

APPENDIX B
HOUSING GUIDELINES

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I. GENERAL INFORMATION

A. PURPOSE:

This Supplement is meant to provide a list of required items and mandatory design constraints for all new housing on the UCSC Campus. These standards are provided as a supplement to specific program requirements and to the UCSC Campus Standards Handbook. As noted, some of these design constraints can be modified at the discretion of the Project Manager. Part I.C. of this Supplement, General Housing Requirements, applies to all housing built on campus; additional residence hall and apartment requirements are complementary to these General Requirements.

Note: General Building Requirements from the UCSC Campus Standards Handbook apply to all new construction on the UCSC campus. In addition, refer to other applicable sections in the UCSC Handbook under Part V., Specification Guidelines. These design constraints are not meant to dictate design solutions, but are meant to provide the Executive Architect(s) with guidelines for producing functional and long-lasting housing for the University.

B. ABBREVIATIONS AND DEFINITIONS:

1. ADA The Americans with Disabilities Act
2. CAC: California Administrative Code
3. DSA: Division of the State Architect (Refers to "Regulations for the Accommodation of the Disabled in Public Accommodations")
4. NFPA: National Fire Protection Association
5. UBC: Uniform Building Code
6. UPC: Uniform Plumbing Code
7. SFM: State Fire Marshal
8. EXECUTIVE ARCHITECT: The Design Professional contracted by the University to prepare Construction Documents for a particular project. The Design Professional may be an architect, landscape architect, interior designer or civil, structural, mechanical, or electrical engineer, and may be a firm or an individual.
9. PROJECT MANAGER: The staff member from the UCSC Office of Campus Facilities assigned to each particular project.
10. UNIVERSITY: The University of California at Santa Cruz, CA (UCSC)

11. * Refers to a particular requirement that may be optional, vs. mandatory, due to specific program requirements, site conditions and/or cost considerations. Project Manager to determine.

C. GENERAL HOUSING REQUIREMENTS:

1. Visual Privacy:
 - a. Arrange windows in adjacent buildings and within the same building so that windows do not look directly into each other at close range.
 - b. Avoid public walkways near bedroom or bathroom windows, and try to buffer public activity and circulation areas from buildings.
 - c. All skylights, windows that are adjacent to accessible roofs, and bathroom windows and are to be of obscure glass.
2. Acoustic Privacy:
 - a. Space bedroom doors so that neighboring rooms do not have directly adjoining doors, and that doors on opposite sides of corridors or hallways do not face each other directly; bedroom doors facing stairwell or bathroom doors are not allowable.
 - b. Stack bathrooms on multi-floor buildings; bathrooms above or below bedrooms are not permitted.
 - c. Avoid placing mechanical rooms, as well as lounges, bathrooms, stairwells, laundries, and any other communal noise generating areas next to bedrooms (including above and below bedrooms at multi-floor buildings).
 - d. All common bedroom walls, bathroom/bedroom walls, stairwell/bedroom walls, lounge, laundry or similar/bedroom walls, corridor/bedroom walls are to strictly follow guidelines set forth in Part II, E., of the Handbook.
 - e. All common bedroom floor/ceilings are also to follow requirements of Part II., E., of the Handbook.
 - f. Caulking with acoustical caulk is required at the perimeter of the first layer of gypsum board at required sound walls, and at all wall penetrations (such as pipes, electric outlets recessed medicine cabinets, etc.)
 - g. Stagger all electric outlets on alternate sides of rated walls one stud space minimum. Provide outlet gaskets behind all outlets in rated walls.
 - h. Avoid any noise-making equipment (such as janitor or laundry sinks, telephones, drinking fountains, etc.) on any bedroom wall.

