



Oklahoma State Capitol
SCREOC Meeting 12.3.15

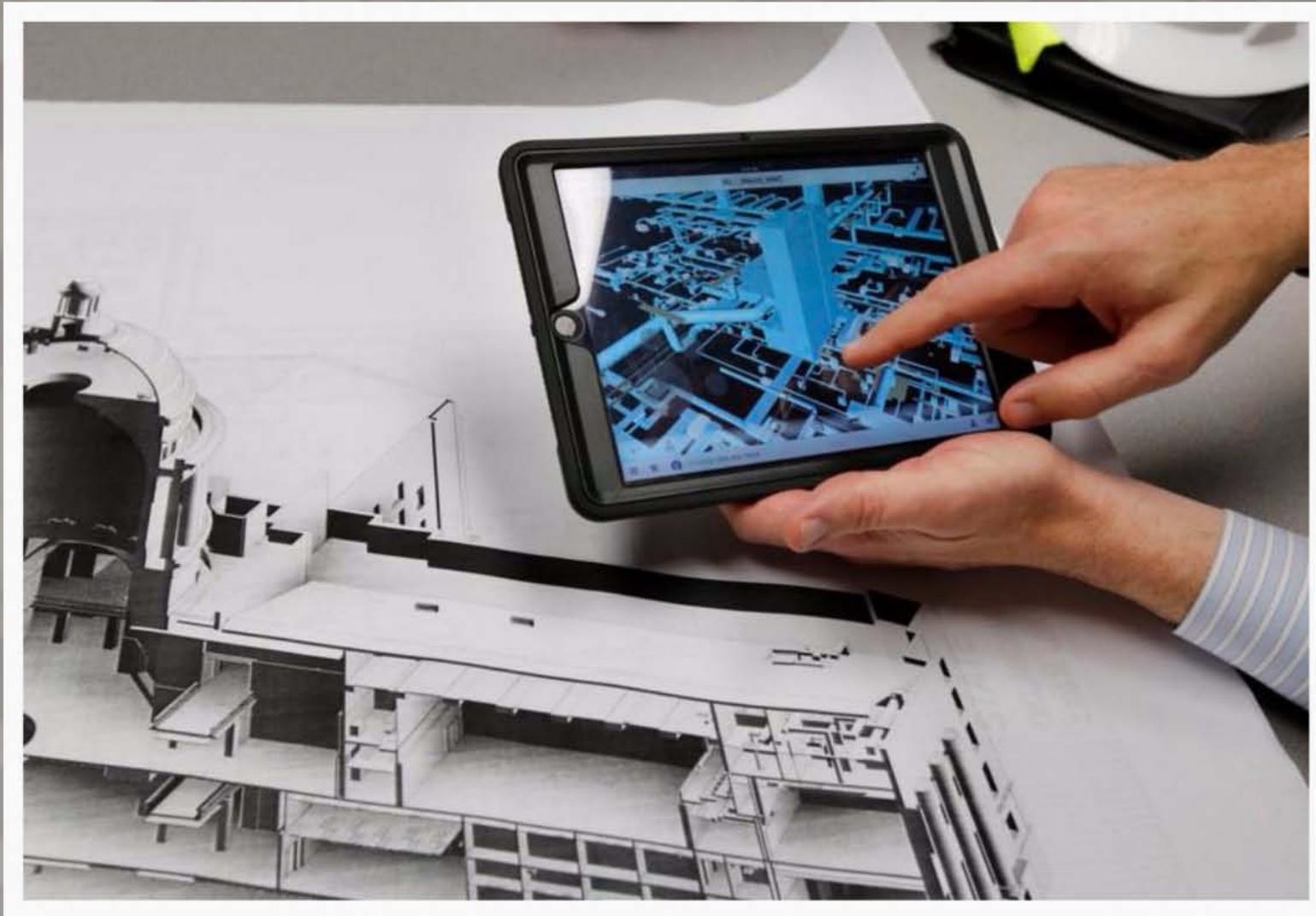
Agenda

Approach/Findings

Conclusion

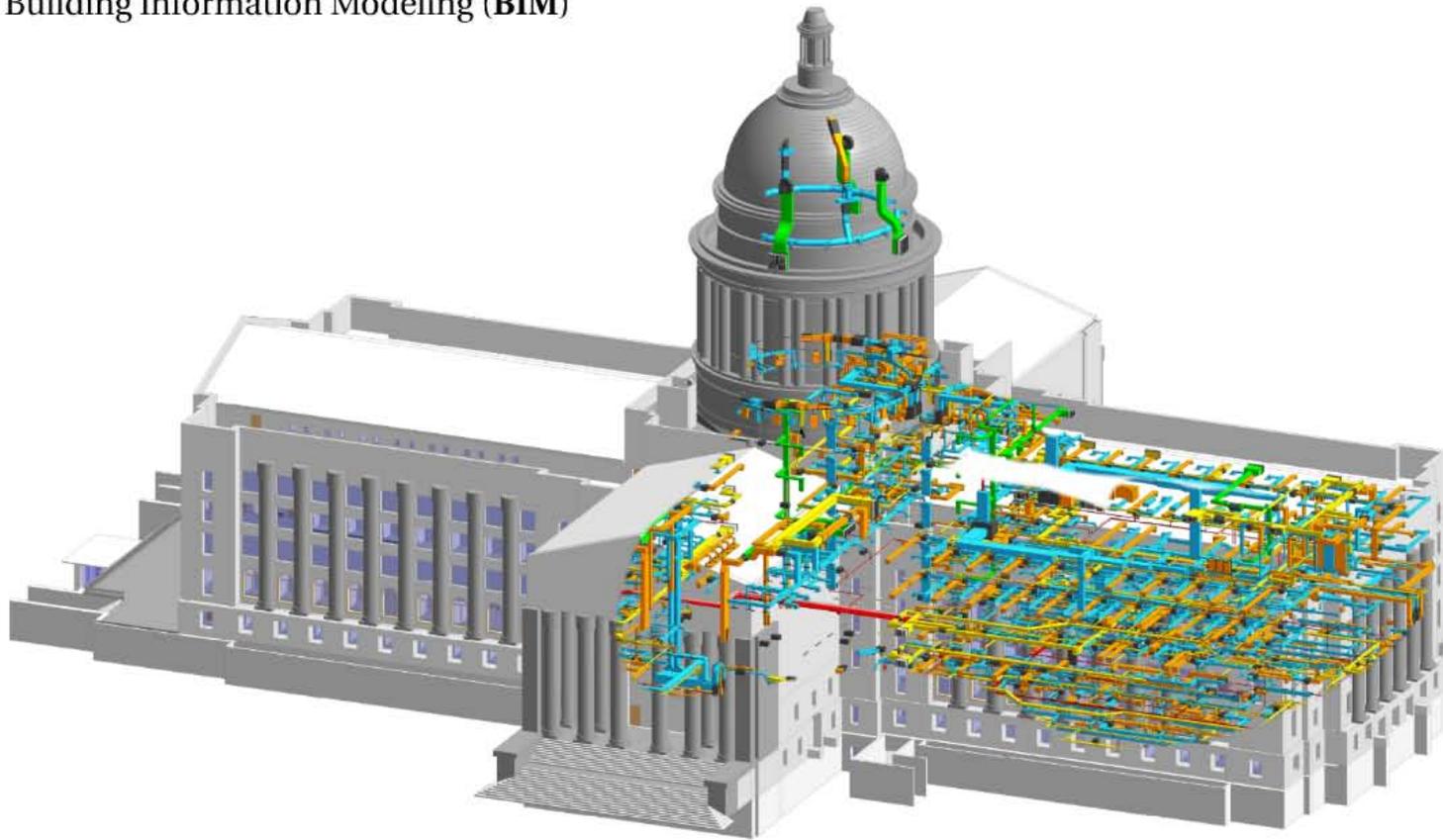
Proposed Solutions

Conditions Assessment



Revit Model

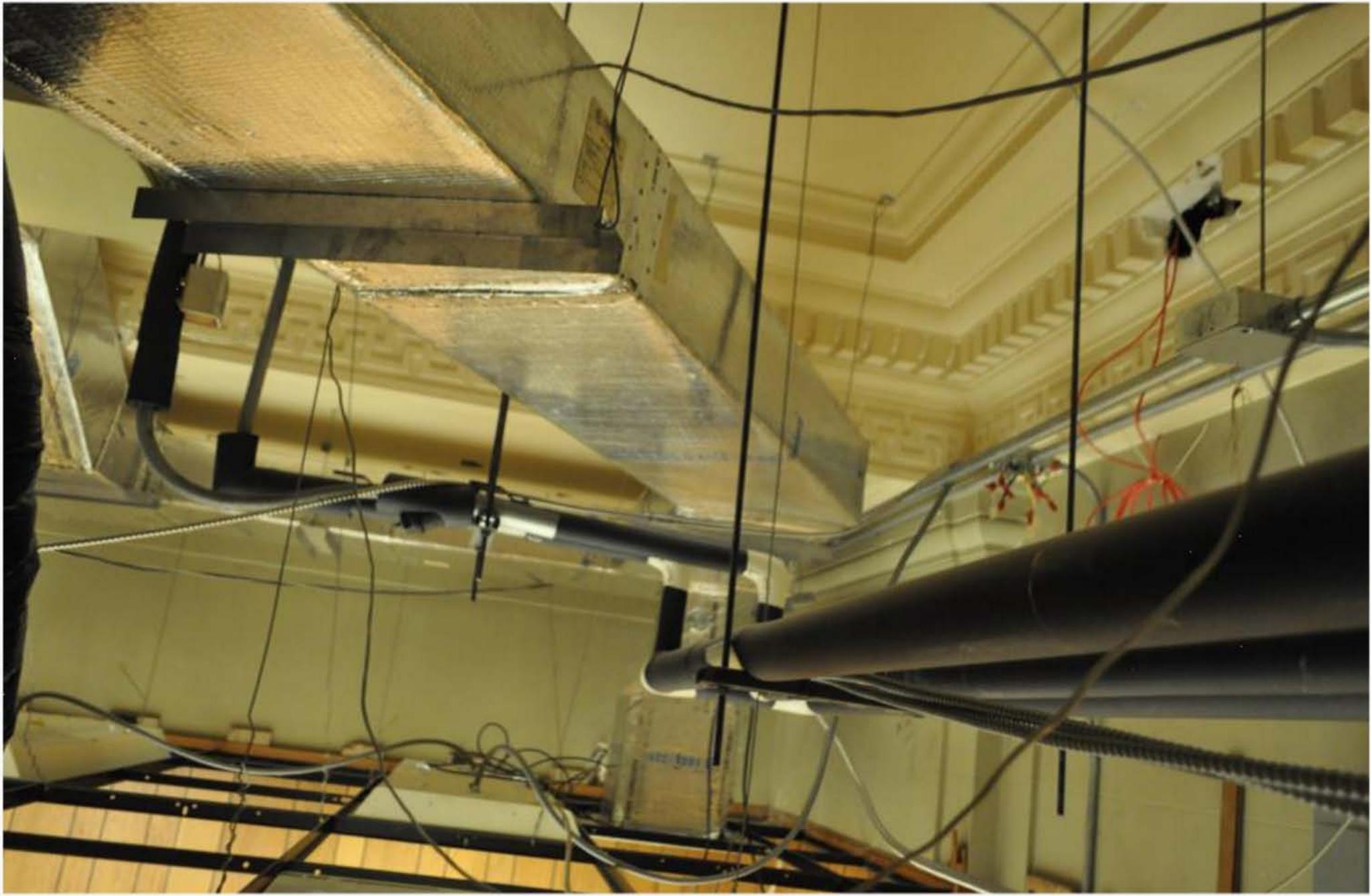
Building Information Modeling (**BIM**)



