

April 20, 2021

Ms. Tanowa Troupe, Secretary  
Ohio Power Siting Board  
Docketing Division  
180 East Broad Street, 11<sup>th</sup> Floor  
Columbus, Ohio 43215-3797

**Re: Case No. 21-36-EL-BGN** - In the Matter of the Application of Marion County Solar Project, LLC for a Certificate of Environmental Compatibility and Public Need to Construct a Solar-Powered Electric Generation Facility in Marion County, Ohio.

**Response to First Data Request from Staff of the Ohio Power Siting Board**

Dear Ms. Troupe:

Attached please find Marion County Solar Project, LLC's ("Applicant") Response to the First Data Request from the staff of the Ohio Power Siting Board ("OPSB Staff"). The Applicant provided this response to OPSB Staff on April 20, 2021.

We are available, at your convenience, to answer any questions you may have.

Respectfully submitted,

/s/ Christine M.T. Pirik

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### CERTIFICATE OF SERVICE

The Ohio Power Siting Board's e-filing system will electronically serve notice of the filing of this document on the parties referenced in the service list of the docket card who have electronically subscribed to these cases. In addition, the undersigned certifies that a copy of the foregoing document is also being served upon the persons below this 20<sup>th</sup> day of April, 2021.

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4810-4219-9268 v1 [88534-4]

**BEFORE  
THE OHIO POWER SITING BOARD**

In the Matter of the Application of Marion County     )  
Solar Project, LLC for a Certificate of     )  
Environmental Compatibility and Public Need to     )     Case No: 21-36-EL-BGN  
Construct a Solar-Powered Electric Generation     )  
Facility in Marion County, Ohio.     )

**MARION COUNTY SOLAR PROJECT, LLC 'S**  
**RESPONSE TO THE FIRST DATA REQUEST**  
**FROM THE STAFF OF THE OHIO POWER SITING BOARD**

On March 5, 2021, Marion County Solar Project, LLC (“Applicant”), filed an application (“Application”) with the Ohio Power Siting Board (“OPSB”) proposing to construct a solar-powered electric generation facility in Marion County, Ohio.

On April 6, 2021, the Staff of the OPSB (“OPSB Staff”) provided the Applicant with OPSB Staff’s First Data Request. Now comes the Applicant providing the following response to the First Data Request from the OPSB Staff.

**Public and Private Drinking Water Supply Impacts**

1. **Pg 55 of the application identifies five ground water sourced public water supplies within one mile of the project area. The Applicant concludes that potential impact is unlikely given the depth of the ground water relative to anticipated construction depths. However, the application doesn’t specifically identify the two source water area watersheds or the corridor management zone surface waters located within or immediately adjacent to the project area. Please account for these resources and provide any additional measures that may be considered during construction and operation that will ensure minimal impact.**

**Response:** The ground water sourced public water supplies within one mile of the Project Area (Aqua Ohio - Marion, Enterprise Baptist Church, Valero - Marion, Ridgedale Elementary, and Ridgedale Jr./Sr. High School source water protection areas [“SWPAs”]) are all located within the Columbus Public Water System source water area watershed.

Attachment 1 to this response includes the corridor management zone surface waters in addition to the drinking water source protection areas.

Additional measures beyond those described in the Application, which include a Stormwater Pollution Prevention Plan (“SWPPP”) and Spill Prevention, Control, and Countermeasure (“SPCC”) plan, could include:

- The engineering, procurement, and construction (“EPC”) contractor responsible for review of contingency plan, if prepared, for each SWPA and associated corridor management zone surface water will be aware of any notifications that are required so that local officials are prepared to respond to emergency situations and ready to provide alternative sources of water. This would include coordination with the state and county.
- The minimum amount of hazardous materials will be stored on site.

### **Floodplain**

2. **The application discusses that a portion of the project occurs within the FEMA designated 100-year floodplain. In addition, the application should discuss the likely consequences of various flood stages, and describe plans to mitigate any likely adverse consequences per OAC Rule 4706-4-08 (A)(4)(e). This would apply to both construction and operation of the proposed solar project.**

**Response:** The Project has been designed to mitigate any likely adverse consequences of constructing within the Federal Emergency Management Agency (“FEMA”) designated 100-year floodplain. All electrical equipment (modules, combiner boxes, and inverters) will be placed a minimum of 2 feet above the 100-year base flood elevation within the floodplain. The items within the 100-year base flood elevation would be the posts for racking and the access road, which would not be adversely affected by a flooding event. Since we are using the 100-year base flood elevation as the basis of our design, the 25-year and 50-year flood stages would not negatively impact the Project.

