

## ENERGY MANAGEMENT PLAN

1. *How the project will be 20% more energy efficient than the baseline requirements of the ASHRAE standards (or other comparable standards generally recognized as applicable to building energy consumption) as amended and in effect at the projected time of building issuance.*
  - a. The rooftop units and unitary units will operate in the range of the highest commercially available efficiencies and exceed the minimum code required efficiencies by at least 10%.
  - b. The HVAC system will include demand controlled ventilation to monitor and control the amount of energy consumed by outside air.
  - c. The lighting system will provide automatic shut-off during nonpeak hours to meet NC Energy code section 805 & ASHRAE 90.1 The allotted watts/sf for this type of facility per ASHRAE 90.1 is 1.0watts/sf. The lighting design shall use energy efficient fixtures combined with occupant controls to effectively lower the energy usage by 20% or 0.8watts/sf, in non medical areas.
  - d. As this project is scheduled to meet LEED v2.2 'Certified' level, lighting systems and mechanical system design considerations will be paramount throughout the design process.
  - e. The plumbing design shall provide an estimated 20-30% water savings over a code compliant system. The system will conform to means and methods described in LEED v2.2 credit WE 3.1
  
2. *How the project will utilize sustainable forms of energy (solar, wind, hydroelectric, biofuels.)*
  - a. The MEP Engineering design does not include these features. The utilities supplying the energy for the building may have these programs in effect. At this time the Office of the Engineer is not aware of the owner's plans to participate in the program.
  
3. *How the project will participate in the NC Green Power program (through the generation of renewable energy or the purchase of green tags.)*
  - a. At this time the Office of the Engineer is not aware of the owner's plans to participate in the program.

4. *How the project will ensure indoor air quality, adequate access to natural lighting, and allow for the proposed utilization of sustainable energy.*
  - a. The HVAC system will include demand controlled ventilation to monitor and control the amount of energy consumed by outside air. Local sensors will correlate the rate of outside air introduction into the spaces so as to maintain an acceptable level of air quality while preventing an excessive outside air rate. The HVAC system will include roughing filters as well as higher quality filters to control the indoor air particulate level. The system design will conform to the means and methods described in LEED v2.2 credit EQ 1,2 & 5.
  
5. *How the project will maintain its commitment to energy efficiency and a reduced carbon footprint over time.*
  - a. The HVAC control system will include a maintenance feature so that the maintenance staff can monitor and maintain mechanical components at a high efficiency level.
  - b. The lighting system design and fixture selection will permit the use of energy efficient fluorescent lighting fixtures, initially and over time.
  
6. *How the project Transportation Management Plan will support efforts to reduce energy consumption as it affects the community.*
  - a. A Transportation Management Plan (TMP) will be completed prior to issuance of Zoning Compliance Approval for the proposed UNC-Hospitals Imaging and Outpatient Center. The TMP, pursuant of the Guidelines for Transportation Management Plan (September 2001), will outline plan components, reporting methods and the role of the designated Transportation Coordinator. The components of the plan will encourage alternative modes of transportation in order to reduce the total vehicle trips associated with the new facility. The TMP will include practices such as subsidized transit fares for employees, promotion of public transit information and schedules, installation of bicycle racks and the promotion of ridesharing and carpooling programs. The Transportation Coordinator will provide a biennial report to the Town of Chapel Hill which will include employee surveys and the results of the implemented TMP.