

PART I

GENERAL INFORMATION AND
INSTRUCTIONS TO EXECUTIVE ARCHITECTS

I. GENERAL INFORMATION AND INSTRUCTIONS TO EXECUTIVE ARCHITECTS:

A. PURPOSE:

This Handbook outlines required products and mandatory design constraints for all construction on the UCSC Campus. These standards are complementary to specific project program requirements, and, as noted, can be modified at the discretion of the UCSC Project Manager.

Some Divisions and Sections of the Specification Guidelines, and other specific design areas, will not have any information listed. All such areas are to be left to the design control of the Executive Architect(s). The Executive Architect shall consult with the Project Manager regarding Design Guidelines to use for specific applications not covered in this Manual. Guidelines for specific applications may be developed as the need arises.

These design standards are not meant to dictate design solutions, as this is properly the function of each project's executive design professional. However, these standards are meant to assure that UCSC is provided with functional and durable buildings, based on experience with existing campus buildings. Refer to Appendix/Exhibit C of Supplemental Requirements of the Executive Design Professional Agreement.

B. ABBREVIATIONS AND DEFINITIONS:

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| 1. ADAAG | Americans with Disabilities Act Accessibility Guidelines |
| 2. CCR: | California Code of Regulations |
| 3. CPPAC: | Campus Physical Planning Advisory Committee |
| 4. CSI | Construction Specifications Institute |
| 5. DAB | Design Advisory Board |
| 6. DPP: | Detailed Project Program |
| 7. ENR | Engineering News Record |
| 8. LRDP: | Long Range Development Plan for UCSC |
| 9. LRDP EIR: | Environmental Impact Report for the LRDP |
| 10. NFPA: | National Fire Protection Association |
| 11. DSA: | Division of the State Architect |
| 12. PPG: | Project Planning Guide |
| 13. SFM: | State Fire Marshal |
| 14. <i>DCFM</i> | <i>Designated Campus Fire Marshal</i> |
| 15. UBC: | Uniform Building Code |

16. EXECUTIVE ARCHITECT: The Design Professional contracted by the University to prepare Construction Documents for a particular project. In this document, the term "executive architect" may refer to an architect, landscape architect, planner, interior designer, or a civil, structural, mechanical, or electrical engineer, and may be a firm or an individual.
17. UNIVERSITY'S REPRESENTATIVE: The person designated by the University to represent the University to the Contractor; often the same as the Project Manager.
18. PROJECT MANAGER: The staff member from the UCSC Office of *Physical Planning and Construction* assigned to each particular project.
19. UNIVERSITY: The University of California at Santa Cruz, California (UCSC).

C. ADMINISTRATIVE REQUIREMENTS:

1. Review of Schematic, Design Development, 50%, 100% Construction Documents, and 100% Backcheck Submittals:
 - a. Prior to the beginning of Schematic Design, the University will provide, when applicable, a Project Planning Guide (PPG), a Detailed Project Program (DPP), or other such document describing the University-approved program. During the Schematic Design and Design Development Phases, the program must be translated into a physical solution which meets site, design and cost requirements.
 - b. The University's review of plans and related documents at the various stages of project development is intended solely as a check by University to determine that:
 1. the work of that phase has been completed;
 2. the design solution satisfies University programmatic needs;
 3. the project is within the stipulated scope and budget; and
 4. the project is in conformance with University administrative policies and procedure.
 - c. For projects with construction costs over \$10 million, the 100% complete Specifications must be reviewed by the General Counsel of the Regents before the documents are put out for bids. For projects with costs between \$1 and \$10 million, General Counsel reviews only if there are modifications to the General Conditions. The Specifications must be submitted to General Counsel a minimum of 14 calendar days prior to going out to bid. Coordinate with Project Manager.
2. Codes
 - a. See the "University of California Facilities Manual, Volume 3, Chapter 4" for further information. (<http://www.ucop.edu/facil/fmc/facilman/>)