### **Traffic/Roads, Bridges, etc.**

3. **Page 2-1of Exhibit J (Construction Route Study) discusses pre-construction roadway conditions and states “Existing data related to vehicle traffic volumes and crashes within the study area is defined on Exhibit 2 in Appendix A. The data was obtained from the ODOT Transportation Information Mapping System (TIMS), which is shown on Exhibit 3 in Appendix A.” These two exhibits are maps. No data as referenced above appears to be included. Please clarify/revise as necessary.**

**Response:** The intent of Application Exhibit J, Exhibit 2, Appendix B is to illustrate the study area. The Annual Average Daily Traffic (“AADT”) for the state and county roads within the vicinity of the study area is included in Application Exhibit J, Exhibit 3, Appendix B and also in Table 1 on Page 2-1 of Application Exhibit J. The Transportation Information Mapping System (“TIMs”) data for crashes within the vicinity of the study area is included in the second paragraph of Page 2-1 of Application Exhibit J and reads as follows:

According to TIMS, in 2019 there were 21 accidents within the study area. One accident occurred on County Route 94 (Hillman-Ford Road). Two accidents occurred on County Route 66 (Kenton-Galion Road). Five accidents occurred on State Route 423 (Marion-Upper Sandusky Road), one of which was fatal. Four accidents occurred on State Route 4 (Marion-Bucyrus Road), one of which was a serious injury. Nine accidents occurred on County Route 162 (Marion-Williamsport Road), three of which involved possible injuries.

4. **The same section indicates the roadways in the project area have adequate sight distance along their alignment. Has the applicant performed any studies to ensure that adequate sight distance will remain during construction and operation of the proposed solar farm project?**

**Response:** While a specific study related to sight distance was not performed, the team identified potential points of access during the Construction Route Study, Application Exhibit J, and noted the ample sight distance. The potential points of access identified are along relatively gentle-sloped portions of the surrounding roadways and there is no intent to alter the roads with the construction of the Project. With proper signage and construction entrance allowing for trucks to enter and exit the site, there should be adequate sight distance provided for at each potential access point.

### **Project Description**

5. **Page 1 indicates that the project is anticipated to operate for 40 years. Pages 1 and 25 indicate a project lifespan of 30 years and page 48 indicates a lifespan of 35 years. Please clarify the apparent discrepancy.**

**Response:** As explained in the Application Narrative on page 1, the Project is anticipated to operate for 30 to 40 years. A conservative approach was taken for the studies included in the Application that consider the lifespan of the Project to ensure that benefits are not

overestimated. As demonstrated in the Application Narrative on page 25, an estimated 30-year Project lifespan was utilized for these evaluations (e.g. Economic Impact and Land Use Analysis [Application Exhibit G], payment in lieu of taxes [“PILOT”]). The Application Narrative on page 48 states that the proposed solar photovoltaic (“PV”) modules are designed to have a typical lifespan of 30 to 35 years, which falls within the anticipated 30 to 40-year lifespan of the Project. There is the possibility that the solar PV modules extend past their typical 35-year lifespan and the Project is in operation for 40 years. The leases associated with the Project are for a duration of 40 years, which allow pertinent site control and permission from the landowners if the Project’s lifespan were to extend to 40 years.

6. **Page 14 of the Application describes an O&M trailer, which are usually temporarily used during construction only. Figure 3-2 and page 77 indicate an O&M building, which is often used during operation of a facility. Please explain the difference between the two.**

**Response:** Throughout the Application, the operations and maintenance (“O&M”) trailer and O&M building were used synonymously and reference the same facility component. The Project will utilize an O&M trailer during construction of the facility. There is the possibility that the O&M trailer may be outfitted as a more permanent structure to use during the operation of the Project, as well. During operation, the O&M trailer would house site-specific documents, monitoring equipment, and controls for the solar arrays.

7. **Please provide the anticipated dimensions of both the O&M trailer and O&M building.**

**Response:** The anticipated dimensions of the O&M trailer will be 12’H x 12’W x 24’L.

8. **Page 1-1 of Exhibit Q, Sound Level Assessment Report, and page 53 of the Application indicate that the project would use 32 battery containers. Please provide the proposed layout upon which the Sound Level Assessment Report relied.**

**Response:** The proposed layout for the battery energy storage system (“BESS”) is provided as Attachment 2 to this response. This is the proposed layout upon which the Sound Level Assessment Report, Application Exhibit Q, relied.

