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BOARD OF STANDARDS AND APPEALS

MEETING OF: **June 5, 2023**
CALENDAR NO.: **2020-88-BZ**
PREMISES: **315 Berry Street, Brooklyn**
Block 2430, Lots 1 & 2

ACTION OF BOARD — Application granted on condition.

THE VOTE —
Affirmative: Chair Chanda, Vice-Chair Scibetta, Commissioner Ottley-Brown, Commissioner Sheta, and Commissioner Yoon.....5
Negative:.....0

THE RESOLUTION —

I.

The decision of the Department of Buildings ("DOB"), dated April 26, 2021, acting on DOB Application No. 340743280, reads, in pertinent part "ZR 22-10 Zoning Use Group 6D is not permitted in R6 district. Provide BSA approval per ZR 73-14."

This is an application for a special permit, pursuant to Z.R. §§ 73-14 and 73-03, to permit the use of a stationary energy storage system ("SESS") (electric utility substation use (UG 6D)) in a residence district.

A public hearing was held on this application on April 13, 2021, after due notice by publication in *The City Record*, with continued hearings on October 5, 2021, February 7, 2022, October 3, 2022, and March 28, 2023, and then to decision on June 5, 2023. Chair Chanda and Vice-Chair Scibetta performed inspections of the Premises and the surrounding neighborhood.

A.

Community Board 1, Brooklyn, submitted two letters: an initial disapproval dated April 16, 2021, and additional testimony on March 28, 2021. CB 1 recommends disapproval of this application and cited concerns that the potential for danger from SESS outweigh any benefit to climate change initiatives and the energy grid.

The Board received a letter in support of this application, dated September 30, 2021, from the then-Brooklyn Borough President expressing the need for energy sustainability and that the proposal will further the City's ability to meet renewable energy goals and promote green energy investment in our communities. The Board received a letter from a New York State Senator within whose district the Premises exist supporting the siting of the proposed SESS at the Premises and expressing the need to address the increasingly unpredictable climate events and rectify the damage to our communities caused by fossil fuel dependence. The Board received a letter from a New York City Councilmember within whose district the Premises exist supporting the application and technologies, such as the proposed, that promote a more sustainable and resilient future. Finally, the Board also received letters of support from Evergreen: Your North Brooklyn Business Exchange, the Brooklyn Chamber of Commerce, the North Brooklyn Chamber of Commerce, and from a tenant of the subject Premises.

The Board received numerous letters of objection to this application. These letters, many of which from tenants of the Premises, raise concerns about the building's structural integrity; fire and explosion risks; noise, vibration, and intrusion from workers during the installation, operation, and maintenance of the SESS; interference with cable and internet service and access to the loading dock, freight elevator, and roof; the inadequacy of the applicant's site search; and the incompatibility of the proposed SESS with residential use. Furthermore, the Board received an independent engineering report, conducted on behalf of the tenants in opposition to the proposed project, which generally concurs with the conclusions of the applicant team that the building's structural integrity is sound, but raises concerns about the fire protection of the roof's dunnage beams. Moreover, the Board received a letter from an attorney representing tenants of the building, which presents three primary claims in opposition to the project. First, the letter claims that the Rent Stabilization Law, Rent Stabilization Code, and case law prohibit the building's owner from discontinuing residents' access to "required services"—which the applicant contends include the freight elevator, loading dock, and roof—as part of the proposed project without first receiving approval from the Department of Housing Conservation and Renewal. Second, the letter maintains that the applicant has failed to meet the findings of Z.R. § 73-14 and NYC Charter § 668(b)(2), primarily due to the alleged inadequacy of (a) the project's purported benefits, (b) the applicant's site search, and (c) the applicant's financial analysis. Third, the letter contends that the Board must deny the instant application due to the aforementioned Rent Stabilization Law claims and because of fire safety and structural concerns, citing conflicts between the applicant's engineering analyses and the findings of the independent engineering report.

II.

