3
LRDP FRAMEWORK
3.1 LRDP Objectives

The five objectives listed below will be used to guide UCSF’s physical development. The objectives are:

1. Respond to the City and Community Context
   A. Coordinate with City agencies in areas of mutual interest
   B. Acknowledge and respond to local zoning and height and bulk limitations to the extent possible
   C. Design new buildings to be sensitive to the surrounding neighborhood and landscape, taking into account use, scale, potential noise generation, and density
   D. Incorporate pedestrian-friendly urban design principles to relate campus buildings to surrounding streetscape and neighborhoods
   E. Consult with neighbors in proximity to UCSF’s sites, guided by Community Planning Principles (described in Section 3.5)
   F. Consider neighborhood and city-wide impacts related to UCSF’s physical growth

2. Accommodate UCSF’s Growth Through 2035
   A. Meet physical needs for growth in research, clinical, and instructional programs at appropriate locations
   B. Address the need for campus housing for students, postdoctoral scholars, house staff and junior and incoming faculty at main campus sites by constructing an adequate number of new units while taking into account financial feasibility and physical site constraints
   C. Provide additional amenities such as retail, permanent child care facilities, recreation and fitness facilities, improved outdoor areas, and other support services to the extent feasible, to enhance the quality of campus life and the public realm
   D. Locate programs and activities at campus sites where they are suitable and compatible with UCSF’s missions, and best foster collaboration, accommodate interdependent programs and reinforce academic and operational relationships
   E. Locate buildings in accordance with campus site-specific objectives, functional zones, and other LRDP elements related to open space, transportation, and utilities
   F. Site and design buildings and develop open space in accordance with the universal planning and design principles contained in the UCSF’s Physical Design Framework

3. Ensure UCSF’s Facilities are Seismically Safe
   A. Ensure inpatient facilities meet state seismic requirements, as set forth in the Alquist Seismic Safety Act (SB 1953), by constructing and maintaining modern, seismically safe hospitals and facilities that will remain operational in the event of a major earthquake
   B. Plan new facilities and implement improvements to comply with UC’s Seismic Safety Policy, to ensure a seismically safe environment for UCSF patients, visitors, physicians and staff
   C. Designate buildings for renovation, demolition, and replacement as warranted

4. Promote Environmental Sustainability
   A. Optimize the use of existing facilities, sites, and campus space through repurposing, renovation, densification and consolidation where appropriate
   B. Reduce commute travel by providing additional campus housing
   C. Reduce the number of UCSF remote locations by consolidation of owned and leased sites, thereby reducing travel between sites
   D. Enhance the Transportation Demand Management program by developing adequate facilities and transportation demand reduction policies, to emphasize transportation alternatives that will lessen auto traffic in and around campus sites and to meet changing needs consistent with the City’s Transit First policy
   E. Continue to prioritize scarce parking for use by patients and essential healthcare providers
   F. Facilitate growth in an environmentally responsible manner while reducing UCSF’s greenhouse gas emissions in compliance with the UC Sustainable Practices Policy and the goals of Assembly Bill 32 (AB 32), the California Global Warming Solutions Act

5. Minimize Facility Costs
   A. Invest in existing facilities to reduce future maintenance costs
   B. Optimize use of existing space to forestall the construction of new buildings
   C. Consolidate leases at owned facilities when appropriate and cost-effective
   D. Eliminate remote campus sites
   E. Target site expansion in areas that strengthen programmatic relationships, allowing resources and support to be shared
These objectives are intended to guide the development of future projects under the 2014 LRDP and enable the evaluation of future projects for general conformance with the LRDP.

3.1.1 OBJECTIVE 1: RESPOND TO THE CITY AND COMMUNITY CONTEXT

UCSF’s owned and leased facilities are dispersed throughout San Francisco, a dense urban area with over 825,000 residents living in roughly 49 square miles. Because UCSF facilities are physically integrated into the fabric of the city, and UCSF provides clinical and research services that complement City services (e.g., community clinics) or are located in facilities owned by the City (e.g., San Francisco General Hospital [SFGH]), there is close collaboration between the two entities. In 1987, the City and UCSF entered into a Memorandum of Understanding, or MOU (attached hereto as Appendix C) to foster harmonious relations between the City and UCSF regarding the growth and development of UCSF facilities within the City’s boundaries. The MOU describes the responsibilities of the City and UCSF for the oversight of their respective land uses and of the development, maintenance, and use of physical facilities, including methods of communication and consultation regarding UCSF’s development.

UCSF consults with the City when planning new development, especially if improvements are being proposed within City rights-of-way adjacent to campus sites. The City coordinates with UCSF whenever changes are being planned in the public streets that run through or adjacent to campus sites. UCSF coordinates on a regular basis with the City of San Francisco Planning Department, Municipal Transportation Agency, Department of Public Works, and Office of Community Planning Department, Municipal Transportation Agency, coordinates on a regular basis with the City of San Francisco Planning Department, Municipal Transportation Agency, Department of Public Works, and Office of Community Planning Department, Municipal Transportation Agency, to address traffic impacts, which are considered along with other alternative transportation opportunities. UCSF also works closely with surrounding community members in acknowledgement that UCSF impacts neighbors in both positive and negative ways. Based on UCSF’s experience, neighbors’ concerns regarding UCSF’s physical development include: traffic and parking; building scale and design; open space treatment, and other impacts that an urban, densely populated institution can have on nearby residents, such as construction and operational noise. UCSF regularly consults with its Community Advisory Group (CAG), a diverse collection of neighborhood, labor, ethnic, and business leaders from throughout San Francisco who have an active interest in UCSF’s activities and physical development (see Chapter 12: Acknowledgements). CAG members typically provide feedback on all UCSF projects, not just those proposed in their own neighborhoods.

The mission of the CAG is to:

• Serve as a community advisory body and sounding board for UCSF administration on planning issues based on both a neighborhood and city-wide perspective
• Assist UCSF in strengthening communication with and engagement of the public on broader issues of community concern
• Provide essential and relevant feedback on programs, campus planning and development activities
• Identify strategies and actions for addressing community concerns

In addition, UCSF regularly conducts community meetings for neighbors near campus sites regarding upcoming projects such as construction projects, building demolitions, and other issues of potential neighborhood concern. UCSF will continue to conduct City and community outreach as projects implementing the LRDP are proposed over time.

