

# Technical Issues in Mid Century Architecture

Hinman Research Building  
Georgia Institute of Technology  
Gaillard Hall  
North Georgia College & State University

Jack Pyburn, FAIA  
Lord Aeck Sargent, Architecture



## Mid-20<sup>th</sup> Century Buildings Workshop

*Facility Officers Conference/ Columbus, Ga./ 26 October 2011*

# Hinman Research Building

1939/1951  
36,000 SF

First Purpose Built Research Building  
Composite Construction  
Concrete/Steel/Brick/Tile/Block



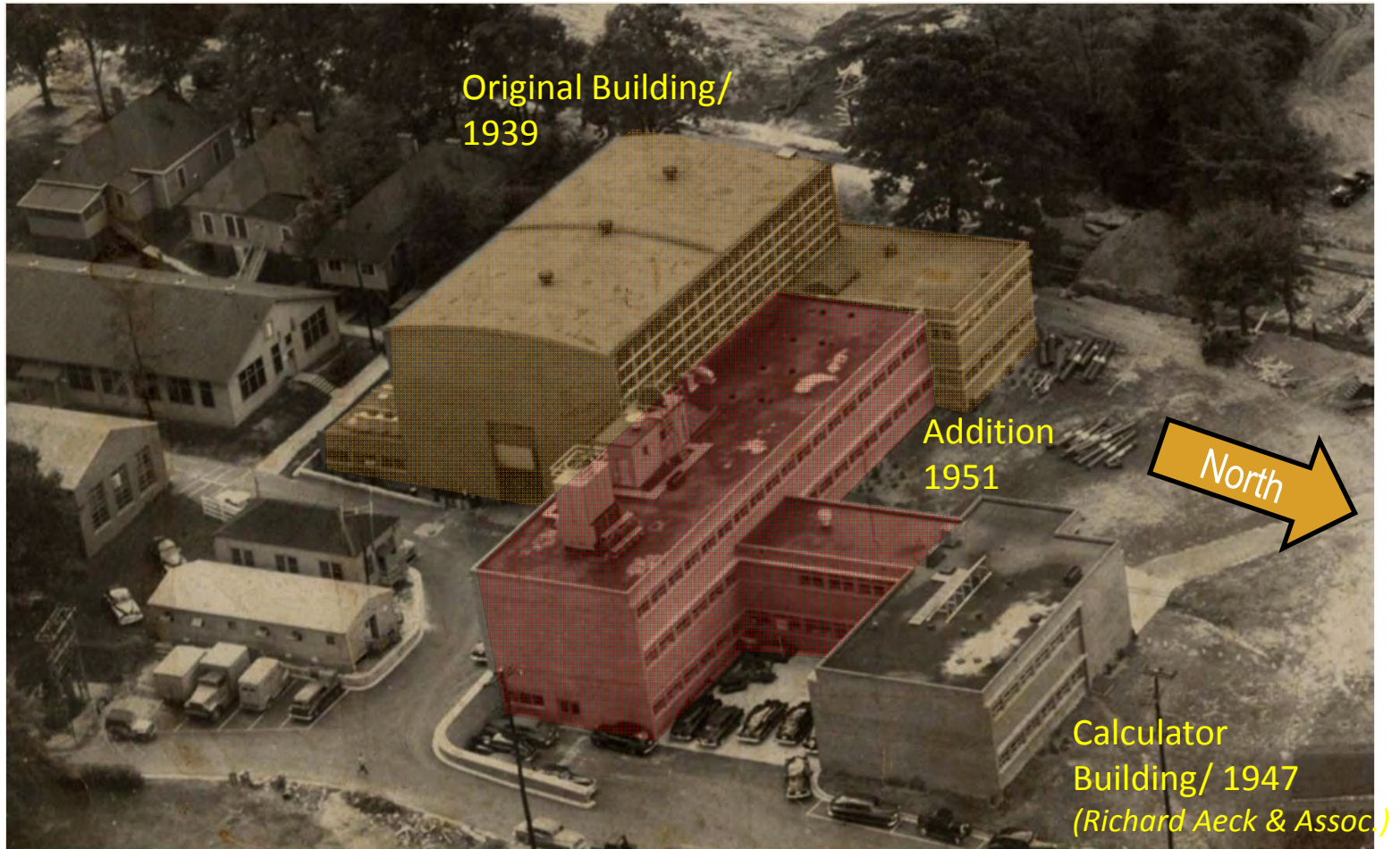
Concrete Deterioration  
Steel Window Differed Maintenance  
Single Pane Glass  
Code Structural Deficiencies



