

STAFF RECOMMENDATION



C. Kelly

NCPC File No. 7042

SAINT ELIZABETHS EAST CAMPUS WATER TOWER

Southeast, Washington, DC

Submitted by the District of Columbia Water and Sewer Authority

January 28, 2010

Abstract

The District of Columbia Water and Sewer Authority (WASA) proposes to build a 175 foot tall two million gallon water tower on the Saint Elizabeths East Campus. The proposed water tower would correct deficient water pressures in the lower Ward 8. The 155 foot elevation of the tower results in a height of 330 feet making it highly visible along the topographic bowl. The water tower proposal also includes an underground WASA museum, rain gardens, a scenic overlook, a walking path, and a solar array.

Commission Action Requested by Applicant

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

Executive Director's Recommendation

The Commission:

Comments as follows on the concept designs for a water tower at the Saint Elizabeths East Campus in southeast, Washington DC, as shown on NCPC Map File No. 83.10(38.00)42963:

Supports the undertaking of this much needed project that will provide normal levels of water pressure to Ward 8 and for fire and safety purposes.

Recommends that, as the water tower design development continues, the applicant:

- Continue to coordinate with the Department of Homeland Security; and

- Evaluate multiple sizes and shapes of the screen structure that are proportionate to the water tower; and
- Eliminate from consideration the use of materials that move; and
- Evaluate various locations for a future District of Columbia Water and Sewer Authority museum.

Supports the District of Columbia Water and Sewer Authority's decision to remove accent lighting from the design of the water tower.

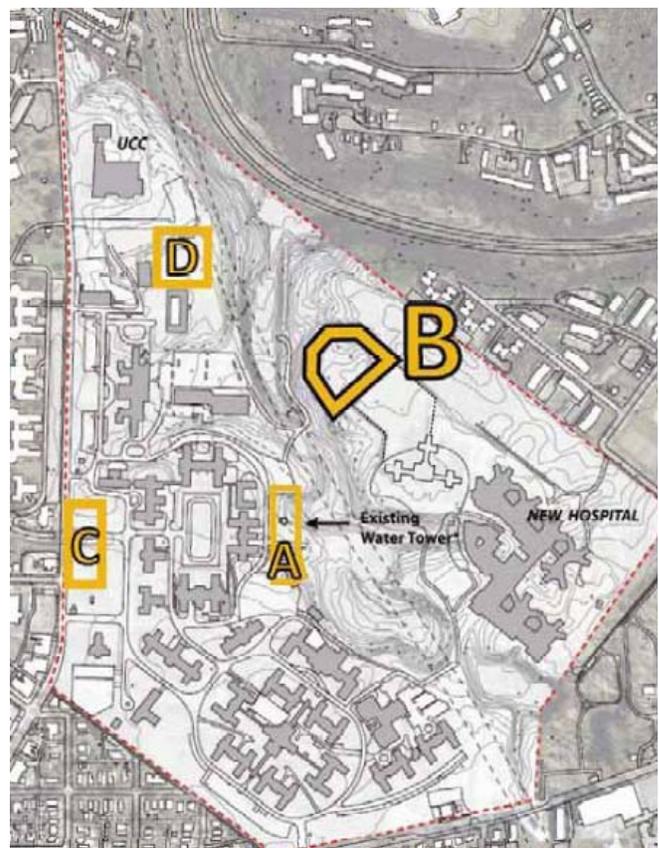
* * *

PROJECT DESCRIPTION

Site

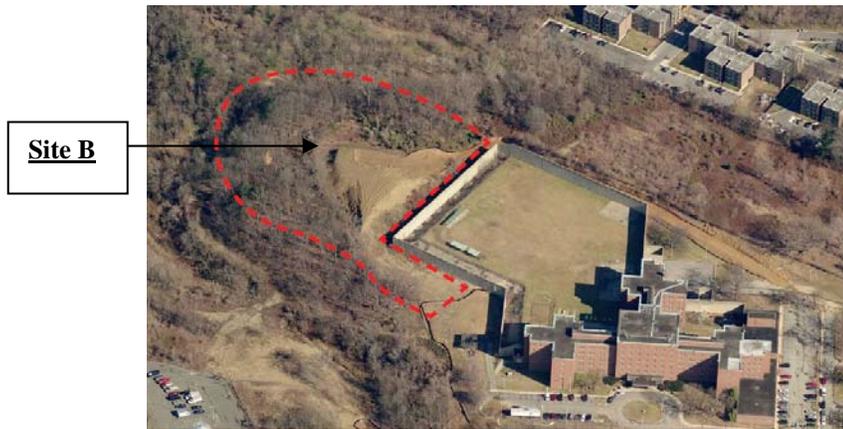
In 2007, the District of Columbia Water and Sewer Authority (DC WASA) conducted the *Water Tower Siting Study for the Proposed Anacostia Second High Pressure Zone* and the Saint Elizabeths East Campus was determined the best site because of the elevation and because it is a District owned site. Saint Elizabeths East Campus is a 208 acre property located in southeast Washington, D.C. The Campus is bordered on the west by Martin Luther King Jr. Avenue, SE and the Saint Elizabeths West Campus, the future home of the Department of Homeland Security. To the north of the campus is the Suitland Parkway. Nearby to the campus is the Congress Heights Metro Station.

Once Saint Elizabeths East Campus was chosen the as best location for the proposed tower, DC WASA evaluated four sites within the campus. DC WASA conducted a balloon study between August 24 and August 26, 2009, to assess potential viewshed impacts for the four proposed tower sites on the East Campus. To conduct the study, a single balloon was anchored at each of the sites. Each balloon was raised 175 feet to represent the required height of the proposed water tower. Several photographs were taken within East Campus, from the West Camps, and from other locations of historic districts and sites throughout Washington, D.C., Maryland, and Virginia. Ultimately, site B was chosen because of its location away from the prominent Martin Luther King Jr. Avenue, SW, and the historic buildings of the campus.



