

Construct Integrated Bezos Learning Center



Aerial view of BLC looking south

Smithsonian Institution
National Air and Space Museum

Environmental Assessment Public Meeting

December 12th, 2024

How to Use Zoom Webinar



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Thank you for participating in our virtual public meeting!

Meeting Agenda

- 1. Welcome and Introductions**
- 2. Purpose and Need and Project Background**
- 3. Alternatives**
- 4. Summary of Environmental Impacts**

Panel of Speakers

Moderator

Carly Bond, Associate Director, Historic Preservation, Smithsonian Office of Planning, Design, and Construction

Panelists

Dr. Tina Menendez, Bezos Learning Center Director

Mike Henry, Senior Design Manager, Smithsonian Office of Planning, Design, and Construction

Jane Passman, Senior Facilities Planner, Smithsonian Office of Planning, Design, and Construction

Stephanie Free, Urban Planner, National Capital Planning Commission

Matt Flis, Deputy Director, Current Planning Division, National Capital Planning Commission

Bryan Schabel, Design Director, Perkins&Will

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Rudi Byron, NEPA Project Manager, WSP



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How can I provide my comments?

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1. **At this meeting via the chat or by requesting to speak**
2. **Submit comments via email to:**
preservation@si.edu
3. **Mail hardcopy comments to:**
Smithsonian Institution
Attn: Jane Passman
PO Box 37012
MRC 511 Suite 5001
Washington, DC 20013-5012
4. **The EA is available here:**
<https://www.ncpc.gov/participate/notices/>
<https://s.si.edu/blc-environment>

All comments must be submitted by **December 20, 2024**



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Purpose, Need, and Project Background



National Environmental Policy Act

The National Environmental Policy Act, or NEPA, requires federal agencies to involve the public when making decisions that may impact the natural, cultural, and socioeconomic environment. An environmental assessment, or EA, was developed to analyze the potential impacts from the proposed action.

NCPC is the lead and responsible federal agency working with SI as project owner to comply with NEPA. NCPC and SI prepared an Environmental Assessment (EA) to analyze the environmental impacts of a range of alternatives for this project in accordance with NEPA. The National Park Service served as a cooperating agency in the preparation of the EA due to the project's proximity to the National Mall. Concurrently, SI conducted consultation under Section 106 of the National Historic Preservation Act.



NASM and East Terrace – Looking South, 1976

Section 106 Process Overview

Section 106 of the National Historic Preservation Act (NHPA):

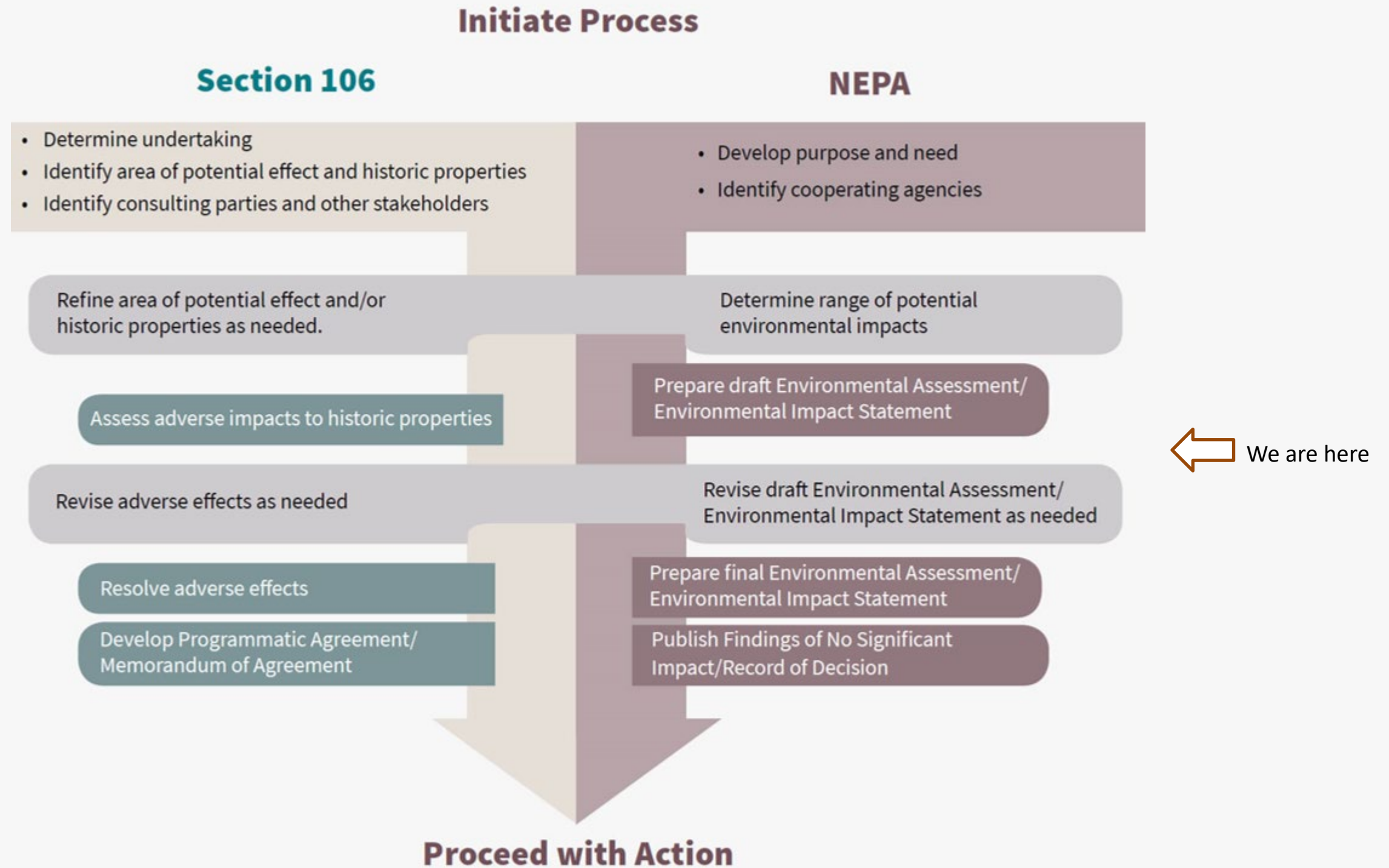
- National Air and Space Museum (NASM) contributes to the National Mall Historic District.
- Section 106 requires federal agencies to consider the effects of their projects on historic properties and seek ways to avoid, minimize, or mitigate any adverse effects.
- Section 106 requires consultation to seek, discuss, and consider the views of "consulting parties" who are invited to participate in the process.
- Approximately 90 consulting parties or organizations were invited to participate.

