STAPLES PLAZA - III, YORKTOWN HEIGHTS, NY
1,958.4 kW-AC - 2,400 kVA - 7,833.6 kWh ENERGY STORAGE SYSTEM

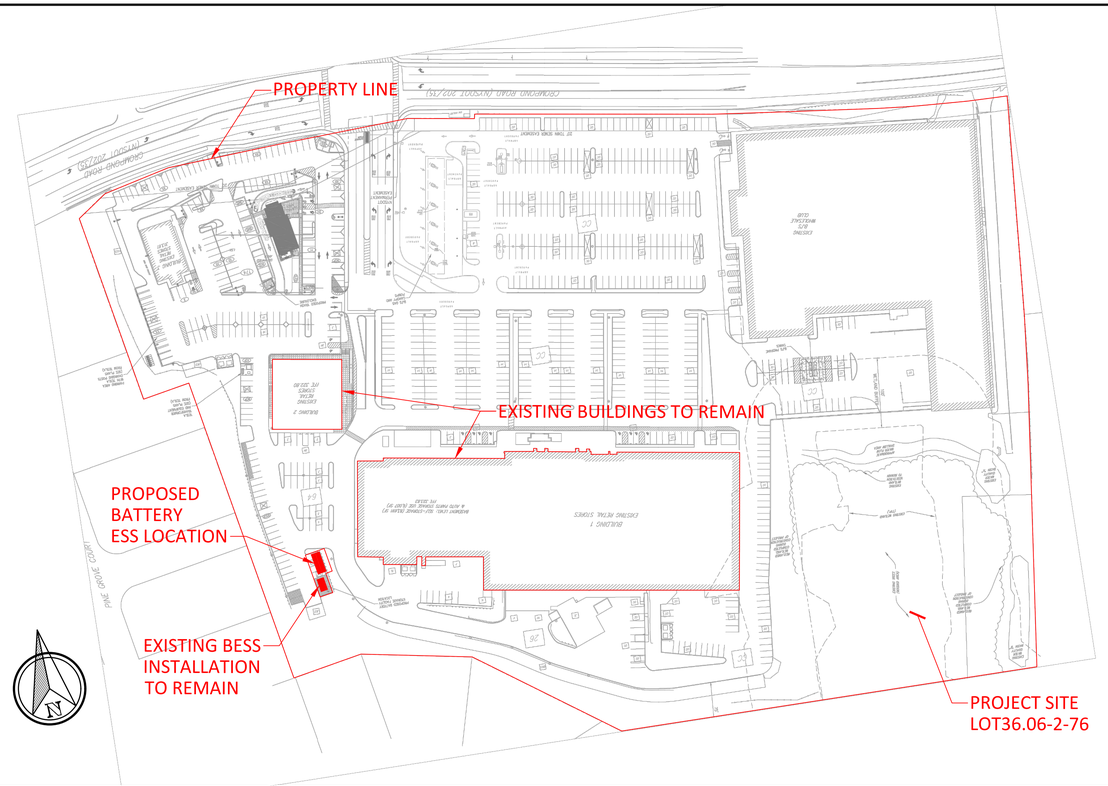
SCOPE OF WORK

INSTALLATION OF BATTERY UNITS, INVERTERS, ELECTRICAL CONDUITS, DISCONNECTS AND SUPPORT EQUIPMENT FOR ENERGY STORAGE SYSTEM (ESS) LOCATED AT 3333 CROMPOND ROAD YORKTOWN HEIGHTS, NY 10598

INSTALLER INFORMATION:

IPPSOLAR INTEGRATION
ADDRESS: 38W 32ND ST, SUITE 1004, NEW YORK, NY 10001

SHEET LIST



GENERAL NOTES

1. THE PROJECT CONSISTS OF FURNISHING, INSTALLING, COMMISSIONING AND STARTING UP A BATTERY ENERGY STORAGE SYSTEM AT THE PROJECT SITE.
2. THE PROPOSED BATTERY ENERGY STORAGE SYSTEM (BESS) IS TO BE ONE (2) TESLA MEGAPACK 2 XL UNIT RATED FOR 7,833.6 kWh.
3. THE INTENT OF THIS SET OF DOCUMENTS IS TO CONVEY TO THE TOWN BOARD AND CODE OFFICIALS AS CLEARLY AND COMPREHENSIVELY AS POSSIBLE THE SCOPE OF THE PROJECT, THE PROPOSED LOCATION FOR THE INSTALLATIONS AND TO UNDERSTAND THE TOWN REQUIREMENTS IN ORDER TO HAVE A FULLY COMPLIANT INSTALLATION.

PROPOSED BATTERY ENERGY STORAGE DETAILS

MANUFACTURER:	TESLA BATTERY
SERIES:	MEGAPACK 2 XL
TECHNOLOGY:	LITHIUM-ION CELLS
NUMBER TO UNITS:	(2) MEGAPACK 2 XL
RATED ENERGY CAP.:	7,833.6 KWH
AC VOLTAGE:	480 VOLTS AC, 3-PHASE
NOMINAL FREQUENCY:	60 Hz
INGRESS RATING:	IP66/NEMA 3R - MAIN ENCLOSURE IP20 - THERMAL SYSTEM
MAXIMUM WEIGHT:	84,000 LBS
DIMENSIONS:	W: 346 1/2 INCHES D: 65 INCHES H: 110 INCHES
REGULATORY:	NRTL LISTED TO UL 1642

BUILDING INFORMATION

SITE ADDRESS
3333 CROMPOND ROAD
YORKTOWN HEIGHTS, NY
10598

BUILDING OWNER
UB YORKTOWN, LLC
321 RAILROAD AVE
GREENWICH, CONNECTICUT
06830

PARCEL ID
36.06-2-76

ZONING
C-I (PLANNED RETAIL BUSINESS)

