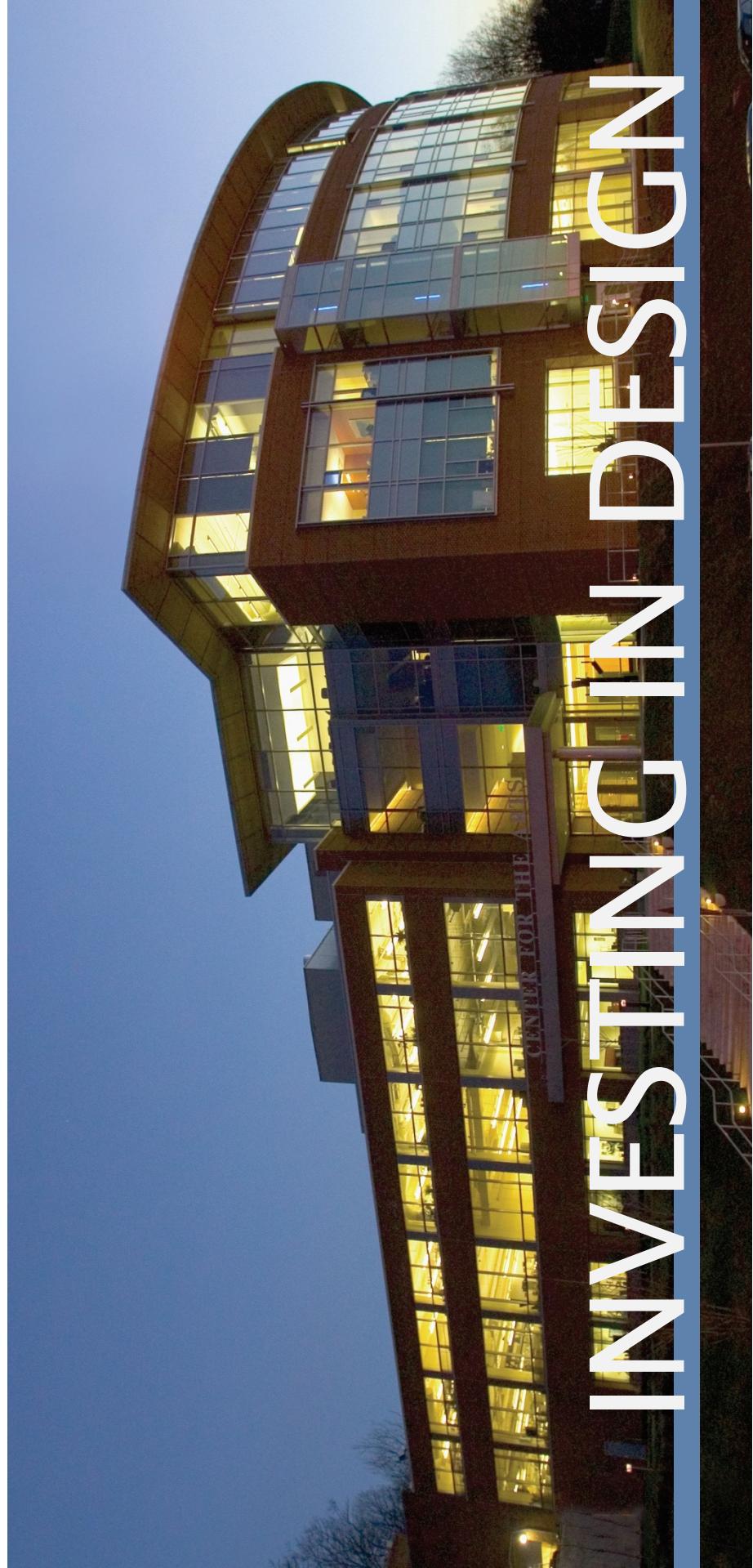


# Towson University



Association of University Architects - 2010 Conference  
Wednesday - June 23rd



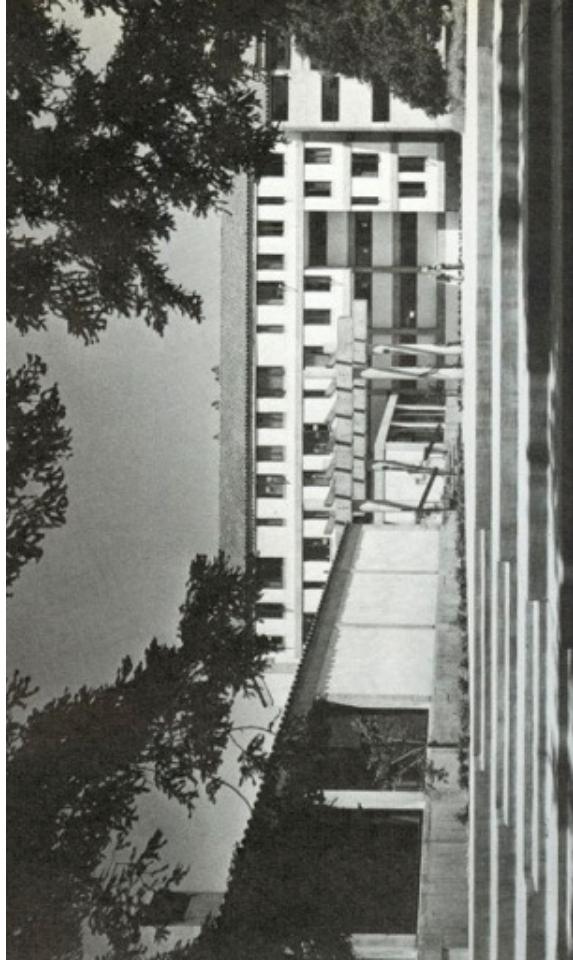
INVESTING IN DESIGN

# **Porter College Expansion**

## **UC Santa Cruz**

Association of University Architects - 2010 Conference  
Wednesday - June 23rd  
Case Study

# 1970

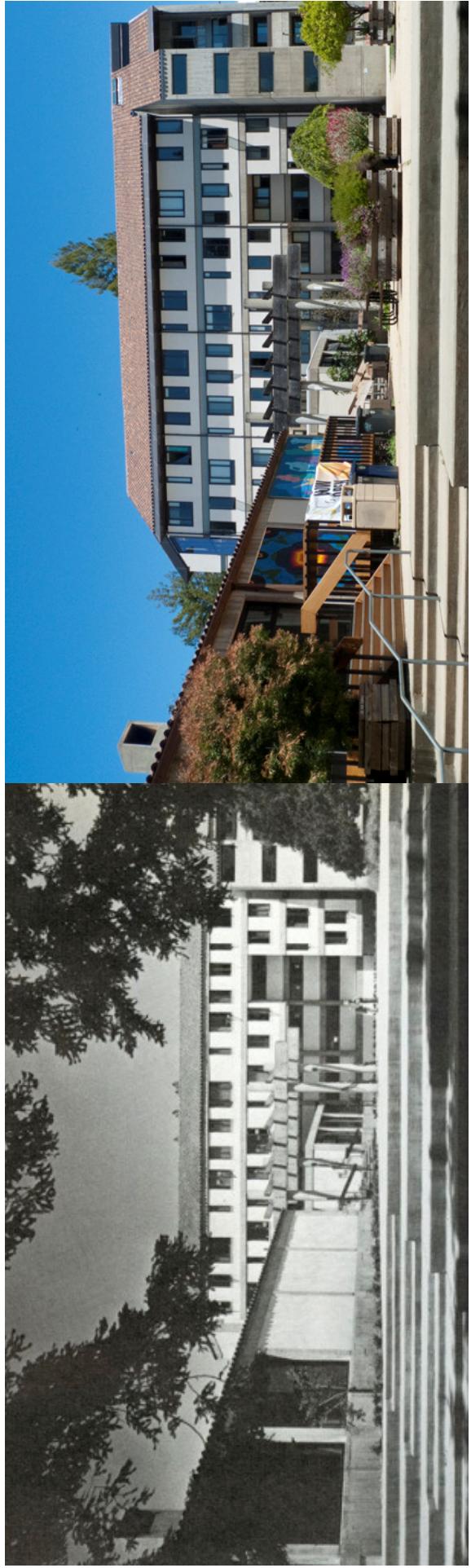


# **Porter College Expansion**

## **UC Santa Cruz**

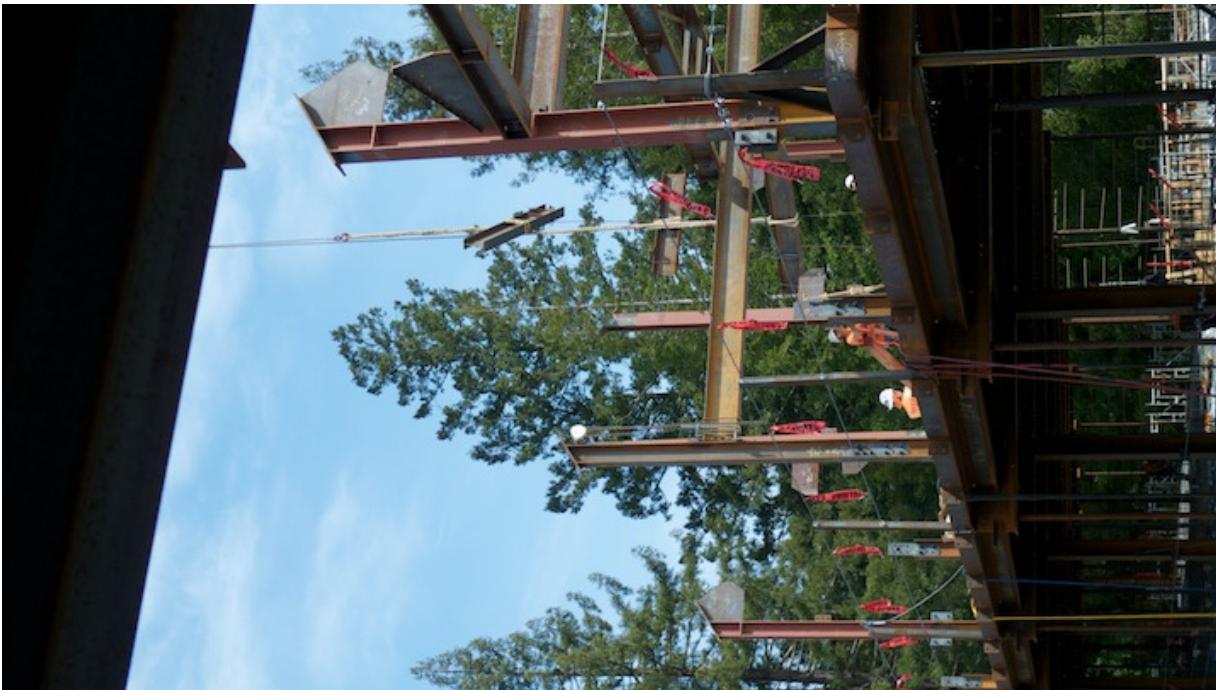
Association of University Architects - 2010 Conference  
Wednesday - June 23rd  
Case Study

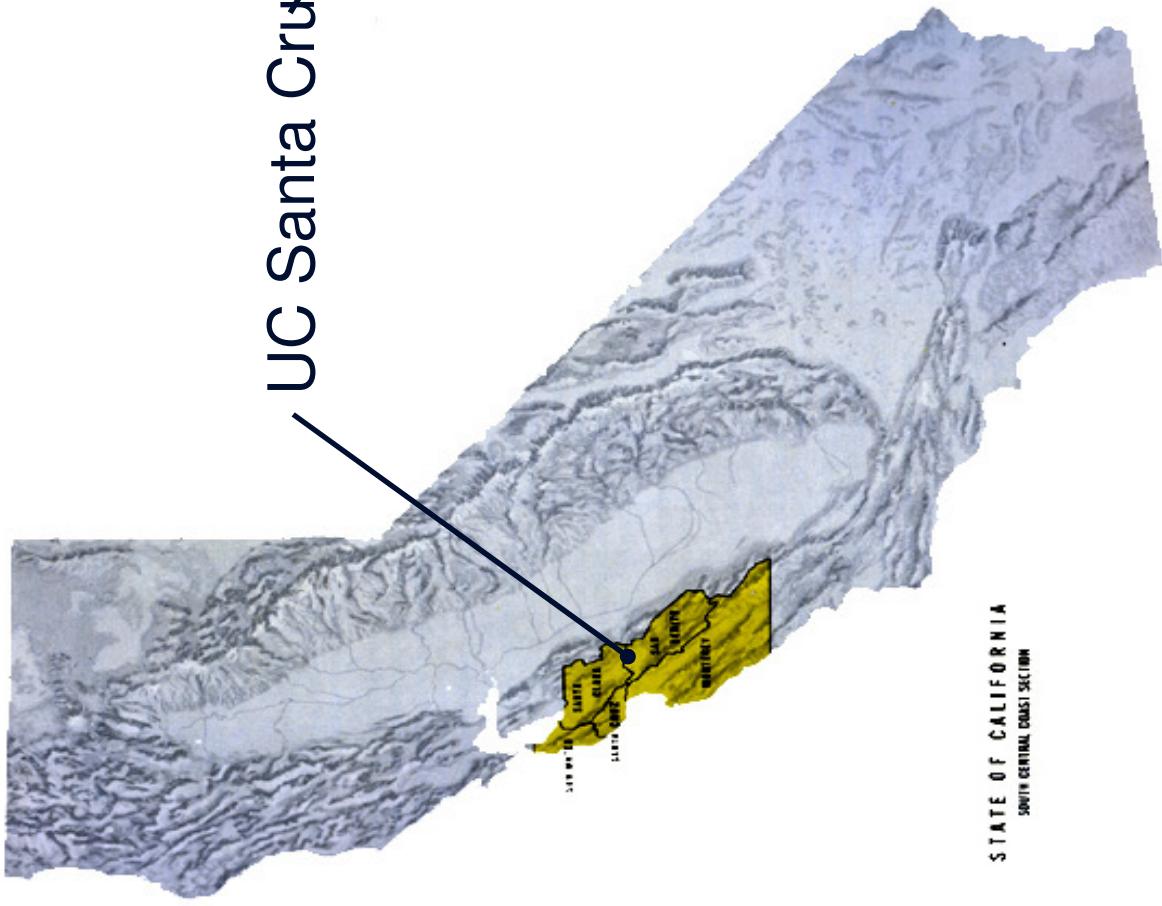
# 1970 2010



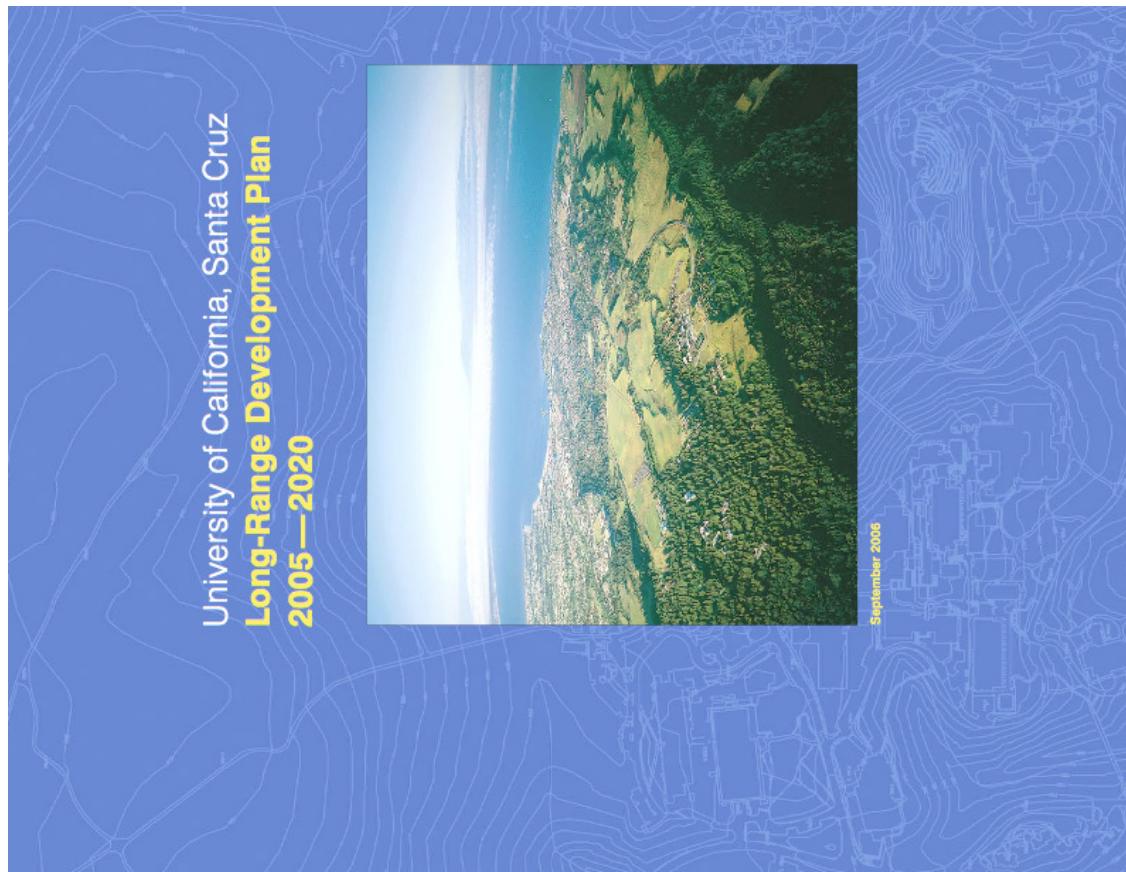
# Credits

- Original Architect  
**Hugh Stubbins & Associates**
- Architect:  
**Anshen + Allen, San Francisco**
- Structural Engineer:  
**Forell & Elsesser, San Francisco**
- General Contractor (CM at Risk):  
**DPR Construction, San Jose**
- UCSC Project Manager:  
**Julian Halkett**
- Client:  
**UC Santa Cruz  
Housing and Dining Services**









## COMPREHENSIVE SETTLEMENT AGREEMENT

This Settlement Agreement ("Agreement") is entered into this 15<sup>th</sup> day of April, 2008, by and between the City of Santa Cruz ("City"), the County of Santa Cruz ("County"), The Regents of the University of California ("Regents") and the University of California, Santa Cruz Campus (the "Campus") (collectively, the "University"), Coalition for Limiting University Expansion ("CLUE"); Don Stevens, Peter L. Scott, Hal Levin, Jeffrey M. Arnett, Harry D. Huskey, Kaye Beth, Eric M. Grodberg, Sigrid McLaughlin, John C. Aird, Russell B. Weisz, Helen B. Dowling, and Rural Bonny Doon Association.