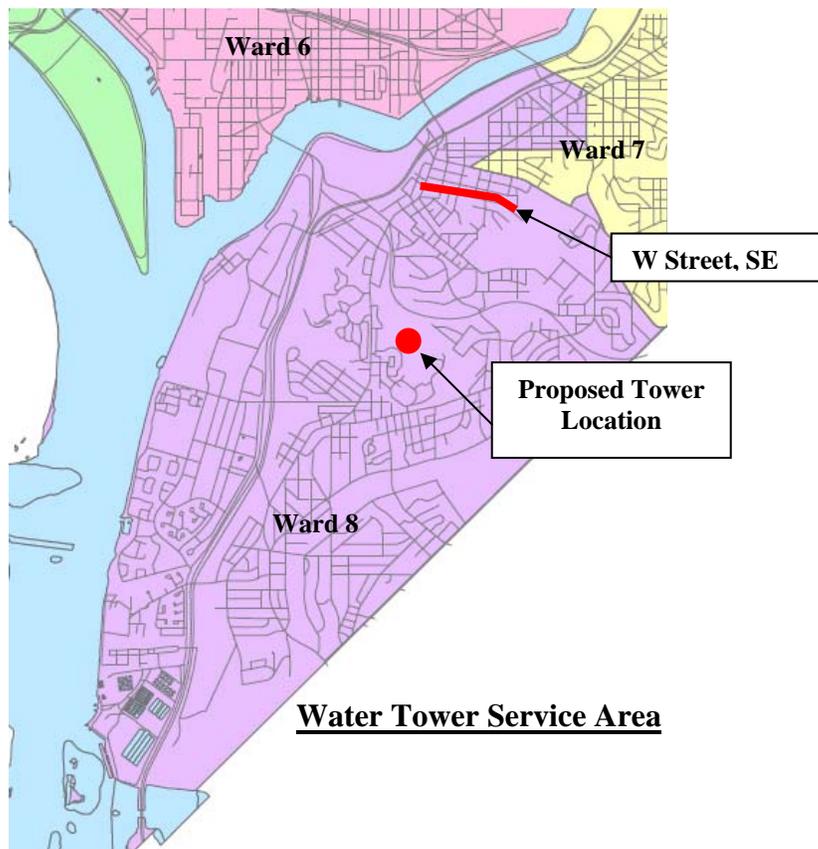
Saint Elizabeths East Campus: Sites Considered for Water Tower

Site B is currently an unimproved section of the campus. It is located across the ravine from the historic buildings of the campus, adjacent to the John Howard pavilion.



Site B: Existing Conditions

The proposed water tower, located in Ward 8, is intended to service the residents of Ward 8 from the Anacostia River to the Maryland border, and south of W Street, SE.



Background

Saint Elizabeths

Originally known as the Government Hospital for the Insane, Saint Elizabeths Hospital was founded in 1852 by Dorothea Dix and Charles Nichols as the first federal mental hospital in the United States. The facility was developed over the course of a century, starting with the West Campus in the mid and late nineteenth century and moving to the East Campus in the late nineteenth and early twentieth centuries. Early development on the East Campus consisted of informal groupings of agricultural structures and small-scale individual staff residences. During the early twentieth century, hospital development spread to the East Campus, and several large facilities were constructed and configured in formal complexes and quadrangles. The East Campus also houses several other large hospital facilities constructed in the 1930s, as well as smaller buildings constructed in the 1950s and 1960s. Most of the development on the site has taken place on the west side of a ravine that runs north-south through the East Campus, leaving much of the east side of the East Campus undeveloped.

Saint Elizabeths Hospital was intended to be a self-sustaining facility, and as a result the construction of various service buildings and structures that support operations, including fire engine houses, laundries, power plants, a pumping station, and water distribution infrastructure were constructed. The existing elevated steel water storage tower is located adjacent to a formal quadrangle of buildings on the East Campus. The tower was constructed in the 1930s, replacing a water tank from earlier in the century. Today, the tank is not fully operational and is unable to provide adequate water pressure to the hospital facility.



Existing Water Tower in Historic Aerial

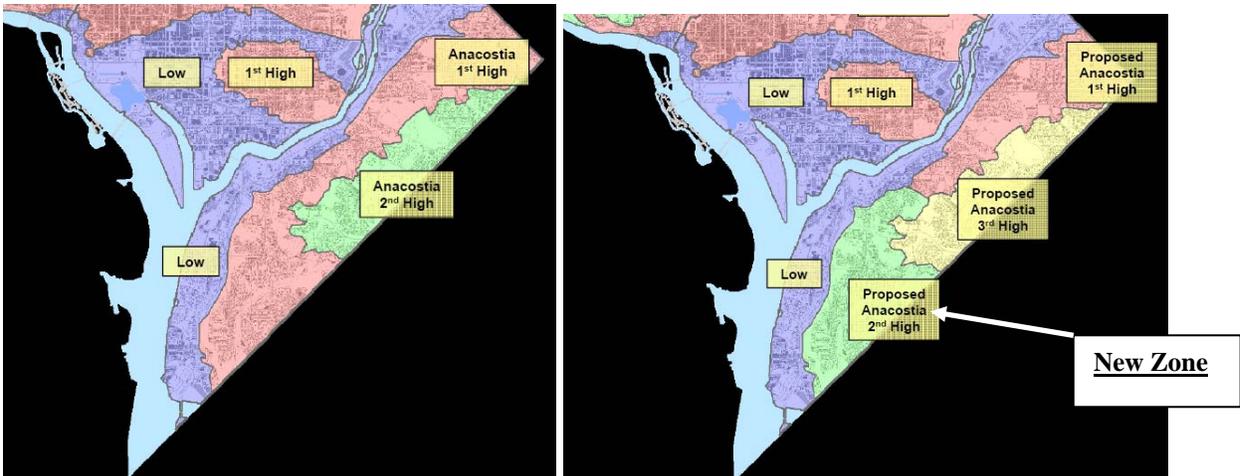


Existing Water Tower

In 1987, hospital functions on the eastern campus were transferred from the United States Department of Health and Human Services (DHHS) to the District of Columbia government, with the federal government retaining ownership of the western campus. In 2004, DHHS transferred ownership of the West Campus to the General Services Administration.

Water System Facilities Plan

In 2000, DC WASA published a Water System Facilities Plan that evaluated the water system and outlined plans to improve water distribution. The plan proposes the creation of a new service area east of the Anacostia River to provide higher normal operating pressures to areas that currently receive insufficient service. For this new pressure zone, an elevated water tower must be constructed to provide the required pressure and fire protection. The Water Systems Facility Plan led to the water tower siting study.



Current Water Pressure Zones

Proposed Water Pressure Zones

Z.C. 09-10

The Zoning Commission of the District of Columbia is currently considering a text amendment to the District of Columbia Zoning Regulations to allow a water tower on the Saint Elizabeths East Campus, currently an unzoned property. The District of Columbia Office of Planning (DCOP) is working on the final zoning proposal for the East Campus. The exact location of record lots and dedicated streets will not be determined until a master developer is selected or a development scenario is adopted.

Under current zoning regulations, the potential time required for property rezoning and record lot creation could significantly delay the construction of a planned water tower. Additionally, DCMR § 106.7 prohibits the issuance of building permits for properties that do not have a zone district and § 3202 allows permits to be issued for lots of record only. As such, the DC WASA is unable to file for a building permit for the water tower, since Saint Elizabeths is not currently subdivided into record lots and is presently not zoned.

The proposed amendments to § 106.7 and 3202 would be limited to the establishment of a DC WASA water tower on the East Campus of Saint Elizabeths, with an advisory review by DCOP. The advisory review is a process that is currently used for antennas and for projects in the Downtown Development Overlay. An advisory review memorandum would be provided to the Zoning Administrator from the Office of Planning indicating that the proposed tower location is

consistent with the adopted Comprehensive Plan and Saint Elizabeths East Redevelopment Framework Plan, prior to issuance of a building permit.

