



Smithsonian Institution

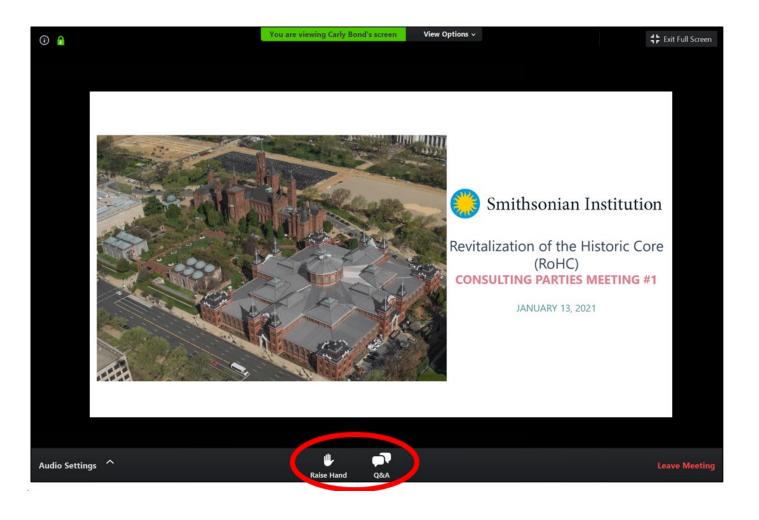
Revitalization of the Historic Core (RoHC pronounced "Rock")

CONSULTING PARTIES MEETING #1

JANUARY 13, 2021

Welcome!

The meeting will begin momentarily.



How to Use Zoom Webinar:

- Zoom webinar will not permit access to your camera.
- Please submit comments/questions in writing through the Q&A function.
- Written comments/questions can be submitted at any time and will be answered or discussed at designated points during the meeting by the panelists.
- Click "Raise Hand" if you would like to speak your comments/questions at designated points with the panelists. A moderator will grant access to your device's microphone.

PANFI OF SPEAKERS

MODERATOR

Carly Bond, Historic Preservation Specialist, Smithsonian Facilities

PRESENTERS / PANELISTS

Sharon Park, FAIA, Assoc. Director of Historic Preservation, Smithsonian Facilities **Ann Trowbridge**, AIA, Associate Director for Planning, Smithsonian Facilities Brenda Sanchez, FAIA, Sr. Design Manager, Smithsonian Facilities Christopher Lethbridge, Architect/Program Manager, Smithsonian Facilities Matthew Chalifoux, FAIA, Sr. Historic Preservation Architect, EYP-Loring, LLC Kirk Mettam, PE, Senior Principal, Silman Hallah Abodaff, PE, MEP Project Manager, EYP-Loring, LLC



AGENDA

- Section 106 Process Overview
- RoHC Consulting Parties List
- RoHC Scope
- Standards For the Treatment of Historic Properties
- Smithsonian Institution Building (SIB)
- Arts & Industries Building (AIB)
- Cooling Towers
- Project Timeline



WE ARE HERE

Step 1Initiate the Process

- Define the Undertaking
- Initiate Section 106
- Identify Consulting Parties
- Involve the Public

Step 2

Identify Historic Properties

- Define Area of Potential Effects (APE)
- Identify
 Historic/Cultural
 Resources

Step 3

Assess Adverse Effects

- Assess Effects on Historic Resources
- Apply Criteria of Adverse Effect

Step 4

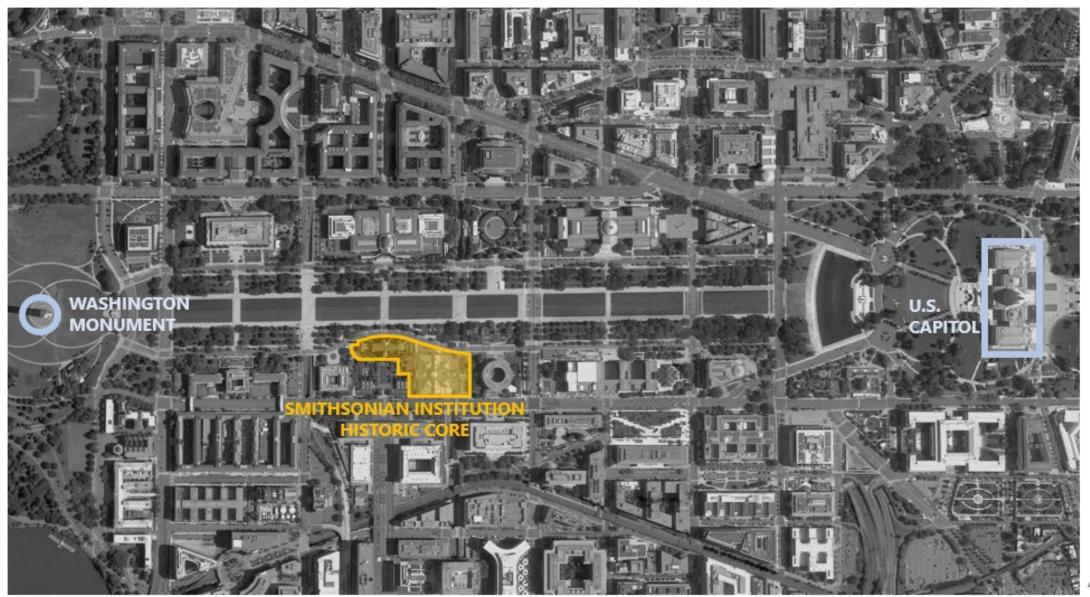
Resolve Adverse Effects

- Avoid, Minimize, and/or Mitigate
 Adverse Effects
- Notify ACHP of Adverse Effects
- Create Resolution Document (MOA/PA)

Consultation with Consulting Parties

SECTION 106 PROCESS OVERVIEW

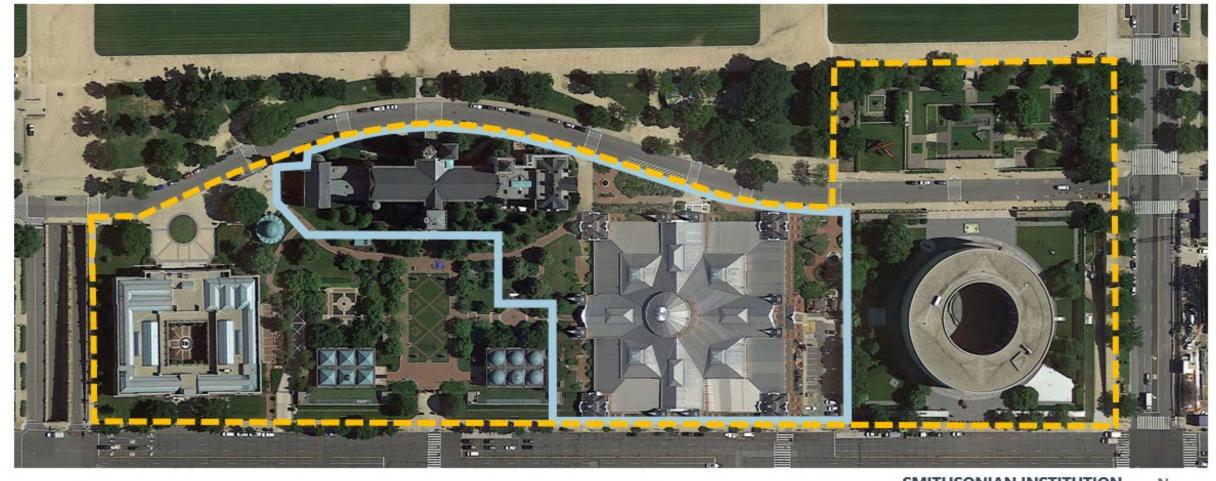
SITE – IN RELATION TO WASHINGTON MONUMENT AND U.S. CAPITOL





SECTION 106 PROCESS OVERVIEW

SITE – SMITHSONIAN







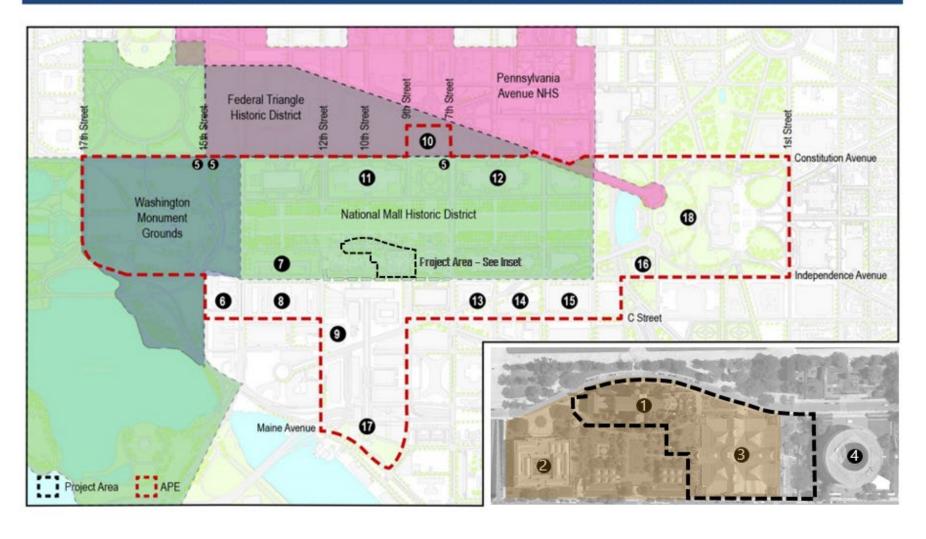


SECTION 106 PROCESS OVERVIEW

AREA OF POTENTIAL EFFECTS - MAP

Smithsonian Institution South Mall Campus Master Plan Final EIS

Affected Environment and Environmental Consequences





SECTION 106 PROCESS OVERVIEW AREA OF POTENTIAL EFFECTS TABLE

WITHIN PROJECT AREA			WITHIN AREA OF POTENTIAL EFFECTS			
	National Mall Historic District		Washington Monument Grounds	10	National Archives	
	Smithsonian Institution Quadrangle Historic District		Pennsylvania Avenue NHS	11	National Museum of Natural History	
	Plan of the City of Washington		Federal Triangle Historic District	12	National Gallery of Art (West Building)	
1	Smithsonian Institution Building	2	Freer Gallery of Art	13	Federal Office Building 10B	
3	Arts and Industries Building	4	Hirshhorn Museum and Sculpture Garden	14	Federal Office Building 6	
		5	Bulfinch Gatehouses and Gateposts	15	Social Security Administration	
		6	Auditor's Building Complex	16	United States Botanic Garden	
		7	USDA Administration Building	17	Benjamin Banneker Park	
		8	USDA South Building	18	U.S. Capitol and Grounds	
		9	USDA Cotton Annex			

The historic properties identified in the above maps and tables indicate properties that are individually listed in, or have been determined as eligible for individual listing in, the National Register of Historic Places.