While not the focus of today's public meeting, the Assessment of Effects is provided as Appendix B of the EA. The conclusion of the Section 106 process will also be documented in the NEPA decision document, anticipated to be a Finding of No Significant Impact.



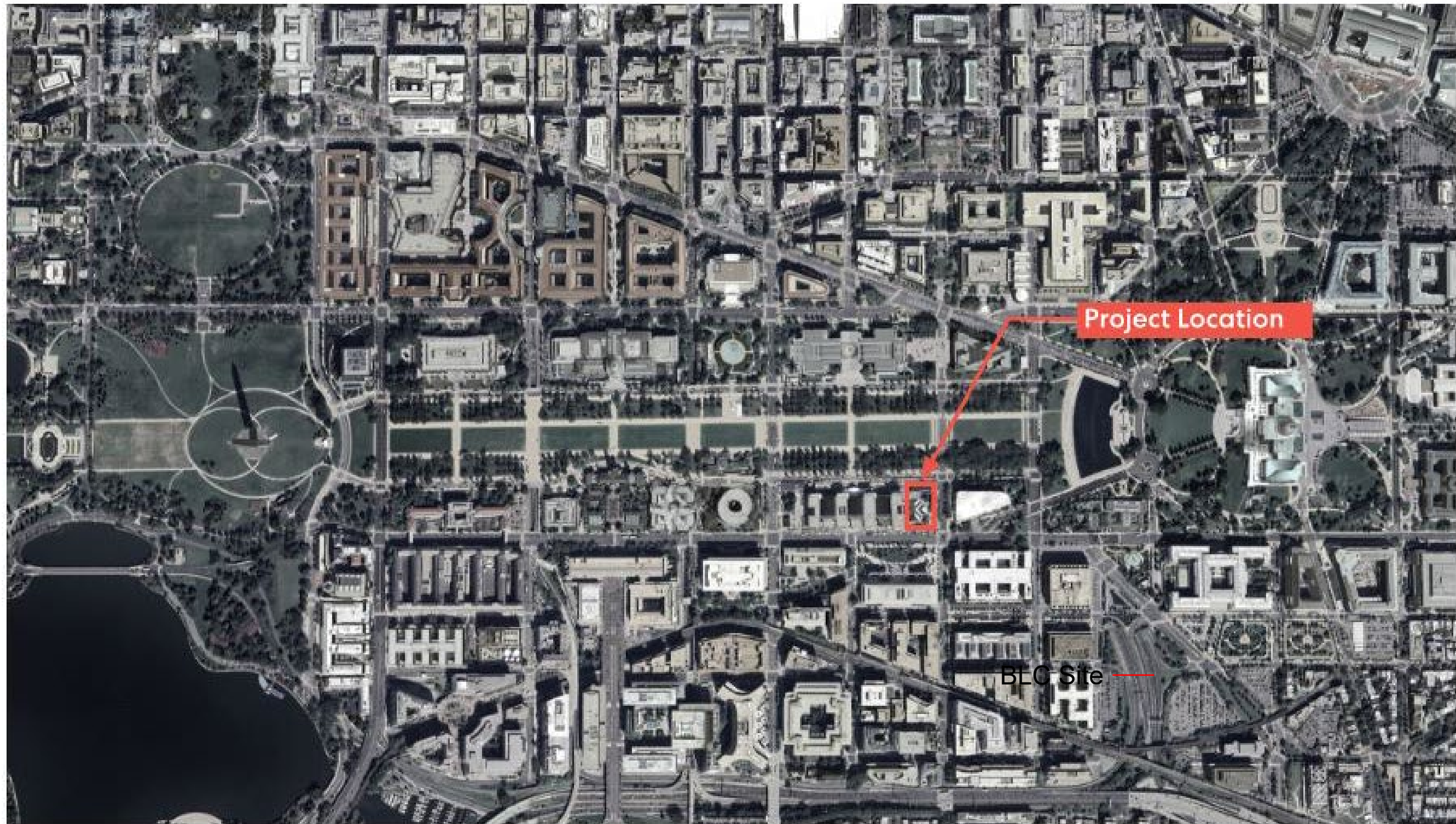
NASM Viewed Looking NE, Historic American Building Survey, 2017.

Section 106 / NEPA Process Overview



Graphic courtesy of the National Capital Planning Commission.

Site Context



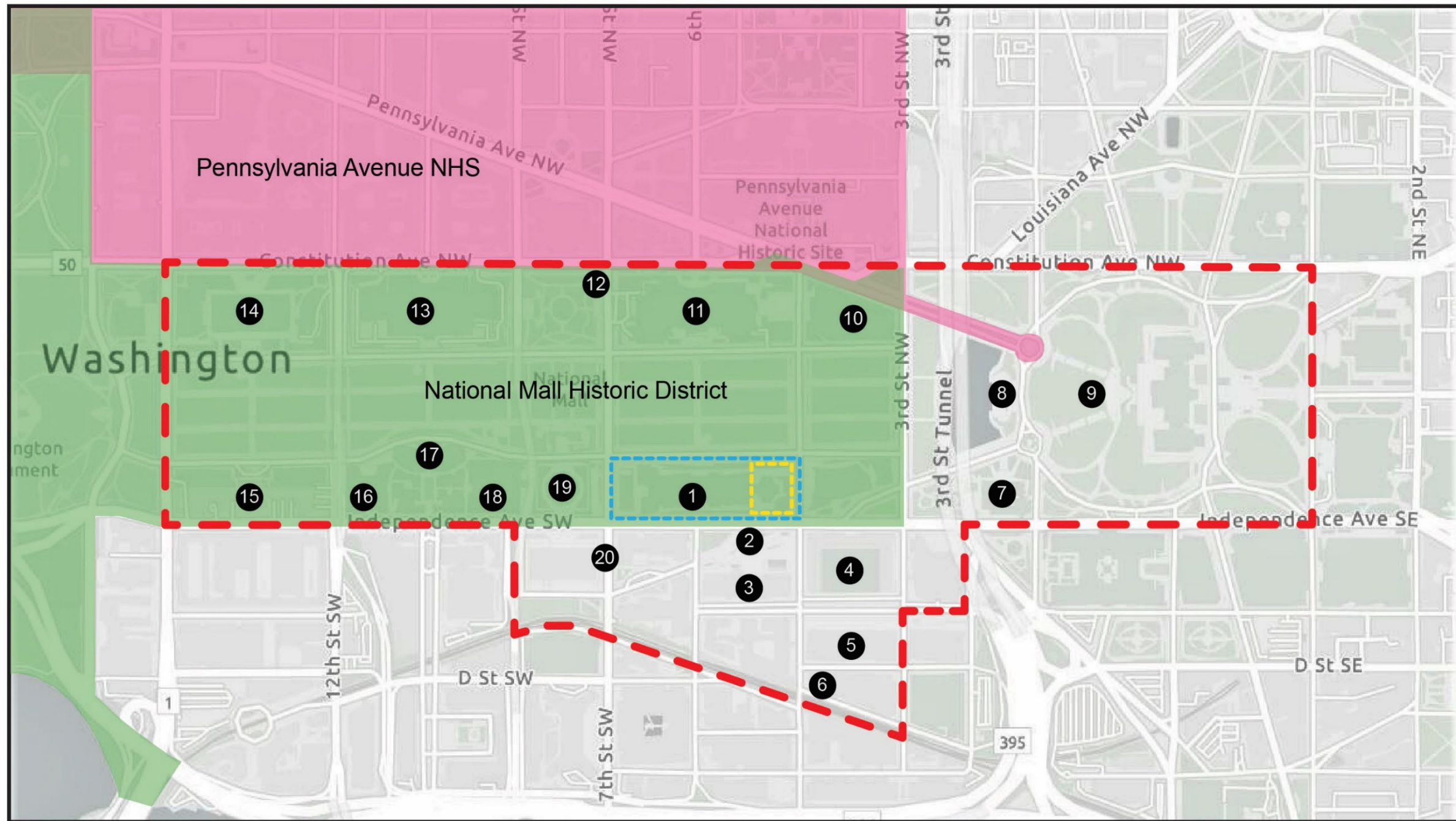
Aerial photo of National Mall showing location of the BLC site

