

NextGrid

July 6, 2023

Mr. Kevin Foster – Chair
Avon Zoning Board of Appeals
Town of Avon
65 East Main Street
Avon, MA 02322

2023 JUL -7 A 10:23
TOWN OF AVON
TOWN CLERK

**Re: 225 Bodwell St – Rooftop Solar Installation Project
Zoning Board Application – Variance**

Dear Mr. Foster and Members of the Board:

NextGrid Inc., presents the Rooftop Solar Installation Project proposed at 225 Bodwell St in Avon, MA. The applicant is submitting this project for a variance from the Town of Avon Zoning By-Law, Section under the Town of Avon Zoning By-Law Section 255-6.4 Dimensional and Density Regulation Table.

Existing Site Summary: The current property at 225 Bodwell St falls within the Industrial District and totals approximately 3.99 acres (173,790 sf). The site is comprised of one (1) steel building steel totaling approximately 76,000 sf. In addition, the site has an existing bituminous concrete parking lot, with a total of forty-five (45) spaces. All existing and proposed structures are within the Industrial District. There are bordering vegetated wetlands located along the southern edge of the property, and there are no estimated habitats of rare wildlife. Finally, the entirety of the site falls within the Town of Avon’s Water Supply Protection District.

Project Summary: The proposed project includes the installation of a rooftop only solar array, with accessory structures for the equipment associated with the array, including an accessory, prefabricated structure housing the stationary battery storage system along the northern property line. The project proposes a total of 1,566 panels. In addition, the applicant proposes a new electrical service, including a concrete equipment pad with utility enclosures. There is no new impervious area, outside of two small equipment pads, which total less than 150 sf.

The proposed area encompassing the solar panels will be leased to NextGrid by the property Owner and after the useful life (20-25 years) will be disassembled and removed by NextGrid.

Variance Request:

Per Section 255-12.9 Variance, the Town of Avon lists four (4) specific findings for review of granting variances.

1. *That there exist special circumstances relating to soil conditions, shape, or topography of the specific land or structures;*

- a. **RESPONSE:** The proposed project does not provide special circumstances relating to soil conditions, shape or topography of the specific land, however the proposed structure (Structure as determined by the Town of Zoning By-Law) is a piece of equipment associated with the proposed solar system.

Battery energy storage systems qualify as “structures that facilitate the collection of solar energy” under G.L. c. 40A, § G.L. c. 164 § 1, defines “energy storage system” as “a commercially available technology that is capable of absorbing energy, storing it for a period of time and thereafter dispatching the energy.”

Guidance on the siting of outdoor Stationary Battery Energy Storage Systems is specified in NFPA 855 – Standard for Installation of Stationary Energy Storage Systems. NFPA-855, Section 4.4.3.3 Clearances to Exposures, states that ESS located outdoors shall be separated by a minimum of ten (10) feet from exposures, such as buildings and lot lines. Currently the BESS is located greater than ten (10) feet from the existing building. NFPA-855, Section 4.4.3.3.4 states “where approved, clearances from exposures other than buildings shall be permitted to be reduced to 3 ft (914 mm) where large-scale fire testing of the ESS demonstrates that a fire within the ESS enclosure will not generate radiant heat flux sufficient to ignite stored materials or otherwise threaten the exposure.” Section 4.1.5 refers to UL9540A, Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems. The BESS built for this location utilizes battery racks manufactured by a company called SYL. These battery racks have completed unit level testing in compliance with UL9540A, demonstrating the containment of a thermal runaway condition, according to that standard.

2. That said circumstances do not generally affect the zoning district in which the land or structure is situated;

- a. **RESPONSE:** Mass General Law 40A, Section 3 states “No Zoning.....bylaw shall prohibit or unreasonably regulate the installation of solar energy systems or the building structures to facilitate the collection of solar energy, except where necessary to protect the public health, safety or welfare”. As noted above, the BESS has been designed and sited in accordance with the applicable Fire Code and provides no risk to the public health, safety, or welfare, and does not generally affect the zoning district in which the land or structure is situated.

