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Office of the President

TO MEMBERS OF THE COMMITTEE ON GROUNDS AND BUILDINGS:

ACTION ITEM

For Meeting of July 16, 2013

APPROVAL OF THE BUDGET, APPROVAL OF EXTERNAL FINANCING, AND APPROVAL OF DESIGN FOLLOWING ACTION PURSUANT TO CALIFORNIA ENVIRONMENTAL QUALITY ACT, INFILL APARTMENTS REPAIRS, SANTA CRUZ CAMPUS

EXECUTIVE SUMMARY

The Infill Apartments at Cowell, Stevenson, Porter, and Kresge Colleges[1] on the Santa Cruz campus provide 148 apartments units and 742 beds in 17 buildings. They were constructed as a result of the *Infill Apartments* project, approved by the Regents in March 2001 and completed in 2004, at a final cost of $61,064,000. The anticipated cost to replace the Infill Apartments would range between $96.9 million and $114.6 million.

The proposed *Infill Apartments Repairs* project would correct construction defects in the buildings, which have suffered from water damage caused by failure of the buildings' exterior waterproofing system and faulty shower assemblies. It is imperative for the University to commence work at the earliest opportunity to prevent continuing building damage, ensure building integrity, maintain a safe, healthy student living environment, maintain compliance with student housing commitments identified in the 2005 Long Range Development Plan, minimize housing revenue losses, and minimize project costs. The University is currently in litigation seeking to recover all damages associated with the construction defects.

This item requests (1) approval of the project budget of $32,982,000, to be funded from Colleges, Housing and Educational Services Auxiliary Reserves ($7,982,000) and External Financing ($25 million); (2) finding that the project is categorically exempt under the California Environmental Quality Act; and (3) approval of the design of the *Infill Apartments Repairs* project.

[1] The original *Infill Apartments* project was constructed at Cowell, Stevenson, and Porter Colleges. Two of the Porter College buildings are now affiliated with Kresge College.

RECOMMENDATION

The President recommends that the Committee on Grounds and Buildings recommend to the Regents that:

1. The 2012-13 Budget for Capital Improvements and the Capital Improvement Program be amended as follows:

   From: Santa Cruz: Infill Apartments Repairs - Preliminary Plans - $996,000, to be funded from Colleges, Housing and Educational Services (CHES) Auxiliary Reserves.

   To: Santa Cruz: Infill Apartments Repairs - Preliminary Plans, Working Drawings, and Construction - $32,982,000 to be funded from CHES Auxiliary Reserves ($7,982,000) and External Financing ($25 million).

2. The scope of the *Infill Apartments Repairs* project shall be to repair construction defects, including scope triggered by the repairs, in 17 student apartment buildings (148 apartment units, with a current total of 742 beds) constructed as a result of the *Infill Apartments* project at Cowell, Stevenson, Porter, and Kresge Colleges.

3. In conjunction with the Regents approving Recommendations 1 and 2 herein, the Regents:

   A. Find that the project is categorically exempt under California Environmental Quality Act Guidelines Section 15301, Class 1 Existing Facilities.

   B. Approve the design of the *Infill Apartments Repairs* project, Santa Cruz Campus.

4. The President be authorized to obtain external financing not to exceed $25 million to finance the *Infill Apartments Repairs* project. The President shall require that:

   A. Interest only, based on the amount drawn down, shall be paid on the outstanding balance during the construction period.

   B. As long as the debt is outstanding, general revenues from the Santa Cruz campus shall be maintained in amounts sufficient to pay the debt service and to meet the related requirements of the authorized financing.

   C. The general credit of the Regents shall not be pledged.

5. The President be authorized to execute all documents necessary in connection with the above.

BACKGROUND

The Santa Cruz campus *Infill Apartments* project was completed in August 2004 at a total final cost of $61,064,000, funded by UC Housing System Net Revenues ($2.1 million) and external financing ($58,964,000). There is approximately twenty years of debt service remaining on the original project financing.

