

STAFF RECOMMENDATION



S. Dettman

NCPC File No. 7055

HIRSHHORN MUSEUM AND SCULPTURE GARDEN SEASONAL INFLATABLE PAVILION

7th Street, SW and Independence Avenue, SW
Washington, DC

Submitted by the Smithsonian Institution

March 25, 2010

Abstract

The Smithsonian Institution has submitted two alternative concepts for the installation of a seasonal inflatable pavilion at the Hirshhorn Museum and Sculpture Garden. The purpose of the project is to transform the museum's open-air central courtyard and surrounding plaza into a vibrant, weather-protected, public space offering a diverse range of cultural, collaborative, and educational events during the months of May and October only. Depending on the concept pursued, the large-scale inflatable structure will either enclose, or simply cover over, the central courtyard, allowing it to be used as an auditorium, café, and meeting space in either case. In addition, the structure has been designed to be regarded as an attraction in and of itself.

Commission Action Requested by Applicant

Approval of comments on concept design pursuant to 40 U.S.C. § 8722 (b)(1) and (d)

Executive Director's Recommendation

The Commission:

Comments favorably on the Smithsonian Institution's proposed concepts for the installation of a seasonal inflatable pavilion for the months of May and October at the Hirshhorn Museum and Sculpture Garden, as shown on NCPC Map File No. 1.71(38.00)42980, and finds that the semi-annual transformation of the museum's central courtyard will create an exciting and unanticipated attraction along the National Mall and the 8th Street axis.

Notes that although the Smithsonian’s preferred alternative is the “Soufflé” concept, encourages further study of the programming, accessibility, experience, and relationship of the pavilion to the existing building’s interior and exterior spaces and architecture, for both the “Soufflé” and “Cork” concepts, prior to making a determination on a final design.

Requests that the Smithsonian Institution provide the following additional information as it will be helpful at the next review stage:

- An analysis of views along the Mall, Independence Avenue, and from other view points north and south of the Mall.
- Information on pedestrian circulation and ADA accessibility.
- Information on the proposed lighting, mechanical equipment, and anchoring of the pavilion.
- Information on compliance with local fire and life safety codes and regulations.

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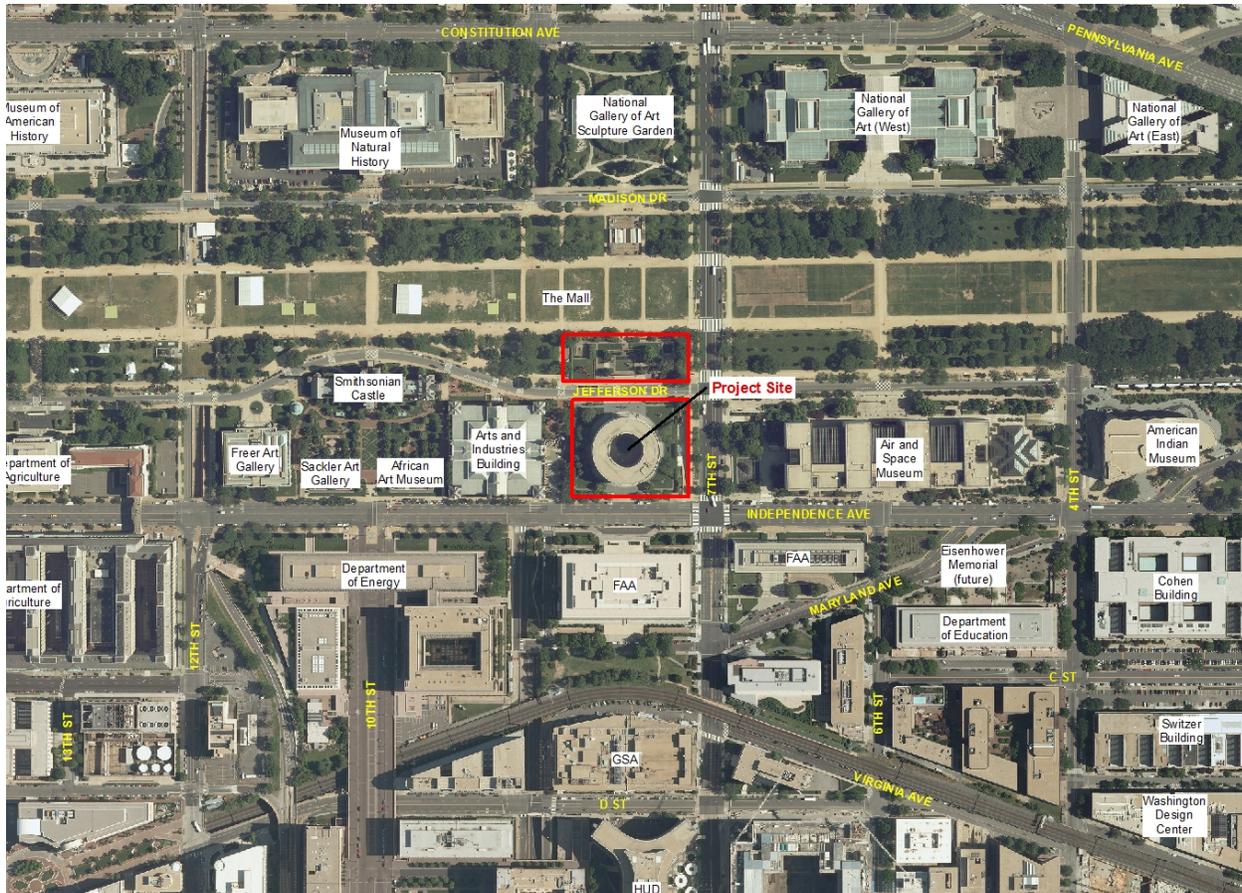
PROJECT DESCRIPTION

Site

The Hirshhorn Museum and Sculpture Garden (“the project site” or “the site”) is located on the south side of the Mall, generally bounded by Jefferson Drive, SW on the north, Independence Avenue, SW on the south, and 7th Street, SW on the east. To the west, along what would be the 9th Street right-of-way, is the Mary Livingston Ripley Garden connecting the Mall to Independence Avenue. The project site is located along the 8th Street axis and encompasses approximately 4 acres divided between the museum building (2.7 acres), and the sculpture garden (1.3 acres) located across Jefferson Drive, SW. Immediately surrounding the site is the Mall to the north, the headquarters of the Federal Aviation Administration (FAA) and the Department of Energy to the south, the National Air and Space Museum to the east, and the Arts and Industries Building to the west.