Previous Commission Actions

At its January 6, 2005 meeting, the Commission approved the preliminary and final site and building plans for a new Saint Elizabeths Hospital at the East Campus. The District of Columbia Department of Mental Health (DMH), the main occupant of the East Campus, submitted the new 293-bed state-of-the-art mental health facility. The 346,000-gross-square-foot facility will have three interconnected wings serving secure, non-secure and shared programmatic functions. The new hospital incorporates the best practices in modern, in patient mental health care with an environmentally sensitive design and sustainable strategies. The new building's therapeutic design includes bright and airy living and treatment areas, green spaces off each patient unit, and enclosed courtyards. Construction began in 2006 and the new hospital was completed in late 2009.



The New Saint Elizabeths Hospital on the East Campus

At its January 8, 2009 meeting, the Commission approved the final master plan for the Saint Elizabeths West Campus Master Plan, to meet the housing needs of the Department of Homeland Security (DHS). Due to the amount of development proposed for the West Campus, DHS agreed to move the development of the Federal Emergency Management Agency headquarters to the East Campus. The District's "St. Elizabeths East Campus Framework Plan" incorporates the proposed facility, which is intended to be privately developed and leased by the federal government.

At its December 16, 2008 meeting, the District of Columbia Council approved the Saint Elizabeths East Redevelopment Framework Plan, which would guide development of the East Campus.

In July of 2009, The District Department of Mental Health submitted emergency hydrants and water supply infrastructure at the St. Elizabeths East Campus. The emergency hydrants and water supply infrastructure were needed because of the lack of



East Campus Development Framework Plan

water pressure available in the case of a fire emergency. The proposal included temporary and permanent emergency improvements that would allow DMH to obtain a Certificate of Occupancy for the new hospital. The improvements will also serve the new Coast Guard Headquarters until the permanent upgrades are implemented. The project is to be implemented in two phases.

Phase 1 is a completely underground system of permanent improvements that will connect to an existing 14-inch water line from the West Campus north of the Dix Building. This system will provide fire protection to the Howard Pavilion, the new hospital, and existing buildings along the system's route within the East Campus. Project components include:

- Piping through an existing utility tunnel
- Rehabilitation of mechanical controls within the existing West Campus Pump Station
- Rehabilitation of controls for the existing gravity tank on the East Campus
- A new temporary pump station near Alabama Avenue
- A new 8" underground pipe from Alabama Avenue to the new hospital
- Permanent fire hydrants



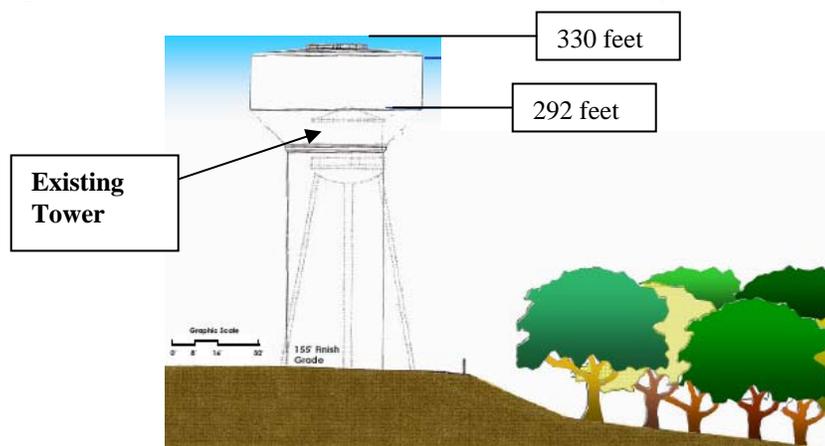
HDPE Piping

Phase 2 is a system of temporary above-ground piping and hydrants that will protect the remainder of the East Campus until the water tower is completed in 2013 or later. Project components include:

- Above ground HDPE piping
- Below-ground piping beneath crossings of roads and sidewalks
- Temporary fire hydrants connected to the piping
- Heat tracing within insulated jackets covering the pipes to prevent freezing; and associated small electrical panels every 100 feet

Proposal

DC WASA proposes to build a 175 foot at an elevation of 155 feet above sea level two million gallon composite water tower on the St. Elizabeths East Campus.



Size of the Proposed Water Tower

Water Tower Type

Three types of water towers were evaluated for the site; a composite tower, a multi-leg tower, and a pedosphere tower. The multi-leg tower is what most people commonly associate with the design of a water tower and was mainly constructed from the 1950s to 1980s. The multi-leg tower would be able to hold the needed storage capacity however due to maintenance costs, and security reasons this type of water tower was determined not feasible. A pedosphere tower can only hold a capacity of one million gallons of water and would not work for the required storage amount of two million. The proposed water tower is a composite tower, which can hold two million gallons of water. Security of the structure is handled by the lower section of the water tower being enclosed. Composite towers get their name from being composed of two materials: a concrete base and a steel top.



Multi-leg Tower



Pedosphere Tower



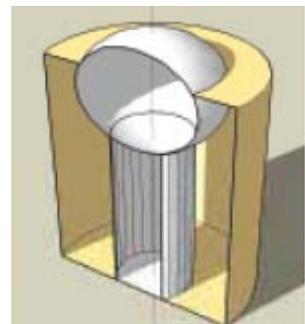
Composite Tower

The proposed composite water tower will be 50 feet in diameter at the base and about 70 feet in diameter at the top. The base will be approximately 112 feet in height and the top will be approximately 58 feet above that. The tower will be light in color, either a light blue or a light gray to blend into the skyline.

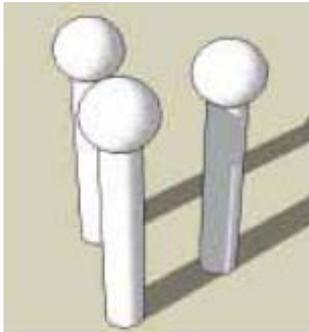
Water Tower Form

DC WASA and its design team evaluated ways to change or mask the form of the tower to minimize its visual effect.

1. **Water Tower as a Building**: One of the ways evaluated was to create a building form; the water tower would be covered by materials to give it an appearance of a building or could be incorporated into a future building on the East Campus. Once evaluated it was determined that wrapping the building would increase the appearance of the massing and scale of the tower, and timing of future East Campus buildings may be further in

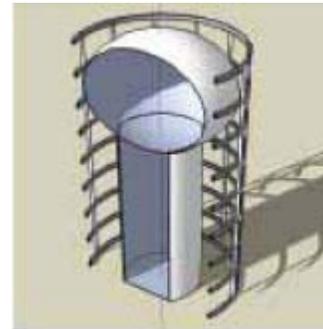


the future, and the scale and cost of the option caused it to be rejected.

