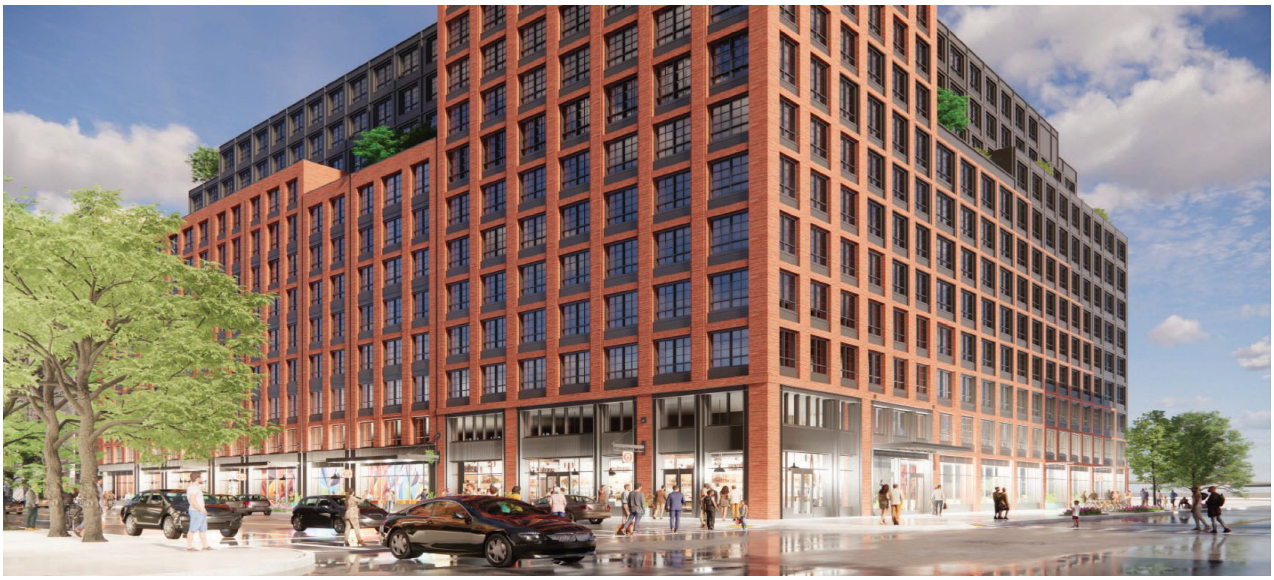

40 Bruckner Boulevard

Mixed-Use Residential

EP Engineering provided full engineering services for JCS Realty at their 40 Bruckner development in the fast-growing South Bronx. The 266,000 SF, 12-story development contains 365 rental units, with ground floor commercial spaces, indoor parking garage, and two stories of residential amenities. Building amenities include a fitness center, indoor spa pool, co-working areas, a movie theater, and a roof pool and lounge area with unobstructed views of the Harlem River and Randall's Island. The MEP systems included domestic hot water heating plants, new electrical service, fire/standpipe service, fire alarm system, packaged terminal AC heat pumps (PTHPs) for residential units, and variable refrigerant flow (VRF) systems for amenity spaces.

LOCATION

40 Bruckner Blvd
Bronx, NY

BUILDING SIZE

12-story
266,000 SF

CHALLENGES

- Extensive building amenities on multiple floors of the building with unique MEP code and design requirements.
- Aggressive design and construction schedule.
- Occupiable roof with pool and lounge areas that significantly reduced space for MEP systems.

ACHIEVEMENTS

- Variable Refrigerant Flow (VRF) systems were design to provide energy efficient heating and cooling to amenity spaces and commercial tenant areas. Energy recovery ventilation (ERV) units were used throughout the spaces to provide code-required ventilation while reducing the energy usage of ventilation loads. Demand-controlled ventilation (DCV) was also utilized to avoid over-ventilating spaces during periods of lower occupancy to save energy.
- Maximized available roof space for pool and recreation areas by efficiently consolidating ductwork and piping systems at upper levels to reduce the impact of MEP system on amenity areas. PTHPs were used within residential units to minimize central system footprint, while providing flexibility for both occupants and building management.
- Worked with pool consultant for full integration with MEP systems, including plumbing connections, dehumidification unit for natatorium conditioning, and heat recovery ventilator (HRV) for maintaining indoor air quality. Additionally, the dehumidification system was designed with a connection to the pool water system to reclaim condensate and save heating energy.