Site Context



Aerial view of National Mall looking west

Area of Potential Effects and Identified Historic Resources



Key		5	14
NASM Site	Project Area	Mary E Switzer Federal Building	National Museum of American History
Area of Potential Effects		6 Terminal Refrigerating & Warehousing Co.	15 US Dept of Agriculture
National Mall Historic District		7 US Botanic Gardens	16 Freer Gallery
Pennsylvania Avenue NHS		8 Ulysses S Grant Memorial	17 Smithsonian Castle
1 National Air & Space Museum (NR Eligible)	10 National Gallery of Art East Wing (NR Eligible)	9 US Capitol and Grounds	18 Arts & Industries Building
2 Dwight D Eisenhower Memorial	11 National Gallery of Art West Wing	20 Orville & Wilbur Wright Federal Buildings (NR Eligible)	19 Hirshhorn Museum (NR Eligible)
3 Lyndon B Johnson Dept of Education	12 Bulfinch Gatehouses and Gateposts		
4 Social Security Administration	13 Natural History Museum		* Plan of the City of Washington (Not Shown)

Project Background

- This project was identified as a high priority in the Smithsonian's NASM Master Plan of 2013.
- Largest philanthropic gift since SI's founding gift from James Smithson in 1846.
- Gift designs, constructs, and supports a premiere space for education across Smithsonian, housed at the NASM, at the heart of the National Mall.
- Bezos Learning Center program shall reach underserved communities in DC and across the nation.
- Smithsonian supplemented these funds to include:
 - Demolition of restaurant addition aligned with NASM Revitalization construction.
 - Address loading dock functionality providing proper height clearances and separation of delivery areas.
 - Construct a restaurant facility.
 - Design and construct permanent location for the Phoebe Waterman Haas Public Observatory.
 - Design and construct the Phoebe Waterman Haas Astronomy Park.
 - Landscape east terrace.

For additional information on the BLC Project, please see:
<https://airandspace.si.edu/about/major-projects/bezos-learning-center>



Purpose of the Action

The purpose of the proposed project is to advance the National Air and Space Museum (NASM) mission to:

- Advance the NASM mission through the construction and operation of a new world class center for education connected to the NASM National Mall facility;
- Facilitate teacher and student engagement in STEAM learning, particularly in under-resourced communities;
- Provide a positive visitor experience;
- Permanently locate the Phoebe Waterman Haas Public Observatory;
- Achieve site compliance with the ADA; and
- Respect the historic context and use of open space.



NASM and East Terrace Under Construction, 1974.

Need for Action

The project is needed to:

- House a pan-Institutional resource overseen by NASM;
- Improve site accessibility;
- Provide visitor access to a ground floor restaurant space; and
- Locate facility-related program in on-site outdoor public amenity spaces.



NASM and East Terrace - 2024

Questions?

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Alternatives

No Action Alternative

- The No Action Alternative describes the action of continuing present management operations, conditions, and use.
- The No Action Alternative does not meet the Purpose and Need, but rather it is used as a basis from which to measure and compare environmental consequences of the Action Alternative.
- Under the No Action Alternative, SI would continue its current management and maintenance of NASM.
- This alternative proposes no addition to the building or reconfiguration of exterior features.



Site Aerial of National Mall looking west – 1980 (Pre-Restaurant)

Proposed Action Alternative

Key Elements:

- Approximately 58,000 sf above-grade addition connected to the east elevation of the NASM.
- Renovation of an existing 38,064 sf basement level.
- Permanent location for the integration of the Phoebe Waterman Haas Public Observatory and proposed Phoebe Waterman Haas Astronomy Park within the East Terrace.
- Accessibility improvements into the site from Jefferson Drive and Independence Avenue, and accessible walkways to the north and south sides of the addition are proposed to meet the ADA.
- New landscape design at the east end of the site.



Illustrative site plan of NASM and BLC site



Enlarged illustrative site plan of the BLC addition

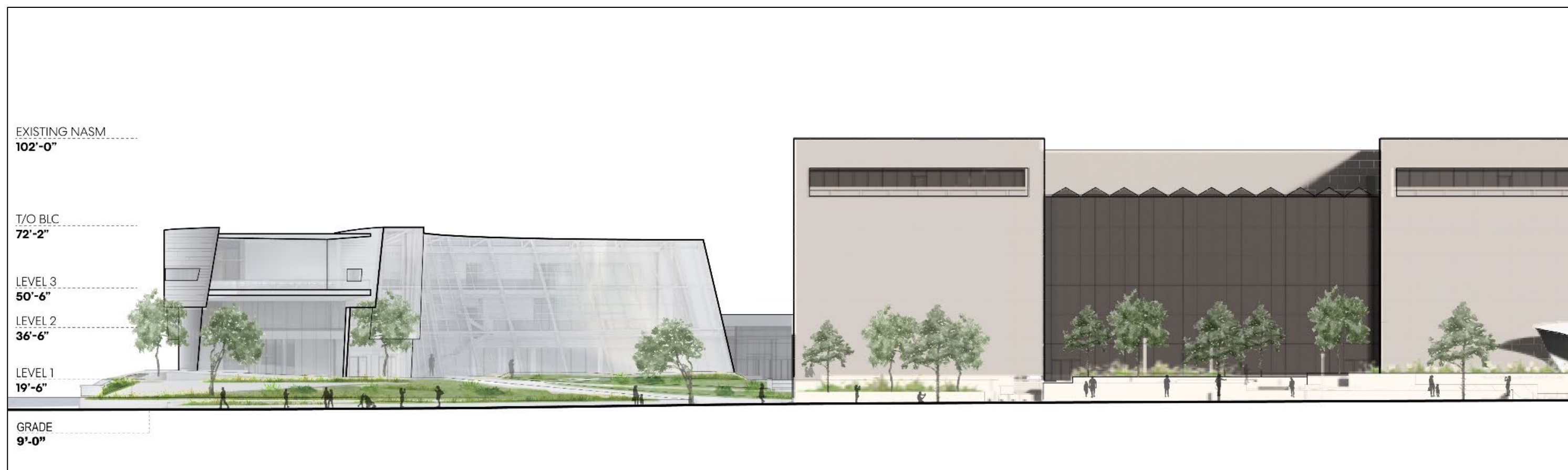
Proposed Action Alternative Design Inspiration – Spiral Organization