PROPERTY CLASS
453 (LARGE RETAIL OUTLETS)

Developer Name and Address

Rev#	Description	By	Date
7	Arch D size	PP	03-28-2023
6	Mr. Stoppi Cmnts	PP	02-23-2023
5	New MegaPack 2XL	PP	02-02-2023
4	ESS new location	PP	12-16-2022
1-3	Dwgs by other Engg	BB	03-21-2022

Project Info

Customer Name:
IPPSOLAR EVERGREEN LLC
Address:
3333 CROMPOND ROAD,
YORKTOWN HEIGHTS,
NY 10598

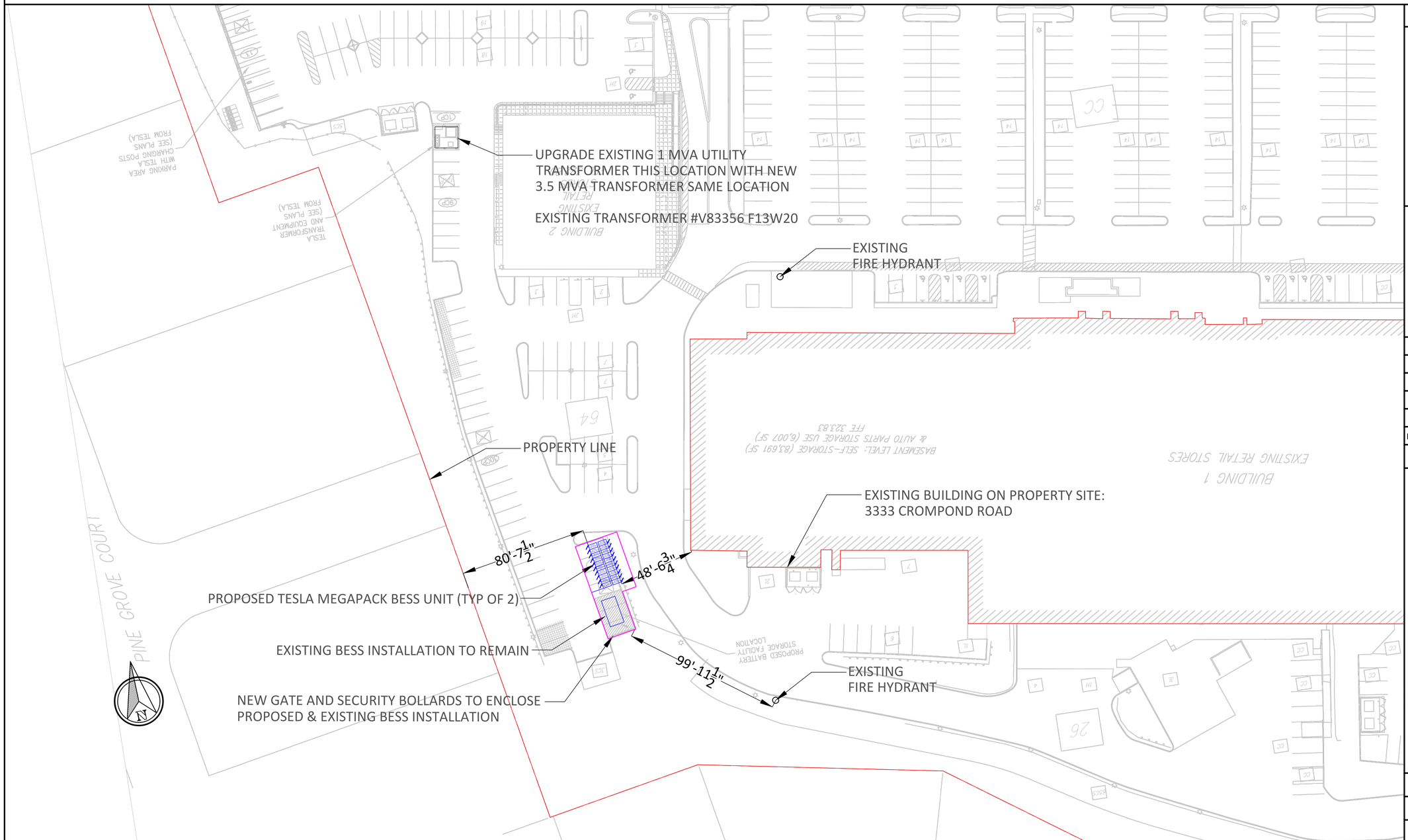
TESLA BATTERY UNIT.:	50 kVA
NO. OF BATTERY UNITS:	24
INVERTER MFG.:	TESLA
NO. OF INVERTERS:	2
INVERTER MODEL:	MEGAPACK 2XL
SYSTEM DC SIZE:	1,958.4 kW-AC
SYSTEM AC SIZE:	2,400 kVA
SYSTEM ENERGY:	7,833.6 kWh

Project No.	STAPLES PLAZA III
Scale	1" = 100'
Date	12-15-2022
Drawn by	PP

Sheet

PROJECT SCOPE	T-1.0

STAPLES PLAZA - III, YORKTOWN HEIGHTS, NY
1,958.4 kW-AC - 2,400 kVA - 7,833.6 kWh ENERGY STORAGE SYSTEM



APPROXIMATELY 100' TO FIRE HYDRANT
APPROXIMATELY 49' TO EXISTING BUILDING
APPROXIMATELY 80' TO PROPERTY LINE

1 / C-1.0 SITE MAP
SCALE: 1" = 30'

