2.0 CHANGES TO THE PROJECT DESCRIPTION

2.1 INTRODUCTION

The Draft EIR evaluated the environmental impacts from the construction of the proposed Computational Research and Theory (CRT) Facility project, which included the approximately 140,000-gross-square-foot (gsf), six-story research building and a new driveway that would provide access to the project site from Cyclotron Road near the Blackberry Canyon Gate. Since the publication of the Draft EIR, the Lawrence Berkeley National Laboratory (LBNL) has reviewed the proposed project and determined that in order to reduce the visibility of the building from nearby areas in the City of Berkeley, LBNL will recommend to The Regents of the University of California that instead of the project as proposed, they consider a revised project for approval. Key aspects of the revised project and the environmental impacts associated with it are summarized below.

2.2 PROPOSED PROJECT

The CRT project described in the Draft EIR included development of a new building, access driveways and pedestrian access, and associated infrastructure to accommodate (1) the National Energy Research Scientific Computing (NERSC) Center, (2) the associated High Performance Computing (HPC) center, and (3) researchers and students from the Lab's Computational Research Division and the joint UC/Berkeley Lab Computational Science and Engineering program. The building would include both a supercomputer equipment floor and an office structure, with space for computing, offices, and conference rooms. The proposed building would abut a steep hillside, and the upper floor of the office structure would be accessible from the existing parking lot that connects the Building 50 and 70 complexes (see Figure 3.0-3, CRT Conceptual Project Design, in the Draft EIR). The new advanced computational equipment and office space would support UC Berkeley's academic programs in computational science and engineering and the needs of computer scientists, mathematicians, and theoreticians who are currently engaged in high performance computing and high performance production computing and computational research.

2.3 REVISED PROJECT

The revised CRT project design would eliminate the east-west oriented office tower and place the office portion of the building atop the high performance computing (HPC) floor on the same roughly north-south axis. The office portion of the building would occupy two stories extending the full length and width of the building above the HPC floor. The HPC building footprint would remain the same as with

the original project (see **Figure 2.0-1, Revised Project Site Plan**). The building square footage would also remain the same, at approximately 140,000 gsf. This design would allow the building roofline elevation to be lowered by approximately 30 feet by removing three floors and moving the building slightly down the hill. At the west façade of the building, the building height from grade to the roofline would be 96 feet (compared to 166 feet for the original project). The air intakes along the west façade would be lowered by 14 feet, reducing their visibility. **Figure 2.0-2, Revised Conceptual Design**, shows the revised project in the context of the site and surrounding area. **Figure 2.0-3, Revised Project Sections**, shows cross-sections of the revised project building with elevation data.

