



# PLANNING & ZONING COMMISSION

**TO:** City of Peoria Planning & Zoning Commission

**FROM:** Development Review Board (prepared by Julia Hertaus)

**DATE:** February 2, 2023

**CASE NO:** PZ 1180-2022

**REQUEST:** Hold a Public Hearing and forward a recommendation to City Council on the request of Jason Hawksworth of Hawk-Attollo LLC, on behalf of Petersen Health System Inc, to obtain a Special Use in a Class R-3 (Single-Family Residential) District for a Solar Utility Facility for the property located at 3901 W Reservoir Blvd (Parcel Identification No. 13-25-177-002), Peoria IL (Council District 4)

**SUMMARY OF PROPOSAL & REQUESTED WAIVERS**

The petitioner is requesting to obtain a Special Use to allow for the development of a solar utility facility in the R-3 (Single-Family Residential) district. This use is not permitted in the R-3 zoning district without a special use. The petitioner is also requesting waivers to allow a 6ft chain link fence in a front yard, reductions to the landscaping and buffer yard requirements, and to eliminate sidewalks required along the frontages of Reservoir and Richwoods Blvds.

As requested at the January PZC meeting, the applicant has provided a glare study which is attached to this memo. The applicant states that no glare is found from the solar array and is affirmed by the results of the glare study.

Development Item	Applicant Proposal	Applicant Waiver Request & Justification	DRB Comment
Entrance/ Sidewalk	<p>Proposed 15ft wide entrance gate on W Reservoir Blvd.</p> <p>A north-south gravel access road and an east-west gravel access road provides internal access to the facility.</p>	<p>Waiver to eliminate required sidewalk along frontages on W Reservoir Blvd and W Richwoods Blvd.</p>	<p>Condition to install required 5ft wide sidewalk along the frontages on W Reservoir Blvd and W Richwoods Blvd.</p> <p>Condition for all vehicular access driveways and roads be constructed with hard, dustless surfaces or permeable pavers/porous paving systems.</p>
Mechanical & Utility Screening	<p>Proposed electrical equipment pad located near the facility entrance.</p>	<p>None</p>	<p>Condition for equipment facilities and accessory buildings to be designed with brick, stone, and/or block material.</p>
Landscaping	<p>Front yard along W Reservoir Blvd = approx. 93 shrubs to avoid shading of the solar array.</p> <p>Front yard along W Richwoods Blvd to preserve existing trees/wooded area.</p>	<p>Waiver to plant shrubs in place of trees along the front yard of W Reservoir Blvd.</p>	<p>Condition to meet the required front yard landscaping along W Reservoir Blvd of 278 points utilizing plants from the tree classification.</p> <p>Condition to provide a revised landscape plan indicating the area along the front yard of W Richwoods Blvd to remain undisturbed for preservation of existing trees/wooded area.</p>

Development Item	Applicant Proposal	Applicant Waiver Request & Justification	DRB Comment
Buffers & Screening	Proposed transitional buffer yard (TBY) is 25 feet in depth along the eastern property line abutting the Valley View residential development. Approx 57 evergreen trees = 855 points.	None	In compliance.
Signs	No proposed signage.	None	A separate sign permit is required for any signage.
Fence/Walls	Proposed 6ft tall chain link fence placed on the property line for the entirety of the parcel perimeter.	Waiver to allow chain link material and increase the height of the fence from 3 ft to 6ft in the front yards along W Richwoods Blvd and W Reservoir Blvd.	Condition to revise the fence material along the frontage of W Reservoir Blvd to masonry, wood, aluminum or wrought iron to meet the requirement of compatibility with existing character of the site and neighborhood.  Condition to revise the fence along the eastern property line to be a solid fence to provide screening for the Valley View residential development.

## **BACKGROUND**

### **Property Characteristics**

The subject property is approximately 6 acres in size and currently undeveloped. Existing conditions of the property show large grade changes and various trees and plantings covering much of the land. Surrounding zoning to the north, east, and south is R-3 (Single Family Residential) and R-2 (Single Family Residential) districts. A railroad line borders the western property line and is in Peoria County's jurisdiction. The following parcel makes up this development:

13-25-177-002

### **History**

This property was granted a Special Use for a residential cluster development in 1996. This included the condominiums constructed at the northwest corner of W Richwoods Blvd and W Reservoir Blvd. The remainder of the residential cluster development was not completed. In 2001 a Special Use was granted for elderly housing but was not constructed, therefore the Special use has become null and void. The property, 3901 W Reservoir Blvd, has remained undeveloped.

