



Pickett, Kelm & Associates, Inc.
Consulting Structural Engineers

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PROJECT LOCATION:

AUSTIN, TEXAS

PROJECT OWNER:

MANOR ISD

ARCHITECT:

FIELDS & ASSOCIATES

GENERAL CONTRACTOR:

BAIRD WILLIAMS
CONSTRUCTION

COMPLETED: 2009

CONSTRUCTION COST:

\$13,896,000



Pioneer Crossing Elementary School

PROJECT DESCRIPTION:

Pickett, Kelm & Associates provided structural engineering services for this 87,000 square foot, two-story elementary school facility in northeast Austin, Texas. The classroom wings consists of two levels, with a central corridor at each level and classrooms to each side of the corridor. The roofs of the classroom wings are gabled, while the roof at the administrative area, cafeteria and multi-purpose room is monosloped. The school is located in an area of highly expansive clay soils.

The project utilizes exterior and interior uninsulated load-bearing tilt-up concrete panels.

Roof framing consists of metal roof decking supported by open-web steel joists, beams and a combination of load-bearing tilt-up concrete wall panels and steel columns. Second floor framing consists of composite floor decks supported by composite steel beams, girders and a combination of exterior tilt-up wall panels and interior steel columns. Mechanical platforms consist of light gage steel joist and stud wall framing, which is supported by the second floor structure. Lateral loads are resisted by the concrete tilt-up wall panels acting as shear walls. The entry canopy consists of exposed galvanized steel tubular steel framing supported from the tilt up panels.



The first floor consists of a ground-supported concrete slab over 13 feet of compacted select structural fill. The depth of fill was necessary to mitigate the highly expansive soils at the site.

Foundations consist of deep drilled piers at the columns and grade beams supporting the tilt-up wall panels.

The exterior tilt-up panels are finished with a combination of textured paint and a masonry wainscoat.