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**UNIVERSITY OF CALIFORNIA, BERKELEY**  
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## 9 OVERVIEW OF THE FINAL EIR

The Final Environmental Impact Report for the UC Berkeley 2020 Long Range Development Plan and Chang-Lin Tien Center for East Asian Studies consists of the following:

- Volume 1, Chapters 1 through 8 and Volume 2, Technical Appendices, published April 2004. These volumes include the Draft 2020 Long Range Development Plan, a description of the proposed Chang-Lin Tien Center for East Asian Studies, and the environmental analysis, including technical studies, of the proposed project. These two volumes constitute the Draft 2020 LRDP EIR.
- Volume 3a and 3b, published January 2005. Chapters 9 through 11 in Volume 3a and 3b describe the changes made to the Draft 2020 LRDP EIR in response to comments by agencies and the public.
  - Section 9.1 consists of all substantive changes to the Draft EIR text, figures and tables that have been incorporated into the Final EIR. The purpose of this chapter is to enable the reader to identify and review the changes made since the publication of the Draft EIR and the evaluation of comments submitted in response.
  - Section 9.2 presents the Final Summary Table of Impacts, Mitigation Measures, and Continuing Best Practices, revised to incorporate the changes described in Section 9.1.
  - Section 9.3 presents the Final 2020 LRDP, revised to incorporate the changes described in Section 9.1.
  - Chapter 10 presents the Mitigation Monitoring and Reporting Program for the 2020 LRDP and Tien Center EIR.
  - Chapter 11 contains all comments received on the Draft EIR, and responses to those comments. Section 11.1 includes 11 “Thematic Responses” to substantive comment topics raised by multiple commentors. The Thematic Responses allow a comprehensive and detailed treatment of these topics without unnecessary duplication, in an easy to find location within the document.
  - Section 11.2 presents each of the 311 comment letters received on the Draft EIR, transcripts of comments submitted in oral testimony at the two public hearings, and the university’s response to each substantive comment. Section 11.2A includes written comments from federal and state agencies; section 11.2B includes written comments from regional and local agencies; section 11.2C includes written comments from organizations and individuals; and section 11.2T includes transcripts of oral comments by 53 speakers at two public hearings.

If certified by the UC Regents, Volume 1 will be republished as a certified version of the 2020 LRDP and EIR, Chapters 1 through 8, revised to incorporate the changes described in this volume. This new final version of the 2020 LRDP and EIR, along with the Mitigation Monitoring and Reporting Program, will serve as the reference document for UC Berkeley for the review of future individual projects implemented under the 2020 LRDP.



## 9.1 CHANGES TO THE DRAFT EIR

Based on internal review and in response to comments received, the text, figures and tables published in Volumes 1 and 2 of the Draft 2020 LRDP EIR have been revised, as indicated in this chapter. Changes are described below by chapter and section, with new text shown in underscore and deleted text in strikeout, so that the original and revised material may be compared. Note revised figures within the 2020 LRDP, as indicated below, appear in section 9.3, which includes the entire Final 2020 LRDP.

### 2 REPORT SUMMARY

Table 2-1 has been revised to include the appropriate changes to the EIR text described below. See revised table in section 9.2.

### 3 PROJECT DESCRIPTION

#### FIGURE 3.0-5

This new figure shows all UC owned properties within the City of Berkeley except Lawrence Berkeley National Laboratory. See new figure at the end of section 9.1.

#### PAGE 3.1-7 ¶ 3

The text has been revised in the Final 2020 LRDP as follows:

As defined in the 2020 LRDP, the Southside includes the blocks defined by Durant, the Prospect frontage, Dwight, and Fulton, as well as the 50 acre, university owned Clark Kerr Campus and Smyth-Fernwald complex.

#### PAGE 3.1-14

The 2020 LRDP has been revised to delete the proposal for up to 100 new faculty housing units in the Hill Campus. The note under table 3.1-2 has been revised in the Final 2020 LRDP, as shown in the revised version below.

The 2020 LRDP has also been revised to defer 500 of the 2,300 net new parking spaces until after 2020 if a route is approved and construction begins on the AC Transit Bus Rapid Transit project by January 2010 (see changes at pages 3.1-28 and 3.1-29 below). Table 3.1-2 has been revised in the Final 2020 LRDP to reflect this change, and a new note under table 3.1-2 has been inserted, as shown in the revised version below.

#### PAGE 3.1-22

Table 3.1-3 has been revised in the Final 2020 LRDP to delete the up to 100 units of housing proposed for the Hill Campus, and a new note under table 3.1-3 has been inserted as shown in the revised version below.

#### PAGE 3.1-22 ¶ 4

The text has been revised in the Final 2020 LRDP as follows:

In order to provide the campus some flexibility in locating new projects, the sums of the maxima for the individual land use zones are roughly 10% greater than the 2020 LRDP totals of 2,200,000 net new GSF of program space and 2,300 net new parking spaces. However, the total net new program space and parking within the scope of the LRDP may not substantially exceed 2,200,000 GSF or 2,300 spaces without amending the 2020 LRDP.

TABLE 3.1-2 PROJECTED SPACE DEMAND

	Actual + Approved UC Berkeley Space	Net Addl Space 2020 LRDP	Est Total 2020
Academic & Support (GSF)	12,107,100	<b>2,200,000</b>	14,307,100
Actual 2001-2002*	11,637,900		
Net Addl Complete Mar 2004	116,600		
Net Addl Underway Mar 2004	352,600		
Housing (bed spaces)	8,190	<b>2,600</b> °	10,790
Actual UC Owned 2001-2002	6,960		
City Environs**	6,004		
University Village Albany**	956		
Net Addl Complete Mar 2004	120		
Net Addl Underway Mar 2004	1,110		
Parking (spaces): <u>phase 1</u>	7,690	<del>2,300</del> <b>1,800</b> °°	<del>9,990</del> <b>9,490</b>
<u>phase 2</u>		<b>500</b> °°	<b>9,990</b>
Actual 2001-2002	6,900		
Net Addl Complete Mar 2004	100		
Net Addl CEQA Reviewed	690		

- \* 2001-2002 A&S space includes all buildings except those primarily housing or parking.
- \*\* City Environs includes 74 student family units at Smyth Fernwald and 27 faculty units, counted as one bed space per unit, as well as 585 bed spaces at International House, for consistency with 1990-2005 LRDP. University Village Albany includes 956 student family units counted as one bed space per unit.
- ° Includes up to ~~200~~ **100** family-suitable units for faculty, staff, or visiting scholars within 2020 LRDP scope. Does not include new housing proposed for University Village Albany, which is outside the scope of the 2020 LRDP and the subject of a separate CEQA review.
- °° Phase 2 parking would be deferred until after 2020 if the AC Transit Bus Rapid Transit/Telegraph route is approved and the system is under construction by January 2010, as described in Campus Access

**PAGE 3.1-24**

Figure 3.1-4 has been revised in the Final 2020 LRDP to include portions of upper Panoramic Hill inadvertently deleted from the versions in the Draft 2020 LRDP. See the Final 2020 LRDP, section 9.3.

**PAGE 3.1-26**

Figure 3.1-5 has been revised in the Final 2020 LRDP to adjust the boundary of the Housing Zone to correctly correspond to Berkeley General Plan designations. See the Final 2020 LRDP, section 9.3. The caption to figure 3.1-5 has been revised as follows:

The 2020 LRDP Housing Zone overlays the other Land Use Zones. It includes all areas within a one mile radius of Doe Library, or within a block of a transit line providing trips to Doe Library in under 20 minutes. The Housing Zone excludes those sites with residential designations of under 40 units per acre in a municipal general plan as of July 2003. This figure shows the extent of the Housing Zone based on transit trips via AC Transit routes as of July 2003. Suitable sites within one block of some BART Stations may also qualify for inclusion in the Zone. The depiction of the Housing Zone is generalized in this figure, and may not reflect the precise boundaries of individual parcels or land use designations. The zone boundary may be revised in the future to reflect service changes which affect travel time and/or changes in land use designations due to adoption of the Southside Plan.

**TABLE 3.1-3 PROJECTED SPACE DISTRIBUTION BY LAND USE ZONE**

	Max Net Addl Academic & Support GSF	Max Net Addl Housing Beds	Max Net Addl Parking Spaces
Campus Park	1,000,000		600
Adjacent Blocks			
North	50,000		
West	800,000		1,300
South	400,000		600
Southside	50,000		
Hill Campus	100,000	-100	
Other Berkeley	50,000		
Housing Zone			
Students		2,500	
Faculty/Staff		100 *	
<b>Max Net Addl Space NTE</b>	<b>2,200,000 **</b>	<b>2,600</b>	<b>2,300 ***</b>

\* Represents up to 100 family-suitable units for faculty and/or staff

\*\* Does not include projects already approved as of January 2004

\*\*\* 500 of these 2,300 spaces would be deferred until after 2020 if the AC Transit Bus Rapid Transit/Telegraph route is approved and the system is under construction by January 2010, as described in Campus Access

Note: In order to provide flexibility in siting individual projects, the sum of the maxima for individual land use zones is greater than the maximum 'not to exceed' (NTE) totals for all the zones combined. However, the university may not substantially exceed the NTE totals without amending the 2020 LRDP.

**PAGE 3.1-27 ¶ 4**

The text has been revised in the Final 2020 LRDP as follows:

At projected rates of future faculty hires, this policy may result in construction of up to 100 such units within the LRDP Housing Zone. This housing may be separate or co-located with the graduate and /or student family housing described above. ~~As described further in the Hill Campus Framework, up to 100 additional units of faculty housing may be built in the Hill Campus on sites suitable for housing.~~

**PAGE 3.1-28 ¶ 6-7**

The text has been revised in the Final 2020 LRDP as follows:

The projected campus growth under the 2020 LRDP could, at target drive-alone rates of 10% for students and 50% for employees, result in a demand by 2020 for up to 2,300 net new parking spaces beyond the current inventory and approved projects. However, while this figure includes substantial current unmet demand as well as future growth, it could be reduced if drive-alone rates could be improved through a combination of transit incentives and transit service improvements, as described below.

By 2020, we propose to increase the amount of university automobile parking by up to 30% over current and approved spaces, as shown in table 3.1-2. The proposed net increase of 2,300 spaces is required to meet the continuing demand for 1,000 net new spaces proposed in the 1990-2005 LRDP, replace the 300 spaces displaced by new construction since 1990, and accommodate future parking demand at a rate of one space per two new campus workers and one space per ten new students.

~~This estimate of future parking demand is based on target drive-alone rates of 40% for students and 50% for staff and faculty. However, to the extent we are able to further reduce these ratios, through demand reduction initiatives and through construction of new student housing, the objective would be adjusted to reflect these changes.~~

**PAGE 3.1-29 ¶ 3-7**

The text has been revised in the Final 2020 LRDP as follows:

**POLICY: REDUCE DEMAND FOR PARKING THROUGH INCENTIVES FOR ALTERNATE TRAVEL MODES.  
COLLABORATE WITH CITIES AND TRANSIT PROVIDERS TO IMPROVE SERVICE TO CAMPUS.**

UC Berkeley presently offers a wide range of incentives for alternatives to drive-alone auto trips, including price subsidies and pre-tax purchase of transit tickets, discounted parking to alternate mode users who must occasionally drive alone, free parking and reserved parking spaces for carpoolers, free emergency rides home for alternate mode users, and now in development, a secure bicycle parking program for bike commuters. Based on the findings of the 2001 City-UC Berkeley Transportation Demand Management Study, UC Berkeley will continue to pursue existing and new incentives for alternative modes of transportation, directly as well as in collaboration with cities and regional transit providers.

**~~POLICY: COLLABORATE WITH CITIES AND TRANSIT PROVIDERS TO IMPROVE SERVICE TO CAMPUS.~~**

While cost and dependent care are often cited as reasons why people drive to work, in our 2001 survey of faculty and staff only 9% and 10%, respectively, selected these reasons. Convenience, at 37%, and travel time, at 30%, were by far the most oft-cited reasons why faculty and staff drive rather than use transit or other alternate modes. The university is working with transit providers to ensure reasonably priced transit options and adequate service. However, if significant numbers of drivers are to be shifted to transit, convenience and travel time must be improved. Although minor further improvements might be achieved through operational measures, significant improvements require major capital investments.

~~AC Transit is presently studying a program of capital investments in transit service from the south to the campus and downtown Berkeley. As a major transit destination, UC Berkeley is a key participant in this process. While several design options are presently under consideration, the eventual solution may involve realignments of traffic flow on southside streets and/or the introduction of dedicated transit lanes. UC Berkeley should continue to collaborate with cities and AC Transit on transit improvement plans to optimize their benefit to the campus community.~~

As part of its Bus Rapid Transit (BRT) project, AC Transit is proposing to upgrade transit service to the campus along a Telegraph Avenue alignment. The BRT/Telegraph project would create dedicated bus lanes and station structures along an 18-mile route from San Leandro through Oakland to UC Berkeley and downtown Berkeley. BRT/Telegraph would offer riders a rail-like transit experience that operates more quickly and reliably than regular bus service today, and would thus address the issues of convenience and travel time that now induce commuters to drive.

For example, if BRT/Telegraph and UC Berkeley transit incentives could produce a 10% improvement in current estimated drive-alone rates, the 2020 park-

ing demand at UC Berkeley could be reduced from 2,300 to roughly 1,800 net new spaces. To ensure adequate time to assess the impact of BRT/Telegraph and its own transit incentives on drive-alone rates, UC Berkeley would defer 500 of the 2,300 net new spaces until after 2020 if the following conditions are met:

- the cities of Berkeley and Oakland approve the final route for BRT/Telegraph by January 2010, and
- construction is underway on the BRT/Telegraph system as described above by January 2010.

**PAGE 3.1-42**

Figure 3.1-8 has been revised to adjust the boundary of the classical core to include the area defined by Valley Life Sciences Building on the north and Strawberry Creek on the south. See the Final 2020 LRDP, section 9.3.

**PAGE 3.1-45 ¶ 5**

The text has been revised in the Final 2020 LRDP as follows:

The Campus Park presently has only one well-developed bicycle route: other paths are designated but not well developed for bicycles. As a result, cyclists often use pedestrian routes. Improvements to campus required to limit vehicle traffic should also incorporate investments to separate bicycle, vehicle and pedestrian traffic, and improve paving, lighting and signage on bicycle routes. This investment program should also identify routes that are or may become suitable for mixed traffic.

**PAGE 3.1-52**

The 2020 LRDP has been revised to delete the proposal for up to 100 new faculty housing units in the Hill Campus. In figure 3.1-10, the potential housing site designated H1 in the Draft EIR has been redesignated as a Reserve Site. Site H2 has been redesignated as part of the Research designation, which surrounds it. See the Final 2020 LRDP, section 9.3.

**PAGE 3.1-53 ¶ 3**

The text has been revised in the Final 2020 LRDP as follows:

In response to future space demand by academic and other campus programs, capital investment in the Hill Campus through 2020 may result in a net increase in program space of up to 100,000 GSF, ~~as well as up to 100 units of housing suitable for faculty, staff, and/or visiting scholars.~~ As shown in figure 3.1-10, the 2020 LRDP divides the Hill Campus into ~~seven~~ six land use categories, described below, that reflect their environmental characteristics and their current and planned future use.

**PAGE 3.1-55 ¶ 4-6**

This text has been deleted in the Final 2020 LRDP as follows:

**HOUSING**

~~Housing as a Hill Campus use is not only a relatively adaptable and nondisruptive building type compared to large research facilities, it would also provide an after-hours presence in the Hill Campus that could improve safety and security. Moreover, a supply of good, reasonably priced faculty housing would provide a significant strategic benefit to the entire campus, as described in Campus Housing.~~

~~However, Hill Campus housing must be sited and designed with extreme care to minimize both environmental damage and wildfire risk. Figure 3.1-10 indicates two potential sites, H1 and H2, where new housing may be feasible: both are directly served by existing infrastructure and roads, and have already experienced some level of site disturbance or are adjacent to already developed areas. Other housing sites may be disclosed as a result of future investigation.~~

~~UC Berkeley also has a substantial demand for housing for visiting scholars, as does LBNL. While the needs of short-term conference visitors can be met by the hotel/conference center described in the City Environs Framework, the longer stays typical of visiting scholars suggest an alternate housing type, more residential in character. This housing type would not involve extensive on-site conference facilities, would have modest service demands, and thus, if properly designed, could be suitable for one or more Hill Campus sites, instead of or in conjunction with faculty housing.~~

**PAGE 3.1-56 ¶ 4**

A new paragraph has been inserted in the Final 2020 LRDP after paragraph 4:

The Northwest Promontory, the undeveloped site located southwest of the intersection of Centennial and Grizzly Peak, is also retained as a reserve site, as it was in the 1990-2005 LRDP.

**PAGE 3.1-60**

Figure 3.1-11 has been revised in the Final 2020 LRDP to include portions of upper Panoramic Hill inadvertently deleted from the versions in the Draft 2020 LRDP. See the Final 2020 LRDP, section 9.3.

**PAGE 3.1-61**

Table 3.1-4 has been revised to delete “Hill Campus” as a location priority for faculty and staff housing.

**PAGE 3.1-64**

Figure 3.1-12 has been revised to adjust the boundary of the classical core to include the area defined by Valley Life Sciences Building on the north and Strawberry Creek on the south. The key to figure 3.1-12 has been revised to show a double dotted line as the City Interface boundary, to be consistent with the figure itself. See the Final 2020 LRDP, section 9.3.

## **4 ENVIRONMENTAL EVALUATION**

### **4.1 AESTHETICS**

**PAGE 4.1-17 ¶ 7**

The text in the Final EIR is revised as follows:

**Continuing Best Practice AES-1-e:** UC Berkeley would make informational presentations of all major projects in the City Environs in Berkeley to the Berkeley Planning Commission and, if relevant, the Berkeley Landmarks Preservation Commission for comment prior to schematic design review by the UC Berkeley Design Review Committee. Major projects in the City Environs in Oakland would similarly be presented to the Oakland Planning Commission and, if relevant, to the Oakland Landmarks Preservation Advisory Board. Whenever a

project in the City Environs is under consideration by the UC Berkeley DRC, a staff representative designated by the city in which it is located would be invited to attend and comment on the project.

**PAGE 4.1-18 ¶ 2**

The text in the Final EIR is revised as follows:

**Continuing Best Practice AES-1-h:** Assuming the City adopts the Southside Plan without substantive changes, the University would as a general rule use, as its guide for the location and design of University projects implemented under the 2020 LRDP within the area of the Southside Plan, the design guidelines and standards prescribed in the Southside Plan, which would supersede provisions of the City's prior zoning policy.

**PAGE 4.1-19 ¶ 3**

The text in the Final EIR is revised as follows:

**LRDP Mitigation Measure AES-3-a:** Lighting for new development projects would be designed to include shields and cut-offs that minimize light spillage onto unintended surfaces, and to minimize atmospheric light pollution. The only exception to this principle would be in those areas within the Campus Park where such features would be incompatible with the visual and/or historic character of the area.

## **4.2 AIR QUALITY**

**PAGE 4.2-14**

Table 4.2-3 has been revised as follows: the Days Above Standard for Ozone in 2000 and in 2002 have been changed from "1" to "0".

**PAGE 4.2-18 ¶ 3**

The text in the Final EIR is revised as follows:

As and when individual development projects are proposed on the campus under the 2020 LRDP, a project-level evaluation of operational emissions would be compared to BAAQMD thresholds (80 pounds per day for NO<sub>x</sub>, ROG, and PM<sub>10</sub> and, 550 pounds per day of CO for CO emissions, a) emissions are greater than 550 pounds per day; or b) project traffic would impact intersections or roadway link operating at LOS D, E, or F or would cause LOS to decline to D, E, or F, or c) project traffic would increase traffic volumes on nearby roadways by 10% or more (unless the traffic volume is less than 100 vehicles per hour).

## **4.3 BIOLOGICAL RESOURCES**

**PAGE 4.3-12**

Figure 4.3-2 has been revised in the Final EIR to adjust the vegetation boundaries in the Clark Kerr Campus. See revised figure at the end of section 9.1.

## **4.4 CULTURAL RESOURCES**

**PAGE 4.4-5 ¶ 5**

The text in the Final EIR is revised as follows:

~~The criteria used in evaluation of buildings afford three levels of designation for historic buildings, including properties of exceptional significance (landmarks); structures of merit; and properties~~ The Ordinance is quite broad in

what can be designated, including sites, structures, and landscape elements having a special character or special historical, architectural, or aesthetic interest or value, with Landmarks generally occupying one site and Historic Districts occupying multiple sites in designated areas of the City. Structures of Merit are structures that do not meet landmark criteria but are worthy of preservation as part of a neighborhood, block, or street front, or as part of a group of buildings that include landmarks. The lists in this chapter include specific properties on and off the UC Berkeley campus which have been listed as City of Berkeley landmarks.

**PAGE 4.4-7 ¶ 2**

The text in the Final EIR is revised as follows:

This section begins with an explanation of the different types of historical resources described in Section 5024.1 of the Public Resources Code. Then, for each 2020 LRDP land use zone, the resources in each of these categories are presented in a table. Brief histories of the Primary and Secondary Historical Resources owned by the University are included in Appendix D. The tables represent conditions as of January 2004; the lists of Primary and Secondary Resources will be updated as additional resources enter these categories.

**PAGE 4.4-10 THRU 4.4-47**

Tables 4.4-1 thru 4.4-15 have been revised to reflect further research and verification by UC Berkeley staff and public comments received. See revised tables with markups at the end of section 9.1.

**PAGE 4.4-55 ¶ 2**

The text in the Final EIR is revised as follows:

**Continuing Best Practice CUL-2-b:** For projects with the potential to cause adverse changes in the significance of historical resources, UC Berkeley would make informational presentations of all major projects in the City Environs in Berkeley to the Berkeley Planning Commission and ~~if relevant~~ the Berkeley Landmarks Preservation Commission for comment prior to schematic design review by the UC Berkeley Design Review Committee. ~~Major~~ Such projects in the City Environs in Oakland would similarly be presented to the Oakland Planning Commission and ~~if relevant~~ the Oakland Landmarks Preservation Advisory Board.

**4.5 GEOLOGY, SEISMICITY & SOILS**

**PAGE 4.5-2**

Figure 4.5-1 has been revised in the Final EIR to correct the southern boundary of Lawrence Berkeley National Laboratory. See revised figure at the end of section 9.1.

**PAGE 4.5-19 ¶ 3**

The text in the Final EIR is revised as follows:

**Continuing Best Practice GEO-1-i:** The site-specific geotechnical studies conducted under GEO-1-b will include an assessment of landslide hazard, including seismic vibration and other factors contributing to slope stability.



## 4.7 HYDROLOGY & WATER QUALITY

### PAGE 4.7-11 ¶ 5

The text in the Final EIR is revised as follows:

Neither the Adjacent Blocks, Southside, nor the Hill Campus are within any 100-year flood zone. However, in 1996, the earthen detention dam in Strawberry Canyon overflowed, flooding ~~Hearst~~ Memorial Stadium and the Haas Clubhouse pool with mud. It is believed that this overflow could be attributed to a debris blockage in the dam outlet, rather than the dam being overwhelmed

## 4.8 LAND USE

### PAGE 4.8-2

Figure 4.8-1 has been revised in the Final EIR to correct a few general plan designations based on updated information from the City of Berkeley. See revised figure at the end of section 9.1.

### PAGE 4.8-6 ¶ 6

The text in the Final EIR is revised as follows:

In the Berkeley General Plan, the Campus Park is designated Institutional, except for the riparian and other natural areas along Strawberry Creek, which are designated Open Space. Institutional areas in the Berkeley General Plan are areas for institutional, government, educational, recreational, open space, natural habitat, woodlands, and public service uses and facilities. Within areas designated Institutional, the General Plan allows building intensity ranging from less than FAR 1 to FAR 4. The Open Space designation includes parks, recreational facilities, community services, and facilities to maintain these uses.

### PAGE 4.8-7 ¶ 3

The text in the Final EIR is revised as follows:

The Berkeley General Plan designates the Berkeley portion of the Hill Campus as Open Space, which ~~allows recreational facilities, schoolyards, community services, and facilities necessary for the maintenance of the areas~~ is “... appropriate for parks, open space, pathways, recreational facilities, natural habitat and woodlands. Appropriate uses include parks, recreational facilities, schoolyards, community services, and facilities for the maintenance of the areas.”

### PAGE 4.8-9 ¶ 6

The text in the Final EIR is revised as follows:

Although primarily within the City of Berkeley, the LRDP Housing Zone also extends into portions of Oakland. In the Berkeley General Plan, land in the LRDP Housing Zone outside the other land use zones described above is primarily designated Avenue Commercial along University, Telegraph, Shattuck, and Adeline, with some pockets of Neighborhood Commercial along College, Adeline, and north and south Shattuck, and High Density Residential south of the Downtown, ~~and~~ west of Shattuck and north and south of the Campus Park.

### PAGE 4.8-10 ¶ 2

The text in the Final EIR is revised as follows:

The north half of the 6701 San Pablo site lies in Berkeley, while the balance lies in Oakland (southeast quadrant) and Emeryville (southwest quadrant). The

Berkeley General Plan designates its portion for Manufacturing, with Avenue Commercial along the San Pablo frontage; these areas are intended to maintain and preserve areas of Berkeley for manufacturing and industrial uses necessary for a multi-faceted economy and job growth.

**PAGE 4.8-16 ¶ 4**

The text in the Final EIR is revised as follows:

The Berkeley portions of the LRDP Housing Zone outside the Adjacent Blocks and Southside are primarily designated Avenue Commercial, which allows residential uses. Since the University anticipates only residential projects within these areas, no significant incompatibilities with respect to use are anticipated. Moreover, the LRDP Housing Zone by definition excludes areas ~~designated as low density residential~~ with residential designations of under 40 units per acre in a municipal general plan as of July 2003.

**PAGE 4.8-17 ¶ 5**

The text in the Final EIR is revised as follows:

**Continuing Best Practice LU-2-b:** UC Berkeley would make informational presentations of all major projects in the City Environs in Berkeley to the Berkeley Planning Commission and, if relevant, the Berkeley Landmarks Preservation Commission for comment prior to schematic design review by the UC Berkeley Design Review Committee. Major projects in the City Environs in Oakland would similarly be presented to the Oakland Planning Commission and, if relevant, to the Oakland Landmarks Preservation Advisory Board. Whenever a project in the City Environs is under consideration by the UC Berkeley DRC, a staff representative designated by the city in which it is located would be invited to attend and comment on the project.

**PAGE 4.8-17 ¶ 6**

The text in the Final EIR is revised as follows:

**Continuing Best Practice LU-2-c:** Each individual project built in the Hill Campus or the City Environs under the 2020 LRDP would be assessed to determine whether it could pose potential significant land use impacts not anticipated in the 2020 LRDP, and if so, the project would be subject to further evaluation under CEQA. In general, a project in the Hill Campus or the City Environs would be assumed to have the potential for significant land use impacts if it:

- Includes a use that is not permitted within the city general plan designation for the project site, or
- Has a greater number of stories and/or lesser setback dimensions than could be permitted for a project under the relevant city zoning ordinance as of July 2003.

**PAGE 4.8-17 ¶ 7**

The text in the Final EIR is revised as follows:

**Continuing Best Practice LU-2-d:** Assuming the City adopts the Southside Plan without substantive changes, the University would as a general rule use, as its guide for the location and design of University projects implemented under the 2020 LRDP within the area of the Southside Plan, the design guidelines and standards prescribed in the Southside Plan, which would supersede provisions of the City's prior zoning policy.

#### 4.11 PUBLIC SERVICES

##### PAGE 4.11-9 ¶ 3

The text in the Final EIR is revised as follows:

The Hill Campus is a largely unimproved wildland. Due to its fire-ecology vegetation and topography, this urban-edge area is subject to wildfire dangers. UC Berkeley works to proactively address fire fuel risk management in the Hill Campus, and it also participates in the Diablo Firesafe Council and in the Hills Emergency Forum, a multi-agency organization which coordinates fuel management, emergency preparedness, and evacuation planning in this portion of the East Bay Hills.

##### PAGE 4.11-12 ¶ 5

A new paragraph has been inserted in the Final EIR after CBP PUB-2.1-c:

Continuing Best Practice PUB-2.1-d: UC Berkeley would continue to plan and collaborate with other agencies through participation in the Hills Emergency Forum.

##### PAGE 4.11-14 ¶ 3

The text in the Final EIR is revised as follows:

**Continuing Best Practice PUB-2.3:** UC Berkeley would continue its partnership with LBNL, ACFD, and the City of Berkeley to ensure adequate fire and emergency service levels to the campus and UC facilities. This partnership shall include consultation on the adequacy of emergency access routes to all new University buildings.

##### PAGE 4.11-15 ¶ 3

The text in the Final EIR is revised as follows:

**LRDP Mitigation Measure PUB-2.4-b:** To the extent feasible, the University would maintain at least one unobstructed lane in both directions on campus roadways at all times, including during construction. At any time only a single lane is available due to construction-related road closures, the University would provide a temporary traffic signal, signal carriers (i.e. flagpersons), or other appropriate traffic controls to allow travel in both directions. If construction activities require the complete closure of a roadway, UC Berkeley would provide signage indicating alternative routes. In the case of Centennial Drive, any complete road closure would be limited to brief interruptions of traffic required by construction operations.

##### PAGE 4.11-28 ¶ 5

The text in the Final EIR is revised as follows:

**LRDP Mitigation Measure PUB-4.4:** Before implementing any change to the use of any existing recreational facility, UC Berkeley would conduct a study to ensure that the loss of recreational use would not result in increased use at other facilities to the extent it would result in the physical deterioration of those facilities. If such deterioration is found to have the potential to occur, then the University would build replacement recreation facilities or take other measures to minimize overuse and deterioration of existing facilities in connection with removal of or reduction in use at the recreation facility in question. Any such facilities and/or measures would be reviewed in accordance with CEQA.

#### 4.12 TRANSPORTATION & TRAFFIC

##### PAGE 4.12-22 ¶ 3

The text in the Final EIR is revised as follows:

Parking is more available ~~Lower demand occurs~~ because UC Berkeley parking supplies are available to the public on nights and weekends ~~and~~, on-street parking time limit restrictions are not enforced, and commuters have largely departed the area.

##### PAGE 4.12-24

Table 4.12-5 has been revised in the Final EIR as follows: the demand figures for the Sather Gate garage for weekday nights and Saturday afternoon have been changed from “NA” to 17% and 38%, respectively ( Library Gardens Draft EIR, June 2003).

##### PAGE 4.12-39 ¶ 5

The text in the Final EIR is revised as follows:

The first phase of the San Pablo Avenue ~~Bus Rapid Transit (BRT)~~ Rapid Bus project was opened in June 2003, providing service from San Pablo to Oakland. When complete, Route 72 will include the 72 Rapid Bus Route and will extend 16 miles through seven cities and two counties.

##### PAGE 4.12-44 ¶ 5

The text in the Final EIR is revised as follows:

**Continuing Best Practice TRA-1-b:** UC Berkeley will continue to do strategic bicycle access planning. Issues addressed include bicycle access, circulation and amenities with the goal of increasing bicycle commuting and safety. Planning considers issues such as bicycle access to the campus from adjacent streets and public transit; bicycle, vehicle, and pedestrian interaction; bicycle parking; bicycle safety; incentive programs; education and enforcement; campus bicycle routes; and amenities such as showers. The scoping and budgeting of individual projects will include consideration of improvements to bicycle access.

##### PAGE 4.12-55 ¶ 7

The text in the Final EIR is revised as follows:

Despite the fact that existing ~~unmet~~ latent demand for University parking is estimated at over ~~3,500~~ 4,300 spaces, for purposes of conservative impact analysis, this EIR assumes that the increase in the University parking supply could induce a “mode shift” to driving by some commuters who currently take transit, bicycle or walk.

##### PAGE 4.12-56 ¶ 2

A new paragraph has been inserted in the Final EIR after MM TRA-11:

**Continuing Best Practice TRA-11:** The University surveys the transportation practices of both students and employees at periodic intervals. In order to ensure the parking objective of the 2020 LRDP takes into account future changes in drive-alone rates, transit service and parking demand, the University will conduct such surveys at least once every 3 years; will make the survey results available to the public; and will review and, if appropriate, reduce the 2020 LRDP parking objective in light of those results.

#### 4.13 UTILITIES & SERVICE SYSTEMS

**PAGE 4.13-7 ¶ 7**

The text in the Final EIR is revised as follows:

EBMUD provides wastewater ~~collection~~ treatment for the entire 2020 LRDP area located in Alameda County and ~~provides wastewater treatment for all of the 2020 LRDP area.~~

**PAGE 4.13-8 ¶ 7**

The text in the Final EIR is revised as follows:

Wastewater treatment for the Adjacent Blocks, Southside and the rest of the City of Berkeley is provided by EBMUD, with wastewater conveyance provided by the City of Berkeley. The sewer mains in the City of Berkeley range in age up to 100 years old. The system is currently undergoing renovation and replacement. Existing ADWF for the City of Berkeley is approximately ~~7.5~~ 10.3 mgd. The ADWF from UC Berkeley is ~~approximately 8.3~~ estimated by the City as 1.9 mgd, or about ~~44~~ 18 percent of the City's flow.

**PAGE 4.13-11 ¶ 2**

The text in the Final EIR is revised as follows:

As described in the discussion of water supply and distribution, above, with anticipated 2020 LRDP development, water usage and wastewater generation will remain lower than volumes experienced in the 1980s. The wastewater generation due to the 2020 LRDP would represent an increase of ~~under 5 percent in the up to 20 percent in the City-estimated~~ current existing UC Berkeley flow of ~~8.3~~ 1.9 mgd, ~~well within or an increase roughly equal to~~ the 20 percent increase in capacity for each sub-basin projected in the Berkeley General Plan EIR.

**PAGE 4.13-11 ¶ 7**

The text in the Final EIR is revised as follows:

**Continuing Best Practice USS-2.1-d:** UC Berkeley will continue to incorporate specific water conservation measures into project design to reduce water consumption and wastewater generation. This could include the use of special air-flow aerators, water-saving shower heads, flush cycle reducers, low-volume toilets, weather based or evapotranspiration irrigation controllers, drip irrigation systems, and the use of drought resistant plantings in landscaped areas, and collaboration with EBMUD to explore suitable uses of recycled water.

**PAGE 4.13-22 ¶ 4**

A new paragraph has been inserted in the Final EIR after CBP USS-5.2:

**LRDP Mitigation Measure USS-5.2:** Contractors on future UC Berkeley projects implemented under the 2020 LRDP will be required to recycle or salvage at least 50% of construction, demolition, or land clearing waste. Calculations may be done by weight or volume, but must be consistent throughout.

## 5 ALTERNATIVES

**PAGE 5.1-9 ¶ 5**

The text in the Final EIR is revised as follows:

Under this alternative, every effort would be made to accommodate growth through shifting commuters to transportation alternatives and new parking would not be constructed. This ~~would~~ could create a new significant parking impact, under the Standard of Significance “Would the project result in inadequate parking capacity?” The existing shortage of parking compared to demand ~~would~~ could be exacerbated by future growth in campus headcount proposed under the 2020 LRDP, since the shift to alternative travel modes achieved through future incentives are unlikely to entirely offset the future growth in parking demand.

**PAGE 5.1-9 ¶ 6**

A new paragraph has been inserted in the Final EIR after paragraph 6:

UC Berkeley has recently established such a program: the Bear Pass. The Bear Pass is a two-year pilot program for unlimited rides on AC Transit, including transbay service, to UC Berkeley staff and faculty. The program also includes unlimited use of campus shuttles for pass holders. The cost of a Bear Pass to the employee under the pilot program is \$240 per year or \$20 per month, which may be paid in pretax dollars. The Bear Pass was approved by AC Transit in July 2004 and operating in October 2004. Alternative L-2 assumes the continuation of the Bear Pass as well as the student Class Pass.

**APPENDIX F**

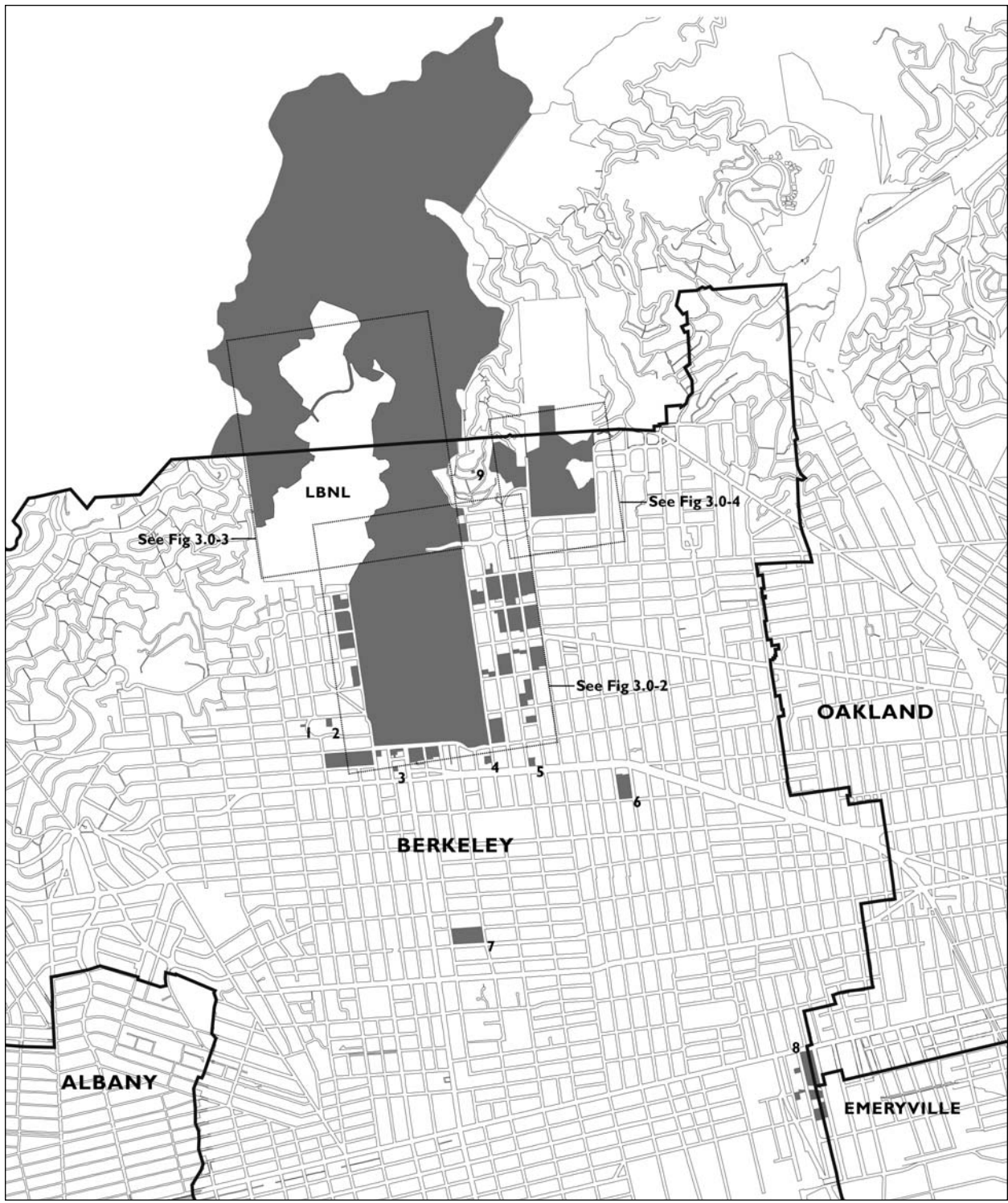
**PAGE F.1-24 ¶ 2**

The text in the Final EIR is revised as follows:

Approximately 818 new transit ~~tips~~ trips would be generated per day with the LRDP, including 269 AM and 259 PM peak hour trips.

**PAGE F.3-12**

In Table F.3-3, the statistics for AM and PM peak hour delays for Intersection 18 (Hearst Avenue/Gayley Road/LaLoma Avenue), under both “2020 Without Project” and “2020 With Project”, include an erroneous “>” symbol. In the Final EIR these figures have been corrected to delete the “>” symbols.

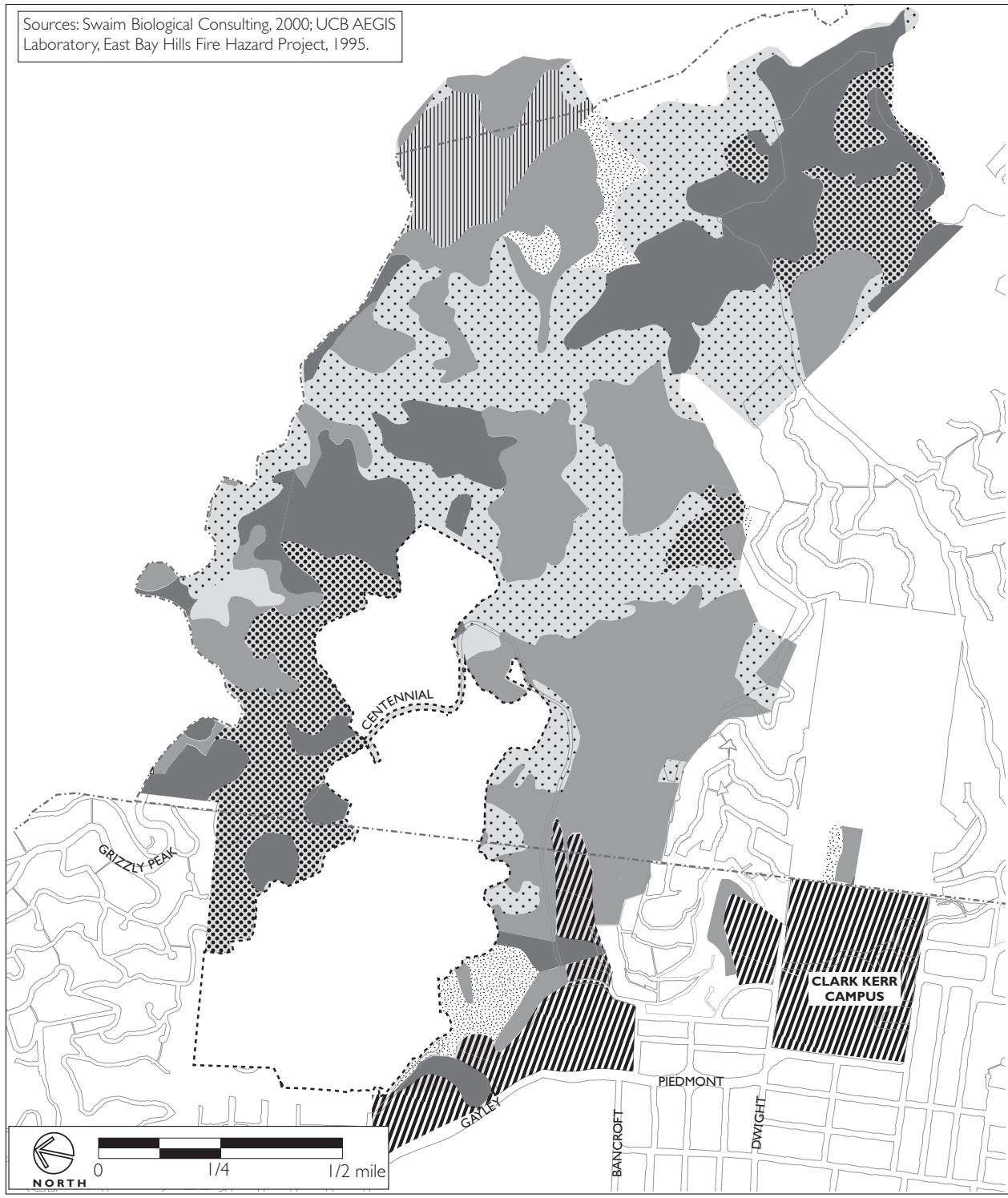


**University Owned Properties** (Excluding Lawrence Berkeley National Laboratory. See Figures 3.0-2 thru 3.0-4 for the names of properties within the areas indicated above.)

- |                                     |   |
|-------------------------------------|---|
| 1 2275 Virginia St                  | 6 2000 Carleton St                        |
| 2 1750 Arch St (McEnerney Hall)     | 7 1601 Allston Way (University Terrace)   |
| 3 2020 Berkeley Way (UC Press)      | 8 6701 San Pablo Ave                      |
| 4 2111 Bancroft Way (Banway Bldg)   | 9 255 Panoramic Way (Weston Havens House) |
| 5 2401 Shattuck Ave (Manville Apts) |   |

**FIGURE 3.0-5  
UNIVERSITY OWNED PROPERTIES**

Sources: Swaim Biological Consulting, 2000; UCB AEGIS Laboratory, East Bay Hills Fire Hazard Project, 1995.



- |  |   |  |   |
|--|---|--|---|
|  | <b>North Coast Scrub</b>  |  | <b>Developed/ Landscaped</b>                          |
|  | <b>Grassland</b>  |  | <b>City Limit Line</b>                                |
|  | <b>Successional Scrub</b>   |  | <b>Lawrence Berkeley National Laboratory Boundary</b> |
|  | <b>Eucalyptus Canopy</b>  |  |   |
|  | <b>Tree Canopy (Native oaks &amp; non-native trees other than eucalyptus)</b> |  |   |
|  | <b>Young Eucalyptus with scrub understory</b>                                 |  |   |

FIGURE 4.3-2  
HILL CAMPUS VEGETATION



TABLE 4.4-1  
**CAMPUS PARK, PRIMARY HISTORICAL RESOURCES**

	Construction Date	Architect (s)	Recognition Date	National Designation	State Code
1	<b>Founders' Rock</b>	<b>Natural Landscape Feature</b>	3/25/1982	N	L
2	South Hall	David Farquharson	3/25/1982	N	L
3	Faculty Club / Faculty Glade	Bernard Maybeck	3/25/1982	N	L
4	California Hall	John Galen Howard	3/25/1982	N	L
5	North Gate Hall	John Galen Howard	3/25/1982	N	L
6	Senior Hall	John Galen Howard	11/5/1974	N	R
7	Hearst Memorial Mining Building	John Galen Howard	3/25/1982	N	L
8	Sather Gate and Bridge	John Galen Howard	3/25/1982	N	L
9	Girton Hall ("Senior Women's Hall")	Julia Morgan	9/26/1991	N	R
10	University House	Albert Pissis	3/25/1982	N	L
11	Wellman Hall	John Galen Howard	3/25/1982	N	L
12	Durant Hall (Former Boalt Hall)	John Galen Howard	3/25/1982	N	L
13	Naval Architecture / Drawing Building	John Galen Howard	11/18/1976	N	R
14	Doe Memorial Library	John Galen Howard	3/25/1982	N	L
15	Sather Tower & Esplanade	John Galen Howard	3/25/1982	N	L
16	Wheeler Hall	John Galen Howard	3/25/1982	N	L
17	<del>Room 307</del> , Gilman Hall	John Galen Howard	10/15/1966	L	R
18	Hilgard Hall	John Galen Howard	3/25/1982	N	L
19	Haviland Hall	John Galen Howard	2/1/1982	N	R
20	Hearst Gymnasium for Women	<u>Bernard Maybeck / Julia Morgan</u>	3/25/1982	N	L
21	Giannini Hall	William Charles Hays	3/25/1982	N	L
22	George C. Edwards, Stadium	Warren Perry / Stafford Jory	4/1/1993	N	R
23	First Unitarian Church / Dance Studio 2401 Bancroft Way	A.C. Schweinfurth of A. Page Brown & Co	11/16/1981	L	R
24	<u>LeConte Hall (original 1923 structure)</u>	<u>John Galen Howard</u>	<u>6/25/04</u>	<u>N</u>	<u>R</u>

Notes: Resources in bold text are University-owned.

**National Designations:**

- N = National Register of Historic Places
- L = National Historic Landmark
- D = National Register of Historic Places – District

**State Codes:**

- R = California Register of Historical Resources (National Resource Status Codes 1 or 2)
- L = State Historic Landmark
- D = California Register of Historical Resources – District

TABLE 4.4-2

**CAMPUS PARK, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	City Landmark	City Structure of Merit	National Register Status Code
1	Leuschner (Students') Observatory, Observatory Hill	1885	Clinton Day			3S
2	Warren Cheney House 2241 College Avenue	1885	Warren Cheney	7/18/1990		3S
3	Cupola from Giauque Lab (remnant of old Chemistry building)	1889	Clinton Day			3S
4	Tilden or Phelan Football Statue	1899	Douglas Tilden			3S
5	Warren Cheney House, 2243 College Avenue	1902	Carl Ericson	7/18/1990		3S
6	Old Power House (University Art Gallery)	1904	John Galen Howard			3S
7	Charles E. Bancroft House 2222 Piedmont Avenue	1908	Fred D. Voorhees			3S
8	Professor Charles A. Noble House 2224 Piedmont Avenue	1908	William A. Knowles			3S
9	Walter Y. Kellogg House 2232 Piedmont Avenue	1908	Julia Morgan			3S
10	Dr. B.P. Wall House 2234 Piedmont Avenue	1909	William C. Hayes			3S
11	Zeta Psi Fraternity (Archaeological Research Facility) 2251 College Avenue	1910	Charles Peter Weeks			3S
12	Class of 1910 Bridge	1910	John Bakewell, Jr., Arthur Brown, Jr.			3S
13	Class of 1877 Sundial	1915	Clinton Day			3S
14	Lawson Adit	1916	College of Mining			3S
15	Stephens Memorial Union (Stephens Hall)	1922	John Galen Howard			3S

TABLE 4.4-2

**CAMPUS PARK, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	City Landmark	City Structure of Merit	National Register Status Code
<u>1616</u>	<b>Sigma Epsilon Fraternity 2240 Piedmont Avenue</b>	1923	<b>Gwynn Officer</b>			3S
<u>1717</u>	Women's Faculty Club	1923	John Galen Howard			3S
<u>1818</u>	<u>Valley</u> Life Sciences Building	1928	George W. Kelham			3S
<u>1919</u>	Harmon Gymnasium /- Haas Pavilion	1932	George Kelham	9/3/1996		
<u>2020</u>	Anthony Hall ("Pelican Bldg" )	1956	Joseph Esherick			3S
<u>2121</u>	Sproul Plaza	1959	Hardison and DeMars w/Lawrence Halprin			3S
<u>2222</u>	Wurster Hall	1964	DeMars, Esherick and Olsen			3S
<u>23</u>	<b>Federal Land Bank (UC Extension) 2223 Fulton Street</b>	<u>1922, 1949</u>	<b>James Plachek, Michael Goodman</b>			<u>4S</u>
<i>Landscape Features</i>						
<u>2324</u>	Willey Redwood	N/A	N/A	11/4/1996		
<u>2425</u>	Eucalyptus Grove	N/A	N/A	11/4/1996		3S
<u>2526</u>	Dawn Redwoods adjacent to McCone Hall	N/A	N/A	11/4/1996		
<u>2627</u>	Campanile Esplanade (London Plane Trees)	N/A	N/A	11/4/1996		
<u>2728</u>	Melaleuca Copse adjacent to Esplanade	N/A	N/A	11/4/1996		
<u>2829</u>	California Buckeye Tree in Faculty Glade	N/A	N/A	11/4/1996		
<u>30</u>	<b>University Botanical Garden Site (original Campus Park location)</b>	<u>1880</u>	<u>N/A</u>			<u>3S</u>

Notes: Resources in bold text are University-owned. National Register Status Codes are explained in Appendix D.

TABLE 4.4-3

**ADJACENT BLOCKS NORTH, PRIMARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	Recognition Date	National Designation	State Code
<b>Gayley Road</b>						
1	<b>Bowles Hall</b>	<b>1928</b>	<b>George Kelham</b>	<b>3/16/1989</b>	<b>N</b>	<b>R</b>
<b>Hearst Avenue</b>						
1	Phi Delta Theta Chapter House 2717 Hearst Ave / 1822 Highland Place	1914	John Reid, Jr.	5/25/1982	N	R
<b>Le Roy Avenue</b>						
1	<b>Cloyne Court</b> <b>1875 Le Roy Ave / 2600 Ridge Road</b>	<b>1904</b>	<b>John Galen Howard</b>	<b>11/15/1982</b>	<b>N</b>	<b>R</b>
<b>Stadium Rimway</b>						
1	<b>Hearst Greek Theatre</b> <b>(Part of the 1982 MRA)</b>	<b>1903</b>	<b>John Galen Howard</b>	<b>3/25/1982</b>	<b>N</b>	<b>L</b>

Notes: Resources in **bold** text are University-owned.

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- D = National Register of Historic Places – District

**State Codes:**

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- L = State Historic Landmark
- D = California Register of Historical Resources – District

Source: Page and Turnbull, 2003.

TABLE 4.4-4  
**ADJACENT BLOCKS NORTH, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	City Landmark	City Structure of Merit	National Register Status Code
<b>Euclid Avenue</b>						
1	Proctor Apartments 1865 Euclid Avenue	1912	John Galen Howard			3S
<b>Hearst Avenue</b>						
1	<b>Stern Hall Hearst Avenue</b>	<b>1941</b>	<b>Corbett &amp; MacMurray and William Wurster</b>			<b>4S</b>
2	Smith House (Harris House) 2301 Hearst Avenue/ 2300 Le Conte Avenue	1939	John B. Anthony	6/21/1976		3S
3	Robert H Whetmore House 2323 Hearst Avenue	1923				3S
4	Benjamin Ide Wheeler House and Garden 2325-2355 Hearst Avenue 1820 Scenic Avenue	1900	E.A. Mathews 1900 L. Hobart 1911	7/15/1985		<u>3S</u>
5	<b>Beta Theta Pi House (Goldman School of Public Policy) 2601-2607 Hearst Avenue 1879 Le Roy Avenue</b>	<b>1893</b>	<b>Ernest Coxhead</b>	<b>11/15/1982</b>		<b>3S</b>
<b>Le Conte Avenue</b>						
<u>1</u>	<u>Harris House 2300 Le Conte Avenue</u>	<u>1939</u>	<u>John B. Anthony</u>			<u>3S</u>
<u>2</u>	<u>Delta Zeta Sorority 2311 Le Conte Avenue</u>	<u>1923</u>				<u>4S</u>
<u>3</u>	<u>Warren T Clarke House 2317 Le Conte Avenue</u>	<u>1912</u>				<u>3S</u>
<b>Spruce Street</b>						
1	Normandy Village 1781-1851 Spruce Street (except 1815 Spruce Street)	1928	William R. Yelland	12/19/1983		3S

Note: Resources in **bold** text are University-owned. National Register Status Codes are explained in Appendix D.

Source: Page and Turnbull, 2003.

TABLE 4.4-5  
**ADJACENT BLOCKS WEST, PRIMARY HISTORICAL RESOURCES**

Name	Construction Date	Architect(s)	Recognition Date	National Designation	State Code
<b>Addison Street</b>					
1 Studio Building 2107 Addison Street 2037-45 Shattuck Avenue	1905	F.H. Dakin	4/6/1978	N	R
<b>Bancroft Way</b>					
1 Masonic Temple/Crocker Bank (Berkeley Conference Center) 2105 Bancroft Way 2295 Shattuck Avenue	1905	William Wharff	7/15/1982	N	<u>R</u>
<b>Shattuck Avenue</b>					
1 Tupper & Reed Building 2271-75 Shattuck Avenue	1925	William R. Yelland	1/21/1982	N	R

Note: Resources in **bold** text are University-owned. ~~Notes:~~

**National Designation:**

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- D = National Register of Historic Places – District

**State Codes:**

- R = California Register of Historical Resources (National Register Status Codes 1 or 2)
- L = State Historic Landmark
- D = California Register of Historical Resources – District

Source: Page and Turnbull, 2003.

TABLE 4.4-6  
**ADJACENT BLOCKS WEST, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (S)	City Landmark	City Structure of Merit	National Register Status Code
<b>Addison Street</b>						
1	Mobilia Furniture Building (aka The Mason-McDuffie Company Building) 2104 Addison Street; 2101 Shattuck Avenue	1928	Walter Ratcliff, Jr.	1/21/1985		3S
2	Underwood Building 2110-14 Addison Street	1905	F.E. Armstrong		11/01/93	3S
3	Terminal Place 2113 Addison Street	1906				4S
4	Heywood Apts 2119 Addison Street	1906				3S
5	<del>Stadium Garage, Stadium Body Shop</del> 3020 Addison Street	<del>1925</del>				<del>3S</del>
<b>Allston Way</b>						
1	Berkeley Farms Creamery, Red Cross (demolished) 2116 Allston Way	1924				4S
2	Lederer, Street, and Zeus Building 2121 Allston Way	1938				4S
3	YWCA 2134 Allston Way	1938	Edwin Lewis Snyder	1/6/1992		3S
4	William Such Building/ Oxford Hall 2175-9 Allston Way 2140-50 Oxford Street	1906	George Mohr	8/17/1981		3S
<b>Bancroft Way</b>						
1	Waste & Clark Apts. 2126 Bancroft Way	1913	Walter Ratcliff, Jr.	4/12/1993		3S
2	Odd Fellows Temple 2177-99 Bancroft Way; 2280-88 Fulton Street	1926	James Plachek	1/20/1982		3S

TABLE 4.4-6

**ADJACENT BLOCKS WEST, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (S)	City Landmark	City Structure of Merit	National Register Status Code
<b>Berkeley Way</b>						
1	Richfield Oil Co. <del>(University Garage)</del> 2180-2198 Berkeley Way, 1952-1957 Oxford Street	1930	Walter Ratcliff, Jr.	12/21/1981		3S
<b>Center Street</b>						
1	Mikkelsen & Berry Building 2124-26 Center Street	1902	Stone & Smith	12/19/1983		
2	Thomas Black Bldg, La Loma Apts 2132 Center Street	1904				3S
3	Ennwor's Restaurant, Act One/Act Two 2138 Center Street	1923				4S
4	Globe Stamp Store 2146 Center Street	1902				3S
<b>Durant Avenue</b>						
1	Bishop Photo Studio 2125 Durant Avenue	1939	Carl Fox	7/21/1986		
<b>Fulton Street</b>						
4	<del>3 Houses For Charles Finney 2142, 2144, 2146 Fulton Street</del>	<del>1899</del>				<del>3S</del>
<b>Kittredge Street</b>						
1	Fox California, T & D Theatre (Currently Called The California Theater) 2113 Kittredge Street	1914				3S
2	A.H. Broad House And Storefronts 2117-2119 Kittredge Street (House – 1894; Storefronts – 1928)	1894 & 1928	A.H. Broad		10/1/01	3S
3	Robert Elder House, Morgan And Agost. 2124 <del>5</del> Kittredge Street	1895				3S
4	John C Fitzpatrick House 2138 Kittredge Street	1904				3S



TABLE 4.4-6  
**ADJACENT BLOCKS WEST, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (S)	City Landmark	City Structure of Merit	National Register Status Code
<b>Oxford Street</b>						
1	<del>UC Printing Department</del> Press Building 2120 Oxford Street	1939	<u>Masten and Hurd</u>	<u>6/7/2004</u>		3S
<b>Shattuck Avenue</b>						
1	MacFarlane Building/ U.S. Realty Co. 1987-1979 Shattuck Avenue; 2101-2109 University	1925	Earle Bertz	9/15/1986		3S
2	University and Shattuck Store Bldg 2001 Shattuck Avenue	1909				3S
3	Chase Building 2107-2111 Shattuck Avenue	1909	William Wharff		1/3/2000	
4	Blums Flower Shop 2151 Shattuck Avenue	1906				4S
5	F W Foss Co., Martinos Restaurant 2177 Shattuck Avenue	1895				3S
6	Samson Market, Central Bank 2187 Shattuck Avenue	1922				4S
7	Hinkel Block, Havens Block 2201 Shattuck Avenue	1895				3S
8	Radstons Stationary, Alko Office 2225 Shattuck Avenue	1913				3S
9	Brooks Apts, Amherst Hotel 2231 Shattuck Avenue	1906				3S
10	Wanger Block, Blue & Gold Market 2257 Shattuck Avenue:	1903				4S
<u>11</u>	<u>Hezlett's Silk Store, Tupper &amp; Reed</u> <u>2277 Shattuck Avenue</u>	<u>1925</u>				<u>3S</u>
<del>11</del> 12	Capdevilles University 2281 Shattuck Avenue	1904				4S
<del>12</del> 13	Fidelity Savings Building 2323 Shattuck Avenue	1925/ 1926	Walter Ratcliff, Jr./ Walter Sorensen	10/17/1983		3S

TABLE 4.4-6  
**ADJACENT BLOCKS WEST, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (S)	City Landmark	City Structure of Merit	National Register Status Code
<b>University Avenue</b>						
1	<u>Plachek Addition to Acheson Building</u> <u>2125 University Avenue</u>	<u>1921</u>				<u>3S</u>
<del>4</del> 2	Acheson Physician's Building <del>2125-2135</del> <u>2131-2135</u> University Avenue	1908	George Mohr	1/7/1983		3S
3	<u>Ernest Alvah Heron Building</u> <u>2136 University Ave</u>	<u>1915</u>	<u>John Hudson Thomas</u>	<u>7/12/2004</u>		
<del>2</del> 4	Sills, Berkeley Hardware Store <u>2139-2145</u> University Avenue	1915	<u>James Plachek</u>	<u>6/7/2004</u>		3S
<b>Walnut Street</b>						
1	Apartment House For William Heywood 1907 Walnut Street	1909				3S
2	1922 Walnut Street	1905	<del>Unknown</del>			3S
<b>3</b>	<b>1925 Walnut Street</b>	<b>1905</b>	<del>Unknown</del>			<b>3S</b>
4	1930 Walnut Street	1905	<del>Unknown</del>			3S

Note: Resources in **bold** text are University-owned. National Register Status Codes are explained in Appendix D.

Source: Page and Turnbull, 2003.

TABLE 4.4-7

**ADJACENT BLOCKS SOUTH, PRIMARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect(s)	Recognition Date	National Designation	State Code
<b>Bancroft Way</b>						
1	College Women's Club 2680 Bancroft Way	1928	Walter Steilberg	1/21/1982	N	R
<b>Durant Avenue</b>						
1	Berkeley Women's City Club 2315 Durant Avenue	1929	Julia Morgan	10/28/1977 (City Only)	N	L
<b>Piedmont Avenue</b>						
1	Public-right-of-way between Gayley Road and Dwight Way, Piedmont Avenue	1864	Frederick Law Olmstead	5/26/1989		L

Notes:

**National Designation:**

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L = National Historic Landmark

D = National Register of Historic Places – District

**State Codes:**

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L = State Historic Landmark

D = California Register of Historical Resources – District

Source: Page and Turnbull, 2003.

TABLE 4.4-8  
**ADJACENT BLOCKS SOUTH, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect(s)	City Landmark	City Structure of Merit	National Register Status Code
<b>Bancroft Way</b>						
1	St. Mark's Episcopal Church 2300 Bancroft Way	1901	William Curtlett			3S
2	Gray Gables, Canterbury Foundation 2346 Bancroft Way	1902	<del>Unknown</del>			3S
3	Stiles Hall 2400 Bancroft Way	1949				4S
4	Campus Theatre, Fox Campus Theatre 2434 Bancroft Way	1925				4S
5	Fred Turner Building 2546-54 Bancroft Way	1940	Julia Morgan	12/21/1981		3S
6	<b>University Art Museum (Berkeley Art Museum) 2626 Bancroft Way</b>	<b>1968</b>	<b>Mario J. Ciampi</b>			<b>3S</b>
7	Westminster House and Grounds 2700 Bancroft Way	1926	Walter H. Ratcliff, Jr.	4/3/2000		3S
8	Richard A. Clark House, Davis House 2833 Bancroft Way	1913	<del>Unknown</del>			3S
<b>Bowditch Street</b>						
1	Christian Science Building 2315 Bowditch Street	1933	<del>Unknown</del>			3S
<b>College Avenue</b>						
1	<u>Yummers, Espresso Experience (Café Strada) 2300 College Avenue</u>	<u>1969</u>				<u>3S</u>
2	<u>Alma A Smith House 2310 College Avenue</u>	<u>1905</u>				<u>3S</u>
<b>Durant Avenue</b>						
1	Cornelius Beach Bradley House 2639 Durant Avenue	1895	Edgar A. Mathews	11/3/1997		3S
2	P H Atkingon House 2735 Durant Avenue	1908	Bernard Maybeck			3S

TABLE 4.4-8

**ADJACENT BLOCKS SOUTH, SECONDARY HISTORICAL RESOURCES**

Name	Construction Date	Architect(s)	City Landmark	City Structure of Merit	National Register Status Code
<b>Piedmont Avenue</b>					
1 <b>International House Piedmont Avenue</b>	1928	George W. Kelham			3S
2 <b>California Memorial Stadium Piedmont Avenue</b>	1923	John Galen Howard			3S
<b>Telegraph Avenue</b>					
1 El Granada The Granada Apartments 2301 Telegraph Avenue	1905	Myers and Ward			3S
2 Hotel Carlton 2328 Telegraph Avenue	1906	Unknown			3S

Note: Resources in **bold** text are University-owned. National Register Status Codes are explained in Appendix D.

Source: Page and Turnbull, 2003.

TABLE 4.4-9  
**SOUTHSIDE, PRIMARY HISTORICAL RESOURCES**

Name	Construction Date	Architect (s)	Recognition Date	National Designation	State Code
<b>Bancroft Way</b>					
1 Thorsen, William R., House (Sigma Phi Fraternity) 2806 Bancroft Way/ 2307 Piedmont Avenue	1909	Greene & Greene	11/20/1978	N	<u>R</u>
<b>Bowditch Street</b>					
1 <b>Anna Head School for Girls</b> <b>2410-20 Bowditch St., B / 2538 Channing Way, C</b> <b>2538A Channing Way, D/2536 Channing Way E</b> <b>2536A Channing Way, F / 25327-47 Haste Street, A</b>	1892-1927	<b>Soule Edgar Fisher/ Walter Ratcliff, Jr.</b>	8/11/1980	N	<u>R</u>
<b>Dwight Way</b>					
1 First Church of Christ, Scientist 2619 Dwight Way	1910	Bernard Maybeck	12/22/1977	N	R
<b>Piedmont Avenue</b>					
1 <b>Clark-Kerr Campus</b> <b>(formerly the California Schools for the Deaf</b> <b>and Blind)-(State Asylum for the Deaf, Dumb</b> <b>and Blind)-(Clark-Kerr Campus)</b> 2951-3001 Derby Street/ 2601 Warring Street	1914-59	<b>Office of the State Architect</b>	10/14/1982	N	<u>R</u>

Notes: Resources in bold text are University-owned.

**National Designation:**

- N = National Register of Historic Places
- L = National Historic Landmark
- D = National Register of Historic Places – District

**State Codes:**

- R = California Register of Historical Resources (National Register Status Codes 1 or 2)
- L = State Historic Landmark
- D = California Register of Historical Resources – District

Source: Page and Turnbull, 2003.

TABLE 4.4-10

**SOUTHSIDE, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect(s)	City Landmark	City Structure of Merit	National Register Status Code
<b>Bowditch Street</b>						
1	B Carrington House (relocated to 1029 Addison) 2323 Bowditch Street	1893	Seth Babson			3S
2	<del>Fox Cottage</del> / Rose Berteaux Cottage ( <del>"Fox Cottage"</del> ) 2350 Bowditch (relocated from Channing Way)	1930	Carl Fox	6/7/1999		3S
3	People's Park 2448 Bowditch Street, 2551 Dwight Way, 2526 Haste Street	1969		11/19/1984		3S
<b>Channing Way</b>						
1	J & C Luttrell House 2328 Channing Way	1889				3S
2	<u>Robcliff Apartment House</u> 2515 Channing Way	<u>1920</u>	Walter H. Ratcliff	9/13/1999		
3	<u>Epworth Hall</u> 2521 Channing Way	<u>1928</u>	James L. Plachek	9/13/1999		
4	Samuel Davis House 2547 Channing Way	1899	William Mooser and Son	2/27/1984		3S
5	Channing House 2721 Channing Way	1890				3S
6	Dr. J. Knox House 2725 Channing Way	1908				3S
7	Dr. Sherrel W. Hall House, Fraternity 2728 Channing Way	1911				4S
8	Hearst Hall Site, Gamma Phi Beta 2732 Channing Way	1899				4S
9	William E. Colby House 2901 Channing Way	1905	Julia Morgan	7/15/1985		3S
<b>College Avenue</b>						
4	<del>Yummers, Espresso Experience (Café Strada)</del> 2300 College Avenue	<del>1969</del>				<del>3S</del>

TABLE 4.4-10  
**SOUTHSIDE, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect(s)	City Landmark	City Structure of Merit	National Register Status Code
<del>2</del>	Alma A Smith House 2310 College Avenue	1905				<del>3S</del>
<del>31</del>	Channing Apartments 2409 College Avenue	1913				3S
<b>Dana Street</b>						
1	James A Squire House 2400 Dana Street	1892				3S
2	Seneca Gale House 2446 Dana Street	1895				3S
3	Town & Gown Club 2447 Dana Street 2401 Dwight Way	1899	Bernard Maybeck	12/15/1979		
<b>Durant Avenue</b>						
1	Mary A Helphinstine House (Chief Justice William Waste), 2222 Durant Avenue	1891				3S
2	H J Merritt Apartments 2236 Durant Avenue	1914				3S
3	Marsh House 2308-10 Durant Avenue	1891	Charles F. Mau & James Toohig	8/18/1986		3S
4	McCreary-Greer House 2318 Durant Avenue	1901-02	Unknown	8/18/1986		3S
5	Cambridge Apts 2500 Durant Avenue	1914				3S
<del>76</del>	The Brasfield (Beau Sky Hotel) 2520 Durant Avenue	1911	Shea & Lofquist	9/13/1999		3S
<del>87</del>	Blood House 2526 Durant Avenue	1891	R. Gray Frise		9-/13-/1999	3S
<del>98</del>	The Albra 2530-34 Durant Avenue	1921	Walter H. Ratcliff		9-/13-/1999	
<del>109</del>	Durant Hotel 2600 Durant Avenue	1928	William Weekes		2-/01-/1993	3S



TABLE 4.4-10

**SOUTHSIDE, SECONDARY HISTORICAL RESOURCES**

Name	Construction Date	Architect(s)	City Landmark	City Structure of Merit	National Register Status Code
<del>410</del> <b>U.C. Berkeley Unit 1</b> <del>(partly Dining Commons demolished)</del> <b>2650 Durant Avenue</b>	<b>1957-1959</b>	<b>John Carl Warnecke, Lawrence Halprin &amp; William Wilson Wurster</b>		<b>9-/11-/2000</b>	
<del>4211</del> Parsons House, Student Residence 2732 Durant Avenue	1905				4S
<b>Dwight Way</b>					
1 Nelson S Trowbridge House 2239 Dwight Way	1892				3S
2 James L Barker House 2247 Dwight Way	1895				3S
<b>3 McKinley Elms</b> <b>2419 Dwight Way</b>	<b>c. 1903</b>				<b>3S</b>
4 James Edgar House 2437-41 Dwight Way	1869	Unknown		11-/16-/1981	3S
5 2441 Dwight Way	1880				3S
<del>65</del> Bishop Berkeley Apts 2709 Dwight Way	1928				3S
<del>76</del> Paget-Gorrill House, Gorrill House 2727 Dwight Way	1891				3S
<b>Fulton Street</b>					
<del>4</del> 3 Houses For Charles Finney 2142, 2144, 2146 Fulton Street	1899				3S
<del>2</del> <b>Federal Land Bank (UC Extension)</b> <b>2233 Fulton Street</b>	<b>1922, 1949</b>	<b>James Plachek, Michael Goodman</b>			<b>4S</b>
<del>3</del> Odd Fellows Temple 2288 Fulton Street	1926	James Plachek			3S
<b>Haste Street</b>					
1 Haste Street Building/McKinley School 2419 Haste Street	1906	A.H. Broad	2-/5-/1996		3S

TABLE 4.4-10  
**SOUTHSIDE, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect(s)	City Landmark	City Structure of Merit	National Register Status Code
2	George D Hutchinson Apt 2436 Haste Street	1904				3S
3	Sequoia Apts, Studio Guild Theatre 2441 Haste Street	1916				3S
4	People's Bicentennial Mural 2500 Haste Street 2455 Telegraph Avenue	1976	Osha Newman et al.	2/22/1990		
5	<b>The Woolley House</b> <b>2509 Haste Street</b>	<b>1876</b>	<b>Unknown</b>	<b>10/16/1989</b>		<b>3S</b>
6	Casa Bonita Apartments 2605 Haste Street	1928	John A. Marshall	11/1/1999		3S
7	<b>U.C. Berkeley Unit 2</b> <b>(partly Dining Commons demolished)</b> <b>2650 Haste Street</b>	<b>1957-1960</b>	<b>John Carl Warnecke; Lawrence Halprin &amp; William Wilson Wurster</b>		<b>9/11/2000</b>	
<b>Piedmont Avenue</b>						
1	The Lewis Hicks House, Chi Psi Fraternity 2311 Piedmont Avenue	1906				3S
2	George Tasheira House, Fuente House 2336 Piedmont Avenue	1914				3S
3	Gayley House 2378 Piedmont Avenue	1905				3S
4	Phi Gamma Delta House 2395 Piedmont Avenue	1928	Frederick Reimers	5/21/1990		3S
<b>Prospect Street</b>						
1	John F. Sims House, Alpha Delta Phi 2422 Prospect Street	1893				3S
<b>Telegraph Avenue</b>						
1	Public Food Store 2369 Telegraph Avenue	1932				3S
2	Sprouse-Reitz Store, Sunset Theatre 2411 Telegraph Avenue	1941				4S

**TABLE 4.4-10**  
**SOUTHSIDE, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect(s)	City Landmark	City Structure of Merit	National Register Status Code
3	Berkeley Food Center 2455 Telegraph Avenue	1933				3S
<b>Warring Street</b>						
1	Charles Washington Merrill House 2307 Warring Street	1911				3S
2	The Thomas Olney House, Sigma Pi House 2434 Warring Street	1911				3S

Note: Resources in **bold** text are University-owned. National Register Status Codes are explained in Appendix D.

Source: Page and Turnbull, 2003.

**TABLE 4.4-11**  
**HILL CAMPUS, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect(s)	City Landmark	City Structure of Merit	National Register Status Code
<b>1</b>	<b>Charter Hill and the Big C</b>	<b>1905</b>	<b>Classes of 1907 and 1908</b>			<b>3S</b>

Note: Resources in **bold** text are University-owned. National Register Status Codes are explained in Appendix D.

Source: Page and Turnbull, 2003.

TABLE 4.4-12  
**LRDP HOUSING ZONE, PRIMARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	Recognition Date	National Designation	State Codes
<b>Addison Street</b>						
1	Berkeley Day Nursery – West Berkeley Children's Center / Health Center 829 Addison Street, 2031 6th Street	1927	Walter H. Ratcliff, Jr.	9/15/1977	N	R
2	Golden Sheaf Bakery (Annex) 2069 -2071 Addison Street	1905	Clinton Day	3/31/1978	N	R
<b>Allston Way</b>						
4	<del>Old City Hall Annex</del> 4835 Allston Way (part of the Berkeley Historic Civic Center District)	1926	James Plachek	11/21/1988	Ⓓ	Ⓓ
2	<del>Berkeley High School Community Center</del> 4930 Allston Way (part of the Berkeley Historic Civic Center District) (also known as the Grove Street Buildings because Martin Luther King Jr. Way was originally known as Grove Street)	1937	<del>William Corlett Sr./ Henry Gutterson</del> (Jacques Schnier and Robert Howard, Sculptors)	12/3/98	Ⓓ	Ⓓ
3	<del>Civic Center Park, now called the Martin Luther King Junior Civic Center Park.</del> Boundaries: Allston Way, Martin Luther King Jr. Way, Milvia Street, Center Street (part of the Berkeley Historic Civic Center District)	1940-42	Henry Gutterson, John Gregg	12/3/1998	Ⓓ	Ⓓ
41	Downtown YMCA 2001 Allston Way (part of the Berkeley Historic Civic Center District)	1910	Benjamin McDougall	2/20/1990	D	D
52	Berkeley Main Post Office 2004 Allston Way (part of the Berkeley Historic Civic Center District)	1914	Oscar Wenderoth	6/16/1980	D	D

TABLE 4.4-12

**LRDP HOUSING ZONE, PRIMARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	Recognition Date	National Designation	State Codes
<b>Bancroft Way</b>						
1	Corder Bldg./Shattuck Apts. 2048 Bancroft Way 2300-50 Shattuck Avenue 2047 Durant Avenue	1921	James Plachek	1/11/1982	N	R
<b>Berkeley Square</b>						
1	Chamber of Commerce, Kaldor's Knit 100 Berkeley Square	1940		08/19/85	N	R
<b>Center Street</b>						
1	Veterans Memorial Building 1931 Center Street (part of the Berkeley Historic Civic Center District)	1928	Henry H. Meyers	12/03/1998 (National) 4/15/1988 (City)	D	R
2	State Farm Insurance Co Building 1947 Center Street (part of the Berkeley Historic Civic Center District)	1947	James Plachek	12/03/1998 (National)	D	R
3	<del>American Trust</del> Chamber of Commerce Building, (Wells Fargo Building) 2081 Center Street 2140 Shattuck Avenue	1925	Walter Ratcliff, Jr.	08/25/1985	N	R
<b>College Avenue</b>						
1	Mercantile Trust Co./Wells Fargo Bank, Elmwood 2959 College Avenue	1925	Walter Ratcliff, Jr.	3/15/1982 (City)		R
<b>Delaware Street</b>						
4	<del>802 Delaware Street</del> Alphonso House (originally at 1731-33 Fifth Street)	1878	Joseph Alphonso	12-17-79 (City) 10/28/77 (State Reg.)		R
<b>Durant Avenue</b>						
1	Boone's University School 2029 Durant Avenue	1880	Unknown	11/1/1982	N	R

TABLE 4.4-12

**LRDP HOUSING ZONE, PRIMARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	Recognition Date	National Designation	State Codes
<b>Fifth Street</b>						
4	Heywood House, Estrada House 1808 Fifth Street	1878	Unknown	01/01/78 (State Reg.)		R
<b>Fourth Street</b>						
4	Heywood-Ghego House 1809-11 Fourth Street	1877	William Heywood	6/21/1982 (City) 10/27/77 (State Reg.)		R
<b>Haste Street</b>						
1	Morrill Apts. 2101 Haste Street 2484-2494 Shattuck Avenue	1911	George F. King	5/21/1984 (City) 2/2/1996 (State Reg.)		R
<b>Hearst Avenue</b>						
1	Davis Harmes House 733 Hearst Avenue	1890	C.W. Davis	9/15/1986 (City Only)		
<b>Hillegass Street</b>						
4	Hillegass Site American Baptist Seminary (Smith House and Smith Cottage) (Smith House demolished) 2527-29 Hillegass	1902-27	Henry Gutterson et al.	1/21/1980	N	R
<b>Kittredge Street</b>						
1	Berkeley Public Library 2090 Kittredge Street	1930	James Plachek	3/19/1982	N	R
<b>Martin Luther King Jr. Way</b>						
4	Civic Center Fountain 2100 Martin Luther King Jr. Way (Part Of The Berkeley Historic Civic Center District)	1938		12/03/98	Ø	Ø
2	Old City Hall 2134 Martin Luther King, Jr. Way (part of the Berkeley Historic Civic Center District)	1908	Bakewell & Brown	9/11/1981 12/03/98 (District)	Ø	Ø

TABLE 4.4-12

**LRDP HOUSING ZONE, PRIMARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	Recognition Date	National Designation	State Codes
<b>Sixth Street</b>						
4	<del>Andrews House</del> 1812 Sixth Street	1880	<del>Unknown</del>	6/15/1992 (City) 3/19/86 (State Reg.)		R
<b>University Avenue</b>						
1	Fox Court 1472-78 University Avenue	1928-30	Fox Brothers	2/4/1982	N	R
2	<del>UC Theater</del> 2018-2036 University Avenue	1916	<del>James Plachek</del>	5/6/2002 <del>(City Only)</del>		
3	<del>2054 University Avenue</del>	-	-	2/2/01 (State Only)		R

**Notes:**

Resources listed under the LRDP Housing Zone in Table 4.4-12 do not include those resources found in the other LRDP zones (e.g. Campus Park, Southside, Adjacent Blocks, or Hill Campus).

**National Designation:**

- N = National Register of Historic Places
- L = National Historic Landmark
- D = National Register of Historic Places – District

**State Codes:**

- R = California Register of Historical Resources (National Register Status Codes 1 or 2)
- L = State Historic Landmark
- D = California Register of Historical Resources – District

Source: Page and Turnbull, 2003.

TABLE 4.4-13  
**LRDP HOUSING ZONE, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	City Landmark	City Structure of Merit	National Register Status Code
<b>Addison Street</b>						
1	Manuel Silva House 743 Addison Street	1886				3S
2	Joseph Mcvey House, Hoppe/Glosser 814 Addison Street	1892				3S
3	Edward Mcvey House, Bay House 816 Addison Street	1890				3S
4	<del>Charles Foster House 828 Addison Street</del>	<del>1878</del>				<del>3S</del>
5	<del>Carrington House 4029 Addison Street (Moved From 2323 Bowditch Street)</del>	<del>1893</del>	<del>Seth Babson &amp; R. Wenk</del>		<del>3/15/82</del>	
<del>64</del>	Framat Lodge 1900 Addison Street	1927	Sanford G. Jackson/ Sommarstrom Bros.	4/7/1997		
<del>75</del>	National Guard Armory, Barney's Gen. 1950 Addison Street	1915				3S
6	<u>Stadium Garage, Stadium Body Shop 2020-26 Addison Street</u>	<u>1925</u>				<u>3S</u>
<del>87</del>	American Railway Express, Swedberg 2070 Addison Street	1895				3S
<b>Adeline Street</b>						
1	Frederick H. Dakin Warehouse 2750 Adeline Street	1906				3S
2	Hull & Durgin Funeral Chapel 3031 Adeline Street	1922				3S
3	T. M. Lukes Nicklelodeon 3192 Adeline Street	1909				4S
4	Carlson's Block 3228--3230 Adeline Street	1903	William Wharff/ C. Eckman	7/19/1982		3S
5	India Block <u>3250--52 Adeline Street</u> 1820-22 Harmon Street	1903	A.W. Smith	7/19/1982		3S



TABLE 4.4-13  
**LRDP HOUSING ZONE, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	City Landmark	City Structure of Merit	National Register Status Code
6	Wells Fargo Bank, South Berkeley Bank 3286--90 Adeline Street	1906	John Galen Howard/ John Debo Galloway	7/19/1982		3S
<b>Allston Way</b>						
1	Elks Club 2018 Allston Way	1913	Walter H. Ratcliff, Jr.	10/7/1991		3S
2	Shattuck Hotel/Hink's 2068--2070 Allston Way 2060 Kittredge Street 2200-2240 Shattuck Avenue	1909-13	Benjamin McDougall	5/16/1983		
<b>Ashby Avenue</b>						
1	Webb Bldg., Hudson Antiques 1985 Ashby Avenue	1905				3S
<b>Ashby Place</b>						
4	Mrs. C.L. Goddard House 2733 Ashby Place	1908				3S
<b>Bancroft Way</b>						
1	Pasand Hotel/Donogh Arms/Morse Block 2037-43 Bancroft Way 2276-86 Shattuck Avenue	1906	Dickey & Reed	6/18/1979		3S
<b>Benvenue</b>						
4	Ayers House 2528 Benvenue Avenue	1899	Unknown/ pos. Arthur Ayers	6/18/1990		3S
2	Charles John Dickman House 2555 Benvenue	1894				3S
3	Woodsum House 2933 Benvenue Avenue	1907				3S
<b>Berkeley Square</b>						
1	124 Berkeley Square	1938				3S
2	Southern Pacific Office 134 Berkeley Square	1938				4S

TABLE 4.4-13

**LRDP HOUSING ZONE, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	City Landmark	City Structure of Merit	National Register Status Code
<b>Berkeley Way</b>						
1	<del>George Morgan Building</del> 2053 Berkeley Way	1904	<del>A. Dodge Coplin</del>	<del>1/12/2004</del>		3S
<b>Blake Street</b>						
1	Haney Ice Co. 2015 Blake Street	1910				4S
<b>Bonita Avenue</b>						
4	<del>Anton A. Fink House</del> 1901 Bonita Avenue	<del>1894</del>				<del>3S</del>
<b>Center Street</b>						
4	<del>Chamber Of Commerce Bldg., Wells Fargo</del> 2081 Center Street	<del>1925</del>				<del>3S</del>
<b>Channing Way</b>						
1	Avansino House 1940 Channing Way	1893				3S
<b>Claremont Avenue</b>						
4	<del>John Muir School</del> 2955 Claremont Avenue	<del>1915</del>	<del>James Plachek</del>	<del>7/18/1983</del>		<del>3S</del>
<b>College Avenue</b>						
4	<del>O. J. Bettis House</del> 2530 College Avenue	<del>1890</del>				<del>3S</del>
21	Strand Theater/Elmwood Theater 2966 College Avenue	1914	Albert Cornelius	5/24/1982		3S
<b>Durant Avenue</b>						
1	Howard Automobile Co./Maggini Chevrolet Building 2136-40 Durant Avenue 2236 Fulton Street	1930	Frederick H. Reimers	10/17/1983		3S

TABLE 4.4-13  
**LRDP HOUSING ZONE, SECONDARY HISTORICAL RESOURCES**

Name	Construction Date	Architect (s)	City Landmark	City Structure of Merit	National Register Status Code
<b>Dwight Way</b>					
<del>4</del>	<del>Barker Building</del> 2033-49 Dwight Way 2484-94 Shattuck Avenue	1905	A. W. Smith	4/16/1978	
<del>21</del>	Williamson Building 2120-24 Dwight Way	1905	George L. Mohr	2/25/1991	3S
<del>32</del>	Williams Building 2126-28 Dwight Way	1902	George L. Mohr	2/24/1991	
<del>43</del>	Davis-Byrne Building 2134-40 Dwight Way	1895	Remodeled by George L. Mohr	2/25/1991	<del>6Y2 (2134)</del> <del>2S2 (2140)</del>
<del>54</del>	Hutton House, Woolsey House 2244 Dwight Way	1885			3S
<del>65</del>	Alta Bates/Benjamin Ferris House 2314 Dwight Way	1880	<del>Unknown</del>	1/26/1987	3S
<del>76</del>	Stuart House 2524 Dwight Way	1891	Pissis and Moore	9/13/1999	3S
<del>87</del>	George Edwards House (relocated to adjacent lot) 2530 Dwight Way	1886	A.H. Broad	4/6/1998	
<del>98</del>	Baptist Divinity School/Hobart Hall, <u>ABSW Campus</u> 2600-06 Dwight Way <u>2501-21 Hillegass Avenue</u>	1918-21	Julia Morgan	9/8/1998 <u>2/1/1999</u>	3S
<del>402</del>	Charles Wilkinson House 2730 Dwight Way	1876	Clinton Day	2/6/1995	3S
<b>Eighth Street</b>					
1	1940 Eighth Street 915-921 University Avenue	1875	<del>Unknown</del>	11/18/1985	
2	W Berkeley College Settlement 2015 Eighth Street	1895			3S
3	George Durrell House 2028 Eighth Street	1890			3S

TABLE 4.4-13

**LRDP HOUSING ZONE, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	City Landmark	City Structure of Merit	National Register Status Code
	<del>Kawneer Manufacturing Co.</del>					
4	<del>2547 Eighth Street 927 Parker Street</del>	1913	<del>C.H. Miller, Alben Prober</del>	<del>7/21/1988</del>		
<b>Etna Street</b>						
4	Albert Derge House 2514 Etna Street	1908				3S
2	Cedric Wright House 2515 Etna Street	1924				3S
3	Reverend Holmes Cottage 2525 Etna Street	1906				3S
4	2531 Etna Street	1908				3S
<b>Fifth Street</b>						
4	Haller/Dowd House, Stephens House 2105 Fifth Street	1886				3S
2	W Berkeley News, Manning House 2107 Fifth Street	1886				3S
3	Velasca House, Kennedy House 2109 Fifth Street	1878				3S
4	Mrs. Sanchez House 2117 Fifth Street	1895				3S
5	Charles Spear House 2212 Fifth Street	1888				3S
<b>Fulton Street</b>						
1	Northern Bertha Bosse Cottage 2424 Fulton Street	1884	Vietch & Knowles	6/2/2003		3S
2	Southern Bertha Bosse Cottage <del>2424</del> 2426 Fulton Street	1884	Vietch & Knowles	6/2/2003		3S
3	Kueffer House <del>2340</del> 2430 Fulton Street	1891	<del>Unknown</del>	5/5/2003		

TABLE 4.4-13  
**LRDP HOUSING ZONE, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	City Landmark	City Structure of Merit	National Register Status Code
<b>Harold Way</b>						
1	Armstrong College 2222 Harold Way	1923	Walter Ratcliff, Jr.	9/6/1994		
<b>Haste Street</b>						
1	Monroe C Hamlin House 1920 Haste Street	1892				3S
<b>Hearst Avenue</b>						
1	Davis Harnes House 733 Hearst Avenue	1890	C.W. Davis	9/15/1986		3S
2	Albert Ferreira House, Mr. Kahns House 809 Hearst Avenue	1880				3S
3	Antonio Brown House 815 Hearst Avenue	1875				4S
<b>Hillegass Avenue</b>						
1	2501-21 Hillegass	1919-21	Julia Morgan, et al.	2/1/1999		
2	Miss Eleanor M. Smith House 2527 Hillegass Avenue	1927	Henry Higby Gutterson			3S
<b>Lincoln Street</b>						
4	Whittier School 2022 Lincoln Street 2015 Virginia 1645 Milvia Street	1939	Dragon, Officer, Hardman, Schmidts	6/25/1984		
<b>Le Conte Avenue</b>						
4	Harris House 2300 Le Conte Street	1939	John B. Anthony			3S
2	Delta Zeta Sorority 2311 Le Conte Street	1923				4S
3	Warren T Clarke House 2317 Le Conte Street	1912				3S
41	Phoebe Hearst House 2368 Le Conte Street Avenue	1900				3S

TABLE 4.4-13

**LRDP HOUSING ZONE, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	City Landmark	City Structure of Merit	National Register Status Code
<b>Milvia Street</b>						
1	Wheeler Manufacturing Co. (demolished) 2115 Milvia Street	1926				3S
2	<del>Martin Luther King Jr. Civic Center Building (Formerly Federal Land Bank)</del> 2180 Milvia Street	1938	James Plachek	4/15/1985		
<b>Newbury Street</b>						
1	Mary Keon House 2905 Newbury Street	1891				3S
2	Mathew Lee House 2911 Newbury Street	1889				3S
<b>Ninth Street</b>						
1	Lodovico Rosano House And Store 2028 Ninth Street	1890				3S
<b>Ridge Road</b>						
1	Adolf Miller House, Ridge House 2420 Ridge Road	1906				4S
2	<del>Treehaven</del> 2523 Ridge Road	1910				3S
<b>Russell Street</b>						
4	<del>Claremont Ct. Gates</del> Russell Street	1907				3S
2	Lois W. Walcott House 2638 Russell Street	1909				3S
<b>San Pablo Avenue</b>						
1	Rivoli Theatre; 1931 San Pablo Avenue	1926				4S
2	Weisbrod Building (Guys Drugs) 2001 San Pablo Avenue 1102-06 University Avenue	1930	Spiveck & Spiveck		7-/15-/1985	

TABLE 4.4-13  
**LRDP HOUSING ZONE, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	City Landmark	City Structure of Merit	National Register Status Code
3	Varsity Theatre, Waynes Donut Shop 2072 San Pablo Avenue	1911				3S
4	Petersons Saloon 2400 San Pablo Avenue	1891				3S
<b>Shattuck Avenue</b>						
1	Lucky Store (Long's Drugs) 1451 Shattuck Avenue	1947				3S
2	Swink House, Cottage And Garden 1525-29 Shattuck Avenue	1903 & 1905	James L. Swink		5- <del>1</del> -2000	
3	Plachek Building (Also Known as The Heywood Building) 2014 Shattuck Avenue	1917	James Plachek	4/12/1993		3S
4	Kress Store 2036-2040 Shattuck Avenue	1933	Edward F. Sibbert	4/20/1981		3S
5	Francis K. Shattuck 2100 Shattuck Avenue	1901	Louis Stone/ Henry Smith	2/6/1995		3S
6	Roy O Long Co Morse –Brock Bldg 2122 Shattuck Avenue	1927				3S
7	1 <sup>st</sup> Savings Bldg Great Western Bldg 2150 Shattuck Avenue	1969				3S
8	Havens Block, Constitution Square 2168 Shattuck Avenue	1906				4S
9	Homestead Loan Association Building 2270 Shattuck Avenue	1905				3S
10	United Artists Theatre 2274 Shattuck Avenue	1932				3S
11	John K Stewart Bldg Yellow House 2377 Shattuck Avenue	1890				3S

TABLE 4.4-13

**LRDP HOUSING ZONE, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	City Landmark	City Structure of Merit	National Register Status Code
12	Fujikawa & Chun Optometry 2414 Shattuck Avenue	1946				4S
13	Berkeley Theatre ( <del>demolished</del> ) 2425 Shattuck Avenue	1911				3S
14	Barker Bldg <del>2486-2484</del> Shattuck Avenue <del>2033-49</del> Dwight Way	1905	A. W. Smith	<u>1/16/1978</u>		3S
15	The Halls or <del>Washing</del> <u>Wishing</u> Well 2528 Shattuck Avenue	1894				3S
16	Berkeley Bowl 2777 Shattuck Avenue	1940				4S
<b>Shattuck Square</b>						
1	14, 22, 24, 37, 38, 39, 40, 41, 43, 44, 48 Shattuck Square (48 Shattuck Square, Palmers is on the State Inventory)	1926	Timothy Pflueger & James Miller	<u>2/27/1984</u>		3S
2	63, 64 Shattuck Square, Roos Bros. Building (64 Shattuck Square is on the State Inventory)	1926	Timothy Pflueger & James Miller	<u>10/20/1980</u>		3S
3	1, 17, 11, 15, 81, 82, 85, 87, 98 Shattuck Square (82 Shattuck Square, Watkins Shoe is on the State Inventory)	<u>1926</u>	<u>Timothy Pflueger &amp; James Miller</u>	<u>2/27/1984</u>		3S
<b>Seventh Street</b>						
1	Library Hall / 7 <sup>th</sup> Street School 2016 Seventh Street	1879				3S
<b>Telegraph Avenue</b>						
1	Mrs. E P King House 2501 Telegraph Avenue	1901				3S
<u>2</u>	<u>Soda Works Building</u> <u>2509-2513 Telegraph Avenue</u>	<u>1888</u>	<u>E. A. Spalding and Henry F. Bowers</u>	<u>4/12/2004</u>		
<u>23</u>	British Motor Car Sales And Service 2539 Telegraph Avenue	1950				3S
<u>34</u>	Gorman's Furniture Store 2597-2599 Telegraph Avenue	<u>1880</u>		<u>12/4/2000</u>		<u>3S (2599)</u>
<u>45</u>	John Albert Marshall House #3 2740 Telegraph Avenue	1900	C M Cook			3S



TABLE 4.4-13  
**LRDP HOUSING ZONE, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	City Landmark	City Structure of Merit	National Register Status Code
56	John Albert Marshall House #4 2744 Telegraph Avenue	1905	John Marshall			3S
67	Concrete Grid Forms Co, Scandinavia 3075 Telegraph Avenue	1938				3S
78	Edlington Court 3120 Telegraph Avenue	1910				3S
<b>Tenth Street</b>						
1	West Berkeley YWCA 2009 Tenth Street	1939	Walter H. Ratcliff, Jr.		1/6/1992	
2	August Peterson House 2010 40 <sup>th</sup> -Tenth Street	1882				3S
<b>University Avenue</b>						
1	Southern Pacific Railroad Station 700 University Avenue	1913	Southern Pacific RR architectural bureau	3/5/2001		3S
2	Semerias Dry Goods 982 University Avenue	1878				3S
3	West University Berkeley Branch Library 1125 University Avenue	1923	Roy O. Long		5/5/2003	
4	Santa Fe Railway Station 1310 University Avenue	1904	Charles Frederick Whittlesey	9/10/2001		3S
5	Fox Commons 1670-1676 University Avenue	1670: 1931 1672: 1940 1674-6: 1983	Fox Brothers	12/7/1998		
6	Elizabeth M Kenney Cottage (relocated) 1719-1725 University Avenue	1887	William H. Wrigley		2/5/2001	
7	Bonita Apartments 1940-44 University Avenue	1905	George Mohr	1/15/1979		3S
8	Bertin Properties 1952 University Avenue	1922	John Bartlett	6/2/2003		
9	Bertin Properties 1960 University Avenue	1923	Harry C. Smith	6/2/2003		

TABLE 4.4-13

**LRDP HOUSING ZONE, SECONDARY HISTORICAL RESOURCES**

	Name	Construction Date	Architect (s)	City Landmark	City Structure of Merit	National Register Status Code
10	UC Theater 2018-2036 University Avenue	1916	James Plachek	5/6/2002		3S (2018) <u>2S2 (2024)</u>
11	Nash Hotel 2041 University Avenue	1923				3S
12	Joseph Davis Bldg (The Victoria) 2044 University Avenue	1905				3S
13	Koerber Bldg, State Farm Bldg <u>2050-2054</u> University Avenue	1923				3S (2050) <u>2S2 (2054)</u>
<b>Vine Street</b>						
1	Squires Block 2100 Vine Street	1895				3S
2	EBMUD Vine Street Pumping Plant 2113 Vine Street	1930	A.J. Calleri/Arthur Johnson	7/18/1983		
<b>Walnut Street</b>						
1	<u>Walnut Square</u> 1500 Walnut Street	<u>1972</u>				<u>3S</u>
<b>Walnut Street</b>						
4	<del>Hanscom House</del> 1525 <del>Walnut</del>	<del>1875</del>				<del>3S</del>

Note: Resources in **bold** text are University-owned. National Register Status Codes are explained in Appendix D.

Resources listed under the LRDP Housing Zone in Table 4.4-13 do not include those resources found in the other LRDP zones (e.g. Campus Park, Southside, Adjacent Blocks, or Hill Campus).

Source: Page and Turnbull, 2003

TABLE 4.4-14  
**OAKLAND, PRIMARY HISTORICAL RESOURCES**

Name	Construction Date	Architect(s)	Recognition Date	National Codes Designation	State Codes
<b>Martin Luther King Jr Way</b>					
1 University High School 5714 Martin Luther King Jr Way			7/19/1994	N	R
<b>Telegraph Avenue</b>					
1 Carnegie Library: Temescal Branch 5205 Telegraph Ave	1918	Donavan and Dickey	11/4/1980	N	R

Notes:

**National Designation:**

- N = National Register of Historic Places
- L = National Historic Landmark
- D = National Register of Historic Places – District

**State Codes:**

- R = California Register of Historical Resources (National Register Status Codes 1 or 2)
- L = State Historic Landmark
- D = California Register of Historical Resources – District

Source: Page and Turnbull, 2003.

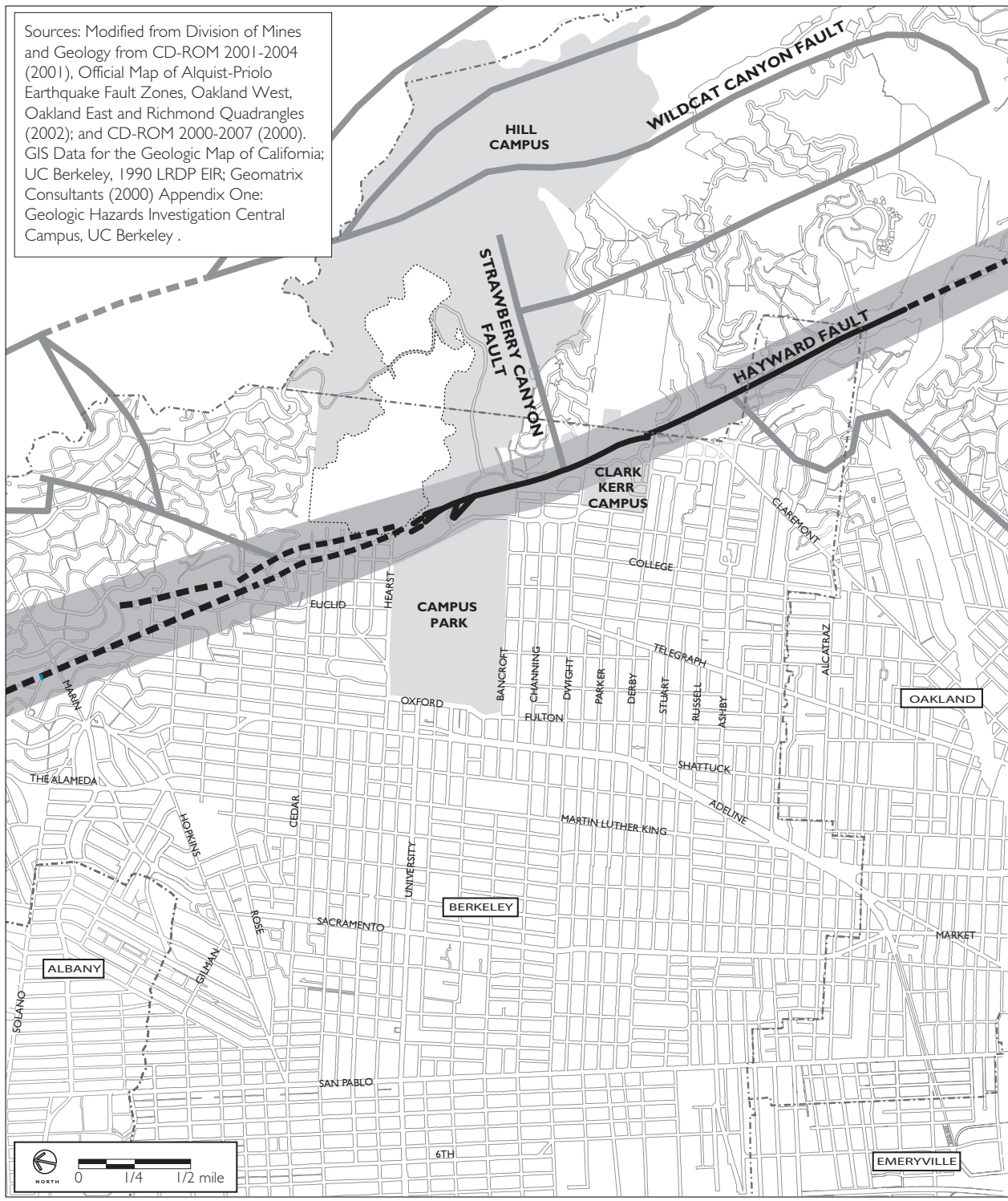
TABLE 4.4-15

**OAKLAND, SECONDARY HISTORICAL RESOURCES**

Name	Construction Date	Architect(s)	City Landmark	City Structure of Merit	National Register Status Code
<b>49<sup>th</sup> Street</b>					
1	Mouser House 449 49 <sup>th</sup> Street	1892			3S
<b>Martin Luther King Jr. Way</b>					
1	Sacred Heart Church 4001 Martin Luther King Jr. Way	-			4X
<b>Ocean View Avenue</b>					
1	5605 Ocean View Avenue 5609 Ocean View Avenue 5613 Ocean View Avenue 5617 Ocean View Avenue	-			3D
<b>Telegraph Avenue</b>					
1	Bank of Italy 4881 Telegraph Avenue	<u>1922</u>			5S
2	Gunnings Saloon Building, Hotel Ald 4904 Telegraph Avenue	1889			3S
3	Cattaneo Block / <u>Brick House</u> Buon Gusto Bakery 5006-5010 Telegraph Avenue	<u>-1870</u>	9/6/1983		3S

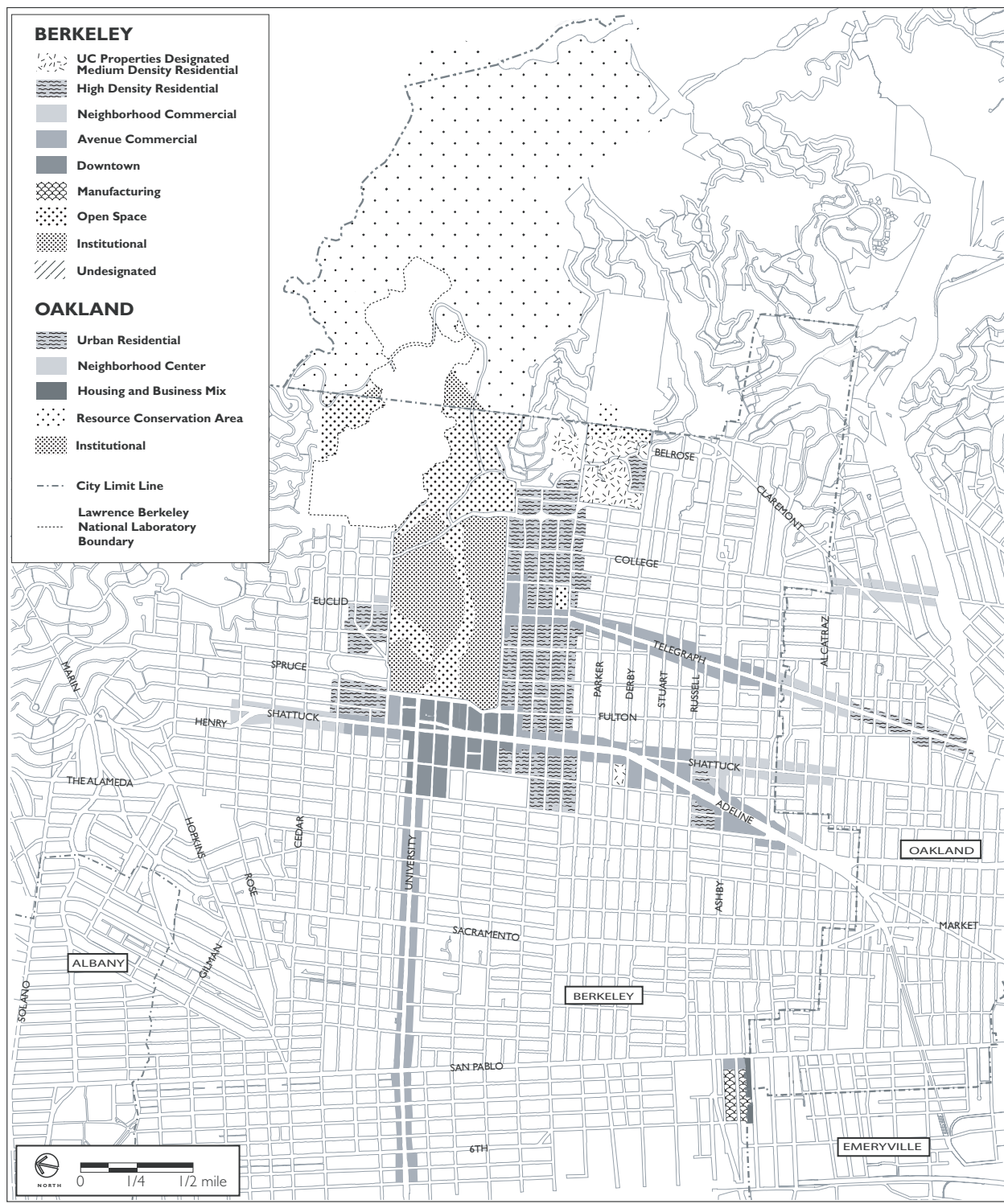
Source: Page and Turnbull, 2003

Sources: Modified from Division of Mines and Geology from CD-ROM 2001-2004 (2001), Official Map of Alquist-Priolo Earthquake Fault Zones, Oakland West, Oakland East and Richmond Quadrangles (2002); and CD-ROM 2000-2007 (2000), GIS Data for the Geologic Map of California; UC Berkeley, 1990 LRDP EIR; Geomatrix Consultants (2000) Appendix One: Geologic Hazards Investigation Central Campus, UC Berkeley .



- Active fault traces**  
 -- solid where well located,  
 dashed where location or existence is uncertain
- Inactive fault traces**  
 -- solid where well located, dashed where  
 location or existence is uncertain
- Alquist-Priolo Earthquake Fault Hazard Zone**
- City Limit Line**
- Lawrence Berkeley  
National Laboratory Boundary**

FIGURE 4.5-1  
**FAULTS & EARTHQUAKE  
 FAULT HAZARD ZONE**



Sources: City of Berkeley, General Plan Land Use Diagram, Updated April 2003; City of Oakland, General Plan Land Use and Transportation Element, March 1998.

Note: Areas not shaded are not in the 2020 LRDP area.

FIGURE 4.8-1  
**BERKELEY AND OAKLAND GENERAL PLAN  
 LAND USE DESIGNATIONS IN THE 2020 LRDP AREA**

## **9.2 FINAL SUMMARY OF IMPACTS AND MITIGATIONS**

This section presents the final version of the summary Table 2-1, updated to incorporate the changes described in section 9.1. For easy reference to the draft version in chapter 2 of the Draft EIR, and to the changes described in section 9.1, this version retains the same page and table numbering as in the Draft EIR.





TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>AESTHETICS</b>			
<p><b>LRDP Impact AES-1:</b> Projects under the 2020 LRDP would result in visual changes, through new construction on presently undeveloped sites, through replacement of existing structures with new structures, and through exterior renovations of existing structures. The design provisions of the 2020 LRDP would ensure those changes would not degrade the existing visual quality and character of their environs.</p>	LTS	<p><b>Continuing Best Practice AES-1-a:</b> New projects in the Campus Park would as a general rule conform to the Campus Park Guidelines. While the Guidelines would not preclude alternate design concepts when such concepts present the best solution for a particular site, UC Berkeley would not depart from the Guidelines except for solutions of extraordinary quality.</p>	LTS
		<p><b>Continuing Best Practice AES-1-b:</b> Major new campus projects would continue to be reviewed at each stage of design by the UC Berkeley Design Review Committee. The provisions of the 2020 LRDP, as well as project specific design guidelines prepared for each such project, would guide these reviews.</p>	
		<p><b>Continuing Best Practice AES-1-c:</b> New Hill Campus projects would as a general rule conform to the design principles established in the Hill Campus Framework. While these principles would not preclude alternate design concepts when such concepts present the best solution for a particular site, the University would not depart from these principles except for solutions of extraordinary quality.</p>	
		<p><b>Continuing Best Practice AES-1-d:</b> To the extent feasible, future fuel management practices would include the selective replacement of high-hazard introduced plant species with native species: for example, the restoration of native grassland and oak-bay woodland though the eradication of invasive exotics, and replacement of aged pines and second-growth eucalyptus. Such conversions would be planned with care, however, to avoid significant disruption of faunal habitats.</p>	

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>AESTHETICS</b>			
		<p><b>Continuing Best Practice AES-1-e:</b> UC Berkeley would make informational presentations of all major projects in the City Environs in Berkeley to the Berkeley Planning Commission and, if relevant, the Berkeley Landmarks <u>Preservation</u> Commission for comment prior to schematic design review by the UC Berkeley Design Review Committee. Major projects in the City Environs in Oakland would similarly be presented to the Oakland Planning Commission and, if relevant, to the Oakland Landmarks Preservation Advisory Board. <u>Whenever a project in the City Environs is under consideration by the UC Berkeley DRC, a staff representative designated by the city in which it is located would be invited to attend and comment on the project.</u></p>	
		<p><b>Continuing Best Practice AES-1-f:</b> Each individual project built in the City Environs under the 2020 LRDP would be assessed to determine whether it could pose potential significant aesthetic impacts not anticipated in the 2020 LRDP, and if so, the project would be subject to further evaluation under CEQA.</p>	
		<p><b>Continuing Best Practice AES-1-g:</b> To the extent feasible, University housing projects in the 2020 LRDP Housing Zone would not have a greater number of stories nor have setback dimensions less than could be permitted for a project under the relevant city zoning ordinance as of July 2003.</p>	
		<p><b>Continuing Best Practice AES-1-h:</b> Assuming the City adopts the Southside Plan without substantive changes, the University would as a general rule use, as its guide for the location and design of University projects implemented under the 2020 LRDP within the area of the Southside Plan, the design guidelines and standards prescribed in the Southside Plan, <u>which would supersede provisions of the City's prior zoning policy.</u></p>	

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>AESTHETICS</b>			
<b>LRDP Impact AES-2:</b> The Campus Park and Hill Campus have a number of scenic vistas into, within, and from campus lands. While projects under the 2020 LRDP would result in visual changes, the design provisions of the 2020 LRDP would ensure those changes would not have adverse effects on those scenic vistas.	LTS	See CBPs under LRDP Impact AES-1	LTS
<b>LRDP Impact AES-3:</b> Projects under the 2020 LRDP have the potential to create new sources of substantial light or glare that could have adverse impacts on day- or night-time views, but the mitigation measures would reduce this impact to <i>less than significant</i> .	S	<b>LRDP Mitigation Measure AES-3-a:</b> Lighting for new development projects would be designed to include shields and cut-offs that minimize light spillage onto unintended surfaces, and <u>to</u> minimize atmospheric light pollution. The only exception to this principle would be in those areas <u>within the Campus Park</u> where such features would be incompatible with the visual and/or historic character of the area.	LTS
		<b>LRDP Mitigation Measure AES-3-b:</b> As part of the design review procedures described in the above Continuing Best Practices, light and glare would be given specific consideration, and measures incorporated into the project design to minimize both. In general, exterior surfaces would not be reflective: architectural screens and shading devices are preferable to reflective glass.	
<b>Tien Center Impact AES-1:</b> The Tien Center has the potential to degrade the visual quality and character of its environs, but the project design avoids such impacts by conforming to the Campus Park Guidelines in the 2020 LRDP.	LTS	See CBPs under LRDP Impact AES-1	LTS
<b>Tien Center Impact AES-2:</b> The Tien Center has the potential to cause adverse impacts on scenic vistas, but the project design avoids such impacts by conforming to the Campus Park Guidelines in the 2020 LRDP.	LTS	See CBPs under LRDP Impact AES-1	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>AESTHETICS</b>			
<b>Tien Center Impact AES-3:</b> As a project implementing the 2020 LRDP, the Tien Center would not create new sources of light or glare that could have adverse impacts on day or night-time views.	LTS	See mitigation measures under LRDP Impact AES-3	LTS
<b>AIR QUALITY</b>			
<b>LRDP Impact AIR-1:</b> Implementation of the 2020 LRDP would not violate the carbon monoxide standard or expose sensitive receptors to substantial CO concentrations.	LTS	<b>Continuing Best Practice AIR-1:</b> UC Berkeley shall continue to implement the same or equivalent alternative transit programs, striving to improve the campus mode split and reduce the use of single occupant vehicles among students, staff, faculty and visitors to campus.	LTS
<b>LRDP Impact AIR-2:</b> Implementation of the 2020 LRDP would not create objectionable odors affecting a substantial number of people.	LTS	None required.	LTS
<b>LRDP Impact AIR-3:</b> Implementation of the 2020 LRDP would not expose people to substantial levels of toxic air contaminants (TACs) from stationary and area sources.	LTS	None required.	LTS
<b>LRDP Impact AIR-4:</b> Emissions from construction activities associated with the 2020 LRDP would be controlled and would not lead to a violation of air quality standards.	LTS	<b>Continuing Best Practice AIR-4-a:</b> UC Berkeley shall continue to include in all construction contracts the measures specified below to reduce fugitive dust impacts: <ul style="list-style-type: none"> <li>▪ All disturbed areas, including quarry product piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using tarps, water, (non-toxic) chemical stabilizer/suppressant, or vegetative ground cover.</li> <li>▪ All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or (non-toxic) chemical stabilizer/suppressant.</li> <li>▪ When quarry product or trash materials are transported off-site, all material shall be covered, or at least two feet of freeboard space from the top of the container shall be maintained.</li> </ul>	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>AIR QUALITY</b>			
		<p><b>LRDP Mitigation Measure AIR-4-a:</b> In addition, UC Berkeley shall include in all construction contracts the measures specified below to reduce fugitive dust impacts, including but not limited to the following:</p> <ul style="list-style-type: none"> <li>▪ All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.</li> <li>▪ When demolishing buildings, water shall be applied to all exterior surfaces of the building for dust suppression.</li> <li>▪ All operations shall limit or expeditiously remove the accumulation of mud or dirt from paved areas of construction sites and from adjacent public streets as necessary. See also CBP HYD 1-b.</li> <li>▪ Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions by utilizing sufficient water or by covering.</li> <li>▪ Limit traffic speeds on unpaved roads to 15 mph.</li> <li>▪ Water blasting shall be used in lieu of dry sand blasting wherever feasible.</li> <li>▪ Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with slopes over one percent.</li> <li>▪ To the extent feasible, limit area subject to excavation, grading, and other construction activity at any one time.</li> <li>▪ Replant vegetation in disturbed areas as quickly as possible.</li> </ul>	

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>AIR QUALITY</b>			
	S	<p><b>Continuing Best Practice AIR-4-b:</b> UC Berkeley shall continue to implement the following control measure to reduce emissions of diesel particulate matter and ozone precursors from construction equipment exhaust:</p> <ul style="list-style-type: none"> <li>▪ Minimize idling time when construction equipment is not in use.</li> </ul>	
		<p><b>LRDP Mitigation Measure AIR-4-b:</b> UC Berkeley shall implement the following control measures to reduce emissions of diesel particulate matter and ozone precursors from construction equipment exhaust:</p> <ul style="list-style-type: none"> <li>▪ To the extent that equipment is available and cost effective, UC Berkeley shall require contractors to use alternatives to diesel fuel, retrofit existing engines in construction equipment and employ diesel particulate matter exhaust filtration.</li> <li>▪ To the extent practicable, manage operation of heavy-duty equipment to reduce emissions, including the use of particulate traps.</li> </ul>	
<p><b>LRDP Impact AIR-5:</b> Operational emissions from implementation of the 2020 LRDP may hinder the attainment of the Clean Air Plan. This would be a <i>significant and unavoidable</i> impact.</p>	S	<p><b>Continuing Best Practice AIR-5:</b> UC Berkeley will continue to implement transportation control measures such as supporting voluntary trip-reduction programs, ridesharing, and implementing improvements to bicycle facilities.</p>	SU
		<p><b>LRDP Mitigation Measure AIR-5:</b> UC Berkeley will work with the City of Berkeley, ABAG and BAAQMD to ensure that emissions directly and indirectly associated with the campus are adequately accounted for and mitigated in applicable air quality planning efforts.</p>	

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>BIOLOGICAL RESOURCES</b>			
<b>LRDP Impact BIO-1:</b> New construction, land management and other 2020 LRDP activities would not have a substantial adverse effect on special-status species, or unique vegetation elements that contribute to the campus character.	LTS	<b>LRDP Mitigation Measure BIO-1-a:</b> UC Berkeley will, to the full feasible extent, avoid the disturbance or removal of nests of raptors and other special-status bird species when in active use. A pre-construction nesting survey for loggerhead shrike or raptors, covering a 100 yard perimeter of the project site, would be conducted during the months of March through July prior to commencement of any project that may impact suitable nesting habitat on the Campus Park and Hill Campus. The survey would be conducted by a qualified biologist no more than 30 days prior to initiation of disturbance to potential nesting habitat. In the Hill Campus, surveys would be conducted for new construction projects involving removal of trees and other natural vegetation. In the Campus Park, surveys would be conducted for construction projects involving removal of mature trees within 100 feet of a Natural Area, Strawberry Creek, and the Hill Campus. If any of these species are found within the survey area, grading and construction in the area would not commence, or would continue only after the nests are protected by an adequate setback approved by a qualified biologist. To the full feasible extent, the nest location would be preserved, and alteration would only be allowed if a qualified biologist verifies that birds have either not begun egg-laying and incubation, or that the juveniles from those nests are foraging independently and capable of survival. A pre-construction survey is not required if construction activities commence during the non-nesting season (August through February).	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>BIOLOGICAL RESOURCES</b>			
		<p><b>LRDP Mitigation Measure BIO-1-b:</b> UC Berkeley will, to the full feasible extent, avoid the remote potential for direct mortality of special-status bats and destruction of maternal roosts. A pre-construction roosting survey for special-status bat species, covering the project site and any affected buildings, would be conducted during the months of March through August prior to commencement of any project that may impact suitable maternal roosting habitat on the Campus Park and Hill Campus. The survey would be conducted by a qualified biologist no more than 30 days prior to initiation of disturbance to potential roosting habitat. In the Hill Campus, surveys would be conducted for new construction projects prior to grading, vegetation removal, and remodel or demolition of buildings with isolated attics and other suitable roosting habitat. In the Campus Park, surveys would be conducted for construction projects prior to remodel or demolition of buildings with isolated attics. If any maternal roosts are detected during the months of March through August, construction activities would not commence, or would continue only after the roost is protected by an adequate setback approved by a qualified biologist. To the full feasible extent, the maternal roost location would be preserved, and alteration would only be allowed if a qualified biologist verifies that bats have completed rearing young, that the juveniles are foraging independently and capable of survival, and bats have been subsequently passively excluded from the roost location. A pre-construction survey is not required if construction activities commence outside the maternal roosting season (September through February).</p>	



TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>BIOLOGICAL RESOURCES</b>			
		<p><b>LRDP Mitigation Measure BIO-1-c:</b> During planning and feasibility studies prior to development of specific projects or adoption of management plans in the Hill Campus, a habitat assessment would be conducted by a qualified biologist to assess any potential impacts on special-status species. Detailed surveys would be conducted during the appropriate season where necessary to confirm presence or absence of any special-status species. Where required to avoid a substantial adverse effect on such species, in consultation with the CDFG and the USFWS feasible changes to schedule, siting and design of projects or management plans would be developed and implemented.</p>	
		<p><b>Continuing Best Practice BIO-1-a:</b> UC Berkeley will continue to implement the Campus Specimen Tree Program to reduce adverse effects to specimen trees and flora. Replacement landscaping will be provided where specimen resources are adversely affected, either through salvage and relocation of existing trees and shrubs or through new plantings of the same genetic strain, as directed by the Campus Landscape Architect.</p>	
		<p><b>Continuing Best Practice BIO-1-b:</b> Implementation of the 2020 LRDP, particularly the Campus Park Guidelines, as well as the Landscape Master Plan and project-specific design guidelines, would provide for stewardship of existing landscaping, and use of replacement and expanded tree and shrub plantings to preserve and enhance the Campus Park landscape. Coast live oak and other native plantings would continue to be used in future landscaping, serving to partially replace any trees lost as a result of projects implemented under the 2020 LRDP.</p>	

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>BIOLOGICAL RESOURCES</b>			
<b>LRDP Impact BIO-2:</b> New construction, land management and other 2020 LRDP activities would be designed and implemented to avoid any substantial adverse effect on any riparian habitat or sensitive natural communities.	LTS	<p><b>Continuing Best Practice BIO-1-c:</b> Because trees and other vegetation require routine maintenance, as trees age and become senescent, UC Berkeley would continue to undertake trimming, thinning, or removal, particularly if trees become a safety hazard. Vegetation in the Hill Campus requires continuing management for fire safety, habitat enhancement, and other objectives. This may include removal of mature trees such as native live oaks and non-native plantings of eucalyptus and pine.</p> <p><b>Continuing Best Practice BIO-2-a:</b> Implementation of the 2020 LRDP, including provisions that ensure proposed projects on the Campus Park will be designed to avoid Natural Preserves and provide for protection and enhancement of riparian habitat along Strawberry Creek as prescribed in the Campus Park Design Guidelines, will avoid substantial adverse effect on riparian habitat or sensitive natural communities. The Natural Preserves are comprised of two subzones: the riparian areas along the streamcourse, and other rustic woodlands adjacent to these riparian areas. The riparian areas are dominated by native and naturalized plants forming dense woodlands along the streamcourse: their width may vary in response to local conditions, but in general should be at least 100', centered on the streamcourse. Management of the Natural Preserves will be based on ecological principles, including replacing invasive exotic plants with native plants suited to this biotic zone, replacing unhealthy plants and plants at the ends of their natural lives, and preserving and enhancing the habitat value of the zone, as prescribed in the 2020 LRDP.</p>	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>BIOLOGICAL RESOURCES</b>			
		<p><b>Continuing Best Practice BIO-2-b:</b> The Strawberry Creek Management Plan will continue to be revised and implemented, in consultation with CDFG, to include recommendations for habitat restoration and enhancement along specific segments of the creek on both the Campus Park and Hill Campus. This will include minimum development setbacks, targets on invasive species controls, appropriate native plantings, and in-channel habitat improvements such as retention of large woody debris and creation of a refugio and deep plunge pools where feasible.</p>	
		<p><b>Continuing Best Practice BIO-2-c:</b> During planning and feasibility studies prior to development of specific projects or implementation of management plans in the Hill Campus, a habitat assessment will be conducted by a qualified biologist to identify and minimize potential impacts on riparian habitat, freshwater seeps, and native grassland sensitive natural communities. Detailed surveys will be conducted at appropriate times where necessary to confirm and map the extent of any sensitive natural communities. Where required to avoid a substantial adverse effect on such communities, in consultation with the CDFG, feasible changes to schedule, siting and design of projects or management plans will be developed and implemented.</p>	

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>BIOLOGICAL RESOURCES</b>			
<b>LRDP Impact BIO-3:</b> Construction, land management practices, and other 2020 LRDP activities would be designed and implemented to avoid any substantial adverse effect on jurisdictional wetlands.	LTS	<b>Continuing Best Practice BIO-3:</b> Proposed projects on the Campus Park and Hill Campus will be designed to avoid designated jurisdictional wetlands and waters along the Strawberry Creek channel. As necessary, wetlands will be mapped and the extent of jurisdictional waters verified by the Corps during planning and feasibility studies prior to development of specific projects or implementation of management plans in the Hill Campus. When unavoidable, any modifications to Strawberry Creek and other jurisdictional waters will be coordinated with jurisdictional agencies, including the CDFG, Corps, and the RWQCB as necessary.	LTS
<b>LRDP Impact BIO-4:</b> Construction, land management practices, and other 2020 LRDP activities would be designed and implemented to avoid any substantial interference with the movement of any native resident or migratory fish or wildlife species, or with established wildlife corridors or native wildlife nursery sites.	LTS	<b>Continuing Best Practice BIO-4-a:</b> Proposed projects in the Hill Campus will be designed to avoid obstructing important established wildlife corridors to the full feasible extent. Before any new fencing is installed for security purposes, UC Berkeley will consider the effect of such fencing on opportunities for wildlife movement, and will avoid new or expanded fencing which would obstruct important established movement corridors.  <b>Continuing Best Practice BIO-4-b:</b> During planning and feasibility studies prior to development of specific projects or implementation of management plans in the Hill Campus, a habitat assessment will be conducted by a qualified biologist to identify and minimize potential impacts on wildlife movement opportunities, including avoidance of new fencing across Strawberry Creek and tributary drainages.	LTS
<b>LRDP Impact BIO-5:</b> Construction, land management and other 2020 LRDP activities would not result in a significant environmental effect upon biological resources due to conflict with local ordinances.	LTS	None required.	

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>BIOLOGICAL RESOURCES</b>			
<b>Tien Center Impact BIO-1:</b> Development of the Tien Center would not substantially affect any sensitive natural community.	LTS	See CBPs under LRDP Impact BIO-2.	LTS
<b>Tien Center Impact BIO-2:</b> Development of the Tien Center would not substantially interfere with movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, nor impede the use of native wildlife nursery sites.	LTS	See CBPs under LRDP Impact BIO-4.	LTS
<b>Tien Center Impact BIO-3:</b> The Tien Center project design would not create significant adverse impacts to special-status species, including raptors, or specimen trees or plants.	LTS	See CBPs and mitigation measures under LRDP Impact BIO-1.	LTS
<b>CULTURAL RESOURCES</b>			
<b>LRDP Impact CUL-1:</b> Construction activities under the 2020 LRDP could have the potential to destroy a unique paleontological resource, or site, or unique geologic feature, but campus best practices would ensure this impact is <i>less than significant</i> .	LTS	<b>Continuing Best Practice CUL-1:</b> In the event that paleontological resource evidence or a unique geological feature is identified during project planning or construction, the work would stop immediately and the find would be protected until its significance can be determined by a qualified paleontologist or geologist. If the resource is determined to be a “unique resource,” a mitigation plan would be formulated and implemented to appropriately protect the significance of the resource by preservation, documentation, and/or removal, prior to recommencing activities.	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>CULTURAL RESOURCES</b>			
<b>LRDP Impact CUL-2:</b> Projects developed under the 2020 LRDP could cause adverse changes in the significance of historical resources. However, in general the provisions of the 2020 LRDP and the best practices would ensure this impact is <i>less than significant</i> . (See also LRDP Impact CUL-3.)	S	<b>Continuing Best Practice CUL-2-a:</b> If a project could cause a substantial adverse change in features that convey the significance of a primary or secondary resource, an Historic Structures Assessment (HSA) would be prepared. Recommendations of the HSA made in accordance with the Secretary of the Interior’s Standards would be implemented, in consultation with the UC Berkeley Design Review Committee and the State Historic Preservation Office, such that the integrity of the significant resource is preserved and protected. Copies of all reports would be filed in the University Archives/Bancroft Library.	LTS
		<b>Continuing Best Practice CUL-2-b:</b> <u>For projects with the potential to cause adverse changes in the significance of historical resources</u> , UC Berkeley would make informational presentations of all major projects in the City Environs in Berkeley to the Berkeley Planning Commission and the Berkeley Landmarks <u>Preservation</u> Commission for comment prior to schematic design review by the UC Berkeley Design Review Committee. <u>Such</u> projects in the City Environs in Oakland would similarly be presented to the Oakland Planning Commission and the Oakland Landmarks Preservation Advisory Board.	
<b>LRDP Impact CUL-3:</b> Under certain circumstances warranted by public benefits in furtherance of the University’s educational mission, projects developed under the 2020 LRDP could cause substantial adverse changes in the significance of historical resources. Under these circumstances, the University would follow the mitigation measure described, but the impact would remain <i>significant and unavoidable</i> .	S	<b>LRDP Mitigation Measure CUL-3:</b> If, in furtherance of the educational mission of the University, a project would require the demolition of a primary or secondary resource, or the alteration of such a resource in a manner not in conformance with the Secretary of the Interior’s Standards, the resource would be recorded to archival standards prior to its demolition or alteration.	SU

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>CULTURAL RESOURCES</b>			
<p><b>LRDP Impact CUL-4:</b> Projects developed under the 2020 LRDP could destroy significant prehistoric or historic archaeological resources. The mitigations would reduce this impact to <i>less than significant</i>. (See also LRDP Impact CUL-5.)</p>	S	<p><b>LRDP Mitigation Measure CUL-4-a:</b> UC Berkeley will create an internal document: a UCB Campus Archaeological Resources Sensitivity Map. The map will identify only the general locations of known and potential archaeological resources within the 2020 LRDP planning area. For the Hill Campus, the map will indicate the areas along drainages as being areas of high potential for the presence of archaeological resources. If any project would affect a resource, then either the project will be sited to avoid the location or, in consultation with a qualified archaeologist, UC Berkeley will determine the level of archaeological investigation that is appropriate for the project site and activity, prior to any construction or demolition activities.</p>	LTS
		<p><b>Continuing Best Practice CUL-4-a:</b> In the event resources are determined to be present at a project site, the following actions would be implemented as appropriate to the resource and the proposed disturbance:</p> <ul style="list-style-type: none"> <li>▪ UC Berkeley shall retain a qualified archaeologist to conduct a subsurface investigation of the project site, to ascertain the extent of the deposit of any buried archaeological materials relative to the project's area of potential effects. The archaeologist would prepare a site record and file it with the California Historical Resource Information System.</li> <li>▪ If the resource extends into the project's area of potential effects, the resource would be evaluated by a qualified archaeologist. UC Berkeley as lead agency would consider this evaluation in determining whether the resource qualifies as a historical resource or a unique archaeological resource under the criteria of CEQA Guidelines section 15064.5. If the resource does not qualify, or if no resource is present within the project area of potential effects, this would be noted in the environmental document and no further mitigation is required unless there is a discovery during construction (see below).</li> </ul>	

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>CULTURAL RESOURCES</b>			
		<ul style="list-style-type: none"> <li>▪ If a resource within the project area of potential effect is determined to qualify as an historical resource or a unique archaeological resource in accordance with CEQA, UC Berkeley shall consult with a qualified archaeologist to mitigate the effect through data recovery if appropriate to the resource, or to consider means of avoiding or reducing ground disturbance within the site boundaries, including minor modifications of building footprint, landscape modification, the placement of protective fill, the establishment of a preservation easement, or other means that would permit avoidance or substantial preservation in place of the resource. If further data recovery, avoidance or substantial preservation in place is not feasible, UC Berkeley shall implement LRDP Mitigation Measure CUL-5, outlined below.</li> <li>▪ A written report of the results of investigations would be prepared by a qualified archaeologist and filed with the University Archives/ Bancroft Library and the Northwest Information Center.</li> </ul>	
		<p><b>LRDP Mitigation Measure CUL-4-b:</b> If a resource is discovered during construction (whether or not an archaeologist is present), all soil disturbing work within 35 feet of the find shall cease. UC Berkeley shall contact a qualified archaeologist to provide and implement a plan for survey, subsurface investigation as needed to define the deposit, and assessment of the remainder of the site within the project area to determine whether the resource is significant and would be affected by the project, as outlined in Continuing Best Practice CUL-3-a. UC Berkeley would implement the recommendations of the archaeologist.</p>	



TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>CULTURAL RESOURCES</b>			
	S	<p><b>Continuing Best Practice CUL-4-b:</b> In the event human or suspected human remains are discovered, UC Berkeley would notify the County Coroner who would determine whether the remains are subject to his or her authority. The Coroner would notify the Native American Heritage Commission if the remains are Native American. UC Berkeley would comply with the provisions of Public Resources Code Section 5097.98 and CEQA Guidelines Section 15064.5(d) regarding identification and involvement of the Native American Most Likely Descendant and with the provisions of the California Native American Graves Protection and Repatriation Act to ensure that the remains and any associated artifacts recovered are repatriated to the appropriate group, if requested.</p>	
		<p><b>Continuing Best Practice CUL-4-c:</b> Prior to disturbing the soil, contractors shall be notified that they are required to watch for potential archaeological sites and artifacts and to notify UC Berkeley if any are found. In the event of a find, UC Berkeley shall implement LRDP Mitigation Measure CUL-4-b.</p>	
<p><b>LRDP Impact CUL-5:</b> Under certain circumstances warranted by public benefits in furtherance of the University’s educational mission, projects developed under the 2020 LRDP could cause substantial adverse changes in the significance of archaeological resources. Under these circumstances, the University would follow the mitigation measure, but the impact would remain <i>significant and unavoidable</i>.</p>	S	<p><b>LRDP Mitigation Measure CUL-5:</b> If, in furtherance of the educational mission of the University, a project would require damage to or demolition of a significant archaeological resource, a qualified archaeologist shall, in consultation with UC Berkeley:</p> <ul style="list-style-type: none"> <li>▪ Prepare a research design and archaeological data recovery plan that would attempt to capture those categories of data for which the site is significant, and implement the data recovery plan prior to or during development of the site.</li> <li>▪ Perform appropriate technical analyses, prepare a full written report and file it with the appropriate information center and provide for the permanent curation of recovered materials.</li> </ul>	SU

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>CULTURAL RESOURCES</b>			
<b>Tien Center Impact CUL-1:</b> The proposed Phase 1 and Phase 2 buildings have the potential to cause adverse changes in the significance of historical resources, but no such changes are anticipated.	LTS	See CBPs under LRDP Impact CUL-2, above.	LTS
<b>Tien Center Impact CUL-2:</b> Excavation and site development for the Phase I building would result in the loss of historic archaeological resources, but the best practices would reduce this impact to <i>less than significant</i> .	LTS	See CPB CUL-4-a, above.	LTS
<b>GEOLOGY, SEISMICITY AND SOILS</b>			
<b>LRDP Impact GEO-1:</b> Implementation of the 2020 LRDP could expose people and/or structures to potential substantial adverse effects resulting from rupture of a known earthquake fault, strong seismic groundshaking, seismic-related ground failure and landsliding. Given continuing campus best practices, however, a significant increase in risk to people or the environment is not anticipated.	LTS	<b>Continuing Best Practice GEO-1-a:</b> UC Berkeley will continue to comply with the CBC and the <i>University Policy on Seismic Safety</i> .	LTS
		<b>Continuing Best Practice GEO-1-b:</b> Site-specific geotechnical studies will be conducted under the supervision of a California Registered Engineering Geologist or licensed geotechnical engineer and UC Berkeley will incorporate recommendations for geotechnical hazard prevention and abatement into project design.	
		<b>Continuing Best Practice GEO-1-c:</b> The Seismic Review Committee (SRC) shall continue to review all seismic and structural engineering design for new and renovated existing buildings on campus and ensure that it conforms to the California Building Code and the <i>University Policy on Seismic Safety</i> .	