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1 North plan: www.sfocii.org/Modules/ShowDocument.aspx?documentid=775
South plan: www.sfocii.org/Modules/ShowDocument.aspx?documentid=777

2 The City’s Transit First policy was adopted as part of the Transportation Element of the San Francisco General Plan. www.sf-planning.org/ftp/general_plan/14_Transportation.html#TRA_TF
3.1.2 OBJECTIVE 2: ACCOMMODATE UCSF’S GROWTH THROUGH 2035

To achieve UCSF’s mission over the next 20 years, the LRDP proposes an additional 2.39 million gross square feet (gsf) in owned and leased buildings,\(^3\) for a total of 11.56 million gsf, across all of UCSF’s sites. The largest proportion of the LRDP increase in capacity is proposed as clinical space, closely followed by research and campus housing space. A substantial amount of support space is proposed, along with a minor amount of instruction space. The LRDP proposes to accommodate most of this growth in new buildings at the Mission Bay campus site, where there is undeveloped land available and infrastructure planned that will support such growth. Additional space in new buildings is proposed at the Parnassus Heights, Mount Zion, and Mission Center campus sites. At Parnassus Heights and Mount Zion, some existing buildings would need to be demolished to allow for new uses. A general description of how this growth is distributed by LRDP space categories is outlined below.

New clinical space would be distributed among the Parnassus Heights, Mission Bay, and Mount Zion campus sites as appropriate to maintain or improve operational efficiency and enhance adjacencies with related research programs. Clinical space would be developed at Parnassus Heights related to adult inpatient services, the Schools, and outpatient and research programs located at this site. The Mission Bay campus site would add clinical space related to children’s, women’s, or cancer outpatient services. Clinical space would be developed at Mount Zion related to existing outpatient services or research programs located there, and some outpatient services would be relocated to Mount Zion from other campus sites to further strengthen that site as an outpatient hub.

New research space would be developed at Mission Bay and at Mount Zion. The LRDP proposes clinical expansion at the Mount Zion campus site, as well as the demolition of several older buildings. A new research building is being considered at SFGH to provide seismically safe research areas for UCSF employees.\(^4\) Didactic instruction is expected to remain primarily at Parnassus Heights, and new instruction space is expected there, as well as at Mission Bay and Mount Zion, to support overall growth.

New campus housing is to be developed at Parnassus Heights and at Mission Bay.

Section 3.2.1 provides an overview of the functional zones and land use space categories. Section 3.3 describes UCSF’s existing and proposed space allocation. UCSF’s current population and projected population through 2035 are described in Section 3.4.

3.1.3 OBJECTIVE 3: ENSURE UCSF’S FACILITIES ARE SEISMICALLY SAFE

Many of the projects proposed under the LRDP are for building renovation and demolition in response to UCSF’s need to ensure that its facilities are seismically safe.

UC SEISMIC SAFETY POLICY

The purpose of the UC Seismic Safety Policy is to provide an acceptable level of earthquake safety, to the maximum extent feasible by present earthquake engineering practice and university resources, for students, employees, and the public who occupy university buildings and other facilities. Feasibility is determined by weighing practicality and the cost of protective measures against severity and probability of injury resulting from seismic occurrences.

In 2012, UCSF updated the seismic evaluations of buildings that had already been assessed, and evaluated those that had not, using a new rating system. This system has seven levels of earthquake damageability, with level V being “Serious,” level VI “Severe,” and level VII “Dangerous.” The highest-priority buildings (those rated level V and above) identified for seismic retrofit, removal, or other appropriate action are:

- **Parnassus Heights**: 735 and 374 Parnassus Avenue, which have since been removed; Clinical Sciences, for which retrofit plans are underway; and UC Hall and the Faculty Alumni House (745 Parnassus Avenue), which are proposed to be retrofitted
- **Mount Zion**: the Hellman and Brunn buildings, which are planned for demolition, and the building at 2255 Post Street, which is proposed to be retrofitted or demolished
- **Mission Center**: the Mission Center building, which is proposed to be retrofitted
- **SFGH**: five City-owned buildings in which UCSF leases space; UCSF is considering a replacement building

CALIFORNIA SENATE BILL 1953

In 1994, Senate Bill (SB) 1953 was passed by the California legislature as an amendment to the Alquist Seismic Safety Act of 1983. The law was in direct response to the Northridge earthquake, which damaged many hospitals in...
the Los Angeles area. SB 1953 requires hospitals to meet progressively higher levels of seismic safety by retrofitting or replacing facilities that do not meet the newer standards. The intent of the law is to ensure that hospitals are structurally sound and are able to offer uninterrupted service after an earthquake.

Moffitt Hospital and the hospital at Mount Zion have a Structural Performance Category (SPC) rating of SPC-2.5. These buildings do not significantly jeopardize life, but may not be repairable or functional following strong ground motion. To comply with SB 1953, UCSF is building a new hospital at Mission Bay by the first deadline of 2015, into which inpatient facilities from both Mount Zion and Parnassus Heights will relocate. To meet the 2030 deadline, rather than undergoing an extensive, expensive, and extremely disruptive retrofit of Moffitt Hospital, the UCSF Medical Center plans to build a New Hospital Addition to Long Hospital, which does comply with the higher seismic standards, and to decommission Moffitt Hospital for clinical uses. This addition will be built on the site of the aged Langley Porter Psychiatric Institute after it is demolished.

3.1.4 OBJECTIVE 4: PROMOTE ENVIRONMENTAL SUSTAINABILITY

The University of California is committed to responsible stewardship of its physical resources and to demonstrating leadership in sustainable practices. To that end, the UC President has adopted a detailed Sustainable Practices Policy that establishes goals for the individual campuses in nine areas of sustainable practices: green building, clean energy, transportation, climate protection, sustainable operations, waste reduction and recycling, environmentally preferable purchasing, sustainable foodservice, and sustainable water systems. In addition, UCSF is striving to reduce the generation of hazardous materials and the use of toxic cleaning and other products. UCSF’s Living Green program is intended to inform and engage the campus and medical center community to act more sustainably.

