

ANN ARBOR BUILDING BOARD OF APPEALS

STAFF REPORT

Meeting Date: July 20, 2023

Type of Request: APPEAL

Building Board of Appeals Request **BBA23-0003** at 1100 Broadway, ANN ARBOR, MI 48105.

(Parcel Identification Number: **09-09-21-302-119**)

DESCRIPTION AND DISCUSSION

Property Owners Name and Address:

Morningside Maiden Lane, LLC
223 W. Erie, 3rd floor
Chicago, IL 60654

BACKGROUND

The property at 1100 Broadway a mixed use building including R-2, A-3, B and S-2 Occupancy Classification as described by the 2015 Michigan Building Code and as indicated on the signed sealed plans submitted with the permit application. Building Permit BLDG21-2062 was issued 01/06/2022. The building is a high-rise and requires an emergency backup generator. The petitioner is requesting relief from the minimum requirements of article 700.3 of the 2017 National Electrical Code. This appeal is being made in an attempt to get temporary occupancy prior to the permanent generators anticipated delivery in late September.

Standards for Approval:

- 1. The True intent of the code or the rules governing construction have been incorrectly interpreted.*
- 2. The provisions of the code do not apply; and*
- 3. An equal or better form of construction is proposed.*

STAFF RECOMMENDATION

Staff recommends this application be denied as it does not meet the standards for approval. The building located at 1100 Broadway requires an emergency backup generator to be installed per section 403 of the 2015 Michigan Building Code. The petitioner is requesting to connect a temporary emergency back-up generator into the portable generator cabinet intended for use when the main (permanent) generator requires service, by doing so they eliminate the code required connection point listed in Article 700.3 (F) Temporary Source of Power for Maintenance or Repair of The Alternate Source of power. In this configuration if maintenance were required on the emergency generator there would not be a location to connect a temporary generator, which makes this configuration less than equivalent to the code requirements. This is being proposed to obtain temporary certificates of occupancy for the first two floors while waiting for the permanent generator to be delivered. During this time the upper three floors of the building will be at varying degrees of completion and still undergoing construction of differing levels.

PROPOSED MOTION

APPEAL GRANTED

That in Case BBA22-2004, **the appeal of the Building Official's decision** that the work performed at **1100 Broadway** is **GRANTED** relief from article 700.3 of the 2017 National Electrical Code, and the Building Board of Appeals **REVERSES** the Building Official's decision for the reason(s) that *[state reason in motion]*:

- (1) The true intent of the 2017 National Electrical Code and article 700.3 governing the renovation of 1100 Broadway has been incorrectly interpreted by the Building Official;
- (2) The provisions of 2017 National Electrical Code article 700.3 does not apply to the construction at 1100 Broadway;
- (3) The applicant has proposed an equal or better form of construction.

Stipulations – If Applicable:

[Chairman to check box(es) following vote]

Yeas:

Nays:

Absent for this vote:

Date

Paul Darling, Chairperson
Building Board of Appeals

OR
APPEAL DENIED

That in Case BBA23-0003 **the appeal of the Building Official's decision** that the work to be performed at **1100 Broadway** is **DENIED** and the Building Board of Appeals **AFFIRMS** the Building Official's decision for the reason(s) that *[state reason in motion]*:

- (1) The true intent of the 2017 National Electrical Code and Article 700.3 governing the construction at 1100 Broadway has been correctly interpreted by the Building Official;
- (2) The provisions of 2017 National Electrical Code article 700.3 applies to the construction at 1100 Broadway;
- (3) The applicant has not proposed an equal or better form of construction;

Stipulations – if Applicable:

[Chairman to check applicable box(es) following vote]

Yeas:

Nays:

Absent for this vote:

Date

Paul Darling, Chairperson
Building Board of Appeals

[F] 403.4.8 Standby and emergency power. A standby power system complying with Section 2702 and Section 3003 shall be provided for the standby power loads specified in Section 403.4.8.3. An emergency power system complying with Section 2702 shall be provided for the emergency power loads specified in Section 403.4.8.4.

[F] 2702.1 Installation. Emergency power systems and standby power systems shall comply with Sections 2702.1.1 through 2702.1.7.

[F] 2702.1.1 Stationary generators. Stationary emergency and standby power generators required by this code shall be listed in accordance with UL 2200.

[F] 2702.1.2 Electrical. Emergency power systems and standby power systems required by this code or the *International Fire Code* shall be installed in accordance with the *International Fire Code*, NFPA 70, NFPA 110 and NFPA 111.

[F] 2702.1.3 Load transfer. Emergency power systems shall automatically provide secondary power within 10 seconds after primary power is lost, unless specified otherwise in this code. Standby power systems shall automatically provide secondary power within 60 seconds after primary power is lost, unless specified otherwise in this code.

