San Jose Masterfile for mounting the Lunar Battery

The **Lunar Battery** (LE-ESS-20kWH) is an integrated energy storage system. It is comprised of a DC coupled PV and battery hybrid inverter and (4) Lunar Battery Blocks (modules), field assembled into a Multi-Part ESS unit, as defined in UL9540 (Section 6.28, Rev June 2023).

SCOPE OF WORK ESS INSTALLATION WALL OR FLOOR MOUNT
LUNAR BATTERY (ESS) SYSTEM SIZE 9.6 kW AC, 20 kWh
PV SYSTEM SIZE Site Specific
PROJECT ADDRESS Site Specific
JURISDICTION San Jose
APN Site Specific
PROPERTY OWNER Site Specific
OWNER'S ADDRESS Site Specific
OWNER'S PHONE Site Specific

Prepared by:
Lunar Energy Services LLC
CSLB # 1119266

Kyle Breuning, Applications Engineer - kbreuning@lunarenergy.com,

CODE SUMMARY
2022 CALIFORNIA BUILDING CODE
2022 CALIFORNIA ELECTRIC CODE (CEC)
2022 CALIFORNIA FIRE CODE
2022 CALIFORNIA ENERGY CODE
2022 CALIFORNIA RESIDENTIAL CODE
2022 CALIFORNIA EXISTING BUILDING CODE

Occupancy Type: R-3
Construction Classification: Type V

SHEET INDEX
0. Cover page
1. ESS Overview
2. Outdoor Clearances
3. Indoor Installations
4. Product Clearances
5. Fasteners
6. Wall Mount Calculations
7. Floor Mount Calculations

1. Energy Storage System (ESS)/Battery System Comments for ADU Under 2022 Code:

1) Show location of ESS on Electrical Plan. ESS can only be installed in one of the following areas:
a. Attached garages
b. Detached Garages
c. Outdoors or on exterior walls at least 3 ft away from doors or windows
d. Enclosed utility closets, basements, storage or utility spaces within dwelling units with finished or noncombustible walls and ceilings.
e. ESS shall NOT be installed in sleeping rooms, or closets or spaces opening directly into sleeping rooms or in habitable spaces of dwelling units.
2) State the kW of battery system as proposed in T24 energy report on Electrical Plan.
3) Show interconnected smoke alarm in the space/room where ESS is installed indoors.
4) If the space/room is unfinished, the walls and ceiling shall be protected by 5/8 inch Type X gypsum board.

Reviewed for Code Compliance
City of San Jose, Building Division
☒ **Building** ☐ **Electrical**
☐ **Plumbing** ☐ **Mechanical**
Kiet Pham (408) 535-7773
No. 24-102993 **Date:** 9/23/2024

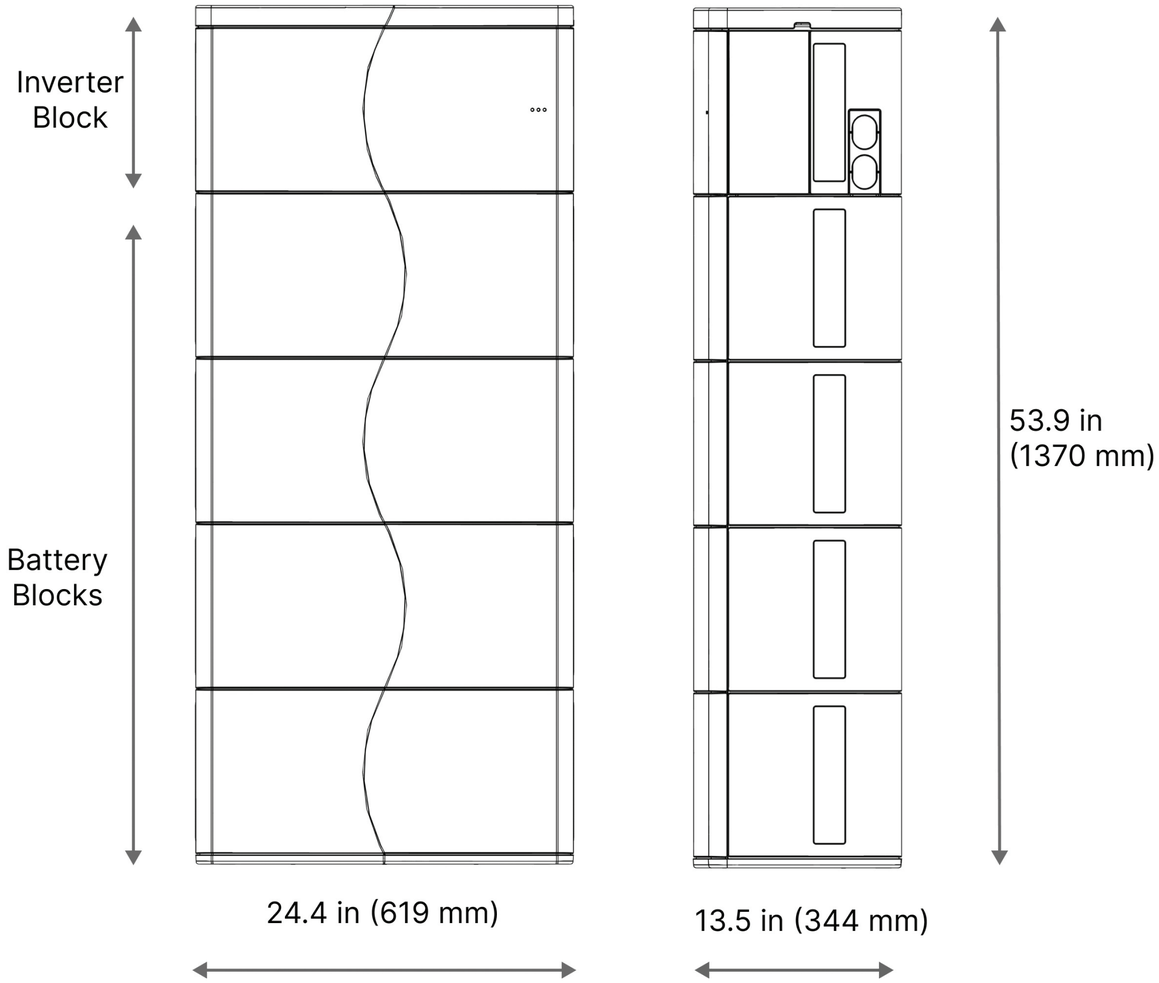
REGISTERED PROFESSIONAL ENGINEER
ANDREW OESTERREICHER
No. C 81428
CIVIL
STATE OF CALIFORNIA

