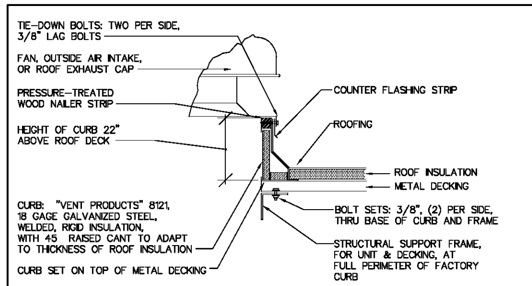
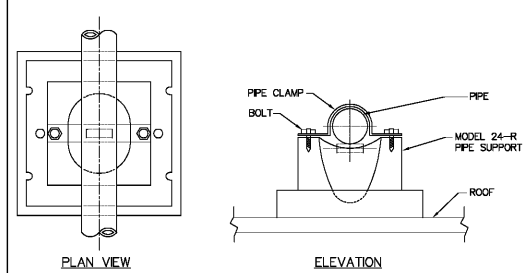


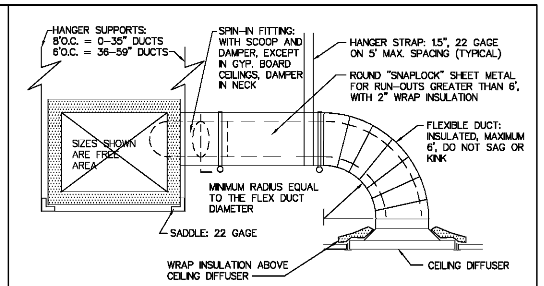
1. MECHANICAL SUBCONTRACTOR SHALL VERIFY THICKNESS OF ROOF INSULATION PRIOR TO ORDERING CURBS NOTED ABOVE.
2. CURBS NOTED ABOVE DO NOT NEED TO BE SET LEVEL, AND CAN BE SET WITH THE PITCH OF THE ROOF.

CURB DETAIL: FAN
SCALE: NONE



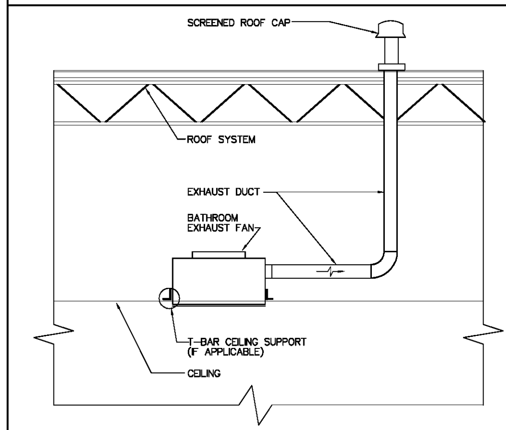
INSTALLATION SHALL BE PER MANUFACTURER RECOMMENDATIONS
MANUFACTURER: MIRO INDUSTRIES
MIDVALE, UTAH 84047
(801) 566-3680

DETAIL OF PIPING ON ROOF
SCALE: NONE



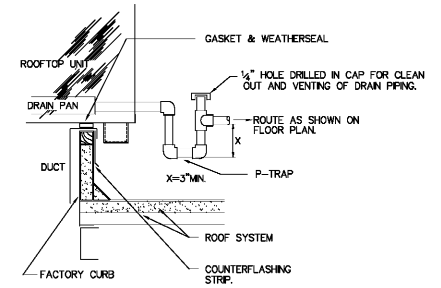
NOTES:
1. HANGER SUPPORTS SHALL BE AS NOTED ABOVE FOR DUCTS UP TO 24", AND WITH TRAPEZE HANGERS FOR DUCTS 25" AND ABOVE.
2. ELBOWS SHALL BE SQUARE NECK (SAME IN AND OUT DIMENSION) WITH 2" DOUBLE THICKNESS TURNING VANES.
3. OFFSETS SHALL NOT EXCEED 30 DEGREE ANGLE, AND SHALL NOT REDUCE THE FREE AREA OF THE DUCT.
4. TRANSITIONS SHALL NOT EXCEED 1:3 RATIO (4" TRANSITION PER FOOT SINGLE SIDED TRANSITION, AND 8" PER FOOT DOUBLE SIDED TRANSITION).
5. RECTANGULAR BRANCH CONNECTIONS SHALL BE 45 DEGREE ENTRY TYPE, WITH METAL SLEEVE & CLINCH LOCK CONNECTION. ENTRY LENGTH SHALL BE 25% OF BRANCH DUCT WIDTH.
6. ROUND BRANCH DUCT CONNECTIONS SHALL BE WITH "FLEXMASTER" FLDE SPIN-IN FITTINGS, WITH SCOOP, DAMPER AND HANDLE.
7. FLEXIBLE ROUND DUCT SHALL INCLUDE: HELIX COIL FLEXIBLE DUCTING, A 1-1/2" BLANKET INSULATION WITH MINIMUM 6.0 R VALUE, AND A ALUMINUM FOIL OUTER VAPOR BARRIER, AND BE UL-181 APPROVED, 25 OR LESS FLAME SPREAD AND 50 OR LESS SMOKE DEVELOPED. EQUAL TO "FLEXMASTER" TYPE 3M.