### RECITALS

WHEREAS, the City, County and University are governmental agencies that have distinct jurisdictions with overlapping property boundaries in Santa Cruz County, California; and WHEREAS, CLUE is a non-profit organization of City and County residents interested in and concerned with University growth plans; and

WHEREAS, on September 21, 2006, The Regents approved the 2005 Long Range Development Plan ("LRDP") for the Santa Cruz Campus (the "2005 LRDP") and in conjunction therewith, also certified a Final Environmental Impact Report (the "2005 LRDP EIR"), thereby superseding and replacing the Campus' LRDP approved by The Regents in 1988; and

WHEREAS, on October 23, 2006, petitions for writ of mandate challenging the 2005 LRDP and 2005 LRDP EIR were filed in Santa Cruz Superior Court by the City and County (Case No. CV155571), and Don Stevens, Peter L. Scott, Hal Levin, Jeffrey M. Arnett, Harry D. Huskey, Kaye Beth, Eric M. Grodberg, Sigrid McLaughlin and John Aird (Case Nos. CV155582) (collectively, "Stevens, et al.") (collectively Case No. CV155571 and Case No. CV155583 are referred to herein as the "LRDP Actions"); and

WHEREAS, on January 16, 2007, The Regents approved the Biomedical Sciences Facility Project (the "Biomed Project"), and in conjunction therewith, adopted a Mitigated Negative Declaration tiered from the 2005 LRDP EIR (the "MND"); and

WHEREAS, on February 20, 2007, petitions for writ of mandate challenging the Biomed Project and MND were filed in Santa Cruz Superior Court by the City and County (Case No. CV156366, and Coalition to Limit University Expansion, Don P. Stevens, Peter L. Scott, Hal Levin, Jeffrey M. Arnett, Harry D. Huskey, Kaye Beth, Eric M. Grodberg, Sigrid McLaughlin,



## COMPREHENSIVE SETTLEMENT AGREEMENT

### COMPREHENSIVE SETTLEMENT AGREEMENT

UCSC agrees to a penalty payment in an amount equal to three times the City's citywide Traffic Impact Fee (TIF) then in effect for every average daily trip (ADT) in excess of the commitment (i.e., if the City's current citywide TIF were applied the penalty amount would be \$1,098 per trip (3x \$360)). Penalty payments will be made annually until such time as the ADT is equal to or below the traffic commitment in this Agreement. For purposes of calculating the penalty, ADT will be measured per 4.1 below. Penalty funds will be deposited into a dedicated account for use by the City and UCSC to reduce ADT to UCSC. UCSC and the City will work cooperatively to identify appropriate and effective trip reduction programs, including, but not limited to, increased SCMTD transit service to the UCSC campus, with the expenditure of funds being subject to approval by the City.

1.5 For purposes of 1.2(c) and 1.3, enrollment will be calculated within a 2% margin of error averaged prospectively over three years to account for the fact that the University admits students approximately six months prior to the start of the new fall term based on a projected "take rate" (i.e., the percentage of students that accept an offer of admission). In addition, retention/graduation rates fluctuate. Accordingly, enrollment may fall slightly above or below UCSC's projections within a 2% margin of error. Enrollment levels will be calculated based on the Fall third-week census. UCSC's commitment in 1.3 will take effect the next Fall admissions cycle and all subsequent Fall admissions cycles until the applicable commitment is met.

#### 2.0 HOUSING

##### 2.1 UCSC will provide housing capacity as follows:

- a. For enrollment up to 15,000, UCSC will provide 7,125 beds.
- b. Additional beds will be available to accommodate 67% of enrollment above 15,000, which requires to 3,000 new beds above the 7,125 beds if enrollment reaches 19,500. New beds will be provided by on-campus new construction, by remodeling or reassignment resulting in a net increase in new on-campus beds, or through off-campus purchase or lease. An existing room designed as a double will not be converted to an unfurnished triple room for the sole purpose of meeting the housing commitment under this Agreement. Except as provided in Section 2.1(d), beds will be available within four years of enrollment in excess of 15,000 until 2018 (i.e., housing in fall 2012 will be available for

Page 4 of 26



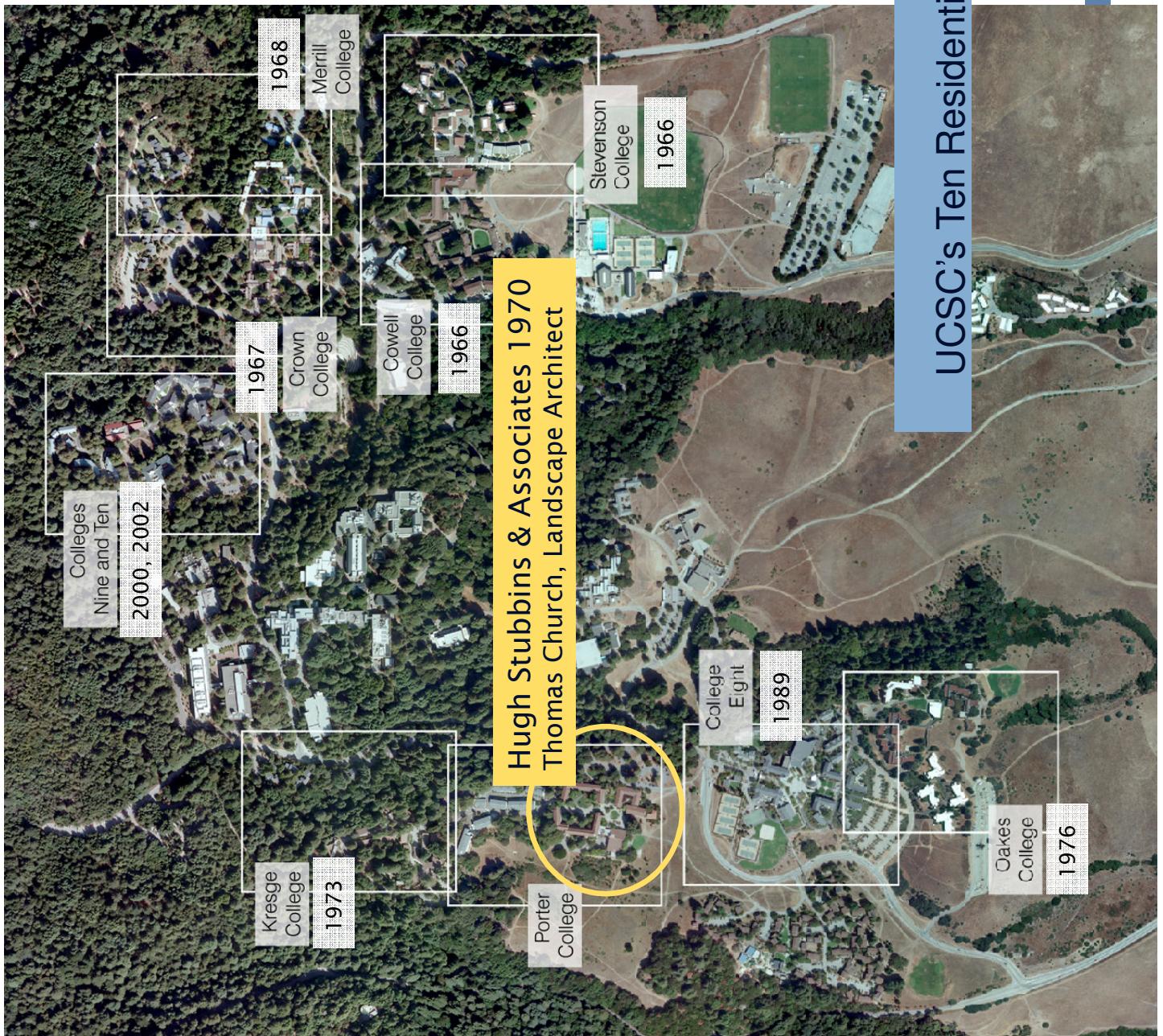
Developed UCSC Campus



## UCSC's Ten Residential Colleges

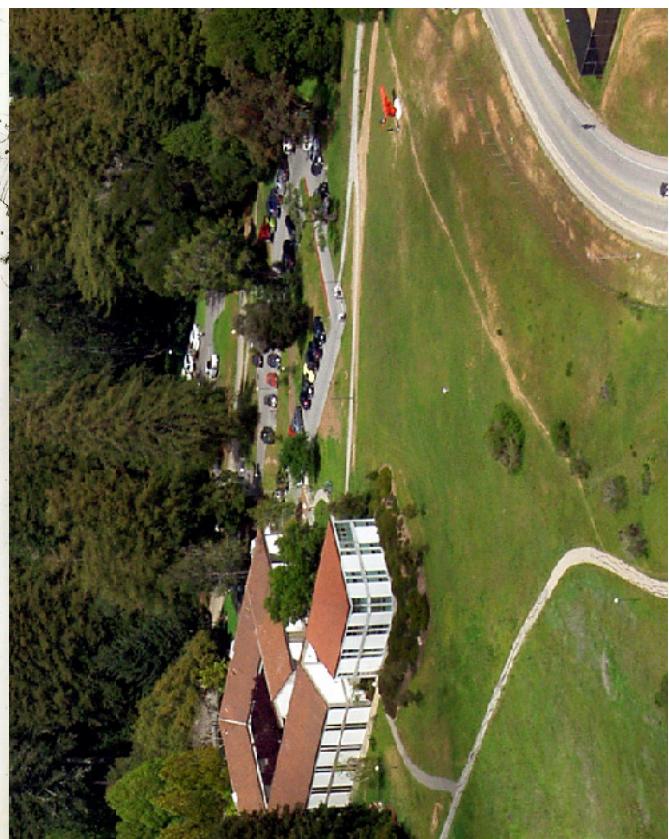
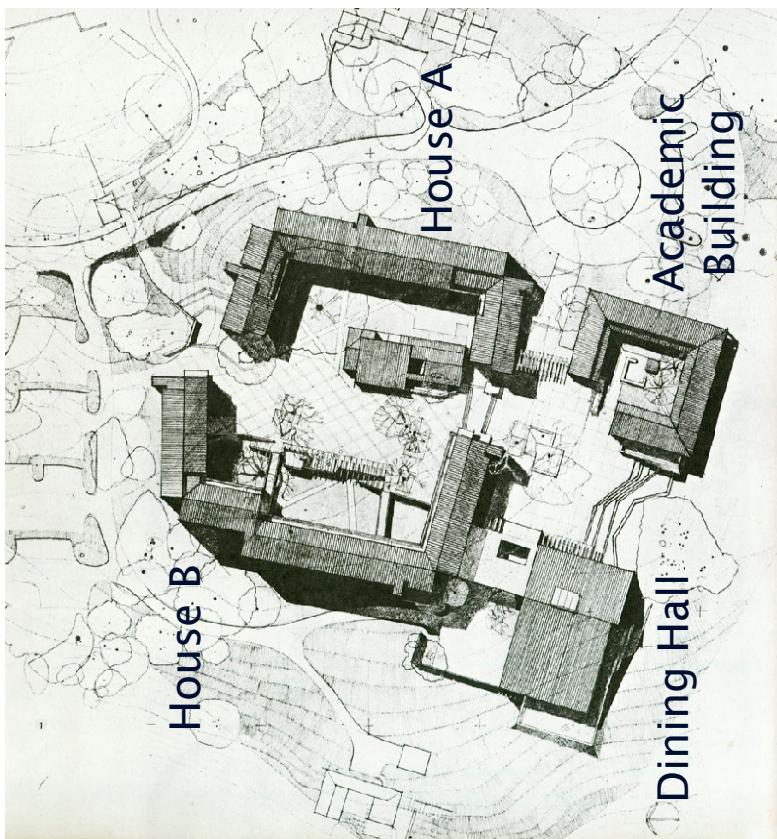


## UCSC's Ten Residential Colleges

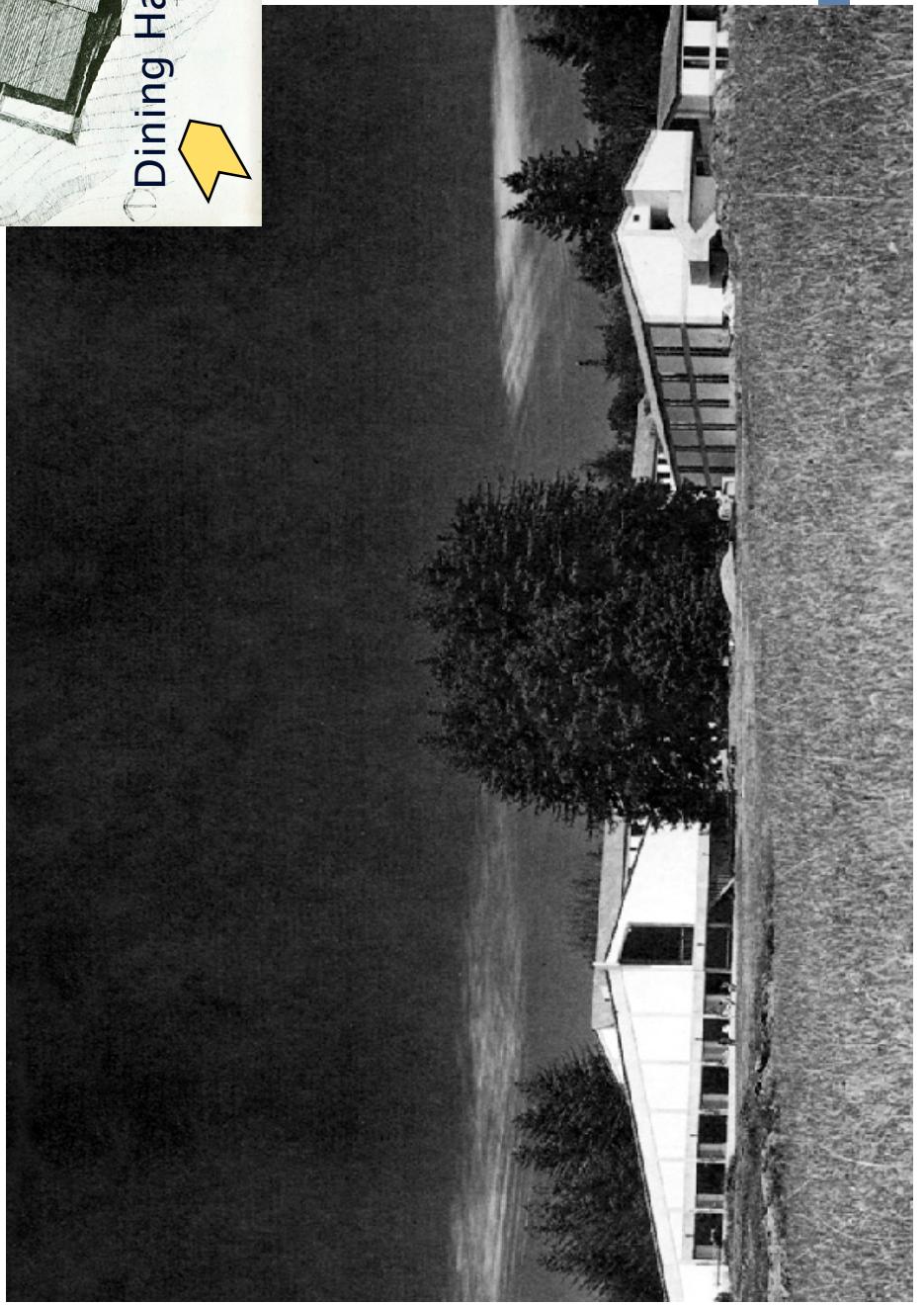
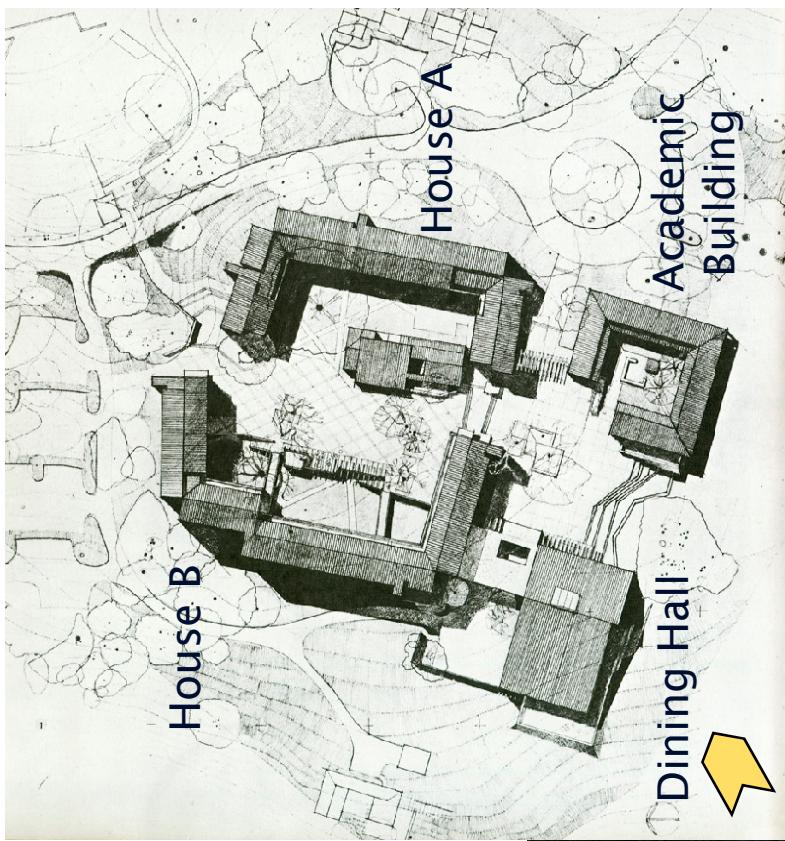


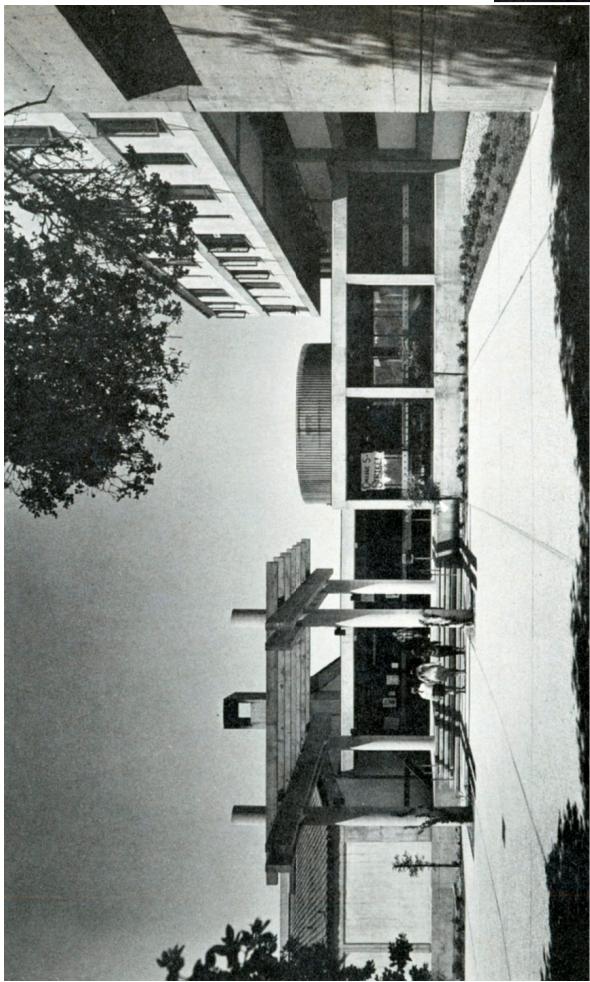
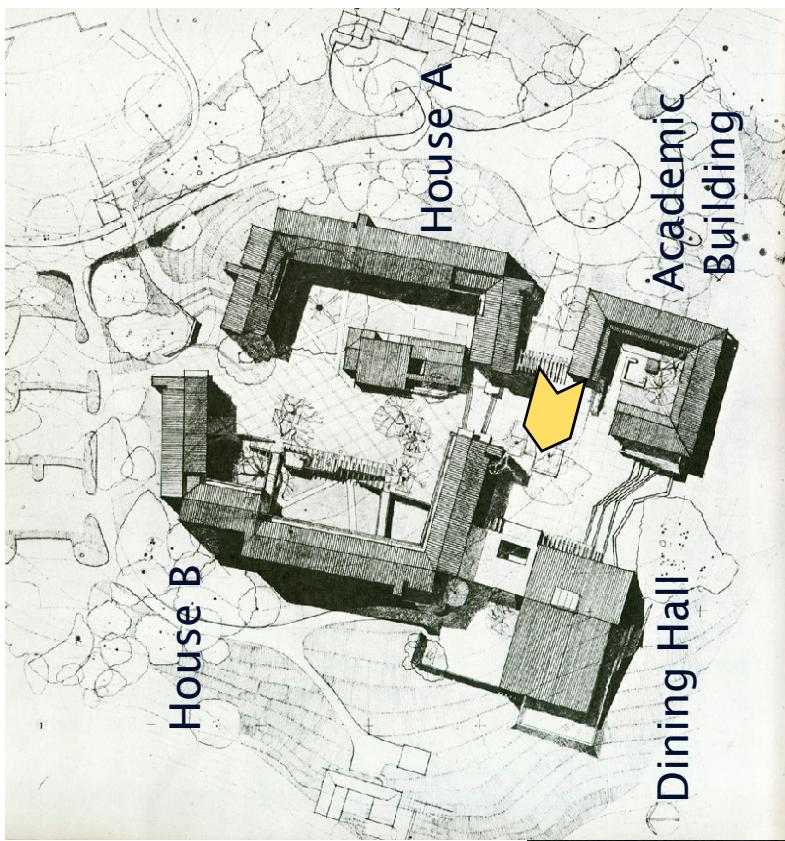


