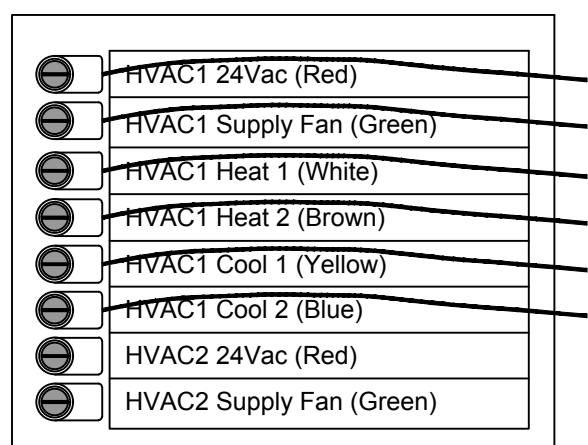
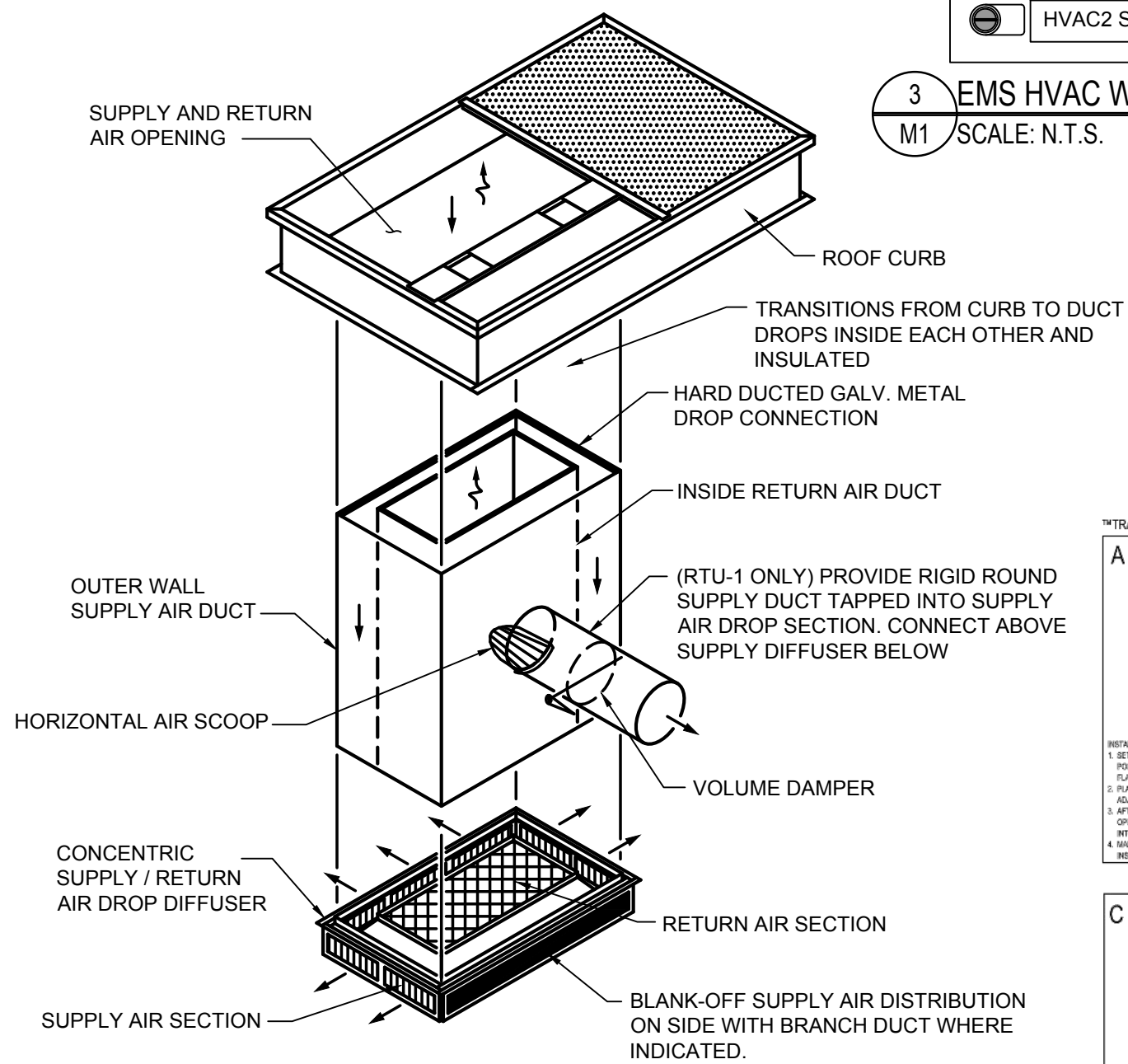