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# Hinman Context



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# Hinman/ Construction Characteristics

1890	1900	1910	1920	1930	1940	1950
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## Concrete

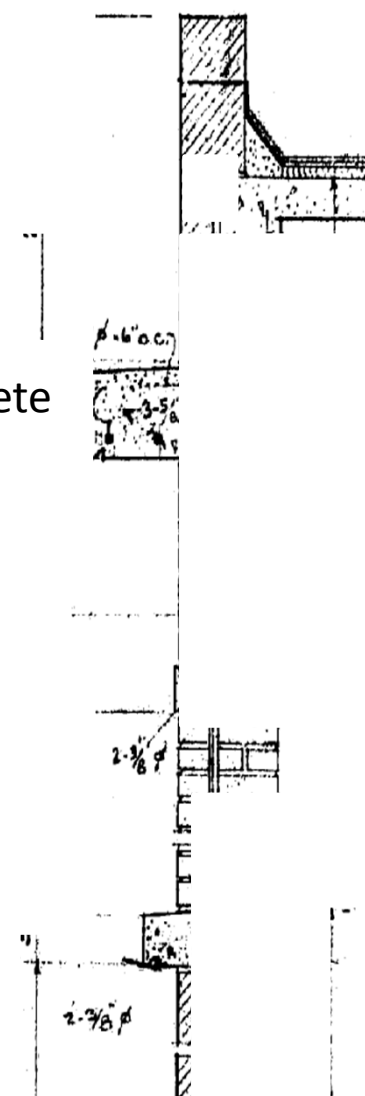
- Structural Concrete
- Architectural Concrete
- Cast in Place
- Precast

## Steel

- Structural
- Light Gauge Trusses
- Windows

## Masonry

- Structural Clay Tile
- Traditional Brick
- Glazed Tile



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# Hinman/ Concrete

Cast in Place Structural  
Cast In Place Architectural  
Precast Architectural



Precast Architectural Concrete



Detail of Deterioration



Cast In Place Architectural Concrete



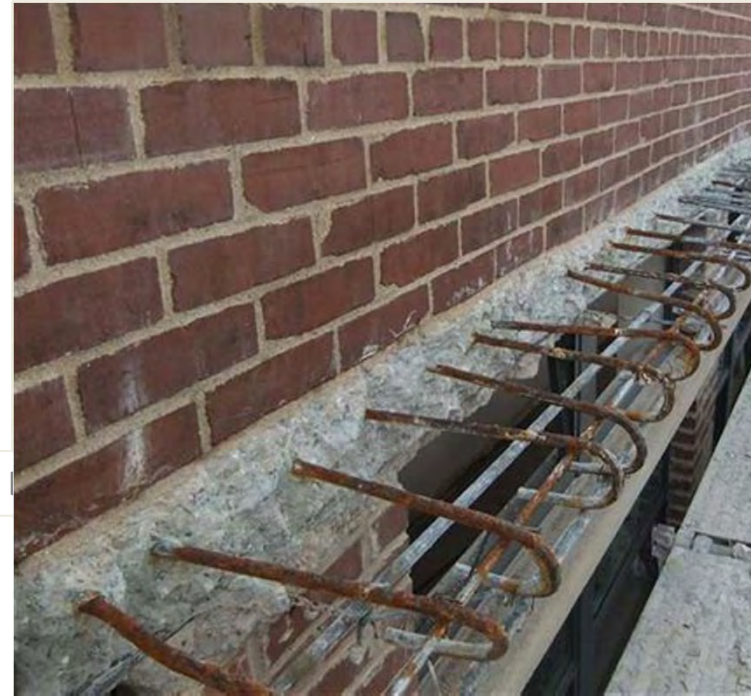
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# Hinman/ Concrete