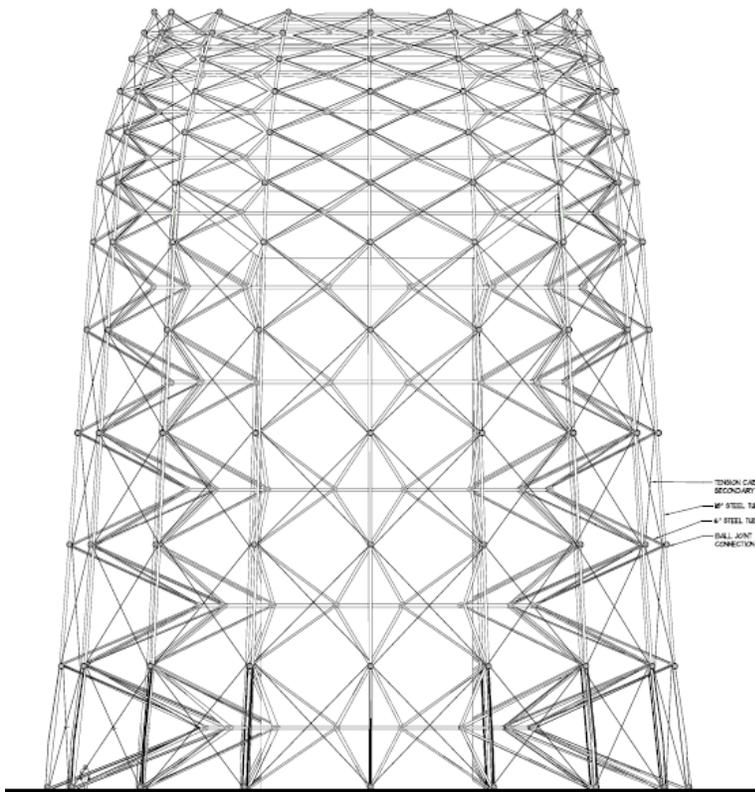


2. Multiple Towers: Another option that was evaluated was to create multiple towers to minimize the mass of a single water tower. However, in order for the tanks to properly function, the height of the towers would still remain the same and the size of the tanks would not substantially decrease. A cluster of towers would only increase the cost, visual impact and mass on the historic campus. For these reasons, this option was rejected.

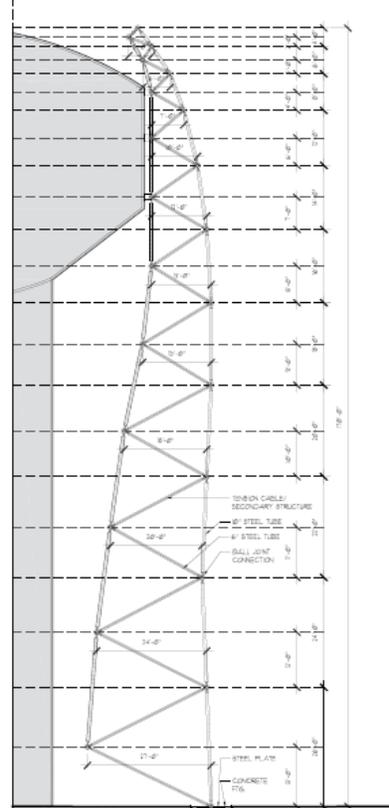
3. Architectural Materials: Another way that was evaluated to mask the form of the water tower was to use an architectural framework and materials. This approach would use materials and forms that would enhance the industrial appearance of the tower in a sculptural manner while giving detail and scale to the monolithic mass of the tower.



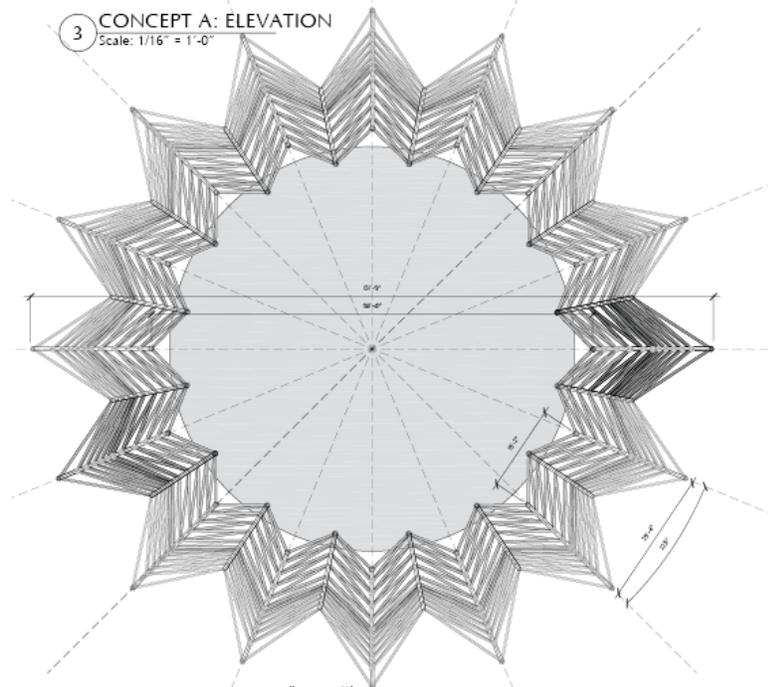
Ultimately masking the water tower with architectural materials was chosen as the best option. DC WASA has submitted two design concepts; both use a framed lattice scrim that surrounds the tower. Concept A uses a spaceframe enclosure to give the water tower a wider depth than Concept B, which uses a bowstring truss enclosure.



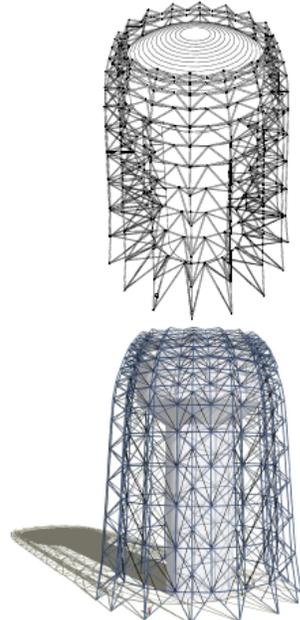
3 CONCEPT A: ELEVATION
Scale: 1/16" = 1'-0"