Background

Use of the project site for a museum dates back to the late 1800s. From 1887 until the 1960s, the site was occupied by a red-brick, Romanesque Revival building designed by Adolf Cluss that served as the home of the Army Medical Museum. In 1939, following a Congressional mandate for a new Smithsonian art museum, designers Eliel and Eero Saarinen unveiled a design for this prominent location on the Mall. However, as priorities shifted toward the U.S. involvement in World War II, the museum project was put on hold. It wasn’t until 1966, by another Act of Congress, that the Hirshhorn Museum and Sculpture Garden was established. Groundbreaking for the new museum took place in 1969 which entailed the razing of the Army Medical Museum building. Construction of the Hirshhorn was completed in 1974.



Project site and surrounding context

The building and surrounding garden complex were designed by renowned architect, Gordon Bunshaft, a long-time partner at the firm Skidmore, Owings & Merrill. Envisioned to be a large piece of functional sculpture, Bunshaft's design takes the shape of an elevated, hollowed-out cylinder that appears to float above its landscaped grounds and surrounding sculpture. The building stands on four large, sculptural piers that elevate it 14 feet above the ground-level. The structure is 82 feet high, 231 feet in diameter, and has an interior courtyard diameter of 115 feet. A 60-foot diameter, round geyser fountain is located slightly off-center from the middle of the courtyard. In the early-1990s, the 2.7 acre plaza that surrounds the museum building was renovated and redesigned. This new design was the recipient of a Federal Design Achievement Award.

Proposal

The Smithsonian Institution (the Smithsonian) has submitted two alternative concepts for the installation of a seasonal inflatable pavilion within the open-air, interior courtyard of the Hirshhorn Museum building. The purpose of the project is to transform the museum's courtyard and surrounding plaza, for two months of the year, into a vibrant public space offering a diverse range of cultural, artistic, and educational events, within a seasonal structure that is also an important architectural and artistic work in and of itself. These events will include performing arts, films, lectures, and debates. In addition, a café and lounge space is also contemplated. As

proposed, the pavilion will be installed only during the months of May and October, and will be stored off-site for the remaining part of the year. Installation and dismantling of the pavilion will take approximately 7 – 10 days each.

The inflatable pavilion has been designed to contrast with the weight and solidity of the museum's existing building. The pavilion, a pneumatic structure enclosed by a thin translucent membrane, will occupy the void of the central courtyard and appear to grow out of the top and from below the building mass. The structure has been designed to have a "light touch" on the existing museum building, and will leave no visible marks when not in use. The existing fountain within the courtyard is part of the original fabric of the museum and the necessary steps to protect it will be taken. Any mechanical equipment required to inflate, maintain, or ventilate the structure will be small, and discretely located near existing equipment on the roof so as not to be visible from the immediate surroundings. The pavilion will be supported using a series of semi-permanent anchors that will remain during the times of year that the structure is not in place. These anchors include a steel tube anchor ring installed along the inner parapet wall of the building, and a system of cable rings and courtyard columns that will pull the membrane away from the inner wall of the building and tether it in place. A ring of water around the perimeter of the pavilion will further stabilize the structure. The translucent material that has been chosen will allow natural light into the pavilion during the day, and at night will emit a gentle glow designed to not compete with the monuments of the National Mall or the U.S. Capitol. The only lighting being considered for the pavilion will be located either within the structure or along the inside wall of the courtyard; no lighting will be located around the exterior of the museum building. The structure is estimated to have a lifespan of up to 25 years, and can be recycled upon reaching the end of its useable life.

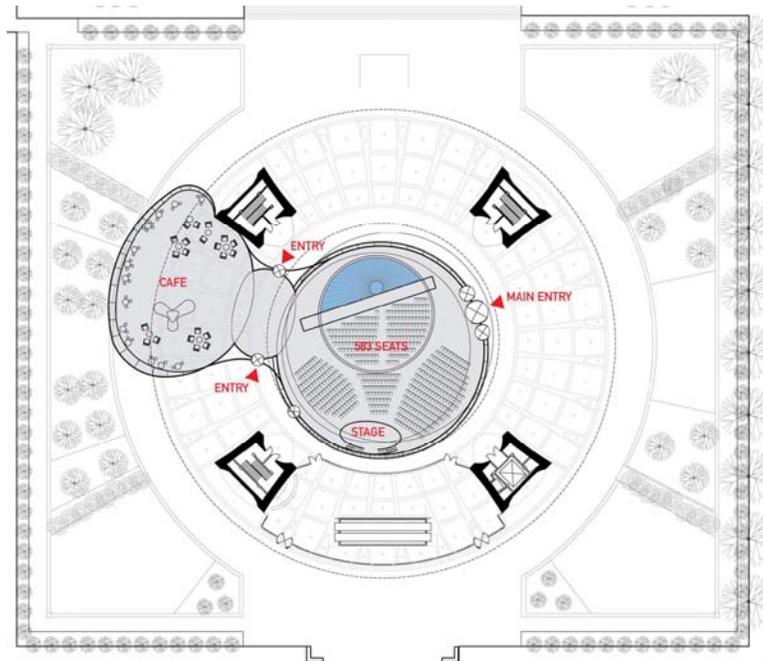


Image of "Sleeping Muse" (Source: Hirshhorn website)

The two concept designs being considered by the Smithsonian, identified as "Soufflé" and "Cork," appear roughly the same from the outside of the museum building. As noted above, the pavilion will occupy the central courtyard and appear to grow out of the top, and from below the building mass. In both concepts, though slightly different, the top of the pavilion takes on the form of an asymmetrical dome, or egg-shape. According to the Smithsonian, inspiration for this form was drawn from Constantin Brancusi's sculpture entitled "Sleeping Muse," which is part of the Hirshhorn's permanent collection. Both concepts locate the café / lounge along the northwest side of the building. As an

