



Pickett, Kelm & Associates, Inc.
Consulting Structural Engineers

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Leander Vandegrift High School

PROJECT LOCATION: AUSTIN, TX.

PROJECT OWNER: LEANDER ISD

ARCHITECT: FIELDS & ASSOCIATES

GENERAL CONTRACTOR:
AMERICAN CONSTRUCTORS LP

COMPLETED: 2010

CONSTRUCTION COST: \$90,195,000



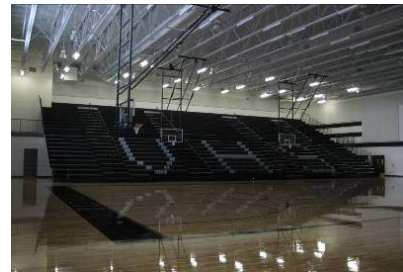
PROJECT DESCRIPTION:

Pickett, Kelm & Associates provided structural design services for this high school campus near RR2222 at RR620. The facility includes a 214,700 square foot classroom and administration building, housing classrooms, science labs, vocational arts classrooms and labs, restrooms and school administrative offices; a 169,000 square foot fine arts and athletics building, housing a band hall, practice rooms, choir room, drama, a stage, with gridiron, an auditorium, a kitchen and cafeteria, restrooms, a central corridor and gathering area, competition, practice and multi-purpose gymnasiums, wrestling room, weight rooms, fitness rooms, locker facilities and coaches' offices; and a stadium.



The two-story portion of the classroom and administrative building has sloped metal roofing over metal decking with hipped ends. The one-story portion of the building has low-sloping roofs, consisting of a membrane, polyisocyanurate insulation and metal decking. The second floor framing consists of composite concrete slabs supported by composite steel beams and girders and a combination of interior steel columns and exterior load-bearing insulated concrete tilt-up wall panels. Interior tilt-up wall panels were used as shear walls to provide lateral stability. The building also includes mechanical platforms above the second level.

The fine arts and athletics building is one-story, with roofs of varying heights. Roof decking at the gymnasiums and competition rooms consists of Tectum. The roof deck at the central corridor and gathering area consists of an acoustic architectural ceiling/deck. Roof decking at other areas consists of ribbed metal roof decking. Roofing consists of membranes over polyisocyanurate insulation. A second level mezzanine was provided at the auditorium. Mechanical equipment was primarily rooftop mounted, with some isolated mechanical platforms.



Roof decks are supported by open-web steel joists and a combination of insulated exterior load-bearing tilt-up wall panels and uninsulated interior tilt-up wall panels. Interior columns and beams were used where tilt-up panels were deemed inappropriate or uneconomical. Mezzanines and platforms consist of composite concrete decks supported by composite steel beams and girders and steel columns. Foundations consist of grade beams supported by drilled piers for support of the tilt-up wall panels. Interior columns are supported by drilled piers.



Other facilities include athletic fields, band practice field and track and field amenities; a tennis/baseball concessions building, storage building, maintenance and grounds buildings; baseball and softball fields, with angle frame bleachers, pressboxes and dugouts, consisting of tilt-up concrete walls with precast concrete roof slabs; and eight tennis courts, with concrete bleachers and retaining walls at changes in grade. The project was delivered on construction manager-at-risk basis.