Intrusive Investigation & Prerequisite Phase













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②

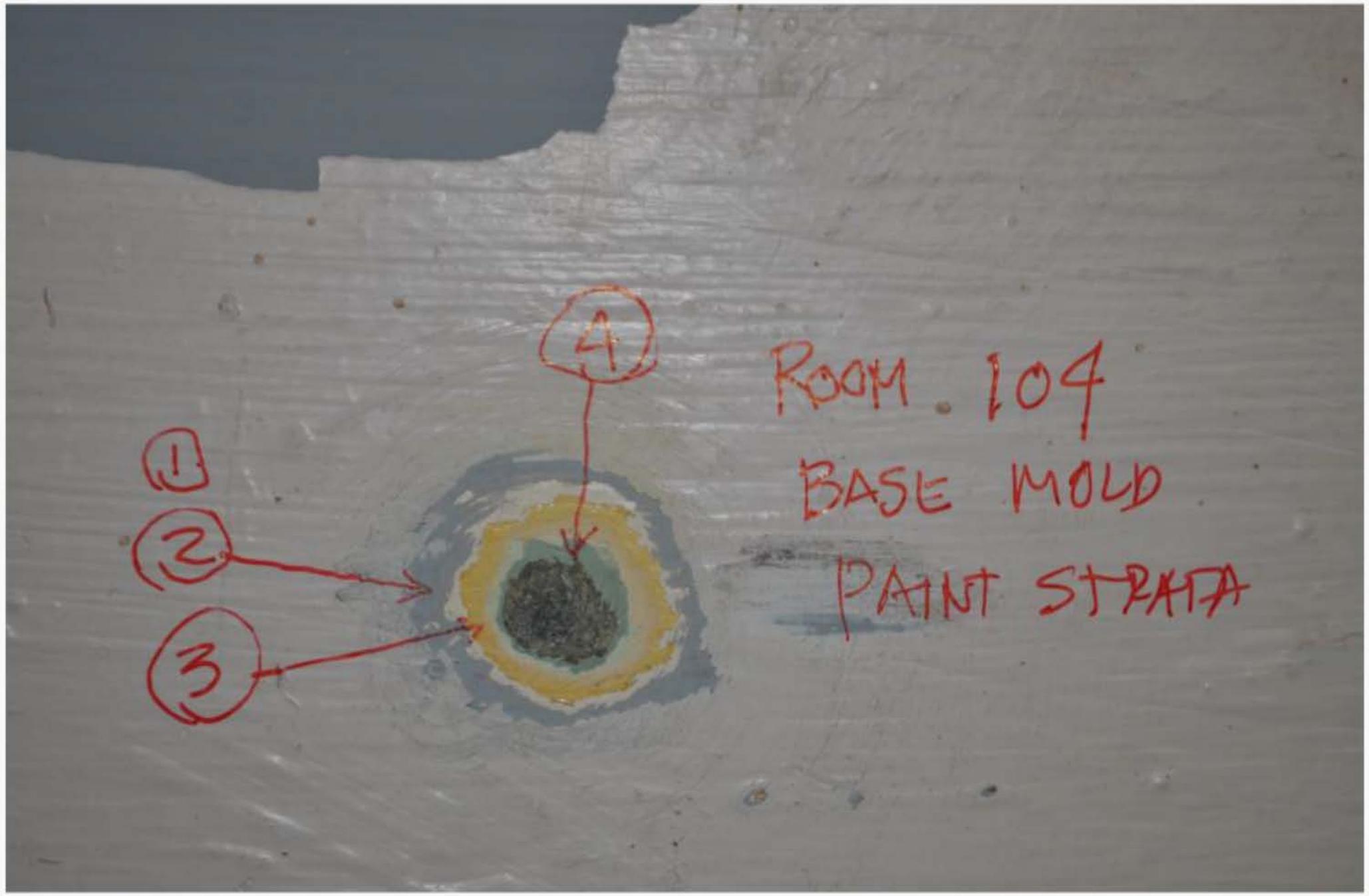
③

④

ROOM 104

BASE MOLD

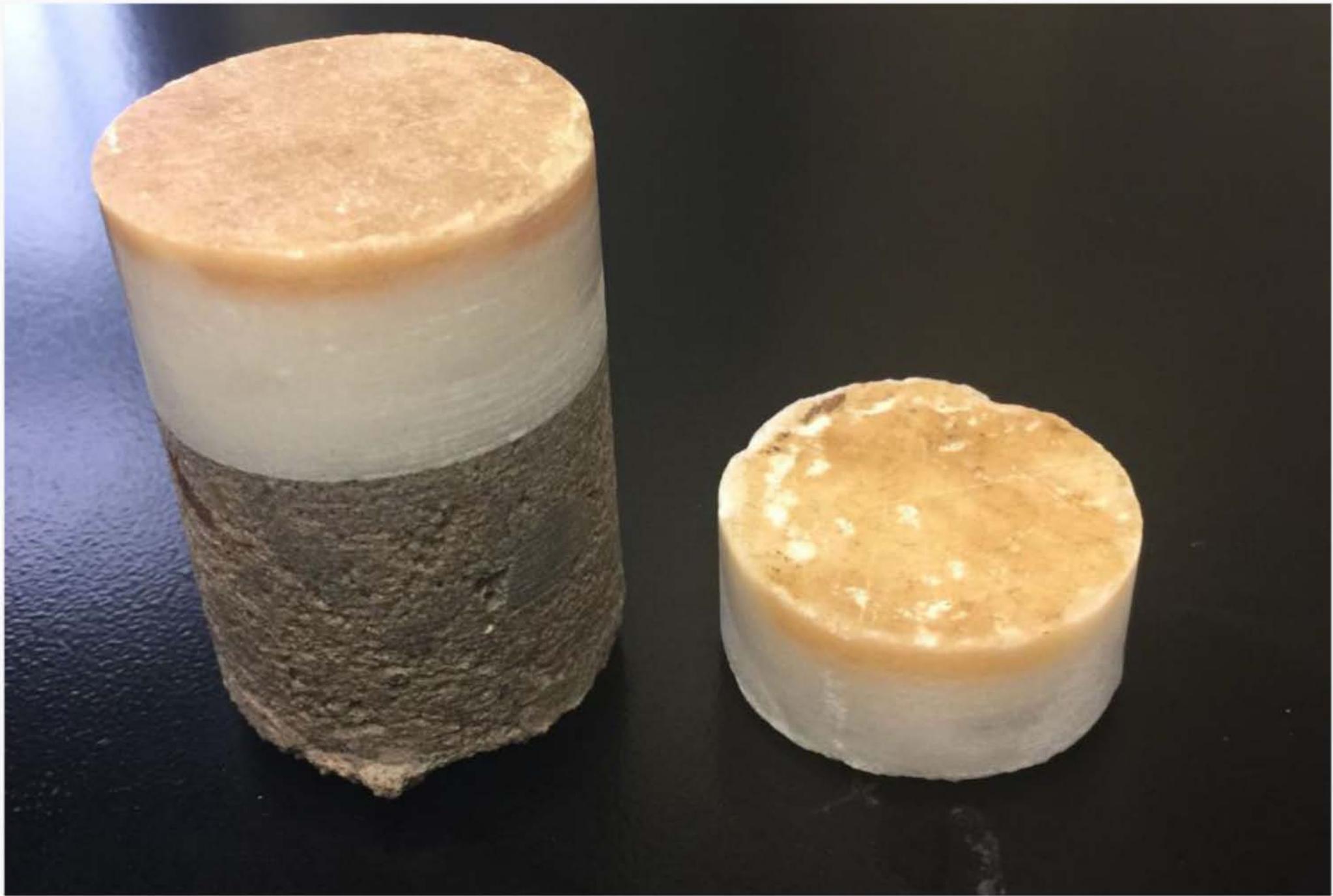
PAINT STRATA



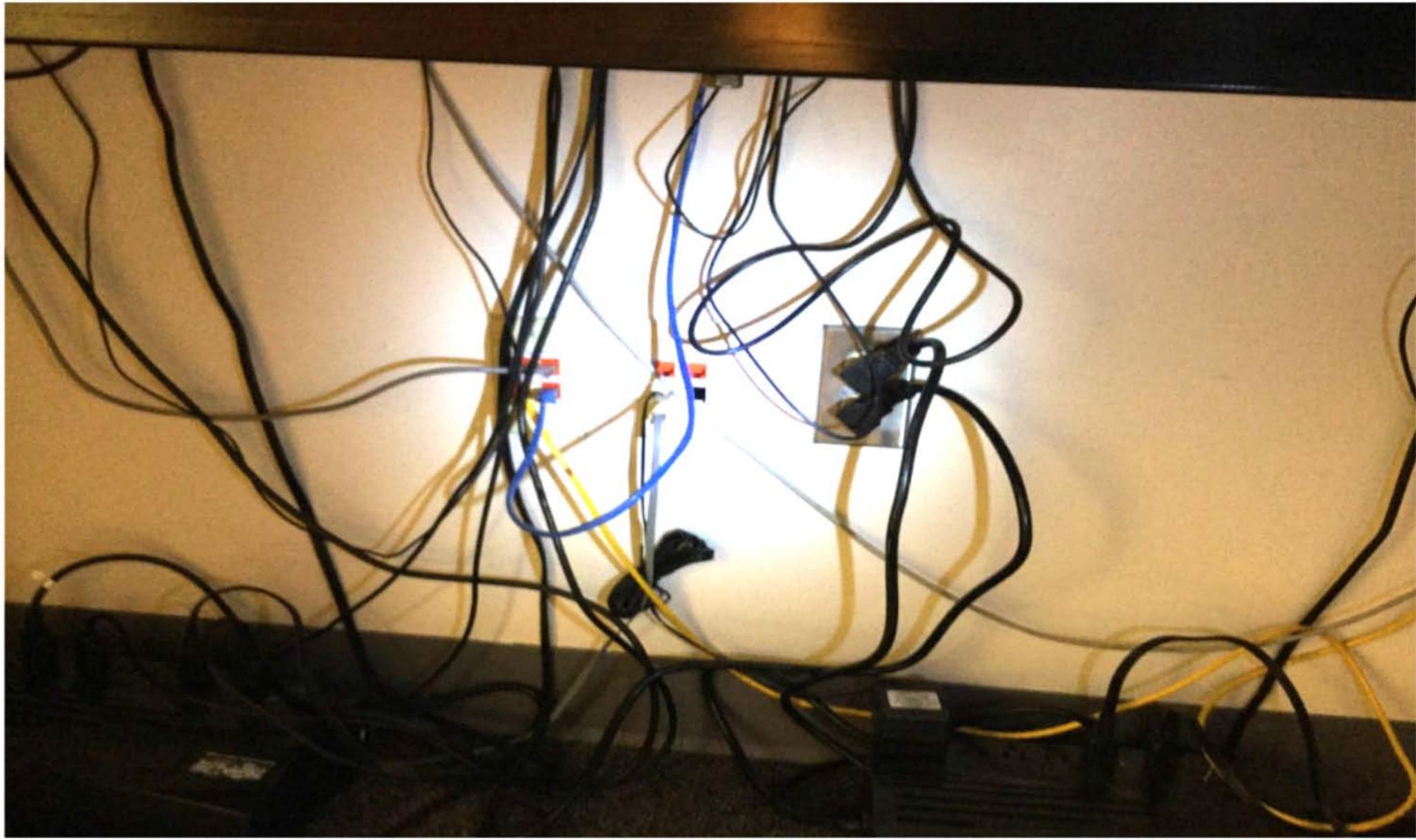














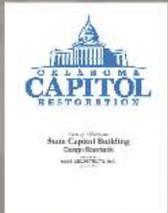






Capitol Design Standards

Foundation



Oklahoma State Capitol
Building Design Standards
Produced by Mass Architects
May 2015



Purpose

- Provide practical guidelines
- Maintain historical integrity
- Consistency in materials and systems
- Efficiency of maintenance



Objectives

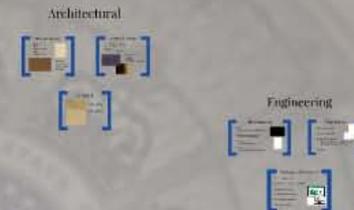
- Allow competitive pricing
- Establish quality levels
- Standardize components



Approach

- Guidelines
- Specifications
- Drawings details

Architectural/Engineering



Foundation



State of Oklahoma
State Capitol Building
Design Standards

prepared by:
MASS ARCHITECTS, INC.
January, 2015

Oklahoma State Capitol
Building Design Standards
Produced by Mass Architects
May 2015



Purpose

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Approach

- Guidelines
- Specifications
- Drawings details

Architectural/Engineering

Architectural

Historic Design

- Planes
- Rise
- Zoning/Forms
- Color
- Light Patterns



