

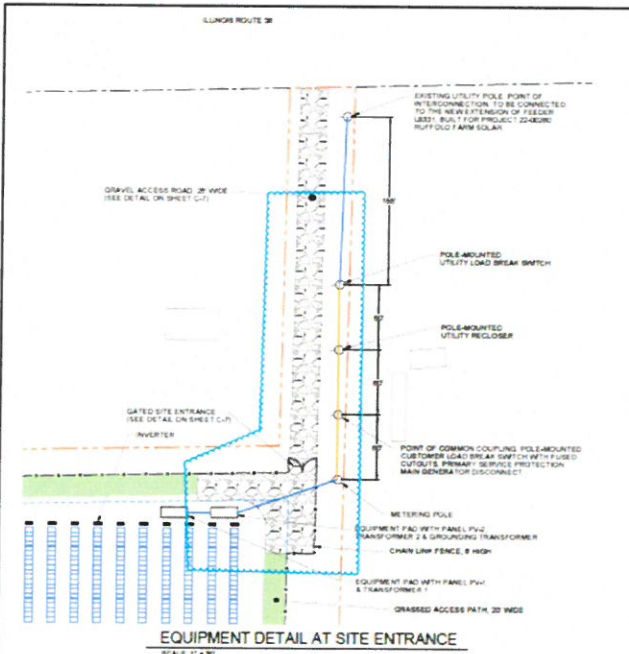


Alexander Farm Solar Project

Kane County Zoning Board of Appeals

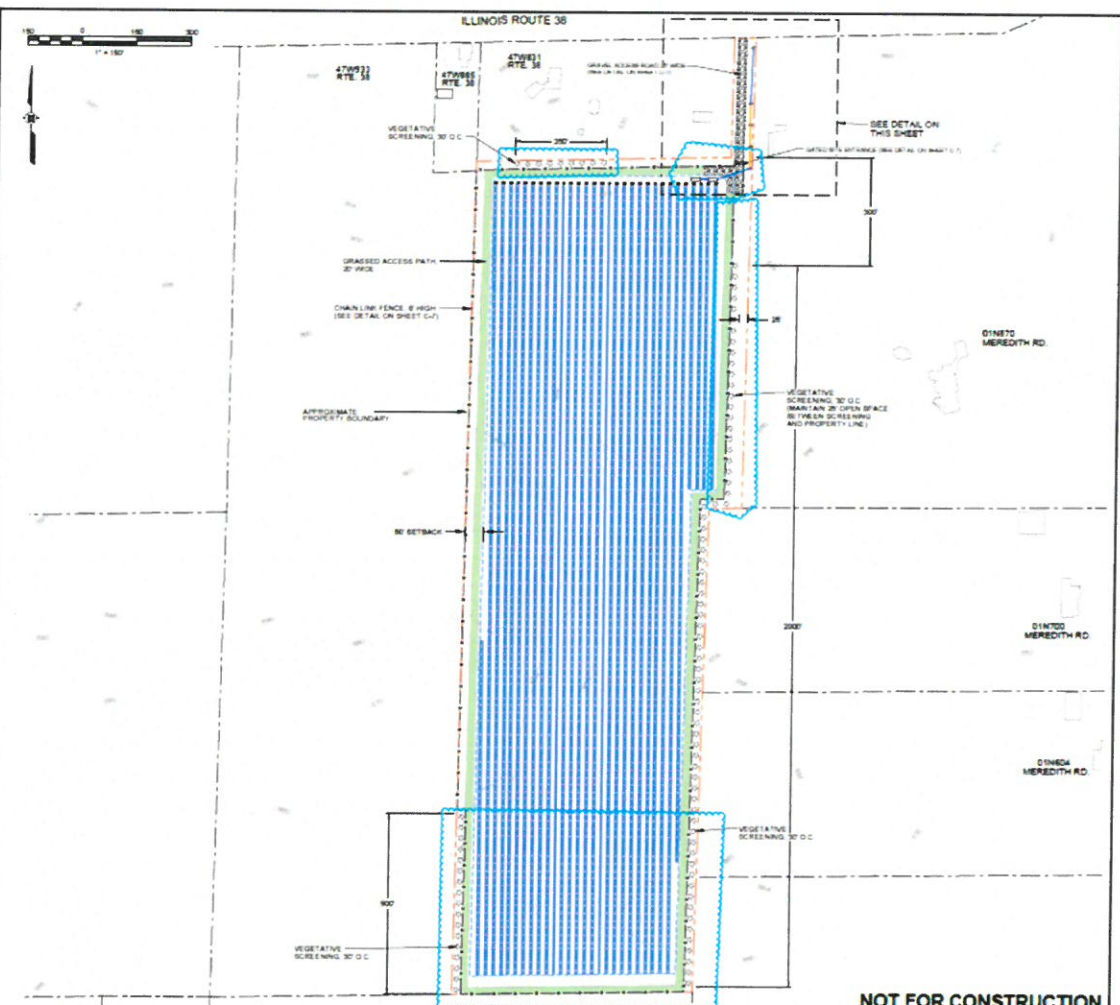
January 3rd, 2024

from Petitioner



NOTES
1) ELECTRICAL COMPONENTS SHOWN ARE SCHEMATIC. FINAL ELECTRICAL DESIGN AND LAYOUT WILL BE COMPLETED BY OTHERS.

- LEGEND**
- SITE PROPERTY BOUNDARY (APPROXIMATE)
 - - - PROPERTY BOUNDARY SETBACK, 80'
 - ADJACENT PARCEL LINES
 - 470001 PROPERTY ADDRESS
 - GROUND SURFACE CONTOUR
 - BUILDING
 - PERIMETER FENCE
 - GRAVEL ACCESS ROAD
