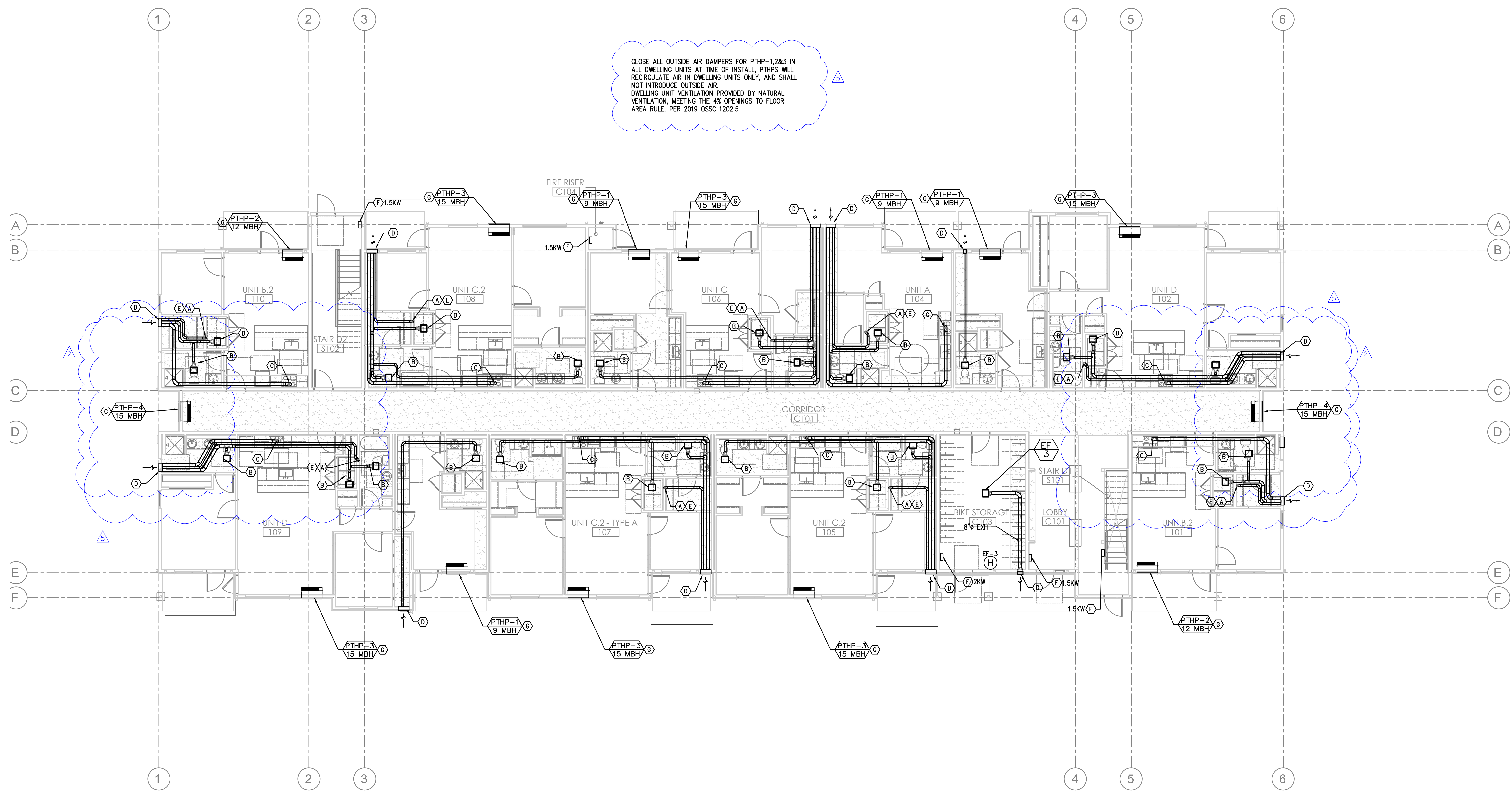


9-29-21	10081	MOA	MRD	MRD
Date:	Proj. No:	Drawn By:	Chkd By:	Acad File:
3.28.2022	10081	MOA	MRD	MRD
PLAN REVIEW	PLAN REVIEW #2	PLAN REVIEW #3	PLAN REVIEW #4	PLAN REVIEW #5



CLOSE ALL OUTSIDE AIR DAMPERS FOR PTHP-1,2&3 IN ALL DWELLING UNITS AT TIME OF INSTALL. PTHPS WILL RECIRCULATE AIR IN DWELLING UNITS ONLY, AND SHALL NOT INTRODUCE OUTSIDE AIR. DWELLING UNIT VENTILATION PROVIDED BY NATURAL VENTILATION, MEETING THE 4% OPENINGS TO FLOOR AREA RULE, PER 2019 OSSC 1202.5

**1** LEVEL 1 MECHANICAL PLAN  
 M2.01d SCALE: 1/8" = 1' - 0"

**GENERAL NOTES:**

- FOR ADDITIONAL EQUIPMENT INFORMATION AND REQUIREMENTS, SEE SPECIFICATIONS & EQUIPMENT SUBMITTALS.
- MAINTAIN WALL ASSEMBLY FIRE RATING FOR INSTALLATION OF WALL HEATERS IN FIRE RATED WALLS. COORDINATE INSTALLATION WITH ARCHITECTURAL DRAWINGS.
- ALL ELECTRIC HEATERS PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR, TYPICAL ALL UNITS.
- ALL DWELLING UNITS ARE VENTILATED BY NATURAL VENTILATION. OPERABLE WINDOW & DOOR AREAS HAVE BEEN SIZED TO PROVIDE A MINIMUM OF 4% OF THE FLOOR AREA.
- COMMON SPACES AND HALLWAYS ARE VENTILATED BY PTHP UNIT(S) PROVIDING OUTSIDE AIR THAT MEETS THE CODE MINIMUM 0.06 CFM/SQFT REQUIRED BY CODE.
- ALL EQUIPMENT AND DUCTWORK IS LOCATED BELOW RATED ASSEMBLY.

**KEY NOTES:**

- (A) - 4" DRYER EXHAUST TO EXTERIOR-ROOF TERMINATION VIA SOFFIT(S) PROVIDED. DRYER DUCT MATERIAL SHALL HAVE A SMOOTH INTERIOR FINISH, BE CONSTRUCTED OF 26 GA SHEET METAL, SUPPORTED AT 4 FOOT INTERVALS, RIVET OR SCREW PENETRATIONS THROUGH THE DUCT WALL ARE NOT ACCEPTABLE. IDENTIFY TOTAL EQUIVALENT LENGTH OF DRYER VENT WITH PERMANENT LABEL WITHIN 6FT OF DRYER CONNECTION. CLEAN-OUT TO BE PROVIDED FOR ALL VERTICAL RISERS. SEE **4** M6.00d
- (B) - PANASONIC WHISPERGREEN CEILING FAN WITH 4" DUCT TO ROOF OR EXTERIOR WALL. TERMINATION VIA SOFFIT(S) PROVIDED. BACK DRAFT DAMPER INTEGRAL TO FAN. FAN TO OPERATE AT LOW SPEED CONTINUOUS (30CFM) AND INCREASE TO 80CFM WHEN BUILT-IN MOTION SENSOR IS ACTIVATED. INSULATED FINAL 5' OF DUCTWORK. NO DUCTWORK SHALL PENETRATE RATED ASSEMBLY. SEE **5** M6.00d
- (C) - 6" HOOD DUCT TO ROOF/EXTERIOR WALL TERMINATION VIA SOFFIT(S) PROVIDED. BACK DRAFT DAMPER INTEGRAL TO HOOD. INSULATED FINAL 5' OF DUCTWORK. NO DUCTWORK SHALL PENETRATE RATED ASSEMBLY. HOOD FAN TO OPERATE INTERMITTENTLY. SEE **5** M6.00d
- (D) - EXTERIOR EXHAUST PLENUM - SEE **6** M6.00d MAINTAIN 36" CLEAR TO OPERABLE WINDOWS AND DOORS.
- (E) - LINT TRAPS ON ALL DRYERS. SEE **3** M6.00d FOR TYP DETAIL. 4" DRYER EXHAUST DUCT WITH RECESSED DRYER BOX - LINT TRAPS ARE ACCEPTED ON THIS PROJECT.
- (F) - XX KW WALL HEATER QMARK AWH4404F OR EQUAL. EQUIPMENT BY ELECTRICAL CONTRACTOR. SHOWN FOR REFERENCE ONLY.
- (G) - AMANA PTHP (PACKAGED TERMINAL HEAT PUMP) WITH FACTORY WALL SLEEVE, CONDENSATE DRAIN KIT, AND 42X16 ALUMINUM ARCHITECTURAL GRILLE AT EXTERIOR. INSTALL GRAVITY CONDENSATE DRAIN KIT, PLUMBING CONTRACTOR TO MAKE CONNECTION AT DRAIN KIT AND CONTINUE DRAIN LINE TO AN APPROVED LOCATION. SEE **1** M6.00d
- (H) - VERTICAL FIRE PENETRATION DETAIL. SEE **3** M6.01d

**COMMONS ON THE TUALATIN**  
 6845 SW NYBERG LANE  
 BUILDING D  
**LEVEL 1 MECHANICAL PLAN**  
 TUALATIN OREGON 97225

PERMIT SET  
 11/22/21  
**JACOBS**

**MFI INC.**  
 Consulting Engineers  
 2007 S.E. Ash St.  
 Portland, OR 97214  
 PH: (503) 234-0548  
 FAX: (503) 234-0677  
 WWW.MFI-ENG.COM

SHEET  
**M2.01d**



9-29-21	10081	3.28.2022	PLAN REVIEW
10081	MOA	4.18.2022	PLAN REVIEW #2
MOA	MRD	6.24.2022	PLAN REVIEW #5
MRD	MRD		
MRD	MRD		
MRD	MRD		
MRD	MRD		
MRD	MRD		

