

Houston Museum of American Art

new york, ny

Architecture

The Houston Museum of American Art's design takes a strong and strikingly asymmetrical form, which responds to the industrial character of the neighboring loft buildings and adjacent overhead railway. The upper stories of the building will stretch toward a nearby river on the west side and step back gracefully from the elevated railway on the east side.

Lighting/Electrical

Building system voltage: 208Y/120 volts, 3 phase
75 KVA UPS system
750 KW diesel generator
75 KW gas-fired reciprocating cogeneration unit
Digital network lighting control system
Dual-technology occupancy/vacancy sensors
Interior and exterior daylight sensors

Structural

Concrete slab on composite metal deck on steel framing
Caisson pile-supported foundation
Concrete secant wall around the perimeter of the site
Framing system of long span beams with deck framing
Special steel concentric braced lateral framing system with special steel seismic detailing
Cable supported lobby façade

Mechanical

(4) Air conditioning systems located on cellar & 9th floor
Lobby façade heated and cooled by fan coil units (4-pipe) located along the glass façade wall
All-air VAV system for gallery-type areas, auditorium
All-air constant volume system for lobby, restaurant
(3) Electrically driven centrifugal refrigeration machines 300 TR
(5) Cell roof-top cooling towers with 600 GPM/cell



Statistics

Size: 222,952 sf
Levels: 9 stories above grade
Cost: \$266 million
Construction Dates: Aug 14, 2012 - Nov 28, 2014
Project Delivery: Design-Bid-Build

Project Team

Design Architect: Renzo Piano Building Workshop
Executive Architect: Cooper, Robertson & Partners
MEP Engineer: Jaros, Baum & Bolles
Lighting Engineer: Ove Arup & Partners
Construction Manager: Turner Construction, LLC

Chang Liu

Lighting + Electrical

<http://www.engr.psu.edu/ae/thesis/portfolios/2013/cwl5153/index.html>

