



Houston Airport System

A Texas-Sized Impression with Custom Airport Signage

The public Houston Airport System (HAS) represents one of North America's largest, including George Bush International Airport, William P. Hobby Airport, and Ellington Airport / Houston Spaceport. The city of Houston, in particular, is positioned as the international passenger and cargo gateway to the south central United States and a primary gateway to Latin America.

Federal Heath produced memorable signage to mark entry and exit points for the HAS airports.

- » Sculptural signage to reflect the HAS logo
- » Complex engineering to meet unique design specifications
- » Exacting requirements for custom production
- » Precise planning and execution for installation



A Big Task for a Big Customer

Mica Corporation is the leading provider of signage and illumination for Texas roadway and bridge projects. Working with a specialized architect, Mica required services to produce a challenging, large-scale design for one of North America's largest public airport systems. Federal Heath satisfied all their requirements with a track record of solutions-oriented thinking and experience.

Challenges in Search of Solutions

As we learned more about the design, we considered both the details and big picture involved with turning the concept into a final installation. Signs included sweeping structural elements to echo the HAS logo as well as channel letters, a base panel, and accommodation for digital components. Numerous meetings among the internal and external stakeholders helped break down the complexities of detailing, engineering, estimating, manufacturing, transporting, and installing our part of such a significant project. As a result, we presented a workable solution.

Nothing was simple about this project, beginning with the compound radius on two intersecting arches. Each arch was larger on one end than the other, affecting both the internal structure and external surfaces. One arch reached ground to ground. The other pointed skyward with a solid aluminum airplane at its tip.



Internal Strength to Fit the Form

A series of steel pipes provided structure for the arches. Different diameter pipes were connected to accommodate the reduction in arch size from one end to the other. One 47-foot arch required four pipes that stepped down from 12³/₄" to 6¹/₄" in diameter. Of course, the pipes had to be bent to define the arch's exact radius. After a national search, Federal Heath located a supplier whose equipment could handle those huge pipes using a special cold press process that would not compromise the integrity of the steel.

External Surfaces to Please the Eye

The soaring arches were surfaced with three sides of aluminum. Each panel section was carefully patterned to be cut out of flat materials and fit together in a seamless way. All surfaces were primed and painted before installation.

"Federal Heath joined our team for our Houston Airports project. They provided a great depth of specialty signing knowledge. The skill and workmanship they possessed allowed us to provide the City of Houston a very unique and beautiful sculpture to the entryways of their airports."

- L C Tubb, *CEO*,
Mica Corporation

An Intersection to Bring It All Together

Each sign consisted of two radiuses, one of which passes through the other. The details involved in both the structural and surface aspects of the attachment were substantial. Thanks to Federal Heath's attention to engineering and craftsmanship, the intersection looks effortless on the final product.

Tailor Made for a Precise Installation

Perfect alignment was critical for mounting the arches to the ground at the airports. We created and tested the signs on anchor bolts installed on our shop floor, then set up the final product outside for customer approval. Based on the steel template we created, a contractor in Houston positioned bolts in the concrete base they poured to facilitate a successful installation. Arches were split into sections for delivery and set in place for final assembly with cranes.

From One Airport to All

Following installation of the first sign at George Bush International Airport, Mica called on Federal Heath to develop additional entryway and exit signs for the other HAS properties, totaling seven signs in all.