Developer Name and Address

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7	Arch D size	PP	03-28-2023
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Scale	AS SHOWN
Date	12-15-2022
Drawn by	PP

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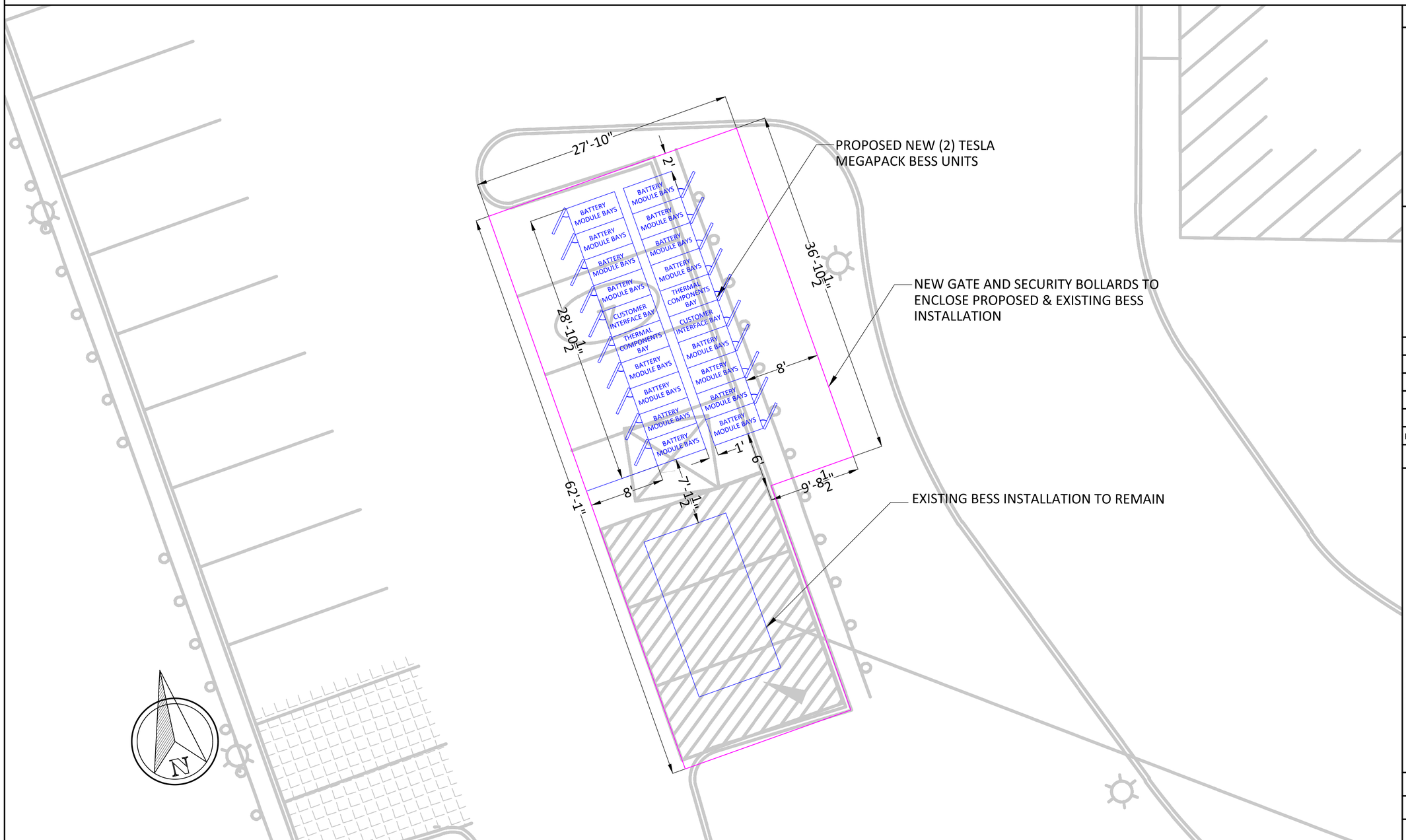
SITE MAP	C-1.0

STAPLES PLAZA - III, YORKTOWN HEIGHTS, NY
1,958.4 kW-AC - 2,400 kVA - 7,833.6 kWh ENERGY STORAGE SYSTEM



1 / C-1.1 PLAN VIEW: SITE

SCALE: 1" = 5'