3. That a literal enforcement of the provisions of this bylaw would involve substantial hardship, financial, or otherwise, to the petitioner (or appellant);

- a. **RESPONSE:** Enforcement of the provisions of this bylaw, would result in loss of this project providing energy storage, which reduces the financial viability of the

proposed project with the Department of Energy Resources and the Solar Massachusetts Renewable Target (SMART) Program

4. That desirable relief might be granted without substantial detriment to the public good and without nullifying or substantially derogating from the intent or purposes generally of this bylaw.
 - a. **RESPONSE:** This variance is specifically related to a piece of vital electric infrastructure. The intent of this bylaw is to limit the effect that primary use structures would have on the density and setbacks within the Industrial Zoning district. This would not go against the intent of the bylaw, nor would it set a precedent that would affect future developments outside of the accessory use (energy storage) which is already protected by NFPA 855 – Standard for Installation of Stationary Energy Storage Systems. NFPA- 855, Section 4.4.3.3 and M.G.L. 40A.

The Applicant believes that granting a setback variance for this project, as proposed, presents no risk to the public health, safety, or welfare.

The applicant has obtained site plan review approval as well as a Special Permit from the Town of Avon Planning Board for work within the Watershed Protection Overlay District.

If we can be of any further assistance regarding this matter, please contact us at our office.

Very sincerely yours,

NextGrid Inc.



Nathan A. Collins, P.E.
Senior Manager of Engineering

Attachments:

1. Special Permit Application
2. Letter of Denial from Avon Building Permit
3. Certified Abutter's List
4. Eneon – Bodwell Fire Protection Control Summary

Enclosures Under Separate Cover

5. Plan entitled "Proposed Layout Plan" prepared by NextGrid Inc. and dated 7/5/23.
6. Pages from Interconnection Plan Set Prepared by ARC Design dated 11/15/22.
7. Eneon BESS Layout Plan



The Commonwealth of Massachusetts
Town of Avon

TOWN OF AVON

2023 JUL -7 A 10:23

(This form to be filed with Town Clerk with the required fee)

TOWN CLERK

TO THE BOARD OF APPEALS:

The undersigned hereby petitions the Avon Board of Appeals for a hearing to vary the terms of the Zoning by-laws of the Town of Avon, Acts of 1977 as amended or for a Special Permit at premises know as:

Street Address: 225 Bodwell Street
Map/Block/Lot: B7/3/3

In the following respect:

The applicant is requesting a variance on the sideyard setback of 25' to 3.4' in the Industrial District, to install equipment associated with the construction of a rooftop solar array, including a Battery Energy Storage System (BESS). The BESS has been sited in accordance with NFPA 855 – Standard for the Installation of Stationary Energy Storage Systems.

Or any limitation, extension, change, alteration or modification of use, or method of use as may at hearing appear as necessary or proper in the premises.

State briefly reasons for Variance / Special Permit:

See attached narrative

Petitioner NextGrid Inc

By Nathan A. Collins, PE

Address 23 Deer Hollow Rd, Forestdale, MA 02644
Telephone Number 774-269-1861

BUILDING DEPARTMENT

Robert C. Borden, Commissioner

Rborden@avon-ma.gov

Charles Comeau, Assistant Insp.

Al Campbell, Plumbing & Gas Insp.

Dennis Collum, Electrical Insp.

**Town of Avon
Massachusetts**



TOWN OFFICES

Buckley Center

65 East Main St. 02322

Tel (508) 588-0414

Fax (508) 559-0209

www.avon-ma.gov

VIA Email, Certified Mail and USPS

January 20, 2023

Luke Niemiec

Sunergy LLC

122 South Main St.

Acushnet, MA 02743

ONEG II LLC

71 Mason Terrace

Brookline, MA 02446

Dear Mr. Niemiec:

I must deny your building permit application for installation of roof-mounted solar electric panels and associated equipment located on the ground adjacent to the structure at 225 Bodwell St., Avon, MA.