1 CONCEPT A: SECTION DETAIL
Scale: 1/16" = 1'-0"

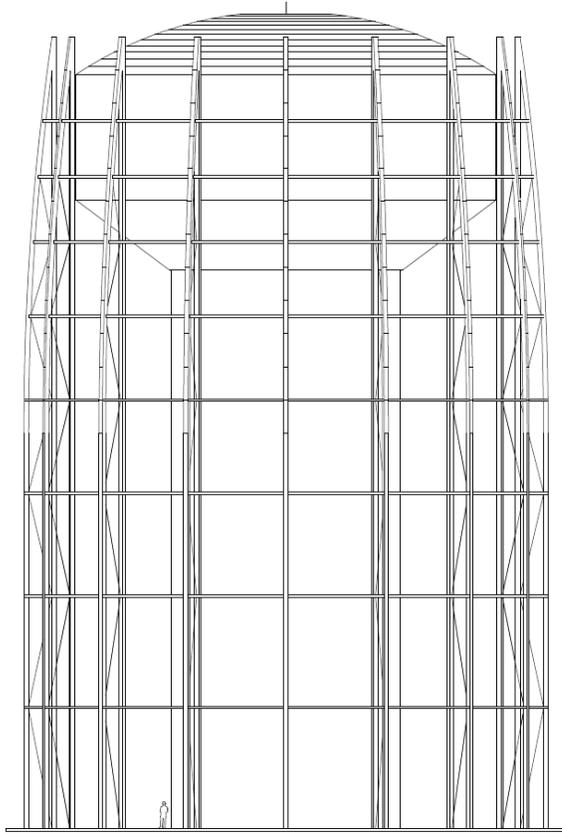


2 CONCEPT A: PLAN
Scale: 1/16" = 1'-0"

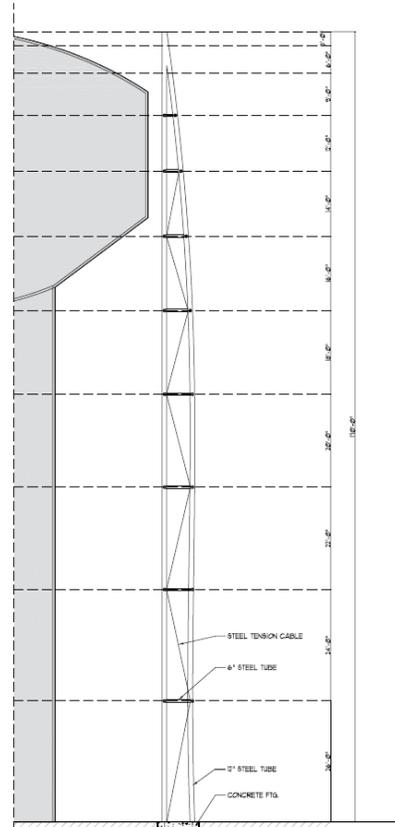


CONCEPT A: SPACEFRAME ENCLOSURE

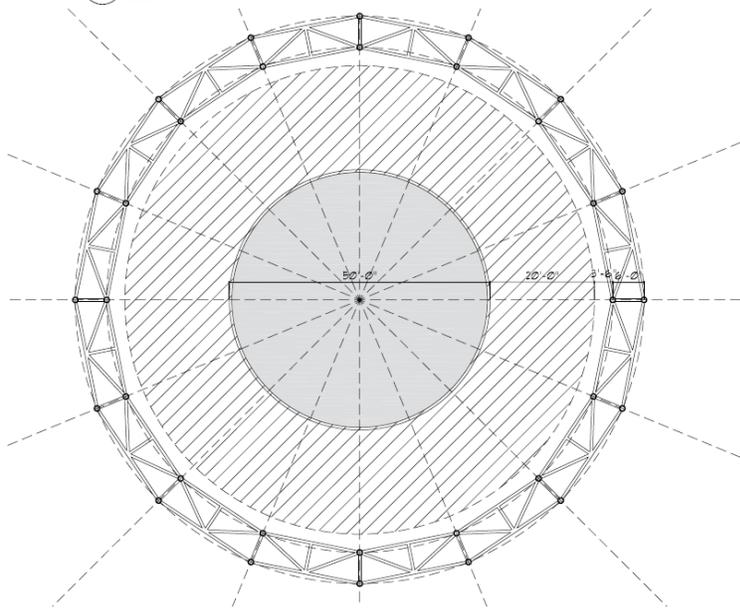
Concept A



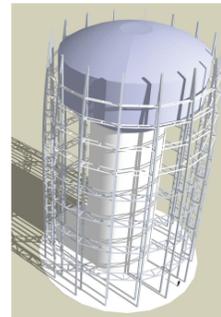
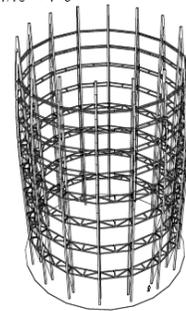
6 CONCEPT B: ELEVATION
Scale: 1/16" = 1'-0"



4 CONCEPT B: SECTION DETAIL
Scale: 1/16" = 1'-0"



5 CONCEPT B: PLAN
Scale: 1/16" = 1'-0"

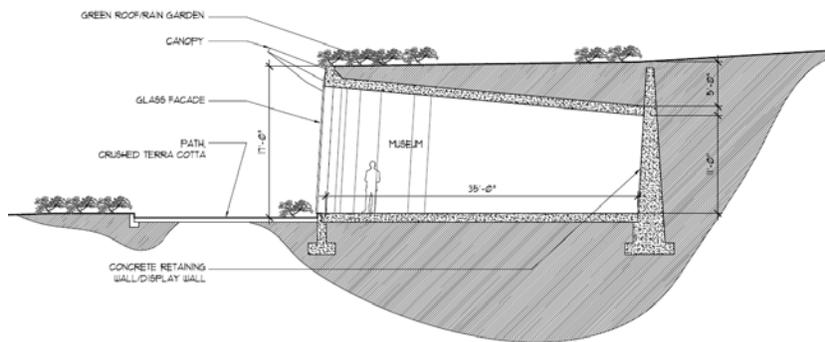
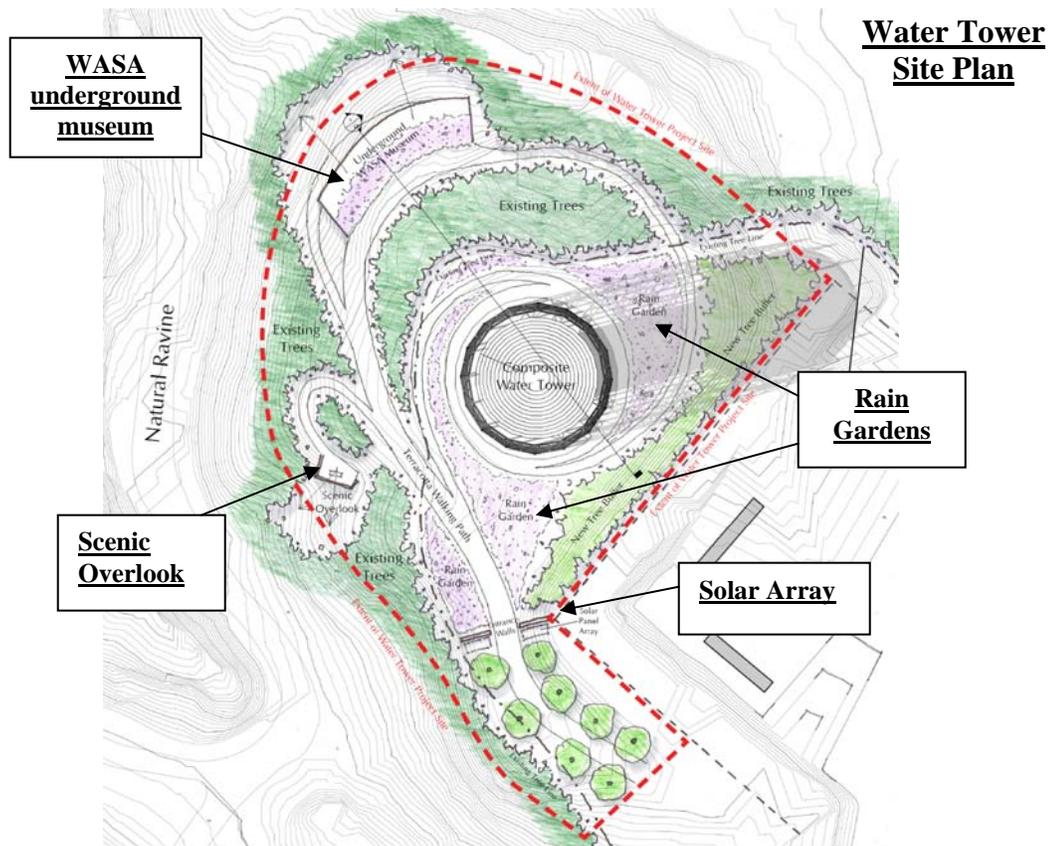