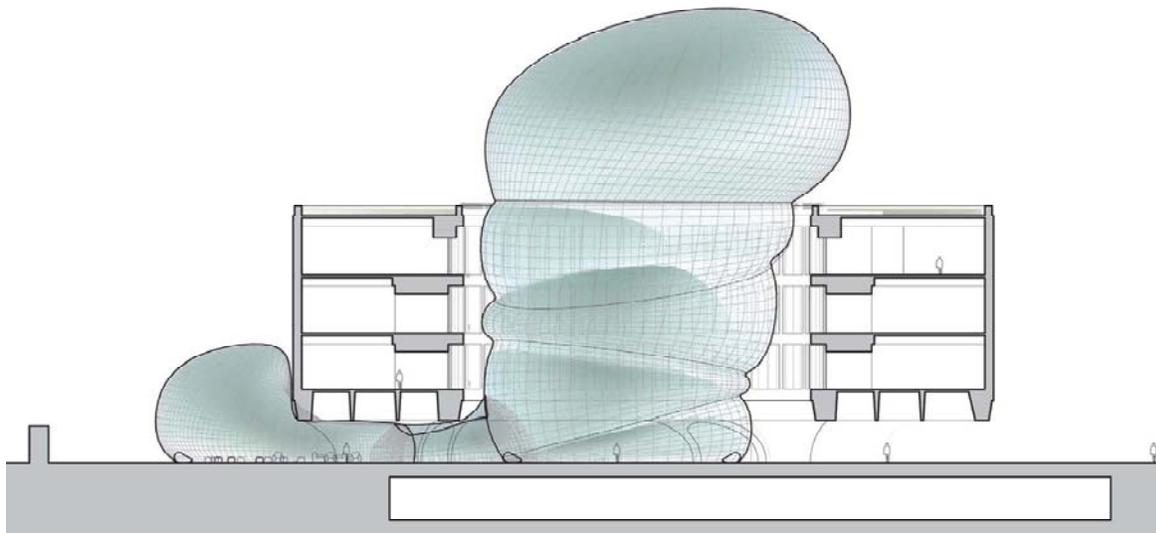
extension of the central courtyard pavilion, the form of the café slips beneath the existing building and appears to "seep" out into the surrounding plaza. The asymmetrical nature of the concept designs is intended to contrast with and highlight the symmetry of the museum building and the 8th Street axis. Rather than being read as an extension of the existing building, the pavilion's asymmetry is intended to further highlight its ephemeral and sculptural nature.

The first concept design, “Soufflé,” is the Smithsonian’s preferred option and proposes a 14,000 square foot fully enclosed environment that provides complete protection from the elements. This sheltered space will be shaped by a series of cable rings that constrict the pavilion membrane, pulling it away from the inner wall of the courtyard. This constricting of the pavilion membrane will create interesting contours and shafts of light that can be experienced from the ground as well as the second- and third-floor museum galleries. The main event space will be flexible in that it can be configured and used