The Premises are a corner lot at the southeast intersection of Berry Street and South 3rd Street, within an R6 zoning district, in Brooklyn. With approximately 143 feet of frontage along Berry Street, 104 feet of frontage along South 3rd Street, and 14,683 square feet of lot area, the Premises are occupied by an existing seven-story residential building (65,234 square feet of floor area (4.44 FAR)) with 49 dwelling units. The applicant proposes to introduce the use of electric utility substation (UG 6D) at the Premises. Specifically, the applicant proposes the installation of SESS on portions of the rooftop of the existing building and within portions of the ground level.

The applicant represents that the proposed SESS, in accordance with DOB Building Bulletin 2019-007, may be classified as a UG 6D electric utility substation. The applicant seeks to locate SESS equipment, consisting of a combination of battery cubes, transformers, inverters, and switchgear, on dunnage atop a fire-rated four-foot-tall platform on the roof level; additionally, it is proposed to be separated from rooftop recreation space by a six-foot-tall opaque fence with sound mitigation panels and landscaping to provide a buffer.

III.

The Zoning Resolution states, pursuant to Z.R. § 73-14:

> In all *Residence Districts*[1], the Board of Standards and Appeals may permit electric or gas utility substations, limited in each case to a site of not more than 10,000 square feet, potable water pumping stations, or telephone exchanges or other communications equipment structures, provided that the following findings are made:
>
> (a) that such *use* will serve the residential area within which it is proposed to be located; that there are serious difficulties in locating it in a district wherein it is permitted as of right and from which it could serve the residential area, which make it necessary to locate such *use* within a *Residence District*; and
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> (b) in the case of such electric or gas utility substations or potable water pumping stations, that the site for such *use* has a minimum *lot area* of 4,500 square feet.

[1] Terms in *italics* are defined in Z.R. § 12-10

> The Board may prescribe appropriate conditions or safeguards to minimize adverse effects on the character of the surrounding area, including requirements that electric utility substations shall meet the performance standards for an M1 District; that such electric or gas utility substations or potable water pumping stations shall be surrounded with fences, barriers, or other safety devices; or that any such *use* shall be landscaped.

The Board has the authority, pursuant to Z.R. §§ 73-01 through 73-03 and 73-14, to permit the use of electric utility substation at the Premises.

IV.

First, the applicant represents, and the Board finds, that the Premises are in an R6 zoning district, and the applicant proposes to introduce the use of electric utility substation to the zoning lot. The applicant additionally represents that any SESS installation at the Premises, in the aggregate, shall be limited to 10,000 square feet.

A.

In accordance with Z.R. § 73-14(a), the applicant represents, and the Board finds, that the proposed electric utility substation use at the Premises will serve the residential area in which it is proposed.

1.

In support of this contention the applicant identified the "Water Street Network," an electricity grid serving approximately 3.5 square miles in Brooklyn, that is among the oldest, most congested, and vulnerable networks at great risk to future brown-outs and outages; the proposal at this location is also represented to directly displace greenhouse gases and other pollutants. The applicant represents that locating the SESS at the Premises, within the Water Street Network, will directly serve the residential area in which it is proposed in the following ways. The applicant represents that SESS will reduce the incidence of brown-outs and outages caused by increasingly unpredictable weather events; SESS will be used to provide emergency power for critical services when there are electrical grid failures; SESS will directly reduce the reliance on the operation of fossil fuel generation plants during periods of peak usage – which is represented as a benefit to this community directly and the community at-large; and, SESS will reduce energy costs and provide quality of life benefits to residents, landowners, and businesses in the area to be served by

the SESS. Therefore, the applicant represents that the proposed electric utility substation use at the Premises will serve the residential area.

2.

