

The Performing Arts Center New Jersey, U.S.A.



Project Team

Owner | Withheld by request

General Contractor | Turner Construction Company Primary Architect | Steven Holl Architects Associate Architect | BNIM Architects Landscape Architect | Michael Van Valkenburgh Associates Civil Engineer | Vanesse Hangan Brustin, Inc. Structural Engineer | ARUP

MEP Engineer | ARUP

Architecture:

- Performance and teaching space with individual buildings for

 music department, theater, dance, creative and performing arts
- Vegetated roof assembly covers entire roof (except courtyard)
- Lecce limestone & curtain wall façade

Mechanical System:

- Geothermal heating and cooling wells.—Ground-coupled heat pump system consisting of heat pumps, circulating pumps and a ground coupled heat exchanger enables the closed loop system.
- Radiant heat in music offices, practice rooms
- VAV boxes for additional control beyond radiant floor heat

Structural System:

- Steel frame and cast in place concrete system
- Spread footing foundation system to support concrete bearing walls
- Post-tensioned beams and composite metal deck slabs
- 996 tons of steel including major box girders to support courtyard above forum

Electrical system:

- Power derived from campus 4.16 kV feeders into two service tap boxes
- 480 V, 3 phase delta primary dry type transformer ; 208/120 V, Wye 3 phase, 4W Secondary
- 88 panels throughout building

Building Information

Occupancy | Theatre, Performance Hall, Higher Education Construction Dates | February 2014 – May 2017 Projected Cost | \$140 Million Delivery Method | CM at Risk with GMP Size | 139,000 sq. ft. Stories | 7 stories above grade; 2 below grade

Acoustical Performance Design:

- Musician Practice Rooms—individually hanging studios with minimum STC 38 5/8" laminated glazing to provide sound isolation
- Black Box Theatre—unamplified performance and rehearsal space enabled by box-in-box construction with inner gypsum sound-isolating walls and ceiling
- Ceiling Isolation system 4" thick "floated" concrete slab supported on isolation mounts and .5" deflection steel springs



Dance building & main courtyard space as seen from campus Photo courtesy of Steven Holl Architects

Eric Luttmann | Construction Management | http://ewl5165.weebly.com