

**PROGRAMMATIC AGREEMENT
AMONG
THE SMITHSONIAN INSTITUTION
THE DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICER
THE NATIONAL CAPITAL PLANNING COMMISSION
AND
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING
THE REVITALIZATION OF THE HISTORIC CORE REVITALIZE CASTLE PROJECT**

This Programmatic Agreement (PA) is made as of this 29th day of March, 2023, by and among the Smithsonian Institution (SI), the District of Columbia State Historic Preservation Officer (DC SHPO), the National Capital Planning Commission (NCPC), the National Park Service (NPS) and the Advisory Council on Historic Preservation (ACHP) (referred to collectively herein as the “Signatories” or individually as a “Signatory”), pursuant to Section 106 of the National Historic Preservation Act (NHPA), 54 U.S.C. § 306108, its implementing regulations 36 CFR Part 800 (Section 106), and 36 CFR § 800.14(b) to govern the implementation of the Revitalization of the Historic Core – Revitalize Castle (Project); and

WHEREAS, the Smithsonian Institution Building (Castle) is a Romanesque Revival or Norman Revival style building designed by James Renwick, Jr, completed in 1855; and

WHEREAS, the Castle is a National Historic Landmark (designated January 12, 1965), and is individually listed in the National Register of Historic Places and the DC Inventory of Historic Sites. The Castle is a contributing element of the National Mall Historic District listed in the National Register, and of the Smithsonian Quadrangle Historic District listed in the DC Inventory of Historic Sites; and

WHEREAS, the Castle’s character defining features include, but are not limited to, a Red Seneca sandstone exterior; complex building massing characterized by a central block with similarly scaled wings and hierarchically arranged perimeter towers; historic interiors; and a unique setting within the National Mall with Jefferson Drive curving around north of the Castle within the greensward; and

WHEREAS, initial Section 106 compliance resulted in a 2018 Programmatic Agreement for the larger South Mall Campus Master Plan of which the Project is a subset. When the SI initiated Section 106 consultation with the DC SHPO on November 20, 2020, the Project consisted of the revitalization of the Castle and the Arts & Industries Building (AIB); replacement of mechanical, telecommunications, security, and life safety systems in both buildings; the construction of a multi-level below-grade Central Utility Plant to support the SI’s South Mall Campus buildings; and the construction of below-grade support spaces to connect the Castle and the AIB to the Quadrangle Building loading facility; and

WHEREAS, the Area of Potential Effects for the Project was defined as the same established in the Programmatic Agreement for the South Mall Campus Master Plan; and

WHEREAS, at the third Consulting Parties meeting on December 14, 2021 (Exhibit A – List of Consulting Parties Meetings), an *Assessment of Effects on Historic Resources* (Exhibit F) report was reviewed, and the Project was preliminarily determined to potentially result in “adverse effects” on the Castle, AIB, and the National Mall; and

WHEREAS, the SI subsequently narrowed the Project scope to focus on the revitalization of the Castle. The purpose and need for the reduction in the Project scope was reviewed at the fourth Consulting Parties meeting on June 15, 2022. At that time, the AIB was under consideration for site selection as a new SI museum, with undetermined mechanical and support space requirements. Therefore, the revitalization of the AIB and the construction of the Central Utility Plant were removed from the Project and may be future projects. Narrowing the project scope ensures that the SI can meet its obligations for the Castle to be open to the public during the celebration of the nation’s Semiquincentennial in 2026; and

WHEREAS, the narrowed Project scope includes rehabilitation of the Castle exterior, including the roof; installation of rooftop egress pathway, ground-level egress areaways and window wells; replacement of mechanical, telecommunications, security, and life safety systems; excavation beneath and adjacent to the Castle for seismic base isolation and to create support and mechanical spaces; addition of perimeter security; window replacement, and associated interior alterations; and

WHEREAS, excavation beneath the Castle includes the insertion of seismic base isolation; lowering of the current basement level 3 feet to accommodate visitor amenities and public programming; creation of a new mechanical distribution level that aligns with the Quadrangle B1 level; and excavation of a connection between the Castle and the Quadrangle B2 level, which will not be functional until a future project; and

WHEREAS, excavation adjacent to the Castle includes creation of a one-level below-grade support space that connects the Castle to the existing loading dock at the Quadrangle B1 level; and the installation of a stormwater cistern at the B2 level; and

WHEREAS, excavation beneath and adjacent to the Castle has the potential to uncover significant historic fabric. The DC SHPO and multiple Consulting Parties raised concerns that the Project may uncover historic fabric or impact the foundation, which per original specifications consists of stone piers connected by a system of inverted arches resting on stone courses, amongst other unanticipated conditions with the potential for adverse effects. This PA directs the process SI will follow should historic fabric or archaeological resources be uncovered; and

WHEREAS, because of schedule constraints related to Semiquincentennial activities, the SI identified the need to divide the Project into two phases of Section 106 consultation which will be managed through this PA. Phase 1 actions are connected to below-grade construction work, including excavation below and adjacent to the Castle, and creation or enlargement of the areaways and window wells. Phase 2 design actions are the remaining design actions for the main building and landscape package (Exhibit B – Section 106 Project Phasing); and

WHEREAS, the SI identified a need to start construction in March 2023, critical to the timeline of presenting the Castle in a usable condition for an event and facility space for Semiquincentennial activities. During 2026 activities, construction work will be temporarily demobilized, and the grade and landscape will be restored with temporary turf grass. In the fall of 2026 construction work will remobilize and the building will be scaffolded, with the Project scheduled for completion in 2028; and

WHEREAS, through consultation, the SI has determined that certain actions related to Phase 1 will have an adverse effect on the Castle and the National Mall Historic District, specifically, installation of the seismic control joint; the addition and enlargement of areaways, and window wells at the building

perimeter, all of which alter the Castle’s relationship with the ground plane and introduce visual intrusions at the base of the building that impact the setting of the Castle and the National Mall. Most notably, the seismic control joint will cross the Jefferson Drive sidewalk around the porte cochere in a highly visible location; temporary alternate pedestrian routes that will change the circulation patterns south of the Castle within the Haupt Garden; temporary construction fencing will be installed; excavation and ground disturbance will occur within the Project Limit of Disturbance; and the potential exists for damaging the Castle and adjacent historic structures from construction and excavation work; (Exhibit C – Phase 1 Actions); and

WHEREAS, execution of this PA and implementation of its terms will conclude Section 106 consultation for Phase 1 activities. Section 106 consultation for Phase 2 design actions will continue through 2023 as construction begins on Phase 1 actions and in accordance with this PA. In addition, finishes and detailing for some Phase 1 actions will be consulted on in Phase 2 including design for the areaway and window well fall protection railing; areaway and window wells cladding materials; seismic control joint cover plate edge treatment; and materials for the seismic control joint cover plate. The entirety of the Project will be overseen and implemented in accordance with this PA, along with any subsequent amendment or agreement that results from Phase 2 consultation; and

WHEREAS, NCPC, a Signatory to this PA pursuant to 36 CFR § 800.3(f)(1), has approval authority over federal projects located within the District of Columbia pursuant to the National Capital Planning Act (40 U.S.C. § 8722(b)(1) and (d)); and

WHEREAS, pursuant to Public Law No. 108-72, 117 Stat. 888 (August 15, 2003), the SI is “deemed to be an agency for purposes of compliance with regulations promulgated by the ACHP pursuant to Section 106 of the NHPA” for projects located in the District of Columbia requiring NCPC review and approval; and

WHEREAS, the SI and NCPC have agreed that SI will be the lead agency pursuant to 36 CFR § 800.2(a)(2) for the Project to fulfill their collective Section 106 responsibilities; and that certain interior actions that are associated with exterior changes or excavation and do not have independent utility are subject to Section 106 consultation to fulfill NCPC’s Section 106 obligations (Exhibit B). NCPC has elected to fulfill its Section 106 responsibility by participating in consultation and by signing this PA pursuant to 36 CFR § 800.6(c)(2); and

WHEREAS, the SI initiated Section 106 consultation with the DC SHPO regarding the Project on November 20, 2020, and has consulted with the DC SHPO in accordance with 36 CFR § 800; and

WHEREAS, the SI has provided opportunities for the Signatories, Consulting Parties, and the public to participate in the consultation process through public meetings and a public webpage (<https://www.sifacilities.si.edu/historic-core>); and consultation on this Project has benefitted from a wide group of Consulting Parties and public participants (Exhibit D – List of Consulting Parties); and

WHEREAS, the *Assessment of Effects on Historic Resources* report was revised several times in consultation. The report is organized around the two phases of consultation, and contains final effect determinations for Phase 1 and preliminary effect determinations for Phase 2. The *Assessment of Effects* for Phase 2 actions will be updated in consultation. This PA may be amended to document the revisions to the Assessment and any additional mitigation or minimization measures that will be taken (Exhibit E – Assessment of Effects Report Summary); and

WHEREAS, the Signatories agree that Phase 1 construction will result in adverse effects on the Castle and the National Mall Historic District. The Signatories also agree that construction of Phase 2 has the potential to result in adverse effects on the Castle and the National Mall Historic District (Exhibit F – Assessment of Effects on Historic Resources); and

WHEREAS, the SI notified the ACHP on December 21, 2021, of the adverse effects associated with the Project in accordance with 36 CFR § 800.6(a)(1) and applicable sections of the South Mall Master Plan PA, and invited the ACHP to participate in the consultation to resolve adverse effects, and the ACHP elected to participate; and

WHEREAS, the SI notified the Secretary of the Interior on November 24, 2020, in accordance with 36 CFR § 800.10(c) of the Project involving a National Historic Landmark. The Secretary of the Interior has been represented in consultation by National Park Service staff from the National Historic Landmarks Program. The National Mall and Memorial Parks is also consulting on the project because of the potential for visual and temporary construction impacts to the National Mall cultural landscape; and

NOW, THEREFORE, the Signatories agree that the Project will be implemented in accordance with the following stipulations to take into account the effects of this undertaking on historic properties.

STIPULATIONS

The SI will ensure that the following measures are carried out:

1. AVOIDANCE MEASURE FOR PHASE 1 CONSTRUCTION ACTIVITIES

A. Monitoring of Historic Properties: The following actions will be implemented in order to avoid adverse effects on the Castle and adjacent historic buildings and structures related to construction and excavation:

- i. Pre-construction monitoring will be carried out to establish a baseline for movement and vibrations. This data will be used to identify safe vibration limits formalized in a Monitoring Plan. Signatories will have thirty (30) calendar days to review and comment on the Monitoring Plan, expected in Spring 2023.
- ii. Monitoring will be carried out for the entire project duration to ensure compliance with safe vibration limits.
- iii. Construction activities will be halted should any vibration, settlement, or unanticipated circumstances exceed the safe limits outlined in the pending Monitoring Plan; and
- iv. If safe limits are exceeded, the SI will stop work, notify the Signatories and other parties as appropriate, and follow Stipulation 5 (Emergency Actions) of this PA prior to resuming construction activities.

2. MINIMIZATION MEASURES

The following measures were developed through Section 106 consultation to date to minimize adverse effects. Phase 2 of Section 106 consultation will consider additional alternatives and details that have

the potential to further minimize or intensify the adverse effect (Exhibit G). Consultation on these measures will be developed in accordance with Stipulation 4 (Phase 2 Future Consultation) of this PA.

A. South Areaways: The southeast and southwest areaways were originally proposed with singular egress, placing areaway structure along significant portions of the Castle's south elevation, and between the Octagon and Southeast Towers and grade level. These designs were determined in consultation to significantly alter the Castle's relationship with the ground plane. The southwest areaway will be bisected around the Octagon Tower. The southeast areaway will be bisected around the Southeast Tower, and the length of its west portion reduced. These changes maintain the relationship between the Towers and grade, and reduce the visual impact and perceived size of the areaways.

i. Phase 2 of 106 consultation will consider the following design details associated with the areaways: fall protection railing design; finish materials for the areaway paving and walls; and finish materials for the Castle's exposed foundation.

B. Perimeter Security: Perimeter security was originally proposed with a continuous line of bollards and site walls to create a barrier the full length of the Castle along Jefferson Drive. This design was determined to have significant adverse effects on the Castle and National Mall settings, and was revised in consultation to focus on the three building entrance locations only on Jefferson Drive and to minimize the use of bollards.

i. Phase 1 of Section 106 consultation considered various combinations of hardened metal bollards (fixed and retractable), landscape wall features, and benches. There was consensus for the length, size, and placement of the integral bollard benches adjacent to the porte cochere; and for the length of benches adjacent to the accessible walkway entrances.

ii. Phase 2 of Section 106 consultation will consider the following design details associated with perimeter security: bollard finish and decorative treatment; materials for site walls; and alternatives for the integral bollard bench designs.

C. South Tower Elevators Exterior Effects: Two accessible elevators will be required in the South Tower for the public. These elevators originally proposed a mechanical relief penthouse and required elevator overruns. The mechanical penthouse was determined in consultation to be highly visible, and adversely affect the Castle's South Tower. An alternative to route the mechanical relief using through wall louvers at brick infill on the non-visible north elevation of the South Tower was developed in consultation. This solution results in a non-visible change to support the elevators, aside from the overruns.

i. Phase 2 of Section 106 consultation will consider the following design details associated with the South Tower elevators: overrun dimensions and massing; and overrun cladding materials and treatment.

3. INITIAL MITIGATION MEASURES

The following measures were identified through Section 106 consultation to mitigate adverse effects known at this time. These measures do not preclude additional mitigation developed per Phase 2 of Section 106 consultation, to address new or intensified adverse effects.

A. Restoration of the Castle's Setting: Restoration of the Castle's setting will be complete within three (3) months of concluding construction on the Project in 2028. Adverse effects related to construction activities, excavation, and alternate pedestrian routes will be mitigated through implementation of the following:

i. All temporary pathways and pedestrian landbridge materials will be removed. Construction fencing will be removed. Excavation will not result in a discernible alteration to the above grade setting of the Castle, Haupt Garden, or Folger Rose Garden. Grade levels will be restored to preconstruction conditions.

ii. Displaced hardscape materials will be returned, restoring the dimensions of existing pedestrian paths and sidewalks. Aggregate concrete sidewalk paving at the west, north, and east (Folger Rose Garden) will be replaced in-kind. Brick and granite paving displaced by the project Limit of Disturbance in the Haupt and Folger Rose Gardens will be salvaged and reinstalled in their original locations.

iii. The landscaped setting will be restored within the Project Limit of Disturbance which includes the Castle perimeter, and limited portions of the Haupt Garden and Folger Rose Gardens. There will not be significant changes to the Haupt Garden, Folger Rose Garden, or the existing landscape setting. Landscape character will be restored through turf and planting diversity pursuant to the final landscape plan developed during Phase 2 of Section 106 consultation.

B. HALS Recordation of the Haupt Garden and Quadrangle Building: Prior to the initiation of any construction activities associated with either phase of the Project, the SI shall use Historic Landscape Survey (HALS) photography and measured drawings to document the Haupt Garden, Ripley Pavilion, Sackler Gallery Pavilion, African Art Pavilion, and associated Garden structures including the Moongate Garden, Fountain Garden, Downing Urn, and the Renwick Gates. Documentation will be submitted for inclusion in the HALS collection and published on the SI's Architectural History and Historic Preservation webpage, or otherwise be made available to the public, within two (2) years of the date of signature on this PA.

C. Updates to National Historic Landmark Documentation: The SI will update the National Historic Landmark documentation for the Castle and the Arts and Industries Building. The documentation will be carried out in consultation with the DC SHPO and the National Historic Landmarks Program of the NPS. The updated documentation will be completed within four to six (4-6) years of the date of signature on this PA.

D. Seismic Control Joint Interpretive Signage: One (1) interpretive signage panel will be developed and installed to provide the public with information on the purpose of the seismic control joint. The permanent location and other details relating to the interpretive signage will be identified and developed in accordance with Stipulation 4 of this PA. The permanent signage should be installed in a location where the seismic control joint is immediately visible from the public sidewalk, such as the apse of the west wing, but not in an area where the signage could cause adverse visual effects on the Castle or its setting.

E. Historic Fabric Documentation: If unanticipated historic fabric is discovered during excavation and construction, SI will stop work, notify the Signatories, and follow Stipulation 10 (Post-Design Review of

Archaeological and Unanticipated Discoveries) of this PA. If a majority of the Signatories agree it is warranted, in supplement to Stipulation 10, uncovered historic fabric will be documented in a web-based educational exhibit published on the SI's Architectural History and Historic Preservation webpage, or otherwise made available to the public. SI will consult with the Signatories on the publication of an exhibit of uncovered archaeological resources, to be complete within six (6) months of the conclusion of excavation work.

4. PHASE 2 FUTURE CONSULTATION

The RoHC Revitalize Castle project requires construction of Phase 1 activities to begin in March 2023. Subsequent design, consultation, and NCPC approval of Phase 2 actions will continue without pause after the execution of this PA. The SI shall consult with the Signatories, Consulting Parties, and the public in accordance with this PA and 36 CFR § 800 as follows:

A. Continuing Involvement of Signatories, Consulting Parties, and the Public: Signatories, Consulting Parties, and the public will continue to have the opportunity to participate in Section 106 consultation for Phase 2 of the RoHC Revitalize Castle project. The SI will maintain a schedule for Section 106 consultation with critical dates and identified opportunities for consultation and comment. The SI will maintain the current project website (<https://www.sifacilities.si.edu/historic-core>), retaining all materials posted and available to date. The SI will continue to provide email notifications to Consulting Parties of Section 106 meetings and/or website content updates.

B. Assessment of Effect and Resolution of Adverse Effects: The SI shall apply the criteria of adverse effect in consultation with the Signatories and Consulting Parties to Phase 2 design actions, and use this analysis to develop alternatives that avoid or minimize adverse effects. The SI will consult to identify ways to avoid, minimize or mitigate adverse effects pursuant to 36 CFR § 800.5 and 800.6. Agreed upon minimization and mitigation measures will be formalized in an amendment(s) to this PA made in accordance with Stipulation 9 or in a separate Memorandum or Memoranda of Agreement executed pursuant to 36 CFR § 800.6.

C. Preservation and Rehabilitation: Phase 2 actions will be designed in accordance with the NHPA and the *Secretary of the Interior's Standards for Preservation and Rehabilitation* to the greatest extent possible.

D. Design and Construction Schedule: Section 106 consultation for Phase 2 will continue in 2023 with Consulting Parties Meeting #10 scheduled for February 2023. SI will continue to conduct Consulting Parties meetings on a monthly, or as needed basis. Construction of Phase 1 activities will commence in March 2023, critical to the timeline of presenting the Castle in a usable condition for participation as an event and facility space for Semiquincentennial activities between Spring and Fall of 2026. During 2026 activities, construction work will be temporarily demobilized, and the grade and landscape will be restored with temporary turf grass. In the fall of 2026 construction work will remobilize and the building will be scaffolded, with the Project scheduled for completion in 2028. The majority of the rehabilitation work will occur post-2026.

5. EMERGENCY ACTIONS

Emergency actions are those deemed necessary by the SI as an immediate and direct response to an emergency situation. Emergency actions include exceeding safe vibration limits outlined in the

Monitoring Plan, stopping work, and following the stipulations of this PA. Provisions of this PA will not restrict or otherwise impede the SI from taking immediate actions deemed necessary as an immediate and direct response to an emergency situation, to protect life and property, detect or otherwise respond to a credible terrorist threat or attack upon the Castle, or to address an emergency condition resulting from construction. Emergency actions under this PA are only those implemented within thirty (30) calendar days from the initiation of the emergency situation.

A. If the emergency action has the potential to affect the Castle, its associated historic setting, or adjacent historic properties, the SI will notify the DC SHPO, Signatories, and other relevant parties as appropriate, by telephone within twenty-four (24) hours prior to taking the action, when feasible. As part of the notification, SI will provide a plan to address the emergency. The DC SHPO and Signatories will have seven (7) calendar days to review and comment on the plan to address the emergency. If the DC SHPO or Signatories do not comment or do not object to the plan within the review period, SI will implement the proposed plan.

B. If the SI is unable to consult prior to carrying out emergency actions, SI will notify the DC SHPO, Signatories, and other parties as appropriate, within forty-eight (48) hours after the initiation of the emergency action. This notification will include a description of the emergency action taken, the effects of the action(s) on historic properties, and where appropriate, any further proposed measures to avoid, minimize, or mitigate potential adverse effects on historic properties. The DC SHPO and Signatories will have seven (7) calendar days to review and comment on the proposal where further action is required to address the emergency. If the DC SHPO or Signatories do not comment or do not object to the plan within the review period, the SI will implement the proposed plan.

C. Such emergency actions, where possible, will be undertaken in a manner that does not preclude future preservation or restoration of historic properties.

D. Immediate rescue and salvage operations conducted to preserve life or property are exempt from the stipulations of this PA.

6. MONITORING AND REPORTING

Each year, by the anniversary date of the last signature on this PA until it expires or is terminated, the SI will provide the Signatories a summary report detailing work undertaken pursuant to the terms of the PA. Such report will include any scheduling changes proposed, any problems encountered, and any disputes and objections received in the SI's efforts to carry out the terms of this PA. Failure to provide such summary report may be considered non-compliance with the terms of the PA pursuant to the Amendments stipulation of this PA.

7. QUALIFICATIONS

SI will ensure that all historic preservation work performed on its behalf pursuant to this PA will be accomplished by, or under the direct supervision of a person or persons who meet(s) or exceed(s) the pertinent qualifications cited in the *Secretary of the Interior's Professional Qualifications Standards*.

8. ANTI-DEFICIENCY ACT

The SI's obligations under this PA are subject to the availability of appropriated funds, and the

stipulations of this PA are subject to the provisions of the Anti-Deficiency Act. The SI will make reasonable and good faith efforts to secure the necessary funds to implement its obligations under this PA. If lack of appropriated funds or compliance with the Anti-Deficiency Act alters or impairs the SI's ability to implement its obligations under this PA, the SI will consult in accordance with the Amendments stipulation, and if necessary, the Termination stipulation.

9. AMENDMENTS

This PA may be amended when such an amendment is agreed to in writing by all Signatories. The amendment will be effective on the date a copy signed by all the Signatories is filed with the ACHP. If the Signatories cannot agree on appropriate terms to amend the PA, any Signatory may terminate the PA in accordance with the Termination stipulation of the PA.

10. POST-DESIGN REVIEW OF ARCHAEOLOGICAL AND UNANTICIPATED DISCOVERIES

Land surrounding the Castle was previously disturbed by the construction of the existing building, therefore, there is low potential for archaeological resources that pre-date construction and are listed in or eligible for listing in the National Register to be disturbed. Unanticipated discovery of archaeological resources or historic fabric will be reviewed as follows:

A. Archaeological Resources: Should archaeological resources be unexpectedly identified during excavation and construction, the SI will ensure that reasonable efforts are made to avoid, minimize, or mitigate adverse effects on such resources. An Archaeological Monitor will observe all ground-disturbing site work. In the event resources are uncovered, the SI will temporarily halt subsurface construction, and SI will consult with the DC SHPO to resolve any unavoidable adverse effects pursuant to 36 CFR § 800.6

B. Treatment of Human Remains: In the event that human remains, burials, or funerary objects are discovered excavation or construction the SI will immediately halt subsurface construction disturbance in the area of the discovery and in the surrounding area where additional remains can reasonably be expected to occur. The SI will immediately notify the DC SHPO and the District of Columbia Chief Medical Examiner (CME) of the discovery under DC Code Section 5-1406 and other applicable laws and regulations.

i. If the CME determines that the human remains are not subject to a criminal investigation by federal or local authorities, SI will comply with the application federal or local laws and regulations governing the discovery and disposition of human remains and consider the ACHP's Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects (2007).

ii. For actions involving Native American human remains or burials, the SI will comply with applicable laws. Should human remains or such objects be found, the DC SHPO will be notified.

C. Historic Fabric: Should unanticipated historic building fabric or evidence that contributes to the understanding of how the building was constructed be uncovered during excavation and construction, the SI will ensure that reasonable efforts are made to avoid, minimize, or mitigate adverse effects to such resources. In the event unanticipated historic fabric is uncovered, the SI will temporarily halt construction, and SI will consult with the DC SHPO. SI will prepare a notification with a description of

the uncovered historic fabric, and the effect of the Project on the historic fabric. The DC SHPO and Signatories will have fifteen (15) calendar days to review and comment on the notification. Possible outcomes include, but are not necessarily limited to: recordation and proceeding with the work; salvaging historic fabric; and design revisions to preserve select historic fabric in situ.

11. DESIGN REVIEW

The SI will consult with the Signatories regarding the design of the Southeast Pedestrian Landbridge, any design changes for Phase 1 activities, and any additional actions that need to be prioritized under Phase 1. Any deviation from the Phase 1 project scope as shown in the Exhibits, or any modification recommended by NCPC and/or the Commission of Fine Arts after final approvals will be conducted as follows:

- A. The SI will review any changes and propose a determination as to whether the design change may result in no adverse effects, new adverse effects that have not already been resolved, and/or the intensification of known adverse effects to historic properties.
- B. The SI will forward, via electronic format, its determination and detailed information on the design change to the Signatories for a thirty (30) calendar day review and comment period.
- C. If the SI or any Signatory determines that a new adverse effect may result or a known adverse effect will be intensified, the SI will consult with the Signatories to avoid, minimize, or mitigate the new or intensified adverse effect. If the SI determines that unavoidable adverse effects may result or be intensified, the SI will consult with the Signatories to determine whether the design change warrants an Amendment to this PA to identify measures that will be carried out to avoid, minimize, or mitigate any new or intensified adverse effects.
- D. The SI will include Consulting Parties in the review of design changes as appropriate, or as agreed to by the Signatories. If the PA is amended, SI will notify the Consulting Parties, and provide or post the Amendment to a SI webpage, also in accordance with Stipulation 4 of this PA.

12. DISPUTE RESOLUTION

Should any Signatory object at any time to any action proposed or the manner in which the terms of this PA are implemented, SI will consult with the Signatories to resolve the objection. If a resolution cannot be reached after a good faith effort to resolve the dispute, and the SI determines the objections cannot be resolved, the SI will:

- A. Forward all documentation relevant to the dispute, including the SI's proposed resolution, to the ACHP. The ACHP will provide the SI with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the SI will prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP and Signatories and provide them with a copy of this written response. The SI will then proceed according to the SI's final decision.
- B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day period, the SI may make a final decision on the dispute and proceed accordingly. Prior to reaching a final decision, the

SI will prepare a written response that takes into account any timely comments regarding the dispute from the Signatories to the PA and provide them and the ACHP with a copy of such written response.

C. The SI's responsibility to carry out all other actions subject to the terms of this PA that are not the subject of the dispute remain unchanged.

13. TERMINATION

If any Signatory to this PA determines that its terms cannot or are not being properly implemented, that Signatory will immediately consult to attempt to develop an amendment per the Amendments stipulation of this PA. If the Signatories cannot reach agreement on an amendment within thirty (30) days (or another time period agreed to by all Signatories), any Signatory may terminate the PA upon written notification to the other Signatories. Once the PA is terminated, and prior to work continuing on the undertaking, the SI must either (a) execute a new MOA pursuant to 36 CFR § 800.6 or new PA pursuant to 36 CFR § 800.14(b), or (b) reinstate consultation on the unfinished components of the undertaking pursuant to 36 CFR § 800 and applicable sections of the PA. The SI will notify the Signatories as to the course of action it will pursue.

14. ELECTRONIC COPIES

Within one week of the last signature on this PA, the SI will provide the Signatories with one legible, color, electronic copy of the fully executed PA and all attachments fully integrated into one, single document. Internet links will not be used to provide copies of attachments. If the electronic copy is too large to send by e-mail, the SI will provide the Signatories with a copy of this PA on a compact disc.

