Appendix I.1.1: Project Sheet

Name _____ Date _____

This New House

For our next project, *This New House*, you will be learning about sustainable architecture, the practice of addressing ecological concerns in the design and construction of buildings. The reality today is that construction is the second largest industry in the world and home construction, in particular, in the year 2005 is similar to home construction 50 years ago. Why are we so behind the times? The goal of Sustainable Architecture is to design and build attractive, comfortable, affordable shelter that does no harm to the environment in its manufacture or in its use.

Objective: Design a home for a 4-person family living in San Diego using Sustainable Architecture principles.

Major Components: The following assignments will be completed with your partner(s) and you will present all of the following on March 17th at our High Tech High Exhibition (evening event is mandatory for everyone).

1. Sketches of Site Plan, Floor Plans, Roof Plan, and Exterior Elevations
2. Scale Site Plan drawing
3. Scale Floor Plan drawings
4. Scale Model of Exterior of Building including site and landscape
5. Brochure promoting your design and explaining how it qualifies as sustainable
6. Spreadsheets providing all calculations, including home measurements, financial planning, etc. Details to follow…

The Basics:

- Each architecture firm has 1/4 acre of land to build on. However, you decide on the shape of the land, orientation of the site, surrounding landscape, and location in San Diego.
- Your architecture firm has a beginning budget of $5000 to design the house. Your account is held at the Holcomb One Bank. You will need to pay for all drawing materials, model building materials, brochure materials, etc. and acquire them from the Holcomb Architecture Supply Store.
- Your sketches and scale drawings must be finalized and approved before beginning model building.
- Each house will have to incorporate a few design features, such as a prism-shaped section of the roof, a room with more than four walls, etc. These particulars will be given with the design requirements later.
- Photovoltaics (Solar Power) and other eco-friendly systems will be incorporated in the function of all homes.

Books: All of the following books have helped in the design of this project and will be available for you to reference in class.

- *Sustainable Architecture, Low Tech Houses,* Arian Mostaedi
- *The Smart House,* James Grayson Trulove
- *A Manual of Construction Documentation,* Glenn E. Wiggins
- *The Solar Electric House,* Steven J. Strong
- *The Solar House: Passive Solar Heating and Cooling,* Daniel D. Chiras