



CASE STUDY: Ingleside Independent School District (ISD)



PROJECT SPECS

Ceco Products:

Double-Lok®, PBR Wall Panel

Location:

Ingleside, T.X.

Color:

Galvalume and Signature® 300
Almond

Square Footage:

75,000 sq. ft.

Architect:

LWA Architects,
Corpus Christi, T.X.

General Contractor

Weavers & Jacobs Constructors,
Cuero, T.X.

Steel Erector and Roofing

Contractor:

Big Johnson, Fort Morgan, C.O.

Manufacturer:

Ceco Building Systems,
Rocky Mount, N.C.

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Ingleside Independent School District (ISD) is on the northern side of Corpus Christi Bay in southeast Texas along the Gulf of Mexico. The school district contracted with Ceco Builder Weaver & Jacobs Constructors, Inc. of Cuero, Texas, Roofing Contractor and Steel Erector Big Johnson, also a Ceco Builder, of Fort Morgan, Colo., and LWA Architects of Corpus Christi to provide new facilities for their high school campus.

PROBLEM

Ingleside ISD needed new maintenance and transportation buildings as their current ones were old and understandably dilapidated. The school also wanted to provide an indoor practice facility for its athletes to use during inclement weather conditions. Building from the ground up would allow for an upgrade to the coaches' offices and athletes' locker rooms, ultimately providing them much more needed space. The main ask from the school was that the new indoor practice facility would have to have a wide open, uninterrupted space for future practices.

SOLUTION

The project included three new buildings for Ingleside ISD – an indoor football practice facility, a maintenance facility and a bus barn. A rigid clear span frame was used on the indoor football facility which allowed for the open space needed for football practices and workouts. A custom metal building was also cost efficient relative to the size and height requirements of the project. The 40,000 sq. ft. indoor football practice facility is a combination of wall panels and masonry with 175 ft. clear span, 26 ft. eave height and 3:12 roof slope. The maintenance facility is 12,000 sq. ft. of a standing seam roof system and wall panels. Lastly, the 20,000 sq. ft. bus barn is made up of PBR on the roof and wall.

Weaver & Jacobs Constructors utilized a total of 45,000 sq. ft. of Ceco's Double-Lok® standing seam metal roof system in Galvalume. The Double-Lok® system creates a durable weathertight building envelope, which is important in a community like Ingleside that sees high winds from storms during hurricane season. For the buildings' walls, 30,000 sq. ft. of Ceco's PBR panel in Signature® Almond was utilized. To make the project more energy efficient, a super saver insulation was used on the roof and a single layer of R-19 was used on the walls. The project was completed on August 14, 2017.

On August 25, 2017, twelve days after the project was completed, Hurricane Harvey, a Category 4 hurricane, hit the coast of Texas near Corpus Christi with 130 mph winds and left 250,000 people without power. According to the National Hurricane Center, it ultimately caused \$125 billion in damage – more than any other natural disaster in U.S. history except Hurricane Katrina in 2005. Hurricane Harvey affected 13 million people from Texas through Louisiana, Mississippi, Tennessee and Kentucky. The new Ingleside ISD facilities were unknowingly in the direct path where the hurricane came ashore.

Luckily, with most Texas building owners on the Gulf Coast, the Texas Department of Insurance has some appropriate requirements for wind resistance in buildings in order to be eligible for property insurance at favorable rates. In the case of the Ingleside ISD, the design criteria was for a T-1 designation able to withstand 140 mile per hour winds. When Hurricane Harvey tore through the area, the engineering, design, fabrication and construction were all put to the ultimate test with sustained winds approaching that design limit.

After the storm, the property was assessed and, to the contractor and school's relief, all of the buildings were fully intact. No fasteners came out, no roof or siding panels were damaged and no breaches to the building enclosure were found. The only damage was to a single downspout on one of the buildings which was easily repairable. Ultimately, the outcome of the Ingleside ISD project is a testament to the truly durable nature of metal buildings.