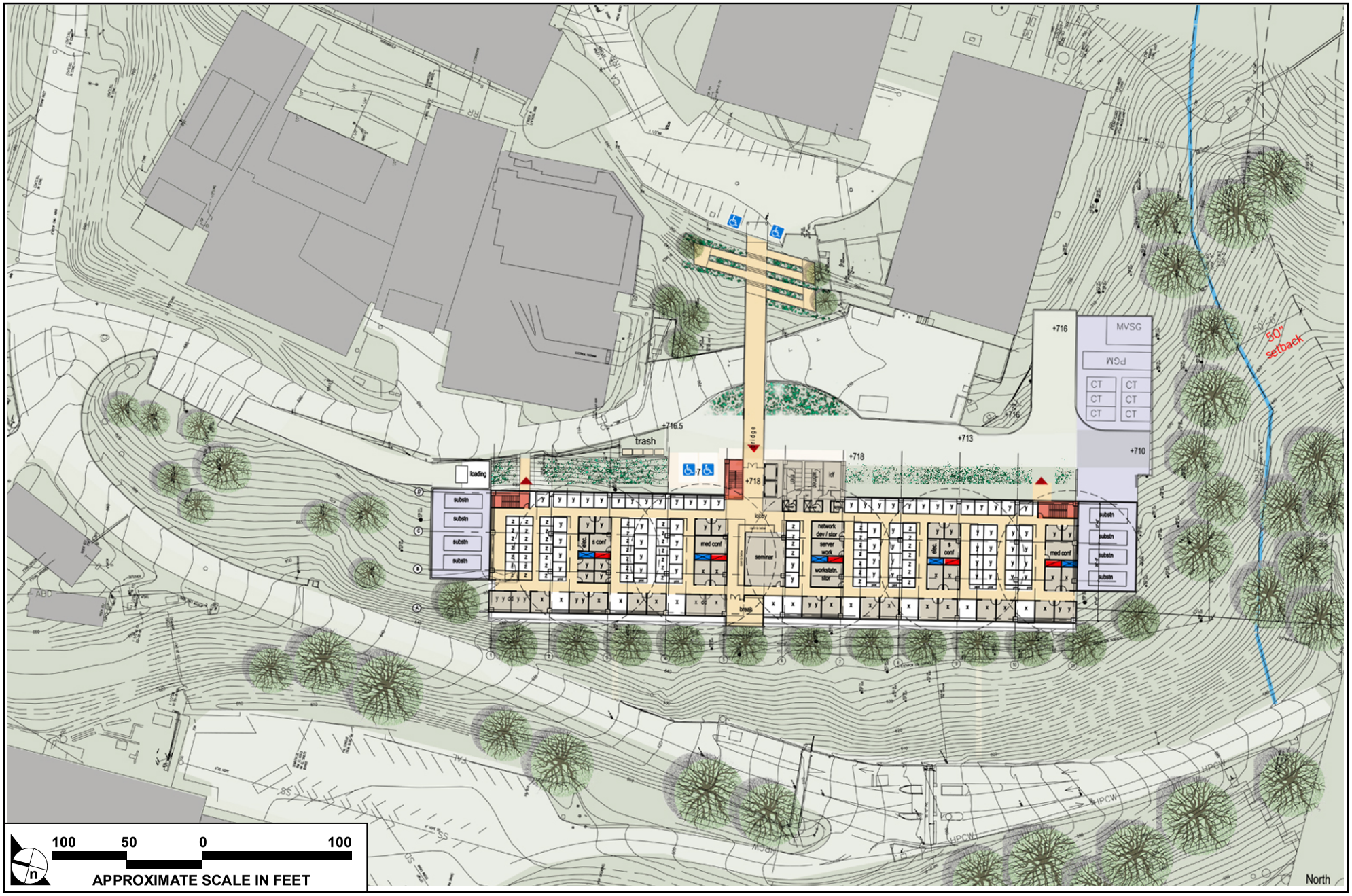
Building construction, exterior finishes, and mechanical systems would be similar to those of the original proposed project. The cooling towers and emergency generator would be located in an enclosure on the south end of the building. The building would require three cooling towers at startup and up to nine at project buildout if the cogeneration option were implemented.

Vehicle access to the building would be via a new driveway extending from Cyclotron Road along the east side of the building. A pedestrian bridge would connect the CRT building to the Building 50 complex and the plaza between Buildings 70 and 70A. There would be no pedestrian connection to the Blackberry Canyon gate area on the west side of the building. Two emergency access stairways would connect the west side of the building with Cyclotron Road to provide firefighting access.

Landscaping would include a row of trees along the west façade to provide visual screening, as well as drought-resistant tree, shrub, and groundcover plantings, as described in Chapter 3.0, Project Description, of the Draft EIR. Rooftop runoff would be directed into vegetated swales to provide stormwater filtration. Stormwater handling would be similar to that proposed for the original project, with a subsurface vault or vaults sized appropriately to maintain peak flows at pre-development levels.

As with the original proposed project, a 50-foot, no-build zone would be maintained from the nearby Cafeteria Creek drainage, and a 40-foot setback would be maintained from all adjacent structures to meet building code requirements and minimize the impact of the new development on adjoining areas.

All other aspects of the revised project, including the programs that would occupy the building, population, utility requirements, and construction activities and schedule, would remain the same as with the original proposed project, as described in Chapter 3.0 of the Draft EIR.

