

**Office of the President**

**TO MEMBERS OF THE COMMITTEE ON GROUNDS AND BUILDINGS:**

**ACTION ITEM**

*For Meeting of May 14, 2014*

**AMENDMENT OF THE BUDGET FOR CAPITAL IMPROVEMENTS AND THE CAPITAL IMPROVEMENT PROGRAM, INFILL APARTMENTS REPAIRS, SANTA CRUZ CAMPUS**

**EXECUTIVE SUMMARY**

The Infill Apartments at Cowell, Stevenson, Porter, and Kresge Colleges<sup>1</sup> on the Santa Cruz campus provide 148 apartment units and 742 beds in 17 buildings. The buildings were constructed as a result of the Infill Apartments project, which was approved by the Regents in March 2001 and completed in 2004, at a total final cost of \$61,064,000. The cost to replace the Infill Apartments is estimated to range between \$97 million and \$115 million.<sup>2</sup>

The Infill Apartments Repairs project corrects construction defects and the associated damage to the buildings. The project budget, external financing, and design were presented to the Regents and approved in July 2013. At the time of approval, the total project cost was estimated to be \$32,982,000 funded by Colleges, Housing and Educational Services (CHES) Auxiliary Reserves (\$7,982,000) and external financing (\$25 million). Prior to project approval, extensive destructive testing and forensic analysis had been performed throughout the buildings by multiple forensic experts and designers; however, the investigations were limited as the buildings were still occupied by students. After approval, consultants and forensic investigators identified additional scope that was incorporated into the Phase 1 final bid documents prior to advertising for bids. The Phase 1 demolition work also uncovered additional damage to structure and building systems that could not have been anticipated without full removal of the building skin. The University is currently in litigation seeking to recover all damages associated with the construction defects. The request for augmentation also includes additive alternates that enhance the performance of the building and are not included in the legal claim.

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<sup>1</sup> 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.

<sup>2</sup> Estimate performed prior to the Infill Apartments Repair project approval in July 2013 and based on the original total project cost (excluding moveable equipment), adjusted 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.

Phase 1 of the approved project began at Stevenson and Kresge Colleges in August 2013 and is scheduled to be complete by the end of July 2014. The water-related damage and additional construction defects discovered during the Phase 1 selective demolition have informed the Phase 2 project scope, design, and cost estimates. Phase 2 work, at Cowell and Porter Colleges, is scheduled to begin in August 2014 and complete in May 2015.

The total cost to complete this project is now estimated to be \$43.44 million. The Santa Cruz campus requests approval of a \$10,458,000 budget augmentation to be funded entirely by CHES Auxiliary Reserves. The terms of the approved external financing would not change.

### RECOMMENDATION

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

1. The 2013-14 Budget for Capital Improvements and the Capital Improvement Program be amended as follows:  
  
From: Santa Cruz: Infill Apartments Repairs – Preliminary Plans, Working Drawings, and Construction – \$32,982,000 to be funded from Colleges, Housing and Educational Services (CHES) Auxiliary Reserves (\$7,982,000) and External Financing (\$25 million).  
  
To: Santa Cruz: Infill Apartments Repairs – Preliminary Plans, Working Drawings, and Construction – \$43.44 million to be funded from CHES Auxiliary Reserves (\$18.44 million) and External Financing (\$25 million).
2. The revised 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 and minor enhancements to the 17 buildings.
3. The President be authorized to execute all documents necessary in connection with the above.

### BACKGROUND

Construction of 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 are approximately twenty years of debt service remaining on the original project financing. The cost to replace the Infill Apartments, as estimated last year, ranged between \$97 million and \$115 million.

During 2011, the campus began to notice building issues which led to the discovery of construction defects in the Infill Apartment buildings. In 2012, the University filed suit against the original contractor for defective work. The following is a chronology of the subsequent actions:

