

Construction and Maintenance

(Policy # _____)

I. Purpose/Scope of the Policy

This document sets out the policy, authorities and requirements for authorization for all construction and maintenance activities carried out in University owned and operated facilities. This policy does not apply to space that is leased but not owned by the University.

The intent is to ensure that work is in compliance with University Policies and Procedures, Facilities Manual, Campus Construction and Maintenance Policies and with regulatory requirements governing construction and maintenance on campus. All work performed must be in accordance with these requirements under proper authorization, as described in more detail below.

II. Detailed Policy Statement

A. General Provision

1. All construction (including alterations) projects shall be in accordance with the California Public Contract Code and University of California policy. All such projects shall be reviewed to ensure compliance with building, fire and safety codes by the Campus Architect and the Campus Fire Marshal in consultation, where appropriate, with Environmental Health and Safety (EH&S) and Physical Plant. This policy includes projects on the campus or at Long Marine Laboratory, UCO-Lick Observatory at Mount Hamilton, Big Creek Reserve, MBEST, or other UCSC- owned facilities; and includes all site development, building, utility and road projects.
2. All negotiating and contracting for physical planning, design, and construction services is to be performed by the Office of Physical Planning and Construction, except as specifically designated by agreement with the Office of Physical Planning and Construction. Any alteration to buildings, utility systems, or University lands shall be performed by approved contractors, by UCSC Physical Plant personnel, or by tradespersons under contracts administered through UCSC Office of Physical Planning and Construction, unless by separate and specific written authorization by the Office of Physical Planning and Construction.

3. Maintenance work at, or in any University owned and operated facility, may only be undertaken as authorized by this policy or by separate authorization from PP&C and the Director of Physical Plant.
4. For University owned facilities leased to non-University entities, the lease agreement shall reflect this policy as appropriate.
5. Units wishing approvals for performing certain types of maintenance or alteration work, in addition to those expressly allowed under this policy, should contact the AVC PP&C and/or Director of Physical Plant as appropriate to begin discussions. The process for approval for work not directly authorized in the policy is not specifically detailed to accommodate the varied nature and unique needs of different parties.

B. Responsibility and Authority

1. The Associate Vice Chancellor Physical Planning and Construction: The Associate Vice Chancellor Physical Planning and Construction (PP&C) is responsible for all physical planning, design, and construction required to provide or alter facilities for the campus, including buildings, site development, utility, and road projects.
2. The AVC-PP&C is delegated the powers and duties of a “Building Official” as described in the California Building Code (CBC) and is responsible for assuring compliance with all requirements pertaining to the design, erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, and use of all campus buildings, structures, and utilities. The Building Official, in conjunction with the Designated Campus Fire Marshal (DCFM), as described below, is authorized to issue “Stop Orders” when work is being done contrary to the provisions of the CBC or any other adopted code, standard, or regulation. In the area of construction and maintenance, the Associate Vice Chancellor of Physical Planning and Construction is responsible for the following:
 - a. Assuring that the requirements of the California Environmental Quality Act (CEQA) are met for each campus project.
 - b. Contracting for all planning, design, and construction services.
 - c. Meeting the requirements of state law and university policies governing environmental review procedures, construction bidding and contracting, building code compliance, affirmative action, health and safety requirements, sustainability and the like.
 - d. Representing the university in its relationship with consultants for planning and design services.
 - e. Representing the university in its relationship with construction contractors.

- f. Representing the university in its design, planning and construction relationship with federal, state, and local regulatory agencies.
3. Fire Marshal: The Chief of the UCSC Fire Department, in accordance with a negotiated Memorandum of Understanding (MOU) between the Office of the State Fire Marshal (OSFM) and the University of California, is appointed by the OSFM to serve as the Designated Campus Fire Marshall (DCFM) and has been delegated the responsibility and authority to act as the State Fire Marshal. The DCFM is designated as the “Authority Having Jurisdiction” (AHJ) in the interpretation and application of fire protection codes and regulations, and is authorized to enforce applicable fire and life-safety codes, laws and regulations on campus and in UC Santa Cruz-administered facilities, including facilities leased but not owned by the University. The DCFM is authorized to suspend unsafe operations or activities and has the responsibility for ensuring compliance with all fire protection requirements including, but not limited to:
 - a. The storage, handling, and use of explosive, flammable, combustible, toxic, corrosive, and other hazardous materials (in coordination with EH&S).
 - b. The maintenance of exits, fire-resistive construction and assemblies, fire alarm systems, and fire extinguishing systems and equipment.
 - c. The review and approval of all campus construction and alteration plans and specifications, including fire protection and alarm systems, buildings, structures, and utilities.
4. Director Physical Plant: The Director of Physical Plant is responsible for:
 - a. Maintenance, including preventative maintenance, of state-funded buildings, campus-provided utilities, roads, and grounds.
 - b. Project management services for maintenance construction projects as authorized by the Associate Vice Chancellor of PP&C. Shares responsibility with PP&C in building commissioning and maintaining Campus Standards.
5. Director Environmental Health and Safety (EH&S): The Director EH&S is responsible for advising the campus of responsibilities with respect to health, safety, and environmental issues, recommending appropriate corrective actions or controls, and in some cases performing monitoring and project oversight. For the purpose of construction and maintenance, the project originator (or where applicable the project manager) shall have responsibility for contacting EH&S and ensuring EH&S concerns

