



Capitol Building Restoration

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Overview

- Facts About the Capitol Building
- Why We Need to Restore the Capitol Building
- Preservation/Restoration History
- The Commission
- The Master Plan
- Project Team
- Design Guidelines & Workshops
- Logistics & Phasing
- Funding
- Question & Answer Session



Facts

- Constructed in 1905
 - 9 Years to Build
 - Cost was \$4.5M
 - Designed by Cass Gilbert
- Exterior Made of Georgia Marble & Granite
- One of Only Four Marble Domes in the World
- Multiple Roofing Systems (Copper and Composite)
- Estimated Replacement Cost \$518M
- Added to The Historic Register in 1972



Facts

- Five Levels (B through 3) with 378,826 SF
 - 41 Restrooms
 - 32 Air Handlers
 - 49 Murals
 - 52 Paintings
 - 30 Statues and Busts
 - Over 10,000 light bulbs of 50 Varieties
- Has one 650 kW Backup Generator (located in 691)



Facts

- Population: 349 During Session
- PMD Has 11 Staff members Assigned Full- Time to Operate and Maintain the Building
- The Annual O&M Budget for the Building is Approximately \$2.2M
 - Includes all Labor, Supplies, Equipment & Utilities
 - Utility Costs are Approximately \$450K



Why We Need to Restore The Capitol

- **The Stone Exterior is Deteriorating Rapidly.**
- **The Mechanical Systems are Nearing the End of Their Useful Life.**
 - Maintenance Issues.
 - No Direct Source of Outside Air in the Rotunda.
 - The Plumbing Systems Are at Risk of Leaking.
 - Much of the Plumbing System is Not Accessible.
- **The Electrical Systems are Inadequately Sized.**
 - Electrical Service to be Upgraded to 480 volts.



Why We Need to Restore The Capitol

- **Life-Safety Systems Need to be Improved:**
 - No Smoke Control System
 - Limited Sprinkler System
 - Exit Stairwells Are Not Code Compliant
 - Security Design and Technology to Mitigate Security Vulnerabilities
 - The Capitol Needs to be Safe for All
- **Technology Systems Need to be Improved:**
 - Are Haphazardly Strung/Installed
 - Below the Level of Service Now Needed
- **Accessibility Is Inadequate or Nonexistent:**
 - 100 Years Ago, Access for People with Disabilities Not Considered
 - Needs Modernization With Respect to Accessibility



Why We Need to Restore The Capitol

- **Committee Rooms Need to Be Better Organized**
 - Meeting Spaces Should Accommodate Public Viewing of the Proceedings.
- **The Public Struggles to Find Legislators Located in The Capitol**
 - The Physical Location of Offices Should be Improved for Public Access.
- **Accommodations for Visitors Should be Improved**
 - School Buses and School Children to Visit Capitol.
 - To Witness and Participate in the Sessions.
- **Communications Between the Senate and House Chamber**
 - Currently the building does not support movement between the bodies.



Preservation History

28 Years of Planning

1984: Miller Dunwiddie – Study on Public Spaces

1988: Miller Dunwiddie – Comprehensive Plan and Implementation

2001: Pre-Design for Interior Restoration of the Capitol

2007: Pre-Design Update and Conceptual Design

2007: Capitol Restoration Working Group

2008: Asset Preservation Work – Exterior Dome

2011: Asset Preservation Work – Deterioration

Capitol Preservation Commission

“The commission shall develop a comprehensive, multiyear predesign plan for the restoration of the Capitol building . . .

The predesign shall:

- *identify appropriate and required functions of the Capitol building;*
- *identify and address space requirements for legislative, executive, and judicial branch functions; and*
- *identify and address the long-term maintenance and preservation requirements of the Capitol building . . .”*

2011, 1st Special Session Chapter 6, Article 4, Sec. 3

Capitol Preservation Commission*

Governor Mark Dayton (Chairman)

Lieutenant Governor Yvonne Prettner Solon

Justice Paul Anderson

Senator Leroy Stumpf

Senator David Senjem

Representative Dean Urdahl

Representative Diane Loeffler

Commissioner Spencer Cronk

Director D. Stephen Elliott

Ted Lentz (Public Member)

Dana Badgerow (Public Member)

Attorney General Lori Swanson

Majority Leader Tom Bakk

Senator Ann Rest

Representative Matt Dean

Representative Mary Murphy

Representative Alice Hausman

Commissioner Ramona Dohman

Executive Secretary Nancy Stark

James Dayton (Public Member)

Peter Hilger (Public Member)

Guiding Principles

1. Architectural Integrity

- It is critical to preserve the integrity of the building and its great architecture.
- Consideration should be given to original 1905 plan.
- The building must work for the next 100 years.

2. Building Function

- The building must work to support the function of Government.

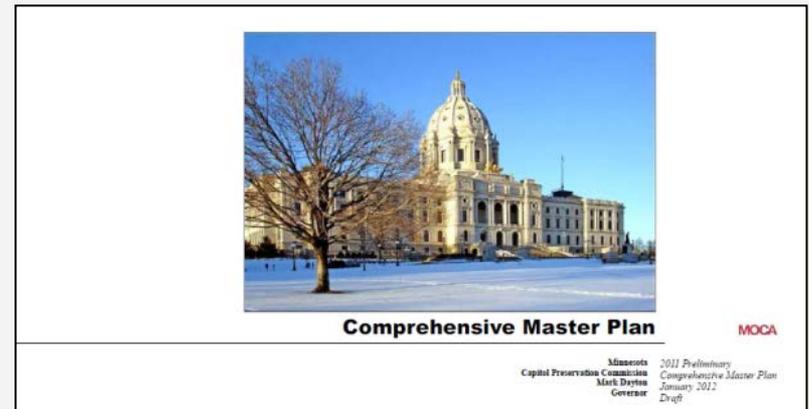
3. Life Safety and Security

- Capitol must be safe from security threats, fire and deterioration of systems.
- It must provide for accessibility of all Minnesotans.
- The building needs to be current on life safety codes.

Comprehensive Master Plan

A 20 year plan that covers:

- Living document to provide guidance
- Restoration 2012 – 2017
- Maintenance & Stewardship 2017 - 2032



Approval of Master Plan & Preliminary Pre-design

- Approval on January of 2012 by the Capitol Preservation Commission.
- The Master Plan provided a conceptual approach to the restoration.
- Recommended a budget of a \$241 Million dollars.
- Substantial completion date of December of 2016.
- In addition to \$241M, there was a \$6.6M for the University Avenue tunnel for construction prior to light rail construction.

Initial Appropriation \$44 Million

- To design, construct and equip a new tunnel extending from the Capitol Building and passing under University Avenue \$6.6M
- Capitol Restoration pre-design and design.
- Repairs to exterior stone, window replacement.
- Bid Package #1 mechanical attic space (2013)
- Restore and improve the Capitol building and grounds
- Up to \$5,000,000 may be used to pre-design, design, construct and equip state-owned buildings to meet temporary and permanent office and other space needs (Swing Space)

Capitol Restoration Project Team

- **Owners Project Representative – CPMI**
 - *Primary Responsibility* – contract administration and overall project management to ensure project success.
- **Owners Program Manager – MOCA**
 - *Primary Responsibility* – ensure tenants and users functional requirements are understood and incorporated into restoration.
- **Design Team – Capitol Restoration Collaborative (HGA/SCA)**
 - *Primary Responsibility* – provide design and documents that incorporate the owner requirements within the established budget.
- **Construction Manager – JE Dunn**
 - *Primary Responsibility* - manage the construction of the Project

Capitol Restoration

Design Guidelines

Design Scoping Workshops

Imperatives



Design Guidelines

- September 2012 – Capitol Preservation Commission discussed the Design Guidelines
- 3 follow up meetings with:
 - Tenants and Users of the Capitol
 - Technology and Communication
 - Details and Building Components
 - Building Systems - MEP
- All 34 Guidelines may be reviewed at <http://www.mn.gov/capitol/preservation>

Design Guidelines

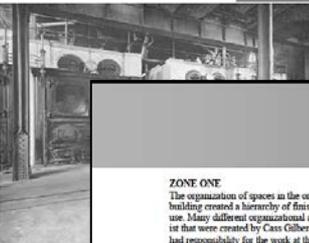
THE MECHANICAL SYSTEM IN THE CAPITOL DOES NOT SUPPORT THE CURRENT FUNCTION

MECHANICAL 19

PRINCIPLES FOR MECHANICAL SYSTEM

1. Engineered systems shall provide a modern standard of function to support building operations for the next 100 years. Systems shall be designed to be accessible for regular and periodic maintenance and be flexible and adaptable to accommodate future building needs and evolving technology.
2. The mechanical systems shall be designed to minimize the operating cost of the building. A life cycle cost approach shall be used when evaluating system options and features to account for first costs, energy costs, and regular and periodic maintenance costs. All system options considered shall be reliable and proven technologies and utilize high quality and durable materials.
3. Preservation work shall be accomplished within the existing footprint of the building and be installed to minimize the loss of useable space. Use of the attic for new equipment space and systems distribution is the principal strategy to offset additional space required by modern systems.
4. Engineered systems must be installed to maintain the historic fabric of the building. Required interventions shall be accomplished within the guidelines set forth in the Historic Work-shares report.
5. All work shall conform to the State of Minnesota's Capitol Complex Construction Guidelines and Standards.

Design Guideline:
The mechanical and ventilation system in the building should be replaced in its entirety according to the above principles.



THE MECHANICAL SYSTEM IN THE CAPITOL DOES NOT SUPPORT THE CURRENT FUNCTION

MECHANICAL 19

ZONE ONE

The organization of spaces in the original design of the building created a hierarchy of finishes and flexibility of use. Many different organizational and functional plans exist that were created by Cass Gilbert during the years he had responsibility for the work at the Minnesota State Capitol.

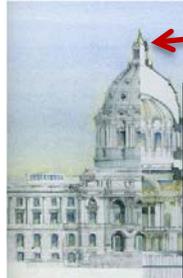
Some spaces in the Capitol have remained constant in use and unchanged in general character during the life of the building. Included are the important public corridors and remnant spaces on all floors, the House, Senate and Supreme Court Chambers, the Governor's Reception Room and Ceremonial Offices for Constitutional Officers. These areas should be preserved. Preservation includes configuration, use, finishes, historic lighting, and all other elements that are original to the building.

Intrusive elements that have been added over time should be removed. Life safety and security equipment should be carefully designed and placed for minimal impact on these spaces. The integration of building systems in these areas should be carefully planned to not adversely affect the original finishes and configuration within the Zone One.

