

06042- 1609 East Franklin, Chapel Hill, NC
Gurlitz Architectural Group, PA
August 25, 2008

1609 E. Franklin St – Howard Perry & Walston Office Building Energy Management Plan

Principal Considerations:

- 1. This project will be 20% more energy efficient than the baseline requirements of the ASHRAE Standards as amended and in effect at the time of building issuance.**
 - a. The goal of this will be to reduce the energy consumption of the building while maintaining the comfort levels associated with current heating and ventilating standards required for healthy work environments.
 - b. The proposed method will be to utilize mechanical systems that work in conjunction with the building envelope, and to design the envelope itself to respond to natural climatic changes and solar orientation.
 - c. The elements and measures anticipated to be employed include higher efficiency systems, solar shading on the building to offset solar gain and reduce the call for cooling in the summer and increased window areas with solar orientation to encourage solar heating in the winter.
 - d. Pending design of the mechanical systems and associated construction costs, these goals will be unstipulated.

- 2. This project will utilize Sustainable Energy in the form of solar, wind, hydroelectric, or biofuels.**
 - a. The goal of this effort will be to incorporate systems that do not rely on the grid to provide energy required to run the building.
 - b. The proposed method will be to incorporate solar elements where possible. The use of wind, hydroelectric or biofuels at this location is neither practical from a constructability and maintenance perspective, not economically feasible.
 - c. The elements and measures that may be incorporated could include photovoltaics to meet some of the parking lot lighting. On this site, however, the maintenance of several large oak trees may preclude using photovoltaics on the building, and the requirement for parking lot shading may preclude using photovoltaics for the parking lot lighting.
 - d. Pending design of the electrical systems, these goals will be unstipulated

- 3. This project will participate in the NC GreenPower program (through the generation of renewable energy or the purchase of green tags).**
 - a. The developer may participate in this program through the purchase of green tags. It is not anticipated that this small building will have the available resources to generate renewable energy.
 - b. Pending review of the costs created by the processing of a Special Use Permit in Chapel Hill, the developer will evaluate remaining funds available to contribute to the NC GreenPower program. This will remain an unstipulated goal.

- 4. This project will ensure indoor air quality, adequate access to natural lighting, and allow for the proposed utilization of sustainable energy.**
 - a. The goal of this effort is to provide a comfortable and healthy environment for the people who occupy the space and to provide this environment with sustainable building features.
 - b. The proposed method of providing this environment will be to design spaces and mechanical systems that achieve healthy indoor air quality coupled with daylighting as a design tool.
 - c. The elements and measures incorporated will be fresh air intake and economizer modes in the mechanical systems, and use of windows and skylights (if appropriate) to create daylight solutions.
 - d. Pending design of these systems, these goals will be unstipulated.

- 5. This project will maintain its commitment to energy efficiency and a reduced carbon footprint over time.**
 - a. The goal of this statement is to ensure that the energy efficiency of the building does not diminish over time
 - b. The proposed method of achieving this goal will be to design the major elements of the building to respond to non-mechanical solutions in achieving energy adequacy.
 - c. The elements and measures used to achieve this goal will incorporate solar orientation and methods of daylighting where appropriate
 - d. Pending design of these elements, these goals will be unstipulated

- 6. Through its Transportation Management Plan this project will support efforts to reduce energy consumption as it affects the community.**
 - a. The goal of this effort is to provide access to alternative methods of transportation that are aimed at reducing the overall requirement for single user automotive transportation.
 - b. The method of achieving this goal will be to develop a Transportation Management Plan in accord with the standards established elsewhere in the Land Use Management Ordinance adopted by Chapel Hill
 - c. The elements and measures are similarly linked to establishing and utilizing a TMP that provides the building users with information and access to carpooling, public transportation, bike facilities, and other transportation management tools that may develop over time including but not limited to teleportation.
 - d. The developer will stipulate that he will produce a transportation management plan in accordance with the LUMO requirements and similar to other transportation management plans adopted and approved for similar development projects.