are incorporated into the scope of work. EH&S responsibilities for construction and maintenance may include, but are not limited to, the following:

- a. Making recommendations to ensure the final product will meet environmental regulations and safety requirements for the protection of workers maintaining the facility, and of occupants who will use the structure and its intended equipment installations.
 - b. Performing monitoring and project oversight for certain types of work requiring industrial hygiene or other certified review, such as asbestos and lead paint removal activities. EH&S also responds to campus concerns regarding construction activities and may initiate controls or changes in work practices to abate conditions which cause environmental hazards or health impacts to campus occupants.
 - c. Recommending appropriate corrective actions or controls to ensure worker safety during the performance of construction work performed by UC employees.
 - d. Performing site inspections, safety program reviews, and training for campus employees who perform construction or maintenance activities.
 - e. Inspecting hazardous materials use and storage sites, and performing collection and disposal of hazardous waste. (Note: construction contractors are required to handle and dispose of their own materials in compliance with all federal, state, and local regulations.)
 - f. Responding to and performing (or directing the activity of) abatement for hazardous material spill incidents on campus (in coordination with the Campus Fire Department).
 - g. Establishing procedures for non-permit confined space entry, and issuing permits for permit-required confined spaces. The Campus Fire Department issues all hot-work permits, regardless of whether or not the hot work is performed in a confined space.
6. It is the responsibility of the unit requesting additional authorization above what is specified in this policy to submit a written proposal that outlines their request and provides procedures and controls that will ensure that required codes and UC policies will be met.

III. Definitions:

- A. Alteration:** Additions to and deletions and modifications of existing structures and systems, any work that alters building/room structure and/or square footage footprint, utility systems, or university lands.
- B. Construction:** The act, art, or business of moving, demolishing, installing, or building a structure, facility, or system according to a plan or by definite process. Construction consists of the application of any of these techniques to physical plant facilities such as structures, utilities, excavations, landscaping, site improvements, drainage systems, and roads, and additions, deletions or modifications of such facilities. Exterior and interior painting of new structures is a form of construction.
- C. Project:** For purposes of this policy, “project” includes all manner of work related to the construction, alteration, and maintenance of campus facilities, roads, and grounds.
- D. Capital Improvement Projects:** Those projects that add new space or infrastructure or alter the programmed design or function of existing space, building systems, or infrastructure. Capital improvements do not include repair or replacement projects that continue the usability of a facility at its designed level of service. For review purposes, capital improvement projects are further defined as either state-funded or non-state funded and, based on total project cost, as either major or minor capital improvements. These cost limits are revised periodically; the current (November 2004) limits are:
1. Major Capital Improvement Project: Total project cost is over \$400,000.
 2. Minor Capital Improvement Project: Total project cost is between \$35,000 and \$400,000.
- E. Maintenance:** UC policy defines maintenance as the upkeep of property, machinery, and facilities, including buildings, roads, and grounds. It is characterized by its routine or recurring nature, the purpose of which is to keep facilities and systems functional. It also includes repair and replacement in kind.
- F. State OMP (Operation and Maintenance of Plant) Space:** Buildings listed in the Facilities Data System (FDX) as “OMP State,” campus utility infrastructure, and all roads and grounds not assigned to Housing or other auxiliary areas.

