## **ENERGY STAR Building Design Profile**

Mooresville High School 550 North Indiana Street Mooresville, Indiana 46158



Mooresville High School is a 256,000 SF complex serving 1,400 students, constructed in multiple phases between 1958 and 2000. It has achieved Designed to Earn the ENERGY STAR with a rating of 82 out of 100 in EPA's Target Finder tool. The building is a result of Mooresville Consolidated School Corporation's mandate that their school renovation projects be designed to achieve a healthy learning environment, superior energy performance and overall sustainability goals. Using a design/build process, Mooresville worked with KrM Architecture+ as the firm shares the goal of integrating energy efficiency and sustainability into building design.

The architect and the owner believe that third-party verification plays an important role in environmentally responsible design. To this end, EPA's Target Finder was chosen to assess energy performance goals, and document the expected energy use and environmental footprint of the project. Mooresville High School is expected to use 29.1% less energy than an average high school building. ENERGY STAR buildings have a proven track record and yield average annual energy savings of 30 percent.

Features which make the Mooresville High School renovation highly energy efficient include a chilled water/hot water heating, ventilating and air conditioning (HVAC) system with high efficiency chillers and condensing boilers replacing obsolete standard efficiency units, variable speed drives on all air handler fans, new high efficiency lighting throughout the complex, natural lighting with operable blinds in classrooms, exterior wall and roof insulation enhancements to R-19 and R-25.6 respectively, new exterior glazing and doors and occupancy sensors in all classrooms so lighting and HVAC systems may be automatically turned off when spaces are vacant. The replacement of plumbing fixtures with water conserving models throughout the building is expected to reduce current water usage by 30%.



#### **Architect of Record:**

KRM ARCHITECTURE 1020 Jackson Street Anderson, IN 46016 765/649-8477

### Design/Build Mechanical:

Jarrell Contracting 4208 Rider Trail North Earth City, MO 63045 314/291-0100

**Building Owner:** Mooresville Consolidated School Corporation

**Design Energy Rating: 82** 

Percent Energy and CO<sub>2</sub>
Reduction\*: 29.1%

# Design Year / Estimated Completion Date:

July 2013 / August 2014 **Space Type:** K-12 School

**Floor Space: 256,000** 

# **Estimated Energy Use Intensity:**

44 kBTU/sf/yr

**Estimated Total Annual Energy Use:** 26,703,687 kBtu/yr

**Estimated Annual Energy Cost:** 

\$229,977

### For More Information:

Stuart Godfrey

\*Percent Energy and CO<sub>2</sub> Reductions are based on comparison to a median building of similar type. [If the project's energy saving is 60% or greater it is also designed to meet the 2030 Challenge.]