Date	Zoning
1931 - 1958	Not in the City
1958 - 1963	Not in the City
1963 - 1990	Not in the City
1990 - Present	R3 (Single-Family Residential)

**DEVELOPMENT REVIEW BOARD ANALYSIS**

The DRB examines each application against the appropriate standards found in the Code of the City of Peoria and/or in case law.

Standard	Standard Met per DRB Review	DRB Condition Request & Justification
No detriment to public health, safety, or general welfare	Yes	None
No injury to other property nor diminishment to property values	Yes	None
No impediment to orderly development	Yes	None
Provides adequate facilities	Yes	None
Ingress/Egress measures designed to minimize traffic congestion	Yes	None
If a public use/service, then a public benefit	N/A	N/A
Conforms to all district regulations	No	<p>Waiver to place a 6ft tall chain link fence in the front yard along W Richwoods Blvd</p> <p>Conditions to:</p> <ul style="list-style-type: none"> <li>• Install required 5ft wide sidewalk along the frontages on W Reservoir Blvd and W Richwoods Blvd.</li> <li>• All vehicular access driveways and roads be constructed with hard, dustless surfaces or permeable pavers/porous paving systems.</li> <li>• Equipment facilities and accessory buildings to be designed with brick, stone, and/or block material.</li> <li>• Meet the required front yard landscaping along W Reservoir Blvd of 278 points utilizing plants from the tree classification.</li> <li>• Provide a revised landscape plan indicating the area along the front yard of W Richwoods Blvd to remain undisturbed for preservation of existing trees/wooded area.</li> <li>• Revise the fence material along the frontage of W Reservoir Blvd to masonry, wood, aluminum or wrought iron to be compatible with existing character of the site and neighborhood.</li> <li>• Revise the fence along the eastern property line to be a solid fence to provide screening for the Valley View residential development.</li> </ul>
Comprehensive Plan Critical Success Factors	Grow Employers and Jobs Support Sustainability	
City Council Strategic Plan Goals	Grow Peoria	

### **DEVELOPMENT REVIEW BOARD RECOMMENDATION**

The Development Review Board recommends APPROVAL of the request per the attached site plan and with the following waiver and conditions:

1. Waiver to place a 6ft tall chain link fence in the front yard along W Richwoods Blvd
2. Condition to install required 5ft wide sidewalk along the frontages on W Reservoir Blvd and W Richwoods Blvd.
3. Condition for all vehicular access driveways and roads be constructed with hard, dustless surfaces or permeable pavers/porous paving systems.
4. Condition for equipment facilities and accessory buildings to be designed with brick, stone, and/or block material.
5. Condition to meet the required front yard landscaping along W Reservoir Blvd of 278 points utilizing plants from the tree classification.
6. Condition to provide a revised landscape plan indicating the area along the front yard of W Richwoods Blvd to remain undisturbed for preservation of existing trees/wooded area.
7. Condition to revise to the fence material along the frontage of W Reservoir Blvd to masonry, wood, aluminum or wrought iron to be compatible with existing character of the site and neighborhood.
8. Condition to revise the fence along the eastern property line to be a solid fence to provide screening for the Valley View residential development.

**NOTE:** If a City Code Requirement is not listed as a waiver, then it is a required component of the development. The applicant is responsible for meeting all applicable code requirements through all phases of the development.