TYPICAL FIBERGLASS DUCT DETAIL
SCALE: NONE

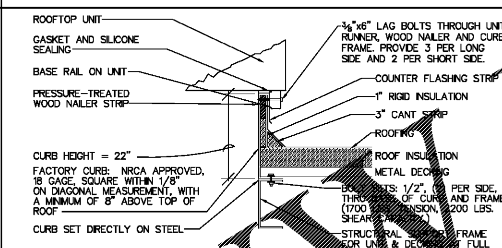


NOTES:
- COORDINATE PENETRATION WITH ROOFING CONTRACTOR PRIOR TO INSTALLATION.
- PROVIDE BIRD SCREEN IN ROOF CAP, TYPICAL.

BATH FAN DETAIL
SCALE: NONE



R.T.U. CONDENSATE DETAIL
SCALE: NONE



1. MECHANICAL SUBCONTRACTOR SHALL FURNISH ROOF OPENING SIZES & LOCATIONS FOR STRUCTURAL SUPPORT FRAMING BY GENERAL CONTRACTOR.
2. CURB SHALL BE MANUFACTURED WITH SLOPING BASE TO MATCH ROOF PITCH AND LEVEL TOP.
3. ALTERNATE METHODS OF TIE-DOWN FOR ROOF TOP EQUIPMENT SHALL BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO COMMENCEMENT OF WORK OR EQUIPMENT ORDER.
4. SYSTEM SHALL BE CAPABLE OF WITHSTANDING WIND FORCE IN ACCORDANCE WITH THE 2009 INTERNATIONAL BUILDING CODE AND OTHER APPLICABLE CODES. (TIE-DOWN SYSTEM HAS BEEN DESIGNED FOR 140 MPH WIND FORCE MINIMUM).

RTU CURB/TIE DOWN DETAIL
SCALE: NONE

TENANT AIR BALANCE (TYP. 7)

OUTSIDE AIR INTO BUILDING		EXHAUST AIR OUT OF BUILDING	
SOURCE	CFM	SOURCE	CFM
RTU-*	210	EF-*	70
TOTAL OUTSIDE AIR	210	TOTAL EXHAUST AIR	70
BUILDING BALANCE			+140

ELECTRIC UNIT HEATER

MARK	---	UH-1
MANUFACTURER	---	REZNOR
MODEL	---	EGW-5
AIR FLOW	CFM	300
FAN SPEED	RPM	1200
FAN MOTOR	HP/FLA	1/125/3
ELECTRIC HEAT	KW/STEP	3.75/1
ELECTRICAL DATA	V/PH/HZ	208/1/60
WEIGHT	LBS	20
LOCATION	---	FIRE RISER ROOM
NOTES	---	1-6

NOTES
1. PROVIDE WALL MOUNTED SUSPENSION KIT.
2. INTERLOCK WITH EF-7A. FAN SHALL DE-ENERGIZED WHEN UH-1A IS CALLING FOR HEAT.
3. PROVIDE UNIT MOUNTED THERMOSTAT. SET AT 40 DEGREES F.
4. HEATER SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND ALL APPLICABLE LOCAL AND NATIONAL CODES.
5. UNIT SHALL BE UL LISTED AND CSA CERTIFIED.
6. PROVIDE SINGLE POINT POWER CONNECTION.

RTU SCHEDULE

MARK	---	RTU-1 - 7
MANUFACTURER	---	LENNOX
MODEL	---	LGH048S4
SUPPLY AIR	CFM	1600
OUTSIDE AIR	CFM	210
CAPACITY	TONS	4.0
TOTAL COOLING	MBH	48
SENSIBLE COOLING	MBH	38
EXTERNAL STATIC PRESSURE	IN H_2O	0.8
GAS HEAT INPUT	MBH	150.0
GAS HEAT OUTPUT	MBH	120.0
EVAPORATOR FAN	HP/FLA	0.75/3.5
COMPRESSOR	NO/RLA	1/14
CONDENSING FAN	NO/FLA	1/1.7
ELECTRICAL DATA	V/PH/HZ	208/3/60
MCA	AMPS	26
FUSE/MOCP	AMPS	35
EFFICIENCY	SEER/EER	15.0/-
WEIGHT	LBS.	1250
NOTES	---	1-14

