

Project

AEROJET BUILDING E33
OFFICE EXPANSION
EAST CAMDEN,
ARKANSAS

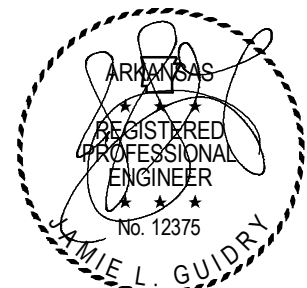
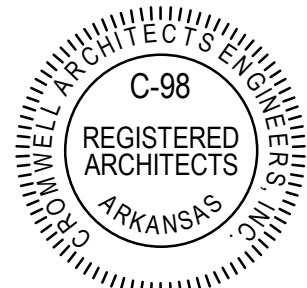
Design Phase

CONSTRUCTION
DOCUMENTS

Revisions

No.	Date	Description

Stamp



12-19-2024

Notes

1. CROMWELL ARCHITECTS ENGINEERS, INC. ALL RIGHTS RESERVED
2. THIS SHEET DESIGNED FOR COLOR PRINTING. CRITICAL INFORMATION MAY BE LOST WITH BLACK AND WHITE PRINTING.

Project Number

2024-134

Issue Date

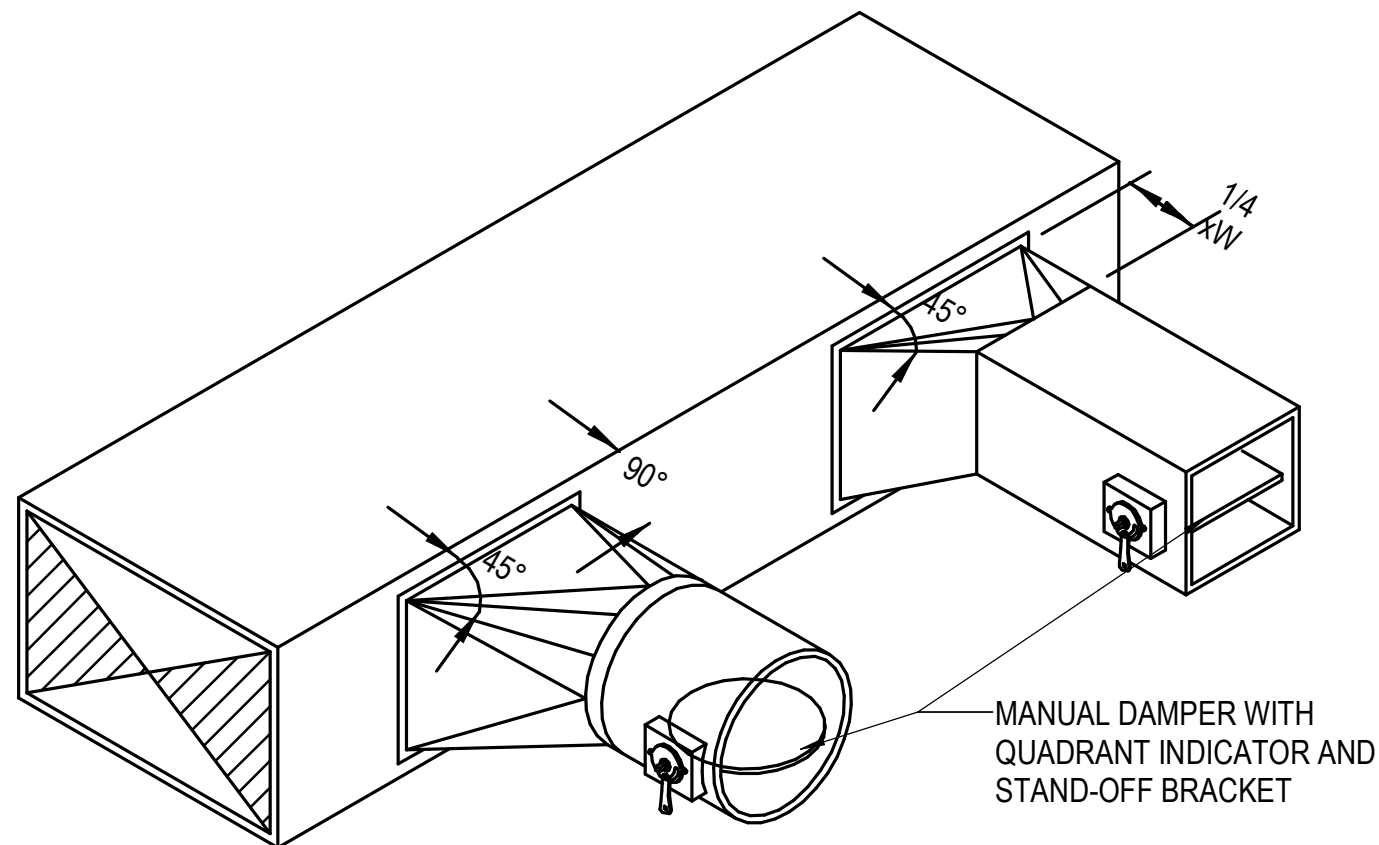
12-19-2024

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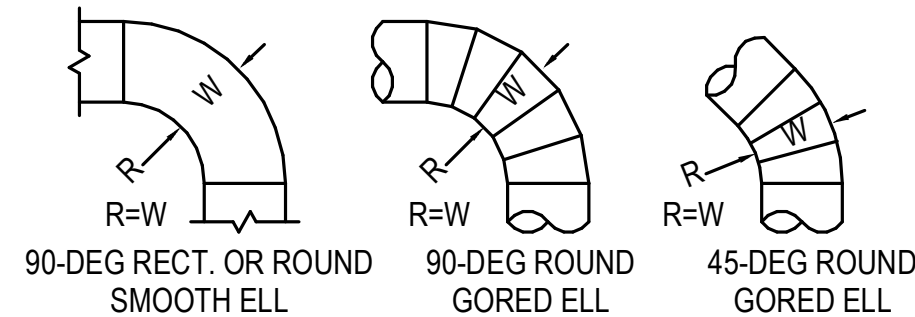
MECHANICAL DETAILS