### **ATTACHMENTS**

1. Surrounding Zoning
2. Aerial Photo
3. Site Plan
4. Glare Study
5. Existing Conditions
6. Photos of Existing Array

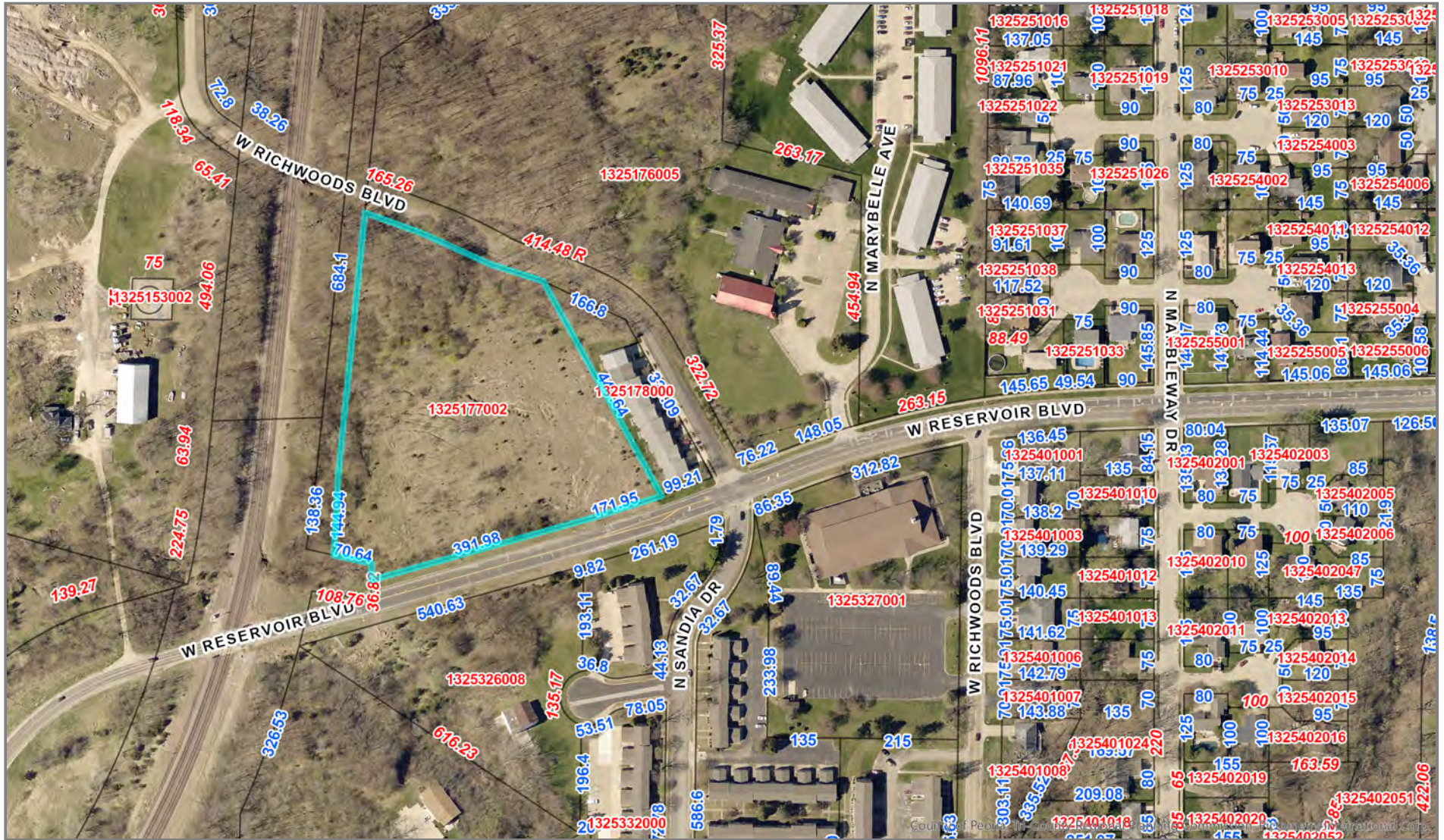
# 3901 W Reservoir Blvd - Aerial + Zoning



*Disclaimer: Data is provided 'as is' without warranty or any representation of accuracy, timeliness or completeness. The burden for determining fitness for, or the appropriateness for use, rests solely on the requester. The requester acknowledges and accepts the limitations of the Data, including the fact that the Data is in a constant state of maintenance. This website is NOT intended to be used for legal litigation or boundary disputes and is informational only. -Peoria County GIS Division*

Map Scale  
1 inch = 282 feet  
12/23/2022

# 3901 W Reservoir Blvd - Aerial



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SYMBOL LEGEND		
SYMBOL	NAME	DESCRIPTION
	TRACKER MOUNT PV MOD.	HELIENE, 144M MG-450W
	LAND-SCAPING	EAST: BRODIE EASTERN RED CEDAR (OR EQUIVALENT) 1-2'W x 4-5'H @ INSTALLATION APPROX. 57 TO BE PLANTED  SOUTH & EQUIPMENT PAD: SEA GREEN JUNIPER (OR EQUIVALENT SPECIES) APPROX. 93 TO BE PLANTED
		LOW GROWTH POLLINATOR HABITAT SPECIES TBD IN CONSULT W/ LANDSCAPING PROFESSIONAL