STAMPED AND SIGNED FOR STRUCTURAL ONLY

PC 24-102993 MASTER FILE

Contact: Kyle Breuning, kbreuning@lunarenergy.com

The **Lunar Battery** (LE-ESS-20kWH) is an integrated energy storage system. It is comprised of a DC coupled PV and battery hybrid inverter and (4) Lunar Battery Blocks (modules), field assembled into a Multi-Part ESS unit, as defined in UL9540 (Section 6.28, Rev June 2023).



LE-ESS-20KWH unit shown

Inverter Block

Nominal Voltage	120/240 Vac Split Phase
Output Voltage Range	210 Vac - 264 Vac
Grid Frequency	60 Hz
Maximum Continuous AC Power, on-grid	9.6 kVA full sun / 6.6 kVA no sun
Maximum Continuous AC Power, off-grid	9.6 kW (full sun and no sun)
Peak AC Power, off-grid	15 kW for 5s
Maximum Continuous AC Current	40 A
Overcurrent Protection Device	50 A Breaker
Operating Input Voltage	380 - 450 Vdc
Maximum DC Input Current	37.5 A (PV), 30 A (battery)
Maximum PV Input Power	15 kWdc
Total Harmonic Distortion	<5%
Power Factor	0.85 lagging to 0.85 leading
PV Rapid Shutdown Switch and System Disconnect	Yes, lockable

Battery Block

Usable Energy	5 kWh[1]
Operating Voltage Range	190 Vdc - 225 Vdc
Maximum Continuous Charge Power	1.6 kW
Maximum Continuous Discharge Power, on-grid	1.6 kW
Maximum Continuous Discharge Power, off-grid	2.5 kW
Peak Discharge Power, off-grid	3.75 kW (5s)

System

Model Number	LE-ESS-20KWH
Usable Energy	20 kWh (4 Battery Blocks x 5 kWh)[1]
Max Load Start Capability	134 LRA[2]
Warranty	12.5 Years / 75 MWh AC throughput
Customer Interface	Customer App, Installer App, Fleet Web Portal, APIs, LED
Operating Modes	Lunar Mode, Solar Self-Consumption, Time-of-use, Backup
Advanced Software Features	Weather Watch, Virtual Power Plant enabled
Communication	Wi-Fi, 4G/LTE (CAT M1), Ethernet

[1] Available AC energy measured at 25°C, E/3 charge and discharge power. Fully available for daily cycle

[2] Subject to base load at the time of motor start

[3] Performance may be de-rated at operating temperatures below 0°C (32°F) or greater than 45°C (113°F).

Environmental

Ingress Rating	ESS: NEMA 3R Inverter Block: NEMA 3R Battery Block: NEMA 4X, IP68
Operating Temperature	-4°F to 122°F (-20°C to 50°C)[3]
Storage Conditions	Absolute Limits: –4°F to 140°F (-20°C to 60°C) < 95% RH 1 month: –4°F to 113°F (-20°C to 45°C) <60%RH 2 months: 32°F to 95°F (0°C to 35°C) <60%RH Up to 24 months: 65°F to 82°F (18°C to 28°C) <60%RH
Altitude	Up to 9843 ft (3000 m)

Mechanical

Dimension (L x W x D)	Inverter Block: 10.6" x 24.4" x 13.5" (270 mm x 619 mm x 344 mm) Battery Block: 10.6" x 24.4" x 13.5" (270 mm x 619 mm x 344 mm) System: 53.9"x 24.4" x 13.5" (1370 mm x 619 mm x 344 mm)
Mass	Inverter Block: 42 lb (19 kg) Battery Block: 95 lb (43 kg) System: 499 lb (226 kg) for total assembly + brackets
Mounting	Wall or floor mount