15. DURATION

This PA will be in effect for ten (10) years from the date of its execution. Prior to such time, the SI may consult with the Signatories to reconsider the terms of the PA and amend it in accordance with the Amendments and Non-Compliance stipulation of this PA.

Execution of this PA by the Signatories and the implementation of its terms evidences that the SI has taken into account the effects of the Revitalization of the Historic Core Revitalize Castle Project on historic properties, and provided the ACHP a reasonable opportunity to comment.

SIGNATURES FOLLOW ON SEPARATE PAGES

EXHIBITS

Exhibit A – List of Consulting Parties Meetings

Exhibit B – Section 106 Project Phasing

Exhibit C – Phase 1 Design Actions

Exhibit D – List of Consulting Parties

Exhibit E – Assessment of Effects Report Summary

Exhibit F – Assessment of Effects on Historic Resources

Exhibit G – Minimization Measures

**SIGNATURE PAGE
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THE SMITHSONIAN INSTITUTION

DocuSigned by:

Ron Cortez

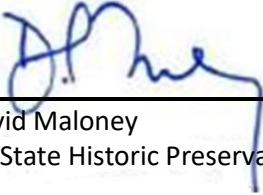
2/27/2023 | 9:38 PM EST

Ronald S. Cortez, JD, MA
Under Secretary for Administration

Date

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DC STATE HISTORIC PRESERVATION OFFICER



David Maloney
DC State Historic Preservation Officer

March 1, 2023

Date

**SIGNATURE PAGE
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THE NATIONAL CAPITAL PLANNING COMMISSION



March 6, 2023

Marcel C. Acosta
Executive Director

Date

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THE ADVISORY COUNCIL ON HISTORIC PRESERVATION



March 29, 2023

Reid Nelson
Executive Director

Date

Exhibit A – List of Consulting Parties Meetings

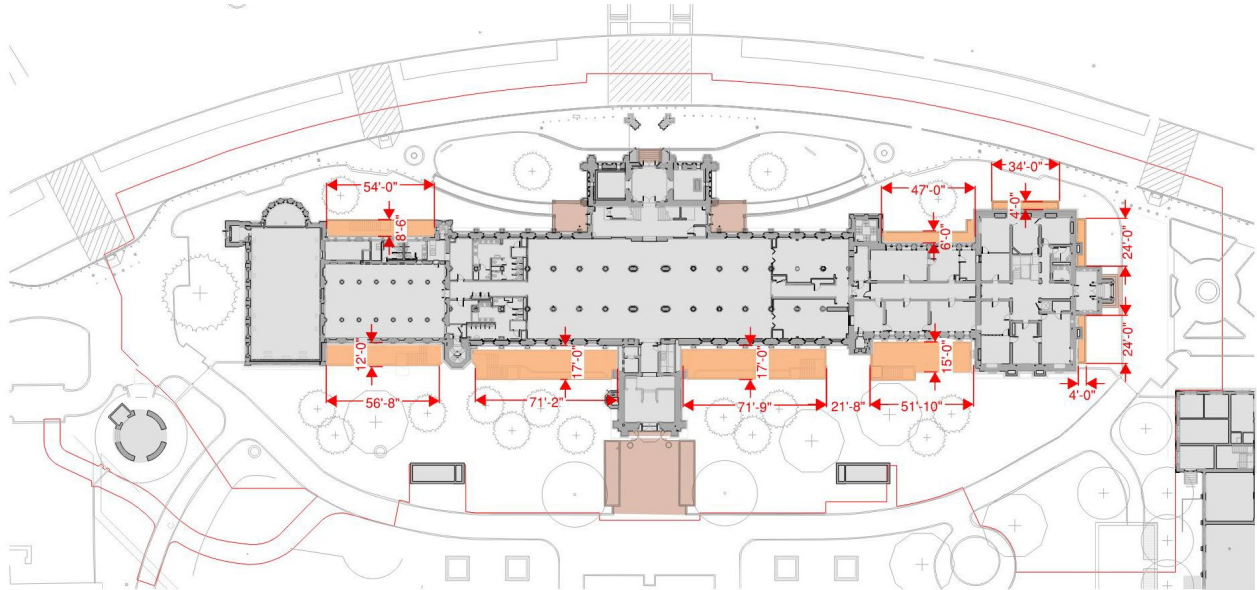
Meeting Number	Date	Meeting Content
1	January 13, 2021	This meeting introduced the Revitalization of the Historic Core scope and Section 106 process overview. Project scope included the revitalization of the Castle and the AIB, and construction of a below-grade Central Utility Plant with associated Cooling Towers. Preservation zone diagrams were reviewed for the Castle and the AIB.
2	May 26 and 27, 2021	This meeting presented the concept design for the Revitalization of the Historic Core project. The meeting was held over two days; the first day reviewed the rehabilitation of the Castle and the AIB; the second day reviewed the underground construction, Central Utility Plan, Cooling Towers, and the landscape.
3	November 16 and December 14, 2021	This meeting was conducted over two days; the November meeting reviewed the schematic design; after the November meeting a preliminary Assessment of Effects report was released for Consulting Parties review; the December meeting reviewed the character defining features of the Castle and the AIB, and the preliminary Assessment. The schematic design included continuous perimeter security bollards along Jefferson Drive, and alternatives for the 4 th floor egress path at the East Wing.
4	June 15, 2022	This meeting introduced narrowing the scope to the Revitalize Castle, removing AIB, Central Utility Plant, and Cooling Towers from the project. This meeting reviewed alternatives for the 4 th floor egress path at the East Wing. At the request of the NCPC, perimeter security alternatives were developed in front of the Freer to consider a holistic treatment of the South Mall Campus. Perimeter security design included continuous bollards on Jefferson Drive in front of the Castle.
5	August 24, 2022	This meeting reviewed a design alternative that reduced the required perimeter security to the Castle’s three north entrance locations (porte cochere and accessible walkways). Seismic joint cover sizes, details, and visualizations were reviewed for the entire Castle perimeter. The proposed East Wing elevator was revised through the use of “machine room less” technology, which eliminated a visible rooftop bulkhead.
	September 7, 2022	Open house site visit at the Castle to review six granite material options for the seismic control joint cover plate. Materials were staged in three locations about the Castle perimeter. Perimeter security extents were mocked-up to demonstrate dimensions and placement of the benches and bollards. Consulting Parties preferred two

		gray granites, and suggested an additional gray granite option.
6	September 28, 2022	This meeting reviewed the extent of excavation adjacent to and beneath the Castle. Seismic control joint details were reviewed, including two alternatives for the treatment of the cover plate edge condition. Several alternatives were reviewed for the dimensions and design of the double-sided benches that incorporate bollards adjacent to the porte cochere.
7	October 26, 2022	This meeting focused on the design details for the Phase 1 actions. The alternate pedestrian routes and the South Tower elevators were presented for the first time. The Assessment of Effects report was updated and presented, and released for Consulting Parties review after the meeting. The report proposed final effect determinations for Phase 1, and preliminary effect determinations for Phase 2.
	November 15, 2022	Open house sit visit at the Castle to review material options for the seismic control joint cover plate; two gray granites reviewed at the September meeting, with a third new option. Consulting Parties preferred Virginia Mist. Revised perimeter security extents were mocked-up with the shortened benches adjacent to the accessible walkways and the porte cochere. Consulting Parties supported the shortened benches and “no wrap around” edge treatment. Consulting Parties visited the existing southwest and southeast areaways.
8	November 30, 2022	This meeting reviewed the Assessment of Effects report, Programmatic Agreement outline, and introduced the mitigation package. A new alternative to accomplish the South Tower elevators without a visible mechanical bulkhead was presented, and favorably received. New alternatives for the southwest and southeast areaways were presented, that bisect egress around the Octagon and Southeast Towers, and were favorably received. SI subsequently developed an alternative to further reduce the southeast areaway.
9	January 25, 2023	This meeting reviewed the draft Programmatic Agreement, following a Consulting Parties review period.

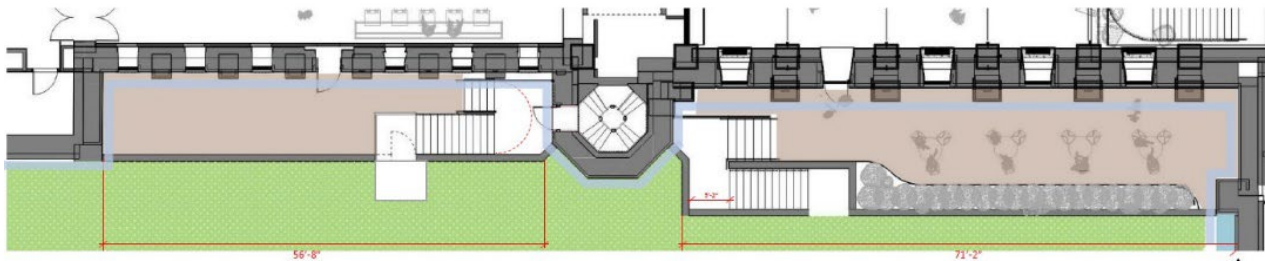
Exhibit B – Section 106 Project Phasing

Phase 1 – Baseline Project	Phase 2
<ul style="list-style-type: none"> • Introduction of New Areaways and Window Wells (Locations and Dimensions) • Installation of Seismic Control Joints Around the Castle Perimeter (Location and Width) • Extent of Excavation Adjacent to the Castle – SIB Extension (B1 Level), B2 Level Cistern • Excavation Beneath the Castle – Base Isolation, Lowering of the Basement Level Future Quadrangle Building B2 Connection, Mechanical Distribution Level • Creation of Alternate Pedestrian Routes for Circulation Around the Castle • Cumulative Effects of Phase 1 Activities 	<ul style="list-style-type: none"> • New Landscape Planting Plan • Perimeter Security • Lighting • South Tower Elevator – Exterior Alterations • South Tower Elevator – Interior Effects • Areaways and Window Wells – Finishes (Note: Introduction of New Areaways and Window Wells determined to have an adverse effect in Phase 1. Finish options for exposed basement planned for Phase 2 consultation.) • Seismic Control Joint Cover Plate – Finishes (Note: Installation of Seismic Control Joints determined to have an adverse effect in Phase 1. Material options for the cover plan planned for Phase 2 consultation.) • Emergency Generator • In-Kind Replacement of Roof Materials • Roof Modifications – Energy Improvements, Including Increases in Roof Thickness • Modifications to Rooftop Mechanical Penthouses • Installation of New East Wing 4th Floor Egress • Replacement and Restoration of Windows • Replacement and Restoration of Windows – Interior Effects • Exterior Masonry Restoration • New Basement Windows • Basement Egress Doors • Basement Level Interior Alterations – Lowering of the Basement Floor, New Basement Window Openings, and Egress Paths to Basement Level Egress Doors • Alterations at the South Entrance to Improve Accessibility • Accessible Walkways at the North Entrance • Cumulative Effects on the Castle • Cumulative Effects on the National Mall Historic District

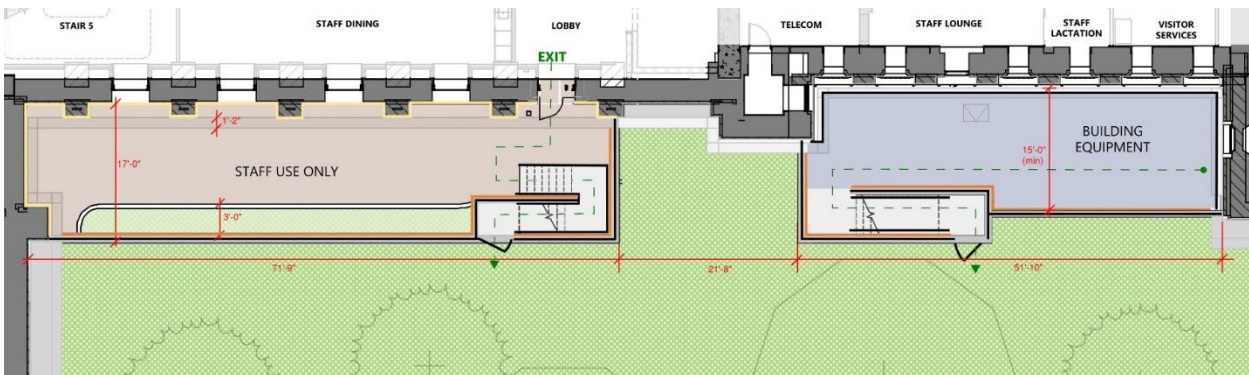
Exhibit C – Phase 1 Design Actions



Proposed Castle site plan, with below-grade areaways and window wells noted with orange shading. Red lines note the project Limit of Disturbance and alternate pedestrian routes. During Phase 1 consultation, the south areaways were bisected to preserve the relationship of perimeter towers with the grade, and dimensions were minimized.



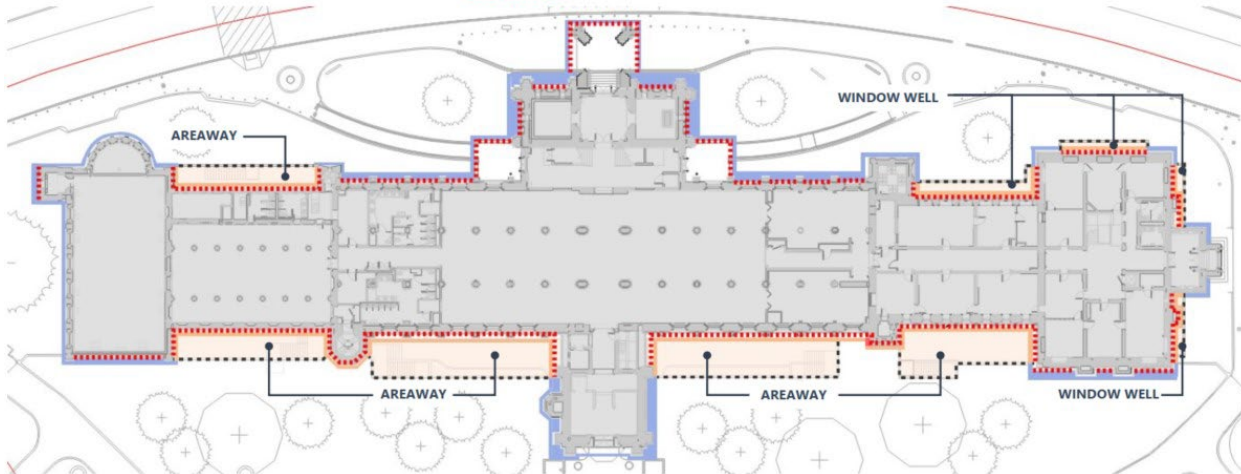
Detail plan of the Castle's proposed southwest areaway.



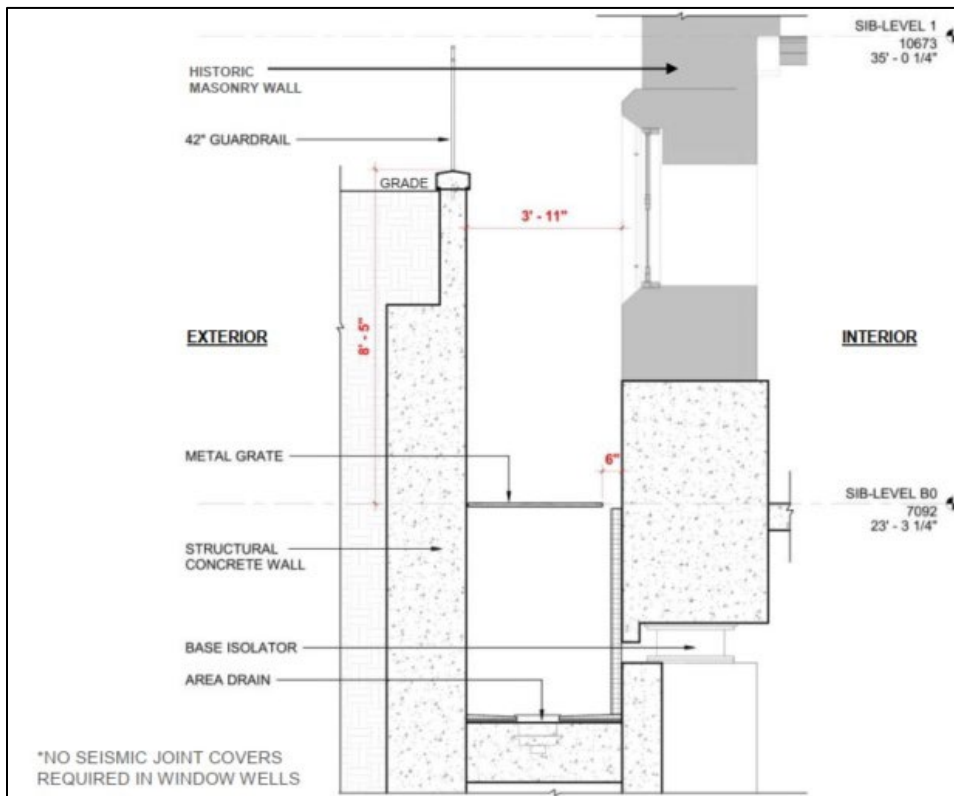
Detail plan of the Castle's proposed southeast areaway.

SEISMIC CONTROL

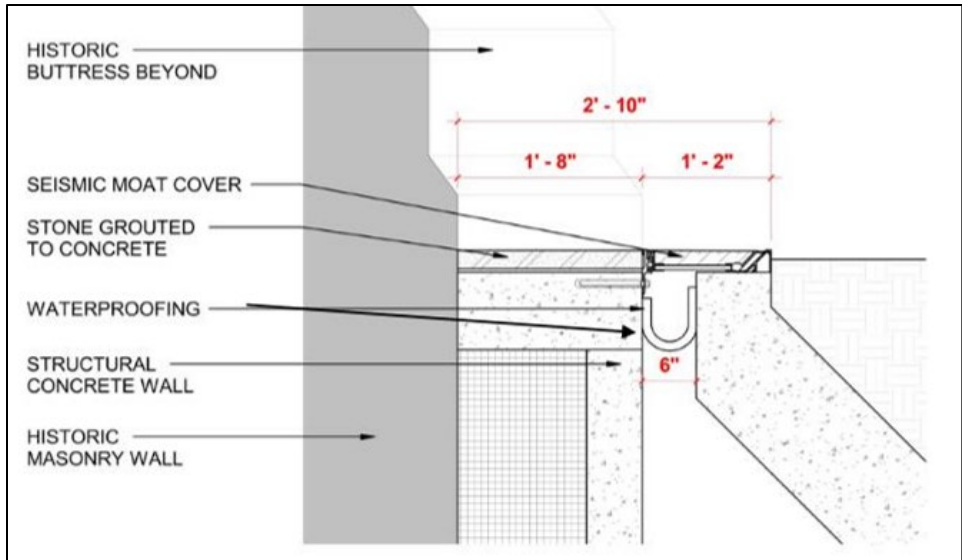
- SEISMIC MOAT WITH JOINT COVER (AT GRADE)
- JOINT COVER (IN AREAWAYS / WINDOW WELLS)
- · - · - JOINT COVER ANCHORED TO NEW CONCRETE **1,040 LINEAR FEET**
ALL OTHER LOCATIONS ANCHORED TO HISTORIC SANDSTONE **335 LINEAR FEET**



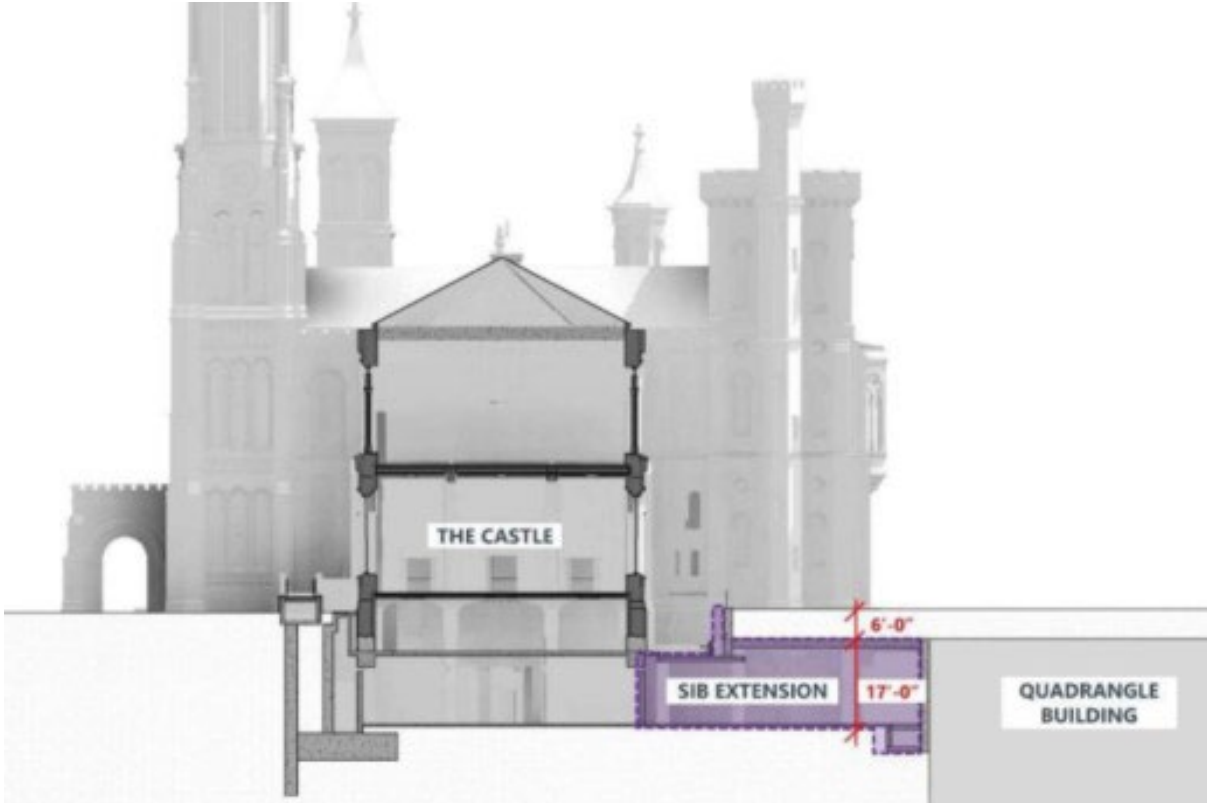
Proposed Castle site plan. Blue shading notes at-grade seismic joint cover; orange shading notes below-grade seismic joint cover in areaways or window wells. Red dotted line around the porte cochere notes the at-grade location of the seismic control joint in the Jefferson Drive sidewalk.



Section of a typical window well. Note: Seismic control joint covers the seismic moat to prevent water infiltration. Seismic control joint cover is not required in the proposed window wells because water infiltration is handled through floor drains.



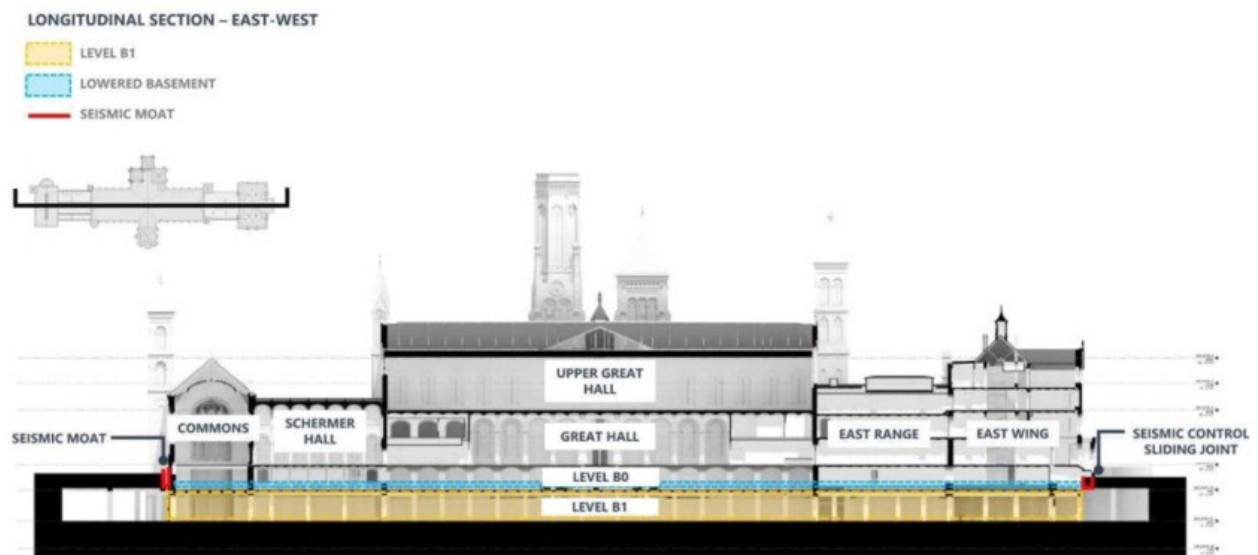
Section of a typical seismic joint cover with a finished metal edge. During Phase 1 consultation there was some consensus that this option with the narrowest possible width dimension minimizes visual impact and adverse effect.



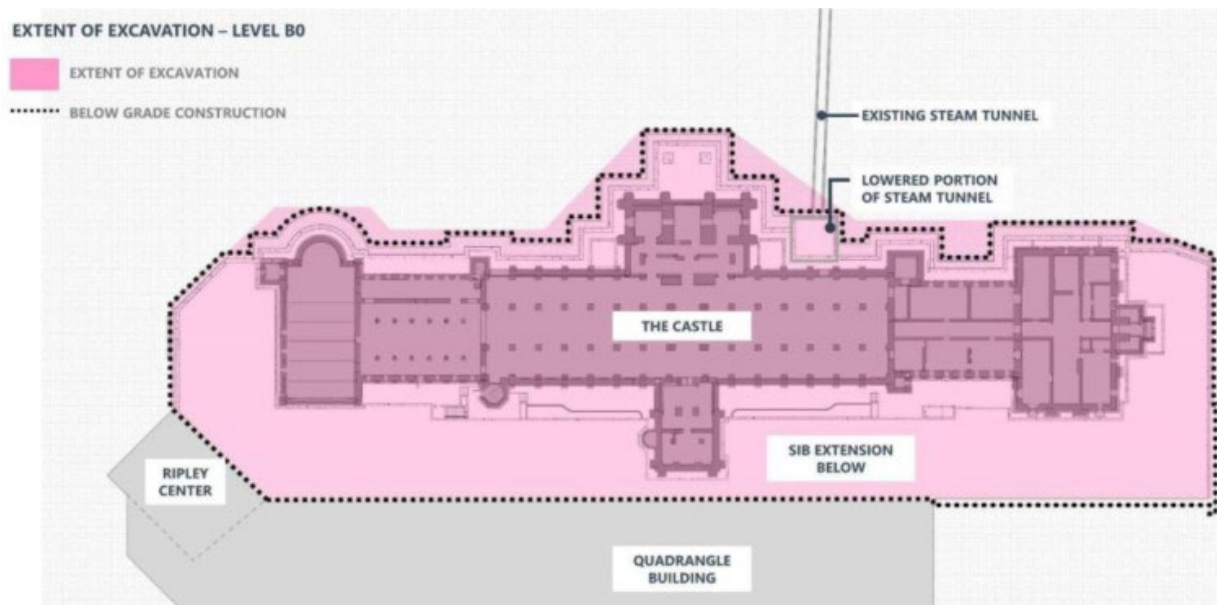
Proposed transverse section through the Castle showing the depths of excavation adjacent to the Castle. SIB Extension is shaded purple, which provides connection to the existing Quadrangle Building loading dock and spaces for support functions for the Castle.