USE OF SPACE IN ZONE ONE

Space use in the Zone One is primarily in accordance with the original use. Little deviation from this use exists in the building today. Temporary uses such as food service carts and media connections should be carefully planned to preserve the original configuration and finishes.

Design Guideline:
Zone One protects the most significant area in the building. These spaces should be given the highest priority for architectural integrity.




Idea and Number

PRESERVATION OF THE ORIGINAL ARCHITECTURAL INTEGRITY OF THE BUILDING IS VERY IMPORTANT

ZONE ONE 08

Imagery

THE CAPITOL IS THE MOST SIGNIFICANT BUILDING IN MINNESOTA

HIERARCHY 02

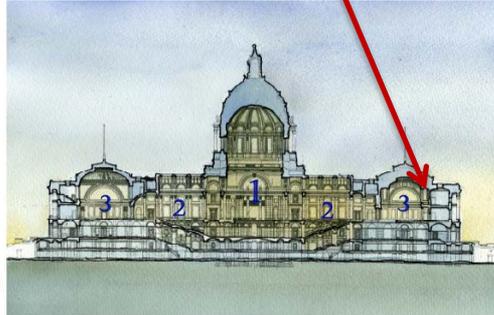
HIERARCHY

The organization of space within the Capitol follows a hierarchy created by the placement, volume, and level of finish. Clearly spaces were planned carefully to convey the power and import of the functions within the building. Unlike many building types, capital buildings usually preserve the most important and beautiful spaces for the public. The "People House" gives all equal access to the most significant and finely finished spaces. Great pride of ownership and citizenship are the unintended emotions evoked by these grand spaces.

A careful hierarchy of space has been planned for the Capitol. This hierarchy dictates circulation and use of the building. Spaces at the top of this hierarchy are usually not flexible in their function and should be preserved as intended.

Spaces may become more flexible as they diminish in importance. The character of all space in the Capitol should reflect the original architectural character envisioned by Cass Gilbert even if the space utilization is more flexible and conforms to current demand and agreements for use.

Design Guideline:
The hierarchy of spaces in the Capitol provide a guide for preservation and flexibility of use. All spaces regardless of use should be re-paired using the Cass Gilbert design as guide.



INTERIOR GUIDELINES
1/2013
WORKING DRAFT

Text

Design Scoping Workshops

- DSW process similar to the Utah State Capitol Restoration.

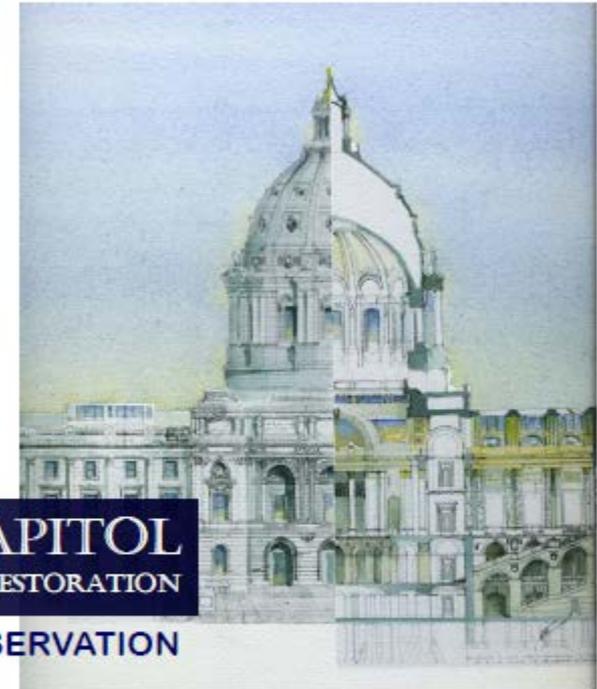
Building Information Modeling	Historic Preservation	Mechanical/Electric/Plumbing Systems
Security/Accessibility/Life Safety/Elevators	Committee/Caucus/Meeting Spaces	Office Space
Decorative Arts/Paints/Metals	Historic Lighting	Furnishings
Public Space		Grounds

- The Remaining workshops will be completed by April 2013.
- Following each of the workshops a summary is developed.
- the DSW workshop Summary documents may be reviewed at <http://www.mn.gov/capitol/preservation>).

DSW#2 Historic Preservation

DESIGN SCOPING WORKSHOP

November 12-16, 2011



MINNESOTA STATE CAPITOL REPAIR AND RESTORATION

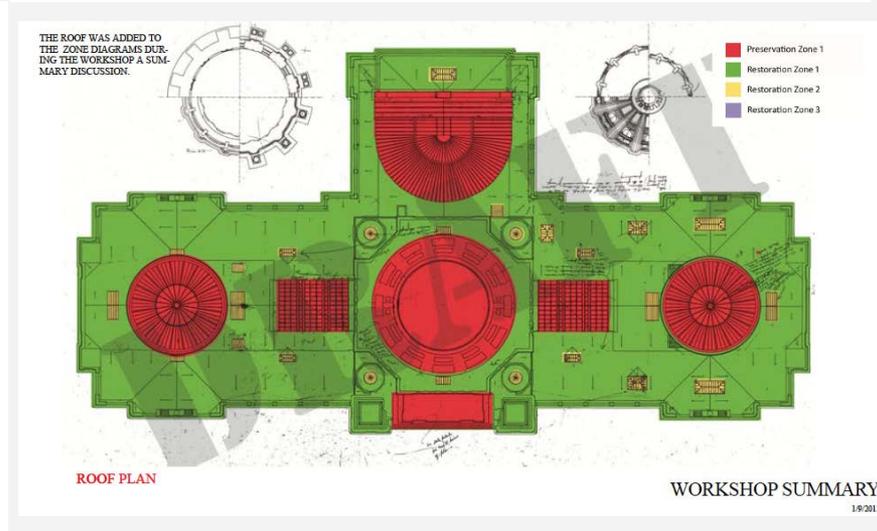
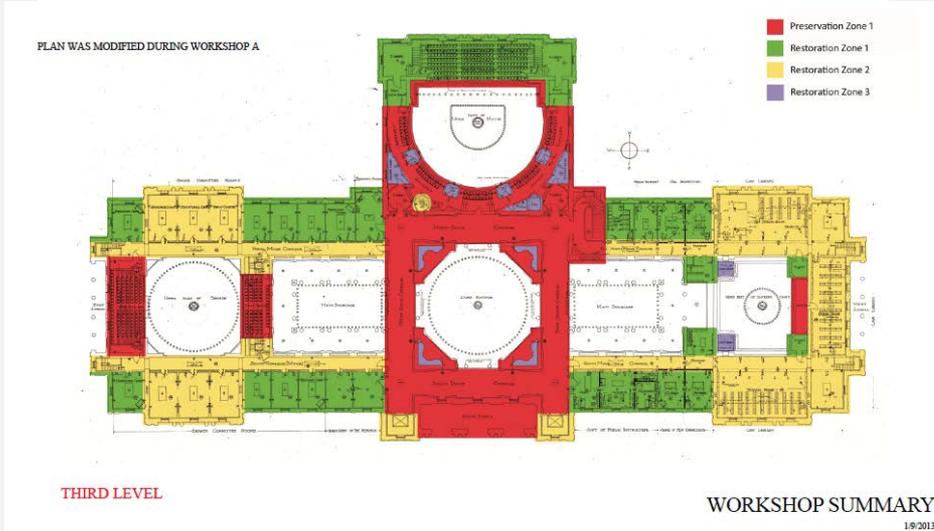
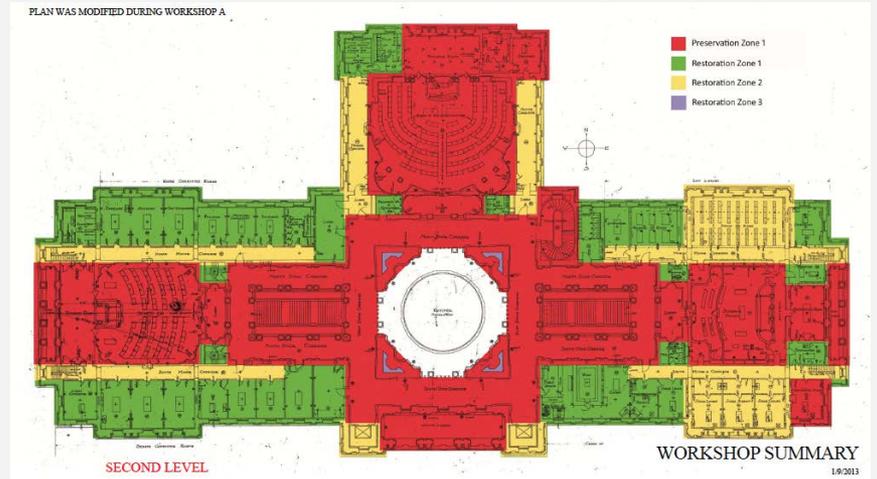
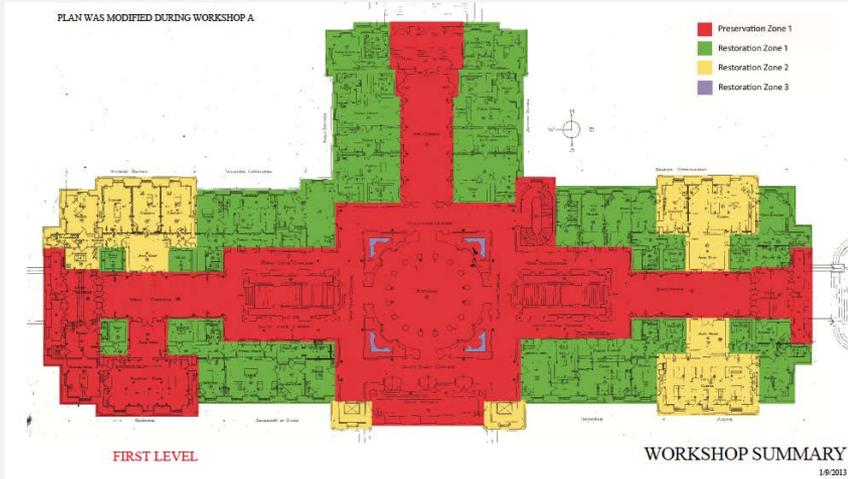
WORKSHOP SUMMARY A –HISTORIC PRESERVATION

