

Florida

SMACNA Inc.

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TECH/SPEC

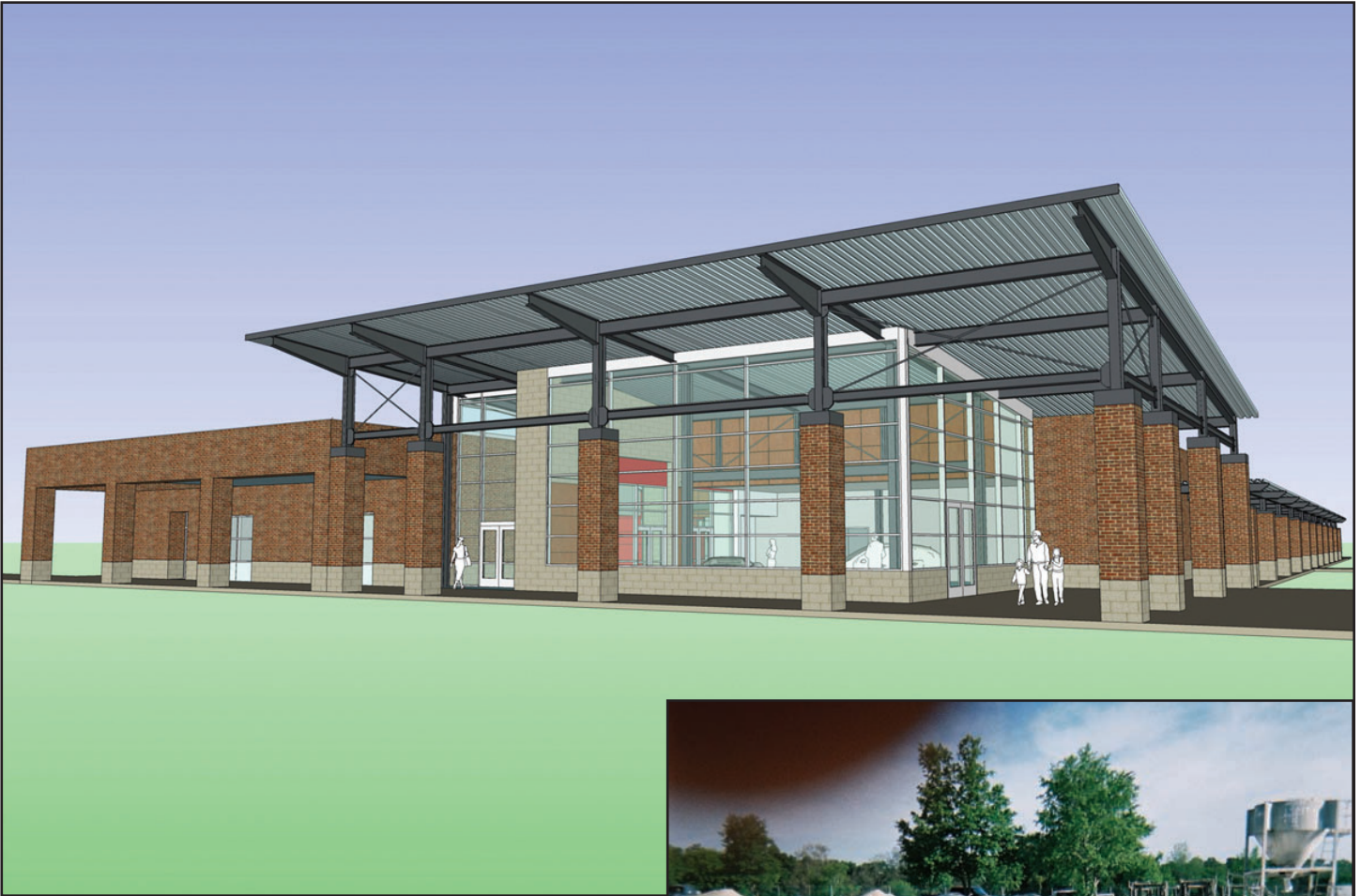
NEWS

**SEMINOLE COUNTY COMMUNITY COLLEGE AUTOMOTIVE TRAINING
CENTER, SANFORD, FL**



Sheet Metal Contractor: Lapin Sheet Metal Company, Inc., Orlando, FL

SEMINOLE COUNTY COMMUNITY COLLEGE AUTOMOTIVE TRAINING CENTER, SANFORD, FL



Architect: C. T. HSU + Associates, Orlando, FL
Engineer: Engineering Professionals, Inc., Orlando, FL
Mechanical Contractor: W. W. Gay, Orlando, FL
Sheet Metal Contractor: Lapin Sheet Metal Company, Inc., Orlando, FL

