PROJECT: Smithsonian Institution- Revitalization of the Historic Core (RoHC)
ORGANIZER: Smithsonian Institution, Carly Bond (moderator)
LOCATION: Virtual/Zoom
PANELISTS: Carly Bond- Smithsonian Institution
Christopher Lethbridge- Smithsonian Institution
Brenda Sanchez- Smithsonian Institution
Lauren Brandes- Smithsonian Gardens
Matthew Chalifoux, EYP-Loring
Anthony Bochicchio, EYP-Loring
Faye Harwell, Rhodeside and Harwell

SUBJECT: Consulting Parties Meeting #13

MEETING MINUTES

Purpose – This was Consulting Parties Meeting 13 for the Revitalization of the Historic Core (RoHC) project of the Smithsonian Institution. The meeting was held in compliance with Section 106 of the National Historic Preservation Act.

The agenda for this meeting was focused on Phase 2 of the Section 106 consultation. The meeting agenda included the following design issues:

• Roof Modifications
• Emergency Egress
  • East Range
• Fall Protection
• Roof Access
• South Entry Ramp
• Southwest Areaway Modification

Phase 2 of Section 106 consultation will continue through 2023.

The meeting was assembled virtually and included a slide presentation, which has been posted on the RoHC project website. Attendees were asked to post questions or comments in the chat during the presentation. The following is a list of the questions and comments with a summary of the responses. Information regarding the project, including the slide presentation, is available through the project webpage: https://www.sifacilities.si.edu/historic-core
Questions and Comments

Written

ROOF MODIFICATIONS

1. **Q:** Can the roof insulation happen on the underside of the roof in any locations?

   **R:** Insulating on the underside of a roof is typically not preferred. It can be done, but it’s a challenge. Placing insulation outside the roof deck assembly and the water/vapor barrier is better for preventing potential condensation (dew point) from coming in contact with critical building materials and providing a layer of continuous insulation. If the insulation is placed on the underside of the roof deck it must be installed around the structure and other elements, which can allow thermal transfer at the points of discontinuity.

   We prefer to add it to the top of the roof deck, it’s the industry standard. This will better protect the building and provide better thermal performance. We do have a few locations where due to dimensional issues we are adding insulation to the underside of roofs.

2. **Q:** On the East Range, would the slope changes be perceptible from the ground?

   **R:** The low slope roof on the East Range is very hard to see from grade in the immediate area of the building. The addition of insulation is minimized at the gutter/roof edge, the location that would be most visible. The raised emergency walkway will be visible, as shown in this presentation.

3. **Q:** We suspect the increases in roof height will be only minimally noticeable, but it would be helpful to have some realistic renderings/photoshopped images (not just sections alone) that illustrate the nearly 5” increase in roof thickness so we can determine whether these increases would adversely affect the Castle, especially in areas where there are no parapets. “Before and after” photographs of similar work carried out at A&IB might also be helpful for comparison if that building’s roof height was increased a similar height.

   **R:** Similar photoshop images were provided for the Arts and Industries Building when the roof was renovated. We will provide similar photoshop views for the Castle.

4. **Q:** Some of the roof sections depict a rather steep slope for the roof surface. Are there any risks of a heavy rain sending such quantities of rainwater that would overrun the gutters and flow over the cap stone edges and flowing down the wall surfaces?

   **R:** Preferably the roof slope is designed to end above the top edge of the gutter to prevent water backing up under the roof assembly if the gutter is clogged, but for the line of the roof to point into the gutter. While the proposed designs are altering the edge conditions slightly the size of the gutters, number of downspouts, and roof areas are sufficient to prevent over wash from the roofs bypassing the gutters.
EMERGENCY EGRESS – EAST RANGE

5. **Q:** With respect to the roof railing, the National Capital Planning Commission (NCPC) agrees that Option 2 is the way to go.

   **A:** Thank you.

6. **Q:** Is it possible to paint the railing a lighter color?

   **R:** Any color will be visible against the sky; some may argue that black is actually less visible. Due to the tonal qualities of the building, the design team suggests that black would be less noticeable.

FALL PROTECTION
ROOF ACCESS

7. **Q:** Is the fall protection a need to have or a must have? The AIB does not have fall protection lines on the ridges, correct? Is there a visualization of the cable system on the roof peak?

   **R:** Roof fall protection is a need to have. This is a requirement of the project to provide appropriate protection for staff that must go onto the roofs for maintenance. The plan was developed by a firm that specializes in this work. We have worked closely with them to account for the geometry of the building and minimize visual impact.

   On AIB the cable is along the face of the clerestories and the redirect stanchions are on the roof ridges. We will develop a visualization of the cable at the ridge of the Main Building roof.

SOUTH ENTRY RAMP
SOUTHWEST AREAWAY MODIFICATION

8. **Q:** I may not be correctly understanding the geometries of the areas calling for a "kick railing," but in my experience these can create a more hazardous condition than having no raised element. Think of a standard street curb. These never have kick rails or raised edges. If there were a 4- or 6-inch-high railing on such a curb it might function as more of a trip hazard than a protection.