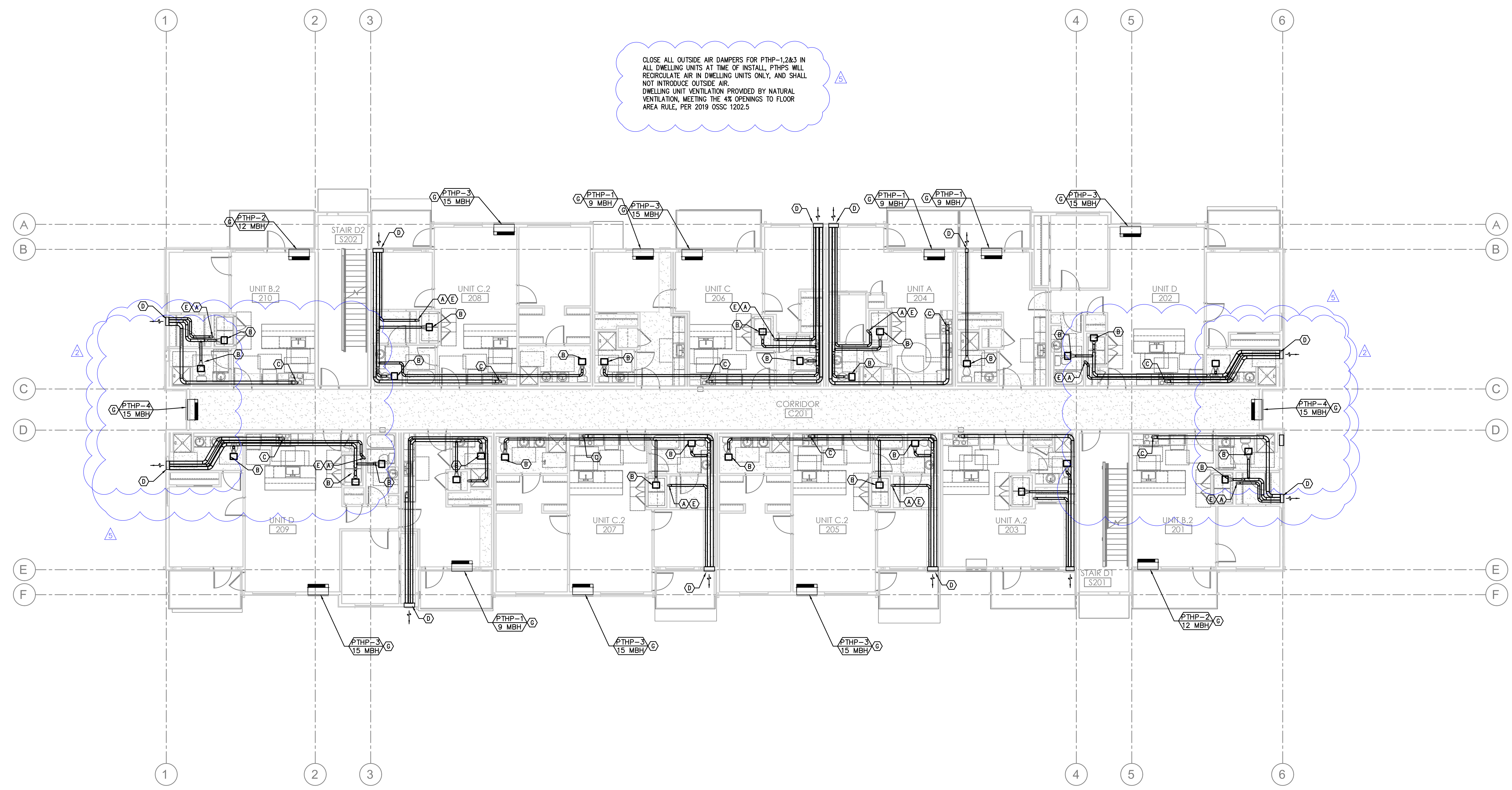
**COMMONS ON THE TUALATIN**  
 6845 SW NYBERG LANE  
 BUILDING D  
**LEVEL 2 MECHANICAL PLAN**  
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SHEET  
**M2.02d**



**1** LEVEL 2 MECHANICAL PLAN  
 M2.02d SCALE: 1/8" = 1' - 0"

**GENERAL NOTES:**

- FOR ADDITIONAL EQUIPMENT INFORMATION AND REQUIREMENTS, SEE SPECIFICATIONS & EQUIPMENT SUBMITTALS.
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- ALL EQUIPMENT AND DUCTWORK IS LOCATED BELOW RATED ASSEMBLY.

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- (B) - PANASONIC WHISPERGREEN CEILING FAN WITH 4" DUCT TO ROOF OR EXTERIOR WALL. TERMINATION VIA SOFFIT(S) PROVIDED. BACK DRAFT DAMPER INTEGRAL TO FAN. FAN TO OPERATE AT LOW SPEED CONTINUOUS (30CFM) AND INCREASE TO 80CFM WHEN BUILT-IN MOTION SENSOR IS ACTIVATED. INSULATED FINAL 5' OF DUCTWORK. NO DUCTWORK SHALL PENETRATE RATED ASSEMBLY. SEE (5) (M6.009) (EF 1) (EF 2)
- (C) - 6" HOOD DUCT TO ROOF/EXTERIOR WALL TERMINATION VIA SOFFIT(S) PROVIDED. BACK DRAFT DAMPER INTEGRAL TO HOOD. INSULATED FINAL 5' OF DUCTWORK. NO DUCTWORK SHALL PENETRATE RATED ASSEMBLY. HOOD FAN TO OPERATE INTERMITTENTLY. SEE (5) (M6.009) (EF 1) (EF 2)
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- (H) - VERTICAL FIRE PENETRATION DETAIL. SEE (3) (M6.019) (1) (M6.009)



9-29-21	10081	3.28.2022	PLAN REVIEW
Date:	Proj. No:	3.28.2022	PLAN REVIEW #1
10081	MOA	4.18.2022	PLAN REVIEW #2
MOA	MRD	6.24.2022	PLAN REVIEW #3
MRD	MRD		
MRD	MRD		
MRD	MRD		
MRD	MRD		
MRD	MRD		
MRD	MRD		
MRD	MRD		

**COMMONS ON THE TUALATIN**  
 6845 SW NYBERG LANE  
 BUILDING D  
**LEVEL 3 MECHANICAL PLAN**  
 TUALATIN OREGON 97225

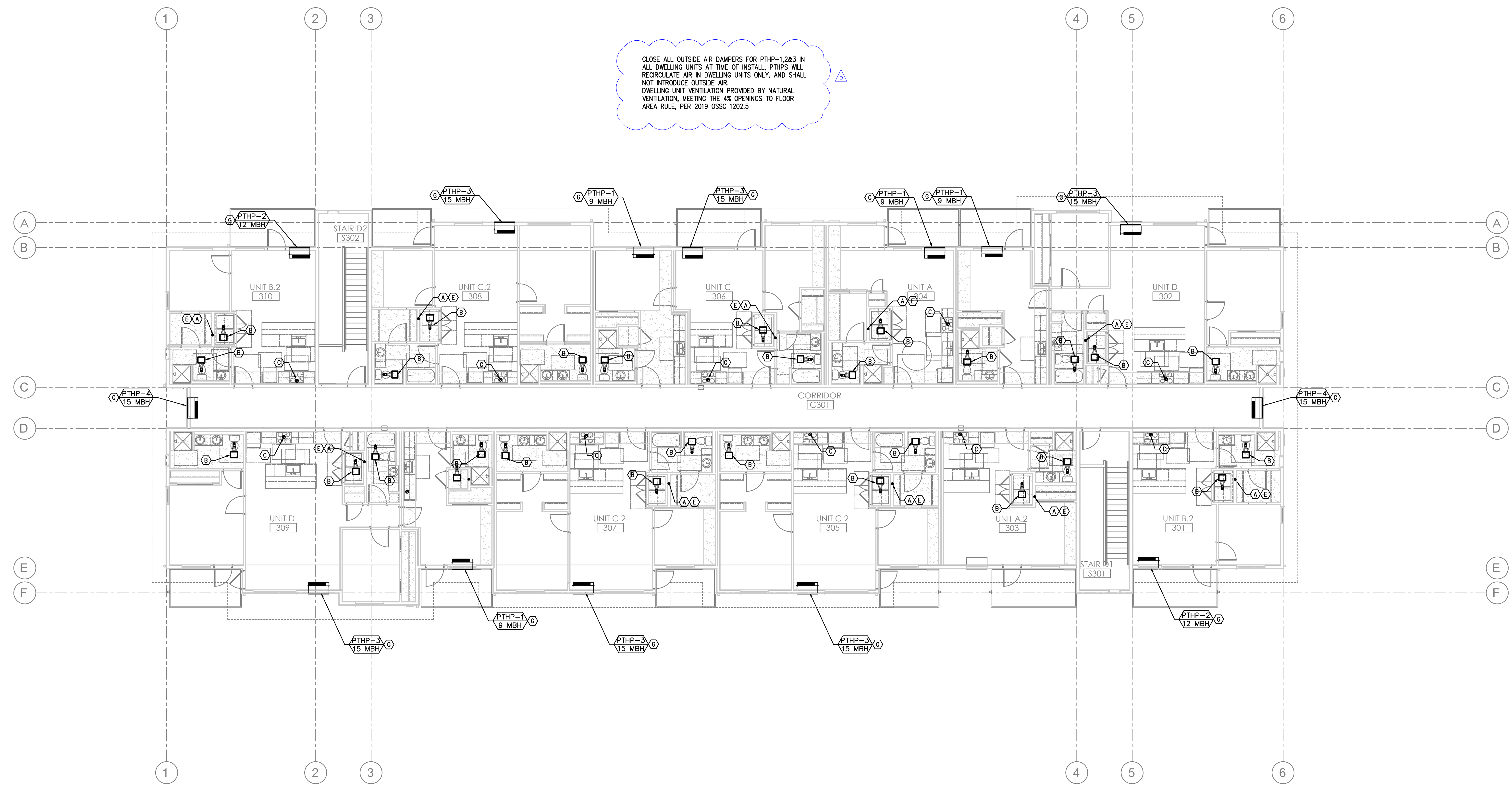
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SHEET  
**M2.03d**

CLOSE ALL OUTSIDE AIR DAMPERS FOR PTHP-1,2&3 IN ALL DWELLING UNITS AT TIME OF INSTALL. PTHPS WILL RECIRCULATE AIR IN DWELLING UNITS ONLY, AND SHALL NOT INTRODUCE OUTSIDE AIR. DWELLING UNIT VENTILATION PROVIDED BY NATURAL VENTILATION, MEETING THE 4% OPENINGS TO FLOOR AREA RULE, PER 2019 OSSC 1202.5



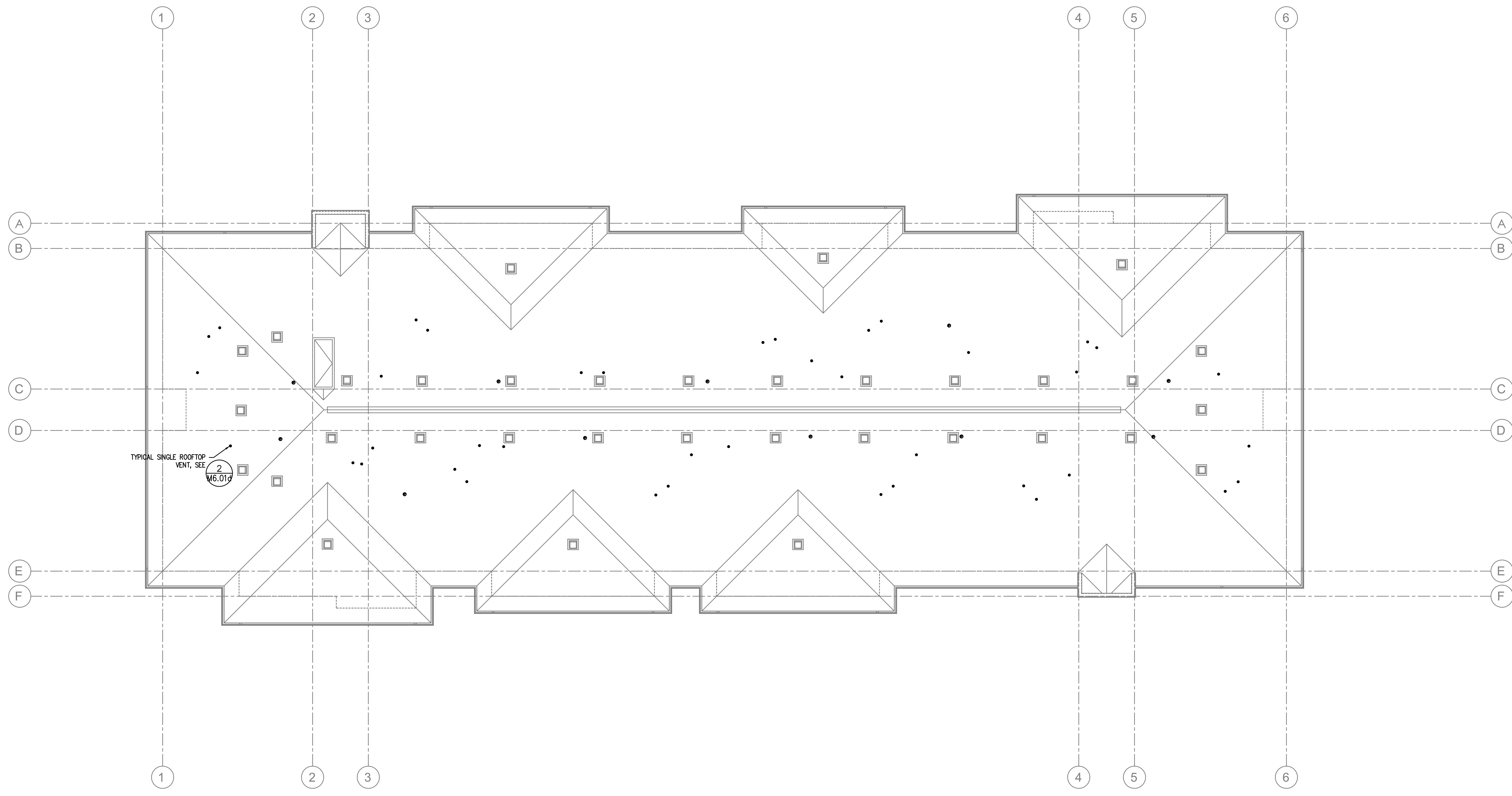
**1 LEVEL 3 MECHANICAL PLAN**  
 M2.03d SCALE: 1/8" = 1' - 0"