Repair



Reconstruction



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# Hinman/ Concrete



Restored Architectural Cast in Place Concrete



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# Hinman/ Concrete



Restored



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# Hinman/ Windows



General Window Condition



Detail



Sash Condition



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# Hinman/ Windows



Restored Windows w/ Insulated Glass



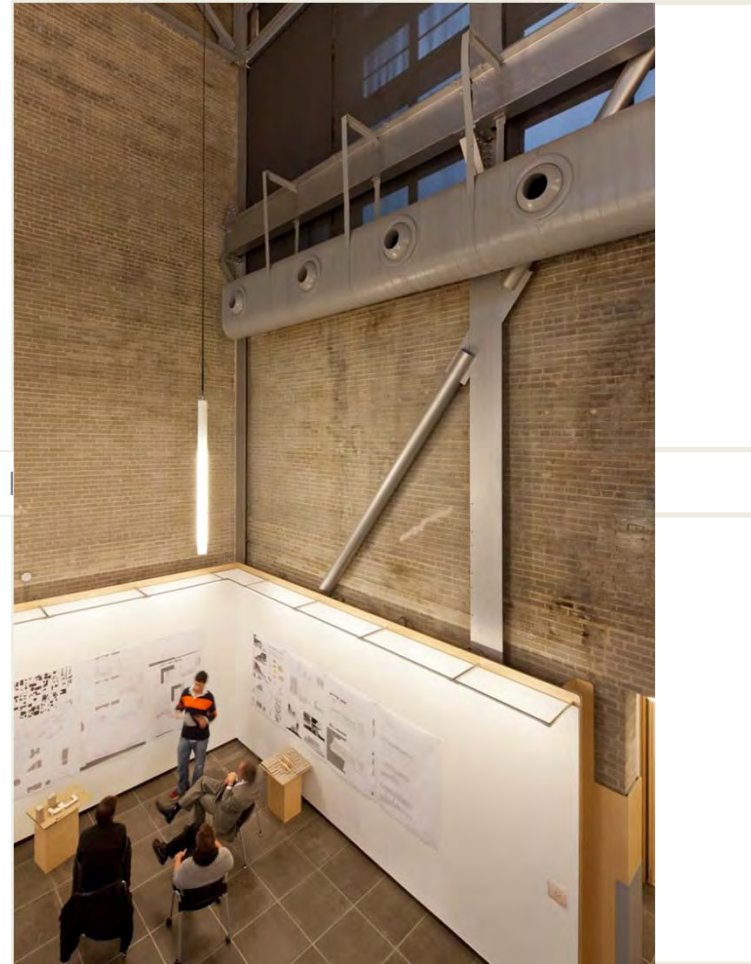
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# Hinman/ Structural Code Deficiencies



Inadequate Resistance to Sheer



Diagonal Bracing



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# Hinman/ Structural Code Deficiencies