9. **Exhibit B shows several diagrams for the representative possible BESS configurations and weights/dimensions of the PPC, PCSK. But, please describe, including numbers necessary or likely needed for, the major equipment in the BESS area (e.g. PPC, PCSK, battery containers, inverters).**

**Response:** The proposed BESS associated with the Project will include 32 battery storage containers, 8 inverters (PPC or PCSK), and one Project control switchgear.

10. **Setbacks seem to be interspersed through the Application. Please summarize and tabulate all setbacks that Marion County Solar Project, LLC incorporated into the preliminary layout (including but not limited to non-participating property line, non-participating residential structure, road right-of-way, transmission line easements, wetlands, streams).**

**Response:** The following setbacks were implemented into the current Project design:

- Non-participating property line: 50 feet
- Non-participating residential structure: 225 feet in the current Project design, will be increased to 300 feet in final design.
- Road centerline: 50 feet
- Transmission lines: 50 feet
- Wetlands/streams: 25 feet

11. **Please also describe if the setback is to equipment or to the project fence.**

**Response:** The setbacks listed in response to item 10 are the distance to the Project's generation equipment, not the Project fence.

#### **Battery Energy Storage System (BESS)**

12. **Referring to page 2 of the Application, the Marion County Solar Project, LLC proposes a BESS that will inject up to 20.3 MW into the power grid. What is the anticipated energy storage in kilowatt-hours (kW-h) of the BESS?**

**Response:** The anticipated energy storage of the BESS is 203,000 KWh.

13. **In Ohio the BESS is often separately owned and operated from the solar farm, Will Marion County Solar Project, LLC construct, own, operate and maintain the BESS?**

**Response:** It is the intent of Marion County Solar Project, LLC to construct, own, operate, and maintain the BESS associated with the Project.

### **Aviation**

14. Referring to page 7 of the Application, please confirm that the height of the tallest structure at the solar farm would be the gen-tie poles or substation support structures at 110 feet?

**Response:** In the current design, the height of the tallest structure associated with the Project would be the gen-tie poles and/or substation support structures, which will be a maximum of 110 feet.

### **Decommissioning**

15. Page 35 of the Application indicates that the decommissioning plan and costs will be recalculated prior to commencement of construction and then again in year 10 of project operations and every five years thereafter. Staff would recommend that the Applicant retain an independent, registered professional engineer, licensed to practice engineering in the state of Ohio to periodically estimate the total cost of decommissioning facility, salvage value, and appropriateness of any contingency percentage. Please indicate the Applicant's understanding and commitment to provide this to Staff and indicate when this would be provided.

**Response:** The Applicant will retain an appropriate independent, registered professional engineer, licensed to practice engineering in the state of Ohio to accurately assess decommissioning costs. Final design is required to provide an accurate estimate of decommissioning costs. Estimated decommissioning costs will be provided after final design is submitted to OPSB and prior to the start of construction.

### **Wind Velocity**

16. Please describe plans to mitigate any likely adverse consequences of high wind velocities in the area.

**Response:** The potential for high wind velocity will be taken into account during development of the Project's final design. The posts that support the racking systems will be embedded at an appropriate depth for the site-specific soil conditions to minimize any potential damage from high wind velocities. The racking systems undergo wind tunnel



testing to accurately determine the wind loadings that the racking system may experience. The rows on the outside of the arrays will have a more robust design (thicker steel, shorter spans between piles) since those rows may experience greater wind loading than the rows in the interior of the arrays. The racking system will also include a stowing feature, which will tilt panels to a certain angle, usually between 0 and 30 degrees from horizontal, to reduce the wind loading on the solar panels. Several anemometers will be placed throughout the site to measure wind speed. Once the wind reaches a certain speed, the trackers will be directed to move into stow mode.

### **Generation Interconnection (gen-tie) Line**

- 17. What is the nominal voltage of the gen-tie line referenced on page 14 of the Application?**

**Response:** The gen-tie line referenced in the Application Narrative at page 14 has a nominal voltage of 138 kilovolts (“kV”).

- 18. Please provide the following information for the gen-tie line referenced on page 14 of the Application:**

- a. Tower designs, pole structures, conductor size and number per phase, and insulator arrangement.**
- b. Base and foundation design.**
- c. Cable type and size, where underground.**
- d. Other major equipment or special structures.**

The information requested for the 138kV gen-tie line has not been determined at this time and will be detailed in the Project’s final design. The final facility layout will be provided to the OPSB no later than 30 days prior to the start of construction.