The following is a chronology of how the defects were discovered:

- ***Spring 2011***: Maintenance crews noted cracks in shower pans of the Cowell College Infill Apartments.
- ***Summer 2011***: University replaced two shower pan assemblies and identified systemic problems, including significant leaks, water intrusion, and excessive moisture content in floor boards, framing, wallboard, and structural supports. The Colleges, Housing and Educational Services (CHES) Facilities Office realized certain recurring symptoms could indicate systemic problems relating to the shower pans within the buildings.
- ***Fall 2011***: University hired forensic consultant to investigate shower pan assemblies and document the cause of the problems. Shower pan assemblies were fractured and leaking. In addition, some shower flashings were not correctly installed or properly sealed. Compounding matters was evidence that the interior structural wall sheathing of oriented strand board (OSB) had been absorbing water and deteriorating.
- ***Spring 2012***: University demanded the original contractor repair the defective shower pans, but the contractor refused.
- ***Summer 2012***:
    a) University sued the original contractor for defective shower pans.
    b) Campus replaced a portion (25) of defective shower assemblies and identified potential signs of unrelated defective work.
    c) Consultant advised further investigation of construction assemblies at all Infill Apartments.
- ***Summer 2012 through spring 2013***: Consultant performed additional investigation and destructive testing and encountered extensive damage to building exteriors and other assemblies, including documented cracked stucco, wet building paper, and compromised exterior OSB shear wall material. In some places, the insulation and wood stud framing behind the OSB shear wall had also been compromised.
- ***Spring 2013***: University amended original complaint as a result of greatly increased repair scope.

Project Drivers

Primary project drivers:

- Prevent continuing building damage and ensure building integrity.
- Maintain a safe, healthy student living environment.
- Maintain compliance with the student bed commitments identified in the 2005 Long Range Development Plan.

- Minimize housing revenue losses.
- Minimize project costs.

Alternatives Considered

A. Continue operations without addressing known issues.
B. Repair the damage in one phase beginning summer 2013.
C. Repair the damage in two phases beginning summer 2013 (Phase 1) and summer 2014 (Phase 2).
D. Demolish the Infill Apartments and construct new buildings.

After analyzing the alternatives, the campus intends to proceed with Alternative C. By repairing the damage in two phases beginning summer 2013, the campus can reduce repair costs from continuing damage, and maintain safe, healthy student housing while ensuring building integrity, maintaining compliance with the 2005 LRDP, and moderating the impact on project costs and housing revenues. In addition, this alternative would allow the campus to learn from the Phase 1 construction experience and apply that knowledge to Phase 2.

Ignoring the construction defects as suggested in Alternative A may achieve some project goals for the immediate future, but would become detrimental shortly thereafter. Dry rot would continue to occur and eventually the buildings would be deemed uninhabitable. The campus would fall out of compliance with the LRDP student housing commitments and CHES would lose revenue as over one-tenth of the housing inventory would come off-line. The scope and cost to repair the buildings would increase as the damage worsens and the cost of construction escalates. This alternative would force the campus to react to an emergency as opposed to repairing the damage through a planned project.

Alternative B, repairing all of the buildings in one phase starting summer 2013, is the quickest path to preventing further building damage, ensuring building integrity, and maintaining a safe and healthy student living environment. The project schedule would be shorter thereby reducing the total project cost and financial risk. While total project costs may decrease, this alternative would take all 742 beds off-line at the same time and take the campus out of compliance with the LRDP student housing commitments.

Alternative D analyzed by the campus would demolish and rebuild all existing Infill Apartment buildings. The anticipated cost to replace the Infill Apartments would range between $96.9 million and $114.6 million.[2] This does not take into account the cost of demolition or any ADA improvements that may be required. In addition, this calculation does not account for any increase in cost associated with the new Title 24 requirements, or the additional costs of a full Environmental Impact Report under the California Environmental Quality Act and possible associated mitigation costs. Assuming two years of construction, this alternative would take the

[2] Using the original total project cost (excluding moveable equipment), adjusting to the June 2013 California Construction Cost Index and adding a range of 5 to 12 percent for escalation to the mid-point of construction in June 2016.

campus out of compliance with the LRDP student housing commitments and would reduce CHES revenues.