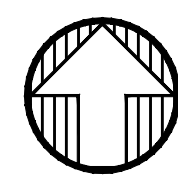
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- (H) — VERTICAL FIRE PENETRATION DETAIL. SEE




**1** ROOF MECHANICAL PLAN  
 M2.04d SCALE: 1/8" = 1' - 0"

ALL DUCTWORK TO BE INSULATED IN COLD ATTIC SPACE



Date:	9-29-21	10081	3.28.2022	PLAN REVIEW
Proj. No:	10081	MGA	4.18.2022	PLAN REVIEW #2
Drawn By:	MGA	MRD	6.24.2022	PLAN REVIEW #5
Chkd By:	MRD			
Dsgn By:				
Acad File:				

**COMMONS ON THE TUALATIN**  
 6845 SW NYBERG LANE  
 BUILDING D  
**ROOF MECHANICAL PLAN**  
 TUALATIN OREGON 97225

PERMIT SET  
 11/22/21  




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SHEET  
**M2.04d**



**MECHANICAL LEGEND**

	SUPPLY AIR DIFFUSER	AFF	ABOVE FINISH FLOOR
	RETURN AIR GRILLE	AHU	AIR HANDLING UNIT
	EXHAUST AIR GRILLE	B.D.	BOTTOM OF DUCT
	PERFORATED RETURN AIR PANEL	BHP	BRAKE HORSEPOWER
	DIRECTIONAL AIR FLOW	BTU	BRITISH THERMAL UNITS
	MANUAL VOLUME DAMPER	CFM	CUBIC FEET PER MINUTE
	SUPPLY OR OUTSIDE AIR DUCT UP & DOWN	CONN.	CONNECTION
	RETURN AIR DUCT UP & DOWN	CONT.	CONTINUATION
	EXHAUST AIR DUCT UP & DOWN	CW	DOMESTIC COLD WATER
	SUPPLY OR OUTSIDE AIR DUCT UP & DOWN	DB	DRY BULB
	RETURN AIR DUCT UP & DOWN	DIAM.	DIAMETER
	EXHAUST AIR DUCT UP & DOWN	DIA.	DISTRIBUTION
	SUPPLY OR OUTSIDE AIR DUCT UP & DOWN	EA	EXHAUST AIR
	RETURN AIR DUCT UP & DOWN	EDB	ENTERING DRY BULB TEMPERATURE
	EXHAUST AIR DUCT UP & DOWN	EWB	ENTERING WET BULB TEMPERATURE
	SUPPLY OR OUTSIDE AIR DUCT UP & DOWN	EW	ENTERING WATER TEMPERATURE
	RETURN AIR DUCT UP & DOWN	FF	FINISH FLOOR
	EXHAUST AIR DUCT UP & DOWN	FIKT.	FIXTURE
	SUPPLY OR OUTSIDE AIR DUCT UP & DOWN	FPM	FEET PER MINUTE
	RETURN AIR DUCT UP & DOWN	FPS	FEET PER SECOND
	EXHAUST AIR DUCT UP & DOWN	FT.	FEET / FOOT
	SUPPLY OR OUTSIDE AIR DUCT UP & DOWN	GPM	GALLONS PER MINUTE
	RETURN AIR DUCT UP & DOWN	H	HEIGHT
	EXHAUST AIR DUCT UP & DOWN	HP	HORSEPOWER
	VAV TERMINAL UNIT	I.D.	INSIDE DIAMETER
	VAV TERMINAL UNIT	IN.	INCHES
	VAV TERMINAL UNIT	L	LENGTH
	VAV TERMINAL UNIT	LBS.	POUNDS
	VAV TERMINAL UNIT	LDB	LEAVING DRY BULB
	VAV TERMINAL UNIT	LWB	LEAVING WET BULB
	VAV TERMINAL UNIT	LWT	LEAVING WATER TEMPERATURE
	VAV TERMINAL UNIT	MAX.	MAXIMUM
	VAV TERMINAL UNIT	MBH	THOUSANDS OF BTUS PER HOUR
	VAV TERMINAL UNIT	MIN.	MINIMUM
	VAV TERMINAL UNIT	NC	NOISE CRITERIA
	VAV TERMINAL UNIT	N.C.	NORMALLY CLOSED
	VAV TERMINAL UNIT	N.I.M.	NOT IN MECHANICAL
	VAV TERMINAL UNIT	NO.	NUMBER
	VAV TERMINAL UNIT	N.O.	NORMALLY OPEN
	VAV TERMINAL UNIT	O.A.	OUTSIDE AIR
	VAV TERMINAL UNIT	P	PERSON
	VAV TERMINAL UNIT	PSI	POUNDS PER SQUARE INCH
	VAV TERMINAL UNIT	P/T	PRESSURE / TEMPERATURE
	VAV TERMINAL UNIT	R.A.	RETURN AIR
	VAV TERMINAL UNIT	RECT.	RECTANGULAR
	VAV TERMINAL UNIT	REQ'D	REQUIRED
	VAV TERMINAL UNIT	S.A.	SUPPLY AIR
	VAV TERMINAL UNIT	S.P.	STATIC PRESSURE
	VAV TERMINAL UNIT	SO.	SQUARE
	VAV TERMINAL UNIT	TEMP.	TEMPERATURE
	VAV TERMINAL UNIT	TYP.	TYPICAL
	VAV TERMINAL UNIT	VAV	VARIABLE AIR VOLUME
	VAV TERMINAL UNIT	W	WIDTH
	VAV TERMINAL UNIT	WB	WET BULB
	VAV TERMINAL UNIT	WPD	WATER PRESSURE DROP
	VAV TERMINAL UNIT	Ø	DIAMETER
	PRESSURE GAUGE	(E)	EXISTING
	PETE'S PLUG	(D)	DEMOLISH
	DOUBLE CHECK ASSEMBLY	NEW	NEW WORK
	PRESSURE REDUCING VALVE	HWS	(HWS) HEATING WATER SUPPLY
	UNION	HWR	(HWR) HEATING WATER RETURN
	2-WAY CONTROL VALVE	(F)	FIRE DAMPER
	3-WAY CONTROL VALVE	(F/S)	FIRE / SMOKE DAMPER
	CAP	(S)	SMOKE DAMPER
	SMOKE DETECTOR	SEISMIC BRACING	
	MOTORIZED DAMPER	(L)	LATERAL BRACING
		(L&L)	LONGITUDINAL & LATERAL BRACING

**PACKAGED TERMINAL HEAT PUMP**

MARK NUMBER	PTH-1 9 MBH	PTH-2 12 MBH	PTH-3 15 MBH	PTH-4 15 MBH
TYPE	THRU-THE-WALL HEAT PUMP	THRU-THE-WALL HEAT PUMP	THRU-THE-WALL HEAT PUMP	THRU-THE-WALL HEAT PUMP
SYSTEM	STUDIO	1 BEDROOM	2&3 BEDROOM	CORRIDOR
NOMINAL COOLING CAPACITY (BTUH)	9,000	12,000	14,400	14,400
HEATING CAPACITY (BTUH)	8,300	11,500	13,800	13,800
MIN OSA (CFM)	30 CFM	30 CFM	45 CFM	45 CFM
LVG. AIR TEMP (°F)	55°F	55°F	55°F	55°F
REMOE THERMOSTAT	YES	YES	YES	YES
EFFICIENCY (EER)	12.9	11.9	11.2	11.2
EFFICIENCY (COP)	3.6	3.5	3.1	3.1
ARCHITECTURAL GRILLE	YES	YES	YES	YES
DESIGN WT. (LBS)	130	135	145	145
ELECT (VOLTS/PHASE/HTZ)	230/1/60	230/1/60	230/1/60	230/1/60
TOTAL AMPS	11.2	15.5	15.5	15.5
MCA/MOP	14.1/15	19.5/20	19.5/20	19.5/20
REFRIGERANT	410a	410a	410a	410a
REFRIGERANT CHARGE	1.325 LBS	1.34 LBS	1.95 LBS	1.95 LBS
CONDENSATE DRAIN KIT *	YES - *	YES - *	YES - *	YES - *
BASIS OF DESIGN: LG	LP093HD3B	LP123HD3B	LP153HD3B	LP153HD3B