- Preserve
- Restore
- Rebuild/Repair
- Replace

General Design

- Plan, Walls and Ceiling
- Doors and Windows
- Materials
- Furniture and Fixtures

- Material Selection
- Quality
- Detailing
- Historical Language



Artwork

- Handling
- Protection



Engineering

Mechanical

- HVAC
- Fans, Pumps and Ductwork
- Heating, Air Conditioning, Refrigeration and Ventilation

- Plumbing
- Pipes and Piping
- Fire Protection
- Fire Alarm and Intercommunications



Electrical

- Interior Lighting
- Control Systems
- Power Distribution
- Dedicated Systems, Power Plants, Branch Circuits and Wiring
- Devices



Mechanical/Electrical

- System Commissioning
- Selecting Energy Management System
- Set Quality Levels
- Establish Maintenance
- Test of Maintenance
- Energy Efficiency



Engineering

Mechanical

- HVAC
Equipment, Filters and Ductwork
- Building Automation System
Integrated Low Voltage
- Plumbing
Fixtures and Piping
- Fire Protection
Fire Alarm and Fire Suppression



Electrical

- Interior Lighting
- Central Controls
- Power Distribution
Dedicated Rooms, Power Panels,
Branch Circuits and Wiring
- Devices



Mechanical/Electrical

- Reuse Components
- Select Group of Manufacturers
- Set Quality Levels
- Establish Consistency
- Ease of Maintenance
- Energy Efficient



