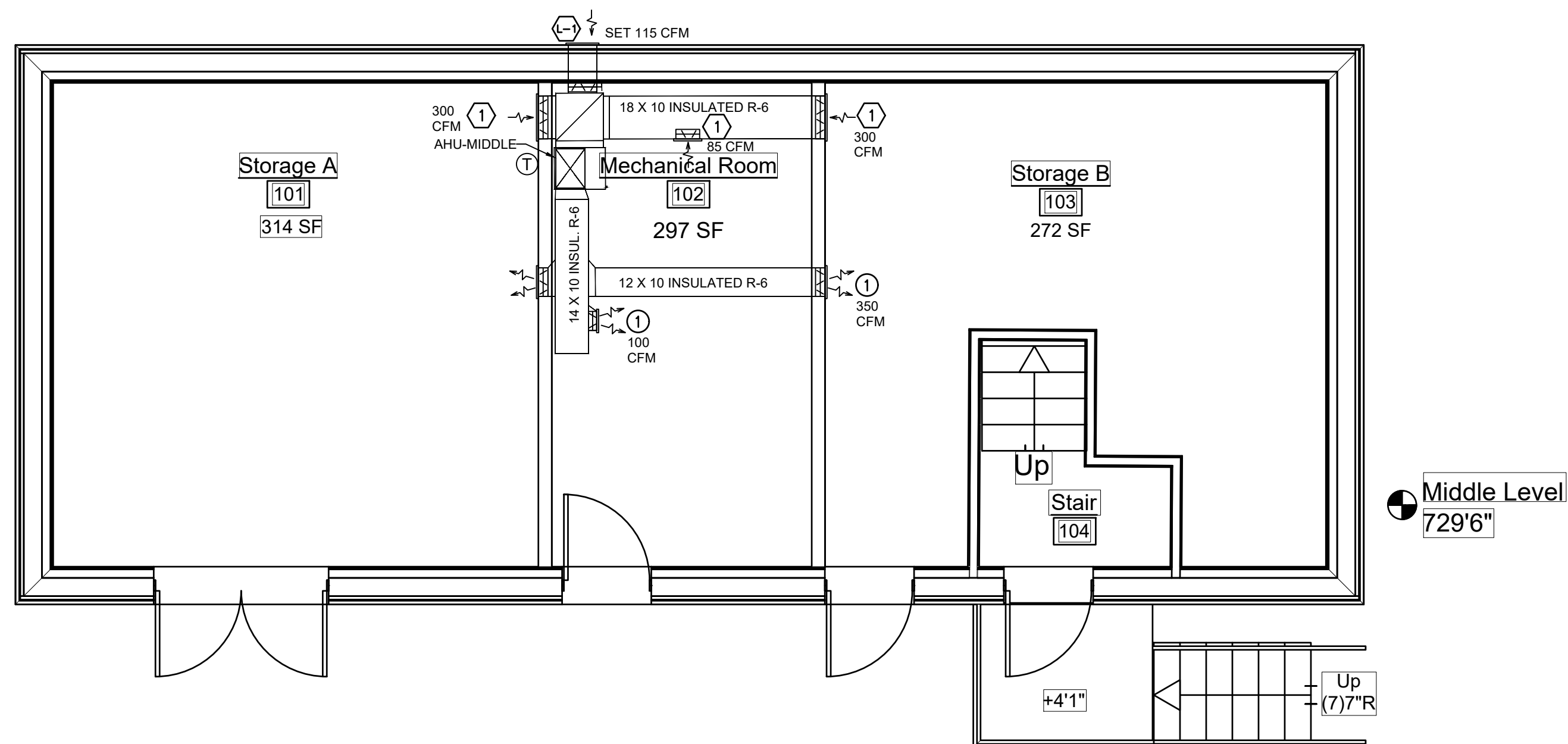


NORTH (building)

Preston Fields
Pressbox and
Bathroom
Building
Jim Barnett Park
Winchester, VA 22601

MECHANICAL LEGEND:

- HONEYWELL, YORK OR EQUAL, THERMOSTAT W/ PROGRAMMABLE FAN CYCLE, TEMPERATURE AND HUMIDITY CONTROL, AND LOCKABLE COVER. MOUNT 4 FEET A.F.F. PER A.D.A.
- METAL DUCT INSULATED OR W/ ACOUSTICAL LINER AS SPECIFIED. INSTALL PER SMACNA STANDARDS.
- METAL DUCT ELBOW W/ TURNING VANES & INSULATION OR LINER AS NOTED ABOVE
- METAL TRANSITION W/ INSULATION OR INTERIOR LINER AS NOTED ABOVE
- BRANCH ROUND SOLID OR FLEX TAKEOFF WITH BALANCING DAMPER AND INSULATED. FLEXIBLE AIR DUCT SHALL NOT EXCEED 8 FT & HAVE R-6 INSULATION OR BETTER.
- SUPPLY DUCT CHANGE OF DIRECTION
- RETURN DUCT OR EXHAUST DUCT CHANGE IN DIRECTION
- PIPE UP
- PIPE DOWN
- SIDE WALL/DUCT SUPPLY REGISTER WITH OPPOSED BLADE DAMPER.
- SIDE WALL/DUCT RETURN REGISTER WITH OPPOSED BLADE DAMPER.
- AHU-# HEAT PUMP AIR HANDLER UNITS
- HP-# OUTSIDE HEAT PUMP WITH WALL SUPPORTS AND ELEVATED 12" ABOVE GROUND LEVEL.
- INS. INSULATED W/ FOIL FACED FIBERGLASS DUCT WRAP OR ATRO-SHEILD II AND SEALED PER SMACNA
- O/A OUTSIDE AIR FOR VENTILATION PER CODE
- EF-# WALL EXHAUST FAN WITH BACKDRAFT DAMPER & WALL GRILLE.
- CF-# CEILING EXHAUST FAN WITH BACKDRAFT DAMPER, DUCTWORK & MANUFACTURER'S WALL GRILLE. PROVIDE OCCUPANCY SENSOR AND COORDINATE WITH ELECTRICAL CONTRACTOR. PROGRAMMABLE 7 DAY TIMER AND INTERLOCK TO EXHAUST FANS EF-1 & E-2 TO RUN DURING OCCUPIED AND OFF IN UNOCCUPIED PERIODS. COORDINATE WITH OWNER ON SCHEDULE.



2 Middle Level Plan
Scale: 1/4" = 1'-0"

DIFFUSER, REGISTER AND GRILLE SCHEDULE							
TYPE	SERVICE	CFM RANGE	FACE DIMENSION	NECK DIMENSION	FINISH	BASIS OF DESIGN	NOTES
①	SUPPLY AIR REGISTER	60 - 100	8"x6"	D.O.	WHITE	TUTTLE & BAILEY: A64 W/ AOB	1,2,3,4
		300 - 400	12"x10"	D.O.			
		600 - 800	18"x10"	D.O.			
①	RETURN AIR REGISTER	60 - 100	10"x6"	D.O.	WHITE	TUTTLE & BAILEY: A70 W/ AOB	1,2
		300 - 400	18"x10"	D.O.			
		600 - 800	30"x12"	D.O.			
①	OUTSIDE AIR LOUVER	100 - 160	12"x16"	D.O.	ALUMINUM	GREENHECK EDJ-601	
①	WALL TRANSFER GRILLE	50 - 150	12"x12"	D.O.	WHITE	PRICE 530	5

- NOTES:
- COORDINATE WITH OWNER COLOR & FINISH.
 - CONTRACTOR SHALL CONFIRM ACTUAL FINAL DIFFUSER DIMENSIONS WITH VENDOR, AND COORDINATE WITH CEILING/DOOR/WALL TYPE AS NECESSARY.
 - 2 WAY, 3 WAY OR 4 WAY THROW PATTERN AS SHOWN ON DRAWINGS.
 - PROVIDE WITH OPPOSED BLADE DAMPER AND INSULATED BACK IF ABOVE CEILING.
 - PROVIDE WALL TRANSFER GRILLE ON EACH SIDE OF THE WALL.

Site Engineer

Painter-Lewis PLC
817 Cedar Creek Grade #120
Winchester, VA 22601
540-662-5792

Mech/Elect Engineer

Comfort Designs
620 Pennsylvania Avenue
Winchester, VA 22601
540-665-2846

Architect

GDA Architecture
Grove & Dall'Olio Architects pllc
18 West Boscawen Street
Winchester, VA 22601
540-773-2328
GDAaia.com
AIA, LEED AP