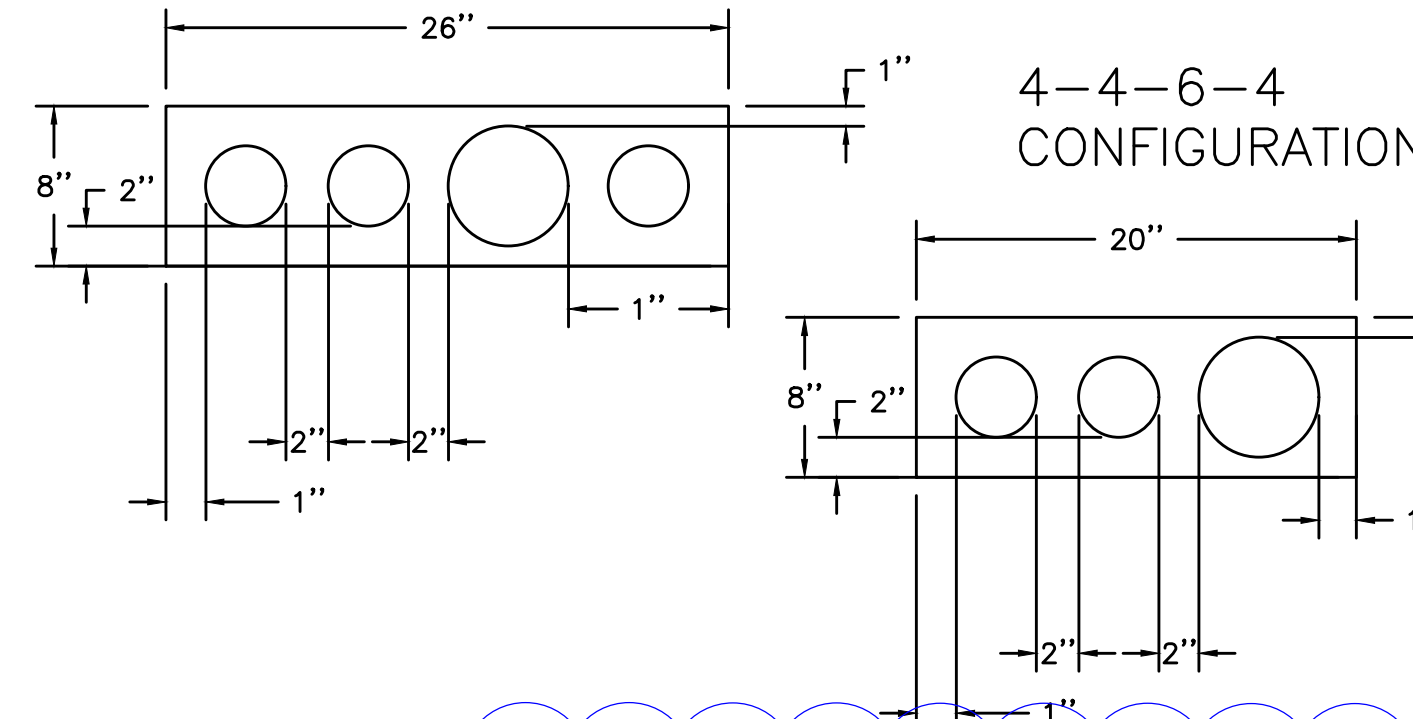
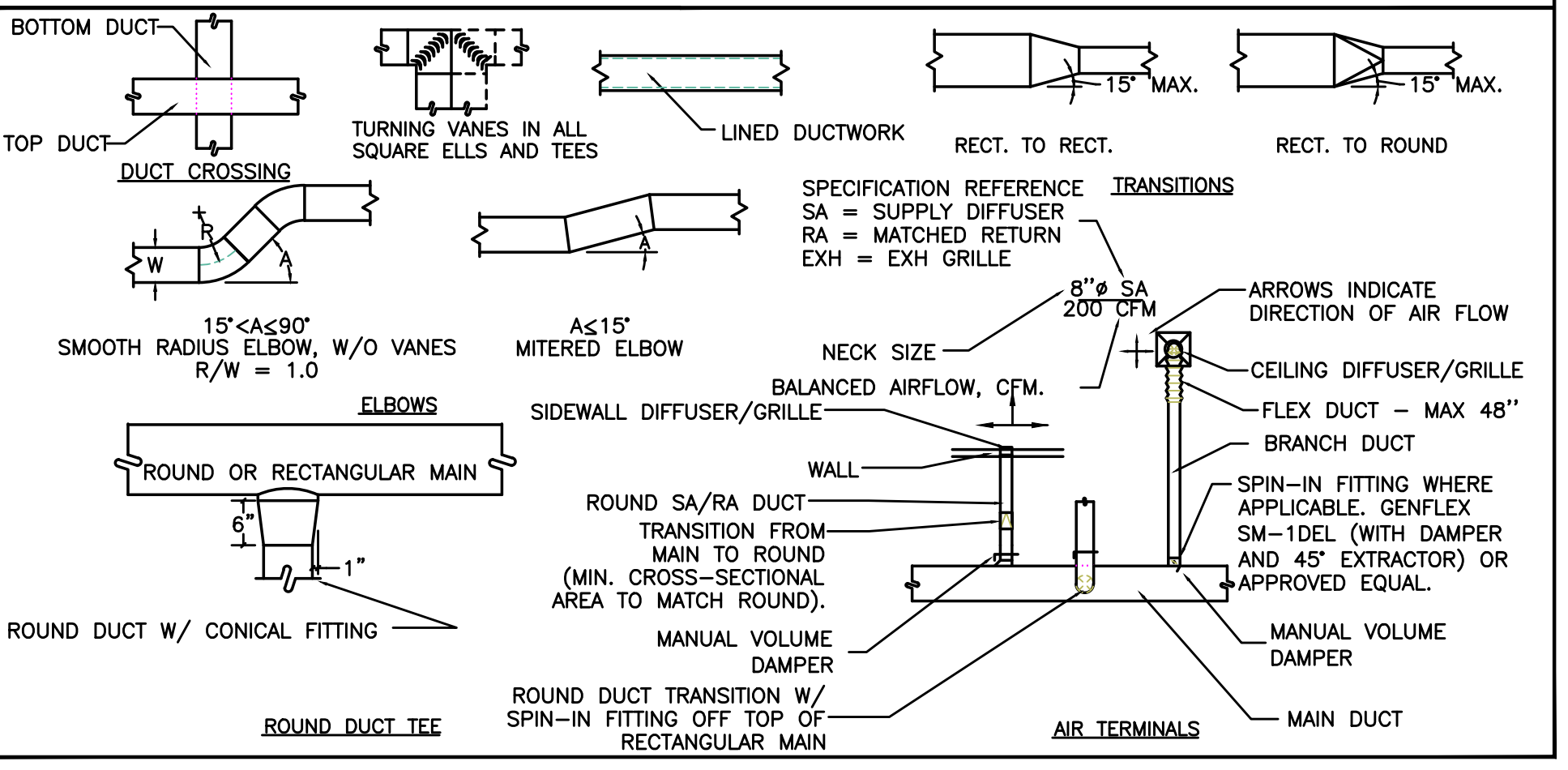
\* - CONDENSATE DRAIN KIT PROVIDED BY MECHANICAL CONTRACTOR, ALL CONDENSATE PIPING TO BE ROUTED TO AN APPROVED LOCATION, SEE PLANS

**EXHAUST FANS**

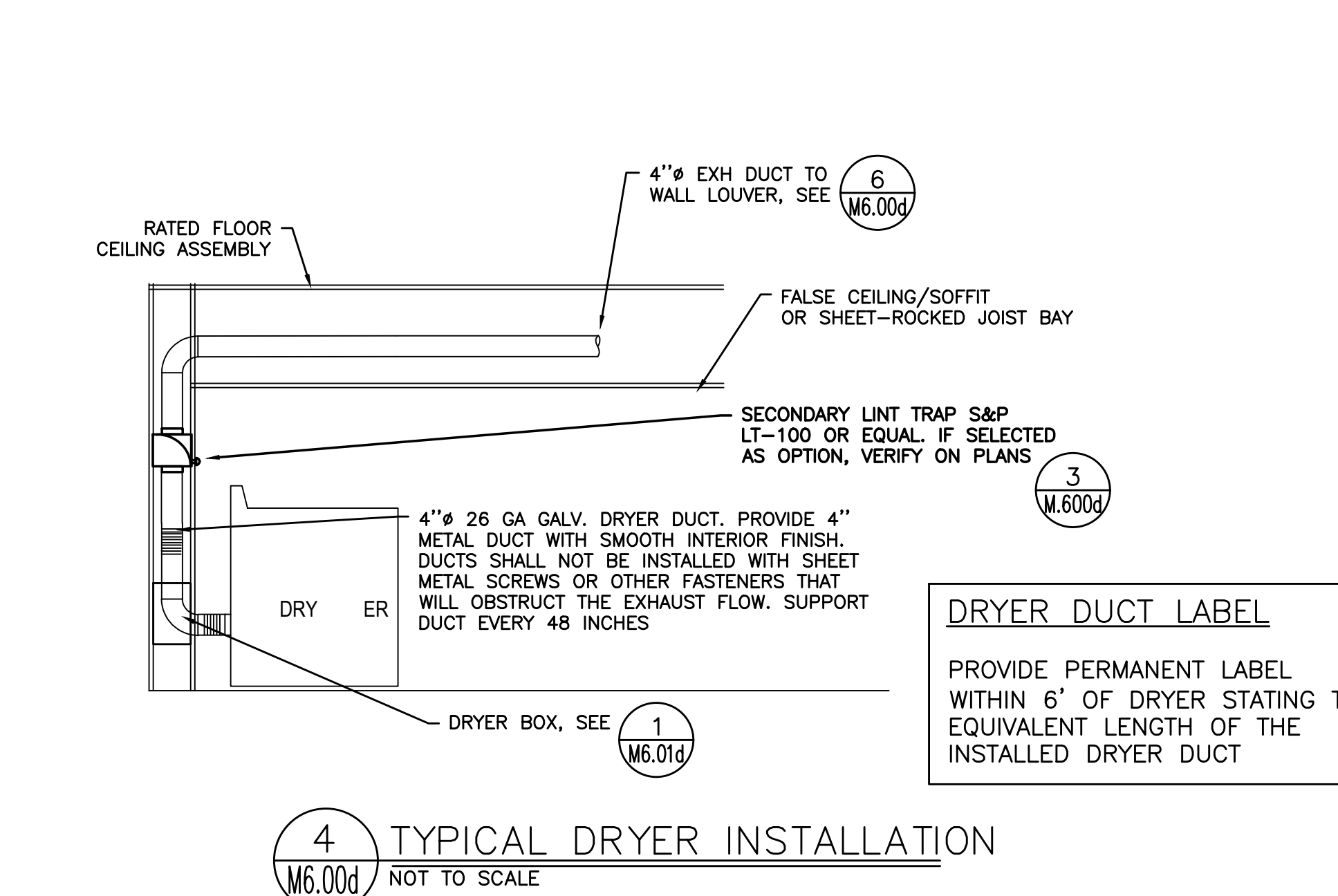
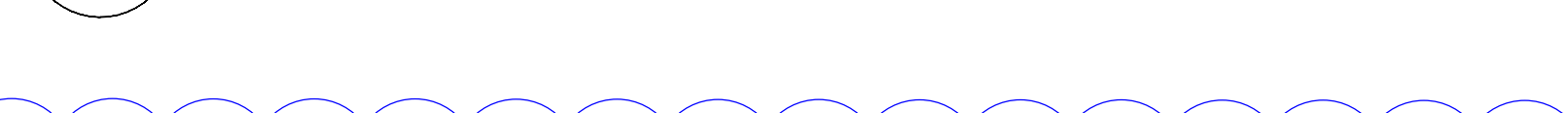
MARK NUMBER	EF 1	EF 2	EF 3
TYPE	CEILING CABINET	CEILING CABINET	CEILING CABINET
SYSTEM	BATHROOM	LAUNDRY	BIKE STORAGE
CFM	30/80	30/80	200
TOTAL SP. (IN H2O)	0.20	0.20	0.125
RPM	1062/1146	1062/1146	740
TIP SPEED (FPM)	NA	NA	--
MOTOR WATTS OR HP	5/11.7 W	5/11.7 W	127 W
CONTROLLED BY	*	*	HUMIDISTAT
INTERLOCK WITH	MOTION SENSOR	LIGHTS	NONE
FAN SPEED CONTROLLER	YES	YES	YES
WHEEL TYPE	BI	BI	BI
BACK DRAFT DAMPER	YES	YES	GRAVITY
ISOLATION	RUBBER	RUBBER	RUBBER
DESIGN WEIGHT (LBS)	25	25	23
MAX. SONES	0.3/0.6	0.3/0.6	1.7
MAX AMPS - ***	0.27	0.27	1.8
POWER (VOLTS/PHASE/HZ) - ***	120/1/60	120/1/60	120/60/1
BASIS OF DESIGN:	PANASONIC	PANASONIC	BROAN
	FV-05-11VKS2	FV-05-11VKS2	L200

\* - FAN TO RUN AT LOW SPEED CONTINUOUSLY, AND INCREASE TO HIGH SPEED UPON ACTIVATION OF THE MOTION SENSOR.

