BAM Fisher

321 Ashland Pl, Brooklyn NY

Building Statistics

Building Name	BAM Fisher
Location and Site	321 Ashland Place, Brooklyn NY
Building Occupant	Brooklyn Academy of Music
Occupancy	Theater (A-1), Offices (B), Classroom (B), Dance Studio (A-1)
Size	40,000SF
Number of Stories	1 below ground, 7 above ground
Construction Dates	10/1/2010-5/1/2012
Overall Cost	$52 million
Project Delivery Method	Design Build with CM at Risk with a GMP

Project Team

Architect | H3 Hardy Collaboration

Lighting Designer | Cline Bettridge Bernstein Lighting Design

MEPF Engineers | ICOR Associates, LLC

Structural Engineers | Robert Silman Associates

Environmental Consultant | Ambrosino DePinto Schmieder

Code Consultant | Milrose Consultants, Inc

Theater Consultant | Auerbach Pollack Friedlander

Mechanical

The BAM Fisher building has 3 Air handling units that provide a total of 25K CFM to the theater, dance studio, and back of house spaces. The units are located on the 5th and 6th floor in the main mechanical spaces. In addition, the building has 2 rooftop units that service the lobbies and vestibules along with an emergency generator. The systems are mainly variable air volume but several spaces are controlled using constant air. The air is cooled through three air cooled chillers also in the mechanical space. In the blackbox theater, flex ducts are used to allow for maximum flexibility with theatrical lighting equipment and stage scenery. Typical with many NYC buildings, there is also a water tank on the roof that is used for everyday water supply and fire supply.

Structural

The structural system for this building is unique as the existing building façade and slabs were to be retained. As such, there are several construction joints to account for varying expansion and contract of materials. The new construction consists of a steel frame with concrete slabs on metal deck. All steel columns are wide flange. The building also has a new reinforced concrete foundation wall built at the back of the structure. The blackbox theater also has a hanging tension grid several stories above the stage, that is capable of holding lighting equipment, scenery fly aways, and humans for servicing. The total load per floor varies between approximately 150-325psf depending on the use of the spaces.

Architecture

The Salvation Army Building was built in 1927 on the current BAM Fisher site. It is not an official landmark, but it is in a historic district. Through collaboration with the Landmark's Preservation committee, H3 Architects restored the existing facade. The facade was originally closed off with no windows due to fear of crime, but the architects opened up the lobby by implementing glass doors and large sheets of fixed glass at street level in arched openings. The new construction acts as a modern take on the traditional brick cladding. The raised addition is comprised of a linear arrangement which draws the eye across.

Sustainability

The BAM Fisher building achieved a LEED Gold rating, being the first theater to do so in the Manhattan area for new construction. This rating ties in to BAM's goal to create a unique arts facility that is environmentally responsibly in a growing sustainability focused society. The building achieves a 40% reduction water usage and a 22% reduction in greenhouse gas emissions. Another design feature included in the BAM Fisher building is the incorporation of a rooftop terrace. The terrace not only provides a beautiful exterior space for events, the use of white high albedo roofing materials reduce the heat island effect.

Lighting | Electrical

The lighting design for this building won a Lumen Award of Merit. It utilizes fluorescent, halogen, and metal halide lamps primarily throughout the spaces. Lutron zoning controls and occupancy sensors are also used in several spaces using Lutron Ecosystem through the XPS Softswitch system. The lobby consists of a grand stair with color changing LED fixtures implementing DMX controlling. The 120/208V 3 phase 3000A main distribution panel is located in the cellar, along with the 4000A main switchboard. On the second floor, a large electrical room controls the theater space. This room consists of a 500kVA transformer and a 75kVA transformer (for AV system) which converts 208V delta to 208/120V WYE. The room also has 2 DMX control panelboards (typical for theatrical lighting control) and a 1600A Dimmer panel. The fifth floor is home to the IT rack sever room which houses 12 severs. (it5-9). The rooftop emergency generator is 150kW.

Courtesy of CBBLD

MEGANgrant

Lighting | Electrical
Advisor | Dr. Kevin Houser
http://mlg5297.wix.com/thesis