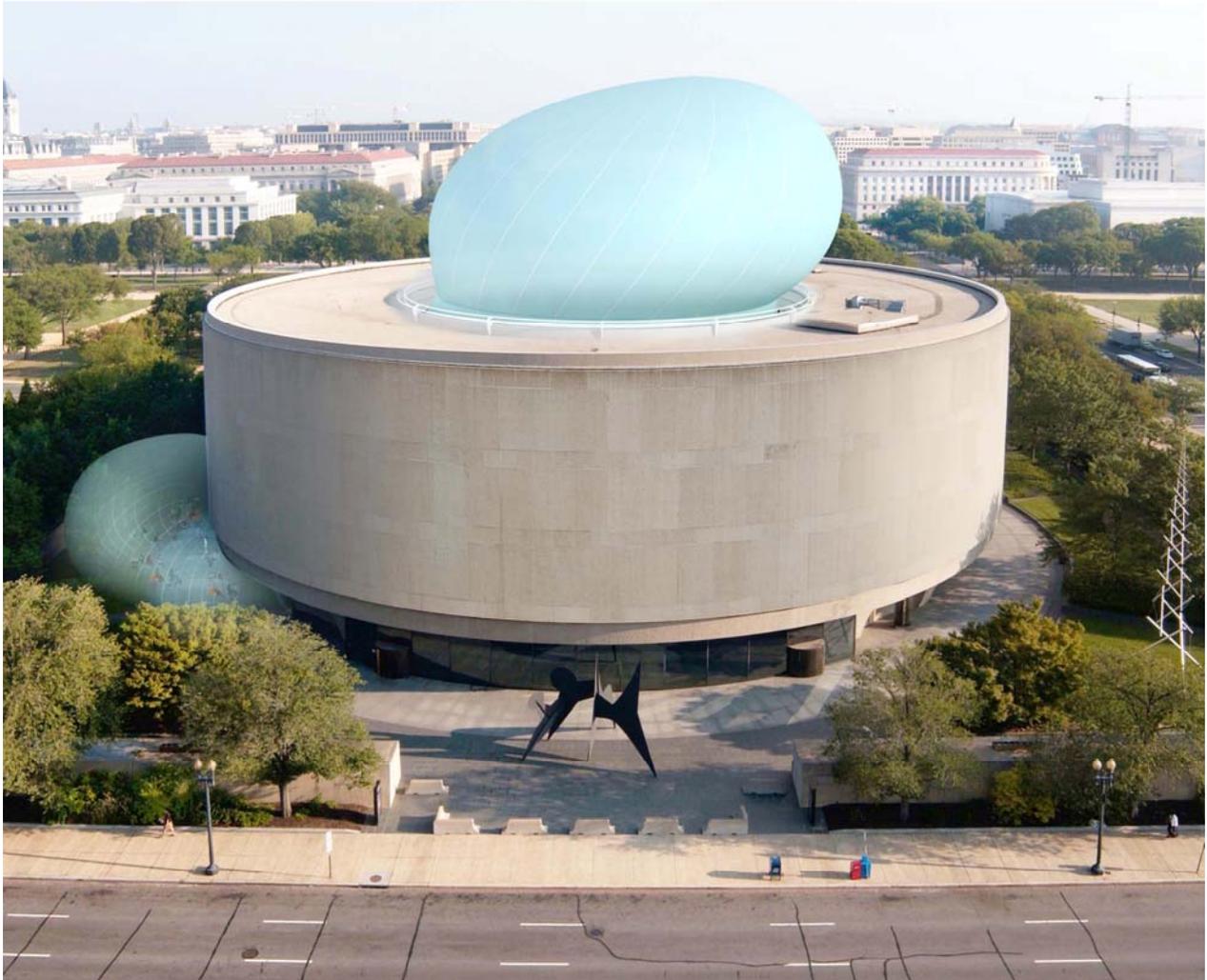


Site plan of “Soufflé” concept

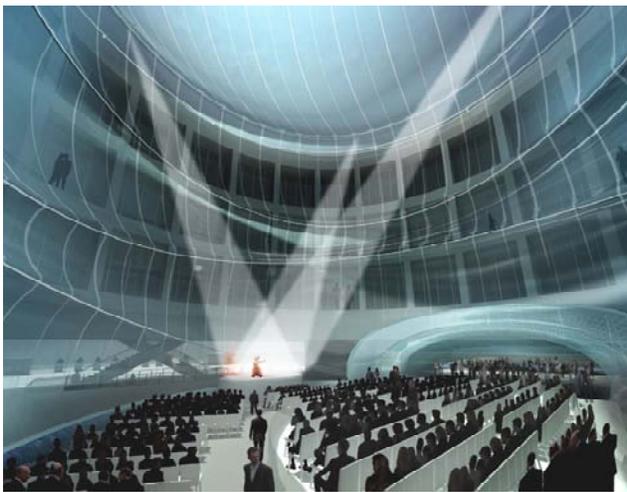
as an amphitheater, movie theater, or exhibit space, and will incorporate the existing fountain as well. A series of revolving doors or air locked vestibules will provide access to the pavilion and café. The main entry is proposed to be located at the east side of the pavilion, with additional entrances between the event space and café, and near the entry to the museum.



Cross-section of “Soufflé” concept taken from Independence Avenue looking toward the Mall



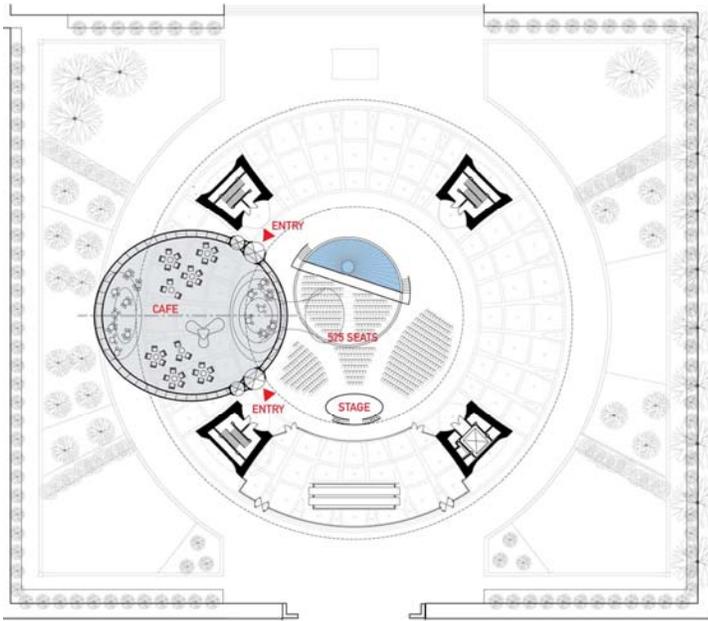
Rendering of “Soufflé” concept (view from Independence Avenue looking toward the Mall)



“Soufflé” interior (auditorium configuration)



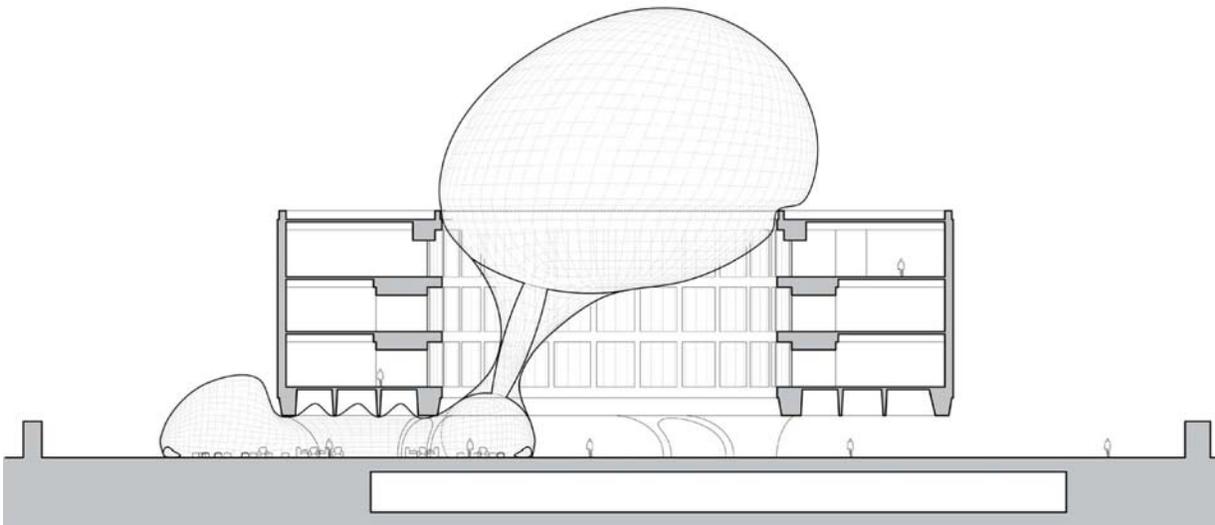
“Soufflé” concept (view from within museum gallery)



Site plan of "Cork" concept

The "Cork" concept differs from the "Soufflé" in that it leaves the main space of the courtyard exposed to the open air along the ground-level, while providing shelter from above. In this concept, the air-supported café will continue to extend into the surrounding plaza and below the museum building. However, upon entering the central courtyard the pavilion membrane will not fully enclose the space. Rather, the membrane will narrow and extend upwards toward the roofline of the building, increasing in size as it gets higher. At the roofline, the membrane will meet the edges of the building, forming a seal that will provide overhead protection. This variation