Inadequate Unbraced Length



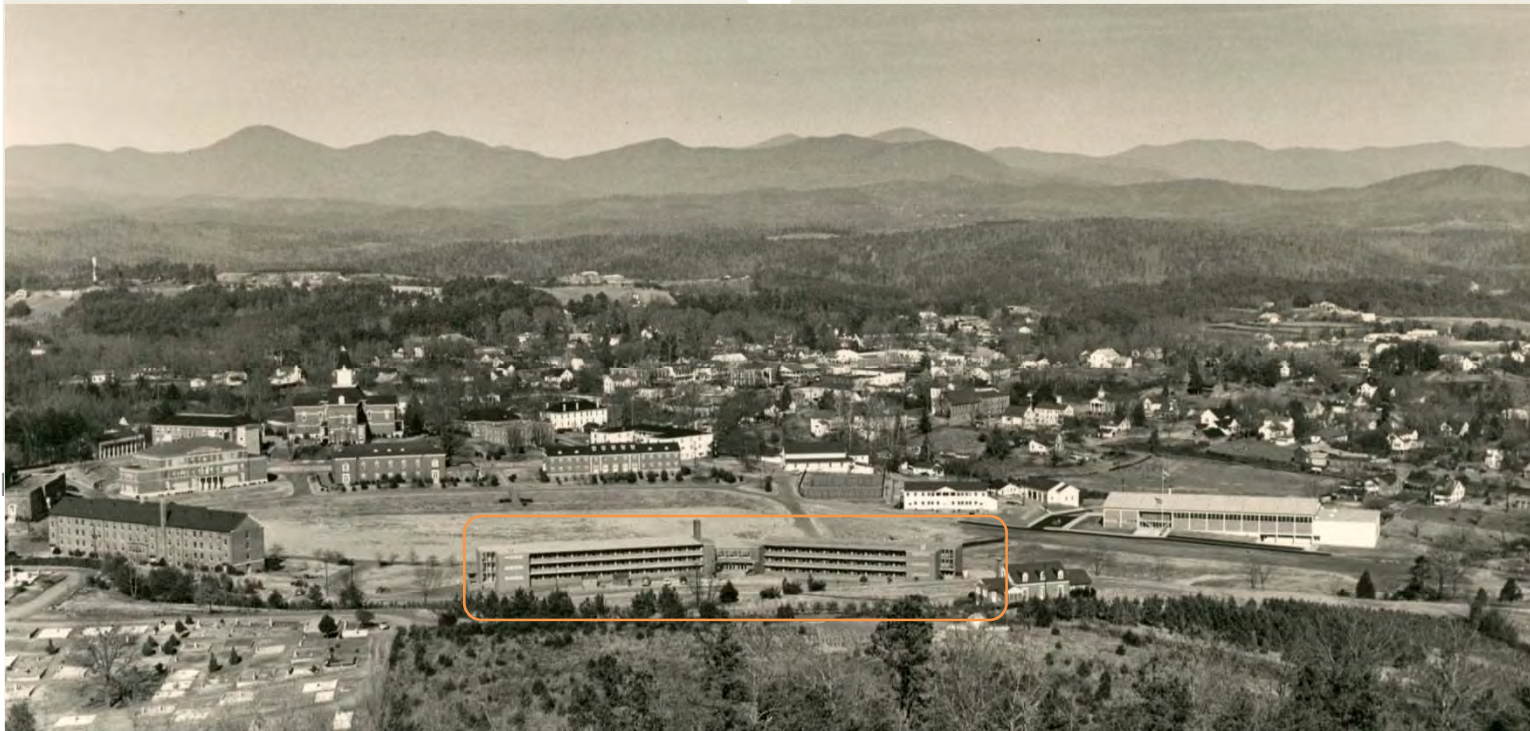
Supplemental Steel Framing



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# Gaillard Hall



Constructed in Two Phases 1951/1959  
Richard Aeck & Associates  
256 Dormitory Rooms, Gang Bathrooms  
3 Levels