- i. All walls with plumbing pipes within shall be a minimum 6" (nominal) dimension. Avoid plumbing walls whenever possible next to bedroom (sleeping) walls.
 - j. Do not pierce either side of rated walls with ducts or vents.
 - k. Separate opening sections of adjacent bedroom and bathroom windows (and any other windows) the maximum distance away from one another.
 - l. Provide surface-mounted (vs. recessed) light fixtures in bathrooms, bedrooms and lounges (at multi-story buildings) for vertical acoustical isolation.
 - m. When recessed fixtures of any type are installed in bedroom walls (including medicine cabinets, fire extinguishers, electric distribution panels recessed water fountains, bookcases, etc.), the required sound-rated wall must extend behind these recessed elements.
 - n. Double studs, with an integral separation must separate the jamb of heavily-used corridor doors from any adjacent bedroom.
 - o. Arrange closets within bedrooms to serve as acoustical buffers between bedrooms and corridors, and between adjacent bedrooms, when possible.
3. Minimum Bedroom Areas:
- a. Provide a minimum of 200 usable square feet for double occupancy bedrooms, and 110 usable square feet for single occupancy bedrooms (does not include closet space).
- Note: see Appendix 1 of UCSC Handbook for definition of Usable Square Feet.
4. Furniture:
- a. Provide space and suitable arrangement for one twin bed, one desk, one chair, and one dresser per student. All furniture is supplied by the University.
 - b. Provide at least one 48" wide (clear space) stairway in multi-floor buildings in order to allow for moving furniture, etc..
5. Closet Space:
- a. Provide a minimum of four linear feet per student of built-in closet space, including a clothes hanging pole and double shelves above.* Note different requirements at some apartments.
 - b. Provide an intermediate support bracket or similar if pole and shelves span over 48".

6. Bathroom Fixture Ratio:
 - a. Provide bathroom fixture per student ratios (in excess of the UPC minimums):
 - *
 - 1 lavatory / 3 students
 - 1 shower / 4.5 students
 - 1 toilet / 4.5 students
7. Bathroom Ventilation:
 - a. Provide as much opening window area as possible in bathrooms. Locate bathrooms whenever possible on exterior walls. Maximize cross-ventilation; provide mechanical ventilation in continual operation at all residence hall bathrooms. This is an extremely important requirement, as a disproportionate amount of repair costs to existing housing are attributable to bathroom ventilation deficiencies.
 - b. Locate showers close to opening windows when possible. Arrange towel bars and hooks in a manner that maximizes drying (close to heat register or window if possible).
 - c. Provide a ceiling exhaust fan switched separately from the light fixture at each bathroom, (or at each room of a compartmentalized bathroom), in addition to opening windows. * Exhaust fan is to run continuously and be either on a separate timer, or tied into the campus Energy Management System (EMS). Verify with the Project Manager.
8. Ceiling, Wall and Floor Surfaces: (Note that specific program or code requirements may govern other areas within the scope of the housing project that are not covered below.)
 - a. Shower surrounds shall be Corian, Swanstone, or equal, and shall extend to and include the shower ceiling. Other bathroom ceiling areas shall be high-gloss epoxy paint. (Confirm specification with Housing Services)
 - b. Ceilings at High-Moisture Areas (such as kitchens, laundry rooms, janitors' closets with sinks, etc.): Semi-gloss or gloss enamel paint.
 - c. Ceilings at Bedrooms, Lounges, Corridors, etc.: eggshell or semi-gloss paint.
 - d. Walls at Bathrooms: Provide high-gloss epoxy paint at all bathroom walls (unless ceramic tile, sealed concrete, or other approved materials are provided.) Ceramic tile or fiberglass/Corian is required at all wall (and ceiling) areas above showers.
 - e. Walls at High-Moisture Areas: Provide semi-gloss or glossy enamel paint (or epoxy paint system *). Provide ceramic tile, sealed concrete, or other approved materials to within 48" of the finish floor above all floor sinks, laundry sinks, etc., when provided. *

- f. Walls at Bedrooms, Lounges, Corridors, etc.: eggshell or semi-gloss enamel paint (preferred for very high-traffic wall areas).
 - g. Floors at Bathrooms, Laundry Rooms., Janitors' Closets: Ceramic tile, sealed concrete, (with 6" high ceramic tile base) or sheet vinyl (with 6" high coved sheet vinyl base).
 - h. Floors at Bedrooms: Carpet with 4" wood or vinyl/rubber base.
 - i. Floors at Corridors, Interior Hallways: Carpet (with 4" or 6" wood or rubber base), sheet vinyl (with rubber base).
 - j. Floors at Other Areas: As approved. Generally minimize changes in floor material along corridors and other public areas in order to minimize maintenance costs.
9. Doors and Window Sills:
- a. Provide solid core doors at all locations where an opaque door is called for. Hollow-core doors are allowable only at closet door locations.
 - b. Provide metal door frames at all doors for durability.
 - c. Provide 1 x wood sills (painted or sealed) at all windows accessible to students. (Not necessary at high, inaccessible windows).
 - d. Provide peepholes at each apartment entry and at all bedroom doors in residence halls.
10. Electrical, Telephone, and Mechanical:
- a. *Provide a minimum of one electrical outlet at each bedroom wall. Provide a double duplex electrical outlet adjacent to the data/cable TV outlet. For single bedrooms provide one TV, one data and one telephone outlet. For double bedrooms and lounges provide one TV, one dual data and one telephone outlet (note that standard telephone wire can accommodate additional outlets).*
 - b. Provide minimum of one switched light fixture at each bedroom that preferably illuminates the contents of the closet(s).* The light fixture should be simple to re-lamp (with fluorescent). *Lighting level shall be approximately 40 foot-candles minimum.*
 - c. Provide an exterior, glare-free and concealed source light fixture switched from the controlling room or unit, and an exterior w.p. outlet, when exterior, private decks are provided.
 - d. When any hydronic heating is provided, recess convector into wall and/or place in a location that will not interfere with the furniture layout.
 - e. Provide self-priming floor drains at all bathroom and laundry room floors.