ROHC CURRENT CONSULTING PARTIES

Review Agencies

- **National Capital Planning Commission**
- US Commission of Fine Arts

State Historic Preservation Office

DC Historic Preservation Office

Public Agencies

- Advisory Council on Historic Preservation
- Architect of the Capitol
- DC Department of Transportation
- DC Office of Planning
- DC Water
- National Archives and Records Administration
- National Gallery of Art
- National Park Service National Mall and Memorial Parks
- National Park Service National Historic Landmark Coordinator
- **US** Department of Agriculture
- **US General Services Administration**
- Washington Metropolitan Area Transit Authority
- DC Department of Energy and Environment
- Department of Energy
- US Department of Health and Human Services
- Federal Aviation Administration
- **US** Department of Justice
- **EPA**
- Department of Education

Interested Parties

- American Institute of Architects, DC Chapter
- Committee of 100 on the Federal City
- **Cultural Landscape Foundation**
- Cultural Tourism DC
- DC Preservation League
- DC NOMA
- Destination DC
- Docomomo US and DC Chapter
- Dwight D. Eisenhower Memorial Commission
- Historic Anacostia
- National Association of Olmsted Parks
- National Mall Coalition
- National Trust for Historic Preservation
- **NPS** Concessionaire
- Society of Architectural Historians
- Society of Architectural Historians, Latrobe Chapter
- Trust for the National Mall
- **US Capitol Historical Society**
- Victorian Society in America
- Southwest BID
- Southwest Neighborhood Assembly
- Voice of America
- National Civic Art Society
- American Society of Landscape Architects
- Garden Club of America

Local Elected Representatives

- Advisory Neighborhood Commission 2C
- Advisory Neighborhood Commission 6D
- DC Office of the Mayor
- DC City Council

Smithsonian Team

- Smithsonian Institution
- EYP-Loring, LLC

GOALS

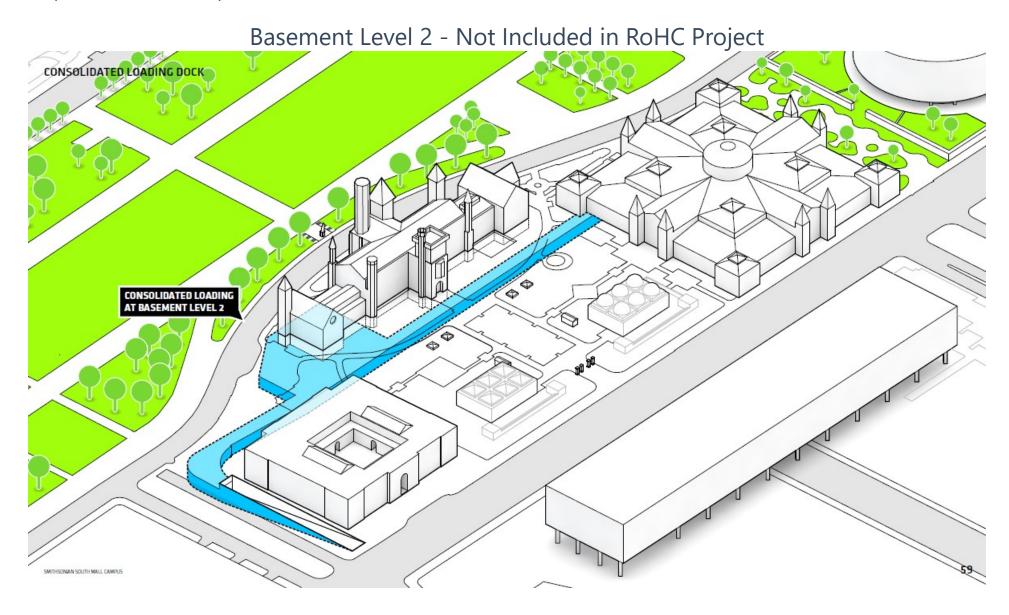
The goals of the Revitalization of the Historic Core (RoHC):

- 1. To revitalize the Smithsonian Institution Building (SIB, "The Castle") to provide efficient and accessible space for visitors and staff and restore the building and its principal interior spaces to their period of significance
- 2. To revitalize the Arts and Industries Building (AIB) as a non-collecting venue for public exhibitions, programs, and events
- 3. To construct a new below grade Central Utilities Plant to serve the **buildings of the South Mall Campus**

Once complete, the Historic Core should stand as proud center of the Smithsonian **Institution campus.**

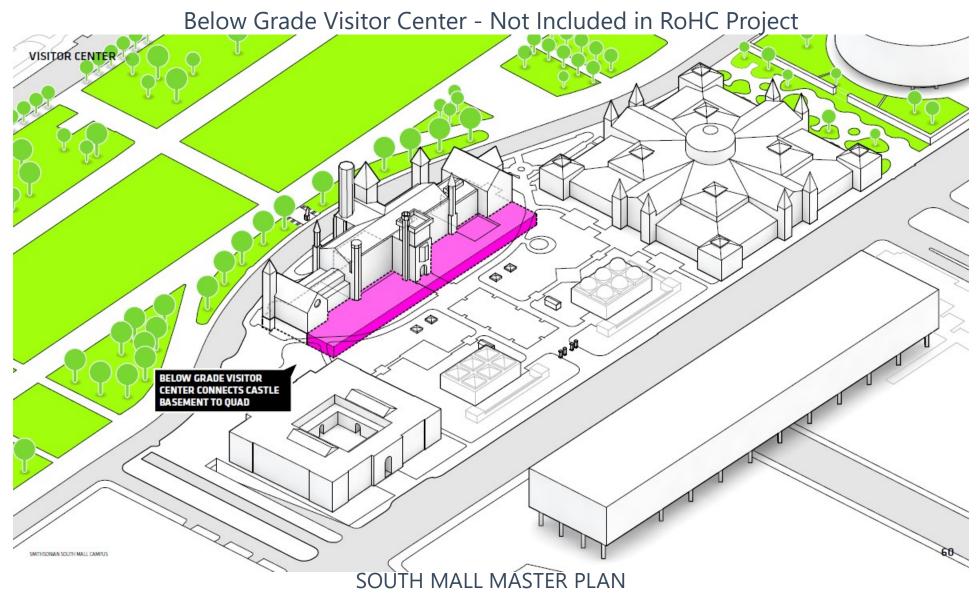
RoHC OVERALL SCOPE – IN COMPARISON TO THE SOUTH MALL MASTER PLAN

WHAT'S DIFFERENT? (BASEMENT LEVEL 2)



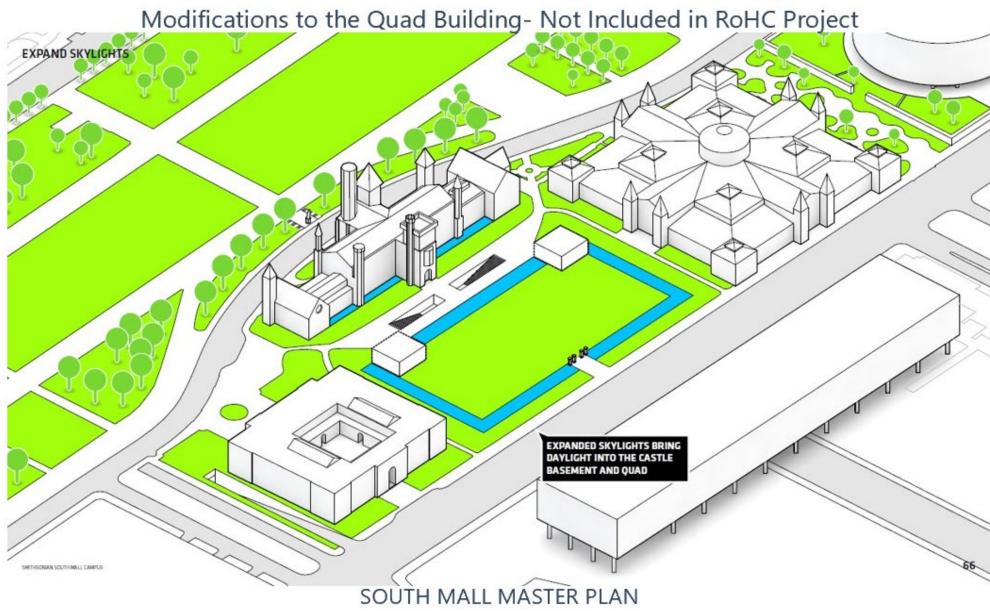
ROHC OVERALL SCOPE – IN COMPARISON TO THE SOUTH MALL MASTER PLAN

WHAT'S DIFFERENT? (BELOW GRADE VISITOR CENTER)

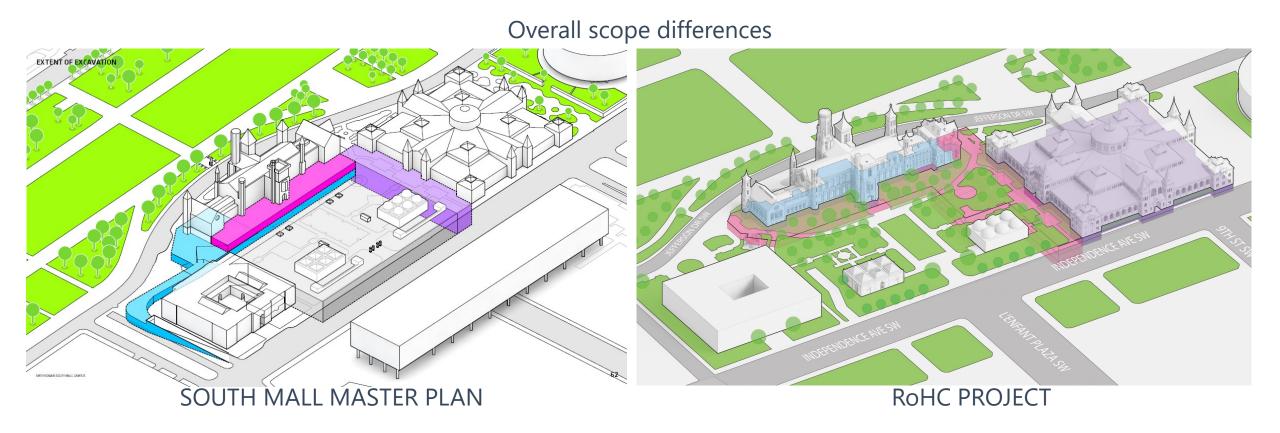


ROHC OVERALL SCOPE – IN COMPARISON TO THE SOUTH MALL MASTER PLAN

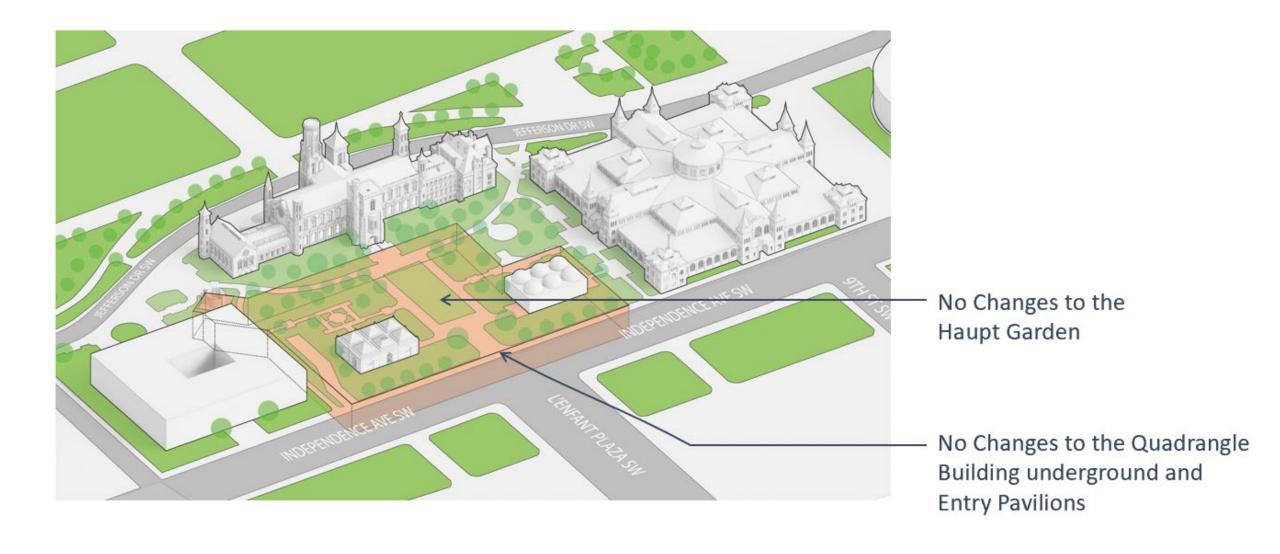
WHAT'S DIFFERENT? (MODIFICATIONS TO QUAD BUILDING)