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>GEOLOGY, SEISMICITY AND SOILS</b>			
		<p><b>Continuing Best Practice GEO-1-d:</b> UC Berkeley shall continue to use site-specific seismic ground motion specifications developed for analysis and design of campus projects. The information provides much greater detail than conventional codes and is used for performance-based analyses.</p>	
		<p><b>Continuing Best Practice GEO-1-e:</b> UC Berkeley will continue to implement the SAFER Program. Through this program, UC Berkeley has already identified all existing buildings in need of upgrades and is currently performing seismic upgrades on several of these buildings.</p>	
		<p><b>Continuing Best Practice GEO-1-f:</b> Through the Office of Emergency Preparedness, UC Berkeley will continue to implement programs and projects in emergency planning, training, response, and recovery. Each campus building housing Berkeley students, faculty and staff has a Building Coordinator who prepares building response plans and coordinates education and planning for all building occupants.</p>	
		<p><b>Continuing Best Practice GEO-1-g:</b> As stipulated in the <i>University Policy on Seismic Safety</i>, the design parameters for specific site peak acceleration and structural reinforcement will be determined by the geotechnical and structural engineer for each new or rehabilitation project proposed under the 2020 LRDP. The acceptable level of actual damage that could be sustained by specific structures would be calculated based on geotechnical information obtained at the specific building site.</p>	
		<p><b>Continuing Best Practice GEO-1-h:</b> Hill Campus dewatering would be carried out as needed and would be monitored and maintained by qualified engineers.</p>	

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>GEOLOGY, SEISMICITY AND SOILS</b>			
		<u>Continuing Best Practice GEO-1-i: The site-specific geotechnical studies conducted under GEO-1-b will include an assessment of landslide hazard, including seismic vibration and other factors contributing to slope stability.</u>	
<b>LRDP Impact GEO-2:</b> Implementation of the 2020 LRDP, particularly in steep areas, could result in soil erosion. Given continuing campus best practices, however, a significant increase in erosion is not anticipated.	LTS	<b>Continuing Best Practice GEO-2:</b> Campus construction projects with potential to cause erosion or sediment loss, or discharge of other pollutants, would include the campus Stormwater Pollution Prevention Specification. This specification includes by reference the “Manual of Standards for Erosion and Sediment Control” of the Association of Bay Area Governments and requires that each large and exterior project develop an Erosion Control Plan.	LTS
<b>LRDP Impact GEO-3:</b> Implementation of the 2020 LRDP would not result in a substantial loss of topsoil.	LTS	See CBPs and mitigation measures under LRDP Impacts GEO-1 and GEO-2 above.	LTS
<b>LRDP Impact GEO-4:</b> Implementation of the 2020 LRDP could result in development located on a geologic unit or soil that is unstable and could potentially be subject to landslides, lateral spreading, subsidence, liquefaction or collapse. Given continuing campus best practices, however, a significant increase in risk to people or the environment is not anticipated.	LTS	See CBPs under LRDP Impacts GEO-1 and GEO-2 above.	LTS
<b>LRDP Impact GEO-5:</b> Implementation of the 2020 LRDP could result in development located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property. Given continuing campus best practices, however, a significant increase in risk to people or the environment is not anticipated.	LTS	See CBPs under LRDP Impacts GEO-1 and GEO-2 above.	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>GEOLOGY, SEISMICITY AND SOILS</b>			
<b>Tien Center Impact GEO-1:</b> The Tien Center project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking or seismic related ground failure, including liquefaction.	LTS	See CBPs under LRDP Impacts GEO-1 and GEO-2 above.	LTS
<b>Tien Center Impact GEO-2:</b> The Tien Center project would not result in substantial soil erosion or the loss of topsoil.	LTS	See CBPs under LRDP Impacts GEO-1 and GEO-2 above.	LTS
<b>Tien Center Impact GEO-3:</b> The Tien Center project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project.	LTS	See CBPs under LRDP Impacts GEO-1 and GEO-2 above.	LTS
<b>Tien Center Impact GEO-4:</b> The Tien Center project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code.	LTS	See CBPs under LRDP Impacts GEO-1 and GEO-2 above.	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>HAZARDOUS MATERIALS</b>			
<p><b>LRDP Impact HAZ-1:</b> Implementation of the 2020 LRDP would increase the routine transport, use, disposal and storage of hazardous materials and waste (including chemical, radioactive, and biohazardous materials and waste), but given continuing campus best practices, this would not increase hazards to the public or the environment.</p>	LTS	<p><b>Continuing Best Practice HAZ-1:</b> UC Berkeley shall continue to implement the same (or equivalent) health and safety plans, programs, practices and procedures related to the use, storage, disposal, or transportation of hazardous materials and wastes (including chemical, radioactive, and biohazardous materials and waste) during the 2020 LRDP planning horizon. These include, but are not necessarily limited to, requirements for safe transportation of hazardous materials, EH&amp;S training programs, the Hazard Communication Program, publication and promulgation of drain disposal guidelines, the requirement that laboratories have Chemical Hygiene Plans, the Chemical Inventory Database, the Toxic Use Reduction Program, the Aboveground Storage Tank Spill Prevention Control and Countermeasure Plan, monitoring of underground storage tanks, hazardous waste disposal policies, the Chemical Exchange Program, the Hazardous Waste Minimization Program, the Biosafety Program, the Medical Waste Management Program, and the Radiation Safety Program. These programs may be subject to modification as more stringent standards are developed or if the programs become obsolete through replacement by other programs that incorporate similar health and safety protection measures.</p>	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>HAZARDOUS MATERIALS</b>			
<b>LRDP Impact HAZ-2:</b> Implementation of the 2020 LRDP would increase the routine use of laboratory animals on campus by UC Berkeley laboratories, but given continuing campus best practices, this would not increase hazards to the public or the environment.	LTS	<b>Continuing Best Practice HAZ-2:</b> UC Berkeley shall continue to implement the same (or equivalent) programs related to laboratory animal use during the 2020 LRDP planning horizon, including, but not necessarily limited to, compliance with U.S. Public Health Service Regulations, the National Research Council Guide for the Care and Use of Laboratory Animals, and Animal Welfare Act regulations. These programs may be subject to modification as more stringent standards are developed or if the programs become obsolete through replacement by other programs that incorporate similar health and safety protection measures.	LTS
<b>LRDP Impact HAZ-3:</b> Implementation of the 2020 LRDP would increase the use of transgenic organisms on campus by UC Berkeley laboratories, but given continuing campus best practices, this would not increase hazards to the public or the environment.	LTS	<b>Continuing Best Practice HAZ-3:</b> UC Berkeley shall continue to implement the same (or equivalent) programs related to transgenic materials use during the 2020 LRDP planning horizon, including, but not necessarily limited to, compliance with the NIH Guidelines for Research Involving Recombinant DNA Molecules, USDA requirements for open field-based research involving transgenic plants, and requiring registration with EH&S for all research involving transgenic plants. These programs may be subject to modification as more stringent standards are developed or if the programs become obsolete through replacement by other programs that incorporate similar health and safety protection measures.	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>HAZARDOUS MATERIALS</b>			
<b>LRDP Impact HAZ-4:</b> Implementation of the 2020 LRDP could locate development on a hazardous materials site, exposing construction workers and campus occupants or the general public to contaminated soil or groundwater. Given campus continuing best practices, however, this would not increase the risks to workers, campus occupants or the general public.	LTS	<b>Continuing Best Practice HAZ-4:</b> UC Berkeley shall continue to perform site histories and due diligence assessments of all sites where ground-disturbing construction is proposed, to assess the potential for soil and groundwater contamination resulting from past or current site land uses at the site or in the vicinity. The investigation will include review of regulatory records, historical maps and other historical documents, and inspection of current site conditions. UC Berkeley would act to protect the health and safety of workers or others potentially exposed should hazardous site conditions be found.	LTS
<b>LRDP Impact HAZ-5:</b> Implementation of the 2020 LRDP could result in exposure to hazardous emissions or handling of contaminated building materials. This is a <i>less than significant</i> impact.	LTS	<b>Continuing Best Practice HAZ-5:</b> UC Berkeley shall continue to perform hazardous materials surveys prior to capital projects in existing campus buildings. The campus shall continue to comply with federal, state, and local regulations governing the abatement and handling of hazardous building materials and each project shall address this requirement in all construction.	LTS
<b>LRDP Impact HAZ-6:</b> Implementation of the 2020 LRDP would increase the handling and transportation of hazardous materials. Given continuing campus best practices, this would not increase the risk of hazardous materials release into the environment through upset and accident conditions.	LTS	See CBPs for LRDP Impacts HAZ-1 through HAZ-3, above.	LTS
<b>LRDP Impact HAZ-7:</b> Implementation of the 2020 LRDP could result in hazardous emissions and the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Given continuing campus best practices, however, such emissions or handling practices would not pose a health or safety hazard to students or employees at such schools.	LTS	See CBPs for LRDP Impact HAZ-1, above.	LTS



TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>HAZARDOUS MATERIALS</b>			
<b>LRDP Impact HAZ-8:</b> Implementation of the 2020 LRDP could expand research uses of non-ionizing radiation sources. This is a <i>less than significant</i> impact.	LTS	None required.	LTS
<b>HYDROLOGY AND WATER QUALITY</b>			
<b>LRDP Impact HYD-1:</b> Implementation of the 2020 LRDP would not violate existing water quality standards or wastewater discharge requirements, given the provisions of the 2020 LRDP and campus best practices.	LTS	<p><b>Continuing Best Practice HYD-1-a:</b> During the plan check review process and construction phase monitoring, UC Berkeley (EH&amp;S) will verify that the proposed project complies with all applicable requirements and BMPs.</p> <p><b>Continuing Best Practice HYD-1-b:</b> UC Berkeley shall continue implementing an urban runoff management program containing BMPs as published in the Strawberry Creek Management Plan, and as developed through the campus municipal Stormwater Management Plan completed for its pending Phase II MS4 NPDES permit. UC Berkeley will continue to comply with the NPDES stormwater permitting requirements by implementing construction and post construction control measures and BMPs required by project-specific SWPPPs and, upon its approval, by the Phase II SWMP to control pollution. Stormwater Pollution Prevention Plans would be prepared as required by the appropriate regulatory agencies including the Regional Water Quality Control Board and where applicable, according to the UC Berkeley Stormwater Pollution Prevention Specification to prevent discharge of pollutants and to minimize sedimentation resulting from construction and the transport of soils by construction vehicles.</p>	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>HYDROLOGY AND WATER QUALITY</b>			
	LTS	<p><b>Continuing Best Practice HYD-1-c:</b> UC Berkeley shall maintain a campus-wide educational program regarding safe use and disposal of facilities maintenance chemicals and laboratory chemicals, to prevent discharge of these pollutants to Strawberry Creek and the campus storm drains.</p>	LTS
	LTS	<p><b>Continuing Best Practice HYD-1-d:</b> UC Berkeley shall continue to implement the campus Drain Disposal Policy and Drain Disposal Guidelines which provide inspection, training, and oversight on use of the drains for chemical disposal for academic and research laboratories as well as shops and physical plant operations, to prevent harm to the sanitary sewer system.</p>	LTS
<p><b>LRDP Impact HYD-2:</b> Implementation of the 2020 LRDP, including associated construction activities, would not contribute substantial sedimentation or other pollutants in stormwater runoff that could cause sedimentation in local storm drains, and degrade the quality of receiving waters, given continuing campus best practices.</p>	LTS	<p><b>Continuing Best Practice HYD-2-a:</b> In addition to Hydrology Continuing Best Practices 1-a and 1-b above, UC Berkeley will continue to review each development project, to determine whether project runoff would increase pollutant loading. If it is determined that pollutant loading could lead to a violation of the Basin Plan, UC Berkeley would design and implement the necessary improvements to treat stormwater. Such improvements could include grassy swales, detention ponds, continuous centrifugal system units, catch basin oil filters, disconnected downspouts and stormwater planter boxes.</p>	LTS
	LTS	<p><b>Continuing Best Practice HYD-2-b:</b> Where feasible, parking would be built in covered parking structures and not exposed to rain to address potential stormwater runoff pollutant loads. See also HYD-2-a.</p>	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>HYDROLOGY AND WATER QUALITY</b>			
		<p><b>Continuing Best Practice HYD-2-c:</b> Landscaped areas of development sites shall be designed to absorb runoff from rooftops and walkways. The Campus Landscape Architect shall ensure that open or porous paving systems be included in project designs wherever feasible, to minimize impervious surfaces and absorb runoff.</p>	
		<p><b>Continuing Best Practice HYD-2-d:</b> UC Berkeley shall continue to develop and implement the recommendations of the Strawberry Creek Management Plan and its updates, and construct improvements as appropriate. These recommendations include, but shall not be limited to, minimization of the amount of land exposed at any one time during construction as feasible; use of temporary vegetation or mulch to stabilize critical areas where construction staging activities must be carried out prior to permanent cover of exposed lands; installation of permanent vegetation and erosion control structures as soon as practical; protection and retention of natural vegetation; and implementation of post-construction structural and non-structural water quality control techniques.</p>	

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>HYDROLOGY AND WATER QUALITY</b>			
<b>LRDP Impact HYD-3:</b> Implementation of the 2020 LRDP would not interfere with groundwater recharge or contribute to lowering of the local groundwater table, given the provisions of the 2020 LRDP and campus best practices.	LTS	<b>Continuing Best Practice HYD-3:</b> In addition to Hydrology Continuing Best Practices 1-a, 1-b and 2-a and 2-c above, UC Berkeley will continue to review each development project, to determine whether rainwater infiltration to groundwater is affected. If it is determined that existing infiltration rates would be adversely affected, UC Berkeley would design and implement the necessary improvements to retain and infiltrate stormwater. Such improvements could include retention basins to collect and retain runoff, grassy swales, infiltration galleries, planter boxes, permeable pavement, or other retention methods. The goal of the improvement should be to ensure that there is no net decrease in the amount of water recharged to groundwater that serves as freshwater replenishment to Strawberry Creek. The improvement should maintain the volume of flows and times of concentration from any given site at pre-development conditions.	LTS
<b>LRDP Impact HYD-4:</b> At all sites outside the Hill Campus, implementation of the 2020 LRDP could alter drainage patterns in the project area and increase impervious surfaces, but would not exceed the capacity of stormwater drainage systems, result in localized flooding, contribute to off-site flooding, nor result in substantial siltation or erosion, given the provisions of the 2020 LRDP and campus best practices.	LTS	<b>Continuing Best Practice HYD-4-a:</b> In addition to Hydrology Continuing Best Practices 1-a, 1-b and 2-c, the campus storm drain system would be maintained and cleaned to accommodate existing runoff.  <b>Continuing Best Practice HYD-4-b:</b> For 2020 LRDP projects in the City Environs (excluding the Campus Park or Hill Campus) improvements would be coordinated with the City Public Works Department	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>HYDROLOGY AND WATER QUALITY</b>			
	S	<p><b>Continuing Best Practice HYD-4-c:</b> Development that encroaches on creek channels and riparian zones would be prohibited. Creek channels would be preserved and enhanced, especially in the Campus Park area. An undisturbed buffer zone would be maintained between proposed 2020 LRDP projects and creek channels.</p>	
	S	<p><b>Continuing Best Practice HYD-4-d:</b> UC Berkeley shall continue to develop and implement a maintenance program for Strawberry Creek, as described in the Strawberry Creek Management Plan and its updates. Actions shall include but not be limited to: clear trash racks, catch basins, channels, ponds, bridges and over-crossing structures of debris that could block flows and increase flooding potential in all campus creeks. Cleaning of debris shall be done during storm events and prior to the start of the rainy season as part of routine campus grounds maintenance.</p>	
	S	<p><b>Continuing Best Practice HYD-4-e:</b> UC Berkeley shall continue to manage runoff into storm drain systems such that the aggregate effect of projects implementing the 2020 LRDP is no net increase in runoff over existing conditions.</p>	
<p><b>LRDP Impact HYD-5:</b> Projects implemented in the Hill Campus under the 2020 LRDP could alter drainage patterns and increase impervious surfaces, which could exceed the capacity of stormwater drainage systems, result in localized flooding, contribute to off-site flooding, and result in substantial siltation or erosion, but the mitigation would ensure this impact is <i>less than significant</i>.</p>	S	<p><b>LRDP Mitigation Measure HYD-5:</b> In addition to Hydrology Continuing Best Practices 1-a, 1-b, 2-c, 4-a, 4-c and 4-e, projects proposed with potential to alter drainage patterns in the Hill Campus would be accompanied by a hydrologic modification analysis, and would incorporate a plan to prevent increases of flow from the newly developed site, preventing downstream flooding and substantial siltation and erosion.</p>	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>HYDROLOGY AND WATER QUALITY</b>			
<b>LRDP Impact HYD-6:</b> Implementation of the 2020 LRDP could place structures which would impede or redirect flood flows within the 100-year flood hazard area, but the mitigation would ensure this impact is <i>less than significant</i> .	S	<b>LRDP Mitigation Measure HYD-6:</b> In addition to implementation of LRDP Mitigation Measure HYD-5, prior to final design, UC Berkeley will review the plans for all structures to be constructed in the 100-year floodplain for compliance with FEMA requirements for nonresidential structures. This review will include a hydrologic study and recommendations to eliminate any potential impacts to the 100-year floodplain. For structures placed within the 100-year floodplain, flood control devices will be utilized in each development to direct flows toward areas where flood hazards will be minimal. These actions would ensure that the implementation of the 2020 LRDP would not impede or redirect flows in a manner that results in flooding.	LTS
<b>Tien Center Impact HYD-1:</b> Development of the Tien Center would not violate existing surface water quality standards or wastewater discharge requirements.	LTS	See CBPs for LRDP Impact HYD-1.	LTS
<b>Tien Center Impact HYD-2:</b> Development of the Tien Center could increase impervious surfaces but would not provide additional sources of polluted stormwater runoff. Also, construction activities associated with development of the Tien Center would not substantially contribute sediments or other pollutants in stormwater runoff.	LTS	See CBPs for LRDP Impact HYD-2 and HYD-4.	LTS
<b>Tien Center Impact HYD-3:</b> Development of the Tien Center would not interfere with groundwater recharge or contribute to lowering of the local groundwater table.	LTS	See CBPs for LRDP Impact HYD-3.	LTS
<b>Tien Center Impact HYD-4:</b> Development of the Tien Center could alter drainage patterns in the project area and increase impervious surfaces, but would not exceed the capacity of stormwater drainage systems and result in localized flooding, contribute to off-site flooding, nor result in substantial siltation or erosion.	LTS	See CBP for LRDP Impact HYD-4.	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>HYDROLOGY AND WATER QUALITY</b>			
<b>Tien Center Impact HYD-5:</b> The Tien Center would not be constructed in a FEMA-designated flood zone.	LTS	None required.	LTS
<b>LAND USE</b>			
<b>LRDP Impact LU-1:</b> The 2020 LRDP would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project, adopted for the purpose of avoiding or mitigating an environmental effect.	LTS	None required.	LTS
<b>LRDP Impact LU-2:</b> The 2020 LRDP would not conflict with local land use regulations such that a significant incompatibility is created with adjacent land uses.	LTS	<p><b>Continuing Best Practice LU-2-a:</b> New projects in the Campus Park would as a general rule conform to the Campus Park Guidelines. The Guidelines include specific provisions to ensure projects at the city interface create a graceful transition from campus to city.</p> <p><b>Continuing Best Practice LU-2-b:</b> UC Berkeley would make informational presentations of all major projects in the City Environs in Berkeley to the Berkeley Planning Commission and, if relevant, the Berkeley Landmarks <u>Preservation</u> Commission for comment prior to schematic design review by the UC Berkeley Design Review Committee. Major projects in the City Environs in Oakland would similarly be presented to the Oakland Planning Commission and, if relevant, to the Oakland Landmarks Preservation Advisory Board. <u>Whenever a project in the City Environs is under consideration by the UC Berkeley DRC, a staff representative designated by the city in which it is located would be invited to attend and comment on the project.</u></p>	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>LAND USE</b>			
		<p><b>Continuing Best Practice LU-2-c:</b> Each individual project built in the <u>Hill Campus or the City Environs</u> under the 2020 LRDP would be assessed to determine whether it could pose potential significant land use impacts not anticipated in the 2020 LRDP, and if so, the project would be subject to further evaluation under CEQA. In general, a project in the <u>Hill Campus or the City Environs</u> would be assumed to have the potential for significant land use impacts if it:</p> <ul style="list-style-type: none"> <li>▪ Includes a use that is not permitted within the city general plan designation for the project site, or</li> <li>▪ Has a greater number of stories and/or lesser setback dimensions than could be permitted for a project under the relevant city zoning ordinance as of July 2003.</li> </ul>	
		<p><b>Continuing Best Practice LU-2-d:</b> Assuming the City adopts the Southside Plan without substantive changes, the University would as a general rule use, as its guide for the location and design of University projects implemented under the 2020 LRDP within the area of the Southside Plan, the design guidelines and standards prescribed in the Southside Plan, <u>which would supersede provisions of the City's prior zoning policy.</u></p>	
		<p><b>Continuing Best Practice LU-2-e:</b> To the extent feasible, University housing projects in the 2020 LRDP Housing Zone would not have a greater number of stories nor lesser setback dimensions than could be permitted for a project under the relevant city zoning ordinance as of July 2003.</p>	



TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>LAND USE</b>			
<b>Tien Center Impact LU-1:</b> As a project implementing the 2020 LRDP, the Tien Center would not conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project, adopted for the purpose of avoiding or mitigating an environmental effect.	LTS	None required.	LTS
<b>Tien Center Impact LU-2:</b> As a project implementing the 2020 LRDP, the Tien Center would not conflict with local land use regulations such that a significant incompatibility is created with adjacent land uses.	LTS	None required.	LTS
<b>NOISE</b>			
<b>LRDP Impact NOI-1:</b> Implementation of the 2020 LRDP would increase vehicular traffic in the 2020 LRDP planning area, but would not result in a substantial permanent increase in ambient noise levels due to increased vehicular traffic on local roadways.	LTS	None required.	LTS
<b>LRDP Impact NOI-2:</b> Projects implementing the 2020 LRDP would not result in operational noise levels in excess of local standards.	LTS	<b>Continuing Best Practice NOI-2:</b> Mechanical equipment selection and building design shielding would be used, as appropriate, so that noise levels from future building operations would not exceed the City of Berkeley Noise Ordinance limits for commercial areas or residential zones as measured on any commercial or residential property in the area surrounding a project proposed to implement the 2020 LRDP. Controls that would typically be incorporated to attain this outcome include selection of quiet equipment, sound attenuators on fans, sound attenuator packages for cooling towers and emergency generators, acoustical screen walls, and equipment enclosures.	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>NOISE</b>			
<b>LRDP Impact NOI-3:</b> University housing developed under the 2020 LRDP could expose residents to excessive noise levels. This impact is <i>significant and unavoidable</i> .	S	<b>LRDP Mitigation Measure NOI-3:</b> The University would comply with building standards that reduce noise impacts to residents of University housing to the full feasible extent; additionally, any housing built in areas where noise exposure levels exceed 60 L <sub>dn</sub> would incorporate design features to minimize noise exposures to occupants.	SU
<b>LRDP Impact NOI-4:</b> Noise resulting from demolition and construction activities necessary for implementation of the 2020 LRDP would, in some instances, cause a substantial temporary or periodic increase in noise levels, in excess of local standards prescribed in Section 13.40.070 of the City of Berkeley noise ordinance, at affected residential or commercial property lines. This is a <i>significant and unavoidable</i> impact.	S	<p><b>Continuing Best Practice NOI-4-a:</b> The following measures would be included in all construction projects:</p> <ul style="list-style-type: none"> <li>▪ Construction activities will be limited to a schedule that minimizes disruption to uses surrounding the project site as much as possible. Construction outside the Campus Park area will be scheduled within the allowable construction hours designated in the noise ordinance of the local jurisdiction to the full feasible extent, and exceptions will be avoided except where necessary.</li> <li>▪ As feasible, construction equipment will be required to be muffled or controlled.</li> <li>▪ The intensity of potential noise sources will be reduced where feasible by selection of quieter equipment (e.g. gas or electric equipment instead of diesel powered, low noise air compressors).</li> <li>▪ Functions such as concrete mixing and equipment repair will be performed off-site whenever possible.</li> </ul> <p>For projects requiring pile driving:</p> <ul style="list-style-type: none"> <li>▪ With approval of the project structural engineer, pile holes will be pre-drilled to minimize the number of impacts necessary to seat the pile.</li> <li>▪ Pile driving will be scheduled to have the least impact on nearby sensitive receptors.</li> </ul>	SU

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>NOISE</b>		<ul style="list-style-type: none"> <li>▪ Pile drivers with the best available noise control technology will be used. For example, pile driving noise control may be achieved by shrouding the pile hammer point of impact, by placing resilient padding directly on top of the pile cap, and/or by reducing exhaust noise with a sound-absorbing muffler.</li> <li>▪ Alternatives to impact hammers, such as oscillating or rotating pile installation systems, will be used where possible.</li> </ul>	
		<p><b>Continuing Best Practice NOI-4-b:</b> UC Berkeley will continue to precede all new construction projects with community outreach and notification, with the purpose of ensuring that the mutual needs of the particular construction project and of those impacted by construction noise are met, to the extent feasible.</p>	
		<p><b>LRDP Mitigation Measure NOI-4:</b> UC Berkeley will develop a comprehensive construction noise control specification to implement additional noise controls, such as noise attenuation barriers, siting of construction laydown and vehicle staging areas, and the measures outlined in Continuing Best Practice NOI-4-a as appropriate to specific projects. The specification will include such information as general provisions, definitions, submittal requirements, construction limitations, requirements for noise and vibration monitoring and control plans, noise control materials and methods. This document will be modified as appropriate for a particular construction project and included within the construction specification.</p>	

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>NOISE</b>			
<b>LRDP Impact NOI-5:</b> Construction of campus facilities under the 2020 LRDP could expose nearby receptors to excessive groundborne vibration, but the mitigation measures would ensure this impact is <i>less than significant</i> .	S	<p><b>LRDP Mitigation Measure NOI-5:</b> The following measures will be implemented to mitigate construction vibration:</p> <ul style="list-style-type: none"> <li>▪ UC Berkeley will conduct a pre-construction survey prior to the start of pile driving. The survey will address susceptibility ratings of structures, proximity of sensitive receivers and equipment/operations, and surrounding soil conditions. This survey will document existing conditions as a baseline for determining changes subsequent to pile driving.</li> <li>▪ UC Berkeley will establish a vibration checklist for determining whether or not vibration is an issue for a particular project.</li> <li>▪ Prior to conducting vibration-causing construction, UC Berkeley will evaluate whether alternative methods are available, such as:               <ul style="list-style-type: none"> <li>Using an alternative to impact pile driving such as vibratory pile drivers or oscillating or rotating pile installation methods.</li> <li>Jetting or partial jetting of piles into place using a water injection at the tip of the pile.</li> </ul> </li> <li>▪ If vibration monitoring is deemed necessary, the number, type, and location of vibration sensors would be determined by UC Berkeley.</li> </ul>	LTS
<b>Tien Center Impact NOI-1:</b> Operation of the Tien Center would not generate a substantial permanent increase in ambient noise levels in the project vicinity.	LTS	See CBP for LRDP Impact NOI-2, above.	LTS
<b>Tien Center Impact NOI-2:</b> Noise levels generated by construction of the Tien Center would not exceed locally established noise standards, nor generate excessive ground-borne vibration or ground-borne noise levels.	LTS	See CBPs and mitigation measures for LRDP Impact NOI-4 and NOI-5, above.	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>POPULATION AND HOUSING</b>			
<b>LRDP Impact POP-1:</b> Implementation of the 2020 LRDP would directly induce population growth in the Bay Region by increasing both enrollment and employment at UC Berkeley, but this growth would in general be accommodated in the Bay Region without significant adverse impacts.	LTS	None required.	LTS
<b>PUBLIC SERVICES</b>			
<b>LRDP Impact PUB-1.1:</b> Implementation of the 2020 LRDP could increase the demand for police services, but is not anticipated to result in construction of new or altered facilities.	LTS	<b>Continuing Best Practice PUB-1.1:</b> UCPD would continue its partnership with the City of Berkeley police department to review service levels in the City Environs.	LTS
<b>LRDP Impact PUB-2.1:</b> Implementation of the 2020 LRDP would result in limited new development in the Hill Campus, but would not expose people or structures in the Hill Campus to a significant risk of loss, injury or death involving wildland fires.	LTS	<b>Continuing Best Practice PUB-2.1-a:</b> UC Berkeley would continue to comply with Title 19 of the California Code of Regulations, which mandates firebreaks of up to 100 feet around buildings or structures in, upon or adjoining any mountainous, forested, brush- or grass-covered lands.  <b>Continuing Best Practice PUB-2.1-b:</b> UC Berkeley would continue on-going implementation of the Hill Area Fire Fuel Management program.  <b>Continuing Best Practice PUB-2.1-c:</b> UC Berkeley would continue to plan and implement programs to reduce risk of wildland fires, including plan review and construction inspection programs that ensure that campus projects incorporate fire prevention measures.  <b>Continuing Best Practice PUB-2.1-d:</b> <u>UC Berkeley would continue to plan and collaborate with other agencies through participation in the Hills Emergency Forum.</u>	LTS
<b>LRDP Impact PUB-2.2:</b> Implementation of the 2020 LRDP would not impair or interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	None required.	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>PUBLIC SERVICES</b>			
<b>LRDP Impact PUB-2.3:</b> Implementation of the 2020 LRDP could increase the demand for fire and emergency services, but is not anticipated to result in construction of new or altered facilities.	LTS	<b>Continuing Best Practice PUB-2.3:</b> UC Berkeley would continue its partnership with LBNL, ACFD, and the City of Berkeley to ensure adequate fire and emergency service levels to the campus and UC facilities. <u>This partnership shall include consultation on the adequacy of emergency access routes to all new University buildings.</u>	LTS
<b>LRDP Impact PUB-2.4:</b> Implementation of the 2020 LRDP could temporarily result in emergency access constraints, but the mitigations would reduce this impact to a <i>less than significant</i> level.	S	<b>LRDP Mitigation Measure PUB-2.4-a:</b> In order to ensure adequate access for emergency vehicles when construction projects would result in temporary lane or roadway closures, campus project management staff would consult with the UCPD, campus EH&S, the BFD and ACFD to evaluate alternative travel routes and temporary lane or roadway closures prior to the start of construction activity. UC Berkeley will ensure the selected alternative travel routes are not impeded by UC Berkeley activities.	LTS
		<b>LRDP Mitigation Measure PUB-2.4-b:</b> To the extent feasible, the University would maintain at least one unobstructed lane in both directions on campus roadways at all times, including during construction. At any time only a single lane is available due to construction-related road closures, the University would provide a temporary traffic signal, signal carriers (i.e. flagpersons), or other appropriate traffic controls to allow travel in both directions. If construction activities require the complete closure of a roadway, UC Berkeley would provide signage indicating alternative routes. <u>In the case of Centennial Drive, any complete road closure would be limited to brief interruptions of traffic required by construction operations.</u>	
		<b>Continuing Best Practice PUB-2.4:</b> To the extent feasible, for all projects in the City Environs, the University would include the undergrounding of surface utilities along project street frontages, in support of Berkeley General Plan Policy S-22.	

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>PUBLIC SERVICES</b>			
<b>Tien Center Impact PUB-2.1:</b> As a project implementing the 2020 LRDP, the Tien Center project would not result in the need for new or physically altered fire or emergency medical services facilities.	LTS	See CBP under LRDP Impact PUB-2.3.	LTS
<b>Tien Center Impact PUB-2.2:</b> As a project implementing the 2020 LRDP, the Tien Center project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	See LRDP Impact PUB-2.2.	LTS
<b>Tien Center Impact PUB-2.3:</b> As a project implementing the 2020 LRDP, the Tien Center project would not result in inadequate emergency access.	LTS	See CBP and mitigation measures under LRDP Impact PUB-2.4.	LTS
<b>LRDP Impact PUB-3.1:</b> Implementation of the 2020 LRDP could increase the demand for schools, but is not anticipated to create a need for new or altered facilities.	LTS	None required.	LTS
<b>LRDP Impact PUB-4.1:</b> Implementation of the 2020 LRDP would increase the campus population, but would not increase demand for recreation facilities to an extent that could result in substantial physical deterioration of parks and recreational facilities or the need for new or expanded facilities to maintain acceptable service ratios.	LTS	None required.	LTS
<b>LRDP Impact PUB-4.2:</b> Implementation of the 2020 LRDP is not anticipated to create a need for new or altered parks and recreational facilities.	LTS	None required.	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>PUBLIC SERVICES</b>			
<b>LRDP Impact PUB-4.3:</b> Implementation of the 2020 LRDP could include construction or expansion of recreational facilities, but continuing best practices would ensure this impact is <i>less than significant</i> .	LTS	<b>Continuing Best Practice PUB-4.3:</b> Any new UC Berkeley recreation facilities would be developed in accordance with design principles and guidelines established in the 2020 LRDP. All relevant 2020 LRDP mitigation measures and continuing best practices would be incorporated into the design and construction of new facilities. For each individual project, the University would evaluate potential environmental impacts and prepare all required documents in full accordance with CEQA.	LTS
<b>LRDP Impact PUB-4.4:</b> Implementation of the 2020 LRDP could result in the unanticipated loss of some University owned recreational facilities, which could result in increased use leading to the physical deterioration of remaining facilities, but the mitigation measure would reduce this impact to <i>less than significant</i> .	S	<b>LRDP Mitigation Measure PUB-4.4:</b> Before implementing any change to the use of any existing recreational facility, UC Berkeley would conduct a study to ensure that the loss of recreational use would not result in increased use at other facilities to the extent it would result in the physical deterioration of those facilities. If such deterioration is found to have the potential to occur, then the University would build replacement recreation facilities or take other measures to minimize overuse and deterioration of existing facilities in connection with removal of or reduction in use at the recreation facility in question. <u>Any such facilities and/or measures would be reviewed in accordance with CEQA.</u>	LTS
<b>TRANSPORTATION AND TRAFFIC</b>			
<b>LRDP Impact TRA-1:</b> The 2020 LRDP would not increase hazards to bicyclists due to design features or incompatible uses, nor create unsafe conditions for bicyclists.	LTS	<b>Continuing Best Practice TRA-1-a:</b> UC Berkeley will continue in partnership with the City of Berkeley to develop a City program to: (a) maintain the Southside area between College, Dana, Dwight and Bancroft in a clean and safe condition; and (b) provide needed public improvements to the area (e.g. traffic improvements, lighting, bicycle facilities, pedestrian amenities and landscaping).	LTS



TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>TRANSPORTATION AND TRAFFIC</b>			
		<p><b>Continuing Best Practice TRA-1-b:</b> UC Berkeley will continue to do strategic bicycle access planning. Issues addressed include bicycle access, circulation and amenities with the goal of increasing bicycle commuting and safety. Planning considers issues such as bicycle access to the campus from adjacent streets and public transit; bicycle, vehicle, and pedestrian interaction; bicycle parking; bicycle safety; incentive programs; education and enforcement; campus bicycle routes; and amenities such as showers. <u>The scoping and budgeting of individual projects will include consideration of improvements to bicycle access.</u></p>	
<p><b>LRDP Impact TRA-2:</b> University housing development in the 2020 LRDP Housing Zone could increase residential density, but given the provisions of the 2020 LRDP and continuing best practices, is not anticipated to result in inadequate parking capacity.</p>	LTS	<p><b>Continuing Best Practice TRA-2:</b> The following housing and transportation policies will be continued:</p> <ul style="list-style-type: none"> <li>▪ Except for disabled students, students living in UC Berkeley housing would only be eligible for a daytime student fee lot permit or residence hall parking based upon demonstrated need, which could include medical, employment, academic and other criteria.</li> <li>▪ An educational and informational program for students on commute alternatives would be expanded to include all new housing sites.</li> </ul>	LTS
		<p><b>LRDP Mitigation Measure TRA-2:</b> The planned parking supply for University housing projects under the 2020 LRDP would comply with the relevant municipal zoning ordinance as of July 2003. Where the planned parking supply included in a University housing project would make it ineligible for approval under the subject ordinance, UC Berkeley would conduct further review of parking demand and supply in accordance with CEQA.</p>	

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>TRANSPORTATION AND TRAFFIC</b>			
<p><b>LRDP Impact TRA-3:</b> Construction-related activity under the 2020 LRDP would not substantially increase traffic loads or substantially decrease roadway capacity over current conditions. The best practices would continue to be implemented.</p>	LTS	<p><b>Continuing Best Practice TRA-3-a:</b> Early in construction period planning UC Berkeley shall meet with the contractor for each construction project to describe and establish best practices for reducing construction-period impacts on circulation and parking in the vicinity of the project site.</p>	LTS
		<p><b>Continuing Best Practice TRA-3-b:</b> For each construction project, UC Berkeley will require the prime contractor to prepare a Construction Traffic Management Plan which will include the following elements:</p> <ul style="list-style-type: none"> <li>▪ Proposed truck routes to be used, consistent with the City truck route map.</li> <li>▪ Construction hours, including limits on the number of truck trips during the a.m. and p.m. peak traffic periods (7:00 – 9:00 a.m. and 4:00 – 6:00 p.m.), if conditions demonstrate the need.</li> <li>▪ Proposed employee parking plan (number of spaces and planned locations).</li> <li>▪ Proposed construction equipment and materials staging areas, demonstrating minimal conflicts with circulation patterns.</li> <li>▪ Expected traffic detours needed, planned duration of each, and traffic control plans for each.</li> </ul>	
		<p><b>Continuing Best Practice TRA-3-c:</b> UC Berkeley will manage project schedules to minimize the overlap of excavation or other heavy truck activity periods that have the potential to combine impacts on traffic loads and street system capacity, to the extent feasible.</p>	

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>TRANSPORTATION AND TRAFFIC</b>			
		<b>Continuing Best Practice TRA-3-d:</b> UC Berkeley will reimburse the City of Berkeley for its fair share of costs associated with damage to City streets from University construction activities, provided that the City adopts a policy for such reimbursements applicable to all development projects within Berkeley.	
<b>LRDP Impact TRA-4:</b> Construction-related parking demand associated with implementation of the 2020 LRDP would not be anticipated to exceed baseline levels.	LTS	None required.	LTS
<b>LRDP Impact TRA-5:</b> The 2020 LRDP is expected to generate new transit demand, or alter locations where local transit demand occurs. Given the provisions of the 2020 LRDP and campus best practices, however, significant service problems are not anticipated.	LTS	<b>Continuing Best Practice TRA-5:</b> The University shall continue to work to coordinate local transit services as new academic buildings, parking facilities, and campus housing are completed, in order to accommodate changing demand locations or added demand.	LTS
<b>LRDP Impact TRA-6:</b> The 2020 LRDP would increase vehicle trips and traffic congestion at the intersections listed below, leading to substantial degradation in level of service. The mitigations, if implemented with review and approval of the City Traffic Engineer, would reduce these impacts to a <i>less than significant</i> level.			
<b>LRDP Impact TRA-6-a:</b> The signalized Cedar Street/Oxford Street intersection, which would operate at LOS E during the AM peak hour regardless of the project, and degrade from LOS D to LOS E during the PM peak hour. The project would increase the intersection volume by 7 percent during the AM peak hour, and 7 percent during the PM peak hour.	S	<b>LRDP Mitigation Measure TRA-6-a:</b> The University will work with the City of Berkeley to redesign and, on a fair share basis, implement changes to either the westbound or northbound approach of the Cedar Street / Oxford Street intersection to provide a left-turn lane and a through lane. The University will contribute fair share funding for a periodic (annual or biennial) traffic count to allow the City to determine when an intersection redesign is needed. With the implementation of this mitigation measure, the intersection will operate at LOS B during the AM peak hour and LOS D during the PM peak hour.	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>TRANSPORTATION AND TRAFFIC</b>			
<b>LRDP Impact TRA-6-b:</b> The all-way stop-controlled Durant Avenue/Piedmont Avenue intersection, which would degrade from LOS D to LOS F during the AM peak hour. The project would increase the intersection volume by 10 percent during the AM peak hour.	S	<b>LRDP Mitigation Measure TRA-6-b:</b> The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Durant Avenue /Piedmont Avenue intersection, when a signal warrant analysis shows the signal is needed. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impact intersections, to allow the City to determine when a signal is warranted. With the implementation of this mitigation measure, the intersection will operate at LOS B during both AM and PM peak hours.	LTS
<b>LRDP Impact TRA-6-c:</b> The all-way stop-controlled Derby Street/Warring Street intersection, which would operate at LOS F during both AM and PM peak hours, regardless of the project. The project would increase the intersection volume by 7 percent during the AM peak hour, and 6 percent during the PM peak hour.	S	<b>LRDP Mitigation Measure TRA-6-c:</b> The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Derby Street/Warring Street intersection, and provide an exclusive right-turn lane and an exclusive through lane on the westbound approach. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impact intersections, to allow the City to determine when a signal and the associated capacity improvements are warranted. With the implementation of this mitigation measure, the intersection will operate at LOS A during the AM peak hour and LOS C during the PM peak hours.	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>TRANSPORTATION AND TRAFFIC</b>			
<p><b>LRDP Impact TRA-6-d:</b> The eastbound approach of the side-street stop-controlled Addison Street/Oxford Street intersection would degrade from LOS A to LOS E during the AM peak hour and LOS C to LOS E during the PM peak hour. The project would increase the intersection volume by 12 percent during the AM peak hour, and 10 percent during the PM peak hour.</p>	S	<p><b>LRDP Mitigation Measure TRA-6-d:</b> The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Addison Street/Oxford Street intersection, and provide the necessary provisions for coordination with adjacent signals along Oxford Street. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impact intersections, to allow the City to determine when a signal and the associated coordination improvements are warranted. With the implementation of this mitigation measure, the intersection will operate at LOS A during both AM and PM peak hours.</p>	LTS
<p><b>LRDP Impact TRA-6-e:</b> The eastbound approach of the side-street stop-controlled Allston Way/Oxford Street intersection would degrade from LOS D to LOS E during the AM peak hour. The intersection would continue to operate at LOS E during the PM peak hour. The project would increase the intersection volume by 11 percent during the AM peak hour, and 8 percent during the PM peak hour.</p>	S	<p><b>LRDP Mitigation Measure TRA-6-e:</b> The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at Allston Way/Oxford Street intersection, and provide the necessary provisions for coordination with adjacent signals along Oxford Street. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impact intersections, to allow the City to determine when a signal and the associated coordination improvements are warranted. With the implementation of this mitigation measure, the intersection will operate at LOS A during both AM and PM peak hours.</p>	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>TRANSPORTATION AND TRAFFIC</b>			
<p><b>LRDP Impact TRA-6-f:</b> The eastbound approach of the side-street stop-controlled Kittredge Street/Oxford Street intersection would degrade from LOS C to LOS F during the AM peak hour. The intersection would continue to operate at LOS F during the PM peak hour. The project would increase the intersection volume by 14 percent during the AM peak hour, and 10 percent during the PM peak hour.</p>	S	<p><b>LRDP Mitigation Measure TRA-6-f:</b> The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Kittredge Street/Oxford Street intersection, and provide the necessary provisions for coordination with adjacent signals along Oxford Street. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impact intersections, to allow the City to determine when a signal and the associated coordination improvements are warranted. With the implementation of this mitigation measure, the intersection will operate at LOS A during both AM and PM peak hours.</p>	LTS
<p><b>LRDP Impact TRA-6-g:</b> The northbound approach of the side-street stop-controlled Bancroft Way/Ellsworth Street intersection would degrade from LOS D to LOS E during the PM peak hour. The project would increase the intersection volume by 19 percent during the AM peak hour, and 10 percent during the PM peak hour.</p>	S	<p><b>LRDP Mitigation Measure TRA-6-g:</b> The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Bancroft Way/Ellsworth Street intersection, and provide the necessary provisions for coordination with adjacent signals along Bancroft Way. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impact intersections, to allow the City to determine when a signal and the associated coordination improvements are warranted. With the implementation of this mitigation measure, the intersection will operate at LOS B during both AM and PM peak hours.</p>	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>TRANSPORTATION AND TRAFFIC</b>			
<p><b>LRDP Impact TRA-7:</b> Development under the 2020 LRDP would contribute to the projected unacceptable delay at the all-way stop-controlled Bancroft Way/Piedmont Avenue intersection, which is projected to operate at LOS F during both AM and PM peak hours regardless of the project. The project would increase the intersection volume by 11 percent during the AM peak hour, and 5 percent during the PM peak hour. The mitigation would, if implemented with review and approval of the City Traffic Engineer, reduce this impact to a <i>less than significant</i> level.</p>	S	<p><b>LRDP Mitigation Measure TRA-7:</b> The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Bancroft Way/Piedmont Avenue intersection, and provide an exclusive left-turn lane and an exclusive through lane on the northbound approach. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impact intersections, to allow the City to determine when a signal and the associated capacity improvements are warranted. With the implementation of this mitigation measure, the intersection would operate at LOS B during both AM and PM peak hours.</p>	LTS
<p><b>LRDP Impact TRA-8:</b> The 2020 LRDP would increase vehicle trips and traffic congestion at the intersections listed below, leading to substantial degradation in level of service. These impacts are <i>significant and unavoidable</i>. [Should this be formatted like Impact TRA-6, e.g. TRA-8-a &amp; TRA-8-b?]</p> <ul style="list-style-type: none"> <li>▪ The signalized University Avenue/Sixth Street intersection, <del>which</del> is projected to operate at LOS F during both AM and PM peak hours regardless of the project. The project would increase the intersection volume by 7 percent during the AM peak hour, and 6 percent during the PM peak hour.</li> <li>▪ The signalized University Avenue/San Pablo Avenue intersection, <del>which</del> is projected to operate at LOS F during both AM and PM peak hours regardless of the project. The project would increase the intersection volume by 8 percent during the AM peak hour, and 6 percent during the PM peak hour.</li> </ul>	S	<p>Magnitude of impact reduced through trip reduction measures. No feasible design measures.</p>	SU

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>TRANSPORTATION AND TRAFFIC</b>			
<b>LRDP Impact TRA-9:</b> Housing projects in the 2020 LRDP Housing Zone could increase vehicle trips and traffic congestion in the vicinity of project sites, which could lead to substantial degradation in level of service. The mitigation would reduce this impact to a <i>less than significant level</i> .	S	<b>LRDP Mitigation Measure TRA-9:</b> Prior to approving any development outside the City Environs, the University will conduct a traffic study to assess the localized traffic impacts of this development. Mitigations required to ensure that the housing project does not cause LOS deterioration exceeding the stated impact levels would be implemented, if necessary.	LTS
<b>LRDP Impact TRA-10:</b> Development under the 2020 LRDP would cause the following Alameda County CMP Designated System and MTS roadways listed below to exceed the level of service standard established by the CMA. This impact is <i>significant and unavoidable</i> . [see TRA-8] <ul style="list-style-type: none"> <li>▪ Ashby Avenue westbound, between Adeline Street and San Pablo Avenue</li> <li>▪ Ashby Avenue eastbound, between College Avenue and Domingo Street</li> <li>▪ University Avenue westbound, between MLK Jr. Way and I-80</li> <li>▪ San Pablo Avenue northbound, between Gilman Street and Marin Avenue</li> <li>▪ Shattuck Avenue southbound, between Dwight Way and Adeline Street</li> <li>▪ Shattuck Avenue southbound, between Hearst Avenue and University Avenue (MTS only)</li> <li>▪ Dwight Way westbound, between MLK Jr. Way and Sixth Street (MTS only)</li> </ul>	S	Magnitude of impact reduced through trip reduction measures. No feasible design measures.	SU
<b>LRDP Impact TRA-11:</b> Implementation of the 2020 LRDP could induce a “mode shift” to driving by some commuters who currently take transit, bicycle or walk. This would be inconsistent with the intent of the 2020 LRDP. The mitigation would reduce this impact to a <i>less than significant level</i> .	S	<b>LRDP Mitigation Measure TRA-11:</b> The University will implement the following measures to limit the shift to driving by existing and potential future non-auto commuters: <ul style="list-style-type: none"> <li>▪ Review the number of sold parking permits in relation to the number of campus parking spaces and demographic trends on a yearly basis, and establish limits on the total number of parking permits sold proportionate to the number of spaces, with the objective of reducing the ratio of permits to spaces over time as the number of spaces grows, thus ensuring that new supply im-</li> </ul>	LTS



TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>TRANSPORTATION AND TRAFFIC</b>			
		<p>proves the existing space-to-permit ratio without encouraging mode change to single occupant vehicles.</p> <ul style="list-style-type: none"> <li>▪ As new parking becomes operational, assign a portion of the new or existing parking supply to short-term or visitor parking, thus targeting parkers who choose on-street parking now, and also effectively reserving part of the added supply for non-commuters.</li> <li>▪ Expand the quantity of parking that is available only after 10:00 a.m., to avoid affecting the travel mode use patterns of the peak hour commuting population, as new parking inventory is added to the system.</li> <li>▪ Review and consider reductions in attended parking as new parking inventory is added to the system and other impacts do not reduce parking supply.</li> </ul>	
		<p><u>Continuing Best Practice TRA-11: The University surveys the transportation practices of both students and employees at periodic intervals. In order to ensure the parking objective of the 2020 LRDP takes into account future changes in drive-alone rates, transit service and parking demand, the University will conduct such surveys at least once every 3 years; will make the survey results available to the public; and will review and, if appropriate, reduce the 2020 LRDP parking objective in light of those results.</u></p>	

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>TRANSPORTATION AND TRAFFIC</b>			
<b>LRDP Impact TRA-12:</b> The level of pedestrian growth associated with the LRDP may require physical and operational modifications to the intersections and roadways in the immediate campus vicinity and on major pedestrian routes serving UC Berkeley, to ensure adequate capacity for pedestrian movement and adequate design to protect pedestrian safety. The mitigation would reduce this impact to a <i>less than significant</i> level.	S	<b>LRDP Mitigation Measure TRA-12:</b> The University shall prepare a strategic pedestrian improvement plan that outlines the expected locations and types of pedestrian improvements that may be desirable to accommodate 2020 LRDP growth. The plan shall be flexible to respond to changing conditions as the LRDP builds out, and shall contain optional strategies and improvements that can be applied to specific problems that arise as the LRDP builds out. The University shall develop the Plan in consultation with the City of Berkeley, and work with the City to implement plan elements as needed during the life of the 2020 LRDP on a fair share basis.	LTS
<b>Tien Center Impact TRA-1:</b> The construction of the Tien Center would not substantially increase traffic loads or substantially decrease street system capacity over current conditions.	LTS	None required.	LTS
<b>Tien Center Impact TRA-2:</b> The Tien Center would not adversely impact local pedestrian and bicycle circulation.	LTS	None required.	LTS
<b>UTILITIES AND SERVICE SYSTEMS</b>			
<b>LRDP Impact USS-1.1:</b> Implementation of the 2020 LRDP would increase water demand, but this increase is not anticipated to result in a significant impact on water entitlements and resources, nor result in construction of new or altered facilities.	LTS	<b>Continuing Best Practice USS-1.1:</b> For campus development that increases water demand, UC Berkeley would continue to evaluate the size of existing distribution lines as well as pressure of the specific feed affected by development on a project-by-project basis, and necessary improvements would be incorporated into the scope of work for each project to maintain current service and performance levels. The design of the water distribution system, including fire flow, for new buildings would be coordinated among UC Berkeley staff, EBMUD, and the Berkeley Fire Department.	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>UTILITIES AND SERVICE SYSTEMS</b>			
<b>LRDP Impact USS-2.1-a:</b> Implementation of the 2020 LRDP may result in increased demand for wastewater treatment, but this increase is not anticipated to result in a significant impact on treatment capacity, nor result in construction of new or altered facilities.	LTS	<b>Continuing Best Practice USS-2.1-a:</b> UC Berkeley will promote and expand the central energy management system (EMS), to tie building water meters into the system for flow monitoring.	LTS
<b>LRDP Impact USS-2.1-b:</b> Implementation of the 2020 LRDP may result in increased demand on wastewater collection systems and the construction of new or altered facilities, but these are not anticipated to have significant environmental impacts.	LTS	<b>Continuing Best Practice USS-2.1-b:</b> UC Berkeley will analyze water and sewer systems on a project-by-project basis to determine specific capacity considerations in the planning of any project proposed under the 2020 LRDP.	
		<b>Continuing Best Practice USS-2.1-c:</b> UC Berkeley will continue and expand programs retrofitting plumbing in high-occupancy buildings, and seek funding for these programs from EBMUD or other outside agencies as appropriate.	
		<b>Continuing Best Practice USS-2.1-d:</b> UC Berkeley will continue to incorporate specific water conservation measures into project design to reduce water consumption and wastewater generation. This could include the use of special air-flow aerators, water-saving shower heads, flush cycle reducers, low-volume toilets, <u>weather based or evapotranspiration irrigation controllers</u> , drip irrigation systems, the use of drought resistant plantings in landscaped areas, <u>and collaboration with EBMUD to explore suitable uses of recycled water.</u>	

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>UTILITIES AND SERVICE SYSTEMS</b>			
<b>LRDP Impact USS-3.1:</b> At all sites outside the Hill Campus, implementation of the 2020 LRDP could alter drainage patterns in the project area and increase impervious surfaces, but would not exceed the capacity of stormwater drainage systems.	LTS	<p><b>Continuing Best Practice USS-2.1-e:</b> The current agreement under which UC Berkeley makes payments to the City of Berkeley to help fund sewer improvements terminates at the conclusion of academic year 2005-2006 or upon approval of the 2020 LRDP. Any future payments to service providers to help fund wastewater treatment or collection facilities would conform to Section 54999 of the California Government Code, including but not limited to the following provisions:</p> <ul style="list-style-type: none"> <li>▪ Fees would be limited to the cost of capital construction or expansion.</li> <li>▪ Fees would be imposed only after an agreement has been negotiated by the University and the service provider.</li> <li>▪ The service provider must demonstrate the fee is nondiscriminatory: i.e. the fee must not exceed an amount determined on the basis of the same objective criteria and methodology applied to comparable nonpublic users, and is not in excess of the proportionate share of the cost of the facilities of benefit to the entity property being charged, based upon the proportionate share of use of those facilities.</li> <li>▪ The service provider must demonstrate the amount of the fee does not exceed the amount necessary to provide capital facilities for which the fee is charged.</li> </ul>	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>UTILITIES AND SERVICE SYSTEMS</b>			
<b>LRDP Impact USS-3.2:</b> Projects implemented in the Hill Campus under the 2020 LRDP could alter drainage patterns and increase impervious surfaces, which could exceed the capacity of stormwater drainage systems, but the mitigation would ensure this impact is <i>less than significant</i> .	S	<b>LRDP Mitigation Measure USS-3.2:</b> In addition to Best Practice USS-3.1, projects proposed with potential to alter drainage patterns in the Hill Campus would be accompanied by a hydrologic modification analysis, and would incorporate a plan to prevent increases of flow from the project site, preventing downstream flooding and substantial siltation and erosion.	LTS
<b>LRDP Impact USS-4.1:</b> Implementation of the 2020 LRDP would increase demand for steam, but is not anticipated to result in a need for new or altered facilities.	LTS	None required.	LTS
<b>LRDP Impact USS-5.1:</b> Implementation of the 2020 LRDP would not violate any applicable federal, state, and local statutes and regulations related to solid waste.	LTS	<b>Continuing Best Practice USS-5.1:</b> UC Berkeley would continue to implement a solid waste reduction and recycling program designed to reduce the total quantity of campus solid waste that is disposed of in landfills during implementation of the 2020 LRDP.	LTS
<b>LRDP Impact USS-5.2:</b> Implementation of the 2020 LRDP may result in increased generation of solid waste, but is not anticipated to exceed the capacity of permitted sites.	LTS	<b>Continuing Best Practice USS-5.2:</b> In accordance with the Regents-adopted green building policy and the policies of the 2020 LRDP, the University would develop a method to quantify solid waste diversion. Contractors working for the University would be required under their contracts to report their solid waste diversion according to the University's waste management reporting requirements.	LTS
		<u><b>LRDP Mitigation Measure USS-5.2:</b> Contractors on future UC Berkeley projects implemented under the 2020 LRDP will be required to recycle or salvage at least 50% of construction, demolition, or land clearing waste. Calculations may be done by weight or volume, but must be consistent throughout.</u>	
<b>LRDP Impact USS-6.1:</b> Implementation of the 2020 LRDP would result in increased use of energy, but is not anticipated to result in the need for new or altered production and/or transmission facilities.	LTS	None required.	LTS

TABLE 2-1 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Impact	Significance Before Mitigation	Mitigation Measures and Continuing Best Practices	Significance With Mitigation
<b>UTILITIES AND SERVICE SYSTEMS</b>			
<b>LRDP Impact USS-6.2:</b> Implementation of the 2020 LRDP would not encourage the wasteful or inefficient use of energy.	LTS	None required.	LTS

### **9.3 FINAL U C BERKELEY 2020 LRDP**

This section presents the final version of the UC Berkeley 2020 Long Range Development Plan, updated to incorporate the changes described in section 9.1. For easy reference to the Draft 2020 LRDP in section 3.1 of the Draft EIR, and to the changes described in section 9.1, this version retains the same page, table, and figure numbering as in the Draft EIR.







**2020**

**UNIVERSITY OF CALIFORNIA BERKELEY**

**LONG RANGE DEVELOPMENT PLAN**

JANUARY 2005







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## INTRODUCTION

PURPOSE OF THE 2020 LRDP	3.1.1
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### 3.1.1 PURPOSE OF THE 2020 LRDP

Our mission at UC Berkeley is to deliver programs of instruction, research and public service of exceptional quality to the state of California. Over the years, our performance in support of this mission has not only equaled but often outpaced the nation's elite private universities, despite their longer histories and far larger private endowments. The excellence of UC Berkeley is a testament to the vision and public spirit of the people of California, who have sustained us for over a century as a premier research university, while also ensuring a UC Berkeley education remains within reach of the full spectrum of Californians.

Yet, UC Berkeley enters the new century faced with profound challenges:

- to pursue exciting new fields of inquiry and discovery, and achieve excellence in every field we pursue,
- to maintain the unique breadth and variety of our academic programs, and build a strong and vital intellectual community,
- to provide every student with an outstanding education, in which critical inquiry, analysis and discovery are integral to the coursework,
- to strengthen our ability to recruit and retain exceptional individuals, and ensure the campus reflects the full social and cultural spectrum of Californians,
- to provide the space, technology, and infrastructure required to meet the demands of leading edge instruction and research,
- to preserve our extraordinary legacy of landscape and architecture, and become a model of wise and sustainable growth,
- to preserve the character and livability of the city around us, and enhance the economic and cultural synergy of city and university,
- to ensure each capital investment represents the optimal use of public resources, and
- to serve the people of California, and uphold our standard as the best research university in the world.

To enable UC Berkeley to maintain and build upon this standard, the 2020 Long Range Development Plan for UC Berkeley presents a framework for land use and capital investment to meet the academic goals and objectives of the university through the year 2020. It describes both the scope and nature of development anticipated within this timeframe, as well as policies to guide the location, scale and design of individual capital projects.

The 2020 LRDP does not commit the university to any specific project, but rather provides a strategic framework for decisions on those projects. The capital investment program described in the 2020 LRDP does, however, establish a maximum amount of net new growth in the UC Berkeley space inventory during this timeframe, which the campus may not substantially exceed without amending the 2020 LRDP.

## ENVIRONMENTAL IMPACT REPORT

The potential environmental impacts of the 2020 LRDP are evaluated in an Environmental Impact Report (EIR), as required by the California Environmental Quality Act (CEQA). The EIR has several purposes:

- to inform university decisionmakers, responsible and interested agencies, and the general public of the environmental implications of the proposed 2020 LRDP,
- to enable the Regents of the University of California to consider the environmental implications of the proposed 2020 LRDP in their consideration of it, and
- to serve as a reference document for the subsequent CEQA review of each individual capital project undertaken to implement the 2020 LRDP.

## PROJECT REVIEW

The 2020 LRDP and its EIR provide a framework for the subsequent review of individual projects as they occur at UC Berkeley. Each project with potential to affect the physical environment will be assessed within this framework to determine the appropriate level of CEQA review. Once CEQA review is complete, each individual project must then be approved by the Regents, the President of the University of California, or the Chancellor of UC Berkeley, depending on the scope and nature of the project.

## RELATED PLANS

The objectives in the 2020 LRDP support the longterm vision and goals presented in two advisory UC Berkeley documents: the Strategic Academic Plan and the New Century Plan. Both documents were completed in 2002 and published on the campus website. The purpose of both documents is to serve as living, evolving guides for campus decisions, and as such will be revisited and updated at regular intervals as new challenges emerge. The Academic Plan and New Century Plan are advisory: they provide a foundation for the 2020 LRDP, but are not part of the 2020 LRDP. The scope of the 2020 LRDP EIR is represented entirely and exclusively by the contents of the 2020 LRDP.

**STRATEGIC ACADEMIC PLAN** It is a fundamental principle at UC Berkeley that our capital investment strategy should align with and promote the academic goals of the campus. Toward this end, the Chancellor formed a campus committee in fall 2000 and charged it to prepare a Strategic Academic Plan, which has now been completed. The scope of the Strategic Academic Plan is much broader than the 2020 LRDP, but many of its provisions have significant implications for land use and capital investment, and serve as the foundation for the **Objectives** in the 2020 LRDP.

**NEW CENTURY PLAN** The New Century Plan presents a design framework of policies, guidelines and initiatives for UC Berkeley based on the principles established in the Strategic Academic Plan. Together, the Strategic Academic Plan and the New Century Plan define a longterm vision for the future of the campus: the 2020 LRDP outlines the scope of capital investment UC Berkeley intends to pursue through 2020, in order to realize this vision.

### 3.1.2 SCOPE OF THE 2020 LRDP

While the campus functions as a single academic enterprise, the areas that comprise it differ significantly in terms of physical capacity and environmental sensitivity. To allow more precise analysis of both, the 2020 LRDP is organized in terms of the land use zones shown in figure 3.1-1 and described below.

#### **CAMPUS PARK**

The historic 180 acre Campus Park, defined by Hearst on the north, Oxford/Fulton on the west, Bancroft on the south, and Gayley/Piedmont on the east, contains 56% of the UC Berkeley space inventory. Although intensively developed, the Campus Park retains a distinctive parklike environment of natural and formal open spaces, as well as an outstanding ensemble of historic architecture. The Campus Park serves both as the center of campus intellectual life and as a scenic and cultural resource for the entire Bay region.

#### **HILL CAMPUS**

The Hill Campus consists of roughly 1,000 acres extending east from Stadium Rimway to Grizzly Peak Boulevard. 200 of these acres are managed under the separate jurisdiction of Lawrence Berkeley National Laboratory, and are not within the scope of the UC Berkeley 2020 LRDP. Berkeley Lab operates under its own LRDP and EIR, approved separately by the UC Regents.

While the 800 acre balance contains several UC Berkeley facilities concentrated along Centennial Drive, including the Lawrence Hall of Science, the Botanical Garden, the Space Sciences Laboratory and the Mathematical Sciences Research Institute, the primary use of the Hill Campus is natural open space, including over 300 acres in the Ecological Study Area. The Hill Campus also includes Strawberry Canyon Recreation Area and the adjacent Witter and Levine-Fricke sport fields. The Hill Campus contains 2% of the UC Berkeley space inventory.

#### **CITY ENVIRONS**

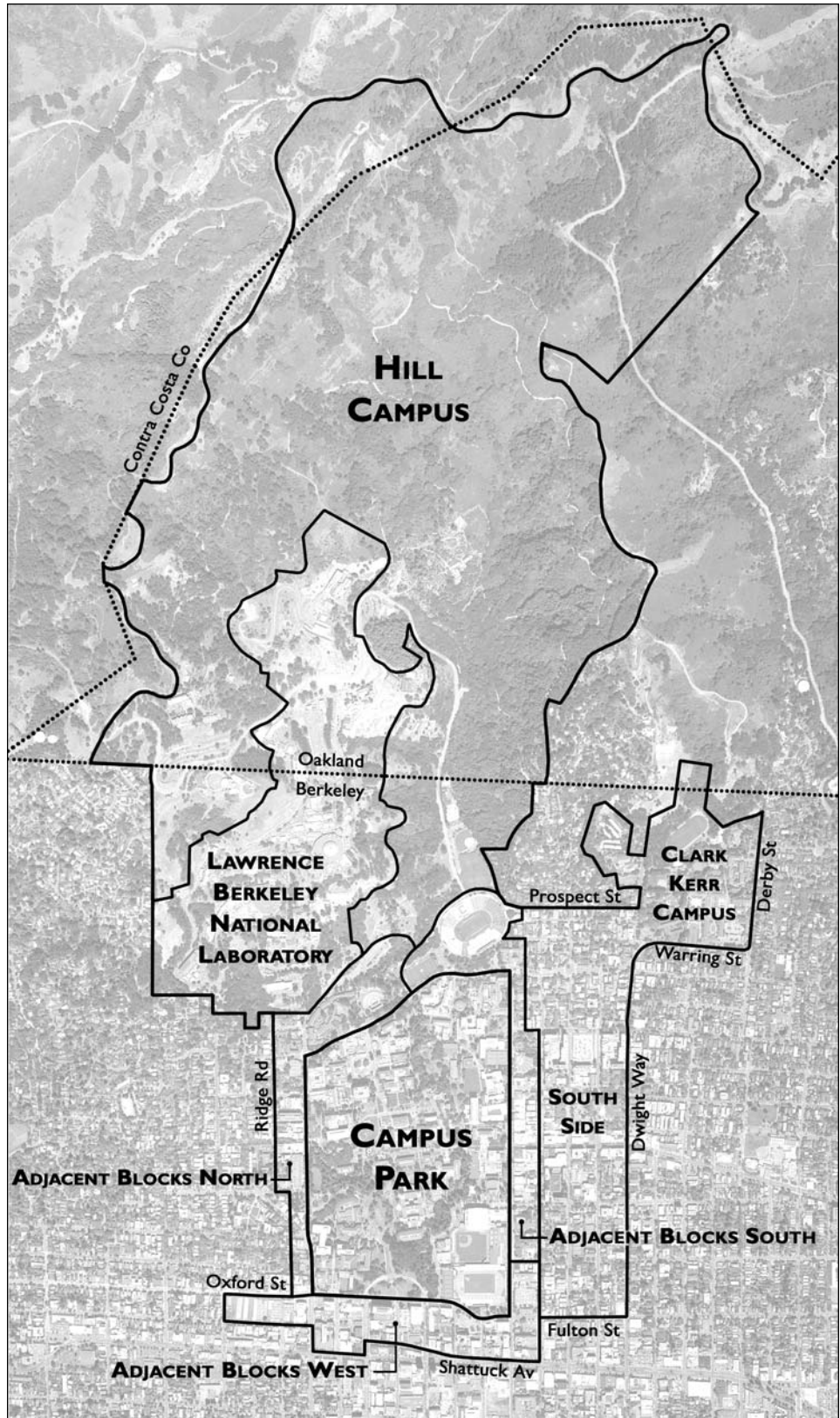
The City Environs are defined to include the Adjacent Blocks, the Southside, Other Berkeley Sites, and the Housing Zone in its entirety: in other words, the entire scope of the 2020 LRDP except for the Campus Park and Hill Campus. The areas within the City Environs are similar in consisting mostly of city blocks served by city streets, and include university properties interspersed with non-university properties.

#### **ADJACENT BLOCKS**

This zone includes the blocks adjacent to the north, west, south and east of the Campus Park. Those to the north, west, and south are city blocks defined by city streets, but include numerous major campus facilities. The 'blocks' to the east are owned entirely by the university, but are separated from the Campus Park by Gayley Road and Piedmont Ave: Gayley Road north of Memorial Stadium is owned by the university. For the purpose of land use and environmental analysis, the 2020 LRDP subdivides the adjacent blocks into three subzones, below. The adjacent blocks together contain 14% of the UC Berkeley space inventory, and roughly 45% of the land is owned by the university.

**ADJACENT BLOCKS SOUTH**, the blocks defined by Ellsworth, Durant, College, the Bancroft frontage from College to Piedmont, Bancroft, Stadium Rimway, and the Campus Park. Major campus facilities on these blocks include Memorial Stadium, International House, University Art Museum, and Tang Health Center.

FIGURE 3.1-1  
LAND USE ZONES





**ADJACENT BLOCKS WEST**, the blocks defined by Oxford, Virginia, Walnut, Hearst, Shattuck, Durant, Ellsworth, and the Campus Park. Major campus facilities on these blocks include the University Printing Plant, University Hall, 2195 Hearst, and the plant research facilities of the Oxford Tract.

**ADJACENT BLOCKS NORTH**, the blocks defined by the Hill Campus, Berkeley Lab, Ridge, Scenic, the Hearst frontage from Scenic to Oxford, Oxford, and the Campus Park. Major campus facilities on these blocks include Etcheverry Hall, Soda Hall, Goldman School of Public Policy, the Greek Theater, and the Bowles, Stern and Foothill residence halls.

### **SOUTHSIDE**

As defined in the 2020 LRDP, the Southside includes the blocks defined by Durant, the Prospect frontage, Dwight, and Fulton, as well as the 50 acre, university owned Clark Kerr Campus and Smyth-Fernwald complex. The Clark Kerr Campus includes student and faculty housing, a recreation center, conference facility, and child care. The university owns roughly 45% of the land in the Southside including the Clark Kerr Campus, primarily student residence halls and apartments. The Southside, including the Clark Kerr Campus, contains 10% of the UC Berkeley space inventory.

As commonly used in Berkeley, the term 'Southside' also includes the Adjacent Blocks South. The 2020 LRDP treats these blocks separately, because they differ from the balance of the Southside in terms of both current land use and the nature of future development proposed by the university. However, as described in the City Environs Framework, projects on the Adjacent Blocks within the area of the City of Berkeley Southside Plan would use the Southside Plan as a guide for project location and design.

### **HOUSING ZONE**

The objectives for the 2020 LRDP include a significant program of new undergraduate, graduate, and faculty housing. These objectives include location criteria:

- New lower division student housing should be within a one mile radius of the center of campus, defined as Doe Library.
- Other student housing should be within this one mile radius or within one block of a transit line providing trips to Doe Library in under 20 minutes.

A transit trip is defined as the time on the transit vehicle to the stop nearest to campus, with no transfers, plus the walking time from the stop to Doe Library. The 2020 LRDP Housing Zone includes all sites which meet the above criteria, except for those sites with residential designations of under 40 units per acre in a municipal general plan as of July 2003. The Housing Zone overlays the other land use zones, as shown in figure 3.1-5.

### **OTHER BERKELEY SITES**

These include all other campus properties in or partly in the City of Berkeley, including 2000 Carleton and 6701 San Pablo: they comprise 5% of the UC Berkeley space inventory.

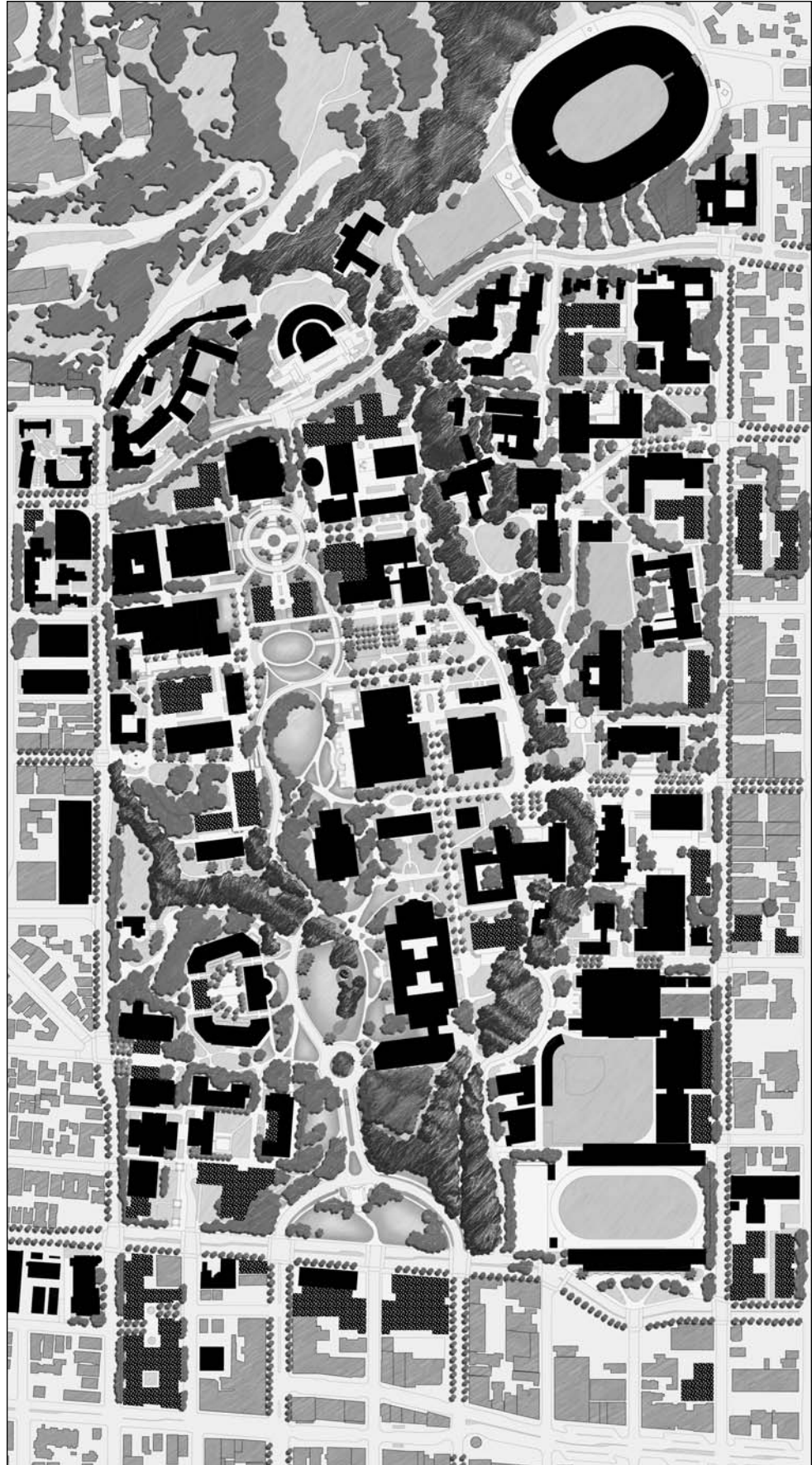
### **OUTSIDE 2020 LRDP SCOPE**

As in the 1990-2005 LRDP, the scope of the 2020 LRDP excludes University Village Albany and Richmond Field Station; it also excludes remote field stations and other campus properties lying entirely outside the City of Berkeley. These sites are sufficiently distant and different from the Campus Park and its environs to merit separate environmental review. The properties in Albany, Richmond and elsewhere together comprise 13% of the UC Berkeley space inventory.

FIGURE 3.1-2  
ILLUSTRATIVE CONCEPT



- Existing/Approved Campus Buildings
- Potential Campus Buildings



This illustrative concept, from the UC Berkeley **New Century Plan**, depicts one way in which the program described in the 2020 LRDP might be realized on the UC Berkeley campus.

Potential new buildings in this figure are represented as prototypes, based on modular dimensions adaptable to a range of university functions. However, the buildings are configured to respect and enhance campus spatial and architectural relationships, and are meant to inform the design of future projects by depicting building concepts consistent with the **Campus Park Guidelines**.

### 3.1.3 ACADEMIC PRINCIPLES

At its heart, the 2020 LRDP must reflect and further the core values, articulated in the Strategic Academic Plan, that make UC Berkeley both great and unique:

**THE INTEGRATION AND SYNERGY OF EDUCATION AND RESEARCH** We strive to provide an education in which critical inquiry, analysis, and discovery are integral to the course work. Our students in turn participate in and contribute to research, under the guidance of faculty and staff engaged in the creation of knowledge.

**THE BREADTH AND QUALITY OF ACADEMIC PROGRAMS** We believe the rich variety of the academic enterprise at Berkeley creates a setting uniquely conducive to creative thought and insight, through the confluence of different perspectives and paradigms.

**A COMPREHENSIVE FOUNDATION IN THE LIBERAL ARTS** We believe every Berkeley graduate should possess literacy and numeracy across a broad range of disciplines, and that a solid foundation in the liberal arts is as fundamental to leadership as specific knowledge within an individual discipline.

**A PASSION FOR INQUIRY AND DISCOVERY** Research provides the energy that drives the modern research university. We believe Berkeley must provide a research environment that optimizes creativity and productivity, and supports vibrant, cutting edge research.

**THE SYNERGY OF ACADEMIC AND PROFESSIONAL PROGRAMS** We believe professional education at Berkeley must be built on a strong foundation in the liberal arts, and that academic and professional disciplines are both significantly enriched by the insights they gain through interaction.

**A VITAL AND DIVERSE INTELLECTUAL COMMUNITY** We believe social and cultural diversity are essential to the university. They stimulate creative thought and new paths of inquiry, ensure that the research questions we tackle address the whole of society, and enable us to train leaders who encompass the entire spectrum of Californians.

**THE VALUE OF CONTIGUITY** We believe a vital intellectual community can only thrive when the entire scope of the academic enterprise is located in close proximity, in order to foster the formal and informal interactions that lead to productive collaboration.

**A PARTNERSHIP OF STUDENTS, FACULTY AND STAFF** We recognize the contributions of each are both essential and inseparable: no group can excel without the support of the others, and each must have adequate resources for the enterprise as a whole to succeed.

**INDEPENDENCE OF MIND IN THE PURSUIT OF KNOWLEDGE** Notwithstanding the inherently political nature of a public institution, we believe the pursuit of knowledge must not be constrained by temporal economic or political considerations. The research university is by definition a place where perceived truth is under constant challenge.

**THE PRIMACY OF PUBLIC SERVICE** Notwithstanding the growing pressure to seek private resources, we recognize our core purpose is to serve and benefit the people of California through the creation, dissemination and application of knowledge, including outreach to underserved communities.

**EXCELLENCE IN EVERY ENDEAVOR** We must ensure each element of the academic enterprise - teaching, research and public service - continues to maintain the Berkeley standard of excellence. This requires us to recruit and retain the best people from the full talent pool, and to provide the resources they need to excel.

### 3.1.4 OBJECTIVES OF THE 2020 LRDP

The purpose of the 2020 LRDP is to set forth a framework for land use and capital investment undertaken in support of the campus' academic principles. The 2020 LRDP is driven by the following broad objectives:

- **PROVIDE THE SPACE, TECHNOLOGY AND INFRASTRUCTURE WE REQUIRE TO EXCEL IN EDUCATION, RESEARCH, AND PUBLIC SERVICE.**
- **PROVIDE THE HOUSING, ACCESS, AND SERVICES WE REQUIRE TO SUPPORT A VITAL INTELLECTUAL COMMUNITY AND PROMOTE FULL ENGAGEMENT IN CAMPUS LIFE.**
- **STABILIZE ENROLLMENT AT A LEVEL COMMENSURATE WITH OUR ACADEMIC STANDARDS AND OUR LAND AND CAPITAL RESOURCES.**
- **BUILD A CAMPUS THAT FOSTERS INTELLECTUAL SYNERGY AND COLLABORATIVE ENDEAVORS BOTH WITHIN AND ACROSS DISCIPLINES.**
- **PLAN EVERY NEW PROJECT TO REPRESENT THE OPTIMAL INVESTMENT OF LAND AND CAPITAL IN THE FUTURE OF THE CAMPUS.**
- **PLAN EVERY NEW PROJECT AS A MODEL OF RESOURCE CONSERVATION AND ENVIRONMENTAL STEWARDSHIP.**
- **MAINTAIN AND ENHANCE THE IMAGE AND EXPERIENCE OF THE CAMPUS, AND PRESERVE OUR HISTORIC LEGACY OF LANDSCAPE AND ARCHITECTURE.**
- **PLAN EVERY NEW PROJECT TO RESPECT AND ENHANCE THE CHARACTER, LIVABILITY, AND CULTURAL VITALITY OF OUR CITY ENVIRONS.**
- **MAINTAIN THE HILL CAMPUS AS A NATURAL RESOURCE FOR RESEARCH, EDUCATION AND RECREATION, WITH FOCUSED DEVELOPMENT ON SUITABLE SITES.**



SATHER GATE



HAAS SCHOOL OF BUSINESS

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## DEVELOPMENT PROGRAM

CAMPUS POPULATION	3.1.5
CAMPUS SPACE & INFRASTRUCTURE	3.1.6
CAMPUS LAND USE	3.1.7
CAMPUS HOUSING	3.1.8
CAMPUS ACCESS	3.1.9
CAMPUS OPEN SPACE	3.1.10
SUSTAINABLE CAMPUS	3.1.11
STRATEGIC INVESTMENT	3.1.12



### 3.1.5 CAMPUS POPULATION

#### **STABILIZE ENROLLMENT AT A LEVEL COMMENSURATE WITH OUR ACADEMIC STANDARDS AND OUR LAND AND CAPITAL RESOURCES.**

The University of California has a clear role in the California Master Plan for Higher Education, which articulates complementary roles for Community Colleges, California State University, and UC. The Master Plan designates UC as the state's primary research institution: UC selects from among the top 12.5% of California high school graduates, as well as the top 4% of graduates of each California high school. Due to the projected growth in the number of college age Californians, by 2010 UC as a whole must increase its enrollment by 63,000 students over the base year 1998 to continue to meet its Master Plan mandate.

As part of this strategy, UC Berkeley has been requested to evaluate the ability to grow by 4,000 full time equivalent students over base year 1998 by 2010. This represents an increase in enrollment of roughly 13%: a significant increase for any campus, but particularly for a mature, urban campus with aging facilities and limited capacity to expand. However, once our current target is reached, at an estimated two-semester average of 33,450 students, enrollment at UC Berkeley should stabilize.

Not only do few undeveloped sites remain on and around the campus, but our capital resources are also very limited. What capital funds the campus does receive from the state are consumed largely by seismic upgrades to existing buildings, and this need will continue for the near future. Moreover, to the extent university land and capital are utilized to accommodate further enrollment growth, they can no longer be utilized for campus renewal. Yet, the renewal of our buildings and infrastructure is crucial to our ability to recruit and retain exceptional individuals, to pursue new paths of inquiry and discovery, and to maintain our historic standard of excellence.

As a result of growth in both education and research, by 2020 we estimate total campus headcount during the regular academic year may increase by up to 12% over what it was in 2001-2002, as shown in table 3.1-1. The estimates for academic and nonacademic staff reflect the impacts of both enrollment growth and growth in external research funds through 2020. Research funds are projected to grow at 3.6% per year: the average rate of growth minus inflation during the last decade of the 20th century.

While UC Berkeley can accommodate some of our new students through growth in summer programs and education abroad, to meet our 4,000 student target also requires an increase in on-campus enrollment during the regular academic year. The enrollment figures in table 3.1-1 are presented in terms of student headcount: the estimates for the regular academic year represent the two-semester average, while the summer estimates represent the number of individual students enrolled in one or more summer courses.

The actual rate at which campus headcount grows in the future depends on a variety of factors, including future demographic trends, state and university policy, and available resources. In the near term, funds may not be available to support further growth in enrollment. However, the projections in the 2020 LRDP are based on underlying demographic needs through the year 2020, rather than on near-term funding considerations.

TABLE 3.1-1 PROJECTED CAMPUS HEADCOUNT

	Actual Headcount 2001-2002	Net Addl Headcount 2020 LRDP	Est Total Headcount 2020
Students			
Regular Terms*	31,800	1,650	33,450
<i>Summer</i>	<i>11,400</i>	<i>5,700</i>	<i>17,100</i>
Employees	12,940	2,870	15,810
Faculty**	1,760	220	1,980
Academic Staff & Visitors**	3,040	1,840	4,880
Nonacademic Staff**	8,140	810	8,950
Other Visitors & Vendors	1,200	800	2,000
<b>Estimated Regular Terms Headcount</b>	<b>45,940</b>	<b>5,320</b>	<b>51,260</b>
Estimated On-Campus Headcount***	44,834		

\* Campus population today is counted in two ways: by actual headcounts and by full time equivalents, or FTE. While budgets are calculated in terms of FTE, for the purpose of environmental analysis actual headcount is the better measure, since FTE tends to under-represent peak impacts. For example, two students taking six units each are likely to have a greater impact than one student taking 12 units. The 2020 LRDP therefore uses two-semester average headcount as the measure of campus population.

\*\* All non-student categories exclude student workers to avoid double counting.

\*\*\* Excludes off campus programs and other exclusions per April 2002 Population Report to City of Berkeley.

TABLE 3.1-2 PROJECTED SPACE DEMAND

	Actual + Approved UC Berkeley Space	Net Addl Space 2020 LRDP	Est Total 2020
Academic & Support (GSF)	12,107,100	<b>2,200,000</b>	14,307,100
Actual 2001-2002*	11,637,900		
Net Addl Complete Mar 2004	116,600		
Net Addl Underway Mar 2004	352,600		
Housing (bed spaces)		8,190	<b>2,600</b> °
Actual UC Owned 2001-2002	6,960		
City Environs**	6,004		
University Village Albany**	956		
Net Addl Complete Mar 2004	120		
Net Addl Underway Mar 2004	1,110		
Parking (spaces): phase 1		7,690	<b>1,800</b> °°
phase 2			<b>500</b> °°
Actual 2001-2002	6,900		
Net Addl Complete Mar 2004	100		
Net Addl CEQA Reviewed	690		

\* 2001-2002 A&S space includes all buildings except those primarily housing or parking.

\*\* City Environs includes 74 student family units at Smyth Fernwald and 27 faculty units, counted as one bed space per unit, as well as 585 bed spaces at International House, for consistency with 1990-2005 LRDP. University Village Albany includes 956 student family units counted as one bed space per unit.

° Includes up to 100 family-suitable units for faculty, staff, or visiting scholars within 2020 LRDP scope. Does not include new housing proposed for University Village Albany, which is outside the scope of the 2020 LRDP and the subject of a separate CEQA review.

°° Phase 2 parking would be deferred until after 2020 if the AC Transit Bus Rapid Transit/Telegraph route is approved and the system is under construction by January 2010, as described in Campus Access



### 3.1.6 CAMPUS SPACE & INFRASTRUCTURE

#### **PROVIDE THE SPACE, TECHNOLOGY AND INFRASTRUCTURE WE REQUIRE TO EXCEL IN EDUCATION, RESEARCH, AND PUBLIC SERVICE.**

Enrollment is only one of many drivers for growth at UC Berkeley. New academic initiatives and continued growth in research also create demand for more space on and around campus. While some of this demand can be met through renovation of existing buildings, new buildings are also required, particularly for programs that demand high performance infrastructure and other advanced features renovated space can not provide.

The impact of change is most severe in laboratory-based research, where many of our older buildings are unable to meet modern standards for power systems, climate and vibration controls, and safety and environmental protocols. Moreover, the entire university has been transformed by the revolution in information technology: infrastructure to support broadband networks have become a necessity in every discipline.

UC Berkeley is the oldest campus of the university, and over two thirds of its space inventory is over forty years old. Both instruction and research have undergone dramatic change in this period, in terms of both the workstyles we employ and the infrastructure we require. Many of our instructors and researchers struggle with spaces and systems compromised not only by time, but also by decades of inadequate reinvestment. The renewal of our physical plant is crucial to our ability to recruit and retain exceptional individuals, and to pursue new topics of research and new models of instruction.

**RESEARCH & EDUCATION** Research is fundamental to our mission of education. As a research university, UC Berkeley strives to provide our students with a unique experience, one in which critical inquiry, analysis, and discovery are integral to the coursework. Our students expect to play an active role in research, under the guidance of faculty who are themselves engaged in creating, not merely imparting, new knowledge.

While we presently engage our graduate students in research, it is a goal of the Academic Plan to also integrate research-based learning into undergraduate education. In order to do so, we must expand the scope of our research programs to accommodate more direct, mentored participation by undergraduates, and must also provide adequate and suitable space to house those programs.

**RESEARCH & SERVICE** Research is also fundamental to our mission of public service. The direct public benefits of the research and scholarship undertaken at UC Berkeley range from advances in human and environmental health, to new insights into personal and social behavior, to improved agricultural and industrial productivity. Our limits on space and resources require us to be selective in pursuing new initiatives, but a vital research enterprise is critical to the public service mission of the university.

UC Berkeley has experienced steady growth in research sponsored by external agencies, and this trend is expected to continue. In the last decade of the 20th century, our external research funds increased in real terms by an average of 3.6% per year. Over 95% of those funds came from federal, state, and nonprofit agencies.

More space is also required to accommodate the evolving nature of research. Many of the complex problems explored at UC Berkeley today require a combination of focused, individual work and work in interactive teams, often comprised of several academic disciplines. The campus must provide adequate space for both kinds of work, in buildings that support the high performance technology and infrastructure modern research demands.

**NEW ACADEMIC INITIATIVES** The state provides the university with incremental operating funds to support future enrollment growth. UC Berkeley intends to use these resources not only to expand the capacity of existing high-demand programs, but also to extend existing programs in promising new directions, and create new interdisciplinary programs to pursue new areas of inquiry.

By 2010, UC Berkeley intends to establish several new interdisciplinary programs that combine education and research. In June 2003 we selected our first set of new interdisciplinary programs: Computational Biology, Nanosciences, Metropolitan Studies, and New Arts Media. While each of these programs will be built on a base of existing core faculty, capital investment will also be required to create or adapt space to house these new endeavors.

### **SPACE DEMAND**

As a result of the overall growth at UC Berkeley under the 2020 LRDP, the space demands of campus academic and support programs may grow by up to 18%, or 2,200,000 GSF, over current and approved space by 2020, as shown in table 3.1-2. The figures in table 3.1-2 represent net new space, and reflect space lost through demolition.

In the 2020 LRDP, the term ‘academic and support space’ includes the entire UC Berkeley space inventory except for housing and parking, which are tabulated separately given their unique program and environmental characteristics. The academic and support category includes a wide range of space types:

- Classrooms and class labs and studios,
- Offices and research labs and studios for faculty, postdocs, researchers, student instructors, and organized research units,
- Libraries, including study facilities as well as collections and operations,
- Other academic resources, including museums and cultural centers, computer resources, plant and animal research facilities, and other program specific facilities,
- Student services, including health, advising, and counseling programs, athletics and recreation, and student organizations, and
- Campus operations, including campus administration, financial operations, human resources, computer and network services, construction and plant operations.

As described above, UC Berkeley requires more space not only to educate a larger student body, but also to support continued growth in research and the increased synergy of research and education. Expansion of the research enterprise is required not only to meet the increased demand from federal, state and other sponsors for UC Berkeley to pursue new areas of inquiry, but also to enable us to integrate research-based learning into undergraduate as well as graduate programs. Up to 700,000 GSF of the space demands of academic and support programs may consist of research laboratories, including some expansion of animal research facilities.

Our estimates of future space needs are not due entirely to future growth: some new space is required just to compensate for the shortages we have today. The most recent survey of academic space at UC Berkeley, in 2001-2002, revealed a deficit of roughly 450,000 GSF in academic programs alone, based on university-wide guidelines for space utilization.

UC Berkeley also has roughly 450,000 GSF of leased space in various locations in and outside Berkeley. Some of this space is deficient in terms of life safety, functionality, or both. Our estimate of future space needs, therefore, also includes a contingency for the strategic replacement of some leased space with new university-owned space.

The actual rate at which new academic and support program space is built in the future depends on both the actual rate and type of growth in space demand and the resources available.

### **LIFE SAFETY**

A program of seismic evaluations undertaken in 1997-1998 rated 102 UC Berkeley structures as 'poor' or 'very poor', indicating a significant hazard to life in a major seismic event. At the time, seismic upgrades to several campus buildings had already been completed, but the campuswide evaluations greatly increased the scope of the improvements program, and the capital investment it requires.

#### **POLICY: ELIMINATE 'POOR' AND 'VERY POOR' SEISMIC RATINGS IN CAMPUS BUILDINGS THROUGH RENOVATION OR REPLACEMENT.**

As of 2003, 46% of campus space requiring seismic upgrades had already been improved, and another 25% of space was under construction or in design. However, the balance remains a substantial obligation: the capital funds UC Berkeley now receives from the state are consumed entirely by seismic upgrades, and this is expected to continue for the near future.

#### **POLICY: CONSIDER ENHANCED LEVELS OF SEISMIC PERFORMANCE FOR CRITICAL BUILDINGS.**

While UC Berkeley is already committed to ensuring life safety in every campus building, many of our buildings also house equipment, experiments, and other contents of considerable value. Where relevant, the feasibility analyses for new projects should also consider additional structural enhancements to reduce building downtime after a magnitude 7.0 earthquake to no more than 30 days, both to protect its contents and to enable rapid resumption of university operations.

#### **POLICY: MINIMIZE NONSTRUCTURAL HAZARDS TO IMPROVE LIFE SAFETY AND PROGRAM CONTINUITY.**

In many campus buildings, the most significant seismic risk to life safety is not structural failure, but rather damage to its contents. Inadequately secured ceilings, fixtures, shelves and equipment pose a serious threat of injury. They also threaten the sustained operation of the campus and the continuity of research, and pose a substantial economic loss: much of our laboratory equipment is both fragile and very expensive. UC Berkeley should ensure all new buildings are designed to minimize nonstructural hazards and operational downtime, and should also continue our programs to mitigate such hazards in existing buildings.

### **INFORMATION SYSTEMS**

While there is no substitute for face-to-face conversation, today it is only one of the ways scholars communicate. The introduction of e-mail alone has transformed the nature of collaboration: many faculty today communicate more often with colleagues in other parts of the world than they do with those in the next office. The revolution in information technology has furnished researchers with new tools for analyzing and discovering patterns and connections in enormous sets of data, leading in turn to changes in the ways we conceptualize and approach problems.

Because the pace of change will only accelerate in the future, the quality of our networks is just as crucial to academic excellence as the quality of our interior and exterior spaces. Because the potential for creative interaction is everywhere, our first principle for information technology should be to ensure the entire campus has access to state-of-the-art high capacity networks.

**POLICY: COMPLETE THE NEW CAMPUS INTERBUILDING INFORMATION INFRASTRUCTURE.**

While nearly all campus buildings are connected to the campus information network in some way, many are linked to it through ad hoc pathways such as old utility conduits. Many of these conduits are at capacity, many others are damaged or hazardous: in both cases, such conditions limit or preclude further upgrades in capability. The construction of a common interbuilding 'backbone' to replace these ad hoc pathways, and provide capacity for future growth, began in 1985: to date, 4 of the 7 elements have been completed, and funding is approved for element 5, now in design. The campus should continue to pursue the completion of the interbuilding system as a funding priority.

**POLICY: INCLUDE UPGRADES TO INTRABUILDING INFORMATION SYSTEMS IN MAJOR RENOVATIONS.**

The interbuilding backbone provides service to each building, but the quality of service also depends on the intrabuilding infrastructure, the quality of which varies enormously across the campus. Many of our intrabuilding systems have been unable to keep up with the tremendous growth in performance demand. In response, UC Berkeley has initiated the 'riser project', a phased investment program to equip each building with a modern fiber-optic infrastructure. The riser project will ultimately provide every campus user with equal access to state-of-the-art network service.

Many campus buildings require seismic improvements. Many also require extensive renovation due to the age and condition of their program spaces and systems. UC Berkeley should ensure the requisite improvements to the information infrastructure, as prescribed in the riser project, are undertaken in conjunction with these projects.

**UTILITY SYSTEMS**

In general, campus utility systems have adequate capacity for current demands, partly as a result of the major upgrades implemented through the Utility Infrastructure Upgrade Project begun in 1999. However, given the increasing reliance on technology and high-performance infrastructure in many disciplines, and the cost and disruption further upgrades would entail, UC Berkeley should pursue a rigorous program of resource conservation in order to minimize both local and general impacts on utility systems.

**POLICY: DESIGN FUTURE PROJECTS TO MINIMIZE ENERGY AND WATER CONSUMPTION AND WASTEWATER PRODUCTION.**

**Sustainable Campus** describes a comprehensive strategy to minimize campus power and water consumption. Substantial savings in water and energy consumption can often be achieved through intelligent design at little or no increase in cost: for example, by the careful selection of landscape materials, and by orienting and configuring building volumes and composing building facades to optimize energy performance. The Campus Park Guidelines include several such provisions, which should inform every future project.

### 3.1.7 CAMPUS LAND USE

#### **BUILD A CAMPUS THAT FOSTERS INTELLECTUAL SYNERGY AND COLLABORATIVE ENDEAVORS BOTH WITHIN AND ACROSS DISCIPLINES.**

The breadth and quality of our academic programs are the equal of any university in the world, but UC Berkeley is more than the sum of its parts. A great research university also requires a vital and dynamic intellectual community, one that provides exposure to a wide range of cultures and perspectives, and generates the encounters and interactions that lead to new insight and discovery. For such a community to thrive requires a campus organized and designed to foster those interactions.

Although the academic structure of the campus reflects the traditional disciplines defined over a century ago, those disciplines are no longer insular and self-contained. For example, the health sciences initiative brings researchers from physics, biology and chemistry together to study phenomena at the molecular level, while our programs focused on culture, gender, and ethnicity integrate the humanities and social sciences.

The four new academic initiatives established in 2003 - Nanosciences, Computational Biology, Metropolitan Studies, and New Arts Media - were selected not only because the work to date at UC Berkeley already shows extraordinary promise, but also because the initiatives are broad in scope, are explicitly collaborative, and have significant potential for both undergraduate and graduate student participation. And there are more to come: future anticipated initiatives include the integration of the social, physical, and biological sciences to pursue more holistic investigations of complex environmental problems.

Because the potential for synergy is everywhere at UC Berkeley, our first principle of land use should be to retain and reinforce the contiguity of the academic enterprise, in order to encourage interaction and exchange both within and across disciplines.

#### **POLICY: ACCOMMODATE NEW AND GROWING ACADEMIC PROGRAMS PRIMARILY THROUGH MORE INTENSIVE USE OF UNIVERSITY OWNED LAND ON AND ADJACENT TO THE CAMPUS PARK.**

The need for growth, combined with the principle of contiguity, requires an increase in density on and around campus. As shown in figures 3.1-3A and 3.1-3B, the campus and its environs include a number of sites suitable for more intensive development, including surface parking lots and older academic buildings with both seismic and functional deficiencies. However, because UC Berkeley is an urban campus, each of these sites exists within an established physical context that includes many significant natural and cultural resources.




Our goal should be to ensure each new capital project not only respects but enhances its context, and contributes positively to the image and experience of UC Berkeley as a whole. In order to realize this goal, the **Campus Park Framework**, **City Environs Framework**, and **Hill Campus Framework** establish policies for land use and project design specific to each context.

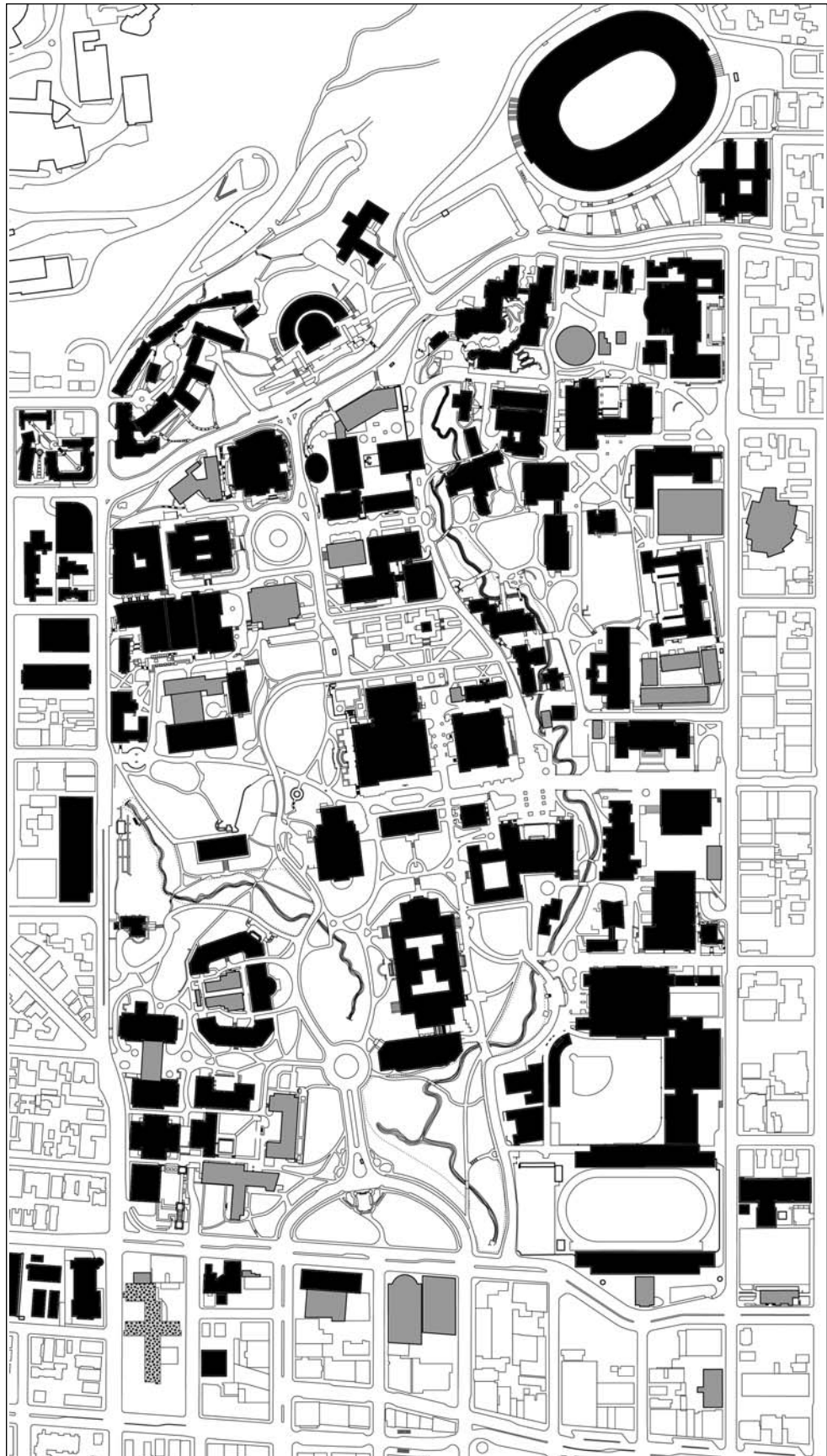
#### **POLICY: PRIORITIZE CAMPUS PARK SPACE FOR PROGRAMS THAT DIRECTLY ENGAGE STUDENTS IN INSTRUCTION AND RESEARCH.**

#### **PRIORITIZE SPACE ON THE ADJACENT BLOCKS FOR OTHER RESEARCH, CULTURAL AND SERVICE PROGRAMS THAT REQUIRE CAMPUS PARK PROXIMITY.**

FIGURE 3.1-3A  
CANDIDATE BUILDINGS  
FOR REPLACEMENT



-  Existing/Approved Campus Buildings
-  Replacement Candidates UC Owned
-  Replacement Candidates DHS Site

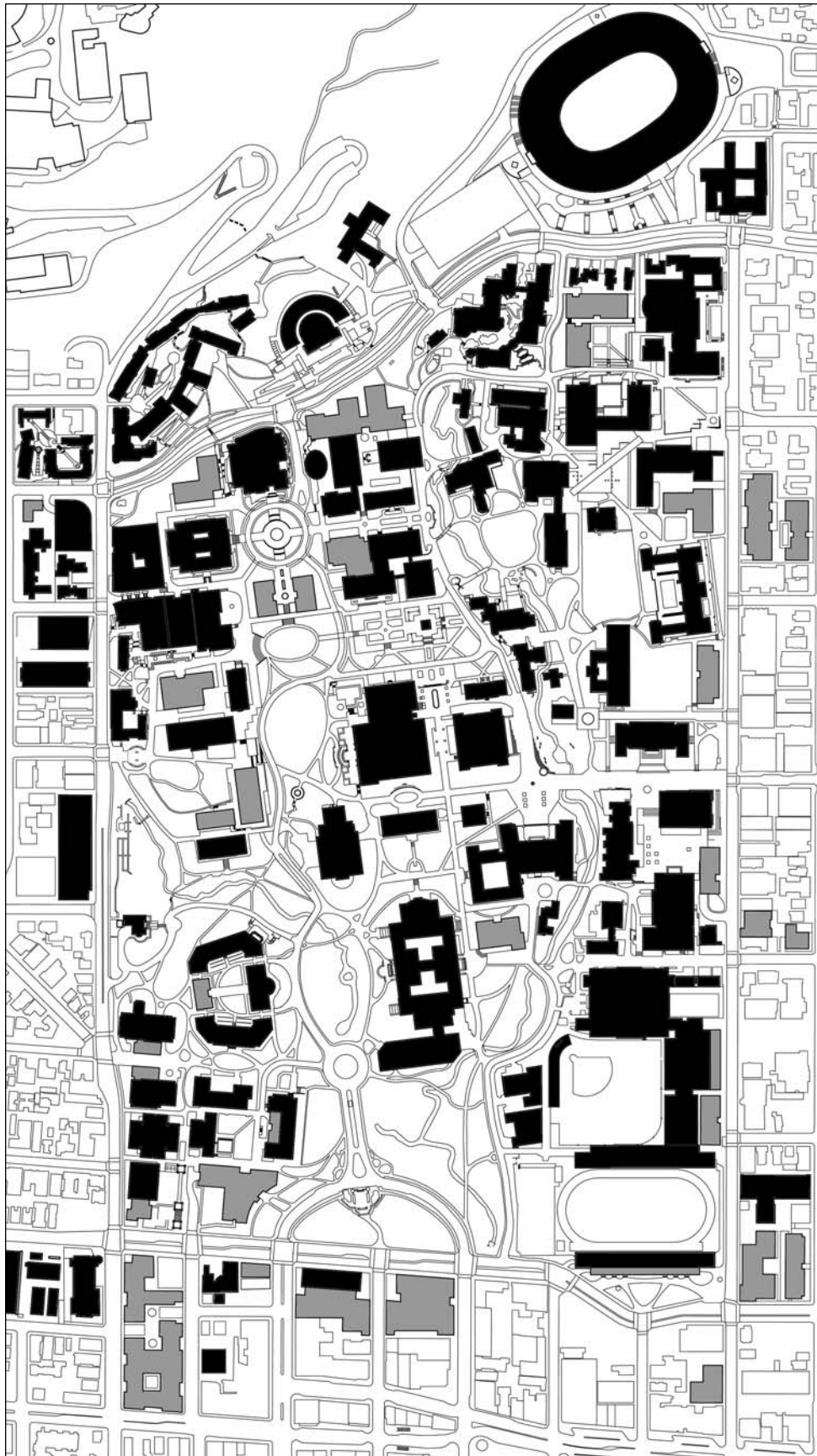




Buildings shown as candidates for replacement include those which have seismic and/or functional deficiencies, or which represent underutilizations of their respective sites.

This figure does not commit the university to replacing these buildings; in some instances renovation may be the better option. As described in **Strategic Investment**, a full range of alternate solutions will be evaluated for each major capital investment.

The stipple pattern indicates the California Department of Health Services facility. The state is relocating these operations to a new facility in Richmond; the university has an option to acquire the site once it is vacated, and intends to do so.

FIGURE 3.1-3B  
ILLUSTRATIVE CONCEPT



- Existing/Approved Campus Buildings 
- Potential Projects 

The projects shown in this figure represent one way in which the 2020 LRDP program might be realized on the Campus Park and adjacent blocks, by selectively redeveloping:

- buildings with potential for replacement, as indicated in figure 3.1-3A, and
- other underutilized sites such as surface parking lots.

The figure based on the **New Century Plan** is illustrative only, and does not commit the university to pursuing the projects as shown.

Projects other than those shown may also be pursued in the future, either by the university directly or in collaboration with cities and/or the private sector.

Land at UC Berkeley is a scarce and finite resource, and it is neither feasible nor desirable to house every campus function on or adjacent to the Campus Park. For example, some research and operations units are incompatible with the campus' urban environs due to scale, service, or environmental requirements. In order to optimize the use of campus resources, and ensure space on or adjacent to the Campus Park is reserved for programs that require it, future capital investment at UC Berkeley should be informed by the **Location Guidelines** in section 3.1-16.

### SPACE DISTRIBUTION

The contiguity of academic programs is a core principle of the Academic Plan. We believe a vital intellectual community can only thrive when the entire scope of the academic enterprise is located in close proximity, in order to foster the formal and informal interactions that lead to synergy and discovery.

In support of this principle, 90-100% of the estimated future demand for program space is planned to be accommodated on or adjacent to the Campus Park, as shown in table 3.1-3. The figures in table 3.1-3 represent net new program space, and include the removal and replacement of existing facilities as well as construction of new facilities. The land use zones are shown in figure 3.1-1.

In order to provide the campus some flexibility in locating new projects, the sum of the maxima for the individual land use zones is roughly 10% greater than the 2020 LRDP totals of 2,200,000 net new GSF of program space and 2,300 net new parking spaces. However, the total net new program space and parking within the scope of the LRDP may not substantially exceed 2,200,000 GSF or 2,300 spaces without amending the 2020 LRDP.

**TABLE 3.1-3 PROJECTED SPACE DISTRIBUTION BY LAND USE ZONE**

	Max Net Addl Academic & Support GSF	Max Net Addl Housing Beds	Max Net Addl Parking Spaces
Campus Park	1,000,000		600
Adjacent Blocks			
North	50,000		
West	800,000		1,300
South	400,000		600
Southside	50,000		
Hill Campus	100,000		
Other Berkeley	50,000		
Housing Zone			
Students		2,500	
Faculty/Staff		100 *	
<b>Max Net Addl Space NTE</b>	<b>2,200,000 **</b>	<b>2,600</b>	<b>2,300 ***</b>

\* Represents up to 100 family-suitable units for faculty and/or staff

\*\* Does not include projects already approved as of January 2004

\*\*\* 500 of these 2,300 spaces would be deferred until after 2020 if the AC Transit Bus Rapid Transit/Telegraph route is approved and the system is under construction by January 2010, as described in Campus Access

Note: In order to provide flexibility in siting individual projects, the sum of the maxima for individual land use zones is greater than the maximum 'not to exceed' (NTE) totals for all the zones combined. However, the university may not substantially exceed the NTE totals without amending the 2020 LRDP.



## LAND ACQUISITION

Future growth in both program space and parking is planned to be accommodated primarily through more intensive use of university-owned land. As shown in figures 3.1-3A and 3.1-3B, the Campus Park and its adjacent blocks include numerous sites where more intensive use is possible, and university-owned land will always be the first option explored for both program space and parking.

Some new university housing can also be accommodated on current university-owned land. However, in order to meet the targets described in **Campus Housing**, some of this new housing would have to be constructed on land within the Housing Zone which is not presently owned by the university.

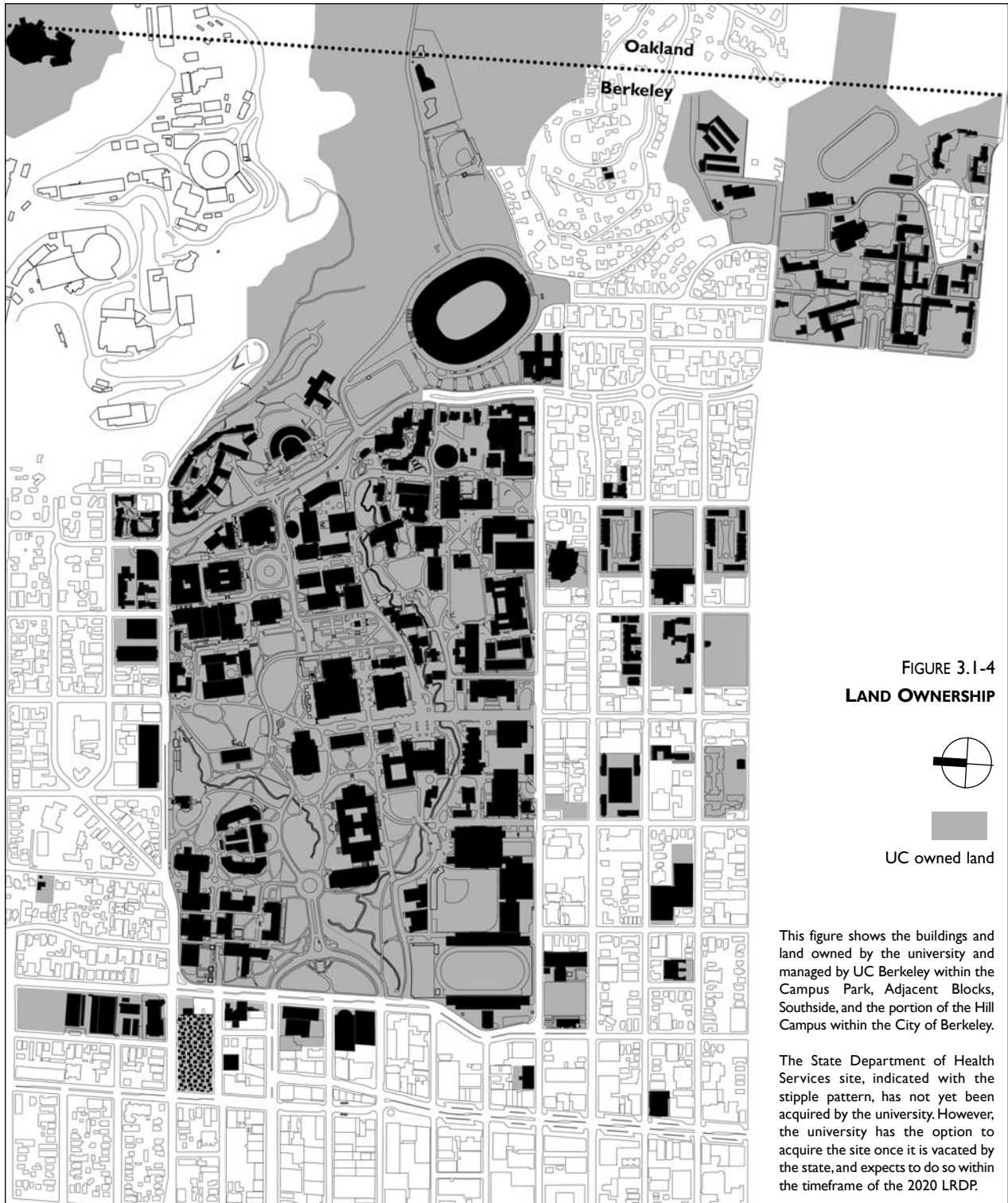
The university will explore a full range of delivery options for each such project, including partnerships with private sector developers as well as direct acquisition and construction by the university. In those instances where the university does find it necessary to acquire land, preference should be given to sites which are underutilized, which are not on the tax rolls, and/or where displacement of existing tenants can be minimized.

As described in the **City Environs Framework**, project location and design will be informed by municipal land use policies. Moreover, mixed-use projects with ground-floor retail space, such as the Manville Apartments, will be considered where such projects align with municipal policies and are compatible with neighboring land use.

One acquisition the university does expect to complete within the timeframe of the 2020 LRDP is the California Department of Health Services site at Hearst and Shattuck. The state is relocating its operations to a new facility in Richmond; the university has an option to acquire the site once it is vacated, and intends to do so. The DHS site has the capacity to accommodate a substantial amount of new university program space; however, the ground floor frontage along Shattuck is planned to accommodate retail space.



SPROUL PLAZA



### 3.1.8 CAMPUS HOUSING

**PROVIDE THE HOUSING, ACCESS, AND SERVICES WE REQUIRE TO SUPPORT A VITAL INTELLECTUAL COMMUNITY AND PROMOTE FULL ENGAGEMENT IN CAMPUS LIFE.**

The ability of UC Berkeley to recruit, retain, and support outstanding individuals is fundamental to academic excellence. Many of our best student and faculty candidates cite the scarcity of good, reasonably priced housing and child care near campus as key factors in their decisions whether or not to come to UC Berkeley. The problem of housing is particularly acute for students: expanding and improving the supply of housing near campus is critical not only to ensure our students are adequately housed, but also to provide the community of peers and mentors, and the access to campus resources, they require to excel.

The Strategic Academic Plan defines our long-term goals for both student and faculty housing at UC Berkeley:

- provide two years of university housing to entering freshmen who desire it,
- provide one year of university housing to entering transfer students who desire it,
- provide one year of university housing to entering graduate students who desire it,
- maintain the number of university housing units suitable for students with children,
- provide up to 3 years of university housing to new untenured ladder faculty who desire it.

The policies described below represent targets for each of these goals which are feasible within the timeframe of the 2020 LRDP. As shown in table 3.1-2, by 2020 we propose to increase the supply of university housing within the 2020 LRDP scope by up to 32% over current and approved bed spaces.

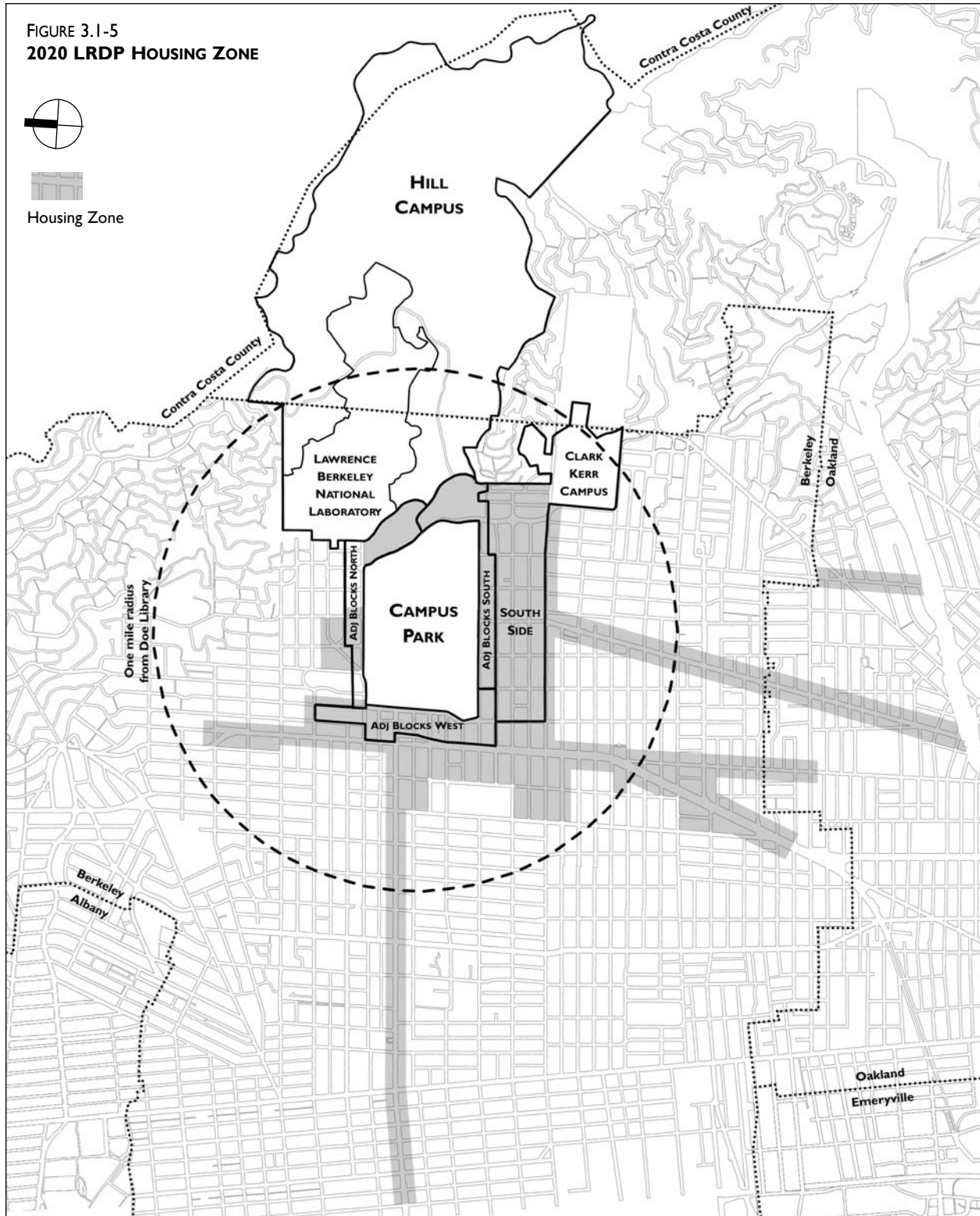
Because the state provides no funds for university housing, the entire cost of housing construction, operation, and maintenance must be supported by rent revenues. Our goals to improve the amount and quality of housing must therefore be balanced by the need to keep rents at reasonable levels, and avoid building surplus capacity. The 2020 targets, and the pace at which we achieve them, may be adjusted in the future to reflect changes in market conditions and demand for university housing.

**POLICY: INCREASE SINGLE UNDERGRADUATE BED SPACES TO EQUAL 100% OF ENTERING FRESHMEN PLUS 50% OF SOPHOMORES AND ENTERING TRANSFER STUDENTS BY 2020.**

For lower division students, new both to independent living and to the intense demands of university coursework, group housing in close proximity to the educational resources of the campus is the best solution. As well as convenience to campus, such housing also provides its residents with a wide range of on-site counseling, mentoring and academic support programs.

**POLICY: INCREASE SINGLE GRADUATE STUDENT BED SPACES TO EQUAL 50% OF ENTERING GRADUATE STUDENTS BY 2020.**

As they progress, students gravitate toward peer groups based on their major fields of study or other shared interests. They also continue to mature and acquire the social experience required to live as independent adults. By the third year, it is no longer necessary for UC Berkeley to take as direct a role in creating a residence-based intellectual community. However, we must continue to take a proactive role to ensure our students have access to good and reasonably priced housing.



The 2020 LRDP Housing Zone overlays the other Land Use Zones. It includes all areas within a one mile radius of Doe Library, or within a block of a transit line providing trips to Doe Library in under 20 minutes. The Housing Zone excludes those sites with residential designations of under 40 units per acre in a municipal general plan as of July 2003. This figure shows the extent of the Housing Zone based on transit trips via AC Transit routes as of July 2003. Suitable sites within one block of some BART Stations may also qualify for inclusion in the Zone. The depiction of the Housing Zone is generalized in this figure, and may not reflect the precise boundaries of individual parcels or land use designations. The zone boundary may be revised in the future to reflect service changes which affect travel time and/or changes in land use designations due to adoption of the Southside Plan.

Such housing is particularly critical for first-year graduate students. Not only does the cost and scarcity of housing make it harder for all our students to focus on and excel in their academic endeavors: in the case of first year graduate students, it also makes it far harder to recruit them in the first place. For graduate students, apartments are the best solution, not only because older students tend to prefer a less structured environment, but also because conventional apartments offer a broader range of delivery options, including joint ventures with private developers.

**POLICY: MAINTAIN AND UPGRADE THE CURRENT SUPPLY OF UNIVERSITY HOUSING SUITABLE FOR STUDENTS WITH CHILDREN.**

It is particularly difficult for students with children to find suitable housing in the constrained Berkeley market. While UC Berkeley operates over 850 units suitable for students with children, many are in need of major repair or replacement. As we pursue these improvements, the supply of units must be maintained.

**POLICY: PROVIDE UP TO 3 YEARS OF UNIVERSITY RENTAL HOUSING TO NEW UNTENURED LADDER FACULTY WHO DESIRE IT BY 2020.**

While the university has begun to address the long-term housing needs of faculty through its down payment and mortgage subsidy programs, such programs do not address the critical need for good rental housing. As with graduate students, our ability to recruit and retain outstanding individuals depends to a great extent on our ability to ensure good and reasonably priced housing for at least their first years at UC Berkeley.

At projected rates of future faculty hires, this policy may result in construction of up to 100 such units within the LRDP Housing Zone. This housing may be separate or co-located with the graduate and /or student family housing described above.

**POLICY: LOCATE ALL NEW UNIVERSITY HOUSING WITHIN A MILE OR WITHIN 20 MINUTES OF CAMPUS BY TRANSIT.**

To ensure university housing improves access to the academic life and resources of the campus, and supports a vital intellectual community, all new housing built under the 2020 LRDP would be located within the Housing Zone shown in figure 3.1-5, namely:

- Within a one mile radius of the center of campus, defined as Doe Library, or
- Within one block of a transit line providing trips to Doe Library in under 20 minutes. A transit trip is defined as the time on the transit vehicle to the stop nearest to campus, with no transfers, plus the walking time from the stop to Doe Library.

**POLICY: IMPROVE ACCESS TO QUALITY CHILD CARE FOR STUDENTS, FACULTY AND STAFF.**

The need for good and convenient child care is, like housing, a critical factor in our ability to recruit and retain exceptional individuals, and to enable them to participate fully in campus intellectual life. The demand for university child care in spring 2004 was far greater than our capacity of 205 children. Moreover, some of our child care centers are housed in temporary facilities unable to fully support our programmatic goals. Under the 2020 LRDP, UC Berkeley should expand its permanent child care facilities to accommodate both current unmet demand and future campus growth, at locations within easy walking distance of the Campus Park.

### 3.1.9 CAMPUS ACCESS

**PROVIDE THE HOUSING, ACCESS, AND SERVICES WE REQUIRE TO SUPPORT A VITAL INTELLECTUAL COMMUNITY AND PROMOTE FULL ENGAGEMENT IN CAMPUS LIFE.**

Access to campus is vital to the work and culture of UC Berkeley. Our faculty, students and researchers depend not only on the academic resources of the campus, but also on their interactions with colleagues that lead to new insights, concepts and methods. Many of our senior faculty with long tenures at UC Berkeley enjoy the convenience of a residence near campus, acquired in the days when a Berkeley home was within reach of even moderate income households.

But more recently, due in large part to the shortage of good and reasonably priced housing near campus, our residential patterns have become more and more dispersed. For those who live beyond walking or bicycling distance or good transit service, the time and inconvenience of travel to and from campus, exacerbated by the shortage of parking, has become a significant disincentive to on-campus presence. This trend undermines the goal of a strong and vital intellectual community, and we must strive to reverse it.

**POLICY: ENSURE UNIVERSITY HOUSING AND ACCESS STRATEGIES ARE INTEGRATED AND SYNERGETIC.**

The 2020 LRDP objectives for housing would significantly increase the supply of student housing within a mile or a within a 20 minute transit trip of campus: our surveys indicate for most students a mile is a reasonable walking distance. These housing initiatives should be linked to the campus access strategy, to ensure the resources we commit to new housing also serve to reduce the demand for drive-alone trips, and to ensure our parking targets are adjusted to reflect any such reductions.

**POLICY: INCREASE THE SUPPLY OF PARKING TO ACCOMMODATE EXISTING UNMET DEMAND AND FUTURE CAMPUS GROWTH.**

The demand for parking on and around campus is far greater than the current supply, and this demand will grow as a result of future campus growth. Adequate parking is critical to the mission of UC Berkeley, but given our urban setting, the campus should achieve this through a balanced strategy of parking construction and demand management.

By California standards, UC Berkeley has an exemplary record of promoting alternatives to the automobile. The 2001 survey of faculty and staff indicated only 51% of faculty and staff, and only 11% of students, drive alone to campus: these percentages compare to the estimate of 46% for all commuters to campus and downtown Berkeley presented in the 2001 City-UC Berkeley Transportation Demand Management Study, and the 2000 Census estimate of 66% for Alameda County as a whole.

The projected campus growth under the 2020 LRDP could, at target drive-alone rates of 10% for students and 50% for employees, result in a demand by 2020 for up to 2,300 net new parking spaces beyond the current inventory and approved projects. However, while this figure includes substantial current unmet demand as well as future growth, it could be reduced if drive-alone rates could be improved through a combination of transit incentives and transit service improvements, as described below.

As with housing, because the state provides no funds for university parking, the full cost of parking construction, operation and maintenance must be supported by revenues. Our objectives to improve the parking supply must therefore be balanced by the need to maintain reasonable fees for those who must drive to campus, and to avoid building surplus capacity. The 2020 targets may be adjusted in the future to reflect changes in market conditions and parking demand.

**POLICY: REDUCE DEMAND FOR PARKING THROUGH INCENTIVES FOR ALTERNATE TRAVEL MODES.**

**COLLABORATE WITH CITIES AND TRANSIT PROVIDERS TO IMPROVE SERVICE TO CAMPUS.**

UC Berkeley presently offers a wide range of incentives for alternatives to drive-alone auto trips, including price subsidies and pre-tax purchase of transit tickets, discounted parking to alternate mode users who must occasionally drive alone, free parking and reserved parking spaces for carpoolers, free emergency rides home for alternate mode users, and a secure bicycle parking program for bike commuters. Based on the findings of the 2001 City-UC Berkeley Transportation Demand Management Study, UC Berkeley will continue to pursue existing and new incentives for alternative modes of transportation, directly as well as in collaboration with cities and regional transit providers.

While cost and dependent care are often cited as reasons why people drive to work, in our 2001 survey of faculty and staff only 9% and 10%, respectively, selected these reasons. Convenience, at 37%, and travel time, at 30%, were by far the most oft-cited reasons why faculty and staff drive rather than use transit or other alternate modes. The university is working with transit providers to ensure reasonably priced transit options and adequate service. However, if significant numbers of drivers are to be shifted to transit, convenience and travel time must be improved. Although minor further improvements might be achieved through operational measures, significant improvements require major capital investments.

As part of its Bus Rapid Transit (BRT) project, AC Transit is proposing to up-grade transit service to the campus along a Telegraph Avenue alignment. The BRT/Telegraph project would create dedicated bus lanes and station structures along an 18-mile route through Oakland to UC Berkeley and downtown Berkeley. BRT/Telegraph would offer riders a rail-like transit experience that operates more quickly and reliably than regular bus service today, and would thus address the issues of convenience and travel time that now induce commuters to drive.

For example, if BRT/Telegraph and UC Berkeley transit incentives could combine to produce a 10% improvement in current estimated drive-alone rates, the 2020 parking demand at UC Berkeley could be reduced from 2,300 to roughly 1,800 net new spaces. To ensure adequate time to assess the impact of BRT/Telegraph and its own transit incentives on drive-alone rates, UC Berkeley would defer 500 of the 2,300 net new spaces until after 2020 if the following conditions are met:

- the cities of Berkeley and Oakland approve the final route for BRT/Telegraph by January 2010, and
- construction is underway on the BRT/Telegraph system as described above by January 2010.

**POLICY: REPLACE AND CONSOLIDATE EXISTING UNIVERSITY PARKING DISPLACED BY NEW PROJECTS.**

The previous objectives can not be realized if existing campus parking is displaced without replacement. Our strategy to accommodate future campus growth requires, and in fact depends upon, existing surface lots being replaced by new buildings and open spaces. In order to maintain the campus parking supply, these displaced spaces should be replaced on site or elsewhere, and the scope and budget for each such project should include those replacement spaces. The strategy to replace this parking should also be designed to consolidate it, not only to improve operations but also to reduce congestion caused by multiple-lot searches for available space.

