

# LEED Profile

## Lewis Elementary School

### Achievements

- 15%** reduction in energy consumption
- 36%** reduction in water use
- 22%** recycled content of materials
- 23%** use of local/regional materials
- 98%** construction waste diverted from landfill



### Project Description

Lewis Elementary is a new two-story school located on a 7.5-acre site, replacing the existing school built in the 1950s. The 105,595-square-foot facility is designed for 1,016 students in grades 1 through 5. The school features art and music classrooms, two science classrooms, two computer classrooms and a special populations suite. An operable wall between the dining and the multi-purpose/PE room permits the multi-purpose room to be enlarged for functions involving the stage. The main entry vestibule to the school features a tile mosaic mural of a lion, the mascot of the school. The school opened to students in October 2011.



#### Sustainable Overview

- Energy and water savings over the years will reduce costs
- Improved school environment greatly enhances learning environment through efficient lighting, noise control and air quality



#### Water Efficiency

- 30% water savings through low-flow plumbing fixtures used in all the restrooms



#### Energy & Atmosphere

- Exterior windows are insulated, and configured in wings, providing natural daylight and exterior views
- Energy efficient mechanical equipment includes, air-cooled screw chillers, variable-frequency drives on building pumps, efficient low-nox boilers
- Interior lighting uses high-efficiency long-life T-8 lighting
- Occupancy sensors turn off lights off when no occupants are in the room
- Dual-level switching in the classrooms for reduced light fixture use when not needed



#### Materials & Resources

- Landscaping features native plants, requiring less irrigation, maintenance, pesticides, and fertilizers
- 98% of the demolition materials and construction waste was diverted from landfill by recycling
- 23% of the materials were extracted or manufactured within 500 miles of the site
- More than 20% of the building products, excluding mechanical, electrical, and plumbing systems, are made with recycled materials
- Roofing materials, as well as parking lot materials, reduce heat absorption on the site, minimizing impact
- 95% of wood is Forest Stewardship Council (FSC) certified, supporting responsible forest management
- Noise in the classrooms is reduced by designing high STC rated wall partitions and ceilings



#### Indoor Environmental Quality

- Air-quality strategies: keeping the ductwork clean and covered, testing at the completion of construction
- Building is designed for proper ventilation to keep the air clean and fresh
- CO<sub>2</sub> monitors are provided, and copy machines and chemical rooms have exhaust fans
- Roll up mats at every entry scheduled for weekly cleaning
- All adhesives, sealants, paints, coatings, flooring systems and composite wood products meet the requirements for low VOC (Volatile Organic Contaminants)



#### Innovation and Design

- More than 80% of the students live within three-fourth of a mile from the school and are encouraged to walk and ride bicycles, with the provision of ample bike racks and dedicated walking and bike paths
- Preferred parking is provided for low-emitting and fuel-efficient vehicles to encourage use of environmentally friendly vehicles
- Recycling is encouraged with the incorporation of a centrally located recycling station

### LEED® Facts

LEED for Schools (v2007)

**Silver 40\***

|                              |    |
|------------------------------|----|
| Sustainable Sites            | 8  |
| Water Efficiency             | 3  |
| Energy & Atmosphere          | 5  |
| Materials & Resources        | 7  |
| Indoor Environmental Quality | 13 |
| Innovation & Design          | 4  |

\* Out of a possible 78 points

### Project Information

**Owner:** Houston Independent School District (HISD)

**Address:** 7649 Rockhill, Houston, TX 77061

**Architect:** Molina Walker Architects, Inc.

**Civil Engineer:** Stanley Spurling Hamilton, Inc.

**MEP Engineer:** Hirsch Engineering Inc.

**Structural Engineer:** Matrix Structural Engineers

**LEED Commissioning Agent:** Wylie Commissioning

**Contractor:** Drymalla Construction

**Project Size:** 105,595 SF

**Project Budget:** \$22,816,408

**Opened:** October 2011

### About LEED

The LEED Green Building Rating System is the national benchmark for the design, construction, and operations of high-performance green buildings. Visit the U.S. Green Building Council's Web site at [www.usgbc.org](http://www.usgbc.org) to learn more about how you can make LEED work for you.