Developer Name and Address

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SITE MAP	C-1.1

STAPLES PLAZA - III, YORKTOWN HEIGHTS, NY
1,958.4 kW-AC - 2,400 kVA - 7,833.6 kWh ENERGY STORAGE SYSTEM

Table 26. Default HVRT Settings

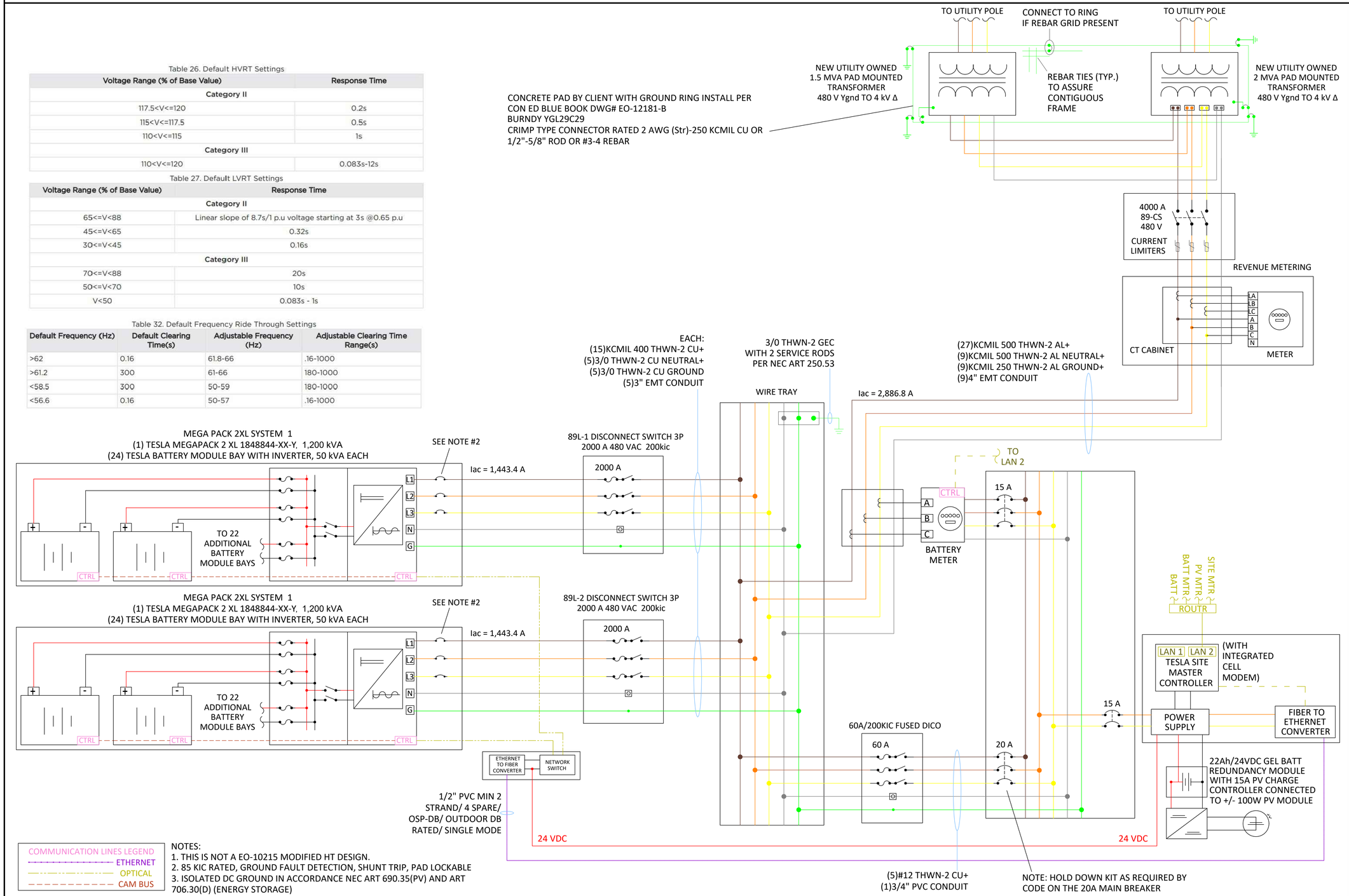
Voltage Range (% of Base Value)	Response Time
Category II	
117.5<V<=120	0.2s
115<V<=117.5	0.5s
110<V<=115	1s
Category III	
110<V<=120	0.083s-12s

Table 27. Default LVRT Settings

Voltage Range (% of Base Value)	Response Time
Category II	
65<=V<88	Linear slope of 8.7s/1 p.u voltage starting at 3s @0.65 p.u
45<=V<65	0.32s
30<=V<45	0.16s
Category III	
70<=V<88	20s
50<=V<70	10s
V<50	0.083s - 1s

Table 32. Default Frequency Ride Through Settings

Default Frequency (Hz)	Default Clearing Time(s)	Adjustable Frequency (Hz)	Adjustable Clearing Time Range(s)
>62	0.16	61.8-66	.16-1000
>61.2	300	61-66	180-1000
<58.5	300	50-59	180-1000
<56.6	0.16	50-57	.16-1000



COMMUNICATION LINES LEGEND
- ETHERNET
- OPTICAL
- CAM BUS

NOTES:
1. THIS IS NOT A EO-10215 MODIFIED HT DESIGN.
2. 85 KIC RATED, GROUND FAULT DETECTION, SHUNT TRIP, PAD LOCKABLE
3. ISOLATED DC GROUND IN ACCORDANCE NEC ART 690.35(PV) AND ART 706.30(D) (ENERGY STORAGE)

Developer Name and Address

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ELECTRICAL DIAGRAM — E-1.0

STAPLES PLAZA - III, YORKTOWN HEIGHTS, NY
1,958.4 kW-AC - 2,400 kVA - 7,833.6 kWh ENERGY STORAGE SYSTEM

NOTES

CERTIFICATIONS AND COMPLIANCE

- The Tesla Battery Energy System is certified through full scale fire testing to UL 9540A
- Installation meets NEC 2017
- NYSERDA Model Law
- The Tesla Battery Energy System complies with Chapter 12 of 2021 IFC and NFPA 855, 2021 Edition

NORMAL OPERATIONS PHASE

- Battery enclosures are locked and are not accessible to non-authorized personal
- Do not short circuit, puncture, incinerate, crush, immerse, force discharge or expose to temperatures above the declared operating temperature range of the product
- Never cut into a sealed enclosure: Only Tesla or Tesla approved service personnel are allowed to open the enclosures and perform maintenance tasks
- Installer shall install separate smoke and fire detection equipment for each enclosure. The equipment shall be able to send alerts to Lake Mohegan Fire Department
- If one of the enclosures has been visibly damaged, any odor, liquid or smoke detected, IMMEDIATELY REPORT to below and clear the area:
  - IPPsolar: 212-791-2100 (OR) Maziar Dalaeli: 646-765-4583 (OR) Karma Bhutia: 718-312-2364
  - Urstadt Biddle Properties: 203-863-8200
  - Tesla Energy Products: 650-681-6060
  - Lake Mohegan Fire Department: 914-526-0823
- Recommended evacuation distance : 50 ft minimum (See sitemap for location of emergency signage and yellow line painted boundary as determined by township)