Real Estate and
Construction Services



MOCA

Zones Diagrams



Exterior Zones

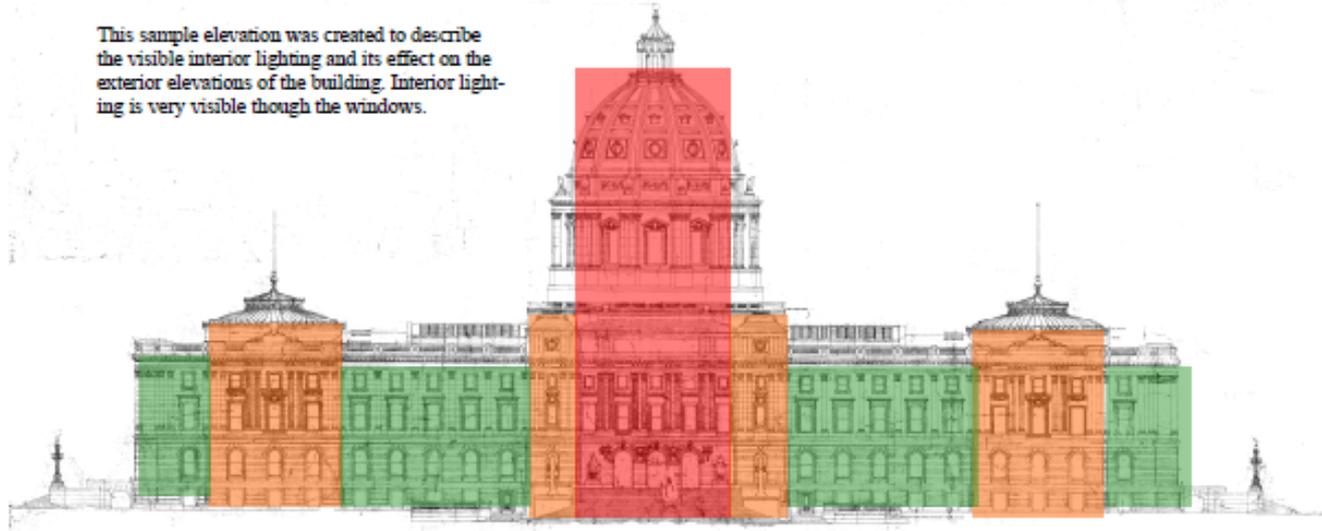
THE CAPITOL IS THE MOST
SIGNIFICANT BUILDING IN
MINNESOTA

ZONES

08.A

THE ENTIRE EXTERIOR OF THE BUILDING IS CLASSIFIED AS ZONE ONE.

This sample elevation was created to describe the visible interior lighting and its effect on the exterior elevations of the building. Interior lighting is very visible through the windows.



INTERIOR LIGHTING (VISIBLE FROM EXTERIOR)

INTERIOR GUIDELINES

1/22/2013 2/2013

WORKING DRAFT

Findings

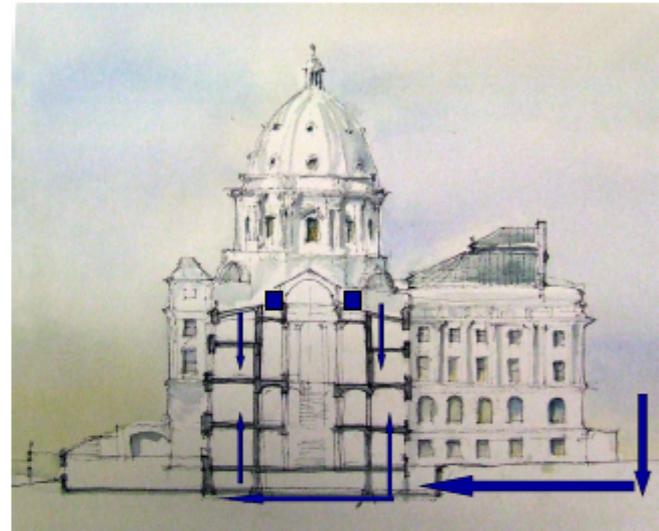
Identified Preservation Zones

- **Zone 1** – high sensitivity to historic fabric (No Change)
- **Zone 2** – transition spaces where the historic fabric will control (limited change)
- **Zone 3** – flexibility with some historic fabric.
- **Zone 4** – areas of no historic fabric

DSW #3 Systems

DESIGN SCOPING WORKSHOP

November 27-30, 2011



MINNESOTA STATE CAPITOL REPAIR AND RESTORATION

WORKSHOP B SUMMARY —MEP CONCEPTS, SEQUENCE, MAINTENANCE, AND STEWARDSHIP

Real Estate and
Construction Services

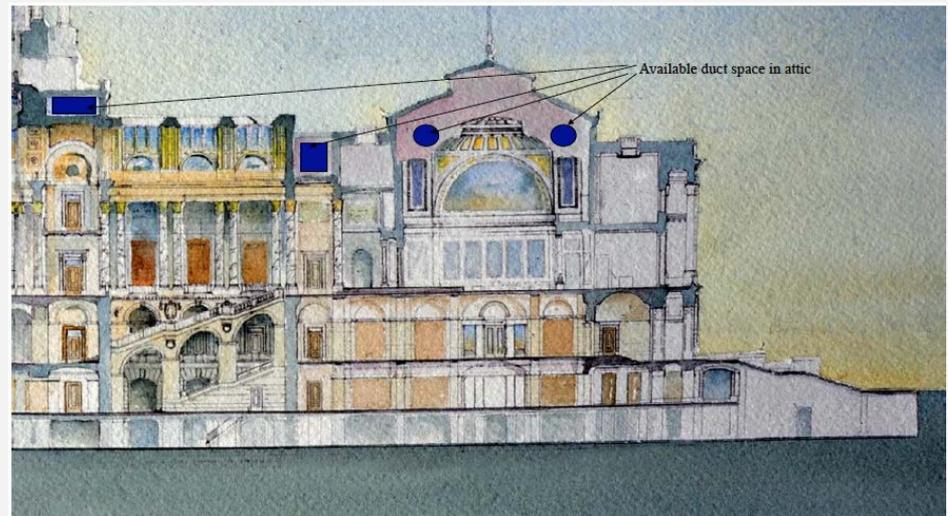


MOCA

DSW #3 Systems

Primary approach – Fix the building

- Repair, Replace and Restore the systems
- Mechanical
- Electrical
- Plumbing
- Communications
- Security



Mechanical

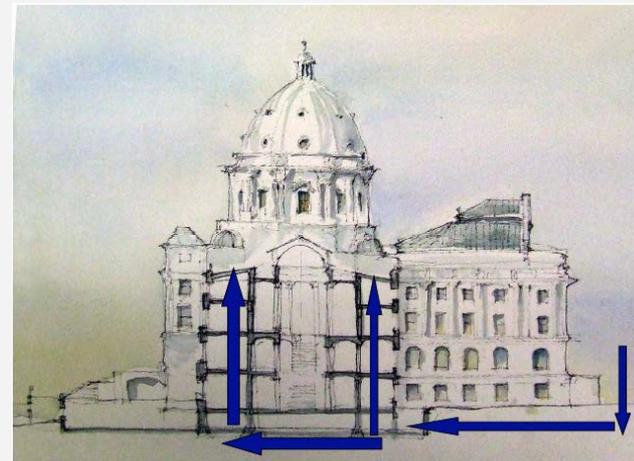
Three Approaches

1. **All Up** – eliminated as too expensive and was not efficient.

2. **Up – Down Ventilation**

1. Provide equipment at:
 1. Roof
 2. Basement

3. **All Down** – would provide for 100% of mechanical system in Basement



Findings

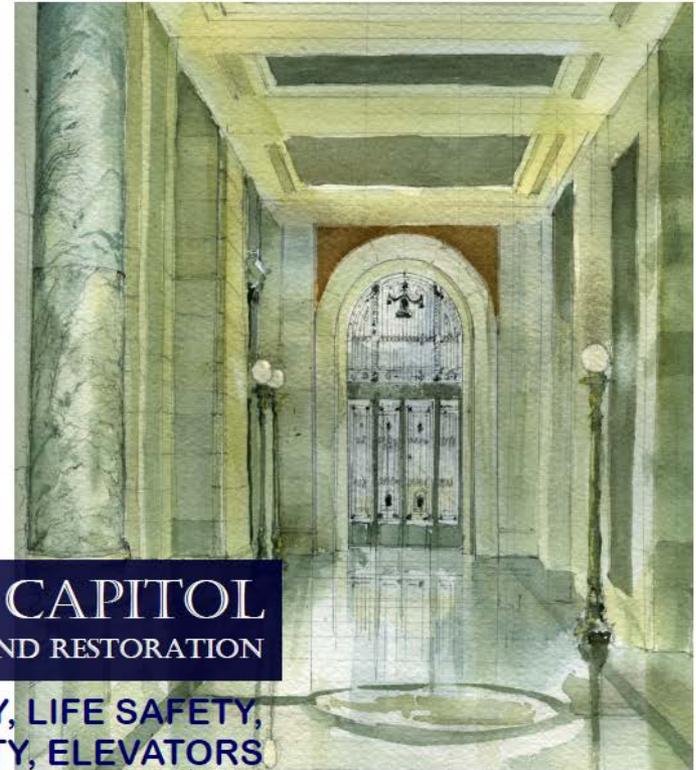
Mechanical Systems

- The option of all equipment located in the basement is the least expensive and more efficient system.
- All fresh air will be brought in from the roof.
- Electrical rooms will take advantage of the attic space.
- Plumbing and restroom to be located in one location for economy and ease of use.

