

X. USE AND CONSERVATION OF ENERGY

The energy components of the Proposed Action would be provided by either the Long Island Power Authority (“LIPA”) or KeySpan. As indicated in the correspondence in the Appendix, no additional electricity-producing structures or generation facilities would be required as part of the Proposed Action, nor does it include any major electricity-producing structures.

The proposed buildings will contain “green building” components that are potentially eligible for certification under the Leadership in Energy and Environmental Design (“LEED”) green building rating system. LEED certification distinguishes buildings and projects that have demonstrated a commitment to sustainability by meeting exemplary performance standards. The LEED system is a green building rating system that establishes a common standard of measurement to guide and distinguish high-performance commercial and institutional projects. The LEED program’s original focus was on office buildings, but components have since been applied to schools, multi-family residential buildings, manufacturing plants, laboratories and many other building types. Individual LEED and related components will be determined when design plans are finalized, but are discussed generally below.

Notable features related to environmentally sensitive design include the extensive use of green roofs, and the project’s compact, mixed-use, transit-oriented focus. The project would also employ ENERGY STAR energy-saving features such as increased insulation, high-efficiency heating and cooling systems, energy-saving appliances, and high performance lighting. The New York ENERGY STAR Multifamily Performance Program is intended to design buildings use at least 20 percent less energy than buildings constructed to ASHRAE standards.

The proposed project is expected to utilize very efficient heating, ventilation, and air conditioning (HVAC) systems, surpassing the new ASHRAE 90.1-2007 standard. This is expected to result in significant energy savings. In general, the intent is for mechanical systems to be the most efficient available in the marketplace at the time of construction. The systems will include the following:

- Heat and hot water systems will likely be fueled by natural gas, which is cleaner burning and more energy efficient.
- Based on technology available today, the townhouses could be heated by condensing furnaces that will be 96% efficient. For air-conditioning, the furnaces could be equipped with direct expansion coil and air-cooled condensing units. The air-conditioning units are rated at 18.5 SEER (the minimum for Energy Star rating is 13). The use of energy recovery ventilators (ERV) in the HVAC systems is also being considered to further improve the efficiency of the systems.
- Domestic water heaters could be of the condensing type with thermal efficiency of over 90%.

- All refrigerators, dishwashers, clothes washers, and clothes dryers will be Energy Star compliant.
- The heating system for the hotel rooms will include individual controls, offering the flexibility to turn off the heat when a room is unoccupied, resulting in fuel and energy savings.
- Conference rooms, hallways, and other common areas' heating and air-conditioning will be accomplished by packaged rooftop units or split systems. The energy efficiency ratio (EER) of these units will be in the range of 11.0 to 14.5 depending on the size and capacity (11 is the minimum required to meet Energy Star requirements).
- A majority of lighting in the hotel common areas will be fluorescent lamps with electronic ballasts, and compact fluorescent lamps (CFL). Hotel guest bedrooms will be illuminated with compact fluorescent lamps (CFL), where practicable.

At this stage of project development, the development team has not determined the feasibility of applying for any specific LEED certification for the various buildings. As specific building design advances, the Applicant will explore methods to incorporate the most current (at that time) environmentally responsible techniques to the extent feasible, recognizing that the LEED rating systems are dynamic and change over time, and to implement the broadest possible range of green building techniques and smart growth principles.

LEED-NC (Leadership in Energy and Environmental Design for New Construction):

Exact levels of LEED compliance still need to be determined, but the project would qualify for credits in the LEED standards as indicated below:

- Sustainable sites - The project will meet several of the objectives in this category, specifically those related to the benefits of Brownfield redevelopment, high density planning, compact building design, alternative transportation sources, and reduction of heat island effect, among others. The project's innovative stormwater management design will be developed further as design progresses;
- Water Efficiency - Water-efficient landscaping techniques that utilize recycled rainwater/grey-water (stored on the roof or in underground holding tanks) are being contemplated, and plumbing fixtures will use low-flow technology to reduce total consumption and reduce waste;
- Energy and Atmosphere - High tech, state of the art, energy-efficient building systems are contemplated project-wide. These measures complement the sensitive siting of the proposed buildings, which takes advantage of solar gain and and the prevailing winds off the harbor to reduce heat loss and cooling loads. These efficiency measures will serve to reduce CO₂ and other greenhouse emissions;