- 19. Is the gen tie line within one hundred feet of an occupied residence or institution? If yes and the nominal voltage is over 100 kV, please provide the calculated electric and magnetic field strength levels at one meter above ground, under the conductors and at the edge of the right-of-way for (i) Winter normal conductor rating, (ii) Emergency line loading, and (iii) Normal maximum loading.**

**Response:** In the current design, the gen-tie line is not within 100 feet of an occupied residence or institution.

### **GIS Data**

20. **It does not appear that there was a layer of data indicating the collection lines. Can staff please get a data layer showing the collection line layout of the facility?**

**Response:** A GIS shapefile showing the current design of the collection line layout of the facility has been provided to OPSB.

### **Upgrades/SIS Study**

21. **Page 22/106 of the Application addresses the “Network upgrades identified in the Facilities Study include the construction of a 138-kV three ring bus interconnect switchyard and connections to the ATSI-owned Galion-Roberts South 138-kV Circuit”, and the estimated cost thereof.**

**Does the Developer plan to provide these necessary upgrades, and does this include addressing the two lines identified by PJM on page 10/34 of the System Impact Study that may overload, and the existing relays at Galion and Roberts that have been identified for replacement?**

**Response:** The interconnecting customer (Marion County Solar Project, LLC) will be electing to “self-build” and will be responsible for constructing the interconnection facilities for the Project, including a 138-kV three ring bus interconnect switchyard and connections to the American Transmission Systems, Inc. (“ATSI”) -owned Galion-Roberts South 138-kV Circuit. The network upgrades are no longer needed after withdrawal of queue position AB2-131.

### **Cultural Resources**

22. **Thank you for submitting the Programmatic Agreement as signed between the Applicant and SHPO. It is mentioned that field work is concluding in the second quarter of 2021. Please update any approximate dates of completion of field studies for archaeology and historic architecture, and provide an estimate of the percentage of field work that has been concluded to date.**

**Response:** The archaeology and historic architecture field work was completed in early April of this year. Reports are being finalized and will be submitted to the OPSB upon completion.

Respectfully submitted,

/s/ Christine M.T. Pirik

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*Attorneys for Marion County Solar Project, LLC*