**NOTE:**  
SITE DIMENSIONS DERIVED FROM GOOGLE AERIAL IMAGERY:  
RESOLUTION OF 6", DIMENSIONS PRECISE UP TO 1m (CE-90)

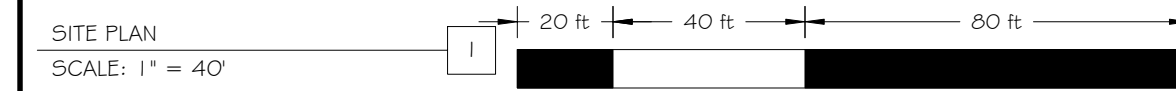
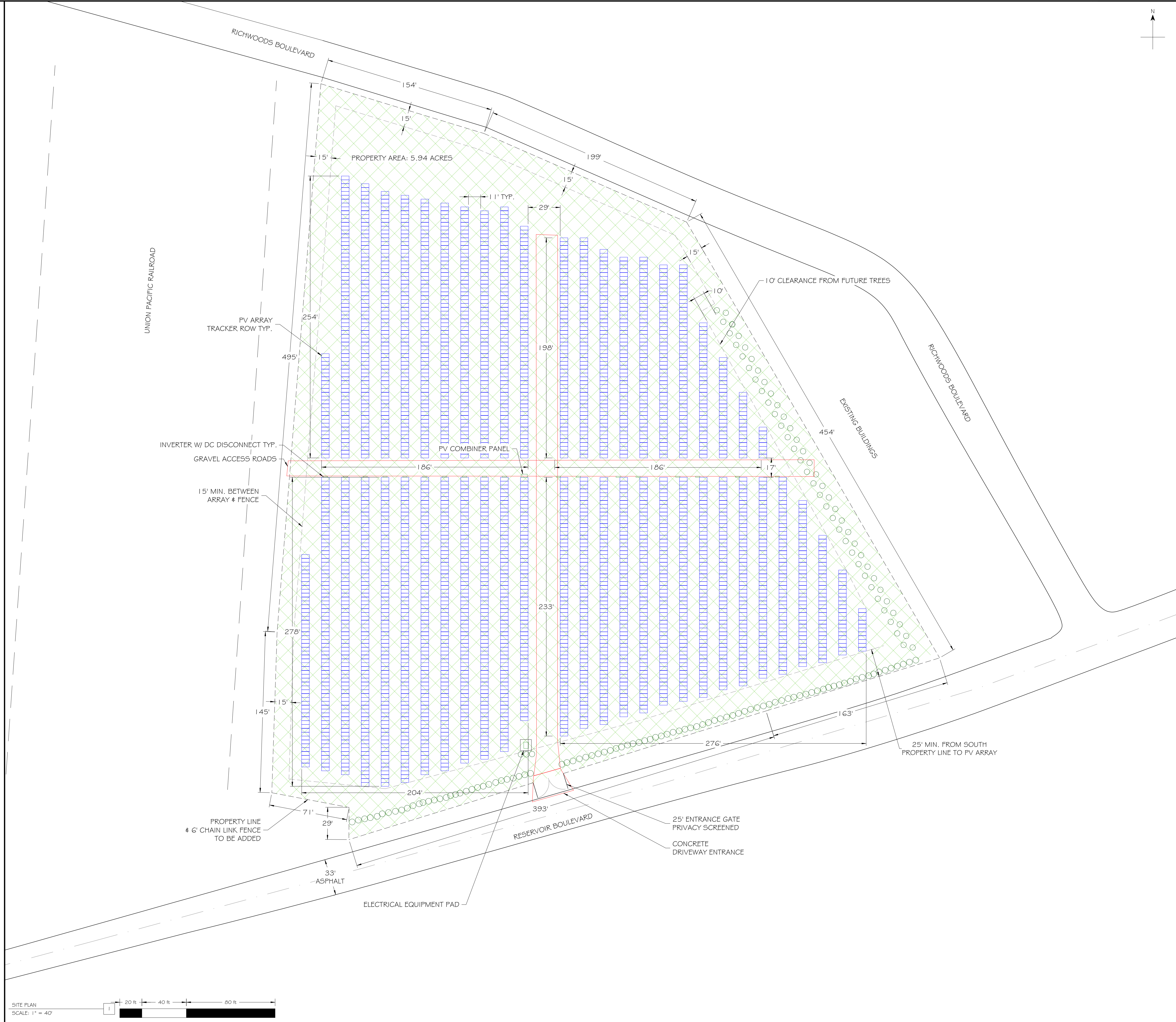
NO EXISTING STRUCTURES ON THE PROPERTY

