



New Moon Area High School & District Administration Offices

Kristopher J. Brice | Construction Management

STRUCTURAL SYSTEMS

Foundation:

Grade beams and columns bear on (299) caissons ranging from 24"-54" in diameter, at depths of 13'-40'.

Superstructure:

The ground floor is supported by grade beams spanned by a 21" ribbed, structural slab-on-grade. Floors 1-2 rest on 3-1/2" light weight concrete on 3", 18 gauge metal decking. The buildings main support comes from a structural steel system made of varying W-shapes and the lateral loads are carried through masonry shear walls.

MEP SYSTEMS

HVAC:

Classroom climates are provided by (130) in-ceiling heat pumps, (11) 100% outside air units with heat recovery, (3) natural gas boilers, and (2) fluid cooling units. Other space heating and cooling is supplied by a combination of (12) variable and constant volume AHU's, and (15) cabinet heaters.

Electrical:

(2) 5000A, 480Y/277V 3Φ, 4-wire Service feeders are provided by Duquesne Light. The service is then dropped to 208Y/120 by (6) transformers within the building. Back-up power is supplied by a 17 minute UPS and a 250 kW diesel powered generator.

Fire Supression:

The building utilizes a combination of wet and preaction systems.

ARCHITECTURE

The New Moon Area High School will feature a tan brick exterior with stone and red brick accenting, along with the occasional use of a glass curtain wall system. The building is of a split-level design, only allowing for only two of the three stories to be seen from the road. The High School is designed for the community spaces to be most accessible from the main entrance, where the auditorium and gymnasium are on the first floor, and the bulk of the classrooms are on the second floor. The ground floor consists of the cafeteria, natatorium and district administration offices. Overall, the building will accommodate 1,260 students and 172 staff members.



Main Entrance

PROJECT TEAM

Owner:

Moon Area School District

Architect & MEP:

Eckles Architecture & Engineering, Inc.

Building Electrical Engineer:

Tower Engineering

Structural Engineer:

Barber & Hoffman, Inc.

Civil Engineer:

Michael Baker Jr., Inc.

General Contractor:

Nello Construction Company

CM Agent:

N. John Cunzolo Associates, Inc.

GENERAL BUILDING DATA

Size:

291,387 square feet

Occupancy Class:

Group E - Educational

Cost:

\$63,682,117

Dates of Construction:

January 2009 - November 2010

Delivery Method:

Design-Bid-Build w/CM Agent