The applicant states, and the Board finds, that there are serious difficulties locating the proposed electric utility substation use in a district where it is permitted as of right and from which it could serve the residential area, making it necessary to locate it at the Premises. In support of this contention, the applicant demonstrated that, from 2018 through 2020, an exhaustive and diligent search was conducted for leasable properties with sufficient and suitable installation area within the Water Street Network and willing to enter into a long-term lease sufficient for SESS to operate. Among the qualification criteria, the applicant required a site with the following: the ability to hold heavy equipment; the ability to accommodate sufficient energy storage capacity of up to 5.0 MW; location in physical proximity to specific parts of the electricity network; and, the availability to rent for a 20-year term. The applicant demonstrates that over 200 sites within the Water Street Network were surveyed; however, in accordance with established State and local climate goals, none of the as-of-right sites would permit the applicant to achieve State energy storage goals. Therefore, the applicant represents that there are serious difficulties locating the proposed electric utility substation use in a district where it is permitted as of right and from which it could serve the residential area, making it necessary to locate it at the Premises.

B.

The applicant represents, and the Board finds, that the Premises have a lot area of approximately 14,683 square feet. Therefore, the Board finds that, in the case of such electric utility substations, the site for such use has a minimum lot area of 4,500 square feet.

C.

In accordance with Z.R. § 73-03, the applicant represents, and the Board finds, that the advantages to be derived by the community outweigh any potential for adverse effects on the privacy, quiet, light and air of the neighborhood. In support of this contention, the applicant states that, in addition to strengthening the already at-risk electrical grid in this area, the proposed SESS will be screened with noise-attenuating screening to prevent adverse noise effects and to comply with Section 24-232 of the New York City Noise Law 115 of 2005 and Noise Exposure Guidelines per CEQR. Further, the applicant represents that any proposed SESS at the rooftop of the Premises will be minimally visible from the street level, will not increase any shadow

coverage, and thereby does not adversely affect the pedestrian experience.

Therefore, the applicant represents that the proposed use of electric utility substation at the Premises meets the findings of the Z.R. §§ 73-14 and 73-01 through 73-03.

V.

Over the course of hearings, the Board questioned whether the portion of the proposal to install SESS on the rooftop created floor area, as defined by Z.R. § 12-10 or, in the alternative, whether the electrical transformers and switchgear are considered "accessory mechanical equipment" and, accordingly, are permitted to penetrate the sky exposure plane and be exempted from the definition of floor area. DOB, by ZRD1 Control No. 70827, dated June 16, 2022, marked "Approved With Conditions," states the following:

> 1) Proposed public utility sub-station, use group 6D shall be permitted with special use permit granted by BSA per ZR 73-14 and ZR 22-21.
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> 2) No rooftop equipment shall be installed above 60 feet or six stories in height above the street line, whichever is less and within 20 feet initial setback distance; and no equipment shall penetrate the sky exposure planes.
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> 3) Sky exposure plane must be corrected on the submitted plans with 2.7 units vertical to 1 unit horizontal at a height of 60 feet or six stories above the street line whichever is less per 23-641.
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> 4) The applicant must demonstrate how the proposed equipment within the required open space complies with ZR23-12(i).
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> 5) The applicant must demonstrate how proposed equipment complies with BB#2020-023 as accessory power systems. It must comply with BB#2019-007 for non-accessory power systems.
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> 6) Per ZR12-10, Definition of "floor area"; Energy Storage Systems (floor space used for accessory mechanical equipment, including equipment serving the mechanical, electrical, and power systems such as solar energy systems, generators, fuel cells, and energy storage systems) on the roof level shall not be considered as zoning floor area.

> 7) Subject energy storage system located at the roof level shall be reviewed and approved by the FDNY per Fire Code section 608.6 (Fire Code 2022).

A.

In response to community concerns, the Board reaffirms that Z.R. § 73-14 authorizes the Board to consider the appropriateness of locating a non-conforming use within a residence district. The Board reiterates that in reviewing this application, the Board has no jurisdiction to permit waivers with respect to compliance with the Administrative Code, Building Code, Fire Code, and all other applicable laws and rules that are not the subject of this application. The Board defers to its sister-agencies, such as the Department of Buildings to ensure that the Premises and all proposed construction are code-compliant and the Premises comply with all applicable laws and rules, and the Fire Department to ensure compliance with the Fire Code and ensure safety of the residents of the Premises, surrounding neighbors, and firefighters, to ensure that any proposed installation at the Premises complies with all laws, rules, and regulations that currently and may govern it.

VI.

