

**CITY OF COPPELL
PLANNING DEPARTMENT**

STAFF REPORT

**Case No.: PD-272R2R3-LI, Battery Energy Storage System
at Prologis Park One Twenty One, Lot 4R, Block A**

P&Z HEARING DATE: May 18, 2023

C.C. HEARING DATE: June 13, 2023

STAFF REP.: Matthew S. Steer, AICP, Development Services Administrator

LOCATION: East side of North Freeport Parkway approximately 800 feet south of SH 121 and on the west side of North Coppell Road

SIZE OF AREA: 3,243-sf within the 25.72-acre lot

CURRENT ZONING: PD-272R2R-LI (Planned Development 272 Revision 2 Revised- Light Industrial)

REQUEST: A zoning change request from PD-272R2R-LI (Planned Development 272 Revision 2 Revised- Light Industrial) to PD-272R2R3-LI (Planned Development 272 Revision 2 Revised 3- Light Industrial) to attach a Detail Site Plan allowing for the addition of a 9.9 MW Battery Energy Storage System (BESS) (contained within a 3,243 square foot equipment area) within the existing 25.72 acre site that has an existing 300,360 square foot office/warehouse building with an approved future expansion of 200,240 square feet.

APPLICANT:	Owner:	Representative:
	Prologis 2601 N Harwood St., Suite 2450 Dallas, Texas 75201 aperlman@prologis.com	RavenVolt, Inc. 2715 Ronal Regan Ave, Suite 100 Cumming, Georgia 30041 254-301-9949 Estebann.Ice@Ravenvolt.com

HISTORY: This property was rezoned from Light Industrial to a Planned Development in July of 2014. At that time, the PD proposed five office/warehouse buildings totaling 1,600,000 square feet on 110 acres of land. The proposal also included a comprehensive landscape plan, realignment of a forty-foot-wide gas line, conceptual elevations of buildings, and an extensive drainage proposal. In March of 2015, the plan was amended to increase building height by five feet, reduce the parking requirement for warehouse use from one space per 1,000 square feet to one space per 2,500 square feet. The amendment also increased the number of buildings from five to six and reduced the overall building square footage from 1,600,000 square feet to 1,500,000 feet. All six office/warehouses have since been constructed. Detail plans for the previously planned 200,240 square-foot addition to the 300,360 square-foot office/warehouse were administratively approved in 2022, as they were in conformance with the Conceptual Plan approval. This addition has not yet been constructed.

On March 16, 2023, a request identical to this proposal failed with a vote of 3-4 by the Planning and Zoning Commission. At that meeting the Planning Commission had numerous questions related to fire protection. Responses to the questions are included in the exhibits.

HISTORIC COMMENT: There are no structures of historic significance on the lot.

TRANSPORTATION: Freeport Parkway is an improved, concrete, six-lane divided thoroughfare at this location in a variable width right-of-way. Coppell Road is a two-lane undivided collector in a 90-foot right-of-way.

SURROUNDING LAND USE & ZONING:

North: Low rise office buildings; “HC”, Highway Commercial

South: Office/Warehouse; PD-272-LI

East: Single Family Residences; SF-7 and PD-124-SF-7

West: Two Office/Warehouses; PD-272-LI

COMPREHENSIVE PLAN:

Coppell 2030, A Comprehensive Master Plan, shows this property as appropriate for Industrial Special District.

DISCUSSION:

This request is for the addition of a 9.9 MW battery energy storage system (BESS) to the northwest corner of the lot. The proposed use of the system is to tie in with the utility grid and enable energy storage during times of low demand. This energy would be released back into the grid when customers need power the most. A 3,243 square foot equipment area is proposed. The BESS equipment is proposed to be placed on concrete pads and screened with an eight-foot stucco wall painted to match the building. A 15-foot drainage easement bisects the proposed equipment area. No equipment will be allowed to be placed within it. There is a sliding gate proposed on the western side and a swinging gate on the east side to serve as access for both the City and the applicant. The wall does encroach into the 10’ perimeter landscaping by five feet which will require a PD Condition be added to the ordinance. Staff is comfortable with this, as the equipment is effectively screened with the proposed wall.