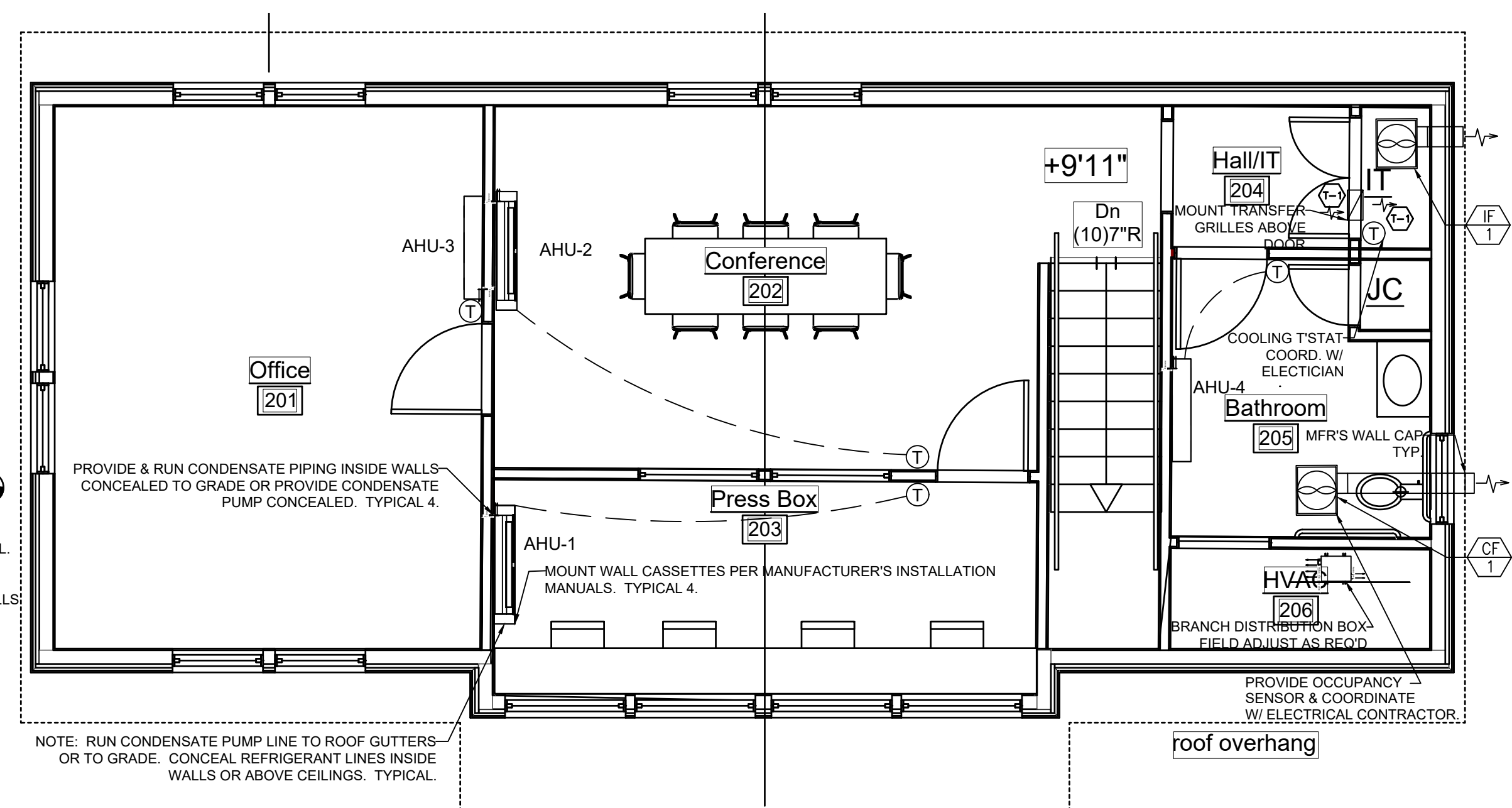
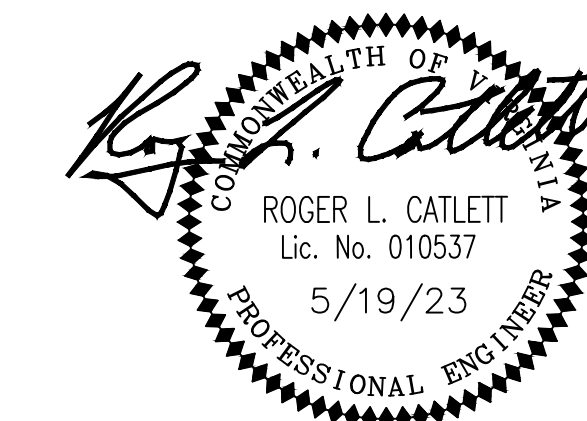
Issue/Revision Seal