1 MECHANICAL PLAN
M1
SCALE: 1/8" = 1'-0"



3 EMS HVAC WIRING DETAIL
M1
SCALE: N.T.S.

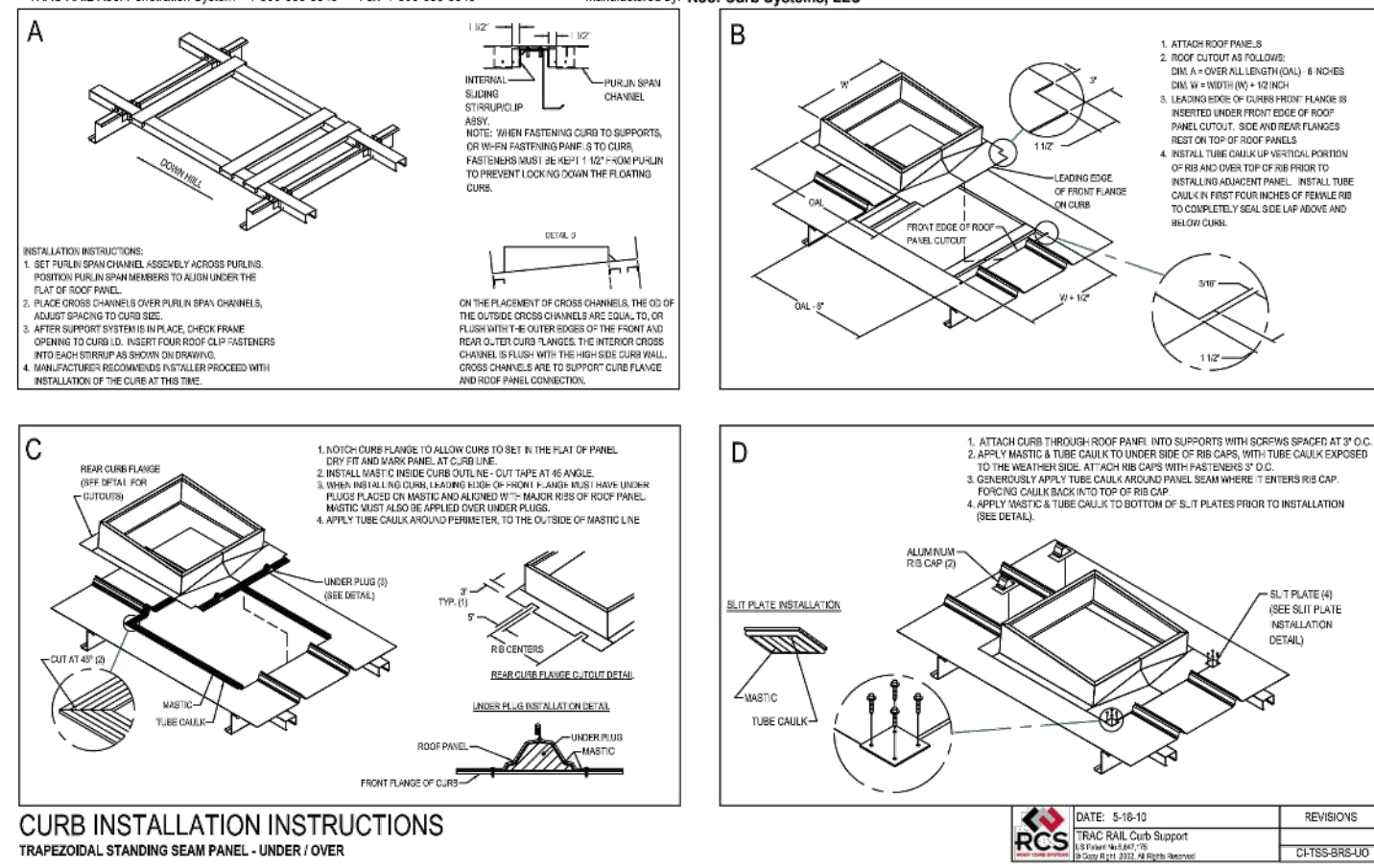


NOTE: INSTALL HORIZONTAL AIR SCOOP HAVING A CONTINUOUSLY CURVED CROSS SECTION AND BALANCING DAMPER AT DUCT CONNECTION TO DIVERT SUPPLY AIR INTO THE CONNECTED DUCTWORK. LENGTH OF SCOOP SHALL BE LIMITED TO THE WIDTH OF THE SUPPLY AIR ANNULAR SPACE.

2 TYPICAL SUPPLY DROP WITH BRANCH CONNECTION
M1
SCALE: N.T.S.

TRAC RAIL Roof Penetration System 1-800-685-5848 • Fax: 1-800-685-5848

Manufactured by: Roof Curb Systems, LLC



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4 ROOF CURB SYSTEMS, LLC
M1
SCALE: N.T.S.

WIND LOAD CODE COMPLIANCE NOTE:
CURB SHALL BE SECURED TO MEET LOCAL WIND LOAD AS DETAILED ON METAL BUILDING STRUCTURAL PLANS AND DETAILS FOR TIE-DOWN OF RTU TO ROOF CURB AND ROOF CURB TO ROOF STRUCTURE.

AIR DEVICE SCHEDULE									
GENERAL				CONSTRUCTION					
MARK	TYPE	FUNCTION	FRAME SIZE	PATTERN	MATERIAL	FINISH	MFG.	MODEL	NOTES
CD	CEILING DIFFUSER	SUPPLY	12x12	LOUVERED FACE	ALUMINUM	WHITE	PRICE	AMD	1
SD	SIDEWALL DIFFUSER	SUPPLY	SEE PLANS	LOUVERED FACE	STEEL	WHITE	PRICE	520	1
BWR	SIDEWALL GRILLE	RETURN	SEE PLANS	BLADES	STEEL	WHITE	PRICE	330	1

NOTE: 1 PROVIDE WITH OPPOSED BLADE DAMPER.

EXHAUST FAN SCHEDULE											
UNIT NO.	SERVICE	LOCATION	CFM	E.S.P. (IN W.G.)	ELECTRICAL DATA	R.P.M. H.V.O.	SONES	DRIVE	MANUFACTURER MODEL NUMBER	REMARKS	
EF-1	TOILET	CEILING	110	.125	156 120 1	-	4.0	DIRECT	NUTONE #672R	1, 2, 3, 4, 5	
EF-2	TOILET	CEILING	110	.125	156 120 1	-	4.0	DIRECT	NUTONE #672R	1, 2, 3, 4, 5	
-	-	-	-	-	-	-	-	-	-	-	

REMARKS:

1. PROVIDE UNIT MOUNTED DISCONNECT
2. PROVIDE BACKDRAFT DAMPER & WALL CAP TO SERVE BOTH FANS
3. PROVIDE SPEED CONTROLLER
4. INTERLOCK FAN WITH LIGHT SWITCH BY ELECTRICIAN
5. FANS TO BE U.L. LISTED & AMCA CERTIFIED.

VENTILATION REQUIREMENTS									
ROOM NUMBER	ROOM NAME	NET AREA (SF)	PEOPLE PER 1,000 sq. ft.	NO. OF PEOPLE	CFM PER PERSON	CFM PER SQFT	CALCULATED OSA CFM	OSA PROVIDED CFM	
100	BREAK ROOM	120	(ACTUAL)	2	5	0.06	17	20	
101	OFFICE	80	5	1	5	0.06	10	10	
102	SALES AREA	6,915	15	104	7.5	0.12	1,610	1,610	
103	RECEIVING AREA	1,195	-	4	-	0.12	143	145	
104	MEN'S RESTROOM	65	-	-	70 PER TOILET		70	-110 (EXH)	
105	WOMEN'S RESTROOM	65	-	-	70 PER TOILET		70	-110 (EXH)	
TOTAL AMOUNT OF OSA PROVIDED LESS EXHAUST (BUILDING PRESSURE):								+1,295	

TABLE NOTES: BASED ON 2023 FBC MECHANICAL - TABLE 403.3.1.1, INCLUDING FOOTNOTE 'a'.