UCSF’s Sustainability Governance consists of the Academic Senate Committee on Sustainability and the Chancellor’s Advisory Committee on Sustainability (CACS). The Academic Senate Committee on Sustainability identifies faculty recommendations on improving sustainability at UCSF. The CACS is charged to:

- Annually examine UCSF’s effect on the environment from a comprehensive perspective;
- Evaluate existing UCSF policies, procedures, and programs that affect the environment;
- Serve as a coordinating body for groups or individuals concerned with sustainability issues;
- Advise selected work groups in the development and implementation of UCSF’s sustainability initiatives and goals; and
- Support reduction of greenhouse gas emissions to 1990 levels by 2020.

UCSF CLIMATE ACTION PLAN AND GREENHOUSE GAS REDUCTION STRATEGY

As part of implementing the UC Sustainable Practices Policy, UCSF is required to develop a long-term strategy for voluntarily meeting the State of California’s goal for reducing greenhouse gas (GHG) emissions to 1990 levels by 2020, pursuant to the California Global Warming Solutions Act of 2006 (AB 32).6

In 2007, UCSF signed the American College and University President’s Climate Commitment (ACUPCC)7 to complete an emissions inventory, set target dates and interim milestones for becoming climate-neutral,8 take steps to reduce GHG emissions, and prepare public progress reports. As an intermediate target, UCSF established the goal of reducing GHG emissions to 2000 levels by 2014, and intends to achieve climate neutrality as soon as possible after achieving the 2014 and 2020 reduction targets.3 UCSF GHG emissions reduction goals pertain to emissions of the six Kyoto greenhouse gasses originating from sources specified in the ACUPCC.10 The sustainability policy specifies that these goals will be pursued while maintaining the primary research and education mission of the University.

As part of the LRDP, UCSF is updating its portfolio of GHG reduction strategies (Appendix E: UCSF Greenhouse Gas Reduction Strategy). These strategies include the

5 Buildings with SPC-2 ratings must be brought into compliance with the structural provisions of the Alquist Seismic Safety Act, its regulations or its retrofit provisions by January 1, 2030, or be removed from acute care service. www.oshpdc.ca.gov/FDO/seismic_compliance/SB1953/SesPerRatings-v3-2.html#SPC2

6 www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.pdf

7 www.presidentsclimatecommitment.org/about/commitment

8 Climate neutrality for UCSF is defined as the University having a net-zero impact on the Earth’s climate; it will be achieved by minimizing GHG emissions as much as possible and using carbon offsets or other measures to mitigate the remaining GHG emissions (UCSF Climate Action Plan, December 2009).

9 CA Executive Order S-3-05 calls for reducing GHG emissions in stages, down to 80 percent below 1990 levels by 2050. gov.ca.gov/news.php?id=1861

10 The six greenhouse gases identified in the Kyoto Protocol/ACUPCC are carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons.
following: campus infrastructure improvements, renewable energy facilities construction, renewable energy purchase, equipment retrofits, operational energy efficiencies, new construction energy efficiency, and measures that can be applied to individual projects with the goal of incrementally reducing UCSF’s overall GHG emissions over the LRDP horizon. UCSF has prepared and previously published comprehensive emissions inventories covering Scope 1 and 2 for the 1990 baseline,11 2000 interim year, year 2012, and future projections (2020 and 2035). UCSF’s emissions make up about 2.8 percent of the City’s estimated total emissions of 5.3 million metric tons of CO₂e/year. UCSF per capita emissions for 2013 were 5.5 metric tons of CO₂e/year, slightly lower than the 6.5 metric tons of CO₂e/year per capita emissions for the City of San Francisco.

UC’s goal is to conform with AB 32 and the California Air Resource Board’s (CARB) scoping plan.

UCSF has one facility – the Parnassus Central Utility Plant (CUP) – that increases UCSF emissions to a level that makes it subject to cap-and-trade rules under AB 32. The Central Utility Plant is a co-generation facility that burns natural gas and generates electricity and steam efficiently, but nonetheless generates emissions from the combustion of natural gas. UCSF has pre-purchased cap-and-trade allowances for this facility for future years. UCSF has also committed to purchasing bio-methane to meet its 2014 interim Sustainable Practices Policy goal. Despite the addition of significant space and population over time, UCSF intends to meet its 2020 emissions goals.

The UC President has set a goal for UC to become a zero net energy consumer by 2025 and use only clean energy.12 UC is actively working on the President’s initiative to be the first university to achieve net energy and carbon neutrality,13 with efforts planned or underway to:

• Create a shared service center, which both owns electricity-generation resources and purchases long-term forward contracts, and which will manage the supply of wholesale electricity to campuses eligible for direct access.
• Continue energy-efficient projects and expand them to include small- to medium-scale renewable energy sources at all campus sites, and seek additional funding sources for these projects.
• Effectively manage the purchase of natural gas to mitigate risk of price increases, develop renewable natural gas (biogas) use and purchase biogas contracts through outside producers.
• Manage energy allowances and offsets, comply with California’s cap-and-trade program and other environmental attribute programs, and generate new funds to support projects resulting in GHG emission reductions.

SUSTAINABLE GROWTH AND TRAFFIC MITIGATION

To grow as sustainably as possible, UCSF will minimize new development by reinvesting in existing facilities and utilizing them more efficiently. This will be accomplished by implementing a new campus space policy to ensure optimal use of space, and by increasing the density of occupants, as described in Section 3.1.5: Objective 5: Minimize Facility Costs.

To further promote sustainable transportation and mitigate traffic, UCSF will:

• Seek opportunities to consolidate its campus population to fewer locations by terminating leases and vacating sites in more remote locations, which will reduce the amount of private vehicle and UCSF shuttle traffic throughout the day between campus sites.
• Build additional campus housing at the Parnassus Heights and Mission Bay campus sites to reduce commute travel.
• Implement more robust Transportation Demand Management (TDM) measures to discourage the use of private vehicles and drive-alone commuting: enhance the City CarShare and UCSF’s carpool programs; expand bicycle parking and access to showers and lockers; promote ridesharing participation; and, with new campus development, enhance the shuttle system.
• Regularly monitor UCSF-generated traffic to ensure that traffic volumes do not increase beyond what is projected in the LRDP Environmental Impact Report (EIR); if it does, mitigate per LRDP EIR measures.
• Reduce truck deliveries to campus sites, and reduce the impact of such deliveries on neighbors.
• Prioritize scarce parking for use by patients and essential healthcare providers at those sites with Medical Center facilities, and keep parking-space-to-building-space ratios low.