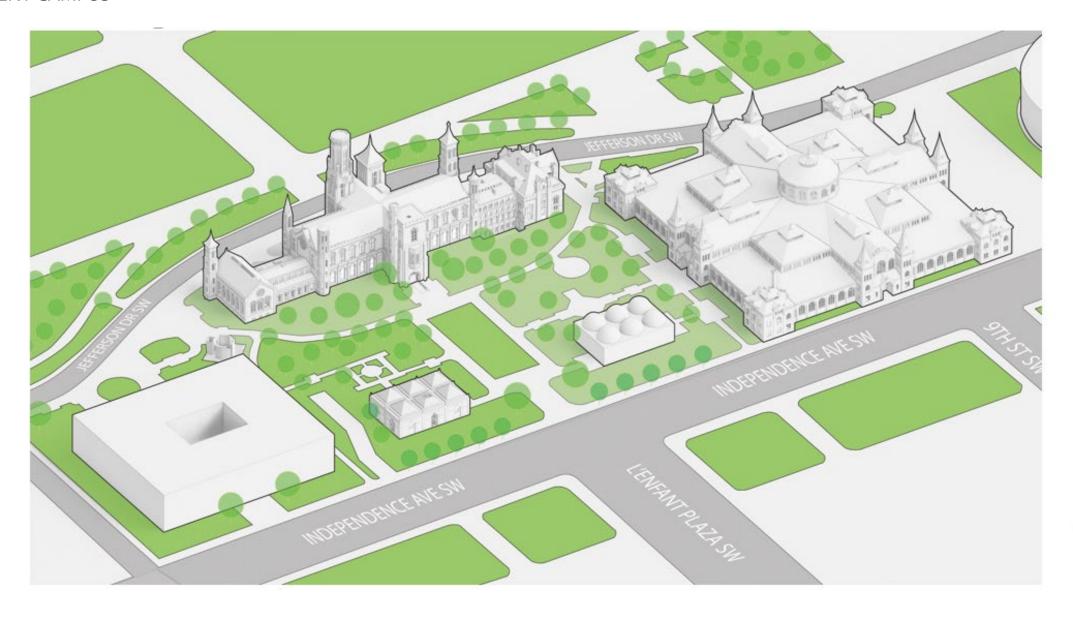
WHAT'S DIFFERENT? (OVERALL SCOPE)



RoHC OVERALL SCOPE



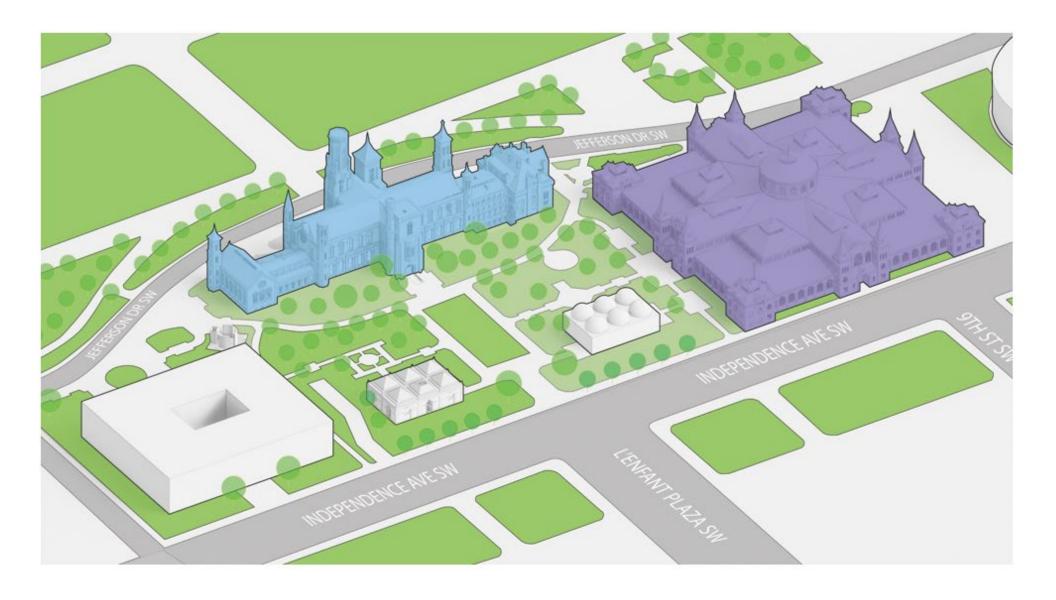
ROHC OVERALL SCOPE THE CURRENT CAMPUS





ROHC OVERALL SCOPE

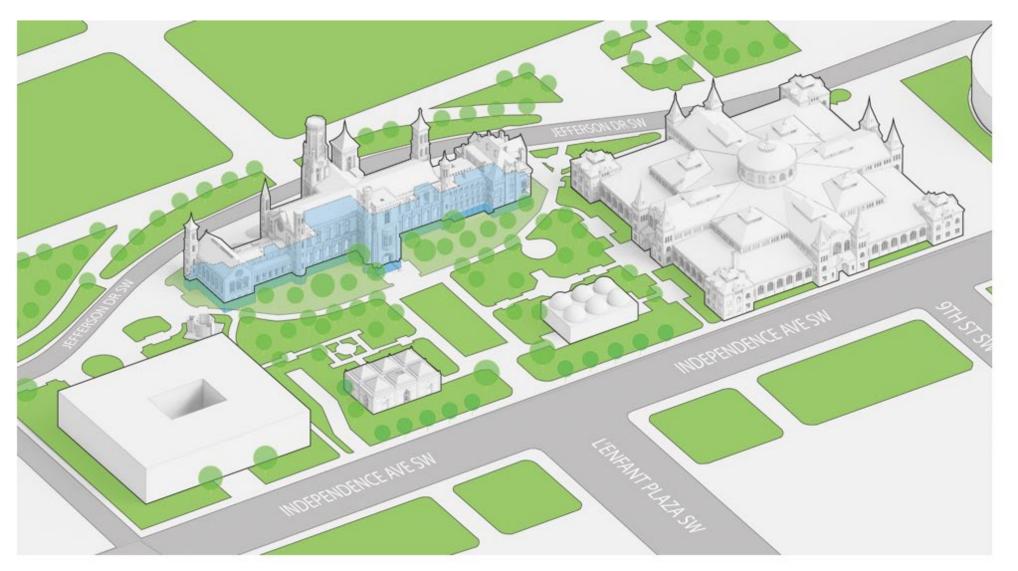
REHABILITATION OF THE HISTORIC SMITHSONIAN INSTITUTION BUILDING AND ARTS & INDUSTRIES BUILDING





RoHC OVERALL SCOPE:

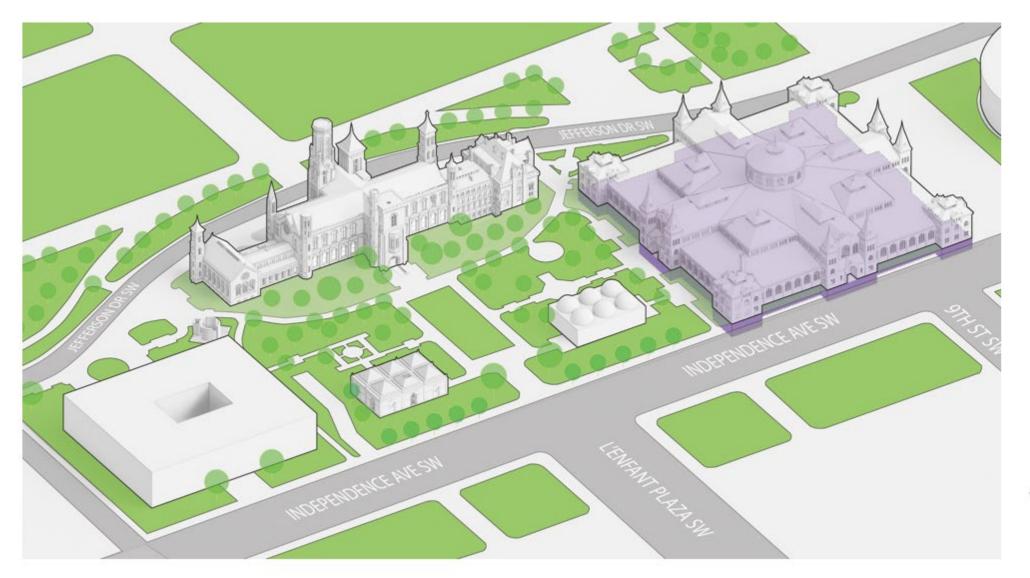
MODIFICATIONS TO THE SMITHSONIAN INSTITUTION BUILDING'S BASEMENT





RoHC OVERALL SCOPE:

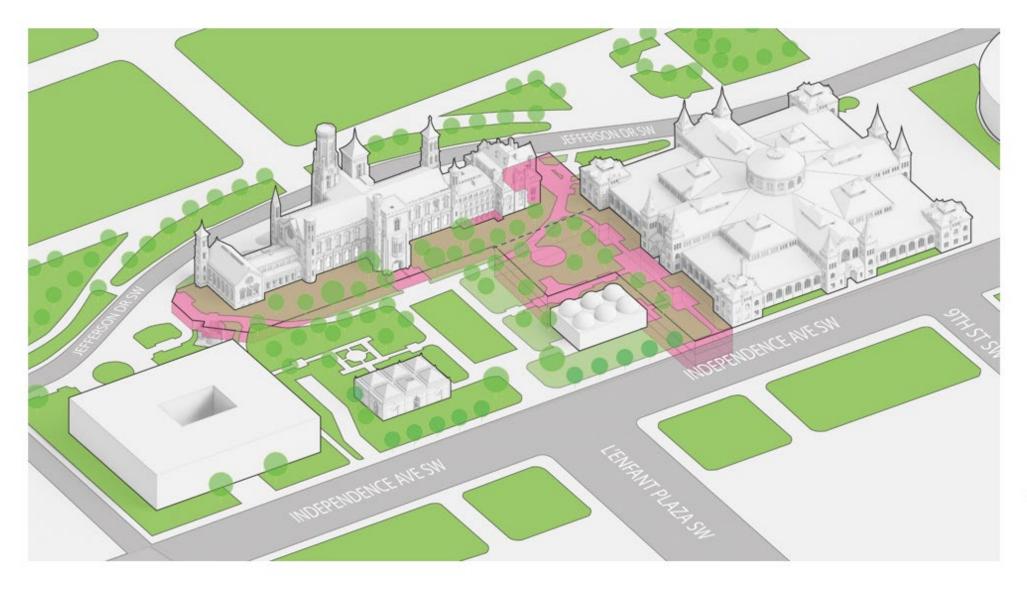
MODIFICATIONS TO THE ARTS & INDUSTRIES BUILDING'S BASEMENT – NEW!