NOTES
1. TRAP CONDENSATE DRAIN AT UNIT (FULL SIZE OF OPENING) MIN. 3" WATER SEAL AND EXTEND AS SHOWN.
2. ALL UNITS SHALL BE SUPPLIED WITH COMPLETE TEMPERATURE CONTROLS AND AUTOMATIC CHANGEOVER.
3. ALL CAPACITIES AT A.R.I. CONDITIONS.
4. PROVIDE WITH FACTORY FABRICATED 22" INSULATED ROOF CURB WITH SLOPED BASE TO MATCH ROOF PITCH AND FLAT TOP LEVEL.
5. PROVIDE SINGLE POINT POWER CONNECTION.
6. PROVIDE DUCT TRANSITIONS FROM THE SUPPLY AND RETURN DUCT OPENINGS TO THE DUCT SIZES SHOWN ON THE DRAWINGS.
7. HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL ELECTRICAL COSTS WHICH MAY RESULT FROM SUBSTITUTED EQUIPMENT.
8. PERMANENTLY IDENTIFY ALL SYSTEMS WITH THE ROOF TOP UNIT DESIGNATION AND SPACE NUMBER SERVED.
9. INSTALL FILTERS IN UNIT PRIOR TO STARTUP AND PROVIDE NEW SET OF FILTERS AT COMPLETION OF CONSTRUCTION PRIOR TO TEST AND BALANCE.
10. ELECTRICAL POWER AND CONTROL CONDUITS SHALL RISE UP INSIDE THE CURB OF THE RTU.
11. DISCONNECT SWITCH SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.
12. CONVENIENCE OUTLET SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.
13. APPROVED ALTERNATE MANUFACTURERS: TRANE AND CARRIER.
14. PROVIDE AND INSTALL WITH FACTORY ECONOMIZER PACKAGE INCLUDING POWER EXHAUST.

FAN SCHEDULE

MARK	---	EF-1 - 7	EF-8
MANUFACTURER	---	GREENHECK	GREENHECK
MODEL	---	SP-B90	G-080
SERVICE	---	RESTROOM	FR ROOM
AIR QUANTITY	CFM	70	150
EXTERNAL STATIC PRESSURE	IN H_2O	0.25	0.25
FAN TYPE	---	CENTRIFUGAL	CENTRIFUGAL
MAXIMUM FAN SPEED	RPM	690	1300
DRIVE	---	DIRECT	DIRECT
MOTOR	HP(W)	20 W	1/30 HP
ELECTRICAL	V/PH/HZ	115/1/60	115/1/60
CONTROLS	---	SWITCH W/ LIGHTS	T-STAT
SONES	---	1.3	5.5
WEIGHT	LBS.	14	30
NOTES	---	1 THRU 5	1 THRU 4, 6, 7

NOTES
1. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH.
2. PROVIDE WITH AUTOMATIC BACKDRAFT DAMPER.
3. PROVIDE WITH SOLID STATE SPEED CONTROLLER.
4. APPROVED ALTERNATE MANUFACTURER: COOK
5. PROVIDE WITH SCREENED ROOF CAP.
6. PROVIDE INSULATED FACTORY FABRICATED ROOF CURB.
7. PROVIDE THERMOSTAT SET AT 85°F.

AIR DISTRIBUTION SCHEDULE

MARK	MANUFACTURER	MODEL	TYPE	MATERIAL	NOTES
CD1	PRICE	ASCD	CEILING DIFFUSER, LAY-IN	ALUMINUM	1, 2, 3, 4, 5, 6
L-1	GREENHECK	ESD435X	OUTDOOR AIR LOUVER	ALUMINUM	1, 2, 7
RG1	PRICE	630	RETURN GRILLE, LAY-IN	ALUMINUM	1, 2, 3, 5, 6

NOTES
1. NOISE CRITERIA NOT TO EXCEED 25.
2. CONTRACTOR TO COORDINATE BORDER WITH CEILING TYPE.
3. REFER TO FLOOR PLAN FOR CFM.
4. AIR DEVICES ARE 4-WAY THROW.
5. PROVIDE MANUAL VOLUME DAMPER AT MAIN TRUNK TAKEOFF FOR BALANCING.
6. APPROVED ALTERNATE MANUFACTURERS: TITUS AND METAL AIRE
7. PROVIDE WITH INSECT SCREEN & BACKDRAFT DAMPER. PAINT TO MATCH.

OUTSIDE AIR CALCULATION SCHEDULE

SPACE	GROSS AREA (sq.ft.)	OCCUPANCY	REQUIREMENTS	REQUIRED CFM	PROVIDED CFM	NOTES
RETAIL SPACE (TYP)	1238	8	SEE NOTE 2	210	210	1, 2

NOTES
1. OUTSIDE AIR CALCULATIONS BASED ON ASHRAE 62.1-2007
2. REQUIREMENTS BASED ON 7.5 CFM/PERSON AND 0.12 CFM/SQUARE FOOT.

Job Number: 51222
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1801 South Keene Rd.
Clearwater, FL 33756

PROJECT NAME
Retail @ Tattersall Park
US Highway 280 & Highway 119
Hoover, AL

SHEET TITLE
Mechanical Notes, Schedules and Details

Revision Schedule

No.	Description	Date
A	100% Publix Submission	06-07-18
B	Issued to Bid & Permit	7-26-18

PROJECT NO.	2180060
DATE	07-27-18
DRAWN	DR
CHECKED	JS

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