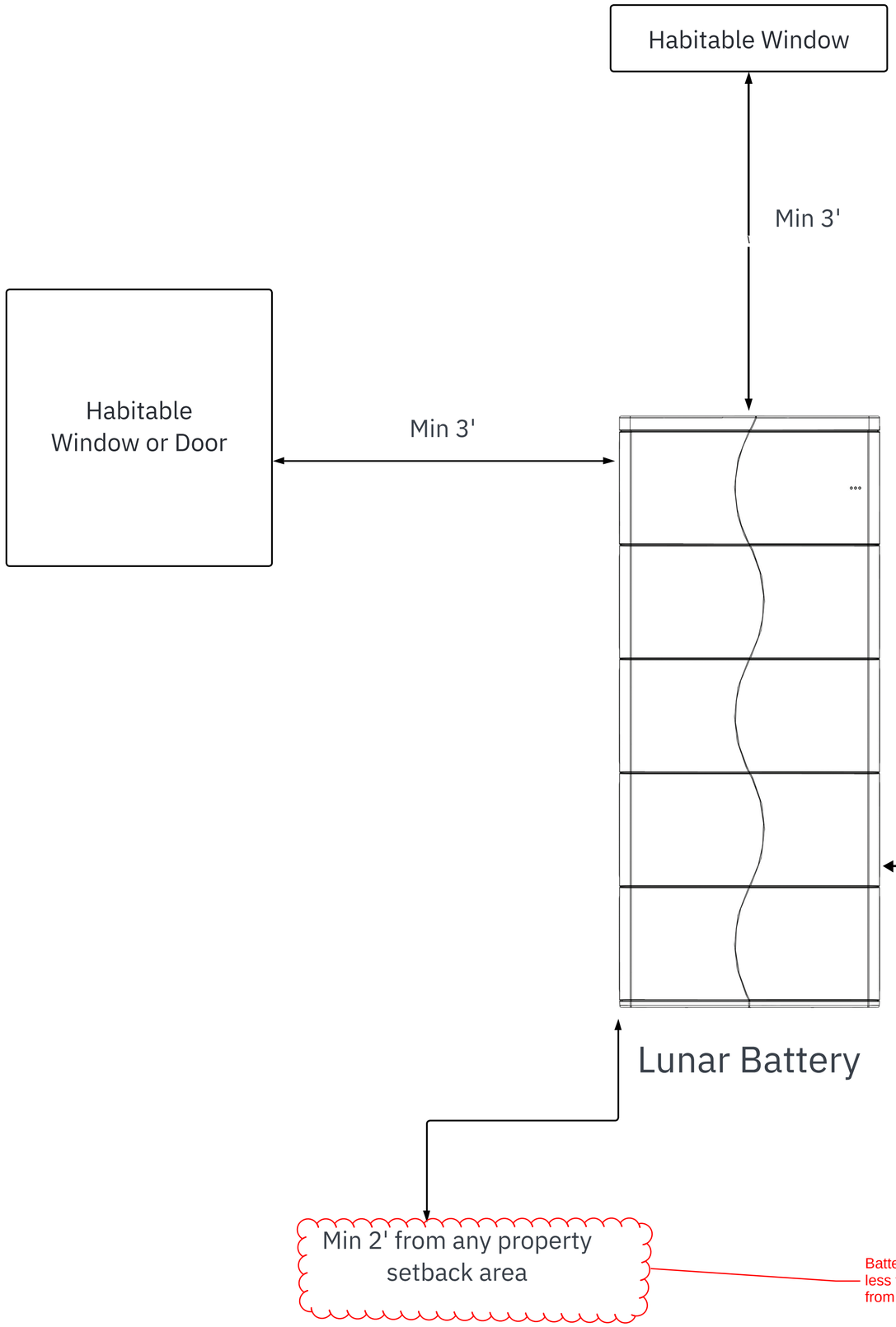
Compliance

Certifications	**Inverter Block:** UL 1741, UL 1741 SB, UL 1699B, CSA C22.2. No. 107.1 **Battery Block:** CAN/UL 1973, UN 38.3 **System:** CAN/UL 9540, UL 9450A (indoor and outdoor)
Grid Connection	IEEE 1547.1-2020, IEEE 1547.1-2018 SunSpec IEEE 2030.5 / CSIP
Emissions	FCC Part 15 Class B
Seismic	IEEE 693 (High)

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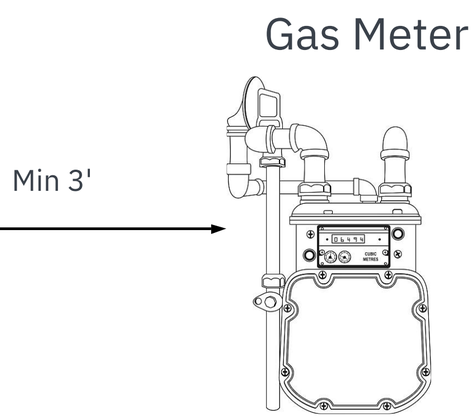
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No. 24-102993 Date: 9/23/2024



Lunar Battery shall be installed minimum 3' from any habitable windows or doors, 3' from property line, and 3' from horizontal clearance from closest edge of electrical equipment to the gas meter.

Lunar Battery may also project horizontally for a distance of not more than 2' into any setback area.