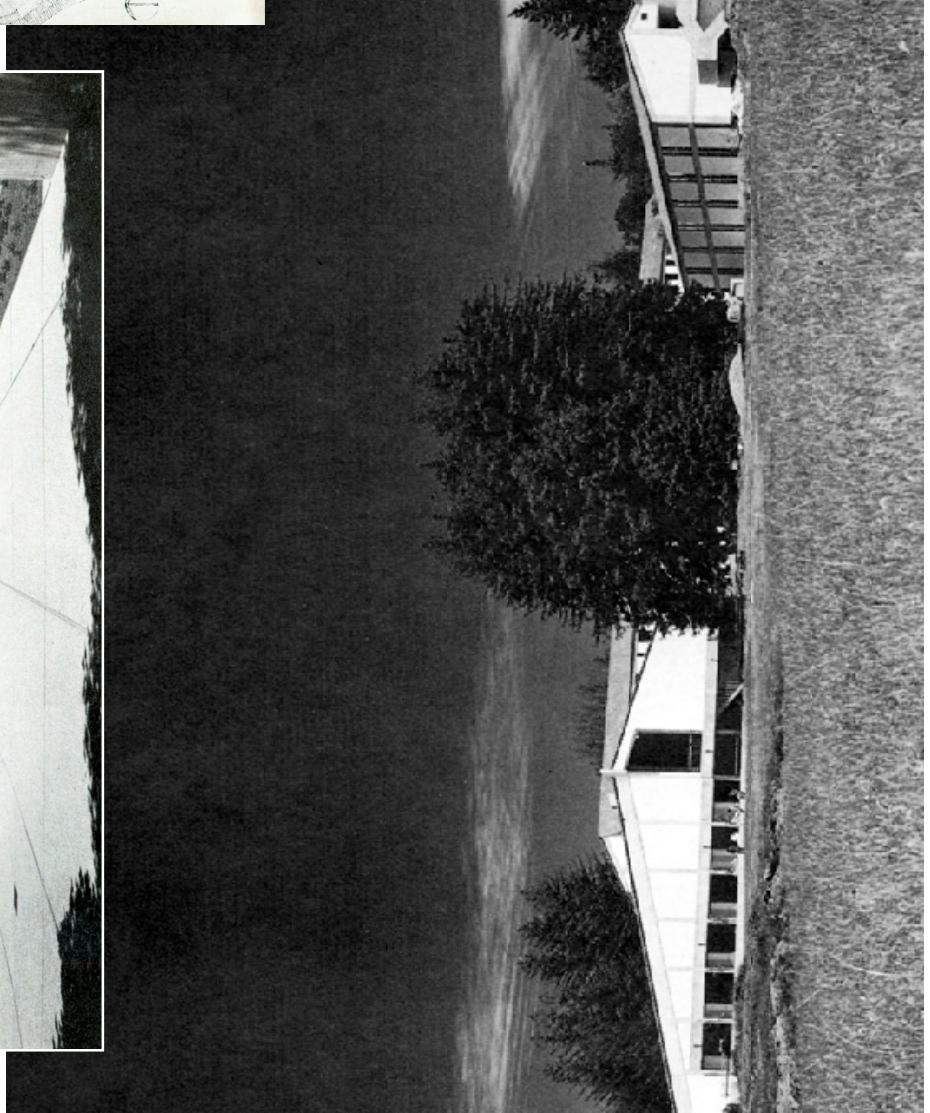
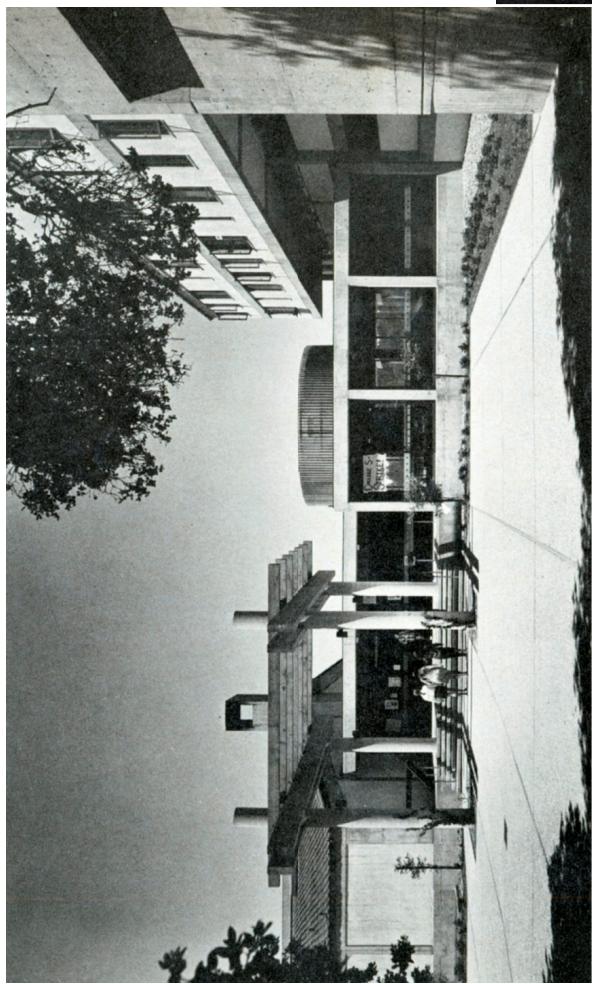
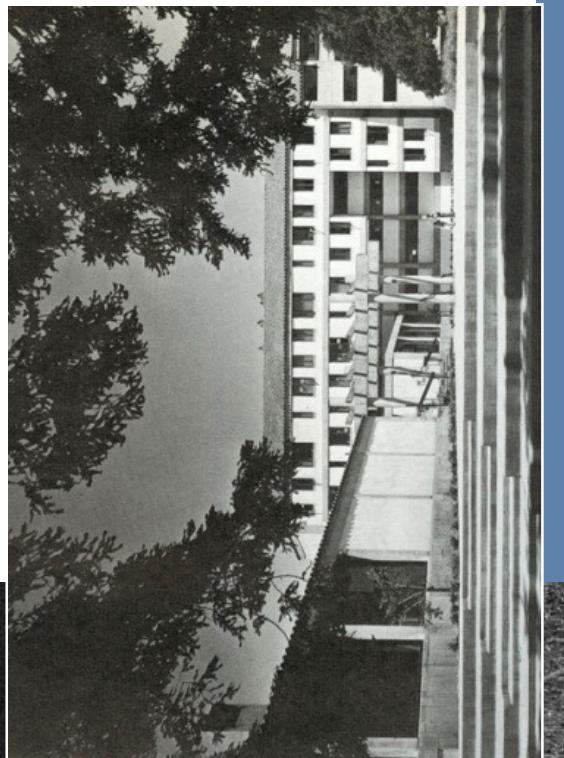
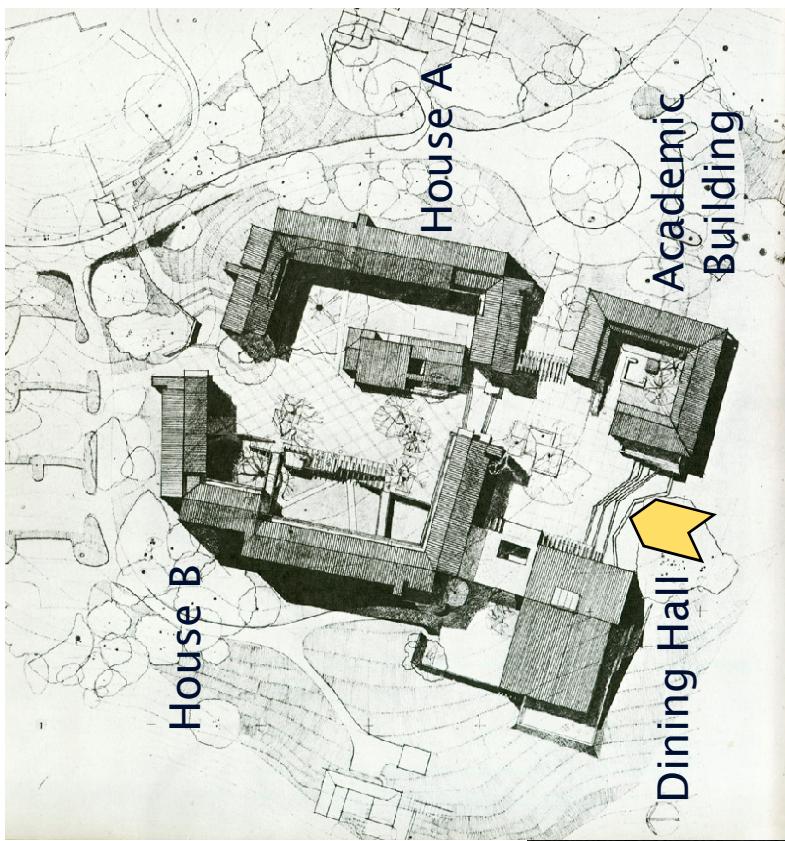
Photograph © 2003 by Alan Nyiri,  
courtesy of the Atkinson Photographic Archive

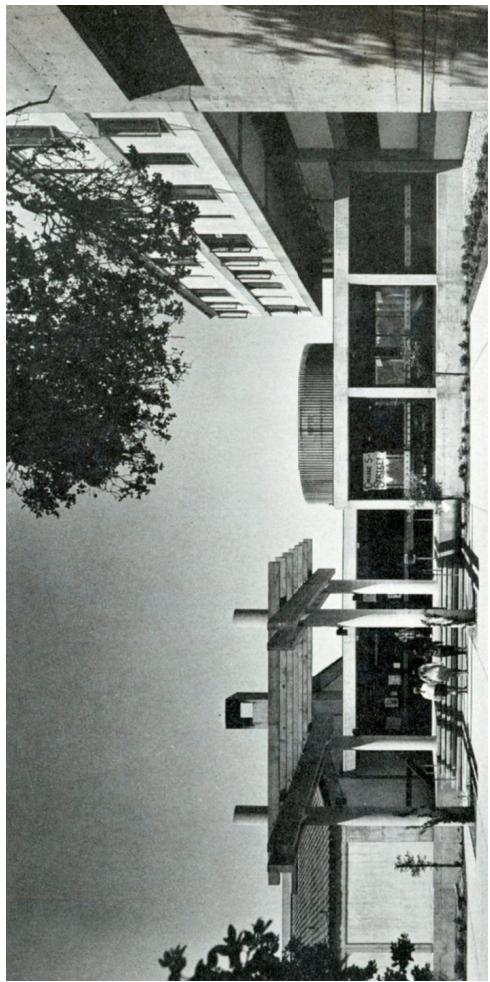
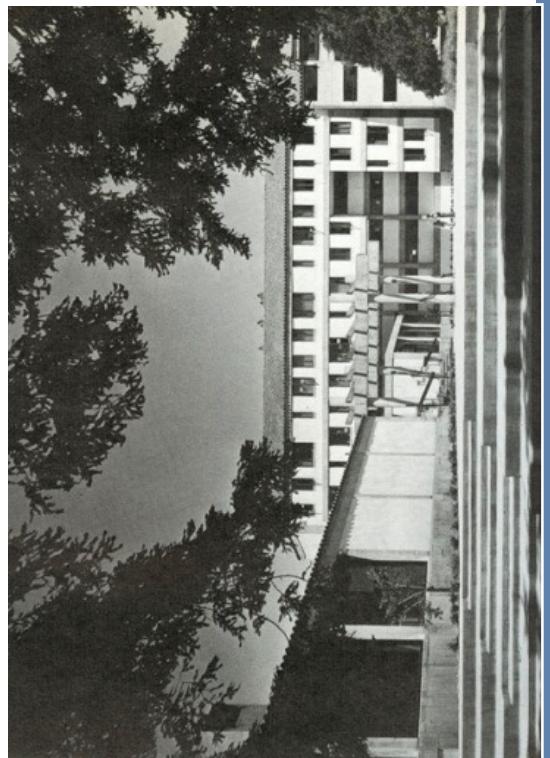
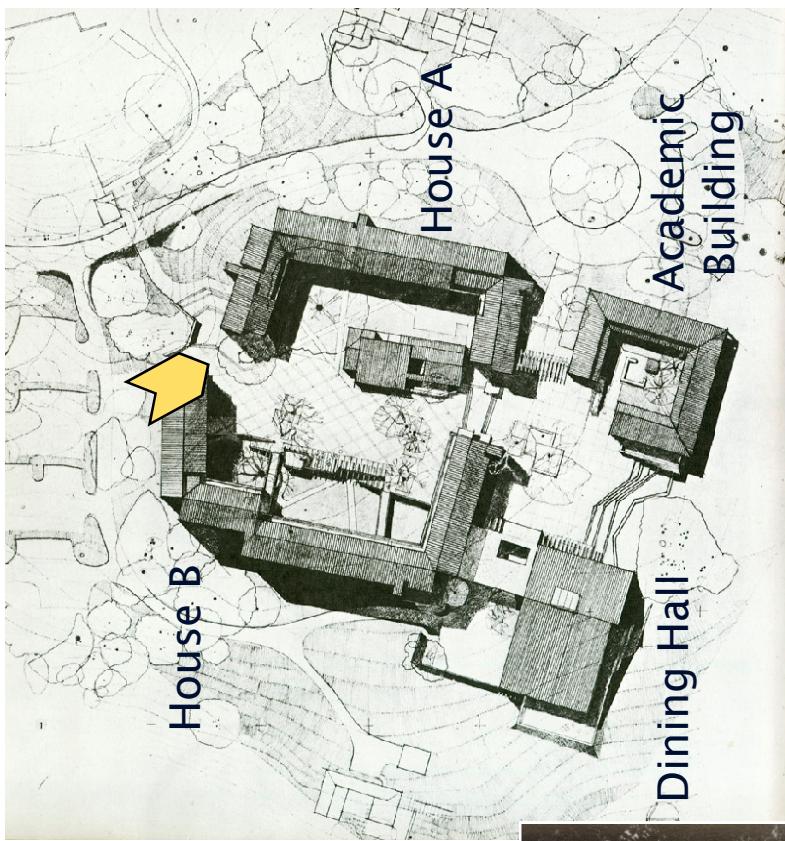


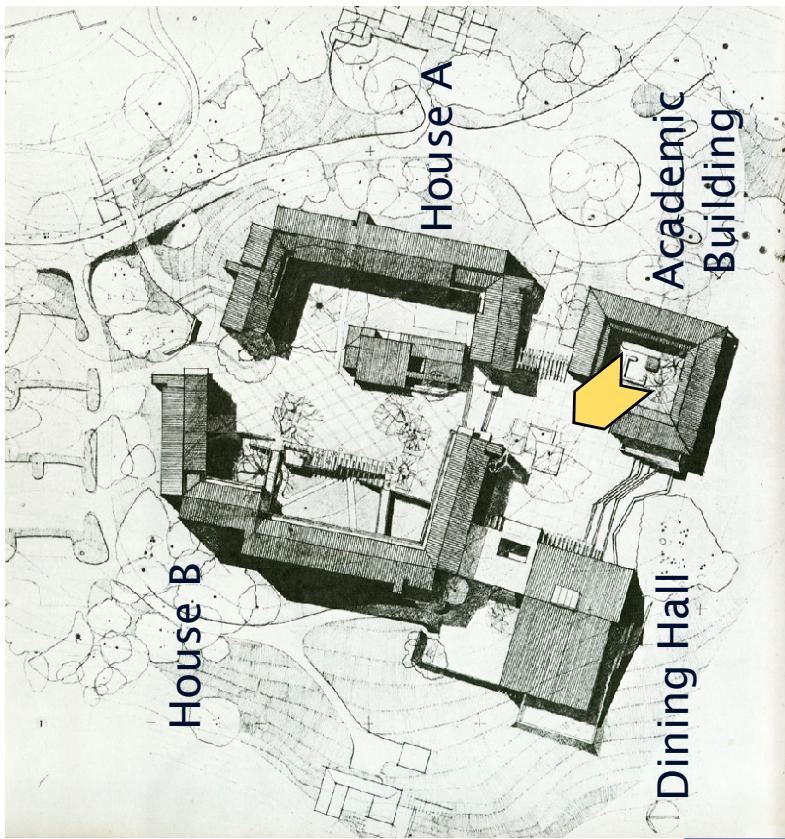
Photograph © 2003 by Alan Nyiri,  
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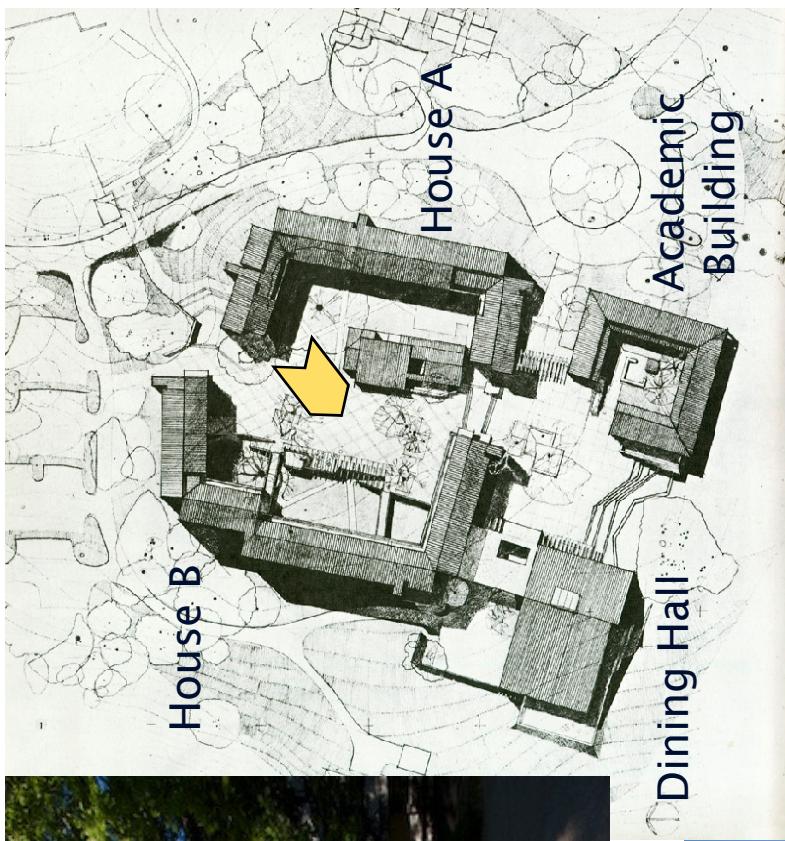