The scope of this project consisted of the fabrication and installation of HVAC duct work and the installation of PVC coated duct work underground for vehicle exhaust in the 51,000 square-foot Seminole County Community College Automotive Training Center located in Sanford, Florida.

The \$5.5 million facility, a public-private partnership between the college and the Central Florida Auto Dealers' Association, houses the college's automotive department.

The building includes automotive labs, SMART classrooms, faculty offices, an industry show room, administrative offices and related support spaces.



SEMINOLE COUNTY COMMUNITY COLLEGE AUTOMOTIVE TRAINING CENTER, SANFORD, FL



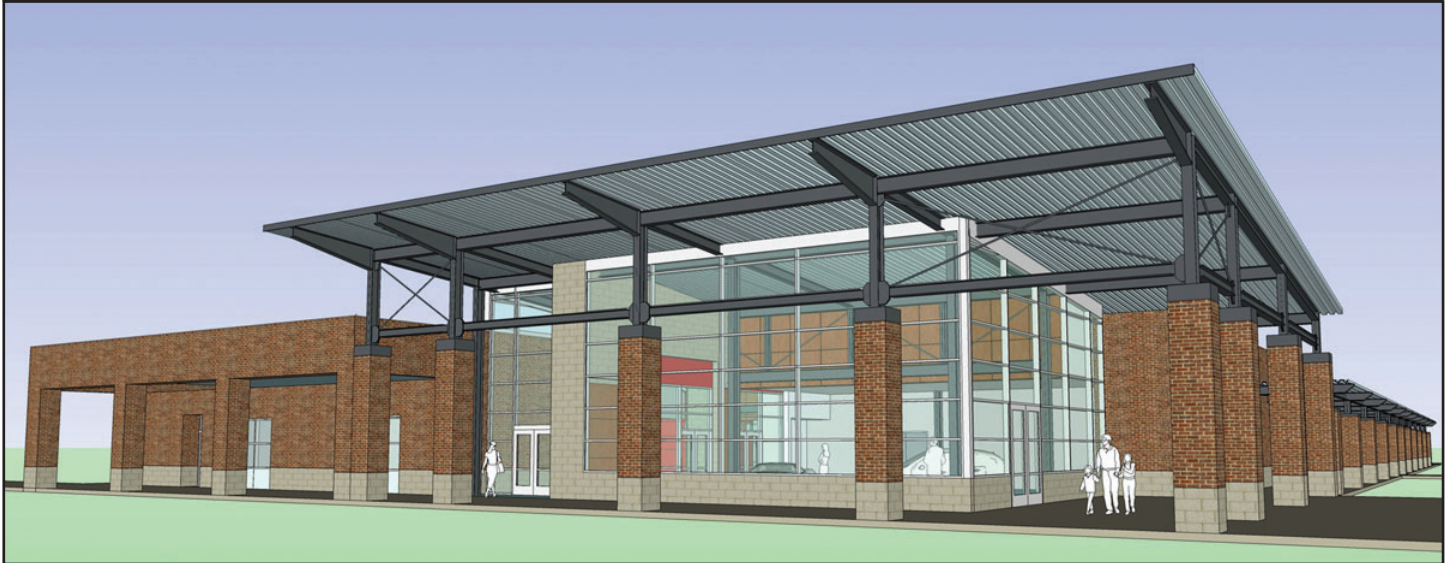
Lapin Sheet Metal, Inc. installed approximately 28,250 pounds of sheet metal duct work in the building. In addition, they installed PVC coated duct for vehicle exhaust under the slab of the building. Automobile exhaust pipes are attached to a flexible hose which extends 6-8 feet into the underground duct which removes the exhaust from the building.

The coordination with other trades on the job and installation of the underground duct work around hydraulic lifts were the challenges that Lapin met on the project.