FIGURE 3.1-6  
**CAMPUS PARK  
 LANDSCAPE & OPEN  
 SPACE INITIATIVES**

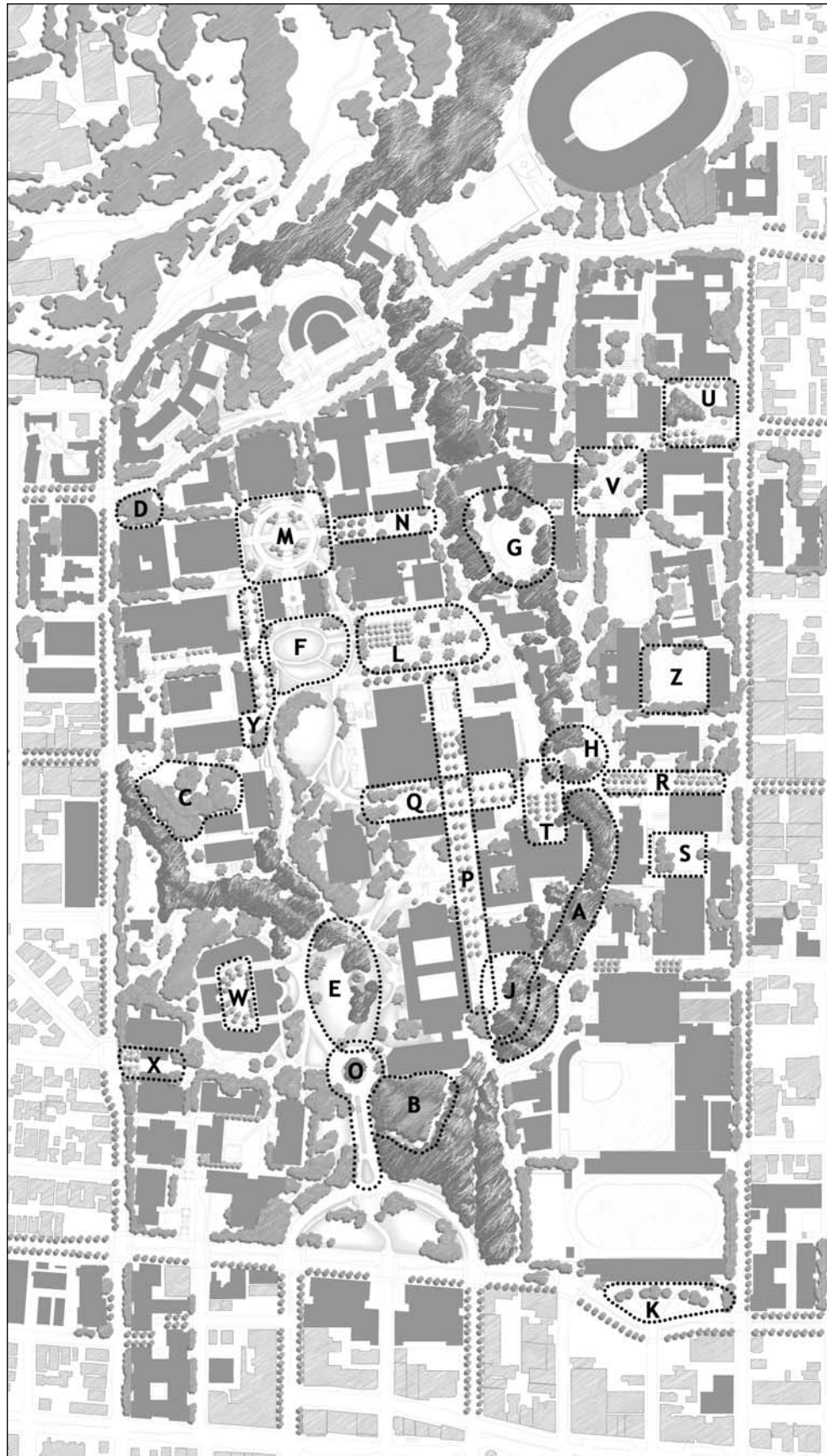


- A South Fork Renewal
- B Eucalyptus Grove
- C Observatory Hill**
- D Founders Rock
- E West Oval Glade**
- F Campanile Glade
- G Faculty Glade**
- H Wheeler Glade**
- J Grinnell Glade
- K Edwards Glade
- L Campanile Environs**
- M Mining Circle**
- N Gilman-LeConte Way
- O West Circle
- P Campanile Way**
- Q Sather Road**
- R Sproul Plaza**
- S Lower Sproul Plaza
- T Wheeler-Dwinelle Plaza**
- U College Plaza
- V Arts Quad
- W Wellman Courtyard
- X Tolman Plaza
- Y University Walk
- Z West Hearst Field

Priority initiatives in **bold**.

The Landscape Master Plan also designates the entire perimeter of the Campus Park as the Edges and Gateways initiatives: this group includes initiatives for each of the four perimeter roads and the entry points to the Campus Park.

This figure includes the potential future projects shown in the illustrative concept in figure 3.1-3B. These potential projects represent only one scenario of how the 2020 LRDP program might be implemented on the Campus Park. However, the potential projects serve as an example of how the **Campus Park Framework** would help guide the location and configuration of future buildings in the Campus Park.





### 3.1.10 CAMPUS OPEN SPACE

**MAINTAIN AND ENHANCE THE IMAGE AND EXPERIENCE OF THE CAMPUS, AND PRESERVE OUR HISTORIC LEGACY OF LANDSCAPE AND ARCHITECTURE.**

The UC Berkeley campus is a unique synergy of natural and formal elements. The organic forms of the creek and the sloping terrain contrast with the axial geometry of historic places such as Campanile Way and Esplanade. Together, these elements provide the campus with a rich variety of open spaces, and a peaceful counterpoint to our urbanized environs.

Open spaces for both quiet contemplation and active recreation have always been an integral part of the campus. The removal of the wartime-vintage 'T buildings' and the construction of Memorial Glade restored John Galen Howard's original vision of a grand central open space at the heart of campus. Yet, notwithstanding this one outstanding example, capital investment at UC Berkeley in recent years has focused almost entirely on our aging buildings and infrastructure, rather than the landscape.

#### **OPEN SPACE**

The campus landscape is not only an extraordinary natural and visual resource, it also serves as an important complement to spaces within buildings, as a venue for relaxation, recreation, and social and cultural interaction.

**POLICY: IMPLEMENT AN ONGOING PROGRAM OF INVESTMENT TO RESTORE AND RENEW THE CAMPUS PARK LANDSCAPE.**

To the casual observer, the mature campus landscape seems deceptively stable, but a closer look reveals the impacts of age, intensive use and misuse, and lack of investment. The great beauty of the campus, often taken for granted, is in fact increasingly fragile, particularly in light of the intensive construction activity it must continue to endure for at least the near future. The **Campus Park Framework** and **Guidelines** establish preservation zones to protect and maintain the campus' most significant views, natural areas, and open spaces.

But preservation alone is not enough: investment is also required. Many areas of the campus landscape are dominated by plants nearing the end of their natural life cycles: this problem is particularly acute for the many specimen trees and groves that serve as campus landmarks and frame key vistas. The natural riparian areas along the creek forks reveal the cumulative impacts of erosion, unstable banks, and the displacement of native plants by invasive exotics.

**POLICY: IMPLEMENT A PROGRAM OF STRATEGIC INVESTMENT IN NEW AND ENHANCED CAMPUS OPEN SPACES.**

The lack of past investment is also evident in the campus' formal open spaces. While few would dispute the value of places such as Sproul Plaza or Campanile Way, due to the lack of funds for renewal these and other campus open spaces have fallen into severe disrepair. Our capital investment program should acknowledge the critical role of our landscape and open spaces in the image and experience of the campus, and include proactive measures to reverse their decline.

In order to guide and prioritize future investment in campus open spaces, the UC Berkeley Landscape Master Plan has identified 29 initiatives, as shown in figure 3.1-6: 25 place-specific initiatives plus the four urban edges of the Campus Park. Both in formulating the campuswide capital program, and in scoping and budgeting individual capital projects, UC Berkeley should address the need to both renew and enhance the campus landscape within the framework of the Landscape Master Plan.

Moreover, this policy is not limited to the Campus Park. Our objective to respect and enhance the City Environs requires more than just sensitive building design: it also requires that each university project in the City Environs contribute its fair share of improvements to the adjacent public realm, including undergrounding surface utilities and improving paving, planting and lighting within the project frontages.

### **PLACES OF INTERACTION**

Of particular importance to the goal of a vital intellectual community are open spaces designed to encourage informal interactions both within and among disciplines. Several of the open spaces shown in figure 3.1-6 have the potential to become true 'places of interaction', because they are located on major pedestrian routes and/or because they are framed by multiple buildings housing a variety of academic programs.

#### **POLICY: CREATE PLACES OF INTERACTION AT KEY NODES OF ACTIVITY.**

For such places of interaction, moreover, the program and design of buildings adjacent to these open spaces is as important as the design of the open spaces themselves. Buildings should be programmed and designed so active interior spaces face and observe major pedestrian routes and places of interaction, and help ensure the campus is a safe place to work and study at any hour, as prescribed in the Campus Park Guidelines.

### **RECREATION**

Space for recreation is essential to the health and wellness of the campus community. However, while the campus population continues to grow, recreational facilities have remained constant or, in the case of playfields, considerably declined: Underhill Field was demolished due to seismic hazard, and temporary buildings were constructed on West Hearst Field to provide surge space for seismic retrofit projects. The loss of these two fields, combined with the growth in field space demand for athletics programs, has reduced the amount of recreational field space per student to 40% of what it was in 1990.

#### **POLICY: PRESERVE EXISTING RECREATIONAL FIELDS AND RESTORE THE FIELDS LOST SINCE 1990.**

A project to replace Underhill Field has already been planned as part of the 2000 Underhill Area Master Plan. UC Berkeley should also remove the temporary buildings on West Hearst Field and return it to recreational use as soon as possible, preferably as a synthetic turf field over one or more levels of parking. Once restored, these and other campus recreational fields should be protected from future conversion to other uses.

#### **POLICY: PRESERVE AND ENHANCE RECREATIONAL AQUATICS FACILITIES.**

Strawberry Canyon Recreation Area is a precious recreational resource for both campus and community, but the 2002 closure of the east pool has significantly increased the pressure on other campus pools to accommodate both athletics and recreational users. UC Berkeley should prepare and implement a plan to improve the pool complex at Strawberry Canyon as part of a comprehensive strategy for campus aquatics facilities.

### 3.1.11 SUSTAINABLE CAMPUS

**PLAN EVERY NEW PROJECT AS A MODEL OF RESOURCE CONSERVATION AND ENVIRONMENTAL STEWARDSHIP.**

As one of the world's great research universities, UC Berkeley has a special obligation to serve as a model of how creative design can both minimize resource consumption and enhance environmental quality. Each new capital investment at UC Berkeley has the potential to advance the state of the art in responsible, sustainable design, and thereby contribute to our mission of public service.

In July 2003 the UC Regents adopted a university-wide Green Building Policy and Clean Energy Standard to reduce the consumption of non-renewable energy, through a combination of energy conservation measures, local renewable power measures for both existing and new facilities, and the purchase of energy derived from renewable sources. In support of this policy, UC Berkeley should develop a strategy for the campus that reflects the specific characteristics of our site, climate, and facility inventory.

The principles of sustainable design are not separate and discrete. On the contrary, they are interdependent, and require a comprehensive approach to design. Therefore, while standard criteria can be very useful as a framework for analysis, sustainable design ultimately depends on the integrated efforts of a multidisciplinary project team. This comprehensive approach is particularly critical during the feasibility phase of a project, where a range of alternate solutions is evaluated and the optimal solution is defined.

**POLICY: INCORPORATE SUSTAINABLE DESIGN PRINCIPLES INTO CAPITAL INVESTMENT DECISIONS.**

The policies in **Strategic Investment** require UC Berkeley to consider a range of alternate solutions at the feasibility phase of the project approval process. This analysis should include an evaluation of how each option supports the principles of sustainable design, which include:

- preserving and restoring the integrity and biodiversity of natural systems,
- minimizing energy use in travel to and within the campus,
- minimizing building energy use and peak energy demand,
- minimizing water use and maximizing on-site conservation and reuse,
- minimizing the use of nonrenewable energy and material resources,
- minimizing adverse impacts to air and water quality,
- optimizing the use, and adaptive reuse, of existing facilities,
- concentrating growth on sites served by existing infrastructure,
- maximizing the productive life of new facilities through durable, flexible design, and
- creating environments that enhance human health, comfort, and performance.

**POLICY: BASE CAPITAL INVESTMENT DECISIONS ON LIFE CYCLE COST, INCLUDING THE COST OF KNOWN FUTURE EXPENDITURES.**

Sustainable design also depends on analyses based on true life cycle cost. While the best environmental solutions often have a lower life cycle cost, their first cost is often greater. The policies in **Strategic Investment** require the campus to evaluate alternate design solutions based on their life cycle cost, including the discounted costs of future expenditures: the policy is repeated here because it is essential to an effective strategy for sustainable design.

It is also essential to consider initial capital cost in the context of the building as a whole, since an upgrade in one system can sometimes reduce the capital cost of others. For example, investing in a high-performance window system may reduce the required capacity, and thus the initial capital as well as the future operating cost, of the space conditioning systems.

**POLICY: DESIGN NEW PROJECTS TO MINIMIZE ENERGY AND WATER CONSUMPTION AND WASTE-WATER PRODUCTION.**

Toward this end, substantial savings in water and energy consumption can often be achieved through architecture and landscape design: for example, by the careful selection of landscape materials, and by orienting and configuring building volumes and composing building facades to optimize energy performance. The **Campus Park Guidelines** include several such provisions, which should inform every future capital project.

**POLICY: DESIGN NEW BUILDINGS TO A STANDARD EQUIVALENT TO LEED 2.1 CERTIFICATION.**

**DESIGN NEW LABORATORY BUILDINGS TO A STANDARD EQUIVALENT TO LEED 2.1 CERTIFICATION AND LABS 21 ENVIRONMENTAL PERFORMANCE CRITERIA.**

**DESIGN NEW BUILDINGS TO OUTPERFORM THE REQUIRED PROVISIONS OF TITLE 24 OF THE CALIFORNIA ENERGY CODE BY AT LEAST 20 PERCENT.**

Many other institutions have adopted the LEED (Leadership in Energy & Environmental Design) system as their reference standard for sustainable design. The LEED system offers a reference standard that is well established and well supported by the design industry. However, it is also generic: it does not address particular building types or physical environments, nor does it address multi-building campus environments. As a research university, with a wide range of laboratories and other specialized buildings, UC Berkeley would be best served in the long run by performance guidelines more specific to our unique facility inventory and our temperate climate.

However, given the intensive pace of new construction and renovation on the Berkeley campus, it is imperative that we begin now to incorporate the principles of sustainable design into every new project. The LEED system is our best option today, and UC Berkeley should use version 2.1 as an interim reference standard while we investigate a more customized approach. Given the importance of sustainable design in laboratory facilities, UC Berkeley should supplement the LEED criteria with LABS 21 (Laboratories for the 21st Century) environmental performance criteria.

Moreover, the aforementioned objectives should serve only as a minimum standard for design. UC Berkeley should strive for a standard equivalent to LEED Silver wherever program needs, site conditions and budget parameters permit.

**POLICY: DEVELOP A CAMPUS STANDARD FOR SUSTAINABLE DESIGN SPECIFIC TO OUR SITE, CLIMATE, AND FACILITY INVENTORY.**

In consultation with the UC Office of the President, UC Berkeley should develop an internal evaluation and certification standard based on LEED and LABS 21 criteria as well as other sustainable design measures and guidelines, one which reflects both the unique composition of the UC Berkeley facility inventory and our temperate, semi-arid climate.

### 3.1.12 STRATEGIC INVESTMENT

**PLAN EVERY NEW PROJECT TO REPRESENT THE OPTIMAL INVESTMENT OF LAND AND CAPITAL IN THE FUTURE OF THE CAMPUS.**

Given the scarcity of both land and capital in relation to the future needs of the university, UC Berkeley must ensure each investment decision represents the best possible use of these limited resources, and the best long-term solution for the campus as a whole.

Capital investment decisions are often strongly influenced by the magnitude of first cost. Seismic retrofits, for example, are often less expensive than new buildings. But seismic retrofits alone do not improve inadequate building systems, dysfunctional layouts, or insensitive design: in fact, they perpetuate and often exacerbate them. Ensuring each decision is based on a full analysis of alternate solutions, and a full recognition of life cycle cost, is critical to the wise use of university resources.

**POLICY: EVALUATE A FULL RANGE OF ALTERNATE SOLUTIONS IN CAPITAL INVESTMENT DECISIONS.**

As a general rule, the set of options for this analysis should include retrofit, renovation, adaptive reuse, replacement, relocation and, if relevant, noncapital solutions such as reorganization. The options should consider alternate models for project delivery, as described below, and sustainable design features, as described in **Sustainable Campus**.

**POLICY: BASE CAPITAL INVESTMENT DECISIONS ON LIFE CYCLE COST, INCLUDING THE COST OF KNOWN FUTURE EXPENDITURES.**

For example, an existing building may not only require seismic and other life safety improvements, but may also have one or more building systems past the ends of their useful lives, as well as other systems nearing the same point. In order to make a valid comparison with the replacement option, the retrofit and renovation options should include these known future costs. This comparison should include assessment of the future maintenance requirements for all elements of the building infrastructure in relation to first cost.

**POLICY: CONSIDER JOINT VENTURES THAT LEVERAGE UNIVERSITY RESOURCES WITH PRIVATE LAND AND CAPITAL.**

While such partnerships have clear advantages in terms of augmenting university resources, advocates also cite their potential to reduce both cost and time to delivery. The advantages a well chosen partner brings to a project include extensive experience with the project type, established relationships with providers of labor, materials, and services, and state-of-the-art management.

However, in considering such models, it is also important to recognize quality has value, given the heavy use and long service expected of campus buildings. The analyses of alternate solutions, particularly for joint ventures, should be based on projects designed to comparable standards of durability and performance.





FACULTY GLADE

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## DESIGN FRAMEWORK

CAMPUS PARK FRAMEWORK 3.1.13

CITY ENVIRONS FRAMEWORK 3.1.14

HILL CAMPUS FRAMEWORK 3.1.15





### 3.1.13 CAMPUS PARK FRAMEWORK

#### **MAINTAIN AND ENHANCE THE IMAGE AND EXPERIENCE OF THE CAMPUS, AND PRESERVE OUR HISTORIC LEGACY OF LANDSCAPE AND ARCHITECTURE.**

The heart of UC Berkeley is often described as a 'university in a park', and it is this park-like character that unifies its disparate buildings and diverse academic functions, and imparts a unique and memorable identity. UC Berkeley was established on an expansive landscape of rolling hills, framed by the north and south forks of Strawberry Creek. Over the years, two complementary design themes have emerged to define the relationship of buildings and landscape in the Campus Park.

The first theme, pursued in the Frederick Law Olmsted plan of 1866, emphasized the complex natural order of the site in its organic landscape forms and informal clusters of buildings. The second theme, pursued in the John Galen Howard Plan of 1908, sought to overlay on this natural landscape a formal composition of classical buildings, oriented along an east-west axis aligned with the Golden Gate. The unique character of the Campus Park results from the synergy of these two themes, the natural and the formal.

Although intensively developed, the Campus Park today retains a magnificent legacy of natural and formal open spaces, as well as numerous historic buildings and ensembles. Preserving this legacy is a fundamental objective of the 2020 LRDP: each future project should be scoped and designed to enhance the image and experience of the campus, and the quality of campus life.

#### **LAND USE**

The Campus Park is also our center of intellectual community, and there is a strong preference among academic programs for Campus Park locations. However, because university land is both scarce and finite, our use of land on and around the Campus Park must be strategic. As described in **Campus Land Use**, space in the Campus Park is prioritized for programs that directly engage students and promote student-faculty interaction.

In response to future space demand by academic and other campus programs, capital investment in the Campus Park through 2020 may result in a net increase of up to 1,000,000 GSF and up to 600 parking spaces, as shown in table 3.1-3.

New space in the Campus Park would be produced through a combination of renovation and expansion of existing buildings, strategic building replacements, and new buildings on underutilized sites. Many of these renovations, expansions and replacements would be done in conjunction with seismic improvements. To ensure its parklike character is preserved, the **Campus Park Guidelines** define preservation zones to protect the campus' most significant open spaces: no new buildings may intrude into those areas.

#### **LANDSCAPE**

The Campus Park landscape provides a wide variety of experiences, from the shady peaceful glens along Strawberry Creek, to the broad open lawns of the Central Glades, to the serene geometry of places such as Campanile Way and Esplanade. Located within the densely urbanized Eastbay, the Campus Park is a precious resource for both the university and the city around us.

FIGURE 3.1-7  
**CAMPUS PARK  
PRESERVATION AREAS**



Natural riparian areas



Rustic campus woodlands

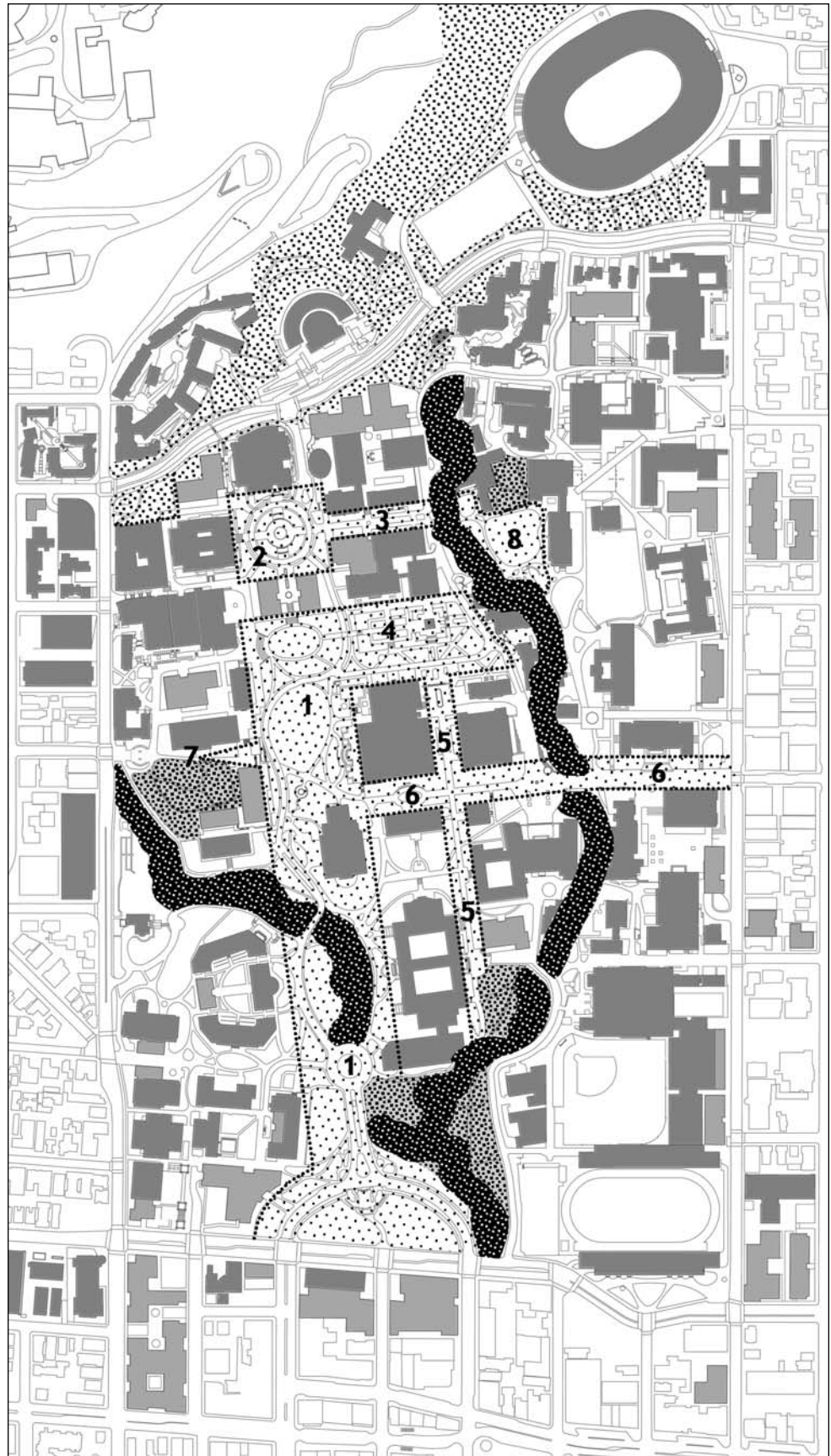


Rustic hill woodlands



View & open space  
preservation zones

Key numbers refer to the zone  
descriptions in the **Campus  
Park Guidelines**.



This figure includes the potential future projects shown in the illustrative concept in figure 3.1-3B. These potential projects represent only one scenario of how the 2020 LRDP program might be implemented on the Campus Park. However, the potential projects serve as an example of how the **Campus Park Framework** would help guide the location and configuration of future buildings in the Campus Park.

However, over the years the integrity of the landscape has been damaged by insensitively sited and designed projects. Sometimes the damage is obvious, such as the location of Evans and Moffitt within the Central Glades, while other times it is more subtle, such as the gradual and cumulative impacts of ongoing construction.

**POLICY: PRESERVE AND MAINTAIN SIGNIFICANT VIEWS, NATURAL AREAS, AND OPEN SPACES IN THE CAMPUS PARK.**

The 2020 LRDP takes as axiomatic the principle there should be no further degradation of the Campus Park landscape. The first principle of design for the Campus Park, therefore, is to identify those areas of the landscape into which new buildings should not intrude. These 'preservation areas', shown in figure 3.1-7 and described in detail in the **Campus Park Guidelines**, include the campus' most significant natural areas, open spaces, and scenic vistas.

The experience of the Campus Park is created by the synergy of buildings and landscape, and the character of many of our open spaces depends to a great extent on how they are framed and defined by the buildings around them. For this reason, some of the preservation areas described in the **Campus Park Guidelines** include setback and build-to lines, to ensure their character is maintained and reinforced by new buildings.

**POLICY: IMPLEMENT AN ONGOING PROGRAM OF INVESTMENT TO RESTORE AND RENEW THE CAMPUS PARK LANDSCAPE.**

**IMPLEMENT A PROGRAM OF STRATEGIC INVESTMENT IN NEW AND ENHANCED CAMPUS PARK OPEN SPACES.**

The section on **Campus Open Space** describes the principles for future investment in the public realm of the Campus Park. The above policies are repeated in this section to emphasize the point that protection alone is essential but not sufficient to achieve this objective: the landscape must be continuously renewed in order to thrive.



STRAWBERRY CREEK WOODLAND

FIGURE 3.1-8  
**CAMPUS PARK  
ARCHITECTURE &  
CULTURAL RESOURCES**



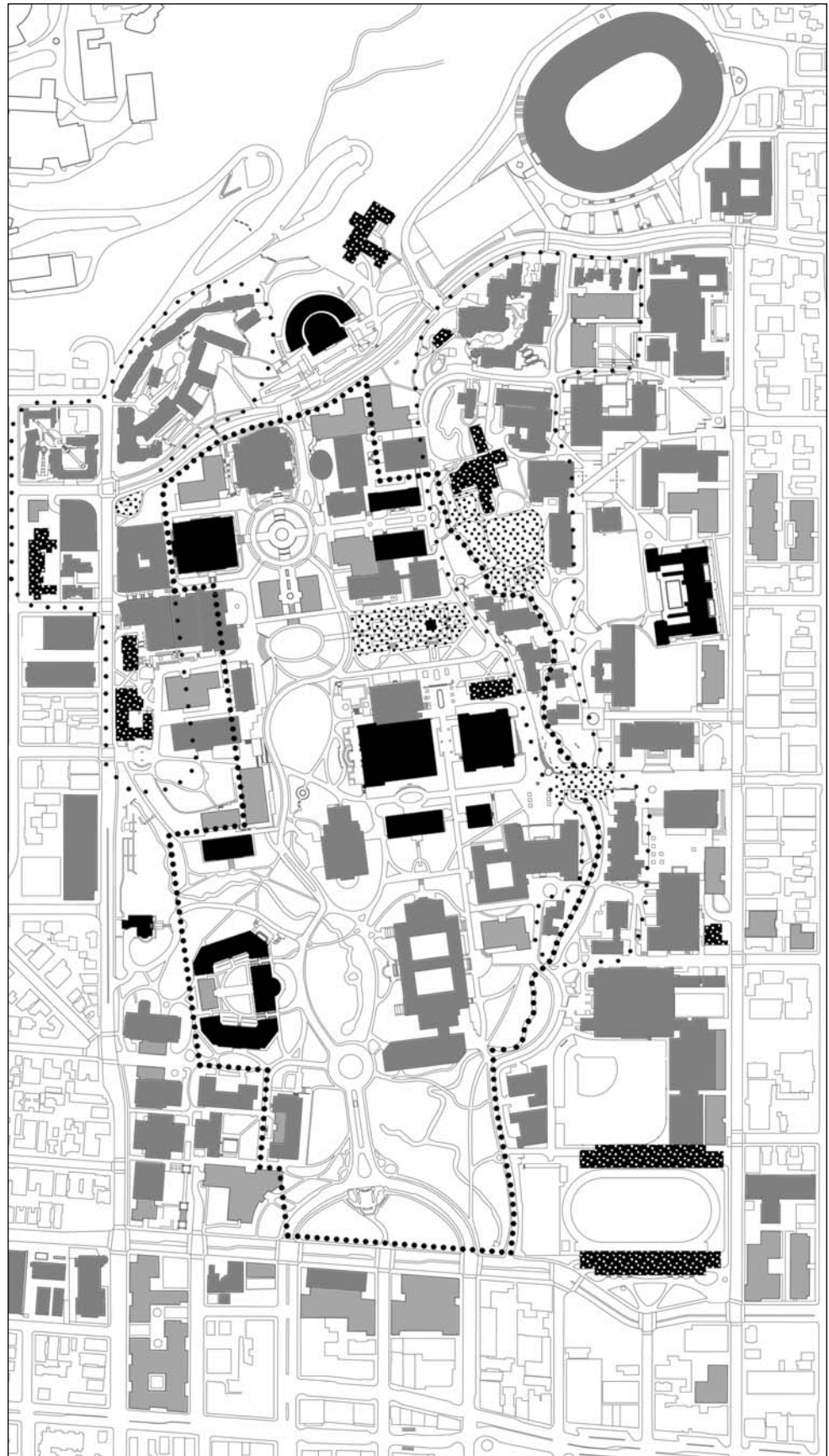
.....  
Classical core

.....  
Picturesque ensemble

■  
National Register:  
classical buildings

■  
National Register:  
other buildings

■  
National Register:  
sites & landscapes



This figure includes the potential future projects shown in the illustrative concept in figure 3.1-3B. These potential projects represent only one scenario of how the 2020 LRDP program might be implemented on the Campus Park. However, the potential projects serve as an example of how the **Campus Park Framework** would help guide the location and configuration of future buildings in the Campus Park.

## ARCHITECTURE

While the campus does not have a single, coherent architectural vocabulary, it does have many buildings of great distinction, and the best of these comprise the 'classical core': the beaux-arts ensemble designed primarily by John Galen Howard, the first campus architect. The classical symmetry of these buildings, and their common palette of granite facades, tile roofs, and copper trim, impart a sense of unity and dignity to the heart of campus.

UC Berkeley includes 50 sites, structures, and districts on the National Register of Historic Places, and two more are in the process of nomination. As shown in figure 3.1-8, 27 are located on the Campus Park and Adjacent Blocks: the majority are neoclassical buildings located primarily within the classical core, with the balance comprised of picturesque buildings located primarily along the historic route of Strawberry Creek.

The classical core represents a unique cultural resource, in terms of both its architectural merit and the open spaces its buildings frame and define. For this reason, new projects within the classical core, as shown in figure 3.1-8, should be sited, configured and designed to reinforce and enhance this ensemble, as prescribed in the **Campus Park Guidelines**.

The campus identity is also shaped by another, more subtle ensemble: the variety of picturesque buildings along the creek, which also includes a number of historic structures. In contrast to the formality of the classical core, these picturesque buildings are designed as informal, highly articulated volumes that respond to the natural contours and features of the site. As exemplified by the Haas School of Business, new projects within the areas of picturesque influence should respect and continue these traditions.

### **POLICY: ENSURE FUTURE CAMPUS PARK PROJECTS CONFORM TO THE CAMPUS PARK GUIDELINES.**

#### **PREPARE PROJECT SPECIFIC DESIGN GUIDELINES FOR EACH MAJOR NEW PROJECT.**

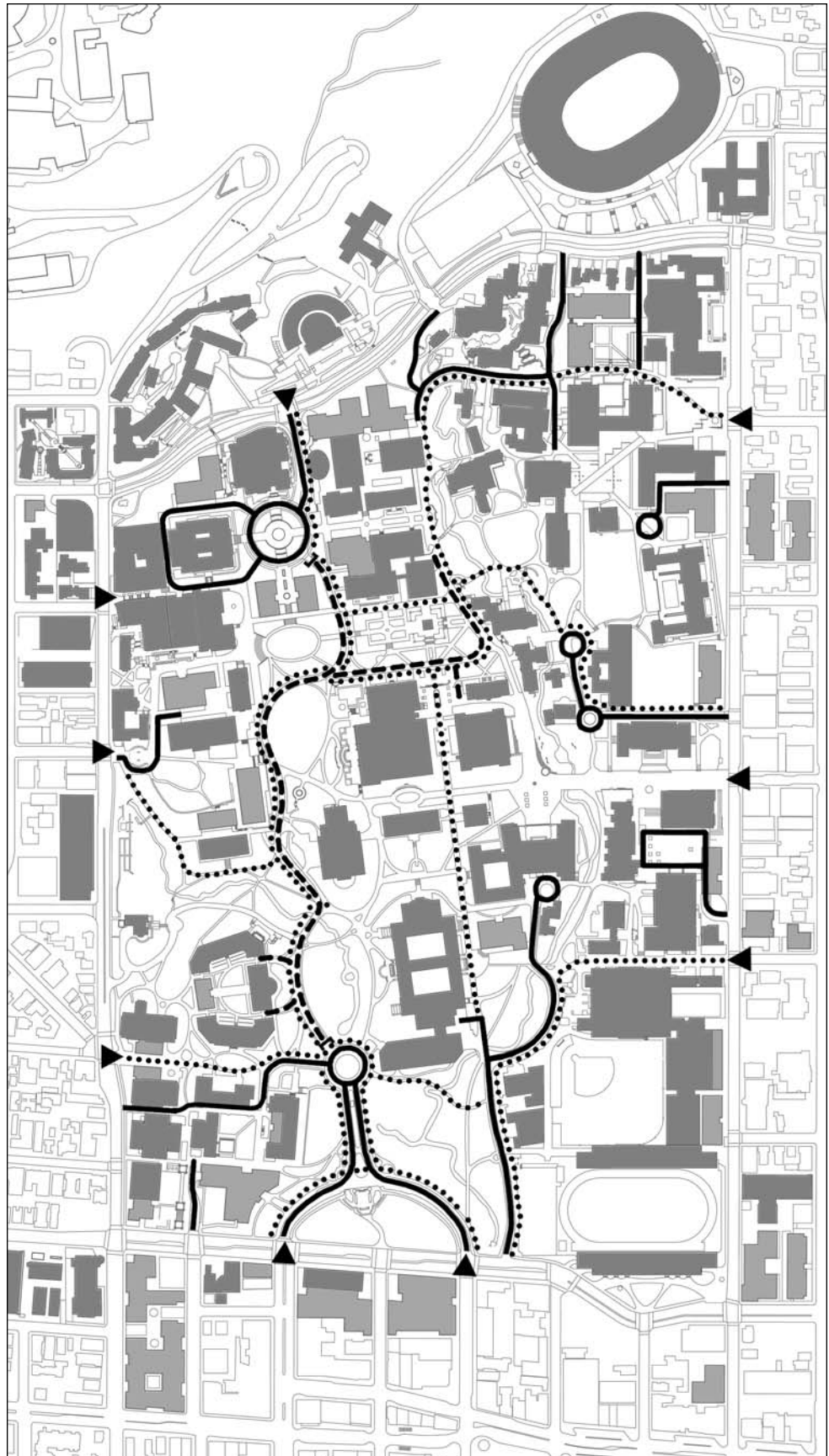
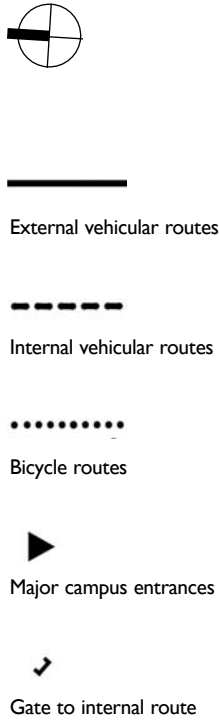
While the design of each campus building should reflect its own time and place, it should also reflect the enduring values of elegance and quality, and contribute to a memorable identity for the campus as a whole. Toward this goal, major capital projects should be reviewed at each stage of design by the UC Berkeley Design Review Committee: a majority of DRC participants should be external to the campus.

The **Campus Park Guidelines** should guide these reviews to ensure they both reflect a coherent esthetic vision and support the academic goals of the campus. The **Guidelines** prescribe general design principles for the Campus Park as a whole, as well as more prescriptive criteria in selected areas to ensure:

- projects within the classical core enhance the architectural integrity of the ensemble, and complement rather than compete with historic buildings,
- projects at the city interface create a graceful transition from campus to city, and enhance the visual image and pedestrian experience of the campus edge,
- projects facing places of interaction provide enclosure and security, admit sunlight, and have active ground level uses that observe and activate the place.

Moreover, given the variety of site conditions present in the Campus Park, project specific design guidelines should be prepared for each major project, based on the **Campus Park Guidelines**, and should be reviewed by the campus DRC prior to selection of the project design team. The project specific design guidelines should specify the landscape and open space improvements to be incorporated into the project scope and budget.

FIGURE 3.1-9  
**CAMPUS PARK  
VEHICULAR ACCESS**



This figure includes the potential future projects shown in the illustrative concept in figure 3.1-3B. These potential projects represent only one scenario of how the 2020 LRDP program might be implemented on the Campus Park. However, the potential projects serve as an example of how the **Campus Park Framework** would help guide the location and configuration of future buildings in the Campus Park.

The UC Berkeley Design Review Committee should include at least one architectural historian or other person with equivalent experience and knowledge in historic preservation. As part of project review, the DRC should assess potential adverse impacts on cultural resources and recommend measures to minimize such impacts.

## **CIRCULATION**

A vital intellectual community depends on a safe, pedestrian- and bicycle-friendly environment, accessible to people with both full and limited mobility. The intricate web of internal campus routes should not only have a clear wayfinding system, but their design should reflect a clear hierarchy of purpose and minimize conflicts with vehicles.

The work of the university today also has no defined 'working hours': study and research go on day and night, and the campus should provide a safe and secure environment for those who use the campus after dark. Well-lit routes should link key campus destinations, as well as places of interaction framed and observed by active interior spaces.

### **POLICY: IMPLEMENT A PROGRAM OF STRATEGIC INVESTMENT IN CAMPUS PARK PEDESTRIAN AND BICYCLE ROUTES.**

#### **ENSURE THE CAMPUS PARK PROVIDES FULL ACCESS TO USERS AT ALL LEVELS OF MOBILITY.**

The Campus Park is an intensively developed environment, laced with an intricate web of circulation systems that are complex and often confusing in their purpose, hierarchy, and linkages. There is a lack of signage leading to the campus, and a lack of a legible wayfinding system within it. Moreover, some primary routes of travel on campus include segments that are not accessible for those with impaired mobility.

The Campus Park presently has only one well-developed bicycle route: other paths are designated but not well developed for bicycles. As a result, cyclists often use pedestrian routes. Improvements to campus required to limit vehicle traffic should also incorporate investments to separate bicycle, vehicle and pedestrian traffic, and improve paving, lighting and signage on bicycle routes. This investment program should also identify routes that are or may become suitable for mixed traffic.

Many of the improvements required to improve campus routes and wayfinding about potential future building projects, and should be timed to coincide with those projects. As prescribed in **Campus Open Space**, adequate funds for those improvements should be defined at the feasibility stage of each project and incorporated into the project budget, and not diverted later to other project elements.

### **POLICY: MINIMIZE PRIVATE VEHICLE TRAFFIC IN THE CAMPUS PARK.**

#### **LOCATE NEW CAMPUS PARKING AT THE EDGE OR OUTSIDE THE CAMPUS PARK.**

While the Campus Park is often described as a 'pedestrian' environment, in fact a wide variety of vehicles enter the campus on a typical workday: not just campus vehicles, but service and maintenance trucks, package service vans, construction vehicles and private cars. Not only do they pose a hazard to pedestrians, particularly on busy routes such as Sather Road and Campanile Way, they also cause paving and landscape damage which the campus has very limited funds to repair. As the campus becomes more and more congested due to both growth and construction activity, the unregulated flow of private vehicles through the Campus Park should be managed more assertively.



Many campus buildings can be served via short access roads directly from city streets: these are shown as 'external routes' in figure 3.1-9. In general, these external routes do not cause serious conflicts. Vehicles on internal routes, however, not only interfere with major pedestrian routes and places, but also degrade the serenity and historic quality of the heart of campus. The longterm goal for the campus should be to limit access to internal routes to two points, east and west gate, and by permit only from 8 am to 5 pm, to minimize vehicular movement on campus during peak times of instruction.

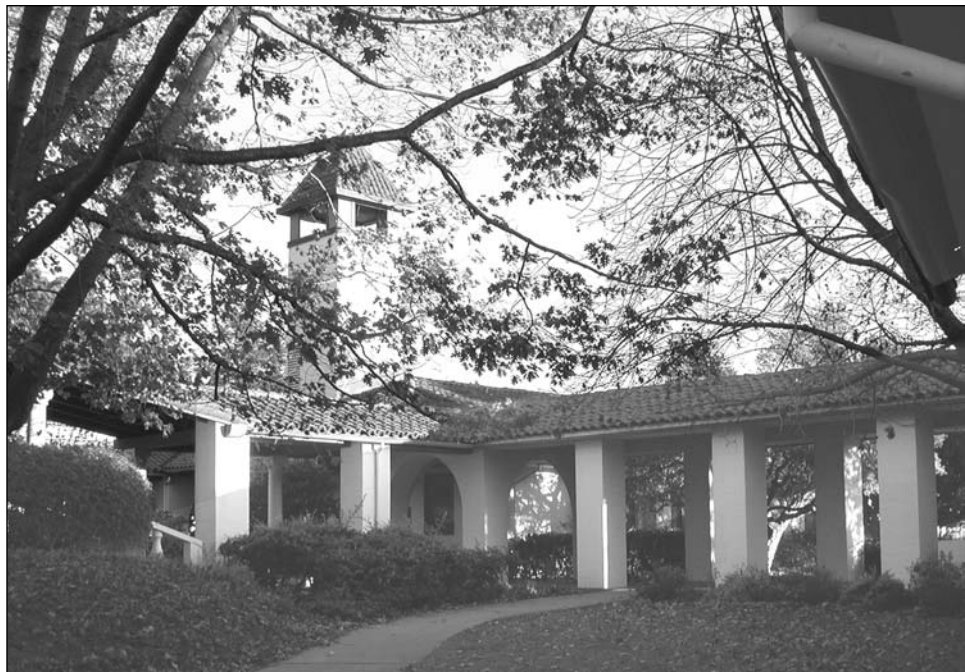
Surface parking located within the Campus Park not only encourages vehicle traffic, it is a poor use of scarce and valuable land. In general, campus parking, except for spaces required for service, loading, and disabled parking, should be consolidated in structures at the perimeter or outside the Campus Park, accessed directly from city streets.

### **CITY INTERFACE**

Projects at the edge of the Campus Park should be designed to enhance its visual quality and create a graceful, yet clear and distinctive, transition to the Campus Environs. The **Campus Park Guidelines** prescribe special criteria for the city interface, to create a campus edge more coherent in design and more responsive to its urban context.

#### **POLICY: PARTNER WITH THE CITY AND LBNL ON AN INTEGRATED PROGRAM OF ACCESS AND LANDSCAPE IMPROVEMENTS AT THE CAMPUS PARK EDGE.**

The streets that define the Campus Park - Bancroft, Oxford/Fulton, Hearst, and Gayley/Piedmont - should be re-envisioned as 'seams' linking the Campus Park and its adjacent blocks, rather than dividers. UC Berkeley should collaborate with the City of Berkeley and Lawrence Berkeley National Laboratory to define, and jointly seek funds for, an integrated program of capital investments to improve the visual quality, pedestrian safety, functionality, amenity, bicycle access and transit service on these streets.



CLARK KERR CAMPUS



### 3.1.14 CITY ENVIRONS FRAMEWORK

**PLAN EVERY NEW PROJECT TO RESPECT AND ENHANCE THE CHARACTER, LIVABILITY, AND CULTURAL VITALITY OF OUR CITY ENVIRONS.**

UC Berkeley is an urban campus, and the City Environs are as much a part of the Berkeley experience as the campus itself. The quality of city life, including its diverse and dynamic mix of students and non-students, is a large part of what makes UC Berkeley a unique and desirable place to learn, work, and live.

#### **LAND USE**

As defined in the 2020 LRDP, the City Environs include the Adjacent Blocks, the Southside, Other Berkeley Sites, and the Housing Zone in its entirety: in other words, the entire scope of the 2020 LRDP except for the Campus Park and Hill Campus. The areas within the City Environs consist mostly of city blocks served by city streets, and include university properties interspersed with non-university properties.

It is not possible to accommodate all projected future space demand through 2020 on Campus Park sites. The **Location Guidelines** prioritize Campus Park space for programs that directly engage students and promote student-faculty interaction: at least some of the growth in other programs must be accommodated elsewhere within the City Environs.

#### **ADJACENT BLOCKS**

The Adjacent Blocks include several campus facilities intermixed with other properties. They also include the State Department of Health Services (DHS) facility, now being vacated by the state: the university has an option to acquire this site once it is vacated, and expects to do so. The **Location Guidelines** prioritize space on the Adjacent Blocks for programs that require locations near, but not on, the Campus Park.

In response to future space demand by campus programs, capital investment on Adjacent Blocks through 2020 may result in a net increase in program space of up to 1,250,000 GSF, and up to 1,900 net new parking spaces. New space on the Adjacent Blocks would be produced by more intensive redevelopment of existing university owned sites, as well as the DHS site if acquired by the university. New space may also be produced on other sites by the university directly or through joint ventures.

As shown in table 3.1-3, the majority of this space would be developed on the Adjacent Blocks West, and these blocks offer enormous potential to enhance the synergy of campus and city. Viewed on a map, the juxtaposition of downtown Berkeley and the grand west entrance to the campus might suggest an elegant, vibrant interface of town and gown: but this potential is largely unrealized. While the downtown BART station and bus lines from the north and west ensure a steady flow of people through the blocks west of campus, the visible university presence on these blocks in 2003 consisted of a parking structure, the printing plant, the bus garage, and administrative offices.

Given both its superior transit access and its established mixed-use character, downtown Berkeley should be the primary focus of future university investment in new research, cultural and service functions that require locations near, but not on, the Campus Park, as described above. However, these future investments should be planned not merely to accommodate the program needs of the university, but also to invigorate the downtown and create an inviting, exciting 'front door' to the UC Berkeley campus. They should also be planned to enable university land and capital to be leveraged through creative partnerships with other public and private sector organizations.

For example: the Berkeley Art Museum, now housed in a building with a poor seismic rating, and the Pacific Film Archive, now in a temporary facility, would both greatly benefit from a move to a downtown site, not only for the improved visibility and transit access, but also for the synergy with other downtown cultural and retail activity, including the thriving arts district along Addison Street. This new complex could also include exhibit spaces for other campus museums, as well as the campus visitor center.

Downtown is also the logical place for a hotel and conference center, a critical and long-standing need of the campus, as well as the city and its many public and private organizations. UC Berkeley should seek to encourage a privately developed and operated conference center: one flexible enough to serve a variety of users and events, but also large enough to meet the demand generated by both the campus and other users.

#### **SOUTHSIDE**

In response to future space demand by campus programs, capital investment in the Southside through 2020 may result in a net increase in program space of up to 50,000 GSF. New space in the Southside would be produced by more intensive redevelopment of existing university owned sites. New space may also be produced on other sites by the university directly or through joint ventures.

In 1982 the university executed a Declaration of Covenants and Restrictions with neighboring property owners and a Memorandum of Understanding with the City of Berkeley, both of which commit the university to a site plan and land use program on the Clark Kerr Campus for a period of 50 years. While many of its 26 buildings require extensive repairs and upgrades, including seismic upgrades, no significant change in either the use or physical character of the Clark Kerr Campus is proposed in the 2020 LRDP.

#### **LRDP HOUSING ZONE**

The housing objectives for the 2020 LRDP require that all new lower division undergraduate housing be located within a mile of the center of the Campus Park, defined as Doe Library, and all other student housing either within this radius or within one block of a transit line providing trips to Doe Library in under 20 minutes. In the 2020 LRDP, this Housing Zone is defined to exclude those areas with residential designations of under 40 units per acre in a municipal general plan as of July 2003.

In support of the campus' academic goals, capital investment in the Housing Zone through 2020 may result in a net increase of up to 2,600 bed spaces, including up to 100 units suitable for faculty or staff. New student housing in the Housing Zone would be produced by more intensive redevelopment of existing university owned sites, as well as on other sites by the university directly or through joint ventures.

#### **OTHER BERKELEY SITES**

The 'Other Berkeley Sites' category includes all land within the 2020 LRDP scope but outside any other defined land use zone. University owned sites within this zone include 2000 Carleton Street and 6701 San Pablo Avenue. In response to future space demand by campus programs, capital investment in this zone through 2020 may result in a net increase in program space of up to 50,000 GSF. New space may be produced by more intensive redevelopment of existing university owned sites, as well as on other sites by the university directly or through joint ventures.

## **PROJECT DESIGN**

UC Berkeley serves the entire state of California, and thus has a mission that can not always be met entirely within the parameters of municipal policy. In the City Environs, however, the objectives of UC Berkeley must be informed by the plans and policies of neighboring cities, to respect and enhance their character and livability through new university investment.

**POLICY: USE MUNICIPAL PLANS AND POLICIES TO INFORM THE DESIGN OF FUTURE CAPITAL PROJECTS IN THE CITY ENVIRONS.**

**USE THE SOUTHSIDE PLAN AS A GUIDE TO THE DESIGN OF FUTURE CAPITAL PROJECTS IN THE SOUTHSIDE.**

**PREPARE PROJECT SPECIFIC DESIGN GUIDELINES FOR EACH MAJOR NEW PROJECT.**

### **ADJACENT BLOCKS**

City of Berkeley land use regulations for the Adjacent Blocks in place as of July 2003, particularly the height and density provisions of the zoning ordinance, reflect a strong preference toward residential and mixed-use projects. However, in order to meet the demands for program space created by enrollment growth and by ongoing growth in research, sites on the Adjacent Blocks must provide adequate capacity to accommodate these demands, in order to maintain UC Berkeley as the compact, interactive campus described in **Campus Land Use**.

Major capital projects would be reviewed at each stage of design by the UC Berkeley Design Review Committee, based on project specific design guidelines informed by the provisions of the Berkeley General Plan and other relevant city plans and policies. The university would make informational presentations of all major projects on the Adjacent Blocks to the City of Berkeley Planning Commission and, if relevant, the City of Berkeley Landmarks Commission for comment prior to schematic design review by the UC Berkeley Design Review Committee.

Projects on the Adjacent Blocks within the area of the Southside Plan would as a general rule use the Southside Plan as a guide to project design, as described below.

### **SOUTHSIDE**

The university owns roughly 45% of the land in the Southside, and students comprise over 80% of Southside residents. For both reasons, the Southside has always been the area of Berkeley where a positive, shared city-campus vision is most urgently required, and the lack of such a vision most acutely felt.

In 1997 the City of Berkeley and UC Berkeley signed a Memorandum of Understanding, which states 'the city and the university will jointly participate in the preparation of a Southside Plan ... the campus will acknowledge the Plan as the guide for campus developments in the Southside area'. The city and university have since collaborated on a draft Southside Plan, which as of March 2004 was being finalized for formal city adoption.

Given the mixed-use character of the Southside and the constant influx of new student residents, it is important to remember the Southside is, first and foremost, a place where people live. While the Southside Plan recognizes there are many areas within the Southside suitable for new non-residential projects, it also recognizes such projects must be planned to enhance the quality of life for all Southside residents.

Assuming no further substantive changes are made by the city prior to adoption, the university should as a general rule use the Southside Plan as its guide for the location and design of future projects in the Southside, as envisioned in the Memorandum of Understanding

Major capital projects would be reviewed at each stage of design by the UC Berkeley Design Review Committee, informed by the provisions of the Southside Plan. The university would make informational presentations of all major projects within the Southside Plan area to the City of Berkeley Planning Commission and, if relevant, the City of Berkeley Landmarks Commission for comment prior to schematic design review by the UC Berkeley Design Review Committee.

#### **OTHER BERKELEY SITES**

Major capital projects would be reviewed at each stage of design by the UC Berkeley Design Review Committee, based on project specific design guidelines informed by the provisions of the Berkeley General Plan and other relevant city plans and policies. The university would make informational presentations of all major projects on Other Berkeley Sites to the City of Berkeley Planning Commission and, if relevant, the City of Berkeley Landmarks Commission for comment prior to schematic design review by the UC Berkeley Design Review Committee.

#### **2020 LRDP HOUSING ZONE**

The housing objectives for the 2020 LRDP require that all new lower division undergraduate housing be located within a mile of the center of the Campus Park, defined as Doe Library, and all other student housing either within this radius or within one block of a transit line providing trips to Doe Library in under 20 minutes. In the 2020 LRDP, this Housing Zone is defined to exclude those areas with residential designations of under 40 units per acre in a municipal general plan as of July 2003.

The definition of the Housing Zone not only serves the objectives of improving student access to the intellectual and cultural life of the campus and minimizing vehicle trips, it also aligns with our goal to concentrate new housing development along transit routes. While future university housing projects must have adequate density to support reasonable rents, they should also be designed to respect and enhance the character and livability of the cities in which they are located. Therefore, to the extent feasible university housing projects in the Housing Zone should not have a greater number of stories nor have setback dimensions less than could be permitted for a project under the relevant city zoning ordinance as of July 2003.

Major capital projects would be reviewed at each stage of design by the UC Berkeley Design Review Committee, based on project specific design guidelines informed by the provisions of the relevant city general plan and other relevant city plans and policies. The university would make informational presentations of all major projects in the Housing Zone to the relevant city planning commission and landmarks commission for comment prior to schematic design review by the UC Berkeley Design Review Committee.

### 3.1.15 HILL CAMPUS FRAMEWORK

#### **MAINTAIN THE HILL CAMPUS AS A NATURAL RESOURCE FOR RESEARCH, EDUCATION AND RECREATION, WITH FOCUSED DEVELOPMENT ON SUITABLE SITES.**

The Hill Campus consists of roughly 1,000 acres extending east from Stadium Rimway to Grizzly Peak Boulevard. 200 of these acres are managed under the separate jurisdiction of Lawrence Berkeley National Laboratory, and are not within the scope of the UC Berkeley 2020 LRDP. Lawrence Berkeley National Laboratory operates under its own LRDP and EIR, approved separately by the UC Regents.

While the 800 acre balance managed by UC Berkeley contains several campus public and research facilities concentrated along Centennial Drive, including the Lawrence Hall of Science, the Botanical Garden, the Space Sciences Laboratory and the Mathematical Sciences Research Institute, the primary use of the Hill Campus is natural open space, including the 300 acre Ecological Study Area.

Roughly 85% of these 800 acres lie within the City of Oakland, while the westernmost 10% lie within the City of Berkeley, and the easternmost 5% within unincorporated Contra Costa County. The western third of the Hill Campus abuts low-density private residential areas to the north and south, while the eastern two-thirds of the site abuts the largely undeveloped lands of the East Bay Regional Park District and the East Bay Municipal Utility District.

From a base elevation of roughly 400 feet at its western edge, the Hill Campus rises to nearly 1800 feet at Chaparral Hill at its eastern edge. Slopes range from moderate to steep, but in general the terrain is rugged: few sites within the Hill Campus are suitable for development without extensive site alterations.

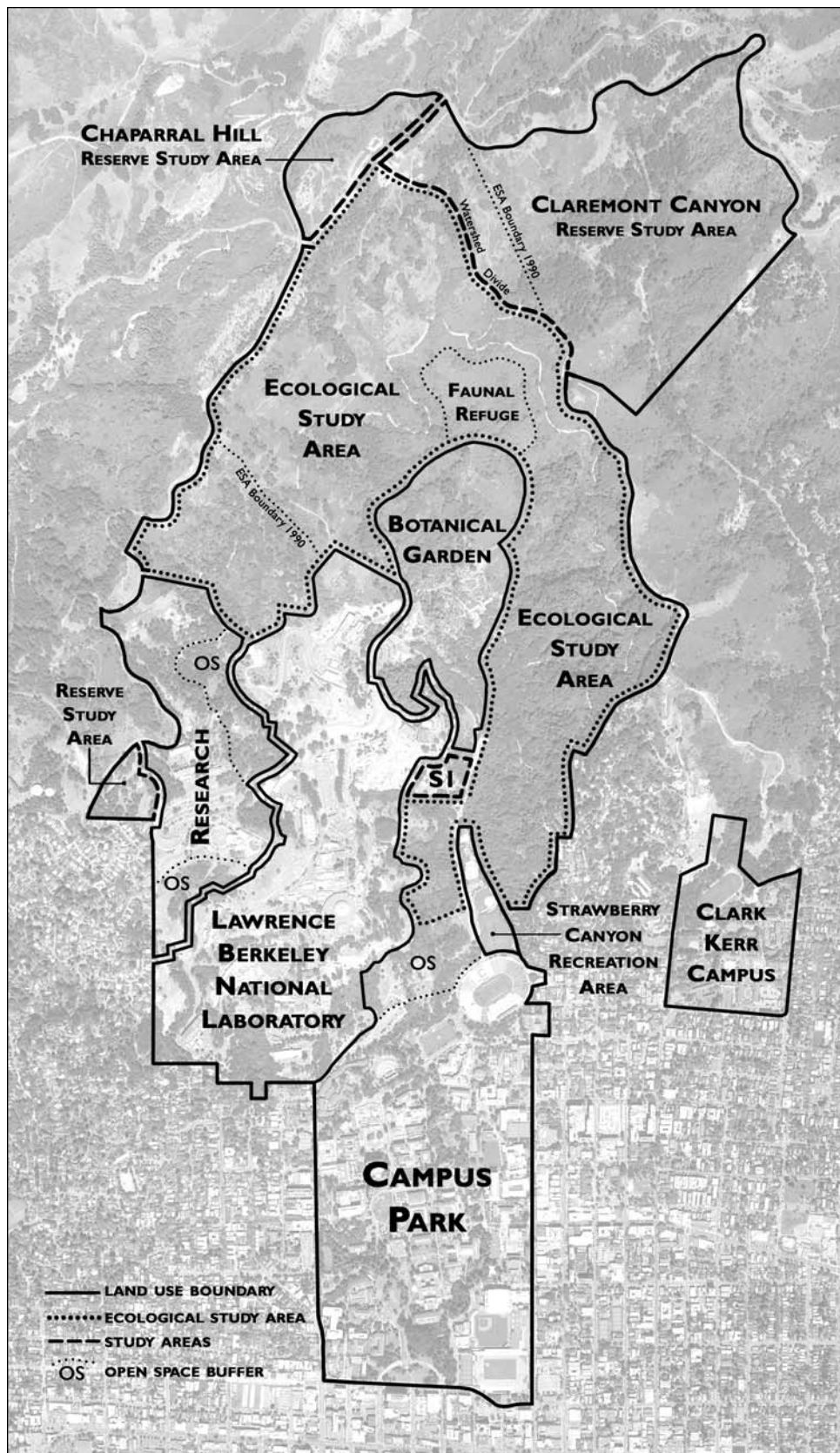
The most dramatic physical feature of the Hill Campus is Strawberry Canyon, a watershed of roughly one square mile drained by the south fork of Strawberry Creek. This water supply helped convince the trustees of the College of California to acquire the ranch lands along the creek in 1868 as the site for their new campus. At the time, the hills above the campus were a mix of grassland, oak savannah and open chaparral. It was not until speculators in the next decade planted eucalyptus, in a failed scheme to grow and harvest them for commercial use, that the hills began to acquire their present, largely forested look.

The Hill Campus landscape today is a mosaic of wet and dry north coastal scrub intermixed with stands of trees: oak-bay woodland and clusters of redwoods as well as pine and eucalyptus plantations. The pattern of vegetation has changed significantly from the original mix of grassland and oak savannah, due not only to the decline of grazing, but also to human introduction of eucalyptus and conifers as well as invasive perennials such as brooms and euphorbia, and to the fact the introduced species often out-compete natives.

#### **LAND USE**

While the Hill Campus is over four times the size of the Campus Park, its potential to accommodate new development is limited by several factors. First, the Hill Campus is a scenic and recreational resource for the entire East Bay, and is part of the continuous greenbelt of park and watershed land that extends the length of the East Bay Hills from Richmond to Hayward. A greenbelt of such size and integrity, in such close proximity to densely urbanized areas, is a unique feature of the region and contributes significantly to the quality of East Bay life.

FIGURE 3.1-10  
 HILL CAMPUS LAND USE



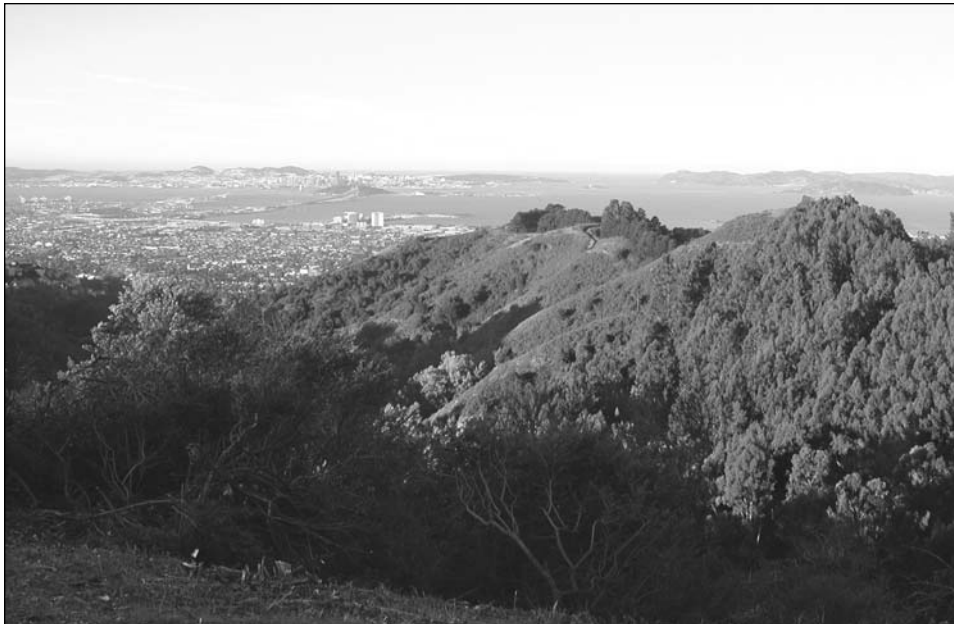
Second, the mix of scrub and conifer and eucalyptus stands makes the East Bay Hills, including the Hill Campus, a regular seasonal fire risk. This risk becomes particularly pronounced during the periodic one- or two-day shifts from the normal northwesterly winds to 'Diablo' winds blowing in from the warm, dry regions to the east. 20th century Diablo wind fires have burned over ten times the acreage of normal wind condition fires, and include the firestorms of 1923 and 1991. The steep terrain and poor access and infrastructure in the Hill Campus present enormous obstacles to fire response, and some areas such as Claremont Canyon may be indefensible in Diablo wind conditions.

Third, the steep terrain and the poor access and infrastructure also make development itself more disruptive and costly. Over 75% of the Hill Campus has a slope over 40%, and over 90% has a slope over 20%. Areas with slopes under 20% are scattered throughout the Hill Campus, often in locations not served by either roads or utilities. With few exceptions, substantial regrading would be required for new projects, and in many areas infrastructure extensions or upgrades would also be required. Lastly, the physical separation of the Hill Campus is itself a serious obstacle to productive working relationships with Campus Park units, due to time lost in travel and the absence of informal interaction.

In response to future space demand by academic and other campus programs, capital investment in the Hill Campus through 2020 may result in a net increase in program space of up to 100,000 GSF. As shown in figure 3.1-10, the 2020 LRDP divides the Hill Campus into six land use categories, described below, that reflect their environmental characteristics and their current and planned future use.

#### **ECOLOGICAL STUDY AREA**

The use of Strawberry and Claremont Canyons for instruction and research related to the natural environment, and their preservation in a primarily natural state, has been a longstanding policy of the campus. The mix of native and introduced trees established a wide variety of flora and fauna, making the Hill Campus a useful resource for field study, and led to the initial designation of a 'primitive area' in the 1930s.



CLAREMONT CANYON

The Hill Campus was recognized as an 'invaluable asset' to instruction and research by a faculty advisory committee, in their 1958 proposal that 'the guiding principle in the development of Strawberry Canyon and the Hill Campus should be ... maximum use consistent with conservation of native values.' This proposal led ultimately to the designation of a 300 acre Ecological Study Area (ESA) in 1968.

The 1990-2005 LRDP proposed three expansions of the ESA boundary, and also designated a faunal refuge area at the center of the ESA. The 2020 LRDP incorporates these expansions, as well as a further expansion to extend the ESA boundary west to the Field Station for Behavioral Research. The 2020 LRDP also adjusts the eastern boundary of the ESA to align with the watershed divide separating Claremont and Strawberry Canyons.

The purpose of the Ecological Study Area is to preserve the area for education and research. Yet the potential value of the ESA to academic programs is largely unrealized due to inadequate management. Because the campus has no formal mechanism for recording and tracking individual research projects in the hills, those projects are often neither informed of one another nor protected from public intrusion and damage. The trails within the ESA also represent a significant recreational resource to both campus and community, but there is no management entity to balance the needs of recreational users with those of researchers and instructors.

**POLICY: ESTABLISH A MANAGEMENT AUTHORITY FOR THE ECOLOGICAL STUDY AREA.**

The Ecological Study Area management authority would:

- maintain a registry of all instructional and research projects in the ESA,
- track external funding prospects for new research initiatives,
- implement strategies to improve coexistence of recreation, education, and research,
- implement strategies for protection from invasive plants, animals and humans, and
- collaborate with other campus service units to implement management practices that both reduce fire risk and help restore a mosaic of native vegetation.

**BOTANICAL GARDEN**

The oldest campus-operated Botanical Garden in the country was established in the Campus Park in 1891, and moved to its present location in 1926. The Garden is located on a 34 acre site, split into north and south sections by Centennial Drive. Strawberry Creek flows through the southern section and is incorporated into the Garden design. Ranging in elevation from 600 to 900 feet, the site provides a unique variety of microclimates that accommodate over 13,000 plant species and varieties, organized by geographic origin.

Expansion of the Garden grounds to the east has been proposed in several previous campus plans, including the 1984 Task Force Report and the 1990-2005 LRDP, which recommends an expansion of roughly 40 acres. The 2020 LRDP incorporates this expansion, as shown in figure 3.1-10, which is consistent with the objective of the Botanical Garden to triple its student, faculty and public visitors by 2020. However, before this expansion occurs, the plans for both its improvement and long-term management must be clearly defined.

**POLICY: ENSURE THE FUTURE MANAGEMENT OF, AND INVESTMENTS IN, THE ECOLOGICAL STUDY AREA AND THE BOTANICAL GARDEN ARE INTEGRATED AND SYNERGETIC.**



The Botanical Garden requires a new master plan to replace the plan completed in 1981. The new master plan should not only describe the proposed site expansion, but also describe how its interface with the Ecological Study Area, and in particular the Faunal Refuge Area, should be designed and managed. A goal of the master plan, and of the management strategies for both resources, should be to improve the synergy of Botanical Garden and Ecological Study Area programs.

#### **RESEARCH**

The Hill Campus is home to several research facilities, including the Silver Space Sciences Laboratory, the Mathematical Sciences Research Institute, and the Field Station for Behavioral Research. The Hill Campus also includes the Lawrence Hall of Science, a museum and resource center for bay area schools and residents, which draws over 300,000 visitors a year. None of these facilities presently anticipates significant physical expansion within the timeframe of the 2020 LRDP. While LHS projects the number of visitors to double by 2020, it expects to accommodate this growth through internal renovation to increase the amount of usable space, not by expansion.

While the 2020 LRDP does include a modest amount of net new capacity in the Hill Campus to accommodate research and other program growth, this growth should be limited to future expansion of existing Hill Campus programs and other programs that may benefit from a setting removed from the busy urban environs of the campus.

In general, new research space at UC Berkeley should be concentrated at sites on and adjacent to the Campus Park, as prescribed in **Campus Land Use**.

#### **RECREATION**

The campus corporation yard was removed in 1959 to make way for the Strawberry Canyon Recreation Area, composed of the Haas Clubhouse, Stern Pool, tennis courts and a turf athletic field. The East Pool was subsequently completed in 1967. As proposed in the 1990-2005 LRDP, the tennis courts were removed and the parking lots reconfigured in 1993 to create the present Witter and Levine-Fricke Fields. Strawberry Canyon Recreation Area should remain in its present form, albeit with potential renovation and expansion, or replacement, of the buildings and pools.

The upper, east portion of the Hill Campus includes several heavily used trails that connect with trails in the adjacent East Bay Regional Park District lands. Many points within the Hill Campus offer magnificent views of the Bay and Golden Gate.

#### **STUDY SITE**

The upslope area of the former Poultry Husbandry site, shown as S1 in figure 3.1-10, is now used by the campus as a materials storage and vehicle parking site. This site was designated in the 1990-2005 LRDP as a reserve site for a future research facility. While the current use may remain as an interim use in the near term, a feasibility study should be conducted to identify a more suitable long term use for this site and a more suitable location for the current use.

#### **RESERVE SITES**

The 1990-2005 LRDP designated several 'reserves' for future study. The two largest such sites are Claremont Canyon and Chaparral Hill, and they are similar in several respects: they are remote from the Campus Park, they would require substantial infrastructure investment to support new development, and no clear demand for more intensive campus use of either site has emerged since the 1990-2005 LRDP.

The roughly 40 acre site at Chaparral Hill is defined by the ridgeline of Strawberry Canyon on the west and Grizzly Peak Boulevard on the east. Due to its relatively gentle slopes, it has been designated as a potential development site in numerous past campus studies. More intensive use of this site is severely constrained by the distance to campus: roughly 3.5 miles from Memorial Stadium.

The site lacks utility infrastructure, and protected natural open space surrounds the site: regional parklands on the north, east, and south, and the ESA on the west. Moreover, the south-facing slopes of the site represent a potential colonization habitat for the endangered Alameda Whipsnake. While some very limited future development of the north-facing slopes might be possible, it would be constrained by the need to preserve the integrity of the adjacent habitat.

The roughly 200 university owned acres in Claremont Canyon lie south of the ridge dividing the Claremont and Strawberry Creek watersheds, and is nearly as distant from campus: roughly 2.5 miles from Memorial Stadium. Unlike Chaparral Hill, most of Claremont Canyon consists of steep terrain, much of which is heavily forested.

The only feasible campus uses of Chaparral Hill or Claremont Canyon are those for which physical separation from the Campus Park is not a major disadvantage. Faculty housing is one potential use; a campus retreat center is another. However, as described in this section and in the **City Environs Framework**, other more promising near-term options exist for both faculty housing and conference venues, and these options must be fully explored before either reserve site is given serious consideration. Both Chaparral Hill and Claremont Canyon should retain their current designations as reserve sites, pending further study.

The Northwest Promontory, the undeveloped site located southwest of the intersection of Centennial and Grizzly Peak, is also retained as a reserve site, as it was in the 1990-2005 LRDP.

### **PROJECT DESIGN**

While the Hill Campus contains a number of sites suitable for clustered development, future projects should be designed to respect its scenic and recreational value to both UC Berkeley and the larger East Bay community.

#### **POLICY: MAINTAIN THE VISUAL PRIMACY OF THE NATURAL LANDSCAPE IN THE HILL CAMPUS.**

New building projects should conform to the contours of the land, and grading should be minimized. Project landscaping should utilize native plant materials and reflect the rustic style of adjacent natural areas, and should incorporate the fire management provisions described below.

Buildings should be clustered to minimize site disturbance, and should utilize articulated volumes to reduce the perception of building mass. Exterior colors and materials should be selected to help the buildings blend into rather than contrast with the landscape. Flamboyant or decorative architectural treatments are strongly discouraged, as are those imitative of historical styles. Rather, architectural design should strive for a simple elegance of form, details and materials that respects and complements rather than competes with the natural setting.

Major capital projects in the Hill Campus would be reviewed at each stage of design by the UC Berkeley Design Review Committee. Project specific design guidelines based on the above principles should be prepared for each major project to guide the DRC reviews.

**POLICY: MANAGE THE HILL CAMPUS LANDSCAPE TO REDUCE FIRE AND FLOOD RISK AND RESTORE NATIVE VEGETATION AND HYDROLOGY PATTERNS.**

UC Berkeley maintains an ongoing program of fire fuel management in the Hill Campus to reduce fire risk to the campus, LBNL, neighboring residents, and recreational visitors to adjacent park and watershed lands. While the treatment used in a given area must be customized to address its specific conditions, including vegetation type, access, and proximity to roads and structures, in general the treatments are designed to meet one or more of the following goals:

- reducing fuel load by removing dead material, reducing plant density, and favoring species with lower fuel content,
- reducing horizontal spread by reducing fine fuel material and by separating dense clusters of vegetation with areas of lower fuel load, and
- reducing vertical fire spread by increasing separation of understory and crown fuels.

Whenever feasible, future fuel management practices should include the selective replacement of high-hazard introduced species with native species: for example, the restoration of native grassland and oak-bay woodland through the eradication of invasive exotics (broom, acacia, pampas grass) and the replacement of aged Monterey pines and second-growth eucalyptus. Such conversions must be planned with care, however, to avoid significant disruptive impacts to faunal habitats.

New building projects within the Hill Campus should be designed to minimize fire risk to neighbors as well as occupants, but this should be achieved as part of a larger, holistic design strategy. Some older areas of LBNL, for example, include extensive alteration of natural contours and large areas of built and paved surfaces. While this does reduce fire risk, it also increases runoff and degrades habitat and scenic value. Risk mitigation measures, such as low-fuel buffers and fire-resistive materials, should be incorporated into the design of Hill Campus projects in ways that respect the integrity, ecology, and visual quality of the natural landscape.



GRINNELL GLADE





HEARST MEMORIAL MINING BUILDING

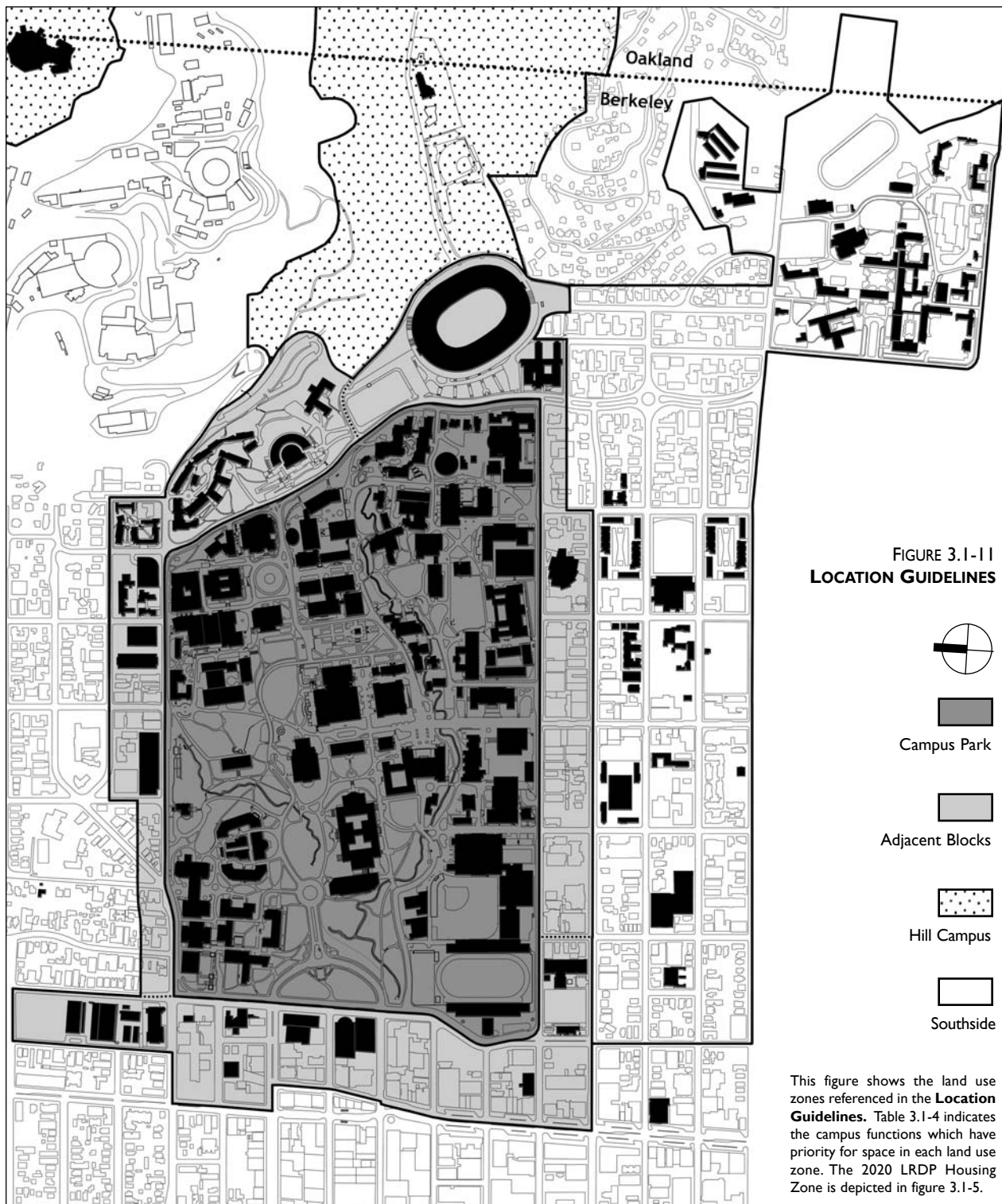
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## PROJECT GUIDELINES

LOCATION GUIDELINES 3.1.16

CAMPUS PARK DESIGN GUIDELINES 3.1.17

CAMPUS PROJECT APPROVAL PROCESS 3.1.18



### 3.1.16 LOCATION GUIDELINES

Land at UC Berkeley is a scarce and finite resource, and it is neither feasible nor desirable to house every campus function on or adjacent to the Campus Park. In order to optimize the use of campus resources, future capital investment and space utilization at UC Berkeley shall be informed by the **Location Guidelines** shown below. For each new capital project, the policy reviews undertaken at phase 1 and phase 2 of the **Campus Project Approval Process**, described in section 3.1.18, shall include a finding that the project conforms to the Location Guidelines, or state why an exception is warranted.

**TABLE 3.1-4 LOCATION PRIORITY BY LAND USE ZONE**

	Location Priority
<b>Academic Programs</b>	
Instructional spaces	Campus Park
Faculty office, research and conference spaces	Campus Park
<b>Academic Support</b>	
Libraries and student workspaces	Campus Park
Academic administration	Campus Park
Museums and performance venues	Adjacent Blocks
<b>Research Programs</b>	
Research activities with substantial student engagement & participation	Campus Park
Research activities without substantial student engagement & participation	Adjacent Blocks or Hill Campus
Research activities incompatible with on- or near-campus locations due to scale, service requirements, or environmental impacts	Urban Eastbay
<b>Institutional Support</b>	
Chancellor and units requiring frequent direct interaction w/Chancellor	Campus Park
Critical on-site plant operations services	Campus Park
Visitor-intensive: frequent visitors from outside campus	Adjacent Blocks
Service-intensive: frequent visits to & from Campus Park units	Adjacent Blocks
Process-intensive: primarily document-based or computer-based functions with limited, infrequent face to face interactions	Urban Eastbay
Computer and telcom centers, industrial production, materials handling and storage, vehicle service and storage, plant operations administration	Urban Eastbay
<b>Student Services</b>	
Service-intensive: frequent face to face interactions	Campus Park
Process-intensive: primarily document-based or computer-based functions with limited, infrequent face to face interactions	Adjacent Blocks
Fitness, recreation, intercollegiate athletics	Campus Park   Hill Campus Adjacent Blocks   Southside
<b>Public Programs</b>	
University extension	Urban Eastbay
<b>University Housing</b>	
Student housing	Housing Zone
Faculty and staff housing	Housing Zone

Note: Urban Eastbay includes cities of Berkeley, Oakland, Emeryville, Albany, El Cerrito and Richmond





### 3.1.17 CAMPUS PARK DESIGN GUIDELINES

This section includes general design and program guidelines for the Campus Park as a whole, as well as for certain place types in the Campus Park with particular design conditions. However, each major project also requires project-specific guidelines, to ensure the unique features of the site and environs are respected.

The provisions of the Guidelines are not meant to entirely preclude alternate design solutions. The best solution for a site should not be rejected just because we could not imagine it in advance. In practice, however, while the project designers may present a concept which departs from the Guidelines, they must also present a concept which conforms entirely to the Guidelines. As a rule, the campus should not depart from the Guidelines except for solutions of extraordinary quality.

#### DESIGN GUIDELINES

Campus design has always been diverse. John Galen Howard himself broke with the classical vocabulary of his first several campus buildings to design the gothic-inspired Stephens Union; and the classical buildings themselves were departures from the earlier Victorian styles of North and South Halls. However, while the design of each building should reflect its own time and place, it should also reflect the enduring values of elegance, quality and durability, and form a coherent and memorable identity for the campus as a whole. Moreover, there are several specific locations on campus where more prescriptive guidelines are required:

- New construction and renovation within the Classical Core should enhance the integrity of this ensemble, and complement rather than compete with existing historic buildings.
- New buildings facing Places of Interaction should be designed to shape these places, provide enclosure and security, and admit sunlight. Ground level spaces within these buildings should house uses that observe and activate the place.
- Buildings at the City Interface should be designed to create a graceful transition from campus to city, and to enhance the visual and experiential quality of the street.

#### GUIDELINE G.1 PRESERVATION AREAS

The preservation areas described below and in figure 3.1-12 protect the major elements of the campus landscape armature, as well as its most significant historic exterior spaces. No new buildings should intrude into the preservation areas.

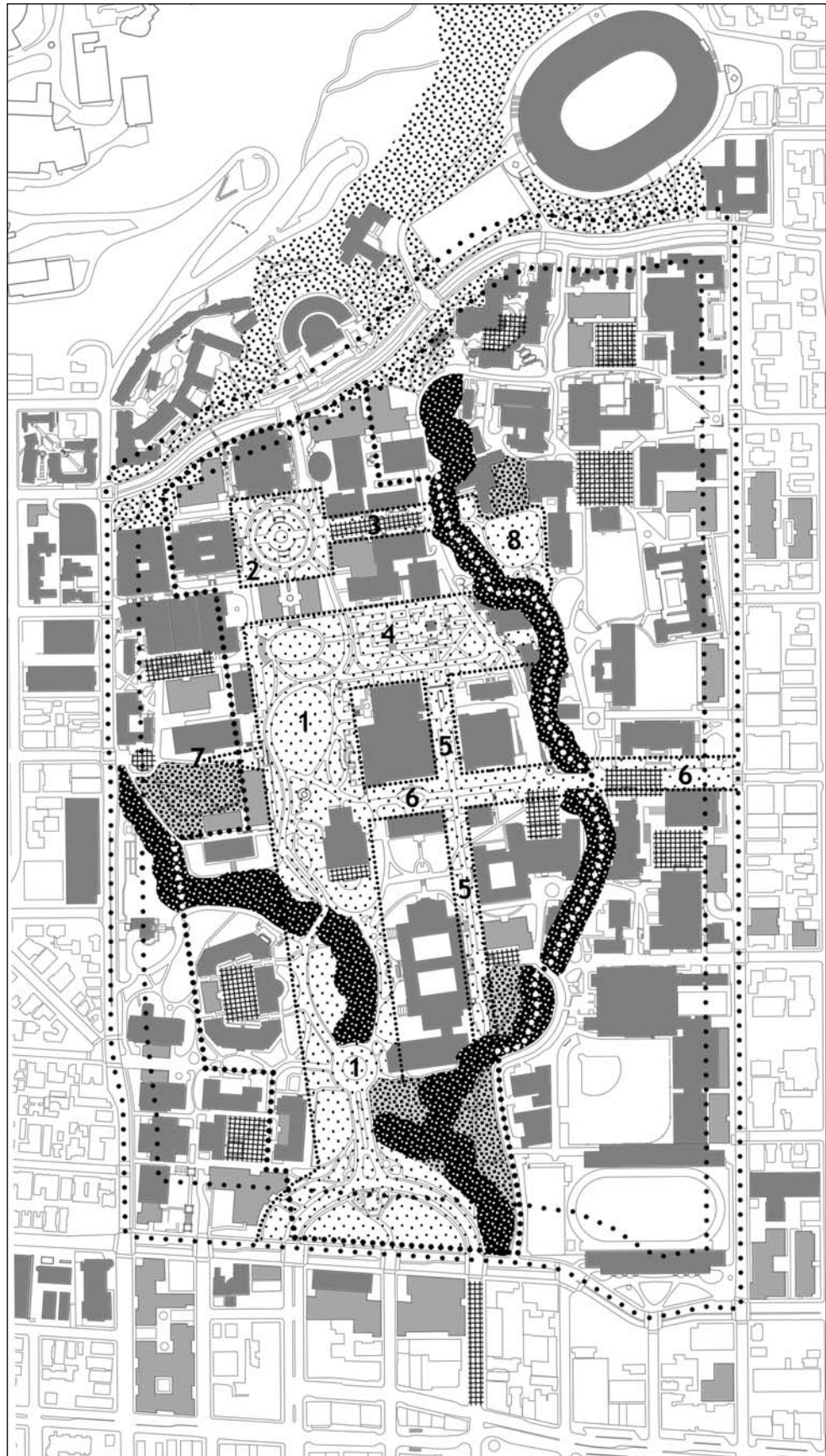
**NATURAL PRESERVES** The natural landscape along the two forks of the creek requires careful ecological management, as well as protection from development and the impacts of adjacent development. The natural preserves are comprised of two subzones: the riparian areas along the streamcourse, and other rustic woodlands adjacent to these riparian areas.

- The riparian areas are dominated by native and naturalized plants forming dense woodlands along the streamcourse. Their width may vary in response to local conditions, but in general should be at least 100', centered on the streamcourse.
- The rustic campus woodlands have a strong complementary relationship to the creek, and may also have a strong visual identity in their own right, such as Eucalyptus Grove or Observatory Hill.

FIGURE 3.1-12.  
**COMPOSITE CAMPUS PARK  
 DESIGN GUIDELINES**



- .....  
Classical core
  - .....  
City interface
  - .....  
Natural riparian areas
  - .....  
Rustic campus woodlands
  - .....  
Hill woodlands
  - .....  
Places of interaction
  - .....  
View & openspace preservation zones
- Key numbers refer to the zone descriptions in guideline G.1



This figure includes the potential future projects shown in the illustrative concept in figure 3.1-3B. These potential projects represent only one scenario of how the 2020 LRDP program might be implemented on the Campus Park. However, the potential projects serve as an example of how the **Campus Park Guidelines** would help guide the location and configuration of future buildings in the Campus Park.

Management of the natural preserves should be based on ecological principles, including replacing invasive exotic plants with native plants suited to this biotic zone, replacing unhealthy plants and plants at the ends of their natural lives, and preserving and enhancing the habitat value of the zone.

**HILL WOODLANDS** While the woodlands east of Gayley Road are comprised primarily of introduced species, they provide a forested backdrop to the campus, and a graceful transition to the hills. Those woodlands that remain west of LBNL should be maintained as a preservation zone, to retain the unique rustic character they impart to the student residences, the Greek Theatre, and Gayley Road.

**CENTRAL GLADES (1)** The preservation zone for the Central Glades reflects the axial geometry of the classical ensemble of buildings that frame and define them. No building to the north or south should intrude within 180' of the east-west axis of the Glades: these setbacks coincide with the facades of Doe Library and McLaughlin Hall. The east edge of the preservation zone coincides with the east edge of Campanile Esplanade, below. At the west end of campus, the preservation zone widens to an arc 100' from the curbline of the West Crescent.

**MINING CIRCLE (2)** The preservation zone is defined as a square 360' by 360' centered on the Circle. In order to reinforce the formal character of the Mining Circle as an outdoor room framed and defined by buildings, at least 75% of any new building facade should lie on the setback line.

**GILMAN-LECONTE WAY (3)** The preservation zone is defined as 50' on either side of the north-south axis centered on the Mining Circle and extending to the creek zone. To reinforce the continuity of spatial enclosure, at least 75% of any new building facade should lie on the setback line.

**CAMPANILE ESPLANADE (4)** The preservation zone for Campanile Esplanade reflects the formal geometry defined by the north-south axis of Sather Tower, and is defined as 100' east and 200' west of this axis: these setbacks coincide with the facades of Birge Hall and Bancroft Library. To reinforce the continuity of spatial enclosure, at least 75% of any new building facade should lie on the setback line.

**CAMPANILE WAY (5)** The preservation setback is defined as 50' on either side of the east-west axis centered on Sather Tower and extending to the creek zone. To reinforce the continuity of spatial enclosure, at least 75% of any new building facade should lie on the setback line.

**SPROUL PLAZA & SATHER ROAD (6)** This 120' wide zone preserves the primary north-south route through campus as a gracious, generous space with unobstructed views of Sather Gate. The zone is defined by the facades of Doe Library, Wheeler and Sproul Halls on the east and King Union, Durant and California Halls on the west.

**NORTH GATE (7)** This zone is defined as a view cone originating at the entry plaza to McCone Hall, with the east and west sides aligned with the corners of the north facade of Doe Library.

**FACULTY GLADE (8)** The preservation zone for Faculty Glade is defined by the Strawberry Creek natural preserve to the north and west, Morrison Hall to the south, and Hertz Hall and Faculty Club to the east.

Setbacks prescribed in Guidelines G.1 and G.2 apply to all above-grade structures. Below-grade structures may extend into the setbacks, but only if they are invisible at the surface; provide soil depth adequate to support landscaping at grade; and do not compromise the integrity of sensitive landscapes. Any elements that project above grade, such as vents, entry pavilions, or skylights, should be sited outside the setback.

**GUIDELINE G.2 CITY INTERFACE**

Campus edges and entrances should create a positive first image of both the campus itself and its synergy with the city around it. New buildings at the city interface should be sited and designed to accommodate a more coherent and unifying landscape treatment.

**HEARST & BANCROFT FRONTAGES** Buildings should be set back at least 20' from the curbline to accommodate a formal, urban, but generous landscape treatment along both frontages. The Landscape Master Plan should define a palette of planting and paving materials and typical details for these setbacks.

**OXFORD FRONTAGE** The majority of the Oxford frontage is comprised of green open space: the Crescent, the Creek, and the proposed Edwards Green. In order to create a more coherent landscape treatment in the picturesque style along this frontage, new buildings along Oxford should be set back a minimum of 60' from the curbline.

**GAYLEY & PIEDMONT FRONTAGES** One of the most memorable aspects of the campus is its setting at the base of the East Bay hills, and Gayley Road should be reinforced as the 'seam' linking the campus with the hill landscape. Each building should be set back an average of 40' from the curbline to accommodate an informal landscape treatment along both sides of the roadway. While building edges should be articulated to vary the setback depth, no portion of a building should be closer than 20' to the curbline.

Individual sites at the city interface may have spatial relationships that require wider setbacks: for example, to align facades with neighboring buildings. These should be prescribed in the project-specific guidelines.

**GUIDELINE G.3 BUILD-TO LINES**

Guideline G.1 prescribes build-to lines for certain historic campus open spaces. While some variation is desirable to allow for entrances and facade articulation, at least 75% of the facade should lie on the build-to line.

**GUIDELINE G.4 ORIENTATION & EXPOSURE**

Each new building should be oriented and designed to take advantage of solar angles and wind direction to reduce energy consumption. The design should include consideration of shading options on south and west exposures to reduce heat gain in summer but admit natural light in winter. Shading options include landscape elements, such as deciduous trees, as well as architectural elements.

The design should also include consideration of facade treatments that respond to the characteristics of each exposure with respect to heat, light and ventilation. For example: more glass on the north and east exposures, less glass and greater thermal mass on the south and west, and vents and operable windows located and designed to optimize natural airflow.

**CLASSICAL CORE** Within the classical core the axial, orthogonal relationships of the historic ensemble should take precedence in determining building orientation.

**GUIDELINE G.5 ACTIVE FRONTAGES**

**PLACES OF INTERACTION** Ground level spaces in each building facing a place of interaction should house functions with a high frequency of human presence and public activity, such as lounges, libraries, cafes, display spaces, and walk-up services. The main building entrance should be located in the facade facing the place of interaction.

**CITY INTERFACE** In the city general plan, several sections of blocks adjacent to campus are designated 'commercial': ground level spaces in university buildings within those areas should include retail and/or storefront services. Other university buildings at the campus perimeter or on adjacent blocks should house functions with a high frequency of human presence and activity at ground level.

**GUIDELINE G.6 ENTRANCES**

Each new building should be sited and designed to create a plaza or terrace at the main entrance, to serve as a casual gathering place for its users. The plaza or terrace should be distinguished as a place by design treatment - paving, lighting, furnishings - and must provide direct access for persons with special mobility needs.

**GUIDELINE G.7 SERVICES**

All bulk trash containers and building equipment should be concealed within enclosures designed as integral elements of the architecture. Loading docks should be concealed and secured when not in use.

**GUIDELINE G.8 HEIGHT**

**PLACES OF INTERACTION** Buildings facing places of interaction should be scaled to admit sunlight to the place and impart a comfortable human scale. As shown in figure 3.1-15, buildings to the south and west of the place should be no greater than 65' in height within 75' of the build-to line. Beyond this distance, height may increase 1' for every 1.5' of distance from the build-to line.

Individual sites may present spatial relationships that require lower heights along the build-to line: for example, to align cornice lines in order to create a more formal sense of enclosure. These should be specified in the project-specific guidelines.

**CITY INTERFACE** Buildings at the campus edge should be designed to create a graceful transition in scale from campus to city. Along the Hearst and Bancroft frontages of the Campus Park, buildings should be no greater than 65' in height within 100' of the curblin. On sloping sites, parts of the building may be greater than 65' but not over 80' in height, but the average height within the 100' wide zone should be no greater than 65'.

Along the Oxford frontage, buildings should be no greater than 95' in height within 200' of the curblin. On sloping sites, parts of the building may be greater than 95' but not over 110' in height, but the average height within the 200' wide zone should be no greater than 95'.

Under guideline G.8, the height of buildings with flat roofs is defined as the vertical distance from grade to the top of the exterior wall plane, including parapet. For buildings with sloped, hip, or gable roofs, height is defined as the vertical distance from grade to the average of the height at the ridge and the height at the exterior wall. Nonhabitable elements of the building such as equipment, vents, and other similar elements may extend above these height limits, but should conform to the enclosure provisions of guideline G.10.

**GUIDELINE G.9 COMPOSITION**

Large buildings should be designed to reduce their perceived mass and impart a human scale to the campus. Each building with a horizontal dimension greater than 200' should incorporate changes in both facade plane and vertical height to reduce its perceived scale and bulk, as shown in figure 3.1-13.

Each building over 3 stories should have both an articulated base and an articulated top, as shown in figure 3.1-14. Flamboyant architectural gestures are discouraged: rather, the top should create a simple and graceful terminus for the building.

**CLASSICAL CORE** Each new building within the classical core should be composed of elements orthogonal in plan and composition, and sited to reinforce the axial relationships of the historic core buildings and the Central Glades.

**GUIDELINE G.10 ROOF FORMS**

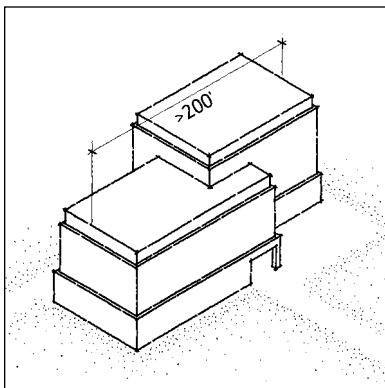
Roof top equipment should be enclosed so the equipment itself is not visible, and the enclosure should be designed as an integral element of the building architecture. In new buildings, the design should include consideration of roof forms that accommodate passive and active solar energy devices and/or green roof structures as elements integral to the building architecture.

**CLASSICAL CORE** Each new building within the classical core should have a hip or gable roof, with a pitch similar to existing historic core buildings.

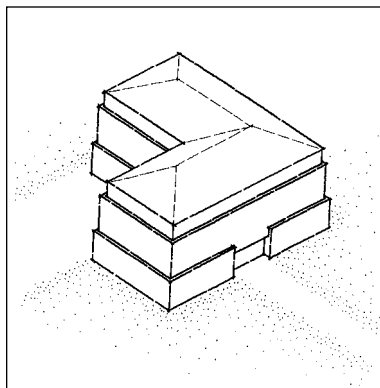
**GUIDELINE G.11 FACADES**

Each building should be a coherent architectural composition, and should employ a single, unifying vocabulary of forms, details and materials on all building facades. Facades should be composed primarily of solid planes with punched windows. While metal and glass wall systems may be employed as special architectural features, in general the pattern of solid and transparent elements should respect the structural grid.

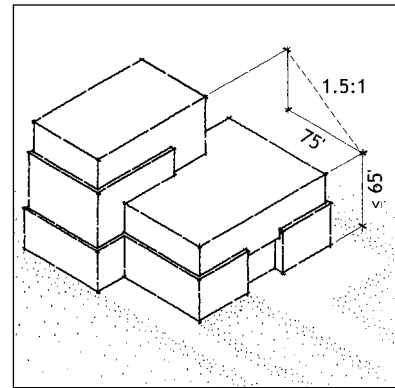
**CLASSICAL CORE** Each new building within the classical core should be fenestrated exclusively with individual punched windows, having a greater vertical than horizontal dimension. Windows and doors should be inset at least 6" from the exterior wall surface. Windows may be large and paned, but should not span structural elements.



3.1-13 Variations in plane and height in long buildings.



3.1-14 Articulated base and top. (Pitched roof form required only within the classical core.)



3.1-15 Heights of buildings facing places of interaction on the south and west.

### **GUIDELINE G.12 ARCHITECTURAL MATERIALS**

Exterior materials should be selected to convey an image of quality and durability. Suitable primary exterior materials include granite, concrete and true plaster. Metal and glass wall systems may be used sparingly as special architectural features; however, dark, opaque or reflective glass is prohibited.

Visual interest should be created by the articulation of planes and volumes, not by arbitrary changes in materials. Changes in materials should occur only at the inside corners of changes in surface plane.

**CLASSICAL CORE** Each new building within the classical core should utilize the following materials palette:

- Roofs: unglazed red clay mission tile.
- Walls: light grey granite or architectural concrete, sand finish.
- Windows: clear or lightly tinted glass, copper or bronze frames.
- Skylights: copper or bronze frames.

### **GUIDELINE G.13 SITE & LANDSCAPE MATERIALS**

The UC Berkeley Landscape Master Plan prescribes more detailed palettes of site and landscape materials for the campus.

**PLANT MATERIALS** Landscapes within the Natural Preserves should follow the provisions of guideline G.1 for plant selection. Elsewhere, plant materials should be selected to fit the desired structural form and function, while also contributing to a campuswide landscape which is both diverse and well suited to its site, climate, and intensive use.

In general, plants with similar water and maintenance needs should be grouped into zones to optimize both water use and maintenance. High maintenance zones should be limited to building entrances and other heavily used places.

**SITE MATERIALS** Presently nearly all routes on the central campus are surfaced with asphalt. While this material is suitable for vehicular roads and narrow, secondary pathways, major plazas and pedestrian routes deserve better: not only to improve their visual quality, but also to clarify the hierarchy of routes and the primacy of the pedestrian.

Suitable paving materials for major plazas and primary pedestrian routes include brick, cast and natural stone, and concrete. Paving materials, lighting and furnishings should be selected with care to ensure the identity and continuity of pedestrian routes are clearly discernable.

Paving materials should be selected for durability and safety, and should not pose slip or trip hazards. Paving should also be selected to maximize the amount of pervious surface: materials that allow water infiltration are encouraged, particularly for secondary paths and roads.

### **PROGRAM GUIDELINES**

Campus buildings endure far longer than their initial contents, and should be designed to maximize their flexibility and adaptability. Although the future is unpredictable, a few basic conventions should be followed in the design of all new buildings to ensure these major investments have a long and productive life.

**GUIDELINE G.14 GROUND FLOOR SPACES**

Guideline G.5 prescribes specific programming for buildings facing Places of Interaction and at the City Interface. However, the program of every new building on campus should seek to optimize its contribution to the quality of campus life. The ground level spaces of each building should be reserved for its most public functions, and those spaces facing public areas should be as transparent as the program allows. Main entry lobbies should be designed as inviting places for waiting and engagement, with features commensurate with the scale and functions of the building.

**GUIDELINE G.15 FLOOR HEIGHTS**

Each new building in the Campus Park should have a floor-to-floor height of at least 15', in order to accommodate a wide range of instruction and research functions and the infrastructure they require. A greater height on the ground floor may be desirable to accommodate larger public and assembly spaces, such as libraries or lecture halls.

**GUIDELINE G.16 FLOOR CONFIGURATION**

Each new building should be configured to accommodate a broad range of functions. The need to provide for a specific program in the near term must be balanced against the rapid pace of cultural and technological change, and the long lives of campus buildings. In general, a building width of 75-80' can accommodate a variety of office, lab and classroom layouts.

**GUIDELINE G.17 INTERNAL PARTITIONS**

Each new building should be designed to consolidate fixed, immovable elements at the core and perimeter, and minimize or eliminate such elements elsewhere. Spaces should be demised with easily reconfigurable partitions.

**GUIDELINE G.18 TOP FLOOR SPACES**

In tall buildings, particularly those with a view to the west, at least some top floor space with views should be reserved for conference/event rooms available for use by the entire campus. This is an emerging campus tradition, begun in Barrows and continuing through Wurster, Tan and Haas, and should be encouraged as a way to foster intellectual collaboration.



### 3.1.18 CAMPUS PROJECT APPROVAL PROCESS

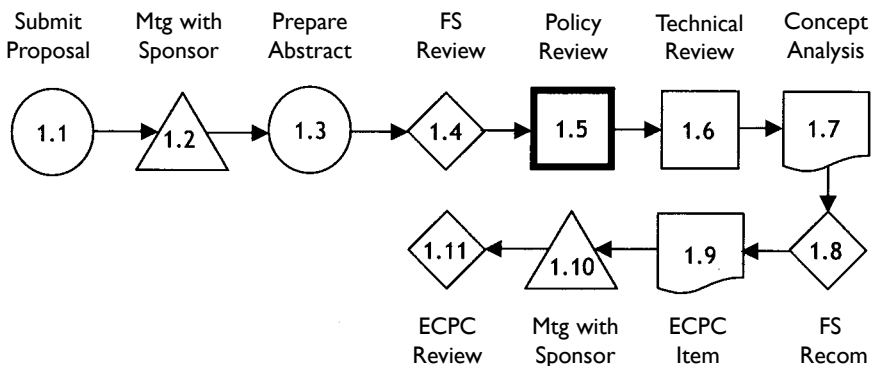
A strategic plan is only as effective as its means of implementation. The UC Berkeley campus has been the subject of many outstanding analyses over the years, yet decisions on individual projects have often been ad hoc: not because the campus lacks sound decisionmaking principles, but because there has been no clear linkage of those principles to a practical decision sequence.

UC Berkeley has already taken the first steps to change this paradigm, by forming the Executive Campus Planning Committee (ECPC) and by establishing a new, clear approval process for capital projects. This section describes how the policies and guidelines articulated in the 2020 LRDP shall be integrated into the campus approval process, to ensure investment decisions both optimize the use of resources and conform to the vision and policies in the 2020 LRDP.

Because UC Berkeley is a dynamic organization, the names of organizational units and the details of each task sequence in the process may evolve over time, but the overriding concept of a comprehensive, deliberative evaluation of each project at each stage of program and design would continue for the duration of the 2020 LRDP.

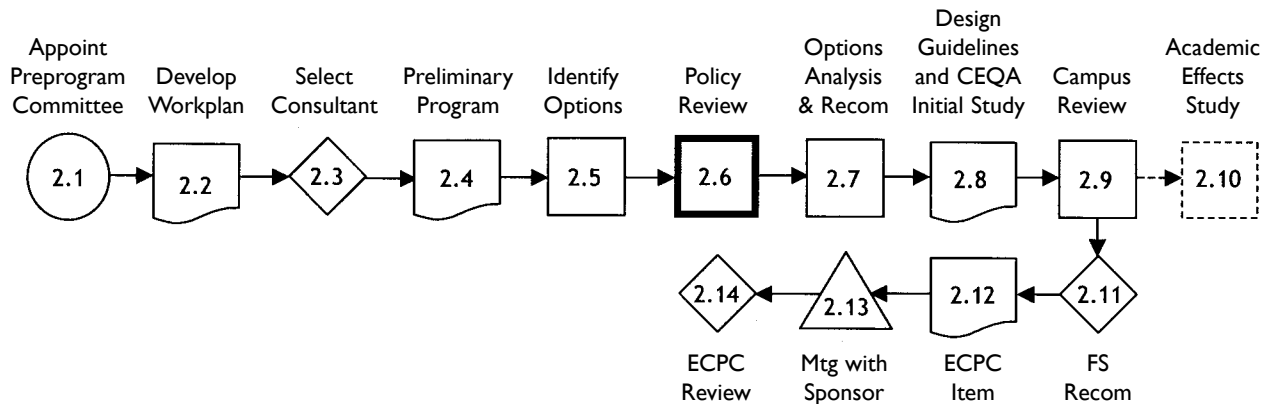
#### PHASE I: CONCEPT REVIEW (PROJECTS OVER \$1 MILLION)

- 1.1 Sponsor submits proposal with VC signature, including funding strategy
- 1.2 Facilities Services meets with Sponsor to explain process
- 1.3 Sponsor prepares abstract of proposal: objectives, justification, alternatives considered, and funding strategy; Facilities Services consults with sponsor on range of alternatives.
- 1.4 Facilities Services reviews abstract for adequacy of information
- 1.5 Facilities Services manages **Policy Review**
  - 1.5a Facilities Services reviews for conformance with 2020 LRDP
  - 1.5b University Relations and Budget & Finance confirm funding strategy
- 1.6 Facilities Services manages **Technical Review**: technical implications and preliminary budget projection
- 1.7 Facilities Services prepares **Concept Analysis** and action recommendation
- 1.8 VC Facilities Services reviews analysis, confirms recommendation
- 1.9 Facilities Services prepares draft ECPC item
- 1.10 Facilities Services reviews draft ECPC item with Sponsor
- 1.11 ECPC recommendation and Chancellor approval  
*(projects under \$5 million may be delegated to Vice Chancellors' Administrative Council)*
- 1.12 Funds allocated to cover phases 2 and 3



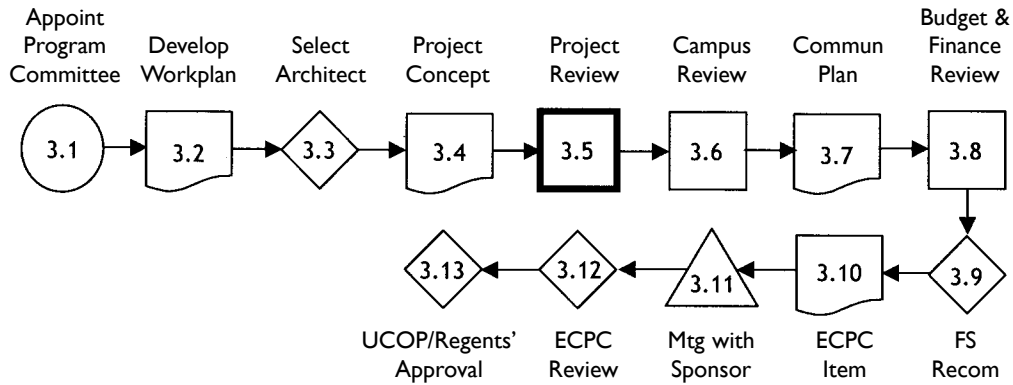
**PHASE 2: FEASIBILITY ANALYSIS** (PROJECTS OVER \$1 MILLION)

- 2.1 Sponsoring VC appoints Preprogram Committee
- 2.2 Facilities Services prepares workplan for phase 2: scope, timeline, staff budget and, if required, consultant budget
- 2.3 If required: Facilities Services prepares scope of consultant services, identifies prospective consultants, obtains and reviews proposals, and recommends selection to Preprogram Committee
- 2.4 Facilities Services or Consultant develops preliminary space program and diagrams
- 2.5 Facilities Services identifies options: range of alternate solutions plus ‘no action’
- 2.6 Facilities Services manages **Policy Review**: conformance with 2020 LRDP
- 2.7 Facilities Services prepares **Options Analysis** and proposed solution
- 2.8 Facilities Services prepares project design guidelines and environmental initial study based on proposed solution
- 2.9 Facilities Services manages **Campus Review**
  - 2.9a University Relations and Community Relations
  - 2.9b Campus Design Review Committee
  - 2.9c Space Assignment & Capital Improvements Committee
  - 2.9d Committee on Academic Planning & Resource Allocation
- 2.10 Academic Effects Study completed prior to start of phase 3
- 2.11 VC Facilities Services confirms proposed solution
- 2.12 Facilities Services prepares draft ECPC item
- 2.13 Facilities Services reviews draft ECPC item with Sponsor
- 2.14 ECPC recommendation and Chancellor approval



**PHASE 3: PROGRAM DEVELOPMENT** (PROJECTS OVER \$1 MILLION)

- 3.1 EVC/Provost appoints Program Committee
- 3.2 Facilities Services prepares workplan for phase 3: scope, timeline, staff and consultant budget
- 3.3 Facilities Services selects architect for project
- 3.4 Architect and Program Committee prepare program and design concept: space program, conceptual site plan, conceptual floor plans, conceptual massing, proposed budget and schedule
- 3.5 Facilities Services manages **Project Review** of program and design concept
  - 3.5a Facilities Services reviews for conformance with design guidelines
  - 3.5b Facilities Services begins environmental review based on initial study, to be completed prior to start of phase 6
  - 3.5c Facilities Services prepares surge analysis
- 3.6 Facilities Services manages **Campus Review**
  - 3.6a University Relations and Community Relations
  - 3.6b Campus Design Review Committee
  - 3.6c Space Assignments & Capital Improvements Committee
  - 3.6d Committee on Academic Planning & Resource Allocation
- 3.7 University Relations and Community Relations prepare communications plan
- 3.8 Budget & Finance reviews project in relation to capital budget
- 3.9 VC Facilities Services confirms program and design concept, budget, schedule
- 3.10 Facilities Services prepares draft ECPC item
- 3.11 Facilities Services reviews draft ECPC item with Sponsor
- 3.12 ECPC recommendation and Chancellor approval
- 3.13 UCOP/Regents' approval of budget/capital improvement program amendment (*extent of UCOP/Regents' review depends on size of project budget*)
- 3.14 Funds allocated to cover phase 4



**PHASE 4: SCHEMATIC DESIGN** (PROJECTS OVER \$1 MILLION)

- 4.1 Architect completes schematic design
- 4.2 Facilities Services reviews for conformance with project design guidelines
- 4.3 Facilities Services manages **Campus Review**
  - 4.3a Design Review Committee
  - 4.3b Seismic Review Committee
  - 4.3c Committee on Removal of Architectural Barriers
  - 4.3d Program Committee (*if changes to scope/budget/schedule*)
  - 4.3e Space Assignments & Capital Improvements Committee (*if changes to scope/budget/schedule*)
- 4.4 Facilities Services presents schematic design to ECPC, plus any scope/budget/schedule changes
- 4.5 ECPC recommendation and Chancellor approval
- 4.6 UCOP/Regents' environmental and design approvals to be completed prior to start of phase 6 (*extent of UCOP/Regents' review depends on size of project budget*)
- 4.7 Sources for 85% of project funds must be identified before starting phase 5

**PHASE 5: DESIGN DEVELOPMENT** (PROJECTS OVER \$1 MILLION)

**PHASE 6: WORKING DRAWINGS** (PROJECTS OVER \$1 MILLION)

- 5.1/6.1 Architect completes design development (phase 5) or working drawings (phase 6)
- 5.2/6.2 Facilities Services reviews for conformance with project design guidelines and schematic design
- 5.3/6.3 Facilities Services manages **Campus Review**
  - 5.3a/6.3a Design Review Committee (*if changes to exterior design*)
  - 5.3b/6.3b Seismic Review Committee (*if changes to structural design*)
  - 5.3c/6.3c Program Committee (*if changes to scope/budget/schedule*)
  - 5.3d/6.3d Space Assignments & Capital Improvements Committee (*if changes to scope/budget/schedule*)
- 5.4/6.4 ECPC review (*if changes to design or scope/budget/schedule*) and Chancellor approval
- 6.5 100% of funds must be in place before awarding construction contract

**PHASE 7: BID AND CONSTRUCTION** (PROJECTS OVER \$1 MILLION)

- 7.1 Budget augmentations require review and recommendation by Vice Chancellors' Administrative Council
- 7.2 Augmentation requests must identify source of additional funds
- 7.3 Chancellor approval

**Projects \$1 - 5 million** may be delegated to the Vice Chancellors' Administrative Council (VCAC) following Concept Review approval.

**Projects Under \$1 million** are reviewed by VCAC: they may proceed directly from Concept Review approval to a combined Program and Design phase, and then to Bid and Construction.

## 10 MITIGATION MONITORING & REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) presents the Mitigation Measures (MMs) and Continuing Best Practices (CBPs) identified in the UC Berkeley 2020 Long Range Development Plan and Chang-Lin Tien Center for East Asian Studies EIR. It is prepared in compliance with Section 15097 of the CEQA Guidelines, which requires that the Lead Agency "adopt a program for monitoring or reporting the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects." UC Berkeley both monitors and reports on its mitigation measures.

The first column of Table 10-1 lists the MM or CBP required to address an impact identified in the EIR. The second column indicates how the MM or CBP would be put in question form to staff implementing the measure. Column three lists the parties responsible for ensuring implementation of each MM or CBP. (In some instances, the unit implements the practice or measure; in some instances, the unit has responsibility to track and manage a process that ensures it is implemented.) The fourth column indicates when the MM or CBP would be implemented. The timing milestones correspond to the UC project funding process: P is the planning and schematic design phase; W is the development of construction drawings or "working" drawings and the bid phase; C is the period of construction; O is the post-occupancy period.

This table will be the basis for a "Mitigation Monitoring and Reporting Table" for each project to be developed under the 2020 LRDP (informally termed the "MMRP Checklist"). Checklists will be distributed to the responsible parties for each project during the planning and design development phase (P), CD/bid phase (W), construction phase (C), and post-occupancy phase (O), and will ask whether each MM or CBP has been performed, as well as for the reporter's comments. For those MMs and CBPs to be monitored during post-occupancy operation and maintenance, or for programmatic practices and measures to be implemented outside the project development process, annual checklists will be issued to the responsible parties.

Among the units with MMRP implementation responsibility are Environment, Health and Safety (EH&S), staffed in part by environmental protection and hazardous materials specialists with regulatory compliance and environmental stewardship responsibilities. The Campus Fire Marshal (CFM) is also a member of the EH&S staff. The work program of the Office of Emergency Preparedness (OEP) includes implementation of wildfire risk management projects in the Hill Campus ecosystem. The Residential and Student Services Program (RSSP) develops and manages student housing and dining services, among other responsibilities. The Parking & Transportation office (P&T) manages campus parking facilities and transportation programs.

Within Facilities Services at UC Berkeley, Physical Plant-Campus Services (PPCS) operates, maintains and improves the campus physical plant. The Campus Landscape Architect (CLA) advises on every aspect of the campus landscape. Typically, the PEP unit coordinates and manages campus project definition and review, and the Project Management unit (PM) manages projects from the design phase through project construction; in limited circumstances, these roles are combined, or carried out by staff from other units, such as PPCS.

## IMPLEMENTATION

Implementation of this MMRP would ensure that all of the significant impacts identified in the EIR, with the exception of those impacts identified as significant and unavoidable, would be reduced to a less than significant level.

The UC Berkeley Office of Physical and Environmental Planning (PEP) maintains MMRP records for each project. The MMRP is included as a condition of project approval.

Facilities Services will develop an implementation guide for mitigation monitoring and update it as needed.

Reporting procedures record mitigation implementation. Reporting generally involves the following steps:

1. PEP distributes checklists to responsible entities for verification of compliance.
2. Responsible entities verify compliance by answering per-measure questions, then sign and date the MMRP Table checklist and return it to PEP for records-keeping.
3. PEP prepares an annual report to the Vice Chancellor-Facilities Services on mitigation compliance.
4. All annual reports and checklists related to a project's MMRP are available for public review upon request at PEP.

The University reserves the right to make amendments and/or substitutions of MMs and/or CBPs if, in the University's discretion, it is determined that the amended or substituted MM or CBP will eliminate the potential for an environmental impact to at least the same degree as the original MM or CBP and where the amendment or substitution would not result in a new significant impact on the environment which cannot be mitigated.

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>AESTHETICS</b>			
<b>Continuing Best Practice AES-1-a:</b> New projects in the Campus Park would as a general rule conform to the Campus Park Guidelines. While the Guidelines would not preclude alternate design concepts when such concepts present the best solution for a particular site, UC Berkeley would not depart from the Guidelines except for solutions of extraordinary quality.	a) Does the project conform to Campus Park Guidelines?  b) If response to (a) above is "no", does the design solution display extraordinary quality?	PEP, PM	P
<b>Continuing Best Practice AES-1-b:</b> Major new campus projects would continue to be reviewed at each stage of design by the UC Berkeley Design Review Committee. The provisions of the 2020 LRDP, as well as project specific design guidelines prepared for each such project, would guide these reviews.	a) Has this project been reviewed at each stage of design by DRC?  b) Have project-specific design guidelines and LRDP provisions guided the DRC review?	PEP, PM	P
<b>Continuing Best Practice AES-1-c:</b> New Hill Campus projects would as a general rule conform to the design principles established in the Hill Campus Framework. While these principles would not preclude alternate design concepts when such concepts present the best solution for a particular site, the University would not depart from these principles except for solutions of extraordinary quality.	a) Does this project conform to the design principles established in the Hill Campus Framework?  b) If the answer to (a) is "no", is the design of extraordinary quality?	PEP	P
<b>Continuing Best Practice AES-1-d:</b> To the extent feasible, future fuel management practices would include the selective replacement of high-hazard introduced plant species with native species: for example, the restoration of native grassland and oak-bay woodland through the eradication of invasive exotics, and replacement of aged pines and second-growth eucalyptus. Such conversions would be planned with care, however, to avoid significant disruption of faunal habitats.	a) Does this project include the selective replacement of high-fire-hazard introduced plant species with native species?  b) Has care been exercised to avoid disruption of faunal habitats?	PM, OEP	P
<b>Continuing Best Practice AES-1-e:</b> UC Berkeley would make informational presentations of all major projects in the City Environs in Berkeley to the Berkeley Planning Commission and, if relevant, the Berkeley Landmarks Preservation Commission for comment prior to schematic design review by the UC Berkeley Design Review Committee. Major projects in the City Environs in Oakland would similarly be presented to the Oakland Planning Commission and, if relevant, to the Oakland Landmarks Preservation Advisory Board. Whenever a project in the City Environs is under consideration by the UC Berkeley DRC, a staff representative designated by the city in which it is located would be invited to attend and comment on the project.	a) Was this project presented for comment, prior to DRC review, to the City of Berkeley or Oakland Planning Commissions and, if relevant, to the Landmarks Preservation Commission/Advisory Board?  b) For a project in the City Environs, has a staff representative designated by the city in which the project is located been invited to attend the UC Berkeley DRC to comment on the project?	PEP	P

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>AESTHETICS</b>			
<b>Continuing Best Practice AES-1-f:</b> Each individual project built in the City Environs under the 2020 LRDP would be assessed to determine whether it could pose potential significant aesthetic impacts not anticipated in the 2020 LRDP, and if so, the project would be subject to further evaluation under CEQA.	<p>a) Has the project been assessed to determine whether it could pose potential significant aesthetic impacts not anticipated in the 2020 LRDP?</p> <p>b) If (an) unanticipated impact(s) may occur, has further CEQA evaluation been performed? Briefly describe nature of evaluation in Comment column.</p>	PEP	P
<b>Continuing Best Practice AES-1-g:</b> To the extent feasible, University housing projects in the 2020 LRDP Housing Zone would not have a greater number of stories nor have setback dimensions less than could be permitted for a project under the relevant city zoning ordinance as of July 2003.	<p>a) Does this project have a greater number of stories than could be permitted for a project under the relevant city zoning ordinance as of July 2003?</p> <p>b) Does this project have setback dimensions less than could be permitted for a project under the relevant city zoning ordinance as of July 2003?</p>	PEP	P
<b>Continuing Best Practice AES-1-h:</b> Assuming the City adopts the Southside Plan without substantive changes, the University would as a general rule use, as its guide for the location and design of University projects implemented under the 2020 LRDP within the area of the Southside Plan, the design guidelines and standards prescribed in the Southside Plan, which would supersede provisions of the City's prior zoning policy.	Has the project used the design guidelines and standards prescribed in the Southside Plan as its guide for project location and design?	PEP	P
<b>LRDP Mitigation Measure AES-3-a:</b> Lighting for new development projects would be designed to include shields and cut-offs that minimize light spillage onto unintended surfaces, and to minimize atmospheric light pollution. The only exception to this principle would be in those areas within the Campus Park where such features would be incompatible with the visual and/or historic character of the area.	Does project lighting include shields and cut-offs to minimize spill-over and light pollution (unless such features are incompatible with visual or historic character of the project or its immediate context)?	PM	P



**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>AESTHETICS</b>			
<p><b>LRDP Mitigation Measure AES-3-b:</b> As part of the design review procedures described in the above Continuing Best Practices, light and glare would be given specific consideration, and measures incorporated into the project design to minimize both. In general, exterior surfaces would not be reflective: architectural screens and shading devices are preferable to reflective glass.</p>	<p>a) Have light and glare been given special consideration during design?</p> <p>b) Have design measures been incorporated into the project to minimize light pollution and glare?</p> <p>c) Are exterior surfaces reflective?</p> <p>d) Have architectural screening and shading been incorporated into project design?</p>	PM	P
<b>AIR QUALITY</b>			
<p><b>Continuing Best Practice AIR-1:</b> UC Berkeley shall continue to implement the same or equivalent alternative transit programs, striving to improve the campus mode split and reduce the use of single occupant vehicles among students, staff, faculty and visitors to campus.</p>	<p>Has UC Berkeley continued to implement the same or equivalent alternative transit programs, striving to improve the campus mode split and reduce the use of single occupant vehicles among students, staff, faculty and visitors to campus?</p>	P&T	O
<p><b>Continuing Best Practice AIR-4-a:</b> UC Berkeley shall continue to include in all construction contracts the measures specified below to reduce fugitive dust impacts:</p> <ul style="list-style-type: none"> <li>▪ All disturbed areas, including quarry product piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using tarps, water, (non-toxic) chemical stabilizer/suppressant, or vegetative ground cover.</li> <li>▪ All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or (nontoxic) chemical stabilizer/suppressant.</li> <li>▪ When quarry product or trash materials are transported off-site, all material shall be covered, or at least two feet of freeboard space from the top of the container shall be maintained.</li> </ul>	<p>a) Are measures to reduce fugitive dust impacts included in construction contracts?</p> <p>b) Have all disturbed areas not under active construction been stabilized for dust emissions using tarps, water, (non-toxic) chemical stabilizer/suppressant, or vegetative ground cover?</p> <p>c) Have all on-site unpaved roads, and unpaved access roads to the site, been stabilized for dust emissions using water or non-toxic chemical stabilizer/suppressant?</p> <p>d) When quarry product or trash materials are transported off-site, are all materials covered, or has at least two feet of freeboard space from the top of the container/truck been maintained?</p>	PM, OEP	<i>W and C</i>

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>AIR QUALITY</b>			
<p><b>LRDP Mitigation Measure AIR-4-a:</b> In addition, UC Berkeley shall include in all construction contracts the measures specified below to reduce fugitive dust impacts, including but not limited to the following:</p> <ul style="list-style-type: none"> <li>▪ All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.</li> <li>▪ When demolishing buildings, water shall be applied to all exterior surfaces of the building for dust suppression.</li> <li>▪ All operations shall limit or expeditiously remove the accumulation of mud or dirt from paved areas of construction sites and from adjacent public streets as necessary. See also CBP HYD 1-b.</li> <li>▪ Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions by utilizing sufficient water or by covering.</li> <li>▪ Limit traffic speeds on unpaved roads to 15 mph.</li> <li>▪ Water blasting shall be used in lieu of dry sand blasting wherever feasible.</li> <li>▪ Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with slopes over one percent.</li> <li>▪ To the extent feasible, limit area subject to excavation, grading, and other construction activity at any one time.</li> <li>▪ Replant vegetation in disturbed areas as quickly as possible.</li> </ul>	<p>a) Are measures to reduce fugitive dust impacts included in construction contracts?</p> <p>b) Have all dust emissions been stabilized and controlled using presoaking or water applications during work, including applications to building surfaces during demolition?</p> <p>c) Have all operations limited or expeditiously removed the accumulation of mud or dirt from paved areas of construction sites and from adjacent public streets as necessary?</p> <p>d-i) Immediately after adding or removing materials from any storage pile, has water or coverings been used to control dust emissions from the pile?</p> <p>d-ii) Has water blasting been used in lieu of dry sand blasting wherever feasible?</p> <p>e) Has excavation, grading and other construction been limited to the smallest possible area, insofar as feasible?</p> <p>f) Have erosion control measures been utilized, and disturbed areas been revegetated as quickly as possible, to prevent silt runoff?</p>	PM, OEP	<i>W and C</i>
<p><b>Continuing Best Practice AIR-4-b:</b> UC Berkeley shall continue to implement the following control measure to reduce emissions of diesel particulate matter and ozone precursors from construction equipment exhaust:</p> <ul style="list-style-type: none"> <li>▪ Minimize idling time when construction equipment is not in use.</li> </ul>	When construction equipment is not in active use, has idling time been minimized?	PM, OEP	<i>W and C</i>

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>AIR QUALITY</b>			
<p><b>LRDP Mitigation Measure AIR-4-b:</b> UC Berkeley shall implement the following control measures to reduce emissions of diesel particulate matter and ozone precursors from construction equipment exhaust:</p> <ul style="list-style-type: none"> <li>▪ To the extent that equipment is available and cost effective, UC Berkeley shall require contractors to use alternatives to diesel fuel, retrofit existing engines in construction equipment and employ diesel particulate matter exhaust filtration devices.</li> <li>▪ To the extent practicable, manage operation of heavy-duty equipment to reduce emissions, including the use of particulate traps.</li> </ul>	<p>a) Have contractors, including subs, been required to use alternate fuels and retrofit existing construction equipment engines accordingly, to the extent that such equipment and fuel is available and cost-effective?</p> <p>b) Has the project managed operation of heavy-duty equipment to reduce emissions, including the use of particulate traps, to the extent practicable?</p>	PM, OEP	W and C
<p><b>Continuing Best Practice AIR-5:</b> UC Berkeley will continue to implement transportation control measures such as supporting voluntary trip-reduction programs, ridesharing, and implementing improvements to bicycle facilities.</p>	<p>Has UC Berkeley continued to implement transportation control measures such as supporting voluntary trip-reduction programs, ridesharing, and implementing improvements to bicycle facilities?</p>	P&T	O
<p><b>LRDP Mitigation Measure AIR-5:</b> UC Berkeley will work with the City of Berkeley, ABAG and BAAQMD to ensure that emissions directly and indirectly associated with the campus are adequately accounted for and mitigated in applicable air quality planning efforts.</p>	<p>Has UC Berkeley worked with the City of Berkeley, ABAG and BAAQMD to ensure that emissions associated with the campus are adequately accounted for and mitigated in applicable air quality planning efforts?</p>	EH&S, PEP	O
<b>BIOLOGICAL RESOURCES</b>			
<p><b>LRDP Mitigation Measure BIO-1-a:</b> UC Berkeley will, to the full feasible extent, avoid the disturbance or removal of nests of raptors and other special-status bird species when in active use. A pre-construction nesting survey for loggerhead shrike or raptors, covering a 100 yard perimeter of the project site, would be conducted during the months of March through July prior to commencement of any project that may impact suitable nesting habitat on the Campus Park and Hill Campus. The survey would be conducted by a qualified biologist no more than 30 days prior to initiation of disturbance to potential nesting habitat. In the Hill Campus, surveys would be conducted for new construction projects involving removal of trees and other natural vegetation. In the Campus Park, surveys would be conducted for construction projects involving</p>	<p>a) Has the project avoided the disturbance or removal of nests of raptors and other special-status bird species when in active use?</p> <p>b) Was a preconstruction nesting survey for loggerhead shrike or raptors, including a 100-yard site buffer, conducted by a qualified biologist prior to C-phase, between March 1 - July 31 and 30 days or less prior to disturbance to potential nesting habitat?</p> <p>c) Will the project remove mature trees within 100 feet of a Natural Area, Strawberry Creek, and/or the Hill Campus?</p>	PM, OEP	P and W

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>BIOLOGICAL RESOURCES</b>			
removal of mature trees within 100 feet of a Natural Area, Strawberry Creek, and the Hill Campus. If any of these species are found within the survey area, grading and construction in the area would not commence, or would continue only after the nests are protected by an adequate setback approved by a qualified biologist. To the full feasible extent, the nest location would be preserved, and alteration would only be allowed if a qualified biologist verifies that birds have either not begun egg-laying and incubation, or that the juveniles from those nests are foraging independently and capable of survival. A pre-construction survey is not required if construction activities commence during the non-nesting season (August through February).	<p>d) If the answer to (c) is "yes", has a qualified biologist surveyed the site and established adequate nest setbacks where raptors or other special-status bird species have been found?</p> <p>e) If special-status bird species or raptors nest in the site or the zone described in (c), have nest locations been preserved, or altered only with approval of a qualified biologist?</p>		
<p><b>LRDP Mitigation Measure BIO-1-b:</b> UC Berkeley will, to the full feasible extent, avoid the remote potential for direct mortality of special-status bats and destruction of maternal roosts. A pre-construction roosting survey for special-status bat species, covering the project site and any affected buildings, would be conducted during the months of March through August prior to commencement of any project that may impact suitable maternal roosting habitat on the Campus Park and Hill Campus. The survey would be conducted by a qualified biologist no more than 30 days prior to initiation of disturbance to potential roosting habitat. In the Hill Campus, surveys would be conducted for new construction projects prior to grading, vegetation removal, and remodel or demolition of buildings with isolated attics and other suitable roosting habitat. In the Campus Park, surveys would be conducted for construction projects prior to remodel or demolition of buildings with isolated attics. If any maternal roosts are detected during the months of March through August, construction activities would not commence, or would continue only after the roost is protected by an adequate setback approved by a qualified biologist. To the full feasible extent, the maternal roost location would be preserved, and alteration would only be allowed if a qualified biologist verifies that bats have completed rearing young, that the juveniles are foraging independently and capable of survival, and bats have been subsequently passively excluded from the roost location. A pre-construction survey is not required if construction activities commence outside the maternal roosting season (September through February).</p>	Was a preconstruction roosting survey for special-status bat species -- including a 100-yard site buffer -- conducted by a qualified biologist prior to C-phase, between March 1 - July 31 and 30 days or less prior to disturbance to potential roosting habitat?	PM, OEP	P and W
	a) Were surveys conducted prior to grading, vegetation removal, demolition of buildings with isolated attics, or disturbance to any other suitable roosting habitat?	PM, OEP	P and C
	<p>b) If maternal roosts were detected during or between March and August, was construction delayed, or continued only after establishment of (an) adequate setback(s) by a qualified biologist?</p> <p>c) If any such maternal nests were found, have they been preserved, or only altered upon approval of a qualified biologist?</p>		

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>BIOLOGICAL RESOURCES</b>			
<p><b>LRDP Mitigation Measure BIO-1-c:</b> During planning and feasibility studies prior to development of specific projects or adoption of management plans in the Hill Campus, a habitat assessment would be conducted by a qualified biologist to assess any potential impacts on special-status species. Detailed surveys would be conducted during the appropriate season where necessary to confirm presence or absence of any special-status species. Where required to avoid a substantial adverse effect on such species, in consultation with the CDFG and the USFWS feasible changes to schedule, siting and design of projects or management plans would be developed and implemented.</p>	<p>a) Has a qualified biologist conducted a habitat assessment to assess any potential impacts on special-status species?</p> <p>b) Have detailed surveys been conducted during the appropriate season where necessary to confirm presence or absence of any special-status species?</p> <p>c) Where required to avoid a substantial adverse effect on such species, have feasible changes to the project been developed and implemented in consultation with the CDFG and the USFWS?</p>	PM, OEP	P
<p><b>Continuing Best Practice BIO-1-a:</b> UC Berkeley will continue to implement the Campus Specimen Tree Program to reduce adverse effects to specimen trees and flora. Replacement landscaping will be provided where specimen resources are adversely affected, either through salvage and relocation of existing trees and shrubs or through new plantings of the same genetic strain, as directed by the Campus Landscape Architect.</p>	<p>a) Has the Campus Specimen Tree Program been implemented to reduce adverse impacts to specimen trees and flora?</p> <p>b) Has replacement landscaping as directed by the CLA been provided where specimen resources are adversely affected?</p>	PM, OEP	P
<p><b>Continuing Best Practice BIO-1-b:</b> Implementation of the 2020 LRDP, particularly the Campus Park Guidelines, as well as the Landscape Master Plan and project-specific design guidelines, would provide for stewardship of existing landscaping, and use of replacement and expanded tree and shrub plantings to preserve and enhance the Campus Park landscape. Coast live oak and other native plantings would continue to be used in future landscaping, serving to partially replace any trees lost as a result of projects implemented under the 2020 LRDP.</p>	<p>a) Does the project provide stewardship of existing landscaping, and propose new landscaping in accordance with the 2020 LRDP -- particularly the Campus Park Guidelines --, as well as the Landscape Master Plan?</p> <p>b) Does the project use Coast Live Oak and other native plantings?</p>	PM	P
<p><b>Continuing Best Practice BIO-1-c:</b> Because trees and other vegetation require routine maintenance, as trees age and become senescent, UC Berkeley would continue to undertake trimming, thinning, or removal, particularly if trees become a safety hazard. Vegetation in the Hill Campus requires continuing management for fire safety, habitat enhancement, and other objectives. This may include removal of mature trees such as native live oaks and non-native plantings of eucalyptus and pine.</p>	<p>a) Has UC Berkeley continued to trim, thin, or remove vegetation, especially where trees have become a safety hazard?</p> <p>b) Does the fire safety program continue to remove mature trees as necessary?</p>	PP-CS, OEP	O

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>BIOLOGICAL RESOURCES</b>			
<p><b>Continuing Best Practice BIO-2-a:</b> Implementation of the 2020 LRDP, including provisions that ensure proposed projects on the Campus Park will be designed to avoid Natural Preserves and provide for protection and enhancement of riparian habitat along Strawberry Creek as prescribed in the Campus Park Design Guidelines, will avoid substantial adverse effect on riparian habitat or sensitive natural communities. The Natural Preserves are comprised of two subzones: the riparian areas along the streamcourse, and other rustic woodlands adjacent to these riparian areas. The riparian areas are dominated by native and naturalized plants forming dense woodlands along the streamcourse: their width may vary in response to local conditions, but in general should be at least 100', centered on the streamcourse. Management of the Natural Preserves will be based on ecological principles, including replacing invasive exotic plants with native plants suited to this biotic zone, replacing unhealthy plants and plants at the ends of their natural lives, and preserving and enhancing the habitat value of the zone, as prescribed in the 2020 LRDP.</p>	Does the project avoid Natural Preserves and riparian habitat within a 50' foot buffer in either direction from the centerline of any nearby streamcourse, in accordance with provisions of the 2020 LRDP?	PM, OEP	P
	Does management of the Natural Preserves follow ecological principles, including replacing invasive exotic plants with regionally-appropriate natives, replacing unhealthy and senescent plants, and preserving and enhancing habitat value, per nearby streamcourse, in accordance with provisions of the 2020 LRDP?	PP-CS	O
<p><b>Continuing Best Practice BIO-2-b:</b> The Strawberry Creek Management Plan will continue to be revised and implemented, in consultation with CDFG, to include recommendations for habitat restoration and enhancement along specific segments of the creek on both the Campus Park and Hill Campus. This will include minimum development setbacks, targets on invasive species controls, appropriate native plantings, and in-channel habitat improvements such as retention of large woody debris and creation of a refugio and deep plunge pools where feasible.</p>	a) Has the Strawberry Creek Management Plan (SCMP) been revised and implemented, in consultation with CDFG, to include recommendations for habitat restoration and enhancement along specific segments of the creek on both the Campus Park and Hill Campus?	EH&S	O
	b) Do SCMP guidelines include minimum development setbacks, invasive species controls, appropriate native plantings, and in-channel habitat improvements such as retention of large woody debris and creation of a refugio and deep plunge pools, where feasible?		