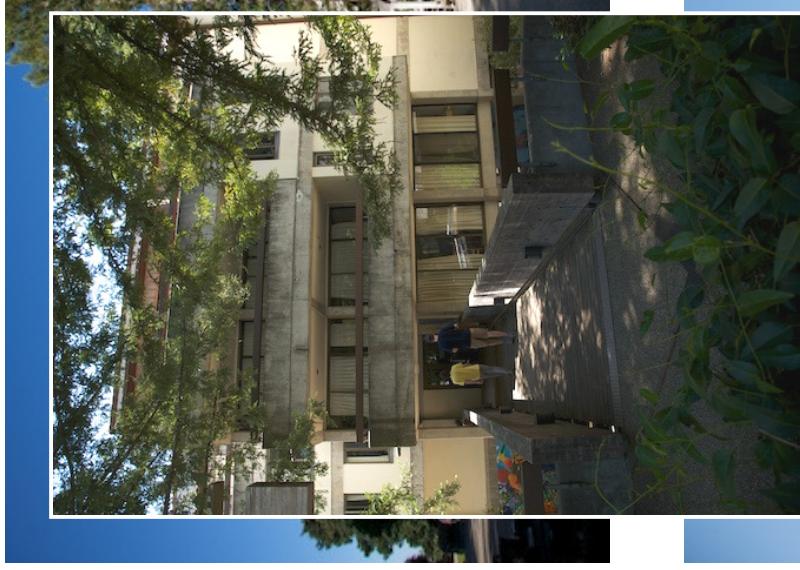
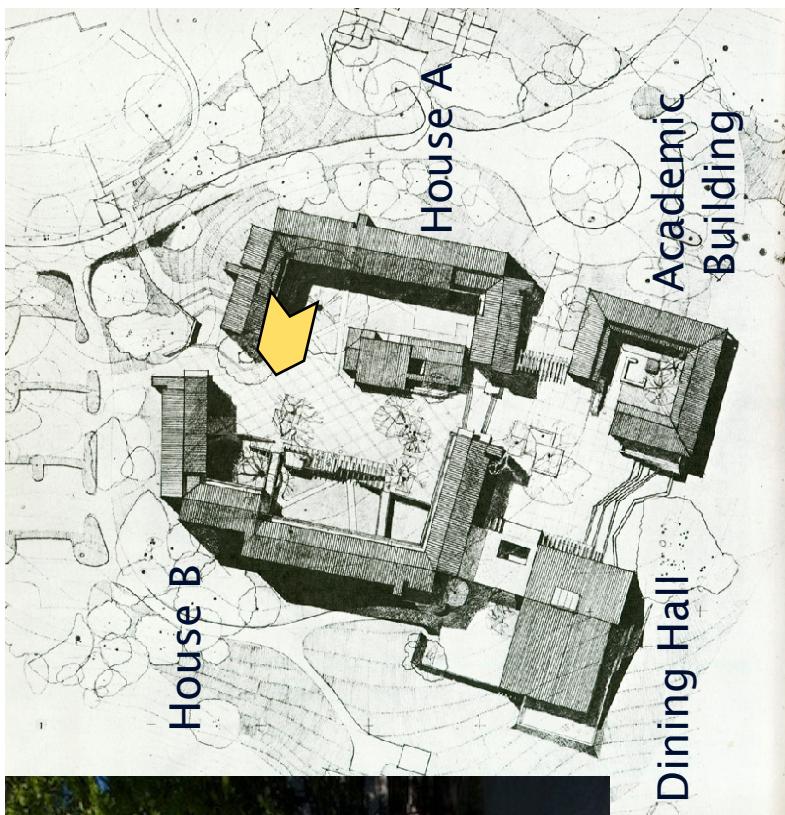


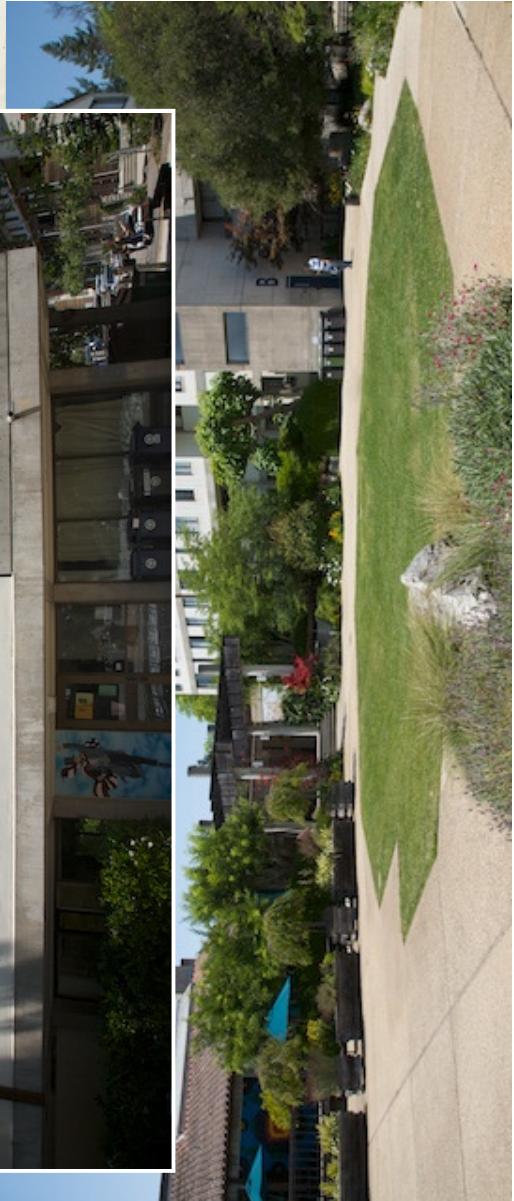
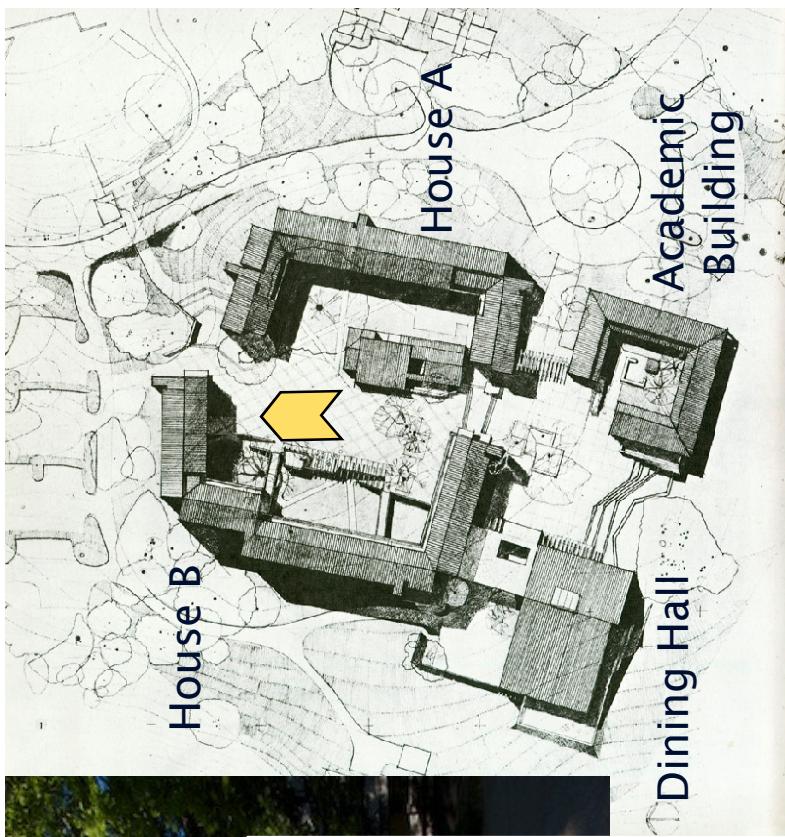






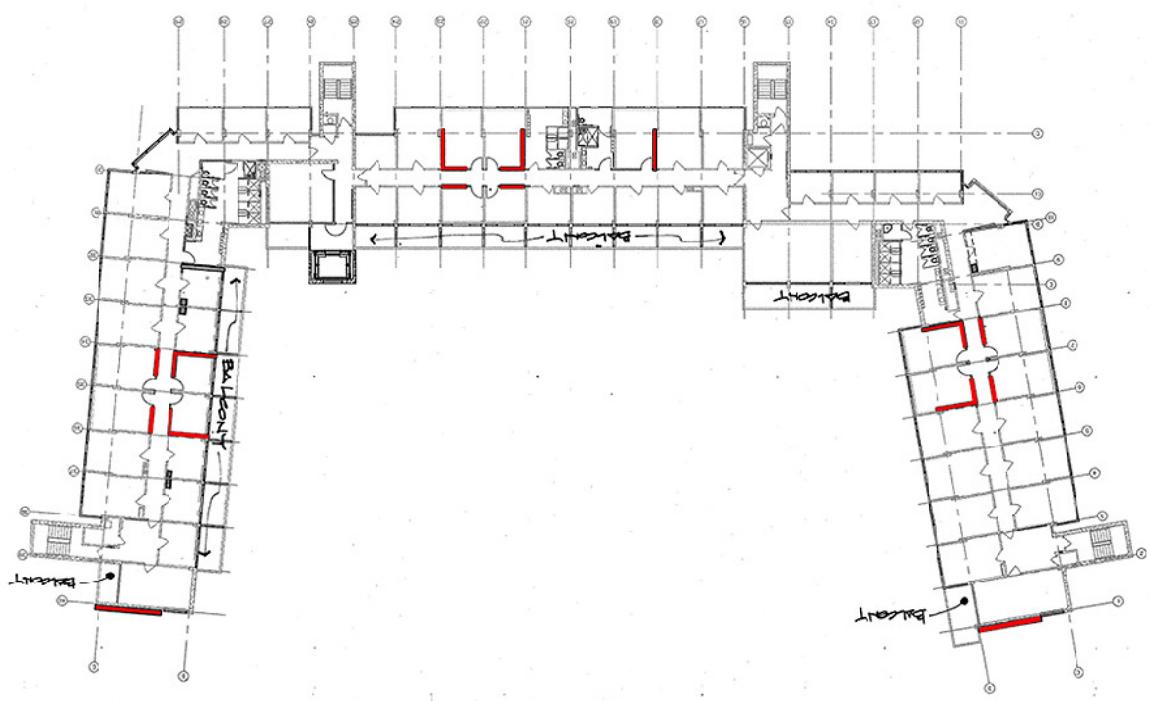






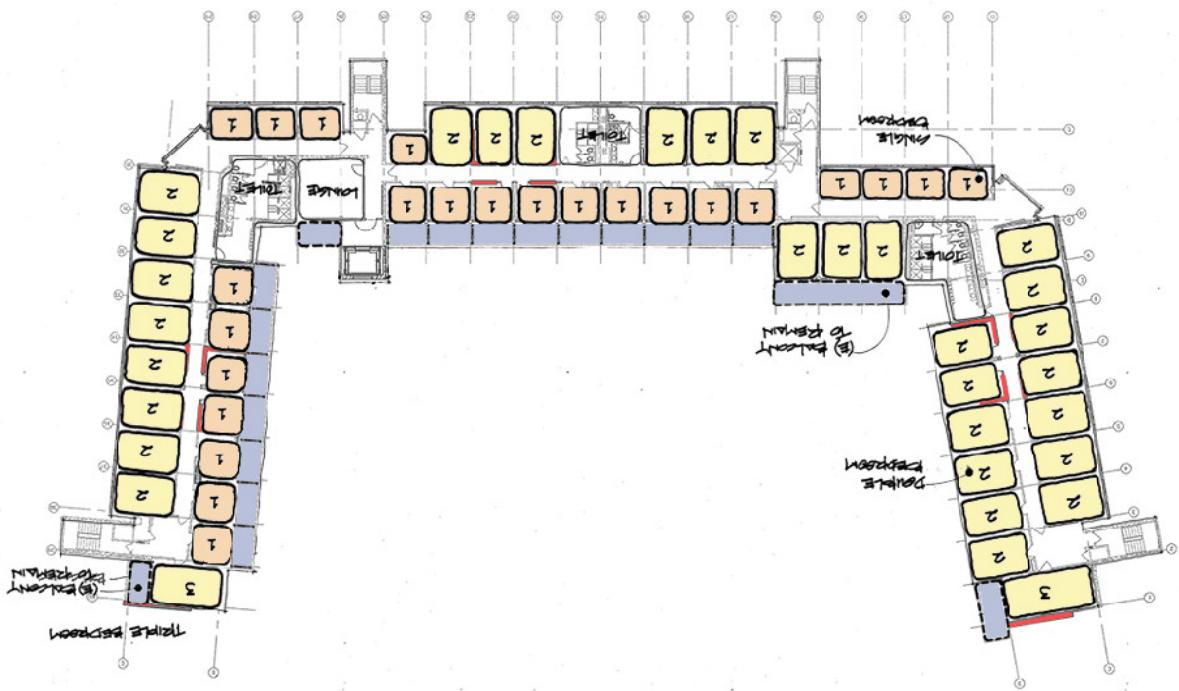
# Project Scope

- Seismic Upgrade



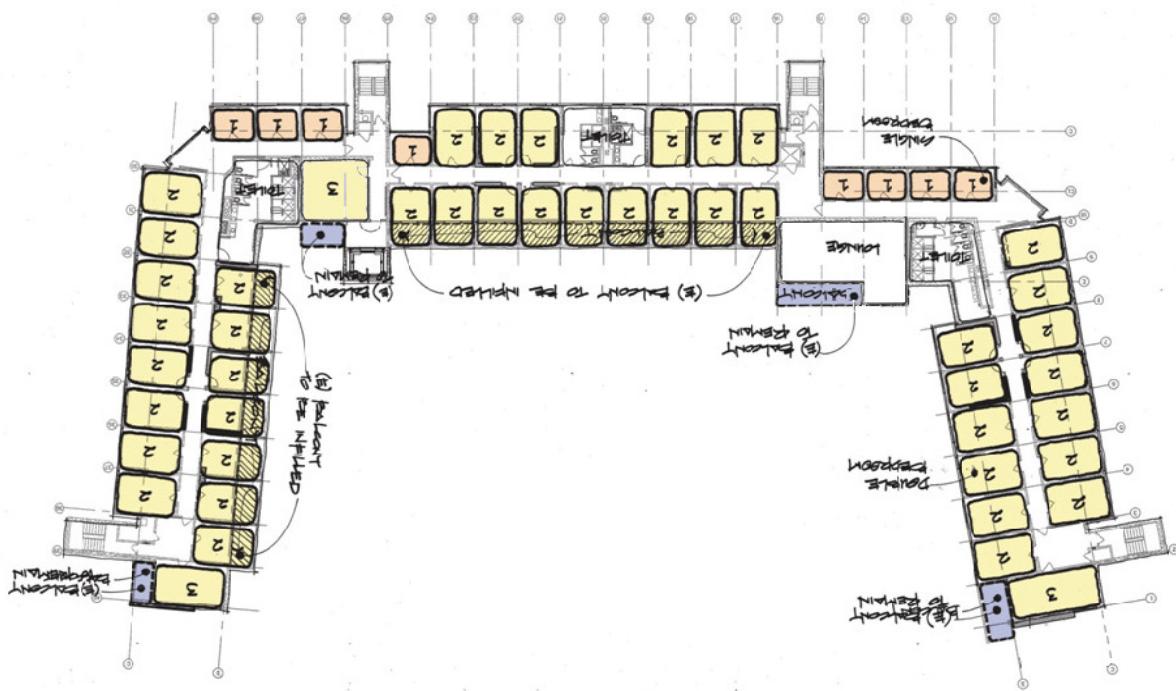
# Project Scope

- Seismic Upgrade



# Project Scope

- Seismic Upgrade
- Cyclical Maintenance and Renewal
  - bathroom renovations
  - lighting and finish renewal
  - HVAC replacement & renewal
  - boiler & controls replacement
  - dining hall & servery renovation
  - accessibility, including elevator
  - site improvements
    - storm water & sewer replacement
    - accessibility
    - landscape renewal



# Project Scope

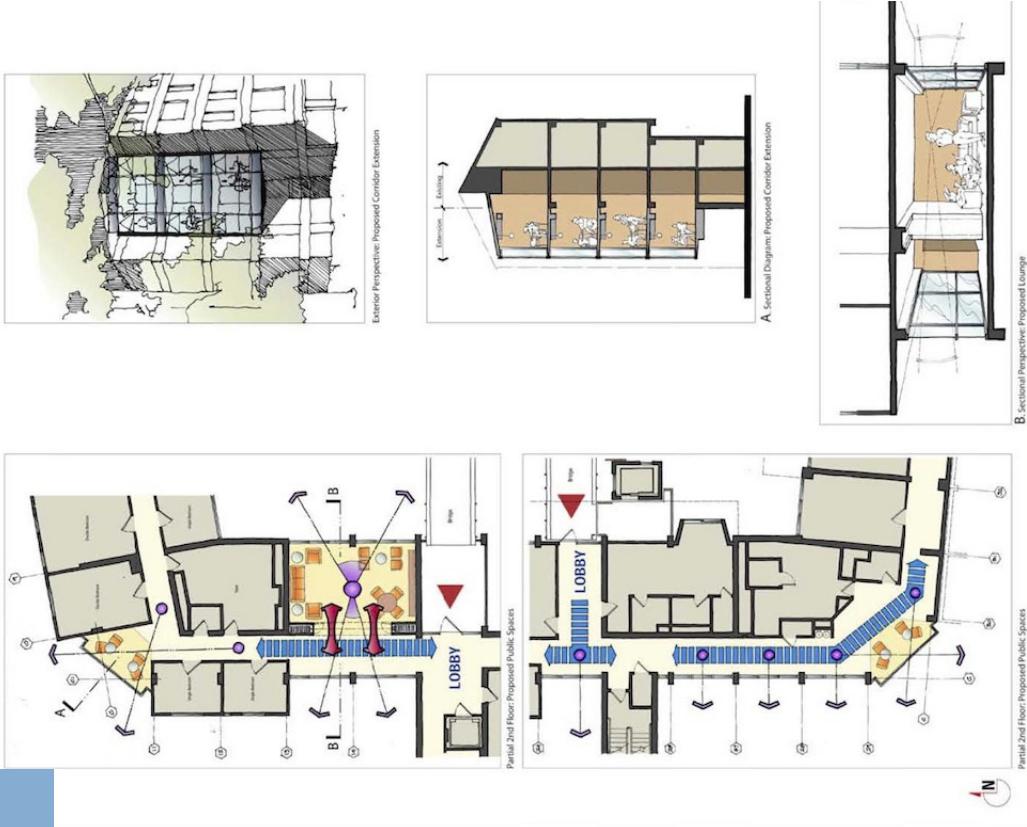
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## EXISTING CORRIDOR CONDITION



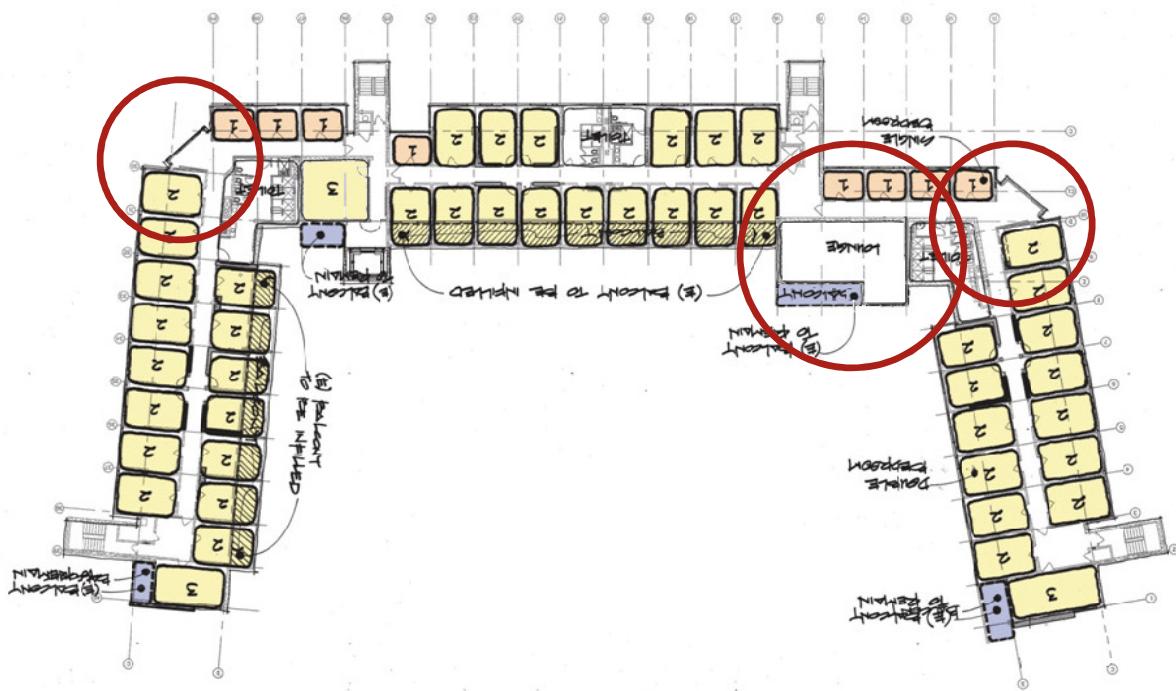
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Page 6

Skyline Engineering

In some areas throughout Dorm B, rust is appearing at the base of plaster wall sections. This clearly indicates water having been trapped behind the plaster without a means to escape.

