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## **2015 ACE Awards**

**Category: Meeting the Challenge of a Difficult Job (Subcontractor)**

**Project: DIA South Terminal Redevelopment Program**

When simply asked to draw a building or a structure, one's first instincts will often be to trace straight lines that meet at exact, ninety-degree-angled corners to form a perfectly structured box. If challenged to produce something more unique or creative, the straight-edged roof may angle upward or downward, maybe even both, creating a somewhat new form. Every once in a while, however, someone produces a new, visionary, out-of-the-box concept. "What if," they might say, "we add a steep sloping curve at the center of the roof?"

These are the projects that call for a company to step up and be gigantic in terms of its aspirations; to see the big vision and be willing to take small steps to achieve it; to not only rely on breakthrough innovation but also on flawless execution, refusing to reject its traditional, foolproof methods yet still willing to adapt to the challenging circumstances. Douglass Colony Group proved to be prepared, willing, and qualified to do so.

When initial plans for the Westin hotel at Denver International Airport began, few things were for certain. The airport needed at least 500 rooms for the hotel to be financially viable. However, due to FAA regulations, it could only reach so high, hence, the unique shape intended to mimic a pair of wings.

With a building concept so far out of the box, Douglass Colony needed to match such grand innovation as it took on the challenge of roofing the bizarre structure, and that is exactly what they did.

### **Inventing a Way Out of the Box**

Roofing a 40,000 square foot 15-story building with a nearly vertical slope in some locations would present a major challenge to contractors in any environment. Now, place this building on

the grounds of a working international airport with no material lay-down area and strict security demands requiring that all employees go through intense background checks and security clearance before even being allowed on the jobsite. If that doesn't sound formidable enough, throw in the harsh conditions of winter, fighting snow and daily wind gusts of up to 30 miles per hour, or consider even more the challenges presented by the airport: airplanes operating close by making it imperative that the roof be resistant to jet fuel from the planes and the creating the necessity to secure all products and equipment each day to keep airways and landing strips free from flying debris. These are only a few of the challenges Douglass Colony Group encountered while roofing the new DIA Westin Hotel.

With all of these exacting environmental complications along with the building's saddle-like geometry and architecture, Douglass Colony needed to rise to the challenge and take herculean care in order to assure the highest levels of safety, quality, and job execution.

### **Excellence in Project execution & Management**

Due to the constraints of the site, coordination with the project's general contractor, Mortenson Hunt Saunders, and other subcontractors was a daily task. Special considerations needed to be taken when shipping the materials to the site, as all material needed to be stocked to the roof area before the tower crane could be removed and well before the roofing work could begin. Also, due to the risk of debris cluttering the airways and landing strips, materials either needed to be hauled on and off of the roof each day, or special attention needed to be given to its securement, creating a major daily task. This all goes without mentioning the arduous task of keeping eight semi-trucks of insulation and membrane accessories completely secured for months.

The management of all of these tasks and challenges required an exceptional level of coordination, communication, and team organization. Again, Douglass Colony Group rose to the challenge and, through its attention and excellent efforts, experienced great success in its execution and management of this project.

### **Rising to the Challenge**

To accommodate the building dry-in a recommended torch-applied vapor/weather barrier was selected for installation to the concrete deck well ahead of the finished roof system. Through this innovative collaboration and use of products, Douglass Colony Group was able to accelerate the schedule of multiple aspects of the project, allowing interior work to proceed sooner than was originally anticipated.

The slope of this roof deck made it physically impossible to stand or walk on the slope safely, especially with the strong wind gusts and icy winter conditions. This, of course, called for an innovative safety solution. A safety system of ropes and tie off points was incorporated into the project for all staff to use while working on the roof. This safety rope system was inspired by systems similar to those that might be used by a rock climber. It allowed for staff to hold work in place and perform the tasks of installing the roof without falling or sliding down the incredibly steep roof.

Safety is always the top priority for Douglass Colony Group, no matter what project they are working on. This project, as mentioned above, presented such a challenge that it required an enhanced focus. Due to the fact that the work was taking place in the winter, crews faced extremely slick surfaces. Add this to the hazardous extreme of the slope, high winds, building height, and the required caution to ensure that no piece of material could blow off the 15-story building with trades, glass, and the possibility of planes below. Douglass Colony faced quite the task when dealing with safety and making it the priority number one. Nobody was allowed on the roof without first completing project-specific safety training in using the rope and tie-off system that was incorporated into every square foot of the roof as well as training on other site-specific safety issues, and Douglass Colony had a full-time, non-working foreman whose sole task was safety. All of this special safety attention was given and the project was completed without a single hour of lost time.

### **A Project to Remember**

Douglass Colony Group has been fortunate enough to have earned the majority of roofing projects at DIA, an international architectural icon. The new Westin Hotel is no different in its global prominence, and its sleek modern design built upon the inspiration of flight and aviation is

sure to be a focal point of the airport, proven by the fact that the project has already been recognized in numerous articles and publications. Undoubtedly, this project ranks in the top five of the most unique and gratifying projects that Douglass Colony Group has been involved with in the past 68 years. Travelers cannot arrive at or depart from DIA without noticing the new Westin Hotel, and Douglass Colony Group was honored to have been selected to help make this Denver landmark a success.