Drawing Title

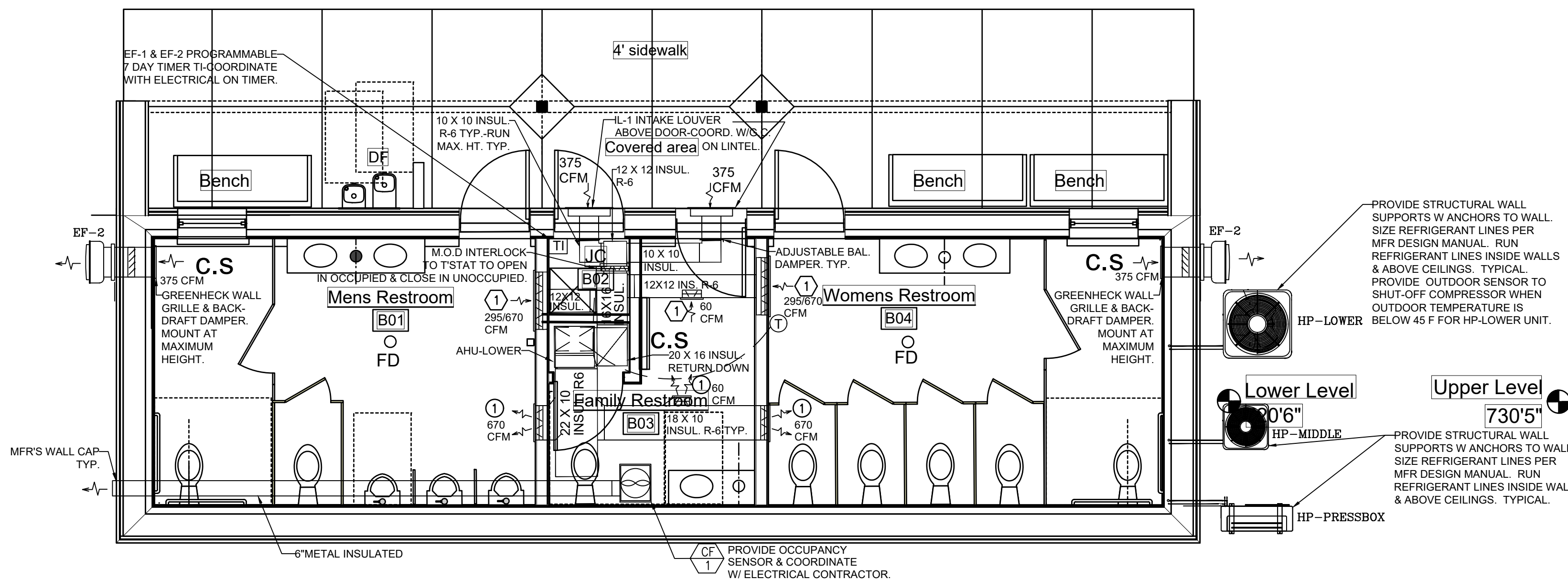
Mechanical Plans

Date 5/19/2023
Scale Noted
Project Number 21005-E2331
Drawing Number

M1.1



3 Upper Level Plan
Scale: 1/4" = 1'-0"



1 Lowest Level Plan
Scale: 1/4" = 1'-0"

Preston Fields Press Box Split Schedule

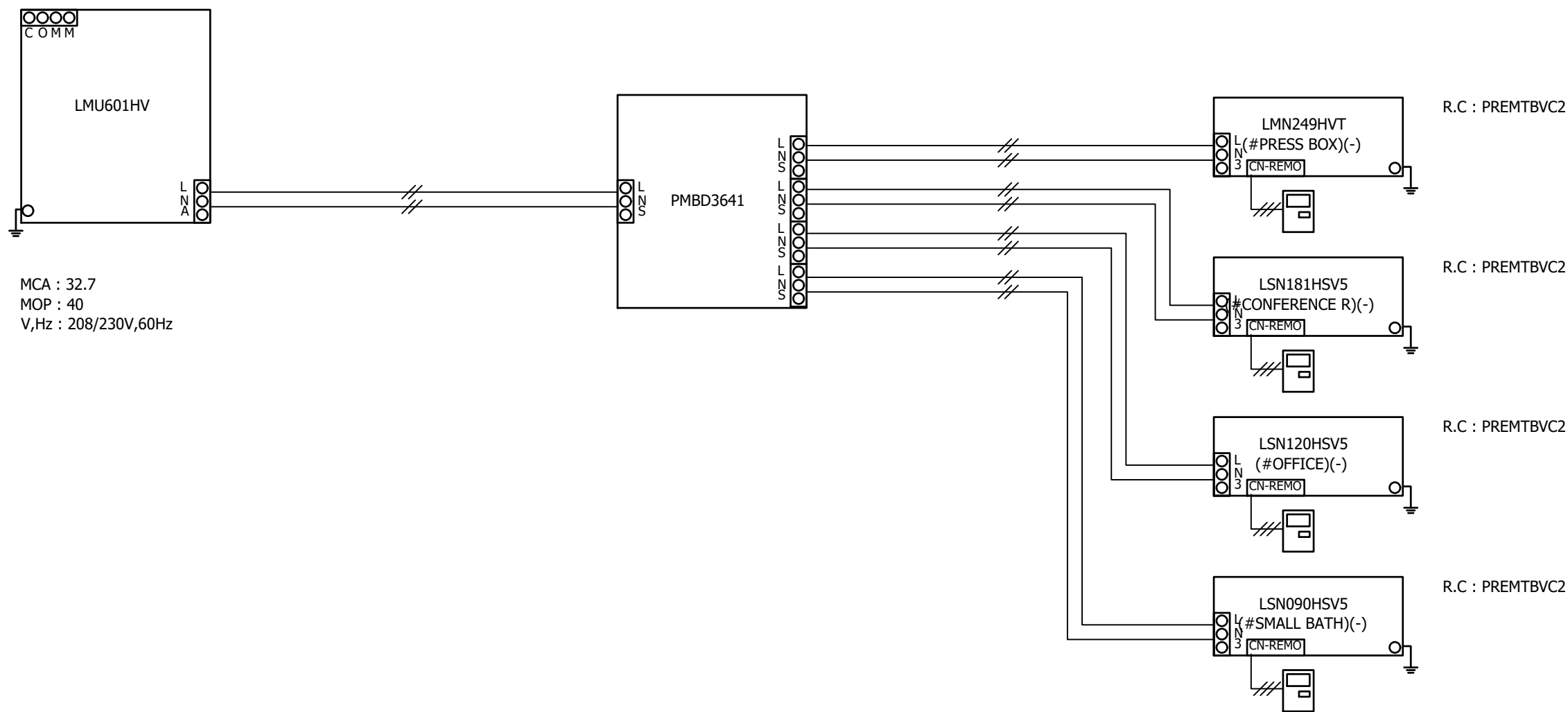
Residential Products are rated in Net MBH (2) Weight (each) with factory installed options																													
Project Name: Preston Fields Press Box																													
Tag #	Sequence	Model Number	Brand	Qty	Supply Air Blower		Cooling							Heating					Electrical			Remarks							
					Airflow (CFM)		Temperature (°F)					Capacity MBH ¹		EER2	SEER2	Refrigerant	Temp (°F)		Applied Electric Heat				Voltage	MCA	Max Fuse	Weight ²			
					SA	OA	Ent. Air		Lvg. Air			OD Amb	Total				Sens.	Ent. DB	Lvg. DB	KW	OD						MBH	Cop	HSPF2
HP-MIDDLE	1	YH2E24TB21S	York	1	800	0	80.0	67.0	58.8	57.4	56.5	95	24.3	18.3	11	14.3	R410A	60.0	87.5		47.00	23.80	4.00	7.5	208/230-160	13.4	20	140.0	
AHU-MIDDLE	1	JHETB24CBAS2N1	York	1	800	0	80.0	67.0	58.8	57.4	56.5	95	24.3	18.3	11	14.3	R410A	60.0	77.4	4.40					230-1-60	28.7	30	99.0	
HP-LOWER	2	YH2E48TB21S	York	1	1575	0	80.0	67.0	59.8	57.4	55.9	95	47.8	34.4	11	14.3	R410A	60.0	87.4		47.00	46.50	3.90	7.5	208/230-160	26.1	45	215.0	
AHU-LOWER	2	JHETC48GBCS2N1	York	1	1575	0	80.0	67.0	59.8	57.4	55.9	95	47.8	34.4	11	14.3	R410A	60.0	86.5	13.20					230-1-60	78.5	80	129.0	

NOTE: SET AHU-LOWER TO 1400 CFM FOR FINAL AIR FLOW. PROVIDE OUTDOOR AIR SENSOR ON HP-LOWER TO TURN OFF COMPRESSOR AT TEMPERATURES BELOW 45 F.

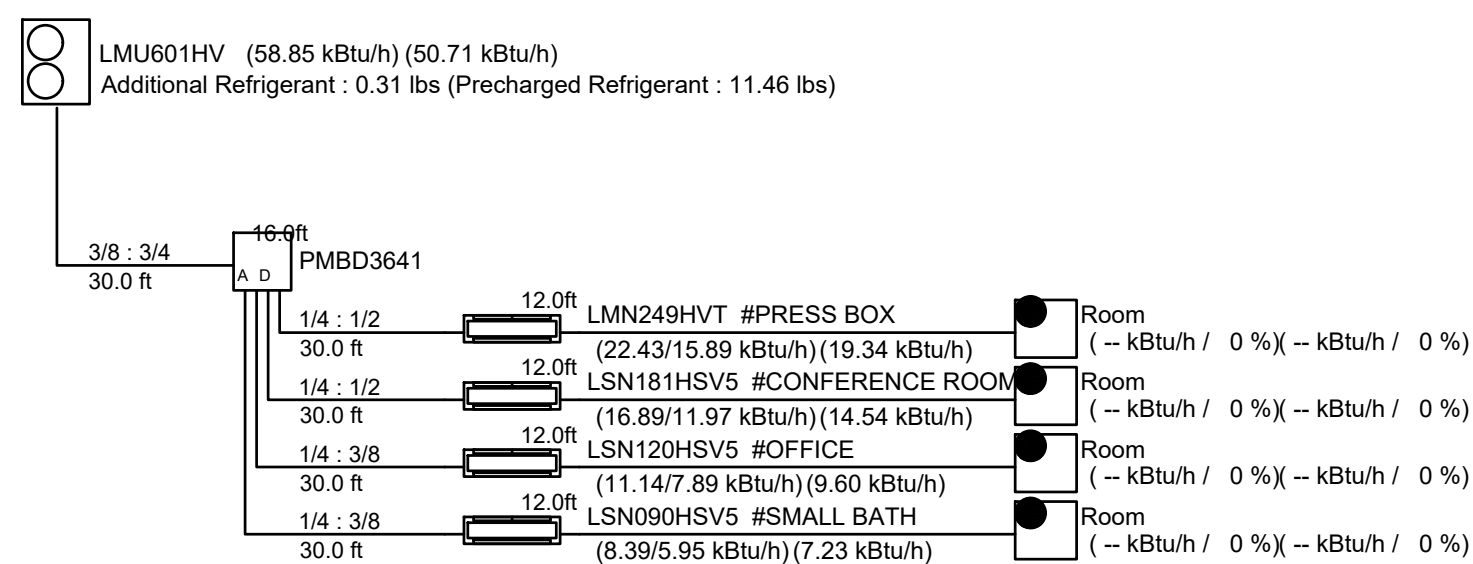
Location	Tag	Model Name	Type	Quantity	LG Electronics		Multi, Single CAC Indoor Unit						Air flow rate(CFM)	Piping		Power Supply	Weight (lbs)	Dimension (inch)		Sound Pressure Level
					Nominal		Corrected Capacity(BTU/h)		Room Design Temp.(Return Air Temp.)(°F)			Liquid		Gas	W x H x D					
					Cooling	Heating	Cooling	Sensible Heating	Cooling DBT	Cooling WBT	Heating DBT									
AHU-1	PRESS BOX	LMN249HVT	Wall Mounted	1	24229.79	16462.57	22429.80	15894.29	19343.04	80.6	67.0	68.0	597 / 452 / 367	1/4	1/2	1/208~230/60	25.6	39-9/32x13-19/32x8-		46/41/36
AHU-2	CONFERENCE	LSN181HSV5	Wall Mounted	1	18172.34	12678.73	16893.35	11971.04	14543.60	80.6	67.0	68.0	558 / 438 / 353	1/4	1/2	1/208~230/60	25.6	39-9/32x13-19/32x8-		44/38/34
AHU-3	OFFICE	LSN120HSV5	Wall Mounted	1	12114.90	8409.15	11139.16	7893.47	9598.90	80.6	67.0	68.0	282 / 233 / 177	1/4	3/8	1/208~230/60	18.3	32-15/16x12-1/8x7-7/16		38/34/29
AHU-4	SMALL BATH	LSN090HSV5	Wall Mounted	1	9085.12	6337.58	8389.87	5945.26	7229.43	80.6	67.0	68.0	268 / 218 / 169	1/4	3/8	1/208~230/60	18.3	32-15/16x12-1/8x7-7/16		36/32/27

HP-PRESSBOX: LG Outdoor Unit: Model LMU601HV, MCA = 32.7, MOP = 40, 208/230/1/60 & BRANCH DISTRIBUTION BOX MODEL PMBD3641.

- Power line(Outdoor unit)
- Power line(Indoor unit / HR unit)
- Communication line (ODU-IDU / ODU-ODU) : Twisted, Stranded and shielded AWG 14 x 4C
- Communication line (ODU-CEN) : Twisted, Stranded and shielded AWG 18 x 2C
- Communication line(Remote controller) : Twisted and stranded AWG 22 x 3C
- Ground shield wire at ODU only



Power wiring, breaker size, and disconnects should follow local code or NEC.