   **R:** The design team approached this as more of an edge seen on boardwalks or paths, where the barrier acts as an edge for those using strollers or wheelchairs. We would not add a kick rail to a curb, but we do see this as more sidewalks incorporate stormwater basins. Perhaps we should not call it a kick rail, but more of an edge to prevent someone in a wheelchair or stroller from going over. There is no code requirement since it is less than 30” drop, but it seems prudent to maintain to prevent wheels from going over.

9. **Q:** NCPC agrees that South Entrance Option B with landscape is preferred.

   **R:** Thank you.
**Verbal**

**ROOF MODIFICATIONS**
**EMERGENCY EGRESS – EAST RANGE**

10. **Q:** On slide 18, it looks like the roof assembly would be taller than the edge.

    **R:** If you compare slide 18 and 19, the roof would be below the coping stone line.

11. **Q:** Thank you for the research and historic photos. The ramp is indeed historic so would its removal have an adverse effect?

    **R:** Yes – the ramp is historic, but the door infill is not. The removal of the ramp contributes to the adverse effect from the areaways.

12. **Q:** The egress on the roof, I imagined that the railing could be less visibly intrusive. Have you studied anything that has less structure? Do we have to have pickets that close together or that wide? Can we use wiring or something less visually apparent?

    **R:** Yes, we did look at alternatives, but the spacing of the guardrail elements per code is a maximum of 4”, the height must be a minimum of 42”. If you are thinking about a wired or aircraft cable type system, the wires are also dense (to achieve 4” spacing).

    When the spacing is every 4” there is visual density, but this is a system meant to protect people in an emergency who are fleeing the building and crossing the roof. We looked at other options, but they introduced a material/vocabulary that was foreign to this building. The Smithsonian’s preferred approach is to keep with the historic materials of the building, and a utilitarian design for less of a visual impact. At earlier Consulting Party meetings, it was agreed that more contemporary interventions were inappropriate.

13. **Q:** Thank you, not as familiar with the codes.

    **R:** The life safety code states that the configuration of the guardrail must be such that a 4” sphere cannot pass through, and the minimum height is 42” minimum.

**FALL PROTECTION**
**ROOF ACCESS**

14. **Q:** With regard to the mechanical penthouse, please don’t include the arch opening for the louver. It seems like the right thing to do but it isn’t. It attracts attention to the penthouse, a contemporary intervention.

    **R:** There was preference for the arched vocabulary at the April Consulting Parties meeting because it’s consistent with how other 20th century additions were detailed on the Castle roof. It is also consistent with the preferred cladding detail for the visible South Tower elevator overruns.
15. Q: Appreciate that the North penthouses have been reduced. No strong feeling on the arch, but a consistent approach would be important (north and south) although you don’t see both at the same time.

R: Consulting Parties Meeting 12 in April has comparison slides to show how the visual impact of the north mechanical penthouses has been reduced. We will review the final alternatives to complete consultation on the north mechanical penthouses at the June Consulting Parties meeting.

SOUTHERN ENTRY RAMP

16. Q: With regard to the South Entry ramp, do we know what the historic condition was?

R: Prior to the construction of the Haupt Garden this area was quite utilitarian. In the 1970s there was a parking lot. In earlier historic photographs there appear to be gravel pathways. The historic condition that has been the focus of the design team is the Haupt Garden.

17. Q: Prefer to let the landscape bleed in; slightly higher curb and one kick rail is also preferred.

R: Thank you.

18. Q: Regarding the south entry, not convinced that option B is the correct treatment. The historic condition is the driver here; what period? Perhaps more historical study is warranted to provide better guidance. When the planting is introduced, makes it appear as if the ramp has always been there instead of a later alteration. Would appreciate additional effort. Otherwise, agree with curb and railing detail for reasons that (Faye) outlined. Least railing, least visually intrusive.

R: Thank you for that comment. When we’ve looked at this, we use the precedent of the Haupt Garden design as historic point of departure. We’ll continue to study the historic conditions.

Q (continued): Seems that the path would’ve been wider.

R: The path connecting the South Entry was wider in the design of the Haupt Garden and even prior to that. In those cases, however, they were leading to the sandstone stairs, there was no ramp. The proposed design is an effort to balance the insertion of a ramp with the decorative elements flanking the door.

SOUTHWEST AREAWAY MODIFICATION

19. Q: Regarding the areaway, it seems clumsy to make this alteration considering all the work we went through to get the areaway to align.

R: We agree that retaining the straight line of the south side of the southwest areaway to the west of the Octagon Tower is preferable, but when detailing the stairs, finishes, and the seismic joint in the areaway the extra width was needed to make all the elements work properly.

20. Q: Team has been very open and diligent in solving the problems; don’t buy the argument regarding the widened south areaway. Credible, but don’t buy the argument that it cannot be done.
R: We will follow up in the next Consulting Parties meeting with information on the design options that were studied.