## **Attachment 1**

### **Corridor Management Zone Surface Waters Drinking Water Source Protection Areas**



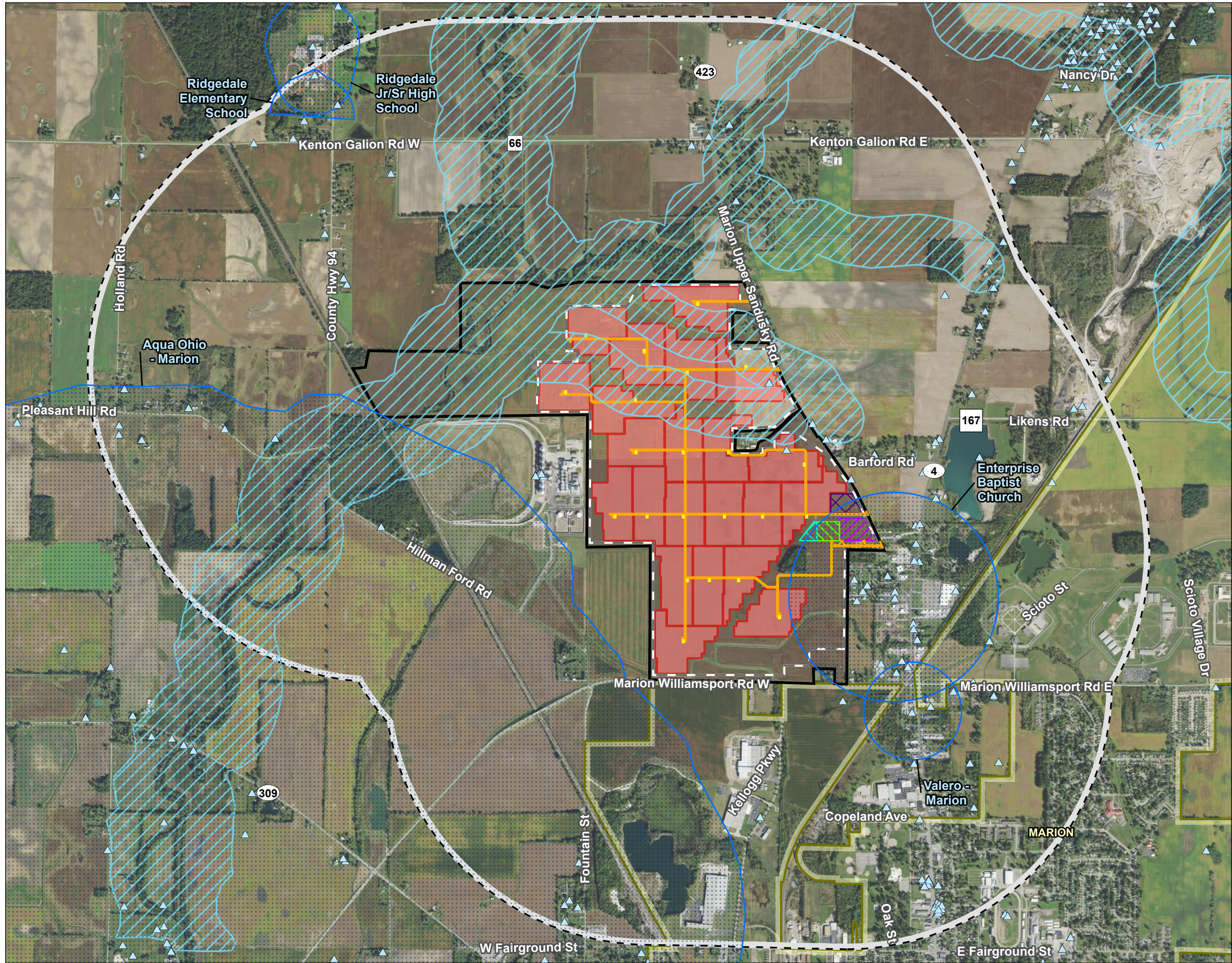


Figure No.  
**1**

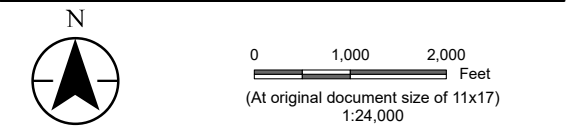
Title  
**Source Water Protection Areas and  
Corridor Management Zones Map**

Client/Project  
Marion County Solar Project, LLC  
Marion County Solar Project

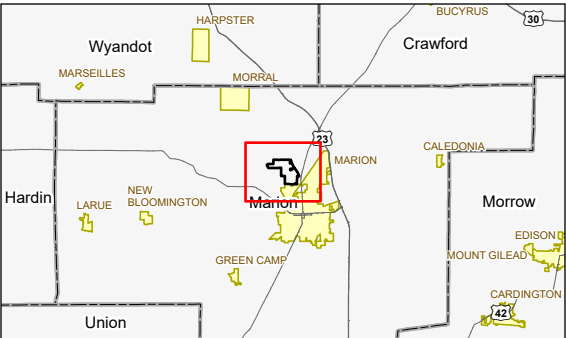
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Project Location  
Marion County, Ohio

Prepared by JLH on 2021-04-14  
TR by JD on 2021-04-14  
IR by CMD on 2021-04-15



- Legend
- Project Area
  - 1 Mile Buffer
  - Solar Array
  - Inverter
  - Substation
  - O&M Building
  - BESS Building
  - Switchyard
  - Fence
  - Access Road
  - Water Well
  - Corridor Management Zone
  - Source Water Protection Area



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet
2. Data Sources: Stantec, Savion, USGS, FEMA, ODNR, OEPA, NADS
3. Orthophotography: 2019 NAIP