Image of spiral galaxy

Proposed Action Alternative – BLC Addition

- Three-story addition with a restaurant on its ground floor.
- BLC educational programming and building support spaces on the upper floors.
- New vestibule directly connected to NASM on the ground floor.
- Upper terrace for BLC-related programming at the addition's northeast corner.
- Learning Courtyard on the north side of the BLC.
- New accessible walkways to the north and south sides of the addition/new landscape design at the east end of the site.
- The restaurant and outdoor spaces would be open to the public while the building support spaces on levels 2 and 3 would be for BLC employee and program participant access only.



North Elevation of BLC

Proposed Action Alternative – Phoebe Waterman Haas Public Observatory

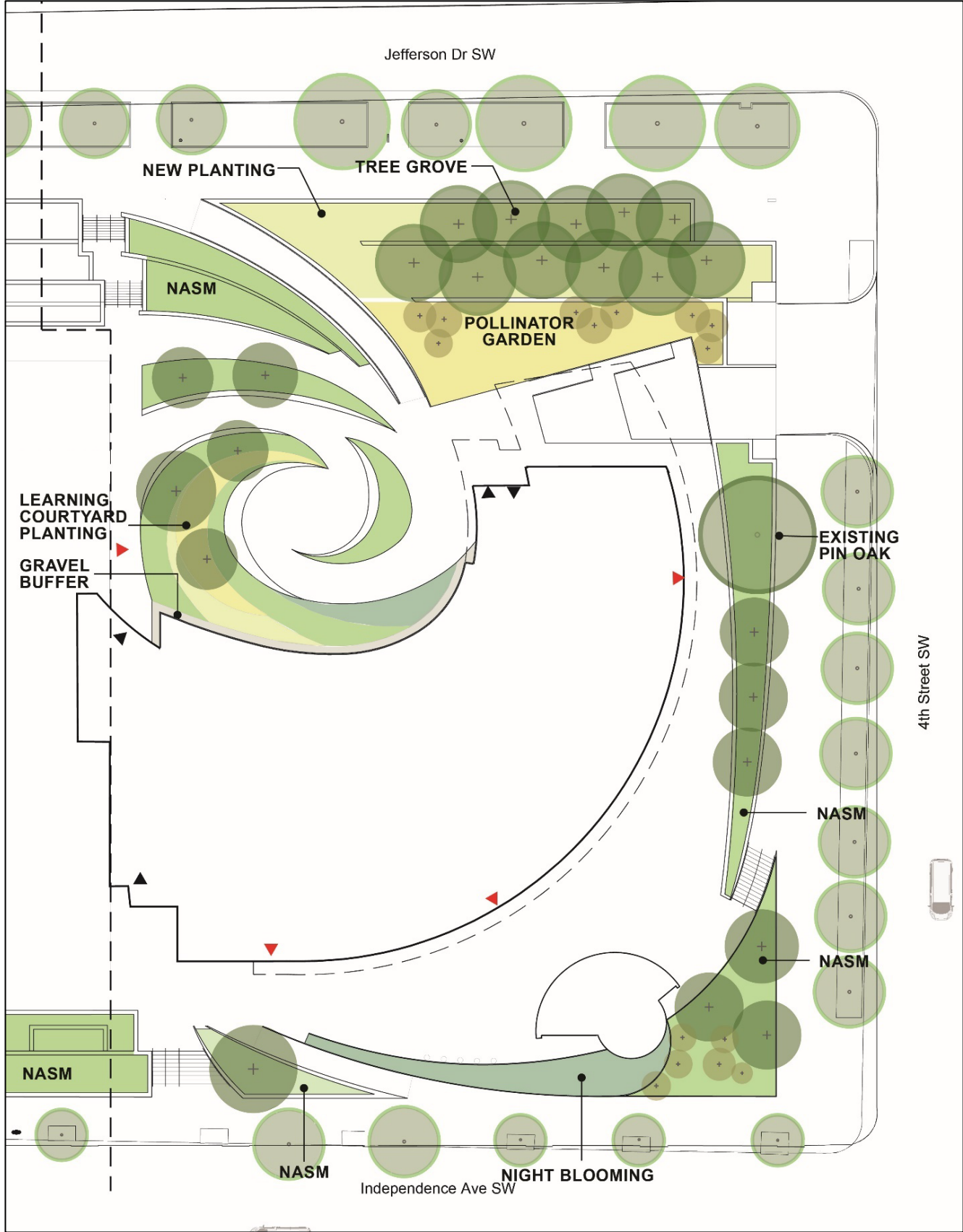
- Permanently located on the southeast corner of the site, the best location on the site for viewing astronomical events and programming.
- Approximately 27-foot diameter dome containing a telescope.
- Would include entrance, office, and storage space.
- Exterior design and materials would match BLC addition.



Illustrative site plan of Phoebe Waterman Haas Public Observatory

Proposed Action Alternative – Landscape Design, Astronomy Park, and Accessibility

- Two program areas:
 - North-facing Learning Courtyard along Jefferson Drive SW.
 - South and east facing Astronomy Park.
- New landscape takes a spiral form at the Learning Courtyard with low canopy trees at the center to allow for temporary digital projections on the east elevation of NASM.
- New accessible ramp connecting to Jefferson Drive SW.
- Reconfigured existing terraced stair to Jefferson Drive SW to better align with the new curved ramp and landscape.
- New pollinator garden in the top tier of the NASM terraced walls, with a grove of trees on the middle and bottom tiers.
- New curved stair on east end of the landscape, extending from the observatory to Fourth Street SW.
- New curved accessible ramp to Independence Avenue SW.