Mechanical

- HVAC
Equipment, Filters and Ductwork
- Building Automation System
Integrated Low Voltage
- Plumbing
Fixtures and Piping
- Fire Protection
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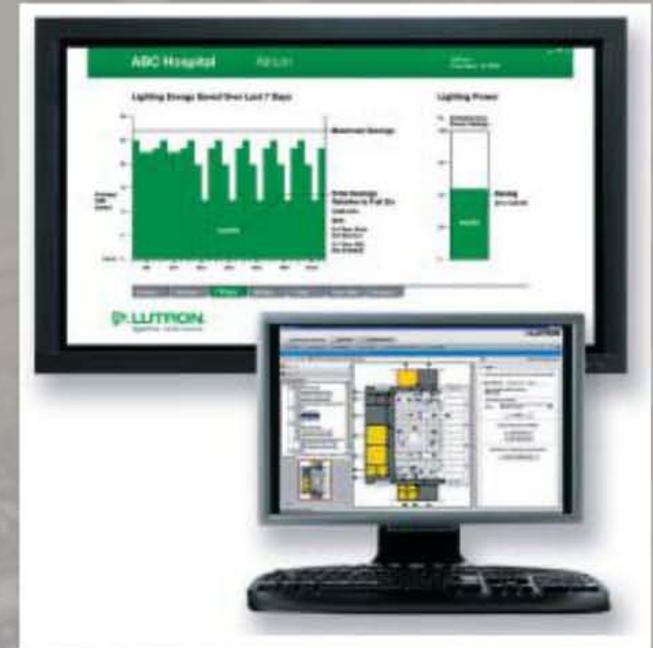
Electrical

- Interior Lighting
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Mechanical/Electrical

- Reuse Components
- Select Group of Manufacturers
- Set Quality Levels
- Establish Consistency
- Ease of Maintenance
- Energy Efficient



Architectural

Historic Design

- Plaster
- Base
- Doors/Frames
- Glass
- Light Fixtures



- Preserve
- Maintain
- Patch/Repair
- Replace

General Design

- Floors, Walls and Ceilings
- Doors and Frames
- Hardware
- Entrances and Signage



- Material Selections
- Quality
- Detailing
- Historically Compatible



Artwork



- Handling
- Protection

Historic Design

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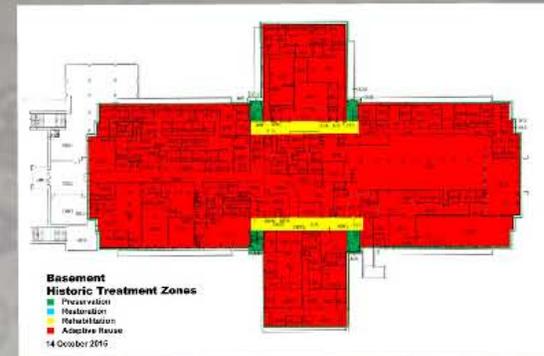
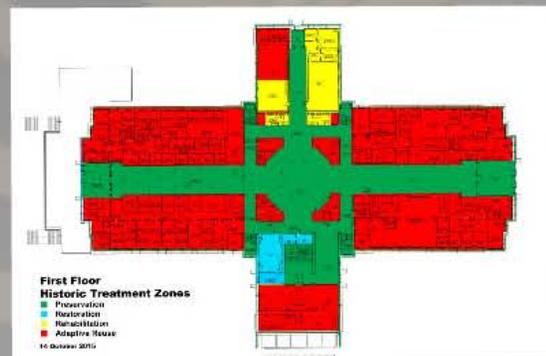
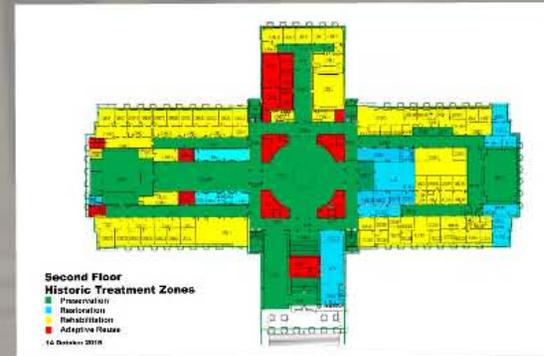
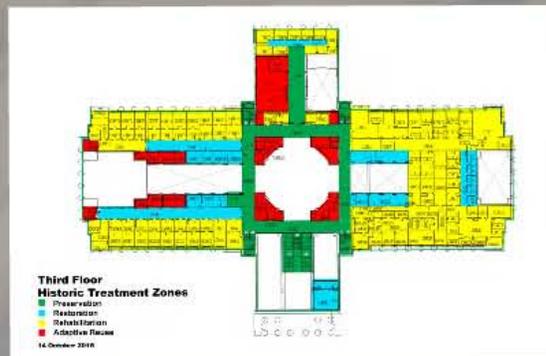
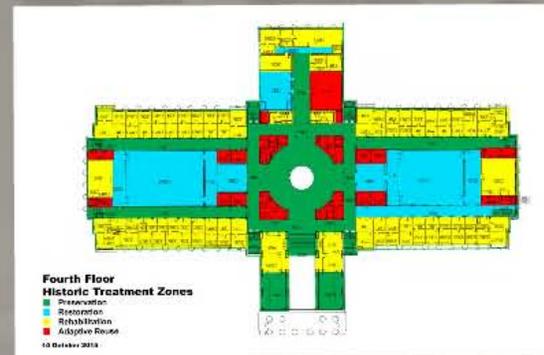
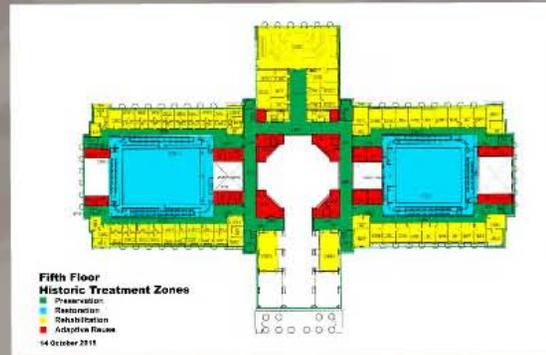


