



Shenendehowa High School Promotes Mitigation Techniques in Home Construction – Saratoga County, NY

Clifton Park, NY – The Federal Emergency Management Agency’s (FEMA’s) Hazard Mitigation (HM) staff recently reached out to students, teachers, and the administrator of Shenendehowa High School's Construction Systems Technology Program to introduce practices for building safer and stronger.

For the past 20 years, the Construction Systems Technology Program has been teaching students building techniques for strong construction. A house being built this year will be retrofitted using FEMA's best practices mitigation building techniques. Among these practices are strengthening framing connections and upgrading roofing materials. Shenendehowa High School also applied for a State Farm grant to improve the design and make it stronger and safer for homeowners.

The students are also incorporating features to strengthen the house's doors and windows to make the building structure more resistant to wind and water damage. Each year students build an entire house from the ground up. They prepare the site, create the foundation, frame the house, put up sheetrock, install most of the wiring, and initiate plumbing work. The house is built in two sections so it can be moved to the home buyer's site.

Each completed modular home is approximately 1,200 square feet, 44 feet long, and 28 feet wide, and undergoes an inspection process. The cost of each three-bedroom, two-bath home is approximately \$27,000. There are no cabinets or sinks, the wiring has to be attached, and the plumbing has to be connected to a water supply.

A bidding process is conducted annually for the completed home and the highest bidder wins. The homes are sold to offset the cost of materials, which are initially covered by the school's Technology Club. The school district pays the salaries of the teachers and provides tools and equipment. The homes are usually sold before they are completed and the potential homeowner sometimes makes minor adjustments, without affecting the design and construction integrity.

The students gain hands-on home construction experience when they learn how to build strong homes using mitigation techniques with roofing, electrical, plumbing, and carpentry methods that meet Uniform Building Code requirements.

Ken McDermith, Shenendehowa's Academic Administrator for Construction Systems Technology said "We are delighted that FEMA techniques will enhance our students' experience of learning to build safer and stronger." Joe De Rubertis, a Construction Systems Technology teacher, agrees.

The Construction Systems Technology Program is one of three technological programs found only in Project Lead the Way accredited schools. Started in Clifton Park, Project Lead the Way is a non-profit organization, established in 1997 to address the shortage of domestic engineers. It has evolved into a network of schools with more than 4,500 programs in all 50 states, the District of Columbia, and 4 countries.