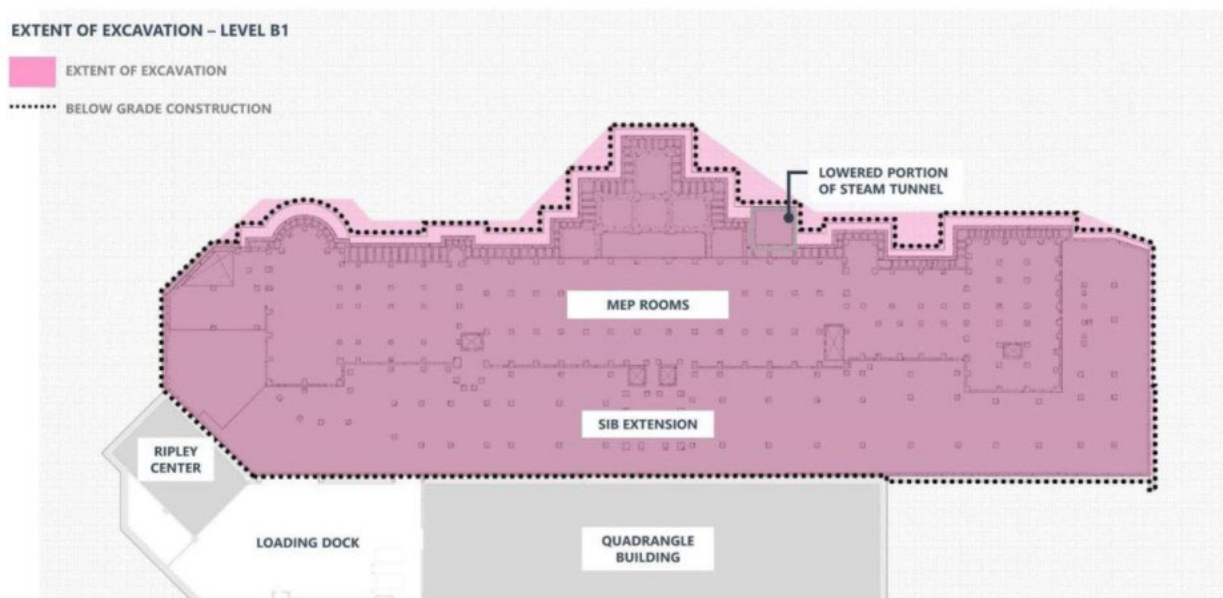
Proposed transverse section through the Castle showing the depths of excavation beneath the Castle. Lowered basement is shaded blue. Mechanical distribution level and seismic base isolation are shaded yellow.



Proposed longitudinal section through the Castle showing the depths of excavation beneath the Castle.



Proposed extent of excavation at the B0 level. Note: B0 labels the current Castle basement.

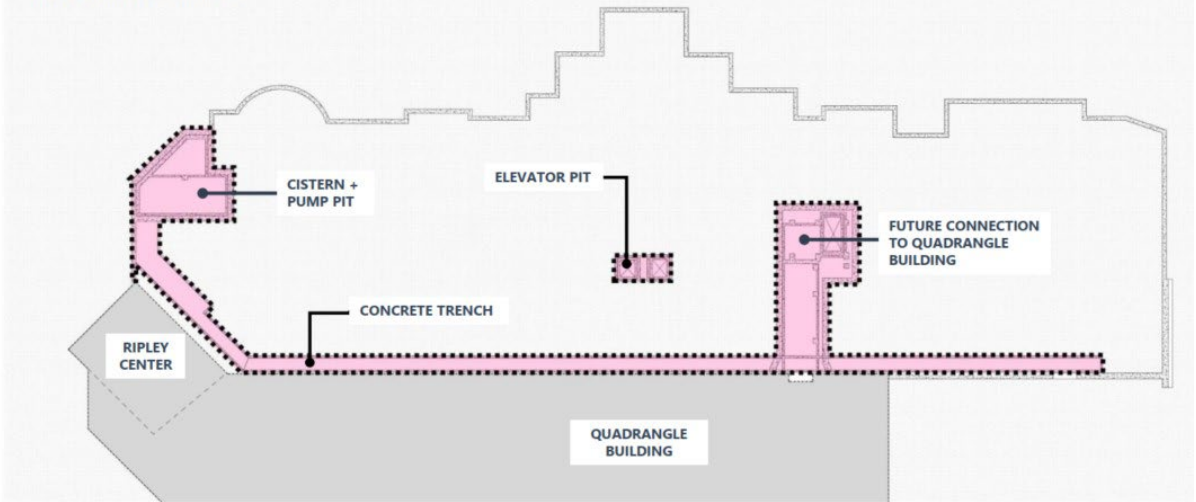


Proposed extent of excavation at the B1 level.

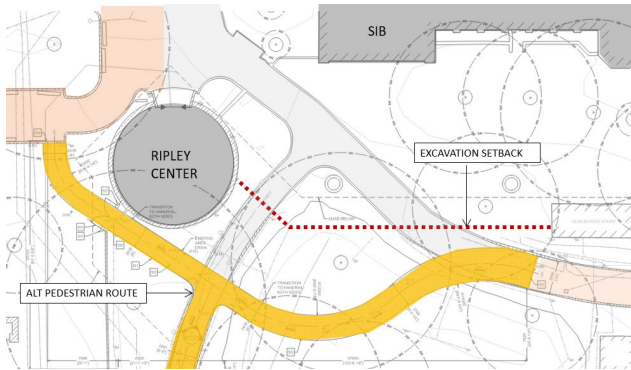
EXTENT OF EXCAVATION – LEVEL B2

EXTENT OF EXCAVATION

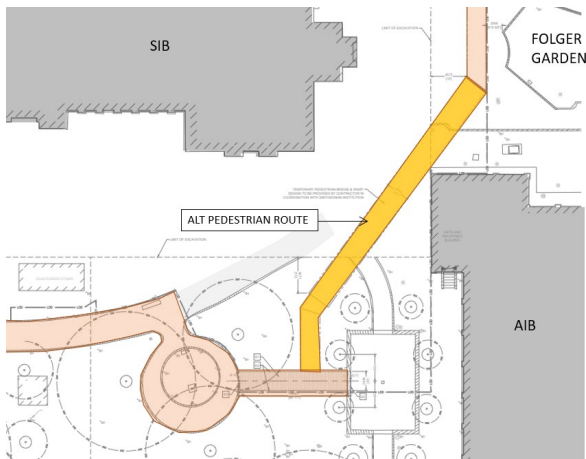
BELOW GRADE CONSTRUCTION



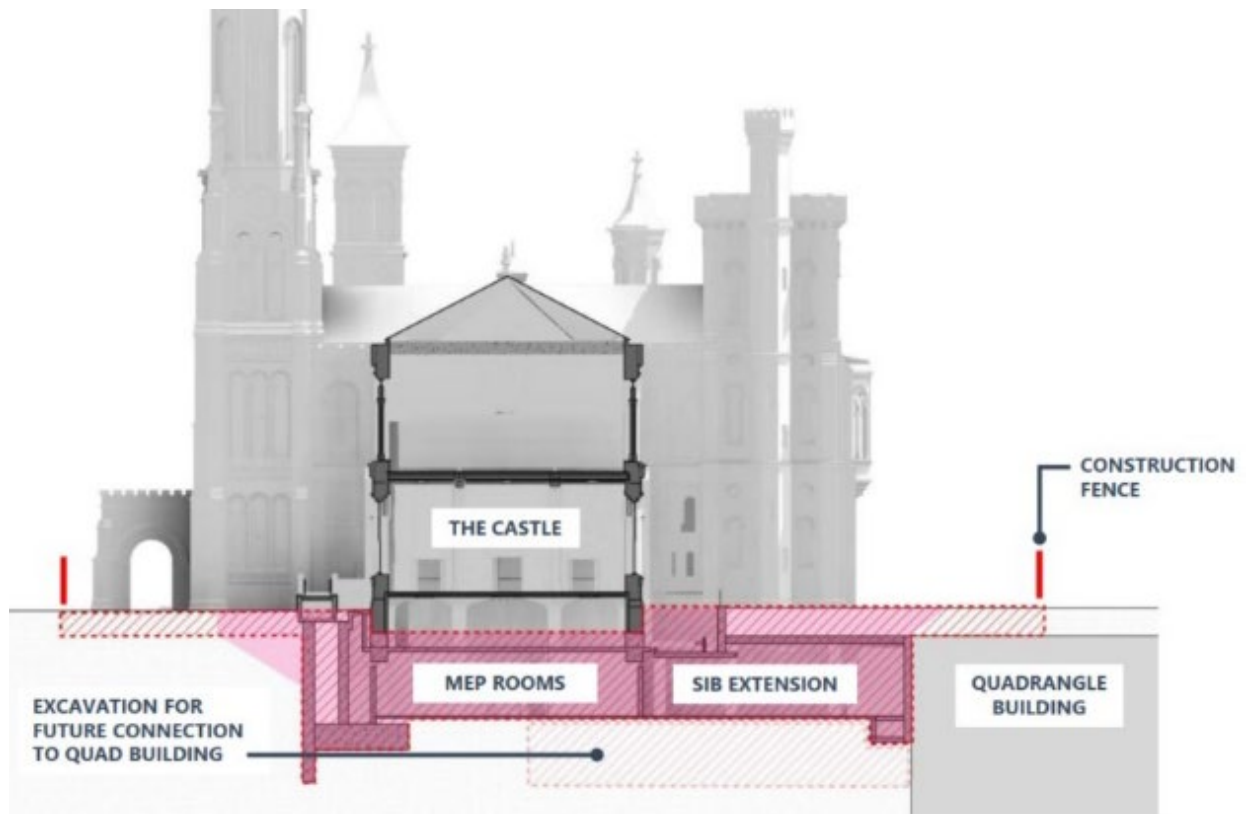
Proposed extent of excavation at the B2 level.



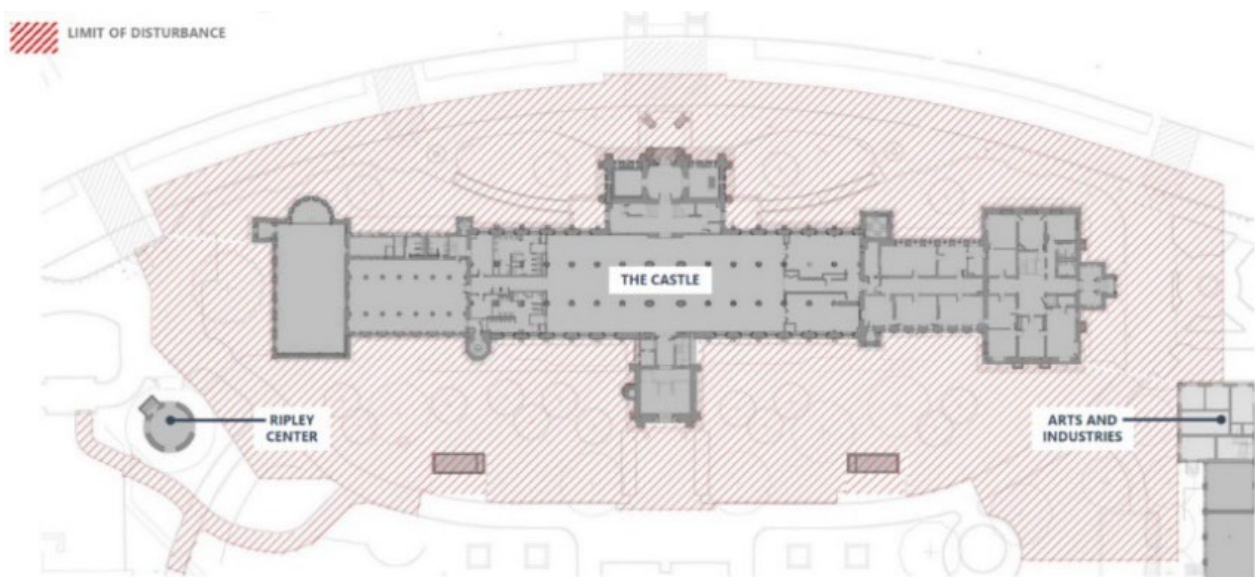
Alternate pedestrian route around the Castle's west side for access to the Quadrangle Building facilities and pedestrian circulation.



Alternate pedestrian route around the Castle's east side for access to the Quadrangle Building facilities and pedestrian circulation.



Transverse section through the Castle, noting the cumulative impacts of Phase 1 activities. Red hatching notes the project Limit of Disturbance. Pink shading notes below-grade construction work, including installation of the Mechanical Distribution Level, SIB Extension, seismic base isolation, and support of excavation. Construction fencing is noted with red lines.



RoHC Revitalize Castle project Limit of Disturbance. Red hatching notes the extent of area around the Castle that will be affected by excavation, construction staging, fencing, or other construction related activities.

Exhibit D – List of Consulting Parties *

Review Agencies

National Capital Planning Commission
U.S. Commission of Fine Arts

State Historic Preservation Office

DC State 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
Landmarks Program
Department of Agriculture
General Services Administration
Washington Metropolitan Area Transit Authority
DC Department of Energy and Environment
Department of Energy
Department of Health and Human Services
Federal Aviation Administration
Department of Justice
Environmental Protection Agency

Interested Parties

American Institute of Architects, DC Chapter
Committee of 100 on the Federal City
Cultural Landscape Foundation
DC Preservation League
Destination DC
Docomomo US and DC Chapter
Historic Anacostia
National Association of Olmsted Parks
National Mall Coalition
National Trust for Historic Preservation

Society of Architectural Historians
Society of Architectural Historians, Latrobe
Chapter
US Capitol Historical Society
Victorian Society in America
Victorian Society New York
Southwest BID
Southwest Neighborhood Assembly
National Civic Art Society
American Society of Landscape Architects
Garden Club of America

Local Elected Representatives

Advisory Neighborhood Commission 2C
Advisory Neighborhood Commission 6D

* Names of private individuals that participated in Section 106 consultation are not included for privacy concerns.

Exhibit E – Assessment of Effects Report Summary

This table provides a summary of the Assessment of Effects on Historic Resources report. This report contains final effect determinations for Phase 1 actions. Phase 2 effects are preliminary, and the Assessment report will be updated in future consultation.

Assessment of Effects Report Summary	
Phase 1 Action	Final Effect Determination
Introduction of New Areaways and Window Wells (Locations and Dimensions)	Adverse Effect
Installation of Seismic Control Joints Around the Castle Perimeter (Location and Width)	Adverse Effect
Extent of Excavation Adjacent to Castle – SIB Extension (B1 Level), B2 Level Cistern	Adverse Effect
Excavation Beneath the Castle – Base Isolation, Lowering of the Basement Level, Future Quadrangle Building B2 Connection, and Mechanical Distribution Level	Adverse Effect
Creation of Alternate Pedestrian Routes for Circulation Around the Castle	Adverse Effect
Cumulative Effects of Phase 1 Activities	Adverse Effect
Phase 2 Action	Preliminary Effect Determination
New Landscape Planting Plan	No Adverse Effect
Perimeter Security	Adverse Effect
Lighting	No Adverse Effect
South Tower Elevator – Exterior Alterations	Adverse Effect
South Tower Elevator – Interior Effects	Adverse Effect
Emergency Generator	Adverse Effect
In-Kind Replacement of Roof Materials	Adverse Effect
Roof Modifications – Energy Improvements, Including Increases in Roof Thickness	No Adverse Effect
Modifications to Rooftop Mechanical Penthouses	Adverse Effect
Installation of New East Wing 4 th Floor Egress	Adverse Effect
Replacement and Restoration of Windows	Adverse Effect
Replacement and Restoration of Windows – Interior Effects	Adverse Effect
Exterior Masonry Restoration	No Adverse Effect
New Basement Windows	Adverse Effect
Basement Egress Doors	Adverse Effect
Basement Level Interior Alterations – Lowering of the Basement Floor, New Basement Window Openings, and Egress Paths to Basement Level Egress Doors	Adverse Effect
Alterations at the South Entrance to Improve Accessibility	No Adverse Effect
Accessible Walkways at the North Entrance	No Adverse Effect
Cumulative Effects on the Castle	Adverse Effect
Cumulative Effects on the National Mall Historic District	Adverse Effect

Exhibit F – Assessment of Effects on Historic Resources**Criteria of Adverse Effect**

This report provides an assessment of effects on historic resources associated with the Revitalization of the Historic Core (RoHC) Revitalize Castle project. Effect assessments are based on the criteria of adverse effect as defined in the implementing regulations of Section 106 of the National Historic Preservation Act (36 CFR Part 800). The criteria of adverse effect are defined as follows:

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register of Historic Places in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative (36 CFR § 800.5(a)(1)).

Project Background and Section 106 Compliance

This project provides a comprehensive rehabilitation of the Smithsonian Institution Building (Castle) to address physical deterioration, obsolete infrastructure and systems, non-compliance with building codes, and provide below-grade mechanical and building support space connected to the adjacent Quadrangle Building loading dock.

The Castle is a National Historic Landmark, individually listed in the National Register of Historic Places and the DC Inventory of Historic Sites, and is a contributing element of the National Mall Historic District listed in the National Register. The Castle is also a contributing element of the Smithsonian Quadrangle Historic District listed in the DC Inventory of Historic Sites.

Initial Section 106 compliance resulted in a 2018 Programmatic Agreement for the larger South Mall Campus Master Plan of which the RoHC is a subset. The RoHC was further divided into two phases of consultation as described below. A Programmatic Agreement will be developed to oversee the two phases of the project, and an anticipated subsequent Memorandum of Agreement for the second phase of consultation.



Smithsonian Institution Building, Aerial Photograph.



Smithsonian Institution Building, South Elevation.

Smithsonian Institution Building – Character Defining Features *

The Smithsonian Institution Building (Castle), designed by James Renwick, Jr., in the Romanesque Revival or Norman Revival style, is nationally significant for associations with the history of science and scientific institutions, museums and

education; for association with prominent American scientists (National Register Criterion A); as a premiere example of mid-19th century romantic architecture and as a seminal work of Renwick; and for incorporation of innovative fireproof floor construction methods (National Register Criterion C).

The period of significance for the Castle is 1847-1910, to reflect the period of time that best demonstrates significance and historic associations. This date range reflects the lengthy construction that spanned a destructive fire, and later modifications by Adolf Cluss (fireproofing and East Wing reconstruction) and Hornblower and Marshall (Great Hall modifications, Smithson Crypt, and Children’s Room).

Character Defining Feature	Notes
Setting – Area surrounding base of the building to the north, east, and west, and the South Yard (Haupt Garden)	<ul style="list-style-type: none"> - Current hardscape and landscape were significantly modified in the last 30 years. - Jefferson Drive is the only extant roadway from the landscape setting during the period of significance. - Independence Avenue remains but is significantly altered. - Building entrances maintain relationship with grade and original configurations.
Building Massing and Materials	<ul style="list-style-type: none"> - Seneca sandstone exterior. - Decorative masonry trim, carved corbels, parapets, cornices, finials, arches, piers, and texture of hand chiseled stone faces. - Original pointing mortar was tinted red to match Seneca sandstone. - Building massing characterized by a central block with similarly scaled wings and hierarchically arranged towers.
Windows	<ul style="list-style-type: none"> - Majority of the windows are replacements dating to 1987-1992. - c. 1915 windows are extant in the West Range Clerestory and West Wing apse. - Original fenestration was wood muntins of square panes set in a diamond pattern. Mostly double-hung sash. - Photographic documentation pre-1887 shows the size of the diamond pane varied for each window type.
Roof Materials and Profiles	<ul style="list-style-type: none"> - Slate shingles and flat seamed lead coated copper. - Dynamic roofline follows the massing of the building.
North and South Towers	<ul style="list-style-type: none"> - Significant scale and decorative stone directs visitors to the primary entrances leading to the primary interior public space (Great Hall). Original doors were wood. - North porte cochere indicates primary reception point for visitors by vehicle. Access ramp and stair flanking the North Tower were added in 1987. - Original sandstone steps at the South Tower are extant beneath access ramp. - Clock added to the Flag Tower in 1966.
Perimeter Towers – West Tower, Northwest Tower, Octagon Tower, Campanile Tower, and Southeast Tower.	<ul style="list-style-type: none"> - Three of the perimeter towers provide vertical circulation. - Each tower has distinct design detailing.
Great Hall (Lower Main Hall) Interior	<ul style="list-style-type: none"> - Space is truncated by c. 1940 end walls. Full length mezzanine was removed in 1914. - Ornamental plaster and flat plaster walls scored to represent stone coursing. Plaster column bases were replaced with granite in 1989.

Assessment of Effects on Historic Resources

	- Terrazzo flooring sections from 1889 remain.
Upper Great Hall (Upper Main Hall) Interior	- Spatial proportions are obscured with infill construction c. 1968. - Ornamental plaster window surrounds are the only surviving historic features.
Basement Interior	- Utilitarian spaces with masonry floors and walls. Brick groin vaults supporting the first floor above are exposed. - Renwick era masonry partitions are distinguished by semi-circular brick arched door openings. Later door openings have segmental arch headers. - Modern conduit and mechanical pipes obscure the groin vaults and diminish the character of the space.
South Tower Interior	- Children’s Room at the first floor c. 1901. Mosaic tile floor, decorative finishes, and figurative ceiling treatment were restored in 1989. Non-historic platform and accessible lift occupy half of the space. - Apparatus Room at the second floor c. 1900. Modifications in 1968 converted this room to mechanical space. Portions of the decorative mosaic tile floor remain. - Regents’ Room at the third floor features ornamental and flat plaster, and decorative mosaic tile flooring in the outer vestibule.

* Original National Historic Landmark and National Register nominations are short. Character defining features are referenced from “Historic Structure Report, Smithsonian Institution Building, Smith-Group, December 2009.” The Historic Structure Report is available on the project webpage.

Phased Section 106 Consultation

SI identified a need to phase design and Section 106 consultation for the RoHC Revitalize Castle project to meet a March 2023 construction start. Phase 1 design actions are baseline project early construction activities, required to procure a contractor. Phase 1 actions are connected to below-grade construction work, including excavation below and adjacent to the Castle, insertion of seismic base isolation, and creation of areaways and window wells. A March 2023 construction start is critical to the timeline of presenting the Castle in a usable condition for participation in Semiquincentennial 2026 activities. During 2026 activities, construction work will be temporarily demobilized, and the grade will be restored with temporary turf grass. In the fall of 2026 construction work will remobilize and the building will be scaffolded, with the project scheduled for completion in 2028.

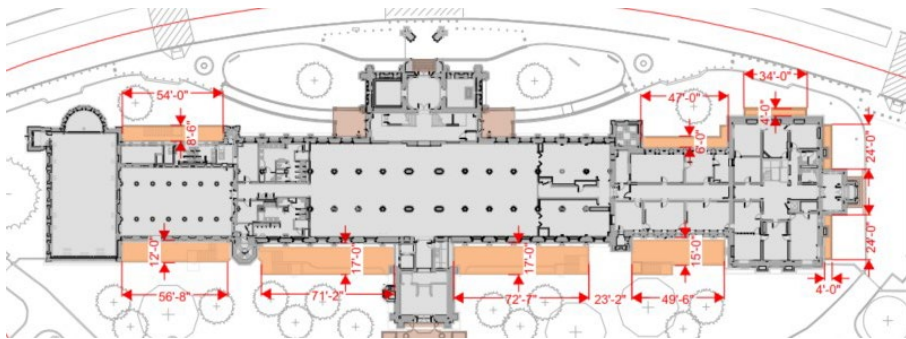
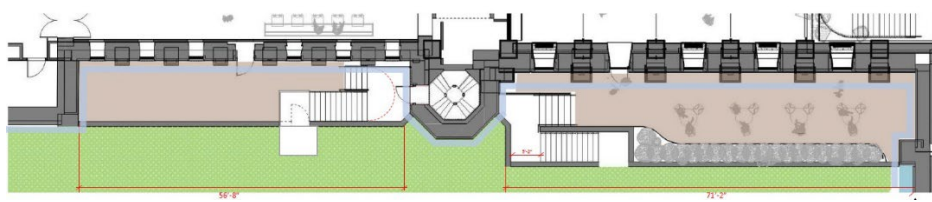
Design development and Section 106 consultation on Phase 2 design actions will continue without pause through 2023. Phase 2 consists of changes to the Castle exterior, restoration work, landscape, and perimeter security. Phase 2 includes some interior alterations that lack independent utility, meaning the interior change is directly related to an exterior change. Note that the interior scope of the RoHC project is broader than the work addressed in this report. These other interior changes are not subject to 106 consultation, because this work can function as stand-alone projects.

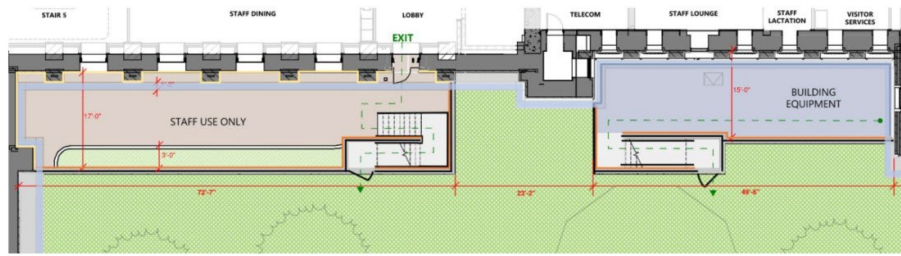
Smithsonian does not conduct Section 106 consultation on interior building changes because interior projects are not subject to National Capital Planning Commission (NCPC) review. Public Law No. 108-72, 117 Stat. 888, deems the Smithsonian a federal agency for purposes of compliance with Section 106 of the National Historic Preservation Act for projects in the District of Columbia requiring NCPC review and approval. Interior alterations that lack independent utility are included in 106 consultation to fulfill NCPC’s Section 106 consultation obligation. The Smithsonian, NCPC, and Advisory Council on Historic Preservation (ACHP) conferred and agreed upon this as set forth in a memo dated September 14, 2022, signed by NCPC and ACHP General Counsels.

This Assessment of Effects report contains effect determinations for Phase 1 actions. Phase 2 effects are preliminary, and the Assessment report will be updated in consultation when more information is available.

Assessment of Effects on Historic Resources – Phase 1

The following provides an assessment of effects of each feature or action of the RoHC Revitalize Castle. The effect determination is based on the criteria of adverse effect. For more images and information on each action and assessment, please refer to the presentation materials from past Section 106 Consulting Parties meetings available on the project webpage. Phase 1 is the baseline project required to start construction in March 2023.

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Introduction of New Areaways and Window Wells (Locations and Dimensions)</p>  <p>Castle site plan, with proposed below-grade areaways and window wells noted with orange shading.</p>	<ul style="list-style-type: none"> - Recessed areaways and window wells are proposed in various locations around the Castle perimeter. - Recessed areaways and window wells bring light to public spaces in the basement level, or provide egress. - Areaways sized to provide egress paths and to align with the Castle’s massing or architectural features. The maximum depth change from an existing condition is 4’. - Areaways on the south side are bisected around the Octagon and Southeast Towers. - Recessed areaways and window wells require fall protection railings. - Egress areaways contain stairs within the recessed areaway. Fall protection railings will incorporate a gate to egress from the stairs at grade.
Images	Additional Information
 <p>Detail plan of the Castle’s proposed southwest areaway.</p>	<ul style="list-style-type: none"> - Setting is a character defining feature. - Castle currently has 393’ linear feet of areaway (recessed well), and 220’ existing linear feet of apron (paving at grade) at its base. - Proposed below-grade areaways and wells alter the Castle’s relationship with the ground plane and create a moat-like effect at the Castle’s base. This work will expose portions of the foundation that were not designed to be exposed.



Detail plan of the Castle's proposed southeast areaway.