PROJECT DESCRIPTION

The proposed project would address repairs on the most seriously compromised buildings at Stevenson and Kresge Colleges in Phase 1, followed by repairs at Cowell and Porter Colleges in Phase 2. Repairs to the 17 structures (148 apartments), totaling approximately 215,663 gross square feet, would address approximately 163,000 square feet of exterior assemblies, 1,100 windows, 246 bath/shower assemblies, and mechanical and structural defects throughout each building. The scope of work includes:

a) Repair/replace exterior water-proofing system (building stucco, metal lath, building paper, and flashings);
b) Repair/replace faulty windows;
c) Replace interior and exterior deteriorated OSB sheathing;
d) Repair structural deficiencies resulting from damaged systems;
e) Repair/replace faulty shower assemblies in unit bathrooms (for those bathrooms that have not already had the shower assembly replaced);
f) Correct ventilation and exhaust deficiencies in bath and shower rooms;
g) Replace other water damaged building systems (insulation, drywall, wood framing, flooring, electrical, data/phone, etc.);
h) Replace landscaping and irrigation systems disturbed as a result of repair activities; and
i) Repair other miscellaneous items identified in the forensic report.

In May 2013, under interim authority, the President and the Chair of the Committee on Grounds and Buildings approved preliminary plans funding in the amount of $996,000, which allowed the campus to enter into an Executive Design Professional Agreement, begin design, and develop more accurate cost estimates than the preliminary budget forecasts presented in the interim item. The estimated $24 million total project budget referenced in the interim item was based on rough initial estimates provided by a forensic consultant to initiate the legal claim. Subsequent forensic analysis has identified additional construction defects and more damage than previously anticipated. As a result, more extensive repairs are necessary to fully restore the integrity of the structure and building systems. While the legal claim only seeks reimbursement for repairing the construction defects and the resulting damage with similar materials, the campus may elect to use better shear materials, waterproofing systems, and other betterments to improve the integrity of the building. Based on 100 percent Design Development (DD) drawings for Phase 1, and 50 percent DD for Phase 2, current estimates prepared by the architect and third-party peer estimator support an estimated total project budget of $32,982,000. These estimates include additional scope discovered with follow-up forensic investigation as well as detailed scope for restoring the surrounding property and building protection and repair.

Given the unpredictable nature of potential water damage behind enclosed walls, additional scope may be encountered during the demolition stage of both Phase 1 and Phase 2, when

building exteriors and walls are removed, other assemblies exposed, and any additional damage assessed.

During a meeting with the Division of the State Architect (DSA) on May 14, 2013, regarding compliance with current Americans with Disabilities Act requirements, DSA recommended the campus submit a written request for exemption. DSA has reviewed and approved the exemption and the design does not require DSA accessibility review. The original design included compliance with both California codes and the Uniform Federal Accessibility Standards (UFAS). The consultants have determined some work may be required to kitchen cabinets and storage areas in nine accessible units to ensure compliance with state and federal standards.

Design

The project will restore the exterior cement plaster to its original color and texture, repair or replace window assemblies to be similar to the original in color and material with the same configuration of operable and fixed sections. Existing exterior stairs, decks, fixtures, roof leaders, and other appurtenances will be removed as necessary and reinstalled. The existing landscape will be restored after construction staging is removed using drought-tolerant materials.

Approval Request and Schedule

The requested funding for the remainder of preliminary plans, working drawings, and construction would allow the campus to prepare construction documents for both phases and begin demolition of the Phase 1 buildings in August 2013. Repairs to the most damaged buildings located at Stevenson and Kresge Colleges would occur from August 2013 through June 2014, and repairs at Cowell and Porter Colleges would occur from July 2014 through May 2015. See Attachment 8: Project Site Maps.

ATTACHMENTS:
Attachment 1: Project Statistics
Attachment 2: Funding Plan
Attachment 3: Summary of Financial Feasibility
Attachment 4: Policy Compliance
Attachment 5: Design Elements
Attachment 6: Design Graphics
Attachment 7: California Environmental Quality Act Compliance
Attachment 8: Project Site Maps

ATTACHMENT 1

PROJECT STATISTICS

INFILL APARTMENTS REPAIRS PROJECT BUDGET CCCI 5912		
Costs		
Category	**Total**	**% of Total**
Site Clearance	$ 45,000	0.1
Building	23,790,000	72.1
Exterior Utilities	5,000	0.0
Site Development	1,309,000	4.0
A/E Fee [(a)]	2,642,000	8.0
Campus Administration [(b)]	668,000	2.0
Surveys, Tests, Plans	294,000	0.9
Special Items[(c)]	610,000	1.9
Finance Cost	1,104,000	3.3
Contingency	2,515,000	7.6
Subtotal	$ 32,982,000	100
Group 2 & 3 Equipment	0	0
Project Total	**$** 32,982,000	100%
PROJECT COST DATA		
Analytical Data		
Gross Square Feet (GSF)		215,663
Assignable Square Feet (ASF)		178,587
Building Cost/GSF		$110
Project Cost/GSF		$153
Building Cost/Bed		$32,062
Project Cost/Bed		$44,450

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(a) Fees include Executive Architect and other professional design contract costs.