Landscape Plan of BLC addition

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Environmental Assessment Impacts Analysis

NEPA Analysis - Overview

Specific impact topics are identified for analysis and to allow comparison of the environmental consequences of both alternatives.

Types of Impact

Beneficial:

- Positive or helpful effects that a proposed project or action could have on the environment or society.
- The EA highlights beneficial impacts to demonstrate the positive contributions of a project or action.

Adverse:

- Negative or harmful effects that a proposed project or action could have on the environment.
- Thoroughly studied and considered to ensure they are properly managed or mitigated.

Duration

Short-term:

- Occur during construction and establishment of the proposed action.

Long-term:

- Occur after the establishment of the proposed action and continue into the foreseeable future.

Issues and Impact Topics

SI and NCPC reviewed the potential impacts and determined which resources could be impacted, which were fully analyzed in the EA.

Resources Analyzed in EA

- Cultural Resources - Historic Structures and Districts
- Aesthetics and Visual Resources
- Visitor Use and Experience
- Climate Change

Resources Dismissed from EA Analysis

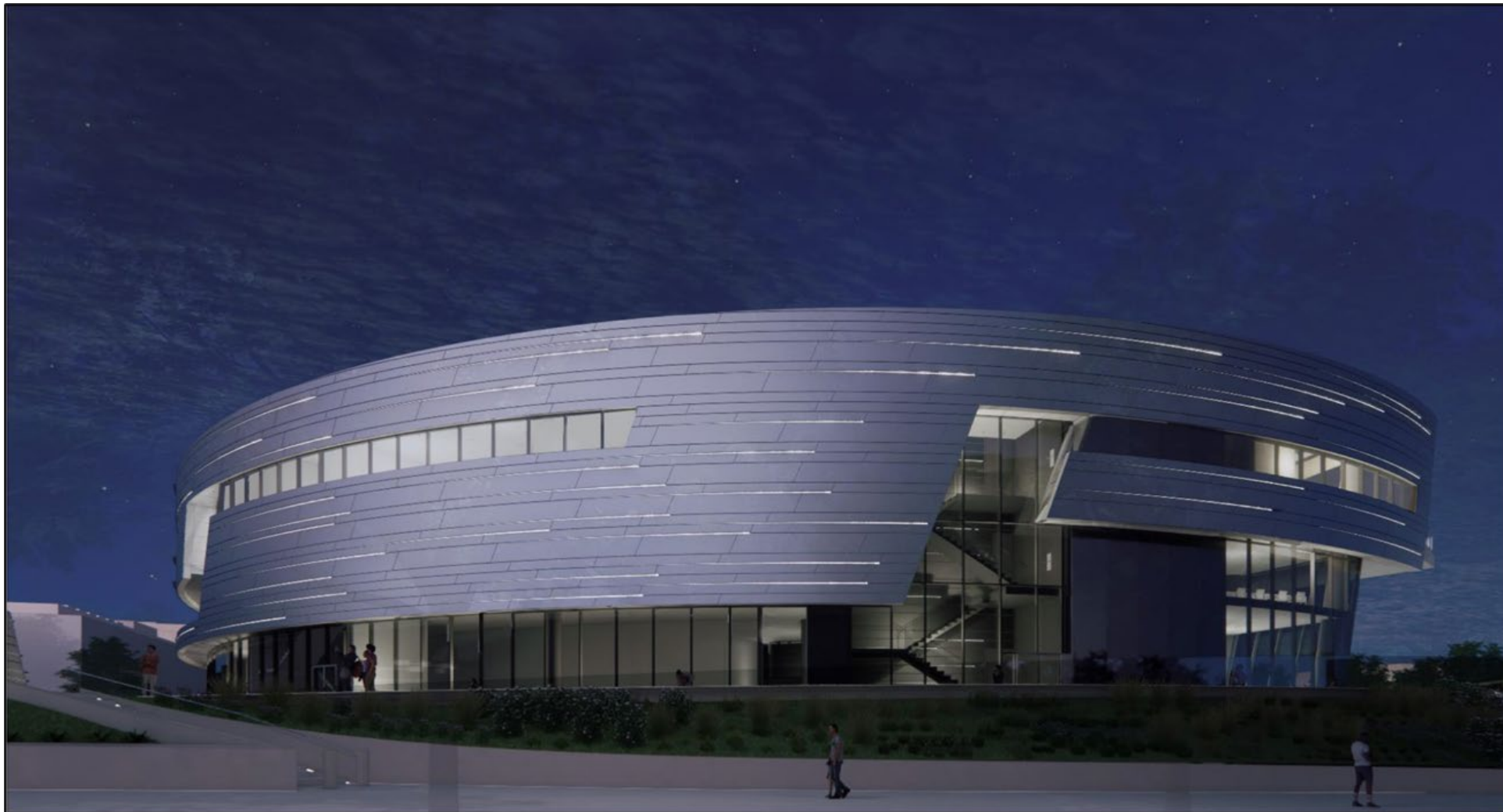
- Environmental Justice
- Socioeconomics
- Geology, Topography, and Soils
- Vegetation and Wildlife, including Special Status Species
- Water Resources
- Cultural Resources – Archaeological Resources
- Air Quality
- Noise
- Floodplains
- Traffic and Transportation

See Section 3.2 of the EA for full dismissal rationale

Impact Analysis: Cultural Resources - Historic Structures and Districts

NASM Building – Long-term Adverse Impact

- Both the BLC and Phoebe Waterman Haas Public Observatory are compatible and contemporary, but would have long-term, adverse impacts on the historic significance of the NASM.
- Dynamic lighting at nighttime directly adjacent to the NASM could detract from the NASM's formal setting, and result in a long-term, adverse impact on the historic significance of the NASM.



Nighttime BLC Visualization, Facing North

Minimization Measures

- Light and airy design differentiates the new additions from the original design building form.
- NASM's massing and form remain as the primary feature of the site.

Impact Analysis: Cultural Resources - Historic Structures and Districts

National Mall Historic District – Long-term Adverse Impact

- New construction would alter the National Mall setting.
- No precedent on the National Mall for integrated façade lighting, which could interrupt its formal setting.
- No adverse impacts on the location, design, setting, materials, workmanship, feeling or association on the remaining historic resources.