The Fire Department states in part, by letter dated April 15, 2022, that:

> The Fire Department has reviewed the pending application, as reflected on plans, dated December 3, 2021. It has reached the following conclusions and makes the following recommendations:
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> 1. Based on available testing data (additional testing has been requested), the Fluence Cube proposed to be used for this rooftop installation presents thermal runaway hazards common to lithium-ion battery systems. Additionally, the proposed rooftop installation is very large: previously filed as 4.2 MW for four hours (16.8 MWh), now reportedly 12.8 MWh. However, the building construction and sprinkler protection, additional stationary energy storage system fire protection measures, rooftop accessibility, noncombustible platform base and absence of surrounding buildings at or near rooftop height, sufficiently mitigate the hazards to allow this rooftop installation.

2. 315 Berry Street is a former factory building of noncombustible construction suitable for a rooftop stationary energy storage system. The Fire Department makes the recommendations set forth in this submission based on the assumption that the BSA will obtain confirmation from New York City Department of Buildings regarding the following conditions:

> That the building and its rooftop are capable of supporting the weight of the installation. This includes both the weight of the installation, a noncombustible platform base, and the weight of an estimated 30,000 gallons of water per hour (less anticipated drainage) that may be applied to the roof during firefighting operations.
>
> A determination by the Department of Buildings as to whether the structural violations issued by that agency to the building bear upon the safety of the rooftop installation. If so, approval of this rooftop stationary energy storage system installation should be conditioned upon correction of the violations prior to issuance of any Department of Buildings work permit for this project.

3. 315 Berry Street is protected by a sprinkler system (The Fire Department has inspected the public areas of the building and concluded that the sprinkler system was designed to factory standards pre-dating current residential use. The last DOB sprinkler filing dated from 1975, when the building was designed and occupied as a factory. We recommend that BSA confirm with DOB that the sprinkler system is in compliance with applicable Building Code requirements.). This will ensure that in the event of a fire in the building there is a means to extinguish it or at least slow its spread.

4. 315 Berry Street is less than 10 stories (100 feet) in elevation. As such, the rooftop is accessible by aerial ladder. The current Certificate of Occupancy indicates the height of the seven-story building is eighty-three (83) feet.

5. The building has two enclosed stairwells (North and South), with a stairwell width of 96 inches and stair run of 44 inches, that provide access the rooftop from separate and remote bulkheads. The presence of two separate and remote stairwells facilitates resident egress and firefighter access.

6. However, the present plan for the stationary energy storage installation places Fluence Cubes within an estimated 5-10 feet of the North bulkhead rooftop entrance. This is too close, given the size and energy capacity of each Fluence Cube and the overall installation, and the fact that it is a non-accessory installation on a building rooftop that is proposed to be used for residential purposes. A separation distance of at least 20 feet should be maintained from each bulkhead entrance. This may require relocating one or more Fluence Cubes. Any such Fluence Cubes should not be placed within six (6) feet of the rooftop perimeter along the Berry Street and South 3rd Street building exposures, where they could interfere with aerial ladder access, and a clear path should be provided from the rooftop perimeter in accordance with Fire Code Section FC504.4.

7. The 315 Berry Street rooftop is of non-combustible construction. The stationary energy storage system will be placed on a raised structural steel platform anchored to building columns with ¾-inch USG structural panel concrete roof deck panels. This base would provide adequate protection for the building rooftop, except that the platform as proposed in the current installation plans does not extend beyond the footprint of the Fluence Cubes. The Fire Department recommends that the concrete roof deck panels be extended three feet around all sides of the installation to provide additional protection and access for maintenance and other purposes.

8. 315 Berry Street is surrounded by low-rise buildings. There are no buildings adjoining or surrounding 315 Berry Street at or near the height of the rooftop installation which are likely to be impacted by a system failure of the rooftop stationary energy storage system.

9. The proposal envisions a residential recreational area on the rooftop, immediately adjacent to the

stationary energy storage system location. The advisability of such a use immediately adjacent to a stationary energy storage system of this size is questionable. If such a rooftop use is allowed by the Board of Standards and Appeals, a Fire Department-approved security fence should be installed at least 10 feet from the installation and a clear path unobstructed by the installation shall be maintained from the recreational area to each rooftop bulkhead entrance.

