



DISCOVERY PARK OF AMERICA

Petersen metal roof panels highlight centerpiece structure of ambitious new education center and tourist attraction

The recently opened Discovery Park of America is a striking new multi-million dollar education center and tourist attraction in Union City, TN, a small town of approximately 11,000 people located in the rural, western area of the state. The ambitious \$100 million dollar project was primarily financed by the Robert E. and Jenny D. Kirkland Foundation and fulfills a personal vision of Robert Kirkland. Kirkland, a retired businessman and investor, is a native son of Union City. "This area was a wonderful place to grow up," Kirkland said. "My family's focus on education and hard work provided the foundation for my success. It was my goal to build a permanent venue to enhance education for children as well as adults and to do it in an entertaining way for all ages."

The centerpiece of the 50 acre park is the 100,000 sq. ft. Discovery Center. The Center, which has been described as "mini-Smithsonian", houses nine exhibit areas: Energy, Children's Exploration, Enlightenment, Military, Native Americans, Natural History, Regional History, Science/Space/Technology and Transportation plus a 10th area for traveling exhibits. Signature exhibits include an earthquake simulator, an interactive starship and a giant climb-through human body.

The Discovery Center is comprised of two main areas, the Grand Hall and South Hall, and includes 60,000 sq. ft. of exhibit space. The roofs of both halls feature a dramatically-curved design and are clad with approximately 33,000 sq. ft. of PAC-CLAD .032 Silver Metallic Tite-Loc and Snap-On Standing Seam Panels. In addition, 11,000 sq. ft. of PAC-CLAD Flat Stock in Silver Metallic and Bone White was used for soffits, flashings and detailing.

Installation of the Petersen material was done by Ralph Jones Sheet Metal, Inc., Arlington, TN. All of the

panels were curved on-site. The panels on the Grand Hall were tapered as well as curved. “This was one of the more complex jobs we’ve done in our 35 year history,” according to Gordon Jones, president and project manager. “On the Grand Hall, the deck slopes in three different directions—almost like a football shape. There are about 400 panels on the roof and no two are exactly alike. Every one of them is custom.”

According to Petersen sales rep Clay Snyder at the Tyler, TX plant, “This is a flagship job for Ralph Jones. The Grand Hall ‘football roof’ required exceptional craftsmanship.”

Ralph Jones Sheet Metal is a long-time customer and partner with Petersen Aluminum. “I wouldn’t have tackled a job like this without Petersen,” Jones said. “We knew we could count on them to get the job done and get it done right.”

Architectural design for the Discovery Center was provided by Verner Johnson, Inc. The Boston firm specializes in planning and designing museums and science centers and has completed more than 200 projects throughout the world. According to Verner Johnson principal Louis Sirianni, “Mr. Kirkland wanted the building to look like something no one in that region had seen before. He wanted the design and the exhibits to educate and elevate the aspirations of young people and the community.”

Budget was definitely an issue for such a challenging assignment. “We created a pretty good looking building with some pretty exciting spaces for \$300 per square foot,” Sirianni proudly said. “I had to pull out all of the stops on every trick I knew.”

“The design concept started with the idea of expressive, curving roof forms,” according to Sirianni. “We wanted the building to be futuristic and uplifting and exuberant—that was a big part of the way the building was to be expressed. From the very beginning, the owner liked the idea of the curving forms. So once that was resolved, the metal standing seam roof was an obvious choice. I’ve used a similar concept on other museum projects. It’s economical, which was a factor given the tight budget we had on this job.”

“Once the design forms were set, the choice of the material and the way it was applied was pretty standard. I’ve always liked that look,” Sirianni said. “I like the texture and the rhythm and the shiny, metallic appearance. So whenever I get a chance to use it, I do. The forms on this project were not standard but the material and the application was pretty straight-forward.”

Sirianni also commented on the skill of Ralph Jones Sheet Metal. “We had a good installer—they were terrific. We had a lot of conversation about the installation of the panels on the Grand Hall in particular.

They had to be very thoughtful about it," according to Sirianni.

In addition to Discovery Center, the 50 acre site includes an amphitheater, train depot with fully operating steam engines, log cabins, one-room schoolhouse, 1800's church, three different gardens plus walkways through beautiful settings complete with water features.

Discovery Park anticipates 150,000 visitors per year.

The general contractor on the project was Allen Searcy Builder-Contractor, Inc., Union City, TN.

Petersen, a Carlisle company, manufactures PAC-CLAD architectural metal cladding systems in multiple gauges of steel and aluminum. PAC-CLAD products include hidden- and exposed-fastener wall panels, standing seam roof panels, flush- and reveal-joint wall panels, vented or solid soffit panels, perforated metal, coil and flat sheet, composite panels, column covers, plus fascia and coping. All are available in a Kynar-based 70% PVDF Fluoropon coating in 46 standard colors and 16 wood grain finishes that include a 30-year finish warranty. Most colors meet LEED requirements and are rated by the Cool Roof Rating Council. Custom colors and weathertightness warranties are offered. BIM and CAD documents are available for most products. Founded in 1965, Petersen's facilities are located in Illinois, Georgia, Texas, Maryland, Arizona and Washington. For information on the complete line of Petersen's PAC-CLAD metal products call 800-PAC-CLAD, visit pac-clad.com or write to info@pac-clad.com.

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