



# DIA Parking Garage Stairs

Denver, CO



Denver International Airport (DIA) found out the hard way painted stairs on the parking garage only last 15 years. After learning this lesson, the stair towers were hot-dip galvanized (HDG) to provide durability, and realize sustainable, cost effectiveness on that portion of the \$7.5 million renovation for worn out components.

Safety has always been a major concern, and HDG's projected life of 50 years or more lessened the concern. The HDG coating is harder than the steel itself, making it perfect for the abrasive wear and tear of the 600 million passengers passing through the airport. The airport environment is very corrosive due to engine exhaust and extreme temperatures of hot and cold weather. Painted stairs in the airport environment have a proven track record of premature failure, and other forms of corrosion protection such as weathering steel would have required tremendous design modifications. Hot-dip galvanizing with it's metallurgical bond, was the wise choice.

The garage stairs are on opposite ends of the airport terminal. The east garage includes 6,300 spaces while the larger west garage has 7,000 parking spots. The stairs are viewed by every passenger arriving or departing the airport on passenger cars or rental car buses. The airport was originally designed as a green facility that reflected the mountain peak look. By learning from earlier mistakes, DIA is a leader in the industry for sustainable airports by using HDG at every opportunity which has become the first choice for corrosion protection in the airport environment.

Over the last 15 years, wear and tear has taken its toll on the airport and its buildings. The owners were proud the stairs had lasted 15 years, but they were even more impressed the new hot-dip galvanized stairs would last more than 50 years and remove all concerns of safety. The combination of the duplex coating and exposed hot-dip galvanizing was ideal to continue the mountain peak architecture of the original design and provide sustainable, cost-effective corrosion protection that will help keep the facility green for decades. 🌱

**Galvanizer**

AZZ Galvanizing Services - Denver

**Owner**

Denver International Airport

**Owner**

Jacobs

**Engineer**

MNA, Inc.

**Fabricator**

Steel Star

**Other**

Hensel Phelps

transportation