**AIR DISTRIBUTION DETAILS**



**6 SIDE WALL DWELLING UNIT VENTING WITH HOOD**



**GFD55ESSN/ESP**  
GE® 7.8 cu. ft. Capacity Front Load Electric Dryer

**DRYER EXHAUSTING INFORMATION - METAL DUCT ONLY**

For complete information, see installation instructions packed with your dryer.

**DUCTING MATERIALS:** For best performance, this dryer should be vented with 4" diameter all rigid metal exhaust duct. If rigid metal duct cannot be used, then UL-listed flexible metal (semi-rigid) ducting can be used (KIT WX08X10077). In special installations, it may be necessary to connect the dryer to the house vent using a flexible metal (foil-type) duct. A UL-listed flexible metal (foil-type) duct may be used ONLY in installations where rigid metal or flexible metal (semi-rigid) ducting cannot be used AND where a 4" diameter can be maintained throughout the entire length of the transition duct. Please see installation instruction packed with your dryer for complete instructions when using flexible metal (foil type) ducting.

**EXHAUST LENGTH CALCULATION:**

- Determine the number of 90° turns needed for your installation. If you exhaust to the side or bottom of dryer, add one turn.
- The maximum length of 4" rigid (aluminum or galvanized) duct which can be tolerated is shown in the table.

A turn of 45° or less may be ignored. Two 45° turns within the duct length should be treated as a 90° elbow.

A turn of 45° should be treated as a 90° elbow.

Drillers must be exhausted to the outside.

**CAUTION:** For personal safety do not terminate exhaust into a chimney, under any enclosed house floor (crawl space), or into an attic, since the accumulated lint could create a fire hazard or moisture could cause damage. Never terminate the exhaust into a common duct or plenum with a kitchen exhaust, since the combination of lint and grease could create a fire hazard. Exhaust ducts should be terminated in a dampered wall cap to prevent back drafts, bird nesting, etc. The wall cap must also be located at least 12" above the ground or any other obstruction with the opening pointed down.

**FOR MORE INFORMATION ON VENTING KITS AND ACCESSORIES, PLEASE CALL 1-800-GE-CARES.**

**ADA DRYER**

**Best performance**

Number of 90° turns	Best performance	
	A 4" opening	B 2-1/2" opening
0	90 ft.	60 ft.
1	60 ft.	45 ft.
2	45 ft.	35 ft.
3	35 ft.	25 ft.
4	25 ft.	15 ft.

**EXHAUST LENGTH CALCULATION:**

- Determine the number of 90° turns needed for your installation. If you exhaust to the side or bottom of dryer, add one turn.
- The maximum length of 4" rigid (aluminum or galvanized) duct which can be tolerated is shown in the table. A turn of 45° or less may be ignored. Two 45° turns within the duct length should be treated as a 90° elbow. A turn of 45° should be treated as a 90° elbow.

Drillers must be exhausted to the outside.

**CAUTION:** For personal safety do not terminate exhaust into a chimney, under any enclosed house floor (crawl space), or into an attic, since the accumulated lint could create a fire hazard or moisture could cause damage. Never terminate the exhaust into a common duct or plenum with a kitchen exhaust, since the combination of lint and grease could create a fire hazard. Exhaust ducts should be terminated in a dampered wall cap to prevent back drafts, bird nesting, etc. The wall cap must also be located at least 12" above the ground or any other obstruction with the opening pointed down.

**FOR MORE INFORMATION ON VENTING KITS AND ACCESSORIES, PLEASE CALL 1-800-GE-CARES.**

**GTX22EASK**  
GE Appliances Series 6.2 Cu. Ft. Capacity Aluminized Alloy Drum Electric Dryer

**DRYER EXHAUSTING INFORMATION - METAL DUCT ONLY VERTICAL AND HORIZONTAL DUCTING**

For complete information, see installation instructions packed with your dryer.

**DUCTING MATERIALS:** For best performance, this dryer should be vented with 4" diameter all rigid metal exhaust duct. If rigid metal duct cannot be used, then UL-listed flexible metal (semi-rigid) ducting can be used (KIT WX08X10077). In special installations, it may be necessary to connect the dryer to the house vent using a flexible metal (foil-type) duct. A UL-listed flexible metal (foil-type) duct may be used ONLY in installations where rigid metal or flexible metal (semi-rigid) ducting cannot be used AND where a 4" diameter can be maintained throughout the entire length of the transition duct. Please see installation instruction packed with your dryer for complete instructions when using flexible metal (foil type) ducting.