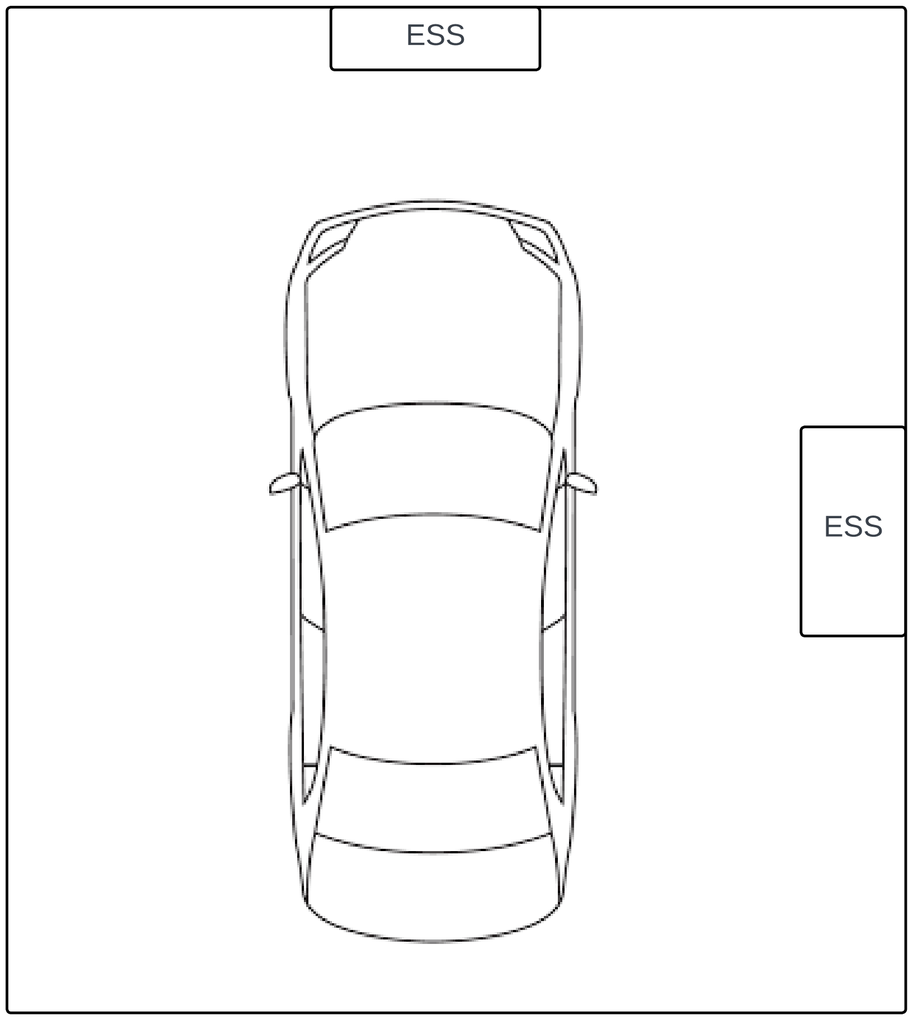


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When installed on an end wall in front of minimum drive aisle, Lunar Battery must be installed a minimum 30" above finished grade or provided with approved barrier subject to review by AHJ.



Minimum garage width:
compact = 8' minimum drive aisle + 3' for working clearance + 1.5' for Lunar ESS
standard = 9' minimum drive aisle + 3' for working clearance + 1.5' for Lunar ESS
2 car garage = 18' minimum drive aisle + 3' for working clearance + 1.5' for Lunar ESS

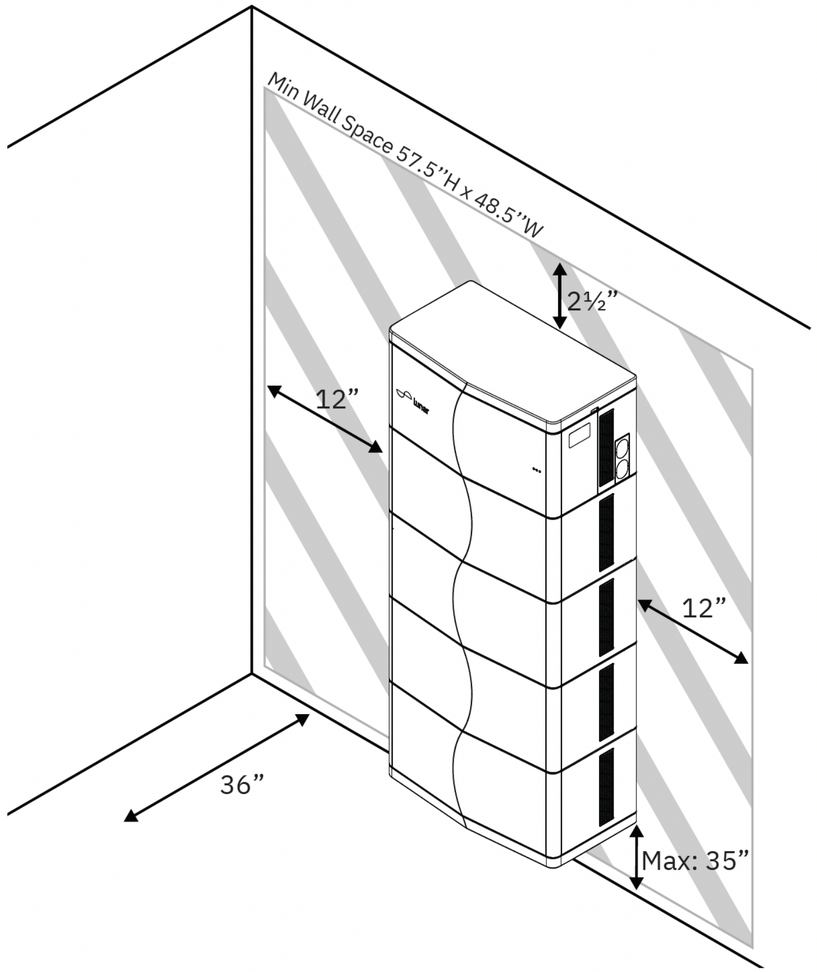
Per UL 9540A Test Report:
Smallest room volume specified by manufacturer = 28.3168 m^3 = 988 ft^3

Reviewed for Code Compliance
City of San Jose, Building Division
☒ Building ☐ Electrical
☐ Plumbing ☐ Mechanical
Kiet Pham (408) 535-7773
No. 24-102993 Date: 9/23/2024

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Manufacturer required clearances are as follows:



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City of San Jose, Building Division
☒ Building ☐ Electrical
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Kiet Pham (408) 535-7773
No. 24-102993 Date: 9/23/2024

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Note
Use hot dipped galvanized fasteners for mounting outdoors

Floor mounting of the Lunar ESS shall follow the same installation steps as the Wall Mounting details in this document.