3.1.5 OBJECTIVE 5: MINIMIZE FACILITY COSTS

To achieve UCSF’s mission to advance health worldwide at a time of shrinking financial resources and increasing construction, maintenance, and operating costs, UCSF’s financial strategy for facilities seeks to:

• Control maintenance costs by investing in existing facilities;
• Limit new construction by using existing and future space more efficiently;
• Minimize the cost of building leases by moving programs into UCSF-owned buildings and consolidating leases; and
• Avoid expensive investment and operational costs by reducing the number of remote campus sites, such as Hunters Point and Oyster Point, if feasible. Oyster Point houses a warehouse which provides distribution, storage, and mail services to UCSF campus sites. Should Oyster Point be relinquished as part of UCSF’s strategy to reduce the number of its remote sites, a suitable relocation plan for these activities would need to be identified in order to accommodate these functions and promote sustainable growth and traffic mitigation goals.

INVESTMENT IN EXISTING FACILITIES

New construction, unless related to opportunities to consolidate space or when gifts for new buildings are secured, will take a back seat to investment in existing facilities in the next 10-year funding period, and possibly through the remainder of the life of the LRDP, depending on the availability of financial resources. UCSF has significantly increased its inventory of new buildings over the past decade, but continues to have an enormous backlog of deferred maintenance and renewal projects, which are needed to keep buildings operating reliably and efficiently. There is also a backlog of projects for life-safety systems, accessibility, and environmental compliance. These projects exceed normal operating costs and require unprecedented investment to extend the useful life of aging buildings.

UCSF maintains a comprehensive list of Facility Investment Needs (FIN) to quantify and prioritize deferred maintenance and capital improvement infrastructure projects. This list is generated with information from the Facilities Infrastructure and Renewal Model (FIRM), a planning tool used by UC campuses and maintained by the Office of the President to plan for the renewal or replacement of aging building systems in state-supported buildings, with input from knowledgeable staff. It is updated annually as new needs arise and facility condition assessments are performed.

The 2013 FIN list contains more than one hundred projects listed in order of priority based on a number of weighted criteria. About 30 projects across campus sites were identified as top priorities, including projects associated with seismic retrofits for the Clinical Sciences and UC Hall buildings at Parnassus Heights. With a total of approximately $450 million (in 2012 dollars) to implement all the high-priority projects, it is understood that only a few projects can be funded in any given year.

In 2009, the UCSF Medical Center produced a multi-year investment plan for the Parnassus Heights and Mount Zion campus sites. The Building Portfolios report called for a shift from expanding and improving programs to investing in building systems and infrastructure after the new Medical Center at Mission Bay becomes operational, and portions of Moffitt and Long Hospitals are vacated. The report also addresses the future transition to outpatient use of the hospital at Mount Zion, and the need for seismic upgrades and extensive code-compliance work associated with the adaptive reuse of facilities at that site. Building Portfolios identified a “must do” list with nearly $200 million of projects that might be accomplished in seven years, which the Medical Center is attempting to implement.

During preparation of the LRDP, UCSF buildings were evaluated to determine which buildings should be considered for demolition versus investment. This assessment relied upon the Facilities Condition Index (FCI) of each building, a tool that helps identify the relative condition of a building. A “good to

14 Sightlines, LLC. UCSF Medical Center Building Portfolios Report, 2009.
excellent” facility typically has an FCI value of zero percent to 10 or 15 percent, but must be tailored to the set of buildings being compared and their conditions. Of the 40 buildings evaluated, over half had FCI values exceeding 15 percent, an indication of the overall poor condition of UCSF buildings.

UCSF will continue to rigorously assess the condition of existing space to establish budget priorities for capital projects, including demolitions. UCSF’s 2013-23 Capital Financial Plan prioritizes projects that address the seismic problems and infrastructure deficiencies, particularly at Parnassus Heights and San Francisco General Hospital, and the backfilling of space at Parnassus Heights and Mount Zion after some clinical programs relocate to Mission Bay.

EFFICIENT USE OF EXISTING SPACE

In 2013, UCSF implemented a revised campus space policy to ensure that existing space is economically sustainable and optimally allocated, used, and managed for its stated purpose in alignment with UCSF’s strategic priorities. The policy provides a framework for equitable, transparent, and effective governance of space throughout UCSF and applies to the allocation, evaluation, and retention of space for all uses. Better utilization of space will be achieved in part by holding all units accountable for the same economic performance for the same type of space (e.g., wet-lab economic performance should be identical across Schools). In addition to implementing this policy, UCSF will renovate obsolete labs, and repurpose vacant and underutilized space. Increased efficiency will help release space for some of the LRDP’s projected growth.

EFFICIENT USE OF FUTURE SPACE

Under this LRDP, growth will occur at campus sites where new buildings can be reasonably accommodated: primarily at Mission Bay; to a limited extent at Parnassus Heights and Mount Zion; and, if needed, in a new building at Mission Center. UCSF intends to build more densely in the future, especially at Mission Bay, by constructing taller buildings than originally planned in the Mission Bay Campus Master Plan and Design Guidelines.

Because of limited resources for new space, the future Mission Hall building on the North Campus of the Mission Bay site was designed using the Activity Based Workplace (ABW) model. In lieu of traditional private offices, the ABW model provides designated workstations to all employees in the building, but in smaller, more open environments. Employees have access to special rooms in the building for privacy and various group activities. This model has the advantage of accommodating more occupants in the same amount of space as traditional office buildings. Mission Hall will serve as a test case to determine how successful the model is in terms of productivity, employee morale, and collaboration. Regardless of the outcome, UCSF will continue to evaluate ways to use future space efficiently, as well as to design energy- and water-efficient buildings.

FEWER LEASES AND SITES

UCSF will seek opportunities to consolidate leases and relocate occupants of leased space into buildings owned by UCSF. These actions, where practicable, will help control long-term occupancy costs through ownership, and will improve UCSF’s overall efficiency.

