Model Description
The selection of our site, an abandoned, brick power plant along the Gowanus Canal, was the impetus for our mixed-use tower design. Our adaptive reuse approach honors the historic context, while also reducing construction waste and carbon emissions. The new portion of the building engages with the river while hovering above the existing structure at a height well above the 500-year flood plain. Resiliency, alternative energy and high-permanence systems are at the heart of our design.

Energy Savings Strategies
Much like the existing structure, this innovative project produces a tremendous amount of electrical energy, enabling an all-electric building to be independent of the electric grid. Unlike its predecessor, however, there is absolutely no fossil fuel combustion and zero carbon emissions.

Power is being generated using ten (10) tidal generation turbines in the canal and approximately 20,000 SF of photo-voltaic cells, creating a combined 1,200 MWh of renewable energy. The remaining electricity is produced by clean fuel cells with no carbon footprint. Waste heat is recovered and reused throughout the building.

Building loads are significantly reduced thanks to a creative design: green roofs reducing heat transfer in; heat recovery chillers to balance simultaneous heating and cooling loads; a tightly sealed envelope with strong thermal performance; and building shading inherent to the design. Custom air handling units with dual regenerative core technology maximize air-side energy recovery in all systems. The dual-wheel AHUs with an active desiccant wheel powered by recovered energy is a completely novel design that can upend the sustainable building design industry.