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>BIOLOGICAL RESOURCES</b>			
<p><b>Continuing Best Practice BIO-2-c:</b> During planning and feasibility studies prior to development of specific projects or implementation of management plans in the Hill Campus, a habitat assessment will be conducted by a qualified biologist to identify and minimize potential impacts on riparian habitat, freshwater seeps, and native grassland sensitive natural communities. Detailed surveys will be conducted at appropriate times where necessary to confirm and map the extent of any sensitive natural communities. Where required to avoid a substantial adverse effect on such communities, in consultation with the CDFG, feasible changes to schedule, siting and design of projects or management plans will be developed and implemented.</p>	<p>a) Has a habitat assessment been conducted by a qualified biologist to identify and minimize potential impacts on riparian habitat, freshwater seeps, and native-grassland sensitive natural communities?</p> <p>b) Have detailed surveys been conducted at appropriate times where necessary to confirm and map the extent of any sensitive natural communities?</p> <p>c) Where required to avoid a substantial adverse effect on such communities, have feasible changes to the project been developed and implemented in consultation with the CDFG?</p>	PEP, PM, OEP	P
<p><b>Continuing Best Practice BIO-3:</b> Proposed projects on the Campus Park and Hill Campus will be designed to avoid designated jurisdictional wetlands and waters along the Strawberry Creek channel. As necessary, wetlands will be mapped and the extent of jurisdictional waters verified by the Corps during planning and feasibility studies prior to development of specific projects or implementation of management plans in the Hill Campus. When unavoidable, any modifications to Strawberry Creek and other jurisdictional waters will be coordinated with jurisdictional agencies, including the CDFG, Corps, and the RWQCB as necessary.</p>	<p>a) Has the project been designed to avoid designated jurisdictional wetlands and waters along the Strawberry Creek channel?</p> <p>b) Have wetlands been mapped and jurisdictional waters extents been verified by the Corps, during studies prior to project design development or implementation of any management plan?</p> <p>c) Has any unavoidable modification of Strawberry Creek and/or other jurisdictional waters been coordinated with jurisdictional agencies, including the CDFG, Corps, and the RWQCB as necessary?</p>	PEP, PM, OEP	P
<p><b>Continuing Best Practice BIO-4-a:</b> Proposed projects in the Hill Campus will be designed to avoid obstructing important established wildlife corridors to the full feasible extent. Before any new fencing is installed for security purposes, UC Berkeley will consider the effect of such fencing on opportunities for wildlife movement, and will avoid new or expanded fencing which would obstruct important established movement corridors.</p>	<p>a) Has the presence or absence of wildlife corridors on the project site been established?</p> <p>b) Was the project and project fencing designed to avoid obstructing important established wildlife corridors to the full feasible extent?</p> <p>c) Was fencing for the project planned to avoid obstructing wildlife movement?</p>	PEP, OEP, PM	P and W

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>BIOLOGICAL RESOURCES</b>			
<b>Continuing Best Practice BIO-4-b:</b> During planning and feasibility studies prior to development of specific projects or implementation of management plans in the Hill Campus, a habitat assessment will be conducted by a qualified biologist to identify and minimize potential impacts on wildlife movement opportunities, including avoidance of new fencing across Strawberry Creek and tributary drainages.	Has a habitat assessment been conducted by a qualified biologist to identify and minimize potential impacts on wildlife movement opportunities, including avoidance of new fencing across Strawberry Creek and tributary drainages?	PEP, PM, OEP	P
<b>CULTURAL RESOURCES</b>			
<b>Continuing Best Practice CUL-1:</b> In the event that paleontological resource evidence or a unique geological feature is identified during project planning or construction, the work would stop immediately and the find would be protected until its significance can be determined by a qualified paleontologist or geologist. If the resource is determined to be a “unique resource,” a mitigation plan would be formulated and implemented to appropriately protect the significance of the resource by preservation, documentation, and/or removal, prior to recommencing activities.	a) Has any paleontological resource evidence or a unique geological feature been identified during project planning or construction?	PM, OEP	W
	b) If the answer to (a) is "yes" during C-phase, did work stop immediately and was the find protected, until its significance was determined by a qualified paleontologist or geologist?	PM, OEP	C
	c) If the answer to (a) is "yes", was the resource determined to be a “unique resource”?		
	d) If the answer to (c) is "yes", was a mitigation plan formulated and implemented to protect the resource significance by preservation, documentation, and/or removal, prior to recommencing activities?		
<b>Continuing Best Practice CUL-2-a:</b> If a project could cause a substantial adverse change in features that convey the significance of a primary or secondary resource, an Historic Structures Assessment (HSA) would be prepared. Recommendations of the HSA made in accordance with the Secretary of the Interior’s Standards would be implemented, in consultation with the UC Berkeley Design Review Committee and the State Historic Preservation Office, such that the integrity of the significant resource is preserved and protected. Copies of all reports would be filed in the University Archives/Bancroft Library.	a) Could the project cause a substantial adverse change in features that convey the significance of a primary or secondary resource?	PEP	P
	b) If the answer to (a) is "yes", was an Historic Structures Assessment (HSA) prepared, and recommendations made in accordance with the Secretary of the Interior’s Standards?		



**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>CULTURAL RESOURCES</b>			
	c) If the answer to (b) is "yes", were the HSA recommendations implemented, in consultation with the DRC and the State Historic Preservation Office?		
	d) If the answer to (b) is "yes", was a copy of the HSA filed in the University Archives/Bancroft Library?		
<b>Continuing Best Practice CUL-2-b:</b> For projects with the potential to cause adverse changes in the significance of historical resources, UC Berkeley would make informational presentations of all major projects in the City Environs in Berkeley to the Berkeley Planning Commission and the Berkeley Landmarks Preservation Commission for comment prior to schematic design review by the UC Berkeley Design Review Committee. Such projects in the City Environs in Oakland would similarly be presented to the Oakland Planning Commission and the Oakland Landmarks Preservation Advisory Board.	Has UC Berkeley made informational presentations on this project to the appropriate Planning Commission and, if relevant, to the appropriate Landmarks Preservation Commission or Advisory Board?	PEP	P
<b>LRDP Mitigation Measure CUL-3:</b> If, in furtherance of the educational mission of the University, a project would require the demolition of a primary or secondary resource, or the alteration of such a resource in a manner not in conformance with the Secretary of the Interior's Standards, the resource would be recorded to archival standards prior to its demolition or alteration.	a) Does the project require the demolition of a primary or secondary resource, or the alteration of such a resource in a manner not in conformance with the Secretary of the Interior's Standards?  b) If the answer to (a) is "yes", has the resource been recorded to archival standards prior to demolition or alteration?	PM	P
<b>LRDP Mitigation Measure CUL-4-a:</b> UC Berkeley will create an internal document: a UCB Campus Archaeological Resources Sensitivity Map. The map will identify only the general locations of known and potential archaeological resources within the 2020 LRDP planning area. For the Hill Campus, the map will indicate the areas along drainages as being areas of high potential for the presence of archaeological resources. If any project would affect a resource, then either the project will be sited to avoid the location or, in consultation with a qualified archaeologist, UC Berkeley will determine the level of archaeological investigation that is appropriate for the project site and activity, prior to any construction or demolition activities.	Has UC Berkeley created the UCB Campus Archaeological Resources Sensitivity Map, identifying general locations of known/ potential archaeological resources, and, for the Hill Campus, areas along drainages?	PEP	O

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>CULTURAL RESOURCES</b>			
<p><b>Continuing Best Practice CUL-4-a:</b> In the event resources are determined to be present at a project site, the following actions would be implemented as appropriate to the resource and the proposed disturbance:</p> <ul style="list-style-type: none"> <li>▪ UC Berkeley shall retain a qualified archaeologist to conduct a subsurface investigation of the project site, to ascertain the extent of the deposit of any buried archaeological materials relative to the project’s area of potential effects. The archaeologist would prepare a site record and file it with the California Historical Resource Information System.</li> <li>▪ If the resource extends into the project’s area of potential effects, the resource would be evaluated by a qualified archaeologist. UC Berkeley as lead agency would consider this evaluation in determining whether the resource qualifies as a historical resource or a unique archaeological resource under the criteria of CEQA Guidelines section 15064.5. If the resource does not qualify, or if no resource is present within the project area of potential effects, this would be noted in the environmental document and no further mitigation is required unless there is a discovery during construction (see below).</li> <li>▪ If a resource within the project area of potential effect is determined to qualify as an historical resource or a unique archaeological resource in accordance with CEQA, UC Berkeley shall consult with a qualified archaeologist to mitigate the effect through data recovery if appropriate to the resource, or to consider means of avoiding or reducing ground disturbance within the site boundaries, including minor modifications of building footprint, landscape modification, the placement of protective fill, the establishment of a preservation easement, or other means that would permit avoidance or substantial preservation in place of the resource. If further data recovery, avoidance or substantial preservation in place is not feasible, UC Berkeley shall implement LRDP Mitigation Measure CUL-5, outlined below.</li> <li>▪ A written report of the results of investigations would be prepared by a qualified archaeologist and filed with the University Archives/ Bancroft Library and the Northwest Information Center.</li> </ul>	<p>a) Have resources been found at the project site? If yes, answer (b) thru (e) below; otherwise, enter "n/a" for Questions (b) thru (e).</p> <p>b) Has a qualified archaeologist done subsurface investigation ascertaining extents of buried archaeological materials within project’s area of potential impacts, and filed a site record with the California Historical Resource Information System, Bancroft Library / University Archives, and Northwest Information Center?</p> <p>c) Has UC Berkeley considered the archaeologist's report in determining whether the resource qualifies as a historical resource or a unique archaeological resource under CEQA Guidelines §15064.5?</p> <p>d) If the resource does not qualify under CEQA §15064.5, or if no resource is present, has this outcome been noted in the environmental document?</p> <p>e) If a resource does qualify, has a consulting archaeologist stipulated appropriate mitigations?</p>	PEP	P

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>CULTURAL RESOURCES</b>			
<p><b>LRDP Mitigation Measure CUL-4-b:</b> If a resource is discovered during construction (whether or not an archaeologist is present), all soil disturbing work within 35 feet of the find shall cease. UC Berkeley shall contact a qualified archaeologist to provide and implement a plan for survey, subsurface investigation as needed to define the deposit, and assessment of the remainder of the site within the project area to determine whether the resource is significant and would be affected by the project, as outlined in Continuing Best Practice CUL-3-a. UC Berkeley would implement the recommendations of the archaeologist.</p>	<p>a) Has a cultural resource been discovered during construction?</p> <p>b) If the answer to (a) is "yes", did all soil-disturbing work within 35 feet immediately cease?</p> <p>c) If the answer to (a) is "yes", did the project have a qualified archaeologist survey, investigate subsurface to define the deposit, and assess the entire site to determine whether the resource is significant and would be affected by the project?</p> <p>d) Has the project implemented the recommendations of the archaeologist?</p>	PM, OEP	C
<p><b>Continuing Best Practice CUL-4-b:</b> In the event human or suspected human remains are discovered, UC Berkeley would notify the County Coroner who would determine whether the remains are subject to his or her authority. The Coroner would notify the Native American Heritage Commission if the remains are Native American. UC Berkeley would comply with the provisions of Public Resources Code Section 5097.98 and CEQA Guidelines Section 15064.5(d) regarding identification and involvement of the Native American Most Likely Descendant and with the provisions of the California Native American Graves Protection and Repatriation Act to ensure that the remains and any associated artifacts recovered are repatriated to the appropriate group, if requested.</p>	<p>a) Have (suspected) human remains been found at the project site?</p> <p>b) If the answer to (a) is "yes", was the County Coroner immediately notified?</p> <p>c) If the answer to (a) is "yes", did the project comply with Public Resources Code §5097.98, with CEQA Guidelines §15064.5(d), and with NAGPRA re notification of the appropriate Native American representatives?</p>	PM, OEP	C
<p><b>Continuing Best Practice CUL-4-c:</b> Prior to disturbing the soil, contractors shall be notified that they are required to watch for potential archaeological sites and artifacts and to notify UC Berkeley if any are found. In the event of a find, UC Berkeley shall implement LRDP Mitigation Measure CUL-4-b.</p>	<p>Have all contractors who have reason to disturb site soils been notified by the project that they are required to watch for potential archaeological sites and artifacts and to notify UC Berkeley if any are found?</p>	PM, OEP	W

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>CULTURAL RESOURCES</b>			
<p><b>LRDP Mitigation Measure CUL-5:</b> If, in furtherance of the educational mission of the University, a project would require damage to or demolition of a significant archaeological resource, a qualified archaeologist shall, in consultation with UC Berkeley:</p> <ul style="list-style-type: none"> <li>▪ Prepare a research design and archaeological data recovery plan that would attempt to capture those categories of data for which the site is significant, and implement the data recovery plan prior to or during development of the site.</li> <li>▪ Perform appropriate technical analyses, prepare a full written report and file it with the appropriate information center and provide for the permanent curation of recovered materials.</li> </ul>	<p>a) Does this project require damage to or demolition of a significant archaeological resource?</p> <p>b) If the answer to (a) is "yes", has a qualified archaeologist -- in consultation with UC Berkeley -- prepared a research design/data recovery plan, performed appropriate technical analyses, and written and appropriately filed a full report, and arranged permanent curation of recovered materials?</p> <p>c) If the answer to (a) is "yes", has the archaeologist -- in consultation with UC Berkeley -- provided for permanent curation of recovered materials?</p>	PEP	P
<b>GEOLOGY, SEISMICITY AND SOILS</b>			
<p><b>Continuing Best Practice GEO-1-a:</b> UC Berkeley will continue to comply with the CBC and the <i>University Policy on Seismic Safety</i>.</p>	Has the project complied with the California Building Code and the University Policy on Seismic Safety?	PM	P
<p><b>Continuing Best Practice GEO-1-b:</b> Site-specific geotechnical studies will be conducted under the supervision of a California Registered Engineering Geologist or licensed geotechnical engineer and UC Berkeley will incorporate recommendations for geotechnical hazard prevention and abatement into project design.</p>	<p>a) Have site-specific geotechnical studies been conducted under the supervision of a California Registered Engineering Geologist or licensed geotechnical engineer?</p> <p>b) Has the project incorporated the Geologist's recommendations for geotechnical hazard prevention and abatement into project design?</p>	PM	P
<p><b>Continuing Best Practice GEO-1-c:</b> The Seismic Review Committee (SRC) shall continue to review all seismic and structural engineering design for new and renovated existing buildings on campus and ensure that it conforms to the California Building Code and the <i>University Policy on Seismic Safety</i>.</p>	Has SRC reviewed the seismic and structural design for this project, to ensure that it conforms to the California Building Code and the University Policy on Seismic Safety?	PM	P

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>GEOLOGY, SEISMICITY AND SOILS</b>			
<b>Continuing Best Practice GEO-1-d:</b> UC Berkeley shall continue to use site-specific seismic ground motion specifications developed for analysis and design of campus projects. The information provides much greater detail than conventional codes and is used for performance-based analyses.	Does the project use site-specific seismic ground motion specifications?	PM	P
<b>Continuing Best Practice GEO-1-e:</b> UC Berkeley will continue to implement the SAFER Program. Through this program, UC Berkeley has already identified all existing buildings in need of upgrades and is currently performing seismic upgrades on several of these buildings.	Has UC Berkeley continued to implement the SAFER Program?	PEP	P
<b>Continuing Best Practice GEO-1-f:</b> Through the Office of Emergency Preparedness, UC Berkeley will continue to implement programs and projects in emergency planning, training, response, and recovery. Each campus building housing Berkeley students, faculty and staff has a Building Coordinator who prepares building response plans and coordinates education and planning for all building occupants.	Has UC Berkeley continued, through the OEP, to implement programs and projects in emergency planning, training, response, and recovery?	OEP	O
<b>Continuing Best Practice GEO-1-g:</b> As stipulated in the <i>University Policy on Seismic Safety</i> , the design parameters for specific site peak acceleration and structural reinforcement will be determined by the geotechnical and structural engineer for each new or rehabilitation project proposed under the 2020 LRDP. The acceptable level of actual damage that could be sustained by specific structures would be calculated based on geotechnical information obtained at the specific building site.	a) Have the design parameters for specific site peak acceleration and structural reinforcement been determined by the geotechnical and structural engineer for this project?  b) Has the acceptable level of actual damage that could be sustained by the project been calculated based on geotechnical information obtained on-site?	PM	P
<b>Continuing Best Practice GEO-1-h:</b> Hill Campus dewatering would be carried out as needed and would be monitored and maintained by qualified engineers.	Has Hill Campus dewatering been carried out as needed, and monitored and maintained by qualified engineers?	PP-CS, EH&S	O
<b>Continuing Best Practice GEO-1-i:</b> The site-specific geotechnical studies conducted under GEO-1-b will include an assessment of landslide hazard, including seismic vibration and other factors contributing to slope stability.	Has an assessment of landslide hazard, including seismic vibration and other factors contributing to slope stability, been included in the geotechnical study specified in GEO-1-b, above?	PM	P

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>GEOLOGY, SEISMICITY AND SOILS</b>			
<p><b>Continuing Best Practice GEO-2:</b> Campus construction projects with potential to cause erosion or sediment loss, or discharge of other pollutants, would include the campus Stormwater Pollution Prevention Specification. This specification includes by reference the “Manual of Standards for Erosion and Sediment Control” of the Association of Bay Area Governments and requires that each large and exterior project develop an Erosion Control Plan.</p>	Does the project construction contract include and require execution of the campus Stormwater Pollution Prevention Specification?	PM, OEP	W
	Has an EH&S-approved Erosion Control Plan been prepared for this project?	PM, OEP	W and C
<b>HAZARDOUS MATERIALS</b>			
<p><b>Continuing Best Practice HAZ-1:</b> UC Berkeley shall continue to implement the same (or equivalent) health and safety plans, programs, practices and procedures related to the use, storage, disposal, or transportation of hazardous materials and wastes (including chemical, radioactive, and biohazardous materials and waste) during the 2020 LRDP planning horizon. These include, but are not necessarily limited to, requirements for safe transportation of hazardous materials, EH&amp;S training programs, the Hazard Communication Program, publication and promulgation of drain disposal guidelines, the requirement that laboratories have Chemical Hygiene Plans, the Chemical Inventory Database, the Toxic Use Reduction Program, the Aboveground Storage Tank Spill Prevention Control and Countermeasure Plan, monitoring of underground storage tanks, hazardous waste disposal policies, the Chemical Exchange Program, the Hazardous Waste Minimization Program, the Biosafety Program, the Medical Waste Management Program, and the Radiation Safety Program. These programs may be subject to modification as more stringent standards are developed or if the programs become obsolete through replacement by other programs that incorporate similar health and safety protection measures.</p>	Has UC Berkeley continued to implement the same (or equivalent) health and safety plans, programs, practices and procedures related to use, storage, disposal, or transportation of hazardous materials and wastes as those indicated in the 2020 LRDP EIR (see Chapter 4.6, section 4.6.4 and Volume 2, Appendix E)?	EH&S	O

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>HAZARDOUS MATERIALS</b>			
<p><b>Continuing Best Practice HAZ-2:</b> UC Berkeley shall continue to implement the same (or equivalent) programs related to laboratory animal use during the 2020 LRDP planning horizon, including, but not necessarily limited to, compliance with U.S. Public Health Service Regulations, the National Research Council Guide for the Care and Use of Laboratory Animals, and Animal Welfare Act regulations. These programs may be subject to modification as more stringent standards are developed or if the programs become obsolete through replacement by other programs that incorporate similar health and safety protection measures.</p>	<p>Has UC Berkeley continued to implement the same (or equivalent) programs related to laboratory animal use as those indicated in the 2020 LRDP EIR (see Chapter 4.6, section 4.6.4 and Volume 2, Appendix E)?</p>	EH&S	O
<p><b>Continuing Best Practice HAZ-3:</b> UC Berkeley shall continue to implement the same (or equivalent) programs related to transgenic materials use during the 2020 LRDP planning horizon, including, but not necessarily limited to, compliance with the NIH Guidelines for Research Involving Recombinant DNA Molecules, USDA requirements for open field-based research involving transgenic plants, and requiring registration with EH&amp;S for all research involving transgenic plants. These programs may be subject to modification as more stringent standards are developed or if the programs become obsolete through replacement by other programs that incorporate similar health and safety protection measures.</p>	<p>Has UC Berkeley continued to implement the same (or equivalent) programs related to transgenic materials use as those indicated in the 2020 LRDP EIR (see Chapter 4.6, section 4.6.4 and Volume 2, Appendix E)?</p>	EH&S	O
<p><b>Continuing Best Practice HAZ-4:</b> UC Berkeley shall continue to perform site histories and due diligence assessments of all sites where ground-disturbing construction is proposed, to assess the potential for soil and groundwater contamination resulting from past or current site land uses at the site or in the vicinity. The investigation will include review of regulatory records, historical maps and other historical documents, and inspection of current site conditions. UC Berkeley would act to protect the health and safety of workers or others potentially exposed should hazardous site conditions be found.</p>	<p>a) Has the project performed a site history and due diligence assessments of potential for soil and groundwater contamination resulting from past or current site land uses, where ground-disturbing construction is proposed?</p>	PM	P
	<p>b) Did the investigation include review of regulatory records, historical maps and other historical documents, and inspection of current site conditions?</p> <p>c) Were hazardous site conditions (conditions exposing humans to hazardous materials risks) found during the requisite investigations?</p>		
	<p>d) If the answer to (c) above is "yes", has the project protected the health and safety of workers or others potentially exposed, should hazardous site conditions be found?</p>	PM	W and C

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>HAZARDOUS MATERIALS</b>			
<p><b>Continuing Best Practice HAZ-5:</b> UC Berkeley shall continue to perform hazardous materials surveys prior to capital projects in existing campus buildings. The campus shall continue to comply with federal, state, and local regulations governing the abatement and handling of hazardous building materials and each project shall address this requirement in all construction.</p>	Has the project performed a hazardous materials survey prior to commencement of site work?	PM	W
	Has the project complied, in all aspects of construction, with all applicable federal, state, and local regulations governing the abatement and handling of hazardous building materials?	PM	C
<b>HYDROLOGY AND WATER QUALITY</b>			
<p><b>Continuing Best Practice HYD-1-a:</b> During the plan check review process and construction phase monitoring, UC Berkeley (EH&amp;S) will verify that the proposed project complies with all applicable requirements and BMPs.</p>	During the plan check review process and construction phase monitoring, has EH&S verified that the proposed project complies with all applicable requirements and BMPs?	PM, EH&S	W and C
<p><b>Continuing Best Practice HYD-1-b:</b> UC Berkeley shall continue implementing an urban runoff management program containing BMPs as published in the Strawberry Creek Management Plan, and as developed through the campus municipal Stormwater Management Plan completed for its pending Phase II MS4 NPDES permit. UC Berkeley will continue to comply with the NPDES stormwater permitting requirements by implementing construction and post construction control measures and BMPs required by project-specific SWPPPs and, upon its approval, by the Phase II SWMP to control pollution. Stormwater Pollution Prevention Plans would be prepared as required by the appropriate regulatory agencies including the Regional Water Quality Control Board and where applicable, according to the UC Berkeley Stormwater Pollution Prevention Specification to prevent discharge of pollutants and to minimize sedimentation resulting from construction and the transport of soils by construction vehicles.</p>	a) Has UC Berkeley continued to implement an urban runoff management program containing BMPs as published in the Strawberry Creek Management Plan, and as developed through the campus municipal Stormwater Management Plan?	EH&S	O
	b) Has UC Berkeley continued to implement construction and post construction control measures and BMPs required by project-specific SWPPPs and by the Phase II SWMP?		
	c) Have plans been prepared as required by the appropriate regulatory agencies and, where applicable, according to the UC Berkeley Stormwater Pollution Prevention Specification?		



**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>HYDROLOGY AND WATER QUALITY</b>			
<b>Continuing Best Practice HYD-1-c:</b> UC Berkeley shall maintain a campus-wide educational program regarding safe use and disposal of facilities maintenance chemicals and laboratory chemicals, to prevent discharge of these pollutants to Strawberry Creek and the campus storm drains.	Has UC Berkeley maintained a campus-wide educational program regarding safe use and disposal of facilities maintenance chemicals and laboratory chemicals?	EH&S	O
<b>Continuing Best Practice HYD-1-d:</b> UC Berkeley shall continue to implement the campus Drain Disposal Policy and Drain Disposal Guidelines which provide inspection, training, and oversight on use of the drains for chemical disposal for academic and research laboratories as well as shops and physical plant operations, to prevent harm to the sanitary sewer system.	Has UC Berkeley continued to implement the campus Drain Disposal Policy and Drain Disposal Guidelines?	EH&S	O
<b>Continuing Best Practice HYD-2-a:</b> In addition to Hydrology Continuing Best Practices 1-a and 1-b above, UC Berkeley will continue to review each development project, to determine whether project runoff would increase pollutant loading. If it is determined that pollutant loading could lead to a violation of the Basin Plan, UC Berkeley would design and implement the necessary improvements to treat stormwater. Such improvements could include grassy swales, detention ponds, continuous centrifugal system units, catch basin oil filters, disconnected downspouts and stormwater planter boxes.	<p>a) Has the project been reviewed to determine whether project runoff would increase pollutant loading?</p> <p>b) Has it been determined through EH&amp;S review that pollutant loading could lead to a violation of the Basin Plan?</p> <p>c) If the answer to (b) above is "yes", has the project designed and implemented the necessary improvements to treat stormwater?</p>	PM	<i>P and W</i>
<b>Continuing Best Practice HYD-2-b:</b> Where feasible, parking would be built in covered parking structures and not exposed to rain to address potential stormwater runoff pollutant loads. See also HYD-2-a.	Will the parking for this project be built in covered parking structures and not exposed to rain?	PEP	P
<b>Continuing Best Practice HYD-2-c:</b> Landscaped areas of development sites shall be designed to absorb runoff from rooftops and walkways. The Campus Landscape Architect shall ensure that open or porous paving systems be included in project designs wherever feasible, to minimize impervious surfaces and absorb runoff.	<p>a) Have landscaped areas of the site been designed to absorb runoff from rooftops and walkways?</p> <p>b) Has the Campus Landscape Architect ensured that open or porous paving systems have been included in this project, wherever feasible?</p>	PM	P

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>HYDROLOGY AND WATER QUALITY</b>			
<p><b>Continuing Best Practice HYD-2-d:</b> UC Berkeley shall continue to develop and implement the recommendations of the Strawberry Creek Management Plan and its updates, and construct improvements as appropriate. These recommendations include, but shall not be limited to, minimization of the amount of land exposed at any one time during construction as feasible; use of temporary vegetation or mulch to stabilize critical areas where construction staging activities must be carried out prior to permanent cover of exposed lands; installation of permanent vegetation and erosion control structures as soon as practical; protection and retention of natural vegetation; and implementation of post-construction structural and non-structural water quality control techniques.</p>	<p>a) Has this project implemented the recommendations of the Strawberry Creek Management Plan and its updates?</p>	PM	W
	<p>b) Has the project: protected/retained natural vegetation, and implemented post-construction structural and non-structural water quality control?</p>		
	<p>Has the project: minimized amount of land exposed at any one time, used temporary vegetation or mulch to stabilize staging areas, and installed permanent vegetation/erosion control as soon as practical?</p>	PM, OEP	C
<p><b>Continuing Best Practice HYD-3:</b> In addition to Hydrology Continuing Best Practices 1-a, 1-b, 2-a and 2-c above, UC Berkeley will continue to review each development project, to determine whether rainwater infiltration to groundwater is affected. If it is determined that existing infiltration rates would be adversely affected, UC Berkeley would design and implement the necessary improvements to retain and infiltrate stormwater. Such improvements could include retention basins to collect and retain runoff, grassy swales, infiltration galleries, planter boxes, permeable pavement, or other retention methods. The goal of the improvement should be to ensure that there is no net decrease in the amount of water recharged to groundwater that serves as freshwater replenishment to Strawberry Creek. The improvement should maintain the volume of flows and times of concentration from any given site at pre-development conditions.</p>	<p>a) Has the project been reviewed to determine whether rainwater infiltration to groundwater is adversely affected by the design?</p>	PM	P
	<p>b) Would the design adversely affect rainwater infiltration to groundwater?</p>		
	<p>c) If the answer to (b) above is "yes", has the project designed and implemented improvements to retain and infiltrate stormwater, and maintain the volume of flows and times of concentration at pre-development conditions?</p>		
<p><b>Continuing Best Practice HYD-4-a:</b> In addition to Hydrology Continuing Best Practices 1-a, 1-b and 2-c, the campus storm drain system would be maintained and cleaned to accommodate existing runoff.</p>	<p>Has the campus storm drain system been maintained and cleaned to accommodate existing runoff?</p>	PP-CS	O
<p><b>Continuing Best Practice HYD-4-b:</b> For 2020 LRDP projects in the City Environs (excluding the Campus Park or Hill Campus) improvements would be coordinated with the City Public Works Department.</p>	<p>Has this project been coordinated with the City Public Works Department?</p>	PEP, PM	P

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>HYDROLOGY AND WATER QUALITY</b>			
<p><b>Continuing Best Practice HYD-4-c:</b> Development that encroaches on creek channels and riparian zones would be prohibited. Creek channels would be preserved and enhanced, especially in the Campus Park area. An undisturbed buffer zone would be maintained between proposed 2020 LRDP projects and creek channels.</p>	a) Does this project encroach on creek channels?	PEP	P
	b) Has an undisturbed buffer zone been maintained between this project and creek channels?		
	a) Have creek channels been preserved and enhanced, especially in the Campus Park area?	PEP	O
	b) Has an undisturbed buffer zone been maintained between proposed 2020 LRDP projects and creek channels?		
<p><b>Continuing Best Practice HYD-4-d:</b> UC Berkeley shall continue to develop and implement a maintenance program for Strawberry Creek, as described in the Strawberry Creek Management Plan and its updates. Actions shall include but not be limited to: clear trash racks, catch basins, channels, ponds, bridges and over-crossing structures of debris that could block flows and increase flooding potential in all campus creeks. Cleaning of debris shall be done during storm events and prior to the start of the rainy season as part of routine campus grounds maintenance.</p>	a) Has UC Berkeley continued to develop and implement a maintenance program for Strawberry Creek, as described in the Strawberry Creek Management Plan and its updates?	PP-CS, EH&S	O
	b) Have trash racks, catch basins, channels, ponds, bridges and over-crossing structures been cleared of debris that could block flows?		
	c) Has clearing of debris been done during storm events and prior to the start of the rainy season as part of routine campus grounds maintenance?		
<p><b>Continuing Best Practice HYD-4-e:</b> UC Berkeley shall continue to manage runoff into storm drain systems such that the aggregate effect of projects implementing the 2020 LRDP is no net increase in runoff over existing conditions.</p>	Has UC Berkeley continued to manage runoff into storm drain systems such that the aggregate effect of projects implementing the 2020 LRDP is no net increase in runoff over existing conditions?	PEP, EH&S, PP-CS	O
<p><b>LRDP Mitigation Measure HYD-5:</b> In addition to Hydrology Continuing Best Practices 1-a, 1-b, 2-c, 4-a, 4-c and 4-e, projects proposed with potential to alter drainage patterns in the Hill Campus would be accompanied by a hydrologic modification analysis, and would incorporate a plan to prevent increases of flow from the newly developed site, preventing downstream flooding and substantial siltation and erosion.</p>	a) Has this project implemented Hydrology Continuing Best Practices 1-a, 1-b, 2-c, 4-a, 4-c and 4-e?	PM	P
	b) Has a hydrologic modification analysis been performed for this project?		
	c) Has the project incorporated a plan to prevent increases of flow from the newly developed site?		

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>HYDROLOGY AND WATER QUALITY</b>			
<p><b>LRDP Mitigation Measure HYD-6:</b> In addition to implementation of LRDP Mitigation Measure HYD-5, prior to final design, UC Berkeley will review the plans for all structures to be constructed in the 100-year floodplain for compliance with FEMA requirements for nonresidential structures. This review will include a hydrologic study and recommendations to eliminate any potential impacts to the 100-year floodplain. For structures placed within the 100-year floodplain, flood control devices will be utilized in each development to direct flows toward areas where flood hazards will be minimal. These actions would ensure that the implementation of the 2020 LRDP would not impede or redirect flows in a manner that results in flooding.</p>	<p>a) Has the project implemented LRDP Mitigation Measure HYD-5?</p> <p>b) Is the project sited within a 100-year floodplain?</p> <p>c) If the answer to (b) is "yes", has UC Berkeley reviewed the project for compliance with FEMA requirements for nonresidential structures, the review including a hydrologic study and recommendations to eliminate any potential impacts to the 100-year floodplain?</p> <p>d) If the answer to (b) is "yes", does the project incorporate flood control devices to direct flows toward areas where flood hazards will be minimal?</p>	<p>PM</p>	<p>P</p>
<b>LAND USE</b>			
<p><b>Continuing Best Practice LU-2-a:</b> New projects in the Campus Park would as a general rule conform to the Campus Park Guidelines. The Guidelines include specific provisions to ensure projects at the city interface create a graceful transition from campus to city.</p>	<p>Does the project conform to the Campus Park Guidelines?</p>	<p>PEP</p>	<p>P</p>
<p><b>Continuing Best Practice LU-2-b:</b> UC Berkeley would make informational presentations of all major projects in the City Environs in Berkeley to the Berkeley Planning Commission and, if relevant, the Berkeley Landmarks Preservation Commission for comment prior to schematic design review by the UC Berkeley Design Review Committee. Major projects in the City Environs in Oakland would similarly be presented to the Oakland Planning Commission and, if relevant, to the Oakland Landmarks Preservation Advisory Board. Whenever a project in the City Environs is under consideration by the UC Berkeley DRC, a staff representative designated by the city in which it is located would be invited to attend and comment on the project.</p>	<p>a) Has the project been presented to the Berkeley or Oakland Planning Commission and Berkeley or Oakland Landmarks (Preservation) Commission/ Advisory Board (if relevant) for comment prior to schematic design review by the UC Berkeley DRC?</p> <p>b) For a project in the City Environs, has a staff representative designated by the city in which the project is located been invited to attend the UC Berkeley DRC to comment on the project?</p>	<p>PEP</p>	<p>P</p>

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>LAND USE</b>			
<p><b>Continuing Best Practice LU-2-c:</b> Each individual project built in the Hill Campus or the City Environs under the 2020 LRDP would be assessed to determine whether it could pose potential significant land use impacts not anticipated in the 2020 LRDP, and if so, the project would be subject to further evaluation under CEQA. In general, a project in the Hill Campus or the City Environs would be assumed to have the potential for significant land use impacts if it:</p> <ul style="list-style-type: none"> <li>▪ Includes a use that is not permitted within the city general plan designation for the project site, or</li> <li>▪ Has a greater number of stories and/or lesser setback dimensions than could be permitted for a project under the relevant city zoning ordinance as of July 2003.</li> </ul>	<p>a) If the project is within the Hill Campus or the City Environs, has it been assessed to determine whether it could pose potential significant land use impacts not anticipated in the 2020 LRDP?</p> <p>b) If the answer to (a) is "yes", could the project pose potential significant land use impacts not anticipated in the 2020 LRDP?</p> <p>c) If the answer to (b) is yes, has the project been further evaluated per CEQA?</p>	PEP	P
<p><b>Continuing Best Practice LU-2-d:</b> Assuming the City adopts the Southside Plan without substantive changes, the University would as a general rule use, as its guide for the location and design of University projects implemented under the 2020 LRDP within the area of the Southside Plan, the design guidelines and standards prescribed in the Southside Plan, which would supersede provisions of the City's prior zoning policy.</p>	<p>If the project is within the area of the Southside Plan, and if the Southside Plan has been adopted without substantive changes, has the project location and design been guided by Southside Plan design guidelines and standards?</p>	PEP	P
<p><b>Continuing Best Practice LU-2-e:</b> To the extent feasible, University housing projects in the 2020 LRDP Housing Zone would not have a greater number of stories nor lesser setback dimensions than could be permitted for a project under the relevant city zoning ordinance as of July 2003.</p>	<p>If the project is a University housing project in the 2020 LRDP Housing Zone, does it have a greater number of stories or lesser setback dimensions than could be permitted for a project under the relevant city zoning ordinance as of July 2003?</p>	PEP	P

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>NOISE</b>			
<p><b>Continuing Best Practice NOI-2:</b> Mechanical equipment selection and building design shielding would be used, as appropriate, so that noise levels from future building operations would not exceed the City of Berkeley Noise Ordinance limits for commercial areas or residential zones as measured on any commercial or residential property in the area surrounding a project proposed to implement the 2020 LRDP. Controls that would typically be incorporated to attain this outcome include selection of quiet equipment, sound attenuators on fans, sound attenuator packages for cooling towers and emergency generators, acoustical screen walls, and equipment enclosures.</p>	<p>Does the project design use shielding and mechanical equipment such that building operations noise would not exceed CoB Noise Ordinance limits, as measured on any commercial or residential property adjacent to the project?</p>	PM	P
<p><b>LRDP Mitigation Measure NOI-3:</b> The University would comply with building standards that reduce noise impacts to residents of University housing to the full feasible extent; additionally, any housing built in areas where noise exposure levels exceed 60 L<sub>dn</sub> would incorporate design features to minimize noise exposures to occupants.</p>	<p>a) Does the proposed University housing project comply with building standards that reduce noise impacts to residents of University housing to the full feasible extent?</p> <p>b) Is this housing project in an area where noise exposure levels exceed 60L<sub>dn</sub>?</p> <p>c) If the answer to (b) is "yes", does this project incorporate design features to minimize noise exposures to occupants?</p>	PM	P

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>NOISE</b>			
<p><b>Continuing Best Practice NOI-4-a:</b> The following measures would be included in all construction projects:</p> <ul style="list-style-type: none"> <li>▪ Construction activities will be limited to a schedule that minimizes disruption to uses surrounding the project site as much as possible. Construction outside the Campus Park area will be scheduled within the allowable construction hours designated in the noise ordinance of the local jurisdiction to the full feasible extent, and exceptions will be avoided except where necessary.</li> <li>▪ As feasible, construction equipment will be required to be muffled or controlled.</li> <li>▪ The intensity of potential noise sources will be reduced where feasible by selection of quieter equipment (e.g. gas or electric equipment instead of diesel powered, low noise air compressors).</li> <li>▪ Functions such as concrete mixing and equipment repair will be performed off-site whenever possible.</li> </ul> <p>For projects requiring pile driving:</p> <ul style="list-style-type: none"> <li>▪ With approval of the project structural engineer, pile holes will be pre-drilled to minimize the number of impacts necessary to seat the pile.</li> <li>▪ Pile driving will be scheduled to have the least impact on nearby sensitive receptors.</li> <li>▪ Pile drivers with the best available noise control technology will be used. For example, pile driving noise control may be achieved by shrouding the pile hammer point of impact, by placing resilient padding directly on top of the pile cap, and/or by reducing exhaust noise with a sound-absorbing muffler.</li> <li>▪ Alternatives to impact hammers, such as oscillating or rotating pile installation systems, will be used where possible.</li> </ul>	<p>a) Has construction been scheduled to minimize disruption to surrounding uses, and -- if in the Campus Environs -- scheduled within the applicable jurisdiction's noise ordinance allowable construction hours to the full feasible extent, and exceptions avoided?</p> <p>b) Has construction equipment been muffled, controlled, or selected as the quieter feasible equipment option?</p> <p>c) Have noisy construction functions been performed off-site whenever possible?</p> <p>d) Does the project require pile driving?</p> <p>e) If the answer to (d) is "yes", have: pile holes been pre-drilled; pile-driving scheduled to minimize impacts on sensitive receptors; quietest technology been used; and, oscillating or rotating pile installation been used rather than impact hammers?</p>	PM	W and C

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>NOISE</b>			
<b>Continuing Best Practice NOI-4-b:</b> UC Berkeley will continue to precede all new construction projects with community outreach and notification, with the purpose of ensuring that the mutual needs of the particular construction project and of those impacted by construction noise are met, to the extent feasible.	Has community outreach and notification re this project been implemented prior to construction?	PM	P
<b>LRDP Mitigation Measure NOI-4:</b> UC Berkeley will develop a comprehensive construction noise control specification to implement additional noise controls, such as noise attenuation barriers, siting of construction laydown and vehicle staging areas, and the measures outlined in Continuing Best Practice NOI-4-a as appropriate to specific projects. The specification will include such information as general provisions, definitions, submittal requirements, construction limitations, requirements for noise and vibration monitoring and control plans, noise control materials and methods. This document will be modified as appropriate for a particular construction project and included within the construction specification.	Has a comprehensive construction noise control specification been developed, for implementation of noise controls and including general provisions, definitions, submittal requirements, construction limitations, noise/vibration monitoring and control plans, noise control materials and methods?	EH&S	O
	Has the noise specification been modified as appropriate for this project and included within the construction specification for this project?	PM	W
<b>LRDP Mitigation Measure NOI-5:</b> The following measures will be implemented to mitigate construction vibration:	a(i)) Will the project implement pile driving?	PM	P
<ul style="list-style-type: none"> <li>▪ UC Berkeley will conduct a pre-construction survey prior to the start of pile driving. The survey will address susceptibility ratings of structures, proximity of sensitive receivers and equipment/operations, and surrounding soil conditions. This survey will document existing conditions as a baseline for determining changes subsequent to pile driving.</li> <li>▪ UC Berkeley will establish a vibration checklist for determining whether or not vibration is an issue for a particular project.</li> <li>▪ Prior to conducting vibration-causing construction, UC Berkeley will evaluate whether alternative methods are available, such as:               <ul style="list-style-type: none"> <li>▪ Using an alternative to impact pile driving such as vibratory pile drivers or oscillating or rotating pile installation methods.</li> <li>▪ Jetting or partial jetting of piles into place using a water injection at the tip of the pile.</li> </ul> </li> <li>▪ If vibration monitoring is deemed necessary, the number, type, and location of vibration sensors would be determined by UC Berkeley.</li> </ul>	a(ii)) Will the project construction generate vibration?		
	b) If the answer to (a(i)) is "yes", has the site been surveyed for susceptibility ratings of structures, proximity of sensitive receivers and equipment/operations, and surrounding soil conditions?		
	c) Has UC Berkeley established a vibration checklist?		
	d) If the answer to (a(ii)) is yes, has the project evaluated such alternative methods as: oscillating, rotating, or vibrating pile driving; and, jetting piles into place via water-injection?		
	e) If the answer to (a(ii)) is "yes" and if vibration monitoring has been deemed necessary, has the project determined/implemented the appropriate number, type, and location of vibration sensors?		



**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>POPULATION AND HOUSING</b>			
No significant impacts identified.			
<b>PUBLIC SERVICES</b>			
<b>Continuing Best Practice PUB-1.1:</b> UCPD would continue its partnership with the City of Berkeley police department to review service levels in the City Environs.	Has UCPD continued its partnership with the City of Berkeley police department to review service levels in the City Environs?	UCPD	O
<b>Continuing Best Practice PUB-2.1-a:</b> UC Berkeley would continue to comply with Title 19 of the California Code of Regulations, which mandates firebreaks of up to 100 feet around buildings or structures in, upon or adjoining any mountainous, forested, brush- or grass-covered lands.	Has UC Berkeley continued to comply with CCR Title 19 regarding firebreaks of up to 100 feet around buildings or structures in, upon or adjoining any mountainous, forested, brush- or grass-covered lands?	CFM, OEP	O
<b>Continuing Best Practice PUB-2.1-b:</b> UC Berkeley would continue on-going implementation of the Hill Area Fire Fuel Management Program.	Has UC Berkeley continued on-going implementation of the Hill Area Fire Fuel Management Program?	OEP	O
<b>Continuing Best Practice PUB-2.1-c:</b> UC Berkeley would continue to plan and implement programs to reduce risk of wildland fires, including plan review and construction inspection programs that ensure that campus projects incorporate fire prevention measures.	Has UC Berkeley continued to plan and implement programs to reduce risk of wildland fires, including plan review and construction inspection programs that ensure that campus projects incorporate fire prevention measures?	OEP, PEP, CFM	O
<b>Continuing Best Practice PUB-2.1-d:</b> UC Berkeley would continue to plan and collaborate with other agencies through participation in the Hills Emergency Forum.	Has UC Berkeley continued to participate in the Hills Emergency Forum?	OEP	O
<b>Continuing Best Practice PUB-2.3:</b> UC Berkeley would continue its partnership with LBNI, ACFD, and the City of Berkeley to ensure adequate fire and emergency service levels to the campus and UC facilities. This partnership shall include consultation on the adequacy of emergency access routes to all new University buildings.	Has UC Berkeley continued its partnership with LBNI, ACFD, and CoB to ensure adequate emergency access routes, fire and emergency service levels to the campus and UC facilities?	PEP, CFM	O

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>PUBLIC SERVICES</b>			
<p><b>LRDP Mitigation Measure PUB-2.4-a:</b> In order to ensure adequate access for emergency vehicles when construction projects would result in temporary lane or roadway closures, campus project management staff would consult with the UCPD, campus EH&amp;S, the BFD and ACFD to evaluate alternative travel routes and temporary lane or roadway closures prior to the start of construction activity. UC Berkeley will ensure the selected alternative travel routes are not impeded by UC Berkeley activities.</p>	<p>a) Has the project consulted UCPD, EH&amp;S, BFD and ACFD to evaluate alternative travel routes and temporary lane or roadway closures prior to the start of construction activity?</p> <p>b) Has the project ensured that the selected alternative travel routes are not impeded by UC Berkeley activities?</p>	PM	<i>W and C</i>
<p><b>LRDP Mitigation Measure PUB-2.4-b:</b> To the extent feasible, the University would maintain at least one unobstructed lane in both directions on campus roadways at all times, including during construction. At any time only a single lane is available due to construction-related road closures, the University would provide a temporary traffic signal, signal carriers (i.e. flagpersons), or other appropriate traffic controls to allow travel in both directions. If construction activities require the complete closure of a roadway, UC Berkeley would provide signage indicating alternative routes. In the case of Centennial Drive, any complete road closure would be limited to brief interruptions of traffic required by construction operations.</p>	<p>a) Has the project maintained at least one unobstructed lane in both directions on campus roadways at all times?</p> <p>b) Where construction has caused only a single lane to be available, has the project provided a temporary traffic signal, signal carriers (i.e. flagpersons), or other appropriate traffic controls to allow travel in both directions?</p> <p>c) When and wherever construction activities require the complete closure of a roadway, has the project provided signage indicating alternative routes?</p> <p>d) If the project occurs at Centennial Drive, would roadway interruptions caused by construction be brief?</p>	PM	C
<p><b>Continuing Best Practice PUB-2.4:</b> To the extent feasible, for all projects in the City Environs, the University would include the undergrounding of surface utilities along project street frontages, in support of Berkeley General Plan Policy S-22.</p>	<p>If the project is in the City Environs, will it underground utilities along street frontages?</p>	PEP, PM	P
	<p>Has the project in the City Environs undergrounded utilities along street frontages?</p>	PM	<i>W and C</i>

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>PUBLIC SERVICES</b>			
<p><b>Continuing Best Practice PUB-4.3:</b> Any new UC Berkeley recreation facilities would be developed in accordance with design principles and guidelines established in the 2020 LRDP. All relevant 2020 LRDP mitigation measures and continuing best practices would be incorporated into the design and construction of new facilities. For each individual project, the University would evaluate potential environmental impacts and prepare all required documents in full accordance with CEQA.</p>	<p>a) Has this recreation facility project been planned and designed according to 2020 LRDP design principles and guidelines?</p> <p>b) Does the recreation facility project incorporate all relevant 2020 LRDP mitigation measures and continuing best practices?</p> <p>c) Has the University evaluated the project for potential environmental impacts and prepared all required documents in full accordance with CEQA?</p>	PEP	P
<p><b>LRDP Mitigation Measure PUB-4.4:</b> Before implementing any change to the use of any existing recreational facility, UC Berkeley would conduct a study to ensure that the loss of recreational use would not result in increased use at other facilities to the extent it would result in the physical deterioration of those facilities. If such deterioration is found to have the potential to occur, then the University would build replacement recreation facilities or take other measures to minimize overuse and deterioration of existing facilities in connection with removal of or reduction in use at the recreation facility in question. Any such facilities and/or measures would be reviewed in accordance with CEQA.</p>	<p>a) Does this project change an existing recreational facility?</p> <p>b) If the answer to (a) is "yes", has the project conducted a study to ensure that any loss of recreational use would not result in increased use at other facilities to the extent it would result in the physical deterioration of those facilities?</p> <p>c) If the answer to (b) is "yes", has the University built replacement recreation facilities or taken other measures to minimize overuse and deterioration of existing facilities, and reviewed these measures in accordance with CEQA?</p>	PEP	P
<b>TRANSPORTATION AND TRAFFIC</b>			
<p><b>Continuing Best Practice TRA-1-a:</b> UC Berkeley will continue in partnership with the City of Berkeley to develop a City program to: (a) maintain the Southside area between College, Dana, Dwight and Bancroft in a clean and safe condition; and (b) provide needed public improvements to the area (e.g. traffic improvements, lighting, bicycle facilities, pedestrian amenities and landscaping).</p>	<p>Has UC Berkeley continued to partner with CoB to develop a City program to: (a) maintain the Southside in a clean and safe condition; and (b) provide needed public improvements to the Southside?</p>	PEP	O

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>TRANSPORTATION AND TRAFFIC</b>			
<p><b>Continuing Best Practice TRA-1-b:</b> UC Berkeley will continue to do strategic bicycle access planning. Issues addressed include bicycle access, circulation and amenities with the goal of increasing bicycle commuting and safety. Planning considers issues such as bicycle access to the campus from adjacent streets and public transit; bicycle, vehicle, and pedestrian interaction; bicycle parking; bicycle safety; incentive programs; education and enforcement; campus bicycle routes; and amenities such as showers. The scoping and budgeting of individual projects will include consideration of improvements to bicycle access.</p>	a) Has UC Berkeley continued strategic bicycle access planning, including bicycle access, circulation and amenities to increase bicycle commuting and safety?	P&T	O
	b) Have bicycle access improvements been considered in the scoping and budgeting of the project?	PEP, PM	P
<p><b>Continuing Best Practice TRA-2:</b> The following housing and transportation policies will be continued:</p> <ul style="list-style-type: none"> <li>▪ Except for disabled students, students living in UC Berkeley housing would only be eligible for a daytime student fee lot permit or residence hall parking based upon demonstrated need, which could include medical, employment, academic and other criteria.</li> <li>▪ An educational and informational program for students on commute alternatives would be expanded to include all new housing sites.</li> </ul>	<p>a) Do students living in UCB housing continue to only be eligible for a daytime student fee lot permit or residence hall parking based upon demonstrated need (medical, employment, academic and other criteria)?</p> <p>b) Has an educational and informational program for students on commute alternatives been expanded to include all new housing sites?</p>	RSSP	O
<p><b>LRDP Mitigation Measure TRA-2:</b> The planned parking supply for University housing projects under the 2020 LRDP would comply with the relevant municipal zoning ordinance as of July 2003. Where the planned parking supply included in a University housing project would make it ineligible for approval under the subject ordinance, UC Berkeley would conduct further review of parking demand and supply in accordance with CEQA.</p>	<p>a) For a proposed housing project, does the planned parking supply comply with the relevant municipal zoning ordinance as of July 2003?</p> <p>b) If the answer to (a) is "no", has UC Berkeley conducted further review of parking demand and supply in accordance with CEQA?</p>	PEP	P
<p><b>Continuing Best Practice TRA-3-a:</b> Early in construction period planning UC Berkeley shall meet with the contractor for each construction project to describe and establish best practices for reducing construction-period impacts on circulation and parking in the vicinity of the project site.</p>	Early in construction period planning, did the project meet with the contractor to describe and establish best practices for reducing construction-period impacts on circulation and parking in the vicinity of the project site?	PM	W and C

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>TRANSPORTATION AND TRAFFIC</b>			
<p><b>Continuing Best Practice TRA-3-b:</b> For each construction project, UC Berkeley will require the prime contractor to prepare a Construction Traffic Management Plan which will include the following elements:</p> <ul style="list-style-type: none"> <li>▪ Proposed truck routes to be used, consistent with the City truck route map.</li> <li>▪ Construction hours, including limits on the number of truck trips during the a.m. and p.m. peak traffic periods (7:00 – 9:00 a.m. and 4:00 – 6:00 p.m.), if conditions demonstrate the need.</li> <li>▪ Proposed employee parking plan (number of spaces and planned locations).</li> <li>▪ Proposed construction equipment and materials staging areas, demonstrating minimal conflicts with circulation patterns.</li> <li>▪ Expected traffic detours needed, planned duration of each, and traffic control plans for each.</li> </ul>	<p>a) Has the project required the prime contractor to prepare a Construction Traffic Management Plan (CTMP)?</p> <p>b) Has such a plan been prepared?</p> <p>c) Does the CTMP include: truck routes consistent with City route map; construction hours w/# truck trips limited 7:00 – 9:00 a.m., 4:00 – 6:00 p.m.; crew parking plan (# of spaces, locations); staging areas minimizing conflicts; detours, including duration and traffic control plan?</p>	PM	W
<p><b>Continuing Best Practice TRA-3-c:</b> UC Berkeley will manage project schedules to minimize the overlap of excavation or other heavy truck activity periods that have the potential to combine impacts on traffic loads and street system capacity, to the extent feasible.</p>	<p>To the extent feasible, has the project schedule minimized overlap of excavation or other heavy truck activity that could cumulatively impact traffic loads and street system capacity?</p>	PM	W and C
<p><b>Continuing Best Practice TRA-3-d:</b> UC Berkeley will reimburse the City of Berkeley for its fair share of costs associated with damage to City streets from University construction activities, provided that the City adopts a policy for such reimbursements applicable to all development projects within Berkeley.</p>	<p>a) Has CoB adopted a policy for fair share street damage reimbursements applicable to all development projects within Berkeley?</p> <p>b) If the answer to (a) is "yes", has UC Berkeley reimbursed the City of Berkeley for its fair share of costs associated with damage to City streets from University construction activities?</p>	PEP	O
<p><b>Continuing Best Practice TRA-5:</b> The University shall continue to work to coordinate local transit services as new academic buildings, parking facilities, and campus housing are completed, in order to accommodate changing demand locations or added demand.</p>	<p>Has the University continued to coordinate local transit services, in order to accommodate changing demand locations or added demand?</p>	P&T	O

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>TRANSPORTATION AND TRAFFIC</b>			
<p><b>LRDP Mitigation Measure TRA-6-a:</b> The University will work with the City of Berkeley to redesign and, on a fair share basis, implement changes to either the westbound or northbound approach of the Cedar Street/Oxford Street intersection to provide a left-turn lane and a through lane. The University will contribute fair share funding for a periodic (annual or biennial) traffic count to allow the City to determine when an intersection redesign is needed. With the implementation of this mitigation measure, the intersection will operate at LOS B during the AM peak hour and LOS D during the PM peak hour.</p>	<p>a) Has the University contributed fair share funding for a periodic (annual or biennial) traffic count to allow CoB to determine when an intersection redesign is needed at Cedar Street/Oxford Street?</p> <p>b) When indicated by a), has UC Berkeley cooperated with CoB to redesign and, on a fair share basis, change either the westbound or northbound approach of the Cedar/Oxford intersection to provide a left-turn lane and a through lane?</p>	PEP	O
<p><b>LRDP Mitigation Measure TRA-6-b:</b> The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Durant Avenue/Piedmont Avenue intersection, when a signal warrant analysis shows the signal is needed. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impact intersections, to allow the City to determine when a signal is warranted. With the implementation of this mitigation measure, the intersection will operate at LOS B during both AM and PM peak hours.</p>	<p>a) Has the University contributed fair share funding for a periodic (annual or biennial) signal warrant check at Durant Avenue/Piedmont Avenue to allow CoB to determine when a signal is warranted?</p> <p>b) When indicated by a), has UC Berkeley cooperated with CoB to design and, on a fair share basis, install a signal northbound at the Durant Avenue /Piedmont Avenue intersection?</p>	PEP	O
<p><b>LRDP Mitigation Measure TRA-6-c:</b> The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Derby Street/Warring Street intersection, and provide an exclusive right-turn lane and an exclusive through lane on the westbound approach. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impact intersections, to allow the City to determine when a signal and the associated capacity improvements are warranted. With the implementation of this mitigation measure, the intersection will operate at LOS A during the AM peak hour and LOS C during the PM peak hours.</p>	<p>a) Has the University contributed fair share funding for a periodic (annual or biennial) signal warrant check at Derby Street/Warring Street to allow CoB to determine when a signal and the associated capacity improvements are warranted?</p> <p>b) When indicated by a), has UC Berkeley cooperated with CoB to design and, on a fair share basis, install a signal at the Derby Street/ Warring Street intersection, and provide an exclusive right-turn lane and an exclusive through lane on the westbound approach?</p>	PEP	O

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>TRANSPORTATION AND TRAFFIC</b>			
<p><b>LRDP Mitigation Measure TRA-6-d:</b> The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Addison Street/Oxford Street intersection, and provide the necessary provisions for coordination with adjacent signals along Oxford Street. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impact intersections, to allow the City to determine when a signal and the associated coordination improvements are warranted. With the implementation of this mitigation measure, the intersection will operate at LOS A during both AM and PM peak hours.</p>	<p>a) Has the University contributed fair share funding for a periodic (annual or biennial) signal warrant check at Addison Street/Oxford Street to allow CoB to determine when a signal and the associated coordination improvements are warranted?</p> <p>b) When indicated by a), has UC Berkeley cooperated with CoB to design and, on a fair share basis, install a signal at the Addison Street/ Oxford Street intersection, and provide the necessary provisions for coordination with adjacent signals along Oxford Street?</p>	PEP	O
<p><b>LRDP Mitigation Measure TRA-6-e:</b> The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at Allston Way/Oxford Street intersection, and provide the necessary provisions for coordination with adjacent signals along Oxford Street. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impacted intersections, to allow the City to determine when a signal and the associated coordination improvements are warranted. With the implementation of this mitigation measure, the intersection will operate at LOS A during both AM and PM peak hours.</p>	<p>a) Has the University contributed fair share funding for a periodic (annual or biennial) signal warrant check at Allston Way/Oxford Street to allow CoB to determine when a signal and the associated coordination improvements are warranted?</p> <p>b) When indicated by a), has UC Berkeley cooperated with CoB to design and, on a fair share basis, install a signal at the Allston Way/Oxford Street intersection, and provide the necessary provisions for coordination with adjacent signals along Oxford Street?</p>	PEP	O

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>TRANSPORTATION AND TRAFFIC</b>			
<p><b>LRDP Mitigation Measure TRA-6-f:</b> The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Kittredge Street/Oxford Street intersection, and provide the necessary provisions for coordination with adjacent signals along Oxford Street. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impacted intersections, to allow the City to determine when a signal and the associated coordination improvements are warranted. With the implementation of this mitigation measure, the intersection will operate at LOS A during both AM and PM peak hours.</p>	<p>a) Has the University contributed fair share funding for a periodic (annual or biennial) signal warrant check at Kittredge Street/Oxford Street to allow CoB to determine when a signal and the associated coordination improvements are warranted?</p> <p>b) When indicated by a), has UC Berkeley cooperated with CoB to design and, on a fair share basis, install a signal at the Kittredge Street/ Oxford Street intersection, and provide the necessary provisions for coordination with adjacent signals along Oxford Street?</p>	PEP	O
<p><b>LRDP Mitigation Measure TRA-6-g:</b> The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Bancroft Way/Ellsworth Street intersection, and provide the necessary provisions for coordination with adjacent signals along Bancroft Way. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impact intersections, to allow the City to determine when a signal and the associated coordination improvements are warranted. With the implementation of this mitigation measure, the intersection will operate at LOS B during both AM and PM peak hours.</p>	<p>a) Has the University contributed fair share funding for a periodic (annual or biennial) signal warrant check at Bancroft Way/Ellsworth Street to allow CoB to determine when a signal and the associated coordination improvements are warranted?</p> <p>b) When indicated by a), has UC Berkeley cooperated with CoB to design and, on a fair share basis, install a signal at the Bancroft Way/Ellsworth Street intersection, and provide the necessary provisions for coordination with adjacent signals along Bancroft Way?</p>	PEP	O



**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>TRANSPORTATION AND TRAFFIC</b>			
<p><b>LRDP Mitigation Measure TRA-7:</b> The University will work with the City of Berkeley to design and, on a fair share basis, install a signal at the Bancroft Way/ Piedmont Avenue intersection, and provide an exclusive left-turn lane and an exclusive through lane on the northbound approach. The University will contribute fair share funding for a periodic (annual or biennial) signal warrant check at this and other impact intersections, to allow the City to determine when a signal and the associated capacity improvements are warranted. With the implementation of this mitigation measure, the intersection would operate at LOS B during both AM and PM peak hours.</p>	<p>a) Has the University contributed fair share funding for a periodic (annual or biennial) signal warrant check at Bancroft Way/ Piedmont Avenue to allow CoB to determine when a signal and the associated capacity improvements are warranted?</p> <p>b) When indicated by a), has UC Berkeley cooperated with CoB to design and, on a fair share basis, install a signal at the Bancroft Way/ Piedmont Avenue intersection, and provide an exclusive left-turn lane and an exclusive through lane on the northbound approach?</p>	PEP	O
<p><b>LRDP Mitigation Measure TRA-9:</b> Prior to approving any development outside the City Environs, the University will conduct a traffic study to assess the localized traffic impacts of this development. Mitigations required to ensure that the housing project does not cause LOS deterioration exceeding the stated impact levels would be implemented, if necessary.</p>	<p>a) For a proposal in the City Environs, has the project conducted a traffic study to assess its localized traffic impacts?</p> <p>b) Have mitigations been implemented, if necessary, to ensure that this project does not cause LOS deterioration exceeding the stated impact levels?</p>	PM	P and O
<p><b>LRDP Mitigation Measure TRA-11:</b> The University will implement the following measures to limit the shift to driving by existing and potential future non-auto commuters:</p> <ul style="list-style-type: none"> <li>▪ Review the number of sold parking permits in relation to the number of campus parking spaces and demographic trends on a yearly basis, and establish limits on the total number of parking permits sold proportionate to the number of spaces, with the objective of reducing the ratio of permits to spaces over time as the number of spaces grows, thus ensuring that new supply improves the existing space-to-permit ratio without encouraging mode change to single occupant vehicles.</li> <li>▪ As new parking becomes operational, assign a portion of the new or existing</li> </ul>	<p>a) Has the University: annually reviewed # of sold permits relative to # of parking spaces and demographic trends; and, limited total # of sold permits relative to #of parking spaces?</p> <p>b) As new parking becomes operational, has the University assigned a portion of the total parking supply to short-term or visitor parking?</p> <p>c) As new parking inventory is added to the system, has the University expanded the quantity of parking that is available only after 10:00 a.m.?</p>	P&T	O

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>TRANSPORTATION AND TRAFFIC</b>			
<p>parking supply to short-term or visitor parking, thus targeting parkers who choose on-street parking now, and also effectively reserving part of the added supply for non-commuters.</p> <ul style="list-style-type: none"> <li>▪ Expand the quantity of parking that is available only after 10:00 a.m., to avoid affecting the travel mode use patterns of the peak hour commuting population, as new parking inventory is added to the system.</li> <li>▪ Review and consider reductions in attended parking as new parking inventory is added to the system and other impacts do not reduce parking supply.</li> </ul>	<p>d) As new parking inventory is added to the system — and if other impacts do not reduce parking supply — has the University reviewed and considered reductions in attended parking?</p>		
<p><b>Continuing Best Practice TRA-11:</b> The University surveys the transportation practices of both students and employees at periodic intervals. In order to ensure the parking objective of the 2020 LRDP takes into account future changes in drive-alone rates, transit service and parking demand, the University will conduct such surveys at least once every 3 years; will make the survey results available to the public; and will review and, if appropriate, reduce the 2020 LRDP parking objective in light of those results.</p>	<p>a) Has UC Berkeley conducted a survey of transportation practices of students and employees within the last 3 years, and made the results available to the public?</p> <p>b) Has UC Berkeley reviewed and, if appropriate, reduced the 2020 LRDP parking objective?</p>	PEP, P&T	O
<p><b>LRDP Mitigation Measure TRA-12:</b> The University shall prepare a strategic pedestrian improvement plan that outlines the expected locations and types of pedestrian improvements that may be desirable to accommodate 2020 LRDP growth. The plan shall be flexible to respond to changing conditions as the LRDP builds out, and shall contain optional strategies and improvements that can be applied to specific problems that arise as the LRDP builds out. The University shall develop the Plan in consultation with the City of Berkeley, and work with the City to implement plan elements as needed during the life of the 2020 LRDP on a fair share basis.</p>	<p>a) Has the University prepared a strategic pedestrian improvement plan that outlines the expected locations and types of pedestrian improvements that may be desirable to accommodate 2020 LRDP growth?</p> <p>b) Is the plan flexible, and does it contain optional strategies and improvements that can be applied to specific problems that arise as the LRDP builds out?</p> <p>c) Was the plan developed -- and implemented as needed during the life of the 2020 LRDP on a fair share basis -- in consultation with CoB?</p>	PEP	O

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>UTILITIES AND SERVICE SYSTEMS</b>			
<p><b>Continuing Best Practice USS-1.1:</b> For campus development that increases water demand, UC Berkeley would continue to evaluate the size of existing distribution lines as well as pressure of the specific feed affected by development on a project-by-project basis, and necessary improvements would be incorporated into the scope of work for each project to maintain current service and performance levels. The design of the water distribution system, including fire flow, for new buildings would be coordinated among UC Berkeley staff, EBMUD, and the Berkeley Fire Department.</p>	<p>a) Has UC Berkeley continued to evaluate size of existing distribution lines as well as pressure of specific feeds affected by development on a project-by-project basis?</p>	PP-CS, PM	P <i>and</i> W
	<p>b) Has the design of the water distribution system, including fire flow, been coordinated among UC Berkeley staff, EBMUD, and the Berkeley Fire Department?</p>		
	<p>Have necessary improvements been incorporated into the scope of work for each project to maintain current service and performance levels?</p>	PM	P <i>and</i> W
<p><b>Continuing Best Practice USS-2.1-a:</b> UC Berkeley will promote and expand the central energy management system (EMS), to tie building water meters into the system for flow monitoring.</p>	<p>Has UC Berkeley promoted and expanded the central energy management system (EMS), to tie building water meters into the system for flow monitoring?</p>	PP-CS	O
<p><b>Continuing Best Practice USS-2.1-b:</b> UC Berkeley will analyze water and sewer systems on a project-by-project basis to determine specific capacity considerations in the planning of any project proposed under the 2020 LRDP.</p>	<p>Has the project analyzed water and sewer systems to determine specific capacity considerations?</p>	PEP, PP-CS, PM	P <i>and</i> W
<p><b>Continuing Best Practice USS-2.1-c:</b> UC Berkeley will continue and expand programs retrofitting plumbing in high-occupancy buildings, and seek funding for these programs from EBMUD or other outside agencies as appropriate.</p>	<p>Has UC Berkeley continued and expanded programs retrofitting plumbing in high-occupancy buildings, and sought funding for these programs from EBMUD or other outside agencies as appropriate?</p>	PP-CS	O
<p><b>Continuing Best Practice USS-2.1-d:</b> UC Berkeley will continue to incorporate specific water conservation measures into project design to reduce water consumption and wastewater generation. This could include the use of special air-flow aerators, water-saving shower heads, flush cycle reducers, low-volume toilets, weather based or evapotranspiration irrigation controllers, drip irrigation systems, the use of drought resistant plantings in landscaped areas, and collaboration with EBMUD to explore suitable uses of recycled water.</p>	<p>Has the project incorporated specific water conservation measures into project design?</p>	PM	P

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented	
<b>UTILITIES AND SERVICE SYSTEMS</b>				
<p><b>Continuing Best Practice USS-2.1-e:</b> The current agreement under which UC Berkeley makes payments to the City of Berkeley to help fund sewer improvements terminates at the conclusion of academic year 2005-2006 or upon approval of the 2020 LRDP. Any future payments to service providers to help fund wastewater treatment or collection facilities would conform to Section 54999 of the California Government Code, including but not limited to the following provisions:</p> <ul style="list-style-type: none"> <li>▪ Fees would be limited to the cost of capital construction or expansion.</li> <li>▪ Fees would be imposed only after an agreement has been negotiated by the University and the service provider.</li> <li>▪ The service provider must demonstrate the fee is nondiscriminatory: i.e. the fee must not exceed an amount determined on the basis of the same objective criteria and methodology applied to comparable nonpublic users, and is not in excess of the proportionate share of the cost of the facilities of benefit to the entity property being charged, based upon the proportionate share of use of those facilities.</li> <li>▪ The service provider must demonstrate the amount of the fee does not exceed the amount necessary to provide capital facilities for which the fee is charged.</li> </ul>	Have payments to service providers to help fund wastewater treatment or collection facilities conformed to Section 54999 of the California Government Code?	PEP, BAS	O	
	<p><b>Continuing Best Practice USS-3.1:</b> UC Berkeley shall continue to manage runoff into storm drain systems such that the aggregate effect of projects implementing the 2020 LRDP is no net increase in runoff over existing conditions.</p>	Has the project been designed to ensure that it will not contribute to net increase in runoff over existing conditions?	PM, EH&S, PP-CS	P
		Has UC Berkeley continued to manage runoff into storm drain systems such that the aggregate effect of projects implementing the 2020 LRDP is no net increase in runoff over existing conditions?	EH&S, PP-CS	O
	<p><b>LRDP Mitigation Measure USS-3.2:</b> In addition to Best Practice USS-3.1, projects proposed with potential to alter drainage patterns in the Hill Campus would be accompanied by a hydrologic modification analysis, and would incorporate a plan to prevent increases of flow from the project site, preventing downstream flooding and substantial siltation and erosion.</p>	<p>a) For a project with potential to alter drainage in the Hill Campus, has the project performed a hydrologic modification analysis?</p> <p>b) Has the project incorporated a plan to prevent increases of flow from the project site?</p>	OEP, PM	P

**TABLE 10-1 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure or Continuing Best Practice	Question for Checklist	Responsible for Implementation	When Implemented
<b>UTILITIES AND SERVICE SYSTEMS</b>			
<b>Continuing Best Practice USS-5.1:</b> UC Berkeley would continue to implement a solid waste reduction and recycling program designed to reduce the total quantity of campus solid waste that is disposed of in landfills during implementation of the 2020 LRDP.	Has UC Berkeley continued to implement a solid waste reduction and recycling program to reduce the total quantity of campus solid waste that is disposed of in landfills during implementation of the 2020 LRDP?	PP-CS	O
<b>Continuing Best Practice USS-5.2:</b> In accordance with the Regents-adopted green building policy and the policies of the 2020 LRDP, the University would develop a method to quantify solid waste diversion. Contractors working for the University would be required under their contracts to report their solid waste diversion according to the University's waste management reporting requirements.	Has the University developed a method to quantify solid waste diversion?	PP-CS	O
	Does the project contract require the contractors working for the University to report their solid waste diversion according to the University's waste management reporting requirements?	PM	W and C
<b>LRDP Mitigation Measure USS-5.2:</b> Contractors on future UC Berkeley projects implemented under the 2020 LRDP will be required to recycle or salvage at least 50% of construction, demolition, or land clearing waste. Calculations may be done by weight or volume, but must be consistent throughout.	Has at least 50% of construction, demolition or land clearing waste associated with the project been recycled or salvaged?	PM	W and C

**Abbreviation Key:**

**BAS** UCB Business & Administrative Services    **CFM** Campus Fire Marshal    **CLA** Campus Landscape Architect    **CoB** City of Berkeley    **EH&S** UCB Environment Health and Safety  
**RSSP** UCB Residential & Student Services Program    **P&T** UCB Parking & Transportation    **PEP** UCB Physical & Environmental Planning    **PM** UCB Project Management  
**PP-CS** UCB Physical Plant—Campus Services    **UCPD** UCB Police Department    **OEP** UCB Office of Emergency Preparedness



## II RESPONSES TO COMMENTS ON THE DRAFT EIR

Public input was solicited at several points during the creation of the 2020 LRDP and the Draft EIR. UC Berkeley held two informational “open house” events in March 2003, at which University staff presented an overview of preliminary analyses and findings on the plan, and then invited questions and comments from the audience. Shortly after the August 29, 2003 publication of the 2020 LRDP Draft EIR Notice of Preparation, UC Berkeley held a scoping meeting on September 22, 2003 to encourage public input on the scope of the EIR.

For the Draft EIR itself, UC Berkeley not only established the public comment period at 61 days rather than the required 45 days, but then extended it again to 65 days at the request of the City of Berkeley. During the comment period, UC Berkeley held two public hearings on the Draft EIR, on May 5 and May 11, 2004, at which oral as well as written comments were taken.

Sections 11.2A thru 11.2T present each of the 311 comment letters received on the Draft EIR, transcripts of comments submitted in oral testimony at the two public hearings, and the University’s response to each substantive environmental comment. (In some instances, a comment expresses opinion or does not relate to an environmental issue; the response may then be merely “comment noted.”) Section 11.2A includes written comments from federal and state agencies; section 11.2B includes written comments from regional and local agencies; section 11.2C includes written comments from organizations and individuals; and section 11.2T includes transcripts of oral comments by 53 speakers at two public hearings. For ease of reference, comments are listed in the order received in table 11-1, and alphabetically (by first name) in table 11-2.

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Federal & State Agencies		Organizations & Individuals (cont)	
A	1 Department of Fish & Game	C	9 Rishi Chopra
A	2 Cal Trans	C	10 Diane Tokugawa
A	3 CA Office of Planning & Research	C	11 Antonio Rossman
A	4 CA Office of Planning & Research	C	12 Nathan Landau
<hr/>		C	13 Joe Kempkes
<b>Regional &amp; Local Agencies</b>		C	14 Clifford Fred
B	1 Regional Water Quality Control Board	C	15 Anonymous
B	2 ACCMA	C	16 Viktoriya Mass
B	3 EBMUD	C	17 Lesley Evensen
B	4 AC Transit	C	18 Lindsey Jennings
B	5 ACCMA	C	19 Merry Selk
B	6 City of Berkeley -- commissions	C	20 Anonymous
B	7 City of Berkeley -- main response	C	21 Jidan Koon
B	7a City of Berkeley -- transportation	C	22 Mike Vandemann
<hr/>		C	23 Joe Kempkes
<b>Organizations &amp; Individuals</b>		C	24 Catharine Ralph
C	1 Tedi Crawford	C	25 Lower Summit Road Nbhd Assn
C	2 Karen Meldrum	C	26 Lie & Milo Wolff
C	3 Harry Bruno	C	27 Claire Risley
C	4 Anonymous	C	28 David Nasatir
C	5 Helen Marcus	C	29 Jennifer Rouda
C	6 John Hein	C	30 Bari Cornet
C	7 Ann Reid Slaby	C	31 Carol Rhodes
C	8 Dan Coleman	C	32 William Runyan

TABLE 11-1 INDEX TO DRAFT EIR COMMENTS

Organizations & Individuals (cont)

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C 33	Mike Austin	C 79	Paul Radosevich
C 34	Bart Grossman	C 80	Andrea Altschuler
C 35	Tom & Marge Madigan	C 81	Don Brennen
C 36	Tom & Jane Kelly	C 82	Sam Fuller
C 37	Ray Mathis	C 83	Alexandra Yurkovsky
C 38	Anonymous	C 84	Gilbert Bendix
C 39	Dan Cheatham	C 85	Sam Finn
C 40	Andrea Pflaumer	C 86	Robert Smith
C 41	David Berry	C 87	Alex Weissman
C 42	Lew & Jean Mudge	C 88	Caedmon Bear
C 43	E Manougran	C 89	Jack Halperin
C 44	Wendy Markel	C 90	William Kuo
C 45	Mitch Cohen	C 91	Alvin
C 46	Sennet Williams	C 92	Gabriel Boghosian
C 47	Sharon Hudson	C 93	Miles Kodama
C 48	Benvenue Neighbors Assn	C 94	Carol Ingram
C 49	Willard Neighborhood Assn	C 95	Nino DeCaro
C 50	Dean Metzger	C 96	Judy & Wallace Bastein
C 51	David & Nancy Coolidge	C 97	Paul Skilbeck
C 52	Romeo Leon	C 98	Rick Spittler
C 53	Victoria Curtis	C 99	Arthur & Martha Luehrmann
C 54	Jerry Elledge	C 100	Walk & Roll Berkeley
C 55	Charlene Woodcock	C 101	Richard Schwartz
C 56	Corinne Lund	C 102	Paul Terrell
C 57	J. Eric Bartko	C 103	Sheila Andres
C 58	Nancy Spaeth	C 104	Harvey Helfand
C 59	Sandra Fonville	C 105	Nelson & Katherine Graburn
C 60	Friends of Strawberry Creek	C 106	League of Women Voters
C 61	Charles Siegel	C 107	Arthur Day
C 62	Bob Muzzy	C 108	Sue Day
C 63	Cathy Haagen-Smit	C 109	ASUC
C 64	Mike Przybylski	C 110	Bill Berry
C 65	H Danielsen	C 111	Frank Kami
C 66	Danny Forer	C 112	Marcia Cavell
C 67	Andrew Shaper	C 113	Gene Bernardi
C 68	Marcy Greenhut	C 114	Marie Wilson
C 69	Jack Storace	C 115	Gerald Weintraub
C 70	Ted Stroll	C 116	Werner & Gisela Lewald
C 71	Richard Jones	C 117	Rita Friedman
C 72	David Simpson	C 118	Craig Baum
C 73	Michael McCormack	C 119	Surinder Brar
C 74	Ilan Eyman	C 120	Shirley & Ernest Weiner
C 75	Anonymous	C 121	Katherine Hansel
C 76	Alex Burnham	C 122	Clifford Orloff
C 77	Christian Kearney	C 123	UCB CSAC
C 78	Robert Mammon	C 124	UCB Bicycle Committee

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TABLE II-1 INDEX TO DRAFT EIR COMMENTS

Organizations & Individuals (cont)

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<p>C 125 Howard Schwat</p> <p>C 126 Allan, Evelyn, &amp; Andrew Humphrey</p> <p>C 127 Chris Markell</p> <p>C 128 Linda &amp; William Schieber</p> <p>C 129 Mr &amp; Mrs Doyl Haley</p> <p>C 130 Alex &amp; Hollis Hantke</p> <p>C 131 Catherine Feucht</p> <p>C 132 Chun Li</p> <p>C 133 Nancy Markell</p> <p>C 134 Linda Schwat</p> <p>C 135 Bonnie Lombardi</p> <p>C 136 Bob Bishop</p> <p>C 137 Milly &amp; Bruce Lee</p> <p>C 138 Ruth Halbach</p> <p>C 139 Suzanne Holsinger</p> <p>C 140 Phillip Price</p> <p>C 141 J Monroe</p> <p>C 142 Juliet Lamont</p> <p>C 143 William Berry</p> <p>C 144 Thomas Kelly</p> <p>C 145 T Pempel &amp; K Kong</p> <p>C 146 Robert Birge</p> <p>C 147 Mr &amp; Mrs Steve Beck</p> <p>C 148 Hans &amp; Flora Baruch</p> <p>C 149 Baird Whaley</p> <p>C 150 Donald Campbell</p> <p>C 151 Marjorie Jencks</p> <p>C 152 Suzanne Berry</p> <p>C 153 Neil Studley</p> <p>C 154 Elizabeth Thomas</p> <p>C 155 Gloria Goldberg</p> <p>C 156 Lucy Campbell</p> <p>C 157 Mary Ann Whaley</p> <p>C 158 Brad Bunnin</p> <p>C 159 Nenelle Bunnin</p> <p>C 160 Diana Berger</p> <p>C 161 Hana &amp; Daniel Matt</p> <p>C 162 Stasha Vlasuk</p> <p>C 163 Mary Anne Bland</p> <p>C 164 Joan Quay</p> <p>C 165 Bradford Berry</p> <p>C 166 Marjorie Jencks</p> <p>C 167 Geoffrey Reinhard</p> <p>C 168 Sibyl Donn</p> <p>C 169 Robert &amp; Dorothy Adamson</p> <p>C 170 Stephen Diaz</p>	<p>C 171 Irene &amp; Richard Brydon</p> <p>C 172 Donald Anthrop</p> <p>C 173 Henrietta Lanier-Green</p> <p>C 174 Miller</p> <p>C 175 Ian Arion</p> <p>C 176 Kaela Kory</p> <p>C 177 Claudia Welss</p> <p>C 178 Tom Halbach</p> <p>C 179 Karl &amp; Marion Dewies</p> <p>C 180 Urban Creeks Council of California</p> <p>C 181 Michael Mejia</p> <p>C 182 Peter Selz</p> <p>C 183 Carole Selz</p> <p>C 184 Senta Pugh Chamberlain</p> <p>C 185 Panoramic Hill Assn</p> <p>C 186 John Beutler</p> <p>C 187 Susan Cerny</p> <p>C 188 BHS Mountain Bike Team</p> <p>C 189 Urban Creeks Council of California</p> <p>C 190 Jeanne Allen</p> <p>C 191 Bicycle-Friendly Berkeley Coalition</p> <p>C 192 Daniella Thompson</p> <p>C 193 East Bay Bicycle Coalition</p> <p>C 194 Alyce Tom</p> <p>C 195 Lillian Fong</p> <p>C 196 Phela Rogers</p> <p>C 197 Arlene Blum</p> <p>C 198 Daniel Otero</p> <p>C 199 Omar Ali</p> <p>C 200 I Ali</p> <p>C 201 Miller</p> <p>C 202 Barbara Stern</p> <p>C 203 George Strauss</p> <p>C 204 Manal Ali</p> <p>C 205 Hashim Al-Yassin</p> <p>C 206 Dana &amp; James Jones</p> <p>C 207 Adam Bastesh</p> <p>C 208 Vanroy Burdick</p> <p>C 209 Jody Hinshaw</p> <p>C 210 Glenn Granada</p> <p>C 211 Lois Whitney</p> <p>C 212 Emily Burton</p> <p>C 213 Ernie Karsten</p> <p>C 214 D Dowell</p> <p>C 215 Charlotte Rieger</p> <p>C 216 name not legible</p>
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TABLE 11-1 INDEX TO DRAFT EIR COMMENTS

Organizations & Individuals (cont)

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C 217 Friends of Piedmont Way	C 263 Ilse Mathis
C 218 Berkeleyans For a Livable University Environment	C 264 D Freeman
C 219 Susan & Russell Henke	C 265 Margit Roos-Collins
C 220 Minor Schmid	C 266 Julianne Stokstad
C 221 Judith Klinman	C 267 Robert Stokstad
C 222 Donald Rio	C 268 John English
C 223 Amelie Fonteray	C 269 Merrilie Mitchell
C 224 Norma Fox	C 270 Michael Kelly
C 225 Nadine & Todd Brydon	C 271 James Cunningham
C 226 name not legible	C 272 Daniella Thompson & Jim Sharp
C 227 Priscilla Birge	C 273 Gene Bernardi
C 228 Donald Brown	C 274 Friends & Neighbors of Memorial Stadium
C 229 name not legible	C 275 Berkeley Architectural Heritage Assn
C 230 John Tortonce	C 276 James Cunningham, Pamela Shivola & LA Wood
C 231 Leona Wilson	C 277 Preserve Strawberry Creek Watershed Alliance
C 232 Arlene Leonoff	C 278 Susan Hermanson
C 233 Helen Sanchez	C 279 Milton & Joan Latta
C 234 Jody Parsons	C 280 Merrilie Mitchell
C 235 Warren & Lorna Byrne	C 281 Preserve Strawberry Creek Watershed Alliance
C 236 Stephen Beck	C 282 Ella Ellis
C 237 Dorothy Wendt	C 283 Katherine & Dennis Tonkyro
C 238 Donald & Lynn Glaser	C 284 Henrik Wallman
C 239 Maureen Hagan	C 285 Irene Winston
C 240 Gordon Wozniak	C 286 H Wasser
C 241 Robert Lewis	C 287 Denise Lapidus
C 242 Irmi Meindl	C 288 Miriam Seelig
C 243 Bernadette Talbot	C 289 William Chiang
C 244 name not legible	C 290 Carol Chiang
C 245 name not legible	C 291 J O'Connell
C 246 Bruce Hayes	C 292 name not legible
C 247 Joyce Morton	C 293 Mary Sharman
C 248 Joanna Dwyer	C 294 Norah Foster
C 249 Mary & David Love	C 295 Sennet Williams
C 250 Jane Bendix	C 296 Berkeley Property Owners Assn
C 251 Janice Thomas	C 297 ASUC
C 252 Ronald Moskovitz	C 298 Barbara & Robert Allen
C 253 Laurence Frank	C 299 Daniel Dole
C 254 Norah Foster	C 300 name not legible
C 255 Jon Vicars	
C 256 Telegraph Area Assn	
C 257 Melanie Bellah	
C 258 Ernest Sotelo	
C 259 Ernest Sotelo	
C 260 Downtown Berkeley Assn	
C 261 Joyce Kraus	
C 262 Summit Road/Grizzly Peak Boulevard Watch	

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**Public Hearing Transcripts**

T	1 May 5, 2004 Public Hearing
T	2 May 11, 2004 Public Hearing

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**Organizations & Individuals**

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<p>C 207 Adam Bastesh</p> <p>C 130 Alex &amp; Hollis Hantke</p> <p>C 76 Alex Burnham</p> <p>C 87 Alex Weissman</p> <p>C 83 Alexandra Yurkovsky</p> <p>C 126 Allan, Evelyn, &amp; Andrew Humphrey</p> <p>C 91 Alvin</p> <p>C 194 Alyce Tom</p> <p>C 223 Amelie Fonteray</p> <p>C 80 Andrea Altschuler</p> <p>C 40 Andrea Pflaumer</p> <p>C 67 Andrew Shaper</p> <p>C 7 Ann Reid Slaby</p> <p>C 4 Anonymous</p> <p>C 15 Anonymous</p> <p>C 20 Anonymous</p> <p>C 38 Anonymous</p> <p>C 75 Anonymous</p> <p>C 11 Antonio Rossman</p> <p>C 197 Arlene Blum</p> <p>C 232 Arlene Leonoff</p> <p>C 99 Arthur &amp; Martha Luehrmann</p> <p>C 107 Arthur Day</p> <p>C 109 ASUC</p> <p>C 297 ASUC</p> <p>C 149 Baird Whaley</p> <p>C 298 Barbara &amp; Robert Allen</p> <p>C 202 Barbara Stern</p> <p>C 30 Bari Cornet</p> <p>C 34 Bart Grossman</p> <p>C 48 Benvenue Neighbors Assn</p> <p>C 275 Berkeley Architectural Heritage Assn</p> <p>C 296 Berkeley Property Owners Assn</p> <p>C 218 Berkeleyans For a Livable University Environment</p> <p>C 243 Bernadette Talbot</p> <p>C 188 BHS Mountain Bike Team</p>	<p>C 191 Bicycle-Friendly Berkeley Coalition</p> <p>C 110 Bill Berry</p> <p>C 136 Bob Bishop</p> <p>C 62 Bob Muzzy</p> <p>C 135 Bonnie Lombardi</p> <p>C 158 Brad Bunnin</p> <p>C 165 Bradford Berry</p> <p>C 246 Bruce Hayes</p> <p>C 88 Caedmon Bear</p> <p>C 290 Carol Chiang</p> <p>C 94 Carol Ingram</p> <p>C 31 Carol Rhodes</p> <p>C 183 Carole Selz</p> <p>C 24 Catharine Ralph</p> <p>C 131 Catherine Feucht</p> <p>C 63 Cathy Haagen-Smit</p> <p>C 55 Charlene Woodcock</p> <p>C 61 Charles Siegel</p> <p>C 215 Charlotte Rieger</p> <p>C 127 Chris Markell</p> <p>C 77 Christian Kearney</p> <p>C 132 Chun Li</p> <p>C 27 Claire Risley</p> <p>C 177 Claudia Welss</p> <p>C 14 Clifford Fred</p> <p>C 122 Clifford Orloff</p> <p>C 56 Corinne Lund</p> <p>C 118 Craig Baum</p> <p>C 214 D Dowell</p> <p>C 264 D Freeman</p> <p>C 39 Dan Cheatham</p> <p>C 8 Dan Coleman</p> <p>C 206 Dana &amp; James Jones</p> <p>C 299 Daniel Dole</p> <p>C 198 Daniel Otero</p> <p>C 192 Daniella Thompson</p> <p>C 272 Daniella Thompson &amp; Jim Sharp</p> <p>C 66 Danny Forer</p>
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Organizations & Individuals (cont)

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C 51 David & Nancy Coolidge	C 65 H Danielsen
C 41 David Berry	C 286 H Wasser
C 28 David Nasatir	C 161 Hana & Daniel Matt
C 72 David Simpson	C 148 Hans & Flora Baruch
C 50 Dean Metzger	C 3 Harry Bruno
C 287 Denise Lapidus	C 104 Harvey Helfand
C 160 Diana Berger	C 205 Hashim Al-Yassin
C 10 Diane Tokugawa	C 5 Helen Marcus
C 81 Don Brennen	C 233 Helen Sanchez
C 238 Donald & Lynn Glaser	C 173 Henrietta Lanier-Green
C 172 Donald Anthrop	C 284 Henrik Wallman
C 228 Donald Brown	C 125 Howard Schwat
C 150 Donald Campbell	C 200 I Ali
C 222 Donald Rio	C 175 Ian Arion
C 237 Dorothy Wendt	C 74 Ilan Eymán
C 260 Downtown Berkeley Assn	C 263 Ilse Mathis
C 43 E Manougran	C 171 Irene & Richard Brydon
C 193 East Bay Bicycle Coalition	C 285 Irene Winston
C 154 Elizabeth Thomas	C 242 Irmi Meindl
C 282 Ella Ellis	C 141 J Monroe
C 212 Emily Burton	C 291 J O'Connell
C 258 Ernest Sotelo	C 57 J. Eric Bartko
C 259 Ernest Sotelo	C 89 Jack Halperin
C 213 Ernie Karsten	C 69 Jack Storace
C 111 Frank Kami	C 271 James Cunningham
C 274 Friends & Neighbors of Memorial Stadium	C 276 James Cunningham, Pamela Shivola & LA Wood
C 217 Friends of Piedmont Way	C 250 Jane Bendix
C 60 Friends of Strawberry Creek	C 251 Janice Thomas
C 92 Gabriel Boghosian	C 190 Jeanne Allen
C 113 Gene Bernardi	C 29 Jennifer Rouda
C 273 Gene Bernardi	C 54 Jerry Elledge
C 167 Geoffrey Reinhard	C 21 Jidan Koon
C 203 George Strauss	C 164 Joan Quay
C 115 Gerald Weintraub	C 248 Joanna Dwyer
C 84 Gilbert Bendix	C 209 Jody Hinshaw
C 210 Glenn Granada	C 234 Jody Parsons
C 155 Gloria Goldberg	C 13 Joe Kempkes
C 240 Gordon Wozniak	C 23 Joe Kempkes

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TABLE II-2 **ALPHABETIZED INDEX OF ORGANIZATIONS & INDIVIDUALS (CONT)**

**Organizations & Individuals (cont)**

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<p>C 186 John Beutler</p> <p>C 268 John English</p> <p>C 6 John Hein</p> <p>C 230 John Tortonce</p> <p>C 255 Jon Vicars</p> <p>C 261 Joyce Kraus</p> <p>C 247 Joyce Morton</p> <p>C 221 Judith Klinman</p> <p>C 96 Judy &amp; Wallace Bastein</p> <p>C 266 Julianne Stokstad</p> <p>C 142 Juliet Lamont</p> <p>C 176 Kaela Kory</p> <p>C 2 Karen Meldrum</p> <p>C 179 Karl &amp; Marion Dewies</p> <p>C 283 Katherine &amp; Dennis Tonkyro</p> <p>C 121 Katherine Hansel</p> <p>C 253 Laurence Frank</p> <p>C 106 League of Women Voters</p> <p>C 231 Leona Wilson</p> <p>C 17 Lesley Evensen</p> <p>C 42 Lew &amp; Jean Mudge</p> <p>C 26 Lie &amp; Milo Wolff</p> <p>C 195 Lillian Fong</p> <p>C 128 Linda &amp; William Schieber</p> <p>C 134 Linda Schwat</p> <p>C 18 Lindsey Jennings</p> <p>C 211 Lois Whitney</p> <p>C 25 Lower Summit Road Nbhd Assn</p> <p>C 156 Lucy Campbell</p> <p>C 204 Manal Ali</p> <p>C 112 Marcia Cavell</p> <p>C 68 Marcy Greenhut</p> <p>C 265 Margit Roos-Collins</p> <p>C 114 Marie Wilson</p> <p>C 151 Marjorie Jencks</p> <p>C 166 Marjorie Jencks</p> <p>C 249 Mary &amp; David Love</p> <p>C 157 Mary Ann Whaley</p>	<p>C 163 Mary Anne Bland</p> <p>C 293 Mary Sharman</p> <p>C 239 Maureen Hagan</p> <p>C 257 Melanie Bellah</p> <p>C 269 Merrilie Mitchell</p> <p>C 280 Merrilie Mitchell</p> <p>C 19 Merry Selk</p> <p>C 270 Michael Kelly</p> <p>C 73 Michael McCormack</p> <p>C 181 Michael Mejia</p> <p>C 33 Mike Austin</p> <p>C 64 Mike Przybylski</p> <p>C 22 Mike Vandemann</p> <p>C 93 Miles Kodama</p> <p>C 174 Miller</p> <p>C 201 Miller</p> <p>C 137 Milly &amp; Bruce Lee</p> <p>C 279 Milton &amp; Joan Latta</p> <p>C 220 Minor Schmid</p> <p>C 288 Miriam Seelig</p> <p>C 45 Mitch Cohen</p> <p>C 129 Mr &amp; Mrs Doyl Haley</p> <p>C 147 Mr &amp; Mrs Steve Beck</p> <p>C 225 Nadine &amp; Todd Brydon</p> <p>C 216 name not legible</p> <p>C 226 name not legible</p> <p>C 229 name not legible</p> <p>C 244 name not legible</p> <p>C 245 name not legible</p> <p>C 292 name not legible</p> <p>C 300 name not legible</p> <p>C 133 Nancy Markell</p> <p>C 58 Nancy Spaeth</p> <p>C 12 Nathan Landau</p> <p>C 153 Neil Studley</p> <p>C 105 Nelson &amp; Katherine Graburn</p> <p>C 159 Nenelle Bunnin</p> <p>C 95 Nino DeCaro</p>
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TABLE 11-2 ALPHABETIZED INDEX OF ORGANIZATIONS & INDIVIDUALS (CONT)

Organizations & Individuals (cont)

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C 254 Norah Foster	C 103 Sheila Andres
C 294 Norah Foster	C 120 Shirley & Ernest Weiner
C 224 Norma Fox	C 168 Sibyl Donn
C 199 Omar Ali	C 162 Stasha Vlasuk
C 185 Panoramic Hill Assn	C 236 Stephen Beck
C 79 Paul Radosevich	C 170 Stephen Diaz
C 97 Paul Skilbeck	C 108 Sue Day
C 102 Paul Terrell	C 262 Summit Road/Grizzly Peak Boulevard Watch
C 182 Peter Selz	C 119 Surinder Brar
C 196 Phela Rogers	C 219 Susan & Russell Henke
C 140 Phillip Price	C 187 Susan Cerny
C 277 Preserve Strawberry Creek Watershed Alliance	C 278 Susan Hermanson
C 281 Preserve Strawberry Creek Watershed Alliance	C 152 Suzanne Berry
C 227 Priscilla Birge	C 139 Suzanne Holsinger
C 37 Ray Mathis	C 145 T Pempel & K Kong
C 71 Richard Jones	C 70 Ted Stroll
C 101 Richard Schwartz	C 1 Tedi Crawford
C 98 Rick Spittler	C 256 Telegraph Area Assn
C 9 Rishi Chopra	C 144 Thomas Kelly
C 117 Rita Friedman	C 36 Tom & Jane Kelly
C 169 Robert & Dorothy Adamson	C 35 Tom & Marge Madigan
C 146 Robert Birge	C 178 Tom Halbach
C 241 Robert Lewis	C 124 UCB Bicycle Committee
C 78 Robert Mammon	C 123 UCB CSAC
C 86 Robert Smith	C 180 Urban Creeks Council of California
C 267 Robert Stokstad	C 189 Urban Creeks Council of California
C 52 Romeo Leon	C 208 Vanroy Burdick
C 252 Ronald Moskovitz	C 53 Victoria Curtis
C 138 Ruth Halbach	C 16 Viktoriya Mass
C 85 Sam Finn	C 100 Walk & Roll Berkeley
C 82 Sam Fuller	C 235 Warren & Lorna Byrne
C 59 Sandra Fonville	C 44 Wendy Markel
C 46 Sennet Williams	C 116 Werner & Gisela Lewald
C 295 Sennet Williams	C 49 Willard Neighborhood Assn
C 184 Senta Pugh Chamberlain	C 143 William Berry
C 47 Sharon Hudson	C 289 William Chiang
	C 90 William Kuo
	C 32 William Runyan

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## 11.1 THEMATIC RESPONSES

### 11.1.1 THEMATIC RESPONSE 1: ROLE OF 2020 LRDP IN PROJECT REVIEW

Some readers of the 2020 LRDP Draft EIR ask how the program-level analysis would be used to guide future projects. Some readers also suggest the program analyzed is not sufficiently specific.

Chapters 1.1, “Proposed Action” and 1.2, “EIR Scope and Purpose” describe how the 2020 LRDP and its EIR would be used to guide future capital investment at UC Berkeley.<sup>1</sup> In accordance with Public Resources Code section 21080.9, the LRDP is “a physical development and land use plan to meet the academic and institutional objectives for a particular campus.” The 2020 LRDP provides policy guidance similar to a City general plan. It also prescribes explicit limits on the amount of new growth, both for UC Berkeley as a whole and for each of several land use zones on and around the campus. The full amount of growth is substantively analyzed in the 2020 LRDP EIR, and UC Berkeley may not grow beyond these limits without amending the 2020 LRDP and performing additional CEQA review.

While no state law requires UC Berkeley projects to conform to the 2020 LRDP, UC Regental policy requires all projects to be generally in accordance with the applicable LRDP. Public Resources Code section 21080.9 requires the University to evaluate environmental impacts from implementation of the LRDP. Because the 2020 LRDP EIR, as a program-level analysis, is necessarily general, some future individual projects may require more detailed environmental analyses. This is explained at page 1-2 of the Draft EIR:

CEQA and the CEQA Guidelines state that subsequent projects should be examined in light of the program-level EIR to determine whether subsequent project specific environmental documents must be prepared. If no new significant effects would occur, all significant effects have been adequately addressed, and no new mitigation measures would be required, subsequent projects within the scope of the 2020 LRDP could rely on the environmental analysis presented in the program-level EIR, and no subsequent environmental documents would be required; otherwise, project-specific documents must be prepared.

Preparation of a long range plan has many benefits: the full scope of future campus growth is considered as completely as possible, as early as possible; the UC Regents and the public are able to understand how each future project fits within a larger coherent program of capital investment; and a framework of policies and guidelines is established to shape future projects.

Analyzing the long range plan in a programmatic EIR enables the University to consider broad policy alternatives and program-wide mitigation measures at an early time; ensures consideration of cumulative impacts that might not be evident in a case-by-case analysis; and reduces the risk of piecemeal, reactive development. Projects subsequently proposed must be examined for consistency with the program as described in the 2020 LRDP and with the environmental impact analysis contained in the LRDP EIR; if new environmental impacts would occur, or if new mitigation measures would be required, an additional environmental document would be prepared.<sup>2</sup>

### 11.1.2 THEMATIC RESPONSE 2: MITIGATIONS AND BEST PRACTICES

Some comments on the 2020 LRDP Draft EIR indicate that readers are unaware of UC Berkeley's extensive mitigation monitoring program. Elsewhere, some readers express concern about implementation of the Continuing Best Practices.

#### UC BERKELEY MITIGATION MONITORING PROGRAM

CEQA requires that a public agency monitor *or* report on its compliance with mitigations adopted to reduce or avoid significant effects of projects (California Public Resources Code section 21081.6). UC Berkeley exceeds the CEQA requirement: the campus *both* monitors *and* reports on *all* mitigation measures, whether or not they arise from significant impacts. The process for ensuring every UC Berkeley project is advised of its mitigation responsibilities, and monitored to ensure compliance, is rigorous and includes staff trainings, project team briefings, and field monitoring of campus construction activity.

Currently, for major capital projects, the UC Berkeley Office of Physical and Environmental Planning (PEP) creates a matrix compiling relevant mitigations. Mitigations from both the 1990 LRDP EIR and subsequent tiered EIRs or mitigated negative declarations are included as appropriate to the project. PEP also sends out quarterly checklists to the relevant project manager or project planner for completion and signature, then reviews and files the completed checklists. Checklists are sent out during planning, construction, and post-occupancy.

Post-occupancy mitigations are those that continue beyond the construction phase of a project. This category includes requirements such as cooperation with neighboring jurisdictions, public safety departments, utilities, and transportation agencies. Under current mitigation plans, PEP sends annual checklists to the UC Berkeley Police; Parking & Transportation; Intercollegiate Athletics; Environment Health & Safety; Physical Plant; and Capital Projects. The annual checklists are signed by a senior unit representative and returned to PEP.

For UC Berkeley's smaller projects (under \$100,000) the Assistant Director – Project Management with oversight of such projects signs off on a quarterly letter indicating that he or she has reviewed all such projects for the given quarter for CEQA compliance. Each December, the Assistant Vice Chancellor for Physical and Environmental Planning reports in writing to the Vice Chancellor that UC Berkeley has thoroughly and successfully conducted, and continues to conduct, its Mitigation Monitoring Program.

#### CONTINUING BEST PRACTICES AND THE MITIGATION MONITORING PROGRAM

As stated at page 4.0-3 of the 2020 LRDP DEIR, "Ongoing implementation of Continuing Best Practices would be monitored in conjunction with monitoring of 2020 LRDP Mitigation Measures over the lifetime of the 2020 LRDP." In the 2020 LRDP Draft EIR, Continuing Best Practices are numbered for ease of reference in monitoring. The 2020 LRDP Mitigation Monitoring and Reporting Program appears in this Final EIR as Chapter 10.



### 11.1.3 THEMATIC RESPONSE 3: 2020 LRDP ALTERNATIVES ANALYSIS

The adequacy of the 2020 LRDP EIR alternatives analysis was addressed by several writers. Most of the comments on this topic fall into three general categories:

- The range of alternatives is too narrow, because it does not address the full range of the project’s significant and unavoidable impacts.
- The alternatives are not true alternatives, either because they are infeasible or because their impacts are similar to those of the project.
- The evaluation of the alternatives is not detailed enough to enable a meaningful comparison with the project.

#### RANGE OF ALTERNATIVES

The CEQA Guidelines provide guidance on the range of alternatives an EIR must consider. The range of potential alternatives should include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency’s determination.<sup>3</sup>

The Draft EIR evaluates three alternatives, L-1 through L-3, which satisfy most but not all the project objectives and also reduce some of the significant environmental impacts of the project, including one or more significant and unavoidable impacts. In alternative L-4, the EIR also evaluates the “no project” alternative as required by CEQA. The EIR also briefly describes four other alternatives, L-5 through L-8, which were withdrawn from consideration either because they are infeasible or because they offer no significant environmental benefits over the 2020 LRDP or alternatives L-1 through L-4.

In practice, the selection of the range of alternatives is a matter of balance, since many of the very actions undertaken to achieve the project objectives also cause its environmental impacts. Alternatives L-1 and L-3 take two very conventional approaches to this problem: in the first case by a considerable reduction in the scale of the 2020 LRDP program, and in the second case by locating a considerable portion of the 2020 LRDP program at an alternate site. As described in “Relationship to Project Objectives” at pages 5.1-6 and 5.1-16, both alternatives meet most but not all the objectives of the 2020 LRDP, although L-1 and L-3 differ in which objectives are not met.

As shown in the summary comparison at the end of Chapter 5.1, both L-1 and L-3 represent substantial reductions in environmental impacts compared to the 2020 LRDP. Of the 21 significant impacts identified in the EIR, 17 impacts would be reduced under L-1 and 16 would be reduced under L-3, although L-3 may also entail as yet unknown impacts at the alternate site. The EIR concludes L-1 is the environmentally superior alternative, but would not fully accommodate the projected future needs of instruction and research programs.

In sum, the four alternatives evaluated in detail, as well as the four others rejected as infeasible, present a range of options that fully meets the requirements of CEQA: namely, “... to set forth only those alternatives necessary to permit a reasoned choice ... the range of feasible alternatives shall be selected and discussed in a manner to foster

meaningful public participation and informed decision making.” From the evaluation presented in Chapter 5.1 of the EIR, it is clear there are several alternatives to the 2020 LRDP which satisfy most, though not all, the project objectives *and* offer substantial potential environmental advantages. It is also explained in this evaluation why these alternatives do not fully meet the project objectives, and therefore why they were not selected.

In its comments, the City of Berkeley contends the 2020 LRDP would have other significant and unavoidable impacts beyond those identified in the EIR, and the range of alternatives is therefore inadequate because it does not address these other impacts. After a thorough review of the City comments, however, there appears to be no substantial evidence in the record that any significant impact was not analyzed in the Draft EIR. Further, alternatives have been selected to reduce or avoid significant impacts; alternatives need not reduce or avoid only “significant unavoidable” impacts.

#### **TRANSIT INCENTIVES ALTERNATIVE**

With respect to alternative L-2, several commentors objected to the lack of detail on incentive programs for transit and other alternate modes, which L-2 explicitly includes but does not describe. The list of such potential initiatives is already widely promulgated, and well documented in the joint *City/University TDM Study*<sup>4</sup> referenced in the Draft EIR. On the other hand, the potential success of such programs to further reduce drive-alone rates is speculative, particularly given the fact UC Berkeley already has many such programs in place (see Thematic Response 10).

The EIR makes it very clear L-2 does offer the potential to reduce some environmental impacts: “With additional transit incentives, and no new University parking, a greater percentage of the campus population would likely use transit to travel to and from campus. A shift to more transit use would reduce the expected future congestion at the impacted intersections.” It also, however, notes the potential for new adverse impacts under L-2, including the potential to create inadequate parking capacity, which is one of the standards of significance listed in Appendix G of the CEQA Guidelines.

As advocated by several commentors, UC Berkeley has recently established one new incentive program: the Bear Pass. The Bear Pass is a two-year pilot program for unlimited rides on AC Transit, including transbay service, to UC Berkeley staff and faculty. The program also includes unlimited use of campus shuttles for pass holders. The cost of a Bear Pass to the employee under the pilot program is \$240 per year or \$20 per month, which may be paid in pretax dollars.

The Bear Pass was approved by AC Transit in July 2004 and began operating in October 2004. Because this is a new program, and because several commentors urged UC Berkeley to adopt such a program to reduce drive-alone trips, the description of L-2 in the Final EIR has been revised to include it.

One incentive program L-2 does not include, however, is satellite parking, also suggested by several commentors. The University’s experience with satellite parking in the 1980s was unsuccessful and unpopular as commuters found their travel time significantly increased. From an environmental standpoint, satellite parking may not reduce the number of drive-alone trips, but may instead displace traffic impacts to locations more remote from the campus, which are presumably also less congested. To the extent the University has resources available to commit to alternate-mode initiatives, it intends

to commit them to programs such as the Bear Pass which have the potential to replace, rather than merely alter the characteristics of drive-alone trips.

#### **TRUE ALTERNATIVES**

The City of Berkeley contends "...The alternatives [the Draft EIR] describes are not true alternatives to the proposed project but straw men. They appear to be designed to be infeasible or to have a level of impacts that is virtually indistinguishable from the project." While alternatives L-1 through L-4 all fail to *completely* meet one or more of the project objectives, this does not mean they are "designed to be infeasible", but rather were found to be infeasible as the result of analysis. In fact, as the Draft EIR makes clear, should actual space demand at UC Berkeley grow more slowly than anticipated, the future *would* unfold as described in L-1.

The contention that the levels of impacts in the alternatives are indistinguishable from the project is also unsupported. L-1, for example, would reduce the amount of new program space and parking by roughly a third, while L-3 would relocate roughly a quarter of future space demand to a remote site. As noted above, L-1 and L-3 would each achieve at least some reduction in a majority of the significant impacts of the 2020 LRDP.

While the scenario presented in L-2, full growth in headcount and program space but zero growth in parking, is a comparatively radical approach, it is neither "designed to be infeasible" nor unprecedented. For example, the 2001 master plan for the University of Washington, another large research university in an urban setting, includes an increase of up to 17% in campus headcount by 2012 with no increase in the parking inventory.<sup>5</sup>

#### **LEVEL OF DETAIL**

In its letter the City of Berkeley also contends the analysis of alternatives is not detailed enough to support a meaningful evaluation. But CEQA provides that the analysis of alternatives need not be presented to the same level of detail as the assessment of the project, and more cursory analyses are common.<sup>6</sup>

Both the CEQA Guidelines and CEQA case law provide clear direction on the level of analysis required. The CEQA Guidelines state the analysis of alternatives must be specific enough to permit informed decision making and public participation. Chapter 5 of the EIR meets this criterion: it describes the environmental pros and cons of each alternative L-1 through L-3 by impact category, presents a summary comparison of those alternatives to the project, and explains the reasons why each of these alternatives, despite its environmental advantages, is not the preferred alternative.

In particular, the City of Berkeley contends "... In the evaluation of alternative L-2, the EIR fails to provide any traffic analysis of this alternative. Because no traffic analysis is offered in this section, there can be no discussion of how access to campus is affected under this alternative. Therefore the EIR's dismissal of the alternative is fundamentally unsupported." Further, the City states "A reduction in vehicle emissions is an obvious result of reducing parking and providing further incentives to increase transit use."

Detailed traffic and air quality analyses are not required to evaluate the implications of L-2. With the projected increase in campus headcount, coupled with no net increase in parking and increased transit incentives, the most likely scenario is that some percentage

of new students and workers would drive, but this increase would be offset by some reduction in current drivers. However, such transit incentives would be unlikely to compensate for more than a fraction of the incremental new parking demand. As described at page 5.1-9 of the Draft EIR, transit-related diesel particulate emissions may occur with an increase in transit use; further, total operational emissions would not be reduced to below a level of significance with implementation of alternative L-2.

As noted above, alternative L-2 has been revised in the Final EIR to include the recently adopted Bear Pass program. As a pilot program, the Bear Pass is expected to provide empirical data on the actual potential for mode shift due to cost incentives for transit. If the program can be shown to reduce parking demand at a feasible cost, the 2020 LRDP parking objectives would be adjusted as part of the ongoing review established by Mitigation TRA-11 at page 4.12-56.

As explained further in Thematic Response 9 under “Transit Incentives and Parking Demand”, while the Bear Pass is expected to reduce parking demand to some extent, it is unlikely this reduction would be large enough to counterbalance the projected future *increase* in parking demand due to the projected future growth in campus headcount.

The conclusion at page 5.1-9, therefore, that “... [L-2] would create a new significant parking impact ... The existing shortage of parking compared to demand would be exacerbated by future growth in campus headcount proposed under the 2020 LRDP” is reasonable, albeit overly conclusory since the future impact of the Bear Pass is not yet known. This statement has been revised in the Final EIR to read:

The existing shortage of parking compared to demand ~~would~~ could be exacerbated by future growth in campus headcount proposed under the 2020 LRDP, since the shift to alternative travel modes achieved through future incentives are unlikely to entirely offset the future growth in parking demand.

Similarly, the conclusion “... With additional transit incentives, and no new University parking, a greater percentage of the campus population would likely use transit to and from campus ...” is also reasonable, although it is not known to what extent transit use would increase.

#### **11.1.4 THEMATIC RESPONSE 4: FISCAL IMPACTS**

The current and future potential fiscal impacts of UC Berkeley on city services are mentioned in several comment letters. The City of Berkeley comments include two attachments: a study of current and future net fiscal impacts of UC Berkeley on city services, and a more focused study of sewer and stormwater fees and a proposed fair share contribution by the University. Both studies were prepared by consulting firms under contract to the City of Berkeley.

As a state entity, the University is constitutionally exempt from both local regulations and local taxes. Like other state institutions, the University is presumed to serve the public interest, and the courts have consistently held in the past that the transfer of funds from state to local jurisdictions does not serve the public interest.

Further, the matter of payments for city services is an economic issue not within the scope of CEQA, and an environmental impact report prepared in accordance with CEQA is not required to analyze or disclose such fiscal impacts. Section 15131 of the CEQA Guidelines states:

Economic or social information may be included in an EIR or may be presented in whatever form the agency desires.

- a) Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.

Because CEQA provides for analysis of environmental impacts, but not fiscal impacts, the analyses in the Draft EIR are limited to environmental impacts resulting from the physical requirements of new services required for the 2020 LRDP. Staffing and support needs for police services, fire and emergency services, and other public services and utilities are relevant under CEQA only to the extent they translate into the need for alteration of existing facilities or construction of new facilities, which in turn result in environmental impacts. The 2020 LRDP would not require or result in substantial physical impacts associated with new or physically altered emergency or utility service facilities, which is the criterion of significance. (See below for a discussion of fees paid for capital improvements to the utility infrastructure.)

However, while fiscal impacts are not within the scope of CEQA, the University recognizes they are a matter of concern to Berkeley and other cities and service agencies. They are also a matter of concern to the University, which depends on the adequacy and quality of some public services those cities and agencies provide. Subsequent to the publication of the fiscal impact study, UC Berkeley and the City of Berkeley have designated teams of staff representatives to meet, review and critique the study findings, and identify strategies that benefit both parties.

For certain fiscal impacts, namely those related to utility infrastructure, the conditions under which the University is authorized to make payments to cities and other public utility service providers are established by Government Code section 54999. Such payments are limited to the capital cost of public utility facilities, and must be “nondiscriminatory”: the fee must be determined based on the same objective criteria and methodology applicable to comparable nonpublic users, and represent the proportionate share of the cost of the public utility facilities of benefit to the person or property being charged, based upon the proportionate share of use of those facilities.<sup>7</sup>

There is, therefore, no question the University is subject to fees within these categories, albeit within the limitations prescribed in 54999, which include the requirements such fees be limited to capital facilities, and those fees be assessed based on a methodology that ensures the University pays only its fair and equitable share of those capital facilities.

The matter of additional “fair share payments” from universities to cities is presently under appeal to the California Supreme Court, the result of litigation against California

State University by the City of Marina, regarding the impacts of the master plan for the CSU Monterey Bay campus. The Court of Appeals, in ruling for CSU, stated "... the California Environmental Quality Act does not require 'fair share payments' from state agencies to fund mitigation measures undertaken by local agencies, except for those categories of capital improvements specifically addressed by Government Code Section 54999 ... payments for infrastructure beyond those specific categories listed in the Government Code are not required and in fact would constitute an impermissible gift of public funds." *City of Marina v. Board of Trustees of the California State University* (2003) 109 Cal.App.4th 1179.

(Several commentors including the City of Berkeley objected to further development of the Hill Campus due to the risk of fire and the difficulty of emergency response. While fiscal considerations were often mentioned as a contributing factor, the primary issue in these comments is the intrinsic hazard the physical conditions in the Hill Campus are perceived to pose. These comments are addressed in Thematic Response 8.)

#### 11.1.5 THEMATIC RESPONSE 5: QUALIFIERS

Some readers of the 2020 LRDP Draft EIR have requested additional definition for qualifying terms like "substantially exceed", "as a general rule", and "to the extent feasible" in describing Best Practices or Mitigations to be implemented. See for example comments B7-10, B7-22, and B7-34.

**SUBSTANTIALLY EXCEED.** In accordance with CEQA, a proposal would "substantially exceed" the scope of the environmental approval of the 2020 LRDP when new significant environmental effects, or a substantial increase in the severity of previously identified significant effects, would occur with its implementation. (See Public Resources Code section 21166 and CEQA Guidelines 15162, as well as Thematic Response 1 regarding the role of the 2020 LRDP in project level review.)

**TO THE EXTENT FEASIBLE.** Where a measure – a Mitigation *or* a Best Practice – is required to mitigate a significant impact, the lead agency must implement the measure. If the measure cannot be implemented because it is infeasible, the lead agency must identify equivalent measures that are feasible, or prepare additional CEQA documentation to describe any new significant impacts that may result.

**AS A GENERAL RULE.** This qualifying term is only used in Best Practices that involve the use of design guidelines. The term is necessary because the use of guidelines, by definition, is informed both by specific circumstances and by the judgment of the user. As stated in section 3.1.17, for example:

The provisions of the guidelines are not meant to preclude alternate design solutions. The best solution for a site should not be rejected just because we could not imagine it in advance ... As a rule, the campus should not depart from the guidelines except for solutions of extraordinary quality.

### **11.1.6 THEMATIC RESPONSE 6: RELATIONSHIP OF UC BERKELEY 2020 LRDP TO LAWRENCE BERKELEY NATIONAL LABORATORY**

This response addresses comments contending that the UC Berkeley 2020 LRDP Draft EIR should also have analyzed the proposed Lawrence Berkeley National Laboratory LRDP. Some of these comments assert that a single EIR should have been prepared for the UC Berkeley 2020 LRDP and the Lawrence Berkeley National Laboratory LRDP. Several of these comments assert that preparation of such a joint document is required under the provisions of CEQA, to avoid what the writers contend is “piecemeal” environmental review or “segmentation” of a single project.

Readers of the 2020 LRDP Draft EIR correctly note the UC Regents are the approving body for both the 2020 LRDP and the proposed Lawrence Berkeley National Laboratory LRDP. Lawrence Berkeley National Laboratory and UC Berkeley also share some research appointments; two LBNL buildings (Donner and Calvin Laboratories) are located on the Campus Park; and the research interests of UC Berkeley and Lawrence Berkeley National Laboratory are complementary and sometimes interlinked. However, institutional differences are in this instance more compelling than similarities. Lawrence Berkeley National Laboratory is a Department of Energy (DOE) national laboratory managed by the University of California, with distinct institutional objectives, and therefore is subject to its own LRDP, a separate and distinct project under CEQA.

Public Resources Code section 21080.09 specifies that a long range development plan applies to a “particular” campus. The approval of projects “on a particular campus” may be tiered upon a long range development plan. Under CEQA Guidelines 15165, a lead agency must prepare a single program EIR when it proposes to undertake a phased project or multiple individual projects in which the total undertaking comprises a single project; or proposes to undertake an individual project that is a necessary precedent for action on a larger project; or proposes to undertake a project which commits it to action on a larger project.

The UC Berkeley 2020 LRDP and the Lawrence Berkeley National Laboratory LRDP are not linked in this manner. While environmental impact reports on both LRDPs would include cumulative impact analyses evaluating possible combined effects of both LRDPs, nothing in the UC Berkeley 2020 LRDP is dependent upon action by Lawrence Berkeley National Laboratory, and nothing in the eventual Lawrence Berkeley National Laboratory LRDP is likely to depend upon action by UC Berkeley.

Further indication that UC Berkeley and Lawrence Berkeley National Laboratory are separate is the decision by DOE to bid the management contract for oversight of the Lawrence Berkeley National Laboratory, indicating University of California management is not essential to its mission. Having the same current lead agency (University of California Regents) for their respective LRDPs under CEQA does not make the UC Berkeley and Lawrence Berkeley National Laboratory LRDPs one project.

Lawrence Berkeley National Laboratory has the responsibility for formulating and preparing the plan for properties under its jurisdiction, just as UC Berkeley has had the responsibility for formulating and preparing the plan for properties under its jurisdiction. Nothing in CEQA or the CEQA Guidelines would require that a single EIR be prepared for these different projects.

### **11.1.7 THEMATIC RESPONSE 7: TAX EXEMPT PROPERTY**

The City of Berkeley comments at several points on its concern the 2020 LRDP would remove more property from the tax rolls, both generally and specifically with respect to housing, either by purchasing land or leasing space. Economic or social effects of a project are not within the scope of CEQA (see Thematic Response 4, above, regarding fiscal impacts), however, UC recognizes they are a matter of public concern, and were raised by several other commentors as well as the City.

The 2020 LRDP states at page 3.1-23:

...Future growth in both program space and parking is planned to be accommodated primarily through more intensive use of University-owned land [including the vacated DHS site the University intends to acquire] ... However, in order to meet the targets described in Campus Housing, some of this new housing would have to be constructed on land within the housing zone which is not presently owned by the University. The University will explore a full range of delivery options for each such project, including partnerships with private developers as well as direct acquisition and construction by the University. In those instances where the University does find it necessary to acquire land, preference shall be given to sites which are underutilized, which are not on the tax rolls, and/or where displacement of existing tenants can be minimized.

The City comments acknowledge this language, but complain there are no stated policies in the 2020 LRDP which address it. This is not correct. Section 3.1.7, Campus Land Use, includes as its first policy “Accommodate new and growing academic programs primarily through more intensive use of University owned land on and adjacent to the Campus Park”. Section 3.1.12, Strategic Investment, includes the policy “Consider joint ventures that leverage University resources with private land and capital.”

The proposed downtown hotel-conference center is one example of such a partnership: as currently planned, the project would be privately built, on privately owned land, and would be permitted by the City of Berkeley. The project would in fact serve an urgent unmet need of the University, but the University has no direct role in the financial structure, except as the original catalyst of the project and its primary future customer. While the City of Berkeley has a rigorous review process, which includes extensive public input, the University is hopeful this project not only succeeds but also serves as a model for other such partnerships.

As noted in Thematic Response 4, while fiscal impacts are not within the scope of CEQA, the University recognizes they are a matter of concern to Berkeley and other cities and service agencies. They are also a matter of concern to the University, which depends on the adequacy and quality of public services those cities and agencies provide. Subsequent to the publication of the fiscal impact study by the City of Berkeley, the University and the City of Berkeley have designated teams of staff representatives to meet, review and critique the study findings, and identify strategies that benefit both parties.

### **11.1.8 THEMATIC RESPONSE 8: HILL CAMPUS DEVELOPMENT**

Numerous writers, including the City of Berkeley, the Summit Road/Grizzly Peak Boulevard Watch, and 136 identical form letters from individuals, objected to the scope



of Hill Campus development envisioned in the 2020 LRDP on several grounds: fire and earthquake hazard, hydrology, ecology, and land use, including nonconformance with the Berkeley and Oakland general plans. Although the 100 units of faculty housing was mentioned far more often than the 100,000 gsf of program space, several commentators voiced more general objections to any new Hill Campus development.

#### **FACULTY HOUSING**

Since the publication of the Draft EIR, UC Berkeley has reviewed the need for faculty housing in the Hill Campus. Due in part to the comments received on this topic, and in part to uncertainty over its feasibility, the 2020 LRDP and its Final EIR have been revised to delete the proposal for up to 100 new faculty housing units in the Hill Campus. The potential housing site designated H1 in the Draft EIR has been redesignated as a Reserve Site, as it was in the 1990-2005 LRDP. Site H2 has been redesignated as part of the Research designation, which surrounds it.

The section on “Housing” at page 3.1-55 has been deleted in its entirety in the Final EIR. The section on “Reserve Sites” at page 3.1-55 to 3.1-56 has been revised to include this new final sentence:

The Northwest Promontory, the undeveloped site located southwest of the intersection of Centennial and Grizzly Peak, is also retained as a reserve site, as it was in the 1990-2005 LRDP.

Several other sections of the 2020 LRDP and the Final EIR have been revised to reflect this change in program. The note under table 3.1-2 has been revised to state:

\*\*\* Includes up to ~~200~~ 100 family-suitable units for faculty, staff, or visiting scholars within the 2020 LRDP scope. Does not include new student housing proposed for University Village Albany, which is outside the scope of the 2020 LRDP and the subject of a separate CEQA review.

Table 3.1-3 has been revised to delete the housing designated for the Hill Campus. Section 3.1.8 at page 3.1-27 has been revised in the Final EIR as follows:

At projected rates of future faculty hires, this policy may result in construction of up to 100 such units within the LRDP Housing Zone. This housing may be separate or co-located with the graduate and /or student family housing described above. ~~As described further in the Hill Campus Framework, up to 100 additional units of faculty housing may be built in the Hill Campus on sites suitable for housing.~~

Other sections of the Draft EIR have also been revised in the Final EIR to reflect the deletion of Hill Campus housing. The responses to comments below address the current version of the 2020 LRDP program for the Hill Campus, which includes up to 100,000 gsf of net new program space.

#### **LAND USE**

Most comments on Hill Campus land use address one or both of two related points:

- Conformance to the Oakland and Berkeley general plans.
- Compatibility with existing adjacent land uses.

As the Draft EIR notes, UC Berkeley is not subject to local land use regulations, including municipal general plans; the University serves the entire state of California, and its mission can not always be met entirely within the parameters of municipal policy. However, compatibility with adjacent land uses is a matter of concern for the University, and it therefore voluntarily considers the 2020 LRDP's compatibility with the adjacent land uses in the City Environs.

For the 2020 LRDP the relevant standard of significance is not whether a project conforms to local regulations, but rather whether the project conflicts with those regulations to the extent a significant incompatibility is created with adjacent land uses. The analysis of impacts in section 4.8.7 thus "...refers to the respective general plans of Berkeley and Oakland as guides in identifying such potential incompatibilities with respect to land use."

Although this analysis notes some Hill Campus projects envisioned under the 2020 LRDP would not conform to those areas respectively designated Open Space and Resource Conservation in the Berkeley and Oakland general plans, it also notes the Hill Campus includes numerous large University facilities such as the Lawrence Hall of Science, Silver Space Sciences Laboratory, and the Mathematical Sciences Research Institute. For both cities, therefore, the Draft EIR concludes "...new University projects in these areas ... are not expected to create significant incompatibilities with respect to land use, as long as the uses in the new projects are similar to existing uses on or adjacent to the project sites."

The review of the Draft EIR undertaken in response to comments, however, has revealed an inconsistency the Final EIR has corrected. Continuing Best Practice LU-2-c at page 4.8-17 refers to inconsistencies with general plan designations for projects in the City Environs but not in the Hill Campus. Since this condition is already known to exist in the Hill Campus, Continuing Best Practice LU-2-c has been revised as follows:

**Continuing Best Practice LU-2-c:** Each individual project built in the Hill Campus or the City Environs under the 2020 LRDP would be assessed to determine whether it could pose potential significant land use impacts not anticipated in the 2020 LRDP, and if so, the project would be subject to further evaluation under CEQA. In general, a project in the Hill Campus or the City Environs would be assumed to have the potential for significant land use impacts if it:

- Includes a use that is not permitted within the city general plan designation for the project site, or
- Has a greater number of stories and/or lesser setback dimensions than could be permitted for a project under the relevant city zoning ordinance as of July 2003.

As noted above, any such project that is not permitted within the general plan designation would be subject to further CEQA evaluation. Such evaluations would address land use compatibility at a level of specificity not possible in a program-level document, and the results of such evaluations would be documented as part of project level CEQA review.

#### **HYDROLOGY**

The form letter and Summit/Grizzly Watch object to potential damage to the Strawberry Creek watershed due to an increase in impermeable surfaces and therefore in

runoff. However, such damage would be prevented by Mitigation HYD-5, which states any project "... with potential to alter drainage patterns in the Hill Campus would be accompanied by a hydrologic modification analysis, and would incorporate a plan to prevent increase of flow from the newly developed site ..."

The form letter and Summit/Grizzly Peak Watch note the existence of an aquifer identified in 1974, and the latter letter poses several questions regarding the extent of the aquifer and its relationship to landslide and earthquake hazard. The existence of groundwater in the Hill Campus, and the northwest portion in particular, is known and described at page 4.7-15 under "Groundwater Quality". The EIR recognizes "... moisture overburdening of the soil can result in soil movements, leading in turn to increased sediment contamination of surface waters."

As shown in figure 4.5-3, certain areas of the Hill Campus are within landslide hazard zones. As prescribed at page 4.5-19, "Where development would occur within landslide-prone zones, the Continuing Best Practices [GEO-1-a through GEO-1-g] would apply." These Continuing Best Practices describe the extensive set of reviews and procedures undertaken by UC Berkeley to maximize the safety and resiliency of new and renovated buildings. This section goes on to state another Continuing Best Practice, GEO-1-h, which prescribes dewatering to be installed, monitored and maintained as required for all Hill Campus development.

However, since Continuing Best Practices GEO-1-a through GEO-1-g are presented in the EIR in the context of seismic hazards, a more explicit linkage to landslide hazards would be helpful, not only to clarify the University's intent but also to inform future mitigation monitoring. As noted in section 4.5.4, seismic vibration is only one of several potential factors in landslide hazard. The Final EIR has therefore been revised to include an additional Best Practice:

**Continuing Best Practice GEO-1-i: The site-specific geotechnical studies conducted under GEO-1-b will include an assessment of landslide hazard, including seismic vibration and other factors contributing to slope stability.**

## **SEISMICITY**

The form letter and Summit/Grizzly Peak Watch also object to locating new housing on a site described in the form letter as "... next to the Lawrence Hall of Science fault zone, between the Hayward/Wildcat Canyon fault lines ...". As noted in section B.1.5 of the Technical Appendices, the Lawrence Hall zone is in fact a sheared contact zone between the Orinda and Moraga formations and is not a set of faults. There are no studies indicating holocene activity on the Wildcat fault, and the California Division of Mines and Geology does not designate the Wildcat fault as an Alquist-Priolo earthquake fault zone.

However, UC Berkeley is obviously located in a region of seismic activity, and the Hayward fault is capable of generating a maximum credible earthquake of Richter 7.5. In recognition of this hazard, UC Berkeley has implemented a process that employs best available engineering practices to maximize safety, as represented in Continuing Best Practices GEO-1-a through GEO-1-g. For the reasons presented under LRDP Impact GEO-1, new projects in the Hill Campus would not pose a significant increase in risk to people or the environment. However, as noted in the form letter, the Hill Campus does pose specific challenges with respect to emergency access, which are covered below.

## **FIRE**

The form letter notes the Hill Campus lies within a zone of wildfire risk. The City of Berkeley contends more development in Strawberry Canyon would add to the fire load, but the comments on fire-related risk in both the City response and the form letter focus primarily on the question of emergency access, which is covered below. Any new University projects in the Hill Campus would comply with state codes and incorporate firebreaks, fire resistant materials, and other fire prevention features implemented through the campus review and inspection procedures described in the EIR.

## **EMERGENCY ACCESS**

The form letter contends emergency access to and egress from inhabited areas in and adjacent to the Hill Campus would be constrained by the proposed housing. The City of Berkeley similarly contends the housing would not only put the new residents at risk, but would also increase the risk wildland fires pose to existing hill residents and University workers, particularly if construction activity impedes travel along Centennial Drive. While Hill Campus housing has been deleted from the 2020 LRDP, the writers' comments are also relevant to the future construction of new program space.

The City of Berkeley's concern is evidently due in part to the language in Mitigation Measure PUB-2.4-b which indicates that in certain instances campus roadways may be reduced to a single lane during construction-related road closures. While this Mitigation Measure refers to all campus roadways, the commentors are correct in contending such a closure on Centennial Drive, the only access route through the Hill Campus, would entail a far greater risk than other campus roads. Mitigation Measure PUB-2.4-b has therefore been revised in the Final EIR as shown below. With this revision, emergency access constraints would be less than significant.

**LRDP Mitigation Measure PUB-2.4-b:** To the extent feasible, the University would maintain at least one unobstructed lane in both directions on campus roadways at all times, including during construction. At any time only a single lane is available due to construction-related road closures, the University would provide a temporary traffic signal, signal carriers (i.e. flagpersons), or other appropriate traffic controls to allow travel in both directions. If construction activities require the complete closure of a roadway, UC Berkeley would provide signage indicating alternative routes. In the case of Centennial Drive, any complete road closure would be limited to brief interruptions of traffic required by construction operations.

## **PARKING**

Several commentors mentioned concerns over the number of UC Berkeley employees perceived to park on City streets, in the areas near the intersection of Centennial and Grizzly Peak, rather than in University lots. Some of these areas have residential permit parking, but commentors contend the City of Berkeley does not enforce it.