RoHC OVERALL SCOPE:

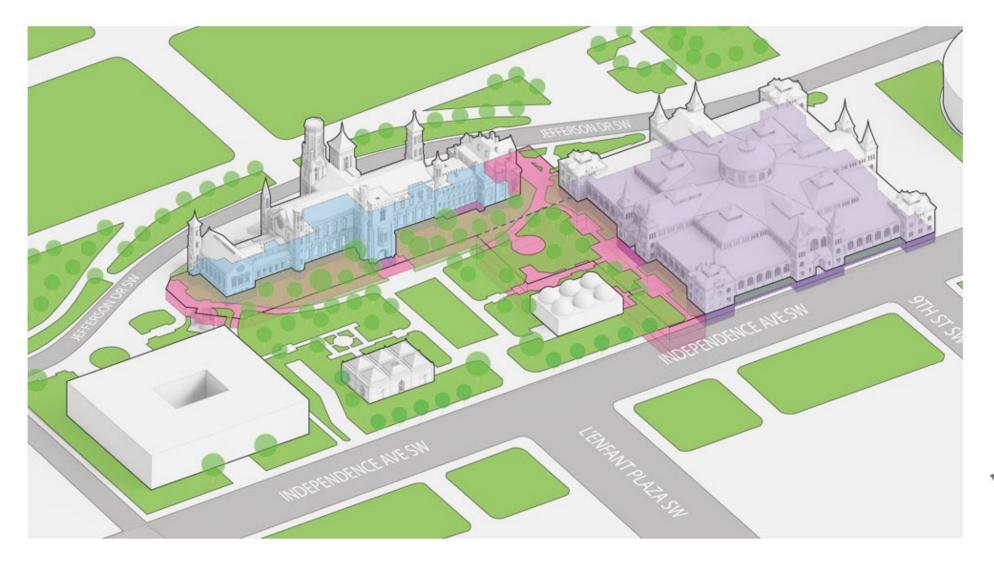
BASEMENT LEVEL EXPANSION AND CENTRAL UTILITY PLANT



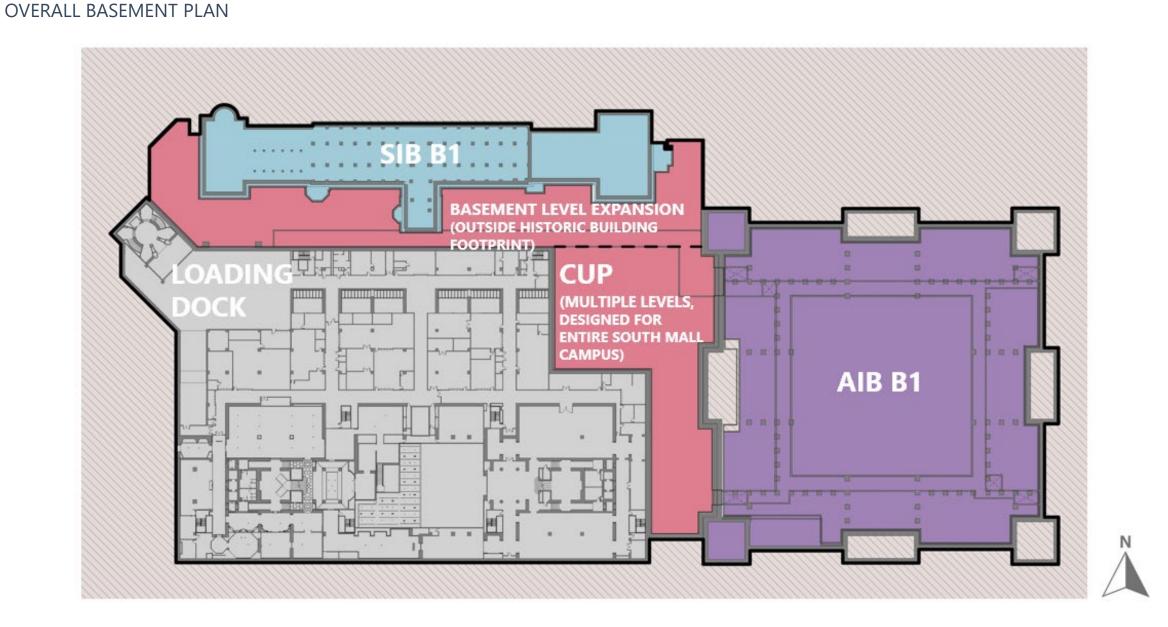


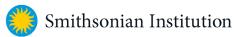
ROHC OVERALL SCOPE:

MODIFICATIONS TO THE SMITHSONIAN INSTITUTION BUILDING AND ARTS & INDUSTRIES BUILDING, BASEMENT LEVEL **EXPANSION AND CENTRAL UTILITY PLANT**









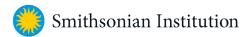
Q & A #1

MODERATOR

Carly Bond, Historic Preservation Specialist, Smithsonian Facilities

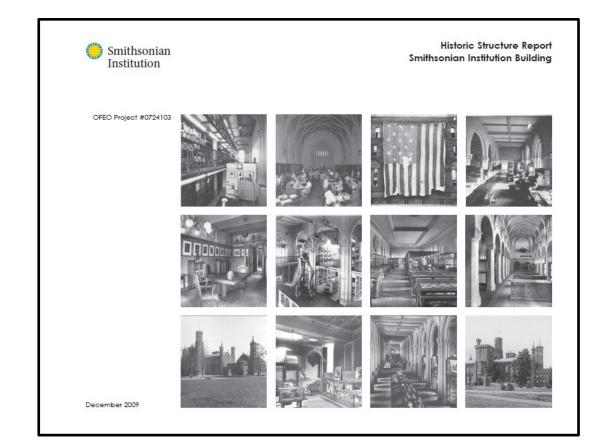
PRESENTERS / PANELISTS

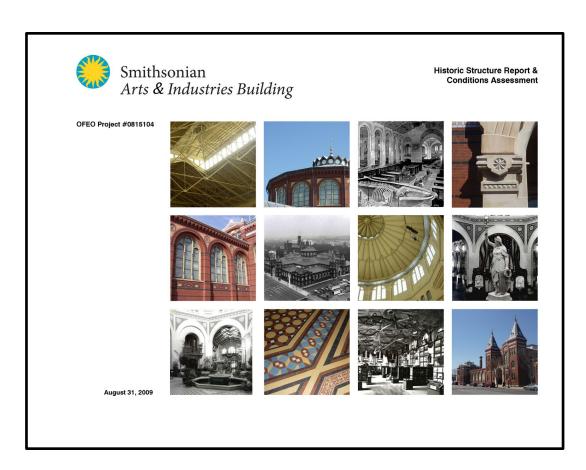
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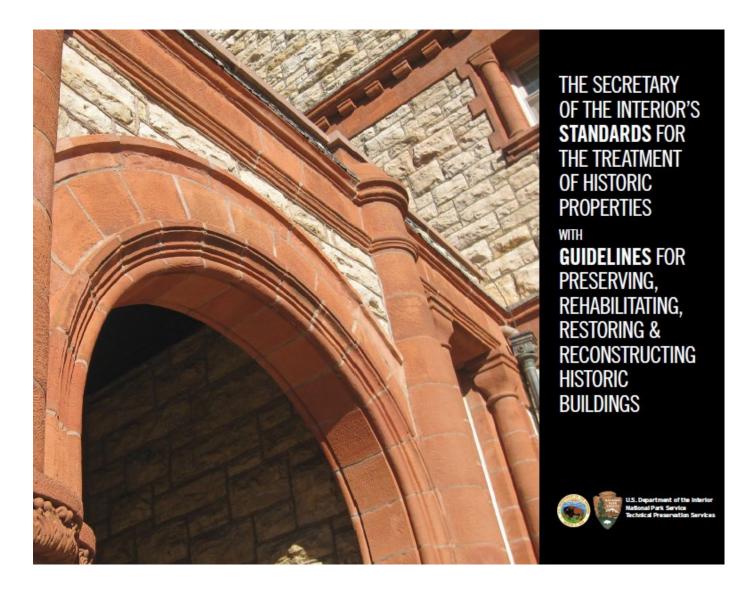
STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES

HISTORIC STRUCTURE REPORTS





STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES



Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project. However, new exterior additions are not within the scope of this treatment.

Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

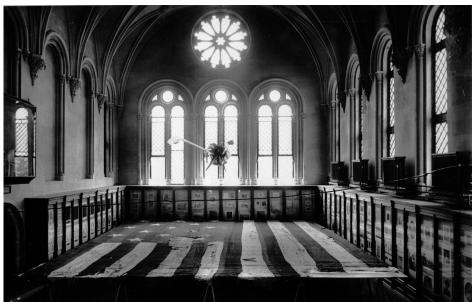
Restoration is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

Reconstruction is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a nonsurviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.

HISTORIC IMAGES









HISTORY 1847-1911



1849

The East Wing and East Range are completed and occupied.

1855

The Great Hall is opened to the public.



1871

The floor of the Commons (West Wing) is raised to provide headroom for a basement laboratory.

1881

National Museum Building is completed with collections and specimens transferred from the SIB.

1911 Opening of new National Museum buildingtransfer of natural history specimens from

the SIB.

1847

The cornerstone of the building is laid on May 1. Exterior of the East Wing and the East Range is completed by December 31.

1850

The West Wing and the West Range are completed and occupied.

1865

A fire destroys the Upper Great Hall and the primary towers.



1872

East Wing and East Range repurposed to serve solely as administrative space.

1884

The East Wing and East Range are upgraded and enlarged with "fireproof" construction.

(CONT.)

Primary Period of Significance 1847-1910

HISTORY 1914-1970

1940

Renovation of the Great Hall insertion of office and storage space at the east and west ends.

1970

The Upper Great Hall is divided with the insertion of a fourth floor and converted to use as offices.

(CONT.)

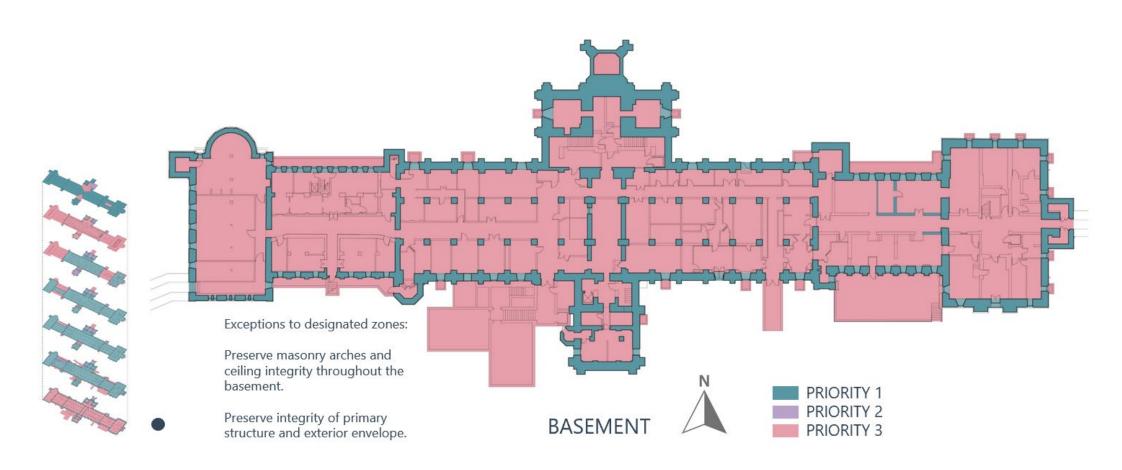
1914

Renovation of the Great Hall includes removal of the galleries.

