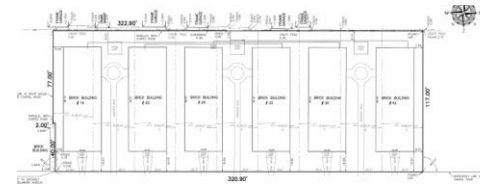


**Chapel Road Apartments  
Category C: Construction  
NYSERDA PON 4614**

Location: Kenmore NY

Technical Lead:  
Buffalo Geothermal



**The Site & Beneficiaries**

**Chapel Road Apartments, originally constructed in the 1920s**, located in Kenmore, NY, is a multifamily complex with 60 dwelling units. There is 48,436 square feet of heated space that must be served throughout six buildings. These buildings are currently served by an outdated HVAC system in need of replacement. Through this project, buildings were surveyed to provide the building owners with energy conservation opportunities that can be implemented to reduce the operating costs for both owners and tenants. For each energy conservation measure evaluated, a scope of work was developed, energy savings calculations were performed in an energy simulation software package (Targeted Residential Energy Analysis Tool), and an installation cost was determined. One major recommendation produced via study was the replacement of existing fossil fuel furnaces with a new Community Ground Source Heat Pump heating system. The proposing team consists of e2i and Buffalo Geothermal.

**Potential Thermal Resources**

The implementation of a new Community Ground Source Heat Pump (GSHP) heating system involves drilling vertical wells. Test holes were drilled to determine the suitable depth and number of wells necessary for the system.

**Potential Configuration**

Each building will feature water-to-water heat pumps and storage tanks dedicated to providing domestic hot water as well as supplemental heating to bedrooms and common areas via high-efficiency, low-heat radiators. Each apartment will be equipped with a water-to-air console unit heat pump rated at 1 ton (12,000 btu/h), while common areas will have slightly larger units at approximately 1.5 tons (18,000 btu/h). The dual-system GSHP approach proposed allows for individualized control over units while optimizing energy efficiency.