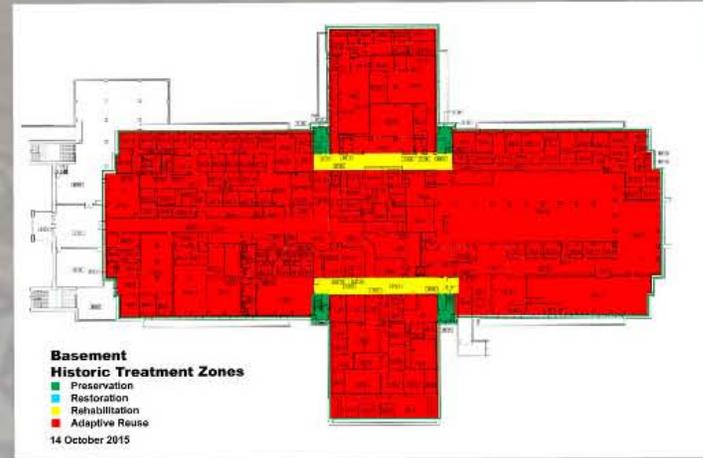
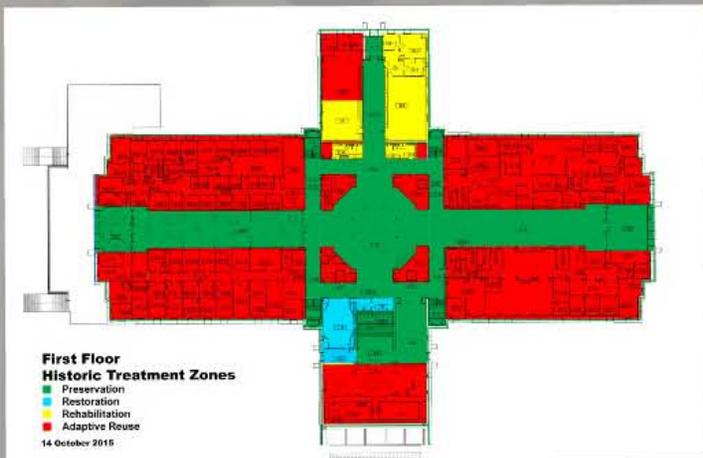
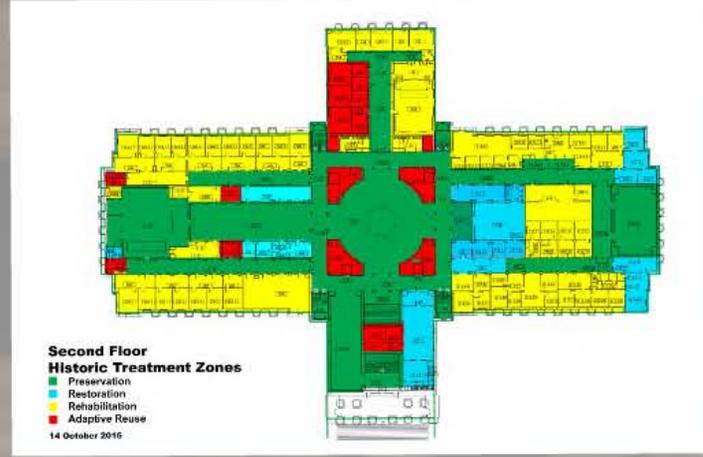
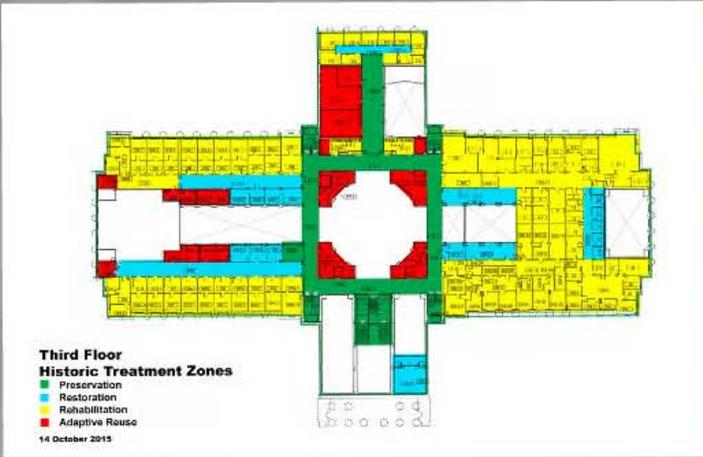
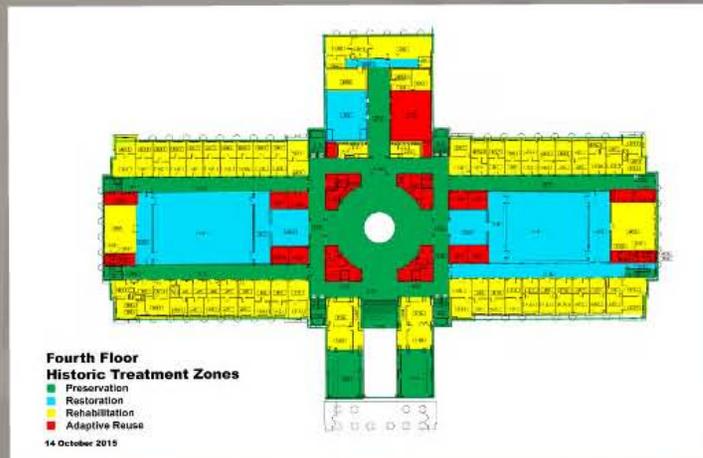
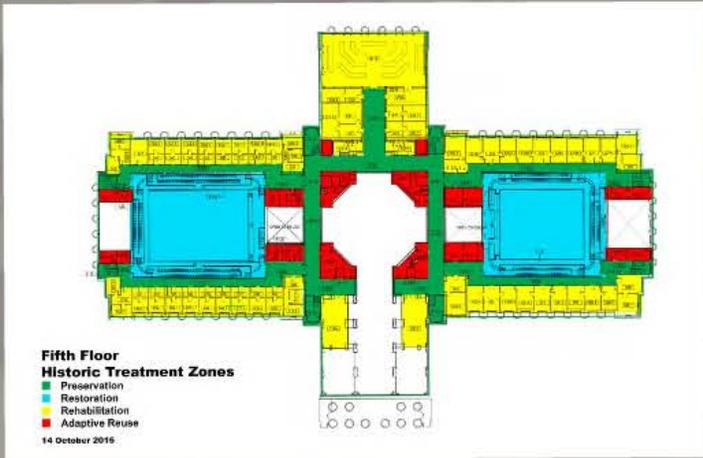
Artwork

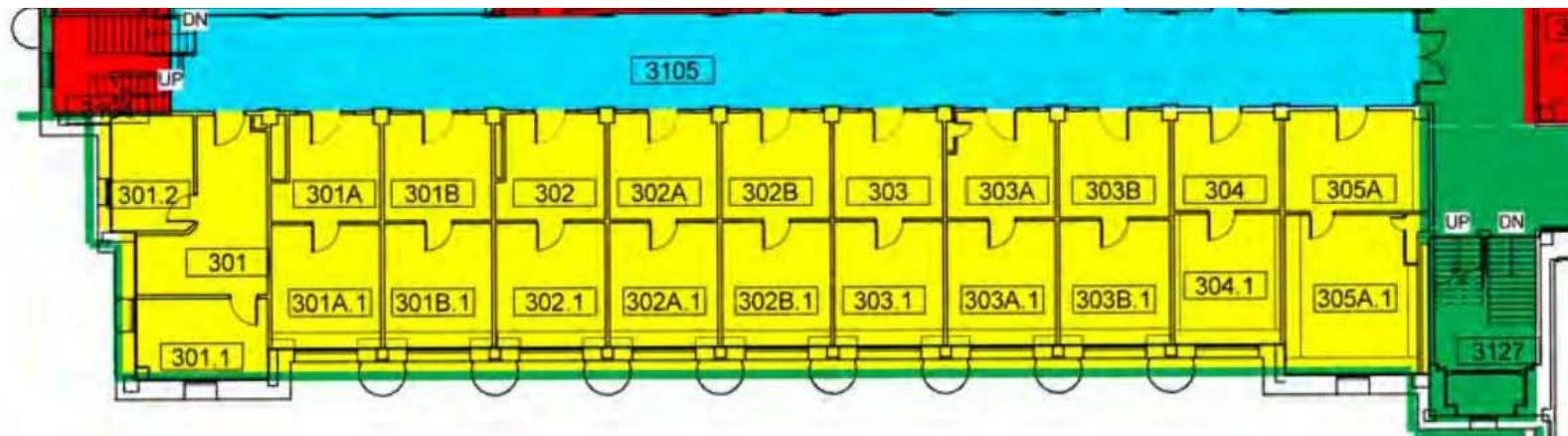


- Handling
- Protection

Historic Preservation







Third Floor Historic Treatment Zones

- Preservation
- Restoration
- Rehabilitation
- Adaptive Reuse

14 October 2015



Conclusions

- Failing Infrastructure
- Functional Utilization
- Fragmented Management/Lack of Standards
- Holistic Approach to Security & Public Access
- Lack of Long Range Vision & Master Plan

Priority Matrix

PRIORITY MATRIX
 BUREAU OF PUBLIC WORKS
 DIVISION OF INFRASTRUCTURE

1. **Structural** - ensure the safety of the building
 2. **Exterior** - ensure the building is visually appealing
 3. **Interior** - ensure the building is functional and comfortable
 4. **Accessibility** - ensure the building is accessible to all
 5. **Security** - ensure the building is secure
 6. **Energy** - ensure the building is energy efficient
 7. **Water** - ensure the building has adequate water supply
 8. **Waste** - ensure the building has adequate waste disposal
 9. **Fire** - ensure the building is fire safe
 10. **Other** - ensure the building meets all other requirements

Item	1	2	3	4	5	6	7	8	9	10
1. Structural - ensure the safety of the building	100	100	100	100	100	100	100	100	100	100
2. Exterior - ensure the building is visually appealing	100	100	100	100	100	100	100	100	100	100
3. Interior - ensure the building is functional and comfortable	100	100	100	100	100	100	100	100	100	100
4. Accessibility - ensure the building is accessible to all	100	100	100	100	100	100	100	100	100	100
5. Security - ensure the building is secure	100	100	100	100	100	100	100	100	100	100
6. Energy - ensure the building is energy efficient	100	100	100	100	100	100	100	100	100	100
7. Water - ensure the building has adequate water supply	100	100	100	100	100	100	100	100	100	100
8. Waste - ensure the building has adequate waste disposal	100	100	100	100	100	100	100	100	100	100
9. Fire - ensure the building is fire safe	100	100	100	100	100	100	100	100	100	100
10. Other - ensure the building meets all other requirements	100	100	100	100	100	100	100	100	100	100

Infrastructure Repair & Restoration

Functional Enhancements

Security & Access

Proposed Solutions



Secured Public Access



Secured Public Access Level



Secured Public Access Level



Secured Public Access Level



Ceremonial Entrance



Secured Public Access



Secured Public Access Level



Secured Public Access Level



Secured Public Access Level



Ceremonial Entrance

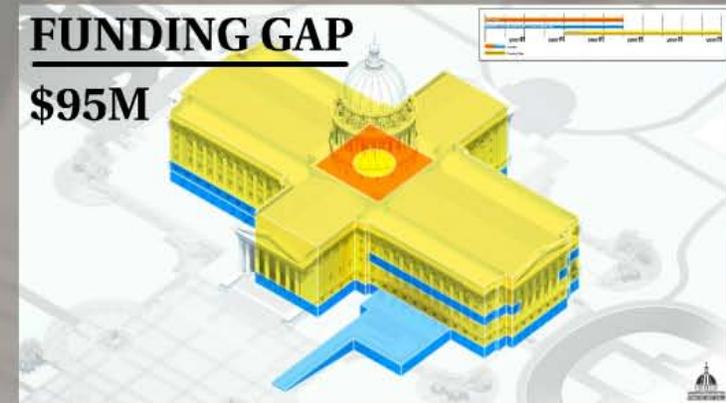
Priority Matrix & Cost Models

Priority 1



Infrastructure Backbone | Secured Public Access | Secured Public Access Level | Rotunda | Core | Public Corridors | Public Restrooms | Life Safety | Fire Suppression | Fire Alarms | Elevators | Prerequisite Areas | Natural Gas Service | 3.5 Years