AIR BALANCE ANALYSIS					
MARK	SUPPLY AIR	OSA INTAKE	RETURN AIR	EXHAUST AIR	BLDG. PRESSURE
RTU-1	5,000	820	4,180	-	+820
RTU-2	5,000	820	4,180	-	+820
EF-1	-	-	-	110	-110
EF-2	-	-	-	110	-110
RTU-3	2,000	145	1,855	-	+145
TOTALS:	12,000	1,785	10,215	220	+1,565

AIR CONDITIONING UNIT SCHEDULE			
MARK	RTU - 1 and RTU-2	RTU - 3	
AREA	RETAIL SPACE	RECEIVING AREA	
BTUH SENSIBLE	112,000	46,000	
BTUH TOTAL	146,000 (12.5-TONS)	58,000 (5.0-TONS)	
ENTERING DB / WB	77.4 / 64.5	76.7 / 63.8	
AMBIENT TEMP	95° F	95° F	
SUPPLY CFM	5,000	2,000	
EXTERNAL SP.	0.8	0.8	
OSA CFM	REFER TO PLANS	REFER TO PLANS	
FAN H.P.	4.6	1.0 (DIRECT DRIVE)	
HEAT KW	27 (230V) / 20.3 (208V)	12 (230V) / 9 (208V)	
VOLTAGE / PHASE	208-230 / 3	208-230 / 3	
MCA	86-97	40-45	
FUSE SIZE	90-100	40-45	
EER/SEER2 (IEER)	11.0 (14.7)	13.4(-)	
REFRIGERANT	R-410A	R-410A	
MODEL NO.	TSJ150A3	TSC060G3	
MANUFACTURER	TRANE	TRANE	
UNIT BASE WEIGHT	1,218 lbs (vendor - confirm)	498 lbs (vendor - confirm)	

NOTES ON ACCESSORIES REQUIRED WITH UNITS:

1. PROVIDE FILTER RACK w/2" 30-35% FILTERS. REPLACE AT END OF JOB AND PROVIDE (2) ADDITIONAL SETS OF SPARE FILTERS TO OWNER
2. PROVIDE LOW AMBIENT CONTROL
3. PROVIDE 5-MINUTE DELAY CONTROL TO PREVENT COMPRESSOR FROM SHORT CYCLING
4. INSTALL UNIT PER MANUFACTURER'S SPECIFICATIONS AND GUIDELINES
5. PROVIDE UNIT WITH ELECTRIC HEAT AND SINGLE POINT CONNECTION
6. UNIT DISCONNECT AND CONVENIENCE OUTLET PROVIDED BY DW-16 (ELECTRICIAN)
7. PROVIDE FACTORY MOUNTED OUTSIDE AIR HOOD WITH AUTOMATIC DAMPER, INCLUDING ECONOMIZER DAMPER WITH BAROMETRIC RELIEF AND ENTHALPY SENSOR WITH CONTROLS
8. PROVIDE "YORK" CONCENTRIC DIFFUSER KIT FOR RTU'S WITH FACTORY INSTALLED TRANSITION ADAPTER AT RTU. (COORDINATE WITH LIGHT FIXTURES) SEE NOTE FOR YORK NATIONAL ACCOUNTS ON THIS DWG.
9. PROVIDE THRU-THE-BASE CONNECTIONS
10. PROVIDE MSV MULTI-STAGE AIR VOLUME W/ V.F.D. AND BELT DRIVE KIT AS REQUIRED
11. PROVIDE WITH OVERFLOW DRAIN SWITCH IN PAN.

MECHANICAL KEYED NOTES:

- 1 RTU-1 THRU RTU-3. PROVIDE AND INSTALL NEW PACKAGE ROOF-TOP UNIT. SEE SCHEDULE FOR UNIT INFORMATION.
- 2 SMOKE DETECTOR TO BE INSTALLED IN SUPPLY AIR DUCTWORK FOR ROOF-TOP UNIT. FIELD COORDINATE WITH FIRE ALARM SYSTEM USED AND LOCAL CODES.
- 3 PROVIDE CONCENTRIC DIFFUSER KIT BY YORK TO FIT RTU UNITS. INCLUDE FACTORY INSTALLED TRANSITION ADAPTER AT RTU. COORDINATE WITH LIGHT FIXTURES.
- 4 SUPPLY REGISTERS MOUNTED ON 4-SIDES OF CONCENTRIC DIFFUSER. BALANCE AT 1,200-CFM EACH (RTU-1), AND 1,250-CFM EACH (RTU-2) AND 500-CFM (RTU-3)
- 5 EXHAUST FAN TO BE MOUNTED ON CEILING w/DUCTWORK ROUTED TO SIDEWALL. PROVIDE STORM PROOF WALL CAP w/BACKDRAFT DAMPER (TYP.).
- 6 8"Ø EXHAUST DUCT TO WALL CAP.
- 7 WALL CAP w/BACKDRAFT DAMPER.
- 8 8"Ø DUCT (w/DAMPERS) SPLIT TO TWO 5"Ø DUCTS AND ONE 6"Ø.
- 9 FIRE DAMPER AT WALL (SEE DETAILS M2) NOT USED THIS STORE.

EQUIPMENT LABEL SPECIFICATIONS:

1. ALL HVAC EQUIPMENT SHALL BE FURNISHED WITH BLACK LAMINATED PLASTIC LABEL w/WHITE ENGRAVED LETTERING AND FASTENED MECHANICALLY TO THE EQUIPMENT.
2. LABEL SHALL HAVE THE FOLLOWING INFORMATION w/1/2" LETTERING:
EQUIPMENT #
SUITE/SPACE #