- **Summer 2012/Spring 2013:** Additional investigation and destructive testing identified extensive damage to building exteriors and other assemblies including cracked stucco, wet building paper, compromised exterior oriented strand board (OSB) shear wall material, and compromised insulation and wood stud framing behind the OSB shear wall.
- **Spring 2013:** The University amended the original lawsuit as a result of greatly increased repair scope. Preliminary plans funding was approved to proceed with design and obtain more accurate cost estimates.
- **Summer 2013:** The Regents approved the design following action pursuant to the California Environmental Quality Act and budget for the Santa Cruz campus Infill Apartments Repairs project to repair the construction defects in two phases with Phase 1 addressing the most seriously compromised buildings (Kresge and Stevenson) and informing the design and cost estimates for Phase 2 (Porter and Cowell). At the time of approval, the total anticipated cost was \$32,982,000 funded by CHES Auxiliary Reserves (\$7,982,000) and external financing (\$25 million). The campus hired a Construction Manager at-Risk, completed 100 percent of the Phase 1 construction documents for demolition, and awarded the Phase 1 demolition contract.
- **Fall 2013:** Additional destructive testing and forensic analysis during Phase 1 demolition revealed that the construction defects and resulting damage to the exterior support structure were more extensive than originally anticipated. Emergency structural repairs were necessary to provide a safe construction working environment and to protect University assets. The information related to additional damages and defects discovered during the Phase 1 demolition informed the remainder of the Phase 1 construction documents for bidding as well as the design development for Phase 2.
- **Winter 2014:** The campus awarded the remainder of the Phase 1 construction contract. Additional destructive testing and forensic analysis identified new construction defects in the internal support structure, plumbing, and mechanical systems. Deficiencies and damage in the bathrooms were more extensive than anticipated. The information related to additional damages and defects discovered during the Phase 1 construction informed the construction documents and cost estimates for Phase 2. The University further amended the lawsuit to include the project designer.

### PROJECT DESCRIPTION

The approved project repairs the most seriously compromised buildings in Phase 1 (those located at Stevenson and Kresge Colleges), followed by repairs at Cowell and Porter Colleges in Phase 2. Repairs to the 17 structures (148 apartments), totaling 216,316 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 project scope 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 oriented strand board (OSB) sheathing;
- d) Repair structural deficiencies resulting from damaged systems and construction defects;
- 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 kitchens, bath, and shower rooms;
- g) Replace other water-damaged building systems (insulation, drywall, wood framing, flooring, electrical, data/phone, etc.);
- h) Replace finishes as required to repair items damaged by water intrusion;
- i) Replace landscaping and irrigation systems disturbed as a result of repair activities; and
- j) Implement minor enhancements (including exterior painting of the 17 buildings, enhanced waterproofing systems and roofing material, installation of canopies and sunshades, site improvements, etc.).

The project is on schedule. Phase 1 construction, at Stevenson and Kresge Colleges, began in August 2013 and is scheduled to be complete by the end of July 2014. Construction of Phase 2 is scheduled to begin at Cowell and Porter Colleges in August 2014 with completion planned for May 2015.

### ***Request for Budget Augmentation***

In July 2013, the Regents approved the Infill Apartments Repairs project budget external financing and design following action pursuant to the California Environmental Quality Act. At the time of approval, the total project budget was \$32,982,000 funded by external financing (\$25 million) and CHES Auxiliary Reserves (\$7,982,000).

After project approval, consultants and forensic investigators identified additional scope that was incorporated into the design and final bid documents for Phase 1. The design modifications included additional scaffolding and building wrap to provide a safer working environment and protect University assets; changes to roofing specifications to ensure the low-sloping roofs of the Kresge elevator towers drain properly; window modifications to ensure water protection; and additional corrections to building ventilation systems. These design changes caused the Phase 1 bids to be approximately \$1,090,000 higher than the approved budget.

The July 2013 Regents' Action Item stated, "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 the damage assessed." This has proven to be the case as the damage discovered during Phase 1 demolition was greater than anticipated. Emergency seismic bracing and

unanticipated structural repairs costing approximately \$680,000 were necessary to provide a safe construction working environment and to protect University assets.

The information discovered during Phase 1 has informed the Phase 2 scope, design, and cost estimates; and the cost of Phase 2 construction is now estimated to be \$4.83 million higher than the approved budget. Although extensive data from Phase 1 has been utilized to inform the Phase 2 budget, there remains the possibility that additional damage in the Phase 2 buildings will not be known until the building systems and assemblies are fully exposed. As a result, the proposed augmented budget includes a 6.2 percent contingency to address these potential issues.

The requested budget augmentation also includes additive alternates totaling \$2,734,000 (excluding associated soft costs) that are not part of the legal claim. The alternates include enhancements to building waterproofing systems (\$1,174,000) and roofing materials (\$389,000) to conform to current construction practices; painting the entire interior of all Phase 2 buildings instead of just the affected areas (\$758,000); canopies and sunshades to provide additional environmental protection in exposed areas (\$147,000); new window coverings in lieu of storing and cleaning the original curtains (\$164,000); and site improvements (new benches, walkways, and retaining walls) to improve circulation and the student living experience (\$102,000). In some instances the current construction environment provides an excellent opportunity to incorporate improved materials that will prolong the life of University assets. In other cases, it is more practical and economical to perform the work now rather than in the future.

