

Chester County Disaster Research Lab To Open In July

The Institute for Business & Home Safety (IBHS), an insurance industry group, will open its state-of-the-art building and structure testing laboratory, The Insurance Center for Building Safety Research (ICBSR), in Chester County in July.

The ICBSR will conduct groundbreaking safety research on the effect of weather and natural disasters on homes and office buildings. Inside the \$40 million, insurance-industry funded facility are enormous fans, rain-, hail- and fire-making devices, and other elements that, collectively, simulate the power, devastation and experience of being in a hurricane.

The main laboratory building is a 42,000 square foot concrete square, nearly 50 yards wide and six stories tall. The 105 electric fans, each 5 ft. 6 in. in diameter, collectively produce a 140-mph wall of wind, equivalent to a powerful Category 3 hurricane.

A 55-foot diameter turntable will bolt down the houses and structures that are being tested; the turntable will allow researchers to shift buildings to simulate different forces of wind, rain, hail and fire on different parts of the structure. The rain-making system holds 750,000 gallons of water and produces up to 8 inches of rain per hour. The ability to make realistic hail is a significant improvement over the current hail-testing process, which uses steel balls shot out of guns. The fire-making system is designed to test not only the effect of flying embers during hurricanes, but also the impact of wildfires on buildings.

The purpose of the ICBSR is to provide data to make buildings safer and stronger, and thereby reduce costs to insurers for repairing and replacing weather-damaged structures. The IBHS says insurance companies are the nation's main purchasers of roofing materials, and reducing payments for re-roofing storm-damaged homes alone is expected to cover the cost of building and operating the lab.

The ICBSR is modeled after how the Insurance Institute on Highway Safety conducts crash tests on cars and trucks in an effort to make vehicles safer. Julie Rochman, president of the IBHS, was employed by the Insurance Institute on Highway Safety before joining IBHS in 2007, and was a powerful advocate for building a similar facility for testing construction materials and building techniques. Rochman said, "There is no doubt that millions of people will benefit from what we are doing."

The facility is located at the Chester County-owned Chester Research and Development Park formerly known as the SC Hwy 99 Industrial Park. The project was first announced in October 2008, and groundbreaking was held in September 2009. Chester County's economic development arm, worked extensively with IBHS to identify the ideal site for the facility, based on its proximity to Duke Energy's nuclear power plant and the Charlotte airport, as well as its distance from the coast to protect it from actual hurricanes.

It will employ approximately 20 people, and also use local labor to construct the homes and small buildings that will be tested. It also opens up Chester County to the research industry, which is relatively new to the region. The facility is expected to open the week of July 4, and to begin full-scale testing in the fall.

More information about the ICBSR is available on the IBHS website, DisasterSafety.org.