



## Ascend Charter Schools

Ascend Charter School is a network of K-12 public charter schools serving 5,500 students in across Brooklyn offering a rich, varied, rigorous Common Core-aligned curriculum, in a warm, supportive, and joyful culture. These projects were a renovation of the two former parochial schools in Brooklyn chosen to house Ascend Charter Schools. Each building is approximately 30,000 USF inclusive of classrooms, gymnasiums, kitchen, bathrooms and administrative spaces.

EP Engineering designed complete MEP systems to modernize the existing buildings including a new electrical service, gas fired rooftop units for the gymnasium, upgraded water and gas service, and new central fire alarm system.

### Challenges:

- Existing incoming utilities were old and short on capacity
- Water services didn't have required backflow prevention devices
- Upgrading the building electrical infrastructure to accommodate new central air conditioning
- Creating a functional multi-zone and code compliant HVAC system to serve the classrooms, laboratory, administrative and Gymnasium that could be installed without altering the building envelope
- Existing steam boilers were costly to maintain and at the end of their useful life

### Achievements:

- Since the existing electrical infrastructure inside the building was aged and corroded, all new electrical distribution was designed.
- The new VRF system was designed to perform simultaneous heating and cooling.
- The rooftop units serving the gymnasium design with gas furnaces for heating to serve place of assembly.
- Coordinated the location of equipment and routing of ductwork and piping to ensure maximum ceiling heights were maintained.
- Utilized energy recovery ventilators to maximize energy efficiency.
- Coordinated shafts and ductwork risers with structural beams.
- We were able to design a functional MEP system within the school's strict budgetary and time constraints.

### Locations:

- 870 Albany Avenue, Brooklyn
- 260 Shepherd Avenue, Brooklyn

### Project Size:

35,000 SF each