UCSF will also explore opportunities to consolidate owned space into fewer locations by relocating functions from remote sites and relinquishing those sites where feasible. This long-term goal for consolidation will help guide future decisions for UCSF’s remote sites and leases.

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17 campusplanning.ucsf.edu/physical/missionbayplan.php
3.2 PLAN ELEMENTS

The four required elements of an LRDP are: (1) land use, (2) open space, (3) circulation, transportation, and parking, and (4) utilities and other infrastructure. The land use element includes functional zone maps that illustrate the general location of proposed uses, which serves to guide future decisions as to where to locate buildings and uses. The open space element indicates the locations of open space, and how it relates to campus buildings and the campus as a whole. The circulation and transportation element considers how people get to and from and around campus sites using various modes of travel, and includes parking. The utilities and other infrastructure element addresses significant utility system or infrastructure facilities needed to accommodate growth. These elements are described in general terms below. Site-specific discussions of the elements as they pertain to the three main campus sites appear in Chapters 4, 5, and 6.

3.2.1 LAND USE

LRDP SPACE CATEGORIES

UCSF building space is occupied for various institutional uses according to the following major categories:

- **Instruction**, including classrooms, teaching laboratories, seminar rooms, and academic offices
- **Research**, including research conducted in laboratories and offices
- **Clinical**, including space for services provided to patients in hospitals or clinics such as inpatient rooms, surgical rooms, radiation services, diagnostic laboratories, and treatment rooms, and for functions that directly support patient care such as nursing stations, administrative offices, and conference rooms
- **Support**, consisting of the following types of uses:
  - **Academic Support**, including library and animal care space
  - **Academic and Campus Administration**, including all administrative space at the department, school, and campus levels: deans’ and directors’ offices, conference rooms, copying facilities, etc., as well as non-academic support space such as police, personnel, and accounting offices
  - **Campus Community**, including campus amenities such as recreation, fitness, child care, conference centers, food service, and retail
- **Logistics**, including space devoted to the delivery of materials and physical plant space such as machine shops, service yards, laundry services, utilities, and storage
- **Housing**, including residential facilities for students, postdoctoral scholars, clinical residents, and faculty

FUNCTIONAL ZONES

Land use designations are described in the LRDP using functional zones, which provide guidance for where certain types of uses are best located, based on desired land use adjacencies and other geographic considerations. The LRDP includes six categories of functional zones: research, clinical, support, housing, open space, and parking. For program and operational efficiencies, clinical and research functional zones tend to cluster in an area. For circulation reasons, parking functional zones are typically situated on campus edges. To create an active and inviting campus setting, housing, open space and support zones are located throughout the campus sites. Table 3 describes the land use functional zones for UCSF’s main campus sites at Parnassus Heights, Mission Bay, and Mount Zion, and the predominant and secondary uses that are permitted within each zone. The space categories above are generally consistent with these functional zones, except instruction space, which is distributed throughout the research, clinical, and support zones. Functional zone maps are provided for each main campus site to guide the location of future capital construction and infrastructure development. The functional zones for these three campus sites are described and illustrated in figures in Chapters 4, 5, and 6, respectively, and represent the desired spatial organization of uses to optimize use of UCSF’s limited land resources and promote efficient operations.

Future proposed projects will be considered to be in general conformance with the LRDP if its land use is consistent with the established functional zone and LRDP objectives.

No functional zone is specifically identified for instruction since medical education occurs in a variety of settings, including research labs and support space (such as the Teaching and Learning Center in the Library), as well as in the clinics and hospitals. This is also a reflection of assumptions made by the LRDP Instruction subcommittee, as discussed in Section 3.3.2, about the future of teaching and learning being even more dispersed in various locations, with the possibilities for virtual interaction and the need for flexible, technology-enabled learning space throughout campus sites.

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18 UCSF’s building space database relies on room use codes that fall within these categories.
Table 3: Predominant & Secondary Uses in Functional Zones

<table>
<thead>
<tr>
<th>FUNCTIONAL ZONE</th>
<th>PREDOMINANT USE</th>
<th>SECONDARY USES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research</td>
<td>Research activities</td>
<td>Offices, Clinics, Instruction space, Support uses, Open space, Parking</td>
</tr>
<tr>
<td>Clinical</td>
<td>Clinical activities</td>
<td>Offices, Research activities, Instruction space, Support uses, Open space, Parking</td>
</tr>
<tr>
<td>Support</td>
<td>Offices, Food services, Retail, Child care, Recreation and fitness, Conference space, Library, Police services, Animal care, Utilities, Other support activities</td>
<td>Instruction space, Housing, Open space, Parking</td>
</tr>
<tr>
<td>Housing</td>
<td>Campus housing</td>
<td>Support uses, Open space, Parking</td>
</tr>
<tr>
<td>Open Space *</td>
<td>Major open space areas</td>
<td>Recreation and fitness, Retail, Parking</td>
</tr>
<tr>
<td>Parking</td>
<td>Structured parking</td>
<td>Support uses, Open space, Surface Parking</td>
</tr>
</tbody>
</table>

* The area designated as Mount Sutro Open Space Reserve shall be kept free of any permanent structures or facilities except footpaths and appropriate landscape construction intended to enhance its use as a natural area.
3.2.2 OPEN SPACE

UCSF’s open spaces vary widely in size and character. The Mission Bay campus site has a great deal of open space, including Koret Quad and open space plazas at all building entrances; open space and connectivity has been integral to every plan and design for the campus site. The 61-acre Mount Sutro Open Space Reserve, an urban forest under the stewardship of UCSF, is located at the Parnassus Heights campus site; it includes a popular public trail system for hiking and biking. Otherwise, however, UCSF’s open spaces are mainly limited to relatively small courtyards and plazas surrounded by campus buildings, and some tree-lined streets and landscaped areas. These open spaces and landscaped areas provide valuable opportunities for people to relax, socialize, eat lunch, study, play, heal, or otherwise be outdoors.

Under this LRDP, UCSF is committed to improving existing open space and creating new open space areas as part of new building proposals. These will be improved or developed in accordance with the universal planning and design principles in the UCSF 2010 Physical Design Framework. Because of the lack of outdoor recreation and fitness facilities, one priority is a sports field, which can best be accommodated at the Mission Bay campus site.