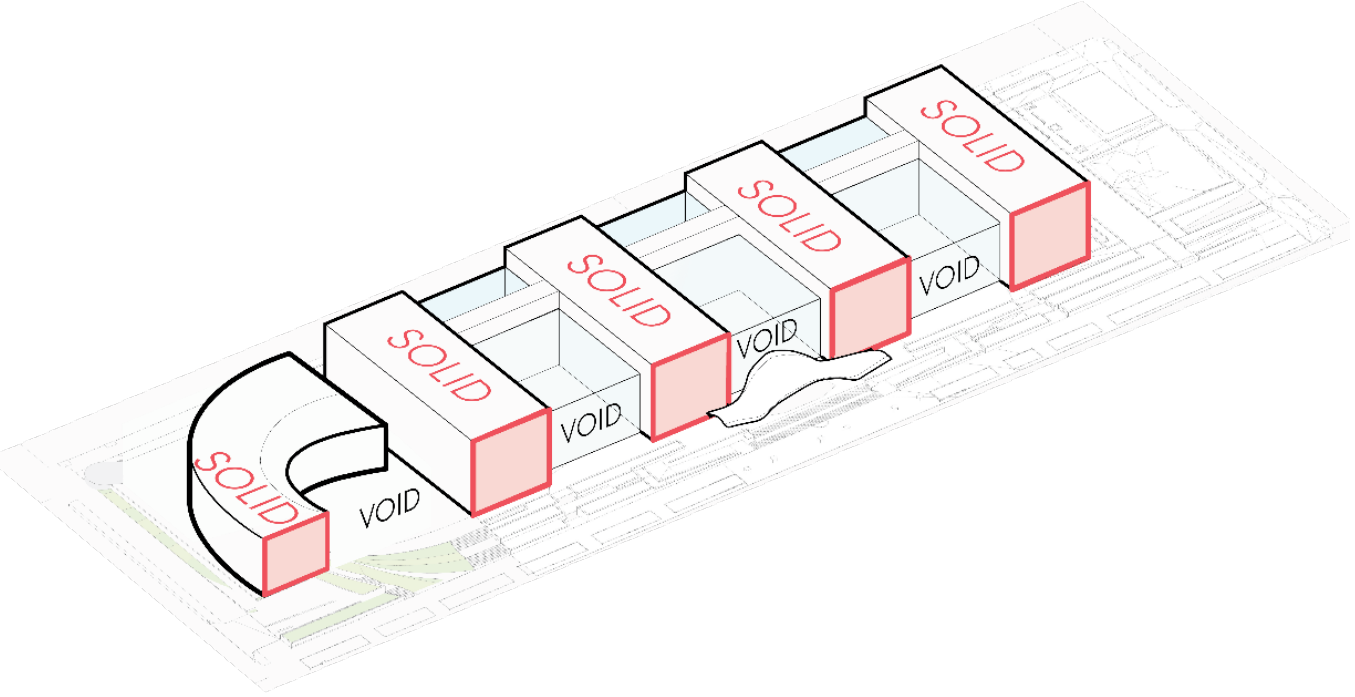


Aerial rendering of BLC and Astronomy Park looking southwest

Minimization Measures

- Design adheres to and respect all setbacks and viewsheds.
- Spiral form, massing, and complementary landscaping would be compatible with buildings that line the National Mall.
- Maximum height is 72 feet, below the NASM's height.
- BLC addition largely obscured by mature elm trees.

Impact Analysis: Cultural Resources - Historic Structures and Districts

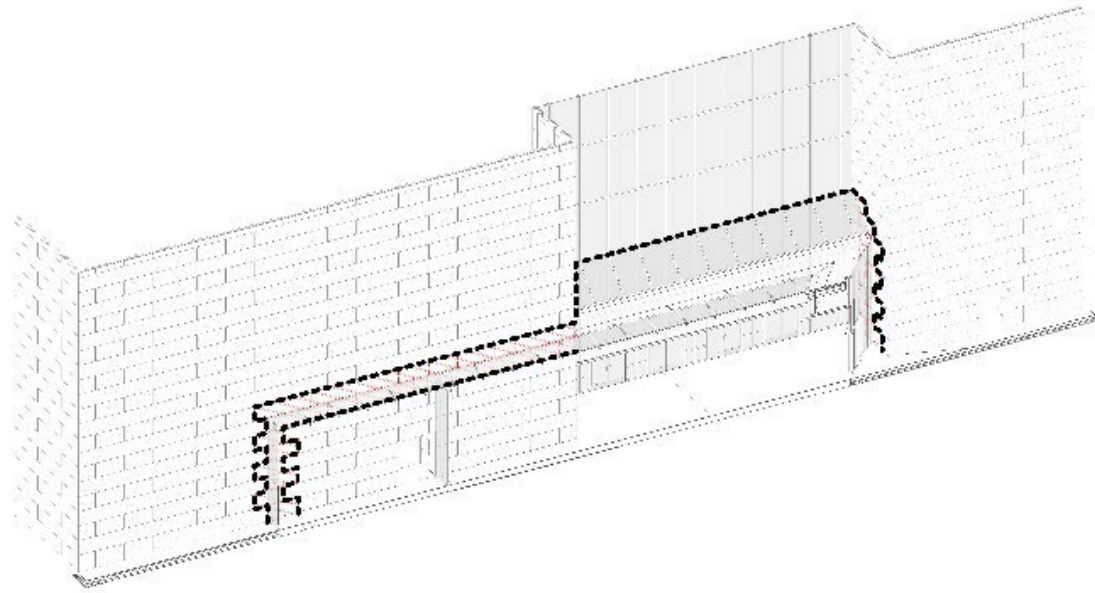


North Elevation of NASM with the Seven-Bay Solid-Void Pattern, Continued to the New Addition

Contributing Feature Name	Impact
Seven-bay building form with alternating solid-void pattern	New addition would not alter the seven-bay solid-void pattern of NASM’s north and south elevations. BLC addition form would respect the NASM building and respond to its architecture and massing - No Adverse Effect.
Recessed, glazed openings in the east and west elevations	Three-bay solid-void pattern of the east elevation would be partially obscured by the addition – Adverse Effect, but would be reversible.
Marble curtain wall panels	Limited removal of Colonial Rose Granite panels and portions of the east elevation glazing - No Adverse Effect.