CONCEPT B: BOWSTRING TRUSS ENCLOSURE

Concept B

Water Tower Site

The site plan proposed for the water tower includes: an underground WASA museum, a scenic overlook, multiple rain gardens, a solar panel array, preservation of existing trees, and a terracotta walking path. The terracotta would come from old city pipes that WASA replaces with new piping. Rain would be captured by the lattice surrounding the water tower and routed to the rain gardens where it will be filtered. The proposed underground WASA museum would be approximately 2,200 square feet and would showcase the history of WASA and the water distribution systems of Washington, D.C. The scenic overlook will allow people to look across the ravine to the historic buildings of the East Campus.



Underground WASA Museum Elevation

PROJECT ANALYSIS

Staff recommends that the Commission **support the District of Columbia Water and Sewer Authority's undertaking of this much needed project that will provide normal levels of water pressure to Ward 8 residents and adequate levels of service for fire and safety purposes.** The water tower is a necessary project to bring adequate levels of water pressure to Ward 8 residents and to have a sufficient pressure for fire protection.

Visibility

Given the proposed location of the water tower, staff has evaluated the proposed project's location, materials, and form for visual effects on the Suitland Parkway, the Topographic Bowl, and the Saint Elizabeths Historic District. Reciprocating views and vistas are an integral and defining component of the Saint Elizabeths National Historic Landmark.

Staff has evaluated the balloon test pictures and the alternative site locations evaluated by WASA and concur that site B is the best location for the water tower on Saint Elizabeths East Campus. Alternative site locations were not chosen because they were either adjacent to historic buildings of the campus or next to Martin Luther King Jr. Avenue and would have a greater effect on the Saint Elizabeths Historic District than site B. Site B which is across a ravine separating it from the historic buildings on the East Campus. While the site is closer to the Suitland Parkway, WASA and its design team have tried to minimize the effect the water tower has on the Parkway by adding an architectural scrim to the tower design.

The computer generated rendering of Concept B (as seen on page 15) includes canvas hung diagonally across the vertical and horizontal members of the structure surrounding the water tower. As the canvas would wave with the wind staff discourages the applicant from using such materials. Moving materials would draw attention to the water tower.

Currently, the structure surrounding the water tower is a cylinder that has the same diameter from top to bottom (concept B) or has a larger diameter at the bottom of the structure (concept A). This is counterintuitive to the form of the water tower which has a larger diameter at top and a smaller diameter at the bottom. Staff encourages the applicant to evaluate multiple sizes and shapes of the surrounding structure to be proportionate with the water tower therefore minimizing its visual impact on the Suitland Parkway.

Therefore, staff proposes that the Commission **recommend that, as the water tower design development continues, the applicant:**

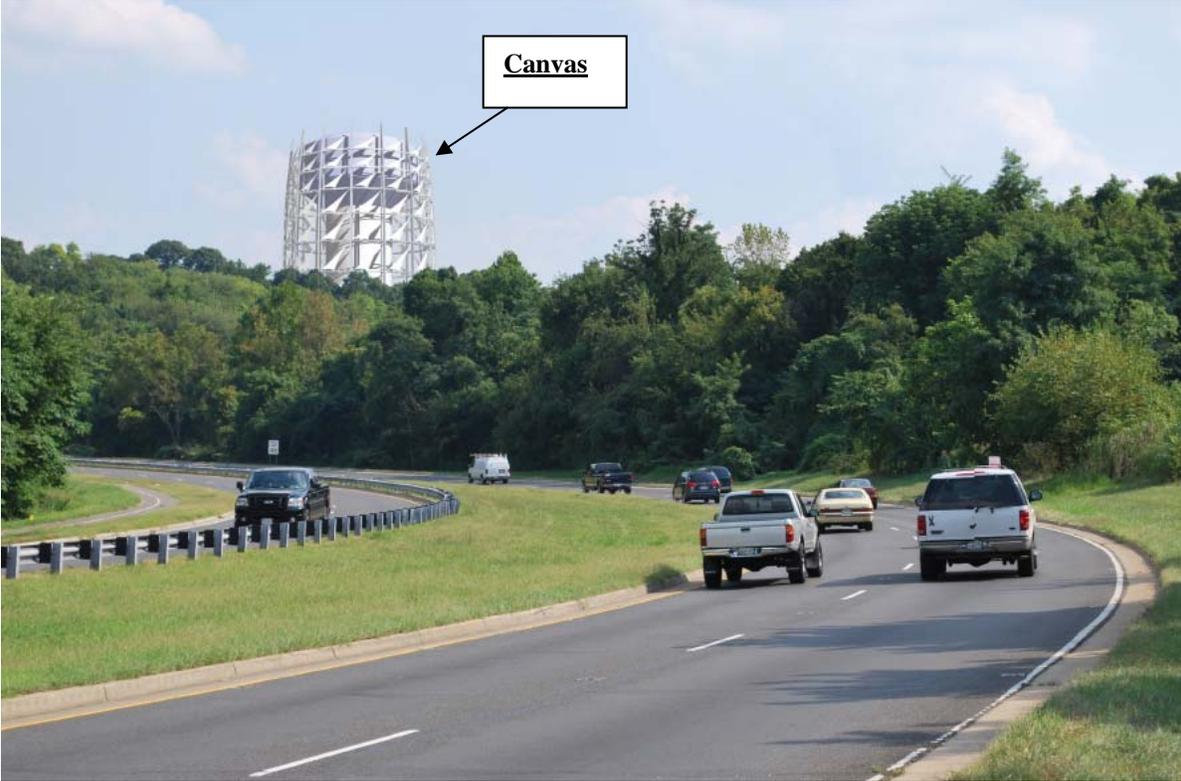
- **Continue to coordinate with the Department of Homeland Security; and**
- **Evaluate multiple sizes and shapes of the screen structure that are proportionate to the water tower; and**
- **Eliminate from consideration the use of materials that move.**



Concept A: View from Suitland Parkway



Concept A: View from Haines Point



Concept B: View from Suitland Parkway



Concept B: View from Haines Point

Lighting

Early concept designs of the water tower included accent lights that would illuminate the tower at night. Through the Section 106 process, consulting parties expressed their concern about including accent lighting for tower as it may compete with other structures; such as the Washington Monument. Consequently, the design team and the applicant have removed the accent lighting from the submitted concept designs. Staff recommends that the Commission **support the District of Columbia Water and Sewer Authority's decision to remove accent lighting from the design of the water tower.** The exclusion of accent lights for the water tower will minimize the impact on the nighttime view of the topographic bowl.