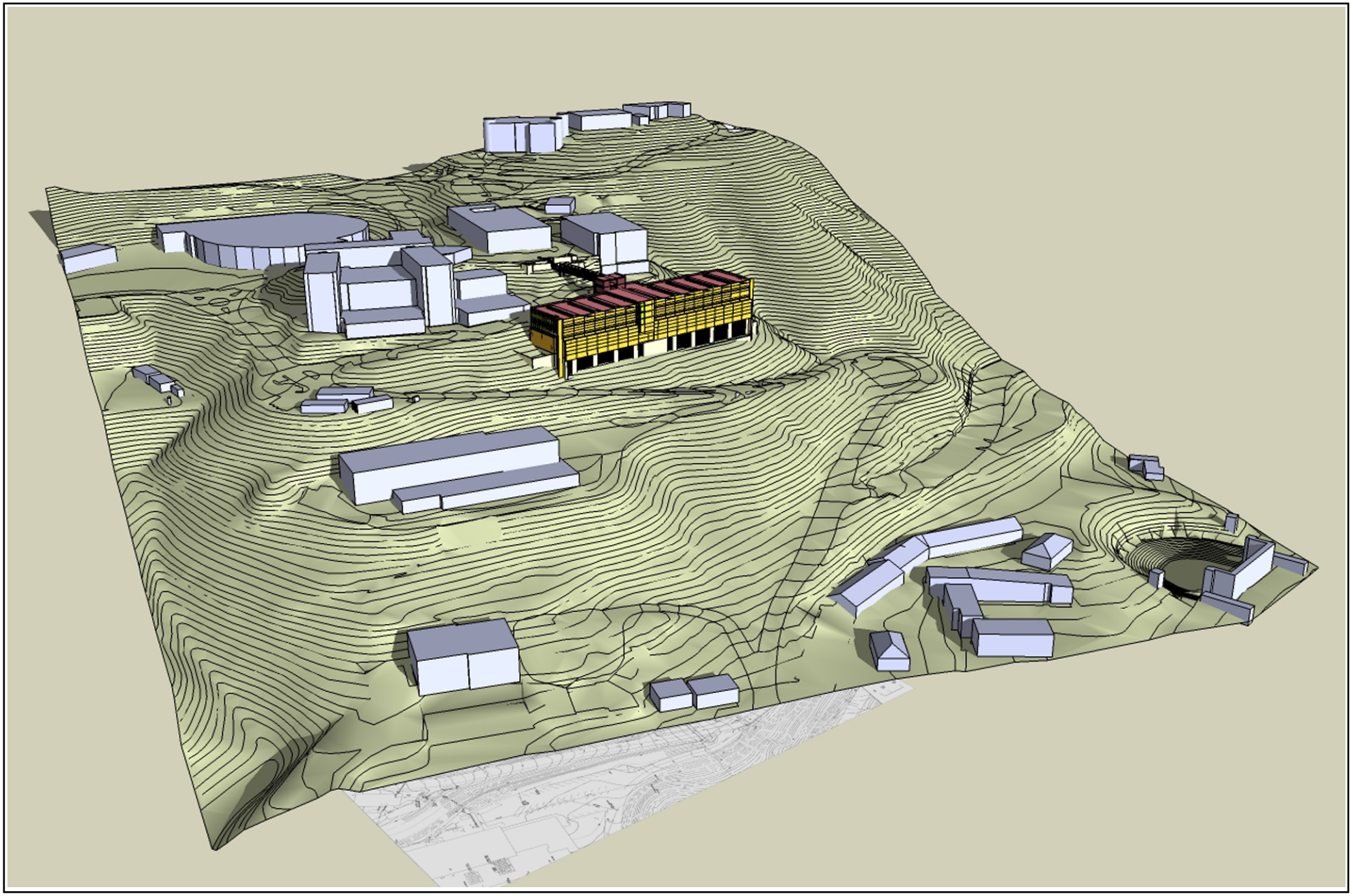


SOURCE: Perkins + Will - April 2008

FIGURE **2.0-1**

Revised Project Site Plan

924-002•04/08



SOURCE: Perkins + Will - April 2008

FIGURE **2.0-2**

Revised Conceptual Design

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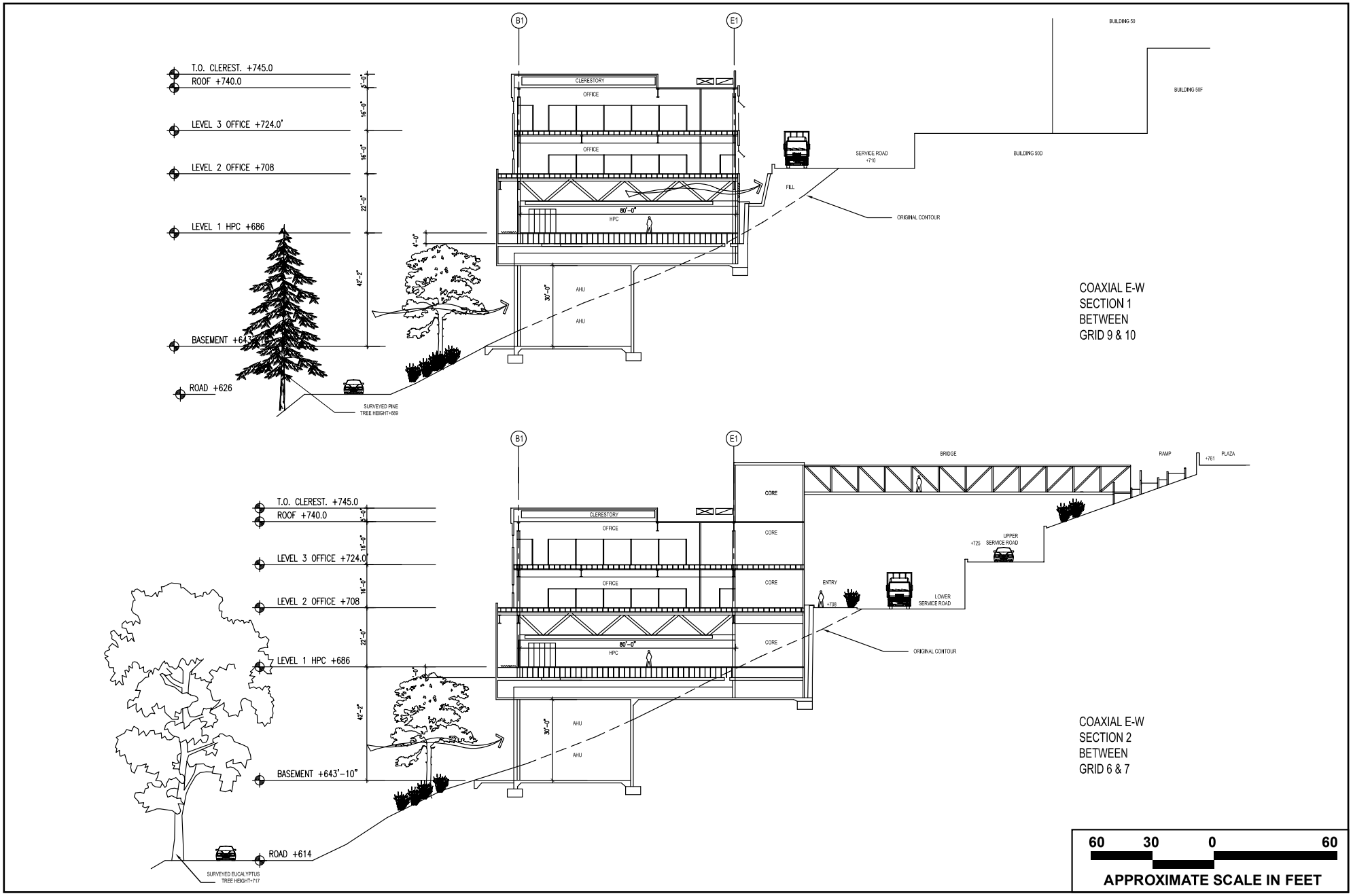

SOURCE: Perkins + Will - April 2008

FIGURE **2.0-3**

Revised Project Sections

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2.4 SUMMARY OF IMPACTS AND MITIGATION MEASURES

The environmental impacts of the proposed project are discussed in Chapter 4.0 of the Draft EIR and are summarized below with additional information provided where necessary based on the minor changes to the project design that are described above.

Aesthetic Impacts

A number of comments submitted on the CRT Draft EIR were concerned with the building height and prominence of the proposed project on the hillside from various viewpoints. Even though impacts associated with aesthetics were found to be less than significant in the Draft EIR, the project design has been revised in order to address these concerns. Revisions to the project description, as described above, would lower the building roofline elevation by approximately 30 feet, eliminate the east-west oriented office tower, and extend the office portion of the building the full width of the building. These modifications would result in a reduction of the building's profile on the hillside and a corresponding reduction in the degree to which it would alter views of the hillside in comparison to those described in the Draft EIR.