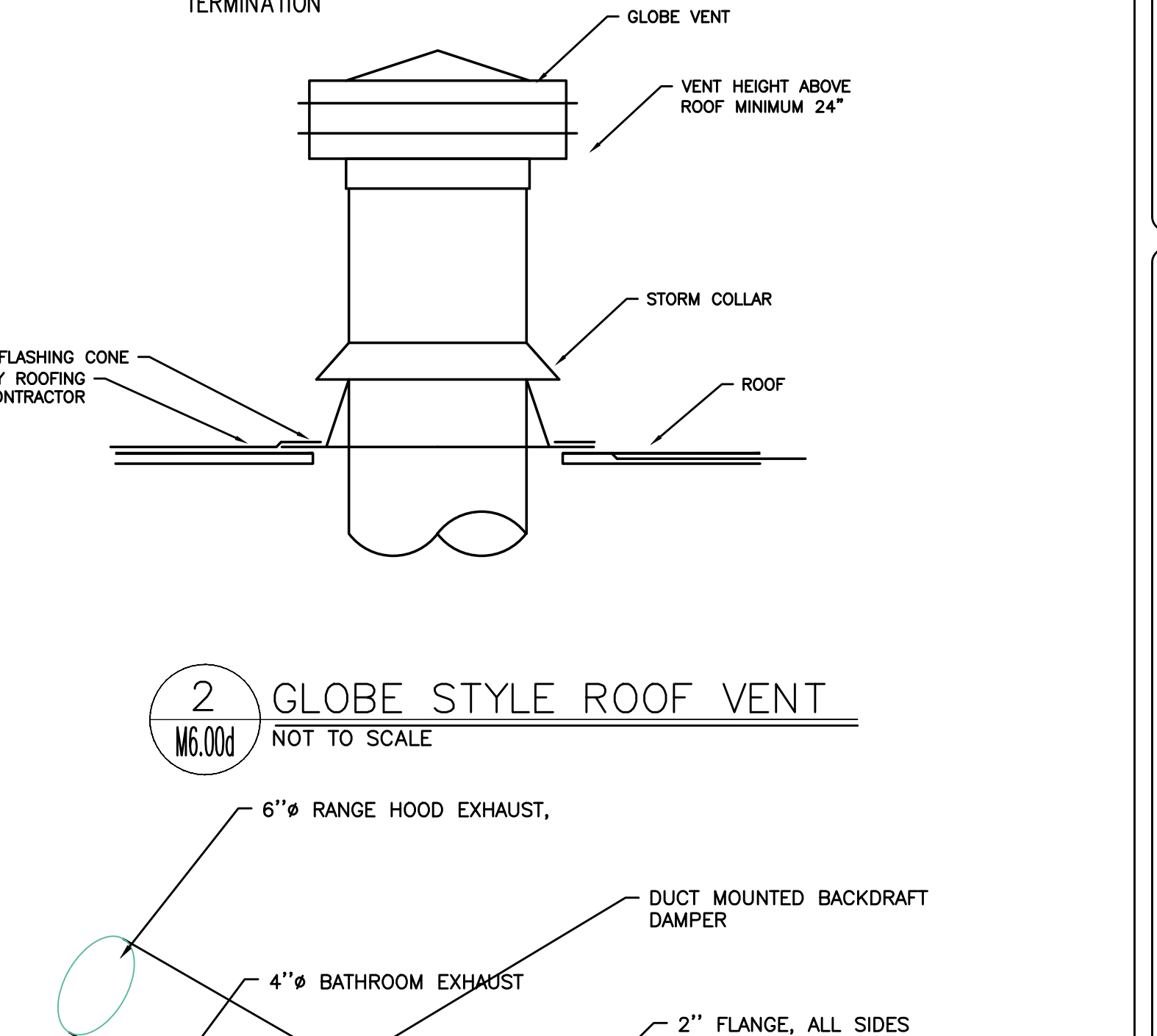
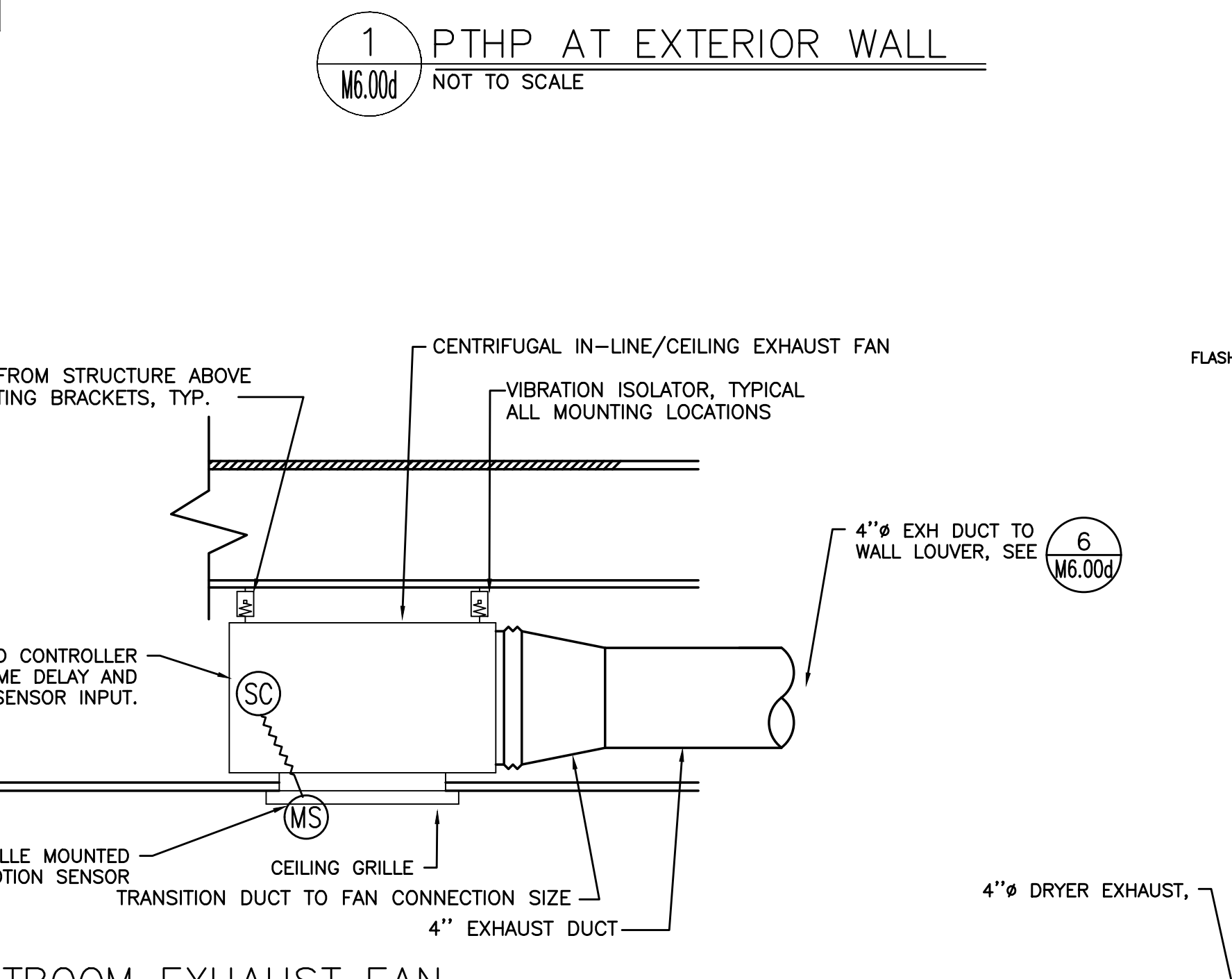
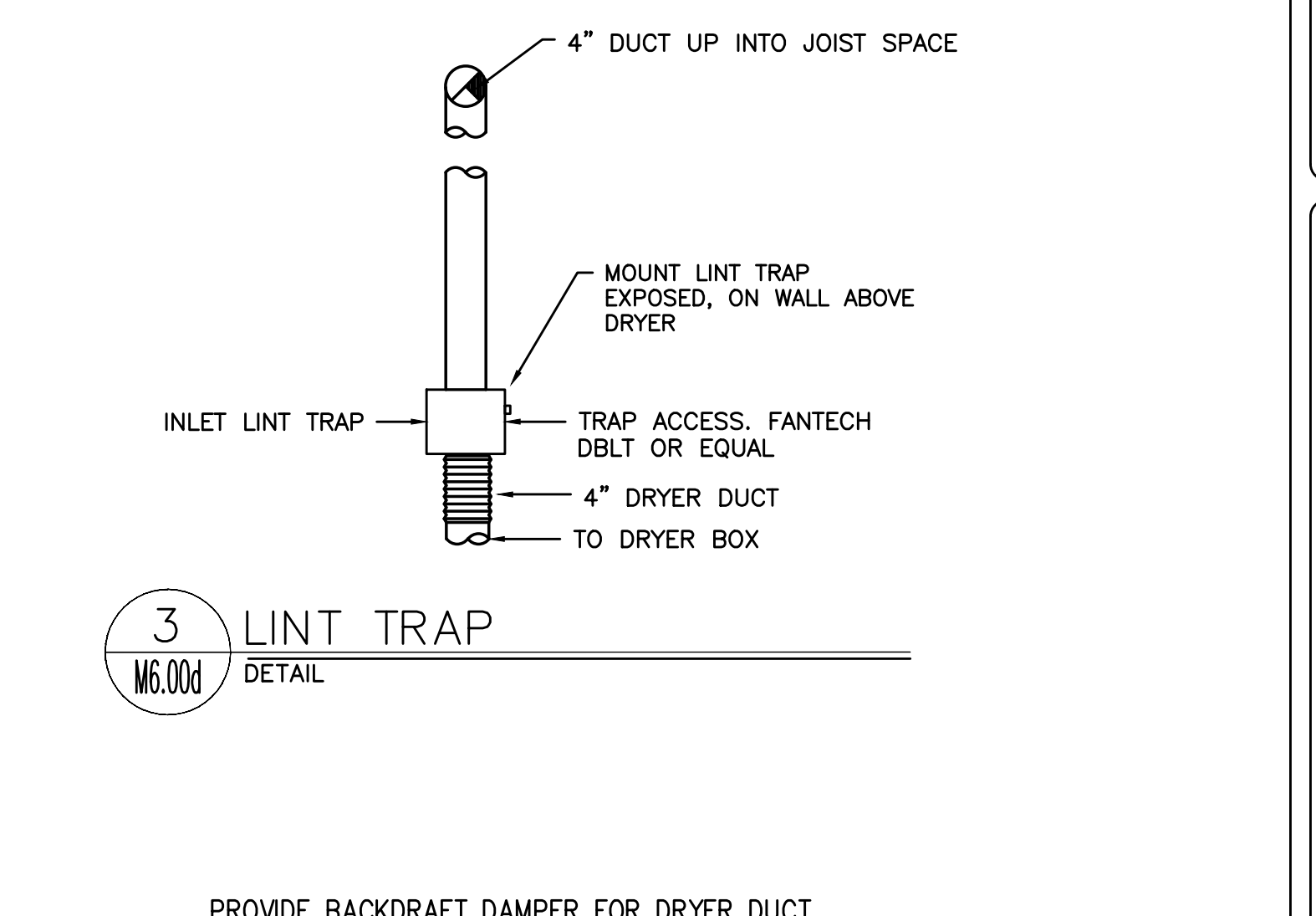
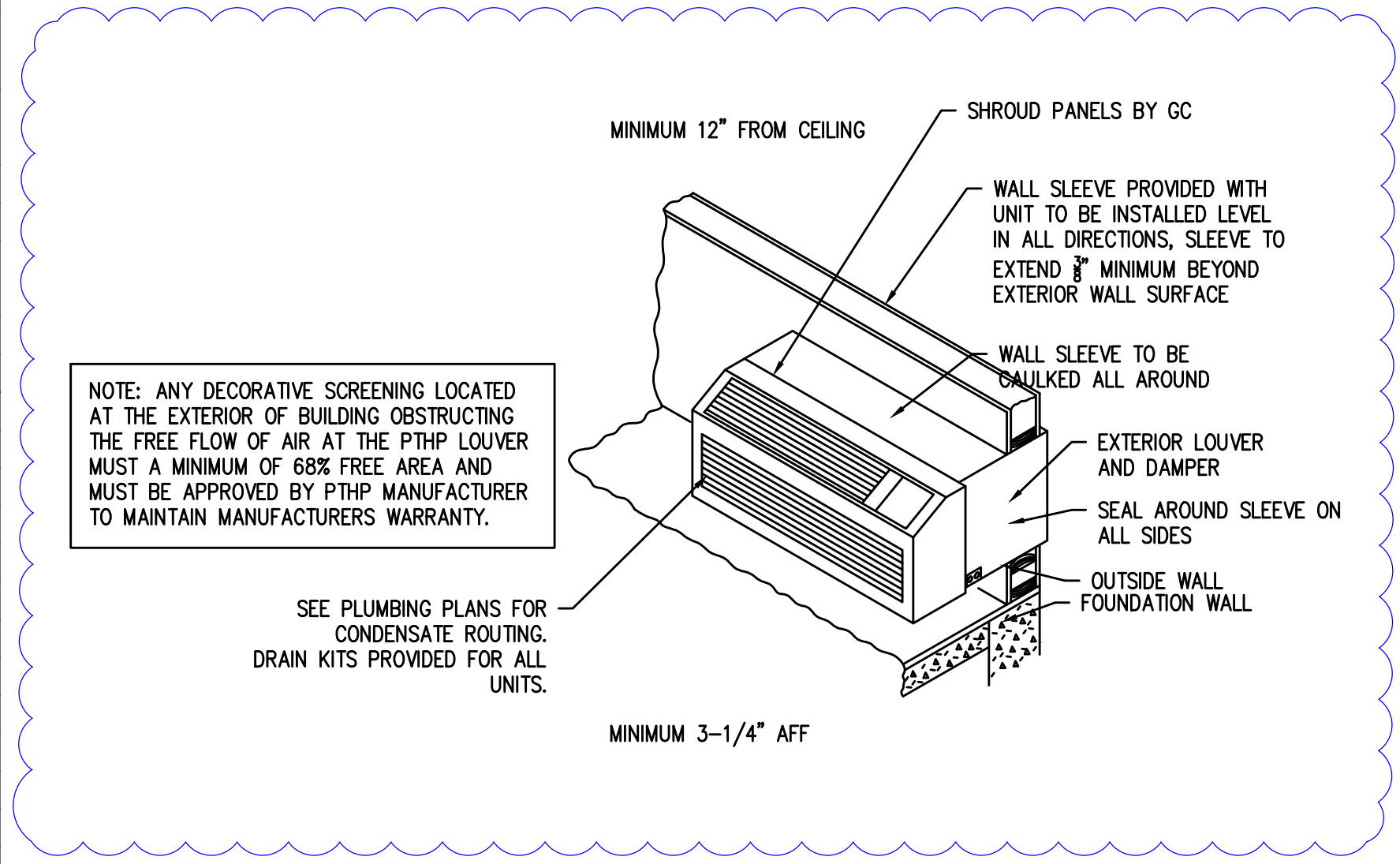
**EXHAUST LENGTH CALCULATION:**

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- The maximum length of 4" rigid (aluminum or galvanized) duct which can be tolerated is shown in the table. A turn of 45° or less may be ignored. Two 45° turns within the duct length should be treated as a 90° elbow. A turn of 45° should be treated as a 90° elbow.

Drillers must be exhausted to the outside.

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**FOR MORE INFORMATION ON VENTING KITS AND ACCESSORIES, PLEASE CALL 1-800-GE-CARES.**



Date:	9-29-21	Proj. No.:	10081
Drawn By:	MOA	Plan Review #1:	3-28-2022
Checked By:	MRD	Plan Review #2:	4-18-2022
Design By:	MRD	Plan Review #3:	6-24-2022
Acc'd File:			

**COMMONS ON THE TUALATIN**  
6845 SW NYBERG LANE  
BUILDING D

**MECHANICAL SCHEDULES/DETAILS**

TUALATIN OREGON 97225



Consulting Engineers  
2007 S.E. Ash St.  
Portland, OR 97214  
PH: (503) 234-0548  
FAX: (503) 234-0677  
WWW.MFA-ENG.COM

SHEET

M6.00d



This End Should Be Installed Up  
(unless stackable unit or on pedestal)

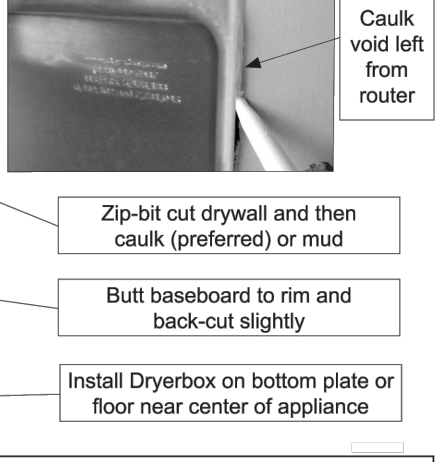
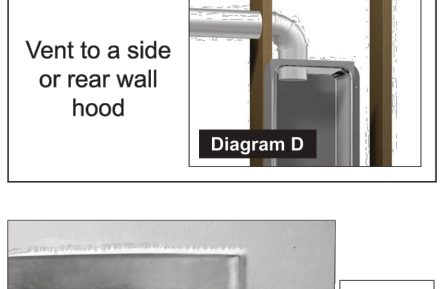
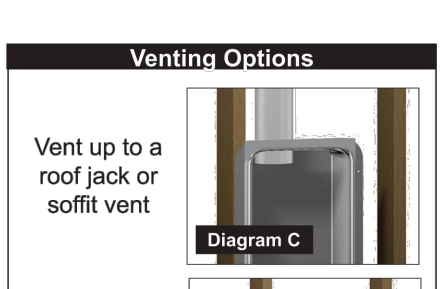
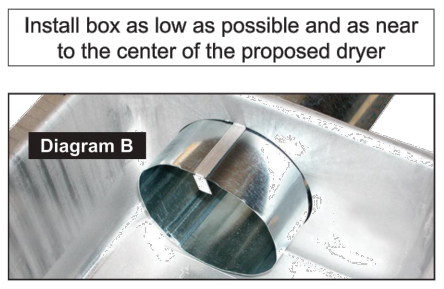
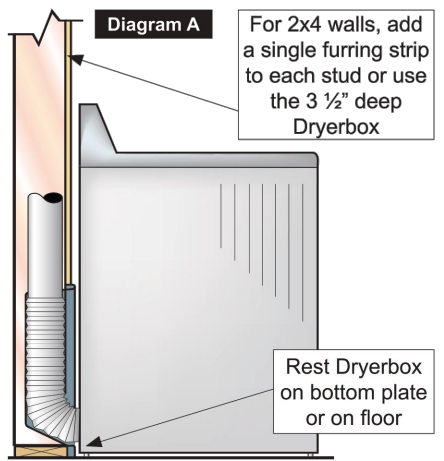
Save Space  
Save Energy  
Reduce Fire Hazard

CLASSIFIED  
UL LISTED  
See UL-728 Firestop System in UL Directory Referenced From The Register 2010 Complete Marking on Product.