STEPS TO BE TAKEN IF SMOKE DETECTED

Smoke or suspicious odor emanating from a Tesla Energy product can be an indication of an abnormal and hazardous condition. Battery thermal runaway fires are preceded by a period of smoke. If fire, smoke, or suspicious odor is observed emanating from the product at any time, perform the following

1. If possible, SHUT OFF the unit/system. Signage provided on site.
   A. Turn OFF AC Disconnect: Main disconnect switch located behind Urgent Care by the dumpster area, 300 ft away
   B. Turn OFF the DC Disconnect\ E-STOP
2. EVACUATE THE AREA, do not approach units
3. NOTIFY 911, Lake Mohegan Fire Department: 914-526-0823
   IPPsolar: 212-791-2100, Urstadt Biddle Properties: 203-863-8200

STEPS TO BE TAKEN IN THE EVENT OF FIRE: EMERGENCY RESPONSE

Manufacturer Notice: Rigorous full-scale fire testing has shown that Tesla Energy Products perform in a safe and controlled manner, consuming themselves slowly without explosive bursts or unexpected hazards, and without propagating to neighboring enclosure units.

Water shall not be sprayed directly upon Megapacks. Water should only be employed for "exposure fire protection" of adjoining structures, if necessary.

Risk of spillage of contaminated materials: In the event of fire, there is no leakage of electrolyte. The only potential leakage is the coolant made of glycol and water solution similar to antifreeze. Coolant is combustible material and will be consumed by flames.

Fumes: The smoke and fumes produced are no more hazardous than the smoke produced by simple wood fire. Distance to respect is function of weather; 40 feet is a safe distance unless there are strong winds. If the smoke were to have an adverse effect to the general public, a properly placed hoseline should be deployed to "scrub or channel" the smoke from the affected location.

It may take 24 hours or longer for the battery to consume itself and cool

APPLY DEFENSIVE FIREFIGHTING

No intervention to allow for self-consumption of remaining energy.

DO NOT'S

- Do not use water directly
- Do not spray the enclosure that is burning with water: water mixing with electrolytes will lead to electrolysis (separation of hydrogen and oxygen) and will contribute to the flammable gas mix
- Do not spray the vent on top of unit with water
- Avoid contact with vented gases: vented gases may irritate eyes, skin, throat, burn; vented gases can be very hot and may ignite with flame, spark, hot surface
- Do not approach the unit to open the enclosure door

DO'S

- Use water for exposure protection
- Respect a distance of 40 feet so the battery burns itself out
- Use Self-contained Breathing Apparatus (SCBA) and fire protective turnout gear as the smoke may contain toxic materials
- Firefighters are recommended to follow department procedure for the proper maintenance of PPE after any fire that they may encounter.

FIRST AID MEASURES

- Electrical Shock/ Electrocution: Seek immediate medical assistance
- Contact with Leaked Electrolyte: Flush immediately with water, wash affected area with soap and water; if chemical burn or irritation persists, seek medical assistance.
- Eye contact with Leaked Electrolyte: Flush with significant amounts of water for 15 minutes without rubbing and see physician at once
- Inhalation of Electrolyte Vapors: Move person into fresh air; if not breathing, give artificial respiration; seek immediate medical assistance
- Vent Gas Inhalation: Move person into fresh air; if not breathing, give artificial respiration; seek immediate medical assistance
- Urgent Care has an office 300 ft away North from the units' location for immediate assistance

STEPS TO BE TAKEN AFTER FIRE IS EXTINGUISHED

Tesla Energy Products will send a team to the site to remove the remains and to clear up. Contact IPPsolar and Tesla to proceed to site clear up.

LOCATION OF DOCUMENTS AND KEYS

A Knox brand document cabinet shall be provided and is installed inside the sprinkler/mechanical room adjacent to the white plains hospital building. The cabinet shall be supplied with all necessary documents and keys for the installation.

Developer Name and Address

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Project No.	STAPLES PLAZA III
Scale	NTS
Date	12-15-2022
Drawn by	PP