The University has no authority over how the cities of Oakland or Berkeley enforce parking regulations, although in an effort to address this concern, University parking in the Hill Campus is offered to employees at a substantial discount: \$59.50 per month, compared to \$81.50-\$113.00 per month for spaces on and around the Campus Park. Pre-tax purchase further reduces the net cost of these spaces by 12%-46%, depending on the tax bracket of the purchaser.

### 11.1.9 THEMATIC RESPONSE 9: PARKING DEMAND

The City of Berkeley challenges the projected future demand for 2,300 net new parking spaces in its general comments and, more extensively, in its supplementary comments on the transportation section. These comments, echoed by several other commentators including AC Transit, include three general points:

- The estimates of future parking demand are not adequately supported.
- The policy to increase parking contradicts the policy to reduce parking demand.
- The policy to reduce parking demand is not supported by specific transit initiatives.

The City comments include several other, more specific points on parking which are covered in individual responses. The City and other commentators also address the topic of parking in the context of the 2020 LRDP alternatives; see Thematic Response 3.

#### ESTIMATES OF DEMAND

The estimate of parking demand is explained, in section 3.1.9 of the Draft 2020 LRDP, as the sum of a current parking deficit plus future demand due to projected growth in campus headcount. Future demand is based on target drive-alone rates of 10% for students and 50% for employees, slightly lower than the rates of 11% and 51%, respectively, reported in the most recent UC Berkeley surveys. The current deficit is referenced to the need stated in the 1990-2005 LRDP, plus the net reduction in the campus parking inventory since 1990.

The derivation of parking demand is a complex exercise, and requires numerous assumptions about the work schedules and travel mode selections of a large and diverse campus community. As noted in section 5.1.2 of the 2020 LRDP Draft EIR, the estimate of the current parking deficit is consistent not only with the findings of the 1990-2005 LRDP but also with a more recent 1999 study of campus parking. While the 1999 study recommends construction of 1,300 net new parking spaces to address then-current needs, the study also notes this is only a fraction of actual unmet demand.

Such estimates require numerous assumptions to be made, and opinions can differ on those assumptions. The City, for example, contends an alternate demand estimate based on current ratios would result in 341 fewer new spaces. However, the City estimate is based on an incomplete analysis: not only does it ignore current unmet demand, it also ignores the present and future parking demands of visitors, vendors, tradeworkers, and service vehicles. In order to provide a more comprehensive view of parking demand at UC Berkeley, table 11.1-1 shows how a reasonable set of assumptions about future headcount, work schedules, and mode selections yields the projected net demand for 2,300 new spaces shown in table 3.1-2 of the 2020 LRDP.

#### CONSISTENCY OF POLICIES

The City of Berkeley contends the two 2020 LRDP policies “increase the supply of parking to accommodate existing unmet demand and future campus growth” and “reduce demand for parking through incentives for alternate travel modes” contradict each other. The City states “... If the trip reduction strategies had been emphasized, or given equal weight, the need for parking spaces would certainly have been reduced below the number proposed.”

TABLE 11.1-1 ESTIMATED 2020 PARKING DEMAND

	Headcount	Campus	% Drive	% Ride	Persons/	Parking
	2020	Peak Day	Alone	Share	Rideshare	Demand
Undergraduate Students	23,950	80%	10%	0.5%	2.3	1,958
Graduate Students	9,500	60%	10%	0.5%	2.3	582
Faculty	1,980					
Full time	75% 1,485	75%	50%	8.5%	2.3	598
Part time	25% 495	45%	50%	8.5%	2.3	120
Academic Staff & Visitors	4,880					
Full time	75% 3,660	90%	50%	8.5%	2.3	1,769
Part time	25% 1,220	45%	50%	8.5%	2.3	295
Nonacademic Staff	8,950					
Full time	75% 6,713	90%	50%	8.5%	2.3	3,244
Part time	25% 2,238	45%	50%	8.5%	2.3	541
Other Visitors & Vendors	2,000	25%	80%			400
						9,506
Service, Loading, Maintenance, Special (exstg*1.20)						234
Residence Hall (exstg*1.05)						250
Estimated Parking Demand 2020						9,990
Actual Supply 2001-2002 (excluding motorcycle spaces)						-6,900
Net Addl Completed 2004						-100
Net Addl CEQA Approved						-690
Net Addl Parking Required 2020						2,300

The City of Berkeley, AC Transit, and other commentors have suggested UC Berkeley look to other comparable urban universities which they regard as having exemplary programs of transit incentives. The benchmark institutions suggested include Harvard University, Massachusetts Institute of Technology, Northwestern University, University of Pennsylvania, University of Maryland at College Park, University of Washington, University of Colorado at Boulder, and University of California at Los Angeles.

If the above City assertion were correct, it would follow that these universities with exemplary transit incentives would have lower ratios of parking than the ratio envisioned in the 2020 LRDP. However, as shown in table 11.1-2, under the 2020 LRDP the parking ratio at UC Berkeley would be *comparable to or lower than* the ratios at the benchmark institutions suggested, based on student headcount.<sup>8</sup> The data from the benchmark institutions suggested by commentors would seem to indicate the amount of parking envisioned under the 2020 LRDP is not contradictory, but in fact complementary to a strong program of transit incentives.

This does not mean, as the City contends, that UC Berkeley is not committed to reducing parking demand. On the contrary, UC Berkeley is extremely interested in doing so, not only for environmental reasons, but also because urban structured parking is very expensive. Section 3.1-9 of the Draft 2020 LRDP clearly states "... to the extent we are able to further reduce these ratios, through demand reduction incentives and through construction of new student housing, the [parking] objective would be adjusted to reflect these changes."

**TABLE 11.1-2 PARKING AT OTHER URBAN RESEARCH UNIVERSITIES**

	Source	Student Headcount	Parking Spaces	Ratio Spaces : Students
UC Berkeley 2002 (existing & approved)	<i>a</i>	31,800	7,690	0.24
<b>UC Berkeley 2020</b>	<b><i>a</i></b>	<b>33,450</b>	<b>9,990</b>	<b>0.30</b>
UC Los Angeles 2001	<i>b</i>	35,919	19,000	0.53
U Washington Seattle 2003	<i>c</i>	39,135	12,131	0.31
Harvard Cambridge 2002	<i>d</i>	15,256	4,536	0.30
MIT Cambridge 2002	<i>d</i>	10,222	4,814	0.47
U Colorado Boulder 2003	<i>e</i>	29,151	9,676	0.33
U Pennsylvania Philadelphia 2004	<i>f</i>	23,243	6,200	0.27
Northwestern Evanston 2001	<i>g</i>	12,200	3,500	0.29
U Maryland College Park 2003	<i>h</i>	35,329	19,000	0.54

*List of data sources precedes endnotes*

**TRANSIT INCENTIVE PROGRAMS AND PARKING DEMAND**

The City and other commentors contend the 2020 LRDP policy to “Reduce demand for parking through incentives for alternate travel modes” is not supported by specific initiatives. Several commentors mention an “EcoPass” type program of discounted transit fares for employees as an option worthy of further consideration (e.g. comment B7a-85).

UC Berkeley has recently established such a program: the Bear Pass, implemented in fall 2004. The Bear Pass is a two-year pilot program for unlimited rides on AC Transit, including transbay service, to UC Berkeley staff and faculty who reside in the AC Transit service area. The program also includes unlimited use of campus shuttles for pass holders. The cost of a Bear Pass to the employee under the pilot program is \$240 per year or \$20 per month, which may be paid in pretax dollars.

While the impact of the Bear Pass on worker commute patterns is not yet known, the experience of the student Class Pass may provide some insight into its potential impact. The Class Pass allows UC Berkeley students unlimited free rides on AC Transit bus lines. The Class Pass is financed through student fees; there is no charge for the pass itself. Following the introduction of the Class Pass in 1998, transit use by students increased from 14% in 1997 to 23% in 2000. However, a substantial percentage of this increase appears to have come at the expense of bike users, walkers and others; bike use declined from 14% to 9% while walkers and others declined from 58% to 56%. Drive-alone commuters declined from 13% to 11%. In other words, the Class Pass appears to have “captured” roughly 15% of student drive-alone trips.

Since a greater percentage of students than workers live within the service area of AC Transit, and since the Bear Pass must be purchased by individual users (although at a discounted rate), it is unlikely the Bear Pass would have as great an impact as the Class Pass on travel modes. UC Berkeley planners expect 127 drive-alone parking permit holders to convert to transit, or roughly 1% of the 2001-2002 employee headcount.

As a pilot program, the Bear Pass is expected to provide empirical data on the actual potential for mode shift due to cost incentives for transit. If the program can be shown to reduce parking demand at a feasible cost, the 2020 LRDP parking objectives would be adjusted: as section 3.1-9 clearly states “... to the extent we are able to further reduce

these [drive-alone] ratios, through demand reduction incentives and through construction of new student housing, the [parking] objective would be adjusted to reflect these changes.”

Toward this end, the Draft EIR prescribed Mitigation Measure TRA-11 to monitor the relationship of parking demand to supply over time. In order to ensure this assessment of drive-alone rates, and of the influence of both UC Berkeley transit incentives and future transit improvements, occurs on a regular schedule, the Final EIR has been revised to include an additional Continuing Best Practice:

**Continuing Best Practice TRA-11:** The University surveys the transportation practices of both students and employees at periodic intervals. In order to ensure the parking objective of the 2020 LRDP takes into account future changes in drive-alone rates, transit service and parking demand, the University will conduct such surveys at least once every 3 years; will make the survey results available to the public; and will review and, if appropriate, reduce the 2020 LRDP parking objective in light of those results.

*[Note: the range of current and future UC Berkeley incentives for alternate transportation modes is described in Thematic Response 10.]*

#### **FUTURE TRANSIT IMPROVEMENTS AND PARKING DEMAND**

Price subsidy programs, however, are not the only way drive-alone rates might be reduced. As noted in the Draft 2020 LRDP at page 3.1-29:

While cost and dependent care are often cited as reasons why people drive to work, in our 2001 survey of faculty and staff only 9% and 10%, respectively, selected these reasons. Convenience, at 37%, and travel time, at 30%, were by far the most oft-cited reasons why faculty and staff drive rather than use transit or other alternate modes ... The university is working with transit providers to ensure reasonably priced transit options and adequate service. However, if significant numbers of drivers are to be shifted to transit, convenience and travel time must be improved. Although minor further improvements might be achieved through operational measures, significant improvements require major capital investments.

The Bus Rapid Transit (BRT) system currently in design by AC Transit is one such investment. This project would construct dedicated bus lanes and station structures along an 18-mile route from San Leandro through Oakland to UC Berkeley and downtown Berkeley, with service through North Oakland and Berkeley along Telegraph Avenue. BRT/Telegraph would offer riders a rail-like transit experience that operates more quickly and reliably than regular bus service today, and would thus address the issues of convenience and travel time that now induce many UC commuters to drive.

If BRT/Telegraph and UC Berkeley transit incentives combined could produce a 10% improvement in the 2001 drive-alone rates, from 11% to 10% for students and from 51% to 46% for employees, the 2020 parking demand at UC Berkeley could be reduced from 2,300 to roughly 1,800 net new spaces. The 2020 LRDP has therefore been revised to defer 500 of the 2,300 net new proposed parking spaces until after 2020, if specific milestones toward completion and operation of the BRT are met.

Paragraphs 6 and 7 at page 3.1-28 of the Draft 2020 LRDP are revised as follows:



~~By 2020, we propose to increase the amount of university automobile parking by up to 30% over current and approved spaces, as shown in table 3.1-2. The proposed net increase of 2,300 spaces is required to meet the continuing demand for 1,000 net new spaces proposed in the 1990-2005 LRDP, replace the 300 spaces displaced by new construction since 1990, and accommodate future parking demand at a rate of one space per two new campus workers and one space per ten new students.~~

~~This estimate of future parking demand is based on target drive-alone rates of 10% for students and 50% for staff and faculty. However, to the extent we are able to further reduce these ratios, through demand reduction initiatives and through construction of new student housing, the objective would be adjusted to reflect these changes.~~

~~The projected campus growth under the 2020 LRDP could, at target drive-alone rates of 10% for students and 50% for employees, result in a demand by 2020 for up to 2,300 net new parking spaces beyond the current inventory and approved projects. However, while this figure includes substantial current unmet demand as well as future growth, it could be reduced if drive-alone rates could be improved through a combination of transit incentives and transit service improvements, as described below.~~

Paragraphs 3 through 7 at page 3.1-29 of the Draft 2020 LRDP are revised as follows:

**POLICY: REDUCE DEMAND FOR PARKING THROUGH INCENTIVES FOR ALTERNATE TRAVEL MODES.  
COLLABORATE WITH CITIES AND TRANSIT PROVIDERS TO IMPROVE SERVICE TO CAMPUS.**

UC Berkeley presently offers a wide range of incentives for alternatives to drive-alone auto trips, including price subsidies and pre-tax purchase of transit tickets, discounted parking to alternate mode users who must occasionally drive alone, free parking and reserved parking spaces for carpoolers, free emergency rides home for alternate mode users, and now in development, a secure bicycle parking program for bike commuters. Based on the findings of the 2001 City-UC Berkeley Transportation Demand Management Study, UC Berkeley will continue to pursue existing and new incentives for alternative modes of transportation, directly as well as in collaboration with cities and regional transit providers.

**~~POLICY: COLLABORATE WITH CITIES AND TRANSIT PROVIDERS TO IMPROVE SERVICE TO CAMPUS.~~**

While cost and dependent care are often cited as reasons why people drive to work, in our 2001 survey of faculty and staff only 9% and 10%, respectively, selected these reasons. Convenience, at 37%, and travel time, at 30%, were by far the most oft-cited reasons why faculty and staff drive rather than use transit or other alternate modes. The university is working with transit providers to ensure reasonably priced transit options and adequate service. However, if significant numbers of drivers are to be shifted to transit, convenience and travel time must be improved. Although minor further improvements might be achieved through operational measures, significant improvements require major capital investments.

~~AC Transit is presently studying a program of capital investments in transit service from the south to the campus and downtown Berkeley. As a major transit destination, UC Berkeley is a key participant in this process. While several de-~~

~~sign options are presently under consideration, the eventual solution may involve realignments of traffic flow on southside streets and/or the introduction of dedicated transit lanes. UC Berkeley should continue to collaborate with cities and AC Transit on transit improvement plans to optimize their benefit to the campus community.~~

As part of its Bus Rapid Transit (BRT) project, AC Transit is proposing to upgrade transit service to the campus along a Telegraph Avenue alignment. The BRT/Telegraph project would create dedicated bus lanes and station structures along an 18-mile route from San Leandro through Oakland to UC Berkeley and downtown Berkeley. BRT/Telegraph would offer riders a rail-like transit experience that operates more quickly and reliably than regular bus service today, and would thus address the issues of convenience and travel time that now induce commuters to drive.

For example, if BRT/Telegraph and UC Berkeley transit incentives could produce a 10% improvement in current estimated drive-alone rates, the 2020 parking demand at UC Berkeley could be reduced from 2,300 to roughly 1,800 net new spaces. To ensure adequate time to assess the impact of BRT/Telegraph and its own transit incentives on drive-alone rates, UC Berkeley would defer 500 of the 2,300 net new spaces until after 2020 if the following conditions are met:

- the cities of Berkeley and Oakland approve the final route for BRT/Telegraph by January 2010, and
- construction is underway on the BRT/Telegraph system as described above by January 2010.

#### **11.1.10 THEMATIC RESPONSE 10: TRANSPORTATION ALTERNATIVES**

UC Berkeley has implemented a comprehensive package of programs for faculty, staff and students to encourage the use of alternative transportation. The purpose of these programs and related capital improvements is to reduce traffic and parking demand and contribute to the protection of the environment. The campus has achieved notable success in its adoption of these programs: 49% of campus employees and 89% of students commute by some form of transportation other than a single occupant vehicle.

No state funding is used to support commute alternative programs at UC Berkeley. These programs are primarily financed by user fees, including a transportation fee assessed on parking permits, a self-assessed student transit fee, and parking citation revenue. External grants secured by UC Berkeley have also helped to support programs and projects over the last decade.

##### **AC TRANSIT STUDENT CLASS PASS**

In November 2001, UC Berkeley students voted overwhelmingly (88.4%) to retain the AC Transit Class Pass Program, initiated in 1998, for another four years. The Class Pass program allows registered students to take unlimited rides on AC Transit, including transbay service to San Francisco, and on Bear Transit campus shuttles year round. Students fund this program through a self-assessed fee paid each semester. This highly successful program results in over 3.5 million student rides and \$1.3 million dollars in revenue to AC Transit annually.

### **AC TRANSIT EMPLOYEE BEAR PASS**

In July 2004, UC Berkeley and AC Transit completed negotiations for a pilot program to provide unlimited rides on AC Transit, including transbay service, to the 75% of UC employees who live in the AC Transit service area. The initial program will run October 2004 through June 2006. Under the Bear Pass program, UC Berkeley employees will pay \$20 per month for unlimited use of the AC Transit system, including transbay service. In comparison, the general public pays AC Transit \$60 per month for a basic unlimited use pass without transbay service and \$100 per month with transbay service. The Bear Pass also compares favorably to the cost of an annual UC Berkeley parking permit, which ranges from \$81.50 to \$113 a month. The Bear Pass fee will be deducted directly from employee paychecks pre-tax (see below).

### **SUBSIDIES AND PRE-TAX PURCHASE**

The pre-tax program enables UC Berkeley employees to purchase transit tickets for BART, AC Transit and more through payroll deduction with pre-tax dollars. A variety of BART, AC Transit, and other packages are available. By using pre-tax dollars, participants realize savings of 12% to 46%, depending on their tax bracket. Employees receive a \$10 per month subsidy toward the purchase of any transit tickets through UC Berkeley.

### **BEAR TRANSIT SHUTTLES**

Campus shuttles operate day and night, seven days a week on varying schedules. Shuttles serve downtown Berkeley and BART, the Campus Park interior and perimeter, the Hill Campus, and Richmond Field Station. Campus shuttles carry 860,000 faculty, staff, student and public passengers a year. Most passengers ride for free, for others it is a nominal fee.

### **CARPOOLS & VANPOOLS**

Employees in two-person carpools pay 75% less for parking than single occupant vehicle permit holders. Three+ person employee carpools pay a nominal fee for the carpool permit. Student carpools pay 75% less for parking than single occupant vehicle permit holders. UC Berkeley also provides free reserved carpool parking spaces throughout the campus.

UC Berkeley vanpools are operated by groups of 7 or more employees who commute in one vehicle from the same area. Free central campus parking is provided for the vans. UC Berkeley is currently reviewing this program and considering a variety of new benefits, including a pre-tax option and monthly subsidy for riders.

### **BICYCLES**

The campus provides free California bicycle licensing, extensive bicycle parking, campus bicycle paths, bicycle enforcement, and more. The University will be providing secure bicycle parking in five locations on campus with a grant from the Bay Area Air Quality Management District: over 200 bike parking spaces will be furnished in covered, locked cages or under security camera surveillance.

In 2004-2005 UC Berkeley will begin developing a campus bicycle access plan with a grant from the Alameda County Transportation Improvement Authority. Bicycle programs are funded by the transportation fee and are free to users.

### **WALKING**

Many students find walking to be the preferred means of commuting and intra-campus travel. Currently 53% of UC Berkeley students, and 8% of employees, commute to and from campus on foot. UC Berkeley intends to keep walking as the primary commute mode for students in the future by significantly increasing the supply of University housing near campus, as envisioned in the 2020 LRDP.

### **GUARANTEED RIDE HOME PROGRAM**

All faculty and staff are eligible for the Guaranteed Ride Home program, which provides free rides in the event of a personal emergency. UC Berkeley employees are eligible for up to six free rides home per year. Employees must be using a commute alternative the day they use the program. This program is offered by the Alameda Congestion Management Agency at no cost to the University.

### **DISCOUNTED PARKING**

Employees participating in alternative transportation programs, including carpoolers and vanpoolers, transit pre-tax and subsidy participants, Bear Pass users, cyclists and pedestrians, are eligible to purchase 48 days of discount parking a year for days when they need to drive alone.

### **CITY CARSHARE**

City CarShare, a local non-profit membership organization providing vehicles for short-term rental throughout the Bay Area, has one on-campus vehicle location, or “pod”, in partnership with UC Berkeley. UC Berkeley CarShare vehicles are located in the Dana/Durant parking lot. Student, faculty and staff members have access to the UC Berkeley pod, as well as to the complete City CarShare network that includes several pods in downtown Berkeley. UC Berkeley is also investigating ways of allowing departmental access to City CarShare vehicles for University-related worktrips.

### **ALTERNATIVE FUEL VEHICLES**

UC Berkeley complies with the Energy Policy Act of 1992 which requires 75% of all new vehicles purchased weighing less than 8,500 lbs, except emergency vehicles, to be alternatively fueled vehicles. UC Berkeley strategies to comply with the Act include purchasing flex fuel vehicles that run on gasoline or ethanol, and starting to run campus vehicles on biodiesel. In addition, campus department use of electric vehicles and Segways is expanding, and several electric vehicle-charging stations are provided for campus commuters.

### **COLLABORATION WITH CITY OF BERKELEY**

UC Berkeley and the City of Berkeley continue to work together on transportation demand management initiatives. Current projects include:

- Providing new transit shelters at Bear Transit/AC Transit bus stops.
- Improving wayfinding systems for visitors to Berkeley.
- Funding intersection improvements that increase pedestrian safety at Oxford/Hearst and Arch/LeConte/Hearst.
- Working with AC Transit to define Bus Rapid Transit alignments in Berkeley.
- Collaborating on the City Bicycle Plan update and a new campus bicycle plan.

### 11.1.11 THEMATIC RESPONSE 11: PROJECT DESIGN REVIEW

Objections to the lack of City participation in campus design review, and the inadequacy of informational presentations as a means of City input, occur at several points in the City of Berkeley letter. The City also objects to the fact the 2020 LRDP does not include general design guidelines for the City Environs, as it does for the Campus Park. Berkeley Architectural Heritage Association notes a perceived inconsistency regarding project review under the Southside Plan.

#### CITY PRESENTATIONS

Design review is not merely about style: as practiced in sophisticated cities such as Berkeley, design review considers scale, mass, configuration, and often programmatic elements, as when certain types of space are prescribed for street frontages. And it should: these fundamental aspects of design often influence the perception of a building far more than surface treatments. However, such considerations also affect how well a site is utilized, how much a building costs, and how well the building meets the needs of its occupants. Design review, therefore, can be a significant factor in the campus' ability to optimize its capital resources toward its educational mission.

Municipal design review, then, is one tool for implementing local land use regulation, from which the University is exempt. This does not mean cities should not have a strong advisory role, and the Continuing Best Practices in the 2020 LRDP ensure that it would. However, the City of Berkeley makes a legitimate point in requesting a stronger linkage between the informational presentations and the deliberations by the campus Design Review Committee. The presence of a city representative at the campus DRC, both to ensure the opinions of the city are well articulated and to hear the DRC deliberations, would benefit both parties. Continuing Best Practices AES-1-e and LU-2-b, therefore, are revised in the Final EIR as follows:

**Continuing Best Practice AES-1-e:** UC Berkeley would make informational presentations of all major projects in the City Environs in Berkeley to the Berkeley Planning Commission and, if relevant, the Berkeley Landmarks Commission for comment prior to schematic design review by the UC Berkeley Design Review Committee. Major projects in the City Environs in Oakland would similarly be presented to the Oakland Planning Commission and, if relevant, to the Oakland Landmarks Preservation Advisory Board. Whenever a project in the City Environs is under consideration by the UC Berkeley DRC, a staff representative designated by the city in which it is located would be invited to attend and comment on the project. *[Continuing Best Practice LU-2-b identical]*

#### CITY ENVIRONS GUIDELINES

The City of Berkeley objects to the fact the University has not created general design guidelines for the City Environs, as it has for the Campus Park, and thus relies on project-specific guidelines for City Environs projects. The City contends such case-by-case reviews do not provide adequate consideration of contextual factors.

The University has not prepared general guidelines for the City Environs because, unlike the Campus Park before the 2020 LRDP, a design framework for the City Environs already exists in the City's many plans and policies, augmented by the City's input received on individual projects through the informational presentations described above. As the 2020 LRDP explains at pages 3.1-49 and 3.1-50, the review of individual projects

would be "... based on project specific design guidelines informed by the provisions of the relevant city general plan and other relevant plans and policies."

#### **SOUTHSIDE PLAN**

The University also commits in the 2020 LRDP and in Continuing Best Practices AES-1-h and LU-2-d to using the Southside Plan, once adopted by the City, "... as its guide for the location and design of projects implemented under the 2020 LRDP within the geographic area of the Southside Plan."

The BAHA comments suggest the EIR is inconsistent in committing to use of the Southside Plan, while also stating in Continuing Best Practices AES-1-g and LU-2-c that "University housing projects in the 2020 LRDP Housing Zone would not have a greater number of stories nor lesser setback dimensions than could be permitted for a project under the relevant City zoning ordinance as of July 2003." BAHA also makes the more general objection to using the July 2003 version of the zoning ordinance as a standard of reference, thus ignoring future zoning changes.

The most recent draft of the Southside Plan is, as the 2020 LRDP makes clear, an acceptable guide to the University. However, this draft has not been adopted by the City, nor has the City completed CEQA review. Given the intense interest in the future relationship of City and University evident in the comments on the 2020 LRDP and its EIR, there is no assurance the Southside Plan would be adopted in its current form. Further, whereas the zoning ordinance as of July 2003 is an existing body of policy, which the University can evaluate against its own mission and make an informed judgment as to what extent it can comply, neither the Southside Plan nor future zoning changes presently exist in final, adopted form.

Once the Southside Plan is adopted, assuming no further substantive changes are made by the City, the provisions of the Southside Plan would supersede the provisions of the July 2003 Berkeley zoning ordinance. However, because in retrospect this is not entirely clear in the Draft EIR language, Continuing Best Practices AES-1-h and LU-2-d have been revised in the Final EIR as follows:

**Continuing Best Practice AES-1-h:** Assuming the City adopts the Southside Plan without substantive changes, the University would as a general rule use, as its guide for the location and design of University projects implemented under the 2020 LRDP within the area of the Southside Plan, the design guidelines and standards prescribed in the Southside Plan, which would supersede provisions of the City's prior zoning policy. [*Continuing Best Practice LU-2-d identical.*]

(Berkeley Architectural Heritage Association (C275), English (C268) and Helfand (C104) offer more specific comments on the classical core guidelines, which are covered in the individual responses.)

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## DATA SOURCES IN TABLE 11.1-2

- a* University of California at Berkeley, *Draft 2020 LRDP EIR*, table 3.1-1
- b* University of California at Los Angeles, *Draft 2002 LRDP EIR*, table 4.13-6  
Parking count excludes 3,330 health sciences parking spaces
- c* University of Washington, Common Data Set  
at [www.washington.edu/admin/factbook/common\\_data\\_set\\_2003.xls](http://www.washington.edu/admin/factbook/common_data_set_2003.xls)  
Parking count: personal communications L Hanlon July 7 2004 and L Quinn May 10 2004:  
Parking count excludes estimated 2,000 med center spaces (actual estimate 1,500-2,000)
- d* City of Cambridge, *2003 Annual Town-Gown Reports*  
at [www.cambridgema.gov/~CDD/data/educ/towngown\\_2003.html](http://www.cambridgema.gov/~CDD/data/educ/towngown_2003.html)  
Harvard student headcount includes day students only
- e* University of Colorado at Boulder, *Micro-Master Transportation Plan: Existing Conditions*, Dec 2003, page 4-2  
[ucbparking.colorado.edu/transportationmasterplan/docs/CUPTMPexistingconditionspart2.pdf](http://ucbparking.colorado.edu/transportationmasterplan/docs/CUPTMPexistingconditionspart2.pdf)  
Parking count excludes Research Park and Family Housing spaces  
Student headcount from main campus website [www.colorado.edu/prospective/index.html](http://www.colorado.edu/prospective/index.html)
- f* University of Pennsylvania, *Penn Facts & Figures* [www.upenn.edu/about/facts.php](http://www.upenn.edu/about/facts.php)  
Parking count: personal communication T Bozzuto July 16 2004: does not include medical center parking
- g* Northwestern University, *Data Book* [adminplan.crown.northwestern.edu/ir/databook/v34/V34\\_t18.xls](http://adminplan.crown.northwestern.edu/ir/databook/v34/V34_t18.xls)
- b* University of Maryland, *Facts & Figures*, [www.urhome.umd.edu/newsdesk/facts/quickfacts.cfm](http://www.urhome.umd.edu/newsdesk/facts/quickfacts.cfm)  
Parking count: personal communication G Neuwirth July 28 2004

## ENDNOTES

- <sup>1</sup> All chapter, section, and page references are to the Draft 2020 LRDP EIR except as noted otherwise.
- <sup>2</sup> The University recognizes there have been reports in the press about prospective future plans for Memorial Stadium, as there have for a number of other campus projects. At present, however, no plans to renovate or change the use of the Stadium exist at a level of definition sufficient to support a project-level environmental analysis. A Stadium project would be subject to project-specific environmental review in accordance with CEQA; the timing of CEQA approval within the context of UC capital project development and approval was established in the Mount Sutro case. See *Mount Sutro Defense Committee v. Regents of University of California*, 77 Cal.App.3d 20; 143 Cal Rptr 365 (1978).
- <sup>3</sup> *CEQA Guidelines*, Section 15126.6(c).
- <sup>4</sup> City of Berkeley/UC Berkeley, *Southside/Downtown Transportation Demand Management Study*, March 2001.
- <sup>5</sup> University of Washington, *2001 Master Plan*, pages 6 (headcount) and 76 (parking)  
[http://www.washington.edu/community/cmp/final\\_cmp.html](http://www.washington.edu/community/cmp/final_cmp.html), viewed July 1 2004.
- <sup>6</sup> See, for example, *City of Berkeley General Plan Draft EIR*, February 2001, page 299-305.
- <sup>7</sup> California Government Code section 54999 et seq.
- <sup>8</sup> Student headcount rather than total headcount is used because the latter figure often includes substantial numbers of student workers who are then double-counted in the total. Where the benchmark campuses include medical centers, the medical center parking has been subtracted from those parking inventories.





## **11.2A FEDERAL & STATE AGENCY COMMENTS**



State of California – The Resources Agency  
DEPARTMENT OF FISH AND GAME  
<http://www.dfg.ca.gov>

ARNOLD SCHWARZENEGGER, Governor

POST OFFICE BOX 47  
YOUNTVILLE, CALIFORNIA 94599  
(707) 944-5500

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APR 28 2004

PHYSICAL & ENVIRONMENTAL  
PLANNING

April 26, 2004

Ms. Jennifer Lawrence  
University of California, Berkeley  
Facilities Services  
1936 University Avenue, #300  
Berkeley, CA 94720-1382

Dear Ms. Lawrence:

University of California, Berkeley  
2020 Long Range Development Plan  
and Chang-Lin Tien Center for East Asian Studies  
Draft Environmental Report SCH 2003082131

The Department of Fish and Game (DFG) has reviewed the document for the subject project. We do not have specific comments regarding the proposed project and its effects on biological resources. Please be advised this project may result in changes to fish and wildlife resources as described in the California Code of Regulations, Title 14, Section 753.5(d)(1)(A)-(G)<sup>1</sup>. Therefore, if you are preparing an Environmental Impact Report for this project, a de minimis determination is not appropriate, and an environmental filing fee as required under Fish and Game Code Section 711.4(d) should be paid to the Alameda County Clerk on or before filing of the Notice of Determination for this project.

A1-1

If you have any questions, please contact Carl Wilcox, Habitat Conservation Manager, at (707) 944-5525.

Sincerely,

Robert W. Floerke  
Regional Manager  
Central Coast Region

cc: State Clearinghouse

<sup>1</sup> <http://ccr.oal.ca.gov/>. Find California Code of Regulations, Title 14 Natural Resources, Division 1, Section 753



## **11.2A.1 RESPONSE TO COMMENT LETTER A1**

### **RESPONSE TO COMMENT A1-1**

UC Berkeley would continue to comply with state law and the filing fee would be paid upon filing of a Notice of Determination for the 2020 Long Range Development Plan and Tien Center Environmental Impact Report.

## DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE  
 P. O. BOX 23660  
 OAKLAND, CA 94623-0660  
 PHONE (510) 286-5505  
 FAX (510) 286-5513  
 TTY (800) 735-2929



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PHYSICAL & ENVIRONMENTAL  
PLANNING

June 1, 2004

ALA013078  
 ALA-013-12.24  
 SCH 2003082131

Ms. Jennifer Lawrence  
 University of California, Berkeley  
 1936 University Avenue, Suite 300  
 Berkeley, CA 94720-1380

Dear Ms. Lawrence:

**UC BERKELEY 2020 LONG RANGE DEVELOPMENT PLAN - DRAFT  
 ENVIRONMENTAL IMPACT REPORT**

Thank you for including the California Department of Transportation (Department) in the environmental review process for the proposed UC Berkeley 2020 Long Range Development Plan. The following comments are based on the Draft Environmental Impact Report. Additional comments may be forthcoming pending final project review.

**Mitigation**

Mitigation should be identified for any roadway mainline section or intersection with insufficient capacity to maintain an acceptable Level Of Service (LOS) with the addition of project-related and/or cumulative traffic. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should also be fully discussed for all proposed mitigation measures.

A2-1

The University should contribute funds towards improvements at key intersections that are expected to be significantly impacted by the University's expansion. Pages 2-51 and 4.12-53 of the report state that while the University Avenue and State Route 123 (San Pablo Avenue) intersection is expected to operate at LOS F with or without the project, the project contributes six percent of the intersection's traffic volume during the PM peak, and eight percent during the AM peak.

A2-2

Please feel free to call or email Patricia Maurice of my staff at (510) 622-1644 or [patricia\\_maurice@dot.ca.gov](mailto:patricia_maurice@dot.ca.gov) with any questions regarding this letter.

Sincerely,

TIMOTHY C. SABLE  
 District Branch Chief  
 IGR/CEQA

c: Ms. Terry Roberts, State Clearinghouse

## **11.2A.2 RESPONSE TO COMMENT LETTER A2**

### **RESPONSE TO COMMENT A2-1**

As described under Impact TRA-10, the 2020 LRDP is found to have significant unavoidable impacts on two segments of State Route 123 (San Pablo Avenue) and on two segments of State Route 13 (Ashby Avenue). In addition, one SR 123 intersection, University Avenue / San Pablo Avenue, is also identified as experiencing a significant unavoidable impact. The project does not have significant impacts on I-80 or SR 24, based on the Draft EIR significance thresholds. The Draft EIR does not present mitigation measures for the impacted segments of SR 13 and SR 123, because no feasible corridor improvement measures have been identified by the City or any other agency for these arterials, and the University does not have jurisdiction over these roadways.

UC Berkeley is eager to work with the City of Berkeley, Caltrans and other agencies in the development and implementation of solutions for impact locations where feasible mitigation measures were not identified in the 2020 LRDP EIR. The City of Berkeley General Plan EIR notes that the City's Transit First policies, which restrict roadway capacity expansion and support multi-modal solutions, may not reduce traffic congestion impacts to a less than significant level. The effects of these measures in mitigating traffic impacts therefore cannot currently be assumed and cannot be used as a rationale for identifying a potential impact as mitigated to a less than significant level.

If the City of Berkeley and Caltrans at their discretion propose to implement measures that are feasible, that reduce significant unavoidable impacts identified in the 2020 LRDP DEIR to less than significant levels, and that have no new environmental impacts of their own, in accordance with CEQA UC Berkeley would contribute fair share funding in the manner provided in Mitigation Measure TRA-6 in the 2020 LRDP DEIR. See Thematic Response 4 regarding fiscal impacts; see also response to comment B7a-9 and B7a-117.

### **RESPONSE TO COMMENT A2-2**

See response to comment A2-1, above.



Arnold  
Schwarzenegger  
Governor

STATE OF CALIFORNIA  
Governor's Office of Planning and Research  
State Clearinghouse and Planning Unit



Jan Boel  
Acting Director

June 2, 2004

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JUN 03 2004

PHYSICAL & ENVIRONMENTAL  
PLANNING

Jennifer Lawrence  
University of California, Berkeley  
1936 University Avenue, Suite 300  
Berkeley, CA 94720-1380

Subject: UC Berkeley 2020 Long Range Development Plan and Tien Center for East Asian Studies  
SCH#: 2003082131

Dear Jennifer Lawrence:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on June 1, 2004, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts  
Director, State Clearinghouse

Enclosures  
cc: Resources Agency

**Document Details Report  
State Clearinghouse Data Base**

**SCH#** 2003082131  
**Project Title** UC Berkeley 2020 Long Range Development Plan and Tien Center for East Asian Studies  
**Lead Agency** University of California, Berkeley

**Type** EIR Draft EIR  
**Description** Land use and capital investment framework to meet academic goals of UC Berkeley.

**Lead Agency Contact**

**Name** Jennifer Lawrence  
**Agency** University of California, Berkeley  
**Phone** 510-642-7720  
**email**  
**Address** 1936 University Avenue, Suite 300  
**City** Berkeley **State** CA **Zip** 94720-1380  
**Fax**

**Project Location**

**County** Alameda  
**City** Berkeley  
**Region**  
**Cross Streets** University Avenue and Oxford Street

**Parcel No.**  
**Township** 1S **Range** 4W **Section** **Base**

**Proximity to:**

**Highways** I-80, 24, 13  
**Airports**  
**Railways**  
**Waterways**  
**Schools** Berkeley Unified  
**Land Use** Academic/ Administrative, Housing, Open Space, Teaching, Research, Parking, Recreation, Laboratory Facilities.

**Project Issues** Aesthetic/Visual; Air Quality; Archaeologic-Historic; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife; Landuse; Cumulative Effects

**Reviewing Agencies** Resources Agency; Department of Fish and Game, Region 3; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Caltrans, District 4; California Highway Patrol; Department of Housing and Community Development; Regional Water Quality Control Board, Region 2; Department of Toxic Substances Control; Native American Heritage Commission; Public Utilities Commission; State Lands Commission

**Date Received** 04/15/2004 **Start of Review** 04/15/2004 **End of Review** 06/01/2004





State of California - The Resources Agency  
DEPARTMENT OF FISH AND GAME  
<http://www.dfg.ca.gov>

ARNOLD SCHWARZENEGGER, Governor

POST OFFICE BOX 47  
YOUNTVILLE, CALIFORNIA 94599  
(707) 944-5500

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JUN 03 2004

PHYSICAL & ENVIRONMENTAL  
PLANNING

April 26, 2004

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APR 30 2004  
STATE CLEARING HOUSE

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G-1-04  
e

Ms. Jennifer Lawrence  
University of California, Berkeley  
Facilities Services  
1936 University Avenue, #300  
Berkeley, CA 94720-1382

Dear Ms. Lawrence:

University of California, Berkeley  
2020 Long Range Development Plan  
and Chang-Lin Tien Center for East Asian Studies  
Draft Environmental Report SCH 2003082131

The Department of Fish and Game (DFG) has reviewed the document for the subject project. We do not have specific comments regarding the proposed project and its effects on biological resources. Please be advised this project may result in changes to fish and wildlife resources as described in the California Code of Regulations, Title 14, Section 753.5(d)(1)(A)-(G)<sup>1</sup>. Therefore, if you are preparing an Environmental Impact Report for this project, a de minimis determination is not appropriate, and an environmental filing fee as required under Fish and Game Code Section 711.4(d) should be paid to the Alameda County Clerk on or before filing of the Notice of Determination for this project.

If you have any questions, please contact Carl Wilcox, Habitat Conservation Manager, at (707) 944-5525.

Sincerely,

Robert W. Floerke  
Regional Manager  
Central Coast Region

cc: State Clearinghouse ✓

<sup>1</sup> <http://ccr.oal.ca.gov/>. Find California Code of Regulations, Title 14 Natural Resources, Division 1, Section 753





### **11.2A.3 RESPONSE TO COMMENT LETTER A3**

The letter from the State Clearinghouse acknowledges the close of the CEQA-required comment period and transmits a copy of the comment letter reprinted above at letter A1. UC Berkeley not only extended the public comment period from the required 45 days to 61 days, but then extended it again to 65 days at the request of the City of Berkeley.



Arnold  
Schwarzenegger  
Governor

STATE OF CALIFORNIA  
Governor's Office of Planning and Research  
State Clearinghouse and Planning Unit



Jan Boel  
Acting Director

June 3, 2004

Jennifer Lawrence  
University of California, Berkeley  
1936 University Avenue, Suite 300  
Berkeley, CA 94720-1380

Subject: UC Berkeley 2020 Long Range Development Plan and Tien Center for East Asian Studies  
SCH#: 2003082131

Dear Jennifer Lawrence:

The enclosed comment (s) on your Draft EIR was (were) received by the State Clearinghouse after the end of the state review period, which closed on June 1, 2004. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2003082131) when contacting this office.

Sincerely,

Terry Roberts  
Senior Planner, State Clearinghouse

Enclosures  
cc: Resources Agency

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JUN 04 2004  
PHYSICAL & ENVIRONMENTAL  
PLANNING

**DEPARTMENT OF TRANSPORTATION**

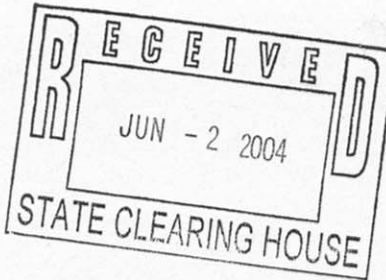
111 GRAND AVENUE  
P. O. BOX 23660  
OAKLAND, CA 94623-0660  
PHONE (510) 286-5505  
FAX (510) 286-5513  
TTY (800) 735-2929



*Flex your power!  
Be energy efficient!*

June 1, 2004

Ms. Jennifer Lawrence  
University of California, Berkeley  
1936 University Avenue, Suite 300  
Berkeley, CA 94720-1380



*clear  
6-1-04  
late*

ALA013078  
ALA-013-12.24  
SCH 2003082131

Dear Ms. Lawrence:

**UC BERKELEY 2020 LONG RANGE DEVELOPMENT PLAN - DRAFT ENVIRONMENTAL IMPACT REPORT**

Thank you for including the California Department of Transportation (Department) in the environmental review process for the proposed UC Berkeley 2020 Long Range Development Plan. The following comments are based on the Draft Environmental Impact Report. Additional comments may be forthcoming pending final project review.

**Mitigation**

Mitigation should be identified for any roadway mainline section or intersection with insufficient capacity to maintain an acceptable Level Of Service (LOS) with the addition of project-related and/or cumulative traffic. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should also be fully discussed for all proposed mitigation measures.

A4-1

The University should contribute funds towards improvements at key intersections that are expected to be significantly impacted by the University's expansion. Pages 2-51 and 4.12-53 of the report state that while the University Avenue and State Route 123 (San Pablo Avenue) intersection is expected to operate at LOS F with or without the project, the project contributes six percent of the intersection's traffic volume during the PM peak, and eight percent during the AM peak.

A4-2

Please feel free to call or email Patricia Maurice of my staff at (510) 622-1644 or [patricia\\_maurice@dot.ca.gov](mailto:patricia_maurice@dot.ca.gov) with any questions regarding this letter.

Sincerely,

TIMOTHY C. SABLE  
District Branch Chief  
IGR/CEQA

c: Ms. Terry Roberts, State Clearinghouse

#### **11.2A.4 RESPONSE TO COMMENT LETTER A4**

The letter from the State Clearinghouse transmits a copy of the comment letter reprinted above at letter A2, received at the Clearinghouse after the close of the minimum CEQA-required comment period. UC Berkeley not only extended the public comment period from the required 45 days to 61 days, but then extended it again to 65 days at the request of the City of Berkeley.

## **11.2B REGIONAL & LOCAL AGENCY COMMENTS**



# California Regional Water Quality Control Board

## San Francisco Bay Region



Terry Tamminen  
Secretary for  
Environmental  
Protection

Internet Address: <http://www.swrcb.ca.gov>  
1515 Clay Street, Suite 1400, Oakland, California 94612  
Phone (510) 622-2300 • FAX (510) 622-2460

Arnold  
Schwarzenegger  
Governor

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JUN 01 2004

PHYSICAL & ENVIRONMENTAL  
PLANNING

May 21, 2004  
File No.: 2198.09 (BT)

Ms. Jennifer Lawrence  
University of California, Berkeley  
1936 University Avenue, Suite 300  
Berkeley, CA 9470-1380

**Re: Long Range Development Plan & Chang-Lin Tien Center for East Asian Studies Draft  
Environmental Impact Report (SCH#2003082131)**

Dear Ms. Lawrence:

We have reviewed the Draft Environmental Impact Report (DEIR) for the 2020 Long Range Development Plan & Chang-Lin Tien Center for East Asian Studies (Project) at the University of California, Berkeley. The proposed project will replace the 1990-2005 LRDP as the policy document that guides land use and capital investment at UC Berkeley. The Project involves plans to construct the Chang-Lin Tien Center for East Asian Studies (Center). The Center will consist of two buildings placed along the southern and western perimeter of Observatory Hill, between Haviland and McCone Halls. Thank you for the opportunity to offer the following comments, which are to advise the University of California at Berkeley of the San Francisco Regional Water Quality Control Board's (Water Board) concerns and permitting requirements.

The proposed development would disturb more than one acre of land during construction. It must be covered under the State NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (General Permit). This can be accomplished by filing a Notice of Intent (NOI) with the State Water Resources Control Board, Division of Water Quality. Copies of the General Permit and NOI can be obtained from the State Board's web page, [www.swrcb.ca.gov/stormwtr/construction.html](http://www.swrcb.ca.gov/stormwtr/construction.html), or by contacting Board staff at (510) 622-2300. The project sponsor must propose and implement control measures that are consistent with the General Permit and with the recommendations and policies of the local agency and the RWQCB.

**B1-1**

The DEIR indicates that there may be a potential for impacts to aquatic resources including wetland habitat, streams or tributaries, or other waters of the State. Both a Clean Water Act (CWA) Section 401 water quality certification and a CWA Section 404 Permit from the U.S. Army Corps of Engineers may be necessary for projects involving impacts to waters of the U.S. Additionally, the project proponent may need to file a Report of Waste Discharge if the project may result in a discharge of pollutants to waters of the State. Work involving stream channels may require a Stream Bed Alteration Agreement from the California Department of Fish and Game.

**B1-2**

*California Environmental Protection Agency*

The Board adopted U.S. EPA's Section 404(b)(1), "Guidelines for Specification of Disposal Sites for Dredge or Fill Material," dated December 24, 1980, in its Basin Plan for determining the circumstance under which filling of wetlands, streams or other waters of the State may be permitted. Section 404(b)(1) Guidelines prohibit all discharges of fill material into regulated waters of the United States, unless a discharge, as proposed, constitutes the least environmentally damaging practicable alternative that will achieve the basic project purpose.

The Guidelines sequence the order in which proposals should be approached: 1) Avoid - avoid impacts to waters; 2) Minimize - modify project to minimize impacts to waters; and, 3) Mitigate - once impacts have been fully minimized, compensate for unavoidable impacts to waters. When it is not possible to avoid impacts to water bodies, disturbance should be minimized. Mitigation for lost water body acreage and functions through restoration or creation should only be considered after disturbance has been minimized. Where impacts cannot be avoided, the creation of adequate mitigation habitat to compensate for the loss of water body acreage, functions and values must be provided.

Cumulative and indirect impacts of wetlands must also be prevented. Indirect impacts include deposition of sediments; erosion of substratum; additional water (flooding); reduced water supply or flows; creating a condition of pollution; shading; and watershed degradation.

This project would increase the amount of impervious surfaces and as a result increase the amount of stormwater runoff from the site. Regional Board recommends the development and implementation of a long term Storm Water Management Plan (SWMP) to protect water quality after construction. Post-construction stormwater concerns may include significant changes in the hydrograph of the receiving waters caused by stormwater runoff, or discharge of pollution such as fertilizers, pesticides and petroleum products to a waterway. We encourage the use of innovative site designs that reduce impermeable surfaces and incorporate Best Management Practices (BMPs) to protect and treat stormwater. These considerations should be incorporated into project design as early in the planning phase as possible.

B1-3

Regional Board staff also recommends obtaining a copy of *Start at the Source-Design Guidance manual for Stormwater Quality Protection*. This manual provides innovative design techniques for structures, parking lots, drainage systems and landscaping. This manual may be obtained from the San Francisco Estuary Project at (510) 622-2465, or can be electronically accessed from [www.basmaa.org](http://www.basmaa.org).

If you have any question, please call Dale Bowyer at (510) 622-2323, or reach me via e-mail at [dcb@rb2.swrcb.ca.gov](mailto:dcb@rb2.swrcb.ca.gov).

Sincerely,



Dale Bowyer  
Senior Water Resources Control Engineer

cc: State Clearinghouse

## **11.2B1      RESPONSE TO COMMENT LETTER B1**

### **RESPONSE TO COMMENT B1-1**

The writer's comment is noted. As described in Chapter 4.7, Hydrology, of the Draft EIR, UC Berkeley would comply with all RWQCB requirements.

### **RESPONSE TO COMMENT B1-2**

The writer's comment is noted. UC Berkeley would comply with all applicable regulatory requirements.

### **RESPONSE TO COMMENT B1-3**

Chapter 4.7 of the Draft EIR describes a number of best practices UC Berkeley implements to reduce stormwater pollutant impacts. As noted at page 4.7-29, the net effect of implementation of the 2020 LRDP would be no net increase in runoff over existing conditions.





**"Saravana  
Suthanthira"**  
<ssuthanthira@accma.  
ca.gov>

To: <2020LRDP@cp.berkeley.edu>  
cc:  
Subject: Comments on the LRDP EIR

06/09/2004 04:48 PM

Hello Jennifer,

We would like to request an extension of one week to submit our comments on the above EIR. We would very much appreciate it. Please let me know your response soon.

Thank you

Saravana Suthanthira  
Associate Transportation Planner  
ACCMA  
Ph- (510) 836-2560  
Fax - (510) 836-2185

## **11.2B.2 RESPONSE TO COMMENT LETTER B2**

### **RESPONSE TO COMMENT B2-1**

The agency's comments were accepted.

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JUN 17 2004

PHYSICAL & ENVIRONMENTAL  
PLANNING

June 14, 2004

Jennifer Lawrence, Senior Planner  
Environmental and Long Range Planning Capital Projects  
1936 University Avenue  
Berkeley, CA 94720

Dear Ms. Lawrence:

Re: Draft Environmental Impact Report – University of California, Berkeley 2020 Long Range Development Plan and Chang – Lin Tien Center for East Asian Studies, Berkeley

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Draft Environmental Impact Report (EIR) for the University of California, (UC) Berkeley 2020 Long Range Development Plan and Chang – Lin Tien Center for East Asian Studies in Berkeley. EBMUD commented on the Notice of Preparation (NOP) for the Draft EIR for the subject project on September 29, 2003, and also prepared and forwarded a Water Supply Assessment (WSA) on January 29, 2004, pursuant to Sections 10910-10915 of the California Water Code. All input contained in those documents still apply. With regard to the subject Draft EIR, EBMUD has the following comments.

### **WATER RECYCLING**

On page 2-55, Continuing Best Practice USS-2.1-d, please revise the mitigation measure to include the following language (*italic represents new language*):

UC Berkeley will continue to incorporate specific water conservation measures *and the use of recycled water from EBMUD for appropriate uses* into project design to reduce *potable* water consumption and wastewater generation. This could include the use of special air flow aerators, water-saving shower heads, flush cycle reducers, low-volume toilets, drip irrigation systems, drought restraint plantings in landscape areas. *EBMUD's Policy 8.1 requires "...that customers ...use non-potable water for non-domestic purposes when it is of adequate quality and quantity, available at reasonable cost, not detrimental to public health and not injurious to plant life, fish and wildlife" to offset demand on EBMUD's limited potable water supply. EBMUD has been coordinating with UC Berkeley officials on a potential Satellite Recycled Water Treatment Plant Project. UC Berkeley officials have been supportive of project concept. If implemented, portions of UC Berkeley's campus would receive recycled water for irrigation within the next ten years. EBMUD will continue to closely coordinate development of this project with UC Berkeley.*

**B3-1**

Jennifer Lawrence, Senior Planner  
June 14, 2004  
Page 2

LETTER B3  
Continued

## WATER CONSERVATION

The proposed UC Berkeley 2020 Long Range Development Plan and Chang – Lin Tien Center for East Asian Studies presents an opportunity to incorporate many water conservation measures. EBMUD staff would appreciate the opportunity to meet with the project sponsor both prior to drafting the Final EIR and for specific projects as they become subject to this long-range plan. A key objective of these discussions will be to explore timely opportunities to expand water conservation via early consideration of EBMUD's conservation programs and best management practices applicable to the projects.

On page 2-55, Table 2-1, Continuing Best Practice USS-2.1-d, second sentence, we request that the following language (*italic represents new language*) be added:

This could include the use of special air-flow aerators, water-saving shower heads, flush cycle reducers, low-volume toilets, drip irrigation systems, *weather based or ET irrigation controllers, and the use of turf for functional uses only* and drought restraint plantings in landscape areas.

B3-2

If you have any questions regarding this response, please contact David J. Rehnstrom, Senior Civil Engineer, Water Service Planning at (510) 287-1365.

Sincerely,



WILLIAM R. KIRKPATRICK  
Manager of Water Distribution Planning

WRK:GAA:sb  
sb04\_153.doc

### 11.2B.3 RESPONSE TO COMMENT LETTER B3

#### RESPONSE TO COMMENTS B3-1 AND B3-2

Best Practice USS-2.1-d has been revised in the Final EIR as follows:

**Continuing Best Practice USS-2.1-d:** UC Berkeley will continue to incorporate specific water conservation measures into project design to reduce water consumption and wastewater generation. This could include the use of special air-flow aerators, water-saving shower heads, flush cycle reducers, low-volume toilets, weather based or evapotranspiration irrigation controllers, drip irrigation systems, ~~and~~ the use of drought resistant plantings in landscaped areas, and collaboration with EBMUD to explore suitable uses of recycled water.

The writer had also requested the phrase “... turf for functional uses only ...” in this Best Practice. However, the Campus Park landscape, particularly within the classical core, includes many areas where turf is integral to the historic design concept of the place, such as Faculty Glade, Memorial Glade or the West Crescent. While the University supports drought resistant plantings in general, the suggested language would be overly restrictive for the Campus Park.



1600 Franklin Street, Oakland, CA 94612 - Ph. 510/891-4716 - Fax. 510/891-7157

June 18, 2004

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JUN 21 2004

PHYSICAL & ENVIRONMENTAL  
PLANNING

Ms. Jennifer Lawrence  
Co-Director, 2020 LRDP EIR  
Facilities Services  
1936 University Avenue #300  
University of California  
Berkeley, CA 94720

Subject: Draft Environmental Impact Report (EIR) University of California Berkeley 2020 Long Range Development Plan

Dear Ms. Lawrence:

Thank you for the opportunity to comment on the Draft EIR for the University of California Berkeley's 2020 Long Range Development Plan (LRDP).

UC Berkeley is one of the most important transit and travel destinations in the entire AC Transit service area. With over 30,000 students, more than 10,000 employees and additional visitors, it is one of the largest trip "attractors" in the East Bay. AC Transit and the University have frequently worked together, most notably on the student "Ecopass" that provides a bus pass for each student paid for through registration fees. AC Transit and the University are planning an experiment in providing bus passes for UC faculty and staff.

B4-1

## 1. GENERAL COMMENTS

### A. Scope and Purpose of the LRDP and the EIR

The LRDP is roughly analogous to a city General Plan. The LRDP sets out academic goals and states physical expansion demands for academic space, housing, and parking that it asserts are required to implement the goals. The LRDP anticipates some 1,650 additional students—growth of approximately 5%. It also anticipates addition of 2,870 new faculty and staff—or approximately 20%. The LRDP states that 2,200,000 additional square feet of academic space, 2,600 additional student beds, and 2,300 additional parking spaces are required to support this increase in campus population.

The LRDP provides siting guidelines for the development of facilities, in some cases indicating potential development/redevelopment sites on and around campus, and in some cases designating "zones" where various facilities might be built. However, it does not specifically site individual facilities, other than the Chang Lin Tien Center for East Asian Studies. The EIR evaluates the campus' overall development program, rather than individual projects. This programmatic approach means that further environmental review (although not necessarily EIRs) will be required to evaluate the localized impacts of construction projects as they are developed.

B4-1

## B. The LRDP and the EIR Overall

AC Transit supports the University's goal of developing needed "academic and support" space to maintain the University's academic excellence. We also support the University's effort to develop this space on and around the main campus, although we have concerns about the consideration of transit in siting facilities. AC Transit supports the Housing Zone concept, although we believe that some refinements of the idea would make it more realistic and comprehensive in guiding siting decisions.

We applaud the University's commitment to maintaining no more than a 10% drive alone share for students commuting to campus. However, we are concerned about the LRDP's approach to transportation for employees. We understand that the campus' current employee drive alone share, like that in Downtown Berkeley as a whole, is lower than in most East Bay employment centers.

However, the LRDP relies heavily on single occupant private automobiles to provide increased faculty and staff access to the campus. It assumes that at least 50% of new faculty and staff will drive alone to campus, and in fact provides parking spaces that accommodate a higher level of driving (to compensate for previous "shortfalls"). The document largely dismisses transit as a mode of handling increased trips. The EIR calls for 3,000 additional parking spaces, an increase of more than 40% over the existing level.

B4-2

This approach would increase congestion, air pollution, and conflicts with pedestrians and bicyclists in an area already suffering from all of these problems. It will make bus transit less attractive, by making the bus trip slower and making the walk from bus stop to final destination less pleasant. Simultaneously, it will increase the attractiveness of driving. We believe that the University should instead continue and intensify its efforts to shift trips from single occupant vehicles to other modes. We urge the University to build on its strong record in supporting non-automotive modes of travel.

AC Transit believes that there are numerous approaches that could further reduce the share of employees driving alone to campus. A reduction of only 10% in the share of employees driving alone to campus could take over 3,000 trips off the streets of Berkeley daily. Therefore, at the end of this letter we suggest mitigations concerning transit passes, improvements to Berkeley streets, express bus service, and evaluation of additional potential transit improvements.

B4-3



### C. Land Use Planning--The Location of University Buildings

The LRDP is a long range land use planning document that includes both criteria and potential locations for University buildings. Land use planning should consider the relationship of development locations to transit. The LRDP should include ease of access to transit as an important siting criterion. However, the LRDP fails to do so.

B4-4

For access purposes, the LRDP appears to treat the entire 180 acre "Central Campus Park" as a single site. At no point, does the LRDP or the EIR distinguish between more and less transit-accessible locations on the central campus. However, the Central Campus Park is almost one mile long. Some parts of the Campus Park have better access to transit than others, even though transit service is available around the entire periphery of the campus. These differences are longstanding and likely to persist. They result from the location of BART, the hills along and around the north side of campus, the city' street and land use patterns, and the interruption of the city street grid by the campus park itself.

B4-5

These differences are important for siting facilities. Most travelers are generally unwilling to walk long distances to a transit stop, particularly if the alternative is a car parked closer to their origin. The industry standard for an easy walk to transit stop is 1/4 mile, or approximately 1,300 feet. This is a distance most people can walk in 5 minutes or less. AC Transit's recent survey of passengers confirmed this pattern for people walking to our bus stops. Over 85% of passengers who walked to the bus walked four blocks or less.

The highest level of transit service for the Berkeley campus is at Berkeley BART station, one block west of the campus. Berkeley BART is also the city's principal bus hub. The next highest level of service is available at Bancroft and Telegraph. This stop is served not only by existing trunk lines, including College-University line 51, but is also planned for a stop on the Telegraph-International Bus Rapid Transit line.

The western and southern sides of campus are within 1/4 mile of Berkeley BART and Bancroft & Telegraph respectively. All other things being equal, buildings in these locations will be more likely to attract transit riders than buildings in the northern and eastern portions of the central campus.

The University could refine its understanding of these relationships by analyzing the travel modes of employees working in various sectors of the central campus. The spatial elements of the Plan (Chapter 3.1) would be easier to understand if the scale of the maps was indicated. We would also suggest a list of figures for the EIR and the LRDP.

B4-6



## D. Housing Zone

The LRDP defines a target area for new University-related housing--the "Housing Zone." The Housing Zone is defined as areas that are either a) within one mile of the center of campus or b) within one block of a transit line providing a trip to the center of campus (including walk time) of 20 minutes. Areas that do not allow densities of at least 40 units per acre are excluded. The zone thus defines areas for transit-accessible student housing. The zone is mapped on p. 3.1-26 of the LRDP.

In general this approach is sound; we also suggest some modest modifications to the definition and the map. The standard of housing locations being within "one block" of a transit line is both imprecise and unduly restrictive, since block lengths vary greatly. As noted above, the industry standard for easy walking distance to a bus stop is 1/4 mile. The Housing Zone should be expanded to include appropriately zoned parcels within 1/4 mile of the major transit corridors shown on Figure 3.1-5. This would typically represent 2-3 blocks from the corridor.

B4-7

The projections for areas within 20 minutes travel time appear to be based on current AC Transit schedules. However, by 2020, AC Transit plans to be operating significantly faster service, which would bring more areas within a 20 minute radius. This is particularly important on Telegraph Avenue in North Oakland, where the Bus Rapid Transit should extend the 20 minute travel time area well south of Highway 24 where it is shown to end. We also plan to develop "Rapid" service on the University-College corridor, allowing an extension of the 20 minute radius south along College Avenue beyond Rockridge BART (the current ending point).

B4-8

## 2. TRANSPORTATION ANALYSIS

AC Transit has comments about the document's background assumptions and assertions, the Plan's parking proposals, the EIR's analysis of impacts, and mitigations for impacts.

### A. Background: UC Berkeley and Other Campuses

The Plan states that UC Berkeley has done well in trip-reduction: "*By California standards, UC Berkeley has an exemplary record of promoting alternatives to the automobile*" (p. 3.1-28). However, other large California campuses are not the most appropriate for UC Berkeley to compare itself to. These campuses are generally located in lower density suburban locations that are not amenable to transit commuting (e.g. UC Irvine, UC Riverside, UC San Diego). It may be useful to compare UC Berkeley with similarly situated campuses in dense urban areas with adjacent bus and rail transit. Similarly situated campuses include Harvard University and the Massachusetts Institute of Technology (MIT) in Cambridge, Massachusetts; the University of Pennsylvania in Philadelphia; the University of Maryland in College Park (just outside Washington D.C.) and Northwestern University in Evanston, Illinois (outside Chicago).

B4-9

## B. Plan Assumptions: Transit Improvements, Capital Requirements, and Fares

The Plan and the EIR at several points make an unsupported assertion that "*significant further reductions in drive-alone trips require major capital investments in new transit systems*" (p. 4.12-41). However, this claim is not correct, is not supported in transit literature, and should not be used to rationalize inaction on improving transit.

B4-10

While some types of transit improvements--Bus Rapid Transit lines with dedicated median lanes--require major capital investments, many do not. In the last ten years, the transit industry has become increasingly effective at improving service and increasing ridership without making major capital investments.

Cost, speed, and amenities shape travelers' mode choices. There are ways of improving each of these without major capital investments. Employer paid passes can alter the relative cost of various modes. Amenities can be improved in many ways. Bus shelters can be improved, real time information ("Nextbus") can be provided both at stops and away from the stop, buses themselves can be and have been upgraded. UC Berkeley could contribute to the construction and maintenance of upgraded bus shelters around its periphery. The campus could bring Nextbus information into campus buildings.

B4-11

The transit industry has made major advances in its efforts to improve bus travel speed in congested urban areas. The Bay Area has a large and expanding network of freeway express buses operating on High Occupancy Vehicle lanes. There are all day and peak hour bus lanes on arterial streets. In some cases, parking is prohibited during peak hours. The San Pablo Rapid benefits from transit signal priority, which reduces delay at red lights. Bus bulbs can speed up boarding and alighting and reduce bus dwell times. Many of these techniques for improving bus speed do not require major capital investments.

B4-12

The Plan also asserts that "*...overall, cost is a less important factor in mode choice than convenience and travel time ...*" This assertion is unsupported in the Plan and is unsupported in the literature of travel mode choice. The levels of cost involved, time savings and time penalties, and many other factors influence how travelers trade off convenience and time against cost. It is also clear that making transit free significantly increases ridership, as the Class Pass at UC Berkeley--among other instances--demonstrates. The success of Class Pass is a factor in allowing the University to realistically set a target that only 10% of students drive to campus. The assertion about cost and convenience should be removed from the document.

B4-13

There are a number of methods to reduce (or eliminate) the cost of transit to the passenger, improve its speed, and improve the convenience and amenity level of transit. The LRDP presents an excellent opportunity to work with AC Transit and other transit providers to evaluate potential transit improvements and develop a world class transit system for the UC Berkeley campus.

B4-14

### C. Plan Assumptions: Rapids and the Anticipated 2020 Transit Network

The EIR describes the anticipated 2020 transit network in the "Baseline 2020 Transit Service" section (pp. 4.12-39 &40). This section discusses AC Transit's plan for Bus Rapid Transit on the Telegraph-International corridor. However, it overlooks our plans to provide Rapid service on several corridors serving the campus. These plans are summarized in AC Transit's **Strategic Vision**, which is a section of our main service planning document, the **Short Range Transit Plan** (the **Strategic Vision** has also been published as a stand alone document).

B4-15

The **Strategic Vision** calls for development of Rapid bus service on the Shattuck/Alameda and College/University corridors. University-related users might also benefit from planned upgrades on the Sacramento/Market and 6<sup>th</sup>/Hollis corridors. The City of Berkeley has repeatedly requested the extension of Bus Rapid Transit service from Downtown Berkeley to West Berkeley via University Avenue, although it has not identified any potential for dedicated lanes. The services anticipated in the **Strategic Vision** would be comparable to that provided by the San Pablo Rapid. AC Transit is developing cost estimates and identifying funding sources to implement these plans.

Transit service would therefore be upgraded on all four of the principal transit access corridors to the campus: Shattuck, University, and College Avenues, as well as Telegraph Avenue. These main corridors would have service to campus which is faster, probably more frequent, and certainly more comfortable. These changes will tend to boost transit ridership. These Rapid lines should be built into the assumed 2020 transit network and the modeling using that network.

### D. Plan Proposal-- 3,000 New Parking Spaces to address "Inadequate Parking Capacity"—and Alternatives

The Plan's principal transportation initiative is the addition of 2,300 parking spaces above currently planned levels. Since some 700 spaces are approved but not yet built, the total addition of parking above current levels would be approximately 3,000 spaces, or over 40%. These spaces are proposed in response to presumed future and current shortfalls. The existence of the current shortfall is demonstrated by the fact that not all drivers who wish to park on campus are able to do so—a completely inappropriate criterion.

B4-16

The EIR proposes a parking "Standard" as a criterion for measuring whether the LRDP has a significant impact under the California Environmental Quality Act (CEQA). The proposed standard is "*Would the project result in inadequate parking capacity?*" (p.4.12-40). However, this "standard" is both vague and environmentally counterproductive, and should be eliminated. Providing high levels of parking will encourage auto trip-making and degrade air quality.

B4-17

The EIR provides no definition of "adequate" parking. It is in fact difficult to define "adequate" parking, because parking demand responds to a series of other conditions. The demand for parking changes with the cost of operating a vehicle, the cost of parking, and the cost and attractiveness of other travel modes, among other factors.

B4-18

Because the "adequacy" of parking is driven by context and policy, the City of San Francisco has explicitly dropped parking shortfalls as an environmental impact in its Environmental Impact Reports. San Francisco notes that shortfalls in parking are temporary, not permanent physical impacts of the type that the California Environmental Quality Act (CEQA) was designed to address. They note that drivers adjust their behavior in response to localized parking shortages, often eliminating the shortfall. Thus it could be counterproductive and expensive for the University to build parking to meet a presumed shortfall that later turns into a surplus.

At the same time, the Plan rejects a transit-based alternative because of the incorrect assumption that large capital investments would be required. We recommend an alternative approach that does not increase parking, but instead focuses on improving transit stops, transit operating conditions and transit service, as well as the pedestrian and bicycle environment. The goal of this alternative approach would be accommodating the reasonable levels of campus population growth proposed by the LRDP without increasing automobile traffic.

B4-19

### **E. Measuring Impacts: Traffic Increases**

In our letter responding to the Notice of Preparation, AC Transit asked that the LRDP EIR specifically examine the impact of traffic and congestion increases on bus travel, but this was not done. Traffic increases concern AC Transit greatly because they tend to reduce the speed of bus travel. Traffic increases tend to affect buses more strongly than private cars, because buses usually must pull into and out of travel lanes. Increases in congestion also have a direct financial cost to AC Transit. If travel times slow, we must add buses in order to maintain a given headway--frequency of service--on a route. This typically requires cutting service elsewhere. Alternatively, AC Transit can reduce the frequency of a route and operate the same number of buses, degrading service to the passengers and probably reducing ridership.

B4-20

Traffic increases also tend to degrade the pedestrian environment—a concern the LRDP reflects in its discussion of limiting vehicle traffic on the central campus. Any degradation of the pedestrian environment is detrimental to bus transit, since it makes potential passengers less willing to walk to their bus stops.

B4-21



We are not in a position to evaluate whether the EIR has in fact projected traffic increases correctly. We are more concerned with the direction of change—are operating conditions for buses and environmental conditions for pedestrians improving or degrading. One area of uncertainty in the traffic analysis is whether the EIR has evaluated the localized impacts of planned parking increases. Intersections around new parking garages are likely to experience surges of traffic at peak hours, especially in the afternoon. This would slow bus travel and interfere with pedestrian and bicycle travel.

B4-22

B4-23

The EIR seeks to minimize the impact of increases in congestion. It asserts that only increases in delay of 5% or more at an intersection are significant. Other EIRs, such as those prepared by the City of Emeryville, typically use a standard that a 3% increase is significant. Thus the EIR understates the number of significantly delayed intersection. A series of intersections on a bus corridor each suffering from small additional delays can result in a cumulative loss of bus travel time, an issue the EIR does not address.

B4-24

The EIR notes, on p. 4.12-54 that select link levels of service would be degraded on University Ave. (on a segment which is almost two miles long), on San Pablo Avenue and on Shattuck Avenue (other major streets with bus lines are also impacted). These three streets are major bus corridors and the resultant slowing of bus operations will result in a loss of time and convenience for bus riders. It could easily result in a counterproductive loss of bus ridership. The EIR argues that these impacts are significant and unavoidable. However, AC Transit believes that they could be mitigated at least in part with the measures we describe in the next section. For these reasons, we strongly urge the University to build its response to employment growth around transit rather than parking.

B4-25

#### **F. Data Corrections on Class Pass Use**

We have the following corrections to data on Class Pass use reported on p. 4.12-30.

B4-26

Of 7, 121 respondents to the survey on Class Pass use:

- 83% of respondents use the Class Pass to ride AC Transit buses at least once a week;
- 35% of respondents use Class Pass to ride AC Transit buses at least once a day;
- The most popular bus routes are line 51 (45% of respondents), line 52 (19% of respondents), line 52L (14% of respondents), line 7 (19% of respondents) and line 40 (16% of respondents);
- About 65% of Class Pass respondents use AC Transit to commute between home and school and about 31% use AC Transit for shopping, recreational, and social purposes
- 75% reported willingness to pay additional costs to include BART ticket purchases with the Class Pass.

### G. Mitigations that Would Support Transit

The Draft EIR does not adequately mitigate the significant negative impacts that increases in automobile travel would cause. It neither adequately addresses the impact of traffic congestion, nor provides mitigations that support transit.

B4-27

The LRDP should incorporate and fund mitigations to address the increased congestion and to increase the transit share of travel to campus, particularly for employees. As noted above, the goal should be accommodating population growth without increasing automobile traffic. While detailed planning would be required to develop these approaches, certain types of mitigations would clearly be useful.

B4-28

**Commitment Not To Increase Auto Trips:** The commitment not to increase automobile trips to the campus is an important policy baseline that UC Berkeley should adopt. Stanford University has made a long term commitment that the growth of the campus will result in no net new peak hour automobile trips. They have taken many actions as a result. Among other efforts, Stanford is providing substantial financial support for a new AC Transit line from Fremont to Stanford, with free service for Stanford employees.

B4-29

**Transit Fares:** The University should assure that all students and staff have transit passes as a condition of employment or of being a student, with a universal funding mechanism like the registration fees currently used for Class Pass. This would clearly increase ridership, particularly if both AC Transit and BART participated.

B4-30

**New Transit Lines:** While the UC campus is served by a rich network of transit lines, some augmentations may be useful. In particular, express bus service from locations not served by BART could be helpful. Such services could serve the University and other employers. The West Contra Costa corridor north from Richmond is a location with many UC employees and could be an appropriate candidate for such service, which UC Berkeley could help fund.

B4-31

**Improving Existing Transit Lines:** The most important changes in transit service will be improvements to existing lines. UC Berkeley could provide financial and institutional support to these efforts. Beyond the Bus Rapid Transit, AC Transit will be developing Rapid service along Shattuck, College, and University Avenues. These will require funding for intersection improvements, transit signal priority, purchase of additional buses, and possibly for streetscape improvements such as bus bulbs. The University could fund improvements of the numerous bus stops on and near the campus that serve University students and staff.

B4-32

**Providing Transit Information:** Information about transit is needed to make it possible for people to use transit. UC Berkeley could provide more such information. For example, bus arrival information could be provided in all campus buildings, using "Nextbus" signs like those being used along San Pablo Avenue.

B4-33

Finally, we urge the University to fully enlist its own intellectual resources in the effort to further improve travel patterns to campus. UC Berkeley has a number of transportation planning resources beyond those of most employers. Because the University surveys student and staff travel patterns regularly, it has a rich database for evaluating travel patterns and actions that might improve these patterns. AC Transit would be happy to assist the University in analyzing the locations of students and staff and how transit service might be tailored for them.

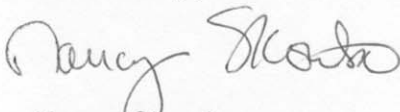
B4-34

UC Berkeley is also one of the nation's leading centers for research on transit and transportation. It is home to both topflight faculty and leading students in the field. The University administration should draw on this expertise as you develop transportation plans. This would serve to deepen and broaden the knowledge base that can be applied to campus planning.

B4-35

Thank you for your interest on our comments. If you have any questions about them please contact Nathan Landau, Long Range Planning Division, 891-4792.

Yours Truly,



Nancy Skowbo  
Acting Deputy General Manager for Service Development

Cc: AC Transit Board of Directors  
Peter Hillier, City of Berkeley

## **11.2B.4 RESPONSE TO COMMENT LETTER B4**

### **RESPONSE TO COMMENT B4-1**

Summary statement. Please refer to detailed comments and responses, below.

### **RESPONSE TO COMMENT B4-2**

2020 LRDP policies regarding parking and transit appear at pages 3.1-28 through 3.1-29 of the Draft EIR. See also Thematic Response 9 regarding parking demand, and Thematic Response 10 regarding alternative transportation.

### **RESPONSE TO COMMENT B4-3**

Summary statement. Please refer to detailed comments and responses, below.

### **RESPONSE TO COMMENT B4-4**

The statement is incorrect. Transit access is clearly a criterion for the location of new student housing in the 2020 LRDP: the Housing Zone, in which all new student housing built under the 2020 LRDP would be located, is defined by the criteria of walking distance and transit access to campus. See section 3.1.8 and figure 3.1-5 of the Draft EIR. See also response to comment B4-5, below.

### **RESPONSE TO COMMENT B4-5**

For most campus locations and for most who frequent the central campus, transit is more convenient and accessible than any other mode. Please refer to page 3.1-26 of the Draft EIR, showing the boundaries of a one mile radius of the central campus. Please also refer to page 4.12-34, showing the Bear Transit campus shuttle routes; and page 4.12-32, showing AC Transit routes. Central campus parking is not available to most staff or students; further the 2020 LRDP would reduce the quantity of central campus parking. See pages 3.1-45 to 3.1-46 of the Draft EIR. The writer's opinions are noted.

### **RESPONSE TO COMMENT B4-6**

The writer suggests UC Berkeley look for a relationship between travel modes and work location. UC Berkeley regularly surveys staff and students regarding housing and transportation, and the writer's suggestion will be forwarded for consideration in the next survey.

### **RESPONSE TO COMMENT B4-7**

While the writer's comments regarding easy walking distance to transit stops are noted, the one-block distance used to define the Housing Zone reflects not only the desire to have a very strong incentive for transit use, but also the land use designations in the Berkeley and Oakland General Plans. In general, designations suitable for high density housing tend to extend only one block on either side of major arterials. UC Berkeley therefore believes the one-block limit should be retained.

### **RESPONSE TO COMMENT B4-8**

In fact, the original Housing Zone was larger, because it used the criterion of a 20 minute transit trip to the edge of campus. As the result of comments received from the ASUC during the scoping process, however, the zone was reduced to its present dimensions. The objections of the ASUC had to do with both a more realistic measure of travel time, to include the walk from transit stop to destination, and the impact of



physical dispersion on the intellectual community. UC Berkeley finds the arguments of the ASUC to be persuasive, and the Housing Zone should remain as presently defined.

The writer is correct in anticipating the zone boundaries could change over time in response to service changes; however this would not change the definition of the zone itself, which is based on travel time. Future improvements in travel time due to BRT would be taken into consideration in adjusting the Housing Zone boundary in the future. The caption to figure 3.1-5 has been revised in the Final EIR to clarify the distinction. See also response to comment B7-28.

**RESPONSE TO COMMENT B4-9**

A variety of urban campuses are suggested as examples for transportation promotion; yet urban environments differ in the availability, desirability, service quality, cost and commute context for transit, and strictly comparable environments are difficult to ascertain. Programs adopted at other universities may help mitigate the traffic impacts of campus growth but such benefits may not be known at this time. Accordingly, the effects of these measures in mitigating traffic impacts cannot be guaranteed and cannot be used as a rationale for identifying a potential impact as mitigated to a less than significant level. The effectiveness of UC Berkeley trip reduction measures will be apparent in the mitigation monitoring process. See Thematic Response 2 on mitigation monitoring; see also Thematic Response 10 on trip reduction.

Thematic Response 9 compares the parking program in the 2020 LRDP with several other urban research universities, suggested by the writer and other commentators as having exemplary programs of incentives for alternate transportation modes.

**RESPONSE TO COMMENT B4-10**

The writer notes that some types of transit improvements do not require major capital investments. The writer presents no data on any program UC Berkeley might implement to leverage limited funding for maximum benefit in its transit programs.

**RESPONSE TO COMMENT B4-11**

In addition to the Bear Pass program for faculty and staff to be implemented this fall (see Thematic Response 3 and Thematic Response 10), UC Berkeley is negotiating a contract with Lamar Advertising (Alameda County's shelter vendor) to install freestanding shelters and kiosks at campus shuttle and AC Transit bus stops on campus property. The City of Berkeley is implementing a similar program for sites throughout the City.

In certain settings around the campus, bus shelters are physically difficult to place and a kiosk (one side campus map/shuttle routes, one side advertising) would be substituted to mark the stop and provide information. The current program calls for the installation of 14 shelters and 4 kiosks; most will be installed on the campus perimeter, along Oxford Street, Hearst Avenue, Gayley Road and Piedmont Avenue, and Bancroft Way. This program is envisioned as the first phase of a larger bus shelter/kiosk program that would eventually be expanded to include shuttle routes in the Southside, downtown Berkeley, the Northside, and possibly Albany and Richmond.

Other improvements, such as Nextbus technology, are under consideration. Usually, and particularly in times of limited resources, transportation planners must responsibly

evaluate the cost of any program against the anticipated benefits to prioritize program implementation.

**RESPONSE TO COMMENT B4-12**

The comment is not a comment on the Draft EIR. No response is required. See also response B4-10, above.

**RESPONSE TO COMMENT B4-13**

The text at page 3.1-29 of the Draft EIR clearly attributes the referenced finding to a UC Berkeley survey.

While the UC Berkeley Class Pass “significantly increases ridership” it may not be a significant factor in the student mode split. As surveyed in 1997 (prior to the Class Pass) the student drive alone rate was 13%; in 2000 (after the Class Pass was instituted) the drive alone rate was 11%. How much this reduction is associated directly with the Class Pass is unclear – other issues such as parking fee, parking availability, campus housing availability, rainy vs. dry winter, can all influence driving rates year to year. For a little fewer than half of students who have cars, the Class Pass influences how often they drive to campus, according to a 2001 Class Pass survey.

The writer suggests “making transit free”, presumably implying “free” to the end user. For the City of Berkeley Eco Pass, the City pays AC Transit \$60 annually per pass, and is required under the program to purchase a minimum of 1400 passes. Students similarly pay AC Transit for the Class Pass, and UC Berkeley and participating employees will pay AC Transit for the Bear Pass. The comment is noted.

**RESPONSE TO COMMENT B4-14**

The writer’s opinion that the LRDP presents an excellent opportunity to work with AC Transit is noted. UC Berkeley has a fruitful ongoing relationship with AC Transit: UC Berkeley and AC Transit jointly developed the Class Pass program putting AC Transit passes in the hands of every Cal student; with AC Transit and the City of Berkeley, UC Berkeley jointly developed and implemented a pilot shuttle program from Rockridge BART; UC Berkeley leases AC Transit buses for the campus shuttle program; UC Berkeley staff serve on the Bus Rapid Transit Planning technical advisory committee; this year, UC Berkeley and AC Transit developed the Bear Pass program for UC Berkeley employees; AC Transit tickets are sold through UC Berkeley parking and transportation offices.

**RESPONSE TO COMMENT B4-15**

The Draft EIR discussion of future 2020 baseline transit service includes only projects that are fully funded in AC Transit’s 2001-2010 Short Range Transit Plan. UC Berkeley users would benefit from rapid bus service on the other corridors noted, namely Shattuck/Alameda, College/University, Sacramento/Market and Sixth/Hollis, and UC Berkeley supports AC Transit’s efforts to achieve this service level. However, because the funding for these projects is not assured, the 2020 LRDP EIR traffic and transit impact evaluations do not assume them to be in place. If they are funded in the future, the number of transit riders could increase and this would have a beneficial impact on traffic.

**RESPONSE TO COMMENT B4-16**

The writer's opinion is noted. Please see Thematic Response 9 regarding parking demand.

**RESPONSE TO COMMENT B4-17**

The significance thresholds in the Draft EIR are based on those set forth in the California Environmental Quality Act. See Appendix G of the CEQA Guidelines, CCR Title 14, Chapter 3. The Secretary of the California Resources Agency, which promulgates the CEQA Guidelines and their appendices, deemed the referenced threshold appropriate. The threshold was also included in the 2020 LRDP EIR Notice of Preparation.

When inadequate parking exists, persons in cars looking for parking tend to circulate more, influencing traffic and air quality.

**RESPONSE TO COMMENT B4-18**

The writer's comments are noted.

**RESPONSE TO COMMENT B4-19**

See Thematic Response 3 regarding 2020 LRDP Alternatives.

**RESPONSE TO COMMENT B4-20**

The incremental increase in traffic congestion created by the 2020 LRDP is analyzed in Impacts TRA-6, 7, 8, 9 and 10 at pages 4.12-48 thru 4.12-55 of the Draft EIR. The increase in transit vehicle delays are assumed to be similar to those of other vehicles at the impact locations, although the comment is noted that baseline transit speeds and headways are affected by the special operational requirements of buses, namely pulling in and out of traffic frequently. The 2020 LRDP does not directly identify additional bus stops nor does it call for increased service frequency, other than that which AC Transit itself is planning for. Therefore, the impact on transit service delays is similar to the impact on general vehicle traffic delays, as described in Impacts TRA-6 through TRA-10. It is only appropriate for UC Berkeley to evaluate the environmental impacts; it has no authority to evaluate AC Transit's operations.

**RESPONSE TO COMMENT B4-21**

The writer's assertion is not a comment on the Draft EIR. No response is required.

**RESPONSE TO COMMENT B4-22**

Data regarding traffic were closely coordinated between consultants for AC Transit and consultants for UC Berkeley.

**RESPONSE TO COMMENT B4-23**

Appendix F, in the Draft EIR Volume 2, provides a detailed description of how traffic generated by the 2020 LRDP was assigned to the intersections both near the parking zones and throughout the City. Please refer to the text on page F.1-9, along with Figure F.1-2, for a description of the parking locations assumed for analysis purposes, and the text on page F.1-16 and Table F.1-9 for a description of the trip distribution. The commenter is correct that intersections nearest a parking structure will experience traffic surges or "peaks"; the traffic analysis has been designed to project traffic volumes in the

vicinity of new parking supplies as accurately as possible, given the program-level definition of parking locations.

**RESPONSE TO COMMENT B4-24**

The 5% threshold of significance for intersection and CMP/MTS route impacts was chosen as a reasonable contribution level to represent significance, and to be as consistent as possible with the thresholds used in the City of Berkeley General Plan EIR. Corridor-level congestion increases are addressed by Impact TRA-10, which finds that segments of 5 CMP/MTS routes in Berkeley would exceed the CMP LOS standard with traffic generated by the 2020 LRDP.

**RESPONSE TO COMMENT B4-25**

The comment is noted. Below, at response to comments B4-29 through B4-34, the proposed mitigation measures are discussed.

**RESPONSE TO COMMENT B4-26**

The data that appears in the Draft EIR is correct for the survey years noted in the Draft EIR. The information presented by the writer is partly correct for the 2003 survey. According to the survey, 25% of respondents used AC Transit once a day; the top three bus lines used by students were the 51 (45%); 7 (19%); 52 (18%).

**RESPONSE TO COMMENT B4-27**

The writer's opinion is noted.

**RESPONSE TO COMMENT B4-28**

Access goals of the 2020 LRDP are presented at pages 3.1-28 through 3.1-29 of the Draft EIR. Further, as noted in Thematic Response 9, UC Berkeley may defer some portion of the 2020 LRDP parking program in recognition of AC Transit's BRT/Telegraph project.

**RESPONSE TO COMMENT B4-29**

The writer's suggestion that no net new peak hour auto trips be a policy baseline for UC Berkeley is noted. UC Berkeley attempts to capture information about campus-associated trips through regular surveys of faculty, staff and student travel; however, UC Berkeley is located in a densely urbanized environment where parking and travel access options are diverse. For example, the City/UC TDM Study found over 2000 study area commuters park in surrounding residential neighborhoods and walk to their destinations.<sup>1</sup> UC Berkeley has no direct control over modes of access.

Stanford has approximately 22,000 parking spaces for a population of 32,000 faculty, staff and students; Stanford also spends more than twice as much for a demand reduction program that generates a poorer mode split than UC Berkeley's.<sup>2</sup>

**RESPONSE TO COMMENT B4-30**

The Class Pass, paid for through student registration fees, was approved by vote of the students. The new Bear Pass is a voluntary program for faculty and staff. The writer's opinion that participation in the program should be required "as a condition of employment" is noted.

**RESPONSE TO COMMENT B4-31**

The writer's opinion is noted. Weighted results from the 2001 faculty and staff housing and transportation survey indicate that some 2750 faculty and staff looked for a new residence in the previous 5 years in West Contra Costa County and north to Vallejo. UC Berkeley and AC Transit have an active partnership, and UC Berkeley is eager to work with AC Transit to implement programs that would increase transit ridership and reduce congestion. As noted in Thematic Response 9, UC Berkeley may defer some portion of the 2020 LRDP parking program in recognition of AC Transit's Bus Rapid Transit/Telegraph project. However, a commitment by UC Berkeley to measures of unknown effectiveness, on an uncertain timetable, and under the authority of one or more other agencies, is not required by CEQA.

**RESPONSE TO COMMENT B4-32**

The writer suggests UC Berkeley help fund a number of transit improvements. Some, such as bus stop improvements, are already under consideration by UC Berkeley: see response B4-11, above. UC Berkeley and AC Transit have an active partnership, one that has resulted in innovation and improvements, including the Class Pass and the Bear Pass, and additional collaborative efforts would be welcome. However, the potential effects of the proposed measures in mitigating traffic impacts cannot be used as a rationale for identifying a potential impact as mitigated to a less than significant level.

UC Berkeley is eager to work with AC Transit to implement programs that would increase transit ridership and reduce congestion, and as noted in Thematic Response 9, may defer some portion of the 2020 LRDP parking program in recognition of AC Transit's Bus Rapid Transit/Telegraph project. However, a commitment by UC Berkeley to measures of unknown effectiveness, on an uncertain timetable, and under the authority of one or more other agencies, is not required by CEQA.

**RESPONSE TO COMMENT B4-33**

Please see response B4-11, above.

**RESPONSE TO COMMENT B4-34**

The writer's exhortation and offer of assistance is noted.

**RESPONSE TO COMMENT B4-35**

The writer's exhortation, and opinion that UC Berkeley is one of the nation's leading centers for research on transit and transportation, is noted.



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SUBJECT: Comments on the Draft Environmental Impact Report for the UC Berkeley 2020 Long Range Development Plan and Chang-Lin Tien Center for East Asian Studies in the City of Berkeley

Dear Ms. Lawrence:

Thank you for the opportunity to comment on the University's Draft Environmental Impact Report (DEIR) for the UC Berkeley 2020 Long Range Development Plan and Chang-Lin Tien Center for East Asian Studies in the City of Berkeley. The proposed plan and the project would add 2.2 million GSF of academic and support space, 2,600 additional housing bed space and 2,300 additional parking spaces, as well as construct the Chang-Lin Tien Center for East Asian Studies (approximately 430,000 GSF). The sites, totaling 1,200 acres, are located in the UC Berkeley Campus Park and adjacent Hill Campus.

The ACCMA has reviewed the DEIR and submits the following comments. These comments are consistent with the comments that were made in the response to the NOP for the DEIR on September 26, 2003. Where possible, the DEIR page numbers are referenced.

- o Page 2-52 –Table 2-1 Summary of Impacts, Mitigation Measures and Continuing Best Practices – LRDP Impact TRA-10: The report states that 2020 LRDP would have significant and unavoidable impacts on seven CMP/MTS roadway segments and two interchanges on these roadways. The only possible mitigation measures proposed are trip reduction measures. To make the mitigation measures effective in alleviating the added traffic impacts of the project on the above roadways and intersections, additional options should be explored.

B5-1

The City of Berkeley could be required to prepare deficiency plans for any CMP segments with LOS F in the future. The University should participate in funding any necessary improvements to improve the LOS.

B5-2

- Proposed New Housing and Trip Generation: Regarding the new housing supply proposed in the plan, it is not clear how many more residential units the suggested locations could accommodate. Part of the suggested locations fall within the City of Berkeley's jurisdiction, for which the city approval would be required, over which the University has no control. In the event that these housing units were not built, then most of the new 2020 LRDP population, assumed to live within 5 mile radius (809+578 =1387) and walk/bike to the University, would not have residences in that proximity. These residents would have to shift to other modes to commute to the University thereby increasing the new trips that would be generated by this plan. The traffic analysis should include an assessment of how many new units are possible and an analysis of the impacts for "no new housing within the City's Jurisdiction".

B5-3

- Parking Supply and Demand: On page F I-18, the report states that the surplus 555 parking spaces from the 2020 LRDP would be absorbed mostly by the existing unmet parking demand of the University. Although it is reasonable to assume that some of the university-related vehicle trips currently parked on the on-street and non-university operated parking facilities would be diverted to these proposed surplus parking, these spaces may attract new trips to the University that are currently being made by other modes. Since it is difficult to ensure that the new parking spaces would be specifically provided to the new additional LRDP 2020 population, creating the proposed 2,300 new parking spaces may trigger new trips that are currently made by non-auto.

B5-4

Further, the report states that these proposed surplus parking spaces would indirectly free-up the non-university related parking that is currently occupied by the university-related trips, and in turn, those spaces would be provided to partly meet the estimated future deficit of 600 parking spaces in the downtown. These freed-up on-street and private parking spaces may also generate new trips in the study area. It is requested that the traffic analysis be revised to consider these two types of potential new trips.

B5-5

- Page 4.12-40 – Standard of Significance: Reference to ACCMA's Congestion Management Program (CMP) standards from this section should be deleted. The standard referenced in the CMP is for the LOS Monitoring Program identified in the CMP and is applicable only for monitoring *existing* conditions. This project is subject to the requirements of the Land Use Analysis Program of the CMP and for that element the Alameda County CMA does not have a policy for determining a threshold of significance. Professional judgment should be applied to determine the significance of project impacts.

B5-6

- Page F-1-25- Bear Transit: the traffic analysis states that increasing the service frequency for the campus shuttle is critical to meet the increased need for

B5-7

Ms. Jennifer Lawrence  
June 18, 2004  
Page 3

LETTER B5  
Continued

connectivity between the campus and transit. However, no specific recommendation to increase the frequency has been made in the report. Operating plans and funding should be identified.

B5-7

Once again, thank you for the opportunity to comment on this DEIR. Please do not hesitate to contact me at 510/836-2560 ext. 24 if you require additional information.

Sincerely,



Saravana Suthanthira  
Associate Transportation Planner

cc: Chron  
file: CMP - Environmental Review Opinions - Responses - 2004



## **11.2B.5 RESPONSE TO COMMENT LETTER B5**

### **RESPONSE TO COMMENTS B5-1 AND B5-2**

The Draft EIR identified mitigation measures to alleviate traffic congestion impacts where feasible measures exist, and UC Berkeley is eager to work with the City of Berkeley and the Alameda County Congestion Management Agency in the development and implementation of solutions for impact locations where feasible mitigation measures were not identified. However, the City of Berkeley would be the lead in implementing any improvements to City streets and intersections.

The City of Berkeley Transit First policies, which restrict roadway capacity expansion and support multi-modal solutions, are acknowledged in the Draft EIR at pages 4.12-6 to 4.12-8. The Berkeley General Plan EIR notes that these solutions may not reduce traffic congestion impacts to a less than significant level. Because these measures may not mitigate traffic impacts, mitigation cannot currently be assumed and cannot be used as a rationale for identifying a potential impact as mitigated to a less than significant level. See also responses B7a-9, B7a-117 and B7a-118.

As noted in Thematic Response 9, UC Berkeley may defer some portion of the 2020 LRDP parking program in recognition of AC Transit's BRT/Telegraph project.

### **RESPONSE TO COMMENT B5-3**

The writer theorizes that the full extent of the 2020 LRDP housing program may not be constructed, and requests UC Berkeley analyze the addition of up to 1387 trips under a "no new housing within the City's Jurisdiction" alternative. However, as stated in Appendix F, page F.1-12, "Although the housing component of the 2020 LRDP would lower the overall project trip generation, it has not been taken into account, in order to provide a more conservative analysis." The Draft EIR traffic analysis does not reduce the total 2020 LRDP person-based traffic generation to reflect housing construction within the housing zone; therefore, the analysis requested by the commenter is supplied by the Draft EIR analysis.

### **RESPONSE TO COMMENT B5-4**

The writer's concern that added parking may result in shifting non-auto commuters to driving is addressed in the 2020 Draft EIR in Mitigation TRA-11 at page 4.12-56.

### **RESPONSE TO COMMENT B5-5**

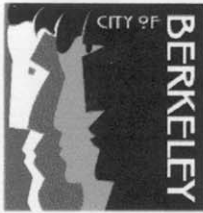
The effect of the shift in parking usage described by the commenter is already reflected in the traffic numbers. This is because the "freed up" spaces noted by the commenter are the same spaces that would disappear in the future with the 600-space growth in the downtown parking deficit. Thus, the spaces would not generate additional traffic; rather, the University-related vehicles that are presumed to be using many of the spaces would shift to the 555 new University-provided spaces under the 2020 LRDP, as the downtown supply shrinks and the UC supply grows.

### **RESPONSE TO COMMENT B5-6**

The comment is noted. To clarify, the Draft EIR does not intend to imply that the threshold of significance used for CMP/MTS routes is required by the CMA; but rather, that the University chooses to apply the same LOS standards that the CMA applies in its biennial monitoring, for the University's CEQA purposes.

**RESPONSE TO COMMENT B5-7**

As stated in Appendix F, page F.1-25, trip growth would be monitored by the Parking and Transportation Office. Continuing Best Practice TRA-5, at page 4.12-48 of the Draft EIR, calls for continuing coordination of transit services to new buildings, parking facilities and campus housing. The level of detail requested by the comment is not required by CEQA; however, please see Thematic Response 10, and response to comment B7a-78 for additional details regarding the Bear Transit shuttle system.



Office of the City Manager

RECEIVED  
JUN 18 2004  
PHYSICAL & ENVIRONMENTAL  
PLANNING

June 18, 2004

Jennifer Lawrence  
Co-Director, 2020 LRDP EIR  
Facilities Services  
University of California, Berkeley  
1936 University Avenue, Suite 300  
Berkeley, CA 94720-1380

Re: **Commission Comments on UC Berkeley 2020 LRDP and Draft EIR**

Dear Ms. Lawrence:

Enclosed are comments City staff received from City of Berkeley commissions regarding the UC Berkeley 2020 Long Range Development Plan and Draft Environmental Impact Report. I am submitting these on behalf of the commissions, but they are not to be considered part of the City of Berkeley official comments. Where consistent with staff position and analysis, you will find that some commission comments are reflected in the City staff submittal.

You should consider this set of Commission comments along with those of other groups and members of the community and respond appropriately.

Sincerely,

PHIL KAMLARZ  
City Manager

cc: Arrietta Chakos, Asst. City Manager  
Dan Marks, Director of Planning  
Zach Cowan, Asst. City Attorney  
Grace Maguire, Asst. to the City Manager

~~CONSENT CALENDAR~~  
June 8, 2004

To: Honorable Mayor and Members of the City Council

From: The Disaster Council

Subject: Failure to consider emergency evacuation impacts of new housing in U.C. Berkeley's 2020 Long Range Development Plan Draft Environmental Impact Statement [hereinafter, 2020 DEIR]

#### RECOMMENDATION

The Disaster Council recommends that the City Council include in its comments on the 2020 DEIR the request that in the final EIR, the University add an analysis of the impact of adding 100 housing units at Centennial Drive near Grizzly Peak to an emergency evacuation from the hills, as in the event of fire. Specifically, analysis of this issue should be added to the discussions of LRDP Impact PUB 2.1, 2.2, and 2.4 on pages 4.11-11 through 4.11-15 of the DEIR.

B6-1

#### FISCAL IMPACTS OF RECOMMENDATION

None.

#### CURRENT SITUATION AND ITS EFFECTS

The Berkeley hills are densely populated and many of the streets leading out of the hills are so narrow that when cars are parked along them, they function essentially as one-lane roads. The hills pose a high fire danger during the dry season or following an earthquake, and evacuating the area while simultaneously allowing emergency vehicles into the area has been and will be difficult.

The University's 2020 DEIR proposes adding up to 100 units of faculty housing near the top of Centennial Drive. The DEIR addresses fire prevention plans in the form of vegetation management, but it is silent as to the impact of those 100 units on the ability of existing hills residents to evacuate the area in the event of fire. Centennial Drive will be a major egress route in an emergency.

#### BACKGROUND

The 2020 DEIR considers the impacts relating to wildland fires, emergency evacuations, and emergency access constraints at section 4.11.2.7, on pages 4.11-11 through 4.11-15.

The report concludes that construction of the 100 housing units will not expose people in the Hill campus to a significant risk involving wildland fires because of its vegetation management plans. [LRDP Impact PUB-2.1] However, it does not evaluate whether the people currently living in the hills, for whom Centennial would be the best evacuation route during a hills fire, would be exposed to a significantly increased risk.

B6-2

The report concludes that the housing will not impair any campus emergency evacuation plans on the grounds that all new construction will be built with emergency egress for new occupants in mind. [LRDP Impact PUB-2.2] It is silent as to the impacts on emergency evacuation by existing hills residents, e.g., impacts on the city's emergency evacuation plans.

The report concludes that during the construction phase, the housing could result in temporary road closure or restriction to a single lane, but that this will be mitigated by coordination with the emergency service departments to plan alternate routes, and by signage to the public. [LRDP Impact PUB-2.4] It is silent as to the impact on hills residents, if a hills fire occurred during construction and construction had temporarily closed Centennial Drive or reduced it to a one-lane road.

B6-3

#### RATIONALE FOR RECOMMENDATION

The 2020 Draft Environmental Impact Report is incomplete. It is impossible for decisionmakers and the public to evaluate the impacts if they are not addressed in the report. This is the time for the City Council to request that missing analyses be added.

#### ALTERNATIVE ACTIONS CONSIDERED

The alternative is for the City Council to be silent on this issue. If so, then the University could argue that we had our opportunity to speak and chose not to use it.

#### CONTACT PERSON

Margit Roos-Collins (510) 558-1992  
Eileen Hughes (510) 540-3760

Approved:

---

Margit Roos-Collins, Chair  
Disaster Council

Community Health Commission Review of the  
Draft Environmental Impact Report for the University of California, Berkeley  
2020 Long Range Development Plan

The 2020 LRDP serves as the baseline for future reviews and approvals of individual capital projects implemented under the 2020 LRDP. It also evaluates effects of the Chang-Lin Tien Center for East Asian Studies, the first specific project proposed under the long-range plan. The 2020 LRDP does not include University Village, Albany or the Richmond Field Station, **nor does it include the UC-operated Lawrence Berkeley National Lab (LBNL) that is preparing its own LRDP. Also, LBNL operates the Donner Lab (nuclear medicine), Calvin Lab (dynamics of living cells), and as many as 13 other lab spaces on the central UC Berkeley campus, none of which are considered in the 2020 LRDP.**

As Vice Chair for the Community Health Commission, I was asked to conduct a detailed review of the 2020 LRDP to evaluate its impacts on public health in the City of Berkeley. I limited my review to the areas I felt had a direct and obvious impact on health and the delivery of public health services to the City's residents. Those areas are:

- Air Quality
- Hydrology and Water Quality
- Noise
- Transportation and Traffic
- Hazardous Materials

2. Activities described in the 2020 LRDP that have *Significant* impacts:

a) AIR QUALITY

- LRDP Impact AIR-5  
Operational emissions from implementation of the 2020 LRDP may hinder the attainment of the Clean Air Plan. This would be a significant and unavoidable impact.

**Comment:** Poor air quality causes or exacerbates a number of serious illnesses: asthma, cardio-vascular disease, emphysema. Children may be more at risk because of their size. The 2020 LRDP describes the type of pollutants that will be generated by the implementation of the Plan and details the sections of the City that will be most affected.

The LRDP concludes that there will be significant increases in NO<sub>x</sub> (16%), reactive organic gases-ROG (28%), PM<sub>10</sub> (14%), and CO (18%). (ROG and NO<sub>x</sub> are ozone precursors) These increases do not take into consideration the contribution of buses and delivery vehicles serving the campus. The LRDP anticipates that these fleets will be replaced over time.

b) HYDROLOGY AND WATER

- LRDP Impact HYD-5  
Projects implemented in the Hill Campus under the 2020 LRDP could alter drainage patterns and increase impervious surfaces, which could exceed the capacity of stormwater drainage systems, result in localized flooding, contribute to off-site flooding, and result in substantial siltation or erosion, but the **mitigations\*** would ensure this impact is *less than significant*.
- LRDP Impact HYD-6  
Implementation of the 2020 LRDP could place structures which would impede or redirect flood flows within the 100-year flood hazard area, but the mitigations would ensure this impact is *less than significant*.



**Community Health Commission Review of the  
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2020 Long Range Development Plan**

**Comment:** Effects of additional stormwater flowing through the City's storm drains may not seem to have an immediate health effect. It can, however, have a direct effect on the City's ability to deliver health services. We have seen that in times of fiscal crisis, all City departments are expected to take cuts in their budgets. Without significant financial support from the University for its fair share of the costs that their activities impose on the City, we can expect to continue to bear their burden at the expense of those who are in need of City services.

Additional stormwater may also overwhelm the City's sewer system during peak rain events. Sewage in the streets and in the storm drains is a serious public health and environmental problem.

c) NOISE

- LRDP Impact NOI-3  
University housing developed under the 2020 LRDP could expose residents to excessive noise levels. This impact is *significant and unavoidable*.
- LRDP Impact NOI-4  
Noise resulting from demolition and construction activities necessary for implementation of the 2020 LRDP would, in some instances, cause a substantial temporary or periodic increase in noise levels, in excess of local standards prescribed in Section 13.40.070 of the City of Berkeley noise ordinance, at affected residential or commercial property lines. This is a *significant and unavoidable* impact.
- LRDP Impact NOI-5  
Construction of campus facilities under the 2020 LRDP could expose nearby receptors to excessive groundborne vibration, but the mitigation measures would ensure this impact is *less than significant*.

**Comment:** Excessive noise is a public health threat and pollutes the "commons". Excessive noise can cause temporary or permanent hearing loss and can elevate stress levels resulting in physiological and behavioral effects that are a public health threat.

d) TRANSPORTATION AND TRAFFIC

- LRDP Impact TRA-6  
The 2020 LRDP would increase vehicle trips and traffic congestion at [seven] intersections, leading to substantial degradation in level of service. The mitigations, if implemented with review and approval of the City Traffic Engineer, would reduce these impacts to a *less than significant* level.
- LRDP Impact TRA-7  
Development under the 2020 LRDP would contribute to the projected unacceptable delay at the all-way stop controlled Bancroft Way/Piedmont Avenue intersection, which is projected to operate at LOS F during both AM and PM peak hours regardless of the project. The project would increase the intersection volume by 11 percent during the AM peak hour, and 5 percent during the PM peak hour. The mitigation prescribed would reduce this impact to a *less than significant* level.
- LRDP Impact TRA-8  
The 2020 LRDP would increase vehicle trips and traffic congestion at [two] intersections, leading to substantial degradation in level of service. These impacts are *significant and unavoidable*.
- LRDP Impact TRA-9  
Housing projects in the 2020 LRDP Housing Zone could increase vehicle trips and

**Community Health Commission Review of the  
Draft Environmental Impact Report for the University of California, Berkeley  
2020 Long Range Development Plan**

traffic congestion in the vicinity of project sites, which could lead to substantial degradation in level of service. The mitigation prescribed would reduce this impact to a *less than significant* level.

- LRDP Impact TRA-10

Development under the 2020 LRDP would cause the following Alameda County CMP and MTS Designated System roadways listed below to exceed the level of service standard established by the CMA. This impact is *significant and unavoidable*.

- Ashby Avenue eastbound, Between College Avenue and Domingo Street
- Ashby Avenue westbound, between San Pablo Avenue and Adeline Street
- University Avenue westbound, between I-80 and MLK Jr. Way
- San Pablo Avenue northbound, between Gilman Street and Marin Avenue
- Shattuck Avenue southbound, between Dwight Way and Adeline Street
- Shattuck Avenue southbound, between Hearst Avenue and University Avenue (MTS only)
- Dwight Way westbound, between MLK Jr. Way and Sixth Street (MTS only)

- LRDP Impact TRA-11

Implementation of the 2020 LRDP could induce a "mode shift" to driving by some commuters who currently take transit, bicycle or walk. This would be inconsistent with the intent of the 2020 LRDP. The mitigation prescribed would reduce this impact to a *less than significant* level.

- LRDP Impact TRA-12

The level of pedestrian growth associated with the LRDP may require physical and operational modifications to the intersections and roadways in the immediate campus vicinity and on major pedestrian routes serving UC Berkeley, to ensure adequate capacity for pedestrian movement and adequate design to protect pedestrian safety. The mitigation prescribed would reduce this impact to a *less than significant* level.

Comment: A significant increase in traffic will result in several areas of the City, especially during the morning and evening commute hours, as a result of the implementation of the plan. The impacts on the intersections at 6<sup>th</sup> and University and University and San Pablo are "significant" and cannot be mitigated. Also increasing will be the level of pedestrian traffic in areas near the campus.

Note: the section on HAZARDOUS MATERIALS did not indicate any *Significant* impacts. Nevertheless, there will be a significant increase in the amount of hazardous materials used and hazardous waste generated by the new facilities. Hazardous materials fall into six general categories and are handled in more than 1,200 laboratories on campus:

- 1) Non-radioactive hazardous chemicals
- 2) Biohazardous materials
- 3) Radioactive materials
- 4) Lab animals
- 5) Transgenic materials
- 6) Non-ionizing radiation

The University provides the City with an inventory of chemical materials that are used on campus. The University's Hazardous Materials Facility has the capacity to handle 375 tons of hazardous chemical waste per year – approximately 69 tons were generated in 2002. The University publishes a series of guidelines for handling the chemicals, animals, and waste, but there appear to be few



Community Health Commission Review of the  
Draft Environmental Impact Report for the University of California, Berkeley  
2020 Long Range Development Plan

inspections conducted to insure compliance. Only the labs that use animals are subject to random inspections by USDA and DOD veterinarians.

Comment: Berkeley has adopted the Precautionary Principle and is considering how it might be implemented in a way that reduces the amount of hazardous materials that are consumed by the City. The University should be encouraged to partner with the City to undertake a similar program.

**3. Recommendations:** the implementation of the 2020 LRDP (**and those planned by LBNL**) will have significant impacts on the health of the City's residents. Reduced air quality, increased traffic, potential exposure to hazardous materials, and greater noise levels can all be anticipated as the plan is implemented. To offset these conditions, the University should be working closely with the City and its Public Health Department to mitigate, to the extent possible, these impacts. For example, the University could commit to converting all its diesel powered vehicles to bio-fuels or to replacing them with non-polluting vehicles within a specific time period. The University could also agree to extend the Eco-pass to all members of the University community.

B6-4

Recognizing that it is not likely that all impacts will be mitigated, the University should be prepared to pay its fair share of the health costs that are attributable to its plan.

B6-5

\* "Mitigation" is defined by the California Environmental Quality Act (CEQA) as:

B6-6

- Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environments.

Comment: Here, as in the descriptions of many mitigations, the 2020 LRDP relies on "Continuing Best Practices" (CMP) which are generally described as the use of "guidelines, or "plans", or, as in the example above, "survey", "checklist", or "evaluation" of other methods to reduce impacts. These descriptions of how the 2020 LRDP would reduce an impact to *Less than significant* are not consistent with the more specific language of the CEQA definition. For this reason, I conclude that the mitigations described in the 2020 LRDP should be reviewed for compliance with the CEQA definition.

**Employment Programs**

LRDP Comments

May 7, 2004

Chapter 4.10 Population and Housing

The number of city jobs could increase by up to 2,870 according to the 2020 LRDP. Emphasizing the hiring of Berkeley residents should be included, including specific targets (i.e., *50% of any new jobs generated by development*). This would have far-reaching benefits, including potential reduction in traffic, increased use of public transportation, less use of local parking. Construction projects should also have targets for the hiring of Berkeley residents. The City's First Source program can be the first point of contact in conducting outreach to the Berkeley community to search for qualified candidates for newly created positions.

B6-7

The creation of new departments on campus should result in increased slots for the summer youth employment program. Since each department is responsible for funding their slots, establishing yearly set-aside funds for summer youth would allow for UC departments and city staff to plan accordingly. (*There is no mention of summer jobs for youth in the LRDP*).

Chapter 4.11 Public Services

Any increased numbers in workforce also results in increased turnover in workforce, which places an increased burden on local employment programs. Our adult employment programs already provide One Stop Career Center services to displaced UC employees (*usually not credentialed*) and students. This is difficult to quantify as statistics specific to UC staff or students are not tracked.

**Commission on Labor comments @ May 19<sup>th</sup>, 2004 meeting:**

Motion to add comments to EIR mitigation of impacts:

- Due to inadequate estimation of workplace growth projections, it is difficult to estimate accurate impacts; B6-8
- Ecopass and commuter passes should be included as benefits to employees; B6-9
- Recommend that UC reimburse the City of Berkeley for providing employment services related to displacement of UC employees B6-10

M/S/C Alfsen; Hicks-Kilday

Passed unanimously

LABOR COMMISSION RECOMMENDATION TO CITY COUNCIL ON LABOR  
ISSUES RELATED TO THE DOWNTOWN HOTEL/CONVENTION  
CENTER/MUSEUM COMPLEX

Whereas, the University of California Berkeley has selected real estate developer Carpenter & Co. and is proposing to build a hotel/convention center museum complex on the Center, Shattuck to Oxford, block; and

Whereas, the Berkeley City Council has requested the Planning Commission to comment and make recommendations on this project proposal; and

Whereas, the Planning Commission has established a Task Force and Subcommittee to advise it on this project; and

Whereas, the City of Berkeley has adopted the Labor Bill of Rights to encourage and support full employment for Berkeley residents, union participation, creation and retention of high-quality jobs for Berkeley residents, improved working conditions, fully accessible work sites, employer-provided child care facilities on site, prevailing wages on construction jobs, boycotts in all officially sanctioned labor management disputes, police neutrality in management labor disputes, avoidance of drug testing and avoidance of major employer plant closure; and

Whereas, the City Council has established the Commission on Labor to advise it on labor matters, worker rights and implementation of the policies set forth in the Labor Bill of Rights; and

Whereas, the City has previously enacted the Living Wage, the Equal Benefits and the First Source Construction ordinances; and

Whereas, since hotel employment tends to be on the lower end of the wage scale, and since such workers may have difficulty obtaining affordable housing, these conditions reinforce the City of Berkeley's need to realize affordable housing linkages to employment; and

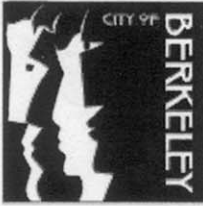
Whereas, the City and the City Council have supported the organizing efforts of workers in previous local hotel management labor disputes such as the Marina Radisson and the Claremont; and

Whereas, it is in the interest of all of the citizens of Berkeley, the City of Berkeley, the University of California at Berkeley and its hotel/convention center/museum partners, to avoid the costly litigation, losses and expenses incurred in protracted management labor disputes as well as the loss of tax and tourist revenues over the duration of such disputes and in recognition of the potentially devastating impact such disputes could have on all of the stakeholders in this project;

Therefore, the Commission on Labor recommends to the City Council that by conditions of approval or other ways, labor peace be assured, including the following actions by the University of California at Berkeley, the developer and/or operator of the hotel:

1. Each enter into a project labor agreement to ensure labor peace throughout the construction of the project;
2. Each enter into a labor neutrality agreement to ensure labor peace throughout the operation of the project;
3. Each agree, without regard to their legal obligation to so comply, to comply with the requirements of the City's prevailing wage, equal rights benefits, living wage and First Source hiring requirement ordinances;
4. Each agree, without regard to their legal obligation to do so, to pay the City's childcare and housing development linkage or mitigation fees in order to ensure an adequate supply of affordable workforce housing and affordable childcare services; and
5. Each contribute a negotiated sum to the City's job training program.

B6-11



Office of the City Manager

LETTER B6   
Continued

## TO BE DELIVERED AGENDA MATERIAL

**Meeting Date:** June 1, 2004

**Item Number:** 4c.

**Item Description:** Update on City's Response to University of California, Berkeley Long Range Development Plan (LRDP) Draft Environmental Impact Report (DEIR)  
- Information Report from Transportation Commission

*(This cover sheet should be used only if the agenda item the material refers to was listed on the agenda as To Be Delivered)*





Transportation Commission

INFORMATION CALENDAR  
June 1, 2004

To: Honorable Mayor and  
Members of the City Council

From: Transportation Commission

Subject: Transportation Commission Recommendations Regarding UC's LRDP

RECOMMENDATION

Include the recommendations of the Transportation Commission in Council comments related to Transportation and Traffic in the University of California's Long Range Development Plan Environmental Impact Report.

FISCAL IMPACTS OF RECOMMENDATION

Unknown. There may be financial or in-kind mitigations to the City's general fund related to specific impacts identified in the EIR.

CURRENT SITUATION AND ITS EFFECTS

The University has invited comments on its Long Range Development Plan (LRDP) as a part of the EIR required by the California Environmental Quality Act. The City is to convey formal comments to the University of California, Berkeley, on June 14, 2004.

BACKGROUND

At the May 20 Regular Meeting of the Transportation Commission, members of the public gave testimony on the LRDP. The Commission held a discussion, and approved a motion that Council include the following recommendations to the University concerning the LRDP EIR:

1. Support the concept of University of Washington U-Pass (transit passes for faculty, staff and students); B6-12
2. Add the City of Berkeley Transportation Commission to those organizations that are to review all projects in the LRDP; B6-13
3. All housing plans should have an enforceable no-car provision. Enforcement would include a fine for each time a student receives a notice that he/she has broken the no-car rule; B6-14
4. Plan for the enforcement of the 3-ton truck limit on the residential streets in Berkeley and provide penalties for each violation by UC construction contractors; B6-15
5. For each project develop a Traffic Plan that keeps all construction vehicles on Berkeley's approved truck routes; Submit Traffic Plan to Office of Transportation for approval; B6-16

6. Provide funds in each contract for the repair of Berkeley infrastructure after project completion -specifically, to repair and resurface City streets and sewers damaged by construction vehicles and activities; B6-17
7. Produce a detailed report on the University's implementation of the Traffic Demand Management (TDM) Study's action items. Describe how the University has worked with the City of Berkeley to achieve the Study's goals; B6-18
8. Detail future plans for use of the TDM Study during implementation of the LRDP; B6-19
9. Develop a plan to work with the City of Berkeley to maintain the parking meters immediately around the campus, where most of the parking demand is UC-related; B6-20
10. Use UC resources with the City of Berkeley Office of Transportation to develop a long range traffic plan for the University and the City. Take the lead in establishing a committee to study, recommend and to implement the plan; B6-21
11. Provide financial means to implement solutions to any and all of the problems created in the LRDP; B6-22
12. Support the No Parking Expansion/Encourage Transit Alternative in the EIR; B6-23
13. Take actions to assure that Panoramic Hill is not unreasonably impacted, particularly Canyon and Prospect, and note that Canyon Road is currently a substandard road; B6-24
14. The EIR should examine the impact of increases in auto traffic and the proposed mitigations to auto traffic on bicycle and pedestrian safety, particularly at the 22 most dangerous intersections; B6-25
15. The EIR should analyze the total UC share of existing and new traffic on major arterials serving the UC campus. B6-26

MSC (Landau/Wrenn, Unanimous, Abstain: None, Absent: Campbell)

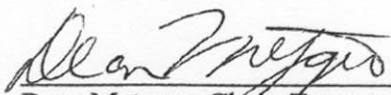
RATIONALE FOR RECOMMENDATION

Based on past experience and testimony from residents, the Transportation Commission feels that the City should require all large developers to analyze, understand and effectively mitigate traffic and construction impacts on our City's residents and infrastructure. The strategies listed here are consistent with the Commission's strategic efforts to make bicycle and pedestrian travel safer, and to support infrastructure development and community models for a transportation mode shift away from private automobile use. The Commission feels strongly that the University should commit itself to encouraging alternative modes of travel in its LRDP.

CONTACT PERSON

Dean Metzger, Chair, Transportation Commission, 981-7010

Approved:



Dean Metzger, Chair, Transportation Commission

## **11.2B.6 RESPONSE TO COMMENT LETTER B6**

### **RESPONSE TO COMMENTS B6-1 THRU B6-3**

See Thematic Response 8 for a comprehensive response to comments on Hill Campus development. Due partly to comments received and partly to its uncertain near-term feasibility, faculty housing has been deleted as a potential future Hill Campus use in the 2020 LRDP. As noted in Thematic Response 8, the site formerly designated H1 has been redesignated as a reserve site, while former site H2 has been redesignated as part of the surrounding research zone.

### **RESPONSE TO COMMENT B6-4**

UC Berkeley looks forward to continuing to work with the City of Berkeley on matters of mutual interest, including public health. As noted in Thematic Response 10, UC Berkeley and AC Transit have recently approved the Bear Pass, a pilot program to offer discounted AC Transit fares to UC Berkeley employees: the Bear Pass program began in fall 2004. (The Eco-pass is a City of Berkeley program.) UC Berkeley is also exploring the feasibility of using biodiesel fuels in its buses and trucks. Further, as noted in Thematic Response 9, UC Berkeley may defer some portion of the 2020 LRDP parking program in favor of AC Transit's BRT/Telegraph project. However, as indicated in the Draft EIR, these steps may not fully mitigate all possible noise, air quality and traffic impacts of the 2020 LRDP and regional growth.

### **RESPONSE TO COMMENT B6-5**

See Thematic Response 4 regarding fiscal impacts.

### **RESPONSE TO COMMENT B6-6**

Continuing Best Practices in the 2020 LRDP EIR are similar in effect to Mitigations: they serve to avoid or lessen impacts in the same ways as Mitigations, as the latter are defined under CEQA. The difference is that, while the Mitigations are "new" measures adopted for the purpose of avoiding or reducing specific impacts identified in the EIR, Best Practices are ongoing measures already in place at UC Berkeley. As stated in Chapter 4.0, the implementation of Best Practices would be monitored in conjunction with monitoring of 2020 LRDP mitigations over the lifetime of the 2020 LRDP.

### **RESPONSE TO COMMENT B6-7**

The writer requests the University to hire Berkeley residents in implementing the 2020 LRDP. While this comment is not within the scope of CEQA, a number of state and federal laws influence UC Berkeley hiring practices, and would prohibit UC Berkeley from favoring local candidates in the hiring process. However, the City/UC TDM study includes recommendations on increasing the local housing supply in a manner that encourages students, staff and faculty to live locally.<sup>3</sup>

### **RESPONSE TO COMMENT B6-8**

The writer does not explain how the workplace growth projections are "inadequate". Since the 2020 LRDP covers a time period of over 15 years, absolute certainty is not possible. The 2020 LRDP projects workplace growth based on a set of reasonable assumptions about future conditions.



**RESPONSE TO COMMENT B6-9**

See response B6-4 and Thematic Response 10 regarding alternative transportation programs.

**RESPONSE TO COMMENT B6-10**

See Thematic Response 4 regarding fiscal impacts.

**RESPONSE TO COMMENT B6-11**

The writer's comment is noted. As presently conceived, the hotel and conference center is a privately developed project on privately owned land, with the City of Berkeley as lead agency under CEQA. UC Berkeley has no financial or regulatory position in the project.

**RESPONSE TO COMMENT B6-12**

See Thematic Response 10, in which the pilot Bear Pass program is described.

**RESPONSE TO COMMENT B6-13**

UC Berkeley encourages the Planning Commission to consult with the Transportation Commission in formulating its comments.

**RESPONSE TO COMMENT B6-14**

Although UC Berkeley policies seek to minimize automobile use by students, some students have life circumstances that require an automobile. A very limited number of residential permits are available to residents of University student housing with a demonstrated medical, employment, academic or other need: Best Practice TRA-2 at page 4.12-45 states this policy would continue under the 2020 LRDP.

**RESPONSE TO COMMENT B6-15**

The writer's request is noted. UC Berkeley works with the City of Berkeley to reduce the impacts of construction; however, the suggestion is not a comment on the Draft EIR.

**RESPONSE TO COMMENT B6-16**

UC Berkeley works with the City of Berkeley to develop construction routing plans, as prescribed in Best Practice TRA-3-b at page 4.12-46.

**RESPONSE TO COMMENT B6-17**

Best Practice TRA-3-d at page 4.12-47 addresses street repairs due to University construction activities.

**RESPONSE TO COMMENTS B6-18 AND B6-19**

See Thematic Response 10 regarding alternative transportation programs. Further, as noted in Thematic Response 9, UC Berkeley may defer some portion of the 2020 LRDP parking program in recognition of AC Transit's BRT/Telegraph project.

**RESPONSE TO COMMENT B6-20**

It is not the responsibility of UC Berkeley to maintain city parking meters, although the parking program outlined in the 2020 LRDP is expected to reduce the demand for parking on city streets by UC Berkeley students and workers.

**RESPONSE TO COMMENT B6-21**

See Thematic Response 10 regarding alternative transportation programs, including collaborative efforts.

**RESPONSE TO COMMENT B6-22**

The writer's comment is noted. Please see Thematic Response 4 regarding fiscal impacts. Should the 2020 LRDP program be implemented, UC Berkeley is committed to implementing and monitoring identified continuing best practices and mitigation measures.

**RESPONSE TO COMMENT B6-23**

See Thematic Response 3 regarding the 2020 LRDP alternatives.

**RESPONSE TO COMMENT B6-24**

The program level analyses in the Draft EIR found no significant impacts to Panoramic Hill; however this finding would again be considered during any project level CEQA review for projects that could affect this area.

**RESPONSE TO COMMENT B6-25**

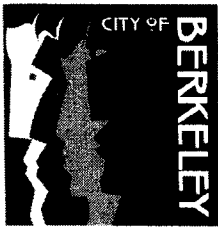
The writers suggest that the Draft EIR analyze potential increased risks to cyclists and pedestrians due to traffic. The Draft EIR analyzes the impacts of implementing the 2020 LRDP. The 2020 LRDP includes policies to further enhance safety. See pages 3.1-45 to 3.1-46 of the Draft EIR.

In accordance with CEQA, the Draft EIR uses the most conservative assumptions to analyze the impact of parking proposed in the 2020 LRDP: namely, that every new parking space results in a new single occupant vehicle. Then, the Draft EIR proposes Mitigation Measure TRA-11 at pages 4.12-55 to 4.12-56, to minimize the risk this outcome may occur. Further, the Draft EIR includes measures to ensure that any traffic increase that does occur is handled as safely as possible. Mitigation measures proposed in the Draft EIR to improve vehicle level of service would be implemented in accordance with applicable safety codes, and in accordance with City of Berkeley provisions.

Further analysis of possible risks to pedestrians and cyclists would be speculative, and is not required by CEQA.

**RESPONSE TO COMMENT B6-26**

In accordance with CEQA, chapter 4.12 of the Draft EIR analyzes the impact of implementing the 2020 LRDP on traffic. Existing conditions are also summarized.



Office of the City Manager

LETTER B7

June 18, 2004

Jennifer Lawrence  
Co-Director, 2020 LRDP EIR  
Facilities Services  
University of California, Berkeley  
1936 University Avenue, Suite 300  
Berkeley, CA 94720-1380

**Re: Comments on UCB 2020 LRDP and Draft EIR**

Dear Ms. Lawrence:

This letter is the City of Berkeley's response to the Draft Environmental Impact Report (DEIR) for the University of California Berkeley 2020 Long Range Development Plan and Tien Center for East Asian Studies. It also constitutes our comments on the proposed 2020 LRDP, which has not been subject to a separate review process.

Last October, we provided you with extensive comments in response to the Notice of Preparation of the DEIR. That letter included observations and specific recommendations intended to help the University design and carry out an environmental review process under the California Environmental Quality Act (CEQA). To meet the law's requirements, this process must provide for identification of all relevant significant impacts, identification and evaluation of a full range of mitigation measures and a reasonable range of appropriate alternatives, and assurances that the mitigations selected would be implemented and carefully monitored over the life of the LRDP. Because the adequacy of any EIR depends on the use of valid information about existing conditions and trends, we offered to assist UC by providing information concerning permitted and projected land uses (other than University projects), infrastructure, and numerous other matters. We also encouraged the University to craft a process that would allow the City to participate in a full discussion of impacts and mitigations while UC Staff and consultants were formulating the LRDP and analyzing its impacts—rather than commenting after the fact, and after key decisions had already been made.

We appreciate that, in contrast to past years, UC Staff provided opportunities for a somewhat more open exchange of information. This resulted in relatively early agreement on baseline information regarding population and employment projections and other data regarding the City setting. UC also provided the City with information on enrollment, campus employment, and the status of development projects under the current LRDP. City Staff

were able to convey a number of the City's concerns and identify issues the City wanted considered in the LRDP EIR at meetings with their UC counterparts. Unfortunately, the outcome of these exchanges was not completely satisfactory and the result is apparent in the proposed LRDP and Draft EIR document.

In public presentations to the community and City Council, UC has characterized the LRDP as the "General Plan" for UCB. However, in contrast to the City of Berkeley's General Plan and the plans adopted by all other cities and counties in California, UC has prepared the LRDP with relatively little input from the City of Berkeley, its citizens, or any of the other agencies that will be affected by its implementation. Aside from the two scoping meetings held after issuing the NOP and the two hearings on the DEIR, UC has not provided any opportunity for the community to provide feedback on the LRDP. Given that the proposed LRDP could generate up to 43 percent of the new jobs, more than 75 percent of the new housing, as well as additional development in the area surrounding the campus, and additional traffic in the City, the opportunities for the City to participate in the planning process have been inadequate. A typical process would have allowed for an opportunity for review and comment on the LRDP and for the University to modify its Plan based on those comments. The current process does not allow for any such give and take with the community.

B7-1

We had also proposed in our response to the NOP that the planning process provide for the City and the University to discuss and, if possible, reach agreement on specific alternatives and measures to be included in the draft EIR before it was released for review and comment. The reason for this proposal was that once a draft EIR is released for public review, it is much more difficult, both legally and practically, to add significant analyses to it, because of the risk that such analyses will trigger recirculation. The City's response to the Notice of Preparation included proposed alternatives and mitigation measures that we believed should be included in the draft EIR.

B7-2

#### Impacts, Mitigation Measures and Alternatives

In general, the impact assessment lacks sufficient analytical detail and background to be considered adequate. The lack of site-specific assessment leads to often groundless assumptions regarding impacts.

B7-3

The City also believes that many of mitigation measures that the DEIR proposes fail to meet CEQA requirements because they would not, in fact, reduce significant impacts to less than significant levels. In some cases the mitigation measures rely on so-called "Continuing Best Practices" that are neither adequately described, nor proven successful in mitigating the impacts they are intended to correct. These measures include some that should have been the subject of ongoing monitoring, as CEQA requires. Other mitigation measures simply propose advisory review at some time in the future in conflict with CEQA requirements.

B7-4

Finally, the City believes that the presentation and analysis of alternatives fails to meet CEQA's requirement that an EIR describe a range of alternatives that would avoid or substantially lessen one or more of the project's significant effects. The DEIR's treatment of alternatives is defective not only because some of the alternatives are inherently inadequate but also because the analysis does not show that they would avoid or substantially lessen the significant impacts of the LRDP. Even when an alternative is identified as clearly reducing one or more impacts, the alternative is dismissed without sufficient analysis or explanation.

B7-5

We have attached a study entitled "Draft Interim Report - UC Berkeley Fiscal Impact Analysis" (Attachment A) from the City's consultant, Economic & Planning Systems (EPS), which focuses on fiscal impacts resulting from LRDP growth.

B7-6

## **PROJECT DESCRIPTION/LRDP**

### **General Comments**

The proposed Long Range Development Plan (LRDP) is incorporated in the EIR as the project description. Because the University has chosen to combine the LRDP into its EIR as the project description, it is required to serve two distinct purposes: it is a "policy" document upon which the University intends to rely to guide its development; and it is the "project description" for the Environmental Impact Report. Similarly, the City is obligated to respond to both of those purposes. Our comments in this section are therefore of two types: comments on the policy direction established in the LRDP; and comments on the adequacy of the LRDP as a project description. In our view, the LRDP has failed on both counts.

One of the LRDP's key objectives is that the University will "plan every new project to respect and enhance the character, livability, and cultural vitality of our city environs." While the City appreciates the sentiment, the process of developing the LRDP failed the most basic test of giving the people who inhabit the "city environs" an opportunity to participate in its development. Essentially, it was presented whole cloth to the community and the University has given no indication that it will address *in the LRDP*, the concerns of the community. Given the impacts this plan will have on the community, this lack of community engagement in its preparation is unfortunate and reduces the plan's legitimacy in the eyes of the community. And, as will be discussed in much detail below, the City believes the LRDP is equally flawed as a project description.

B7-7

In our comments in response to the Notice of Preparation, the City requested that the DEIR specify how the Long Range Development Plan will be used to guide future capital investment. We questioned whether the LRDP would be used as general guidelines from which UC might vary more or less at will, or as binding regulations. We still do not know because the DEIR has not adequately addressed these points. The DEIR states that the LRDP does not commit the university to any specific project, but provides "a strategic framework

for decisions on those projects.” (DEIR, p. 3.1-3). As noted above, the University has characterized the LRDP as similar to a city’s General Plan where specific projects are typically not evaluated, but where overall land use policy is set and used as the basis for evaluating specific development projects. The DEIR further states that the LRDP’s capital investment program establishes “a maximum amount of net new growth ... which the campus may not substantially exceed without amending the 2020 LRDP.” Under the heading Project Review, the Project Description (i.e. LRDP) goes on to say that the LRDP and its EIR will provide “a framework for the subsequent review of individual projects as they occur.... Each project with potential to affect the physical environment will be assessed within this framework to determine the appropriate level of CEQA review.” The City requests that the LRDP better describe the relationship between the “strategic framework” and projects to be undertaken under it. For example, State law requires that zoning ordinances and development approvals must comply with a local agency’s general plan. The LRDP establishes no comparable requirement that development decisions conform to the LRDP. This is particularly troubling because the DEIR references LRDP policies as a basis for determining that the project’s potentially significant impacts will be mitigated. Moreover, time and again, as will be described in this response, the University qualifies its commitment to mitigations with weak language and limitations so that it is obligates itself to very little, and leaves little assurance that mitigation will be achieved.

B7-8

The City is concerned that the LRDP lacks thresholds to be used to determine whether specific projects will have the potential to affect the physical environment. As discussed below, the City takes issue with a number of the criteria the DEIR cites as a basis for determining whether project impacts will be significant.

B7-9

The City also requests that UC set forth what measure it will use to determine whether a proposal will “substantially exceed” the maximum amount of net new growth. The LRDP proposes 2.2 million square feet of additional floor area, including 1 million square feet in the neighborhoods surrounding the UC campus. While UC might not consider 100,000 square feet of new building to be “substantial” relative to the net new growth that the LRDP proposes, a development of this size would be “substantial” relative to the amount of development that most areas of Berkeley have experienced in recent years.

B7-10

### **3.1.2 Scope of the 2020 LRDP**

As a threshold matter, the City believes that, whatever the merits of deciding to prepare a separate LRDP for the Lawrence Berkeley National Laboratory (LBNL), both LRDPs should have been analyzed in the same environmental document. The two LRDPs are complementary: the LBNL LRDP essentially addresses development in a 200 acre “donut hole” in the area covered by the UC LRDP, and both LRDPs will be approved by the same lead agency (the Board of Regents).

B7-11

The DEIR provides no explanation for failing to include the 200-acre portion of the roughly 1,000-acre Hill Campus. It states only in the “Project Description” (i.e., LRDP) that this

portion of the Hill Campus is managed by LBNL "under separate jurisdiction," is "not within the scope of the UC Berkeley 2020 LRDP" and "operates under its own LRDP and EIR, approved separately by the UC Regents." (DEIR, p. 3.1-5.) This may be an accurate description of the existing situation, but it is not a legally sufficient justification.