The Fire Department is in the process of reviewing and revising its previous determinations in light of the revised plans and additional information submitted by Applicant and will be issuing an amended Certificate of Approval (equipment approval) for the Fluence Cube and an amended Letter of Acceptance (site-specific installation approval) consistent with the foregoing conclusions and recommendations.

The Fire Department has no objection to the Board of Standards and Appeals granting this application, subject to the foregoing findings and recommendations, and as set forth in the Fire Department's amended Certificate of Approval for the Fluence Cube and amended Letter of Acceptance for the 315 Berry Street rooftop stationary energy storage system installation.

The Fire Department added, by letter dated September 14, 2022, that:

1. The stationary energy storage system installation places Fluence Cubes at least 21 feet from the North bulkhead rooftop entrance, which is the minimum distance requested for firefighting operations.

2. The stationary energy storage system will be placed on a raised structural steel platform anchored to building columns. Panels made of 3/4-inch USG structural concrete are to be installed above the platform surface. Except for approximately 30-foot portion of the platform adjoining the rooftop area designated as a recreational area, the platform extends three feet from the installation footprint to provide an access walkway on the platform. The noncombustible rooftop adjoining the area that would not be protected by this three-foot walkway overlay, will be protected by noncombustible concrete pavers.

3. The stationary energy storage system and structural steel platform will not be installed within six (6) feet of the rooftop perimeter along the Berry Street and South 3rd Street building exposures, where they could interfere with aerial ladder access, and a clear path has been provided from the rooftop perimeter in accordance with Fire Code Section FC504.4.

4. The rooftop residential recreational area shown on the plan was incorporated into the design in compliance with zoning regulations. As such, its inclusion is not discretionary. The Fire Department's Conditional Letter of No Objection recommended separation of the recreational area from the installation by provision of a security fence at least 10 feet from the installation. The Applicant agreed to provide security fencing but was constrained by the size of the installation from achieving the minimum separation and satisfying the required square footage of the recreational area. The Applicant resolved this design issue and satisfied the Fire Department's objection by reducing the size of the installation.

The Applicant has further reported that:

1. The New York City Department of Buildings (DOB) has accepted the Applicant's calculations that the building and its rooftop are capable of supporting the weight of the installation. This includes both the weight of the installation, a non-combustible platform base and the weight of an estimated 30,000 gallons of water per hour (less anticipated drainage) that may be applied to the roof during firefighting operations.

2. The structural violations issued by DOB relate to the building façade and do not bear on the structural integrity of the building or rooftop for purposes of the present application. The Applicant reports that scaffolding has been erected and the violation is in the process of being corrected.

In view of the foregoing, the Fire Department has no objection to the Board of Standards and Appeals granting this application, subject to the findings and recommendations set forth in the Fire Department's Conditional Letter of No Objection and the foregoing discussion.

VII.

The project is classified as an Unlisted action pursuant to 6 NYCRR, Part 617.2. The Board has conducted an environmental review of the proposed action and has documented relevant information about the project in the Final Environmental Assessment Statement CEQR No. 21BSA026K, dated June 5, 2023. The EAS documents that the project as proposed would not have significant adverse impacts on Land Use, Zoning and Public Policy; Socioeconomic Conditions; Community Facilities; Open Space; Shadows; Historic and Cultural Resources; Urban Design and Visual Resources; Natural Resources; Hazardous Materials; Water and Sewer Infrastructure; Solid Waste and Sanitation Services; Energy; Transportation; Air Quality; Greenhouse Gas Emissions; Noise; Public Health; Neighborhood Character; or Construction Impacts; and Construction.

The Landmarks Preservation Commission (LPC) represents, by correspondence dated November 18, 2020, that there are no archaeological concerns and that there will be minimal visual disturbance to the property as a result of this action.

