

Standardizing Hands-on Building Activities in Commercial Construction Management and Recommendations for Semester Conversion Adaptations

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CM 313 Commercial Construction Management at Cal Poly is an integrated lab course and one of the main hands-on learning experiences construction management students participate in. It is currently administered in the quarter system and as the university transitions to the semester calendar, the lab needs to be converted in order to accommodate this change. The main purpose of this project was to document existing practices and improve the process and experience for students, instructional students assistants, Simpson Strong Tie coordinator, and other professors of CM 313. This project included creating a builders guide to help the student assistants by developing a materials specification manual for the SST coordinator, a guidebook comprising each step of the construction process from formwork through reclamation and demolition. It includes materials, processes, and images. The SST coordination sheet is composed of all required materials for the CM 313 lab with quantities, location of purchase, purchase by dates, and image references. Further this project provided a proposal for scheduling and other changes to the course as it converts to the semesters schedule. The proposal for semester conversion includes recommendations for future location of a new strong frame, potential lab schedules, and potential changes to the class structure based on semester schedule constraints.

Key Words: Guidebook, Scheduling, Semester, Curriculum, Cal Poly



Suggested Strong Frame Location

CMU WALL					
CMU Block (full)	8x8x16	84 ea	Air vol block	week 4	
CMU Block (half)	8x8x8	12 ea	Air vol block	week 4	
CMU Caps	8x16	32 ea	Air vol block	week 4	
Mortar	80lbs	12 ea	Air vol block	week 4	

SST Technician Materials Guide

Waterproofing - Siding - Trim

Materials

- OSB
- Wood to metal fasteners
- Tyvek House Wrap
- Staple Gun
- Trim
- Fiber Cement Siding

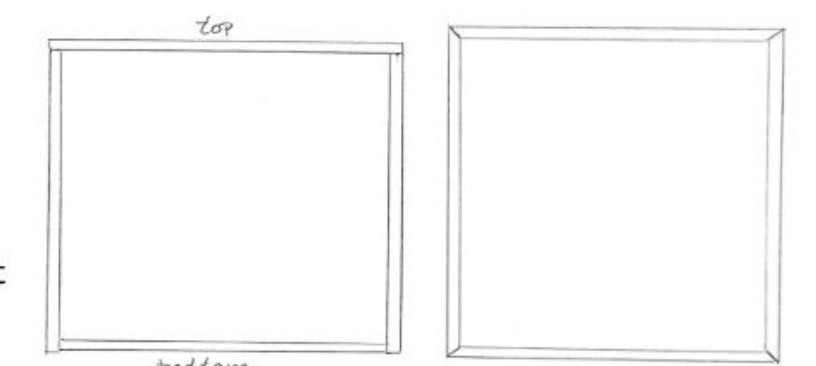
Process

- Cut and attach OSB to front facing wall.
- Tyvek House wrap is then used to cover OSB. Using staples to attach.
 - Trim is cut and placed around window and on corners of wall.
 - Fiber cement siding is then placed on top of Tyvek starting from bottom of wall. Overlap for siding should be ___



Window Trim

- House wrap should be cut so that paper can be wrapped inward and taped to studs.
- Trim should be placed so that water cannot infiltrate interior.



Builders Guide Page