B7-11

As the State agency governing both the Lab and the Berkeley campus, it is the Board of Regents, not the UC Berkeley Campus or the Berkeley Lab, that is responsible for adopting both Long Range Development Plans and undertaking environmental review of those LRDPs. The fact that the Regents manage the Berkeley Lab for another agency is also not dispositive with respect to whether both LRDPs, which are essentially concurrent discretionary projects subject to CEQA, must be analyzed together.

The DEIR's consideration of the LBNL LRDP in its discussion of cumulative impacts does not cure this defect, because it ignores the critical difference between development under the LBNL LRDP and development of other reasonably foreseeable non-University<sup>1</sup> projects: the University has the ability to mitigate the impacts of projects that will be presented to it for approval, but not the impacts of other projects.

B7-12

The remaining non-UC projects are simply not within the University's jurisdiction (e.g. the Berkeley and Oakland General Plans, AC Transit Major Investment Study). The LBNL LRDP stands out as the only "project" that is a plan that is being developed for the same purpose, is subject to approval by the same Lead Agency, and is located on a portion of the same property. Moreover, the research missions of the Berkeley Lab and at least some departments of the UCB campus are closely intertwined.

The significance of treating project impacts as merely cumulative impacts is made clear by Section 15130(b) of the CEQA Guidelines, which states that "[t]he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone." The discussion following this section explains that the reason for permitting a less informative analysis is that "...cumulative effects can rarely be mitigated in the same way as the primary effects of an individual project." While this is true if the other project is being undertaken by another agency or even by the same agency, but in a different location or at a different time, it is not true here, where the same lead agency is preparing two LRDPs on parallel tracks, which apply to the same general area, and which will be approved by the exact same decision making body.

B7-13

By considering the impacts of the LBNL LRDP only to the extent that they contribute to the cumulative impacts of the UCB LRDP, the DEIR fails to satisfy the requirement that it consider the full extent of the impacts of its proposals for growth and development on the

<sup>1</sup> The other UCB projects that are considered in the cumulative impact analysis were either planned and evaluated under the previous UCB LRDP and its DEIR (e.g. Northeast Quadrant Projects, Seismic Replacement Building, and Underhill Area) or are located at some distance from the UCB Campus (e.g. University Village).

Hill Campus. That is, by incorrectly deducting the incremental impacts of the LBNL LRDP from "the project" under analysis (the numerator) and allocating them to "cumulative impacts" over which the lead agency presumably has no control (the denominator) the DEIR improperly minimizes the impacts of the projects over which the University and the Regents have authority, and which they therefore have the ability to mitigate.

B7-13

In addition, UC's decision to bifurcate what is clearly a single project for purposes of CEQA is inconsistent with Laurel Heights Homeowners Association v. Regents of the University of California (1988) 47 Cal3d 376, where the Supreme Court stated:

B7-14

There is no doubt...that in this case there will be future use.... The Regents' contention is only that they have not formally decided precisely how they will use the remainder of the building. That argument is beside the point.... In short, there is telling evidence that the University, by the time it prepared the EIR, had either made decisions or formulated reasonably definite proposals as to future uses of the building. At a minimum, it is clear that the future expansion and the general types of future activity at the facility are reasonably foreseeable.... We also find the future action will be significant in that it will likely change the scope or nature of the proposed initial project and its environmental effects.

Accordingly, the City believes that the DEIR's failure to include LBNL development under its LRDP as part of the instant project for purposes of environmental review violates both the letter and the spirit of CEQA.

### **3.1.5 Campus Population**

The project description (DEIR, § 3.1.5) states that the California Master Plan for Higher Education calls for UC Berkeley to evaluate the ability to grow by 4,000 full time equivalent students over base year 1998, by 2010. The additional 10 years encompassed in the 2020 LRDP (2011-2020) are not considered in this EIR – except for one sentence that states, "once our current target is reached, and an estimated two-semester average of 33,450, enrollment at UC Berkeley *should* stabilize" (emphasis added). The University of California, Berkeley does not necessarily control the level of growth it must absorb. As has been amply demonstrated in this LRDP, the Legislature and/or Regents can direct it to absorb considerably more growth than it may wish. Moreover, the LRDP provides little context for determining how realistic the growth cap they propose may be. What analysis has been done to show how the expected growth in student population will be accommodated statewide in the UC system over the next 15 years? How does UC Berkeley fit into that long range plan? At what point must the Long Range Plan and its EIR be updated and revised to address unexpected growth? What triggers will apply? Because UC Berkeley is not necessarily in control of its own student population numbers and, in the view of the community, has done a poor job of managing its growth in the past, the answers to these questions are quite important.

B7-15

B7-16



The first note of Table 3.1-1 describes the advantages of using two-semester average headcount rather than full time equivalents. The text should explain how the State's 4,000 FTE translates into the figures presented in Table 3.1-1.

B7-17

The increase in student headcount shown in Table 3.1-1 is 1,650 in Regular Terms, and 5,700 in Summer Terms. The LRDP should explain more clearly how these headcount growths were allocated. The Summer headcount increases do not appear to be evaluated in the DEIR's travel analysis, yet the Summer Total Additional Headcount is 9,370, which is 1.76 times more than the Regular Term Additional Headcount of 5,320. During the regular term, the project campus headcount appears to rise by 12%, from 45,940 to 51,260. However, in the Summer Term, the campus headcount is projected to increase by 37%, from 25,540 to 34,910. While parking and roadway capacity presumably exists for the lower Summer Term, the EIR should include explicit analysis of the proposed Summer Term growth.

B7-18

Clarification is also needed regarding the existing and proposed Off-Campus Headcount, which presently accounts for about 2.4 percent of the total headcount. Does this figure include both students and employees? Where are they located? Is it expected that the same proportion of the headcount will be off-campus in 2020?

B7-19

### **3.1.6 Campus Space and Infrastructure**

It is clear in the discussion on page 3.1-15 that research and development (R&D) is a major driver of the need for new space. The plan notes that the student population is expected to increase by 12 percent over the next 15 years, but that spending on R&D will increase by 54 percent (15 X 3.6%). Although the amount of space solely oriented to R&D relative to the amount of space needed solely for academic needs is not clear, it seems obvious that well over half of the 2.2 million square feet of new development will be oriented toward new R&D facilities. Although research and development is clearly one of the important roles of the University, the balance between R&D and its academic function seems to be shifting.

It is not clear why what seems increasingly to the City to look like a 1 – 1.5 million square foot R&D business park should be located on or immediately adjacent to the campus in a built-out congested area with significant impacts on the community. What is the academic justification behind this requirement? What specific research activities must be located within walking distance? One of the premier R&D facilities in the country in many scientific areas is located just up the hill at LBNL. Faculty have ridden the shuttle up to LBNL for many years, and yet there is no discussion of how R&D functions could be co-located or used jointly.

B7-20

Student housing may be located within a 20-minute radius by transit from campus, and yet the University has failed to consider the alternative of locating its R&D space in a roughly equal radius from campus. The City believes that at least as much effort should be placed into considering an alternative strategy for the location of R&D development as was placed

B7-21

into the consideration of the location for housing.

B7-21

### 3.1.7 Campus Land Use

The LRDP indicates that the maximum amount of parking to be provided over the course of the planning period is 2,300 spaces. Table 3.1.3 (page 3.1-22) shows a total of 2,500 new spaces. The notes to that table state that the totals exceed the "not to exceed" totals to allow for locational flexibility. The table note goes on to indicate that the university may not "substantially exceed" the "not to exceed" amount without further environmental review. Who defines "substantially exceed" and on what basis? In the context of a built-out city with significant congestion, it does not take many more parking spaces (which translates directly into more cars at peak times on city streets) to generate a significant impact. This kind of weak commitment to "not to exceed" amounts is typical of the University's approach to its growth projections, its policies and its mitigations: there always seems to be a caveat that allows it substantial discretion. At the same time, this kind of qualifying language provides the City with no certainty regarding expected impacts and mitigations.

B7-22

The LRDP discusses land acquisition on page 3.1-23. One of the City's greatest concerns is the University's continuing encroachment into the City and the accompanying removal of property from the tax rolls. Not only does the City gain little fiscal benefit, but the City must still provide police, fire and other services. This concern is analyzed in detail in the accompanying Draft Interim Report - UC Berkeley Fiscal Impact Analysis (Attachment A).

B7-23

The City appreciates the University's stated commitment to providing mixed-use projects where appropriate, thereby encouraging better integration of University projects into the City environs. However, design amenities do not compensate for the loss of revenue from the removal of additional property from the tax rolls. On page 3.1-17, the University notes that it has roughly 450,000 GSF of leased space in and outside Berkeley (but mostly inside Berkeley). This leased space, like all University facilities, is not subject to local or property taxes. The University states that some of this space is deficient, thereby partially justifying the construction of its 2.2 M square feet of new development. However, despite this stated need to replace existing leased space, the University makes no commitment to vacating this privately leased space and returning it to the tax rolls. Not only does the University fail to commit to reducing its leased holdings, it makes no commitment regarding potential expansion.

B7-24

B7-25

In its discussion of housing, the University suggests that it will explore a range of delivery options, including private partnerships. Many public universities, including some UC campuses, rely in part on private sector partnerships to provide housing for students, including dorm-style housing for undergraduates. If privately held, the property remains on the tax rolls and can pay its fair share of the costs of the City services provided to that housing. The City appreciates the University's comments regarding minimizing the impact on the tax rolls on page 3.1-23, but notes that there are no stated policies in the LRDP, nor

B7-26

any mitigations in the DEIR, that address this critical issue. As is typical of this document: good sentiment, no commitment.

B7-26

### **3.1.8 Campus Housing**

As noted above, the City would prefer that, in general, University housing be provided through private partnerships and arrangements that allow property to remain on the tax rolls. The LRDP identifies a housing zone that is 20 minutes from the Doe Library, based on AC Transit routes as of July 2003. This implies a level of service that may not be sustained through the life of the LRDP. The 20-minute travel time criterion from the transit stop to Doe Library does not specify how long a walk is assumed. The definition of the Housing Zone implies that a 20-minute travel time to Doe Library is necessary to successfully attract transit riders but the DEIR does not report the average travel time for all UC commuters. According to the 2000 Census, the current mean travel time to work for Berkeley commuters is 27.8 minutes. The average travel time for UC commuters may be even longer. The Housing Zone should be adjusted to reflect a travel time that is at least roughly equivalent to that of commuters who drive alone. This could be accomplished in several different ways:

B7-27

B7-28

- Include the proposed Bus Rapid Transit (BRT) alignment into the Housing Zone, which would extend the Housing Zone much farther into Oakland along Telegraph Avenue;
- Revise the Housing Zone boundaries to reflect current AC Transit routes including the significant service deployment plan changes of December 2003 and include a policy of regularly reviewing and adjusting the boundaries in the future to reflect subsequent changes; and
- Expand the Housing Zone to include designation of suitable housing nodes near 'some BART stations,' as mentioned in the Figure notes. The EIR should clearly identify which BART stations would qualify as nodes within the Housing Zone definitions (20-minute transit). The EIR should further evaluate and comment on housing development opportunities in each BART station, including review of relevant BART Station Area Plans, current or proposed Transit-Oriented Developments (TOD), as well an evaluation of existing or proposed programs to encourage development of University housing near these stations.

Figure 3.1-5 includes the Clark Kerr campus in the housing zone, implying its availability for additional housing before 2020, while the Land Use section recognizes that agreements with the City and surrounding property owners limit further development on the site until 2032. In addition, the Elmwood commercial district is shown as potential housing in error, and areas of the Southside Plan have proposed densities of less than the 40-unit per acre density range the University indicates is necessary for inclusion in the housing zone.

B7-29

UC could conceivably acquire property and develop additional university housing on any site within the Housing Zone that meets the density and transit access criteria. In fact, the area of this circle, not including the radial extensions along University, Shattuck, Adeline, College and Telegraph Avenues, is about 3.14 square miles. Given that the City's entire land area is only about 12 square miles, the area within which UC may consider purchasing existing units or building new housing comprises about a quarter of the City's area excluding Campus Park and other off-campus properties already owned by UC. While the City's General Plan encourages the University to construct new housing to serve its student body, staff and faculty, it also proposes that the private partners should retain ownership of the land and building. Given the magnitude of the UC's housing development program such real estate decisions can significantly affect the City's ability to maintain public facilities and services for all of the City's residents and businesses including residents of UC housing.

B7-30

The city appreciates the University's commitment to provide faculty housing. Attracting junior staff is challenging in a high housing cost area such as the Bay Area. While the City believes the goal is laudable, the proposal in the housing section (page 3.1.27) to locate 100 units on two sites (H1 and H2) in the Hill Campus area is unfortunate... As will be discussed in more detail in later sections, the City believes this location is inappropriate for this use. The sites are not sufficiently analyzed and locating housing on them would be completely at odds with the predominantly single-family development in surrounding neighborhoods and the Berkeley and Oakland General Plan designations for this area as discussed in the Land Use section.

B7-31

### **3.1.9 Campus Access**

The University has indicated its intent to meet some of the "demand" for parking by providing 2,300 new parking spaces in or adjacent to campus. This is a fundamental issue for a city where virtually every new parking space translates into an additional commuter, with the accompanying impacts on an already congested and over-burdened roadway network (including noise, air quality and the other impacts of autos on the environment).

B7-32

The University treats parking demand as if it were some inflexible fixed amount, rather than as a function of supply and cost and the availability of substitutes. Fundamental economic theory tells us that if cost rises, demand is reduced; if reasonable substitutes at lower cost are available, demand is reduced. The comment that is necessary to "maintain reasonable fees for those who *must drive to campus*" is typical of the inappropriate assumptions made by the University in its LRDP. Who are these people who must drive to campus? Has the University surveyed its population to determine who truly has no transportation choices? What is the relationship between providing additional financial and other incentives for people to use carpools or transit and providing more parking? Has it fully considered alternatives to providing parking near campus, such as satellite parking lots closer to the freeways? The University's access analysis seems largely fixated on providing more parking for its drive-alone commuters.

B7-33

As noted earlier, the note to Table 3.1-3 repeats the statement that "The university may not substantially exceed the NTE total without amending the 2020 LRDP." The 2,500 parking spaces identified in that table is 200 additional parking spaces, which would amount to 8.7 percent more parking. Is this an example of a less than substantial overage that would not be subject to further review under CEQA? As has been previously noted, it would seem that the University gets to define for itself what is "substantial," and no standards or guidelines are mentioned or provided for such a determination.

B7-34

Because of the potential land use and traffic impacts of providing up to 2,300 spaces as proposed, the LRDP needs to clearly explain how it has determined parking demand. Analysis by City Staff shows that some of the assumptions that UC has used to support its projections appear to conflict with LRDP policies that propose to reduce the demand for parking. It also appears that the parking demand calculations may be double-counting some spaces that were proposed in the 1990-2005 LRDP.

B7-35

The LRDP states that the 2,300 (or 2,500) net additional parking spaces include 1,000 spaces proposed in the 1990-2005 LRDP and 300 spaces displaced by construction since 1990 (DEIR, p. 3.1-28). Do the 1,000 spaces in the current LRDP include the 790 parking spaces (690+100) listed in the Actual + Approved column of Table 3.1-2 (p. 3.1-14)? If so, then only 210 more spaces should be included in the 2020 LRDP and the number of net additional spaces listed in Table 3.1-2 should be reduced from 2,300 to 1,610.

On the other hand, if the 1,000 spaces are in addition to the 790 Approved Spaces, which appears to be the University's intention, the DEIR should include relevant excerpts from the 1990-2005 LRDP, restating the key findings from the 1990-2005 EIR regarding the need for this parking. The DEIR should also explain why UC has not developed the 1000 spaces during the years since approval of the 1990-2005 LRDP. Parking expansion should not be 'banked' or carried forward from subsequent LRDPs without comment. Rather, this EIR should properly reconsider the need for the 1,000 spaces proposed in the 1990-2005 LRDP in light of current conditions. The addition of 300 parking spaces "displaced by new construction since 1990" also needs further explanation. Did the 1990-2005 LRDP include these spaces? Which development projects resulted in the removal of these spaces? Was the impact of eliminating these spaces considered as part of the environmental review for the projects that required their displacement?

The EIR states the proposed net parking increase of 2,300 spaces represents a 30 percent increase in Current and Approved supplies. It further states that this figure is made up of 1,000 net new spaces proposed in the 1990-2005 LRDP, replacement of 300 spaces displaced by new construction since 1990, and accommodation of future parking demand at a rate of one space per two new campus workers and one space per ten new students. The LRDP, by the University's admission, proposes 555 more parking spaces than would be required by the projected growth, given current travel behavior of faculty, staff, and students. This fact, and the accompanying text, is particularly troublesome to the City.

UC should also recognize the value of providing a parking management system that can provide drivers with dynamic information on direct routes to facilities that have available parking spaces. With a high demand for parking, vehicles often are required to search all floors in order to find the last available spaces. In some cases, vehicles search a facility only to find that it is completely full and then must travel to another facility. A parking wayfinding system with dynamic signing leading to and around garages can improve utilization of garages and minimize traffic impacts adjacent to garages.

B7-36

There are additional comments on the LRDP policies for parking development and the parking demand projections in subsequent sections of this letter.

Because the DEIR concludes that the LRDP would increase vehicle trips and traffic congestion, creating significant and unavoidable impacts, the Board of Regents must find that there are overriding considerations that warrant retaining the policies and proposals to increase parking. The DEIR fails to provide a legally defensible basis to meet this requirement.

B7-37

The LRDP states (page 3.1-28) that the UC Berkeley has an exemplary record of promoting alternatives to the automobile "by California standards." California, as a whole, does not have a good track record on its support of land use by alternative transportation modes. That is not true for Berkeley. The Berkeley campus has excellent transit service provided by various transit agencies, good pedestrian and bicycle access, a dense housing supply near campus, and also has a policy of constrained parking supply. And if someone wished to compare UC to other communities, it would perhaps be worthwhile comparing it to other universities where there has been a strong commitment to alternative modes and constraining access by the auto, for example the well-known exemplary university programs at the University of Washington or the University of Colorado, Boulder.

B7-38

### **3.1.11 Sustainable Campus**

The City strongly supports the University's commitment to LEED certification, and supports the statement on page 3.1.34 that LEED certification is a minimum standard and that it should consistently strive for LEED silver (or better) whenever possible.

B7-39

### **3.1.14 City Environs Framework**

The City Environs Framework (DEIR, p. 3.1-47) proposes "downtown Berkeley should be the primary focus of future university investment in new research, cultural and service functions that require locations near, but not on, the Campus Park..." (DEIR, p. 3.1-47.) The LRDP goes on to state, "However, these future investments should be planned not merely to accommodate the programs of the university, but also to invigorate the downtown and create an inviting, exciting 'front door' to the UC Berkeley campus. They should also be planned to enable university land and capital to be leveraged through creative partnerships with other public and private sector organizations." Once again, the City appreciates the sentiment and

hopes that the University's supports it with deeds. The proposed art museums to be located in downtown (it should be emphasized: on existing University property), could be significant contributors to the City's downtown and its Arts District.

But the City's long history of working with the University does not give us confidence about its intent. To the degree that University investments remove property from the tax rolls, it reduces the City's ability to meet its obligations to its citizens, while costing the City. As noted earlier, these costs are set forth in detail in the attached UC Berkeley Fiscal Impacts Analysis.

B7-40

A major concern of the City is the potential of the University to fundamentally alter the balance in the City's downtown. The City's downtown is the heart of the City of Berkeley: an eclectic and dynamic area with a wide mix of residents and businesses serving the whole community. Telegraph Avenue has traditionally been the heart of the student community and it has a very different flavor and mix of businesses relative to the City's downtown. The University is already proposing to build 800,000 square feet of additional academic and support space (more than a third of the total additional development) on the adjacent blocks west of the Campus Park – i.e., in the City's downtown. This alone could have a substantial impact on the character of downtown Berkeley. However, in addition, the University's "housing zone" includes this same area. There is nothing in the LRDP that would necessarily prevent all thousand new housing units from locating in or immediately adjacent to the City's downtown. Even if the numbers were considerably below 1,000 new units, the combination of new University academic/support space and more University housing units could tip the City's downtown from its current eclectic and diverse character, into a student district, increasingly more like Telegraph Avenue. This would clearly be a significant adverse impact on the city of Berkeley, fundamentally changing the character of this city.

B7-41

While the City recognizes that it was not the intent of the drafters of the LRDP to imply that the University would transform downtown into another Telegraph Avenue, there is nothing in this plan that would necessarily prevent this from happening. And under the City's own policies, the downtown allows for the highest intensity of use in the City. Given the University's policy of its buildings not exceeding (generally) the building envelopes allowed by the City, the downtown would be an attractive location for new University housing. Without strong policies that would prevent such an impact, the LRDP's statement that University investments would create an "inviting, exciting 'front door' to the UC Berkeley Campus," takes on an unintended meaning.

The LRDP recognizes that parking encourages vehicle traffic and is a poor use of land within the Campus Park. (DEIR, p. 3.1-46.) Unfortunately, UC doesn't extend the same consideration to the City blocks around the campus. Instead, the LRDP proposes to shift the burden of meeting its projected parking demand stating, "In general, campus parking...should be consolidated in structures at the perimeter or outside of the Campus Park, accessed directly from city streets." The LRDP seems to dismiss the cumulative impact of locating this much parking in the blocks surrounding the Campus without

B7-42

comment. Nowhere in the section on City Environs does it describe the potential land use impacts of this much parking. One possible result of this policy could also be the location of the maximum 600 spaces allocated to the Campus Park being placed on the periphery of campus, close to the sites where a large portion of the other 1,900 UC parking spaces would be developed. For instance, if some or all 600 Campus spaces were to be placed on the western periphery of the Campus Park, the traffic impacts would interact in significant and adverse ways with the impacts of the proposed 1,300 new parking spaces in the West Adjacent Blocks, otherwise known as Downtown Berkeley.

B7-42

In the City's view, it is unacceptable to condemn any edge of the Campus Park to a "parking ghetto." Consideration of traffic flow, urban vitality and public safety also suggest that at some level of concentration, parking facilities are detrimental to traffic conditions and the urban fabric. Although the City is opposed to the expansion of parking proposed in the LRDP, to the degree it is provided, the University should seek to avoid an unacceptable concentration of new parking facilities and the associated impacts on traffic congestion, air quality, and land use by adopting a parking facility siting formula designed to ensure that the combination of Campus Park and Adjacent Block parking space density does not exceed a specified number of spaces within a given area. In addition, stronger design guidelines for parking facilities are also necessary, but are largely absent from the LRDP.

B7-43

The DEIR needs to clearly define the boundaries of the Adjacent Blocks in the text of the document. From the Figures, the area appears to consist of the area east of Shattuck and west of Oxford, between Durant and Virginia. Given the University's ownership of several parcels in this area, the EIR should comment on the expected location of major new parking facilities. For example, are the new parking facilities presumed to be placed on lands currently owned by the University, or through acquisition of new parcels? The 600 parking spaces that UC envisions adding in the South Adjacent Blocks would be in addition to the 690-space Underhill Facility, which is presumably included in the 7,690 actual and approved spaces listed in the Actual + Approved column of Table 3.1-2. (DEIR, p. 3.1-14.) (The Underhill Facility is located south of the Adjacent Blocks South area, which Figure 3.1-5 delineates as the area between Bancroft and Durant, west of Ellsworth and south of Stadium.)

B7-44

B7-45

City Interface Policy 1 (DEIR, p. 3.1-46) is a welcome suggestion for partnership; but the proposal for UC Berkeley and LBNL and the City to "jointly seeks funds" to improve the Campus Park Edge should be expanded to propose a true partnership including joint allocation of funds as well as joint efforts to secure outside funding for capital investments and joint authority over the projects that are undertaken.

B7-46

The Project Design section on page 3.1-49 states that the University will "[u]se municipal plans and policies to inform the design of future capital projects." In the following paragraph it is noted that "Major capital projects would be reviewed at each stage of design by the UC Berkeley Design Review Committee, based on project specific design guidelines informed by the provisions of city general plans and other relevant city plans and policies." Once again,

B7-47



the City appreciates the sentiment, but notes that it is not backed by specific policies, programs, or commitments.

B7-47

The design review process outlined on pages 3.1-71 through 74 has no place for input from the City. Despite this, the DEIR states on page 4.1.17 that under a "Continuing Best Practice" the University would make presentations to the Planning Commission and, when appropriate, the Landmarks Preservation Commission. (It should be noted that the list of commissions should be expanded to include the Zoning Adjustments Board, which generally is responsible for site-specific site analysis; and also the City's Design Review Committee.) However, these presentations will not occur until schematic design, relatively late in the project development process and too late to influence the underlying assumptions about where growth and new buildings should be located and how they should be developed.

B7-48

In any case, such review is advisory only. There is no indication that the University Design Review Committee will actually respond to, much less implement the City's plans or policies. The history of University development outside of the core campus is poor. While some recent projects are improved over some past projects, overall University developments have fit poorly into the City's fabric: overly large, inward facing, poorly connected with little regard for impacts on neighbors. University building plans are driven by the needs of its faculty and staff, and increasingly by the demands of donors. There is no reason to expect that the City's concerns will rise to the level of these other stakeholders, and based on the process proposed to date, there is no reason why anyone should expect them to.

The City's concern with the University's intentions are further heightened by the statement that follows its stated intention to respect city policies: "However, in order to meet the demands for program space created by enrollment growth and by ongoing growth in research, sites on the Adjacent Blocks must provide adequate capacity to accommodate these demands..." This kind of language makes clear that UC will proceed with projects regardless of "significant incompatibilities due to their physical characteristics." (DEIR, p. 4.8-15 and 16.)

B7-49

The City appreciates the University's statement that it will "as a general rule use the Southside plan as its guide for the location and design of future projects in the Southside." Typically however, the LRDP has its set of caveats: that it will use it as a "general rule" and as a "guide." Once a plan is adopted by the City, private and city projects in the Southside will be required to abide by it. Given the University's close involvement in the preparation of the plan, the City believes the University should adopt no less strong a commitment. One of the key agreements that was reached between the University and the City in the preparation of the Southside plan was for the University to focus its academic/support space growth in the block adjacent to campus. As noted elsewhere in this document, the City believes this growth should be accompanied by the University's withdrawal from leased space elsewhere in the Southside, such as the American Baptist Seminary of the West site and many others.

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B7-51

In regard to "other Berkeley sites," the City continues to request that the University make a firm commitment in the LRDP to not expanding its holdings and development beyond the areas identified in the LRDP and to reducing its presence in leased space elsewhere in Berkeley. The City believes that if the University intends to continue to expand its holdings in the City, that the only adequate mitigation is to provide full fiscal compensation to the City for the removal of that property from the tax rolls. The Project Description also needs a map showing the other Berkeley Sites as they exist in 2004, to provide a level of information comparable to that provided for the other categories.

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B7-53

B7-54

In regard to the Housing Zone, the City once again appreciates the University's stated intention of respecting City policies. The LRDP notes that housing projects "should also be designed to respect and enhance the character and livability of the cities in which they are located." It goes on to note "to the extent feasible university housing projects in the Housing Zone should not have a greater number of stories, nor have setback dimensions less than could be permitted for a project under the relevant city zoning ordinance as of July 2003." Again, this is a good sentiment, but the qualifiers and caveats such as "*to the extent feasible*" and "*should*" cause us great concern.

B7-55

### **3.1.15 Hill Campus Framework**

The Hill Campus Framework includes several policies to protect the open space character of this prominent and special area. It includes policies to "manage the hill campus landscape to reduce fire and flood risk and restore native vegetation and hydrology patterns," and "maintain the visual primacy of the natural landscape ..." And then it identifies two housing sites in the Hill Area (DEIR, p. 3.1-55) that seem contrary not only to these two policies, but also contrary to the General Plans of the cities where they are located, as well as many other policies in the LRDP.

B7-56

The boundaries of housing sites H1 and H2 are almost impossible to determine in the poor aerial map provided in Figure 3.1-52. This is a significant flaw in this "project description." The size of the sites (13 acres) is not found until the Biology section (DEIR, pp. 4.3-17 and 4.3-18). One of the sites, although obviously disturbed at some point in the past, is now tree covered and semi-natural in character. The other site is a parking lot for the Lawrence Hall of Science. It is not clear how the University intends to address the loss of parking for the Hall. Both sites are some of the most visually prominent sites in the East Bay, with commanding views of the City of Berkeley and the Bay Area. While parking lots are relatively flat and not intrusive as seen from the rest of the Berkeley and the Bay Area, buildings would be quite intrusive and have a significant visual impact. Denuding the existing tree covered hill area of H-1 (as would be required for new residential development) and replacing them with housing would cause significant aesthetic impacts and is contrary to the above policy on maintaining the visual primacy of the natural landscape.

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In addition, each of these hill sites is isolated from campus up a long, very steep road. Although there is bus transit nearby, it is infrequent and does not run very late. Therefore,

B7-60

the people in this housing will be forced to use their automobiles for almost all daily needs, including driving their children to childcare, purchase of groceries and commuting to work (if they work during hours inconsistent with the bus schedule). The only stated reason for using these sites for housing is that they are served by existing infrastructure, a description that fits virtually the whole developed Bay Area. Reaching further, the LRDP offers a further justification for housing in this location: "an after-hours presence in the Hill Campus that could improve safety and security." Who, exactly, will feel more secure with this housing in this location? Certainly not the future residents; they will be isolated from most emergency and police services. The City is unaware of any security problem in this area that the presence of more residents will be able to address. The cost of providing 24/7 residential security to this isolated is likely be a significant expense in itself and at least some of that security and much of the fire protection will need to be provided by the City. Far from reducing the fire and seismic risk, the University is proposing to expose a large number of people to the risk of wild-land fire and the near-field effects of a Hayward fault event, risks that, as most people in the Oakland and Berkeley hills know too well, are not theoretical.

B7-60

On page 3.1-54, there seems to be an inconsistency between the text and figure in regard to the expansion of the Botanical Garden. The text indicates that the 2020 LRDP incorporates this expansion as shown in Figure 3.1-10 but there seems to be only a boundary for the existing Botanical Garden shown. The boundary of the expansion area is not indicated. An area called the "Faunal Refuge Area" is also indicated in the figure, but the text does not indicate what it is, distinct from the rest of the Ecological Study Area. Without further information, it is impossible to evaluate potential environmental impacts on its ecological function.

B7-61

On page 3.1-50 concerning "Other Berkeley Sites," the LRDP should identify future need to lay or install any enhanced communications connections to link the far-flung University facilities, which could be anywhere in the City, as indicated in "Other Berkeley Sites." Some communications installations have significant impacts on upon the public's ability to use streets, the physical structure of the roads, aesthetics, City costs for upkeep, and future City constraints due to added infrastructure systems.

B7-62

### **3.1.16 Location Guidelines**

The LRDP proposes that, "For each new capital project the policy review undertaken at phase 1 and phase 2 of the Campus Project Approval process... shall include a finding that the project conforms to the Location Guidelines, or state why an exception is warranted." It should first be recognized that, as described in earlier sections, the City has no meaningful role in the campus approval process sufficient to ensure that its interests will be heard or addressed. In addition there are no criteria for determining whether an exception is warranted. Without criteria for evaluation of when an exception is warranted, it is clearly feasible for projects to be proposed and approved that comply with none of the guidelines. As has been pointed out numerous times, the LRDP invariably includes qualifiers and caveats that make reliance on its representations very difficult.

B7-63

### **3.1.17 Campus Park Design Guidelines**

Section 3.1.17 includes relatively detailed design guidelines for the Campus Park. In its comments on the NOP, the City requested that the University propose some clear guidelines for projects that would be located within the City. There is mention in various sections of the need for ground floor retail uses in areas where it may be appropriate, and for following City height and bulk standards, but no guidelines for how University development on city streets should interface with the City. There is not even reference to working with the City to develop such guidelines. Because the City has virtually no role in the design review and approval process with the University, and because the City has no guidelines to review, it is very difficult to predict what the aesthetic and land use impacts of the University will be on the community.

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There is one incorrect reference within the Campus Park Design Guidelines on page 3.1-67, where inadvertently the text seems to refer to potential sites not within the Campus Park. LRDP page 3.1-67, under the heading "City Interface," states, "in the city General Plan, several sections of blocks adjacent to campus are designated "commercial: ground floor level spaces in university buildings within those areas should include retail and/or store front services at ground level. Other university buildings... on adjacent blocks should house functions with a high frequency of human presence and activity at ground level." The reader is not sure, then, if the title of the section is inaccurate by being too narrow (does the University intend to have the guidelines apply to more land use zones than the campus park?) or is the inclusion of a reference outside the campus park the error? It is impossible to determine what is intended from the text of the 2020 LRDP. But what is clear is that, even if the intent were to provide some limited guidance for buildings outside the Campus Park, there is not much guidance.

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On page 3.1-64, Figure 3.1-12, the City interface is shown in the key as a line of dots. On the map in the figure, two lines of dots run parallel to each other. The key ought to indicate if the City interface is intended to refer to the area between the two lines. If so, the key should show the two parallel lines of dots, not a single line. Without this clarification, the key is ambiguous.

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### **3.1.18 Campus Project Approval Process**

It has been noted in other sections that this section contains no opportunity for City input to the process. The DEIR states on page 4.1.17 that under a "Continuing Best Practice" the University would make presentations to the Planning Commission and, when appropriate, the Landmarks Preservation Commission. It should be noted that the list of commissions should be expanded to include the Zoning Adjustments Board, which generally is responsible for site-specific site analysis; and also the City's Design Review Committee (DRC). However, these presentations will not occur until schematic design, relatively late in the project

B7-67

development process and too late to influence the underlying assumptions about where growth and new buildings should be located and how they should be developed.

B7-67

There is no indication that the University Design Review Committee will actually respond to, much less implement the City's plans or policies. The City is not represented on the University's Design Review Committee and it is therefore not clear how the City's interests will be expressed to the DRC in an effective manner.

At best, the University may tell the City what it plans to do before it does it ("informational presentations"). The LRDP proposes significant encroachment into the City on all sides, but there are no specific guidelines about how that should occur, and therefore no assurance that the City's interests will be even effectively considered, much less addressed.

Finally, the Campus Project Approval Process ignores a very significant, and frequently determinative aspect of the project development process: fundraising. As we have seen in the past even "nonbinding" representations made during the fundraising process, especially to large donors, can essentially determine the major characteristics of a project. If the LRDP's guidelines or implementation measures are to be even potentially meaningful, the project review and approval process must address – and change – this current reality.

B7-68

## ENVIRONMENTAL EVALUATION

### **4.0.1 – 4.0.4: Scope, Format, Impacts, Mitigation Measures and Cumulative Impacts**

The University has approached environmental review of the LRDP by eschewing specifics, on the ground that this is a "first tier program-level EIR" (DEIR, p. 3.1-4.) The City has no quarrel with the University's decision to prepare a program-level EIR on its new 15-year LRDP.

However even a program EIR must meet the fundamental CEQA requirements of a meaningful project description and impact analysis. In addition, as we pointed out in our Response to the Notice of Preparation (RNOP), it is especially important that a program EIR analyze impacts and identify mitigation measures in a manner that can be reliably translated and extended from project to project over the course of the program (here, 15 years or more).

Unfortunately, it appears that the University has allowed the tail to wag to the dog – it has eviscerated the LRDP as a useful or meaningful planning document<sup>2</sup> in order to accommodate its overly general "program-level" environmental review strategy. While projects should be informed by environmental review, they should not be hollowed out so as

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<sup>2</sup> The DEIR states that the LRDP does not commit the University to any specific project but provides "a strategic framework for decisions on those projects" (DEIR, p. 3.1-3). It further states that the LRDP's capital investment program establishes "a maximum amount of net new growth ... which the campus may not substantially exceed without amending the 2020 LRDP." (*Id.*) In other words, the "project" as described in the DEIR (the LRDP itself, in its entirety) is little more than a set of general policies that will "guide" up to a specified amount of future development in a project area that is only partly defined.

to be little more than vehicles for program EIRs that can then be tiered off for the subsequent decade or two.

B7-69

This is especially the case in a built-out urban environment, where a great deal of planning related to specific parcels and facilities has already taken place, and a great deal is already known about remaining development opportunities. Indeed, on May 25, 2004, Assistant Vice Chancellor for Facilities Services, Tom Lollini, stated to the Berkeley City Council that the University already owns or controls all or virtually all of the off-campus parcels needed to accommodate the growth that is the subject of the DEIR. Indeed, the DEIR identifies numerous specific parcels. (DEIR, pp. 3.1-20 to 3.1.24.)<sup>3</sup>

Since, according to the DEIR and LRDP, the LRDP provides guidance with respect to the development of those parcels, the DEIR could have, and therefore should have, illuminated both the real meaning of the LRDP and its effects, by showing how it would be implemented on the identified parcels.

#### Tiering and Mitigation

As we discussed in the RNOP and discuss in this letter, the City has significant concerns about the use of this EIR, as currently constituted, as a "first tier" EIR. The DEIR states that environmental documents on specific projects included in the LRDP will rely on it for "general growth-related and cumulative impacts." (DEIR p. 1-2.) However, based on the number of specific types of impacts that the DEIR concludes will be mitigated to a level of insignificance on the basis of "Continuing Best Practices" or similar programmatic measures, we believe that the practical consequence of the EIR will be to virtually eliminate future EIRs on projects that can be construed as being consistent with the LRDP.<sup>4</sup>

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We are further troubled by the fact that the project approval process described in the LRDP (DEIR pp. 3.1-71 through 3.1-74) does not seem to contemplate any environmental review other than an initial study (step 2.8).<sup>5</sup>

Thus the City and its residents are faced with: a "project description" that calls for an 11.5% increase in campus headcount, 2,300 new parking spaces, 2.2 million new square feet of buildings and 2,600 new beds— none of it located anywhere in particular; an EIR that

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<sup>3</sup> The notable exception is the "Housing Zone," which is undefined geographically, and is not even illustrated on any map in the DEIR. Rather, it is defined in terms of specified performance criteria relating to campus access.

<sup>4</sup> Since the LRDP itself is quite generous in sanctioning departures from its guidelines, it is difficult to imagine any likely future project that the University would not consider consistent with it. To the extent this is simply another manifestation of the vacuity of the LRDP itself, it is not a matter addressed by CEQA. The problem, however, is that this vacuity, which appears to be an artifact of the University's approach to environmental review, renders the DEIR excessively general, and therefore inadequate.

<sup>5</sup> Oddly, "environmental approval" by the Regents (step 4.6) occurs well after preparation of the initial study, and after Regents' approval of "budget/capital improvement program amendment," which apparently does not involve "environmental approval" at all (step 3.13).

concludes in the most general manner possible, that with very few exceptions none of this will have any significant impact on the environment; and the likelihood that this EIR is the only one that will be prepared during the life of the LRDP. This is unacceptable, as the University would surely agree if it were responding to a like environmental review document.

B7-71

Under these circumstances, the DEIR must clearly demonstrate that the mitigation measures it identifies as reducing impacts to less than significant level actually will do so. As we stated in our RNOP, actual experience is to the contrary. The mere assertion, repeated in the DEIR, that these measures have been effective and that they and new measures will continue to be even more effective, does not withstand scrutiny. If the Campus has been monitoring the implementation of these mitigation measures as CEQA requires (Pub. Resources Code §21081.6) it should have specific information to show whether the measures were in fact implemented whether and to what extent they proved successful. That information should have been included in the DEIR in sufficient detail to allow readers to reach their own informed conclusions as to whether these purported mitigation measures have really been effective or are likely to be in the future. Unfortunately, the DEIR includes no such information at all; it contains only unsupported assertions. Worse yet, the LRDP, as set forth in the DEIR, fails to enumerate and make commitments to all of the "Continuing Best Practices" for the lifetime of the LRDP. The LRDP set forth in the Project Description (Section 3.1) does not include details of the Best Practices or any documentation to show they constitute a reliable depiction of the University's future practice.

In its RNOP, the City expressed its willingness to work closely with the University, through the environmental review process or otherwise, to devise an implementation plan and schedule for each proposed mitigation measure involving the City. It also urged the University to consider an approach the City recently used with Alta Bates Summit Medical Center. Instead of proposing specific measures to mitigate predicted impacts we recommended that the DEIR recommend measurable performance standards that UC would commit to achieving over the long term. Under both approaches, the EIR analyzes the likelihood and severity of specific impacts. But instead of relying on specific mitigation measures of uncertain feasibility and efficacy, the City's approach would require the University to (1) state clearly the level of impacts it expects to result from the LRDP, (2) commit to ongoing monitoring, and (3) employ whatever mitigation measures are necessary at the time the acceptable impact level is exceeded, to reduce the impact to the level specified in the EIR. The benefits of this approach are that it does not rely on (necessarily inaccurate) predictions about impacts and mitigations 10 or 15 years hence.<sup>6</sup> The City recognizes that this approach may not be appropriate for all types of impacts, but it is appropriate for operational impacts such as traffic, parking, noise, sewage collection, etc.

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<sup>6</sup> This approach might require that enrollment increases be phased with implementation of mitigation measures. Doing so might itself be considered a mitigation measure.

Instead of using this approach, the DEIR, for the most part, relies on “Continuing Best Practices” to mitigate project impacts, some, if not all, of which, are mitigation measures originally proposed in the 1990 LRDP EIR, or in EIRs from subsequent projects. The reliance on these Best Practices represents a critical flaw in the DEIR that can only be cured by comprehensively revising the LRDP itself and the DEIR by:

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1. Incorporating detailed measures in the LRDP as policies and standards;
2. Adding substantive information to the DEIR to demonstrate that the “Continuing Best Practices” that UC proposes to continue have been effective in reducing the environmental impacts they are intended to mitigate, and that the additional programmatic mitigations will be effective.
3. Adopting measurable performance standards as mitigation measures (whenever appropriate) that must be met and commit to monitoring and regularly reporting on the effectiveness of the performance measures.

In addition, the DEIR improperly relies on a number of mitigation strategies that will not, in fact, result in reduction of impacts. The strategy of presenting specific development proposals to City boards and commissions for purely advisory review will not necessarily have any result whatsoever (e.g., DEIR p. 4.8-17, mitigation measure LU-2-b.). The University cannot assert its immunity from local regulation and at the same time rely on local advisory review as a mitigation.<sup>7</sup> The DEIR is also incorrect in concluding that a purported commitment to pay the University’s “fair share” (ranging from 7%-19%) of the cost of various intersection improvements will necessarily result in any reduction of the identified impact, since there is no assurance that the City will be able to bear the remaining 81%-93% of the cost of each of these improvements (e.g., DEIR, pp. 4.12-50 through 4.12.52, mitigation measure TRA-6-a-g.). Thus these impacts must be considered as significant and unavoidable.

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Please also note earlier comments on the scope in relation to the LRDP for LBNL.

B7-76

#### **4.1 Aesthetics**

Section 4.1.5 (page 4.1-12) describes the “standards of significance” for aesthetic impacts. The City believes this list is incomplete and inadequate. Given the stated LRDP objective that the University shall “Plan every new project to respect and enhance the character, livability and cultural vitality of our city environs,” the University should adopt this objective

B7-77

<sup>7</sup> Similarly, the DEIR’s assertion that land use impacts will necessarily be less than significant is illogical and insupportable in light of its admission that development under the LRDP may well depart from City land use regulations to the extent of creating a “significant incompatibility with adjacent land uses.” (DEIR, pp. 4.8-10 & 4.8-15 through 4.8-15.) The purported mitigation measure of further environmental review in such cases (DEIR, p. 4.8-17, mitigation measure LU-2-c) will not prevent such projects from having significant impacts.



as one of its standards of significance for aesthetic (as well as land use) impacts. Clearly, a project that would compromise or detract from the City's "character, livability and cultural vitality" should be considered a significant adverse environmental impact, given this objective. If, as the University has stated, it considers the LRDP to be a "general plan" level document, conformance with the plan's stated objectives would normally be considered an important measure of environmental impact (for further discussion, see comments on page 4.8.11). This is an important point because the City believes the University has not adopted sufficiently strong or specific mitigations to ensure that the aesthetic impacts can be mitigated to a less than significant level.

B7-77

The DEIR states on page 4.1.13 that "[a]t UC Berkeley, independent design review of projects is conducted by the UC Berkeley Design Review Committee, with staff support from Facilities Services." On page 4.1.14, the DEIR states that "the design objectives of UC Berkeley should be informed by the design policies of neighboring cities". In the next paragraph, the DEIR states that "Major capital projects would be reviewed at each stage of design by the UC Berkeley Design Review Committee, based on project specific design guidelines informed by the provisions of city general plans and other relevant city plans and policies." While these statements seem to indicate some level of consideration of City concerns, they are not backed by specific policies, programs or commitments. The design review process outlined on pages 3.1-71-74 has no place for input from the city. This is true despite the "Continuing Best Practice" described on page 4.1-17 that the University will present all major projects to the City's Planning Commission and Landmarks Preservation Commission.<sup>8</sup>

B7-78

However, a presentation does not constitute mitigation of potential aesthetic impacts. There is no indication that the University Design Review Committee will even respond to, much less modify a project in response to the City's design concerns. And because the City is not part of the University's Design Review Committee, it is unclear how the City's interests will be expressed to the UC Design Review Committee in an effective manner. At best, the University may tell the City what it plans to do before it does it ("informational presentations"). In other words, there is clearly no basis for assuming that the impacts on the City's aesthetic character will be protected, or that the University will even carefully consider these issues before it develops its sites. According to the plan, it proposes significant encroachment into the City on all sides, but as has already been discussed in regard to the LRDP, the plan lacks guidelines for development in the City environs, and makes no commitments to developing such guidelines with the City. The mitigations for aesthetic impacts are simply too weak to provide any assurance that the aesthetic impacts of projects on the City's character will be adequately addressed.

<sup>8</sup> The appropriate body for project design review is usually the Zoning Adjustments Board; and that, in addition, the appropriate body for reviewing and commenting solely on building design is the City's Design Review Committee. These bodies should be added to the list of City commissions that should be consulted.

The history of University development proposals responding to the City's design or aesthetic concerns is poor. While some recent projects are improved over past projects, overall the University's review process has led to projects that fit poorly into the City's fabric: they tend to be overly large, bulky, inward facing, poorly connected with little regard for impacts on neighbors. The University's design mission is driven by the specific needs of its users and, increasingly, by the demands of donors and project sponsors. The City sees no basis in the weak and inadequate mitigations in this EIR to assume that the aesthetic impacts of University development on the City will be mitigated to a less than significant level.

B7-78

The City suggested in its October 9, 2003 Response to the NOP (page 14) that detailed design guidelines could potentially mitigate the impacts of University development on the City. In contrast, the University's approach is to apply guidelines on a case-by-case basis. Such piecemeal evaluation completely misses the point. The purpose of having a unifying, overall set of design guidelines is to ensure that each project conforms to the same rule, in this case, a rule that calls for projects to be integrated into the existing urban fabric. Project-specific design guidelines accomplish just the opposite result. Design guidelines should be developed that take into account the streets, the community context, and how the addition of University projects changes the functional as well as physical environment of the community in the City environs.

B7-79

The Housing Zone defined by the University in the LRDP and further discussed on page 4.1.17 is too large to allow for reviewers to effectively comment on its potential aesthetic impacts. Based on the language in the LRDP, all of the proposed student housing could be located within a mile of campus, or all of it could be located spread out along major transit corridors. These would lead to very different impacts from the point of view of the aesthetic character of the City. Even using the very narrow definition of significance (substantially degrade the existing visual character or quality of the site and its surrounding) proposed in the DEIR, housing could have a significant impact. For example, a thousand new housing units west of campus, in or immediately adjacent to the City's downtown, could tip the City's downtown from its current eclectic and diverse aesthetic character, into a student district, similar to what has already occurred along Telegraph Avenue, with a potential for substantial visual impacts and ultimately, visual degradation. This would clearly be a significant adverse impact on the city of Berkeley, fundamentally changing the physical character of this city. And yet, there is nothing in this plan that would necessarily prevent the University from developing in this manner.

B7-80

B7-81

In regard to the Hill Campus (DEIR, p. 4.1.16) Mitigation Measure AES-1-c is so full of caveats and qualifiers as to be virtually meaningless in terms of its potential to ensure mitigation of impacts. Specifically, the alleged "Continuing Best Practice" is that "as a general rule" projects would conform to the design principles in the Hill Campus Framework. However, these "principles" would not "preclude alternate design concepts." The one Design Principle that applies to development (DEIR, p. 3.1-56) in the Hill Campus includes no mandatory components. The language of the design guidelines is vague and states what "should" be done, but never what "shall" be done. Again, given the history of hill area

B7-82

development by the University, not only in the Hill Campus area, but also at LBNL, there is little evidence that the University will necessarily mitigate the visual and aesthetic impacts of its projects. Moreover, as previously discussed, the Hill Campus sites are visible from throughout Berkeley and much of the Bay Area. There has been no effort to model or consider the impacts of a significant amount of residential development on these two sites. Because so many of the projects in the Hill Area violate the design principles that they now claim should be followed, because the design guidelines are weak, and because the mitigation of potential impacts is equally weak, there is no basis for assuming potentially significant aesthetic and visual impacts will be mitigated.

B7-82

The comments described for AES-1-c (DEIR, p. 4.1-16) apply also to Cumulative Impact AES-1 and AES-2. It is especially difficult to understand how the DEIR comes to any conclusions regarding potential cumulative visual impacts when there is no information regarding the proposals of LBNL (the problem with bifurcation of the two LRDP's has previously been discussed). Based on the Notice of Preparation for the Lawrence Berkeley National Laboratory (LBNL) it is also expected to grow by about 800,000 square feet in the same hill area. On what basis does the University conclude that there would be no significant cumulative adverse impact from what is proposed by LBNL, in combination with the proposal for 100 new housing units on two highly visible sites, and the proposed 100,000 square feet of new development at some undefined location in the Hill Area? As already noted, the University's guidelines are inadequate and do not require that projects conform to them anyway. A conservative analysis would have concluded that there are clearly potential cumulative impacts and specific mitigations, besides weak guidelines, that should have been proposed.

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B7-84

It is also unclear why the DEIR has chosen a new measure for considering cumulative impacts and now speaks of "cumulatively considerable" rather than the usual standard: cumulatively *significant*.

B7-85

In regard to the Hill Area, the DEIR states that "New buildings should conform to contours of land, and grading should be minimized," and "Buildings should be clustered to minimize site disturbance." These two criteria are frequently contradictory, as the goal of minimizing site disturbance may require dispersed sites, rather than the greater amounts of grading often needed to provide grade relationships for pedestrian, handicap, and vehicular access to clustered structures. This is not a basis on which to assume any level of mitigation, without detailed design guidelines.

B7-86

It should be noted that Best Practice AES-1-d (DEIR, p. 4.1.17) concerning management for fuel reduction, will have aesthetic effects (possibly temporary) due to loss of visual screening of buildings provided by existing plant material. The DEIR has failed to identify, discuss, and mitigate this impact.

B7-87

The discussion under LRDP Impact AES-3 (page 4.1-19) states, "New development under the 2020 LRDP which could include locations near the perimeter of the Campus Park, as well

B7-88

as areas that are currently undeveloped, could create new sources of light from... lighted recreation/athletic facilities..." and is followed by Mitigation AES-3-a which states that lighting for new development projects would be designed to include shields and cut-offs that minimize light spillage onto unintended surfaces and minimize atmospheric light pollution."

B7-88

The discussion of Aesthetics refers to "lighted recreation/athletic facilities" in general terms without mention of the specific problems associated with light and glare from stadium lighting. The DEIR should distinguish between playing fields used for physical education activities and Memorial Stadium. Failure to recognize this distinction leads to dismissal of potential impacts without further discussion. The DEIR does not mention the University's intention to install 282 TV broadcast quality lights at Memorial Stadium. In fact, the DEIR fails to say anything about future use of the Stadium, which is included in the Campus Park although its location abutting the Hill Campus and the Panoramic Hill neighborhood creates a variety of potentially significant impacts.

The proposal to mitigate light and glare with cutoffs and shielding (Mitigation AES-3-a) will not effectively avoid disruption of surrounding neighborhoods unless the mitigation specifies a numerical standard to be achieved by such measures. Also, the very intense light levels associated with athletic and recreation uses create a disruptive glow of light besides the direct light. No facts or reasoning are presented as to why shielding and cut-offs would be expected to mitigate atmospheric light pollution from such sources. This section goes on to say that the cutoffs or shielding will not be done if there are historic resource issues. In that case, the mitigation should consider elimination, reduction, or modification of nighttime illumination. "Portable" lights are an alternative to permanent installation of the massive light arrays that ESPN has already used for late afternoon and evening broadcasts of UCB games.

B7-89

#### 4.2 Air Quality

Page 4.2.1 discusses the lack of information on the impacts of nano-technology. Nano-technology refers to man-made structures at the atomic and molecular level. Clearly, such tiny artificial structures, should they escape into the air, could have an impact on air quality and health. While the University is correct in noting that there do not yet exist specific guidelines for handling such particles, that should not mean that that some precautions and mitigations for potential impacts are not required. Unless proven otherwise, the City believes that such particles should be considered potentially hazardous air pollutants. At minimum, UC should adopt safe practices already established for ultra-fine particles and commit to developing further safe practices as such practices are adopted by the appropriate federal and/or state agencies. The National Institute of Occupational Safety and Health (NIOSH) is developing such practices at this time.

B7-90

Table 4.2-6 (DEIR, p. 4.2-17) of the EIR should provide additional information on the calculation of Existing Student and Employee Vehicle Emissions. Please indicate where the assumptions regarding daily trips and VMT are found in the Technical Appendix or elsewhere.

B7-91

Continuing Best Practice AIR-1 (DEIR, p. 4.2-21) does not reference a specific program with specific implementation measures. Given the reliance the University places on this program to not further exacerbate existing conditions, it must be presented in detail as a mitigation (and if located in the Transportation section, it must be referenced here). Even assuming that there is a program that the University intends to continue to implement, this mitigation presents a difficult, if not impossible proposition: to provide only *the same or equivalent* transit programs, yet hope to *improve* the mode split and *reduce* the use of single occupant vehicles. It is not practical to maintain the status quo in program and expect better results, especially in light of an expanded parking supply being built to meet 'unmet demand.' The Campus New Directions Program consists of good programs that must be *expanded* in order to improve the mode split and reduce trips as the University intends.

B7-92

With respect to Impact AIR-2 (DEIR, p. 4.2-21), we recommend that UC change its practice regarding response to odor complaints. Because BAAQMD Public Nuisance Regulation 1, Section 301 may be too difficult to implement we suggest that as an alternative UC rigorously enforce a standard that requires no more than 10 complaints in a 90-day period.

B7-93

Because of the proposed volume and duration of construction activity proposed by the University and its location in the heart of a built-out city, we recommend that construction mitigation measures go beyond the minimum standard project-level measures recommended by BAAQMD. Mitigation AIR 4 should be modified to require that construction surfaces be watered more than twice a day. In addition, if the project involves more than a minimal amount of demolition, sites should be tested for asbestos and lead. Soils should be tested more than once during construction to identify other contaminants in soils before they are moved. These procedures should be incorporated into all bids for earth moving and demolition.

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B7-95

The City recommends that on page 4.2-25, Mitigation Measure AIR-4-b, the first bullet be edited to read, "To the extent the equipment and fuel is available and cost effective, UC Berkeley shall require contractors to use alternatives to conventional diesel fuel (including B100 biodiesel), retrofit existing engines..." This mitigation is welcome and the City notes that this mitigation is written as a rare "shall require." Fortunately, it is a relatively easy mitigation to implement because alternative fuels such as B100 and, to a lesser extent, Ultra Low Sulfur Diesel fuel can reduce both particulates and carcinogens. The mitigation could be more specific in describing how the University would implement this mitigation. Would construction bids be favored based on the composition of the bidder's fleet or on the willingness to run trucks on biodiesel?

B7-96

The City of Berkeley is recognized as a national leader in the use of biodiesel in our heavy vehicle fleet. The Berkeley Unified School District is a partner in several alternative fuel programs for large vehicles. The City may be able to partner with the University and private construction contractors to create a model of low-emission construction through biodiesel and alternative fuel use.

B7-97

In regard to operational vehicular emissions on page 4.2-27, the City believes that the University should mitigate this impact of the increasing number of parcel delivery trucks by adopting specific purchasing policies to directly encourage or require the use of lower emission delivery and other service vehicles.

B7-98

The Table on page 4.2-9 should include all emissions, including construction, which does not seem to be included. The text references BAAQMD thresholds, but fails to say what they are and does not show them in the table. It should be possible to tell from this table exactly what the relationship is between the University's contribution to air quality impacts, and adopted thresholds of significance.

B7-99

Continuing Best Practice AIR-5 again references some "transportation control measures," but fails to list them and fails to reference a document or section where they are listed. Nor does the document assess the potential effectiveness of this program. Without a list and a strong commitment to those measures, this is a hollow mitigation and is clearly unacceptable under CEQA. As has been noted previously, in theory, if these are Best Practices in accordance with mitigations from previous EIR's, their effectiveness should have been assessed through monitoring, and the results of this assessment disclosed in the DEIR. Moreover, this document as a whole fails to assess the potential benefits of adopting additional measures which could further mitigate impacts. Since the operational and cumulative impacts are considered significant and unavoidable, the University must assess a range of reasonable and feasible alternatives to reduce impacts, or show why such alternatives are infeasible. This DEIR utterly fails to do so and is deficient as a result.

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B7-101

B7-102

In regard to cumulative Air Quality impacts, the LRDP notes in AIR-1 that the impact is significant, but fails to come to any conclusion as to whether it is unavoidable. But coming to some conclusion is required by CEQA. Based on the text that follows, it must be assumed that the impact is indeed considered significant and unavoidable. As has already been previously noted, reliance on AIR-5 is not sufficient, as it does not identify a program or attempt to assess the effectiveness of the non-identified program. Given that this impact is considered significant and unavoidable, the University is obligated to assess the effectiveness of its current control measures and determine whether additional measures are infeasible. To, in essence, "throw in the towel" without even trying is not permitted under CEQA.

B7-103

B7-104

The same comments apply to Cumulative Air Impact Air-4. The lack of analysis of the feasibility of alternatives to minimize this impact is not permitted under CEQA.

Finally, the City is surprised by the University's decision to separate out some impacts from others. Why is construction activity not combined with other activities to assess a true cumulative impact? Regardless of whether the BAAQMD CEQA Guidelines require lead agencies to estimate emissions from construction, this DEIR has chosen to do so and those impacts can be cumulatively considered along with others. The DEIR should present a table that identifies the impacts of all its activities – operations, vehicles and construction activity

B7-105

—so that this document can perform its function of informing the public and decision makers as to the impacts of the project.

B7-105

The DEIR assumes that the California Air Resources Board's rulings are expected to improve TAC emissions from diesel engines over time, and that therefore the cumulative impact of the LRDP's share of TAC emission increase is less than significant. The DEIR fails to indicate whether BAAQMD models (recently updated to reflect a gradual reduction in diesel emissions) have been used to confirm that the University's impacts are negligible. The University could better ensure that this impact is less than significant by adopting an accelerated vehicle retirement program and low emission procurement program, combined with an engine replacement and particulate filter. The BAAQMD and the State's Carl Moyer Program can provide additional technical information.

B7-106

Page 4.2-29 identifies thresholds of significance for the Tien Center, but does not reference BAAQMD thresholds for individual projects, "As and when individual development projects are proposed on the campus under the 2020 LRDP, a project-level evaluation of operational emissions would be conducted and the estimated emissions of the project would be compared to BAAQMD Thresholds (80 lbs. per day of NOx, ROG, and PM10 and 550 lbs./day of CO)." (DEIR, p. 4.2-18). This misstates the BAAQMD Thresholds. It should indicate the thresholds of significance in BAAQMD CEQA Guidelines – See BAAQMD CEQA guidelines, December 1999. For example, carbon monoxide threshold is any of three factors: 1) CO emissions > 550 lbs. /day; 2) Project traffic would impact intersections or roadway links operating at LOS D<E, or F or would cause LOS to decline to D, E or F, or 3) project traffic would increase traffic volumes on nearby roadways by 10% or more (unless the increase in traffic volume is less than 100 vehicles per hour). The DEIR fails to provide a rationale for choosing only one threshold, and ignoring the other two.

B7-107

The DEIR states: "In addition [to fugitive dust], exhaust pollutants are emitted from construction equipment use. This equipment is typically diesel-fueled. Recently, the CARB recognized the particulate matter emissions in diesel exhaust as a carcinogen, so there is additional concern about this pollutant." Given the scope of the UC LRDP, the emissions from construction equipment, fugitive dust and increased vehicular traffic adds to an already significant air quality problem.

B7-108

The American Lung Association's (ALA) annual air-quality report titled *The State of the Air 2004 Report*, released in April, found that high levels of pollutants have been detected in many Bay Area counties. The tests measured both short- and long-term exposure to ozone, also known as smog, as well as microscopic particle pollution. The worst air quality in the Bay Area was reported found in Alameda County, which once again scored an "F" in both high-ozone days and 24-hour particle pollution readings. Particle pollution can be dangerous when it reaches unhealthful levels over a few hours or a few days even at relatively low concentrations, and is danger to health with constant daily exposure over a long period of time. Studies link particle pollution to increased risk of asthma attacks, heart attacks and strokes, lung cancer, and premature death.

Given the findings of the ALA report, increases in sources of pollution resulting from the LRDP may have a significant impact on air quality. An increase in vehicular traffic and pollutants associated with proposed UC construction, commuting and research will affect all residents, particularly those living with chronic respiratory distress. The ALA report cites a link between exposure to air particle pollution and cardiovascular and lung diseases including asthma, chronic bronchitis, heart disease and emphysema. In the Bay Area, there are 338,024 adults and 135,420 children with asthma, 230,830 people with chronic bronchitis, 76,999 with emphysema, and 1,457,692 residents who suffer from cardiovascular disease. Metals, lead and other carcinogens can also damage unborn babies by traveling from a mother's lungs into her bloodstream and placenta.

B7-109

People with cardiovascular diseases, children and the elderly are most vulnerable to the health risks associated with particle pollution, as are those who suffer from chronic lung disease such as asthma and chronic obstructive pulmonary disease. The report found that even short-term exposure to unhealthy particle pollution levels (i.e. several hours to several days) has been linked to premature death, heart attacks and stroke for people with cardiovascular disease in California.

U.C. mitigation plans should include: 1) reduction of equipment run on diesel fuel and significant mitigations when diesel fuel equipment is used; 2) reduction of employee and student parking and increased incentives for alternative modes; 3) provision of responsive UC shuttles that run on low emission or alternative fuels such as electric, natural gas, and hybrid electric which emit fewer pollutants than conventional gasoline and diesel powered vehicles; 4) funding for local asthma prevention and treatment efforts.

B7-110

### **4.3 Biological Resources**

Figure 4.3-2 (DEIR, p. 4.3-12) provides inadequate information in regard to the Hill Campus vegetation. Portions of the Hill Campus are seemingly left out without explanation.

B7-111

The Strawberry Creek Management Plan is being updated, as is the 2020 Hill Area fire Fuel Management Plan. These need to be completed before any projects are approved. (See, DEIR, p. 4.3-21.)

B7-112

LRDP mitigation B10-1-a: The University will, to the full feasible extent, avoid the disturbance or removal of raptor nests. Mitigation has to be feasible, but it also has to mitigate. It is impossible to tell what this measure will actually accomplish. (DEIR, p. 4.3-25.)

B7-113

### **4.4 Cultural Resources**

The impact and mitigation discussion regarding cultural resources beginning on page 4.5-54 demonstrates the difficulty of both assessing impacts without site-specific analysis, and of

B7-114



arriving at firm conclusions without such analysis. Despite the lack of any site-specific review, the DEIR somehow comes to the conclusion in CUL-3 (DEIR, p. 4.4-55) that cultural and historic resources may be demolished or severely compromised and that, furthermore, such destruction is “warranted by public benefits in furtherance of the University’s educational mission.” The DEIR provides no analytical basis for coming to the conclusion that there will necessarily be potentially significant impacts on cultural resources. There is no stated basis for it asserting *in advance* that the impacts on those resources are unavoidable. There is simply no analysis whatsoever. Which resources might be affected, and how significant are they? How much would they be affected?

B7-114

While it may be conservative to assume that there may be such impacts and that they may be potentially significant, the DEIR should provide additional analysis to indicate how it comes to this conclusion. The DEIR should provide criteria for how UC will determine when such impacts may be warranted. The DEIR should indicate that when there are likely to be significant adverse impacts on an historic resource it will always be necessary for the University to prepare an EIR on the proposed project. When an EIR is prepared, the necessary site/building-specific assessment will occur if the project proposes to demolish or significantly modify the building, and alternatives will be considered for avoiding those impacts. The wording in impact CUL 3 is unusual in this DEIR in that it tries to justify an impact while describing it. This kind of wording is similar to the type of wording found in findings of overriding considerations, seemingly pre-justifying a determination that the educational mission will necessarily and unavoidably allow for significant adverse impacts to historic resources. If the intent of this statement is to avoid future environmental impact reports on historic resources, it is clearly inappropriate and not permitted under CEQA. The DEIR should clarify that this is not its intent.

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Continuing Best Practice CUL-2-b indicates that an “informational” presentation would be made to the City of Berkeley Planning Commission and, if relevant, the Berkeley Landmarks Commission. Because this mitigation is in relation to cultural and historic resources, and because the designated body in the City of Berkeley for review of these impacts is the City’s Landmarks Preservation Commission (please note the correct title for the Commission), the City would appreciate the EIR removing the qualifier “if relevant” in this instance.

B7-118

The Continuing Best Practice CUL-2-a indicates that a Historic Structures Assessment (HSA) would be prepared when there may be impacts on a historic structure. The preparation of such a study is not called out in the Campus Project Approval Process (DEIR, p. 3.1-71 – 74). Identifying where such a study fits into the review process will help the DEIR reader to assess whether it is likely to achieve its intended mitigation. If the HSA is prepared too late, decisions may already have been made that would limit its effectiveness.

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The comments regarding CUL 3 apply equally and for the same reasons to impact CUL-5.

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The DEIR states on page 4.4-5 that the City’s Landmarks Preservation Ordinance (LPO) “afford[s] three levels for historic buildings, including properties of exceptional significance

B7-121

(landmarks); structures of merit; and properties that do not meet landmark criteria but are worthy of preservation as part of a neighborhood, block, or street front.” It should be noted that the LPO also has a fourth category: Historic Districts. The LPO is also quite broad in regard to what can be designated, including structures, sites and areas including single structures or sites, portions of structures, groups of structures, manmade or natural landscape elements, works of art, or integrated combinations thereof, having a special character, or special historical, architectural, or aesthetic interest or value, with Landmarks generally occupying one site, and Historic Districts occupying multiple sites in a specific designated section of the city. Structures of Merit are structures which do not currently meet the criteria as set forth for a landmark, but are worthy of preservation as part of a neighborhood, a block or a street frontage, or as part of a group of buildings which includes landmarks.

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B7-122

#### **4.5 Geology, Seismicity and Soils**

The DEIR acknowledges that implementation of the LRDP could expose additional people and structures to potential adverse impacts associated with the presence of the Hayward Fault. Although the University has established good programs and appropriate design standards, best practices alone will not avoid serious damage and many injuries in the case of a significant seismic event on the Hayward fault. The first responding organization in the case of such a disaster will be the Berkeley Fire Department. As discussed in the Draft Interim UC Berkeley Fiscal Impact Analysis, the City receives no compensation for maintaining the necessary capacity to respond to a major emergency, such as an earthquake on the Hayward fault. The University comprises a significant portion of the daytime and nighttime population, and yet pays no taxes, and provides very little support for this service.

B7-123

Berkeley has the greatest seismic and wildland fire hazard of all the UC-system locations given the high likelihood of Bay Area earthquakes and the potential for near field effects. The Berkeley campus is likely the most vulnerable given the number of older buildings on the campus and it certainly ranks high in housing potentially hazardous materials because of the comprehensive nature of the UCB research program.

B7-124

Risk exposure, that is the sheer amount of building space and number of students, staff and faculty, is likely the highest in the UC system given the matrix of natural hazards in the local area—earthquake, wildland/urban fire, landslide and urban creek flooding. The City of Berkeley's Disaster Mitigation Plan cites all these natural hazards as significant in the local environs.

All told, the combination of these three factors (hazard, vulnerability and exposure) and Berkeley easily warrants the highest risk probability in the UC system.

Berkeley also is seriously threatened by wildfire. Though not every building is exposed given the type of construction and amount of open space, but the campus must address how to safely evacuate its population of upwards 45,000 people if a fire suddenly threatens the campus. Berkeley has serious risk of technological hazards and terrorist threats. Given the

B7-125

size and extent of research in physical and biological sciences, there seems to be significant technological exposure.

B7-125

Berkeley is unique in that it has a memorial stadium that adds an increasing number of outside visitors to the stadium six or seven Saturdays a year. The City must recognize and address this population influx as a service cost. Other sports events, like basketball games poses a similar emergency response challenge. These gatherings call for increased policing and emergency response capacity, necessary in this era of increased potential for natural or human-generated disasters. We do not believe that any other UC system campus is in as natural hazard- or risk-laden an environs. As will be discussed in more detail under Public Services, it is essential for the safety of the campus population that adequate fire services be maintained; the increased load proposed under this LRDP will cause an increased load on the City's Fire Department that cannot absorb it. Therefore the assumption under Impact GEO-1 that best construction or emergency preparation practices will somehow mitigate the lack of emergency response services is wrong. More people will be exposed and they will be at increased risk of loss, injury or death. This is a significant and unmitigated impact under CEQA.

B7-126

B7-127

This section also fails to mention the specific risk associated with the proposal for developing housing on two Hill sites. In addition to the measures identified, the DEIR should describe how UC proposes to work with the City to develop plans for providing and paying for the services and infrastructure needed to reduce hazard exposure to a less-than-significant level and how UC will coordinate with the City's evacuation and emergency response systems at the time of a seismic event.

B7-128

The DEIR fails to mention that large portions of the Hill Campus are not only within the Alquist-Priolo Fault Rupture Hazard Zone for the Hayward Fault, but are also within areas that the State has designated as a Seismic Hazard Zone for earthquake-induced landslides as shown on maps issued in February 2003 under the State Seismic Hazards Act. The LBNL Building 49 Project EIR stated that fault investigations had identified two active traces of the Hayward Fault in the area of that project. (Building 49 DEIR, p. IV.E-15)

B7-129

This DEIR minimizes the potential risk from landslides stating that most new construction would not take place in hill areas. (DEIR, p. 4.5-19.) As noted above, the discussion fails to mention the proposed construction of housing on two Hill sites in connection with this potential impact. Eliminating these housing sites from consideration would at least avoid increasing this risk.

B7-130

The Local Plans and Policies (§ 4.5.3) should be modified to add reference to the City of Berkeley's soon-to-be adopted Disaster Mitigation Plan, which the City has prepared to meet the requirements of the Federal Disaster Mitigation Act of 2000, and to implement the General Plan's Disaster Preparedness and Safety Element. The Plan, which is pending Council action, proposes the coordination of mitigation efforts with UC and LBNL for reducing the risk from hazardous materials and natural hazards. These efforts include

B7-131

initiating a joint planning effort for the Panoramic Hill area with the UC and the City of Oakland.

B7-131

#### **4.6 Hazardous Materials**

Under the heading of Transgenic Materials (DEIR, p. 4.6-12, the "Use, Types and Volumes" portion of that discussion fails to provide information on the volume of transgenic materials.

B7-132

As discussed earlier under air quality, the University should treat nanoparticles as hazardous as a precautionary measure, until proven otherwise. The University should invest in developing safe practices, technically comparable with as those that already exist for ultra-fine particles.

B7-133

#### **4.7 Hydrology and Water Quality**

The Analytical Method described on page 4.7-1 states that both the description of existing conditions and the impact analysis are based on a review of generally available background reports, including the City of Berkeley and City of Oakland general plans, the UC Berkeley 1990 LRDP EIR, and some online resources. These largely non-technical documents do not adequately describe the existing conditions of facilities that may be affected by development under the LRDP and do not provide the level of technical analysis that is needed to adequately evaluate the LRDP impacts on those facilities.

B7-134

The discussion of the Regulatory Framework on page 4.7-1 includes some information that is inaccurate and provides insufficient detail to determine the extent to which regulatory compliance will control UC Berkeley's existing impacts and the baseline conditions under the LRDP. The Campus has applied for a Phase II municipal separate storm sewer system permit, but is not yet regulated under NPDES Phase II requirements. In order to be able to determine the extent to which this prospective regulation will affect project impacts, the DEIR needs to describe the requirements to which the Campus will be required to adhere. (See, comments below regarding NPDES requirements, DEIR, p.4.7-4.) Moreover, to the extent the anticipated NPDES permit does not apply to off-campus University development, which will be served in any case by the City's storm sewer system, the DEIR should explain how the impacts on the City's system will be mitigated.

B7-135

The DEIR's references to the Spill Prevention Control and Countermeasure Plan and National Pollutant Discharge Elimination System requirements are similarly defective. Because the DEIR does not describe the procedures, methods, equipment and other measures that the Spill Prevention Control and Countermeasure Plan specifies, it is not possible to determine the extent to which the Plan will prevent petroleum discharges to creeks and to the City of Berkeley's stormwater system.

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The section on the National Pollutant Discharge Elimination System includes a lengthy generic description of the NPDES program, but no information regarding the contents of the

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Stormwater Management Plan (SWMP) requirements that UCB will impose to prevent or minimize pollutants in stormwater and non-stormwater discharges. This is particularly critical in light of the substantial development that the LRDP proposes. In particular, the pending NPDES Phase II permit should include a Hydromodification Plan with Post-construction Stormwater Management in New Development and Redevelopment.

B7-137

The discussion of local plans on page 4.7-5 omits mention of several applicable local policies that must be used as a basis for determining the extent to which LRDP implementation would exceed threshold standards. The Berkeley General Plan includes two particularly relevant policies regarding funding for programs to maintain or improve water quality. General Plan Policies EM-24D and EM-24E propose the identification of alternative funding sources for essential infrastructure improvements and measures to ensure that new development pays its fair share of such improvements. As discussed in the comments regarding public facilities and infrastructure, and as documented in the accompanying Draft Interim UC Berkeley Fiscal Impact Analysis (Attachment A) and City of Berkeley Sewer Services Charges and Connection Fees, and Clean Stormwater Fees Study for the Evaluation of "Fair Share" Contributions from the UC Regents (Attachment B), UC is not paying its fair share of the cost of maintaining sanitary and stormwater sewer systems, which has a direct effect on whether the impacts on hydrology and water quality can be mitigated.

B7-138

The DEIR also fails to list the Joint Watershed Goals Statement to which the University is a party along with the cities of Berkeley, Albany, El Cerrito, Richmond, and the East Bay Regional Park District. The agreement, which the Berkeley City Council approved in 1995, commits the parties to restoring the watershed of the participating jurisdictions to healthy conditions including creek restoration through removal of culverts and other construction and restoring a healthy freshwater supply to creeks and the Bay by eliminating conditions that reduce water quality.

B7-139

The DEIR provides no source or other information to substantiate the statement on page 4.7-7 that runoff quantities tend to be relatively low (between 4.5 and 5.5 inches per year or about 20 percent of the precipitation) in undeveloped natural conditions despite the existence of some steep local topography. A source for this assumption should be provided.

B7-140

The DEIR acknowledges that the capacity of the City's Strawberry Creek culvert at Oxford "would be exceeded by 25 percent during a 25-year design storm event under existing conditions. Therefore, any new development on the Campus Park or Hill Campus that might increase stormwater runoff may cause flooding problems within the City's drain system and along lower Campus Park Elevation near the channel." This section goes on to state that less than 60 percent of (the existing) Campus Park is impervious, but the DEIR fails to indicate the extent to which implementation of the LRDP would increase impervious surfaces. We discuss this significant defect in the DEIR in greater detail in the section on Hydrology impacts and mitigation measures.

B7-141

Flooding: The DEIR on page 4.7-11 only addresses the 100-year event without any explanation for this limitation. Given the acknowledged existing capacity problems for Strawberry Creek for a 25-year event, information must be included about flooding during lesser events including 50-year, 30-year, 25-year and possibly even 15-year events. As noted earlier, UC acts as if water flowing off its campus that causes flooding on City streets is not an issue for it. This is not permitted under CEQA.

B7-142

Wastewater Discharge: The description of the campus wastewater system on page 4.7-17 omits the fact that wastewater flows from the campus to the EBMUD Oakland treatment plant through the City's sanitary sewer collection system in order to reach the treatment plant. As has been discussed earlier, the University does not contribute its fair share to the maintenance and upkeep of this system, despite this impact. The extensive development of the central and hill campus areas has significantly increased runoff and may be a causative factor in the deterioration of the City's increasingly undersized wastewater drainage system. The discussion of Stormwater and Wastewater Best Management Practices on pages 4.7-21 through 4.7-23 mentions pollution prevention activities for construction sites, streets, human activities, and active sites but doesn't describe post-construction (generally passive items) that should be considered. Current best management practices for new development require that projects be designed to include features such as vegetated swales, hydrograph modification, oil/water separators, swirl separators, etc. Because the DEIR includes virtually no information about the content of its SWMP, it is impossible to determine whether its current "Best Practices" conform to the current Best Management Practices for stormwater runoff. As is the case with other existing programs and policies, the DEIR does not include sufficient detail about the specific measures now in place and their effectiveness in preventing pollution.

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Despite the fact that Strawberry Creek discharges into the City system, the City has not been asked to participate in the update of the Strawberry Creek Management Plan. The City supports a strategic approach to watershed management planning that deals with the entire Strawberry Creek watershed and involves UC, the City, the private property owners in the watershed, etc. The DEIR does not provide sufficient information about the SWMP's provisions to determine whether implementation of this Continuing Best Practice, or any of the others that are identified, will ensure that implementation of the LRDP would not create violations of existing water quality standards or wastewater discharge requirements, as claimed by HYD-1. (DEIR, p. 4.7-24.) As mentioned above, the DEIR should include information reporting on the results of monitoring these measures, which UC adopted to implement the 1990 LRDP. It should also be noted that compliance with existing regulations, such as the terms of the Stormwater Management Plan prepared to meet NPDES permit requirements, cannot be treated as a mitigation under CEQA because compliance is required regardless of whether or not included in the DEIR or the project is approved.

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Because the EIR provides no estimates of the increase in impervious surface resulting from implementation of the plan, and does not spell out what "post construction design measures" are included in the SWMP, the assertion on page 4.7-27 that the project would not deplete

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groundwater supplies or substantially interfere with groundwater recharge is simply not supported by the record.

B7-150

We disagree with the DEIR's conclusion on page 4.7-29 (Significant Impacts and Mitigation Measures) that the proposed mitigation measures would reduce the impacts of LRDP implementation on hydrology and water quality to less than significant levels. There is no information in the record to support a determination that the proposed mitigation measures will be sufficient. To the contrary, the DEIR itself includes information suggesting that any increase in development in Hill Campus would have a significant adverse impact that may not be possible to mitigate. As mentioned above, the discussion of existing conditions acknowledges that the storm drain at Oxford Street is already deficient, which means that whatever measures are now in place have been insufficient to prevent flooding and associated impacts during storm conditions. Nevertheless, the DEIR says that potential impact on drainage systems will be mitigated by continuing best practices and requiring a hydrologic modification analysis and plan for projects that might alter drainage patterns.

B7-151

The Continuing Best Practices that the DEIR proposes to mitigate the impacts of implementing the 2020 LRDP were specified in the January 1990 DEIR for the 1990 LRDP or in amendments to that LRDP. If UCB has been monitoring the implementation of these mitigation measures as CEQA requires (Pub. Resources Code §21081.6) it would have specific information to show whether the measures were implemented and should also know whether the measures proved successful. The DEIR includes no such information, yet proposes to continue relying on these measures without any information to show whether they have been effective. The additional requirement for a hydrologic analysis plan does not meet CEQA's specifications for mitigation measures because it improperly relies on the results of an after-the-fact study. (*Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1397.) A more appropriate measure would be to impose a standard specifying that there be no increase in runoff into drainage systems at peak times from future development.

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The statements regarding potential impacts of the Tien Center development (HYD-1 through HYD-4) are conclusory and not supported by analysis. Especially in light of the substantial additional development that UC proposes for the LBNL Hill Campus site, the 2020 LRDP would clearly contribute to a cumulative increase in surface runoff and wastewater discharges. (DEIR, p. 4.7-33, -4.7-35, Cumulative Impact HYD-1 through HYD-5.) The DEIR provides no analysis or other substantive information to support any other conclusion. The statements regarding the absence of cumulative impacts are particularly puzzling given that the DEIR acknowledges that projects in the Hill Campus could alter drainage patterns and increase impervious surfaces.

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#### **4.8 Land Use**

Near the bottom of page 4.8-6, the DEIR says that within areas designated "Institutional" in the Berkeley General Plan, a building intensity ranging from FAR 1 to FAR 4 is allowed. In fact, the General Plan indicates an FAR of less than 1 up to an FAR of 4.

B7-156

There is an inconsistency on page 4.8-7 between the Hill Campus Housing sites and both the Berkeley and the Oakland General Plans. The DEIR describes the Berkeley General Plan's Open Space designation with a partial quotation that "Open space...allows recreational facilities, schoolyards... etc." In fact, the Open Space description states, "These areas of the City are appropriate for parks, open space, pathways, recreational facilities, natural habitat and woodlands. Appropriate uses include parks, recreational facilities, schoolyards, community services, and facilities for the maintenance of the areas." The Oakland General Plan designates almost all of the Hill Campus as Resource Conservation Area.

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On pages 4.8-7 to 4.8-10, the DEIR characterizes the existing setting, but provides very little information about the adjacent blocks. For example, for adjacent blocks north, the LRDP EIR only describes sites already occupied by University buildings. It fails to describe the current setting of parcels that may become future UC development sites, despite the fact that UC already owns or controls most of the sites it needs to accommodate the growth planned under the LRDP. Because the DEIR does not address actual sites, but provides that UC development could occur anywhere within the designated sectors, the DEIR must provide a description of existing conditions throughout the sector.

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Section 4.8.6 (DEIR, p. 4.8-11), Policies and Procedures Guiding Future Projects, includes an objective: "Plan every new project to represent the optimal investment of land and capital in the future of the campus." Because more than half of the future growth of the University will occur outside the "Campus Park," the University's guidelines should optimize investment in land and capital from a broader community perspective, and should not define "optimal" in a narrow way that may optimize for the University at the expense of the community.

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In regard to the Hill Campus discussion on page 4.8-11, as has been previously discussed under earlier sections, the proposal for housing in this area is contrary to several other policies and objectives of the LRDP, and is inconsistent with both the Oakland and Berkeley General Plans.

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The impact assessment that begins on page 4.8-15 (§4.8.7) is inadequate in many respects. Its measures of significance should include conformance with the stated objective that the University shall "Plan every new project to respect and enhance the character, livability and cultural vitality of our city environs." A project that would compromise or detract from the City's "character, livability and cultural vitality" should be considered to have a significant adverse environmental impact. The University did not include one of the usual measures of land use impact on the standard Initial Study Checklist: will the project "Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?" Presumably the DEIR dispensed with this impact on the ground that local land use regulations are not "applicable." This elevates form over substance. This standard of

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significance constitutes a recognition that projects that are inconsistent with existing land use plans, can have environmental impacts *for that reason*. (Moreover, the standard of significance itself assumes the possibility that projects can be developed that are inconsistent with local land use plans. Thus the University's implicit argument that there can be no impact on the ground because projects in furtherance of its educational mission are not subject to the City's land use regulations misses the point.) While the University may not be subject to local land use regulation, it should be subject to conformance with its own "General Plan" and should include an assessment of the conformance of its "project" in regards to its own proposed objectives.

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The City notes this issue because while it appreciates the University's proposed adoption of the objective "Plan every new project to respect and enhance the character, livability and cultural vitality of our city environs," the LRDP utterly fails to ensure that this objective will be accomplished. Moreover, the proposed LRDP has the potential to have significant adverse impacts on the City's land use and character, and the plan fails to note those impacts or adopt appropriate mitigations to address them. The basis for our concerns is described specifically in regard to impacts and mitigations below.

B7-165

On page 4.8.12, the EIR states that "the objectives of UC Berkeley should be informed by the plans and policies of Berkeley and Oakland, to ensure their character and livability are respected and enhanced through new University investment." While the City certainly appreciates the sentiment, the actual proposals fail to achieve it. As noted earlier, the design review process outlined on pages 3.1-71-74 does not identify a place for input from the city (despite the assurances on page 4.1.17 regarding the "Continuing Best Practice"). There is no indication that the University Design Review Committee will actually respond to, much less implement the City's design guidelines and there are virtually no design guidelines incorporated in the LRDP for projects in the City Environs. Because the City is not part of the University's Design Review Committee, it is unclear how the City's interests will be expressed to the UCB DRC in an effective manner. In other words, there is clearly no basis for assuming that the impacts on the City's character will be protected, nor that the University will even carefully consider these issues before it develops its sites. According to the plan, it proposes significant encroachment into the City on all sides, but the guidelines in the LRDP are simply too weak to provide any assurance that the City's interests will be considered, much less addressed. Contrary to the findings on page 4.8-15, there is no basis for concluding that the LRDP will not have a significant adverse land use impact.

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According to the DEIR on page 4.8-15, the Initial Study essentially dismissed the impact: "would the project physically divide an established community?" It goes on to state that the University and city communities are so profoundly interwoven, that division of an established community is not possible. This is true only in the most trivial sense. But experience shows that it is false as a guide to actual environmental impacts. Construction of buildings in the Adjacent Blocks that are limited to University uses, open only to University faculty/staff/students, oriented towards the Campus and insensitive to their environs, will in fact (and have in fact) physically divided the established community. Because the City did

B7-168

not have a copy of the LRDP at the time that the Initial Study dismissed this issue, we did not specifically comment on it, although we consistently commented that the information presented in the NOP was too vague to make virtually any determinations. Now that the City has reviewed the LRDP, it does not believe that this issue can be so easily dismissed.

B7-168

Indeed, portions of the City of Berkeley are tightly interwoven with the University. This is especially true in the Southside around Telegraph Avenue, which has in many respects become a "student district." Many old-time residents are disturbed by the loss of the neighborhood serving uses along Telegraph that existed into the 1960's and 70's, supplanted by fast food, entertainment and other uses primarily attractive to students and the other young people drawn to the University community. The Southside is unique in Berkeley and, in some respects, separate from the rest of the community.

B7-169

But while the Southside and a portion of Northside are highly student oriented, much of the City of Berkeley is not. This is especially true of the City's Downtown, which, although it certainly has its share of University students passing through, has retained its eclectic and historic character. The City's downtown is still the heart of the City of Berkeley.

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The University has indicated in the LRDP that a significant portion of its future growth will be on the westside of campus, adjacent to and in the City's downtown core. In the past, the University has aggressively purchased property adjacent to campus on the west side and has leased property throughout the downtown. The LRDP's proposed housing zone includes the downtown area. There is no policy that would prevent all one thousand new housing units proposed by the University locating west of campus, in or immediately adjacent to the City's downtown. As the highest intensity district in the City, it is certainly an attractive option, given the University's stated intention generally to not exceed zoning envelopes. The University has already developed a significant amount of housing on Shattuck in the heart of downtown. Even a few hundred more student housing units, in combination with the University's other development could tip the balance in the City's downtown from its current eclectic and diverse character into becoming part of a student and University district. This would clearly be a significant adverse impact on the City of Berkeley, fundamentally changing the physical character of this city and dividing the community. There is nothing in this plan that would necessarily prevent the University from developing in this manner. Mitigations and firm policies are necessary to ensure that this does not happen.

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The DEIR also comes to the conclusion on page 4.8-15 that in the City environs, "the LRDP would require future projects to be informed by city plans and policies, to ensure the character and livability of neighboring cities are respected and enhanced through University investment." As stated several times elsewhere in this draft, this is a noble sentiment that is not backed by virtually any evidence. Please note the comments above regarding the potential impact of the University on downtown as one potentially significant impact on the character and livability of the community that is not identified, much less addressed.

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On page 4.8-16, the DEIR states "the LRDP Housing Zone by definition excludes areas designated as low density residential in a municipal general plan as of 2003." Page 3.1-50 of the LRDP states "... this Housing Zone is defined to exclude those areas with residential designations of under 40 units per acre in a municipal general plan as of July 2003." In fact, according to page 3.1-50, the areas to be excluded are both low and moderate density. The terminology should be consistent between different parts of the DEIR. In addition, although the Elmwood Commercial district may technically allow for higher density uses, this is a very special area whose zoning restricts buildings to two stories. The City would recommend that the Housing Zone exclude areas where the zoning prescribes a two-story limit. The Housing Zone should also exclude the west side of Hillside Avenue which is shown on the General Plan as low-medium density residential.

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One of the mitigations for potential land impacts as the University develops further into the City is "Continuing Best Practice (LU 2-b) which requires "informational presentations." This would happen at the schematic stage, too late in the process to affect major decisions about location of different types of development within the City. There is no proposal to include a City member on the UCB DRC who can more effectively present the City's concerns and work with the UC DRC to address them. The City's development standards are quite liberal and depend on the City's extensive process of public review to ensure that projects fit into the community. Because a project meets minimum standards of the zoning ordinance, does not ensure compatibility. The City believes the existing "best practice" is inadequate and does not address the potentially significant adverse land use impacts on the City.

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The alleged Continuing Best Practice LU-2-c states that if a project would have the potential to have a significant land use impact on the community, it would be subject to further environmental review and that such review would be required if it is not a permitted use under the General Plan, or does not follow the setbacks allowed by the zoning ordinance. There is not much mitigation in this Practice, because the University has not indicated how the City will be involved in this process (as noted earlier, the University's commitment to the City in other sections amounts to informational presentations).

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Continuing Best Practice LU-2-d is equally weak, indicating that "as a general rule" it will use the design guidelines and standards prescribed in the Southside Plan "as its guide." The number of qualifiers in this statement makes it essentially meaningless as a land use mitigation.

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Finally, the alleged Continuing Best Practice LU-2-e states that "to the extent feasible" its buildings in the Housing Zone would not exceed the envelopes allowed under the zoning ordinance. Again, the qualifying statement makes this mitigation essentially meaningless, especially given the financial demands the University places on its housing projects.

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Given the lack of commitment to an inclusive process, to appropriate mitigations, or even to specific design and development guidelines, the potential land use impacts on the City in

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regard to incompatibility and character are clearly not mitigated to a less than significant level.

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A land use impact that has not been described is the impact of laying or installing enhanced communications connections to link the far-flung University facilities, which could be anywhere in the City, as indicated in "Other Berkeley Sites." Some communications installations have significant impacts on upon the public's ability to use streets, the physical structure of the roads, aesthetics, City costs for upkeep, and future City constraints due to added infrastructure systems. The DEIR should take these costs into account as a consequence of the LRDP.

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The City cannot argue with the statements on page 4.8-15 that UC is constitutionally exempt from local land use regulations when *using its property in furtherance of its educational mission*. However, as the University's funding and mission become increasingly research and development driven, the relationship between its "educational mission" and its growing character as an R&D business park may well diverge. Given the disproportionate share of the University's growth under this LRDP that will be for R&D space, the campus must justify its assertion of a direct relationship between that growth and its educational mission.

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#### 4.9 Noise

The LRDP establishes no standards for noise by land use category, but relies on the minimum standards of the Building Code. Most jurisdictions establish noise standards by type of land use for what constitutes acceptable levels of noise.

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LRDP Mitigation Measure NOI-3 indicates that noise impacts in student housing will remain significant and unavoidable. The analysis provided to come to this conclusion is unsupported. Appropriate construction and design techniques accompanied by appropriate materials and design (double paned windows and mechanical air circulation, for example) can reduce almost any interior noise impacts to less than significant levels. Homes are built adjacent to freeways and railroads meeting these standards. Exterior noise levels can also be met, assuming appropriate design of the spaces planned to be used for outside activities. The University should set forth a specific standard and the design guidelines mitigations to ensure that noise impacts are adequately mitigated.

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Similarly, noise impacts from construction are also considered significant and unavoidable. It is exceedingly difficult to mitigate some types of construction noise impacts, and the City appreciates the University's intent to undertake both the "Continuing Best Practices" found in NOI-4-a as well as the additional mitigation proposed under Measure NOI-4. However NOI-4 is a plan for mitigation, not mitigation. While it may not be possible to fully mitigate construction noise impacts to a less than significant level, the EIR should set forth objectives for what is to be achieved through the NOI-4 and also provide information on the effectiveness of the techniques it is already using under NOI-4-a.

B7-185

#### **4.10 Population and Housing**

We are gratified to see that UC has incorporated information that City staff provided regarding baseline population, housing and employment data. These critical assumptions include revisions to ABAG's Projections 2003 employment data. Population and employment changes are not in and of themselves environmental impacts, but are part of the chain of causation with which CEQA is concerned. Unfortunately, the DEIR has not used this information to determine the significance of the LRDP's impacts on population growth and housing.

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The maps and text describing the location of Primary Employee Housing (DEIR, pp. 4.10 and 11) indicate that this is where 50% of UCB employees currently reside. In order to have a contiguous map focusing as it does, it is apparent some other criterion must have been applied. For example, does the map also factor in employee trip to work length, or require that the tracts be more or less contiguous? The additional criteria should be set forth.

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It is not clear why Figure 4.10-2 (DEIR, p. 4.10-16) showing census tracts where 80 percent of UCB employees reside, excludes two tracts southeast of Lafayette. An explanation would be appropriate.

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Table 4.10-7 (DEIR, p. 4.10-13) summarizes projected changes in student housing and indicates that as a result of providing additional student housing under the proposed LRDP, there will be an increase in the number of market rate units available to the general population. This may be true, but the table is misleading in describing the units as being "vacated" by 2020. It would be more accurate to describe the units as becoming "available" because those units will not be leased to UC students. These units will be scattered throughout Berkeley and UC Berkeley's primary and secondary student and employee housing areas.

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In its review of the DEIR, the City's Labor Commission observed that the number of city jobs could increase by up to 2,870 according to the 2020 LRDP and recommended that the LRDP emphasize the hiring of Berkeley residents including specific targets. Such a policy would obviously have far-reaching benefits, including potential reduction of traffic, increased use of public transportation, and less use of local parking. Construction projects should also have targets for the hiring of Berkeley residents. The City's First Source program can be the first point of contact in conducting outreach to the Berkeley community to search for qualified candidates for newly created positions.

B7-190

The LRDP does not mention the potential for creating jobs for local youth, but creation of new departments on campus should also result in increased opportunities for a summer youth employment program. Since each department is responsible for funding its own positions, a policy establishing yearly set-aside funds for summer youth would allow for UC departments and city staff to plan accordingly.

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#### 4.11 Public Services

The University provides many benefits to the City of Berkeley, but it also presents significant costs. The University is exempt from all local property taxes, and assessments imposed to date. As has been documented in the enclosed Draft Interim UC Berkeley Fiscal Impact Analysis, at least in regard to fiscal impacts, the University costs the city a great deal more than it receives. The University has no Fire Department and relies on the City of Berkeley for almost all of its fire protection and emergency response. UC's police department addresses some of the burden it places on the City, but not all. UC relies on the City to maintain a storm water and sewer collection system that serves the University, but provides comparatively minimal reimbursement for the costs of maintaining that system. These costs amount to millions of dollars in excess of the revenue the City receives. While public service costs are not necessarily considered an environmental impact under CEQA, they are environmental impacts if the lack of the availability of these services places people at risk, or causes impacts on the environment (e.g., flooding as a result of a deteriorated or inadequate storm water system; pollution entering the bay due to an overloaded storm sewer system). As will be discussed below – and further under “Utilities and Service Systems” – the proposed growth of the University under the LRDP will cause significant and unmitigated environmental impacts that the University must address with appropriate mitigations.

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B7-193

#### Police

The DEIR describes current staffing levels of the UC Police Department (UCPD) and then erroneously assumes that the department will achieve the higher staffing levels reflected in the UC budget. (§ 4.11.1.4.) At present, only 65 of the 77 sworn positions shown in the budget are filled. In fact, the 77 sworn positions are already a reduction below UCPD's previous budgeted strength and historical staffing level of about 84 officers. Unless UC commits to full funding of the UCPD, it is unreasonable to assume that the department will be able to maintain its goal of 1.5 sworn officers per 1,000 campus population. (§4.11.1.7.) The obvious result will increased reliance on the services of the Berkeley Police Department (BPD).

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The plan (§4.11.1.4, “Existing Setting”) discusses the joint BPD and UCPD patrols on Telegraph Avenue, and that the UCPD has two officers assigned to Southside patrol. For the past several years, the UCPD has had one officer assigned to Southside patrols, not two, and has had only one officer assigned to joint Telegraph patrols on an intermittent basis.

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The UCPD has not been able to maintain its current budgeted sworn staffing and, at least in the short term, there is no expectation that it will be able to do so. The UC system does not pay a salary and benefit package that is competitive within the Bay Area police labor market. The result is UCPD is not able attract and retain qualified officers. The State budget will continue to impact its pay rates, as will the UC policy of paying the same pay rate for all the UC campuses statewide. UC's pay may be competitive for other campuses, but not

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Berkeley. Unless the University is willing to address this issue the staffing levels it shows on paper will have no meaning in reality.

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The LRDP does not even address the UCPD non-sworn staffing levels. Most police agencies, including the UCPD, provide service through a combination of sworn and non-sworn staff. UCPD's non-sworn staff includes clerical employees, dispatchers, security patrol officers and community service officers. With the current budget constraints, the UCPD has eliminated some of these non-sworn positions. The staffing levels for these public safety employees needs to be addressed in any discussion regarding policing the UC campus.

B7-197

Second, the plan assumes that the UCPD staffing goal of 1.5 sworn per 1,000 campus population is the correct staffing level to provide service to this population. The University should analyze the police workload to determine if this is the correct ratio. The plan also assumes that with the campus expansion the police workload will remain relatively stable.

B7-198

Currently, many of those who are counted as part of the "campus population" live outside the UCPD jurisdiction and do not generate police calls for service during most of the day. The campus is currently expanding the number of student housing units on UC property in the Southside area. This includes new housing at existing dormitory complexes and new housing being built in the 2500 block of Channing Way. The UCPD will have responsibility for these new housing units as they come on line over the next year. UC is also expanding the student housing at Albany village. As this new housing comes on line, there will be increased demands for policing that may call into question the assumption that 1.5 officers is an adequate ratio.

As the campus housing continues to expand until 2020 there will be greater pressure on the UCPD to police this population. If the University does not provide adequate staffing, the BPD will probably end up having to take a greater role by providing emergency response to the campus.

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Another factor that the plan has not considered into this ratio is that the UCPD is not currently providing services to some properties that should be counted within their jurisdiction. These properties are now being policed by the BPD. These properties and their populations are:

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- 2600 Ridge Road, Cloyne Court residence for 151 UC student, owned by UC and operated by the University Students Cooperative Association (USCA)
- 2424 Haste, Rochdale Apartments, residence for 259 UC students, owned by UC and operated by the USCA
- 2415 Dwight, Fenwick Weavers Village, residence for 102 UC students, owned by UC and operated by the USCA

- 1601 Allston Way, The Convent, residence for 25 UC students, owned by UC and operated by the USCA
- 1601 Allston Way, a condominium apartment complex bounded by California Street, Allston Way, Addison Street and Jefferson Street, owned by UC and occupied by an unknown number of UC affiliated students/faculty/staff

B7-200

Under the previous jurisdictional agreement between the BPD and the UCPD, these properties were under the jurisdiction of the BPD. At the time the agreement was negotiated, however, the BPD was not aware that these properties were owned by the University. They should be shifted to the jurisdiction of the UCPD. This additional responsibility will increase the UCPD service population as well as the Department's workload. Student residential complexes, particularly those operated by the USCA, generate more calls for service than average residences. This workload may tax the ability of the UCPD to handle its responsibilities even if staffing is increased from the current level with 65 sworn officers to the hoped-for staffing with 77 sworn officers.

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It should be noted that the traffic associated with campus construction can also have a significant construction period impact on the demand for police services. This was illustrated during work on the Underhill project, which resulted in some significant traffic disruptions that required both traffic control and increased enforcement in the area. Both the UCPD and campus administrators asked the Berkeley Police to provide these services but the City declined and suggested that UCPD handle any construction-related traffic mitigations.

B7-202

Another area in which UC shifts a burden to the tax-payers and property owners is in regard to enforcement of the City's Residential Permit Parking (RPP) program. It is clearly the case that no matter how much parking UC provides, if parking were available in the neighborhoods, all neighborhoods within at least a half-mile of UC would be inundated with employee and student parking. It was this imposition on the neighborhoods that led to the City's RPP program. Not only do residents have to pay for the privilege of parking in their neighborhoods, but the City must enforce the program. Although some costs are recovered from citations, additional enforcement would assist in ensuring that neighborhood parking impacts related to the University are minimized. The University can mitigate its impact on Police services and neighborhoods by assisting in enforcement of the RPP.

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The LRDP contemplates a significant amount of construction both on the main campus and in the nearby blocks within the City that could create continuous construction-related traffic problems for years to come. State law gives the UCPD jurisdiction within one mile of the campus. While the UCPD is qualified to handle traffic problems, the staffing problems discussed in the discussion of Police Services may impede their ability to adequately mitigate this problem. The DEIR needs to acknowledge UC's responsibility to formulate and implement appropriate measures rather than shifting this workload and the associated costs to the City and its taxpayers.

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UCPD has not maintained its service level objectives (as described above) in the past. In the face of the significant budgetary constraints of the City, the impacts of UC developing a substantial amount of housing and other space in the City could lead to a significant impact on public safety. The Continuing Best Practice PUB-1.1 suggests that the "partnership" to "review service levels in the City Environs" will mitigate the potential impact. A "review of service levels" is not a mitigation. A mitigation must set forth a program of what will occur if service levels are found to be inadequate to address public safety in the area. As is noted above, the University has failed to maintain adequate service levels in the past, and provides no financial support to the City for its police force. Absent a commitment to adequate service levels, the EIR must find that the impacts on Police Services to be significant and unmitigated.

B7-205

### Fire

The Berkeley Fire Department (BFD) has complete responsibility for fire, rescue and emergency medical response to all areas of the campus within the Berkeley city limits. The City has a reciprocal Automatic Aid Agreement with the Lawrence Berkeley National Laboratory. In exchange for BFD back-up and augmented response at LBNL, LBNL augments BFD services by dispatching its fire engine, when available, to certain designated areas of Berkeley, including the east side of the campus as well as a small area north of the campus in the Hearst/La Loma area. If the LBNL engine is not available, the City dispatches the BFD resources needed to respond to the emergency. In other words, the LBNL engine functions, in the words of a Berkeley Fire Department official, as "an eighth Berkeley engine." The agreement is reciprocal in that it is mutually beneficial; in fact, the benefit the City receives from having an LBNL engine as *part* of the initial response to Campus calls (and a limited number of off-campus calls on the north side) is outweighed by the fire resources that the City provides to LBNL. In contrast, while the City has responsibility for all UC properties within the City limits (and mutual aid for some that is outside), the City receives no taxes to support this service, and very little support to the Fire Department in general.

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The discussion on Hill Campus development seems purposely vague. While the plan describes building up to 100 housing units in the Hill campus it only hints at additional projects for the botanical garden area or in the area of Strawberry Canyon. The additional housing will have a significant impact on emergency access and egress should a wildland fire occur. Similarly, more development in Strawberry Canyon will add to the fire load in the Canyon and contribute to increased traffic congestion in an already congested area for emergency access. The university should improve and pave the undeveloped fire roads (Upper and Lower Jordan trails) to allow for all weather emergency access and egress into Strawberry Canyon and Panoramic Hill. As mentioned above, the City's draft Disaster Mitigation Plan proposes a joint planning effort for the Panoramic Hill area with the UC and the City of Oakland.

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As the Berkeley Disaster Council pointed out in its comments to the City Council, the DEIR needs to acknowledge the significant impact of developing 100 housing units at Centennial Drive near Grizzly Peak Boulevard on emergency evacuation from the hills in the event of fire. (DEIR, pp. 4.11-11 through 4.11-15.) Due in part to parking by UC staff, many of the narrow streets in this area function essentially as one-lane roads. Centennial Drive will be a major egress route in an emergency. The DEIR's conclusion on page 4.11-11 that vegetation management and firebreaks (DEIR, p. 4.11-12) will be sufficient to reduce to less than significant levels the increased risk to public safety as a result of the proposed Hill Campus development is unsupportable. This proposal will not only put the new residents at risk, but will also increase the threat that wildland fires pose to existing hill residents and UC employees for whom Centennial would be the best evacuation route during a hills fire. It should be emphasized that the University contributes very little to supporting the City's fire response.

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The DEIR concludes on page 4.11-14 (PUB 2-4) that during the construction phase, the housing could result in temporary road closure or restriction to a single lane, but that this will be mitigated by coordination with the emergency service departments to plan alternate routes, and by signage to the public. It is silent as to the impact on hills residents if a hills fire occurred during construction and construction had temporarily closed Centennial Drive or reduced it to a one-lane road.

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Contrary to what the EIR states, 2,200,000 sq. ft. of additional building space and 4000 more students will significantly add to the burden on the Berkeley Fire Department. BFD has primary responsibility for fire and emergency services to the UC owned or leased property within Berkeley city limits and Mutual Area Response agreements to the Hill Campus area outside our city limits. No new facilities or stations are being planned as a specific result of the LRDP, but the new Hill Fire Station was planned in part to facilitate improved response capability into the Hill Campus area. The additional construction, type of construction, and increased density of campus population would require additional Fire Department staffing -- particularly for emergency medical response. The increased student, faculty, staff and associated daytime population likely will necessitate placing an additional paramedic ambulance unit in service. The additional paramedic ambulance staffed with two paramedics will require some new positions.

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The access issue for emergency vehicles onto and around the Campus Park cannot be understated. All new campus buildings must be designed in full partnership with BFD to insure appropriate emergency access. The design shall include the total campus access pathway to any new campus building and the adequacy of access from city streets to the campus for emergency responders.

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Continuing Best Practice PUB-2-3 indicates that through "partnership" the University will "ensure adequate fire and emergency service levels to the campus and UC facilities." As has already been noted, a "partnership" is not mitigation. What, exactly, will UC do to maintain adequate service levels? In the face of severe budgetary constraints, the City is considering

B7-214

significant cutbacks in fire and emergency services at the same time that the University is proposing significant expansion. Because it provides virtually no support for the Fire Department – and without any offer to do so – it is unclear how the DEIR can make the claim that UC will maintain adequate coverage. It should go without saying that in an earthquake and wildfire hazard zone, adequate emergency response and fire services are essential to protect the public health and safety. Without additional mitigation, the DEIR must acknowledge that the impacts to Fire Protection and Emergency Services is significant and unmitigated and that this constitutes a significant and unmitigated impact on the environment. While there are clearly feasible mitigations to address this impact, they have not been suggested.

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### Recreational Services

According to the LRDP (DEIR, p. 3.1-32), "... while the campus population continues to grow, recreational facilities have remained constant or, in the case of playfields, considerably declined." The University does not document a similar decline in student use of or need for such facilities. This implies that, over time, the University is shifting the demand for such facilities to those operated by the surrounding cities. While the 2020 LRDP discusses restoring fields lost since 1990, it lacks a plan for how to restore that space, and the shrinking amount of open space on and off-campus would indicate significant difficulty in restoring the space that has been lost. The LRDP does not have a policy to increase the space in proportion to student growth over the course of the LRDP. As documented in the Draft Interim UC Berkeley Fiscal Impact Analysis, the impacts on the City's park resources from the University are considerable. A finding that the LRDP will not result in the need for new or altered parks cannot be made.

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The Draft EIR states that the project would increase population growth by 0.1 percent and spread the potential impact *throughout the 9-county Bay Region* (emphasis added). This does not reflect the impact on the City of Berkeley itself, which will bear most of the impact of population increase. The DEIR further states that the only city in which the increment of growth due to the 2020 LRDP is likely to be greater than one percent above year 2020 projections is Berkeley.

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The DEIR concludes that increased student enrollment will not substantially increase *student* use of non-University facilities. As noted earlier, this assumption is not well supported in the LRDP. In fact, the rate of employment growth is expected to far exceed that of students, and that could result in an increase in recreational demands due to an increase in local employee population. The DEIR states that any impact of the 2020 LRDP on City of Berkeley recreational facilities would be mitigated by the fact UC Berkeley personnel would be eligible to use campus facilities, which are expected to absorb a substantial amount of the new recreational demand due to proximity and convenience. Based on current usage patterns, we believe that the proposed mitigation will not relieve the impact on City facilities. Families of UCB personnel and new students would likely use City recreation facilities instead of or in addition to UC Berkeley facilities. UCB should provide additional

B7-219

recreational facilities commensurate with the projected population increase. Renovating or restoring former facilities that have been removed from service over the years may not provide adequate service levels.

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The DEIR acknowledges that LRDP implementation could result in loss and/or deterioration of University-owned recreational facilities. (LRDP Impact PUB-4.4) The DEIR concludes that although the unanticipated loss of some University owned recreational facilities could result in increased use of remaining UC and City facilities leading to their physical deterioration, this impact can be mitigated. The proposed mitigation (PUB-4.4) proposes that before implementing any change to the use of any existing recreational facility, UCB will conduct a study to ensure that the loss of recreational use would not result in increased use at other facilities to the extent it would result in the physical deterioration of those facilities. If such deterioration is found to have the potential to occur, the University will build replacement recreation facilities or take other measures to minimize overuse and deterioration of existing facilities in connection with removal of or reduction in use at the recreation facility in question. (Emphasis added.)

B7-220

As noted above, mitigation measures based on after-the-fact studies do not meet CEQA's requirements unless the measure also specifies effective measures that will be taken in the event the study identifies significant impacts. (*Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1397). The DEIR does not specify what "other measures" UC might use to minimize overuse and deterioration of recreation facilities that would not, in and of themselves, have adverse impacts. For example, restricting the use of UCB recreation facilities by limiting use hours for some activities may result in greater use of City facilities – the very impact that will supposedly be insignificant because UC facilities will be used instead of City facilities.

#### Public Health

While the DEIR for UC's LRDP addresses public services such as police and fire, it does not adequately address the impact on public health services in Berkeley, particularly communicable disease control. Public Health faces new challenges from infectious disease. More than twenty new infectious organisms have been identified since 1975, ranging from HIV and Hepatitis C to SARS, West Nile Virus and "avian flu." Some of these are undoubtedly "old" organisms that have been newly identified (such as Hepatitis C). Others appear to be new entities, arising from genetic changes to organisms that were formerly confined to infecting animals (e.g. HIV, SARS). Other challenges arise from "old diseases," formerly under control, regaining new currency (e.g. tuberculosis, measles). Additional challenges arise from the threat of bio-terrorism. The increased speed and frequency of global travel, as well as international political changes, offer new opportunities for well-known diseases to increase in frequency in new populations. The ability of some micro-organisms to continually alter their genetic make-up through mutation means that new, more infectious forms of "old" diseases are always possible. For example, influenza remains potentially capable of causing world-wide pandemics.

Berkeley is not immune from these forces. As a center of educational and intellectual activity, UC Berkeley draws students and faculty from around the world. A mobile, high density, multicultural population with frequent connections to countries worldwide make Berkeley particularly vulnerable to both endemic and epidemic infectious disease. UC is particularly vulnerable to imported infectious disease. The University has a wide diversity of ethnic populations and many members of these communities return regularly to their countries of origin for family, religious and holiday reasons. While abroad, they are at risk of contracting infection, as are those traveling for business and pleasure. The proposed increase in density only increases the probability of transport and spread of communicable disease because once a contagious traveler returns, transmission of infection to others is heightened by the increased population density.

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Because UC attracts students and faculty from all over the world, including countries with various travel alerts and advisories such as countries affected by SARS, and because the public health resources of the City of Berkeley are finite, the University must develop the capacity to assist Berkeley Public Health in monitoring and controlling the spread of disease within the UC population. As a case in point, UC did not have the capacity to do the screening for a recent tuberculosis case. Given that approximately 40 percent of the City's population is affiliated with the University and that the LRDP proposes increasing those numbers, UC should increase the capacity to monitor and respond to communicable disease at the Tang Center.

B7-222

Although not strictly a health program, it should be noted that the City's Health and Human Services Department also provides various employment services. Any increased numbers in workforce also results in increased turnover in workforce, which places an increased burden on local employment programs. Our adult employment programs already provide One Stop Career Center services to displaced UC employees (usually not credentialed) and students. This is difficult to quantify, as statistics specific to UC staff or students are not tracked. The Labor Commission, at their May 2004 meeting, made the following additional comments:

B7-223

- Due to inadequate estimation of workplace growth projections, it is difficult to estimate accurate impacts
- UC should reimburse the City for providing employment services related to displacement of UC employees

The LRDP does not mention the potential for creating jobs for local youth, but creation of new departments on campus should also result in increased opportunities for the summer youth employment program. Since each UC department is responsible for funding its own positions, a policy establishing yearly set-aside funds for summer youth would allow for UC departments and city staff to plan accordingly.

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#### **4.12 Transportation and Traffic**

The following is a summary of traffic issues that have been identified in the review of the University's 2020 LRDP DEIR. A full technical review of the LRDP EIR Transportation and Traffic section is provided in the attached June 11 memo entitled "Comments on Transportation Sections of the UC LRDP EIR" (hereby incorporated as a part of these comments as Attachment C) by Peter Hillier, Assistant City Manager for Transportation.

B7-225

- Differences exist between Traffic Levels of Significance for the General Plan and the LRDP EIR.
- Impact assessments based on generalized locations of facilities are too inaccurate to replace the need for detailed project-level analysis.
- The University needs to consistently assess significant impacts for all University-related development in Berkeley.
- Including LBNL growth in both the baseline and cumulative scenarios makes it impossible to assess the incremental impacts of University LRDP growth.
- The LRDP DEIR should examine both individual and cumulative impacts of the University's LRDP.
- The LRDP proposes creating more parking than is justified by existing travel behavior. The LRDP fails to balance the competing policies of trip reduction strategies and parking supply strategies and its parking expansion cannot be justified.
- The LRDP needs to develop campus-wide parking supply and demand estimates rather than an analysis based only on increases in students and staff.
- The University should consider as new parking all parking facilities included in the previous plan that have not as yet been constructed.
- The LRDP needs to consider impacts on residential, on-street parking.
- The University needs to contribute to the mitigation of significant impacts even if feasible alternatives have not been developed at this time by the City of Berkeley in its General Plan.
- Realistic alternative plans need to be developed and evaluated to a level of detail that enables a comparison to be made with the proposed project.
- The University needs to define in conceptual terms what it means by "fair share" participation in the funding of mitigation measures in order to provide guidelines for cost-sharing negotiations between the University and the City.
- The University and the City need to jointly develop monitoring programs based on performance measures for both facilities and trip reduction strategies.

The following sections provide some additional summary comments in regard to each of the above issues.

Levels of Significance. Although the DEIR indicates that it has used the City's General Plan as a guide for determining what would be considered a significant impact, in fact it has modified that measure in a small but important way that may have missed certain impacts. While the University has some leeway to establish its own measures of significance, it should not have indicated it was using one measure, and used another.

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Detailed Project Assessment Required: A programmatic/General Plan level approach to environmental assessment means, by definition, that site specific assessment is not completed. Because location is critical to traffic impact assessment, the broad level of assessment conducted for this DEIR is clearly insufficient and additional site specific traffic assessment will be necessary at the time projects are proposed. Should those detailed assessment discover impacts that are not addressed in the DEIR, new mitigations may be needed or, if there are unexpected unavoidable significant impacts, an EIR may be required for future projects undertaken during the timeframe of the LRDP. Similarly, it cannot be assumed that the underlying traffic analysis conducted for the LRDP will be applicable over the 15-year time frame of the LRDP. Transportation conditions may change such that a revised transportation impact assessment is required prior to undertaking future projects.

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Individual and cumulative impacts: An EIR must assess both the project impacts and cumulative impacts. Cumulative impacts are those that are not yet certain, but are generally foreseeable. In assessing impacts, it is standard practice to establish a "baseline" for analysis; generally the baseline consists of existing traffic conditions adjusted for expected employment and housing in the target year.

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Of particular concern to the City is how the combination of both growth at LBNL (under its LRDP which is under development) and the growth at UC Berkeley under its LRDP would affect traffic and transportation in the City. Unfortunately, after much review, City staff was unable to tell for certain exactly how LBNL was factored into the traffic impact analysis. This fact alone is very troubling to the City and calls into question the adequacy of a document where such a basic analytical approach cannot be easily determined. From the best the City can determine, the DEIR factored in the expected growth at LBNL as part of its "baseline" for the target year (2020). This too is troubling because the City cannot determine what impacts are being caused by which agency. The higher baseline that results from LBNL growth masks the impacts of the University (they would be less). And the City cannot determine at all how the growth at LBNL affects the City. Although LBNL is not directly part of this LRDP, it emphasizes the absurd situation where the University of California is proposing two major projects with significant impacts on the City, and then chooses to separate the analysis of their impacts in ways that make analysis and comment almost impossible. This approach by a single agency is explicitly not permitted by CEQA and could easily have been resolved through a more coordinated approach by these two arms of the University of California.

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Another side of the cumulative impact issue is related to how mitigations are factored into the analysis. The University of California has two EIR's in circulation at this time, one for University Village and one for the UC Berkeley LRDP, with a third for LBNL under preparation. The City notes that the analysis and mitigations between the University Village DEIR and LRDP DEIR are not consistent.

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Parking. Perhaps more than any other transportation issue, the City is most disturbed by the University's assumption that it "needs" 2300 more parking spaces. There is a direct correlation between additional parking and more traffic traveling through City streets. Parking also has visual and aesthetic impacts. As has been noted, the University's plan will lead to significant and unavoidable impacts on traffic. The City cannot build its way out of traffic congestion. The only feasible approach to traffic is not more parking for commuters, but stronger promotion of alternatives to the automobile.

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As has been noted earlier, the University's fundamental assumption that there is some inflexible amount of demand that must be met is unsupportable. They provide no basis for this determination, and no sensitivity analysis to show what alternatives might be available besides close-in parking. The University fails to even consider the 20-minute transit radius that it establishes for student housing as an option for the location of potential satellite parking structures.

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The two LRDP policies related to parking are in direct opposition to one another: "Increase the Supply of Parking to Accommodate Existing Unmet Demand and Future Campus Growth; and "Reduce Demand for Parking Through Incentives to Alternative Travel Modes". The University makes no commitment to expanding and enhancing its existing promotion activities related to alternatives to the automobile, and yet expects to capture an increasing share of drivers; meanwhile, it proposes to significantly expand its supply of parking. Clearly, the University has already made its choice of which policies to actively implement, notwithstanding the significant and unmitigated impacts on the City.

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Finally, it should be noted that the manner of calculation of existing and proposed parking and parking demand is inconsistent and poorly supported in the DEIR.

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The EIR does not discuss at all potential impacts on residential on-street parking, except to note that all residential development will provide off-street parking in accordance with 2003 City zoning standards. It is extremely naïve to assume that the off-street parking will satisfy all of the parking demand for residents. With 2,600 new residential units in the Housing Zone, even a relatively low level of vehicle ownership is likely to create additional demand for on-street parking in areas that currently are virtually at capacity throughout the day. Parking impacts from housing development should be considered significant, and the City and University should jointly adopt appropriate mitigation measures.

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Mitigation is required: While the University discusses its campus policies and programs related to transit promotion, when it came time to actually list its mitigations for

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transportation impacts, that list of programs is not found – nor any other commitment to a transit-first policy, while roadway improvements are discussed in specific detail. When the DEIR describes significant and unmitigated impacts (page 4.12-053), it indicates that while “the magnitude of the impacts would be reduced through trip reduction policies . . . no feasible mitigation can currently be implemented . . .” There is no evidence to support the assertion that no mitigation is feasible. In fact, there is no listing of current programs (as a mitigation), no commitment to future programs, and no analysis of the potential effectiveness of existing or future programs. Absent appropriate analysis and a commitment to specific mitigations, this DEIR is fatally deficient.

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The LRDP DEIR is quick to conclude that the significant roadway impacts identified are unavoidable since the City's General Plan does not identify any projects to mitigate congestion. As a result, the University states that it has no financial obligation to address the congestion. The statement that “campus transportation programs and incentives would continue to reduce the number of auto commute trips” attempts to soften this conclusion but is completely without merit, since the University's existing travel behavior has already been considered in the traffic forecasts. The City's General Plan acknowledges that some traffic impacts may be unavoidable, but it addresses congestion through a “Transit First” policy and where that fails, to address problems through an appropriate mix of capital, operating, and trip reduction programs.

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At this time, it is difficult to assess the improvements that will be required to reduce the impacts to an acceptable level, but based on an average cost of \$600,000 per mile, the total cost would be approximately \$3.8 million. Construction and modification of intersections adjacent to the campus with improvements identified in the Draft EIR would cost an additional estimated cost of \$1.5 million. The University must accept its fair share of programs and facilities that mitigate significant traffic impacts, regardless of whether they are currently identified. The City feels that the intersection improvements adjacent to the University should be funded in large part by the University as it accounts for not only most of the new traffic, but a high percentage of existing traffic.

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In regards to bicycle access, the City has made major improvements to its bicycle network over the past few years, and the University has contributed little to those improvements. Nevertheless, a significant portion of the University's workers and students use bicycles. According to the DEIR, an additional 483 more people will be using bicycles due to LRDP growth. However, in considering impacts and mitigations (TRA-1, page 4.12-43), the University chooses a very narrow definition of bicycle impacts, noting that impacts on bicycle hazards would only be significant if volumes exceeded capacity. Despite the City's best efforts to improve bicycle access, the DEIR acknowledges (page 4.12-24) that there are concerns, and the DEIR documents a significant safety hazard (Table 4.12-16). Based on the University's own measure of significance, it would seem that the LRDP may indeed expose more bicyclists to potentially hazardous conditions. This should be identified as a potentially significant impact. The proposed “Continuing Best Practice TRA-1” indicates that the University will continue a partnership with the City of Berkeley to develop a City program in

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regard to specific bicycle safety objectives. As has been previously noted, a “partnership” (where one partner commits no resources) is not a mitigation, and the City believes mitigation for bicycle safety concerns is necessary. Likewise, “strategic bicycle access planning,” (TRA-1-b) is also not mitigation. Once again, nice sentiment, but no action. The University should commit itself to specific actions to improve bicycle safety and access for its workers and students, not only as a safety measure but also as a means of reducing dependence on the automobile. Among these specific actions should be an education program that is designed for students and faculty/staff to prevent bicyclist injuries both on and off campus.. Using the Housing Zone model, the EIR should define a Biking Zone in which it would carry out bicycle capacity and safety analysis and commit to providing its fair-share funding for required improvements. The bicycle impact and mitigation section should be similar to that for pedestrians (TRA-12) where at least there is some implied commitment to implementing improvements (although this too is unclear and weak).

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**Other Mitigations:** Another possible mitigation for transportation impacts not mentioned in the DEIR is car sharing, which has been shown to reduce vehicle ownership, miles traveled and pollution. The University should provide for the placement of car-sharing facilities in all University-built housing, and should provide further incentives for the use of car-sharing in lieu of owning a car (membership and price subsidies, marketing support). Another mitigation would be for the University to place restrictions on the eligibility of residents of University-built housing to receive a City of Berkeley Residential Parking Permit (RPP). This would serve to guarantee the expected LRDP Impact TRA-2.

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Another mitigation would be for the University to develop a parking signage and information system that would direct drivers to available parking. This action would expand the ‘practical capacity’ of University’s existing parking supply. UC’s parking system could be coordinated with the City’s system, thereby maximizing parking utilization and reducing the need for duplicative underutilized facilities. Finally, the University should encourage off-peak trips to reduce parking demand.

**Fair Share:** The LRDP indicates that the University will pay its “fair share” of traffic improvements where mitigations can be identified to reduce impacts to less than significant. Included is the monitoring of traffic congestion at intersections where significant impacts are forecast to occur. However, the LRDP DEIR has carefully avoided a discussion of what is meant by “fair share”. One can only assume that the University’s intent is to negotiate its meaning for each individual project, which could make the University’s commitment almost meaningless, as there is no guarantee that adequate funds would be provided to pay for the required improvements.

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The City believes that basic guidelines must be provided in the DEIR for what constitutes “fair share” contributions in order for proposed mitigation to be adequate. The following concepts must be included:

- Capital projects for which the University would provide “fair share” contributions would include but not be limited to impacts listed in the DEIR and would be based on planning and monitoring studies jointly prepared by the University and the City. B7-247
- The “fair share” should consider not only the increase in traffic related to the University LRDP but also the extent of University traffic in the baseline traffic. At locations within one block of the University, it should pay close to 100 percent of the costs. Given the extent of growth anticipated in the LRDP in the block immediately south and east of the University, this area will essentially become an extension of the campus from a transportation perspective.
- “Fair share” contributions should occur not only for capital improvements that provide mitigations but also for trip reduction programs that are necessary to mitigate impacts. This last issue gets to the heart of the failure of this DEIR to avoid any commitment whatsoever to a transit-first policy.

In addition, the University must broaden its commitment to address its impacts:

1. For signalized intersections and major travel corridors, the University has generally assumed that no mitigations for significant impacts are required if no specific improvement projects have been included in the City’s General Plan or Capital Improvement Plan. It is unrealistic to assume that all potential improvement projects at these locations have already been identified. The City proposes a variety of strategies to address its congestion and the University is expected to contribute its “fair share” to all necessary mitigation measures, whether or not they have all been identified at this time. B7-248
2. The LRDP DEIR assumes that intersection mitigations are primarily achieved through capital improvements, which contradicts the main thrust of the City’s General Plan transportation strategies. Where impacts are determined to be unavoidable, the possibility of adequately mitigating the impacts through trip reduction strategies or even a combination of capital improvement and trip reduction strategies is not addressed. As has been noted in various ways throughout this letter, the University’s assumptions regarding trip reduction strategies are unacceptable and contrary to the requirements of CEQA. B7-249
3. For unsignalized intersections, the University has assumed that whenever the levels of significance are reached that the appropriate mitigation is a new traffic signal. The decision whether or not to install a signal depends on a variety of factors, including level of service analysis, traffic signal warrant analysis, potential impact on signal coordination and operations of adjacent intersections, and the cost of improvements. Through the suggested traffic monitoring programs, appropriate mitigation measures will be developed that might include lesser improvements. B7-250

The attached memo sets forth specific proposed modifications regarding mitigations.

Monitoring: CEQA requires that mitigations be monitored to ensure they are implemented and are effective. The University has committed itself to some monitoring of intersections. But the City wants to make sure that there is agreement concerning monitoring. The City believes monitoring has three major elements:

B7-251

- Monitoring of traffic conditions adjacent to the University
- Monitoring of travel behavior by students, faculty and staff to assess the success of trip reduction programs
- Area-wide monitoring to identify unacceptable levels of congestion at City gateway corridors.

The University has agreed to the first type of monitoring, but in the City's view, it may be too limited. It is not clear whether the University is committed to the second type of monitoring. Although the City undertakes the third type, the City would expect the University to participate in the funding of mitigations related to congestion on these road segments.

As has been previously noted, the above is a summary of the more detailed June 11 memo attached and made part of these comments.

#### **4.13 Utilities and Services**

##### Solid Waste

DEIR Section 4.13.5 regarding solid waste impacts includes several erroneous statements and omits measures that could mitigate identifiable impacts. The discussion of analytical methods (§4.13.5.1) is limited to requirements on existing and planned infrastructure, presumably for the collection and disposal of solid waste only. The analysis does not mention assessment of the impact on the City of Berkeley's ability to meet its legal obligations regarding solid waste disposal and diversion, nor does the DEIR indicate whether it considered impacts on waste diversion infrastructure. Similarly, the Regulatory Framework (§4.13.5.1) fails to mention Alameda County Measure D, which requires Alameda County jurisdictions to divert 75 percent of the solid waste by 2010. State law also requires new buildings to include a Recycling Area Plan, in order to reduce structural obstacles to recycling. As with the California Integrated Waste Management Act (AB 939), UC Berkeley is exempt from these requirements. Nonetheless, in electing to ignore these statutes, UC Berkeley negatively affects the City's ability to meet the requirements of both AB 939 and Measure D.

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The City's Solid Waste Management Division of the Department of Public Works provides collection of commercial and residential solid waste, residential plant debris, and commercial organic materials on non-UC Berkeley properties adjacent to the campus. In addition,

through contract with private non-profits, the City provides for residential curbside recycling, and drop-off and buyback recycling services. Currently, the City operates no solid waste "pilot" programs. In 2000, the entire City of Berkeley, including UC Berkeley, disposed of 119,135 tons of solid waste.

The DEIR reports that UC Berkeley's construction waste is managed by construction contractors and not by UC Berkeley itself. (§4.13.5.4.) Further, it states that these contractors deliver construction and demolition debris to specialized recycling facilities. However, the DEIR provides no evidence that the construction managers have recycled or diverted any waste from landfill. Nor is there any indication that UC Berkeley has collected data on construction and demolition waste generated on campus, or how that waste tonnage compares to the 9,186 tons of non-construction waste generated in 2000. It is quite possible that a single construction project could generate more waste than that generated by non-construction campus activities over an entire year. Therefore, data on construction and demolition waste generation, diversion, and disposal is critical to the understanding of the existing setting.

B7-254

The DEIR mentions that UC Berkeley is exempt from county requirements to dispose of waste in the county. In fact, Alameda County has no such requirements, and all jurisdictions are at liberty to dispose of waste in whatever landfill they choose. However, Measure D requires that a fee be paid on all waste disposed in the county, and normally this fee is collected by the landfill operator. The fee is used to fund waste diversion programs throughout the county, including technical assistance provided by ACWMA. Jurisdictions that export waste to other County's are required to ensure that the Measure D fees are paid by some other mechanism, since landfill operators outside of Alameda County cannot be made to collect the fee. Though UC Berkeley has directly benefited from the technical assistance provided by ACWMA through Measure D funding, UC Berkeley is exempt from these fee collection and payment requirements and pays no Measure D fees.

B7-255

The DEIR identifies two standards of significance to assess the potential impacts of the project related to solid waste, neither of which is adequate to determine the project's impacts in this area. The first standard is whether the project would violate any applicable federal, State, and local statutes and regulations related to solid waste. Since UC Berkeley is exempt from most statutes, the obvious answer to this question is "no." A more appropriate standard would ask whether the project would cause the host community to violate any statutes. Since solid waste generated and disposed by UC Berkeley negatively affects the City's ability to meet the requirements of AB939 and Measure D, the proposed project might well exceed this standard of significance.

B7-256

The second standard is "Would implementation of the project exceed the permitted capacity of a landfill that serves the project's waste disposal needs." This question, as noted earlier, is focused too narrowly. The DEIR must consider impacts on the capacity of existing waste diversion facilities to be meaningful. Moreover, the DEIR must consider capacity related to

B7-257

construction and demolition waste disposal and diversion needs, and not just those needs as related to non-construction activity.

B7-257

Section 4.13.5.6 (Policies and Procedures Guiding Future Project Review) deals with potential mitigation of construction and building operation impacts through use of LEED and LABS standards. These standards generally address solid waste through life cycle cost analysis of the structures themselves, but not the impacts on solid waste generation of building occupants and activities. This section needs to address policies on recycling, composting, and waste reduction during operation of the facilities. UC Berkeley has no published policies on waste diversion, recycling, recycled-content purchasing, or other "green" measures that would affect waste generation and disposal in the planned facilities. Any policy referenced in the DEIR should be attached as an appendix.

B7-258

In Section 4.13.5.7, the DEIR states only that UC Berkeley waste materials "may" be counted against the City of Berkeley for purposes of meeting AB 939 waste reduction requirements. The DEIR further claims that the campus is committed to a policy of improving waste reduction, although UC Berkeley has no published waste reduction policy, so the commitment is questionable. In fact, there is no question that UC Berkeley disposal tonnage is counted against the City of Berkeley in its efforts to meet state and local diversion requirements. Thus the impacts of the LRDP on the City's ability to comply with AB 939 requirements must be acknowledged, analyzed and mitigated.

B7-259

The DEIR projects an increase in solid waste disposal of 2.8 tons per day, excluding construction and demolition waste. This represents a 17 percent increase in current solid waste generation at UC Berkeley, and a one percent increase for the City of Berkeley. Again, the DEIR inappropriately measures the impact of increased disposal against the capacity of Altamont Landfill, a facility where no UC Berkeley waste is delivered. Landfill capacity is only one consideration, and in this case one of little significance; there are several landfills and transfer stations in the region that UC Berkeley may use. The DEIR does not clearly identify the amount of waste that may be diverted due to implementation of the LRDP, nor whether existing waste diversion facility capacity would be adequate to handle the new tonnage.

B7-260

The DEIR describes the Continuing Best Practice USS-5.2 as requiring UC Berkeley's construction and demolition contractors to report solid waste diversion. However, this practice does not require contractors to divert materials, nor does it set any goals for diversion of construction and demolition waste. A reasonable "best practice" consistent with the waste reduction ethos claimed in this section, would be to require specific waste reduction and diversion practices and performance standards as part of each construction project, and regular reporting on the results of these practices.

B7-261

Wastewater

As can be inferred from the DEIR, all of UC Berkeley's wastewater is transported from campus to the EBMUD treatment facility through City of Berkeley sewer lines. As has been previously discussed, UC Berkeley provides no direct, on-going support for the maintenance and replacement of the transport facilities upon which it is dependent, although it did agree to contribute towards some improvements, and pays a connection fee for some of its new bed spaces. As has been documented in the attached fiscal impact report and accompanying Brown and Caldwell study, the University's past "contributions" towards the maintenance of this infrastructure is far less than the costs attributable to the University. It is clear that should the City system fail due to lack of sufficient funding for maintenance, the University would be a contributor to significant environmental impacts related to water quality (e.g., violating water quality standards or waste discharge requirements). This should be considered a significant potential impact requiring appropriate mitigation.

B7-262

In addition, the regulatory framework discussion (DEIR, p. 4.13-6) is flawed because it omits mention of a March order imposing additional restrictions affecting the City's sewer system. (Final Order No. R2-2004-0010, NPDES Permit No. CA0038466.) The order includes a prohibition on all sewer overflows of untreated wastewater directly or indirectly into receiving waters including storm drain systems. While the City's earlier NPDES permit limited the sewer system capacity to handle only a 5-year design storm, the City NPDES Permit now prohibits overflows regardless of the size of storm event. Because UC discharges flow into the City systems, it is critical that the DEIR consider the extent to which proposed development may result in violations of the Final Order.