All exterior work within the Industrial Park requires "site plan review" by the Avon Planning Board (see Avon Zoning By-Law 255-12.2). Additionally, the proposed location of the project is within the Avon Water Supply Protection Overlay District, which, as such, requires a "Special Permit" (see Avon Zoning By-Law 255-5.4) issued by the Avon Planning Board.

Both site plan review and the special permit hearings are generally conducted simultaneously. You must apply to the Avon Planning Board directly for the required public hearing.

Attached are the details of documents required and the application forms for the Town of Avon.

The battery storage system and associated structures (equipment) are located in the 25 foot required side yard set back of the Avon Industrial Zone (see Avon Zoning By-Law 255-6.4 Dimensional and Density Regulations Table).

Furthermore, the Mass. Fire Code has adopted NFPA 855 as reference for the fire protection and structural requirements for battery storage equipment and structures.

As Building Commissioner, pursuant to 780CMR Section 104.11 and in conjunction with Fire Chief Robert Spurr, we will require a third (3rd) party review, at your expense, of your plans and specifications for full compliance with NFPA 855 by a licensed design professional of our approval.

BUILDING DEPARTMENT

Robert C. Borden, Commissioner

Rborden@avon-ma.gov

Charles Comeau, Assistant Insp.

Al Campbell, Plumbing & Gas Insp.

Dennis Collum, Electrical Insp.

**Town of Avon
Massachusetts**



TOWN OFFICES

Buckley Center

65 East Main St. 02322

Tel (508) 588-0414

Fax (508) 559-0209

www.avon-ma.gov

You may appeal the above zoning decision for a variance of the side yard set back requirement from 25 feet to that necessary for your proposed installation to the Avon Board of Appeals, 65 E. Main St., Avon, MA 02322 within thirty (30) days of this notice.

You may appeal the building code decision within forty-five (45) days to:

Board of Building Regulations and Standards

Board of Appeals

1000 Washington St.

Boston, MA 02118

The Mass Building Code appeals application is available at the state website – Mass.gov/BBRS.

Sincerely:

Robert C. Borden
Building Commissioner
Town of Avon

CC: R. Spurr, Avon Fire Chief

P. Bessette, Town Clerk

L. McKenney, ZBA & Planning Board Secretary

P. Mamane, PO Box 7775 #73069, San Francisco, CA 94120

Encls.

**300' CERTIFIED ABUTTERS LIST
 225 BODWELL ST.
 AVON, MA (B7-3-3)
 FOR:
 NEXTGRID, INC.**

**Board of Assessors
 Certified Copy**
Susan M. Malen
 As of 2/28/23

Map	Block	Lot	Location	Owrrers Name	Mailing Address	City	St Zip
B6	1	13	200 Bodwell St.	CSMP Realty Trust, Linda I. Craig, Tr.	8 Pickens Ave.	E. Freetown	MA 02717
B6	1	14	210 Bodwell St.	Lodge #29 International Brotherhood of Boilermakers	210 Bodwell St.	Avon	MA 02322
B6	1	20	11 Ledin Ave.	N.E. Truck Solutions of Avon, LLC	11 Ledin Ave.	Avon	MA 02322
B6	1	21	1 Ledin Ave.	Cuming Microwave Corp., c/o PPG Industries	One PPG Place PO Box 25612	Pittsburgh	PA 15272
B6	2	1	215 Bodwell St.	Black Branch Terminals LLC	PO Box 25612	Richmond	VA 23260
B7	1	1	230 Bodwell St.	230 Bodwell RE LLC	25 Toby Garden St.	Duxbury	MA 02332
B7	1	2	238 Bodwell St.	238 Bodwell Street LLC	150 Old Page St.	Stoughton	MA 02072
B7	2	1	235 Bodwell St.	235 Bodwell Street LLC	30 Speen St.	Frammingham	MA 02060
B7	3	2	21 Parker Dr.	Atlantic Oliver II 21 Parker Dr. LLC, c/o Oliver St. Capital LLC	303 Congress St.	Boston	MA 02210
B7	3	22	1 Shawn Dr.	Patel, Suresh & Patel, Malini S.	1 Shawn Dr.	Avon	MA 02322
B7	3	23	3 Shawn Dr.	Vicki A. Parker, Tr., - Vicki A. Parker Trust Agreement of 2013	3 Shawn Dr.	Avon	MA 02322
B7	3	24	5 Teddy Dr.	Barros, Silvestre B. & Barros, Idalina J.	5 Teddy Dr.	Avon	MA 02322
B7	3	25	7 Teddy Dr.	Meressi, Tesfay G. & Meressi, Selomie W.	7 Teddy Dr.	Avon	MA 02322
B7	3	8	404 Page St.	Shawn Parker, Tr., Shawn Parker Trust Agreement of 2004	404 Page St.	Avon	MA 02322
B7	3	9	410 Page St.	Joseph, Pierre M.	410 Page St.	Avon	MA 02322