Sheet Number

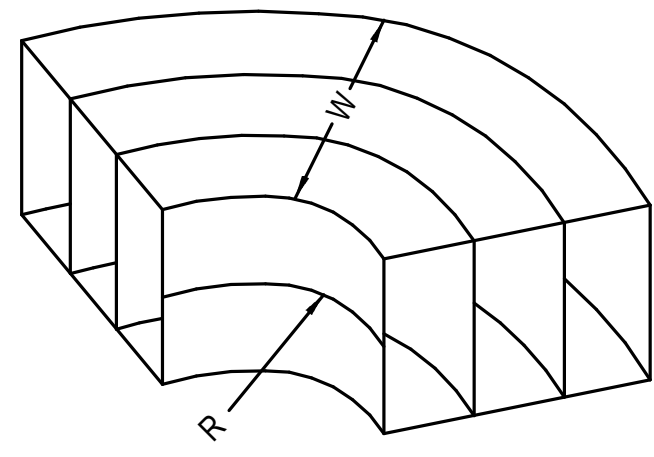
M-502



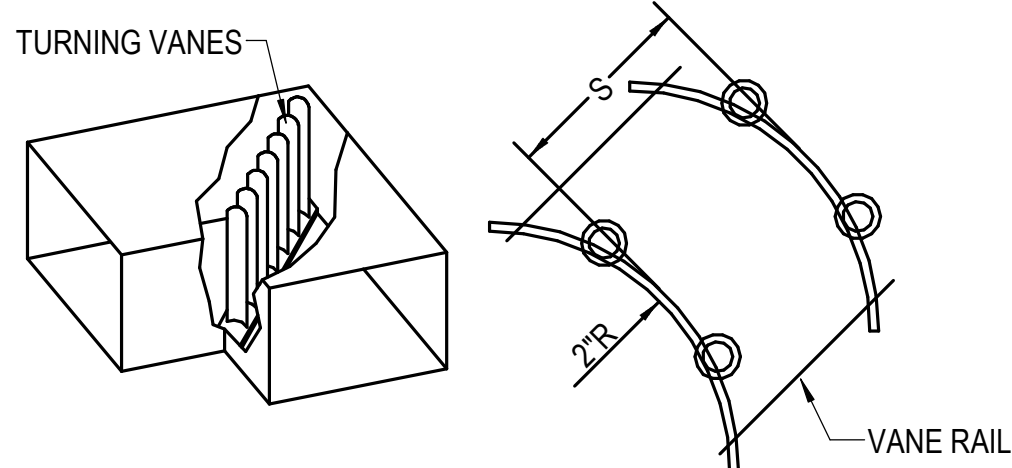
1 DUCT TAKEOFF
NOT TO SCALE



STANDARD RADIUS ELL



RECTANGULAR SHORT RADIUS ELL



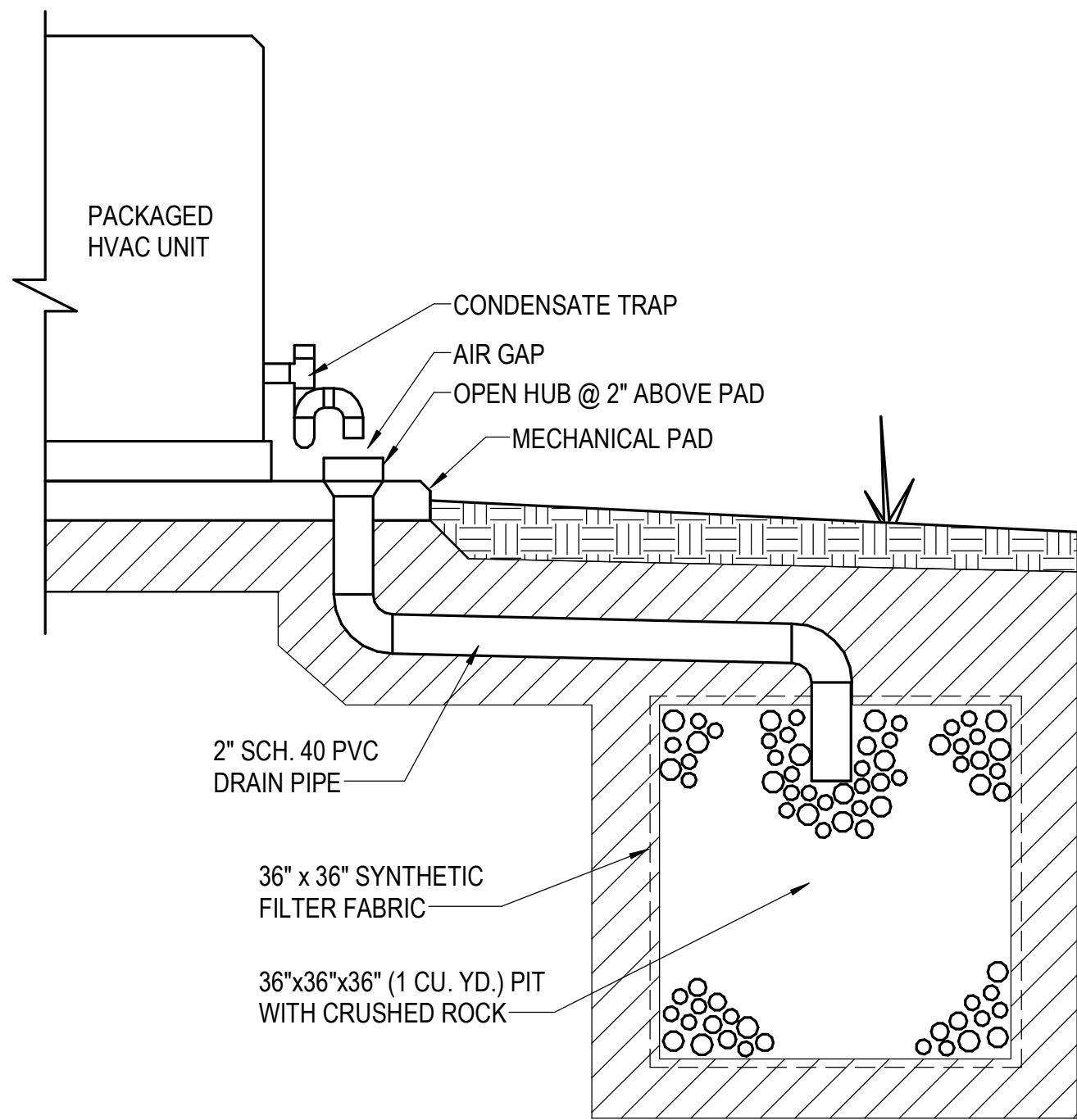
S=1.5" SGL THICKNESS VANES
S=2.125" DBL THICKNESS VANES

MITERED ELL

2 DUCT ELBOW
NOT TO SCALE

NOTES:

1. WHERE STANDARD RADIUS TURNS ARE NOT POSSIBLE, MITERED ELL'S WITH TURNING VANES SHALL BE PROVIDED FOR ALL CHANGES IN HORIZONTAL AND VERTICAL DUCT DIRECTION 45-DEGREE OR GREATER.
2. CONSTRUCT ELBOWS IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE.
3. AIR VELOCITIES 1200 FPM AND LESS:
 - A. TURNING VANE ELBOW SHALL BE TURNING VANE ELBOW SHALL BE SINGLE WIDTH VANES FOR VANE LENGTHS UP TO 24"
 - B. TURNING VANE ELBOW SHALL BE ASHRAE FITTING CR3-15 WITH DOUBLE WIDTH VANES FOR VANE LENGTHS OVER 24".