 - SOLAR PANEL
 - INVERTER
 - POWER POLE
 - EQUIPMENT PAD & TRANSFORMER
 - TREE PLANTING 30' O.C.



NOT FOR CONSTRUCTION

<p>Attention:</p> <p>If this scale bar does not measure 1" then drawing is not original scale.</p>	Designed: FZW
	Drawn: KJC
	Checked: MFS
	Approved: KAP
	P.E. No: DA2.072571
GEI Project: 2303049	



KANESOLAR02 LLC
330 W. GOETHE ST. CHICAGO, IL 60610

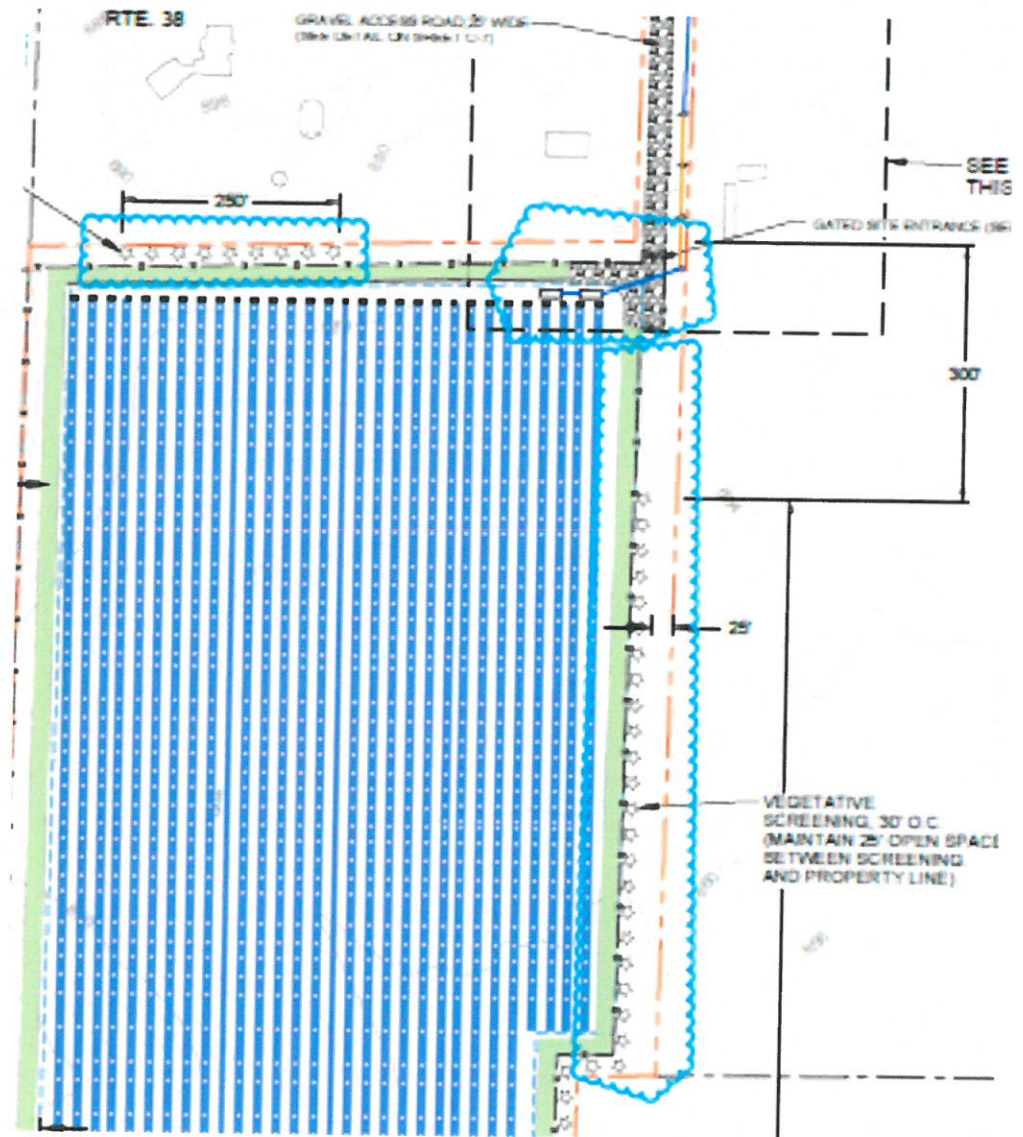
5.0 MW AC GROUND MOUNTED SOLAR FARM
KANESOLAR02 LLC
ALEXANDER-JOHNSON SOLAR FACILITY
ILLINOIS ROUTE 38
MAPLE PARK, IL 60151