225 Bodwell St.

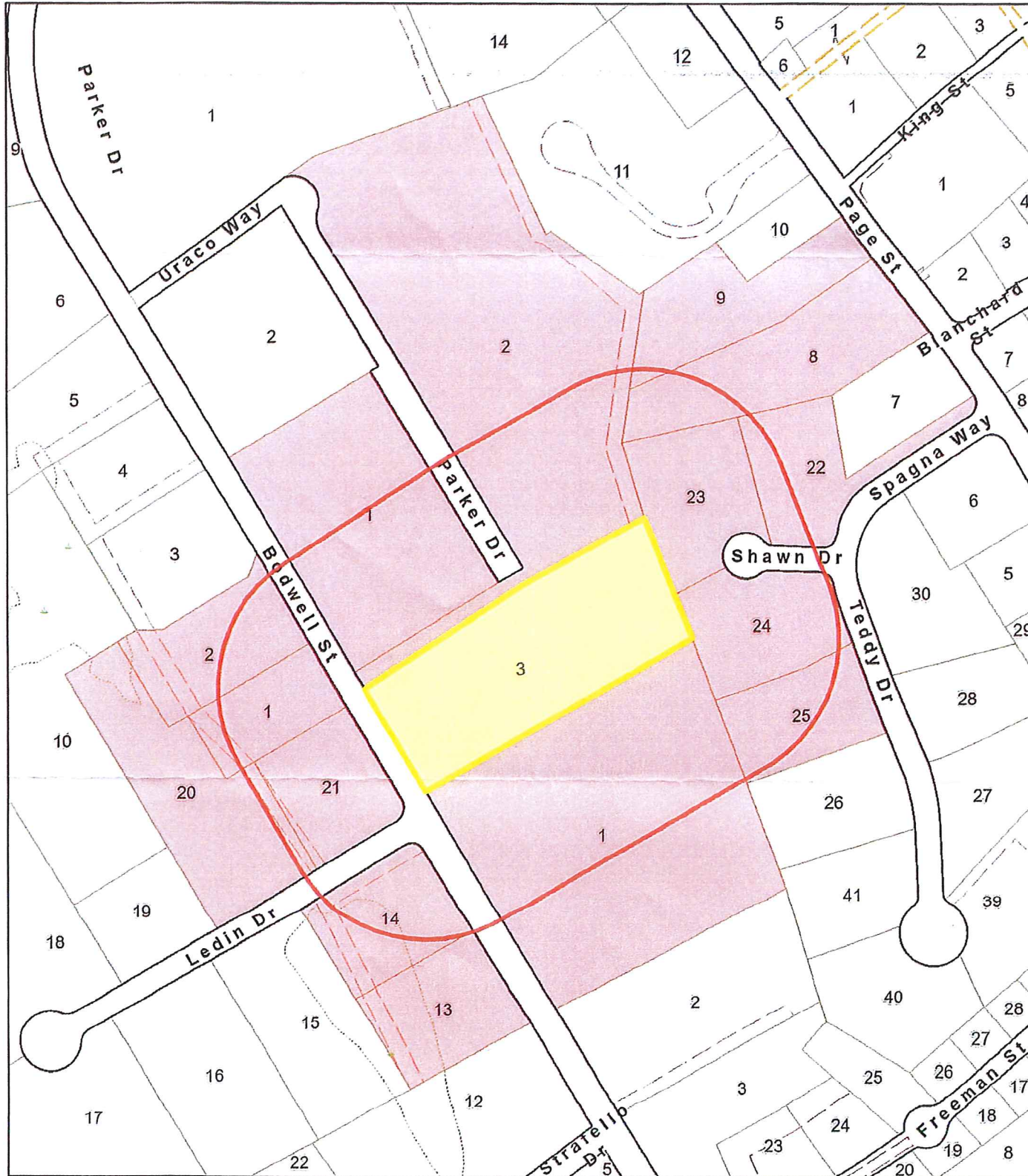
Avon, MA

1 inch = 279 Feet



www.cai-tech.com

March 21, 2023



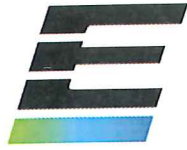
Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.



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Bodwell BESS

**Fire Control System
Summary**



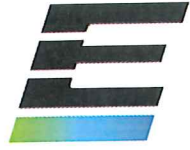
NextGrid – Bodwell BESS Fire Control System Summary

Owner/Buyer:
NextGrid

Prepared for:
Duane Moulton, CMK Construction
Nathan Collins, Nextgrid Inc.