As construction costs increase, other costs necessary to manage and complete the project also increase. The cost of insurance increased \$172,000 as it fluctuates with the cost of construction; external consultant fees increased \$383,000 to cover the cost of design changes, seismic evaluations, and interactions with legal consultants; campus administration fees increased \$260,000 as additional inspections are needed for this project; surveys, tests and plans increased \$61,000 to provide sufficient funding for workmanship testing; special items increased \$50,000 to provide additional funding for an independent quality control inspector; and construction contingency increased \$198,000 to ensure sufficient funds are available to cover unanticipated construction expenses during Phase 2.

The total project cost is now estimated to be \$43.44 million. The campus requests approval of a \$10,458,000 budget augmentation to be funded by CHES Auxiliary Reserves. The terms of the previously approved external financing would not change. The University is currently in litigation seeking to recover all damages associated with the construction defects.

The proposed budget augmentation of \$10,458,000 represents a 31.7 percent increase over the approved \$32,982,000 budget and is needed to cover additional construction and soft costs.

Approved Budget (7/18/13)	\$ 32,982,000
Requested Augmentation	10,458,000
<hr/> Requested Budget	<hr/> \$ 43,440,000

***Environmental Impact Summary***

The minor changes to the project discussed above do not alter the University's finding in conjunction with design approval in July 2013 that the project is categorically exempt under the California Environmental Quality Act.

**ATTACHMENTS (below):**

Attachment 1: Project Budget

Attachment 2: Funding Plan

Attachment 3: Summary of Financial Feasibility

Attachment 4: Project Site Maps

## PROJECT BUDGET

Category	Approved Budget July 2013	Budget Change Request	Proposed Budget May 2014	% of Total
Site Clearance	\$ 45,000	\$ 0	\$ 45,000	0.1
Building	23,790,000	9,137,000	32,927,000	75.8
Exterior Utilities	5,000	0	5,000	0.0
Site Development	1,309,000	369,000	1,678,000	3.9
A/E Fee <sup>(a)</sup>	2,642,000	283,000	2,925,000	6.7
Campus Administration <sup>(b)</sup>	668,000	260,000	928,000	2.1
Surveys, Tests, Plans	294,000	61,000	355,000	0.8
Special Items <sup>(c)</sup>	610,000	150,000	760,000	1.8
Finance Cost	1,104,000	0	1,104,000	2.5
Contingency	2,515,000	198,000	2,713,000	6.2
Subtotal	\$ 32,982,000	\$ 10,458,000	\$ 43,440,000	100
Group 2 & 3 Equipment			0	
<b>Project Total</b>	<b>\$ 32,982,000</b>	<b>\$ 10,458,000</b>	<b>\$ 43,440,000</b>	

## Analytical Data

	July 2013	May 2014
Gross Square Feet (GSF)	215,663 <sup>(d)</sup>	216,316 <sup>(d)</sup>
Assignable Square Feet (ASF) <sup>(e)</sup>	178,587	178,587
Beds	742	742
Apartments	148	148
Building Cost/GSF	\$110	\$152
Project Cost/GSF	\$153	\$201
Building Cost/Bed	\$32,062	\$44,376
Project Cost/Bed	\$44,450	\$58,544
Building Cost/Apartment	\$160,743	\$222,480
Project Cost/Apartment	\$222,851	\$293,514

(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, Independent QC Inspector, Structural Inspector, Waterproofing Consultant, Scheduling Consultant, and Independent Seismic Review.

(d) No increase in GSF. The July 2013 Attachment 1 cited an incorrect GSF of 215,663. The correct GSF is 216,316.

(e) The 148 living units themselves (without common areas) total 167,291 ASF. This ASF is effectively equivalent to the Unit Net Area using BOMA Multi-Unit Residential Buildings Standard Methods of Measurement.

