

macallen building boston, ma



project team

Owner:	Pappas Properties, Inc.
Design Architect:	dA Office
Architect of Record:	Burt Hill Architects
Structural Engineer:	Simpson Gumpertz & Heger
Construction Manager:	Bovis Lend Lease
MEP Engineers of Record:	Burt Hill Architects
MEP Design Engineers:	C3

architecture

- The building's exterior consists primarily of composite panels, insulated operable windows and vertical steel fins
- Twelve inch soldier bricks cover the west façade
- The building's amenities include a pool a private gym, and a movie room with stadium seating

sustainability

- First residential green building in Boston– received LEED Gold
- Award-winning Dolphin water heating and cooling system
- Central Plant heating and cooling system
- 25,000 square foot accessible green roof plaza area
- Renewable and recycled materials used for kitchen finishes
- Public transportation and Zipcar for community use
- Energy-efficient mechanical, electrical, and plumbing fixtures

hvac

- 323 – 208V heat pumps used throughout the building
- Steam condensate system with shell and tube heat exchangers
- 2 – 18,000 cfm air handling units located on parking level 3
- 1300 gpm induced draft counter flow cooling tower

building statistics

Building Size:	318,000 square feet
Levels:	14
Cost:	\$73,000,000
Dates:	February 2006 – August 2007
Delivery:	GMP contract – fast tracked
Occupancy:	Residential apartment units

structural system

- Staggered steel truss system in residential area facilitates column-free apartment units and reduces the need for column transfers at parking level drive lanes
- Parking levels are supported vertically by reinforced concrete columns
- Roof system is supported by a sloped steel deck and cast-in-place concrete composite system from 5"-7" thick
- Lateral loads are resisted by braced frames on residential levels and reinforced concrete shear walls on parking levels
- Foundation consists of precast, prestressed concrete piles with a design load of 120 tons each

lighting/electrical

- Apartments are lit by recessed downlights
- Hallways are lit by fluorescent wall sconces
- Each floor is controlled by 400A circuit breakers connected to 1000-2000A bus ducts
- Building uses 208Y/120V, 125A panelboards

ALEX J. KOSIS

ARCHITECTURAL ENGINEERING – STRUCTURAL

<http://www.engr.psu.edu/ae/thesis/portfolios/2008/ajk253>