B7-263

B7-264

In Section 4.13.2.3 (DEIR, p. 4.13-7) the second paragraph of this section states "... allow for a base wastewater flow increase of up to 20 percent in each of the city's 89 sub-basins." This 20 percent allowance was taken as a safety factor in the Berkeley Sewer System Evaluation Survey Report, November 1985. The 20 percent was used in the analysis to allow for future growth in the study area. However since 1985, there has already been considerable growth, eroding the 20 percent allowance in the 1985 study. Accordingly the DEIR cannot depend on a full 20 percent. Further, an analysis using the 1985 data shows that sub-basins 17-011, 17-012, 17-013 and 17-502, which include UC's main campus and south campus area, have a 1985 base flow of 1.30 million gallons per day (mgd). The 20 percent allowance for these sub-basins would be approximately 0.26 mgd. (This analysis does not include possible "restored" capacity through collection system rehabilitation, as the effectiveness of the rehabilitation is currently being studied.)

B7-265

B7-266

Table 4.13-2 of the DEIR indicates the base flow increase from the LRDP would be 0.385 mgd, which exceeds the 0.26 mgd available as estimated in 1985. The DEIR thus lacks sufficient and specific information on which to base a reliable engineering analysis of the impacts. A reliable analysis would require the DEIR to consider factors including, but not limited to, the location of proposed development, planned uses, wastewater generation factors, discharge points from UC to City system, peaking factor information, and diurnal flow variations. Without this analysis the DEIR does not include sufficient information to support a determination that the project would not have a significant impact on the capacity

B7-267

of the wastewater collection system that conveys UC discharges to the EBMUD treatment facility. The City must be given the opportunity to perform a detailed engineering analysis of the impacts of the developments.

B7-267

The first line of Section 4.13.2.4 (DEIR, p. 4.13-7) states "EBMUD provides wastewater collection for the entire 2020 LRDP area ..." As noted above, this is not correct. The City of Berkeley provides conveyance/collection from the limits of the UC Campus to the EBMUD interceptor.

B7-268

EBMUD has indicated to the City that EBMUD peak wet weather facilities were designed for a 5-year recurring design storm. The peak wet weather flows from the EBMUD SD-#1 have not decreased as much as anticipated from the communities wet weather I/I correction programs that have been underway for 17 years. Current changes in the NPDES permits for the seven cities and communities and pending EBMUD NPDES permit call for the facility and collection facilities to handle high recurring year storm events (possibility 100-year). At present, neither the EBMUD nor City collection facilities have the capacity to handle these changes.

B7-269

Infiltration and inflows during wet weather were previously routed to the sanitary sewer. Overflow and by-pass connections to the storm systems have been removed or plugged. As mentioned above, all flows during wet weather and storm condition flows must be contained within the City collection system and conveyed to EBMUD treatment facilities.

B7-270

Under the City's infiltration and inflow (I/I) correction program (DEIR, p. 4.13-9), despite the replacement or rehabilitation of significant portions of the City's sewer system, peak wet weather flows are still problematic. Flow monitoring sampling of sub-basins where 50 percent of the sewers have been replaced or rehabilitated shows that wet weather flows have not met the required or anticipated reductions from earlier projections. The City is revising the sewer program to include replacements in all of the sub-basins in the City regardless of whether they were identified in the Cease and Desist Compliance Plan. It is anticipated that a target as high as 80 percent replacement of the entire City owned sewer mains and laterals will be required, at much higher cost, in order to comply with the new more stringent NPDES discharge permit requirements forbidding untreated sewer overflows regardless of the severity of the recurring storm event. The City estimates that flows from infiltration and storm water inflows from private laterals may contribute as much as 40 percent of the peak wet weather I/I flows. A program is underway to develop a policy for the systematic inspection and mandatory replacement of old defective sewers on private property but such a program will require a long phase in period.

B7-271

B7-272

The description of the sewer system should be revised as follows:

B7-273

- Campus Park (DEIR, p. 4.13-8.) The secondary east side campus park sewer system that connects to Bancroft Way is not mentioned.



- Clark Kerr Campus is not included and the sewer system for this large area should be addressed. B7-274
- Adjacent Blocks, Southside and City of Berkeley (DEIR, p. 4.13-8.) The UC wastewater contributing flows should cover all UC flows both on campus and off campus including UC facilities, living quarters, and dormitories in this area. B7-275

The DEIR includes incorrect information about the amount of wastewater generated by UC and the City of Berkeley. The DEIR (DEIR, p. 4.13-8) states that the existing ADWF for the City is approximately 75 mgd and the ADWF from UC Berkeley is approximately 8.3 mgd, or about 11 percent of the city's flow. This is not correct. In fact, the entire flow from all of the City of Berkeley is approximately 7.8 mgd, and recent estimates from a draft sanitary sewer fee study indicate that UC Berkeley discharges approximately 1.9 mgd, or 24 percent of the wastewater flowing through the City's sanitary sewer system. According to recent EBMUD data, all UC accounts generated 906,627 hundred cubic feet (ccf) or about 18 percent of the wastewater flow in the City. B7-276

In the Hill Campus the sewer main on Centennial Road serving Hill Campus area is owned and maintained by UC. (DEIR, p. 4.13-9.) This sewer main connects to the City sewer mains on Prospect Street and Dwight Way that serve the Panoramic Hill community and have significant wet weather capacity problems. The impact of additional flows from Hill Campus sewers would be to reroute the sewer main from Centennial Road westerly around the Memorial Stadium to the Campus Park sewer system. B7-277

Impact USS-2.1-b (DEIR, p. 4.13-10) indicates that the flow increases will not have significant environmental impact. As shown above in the discussion for Section 4.13.2.3, the proposed flow exceeds the estimated allowance for future growth. Flow capacity issues must be studied, which will require better defined flow input points to the City's system, flow magnitudes and hydrograph shapes, etc. (See also comments above regarding Section 4.13.2.3.)

Table 4.13-2 (DEIR, p. 4.13-11) fails to address the impacts of major sporting events. Such events concentrate and magnify peaking factors for sanitary wastewater flows and at inopportune times, could cause a significant impact. B7-278

Because the University does not identify potentially significant impacts described above, it fails to identify mitigations. It continues to identify "best practices" regarding retrofitting and water conservation measures, but does not commit to meeting specific objectives in order to mitigate its impacts. The DEIR is therefore deficient in addressing wastewater impacts. B7-279

## Alternatives

CEQA requires an EIR to describe a reasonable range of range of alternatives to the project or its location that would attain most of the project's objectives but avoid or substantially lessen one or more of the project's significant effects. (CEQA Guidelines Sec. 15126.6.) An EIR must include enough information about each alternative to allow meaningful comparison with the proposed project. The DEIR's analysis of alternative is flawed for three separate and independent reasons.

B7-280

First, the range of alternatives chosen for analysis is based on erroneous conclusions that various impacts discussed above (e.g., Land Use, Circulation, Hydrology, and Utilities and Service Systems) will not be significant or will be rendered less than significant by the proposed mitigation measures. Analysis by City staff shows that the LRDP would have significant impacts that will not be mitigated by the measures the DEIR proposes. As a result, the DEIR's choice of alternatives is inherently flawed.

Second, even if the DEIR were correct in its conclusion as to the remaining significant impacts that alternatives should be designed to reduce; the alternatives it describes are not true alternatives to the proposed project but "straw men." They appear to be designed to be infeasible or to have a level of impacts that is virtually indistinguishable from the project (and as such they are not true alternatives from an environmental impact perspective).

B7-281

Third, the evaluation of alternatives presented in the DEIR is not sufficient to allow meaningful comparison with the proposed project.

B7-282

The City believes that a real reduced parking alternative would clearly be environmentally superior to the proposed project and would allow UC to meet most of its objectives. Instead, the DEIR has presented an unrealistic and ineffective alternative that is designed to fail. The DEIR acknowledges this intent stating that Alternative L-2 (reduced parking/increased transit incentives) "serves the purpose of isolating and *maximizing the effects* of less new parking." (DEIR, p. 5.1-8, emphasis added.)

B7-283

A real reduced parking alternative would have included discussion of the enhanced measures to encourage alternatives to the automobile (including substantial new investment in those programs), an assessment of the potential for trip reduction policies and programs to reduce future parking demand, and how parking pricing programs and other tools could maximize the effective use of current parking supply. Such an alternative should also consider the development of satellite parking facilities, sited within a 10-20 minute transit ride from campus. This "Satellite Parking Zone" should be modeled on the Housing Zone presented in the DEIR. Such a realistic alternative would be more in line with the transportation policies in the City's General Plan policies as well as those for the University than either the proposed project or the alternatives listed.

The DEIR posits a "straw man" alternative with little or no analysis and fails to describe an effective alternative that might achieve the access goals of the University, and yet asserts that lack of parking will somehow prevent the University from achieving the objective of a "vital

B7-284

intellectual community". Where is the support for this assertion? In what way is parking critical to a "vital intellectual community"? The lack of any assessment of this alternative has been discussed in great detail in the attached memo from Assistant City Manager Peter Hillier and elsewhere in these comments.

B7-284

The DEIR concludes (with inadequate analysis, as documented in comments on the Air Quality section) that there is a cumulative air quality impact. (AIR 1, DEIR, p. 4.2-31.) Accordingly, an alternative should have been fully described and evaluated that would mitigate that impact. Clearly, L-2 should have been that alternative. Yet, when trip reductions are proposed, as in Alternative L-2, the EIR fails to provide any meaningful analysis of trip and emission reductions due to the increased use of alternative travel modes (page 5.1-9). It appears that that there was no actual air quality analysis conducted for Alternative L-2.

B7-285

A reduction in vehicle emissions is an obvious result of reducing parking and providing further incentives to increase transit use. Nevertheless, the DEIR asserts that because the DEIR will not eliminate the cumulative impact in regard to mobile emissions, that efforts to minimize that impact are therefore pointless – or at least, that is what can be inferred from the discussion on page 5.1-9. This is, of course, absurd and contrary to the requirements CEQA.

The EIR further avoids a meaningful analysis by stating that the stationary source emissions "would remain unaccounted for in projections informing the Clean Air Plan." The EIR should provide a Table here regarding the sources and percentage contribution of emissions in the 2020 LRDP, clearly divided between stationary and vehicular. Notably absent from the DEIR is any discussion or calculation of the significant reduction in construction emissions from **not** building 2,300 parking spaces.

B7-286

B7-287

Section 4.12 on Transportation Impacts documents significant and supposedly unavoidable impacts on the City's street network. An alternative should have been presented that provided an analysis of potential trips reduced from the application of "every effort" to accommodate growth through shifting commuters to transportation alternatives. L-2 should have been that alternative. Rather than evaluating that alternative, the DEIR makes several assertions (backed by no analysis) that somehow, this alternative would exacerbate local traffic conditions. But without a proper analysis, the statement in the second sentence of section L-2 Transportation and Traffic (DEIR, p. 5.11-9), that "[t]his would create a new significant parking impact..." is unsupported by evidence or analysis. Contrary to the EIR's statement, if transportation alternatives were able to transform travel behavior and reduce the parking demand sufficiently, then this would *not* create a new significant parking impact.

B7-288

B7-289

Curiously, the evaluation of Alternative L-2 (DEIR, p. 5.1-11) fails to provide any traffic analysis of this alternative although reduced traffic impacts would be an obvious outcome of reducing parking and increasing transit use. Because no traffic analysis offered in this section, there can be no informed discussion of how UC's objectives regarding campus

B7-290

access would be affected by this alternative. The DEIR's dismissal of this alternative is, therefore, fundamentally unsupported.

B7-290

As our preceding comments explain, and as mentioned above, we strongly disagree with the DEIR's conclusion that the only significant and unavoidable impacts of the proposed LRDP would be on air quality, cultural resources, noise, and traffic. A revised reduced parking alternative that includes a range of realistic incentives for transit use could also significantly mitigate, if not eliminate, significant impacts on land use that will result from the construction of up to 2,300 additional parking spaces in the blocks around Campus Park.

B7-291

## Conclusion

In conclusion, we believe that the DEIR contains numerous critical flaws that prevent an accurate evaluation of the potential impacts of the proposed 2020 LRDP, or of alternatives that could mitigate those impacts. We also object to the inadequate opportunities that UC has provided for review and comment on the LRDP itself. We believe that many new issues have been raised and significant environmental effects identified that had not been previously addressed. The alternatives' discussion is fundamentally flawed. The level of revision required to adequately address these comments suggests that a significantly revised DEIR be prepared and recirculated for comments.

B7-292

The City stands ready to assist UC by providing information to help revise the LRDP to integrate the substantial concerns that we have voiced. City staff is also available to meet and review the detailed comments included in this letter. Finally, the City remains willing to discuss appropriate and realistic mitigation measures, as well as methods by UC Berkeley, and the City – entities that the DEIR states are inextricably intertwined – can cooperate on implementing those measures, for our mutual benefit.

B7-293

Sincerely,



PHIL KAMLARZ  
City Manager

Enclosure

cc: Mayor and Council  
City of Berkeley Commission Secretaries  
Senior Leadership Collaborative  
Zach Cowan, Assistant City Attorney  
Grace Maguire, Assistant to the City Manager

**Comment Letter B7: List of Attachments**

*Documents are available for review during business hours at the Physical & Environmental Planning office at 1936 University Ave, Suite 300, Berkeley CA 94720.*

<b><u>No.</u></b>	<b><u>Date</u></b>	<b><u>Description</u></b>
<b>A</b>	June 2004	<i>UC Berkeley Fiscal Impact Analysis, Draft Interim Report</i> , prepared for City of Berkeley by Economic & Planning System, Inc.
<b>B</b>	April 2004	<i>City of Berkeley Sewer Service Charges and Connection Fees, and Clean Stormwater Fees Study for the Evaluation of "Fair Share" Contributions from the UC Regents, Final Report</i> , Prepared by Brown and Caldwell
<b>C</b>	June 11, 2004	City of Berkeley Comments on Transportation Sections of the UC LRDP EIR (INCLUDED IN THE FINAL EIR AS COMMENT #B7a)

## **11.2B.7 RESPONSE TO COMMENT LETTER B7**

### **RESPONSE TO COMMENT B7-1**

The 2020 Long Range Development Plan is not a General Plan. Both documents conform to mandates in state law: the University is required to develop an LRDP by Public Resources Code section 21080.09, which defines an LRDP as “a physical development and land use plan to meet the academic and institutional objectives for a particular campus or medical center of public higher education.”

A municipal General Plan conforms to the extensive provisions of the Government Code, Section 65300 et seq., which establish mandatory elements and minimum requirements for such plans. While a General Plan and an LRDP are substantively different under state law, they commonly provide a vision for land use, circulation, environmental goals and policies related to land use and development.

The writer’s comment is an observation on the process by which UC Berkeley formulated the 2020 LRDP, not on the Draft EIR. However, community input was solicited at several points during the creation of the 2020 LRDP and the Draft EIR. UC Berkeley held two informational “open house” events in March 2003, at which University staff presented an overview of our preliminary analyses and findings on the plan, and then invited questions and comments from the audience. Shortly after the publication of the Draft EIR Notice of Preparation, UC Berkeley held a scoping session in September 2003 to encourage public input on the scope of the EIR.

For the Draft EIR itself, UC Berkeley not only extended the public comment period from the required 45 days to 61 days, but then extended it again to 65 days at the request of the City of Berkeley. During the comment period, UC Berkeley held two public hearings on the Draft EIR, at which oral as well as written comments were taken. Also, as noted in the introduction to the City comments, UC Berkeley staff has engaged City of Berkeley staff early and regularly during preparation of the 2020 LRDP and Draft EIR, including both an informational presentation and dialogue on the 2020 LRDP, and a preview of the preliminary Draft EIR findings prior to publication.

### **RESPONSE TO COMMENT B7-2**

The writer contends the City comments on the alternatives in its response to the NOP should have been taken into consideration. In fact, they were: some of the alternatives proposed in the NOP were found upon further analysis not to have significant environmental benefits and were eliminated, as the City scoping comments suggested. Their objection to the “alternate site” alternative was found, upon further conversation with City legal counsel, to be based on a misunderstanding of the alternative. A full examination of the selection and evaluation of 2020 LRDP alternatives in the Draft EIR is presented in Thematic Response 3 regarding 2020 LRDP alternatives analysis.

### **RESPONSE TO COMMENTS B7-3 THRU B7-5**

These short statements serve as introductions to more detailed comments later in the comment letter. Our responses are keyed to those more detailed comments.

### **RESPONSE TO COMMENT B7-6**

See Thematic Response 4 regarding fiscal impacts.

**RESPONSE TO COMMENT B7-7**

See Response B7-1. The University believes that the 74-page LRDP serves as an adequate project description. The writer also seems to object to the fact the 2020 LRDP was not prepared and presented to the community in advance of the environmental analysis. However, preparing the LRDP and EIR simultaneously enabled the University to respond to the results of the environmental analysis in the plan itself, and also enabled the public to use those results in the review and critique of the plan.

**RESPONSE TO COMMENTS B7-8 AND B7-9**

A Long Range Development Plan does not need to set forth significance thresholds for environmental impacts. To the extent this comment really applies to the Draft EIR, each impact analyzed provides significance thresholds that are used in evaluation of the 2020 LRDP, and which can be applied to future projects as they undergo individual CEQA review. Those impacts found to be significant within the 2020 LRDP EIR have corresponding mitigation measures, many of which have impact thresholds that trigger their implementation in future projects. General Plan and state zoning law requirements do not apply to the University of California. Please see Thematic Response 1 regarding future project review, and Thematic Response 5 regarding the use of qualifiers.

**RESPONSE TO COMMENT B7-10**

See Thematic Response 5 regarding the use of qualifiers.

**RESPONSE TO COMMENTS B7-11 THRU B7-14**

See Thematic Response 6 regarding the relationship to LBNL.

**RESPONSE TO COMMENTS B7-15 AND B7-16**

The growth in the number of college-age Californians is projected to level off around 2010, and the 2020 LRDP recommends UC Berkeley enrollment stabilize at this point. The writer correctly notes the Regents can direct any campus to absorb more growth if conditions make it necessary to do so. However, if the 2020 LRDP is adopted by the Regents, any further increase beyond the maximum stated in the plan would require an amendment of the plan, including CEQA review.

CEQA expressly provides that the environmental impacts of changes in enrollment levels are to be assessed at the campus level as part of the LRDP process for each campus. See Public Resources Code Section 21080.09(b). The Enrolled Bill Report for the legislation enacting Public Resources Code Section 21080.09 (Senate Bill 896, Mello) clarifies that the intent of the bill was to ensure that CEQA evaluation of student enrollment changes should be addressed at each campus individually as part of the LRDP process, and not on a statewide or systemwide basis. The bill's author stated that the bill "clarifies the intent of existing law that the appropriate place for environmental review of the impact of academic and enrollment plans under CEQA is in a Long Range Development Plan EIR...for the particular campus or medical center where the environmental impact actually takes place" and not on a "statewide, systemwide basis." See letter dated September 12, 1989, from State Senator Henry J. Mello to Governor George Deukmejian.

**RESPONSE TO COMMENT B7-17**

The figures in table 3.1-1 reflect our best estimates of how the 4000 FTE increase would translate into regular term and summer headcount at UC Berkeley.

**RESPONSE TO COMMENT B7-18**

The Draft EIR analyses use the regular term figures as the environmental “worst case” for analysis. Summer headcount, despite the greater percentage increase, is still projected to be only two-thirds of regular term headcount.

**RESPONSE TO COMMENT B7-19**

The “off-campus headcount” to which the writer refers is presumably the difference between the 2001-2002 estimated regular terms headcount and the estimated on-campus headcount reported to the City. The latter includes numerous adjustments including students studying abroad, faculty on leave, and so on. It is likely a similar percentage of the projected 2020 headcount would also be “off campus”; however, the unadjusted numbers were selected for ease of explanation and as a conservative “worst case” for the purpose of analysis.

**RESPONSE TO COMMENT B7-20**

The writer questions the academic justification behind the projected growth in research programs, and also questions which of those programs need to be within walking distance. The University of California is a research university, and has the responsibility for “academic research” under the California Master Plan for Higher Education. The UC Berkeley Strategic Academic Plan explains the role of research as follows:

Research provides the energy that drives the modern research University. The passion for discovery is at the core of everything we do. While the mission of the University has three dimensions - research, education, and public service - excellence in research is fundamental to the other two.

We serve the people of California in two principal ways. One is through the direct benefits of the research and scholarship we undertake, from improved agricultural and industrial productivity, to advances in human and environmental health, to new insights into personal and social behavior. The other is through our education of new generations of leaders, innovators, and educators reflecting and serving the full spectrum of society. A vital research enterprise is essential to both.

Education at a research University is not, and is not meant to be, the same as education at a liberal arts college. The research University provides its students, both graduate and undergraduate, with a unique kind of learning experience, one in which critical inquiry, analysis, and discovery are integral to the coursework. The student expects, and is expected, to play an active role in the research enterprise, under the guidance of faculty who are themselves engaged in creating, not merely imparting, knowledge.<sup>4</sup>

Research, in other words, is not a discrete enterprise apart from education at UC Berkeley. Rather, it is integral to both our mission as a University and to the provision of both graduate and undergraduate education.

The UC Berkeley Strategic Academic Plan further emphasizes the increasingly interdisciplinary nature of both education and research, and the importance of a campus environment that fosters interaction and collaboration. The core principles of the Academic Plan, summarized at section 3.1.3 of the 2020 LRDP, in turn inform the



Location Guidelines at section 3.1.16. These Guidelines enable UC Berkeley to make decisions that optimize the use of University land and resources.

See also Thematic Response 6 regarding the relationship of the 2020 LRDP to the Lawrence Berkeley National Laboratory. LBNL is a Department of Energy national laboratory with distinct institutional objectives. UCB and LBNL share some programmatic objectives and seek to share some resources in order to maximize the public benefit of research; however, research at LBNL is controlled by DOE and its funding.

**RESPONSE TO COMMENT B7-21**

While the writer contends research space could be located using the same criteria as University housing, in fact the two pose different problems. The locational criteria used to define the Housing Zone are based on the typical case of no more than one round trip from home to campus per day. The faculty who participate in research, however, also have teaching roles and must be able to travel conveniently from one venue to the other in the course of a day. The need for proximity to the Campus Park is even more critical for research projects involving students, whose day includes not only coursework but also use of the library and other campus academic resources. Further, additional research off campus would likely result in removal of property from municipal tax rolls.

**RESPONSE TO COMMENT B7-22**

As indicated at Table 3.1-3 on page 3.1-22 of the Draft EIR, 2300 is the “not to exceed” number for net new parking spaces. The note on that page states “In order to provide flexibility in siting individual projects, the sum of the maxima for individual land use zones is greater than the maximum ‘not to exceed’ (NTE) totals for all the zones combined. However, the university may not substantially exceed the NTE totals without amending the 2020 LRDP.” See also response to comment B7a-46, below and Thematic Response 5 regarding the use of qualifiers.

**RESPONSE TO COMMENTS B7-23 AND B7-24**

See Thematic Response 7 regarding tax exempt property.

**RESPONSE TO COMMENT B7-25**

As stated in section 3.1.7, “... University-owned land will always be the first option explored for both program space and housing.” However, in some instances, particularly short- to mid-range needs, leased space may offer a better and more economical alternative to meet critical University needs. While fiscal impacts are not within the scope of CEQA, the physical impacts of any such lease transactions would be subject to CEQA review.

**RESPONSE TO COMMENT B7-26**

See Thematic Response 7 regarding tax exempt property.

**RESPONSE TO COMMENT B7-27**

The writer states a concern that, while the boundaries of the Housing Zone are predicated on AC Transit routes as of July 2003, this level of service may not continue throughout the life of the 2020 LRDP. Cutbacks in service are always possible, but while the frequency of service could be reduced as the result of such cuts, it is unlikely the duration of the trip would change significantly.

**RESPONSE TO COMMENT B7-28**

The writer suggests several reasons for expanding the size of the Housing Zone, including factoring in the proposed BRT line along Telegraph; increasing the time criterion from 20 to 27.8 minutes; and including BART stations within the Housing Zone which meet the travel time criterion. The writer also suggests a policy of regularly reviewing transit service and adjusting the Housing Zone to reflect changes.

In fact, the original Housing Zone was larger, because it used the criterion of a 20 minute transit trip to the edge of campus. As the result of comments received from the ASUC during the scoping process, however, the zone was reduced to its present dimensions. The objections of the ASUC had to do with both a measure of travel time, that includes the walk from transit stop to destination, and the impact of physical dispersion on intellectual community. UC Berkeley finds the arguments of the ASUC to be persuasive, and the Housing Zone should remain as presently defined.

As noted in its caption, figure 3.1-5 is generalized, is based on AC Transit routes of July 2003, and does not show "... suitable sites within one block of some BART stations [which] may also qualify for inclusion in the zone." The writer is correct in anticipating the zone boundaries could change over time in response to service changes; however this would not change the definition of the zone itself, which is based on travel time. The caption has been revised in the Final EIR to clarify the distinction, as follows:

The 2020 LRDP Housing Zone overlays the other Land Use Zones. It includes all areas within a one mile radius of Doe Library, or within a block of a transit line providing trips to Doe Library in under 20 minutes. The Housing Zone excludes those sites with residential designations of under 40 units per acre in a municipal general plan as of July 2003. This figure shows the extent of the Housing Zone based on transit trips via AC Transit routes as of July 2003. Suitable sites within one block of some BART Stations may also qualify for inclusion in the Zone. The depiction of the Housing Zone is generalized in this figure, and may not reflect the precise boundaries of individual parcels or land use designations. The zone boundary may be revised in the future to reflect service changes which affect travel time and/or changes in land use designations due to adoption of the Southside Plan.

**RESPONSE TO COMMENT B7-29**

Section 3.1.14 at page 3.1-48 is explicitly clear on the Clark Kerr Campus:

In 1982 the University executed a Declaration of Covenants and Restrictions with neighboring property owners and a Memorandum of Understanding with the City of Berkeley, both of which commit the University to a site plan and land use program on the Clark Kerr Campus for a period of 50 years. While many of its 26 buildings require extensive repairs and upgrades, no significant change in either the use or physical character of the Clark Kerr Campus is proposed in the 2020 LRDP.

The writer also notes some areas of the Southside which meet the 40 units per acre criterion for inclusion in the Housing Zone would not meet this criterion under the proposed Southside Plan. Whereas the general plan is an existing body of policy, which the University can evaluate against its own mission and make an informed judgment as to what extent it can comply, the Southside Plan is not as yet.

The most recent July 2003 draft of the plan, as the 2020 LRDP states, is acceptable to the University. However, this draft has not been adopted by the City, nor has the City completed CEQA review. Given the intense interest in the future relationship of City and University evident in the comments on the 2020 LRDP and its EIR, there is no assurance the Southside Plan would be adopted in its current form.

Once the Southside Plan is adopted, assuming no further substantive changes are made by the City, the provisions of the Southside Plan would supersede the designations of the general plan for the purpose of defining the Housing Zone. See response B7-28 and Thematic Response 11.

As suggested in comment B7-174, the Elmwood commercial district has been removed from the Housing Zone.

**RESPONSE TO COMMENT B7-30**

The writer's comments are noted. See Thematic Response 7 regarding tax exempt property. Further, as shown in figure 3.1-5 on page 3.1-26 of the draft 2020 LRDP, the area of the "housing zone" within the one mile radius of Doe Library is just a little over 1 square mile.

**RESPONSE TO COMMENT B7-31**

See Thematic Response 8 regarding Hill Campus development.

**RESPONSE TO COMMENTS B7-32 AND B7-33**

See Thematic Response 9 regarding parking demand. Recognizing that AC Transit has proposed a "reasonable substitute" that may appeal to those who currently drive to campus, UC Berkeley may defer some portion of the 2020 LRDP parking program in favor of AC Transit's BRT/Telegraph project, as described in Thematic Response 9. See also response to comment B7-280, below.

**RESPONSE TO COMMENT B7-34**

See response to comment B7-22, above, and Thematic Response 5 regarding the use of qualifiers.

**RESPONSE TO COMMENT B7-35**

See Thematic Response 9 regarding parking demand. The writer questions the parking demand estimate and also whether some spaces may be double-counted. They are not. Thematic Response 9 presents a more thorough explanation of how the parking demand estimate in the 2020 LRDP was derived.

**RESPONSE TO COMMENT B7-36**

The writer suggests a parking wayfinding system with dynamic signing to improve parking utilization and minimize traffic adjacent to garages. These and other measures remain part of the menu of demand management strategies available to the City and UC Berkeley to manage parking supply and demand. The effects of these strategies may help mitigate the traffic impacts of campus growth but such benefits are not known at this time. Accordingly, the effects of these measures in mitigating traffic impacts cannot be guaranteed and cannot be used as a rationale for identifying a potential impact as mitigated to a less than significant level.

The effectiveness of UC Berkeley trip reduction measures will become apparent through the mitigation monitoring process. See Thematic Response 2 on mitigation monitoring; see also Thematic Response 10 on trip reduction programs.

**RESPONSE TO COMMENT B7-37**

UC Berkeley notes that the proposed parking development program is intended to address key principles of the 2020 LRDP and the academic plan that serves as its foundation. See Draft EIR at pages 3.1-28 to 3.1-29.

**RESPONSE TO COMMENT B7-38**

See Thematic Response 9 regarding parking demand. Other writers also suggested UC Berkeley benchmark itself against other research universities with exemplary programs of transportation incentives. Thematic Response 9 includes such an analysis.

**RESPONSE TO COMMENT B7-39**

The writer's comment is noted.

**RESPONSE TO COMMENT B7-40**

See Thematic Response 7 regarding tax exempt property.

**RESPONSE TO COMMENT B7-41**

The writer contends the combination of new program space and new housing under the 2020 LRDP could transform downtown Berkeley into "... a student district, increasingly more like Telegraph Avenue." The writer contends this would have a significant adverse impact on the "eclectic and diverse character" of downtown. Changes in the demographic mix of an area do not constitute an adverse environmental impact per se. However, while the writer's concern is noted, such a transformation in character is not a realistic prospect.

Under the 2020 LRDP Location Guidelines presented in section 3.1.16, the Campus Park would be prioritized for academic programs and resources that involve and serve students. The new program space on Adjacent Blocks, including downtown, would be prioritized for other research, cultural, and service programs with lower day-to-day student interaction. Student activity, therefore, would continue to be focused on the Campus Park, as it is today.

With respect to housing, while some of the up to 2,500 net new student beds in the 2020 LRDP could be built within the downtown, the cost of land and the need for new University program space adjacent to campus suggest this would be more the exception than the rule. The Housing Zone includes many other sites which are as suitable for housing, but not for program space given their distance from the Campus Park. Even in the unlikely event half the new student beds are built in the downtown, this pales in comparison to the roughly 7,000 existing University and affiliate operated student beds in the Southside as of June 2004.

See also comment letter B7b, comment 2 and comment 4.

**RESPONSE TO COMMENTS B7-42 AND B7-43**

The writer questions the allocation of most of the new University parking to the Adjacent Blocks, and contends this could have land use as well as traffic impacts. The

traffic impacts of this new parking are evaluated in Chapter 4.12 of the Draft EIR. With respect to land use, the relevant standard of significance under CEQA is whether the new parking would conflict with local regulations to the extent a significant land use incompatibility is created.

Not only is parking a permitted use in the downtown under the general plan, but the C-2 central commercial zone presently requires parking at the rate of 1.5 spaces per 1,000 gsf of non-residential space.<sup>5</sup> Given the 2020 LRDP maxima of up to 800,000 gsf of program space and up to 1,300 parking spaces in the West Adjacent Blocks, up to 1,200 new parking spaces would seem to be required under City zoning just to serve the new program space, not including any University parking built to serve the current unmet need.

The writer's comment on design guidelines is covered in Thematic Response 11.

**RESPONSE TO COMMENT B7-44**

The boundaries of the Adjacent Blocks are defined at pages 3.1-5 to 3.1-7 of the Draft EIR.

**RESPONSE TO COMMENT B7-45**

The specific locations of projects that may be implemented under the 2020 LRDP are not yet known. However, as stated in section 3.1.7, "... future growth in both program space and parking is planned to be accommodated primarily through more intensive use of University-owned land ... University-owned land will always be the first option explored for both program space and parking."

The writer correctly assumes the 690 net new CEQA reviewed parking spaces in table 3.1-2 represents the Underhill parking facility, entitled under its own prior EIR: these spaces are in addition to the net new parking spaces anticipated under the 2020 LRDP.

**RESPONSE TO COMMENT B7-46**

The writer's comments are noted.

**RESPONSE TO COMMENTS B7-47 THRU B7-49**

See Thematic Response 11 regarding project design review.

**RESPONSE TO COMMENT B7-50**

See Thematic Response 5 regarding the use of qualifiers and Thematic Response 11 regarding project design review. See also pages 3.1-60 and 3.1-61 of the 2020 LRDP: the Adjacent Blocks South are identified as the first block south of Bancroft, and those blocks are designated for research and academic support functions under the Location Guidelines.

**RESPONSE TO COMMENTS B7-51 AND B7-52**

See response B7-25.

**RESPONSE TO COMMENT B7-53**

See Thematic Response 7 regarding tax exempt property.

**RESPONSE TO COMMENT B7-54**

Please see new figure 3.0-5.

**RESPONSE TO COMMENT B7-55**

See Thematic Response 5 regarding the use of qualifiers.

**RESPONSE TO COMMENT B7-56**

See Thematic Response 8 regarding Hill Campus development.

**RESPONSE TO COMMENTS B7-57 AND B7-58**

See Thematic Response 8 for a comprehensive response to comments on Hill Campus development. Due partly to comments received and partly to its uncertain near-term feasibility, faculty housing has been deleted as a potential future Hill Campus use in the 2020 LRDP. As noted in Thematic Response 8, the site formerly designated H1 has been redesignated as a reserve site in figure 3.1-10, while former site H2 has been redesignated as part of the surrounding research designation.

The writer also states it is not clear how the existing parking on Hill Campus sites would be addressed. Many potential future project sites under the 2020 LRDP are now utilized as parking: in many instances the parking would be replaced on site as part of the new project, in others the better solution is to replace it elsewhere. However, the 2020 LRDP policy “Replace and consolidate existing University parking displaced by new projects” in section 3.1.9 would apply to all future projects including those in the Hill Campus.

**RESPONSE TO COMMENT B7-59**

The writer contends a new building on (former) site H2 would have a significant visual impact compared to the existing parking terraces. The standards of significance relevant to this question, as presented in Chapter 4.1, are “Would the project substantially degrade the existing visual character or quality of the site and its surroundings?” and “Would the project have a substantial adverse effect on a scenic vista?”

Replacing the existing parking terraces with a building would result in visual change, but change is not necessarily adverse by definition. In fact, while (former) site H2 is visible from points to the west, large buildings about the site on both the east and west: the Lawrence Hall of Science lies downslope, and partly screens the site from the west, while the Space Sciences Laboratory and the Mathematical Sciences Research Institute lie upslope. A project on (former) site H2 would add another building to this cluster, but would not expand the area of this developed cluster into the adjacent natural landscape.

The writer presumes a new residential project on (former) site H1 would “denude” the site, and therefore have a significant visual impact. As noted above, this site has been redesignated as a reserve site.

The general design principles articulated at page 3.1-56 would guide project-specific design review of any future project in the Hill Campus. Any project which does not conform with the general plan designation would, under Best Practice LU-2-c, as revised per Thematic Response 8, be subject to further CEQA review. A project level analysis of visual impacts would be conducted as part of this review.

**RESPONSE TO COMMENT B7-60**

As noted above, faculty housing in the Hill Campus is no longer an element of the 2020 LRDP. See Thematic Response 8.

**RESPONSE TO COMMENT B7-61**

The boundary of the Botanical Garden shown in figure 3.1-10 incorporates the expansion implemented in the 1990-2005 LRDP. The “faunal refuge” is also carried forward from the 1990-2005 LRDP (UC Berkeley 1990 LRDP page 50). The 2020 LRDP does not propose changes to these boundaries, and thus no potential environmental impacts are anticipated.

**RESPONSE TO COMMENT B7-62**

Any future connection links required for projects on “Other Berkeley Sites” would be reviewed as part of project-specific CEQA review. No such requirements are presently identified. See Thematic Response 1 regarding future project review.

**RESPONSE TO COMMENT B7-63**

See Thematic Response 5 regarding the use of qualifiers, and Thematic Response 11 regarding city participation in project design review. Guidelines are advisory by definition, although the writer’s comments about the value of exception criteria are noted.

**RESPONSE TO COMMENT B7-64**

See Thematic Response 11 regarding project design review.

**RESPONSE TO COMMENT B7-65**

The writer notes the Campus Park Design Guidelines, while otherwise limited to the Campus Park, include some provisions for ground level spaces on the Adjacent Blocks. In fact, though admittedly outside the Campus Park, these guidelines do actually benefit the Campus Park indirectly. The streets at the perimeter of the Campus Park should be thought of as seams, rather than dividers. While, as explained in Thematic Response 11, UC Berkeley has not prescribed general design guidelines for the City Environs, in this case the character of ground level spaces should be consistent on both sides of these perimeter streets to create an active, pedestrian-friendly character. The guidelines in question are also generally consistent with City policy as we understand it.

**RESPONSE TO COMMENT B7-66**

The key to figure 3.1-12 has been revised in the Final EIR.

**RESPONSE TO COMMENT B7-67**

See Thematic Response 11 regarding project design review.

**RESPONSE TO COMMENT B7-68**

The writer’s comment is noted. The Regents have final authority over project design.

**RESPONSE TO COMMENT B7-69**

See Thematic Response 1 regarding future project review. Figures 3.1-3A and 3.1-3B do identify some candidate buildings for replacement and some potential future projects, respectively, but as the captions make clear these represent only one way in which the 2020 LRDP might be implemented. With the exception of the Tien Center, there is not yet enough definitive information about any of these potential projects to enable a project specific environmental analysis. Public Resources Code section 21080.9 provides for the LRDP to serve as “a physical development and land use plan to meet the academic and institutional objectives for a particular campus,” and as such does not

require the level of detail requested by the City about development of specific parcels and facilities not yet defined.

**RESPONSE TO COMMENT B7-70**

See Thematic Response 1 regarding future project review. With respect to environmental approvals in the draft 2020 LRDP section 3.1.18, the comment misrepresents what the LRDP says. Approval step 3.5b actually states: “Facilities services begins environmental review based on initial study, to be completed prior to start of phase 6.” Step 4.6 then states: “UCOP/Regents environmental and design approvals to be completed prior to start of phase 6.” The extent of this environmental review depends on the nature of the project in question. The timing of CEQA approval within the context of UC capital project development and approval was established in the Mt.Sutro case: see *Mount Sutro Defense Committee v. Regents of University of California*, 77 Cal.App.3d 20; 143 Cal Rptr 365 (1978).

**RESPONSE TO COMMENTS B7-71 THRU B7-73**

The activities referred to in the comment will occur on and around a particular place, UC Berkeley, as indicated in the Draft EIR. See Thematic Response 2 regarding mitigation monitoring and continuing best practices.

**RESPONSE TO COMMENT B7-74**

See Thematic Response 11 regarding project design review.

**RESPONSE TO COMMENT B7-75**

The Draft EIR concludes that the impact is potentially significant and unavoidable at the bottom of page 4.12-52.

**RESPONSE TO COMMENT B7-76**

See Thematic Response 6 regarding the relationship to LBNL.

**RESPONSE TO COMMENT B7-77**

The writer contends one of the objectives of the 2020 LRDP, “Plan every project to respect and enhance the character, livability, and cultural vitality of our City environs”, should be used as a standard of significance for environmental analysis. The 2020 LRDP was formulated with the specific intent of guiding future land use and capital investment toward realizing those objectives, and the University is confident it does so.

The purpose of environmental analysis under CEQA, however, is not to assess whether a project meets its own objectives, but rather to assess whether the project, in doing so, would have a significant adverse physical impact on the environment. The standards of significance for environmental analysis, therefore, are more specific to its purpose under CEQA. The standards in the Draft EIR are based on those listed in Appendix G of the CEQA Guidelines.

**RESPONSE TO COMMENTS B7-78 AND B7-79**

See Thematic Response 11 regarding project design review.

**RESPONSE TO COMMENT B7-80**

The analysis in section 4.1.7 recognizes the size and diversity of the City Environs, “... [which] present a highly variegated visual character, with architectural styles dating from



every decade of the 20<sup>th</sup> century and a few examples from the 19<sup>th</sup>. However, they have in common an orthogonal urban grid which is relatively dense but, except for portions of the Adjacent Blocks and Downtown Berkeley, overwhelmingly low-rise in character.”

Specific conditions within the Housing Zone may create the potential for localized impacts, which project specific CEQA review would disclose. However, given Best Practices AES-1-e through AES-1-h, the cumulative aesthetic impact of the 2020 LRDP on the visual quality of the Housing Zone is expected to be less than significant: particularly since, as prescribed in AES-1-g such projects would in general be designed within the parameters of setbacks and height in stories established by City zoning. See pages 4.1-17 to 4.1-18.

**RESPONSE TO COMMENT B7-81**

See response B7-41. See also comment letter B7b, comment 2.

**RESPONSE TO COMMENT B7-82**

See Thematic Response 11 regarding project design review, Thematic Response 8 regarding Hill Campus development, and Thematic Response 5 regarding the use of qualifiers. See response B7-59 regarding visual impacts of residential development.

**RESPONSE TO COMMENTS B7-83 THRU B7-85**

The comment misrepresents what the EIR says. It does not say there would be no significant cumulative adverse impact. On the contrary, at page 4.1-23 the Draft EIR states:

... The specific design provisions of the proposed Lawrence Berkeley National Laboratory 2004 LRDP are not yet available ... it is not yet possible to determine whether those guidelines would entirely eliminate the potential for adverse impacts ... however, the design provisions of the 2020 LRDP would ensure the contributions of UC Berkeley projects to any such adverse impact would not be cumulatively considerable.

The writer mistakes the term “cumulatively considerable” for a new measure. The term has a specific meaning under CEQA which is different from “cumulatively significant.” As defined in section 15065(c) of the CEQA Guidelines, “... Cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects as defined in Section 15130.”

**RESPONSE TO COMMENT B7-86**

The two Hill Campus guidelines cited by the writer are not “contradictory”. Often, clustering buildings is the best way to minimize site disturbance, by minimizing the land area which must be disturbed. Moreover, clustering typically reduces the number of exterior access routes required to serve a project: as a general rule, the more discrete buildings, the more discrete points of entry, and the more access routes required to serve them. However, the writer should also note that the 2020 LRDP and EIR have been revised to delete the proposal for up to 100 new faculty housing units in the Hill Campus.

**RESPONSE TO COMMENT B7-87**

As stated in Continuing Best Practice AES-1-d on page 4.1-17, the temporary visual impact of reducing fire hazard through vegetation removal would be mitigated by replacing the hazardous removed species with native species, thus improving the visual quality and habitat value of the affected areas as well as reducing fire hazard. It is unclear what else the writer has in mind, except possibly not continuing this critical program. The University believes this measure adequately mitigates any potential impact.

**RESPONSE TO COMMENTS B7-88 AND B7-89**

The University recognizes there have been reports in the press about prospective future plans for the Stadium, as there have for a number of other campus projects. At present, however, no plans to renovate or change the use of the Stadium exist at a level of definition sufficient to support a project-level environmental analysis. A Stadium project would be subject to project-specific environmental review in accordance with CEQA; the timing of CEQA approval within the context of UC capital project development and approval was established in the Mount Sutro case. See *Mount Sutro Defense Committee v. Regents of University of California*, 77 Cal.App.3d 20; 143 Cal Rptr 365 (1978)..

The reference to visual and/or historic character in Mitigation AES-3-a pertains primarily to the older portions of the Campus Park, which has a tradition of historic light standards. Also, as the writer notes, the syntax in the first sentence of the Mitigation is bit imprecise. In the Final EIR, Mitigation AES-3-a has been revised as follows:

**LRDP Mitigation Measure AES-3-a:** Lighting for new development projects would be designed to include shields and cut-offs that minimize light spillage onto unintended surfaces, and to minimize atmospheric light pollution. The only exception to this principle would be in those areas within the Campus Park where such features would be incompatible with the visual and/or historic character of the area.

**RESPONSE TO COMMENT B7-90**

The University employs current safe practices already established for ultrafine particles and these would apply to nanotechnology research. As further safe practices are developed by appropriate agencies, the University Office of Environment, Health and Safety (EH&S) will incorporate these practices, as is University policy on the handling of all materials with known or potentially dangerous properties. As described at page 4.6-16 of the Draft EIR, each laboratory at UC Berkeley maintains a chemical hygiene plan and chemical inventory system. Biohazard safety measures are also described in this section of the Draft EIR. These safety frameworks would apply to the use of any new materials, including nanoparticles, as appropriate.

The internet link (<http://www.cdc.gov/niosh/topics/nanotech/#oshrisks>) provides a summary of recent NIOSH efforts, which are at the same stage as the U.S. Environmental Protection Agency (EPA) nanotechnology program – the funding of initial research in toxicity and health risks. The NIOSH announcement on the development of a safe practices document was released on May 7, 2004, after the publication of the Draft EIR (<http://nano.gov/html/about/NIOSHannounce.htm>). The announcement states that NIOSH “...plans to issue a “best practice” document for working with nanomaterials.” EH&S will examine this information once it becomes available.

**RESPONSE TO COMMENT B7-91**

Please see Draft EIR Volume 2, Appendix F, pages F.1-13 through F.1-17.

**RESPONSE TO COMMENT B7-92**

The writer incorrectly summarizes the discussion related to AIR-1 in the Draft EIR. Projecting 2020 LRDP growth, implementation of the LRDP would not violate the carbon monoxide standard or expose sensitive receptors to substantial CO concentrations; thus, no mitigation measure is necessary. The campus does intend, however, to maintain and improve its alternative transportation programs. See Thematic Response 2 regarding continuing best practices, and Thematic Response 10 regarding alternative transportation programs.

**RESPONSE TO COMMENT B7-93**

UC Berkeley complies with BAAQMD regulations governing odor complaints.

**RESPONSE TO COMMENT B7-94**

The Draft EIR, at LRDP EIR Mitigation Measure AIR-4-a, commits UC Berkeley to effective control of dust emissions. A pre-specified number of water treatments each day may cause unneeded over-watering which can lead to adverse stormwater pollution impacts.

**RESPONSE TO COMMENT B7-95**

Existing practices regarding soil contamination evaluation and asbestos and lead are outlined at pages 4.6-27 to 4.6-28 of the Draft EIR.

**RESPONSE TO COMMENT B7-96**

UC Berkeley, under the leadership of the Environment, Health and Safety office, is convening a focus group to implement the use of biodiesel and other alternative fuels.

**RESPONSE TO COMMENT B7-97**

UC Berkeley is eager to work with City staff on programs to implement the use of alternative fuels.

**RESPONSE TO COMMENT B7-98**

The comment will be referred to the focus group on alternative fuel implementation programs for consideration.

**RESPONSE TO COMMENT B7-99**

The comment may refer to the table on page 4.2-8 of the Draft EIR. The writer's opinion is noted. UC Berkeley's contribution to air quality impacts as a result of implementation of the proposed 2020 LRDP, and measured according to thresholds of significance, is examined in section 4.2.7, page 4.2-20 and thereafter.

If the comment is targeted at Table 4.2-9 (on page 4.2-28 of the Draft EIR) the table was for operational impacts, the subject of LRDP Impact AIR-5. Construction emissions were addressed under LRDP Impact AIR-4. The treatment of construction emissions in the Draft EIR is further discussed under response B7-105.

BAAQMD CEQA guidance for plan-level documents does not require a lead agency to quantify emissions.<sup>6</sup> Since campus growth may not be consistent with the most recent

Clean Air Plan, operational emissions under the 2020 LRDP were found to result in a potentially significant and unavoidable impact. A linkage between the BAAQMD emissions thresholds (designed for individual projects) and operational emissions under the 2020 LRDP is not needed to understand that the 2020 LRDP's "plan level" emissions pose a "significant and unavoidable impact" in terms of the 2020 LRDP's potential interference with regional air quality management efforts. However, as stated in the text, operational emissions projections under the 2020 LRDP were provided in table 4.2-9 for informational purposes.

The applicable BAAQMD emission thresholds are 80 lb/day for nitrogen oxides (NO<sub>x</sub>), reactive organic gases (ROG), and particulate matter less than 10 microns in diameter (PM<sub>10</sub>), and 550 lb/day for carbon monoxide (CO).<sup>7</sup> Although these thresholds are not appropriate for assessing "plan level" emissions, and therefore, do not need to be included in table 4.2-9, UC Berkeley feels it is relevant to point out that the projected operational emissions under the 2020 LRDP are relatively low compared to BAAQMD project-level thresholds, thus the magnitude of the overall 2020 LRDP impact on regional air quality may not be great. Still, a significant and unavoidable impact was found, and mitigation is proposed to minimize the level of this potential impact.

**RESPONSE TO COMMENT B7-100**

The writer's opinion is noted. See response B7-102, below. Some of the measures are described in Continuing Best Practice AIR-5.

**RESPONSE TO COMMENT B7-101**

See Thematic Response 2 regarding mitigation monitoring and continuing best practices.

**RESPONSE TO COMMENT B7-102**

The writer seems to assert that the finding at LRDP Impact AIR-5, that operational emissions from implementation of the 2020 LRDP may hinder attainment of the Clean Air Plan, is avoidable. However, the Draft EIR clearly explains that the analysis of this impact presents a very conservative interpretation of local and regional growth projections: namely, that all growth associated with 2020 LRDP implementation is in addition to, rather than a subset of, anticipated regional growth. Under this assumption, no matter how small or reduced the growth associated with the 2020 LRDP might become, the impact - the possibility that the 2020 LRDP presents a hindrance to attainment of the Clean Air Plan - would remain the same. Therefore, UC Berkeley disagrees with the writer and believes the potential impact was characterized appropriately. Further, LRDP Impact AIR-5 mirrors a finding made in the Berkeley General Plan EIR, as noted in the Draft EIR at page 4.2-11. See also response B7-99, above.

**RESPONSE TO COMMENTS B7-103 AND B7-104**

See page 4.2-31 of the Draft EIR. The cumulative impact would be significant and unavoidable in the near-term. See response B7-102, above.

**RESPONSE TO COMMENT B7-105**

UC Berkeley does not concur with the writer's opinion that "a true cumulative impact" would be indicated by combining construction activity with other activities. As stated at page 4.2-25, "The scale and location of construction activities on the campus under the LRDP will vary with time and cannot be accurately characterized at this time."

**RESPONSE TO COMMENT B7-106**

UC Berkeley continues to meet its obligations under AB 2588, described at page 4.2-9 of the Draft EIR. Toxic air contaminant emissions from UC Berkeley remain below significance thresholds. Additionally, UC Berkeley has installed particulate filters in some new diesel generators and will consider doing so for all future installations and retrofits or replacements of older units.

As discussed on page 4.2-33 of the Draft EIR, the California Air Resources Board (CARB) has implemented an aggressive diesel risk reduction plan. Rules have already been adopted under this plan for new equipment as well as existing equipment for a variety of emission sources, including stationary diesel engines, on- and off-road vehicles, various vehicle fleets, as well as low-sulfur fuel requirements.<sup>8</sup> Further information from the CARB website can be found at:  
<http://www.arb.ca.gov/diesel/factsheets/factsheets.htm>.

The EPA has also promulgated standards for heavy-duty diesel trucks and locomotives, as well as federal low-sulfur fuel requirements. The State's efforts have already reduced diesel particulate matter (DPM) concentration levels by over 40% between 1990 and 2000 in the Bay Area, and the CARB diesel risk reduction program is designed to achieve another 75% reduction between 2000 and 2010. UC Berkeley is not aware of any BAAQMD models showing the effects of DPM reductions, as stated by the City of Berkeley, but the CARB has made such projections, which can be found at:  
<http://www.arb.ca.gov/toxics/cti/hlthrisk/cncrinhl/rskmapvwtrend.htm>. These show that DPM levels through 2010 were expected to be reduced with control measures in place prior to the diesel risk reduction plan, but that DPM levels will be reduced further as control measures under the diesel risk reduction plan are implemented.

The University will need to comply with these aggressive measures as they become adopted. The University will therefore contribute to the overall process of achieving continued DPM emissions reductions. For example, all new emergency diesel generators will be required to comply with the CARB's recently adopted rule for stationary diesel engines, which requires new engines to meet CARB certified emissions levels (emissions on the order of 10% of older engines), and older existing engines to come under retrofit requirements. Efforts such as these to comply with the CARB's aggressive diesel risk reduction program will contribute to continued progress toward reducing DPM exposures.

**RESPONSE TO COMMENT B7-107**

Project-level air quality impacts for the Chang-Lin Tien Center were evaluated in the Initial Study/Notice of Preparation for the 2020 LRDP and Tien Center Environmental Impact Report. See Draft EIR Volume 2, Appendix A. The Tien Center did not warrant further project-level evaluation of operational emissions. The Tien Center would generate almost no net new traffic, and the conclusion in the Initial Study/Notice of Preparation regarding CO emissions remains valid under any of the tests noted in the comment. Thus, a specific project-level air quality analysis for the Tien Center against BAAQMD project-level criteria is not needed for the Draft EIR. The Draft EIR is cited for the assessment of construction impacts and regional air plan consistency for the Tien Center.

As noted by the writer, BAAQMD significant emission thresholds on page 4.2-18 of the Draft EIR require correction. The last sentence is corrected to read:

...would be compared to BAAQMD thresholds (80 pounds per day for NOx, ROG, and PM10 and, 550 pounds per day of CO for CO emissions, a) emissions are greater than 550 pounds per day; or b) project traffic would impact intersections or roadway link operating at LOS D, E, or F or would cause LOS to decline to D, E, or F, or c) project traffic would increase traffic volumes on nearby roadways by 10% or more (unless the traffic volume is less than 100 vehicles per hour).

The BAAQMD thresholds stated in the Draft EIR for NOx, ROG, and PM10 are correct. For CO, the 550 pounds per day criteria was inadvertently listed as the only threshold. This emissions threshold applies to overall project emissions to assess potential regional impacts. The other two BAAQMD CO thresholds are aimed exclusively at mobile source emissions, the chief cause of elevated CO concentrations in urban areas. Should a proposed action increase traffic congestion that could lead to potential localized CO impacts, then a microscale CO air quality analysis is needed to assess potential localized CO impacts. An assessment of potential localized CO impacts will be part of any future project-level air quality analysis.

**RESPONSE TO COMMENT B7-108**

UC Berkeley's contribution to air quality impacts as a result of implementation of the proposed 2020 LRDP, and measured against the thresholds of significance, is examined in section 4.2.7 of the chapter. See page 4.2-20 and thereafter.

**RESPONSE TO COMMENT B7-109**

There is no question that air pollution at unhealthful levels presents a human health risk. The national and state ambient air quality standards are set by the EPA and the CARB to be protective of sensitive populations with margins of safety. These standards address the health issues outlined by the City of Berkeley. The CARB and BAAQMD control programs on which the Draft EIR's thresholds of significance are based are designed to make progress toward attainment of these air quality standards.

The cited American Lung Association (ALA) report, *The State of the Air 2004 Report*, does give an "F" rating for Alameda County for ozone and 24-hour particulate matter pollution. For ozone, the association of Berkeley with a general statistic for Alameda County is misleading. Since 2000, the only recorded violations of the federal ozone standard in Alameda County have been in Livermore. With respect to the state ozone standard, most Alameda County violations have been in Livermore, with a few in Southern Alameda County. There have been none in Oakland, the closest monitoring location to Berkeley. This holds true from 1998 through July 2004.

Table 4.2-3 of the Draft EIR shows the highest peak 1-hour ozone concentration in Oakland between 2000 and 2002 to be 0.072 ppm. (Note the Table 4.2-3 entries of one day above the state standard in 2000 and in 2002 should instead read zero days: these have been corrected in the Final EIR) The state standard is 0.09 ppm. Examination of BAAQMD data at

<http://gate1.baaqmd.gov/aqmet/AQYearly.aspx> shows ozone levels in Oakland to be comparable to those in San Francisco County. The ALA Report gives San Francisco County an “A” rating in terms of air quality for ozone.

With respect to particulate pollution, all Bay Area counties rate poorly in the ALA Report. This is due to the extremely stringent state 24-hour particulate matter air quality standards. Most of California is in nonattainment of these 24-hour standards.

Since the growth projections and vehicle miles traveled (VMT) rates in the 2020 LRDP may not be consistent with most recent BAAQMD Clean Air Plan, the Draft EIR found a significant and unavoidable impact in terms of regional air quality. Mitigations are proposed. In addition, mitigation during construction is proposed, which helps control particulate matter.

**RESPONSE TO COMMENT B7-110**

The Draft EIR describes a number of best practices and mitigation measures to reduce air quality impacts from 2020 LRDP activities; hindering attainment of the Clean Air Plan is the only significant and unavoidable impact of the 2020 LRDP itself. See Draft EIR Chapter 4.2; see also response B7-102, above. A commitment by UC Berkeley to ill-defined measures of unknown effectiveness, in order to reduce impacts already identified as less than significant, is not required by CEQA. See response B7-96 above; see also Thematic Response 10 regarding alternative transportation programs.

**RESPONSE TO COMMENT B7-111**

No portions of the Hill Campus are “left out”, as the writer contends. The comment may refer to the LBNL site, but LBNL is not within the scope of the 2020 LRDP.

**RESPONSE TO COMMENT B7-112**

The writer claims that updates to the Strawberry Creek Management Plan and the 2020 Hill Area Fire Fuel Management Plan should be completed before any projects are approved; however, there is no such requirement. The 2020 LRDP includes the policies that guide the individual management plans. See, for example, pages 3.1-41, 3.1-57, and 3.1-63 to 3.1-66 of the Draft EIR.

**RESPONSE TO COMMENT B7-113**

See Thematic Response 5 regarding the use of qualifiers.

**RESPONSE TO COMMENT B7-114**

See Thematic Response 1 for an explanation of the role of the 2020 LRDP and its EIR in relation to project review. In the case of cultural resources, the writer correctly points out the difficulty of program level analysis for a subject in which significance is largely or entirely due to site-specific factors.

However, the comment misinterprets the intent of Chapter 4.4. It does not, as the writer contends, conclude “...there will necessarily be potentially significant impacts on cultural resources.” Because the 2020 LRDP would be implemented in an area with abundant cultural resources, the purpose of Chapter 4.4 is to inform University decisionmaking, by characterizing these resources and identifying the conditions under which significant impacts may occur, how those impacts could be averted or mitigated –

as in Best Practices CUL-2-a and CUL-2-b – and what should be done in the event such impacts are unavoidable – as in Mitigation CUL-3.

**RESPONSE TO COMMENTS B7-115 THRU B7-117**

As a leading research University, UC Berkeley is extremely demanding in terms of the performance it requires from its buildings and infrastructure, and the pace of functional obsolescence is rapid. While UC Berkeley treasures its historic buildings and landscape, it would be unrealistic to assume no University resources of potential significance would ever be considered for substantial alteration or demolition.

Impacts that result in a substantial adverse change in the significance of cultural resources would only be warranted, however, when no feasible alternatives exist that meet the objectives of the project. The role of project specific CEQA review is to make such determinations. LRDP Impacts CUL-3 and CUL-5 do not try to “justify” such determinations in advance, but merely recognize such impacts are possible and, in Mitigations CUL-3 and CUL-5, describe what would happen in such instances.

**RESPONSE TO COMMENT B7-118**

Best Practice CUL-2-b has been revised in the Final EIR to read as follows:

Continuing Best Practice CUL-2-b: For projects with the potential to cause adverse changes in the significance of historical resources, UC Berkeley would make informational presentations of all major projects in the City Environs in Berkeley to the Berkeley Planning Commission and if relevant the Berkeley Landmarks Preservation Commission for comment prior to schematic design review by the UC Berkeley Design Review Committee. Major Such projects in the City Environs in Oakland would similarly be presented to the Oakland Planning Commission and if relevant the Oakland Landmarks Preservation Advisory Board.

**RESPONSE TO COMMENT B7-119**

An Historic Structures Assessment would be among the consultant services scoped at step 2.2 of the Project Approval Process described in section 3.1.18, and would inform the project design guidelines and the environmental analysis of a proposed project.

**RESPONSE TO COMMENT B7-120**

The writer’s comment is noted, and addressed by responses to comments B7-114 to 119 above, as applied to Impact CUL-5.

**RESPONSE TO COMMENTS B7-121 AND B7-122**

The referenced paragraph at page 4.4-5 of the Draft EIR is revised in the Final EIR as follows:

The criteria used in evaluation of buildings afford three levels of designation for historic buildings, including properties of exceptional significance (landmarks); structures of merit; and properties of special character or special historical, architectural, or aesthetic interest or value, with Landmarks generally occupying one site and Historic Districts occupying multiple sites in designated areas of the City. Structures of Merit are structures that do not meet landmark criteria but are worthy of preservation as



part of a neighborhood, block, or street front, or as part of a group of buildings that include landmarks. The lists in this chapter include specific properties on and off the UC Berkeley campus which have been listed as City of Berkeley landmarks.

**RESPONSE TO COMMENT B7-123**

See Thematic Response 4 regarding fiscal impacts.

**RESPONSE TO COMMENT B7-124**

The statement by the writer is not a comment on the Draft EIR, and no response is required.

**RESPONSE TO COMMENT B7-125**

Emergency preparedness is addressed in the Draft EIR at page 4.11-12.

**RESPONSE TO COMMENT B7-126**

The statement by the writer is not a comment on the Draft EIR, and no response is required.

**RESPONSE TO COMMENT B7-127**

The adequacy of emergency response services is addressed in the Draft EIR at Chapter 4.11, Public Services, and detailed analysis appears at pages 4.11-12 to 4.11-14. See also responses B7-206 through B7-215.

**RESPONSE TO COMMENT B7-128**

Emergency service to the two Hill Campus sites is discussed at pages 4.11-11 to 4.11-12 of the Draft EIR. Due partly to comments received and partly to its uncertain near-term feasibility, faculty housing has been deleted as a potential future Hill Campus use in the 2020 LRDP. See Thematic Response 8 regarding Hill Campus development.

In early December 2003 representatives from UC Berkeley and the City of Berkeley met at a forum titled "Promoting a Disaster-Resistant Community" to celebrate their individual and joint achievements in preparing for a major earthquake on the Hayward Fault and to plan for future collaboration in disaster mitigation. As recently as June 10, 2004, UC Berkeley and the City of Berkeley were part of a multi-agency exercise related to emergency preparedness. UC Berkeley is eager to continue its work with City staff, implementing improvements that reduce hazard exposure; however, as analyzed in the Draft EIR in accordance with CEQA, the 2020 LRDP does not present a significant risk to evacuation and emergency response.

**RESPONSE TO COMMENT B7-129**

Contrary to the writer's comment, earthquake-induced landslide hazards are evaluated in the Draft EIR at pages 4.5-11 to 4.5-13. Figure 4.5-3 is taken directly from the state source mentioned by the writer; the figure also shows the liquefaction hazards identified by the state. The Alquist-Priolo zone is shown in figure 4.5-1, which also shows the two active fault traces cited by the writer. However, upon closer inspection of the figure, the western LBNL boundary is not correct (it is correct in figure 4.5-3). Figure 4.5-1 has been corrected in the Final EIR.

**RESPONSE TO COMMENT B7-130**

Eight best practices are outlined in the Draft EIR, each of which would apply to new construction in the Hill Campus. Among these is the practice of conducting site-specific geotechnical studies for geotechnical hazard prevention and abatement in project design (Best Practice GEO-1-b at page 4.5-17). The risk of landslides would be minimized with new construction in the Hill Campus. See also Thematic Response 8 regarding Hill Campus development: the housing proposals for the Hill Campus have been eliminated from the 2020 LRDP.

**RESPONSE TO COMMENT B7-131**

The City of Berkeley passed a resolution adopting the Disaster Mitigation Plan on June 22, 2004, to be included as an appendix to the Berkeley General Plan. UC Berkeley is eager to continue its work with City staff, implementing improvements that reduce hazard exposure; however, no changes are required to the existing Draft EIR text.

**RESPONSE TO COMMENT B7-132**

The Draft EIR indicates the small scale of use of such materials, but volumes fluctuate and are not precisely noted.

**RESPONSE TO COMMENT B7-133**

As described at page 4.6-16 of the Draft EIR, each laboratory at UC Berkeley maintains a chemical hygiene plan and chemical inventory system. Biohazard safety measures are also described in this section of the Draft EIR. These safety frameworks would apply to the use of any new materials, including nanoparticles, as appropriate.

**RESPONSE TO COMMENT B7-134**

The writer's assertions are noted. As noted in Thematic Response 1, because the 2020 LRDP EIR, as a program-level analysis, is necessarily general, some future individual LRDP projects may require more detailed environmental analyses, including additional site-specific technical detail. The CEQA Guidelines support "preparing analytic rather than encyclopedic environmental impact reports" (CEQA Guidelines 15006). The requested information need not be reprinted as part of the Draft EIR. Where the claim that the 2020 LRDP does "not provide the level of technical analysis that is needed to adequately evaluate the LRDP impacts (sic)" is substantiated in the subsequent comments, it is addressed below.

**RESPONSE TO COMMENT B7-135**

As described in the Draft EIR at pages 4.7-24 through 4.7-35, UC Berkeley is complying with permitting requirements in accordance with documents it submitted to the Regional Water Quality Control Board in 2003. Although the regulator has not yet acted, UC Berkeley has already begun to implement the programs outlined in its permit documents. UC Berkeley programs apply to all properties owned by UC Berkeley, on or off the central campus.

**RESPONSE TO COMMENT B7-136**

See pages E-1 through E-12 of Volume 2 of the Draft EIR for a discussion of UC Berkeley safety programs; see also page 4.6-19 of the Draft EIR for a description of the campus spill response team. A Spill Prevention Control and Countermeasure Plan assesses the risk of discharge of oil from storage tanks into waters of the US and establishes procedures, methods, equipment and other preventative measures to prevent

these discharges. Preventative systems used to contain petroleum products from reaching waterways include such things as rupture basins, dikes, berms, retaining walls, curbing, weir, booms, spill diversion ponds and sorbent materials. The CEQA Guidelines support “preparing analytic rather than encyclopedic environmental impact reports” (CEQA Guidelines 15006). The requested information need not be reprinted as part of the Draft EIR. The writer is welcome to review the referenced documents, which are available through the UC Berkeley office of Environment, Health and Safety, with which the City of Berkeley regularly interacts.

**RESPONSE TO COMMENT B7-137**

See pages E-1 through E-12 of Volume 2 of the Draft EIR for a discussion of UC Berkeley safety programs; see also page 4.6-19 of the Draft EIR for a description of the campus spill response team. The Storm Water Management Plan is intended to improve water quality by reducing the quantity of pollutants that stormwater picks up and carries into waterways and by eliminating direct discharges of pollutants. The SWMP develops and implements Best Management Practices in six program areas to reduce the discharge of pollutants: 1) public education and outreach, 2) public involvement and participation, 3) illicit discharge detection and elimination, 4) pollution prevention/good housekeeping for facilities operation and maintenance, 5) construction site stormwater runoff control, and 6) post-construction stormwater management in new development and redevelopment. The UC Berkeley Stormwater Management Plan was developed by an oversight committee which included representatives from the City of Berkeley and the community. The writer is welcome to review the referenced documents, which are available through the UC Berkeley office of Environment, Health and Safety.

**RESPONSE TO COMMENT B7-138**

See Thematic Response 4 regarding fiscal impacts.

**RESPONSE TO COMMENT B7-139**

UC Berkeley complies with the intent of the Joint Watershed Goals Statement. Many of the goals outlined in the 2020 LRDP and many of the practices and mitigations outlined in the Draft EIR align UC Berkeley with the Watershed Statement: for example, the overarching goal to plan every new project as a model of resource conservation and environmental stewardship. The Draft EIR includes many protections for riparian areas, in both the Hill Campus and the Campus Park. Best Practices outlined in Chapter 4.3, Biological Resources serve to protect and enhance riparian areas, wildlife habitat, and other natural communities in the Hill Campus and Campus Park. UC Berkeley is eager to work with the City of Berkeley and other land management agencies in the watershed to evolve additional improvements in land management strategies for the watershed.

**RESPONSE TO COMMENT B7-140**

Citation is the USGS study, 'Mean Annual Runoff in the San Francisco Bay Region, California, 1931-70', Miscellaneous Field Study mf-613, 1974.

**RESPONSE TO COMMENT B7-141**

The extent of impervious surfaces resulting from implementation of the 2020 LRDP is addressed at page 4.7-27 of the Draft EIR:

... most development under the 2020 LRDP would occur in areas that are currently mostly impervious, and implementation of SWMP post-construction design measures are expected to increase rainwater infiltration.

...and further discussed at page 4.7-28 of the Draft EIR:

For the most part, 2020 LRDP projects would occur on already urbanized lands, including existing surface parking lots, and will not substantially reduce the area of pervious surfaces. Therefore, development will not generate significant amounts of additional runoff that would transport pollutants to local waterways.

...and the influence of 2020 LRDP development on stormwater capacity is addressed at page 4.7-29 of the Draft EIR:

**Continuing Best Practice HYD-4-e:** UC Berkeley shall continue to manage runoff into storm drain systems such that the aggregate effect of projects implementing the 2020 LRDP is no net increase in runoff over existing conditions.

See also Chapter 4.13 of the Draft EIR, pages 4.13-14 through 4.13-16.

**RESPONSE TO COMMENT B7-142**

The writer is referred to response B7-141, above, and B7-151, below. The existing capacity issues at Oxford Street are not an impact of implementation of the 2020 LRDP.

**RESPONSE TO COMMENTS B7-143 AND 144**

See responses B7-262 thru B7-279 regarding potential impacts on the City of Berkeley sewer system. The writer's assertion that campus development "has significantly increased runoff" impacting the City of Berkeley sewer system is not supported by any evidence, nor is the fact mentioned that campus water consumption has declined significantly since the 1980s.

**RESPONSE TO COMMENT B7-145**

The stormwater construction specification cited in the text of the Draft EIR is available on the web through the UC Berkeley office of Environment, Health and Safety. Post-construction stormwater management practices are a standard element of LEED certification, and part of the 2020 LRDP as described at section 3.1.11, Sustainable Campus. Post-construction stormwater management practices are also outlined in Best Practice HYD-3 at page 4.7-27 of the Draft EIR. Also see Thematic Response 2 regarding mitigation monitoring and continuing best practices.

**RESPONSE TO COMMENT B7-146**

The Strawberry Creek Management Plan is intended to address the creek as it flows through the Hill Campus and Campus Park, and is not intended to be a comprehensive watershed management plan. UC Berkeley is eager to work with the City of Berkeley and other land management agencies in the watershed to evolve additional improvements in land management strategies for the watershed. UC Berkeley staff are also available to participate in stormwater management programs developed by the City of Berkeley, should any be undertaken. Given that the highest coliform counts occur at the north fork of Strawberry Creek that drains the area north of the central campus, these

would have the potential to result in significant new improvements to the quality of Strawberry Creek. See response B7-137, above.

**RESPONSE TO COMMENTS B7-147 AND B7-148**

LRDP Impact HYD-1 at page 4.7-24 of the Draft EIR is not considered a significant impact. Therefore, no measures are required to mitigate it. Best Practices HYD-1-a through HYD-1-d list existing programs UC Berkeley would pursue under the 2020 LRDP to ensure continuing water quality protections. See Thematic Response 2 regarding mitigation measures and continuing best practices.

**RESPONSE TO COMMENT B7-149**

The writer's comment is noted. As noted in the text, UC Berkeley has been voluntarily complying with NPDES stormwater permitting requirements, even while the campus Phase II MS4 NPDES permit is pending. See Draft EIR page 4.7-26, second paragraph.

**RESPONSE TO COMMENT B7-150**

See response B7-141, above.

**RESPONSE TO COMMENT B7-151**

Existing measures have not prevented flooding during storm conditions at the Oxford Street storm drain. As stated in the Draft EIR at page 4.7-8, "The City of Berkeley reports that the capacity of the City storm drain at Oxford Street (where Strawberry Creek leaves the Campus Park) would be exceeded by 25 percent during a 25-year design storm event under existing conditions." However, while the current practices in themselves have not entirely prevented flooding, the Draft EIR also prescribes a new Mitigation HYD-5, which will ensure no net increase in flow from any Hill Campus project site. The best practices and new mitigation together would ensure no net increase in runoff over existing conditions due to the 2020 LRDP. See also response B7-141, above. Further, it should be noted that the drainage area for the Oxford Street culvert includes city streets and properties not managed by nor affiliated with UC Berkeley.

**RESPONSE TO COMMENT B7-152**

See Thematic Response 2 regarding mitigation measures and continuing best practices.

**RESPONSE TO COMMENT B7-153**

The mitigation measure noted by the writer specifies both the method of study and the necessary result of the measure. If a project cannot prevent downstream flooding and substantial siltation and erosion, it fails to implement the measure, and further CEQA analysis must occur. See Thematic Response 2 regarding mitigation measures and continuing best practices. Further, Best Practice HYD-4-e specifies "the aggregate effect of projects implementing the 2020 LRDP is no net increase in runoff over existing conditions." See Draft EIR page 4.7-29.

**RESPONSE TO COMMENT B7-154**

The writer's comment is noted. Differences of opinion on the merit of an EIR are common. UC Berkeley believes the text of the Draft EIR is accurate and appropriate. See responses B7-134 through B7-153, above.

**RESPONSE TO COMMENT B7-155**

The writer misrepresents the cumulative analysis in Chapter 4.7. See pages 4.7-33 through 4.7-35. At Cumulative Impacts HYD-3, HYD-4 and HYD-5, cumulative impacts are anticipated, but the contribution of the 2020 LRDP is not expected to be cumulatively considerable. UC Berkeley believes the text of the Draft EIR in this instance is accurate and appropriate.

**RESPONSE TO COMMENTS B7-156 THRU B7-158**

The writer's comments are noted: the text has been corrected in the Final EIR. The last paragraph on page 4.8-6 of the Draft EIR is revised to read:

Within areas designated Institutional, the General Plan allows building intensity ranging from less than FAR 1 to FAR 4.

The third paragraph on page 4.8-7 of the Draft EIR is revised to read:

The Berkeley General Plan designates the Berkeley portion of the Hill Campus as Open Space, which ~~allows recreational facilities, schoolyards, community services, and facilities necessary for the maintenance of the areas~~ is "... appropriate for parks, open space, pathways, recreational facilities, natural habitat and woodlands. Appropriate uses include parks, recreational facilities, schoolyards, community services, and facilities for the maintenance of the areas."

**RESPONSE TO COMMENT B7-159**

A general description of the physical character of the Campus Park, Hill Campus, and City Environs is given in Chapter 4.1, at pages 4.1-4 thru 4.1-12. The description in Chapter 4.8, at pages 4.8-6 thru 4.8-10, complements this description by focusing on land use designations, as well as the major properties within each zone owned by the University. Figures 3.1-3A and 3.1-3B respectively identify candidate University buildings for replacement, and potential future projects on the Campus Park and Adjacent Blocks. As noted in Thematic Response 1, because the 2020 LRDP EIR, as a program-level analysis, is necessarily general, some future individual LRDP projects may require more detailed environmental analyses, including additional site-specific detail.

**RESPONSE TO COMMENT B7-160**

The writer's comment is noted.

**RESPONSE TO COMMENT B7-161**

See Thematic Response 8 regarding Hill Campus development.

**RESPONSE TO COMMENT B7-162**

The writer contends one of the objectives of the 2020 LRDP, "Plan every project to respect and enhance the character, livability, and cultural vitality of our City environs", should be used as a standard of significance for environmental analysis. The 2020 LRDP was formulated with the specific intent of guiding future land use and capital investment toward realizing those objectives, and the University is confident it does so.

The purpose of environmental analysis under CEQA, however, is not to assess whether a project meets its own objectives, but rather to assess whether the project, in doing so, would have a significant adverse physical impact on the environment. The standards of significance for environmental analysis, therefore, are more specific to its purpose under

CEQA. The standards in the Draft EIR are based on those listed in Appendix G of the CEQA Guidelines.

**RESPONSE TO COMMENT B7-163**

The standard of significance cited by the writer is directly addressed in LRDP Impact LU-1 at page 4.8-15.

**RESPONSE TO COMMENTS B7-164 AND B7-165**

UC Regental policy requires campus building project approvals be generally in conformance with the applicable LRDP. The purpose of including the Campus Project Approval Process, presented in section 3.1.18, into the 2020 LRDP is to provide a formal mechanism for ensuring the objectives, policies and guidelines of the 2020 LRDP are incorporated into future land use and capital investment decisions at UC Berkeley. The Mitigation Plan will serve a complementary role with respect to implementing best practices and mitigations prescribed in the Draft EIR.

**RESPONSE TO COMMENTS B7-166 AND B7-167**

See Thematic Response 11 regarding project design review.

**RESPONSE TO COMMENTS B7-168 THRU B7-170**

The writer's observations are noted: these paragraphs appear to serve as background for subsequent comments rather than comments in themselves. The writer does not indicate any environmental effects from the University actions which, the writer claims, have divided an established community.

**RESPONSE TO COMMENTS B7-171 AND B-172**

See response B7-41. See also Thematic Response 11 on project design review. See also comment letter B7b, comment 2 and comment 5.

**RESPONSE TO COMMENTS B7-173 AND B-174**

The cited text on page 4.8-16 has been revised in the Final EIR to read as follows:

The Berkeley portions of the LRDP Housing Zone outside the Adjacent Blocks and Southside are primarily designated Avenue Commercial, which allows residential uses. Since the University anticipates only residential projects within these areas, no significant incompatibilities with respect to use are anticipated. Moreover, the LRDP Housing Zone by definition excludes areas ~~designated as low density residential~~ with residential designations of under 40 units per acre in a municipal general plan as of July 2003.

The University also concurs with suggestions to remove the Elmwood commercial district from the Housing Zone, as well as the west side of Hillside Ave: figure 3.1-5 has been revised in the Final EIR to incorporate these changes.

**RESPONSE TO COMMENTS B7-175 AND B7-176**

See Thematic Response 11 regarding project design review.

**RESPONSE TO COMMENT B7-177**

Beyond the measures described in Thematic Response 11 to give the City a greater voice in UC Berkeley project review, the CEQA evaluation of projects under Best Practice LU-2-c would include the prescription of any required mitigations.

**RESPONSE TO COMMENTS B7-178 AND B7-179**

See Thematic Response 5 regarding the use of qualifiers.

**RESPONSE TO COMMENT B7-180**

The writer's comment is noted.

**RESPONSE TO COMMENT B7-181**

No plans presently exist for such extensions, but any such work would be evaluated as part of project-specific CEQA review.

**RESPONSE TO COMMENT B7-182**

See response B7-20 for an explanation of the role of research in the mission of UC Berkeley.

**RESPONSE TO COMMENT B7-183**

The writer's comments regarding the 2020 LRDP are noted. The Draft EIR applies local standards when analyzing impacts of the 2020 LRDP. See Best Practice NOI-2 at page 4.9-17, referencing the City of Berkeley Noise Ordinance.

**RESPONSE TO COMMENT B7-184**

The writer's comments ignore the text at page 4.9-17 of the Draft EIR, which states "interior noise levels are predicted to exceed the 45 Ldn noise insulation standard *if windows are assumed to be open for ventilation*" (emphasis added). Double paned windows and mechanical air circulation cannot reduce noise impacts in the referenced circumstance.

**RESPONSE TO COMMENT B7-185**

See Thematic Response 2 regarding mitigation monitoring and continuing best practices. LRDP Mitigation Measure NOI-4 clearly indicates the types of activities that will be included in the specifications and that the specifications will be included in construction contracts; it is not expected to reduce the impact of construction and demolition noise to less than significant, as stated at Draft EIR pages 4.9-17 and 4.9-18.

**RESPONSE TO COMMENT B7-186**

The writer's comment is noted.

**RESPONSE TO COMMENT B7-187**

As noted in section 4.10.7, the Primary and Secondary Employee Housing Areas "... include any intermediate tracts within this boundary ... the inclusion of intermediate tracts assumes future employees would be willing to commute from any location within the limits established by current employee residential patterns," thus creating the contiguous areas shown in figures 4.10-1 and 4.10-2.

**RESPONSE TO COMMENT B7-188**

The writer questions what algorithm was used to define the primary and secondary employee housing areas. The process was as follows:

- List census tracts in order of most to least UCB employees.
- Starting with the tract with the most UC employees, add tracts to the list until the target percentage of employees (50% or 80%) is reached.
- Include intervening tracts to form contiguous areas.



With any such algorithm, it is possible to have slight variations in tracts selected at the perimeter, because the computer might have more than one option to select in order to get the last few individuals it "needs" to get to the 50% or 80% target.

**RESPONSE TO COMMENT B7-189**

The writer's comment is noted.

**RESPONSE TO COMMENT B7-190**

The writer requests the University hire Berkeley residents in implementing the 2020 LRDP. While this comment is not within the scope of CEQA, a number of state and federal laws regulate UC Berkeley hiring practices, and would prohibit UC Berkeley from favoring local candidates in the hiring process. However, the City/UC TDM study includes recommendations on increasing the local housing supply in a manner that encourages students, staff and faculty to live locally.<sup>9</sup>

**RESPONSE TO COMMENTS B7-191**

The writer's comment is noted. UC Berkeley is eager to continue working with City staff on summer youth employment programs. Annually between 30 and 50 students have been placed in summer jobs on campus. The program includes a mentoring and college orientation component.

**RESPONSE TO COMMENTS B7-192 AND B-193**

These brief statements serve as introductions to more detailed subsequent comments. See Thematic Response 4 regarding fiscal impacts.

**RESPONSE TO COMMENTS B7-194 THRU B7-205**

See Thematic Response 4 regarding fiscal impacts. The comments on police services relate to the perceived adequacy of staffing levels and fiscal impacts on City services. The comment speculates that UCPD staffing influences BPD service demand; however, there is no evidence to support this assertion. UCPD provides a better officer to service population ratio than typical municipal police services and UCPD staffing continues to demonstrate a commitment to its service goal of 1.5 sworn officers per 1000 population.<sup>10</sup> Further, while these are matters of concern, under CEQA staffing and support needs for public services are relevant only to the extent they translate into physical changes which in turn result in environmental impacts.

However, the City of Berkeley has prepared a fiscal impact study and submitted it as an attachment to its comments on the EIR. At the City's request, the University and the City have each designated a team of staff representatives to meet, review and critique the study findings, and formulate strategies for public services that benefit both entities, as envisioned in Continuing Best Practice PUB-1.1.

**RESPONSE TO COMMENT B7-206**

The writer's comments on LBNL service are noted, but do not contradict the fact that the University, through the reciprocal agreement with LBNL, does provide services which augments the City's own resources. Moreover, the writer neglects to mention that, under the provisions of the 1990 Mitigation Implementation Agreement, UC Berkeley has through 2004 contributed over \$1.8 million in training and equipment to City fire and emergency services.

**RESPONSE TO COMMENT B7-207**

See Thematic Response 8 regarding Hill Campus development.

**RESPONSE TO COMMENT B7-208**

Paving the Jordan Trails to improve emergency access, as the writer proposes, would be a suitable topic for consideration of the Management Authority proposed by the 2020 LRDP for the Ecological Study Area, at page 3.1-54. This action may have potential significant impacts on Hill Campus biota and on the research and educational value of the Ecological Study Area, and by increasing the amount of impermeable surface, would also increase runoff with the consequential potential for erosion, pollution, and storm-water impacts.

The City of Berkeley passed a resolution adopting the Disaster Mitigation Plan on June 22, 2004, to be included as an appendix to the Berkeley General Plan. UC Berkeley is eager to continue its work with City staff, implementing improvements that reduce hazard exposure; however, no changes are required to the existing Draft EIR text.

**RESPONSE TO COMMENTS B7-209 AND B7-210**

See Thematic Response 8 regarding Hill Campus development.

**RESPONSE TO COMMENTS B7-211 AND B7-212**

With respect to fire services, CEQA analysis focuses on environmental impacts that could result from the construction of new facilities that are required to provide fire department services, not staffing or equipment purchases, which are fiscal matters. The writer confirms, "...no new facilities or stations are planned as a specific result of the LRDP." See Thematic Response 4 regarding fiscal impacts.

**RESPONSE TO COMMENT B7-213**

The issue of emergency vehicle access to locations within the Campus Park is thoroughly evaluated for each project as part of the Plan Review and Construction Inspection procedures described in section 4.11.2.6. The UC Berkeley Fire Marshal consults with the Berkeley Fire Department on the adequacy of emergency access routes from City streets. In order to recognize this ongoing practice, Continuing Best Practice PUB-2.3 has been revised in the Final EIR as follows:

**Continuing Best Practice PUB-2.3:** UC Berkeley would continue its partnership with LBNL, ACFD, and the City of Berkeley to ensure adequate fire and emergency service levels to the campus and UC facilities. This partnership shall include consultation on the adequacy of emergency access routes to all new University buildings.

**RESPONSE TO COMMENTS B7-214 AND B7-215**

See Thematic Response 4 regarding fiscal impacts.

**RESPONSE TO COMMENT B7-216**

The decline in playfield space has, unfortunately, led to a reduction in organized campus recreational programs such as intramural sports. The writer does not provide evidence to suggest, however, that student use of City parks has increased. In any case, however, the relevant baseline for environmental analysis of the 2020 LRDP is existing, not historical conditions.

**RESPONSE TO COMMENTS B7-217 AND B-218**

The writer is mistaken in stating "... the 2020 LRDP ... lacks a plan for how to restore [lost playfield] space ... the LRDP does not have a policy to increase the space in proportion to student growth over the course of the LRDP." Section 3.1.10 explicitly calls for the restoration of both Underhill Field and West Hearst Field, which is reiterated in section 4.11.4.7. As explained, the completion of both projects would compensate for the anticipated increase in campus headcount under the 2020 LRDP and maintain the ratio of campus recreational space to headcount at roughly the same ratio as it is today.

**RESPONSE TO COMMENT B7-219**

The ratios of recreational space cited in the previous response, and the conclusions derived from those ratios are based on campus headcount, which include employees as well as students. The writer refers to but does not provide "current usage patterns" as the source of the "belief" City facilities would be impacted. However, the writer's statement "... UC Berkeley should provide additional recreational facilities commensurate with the projected population increase ..." is exactly what the 2020 LRDP and EIR propose to do, as explained in the previous response.

**RESPONSE TO COMMENT B7-220**

Impact PUB-4.4 does not indicate that an impact would occur, but rather that an impact could occur. Thus, the mitigation challenged by the writer properly sets forth how UC Berkeley expects to monitor the potential for impact, and how UC Berkeley expects to mitigate an impact that may occur. Although CEQA requires that any project, even one proposed as mitigation for a programmatic impact, be reviewed for environmental impacts and this need not be further stated, Mitigation PUB-4.4 has been revised in the Final EIR as follows:

**LRDP Mitigation Measure PUB-4.4:** Before implementing any change to the use of any existing recreational facility, UC Berkeley would conduct a study to ensure that the loss of recreational use would not result in increased use at other facilities to the extent it would result in the physical deterioration of those facilities. If such deterioration is found to have the potential to occur, then the University would build replacement recreation facilities or take other measures to minimize overuse and deterioration of existing facilities in connection with removal of or reduction in use at the recreation facility in question. Any such facilities and/or measures would be reviewed in accordance with CEQA.

**RESPONSE TO COMMENT B7-221**

The writer expresses concern that an increase in population density would increase transport and spread of communicable disease, in particular as the result of foreign travel. Possibly, the CEQA standards of significance that address hazards to the public, or emergency services, could be considered to address the fear of increased transmission of foreign diseases due to density as an environmental impact. However, the presumed impact is more speculative than measurable at this time. The asserted impact would not result from implementation of the 2020 LRDP itself, or the cumulative impact of any related projects, and therefore need not be analyzed in the Draft EIR.

**RESPONSE TO COMMENT B7-222**

University Health Services at the Tang Center is a fully accredited health care facility providing comprehensive medical, mental health and health promotion services to all UC Berkeley students and a variety of occupational health services to faculty and staff. UHS employs over 200 people, including physicians, psychiatrists, consulting medical specialists, nurse practitioners (nurses with advanced training), registered nurses, pharmacists, health educators, PhD psychologists, social workers, and other health professionals. University Health Services staff meet with City of Berkeley staff, and closely communicated regarding SARS concerns. UC Berkeley is eager to meet with City public health staff to discuss monitoring and disease control; University Health Services staff are available to meet with City staff to discuss any perceived capacity concerns. However, the comment does not address a significant environmental impact, and no further response is required in accordance with CEQA.

**RESPONSE TO COMMENT B7-223**

See Thematic Response 4 regarding fiscal impacts. UC Berkeley also offers employment services.

**RESPONSE TO COMMENT B7-224**

See responses B7-190 and B7-191.

**RESPONSE TO COMMENTS B7-225 THRU B7-251**

As noted, these comments summarize a detailed letter included in this Final EIR as Comment Letter B7a. Please see the Response to Comment Letter B7a for detailed responses to these concerns.

**RESPONSE TO COMMENTS B7-252 THRU B7-255**

These statements provide background for subsequent comments.

**RESPONSE TO COMMENTS B7-256 THRU B7-261**

The writer contends that, while UC Berkeley is exempt from AB 939 and Measure D, the solid waste generated by UC Berkeley may cause the City of Berkeley to violate these statutes, since it is counted against City of Berkeley tonnage. The 2020 LRDP is expected to generate an increase of up to 2.8 tons per day from operational and maintenance activities, or 1,022 tons per year. This represents less than one percent of the 119,135 tons presently generated within the City of Berkeley, and is not expected to have a significant impact on disposal or diversion facilities.

However, the above numbers exclude construction and demolition waste, which under current UC Berkeley practice are at the discretion of the contractor. It should be noted that the economics of waste diversion have improved to the point where over 80% of the demolition waste from the new Stanley Hall project has been diverted. Still, construction and demolition waste could, as the writer contends, have an impact on the City of Berkeley's ability to meet its diversion requirements.

The City of Berkeley is presently finalizing a construction and demolition waste ordinance, expected to be adopted in 2005. Therefore, in addition to Best Practice USS-5.2, the Final EIR also includes a new Mitigation Measure USS-5.2, as follows:

LRDP Mitigation Measure USS-5.2: Contractors on future UC Berkeley projects implemented under the 2020 LRDP will be required to recycle or salvage at least 50% of construction, demolition, or land clearing waste. Calculations may be done by weight or volume, but must be consistent throughout.

**RESPONSE TO COMMENT B7-262**

The Brown and Caldwell study does not, as the writer contends, demonstrate the contributions by the University toward the maintenance of the City sewer infrastructure are "... far less than the costs attributable to the University." The referenced study estimates the percentage of system wastewater generated by the University, using water consumption data, then assumes the University should contribute an amount equal to this percentage, times all sewer construction, operation, and maintenance costs in the City budget, including indirect staff support.

This methodology ignores the actual physical impact of UC Berkeley wastewater on the City system. All wastewater generated by UC Berkeley flows into relatively few sewer mains, and is transported through these mains to the EBMUD interceptor line. The actual physical impacts of UC Berkeley wastewater on the City sewer system, therefore, are limited to those few lines into which this wastewater is discharged. The extent to which this entails a potential significant impact is examined below.

As further described at pages 4.13-6 through 4.13-11 of the DEIR, the wastewater generation anticipated under the 2020 LRDP would remain lower than volumes experienced in the 1980s.

**RESPONSE TO COMMENTS B7-263 AND B7-264**

See responses B7-269 thru B7-272, below.

**RESPONSE TO COMMENTS B7-265 THRU B7-267**

The Berkeley General Plan EIR, completed in 2001, found the area bounded by the City boundary to the east, Virginia Street to the north, MLK Way to the west, and Dwight Way to the south "could accommodate over 4,100 new jobs and 1,600 new housing units without generating a 20 percent increase in any single sub-basin" (Berkeley General Plan Final EIR, June 2001, page 29). The writer suggests that the City's findings regarding sub-basin capacity may be based on old data, or otherwise incomplete; the comment is noted.

The actual locations of future projects implemented under the 2020 LRDP is not yet known. However, the Draft EIR recognizes this fact, and states at page 4.13-11 "... depending on where it is located, it is possible new clusters of development may exceed the capacity of individual sub-basins." The Draft EIR then prescribes Best Practices USS-2.1-a thru USS-2.1-e to minimize those impacts. The identification and evaluation of such impacts would occur at project level review, as described in Thematic Response 1. Note Best Practice USS-2.1-e references the conditions established in California Government Code Section 54999 for payments by the University to public utility service providers.

**RESPONSE TO COMMENT B7-268**

EBMUD does, in fact, collect wastewater from all municipal systems within the 2020 LRDP area, but the language is a bit unclear. In the Final EIR, the first sentence of the

referenced paragraph at page 4.13-7 has been changed to read, “EBMUD provides wastewater ~~collection~~ treatment for the entire 2020 LRDP area located in Alameda County.”

**RESPONSE TO COMMENTS B7-269 THRU B7-272**

As prescribed in Best Practice HYD-4-e at page 4.7-29, “... the aggregate effect of projects implementing the 2020 LRDP shall be no net increase in runoff over existing conditions.” Thus no significant impacts to stormwater facilities are anticipated as a result of the 2020 LRDP.

**RESPONSE TO COMMENTS B7-273 THRU B7-275**

The description of the sewer infrastructure at pages 4.13-8 to 4.13-9 is not meant as a detailed description, but merely confirms the basic point that wastewater on the Campus Park, Clark Kerr Campus, and Hill Campus is collected by the University sewer system and discharged into the City system, while wastewater in the City Environs is collected directly by the City system.

As noted in Thematic Response 4, the University and the City of Berkeley have designated teams of staff representatives to meet, review and critique the findings of a City study of public services furnished by the City to UC Berkeley, including wastewater conveyance, and identify strategies that benefit both parties.

For certain fiscal impacts, namely those related to utility infrastructure, the conditions under which the University is authorized to make payments to cities and other public utility service providers for capital improvements is established by California Government Code Section 54999. It should be noted any such improvements to increase system capacity would also enable the City to correct existing deficiencies in these system elements due to age or other factors not directly related to University growth.

**RESPONSE TO COMMENT B7-276**

As the writer notes, the referenced figures in the EIR are incorrect. However, the writer’s own figure for Citywide wastewater volume in the comment is also incorrect, and the same comment cites two conflicting figures for UC percentage of Citywide volume, both evidently based on the same source document.

The writer states “... the entire flow from all of the City of Berkeley is approximately 7.8 mgd.” However, the draft sanitary sewer fee study prepared by the City, and referenced by the writer, seems to estimate the Citywide wastewater volume as 5,049,264 ccf/yr, which is equivalent to roughly 10.3 mgd, not 7.8 mgd.<sup>11</sup> The writer correctly quotes the study on the estimated volume of UC wastewater, 906,627 ccf/yr, which is equivalent to roughly 1.9 mgd, but this is equal to 18 percent of Citywide volume, not 24 percent. The two sentences of the referenced paragraph at page 4.13-8 are therefore revised in the Final EIR to read:

Existing ADWF for the City of Berkeley is approximately ~~7.5~~ 10.3 mgd. The ADWF from UC Berkeley is ~~approximately 8.3~~ estimated by the City as 1.9 mgd, or about ~~44~~ 18 percent of the City’s flow.

The estimated increase in wastewater generation under the 2020 LRDP, therefore, at 385,500 gpd, would represent an increase of roughly 20% in the volume generated by

UC Berkeley. This in turn changes the evaluation, but not the conclusions, of potential impacts in section 4.13.2.7. In the Final EIR, the second paragraph under LRDP Impact USS-2.1-b is revised to read as follows:

As described in the discussion of water supply and distribution, above, with anticipated 2020 LRDP development, water usage and wastewater generation will remain lower than volumes experienced in the 1980s. The wastewater generation due to the 2020 LRDP would represent an increase of ~~under 5 percent in the up to 20 percent in the City-estimated~~ current existing UC Berkeley flow of ~~8.3 1.9 mgd, well within or an increase roughly equal to~~ the 20 percent increase in capacity for each sub-basin projected in the Berkeley General Plan EIR.

**RESPONSE TO COMMENTS B7-277 AND B7-278**

The specific condition referenced by the writer, namely an increase in wastewater generation as the result of future Hill Campus development, would be evaluated in project level CEQA review as described in the Draft EIR. The re-routing of this wastewater into the Campus Park system, as proposed by the writer, is one potential mitigation this review would consider. Similarly, significant changes in the use or capacity at the Stadium or other Hill Campus sporting venues would be subject to project level CEQA review.

**RESPONSE TO COMMENT B7-279**

The standard of significance for whether the impact on wastewater systems is significant is not whether some system components might have to be improved to handle increased volumes, but rather whether these improvements would cause significant environmental impacts. As the Draft EIR concludes at page 4.13-12:

To the extent Continuing Best Practice USS-2.1-e results in the construction of new or enlarged facilities, such construction may have the potential to cause environmental impacts. However, each such project would be reviewed and, as necessary, mitigated by the service provider in its role as CEQA lead agency. In general, any such impacts would be limited to the temporary impacts of construction. Given the already intensively developed character of the Campus Park and City Environs, these new wastewater facilities are not anticipated to significantly alter land use patterns or have other permanent environmental impacts.

Best Practice USS-2.1-e references the conditions established in California Government Code Section 54999 for payments by the University to public utility service providers. It should be noted any such improvements to increase capacity would also enable the City to correct existing deficiencies in these system elements due to age or other factors not directly related to UC Berkeley growth.

**RESPONSE TO COMMENTS B7-280 THRU B7-285**

See Thematic Response 3 regarding 2020 LRDP alternatives analysis, and Thematic Response 9 regarding parking demand. In comment B7-284, the writer challenges the statement at page 5.1-11 of the Draft EIR that “The objective of a vital intellectual community can not be met if access to campus is increasingly constrained by the shortage of parking.”

This conclusion has its origins in the UC Berkeley Strategic Academic Plan. In describing the importance of an interactive campus to academic excellence, the Academic Plan states:

The breadth and quality of our academic programs are the equal of any university in the world, but Berkeley is more than the sum of its parts. A great university also requires a vital and dynamic intellectual community, one that provides exposure to a wide range of cultures and perspectives, and generates the encounters and interactions that lead to new insight and discovery. For such a community to thrive requires a campus organized and designed to foster those interactions.

Although the academic structure of the campus is based on the traditional disciplines defined over a century ago, they are no longer insular and self-contained. On the contrary, the potential for creative interaction is everywhere. The health sciences initiative, for example, brings researchers from physics, biology and chemistry together to study phenomena at the molecular level. The various fields of study at Berkeley focused on culture, gender, and ethnicity integrate the humanities and social sciences.

The 2020 LRDP supports this fundamental principle in several sections, including the introduction to Campus Access at page 3.1-28 of the Draft EIR:

Access to campus is vital to the work and culture of UC Berkeley. Our faculty, students and researchers depend not only on the academic resources of the campus, but also on their interactions with colleagues that lead to new insights, concepts and methods. Many of our senior faculty with long tenures at UC Berkeley enjoy the convenience of a residence near campus, acquired in the days when a Berkeley home was within reach of even moderate income households.

But more recently, due in large part to the shortage of good and reasonably priced housing near campus, our residential patterns have become more and more dispersed. For those who live beyond walking or bicycling distance or good transit service, the time and inconvenience of travel to and from campus, exacerbated by the shortage of parking, has become a significant disincentive to on-campus presence. This trend undermines the goal of a strong and vital intellectual community, and we must strive to reverse it.

**RESPONSE TO COMMENTS B7-286**

See Response to Comment B7-99, B7-102, and B7-105 above.

**RESPONSE TO COMMENTS B7-287**

The writer is referred to Table 5.1-4 at page 5.1-4 of the DEIR. Alternative L-1 considered emission reductions, including construction emission reductions, from reduced growth, yet emissions remained significant and unavoidable. With no parking construction, but program growth as anticipated in the 2020 LRDP, Alternative L-2 would have similar results.

**RESPONSE TO COMMENTS B7-288 THRU B7-291**

See Thematic Response 3 regarding 2020 LRDP alternatives analysis, and Thematic Response 9 regarding parking demand.



**RESPONSE TO COMMENTS B7-292 AND B7-293**

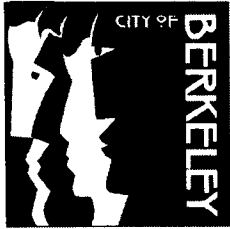
These concluding statements summarize the more detailed comments above.



**ATTACHMENT C**

**CITY OF BERKELEY COMMENTS  
ON  
TRANSPORTATION SECTIONS  
OF THE  
UC LRDP EIR**





Office of Transportation

June 11, 2004

TO: Phil Kamlarz, City Manager

FROM: Peter Hillier, Assistant City Manager for Transportation

RE: Comments on Transportation Sections of the UC LRDP EIR

The Office of Transportation has reviewed the relevant transportation and parking sections of the University of California, Berkeley 2020 LRDP Draft EIR and has prepared the attached detailed comments to be included in the City's comments in response to the LRDP EIR. Our comments are divided into three major sections: (1) a summary of key items identified in the review; (2) detailed review of major items, and (3) a listing of specific items related to editing or presentation.

B7a-1

## 1. SUMMARY STATEMENTS

The following statements provide a summary of traffic issues that have been identified in the review of the University's 2020 LRDP DEIR and are discussed in detail below:

- Differences exist between Traffic Levels of Significance for the General Plan and the LRDP EIR.
- Impact assessments based on generalized locations of facilities are too inaccurate to replace the need for detailed project-level analysis.
- The University needs to consistently assess significant impacts for all University-related development in Berkeley.
- Including LBNL growth in both the baseline and cumulative scenarios makes it impossible to assess the incremental impacts of University LRDP growth.
- The LRDP proposes creating more parking than is justified by existing travel behavior. The LRDP fails to balance the competing policies of trip reduction strategies and parking supply strategies and its parking expansion cannot be justified.
- The LRDP needs to develop campus-wide parking supply and demand estimates rather than an analysis based only on increases in students and staff.
- The University should include as new parking all parking facilities included in the previous plan that have not as yet been constructed.
- The LRDP needs to consider impacts on residential, on-street parking.

- The University needs to contribute to the mitigation of significant impacts even if feasible alternatives have not been developed at this time by the City of Berkeley in its General Plan.
- Realistic alternative plans need to be developed and evaluated to a level of detail that enables a comparison to be made with the proposed project.
- The LRDP needs to provide a stronger commitment to the improvement of trip reduction strategies that will not only maintain current levels of drive-alone travel but also reduce them even further.
- The University needs to define in conceptual terms what it means by “fair share” participation in the funding of mitigation measures in order to provide guidelines for cost-sharing negotiations between the University and the City.
- The University and the City need to jointly develop monitoring programs based on performance measures for both facilities and trip reduction strategies.

B7a-1

## 2. DETAILED COMMENTS

### A. RELATIONSHIP BETWEEN GENERAL PLAN, PROGRAM, AND PROJECT PLANNING

The LRDP is a program-level DEIR but it goes further to try to bridge the gap between the City’s General Plan and project-level planning. The University’s intent is to avoid project-level analysis for all projects included in the LRDP. The City feels strongly that the analysis at each of these three levels of planning are somewhat different and, especially for a major program without specific details, both program and project planning are necessary. As this issue is central to the discussion of transportation impacts for the LRDP, each of the three planning levels is discussed below.

B7a-2

**Long-range, area wide planning.** The development of the City’s General Plan involved an examination of overall traffic growth based on approved major development plans, such as the University’s 1990-2005 LRDP, as well as incremental growth in housing and employment. This growth results in transportation patterns based on the ability of transportation facilities to accommodate the distribution of travel origins and destinations. The State requires that a transportation forecasting model be utilized for the transportation analysis but does not specify in detail how the analysis has to be conducted. In many cases, the analysis focuses on major improvements rather than improvements at specific intersections. The final Plan provides guidelines and mitigation measures for anticipated growth but does not by itself convey any building rights.

**Program planning that includes multiple projects or major phases of one large project.** The University’s LRDP is a prime example of this category. Its purpose is to establish general development rights through a subarea analysis that includes a relatively detailed description of facilities that will be developed. It focuses on both area-wide and localized traffic, which

enables the City and a developer to provide timely and appropriate mitigation measures. Subsequent EIRs for individual phases of development will refer back to the program EIR for area-wide impacts and focus on impacts adjacent to the facility. At this level, intersection-level analysis almost always will be required. Consequently, the levels of significance for analysis at this level likely will be different from those that were used for area-wide, long-range planning. As the analysis is at a medium or long-term level, a certain level of uncertainty exists.

B7a-2

**Individual Project EIRs.** When a project is covered by a program EIR, the issues of the general size and location of a project usually are no longer in question. The project-level EIR can refer back to the program EIR, and it is desirable to utilize the same levels of significance that were utilized for the program EIR. On the other hand, analysis at this level likely will reveal impacts or mitigations that are somewhat different from those identified in the program EIR, particularly for facilities and services near the project site. Specifically, analysis at this level provides a better opportunity to address bicycle and pedestrian issues, which are particularly important adjacent to a project near the University. Depending upon when the project level analysis is performed, it may be necessary to update the analysis of existing and future conditions.

Based on the discussion above, from the City's perspective, it is important that all three levels of planning exist for major concentrations of development and that each level is consistent with the other levels and that each has an appropriate level of detail.

Given this background, the City provides below how it sees each of the three levels of planning related to the analysis of transportation impacts in the LRDP DEIR:

#### Levels of Significance for City of Berkeley General Plan and the LRDP DEIR

The analysis for the General Plan focused on directional segment analysis for the road network. The countywide traffic forecasting model was utilized to forecast traffic volumes with and without the project. The results of such an analysis is a peak hour, volume-to-capacity ratio based on the general characteristics of the segment, e.g. number of lanes and functional classification. The document presents seven criteria for significant impacts to the transportation system, two of which refer to roadway capacity. The other five criteria are important but are not considered in this discussion. The City's General Plan considers it a significant effect on roadway capacity if it results in either of the following to occur:

B7a-3

B7a-4

- For traffic operating at LOS D or better, causes a substantial increase in traffic volume on a roadway segment resulting in LOS E or worse ( $v/c=0.90$ ) ("substantial" = 5 percent or more increase in traffic volume);
- Causes a substantial increase in traffic volume on a roadway segment operating at LOS E or worse ( $v/c=0.90$ ) in baseline conditions ("substantial" = 5 percent or more increase in traffic volume), or
- Causes a roadway volume to exceed the roadway's capacity where it would not without the project.

The LRDP DEIR states that its traffic levels of significance are the same as those in the City's General Plan, but this is not true. Although similar, they have significant differences. Table 1 presents a comparison of examples of what would and would not be considered significant impacts under General Plan and LRDP levels of significance.

B7a-5

Scenarios that include a 5% or greater increase in traffic (Scenarios 1, 2, and 3) are the same for both the General Plan and the LRDP. Of most concern to the City is Scenario 5, where a change from LOS E or better to LOS F occurs with less than a 5 percent growth in traffic. For the General Plan, this would result in a significant impact, whereas in the LRDP DEIR it would not. The City feels that a 5% increase in traffic that results in LOS F is too low a threshold, given the resulting impacts on congestion that occur with LOS F.

**Table 1. Comparison of Representative Analyses for LRDP and City General Plan**

Road Segment Scenario	Directional Peak Hour Increase	Level of Service without Project	Level of Service with Project	Significant Impacts?	
				General Plan	University LRDP
1	5%	D	D	No	No
2	5%	D	E	Yes	Yes
3	5%	E	E/F	Yes	Yes
4	1%	D	E	No	Yes
5	1%	E	F	Yes	No

The City recognizes that CEQA allows the University as the lead agency to select levels of significance but questions whether or not increases in traffic levels, e.g. 5 percent, are appropriate levels of significance for identifying transportation impacts at the program or project level of analysis. The distribution of the growth at an intersection can significantly affect the resulting impacts on congestion. If the growth is primarily on critical movements, then a growth of less than 5 percent could result in significant impacts. It is more appropriate to utilize thresholds that are representative of intersection operations, such as critical volume-to-capacity ratio and average vehicle delay. A common threshold for volume-to-capacity ratio is 0.01 and for delay is 4 sec/veh. More and more, analyses are also including queue length, especially for closely spaced intersections. Where an increase in overall traffic growth remains a performance measure, it can lead to some inappropriate conclusions.

B7a-6

Another argument against the use of a constant performance measure, such as a growth in traffic or even volume-to-capacity ratio, is that it assumes that a straight-line impact exists between a traffic increase and all operating conditions at LOS E or F. This is definitely not the case, as impacts increase at a greater rate as capacity is approached. The use of a 5% level of significance in the LRDP DEIR consistently underestimates the impacts of traffic growth near or above capacity.

B7a-7



Table 2 presents the relationship between level of service criteria by volume-to-capacity ratio, which was used in the 1985 *Highway Capacity Manual* for signalized intersections, and the current methodology, which is based on average total delay per vehicle. It can be clearly seen that with higher volume-to-capacity ratios the delay increases at a higher rate with a given growth in traffic on critical movements. The rate of increase increases faster as one approaches and eventually exceeds the LOS F threshold. The average increase for LOS B conditions is 1 sec/veh for each 0.01 increase in the volume-to-capacity ratio. This value increases to 2.5 sec/veh for LOS E conditions. The value at or near LOS F is even higher.

B7a-7

**Table 2. Relationship between V/C and Delay Intersection Analysis**

LOS	Upper Threshold 2000 HCM (Total Delay)	1985 HCM (v/c)	Average Delay in Sec/ (.01 v/c)
A	10	0.60	--
B	20	0.70	1.00
C	35	0.80	1.50
D	55	0.90	2.00
E	80	1.00	2.50
F			

Although the City does not have any approved performance measures for impact analysis at the program and project levels, it reserves the right to develop such measures over time and to require the use of these measures for future traffic analyses.

Significant Impacts Identified at the General Plan and Program Levels

The City does not feel that conclusions regarding unavoidable impacts at the General Plan level of analysis can be transferred directly to program and project-level analyses. At these levels of analysis, the project proponent, in this case the University, has the obligation to investigate the full range of potential mitigations. It is true that the City's

B7a-8

General Plan does not provide any specific mitigation measures for congestion on road segments and, thus, is required to conclude that there will be some significant and unavoidable traffic impacts. This conclusion was reached in the context of a "Transit First" strategy recognizing that it cannot build itself out of traffic congestion and must pursue operating improvements and increased use of alternative modes.

B7a-9

The absence of a capital program in the General Plan to mitigate impacts, therefore, does not imply that the City does not intend to make capital improvements at intersections. Through monitoring and detailed traffic analysis, the City will be able to establish the timing and the appropriate mix of capital, operating, and trip reduction measures that will be required to provide appropriate mitigations in a timely manner. The General Plan commits the City to developing and implementing appropriate Deficiency Plans whenever an unacceptable level of service occurs on a

B7a-10

major road segment, according to monitoring studies conducted by the Alameda Congestion Management Agency. These plans likely will include a combination of capital improvements, operating improvements, and trip reduction strategies.

B7a-10

Given the above discussion, it is completely unacceptable for the University to say that traffic impacts are significant but unavoidable without adequate consideration of an alternative that examines increased incentives for trip reductions and other non-capital mitigation measures.

B7a-11

Relationship between Program Level and Project Level Analysis

The City feels strongly that the conceptual level of detail presented for the location and size of proposed facilities in the Draft LRDP EIR should not exempt the University from appropriate project-level traffic analyses.

B7a-12

Where it can be justified, CEQA allows analysis at the program level to satisfy project-level environmental review. Given the simplified development assumptions, a program-level review may be suitable for identifying impacts outside of the primary impact area – the one block adjacent to the University and the Southside. However, the non-specific nature of the proposed development should not preclude the need for project-level analysis in the vicinity of specific developments. There are inherent inaccuracies in traffic forecasting at intersections on local streets. Traffic forecasting models do not include all local streets, and Traffic Analysis Zones (TAZs) adjacent to the University have an area of 2-12 blocks. The University has added to this inaccuracy by not providing detailed descriptions of the size or location of residential and parking facilities. Given these uncertainties at the program level, the resulting analyses should be limited to their use in evaluation at that level. The City would be foolish to accept this level of analysis as being adequate for project-level assessment of impacts.

B7a-13

B7a-14

**CONSISTENCY BETWEEN DOCUMENTS AND DISCUSSION OF SCENARIOS**

**Development of Scenarios**

Generally, an EIR contains an assessment of project impacts for both baseline and cumulative conditions. Baseline conditions include all approved projects or growth forecasts, and the cumulative scenario would include likely projects that have been proposed but not as yet approved. In its comments on the LRDP EIR NOP, the City assumed that the University and LBNL EIRs “will include the other LRDP as a project contributing to cumulative impacts and that both EIRs will use the same data and assumptions about baseline conditions . . . so that analyses of impacts and mitigations measures are directly comparable.” Apparently, this was not done as a separate cumulative scenario does not exist. Instead, it appears that the proposed LBNL 2004 LRDP has been included in the baseline scenario, based on the statement in the DEIR that the baseline plus project scenario “include(s) all development foreseen under the general plans of each of the jurisdictions as well as the LBNL 2004 LRDP and the 2020 LRDP in the cumulative impact LRDP area.” (page 4.12-59)

B7a-15

The decision to include the LBNL 2004 LRDP in the baseline scenario makes it impossible to assess the individual impacts of the University's LRDP, especially for transportation-related impacts. Likewise, if the same assumptions are used for the LBNL DEIR, it will be impossible to assess the individual impacts of the LBNL growth. This situation is definitely not what CEQA intended.

B7a-16

In summary, the make-up of projects in the scenarios creates the potential for three ways in which impacts by the University's own levels of significance could be eliminated:

1. The addition of the LBNL traffic in the baseline could eliminate some conditions in the baseline plus project scenario where LOS D goes to E, which according to the University standards of significance does not require a 5 percent increase.

B7a-17

2. It is possible that the traffic increase for LOS E or F conditions would be above 5% for a project scenario without LBNL but lower than 5% with LBNL. In effect, the impacts of the LRDP have been underestimated by including the LBNL 2004 LRDP proposal in the baseline scenario.

B7a-18

3. It is possible that the total impact of University projects may be significant but that no significant impacts would exist for individual projects. For example, the traffic increases for both the University LRDP and LBNL might each be below 5% but together would be above 5% for LOS E or F conditions. No mitigations would be required for either program based on the University's strategy of separating the two programs, even though they both fall under the overall administration of the Regents.

B7a-19

The City feels that CEQA requires separate analyses with and without proposed University projects. The cumulative scenario would include not only the LBNL proposal but also the net increase in development contained in the revised DEIR for University Village.

B7a-20

### **Consistency between Documents**

Related to the development of alternatives is the issue of consistency between environmental documents. It is of particular importance at this time, as the University has three major documents in the environmental review process at the same time -- a revised DEIR for University Village, the University's 2020 LRDP DEIR, and LBNL's 2025 LRDP. The timing of these documents complicates the ability of the City and the general public to assess the relative impact of the individual projects at a given location. For example, the Final EIR for the revised University Village project will not be released before comments are due for the LRDP DEIR. As the traffic analyses for all three documents have been completed, this DEIR should certainly present their findings in a consistent manner.

B7a-21

Consistency between documents should require that mitigation measures mentioned in one document should be referenced in the others, but this has not happened. For example, the University Village DEIR states that the Gilman/San Pablo intersection will experience significant

B7a-22

but unavoidable impacts, but the LRDP DEIR does not mention this impact. For the same project, the City has commented that almost certainly the Gilman/6<sup>th</sup> intersection experiences significant impacts if the level of service calculation sheets in the University Village’s DEIR are to be believed, but it does not show up as an impacted intersection in the LRDP DEIR.

B7a-22

At least three unsignalized intersections are significantly impacted by the LBNL development, based on data contained in the level of service calculation sheets – Hearst/Gayley, Gayley/East Gate, and Gayley/Stadium Rim. One of the intersections is at the University’s northern boundary, and the other two are within its boundaries. At not only these intersections but also other intersections adjacent to the campus, it is important to be able to differentiate between the impacts for the LBNL and University LRDPs. As already noted, this is not possible given the scenarios that have been analyzed.

B7a-23

**Alternative Scenarios**

The evaluation of Alternatives in the DEIR is grossly inadequate. The Alternatives are dismissed in a cursory manner, without sufficient qualitative analysis and with *no* quantitative analysis. Once the project was found to have significant and unavoidable impacts, the University should have developed reasonable alternatives that went beyond existing best practices in an effort to mitigate impacts.

B7a-24

The evaluation of alternatives includes no discussion of the potential for trip reduction policies and programs to reduce future parking demand. Furthermore, when trip reductions are proposed, as in Alternative L-2, the EIR fails to provide any meaningful analysis of trip and emission reductions due to the increased use of alternative travel modes.

B7a-25

The evaluation of Alternative L-2 should provide an analysis of potential trips reduced from the application of ‘every effort’ to accommodate growth through shifting commuters to transportation alternatives. An analysis of the potential for mode shifting and trip reduction is critical to the analysis. Without such an analysis, the second sentence of section L-2 Transportation and Traffic (page 5.11-9), “[t]his would create a new significant parking impact...,” has no basis in fact. Contrary to the EIR’s statement, if transportation alternatives were able to transform travel behavior and reduce the parking demand sufficiently, then this would *not* create a new significant parking impact.

The City continues to feel that the DEIR Alternatives are ‘straw men.’ In fact, the DEIR states this intention clearly in Section 5.1.2 (page 5.1-8), “...this alternative serves the purpose of isolating and *maximizing the effects* of less new parking. (emphasis added.)

B7a-26

Instead, the EIR should develop and evaluate an alternative using a lower Headcount coupled with No Parking, which would have precisely *minimized* the effects of less new parking.

An alternative consisting of less new parking and strong trip reduction measures, such as Alternative L-1, should establish the amount of new parking from the results of aggressive trip reduction programs, involving substantial capital investments, use of parking pricing, parking management and other Transportation Demand Management policies and practices. Such an

B7a-27

Alternative should also consider the development of satellite parking facilities, sited within a 10-20 minute transit ride from campus. This ‘Satellite Parking Zone’ should be modeled on the Housing Zone presented in the DEIR. B7a-27

The City would like to see the University provide a reasonable estimate of improved mode split percentages that might be achieved over time with the improvement of University trip reduction programs and coordination with City programs. Such a realistic Alternative would be more in line with the transportation policies in the City’s General Plan policies as well as those for the University than either the proposed project or the alternatives listed. B7a-28

The Air Quality discussion of Alternative L-2 (page 5.1-9, paragraph 1-2) is also entirely inadequate because it does not contain any data or analysis regarding the reduction in vehicle emissions. The vehicle emission reductions under this alternative must be presented for the EIR to be complete. B7a-29

This discussion also fails to provide any useful analysis of the reduction in stationary source emissions. Notably absent is any discussion or calculation of the significant reduction in construction emissions from **not** building 2,300 parking spaces. B7a-30

The EIR further avoids a meaningful analysis by stating that the stationary source emissions “would remain unaccounted for in projections informing the Clean Air Plan.” The EIR should provide a table regarding the sources and percentage contribution of emissions in the 2020 LRDP, clearly divided between stationary and vehicular. B7a-31

It appears that an actual air quality analysis was not conducted for Alternative L-2. It is not clear if the Eco Pass concept mentioned in the introduction on page 5.1-7 has been modeled in the trip reduction calculations. If so, the EIR should state the degree of increased transit ridership assumed under this Alternative Air Quality analysis. The EIR should also present its assumptions of trips reduced due to parking shortages, as well as the increases in search traffic, and should show these results on LOS. B7a-32

In the evaluation of Alternative L-2 (page 5.1-11), the EIR fails to provide any traffic analysis of this alternative. Because no traffic analysis offered in this section, there can be no informed discussion of how access to campus is affected under this Alternative. Therefore, the EIR’s dismissal of the alternative is fundamentally unsupported. B7a-33

**PARKING ISSUES**

The City has a number of concerns about the LRDP DEIR’s discussion of commuter parking supply and demand. A key concern is that the LRDP’s proposed parking expansion to a maximum of 2,300 new spaces is poorly defined and justified. The EIR should clarify, in a single, clear table and accompanying textual explanation, its parking demand assumptions – and these should be consistently applied throughout the LRDP. In fact, the EIR provides several different explanations for its derivation of parking demand. The parking expansion program continues to be fundamentally misconceived, which the City has previously stated on Page 10 of our October 9, B7a-35

B7a-36

2003 Response to the NOP. There is no discussion of parking pricing, shared parking, or other parking management principles contained in the City/University TDM Study, such as real-time way finding signage.

B7a-36

Furthermore, the University is basing the need for additional parking solely on the basis of new students and staff/faculty. The analysis properly should examine the need based on existing conditions. In other words, the analysis should be based on campus-wide parking supply and demand and should consider that some of the approved 790 parking spaces that are being built as part of the 1990-2005 LRDP could satisfy some of the parking demand for growth in the proposed LRDP.

B7a-37

Despite the objections that follow, the last paragraph on 3.1-28 states that the University would adjust the parking supply objective to reflect further reductions in drive-alone rates through demand reduction initiatives and through construction of new student housing. Although a welcome statement, the City considers it to be a meaningless commitment unless there is an explicit policy framework and procedure to regularly adjust the parking supply based on the positive results of such initiatives.

B7a-38

#### Parking Supply and Demand

The EIR must include further information on the Parking Impact Analysis. On page 4.12-4, the EIR cites “past studies by the University and additional analysis.” Documentation for the statement that the “impacts of unserved parking demand on non-UC parking facilities...were identified” should be provided. These impacts are not identified in this Draft EIR – and must be.

B7a-39

The EIR should also present a more complete discussion and definition of parking demand, including key findings and excerpts from the “1999 study of campus parking” mentioned briefly on page 5.1-11 of the EIR. This should be presented in Section 3 of the EIR.

B7a-40

The projected demand figure, as explained further on page 4.12-18 in the last paragraph, is based on a suburban campus with access to parking at current prices. This is not a suburban campus – in fact, it is probably the most transit and bike/walk accessible in the UC system. Additionally, price sensitivity is a critical issue. What are historical parking costs for UC parking? What is the expected elasticity of demand at different prices? Several scenarios of future price increases (historical/aggressive/reduced cost) should be modeled and parking demand should be reported for each.

B7a-41

B7a-42

The EIR should explain the extent to which the 1,000 parking spaces proposed in the 1990-2005 LRDP have been provided. Based on the statement in Section 3 that 300 parking spaces were displaced by construction since 1990 and 790 parking spaces (690+100) have been approved for construction, then there would be 510 net other spaces. How many of these were built? If not built, it is possible that the actual headcount of students and staff/faculty did not warrant their construction? Is it the intent of the University to build these in addition to the 2,300 net new spaces contained in the proposed LRDP? Likewise, the need for the new 790 spaces should be justified even though they have been approved. It is possible that some of the justification for all

B7a-43

B7a-44

of these spaces no longer exists or that permanent changes in travel behavior have occurred since 1990. In any case, parking expansion should not be 'banked' or carried forward from subsequent LRDPs without comment.

B7a-44

The EIR should explain the status of the 1,000 spaces. As mentioned above, the EIR must clarify if none of the 790 Approved Spaces are considered a contribution towards the parking space requirements for the new demand that will be created in the proposed LRDP.

B7a-45

The EIR provides a distribution of the Maximum Net Additional Parking Spaces without adequate explanation. The note for Table 3.1-3 (page 3.1-22) is unclear and requires further explanation. This table assigns a maximum Net Additional Parking Spaces of 600 to the Campus Park, 1,300 to the West Adjacent Blocks, and 600 to the South Adjacent Block. The note attempts to explain that although these maximums total 2,500 spaces, this is only in order to provide flexibility in siting individual projects, and that the actual total is 2,300. The text and tables should provide a clearer explanation of this math; the table and all relevant text should properly list the parking supply expansion as a range (ie. 400-600 in the Campus Park, 1100-1300 in the West Adjacent Blocks, 400-600 in the South Adjacent Blocks.)

B7a-46

The mathematics is also unclear defining the total number of parking spaces as they relate to the headcount growth. The EIR should clarify the parking requirements in a table or by adding parking space assignments to Table 3.1-1.

B7a-47

The parking formulas do not seem to comment directly on the need for parking expansion for Visitor & Vendors. These should be expressly included in the parking supply formulas, and should reflect the presumably high turnover rates of this user category.

B7a-48

The City also has further difficulty with the LRDP math regarding parking demand: Even though the 2001 Survey reports a 51% faculty and staff and 11% of the students drive alone, the parking supply is not directly related to these figures, nor should it be. Surveys do not reflect two important characteristics of travel to the University, as follows: (1) a significant number of vehicles commuting to the campus do not stay the entire day, and it can be assumed that not all of their parking durations overlap, and (2) in many cases, both students and faculty do not travel to the campus every day. Given these considerations, the actual parking space demand per student and per staff/faculty is less than the survey would suggest.

B7a-49

The discrepancy between existing daily parking demand and what the University has assumed for its estimate of new demand can be clearly demonstrated, as presented in Table 3 below. Current campus workers total 12,940 (Table 3.1-1 in EIR). The 1:2 parking ratio being used to plan parking supply expansion would require 6,470 parking spaces. The 31,800 students would require 3,180 spaces at the 1:10 ratio. Even without consideration of the 1,200 Visitor and Vendors, the employee and student parking ratios would require 9,650 spaces, which is an enormous 2,750 more than actual current 2004 real life conditions, and even 1,960 spaces less than the assumed baseline condition of Actual + Approved.

B7a-50

Clearly, the 31,800 students and 12,940 workers are currently using parking spaces at a different ratio than the 1:2 or 1:10 that the travel survey data being used in the EIR would suggest. Using survey data instead of actual conditions to base its future parking demand formulas is an inappropriately coarse technique that misses the important efficiencies of parking space turnover, flexible schedules, vehicle occupancies, and other de facto sharing of parking spaces.

B7a-50

Furthermore, using the travel survey data as the basis for a parking demand project implies an acceptance of current conditions of the campus – and should mean that the expansion population would be presented with the same parking conditions as exists today. However, the EIR has clearly used drive-alone percentages that are not reflective of existing conditions.

B7a-51

Table 3 presents estimates of what the actual student and staff/faculty ratios based on actual parking supply. A ratio of 0.05 has been selected for students, and the staff/faculty ratio has been computed based on available parking spaces. Based on this methodology, workers are really utilizing parking at 41% per person instead of the 50% (1:2) proposed in the EIR. Students are really utilizing parking at perhaps .05 rather than the .1 (1:10) proposed in the EIR. Even allowing for the addition of 790 new Approved Parking spaces, the figures are 47% and 5%.

**Table 3. Comparison of Parking Demand based on Various Parking Ratios**

Category	Headcount	Parking Demand based on EIR Rates		Actual Parking Supply		Actual + Approved Parking Supply	
		Spaces	Parking Space/person	Spaces	Parking Space/person	Spaces	Parking Space/Person
Current campus workers	12,940	6,470	0.50	5,310	0.41	6,100	0.47
Current students	31,800	3,180	0.10	1,590	0.05	1,590	0.05
Visitors/Vendors	1,200	0?		0?			
Total Parking Spaces		9,650		6,900		7,690	

Using these figures to calculate new parking demand would yield quite different results. The new students would require 83 parking spaces instead of 165; the new workers would require 1,177 parking spaces instead of 1,435. Together, the headcount growth would require 1,259 parking spaces instead of 1,600, or 341 fewer parking spaces. This is significant to the Project's justification of parking expansion.



**Table 4. Comparison of Assumed and More Realistic Future Parking Demand**

			<b>New Parking Demand, using EIR factors of 10% &amp; 50%</b>	<b>New Parking Demand, using Existing Condition factors of 5% and 41%</b>
<b>Students</b>	<b>Current</b>	<b>Net Addl</b>		
Regular Term	31,800	1,650	<b>165</b>	<b>83</b>
Summer	11,400	5,700		
<b>Employees</b>				
Faculty	1,760	220	110	
Academic Staff & Visitors	3,040	1,840	920	
Non-academic staff	8,140	810	405	
	<b>12,940</b>	<b>2,870</b>	<b>1,435</b>	<b>1,177</b>
<b>Total Spaces</b>			<b>1,600</b>	<b>1,259</b>
Other Visitors & Vendors	1,200	<b>800</b>	?	?

**B7a-51**

On page F.1-18 of Technical Appendix F, the LRDP population increase is estimated to generate 1,745 new vehicle commute round trips to the Campus area. Thus, the figure of 2,300 parking spaces includes an explicit surplus of 555 spaces. This figure is in addition to the City’s conclusion that the demand estimate itself is too high.

**B7a-52**

It is also explicitly stated that the purpose of this parking is to attract existing University-related vehicle trips that currently park on-street or at non-University operated parking facilities. Thus, the University is trying to meet existing parking demand, unmet by University parking supply.

**B7a-53**

The EIR presumes a Downtown parking deficit of 600 spaces under an “Existing + Approved Developments” scenario. Thus, UC Berkeley is proposing to utilize its facilities to help meet an estimated shortage of regular downtown parking. Utilizing University funding to meet regular City parking demand without involvement of the City is an unprecedented proposal, and the City strongly objects to it.

Yet another definition of parking demand is given on page 5.1-11. The EIR states clearly that “UC Berkeley presently estimates a deficit of at least 1,300 parking spaces.” It states that this figure is consistent with the findings of the 1990-2005 LRDP and then cites a 1999 Campus Study, which “recommends the construction of 1,300 net new parking spaces to address current needs.”

**B7a-54**

In the Parking Impacts section on page 4.12-55, the EIR presents another set of parking supply numbers, which need to be placed in context more clearly with the other parking supply figures given. This paragraph states that “planned future commuter parking supply” would rise from 6,424 to 8,724 with the 2020 LRDP.

However, previous figures and text have stated that the planned future parking supply (Actual + Approved) is 7,690, and no breakdown of commuter parking was provided. A comparison of these figures would seem to imply that of the 7,690 spaces, 6,424 (84%) would be for commuters. Is this true?

B7a-54

This also seems to imply that of the proposed 9,990 total parking spaces proposed in the 2020 LRDP, 8,724 spaces (87%) would be for commuters. Is this true?

This paragraph further states that the parking demand generated by the needs of future growth in campus headcount is 1,745. An additional 555 spaces are proposed to reduce an existing parking deficit – that parking demand that is *thought* to be filled by non-University parking facilities and on-street parking. (There is no evidence offered to support the 555-space figure.)

The section also states that existing unmet demand for University parking is estimated at over 3,500 spaces. (page 4.12-55) However, on Page 5.1-11, the EIR states that “UC Berkeley presently estimates a deficit of at least 1,300 parking spaces.”

As mentioned previously, on page 4.12-8, sixth paragraph, the calculated parking demand is based on a suburban environment in which all users have access to adequate and strategically located parking spaces at current prices. While this calculation is clearly included in the EIR only for comparison purposes, this “latent demand” method is at best useless, and at worst misleading.

B7a-55

Use of a suburban model overstates the demand for parking in several ways. Obviously, UC Berkeley is not a suburban campus. In suburban setting, a campus commuter would face different traffic conditions. Latent demand calculations fail to include any discussion of impacts of traffic congestion on parking demand, yet worsened traffic conditions are a likely result, due to traffic associated with a larger and more concentrated parking supply. In a feedback loop, the reduced convenience and travel time should impact parking demand and travel mode choice.

In addition to traffic congestion, the hypothetical suburban campus employee or student would not only consider the cost and availability of parking, but also the likely conditions of other travel modes. In a suburban setting, there would be a likely assumption of poor transit service, inadequate bicycle and pedestrian infrastructure, and housing separated from other land uses by considerable distances. All of these suburban conditions would increase the demand for parking.

However, in the real world, UC Berkeley is probably the most transit and bike/walk accessible campus in the UC system. Real UC travelers factor the bicycle infrastructure, BART, AC Transit, and sidewalk network, as well as considering parking supply and price and likely driving time and convenience in their travel decision.

The demand for parking at UC Berkeley is not easily compared to a hypothetical suburban campus, and so latent demand calculations should be discarded from this EIR.

The DEIR states in Technical Appendix F that the excess parking is approximately the same as the downtown parking shortage, which implies that the University intends to provide public parking in

B7a-56

competition with existing private and City-owned facilities throughout the day. The City rejects the notion that the University should consider building facilities that it cannot justify to meet its own day-to-day demand. Even if such facilities were determined to be desirable, their planning should be done in close cooperation with the City so that trip reduction strategies are not compromised. The City takes seriously its role of achieving an effective balance between downtown parking demand and supply so that downtown businesses can thrive while at the same time trip reduction strategies can be promoted.

B7a-56

On page 4.12-41, the EIR states that the proposed construction of up to 2,600 net new bed spaces is expected to *have a significant impact on parking demand* by enabling students to live close enough to campus...(emphasis added). The logical conclusion is that the parking demand for the LRDP growth should be lower than current conditions, but this is not reflected in the parking demand estimates.

B7a-57

#### New Parking Facility Location

The EIR should clearly define the boundaries of the Adjacent Blocks in the text of the document, and not just in the Figures. From the Figures, the West Adjacent Blocks area appears to consist of the area east of Shattuck and west of Oxford, between Durant and Virginia. According the Figure 3.1-5, the Adjacent Blocks South area appears to consist of the land between Bancroft and Durant, west of Ellsworth and south of Stadium.

B7a-58

Given the University's ownership of several parcels in this area, the EIR should comment on the expected locations of major new parking facilities. For example, are the new parking facilities presumed to be placed on lands currently owned by the University, or through acquisition of new parcels?

B7a-59

The EIR states that a maximum of 600 spaces will be added to the South Adjacent Blocks. The EIR should explain clearly that this new supply would be in addition to the 690-space Underhill Facility.

B7a-60

On page 3.1-46, the DEIR states, "In General, campus parking...should be consolidated in structures at the perimeter or outside of the Campus Park, accessed directly from city streets." This policy would result in the placement of the 600 spaces (max.) allocated to the Campus Park on the periphery of campus, which would put it very nearby a large portion of the other 1,900 UC parking spaces that are proposed. For instance, if some or all 600 Campus spaces were to be placed on the western periphery of the Campus Park, the traffic impacts would interact in significant ways to the impacts of the proposed 1,300 new parking spaces in the West Adjacent Blocks, a.k.a. Downtown Berkeley.

B7a-61

In the City's view, it is unacceptable to condemn any edge of the Campus Park to a "parking ghetto." Consideration of traffic flow, urban vitality and public safety also suggest that at some high level of concentration, parking facilities would be to the detriment of traffic conditions and the urban fabric.