FUNDING PLAN

<b>A. Total Project Cost : \$43,440,000</b>		
Funding Source	<ul style="list-style-type: none"> <li>• CHES Reserves: \$ 18,440,000</li> <li>• External Financing: \$ 25,000,000</li> </ul>	
<b>B. Funding Schedule</b>		
<b>Phase</b>		<b>Funding Sources</b>
Preliminary Plans	\$ 1,272,000	CHES Reserves
Working Drawings	1,157,000	CHES Reserves
Construction	16,011,000	CHES Reserves
Construction	25,000,000	External Financing
<b>TOTALS:</b>	\$ 43,440,000	
<b>C. External Financing</b>		
<p>Information on the proposed external financing may be found in <i>Attachment 3</i> (Summary of Financial Feasibility). The Regents approved the project financing in July 2013. The terms of the approved external financing do not change.</p>		



### SUMMARY OF FINANCIAL FEASIBILITY

*This action requests approval of a \$10,458,000 budget augmentation to be funded entirely by CHES Auxiliary Reserves. The terms of the approved external financing would not change. This attachment is for reference only.*

<b>SANTA CRUZ CAMPUS</b>	
Project Name	<b>Infill Apartments Repairs</b>
Project ID	<b>976401</b>
Total Estimated Project Costs	<b>\$43,440,000</b>
Anticipated Interest During Construction	<b>\$ 1,104,000</b>

<b>PROPOSED SOURCES OF FUNDING</b>	
External Financing	<b>\$25,000,000</b>
Other Source of Funding I - CHES Reserves	<b>\$18,440,000</b>
Total	<b>\$43,440,000</b>

*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.

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

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.

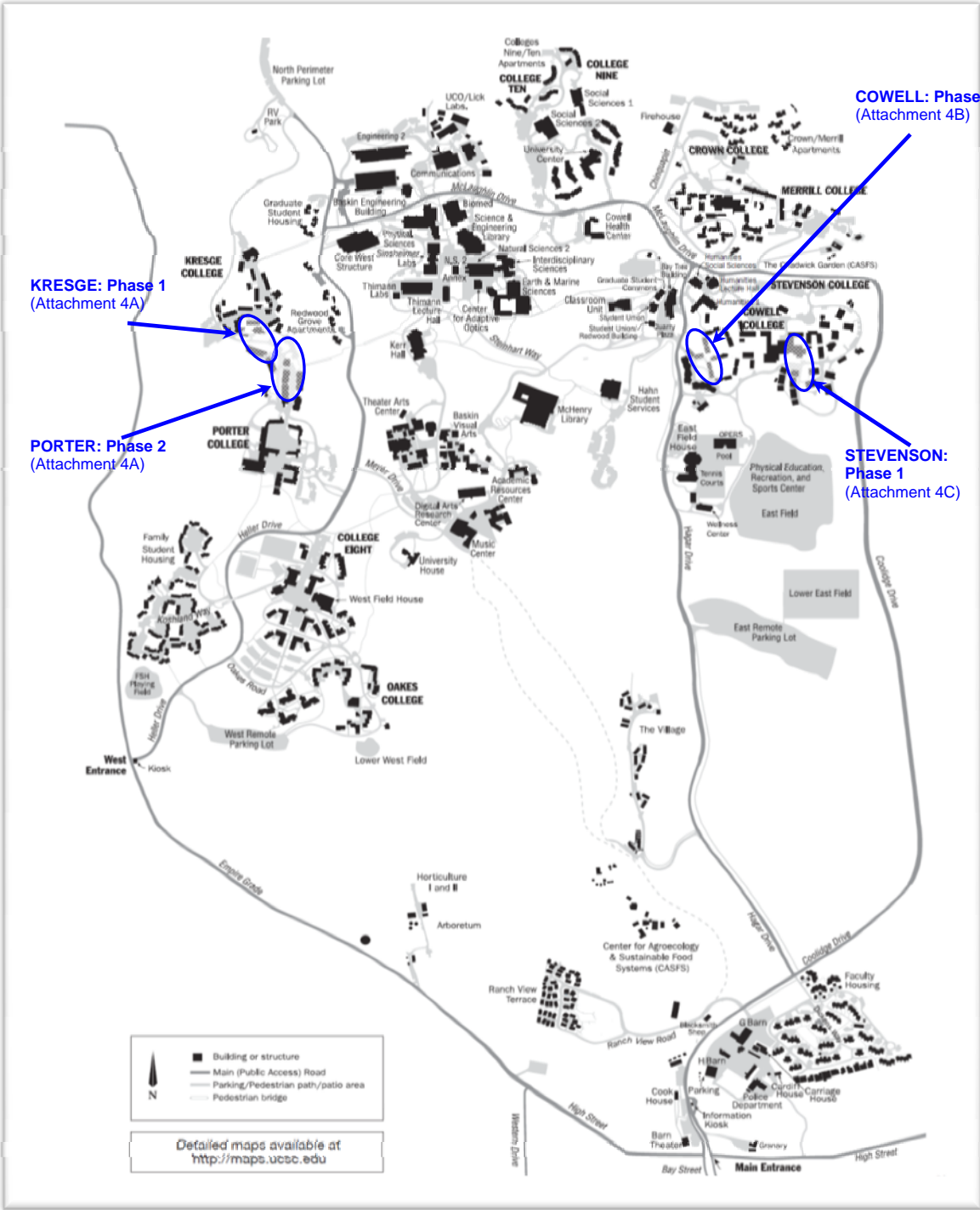
<b>CAMPUS FINANCING BENCHMARKS</b>		
<b>Measure</b>	<b>10 Year Projections (as of 6/20/13)</b>	<b>Approval Threshold</b>
<b>Debt Service to Operations</b>	<b>5.7% (max) FY 2024</b>	<b>6.0%</b>
<b>Debt Service Coverage</b>	<b>5.32x (min) FY 2013</b>	<b>1.75x</b>
<b>Expendable Resources to Debt</b>	<b>n/a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