DSW #4 Vertical Transportation

DESIGN SCOPING WORKSHOP

December 11-14, 2012



MINNESOTA STATE CAPITOL REPAIR AND RESTORATION

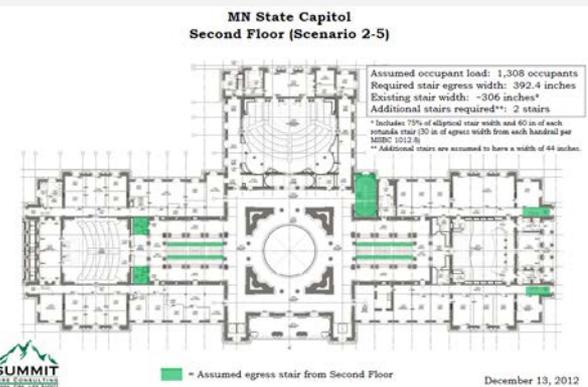
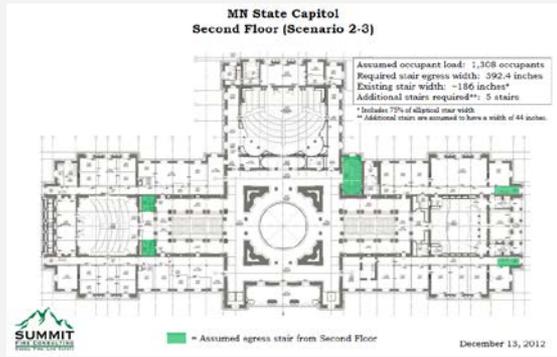
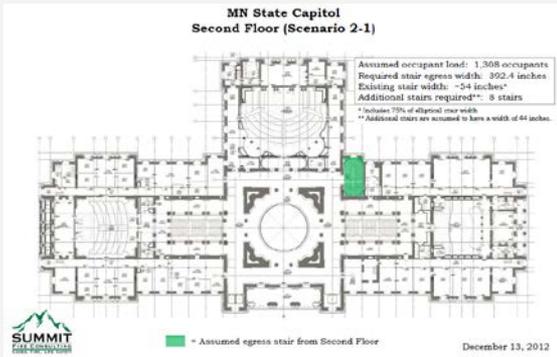
WORKSHOP C SUMMARY —ACCESSIBILITY, LIFE SAFETY,
SECURITY, ELEVATORS

Real Estate and
Construction Services



MOCA

Stairs



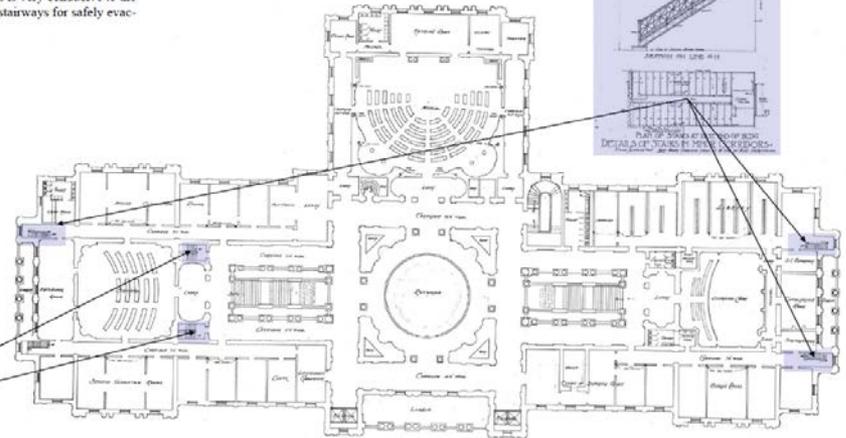
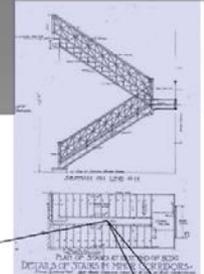
THE CAPITOL IS THE MOST
SIGNIFICANT BUILDING IN
MINNESOTA

EXIT STAIRS

29.C

EXISTING STAIRS

Preliminary occupancy and exiting analysis would indicate that some of the existing stairs serving the building could be modified or extended to provide exit stairs for the building comprehensive strategy. Utilizing these stairs could be very important in the entire exiting system for the building. The original placement of the stairs is very conducive to the separation and distribution of exit stairways for safety evacuation all parts of the building.



WORKSHOP SUMMARY
WORKING DRAFT
1/22/2013

By utilizing the existing stairs and extending the other existing stairs the code allows us to provide one stair instead of the initial calculation of five new stairs.

Vertical Circulation

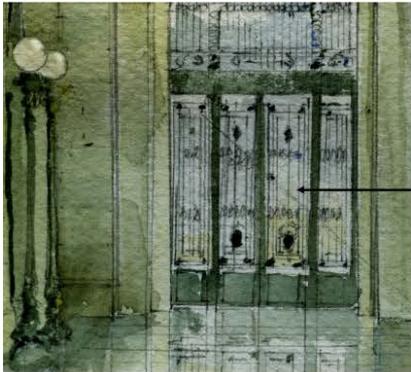
THE CAPITOL IS THE MOST SIGNIFICANT BUILDING IN MINNESOTA

VERTICAL CIRCULATION

31.C

ELEVATORS

The elevators located in shafts on the South side of the building should be replaced with high speed traction type elevators. These elevators should be large to accommodate increased loads for peak use during session. Single car configuration in each existing shaft should be designed. Openings for these elevators into zone one spaces should be restored to the original configuration. Car and shaft design should accommodate the glass door and arch configuration or glass door and transom configuration of the original design to provide daylight into the rotunda corridors.



Elevator doors and shaft that were bronze in original design aligned w window beyond flooding interior w

THE CAPITOL IS THE MOST SIGNIFICANT BUILDING IN MINNESOTA

VERTICAL CIRCULATION

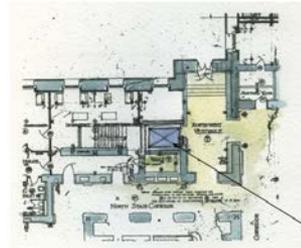
31.C

ELEVATORS

A new elevator should be constructed in the Northwest quadrant to the building. The location should be adjacent to the new freight tunnel to accommodate deliveries to the building.

The new elevator should be large, fast and sized to accommodate oversized furniture and freight. The new elevator should not create new openings in the rotunda corridors or modify existing openings in the zone one spaces.

The new elevator should be accessed from an elevator lobby adjacent to the main circulation corridors of the building. Placement should compliment existing vertical circulation patterns in the building.



New Elevator location adjacent to Northwest Vestibule



Photo of Dome Corridor looking West to Northwest Vestibule

WORKSHOP SUMMARY

WORKING DRAFT

1/22/2013

Findings

Vertical Circulation and Access

- Code requires 5 new exit stairs, Historic Exemption will allow the extension of existing and one new exit stair
- Elevators service can be improved by going to two larger and faster elevators in the south and one large elevator in the northwest.
- Accessibility from parking to the building will be through the south ground floor as currently exist
- Secondary accessible route will come from the east through the ground floor.

DSW #5 Hearing Room and Technology

DESIGN SCOPING WORKSHOP
JANUARY 15-18, 2013



MINNESOTA STATE CAPITOL
REPAIR AND RESTORATION

WORKSHOP 5 - HEARING ROOMS AND TECHNOLOGY

Real Estate and
Construction Services



MOCA

WORKING DRAFT

Technology

THE CAPITOL MUST FUNCTION
AS THE CENTER OF GOVERN-
MENT.

TECHNOLOGY 20.5

COMMUNICATIONS

WIRELESS NETWORKS

- Increased capacity in Hearing Rooms
- Public access by statute
- MN.IT will not provide services for public access

CELLULAR TELEPHONE

- Single carrier (Sprint) current service throughout campus
- Better served by multiple carriers (determine who owns antennae system.

ELECTRICAL POWER

- Clean power for equipment and servers. Better grounding.
- Back-up power for media and network-UPS

TELECOM

- Most phones are Voice over IP
- Analog phone is required for emergency back-up including Security, Chambers, Governor, Attorney General, Court, Sergeant's office

SOUND SYSTEMS

- Recording
- Reinforcing
- Distribution

PA notification system for emergency and life safety.

Microphone systems in Hearing Rooms need to be carefully planned and controlled.

LIGHTING AND ROOM ACOUSTICS

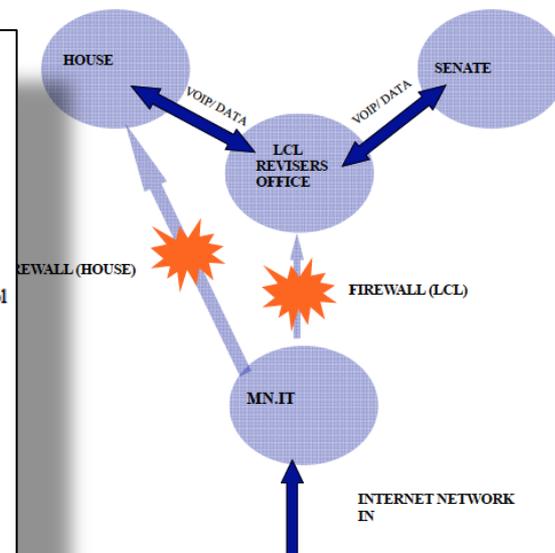
Modifications to the Hearing Rooms and New hearing Rooms will incorporate appropriate lighting and acoustic design.

HOUSE MEDIA

House Broadcast Media staff and equipment can be relocated to the State Office Building.

SENATE MEDIA

Senate Media voiced a strong desire to remain in the Capitol Building. This would require the construction of an equipment room and possible server room with access floor and separate cooling system.



WORKSHOP 5 SUMMARY

WORKING DRAFT

1/24/2013

Hearing Rooms

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SIGNIFICANT BUILDING IN
MINNESOTA

HEARING ROOMS 27

HEARING ROOMS

The Hearing Rooms are the natural extension of the public circulation space in the Capitol. Committees meet and receive public comment in these rooms. They are an essential component of the public process of government. Committee Rooms were included in the original design of the building. Large rooms were divided into smaller rooms with large folding doors. Clearly these rooms functioned very differently than modern hearing/ committee rooms today.

Existing hearing rooms in the Capitol often do not accommodate all public participants and accommodations are usually made for remote broadcast.

Space in the capitol has been expanded in and adjacent to the original designed committee Rooms. Minor Corridors have been incorporated into these rooms to make more space for participants. Columns exist in these enlarged spaces rendering them difficult for sight lines and appropriate furniture arrangement. In almost every case, Hearing Rooms have encroached on planned building circulation. The largest of these rooms is located under the Rotunda floor on the Ground Level. This was initially circulation space also. Room 318 still functions as a corridor connecting office spaces on the Third Floor.

All of the Hearing/Committee Rooms should be equipped with sound recording and amplification systems.

Design Guideline:

Hearing Rooms in the Capitol are marginal in function and layout. They should be evaluated as new building systems are installed and re-configured as appropriate to function according to demand.



Minor Corridor

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MINNESOTA

HEARING ROOMS 27.5

HEARING ROOMS

	COMMITTEE SIZE	STAFF SIZE	AUDIENCE SIZE	NUMBER
Small	8-10	6-8	75-100	2-3
Medium	16-18	6-8	100-125	2-3
Large	30	12-14	200	6
Extra Large	30-45	16-20	250	1

The Table was generated during the workshop after a "Benchmarking" introduction that compared various State Capitols and committee room size and quantity.

It is clear that the highest demand is for Large Rooms with a seating capacity around 200 in the audience and a Committee Member size of 30. Twelve to Fourteen staff members are also required.

The following plans confirm that Hearing Rooms of this size are not feasible within the footprint of the Capitol Building.

One Extra Large Hearing Room could be built under the Terrace on the West or the East ends of the building in the Basement. This construction would require the modification of the terrace structure to provide a clear span for the rooms and the removal of the floor to accommodate the seating riser configuration. These rooms could be constructed such that when completed, no noticeable change to the exterior appearance of the building would be evident. They could also be built within the footprint of the existing building and terrace.