B7a-62

To avoid an unacceptable concentration of new parking facilities, the University should be required to develop a parking facility siting formula designed to ensure that the combination of Campus Park and Adjacent Block parking space density does not exceed some per acre factor.

B7a-62

Given the issue of parking density, the DEIR should have included satellite parking in the examination of Alternatives. The LRDP should use the Housing Zone transit travel times methodology to develop a Distant Parking Zone and evaluate it as an Alternative. Locating parking facilities in locations accessible to campus within 10-20 minutes by transit could be especially effective, especially given the Class Pass and proposed UC employee Bear Pass.

B7a-63

Defining the maximum net total of new parking

The note to Table 3.1-3 repeats “The University may not substantially exceed the NET total without amending the 2020 LRDP.” The EIR should state clearly what is implied by ‘substantially.’ Given the context of this table, it can be inferred that the University intends that “substantially exceeding the net total” is defined as anything less than 200 spaces, but more than 2,300. This must be clarified in the EIR.

B7a-64

Parking Spaces and Trip Generation

On page 4.12-4, the EIR states, “Vehicle trips were assigned to each cluster proportional to the proposed number of parking spaces.” The City’s feels that the trips should be reduced to reflect the fact that actual parking demand ratios are lower than those derived from the survey.

B7a-65

It is important to note that de facto shared parking is already in place through UC Parking & Transportation’s policy of selling parking permits in numbers above existing parking spaces. This policy should be explicit and understood not as undersupply, but as effective distribution. Some UC students and employees already design their work schedules to avoid peak periods, and so are able to share parking with those who leave campus midday, freeing a parking space. This complex ‘sharing’ could be supported with improved real-time space availability information. (The University’s participation in a real-time parking information is discussed further in the Mitigation section of this document.)

B7a-66

In F.1-16, the parking space/trip generation rate recognizes that each parking space generates about 0.40 inbounds AM peak hour trips and 0.35 outbound trips during the PM peak hour. Peak hour analysis makes sense for traffic analysis, but it doesn’t for parking supply and demand evaluations.

B7a-67

This trip generation finding means that 2,300 new parking spaces would generate 918 AM peak hour trips and 816 outbound PM peak hour trips. This is based on current parking driveway and parking facility occupancy counts. For the premise to hold until 2020, the EIR should state that the University will take steps to ensure that the current ratio of peak hour employee or student schedules remains constant through 2020, in order to ensure the .4 and .35 peak hour trip generation per parking space.

The University should develop specific employee and student scheduling policies and procedures to maintain these peak hour trip generation rates by encouraging off peak commutes to campus. This is discussed further in the proposed mitigations section of this document.

B7a-67

#### Parking Pricing

On the last paragraph of page 4.12-41, the EIR states that cost is a less important factor than convenience and travel time as factors in mode choice. Not all costs are perceived the same way – and therefore can result in a variety of behaviors. Fixed costs affect travel behavior differently than variable costs, for instance. The price of parking is known to have a strong impact on travel behavior, more so than gas prices or the price of transit. The EIR should comment on the price elasticities of parking vis a vis transit ridership.

B7a-68

This EIR does not include any discussion of the price of parking. Driving + Parking costs in comparison with the costs of other modes is a critical issue in establishing demand. The latent demand analysis does not provide any analysis of the sensitivity of price.

The EIR should evaluate the price sensitivity of parking and its effects on travel behavior. What is the demand if parking prices were 10% higher? 30% higher? The EIR should at least comment on the expected elasticity of demand at different parking prices – and how price could be used to manage demand in the LRDP. Ideally, several scenarios of future price increases (historical/aggressive/reduced cost) would be modeled and parking demand reported for each.

#### Parking Management

On page 4.12-18, fourth paragraph, the EIR states that UC parking facilities are at or near capacity during most of the day. This may be true, but the supporting statement is not directly relevant. The fact that the chosen policy of UC Parking & Transportation to ‘oversell’ parking permits at ratios of 1.2:1 for employees (1.2 permits sold for every 1 parking space available) and 2.6:1 for students would seem to show that parking supplies are serving a larger number of people than UC recognizes in this EIR. If the “license to search” UC parking permit was an unacceptable user experience, where no parking could be found on a significant number of occasions, then UC would presumably not be able to set 1.2 or 2.6 ratios. As the EIR states, a permit does not guarantee a space. However, the parking permit ‘product’ apparently satisfies users enough of the time, since the demand for permits remains extremely high even though parking spaces aren’t guaranteed.

B7a-69

Customer grumbling is not the same thing as a real parking shortage problem. Certainly, short term parking shortages and other frustrations exist, but many issues perceived as parking shortages can, in fact, often be resolved through improved signage or parking management practices.

Effective management of existing facilities can help reduce the need for additional parking. The City feels that the University should recognize the value of providing a parking management system that can direct vehicles to facilities that have available parking spaces. With a high demand for parking, vehicles often are required to search all floors in order to find the last available spaces. In some cases, vehicles search a facility only to find that it is completely full and then must travel to another facility. A parking wayfinding system with dynamic signing leading to and from garages can improve utilization of garages and minimize traffic impacts adjacent to garages.

B7a-70

On page 4.12-18, fifth paragraph, presents the issue of ‘practical capacity’ to explain why a condition of 94% of parking spaces filled is considered maximum capacity. Utilizing a signage information system that would direct drivers to the last, ‘hidden’ 170 parking spaces in the UC system, could expand the ‘practical capacity’ of University’s parking supply. While practical capacity will always be slightly below 100% due to circulation delays, UC could reduce its perceived shortage by more than 100 spaces, and probably for many times less money than the cost of constructing the equivalent new parking.

B7a-70

The EIR should offer a Parking Information Mitigation that commits the University to fair share cost participation in the Parking Information & Wayfinding Program currently under development with City, consultants, private sector parking facilities, and other stakeholders. UC should provide for the installation and management of a comprehensive parking information system and manage parking in collaboration with the City’s system. As per the University sponsored TDM study, parking management is less expensive than constructing additional parking. This proposed Mitigation is repeated in the Mitigation section below.

B7a-71

Finally, the City is concerned that two LRDP policies related to parking are in direct opposition to each other: “Increase the Supply of Parking to Accommodate Existing Unmet Demand and Future Campus Growth” and “Reduce Demand For Parking Through Incentives For Alternate Travel Modes”. Given the choice between these two policies, the LRDP DEIR clearly comes down hard on the side of increased parking. It assumes that existing drive-alone percentages of 50 percent for staff/faculty and 10 percent will continue unchanged into the future. However, providing more parking than required will negatively influence the drive-alone rates. The University’s lack of commitment to reducing these levels, especially the level for staff/faculty, does not represent an increased commitment to reducing the demand for parking. If the trip reduction strategies had been emphasized or even given equal weight, the need for parking spaces certainly would have been reduced below the number that is being proposed. It is clear that there are numerous developments on the horizon that will provide real opportunities in the future for increasing the use of alternative modes for travel to and from the University. They include permanent increases in the cost of gasoline, the BRT project on Telegraph, region-wide increases in the availability of carpool lanes, and increased congestion on freeways leading to and from Berkeley.

B7a-72

#### Additional Parking Issues

The parking supply and demand at the major non-University parking facilities presented in the third paragraph of page 4.12-22 and in Table 4.12-5 is out-of-date and does not reflect current conditions. Parking is not near capacity in these major facilities, probably due largely to the weak economy, and less so to the higher parking prices at City facilities.

B7a-73

The recorded 100% utilization of Sather Gate Garage is also suspect in Table 4.12-5.

Note A says that this figure is from the Downtown/Southside TDM Study. The EIR should cite the page number of the TDM study and source of the count. If accurate at the time the TDM Study was developed (2000), it’s certainly dated today since Sather Gate Garage has had significant capacity for at least the past two years. The EIR should use the City’s more recent data or may use Sather Gate Garage data from the Library Gardens DSEIR.

B7a-74

Similarly, Table 4.12-5 should use utilization data for Sather Gate Garage for Nights and Saturday Afternoon from either the City or the Library Gardens DSEIR. B7a-74

The observed lower parking utilization in the non-University facilities on typical weekend night and weekends is explained by the availability of University parking, and the non-enforcement of on-street time limits. These may be factors, but certainly the departure of the commuter vehicles from the area is the primary reason for the increased parking supply. B7a-75

### **Comments related to Transportation Demand Management and Trip Reduction**

The City has a number of concerns over the EIRs failure to thoughtfully consider possibilities for expansion and improvements to the University's trip reduction programs and policies. B7a-76

Attachment 1 to this document provides a useful summary of current UC Berkeley Trip Reduction programs. This attachment, or its approximation, should appear in the EIR. Although it contains some potential improvements over existing programs, it still falls short of what other universities have shown can be accomplished. An example is the small number of vanpools (5), and absence of an Eco Pass program for all staff and faculty. The City recognizes that improvements in trip reduction programs are likely to take place incrementally, but the LRDP should include measures to raise the bar for its "best practices" over the next 16 years.

The Continuing Best Practice AIR-1 (page 4.2-21) presents a difficult, if not impossible proposition – to provide only *the same or equivalent* transit programs, yet hope to *improve* the mode split and *reduce* the use of single occupant vehicles. It is not practical to maintain the status quo in program and expect better results, especially in light of an expanded parking supply being built to meet 'unmet demand.' The Campus New Directions Program consists of good programs that must be *expanded and enhanced* in order to improve the mode split and reduce trips as the University intends. B7a-77

In the last paragraph on page 4.12-41, the EIR promises "A broad array of incentive programs," but only suggests one new effort over the next 16 years. That suggestion: "To work with AC transit toward implementation of bus rapid transit" is overly general. More specific commitments should be offered.

The LRDP should also comment on other potential major capital investments in new transit systems. For example: B7a-78

- If 37% of people who live within five miles of campus drive alone now, could a campus shuttle system be expanded to bring more nearby UC-affiliates directly to campus?
- How can UC better improve connectivity to rail (Amtrak/Capital Corridor)?
- Could major UC investments in Transit Oriented Development near BART stations or major AC Transit lines increase transit mode share?

- What major investments could improve the performance of the Campus Shuttle? B7a-78

Table 4.12-6 and the Pedestrian Circulation section on page 4.12-25 include interesting excerpts from the City’s Bicycle and Pedestrian Safety Task Force Report, but their relevance to this EIR is not clear. The University should go further to analyze the incident locations and age groups involved in order to identify the University affiliates involved in the collisions. B7a-79

The University should offer a Best Practice to form a University Bicycle and Pedestrian Safety Task Force, possibly as a component of the proposed UC Bicycle Plan development. B7a-80

While the Class Pass statistics given in the second paragraph of page 4.12-30 are interesting, the EIR should provide estimated ridership increases and travel mode percentage shifts since the inception of the Class Pass. B7a-81

The EIR states on page 3.1-28 that the UC Berkeley has an exemplary record of promoting alternatives to the automobile “by California standards.” B7a-82

This claim incorrectly implies a direct causal relationship between UC’s work promoting alternatives and the travel behavior of its affiliates. While certainly a significant positive factor, it is critical to recognize the urban context and existing conditions - including a constrained parking supply, traffic congestion, high levels of transit service, and the City of Berkeley’s improved bicycle network

It also compares itself to municipalities and employers in Alameda County. While interesting, the EIR should properly compare UC Berkeley’s travel behavior to other universities, such as well-known exemplary University programs at the University of Washington, or the University of Colorado, Boulder to gauge just how exemplary UC Berkeley is. B7a-83

The EIR only presents one trend in its discussion of campus commuting (page 4.12-17 Commute Travel Modes): transit use among faculty/staff is said to have increased slightly between 1996 and 2001. The EIR should present other trend analyses. For instance, has Single Occupant Vehicle commuting also been decreasing? If so, shouldn’t the EIR presume continued decreases in solo commuting? B7a-84

Also, what are the expected mode shifts from the establishment of a transit pass for faculty and staff similar to the student Class Pass? What would the impact be of a Faculty/Staff transit pass on parking demand at various out-of-pocket price levels? B7a-85

This analysis should be in the evaluation of Alternative L-2, but it is not.

The EIR should comment specifically on trends in student travel. The only survey cited was conducted in 2000 – the EIR should discuss the impacts of the Class Pass on transit ridership, for instance. B7a-86



The EIR states "...UC Berkeley considers the potential of such programs [Eco Pass] to be modest..." (page 5.1-11.) The EIR should present a discussion of mode shift based on the UC Class Pass. The EIR should also discuss the different possible types of Eco Passes (employer provided vs. out-of-pocket, etc.) and the impacts of program design on mode shift potential.

B7a-86

The EIR should also examine and present Best Practices and results of other university Universal Transit Pass programs.

B7a-87

Finally, this alternative presents, however vaguely and dismissively, only the idea of an Eco Pass to reduce vehicle trips. The EIR should include a complete analysis of the current "exemplary" UC programs and project their possibility of expansion of these and other programs.

B7a-88

- Expansion of carpooling incentives, support and marketing
- Expansion of vanpool incentives, support and marketing
- Incentives for employee use of Bear Pass (Eco Pass) – prizes, employee commute club privileges
- Incentives for bicycle use
- Investment in transit infrastructure with AC Transit, BART, and others
- Increase in transit subsidy in New Directions pre-tax program to \$20/month. (This is the City of Berkeley's current employee subsidy.)
- Expansion of Bear Shuttle
- Provision of Car Sharing in UC housing

Alternatively, UC should offer a mitigation to reduce equivalent trips made by the non-UC population. UC could offset the parking shortage by supporting increased alternative travel by the general public. This could free up excess private and City parking for UC affiliates. UC Berkeley could return to funding a TRiP Commute Store and TDM Program Management Agency to serve the larger Berkeley community to offset its inability to further reduce trips.

B7a-89

The University could also pay the per-trip generated fee expected in the City's Transportation Services Fee currently under development.

B7a-90

The EIR states that UC Berkeley offers a comprehensive array of trip reduction services (page 4.12-42: Campus Policies and Programs). The Services may be comprehensive, that is, cover a variety of travel modes. However, comprehensive is not the same as optimal or 'state of the art.'

B7a-91

This section should comment in detail on the current status of the New Directions and other programs intended to reduce single-occupant automobile use.

For example, while it is positive that the University has a vanpool program, UC reports that there are just five vans in operation in 2004. Assuming 50 participants in the program, UC's vanpool participation rate is just 0.4% (50/12,490 current headcount). This rate seems like it could be significantly improved, with some reasonable attention and effort, over the next 16 years.

**Air Quality Issues**

In Table 4.2-6, the EIR should provide additional information on the calculation of Existing Student and Employee Vehicle Emissions. The EIR should indicate assumptions regarding daily trips and VMT in Technical Appendix or elsewhere.

B7a-92

**LRDP Impact AIR-5**

In the last sentence of paragraph 3 on page 4.2-26, it is not clear why the Air District's possible non-attainment of air quality standards is given as the reason that the significant emissions impacts are unavoidable. Shouldn't the fact that the area is already potentially a non-attainment area make responsible agencies all the more sensitive to air quality concerns, not less?

B7a-93

The EIR seems to take a position something like "It's already broken, so we don't have to fix it.", which is crude, but understandable. But in matters of air pollution, the position is more like "We're already almost choking on the smog, so we might as well keep polluting."

Regarding "the increasing number of parcel delivery trucks using alternative fuel" (page 4.2-27) and other emission reducing activities, the University should mitigate this impact by adopting specific purchasing policies to directly encourage or require the use of lower emission delivery and other service vehicles.

B7a-94

**Cumulative Impact AIR-1**

The second paragraph on page 4.2-31 seems to say that the responsibility for the 2020 LRDP's significant increase in pollutants will be 'regionalized' by the Air District's process of updating the Clean Air Plan: "The BAAQMD will refine existing control measures as well as add new control programs to minimize the emissions at the regional level..." Although there may well be efficiencies at managing some emissions regionally, on the face of it, it doesn't seem fair to make the region minimize emission that result from UC Berkeley. That is essentially exporting responsibility to UC's regional neighbors.

B7a-95

On page 4.2-33, the EIR assumes that, because CARB's rulings are expected to improve TAC emissions from diesel engines over time, the cumulative impact of the LRDP's share of TAC emission increase is less than significant. However, there is a large potential lag time before final adoption of these regulations and it is unlikely that they will be imposed as rapid mandatory vehicle replacement.

B7a-96

The University could better ensure that this impact is less than significant by adopting an accelerated vehicle retirement program and low emission procurement program, combined with an engine replacement and particulate filter. The BAAQMD and the State's Carl Moyer Program can provide additional technical information.

**Additional Comments**

**Housing Zone**

The development of a Housing Zone accessible by transit (Figure 3.1-5, page 3.1-26 and Policy 5 (p 3.1-27) should reduce the current rates of students driving alone to campus below 10%. The EIR

B7a-97

does not consider the travel behavior impacts of the Housing Zone, or the potential for significantly improved transit service via the AC Transit BRT serving campus.

B7a-97

The EIR should explain the methodology of the Housing Zone calculation. It should state the amount of walking time to Doe Library that was added to the transit trip time. The City is especially interested in knowing the walking time from downtown BART to Doe Library.

Also, the EIR should state how was the 20-minute figure for transit-access was selected. Does it include average waiting time at the beginning of a transit trip? The use of the unexplained 20-minute figure implies that a 20-minute travel time to Doe Library is necessary to successfully attract transit riders. The EIR should present average travel times of all UC commuters. Since the current mean travel time to work for Berkeley is 27.8 minutes according to the 2000 Census, the Housing Zone should be adjusted to reflect a travel time roughly equivalent to their solo driving colleagues.

B7a-98

Figure 3.1-5 shows the Housing Zone based on AC Transit routes as of July 2003. This figure should be redone in three ways:

B7a-99

- a) Include the proposed BRT alignment into the Housing Zone. With BRT, the Housing Zone would be expected to continue farther on Telegraph into Oakland;
- b) Redraft to reflect current AC Transit routes since the significant service deployment plan changes of December 2003 and any subsequent changes; and
- c) Expand the Housing Zone to include designation of suitable housing nodes near 'some BART stations,' as noted in the Figure notes. The EIR should clearly identify which BART stations would qualify as nodes within the Housing Zone definitions. The EIR should further evaluate and comment on housing development opportunities in each BART station, including review of relevant BART Station Area Plans, current or proposed Transit-Oriented Developments (TOD), as well an evaluation of existing or proposed programs to encourage development of University housing near these stations.

#### Model Issues

Does the Alameda County Countywide Travel Demand Model used for 2020 Without Project include any UC growth, either in employment or enrollment? If so, the traffic impact analysis would have to be adjusted to model a true Without Project condition.

B7a-100

The model land use zones paragraph on page 4.12-2 is a confusing and convoluted story. The difference between an 18-year LRDP period and a 20-year span are said to be negligible. However, is the traffic analysis only based on time-span? Is the use of 2025 instead of 2020 also negligible? That is, will cumulative regional traffic impacts in the period 2021-2025 change the analysis significantly?

B7a-101

After lengthy explanation, the traffic model used is entitled "a modified April 2003 model incorporating the HEG land use adjustments." Given the numerous adjustments, perhaps there

B7a-102

should be additional comment in the EIR on this model's performance and adequacy, perhaps by independent parties? In addition, the City and CMA should have this model for future sensitivity analyses as needed.

B7a-102

The first paragraph of page 4.12-3 contains a significant statement about the model used for the traffic impact analysis. The EIR states that the CMA's March 2004 updated model redistributed employment throughout the City of Berkeley, unlike in the model used in the LRDP DIER. Does this redistribution of employment projections change any traffic distribution?

B7a-103

The forecasted traffic volumes used for the EIR analysis are based on 2005-2025 growth, and the adjustment of the CMA model doesn't change net land use growth. But the forecasted traffic volumes in this EIR have not been readjusted based on employment distribution. The EIR should not assume that the forecasted traffic volumes are consistent with the latest updated CMA model. Rather, a sensitivity analysis should be conducted, to ensure such consistency, and this should be reported in the EIR.

B7a-104

The "Caltrans" section on page 4.12-6 contains a statement that requires further explanation: the 3<sup>rd</sup> bullet states, "the existing plus project case is not evaluated, because the project is a long-range plan which will take 15 or more years to build out" is confusing. It seems that the main point of the EIR is to evaluate the existing plus project case.

B7a-105

The EIR must state what Caltrans' response is to this failure to comply with its recommendation stated in its response to the LRDP EIR NOP.

## **DESCRIPTION OF IMPACTS AND MITIGATION MEASURES**

Each of the potential impact areas analyzed are discussed below:

TRA-1. Bicyclist Impacts. The Draft EIR has concluded that impacts are Less than Significant without Mitigation. The City is pleased with the University's intention, stated in TRA-1, to work with the City to provide "needed public improvements" that serve the bicycle mode of travel. However, it is wrong to assess bicyclist impacts solely on the basis of capacity. The emphasis needs to be on ensuring safe travel and improving the quality of bicycle travel. Data exist to justify the need for a program to reduce bicycle accidents.

B7a-106

The University's commitment, as stated in the Draft EIR, is limited to participation with the City in the development of a Bicyclist Plan. With the significant increase in bicyclists that will occur with implementation of the LRDP, the City feels that the impact should be considered significant and mitigated to less than significant with actions similar to that given for pedestrians in TRA-12, which would be to work with the City to implement plan elements as needed during the life of the 2020 LRDP on a fair share basis.

B7a-107

The EIR estimates increases in bicycle volumes of 8-10% (page 4.12-44). However, the EIR does not attempt to evaluate the actual impacts of these increases. Instead, it defers responsibility in two ways.

B7a-108

First, the EIR states that the “policies and planned improvements in the Berkeley Bicycle Plan are designed to accommodate existing and future growth in bicycle volumes, and the General Plan encourages bicycling...” “*Therefore, this increase in bicycling is foreseen in local plans, and is desirable.*” (Emphasis added.)

B7a-108

This implies that the Bicycle Plan and the General Plan’s awareness and support of future growth in bicycle volumes 1) explicitly recognized that 8-10% of future growth would come from UC, and 2) that the City is expected to pay all related infrastructure expenses, simply because it is *foreseen and desirable*. This is absurd. The University should pay a fair share of the expenses related to current and future bicycle access and safety-related expenses within a Bicycle Zone (defined as being within a 20 minute ride to Doe Library.)

The next sentence says, “bicycle volumes, while expected to increase, would not exceed the capacity of available bicycle facilities.” The EIR offers no support for this statement, yet finds the impacts of an 8-10% increase in bicycle volumes *insignificant*. As part of the UC’s proposed Bicycle Plan, the University should provide detailed bicycle traffic analysis -- which should also consider the combined impacts of increased automobile, transit (including BRT) and pedestrian traffic -- on the type, design and cost of bicycle facilities required. The City and University should jointly develop a capital spending plan and cost sharing mechanism to provide the necessary improvements.

B7a-109

The City feels it is inappropriate to base significance only on capacity. Even if capacity is not an issue, the City feels that significant impacts for bicyclists would occur because of an increase in unsafe conditions unless programs go beyond UC’s existing best practices. The City of Berkeley already has the highest bicycle injury rate in the State, and a significant increase in day-time population at UC inevitably will increase exposure to unsafe conditions and lead to even higher injury rates unless preventative actions are taken. In addition to physical improvements, increased enforcement and more resources for an injury prevention program are considered essential elements of a comprehensive safety program. If the University does not choose to implement its own injury prevention program, then it should contribute funding to the City’s existing program so that outreach to UC bicyclists can be improved.

TRA-2. Parking Impacts of Increased Student Housing. The Draft EIR has concluded that impacts are Less than Significant without Mitigation. The City accepts the conclusion that impacts of new student housing would be less than significant for commute parking to the University, but discussion of this impact completely ignores on-street parking, which is of high important to the existing residents in what the University is calling the Housing Zone. It is naïve in the extreme to assume that simply meeting the zoning requirements for off-street parking at residential developments will not increase the demand for on-street parking. If this were true in the area, there would be no on-street parking in the late evening. The addition of 2,600 new housing units definitely will create significant residential parking impacts. The University needs to work with the City to develop appropriate mitigations.

B7a-110

Currently, the City and the University have agreed that no Residential Parking Permits will be issued to students living in University-owned dormitories. It is unclear whether or not all of the housing proposed in the Housing Zone falls into this category. If not, is the University willing to agree that residents of all housing would not be eligible for Residential Parking Permits?

B7a-110

The EIR must state more explicitly how the “provisions of the 2020 LRDP and continuing best practices” would not increase residential parking demand. The area adjacent to the University already has virtually a zero vacancy rate during both the daytime and evenings. The EIR states in Section 4.12-44 that “generally, students living in housing built by the University are expected to have relatively few cars, since the housing would be built within a mile of Doe Library or within a block of a transit line...” The above generality is used to support LRDP Impact TRA-2 but, without supporting policy, it is too subject to change and maintaining current levels of vehicle ownership is unenforceable in its current form.

The LRDP EIR should include a mitigation whereby the University agrees to let the City place restrictions on the eligibility of residents of University-built housing to receive a City of Berkeley Residential Parking Permit. Either no RPPs would be issued, or they could be issued on a lottery basis in small quantities. This would serve to guarantee the expected LRDP Impact TRA-2.

TRA-3. Traffic Impacts of Construction. The Draft EIR has concluded that impacts are Significant but Less than Significant without Mitigation. The City appreciates the recent coordination that has occurred with City staff related to University construction projects. The City is hopeful that lessons learned on recent construction projects can be applied to all major construction projects in the future. Nevertheless, residents continue to be impacted by construction traffic. The phasing of projects does limit impacts at any given time but on the other hand extends the length of impacts. Construction impacts will continue to be a major concern of residents and, with an increase in projects west of campus, businesses.

B7a-111

TRA-4. Parking Impacts of Construction. The Draft EIR has concluded that impacts are Significant but Less than Significant without Mitigation. The City is comfortable with the efforts that the University has taken in recent projects that minimize construction impacts related to parking.

B7a-112

TRA-5. Transit Impacts. The Draft EIR has concluded that impacts are Less than Significant without Mitigation. The City agrees that impacts are likely to be less than significant; however, we are concerned that the resources may be unavailable to expand the Bear Shuttle system if and when it is warranted.

B7a-113

The section on BEAR Transit (page 4.12-48) states that actual shuttle trip growth will be monitored and “service frequency may need to be increased, along with route adjustments.” This is a welcome offer of monitoring-triggered mitigation.

However, the monitoring frequency and methodology should be described in the EIR. Additionally, the expansion of service frequency and adjustments of routes should be offered as a formal Mitigation in this EIR, instead of as a Continuing Best Practice.

B7a-113

The BEAR Shuttle could be more than a perimeter circulator shuttle – it could serve as a major trip reduction program if the service area was expanded to better serve the UC commute population that lives within a five-mile radius of Campus. The BEAR Shuttle could also serve as a critical link to satellite parking facilities, as proposed by the City in these comments.

B7a-114

The Transportation and Traffic analysis of Alternative L-3 (page 5.1-14) dismisses the importance of the shuttle service between RFS and the Campus Park because it currently charges a fare not covered by the Class Pass. Instead, the EIR should offer information about the costs of operation and the possibility of reducing the fare through UC funding or including it in the next Class Pass election.

B7a-115

TRA-6 and 7. Intersections with Significant Impact Adjacent to the Campus that can be Adequately Mitigated. Included in these two impacts are one signalized intersection and seven unsignalized intersections. The intersections and recommended mitigation measures are as followings:

- Cedar/Oxford: revise lane configurations at existing signal.
- Durant/Piedmont: new traffic signal to replace all-way stop.
- Derby/Warring: new traffic signal to replace all-way stop.
- Addison/Oxford: new traffic signal to replace two-way stop.
- Allston/Oxford: new traffic signal to replace two-way stop.
- Kittredge/Oxford: new traffic signal to replace two-way stop.
- Bancroft/Ellsworth: new traffic signal to replace side-street stop.
- Bancroft/Piedmont: new traffic signal and lane modifications to replace all-way stop.

Notably, five of the intersections are located on the University’s edge and a sixth (Durant/Piedmont) is only one block away. The remaining two intersections, Cedar/Oxford and Derby/Warring, are on routes that already include a high percentage of University-related traffic. Based on a cost of \$200,000 for a new signal and \$50,000 for lane modifications, the total cost of improvements for these two impacts is \$1.5 million. As the University not only is creating the impacts, but also contributes a high percentage to the baseline traffic, it should contribute a high percentage of the costs of these improvements.

B7a-116

The City is pleased that the University has agreed to participate in the funding of improvement measures at these intersections on a “fair share” basis. The City has some serious concerns regarding these two impacts, as follows:

- The City does not feel that all intersections with significant impacts have been identified, given the general details of construction locations and timing.

- Given that no specific locations have been provided either for facilities, the City feels that for transportation impacts each project should have a focused project-level analysis that examines traffic, pedestrian, and bicycle impacts and mitigation measures, as appropriate.
- The University should provide a better understanding of the University's understanding of what it means by "fair share." Given the considerable expense that will be required to provide adequate mitigation measures, it is important that both the City and the University be able to do long-range capital planning and not be constrained by the need for project-by-project negotiations of what "fair share" means. See the section later in the memo related to "fair share" commitments by the University.

B7a-116

TRA-8 and 10. Significant Traffic Impacts Considered to be Unavoidable.

Intersections (TRA-8) include University/6<sup>th</sup> Street and University Avenue/San Pablo Avenue. Route segments on the CMP system (TRA-10) include the following for a total of 6.23 miles:

- Ashby Avenue westbound, between Adeline Street and San Pablo Avenue (0.97 mi.)
- Ashby Avenue eastbound, between College Avenue and Domingo Street (0.50 mi.)
- University Avenue westbound, between MLK Jr. Way and I-80 (1.70 mi.)
- San Pablo Avenue northbound, between Gilman Street and Marin Avenue (0.47 mi.)
- Shattuck Avenue southbound, between Dwight Way and Adeline Street (0.32 mi.)
- Shattuck Avenue southbound, between Hearst Avenue and University Avenue (0.12 mi.)
- Dwight Way westbound, between MLK Jr. Way and Sixth Street (2.15 mi.)

The LRDP DEIR is quick to conclude that the significant impacts identified are unavoidable since no projects have been identified by the City in its General Plan to mitigate congestion. As a result, the University states that it has no financial obligation to address the congestion. The statement that "campus transportation programs and incentives would continue to reduce the number of auto commute trips" attempts to soften this conclusion, but is completely without merit since the University's existing travel behavior has already been considered in the traffic forecasts. The overall conclusion for these impacts is a serious misreading of the City's General Plan. Although the General Plan admits that some traffic impacts may be unavoidable, it attempts to address congestion through a "Transit First" policy and where that fails to address problems agrees to develop Deficiency Plans that will include an appropriate mix of capital, operating, and trip reduction programs.

B7a-117

At this time, it is difficult to assess the improvements that will be required to reduce the impacts to an acceptable level. As a preliminary estimate, it is assumed that the emphasis will be on improving signal operations, which would involve new equipment at intersections as well as Intelligent Transportation System (ITS) equipment along corridors. Based on an average cost of \$600,000 per mile, the total cost would be approximately \$3.8 million.

B7a-118

It is completely unacceptable for the University not to participate in the funding of programs and facilities that would mitigate significant traffic impacts that it creates on major gateways to the

B7a-119



City. These two impacts should be a wake-up call to the University that it needs to improve its trip reduction programs rather than assuming that continuation of existing behavior is adequate for the future.

B7a-119

TRA-9. Traffic Impacts of Housing Outside of City Limits. The University indicates it will perform traffic studies for projects located outside of the City Environs. The City appreciates the University's recognition of the need to conduct such studies. However, the City feels that project level traffic studies should be required not only of these projects, but also of all projects because of the imprecise nature of the traffic analysis that was performed for the LRDP.

B7a-120

TRA-11. Parking Impacts. The City is glad that the University recognizes that more parking spaces are being proposed in the LRDP than its own analysis suggests are necessary. However, as the previous discussion in this memo indicates, it finds its discussion of the need for these spaces is seriously flawed.

B7a-121

In addition to possible mitigation measures that would reduce the need for parking, the City would like two additional measures included, as follows:

- Parking Information and Wayfinding Program. University should develop a parking signage & information system that would direct drivers to the last, 'hidden' 170 parking spaces in the UC system. This action would expand the 'practical capacity' of University's existing parking supply.

B7a-122

The University should participate on a fair-share basis in the Parking Information & Wayfinding Program currently under development with City, consultants, private sector parking facilities, and other stakeholders. UC should provide for the installation and management of a comprehensive parking information system and manage parking in collaboration with the City's system. As per the University sponsored Downtown/Southside TDM study, parking management can be cost-effective by reducing the need for some additional parking by increasing utilization of facilities.

- Maintaining Peak Hour Trip Generation per Parking Space Ratios. As discussed in the earlier Parking discussion, the EIR's "peak hour trip generation per parking space" of 0.4 and 0.35 peak hour trips per parking space are very important assumptions if future peak hour traffic estimates are to be trusted. Therefore, it is critical that the University take steps throughout the LRDP period to maintain or improve current ratios of peak hour employee or student trips.

B7a-123

The University should develop specific employee and student scheduling policies and procedures to maintain these peak hour trip generation rates by encouraging off peak commutes to campus. The University should monitor trip generation rates through bi-annual capacity and driveway counts and take necessary steps to at least maintain current ratios.

**Proposed changes and additions to Other Transportation-Related Mitigation Measures**

LRDP Mitigation Measure AIR-4-b (page 4.2-25)

The first bullet should be edited to read “To the extent the equipment **and fuel** is available and cost effective, UC Berkeley shall require contractors to use alternatives to **conventional** diesel fuel (including B100 biodiesel), retrofit existing engines...”

B7a-124

This Mitigation is welcome, but the City would like to see a specific process for evaluating the cost effectiveness and practicability of these excellent goals. Would construction bids be favored based on the composition of their fleet? Their willingness to run their trucks on biodiesel? How much additional cost of biodiesel or particulate traps or contractual requirement thereof would be deemed cost effective and practicable?

The City of Berkeley is recognized as a national leader in the use of biodiesel in our heavy vehicle fleet. The Berkeley Unified School District is a partner in several alternative fuel programs for large vehicles. The City may be able to partner with the University and private construction contractors to create a nationally important model of low-emission construction through biodiesel and alternative fuel use.

Proposed Mitigation: Car Sharing

Car-sharing has been shown, in a Federally-funded study carried out by UC Berkeley’s Department of City and Regional Planning, to reduce vehicle ownership, miles traveled and pollution. In order to better ensure LRDP Impact TRA-2, the University should provide for the placement of car-sharing facilities in all University-built housing, and should provide further incentives for the use of car-sharing in lieu of owning a car (membership and price subsidies, marketing support).

B7a-125

**Fair Share Participation in the Implementation of Mitigation Measures**

The discussion below focuses on the key issue of “fair share” reimbursement, which is mentioned for each significant impact where a mitigating improvement has been identified.

B7a-126

The University, to its credit, has agreed to pay its “fair share” of traffic improvements where mitigations can be identified to reduce impacts to less than significant. Included is the monitoring of traffic congestion at intersections where significant impacts are forecast to occur. However, the LRDP DEIR has carefully avoided a discussion of what is meant by “fair share.” One can only assume that the University’s intent is to negotiate its meaning for each individual project, which could make the University’s commitment almost meaningless, as there is no guarantee that adequate funds would be provided to pay for the required improvements.

The University likely would refer to the DEIR for the revised University Village project, where “fair share” was defined as follows: “a contribution to the roadway or intersection improvement

similar to those described in Government Code Sections 54999 et seq. for contributions to utilities. In addition, where a fair-share payment is agreed upon, the University will pay its fair share only if the applicable jurisdiction has established and implemented a mechanism for collecting funds from any other developers and entities contributing to traffic impacts, and the jurisdiction builds the relevant roadway or intersection improvement.” Basically, what this means is that the University’s contribution has an upper limit of the cost of the project, that other entities contributing to traffic growth in the area should be treated similarly, and that the contribution shall go towards a specific project that is implemented. These are all reasonable assumptions and have been met by the City in the past and will continue to be.

B7a-126

Although it has not established any specific procedures for the funding of transportation improvements by private and public developers, the City has established numerous precedents with public and private developers to ensure that impacts identified in a traffic study are mitigated in a fair and equitable manner. To cite some recent examples, the City obtained funds from Target, which is building a new store on the Eastshore Highway frontage road, to help fund improvements at the Gilman interchange; it has successfully negotiated cost-sharing arrangements with the University at several intersections adjacent to the campus, and Vista College has agreed to provide a significant transportation mitigation fee in lieu of providing parking at its new downtown campus under construction.

B7a-127

Although the need likely will exist, the City would like to see basic guidelines provided in the DEIR for what constitutes “fair share” contributions. The City feels that the following concepts must be included:

B7a-128

- Capital projects for which the University would provide “fair share” contributions would include but not be limited to impacts listed in the DEIR and would be based on planning and monitoring studies jointly prepared by the University and the City. The imprecise nature of a 16-year plan where the exact location of facilities has not been fixed is unlikely to identify all impacts, and even where impacts do occur as forecast the appropriate mitigation measures might be different than those selected. In some cases, lesser improvements might be adequate.
- The “fair share” should consider not only the increase in traffic related to the University LRDP but also the extent of University traffic in the baseline traffic. At locations within one block of the University, it should pay close to 100 percent of the costs. Given the extent of growth anticipated in the LRDP in the block immediately south and east of the University, this area will essentially become an extension of the campus from a transportation perspective. As the distance from the University increases, University traffic will represent a lower percentage of total traffic, and the “fair share” would be significantly lower. However, it would not be lower than the percentage increase forecast in the LRDP EIR.
- “Fair share” contributions should occur not only for capital improvements that provide mitigations but also for trip reduction programs that are necessary to mitigate impacts. What the City particularly has in mind is increased funding for trip reduction strategies that

B7a-129

B7a-130

would help mitigate traffic impacts at intersections and route segments that have been identified as being “unavoidable”. The funding could be directly by the University or in payments to the City for its programs.

B7a-130

Besides not defining what it means by “fair share,” the University has made several incorrect assumptions regarding its basic responsibilities for participating in the mitigation of significant impacts, as follows:

1. For signalized intersections and major travel corridors, the University has assumed that no mitigations for significant impacts are required if no specific improvement projects have been included in the City’s General Plan or Capital Improvement Plan. The only exception is at Cedar/Oxford where it suggests changes in lane geometry that can be achieved within the existing curb-to-curb distances. It is unrealistic to assume that all potential improvement projects at these locations have already been identified. The City fully intends to take appropriate measures to reduce congestion to acceptable levels but also realizes that it cannot build its way out of all congestion problems. In recent years, the emphasis has been on improving traffic management through the installation of Intelligent Transportation (ITS) equipment and services. Their planning and installation will continue as will the City’s efforts to reduce vehicle traffic through its “Transit First” policies. The University definitely should be expected to contribute its “fair share” to all necessary mitigation measures, whether or not they have all been identified at this time.
2. The LRDP DEIR assumes that intersection mitigations are primarily achieved through capital improvements, which contradicts the main thrust of the City’s General Plan transportation strategies. Where impacts are determined to be unavoidable, the possibility of adequately mitigating the impacts through trip reduction strategies or even a combination of capital improvement and trip reduction strategies is not addressed. Concerning the potential for trip reduction strategies to address the impacts, the following statement is made several times in the DEIR: “While campus transportation programs and incentives would continue to reduce the number of auto commute trips, this impact would remain *significant and unavoidable*.” In this statement, the University is asserting that its trip reduction policies will reduce traffic from what has been forecast. However, the LRDP assumes that the University’s trip reduction strategies will only continue the current travel behavior, and there are no indications that major changes will occur in incentives offered to faculty/staff/visitors/vendors, which comprise most of the growth. The City considers it unacceptable for the University to assume trip reductions beyond what can be justified in the DEIR. Admittedly, the University has relatively aggressive trip reduction strategies; but in essence, it is resting on its laurels. The City finds this overall strategy unfortunate and unacceptable.
3. For unsignalized intersections, the University has assumed that whenever the levels of significance are reached that the appropriate mitigation is a new traffic signal. The decision whether or not to install a signal depends on a variety of factors, including level of service analysis, traffic signal warrant analysis, potential impact on signal coordination and operations of adjacent intersections, and the cost of improvements. For unsignalized

B7a-131

B7a-132

B7a-133

intersections, the level of service analysis actually can be less important than for signalized intersections, as it is often based on the approach with the worst level of service; and this result can be independent of the traffic volume involved. For example, it is possible for an intersection to have LOS F, when the critical approach may only have five left turn vehicles. Through the suggested traffic monitoring programs, appropriate mitigation measures will be developed that might include lesser improvements.

B7a-133

It is suggested that mitigation measures for signalized and unsignalized intersections be specified as follows so that the conclusion could be reached that impacts are “significant but potentially avoidable:”

B7a-134

**Unsignalized Intersections:** “The University will participate on a fair share basis in funding appropriate capital improvements and trip reduction strategies that will improve operating conditions at the intersection, hopefully to an acceptable level of service. Capital improvements might include but are not necessarily limited to installation of a traffic signal, installation of improvements to pedestrian and bicycle movements, changes in lane designations to provide appropriate separation of left-turn, through, and right-turn movements. (Note: designations of exclusive right-turn lanes would not include free right turn channelization.) The University would also agree to fund improvements in trip reduction strategies that might include but are not necessarily limited to University funding of direct and indirect “Transit First” strategies, such as Eco passes, or agreement to participate on a “fair share” basis in the City’s transportation services fee, if and when it is approved by the City Council.”

**Signalized Intersections:** Where significant and unavoidable impacts have been identified, the City would like to see the wording changed to “significant and potentially avoidable” with the use of the following statement: “Although no specific capital improvements currently are identified, the University agrees to participate in reducing impacts to less than significant to the extent possible. Included would be participation on a “fair share” basis in capital improvements that are identified through traffic studies conducted by the City, including those included as part of a Deficiency Plan required by the Alameda County Congestion Management Plan and updates to the General Plan. Also, it agrees to increase its funding of trip reduction strategies, which would include but not necessarily be limited to Eco passes, or agreement to participate on a “fair share” basis in the City’s transportation services fee, if and when it is approved by the City Council.”

B7a-135

### **City Interface Policy 1**

The City Interface Policy 1 (page 3.1-46) is a welcome suggestion of partnership. However, the sentence that states that UC Berkeley and LBNL and the City should “jointly seeks funds” to improve the Campus Park Edge should be expanded. It should state that the agencies should “**allocate funds** and jointly seek outside funding for capital investments....”

B7a-136

### **MONITORING**

In the City's response to the LRDP EIR NOP, the City encouraged the University to adopt a monitoring program for transportation facilities similar to what was required for the Alta Bates Hospital development. In the LRDP EIR, the University has agreed to participate in a monitoring program for intersections that are found to have significant impacts. The City wants to make sure that there is agreement concerning what is meant by a monitoring program.

The City sees monitoring as having three major elements: (1) monitoring of traffic conditions adjacent to the University; (2) monitoring of travel behavior by students and staff/faculty to assess the success of trip reduction programs, and (3) area-wide monitoring to identify unacceptable levels of congestion on the City's gateway corridors.

The LRDP DEIR has focused on the first element, monitoring of traffic conditions adjacent to the University. The monitoring program should include all appropriate intersections located in the primary impact area where University facilities either already exist or are likely to be located. It is possible that significant impacts could be located at intersections that were not identified in the program-level EIR. Also, it is possible that some mitigation measures identified in the DEIR might not be required.

B7a-137

The monitoring of travel behavior would be based on a combination of surveys and data collected from trip reduction programs. The City is disappointed that the University has chosen to adopt existing travel behavior rather than establishing a goal of furthering reducing the level of drive-alone traffic. This element is important to assess the success of the University's trip reduction programs.

B7a-138

Nevertheless, the last paragraph on page 3.1-28 of the DIER states that the University would adjust the parking supply objective to reflect further reductions in drive-alone rates through demand reduction initiatives and through construction of new student housing.

This is a welcome offer of monitoring and flexibility, and the City would like further development of a policy framework and procedure to regularly adjust the parking demand based on the results of such monitoring of drive-alone rates.

The third element is area-wide monitoring of traffic conditions. The City accomplishes this element through on-going data collection programs and the traffic monitoring program conducted by the Alameda County Congestion Management Agency. The City would not ask the University to participate in this level of monitoring, but would expect it to participate in the funding of mitigation measures for congestion on road segments identified in TRA-10.

B7a-139

### **3. IMPROVED DOCUMENTATION OF ASSUMPTIONS, ANALYSIS PROCEDURES, AND RESULTS**

For the intersection analysis, the ability to provide a comprehensive review has been complicated by the absence of data in Table F.3-3. In the final EIR, it is requested that the following changes be made:

B7a-140

- Provide the percent increase in traffic so that the extent of impact can be assessed. This information was provided for the segment analysis but not for the intersection analysis. Omitting this information appears to have been done only because it would require an extra page. The City is particularly interested in identifying growth impacts that are close to the five percent threshold. B7a-140
- Provide information indicating the extent to which University traffic impacts conditions that are already at Level of Service F. For LOS F conditions, the only performance measure given is “>80 seconds” for signalized intersections and “>50 seconds” for unsignalized intersections. Without this information, it is difficult to assess the extent of impacts. For two-way stop intersections, it would be useful to provide the number of vehicles on the critical movement, as level of service for these facilities is independent of the traffic volume, e.g. LOS F could occur for five vehicles per hour. For other intersections, two suggestions are made, as follows: (1) for up to 120 seconds of delay, the actual number is given and “>120” is provided for higher delays, and (2) the volume-to-capacity ratio is provided, which unlike delay is a straight-line function. B7a-141
- The appendix containing the level of service calculation sheets should contain a map showing the location of zones where parking facilities are assumed. B7a-142
- TRAFFIX requires two pages per intersection to provide full documentation of the level of service results for the operational method, and both pages should be provided. Otherwise, the reviewer has no assurance that all assumptions remain unchanged from one scenario to another. For example, attempts to replicate the 2020 analyses at the 6<sup>th</sup>/University and San Pablo/University intersections with TRAFIX were unsuccessful. The only alternative would be to provide a list of all defaults and assumptions for data that is reported on the second page. B7a-143
- Correct typos or confusions in text and tables, as follows:

**Page F.1-24 second paragraph:** The text on the first line should read “Approximately 818 new transit trips would be generated...” instead of “Approximately 818 new transit tips would be generated...” B7a-144

**Table F.3-3.** Hearst/Gayley/La Loma (Intersection 18): “>” signs appear to be typo because LOS is at E. Also, change from LOS C for existing conditions to E for baseline conditions strongly suggests that University developments included in baseline have significant impacts, as discussed elsewhere in these comments. B7a-145

**Page F.1-9.** The text states that the proposed new parking facilities total 2,500 spaces, but that the 2020 LRDP will be limited to 2,300 spaces to provide flexibility in the location of facilities. The use of both of these numbers in Table 3.1-3 without a footnote creates confusion for the reviewer. Double asterisks should be provided for the individual land uses as was done for housing beds. B7a-146

**Page 4.12-30, paragraph 3.** The third sentence regarding the “September 2003 summary update on the Eco Pass” does not seem relevant to this EIR.

B7a-147

**Page 4.12-39, paragraph 5.** The San Pablo Avenue Rapid is really an enhanced bus service and should properly not be referred to as a Bus Rapid Transit (BRT) service. This is especially confusing given AC Transit’s actual Bus Rapid Transit project.

B7a-148

**Page 4.12-24, Table 4.12-5.** The recorded 100% utilization of Sather Gate Garage is suspect in this table. Note A says that this figure is from the Downtown/Southside TDM Study. The EIR should cite the page number of the TDM study and source of the count. If accurate at the time the TDM Study was developed (2000), it’s certainly dated today since Sather Gate has had significant capacity for at least the past two years. The EIR should use the City’s more recent data or may use Sather Gate data from the Library Gardens DSEIR.

Similarly, Table 4.12-5 should use utilization data for Sather Gate Garage for Nights and Saturday Afternoon from either the City or the Library Gardens DSEIR.

B7a-149



**Attachment 1:**  
**UC Berkeley Trip Reduction/TDM Activities, 2004**

B7a-150

*(City comment: derived from UC written and verbal reports to City Office of Transportation, May 2004)*

Student AC Transit Pass Program (Class Pass)

3.5 million student rides annually

Students voted to establish program 1998-2002, continue program 2002-2006

High-Value BART ticket

Students receive a \$2 discount. *(City comment: Is this UC's subsidy or BART's normal high value ticket discount?)*

1,300 students participate *(City comment: monthly? annually?)*

Employee AC Transit Pass Program (Bear Pass)

Under development, 2004.

Expected results is 1,300 employees participating and 250,000 rides annually

*(City comment: what is cost to employee for annual pass? How would a lower price affect ridership?)*

Employee Transit Subsidy and Pre-Tax Program

\$10 per month subsidy for employees participating in pre-tax program and for passes purchased at P & T

1,600 employees participate

Campus Shuttle – BEAR Transit

860,000 rides annually

Carpools

700 faculty and staff carpool *(City comment: is this number reported in Survey or derived from actual parking management data?)*

350 students carpool

Employee 2 person carpools get 75% price reduction for parking permit

Employee 3+ carpools get 100% price reduction for parking permit

Student carpools get 75% price reduction for parking permit

Vanpools

Free parking for registered vanpools

5 Employee vanpools *(City comment: very low number. Will program be enlarged?)*

P& T is planning improvements in 2004-5 *(City comment: what are new ridership projections?)*

Walking

53% of students commute by walking

8% employees commute by walking

## **11.2B.7A RESPONSE TO COMMENT LETTER B7A**

### **RESPONSE TO COMMENT B7A-1**

This summary serves as an introduction to more detailed comments, below.

### **RESPONSE TO COMMENT B7A-2**

This comment presents the writer’s view of the correct level of analysis for each of three levels of planning, and characterizes the University’s purpose in developing the 2020 LRDP. See Thematic Response 1 for an explanation of how the University views the role of the 2020 LRDP in project level review.

### **RESPONSE TO COMMENTS B7A-3 AND B7A-4**

The comment describes the traffic analysis methodology and significance standards in the Berkeley General Plan EIR. UC Berkeley acknowledges both the different performance measure used (roadway or “link” capacity in the General Plan EIR, versus intersection level of service in the Draft EIR), and the different thresholds of significance applied to traffic impacts. The University and its traffic consultant chose intersection LOS as the traffic performance measure for the Draft EIR because (1) it is considered a more sensitive measure of traffic congestion in an urban environment such as Berkeley, and (2) intersection analysis allows the development of specific mitigation measures to relieve congestion impacts identified in the analysis, whereas roadway capacity analysis allows only the determination that an entire corridor or corridor segment is “over capacity” or “under capacity”, and does not enable formulation of meaningful solutions. This is particularly true in a City such as Berkeley, where wholesale roadway widening is not a feasible option.

For an explanation of the reasoning for the difference in significance thresholds in the two EIRs, please see response B7a-5, below.

### **RESPONSE TO COMMENT B7A-5**

The Draft EIR does not state that it uses the Berkeley General Plan EIR LOS thresholds of significance. Rather, the Draft EIR traffic impact thresholds were developed with the intention of being as consistent as possible with the General Plan EIR thresholds, while accommodating the differing analysis methodologies used (intersection LOS analysis in the Draft EIR versus roadway capacity analysis in the Berkeley General Plan EIR).

Endnote 27 of chapter 4.12, which cites the “common standard ... [in] the General Plan EIR...” refers to the selection of a 5% volume contribution threshold for part of the significance criteria. The Draft EIR’s 5% volume contribution threshold is quantitatively consistent with the threshold used in the Berkeley General Plan EIR; the modification that the Draft EIR makes is to consider cases in which the intersection LOS changes from D or better to E or worse significant even if the increase is less than 5%; if the existing intersection LOS is already E or F, then the LRDP EIR considers the further reduction in service significant if the volume contribution is 5% or greater. The Berkeley General Plan EIR applies the 5% requirement to cases where roadway capacity goes from E or better (e.g. under-capacity) to F or worse (e.g. over-capacity). The modification responds to the fact that LOS D intersection operation is generally considered the lowest acceptable level of operation for intersections, both within the analysis method-

ology, and as applied by most jurisdictions; thus LOS D to LOS E represents the transition from acceptable to unacceptable operation.

With the roadway capacity-based analysis in the Berkeley General Plan EIR, the capacity of a roadway is defined as LOS E or better; thus LOS E to LOS F represents the transition from acceptable to unacceptable. In both EIRs, it is clear that the intention is to require the significance finding to be based on both (1) transition from acceptable to unacceptable operation and (2) a minimum project volume contribution, so that a single project trip would not cause a significance finding. In addition, the modification noted in the comment actually results in the identification of several impacts that would otherwise not be identified, and does not result in the omission of any impacts.

While UC Berkeley believes the rationale for applying the 5% minimum volume in the LOS E-to-F case is appropriate, a check of the LOS results was performed to see if any additional impacts would be identified using the writer's requested approach: namely, that a much lower threshold, 1%, be used along with the LOS E-to-F case. As an examination of Table F.3-3 (Draft EIR Volume 2, page F.3-12) shows, there are no cases where the addition of project traffic changes a LOS from E to F. To be sure, the 2020 LRDP creates several significant impacts where the LOS changes from D or better to E or F, as well as impacts where the LOS remains F and the 2020 LRDP traffic contributes 5% or more of the traffic. This demonstrates that the significance threshold is effective at capturing cases where the LOS changes from acceptable (LOS D or better) to unacceptable (LOS E or F).

#### **RESPONSE TO COMMENTS B7A-6 AND B7A-7**

The writer correctly characterizes the non-linear relationship of volume increase to delay increase. The Draft EIR traffic analysis applies methodologies from the Transportation Research Board's publication *Highway-Capacity Manual 2000* (HCM 2000) to evaluate intersection operations. As indicated on page 16-24 of HCM 2000, "Delay becomes sensitive to signal control parameters only at demand levels of about 80 percent of capacity. Once demand exceeds 80 percent of capacity, modest increase in demand can cause significant increases in delay." These increases result from the complex equations used to derive delay. According to HCM 2000, a one percent change in volume-to-capacity represents about an 11 percent change as delay approaches the calculated capacity and a 30 percent change when delay equals or exceeds capacity.

These analytical results do not represent field conditions at congested intersections. Traffic volume levels can vary by as much as 5 to 10 percent throughout the year, while driver perception of delay and level of service remain the same. Both the Berkeley General Plan and the Draft EIR acknowledge the differences between analytical methods and driver perception by identifying a threshold that drivers can distinguish between traffic changes; thus, the use of the 5 percent volume threshold.

#### **RESPONSE TO COMMENT B7A-8**

The comment presents the writer's opinion; UC Berkeley concurs that individual projects will require individual consideration and analysis. See Thematic Response 1 regarding tiered environmental review.

**RESPONSE TO COMMENT B7A-9**

The Draft EIR has identified mitigation measures to alleviate traffic congestion impacts where feasible measures exist, and UC Berkeley is eager to work with the City of Berkeley in the development and implementation of solutions for impact locations where feasible mitigation measures were not identified. The City's Transit First policies, which restrict roadway capacity expansion and support multi-modal solutions, are acknowledged in the Draft EIR at pages 4.12-6 to 4.12-8. The Berkeley General Plan EIR notes that these solutions may not reduce traffic congestion impacts to a less than significant level. The effects of these measures in mitigating traffic impacts therefore cannot currently be assumed and cannot be used as a rationale for identifying a potential impact as mitigated to a less than significant level.

**RESPONSE TO COMMENT B7A-10**

The writer's statement of the City of Berkeley's intent to monitor traffic congestion and develop solutions based on a mix of capital, operating, and trip reduction measures is noted. Since the City of Berkeley currently has no capital improvements planned for the impact locations identified in 2020 LRDP Impact TRA-8 and TRA-10, the Draft EIR found those impacts to be significant and unavoidable. However, UC Berkeley is eager to work with the City in the development and implementation of solutions, as described in responses B7a-119, B7a-133, B7a-134 and B7a-135.

**RESPONSE TO COMMENT B7A-11**

Please see response B7a-10 for an explanation of the significant and unavoidable findings. Other improvements, such as increased incentives for trip reduction, may help mitigate the traffic impacts of the 2020 LRDP, but the benefits of such alternatives cannot be quantified at this time: see Thematic Response 10 regarding transportation alternatives. The effects of these measures in mitigating traffic impacts therefore cannot currently be assumed and cannot be used as a rationale for identifying a potential impact as mitigated to a less than significant level.

**RESPONSE TO COMMENT B7A-12**

See Thematic Response 1 regarding tiered environmental review.

**RESPONSE TO COMMENT B7A-13**

See Thematic Response 1 regarding tiered environmental review.

**RESPONSE TO COMMENT B7A-14**

The University agrees there are always margins of error in any model-based traffic forecasting effort for local streets and intersections. However, the writer implies that the Draft EIR unnecessarily adds inaccuracy to the forecasts by "not providing detailed descriptions of the size or location of residential and parking facilities". Here, the University does not agree. These facilities were defined at the finest level possible, given the myriad future factors that will affect the ultimate selection of development sites. UC Berkeley will assess the need for project-level traffic and transportation evaluations when specific projects are proposed, as explained in Thematic Response 1. The assessment will consider the potential differences in traffic volumes in the Draft EIR analysis and those which could result from the project as proposed.

**RESPONSE TO COMMENT B7A-15**

The writer states “...it appears that the proposed LBNL 2004 LRDP has been included in the baseline scenario, based on the statement in the Draft EIR that the baseline plus project scenario “include(s) all development foreseen under the general plans of each of the jurisdictions as well as the LBNL 2004 LRDP and the 2020 LRDP in the cumulative impact LRDP area...” However, LBNL 2004 LRDP traffic volumes were not part of baseline conditions for the project-specific analysis in the Draft EIR. Rather, the LBNL 2004 LRDP traffic volumes were included in the *cumulative* analysis. See Section 4.2.10 of the Draft EIR. At page 4.12-59, the Draft EIR actually states “... these conditions already take account of **future** baseline conditions that include all development foreseen under the general plans (etc)...” (emphasis added). The University has performed the analysis as described in the City of Berkeley NOP comments, as the Draft EIR cumulative traffic projections do contain the LBNL traffic projections.

The writer appears to expect the LBNL traffic volumes to be shown as a separate project within the cumulative case, but the LBNL traffic is one component of many contributing to the future cumulative traffic volume. Specifically, the Draft EIR cumulative traffic volumes consist of forecast growth throughout the City and region, as projected by the Alameda Countywide Travel Demand Model; LBNL growth; and the University Village project. The LBNL traffic volumes and impacts will be analyzed in the LBNL LRDP EIR.

**RESPONSE TO COMMENT B7A-16**

The University respectfully disagrees with the writer’s opinion that the approach to cumulative volume accounting makes it impossible to assess the individual impacts of the 2020 LRDP. In fact, the 2020 LRDP traffic volumes are described in great detail in Appendix F.1. Intersection-specific traffic volumes with and without the 2020 LRDP may be found in Appendix F.5. In addition, the University has prepared table 11.2b-1, which summarizes the project volume contribution to each intersection.

**RESPONSE TO COMMENTS B7A-17 THRU B7A-19**

LBNL 2004 LRDP traffic volumes were not part of baseline conditions for the project-specific analysis in the Draft EIR. See response to comment B7a-5, which further clarifies the sensitivity of the LOS analysis completed for the 2020 LRDP, and B7a-15 regarding analysis of LBNL 2004 LRDP contributions in cumulative conditions.

UC Berkeley concurs that a higher baseline (for example one that includes the LBNL traffic) would make the 2020 LRDP contribution lower. A higher baseline may push an intersection into a different LOS range (e.g. E-F), in which the threshold of significance requires a higher project traffic contribution to be found significant; and a baseline which includes the LBNL LRDP traffic does not allow that traffic to be identified as a separate cumulative project contributing to an impact. However, the LBNL 2004 LRDP and University Village are separate projects undergoing separate CEQA review, not components of the 2020 LRDP: the LBNL 2004 LRDP and the University Village project cannot be considered contributing projects within the Draft EIR. They are separately responsible for analyzing and mitigating project impacts. Please see Thematic Response 6 regarding the relationship of the UC Berkeley 2020 LRDP to LBNL.

**RESPONSE TO COMMENT B7A-20**

The Draft EIR includes the LBNL 2004 LRDP and the University Village proposals in its cumulative analyses. The writer's contention that separate analyses with and without these projects are required is not supported by CEQA. See Thematic Response 6 regarding the relationship of the UC Berkeley 2020 LRDP to LBNL.

**RESPONSE TO COMMENT B7A-21**

The traffic analyses for all three EIRs have been coordinated to ensure traffic volumes from each of the three projects – the 2020 LRDP, the LBNL 2004 LRDP, and the University Village project – are included in the traffic projections prepared for the others. Even though LBNL is autonomous from UC Berkeley, staff and consultants worked closely to ensure consistency in some data.

**RESPONSE TO COMMENT B7A-22**

The Draft EIR, the University Village project, and the pending LBNL LRDP EIR use consistent technical data and assumptions for the future cumulative case. The Draft EIR does not call out University Village EIR impacts. While the University Village project generates less traffic than the 2020 LRDP, a higher proportion of project-related traffic is assigned to nearby intersections at University Village, resulting in project-specific effects uniquely examined in the University Village EIR.

**RESPONSE TO COMMENT B7A-23**

The writer's assertion that LBNL development generates impacts at the three intersections is noted. LBNL LRDP-related traffic will certainly contribute to traffic growth at these intersections, and the LBNL EIR will identify the impacts at these and other intersections within its study area. See also response B7a-140.

**RESPONSE TO COMMENT B7A-24**

The comment presents the writer's opinion. See Thematic Response 3 regarding the 2020 LRDP alternatives.

**RESPONSE TO COMMENT B7A-25**

See Thematic Response 3 regarding the 2020 LRDP alternatives.

The writer further states that new significant parking impacts would not occur “if transportation alternatives were able to transform travel behavior and reduce parking demand sufficiently.” The University concurs. However, neither the Berkeley General Plan, the Berkeley General Plan EIR, the 2020 LRDP, the Draft EIR, nor the joint City/University Transportation Demand Management Study indicate what feasible program of transportation alternatives might accomplish this vision. The TDM study presents a full menu of strategies for shifting drivers to alternative transportation. In its Chapter 8, the TDM study also indicates the anticipated effectiveness of each potential strategy. The more effective strategies, such as Transit 3.4, Improve Frequency and Reliability on Core Transit Routes, or Transit 3.5, Implement Transit Preferential Measures on City Streets, are either the more costly, or outside the authority of the University to unilaterally implement.

UC Berkeley is committed to improvement of its alternative transit programs. Given cost and authority constraints, however, improvements implemented by UC Berkeley

are unlikely to result in the scale of mode shift envisioned by the comment. Alternative L-2 appropriately presents the alternative of “no new parking and more transit incentives.”

**RESPONSE TO COMMENT B7A-26**

The writer suggests an alternative that combines lower enrollment and reduced employment growth with no construction of new parking, in order to minimize the effects of less new parking. However, the effects of less new parking are considered in Alternative L-1, which states “This alternative would therefore also include a lower number of new parking spaces, since the increment of new parking proposed in the 2020 LRDP is derived partly from the existing parking deficit and partly from projections of future demand based on growth in enrollment and employment”. Thus, without limiting growth, Alternative L-2 isolates the effects of less new parking, a controversial part of the 2020 LRDP program, for comparative analysis. See also response B7a-25, above.

Thematic Response 3 presents a comprehensive response to comments on the 2020 LRDP alternatives, including the writer’s assertion the alternatives are “straw men”.

**RESPONSE TO COMMENT B7A-27**

The writer requests consideration of satellite parking in alternative L-2, but does not explain what impacts satellite parking might address. A satellite parking program may displace traffic impacts to other locations, result in new land use impacts, and result in continuing congestion impacts as vehicles transfer people from a satellite site to campus. Further, satellite parking would not respond to convenience and travel time concerns of staff and faculty. The University’s experience with satellite parking in the 1980s was unsuccessful and unpopular as commuters found their travel time significantly increased. UC Berkeley is eager to meet with City staff and others to discuss options for parking provision, parking regulations, and UC Berkeley collaboration with the City in implementing solutions that would best address parking concerns.

**RESPONSE TO COMMENT B7A-28**

The joint City/University TDM Study analyzed the mode split required “to accommodate growth without building parking”. The writer is referred to the joint City/University TDM Study, pages ES-10 to ES-11.

**RESPONSE TO COMMENT B7A-29**

The writer requests additional data regarding vehicle emissions in analysis of alternative L-2. See Thematic Response 3 regarding the level of detail required in alternatives analyses.

**RESPONSE TO COMMENT B7A-30**

The writer requests additional data regarding stationary source emissions and reduced construction emissions in analysis of alternative L-2. The writer is referred to Table 5.1-4 at page 5.1-4 of the Draft EIR. Alternative L-1 considered emission reductions, including construction emission reductions, from reduced growth, yet emissions remained significant and unavoidable. With no parking construction, but program growth as anticipated in the 2020 LRDP, Alternative L-2 would have similar results. See also Response to Comment B7-99, B7-102, and B7-105 above, and Thematic Response 3 regarding the level of detail required in alternatives analyses.

**RESPONSE TO COMMENT B7A-31**

Table 4.2-9 of the Draft EIR presents emissions associated with vehicles and various categories of area and stationary sources, both for a year 2000 baseline and the 2020 LRDP increment, for each criteria air pollutant. These can be summed within each emission category for each pollutant to calculate total emissions under the 2020 LRDP. Percent contributions of each category to total 2020 LRDP emissions can also be calculated from this information.

**RESPONSE TO COMMENT B7A-32**

Qualitative, not quantitative, air quality analyses were completed for each alternative in chapter 5 of the Draft EIR. Thematic Response 3 presents a comprehensive response to comments on the 2020 LRDP alternatives.

**RESPONSE TO COMMENT B7A-33**

Transit ridership and trip reduction assumptions for alternative L-2 were determined qualitatively, not quantitatively. CEQA provides that the analysis of alternatives need not be presented to the same level of detail as the assessment of the project, and more cursory analyses are common; see, for example, the alternatives analyses in the City of Berkeley General Plan EIR. Further, the Bear Pass program is a pilot program, and it would be speculative to model trip reduction calculations at this time. Thematic Response 3 presents a comprehensive response to comments on the 2020 LRDP alternatives.

**RESPONSE TO COMMENT B7A-34**

See responses B7a-25, B7a-32 and B7a-33, as well as Thematic Response 3.

**RESPONSE TO COMMENT B7A-35**

See Thematic Response 9 regarding parking demand.

**RESPONSE TO COMMENT B7A-36**

The writer suggests additional measures to address parking demand. These and other measures remain part of the menu of demand management strategies available to the City and UC Berkeley to manage parking supply and demand. The effects of these strategies may help mitigate the traffic impacts of campus growth but such benefits cannot be quantified at this time. Accordingly, the effects of these measures in mitigating traffic impacts cannot be assumed and cannot be used as a rationale for identifying a potential impact as mitigated to a less than significant level. The effectiveness of UC Berkeley trip reduction measures will become evident in the mitigation monitoring process. See Thematic Response 2 on mitigation monitoring; see also Thematic Response 10 on trip reduction programs.

**RESPONSE TO COMMENT B7A-37**

See Thematic Response 9 regarding parking demand.

**RESPONSE TO COMMENT B7A-38**

Mitigation TRA-11 provides an ongoing review of the relationship of campus parking supply and demand, with the objective of avoiding a mode shift to drive-alone trips as a result of the increase in number of parking spaces.

**RESPONSE TO COMMENTS B7A-39 AND B7A-40**

See Thematic Response 9 regarding parking demand.



**RESPONSE TO COMMENT B7A-41**

The Draft EIR text references a suburban “environment” which is the standard condition used in projecting parking demand. Thematic Response 9 compares the parking program in the 2020 LRDP with several other urban research universities, suggested by commentors as having exemplary programs of incentives for alternate transportation modes.

**RESPONSE TO COMMENT B7A-42**

As noted in the joint City/University Southside/Downtown TDM Study,<sup>12</sup> UC Berkeley has significantly increased its parking fees since 1998, and in academic year 2004-2005, fees will increase 4.5%. The TDM Study also noted that there may be up to 5,000 cars spilling outside the downtown/southside TDM study area and parking in neighborhoods beyond the residential permit parking zone.<sup>13</sup> While parking permit fee increases may reduce the demand for permits, fee increases may not reduce parking demand.

The writer does not present any facts that indicate the requested analysis is warranted. The City of Berkeley does not regulate the cost of employer-provided parking for private or non-city agencies in the City. Similar to other employers, the University considers parking pricing in the context of other employee costs and compensation. Resource pricing is not within the scope of the 2020 LRDP and, given that pricing does not directly impact the environment, it is not within the scope of CEQA.

**RESPONSE TO COMMENTS B7A-43 THRU B7A-45**

See Thematic Response 9 for a discussion of parking demand and the rationale for added parking.

The parking space count at the end of 2001-2002 was 7,150 spaces (including 250 motorcycle spaces), or 300 spaces less than the 7,450 existing spaces cited in the 1990-2005 LRDP EIR for March, 1989.<sup>14</sup> Thus, none of the 1,000 spaces anticipated under the 1990 LRDP have been developed. As explained in Thematic Response 9, the estimated total demand for 9,990 spaces in 2020 as a result of the 2020 LRDP takes into account the 790 completed and CEQA reviewed spaces cited in table 3.1-2 of the 2020 LRDP.

**RESPONSE TO COMMENT B7A-46**

The intent of the figures in table 3.1-3 is clearly explicated in the text, but the writer notes correctly the paragraph above the table should refer to both parking and program space. In the Final EIR the text at page 3.1-22 has been revised to read:

In order to provide the campus some flexibility in locating new projects, the sums of the maxima for the individual land use zones are roughly 10% greater than the 2020 LRDP totals of 2,200,000 net new GSF of program space and 2,300 net new parking spaces. However, the total net new program space and parking within the scope of the LRDP may not substantially exceed 2,200,000 GSF or 2,300 spaces without amending the 2020 LRDP.

**RESPONSE TO COMMENTS B7A-47 THRU B7A-52**

In Table 3 of the comment letter, the writer presents an analysis that omits consideration of UC parking demand at non-UC parking lots and in residential neighborhoods.

See Thematic Response 9 regarding parking demand and the rationale for the 2020 LRDP parking program.

**RESPONSE TO COMMENT B7A-53**

The data on the downtown parking deficit identified in the Vista College FEIR is presented as contextual information to help the reader evaluate parking conditions in Berkeley. The purpose of the 2020 LRDP parking program is not, as the writer contends, to “... help meet an estimated shortage of regular downtown parking ...” but rather to help accommodate “... University-related vehicle trips that currently park on-street or at non-University facilities.”

**RESPONSE TO COMMENT B7A-54**

The number of commuter spaces is taken from table 4.12-3: the “total vehicle spaces” in the same table is consistent with the “actual 2001-2002” figure in table 3.1-2. While the exact number of commuter spaces in 2020 would reflect the actual need at the time, the writer’s general assumption that the vast majority of additional spaces beyond the 2001-2002 inventory (790 + 2,300) would be allocated to commuters is correct.

With respect to the relationship of the 1,300 space “current deficit” to the over 3,500 space “unmet demand”, the former figure refers to the difference between what the University presently provides and what it *should* provide to adequately meet its mission. The latter number should more correctly be termed “latent demand”, and should not be the overly approximate “over 3,500” but 4,300, as explained on page 4.12-18. This figure is similar to the 4,100 space latent demand cited in the City/University Southside/Downtown TDM Study. The Final EIR has been revised to make this correction.

**RESPONSE TO COMMENT B7A-55**

See Thematic Response 9. If the 2020 LRDP were truly based on the suburban campus model, as the writer contends, the parking program for the 2020 LRDP would be much, much larger. Rather, the information on latent demand, which is consistent with the City/University TDM Study, is presented merely as evidence the number of drivers is likely far greater than those accommodated in University parking facilities.

The 2020 LRDP program, however, as explained in Thematic Response 9, is based not on a suburban model, but on the real-world current behaviors of UC Berkeley students and workers, and on the objectives of the 2020 LRDP. As also shown in Thematic Response 9, the ratios of parking spaces to student headcount, even after full implementation of the 2020 LRDP, would be comparable to or lower than current ratios at several urban research universities with exemplary transit incentive programs.

**RESPONSE TO COMMENT B7A-56**

The writer is mistaken: the University does not intend to “compete” with existing City and private facilities, but rather to accommodate the demand it generates through its own mission.

**RESPONSE TO COMMENT B7A-57**

As the writer notes in comment B7a-138, below, section 3.1.9 states at page 3.1-28: “... to the extent we are able to reduce [drive-alone] ratios, through demand reduction initiatives and through construction of new student housing, the [parking] objective would be adjusted to reflect these changes.” Mitigation TRA-11 provides an ongoing

review of the relationship of campus parking supply and demand, with the objective of avoiding a mode shift to drive-alone trips as a result of the increase in number of parking spaces. Changes in demand due to the student housing program would be incorporated into this review.

**RESPONSE TO COMMENT B7A-58**

The boundaries of the Adjacent Blocks are defined in the text of section 3.1.2.

**RESPONSE TO COMMENT B7A-59**

The specific locations of future parking facilities are not yet known. However, as described in section 3.1.7, "... University-owned land will always be the first option explored for both program space and parking."

**RESPONSE TO COMMENT B7A-60**

The proposed Underhill facility is located in the Southside, not in the Adjacent Blocks.

**RESPONSE TO COMMENT B7A-61**

The traffic analysis includes consideration of the points raised by the writer.

**RESPONSE TO COMMENT B7A-62**

The writer's comments are noted. It is not the intent of the University to consign any area to a "parking ghetto". Apart from the fact the quality and vitality of City life are of the greatest importance to UC Berkeley, land on and around the campus is just too scarce and valuable to devote a large percentage of it to parking alone. Most of the new parking under the 2020 LRDP is anticipated to be constructed as part of larger, mixed-use projects on the same or adjacent sites. In this context, it is worth noting the proposed ratio of new parking to new program space in the 2020 LRDP reflects a ratio of roughly 1.05 spaces per thousand gsf, compared to the ratio of 1.5 spaces per thousand gsf required by City zoning for the downtown.<sup>15</sup>

**RESPONSE TO COMMENT B7A-63**

See response B7a-27, above, regarding consideration of satellite parking alternatives.

**RESPONSE TO COMMENT B7A-64**

See Thematic Response 5 regarding the use of qualifiers such as "substantially exceed". Further, as noted in Thematic Response 9, UC Berkeley may defer some portion of the 2020 LRDP parking program in recognition of AC Transit's BRT/Telegraph project.

**RESPONSE TO COMMENTS B7A-65 AND B7A-66**

The writer's opinion that the ratio of existing UC parking spaces to permits should be seen as "effective distribution" rather than "undersupply" is noted. To the extent this is a comment on the 2020 LRDP parking program, the University notes this program is intended to address the objectives of the 2020 LRDP and the principles of its underlying Academic Plan, as described in section 3.1.9. Also, a similar condition of "effective distribution" was in effect when the City implemented the Residential Permit Parking program in some City neighborhoods in 1989, indicating that the City is not itself insensitive to concerns of undersupply. The Berkeley Municipal Code findings related to the preferential parking program state in part: "Since there is in Berkeley at any one time a large surplus of motor vehicles over available on- and off-street parking spaces, this condition detracts from a healthy and complete urban environment".<sup>16</sup>

UC Berkeley is considering the implementation of real time parking information technologies. A few existing lots are being retrofitted with control systems that could provide real time parking information.

**RESPONSE TO COMMENT B7A-67**

The University does not expect the 2020 LRDP programs to result in campus-wide changes that would create more peak hour travel. In fact, as part of the Bay Area region, UC Berkeley workers and students are influenced by the same factors that have generated an upward trend in off-peak travel, including traffic congestion, parking availability, and greater use of flexible work schedules. Please see Thematic Response 9 regarding parking demand, and LRDP Mitigation Measure TRA-11.

**RESPONSE TO COMMENT B7A-68**

See response B7a-42.

**RESPONSE TO COMMENT B7A-69**

The writer's opinion that "customer grumbling is not the same thing as a real parking shortage problem" is noted. Please see response B7a-66.

**RESPONSE TO COMMENTS B7A-70 AND B7A-71**

The writer suggests a parking wayfinding system with dynamic signing to reduce the need for additional parking. These and other measures remain part of the menu of demand management strategies available to the City and UC Berkeley to manage parking supply and demand. The effects of these strategies may help mitigate the traffic impacts of campus growth but such benefits are not known at this time. Consequently, the effects of these measures in mitigating traffic impacts cannot be assumed and cannot be used as a rationale for identifying a potential impact as mitigated to a less than significant level. The effectiveness of UC Berkeley trip reduction measures will become evident in the mitigation monitoring process. See Thematic Response 2 on mitigation monitoring; see also Thematic Response 10 on trip reduction programs.

**RESPONSE TO COMMENT B7A-72**

As noted by the writer, the BRT/Telegraph project presents an opportunity to increase the use of alternative modes. Thematic Response 9 presents a comprehensive response to comments on parking demand, including the writer's assertion of "contradictory policies". Further, as noted in Thematic Response 9, UC Berkeley may defer some portion of the 2020 LRDP parking program in recognition of AC Transit's BRT/Telegraph project.

**RESPONSE TO COMMENT B7A-73**

The Draft EIR parking analysis is based on the most current and *complete* inventory of parking supply and demand within the study area at the time the NOP was prepared, which was the Southside/Downtown TDM study data. Please see also response B7a-74.

**RESPONSE TO COMMENT B7A-74**

Table 4.12-5 shows a 100% afternoon parking occupancy for the Sather Gate Garage, based on data on page 7-5 of the Downtown/Southside TDM Study Existing Conditions Report. Appendix D of the Library Gardens Draft EIR shows a 34% afternoon parking occupancy for the Sather Gate Garage. The Library Gardens parking occupancy survey was conducted in summer 2002, while the data presented in the TDM Study were

**TABLE 4.12-5**

**PARKING SUPPLY AND DEMAND AT MAJOR NON-UNIVERSITY PARKING FACILITIES**

Parking Facility	Parking Supply	Weekday Demand		Saturday
		Afternoon <sup>a</sup>	Night <sup>b</sup>	Afternoon Demand <sup>c</sup>
Berkeley Way Lot	113	94%	76%	68%
Center Street Garage	435	89%	31%	41%
Allston Way Garage	630	95%	42%	24%
Kittredge Street Garage	362	76%	51%	51%
Oxford Street Lot	132	91%	93%	95%
Sather Gate Garage	441	100%	17% <sup>d</sup>	38% <sup>d</sup>

<sup>a</sup> Based on data collected by Fehr & Peers Associates on November 6, 2001 between 2:00 p.m. and 3:00 p.m. for all parking facilities except Sather Gate Garage. Parking for the Sather Gate Garage is from the *Downtown/Southside TDM Study, Existing Conditions Report*, April 2000, page 7-5.

<sup>b</sup> Based on data collected by Fehr & Peers Associates on April 10, 2002 between 7:00 p.m. and 8:00 p.m., except where noted.

<sup>c</sup> Based on data collected by Fehr & Peers Associates on April 13, 2002 between 2:00 p.m. and 3:00 p.m., except where noted.

<sup>d</sup> Source: *Library Gardens DEIR*, Appendix D, June 2003. Capacity for the Sather Garage in the DEIR is listed as 685, which contributes to low occupancy percentages. The City of Berkeley Office of Transportation's website, however, lists 436 as the capacity (<http://www.ci.berkeley.ca.us/transportation/Parking/OffStreet.html>, 10/15/04). Comparable percentages based on a capacity of 441 would be approx. 26% for weekday night and 59% for weekend mid-day.

Source: Fehr & Peers Associates, January 2003.

collected prior to 2000. Although the Library Gardens data are more recent, they were collected during the summer months when attendance at UC Berkeley is much lower than during the regular terms. Thus the Library Gardens report underestimates parking demand generated by UC Berkeley, and the TDM Study represents a more accurate parking demand.

Table 4.12-5 is revised as requested.

**RESPONSE TO COMMENT B7A-75**

The writer's comment is noted. The sentence at page 4.12-22, second full paragraph, has been revised in the Final EIR to read:

Parking is more available ~~Lower demand occurs~~ because UC Berkeley parking supplies are available to the public on nights and weekends ~~and~~, on-street parking time limit restrictions are not enforced, and commuters have largely departed the area.

**RESPONSE TO COMMENTS B7A-76 AND B7A-77**

See Thematic Response 10 regarding trip reduction programs. See also response to comment B7a-150.

**RESPONSE TO COMMENT B7A-78**

See Thematic Response 10 regarding trip reduction programs. See also responses to comment letter B4. UC Berkeley is eager to work with the City of Berkeley to implement programs that would increase transit ridership and reduce congestion. Creating effective systems includes reducing costs by eliminating duplicate services between agencies and creating pass programs that allow customers to use services interchangeably. These efficiencies may very well increase capacities for new users and provide quicker and more direct service to customers. Most recent efforts include:

- Employees with UC ID cards and UCOP employees can now ride the shuttles free without a separate pass.
- UC, the City and AC Transit have improved transit stop shelters throughout the campus.
- P & T redesigned the Hill and S lines and created one line that will provide Hill employees with direct service from BART throughout the day.
- UCB has initiated discussions with LBNL to explore combining services to reduce costs and improve coverage.
- UCB has had discussions with the state Department of Health Services, Kaiser and others in Richmond on the possibility of combining shuttle service with the RFS shuttle. These discussions have expanded to AC Transit - as part of AC's proposed improvements to West Contra Costa transit lines there is discussion about an AC Transit line operating between campus and RFS more frequently than the current shuttle.
- The Bear Pass for AC Transit will provide employees the ability to use both AC and the shuttles interchangeably for more frequent and direct service. This will become more important with AC Transit's proposals for changes to West Contra Costa county service and the implementation of BRT.
- UCB has been participating in a regional shuttle provider group, BAYCAP, for several years to strategize on shuttle program improvements.

**RESPONSE TO COMMENT B7A-79**

The noted sections are part of the “existing setting” information presented in the Draft EIR for contextual information. The writer’s opinion that there should be additional analysis of data presented is noted. The CEQA guidelines support “mentioning only briefly issues other than significant ones in EIRs” (CEQA Guidelines 15006, 15143). Safety improvements will be a study component in the pending bicycle access plan. See Response to Comment C13-1.

**RESPONSE TO COMMENT B7A-80**

UC Berkeley is eager to meet with City staff and others to discuss options for bicycle planning. UC, City and community representatives consistently participate in one-another’s bicycle committees and planning charettes. City and UC transportation planners confer frequently.

**RESPONSE TO COMMENT B7A-81**

Following the introduction of the Class Pass in 1998, transit use by students increased from 14% in 1997 to 23% in 2000. However, a substantial percentage of this increase appears to have come at the expense of bike users and walkers and others: bike use declined from 14% to 9% while walkers and others declined from 58% to 56%. Drive-alone commuters declined from 13% to 11%. In other words, increased transit use due

to the Class Pass may account for roughly 15% of student drive-alone trips. Other factors such as parking fee, parking availability, campus housing availability, rainy vs. dry winter, etc can all influence driving rates year to year.

**RESPONSE TO COMMENTS B7A-82 AND B7A-83**

The writer seems to suggest that, of factors including UC Berkeley's trip reduction program, the urban context, existing conditions, and the City's bicycle network, only UC Berkeley's trip reduction program is not a causal factor in influencing travel behavior.

Programs adopted at other universities may help mitigate the traffic impacts of campus growth but such benefits are not known at this time. Accordingly, the effects of these measures in mitigating traffic impacts cannot be assumed and cannot be used as a rationale for identifying a potential impact as mitigated to a less than significant level. The effectiveness of UC Berkeley trip reduction measures will become evident in the mitigation monitoring process. See Thematic Response 2 on mitigation monitoring; see also Thematic Responses 9 on parking demand and 10 on trip reduction programs.

Thematic Response 9 presents data comparing the parking program in the 2020 LRDP with parking inventories at several other urban research universities, suggested by commentors as having exemplary programs of incentives for alternate transportation modes, including the two examples suggested by the writer.

**RESPONSE TO COMMENT B7A-84**

The joint City/University TDM Study included a chapter on Commute Trends. See Chapter 5 of the Existing Conditions Report.

**RESPONSE TO COMMENT B7A-85**

With the implementation of the Bear Pass this fall, transportation planners estimate that 127 employees will give up parking permit/drive alone and use AC Transit. This would change the drive alone rate from 2001 faculty/staff Housing and Transportation survey from 51.3% to 50.1%.

**RESPONSE TO COMMENT B7A-86**

See response B7a-81, above. Although UC Berkeley policies seek to minimize automobile use by students, some students have life circumstances that require an automobile. A very limited number of residential permits are available to residents of University student housing with a demonstrated medical, employment, academic or other need: Best Practice TRA-2 at page 4.12-45 states this policy would continue under the 2020 LRDP. Other students are only eligible for student commuter parking permits if they live beyond a two mile radius of campus.

**RESPONSE TO COMMENT B7A-87**

The information requested is readily available in the joint City/University TDM Study. The CEQA Guidelines support "preparing analytic rather than encyclopedic environmental impact reports" (CEQA Guidelines 15006). The requested information need not be reprinted as part of the Draft EIR.

**RESPONSE TO COMMENT B7A-88**

The writer requests additional analysis of existing programs to reduce vehicle trips, and suggests additional programs. Please see responses B7a-25 and B7a-36, above. See also Thematic Response 10 on trip reduction programs.

**RESPONSE TO COMMENT B7A-89**

The writer suggests UC Berkeley examine additional measures to reduce parking demand, including supporting increased alternative travel by the general public. Accordingly, as noted in Thematic Response 9, UC Berkeley may defer some portion of the 2020 LRDP parking program in favor of AC Transit's BRT/Telegraph project, which could reduce parking demand by increasing alternative travel by students, staff, faculty, and the general public.

Other measures remain part of the menu of demand management strategies available to the City and UC Berkeley to manage parking supply and demand. The effects of these strategies may help mitigate the traffic impacts of campus growth but such benefits are not known at this time. Therefore, the effects of these measures in mitigating traffic impacts cannot be assumed and cannot be used as a rationale for identifying a potential impact as mitigated to a less than significant level. The effectiveness of UC Berkeley trip reduction measures will be apparent in the mitigation monitoring process. See Thematic Response 2 on mitigation monitoring; see also Thematic Response 10 on trip reduction programs.

**RESPONSE TO COMMENT B7A-90**

The writer's opinion is noted.

**RESPONSE TO COMMENT B7A-91**

In FY 2002-03 the Carpool and New Directions programs grew by 515 employee participants. Of these 515 employees, 177 employees gave up their single user parking permits and over 75 were new employees. See also Thematic Response 10, Transportation Alternatives.

**RESPONSE TO COMMENT B7A-92**

Please see Draft EIR Volume 2, Appendix F, pages F.1-13 through F.1-17.

**RESPONSE TO COMMENT B7A-93**

The Draft EIR clearly explained that the analysis of this impact presents a very conservative interpretation of local and regional growth projections: namely, that all growth associated with 2020 LRDP implementation is in addition to, rather than a subset of, anticipated regional growth. Under this assumption, no matter how small the growth associated with the 2020 LRDP might become, the impact -- the possibility that the 2020 LRDP presents a hindrance to attainment of the Clean Air Plan -- would remain the same.

Since campus growth may not be consistent with the most recent Clean Air Plan, operational emissions under the 2020 LRDP were found to result in a potentially significant and unavoidable impact, because "plan level" emissions pose a "significant and unavoidable impact" in terms of the 2020 LRDP's potential interference with regional air quality management efforts. However, as stated in the text, operational emissions projections under the 2020 LRDP were provided in table 4.2-9 for informa-



tional purposes. The applicable BAAQMD emission thresholds are 80 lb/day for nitrogen oxides (NO<sub>x</sub>), reactive organic gases (ROG), and particulate matter less than 10 microns in diameter (PM<sub>10</sub>), and 550 lb/day for carbon monoxide (CO).<sup>17</sup> See also Response to Comment B7-107, which describes CO emission thresholds for mobile sources, and revised page 4.2-18 of the Draft EIR.

Although these thresholds are not appropriate for assessing “plan level” emissions, and therefore do not need to be included in table 4.2-9, the University believes it is relevant to point out that the projected operational emissions under the 2020 LRDP are relatively low compared to BAAQMD project-level thresholds: thus the magnitude of the overall 2020 LRDP impact on regional air quality may not be great. Yet, a significant and unavoidable impact was found. (This discussion also appears at B7-99.) Further, LRDP Impact AIR-5 mirrors a finding made in the Berkeley General Plan EIR, as noted in the Draft EIR at page 4.2-11.

**RESPONSE TO COMMENT B7A-94**

UC Berkeley, under the leadership of the Environment, Health and Safety office, is convening a focus group to implement the use of biodiesel and other alternative fuels. UC Berkeley complies with the Energy Policy Act of 1992 (EPAct) which requires that 75% of all new vehicles purchased weighing less than 8,500 lbs., except emergency vehicles, to be alternatively fueled vehicles. Campus strategies to comply with EPAct are the purchase of flex fuel vehicles that run on gasoline or ethanol and to begin operating campus vehicles on biodiesel. In addition, campus department use of electric vehicles and Segways is expanding and several electric vehicle-charging stations are provided for campus commuters.

**RESPONSE TO COMMENT B7A-95**

Please see response B7a-93, above, for a discussion of findings regarding consistency of the 2020 LRDP with the Clean Air Plan.

**RESPONSE TO COMMENT B7A-96**

Please see response B7-106 and B7a-94. The campus is also completely replacing its shuttle fleet with newer leased diesel buses provided by AC Transit. The gasoline buses leased by AC Transit to UCB meet current CARB standards. Complete conversion to leased vehicles should be accomplished this fiscal year.

**RESPONSE TO COMMENT B7A-97**

While the program of new University housing within the Housing Zone may serve to reduce the percentage of students who drive alone, the purpose of the Housing Zone is primarily to support the principles of the UC Berkeley Strategic Academic Plan: namely, as explained in section 3.1.8, to provide students with the community of peers and mentors, and the access to campus resources, they need to excel. Since only around 11 percent of students currently drive alone, it is not yet possible to assess the impact of this new housing on travel modes. However, as noted at page 3.1-28 of section 3.1.9, “... to the extent we are able to further reduce [drive-alone] ratios, through demand reduction and through construction of new student housing, the [parking program] would be adjusted to reflect these changes.”

In estimating transit trip time for the purpose of defining the Housing Zone, a uniform ten minute walk to Doe Library from the closest AC Transit stop was assumed. The

downtown BART station should fall roughly within this estimate for most commuters, although it is slightly further from Doe Library than most downtown AC Transit stops.

**RESPONSE TO COMMENT B7A-98**

See response B7-28. The twenty minute criterion includes time on the transit vehicle for trips with no required transfers, plus the aforementioned walking time. In fact, the original Housing Zone was larger, because it used the criterion of a 20 minute transit trip to the edge of campus. As the result of comments received from ASUC during the scoping process, however, the zone was reduced to its present dimensions. The objections of the ASUC had to do with both a more realistic measure of travel time, to include the walk from transit stop to destination, and the impact of physical dispersion on intellectual community. UC Berkeley finds the arguments of the ASUC to be persuasive, and the Housing Zone should remain as presently defined.

**RESPONSE TO COMMENT B7A-99**

As noted in the caption, figure 3.1-5 is generalized, is based on AC Transit routes of July 2003, and does not show "... suitable sites within one block of some BART stations [which] may also qualify for inclusion in the zone." The writer is correct in anticipating the zone boundaries could change over time in response to service changes; however this would not change the definition of the zone itself, which is based on travel time. Future improvements in travel time due to BRT would be taken into consideration in adjusting the Housing Zone boundary. The caption to figure 3.1-5 has been revised in the Final EIR to clarify the distinction.

The traffic analysis is based on the Housing Zone as defined based on AC Transit routes and service in place at the time of the Notice of Preparation (summer 2003). Based on the methodology used to account for trips generated by University housing within the Housing Zone, adjusting the boundaries to reflect the December 2003 service deployment plan would not affect the traffic volume projections at the study intersections.

**RESPONSE TO COMMENT B7A-100**

The Alameda County Countywide Travel Demand Model used for the 2020 Without Project conditions analysis does not include any growth in enrollment or employment for the University and thus represents the Without Project condition.

**RESPONSE TO COMMENT B7A-101**

The 2020 Without Project volumes were developed by adding the traffic growth between the 2005 and 2025 ACCMA models to 2002 intersection counts. Although the LRDP covers 18 years of growth (2002 to 2020), the future volumes developed for the 2020 Without Project conditions represent 20 years of traffic growth (2005 to 2025). Thus, by including two years of additional growth in the background traffic, a more conservative 2020 Without Project condition is presented. This methodology has been reviewed and approved by CMA staff as a conservative approach to estimate 2020 Without Project intersection volumes. Furthermore, since the 2020 LRDP only covers growth up to the year 2020, a 2025 analysis is not necessary. See also Response to Comment B7a-16.

**RESPONSE TO COMMENT B7A-102**

The 2020 Without Project analysis presented in the Draft EIR is based on the City of Berkeley land use data developed by HEG, in consultation with City staff, for the

Telegraph Avenue BRT project, and represents the latest available land use projections for the City of Berkeley. This methodology has been reviewed and approved by CMA staff. A table listing the land uses by traffic analysis zone is included in Appendix F.4. However, please note the table erroneously shows employment growth in four campus zones: 20, 22, 25 and 401. This growth was eliminated in the actual model runs, so that the traffic growth from the 2020 LRDP could be added separately, as described in Appendix F.1.

**RESPONSE TO COMMENTS B7A-103 AND B7A-104**

The 2020 Without Project analysis presented in the EIR was completed using the “Modified April 2003” model as described in the EIR. Upon receiving the updated CMA model in March 2004, the land use inputs and model results were compared. The major change in the updated model, within the LRDP study area, is the employment re-allocation in Berkeley. In comparison to the “Modified April 2003” model, the March 2004 CMA model has more jobs in West Berkeley and less in Southside, Downtown, and South Berkeley in both 2005 and 2025.

The net land use growth in the updated model is similar to the model used in the EIR. With the exception of the Southside and Downtown areas, both land use data sets use identical residential land uses within the City of Berkeley. The “Modified April 2003” model shows a growth of about 2,700 residential units between 2005 and 2025. The March 2004 model shows a growth of 2,400 residential units for the same period.

The March 2004 model land use includes a growth of about 6,900 jobs between 2005 and 2025, while the “modified April 2003” model has a growth of about 4,900 jobs. However, the land use in the “modified April 2003” data set does not include any employment growth on the UC campus, while the updated CMA model includes about 1,000 additional jobs on the Campus Park. Subtracting these out in order to compare to the Modified April 2003 model (since it was adjusted to include no campus growth), the difference is only 5,900 (March 2004) vs 4,900 (modified April 2003).

The cumulative volumes developed for the 2020 LRDP analysis are based on the traffic growth between the 2005 and 2025 model results. Since the land use changes were made to both 2005 and 2025 land uses, the 2005 to 2025 net volume growth in the updated CMA model runs and “modified April 2003” model runs have similar patterns and magnitudes. Thus any potential changes to the furnished and balanced intersection turning volumes would be very small and would not change the final analysis results.

**RESPONSE TO COMMENT B7A-105**

The Existing Plus Project case is not a meaningful scenario to analyze when the project is a 15-year plan, because other development can be reasonably expected within the 15-year implementation period of the plan. With such long-range plans, the other growth must be included within the analysis to ensure that realistic traffic volumes are analyzed and the full extent of future congestion is disclosed. Similarly, in its General Plan Update EIR the City of Berkeley used the Alameda Countywide Travel Demand Model forecasts, thus including regional growth outside Berkeley. Caltrans did not comment on this approach in its Draft EIR comment letter dated June 1, 2004.

**RESPONSE TO COMMENT B7A-106**

In 2004-2005 UC Berkeley will begin developing the first campus bicycle access plan with a grant from the Alameda County Transportation Improvement Authority. Under the 2020 LRDP, as stated in section 3.1.13, UC Berkeley would "... partner with the City and LBNL on an integrated program of access and landscape improvements at the campus park edge." The goals of this policy are to improve safety, functionality, amenity, access and service on streets linking the campus to the adjacent blocks.

**RESPONSE TO COMMENT B7A-107**

The Draft EIR analyzes the 2020 LRDP, which includes the policy outlined above. The writer's assertion that an increase in bicyclists should be considered a significant impact is noted.

**RESPONSE TO COMMENT B7A-108**

The writer is referred to the aforementioned 2020 LRDP policy in section 3.1.13; see also response B7a-106, above. In April 2000 the joint City/University TDM Study Existing Conditions Report indicated anticipated growth at UC Berkeley (page ES-1); and the 2001 joint City/University TDM Study (page ES-6), noted the campus anticipated growth in students, faculty and staff. The Underhill Area Projects EIR published in April 2000 indicated UC Berkeley would be asked to grow by 4,000 students (page IV.G-2).

The Berkeley General Plan Final EIR assumed an increase of 5,635 new jobs on and in the vicinity of campus between 2000 and 2020 (page 418); and the fact UC anticipated enrollment growth of 4,000 students appears in UC Berkeley's response to the General Plan EIR published in June 2001 (see, for example, letter A-7 in the Berkeley General Plan Final EIR). The University therefore assumes the writer does not mean to imply that UC growth is unforeseen by the City of Berkeley. Berkeley General Plan policies further indicate that bicycling is considered desirable by the City of Berkeley: see for example General Plan Policy T-45, regarding bicycle promotion: (<http://www.ci.berkeley.ca.us/planning/landuse/plans/generalPlan/transportation.html> 7.8.04).

UC Berkeley is eager to continue its work with the City of Berkeley to improve conditions for bicyclists in Berkeley.

**RESPONSE TO COMMENT B7A-109**

The 2020 LRDP includes a policy to improve bicycle access in partnership with the City of Berkeley, as noted in response B7a-106, above. Campus programs have capacity to accommodate the estimated increase in bicycling. As noted above, the Berkeley General Plan EIR assumed growth for the area that included the campus; no significant bicycle capacity issues were noted in the Berkeley General Plan EIR. Therefore, the University believes the capacity conclusions in the Draft EIR are supported.

The writer's recommendations regarding UC Berkeley injury prevention programs for bicyclists, and the suggested scope of UC Berkeley bicycle planning, are noted, and will be considered in on-going bicycle planning activities for the Berkeley campus.

**RESPONSE TO COMMENT B7A-110**

Continuing Best Practice TRA-2 defines the limited conditions under which residents of University-operated student housing would be eligible for UC Berkeley parking permits. However, the writer contends this is not itself adequate to minimize student vehicle use, since students could obtain residential parking permits and park their vehicles on City streets. The writer cites the present City of Berkeley practice of denying residential parking permits to residents of University-operated residence halls, and asks if the University agrees this should be continued in new housing.

The University looks forward to working with the City of Berkeley on this issue, although the issue is not as clear cut for future housing built under the 2020 LRDP since, unlike existing residence halls, some of this new housing may be built much further from the campus, in less congested areas. While the University shares the desire of the City of Berkeley to limit student vehicle use, students should not be unreasonably denied the same privileges their neighbors enjoy simply because they are students. Specific conditions within the Housing Zone may create the potential for localized impacts, which future project-specific CEQA review would disclose.

The writer's comment that "It is naive in the extreme to assume that simply meeting the zoning requirements for off-street parking at residential developments will not increase the demand for on-street parking" is noted. If the City were to develop parking criteria that applied equally to all new housing developments in the City, the University would consider applying the criteria in housing it develops under the 2020 LRDP.

**RESPONSE TO COMMENT B7A-111**

This comment incorrectly summarizes the conclusion of the Draft EIR. Construction period circulation impacts are considered less than significant, given that proposed development under the 2020 LRDP would not exceed existing conditions, and given the incorporation of continuing best practices. See pages 4.12-45 to 4.12-47. UC Berkeley anticipates continuing improvements in construction coordination with the City of Berkeley, to reduce impacts to neighbors as much as possible.

**RESPONSE TO COMMENT B7A-112**

The writer's support for UC Berkeley efforts to reduce parking-related construction impacts is appreciated. The Draft EIR found such impacts to be less than significant. See page 4.12-47.

**RESPONSE TO COMMENT B7A-113**

Currently, ridership numbers are collected daily; user surveys are conducted annually. Service adjustments are continually implemented. See Thematic Response 10.

**RESPONSE TO COMMENT B7A-114**

See Thematic Response 10 regarding alternative transit programs, including improvements to the Bear Shuttle. See also response B7a-27 regarding satellite parking facilities.

**RESPONSE TO COMMENT B7A-115**

Although not information required for CEQA, UC Berkeley notes that the projected 2004/2005 RFS shuttle expense is expected to be \$177,000 to carry 25,000 passengers a year. Cost per passenger \$7.00 – Farebox Recovery per passenger \$1.00. See also Thematic Response 10 regarding the campus shuttle program.

**RESPONSE TO COMMENT B7A-116**

The writer's opinion is noted. See Thematic Response 1 regarding the role of the 2020 LRDP in project level review. See also Thematic Response 4 regarding fiscal impacts.

**RESPONSE TO COMMENT B7A-117**

Please see response B7a-9, above. The writer's statement that "... the University states that it has no financial obligation to address the congestion ..." is unsupported; this language does not appear in the Draft EIR. In accordance with CEQA, the University would participate in feasible mitigations that reduce substantial adverse significant effects of University development upon the environment to less than significant levels. Additionally, UC Berkeley is eager to work with the City of Berkeley to reduce congestion and improve traffic conditions in Berkeley.

**RESPONSE TO COMMENT B7A-118**

The writer's opinion that \$3.8 million in improvements could reduce traffic impacts identified at LRDP Impacts TRA-8 and TRA-10 to an acceptable level is noted. UC Berkeley is eager to work with the City of Berkeley to reduce congestion and improve traffic conditions in Berkeley.

**RESPONSE TO COMMENT B7A-119**

Please see responses B7a-117 and B7a-118.

**RESPONSE TO COMMENT B7A-120**

See Thematic Response 1 regarding the role of the 2020 LRDP in project level review.

**RESPONSE TO COMMENT B7A-121**

The writer misrepresents the University's position in this comment.

**RESPONSE TO COMMENT B7A-122**

Please see responses B7a-70 and B7a-71.

**RESPONSE TO COMMENT B7A-123**

See response B7a-67, above.

**RESPONSE TO COMMENT B7A-124**

UC Berkeley, under the leadership of the Environment, Health and Safety office, is convening a focus group to implement the use of biodiesel and other alternative fuels.

**RESPONSE TO COMMENT B7A-125**

See Thematic Response 10 regarding current UC Berkeley programs for car sharing. Inclusion in future housing projects would certainly be encouraged if feasible.

**RESPONSE TO COMMENT B7A-126**

See Thematic Response 4 regarding fiscal impacts. The writer implies that adequate funds may not be available to pay for required improvements. The EIR authors know of no data that might support this negative prediction, nor is any such past example described by the writer.

**RESPONSE TO COMMENT B7A-127**

The writer's comment is noted.

**RESPONSE TO COMMENT B7A-128**

See Thematic Response 4. Fiscal impacts are not within the scope of CEQA. However, the University recognizes they are a matter of concern to Berkeley and other cities and service agencies. They are also a matter of concern to the University, which depends on the adequacy and quality of public services those cities and agencies provide. In response to the publication of the recent City of Berkeley fiscal impact study, the University and the City of Berkeley have designated teams of staff representatives to meet, review and critique the study findings, and identify strategies that benefit both parties.

**RESPONSE TO COMMENT B7A-129**

The writer's opinion that the University should fund improvements based on baseline contributions as well as 2020 LRDP-related traffic is noted. See Thematic Response 4.

**RESPONSE TO COMMENT B7A-130**

The writer's opinion is noted. UC Berkeley is eager to work with City staff to implement solutions that would address congestion; however, an ongoing "fair share" commitment to unidentified measures of unknown effectiveness is not required by CEQA.

**RESPONSE TO COMMENT B7A-131**

The writer opines that "fair share" should apply to capital improvements not yet identified. The effect of such improvements may help mitigate the traffic impacts of the 2020 LRDP, but such benefits are not known at this time. Accordingly, the effects of these measures in mitigating traffic impacts cannot presently be assumed and cannot be used as a rationale for identifying a potential impact as mitigated to a less than significant level. UC Berkeley is eager to work with City staff to implement solutions that would address congestion; however, an ongoing "fair share" commitment to unidentified measures of unknown effectiveness is not required by CEQA.

If the City of Berkeley at its discretion proposes to implement measures that are feasible, that reduce significant unavoidable impacts identified in the Draft EIR to less than significant levels, and that have no new environmental impacts of their own, the University would contribute fair share funding as provided in Mitigation Measure TRA-6.

**RESPONSE TO COMMENT B7A-132**

The University supports City of Berkeley goals to provide appropriate and balanced solutions to congestion. As summarized in the Draft EIR at page 4.12-7, however, the Berkeley General Plan EIR found that build-out under the General Plan could result in significant traffic impacts despite City policies. The City's Transit First policies, which restrict roadway capacity expansion and support multi-modal solutions, are acknowledged in the Draft EIR at pages 4.12-6 to 4.12-8. The Berkeley General Plan EIR notes that these solutions may not reduce traffic congestion impacts to a less than significant level. See also response B7a-25, above.

**RESPONSE TO COMMENT B7A-133**

If the City of Berkeley at its discretion proposes to implement alternative mitigation measures that are feasible, that are the functional equivalent of those proposed in the Draft EIR, and that have no new environmental impacts of their own, alternative improvements would accord with CEQA and the University would participate in funding its fair share of the improvements as provided in the Draft EIR.

**RESPONSE TO COMMENTS B7A-134 AND B7A-135**

For the reasons outlined above, for example in responses B7a-9, B7a-25, B7a-36, B7a-89, and B7a-131, the University declines to amend the EIR as requested. However, the University would participate in funding its fair share of alternative improvements that meet the criteria outlined in B7a-133 above.

**RESPONSE TO COMMENT B7A-136**

The writer's comment is noted, although the University cannot commit to allocating funding in advance of a defined project.

**RESPONSE TO COMMENT B7A-137**

UC Berkeley is eager to work with the City of Berkeley to appropriately monitor and address congestion. However, CEQA does not require the University to commit to on-going monitoring of unknown scope and scale.

**RESPONSE TO COMMENT B7A-138**

See response B7a-57.

**RESPONSE TO COMMENT B7A-139**

See response B7a-131.

**RESPONSE TO COMMENT B7A-140**

See table 11.2B-1.

**RESPONSE TO COMMENT B7A-141**

The requested delay information is provided in table 11.2B-2. The volume-to-capacity ratios, however, are not provided as this is inconsistent with the methodology used in the LOS evaluation.

**RESPONSE TO COMMENT B7A-142**

The referenced map is included in the appendix, in Figure F.1-2.

**RESPONSE TO COMMENT B7A-143**

All analyses were completed by using the default values in Traffix. A hardcopy of the detailed computation reports will be provided to the City of Berkeley.

**RESPONSE TO COMMENT B7A-144**

The cited typo has been corrected in the Final EIR.

**RESPONSE TO COMMENT B7A-145**

The cited typo has been corrected in the Final EIR.

**RESPONSE TO COMMENT B7A-146**

See response B7a-46.

**RESPONSE TO COMMENT B7A-147**

The writer's comment is noted.

**RESPONSE TO COMMENT B7A-148**

The terms have been corrected in the Final EIR as suggested. See response B7a-74.



**RESPONSE TO COMMENT B7A-149**

See response B7a-74.

**RESPONSE TO COMMENT B7A-150**

UC provides an additional \$2 subsidy beyond BART's high value discount.

The 2001 Student Housing and Transportation survey shows 1300 students use BART regularly to commute.

The Bear Pass will cost employees \$20 per month, or \$240 annually. A lower price would be expected to slightly increase the number of new regular transit users, and more significantly influence the number of new infrequent users.

Carpool numbers are derived from parking management data.

Vanpool improvements under discussion involve finding options for UCB employees to pay for their fare pre-tax.

TABLE 11.2B-1 ESTIMATED 2020 INTERSECTION VOLUMES

Intersection	AM Peak Hour					PM Peak Hour				
	Intersection Volume					Intersection Volume				
	Existing	Cumulative	Cumulative Plus Project	Project	Project % of Total	Existing	Cumulative	Cumulative Plus Project	Project	Project % of Total
#01 Marin Avenue / San Pablo Avenue	3486	4429	4580	151	3.4%	4055	5249	5389	140	2.7%
#02 Marin Avenue / The Alameda	2015	2675	2711	36	1.3%	2280	3049	3083	34	1.1%
#03 Gilman Street / Sixth Street	1334	1627	1636	9	0.6%	1861	2720	2732	12	0.4%
#04 Gilman Street / San Pablo Avenue	2575	3313	3438	125	3.8%	3381	4288	4404	116	2.7%
#05 Rose Street / Shattuck Avenue	1919	2390	2405	15	0.6%	2238	2880	2893	13	0.5%
#06 Cedar Street / Martin Luther King Way	1735	2295	2323	28	1.2%	2118	2687	2716	29	1.1%
#07 Cedar Street / Shattuck Avenue	2262	2797	2828	31	1.1%	2802	3586	3611	25	0.7%
#08 Cedar Street / Oxford Street	1784	2078	2229	151	<b>7.3%</b>	1680	2181	2327	146	<b>6.7%</b>
#09 Cedar Street / Euclid Avenue	1158	1394	1400	6	0.4%	912	1285	1287	2	0.2%
#10 Grizzly Peak Blvd / Centennial Drive	727	852	875	23	2.7%	913	1042	1063	21	2.0%
#11 Hearst Avenue / Shattuck Avenue	2039	2602	2656	54	2.1%	2418	3274	3324	50	1.5%
#12 Hearst Avenue / Oxford Avenue	2713	3187	3389	202	<b>6.3%</b>	2899	4573	4767	194	4.2%
#13 Hearst Avenue / Spruce Street	1363	1712	1735	23	1.3%	1477	1906	1922	16	0.8%
#14 Hearst Avenue / Arch Street / Le Conte Avenue	1285	1634	1656	22	1.3%	1400	1848	1865	17	0.9%
#15 Hearst Avenue / Scenic Avenue	913	1149	1170	21	1.8%	1166	1543	1541	-2	-0.1%
#16 Hearst Avenue / Euclid Avenue	1014	1318	1343	25	1.9%	1132	1525	1545	20	1.3%
#17 Hearst Avenue / Le Roy Avenue	807	1058	1084	26	2.5%	1005	1358	1378	20	1.5%
#18 Hearst Avenue / Gayley Road / La Loma Avenue	1440	1926	1951	25	1.3%	1555	2036	2052	16	0.8%
#19 Berkeley Way / Oxford Street	2103	2413	2619	206	<b>8.5%</b>	2220	2666	2862	196	<b>7.4%</b>
#20 University Avenue / Sixth Street	3375	4041	4338	297	<b>7.3%</b>	4031	4936	5210	274	<b>5.6%</b>
#21 University Avenue / San Pablo Avenue	3604	4416	4793	377	<b>8.5%</b>	4457	5440	5788	348	<b>6.4%</b>
#22 University Avenue / Martin Luther King Way	3337	4167	4534	367	<b>8.8%</b>	3859	4635	4975	340	<b>7.3%</b>
#23 University Avenue / Milvia Street	1760	2296	2650	354	<b>15.4%</b>	2088	2547	2874	327	<b>12.8%</b>
#24 University Avenue / SB Shattuck Avenue	2295	2948	3346	398	<b>13.5%</b>	2892	3697	4071	374	<b>10.1%</b>
#25 University Avenue / NB Shattuck Avenue	1305	1719	1936	217	<b>12.6%</b>	2033	2364	2637	273	<b>11.5%</b>

TABLE 11.2B-1 ESTIMATED 2020 INTERSECTION VOLUMES

Intersection	AM Peak Hour					PM Peak Hour				
	Intersection Volume					Intersection Volume				
	Existing	Cumulative	Cumulative Plus Project	Project	<u>Project % of Total</u>	Existing	Cumulative	Cumulative Plus Project	Project	<u>Project % of Total</u>
#26 University Avenue / Oxford Street	2453	2875	3168	293	<u>10.2%</u>	2799	3299	3565	266	<u>8.1%</u>
#27 University Drive (East Gate) / Gayley Road	1289	1632	1645	13	0.8%	1290	1605	1607	2	0.1%
#28 Addison Street / Oxford Street	1962	2264	2451	187	<u>8.3%</u>	2142	2531	2780	249	<u>9.8%</u>
#29 Center Street / SB Shattuck Avenue	1104	1410	1489	79	<u>5.6%</u>	1429	1894	1964	70	3.7%
#30 Center Street / NB Shattuck Avenue	894	1325	1402	77	<u>5.8%</u>	1451	1820	1908	88	4.8%
#31 Center Street / Oxford Street	2062	2414	2666	252	<u>10.4%</u>	2360	2809	3033	224	<u>8.0%</u>
#32 Stadium Rimway / Gayley Road	1172	1519	1573	54	3.6%	1293	1616	1658	42	2.6%
#33 Allston Way / Oxford Street	2068	2370	2627	257	<u>10.8%</u>	2364	2773	3003	230	<u>8.3%</u>
#34 Kittredge Street / Oxford Street / Fulton Street	1983	2255	2567	312	<u>13.8%</u>	2364	2783	3063	280	<u>10.1%</u>
#35 Stadium Rimway / Centennial Drive	531	677	699	22	3.2%	748	902	924	22	2.4%
#36 Bancroft Way / Shattuck Avenue	2042	2610	2804	194	<u>7.4%</u>	2693	3296	3579	283	<u>8.6%</u>
#37 Bancroft Way / Fulton Street	2216	2479	2732	253	<u>10.2%</u>	2610	3003	3244	241	<u>8.0%</u>
#38 Bancroft Way / Ellsworth Street	1025	1165	1389	224	<u>19.2%</u>	1342	1626	1791	165	<u>10.1%</u>
#39 Bancroft Way / Dana Street	866	1046	1178	132	<u>12.6%</u>	1155	1439	1624	185	<u>12.9%</u>
#40 Bancroft Way / Telegraph Avenue	887	1057	1224	167	<u>15.8%</u>	1170	1444	1599	155	<u>10.7%</u>
#41 Bancroft Way / Bowditch Street	784	874	1020	146	<u>16.7%</u>	784	948	1127	179	<u>18.9%</u>
#42 Bancroft Way / College Avenue	580	671	960	289	<u>43.1%</u>	680	819	879	60	<u>7.3%</u>
#43 Bancroft Way / Piedmont Avenue	1151	1425	1603	178	<u>12.5%</u>	1107	1344	1417	73	<u>5.4%</u>
#44 Durant Avenue / Shattuck Avenue	2209	2879	3166	287	<u>10.0%</u>	2779	3472	3692	220	<u>6.3%</u>
#45 Durant Avenue / Fulton Street	1527	1771	2038	267	<u>15.1%</u>	1676	2000	2131	131	<u>6.6%</u>
#46 Durant Avenue / Telegraph Avenue	908	1190	1376	186	<u>15.6%</u>	1373	1695	1801	106	<u>6.3%</u>
#47 Durant Avenue / College Avenue	694	997	1194	197	<u>19.8%</u>	920	1170	1306	136	<u>11.6%</u>
#48 Durant Avenue / Piedmont Avenue	1078	1361	1520	159	<u>11.7%</u>	1201	1469	1593	124	<u>8.4%</u>
#49 Channing Way / Shattuck Avenue	2356	2943	3163	220	<u>7.5%</u>	3135	3908	4113	205	<u>5.2%</u>
#50 Channing Way / Fulton Street	911	1163	1165	2	0.2%	1238	1628	1644	16	1.0%
#51 Channing Way / Telegraph Avenue	860	1259	1290	31	2.5%	977	1308	1316	8	0.6%

TABLE 11.2B-1 ESTIMATED 2020 INTERSECTION VOLUMES

Intersection	AM Peak Hour					PM Peak Hour				
	Intersection Volume					Intersection Volume				
	Existing	Cumulative	Cumulative Plus Project	Project	Project % of Total	Existing	Cumulative	Cumulative Plus Project	Project	Project % of Total
#52 Channing Way / College Avenue	813	1334	1364	30	2.2%	968	1467	1491	24	1.6%
#53 Haste Street / Shattuck Avenue	2668	3184	3404	220	<b>6.9%</b>	3433	4108	4320	212	<b>5.2%</b>
#54 Haste Street / Fulton Street	981	1202	1205	3	0.2%	1388	1727	1745	18	1.0%
#55 Haste Street / Telegraph Avenue	1104	1373	1404	31	2.3%	1189	1527	1531	4	0.3%
#56 Haste Street / College Avenue	910	1317	1346	29	2.2%	1080	1433	1457	24	1.7%
#57 Dwight Way / Martin Luther King Way	2507	2983	3067	84	2.8%	2801	3309	3389	80	2.4%
#58 Dwight Way / Shattuck Avenue	2928	3439	3657	218	<b>6.3%</b>	3622	4133	4311	178	4.3%
#59 Dwight Way / Fulton Street	1087	1305	1306	1	0.1%	1372	1597	1616	19	1.2%
#60 Dwight Way / Telegraph Avenue	1885	2143	2178	35	1.6%	2353	2669	2718	49	1.8%
#61 Dwight Way / College Avenue	1081	1377	1408	31	2.3%	1415	1713	1753	40	2.3%
#62 Dwight Way / Piedmont Avenue / Warring Street	1477	1755	1892	137	<b>7.8%</b>	1655	1975	2102	127	<b>6.4%</b>
#63 Dwight Avenue / Prospect Street	509	579	579	0	0.0%	616	706	706	0	0.0%
#64 Adeline Street / Ward Avenue / Shattuck Avenue	2796	3128	3325	197	<b>6.3%</b>	3382	3804	3987	183	4.8%
#65 Derby Street / Warring Street	1528	1805	1941	136	<b>7.5%</b>	1719	2029	2156	127	<b>6.3%</b>
#66 Derby Street / Claremont Blvd.	1611	1878	2014	136	<b>7.2%</b>	1884	2194	2321	127	<b>5.8%</b>
#67 Ashby Avenue / Seventh Street	3202	3835	3899	64	1.7%	3284	3878	3938	60	1.5%
#68 Ashby Avenue / San Pablo Avenue	3354	4347	4525	178	4.1%	4034	5086	5253	167	3.3%
#69 Ashby Avenue / Adeline Street	2695	3292	3400	108	3.3%	3089	3672	3772	100	2.7%
#70 Ashby Avenue / Shattuck Avenue	2695	3145	3331	186	<b>5.9%</b>	2837	3248	3426	178	<b>5.5%</b>
#71 Ashby Avenue / Telegraph Avenue	3589	4039	4106	67	1.7%	3773	4265	4327	62	1.5%
#72 Ashby Avenue / College Avenue	2332	2720	2783	63	2.3%	2344	2814	2871	57	2.0%
#73 Ashby Avenue / Claremont Avenue	2844	3305	3505	200	<b>6.1%</b>	2819	3404	3590	186	<b>5.5%</b>
#74 Tunnel Road / SR 13	3335	3665	3865	200	<b>5.5%</b>	3298	3693	3879	186	<b>5.0%</b>

Note : **Underlined** = Project Contributions ≥ 5%

Source : Fehr & Peers, 2004

TABLE 11.2B-2

**2020 WITH PROJECT CONDITIONS STUDY INTERSECTION LEVELS OF SERVICE – DELAY CONTRIBUTIONS**

Intersection	Existing		2020 Without Project				2020 With Project				Impact Significant?		
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour			PM Peak Hour	
	Delay	LOS <sup>a</sup>	Delay	LOS <sup>a</sup>	Delay	LOS <sup>a</sup>	Delay	LOS <sup>a</sup>	Delay	LOS <sup>a</sup>		Delay	LOS <sup>a</sup>
<b>Signalized Intersections<sup>a</sup></b>													
1. Marin Avenue / San Pablo Avenue	<b>79</b>	<b>E</b>	50	D	<b>89</b>	<b>F</b>	<b>85</b>	<b>F</b>	<b>94</b>	<b>F</b>	<b>96</b>	<b>F</b>	No
3. Gilman Street / Sixth Street	11	B	<b>75</b>	<b>E</b>	16	B	<b>&gt;120</b>	<b>F</b>	17	B	<b>&gt;120</b>	<b>F</b>	No
18. Hearst Avenue / Gayley Road / La Loma Avenue	23	C	25	C	<b>57</b>	<b>E</b>	<b>67</b>	<b>E</b>	<b>60</b>	<b>E</b>	<b>69</b>	<b>E</b>	No
20. University Avenue / Sixth Street	<b>84</b>	<b>F</b>	<b>91</b>	<b>F</b>	<b>96</b>	<b>F</b>	<b>99</b>	<b>F</b>	<b>100</b>	<b>F</b>	<b>107</b>	<b>F</b>	Yes TRA-4b
21. University Avenue / San Pablo Avenue	<b>115</b>	<b>F</b>	<b>&gt;120</b>	<b>F</b>	<b>&gt;120</b>	<b>F</b>	<b>&gt;120</b>	<b>F</b>	<b>&gt;120</b>	<b>F</b>	<b>&gt;120</b>	<b>F</b>	Yes TRA-4c
67. Ashby Avenue / Seventh Street	34	C	52	D	54	D	<b>88</b>	<b>F</b>	54	D	<b>95</b>	<b>F</b>	No
<b>All-Way Stop-Controlled Intersections<sup>b</sup></b>													
32. Stadium Rimway / Gayley Road	26	D	35	D	<b>66</b>	<b>F</b>	<b>73</b>	<b>F</b>	<b>79</b>	<b>F</b>	<b>82</b>	<b>F</b>	No
43. Bancroft Way / Piedmont Avenue <sup>c</sup>	<b>&gt;50</b>	<b>F</b>	<b>&gt;50</b>	<b>F</b>	<b>&gt;50</b>	<b>F</b>	<b>&gt;50</b>	<b>F</b>	<b>&gt;50</b>	<b>F</b>	<b>&gt;50</b>	<b>F</b>	Yes TRA-3
48. Durant Avenue / Piedmont Avenue	17	C	18	C	26	D	27	D	<b>53</b>	<b>F</b>	34	D	Yes TRA-2b
65. Derby Street / Warring Street	<b>&gt;120</b>	<b>F</b>	<b>&gt;120</b>	<b>F</b>	<b>&gt;120</b>	<b>F</b>	<b>&gt;120</b>	<b>F</b>	<b>&gt;120</b>	<b>F</b>	<b>&gt;120</b>	<b>F</b>	Yes TRA-2c
<b>Side-Street Stop-Controlled Intersections<sup>d</sup></b>													
27. East Gate / Gayley Road	22 (EB)	C	20 (EB)	C	<b>35 (EB)</b>	<b>E</b>	27 (EB)	D	<b>35 [-3] (EB)</b>	<b>E</b>	22 (EB)	C	No
28. Addison Street / Oxford Street	10 (EB)	A	17 (EB)	C	11 (EB)	B	18 (EB)	C	<b>35 [4] (EB)</b>	<b>E</b>	<b>45 [34] (EB)</b>	<b>E</b>	Yes TRA-2d
34. Kittredge Street / Oxford Street	20 (EB)	C	<b>&gt;120 (EB)</b>	<b>F</b>	23 (EB)	C	<b>&gt;120 (EB)</b>	<b>F</b>	<b>&gt;120 [27] (EB)</b>	<b>F</b>	<b>&gt;120 [3] (EB)</b>	<b>F</b>	Yes TRA-2f

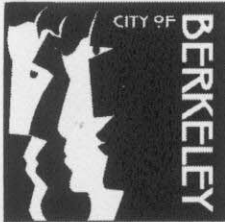
**Bold** – Indicates an intersection operated at unacceptable LOS E or F. **[x]** – Indicates number of project trips added to the impacted movement.

<sup>a</sup> Signalized intersection level of service based on average control delay per vehicle, according to the *Highway Capacity Manual, Special Report 209*, Transportation Research Board, 2000.

<sup>b</sup> All-way stop-controlled intersection level of service based on average control delay per vehicle, according to the *Highway Capacity Manual, Special Report 209*, Transportation Research Board, 2000.

<sup>c</sup> Based on 2000 HCM methodology, the intersection operates at LOS D during the AM peak hour and LOS C during the PM peak hour under Existing Conditions and LOS D under both AM and PM peak hours under 2020 No Project Conditions. However, this does not take into account pedestrian volumes. Based on field observations, this intersection has a heavy pedestrian volume, resulting in major delays for vehicles under existing conditions. With the additional traffic at the intersection under 2020 no Project and 2020 with Project conditions, the intersection is estimated to continue operating at LOS F. Project trips are more than 5% of total traffic; therefore, impact is significant.





Office of the City Manager

LETTER B7b

RECEIVED  
AUG 17 2004  
PHYSICAL & ENVIRONMENTAL  
PLANNING

August 10, 2004

Ms. Jennifer Lawrence, Principal Planner  
University of California Physical and Environmental Planning  
1936 University Avenue  
Berkeley, California 94720

Dear Ms. Lawrence:

Based on further reflection regarding our June 18, 2004 comments on the University of California at Berkeley's Draft Long Range Development Plan (LRDP) and Draft Environmental Impact Report (DEIR), the City is hereby sending this letter of clarification. Although we recognize that these additional clarifying comments come after the normal deadline for formal response, the City hopes you will take them into account in preparing your responses in the Final Environmental Impact Report.

### **Opposition to Parking Replacement Policy**

Throughout our comments on the LRDP and DEIR, the City has generally noted its concern with the proposed increase in parking supply. What we failed to explicitly include in our comments was a reiteration of the City's opposition to one of the ways the University has used to provide the funding for the additional parking. Specifically, in 1999 the City adopted a resolution noting its opposition to the Parking Replacement Policy as it relates to housing. Under that policy, every campus construction project, including student housing, must budget and pay \$20,000 for each parking space that is eliminated as a result of that project. The City believes this policy is an impediment to providing needed housing. Specifically, the City's resolution is as follows:

B7b-1

"Because of the urgent need for affordable student housing, we also request evaluation of a blanket exception under section six for all student housing, for a designated time period, since this policy would either delay or prevent some student housing and/or increase the cost to the resident students."

### **Support for Student and Faculty Housing**

The City has numerous policies in the General Plan, Downtown Plan and Southside Plan supporting student and faculty housing near campus in appropriate locations. Some language included in our comments on the LRDP and DEIR has been interpreted as being opposed to increased student and faculty housing near campus, and the City would therefore request that this language be deleted from our comments. Specifically, the following sections should be deleted (as shown in strike-out):

B7b-2

Page 13:

However, in addition, the University's "housing zone" includes this same area. There is nothing in the LRDP that would necessarily prevent all thousand new housing units from locating in or immediately adjacent to the City's downtown. Even if the numbers were considerably below 1,000 new units, the combination of new University academic/support space and more University housing units could tip the City's downtown from its current eclectic and diverse character, into a student district, increasingly more like Telegraph Avenue. This would clearly be a significant adverse impact on the city of Berkeley, fundamentally changing the character of this city.

B7b-2

While the City recognizes that it was not the intent of the drafters of the LRDP to imply that the University would transform downtown into another Telegraph Avenue, there is nothing in this plan that would necessarily prevent this from happening. And under the City's own policies, the downtown allows for the highest intensity of use in the City. Given the University's policy of its buildings not exceeding (generally) the building envelopes allowed by the City, the downtown would be an attractive location for new University housing.

Page 24:

For example, a thousand new housing units west of campus, in or immediately adjacent to the City's downtown, could tip the City's downtown from its current eclectic and diverse aesthetic character, into a student district, similar to what has already occurred along Telegraph Avenue, with a potential for substantial visual impacts and ultimately, visual degradation. This would clearly be a significant adverse impact on the city of Berkeley, fundamentally changing the physical character of this city. And yet, there is nothing in this plan that would necessarily prevent the University from developing in this manner.

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The LRDP's proposed housing zone includes the downtown area. There is no policy that would prevent all one thousand new housing units proposed by the University locating west of campus, in or immediately adjacent to the City's downtown. As the highest intensity district in the City, it is certainly an attractive option, given the University's stated intention generally to not exceed zoning envelopes. The University has already developed a significant amount of housing on Shattuck in the heart of downtown. Even a few hundred more student housing units, in combination with the University's other development could tip the balance in the City's downtown from its current eclectic and diverse character into becoming part of a student and University district.

In regard to housing for faculty and staff, the University is proposing to add up to 2,870 new faculty and only 230 units of staff housing – with much of that housing in an area the City finds unacceptable. The City made several comments in its June 18 letter regarding the inappropriate location in the hills proposed for a significant portion of the proposed increase in housing for staff and faculty. However, the City was not as clear in indicating its continuing support for faculty and staff housing near campus in

B7b-3



more appropriate locations, and without removing more land from the City's tax rolls. About half of staff drive to work. By increasing the supply of affordable housing for faculty and/or staff near campus (or in the 20 minute commute-shed identified for student housing), the University addresses a significant concern for faculty and staff recruitment and retention, while addressing the City's concern with traffic.

B7b-3

The City would like to explicitly incorporate the following city policies into our comments on the LRDP and DEIR:

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"Create a sense of community by locating housing for all income types in and near the downtown, near transit, employment, retail and cultural opportunities," Downtown Plan, Social and Cultural Element, Objective 2.

B7b-4

"Residents of downtown housing should be of a wide variety of social and income groups," Downtown Plan, Social and Cultural Element, Policy 2.1.

"Encourage residential development in and near downtown for a variety of social and income groups. Strongly encourage mixed use developments that include retail, residential, and office uses. Preserve, upgrade and develop low and moderate income downtown housing," Downtown Plan, Land Use Element Policy 1.5

"Encourage mixed-use projects that include both office space and housing above appropriate ground-floor uses (retail or arts) to improve the balance between the number of jobs and the number of housing units in the Downtown," General Plan, Land Use Element, Policy LU-17 (D).

"Encourage development of transit-oriented, low-cost housing in the Downtown," General Plan, Land Use Element, Policy LU-24.

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"Support the development of new housing for students that will not take additional land off the tax rolls and that is compatible with existing development and the policies of the downtown plan," Downtown Plan, University of California Element, Policy 3.1.

B7b-5

"Encourage the development of affordable housing in the Downtown, the Southside Plan area and other transit-oriented locations," General Plan, Land Use Element, Policy LU-25.

"Encourage the University to maximize the supply of housing for students, faculty, and staff to minimize the impacts of the University on the citywide supply of housing," General Plan, Land Use Element, Policy LU-37.

"Encourage the University of California to provide additional housing within walking distance of campus to reduce University-related traffic," General Plan, Transportation Element Land Use Element, Policy T-16 C.

Ms. Jennifer Lawrence  
August 10, 2004  
Page 4

LETTER B7b  
Continued

“Support neighborhood services by encouraging development of new housing at suitable locations within walking distance of the UC Campus and as part of mixed-use developments in the Telegraph Commercial District and Downtown Berkeley,” Draft Southside Plan, Land Use and Housing Element, Policy LU-E1.

B7b-5

Thank you for your consideration of our requests.

Sincerely,



Phil Kamlarz  
City Manager

cc: City Mayor and Members of the  
City Council  
Sherre Kelly, City Clerk  
Dan Marks, Planning Director

### **11.2B.7B RESPONSE TO COMMENT LETTER B7B**

Letter B7b was received well after the close of the comment period, but is included in this document as a courtesy.

#### **RESPONSE TO COMMENT B7B-1**

The writer's opposition to the Parking Replacement Policy is noted. The comment is not a comment on the Draft 2020 LRDP or EIR, and no further response is required.

#### **RESPONSE TO COMMENT B7B-2**

The writer's request is hereby documented.

#### **RESPONSE TO COMMENTS B7B-3**

The writer's opposition to hill locations for a significant portion of housing for staff and faculty, and support for faculty and staff housing near campus that does not remove land from the City's tax rolls, is noted. See Thematic Response 8 regarding Hill Campus development.

#### **RESPONSE TO COMMENT B7B-4**

The writer's request is hereby documented.

#### **RESPONSE TO COMMENT B7B-5**

The writer's request is hereby documented.

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- <sup>1</sup> City of Berkeley/UC Berkeley, *Southside/Downtown Transportation Demand Management Study*, March 2001, page ES-5.
- <sup>2</sup> Personal conversation, Kira Stoll, Transportation Planner, UC Berkeley Parking & Transportation, July, 2004
- <sup>3</sup> City of Berkeley/UC Berkeley, *Southside/Downtown Transportation Demand Management Study*, March 2001, page 7-20
- <sup>4</sup> UC Berkeley, *Strategic Academic Plan*, June 2002, page x18, viewed July 7 2004 at <http://www.berkeley.edu/news/media/releases/2003/05/sap/plan.pdf>
- <sup>5</sup> City of Berkeley, *Zoning Ordinance*, section 23E.68.080
- <sup>6</sup> BAAQMD CEQA Guidelines section 3.9 at page 51.
- <sup>7</sup> For CO, the 550 pounds per day criterion applies to all emissions associated with a project to assess potential regional impacts. Other criteria apply for mobile source emissions to assess potential localized impacts, as described in response B7-107.
- <sup>8</sup> Low sulfur diesel fuel reduces the formation of sulfate particulate matter from diesel combustion and also allows for the use of more effective retrofit diesel exhaust controls.
- <sup>9</sup> City of Berkeley/UC Berkeley, *Southside/Downtown Transportation Demand Management Study*, March 2001, page 7-20
- <sup>10</sup> Personal conversation, Victoria Harrison, Chief, UC Police Department, November 2004.
- <sup>11</sup> City of Berkeley, *Draft Report: Sewer Service Charges and Connection Fees and Clean Stormwater Fees Study for the Evaluation of "Fair Share" Contributions from the UC Regents*, April 2004, table 2-2.
- <sup>12</sup> City of Berkeley/UC Berkeley, *Southside/Downtown Transportation Demand Management Study, Existing Conditions*, April 2000, page ES-6
- <sup>13</sup> City of Berkeley/UC Berkeley, *Southside/Downtown Transportation Demand Management Study*, March 2001, page 10-4
- <sup>14</sup> UC Berkeley Long Range Development Plan Draft EIR, January 1990, page 4.5-12
- <sup>15</sup> City of Berkeley, *Zoning Ordinance*, section 23E.68.080
- <sup>16</sup> Berkeley Municipal Code Title 14, Vehicles and Traffic, Section 14.72.020.
- <sup>17</sup> For CO, the 550 pounds per day criterion applies to all emissions associated with a project to assess potential regional impacts. Other criteria apply for mobile source emissions to assess potential localized impacts, as described in Response to Comment B7-107.