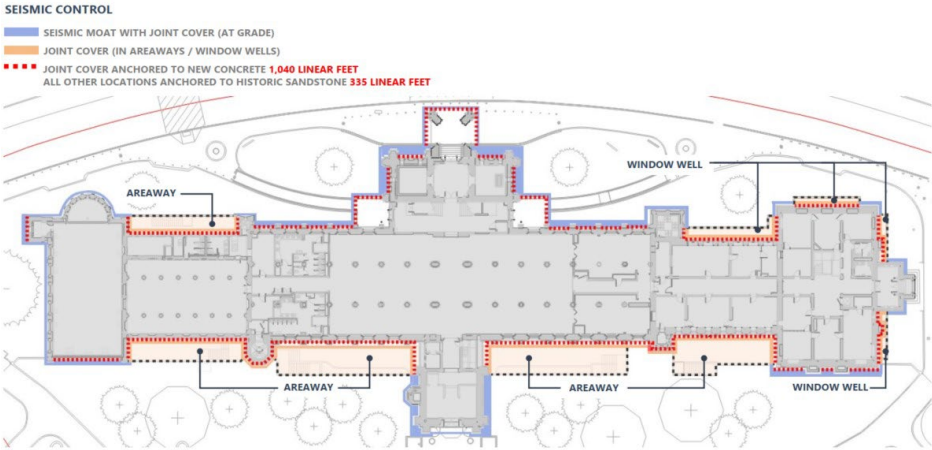
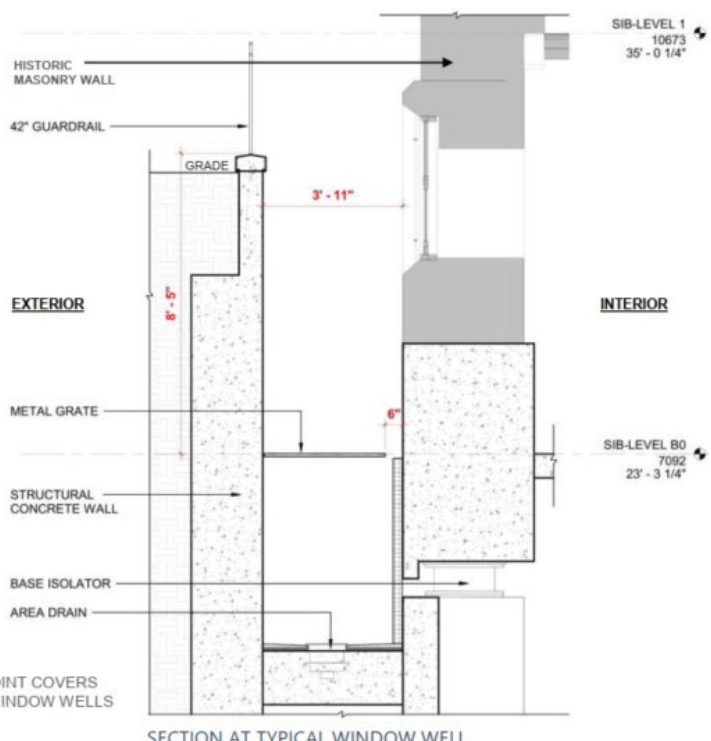
Existing southeast façade.

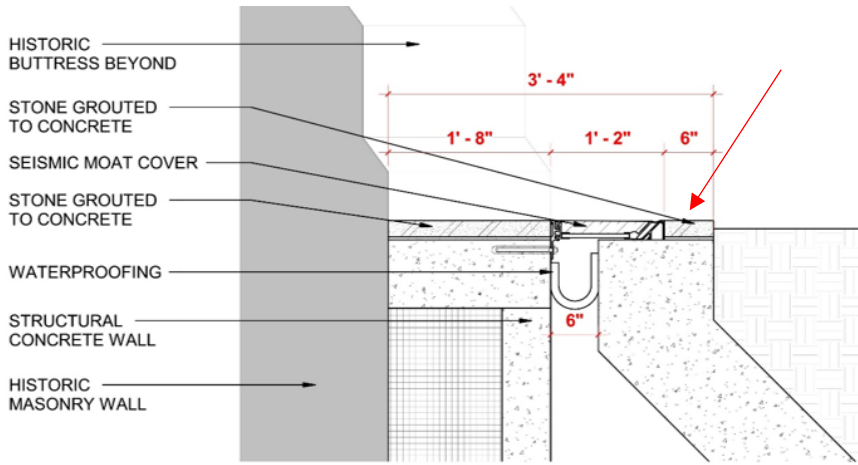


Rendering of the visibility of the Castle's proposed southeast areaway, taken from the Haupt Garden hardscape path. The fall protection railing and plantings will be finalized in Phase 2 of Section 106 consultation. Egress stair gate location is noted with a red arrow.

- Options for exposed foundation surface treatments and materials to minimize adverse effect, are pending mock-ups and further development in Phase 2 of 106 consultation.
- During Phase 1 of 106 consultation the SE and SW areaways were originally proposed as singular egress placing areaway structure between the Octagon and Southeast Towers and grade.
- Alternatives were developed during Phase 1 to bisect the SE and SW areaways which maintains the Towers' relationships with grade, and reduces impact and perceived size of these areaways, and minimizes adverse effects.
- Areaways, egress stairs, window wells, and their fall protection railings will be visible within the setting at the base of the Castle. Railing design alternatives will be finalized in Phase 2 of 106 consultation.
- Adverse effect may be minimized through the reintroduction of similar landscaping post excavation and construction within the Haupt Garden and setting north of the Castle. Landscape plan and plantings will be finalized in Phase 2 of 106 consultation. SI acknowledges that a substantial regrowth period will be required to achieve the current level of screening.
- Seismic base isolation joint will be incorporated into the recessed areaways and aprons.
- Existing sidewalks and pedestrian paths in the Haupt Garden will be maintained, which restricts some visibility in combination with the landscape plan and minimizes adverse effect.
- Contributes to the cumulative adverse effect on the Setting of the Castle.

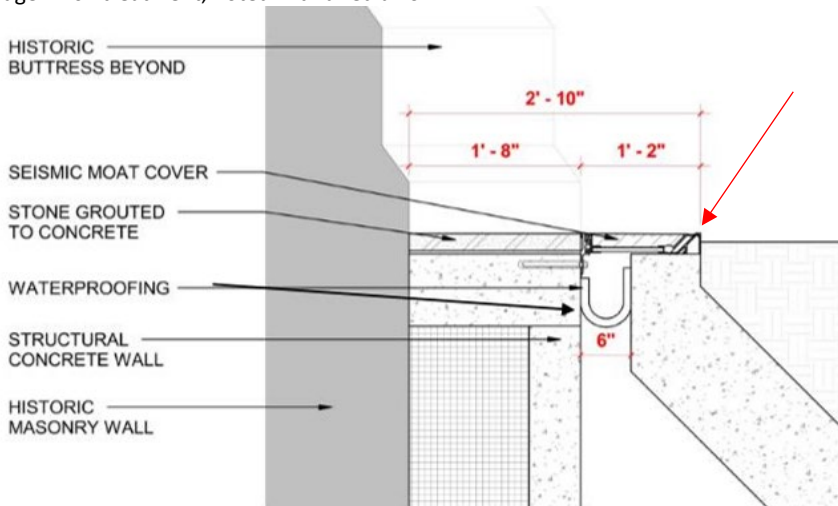
Proposed Effect Determination – Adverse Effect

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Installation of Seismic Control Joints Around the Castle Perimeter (Location and Width)</p>  <p>SEISMIC CONTROL</p> <ul style="list-style-type: none"> ■ SEISMIC MOAT WITH JOINT COVER (AT GRADE) ■ JOINT COVER (IN AREAWAYS / WINDOW WELLS) --- JOINT COVER ANCHORED TO NEW CONCRETE 1,040 LINEAR FEET --- ALL OTHER LOCATIONS ANCHORED TO HISTORIC SANDSTONE 335 LINEAR FEET <p>Proposed Castle site plan. Blue shading notes at-grade seismic joint cover; orange shading notes below-grade seismic joint cover in areaways or window wells.</p>	<ul style="list-style-type: none"> - Seismic base isolation joint is required around the entire Castle perimeter. - Seismic control joint must be as regular as possible around the Castle's unique footprint. - Seismic control joint will have an at-grade cover plate to prevent water infiltration into the joint. - Seismic control joint moat cover is 1'2" in width, but the overall visual assembly width varies to account for buttresses or other architectural features. - Seismic control joint cover plate overall assembly width will be the minimum dimension possible.
Images	Additional Information
 <p>SECTION AT TYPICAL WINDOW WELL</p> <p>*NO SEISMIC JOINT COVERS REQUIRED IN WINDOW WELLS</p> <p>Section of a typical window well. Note that a seismic control joint cover is not required in window wells.</p>	<ul style="list-style-type: none"> - Setting is a character defining feature. - Castle is an unreinforced masonry structure with complex building massing. Castle experienced significant damage from the 2011 Mineral, VA earthquake. - Seismic base isolation provides protection for the Castle with minimal visual impact. Seismic base isolation avoids the installation of visually intrusive steel and cable supports. - Seismic control joint is associated with base isolation, which separates the building from the ground motion. Base isolation is achieved by creating a plane of separation between the superstructure and the foundations. - Seismic control joint covers the seismic moat to prevent water infiltration. - Seismic control joint cover is not required in the proposed window wells because water infiltration is handled through floor drains.



SEISMIC JOINT COVER WITH STONE EDGING



Note the dimension of the seismic moat cover width of 1'2". This option includes a 6" stone edge finish treatment, noted with a red arrow.



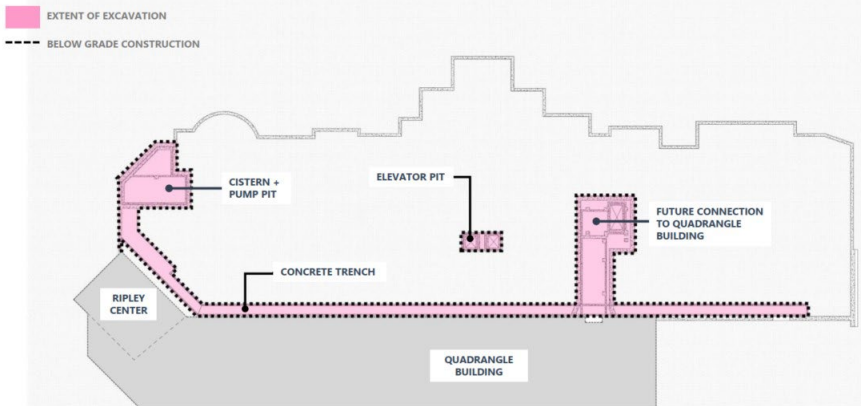
SEISMIC JOINT COVER WITH FINISHED METAL EDGE

Note the dimension of the seismic moat cover width of 1'2". This option lacks a stone edge, with the finished metal of the cover plate terminating the above-grade assembly, noted with a red arrow.

- Seismic base isolation joint will be incorporated into the recessed areaways and under projecting building elements such as the porte cochere and east entrance stairs.
- Seismic control joint will be visible immediately adjacent to the base of the Castle at-grade, and visible around the porte cochere in the sidewalk. This has an adverse effect on the Castle and National Mall Settings.
- Seismic control joint cover plate can accept a variety of finishes, including pavers and architectural features.
- Seismic joint cover is anchored to new concrete for the majority of the Castle perimeter (1,040 linear feet), which minimizes adverse effect by limiting the amount of attachment to historic fabric.
- During Phase 1 of 106 consultation there was some consensus that the "Seismic Joint Cover with Finished Metal Edge" option with the narrowest possible width dimension minimizes visual impact and adverse effect.
- Adverse effect may be further minimized through selection of seismic cover plate materials, sealant, and finish options for exposed metal pending mock-ups and design details in Phase 2 of 106 consultation.
- There was consensus during Phase 1 of 106 consultation that a gray granite insert in the cover plate provides a visual transition and will not call undue attention in the landscape. A different material is needed where the seismic joint crosses Jefferson Drive.
- Contributes to the cumulative adverse effect on the Setting of the Castle.

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Extent of Excavation Adjacent to Castle – SIB Extension (B1 Level), B2 Level Cistern*</p> <p>* This project labels the current Castle basement level B0; the mechanical distribution level below and SIB Extension level B1; and the cistern and future Quadrangle connection B2.</p>  <p>Proposed transverse section through the Castle showing the depths of excavation. SIB Extension is shaded purple.</p>	<ul style="list-style-type: none"> - Excavation occurs adjacent to the Castle for the SIB Extension at the B1 level proposed in an unexcavated area between the Quadrangle and Castle. - SIB Extension will be 23' below-grade. - SIB Extension aligns with the depth of the B1 level of the Quadrangle Building. - SIB Extension provides connection to the existing Quadrangle loading dock, and spaces for service functions to support the Castle. - Stormwater management cistern will be located at the B2 level adjacent to the west of the Castle. - Excavation adjacent to the Castle will result in no discernible alterations to the above grade setting.
Images	Additional Information
<p>LONGITUDINAL SECTION – EAST-WEST</p> <p>SIB EXTENSION</p>  <p>Proposed longitudinal section.</p>	<ul style="list-style-type: none"> - SIB Extension will allow for the majority of service functions and infrastructure to be placed outside the Castle footprint, prioritizing the historic interiors for public programming and use. - There is the potential for construction related adverse effects from excavation or building vibration. - Excavation for this project is connected to Stipulation 7.C (Monitoring of Adjacent Historic Properties) of the South Mall Master Plan Programmatic Agreement which requires monitoring adjacent to historic properties. - Adverse effects of excavation adjacent to the Castle will be mitigated and remedied provided the following conditions are met: <ol style="list-style-type: none"> 1. Pre-construction monitoring is carried out to establish a baseline for movement

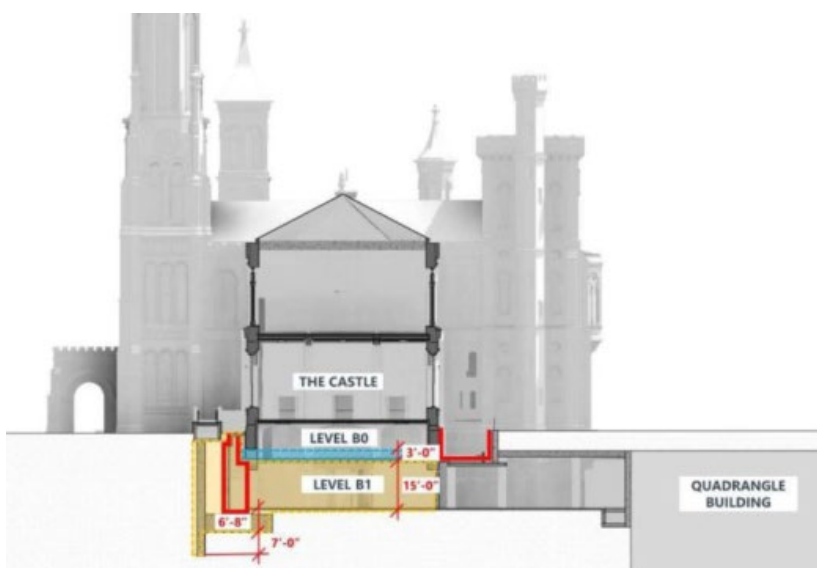
EXTENT OF EXCAVATION – LEVEL B2

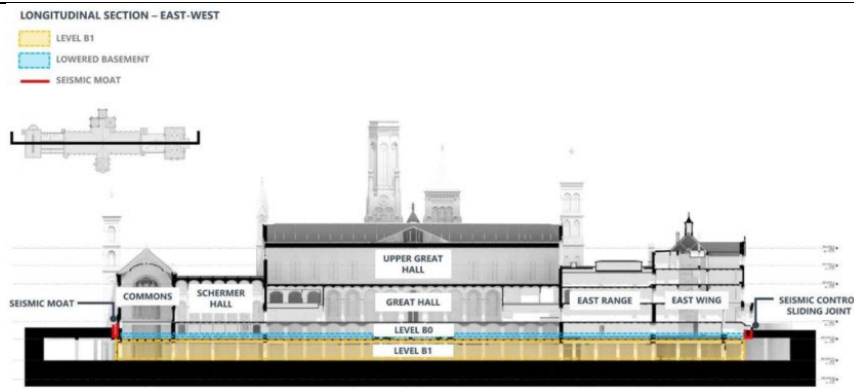


Extent of excavation at the B2 level.

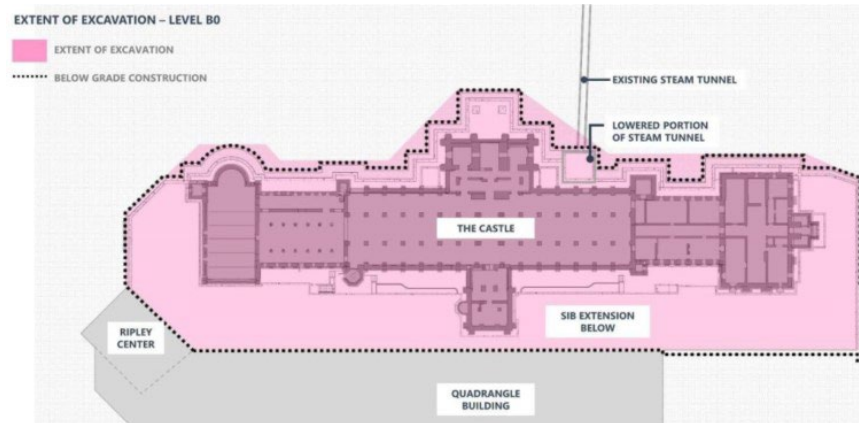
- and vibrations (Note: this monitoring started in October 2022);
2. A Monitoring Plan will be prepared to identify safe vibration limits based upon the pre-construction monitoring prior to starting construction;
 3. Monitoring will be carried out for entire project duration to measure vibration during the proposed excavation and other construction activities;
 4. Construction activities will be temporarily halted should any vibration, settlement, or unanticipated circumstances exceed the safe limits outlined in the pending Monitoring Plan; and
 5. If safe limits are exceeded, the SI shall stop work, notify the Signatories and other parties as appropriate, and follow Stipulation 8 (Emergency Actions) of the South Mall Master Plan Programmatic Agreement.
 6. Excavation will result in no discernible alterations to the above grade setting.
 7. After construction is complete, the grade is restored.

Proposed Effect Determination – Adverse Effect

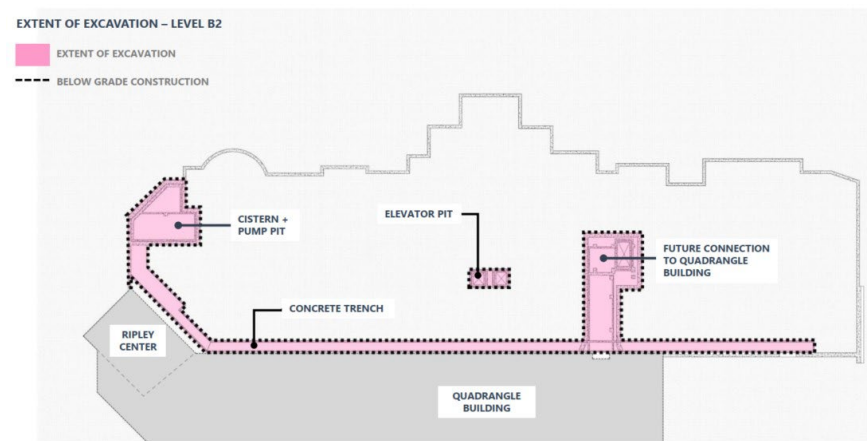
Smithsonian Institution Building	
Feature/Action	Design Details
<p>Excavation Beneath the Castle – Base Isolation, Lowering of the Basement Level, Future Quadrangle Building B2 Connection, and Mechanical Distribution Level*</p> <p>* This project labels the current Castle basement level B0; the mechanical distribution level below and SIB Extension level B1; and the cistern and future Quadrangle connection B2.</p>	<ul style="list-style-type: none"> - Basement floor level (B0) will be lowered 3’ to accommodate public use and programming. - Seismic base isolation will be inserted. - New mechanical distribution level (B1) with a 15’ floor to ceiling height is proposed below the Castle basement for building specific mechanical equipment. - Mechanical distribution level is aligned with the existing Quadrangle loading dock, Quadrangle B1 level, and the SIB Extension. - B2 level will contain an excavated but not enabled future connection to the Quadrangle Building B2 level.
Images	Additional Information
 <p>Proposed transverse section through the Castle showing the depths of excavation. Lowered basement is shaded blue. Mechanical distribution level is shaded yellow.</p>	<ul style="list-style-type: none"> - Castle is an unreinforced masonry building, with a long and narrow profile, and complex building massing. - Castle is at risk for significant seismic related damage, experienced during the 2011 earthquake. - Base isolation separates the building from the ground motion, achieved by creating a plane of separation between the superstructure and the foundations. - Proposed mechanical distribution level reduces the impact of new systems on the exterior or historic interior. - Mechanical distribution level is proposed at 15’ for sufficient space for equipment operations and maintenance. - Excavation of the B0 and B1 levels has the potential to adversely affect historic fabric such as the existing floor material and the “reverse arch” construction that may exist below grade, and by altering the historic character of the existing basement. Consideration of these interior alterations, which do not have independent utility, will be part of Phase 2 of 106 consultation. - There is the potential for construction related adverse effects from excavation or building vibration.



Proposed longitudinal section.



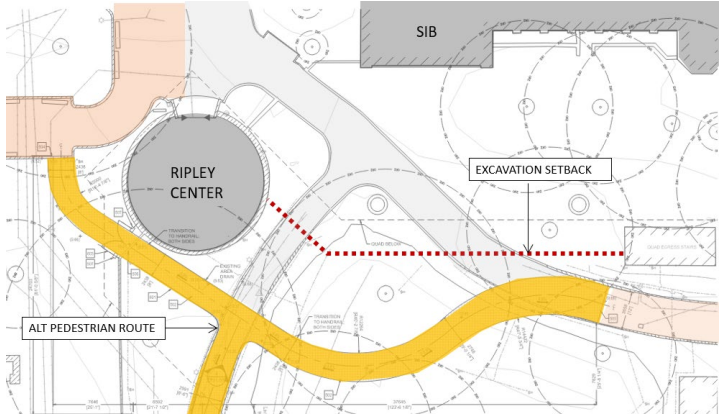
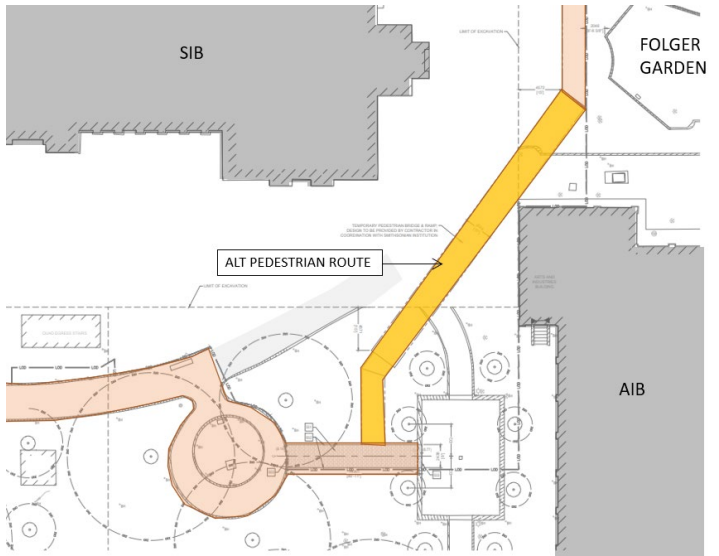
Extent of excavation at the B0 level (current Castle basement).

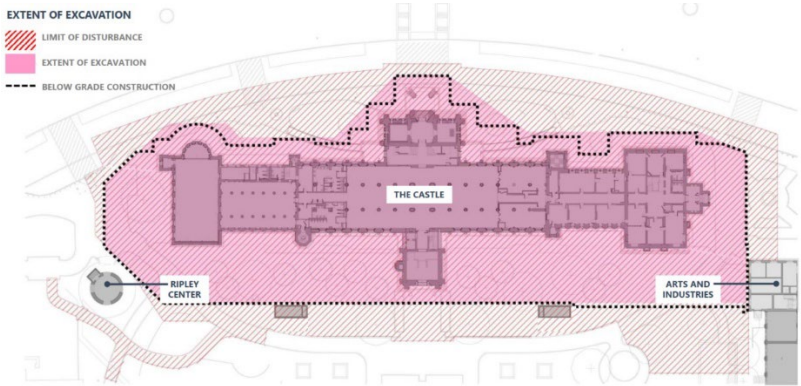


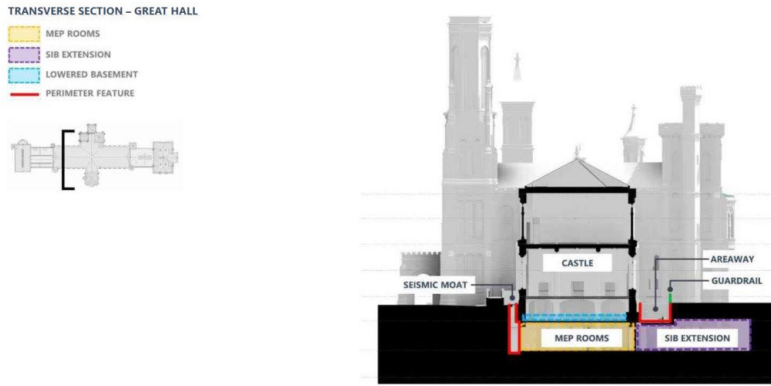
Extent of excavation at the B2 level.

- Excavation for this project is connected to Stipulation 7.C (Monitoring of Adjacent Historic Properties) of the South Mall Master Plan Programmatic Agreement which requires monitoring adjacent to historic properties.
- Adverse effect of excavation beneath the Castle will be remedied provided the following conditions are met:
 1. Pre-construction monitoring is carried out to establish a baseline for movement and vibrations (Note: this monitoring started in October 2022);
 2. A Monitoring Plan will be prepared to identify safe vibration limits based upon the pre-construction monitoring prior to starting construction;
 3. Monitoring will be carried out for entire project duration to measure vibration during the proposed excavation and other construction activities;
 4. Construction activities will be temporarily halted should any vibration, settlement, or unanticipated circumstances exceed the safe limits outlined in the pending Monitoring Plan; and
 5. If safe limits are exceeded, the SI shall stop work, notify the Signatories and other parties as appropriate, and follow Stipulation 8 (Emergency Actions) of the South Mall Master Plan Programmatic Agreement.
 6. No “reverse arches” or other unanticipated historic fabric are discovered during excavation. The Programmatic Agreement will stipulate the process for stopping work and considered unanticipated discoveries during construction.