Priority 2

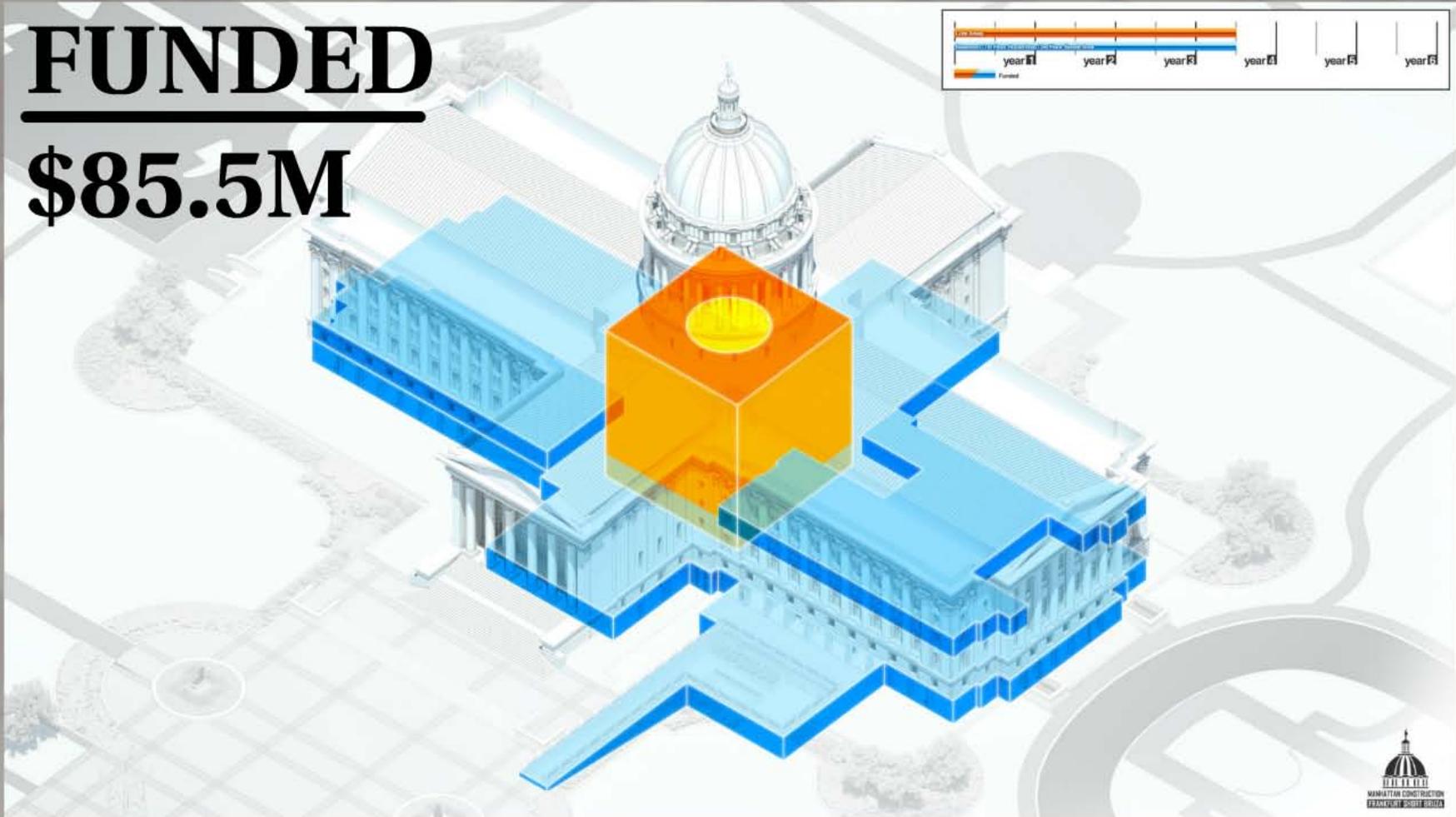
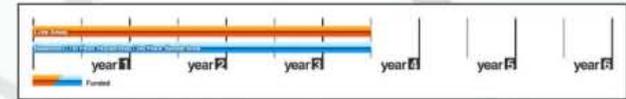


Completion of Systems Distribution | Single Move Strategy | Loading Dock | Fresh Air | Condensate | Mechanical/Electrical/Plumbing/Life Safety | Fire Suppression | Fire Alarms | Vertical Access | 6 Years | Tenant Spaces

Priority 1

FUNDED

\$85.5M

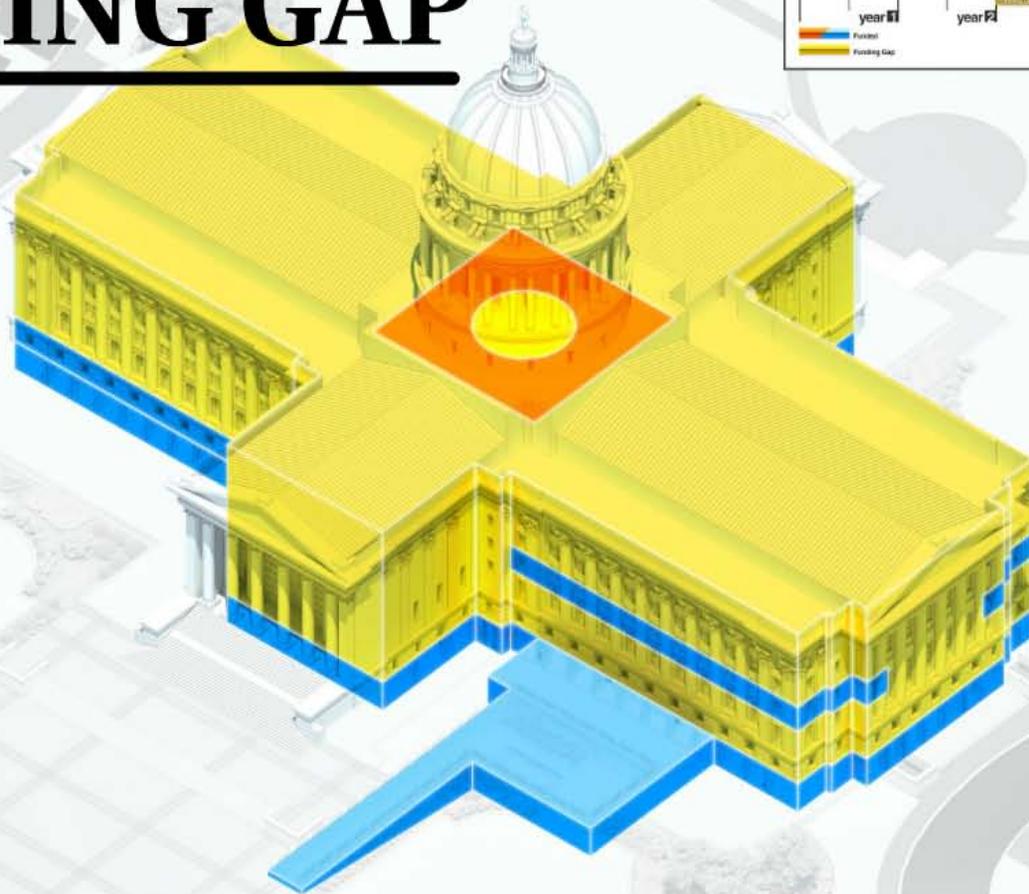
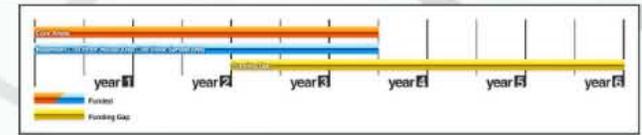


Infrastructure Backbone | Secured Public Access | Secured Public Access Level | Rotunda | Core | Public Corridors | Public Restrooms | Life Safety | Fire Suppression | Fire Alarms | Elevators | Prerequisite Areas | Natural Gas Service | 3.5 Years

Priority 2

FUNDING GAP

\$95M



Completion of Systems Distribution | Single Move Strategy | Loading Dock | Fresh Air | Condensate | Mechanical/Electrical/Plumbing/Life Safety | Fire Suppression | Fire Alarms | Vertical Access | 6 Years | Tenant Spaces

Team Priorities

Primary Focus

- ***Infrastructure*** repairs and upgrades.
- ***Life Safety Systems*** to protect the public and tenants/using agencies.
- Preservation and rehabilitation of the ***historic fabric*** of our Capitol.
- Addressing ***accessibility to The Capitol***.
- ***Security***, both access control and force protection.
- Intense focus on ***allocating funding resources to public components***.
- Efficiencies of a ***Single Move Approach***.
- ***Long Range Vision*** and ***Master Plan***.