4. AIR VELOCITIES OVER 1200 FPM: TURNING VANE ELBOW SHALL BE ASHRAE FITTING CR3-15 WITH DOUBLE WIDTH VANES.
5. ROUND ELBOWS SHALL BE SMOOTH OR GORED. 90-DEGREE GORED ELL'S SHALL BE MINIMUM 5-PIECE AND 45-DEGREE GORED ELL'S SHALL BE MINIMUM 3-PIECE.
6. VANES SHALL BE WELDED TO THE VANE RAIL IN DUCT SYSTEMS WITH AIR VELOCITIES 3000 FPM AND HIGHER.
7. ELBOWS WITH MITERED THROATS/RADIUS HEELS AND ELBOWS WITH MITERED THROATS/CHAMFERED HEELS ARE NOT ACCEPTABLE.



3 CONDENSATE DRAIN PIT
NOT TO SCALE

ALUMINUM JACKETING OR FOIL-FACED RUBBERIZED BITUMEN WEATHERPROOFING - CONTRACTOR'S OPTION

FOIL-FACED RIGID INSULATION, 2" TOTAL INSULATION THICKNESS

PUSH-PIN FASTENERS FOR RIGID INSULATION

SHEET METAL DUCTWORK

PITCHED RIGID INSULATION
MANUFACTURER'S INSTRUCTIONS
MANUFACTURER'S INSTRUCTIONS

LAP JOINTS IN STRICT ACCORDANCE WITH THE WEATHER PROOFING MANUFACTURER'S INSTRUCTIONS

SEAL ALL BREAKS, JOINTS, AND PENETRATIONS THROUGH INSULATION JACKET WITH VAPOR RETARDER TAPE

NOTES:

1. ALL SHEET METAL DUCT JOINTS AND SEAMS SHALL BE THOROUGHLY COATED WITH A U.L. 181 COMPLIANT SEALANT, SMACNA SEAL CLASS A, HARDCAST OR EQUAL.
2. COMBINATION VAPOR/WEATHER/UV BARRIER SHALL BE EQUAL TO POLYGUARD ALUMAGUARD RUBBERIZED BITUMEN FOIL FACED MEMBRANE WITH ASPHALT/ASPHALT LAP SEALS. INSTALL IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
3. WHERE THE DUCTWORK PENETRATED THE BUILDING ENVELOPE, THE EXTERIOR WEATHERPROOF INSULATION SHALL EXTEND MIN. 6" INTO THE BUILDING INTERIOR BEFORE TRANSITIONING TO THE INTERIOR DUCT INSULATION SPECIFICATION.

4 EXTERIOR DUCT INSULATION WEATHERPROOFING
NOT TO SCALE