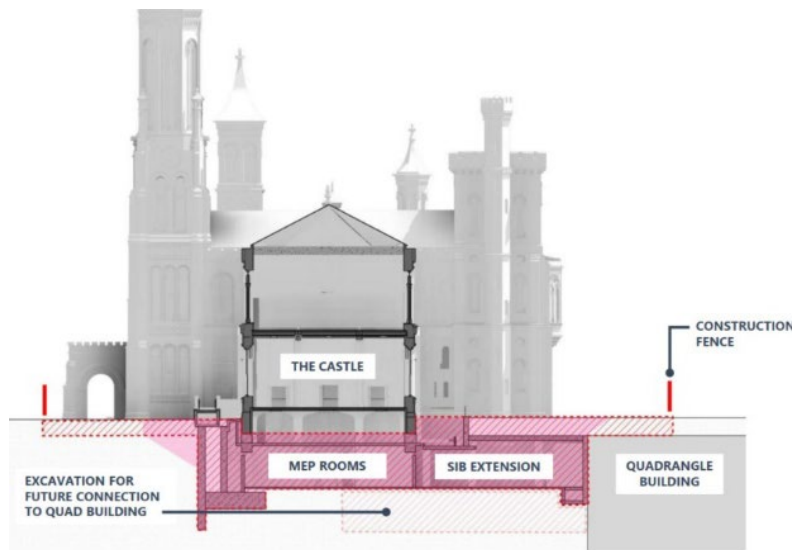
Proposed Effect Determination – Adverse Effect

Site - Smithsonian Institution Building	
Feature/Action	Design Details
<p>Creation of Alternate Pedestrian Routes for Circulation Around the Castle</p>	<ul style="list-style-type: none"> - Limit of Disturbance for Phase 1 construction activities will temporarily affect part of Jefferson Drive, Folger Rose Garden, and Haupt Garden. - Existing pedestrian pathways south of the Castle will be temporarily blocked due to construction fencing and ground disturbance activities. - Alternate pedestrian routes are required to access the Haupt Garden and the Quadrangle Building programs.
Images	Additional Information
 <p>Alternate pedestrian route around Ripley Pavilion.</p>  <p>Alternate pedestrian route around the Castle's east side.</p>	<ul style="list-style-type: none"> - Pedestrian route around the Castle's east side must span the excavation work and project Limit of Disturbance using a temporary pedestrian bridge structure with accessible ramps. - Pedestrian route around the Castle's west side is located and slightly elevated to avoid impacts to root systems of mature trees. - Alternate pedestrian routes may remain in place during the entire RoHC Revitalize Castle construction (Phase 1 and 2). - Hardscape materials will be salvaged and reinstalled in their original locations. - Maintenance of pedestrian access and circulation during construction is in accordance with Stipulation 7.D (Implementation of Projects – Campus Circulation) of the South Mall Master Plan Programmatic Agreement. - The creation of alternate pedestrian routes has the potential to adversely affect the Castle's Setting due to changed pathways and/or pedestrian landbridge (elevated walkway that crosses excavation work). - Adverse effect of the alternate pedestrian routes will be remedied provided the following conditions are met after the completion of construction activities in 2028: <ol style="list-style-type: none"> 1. Construction fencing is removed and land disturbance activities are completed allowing returned use of the Haupt Garden circulation path south of the Castle. 2. Hardscape materials are salvaged and reinstalled in their original locations. 3. Turf and landscape plantings are returned. 4. All temporary pathway/pedestrian landbridge materials are removed after construction activities are complete.
Proposed Effect Determination – Adverse Effect	

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Cumulative Effects of Phase 1 Activities</p>	<ul style="list-style-type: none"> - Limit of Disturbance for Phase 1 construction activities will temporarily affect parts of Jefferson Drive, Folger Rose Garden, Haupt Garden, and the Castle’s landscaped setting. - Construction fencing will obscure the base of the Castle around the Limit of Disturbance during Phase 1 construction activities. - To enable use of the Castle for 2026 activities, construction work will be temporarily demobilized and the construction fencing removed. - During 2026 activities within the project Limit of Disturbance, the grade will be restored and the landscape will temporarily be turf grass, prior to mobilization for Phase 2 construction activities. - Recessed areaways and window wells are proposed in various locations around the Castle perimeter. - Seismic base isolation joint with a visible cover plate assembly is required around the Castle perimeter at-grade.
Images	Additional Information
 <p>Project Limit of Disturbance.</p>	<ul style="list-style-type: none"> - The Andrew Jackson Downing Urn, a memorial and public artwork located in the Haupt Garden, will be protected-in-place or temporarily relocated to a SI storage facility. - There is the potential for construction related adverse effects from excavation or building vibration. Construction activities will be temporarily halted should any vibration, settlement, or unanticipated circumstances exceed the safe limits outlined in the Monitoring Plan. - Alternate pedestrian routes may remain in place during the entire RoHC Revitalize Castle construction (Phase 1 and 2). - Construction fencing and alternate pedestrian routes will have a temporary adverse effect on the Castle and its setting. When the Castle opens for 2026 activities, construction fencing will be removed. When construction resumes, construction fencing and scaffolding will be erected.



Transverse Castle section. Red lines annotate visible changes at the Castle’s base.




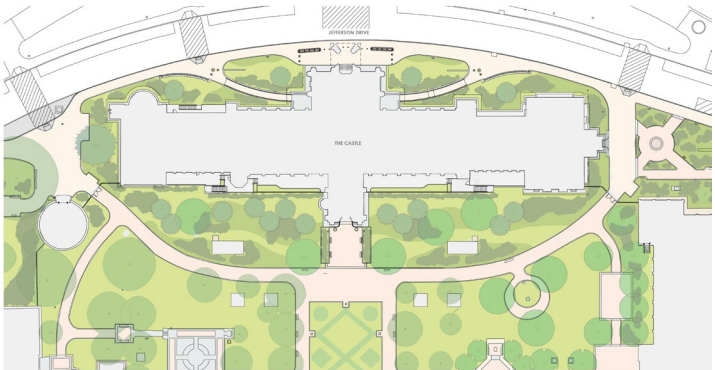
Transverse Castle section. Limit of Disturbance noted with a red hatch mark, and construction fencing with red.

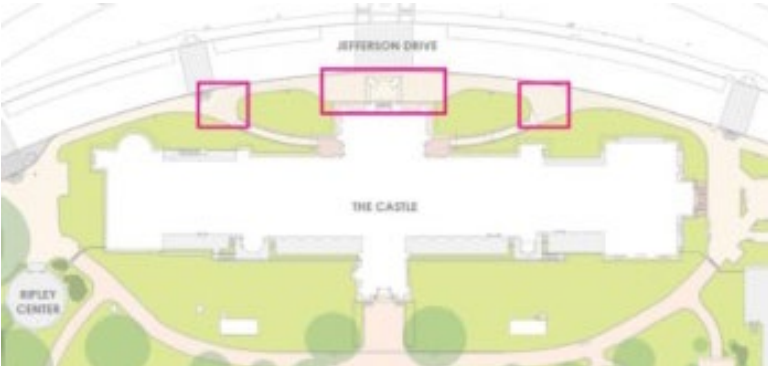
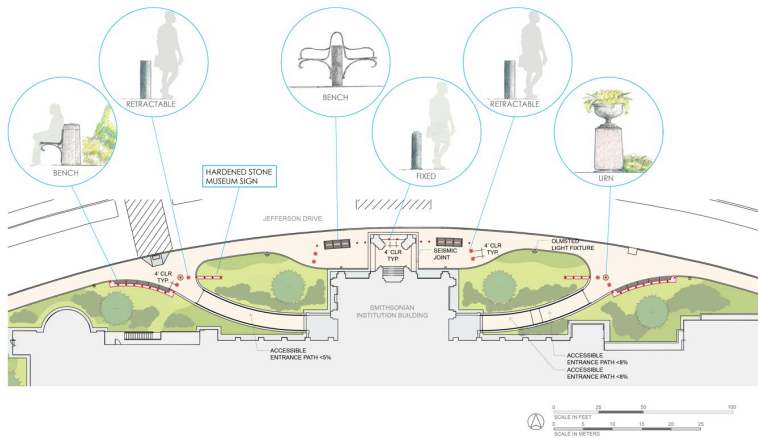
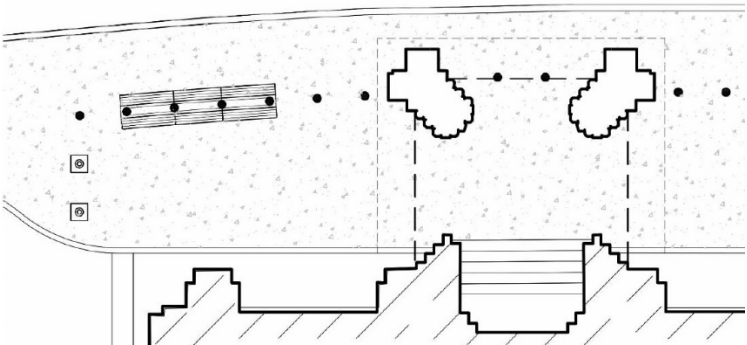
- Cumulative adverse effects from excavation work, construction fencing, and alternate pedestrian routes will be remedied, provided the site is restored after construction is complete, including reinstallation of salvaged hardscape pavers and plantings.
- Seismic control joint will be visible immediately adjacent to the base of the Castle at-grade, and visible around the porte cochere in the sidewalk. This has an adverse effect on the Castle and National Mall Settings.
- Proposed below-grade areaways and wells alter the Castle’s relationship with the ground plane.
- Areaways, window wells, and their fall protection railings will be visible within the setting at the base of the Castle. Railing design alternatives will be finalized in Phase 2 of 106 consultation.
- There is a cumulative adverse effect on the Castle’s Setting from the seismic control joint, areaways, and window wells.

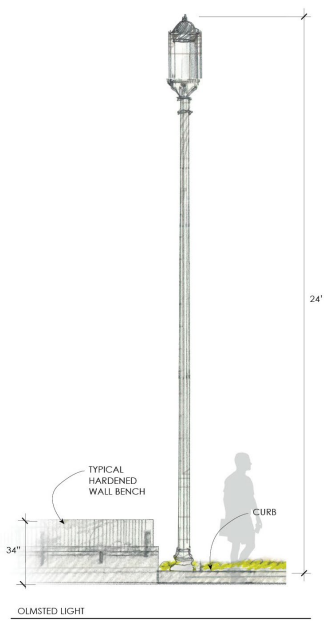
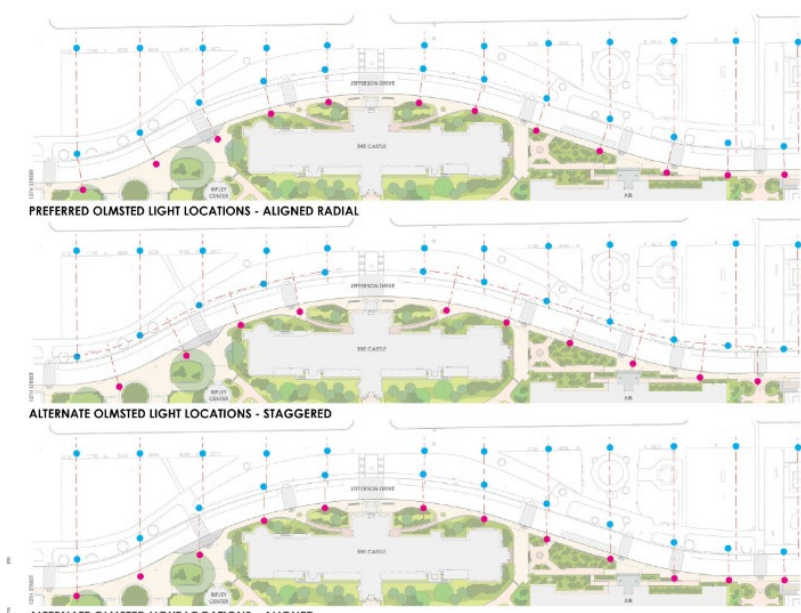
Proposed Effect Determination – Adverse Effect


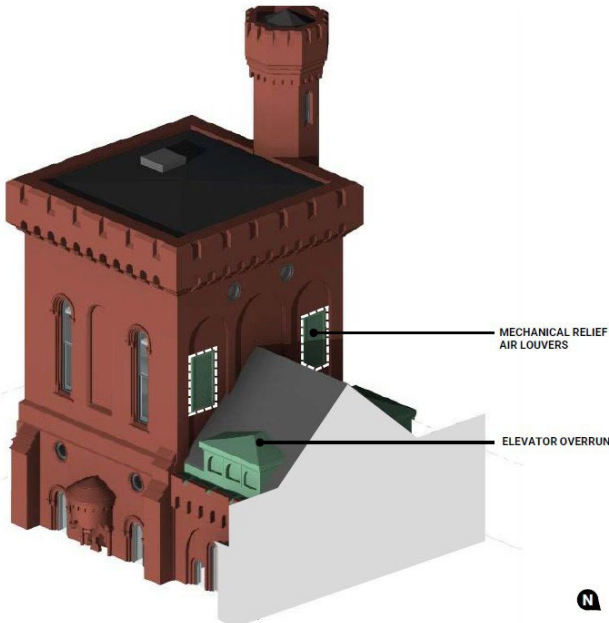
Assessment of Effects on Historic Resources – Phase 2

The following provides an assessment of effects of each feature or action of Phase 2 of the RoHC Revitalize Castle. The effect determination is based on the criteria of adverse effect. For more images and information on each action and assessment, please refer to the presentation materials from past Section 106 Consulting Parties meetings available on the project webpage. Phase 2 contains the remaining design actions for consultation to complete the RoHC Revitalize Castle project. Certain design actions were determined to have an adverse effect during Phase 1 consultation, with additional consultation required on minimization measures during Phase 2 consultation.

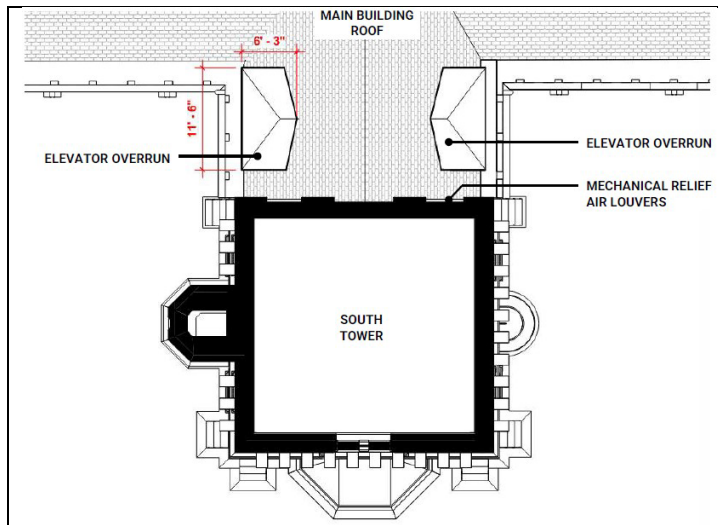
Site	
Feature/Action	Design Details
New Landscape Planting Plan	<ul style="list-style-type: none"> - Landscape features and hardscape displaced by the project limit of disturbance will be replaced in-kind. - Character of the landscape will be maintained, through the same diversity of plant typology and heights and number of trees. - Tree plantings will be slightly setback to prevent biological growth and damage to the Castle’s sandstone. This setback will be minimal enough to maintain the character of the landscape setting.
Images	Additional Information
 <p>Existing landscape character, south of the Castle.</p>  <p>Final landscape plan – To be updated in Phase 2 consultation.</p>	<ul style="list-style-type: none"> - Setting of the Castle is a character defining feature. - Haupt Garden is documented in the National Mall Historic District nomination as part of the landscape setting, not as a contributing element. - Current tree plantings are immediately adjacent to and touch the Castle. This results in dense shade conditions causing biological growth on the Seneca sandstone. Setting the trees back slightly from the Castle eliminates dense shade conditions against the stone. - Landscape setting features a mix of large structural trees (evergreen and deciduous), large shrubs/small trees, low shrubs, and groundcover. Diversity and hierarchy of plantings will be maintained.
Preliminary Effect Determination – No Adverse Effect	

Site	
Feature/Action	Design Details
<p>Perimeter Security</p>  <p>Castle and partial Haupt Garden site plan. Locations that require perimeter security are noted with pink outlines.</p>	<ul style="list-style-type: none"> - Secure perimeter is required at building entrances and visitor queuing areas. - Design is a combination of hardened metal bollards (fixed and retractable), landscape wall features, and benches. - Design alternatives are in development for Phase 2 of consultation, including: size and placement of the integral bollard benches; bollard finish; granite material; integral bollard bench designs; placement of bollards within the porte cochere piers; and size of wall benches adjacent to the accessible walkways.
Images	Additional Information
 <p>Proposed perimeter security elements at north entry along Jefferson Drive at the end of Phase 1 of 106 consultation.</p>  <p>Partial site plan at the porte cochere with the “no wrap-around end, shorted bench” alternative.</p>	<ul style="list-style-type: none"> - Setting is a character defining feature. - Castle porte cochere is less than 4’ from the roadbed curb. - At the beginning of consultation, perimeter security proposed a continuous line of bollards and site walls to create a barrier along the Jefferson Drive curb. This design had significant adverse effects on the Castle and National Mall settings, and was revised to focus on three building entrance locations on Jefferson Drive and minimize the use of bollards. - Phase 1 of 106 consultation developed alternatives for symmetrical benches that incorporate bollards adjacent to the porte cochere, to minimize the visual presence of bollards. - There was consensus during Phase 1 of 106 consultation that the bench alternative without a wrap-around end that incorporates four bollards was appropriate within the sidewalk dimensions and setting. - Retractable and fixed bollards measure 30” in height and 8” in diameter for visual continuity between the two types. - Contributes to the cumulative adverse effect on the Setting of the Castle and the National Mall Historic District.
<p>Preliminary Effect Determination – Adverse Effect</p>	

Site	
Feature/Action	Design Details
<p>Lighting</p>  <p>Olmsted light post details.</p>	<ul style="list-style-type: none"> - Light posts are proposed along the south side of Jefferson Drive in keeping with the historic context and National Mall existing light posts. - Olmsted light posts will be used. - Building façade lighting will be accomplished through fixtures hidden within the landscape plantings. - In Phase 2 of 106 consultation, the final design alternative will be determined for the placement of the Olmsted light posts.
Images	Additional Information
 <p>Three design alternatives for the placement of the Olmsted light posts on Jefferson Drive. Blue dots note existing Mall posts. Pink dots note the proposed Olmsted posts.</p>	<ul style="list-style-type: none"> - Light post design aligns with District of Columbia standards and the National Capital Planning Commission’s Monumental Core Streetscape Framework. - Light posts conform with dark sky requirements in the National Mall setting. - Existing building specific fixtures will be restored and rehabilitated with energy efficient lighting. - Building façade lighting will not be attached to the Castle or damage historic fabric. - Phase 1 of 106 consultation developed the three alternatives for the arrangements of the light posts on Jefferson Drive, as shown to the left, in coordination with the existing National Mall Olmsted light posts. The preferred alternative needs to be selected in Phase 2 of consultation.
<p>Preliminary Effect Determination – No Adverse Effect</p>	

Smithsonian Institution Building	
Feature/Action	Design Details
<p>South Tower Elevator – Exterior Alterations</p>  <p>Existing condition of the South Tower peaked roof and mechanical bulkhead.</p>	<ul style="list-style-type: none"> - Two new elevators replace an existing elevator and stair in the Castle’s South Tower. - Proposed elevators are accessible and code compliant, and will be the primary vertical circulation for the public for all levels of the Castle. - Each new elevator requires a visible overrun. - Mechanical relief is accomplished with through wall louvers at blind arches at the north elevation of the South Tower. Louvers will require the removal of historic brick. - Phase 2 of 106 consultation will consider louver dimensions and finish, and design alternatives and materials for cladding the elevator overruns.
Images	Additional Information
 <p>Partial axonometric view of the South Tower. Final louver dimensions and finish, and overrun profile and material to be determined in Phase 2 of 106 consultation.</p>	<ul style="list-style-type: none"> - Roof Profile is a character defining feature. - Proposed work enables the removal of the non-code compliant elevator and its visible elevator overrun from the North Tower. - Existing South Tower elevator is not code compliant. - South Tower has a steep peaked roof clad in slate shingles. The existing non-historic mechanical relief tower for the existing elevator is freestanding from the Tower masonry. - Existing elevator mechanical relief bulkhead is visible from the east and west of the South Tower. - Proposed elevator overruns will be visible from the east and west of the South Tower. - Proposed elevators use Machine Room Less technology, which does not require overhead mechanical equipment above the elevator shaft. If this technology was not used, the elevator overruns would be significantly taller. - Alternate locations for these public elevators cannot be considered to avoid adverse effects to the South Tower exterior and interior. This is because the Adolf Cluss modifications inserted additional levels creating quarter level height differences between the finish floors of the South Tower and the Main Building. - Phase 1 of 106 consultation developed two cladding designs for the exterior features, a utilitarian low sloped roof and a decorative sloped roof. - Phase 1 of 106 consultation included a significantly taller mechanical relief bulkhead than the existing condition, found to have significant visual impact and adverse effect. Phase 1 of 106 consultation produced a

Assessment of Effects on Historic Resources


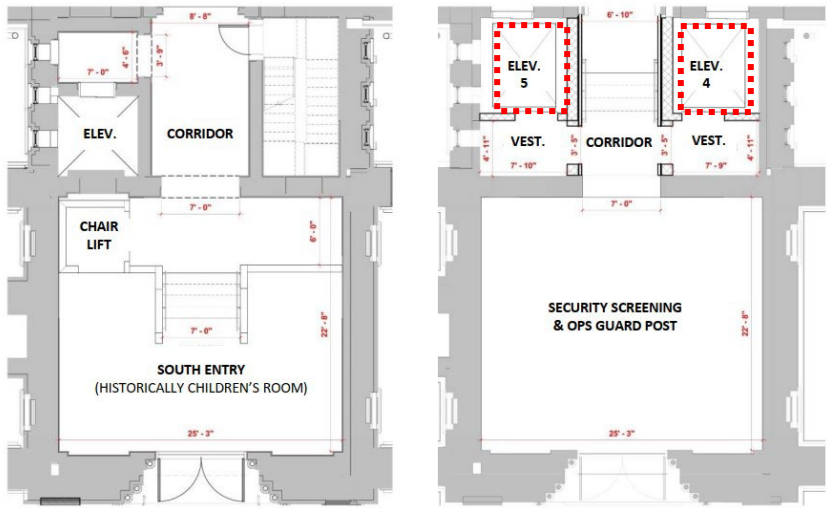



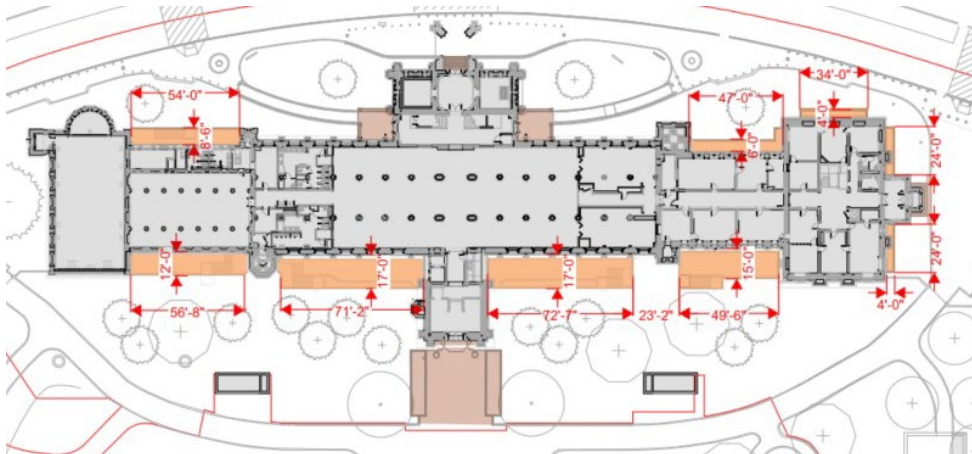
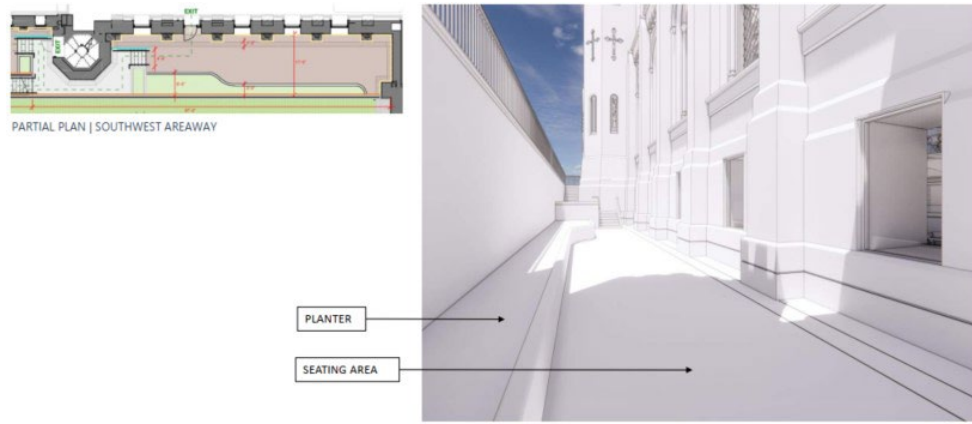
Proposed roof plan noting locations of the elevator overruns and louvers.


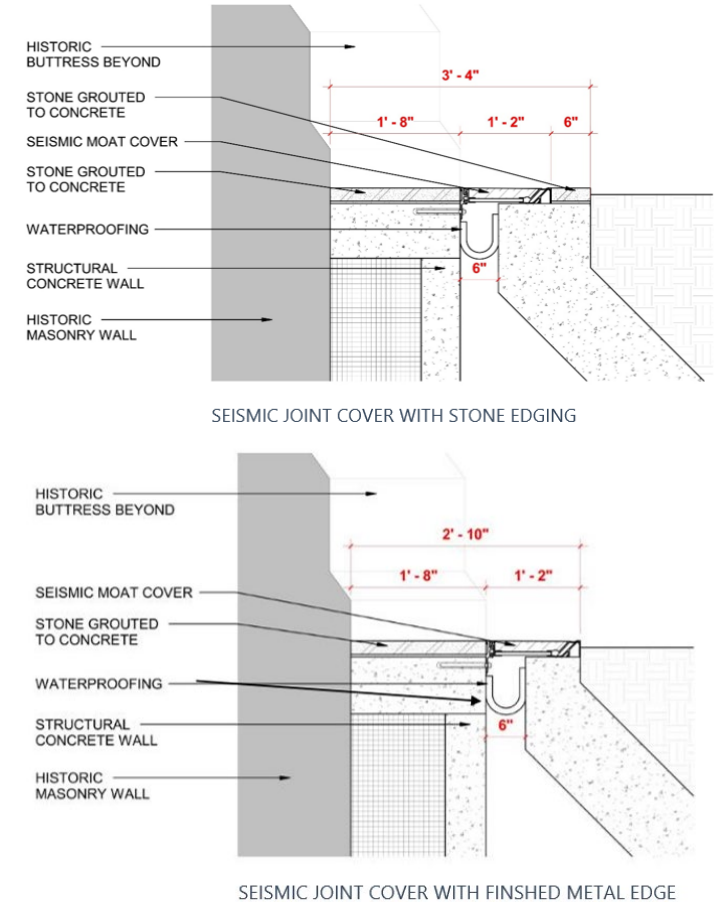
through wall louvers design, with consensus that this solution minimized adverse effect.