NOTES AND SPECIFICATIONS

1. ALL MECHANICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE 8TH ED. 2023 FLORIDA BUILDING CODES, NFPA-90A, ALONG WITH ALL LOCAL LAWS AND ORDINANCES AND IN A MANNER SATISFACTORY TO THE OWNER AND AUTHORITY HAVING JURISDICTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS, INSPECTIONS AND PAY ALL APPLICABLE FEES.
2. TRANE PACKAGED HVAC SYSTEMS ARE REQUIRED (NO SUBSTITUTIONS ALLOWED). ALL HVAC EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS WRITTEN INSTALLATION GUIDE. CONTACT MARTY CUSICK OF TRANE NATIONAL ACCOUNTS (866) 986-4822, OR HOLT WALLACE AT TAMPA BAY TRANE (813) 877-8251.
3. PROVIDE YORK CONCENTRIC DIFFUSER KIT AS SPECIFIED BY DOLLAR GENERAL NATIONAL ACCOUNTS HVAC MANUFACTURERS. (NO EXCEPTIONS PERMITTED). CONCENTRIC DIFFUSER KIT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS. CONCENTRIC DIFFUSER SHALL BE HARD DUCTED FROM HVAC UNIT. THE USE OF FLEXIBLE DUCT DROPS ARE NOT ALLOWED, NO EXCEPTIONS.
4. ALL CONDENSATE TO BE SCHEDULE 40 PVC WITH PIPE SUPPORTS AT 4-FOOT INTERVALS AND SUPPORTS CLIPPED DOWN TO STANDING SEAMS ON METAL ROOF SYSTEM (SEE DETAILS).
5. SMOKE DETECTORS ARE REQUIRED FOR EACH HVAC UNIT. HVAC CONTRACTOR TO INSTALL IN SUPPLY DUCT DROPS. DETECTORS TO BE PROVIDED BY YORK BY OTHERS (REFER TO ELECTRICAL PLANS). VERIFY CURRENT ADOPTED STATE AND LOCAL CODE REQUIREMENTS FOR INSTALLATION AND MOUNTING LOCATION OF SMOKE DETECTOR.
6. COORDINATE WITH METAL BUILDING VENDOR ON PROVIDING ROOF CURBS FOR RTU'S. REFER TO SHEET S3 FOR GENERAL NOTES AND DETAILS FOR ROOF CURB INFORMATION (SHOWN ON M1 FOR REFERENCE). CURB TO BE BY ROOF CURB SYSTEMS, LLC. CONTACT GC FOR METAL BUILDING VENDOR AND INCLUDE COST OF CURBS IN PRICE.
7. ALL SUPPLY AND EXHAUST AIR DUCTWORK SHALL BE CONSTRUCTED OF RIGID GALVANIZED SHEET METAL AND BE FABRICATED ACCORDING TO THE LATEST EDITION OF THE SMACNA HVAC DUCT CONSTRUCTION STANDARDS FOR METAL AND FLEXIBLE DUCTWORK. SUPPLY, RETURN AND POSITIVE PRESSURE EXHAUST DUCTWORK SHALL BE SEALED IN ACCORDANCE WITH SMACNA SEAL CLASS C. INSULATE ALL SUPPLY AND RETURN DUCT DROPS TO CONCENTRIC DIFFUSERS WITH FIBERGLASS RIGID BOARD ON EXTERIOR (R-4.2) THAT IS ASTM-E84 COMPLIANT. INSULATE ROUND SUPPLY DUCT FOR OFFICE AREA WITH EXTERNAL FIBERGLASS DUCT WRAP (R-4.2) THAT IS UL-181 COMPLIANT.
8. TESTING OF HVAC UNITS THRU EMS PANEL IS ACCOMPLISHED BY WARMING UP OR COOLING DOWN A SPACE TEMPERATURE SENSOR AND WATCH THE FAN, HEAT AND COOL STAGES CYCLE ON AND OFF. THIS REQUIRES TWO PEOPLE AT ALL TIMES, ONE TO WATCH THE SCREEN AND THE OTHER TO WATCH OPERATION OF THE HVAC UNIT. WHEN COMPLETE, PRESS THE HOME BUTTON TO RETURN TO THE MAIN SCREEN.
9. COORDINATE HVAC SENSORS LOCATIONS WITH SHEET EMS1. LOCATE SPACE TEMPERATURE SENSORS AT 8'-0" A.F.F.
10. POWER TO HVAC UNITS LISTED IN PREFERENCE ORDER.
11. PROVIDE CEILING MOUNTED EXHAUST FAN FOR RESTROOMS. INTERLOCK WITH RESTROOM LIGHTS. EXHAUST FAN SHALL BE VENTED THRU SIDE WALL, NOT THRU THE ROOF.
12. CONCENTRIC DIFFUSERS, AVAILABLE THROUGH YORK, CAN BE USED ON ALL VENDORS EQUIPMENT. CONTACT YORK NATIONAL PRICING FOR INFORMATION. LOCATE THE BOTTOM OF DIFFUSER AT 7' AFF. CONTACT NATIONAL ACCOUNTS AT 1-800-481-9738 OR EMAIL YORK-DOLLARGENERAL-BE@JCI.COM.

SEQUENCE OF OPERATION (A/C UNITS)

- A. SUPPLY FANS: THE EVAPORATOR FAN WILL RUN CONTINUOUSLY DURING OCCUPIED HOURS, AND CYCLE ON/OFF WITH COOLING/HEATING WHEN IN UN-OCCUPIED MODE, AS PROGRAMMED.
- B. OUTSIDE AIR DAMPER (RTU'S): OPEN WHEN EVAPORATOR RUNS (SEE ITEM "A" ABOVE)
- C. COOLING COIL: WHEN SPACE AIR TEMP IS ABOVE SETPOINT (75°F OCCUPIED/80°F UNOCCUPIED) THE COMPRESSOR SYSTEM SHALL ENERGIZE IN STAGES TO MAINTAIN SPACE SETPOINT.
- D. HEATING COIL: WHEN SPACE AIR TEMP IS BELOW SETPOINT (68°F OCCUPIED/60°F UNOCCUPIED) THE ELECTRIC HEATER WILL ENERGIZE IN STAGES TO MAINTAIN HEATING SPACE SETPOINT.
- E. ECONOMIZER MODE: WHEN OUTDOOR ENTHALPY IS BELOW INSIDE ENTHALPY (28.1 BTU PER POUND OF D.AIR) THE ECONOMIZER DAMPER WILL OPEN TO FULL, AND CLOSE THE RETURN DAMPER AND RELIEF BAROMETRIC DAMPER WILL OPEN TO RELIEVE PRESSURE.

SEQUENCE OF OPERATION (EXHAUST FANS)

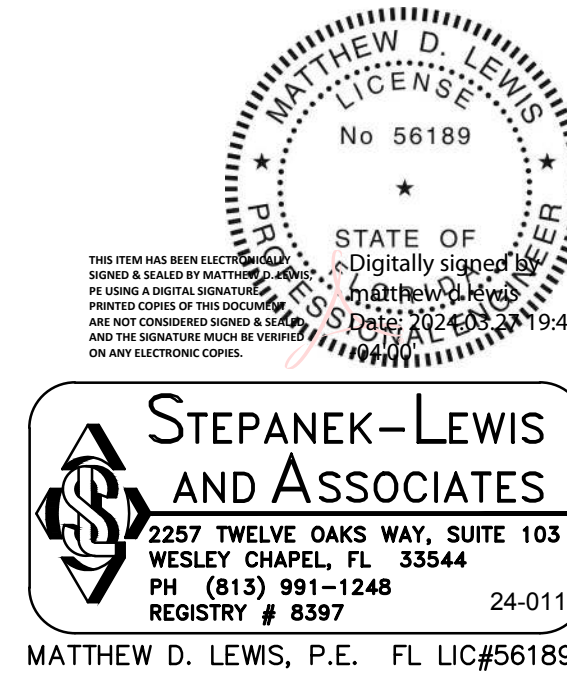
- A. RESTROOM FAN: FAN WILL START AND RUN FULL SPEED WHEN OCCUPANCY SENSOR IS TRIGGERED.

