



Adobe Project Planning & Foundations - Syllabus

Course description:

This course covers the fundamentals of designing and planning an adobe home. We make our own adobe bricks - a great way to learn the basics of soil selection and testing. We also focus on designing and installing typical foundations for adobe structures.

Topics include:

- Intro to the 3 major passive solar adobe systems (direct gain, Trombe wall and greenhouse)
- site planning and building layout for best solar gain/cooling
- floor plan basics
- overview of basic tools needed for adobe construction
- locating soil and aggregates for adobe construction
- performing and evaluating soil tests to determine soil suitability
- making a 2-brick adobe form
- making a soil screen
- mixing soil for adobe blocks and mortar
- producing and curing adobe blocks
- transporting and storing adobe blocks
- testing adobe blocks for strength and water resistance - field and lab tests
- calculating adobe blocks and mortar needed for a project
- detailing recommendations for foundations for adobe structures - stem wall heights, moisture barriers, etc.
- building and foundation layout process - setting batter boards, finding corners, marking dig lines
- low-impact foundation dig methods
- design and installation of 'concrete spread footing/CMU stem wall' foundation type
- design and installation of 'gravel/trench foundation with concrete grade beam' foundation type
- insulation techniques for foundations
- calculating materials for foundations