(b) Campus Administration includes project management and inspection.

(c) Special Items include Value Engineering/Constructability, Permits and Agency Reviews, Hazardous Materials Surveys and Testing, Environmental/EIR Services, Waterproofing Consultant, Scheduling Consultant, and Independent Seismic Review.

ATTACHMENT 2

FUNDING PLAN

A. Total Project Cost : $32,982,000		
Funding Source	• CHES Reserves: $7,982,000 • External Financing: $25,000,000	
B. Funding Schedule		
Phase		**Funding Sources**
Preliminary Plans	$ 1,250,000	CHES Reserves
Working Drawings	1,085,000	CHES Reserves
Construction	5,647,000	CHES Reserves
Construction	25,000,000	External Financing
TOTALS:	$ 32,982,000	
C. External Financing		
Information on the proposed external financing may be found in *Attachment 3* (Summary of Financial Feasibility).		

ATTACHMENT 3

SUMMARY OF FINANCIAL FEASIBILITY

SANTA CRUZ CAMPUS	
Project Name	**Infill Apartments Repairs**
Project ID	**976401**
Total Estimated Project Costs	**$32,982,000**
Anticipated Interest During Construction	**$1,104,000**

PROPOSED SOURCES OF FUNDING	
External Financing	**$25,000,000**
Other Source of Funding I - **CHES Reserves**	**$7,982,000**
Total	**$32,982,000**

Fund sources for external financing, including standby and interim financing, shall adhere to University policy on repayment for capital projects. For Externally Financed projects please refer to Section I. For Standby and Interim financings, please refer to Section II & III.

SECTION I. Externally Financed Projects (if applicable)
Long-term external financing assumptions are listed below.

FINANCING ASSUMPTIONS	
Anticipated Repayment Source	**General Revenues of the Santa Cruz campus**
Anticipated Fund Source	**CHES Revenues**
Financial Feasibility Rate	**6.00%**
First Year of Payment	**2015**
Final Maturity (e.g. 20XX)	**2044**
Term (e.g. 30 years)	**30 years**
Estimated Average Annual Debt Service	**$1,816,000**

Below are results of the financial feasibility analysis for the proposed project using the campus's Debt Affordability Model. External financing approval requires the campus to meet the debt service-to-operations benchmark and one of the two other benchmarks for approval. The financial projections take into consideration market conditions, new sources of revenue and all previously approved projects. The corresponding campus Debt Affordability Model has been submitted to Capital Markets Finance at UCOP.

	CAMPUS FINANCING BENCHMARKS	
Measure	**10 Year Projections (as of 6/20/13)**	**Approval Threshold**
Debt Service to Operations	**5.7% (max) FY 2024**	**6.0%**
Debt Service Coverage	**5.32x (min) FY 2013**	**1.75x**
Expendable Resources to Debt	**n/a**	**1.00x**

	AUXILIARY FINANCING BENCHMARKS	
Measure	**10 Year Projections (as of 6/20/13)**	**Approval Threshold**
Debt Service Coverage	**1.82x (min) FY 2021**	**1.25x**

The metrics used to determine financing feasibility are defined below:

Measure	***Definition***
Debt Service to Operations (%)	$\frac{\text{Annual Debt Service}}{\text{Total Operating Expenses}}$
Debt Service Coverage (x)	$\frac{\text{Operating Income + Depreciation + Interest}}{\text{Annual Debt Service}}$
Expendable Resources to Debt (x)	$\frac{\text{Expendable Financial Resources (unrestricted net assets + temporarily restricted net assets – net investment in plant)}}{\text{Total Debt Outstanding}}$

ATTACHMENT 4

POLICY COMPLIANCE

Capital Financial Plan. When the *2012-22 Capital Financial Plan (CFP)* for the Santa Cruz campus was drafted, the campus considered the project to be maintenance as it anticipated replacing failing shower assemblies with similar systems. After the forensic investigation revealed additional damage and other failing building systems, the campus became aware the project scope had expanded beyond maintenance and the project would be considered a capital improvement. Because the defects were recently discovered and the project was recently scoped, the project was not included in the *2012-22 CFP* and, therefore, is ineligible for the delegated process.