Long Range Vision



Secured Parking and Public Access



State Capitol Park



State Capitol Park



Secured Parking and Public Access



State Capitol Park

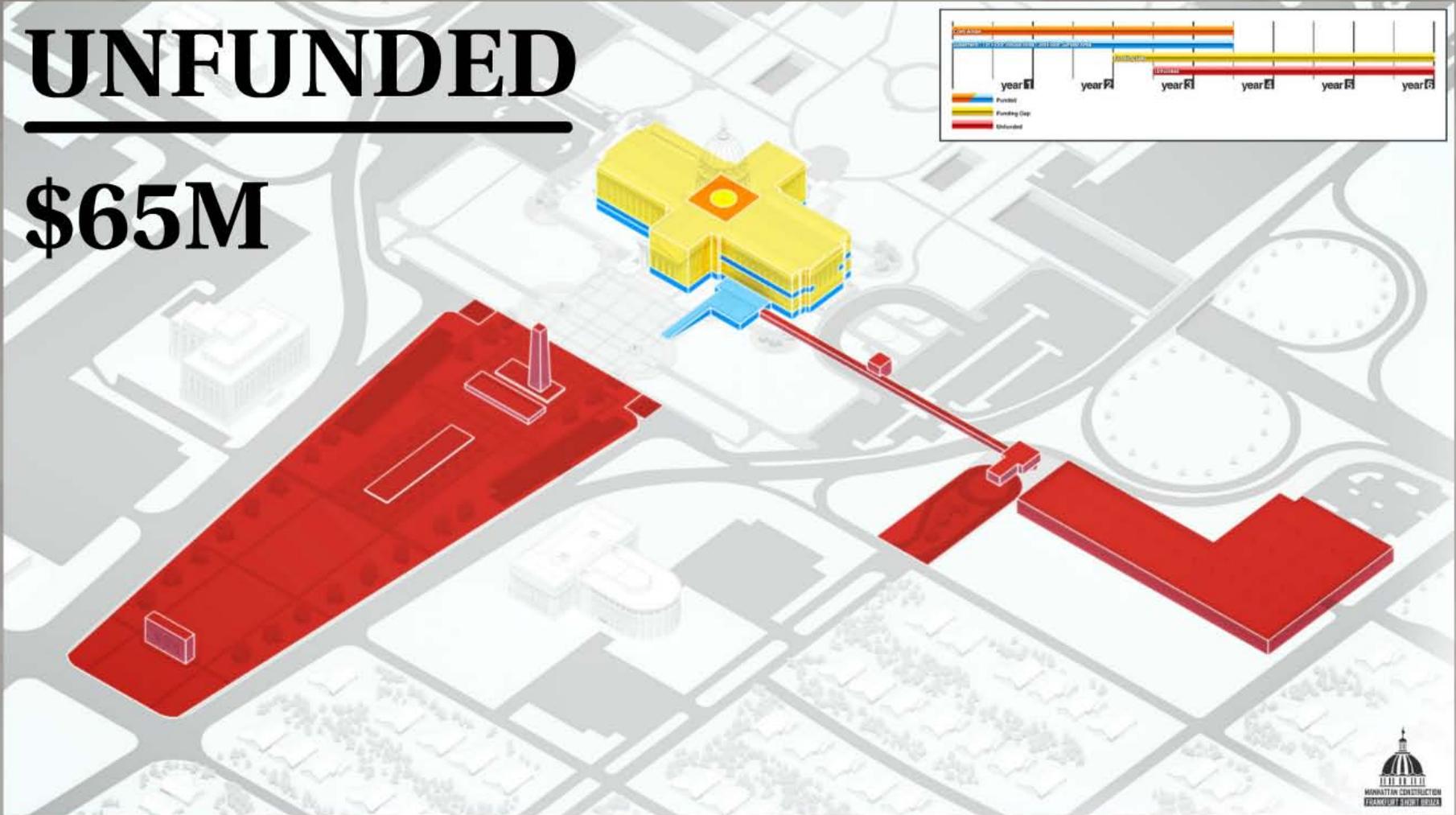
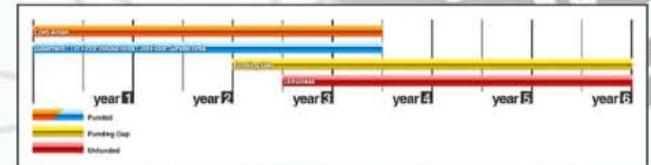


State Capitol Park

Priority 3

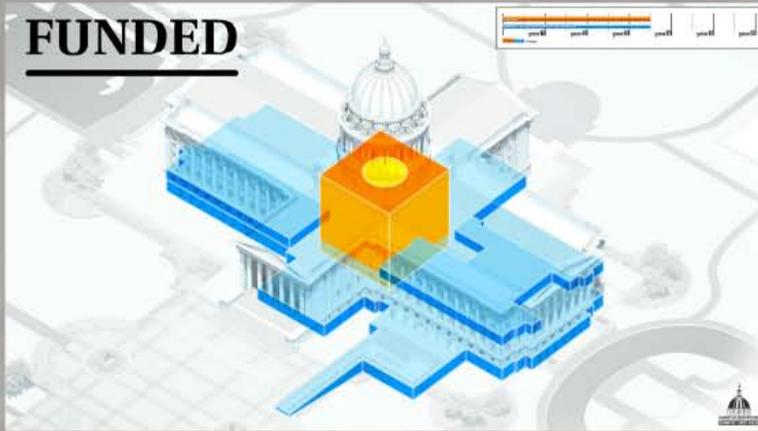
UNFUNDED

\$65M



Long Range Vision | Holistic Security Plan | Parking | State Capitol Park | Handicap and Public Access

FUNDED



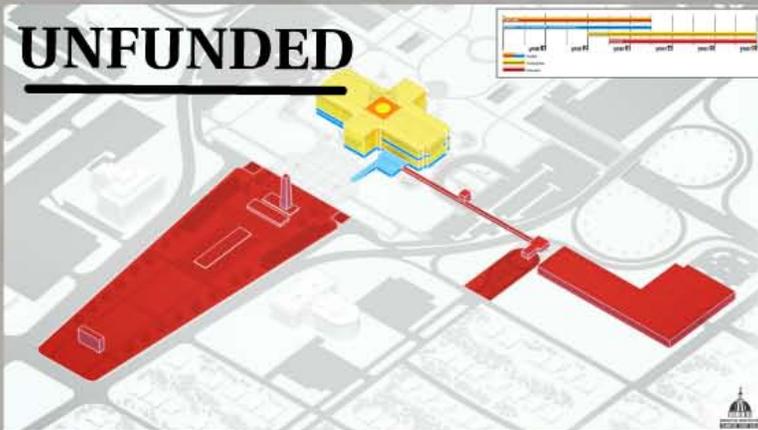
→ \$85.5 Million

FUNDING GAP



→ \$95 Million

UNFUNDED



→ \$65 Million

Sequencing Approach

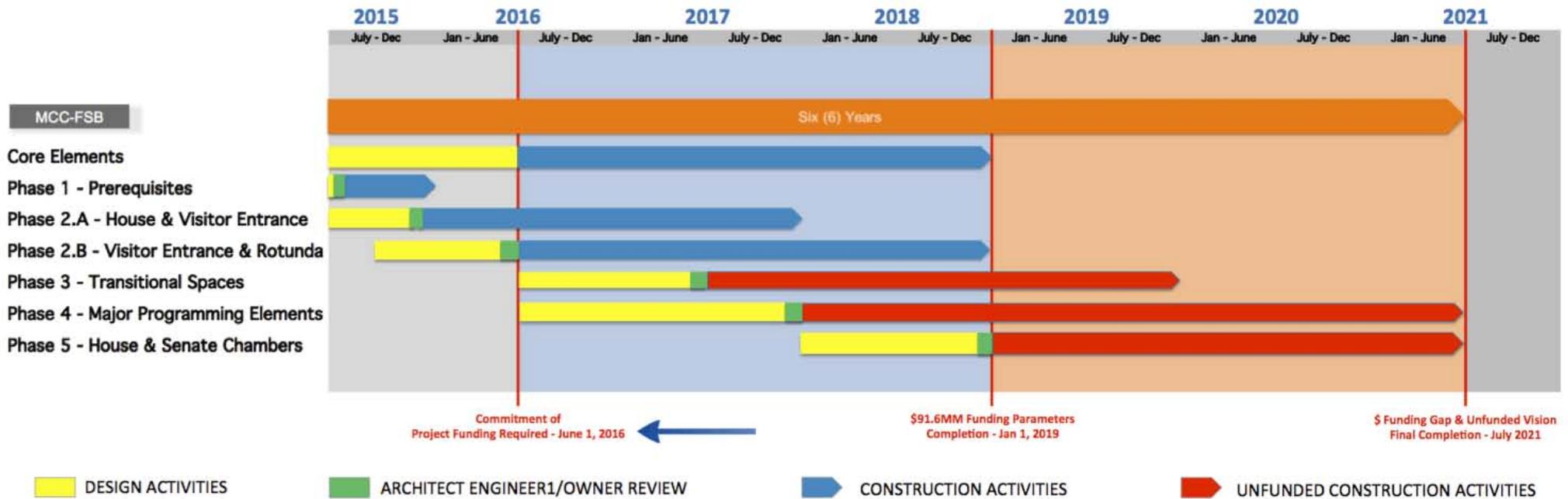
- SCREOC Phasing Approval April 9, 2015
- ## Goal