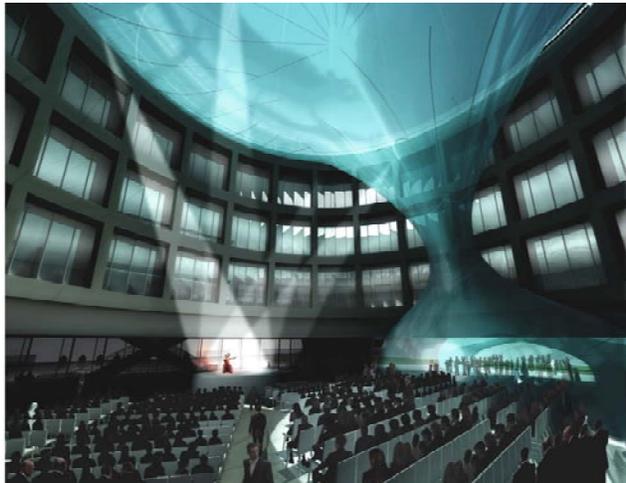
removes the need for revolving doors into the central space, making entering and exiting more fluid. However, without completely enclosing the courtyard, this concept is susceptible to fluctuations in weather that could potentially impact planned events. The café would continue to be an enclosed space with entrances proposed at the northeast and southeast corners. In comparing the two concepts, the Smithsonian considers "Cork" to be less successful "because the image of the interior courtyard remains largely unaffected by the added structure, and the strategy of roofing over the courtyard is a familiar approach."



Cross-section of "Cork" concept taken from Independence Avenue looking toward the Mall



Rendering of “Cork” concept (view from Independence Avenue looking toward the Mall)



“Cork” interior (auditorium configuration)



“Cork” concept (view from within museum gallery)

PROJECT ANALYSIS

Executive Summary

Overall, staff is supportive of both concepts submitted by the Smithsonian and notes the tradeoffs associated with each one. Staff recognizes the benefits of the “Soufflé” concept in relation to the intended program of the pavilion, and its ability to provide an enclosed space that can be protected from the elements at all times. However, as described below, staff sees potential for this concept to impede upon pedestrian access and circulation in and around the project site, and possibly the convenience of ADA accessibility. Therefore, further study of pedestrian access and circulation is recommended if the “Soufflé” concept is chosen as the final design. Finally, staff notes that additional study of lighting and mechanical equipment noise, and potential impacts to views, vistas, and the existing fabric of the museum building will be necessary as the project moves toward a preliminary and final design.

Views and Vistas



View of “Soufflé” concept from the Mall

Staff has reviewed both concepts submitted by the Smithsonian and finds that additional information is necessary in order to fully analyze the potential impact of the proposed pavilion on views and vistas along the Mall, from the U.S. Capitol, along Independence Avenue, and from vantage points both north and south of the project site. The Smithsonian has provided staff with some information that addresses the “Soufflé” concept’s visibility from the Mall. According to this information, the top and café portions of the pavilion

will be visible from the Mall, but the semi-permanent anchor ring on the roof of the museum will not. The project appears to respect the general height, scale, pattern, and established building lines of buildings along the Mall and Independence Avenue. In addition, the pavilion will not extend beyond the outer roof line of the existing building, and its proposed height is consistent with its surroundings. The combined height of the museum and pavilion will not exceed 122 feet, the same height of the dome of the National Museum of the American Indian, and lower than what would be permitted by the 1910 Height of Buildings Act as measured from Independence Avenue¹.

¹ The width of Independence Avenue, SW that is adjacent to the southern boundary of the project site is 110 feet.

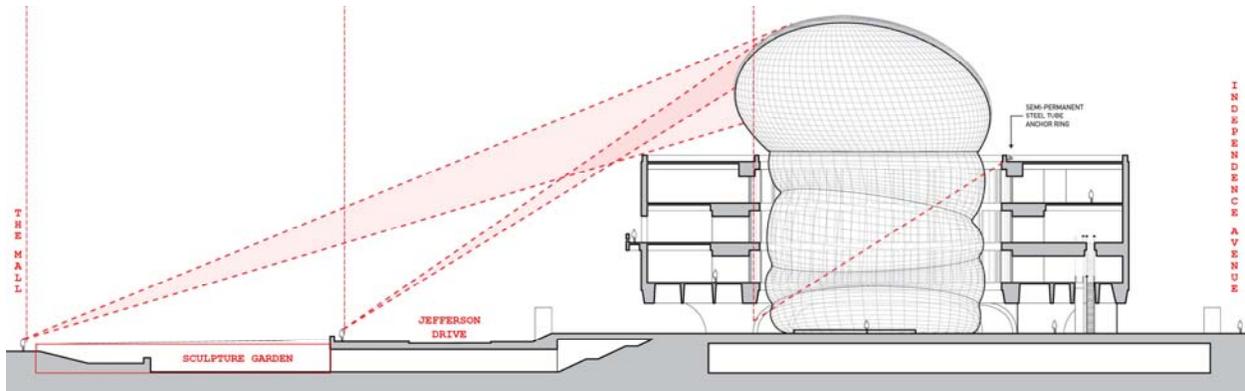
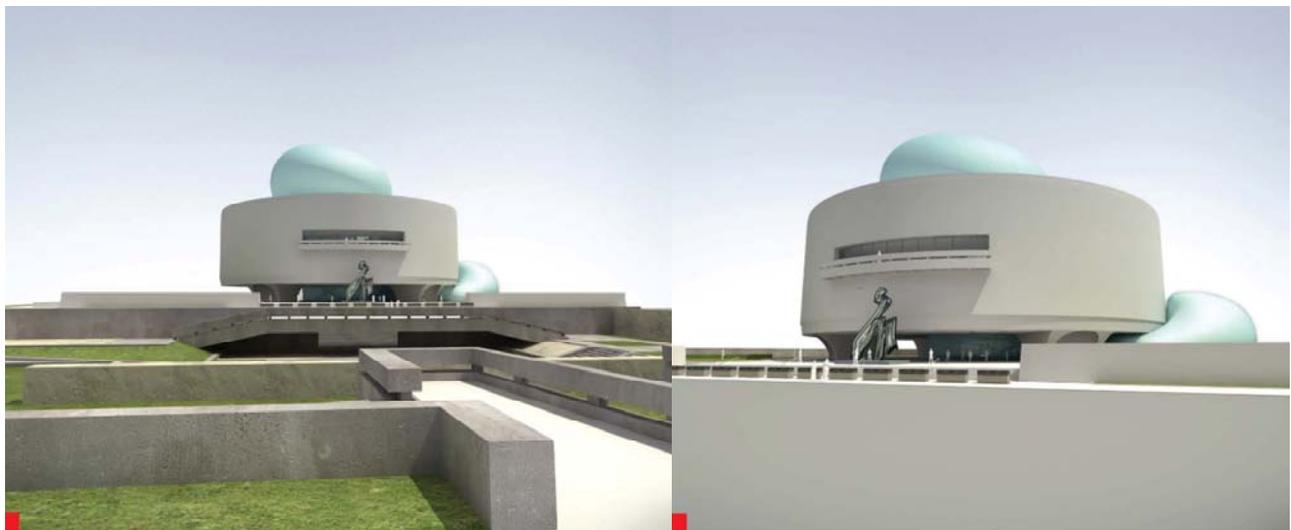