SMOKE DETECTOR NOTES:

1. THE DUCT SMOKE DETECTORS SHALL BE INSTALLED TO STOP THE FAN IN THE HVAC DUCT SYSTEM OVER 2,000cfm (RTU-1, RTU-2, AND RTU-3)
2. DETECTORS WITH ALARMS TO BE FURNISHED AND WIRED BY OTHERS. REFER TO ELECTRICAL PLANS FOR SPECIFICATIONS OF DETECTORS. COORDINATE WITH ELECTRICIAN FOR FINAL LOCATIONS OF DETECTORS IN SUPPLY DUCT DROPS PER CODE.
3. SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH FBC 2023 8th EDITION OF MECHANICAL CODE, SECTION 806.

SYMBOL LEGEND

- ☒ EXHAUST FAN
- ☒ SUPPLY AIR DIFFUSER
- ☒ TEMPERATURE SENSOR
- ↔ RETURN/EXHAUST AIRFLOW
- SUPPLY AIRFLOW
- VOLUME DAMPER
- CONDENSATE PIPE
- FIRE DAMPER (FD)



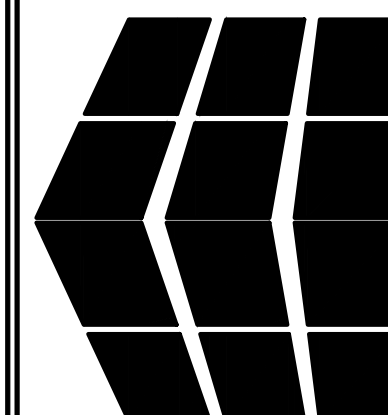
STEPANEK-LEWIS AND ASSOCIATES
2257 TWELVE OAKS WAY, SUITE 103
WESLEY CHAPEL, FL 33544
PH (813) 991-1248
REGISTRY # 8397 24-011
MATTHEW D. LEWIS, P.E. FL LIC#56189

JAMES BLYTHE

REGISTERED ARCHITECT
RA LEED AP BD+C
1459 SW 74 DR
GAINESVILLE, FL 32607
AR74452

THESE DRAWINGS HAVE BEEN PREPARED, IN PART, BASED UPON INFORMATION FURNISHED BY OTHERS. WHILE THIS PROJECT INFORMATION IS BELIEVED TO BE CORRECT, THE ARCHITECT ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THESE DRAWINGS FOR ANY ERRORS OR OMISSIONS THAT MAY HAVE BEEN INCORPORATED INTO IT AS A RESULT OF INCORRECT INFORMATION. THE ARCHITECT'S RESPONSIBILITY IS LIMITED TO THE INFORMATION PROVIDED TO HIM BY OTHERS (REFER TO ELECTRICAL PLANS). VERIFY CURRENT ADOPTED STATE AND LOCAL CODE REQUIREMENTS FOR INSTALLATION AND MOUNTING LOCATION OF SMOKE DETECTOR.

CONCEPT COMPANY
1440 SW 74th Dr, Suite 200 / Gainesville, FL 32607
PH 877-309-1029 / FAX 800-218-7809
WWW.CONCEPTCOMPANY.NET



DOLLAR GENERAL

US HWY 27
FT WHITE, FL 32038

STORE # 28681
2023 PROTOTYPE - PLAN "DGP-B" - 10,640 SQ. FT.

DRAWING DATE / DRAWN BY:
03/05/24 - JEM

REVISION DATE / REVISED BY:

PROJECT NUMBER:
4000.249

DRAWING TITLE:
MECHANICAL PLAN

SHEET NO.

M1

Foreword

This publication details the installation requirements for dynamic application fire dampers as manufactured by Miami Tech Inc. Use of this manual for systems or products not manufactured or supplied by Miami Tech Inc shall not be applicable.

All products covered by this manual have been tested in accordance with UL555 and are authorized to bear the UL classification mark for fire dampers. Specific Fire Damper model numbers and their corresponding UL file numbers may be found in UL's Fire Resistance Directory. Miami Tech Inc. Fire Dampers have met current UL requirements for Dynamic Curtain Style Fire Dampers July 2002.

For specific fire damper location requirements, duct construction and connection or installation practices, refer to the following codes or standards:

NFPA Publications:

NFPA 90A - Standard for the Installation of Air-Conditioning and Ventilation Systems

UL Publications:

UL555 - Standard for Safety, Fire Dampers, Dynamic Dampers 7/2002.

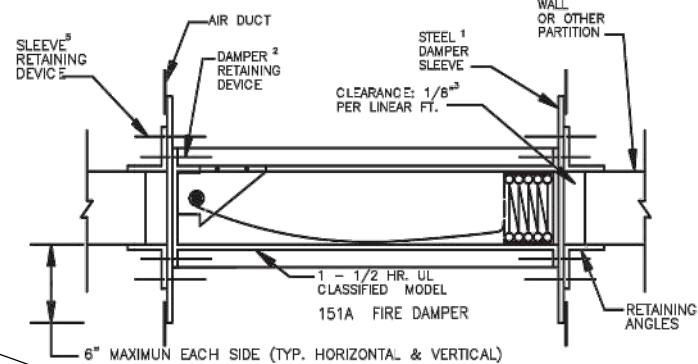
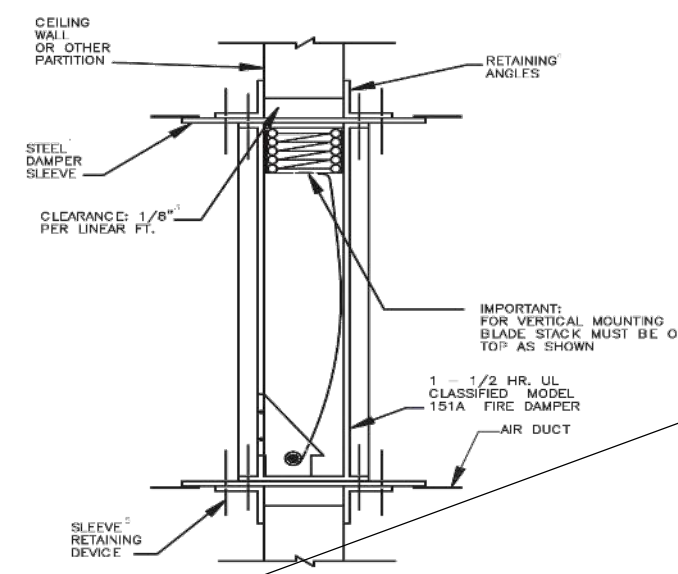
SMACNA Publications:

Fire, Smoke and Radiation Damper Installation Guide for HVAC Systems Guide
HVAC Duct Construction Standards - Metal and Flexible

The Installation Instructions found within this manual have been specifically drawn and detailed to meet the requirements of UL555. Some jurisdictions may require additional or different installation methods; therefore, consult with the authority having jurisdiction for specific differences. For these cases, the requirements defined by the authority having jurisdiction will take precedence over the documents contained herein.