New Program  
• 166 Beds/ Suite Style  
• Added Day Rooms

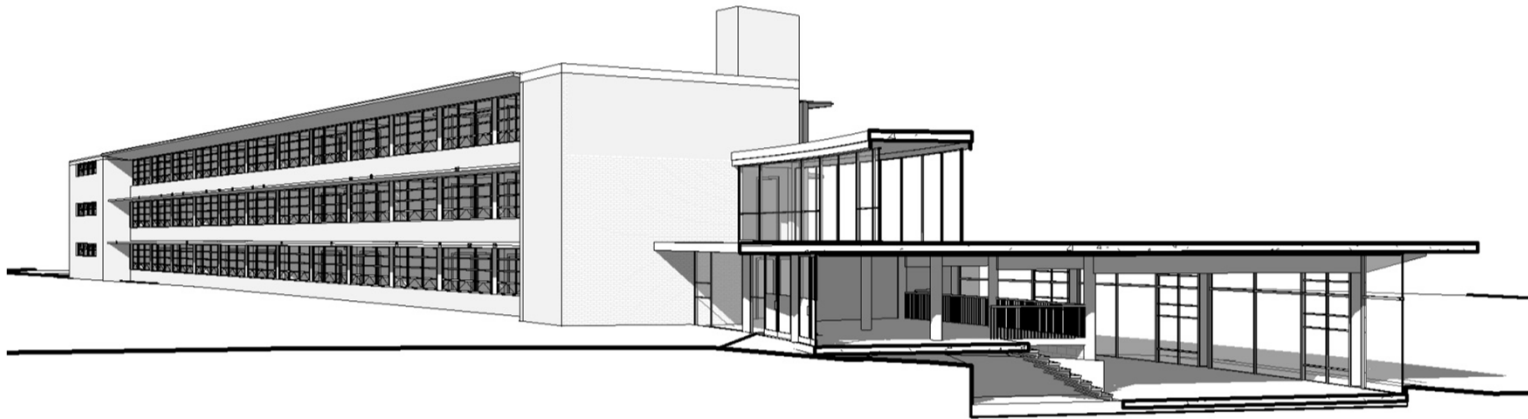


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# Gaillard Hall/ Issues

ADA/ Elevator  
Windows  
Mechanical System  
Original Wall Tile  
Positive Byproducts of Changes



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# Galliard Hall/ Windows



Replacement Windows



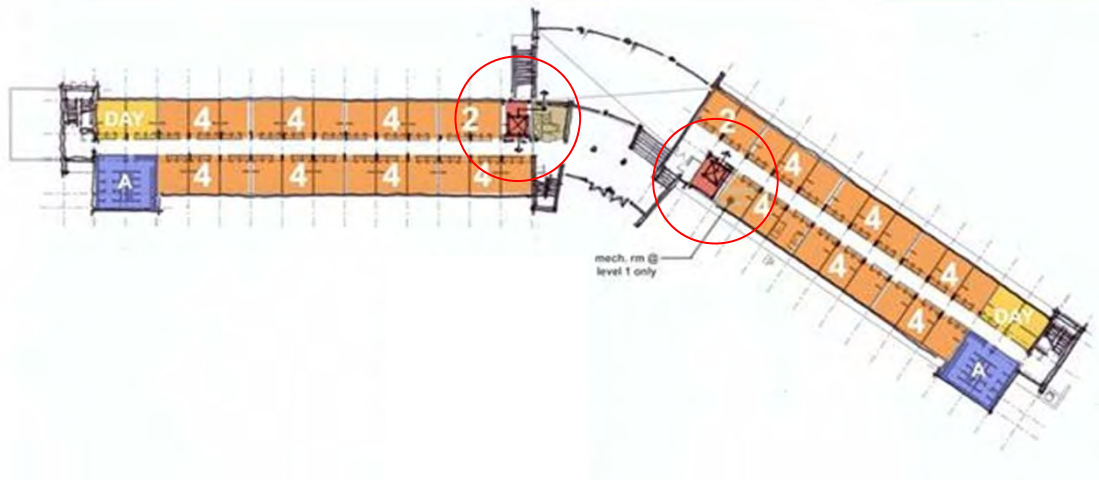
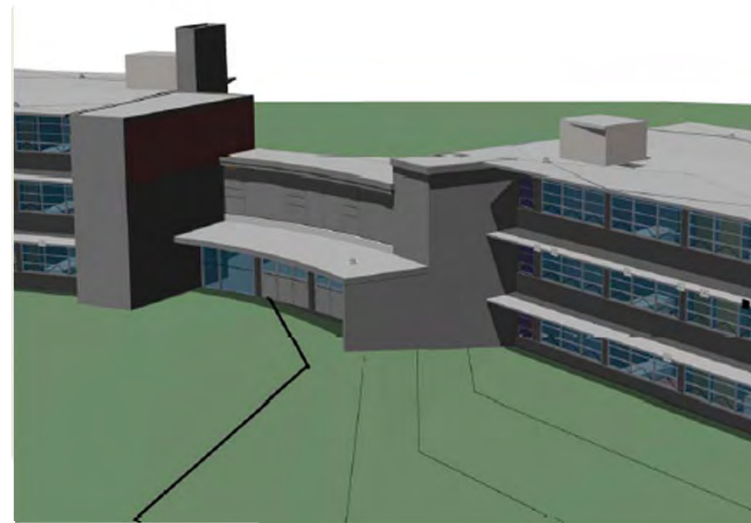
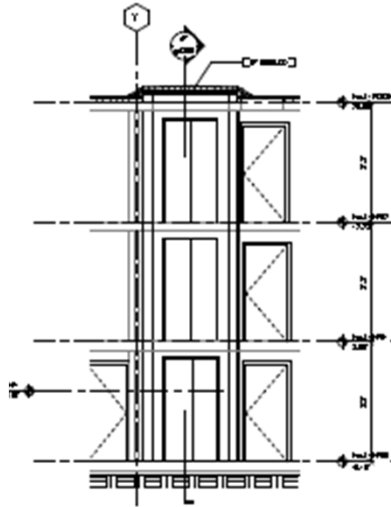
Original Windows