- Materials and Resources - Every effort will be made to minimize construction waste, to maximize building materials with significant recycled content, and (where appropriate) to utilize materials extracted or manufactured in the region;
- Indoor Environmental Quality - Every effort will be made to maximize indoor air quality, utilize low-emitting materials, and provide effective controllable building systems. Building forms have been shaped to maximize views, daylight, and to take full advantage of the site's southerly exposure; and
- Innovation and Design Process - Significant challenges and innovative design approaches necessary to accommodate these challenges will result in an exceptional product that, in some cases, will aim to exceed even the LEED requirements.

LEED-ND (Leadership in Energy and Environmental Design for Neighborhood Developments):

LEED-ND is the newest set of standards developed by the U.S. Green Building Council ("USGBC"). While the rating system is still under development, it will set standards for evaluating smart growth and green building design at the neighborhood design level. The proposed development will embody many of the principles (based on the Smart Growth Network's list of smart growth principles) used as a foundation for the new LEED-ND standards. Examples include:

- *Create a range of housing opportunities and choices.* The project will include a mixture of housing types, including stacked townhouses, condominiums, rental apartments, and flats. There will also be a required 10 percent workforce housing component;
- *Create walkable neighborhoods.* The project consists of an interconnected network of walkable streets, an esplanade, and public spaces. Exposed parking is minimized, structured parking is concealed where possible behind active building facades, multiple entrances per block enliven the streetscape, and strategically placed retail adds interest and vitality. Street trees, generous sidewalk widths and a coordinated palette of materials and streetscape elements will add to the walkability and create a linkage to Downtown Glen Cove;
- *Encourage community and stakeholder collaboration.* The developer has met with numerous community groups and local and state agencies to further enhance collaboration with respect to the project. Table II-7 (located in Chapter II) generally outlines the meetings the developer has held with these numerous public agencies and community groups;
- *Foster distinctive, attractive communities with a strong sense of place.* The project will create a distinctive destination based on waterfront living and recreation. High quality architecture and public spaces will take full advantage of the site's specific geographic conditions and adjacency to the waterfront and the Garvies Point Preserve;

- *Mix land uses.* The project has a carefully calibrated mix of program uses that not only complements the existing context of Downtown Glen Cove, but also creates a sustainable, vibrant waterfront community. Uses will include residential, office, hotel, entertainment, retail (including restaurants), cultural, marina facilities, transit facilities, and several water-related and water-enhanced uses (as described throughout this document);
- *Preserve open space, farmland, natural beauty and critical development areas.* The plan provides open space accounting for 35 percent of the project area. This includes new and preserved/enhanced open space assets. Existing wetland and beach areas will be enhanced, and generous new park space will be created in key locations that reserve the best waterfront site for a large public park, and provide for view corridors to and from the creek to Garvies Point Preserve;
- *Provide a variety of transportation choices.* The project proposes a range of inter-modal transportation options. In the center of the project will be a new ferry terminal (a part of a separately planned project) with links to Manhattan and other potential destinations allowing for weekday commutes and weekend excursions to and from Manhattan. A project-based transit shuttle will provide connections into the downtown area (and existing parking garages), and to existing bus and train routes. Finally, an expansive bike trail and pedestrian esplanade will link Downtown Glen Cove westward to the beach; and
- *Take advantage of compact building design.* The project will utilize compact building design to achieve several goals. Compact buildings will allow for: a greater amount of open space; building sizes that are economically suited to handle structured, hidden parking; and, building heights that create a varied, interesting roofscape and maximize views to the water and Garvies Point Preserve.