**Preliminary Design - Not for Construction**

Page 1 of 1








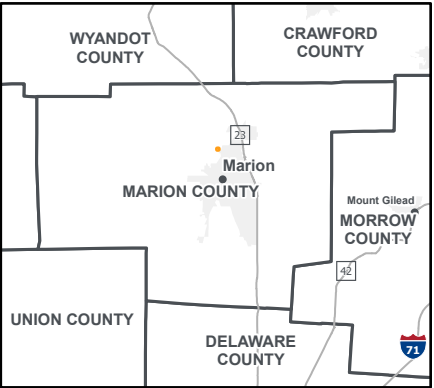
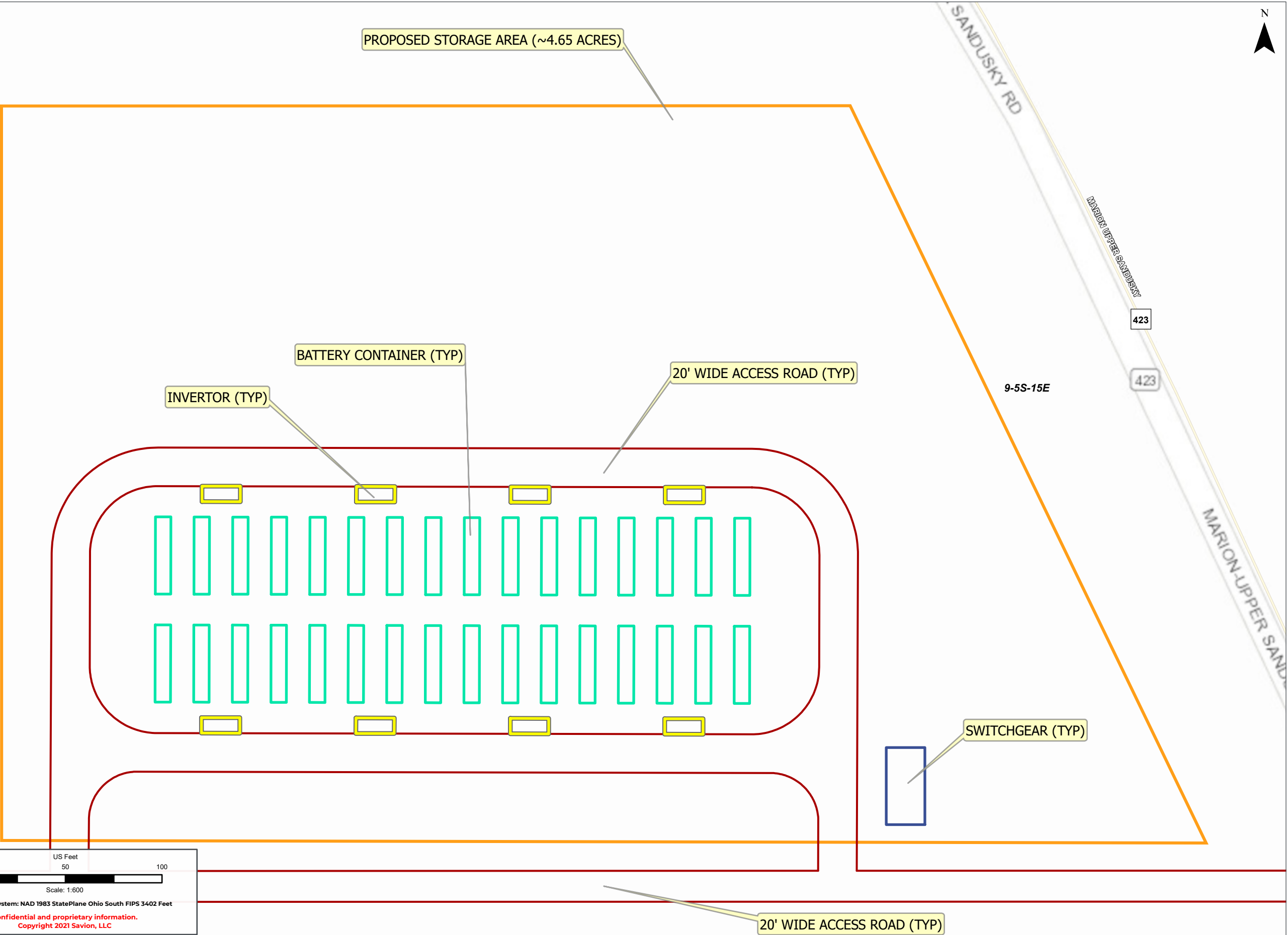
## **Attachment 2**

### Battery Energy Storage System Layout

# MARION COUNTY STORAGE SOLAR PROJECT



-  Project Area
-  Access Roads
-  Battery Containers
-  Inverters
-  Switchgear



**MARION COUNTY STORAGE**  
Marion County, Ohio

Date: 4/14/2021

Analyst: sraasch

**This foregoing document was electronically filed with the Public Utilities**

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**in**

**Case No(s). 21-0036-EL-BGN**

Summary: Response to First Data Request from Staff of the Ohio Power Siting Board electronically filed by Christine M.T. Pirik on behalf of Marion County Solar Project, LLC