Daniel Lapin of Lapin Sheet Metal, Inc. said, "We would like to express our appreciation to Seminole County Community College, Stiles Construction Company, W. W. Gay Mechanical Contractors and to Lapin Sheet Metal field employees Rigo Rangel and Ronald Irby."

All photographs & renderings of the building courtesy of the architect, C. T. HSU + Associates.

SEMINOLE COUNTY COMMUNITY COLLEGE AUTOMOTIVE TRAINING CENTER, SANFORD, FL



MAKING ARCHITECTURAL ROOF AND WALL PENETRATIONS WEATHERTIGHT

The sixth edition of SMACNA’s “Architectural Sheet Metal Manual” illustrates several types of roof and wall penetration construction methods.

There are thousands of variations of individual construction details and it would be impractical for SMACNA to include all. Designers must adapt and alter a particular detail or group of details to accommodate an unusual design need.

Figures 6-35 through 6-38 illustrate flashing approaches for a variety of elements penetrating metal wall. Elements of these details can be altered and adapted to other types of wall constructions or other elements that penetrate a wall.

Figures 4-14 through 4-17 illustrate flashing for construction elements penetrating flat roofs. If those details are compared to figures 6-19 through 6-21 that illustrate penetrations through sloped metal roofs, the similarities between the flashing techniques should be obvious.

Using a separate curb and cap flashing provides some simplification of what may be a difficult to flash penetration. It may also simplify re-roofing if designed with that in mind. A curb helps isolate reworking the upper flashing from the primary roofing surface.

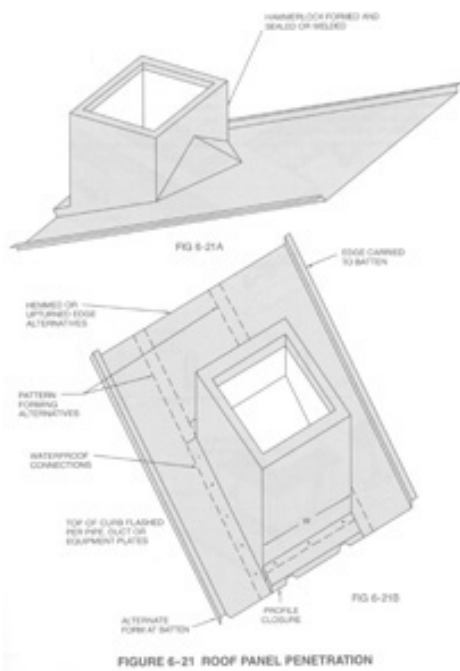


FIGURE 6-21 ROOF PANEL PENETRATION

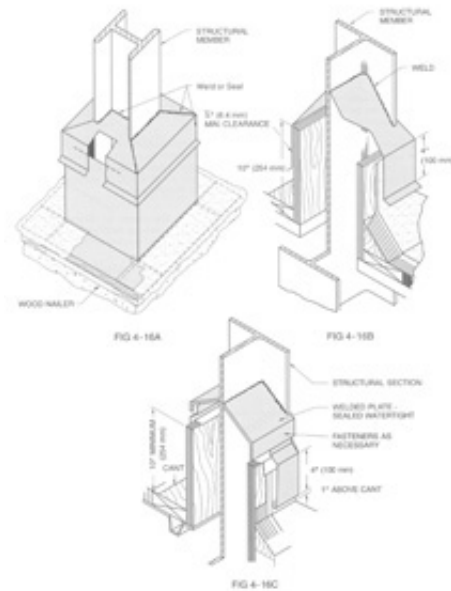


FIGURE 4-16 ROOF PENETRATION FLASHING — STRUCTURAL STEEL

Architects and engineers may purchase the new publication at the discounted price of \$184 for the book, \$220 for the CD-ROM, \$294 for the CD-ROM/book combo and \$184 for the PDF download. The list price for the book is \$262, the CD-Rom is \$315, the CD-ROM/book combo is \$419 and \$262 for the PDF download.

To order, call SMACNA’s Publication Department at (703) 803-2989.

