HISTORIC PRESERVATION REVIEW BOARD
STAFF REPORT AND RECOMMENDATION

Landmark/District:	**Georgetown Historic District**	(**x**) Agenda
Address:	**1051/1055 29th Street NW (West Heating Plant)**	
Meeting Date:	**November 2, 2017**	
Case Number:	**17-633**	(**x**) Demolition

The applicant, property owner Georgetown 29K Acquisition LLC, requests review of a permit application to demolish most of the West Heating Plant, a contributing structure in the Georgetown Historic District. This application is related to the concurrent concept application for development of the property (HPA 17-263).

Proposed Demolition

The plans call for demolition of most of the building: nearly all of the supporting structure, all of the roof and penthouses, and at least 80 percent of the exterior walls.[1] It appears that all flooring systems are removed as well, as the proposed ground-floor height would be lowered to the sidewalk grade and the other floors realigned. What would remain is most of the 29th Street façade's steel structure and exterior brick wall, which would return eleven feet around the north and south sides. In addition, at least four feet of the foundation wall around the building would be retained.

This amount of demolition meets the definition in the preservation law and historic preservation regulations of demolition "entirely or in significant part."[2]

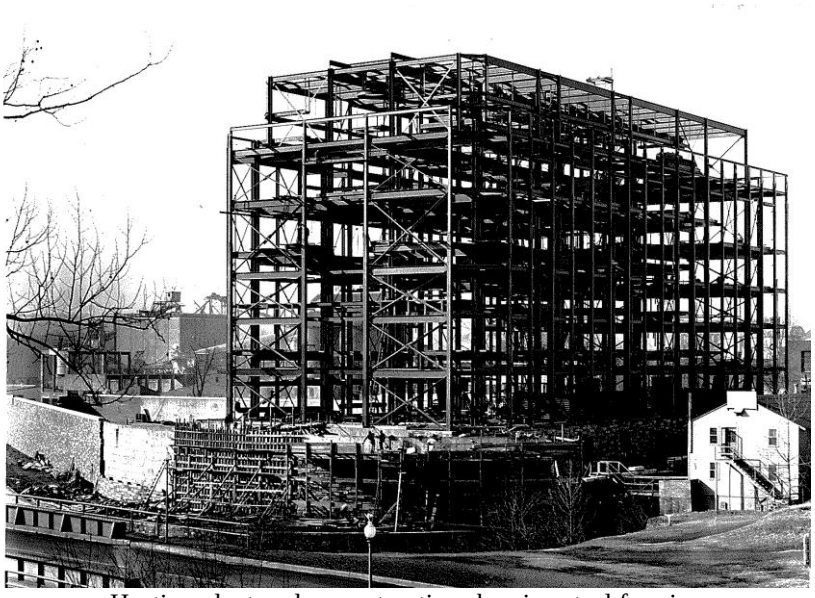
Applicant's Argument for Demolition

The applicant has presented various claims about deterioration of the building. In the project narrative prepared by historic preservation consultant EHT Traceries, the applicant claims the following:

> Several thorough investigations of the structure revealed that the WHP's construction is quite unique: there are no structural floors for almost eighty percent of the floor plate, resulting in the envelope having large spans of brick with minimal lateral support. Further, the WHP's structural system and materials exhibit severe deterioration caused by years of ongoing water infiltration. The extensive structural investigation of the WHP has shown that these conditions put the structure at serious risk of catastrophic failure. Just as pervasive, and perhaps just as invasive, as the structural challenges of the WHP are the levels of hazardous materials found within and around the structure.

[1] The applicant has not submitted plans showing the exact amount of demolition.
[2] D.C. Official Code § 6-1102(a)(3) and 10C DCMR § 305.

This statement is based on arguments first put forward in the applicant's 2013 structural engineering report. However, the assertion that the structure is "at serious risk of catastrophic failure" overstates the case.