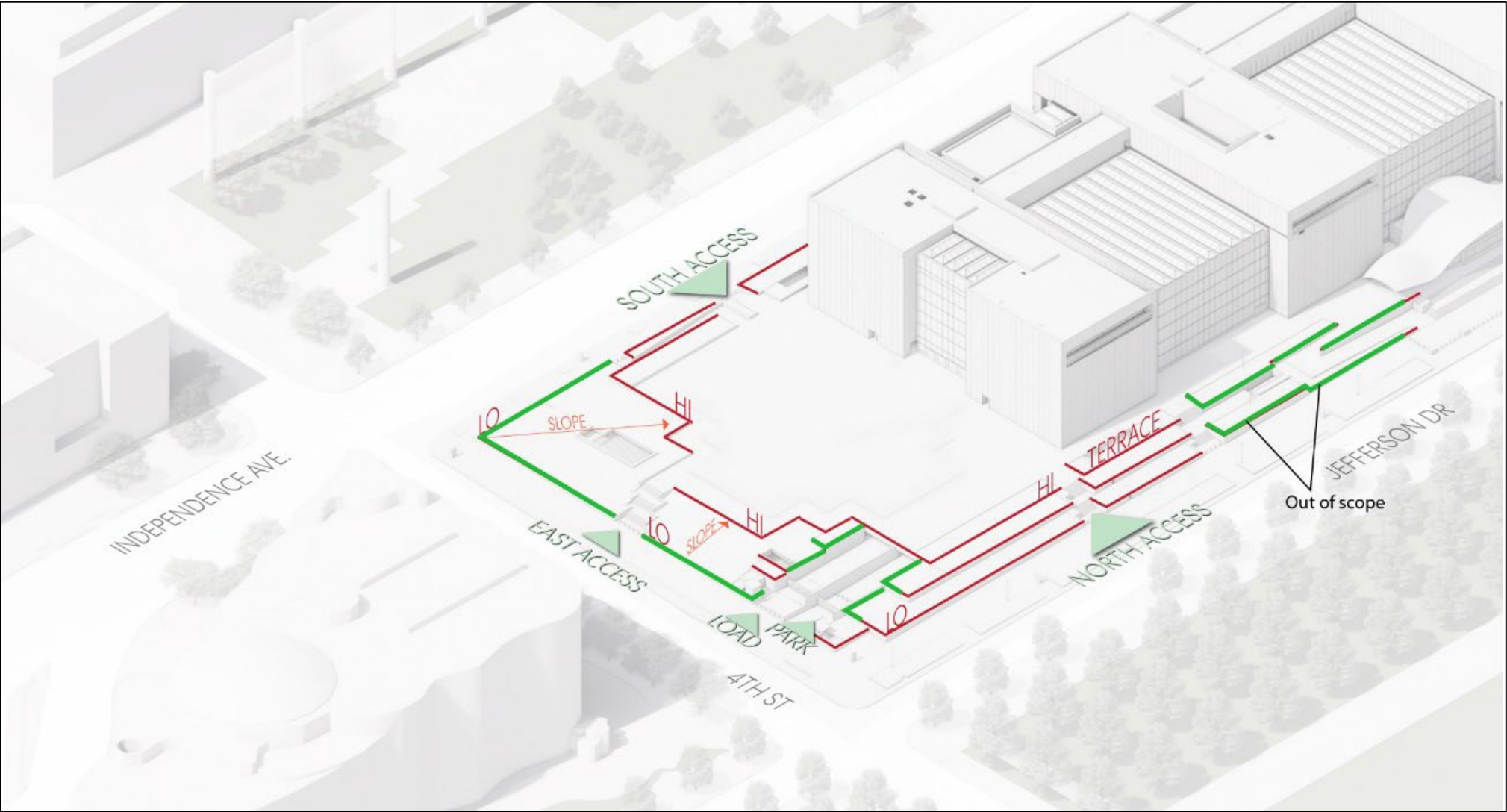
Interior Rendering of the Connection to the NASM with the Proposed Skylight, Allowing for Views of the East Elevation from Inside the New BLC Hyphen



View of the Limits of Connection at the East Elevation

Impact Analysis: Cultural Resources - Historic Structures and Districts

Contributing Feature Name	Impact
Tiered terraces and planting beds	Site access and accessible ramps would require the demolition of existing small-scale features, including tiered terraces, planting beds, and retaining walls - Adverse Effect.
Marble-clad retaining walls throughout the site	Location of the opening for the new ramp would further diminish the retaining wall – Adverse Effect.
Garage openings and ramps	Decking over both ramps and garage openings – Adverse Effect.



Red: original features previously demolished and reconfigured in 1988.

Green: planting beds and retaining walls that retain their historic design.

Diagram of the Current Retaining Walls, Tiered Terraces, and Planting Beds at the East End of the NASM

Impact Analysis: Aesthetics and Visual Resources

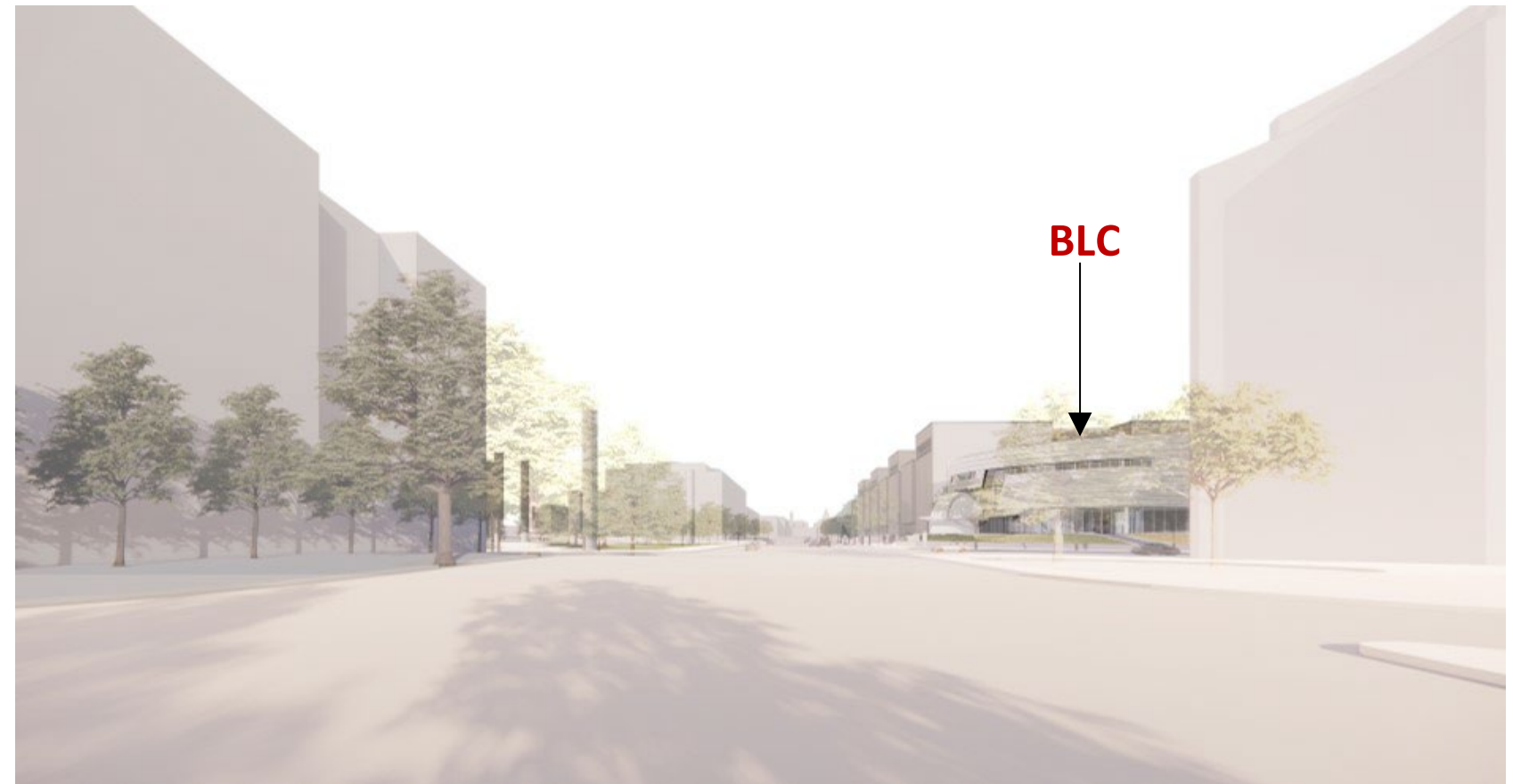
Views and Vistas – Long-term Adverse Impact