WARNING - Sharp Edges



- Installation Instructions**
- All standard American clothes dryers have an exhaust port in the center of the rear panel at the very bottom. Therefore, it is best to install the Dryerbox® as low as possible so that the bottom tab is at or slightly below the finished floor level (Diagram A)—not applicable if stackable unit or on a pedestal.
  - Attach Dryerbox® to stud and bottom plate at a minimum of 3 corners.
  - This Dryerbox is designed to accommodate an upward exhaust direction. Optionally this unit can be mounted in a downward exhaust direction for a stacked dryer or one on a 13 inch pedestal. A lying-on-its-side orientation is also an option. For floor standing dryers venting down, the Model 4D or 3D are recommended.
  - When installing the 4 1/2" deep Dryerbox® (Model 425) into a 2x4 wall, fit out the respective wall 3/4" with a 1/2" furring strip to provide adequate depth or use the 3 1/2" Model 350.
  - When installing in an exterior frame wall, you should add insulation or duct board to the back-side of the box to minimize condensation and temperature transfer.
  - To achieve a fire resistance rating (one-hour F & T) min. 2X6 wood or metal framing is required. The Dryerbox unit must be installed in accordance with the UL Cabinet System listing. An extra layer of type-K drywall must be installed in the ID of the stud cavity in which the Dryerbox is located. Drywall must be attached to nailers (minimum 1" X 2" located on the inside of the cavity wall studs. Secure nailers to wall framing at max 16 in. OC. The screws used to attach the inner layer of drywall shall be spaced a maximum of 16 inches apart. For metal studs, mineral wool (min density 4 pcf) must fill the entire Dryerbox wall cavity and minimum R13 Fiberglass insulation in adjacent cells. For wood studs, mineral wool or R19 Fiberglass insulation must fill the Dryerbox cavity. Visit www.dryerbox.com for more detail.
  - Gas line termination options: For black iron pipe, wrap vinyl tape around throat where it penetrates. For corrugated stainless steel tubing, secure the CSST Termination Fitting with a Jamb nut to securely affix the termination to the receptacle. The gas port can be enlarged or relocated easily with a step bit.
  - The new Duct Support Tab (Diagram B) in top port will assist in maintaining the ideal penetration length of the 4" Snaplock rigid conduit of 2 inches. Create a "hook" by bending the tab at the weakest or scored locations. Break-away when duct is fully supported in-place. Seal penetration with foil tape or sealant caulk.
  - Snaplock pipe can be vented up (Diagram C) to a roof jack (see dryerjack.com), to a side-wall vent hood (Diagram D) or downwards to a crawl space or floor joist system with two elbows. Use the Model 4D or 3D to go down.
  - Use a Roto-bit router tool to cut the drywall leaving a caulk joint for the painter (Diagram E). It is best to caulk or mud this void (required for One-Hour Rating).
  - The baseboard is best terminated with a tapered back-cut into the rim extension on either side of box (Diagram E).
  - Exposed metal can be left unpainted or can be sprayed with an acrylic latex or oil-based (alkyd) paint when the rest of the wall, trim or baseboard is painted.



**Model 425**  
(4 1/2" Deep)Part Number: DB-425

Available throughout the country from supply houses, lumber yards and hardware centers who carry heating, ventilation and air conditioning parts and supplies.

Resources for other well made ventilation products by InOvate:  
www.Dryer-El.com • www.DryerFlex.com • www.DryerJack.com  
www.DryerFaced.com • www.DryerWallText.com

Call Toll Free: (888) 443-7937  
More installation instructions at: www.dryerbox.com

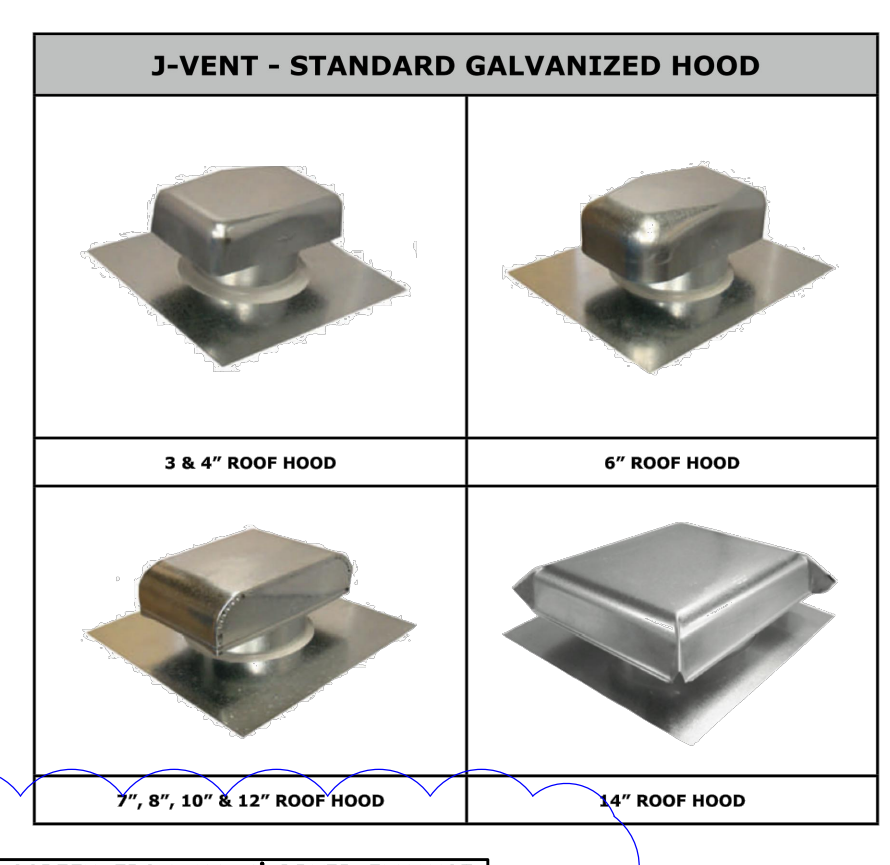
1 DRYER BOX DETAIL  
M6.01d NOT TO SCALE

# SUBMITTAL

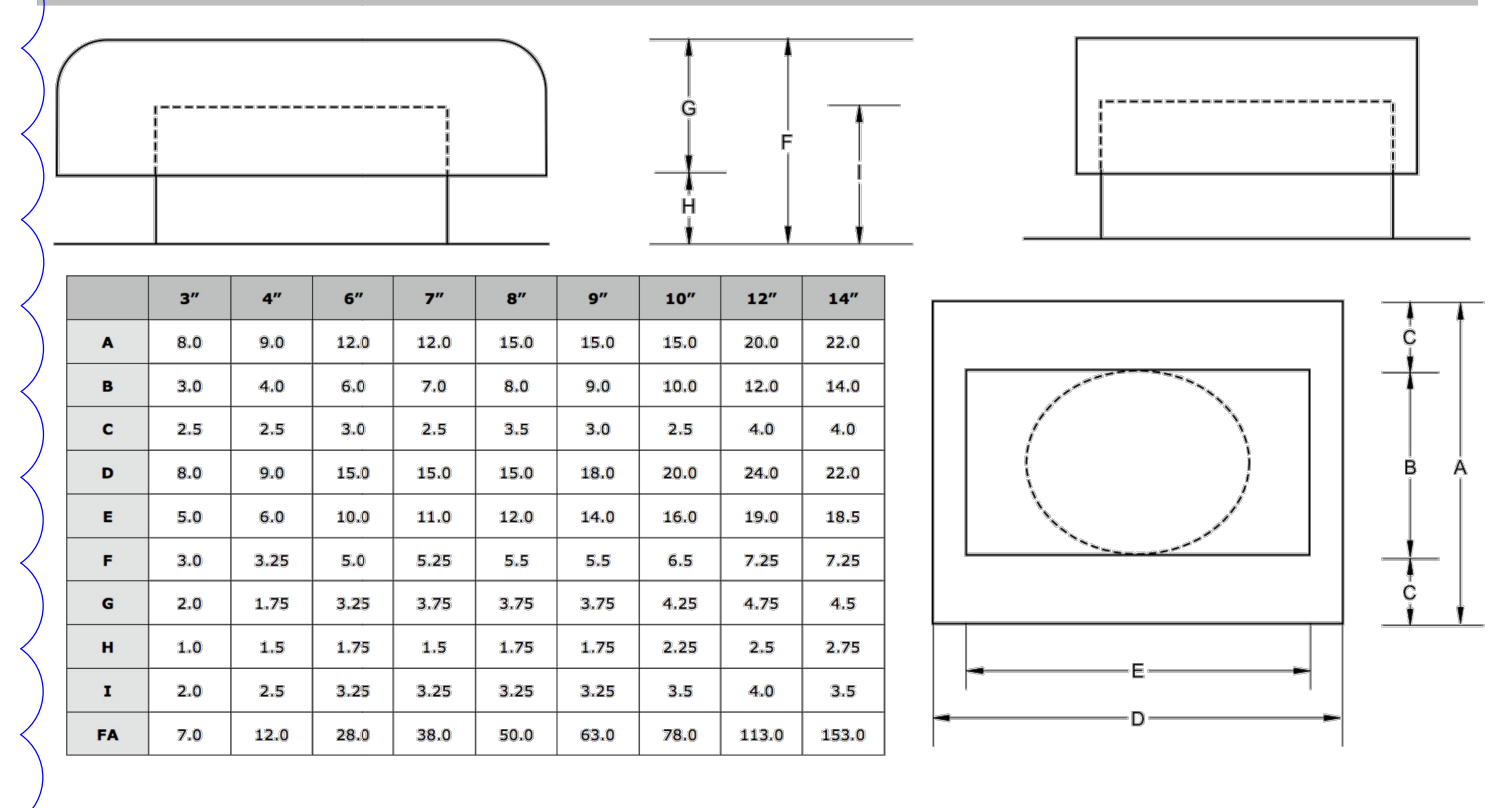
Artis Metals Company

**Artis Galvanized Roof J-Vents**  
Multiple Uses  
Gravity Attic Ventilator  
Indoor Exhaust Hood  
Use on any Roof Pitch  
With Fine Mesh Bug Screen

SIZE	ITEM#	LBS
3"	JV 328	0.50
4"	JV 428	1.00
6"	JV 626	2.00
7"	JV 726	2.50
8"	JV 826	3.00
10"	JV 1026	5.00
12"	JV 1226	6.25
14"	JV 1424	7.00



REMOVE FINE MESH BUG SCREEN FROM ALL 4 DRYER EXHAUST.