Diagram showing views of “Soufflé” concept from north and south sides of Hirshhorn Sculpture Garden



View from north side of Hirshhorn Sculpture Garden

View from south side of Hirshhorn Sculpture Garden

Staff appreciates the contrast that the proposed pavilion offers in relation to the existing museum building and its surroundings. The use of this modern, interesting, and innovative construction technology to seasonally repurpose the museum’s central courtyard will contribute to the diverse collection of architectural styles showcased on the Mall. However, while it is important that the pavilion express its own unique identity, it is also important that it does not detract from the other unique architectural identities that exist along the Mall, or from the symbolic role of the Mall to assemble these identities into a unified whole.

Therefore, additional information is needed in order to fully understand any potential impacts of the proposed seasonal inflatable pavilion on views and vistas along the Mall, Independence Avenue, and from other vantage points such as along 7th Street. This analysis should take into account the daytime and nighttime visibility of the pavilion, mechanical equipment to be installed on the museum roof or at the ground-level, and any structure necessary to secure the pavilion.

Lighting and Noise

Similar to the discussion of views and vistas, staff finds that as the project advances additional information would be helpful in assessing the project's potential impacts on the National Mall and its surroundings with respect to light and noise. According to the information provided by the Smithsonian, "the translucent membrane of the pavilion will allow natural light into the event space during the day, and at night it will exude a gentle glow from within that will not compete with the monuments of the National Mall." While staff believes the pavilion will make a positive contribution to the nighttime image of the nation's capital, it is important that it do so while respecting the hierarchy of nighttime illumination that exists for the National Mall and its surroundings. In order to ensure that this hierarchy is maintained, additional analysis will be necessary prior to the Commission taking a preliminary and final action on the project. This analysis should include nighttime renderings of the pavilion, and quantitative information pertaining to illumination levels of the pavilion and major features on and around the National Mall.

Installation of the proposed pavilion will require the placement of semi-permanent inflation, ventilation, and drainage equipment on the roof of the museum building. This equipment is necessary to sustain adequate air pressure inside the pavilion, maintain air quality, and accommodate any additional stormwater runoff. Based on the information provided by the Smithsonian, it is unclear how often this equipment will need to run, the level of noise that it will create, and what impacts this noise will have on the National Mall and its surroundings. Therefore, staff requests additional information on the mechanical equipment required for the pavilion including the frequency with which it will run, and what impacts it may have on the Mall with respect to views and noise.