IV. Procedures

A. **Construction (includes alterations):** Major and Minor Capital Improvement Projects

1. Campus clients who need a construction project may contact either Capital Planning and Space Management (CPSM) or Physical Planning and Construction (PP&C). Either unit will ensure that procedures are followed for incorporating the proposed project into the campus planning and approval process.
2. All proposed major and minor capital improvement projects and all proposed projects under \$35,000 that add or alter space require review for program intent and priority by the Advisory Committee on Facilities (ACF). The ACF shall make recommendations on such projects to the Chancellor, for his or her approval, or for projects requiring approval by the Office of the President or by The Regents, for campus approval and transmittal to UCOP. (Maintenance projects do not require ACF recommended approval or Chancellor approval.) CPSM provides staffing to the ACF and is responsible for developing and coordinating all project documentation necessary for project approval and funding, both on campus and at the Office of the President. This responsibility extends to obtaining project approval from the Chancellor.
3. Once a project is approved and funds are transferred into the campus capital accounts, Physical Planning and Construction (PP&C) assumes responsibility for the project and manages it through completion.
4. Project Planning Guides and Project Summary Forms
 - a. Each major capital improvement project requires preparation of a Project Planning Guide (PPG) and/or a Project Summary Form, which includes a justification of the project, a project description (including brief program statement), project budget, and project schedule. PPGs are subject to review and approval by the Office of the President, depending on funding amount and source. No changes in the scope, budget, or schedule may be made without campus or Office of the President approval of a revised PPG and/or Project Summary Form.
 - b. Each minor capital improvement project and projects under \$35,000 that add space requires preparation of a Project Summary Form summarizing the project, its program, and its budget.
 - c. PPGs are prepared by Capital Planning and Space Management (CPSM), in cooperation with PP&C and the originating campus unit. Project Summary Forms are prepared by the originating campus unit with assistance from CPSM.

5. Project Implementation

- a. Requests for major and minor capital improvement projects, may be sent directly to PP&C for implementation by using a CFR/FPR. CFRs/FPRs may authorize feasibility studies, cost estimating, design, or construction. For capital improvement projects, the ACF and Chancellor approval process must be completed prior to proceeding with the design and construction.
- b. When a project is initiated, a project manager from PP&C will be assigned to work directly with the building committee or originating campus unit. The project manager will be responsible for developing the project in accordance with the approved Project Summary Form or Project Planning Guide. Negotiation, execution, and administration of consulting and construction contracts are also the responsibility of the project manager.

6. Approval and Inspection

Regardless of the dollar amount of a project, the appropriate review, approvals and inspections shall be procured by work order or CFR from PP&C.

B. Maintenance: State OMP Areas

All maintenance work performed on or within state OMP supported buildings, roads, and grounds, shall be performed by campus Physical Plant personnel or under contract through or approval by Physical Plant. Information on the maintenance responsibility of a building can be found using the campus space inventory (FDX B1 and B4 reports) from CPSM under the listing OMP. Maintenance responsibility is based on the occupying department per UCOP Facilities Inventory Guide updated November 1998. (S = state OMP; F = student fees OMP; X = other OMP)

C. Maintenance: Non-State Funded Areas (*See Tables on Pg. 8*)

1. General

- a. Any work not specifically authorized by this policy and the supporting tables that follow require special approval and written authorization from the Vice Chancellor, Business and Administrative Services or their designee and the appropriate requesting Principal Officer. Any such additional authority shall be documented in a detailed Memorandum of Understanding with appropriate signatures as noted.

- b. All work must be performed by certified and/or appropriately classified employees in accordance with current codes, regulations, and university policies, or by contractors approved and authorized according to university policy.
- c. Maintenance repair and/or replacement shall be “in kind,” but shall not preclude state-of-the-art or compatible replacement with a similar part or model as approved.

MAINTENANCE TABLES – NON-STATE FUNDED AREAS

(List not intended to be exclusive)

Preventative Maintenance	Table 1
General Replacement and Repair	Table 2
Electrical	Table 3
Ventilation	Table 4
Plumbing	Table 5
Painting	Table 6
Furniture/Cabinetry Work	Table 7

Table 1: Preventative Maintenance – Work necessary to keep a facility clean, sanitary, and healthy.	
Allowed	Not Allowed
<ul style="list-style-type: none"> ▪ Cleaning and irrigation ▪ Equipment not part of central building systems 	<ul style="list-style-type: none"> ▪ Elevator maintenance ▪ Central building systems and related equipment

Table 2: General Replacement and Repair – Repairs to structural building elements are limited to existing surfaces, and shall not include full replacement nor any structural additions or demolitions/deletions.	
Allowed	Not Allowed
<ul style="list-style-type: none"> ▪ Damaged or worn ceiling tile ▪ Floor covering, ▪ Bathroom partitions ▪ Damaged sheetrock ▪ Paneled walls and ceiling ▪ Shelving ▪ Window hardware ▪ Ceramic tile ▪ Cork tile ▪ Wooden stair treads ▪ Draperies, tracks and rollers, ▪ Utility openings ▪ Minor servicing of locks and door hardware ▪ Surfaces of structural building elements 	<ul style="list-style-type: none"> ▪ Full or partial replacement of structural building elements ▪ Structural additions ▪ Structural demolition or removal of structural building elements ▪ Work where asbestos or lead containing materials are suspected or known without EH&S authorization/oversight.