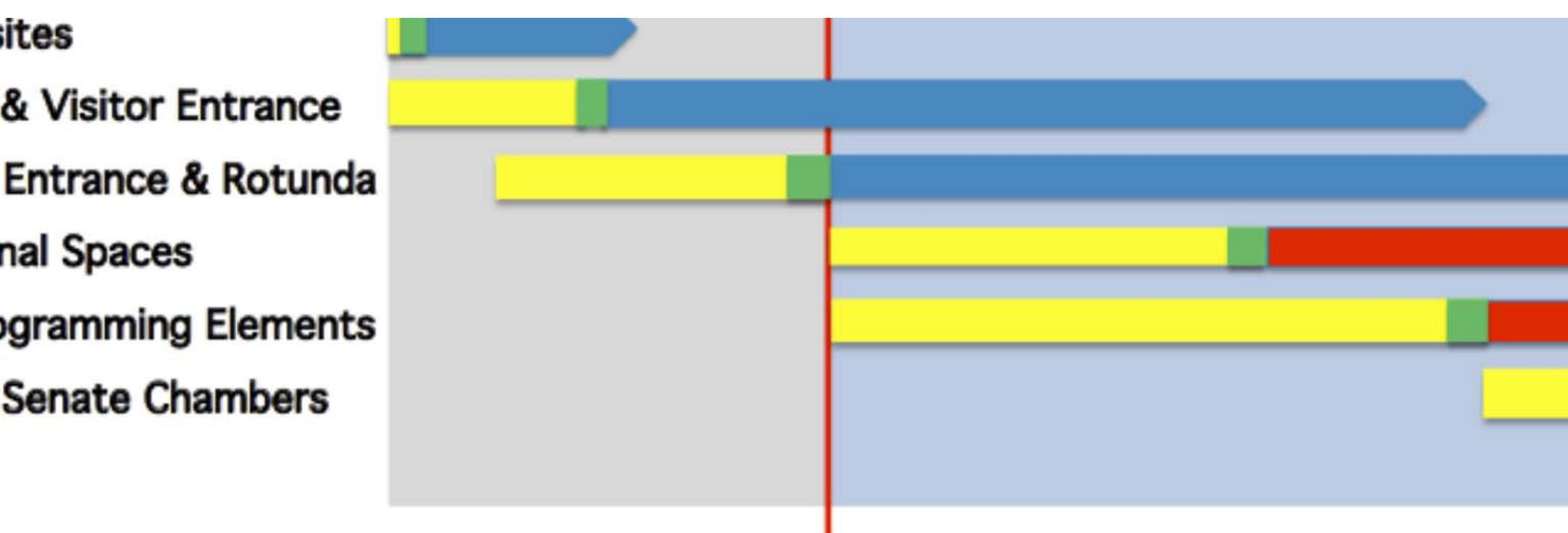
15151DB Oklahoma Capitol Restoration - Interior Rehabilitation
Master Schedule Projection



Goal

15151DB Oklahoma Capitol Restoration - Interior Rehabilitation Master Schedule Projection





Commitment of
Project Funding Required - June 1, 2016

ACTIVITIES



ARCHITECT ENGINEER1/OWNER REVIEW



The Vision

Monumental Undertaking

\$1.2 Billion Asset

"When we build, let us think that we build forever.
Let it not be for present delight, nor for present use alone:
Let it be such work as our descendants will thank us for,
and let them think, as we lay stone on stone,
that a time is to come when these stones will be held sacred
because our hands have touched them,
and that men will say as they look upon
the labor and wrought substance of them,
'See! This our fathers did for us.'"

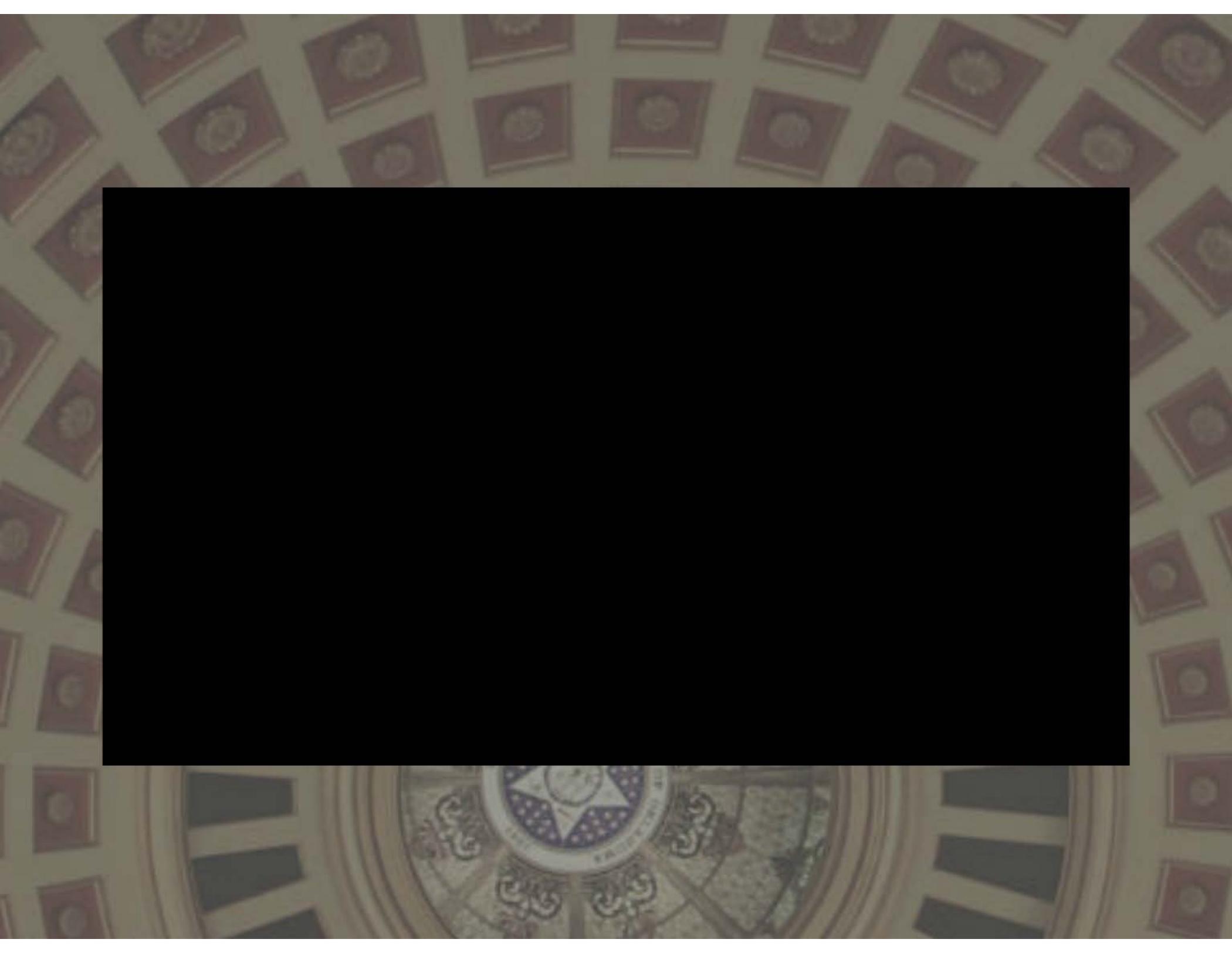
Solomon Layton

Quoting his admired poet, John Ruskin

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MANHATTAN CONSTRUCTION

FRANKFURT SHORT BRUZA