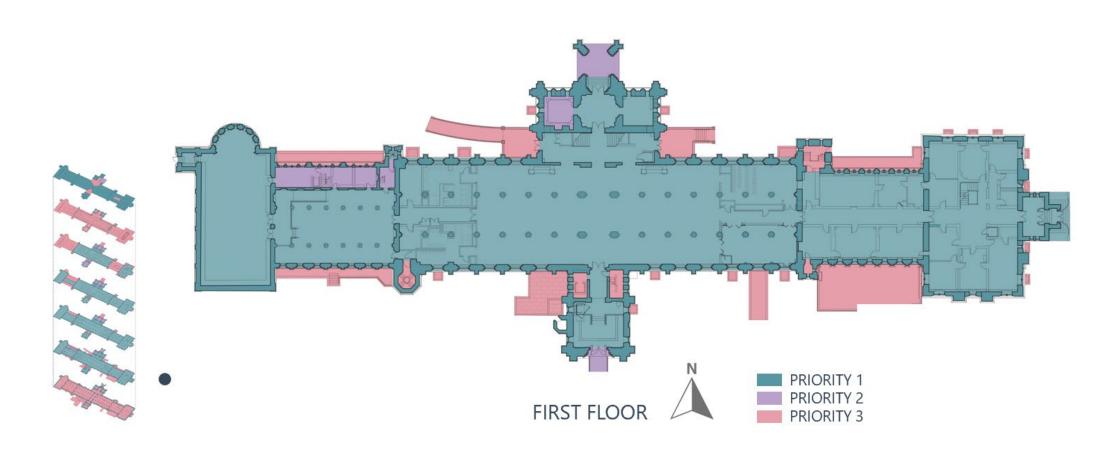


1964

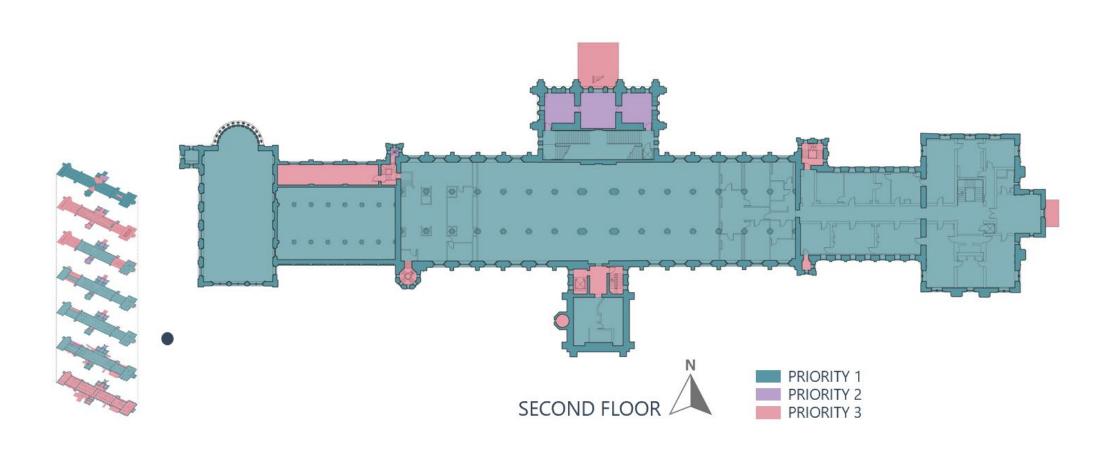
The National Museum of History and Technology opens- transfer of all remaining exhibits from the Castle.



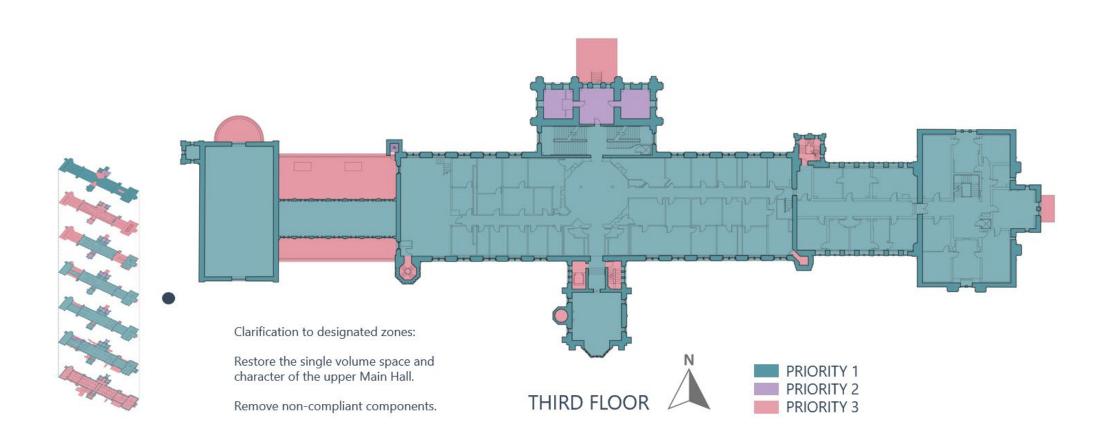
SMITHSONIAN INSTITUTION BUILDING (SIB, THE CASTLE)PRESERVATION ZONE DIAGRAM 1ST FLOOR



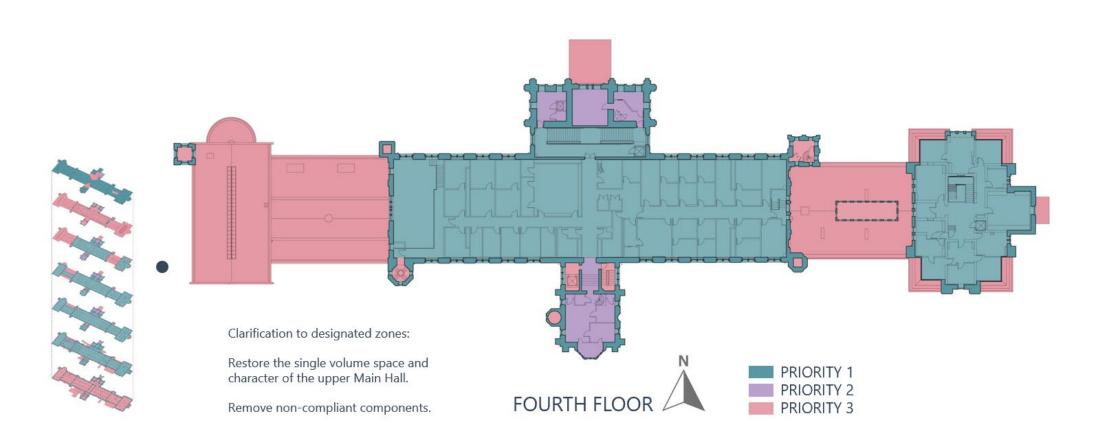
SMITHSONIAN INSTITUTION BUILDING (SIB, THE CASTLE)PRESERVATION ZONE DIAGRAMS 2ND FLOOR



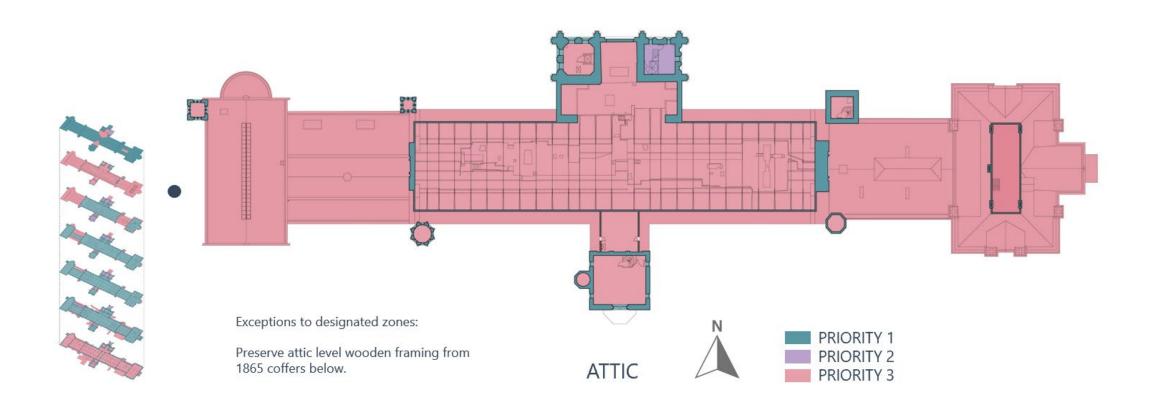
SMITHSONIAN INSTITUTION BUILDING (SIB, THE CASTLE)PRESERVATION ZONE DIAGRAMS 3RD FLOOR