Sheet

SAFETY NOTES | E-1.1

STAPLES PLAZA - III, YORKTOWN HEIGHTS, NY
1,958.4 kW-AC - 2,400 kVA - 7,833.6 kWh ENERGY STORAGE SYSTEM

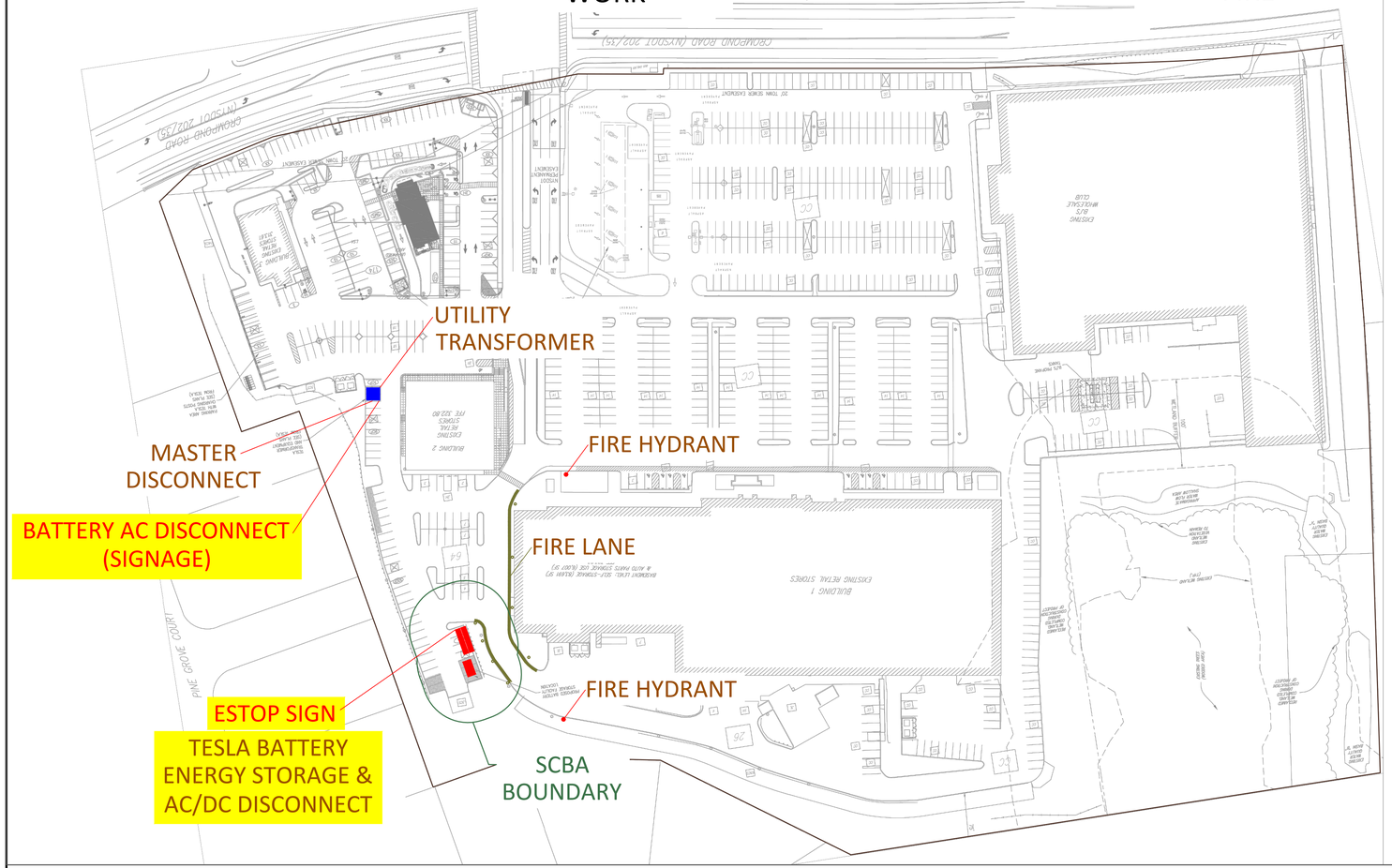
Safety glasses

Neoprene gloves

DO 3FT FOR ACCESSING SWITCH

3 FT 12 CAL PPE FOR ELECTRICAL WORK

50 FT SCBA IN THE EVENT OF FIRE



EMERGENCY RESPONSE:

> EVACUATE AREA CALL 911
MAINTAIN 50 FT BOUNDARY

> FIRST RESPONDER PROTOCOL:

1) MAINTAIN CIVILIAN BOUNDARY 50FT

2) MAINTAIN SCBA WITHIN BOUNDARY

3) SHUT OFF POWER

4) WATER WILL NOT STOP THERMAL RUNAWAY EVENT AS FIRE IS LOCATED BEHIND SEVERAL LAYERS OF STEEL MATERIAL. WATER ONLY DELAYS SELF COMBUSTION OF ENTIRE UNIT. STAND BACK 20 FT

5) SUPERVISE SITE FOR 24 HRS AFTER FIRE HAS STOPPED

6) ADVANCED EMERGENCY RESPONSE GUIDE AND FENCE KEY IS LOCATED IN FIRE ACCESS SYSTEM LOCKBOX

TESLA EMERGENCY CONTACT LINE:
(650) 681-6060

FIRST RESPONDER SITE MAP LABEL TO BE LOCATED AT ALL DISCONNECT MEANS ON SITE

Developer Name and Address

LABELS

E-1

Rev#	Description	By	Date
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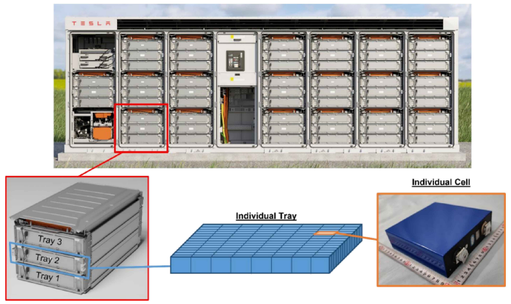
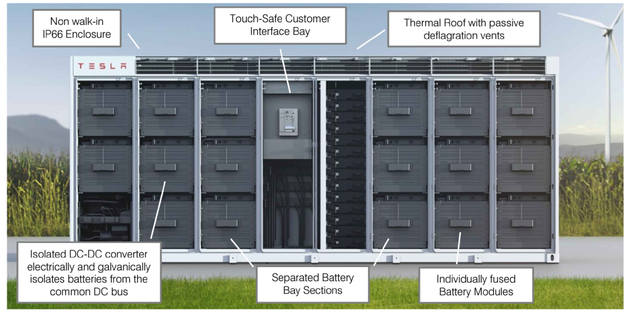
LABELS	E-1.2

STAPLES PLAZA - III, YORKTOWN HEIGHTS, NY
1,958.4 kW-AC - 2,400 kVA - 7,833.6 kWh ENERGY STORAGE SYSTEM

OVERVIEW: TESLA'S APPROACH TO SAFETY INVOLVES COMPREHENSIVE DESIGN AND TESTING AT EACH LEVEL OF THE MEGAPACK. VERTICAL INTEGRATIONS ACROSS DESIGN, MANUFACTURING, AND TESTING ENSURES THAT SAFETY FEATURES OF THE CELL, BATTERY MODULES, INVERTER, THERMAL SYSTEM, AND OVERALL SYSTEM-LEVEL COMPONENTS ARE CLOSELY LINKED AND NOT DECOUPLED.