Proposed open space areas are depicted on functional zone maps and other figures in Chapters 4, 5, 6, and 7.

3.2.3 CIRCULATION, TRANSPORTATION, AND PARKING

Being multi-site and integral to the city, UCSF is acutely aware of its impact on the street network and parking supply. UCSF proposes to continue to enhance its Transportation Demand Management program and encourage its faculty, staff and students to use alternative modes of travel to driving alone to campus sites. Growth would require some additional parking, but consistent with UCSF’s parking policy, parking would be prioritized for patients and essential healthcare providers. The LRDP also proposes to reduce congestion and truck deliveries to campus sites through transportation improvement measures. A critical transportation goal is to reduce UCSF’s greenhouse gas emissions.

Direct, aesthetic, and experiential pedestrian connectivity is stressed in the UCSF 2010 Physical Design Framework and will be considered as buildings and open space are developed. The needs of pedestrians on public streets that pass through campus sites and have UCSF shuttle and Muni stops, particularly Parnassus Avenue at Parnassus Heights, Fourth Street at Mission Bay, and Sutter and Divisadero streets at Mount Zion, would be given the greatest consideration.

3.2.4 UTILITIES AND OTHER INFRASTRUCTURE

Under the 2014 LRDP, UCSF intends to invest considerable financial resources in improving and expanding its infrastructure. This would include utilities within and between existing buildings, as well as utilities to serve new structures. A goal of the LRDP is to shift away from equipping new buildings at Mission Bay campus site with utilities that could be incorporated more efficiently in a central utility plant, and to install redundant utility loops at the Mission Bay and Parnassus Heights campus sites to increase service reliability.
3.3 LRDP EXISTING AND PROPOSED SPACE PROGRAM

3.3.1 EXISTING SPACE AND BUILDINGS UNDER CONSTRUCTION

As of 2014, UCSF occupies approximately 8.04 million gsf in owned and leased space at all of its campus sites as seen below in Figure 3 and detailed in Appendix A, excluding approximately 1.62 million gsf in structured parking.

In addition to this, approximately 1.13 million gsf of new construction is underway at Mission Bay: Phase 1 of the UCSF Medical Center at Mission Bay, scheduled for completion in 2015, and Mission Hall, scheduled for completion in late 2014.

Figure 3: Existing Space at All Sites in 2014
3.3.2 PROPOSED SPACE PROGRAM

This LRDP proposes an additional 2.39 million gsf, for a total of 11.56 million gsf, in owned and leased buildings across all of UCSF’s sites through 2035. The 11.56 million gsf includes 1.13 million gsf that is currently under construction at the Mission Bay campus site. The allocation of this space for instruction, clinical, research, and support uses is described below in Figure 4 and summarized in Appendix A by site and LRDP space category. In order to provide development flexibility for unforeseen needs over the life of the LRDP, the proposed space program provides for more space than what was projected by the LRDP Oversight Committee and its subcommittees. All square footage proposed under the LRDP is subject to funding availability and CEQA evaluation as individual projects arise for consideration.

Including the 1.13 million gsf currently under construction, UCSF’s total space program would increase by approximately 3.52 million gsf, or 44 percent over the existing (2014) program amount (Appendix A). It is important to note that the ability of UCSF to implement the proposed LRDP space program is dependent on the availability of future funding to support all of the potential capital projects generally described in subsequent chapters. Some near-term LRDP proposals are currently included in the 10-year Capital Financial Plan, which will be updated annually.

Although a major portion of the additional space would be accommodated in new buildings on campus sites, new construction will take a back seat to investment in existing facilities in the next 10-year funding period, and possibly through the remainder of the life of the LRDP, because of financial constraints. For this reason, some of the need for space would be met by improving utilization of existing vacant or underutilized space, consolidating existing functions or leases, converting existing space to other uses to meet changing priorities (e.g., converting office space at Parnassus Heights to housing, and renovating Moffitt Hospital to provide hospital support areas after 2030).

Figure 4: Proposed Space at All Sites in 2035

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INSTRUCTION

The proposed space program for instruction space is approximately 101,300 gsf over the existing amount of 607,500 gsf, for a 2035 total of 708,800 gsf. This number is based on projected student enrollment (Table 4), UCSF’s financial ability to renovate academic space to accommodate the increase in the number of students, current classroom utilization rates, and other factors. An increase of about 13 percent in enrollment is expected by 2025. (It is assumed for the purposes of these calculations that enrollment after 2025 would remain relatively flat.) Unlike general campus students, graduate health science students rely largely on National Institutes of Health (NIH) funding and other self-supporting programs. A substantial amount of the enrollment growth will be in self-supporting master’s degree programs, with some growth in professional school and graduate programs. Classroom instruction for all four Schools would continue to occur primarily at Parnassus Heights, but would increase over time at Mission Bay with the opening of the new hospital in 2015.

The Instruction Subcommittee made assumptions about the future of educational and instructional programs, and recommended an optimal amount and configuration of instruction space to propose across UCSF campus sites based on those assumptions. The subcommittee assumed that teaching and learning will change dramatically due to the influence of new technologies, mobile and distance learning, a shift away from traditional instructor-centered teaching toward student-centered learning, and the increased use of team- and project-based methods in virtual and workplace environments (e.g., clinical and community settings). Learning is expected to occur less at fixed locations because of mobile devices and access to online resources. There will be a need for more flexible, technology-enabled learning space on campus. With the exception of new instruction space planned at Mission Bay, much of the need for future instruction space is to be met by the conversion or reconfiguration of existing space.

RESEARCH

The existing amount of research space is about 2.12 million gsf. The proposed research space program is an additional 951,500 gsf over the existing amount, for a 2035 total of 3.07 million gsf. This includes space for wet and dry research laboratories, translational research, clinical trials, and administrative and technology support. The Research Subcommittee took into consideration such factors as emerging areas of research, anticipated levels of federal and private funding, and the pace of faculty retirement and recruitment efforts. To optimize use of existing resources, the subcommittee assumed that research growth would be met in existing facilities and that construction of new buildings would be limited to those with secured funding until 2021. Between 2021 and 2030, the subcommittee assumed an annual growth rate of 2.5 percent. The subcommittee made no projection for additional space beyond 2030 due to the uncertainty in funding and unforeseen industry trends that far into the future. To encourage collaboration, the subcommittee also recommended that future resources be directed toward more centralized research programs.

