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Ref: DCPS Bancroft Elementary School Modernization Project
1755 Newton St, N.W., Washington, DC 20010
DCRA Bldg Permit # B1713394
DCRA BZA Case # FY-18-11-Z

Subject:
Request for Special Exception to C, 1502.1(b) and (c) requirements

Project Description:
The Bancroft Elementary School modernization project includes the internal renovation and exterior restoration of an existing 39,602 SF building and the addition of a 2-story building with 92,829 SF that collectively include classrooms, offices, gymnasium, cafeteria, library, kitchen, elevators and partially underground parking garage for 110 employees and 550 students.

Non-Compliance:
Mechanical units on the roof require screen wall surrounds. RTU 2, RTU 3, and RTU 5/6 screen walls do not comply with the setback and/or height requirements.

Community Support:
The School Improvement Team, (SIT) for the project, a stakeholder group of community members and Bancroft teachers, were presented the details of the RTU screens, their locations and their impact. The SIT fully supports this special exception request.

Narrative:
A key feature of the proposed design for Bancroft Elementary School is single loaded corridors which will allow daylight to penetrate deep into the building. We believe this will promote the health and wellness of students. Studies show that daylight improves educational outcomes. A result of this is that the building is narrow which makes it difficult to meet the penthouse requirements in all instances.

Mechanical units are carefully located considering many constraints. To maximize efficiency, they need to be as close to the rooms they serve as possible. However, they may sit directly above core learning spaces. Screen walls are located as the first line of structure beyond the required maintenance clearances.

All enclosures will be painted perforated steel which will match other exterior colors and material such as copings, metal doors, and the curtainwall system. The top elevation of the screens is designed to align with other building elements such as parapets and clerestory windows. They are fully integrated into the exterior massing.

This project has five such screen enclosures. Of these five, two comply with the

setback requirements stipulated in the Zoning Regulations. RTU 1 and RTU 7/8 enclosures both meet C, 1502.1 (c) for side building walls. RTU 2, RTU 3 and RTU 5/6 enclosures do not comply.

RTU 2: This penthouse requires a special exception. The top of this enclosure is 28'-0" from adjacent grade. It is set back from the roof edge 6'-4" and it extends 8'-0" up from the roof level. Therefor it is 1'-8" over the prescribed limit set by C, 1502.1 (c).

This section of the building is only one story above grade. The top of the enclosure is significantly below the 60' building height limit. Due to the careful use of materials of the enclosure, alignments with other building elements such as the brick parapet, and low building profile this enclosure will not adversely affect any neighboring property or the public way.

RTU 3: This enclosure does not meet the setback requirements, but it is on an internal court yard and will not adversely affect the neighbors. It will not be visible from the public way or any neighboring property. The section of the addition where it is located is only one story and it is blocked by the two-story existing brick building. The existing building eave will be 6'-4" above the top elevation of the screen wall.

RTU 5/6: This penthouse requires a special exception. The top of this enclosure is 37'-6" from adjacent grade and 49'-1" from the sunken parking garage entry. It is set back from the roof edge 1'-8" and it extends 8'-1" up from the roof level. Therefor it is 6'-5" over the prescribed limit set by C, 1502.1 (c).

The building wall adjacent to this screen wall is set back from the property line by 107'-9". This is the side yard, so no setback is required. Due to the deep setback from the public way (there is no Building Restriction Line on this side), the careful use of materials of the enclosure, and the alignments with other building elements such as the gymnasium clerestory, this enclosure will not adversely affect any neighboring property or the public way.

Requested Relief as a Special Exception

In summary please note the following considerations as they relate the relief of the penthouse requirements (C, 1504.1):

(a) The strict application of the requirements of this chapter would result in construction that is inconsistent with building codes such as the 2013 DC Energy Conservation Code. Our compliance path requires LEED gold certification. This requires applicants to meet certain requirements for mechanical system efficiency and mechanical system noise. Locating these units elsewhere and any further from the rooms they serve would reduce efficiency and increase energy consumption thereby preventing us from meeting the code requirement. Furthermore, the LEED gold acoustical requirements for core learning spaces are very specific and stringent. At all units we are providing acoustical curbs, duct silencers, and locating units away from core learning spaces to meet these requirements. Locating units above core learning spaces would require additional and very costly sound remediation efforts. Additionally, screen wall posts are located at or near established locations of structural columns. Alternative screen locations would result in additional prohibitive structural costs and possible inefficient allocation of interior space below.

(b/c) The relief requested would result in a better design of the roof structure. The mechanical equipment is proposed to be enclosed in compact groups

set back from the parapet. This significantly reduces building bulk compared to extending long sections of the brick building wall up vertically. Also, solid brick walls do not permit the free flow of air and therefor would increase the stress on the building structure due to lateral loads such as wind. The structure would need to be upgraded which would prohibitively increase construction costs.

(d) Full compliance would require difficulties in meeting DC Construction Code, Title 12 for roof access. Generally, this building is proposed to have very low parapets. This allows the building to appear less bulky and for the structure to be more efficient. The roof access path is set back beyond 10'-0" from the exterior wall in all locations. If the RTU 5/6 location was set further back it would require reworking the building roof access path and moving it closer to the roof edge. This would result in higher parapets and/or fall protection measures in other areas of the building. This would prohibitively increase construction costs and increase the apparent bulk of the building.

(e) Every effort has been made for the housing of mechanical equipment to follow the required setbacks, but the building geometry, interior mechanical acoustical requirements, structural column locations, construction cost limitations, and energy efficiency requirements prevent compliance.

(f) Light an air of adjacent buildings will not be affected by the roof top enclosures. RTU 2 is 32' below the building height limit. The RTU 3 enclosure is not visible from any neighbor or public way because it is in an internal courtyard. RTU 5/6 enclosure is set back from the property line and side yard setback by 109'-5". It is also below the building height limit.

Conclusion

Please be assured our whole team is committed to making the best building we can for students, the neighborhood, and the District of Columbia. Let us know if you have any additional questions or comments.

Respectfully Submitted,

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