- f. Provide access panels to shock arrestors.
- g. Provide water shutoff valves for each set of bathrooms to allow isolated repair work.
- h. *Emergency Power - Provide an emergency generator to supply all normal power needs of the facility when utility power fails.*

11. Building Entry:

- a. Location and design of entries should provide protection from the sun, wind, and other weather elements.
- b. Provide non-slip surfaces by all exterior entries. Slope exterior slab, path, or area by entries away from the building.

12. Signage:

- a. Provide easily readable, indirectly illuminated building names or numbers at each building's exterior main entry.
- b. Provide easily readable identification numbers (in Helvetica Medium or other approved typeface) at each residence hall room door, and at each apartment main door. Verify mounting heights and typeface styles with the Project Manager.

13. Security & Access:

- a. *Refer to separate document "Housing Security Design Standards" regarding general requirements, for access to buildings, and for specific hardware requirements and other design issues.*
- b. *Also refer to (Draft) "Residential Key Control Policy" for campus keying policy and specific keying control requirements.*

See Table of Contents, Part IX, Related Documents

14. Energy Conservation:

a. Insulation:

Provide minimum R-11 at walls (R-19 preferable)
 R-19 at ceilings (R-30 preferable)
 R-19 at crawl spaces
 R-19 at intermediate floors in multi-floor buildings

- b. Windows: Provide double-glazed windows in all conditioned spaces, regardless of CAC requirements.
- c. Sun control: Provide drapes, horizontal blinds, or other approved window coverings for all bedroom and lounge areas. Built-in window shading devices on south and west sides of buildings, or overhangs that help control heat gain are desirable. *

- d. Maximize window cross-ventilation whenever possible.

15. Laundry Rooms:

- a. All washers and dryers are supplied by the University. Confirm appliance dimensions with Housing Services.
- b. Provide self-priming floor drain and floor surfaces sloping to drains at all Laundry Rooms.
- c. Provide a 36" high laminated plastic countertop at all Laundry Rooms. Size to be determined by space and washer/dryer layout.
- d. Provide illumination levels of 70 fc minimum. Provide an exhaust fan with a 15 minute timer wall switch and dryer vent ducts venting to the outside and away from other windows. Provide an accessible lint screen at the dryer vent(s).
- e. Within the laundry room, provide a hose bibb, a vandal-proof fire extinguisher space, space and dedicated circuits for 2 - 30" wide owner-supplied vending machines and a public and campus telephone outlet.
- f. *Provide telephone and data (future campus card) outlet.*
- g. *Provide approximately 1 washer/dryer for every 21 students (confirm with Housing washing machine vendor).*

16. Outdoor Recreational Area:

- a. Provide a space large enough for various recreational activities close to the center of a housing building complex. Provide areas for sitting, sunning, in a protected, yet sunny location that can serve as a meeting area for student groups. Verify all specific areas required with the Project Manager.

17. Bicycle Storage:

- a. Provide an area, within a housing building complex or adjacent to specific common areas, for convenient, secure, covered bicycle storage. *

18. Recycling Areas:

- a. Provide an area, of which the size is to be determined in consultation with the Project Manager, for recycling glass, cans, papers, etc., at every housing building complex. * Ideally, the area shall be convenient to the users, and adjacent to a dumpster location.

II. RESIDENCE HALLS

A. GENERAL:

1. All requirements listed in the General Housing Requirements above apply to residence hall construction with additional requirements as listed below.

B. BATHROOMS:

1. Provide a separate bathroom for men and women on each floor. *
2. Showers:
 - a. Provide individual shower cubicles divided by 6 foot high walls. Showers to have a 6" high curb and a shower curtain/rod between shower and dressing area.
 - b. Provide immediately adjacent dressing/drying areas at all showers divided by 6 foot high walls.