There are 23 Eastern Red Cedars that will be replaced with 37 Nellie R Stevens Hollies. The Shumard Red Oaks are unaffected. There is one existing Live Oak that is proposed to be transplanted on site. Currently, without the equipment pad, the landscape area is approximately 1,650 square feet in surplus. By adding 3,243 of equipment area, the site would be approximately 1,600 square feet deficient. To offset the deficiency, the applicant is proposing to add 1,600 square feet of landscape area east of the equipment area by removing two of the trailer storage spaces and converting them to green space.

Fire Protection:

Coppell Fire Department staff members met with RavenVolt and Fisher Engineering, fire protection engineering firm, to discuss the proposal. They focused on many of the items that were discussed/brought up in the April 20, 2023, Planning and Zoning Meeting as well as battery technology and chemistry of the battery. RavenVolt explained the batteries used at this facility are Lithium Iron Phosphate – less energetic, fail at a higher temperature (more resilient) and have less heat

release when they do fail as compared to other batteries (like laptops, e-bikes, vehicles, etc.). RavenVolt further explained the battery ‘module’ and cabinet construction should limit any failure to one cabinet, although they have not yet done a full-scale test to prove this. RavenVolt is currently working on the testing with a nationally recognized testing laboratory. Based on their calculations, they believe that a failure of a module would remain to one cabinet and the event would last between 2 and 4 hours. That is a long time for the Fire Department to remain on scene, but it would only be one apparatus and would be manageable. RavenVolt and Fisher Engineering assured The Fire Department that they would train all members of the Department in the hazard mitigation and operation of the site before it physically goes online. Coppel Fire Department does not have any issues with the proposed BESS development.

The applicant has made a concerted effort to answer the questions posed by the Planning and Zoning Commission at the March Meeting. Answers to the questions are summarized in the attached document, “Planning Commission Q/A”. The project description document from RavenVolt explains in more detail the operations and provides answers to common questions. This too is attached for reference. The applicant has also requested that four conditions be added to provide further assurance of fire protection. This can be found in the recommendation below and attached document “Final Release Permit Requirements”.

In conclusion, because the Coppel Fire Department does not have any issues with the proposed BESS development and because the proposal is adding electricity back to the grid at the peak hours when it is most vulnerable, staff is recommending approval subject to the conditions listed below.

RECOMMENDATION TO THE PLANNING AND ZONING COMMISSION:

Staff is recommending APPROVAL of PD-272R2R3-LI, Battery Energy Storage System at Prologis Park One Twenty One, subject to the following conditions:

1. The screening wall be allowed a 5’ encroachment into the required 10’ perimeter landscaping setback on the north side of the property.
2. Include impervious area total in the Site Data Table.
3. Include the column detail on the wall details.
4. Correct proposed zoning information (PD-272R2R3-LI) on all plans and add BESS to proposed uses on the Architectural Site Plan.
5. Prior to release of a building permit the following should be provided:
 - a. Provide Rack Level UL9540A test standards result to Fire Department. (NFPA 855, Section 9.1.5.1 and 9.1.5.2.1)
 - b. Provide Hazard Mitigation Analysis to Fire Department for review and approval. (NFPA 855, Section 9.5.2.1)
 - c. Provide testing, modeling, and/or a combination of both to demonstrate that a fire involving one BESS unit will not propagate to an adjacent unit. (NFPA 855, Section 9.1.5.1.2)
 - d. Have a registered design professional with expertise in fire engineering approve and interpret the test results and prepare the Hazard Mitigation Analysis. (NFPA 855, Section 9.1.5.2.2)

ALTERNATIVES:

1. Recommend approval of the request
2. Recommend disapproval of the request

3. Recommend modification of the request
4. Take under advisement for reconsideration at a later date

ATTACHMENTS:

1. Project Description
2. Overall Site Plan
3. Overall Landscape Plan
4. Dimension Control Plan (Equipment Area)
5. Wall Details
6. Gate Details
7. Equipment Details
8. Renderings
9. Planning Commission Q/A
10. Final Release Permit Requirements
11. Fire Hydrant Locations