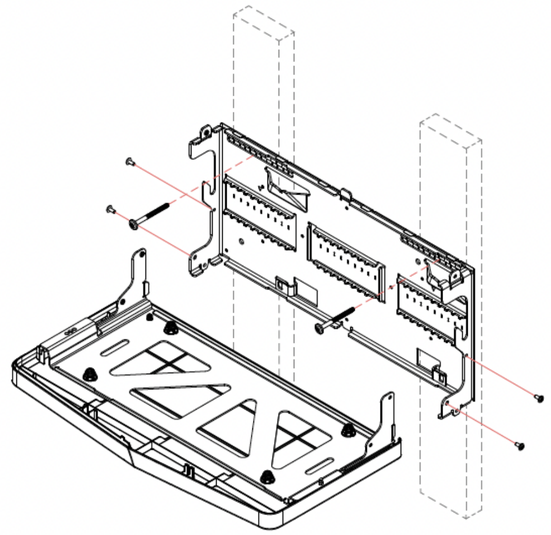
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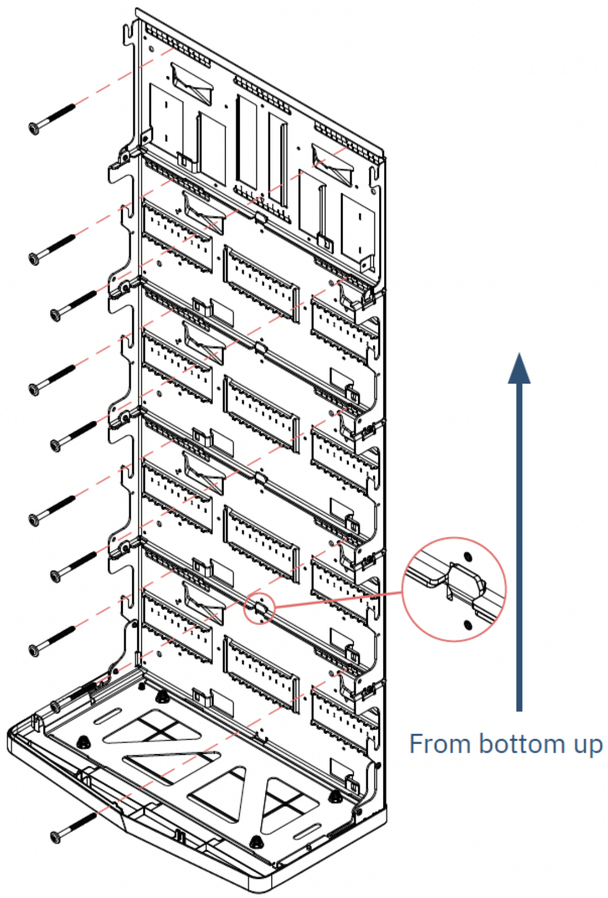
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Lunar Battery Wall Mounting

1. Screw bottom bracket to the wall studs
   Use two ¼" lag screws with 2" embedment
2. Attach the bottom plate to the first bracket
   Use 4x included M5 screws
   (torque 5.0 N-m +/- 10%)



3. Seat next wall bracket ontop
   Align notch with the tab on bracket below
4. Screw bracket to the wall studs
   Use two ¼" lag screws with 2" embedment
5. Repeat steps 3 & 4 for each wall bracket
   Use two screws for each bracket
6. Install Inverter Bracket ontop
   Seat ontop of battery bracket and screw to wall with 2 screws



AOstructures Inc.
PO Box 413
Carnelian Bay, CA 96140
916.541.8586
www.AOstructures.com

June 3, 2024

TO: Lunar Energy

SUBJECT: Lunar Battery Anchorage - California

SCOPE OF WORK:
AOstructures, Inc. was asked to provide the structural anchorage design for a typical wall mounted Lunar Battery System to an existing wood framed wall consisting of typical 2x4 (minimum) studs @ 16" o.c. to resist seismic forces. The subject battery system consists of (4) battery blocks and (1) inverter. Each component is attached modularly to a wall mounting bracket. Each wall mounting bracket is fastened to the studs using (2) lag screws and clips to the adjacent mounting bracket modularly.

LIMITATIONS:
The scope of this report is strictly limited to the anchorage of the above specified wall mounting brackets to the existing wall framing only. No evaluation of the existing structure or any of the manufacturer provided elements (i.e. batteries/inverters/mounting brackets/base/etc.) is included or implied in the scope of this report. The calculations that follow are designed with the following design criteria and are only applicable for sites with design criteria less than that specified below:

DESIGN CRITERIA:
- Applicable Codes = 2022 CBC, ASCE 7-16
- Risk Category II
- Seismic: Sds = 2g, I = 1.0, ap = 1.0, Rp = 1.25, Cs =0.75*W

EQUIPMENT SPECIFICATIONS:
- Equipment:
  - (1) Lunar Battery - weighing no more than 500#
- All equipment shall be installed per manufacturer specifications

CONCLUSIONS:
Each modular mounting bracket shall be attached to the existing framing using a minimum of (2) 1/4"Ø Lag Screw fasteners installed into (2) different existing 2x studs. With a total of (4) battery blocks and (1) inverter, the final attachment method shall consist of a total of (10) fasteners into the studs. The fasteners shall be installed at manufacturer provided mounting holes and shall be installed within the middle 1/3 of the stud member with a minimum threaded embedment of 1.5" into the existing wood stud framing in the wall.

TABLE OF CONTENTS
- Letter
- Lateral Loading (Fp)
- Anchorage Calculations
- Appendix

Please contact me with any further questions or concerns regarding this project.