Dressing area to include a wood bench, two robe hooks on the wall, and a lockable, non-corrosive partition at the main bathroom area.*
 - c. UCSC Office of Housing Services shall provide shower heads, for installation by contractor.
3. Finishes:
 - a. Provide ceramic tile or other easily washable surface (e.g. Corian or Swanstone) at all walls, floors and the ceiling at the shower area. Provide ceramic tile at the floors and base of the dressing area. Provide ceramic tile at the entire bathroom floor, sloping to the floor drain(s).
 - b. Provide a minimum 6" high ceramic tile base at the entire perimeter of the bathroom.
 - c. Provide, as a minimum, a 4 foot high ceramic tile wainscoting at all toilet enclosures and at 2 feet beyond the fronts and sides of any urinals. Preferred is 6" high ceramic tile at all bathroom walls.
4. Accessories:
 - a. Provide stainless steel or laminated plastic "pigeonholes" (approximately 8" x 8" square each) in each residence hall bathroom to store personal effects at the ratio of one per student, (at each bathroom per floor).
 - b. Provide toilet paper dispensers (with waste receptacle), and a trash receptacle as a minimum for each main residence hall bathroom. *
Provide the above in addition to toilet seat cover dispensers, liquid soap dispensers, recessed paper towel and trash receptacle, feminine napkin dispensers as applicable in main floor bathrooms by lobbies (when provided) or more public areas.
Note: additional accessories (grab bars, etc.) are required per DSA at bathrooms on accessible floor levels.

- c. Provide enameled steel toilet partitions (non-corrosive solid polymer partitions preferred) at all toilets in main bathrooms. *

5. Lavatories

- a. Lavatories shall be mounted in a counter with a 6"-8" skirt (not wall-hung). Provide a mirror running the full length of the countertop, and ample light above the mirror.

C. LOUNGES:

1. Provide one lounge per floor or at the ratio of one per 20 to 25 students. *
2. Layout:

Lounges should be suitable for studying as well as entertainment. They should be ideally located to be convenient to users, but somewhat isolated from bedroom areas in order to minimize acoustic problems. (See other acoustic constraints under I. C., Acoustic Privacy.)

3. Provide six electrical outlets within this area, one of which shall be switched, and provide a suspended light fixture (down-lighted) in a part of the room where a study table might be located. Provide one cable TV, *dual* data, and telephone outlet.
4. Provide a lockable door (from the outside). Provide for space and arrangement of minimum one sofa, one coffee table, two arm chairs, and a 48" round table.
5. Provide a glass vision panel in all lounge doors, or fixed glass panels at Lounge wall from public or corridor areas (as per UBC requirements) or some similar means to be able to see into Lounge from outside the room.

D. BEDROOMS:

1. Provide one mirror (18" x 60" minimum) at each residence hall bedroom.
2. Provide one 30" towel bar per student at each residence hall bedroom. (Locate on opposite sides of the room at a double room.)

E. TRASH COLLECTION:

1. Provide a trash chute from each residence hall floor directly to a dumpster location outside each building. * (Also see UCSC Campus Standards Handbook for general dumpster requirements).

F. OTHER FACILITIES:

1. Drinking Fountains: Provide a drinking fountain at each floor level (in multi-story buildings).
2. Public Telephone(s): Provide at least one public pay telephone location (wired for installation by others) per residence hall building at the main lobby area. A

public pay telephone may also be required at each floor level (in multi-story buildings). *

3. Provide at least one campus telephone at each floor level in multi-storied buildings. *
4. Refer to UCSC Campus Standards Handbook for additional information and requirements for Storage Rooms, Janitors' Closets, etc..

III. STUDENT APARTMENTS:

A. GENERAL:

1. This section, "Student Apartments", generally applies to separate student apartment buildings and preceptor apartments included within a building complex. Additional or differing requirements for preceptor apartments are noted specifically in applicable sections.
2. These are not requirements for faculty or staff family apartments, which will be substantially different.
3. Apartments for disabled access (designed to meet all applicable requirements and constraints of the DSA and the ADA), share the same programmatic requirements as listed for separate student apartments and preceptor apartments. Additional or differing requirements for handicapped apartments are noted specifically in applicable sections.
Disperse handicapped apartments on the ground floors, when site and other conditions allow, throughout a building complex. At least one multi-story building within the project shall be accessible (or adaptable) throughout. Do not group all handicapped units in one building within a building complex. Confirm all requirements with ADA Compliance Officer through the UCSC Project Manager.
4. Provide one preceptors' apartment for every 50 - 60 students. * Provide an approximate half and half mixture of one bedroom and two bedroom apartments within a housing building complex. Verify all specific program requirements with the Project Manager.
5. Suite Living Apartments within residence hall buildings are generally similar to all separate student apartments and preceptor apartment requirements. However, specific cost or design constraints may modify such requirements drastically. Verify all program requirements for suite living spaces with the Project Manager.
6. All requirements listed in the General Housing Requirements (see II.) apply to all apartment construction with additional requirements as noted.