Sustainable Practices. Due to the nature of the project, many LEED™ items are not attainable. In accordance with Section V.A.10 of the August 2011 Sustainable Practices Policy, the campus has received approval of an exception to receiving LEED™ Certification for this project. In accordance with Section V.A.6 of the Policy, the campus will complete the LEED™ scorecard identifying a list of sustainable measures under consideration that are applicable to this limited scope. See Attachment 5 for additional detail on Sustainable Practices.

Seismic Safety Policy. This project will comply with the *University of California Seismic Safety Policy* including independent seismic peer review.

ATTACHMENT 5

DESIGN ELEMENTS

The Infill Apartments are located on the UC Santa Cruz campus at four residential colleges; Cowell, Stevenson, Porter, and Kresge Colleges. The apartments house approximately 742 upper division undergraduates in 17 buildings. The apartment structures are three and four stories in height. Architecturally the apartments are complementary and contextual to the existing adjacent college structures. The buildings are wood framed with exterior cement plaster, simple color palettes, aluminum windows, and exterior stairways. The buildings have sloped roofs with overhangs and canopy features at building entrances (except at Stevenson College). The design team for the repair work includes Pyatok Architects and Allana Buick & Bers. The selection process for the construction manager at risk/contractor is currently underway. Level 2 prequalification has occurred and it is anticipated that selection will be complete by mid-July 2013.

Many of the existing mature trees were protected and preserved when the apartments were originally constructed and will be protected during the repair project. As a result of the scaffolding and activities related to the removal and repair of the building exterior envelopes, it is anticipated that the landscape planting adjacent to the buildings will need replacement. The replacement landscaping will use drought-tolerant plant materials and the irrigation system will be replaced with a more efficient drip system.

At Cowell, Kresge, and Porter Colleges, no exterior design changes are anticipated, with the exception of minor enhancements to the cement plaster and/or window assemblies. Improvements at Stevenson College, the most weather-exposed of the apartment complexes, would result in minor changes to the exterior elevations, which may include:

- elimination of foam-supported trim at the parapets and at some above-window overhangs, to be replaced with more substantial wood sub-structure;
- added weather-protecting canopies or awnings at entry doors;
- minor adjustments to the fenestration of the two south-facing and most exposed facades to reduce area of stucco.

As permitted under the UC Sustainable Practices Policy Section V.A.10, the campus has received an exception from the requirements of Policy Section III.A from the Associate Vice President for Capital Resources Management as the limited scope of this repair project precludes the possibility of LEED™ certification. In accordance with the requirements of Policy Section V.A.11, the campus will submit a LEED™ -NC scorecard and supporting documentation to the Associate Vice President showing the credits the project did achieve. Per Policy Section V.A. 12, as the project progresses the campus will also include consideration of lifecycle cost along with other factors in the project planning and design process. In addition, the following is a list of proposed sustainable measures currently under consideration, per Policy Section V.A.6:

- efficient irrigation and drought-tolerant landscape materials;
- energy-efficient exterior lighting, wherever possible;
- increased energy efficiency through properly balanced ventilation systems;
- recycling of construction waste;
- management of construction dust migration;

- LEED™-accredited professionals on project team;
- use of low-emitting construction materials and diversion of construction waste materials wherever possible.

Other sustainability opportunities will be explored to the extent feasible during the planning and design phases.