NO.	DATE	ISSUE/REVISION	APP.
1	12/18/2023	SPECIAL USE APPLICATION	KAP
2	8/20/2023	SPECIAL USE APPLICATION	KAP

SHEET NAME	DRAWING NO.
SOLAR PANEL LAYOUT PLAN	C-6

Key Changes

- Added landscape screening along north property line
- Moved fence/gate south to north end of solar array
- Moved fence and landscape screening away from eastern property line (Brandonisio)
- Removed one row of solar array on east side (Brandonisio)



Fire and Emergency Access

- KaneSolar02 has addressed comments from Captain Kovach
- Design Considerations:
 - KFPD requires approved access for firefighting for all construction and demolition sites, including permanent, maintained and sufficient access roads. **REVIEWED AND AGREED**
 - The "gravel access road" is shown to be in excess of 300'. This appears will be a dead-end access road in excess of 150' which would fall under International Fire Code (IFC) Appendix D, Table D103.4 for width and turnaround provisions. (If the turnaround dimensions are as listed above, the updated proposal for a turnaround would be acceptable) **REVIEWED AND AGREED**
 - Minimum width of access roads to be 20' with a minimum 26' turning radius (appears may be met with the updated drawing, pending detailed measurements) **REVIEWED AND AGREED**
 - Access roads must support a minimum of 75,000 pounds and be maintained for fire department access at all times of the year (access road details do not include permissible load information) **REVIEWED AND AGREED**
 - Any fencing and gate access must provide a minimum opening of 20' in width to allow fire apparatus entry (updated drawing shows 24' opening) **REVIEWED AND AGREED**

(continued)

Fire and Emergency Access

- Operational Considerations:

- Keybox and keys for access must be provided as specified by Kaneville FPD (IFC 506)
- Training and written safety instructions for disconnection of photovoltaic equipment must be provided to KFPD along with any required equipment.
- KFPD requires a copy of final plans and the ability to comment further prior to construction permitting
- All plans and facilities must meet all applicable codes, such as building and fire codes
- KFPD requests written safety instructions, equipment and training within 30 days of activation of the installed equipment. Since solar panels are always producing live energy, instructions and training may be necessary prior to panel installation.
- KFPD requests plans for control of weeds, scrub, groundcover, etc. within the facility that will minimize the chance and extension of brush fires within this and adjoining properties
- KFPD requests plans to maintain the access roads during winter and summer

