



## Case Study Spring Volunteer Fire Station No. 78

### PROJECT SPECS

**MBCI Products:** SuperLok<sup>®</sup> and Artisan<sup>®</sup> Series

**Location:** Spring, Texas

**Color:** Medium Bronze

**Coverage:** 9,000 sq. ft.

**Architect:** Joiner Architects

**General Contractor:** Brookstone General Contractors

### WHY MBCI?

MBCI provides customers quality metal products, superior service and competitive pricing. From a single manufacturing facility in 1976 to now the largest metal roof and wall panels' supplier in the nation, MBCI has grown tremendously with its customers' needs in mind. MBCI manufactures more than 90 different metal panel profiles, as well as performs meticulous testing and offers complete engineering and design capabilities, allowing MBCI to be capable and committed to supporting both the design and contractor communities from project conception through project completion.

The Spring Volunteer Fire Department No. 78 was originally built in 1971. As part of one of the fastest growing metropolises in the United States, the Spring area grew tremendously over the past 44 years. As the third largest combined fire department in the state, the Spring Volunteer Fire Department No. 78 provides emergency services to a population of approximately 125,000 people across 110 square miles.

### PROBLEM

With the growing community's needs and size of the equipment needed to support the increased demand, a new facility was necessary and construction commenced. One of the challenges was increasing the size of the facility to house the additional equipment needed while being restricted to the size of its existing lot. With a long service life in mind to serve the community for years to come, a metal standing seam roof was selected for the project.

### SOLUTION

Metal was chosen for this project for its aesthetic, energy-efficiency and longevity. Architect and Vice President of Joiner Partnership, Inc., Ricardo Martinez said, "The aesthetic appearance of the pitched metal roof panels and soffit panel profiles were large determining factors. We also were concerned with solar reflectivity and maintaining the energy performance of the building envelope."

Designed to withstand the most rigorous weather conditions and engineered to last for years, approximately 7,000 square feet of MBCI's standing seam metal roof panels, SuperLok<sup>®</sup>, were used on the structure.

In addition to the standing seam metal roof, approximately 2,000 square feet of Artisan<sup>®</sup> Series panels were used as soffits on the fire station. The Artisan<sup>®</sup> Series panels simplify the design process with its uniform dimensions and flush face.

All metal panels were coated with MBCI's Signature<sup>®</sup> 300 medium bronze, which is a cool roof coating with a 0.25 solar reflectance, a 0.83 thermal emittance and a Solar Reflectivity Index (SRI) rating of 22. Although not the highest of ratings, medium bronze does provide properties to reflect and emit the sun's heat instead of absorbing and conducting it to the building, decreasing the fire station's energy costs.

The facility's design was so well-received that it was replicated three times. Martinez said, "Although the facility maintained the same floor plan the owners wanted to accent the exterior aesthetics of the facility. The roof played an integral part of this accomplishment."

The roofing contractor was Cotton Roofing and the general contractor was Brookstone Construction, both of Houston, Texas.