8100 Milpitas Road, Salinas, CA 93907 - Phone: 831/650-34156 - Fax: 831/653-1617  
E-mail: [SkylineInc@nancor.com](mailto:SkylineInc@nancor.com) - [www.skylineenginc.com](http://www.skylineenginc.com)

# Project Scope

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**mold on inside gyp board face**

PHOTOGRAPHS OF CONDITIONS

This is a photo of the exterior wall area that was opened up. Note black mold on the inside of the sheet rock. Also note that the wall has been previously opened and repaired from the inside. The bottom plate is completely rusted.



**rusted sill plate**

# Project Scope

- Seismic Upgrade
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**rusted sill plate - protected face**

These areas have severe rust. The exterior wall areas are directly exposed to weather.



**rusted sill plate - exposed face**

# Project Scope

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**damaged waterproofing membrane**

These are photos of the waterproofing membrane behind the plaster exterior wall. If this condition exists throughout the building, then there is no longer adequate waterproofing to keep water out of the interior structure.

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**rusted window sill**

These photos show steel framing rust damage at the base of a window. This condition was consistent throughout all the areas opened.

These photos show steel framing rust damage at the base of a window. This condition was consistent throughout all the areas opened.

# Project Scope

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  - accessibility
  - landscape renewal
- **Exterior Skin Replacement**
- **Additional Floors**



UNIVERSITY OF CALIFORNIA  
SANTA CRUZ

PORTER COLLEGE  
RESIDENCE A



ADDITIONAL FLOOR  
FEASIBILITY STUDY

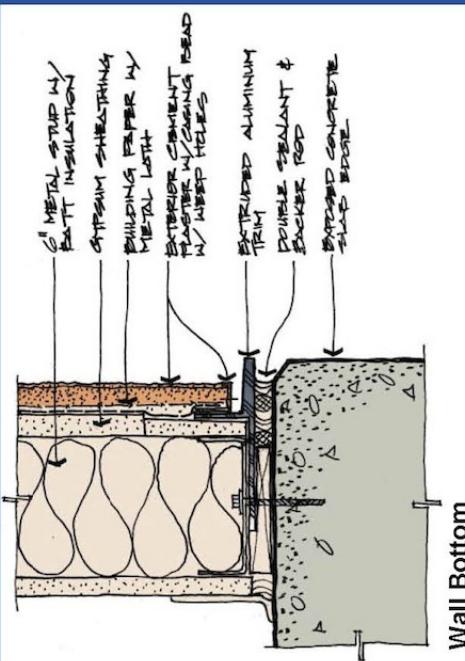
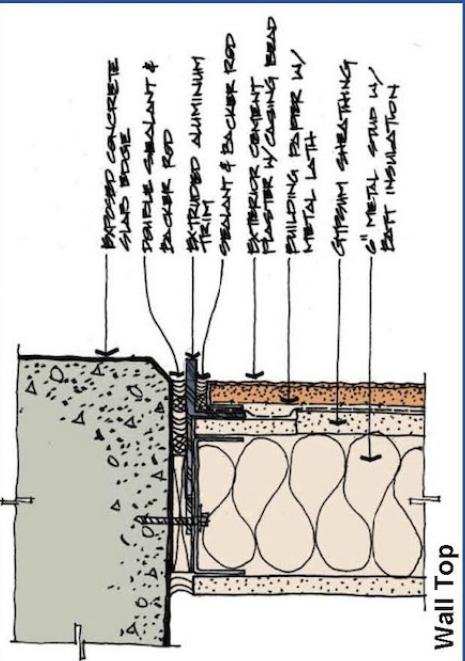
April 24, 2008

Prepared by:

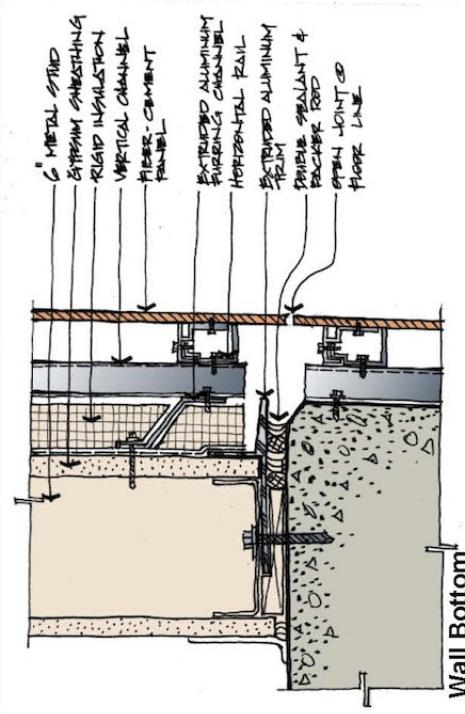
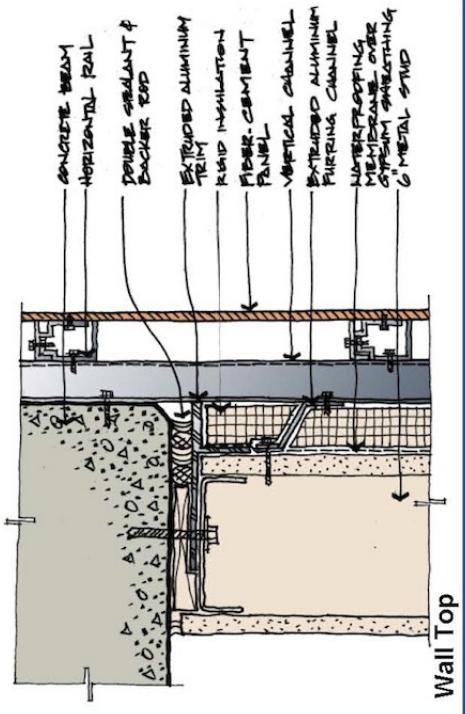
FORELIEBESSEER ENGINEERS, INC.  
Structural Engineers  
ANSHEN + ALLEN GAYNER  
ENGINEERS

