

Florida

# **SMACNA** Inc.

Quarterly Edition - October 2009

Volume 35

## **TECH/SPEC**

### **NEWS**

**ORLANDO POLICE TRAINING FACILITY,  
ORLANDO, FL**



**HOISTING DOUBLE WALL LINDAB SPIRAL PIPE**

**SHEET METAL CONTRACTOR: MCDONALD AIR & SHEET METAL, INC.,  
ORLANDO, FL**

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## ORLANDO POLICE TRAINING FACILITY, ORLANDO, FL



### DUCT SADDLE CURBS

**Engineer:** Carey Heating & Air Conditioning, Inc., Tinley Park, IL

**Construction Manager:** Skanska, Orlando, FL

**Sheet Metal Contractor:** McDonald Air & Sheet Metal, Inc., Orlando, FL

The scope of this unusual project, contracted by McDonald Air & Sheet Metal, Inc. of Orlando with Carey's Heating and Air out of Tinley Park, Illinois, involved the installation of the ventilation system in a modern police indoor firing range.

The ventilation system was the design of Carey's who specializes in indoor arm's range ventilation.

The systems are designed to ensure proper airflow across any firing area. It is a

specialty ventilation system which delivers laminar air flow which will ensure that no contaminants enter the shooter's respiratory zone. Without proper ventilation there are serious health concerns from the contaminants of live fire exercises (lead, sulfur dioxide, and carbon monoxide).

Utilizing radial diffusers, manufactured by Carey's, the custom design ventilation system exceeds NIOSH, EPA and OSHA air quality standards. The system used on the Orlando Police Training Facility is



### DUCT CURBS

also an energy recovery system. It allows the use of 100% outside air and recovers the conditioned air after being filtered. While the cost of installation is high, there is typically, a 10 year payback period with the energy savings.

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## ORLANDO POLICE TRAINING FACILITY, ORLANDO FL



**HOISTING 11,000 LB MAKE UP AIR UNIT**

This project included the installation of six 100% make-up air units and six return/exhaust units, each at 33,000 cfm. Galvanized duct, spiral pipe, and roof curbs with a hurricane-rated gripple system were used for the tie downs. The units are tied together on the roof with 90 foot runs of 62 inch Lindab 2" double wall spiral pipe.

One of the challenges of the project was the setting of the heavy equipment, curbs and ductwork. The units alone weighed 11,000 lbs each.

Because the facility is in close proximity of the Orlando Executive Airport and the height of the crane, special permitting and authorization was required by the airport authority. Hoisting of material and equipment was accomplished by Beyel Brothers Crane using a 240 ton hydraulic boom crane with a 225 foot reach.

Steve Wagner, McDonald Air's project manager, recognized the valuable contributions of the job foreman, Mike Kacer, and the shop foreman, Les Jones, in this project which was finished in June, 2009.



**SETTING MAKE UP AIR UNIT**



**SETTING RETURN AIR EXHAUST  
UNITS SECTIONS**

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## 6th MEDICAL REPLACEMENT CLINIC, McDILL AIR FORCE BASE, TAMPA FL



**Sheet Metal Contractor:**  
METALFAB, Inc., San Antonio, FL

Working within a tight schedule, Metalfab, Inc. of San Antonio, Florida custom fabricated and installed both interior and exterior elements for the building of the 6th Medical Replacement Clinic at McDill Air Force Base in Tampa, Florida.

Metalfab's craftsmen fabricated and installed 14 ga. 304 stainless steel #4 counter tops and pass through counters



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## 6th MEDICAL REPLACEMENT CLINIC, McDILL AIR FORCE BASE, TAMPA FL



and divider/directional units composed of two-inch square aluminum tube glass frames on the interior of the building.

On the exterior of the building, Metalfab, Inc. manufactured and installed the painted column covers.

Metalfab provides design, fabrication and installation for architectural metal projects around the country.



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## WINNER OF THE MANUAL DRAWING FROM THE JULY NEWSLETTER!

The July SMACNA technical manual drawing winner was Gerald F. DeMarco, Architect of Miami, Florida.

He chose to receive the HVAC Duct Construction Standards-Metal and Flexible. Enter today for the next drawing.



## FLORIDA SMACNA, INC. MEMBER FIRMS

In the sheet metal and air conditioning business, nobody knows excellence quite the way SMACNA Contractors do. After all, they wrote the book on it. Why take a chance on doing business with anyone who offers less.

### **Air Management Systems, Inc.**

3801 Commerce Pkwy.  
Miramar, FL 33025  
305-651-0440  
Chris Hightower

### **All Southern Fabricators, Inc.**

5010 126th Avenue N.  
Clearwater, FL 33760  
727-573-4846  
Manuel Santana, Jr.