MECHANICAL SCOPE OF WORK:

- PROVIDE COMPLETE HVAC SYSTEMS W/ REFRIGERANT PIPING (INSULATE SUCTION LINE), DAMPERS, CONTROLS, EXTERIOR INSULATED METAL DUCTWORK, DIFFUSERS, GRILLES, PROGRAMMABLE THERMOSTAT W/ TEMPERATURE & HUMIDITY CONTROL, AND PROGRAMMABLE FAN CYCLE (FAN RUNS CONTINUOUSLY DURING OCCUPIED MODE AND CYCLES DURING UNOCCUPIED), MFR'S MATCHING REFRIGERANT COIL, FLEXIBLE COLLARS, MOTORIZED OUTSIDE AIR DAMPERS, LOW AMBIENT CONTROLS, AND ALL CONTROLS FOR DEHUMIDIFICATION, HEATING, AND AIR CONDITIONING. PROVIDE CONDENSATE PUMP WITH UNITS AND PIPE TO EXTERIOR GRADE OR GRAVITY TO GRADE. PROVIDE & PAY FOR MECHANICAL PERMITS AND INSPECTIONS.
- COORDINATE WITH ELECTRICAL CONTRACTOR ON ALL EQUIPMENT ELECTRICAL REQUIREMENT AND CONTROLS.
- ALL MAIN SUPPLY & RETURN DUCT TRUNKS SHALL BE METAL W/ INTERIOR LINER OR EXTERIOR INSULATION AS SPECIFIED. SEAL ALL JOINTS AND SEAMS W/ MASTIC. RUN METAL SUPPLY AND RETURN DUCTS AS INDICATED ON DRAWINGS. ALL SHEET METAL DUCTWORK SHALL COMPLY WITH SMACNA DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE, 2ND EDITION FOR 1.0" W.G. STATIC PRESSURE AND INTERIOR FLEXIBLE LINER FOR VELOCITY 2501 FPM TO 6000 FPM (SECTION 2.6). EXPOSED DUCTWORK SHALL BE PREPARED FOR PAINTING (BY PAINTING CONTRACTOR).
- ALL WORK SHALL COMPLY W/ THE 2018 VIRGINIA MECHANICAL AND PLUMBING CODES, NATIONAL ELECTRICAL CODE, AND LOCAL GOVERNING CODES.
- IF FIELD CHARGED, REFRIGERANT SYSTEM SHALL BE VACUUMED TO 500 MICRONS PRIOR TO CHARGE AND LEAK TESTED. AIR FLOWS SHALL BE BALANCED TO DESIGN FLOWS SHOWN ON PLANS AND A "CERTIFIED" AABC OR NEBB TEST REPORT SUBMITTED (3 COPIES).
- PROVIDE THE OWNER WITH 2 SETS OF THE MANUFACTURER'S LITERATURE ON ALL EQUIPMENT.
- ALL BRANCH LINES SHALL HAVE LOCKING ADJUSTABLE DAMPERS PER SMACNA STANDARDS. BRANCH FLEXIBLE AIR DUCTS TO DIFFUSERS SHALL HAVE AN MINIMUM OF R-6 INSULATION AND NOT EXCEED 8 FEET IN LENGTH.
- PROVIDE FIRE DAMPER WITH ACCESS AT ALL FIRE-RATED PENETRATIONS.
- PROVIDE BATHROOM EXHAUST FANS WITH OCCUPANCY SENSOR CONTROLS AND COORDINATE WITH ELECTRICAL. PROVIDE WALL EXHAUST FANS WITH WALL SUPPORTS, BACKDRAFT DAMPERS & WALL GRILLE. PROVIDE PROGRAMMABLE 7 DAY TIMER AND INTERLOCK TO EXHAUST FANS EF-1 & EF-2. COORDINATE WITH ELECTRICAL.
- OUTDOOR CONDENSER SHALL BE MOUNTED ON WALL AS SPECIFIED & ELEVATED 12" ABOVE GROUND LEVEL. OUTDOOR CONDENSER SHALL HAVE LOW AMBIENT CONTROLS FOR WINTER OPERATION (0 F). SUCTION LINE SHALL HAVE OIL TRAP, BE INSULATED, AND SLOPED TO OUTDOOR CONDENSER.
- FAN COILS SHALL HAVE 2" FILTERS (MERV 8) VIBRATION ISOLATION, VENTILATION AIR, AND FLEXIBLE COLLARS. INSULATED EVAPORATOR CONDENSATE DRAIN SHALL BE PIPED TO CONDENSATE PUMP AND PIPED INSULATED TO DRAIN OR EXTERIOR GRADE, AS REQUIRED. PROVIDE AND INSTALL SECONDARY DRAIN PAN W/CUT-OFF FLOAT SWITCH.
- NEW COMMERCIAL GRADE SUPPLY DIFFUSERS AND RETURN GRILLES SHALL BE PROVIDED AS SHOWN W/ OPPOSED BLADE DAMPER.
- COORDINATE FINAL FAN COILS AND DUCTWORK LOCATIONS W/ STRUCTURAL & SPRINKLERS. PROVIDE UNIT MAINTENANCE CLEARANCES PER MANUFACTURER AND CODE. FIELD ADJUST FINAL LOCATION AND PROVIDE OFFSETS AS REQUIRED.
- PROVIDE MOTORIZED DAMPERS TO OPEN IN OCCUPIED, LOCKING OUTSIDE AIR DAMPERS AND ALL CONTROLS FOR OUTSIDE AIR FOR VENTILATION PER CODE TABLES SHOWN.

NORTH (building)

Preston Fields
Pressbox and
Bathroom
Building
Jim Barnett Park
Winchester, VA 22601

Site Engineer

Painter-Lewis PLC
817 Cedar Creek Grade #120
Winchester, VA 22601
540-662-5792

Mech/Elect Engineer

Comfort Designs
620 Pennsylvania Avenue
Winchester, VA 22601
540-665-2846

Architect

GDA Architecture
Grove & Dall'Olivo Architects pllc
Interior Planning
Landscape
IAA, LEED AP
GDAaia.com
18 West Boscawen Street
Winchester, VA 22601 540-773-2328

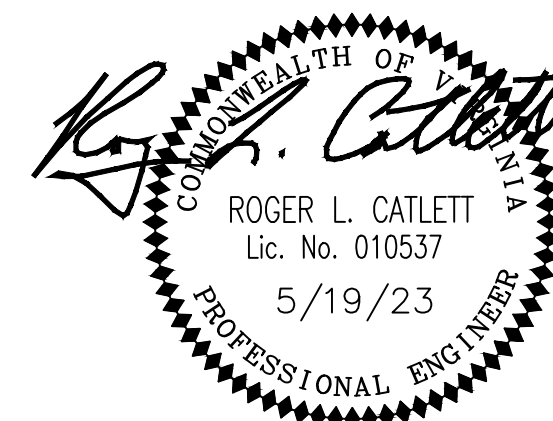
Issue/Revision

Seal

Drawing Title

Mechanical Schedules
& Details

Date: 5/19/2023
Scale: Noted Project Number: 21005-E2331
Drawing Number



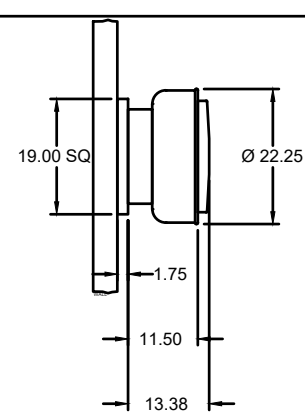
M1.2



Cut Sheet - Not for Submittal
Printed Date: 05/13/2023
Mark: EF-1
Model: CUE-090-D

Model: CUE-090-D
Direct Drive Upblast Centrifugal Wall Exhaust Fan

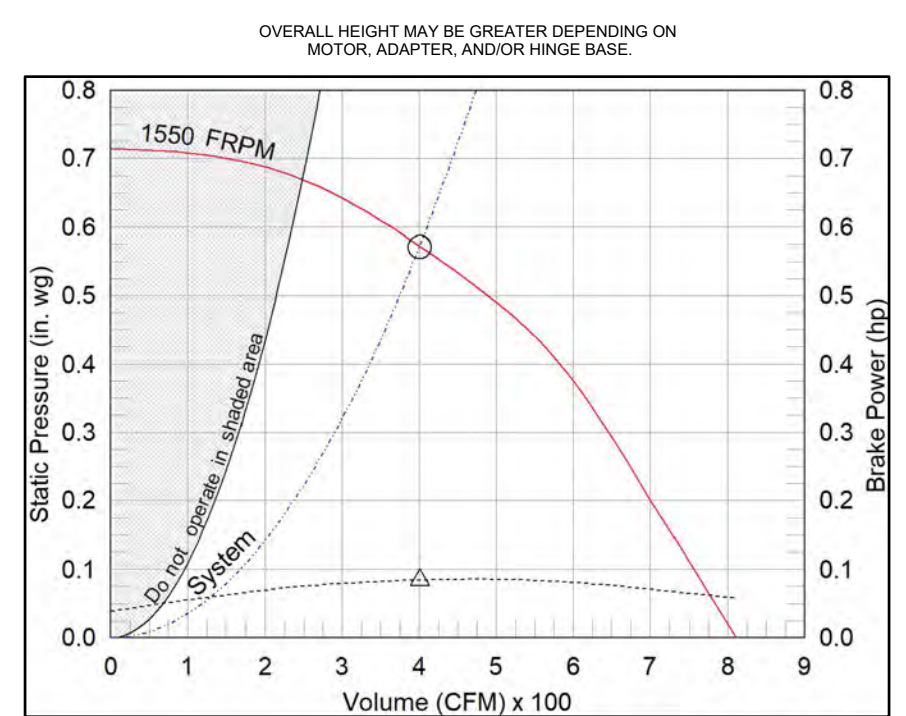
Dimensional	
Quantity	1
Weight w/o Acc's (lb)	28
Weight w/ Acc's (lb)	36
Standard Curb Cap Size (in.)	19 x 19
Optional Damper (in.)	10 x 10
Roof Opening (in.)	15 x 15



Performance	
Requested Volume (CFM)	375
Actual Volume (CFM)	401
Total External SP (in. wg)	0.571
Fan RPM	1550
Operating Power (hp)	0.08
Elevation (ft)	728
Airstream Temp (F)	70
Air Density (lb/ft ³)	0.073
Tip Speed (ft/min)	4,413
Static Eff. (%)	43

Misc Fan Data	
Fan Eff. Index (FEI)	-
Outlet Velocity (ft/min)	573

Motor	
Motor Mounted	Yes
Size (hp)	1/15 (or greater)
Voltage/Cycle/Phase	115/60/1
Enclosure	ODP
Motor RPM	1550
Efficiency Rating	Standard
Windings	1