The Fire Consultants  
DAVIS LANGDON

CEMENT PLASTER SYSTEM

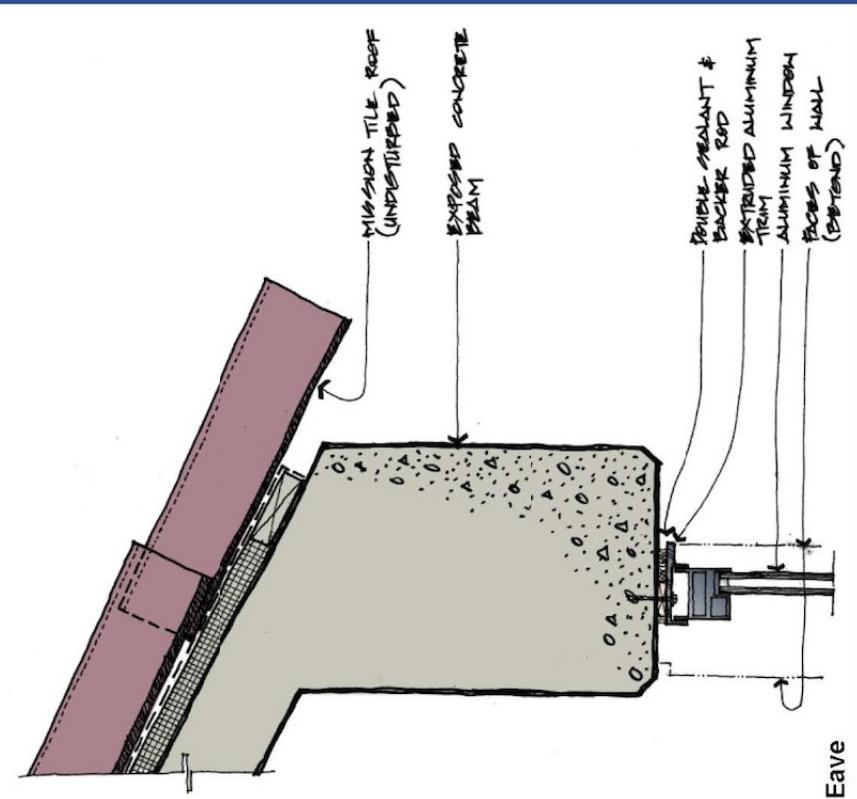


## RAIN SCREEN SYSTEM

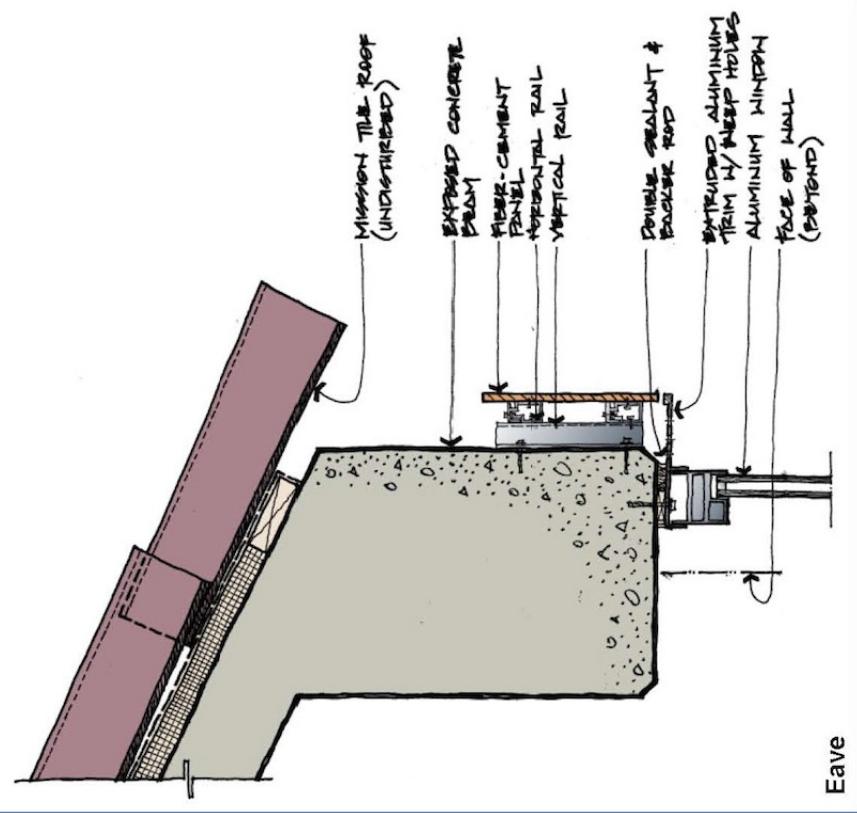


Cladding Alternatives

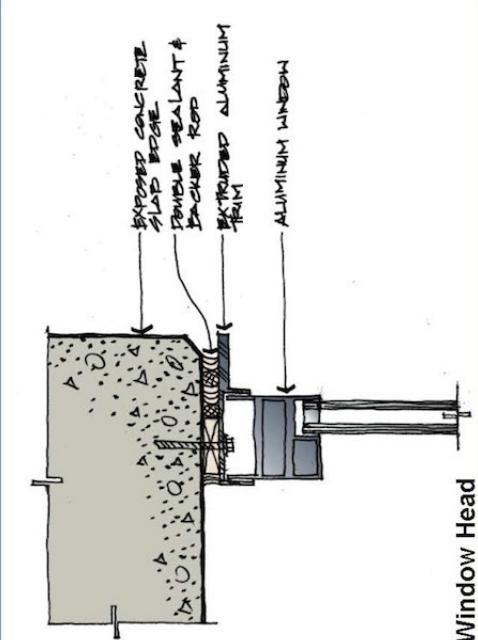
## CEMENT PLASTER SYSTEM



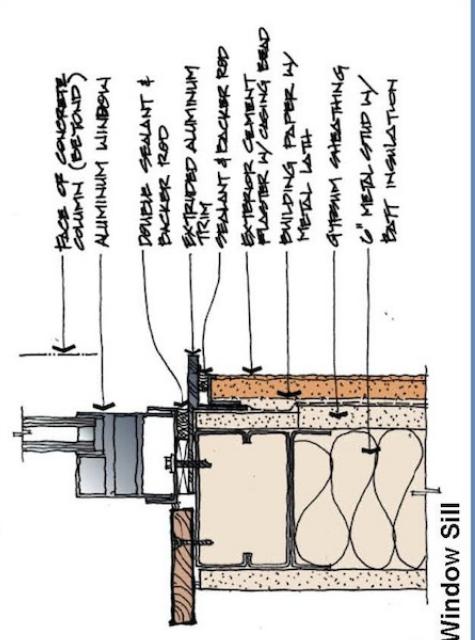
## RAIN SCREEN SYSTEM



## CEMENT PLASTER SYSTEM

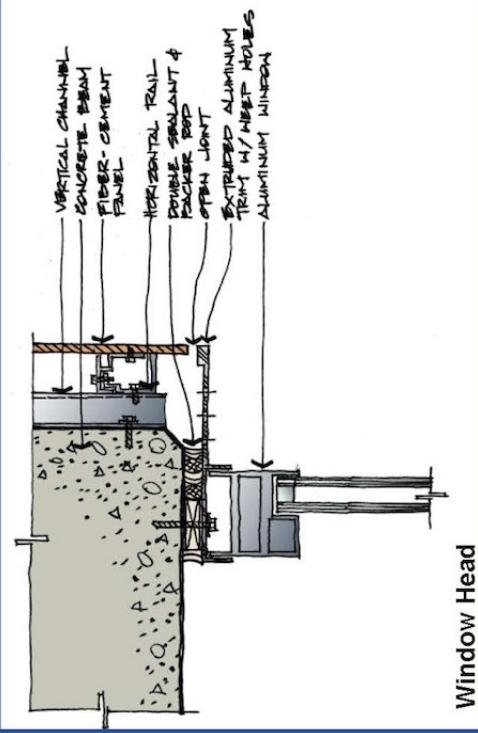


Window Head

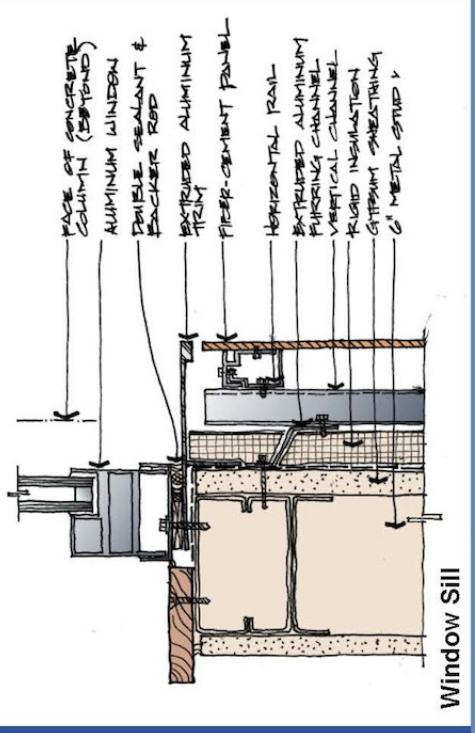


Window Sill

## RAIN SCREEN SYSTEM



Window Head

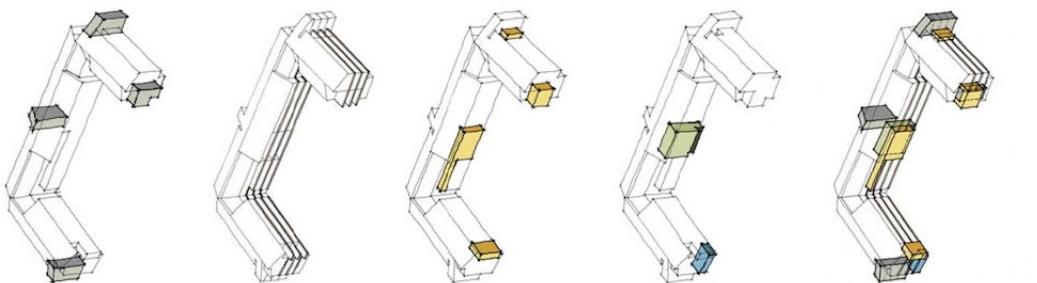


Window Sill

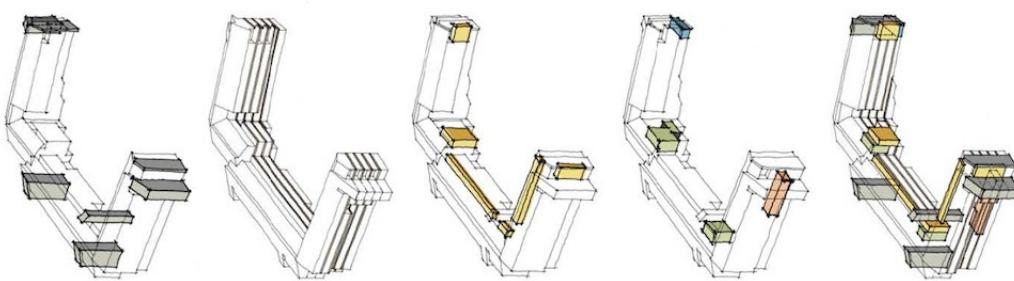
## Building Design Analysis



A



Vertical Elements



Horizontal Elements

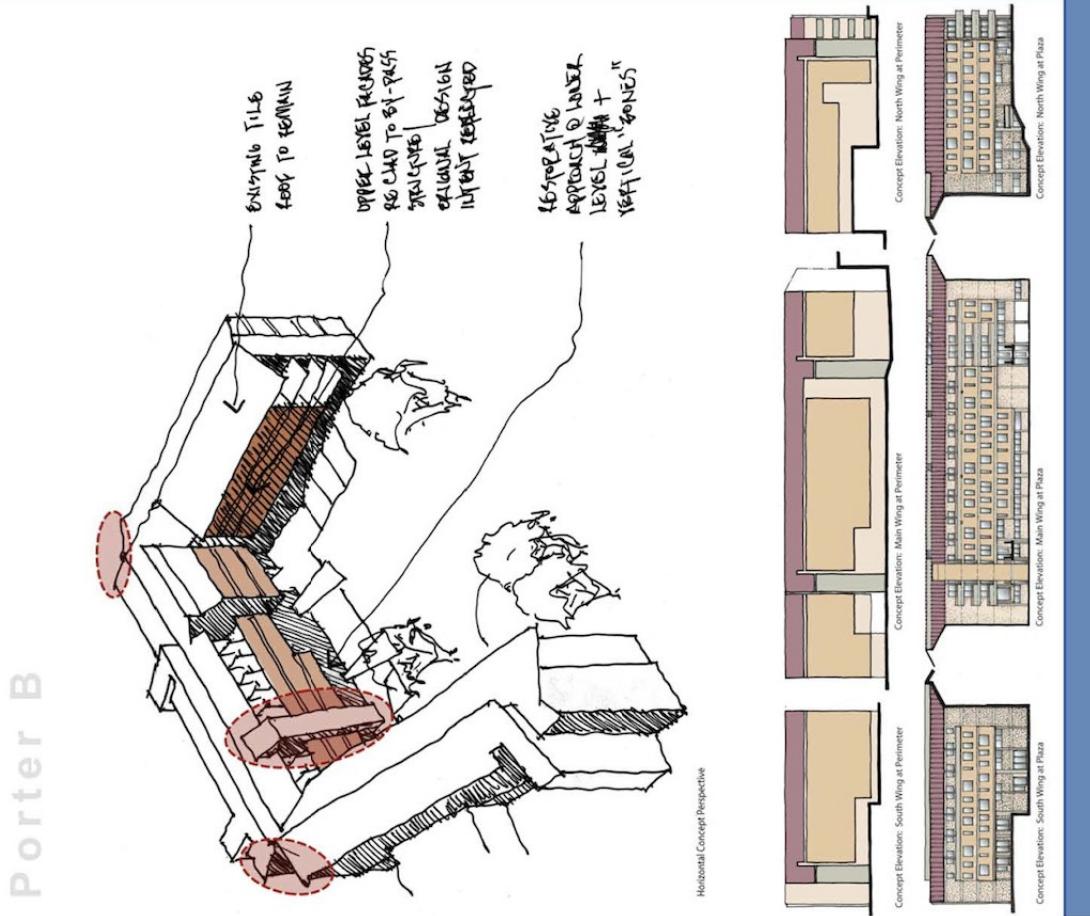
Balconies

Public Spaces

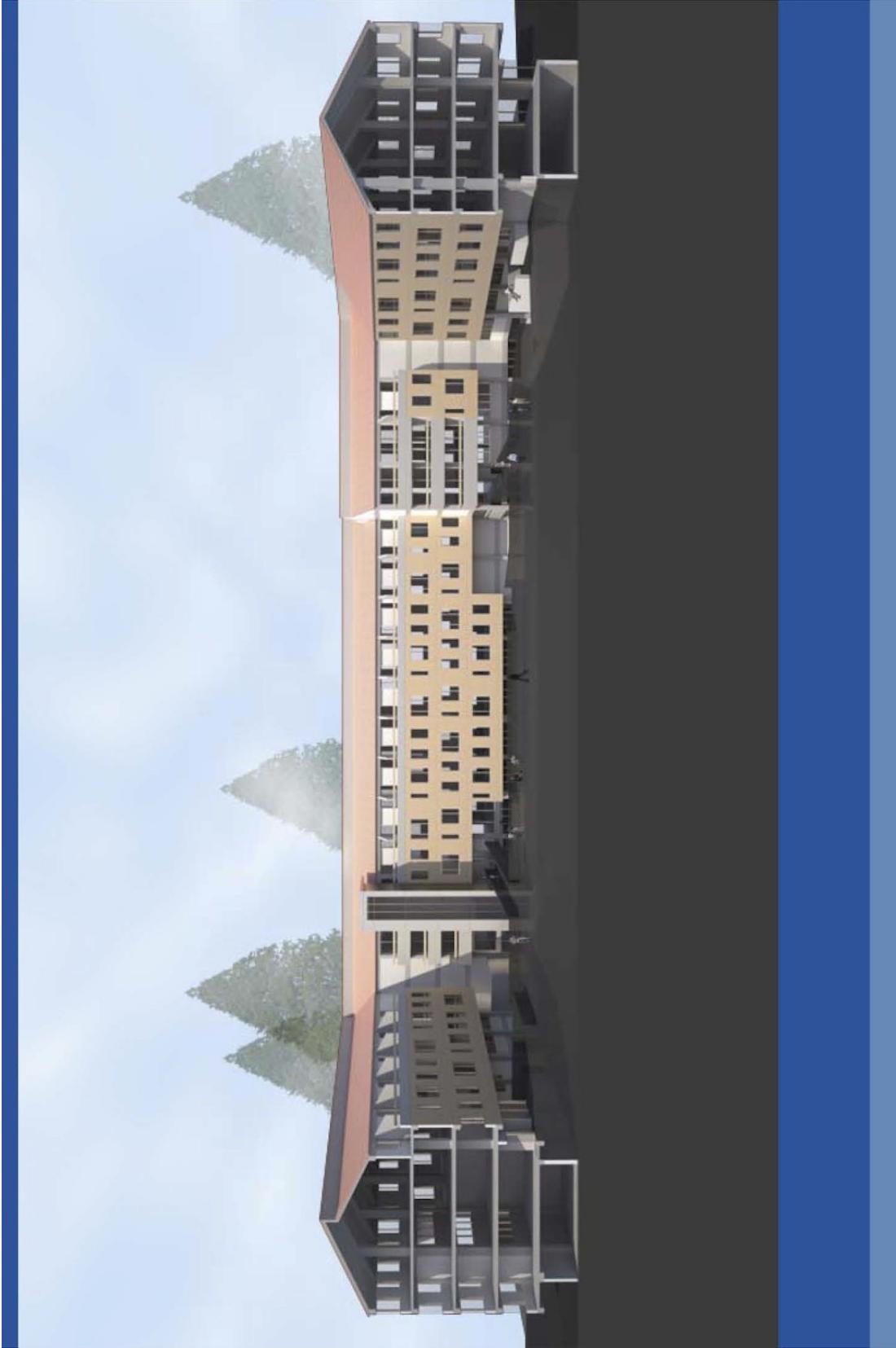
Composite Elements

B

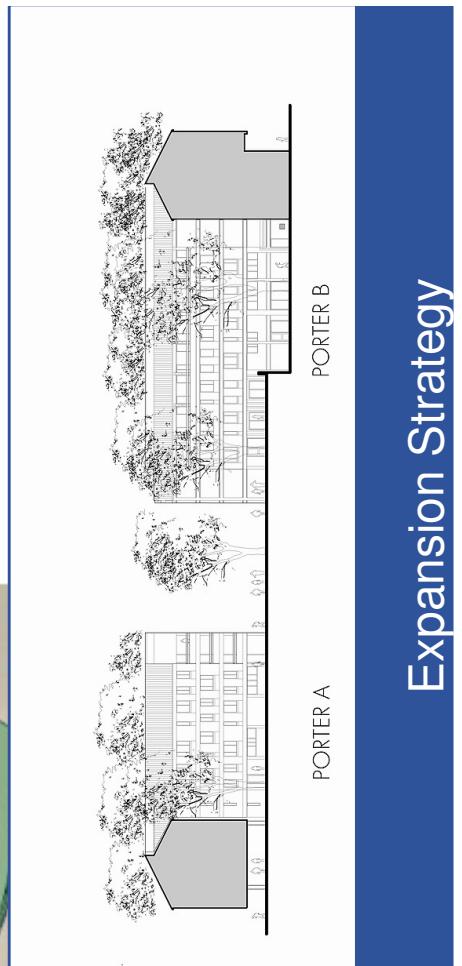
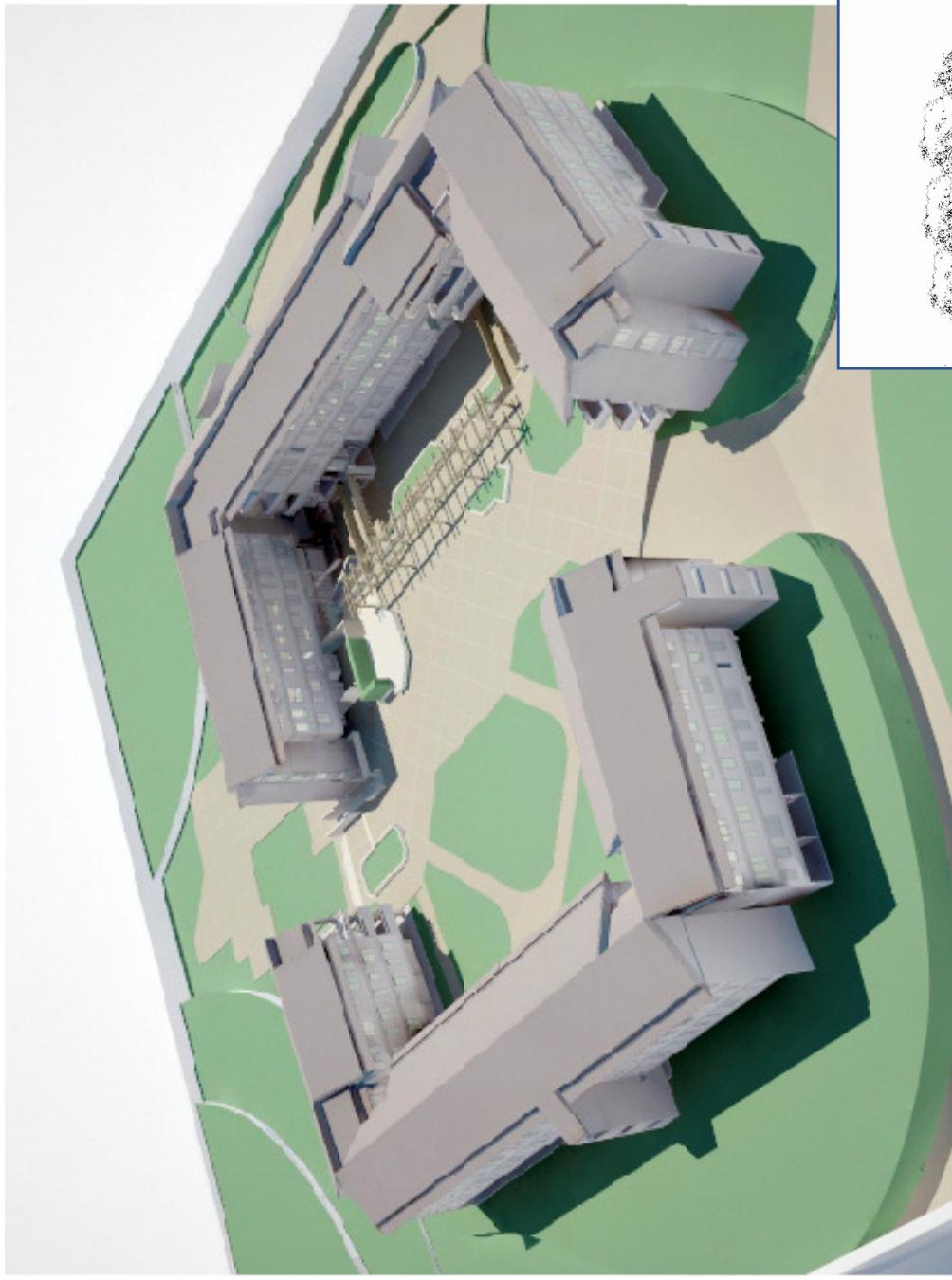
## Rain Screen Studies



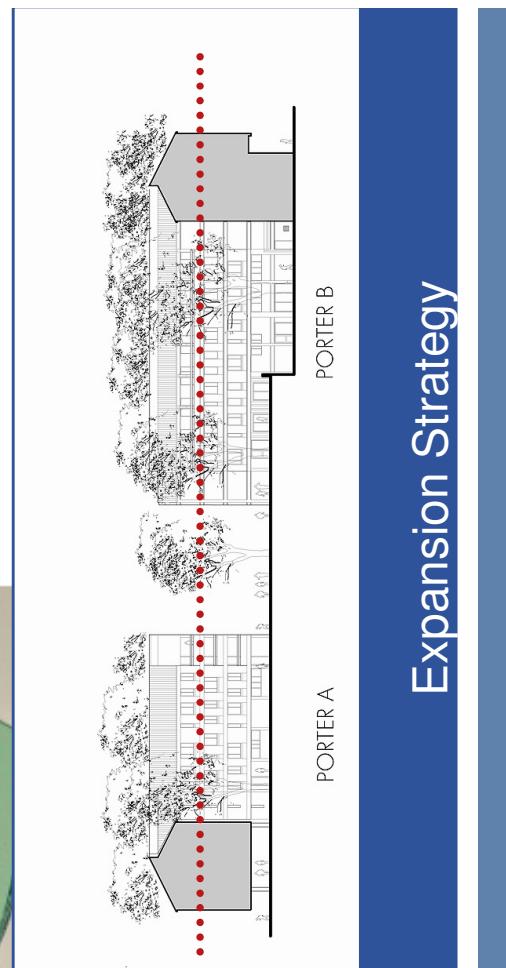
Porter B



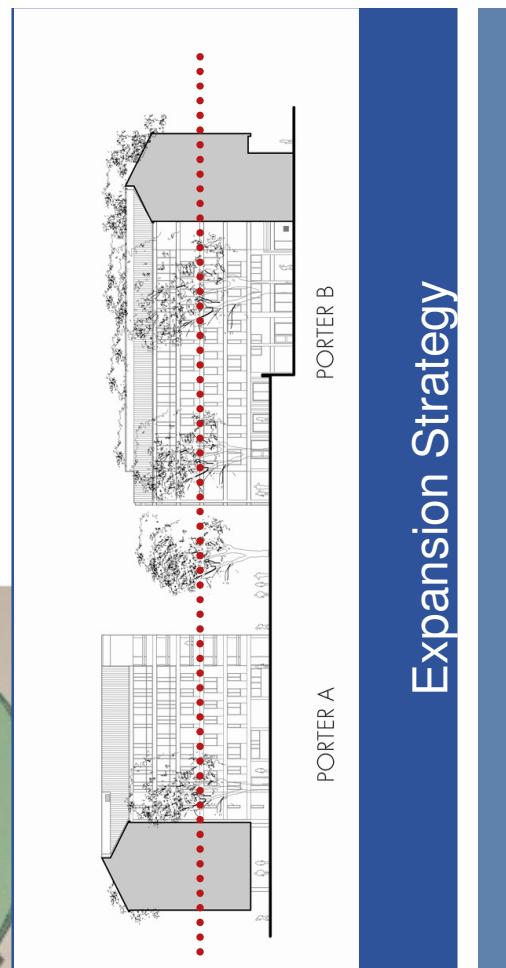
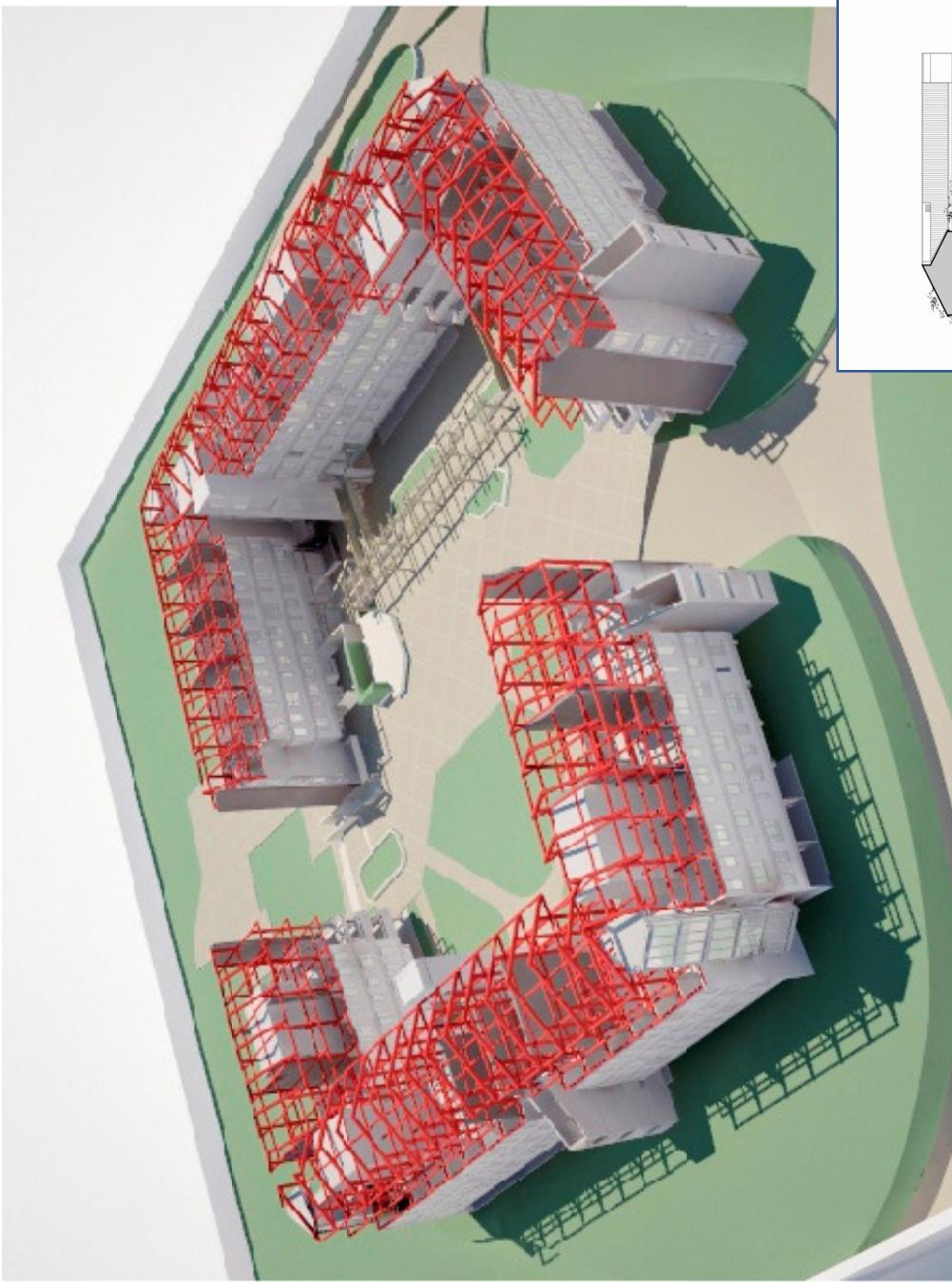
## Elevation Studies



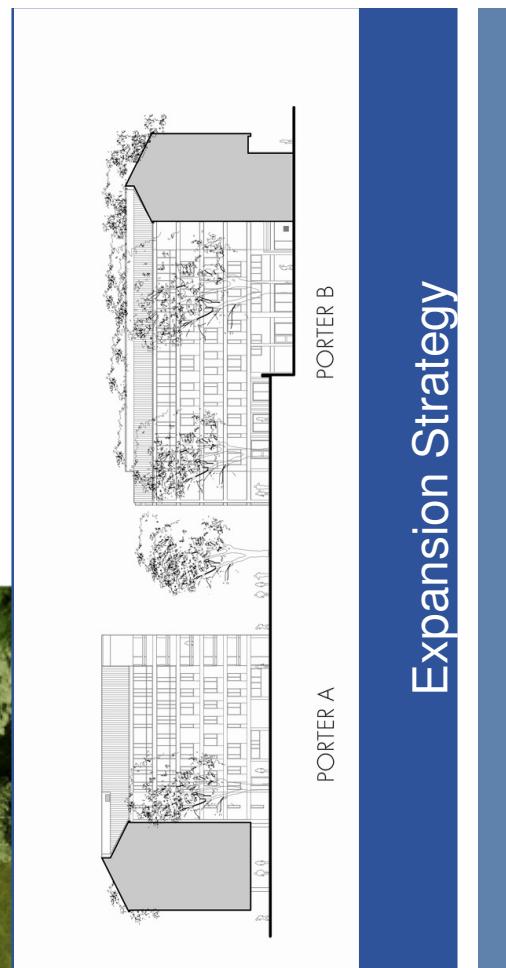
## Expansion Strategy



## Expansion Strategy



## Expansion Strategy



## Expansion Strategy



## Expansion Studies



A detailed architectural rendering of a modern building expansion. The main structure is a light gray concrete frame with a grid of windows. A prominent feature is a vertical orange band running along the left side and top of the building. The ground floor has large glass doors and windows. The building is set against a blue sky with wispy clouds.