ATTACHMENT 7

CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

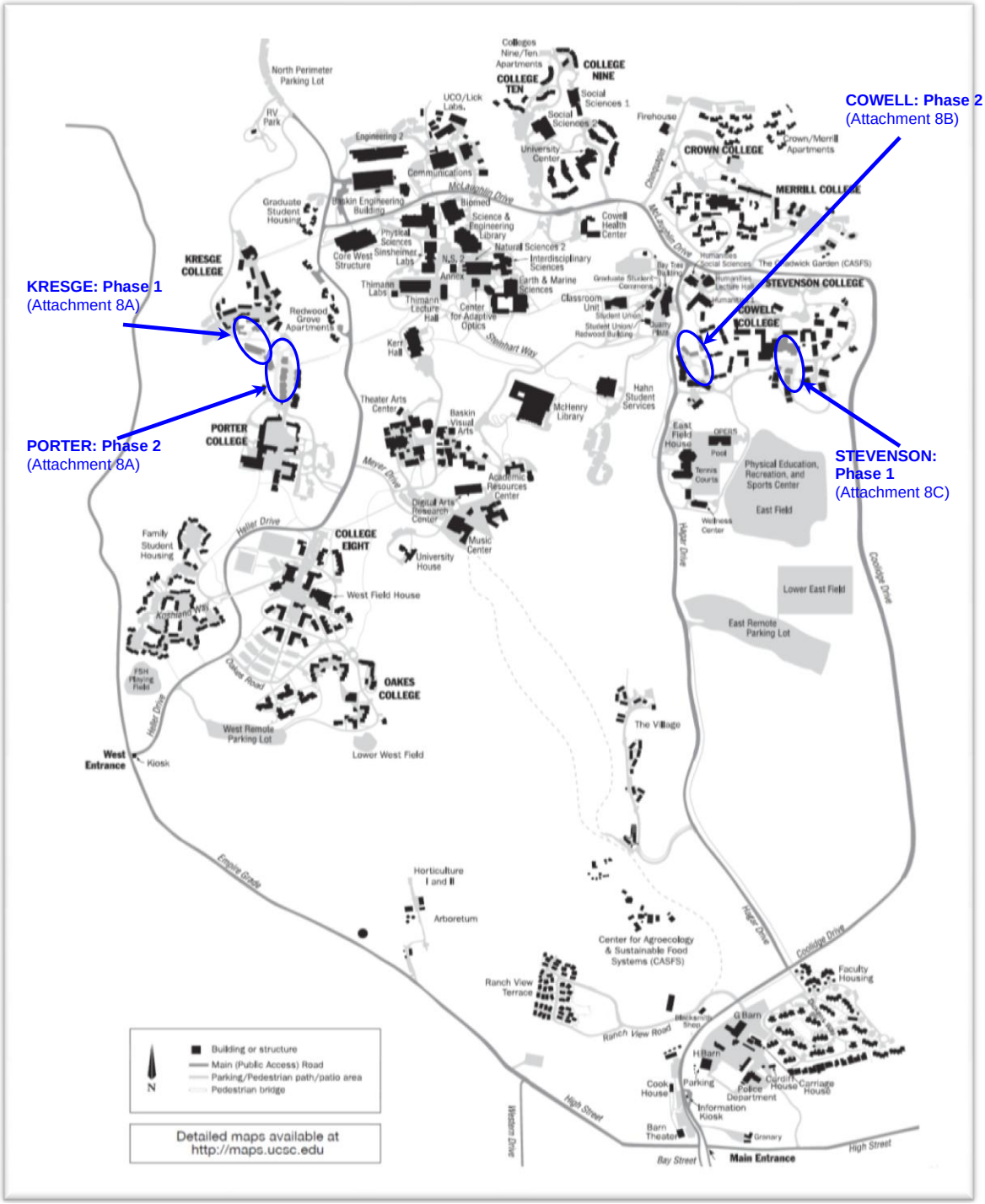
It is recommended that the proposed project be determined categorically exempt from the California Environmental Quality Act (CEQA) under CEQA Guidelines Section 15301, or Class 1, Existing Facilities, as an alteration and/or repair to an existing facility involving no expansion of use. In addition, it has been determined that that none of the exceptions to the exemption are present, as set forth in CEQA Guideline 15300.2.

The campus has prepared a memorandum documenting the reasons for this recommended determination. The project would not develop any new structures or other facilities, accommodate an increase in occupancy of the building, change the type or intensity of use of any facility, permanently alter the exterior of the buildings, increase utility use, or disturb land except as needed for construction access. Furthermore, no permanent changes would be made to drainage patterns and no new impervious surface would be added. For these reasons, the memorandum found that the project would not have the potential to result in significant environmental impacts in the following resource areas: Aesthetics; Agricultural and Forestry Resources; Biological Resources; Cultural Resources; Geology; Hydrology; Land Use; Mineral Resources; Population and Housing; Public Services; Recreation; Utilities.