Client RFP No. or Other Ref:
144712

Status / Rev.	Description	Date YYYY-MM-DD
R0	Initial Release	2023-02-16



NextGrid – Bodwell BESS Fire Control System Summary

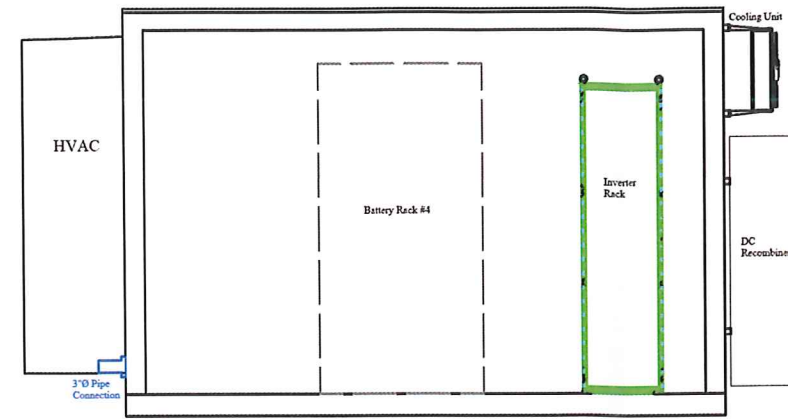
Contents

Fire Control System Summary	1
1 System Description	4
2 Battery Description	4
3 Battery Certifications	4
4 Fire Safety Controls and Features	5
5 Sequence of Operation	6

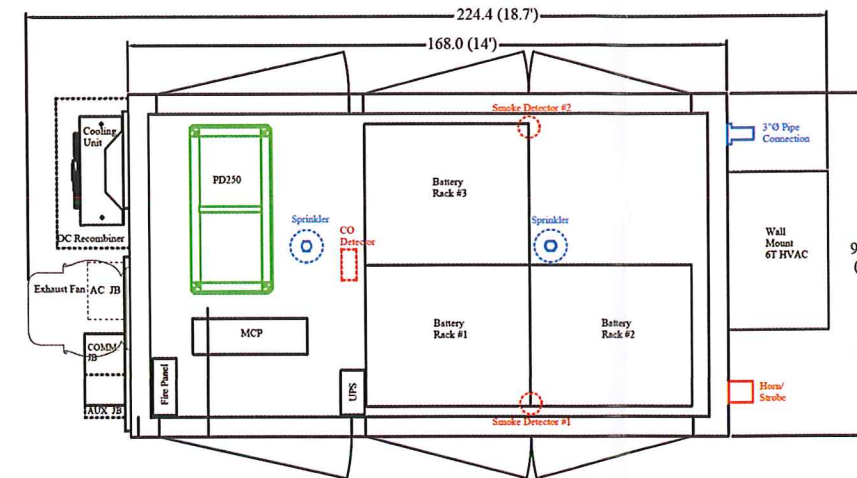


ENEON-ES
 10550 - 42nd St, SE, Suite 107
 Calgary, AB, T2C 5C7
 Tel: (403) 236-0333

