

1.964 Design for Sustainability
Fall 2006

HOMEWORK #4
SUSTAINABLE DESIGN

Assigned: October 11, 2006

Due: October 24-25, 2006

Objectives:

In recent classes you have been introduced to the concept of sustainable design in terms of a general framework pursued by the engineering profession. The objective of this assignment is to let you analyze and make some conclusions about specific cases and techniques used in buildings and projects that follow these general principles of sustainable design.

Tasks:

The assignment should be performed individually. Each of you should choose a building or a particular project (urban redevelopment, brownfields regeneration, etc) that demonstrates advance features of environmentally responsible design. Since we would like to avoid duplicates, every student must select a different project, on a first-come, first-serve basis.

We suggest you to use the MEng blackboard to “sign up” for a particular project.

Then, gather information about your building/project and provide description, images and sketches of how it works. Also think about:

1. Concept of building/project
2. Design process
3. Major sustainable features (think about LEED categories, for example)
4. Economic considerations (initial cost vs performance benefits)
5. Your own conclusions

Please prepare a short power point presentation (approximately 5-6 slides, discussing the above issues) and submit it to the TA by 8 PM on October 24. We will select a representative number of these for presentation in class the following day. Also prepare a two-page (excluding images) written summary that should accompany the power point slides.