CELL

CONTAINED WITHIN EACH BATTERY CELL IS A MICROCHIP THAT PROVIDES OVERPRESSURE, OVERTEMP AND OVERCURRENT PROTECTION

BUSBAR

EACH CELL IS CONNECTED TO THE BATTERY BUSBARS USING A FUSE TO PROVIDE AN ADDITIONAL OVERCURRENT

THERMAL MANAGEMENT SYSTEM

THE THERMAL MANAGEMENT SYSTEM CONTAINS A CLOSED-LOOP LIQUID COOLING SYSTEM THAT CIRCULATES LIQUID COOLANT THROUGHOUT THE BATTERY MODULES AND POWER ELECTRONICS TO MAINTAIN AN OPTIMUM OPERATING TEMPERATURE. THE TMS WORKS AUTONOMOUSLY AND DOES NOT REQUIRE USER FEEDBACK OR CONTROLS TO TURN THE SYSTEM ON WHEN NEEDED OR TO ADJUST TEMPERATURE SETTINGS. THE THERMAL ROOF, LOCATED ABOVE THE BATTERY BAYS WITHIN AN IP20 ENCLOSURE, PROVIDES A VENTILATION AIRSPACE AND CONTAINS FANS AND RADIATORS THAT COOL THE ETHYLENE GLYCOL-WATER SOLUTION. THE LIQUID COOLING SYSTEM UTILIZES APPROXIMATELY 360 LITERS (79 GALLONS) OF THE ETHYLENE GLYCOL-WATER SOLUTION, AND THE VAPOR COMPRESSION PORTION OF THE COOLING CYCLE UTILIZES 7.6 KILOGRAMS (16.8 POUNDS) OF R-134A REFRIGERANT.

INTEGRATED HEAT PUMP

THE MEGAPACK IS DESIGNED TO OPERATE AT TEMPERATURES BETWEEN -30 C TO 50 C. AS SUCH, AN ACTIVE LIQUID THERMAL MANAGEMENT SYSTEM IS INCORPORATED FOR HEATING AND COOLING OF BATTERY CELLS. RADIATORS, PUMPS, AND FANS, LOCATED AT THE TOP OF EACH CABINET (THE THERMAL ROOF) WITHIN EACH INDIVIDUAL MEGAPACK CIRCULATE A 50/50 ETHYLENE GLYCOL AND WATER MIXTURE THROUGH THE BATTERIES AND POWER COMPONENTS UNDER LOW PRESSURE LIKE A CAR RADIATOR. IN ADDITION TO THE LIQUID COOLANT, A REFRIGERANT (R134A OR 1,1,1,2-TETRAFLUOROETHANE) IS SEALED WITHIN A FULLY CLOSED-LOOP THERMAL SUBSYSTEM WITH A COMPRESSOR AND PRESSURE-RELIEF VALVE. THE DESIGN OF THIS SYSTEM ALLOWS ANY NECESSARY DISCHARGE FROM THIS VALVE TO BE CONTAINED WITHIN THE THERMAL BAY AND NOT RELEASED OUTSIDE OF THE MEGAPACK UNIT.

BATTERY MANAGEMENT SYSTEM

EACH BATTERY MODULE CONTAINS 12 BATTERY TRAYS THAT ARE HOUSED WITHIN THE SYSTEM, WITH TWO THERMAL SENSORS TO MEASURE THE TEMPERATURE OF THE FLUID AS IT ENTERS AND EXITS THE SYSTEM TO DETERMINE HOW MUCH HEAT WAS REMOVED. THE APPLICATION OF THIS TECHNOLOGY WHEN PAIRED WITH A THERMAL SYSTEM AND BATTERY BALANCER CIRCUIT CONTINUOUSLY KEEPS THE BATTERIES AT NOMINAL CONDITION I.E. NOT TOO HOT AND NOT TOO COLD.

MEGAPACK

NUMEROUS DEDICATED SAFETY MEASURES ENSURE THAT MEGAPACK PROVIDES THE HIGHEST LEVEL OF SAFETY:

- A PARALLEL BATTERY MODULE ARCHITECTURE (UP TO 17 PER MEGAPACK) PROVIDES OPTIMIZED PERFORMANCE AND REDUNDANT SAFETY CONTROL, REDUCING THE RISK OF CASCADING FAILURES.
- DEDICATED DEFLAGRATION VENTS IN THE ENCLOSURE'S ROOF ARE DESIGNED TO MITIGATE THE IMPACT OF THERMAL RUNAWAY ON SURROUNDING EXPOSURES AND PERSONNEL
- THE CUSTOMER INTERFACE BAY IS A TOUCH-SAFE BAY LOCATED AT THE CENTER OF THE ENCLOSURE. IT IS DESIGNED TO BE THE ONLY INTERFACE REQUIRED FOR INSTALLATION, OPERATION, AND MAINTENANCE.
- MEGAPACK'S WEATHERPROOF STEEL ENCLOSURE IS RATED TO IP66 (NEMA 4) AND PROVIDES ROBUST PROTECTION AGAINST EXTREME ENVIRONMENTAL, CHEMICAL, AND PHYSICAL EXPOSURES.