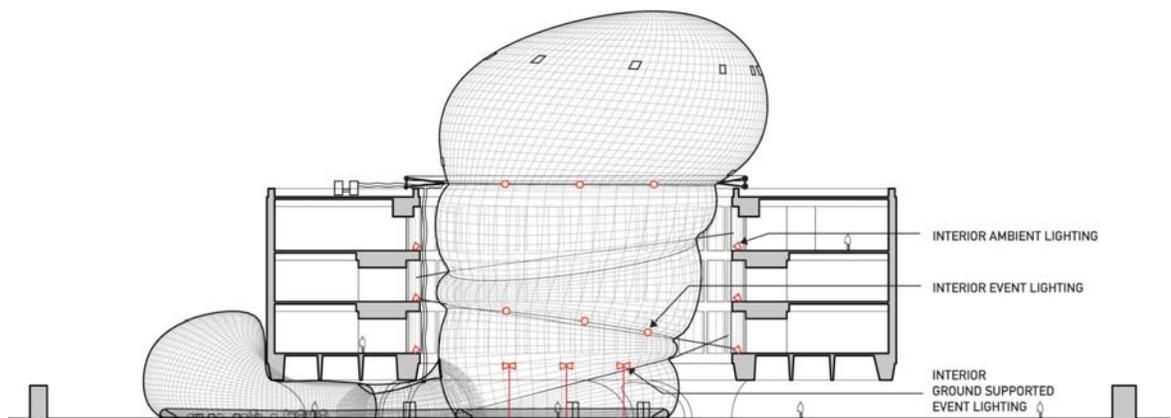


Diagram of potential lighting scheme for "Soufflé" concept

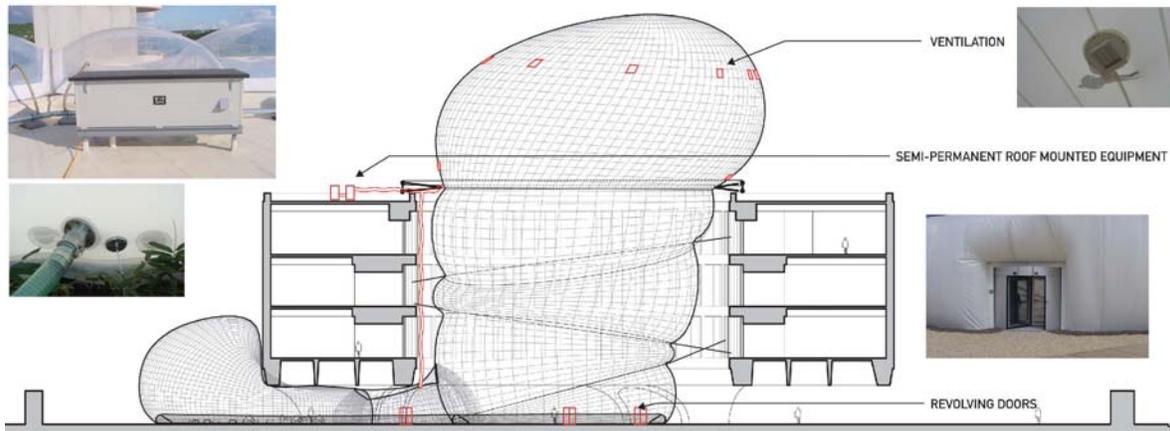
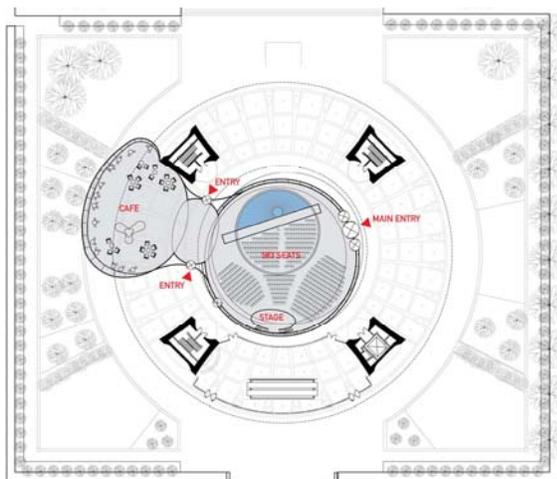


Diagram of inflation and ventilation scheme for “Soufflé” concept with examples of equipment

Pedestrian Circulation and ADA Access

Staff’s analysis of the proposed concept identified a few areas where impediments to pedestrian circulation and ADA access may result. This is particularly true with respect to the “Soufflé” concept. As proposed, this particular concept appears to significantly reduce pedestrian movement around the western half of the project site. The enclosure of the central courtyard eliminates this space as a “pass-through” for pedestrians accessing the museum, and moving between the Mall and Independence Avenue. In addition, due to the location and size of the café, it appears that pedestrians will not be able to make their way around the west side of the museum building without having to walk along the outer edge of the plaza, or stepping onto the grass panels that contain some of the museum’s sculpture. These impediments are compounded even more given that the only active entrances to the museum, one revolving door and one ADA compliant entryway, are located at the southwest side of the building. Staff notes that pedestrians would be able to travel through the two entryways located between the auditorium and the café, but that this could potentially be confusing to museum patrons, create a bottleneck, and be disruptive to events taking place in the pavilion.

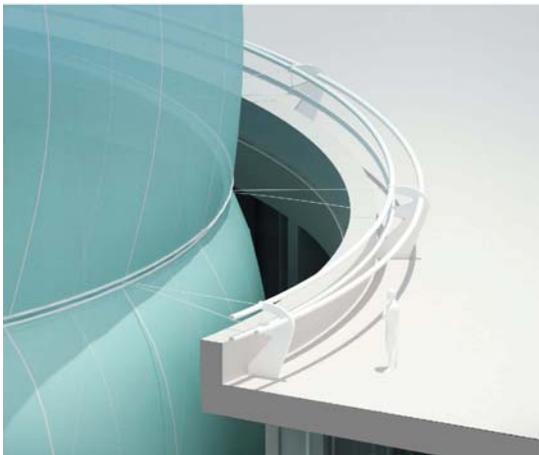


“Soufflé” concept site plan and rendering of south side of café looking north toward the Mall

Impediments to pedestrian circulation and ADA access created by the “Cork” concept appear to be less than the “Soufflé.” For the most part, it appears disruptions to pedestrian circulation would only occur along the outside edge of the café, similar to what was described for the “Soufflé” concept. However, under this concept pedestrians would be able to make their way around the inside edge of the café since the central courtyard would not be enclosed, thereby shortening the distance pedestrians must travel between the museum entrance and the Mall when the pavilion is in use, and not requiring pedestrians to walk on the surrounding lawn panels or outer edge of the plaza.

Staff acknowledges that this project is still in the concept stage and that many of the design and program details will be resolved as the project advances toward a preliminary and final design. Therefore, staff encourages the Smithsonian to take these observations into consideration while refining its designs, and deciding which concept to pursue further. Furthermore, staff requests that the Smithsonian specifically address the issues of pedestrian circulation and ADA accessibility at the next stage of review.

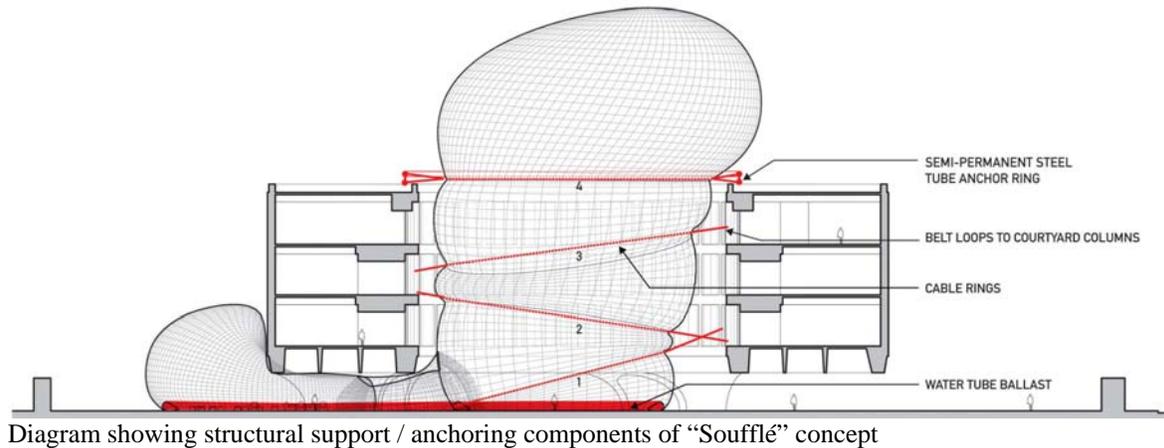
Potential Impacts to the Existing Hirshhorn Museum Building