## Expansion Studies

## Expansion Studies



## Architectural Language



## Architectural Language



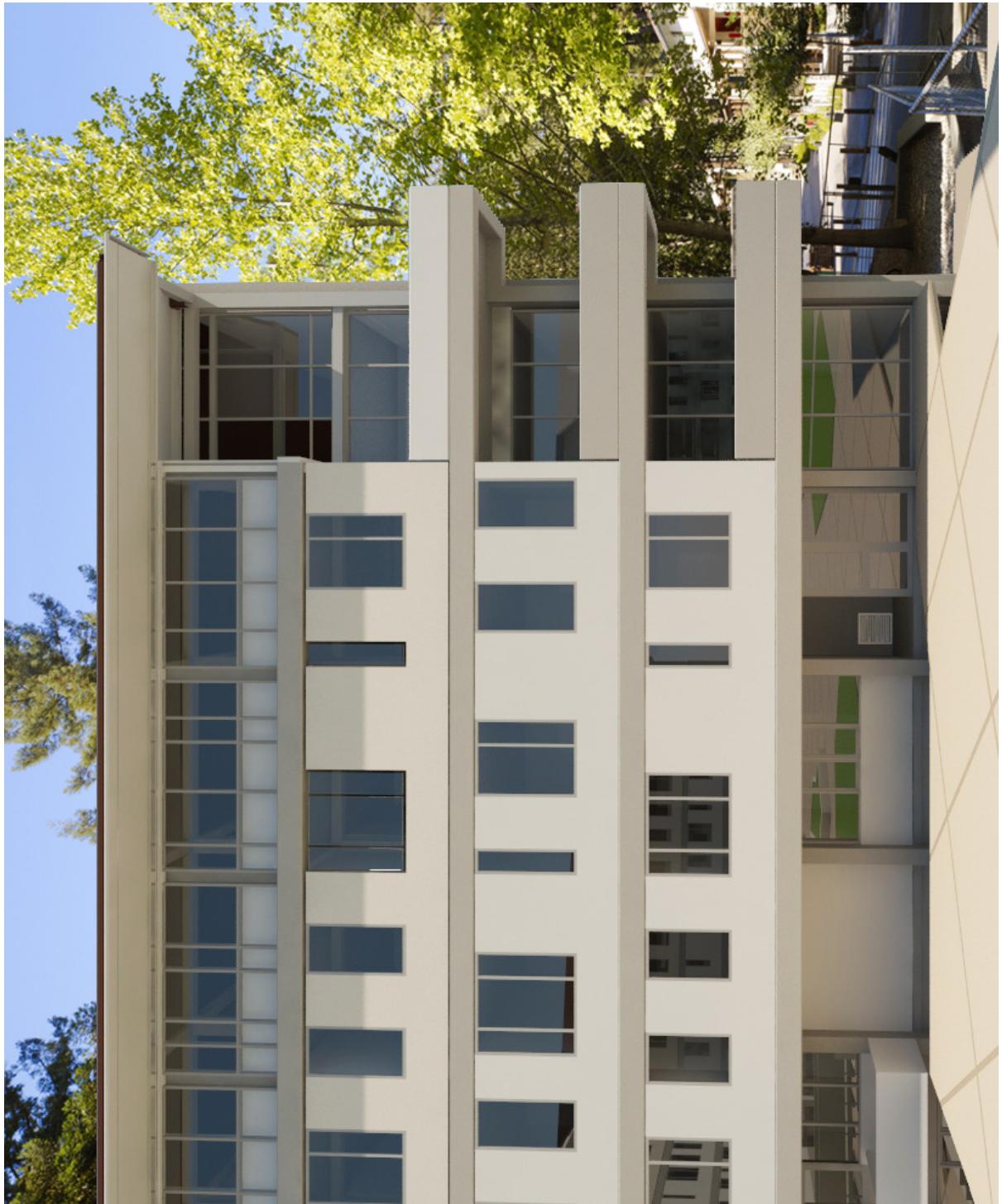


## Architectural Language



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Architectural Language

## Architectural Language





## Expansion Studies

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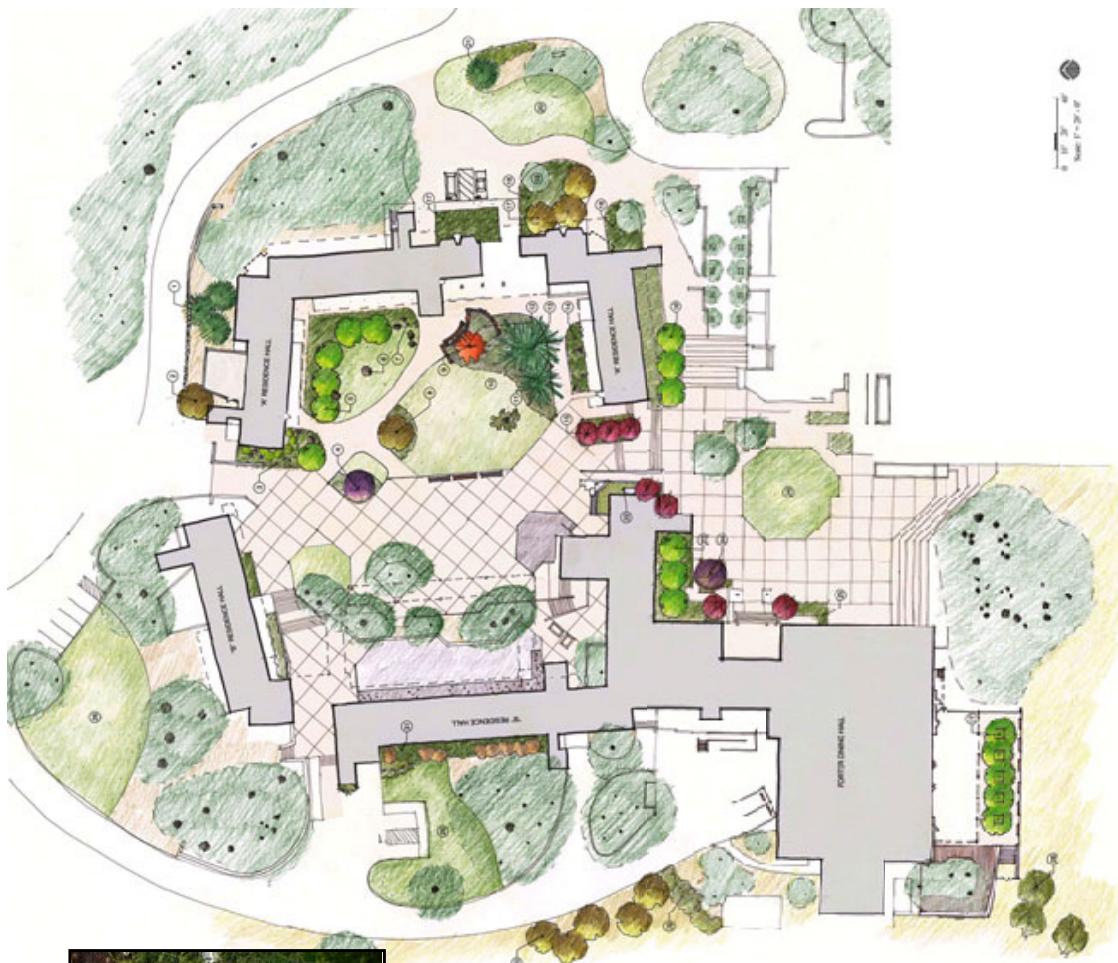
## Expansion Studies





## Expansion Studies

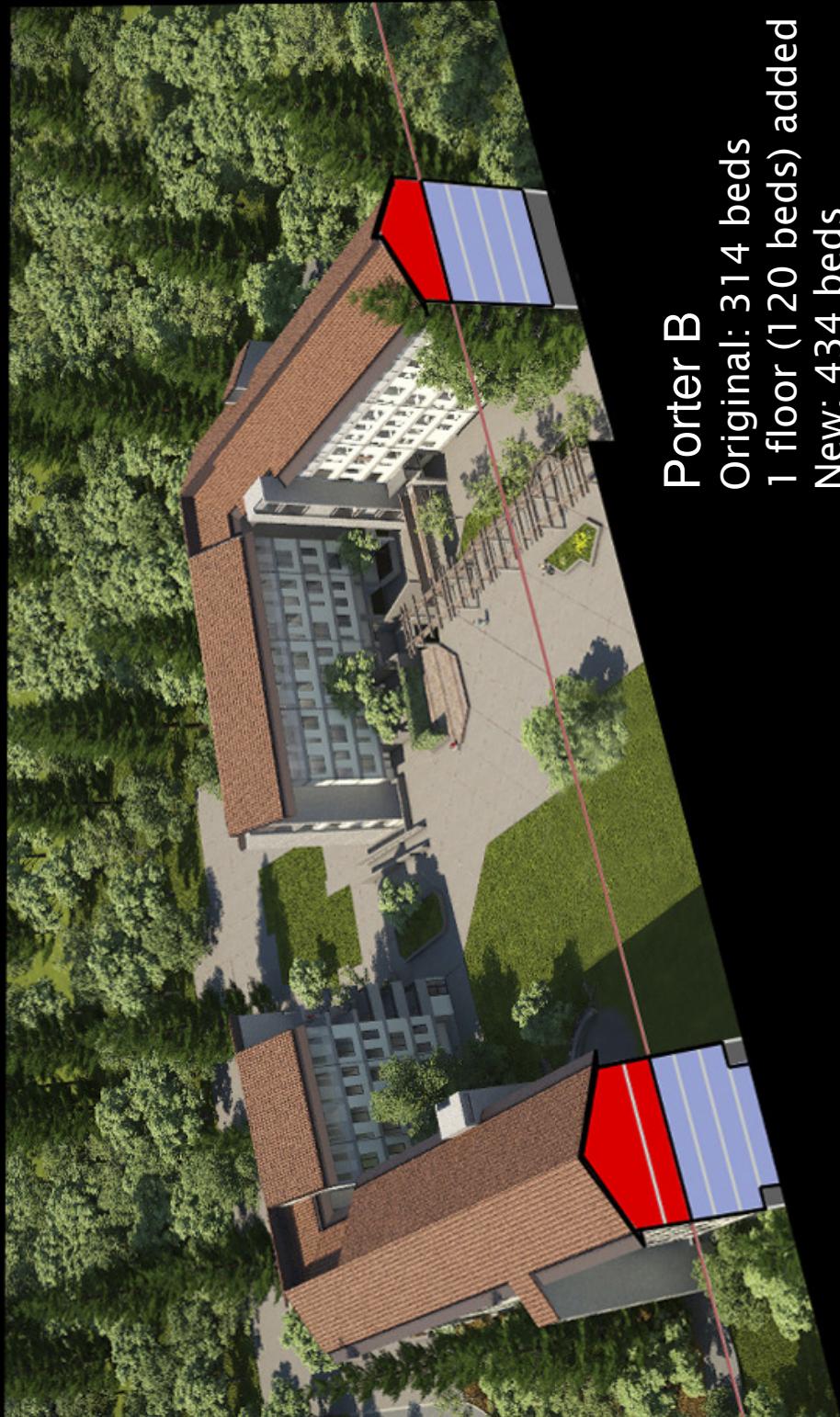
## Landscape Renewal











### Porter B

Original: 314 beds  
1 floor (120 beds) added  
New: 434 beds

**843 Beds Total (297 Added)**  
**54% Increased Occupancy**

### Porter A

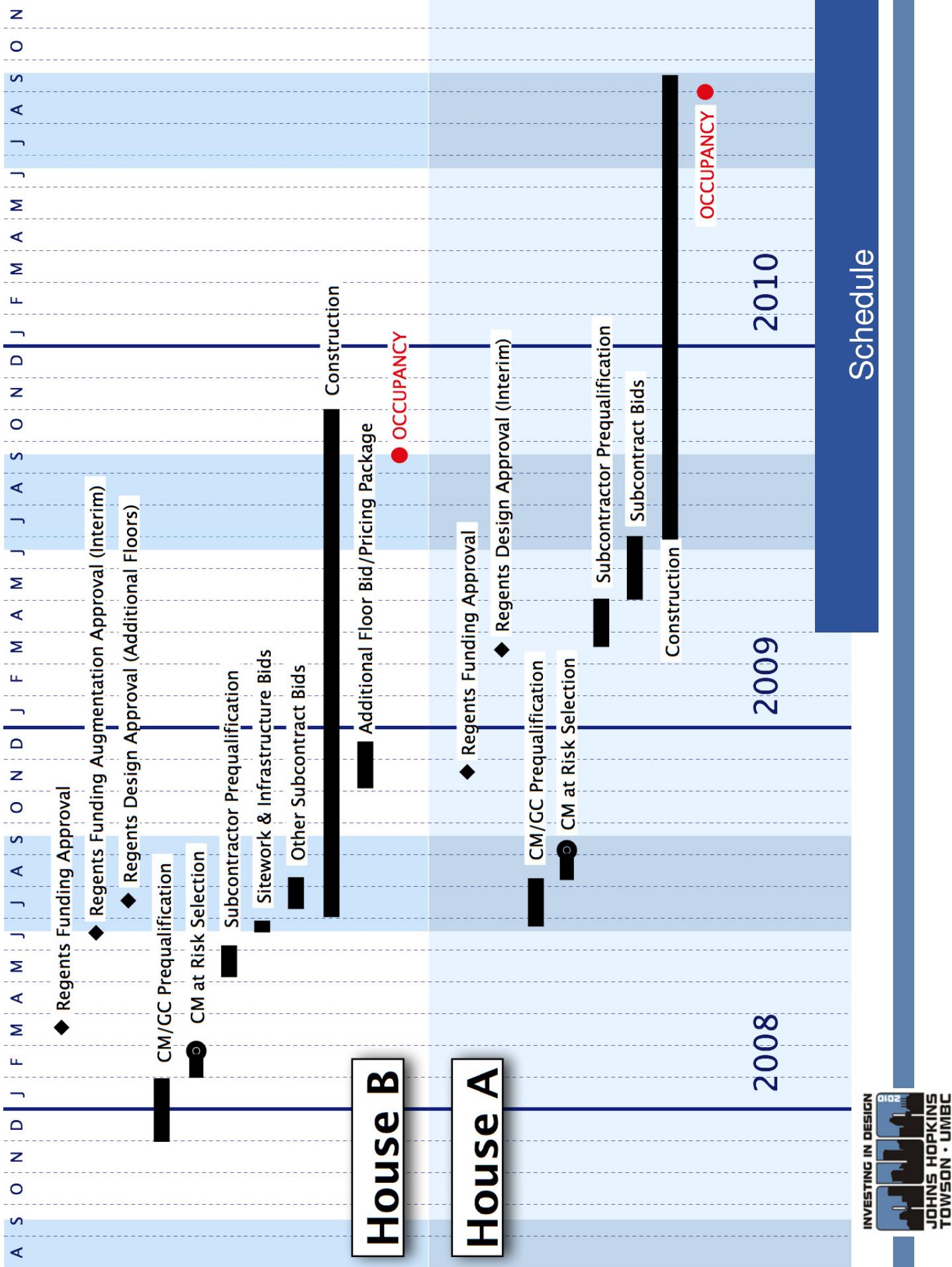
Original: 232 beds  
2 floors (177 beds) added  
New: 409 beds