Sincerely,

REGISTERED PROFESSIONAL ENGINEER
ANDREW OESTERREICHER
No. C 81428
CIVIL
STATE OF CALIFORNIA

Andrew Oesterreicher, P.E.
Project Engineer

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SEISMIC ANCHORAGE OF MECHANICAL EQUIPMENT
Fp (Wall Mounted Equipment)
Per ASCE 7-16, Chapter 13

Design Values		
Sds =	2.00	
Importance Factor =	1.00	(Tabel 1.5-2)
Seismic Design Category =	D	(Table 11.6-1)
Component Response Modification Factor (Rp) =	1.50	(Table 13.6-1)
Component Amplification Factor (ap) =	1.0	(Table 13.6-1)
Component Importance Factor (Ip) =	1.0	(13.1.3)
z/h =	0.50	
Equipment Weight (Wp') =	500 lb	(Total assembly Weight)

Seismic Design Force

$$F_p = \frac{0.4 * a_p * SDS * W_p}{(R_p / I_p)} (1 + 2z/h) = 533.3 \text{ lb}$$ (13.3-1) **Governs**

Fp (min) = 0.3 * SDS * Ip * Wp = 300.0 lb (13.3-3)

Fp (max) = 1.6 * SDS * Ip * Wp = 1600.0 lb (13.3-3)

Ωo = 1.0 No Concrete or Masonry Anchorage

Ωo Fp = 533.3 lb (ultimate)

0.7ΩoFp = 373.3 lb (ASD)

Seismic Design Force (Vertical Load)

Fp (vert) = 0.2* Sds * Wp = 200.0 lb (12.14-6)

Fp (vert) = 200.0 lb (ultimate)

0.7 Fp = 140.0 lb (ASD)

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Fastener (to Wood Framed Wall) Capacity Check - Shear and Withdrawl

Demand Loads			
Vertical Seismic Force Demand =	140 lb		(See Fp Calcs)
Lateral Shear Demand =	374 lb		(See Fp Calcs)
Equipment Weight =	500 lb		

Fastener Selection			
Fastener =	1/4"Ø Lag Screw		
Number of Fasteners =	10		
Stud Width =	1.500 in	in	
Required Edge Distance =	0.625 in	in	(2.5 * d as per NDS)
2x Edge Distance + Fastener Diameter =	1.500 in	in	= OR < stud width, OK!

Fastener Withdrawl Capacity Check (Seismic force away from the wall)		
Withdrawl Shear Force =	374 lb	
Embedment Depth =	2.0 in	
Pullout Capacity Per Inch =	173 lb	(per NDS)
Fastener Capacity =	3460 lb	
w/ Cd of 1.6 =	5536 lb	
5536 lb capacity > 374 lb demand	**Therefore, OK**	6.8% stress

Fastener Shear Capacity Check (Left Right Force)		
Lateral Shear Demand =	374 lb	
Individual Fastener Shear Capacity =	120 lb	(Z⊥ per NDS w/ 12 gage mounting bracket)
Group Fastener Shear Capacity =	1200 lb	
Group Shear Capacity w/ Cd = 1.6 =	1920 lb	
1920 lb capacity > 374 lb demand	**Therefore, OK**	19.5% stress

Fastener Shear Capacity Check (Up Down Force)		
Vertial Shear Demand =	640 lb	(Weight + Fp vert)
Individual Fastener Shear Capacity =	160 lb	(Z‖ per NDS w/ 12 gage mounting bracket)
Group Fastener Shear Capacity =	1600 lb	
Group Shear Capacity w/ Cd = 1.6 =	2560 lb	
2560 lb capacity > 640 lb demand	**Therefore, OK**	25% stress

Check Combined Loading		
Withdrawl Stress =	7%	(Weight + Fp vert)
Max Shear Stress =	25%	
Combined Stress =	26%	

Results: (10) 1/4"Ø Lag Screw(s) have a combined stress ratio of 26%, OK!

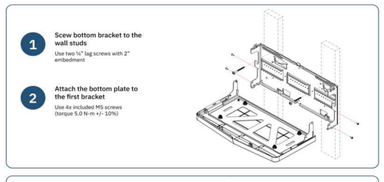
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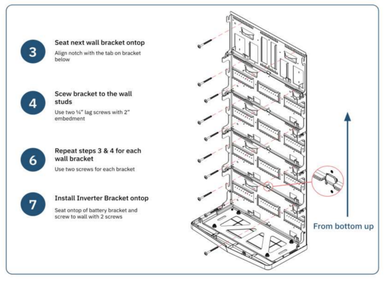
Appendix A: Manutacurer Specifications

Mechanical

Dimension (L x W x D)	**Inverter Block:** 10.6" x 24.4" x 13.5" (270 mm x 619 mm x 344 mm) **Battery Block:** 10.6" x 24.4" x 13.5" (270 mm x 619 mm x 344 mm) **System:** 53.9" x 24.4" x 13.5" (1370 mm x 619 mm x 344 mm)
Mass	**Inverter Block:** 42 lb (19 kg) **Battery Block:** 95 lb (43 kg) **System:** 499 lb (226 kg) for total assembly + brackets
Mounting	Wall or floor mount

Lunar Battery Wall Mounting





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Appendix B: General Notes

GENERAL
- The contractor shall verify all dimensions, property setbacks, AHJ/HOA CC&R's, elevations and site conditions before starting work and shall notify AOstructure, Inc, (AOstructures) of any discrepancies.
- All report conclusions represent AOstructures, Inc.'s best professional judgment based upon industry standards.
- Resolve any conflicts on the drawings with AOstructures, Inc before proceeding with construction.
- The design criteria used for this project & listed on the first page of the report is based on the engineers best judgement and/or provided by the ATC council. AHJ specific requests may differ. Please contact our team if the design criteria needs to be modified.
- AOstructures is not responsible for enforcing safety measures or regulations. The contractor shall design, construct, and maintain all safety devices including shoring and bracing, and shall be solely responsible for conforming to all local, state and federal safety and health standards, laws and regulations. The contractor shall take necessary precautions to maintain and insure the integrity of the structure during construction. If a lawsuit is filed by one of the contractor's or subcontractor's employees, or any one else, the contractor will indemnify, defend and hold the owner and aostructures, inc harmless of any and all such claims.
- Any and all waterproofing shall be provided by the contractor. AOstructures is not responsible for waterproofing.
- All hardware shall be installed per manufacturer specifications and within specified design limitations. AOstructures, Inc. assumes no responsibility for incorrectly installed hardware or hardware installed outside of the manfacturer specifications.
- Unless otherwise noted, construction material shall be evenly distributed if placed on framed floors or roofs. Loads shall not exceed the allowable loading for the supporting members and their connections.
- All members and hardware shall be either galvanized and/or stainless steel to resist corrosion due to the exterior environment they are intended to be installed in.