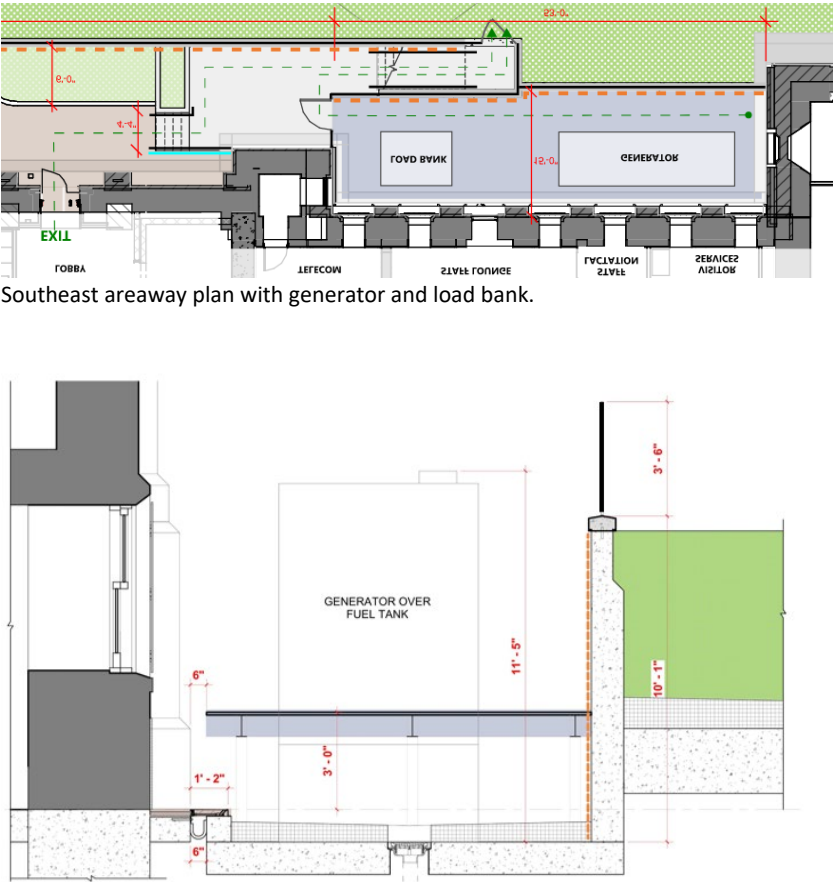
- Proposed exterior changes have an adverse effect on the Castle's roofline, South Tower massing, and will remove historic roofing materials.
- Contributes to the cumulative adverse effect on the Castle's Building Massing, Perimeter Tower, and Roof Profile

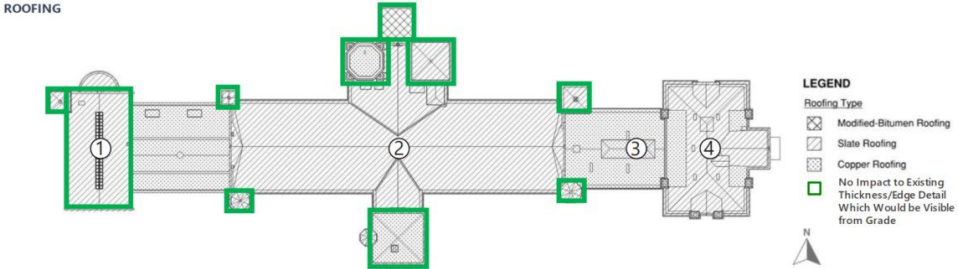

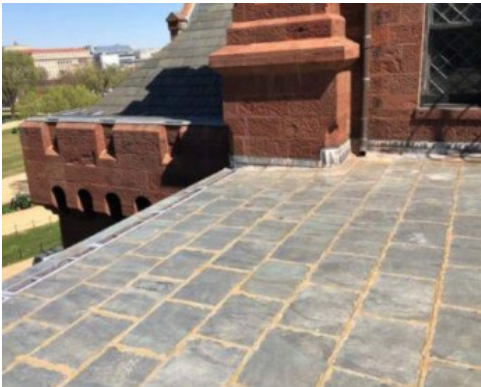
Preliminary Effect Determination – Adverse Effect

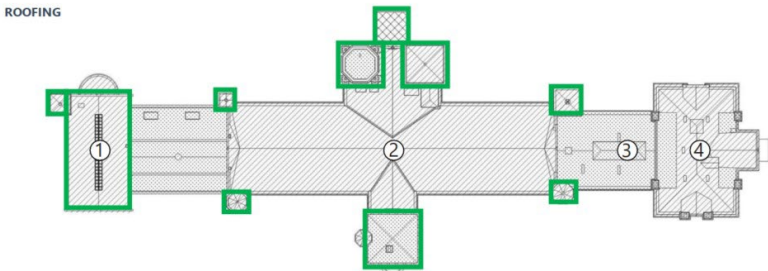
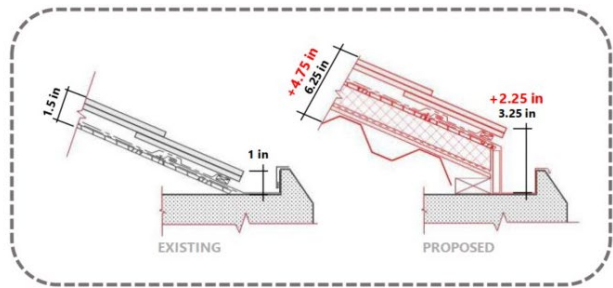

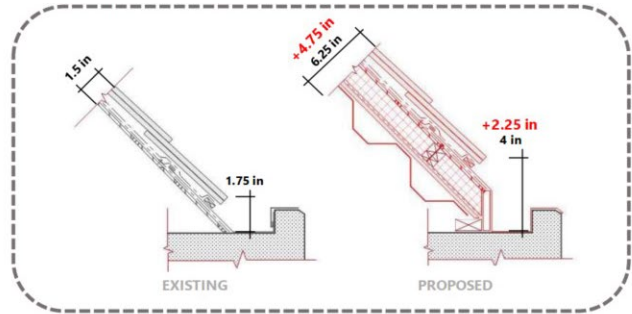

Smithsonian Institution Building	
Feature/Action	Design Details
<p>South Tower Elevator - Interior Effects</p>  <p>Existing conditions in the Children's Room. Note the non-historic stairs and barrier-free access lift.</p>	<ul style="list-style-type: none"> - South Tower elevators have associated interior alterations to accommodate the shafts and access the elevators. - West elevator replaces a non-historic elevator. East elevator replaces a non-historic circulation stair. Elevator cabs are accessed from a proposed vestibule at each level. - Phase 2 of 106 consultation will develop design details and alternatives for: appearance of the elevator doors within the Great Hall; elevator cab door appearance; details for modifications to the historic Children's Room and third level floor mosaics; and access to the elevator vestibules.
Images	Additional Information
 <p>Existing south entry plan.</p> <p>Proposed elevator locations noted with red dotted outlines.</p>  <p>Existing mosaic at corridor of third level Regent's Room.</p>	<ul style="list-style-type: none"> - Interior alterations for the South Tower elevators lack independent utility and are subject to Section 106 consultation. - Alternate locations for these public elevators cannot be considered to avoid adverse effects to the South Tower exterior and interior. This is because the Adolf Cluss modifications inserted additional levels creating quarter level height differences between the finish floors of the South Tower and the Main Building. - Elevators are double-sided to address floor level changes between the South Tower and the Main Building. For example, for the first floor the elevator has a stop at-grade in the Children's Room, and a quarter level up for access to the Great Hall. - Proposed alterations will affect historic fabric at the first and third levels, including decorative floor mosaics and creating openings. - New elevators will enable the restoration of the historic footprint of the Children's Room, currently half occupied with a barrier-free access lift, platform, and stairs.
<p>Preliminary Effect Determination – Adverse Effect</p>	


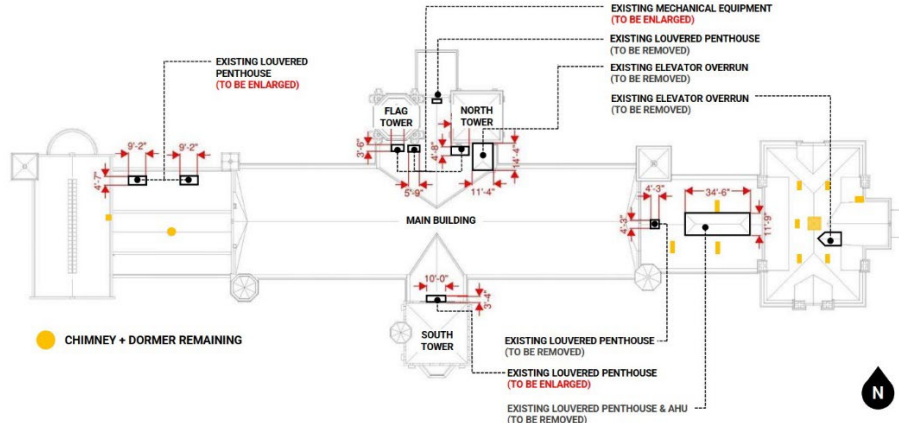
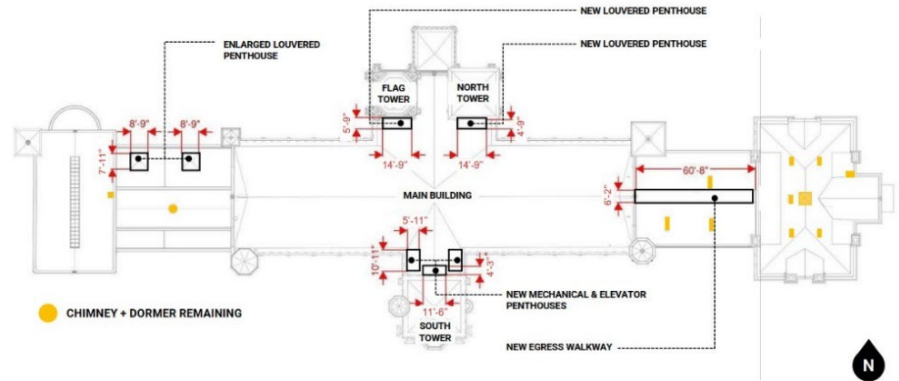
Smithsonian Institution Building	
Feature/Action	Design Details
<p>Areaways and Window Wells – Finishes</p>  <p>Castle site plan, with proposed below-grade areaways and window wells noted with orange shading.</p>	<ul style="list-style-type: none"> - Recessed areaways and window wells are proposed at locations around the Castle perimeter. - Recessed areaways expose up to 4 feet of the Castle’s foundations. - Phase 2 of 106 consultation will consider alternatives for: surface material treatments for the Castle’s foundations; materials for the areaway finishes and capstones; designs for the fall protection railings; and landscape plantings.
Images	Additional Information
 <p>Concept rendering of the proposed Southwest Areaway.</p>	<ul style="list-style-type: none"> - Setting is a character defining feature. - Castle currently has 393’ linear feet of areaway (recessed well), and 220’ existing linear feet of apron (paving at grade). - Phase 1 determined that the Areaways and Window Wells (Locations and Dimensions) adversely affect the Castle’s Setting and relationship with the ground plane. - Areaways, egress stairs, window wells, and their fall protection railings will be visible at the base of the Castle, and adversely affect the Setting. - Phase 2 design decisions will either minimize or intensify the adverse effect. - Adverse effects may be minimized but not avoided through consultation during Phase 2 of 106 consultation.
<p>Phase 1 Effect Determination – Adverse Effect</p>	

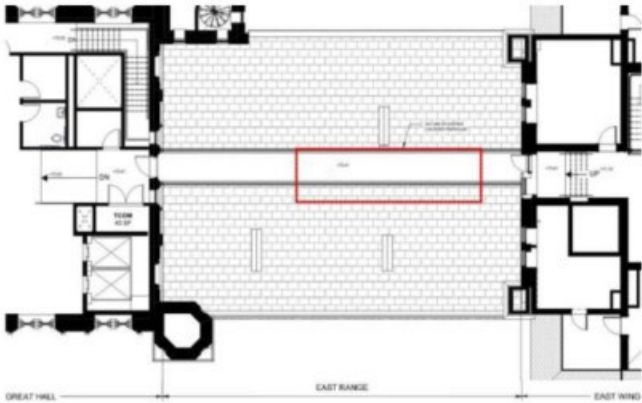
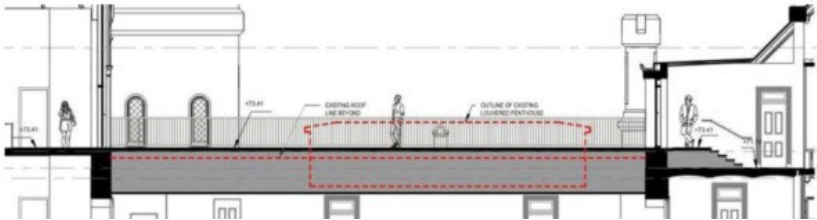

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Seismic Control Joint Cover Plate – Finishes</p>  <p>Granite material options for the cover plate finish material reviewed November 15, 2022.</p>	<ul style="list-style-type: none"> - Seismic base isolation joint is required around the Castle perimeter at-grade. - Seismic control joint moat cover is 1'2" in width, but the overall visual assembly width varies to account for buttresses or other architectural features. - Phase 2 of 106 consultation will consider alternatives for: joint cover material; metal finish at the cover plate edges; and paving material under the porte cochere.
Images	Additional Information
 <p>Options for typical seismic control joint section. Note the dimension of the seismic moat cover width of 1'2".</p>	<ul style="list-style-type: none"> - Setting is a character defining feature. - Phase 1 determined that the visibility of the Seismic Control Joint has an adverse effect on the Castle and National Mall settings. - Phase 1 determined that the Seismic Control Joint (Location and Width) overall assembly width will be the minimum dimension possible to minimize visual impact. - Comments from Consulting Parties during Phase 1 consultation preferred a gray granite for the cover plate material, as a neutral change in material at the Castle base and contextual to the landscape. - Seismic control joint will be incorporated into the recessed areaways and under projecting building elements such as the porte cochere and east entrance stairs. - Seismic control joint cover plate material will either minimize or intensify the adverse effect. - Adverse effects may be minimized but not avoided through consultation during Phase 2 of 106 consultation.
Phase 1 Effect Determination – Adverse Effect	

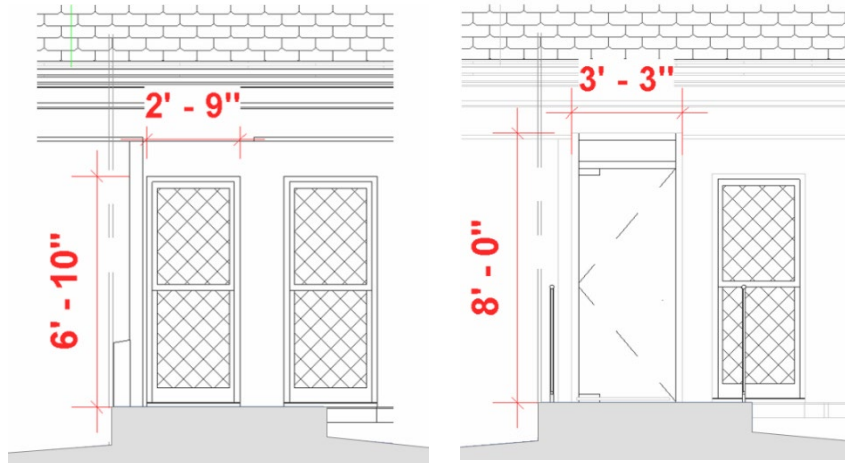
Smithsonian Institution Building	
Feature/Action	Design Details
<p>Emergency Generator</p>	<ul style="list-style-type: none"> - A new emergency generator will be located within the proposed southeast areaway. The generator replaces two existing pieces of mechanical equipment, one of which is visible above-grade. - Emergency generator may be visible within the Castle’s setting. - Phase 2 of 106 consultation will consider the following: generator visibility; and visual screening.
Images	Additional Information
 <p>The first drawing is a plan view of the southeast areaway. It shows a rectangular area with a green hatched roof. Inside, there are two main components: a 'LOAD BANK' and a 'GENERATOR'. Various dimensions are shown in red, including a total width of 22'-0" and a height of 8'-0". Labels for 'EXIT', 'FOYER', 'MECHANICAL', 'ELECTRICAL', and 'SERVICES' are also present.</p> <p>The second drawing is a cross-section showing the 'GENERATOR OVER FUEL TANK'. It illustrates the vertical clearance and the railing in front of the generator. Dimensions include a height of 11'-5" from the ground to the top of the generator, a railing height of 3'-6", and a distance of 10'-1" from the railing to the generator. Other dimensions shown are 6", 1'-2", 3'-0", and 6".</p>	<ul style="list-style-type: none"> - Removal of the Central Utility Plant from the project required alternate placement for the emergency generator. - Emergency generator may contribute to the cumulative adverse effect on the Castle Setting.
<p>Preliminary Effect Determination – Adverse Effect</p>	

Smithsonian Institution Building	
Feature/Action	Design Details
<p>In-Kind Replacement of Roof Materials</p>	<ul style="list-style-type: none"> - Removal and replacement of existing roofing system, with new underlayment, insulation, gutters, and metal flashing. - In-kind replacement of the slate shingles, maintaining shingle exposure and existing roof appearance. - Lead coated copper roofing will be replaced with zinc-tin coated copper.
Images	Additional Information
<p>ROOFING</p>  <p>Proposed roof plan noting locations of slate and copper cladding.</p>  <p>Typical conditions of slate roofing shingles.</p>  <p>Typical conditions of flat-seamed copper roofing.</p>	<ul style="list-style-type: none"> - Slate shingles are present at the Main Hall, North Tower, and West Wing exteriors. - Flat-seamed lead-coated copper is present at the West Wing Apse, Flag Tower, West Range, South Tower, and East Wing. - Roof materials are a character-defining feature. - Widespread conditions for the slate include missing, broken, or loose shingles. - Lead-coated copper roofing has widespread thin solders and heavy-handed sealant repairs. - Phase 2 of 106 consultation will consider the following, which may remedy the adverse effect: <ol style="list-style-type: none"> 1. Establishment of the need for complete versus retaining intact slate with supplemental new materials. 2. Concurrence on the selection of the closest possible slate shingle match.
<p>Preliminary Effect Determination – Adverse Effect</p>	

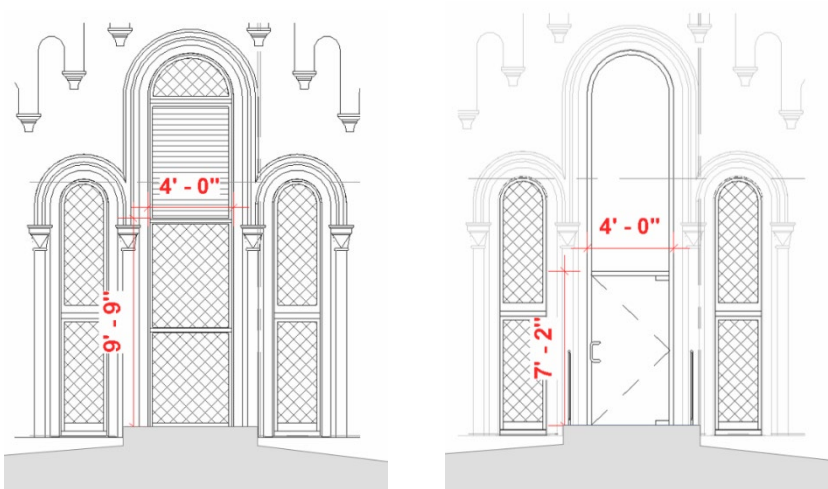
Smithsonian Institution Building	
Feature/Action	Design Details
<p>Roof Modifications – Energy Improvements, Including Increases in Roof Thickness</p> <p>ROOFING</p>  <p>Proposed roof plan noting locations of slate and copper cladding. Green annotation notes areas with no proposed dimensional changes due to visible impacts.</p>	<ul style="list-style-type: none"> - Removal and replacement of existing roofing system, with new underlayments and insulation will be implemented to meet prescriptive energy requirements. - Increases to roof height/thickness will be limited to locations where the dimensional change will not be perceptible due to parapets, towers, and roof features. - Dimensional change varies, and will not exceed 5 inches. - No changes to roof thickness are proposed at visible roof edges such as the West Wing, or at high peaked tower roofs.
Images	Additional Information
 <p>Existing and proposed roof over the Great Hall. Proposed 2.25" dimensional change, non-visible behind crenellations. No change proposed to the tower roof in the photograph.</p>	 <ul style="list-style-type: none"> - Roof Materials and Profiles are character defining features. - Existing roof system includes little to no insulation. - The addition of rigid insulation beneath the slate and zinc-tin cladding improves the Castle's energy performance. - Majority of the Castle's roof edges are behind crenellated parapets and other architectural features, and are at least 30' above grade.
 <p>Existing and proposed roof at the East Wing, with a proposed 2.25" dimension change behind the crenellated parapet. No change proposed to the tower roof in the photograph.</p>	 <ul style="list-style-type: none"> - Dimensional changes at the roof will not be readily discernible from distances around the Castle. - Proposed work will not result in visible impacts at the roof edges and ridgelines. - Dimensional changes are not proposed in visible locations to avoid adverse effect.
<p>Preliminary Effect Determination – No Adverse Effect</p>	

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Modifications to Rooftop Mechanical Penthouses</p>  <p>Existing mechanical penthouse over the West Range.</p>	<ul style="list-style-type: none"> - West Range has two mechanical penthouses that will be expanded. Location and height remain the same, and only the width expands. - Flag Tower has one mechanical penthouse that will expand in plan, and remain the same height. - North Tower has one mechanical penthouse that will be a similar footprint and reduced height. - Phase 2 of 106 consultation will further analyze the visibility of the proposed changes to the rooftop mechanical penthouses.
Images	Additional Information
 <p>Existing roof plan. Existing rooftop features with all black text in the tags will be removed.</p>  <p>Proposed roof plan. Historic chimneys and dormers that will be retained are noted in yellow.</p>	<ul style="list-style-type: none"> - Roof Profile and Building Massing are character defining features. - Historic visible chimneys and dormers will be retained, noted with yellow on the plans at left. - Existing visible non-historic mechanical penthouse on the East Wing will be removed for the 4th Floor Egress Path. - Existing historic cupola with louvers at the East Wing will be re-used without expansion. - Majority of the associated mechanical modifications occur within the interior attic space. There will not be additional rooftop mechanical features beyond the penthouses. - There is the potential for adverse effect on the Roof Profile and Building Massing character defining features. Further analysis of visual impacts and consultation are required. - May contribute to cumulative adverse effects on Roof Profile and Building Massing, and overall visual effects.
<p>Preliminary Effect Determination – Adverse Effect</p>	

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Installation of New East Wing 4th Floor Egress</p>  <p>Plan of the proposed egress path. Red line notes the plan the existing mechanical penthouse to be removed.</p>	<ul style="list-style-type: none"> - Installation of an exterior egress pathway at the East Range roof provides a second means of egress from the East Wing. - Exterior egress pathway will be unenclosed with fall protection railings. - One window opening will be enlarged to accommodate an egress door. Non-historic window sash will be removed from one opening to accommodate an egress door assembly. - Phase 2 of 106 consultation will consider design alternatives for the fall protection railings, and door and sash configurations that relate to the adjacent windows.
Images	Additional Information
 <p>Section elevation of the proposed egress path and railings. Red dotted line notes the section elevation of the existing mechanical penthouse to be removed.</p>  <p>Walkway railing visibility from the middle of the National Mall.</p>	<ul style="list-style-type: none"> - Roof Profile is a character defining feature. - Fourth floor of the East Wing currently has only one means of egress. A second means is required for occupancy. - Egress walkway replaces an existing visible mechanical penthouse added in 1973. Egress pathway fall protection railings and the existing mechanical penthouse are comparable in height. - Adjacent historic brick chimneys on the East Wing roof installed c. 1900 will be retained and restored, which minimizes visibility and adverse effect. - Egress path fall protection railings will be visible from various locations within the National Mall and to the south. - Modifications to masonry openings to accommodate egress doors will remove minimal historic fabric, and will not be visible in proximity or at a distance from the Castle. - May contribute to cumulative adverse effects on Roof Profile and Building Massing, and overall visual effects.

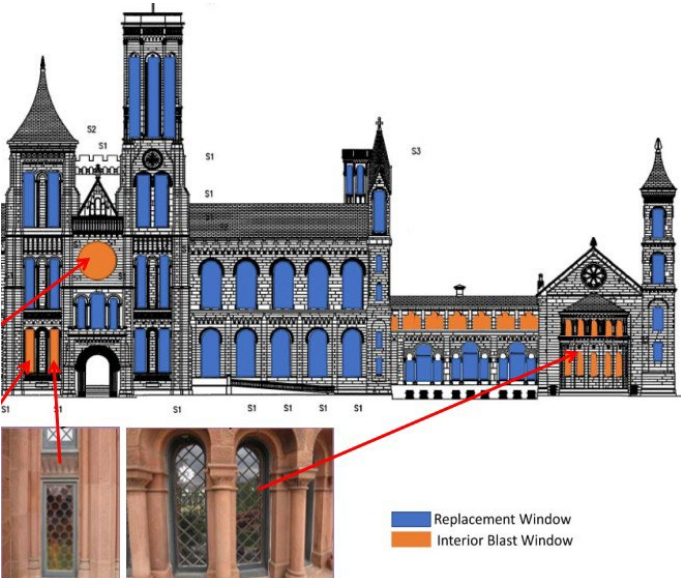
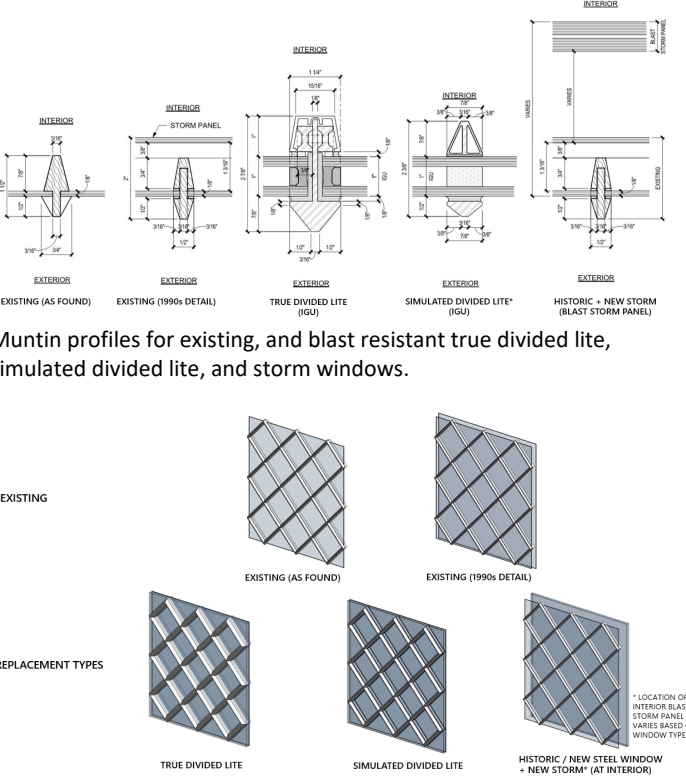


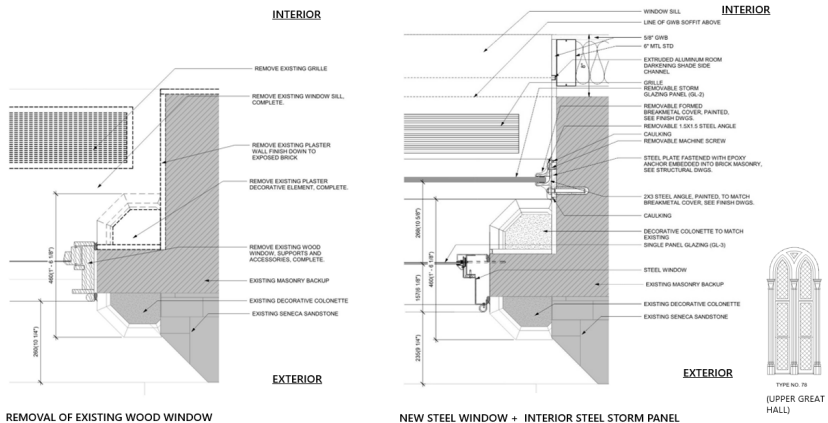

Existing Proposed
4th Level East Wing, east elevation. Masonry opening will be enlarged to accommodate an egress door.