NO PARKING REQUIRED ON THE PROPERTY

NO EXISTING EASEMENTS PRESENT

PV SYSTEM SUMMARY TABLE			
Array ID	Inverter ID	Mod Qty.	kW size
1	Inv 1-18	2848	1281.60
Totals:		2848	1281.6

SYSTEM SUMMARY:  
(2848) Heliene, 144M MG-450W  
(18) Solectna XGI 1000-G5/G5  
1281.6 kWstc, 1170 kW AC



Contractor:  
**HAWK ENERGY SOLUTIONS**  
1301 HAMPTON ROAD  
WASHINGTON, IL 61571  
P: 309.231.3900  
www.solarpvlinois.com/

Project:  
RESERVOIR COMMUNITY SOLAR  
3808 W RICHWOODS BLVD  
PEORIA, IL 61615

Project Details:  
1281.60 kWstc, 1170.00 kW AC  
AHJ: PEORIA, CITY OF  
APN: 13-25-177-002

Engineering Approval:

REVISIONS		
DESCRIPTION	DATE	REV
PLOT PLAN	11/30/2022	A
MINUS 1G MODS	12/22/2022	B

Sheet Title:  
**PLOT PLAN**

Sheet Number:  
**P1.0**

Sheet Size:  
**ARCH D - 36" x 24"**

Design & Drafting by:  
ALEXANDER MORAN  
*Alexander Moran*  
"Always remember: never accept  
the world as it appears to be.  
Dare to see it for what it could be."  
- Harold Winston



Reviewed & Approved by:  
RD

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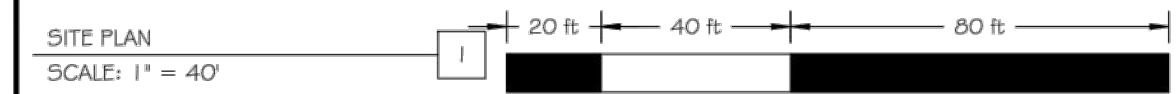
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# FORGESOLAR GLARE ANALYSIS

Project: **Reservoir Community Solar**

Proposed 1 MW installation near a residential string of condominiums.

Site configuration: **Zoning Glare Study V1-temp-0**

**Site description:** Glare study to show impact

Created 09 Jan, 2023

Updated 09 Jan, 2023

Time-step 1 minute

Timezone offset UTC-6

Site ID 82070.14509

Category 500 kW to 1 MW

(1,000 kW / 8 acre limit)

DNI peaks at 1,000.0 W/m<sup>2</sup>

Ocular transmission coefficient 0.5

Pupil diameter 0.002 m

Eye focal length 0.017 m

Sun subtended angle 9.3 mrad

Methodology V2



## Summary of Results No glare predicted

PV Array	Tilt °	Orient °	Annual Green Glare		Annual Yellow Glare		Energy kWh
			min	hr	min	hr	
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-

*Total annual glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.*

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0

# Component Data

## PV Arrays

**Name:** PV array 1  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0°  
**Max tracking angle:** 60.0°  
**Resting angle:** 0.0°  
**Ground Coverage Ratio:** 0.5  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Reflectivity:** Vary with sun  
**Slope error:** correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	40.732636	-89.654119	606.18	3.00	609.18
2	40.732034	-89.653829	603.47	3.00	606.47
3	40.731749	-89.655465	559.20	3.00	562.20
4	40.733099	-89.655497	585.75	3.00	588.75
5	40.732896	-89.654253	605.28	3.00	608.28

## Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	40.732440	-89.653649	616.80	30.00

# Glare Analysis Results

## Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-

Total annual glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0

## PV: PV array 1 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0

## PV array 1 and OP 1

Receptor type: Observation Point

No glare found

Existing Conditions Along W Richwoods Blvd



Existing Conditions and Sidewalk along Richwoods Blvd



Existing Conditions along Richwoods – Gully and Railroad Bridge







Existing Conditions of County Property on Opposite Side of Railroad Bridge





Photos of an Existing Solar Array Similar to Proposed