[F] 2702.1.4 Load duration. Emergency power systems and standby power systems shall be designed to provide the required power for a minimum duration of 2 hours without being refueled or recharged, unless specified otherwise in this code.

[F] 2702.1.5 Uninterruptable power source. An uninterrupted source of power shall be provided for equipment when required by the manufacturer's instructions, the listing, this code or applicable referenced standards.

[F] 2702.1.6 Interchangeability. Emergency power systems shall be an acceptable alternative for installations that require standby power systems.

[F] 2702.1.7 Group I-2 occupancies. In Group I-2 occupancies, in new construction or where the building is substantially damaged, where an essential electrical system is located in flood hazard areas established in Section 1612.3, the system shall be located and installed in accordance with ASCE 24.

[F] 2702.2 Where required. Emergency and standby power systems shall be provided where required by Sections 2702.2.1 through 2702.2.16.

[F] 2702.2.1 Emergency alarm systems. Emergency power shall be provided for emergency alarm systems as required by Section 415.5.

[F] 2702.2.2 Elevators and platform lifts. Standby power shall be provided for elevators and platform lifts as required in Sections 1009.4, 1009.5, 3003.1, 3007.8 and 3008.8.

[F] 2702.2.3 Emergency responder radio coverage systems. Standby power shall be provided for emergency responder radio coverage systems required in Section 916 and the *International Fire Code*. The standby power supply shall be capable of operating the emergency responder radio coverage system for a duration of not less than 24

hours.

[F] 2702.2.4 Emergency voice/alarm communication systems. Emergency power shall be provided for emergency voice/alarm communication systems as required in Section 907.5.2.2.5. The system shall be capable of powering the required load for a duration of not less than 24 hours, as required in NFPA 72.

[F] 2702.2.5 Exit signs. Emergency power shall be provided for exit signs as required in Section 1013.6.3. The system shall be capable of powering the required load for a duration of not less than 90 minutes.

[F] 2702.2.6 Group I-2 occupancies. Essential electrical systems for Group I-2 occupancies shall be in accordance with Section 407.10.

[F] 2702.2.7 Group I-3 occupancies. Emergency power shall be provided for power-operated doors and locks in Group I-3 occupancies as required in Section 408.4.2.

[F] 2702.2.8 Hazardous materials. Emergency or standby power shall be provided in occupancies with hazardous materials where required by the *International Fire Code*.

[F] 2702.2.9 High-rise buildings. Emergency and standby power shall be provided in high-rise buildings as required in Sections 403.4.8.

[F] 2702.2.10 Horizontal sliding doors. Standby power shall be provided for horizontal sliding doors as required in Section 1010.1.4.3. The standby power supply shall have a capacity to operate not fewer than 50 closing cycles of the door.

[F] 2702.2.11 Means of egress illumination. Emergency power shall be provided for means of egress illumination as required in Section 1008.3. The system shall be capable of powering the required load for a duration of not less than 90 minutes.

[F] 2702.2.12 Membrane structures. Standby power shall be provided for auxiliary inflation systems

N (F) Temporary Source of Power for Maintenance or Repair of the Alternate Source of Power. If the emergency system relies on a single alternate source of power, which will be disabled for maintenance or repair, the emergency system shall include permanent switching means to connect a portable or temporary alternate source of power, which shall be available for the duration of the maintenance or repair. The permanent switching means to connect a portable or temporary alternate source of power shall comply with the following:

- (1) Connection to the portable or temporary alternate source of power shall not require modification of the permanent system wiring.
- (2) Transfer of power between the normal power source and the emergency power source shall be in accordance with 700.12.
- (3) The connection point for the portable or temporary alternate source shall be marked with the phase rotation and system bonding requirements.
- (4) Mechanical or electrical interlocking shall prevent inadvertent interconnection of power sources.

- (5) The switching means shall include a contact point that shall annunciate at a location remote from the generator or at another facility monitoring system to indicate that the permanent emergency source is disconnected from the emergency system.

It shall be permissible to utilize manual switching to switch from the permanent source of power to the portable or temporary alternate source of power and to utilize the switching means for connection of a load bank.

Informational Note: There are many possible methods to achieve the requirements of 700.3(F). See Figure 700.3(F) for one example.

Exception: The permanent switching means to connect a portable or temporary alternate source of power, for the duration of the maintenance or repair, shall not be required where any of the following conditions exists:

- (1) *All processes that rely on the emergency system source are capable of being disabled during maintenance or repair of the emergency source of power.*
- (2) *The building or structure is unoccupied and fire suppression systems are fully functional and do not require an alternate power source.*
- (3) *Other temporary means can be substituted for the emergency system.*
- (4) *A permanent alternate emergency source, such as, but not limited to, a second on-site standby generator or separate electric utility service connection, capable of supporting the emergency system, exists.*

Figure 700.3 (f)