1/2003

Model 151A • 1.5 Hour Single Section Dynamic Fire Damper

HORIZONTAL MOUNTING
(Model 151A)VERTICAL MOUNTING
(Model 151A)

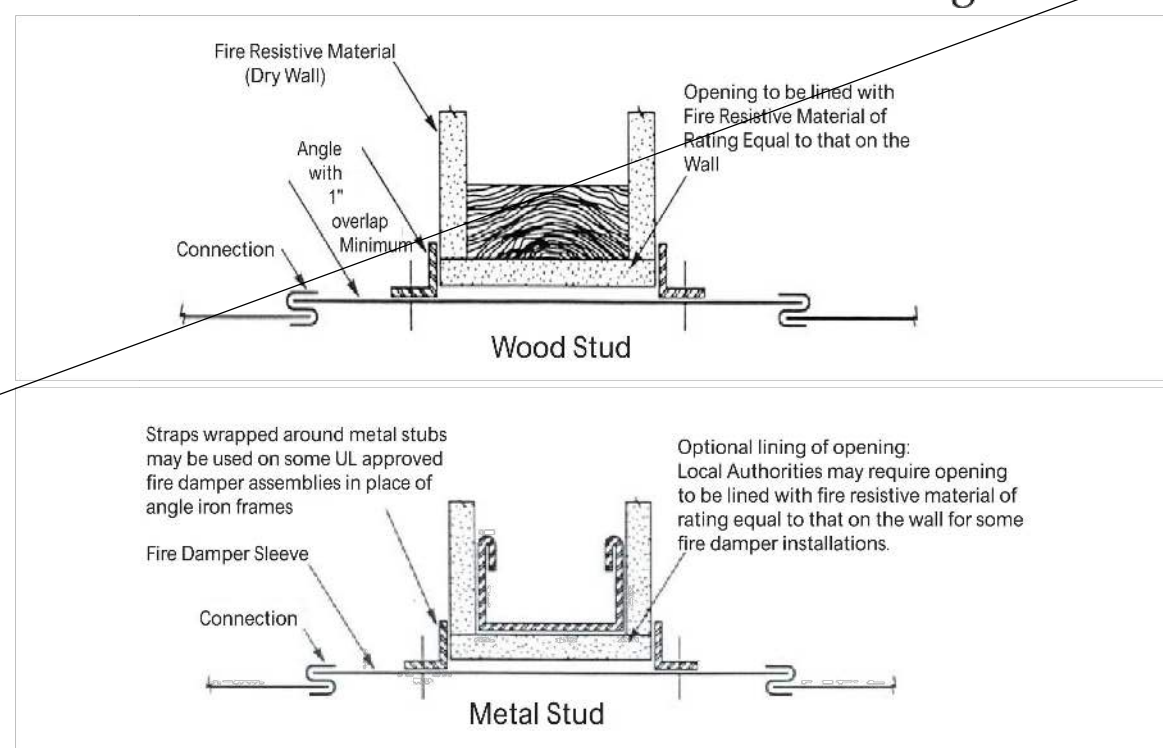
Fusible Link - 165°F

NOTES:

1. Sleeve shall be of the same or heavier gauge as the duct to which it is attached. Gauges shall conform to SMACNA or ASHRAE Duct Standards. When the following duct-sleeve connections are used, minimum gauge of the sleeve shall be 16 gauge on dampers not exceeding 24" wide x 24" high and 14 gauge on larger dampers: (a) angle reinforced standing seam, (b) angle reinforced pocket lock, (c) companion angle, or (d) metal fasteners spaced approximately 16" on center. Refer to the latest edition of UL 555 for connections which may be used in all systems.
2. Damper is secured to sleeve by the use of either 1/4" diameter steel nuts and bolts, No. 10 sheetmetal screws, 1/4" diameter steel rivets, or 1/2" long welds...all of which must be 6" on center and a maximum of 1 3/4" from the ends.
3. Fire dampers shall have clearance of 1/8" per linear foot on width and height. The unit (damper and sleeve) may rest on the bottom of the opening and need not be centered.
4. Retaining angles shall be a minimum of 1 1/2" x 1 1/2" x 16 gauge steel. Angles increase in size proportionally, so that there will be a minimum of 1" overlap on the partition, and angles must also cover corners of opening.
5. The sleeve is retained in the partition opening by the use of either 1/4" diameter steel nuts and bolts, No. 10 sheetmetal screws, 1/4" diameter steel pop rivets or 1/2" long welds...all of which must be 6" on center and no more than 2" from the ends. Devices are to attach angle to sleeve only.
6. This installation is for dampers which are to be installed in masonry walls only. See Installation for Alternate Framing Methods on page 5, for wood stud and metal stud partition.
7. Connecting ducts shall be terminated at the sleeve or transition collar where a draw-band type breakaway joint is used.
8. Maximum duct size of single section Model 151A unit is 24" wide x 24" high.

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Model 150 & 151 • Alternate Framing Methods



NOTES:

1. Thickness and type of fire resistive material may vary with the jurisdiction. Specific framing requirements of openings should be provided in the architectural and structural drawings that are submitted for building permits.
2. Sleeve shall be 14 gauge when the following duct-sleeve connection is: (a) angle reinforced standing seam, (b) angle reinforced pocket, (c) companion angles, (d) metal fasteners spaced approximately 16" on center. Refer to latest edition of UL 555 for connections with may be used in all systems. Gauges shall conform to SMACNA or ASHRAE Duct Standards.
3. Damper is secured to sleeve by the use of either 1/4" diameter steel nuts and bolts, No. 10 sheetmetal screws, 1/4" diameter steel rivets, or 1/2" long welds...all of which must be 6" on center and a maximum of 1 3/4" from the ends.
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6. The sleeve is retained in the partition opening by the use of either 1/4" diameter steel nuts and bolts, No. 10 sheetmetal screws, 1/4" diameter steel pop rivets or 1/2" long welds...all of which must be 6" on center and no more than 2" from the ends. Devices are to attach angle to sleeve only.
7. For Horizontal Mount Dampers, the assembly is formed by using a full length 1/8" by 5" wide mullion plate with 1/4" diameter steel nuts and bolts, spaced 6" on center and a maximum of 3/4" from corners attaching frames to mullion plate.
8. For Vertical Mount Dampers, the damper frames are butted together and fastened with either No. 10 x 3/4" long sheetmetal screws, 1/4" diameter steel rivets, 1/4" diameter steel nuts and bolts, or 1/2" long welds all of which must be spaced at 4" on center and maximum of 3/4" from corners of dampers.
9. Connecting ducts shall be terminated at the sleeve.
10. Maximum duct size of single section vertical unit is 24" wide x 24" high.

