

University Medical Center at Princeton

Plainsboro, NJ

General Statistics

Location: Plainsboro, NJ
Owner: Princeton Health Care System
Size: 800,000 sq. ft.
Cost: \$250 million
Occupancy: Mixed use
Construction Manager: Turner Construction
Dates of Construction: Aug 2007-Sep 2010



Structural

Structural Engineer: O'Donnell & Naccarato
Civil Engineer: French & Parrello Associates

Composite floor system:

3 1/4" lightweight concrete over 3", 20 Ga.
composite metal deck

Structural steel framing system:

W-shape is typical shape for beams, columns

Lateral force resisting system:

Moment and braced frames handle lateral
loads. HSS shape used for diagonal bracing.

Foundation:

Loads are transferred from steel columns to
concrete piers and into concrete spread footings.
Large retaining walls exist along much of the
building perimeter.
Tension only mini piles support footings at
braced frame column locations.

Architectural

Architect: RMJM Hillier & HOK (Joint venture)

Scope:

6 story New Hospital
2 story Diagnostic and Treatment Facility
2 story Central Utility Plant

Layout:

Hospital is divided into eight different
"Centers of Care" which allows specialized
care while also providing comprehensive
services.

Facade:

An insulated glass facade rises 92' on the
southern face of the building providing
daylight into nearly all of the 269 patient
rooms. Other facade materials include:
brick veneer, translucent fiberglass,
metal panels, and aluminum window
mullions.

MEP

MEP Engineer: Syska & Hennessy

Mechanical:

Combined variable and constant air
control servicing a multitude of zones.
Fin tube radiation heating in main lobby.
Shell and Tube heat exchangers in
basement and rooftop penthouse.

Electrical:

Serviced from (2) 13.2 kV feeders.
3333 kVA Dry-Type transformer steps to
277/480V.
Diesel fuel generators provide emergency
power.

Lighting:

Most spaces utilize low voltage
fluorescent lamp fixtures.