Heating plant under construction showing steel framing

Building Conditions

Structural engineering reports do not conclude that the building is near collapse.[3] In evaluating the steel structure (photograph above), the engineers note the presence of rust scale at the base of the cavity in which the steel stands. It is not unusual for steel to rust when exposed to moisture, but the reports do not cite significant loss of bearing capacity as the major concern. Instead, inadequate lateral bracing, the effect of rust jacking on the brick walls, and inadequate structural capacity to support a new floor structure are among the issues cited. The reports discuss ways that these conditions could be addressed by appropriate repairs, reinforcement, improved moisture control, and insertion of new structural elements as part of rehabilitation.

The structural engineering reports do anticipate some failure in the building's brick facades. The reports observe that the face brick is cracked in many places, and that such damage requires major repair.[4] The applicant's engineer estimated that from 65 to 100 percent of the outer face of the walls needs replacement, while the peer review engineer estimated about half.

Long cracks can be seen on the brick. Moisture has penetrated the cavity between the exterior wall and an interior wall, a cavity in which the steel stands. The exterior wall supports its own weight, except for its connections to the steel structure and window frames. Corrosion at those connections is expanding, putting additional stress on the brick. There also appears to be some differential in movement between the harder face brick and the more porous two wythes of

[3] In addition to the applicant's engineering report, there is a 2014 peer engineer's evaluation.

[4] This type of repair is visible in large sections of the brick walls at the corners of the Central Heating Plant (1934), a historic landmark.

common brick forming its backing. If the face brick continues to go unattended, then parts of the face brick could fail. But cracking or separation of the face brick would not necessarily signify that the entire three-wythe-thick wall is falling away from the structural steel, or that the condition could not be repaired.

The two primary engineering reports reach different conclusions on the extent and methods of repair required for the face brick. The peer engineer's report anticipated a smaller amount, and recommended restoration from the exterior, with removal and restoration of steel lintels, repointing of all joints, injection grouting of cracks, and the replacement of any cracked face brick and of any cracked header bricks tying into the two-wythe-thick backer wall. Also recommended was the removal of an interior wall, which seals the structural cavity, to better control the climate at the steel and to access it and the exterior wall for treatment.

Repair and Replacement

The face brick is a cladding of the building's steel structure. Necessary repair and in-kind replacement of the brick is consistent with local and national preservation standards. The District of Columbia's historic preservation design guidelines for walls and foundations allow for such treatments as needed:

> Consideration should first be given to repairing only those areas needing attention, using in-kind materials; in other words, using the same types of materials as the existing. If deterioration is extensive, replacing the entire wall or foundation may be required. If this is necessary, the owner should first investigate the feasibility of replacing it in-kind. Only after in-kind replacement has been shown not to be economically or technically feasible, should the owner consider replacing the wall or foundation in a substitute material that is chemically and physically compatible with adjacent materials and is similar in appearance to the existing material.[5]

Feasibility of Retaining Brick Facades

The concept application proposes to retain most of the building's street façade, which is constructed of the same brick and steel as the remainder of the building. This front section of the building currently contains more floor levels than other parts of the structure, and thus has more lateral bracing. The applicant's design concept would retain this wall in place while removing the floors to create seven-story light wells behind the wall, leaving it largely free-standing in front of the new construction. The concept also entails removal of an eight-foot-high portion of the base and insertion of a massive wide-flange beam to support the wall above. Even with these significant structural modifications, the plans indicate that the wall would be retained, with an unspecified degree of repair or replacement in kind of the face brick.

Hazardous Materials

A more recent assertion is that the building needs to be demolished because of hazardous materials present. The presence of such materials is very common in the redevelopment of industrial buildings, and requires abatement before either rehabilitation or demolition. The

[5] Office of Planning, *District of Columbia Historic Preservation Guidelines: Walls and Foundations of Historic Buildings*.

preservation law allows the owner to abate hazardous materials as environmental rules require, including exposing the interior to the bare steel structure and exterior masonry wall if necessary.

Recommendation

HPO recommends that the Board advise the Mayor's Agent that issuance of the permit is not consistent with the purposes of the historic preservation law.