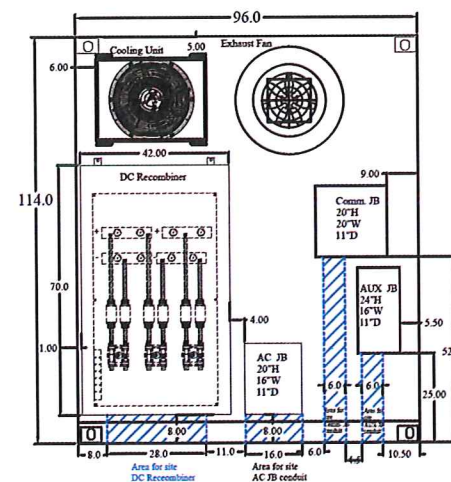
REV	DESCRIPTION	DATE
A	ISSUED FOR REVIEW	2022-04-05
0	ISSUED FOR CONSTRUCTION	2022-08-05



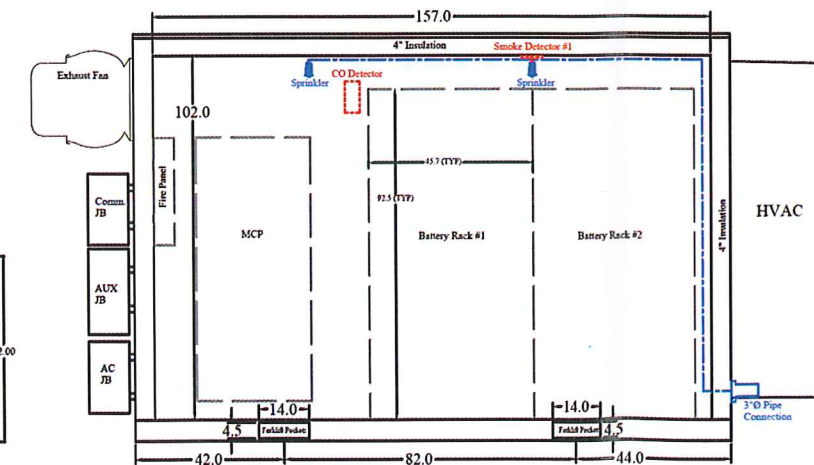
REAR INTERIOR ELEVATION VIEW



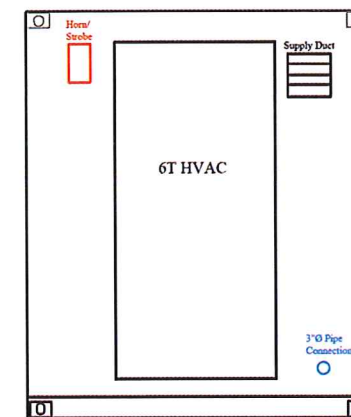
PLAN VIEW



LEFT ELEVATION VIEW



FRONT INTERIOR ELEVATION VIEW



RIGHT ELEVATION VIEW

PROPRIETARY AND CONFIDENTIAL
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 THE PURPOSE FOR WHICH IT IS INTENDED. IN
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 INFORMATION CONTAINED HEREIN WILL NOT BE
 COPIED, REPRODUCED, DISPLAYED OR PASSED ON
 TO A THIRD PARTY WITHOUT ENEON-ES'S WRITTEN
 CONSENT.

DRAWING TITLE:
BESS ENCLOSURE LAYOUT

	NAME	DATE
DRAWN	CL	2022-08-05
APPROVAL	HI	2022-08-05

PROJECT NAME:
**225 BODWELL ST,
 AVON, MA**

DWG. NO:
NXGT(BDWL)-BESS-LAYT-001

SCALE:	PAGE:	SIZE:
NTS	SHEET 1 OF 1	B
DATE:	2022-08-05	REV: 0