Static Pressure Calculations	
Operating Bhp point	0.5 in. wg
Operating point at Total External SP	0.071 in. wg
External SP	0.071 in. wg
Direct Drive RPM Adjustment	0.571 in. wg
Total External SP	0.571 in. wg

Notes:
All dimensions shown are in units of in.
*Please consult factory for actual motor amp draw
LWA - A weighted sound power level, based on ANSI S1.4
dBA - A weighted sound pressure level, based on 11.5 dB
attenuation per Octave band at 5 ft. - dBA levels are not licensed
by AMCA International
Sones - calculated using ANSI/AMCA 301 at 5 ft



Sound Power by Octave Band											
Sound Data	62.5	125	250	500	1000	2000	4000	8000	LWA	dBA	Sones
Inlet	80	75	68	63	58	54	50	42	66	54	7.7



Cut Sheet - Not for Submittal
Printed Date: 05/13/2023
Mark: EF-1
Model: CUE-090-D

Model: CUE-090-D
Direct Drive Upblast Centrifugal Wall Exhaust Fan

Standard Construction Features:
- Aluminum housing - Backward curved composite (sizes 60-95) or aluminum (sizes 99-300) wheel - Aluminum curb cap with prepunched mounting holes - Drain trough - Ball bearing motors (sizes 85-300 and all Van Green), sleeve bearing motors (sizes 60-80) - Motor isolated on shock mounts - Corrosion resistant fasteners

Selected Options & Accessories:
Standard Curb Cap Size - 19 Square
Sidewall Mounting - Fan Configured for Wall-Mounted Applications
Wall Bracket will be Mounted to the Wall
UL/ULC Listed - "Power Ventilators"
Switch, NEMA-1, Toggle, Shipped with Unit
Junction Box Mounted & Wired
Wall Bracket - Galvanized, Under Sized 0.5 in. (Shipped Loose) (PN 916647)
Wall Grille, Shipped Loose (PN 918753)
Composite Wheel Material
Unit Warranty: 1 Yr (Standard)
Damper Shipped Loose, BD-330-PB-10X10, Gravity Operated, Not Coated

Provide 7-day Programmable Timer and Interlock to Exhaust Fans EF-1 & EF-2. Coordinate with Electrical Contractor on wiring and installation. Program per Owner's Occupancy Schedules.



Cut Sheet - Not for Submittal
Printed Date: 05/13/2023
Mark: CF-1
Model: SP-A50-90-VG

Model: SP-A50-90-VG
Ceiling Exhaust Fan

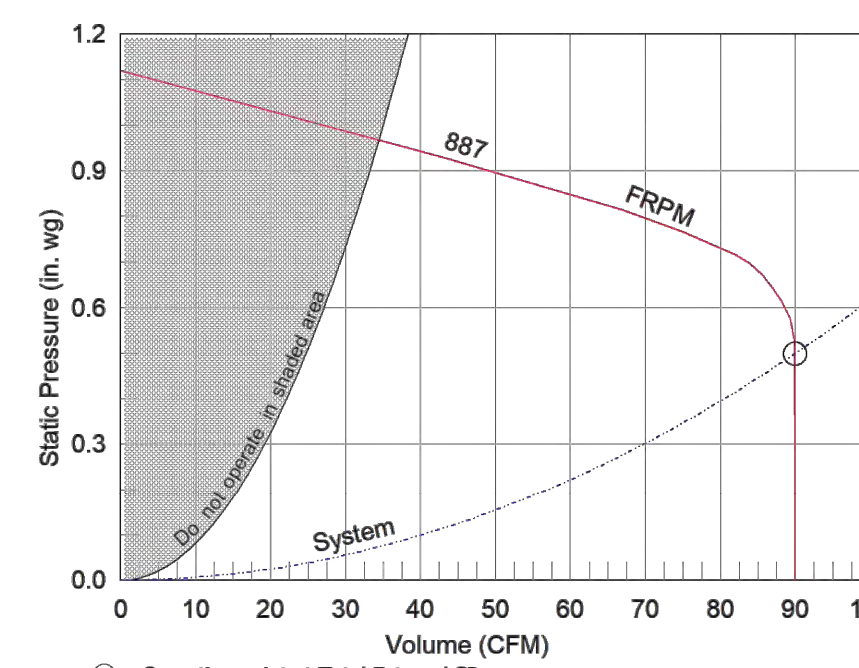
Standard Construction Features:
- Corrosion resistant galv steel and housing - Sound absorbing insulation - White designer non-yellowing grille - Round outlet duct collar with integral backdraft damper - Double inlet forward curved wheel - Plug type disconnect - Adj. mounting brackets - Field rotatable discharge

Selected Options & Accessories:
Motor rated for continuous use
Motor with CSA Approval
Motor with 40 Degree C Ambient Temperature
UL/ULC 507 Listed - Electric Fan
Wall Louvered Discharge, (PN: WL-10X3) Shipped Loose
Motion Detector, Grille Mounted
Round Duct Connection
Adjustable easy installation mounting bracket
Energy Star Certified
Standard Grille
Polypropylene Wheel Material
Can Be Used to Comply with: ASHRAE 62.2, California Title 24, and Washington State Energy Code

Dimensional	
Quantity	1
Weight w/o Acc's (lb)	12
Weight w/ Acc's (lb)	16

Performance	
Requested Volume (CFM)	90
Actual Volume (CFM)	90
Total External SP (in. wg)	0.499
Fan RPM	887
* FLA (A)	0.29
Elevation (ft)	728
Airstream Temp (F)	70
Air Density (lb/ft ³)	0.073
Sones	2.0

Motor	
Motor Mounted	Yes
** Input Watts (W)	6
Voltage/Cycle/Phase	115/60/1
Enclosure	TEAO



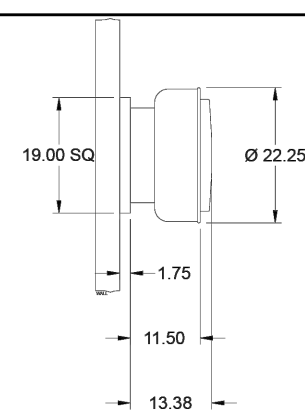
Notes:
All dimensions shown are in units of in.
*FLA is approximate and will vary slightly with the motor.
Sones - calculated using AMCA 301 at 5 ft.
** Wattage is approximate and may vary between motors.



Cut Sheet - Not for Submittal
Printed Date: 05/13/2023
Mark: EF-2
Model: CUE-090-D

Model: CUE-090-D
Direct Drive Upblast Centrifugal Wall Exhaust Fan

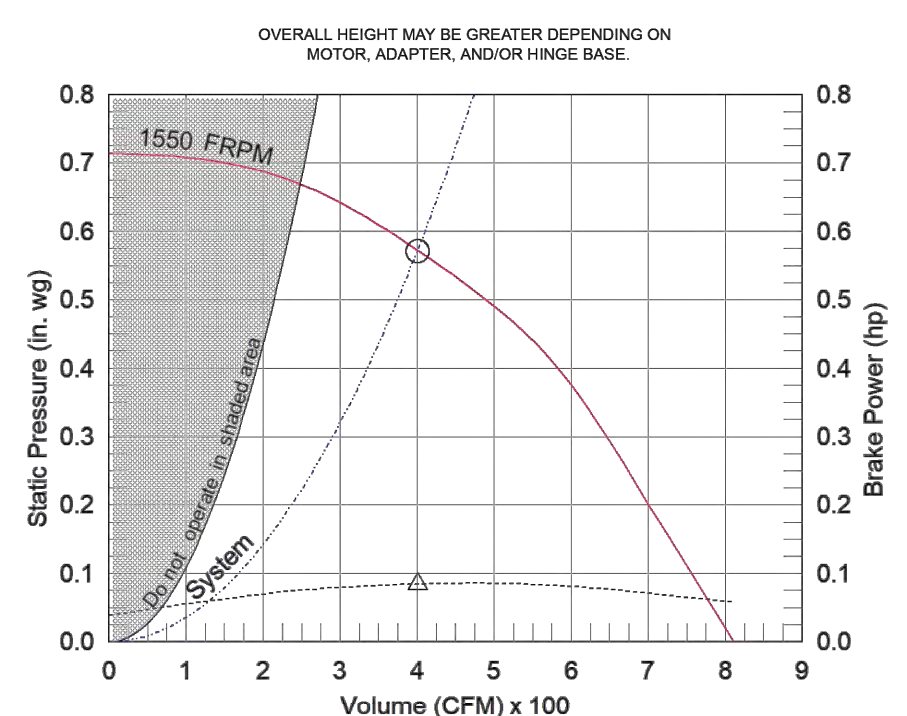
Dimensional	
Quantity	1
Weight w/o Acc's (lb)	28
Weight w/ Acc's (lb)	36
Standard Curb Cap Size (in.)	19 x 19
Optional Damper (in.)	10 x 10
Roof Opening (in.)	15 x 15



Performance	
Requested Volume (CFM)	375
Actual Volume (CFM)	401
Total External SP (in. wg)	0.571
Fan RPM	1550
Operating Power (hp)	0.08
Elevation (ft)	728
Airstream Temp (F)	70
Air Density (lb/ft ³)	0.073
Tip Speed (ft/min)	4,413
Static Eff. (%)	43

Misc Fan Data	
Fan Eff. Index (FEI)	-
Outlet Velocity (ft/min)	573

Motor	
Motor Mounted	Yes
Size (hp)	1/15 (or greater)
Voltage/Cycle/Phase	115/60/1
Enclosure	ODP
Motor RPM	1550
Efficiency Rating	Standard
Windings	1