A set of revised visual simulations is presented below to illustrate "before" and "after" visual conditions in the project area. The simulations illustrate the location, scale and conceptual appearance of the revised project as seen from the same two representative viewpoints presented in the Draft EIR: Hearst Avenue at Shattuck Avenue, approximately 0.9 mile from the project site (**Figure 2.0-4, Revised Project Visual Simulation: Hearst Avenue at Shattuck Avenue**) and Ridge Road near Euclid Avenue, approximately 0.5 mile from the site (**Figure 2.0-5, Revised Project Visual Simulation: Ridge Road near Euclid Avenue**). These simulation locations are shown on Figure 4.1-1, Photo Viewpoint Locations, in the Draft EIR. As discussed in the Draft EIR (page 4.1-13), these viewpoints were selected to represent public viewpoints that provide the most direct view of the potential site changes and would therefore be the most appropriate locations from which to prepare visual simulations. Computer modeling and rendering techniques were employed to produce the visual simulation images. The computer-generated visual simulations are the results of an objective analytical and computer modeling process described briefly below.

The visual study employs photographs taken in July, August, and September 2007, using a single lens reflex (SLR) digital camera with a 50 mm equivalent lens which represents a view angle of approximately 40 degrees. Existing topographic and site data supplied by LBNL project architects provided the basis for developing an initial digital model. The three-dimensional (3-D) computer model of the proposed project

massing was combined with the digital site model to produce a complete computer model of the proposed project. For each of the simulation viewpoints, viewer location was digitized from topographic maps using 5 feet as the assumed eye level. Computer "wireframe" perspective plots were overlaid on photographs to verify scale and viewpoint location. Digital visual simulation images were then produced based on computer renderings of the 3-D model combined with digital versions of the selected site photographs.

CRT Impact VIS-2 found that the proposed project could alter views of the LBNL site but would not result in a substantial adverse effect to a scenic vista or substantially damage scenic resources. Similar to the previous project design, although the project could be visible from a limited area including Lawrence Hall of Science and could affect a scenic vista, the project would largely be screened by existing LBNL buildings and intervening vegetation.

As shown in **Figure 2.0-4**, similar to the previous project design (Figure 4.1-3 of the Draft EIR), the revised project would be visible on the hillside to the right (south) of Building 50. Because the highly visible "tower" feature of the building would be removed, offices would be redistributed along the coaxial (HPC) element as less visible, lower-lying strata; however, this would increase the visibility of the coaxial element from off-site viewpoints. From Hearst Avenue and other western viewpoints, the cluster of mature eucalyptus trees situated below and west of the project would partially screen the CRT building; due to the absence of the tower, this screening would be to greater effect than it was with the previous project design. From Ridge Road near Euclid Avenue, as was analyzed in the Draft EIR, the revised project would continue to be visible. Draft EIR Figure 4.1-4 shows the CRT building as it would appear on the hill behind the palm trees on the right (south) side of the view, with eucalyptus trees on the foreground slopes of LBNL screening the lower portions of the CRT building. From this viewpoint, the revised project would appear lower and wider in profile, and existing trees would screen a larger portion of the building.

Consistent with the previous project design and as demonstrated in the Draft EIR simulations, the revised project (see revised simulation Figures **2.0-4** and **2.0-5)** would marginally increase the LBNL development visible to offset viewpoints to the west. Views of the project from all locations in the off-site Berkeley area would be partially or fully screened by intervening topography, vegetation, and structures. Because the previous CRT project design would have introduced an additional, partially visible structure into the context of an already developed hillside, the Draft EIR CRT Impact VIS-2 concluded that less than significant scenic resources impacts would result. Similarly, the revised project, with its overall lower profile, would also be less than significant with respect to scenic resources.

