

## MOCK HOUSE

### SPACE DESCRIPTION

The Mock House is a large, open, flexible space where students may practice full-scale construction mock-ups. The space is intended for use by various programs, and shall be adjacent to both the Building Construction Lab and HVAC Lab. The Mock House shall have a minimum unobstructed floor space of 30' x 50' with high ceilings and flexible utilities to accommodate various machinery and systems.

The layout shown is illustrative of basic concepts and spatial needs, but should be adjusted according to each campus' specific requirements.

Outdoor facilities should include an overhead door for movement of large equipment and a fenced service yard. The yard must provide a large concrete pad for equipment, size to be determined by the program.

### SUCCESS FACTORS

**Safety:** Due to the hazardous nature of this work, Mock Houses must be designed with safety as a top priority. The space must be outfitted with special safety equipment, such as tie-offs in the ceiling, and must comply with all relevant safety regulations and standards. Walkways through the space should be clearly marked, and equipment should be properly located to prevent harm.

**Flexibility:** The Lab shall be designed to allow movement of equipment and construction materials. Garage doors, open floor space, overhead utilities, and equipment on rollers all lend to a flexible space. Equipment and materials will regularly be moved, constructed, and rearranged throughout the course of the academic year as new technologies and methods are introduced.

**Noise Control:** Mock Houses shall be designed to reduce noise levels, as they are loud spaces by nature and the sound quality is poor for instruction. Sound absorption shall be provided on wall and ceiling surfaces, and walls shall be constructed to reduce sound transmission to adjacent spaces. These spaces should be located away from acoustically sensitive spaces.

### GENERAL

All perimeter walls shall be full height to deck.

### ADJACENCIES

Separate but adjacent space is required for the following: **Building Construction Technology Lab and HVAC Lab.**

### ACOUSTICS

Mock Houses are naturally very loud spaces due to the activities in the space. Provide absorbent panels on walls and ceilings for noise reduction and to decrease sound transmission to adjacent spaces.

Where Mock Houses border acoustically sensitive spaces, exterior walls should have a minimum STC rating of 50.

## MECHANICAL

Electrical power shall be provided in overhead bus bars to allow for flexibility. Compressed Air, Gas, and Water are best distributed overhead to allow for efficiency, convenience, and safety. Verify specific needs on a project-by-project basis while planning for flexibility in the future.

- Outside ventilation and exhaust fan (plastic and metal) are required.
- Fire protection is required due to the activities and combustible nature of materials in the Mock House. Consider side wall sprinklers for optimal coverage.
- Provide plumbed natural gas to outside tanks. No tanks inside the Lab. Verify gases with the program.
- Provide a sink and emergency shower with eye wash.
- Provide floor drains in locations as required for certain equipment. Drains become clogged with saw dust and other construction detritus. Sediment buckets and cleanouts are required.
- Provide a grease interceptor for the building.

## ELECTRICAL & DATA

- High voltage service is required. Provide flexibility for 120/208V 3-Phase and 480/277V 3-Phase, standard. Verify required voltages with planned and future equipment.
- Provide twist-lock plugs for trainers, similar to Hubbell HBL2511 and HBL2513.
- Emergency shut-off switches are required.

Provide power and data at 6' intervals along perimeter walls at locations which may be used for desktop computer workstations and/or lab equipment.

## LIGHTING

- In high-bay areas, provide LED lighting in warm, soft white color.

## TECHNOLOGY

All utilities shall be provided overhead, including Internet.

- Provide Wireless capability throughout FLEX Labs with Wireless Access device.
- Provide telephone service.
- Provide high-speed internet throughout, with machines connected via CAT-6 cable from bus bar overhead (min. 13' clear below) as needed per program requirements.
- PSEP cameras are required at high security locations.

## ACCESSORIES AND EQUIPMENT

Equipment needs should be determined on a project-by-project basis while planning for flexibility in the future. The hands-on nature of this training requires specific machinery as a minimum:

- Provide guardrails with removable sections to define walkways. Removable sections allow for movement between spaces.
- Equipment on rollers for flexibility (trainers, job boxes)
- Dust recovery collector
- Air compressors
- Fire extinguishers
- Wall-mounted tack boards and marker boards

## FURNITURE

Provide the following standard furnishings for Mock House:

- Work benches and job boxes on rollers for flexibility and mobility.
- Wall shelving and storage racks on perimeter walls.

## FINISHES

### Ceilings

Recommended Height: 18' clear with exposed structure for future reconfiguration of unistrut systems to support utility lines. Provide tie-offs in ceiling. Provide acoustic panels for sound absorption.

### Floors

Polished or sealed concrete slab (6" min. thickness). Verify specific needs on a project-by-project basis while planning for flexibility in the future.

- Some programs and equipment may require thicker slabs. 8" or 12" thick slabs and additional footings may be required for heavy and high precision equipment.
- Some machines may require isolated footbeds to reduce vibration.

## DOORS AND WINDOWS

Overhead coiling doors for access to the Loading Dock. 10'W x 12'H, min.

Interior doors shall be minimum STC 30 with 6" x 30" Window Lite preferred.

Clerestory windows with E/W exposure, preferred. Place windows above 6'-0" high to reduce damage; or provide reinforced glazing/ window film.