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METAL OR WOOD STUD FRAMING FOR FIRE DAMPERS
IN WALLBOARD PARTITIONS

NOTE: Gypsum Wallboard screwed to all stud and runner flanges. 12" O.C. maximum, surrounding opening

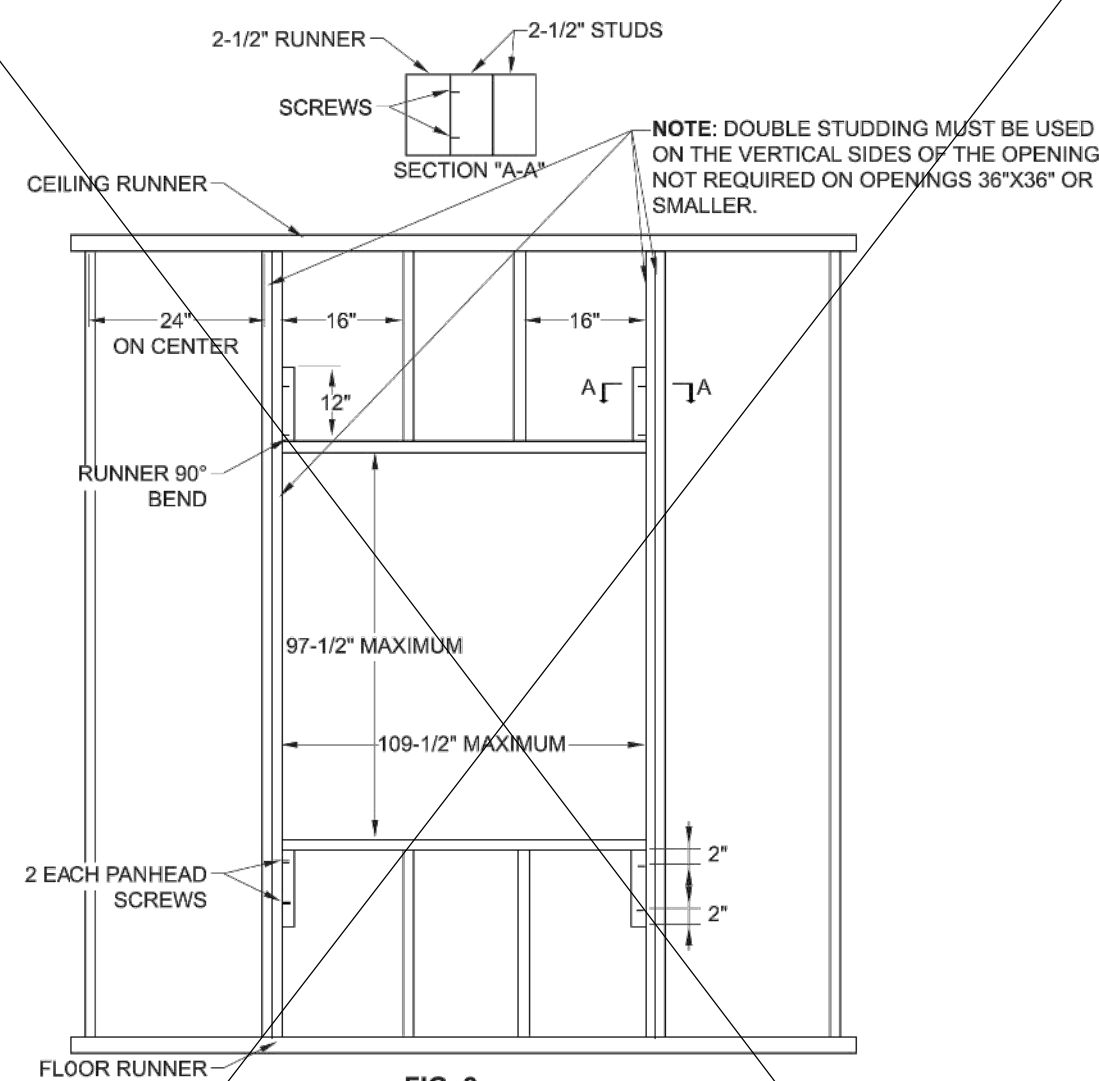
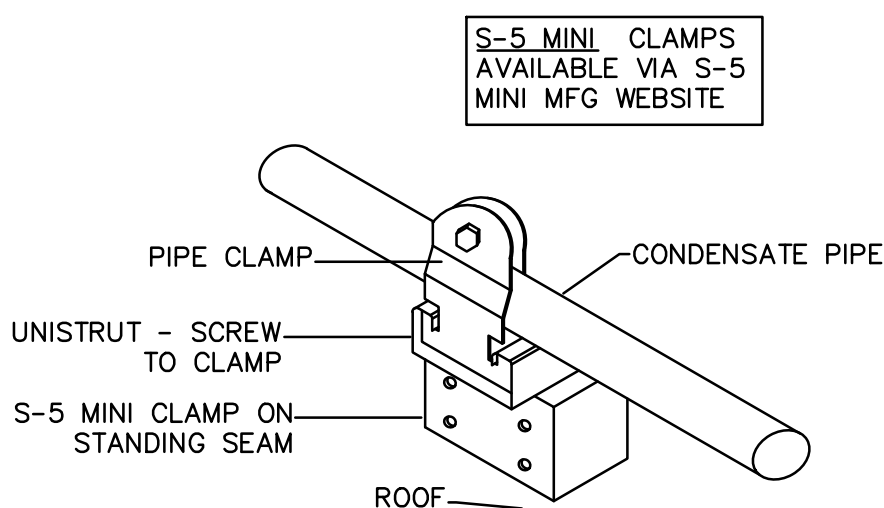
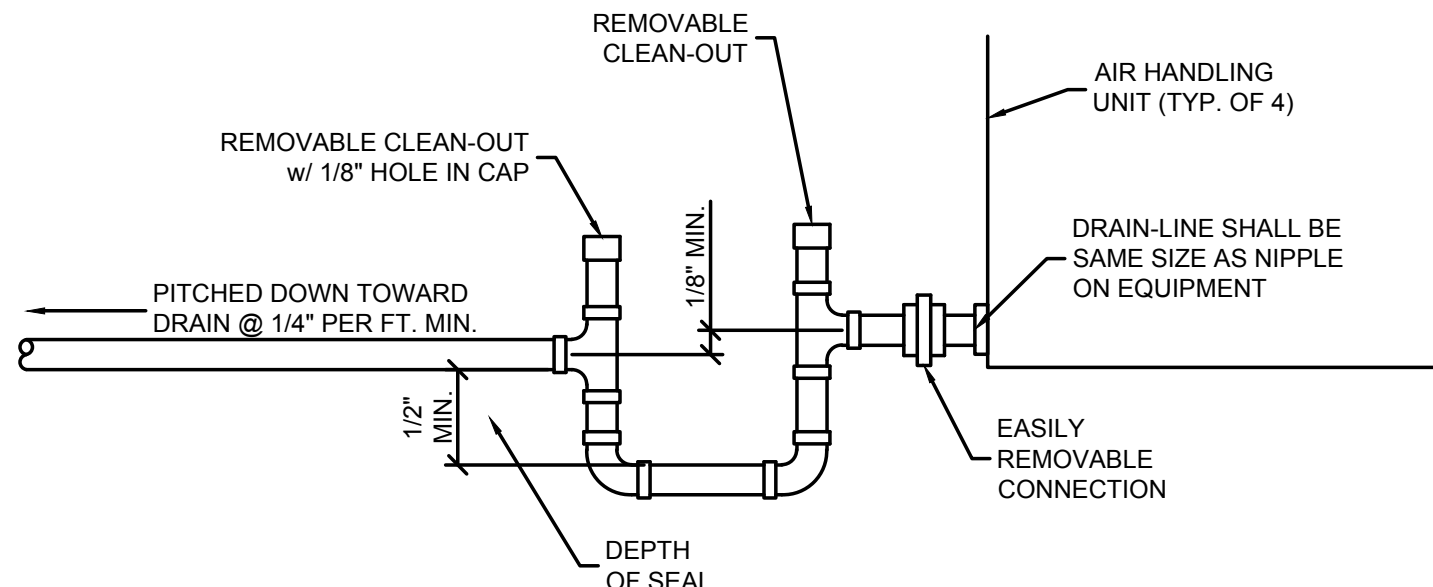
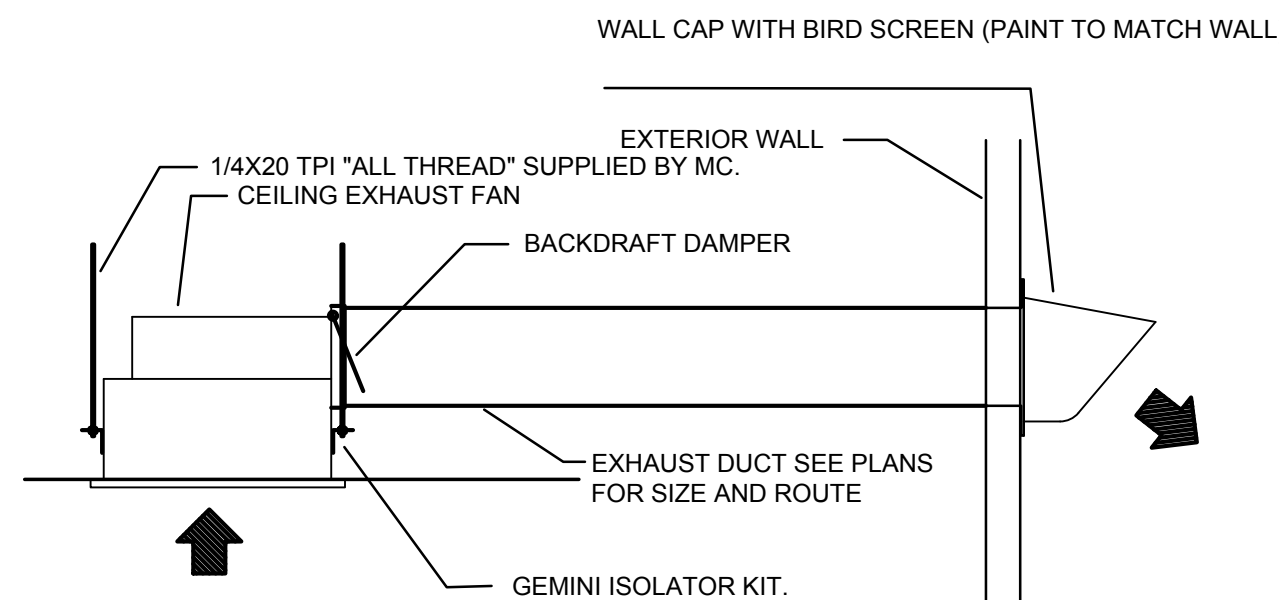
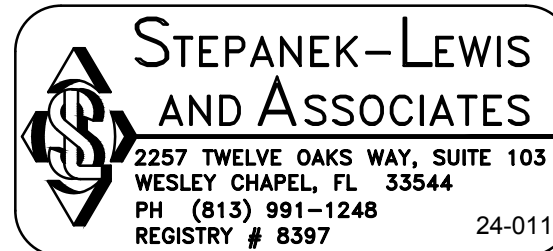
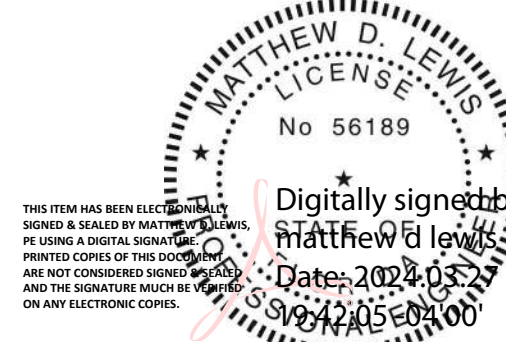