END OF MEETING
### Smithsonian Institution Building

#### Feature/Action

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| South Tower Elevator - Interior Effects | - 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.  
- Elevator cabs in all spaces will be bronze with minimal frames.  
- Proposed arched openings in historic blind arches provide access to the elevators in the first floor Children’s Room.  
- Historic circulation corridor must narrow 1’6” at the first floor and 1’5” at the third floor. Alterations to the corridors at these levels impacts historic fabric. |

#### Images

- Existing conditions in the Children’s Room. Note the non-historic stairs and barrier-free access lift. Note the blind arches adjacent to the center arched opening.
- 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 elevators permit the restoration of the Children’s Room, currently half occupied by non-historic stairs, accessible lift, and platform.  
- Historic Tennessee Pink marble stairs are present beneath the non-historic accessible lift platform in the Children’s Room. The stairs will be exposed and restored.

- Proposed north elevation of the Children’s Room. The center existing opening leads to the Great Hall with the historic stone stairs exposed. New arched openings within the historic blind arches lead to the elevator cabs, centered on the openings.
- Arched openings are used for many historic door openings in public areas of the Castle.
- Interior alterations associated with the elevators have an adverse effect on historic fabric and interiors.
- New elevator openings in the south side of the Great Hall remove historic plaster.
- Design originally proposed two openings at the Children’s Room to access each elevator vestibule. This was revised in consultation to one opening to preserve the historic stairs and minimize adverse effect.
- Two mosaic floor panels at the third floor will be narrowed through excising the center solid color tesserae and portions of the fretwork border. Mosaics will be re-laid with the fretwork border pattern intact aside from the dimensional change. Infill is required at the east and west edges, proposed in marble in keeping with the adjacent historic stairs. This treatment minimizes adverse effect and preserves the central decorative medallion.

**Proposed Effect Determination – Adverse Effect**
### Smithsonian Institution Building

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| Installation of Rooftop Fall Protection          | - Life safety fall protection system will be installed at the Castle roof to allow maintenance.  
- Fall protection system consists of low metal cables at the roof ridges.  
- Low metal stanchion redirects in select locations connect sections of the cables. |

### Images

Axonometric drawing of the Castle. Red lines indicate the horizontal cable lifelines. Green lines indicate the lighting protection system.

Similar fall protection system installed on the Arts & Industries Building.

**Additional Information**

- Roof Profile is a character defining feature.  
- Providing fall protection on the roof of the Castle cannot be avoided.  
- Proposed minimal cable and stanchion system avoid requiring a guardrail around the entire roof perimeter.  
- Redirect stanchions connect sections of cables and reduce the visual impact of the system.  
- Fall protection system will be visible on the Castle’s roof, and adversely effects the roof profile.  
- Contributes to cumulative adverse effects on Roof Profile and Building Massing, and overall visual effects.

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**Proposed Effect Determination – Adverse Effect**
**Smithsonian Institution Building**

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| Installation of Roof Access    | - Roof access hatch proposed on the peaked roof between the Flag and North Towers.  
                                 | - Access hatch provides direct access to the cable fall protection system.  
                                 | - Permits the removal of unsightly access stairs at the south sides of the Flag and North Towers.                                          |

**Images**

- Proposed roof hatch shown in light gray between the towers. Green rooftop additions represent mechanical penthouses. Red lines represent the fall protection system.

- Roof access is currently accomplished through high doors and ladders from the south sides of the Flag and North Towers.

- Roof access hatch will not be visible behind the North Tower pediment.

**Proposed Effect Determination – No Adverse Effect**
### Smithsonian Institution Building

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| Installation of New East Wing 4th Floor Egress | - 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.  
- Non-historic window sash will be removed from two openings to accommodate egress doors. Egress doors will not require alterations to the masonry openings.  
- Egress path fall protection railings will be a simple metal picket with a black finish. |

Plan of the proposed egress path from the East Wing across the East Range roof to the Main Building.

### Additional Information

- Roof Profile is a character defining feature.  
- Secondary means of egress from the fourth floor of the East Wing is currently across the East Range roof, through windows and without fall protection. A second means is required for occupancy.  
- Proposed 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.  
- Installation of egress doors will not require alterations to the existing window.

**Photograph of the East Range and the visibility of the 1973 mechanical penthouse. Red dotted line indicates the height of the 42” guardrail.**

**Elevation of the egress walkway and fall protection railing design.**
Walkway railing visibility from the middle of the National Mall.

4th Level East Wing, west elevation. Non-historic window sash will be replaced with a metal and glass egress door.

4th Level Main Building, east elevation. Non-historic window sash will be replaced with a metal and glass egress door with a fixed window above.

Proposed Effect Determination – Adverse Effect

openings. The existing window sash to be removed is non-historic.
- Use of a simple metal picket railing that meets the code requirement minimums, minimizes undue attention to this change and adverse effect.
- Contributes to cumulative adverse effects on Roof Profile and Building Massing, and overall visual effects.