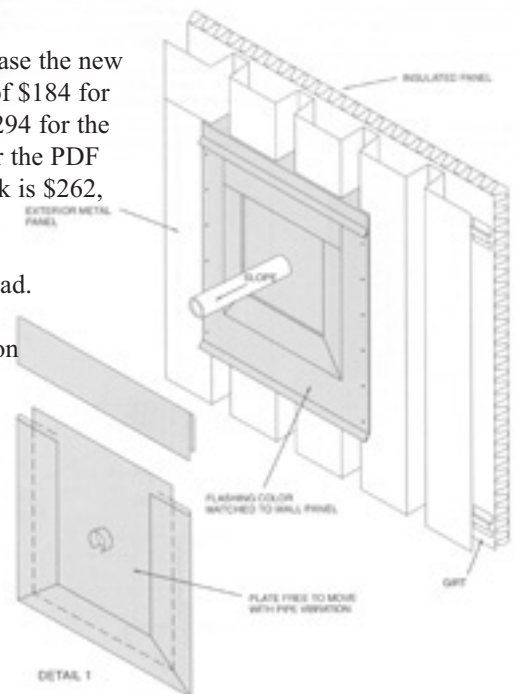


FIGURE 6-35 WALL PENETRATION FLASHING

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After all, they wrote the book on it. Why take a chance on doing business with anyone who offers less.

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NEW EDITION: SMACNA MANUAL HVAC SYSTEMS DUCT DESIGN

The 4th Edition of HVAC Systems - Duct Design is a fundamental duct system design manual for commercial and light industrial heating, ventilating and air conditioning.

Air distribution, system effects, pressure loss of components, and all key elements of design are covered.

The Manual:

- Presents the basic methods and procedures required to design commercial HVAC air distribution systems.
- Provides related information on materials, methods of construction, economics of duct systems, duct system layout, pressure losses, fan selection, duct leakage, acoustic considerations, and Testing, Adjusting and Balancing (TAB).

- Provides designers with detailed information to balance duct size against building space limitations to arrive at the most cost-effective duct system pressure losses.
- U.S. and metric units are provided in all examples, calculation, and tables.

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SMACNA Inc.

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- Accepted Industry Standards for Sheet Metal Lagging.
- Architectural Sheet Metal Manual.
- Architectural Sheet Metal Manual, CADD Version 2.0
- Fire Smoke and Radiation Damper Installation Guide for HVAC Systems.
- Guide for Steel Stack Construction.
- Guidelines for Roof Mounted Outdoor Air-Conditioner Installations.
- HVAC Duct Systems Inspection Guide.
- Kitchen Ventilation Systems & Food Service Equipment Guidelines.
- Managers' Guide for Welding.
- Residential Sheet Metal Guidelines.
- Seismic Restraint Manual: Guidelines for Mechanical Systems.

- SMACNA/ASHRAE Seismic Restraint Applications CD-ROM.
- Standard Practice in Sheet Metal Work.

• SMACNA'S DUCT STANDARDS

- Duct Research Destroys Design Myths (Bubble Video).
- Duct System Calculator - Imperial.
- Ducted Electric Heat Guide for Air Handling Systems.
- HVAC Duct Design Home Study
- HVAC Systems - Duct Design.

• SMACNA'S DESIGN GUIDELINES

- Accepted Industry Practice for Industrial Duct Construction.
- Fibrous Glass Duct Construction Standards.
- HVAC Air Duct Leakage Test Manual.
- HVAC Duct Construction Standards - Metal and Flexible.
- Rectangular Industrial Duct Construction Standards.
- Residential Comfort System Installation Standards Manual.

- Round Industrial Duct Construction Standards.
- Round Industrial Duct Construction Standards (RIDCS) Software Version 2.0.
- Thermoplastic Duct (PVC) Construction Manual.
- Thermoset FRP Duct Construction Manual.
- SMACNA'S ENVIRONMENTAL PUBLICATIONS
 - Building Systems Analysis and Retrofit Manual.
 - Energy Systems Analysis and Management.
 - HVAC Systems - Applications.
 - HVAC Systems - Commissioning Manual.
 - HVAC Systems - Testing, Adjusting & Balancing.
 - IAQ Guidelines for Occupied Buildings Under Construction.
 - Indoor Air Quality - A Systems Approach.
 - TAB Procedural Guide.

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