USER RELIANCE
- AOstructures was engaged by Lunar Energy (Client) to perform this assessment. This report and the information therein, are for the exclusive use of the Client. This report has no other purpose and shall not be relied upon, or used, by any other person or entity without the written consent of AOStructures. Third parties that obtain this report, or the information within shall have no rights of recourse or recovery against AOstructures, it's officers or employees.

Reviewed for Code Compliance
City of San Jose, Building Division
☒ Building ☐ Electrical
☐ Plumbing ☐ Mechanical
Kiet Pham (408) 535-7773
No. 24-102993 Date: 9/23/2024

REGISTERED PROFESSIONAL ENGINEER
ANDREW OESTERREICHER
No. C 81428
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STATE OF CALIFORNIA

STAMPED AND SIGNED FOR STRUCTURAL ONLY

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Carnelian Bay, CA 96140
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www.AOstructures.com

August 19, 2024

TO: Lunar Energy

SUBJECT: Lunar Battery Anchorage - California
"Floor Mounted" - Rests on grade and uses adjacent wall for lateral restraint

SCOPE OF WORK:
AOstructures, Inc. was asked to provide the structural anchorage design for a Lunar Battery System. The subject battery system consists of (4) battery blocks and (1) inverter. Each of the (5) components is attached modularly to a wall mounting bracket. Each wall mounting bracket is fastened to the studs using (2) fasteners and clips to the adjacent mounting bracket modularly. In total, there are (10) fasteners per battery system. The proposed installation method consists of a Lunar Battery system that rests on grade but uses an adjacent existing wall to resist lateral overturning and sliding forces. The dead weight of the battery is resisted by grade. The adjacent existing wall shall consist of a typical wood framed wall with 2x4 (minimum) studs @ 16" o.c.. The wall anchorage resists sliding and overturning forces. Because fasteners existing along the length of the battery system, no overturning forces are developed and loads enacted on the battery system and wall brackets are withdrawl (pull out) and shear (lateral) forces only.

LIMITATIONS:
The scope of this report is strictly limited to the anchorage of the above specified wall mounting brackets to the existing wall framing only. No evaluation of the existing structure, the concrete system at grade or any of the manufacturer provided elements (i.e. batteries/inverters/mounting brackets/base/etc.) is included or implied in the scope of this report. The calculations that follow are designed with the following design criteria and are only applicable for sites with design criteria less than that specified below:

DESIGN CRITERIA:
- Applicable Codes = 2022 CBC, ASCE 7-16
- Risk Category II
- Seismic: Sds = 2g, I = 1.0, ap = 1.0, Rp = 1.25, Cs =0.75*W

EQUIPMENT SPECIFICATIONS:
- Equipment:
  - (1) Lunar Battery System - weighing no more than 500#
- All equipment shall be installed per manufacturer specifications

CONCLUSIONS:
Each modular mounting bracket shall be attached to the existing framing using a minimum of (2) 1/4"Ø Lag Screw fasteners installed into (2) different existing 2x studs. With a total of (4) battery blocks and (1) inverter, the final attachment method shall consist of the Battery System resting on grade and using a total of (10) fasteners into the studs which resist lateral and withdrawl forces from seismic loads. The fasteners shall be installed at manufacturer provided mounting holes and shall be installed within the middle 1/3 of the stud member with a minimum threaded embedment of 1.5" into the existing wood stud framing in the wall.

Please contact me with any further questions or concerns regarding this project.

Sincerely,

Andrew Oesterreicher, P.E.

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SEISMIC ANCHORAGE OF MECHANICAL EQUIPMENT
Fp (Wall Mounted Equipment)
Per ASCE 7-16, Chapter 13

Design Values		
Sds =	2.00	
Importance Factor =	1.00	(Tabel 1.5-2)
Seismic Design Category =	D	(Table 11.6-1)
Component Response Modification Factor (Rp) =	1.50	(Table 13.6-1)
Component Amplification Factor (ap) =	1.0	(Table 13.6-1)
Component Importance Factor (Ip) =	1.0	(13.1.3)
z/h =	0.50	
Equipment Weight (Wp') =	500 lb	(Total assembly Weight)

Seismic Design Force

$$F_p = \frac{0.4 * a_p * S_{DS} * W_p}{(R_p / I_p)} (1 + 2z/h) = 533.3 \text{ lb}$$ (13.3-1)

Governs

$$F_{p(min)} = 0.3 * S_{DS} * I_p * W_p = 300.0 \text{ lb}$$ (13.3-3)

$$F_{p(max)} = 1.6 * S_{DS} * I_p * W_p = 1600.0 \text{ lb}$$ (13.3-3)

Ωo =	1.0	No Concrete or Masonry Anchorage
Ωo Fp =	**533.3 lb**	(ultimate)
0.7ΩoFp =	**373.3 lb**	(ASD)

Seismic Design Force (Vertical Load)

$$F_{p(vert)} = 0.2 * S_{DS} * W_p = 200.0 \text{ lb}$$ (12.14-6)

Fp (vert) =	**200.0 lb**	(ultimate)
0.7 Fp =	**140.0 lb**	(ASD)

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Fastener (to Wood Framed Wall) Capacity Check - Shear and Withdrawl

Demand Loads			
Equipment Weight (Goes to Grade) =	500 lb		(Per manufacturer)
Vertical Seismic Force Demand =	140 lb		(See Fp Calcs)
Total Demand Vertical Force =	140 lb		
Lateral Shear Demand =	374 lb		(See Fp Calcs)

Fastener Selection			
Fastener =	1/4"Ø Lag Screw		
Number of Fasteners =	10		
Stud Width =	1.500 in	in	
Required Edge Distance =	0.625 in	in	(2.5 * d as per NDS)
2x Edge Distance + Fastener Diameter =	1.500 in	in	= OR < stud width, OK!