### **Anderson Technical Systems, Inc.**

333 W. Marion Avenue  
Edgewater, FL 32131  
386-423-2500  
Tim Anderson

### **Bohnert Sheet Metal**

2225 NW 76th Street  
Miami, FL 33147  
305-696-6851  
William H. Marvel, Jr. (Skip)

### **BSA Sheet Metal**

2530 Ali Baba Avenue  
Opa Locka, FL 33054  
305-681-3771  
John Rudisill

### **CADVANTAGE Drafting Service, Inc.**

2220 1st Avenue S.  
St. Petersburg, FL 33713  
727-321-2072  
Dan Sinclair

### **Cailis Mechanical Corp.**

12555 Orange Drive, Suite 108  
Davie, FL 33330  
954-252-0263  
Emanuel Cailis

### **Dodec Inc.**

3140 W. 84th Street, Bay #2  
Hialeah, FL 33018  
305-826-4022  
Trevor Pantry

### **EMC2 Sheet Metal Corp.**

7537 N.W. 70th Street  
Miami, FL 33166  
305-885-9911  
Javier Estrada

### **Ferber Sheet Metal Works, Inc.**

P.O. Box 26069  
Jacksonville, FL 32226-6069  
904-356-3042  
George Ferber

### **Lapin Sheet Metal Company**

3825 Gardenia Avenue  
Orlando, FL 32839  
407-423-9897  
Ronald J. Lapin

### **Lee's Sheet Metal Works, Inc.**

P.O. Box 756  
East Palatka, FL 32131  
386-328-5563  
James Lee

### **McDonald Air and Sheet Metal, Inc.**

2730 Eunice Avenue  
Orlando, FL 32808  
407-295-0220  
Ralph Carver

### **Magnum Sheet Metal, Inc.**

7470 NW 68th Street  
Miami, FL 33166  
305-885-5656  
William H. Murphy, Sr.

### **MetalFab, Inc.**

28212 Rice Road  
San Antonio, FL 33576  
352-588-9901  
Wally Ruda

### **Moffitt Mechanical, LLC**

1351 13th Avenue South, Suite 130  
Jacksonville Beach, FL 32250  
904-241-9944  
John Moffitt

### **National Sheet Metal Co.**

8318 Atlantic Blvd.  
Jacksonville, FL 32211  
904-724-7476  
Ed Dickey

### **Omega Test and Balance**

126 Wisteria Avenue  
Fort Pierce, FL 34982  
772-216-7362  
Hugh Grimes

### **R. Neth & Son, Inc.**

360 E. Landstreet Road  
Orlando, FL 32824  
407-855-9096  
Steven Woodley

### **Ray's Metal Works, Inc.**

P.O. Box 700  
Alachua, FL 32615  
386-462-1415  
Ray Burnsed, Sr.

### **Sheet Metal Experts, Inc.**

8986 N.W. 105th Way  
Medley, FL 33178  
305-805-2019  
William F. Medlin

### **South Florida Sheet Metal**

5217 NE Shore Village Terrace  
Stuart, FL 34996  
954-647-6457  
Wayne Bozer

### **United Sheet Metal Company**

14945 NW 25th Court  
Miami, FL 33054  
305-685-3526  
Rich Applegate

### **Vickers Metal Works, Inc.**

6701 Edgewater Commerce Pkwy.  
Orlando, FL 32810  
407-297-7546  
Tim Vickers

## OTHER CONTRIBUTORS TO THE FLORIDA SHEET METAL INDUSTRY

Advanced Metal Works

All Ready Chute, Inc.

Apollo Construction & Engineering

Colbert Air Conditioning

Conquest Mechanical

Crown Corr Erection

D&J Sheet Metal

DKG & Associates

Day and Zimmerman

Digital Climate & Control

Energy Services Ins, Inc.

Florida Metal Art

FCR Mechanical Contractors

Industrial Steel

JV Installation

Lindab, Inc.

MFH Sheet Metal Fabricators, Corp.

Quality Metal Works, Inc.

Ray Williams Sheet Metal

SDB Engineers and Constructors, Inc.

Superior Mechanical

System Tech Services

TankServ, Inc.

Triple M Roofing Corp.

Union Air Conditioning

Universal Fabrication Services

[skarr@flsmacna.org](mailto:skarr@flsmacna.org)

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Enter by November 30, 2009

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# SMACNA

Inc.

### • SMACNA'S CONSTRUCTION STANDARDS

- Accepted Industry Practices for Sheet Metal Lagging.
- Architectural Sheet Metal Inspection Guide.
- 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 Fabrication & Installation Guidelines.
- Residential Sheet Metal Guidelines.
- Seismic Restraint Manual: Guidelines for Mechanical Systems.
- Sheet Metal Welding Guide.

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

### • SMACNA'S DESIGN GUIDES

- Duct System Calculator - Imperial.
- Ducted Electric Heat Guide for Air Handling Systems.
- Guidelines for Change Orders
- HVAC Systems - Duct Design.

### • SMACNA'S DUCT STANDARDS

- 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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