- b. University construction work shall comply with all applicable *Federal, State and Regional* Codes or Acts. In general, the codes in force at the time of *the "P" phase submittal to the Fire Marshal* shall apply. In case of conflicts between codes, the more stringent conditions shall apply. Confirm particular instances with Project Manager.
 - c. All facilities must be accessible to and usable by persons with disabilities. All construction will comply with current CCR Title 24 disabled access standards as interpreted by the DSA. For housing projects, the University exercises the option under the ADA of using UFAS (Uniform Federal Accessibility Guidelines).
 - d. The University is not subject to the building codes of local political jurisdictions; building permits are not required.
3. Soils Reports
 - a. When required, a soils investigation report will be furnished by the University.
 - b. See section 02200 for further information.
 - c. *Consultants are alerted to the unique aspects of campus geology in the form of Karst formations including sinkholes. Refer to Campus Drainage Plan.*
4. Site Survey Information
 - a. Unless noted otherwise, all survey information will be supplied by the University.
5. Design Advisory Board
 - a. Consultation with the Design Advisory Board (DAB) will normally take place at the beginning of schematic design, midway through schematic design, and midway through Design Development. *Verify scheduling and submittal requirements with Project Manager.*
6. Campus Physical Planning Advisory Committee
 - a. All projects require review after the end of Schematic Design by the Campus Physical Planning Advisory Committee (CPPAC). Verify with the Project Manager.
7. Regents Design Approval
 - a. Building designs must be approved by the Regents in the following cases:
(<http://www.ucop.edu/facil/fmc/facilman/>)
 1. Building projects with a total project cost in excess of \$5,000,000 except when such projects consist of the following:
 - a) Alterations or remodeling where the exterior of the building is not changed;
 - b) Buildings or facilities located on agricultural, engineering, or other field stations; or
 - c) Buildings or facilities located in agricultural areas of a campus

2. Capital improvement projects of any construction cost when, in the judgment of the President, a project merits review and approval by the Regents because of budget matters, fund-raising activities, environmental impacts, community concerns, or other reasons.
 - b. Requirements for approval are summarized in Section B of the Facilities Manual. Because specific procedures and schedules for design review and approval change occasionally, the Project Manager should confirm current practices with the Office of Facilities Management and Construction in the Office of the President.
8. Agency Reviews
 - a. To meet code requirements, review and approval by the SFM and DSA is required at Construction Document completion. The Project Manager will arrange all reviews with the DSA for an accessibility review, and with the SFM to review for fire safety and code compliance. Corrections required by the DSA and SFM must be incorporated into the contract documents before going out to bid. It is recommended that preliminary SFM and DSA reviews occur during Schematic Design and Design Development. Certification is to occur after 100% Construction Documents are complete.
 - b. For major State-funded projects, approval of the completed Design Development documents by the State Public Works Board is required, as well as State Department of Finance approval of the 100% Construction Documents. Verify all requirements with the Project Manager.
9. Independent Reviews by University
 - a. Cost:

To ensure that cost considerations are fully incorporated into design decisions, The Regents require that an independent cost estimate be conducted on major projects as stated in Facilities Manual, *Volume I, 5.1*:

"Independent cost estimates shall be conducted for all major capital projects which may be subject to design approval by the Committee on Grounds and Buildings as well as for other projects when deemed appropriate. Such cost estimates shall be made prior to submittal of the schematic design to the Office of the President for presentation to the Committee on Grounds and Buildings and incorporated into the design presentation. It is recommended that the review be conducted again at the time of completion of design and during the preparation of construction documents. The selection of the cost estimator is at the discretion of the Chancellor or equivalent responsible officer, subject to the following:

- a) The cost estimator shall have no current connection on the project being estimated with the firm or firms acting as executive architect or as consultants on the project being estimated, and
- b) The cost estimator shall not be an employee of the University, except that faculty members who are otherwise qualified may serve."

b. Design:

To maintain the quality of design of University Construction projects, The Regents require that an independent review be conducted of the architectural design of all projects which are subject to design approval by the Regents. Such review shall be performed early in the preparation of design, at appropriate intervals during design, and at the time of completion of design. The review shall focus on, but need not be limited to, the compatibility of the design with its setting and the appropriateness of the design to its functional program and the project budget. *At UCSC, this review is performed by the Design Advisory Board (see 5, above).*

c. Seismic:

To ensure that seismic safety and other structural considerations are fully incorporated into capital project design, purchase, and lease decisions, The Regents require that an independent review be conducted of the structural seismic design of all capital projects, whether new construction or remodeling, which involve structural design and are intended for human occupancy or which affect human safety, and includes review of non-structural building elements. The review shall be initiated early in the project so that it can be performed in conjunction with the independent design and cost review and value engineering processes where applicable, and shall be continued at appropriate times during the design process. In all cases, working drawings and calculations shall be reviewed for conformance of the new work to the most current and stringent applicable seismic design code requirements of the UBC, CCR Title 24 or local codes prior to letting bids for such work or authorizing structural change orders. *(Complete UC Seismic Safety Policy can be referenced on the WWW: <http://www.ucop.edu/facil/fmc/facilman/>)*

d. The Executive Architect is expected to provide all necessary materials for cost estimation and review as well as to participate in the reviews.

10. Value Engineering

- a. On major projects, the University may require Value Engineering workshops to evaluate program requirements to determine cost effectiveness of various elements of the project or buildings. Verify with the Project Manager.
- b. The Architect and the Architect's consultants shall attend each value engineering session and shall present and discuss the design as required by the agenda at each meeting.
- c. After each value engineering session, the Architect shall evaluate the results of the session with the University and implement changes in the design as mutually agreed.

11. *The design shall conform to the 1989 LRDP EIR mitigation measures as well as project specific EIR mitigation measures.*

12. *Design completion schedule and project reviews.*

The Architect shall complete design submittals on a schedule that allows the University to meet external agency review requirements and that allows the project to be completed by the date established by the Project Manager. The Architect shall submit for approval by the Project Manager a schedule that shows design submittal dates, review periods listed below, bid and award time, and construction time. Note that the documents must be sufficiently complete at submittal time to allow review.

- a. *Independent cost estimate*
 - b. *Design Advisory Board*
 - c. *UCSC In-house review*
 - d. *Independent structural review*
 - e. *Fire Marshal review*
13. *Checklist of Project Reviews, as applicable. Verify with Project Manager for specific project; all reviews routed through Project Manager.*

CAMPUS*Physical Planning and Construction**Project Manager**Civil Engineering**Electrical Engineering**Mechanical Engineering**Landscape Architecture**Campus Architect**Inspector(s)**Physical Plant**HVAC/Mechanical**Electrical/Elevators**Energy Management/Controls**Custodial**Grounds**Lock Shop**Refuse & Recycling**UCSC Fire Marshal**ADA Compliance Officer**University Police**Design Advisory Board (DAB)**Campus Physical Planning Advisory Board (CPPAC)**Environmental Assessment Group (EAG)**Environmental Health & Safety (EH&S)**Transportation and Parking Services (TAPS)**Computing and Telecommunications Services (CATS)**Media Services**Classroom Subcommittee**Housing Services**University Food Service**Planning and Budget**Building Committee / Client**Chancellor***EXTERNAL***Division of the State Architect (DSA) (for access compliance only)**State Public Works Board**UC Regents**Office of General Counsel**State Fire Marshal (SFM)**California Department of Forestry (CDF)**State of California Coastal Commission**State of California Department of Fish and Game**Through Environmental Health & Safety (EH&S)**Regional Water Quality Control Board*

*Monterey Bay Unified Air Pollution Control District
Santa Cruz County Office of Environmental Health Services
City of Santa Cruz Public Works Dept Industrial Waste Program
California Dept of Health Services Office of Drinking Water*

Independent Seismic Review

Independent Cost Review

Independent Constructibility Review

Independent Review of Title 24 Compliance Documentation

Independent Code Compliance Review

14 *UC Seismic Safety Policy*

- a. *As of May 1997, the UC Seismic Safety Policy is being revised. See project manager for current version. For new buildings, comply with current seismic provisions of CBC or local seismic requirements, whichever are more stringent. New UC buildings shall not be constructed on the trace of an active geological fault. For existing buildings see project manager for requirements.*