The Department of Environmental Protection states, by letter dated March 27, 2023, that there is no vehicular traffic that results from the proposed project therefore, there would be no potential significant adverse impact related to mobile sources. Representative noise levels were monitored from the equipment of the same model and were used to model the potential noise impacts of the proposed project. The results showed that the proposed project would not exceed the CEQR noise impact threshold. In addition, the results also showed compliance with the applicable noise regulations (i.e., Subchapter 5 § 24-227 and § 24-232 of the New York City Noise Control Code as well as the NYC DOB Building Code). In conclusion, regarding mobile and stationary noise sources, the proposed project would not result in a significant noise impact to the surrounding area or the residences on the project building itself.

No other significant effects upon the environment that would require an Environmental Impact Statement are foreseeable. Accordingly, the Board has determined that the proposed action will not have a significant adverse impact on the environment.

Based on the foregoing, the Board finds that the evidence in the record supports the findings required to be made under Z.R. §§ 73-03 and 73-14 and that the applicant has substantiated a basis to warrant exercise of discretion.

Therefore, it is Resolved, that the Board of Standards and Appeals does hereby *issue* a Negative Declaration prepared in accordance with Article 8 of the New York State Environmental Conservation Law and 6 NYCRR Part 617, the Rules of Procedure for City Environmental Quality Review and Executive Order No. 91 of 1997, as amended, and makes each and every one of the required findings under Z.R. §§ 73-03 and 73-14 to *permit* the use of electric utility substation (UG 6D) (SESS) in a residence district *on condition*:

THAT prior to obtaining any work permit, the Department of Buildings shall ensure any proposed installation at the Premises in accordance with this approval shall comply with all provisions of the Zoning Resolution, Administrative Code, Building Code, and any other relevant laws or rules governing or that may govern the proposed installation;

THAT all required permits in connection with this approval shall be properly secured, including OTCR, FDNY, DEP, DOT, and any other agency exercising jurisdiction over the Premises and proposed installation;

THAT the Premises and proposed installation shall comply with all FDNY conditions, rules, and regulations at all times;

THAT in accordance with FDNY approvals, the applicant shall cause DOB to ensure that the building and its rooftop are capable of supporting the weight of the installation: this includes both the weight of the installation, a noncombustible platform base, and the weight of an estimated 30,000 gallons of water per hour (less anticipated drainage) that may be applied to the roof during firefighting operations;

THAT in accordance with FDNY approvals, the applicant shall cause DOB to ensure the Premises' sprinkler system is in compliance with all applicable Building Code requirements;

THAT in accordance with the FDNY approvals, concrete roof deck panels shall be extended three feet around all sides of the installation to provide additional protection and access for maintenance and other purposes and a Fire Department-approved security fence shall be installed to the Fire Department's specifications from the installation and a clear path unobstructed by the installation shall be maintained from the recreational area to each rooftop bulkhead entrance;

THAT the Board will defer to DOB to ensure the structural integrity of the building prior to the granting of any permit for the proposed SESS;

THAT the equipment fence, cast-resin transformers and vibration isolation recommendations described in the final EAS are incorporated into the installation of the SESS;

THAT the proposed SESS will comply with applicable noise regulations, such as Subchapter 5 § 24-227 and § 24-232 of the New York City Noise Control Code as well as the NYC DOB Building Code;

THAT the above conditions shall appear on the certificate of occupancy;

THAT a certificate of occupancy, also indicating this approval and calendar number ("BSA Cal. No. 2020-88-BZ"), shall be obtained within four years, by June 5, 2027;

THAT substantial construction shall be completed, in accordance with Z.R. § 73-80, by June 5, 2027;

THAT this approval is limited to the relief granted by the Board in response to objections cited and filed by the Department of Buildings;

THAT the Department of Buildings must ensure compliance with all other applicable provisions of the Zoning Resolution, the Administrative Code and any other relevant laws under its jurisdiction irrespective of plans or configurations not related to the relief granted.

Adopted by the Board of Standards and Appeals, June 5, 2023.

CERTIFICATION

This copy of the resolution
dated June 5, 2023
is hereby filed by the
Board of Standards and Appeals
on August 18, 2023.

Carlo Costanza
Executive Director