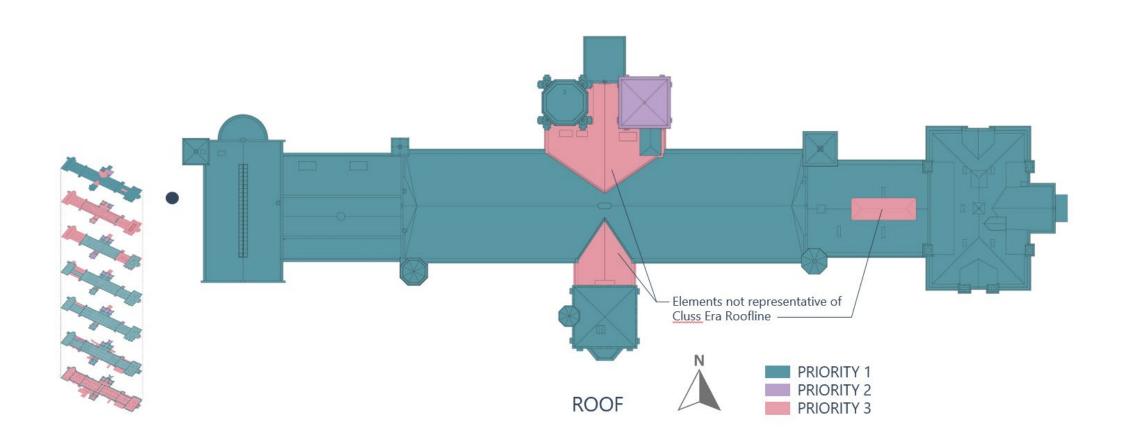


SMITHSONIAN INSTITUTION BUILDING (SIB, THE CASTLE) PRESERVATION ZONE DIAGRAMS 4TH FLOOR

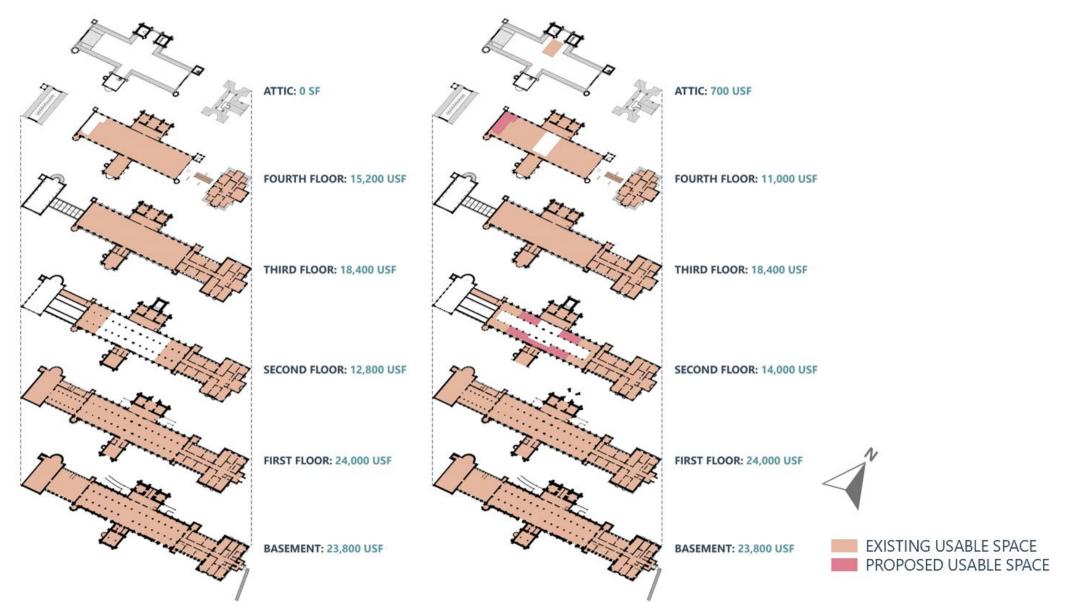


PRESERVATION ZONE DIAGRAMS ATTIC

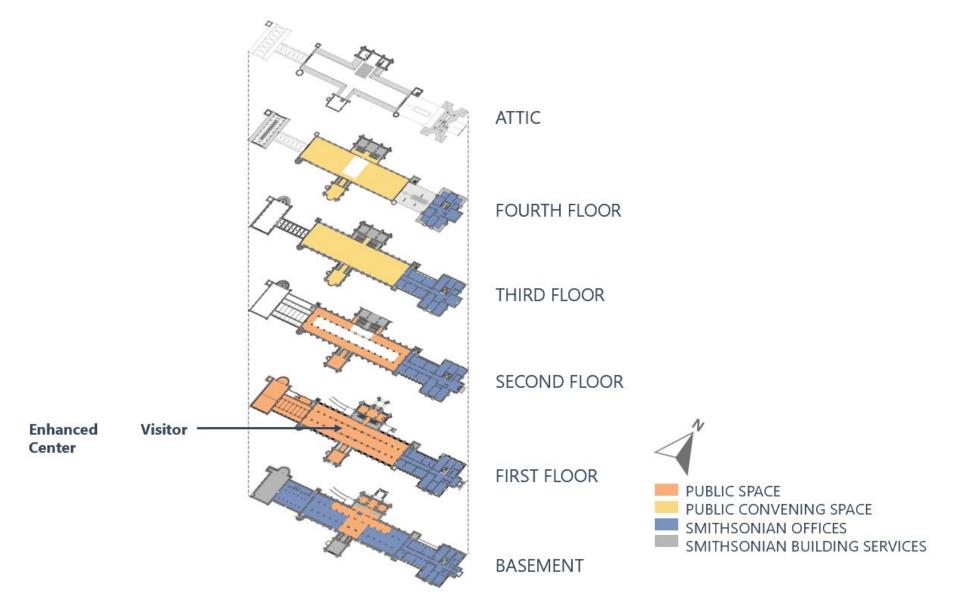




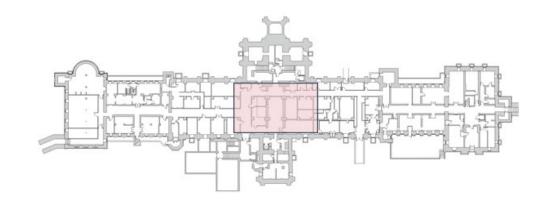
EXISTING V. PROPOSED USABLE SPACE



GENERAL PROGRAM GOALS









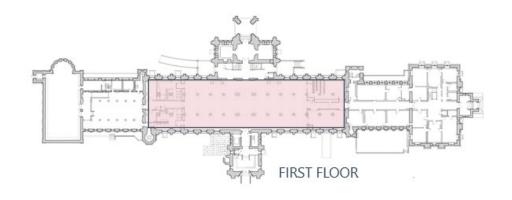
Existing Condition



Rendering of Potential Space Use

THE GREAT HALL



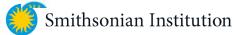






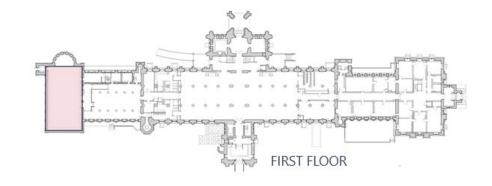
Existing Condition

Rendering of Potential Space Use



THE COMMONS







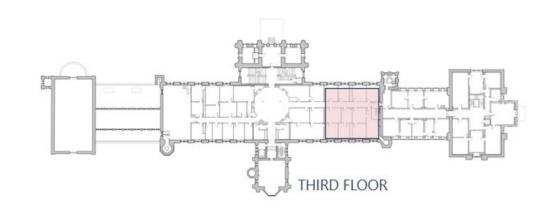


Existing Condition

Rendering of Potential Space Use -Public Event in the Commons









Existing Condition Office Area



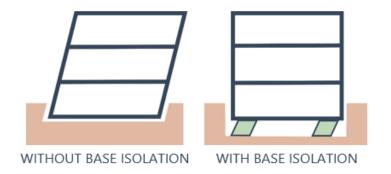
Rendering of Potential Space Use Conference Room

What is base isolation?

Base isolation is a means of uncoupling the acceleration of the superstructure from the ground motion, to minimize the damage during an earthquake. This is achieved by creating a plane of separation between the superstructure and the foundations.

It is a method of choice for historic preservation.

At the Smithsonian Castle, existing masonry walls and piers would be supported on new isolators sitting on the new foundations.

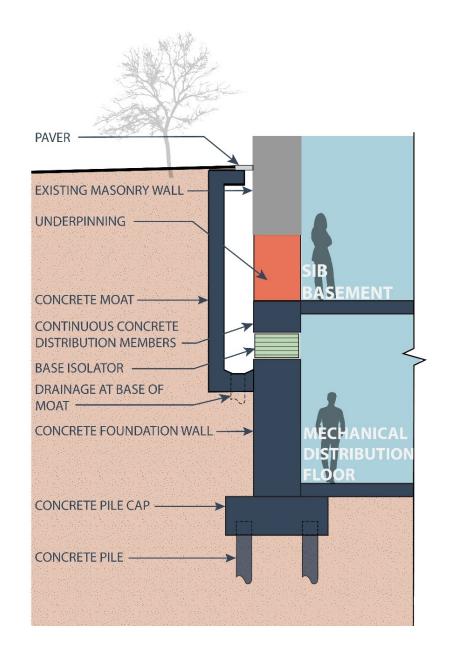


Why was base isolation chosen?

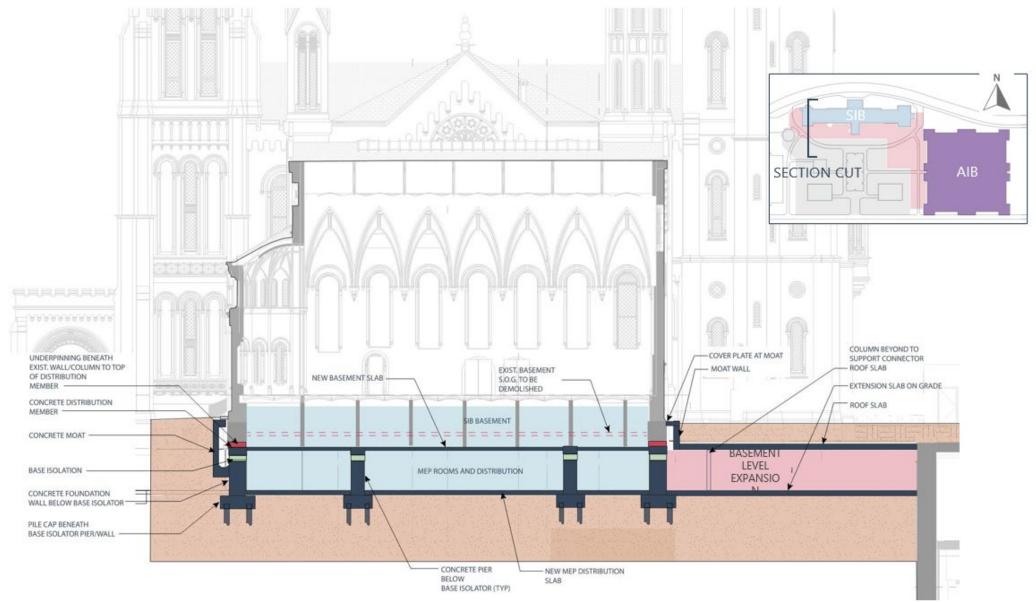
Several past studies have flagged that there are significant concerns with the ability of SIB to resist seismic forces. Although DC is in a low to moderate seismic region, unreinforced masonry performs poorly in earthquakes; with relatively tall, slender structure particularly vulnerable.

There are several reasons why base isolation became the preferred approach:

- There is synergy between base isolation and some of the foundation work already planned for the SIB Renovation. In order to better utilize the basement space, excavation and new foundation work was already planned to increase the ceiling height and move horizontal Mechanical/Electrical/Plumbing distribution from the ceiling to a space below the new lowered basement floor.
- Base isolation will have the greatest sensitivity to the historic character. The work occurs at the foundations where the detrimental impact on historic fabric will be limited.
- Base isolation allows the castle to achieve enhanced seismic performance objectives that would not be feasible with traditional reinforcement.



SMITHSONIAN INSTITUTION BUILDING (SIB, THE CASTLE)SEISMIC BASE ISOLATION - ILLUSTRATION



HISTORIC BUILDINGS WITH SEISMIC BASE ISOLATION



SOUTH CAROLINA STATE HOUSE, SC



OAKLAND CITY HALL, CA



SALT LAKE CITY AND COUNTY BUILDING, UT



PASADENA CITY HALL, CA



UTAH STATE CAPITOL BUILDING, UT



OREGON STATE CAPITOL BUILDING, OR



OTTAWA CENTRE BLOCK, ON, CANADA



SAN FRANCISCO CITY HALL, CA

Q & A #2

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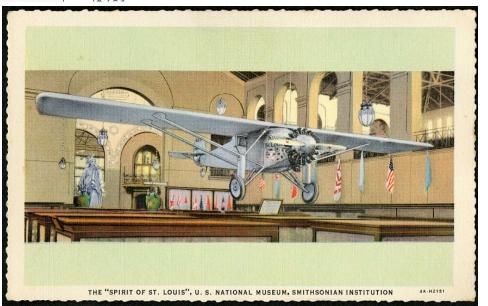
HISTORIC IMAGES