REVIEWED AND AGREED

More on grapevines and solar

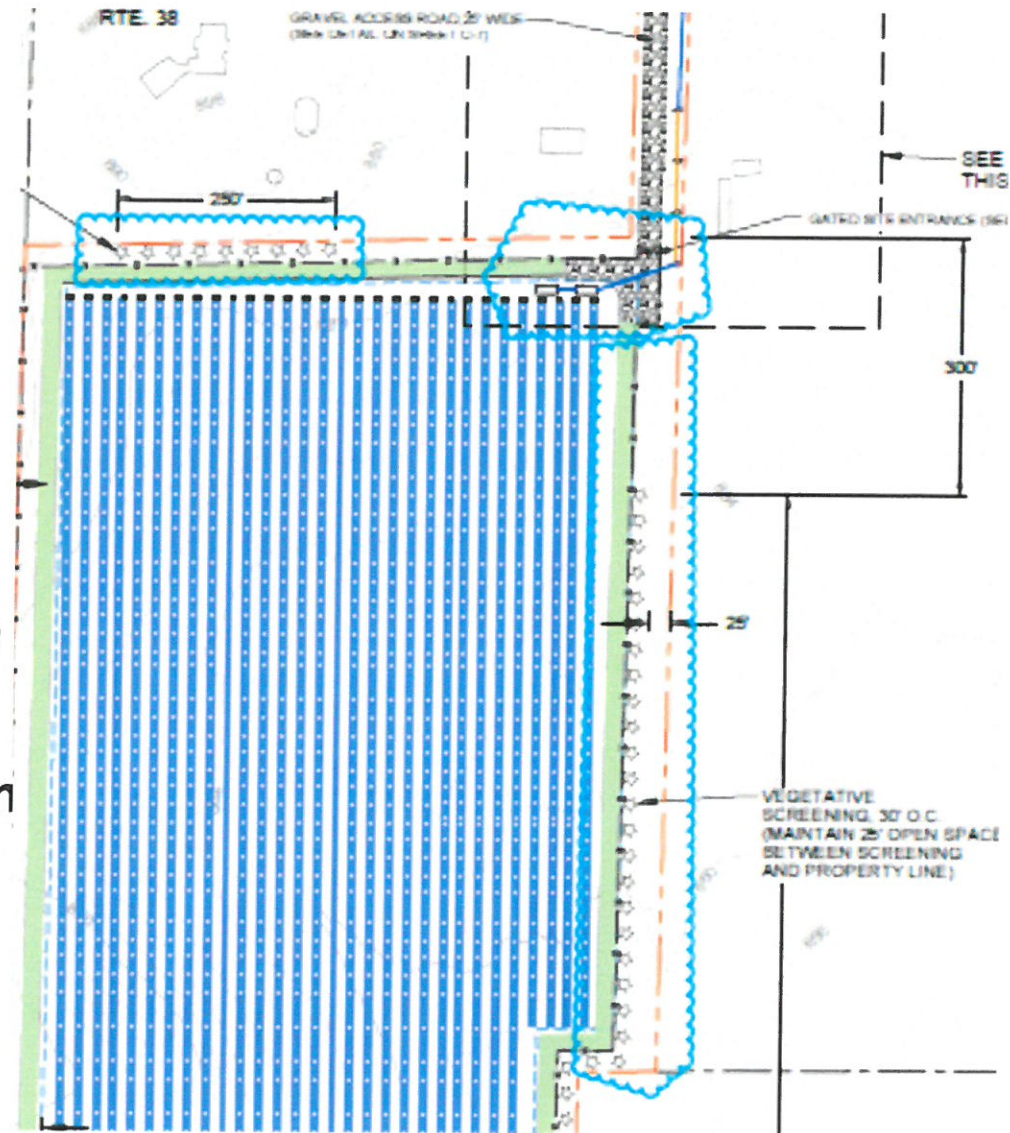
- No evidence has been submitted that establishes a risk
- Letter from a Commercial Ag Expert at U of I Extension (not a grape specialist) referred to one study in a high sun/heat location in the deserts of Arizona – is not applicable
- Letter says the study finds that: “the added heat dissipates quickly and can't be measured 100 feet away from the power plants.” (emphasis in original)
- Mike Reinke (viticulture/grape specialist at MSU Extension) stated that “If, and that a big if, anything were to influence the temperature of an area by 1-2 degrees the impact on bud break timing would likely be extremely minor”, and “I cannot see it mattering.”
- This project has vegetative screening and groundcover, both of which act to reduce the temperature (“indeed evapotranspiration from plants would have reduced [any heating effect]” – V. Fthenakis, via email, 9/14/23).
- **No risk to grapes has been established, and all evidence is that no risk exists**

Grapes and Solar, cont.