WORKSHOP 5 SUMMARY

1/24/2013

WORKING DRAFT

Findings

Hearing Rooms and Technology

- Existing hearing rooms struggle with technology, visibility and layout.
- Number of hearing rooms and sizes are difficult to accommodate in the Capitol.
- Ability to add large hearing rooms in basement exists •
- Communication systems can be reduced and security maintained

DSW #6 Space Planning and Swing Space

Preliminary Schedule for Agency/Department interviews	
Date	Agency
January 28, 2012 - Monday	
8:30 AM	Not Available
9:30 AM	Not Available
10:30 AM	Not Available
11:30 AM	Not Available
12:30 PM	Not Available
1:00 PM	Senate – Secretary of Senate Office
2:30 PM	Senate
3:00 PM	Senate
4:00 PM	Plant Management
January 29, 2013 – Tuesday – Interviews	
8:30 AM	House – Chief Clerk Office
9:00 AM	House
10:00 AM	House
11:00 AM	Supreme Court
12:00 Noon	Lunch
1:00 PM	Attorney General Office
2:00 PM	Governor Office
3:00 PM	Governor Office
4:00 PM	Public Safety
January 30, 2013 – Wednesday - Interviews	
8:30 AM	MN Historical Society
10:00 AM	Services for the Blind/Commission Mtg.
11:00 AM	Reviser Office/Commission Mtg.
12:00 Noon	Lunch
1:00 PM	Workshop
2:00 PM	Workshop
3:30 PM	Media
4:00 PM	Media
January 31, 2013 Thursday – Working Sessions.	
8:00 AM	Workshop Planning discussion
9:00 AM	Workshop
10:00 AM	Workshop
11:00 AM	Workshop
12:00 PM	Lunch
1:00 PM	Workshop
2:00 PM	Workshop
3:00 PM	Workshop
4:00 PM	Workshop

We are currently conducting the Space Planning Workshop. We are meeting this week with key Capitol Building tenants in order to learn more about their space needs and what may or may not need to change.

Once these needs are known, we will overlay these on to the other space diagrams and then begin the task of sorting conflicts and related issues.

Capitol Restoration

Schedule



Minnesota State Capitol Projects Logistics Preliminary Review



Project Overview

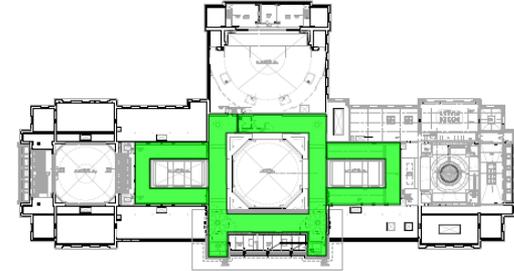
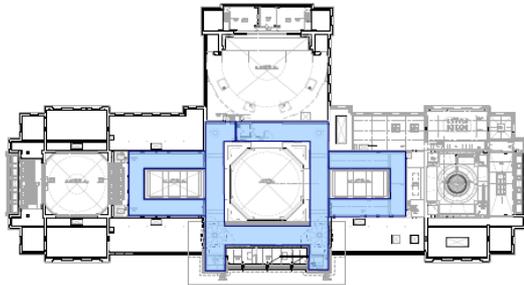
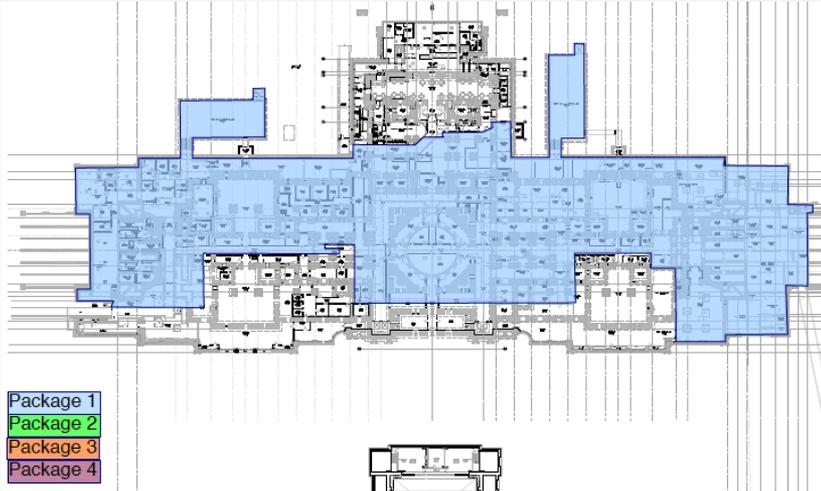
Exterior 2013 - 2016

- Stone repair
- Window replacement & restoration
- French door restoration
- Roof replacement

Interior 2013 - 2016

- Basement
- Mechanical upgrades
- North & West wings
- East wing and Rotunda

Construction Phasing 1 & 2

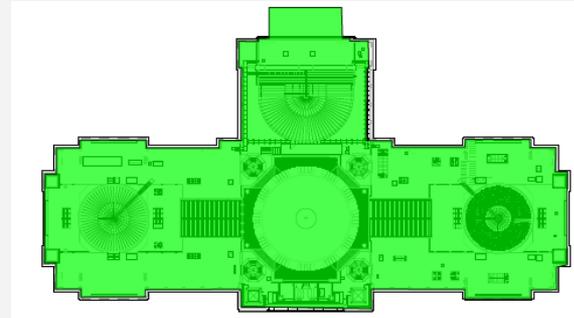


Package 1 – Abatement & Demolition in Basement & Attic

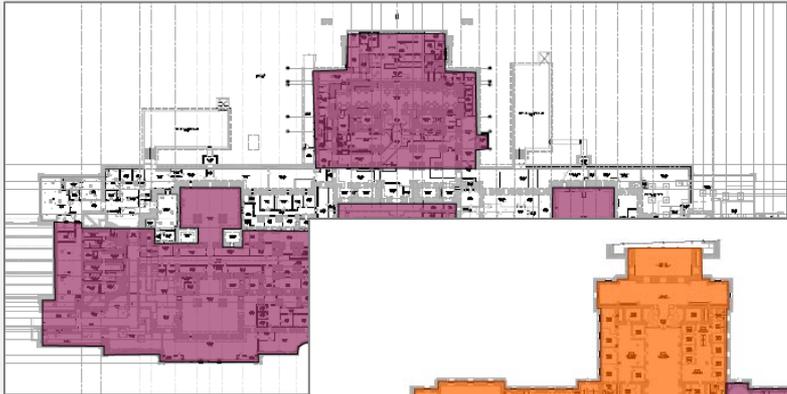
2013 -2014

Package 2 – MEP Prep and Installation

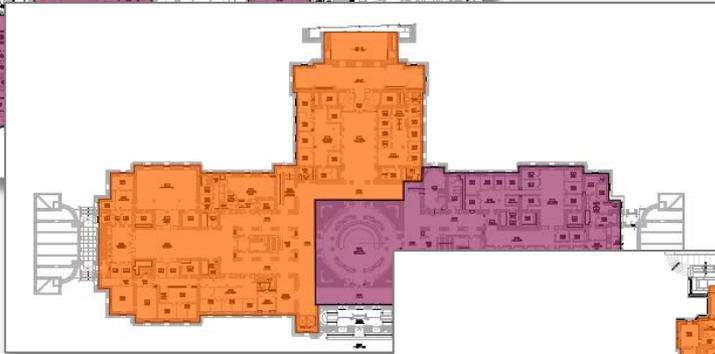
2014 - 2016



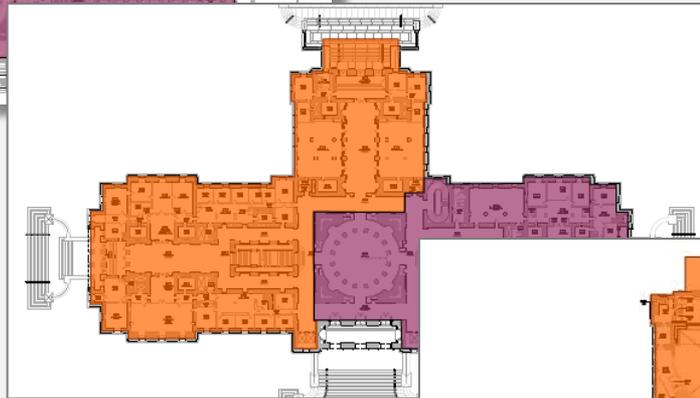
Construction Phasing 3 & 4



Package 3 – West/North
2014 to 2015



Package 4 – East
2015 to 2016



Staging & Logistics

Staging requirements

- Safety
- Material storage
- Tool storage
- Cranes & Lulls
- Temporary facilities
- Unloading / receiving
- Scaffolding & Access
- Dumpsters
- Field offices
- Mortar mixing

Logistics requirements

- Direct access to the work area which provides for the safety of the workers and occupants.
- Direct access to the work area to provide reasonable production for installation of materials.