The project would not construct any new sources of noise, air pollutant emissions or greenhouse gases, or increase the use of hazardous materials, and would not generate any new operational vehicle trips or demand for alternative transportation. A technical analysis was performed to identify whether project construction activities could result in noise or air quality impacts that would exceed the applicable CEQA significance thresholds at nearby sensitive receptors. Based on the results of the analysis, the project incorporates scheduling requirements to ensure that nearby student residential buildings are not occupied during periods when noise thresholds at those buildings could exceed the thresholds. The memorandum concluded that the project would also not result in significant Air Quality impacts, Climate Change, Hazards and Hazardous Materials, Noise, or Transportation/Traffic impacts. The noise and air quality technical analysis is appended to the memorandum. Both the memorandum and noise and air quality technical analysis are a part of the administrative record supporting the requested approval.

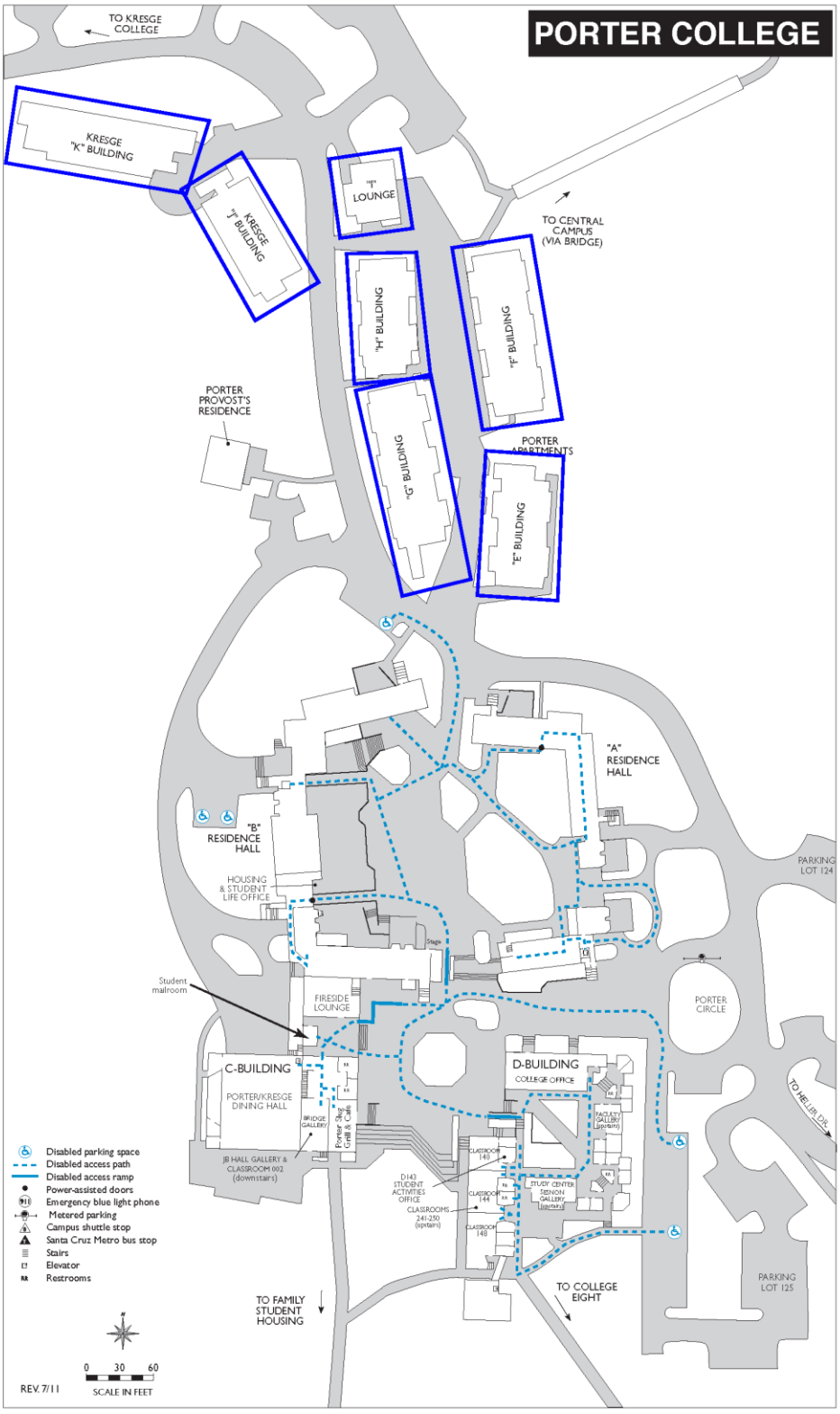
ATTACHMENT 8

SITE MAP - CAMPUS



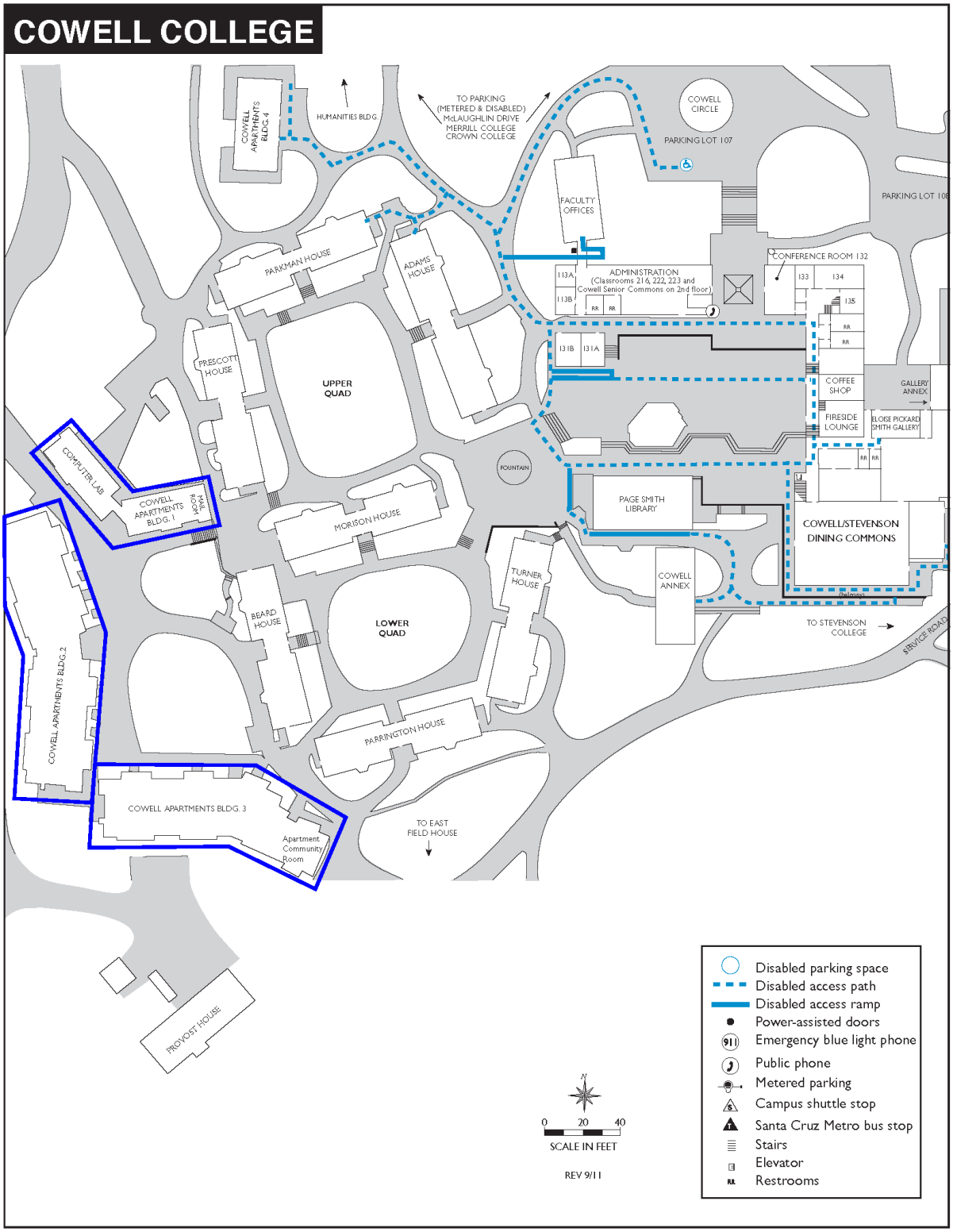
ATTACHMENT 8A

SITE MAP – KRESGE / PORTER



ATTACHMENT 8B

SITE MAP – COWELL



ATTACHMENT 8C

SITE MAP – STEVENSON