WASA Museum

WASA proposes to include an underground museum at this site. The museum will showcase the history of WASA, the history of water distribution in the city, and the different types of water distribution currently in effect. Given the need to have the proposed water tower away from the historic buildings on campus, the site is isolated from the main activity of the campus. As a result, the location of the museum at the water tower may not be ideal for visitation.

Staff is supportive of a WASA museum and encourages WASA to evaluate various sites in the District of Columbia for the museum location, including on Saint Elizabeths East Campus and other possible locations in the District such as the McMillan Reservoir. We encourage them to evaluate sites that are district owned, easily accessible, and visually show the water distribution process. Therefore, staff proposes that the Commission **the applicant evaluate various locations for the proposed Water and Sewer Authority museum.**

CONFORMANCE

Comprehensive Plan for the National Capital

The proposed project is generally consistent with the Comprehensive Plan for the National Capital, however it is in conflict with the Historic Preservation Element which indicates federal actions within the region should conform to the following:

- Protect the skyline formed by the region's natural features, particularly the topographic bowl around central Washington, as well as historically significant built features, from intrusions such as antenna towers, water towers, and rooftop equipment.

While the policy specifically calls out water towers, the applicant is taking steps to minimize the visual effects the water tower will have on the topographic bowl.

Saint Elizabeths East Redevelopment Framework Plan

The proposed project is mentioned within the Saint Elizabeths East Redevelopment Framework Plan, approved by the District of Columbia Council at its December 16, 2008 meeting.

National Historic Preservation Act (NHPA)

The proposed water tower project is located on the East Campus of Saint Elizabeths which is listed on the National Register of Historic Places and is subject to a 1989 Memorandum of Agreement (MOA) among the U.S. Department of Health and Human Services, the General Services Administration, the Advisory Council on Historic Preservation, and the District of Columbia. The MOA requires DC WASA to complete historic preservation review for the proposed water tower based on the requirements of Section 106 of the National Historic Preservation Act, even though the East Campus is under the jurisdiction of the District of Columbia, not the federal government. That review and public consultation have been underway since the summer of 2009, with four public meetings held to date. The water tower project is on the Historic Preservation Review Board's January 28, 2010 agenda. The Historic Preservation Staff report is attached.

National Environmental Policy Act

As a District of Columbia agency project, outside of the central area of the District on non-federal property, the National Environmental Policy Act (NEPA) is not required. DC WASA is developing environmental information, pursuant to District of Columbia regulations, in conjunction with the historic preservation consultation and this information will be used in the continuing review process as the project is developed further.

CONSULTATION

Coordinating Committee

The Coordinating Committee reviewed the proposal at its January 13, 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 Department of Housing and Community Development, the District of Columbia Department of Fire and Emergency Medical Services, and the Washington Metropolitan Area Transit Authority

Commission of Fine Arts

The project was presented to the Commission of Fine Arts (CFA) at its January 21, 2010 meeting. CFA questioned the applicant about the shape and form of the water tower; however the applicant informed the Commission that the form is a pre-fabricated element and its design is set. CFA was supportive of using the architectural screen around the water tower. However, CFA encouraged the design team to evaluate the shape of the screen especially at the top of the structure, which in the images presented seemed to end abruptly. CFA encouraged the design team to evaluate the use of lighting in the design.

Attachment: Historic Preservation Staff Report

**HISTORIC PRESERVATION REVIEW BOARD
STAFF REPORT AND RECOMMENDATION**

Landmark/District:	Saint Elizabeths Hospital Historic District	<input checked="" type="checkbox"/> Agenda
		<input type="checkbox"/> Consent
Address:	2700 Martin Luther King Jr. Avenue, SE	
Meeting Date:	January 28, 2010	<input type="checkbox"/> Subdivision
Case Number:	10-092	<input type="checkbox"/> Addition
Date Received:	December 30, 2009	<input checked="" type="checkbox"/> New Construction
Staff Reviewer:	Tim Dennée	<input checked="" type="checkbox"/> Concept

The applicant, the District of Columbia Water and Sewer Authority (DC WASA), with the assistance of agent Cunningham Quill Architects PLLC and EHT Tracerics, requests the Board’s review of a concept application to construct a new water tower and its necessary water mains on the East Campus of Saint Elizabeths Hospital. The Board will also review the project in accordance with a 1989 Memorandum of Agreement that requires assessment and resolution of potential adverse effects of projects upon the historic resources of the campus.

The hospital is a National Historic Landmark district and was listed as a historic district in the District of Columbia Inventory of Historic Sites in 2005.

Purpose and description

The new water tower would serve Ward 8 south of W Street. This portion of the ward has suffered from low water pressure because of the insufficient difference in elevation between the present reservoir at Fort Dupont and the locations of the buildings served, especially those at high points.

The tower would stand about 175 feet tall, with a reservoir of at least 90-foot diameter holding 2,000,000 gallons of water. The height is the key to the tower’s function, creating a constant pressure that will in some places more than double, but it is expected to generally increase at least 20 pounds per square inch. Towers are superior to pumps for water supply because the latter fail, cause a water-hammer effect in pipes, and are more costly to operate and maintain.

The tower proposed is a standard composite concrete/steel “mushroom” model, with a broad column and angular reservoir. This is the type most available today, especially for larger reservoirs. The applicant has proposed to wrap this tower in another structure to obscure it and dematerialize it or give it a finer scale. The intention is not necessarily to make the tower disappear, but to make more attractive an interesting a structure which will unavoidably be seen.

As amenities, the applicant proposes to landscape the site of the tower and to interpret there, possibly in a museum, the history of water service in the District.

Process

Perhaps uniquely, projects on the East Campus come to the Historic Preservation Review under three legal authorities. As mentioned above, the entire Saint Elizabeths Hospital property was designated a local historic district relatively recently, giving the Board permit review authority over projects on the District-owned portion of the campus. In accordance with the District's historic preservation law, the Board must determine whether or not the new construction would be incompatible with the character of the historic district.¹

Work on the East Campus is also governed by a 1989 Memorandum of Agreement (and a 1987 deed) executed to protect the historic resources subsequent to the parcel's transfer from the U.S. Department of Health and Human Services. The MOA specified that:

All plans and specifications for the rehabilitation of, or new construction at or adjacent to, or temporary or permanent abandonment of, the historically significant components set forth... will be submitted to the District of Columbia HPO and the [Advisory] Council [on Historic Places] for review and approval prior to implementation.

