RENOVATIONS TO ROBERT E. LEE ELEMENTARY SCHOOL
ORLANDO, FL

SHEET METAL CONTRACTOR: MCDONALD AIR & SHEET METAL, INC., ORLANDO, FL
The scope of the project involved the renovation of existing structures and adding some new areas that tie to existing structures. The $600,000 sheet metal job required 60,000 lbs. of ductwork which included 3000 lbs. of spiral, 48,000 lbs. of rectangular duct, 5000 feet of snap lock pipe, and a stainless steel kitchen hood exhaust. In addition, two air conditioners at 150 tons each, 14 AHU’s, and 23 exhaust fans were provided.

Challenges to the project were the necessity to carry on work while school was in session. The coordination of the work during school hours, required safety and badging to become a top priority. There was very little parking and access to the facility so Clark Construction, the general contractor, coordinated all phases of the work as closely as possible. Due to space limitations, material was off loaded in the staging areas of the work.

The entire sheet metal project, originally planned for two years-August, 2007 to March, 2009, will be completed six months ahead of schedule. Building No.1, the final building, was started on November 8, 2008.

Jim Sheer, McDonald Air and Sheet Metal, Inc. Project Manager stated: “For a renovation project, the job was coordinated very well by all trades.”
The Miami Intermodal Center (MIC) Rental Car Facility will house all the surrounding rental car agencies and their vehicles in one building of over 4.3 million square feet. The project requires over 1.1 million pounds of sheet metal duct and 120 fans mostly to remove vehicle exhaust fumes from within 6 inches of the floor.

A unique aspect of the project is that many fuel dispensers are installed above grade level (this had never been done before). In order to draw off any fumes that may accumulate, there are 14 inch round spiral ducts installed on either side of the fuel dispensers to within 1 inch above the finished floor. The West end of the building on all three floors holds fuel dispensers and carwashes that wash a car in 25 seconds. The customer service area is on the fourth floor, so the arriving busses will bring customers up a long ramp to be dropped off on the roof.
One challenge to the coordination of the project was the fact that no floor, where cars are driven, is level. In most areas, the floor slopes 14 inches over 60 feet and the floor above does not always pitch in the same direction. This made coordinating the ductwork to fit inside the allotted space tedious, as there is a 10 foot above finish floor clearance requirement for emergency vehicles. Many of the beams were 5.5 feet deep, with most of the duct 80 x 36 inches.

Once completed the MIC will be joined by a Bridge to the TRI-RAIL station to the East and a people mover is proposed on the West side to connect to the Miami International Airport.

Lewis and Lambert have been in business over 35 years. The company has experience in HVAC component fabrication, HVAC contracting and HVAC design. It has three operating divisions, the Spiral duct division, the Industrial division and an HVAC/sheet metal contracting division in Fort Worth, Texas. MFH of North Miami assisted in the fabrication of the rectangular duct in order to defray shipping expenses.
The scope of the project called for Vickers Metal Works, Inc. to fabricate and install decorative wall cladding of .040 and .050 clear anodized aluminum inside the main lobby of the Raytheon Building in Orlando, Florida.

Custom panels were roll formed as required to fit the 17'-0" radius wall on each side of the existing water feature. Each panel was formed with 1/2" 90 degree returns on all edges. Reveals were 1/2" deep x 1 1/2" wide. Panels were adhered directly to plywood substrate using adhesive as required. Dimensions for each side were approximately 4' wide by 12' tall.

Custom panels were also formed to fit three sides and the base of two planters. Each planter was approximately 2' tall x 20' overall length.

The logo was fabricated using 1/2" PVC with brushed aluminum laminate installed by Vickers Metal Works, Inc.

The project required 80 hours for fabrication with field installation taking 130 hours.
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

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System Tech Services
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skarr@flsmacna.org
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skarr@flsmacna.org
Susan E. Karr, CAE
Executive Vice President
http://www.flsmacna.org