

2200 HOMESTEAD

The current Town of Chapel Hill Energy Management Plan section of the Conditional Zoning application list of requests are itemized below with accompanied support responses in italics.

1. “Description of how the project will be 20% more energy efficient than ASHRAE Standards”
 - a. *Design of the project proposes to incorporate the following elements:*
 - i. *LED lighting for buildings and site*
 - ii. *Sealed building envelope design with high insulation values at walls, ceilings and floors.*
 - iii. *Energy recovery and high SEER energy efficient air source heat pump HVAC systems*
 - iv. *High-efficiency domestic hot water systems*
 - v. *Heat-absorbing, low-emissivity or tinted window strategies. Windows will be Energy Star rated.*
 - vi. *Use of Energy Star appliances and equipment; low flow toilets*
 - vii. *Use of vegetation to lower energy consumption and reduce the heat island effect*
 - viii. *Improvement of water quality through the construction of stormwater BMPs*
 - ix. *Preservation of the existing tree canopy*
2. “Description of utilization of sustainable forms of energy (Solar, Wind, Hydroelectric, and Biofuels).”
 - a. *Each housing type will review the potential use of solar energy sourced hot water systems*
3. “Participation in the NC GreenPower program”
 - a. *The project proposes to review opportunities to meet requirements of other sustainable, residential, “green” programs in lieu of the NC GreenPower program*
4. “Description of how the project will ensure indoor air quality, adequate access to natural lighting, and allow for proposed utilization of sustainable energy”

- a. *All paints, sealants, fabrics, and finishes will contain low VOC content to ensure good indoor air quality.*
 - b. *All bedrooms will contain operable windows allowing natural ventilation and light to interior environments.*
 5. *“Description of how the project will maintain commitment to energy efficiency and reduced carbon footprint over time”*
 - a. *The 2200 Homestead Road community proposes a strong commitment to energy efficiency and reduction of the carbon footprint within the primary goal of providing a variety of affordable residential housing options for the community of Chapel Hill. While the project will not be LEED certified, it does propose to incorporate sustainable design goals within all aspects of the project for design, construction and occupancy.*
 - b. *The site developer has created a sustainability guideline to shepherd the site design’s best practices throughout project construction with energy efficiency as a high priority balanced with cost-effectiveness.*
 - c. *Some members of the vertical housing developer team will review the potential of meeting the requirements of the SystemVision program provided under the North Carolina Housing Finance Agency. SystemVision provides improved health, safety, durability, comfort and energy efficiency of affordable homes in North Carolina. The program is based on finding practical solutions to aid affordable housing market players in the design, construction and certification of energy-efficient affordable homes.*
 - d. *The project proposes to create a community of environmental equity and culture by:*
 - i. *Providing positive environmental health impacts for residents*
 - ii. *Providing access to natural resources for recreation*
 - iii. *Promoting a sense of community*
 - iv. *Providing stewardship opportunities*
 - e. *The project proposes to provide land for a relocated community garden managed by the Hope Gardens program. The revised site location will allow the community gardens and orchard to be easily accessed both from 2200 Homestead and neighborhoods to the south as well as Vineyard Square to the east.*
 6. *“Description of how the project’s Transportation Management Plan will support efforts to reduce energy consumption as it affects the community”*
 - a. *The project is directly engaged with Greenway Corridors and will be creating 1,635 linear feet of 10’ wide multimodal trail. The trail will run along the Homestead Road frontage and will turn north near the railway tracks and continue along the entire western project boundary. The multimodal greenway trail will provide increased bicycle and pedestrian connectivity outside beyond the boundaries of the project site. Within the site, the trail will provide access to the*

basketball court and to the community garden and it will be part of a larger greenway trail system which will extend north in the future.

- b. In addition to the multi-modal greenway trail, the project proposes a network of interconnected sidewalks and a natural surface trail system within the site that will connect to adjacent properties so that the neighbors may continue to utilize the site for active recreation and to access the multimodal greenway trail system.*
- c. The project proposes to create a bus stop along the north-side of Homestead Road to provide access to public transportation to the residents of the site and neighboring communities.*
- d. The project proposes to provide bicycle parking throughout the site so that it is conveniently utilized by all residents.*
- e. The project proposes to follow the Town's policy specific to EV charging station count and will review opportunities to provide 3% of parking spaces covered by EV stations with conduit laid to reach an additional 20% of total parking spaces.*