Proposed Action Alternative would represent a long-term adverse impact on the visual landscape, particularly when adjacent to the NASM on Independence Ave SW, Fourth Street SW, and along the National Mall.

- Would not change the character of existing views.
- Would not interfere with notable existing views.

Minimization Measures

- Would be in line with the existing conditions of a museum and federal building-focused monument core along the National Mall.
- Height of BLC would be lower than the existing NASM structure.
- Adjacent to a mature tree canopy.



View from Social Security Administration Building (looking west)



View from U.S. Capitol Building (looking east)

Impact Analysis: Aesthetics and Visual Resources

Lighting – Long-term Adverse Impact

Proposed Action Alternative would introduce new lighting elements.

- No comparable lighting or design feature on NASM’s static, solid, monumental architecture.
- Dynamic lighting at night would alter the existing visual landscape at night (**long-term adverse impact**).

Minimization Measures

- Integrated site lighting features would follow site lighting established throughout the SI sites and National Mall.
- Low level lighting would not interfere with Observatory operations.
- Adheres to NCPC district lighting guidance.
- Would not be brighter or more prominent than the existing NASM façade.



Integrated Lighting Visualization – Day and Night

Impact Analysis: Visitor Use and Experience

Long-Term Beneficial Impacts

- New three-story facility, including programs and activities for students to explore STEAM topics, including students from under-resourced communities.
- Connect to all SI museums, promoting inquiry-based learning in visitors of all ages.
- Programming through innovative community partnerships to reach students and teachers in Washington, D.C., and in communities across the country.
- Implement all existing accessibility standards currently included at NASM, including ADA-compliant ramps, elevators, and assistive listening solutions.

Short-Term Adverse Impacts During Construction

- Visitors of NASM, pedestrians, motorists, and office workers in the vicinity of the project, would be subject to noise and fugitive dust from construction equipment.



BLC and Astronomy Park Visualization – Night View

Impact Analysis: Climate Change

Long-Term Beneficial Impacts

- Sustainable design principles to maintain climate responsibility: Improving building energy efficiency and carbon reduction.
- Increase rainwater capture and reuse.
- Installation of high-performing HVAC systems.
- Incorporation of natural elements to improve access to daylight and views of nature in the indoor environment.
- Include low-carbon and low-emitting materials to improve indoor air quality and minimize toxin exposure.
- Foster a healthier, more sustainable community environment.

Short-Term Adverse Impacts During Construction

- Emissions from the burning of fuel in vehicles and equipment.
- Temporary, incremental increases in greenhouse gases that contribute to global climate.



Visualization – BLC building section at connection to existing NASM

Impact Analysis: Cumulative Impacts

Cumulative Projects – Past, Present, and Reasonably Foreseeable

- Fallen Journalists Memorial
- Eisenhower Memorial
- Hirshhorn Museum: Revitalize Building and Plaza
- Independence Avenue SW Urban Design Study
- NASM Revitalization
- National Mall Plan
- Pennsylvania Avenue Initiative
- South Mall Master Plan
- Southwest EcoDistrict Plan

Cumulative Impacts from Proposed Action and Cumulative Projects

Resource	Cumulative Impact
Cultural Resources – Historic Structures and Districts	<ul style="list-style-type: none"> • Long-term adverse cumulative impacts on the NASM. • Compatible and sensitive designs that have enhanced the ability of NASM to display their significant collections and increase education to a broader public, minimizing adverse impacts.
Aesthetics and Visual Resources	<ul style="list-style-type: none"> • Potential for short-term and long-term cumulative impacts. • Cumulative projects also introduce new visual elements to the existing setting, all appropriate in the context of the museum core and would not result in long-term adverse impacts.
Visitor Use and Experience	<ul style="list-style-type: none"> • Long-term beneficial cumulative impacts. • Availability of new visitor experiences.
Climate Change	<ul style="list-style-type: none"> • Long-term beneficial impacts. • Improved heating and ventilation systems.

Impact Analysis Summary

Impacted Resource	Impact
Historic Structures and Districts	<p>No Action Alternative – No Impacts</p> <p>Proposed Action Alternative - Long-term, Minor, Adverse Impacts</p> <ul style="list-style-type: none"> • Spiral form and massing, dynamic lighting, alternations to the solid/void pattern, demolition of tiered planting beds, and decking over the ramps and garage. • Setting and feeling of the National Mall Historic District. • However, compatible with the monumental and significant museums, and other federal buildings that line the National Mall.
Aesthetics and Visual Resources	<p>No Action Alternative – No Impacts</p> <p>Proposed Action Alternative - Long-term, Minor, Adverse Impacts</p> <ul style="list-style-type: none"> • Visual landscape, particularly when closer to the NASM. • No comparable lighting. • However, would not change the character of existing views or interfere with notable existing views and adheres to all lighting guidance.
Visitor Use and Experience	<p>No Action Alternative – No Impacts</p> <p>Proposed Action Alternative - Short-term, Minor, Temporary Adverse Impacts and Long-term Beneficial Impacts</p> <ul style="list-style-type: none"> • Disruption during construction period. • Addition of the new three-story facility, including programs and activities for students to explore STEAM topics, including students from under-resourced communities.
Climate Change	<p>No Action Alternative – No Impacts</p> <p>Proposed Action Alternative - Short-term, Minor, Temporary Adverse Impacts and Long-term Beneficial Impacts</p> <ul style="list-style-type: none"> • Heavy equipment during the construction period. • Installation of high-performing heating, ventilation, and air conditioning systems.

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MRC 511 Suite 5001

Washington, DC 20013-5012

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Thank you!