Static Pressure Calculations	
Operating Bhp point	0.5 in. wg
Operating point at Total External SP	0.071 in. wg
External SP	0.071 in. wg
Direct Drive RPM Adjustment	0.571 in. wg
Total External SP	0.571 in. wg

Notes:
All dimensions shown are in units of in.
*Please consult factory for actual motor amp draw
LWA - A weighted sound power level, based on ANSI S1.4
dBA - A weighted sound pressure level, based on 11.5 dB
attenuation per Octave band at 5 ft. - dBA levels are not licensed
by AMCA International
Sones - calculated using ANSI/AMCA 301 at 5 ft



Sound Power by Octave Band											
Sound Data	62.5	125	250	500	1000	2000	4000	8000	LWA	dBA	Sones
Inlet	80	75	68	63	58	54	50	42	66	54	7.7



Cut Sheet - Not for Submittal
Printed Date: 05/13/2023
Mark: EF-2
Model: CUE-090-D

Model: CUE-090-D
Direct Drive Upblast Centrifugal Wall Exhaust Fan

Standard Construction Features:
- Aluminum housing - Backward curved composite (sizes 60-95) or aluminum (sizes 99-300) wheel - Aluminum curb cap with prepunched mounting holes - Drain trough - Ball bearing motors (sizes 85-300 and all Van Green), sleeve bearing motors (sizes 60-80) - Motor isolated on shock mounts - Corrosion resistant fasteners

Selected Options & Accessories:
Standard Curb Cap Size - 19 Square
Sidewall Mounting - Fan Configured for Wall-Mounted Applications
Wall Bracket will be Mounted to the Wall
UL/ULC Listed - "Power Ventilators"
Switch, NEMA-1, Toggle, Shipped with Unit
Junction Box Mounted & Wired
Wall Bracket - Galvanized, Under Sized 0.5 in. (Shipped Loose) (PN 916647)
Wall Grille, Shipped Loose (PN 918753)
Composite Wheel Material
Unit Warranty: 1 Yr (Standard)
Damper Shipped Loose, BD-330-PB-10X10, Gravity Operated, Not Coated

Provide 7-day Programmable Timer and Interlock to Exhaust Fans EF-1 & EF-2. Coordinate with Electrical Contractor on wiring and installation. Program per Owner's Occupancy Schedules.



Cut Sheet - Not for Submittal
Printed Date: 05/13/2023
Mark: IT-1
Model: SP-A50-90-VG

Model: SP-A50-90-VG
Ceiling Exhaust Fan

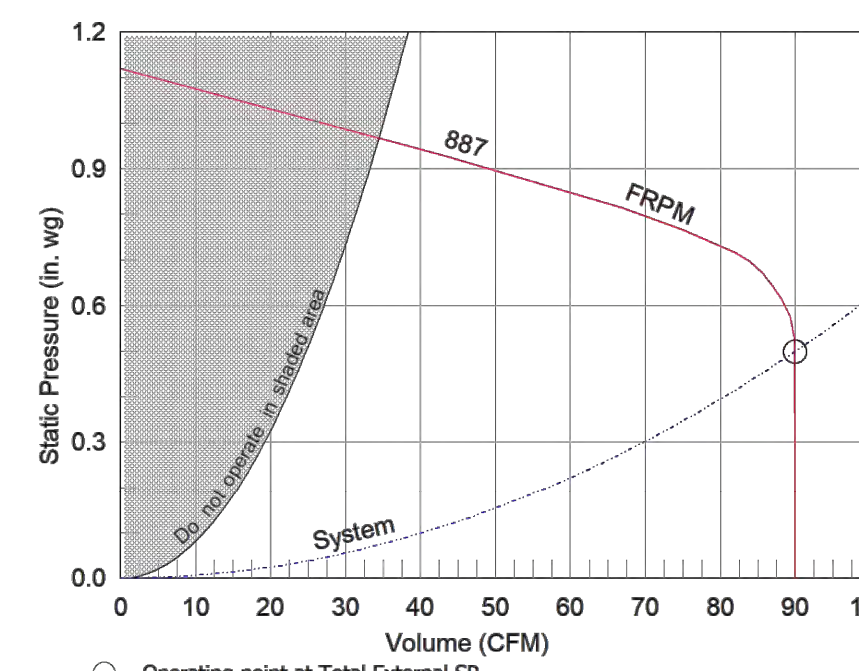
Standard Construction Features:
- Corrosion resistant galv steel and housing - Sound absorbing insulation - White designer non-yellowing grille - Round outlet duct collar with integral backdraft damper - Double inlet forward curved wheel - Plug type disconnect - Adj. mounting brackets - Field rotatable discharge

Selected Options & Accessories:
Motor rated for continuous use
Motor with CSA Approval
Motor with 40 Degree C Ambient Temperature
UL/ULC 507 Listed - Electric Fan
Wall Louvered Discharge, (PN: WL-10X3) Shipped Loose
Thermostat, Cooling, (PN: 386367) Shipped Loose
Round Duct Connection
Adjustable easy installation mounting bracket
Energy Star Certified
Standard Grille
Polypropylene Wheel Material
Can Be Used to Comply with: ASHRAE 62.2, California Title 24, and Washington State Energy Code

Dimensional	
Quantity	1
Weight w/o Acc's (lb)	12
Weight w/ Acc's (lb)	17

Performance	
Requested Volume (CFM)	90
Actual Volume (CFM)	90
Total External SP (in. wg)	0.499
Fan RPM	887
* FLA (A)	0.29
Elevation (ft)	728
Airstream Temp (F)	70
Air Density (lb/ft ³)	0.073
Sones	2.0

Motor	
Motor Mounted	Yes
** Input Watts (W)	6
Voltage/Cycle/Phase	115/60/1
Enclosure	TEAO



Notes:
All dimensions shown are in units of in.
*FLA is approximate and will vary slightly with the motor.
Sones - calculated using AMCA 301 at 5 ft.
** Wattage is approximate and may vary between motors.



NORTH (building)

Preston Fields
Pressbox and
Bathroom
Building
Jim Barnett Park
Winchester, VA 22601

Site Engineer

Painter-Lewis PLC
817 Cedar Creek Grade #120
Winchester, VA 22601
540-662-5792

Mech/Elect Engineer

Comfort Designs
620 Pennsylvania Avenue
Winchester, VA 22601
540-665-2846

Architect



Issue/Revision Seal

Drawing Title

Mechanical Schedules
& Details

Date: 5/19/2023
Scale: Noted
Project Number: 21005-E2331
Drawing Number

M1.3





Cut Sheet - Not for Submittal
Printed Date: 05/16/2023
Mark: IL-1
Model: EDD-401

EDD-401 4 in. Frame, Dual Blade

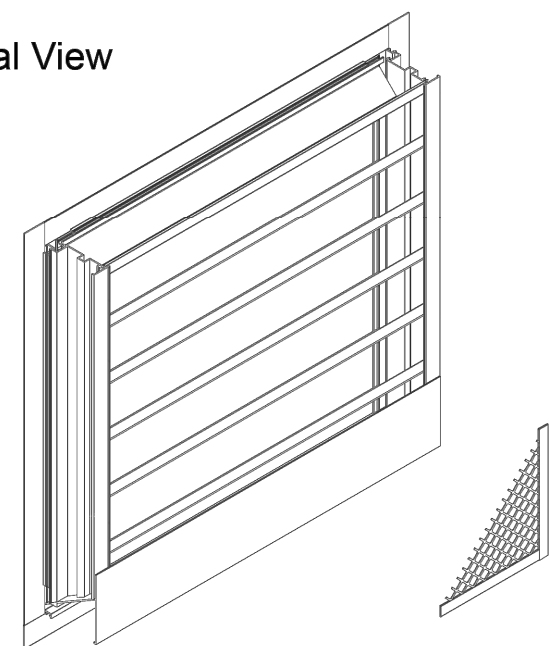
APPLICATION & DESIGN

EDD-401 is a weather louver designed to protect air intake and exhaust openings in building exterior walls. Design incorporates a drainable head member and stationary horizontal blades to channel water to the jams which guides the water through vertical downspouts for escape at the sill. The EDD-401 is an extremely efficient louver with AMCA LICENSED PERFORMANCE DATA enabling designers to select and apply with confidence.