Resolution of adverse effects on the historically significant resources is to be conducted according to the federal regulations implementing Section 106 of the National Historic Preservation Act. The present review then, is also an opportunity for the Board, in its capacity as state review board, to take public comment on the undertaking and to make recommendations as to whether the new tower would cause adverse effects upon the historic resources of the campus and how these might be avoided, minimized and/or mitigated. The project has been the subject of several public consultation meetings. Any final approval of a project would result not only in a permit, but also require another Memorandum of Agreement to stipulate how the adverse effects will be resolved.

Review of work on the District-owned portion of the campus is also authorized under Section 9(b) of the preservation law (D.C. Official Code § 6-1108.02), which establishes preservation review of District government undertakings. This requirement, however, can be satisfied through the other two means of review discussed above.

As a District of Columbia government-sponsored project on District land, this proposal will also be reviewed by the U.S. Commission of Fine Arts and the National Capital Planning Commission. Zoning approval has not been finalized, pending design review by the Zoning Commission.

As the campus was only recently designated a local historic district, there is only one precedent for this review in accordance with all of these authorities. In May 2009, the Board reviewed a preliminary application for the construction of a pump station and a combination of above- and below-ground temporary water pipes for service to the new hospital building and to the campus' fire hydrants. The Board had to recommend denial of the above-ground pipes as incompatible with the character of the historic district, but the project was approved by the Mayor's Agent as a project of special merit, necessary to the completion of the hospital and for the protection of the

¹ The standard for new construction in a historic district is that it should *not be incompatible* with the district's character.

historic properties from fire.² It might be said that it was for this type of project that the historic preservation law and regulations were revised to permit special merit claims to apply to new construction applications that do not involve demolition of historic buildings.

Evaluation

Several years ago, the applicant prepared an extensive study of potential sites for a water tower in Ward 8. It compared the benefits and challenges of the highest elevations in the ward. Many of these were found to be unavailable (as in federal ownership, for instance) or surrounded by modest neighborhoods. The study makes a strong argument that the East Campus is the best location, because of its elevation and centrality and the avoidance of other types of externalities. The one important drawback is the fact that the campus is of such great historical importance.

The project team has evaluated a number of locations on the campus as well, ultimately selecting “Site B” near the hospital’s John Howard Pavilion, east of the ravine that leads to Stickfoot Branch. As the balloon tests and mock-ups suggest, this site is indeed the best available, as it removes the tower the farthest from most of the historic resources, helping to reduce its impact.³

The structure will certainly create adverse effects upon the campus. Excavations for its footings and its mains are likely to disturb archaeological resources, so investigations are already commencing, in coordination with the District of Columbia Archaeologist. At least as significant will be the permanent visual effects upon the campus, as a structure this big will loom over and even literally overshadow some of the resources, and will become a focal point. At 175 feet, it will be taller than nearly all buildings and structures in the District (and even the diameter of the reservoir exceeds the height of most buildings). It is very difficult to consider such a structure compatible with the character of the historic district, as it does not share similarities in dimensions, proportions, scale, materials and general character that would make it sit harmoniously in the landscape.⁴ Indeed, it is difficult *not* to find it incompatible with this historic district or others in the District of Columbia because of its prominence.

Landscaping around the base of the tower is an appropriate treatment. Interpretation of the history of water service through a museum or other means may provide an interesting amenity, but it is somewhat out of place, as the public water tower is a new element, unrelated to history of the hospital. Thus, its interpretation does not address the adverse effects on the character of the historic campus in a way that could be considered mitigation. Indeed, construction of the museum where shown would require the removal of some vegetation that might provide additional visual screening. And the remote location of the tower within the campus—behind the new mental hospital building—raises practical issues of accessibility and parking for visitors.

The idea behind the tower’s proposed design—to wrap a basic, utilitarian tower in another structure—is a design approach that may be valid, especially if one seeks to make the whole look more interesting. It becomes a largely aesthetic judgment. But while an interesting structure

² In any case, the applicant decided not to pursue the laying of the above-ground pipes, the cause of the incompatibility.

³ From some vantage points, such as the National Register-listed Suitland Parkway, the tower would be seen more prominently if at this location. As the project is not a federal undertaking, however, the applicant is not required to consider effects on historic properties off site, but only those on the campus listed in the 1989 MOA.

⁴ There is an older water tower constructed to serve the campus in the 1930s. That steel skeletal-frame structure is largely concealed behind the tall Nichols Building, and it stands about 50 feet shorter than the proposed tower, with a reservoir capacity of one twentieth of that proposed.

may be considered an end in itself, it does not necessarily address or relieve the adverse visual effects on the campus of overshadowing or distracting from the historic resources. It is debatable whether an airy, steel structure will have the effect of obscuring or dematerializing the tower beneath, as opposed to adding to its size, mass and complexity. It is on this point that the applicant, staff and the consulting parties seek the Board's opinion and direction, i.e., whether the steel superstructure in some form is a worthy or even superior approach to explore further.

The staff and many of the consulting parties have recommended that the applicant further explore a more straightforward approach that would *not* wrap the tower in another non-functional structure but simply create the most elegant tower shape possible, more rounded in form, with the column minimized in footprint. The underlying rationale is that the structure will be seen in any case, so why not merely make it the best water tower that it can be? When seen, its purpose would be instantly recognizable, and it would eventually fade into the background as people become used to its presence. The initial response to this from the applicant has been that the standard tower is what is available, but it is not clear that all alternatives have been exhausted.

A third alternative might be simply to accept the standard "mushroom" tower form as it is, and to use the funds budgeted to enclose it instead upon other preservation mitigation on site or in the immediate vicinity. There are many buildings on the East Campus, for instance, that can use stabilization and repair work. This kind of mitigation gets to the heart of preserving the qualities of the National Historic Landmark.

The staff recommends that the Board:

1. find the construction of a water tower of this size on the campus to be incompatible with the character of the historic district, and refer any preliminary or permit application for the construction of this design to the Mayor's Agent;
2. find that the proposed location at "Site B" is the best location on the campus for such a tower;
3. support appropriate landscaping around the base of any tower;
4. support the idea of interpretation and possibly an underground museum, if WASA wishes to pursue it, but with further review of carefully designed buildings, roads, etc.;
5. decide whether the construction of a frame around a standard tower is a preferred design approach, or an approach that will help minimize adverse effects, or an approach worthy of further study;
6. direct the applicant to rigorously study possible alternatives for stand-alone tower shapes and designs;
7. consider mitigation alternatives, such as repair work to the campus' historic buildings; and
8. direct the staff to continue consultation toward a resolution in a Memorandum of Agreement if a project is approved by the Mayor's Agent, with the project to return to the Board for review of further design development, if and when necessary.