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

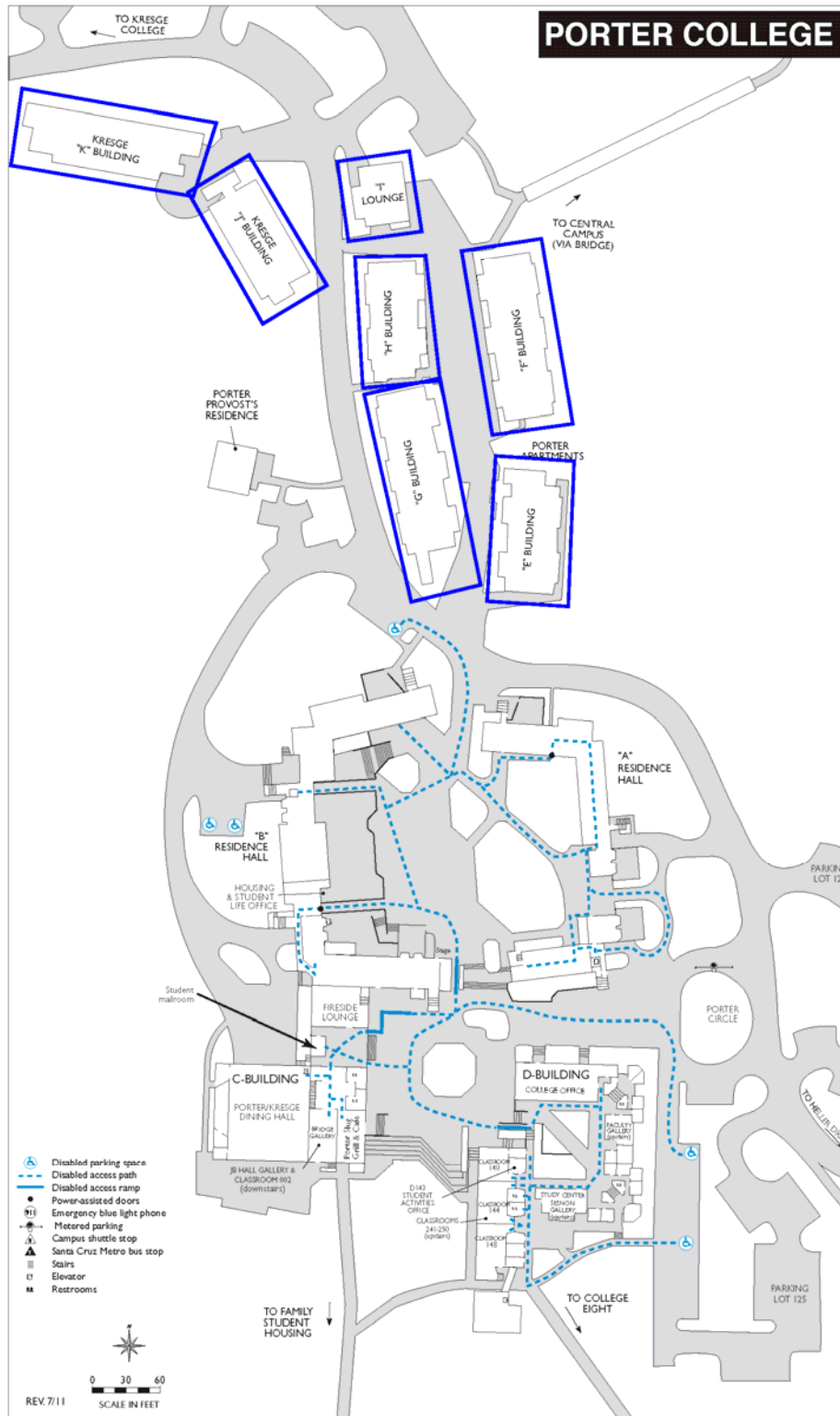
The metrics used to determine financing feasibility are defined below:

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

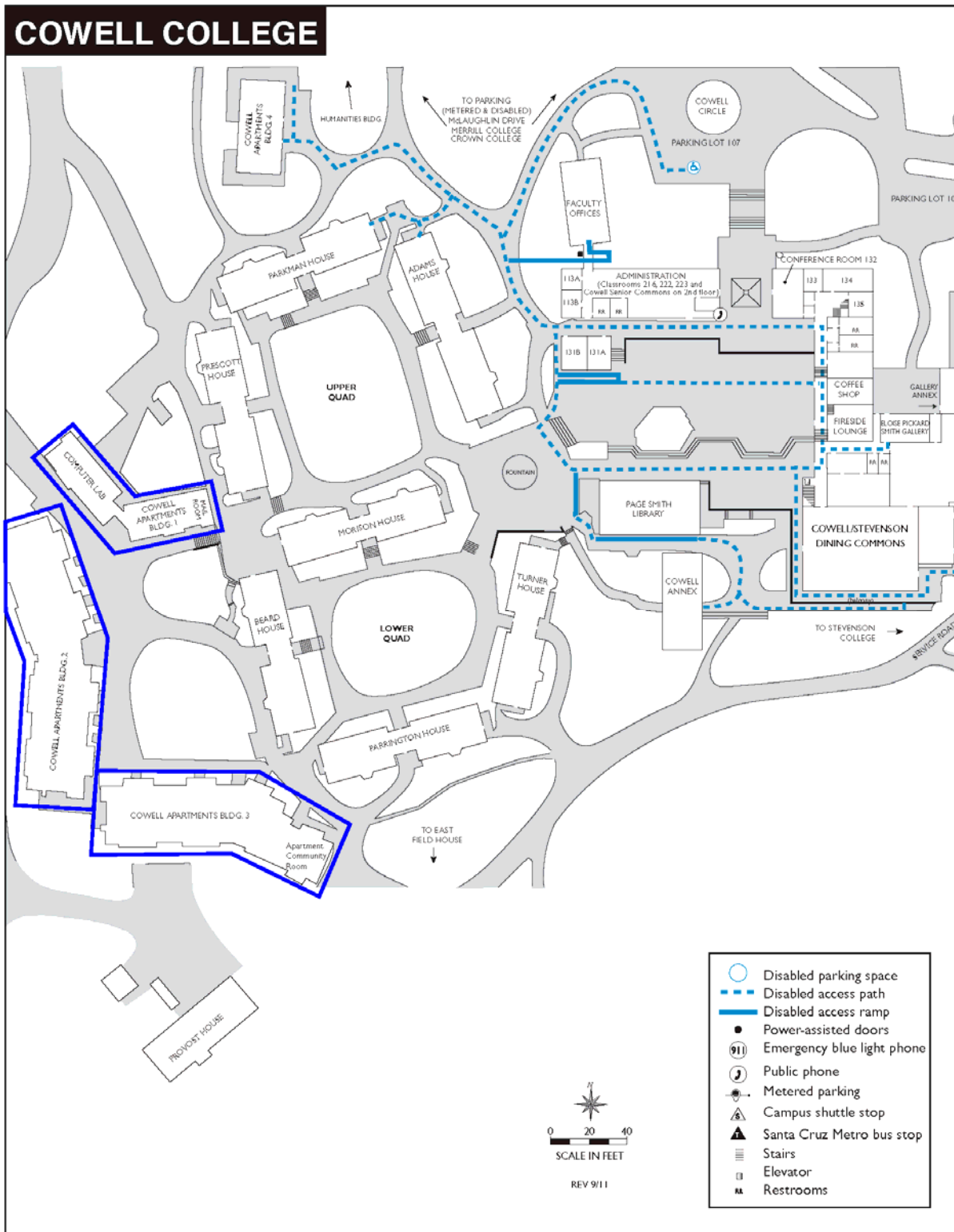
PROJECT SITE MAPS



SITE MAP – KRESGE / PORTER



SITE MAP – COWELL



SITE MAP - STEVENSON