B. ACCESS:

1. Provide direct access to each apartment from the outside, providing there is adequate protection from wind and the weather. When preceptor apartments

are provided within residence hall buildings, provide a main door access to the corridor, lobby or other public area within each building.

2. Provide one exterior, private deck at each apartment adjacent to the main living area.

Note that additional exits may be required out of buildings off decks depending on SFM and UBC restrictions.

C. FLOOR PLAN REQUIREMENTS:

1. Provide a living/dining area, a kitchen, compartmentalized bathroom(s), circulation area, bedrooms as per the specific project Program Requirements, an entry closet, a linen closet (with 5 shelves, min.) adjacent to the bedrooms and bathroom, a pantry area or closet in the kitchen (with 7 shelves, min.). * Built-in bookshelves or additional storage cabinets, etc. adjacent to the living/dining area are desirable.
2. Efficient interior circulation should be allowed for in the floor plan design. An open plan is desirable to allow greater flexibility in space utilization. Access to kitchen and bedroom areas should not be through non-compatible areas. Provision should be made for a privacy separation between the living area and the bedroom/bath area. Provide for maximum sun exposure in the living/dining/kitchen area, and provide maximum allowable cross-ventilation throughout the apartment.
3. Provide door bells, chimes, or buzzers at the main door of all preceptors and handicapped apartments.
4. Fire extinguishers shall be located so that no person shall have to travel over 75 feet to reach one (or a minimum of one per floor). Also provide fire extinguishers adjacent to all laundry, maintenance, and storage rooms, when provided.

D. LIVING/DINING AREA:

1. Design for accommodating dining, studying and entertaining. The kitchen may include a built-in eating counter, but the dining area should accommodate a table with minimum seating for six people (size: 36" x 72" with six chairs). Provide space for, and consider arrangement of, minimum furniture of one sofa, two arm-chairs, a low table, a television location, and a three-foot wide bookshelf (unless built-in bookcases are provided).
2. Provide six electrical outlets within this area, one of which shall be switched, and provide a suspended down-lit light fixture over the dining room table. Provide a cable TV, data, and telephone outlet.

E. KITCHEN:

1. Layout: Provide enough circulation and counter space within the kitchen to accommodate several people at once. The kitchen should be readily accessible from the main apartment entry.

2. **Countertop and Cabinet Space:** Provide a minimum of 8 lineal feet of cabinet/countertop working space, in addition to the sink and range/oven. Provide a minimum of 40 lineal feet of built-in, adjustable upper and lower cabinet shelving. Additional countertop surface area is desirable. Provide lighting over the sink and the range/oven. Provide a minimum of three outlets at countertop level, in addition to other outlets required for the refrigerator, range/oven, etc. Provide a built-in chopping block.

3. **Equipment:** Provide the following equipment:

Refrigerator:	Supplied by Owner; provide minimum 33" wide space to accommodate.
Range/Oven:	Provide 30" wide slide-in gas range with oven, clock, and see-through oven door.
Exhaust Hood/ Light:	Provide over range/oven. Vent to exterior (roof exhaust is preferable).
Sink:	Provide double sink, minimum 8" deep.
Dishwasher:	Provide at preceptor apartments.
Garbage Disposal:	Provide at preceptor apartments.

F. BEDROOMS:

1. See General Housing Requirements for required design constraints.
2. Provide 8 lineal feet minimum of closet space at all individual bedrooms within preceptor apartments.
3. Provide one mirror (minimum 18" x 60") per apartment near the bedrooms.

G. BATHROOMS:

1. See General Housing Requirements for required design constraints.
2. Provide separate compartments for the shower and the toilet, or two separate bathrooms. Provide a cast-iron tub/shower at the preceptor apartment bathroom. Bathrooms at preceptor apartments need not be compartmentalized. Refer to Section IC8 for wall covering requirements,
3. **Accessories:** Provide four 30" towel bars (or one per student, whichever is greater) adjacent to lavatories. Provide one additional towel bar and a minimum of one double robe hook at the shower compartment.

H. LOUNGES:

1. Provide one lounge, at a minimum, for every apartment building within a building complex. *

2. See section II.C. for applicable lounge requirements.