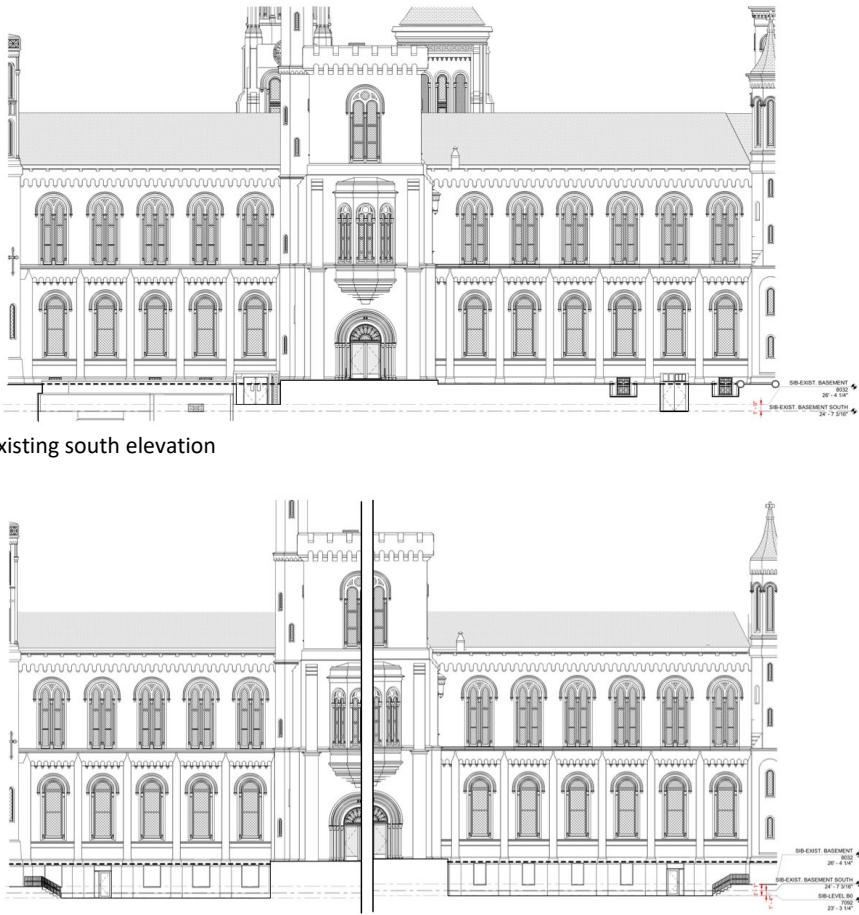
Existing Proposed
4th Level East Wing, west elevation. Non-historic window sash will be replaced with an egress door assembly.

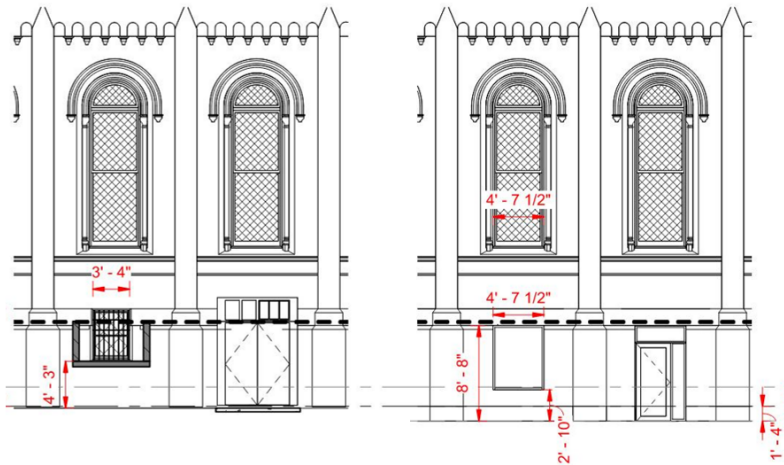
Preliminary Effect Determination – Adverse Effect

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Replacement and Restoration of Windows</p>  <p>Partial Castle north elevation.</p>	<ul style="list-style-type: none"> - Building-wide window replacement of the non-historic window sash with blast resistant windows. - Historic windows c. 1915 that are present in the West Range Clerestory, West Wing Apsse, Smithson Crypt, and West Wing skylights will be restored and retained in-place. Blast resistant storm windows will be installed on the building interior to maintain the exterior appearance. - Replacement windows will restore the historic finish color and will retain a diamond pane multi-light configuration. - Phase 2 of 106 consultation will evaluate the use of simulated divided lite or true divided lite blast resistant window sash. - Phase 2 of 106 consultation will evaluate the window replacement details and finish.
Images	Additional Information
 <p>Muntin profiles for existing, and blast resistant true divided lite, simulated divided lite, and storm windows.</p> <p>Muntin patterns for existing, true divided lite, simulated divided lite, and storm windows.</p>	<ul style="list-style-type: none"> - Windows are a character defining feature. Majority of the existing windows are wood non-historic replacements installed in 1987-1992. - Historic documentation indicates the original window fenestration was primarily wood double-hung sash with wood muntins of square panes set in a diamond pattern. - Photographic documentation pre-1887 indicates the size of the diamond pane varied for each window type. - Blast resistant windows are required to meet Facility Security Level III. - Blast resistant windows will not be able to completely replicate the existing and historic window details, and there is the potential for adverse effect. - Consultation on window details, mock-ups, and finish color may minimize adverse effect.
<p>Preliminary Effect Determination – Adverse Effect</p>	

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Replacement and Restoration of Windows – Interior Effects</p>	<ul style="list-style-type: none"> - Building-wide window replacement of the non-historic window sash with blast resistant windows. - Historic windows c. 1915 will be restored and retained in-place. Blast resistant storm windows will be installed on the building interior to maintain the exterior appearance. - Installation of blast resistant windows requires the removal of interior finishes to anchor the windows into the building structure. - Phase 2 of 106 consultation will evaluate the effects of the removal and replacement of historic finishes for each window configuration.
Images	Additional Information
 <p>REMOVAL OF EXISTING WOOD WINDOW</p> <p>Jamb detail of an interior storm window at the Upper Great Hall.</p>  <p>Interior view of a window at the Upper Great Hall.</p>	<ul style="list-style-type: none"> - Blast resistant windows are required to meet Facility Security Level III. - Removal and replacement of interior finishes around window openings lacks independent utility without the blast window installation, and is subject to Section 106 consultation. - Some window configurations feature decorative interior plaster work around the masonry openings. - Design intent is to replace displaced historic finishes in-kind, including flat and decorative plaster. - Blast or storm window bracing may prevent the replication of decorative plasterwork, and may result in adverse effect.
<p>Preliminary Effect Determination – Adverse Effect</p>	

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Exterior Masonry Restoration</p>	<ul style="list-style-type: none"> - Exterior red Seneca sandstone will be restored, including façade cleaning, and pointing. - Maximum amount of sound sandstone will be preserved. - Stone repairs include reattachment of displaced masonry, Dutchmen repairs, and select full replacement stones. - Phase 2 of 106 consultation will evaluate an alternative stone to use for restoration repairs after Seneca sandstone reserves are exhausted.
Images	Additional Information
 <p>Seneca sandstone with biological growth staining.</p>  <p>Displaced Seneca sandstone masonry at the Octagon Tower.</p>	<ul style="list-style-type: none"> - Seneca sandstone exterior is a character defining feature. - Seneca sandstone is no longer quarried, and the SI retains a significant stockpile at a Smithsonian storage facility that will be used for the restoration work. - Stone replacement pieces will be in-kind, with hand tooling and finishing to maintain consistency with the stone color ranges, texture, and detailing. - Stone restoration will be consistent with the <i>Secretary of the Interior's Standards</i> Preservation approach. - Four red sandstones have been identified for evaluation in Phase 2 of 106 consultation, should the amount of stockpiled stone proves insufficient for required repairs. - Seneca stone reserves may be prioritized for highly visible repairs, and limit any alternative sandstone for repairs in less visible areas.
Preliminary Effect Determination – No Adverse Effect	

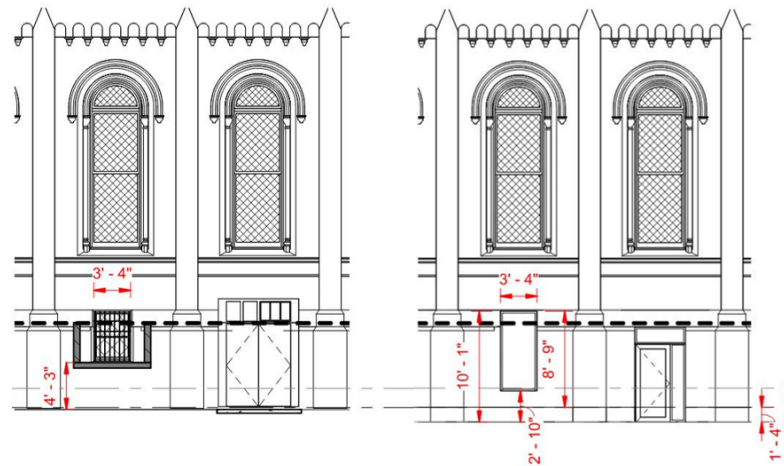
Smithsonian Institution Building	
Feature/Action	Design Details
<p>New Basement Windows</p>	<ul style="list-style-type: none"> - New basement windows are proposed within the basement level areaways below-grade on the Castle south elevation. - Castle south elevation at the basement level contains some window openings. Proposed work will enlarge existing window openings and create new masonry openings. - Phase 2 of 106 consultation will evaluate: alternatives for the size of the window openings; alternatives for the window fenestration; visibility; and the extent of historic fabric removal.
Images	Additional Information
 <p>Existing south elevation</p> <p>Match First Floor Window Width</p> <p>Match Existing Basement Window Width</p> <p>Proposed south elevation, with Options A and B depicted.</p>	<ul style="list-style-type: none"> - Proposed windows increase natural light to newly occupied public basement spaces utilizing existing window openings and creating new masonry openings. - Proposed window fenestration will be subtly differentiated from the historic consistent with the <i>Secretary of the Interior's Standards</i>. - Proposed work requires the removal and alteration of historic building fabric. - New window openings will be visible from within the Haupt Garden. - Existing sidewalks and pedestrian paths in the Haupt Garden will be maintained, which restricts some visibility in combination with the landscaped setting and minimizes adverse effect. - New window openings alter the façade composition of the Castle, and results in adverse effects. - Adverse effect may be minimized but not avoided through consultation on the masonry opening size and window fenestration. - Contributes to the cumulative adverse effect on the Castle.



Existing Main Building South

Proposed Main Building South

Elevation comparison – Option A. Option A aligns the width of the new window openings with the above historic window openings.





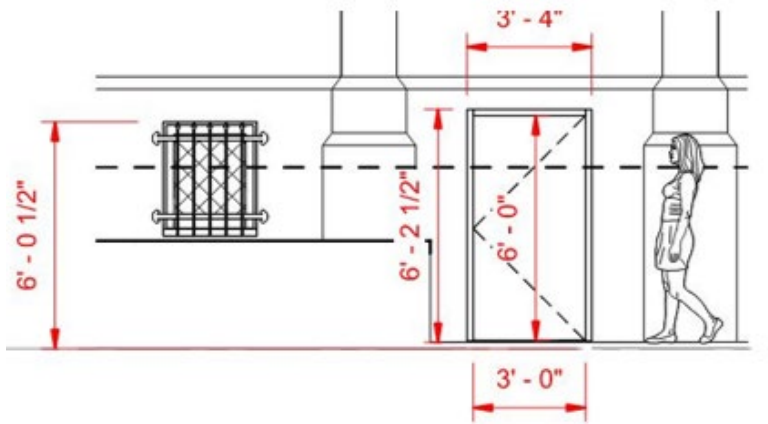
Existing Main Building South

Proposed Main Building South - Alt

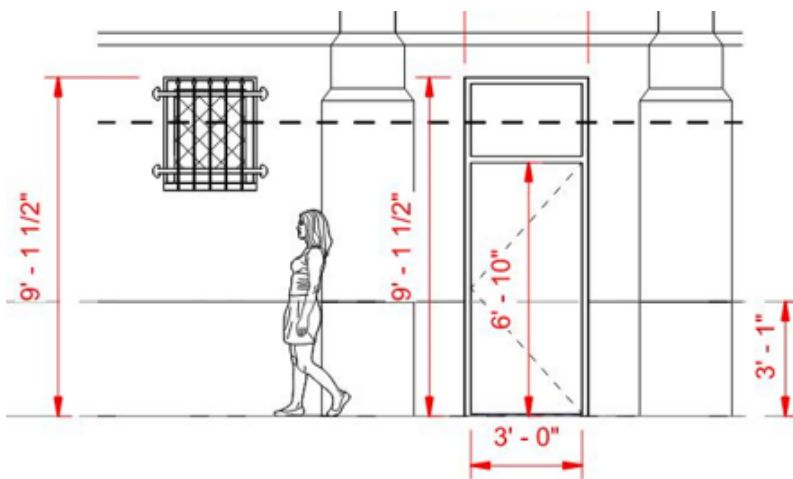
Elevation comparison – Option B aligns the width of the new window openings with the existing basement windows.

Proposed Effect Determination – Adverse Effect

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Basement Egress Doors</p>  <p>Existing egress door at the East Range south areaway.</p>	<ul style="list-style-type: none"> - On the Castle's south elevation, two existing doors (East and West Range areaways) will be modified and re-used. Two (2) new doors openings will be created (Great Hall areaways). - On the Castle's north, one (1) new egress door opening will be created (West Range areaway) - Phase 2 of 106 consultation will develop alternatives for the egress doors material(s) and configuration(s), and evaluate the removal of historic fabric.
Images	Additional Information
 <p>Existing windows.</p> <p>Partial elevation of North Elevation, West Range areaway with new egress door.</p> <p>New egress door at proposed areaway.</p> <p>Existing windows and areaway door.</p> <p>Partial elevation of South Elevation, West Range areaway with modified egress door.</p> <p>New door at existing door opening - opening has been modified (lowered) to match level of proposed areaway.</p>	<ul style="list-style-type: none"> - Additional egress doors are required for life safety based on the increased building population. - All egress doors will be located at the Castle basement level within below-grade areaways. - Proposed work requires the removal and alteration of historic building fabric. - Egress doors will have some visibility within the setting and Haupt Garden. - Existing sidewalks and pedestrian paths in the Haupt Garden will be maintained, which restricts some visibility in combination with the landscaped setting and minimizes adverse effect. - Contributes to cumulative adverse effects on the Castle's Setting.

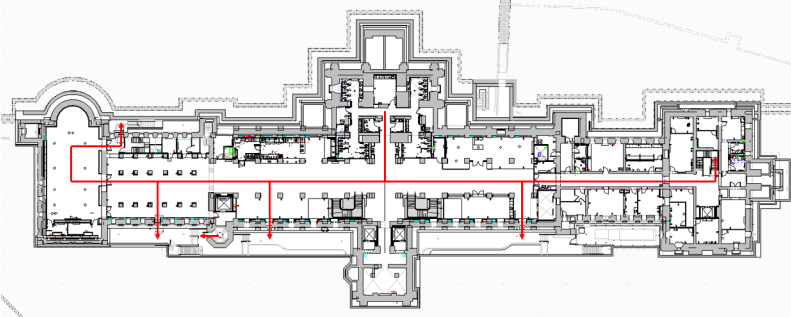



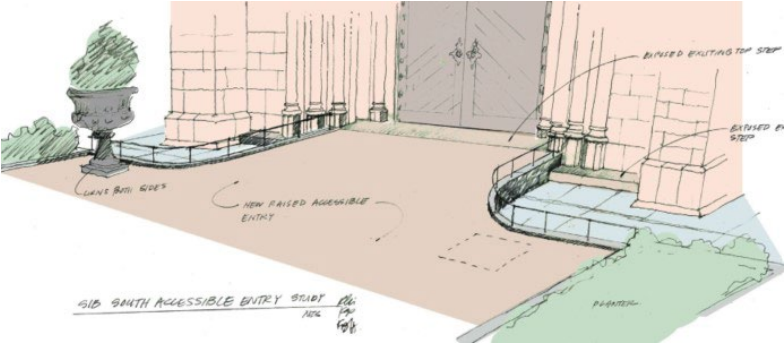
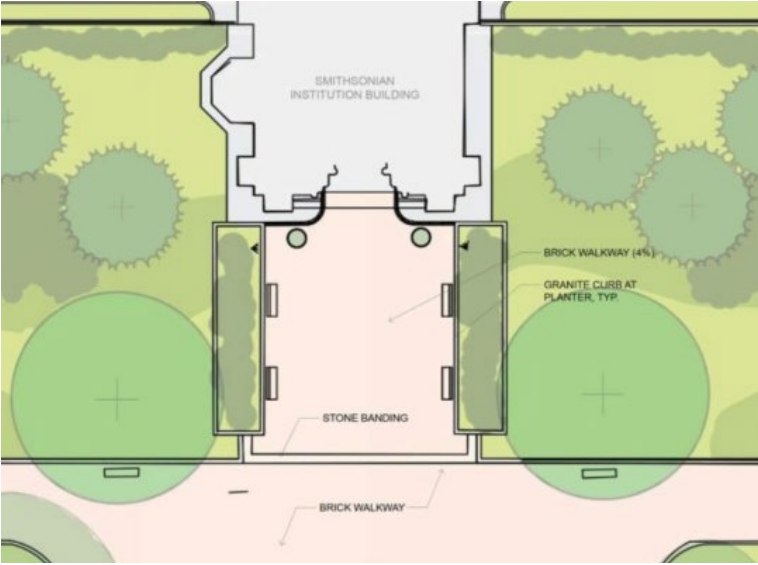
South Elevation, West Range existing door and dimensions.


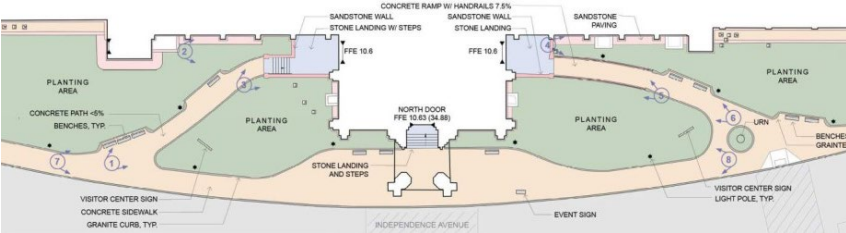
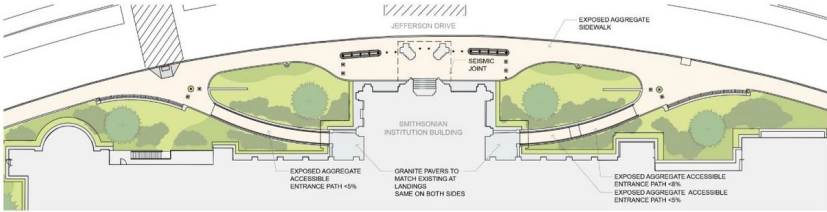




South Elevation, West Range proposed door and dimensions.

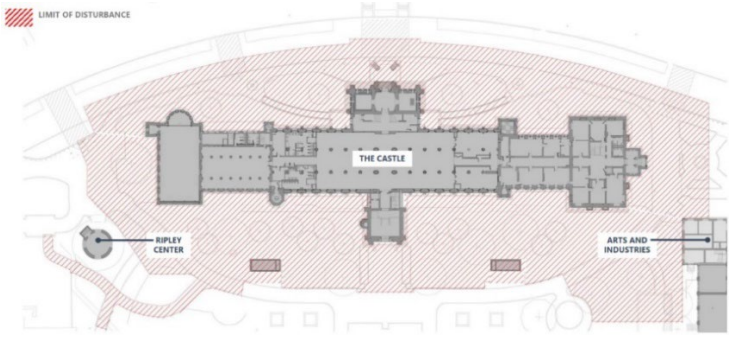
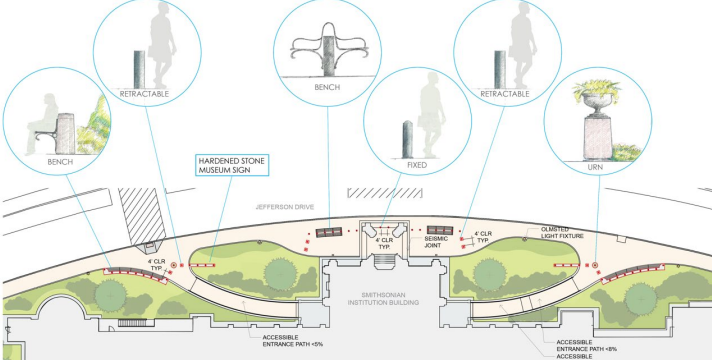

Preliminary Effect Determination – Adverse Effect

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Basement Level Interior Alterations – Lowering of the Basement Floor, New Basement Window Openings, and Egress Paths to Basement Level Egress Doors</p>	<ul style="list-style-type: none"> - Interior alterations at the Castle basement level (B0) are connected to exterior alterations. - Lowering of the historic basement floor level 3’ alters the appearance of the interior space including the historic masonry piers. - New basement level window openings will be created in the Castle’s south elevation. - Exterior egress doors will be connected to an interior egress path. - Phase 2 of 106 consultation will consider: alternatives for the finish treatment for the historic piers; egress path analyses; and alternatives for the incorporation of the new window openings into the adjacent interior masonry.
Images	Additional Information
 <p>Basement level (B0) egress path noted with red lines.</p>	<ul style="list-style-type: none"> - These alterations to the basement level historic finishes lack independent utility without the associated exterior alterations, and are subject to Section 106 consultation. - Egress paths and doors added are required to account for visitor occupancy loads. - Where grade is changed and underpinning is added to the historic piers, existing and new construction will be integrated but differentiated in appearance. - Excavation of the B0 and B1 levels has the potential to adversely affect historic fabric such as the existing floor material and the “reverse arch” construction that may exist below grade, and by altering the historic character of the existing volume of the basement space. Consideration of these interior alterations will be part of Phase 2 of 106 consultation. - If unanticipated historic fabric is discovered during excavation, these features will be considered for recordation, potential salvage, possible preservation in place of select features.
<p>Preliminary Effect Determination – Adverse Effect</p>	

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Alterations at the South Entrance to Improve Accessibility</p>  <p>Existing South Entrance condition.</p>	<ul style="list-style-type: none"> - Universally accessible walkway replaces an existing ramp on axis with the South Tower entrance. Current ramp is not universally accessible. - Universal walkway slope eliminates the need for a handrail. - Walkway will be paved with salvaged brick and granite curbs in keeping with the Haupt Garden materials palette. - Phase 2 of 106 consultation will consider: design of the low edge metal railing; and material options for the granite paving adjacent to the walkway and Castle, selected in coordination with the seismic control joint cover plate.
Images	Additional Information
 <p>Proposed South Entrance axonometric view.</p>  <p>Proposed South Entrance plan.</p>	<ul style="list-style-type: none"> - Setting and the South Tower are character defining features. - South Tower entrance retains historic Seneca sandstone stairs (two risers). - Existing access ramp installed c. 2015 is constructed over the Seneca sandstone historic stairs. - Universal accessibility is the goal for SI projects, inclusive of all ages and abilities. - Universal walkway slope eliminates the need for a handrail, which minimizes visual impact by incorporating the walkway into the Haupt Garden hardscape. - Walkway design does not obscure the architectural features of the decorative south entrance surround any more than the existing ramp. - Walkway design, though wider and longer than the existing ramp, has no significant impact on circulation, setting, and use of the South Tower entrance. - Adverse effect is avoided through the use of salvaged brick paving and granite curbs from the existing condition. - Adverse effect is avoided through retaining and not altering historic fabric beneath the walkway construction.
<p>Preliminary Effect Determination – No Adverse Effect</p>	

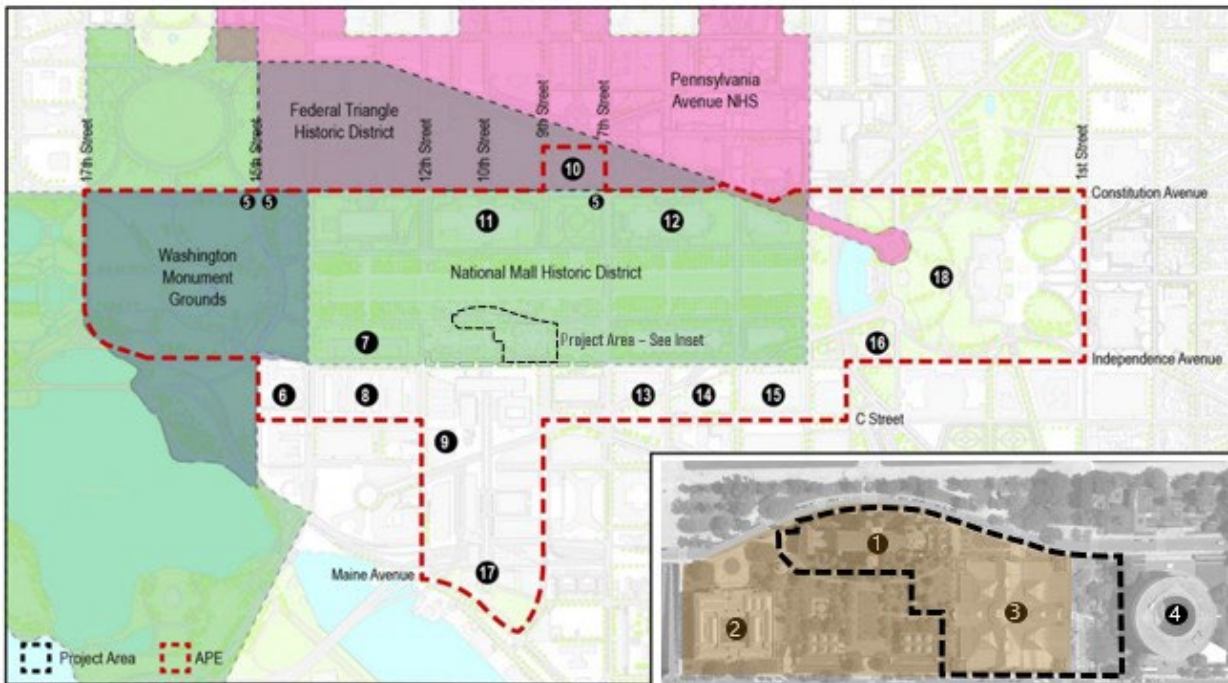
Smithsonian Institution Building	
Feature/Action	Design Details
<p>Accessible Walkways at the North Entrance</p>  <p>Existing west accessible ramp to the Castle's North Tower.</p>	<ul style="list-style-type: none"> - Two universally accessible walkways are proposed in a symmetrical plan to the east and west entrances of the North Tower. - Walkway paving surface will be aggregate concrete to connect with the National Mall sidewalk context. - Adjacent landscape beds will be adjusted to a symmetrical configuration. - Non-historic east and west doors to the North Tower will be replaced. - Phase 2 of 106 consultation will consider: material alternatives for the stone landings adjacent to the North Tower.
Images	Additional Information
 <p>Existing site plan.</p> <p>PAVING AT RAMPS</p> <ul style="list-style-type: none"> • Exposed aggregate concrete on ramps leading to landings • Exposed aggregate concrete in keeping with the sidewalks • Stone proposed for landings, material alternatives in development  <p>Proposed site plan and materials.</p>	<ul style="list-style-type: none"> - Setting is a character defining feature. - Existing east and west asymmetrical pathways are not historically significant, installed c. 1987. - East entrance to the North Tower features stairs and stone newel posts installed c. 1987. West entrance to the North Tower features an access ramp installed c. 1987. These non-historic entry materials will be removed. - North Tower setting features a semi-symmetrical path arrangement to the east and west entrances around undulating planting beds with lush plantings. - Historic fabric will not be removed or obscured by the construction of the walkways. - Adverse effect is avoided through maintaining the existing landscape character and setting through the proposed curvilinear paths, planting beds, and planting diversity. - Phase 2 of 106 consultation should consider asymmetrical planting designs for the north landscape beds to relate to the existing landscape character and be reminiscent of Andrew Jackson Downing National Mall plan.
<p>Preliminary Effect Determination – No Adverse Effect</p>	