FIG. 3

MAXIMUM SIZE TABLE

MODEL	Single Section				Multiple Section			
	Vertical		Horizontal		Vertical		Horizontal	
	Max. Width	Max. Height	Max. Width	Max. Height	Max. Width	Max. Height	Max. Width	Max. Height
MFD	60	60	40	40	120	120	80	40
MFD3	48	48	40	40	-	-	80	40
MDFD	36	36	18	18	-	-	36	36
MDFD3	36	36	18	18	-	-	36	36
MFDS	48	48	48	48	-	-	-	-
MFDS3	48	48	48	48	-	-	-	-
MFDS3	36	36	18	18	-	-	36	36
MDFDS3	36	36	18	18	-	-	36	36
MFDS3	48	48	-	-	-	-	-	-
MFDS3	48	48	-	-	-	-	-	-

NOTE: For maximum single section sizes refer to maximum size table. For openings larger than given for single section, multiple dampers are required. For openings larger than given in multiple sections a 12" wide brick or reinforced mullion must be provided between adjacent assemblies.

1
M2 S-5 MINI ROOF CONDENSATE PIPE SUPPORT (METAL BUILDING)
SCALE: N.T.S.3
M2 CONDENSATE TRAP
SCALE: N.T.S.2
M2 CEILING FAN TO WALL CAP
SCALE: N.T.S.

MATTHEW D. LEWIS, P.E. FL LIC#56189

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