Kansas State House



Kansas State House



Staging / Logistics at the Kansas State House



Staging / Logistics at the Kansas State House



Utah State Capitol



2013

Contractor Storage

Dumpsters

Delivery and Unloading

Equip Stage

Matl Stage

Window Stage

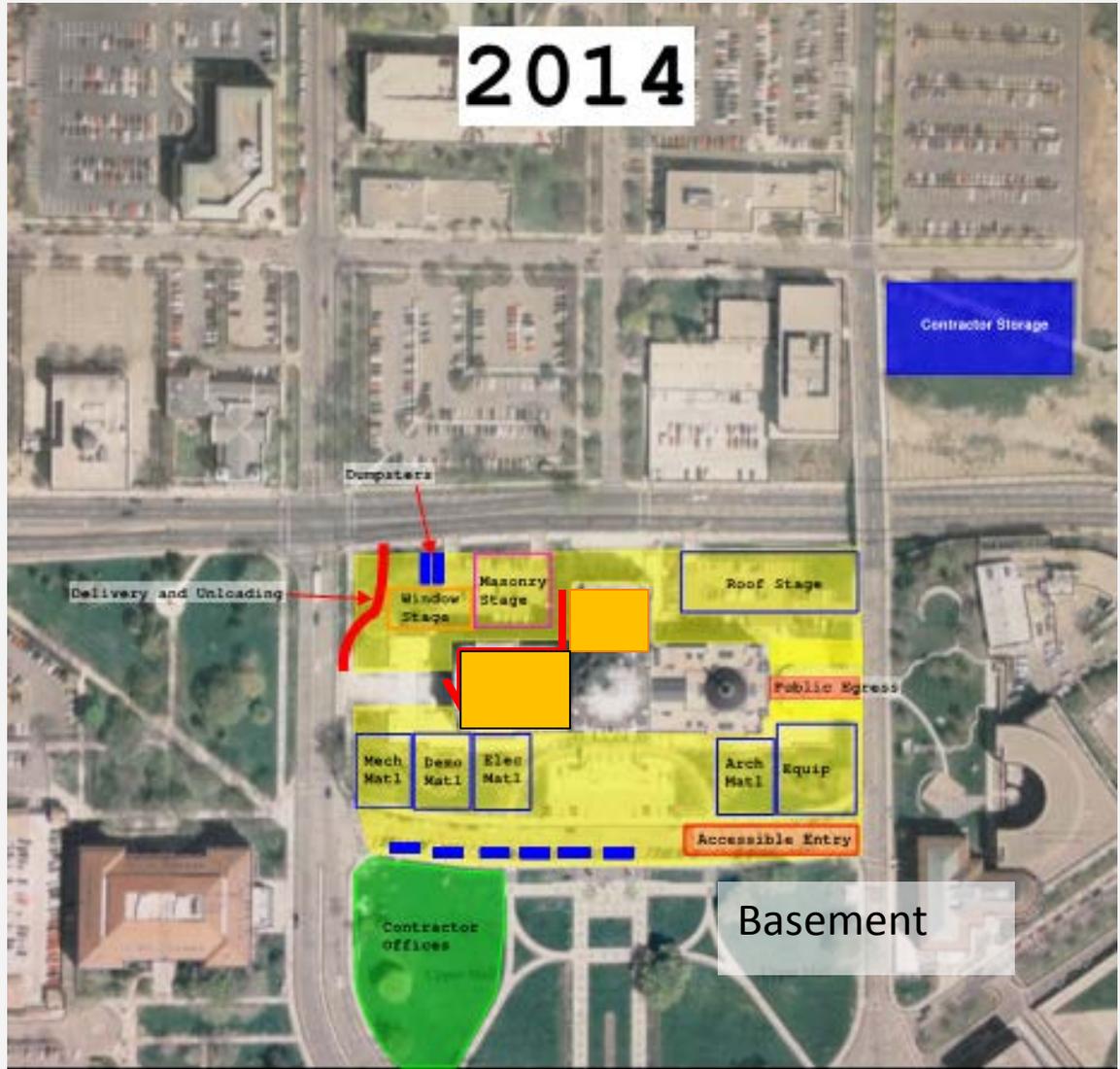
Masonry Stage

Public Egress

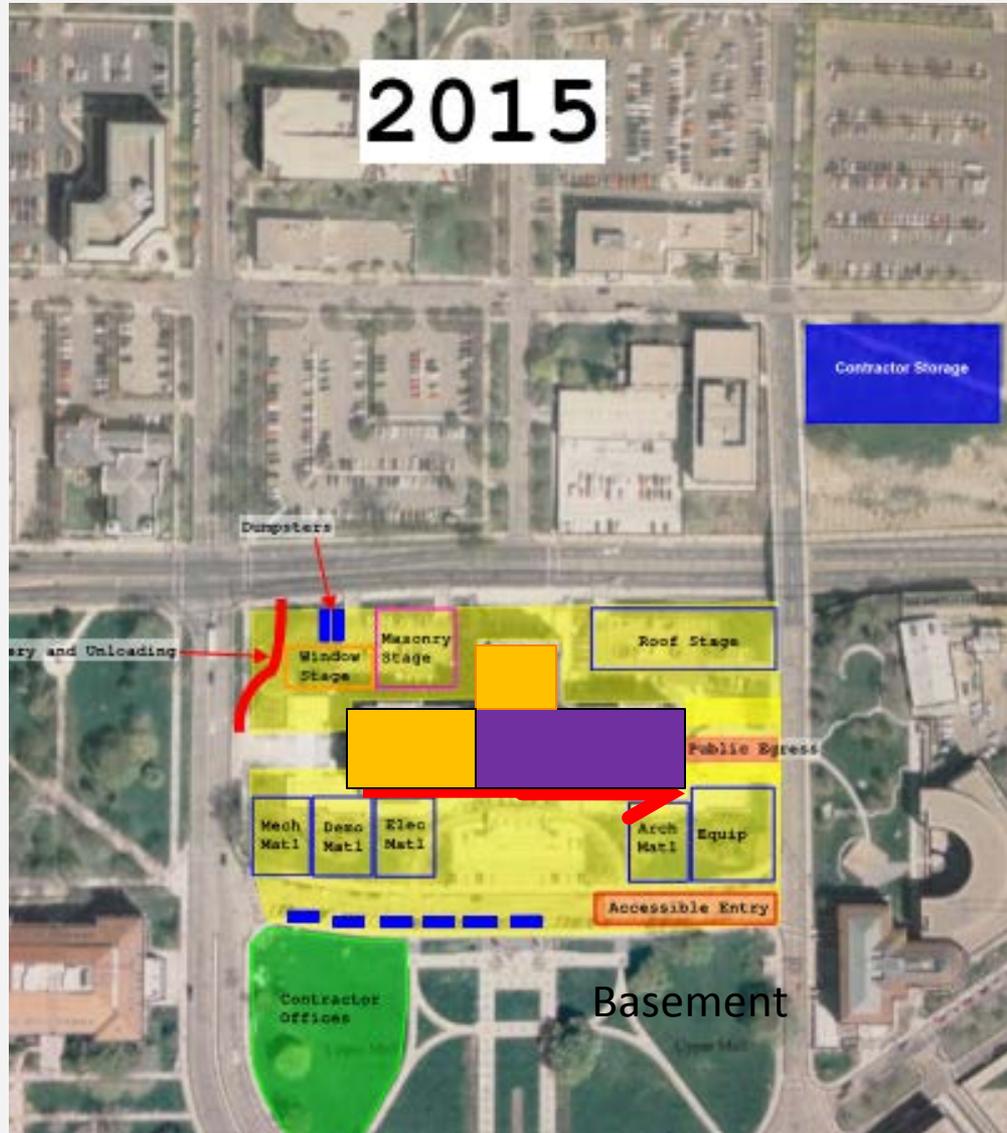
Basement Demo



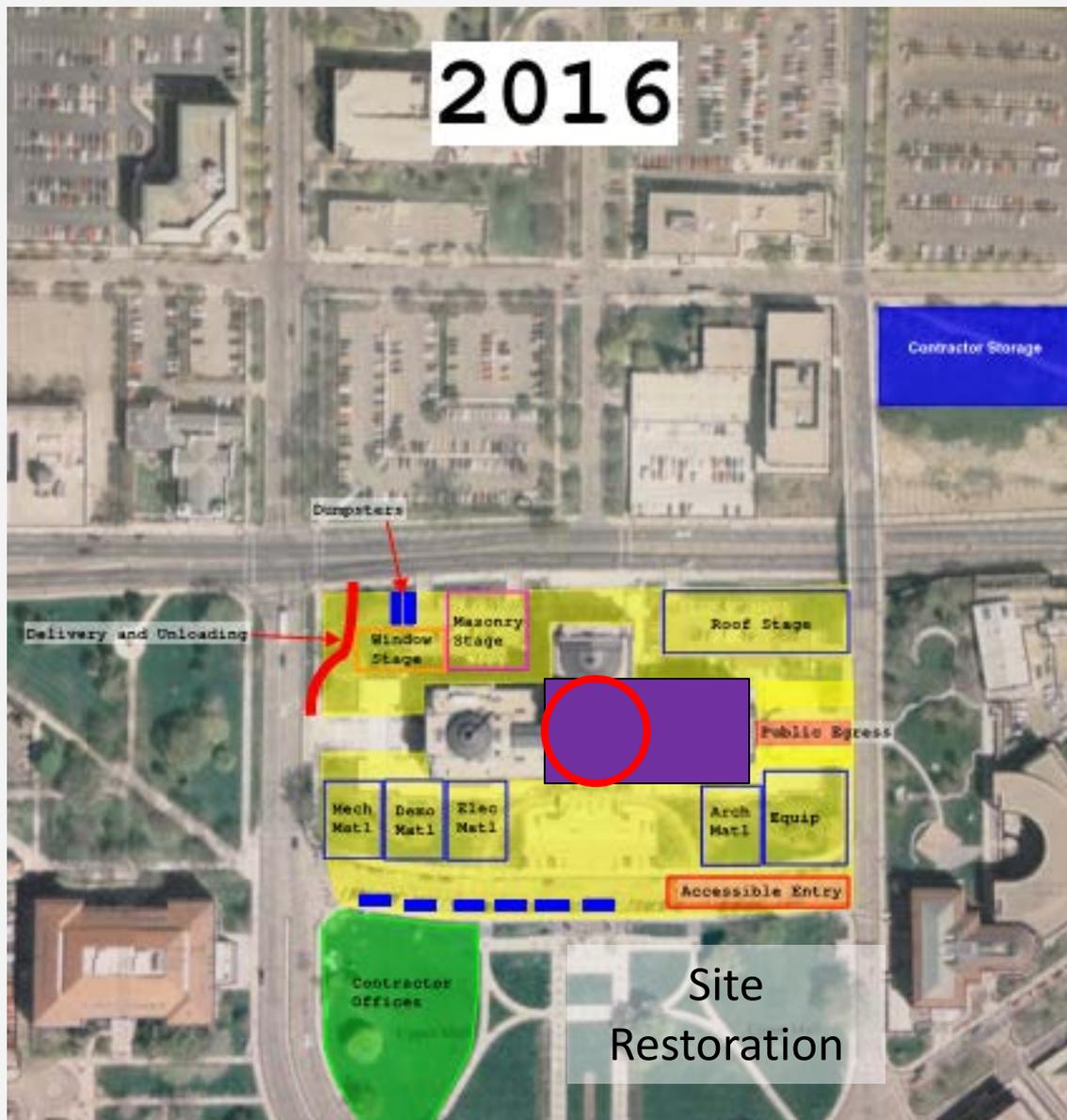
2014



2015



2016



Contractor Storage

Dumpsters

Delivery and Unloading

Window Stage

Masonry Stage

Roof Stage

Public Egress

Mech Matl

Demo Matl

Elec Matl

Arch Matl

Equip

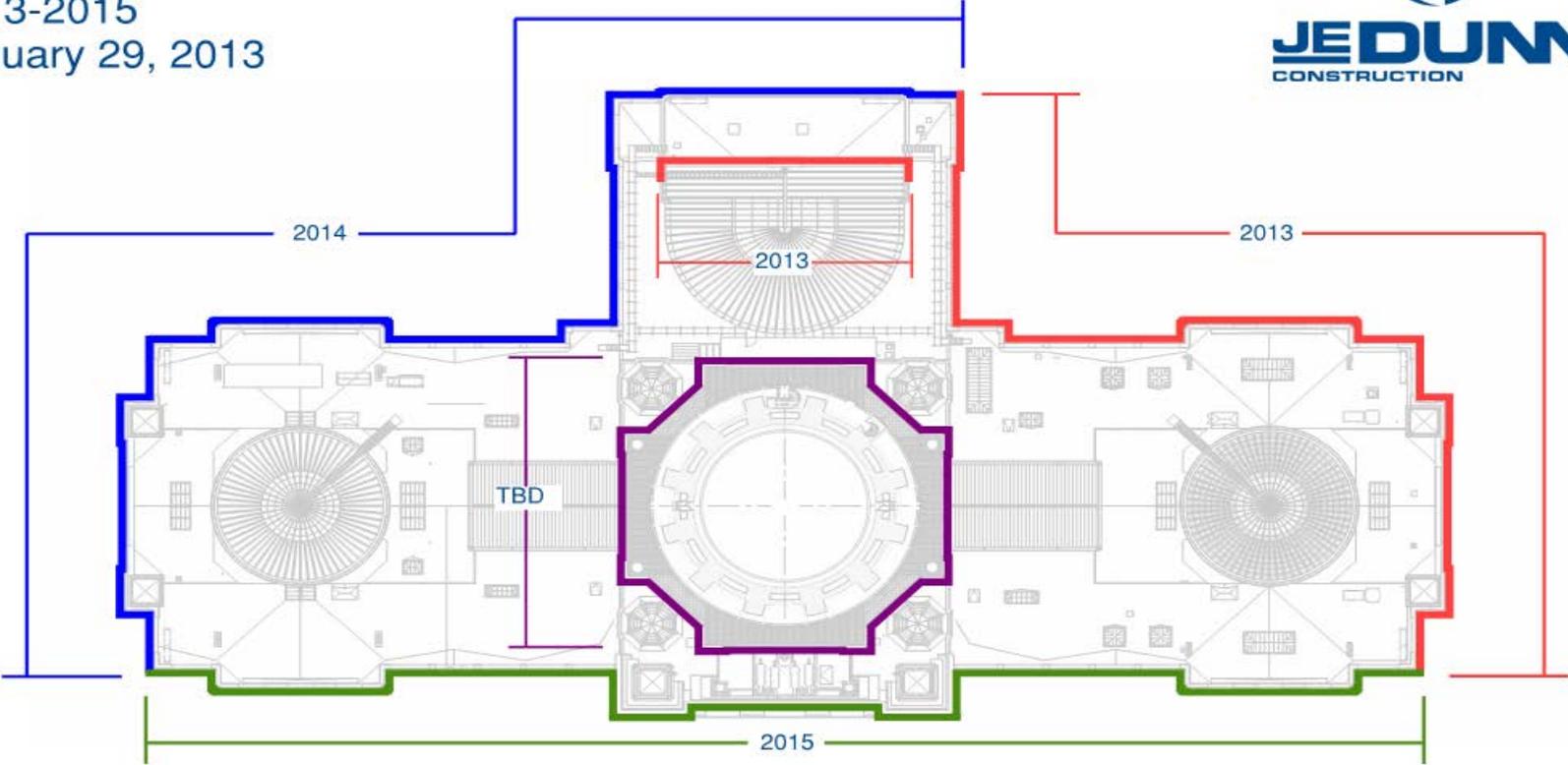
Accessible Entry

Contractor Offices

Site Restoration

Preliminary Exterior Phasing

Stone Phasing Plan
2013-2015
January 29, 2013

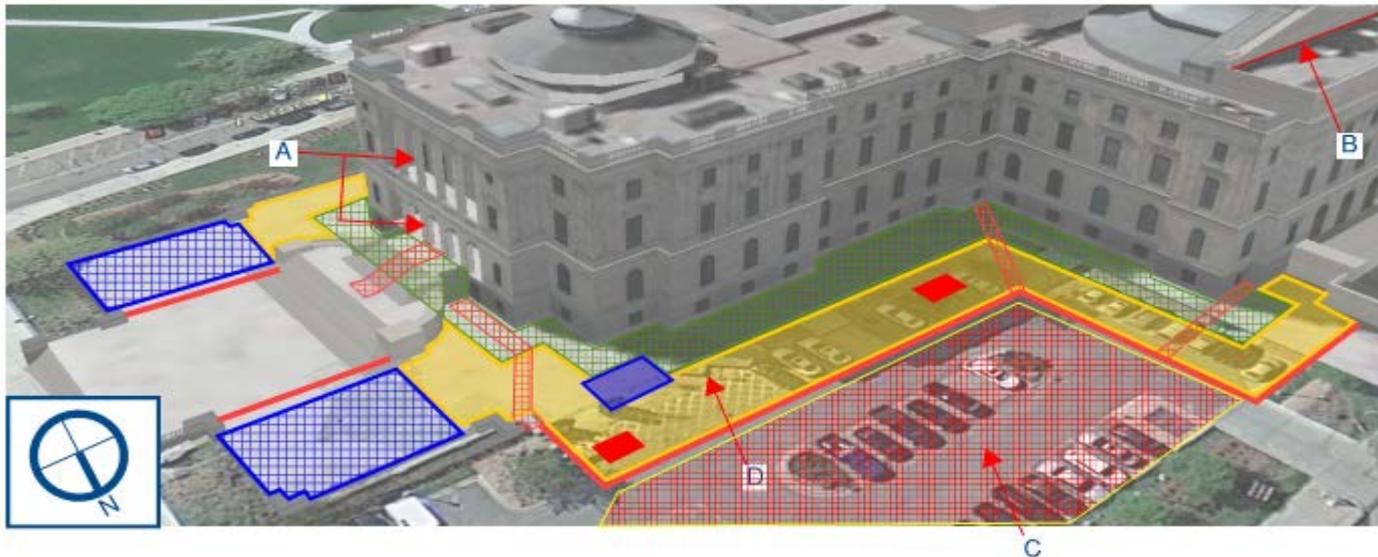


Phases:

- 2013 Work
- 2014 Work