Non-State Funded Maintenance Tables (continued)

Table 3: Electrical – Electrical repairs are limited to 120-volt service that can be separated by plug, switch or circuit breaker or re-setting breakers. All other work must be accomplished by a licensed contractor under direction of a project manager or by a Physical Plant electrician.	
Allowed	Not allowed
<ul style="list-style-type: none"> ▪ 120-volt service that can be separated by plug, switch or circuit breaker or re-setting breakers ▪ Work on 120-volt departmental-assigned appliances that can be electrically disconnected by plug, switch, or circuit breaker ▪ Work on lighting, to include changing bulbs, ballasts, and tombstones 	<ul style="list-style-type: none"> ▪ Maintenance within a service panel ▪ Repairs within walls ▪ Work on items which exceed 120 volts (except for those that can be electrically disconnected by plug, switch, or circuit breaker) ▪ Installing conduit or wire mold ▪ Pulling new wiring or circuits within existing or new conduit ▪ Any work relating to communications or fire alarms building controls ▪ Any work in elevators (with the exception of changing lamps for lighting)

Table 4: Ventilation – Repairs are limited to items not part of a central building system. A certified technician must perform all work on refrigeration circuits and all refrigerant must be recovered with certified equipment, adhering to regulatory record keeping.	
Allowed	Not allowed
<ul style="list-style-type: none"> ▪ Emergency replacement of fan belts and filters ▪ Repairs to heating, air conditioning and ventilation, water coolers, individual air conditioning and heating units (including replacing switches, replacing filters and working on fractional horse power motors), ventilation fans and residential appliances are limited to normal residential item repairs ▪ Work on compressors that are not part of a central building system 	<ul style="list-style-type: none"> ▪ Replacement of compressors that are part of a central building system ▪ Repairs to internal operating parts of compressors that are part of a central building system ▪ Repairs to the controls operating building systems ▪ Repairs to any central systems supplying service to the structure (e.g. building HVAC units or units installed within the walls or ceiling of a structure)

Non-State Funded Maintenance Tables (continued)

Table 5: Plumbing – General plumbing repairs to items up to, but not within, walls, and performed on drains.	
Allowed	Not allowed
<ul style="list-style-type: none"> ▪ Drinking fountains ▪ Garbage disposals ▪ Faucets ▪ Water valves ▪ Howlers and shower heads ▪ Wash basin, sinks ▪ Toilets (includes vacuum breaker on flush meter) ▪ Tubs ▪ Traps ▪ Residential appliances related to plumbing ▪ Work on drains (includes snaking) 	<ul style="list-style-type: none"> ▪ Repairs to protective devices, e.g. main distribution vacuum breakers; backflow protection devices ▪ Work to, or on, gas appliances, including ranges, ovens, water heaters, etc.

Table 6: Painting – Painting shall be performed as a maintenance function.	
Allowed	Not allowed
<ul style="list-style-type: none"> ▪ On exterior surfaces, to correct minor damage (breakage or vandalism). ▪ Painting if not associated with renovation/remodeling projects 	<ul style="list-style-type: none"> ▪ Exterior painting of buildings (for other than following repair) ▪ Painting associated with renovation/remodeling projects

Table 7: Furniture/Cabinetry Work – Includes fabricating items such as easels and bulletin boards, shelving and cabinets. Proper seismic anchoring shall be provided.	
Allowed	Not allowed
<p>Repair, assembly, and disassembly of bed frames, box spring frames, chairs, sofa frames, desks, desktops, tables, dressers, closets, file cabinets, residential and office non-fixed cabinetry, and related hardware</p>	

References

1. **Policy:** Facilities manual dated 1990 (FM 2.4.1)
www.ucop.edu/facil/fmc/facilman/welcome.html
2. **Policy:** EHS0020
www.ucsc.edu/ppmanual/policies.html
3. **UC Standing Order 100.6**
www.universityofcalifornia.edu/bylaws/so1006.html
4. **Facilities Inventory Guide:** UCOP February 1993 (some sections updated November 1998).

V. Getting Help

If you need help with:	Contact:
- Leased Space	➤ Real Estate Services (x9-4747)
- Project Development Guidelines	➤ http://ppc.ucsc.edu/
- Project Summary Forms	➤ http://planning.ucsc.edu/capital.)
- CFR/FPRs	➤ Physical Plant (9-4444); or ➤ PP&C (9-2170)
- Maintenance-Related Questions	➤ Physical Plant (9-4444); http://ucscplant.ucsc.edu/ucscplant/index.jsp
- Planning and Construction	➤ PP&C (x9-2170); http://ppc.ucsc.edu/