Research growth would occur at Mission Bay, both in support of existing research programs and where programs such as early human development and cancer research would align with the new Medical Center. New research space could also be developed at Mount Zion to support the existing research projects and new outpatient programs.

CLINICAL

The existing amount of clinical space is about 1.95 million gsf. The proposed clinical space program, including inpatient, outpatient, and office space, is an additional 1.08 million gsf over the existing amount. The Clinical Subcommittee considered major initiatives that were underway, the possible impacts of health care reform, projected changes in patient enrollment levels, the plans of other healthcare providers, and

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Table 4: Existing & Projected Enrollment

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>FALL 2013</th>
<th>PROJECTED 2025-2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>School of Dentistry</td>
<td>477</td>
<td>696</td>
</tr>
<tr>
<td>School of Medicine</td>
<td>2,926</td>
<td>2,840</td>
</tr>
<tr>
<td>School of Nursing</td>
<td>726</td>
<td>870</td>
</tr>
<tr>
<td>School of Pharmacy</td>
<td>630</td>
<td>982</td>
</tr>
<tr>
<td>TOTAL *</td>
<td>4,759</td>
<td>5,388</td>
</tr>
</tbody>
</table>

* Enrollment figures exclude postdoctoral scholars, clinical fellows, and some international students in self-supporting programs.
other market considerations in developing assumptions for the long-term growth of UCSF’s clinical enterprise. The clinical enterprise consists of the UCSF Health System – the UCSF Medical Center (the hospitals plus all clinics and physician practices operated by the Medical Center and the School of Medicine) – and the UCSF Dental Center.

By 2035, the hospital average daily census is expected to increase the inpatient space need by 23 percent, based on current activity, historical growth, and staff estimates of future growth for pediatric, obstetric, and other adult programs. This projection reflects plans to: 1) move some programs from Moffitt and Long Hospitals at Parnassus Heights and from the hospital at Mount Zion to new facilities at Mission Bay when these open in early 2015; 2) backfill the clinical space vacated by these moves with new clinical activity in Moffitt and Long Hospitals; and 3) occupy a New Hospital Addition planned at Parnassus Heights by 2030, to respond to the seismic deadline for inpatient facilities. Clinical growth is expected to be highest in the near term with the opening of the Medical Center at Mission Bay, followed by less growth thereafter until the construction of the New Hospital Addition at Parnassus Heights. Between 2030 and 2035, the inpatient average daily census is projected to grow by only 4 percent, and would be accommodated in these facilities. Considering the financial resources that will be needed to complete the New Hospital Addition at Parnassus Heights, it is likely that Phase 2 of the UCSF Medical Center at Mission Bay will be built after 2035, beyond the LRDP horizon.

Outpatient visits are projected to grow 34 percent by 2020, 22 percent between 2020 and 2030, and another 5 percent through 2035. The projected outpatient growth through 2020 would be accommodated in buildings that are planned or under construction as part of Phase 1 of the Medical Center at Mission Bay. Future outpatient programs would be co-located with their respective inpatient activities and research programs at Mission Bay and Parnassus Heights. Outpatient growth after 2020 would be met at Mount Zion, which would be developed as an ambulatory care center with a focus on high-volume outpatient programs. After 2030, the inpatient space vacated in Moffitt Hospital would be available for hospital support and additional outpatient demand.

SUPPORT

As program space grows, additional support space will be needed. UCSF estimates a need for roughly 710,400 gsf of new support space, including additional administration, child care, retail, recreation and fitness, and conference space. Structured parking is under its own functional zone category and is not included as support. Cross-campus support space is discussed in more detail in Chapter 11.

HOUSING

The projected growth of 667,600 gsf for housing is based on the potential capacity for new housing at Parnassus Heights and Mission Bay, and non-residential uses that could be converted to housing at Parnassus Heights. A more complete discussion of housing needs and proposals are in Chapter 11.

PARKING

Surface parking is proposed to be accommodated within each functional zone as an allowable secondary use. Structured parking (i.e., garages) is proposed in the Parking functional zone and is generally proposed to be located at the periphery of main campus sites to enable easier pedestrian movement within the campus core. Smaller garages would be allowed in non-parking zones if built as part of a larger structure such as faculty housing. A summary of existing and proposed parking facilities is shown in Table 12 in Section 11.3.4.

20 Some of this space need was determined by applying multipliers to base space needs (e.g., research), or by assuming a constant ratio to the amount of existing space (e.g., logistics).
3.4 EXISTING AND PROJECTED POPULATION

UCSF’s population across all sites in 2012-13 and the estimated population upon full implementation of the LRDP space program are provided by population type in Table 5. The total population across all campus sites is projected to increase by approximately 14,900. UCSF population includes students, clinical residents, faculty, staff, postdoctoral scholars, patients, and visitors.

Table 5: Existing & Projected Population

<table>
<thead>
<tr>
<th>POPULATION TYPE</th>
<th>EXISTING 2013 POPULATION</th>
<th>PROJECTED POPULATION IN 2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students a</td>
<td>4,760</td>
<td>5,390</td>
</tr>
<tr>
<td>Faculty b</td>
<td>3,170</td>
<td>4,220</td>
</tr>
<tr>
<td>Staff c</td>
<td>16,440</td>
<td>24,570</td>
</tr>
<tr>
<td>Unpaid Faculty d</td>
<td>4,920</td>
<td>5,340</td>
</tr>
<tr>
<td>Postdoctoral Scholars and Clinical Fellows e</td>
<td>1,550</td>
<td>1,550</td>
</tr>
<tr>
<td>Patients f</td>
<td>3,560</td>
<td>5,850</td>
</tr>
<tr>
<td>Visitors g</td>
<td>5,020</td>
<td>7,350</td>
</tr>
<tr>
<td>TOTAL b</td>
<td>39,420</td>
<td>54,270</td>
</tr>
</tbody>
</table>

Note: Numbers rounded to nearest 10.