- 2015 Work
- TBD

2013 Stone & Windows

Exterior Access Logistics
2013
January 29, 2013



Notes:

- Area between scaffolding and chain link fence serves as a;
 - Safety zone to separate work and pedestrians.
 - Necessary space to provide the trades access to the work area for moving tools, equipment, and materials.
 - Staging area for materials being installed.
 - Set up area for compressors required for stone carvers' pneumatic tools.
 - Tool storage area as work is completed during the day. Tools will be stored in containers at Cal Gilbert park at night.

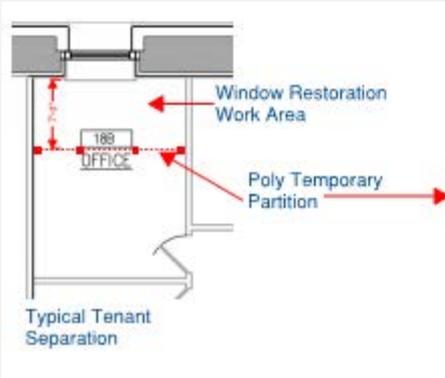
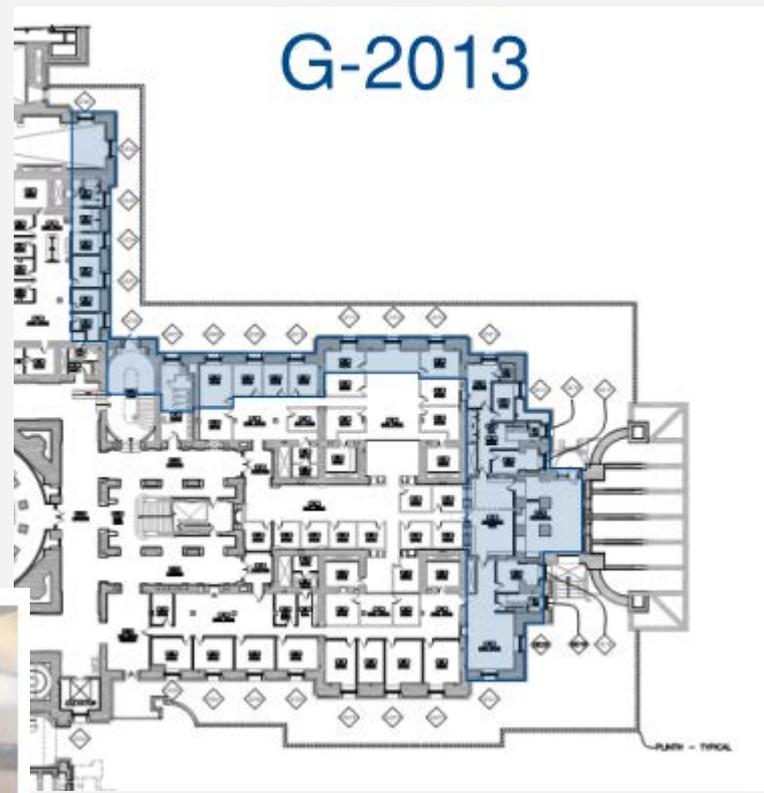
Logistics Key:

-  - Chain Link Fence
-  - Scaffolding
-  - Temporary Access Overhead Protection
-  - Stone storage
-  - Stair Access Tower to Scaffolding
-  - Pneumatic Tool Compressor
-  - Safety Buffer Zone

Scaffold Notes:

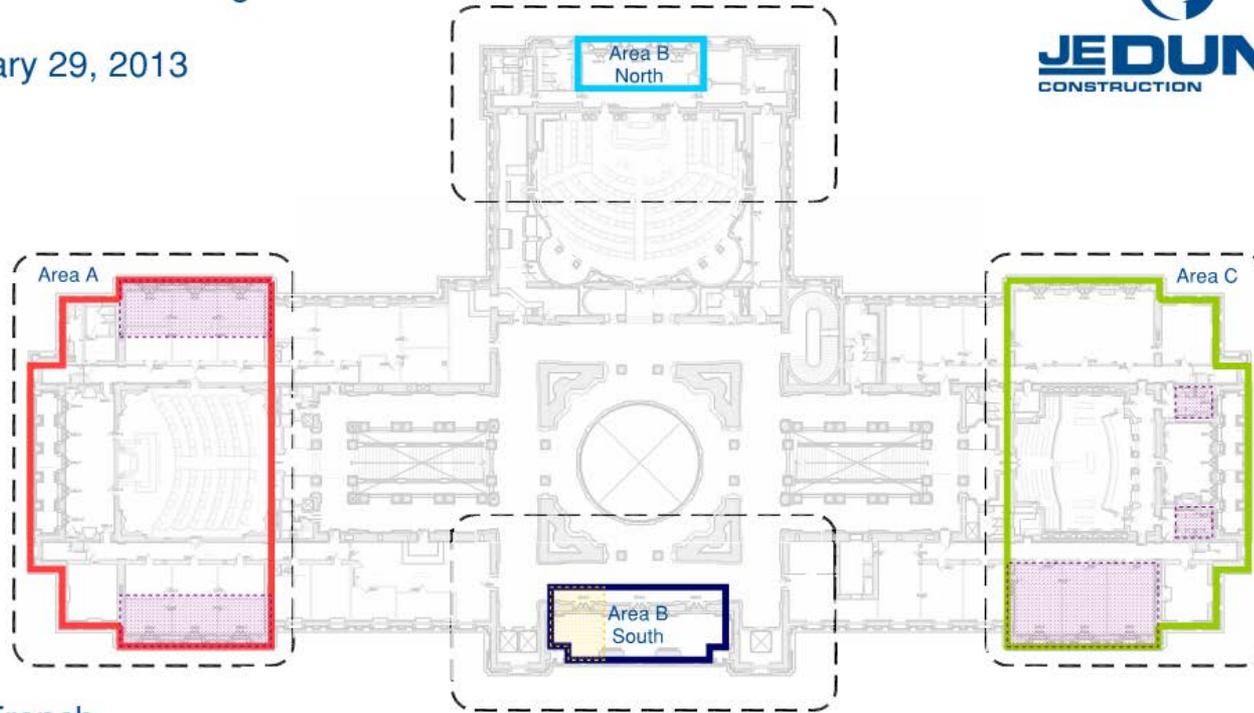
- A - Balcony Scaffolding
- B - Area A Scaffolding
- C - Parking Area is not available for use during normal business hours
- D - Build Scaffold around existing loading dock

Windows



French Doors

French Door Phasing Plan
2013
January 29, 2013



French Doors:

- | | | |
|-------------------------|------------------------------|-------------------------|
| Area A
- West | Area B
- North | Area C
- East |
| - Off-Hours Work | - Mock-Up Location Fall 2012 | - Off-Hours Work |



Interiors

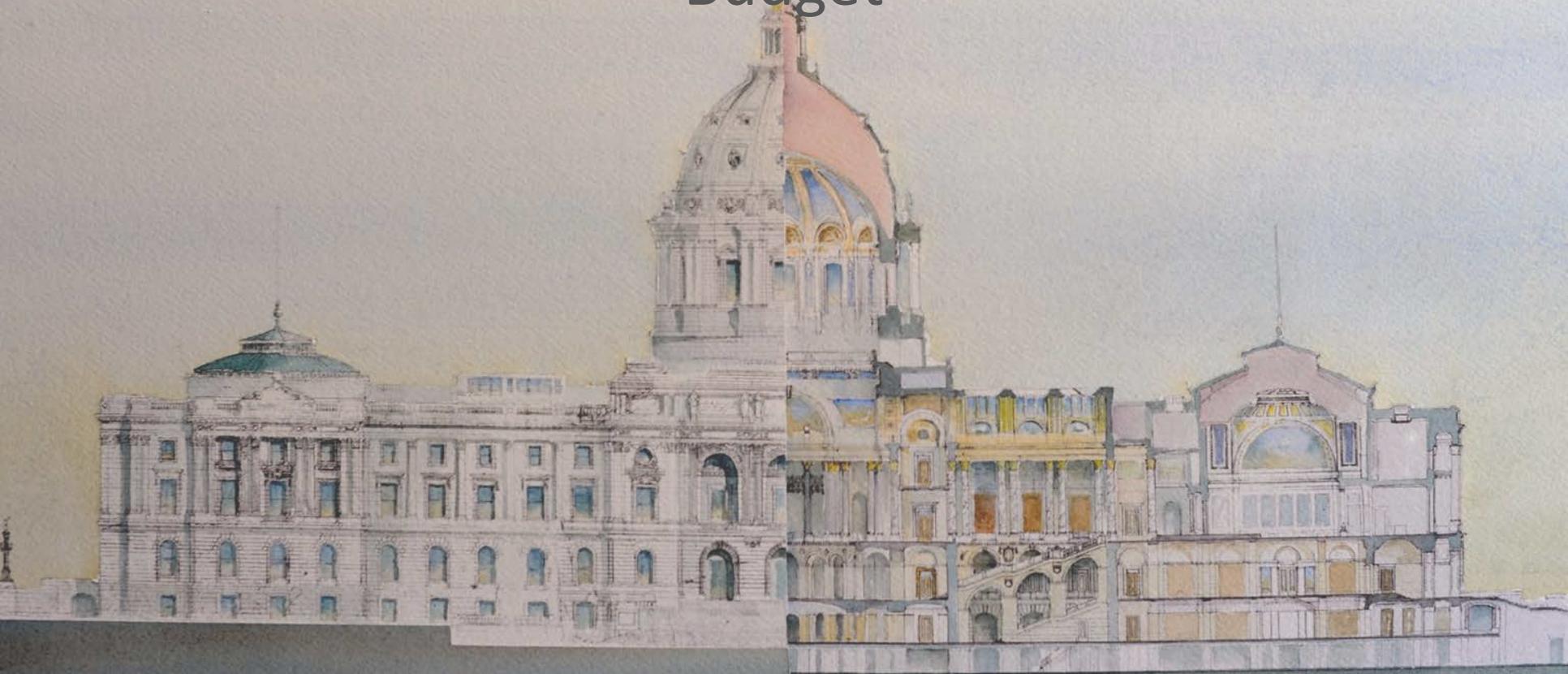


Interiors



Capitol Restoration

Budget



Construction Cost Model

Number	Section	MOCA Estimate	11/02/2012 Cost Model	11/12/2012 J.E. Dunn	Workshop # 2	Difference 11/12 vs Workshop # 2	Workshop # 3	Difference Workshop # 2 vs Workshop # 3	Workshop # 4	Difference Workshop # 3 vs Workshop # 4
1	General Requirements/General Conditions	\$ 10,312,179.00	8,872,000	8,872,000	8,872,000	0	8,872,000	0	8,971,262	99,262
2	Existing Conditions	\$ 5,750,000.00	4,338,803	4,338,803	5,397,142	1,058,339	4,964,384	(432,758)	5,082,939	118,555
	Hazardous Materials Abatement	\$ 5,750,000.00	1,150,000	1,150,000	1,150,000	0	1,150,000	0	1,161,615	11,615
3	Concrete	\$ 7,475,000.00	5,000,000	5,000,000	5,000,000	0	5,000,000	0	4,750,000	(250,000)
4	Masonry	\$ -	750,000	750,000	750,000	0	750,000	0	757,576	7,576
5	Metals	\$ -	2,949,262	2,949,262	3,234,922	285,660	3,218,892	(16,030)	3,134,096	(84,796)
6	Wood, Plastics and Composites	\$ -	1,794,613	1,794,613	1,705,966	(88,647)	1,691,228	(14,738)	1,698,703	7,475
7	Thermal and Moisture	\$ 6,025,540.00	6,104,390	6,104,390	7,889,326	1,784,936	6,207,250	(1,682,076)	6,667,671	460,421
8	Openings	\$ 36,700.00	3,441,954	3,441,954	3,420,932	(21,022)	2,945,293	(475,639)	3,515,025	569,732
9	Finishes	\$ 31,375,536.00	11,891,504	9,334,367	10,162,263	827,896	9,243,346	(918,917)	9,362,442	119,096
10	Specialties	\$ -	650,000	1,118,335	1,103,440	(15,495)	1,109,599	6,159	1,129,737	20,138
11	Equipment	\$ -	26,835	11,725	11,726	1	11,726	0	0	(11,726)
12	Furnishings	\$ -	209,831	209,831	219,327	9,496	0	(219,327)	0	0
13	Special Construction	\$ -	-	-	0	0	0	0	0	0
14	Conveying Equipment	\$ 1,775,600.00	3,000,000	3,000,000	3,000,000	0	3,000,000	0	1,939,392	(1,060,608)
21	Fire Suppression	\$ 1,795,017.00	2,020,113	2,020,113	1,836,459	(183,654)	2,074,949	238,490	1,877,835	(197,114)
22	Plumbing	\$ 2,841,558.00	2,816,503	2,816,503	2,739,764	(76,739)	2,686,153	(53,611)	2,645,970	(40,183)
23	HVAC	\$ 32,707,722.00	34,270,334	34,270,334	35,248,157	977,823	34,996,240	(251,917)	35,332,055	335,815
25	Integrated Automation	\$ -	-	-	0	0	0	0	0	0
26	Electrical	\$ 17,791,272.00	14,682,515	14,985,226	16,300,267	1,315,041	15,741,642	(558,625)	15,918,892	177,250
	Historic Lighting	\$ -	7,854,242	8,618,059	8,680,923	62,864	8,118,939	(561,984)	8,212,049	93,110
27	Communications	\$ -	150,000	150,000	150,000	0	150,000	0	150,000	0
28	Electrical Safety and Security	\$ -	-	-	0	0	0	0	0	0
31	Earthwork	\$ 234,600.00	225,000	225,000	225,000	0	225,000	0	227,273	2,273
32	Exterior Improvements	\$ -	-	-	0	0	0	0	0	0
33	Utilities	\$ -	150,000	150,000	150,000	0	150,000	0	151,515	1,515
	SUBTOTAL		112,349,899	111,311,115	117,247,614	5,936,499	112,306,641	(4,940,973)	112,686,047	379,406
	Insurance and Bond Cost	\$ -	2,831,217	2,805,040	2,954,640	149,600	3,369,199	414,559	3,546,535	177,336
	Contractors Fee	\$ 4,511,578.00	1,958,079	1,939,975	2,043,438	103,464	1,966,489	(76,949)	1,975,954	9,465
	Contractor Satisfaction Fee								98,798	98,798
	State Satisfaction Fee Water								NIC	0
	Escalation to May 2013 @ 1.01 %								Inc	0
	Contingency	\$ (5,382,302.00)	5,856,960	5,802,806	6,112,285	309,478	5,882,116	(230,168)	5,915,367	33,250
	Total	\$ 123,000,000.00	122,996,155	121,858,936	128,357,977	6,499,041	123,524,446	(4,833,531)	124,222,700	698,254
	Variance to Budget		(3,845)	(1,141,064)	5,357,977	5,357,977	524,446	524,446	(7,300)	(7,300)
	BUDGET		123,000,000						124,230,000	

Funding for FY2014

- FY 2013 = \$37,400,000 for Capitol Restoration
- ***FY 2014 = \$109,000,000 for Abatement, Demolition, Exterior Stone, Roof, MEP and Swing space***
- FY 2015 = \$94,500,000 for remainder