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Cumulative Effects on the Castle</p>  <p>Castle aerial photograph.</p>	<ul style="list-style-type: none"> - For Phase 2 the following actions were identified with a preliminary adverse effect determination: <ul style="list-style-type: none"> • Perimeter Security • South Tower Elevator (including Interior Effects) • Emergency Generator • Rooftop Mechanical Vents • East Wing 4th Floor Egress • Replacement and Restoration of Windows (including Interior Effects) • New Basement Windows • Basement Egress Doors • Basement Level (B0) Interior Alterations (including lowering of the floor) - Following actions were identified with an adverse effect determination in Phase 1: <ul style="list-style-type: none"> • Areaways and Window Wells (Locations and Dimensions) • Seismic Control Joint (Location and Width) • Excavation Adjacent to and Beneath the Castle - Project Limit of Disturbance and construction fencing will affect a significant area around the entire Castle, including part of Jefferson Drive and the Haupt Garden for the duration of construction (5-6 years). - Limit of Disturbance for construction activities will temporarily affect parts of Jefferson Drive, Folger Rose Garden, and Haupt Garden by displacing hardscape materials and removing plantings.
Images	Additional Information
 <p>Mock-up of bollards inside the porte cochere.</p>	<ul style="list-style-type: none"> - Haupt Garden, Folger Rose Garden, and landscape building settings will be restored in all disturbed areas related to construction. - Alternate pedestrian routes may remain in place during the entire RoHC Revitalize Castle construction (Phase 1 and 2). Construction fencing and alternate pedestrian routes will have a temporary adverse effect on the Castle and its setting. - Cumulative adverse effects from excavation work, construction fencing, and alternate pedestrian routes are conditional, provided the site is restored after construction is complete, including reinstallation of salvaged hardscape pavers and plantings. - Seismic Control Joints, Areaways, South Entrance modifications, Perimeter Security, and the Emergency Generator have a cumulative adverse effect on the Castle’s Setting, a character defining feature. - New Basement Windows, Egress Doors, Replacement of Windows, 4th Floor Egress, and Rooftop Mechanical Vents, result in a cumulative adverse effect on the Castle exterior, affecting character defining features and overall exterior appearance: Building Massing, Roof Profile, North and South Towers, and façade configurations.
<p>Preliminary Effect Determination – Adverse Effect</p>	

National Mall Historic District	
Feature/Action	Design Details
<p>Cumulative Effects on the National Mall Historic District</p>  <p>Project Limit of Disturbance noted with red hatch shading.</p>	<p>- Following actions were identified with a preliminary adverse effect for the National Mall Historic District:</p> <ul style="list-style-type: none"> • Perimeter Security • Seismic Control Joint <p>- Rooftop additions for egress and mechanical equipment have limited visibility and may disrupt the Castle’s roofline within the National Mall setting.</p> <p>- Project Limit of Disturbance and construction fencing will affect a significant area around the entire Castle, including part of Jefferson Drive and the Haupt Garden for the duration of construction (5-6 years).</p> <p>- Limit of Disturbance for construction activities will temporarily affect part of Jefferson Drive, Folger Rose Garden, and Haupt Garden.</p>
Images	Additional Information
 <p>Proposed perimeter security elements at north entry along Jefferson Drive.</p>  <p>Visualization of proposed seismic joint cover at the porte cochere.</p>	<p>- Castle is a contributing element to the National Mall Historic District, prominently sited in the Mall.</p> <p>- Haupt Garden, Folger Rose Garden, landscape building setting, and the Jefferson Drive roadbed and sidewalk will be restored in all disturbed areas related to construction.</p> <p>- The Andrew Jackson Downing Urn, a memorial and public artwork located in the Haupt Garden, will be protected-in-place or temporarily relocated to a SI storage facility.</p> <p>- Cumulative adverse effects from excavation work, construction fencing, and alternate pedestrian routes are conditional, provided the site is restored after construction is complete, including reinstallation of salvaged hardscape pavers and plantings.</p> <p>- Seismic control joint and perimeter security will be visible immediately adjacent to the base of the Castle at-grade, and visible around the porte cochere in the sidewalk. This has a cumulative adverse effect on the Castle and National Mall Settings.</p> <p>- New Basement Windows, Egress Doors, Replacement of Windows, 4th Floor Egress, and Rooftop Mechanical Vents, result in a cumulative adverse effect on the Castle exterior, which may affect how the exterior and Roof Profile appears within the Historic District context.</p>
<p>Preliminary Effect Determination – Adverse Effect</p>	

Area of Potential Effects

The area of potential effects is defined as the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. This Assessment of Effects on Historic Resources considered the effects of the Revitalization of the Historic Core project within the below mapped area. This area of potential effects was set by the Programmatic Agreement for the South Mall Campus Master Plan.



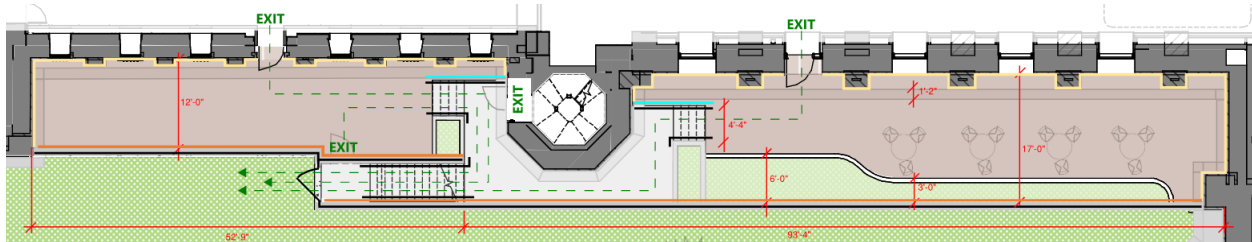
Area of potential effects map, noted with the red dotted line. The RoHC project area is noted with the black dotted line on the overall and inset maps.

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 table indicate properties that are individually listed in, or have been determined as eligible for individual listing in the National Register of Historic Places.

Exhibit G – Minimization Measures

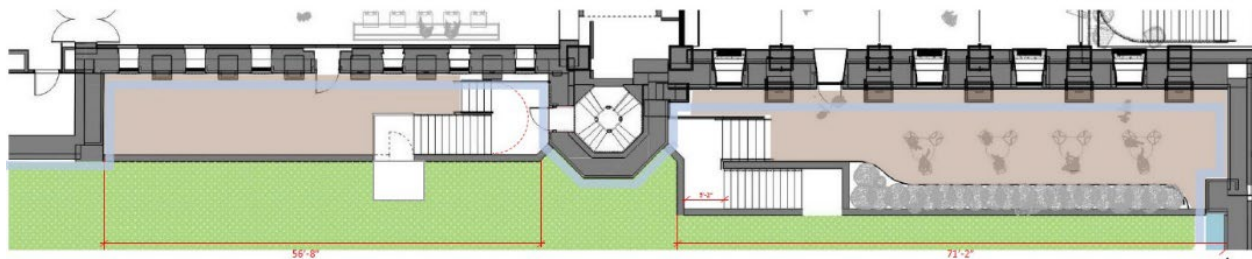
Stipulation 2.A. South Areaways. The southeast and southwest areaways were originally proposed with singular egress, placing areaway structure along significant portions of the Castle’s south elevation, and between the Octagon and Southeast Towers and grade level. These designs were determined in consultation to significantly alter the Castle’s relationship with the ground plane.



Original design of the southwest areaway with singular egress.



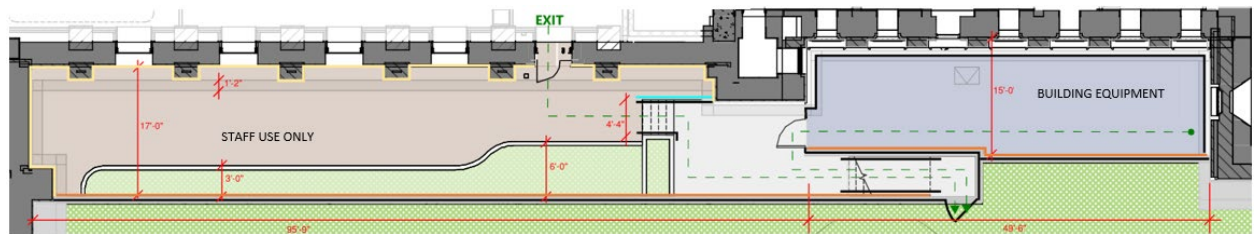
Rendered view of the original design of the southwest areaway with singular egress.



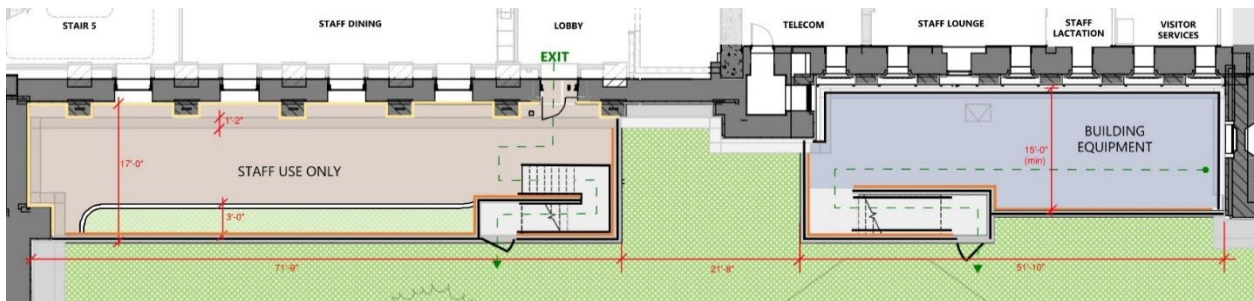
Revised design of the southwest areaway with dual egress bisected around the Octagon Tower.



Rendered view of the proposed design of the southwest areaway with dual egress. This revision minimizes adverse effect by maintaining the Octagon Tower's relationship with grade, and reduces the visual impact and perceived size of the areaways.

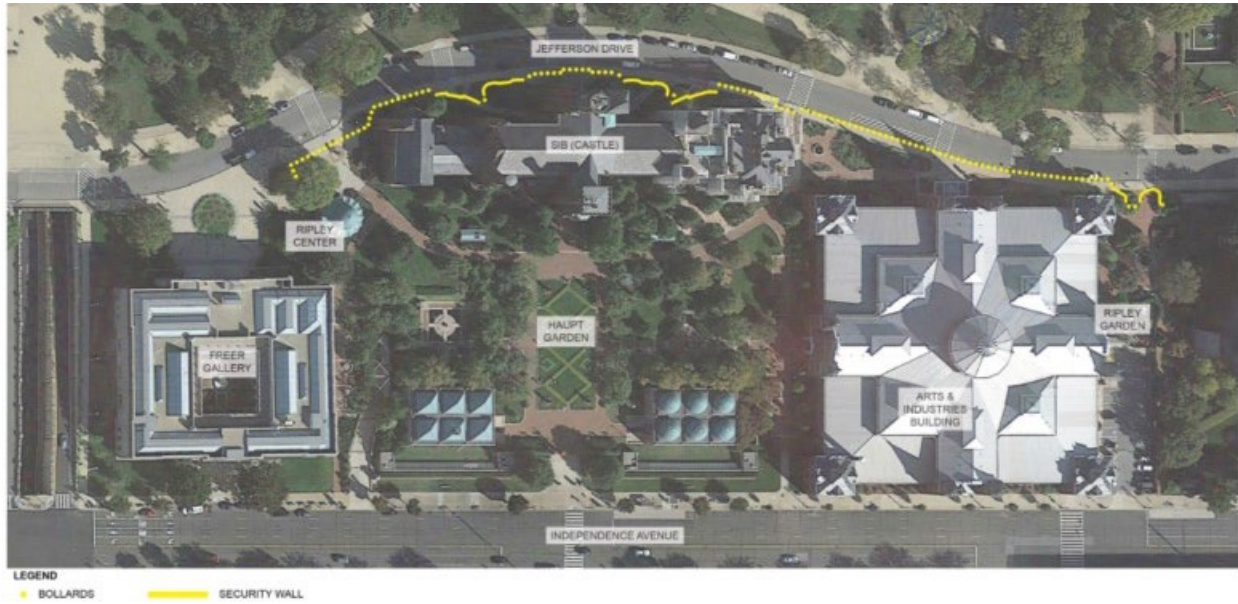


Original design of the southeast areaway with singular egress.

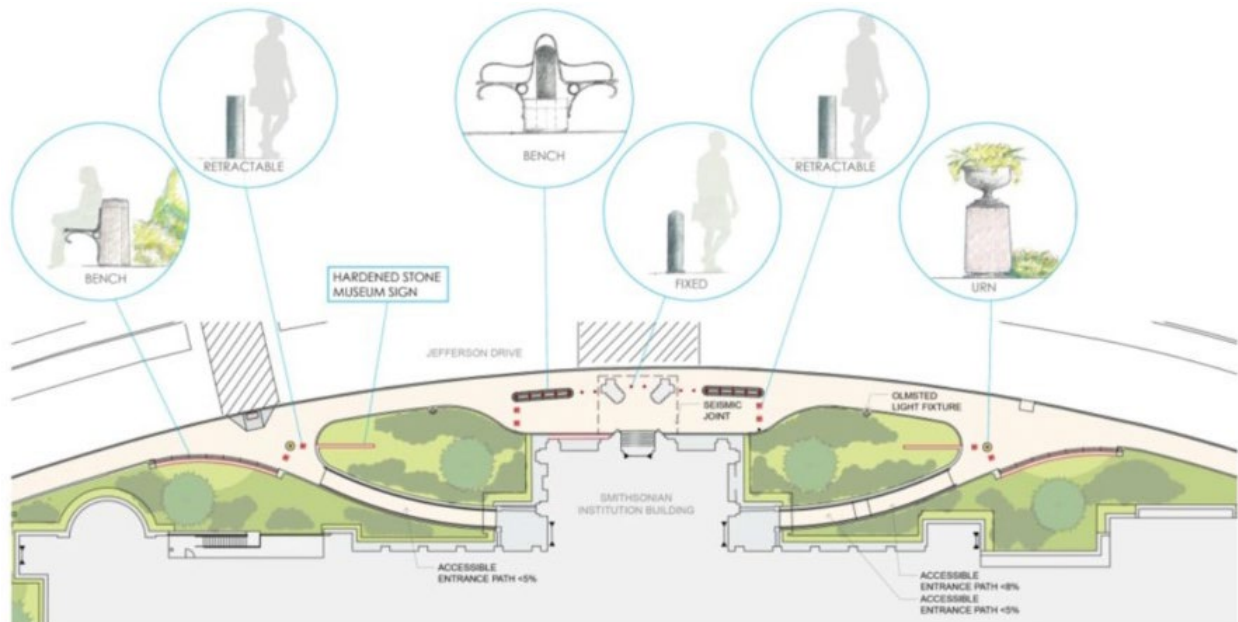


Revised design of the southeast areaway with dual egress bisected around the Southeast Tower.

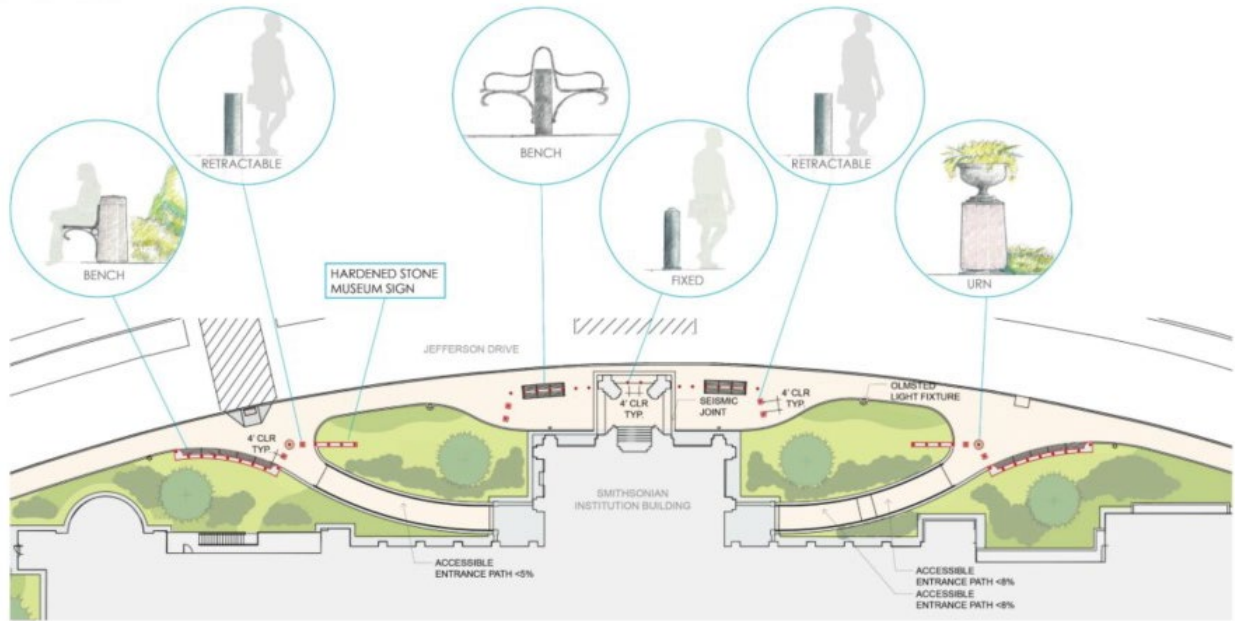
Stipulation 2.B. Perimeter Security. Perimeter security was originally proposed with a continuous line of bollards and site walls to create a barrier the full length of the Castle along Jefferson Drive. This design was determined to have significant adverse effects on the Castle and National Mall settings, and was revised in consultation to focus on the three building entrance locations only on Jefferson Drive and to minimize the use of bollards.



Original perimeter security design, with a continuous line of bollards and site walls on Jefferson Drive.

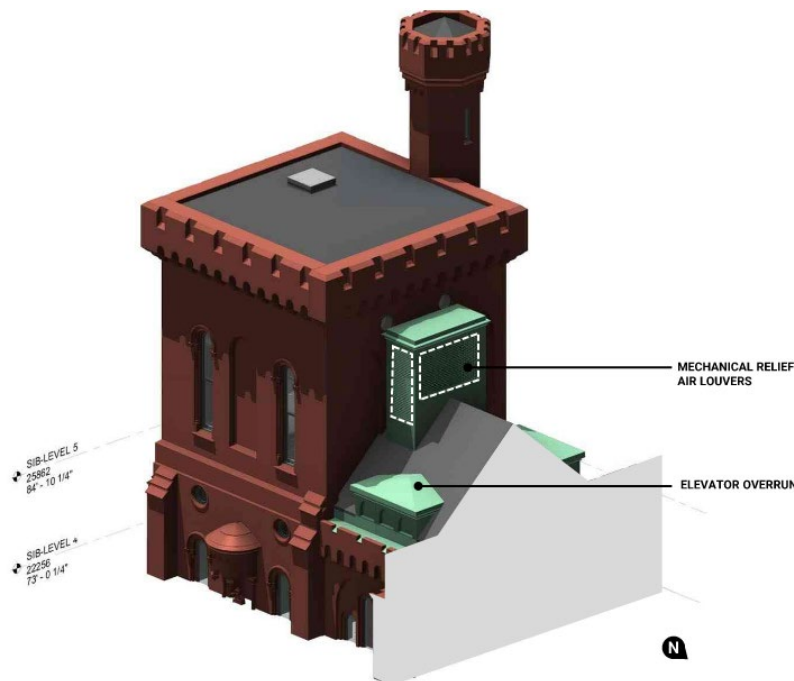


First perimeter security revision dated September 2022. Perimeter security is placed only at the three north building entrances.



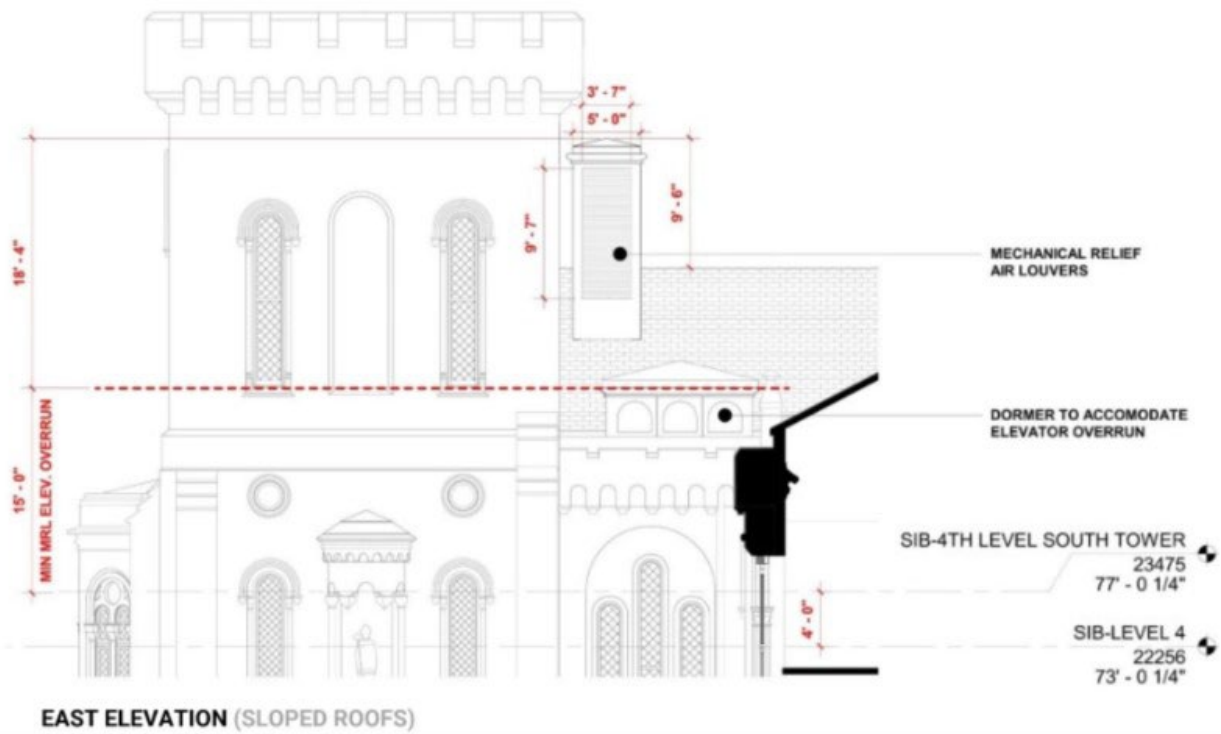
Second perimeter security revision dated October 2022. Length of the benches adjacent to the porte cochere and the accessible walkways were reduced.

Stipulation 2.C. South Tower Elevators Exterior Effects. Two elevators are proposed within the South Tower for public circulation.

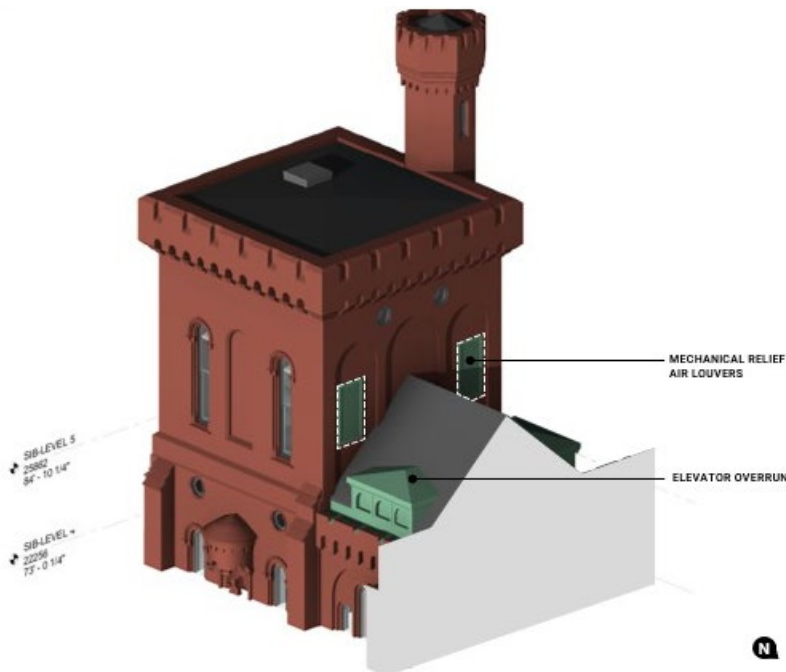


PARTIAL AXONOMETRIC VIEW – LOOKING SW (SLOPED ROOFS)

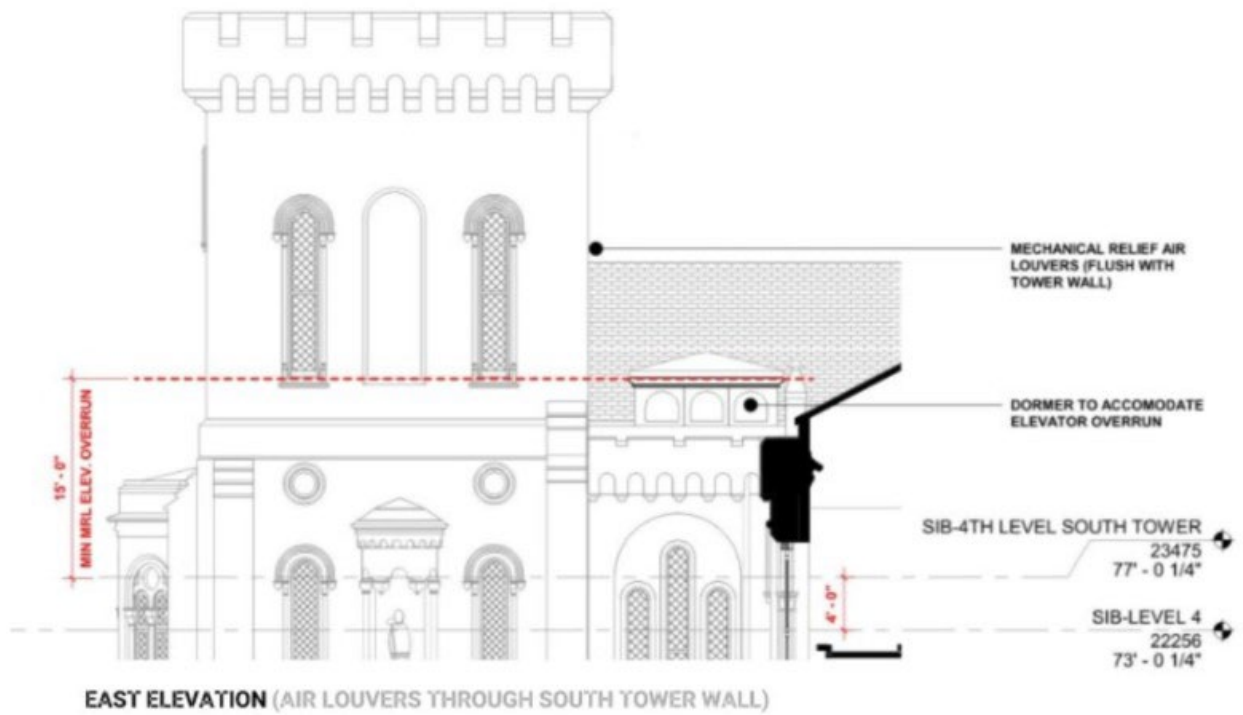
Original design of the South Tower elevators, with a mechanical relief penthouse and required elevator overruns.



East elevation of the original design of the South Tower elevators. The mechanical relief penthouse was determined in consultation to be highly visible and an adverse effect on the Castle's exterior.



Revised design of the South Tower elevators. Mechanical relief is routed using through wall louvers at brick infill on the non-visible north elevation of the South Tower.



East elevation of the revised design of the South Tower elevators. This alternative results in a non-visible change to support the elevators, aside from the overruns which will be designed in Phase 2 of consultation.