PRODUCT DETAILS

Frame: 4 in. x 0.081 in. Frame Thickness
Frame Type: Flanged, 1.5 in., Exterior
Blades: 0.081 in. Fixed Blade Thickness
Material: Aluminum
Sizing: 1/4 Inch Under
Shape: Rectangular
Construction: Mechanically Fastened

Internal View



OPTIONS & ACCESSORIES

Finish: Mill
Bird Screen: 0.75 in. x 0.05 in., Flat Expanded Aluminum, Internal, Mill Finish
Union Label: No Preference
Warranty: 1 year Standard Product Warranty

SUMMARY

ID #	TAG	QTY.	W (m)	H (m)	FREE AREA (ft ²)	FREE AREA (%)	SECT. WIDE	SECT. HIGH	SHIP SECT.
2-1	IL-1	1	22	12	0.65	36.6	1	1	1

PERFORMANCE

ID #	TAG	APPLICATION	VOLUME (CFM)	PRESSURE DROP (in. wg)	FREE AREA VELOCITY (ft/min)	BPWP (ft/min)
2-1	IL-1	Intake	375	0.049	577	992

*Calculated pressure drop does not include the effects of screens, filters or other accessories
Total Louver Qty: 1 Total Weight (lb): 6 Louver Area (ft²): 2
Total Ship Sect.: 1

*Weight shown is an estimate only based on the default base product configuration without options or accessories.
Larger openings may require field assembly of multiple louver panels to make up the overall opening size. Individual louver panels are designed to withstand windspeeds up to a maximum of 25 PSF (size and configuration dependent). Design, materials and installation of structural reinforcement required to adequately support large openings or multiple section assemblies within a large opening are not provided by Greenheck. Options and accessories including, but not limited to, screens, filter racks, louver doors, and bar/offset panels are not subject to structural analysis unless indicated otherwise by Greenheck. Unless specifically indicated, the following are NOT included in the quote provided: structural steel, insulation hardware (screws, angle clips, continuous angles, shims, fasteners, inserts, backer rod and sealant), field measuring and/or installation, miscellaneous flashing, trim or enclosures, blank off panels, mullion covers or mullion hardware, hinged frames or removable subframes, custom bracketed screens, 3-coat metallic anodic epoxy paint finishes, aluminum panels for unlike metals, any applicable taxes, stamped and sealed structural calculations seismic calculations or job specific engineered submittal drawings.

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Generated by: rogerc2@comcast.net

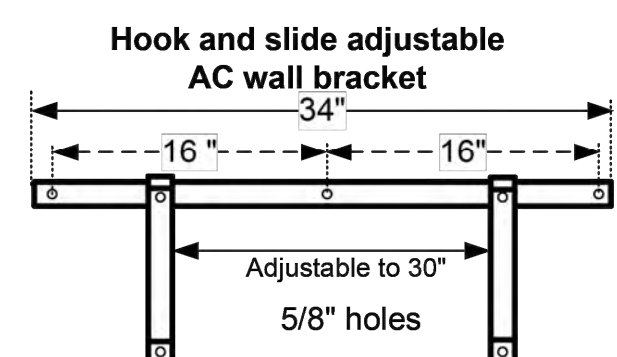


Universal AC Wall Bracket

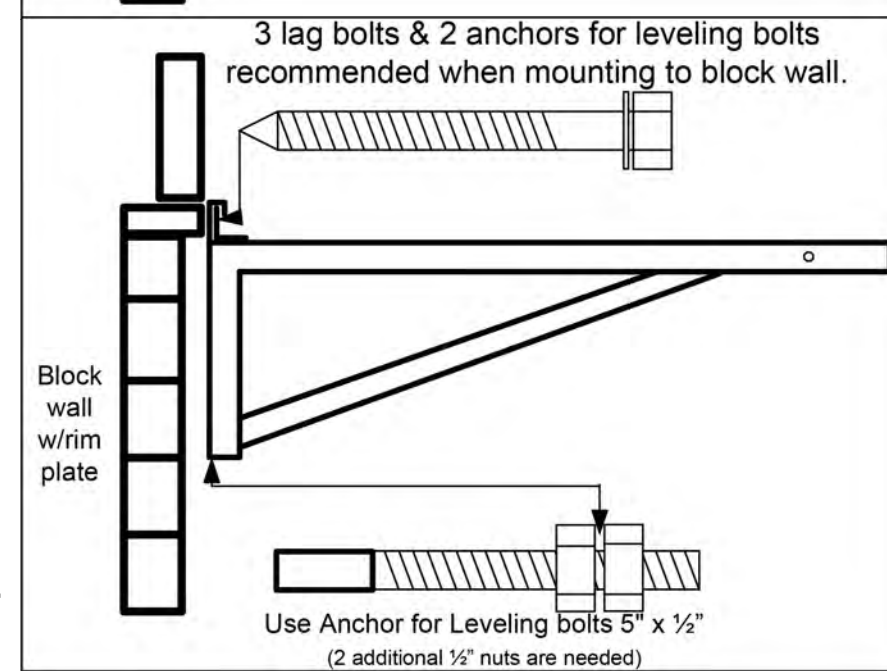
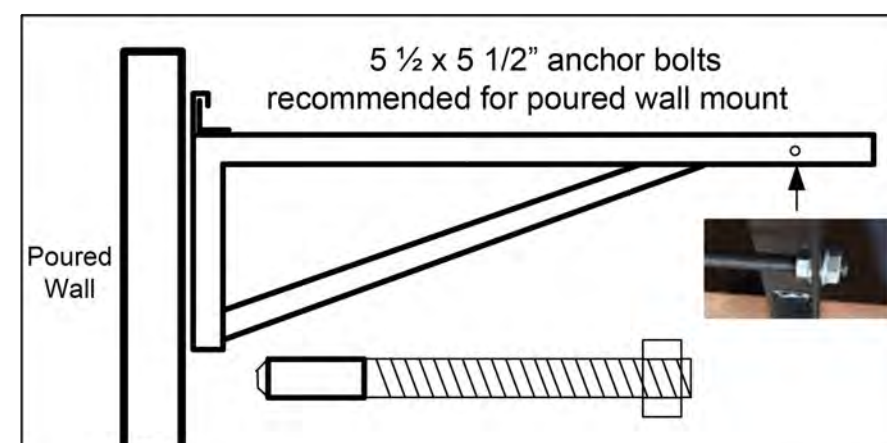
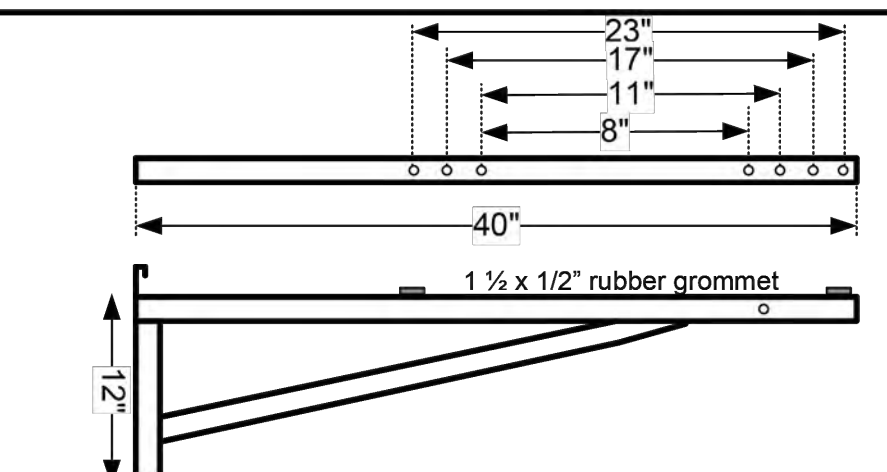
Part #ACWB-40

- Powder coat finish (rust resistant)
- Mounted on rubber vibration eliminators
- Sturdy wall bracket
- Hardware included
- (450 lb. max)

Part #ACWB-40



- Hardware Include:**
- 4- 1 1/2 x 1/2 rubber grommet
 - 4- 1" x #10 Screws
 - 4- 3/16" bonded washers
 - 5- 1/2" x 5 1/2" anchor bolts w/washer (concrete mount)
 - 3- 1/2" x 5" lag bolts w/washer (wood mount)
 - 1- 3/2" x 3/8" threaded rod w/4 nuts for spacer.

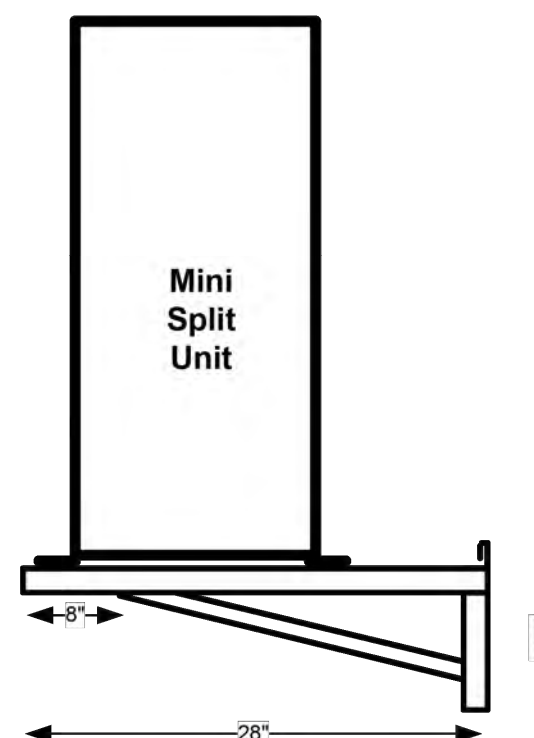
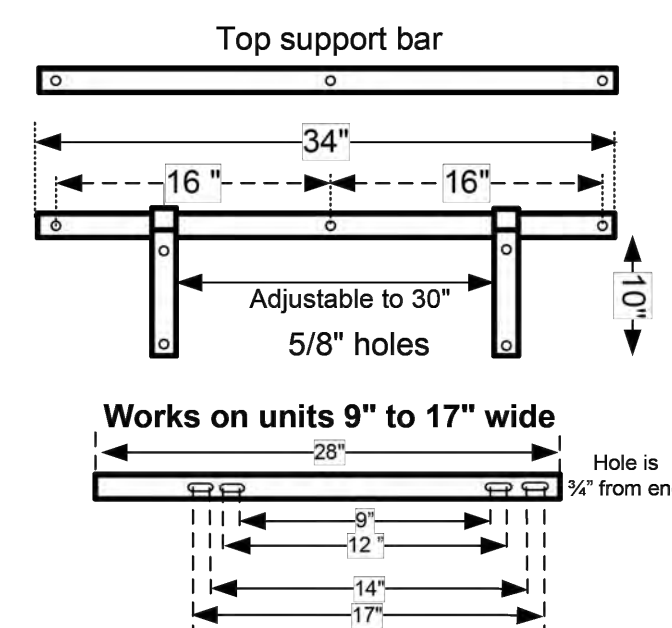