- a Students as of fall 2013; includes all Clinical Residents.
- b Does not include volunteer faculty or community health providers.
- c Full-time equivalent staff as of fall 2013. Population categories are not additive to total number of employees.
- d The majority of unpaid faculty are not physically present on campus daily.
- e Clinical fellows are postgraduate medical trainees undertaking post-certification educational training.
- f Average daily inpatient population and outpatient visits to outpatient care clinics, private practice physicians, dental clinics, and other referred visits.
- g Includes visitors to patients, faculty, students, and staff; conference center visitors; participants in continuing education and recreation programs; volunteers; children at child care facilities; and vendors.
- h Does not include Phase 2 of the Medical Center at Mission Bay, which is assumed to be completed beyond the 2035 horizon of the LRDP.
3.5 COMMUNITY PLANNING PRINCIPLES

3.5.1 BACKGROUND

While the LRDP Objectives described above are intended to guide UCSF’s physical development under the 2014 LRDP and serve as criteria for evaluating future projects for general conformity with the LRDP, UCSF has partnered with its neighbors to also prepare Community Planning Principles. These Principles formalize UCSF’s commitment to communicate with neighbors regarding its space needs and potential future development, in order to identify potential community concerns that may arise from UCSF’s physical development prior to the time that individual projects are brought forward for approval.

The Community Planning Principles are intended to aid UCSF in both complementing and advancing the planning priorities of the City and of its campus neighbors, and were jointly developed by the UCSF Community Advisory Group and the UCSF LRDP Oversight Committee. They are inspired by the 1996 LRDP Goals and Objectives as well as by the 2008 UCSF Mission Bay Community Planning Principles—all of which resulted from campus-community collaboration. The Community Planning Principles supersede the 1996 LRDP Goals and Objectives and the 2008 UCSF Mission Bay Community Planning Principles, and apply to UCSF’s development throughout San Francisco, including at existing campus sites (“on-campus development”) as well as at other locations (“off-campus development”), as of adoption of the 2014 LRDP and at locations which may be proposed in the future.

3.5.2 OVERARCHING PRINCIPLES

The Community Planning Principles include five Overarching Principles, augmented by Community Planning Goals. The five Overarching Principles, below, describe how UCSF will communicate with neighbors about its physical development plans both on- and off-campus, and consider the cushioning of impacts that result from UCSF’s development. In order to support the implementation of these five Overarching Principles, Community Planning Goals are also identified covering a range of potential topic areas, representing what UCSF will strive for in implementing the overarching principles. The Community Planning Principles are presented together in Appendix D.

OP1. COMMUNITY CONSULTATION

Recognizing community concerns about the potential negative effects of UCSF’s development on adjacent neighborhoods:

- To the extent allowed by confidentiality agreements governing real estate transactions, UCSF will consult with the community before initiating a project that could result in property acquisition if the proposed project might not conform to the use, height, bulk, density, design or open space restrictions established for the site by City zoning; would affect historic resources; or would require conditional use authorization or variance were the project to be developed by a private party.

- UCSF will consult with the community before decisions are made to intensify use of existing property. Optimizing use of its space and physical assets is a critical objective of UCSF during this next LRDP period.

This principle is not intended to eliminate the normal communication between UCSF and its neighbors during the life of a project regarding exterior design, landscaping, parking and traffic, or other project elements.

OP2. COMMUNITY NOTIFICATION

When UCSF acquires property it will list these acquisitions on a website and notify the Community Advisory Group (CAG) and other neighbors as requested.

OP3. CUSHIONING OF IMPACTS

When UCSF acquires property or intensifies use of existing property, it will, on a case-by-case basis, enter into discussions with community groups representing adjoining neighborhoods and/or with the City to identify neighborhood impacts, if any, of such lease, acquisition, development, and operations.

In the event that UCSF, the community groups, and/or the City agree that such impacts are likely to occur, UCSF will enter into further discussions with the community groups and/or the City to identify potential cushioning actions to offset such impacts. Any agreements by UCSF to undertake cushioning actions will be documented in a formal agreement between UCSF, the community groups, and/or the City. These agreements could utilize a community benefits district, if one were to be established by the City.

21 "Acquire property": acquire property through lease or purchase, or acquire property by gift, and develop such property for UCSF use.

22 "Intensify use of existing property": develop or change the use of an existing property, if the proposed project would increase the square footage or population of the campus site in a manner that could reasonably be expected to trigger community concern.
Volunteers with the non-profit Sutro Stewards maintain trails and habitat on Mount Sutro.
The cushioning of impacts could be in addition to any mitigation measures that might otherwise be required to reduce significant impacts to a less-than-significant level as a result of any required CEQA review of a proposed project. OP3-guided actions are considered separate from and in addition to the proportional share funding described below in OP4.

As a state-supported institution, UCSF must manage its resources in a manner consistent with its mission. Therefore, monetary and non-monetary contributions to community facilities or programs must be consistent with UCSF’s mission and directly benefit UCSF, its students, and its employees. Examples of voluntary community assistance measures might include (but are not limited to) physical improvements to open space facilities near UCSF sites; enhanced street lighting, landscaping, and street fixtures around the perimeter of campus facilities; shared open space on the UCSF campus; joint use of UCSF facilities for community and campus functions; and employment programs that serve the community and provide skilled workers for UCSF’s programs.

**OP4. “PROPORTIONAL SHARE” FUNDING**

UCSF will provide “proportional share” funding\(^2\) to the City to pay for adopted mitigation measures that are the responsibility of the City and identified in CEQA documents prepared for UCSF projects to reduce or avoid UCSF’s share of significant off-campus environmental impacts caused by UCSF development.

**OP5. COMMUNITY INVOLVEMENT MECHANISM**

The mechanism for ongoing community involvement in monitoring the UCSF development process and in negotiating agreements with adjoining neighborhoods is the UCSF CAG and/or its sub-committees, the CAG Action Teams. UCSF is responsible for the ongoing coordination and inclusion of neighborhood and community-based organizations in these planning efforts. Prior to development, UCSF will consult with CAG members for advice on appropriate community representatives for community consultation processes, depending on the location of the projects to be discussed.

\(^2\) CEQA Guidelines, Section 15126.4(a)(4)(B)