Existing view from Hearst Avenue at Shattuck Avenue

Visual simulation of proposed project

SOURCE: Environmental Vision - April 2008

FIGURE **2.0-4**

Revised Project Visual Simulation: Hearst Avenue at Shattuck Avenue

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Existing view from Ridge Road near Euclid Avenue

Visual simulation of proposed project

SOURCE: Environmental Vision - April 2008

FIGURE **2.0-5**

Revised Project Visual Simulation: Ridge Road near Euclid Avenue

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CRT Impact VIS-3 found that implementation of the proposed project would result in less than significant impacts associated with visual character. Similar to the previous project design, the revised CRT building would appear lower in height than nearby Lab buildings and would not be visually prominent from most off-site locations. As shown in **Figures 2.0-4** and **2.0-5** and Figures 4.1-3 and 4.1-4 in the Draft EIR, from typical public vantage points, the project would be visible as an addition to the existing hillside development. However, the building would be relatively unobtrusive from most locations and would not be visible from large areas of the City of Berkeley because of intervening terrain, trees, and buildings. The revised project would further decrease the visual prominence of the building from off-site public vantage points. The Draft EIR found that the proposed project would alter the existing visual character of the Laboratory site but would not substantially degrade the existing visual character and quality of the site and its surroundings. The revised project would incrementally decrease this previously identified less than significant impact.

In addition to the revised simulations discussed above, new simulations were prepared to show the revised project as it would appear in 10 to 15 years, with the additional tree growth that would be expected to occur by that time (see **Figure 2.0-6, Revised Project Visual Simulation: Year 2020 View, Hearst Avenue at Shattuck Avenue** and **Figure 2.0-7, Year 2020 View, Revised Project Visual Simulation: Ridge Road near Euclid Avenue).** These simulation locations are the same as those shown on Figure 4.1-1, Photo Viewpoint Locations, in the Draft EIR. As shown in these figures, views of the project from off site would be further screened over time by tree growth. The cluster of mature eucalyptus trees situated below the project above Hearst Avenue would screen the CRT building to a greater extent than with either the original project design presented in the Draft EIR or the revised project design. Over time, existing trees would screen much of the lower portions of the building from most off-site viewpoints.

As with the Draft EIR simulations, the revised simulations in Figures **2.0-4** and **2.0-5** demonstrate that, as seen from a limited area situated to the west, the CRT project would create a minor alteration in the appearance of the LBNL site by increasing the amount of visible development.

Similar to the proposed project, construction activities associated with the proposed project would create temporary aesthetic nuisances for adjacent land uses. However, the impact would be reduced to a less than significant level with a project-specific mitigation measure (CRT Mitigation Measure VIS-1, Draft EIR, page 4.1-18). Since construction activities would not change with the revised project design, this impact would remain less than significant with mitigation.

Lastly, with respect to light and glare, CRT Impact VIS-4 found that with implementation of the LRDP Mitigation Measure VIS-4a and LRDP Mitigation Measure VIS-4b, the proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Given that the revised project would include the same population, programs, and utility requirements, the revised project would not create new sources of light and glare, above those already discussed in the Draft EIR (page 4.1-20). Therefore, this would remain a less than significant impact.

All Other Resources

All other impacts of the revised project would be identical to the impacts of the proposed project and those impacts that are significant or potentially significant would require the implementation of the same mitigation measures that were presented for the proposed project in the Draft EIR.

2.5 EVALUATION OF PROJECT CHANGES; RECIRCULATION NOT REQUIRED

The *State California Environmental Quality Act (CEQA) Guidelines* require a lead agency to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review but before certification. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. "Significant new information" requiring recirculation include, for example,

- A disclosure showing that a new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented;
- A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance;
- A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
- The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

Furthermore, recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR (Section 15088.5).

Existing view from Hearst Avenue at Shattuck Avenue

Visual simulation of proposed project with 10-15 years growth on screening trees

SOURCE: Environmental Vision - April 2008

FIGURE **2.0-6**

Revised Project Visual Simulation: Year 2020 View, Hearst Avenue at Shattuck Avenue

924-02•04/08

Existing view from Ridge Road near Euclid Avenue

Visual simulation of proposed project with 10-15 years growth on screening trees

SOURCE: Environmental Vision - April 2008

FIGURE **2.0–7**

Year 2020 View, Revised Project Visual Simulation: Ridge Road near Euclid Avenue

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Revisions to the project design would result in an incrementally lower building profile on the hillside. With respect to aesthetic impacts, the revised project would incrementally decrease previously identified less than significant impacts associated with visual character and visual resources. All other impacts with the revised project would be identical to those identified in the Draft EIR. Since the information added to the EIR would not result in a new or substantially more severe adverse environmental effect, the new information is not considered "significant" according to the definition in the *State CEQA Guidelines.* Therefore, recirculation of the EIR for a second round of public review is not required.