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# Gaillard Hall/ Elevator

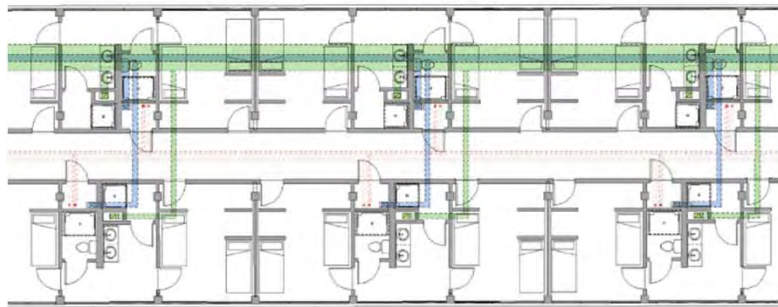
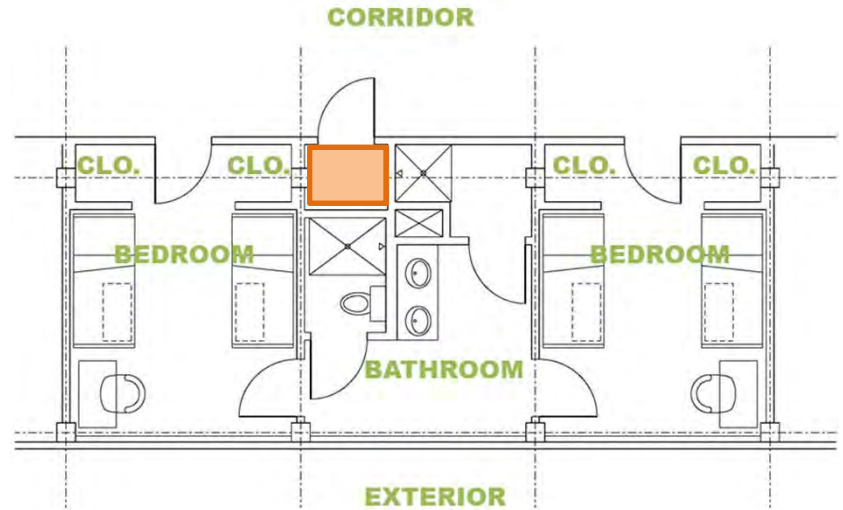


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# Gaillard Hall/ Mechanical Systems