RESULTS:

TO CREATE A SIGNIFICANT FIRE IN TESLA ENERGY PRODUCTS, THE ENCLOSURES NEED TO BE SUBJECT TO AN EXTERNAL EVENT, SUCH AS DIRECT EXPOSURE TO A LARGE PROLONGED FIRE OR SEVERE PHYSICAL IMPACT. IN THE EVENT OF A FIRE, RIGOROUS FULL-SCALE FIRE TESTING HAS SHOWN THAT TESLA ENERGY PRODUCTS PERFORM IN A SAFE AND CONTROLLED MANNER, CONSUMING THEMSELVES SLOWLY WITHOUT EXPLOSIVE BURSTS OR UNEXPECTED HAZARDS, AND WITHOUT PROPAGATING TO NEIGHBORING ENCLOSURE UNITS. MEGAPACK INCLUDES DEDICATED DEFLAGRATIONS VENTS BUILT INTO THE ROOF TO MITIGATE DAMAGE TO THE EQUIPMENT AND SURROUNDING PERSONNEL AND EXPOSURES IN CASE OF HAZARDOUS THERMAL RUNWAY OR ARC FLASH EVENTS. HAZARDS ARE VENTED UPWARDS, ENSURING RESPONSE PERSONNEL AND EXPOSURES ON THE GROUND ARE NOT DIRECTLY EXPOSED.

FIRE LANE SIGNAGE DETAIL

Developer Name and Address

LABELS

E-1

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LABELS

E-1.3

Grid transformation for the world's largest energy projects
- Best-in-class energy density and round-trip efficiency
- Industry-leading power electronics and thermal system performance
- Rapid and cost-effective deployment with factory-assembled and pre-tested solution

Scaled and rigorously tested product safety and reliability
- Comprehensive in-house reliability testing by the leading experts in the industry
- Engineered for safety and performance at every level
- Continuous improvement based on large-scale operational experience

Designed with flexibility and configurability in mind
- Modular architecture that allows for a range of configurations across multiple applications
- Industry experts available to identify site-specific needs
- Integrated solution that allows for battery augmentation over time

POWER AND ENERGY

Megapack duration is configurable. Standard configurations are 2-Hour and 4-Hour durations. Nominal energy is specified at 25°C (77°F).

	AC Power per Megapack	Energy per Megapack
2-Hour	1927 kW	3854 kWh
4-Hour	979 kW	3916 kWh

ELECTRICAL

Nominal AC Voltage	480 V AC 3-phase	
Nominal Frequency	50 or 60 Hz	
Inverter Power per Megapack[1]	2-Hour Max: 4-Hour Max:	2400 kVA 1320 kVA
Round-Trip Efficiency[2]	2-Hour: 4-Hour:	92.0% 93.5%

[1] Scalable from 400 kVA minimum in increments of 50 kVA
[2] Full-depth cycle including all power conversion and thermal system losses, at 25°C (77°F)

WARRANTY

Coverage	All-inclusive, equipment and energy retention
Term	15 years standard, extendable to 20 years

PART NUMBER

1848844-XX-Y Where X is a number between 0-9 and Y is a letter

MECHANICAL AND MOUNTING

Ingress Ratings	IP66/NEMA 3R (Main Enclosure) IP20 (Thermal System)
Enclosure Dimensions +/- 13 mm (½ in)	Width: 8800 mm (346 ½ in) Depth: 1650 mm (65 in) Height: 2785 mm (110 in)
Maximum Weight	38,100 kg (84,000 lb)
Operating Ambient Temperature	-30°C to 50°C (-22°F to 122°F)

REGULATORY

System is compliant to grid codes and safety standards of all major markets.

System	NRTL listed to UL 1973, UL 9540, UL 9540A, UL 1741 SB, IEC 62619, IEEE 1547
Cells	NRTL listed to UL 1642

CONTROLS AND COMMUNICATIONS

Protocols	Modbus TCP / DNP3 / REST API	
Core Control Modes	Direct Real Power Direct Reactive Power Frequency Support Virtual Inertia	Ramp Rate Control Site Control Power Factor Control Voltage Control

MONITORING

Powerhub	Free-to-use cloud monitoring portal

2.4.1.7 Battery Module Configurations

Table 21. Current Available Battery Configurations

Battery Module Option Code	Battery Module Count	2-Hour Megapack Rating			4-Hour Megapack Rating		
		AC Rated Real Power (kW)	AC Minimum Initial Energy (kWh)	Max. AC Apparent Power (kVA)	AC Rated Real Power (kW)	AC Minimum Initial Energy (kWh)	Max. AC Apparent Power (kVA)
EC08	8	642.4	1284.8	880	326.4	1305.6	440
EC09	9	722.7	1445.4	990	367.2	1468.8	495
EC10	10	803	1606	1100	408	1632	550
EC11	11	883.3	1766.6	1210	448.8	1795.2	605
EC12	12	963.6	1927.2	1320	489.6	1958.4	660
EC13	13	1043.9	2087.8	1430	530.4	2121.6	715
EC14	14	1124.2	2248.4	1540	571.2	2284.8	770
EC15	15	1204.5	2409	1650	612	2448	825
EC16	16	1284.8	2569.6	1760	652.8	2611.2	880
EC17	17	1365.1	2730.2	1870	693.6	2774.4	935
EC18	18	1445.4	2890.8	1980	734.4	2937.6	990
EC19	19	1525.7	3051.4	2090	775.2	3100.8	1045
EC20	20	1606	3212	2200	816	3264	1100
EC21	21	1686.3	3372.6	2310	856.8	3427.2	1155
EC22	22	1766.6	3533.2	2400	897.6	3590.4	1210
EC23	23	1846.9	3693.8	2400	938.4	3753.6	1265
EC24	24	1927.2	3854.4	2400	979.2	3916.8	1320