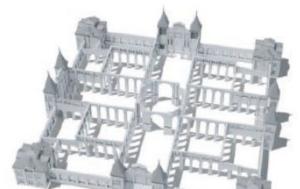


HISTORY OF FLOOR PLANS

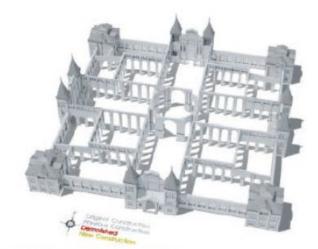
1896-1902

1902-1976

Period of Significance – A Museum for the Public



1881 Ground Floor Plan



1881 Second Floor Plan



1902 Ground Floor Plan



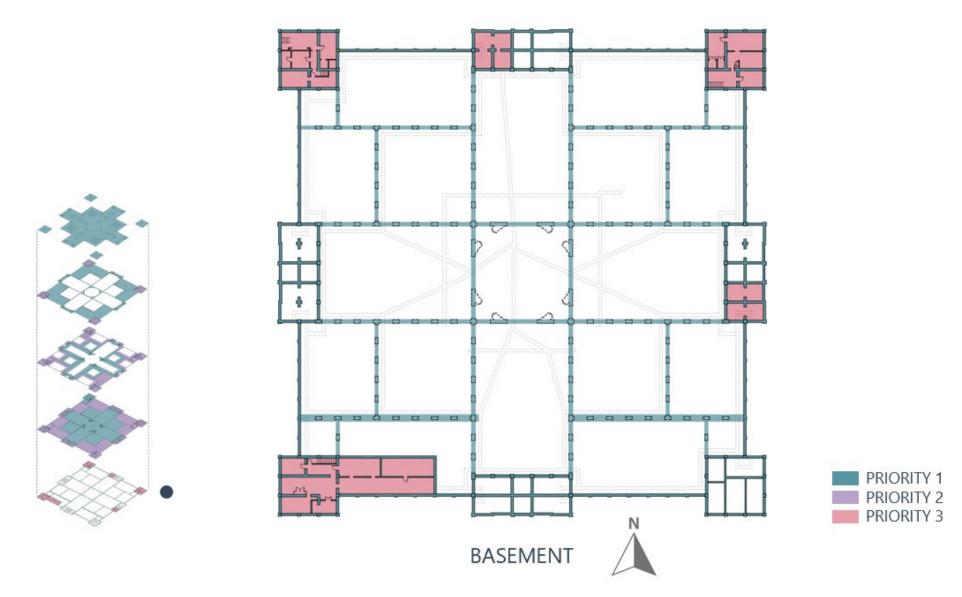
1902 Second Floor Plan & Galleries



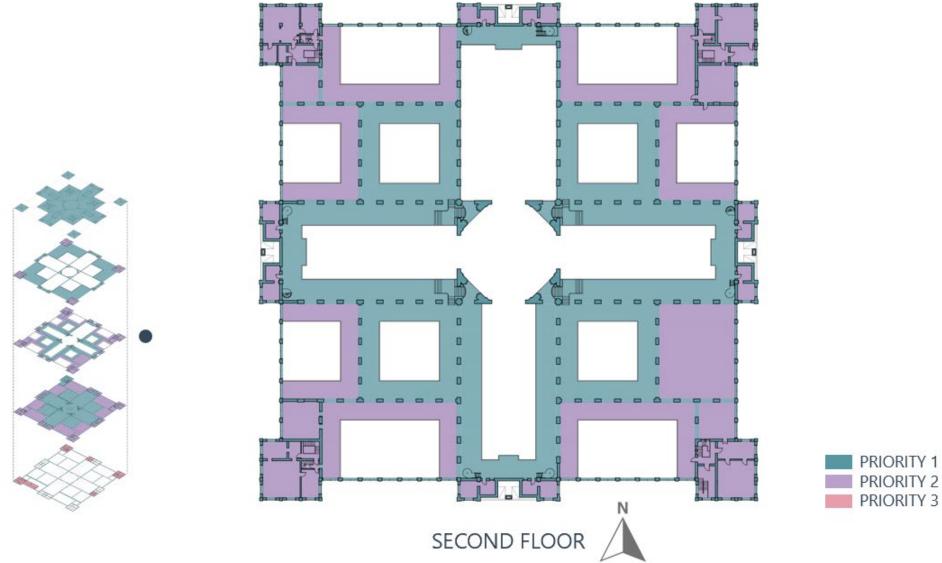
1976 Ground Floor Plan

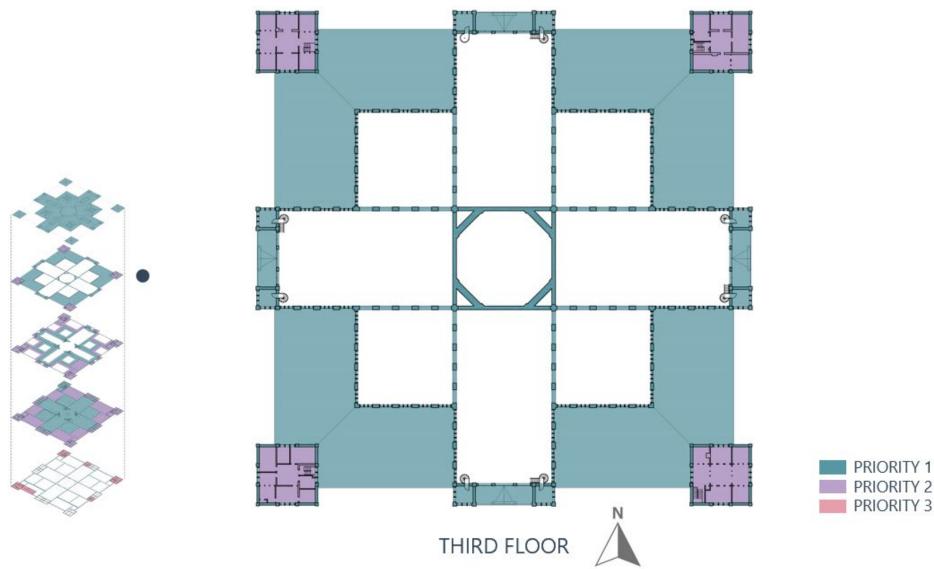


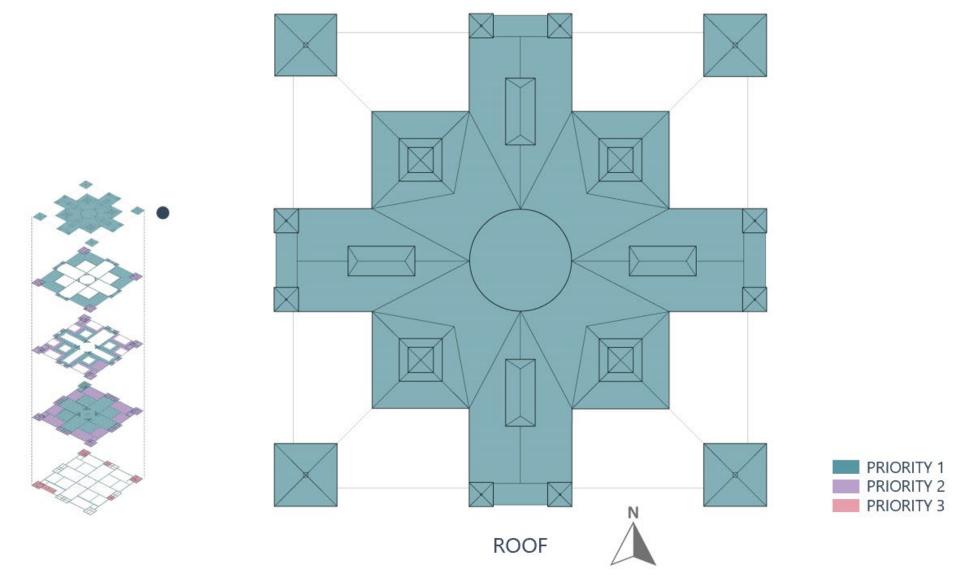
1976 Second Floor Plan & Galleries



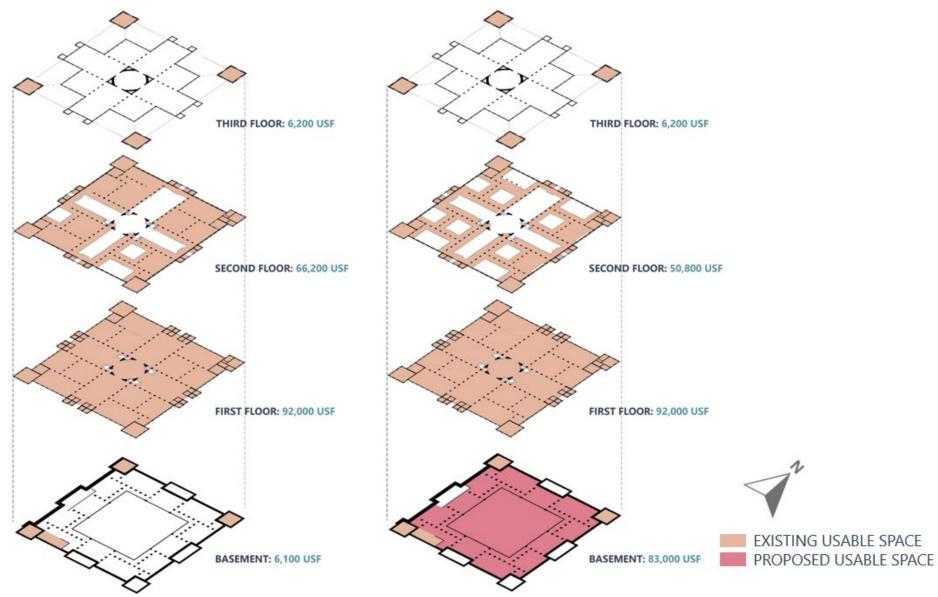






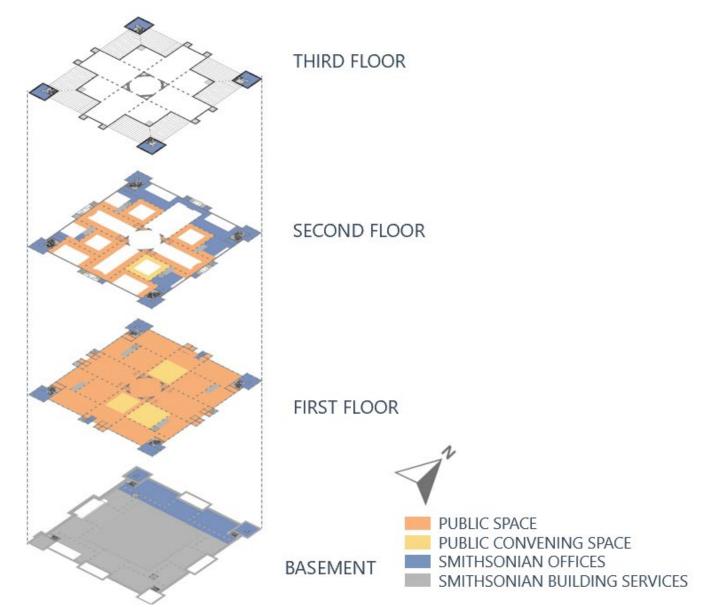


EXISTING V. PROPOSED USABLE SPACE



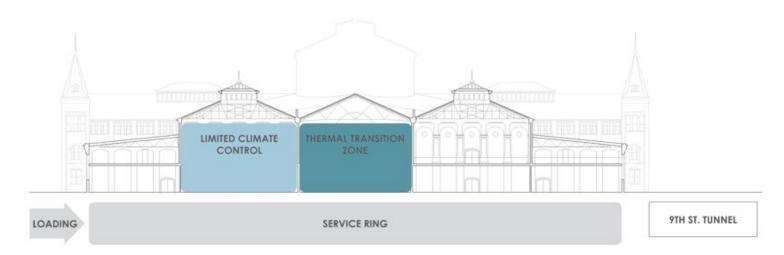


GENERAL PROGRAM GOALS

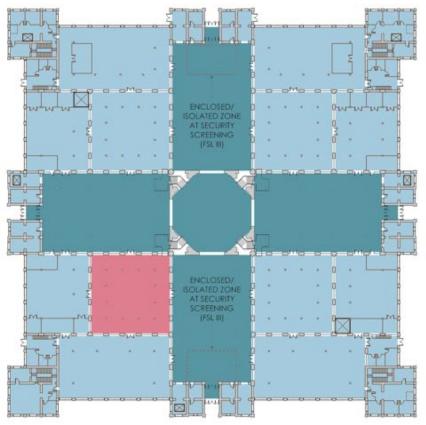


Zoning

- · Limited zone of climate control to provide conditions for accommodating special object or exhibit loans
- · Thermal transition zones in the Halls to save energy and eliminate condensation risk at the exterior building envelope