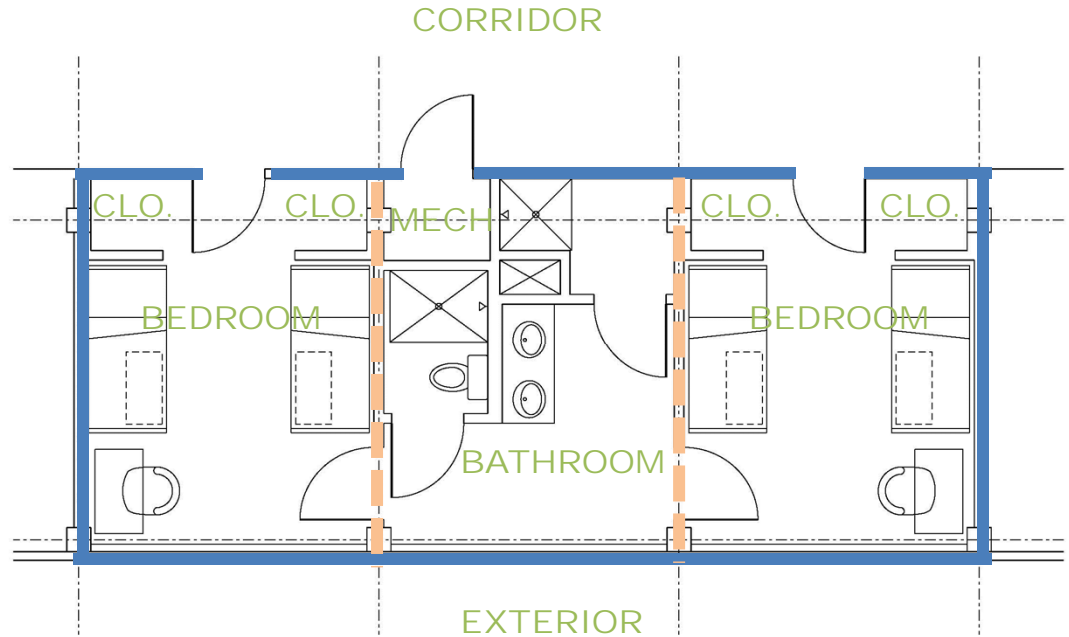
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# Gaillard Hall/ Tile



Tile Treatment

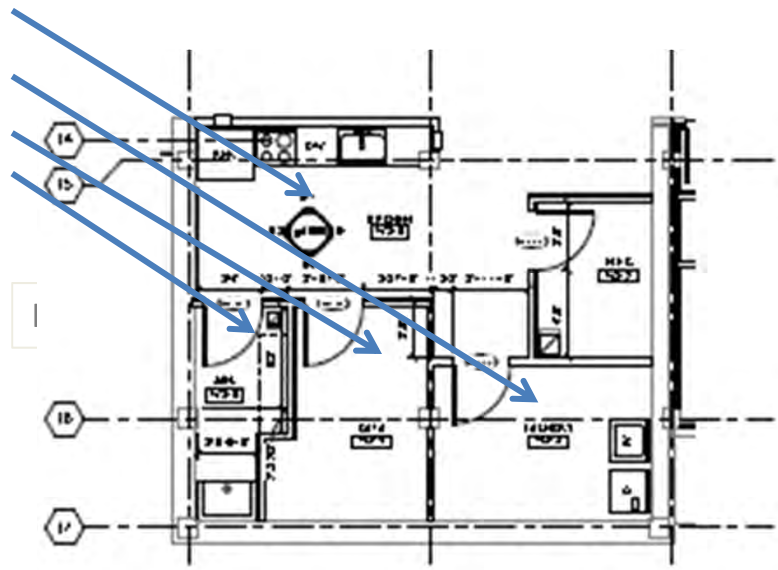


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# Gaillard Hall/ Reuse of Gang Bathrooms

Kitchenette  
Laundry  
Mechanical  
Janitorial



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