Mini Split Wall Bracket

- Powder coat finish
- Rust resistant
- Sturdy wall bracket
- Hardware included
- 500 lb Max

Part # MWB2830

Hook and slide adjustable Mini Split Wall Brackets



Mounts on rubber grommets to stop vibration

- Hardware Include:**
- 4- 5/16 x 1 1/4 flanged bolts
 - 4- 5/16" flanged nuts
 - 3- 1/2" x 4" anchor bolts w/washer
 - 3- 1/2" x 4" Lag bolts w/washer (wood mount)
 - 4- 1 1/2" x 1/2" rubber grommets

- Instructions:**
1. Slide hooked end of L shape bracket over the top bar.
 2. Secure top bar to wood or concrete.
 3. Spread leg to desired width and tighten bolts.
 4. Insert rubber grommets in slotted holes.
 5. Bolt unit to the bracket with 5/16 x 1 1/4" flange bolt

NATURAL VENTILATION TABLES FOR PRESTON FIELDS PRESSBOX UPPER LEVEL

Determined per 2018 International Mechanical Code Section 402

SYSTEM AHU-1, 2, 3 & AHU-4	TOTAL EXTERIOR DOOR/ WINDOW OPENINGS (FT ²)	FLOOR AREA	4% FLOOR AREA S.F.	TOTAL OPENINGS(FT ²) TO ADJACENT AREA W/ NATURAL VENTILATION	8% FLOOR AREA
Pressbox 203	27.6	260	10	N/A	
Office 201	33.12	130	5	N/A	
Conference 202 & Hall/IT 204	11.04	265	11	N/A	
Stairs 104	7	90	4	N/A	

Project Name: Preston Fields Middle Stg. Unit Total Supply Air: 700 CFM
Date: 5/19/2023 Unit Total Outdoor Air: 115 CFM
Unit Designation: AHU-MIDDLE

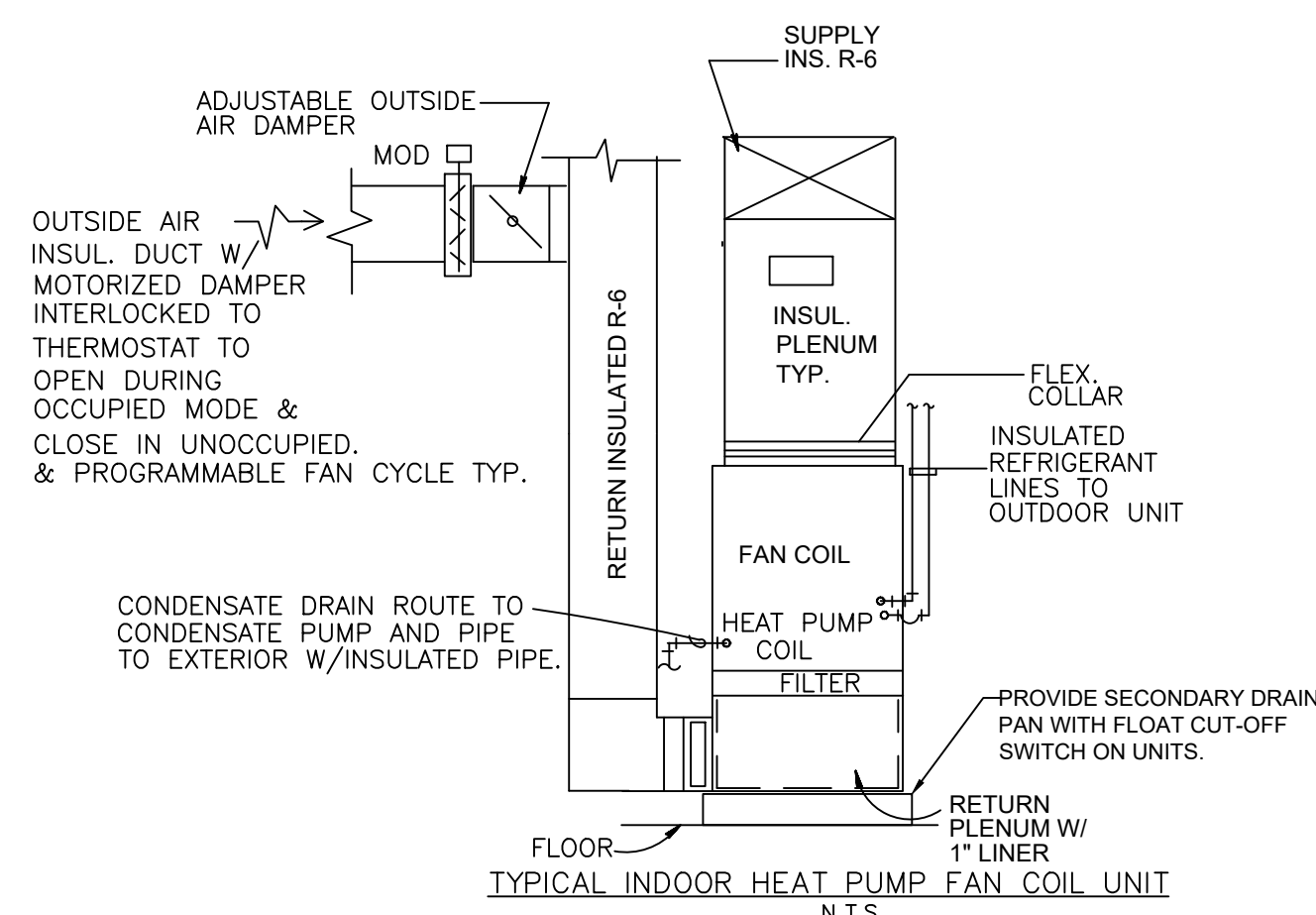
MECHANICAL VENTILATION TABLE PER ASHRAE 62.1 HVAC VENTILATION SINGLE ZONE Vot = Voz

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Room Number	Description	Area (ft ²) (Az)	Area Outdoor Air Rate per VMC Table 403.3 (Ra)	Area Outdoor Air (RaAz)	Occupant Load Rate per VMC Table 403.3 (People/1000 ft ²) (Rp)	Occupancy C x F/1000 (Pz)	Occupant Outdoor Air Rate per VMC Table 403.3 (RpPz)	Occupant Outdoor Air (RpPz)	Breathing Zone Outdoor Air (Vbz = RpPz + RaAz)	Zone Air Distribution Effectiveness (Ez)	Zone Outdoor Air (Voz = Vbz / Ez)	Supply Air Design (Vpz)	Secondary Recirculated Air	Outdoor Air Fraction (Zp = Voz / Vpz)
Storage A & B	Storage Room	586	0.12	70	0	0	0	0	70	0.8	88	600	0	0.147
Mechanical	Warehouse	297	0.06	18	0	0	0	0	18	0.8	23	100	0	0.230
		0	0	0	0	0	0	0	0	0.8	0	0	0	0.000
Totals		883	0	88	0	0	0	0	88		111	700	0	0.230

Project Name: Preston Fields Lower Level Unit Total Supply Air: 1400 cfm
Date: 5/19/2023 Unit Total Outdoor Air: 670 cfm
Unit Designation: AHU-LOWER

MECHANICAL VENTILATION TABLE PER ASHRAE 62.1 HVAC VENTILATION SINGLE ZONE Vot = Voz

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Room Number	Description	Area (ft ²) (Az)	Area Outdoor Air Rate per VMC Table 403.3 (Ra)	Area Outdoor Air (RaAz)	Occupant Load Rate per VMC Table 403.3 (People/1000 ft ²) (Rp)	Occupancy C x F/1000 (Pz)	Occupant Outdoor Air Rate per VMC Table 403.3 (RpPz)	Occupant Outdoor Air (RpPz)	Breathing Zone Outdoor Air (Vbz = RpPz + RaAz)	Zone Air Distribution Effectiveness (Ez)	Zone Outdoor Air (Voz = Vbz / Ez)	Supply Air Design (Vpz)	Secondary Recirculated Air	Outdoor Air Fraction (Zp = Voz / Vpz)
			0	0	0	0	0	0	0	0.8	0	0	0	0.000
Mens B01	Outside Air	195	0	0	0	5	0	300	300	1	300	670	0	
Family B03	Outside Air	80	0	0	0	1	0	70	70	1	70	60	0	
Womens B04	Outside Air	200	0	0	0	5	0	300	300	1	300	670	0	
			0	0	0	0	0	0	0	1	0	0	0	0.000
Totals		475	0	0		11		670	670		670	1400	0	0.000



NORTH (building)

Preston Fields
Pressbox and
Bathroom
Building
Jim Barnett Park
Winchester, VA 22601

Site Engineer

Painter-Lewis PLC
817 Cedar Creek Grade #120
Winchester, VA 22601
540-662-5792

Mech/Elect Engineer

Comfort Designs
620 Pennsylvania Avenue
Winchester, VA 22601
540-665-2846

Architect



Issue/Revision Seal

Drawing Title

Mechanical Schedules & Ventilation Tables

Date: 5/19/2023
Scale: Noted Project Number: 21005-E2331
Drawing Number

M1.4