Steel tube anchor ring on roof of museum

Because it is less than 50 years old, the Hirshhorn Museum and Sculpture Garden is not yet eligible for listing in the National Register of Historic Places (NRHP). However, given that its design embodies distinctive characteristics of the Modernist movement, and that it represents the work of someone considered to be a “master” in the design arena - two characteristics that could qualify the Hirshhorn for listing under Criteria C of the NRHP - it is important that the project proceed as if the building already merits historical significance. While the Smithsonian has indicated that the proposed concept has been designed to have a “light touch” on the existing building, courtyard,

and fountain, as the project advances staff requests that the Smithsonian submit detailed information pertaining to the full lifecycle of the proposed pavilion including: installation, anchoring, maintenance, and disassembly. This information should describe the structural components and mechanical equipment that will remain in place during the times of the year that the pavilion is not in use, and how each of these components will attach to the existing building. It should also describe whether any permanent alterations will occur to the site as a result of the project. This information will assist staff in determining whether the project will have any impacts on the architectural integrity of the existing building.



CONFORMANCE

Comprehensive Plan for the National Capital

The Visitors Element of the Comprehensive Plan for the National Capital includes several policies that support exhibits and other activities that serve to inspire and educate visitors. These policies encourage the federal government to continue its sponsorship of displays, special events, and arts, cultural, and recreational activities in, on, and around federal facilities in the monumental core, especially in locations that are within walking distance to public transportation stations and routes. The Comprehensive Plan promotes the conduct of these types of activities in a manner that minimizes disruptions to surrounding land uses. The Smithsonian's proposed pavilion, and its intended programming, successfully carries out these policies. The pavilion in and of itself will extend the Hirshhorn's reputation of being a leader in the study and display of modern art, and will provide a new way to experience the museum's public spaces. Furthermore, the Hirshhorn's focus on using the pavilion as a venue for dialogue and various educational programs that "extend beyond the traditional art world" will benefit visitors as well as the community.

The Preservation and Historic Features Element of the Comprehensive Plan also contains several policies that apply to the proposed concept. The overarching goal of this particular element is to "preserve and enhance the image and identity of the nation's capital and region through design and development that is respectful of the guiding principles of the L'Enfant and McMillan Plans, the enduring value of historic buildings and places, and the symbolic character of the capital's setting." Given its location and surroundings, it is important that this project be carefully planned so that it can achieve its intended purpose and program, while at the same time respect, enhance, and reinforce the significance of being located on the National Mall. The Comprehensive Plan also acknowledges the importance of the capital's nighttime image by promoting a hierarchy of exterior lighting among the symbols and features of the nation's capital.

Finally, the Preservation and Historic Features Element encourages agencies to "ensure that properties not yet listed in the National Register of Historic Places are nonetheless noted for their potential future significance and are treated accordingly," and that "effort should be taken to identify and protect significant modernist architecture and landscapes." The Hirshhorn Museum

and Sculpture Garden is one such example, and should be treated in much the same fashion as a historically designated property. As noted above, staff appreciates the contrast between the Modernist design of the museum building and contemporary design of the proposed pavilion. When viewed together, the contrast between the two structures should elevate their individually unique and interesting forms. However, given the likelihood that the existing museum building will be historically designated at some point in the future, it is very important that the design and operation of the pavilion not result in any changes that could potentially compromise the integrity of the existing building.

Based on the information submitted to staff thus far, it appears that the project will conform to the policies of the Comprehensive Plan pending further analysis of the items described above. With its reputation as a leader in the study and display of modern art, and its distinct contrast with other building forms along the National Mall, the Hirshhorn Museum and Sculpture Garden is an apt venue for the use of a seasonal inflatable structure as a modern, creative, and innovative building technology. The pavilion's semi-annual installation will extend its notoriety as an avant-garde attraction in the nation's capital, and create an atmosphere where residents and visitors anticipate its arrival. Staff notes that while the seasonal transformation of the museum's central courtyard will demonstrate the importance of programming public space to create vibrant urban environments, a balance between programming and maintaining free and open access to the space should be carefully considered as the project proceeds.

National Environmental Protection Act (NEPA)

NCPC has an independent responsibility to carry out the requirements of the National Environmental Policy Act (NEPA) prior to taking a final action on the project. At this time, staff considers the project to be a categorical exclusion under NCPC's Environmental and Historic Preservation Policies and Procedures. Staff finds that the project will likely fall within NCPC's categorical exclusion that exempts the "review and approval of acquisition of occupiable space by lease acquisition, construction, or expansion, or improvement of an existing facility," subject to the following criteria:

- The structure and proposed use are in compliance with local planning and zoning and any applicable District of Columbia, state, or federal requirements.
- The proposed use will not substantially increase the number of motor vehicles at the facility.
- The site and the scale of construction are consistent with those of existing adjacent or nearby buildings.
- There is no evidence of community controversy or other environmental issues.

National Historic Preservation Act (NHPA)

Pursuant to the NHPA, NCPC has an independent responsibility to complete the Section 106 process for this project. On February 5, 2010, the Smithsonian Institution initiated Section 106 consultation with the District of Columbia State Historic Preservation Office (DC SHPO) and other interested parties. Although consultation is still in its early stages, staff and other consulting parties have expressed a need for additional analysis to determine the potential effects of the pavilion on views along the National Mall, and along L'Enfant streets and avenues.

CONSULTATION

Coordinating Committee

The Coordinating Committee reviewed the proposal at its March 10, 2010 meeting and forwarded it to the Commission with the statement that the proposal has been coordinated with all participating agencies. The participating agencies were NCPC; the National Park Service; the General Services Administration; the District of Columbia Office of Planning; the Fire and Emergency Medical Services; and the Washington Metropolitan Area Transit Authority.

U.S. Commission of Fine Arts

At its meeting on February 18, 2010, the U.S. Commission of Fine Arts (CFA) reviewed and approved the concept design for the proposed seasonal inflatable pavilion at the Hirshhorn Museum and Sculpture Garden. CFA commented that the semi-annual transformation of the existing museum through the installation of this temporary structure would undoubtedly lend energy to the museum's programs. CFA also noted that the success of the inflatable pavilion will be dependent upon the engineering and technical details that continue to be refined.