	3"	4"	6"	7"	8"	10"	12"	14"
A	8.0	9.0	12.0	12.0	15.0	15.0	18.0	20.0
B	3.0	4.0	6.0	7.0	8.0	9.0	10.0	12.0
C	2.5	2.5	3.0	3.0	3.0	3.0	4.0	4.0
D	8.0	9.0	12.0	12.0	15.0	15.0	18.0	20.0
E	5.0	6.0	10.0	11.0	12.0	14.0	16.0	18.0
F	3.0	3.25	5.0	5.25	5.5	5.5	6.5	7.25
G	2.0	1.75	3.25	3.75	3.75	3.75	4.25	4.75
H	1.0	1.5	1.75	1.5	1.75	1.75	2.25	2.5
I	2.0	2.5	3.25	3.25	3.25	3.25	3.5	4.0
J	7.0	12.0	28.0	38.0	55.0	63.0	78.0	113.0

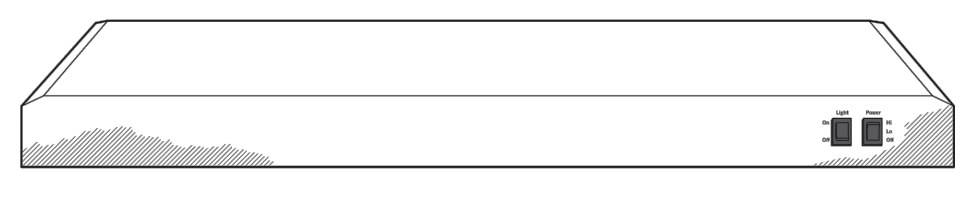
Jacobs Heating - 4474 SE Milwaukie Ave - Portland, OR 97202 - JacobsHVAC.com

2 LOW PROFILE ROOF VENT  
M6.01d NOT TO SCALE

## ADA HOOD

GE Appliances 30" Under the Cabinet Hood

**FEATURES AND BENEFITS**  
Easy installation - 10 minutes or less by one person  
Two-speed, 200-CFM venting system - Removes smoke, grease, odors and moisture  
Front controls - Enjoy easy access and a subtle appearance  
Cooktop lighting - Illuminate cooking space and surrounding surface  
Convertible venting options - Select recirculating or external venting  
Vertical and rear exhaust - Exhausts from the top or rear of the hood  
Appearance (Partially enclosed bottom) - Enjoy easy access to hood interior  
Dishwasher safe filter - Filters grease and is dishwasher-safe  
Model JWX3300ESS - Stainless steel  
Model JWX3300EJES - Slate



**CFM/SONES RATINGS**

Exhaust High Speed (HS)	200/6.0
Exhaust Working Speed (WS)	100/1.5



Specification Revised 8/10

## JVM3160RF/EF

GE® 1.6 cu. ft. Over-the-Range Microwave Oven

**DIMENSIONS AND INSTALLATION INFORMATION (IN INCHES)**  
**HOOD EXHAUST DUCT:** Outside ventilation requires a HOOD EXHAUST DUCT. Read the following carefully.  
**EXHAUST CONNECTION:** The hood exhaust has been designed to mate with a standard 3-1/4" x 10" rectangular duct. If a round duct is required, a rectangular-to-round transition adaptor must be used. Do not use less than a 6" diameter duct.  
**REAR EXHAUST:** If a rear or horizontal exhaust is to be used, care should be taken to align exhaust with space between studs, or wall should be prepared at the time it is constructed by leaving enough space between the wall studs to accommodate exhaust.  
**MAXIMUM DUCT LENGTH:** For satisfactory air movement, the total duct length of 3-1/4" x 10" rectangular or 6" diameter round duct should not exceed 140 equivalent feet.  
**ELBOWS, TRANSITIONS, WALL AND ROOF CAPS, etc.,** present additional resistance to airflow and are equivalent to a section of straight duct which is longer than their actual physical size. When calculating the total duct length, add the equivalent length of all transitions and adapters plus the lengths of all straight duct sections. The chart below shows the approximate feet of equivalent length of some typical ducts.

DUCT	EQUIVALENT FEET
A. Rectangular To Round Transition Adapter	5 ft.
B. Wall Cap	40 ft.
C. 90° Elbow	30 ft.
D. 45° Elbow	5 ft.
E. 90° Elbow	55 ft.
F. 45° Elbow	5 ft.
G. Roof Cap	24 ft.



For answers to your Microwave, GE Café® Series, GE Profile® Series or GE Appliances product questions, visit our website at [geappliances.com](http://geappliances.com) or call GE Assure Center® Service, 800.628.3800.

Specification Revised 8/10

## RESIDENTIAL VENTILATION SCHEDULE

DWELLING UNIT AREA, (SQ FT)  
1 BED = 520  
2 BED = 665  
3 BED = 1391

Table 4-1a (1-P) Ventilation Air Requirements, cfm ASHRAE 62.2-2019

Floor Area, ft <sup>2</sup>	Bedrooms				
	1	2	3	4	5
<500	20	38	45	53	60
501 to 1000	45	53	60	68	75
1001 to 1500	60	68	75	83	90
1501 to 2000	75	83	90	98	105
2001 to 2500	90	98	105	113	120
2501 to 3000	105	113	120	128	135
3001 to 3500	120	128	135	143	150
3501 to 4000	135	143	150	158	165
4001 to 4500	150	158	165	173	180
4501 to 5000	165	173	180	188	195

**System No. F-C-7057**

ANSIUL1479 (ASTM E814) CANULC S115

F Rating — 1 Hr FT Rating — 1 Hr  
R Rating — 1 Hr FH Rating — 1 Hr  
FTH Rating — 1 Hr

SECTION A-A

Hilti Firestop Systems  
Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. March 27, 2017

**System No. F-C-7057**

1. Floor-Ceiling Assembly — The 1 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The general construction details of the floor-ceiling assembly are summarized below:  
A. Flooring System — Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture\* as specified in the individual Floor-Ceiling Design. Max area of floor opening is 150 in.2 (0.098 m2) with a max 1.5 in. (38 mm) annular space between duct and framing members.  
B. Wood Joists — Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members\* with bridging as required and with ends freestopped. Additional framing members installed to form a square enclosure around the perimeter of the opening in the floor and ceiling.  
C. Furring Channels — (Where Required - Not Shown) - Resilient galv steel furring installed perpendicular to wood joists between gypsum board and wood joists as specified in the individual Floor-Ceiling Design. Furring channels spaced max 24 in. (610 mm) OC. Furring channels are used within the assembly, additional furring channels to be installed along the periphery of the opening.  
D. Gypsum Board\* — Nom 4 ft (1.2 m) wide by 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design. Gypsum board secured to wood joists or furring channels as specified in the individual Floor-Ceiling Design. Max area of ceiling opening is 150 in.2 (0.098 m2) with a max 1.5 in. (38 mm) annular space between duct and framing members.  
2. Steel Air Duct — Max 7 in. (178 mm) diam by min 0.0157 in. (No. 30 gauge or 0.40 mm) thick galv steel air duct to be centered within the opening. Max one steel air duct to be installed within opening. Steel duct to be rigidly supported on top side of floor-ceiling assembly.  
2A. Steel Air Duct — Max 10 by 4 in. (254 by 102 mm) rectangular by min 0.022 in. (no. 26 gauge or 0.56 mm) thick galv steel air duct to be centered within the freestop system. Max one steel air duct to be installed within opening. Steel duct to be rigidly supported on top side of floor-ceiling assembly.  
3. Freestop System — The freestop system shall consist of the following:  
A. Packing Material — Min 9-7/8 in. (251 mm) thickness of unfaced duct wrap material compressed min 25 percent into opening as a permanent form between the insulated steel duct and the periphery of the opening. Packing material to be installed flush with bottom surface of ceiling and recessed from top surface of floor to accommodate the required thickness of fill material.  
B. Fill Void or Cavity Material\* - Sealant — Min 3/4 in. (19 mm) thickness of fill material applied within annulus on top surface of floor.  
SPECIFIED TECHNOLOGIES INC — SpecSeal Series SSS Sealant or SpecSeal LCI Sealant  
EGS NELSON FIRESTOP — ES1399 Sealant  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE-MAX Intumescent Sealant  
TRENCO INC — Fyre-Sil Sealant  
DAP PRODUCTS INC — DAP Fire Stop Fire-Rated Silicone Sealant  
3M COMPANY 3M FIRE PROTECTION PRODUCTS — FB-1000 NS Sealant  
NUCCO INC — Self Seal GG-200  
C. Duct Wrap Material\* — Nom 1/2 in. (13 mm) thick, 8 pcf (128 kg/m3) or nom 1-1/2 in. (38 mm) thick, 6 pcf (96 kg/m3) with foil-scrim facers. The steel duct shall be wrapped with one layer of duct wrap installed in accordance with Ventilation Assembly No. V-32. The duct wrap is secured with min No. 18 Gauge (0.040 in. or 1 mm) galvanized steel wire formed into a loop on one end, with the other end passed through the loop, pulled hand tight and bent over. Tie wires spaced a max 12 in. (305 mm) OC See Ventilation Duct Assemblies in Vol. 2 of the Fire Resistance Directory. The annular space between the insulated steel duct and the periphery of the opening shall be nom 1-1/2 in. (38 mm). A min 1/2 in. high collar consisting of an additional layer of 1/2 in. (13 mm) thick, 8 pcf (128 kg/m3) or nom 1-1/2 in. (38 mm) thick, 6 pcf (96 kg/m3) duct wrap, installed over the duct wrap flush with the top surface of the floor and extending upward. All seams and edges shall be sealed with min 3 in. (76 mm) wide pressure sensitive aluminum foil tape.  
UNIFRAX ILLC — FyreWrap® DPS or FyreWrap® Elite 1.5

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems  
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3 FIRE PENETRATION DETAIL - VERTICAL 4" & 6" DUCTS  
M6.01d NOT TO SCALE



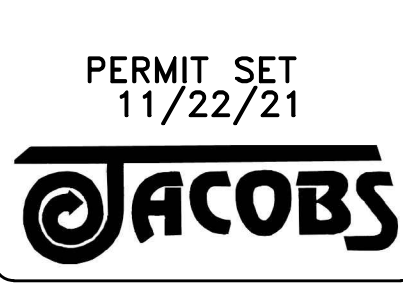
9-29-21

Date:	9-29-21	10081	MOA	MRD	MRD	Accd File:
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Drawn By:	MOA	MRD	MRD	MRD	MRD	
CHKD BY:	MOA	MRD	MRD	MRD	MRD	
DSGN BY:	MOA	MRD	MRD	MRD	MRD	
PLAN REVIEW #1	3/28/2022	PLAN REVIEW #2	4/18/2022	PLAN REVIEW #3	6/24/2022	

COMMONS ON THE TUALATIN  
6845 SW NYBERG LANE  
BUILDING D  
MECHANICAL DETAILS

TUALATIN  
OREGON 97225

PERMIT SET  
11/22/21



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