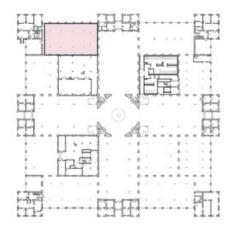






CAFE





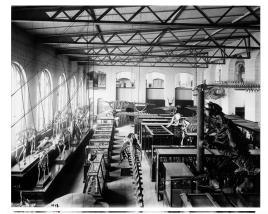
FIRST FLOOR

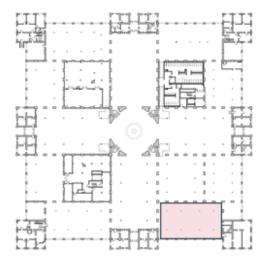




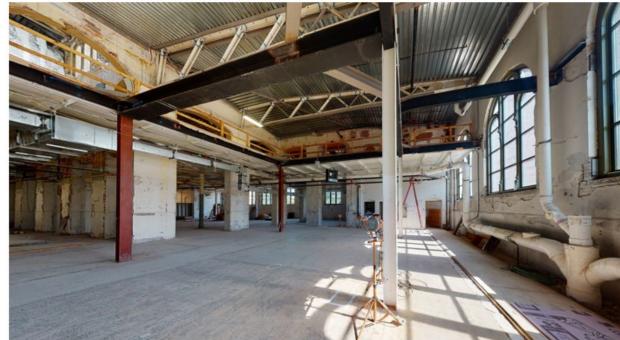


Rendering of Potential Space Use





FIRST FLOOR



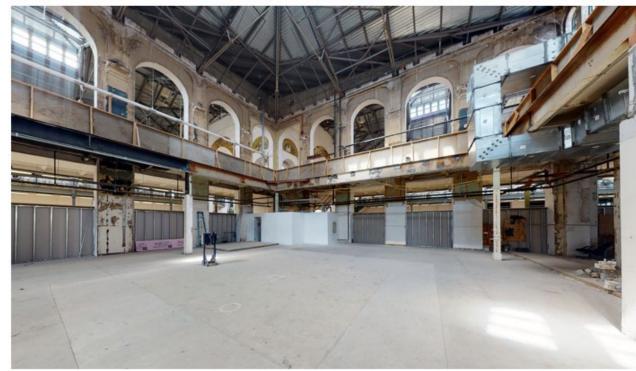




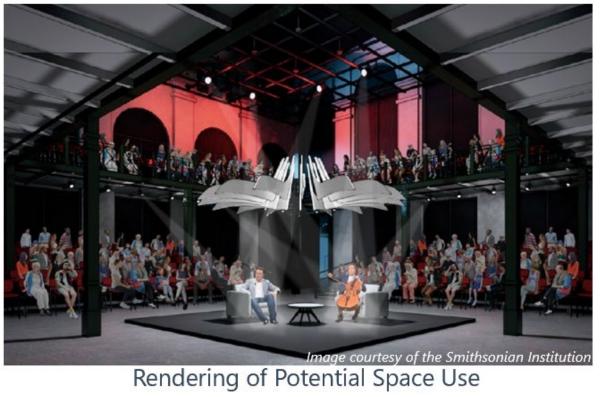
THEATER

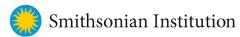


FIRST FLOOR



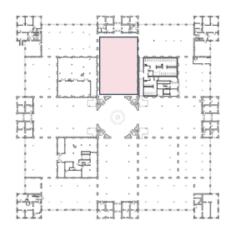
Existing Condition



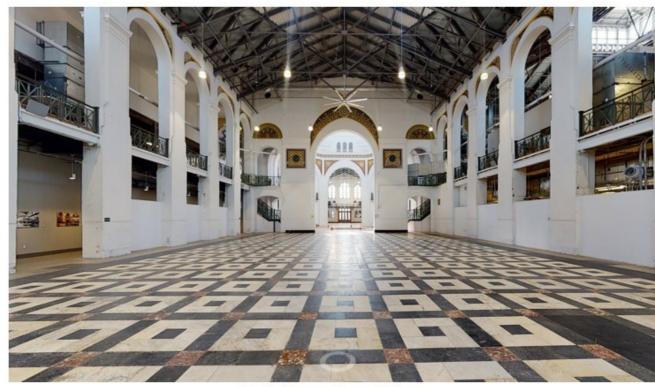


NORTH HALL





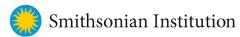
FIRST FLOOR





Existing Condition

Rendering of Potential Space Use



SPECIAL EXHIBITION



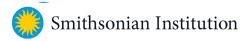
FIRST FLOOR

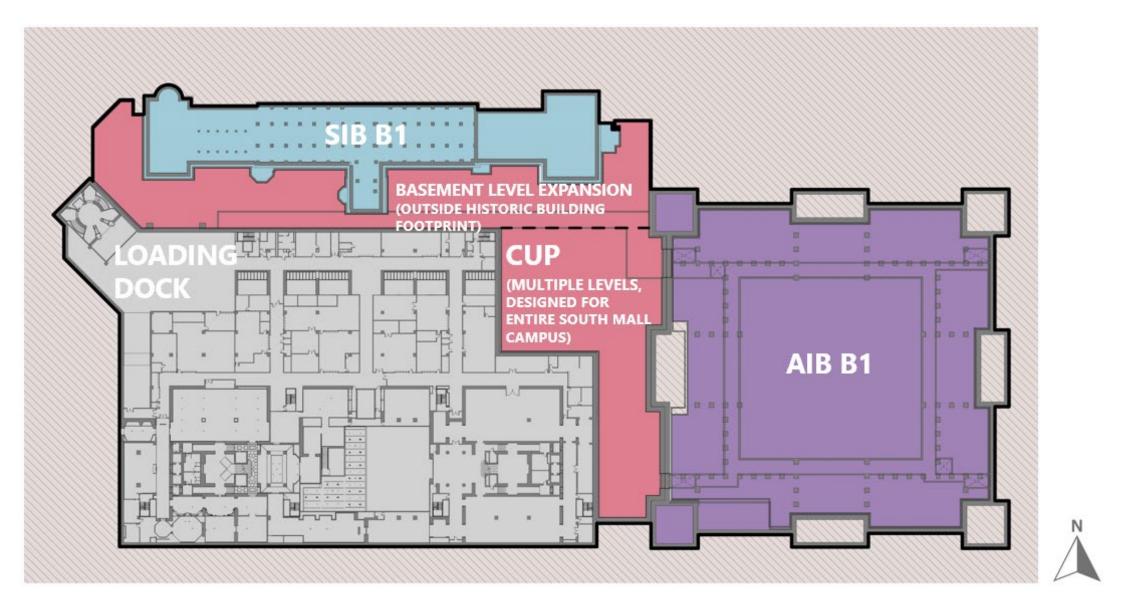


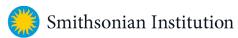




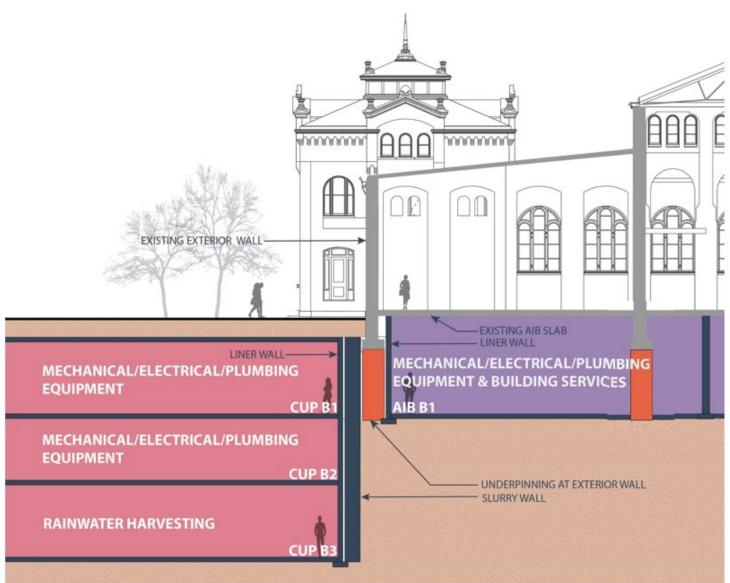
Rendering of Potential Space Use

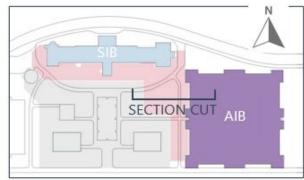






BASEMENT AND CENTRAL UTILITY PLANT (CUP) SECTION



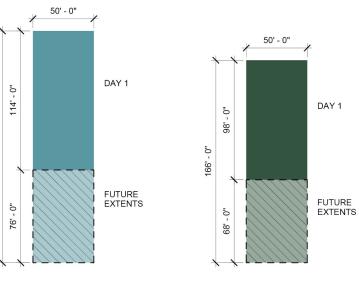


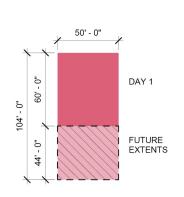
COOLING TOWERS

COOLING TOWERS

SIZES AND HEAT REJECTION TECHNIQUES







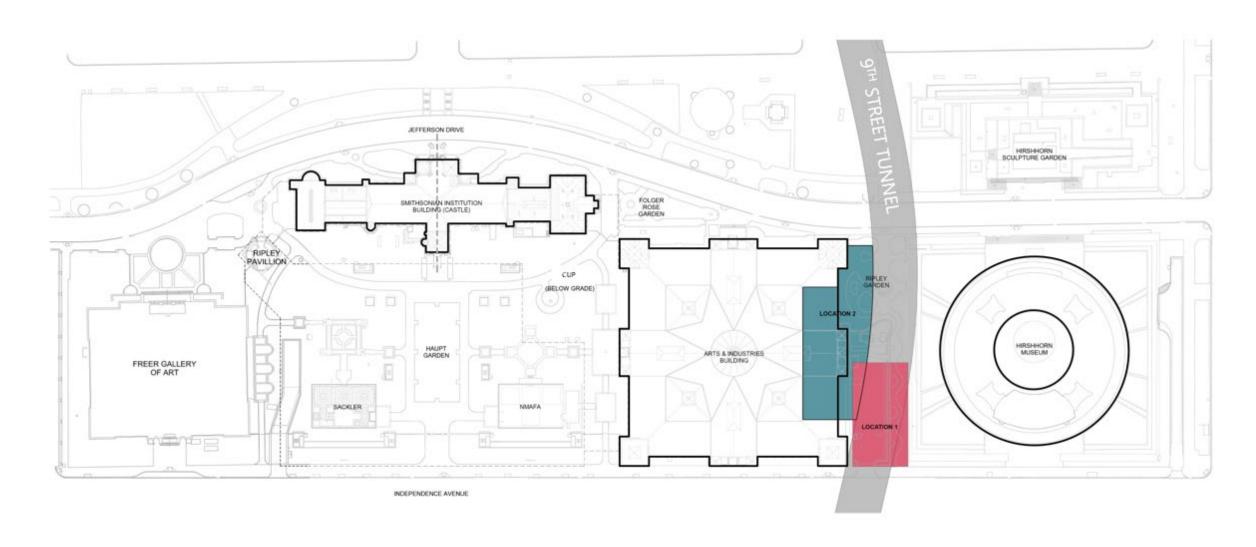
TRADITIONAL OPEN CELL COOLING TOWER EXTENTS

EXTERIOR COOLING TOWER EXTENTS (NO ALTERNATE HEAT REJECTION TECHNIQUES)

EXTERIOR COOLING TOWER EXTENTS WITH ALTERNATE HEAT REJECTION TECHNIQUES

Cooling Tower Enclosure Size (Nominal Tons)	Enclosure Length	Enclosure Width	Enclosure Area	Percent of Total
Only Cooling Towers (5000 - 0)	166	50	8300	100%
Towers with SS Heat Reject. (5000 - 500)	144	50	7200	87%
Towers with Thermal Ice Storage (5000 - 1000)	125	50	6250	75%
Towers with SS and Ice (5000 - 1500)	104	50	5200	63%
Towers with 750 Wells (5000 - 1500)	104	50	5200	63%
Towers with SS, Ice, and 250 Wells (5000 - 2000)	83	50	4150	50%
Towers with SS, Ice, and 750 Wells (5000 - 3000)	59	50	2950	36%
Towers with 100% Geothermal	0	0	0	0%

LOCATION STUDIES AND SIZES



PROJECT TIMELINE

Item	Date	
Section 106 Initiation	October 2020	
Section 106 – Consulting Parties Meeting #1	January 2021	
Concept Design Submission – Commission of Fine Arts and National Capital Planning Commission	April 2021	
Schematic Design	November 2021	
AIB Futures Exhibit	November 2021-July 2022	
SIB Move-out	May – November 2022	
100% Construction Drawings	September 2023	
Construction Complete	2028/2029	

NEXT STEPS

Written comments accepted on today's presentation through February 13, 2021 to: BondC@si.edu

Today's presentation can be found at: https://www.sifacilities.si.edu/historic-core

Q & A #3

MODERATOR

Carly Bond, Historic Preservation Specialist, Smithsonian Facilities

PRESENTERS / PANELISTS

Sharon Park, FAIA, Assoc. Director of Historic Preservation, Smithsonian Facilities Ann Trowbridge, AIA, Associate Director for Planning, Smithsonian Facilities Brenda Sanchez, FAIA, Sr. Design Manager, Smithsonian Facilities Christopher Lethbridge, Architect/Program Manager, Smithsonian Facilities Matthew Chalifoux, FAIA, Sr. Historic Preservation Architect, EYP-Loring, LLC Kirk Mettam, PE, Senior Principal, Silman Hallah Abodaff, PE, MEP Project Manager, EYP-Loring, LLC

Smithsonian Institution