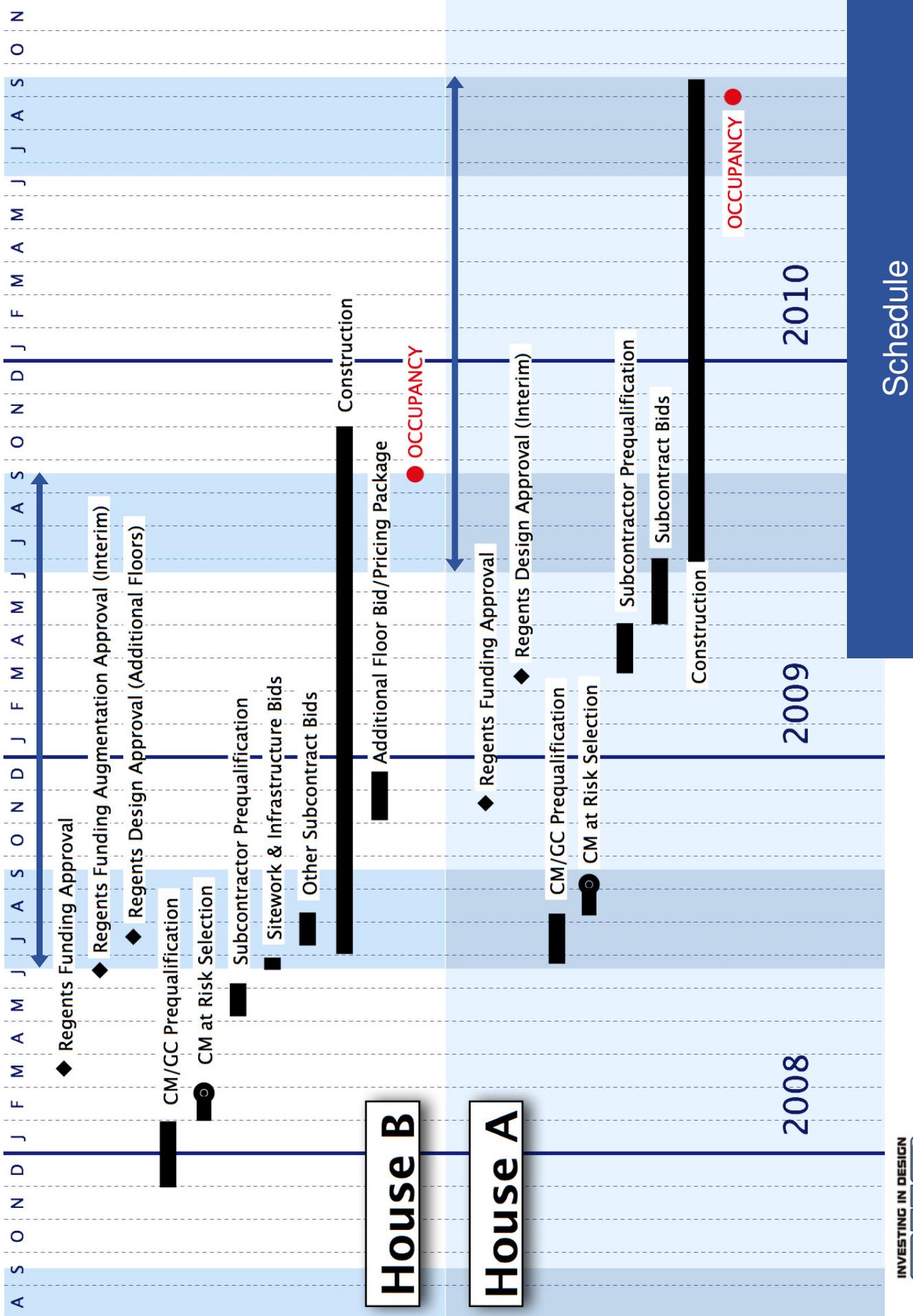
Final Scope of Expansion

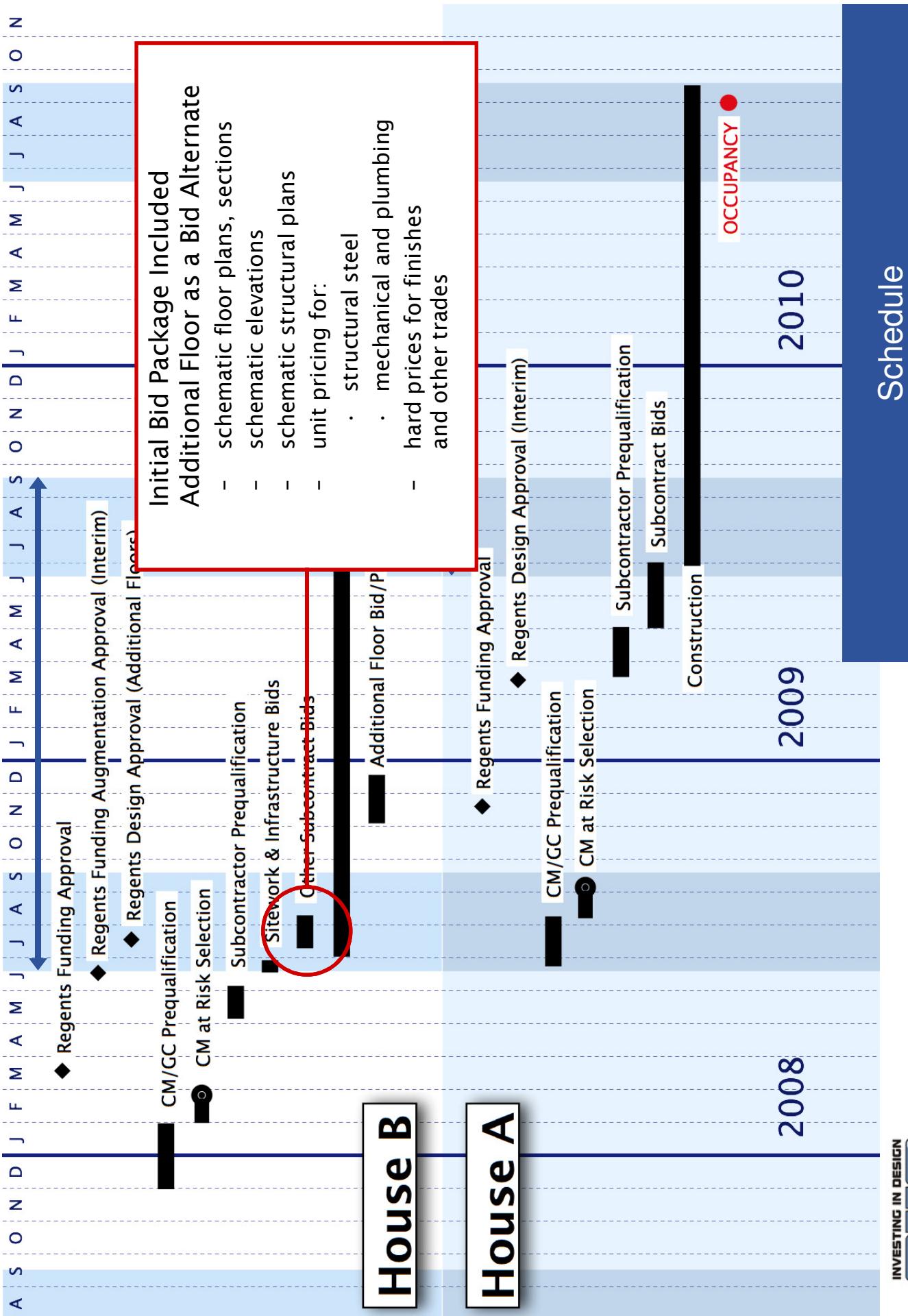
|                             | <b>House A</b>      | <b>House B</b><br>(inc. Dining Hall) | <b>Total</b>         |
|-----------------------------|---------------------|--------------------------------------|----------------------|
| <b>Project Cost</b>         | <b>\$49,007,000</b> | <b>\$81,838,000</b>                  | <b>\$130,845,000</b> |
| <b>Construction Cost</b>    | <b>\$37,218,000</b> | <b>\$59,710,000</b>                  | <b>\$96,928,000</b>  |
| <b>Original Design Beds</b> | <b>232</b>          | <b>314</b>                           | <b>546</b>           |
| <b>Added Beds</b>           | <b>177</b>          | <b>120</b>                           | <b>297</b>           |
| <b>Total Beds</b>           | <b>409</b>          | <b>434</b>                           | <b>843</b>           |

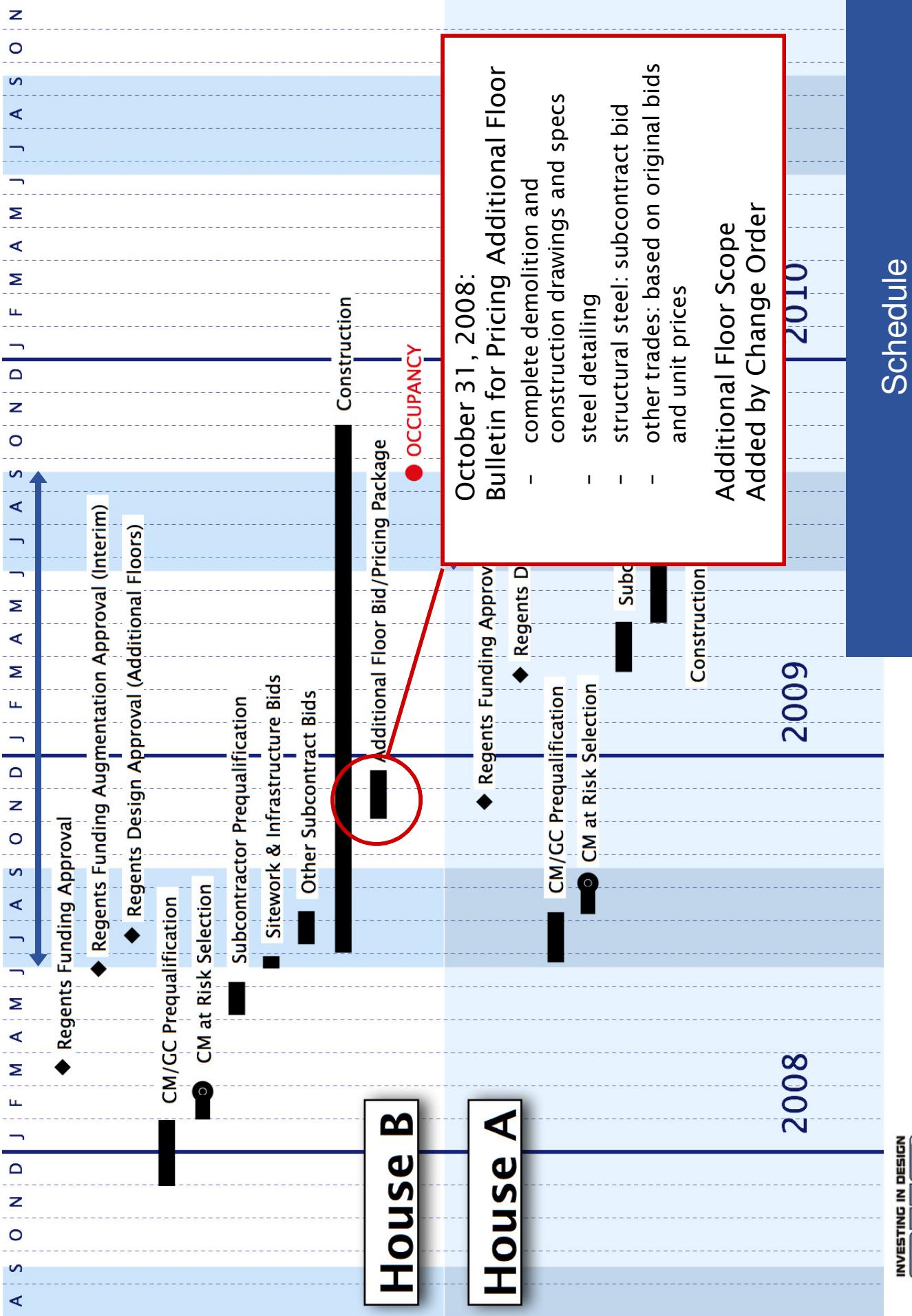
- **Schedule Challenges**
  - continued occupancy of one residence hall
  - late discovery of **exterior cladding problems**
  - **late exploration of potential for additional floors**
  - House A and House B were required to be **separate capital projects**
- **CM at Risk Selected Because:**
  - UCSC has had **excellent results** on major projects
    - good **collaboration** among A/E team, GC, and UCSC
  - **prequalification requirements** typically result in **better contractors and subcontractors**
  - it allows **fast tracking** of construction
  - it allows and encourages **builder input** during the design and construction document phases

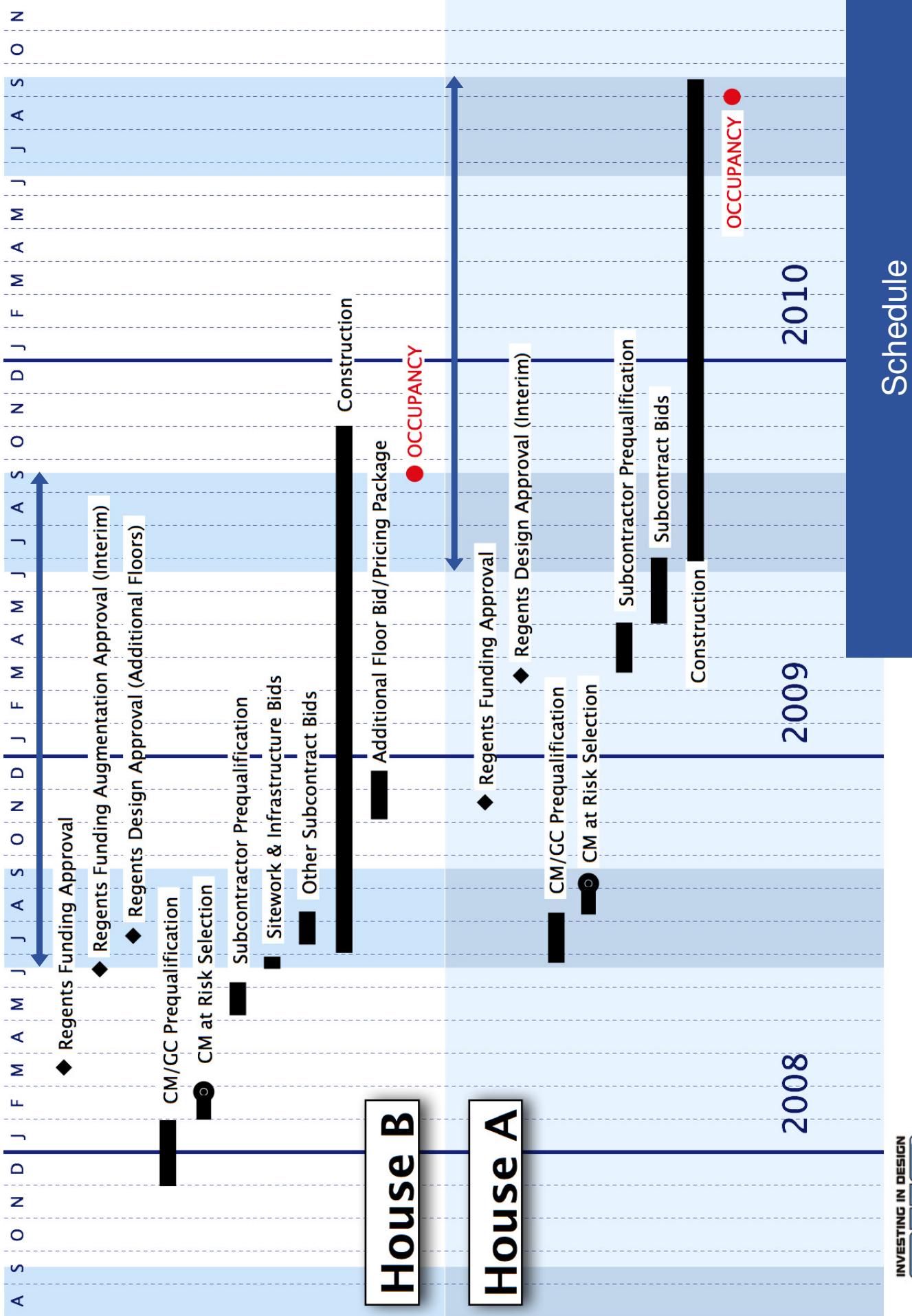
- **Prequalify General Contractors**
  - written submittals
  - interviews with project team
- **Contract Award Based on Low Bid from Prequalified GC**
  - General Conditions
    - Contractor's Fee (i.e., overhead and profit)
  - CM/GC Prepares Bid Packages
- **Prequalify Subcontractors**
- Subcontractor Bidding Process Incorporates All Standard UC Bidding & **Public Contract Code** Provisions
  - subcontract award based on **lowest bid** for each subcontract scope of work
- **Contract Amendment** Incorporates Subcontract Work into CM/GC Contract



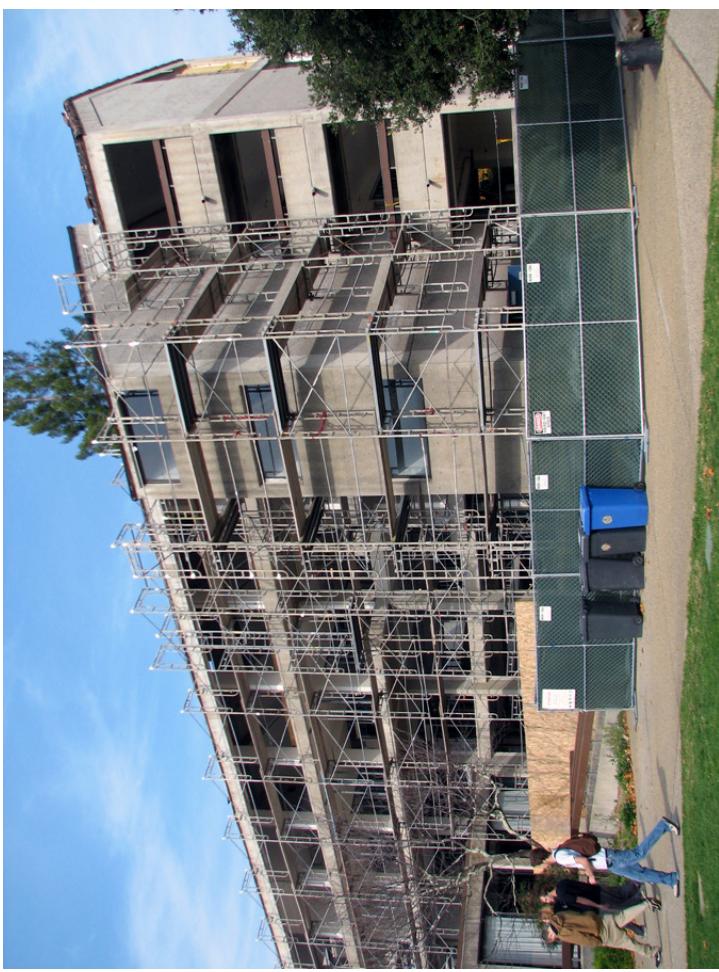


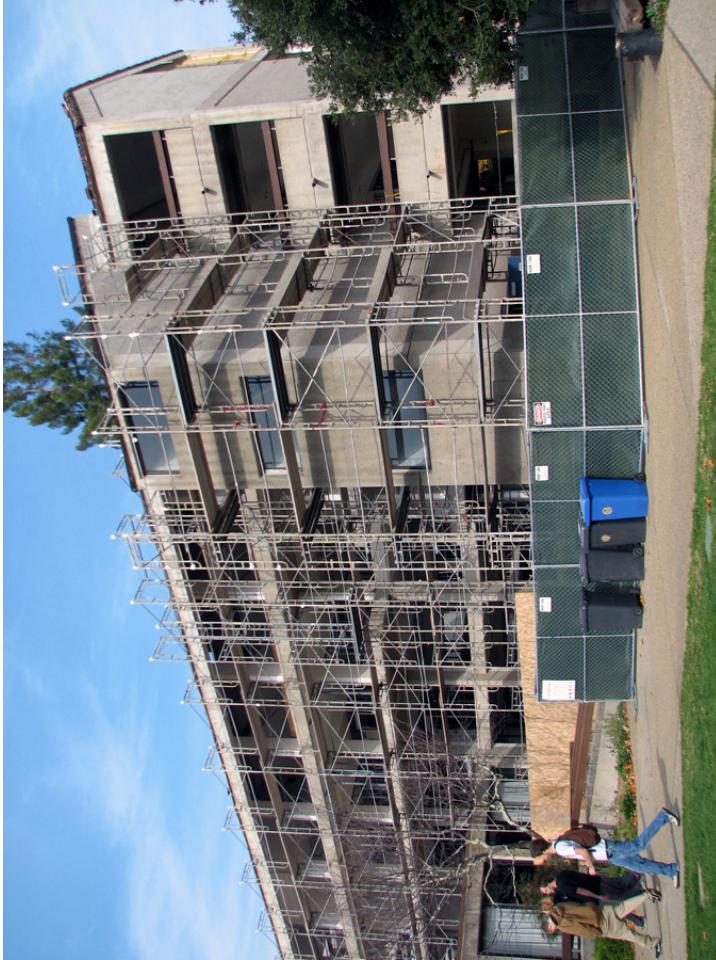






## Construction





Construction