Fastener Withdrawl Capacity Check (Seismic force away from the wall)		
Withdrawl Shear Force =	374 lb	
Embedment Depth =	2.0 in	
Pullout Capacity Per Inch =	173 lb	(per NDS)
Fastener Capacity =	3460 lb	
w/ Cd of 1.6 =	5536 lb	
5536 lb capacity > 374 lb demand	**Therefore, OK**	6.8% stress

Fastener Shear Capacity Check (Left Right Force)		
Lateral Shear Demand =	374 lb	
Individual Fastener Shear Capacity =	120 lb	(Z⊥ per NDS w/ 12 gage mounting bracket)
Group Fastener Shear Capacity =	1200 lb	
Group Shear Capacity w/ Cd = 1.6 =	1920 lb	
1920 lb capacity > 374 lb demand	**Therefore, OK**	19.5% stress

Fastener Shear Capacity Check (Up Down Force)		
Vertial Shear Demand =	140 lb	(Weight + Fp vert)
Individual Fastener Shear Capacity =	160 lb	(Z∥ per NDS w/ 12 gage mounting bracket)
Group Fastener Shear Capacity =	1600 lb	
Group Shear Capacity w/ Cd = 1.6 =	2560 lb	
2560 lb capacity > 140 lb demand	**Therefore, OK**	5.5% stress

Check Combined Loading		
Withdrawl Stress =	7%	(Weight + Fp vert)
Max Shear Stress =	20%	
Combined Stress =	21%	

Results: (10) 1/4"Ø Lag Screw(s) have a combined stress ratio of 21%, OK!

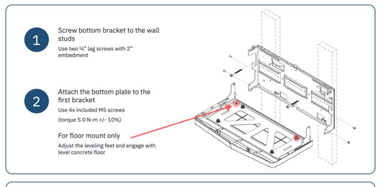
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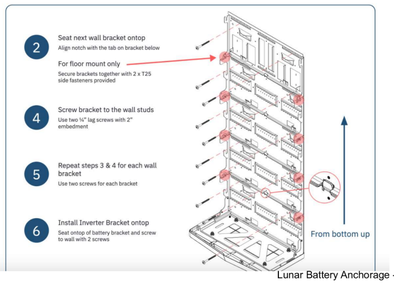
Appendix A: Manutacurer Specifications

Mechanical

Dimension (L x W x D)	**Inverter Block:** 10.6" x 24.4" x 13.5" (270 mm x 619 mm x 344 mm) **Battery Block:** 10.6" x 24.4" x 13.5" (270 mm x 619 mm x 344 mm) **System:** 53.9"x 24.4" x 13.5" (1370 mm x 619 mm x 344 mm)
Mass	**Inverter Block:** 42 lb (19 kg) **Battery Block:** 95 lb (43 kg) **System:** 499 lb (226 kg) for total assembly + brackets
Mounting	Wall or floor mount

Lunar Battery Mounting





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Appendix B: General Notes

GENERAL
- The contractor shall verify all dimensions, property setbacks, AHJ/HOA CC&R's, elevations and site conditions before starting work and shall notify AOstructure, Inc, (AOstructures) of any discrepancies.
- All report conclusions represent AOstructures, Inc.'s best professional judgment based upon industry standards.
- Resolve any conflicts on the drawings with AOstructures, Inc before proceeding with construction.
- The design criteria used for this project & listed on the first page of the report is based on the engineers best judgement and/or provided by the ATC council. AHJ specific requests may differ. Please contact our team if the design criteria needs to be modified.
- AOstructures is not responsible for enforcing safety measures or regulations. The contractor shall design, construct, and maintain all safety devices including shoring and bracing, and shall be solely responsible for conforming to all local, state and federal safety and health standards, laws and regulations. The contractor shall take necessary precautions to maintain and insure the integrity of the structure during construction. If a lawsuit is filed by one of the contractor's or subcontractor's employees, or any one else, the contractor will indemnify, defend and hold the owner and aostructures, inc harmless of any and all such claims.
- Any and all waterproofing shall be provided by the contractor. AOstrctures is not responsible for waterproofing.
- All hardware shall be installed per manufacturer specifications and within specified design limitations. AOstructures, Inc. assumes no responsibility for incorrectly installed hardware or hardware installed outside of the manfacturer specifications.
- Unless otherwise noted, construction material shall be evenly distributed if placed on framed floors or roofs. Loads shall not exceed the allowable loading for the supporting members and their connections.
- All members and hardware shall be either galvanized and/or stainless steel to resist corrosion due to the exterior environment they are intended to be installed in.

USER RELIANCE
- AOstructures was engaged by Lunar Energy (Client) to perform this assessment. This report and the information therein, are for the exclusive use of the Client. This report has no other purpose and shall not be relied upon, or used, by any other person or entity without the written consent of AOStructures. Third parties that obtain this report, or the information within shall have no rights of recourse or recovery against AOstructures, it's officers or employees.

Reviewed for Code Compliance
City of San Jose, Building Division
☒ Building ☐ Electrical
☐ Plumbing ☐ Mechanical
Kiet Pham (408) 535-7773
No. 24-102993 Date: 9/23/2024

STAMPED AND SIGNED FOR STRUCTURAL ONLY