- Mike Reinke, MSU Extension Viticulture Specialist, stated:
 - “If, and that a big if, anything were to influence the temperature of an area by 1-2 degrees the impact on bud break timing would likely be extremely minor.”
 - Soil temperature, not air temp, is the primary factor in bud break
 - “If I were to add 2 degrees to the high temperature to half the days in the couple weeks leading up to 15 April, the total accumulation would be an additional 7 GDD50. Therefore, IF the temperature influence were of that magnitude, the result would be a potential of one day in how much the grape bud break would be sped up. That is rather minor when you can see soil temperature influence bud break by a week or more from year to year.”
 - “I cannot see it mattering... 1-2 degrees, C or F, will be lost in the noise of normal temperature variation day-to-day or year-to-year”
 - “A tree buffer would absolutely reduce any temp effect”

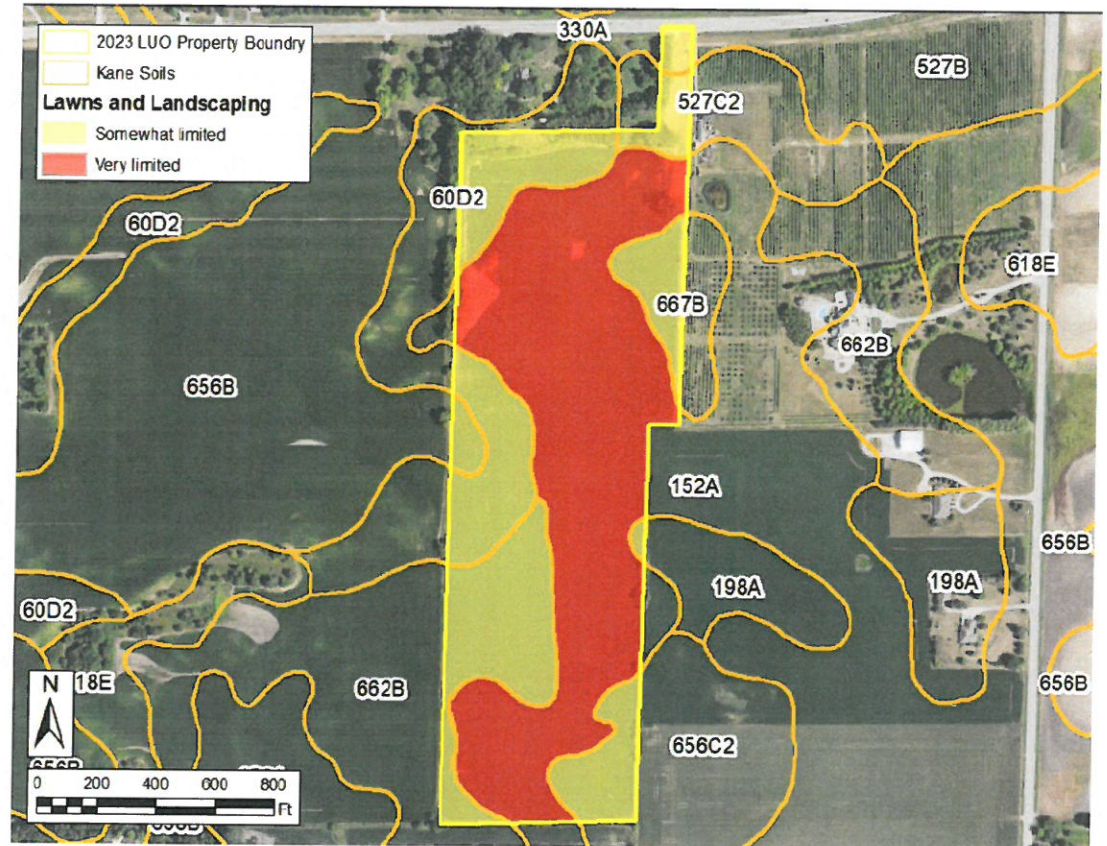
Access Considerations

- Reworked site plan eliminates any physical barrier to the claimed access
- 25'-wide open path for farm equipment along east side of fence
- Moved main access gate and fence to south of Argent's claimed access
- **There is no legal basis for easement claims, but the new fence wouldn't interfere, even if there was.**



Alleged Screening and Tree Issue

- Objectors have claimed that soil type isn't suitable for trees, based on this graphic
- Simplistic and incorrect analysis
- As shown on next slide, there are plenty of examples of trees in red areas



Screening and Trees

- Large, mature trees exist in the red shaded area soil type within a mile of the solar site

 Indicates Areas with Soil Type 152A and mature trees

