

## **EXHIBIT K**



**ACOUSTIC  
DISTINCTIONS**

**DESIGN IN HARMONY**

New York, NY  
Stamford, CT  
Los Angeles, CA  
Lancaster, PA

## Email Correspondence

**Today's Date:** 4.3.2023

**To:** Briarcliff Solar

[info@briarcliffsolar.com](mailto:info@briarcliffsolar.com)

**From:** Arthur van der Harten

**Subject:** Code Compliance Noise Study

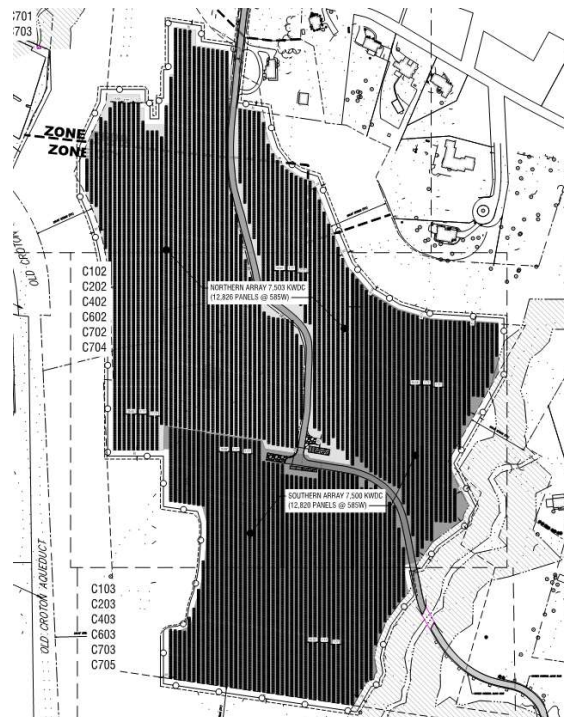
**Project:** 345 Scarborough Rd  
Briarcliff Manor, NY 10510

**AD Project #:** 2023119

**Pages:** 6

To whom it may concern,

Briarcliff Solar LLC is planning a 25,646 panel solar farm at 345 Scarborough Road in Briarcliff Manor. This report presents an analysis of the noise impact on neighboring properties per chapter 146 (Noise) of the Village of Briarcliff Manor General Legislation. Acoustic Distinctions has performed the following study demonstrating that the proposed solar farm will comply with local noise ordinance in the Village of Briarcliff.





## Code Analysis

The site for the solar farm is located in a residential zone (Zone types R60A, CT1, R20B, and R40A) of Briarcliff Manor. As such, the site is subject to Chapter 146 of Village of Briarcliff General Legislation, section 146-5.A:

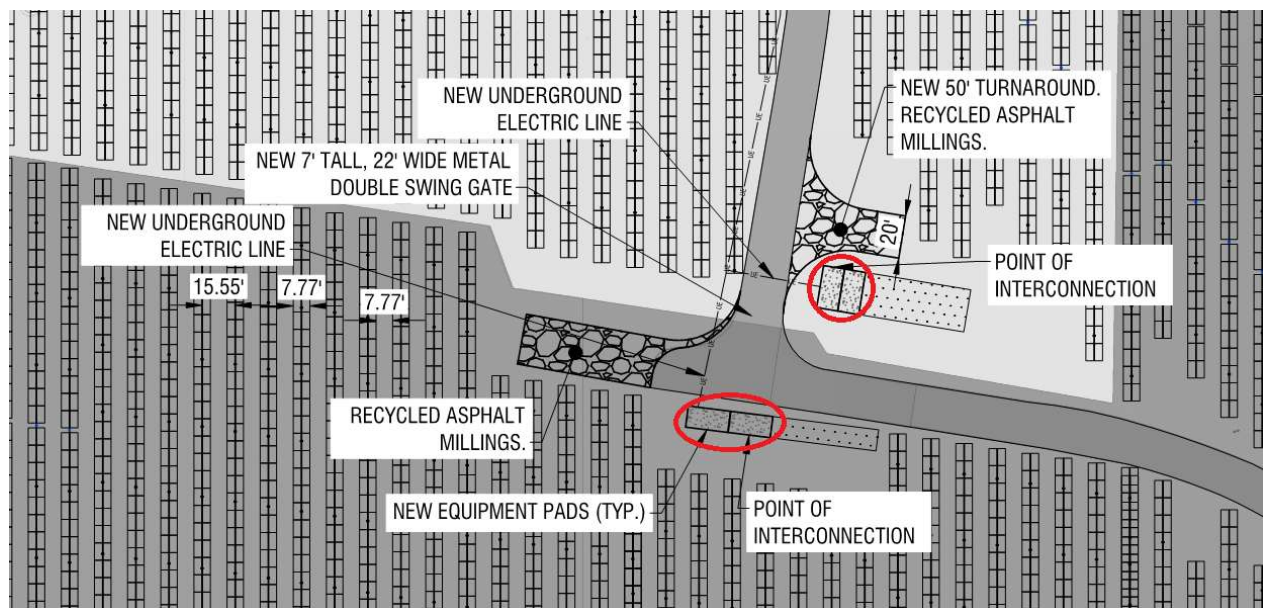
*Noise produced by any act or activities, including the use of any musical device or off-road motor vehicle, on properties within any residential zoning district, shall not disturb the peace, quiet and comfort of the neighboring inhabitants and shall not exceed: i) 60 dB(A) during the hours of 8:00 a.m. to 6:00 p.m.; and ii) 45 dB(A) during the hours of 6:00 p.m. to 8:00 a.m. weekdays and Saturdays, and at all times on Sundays and holidays.*

According to 146-4B, the measurements should be taken from a position on the property hosting the source of noise at least 50 feet from the property line.

In order for the equipment to operate 7 days a week, it must conform to the noise requirement at a position 50 feet from the neighboring property line on Sundays, which means it must not be louder than 45dBA.

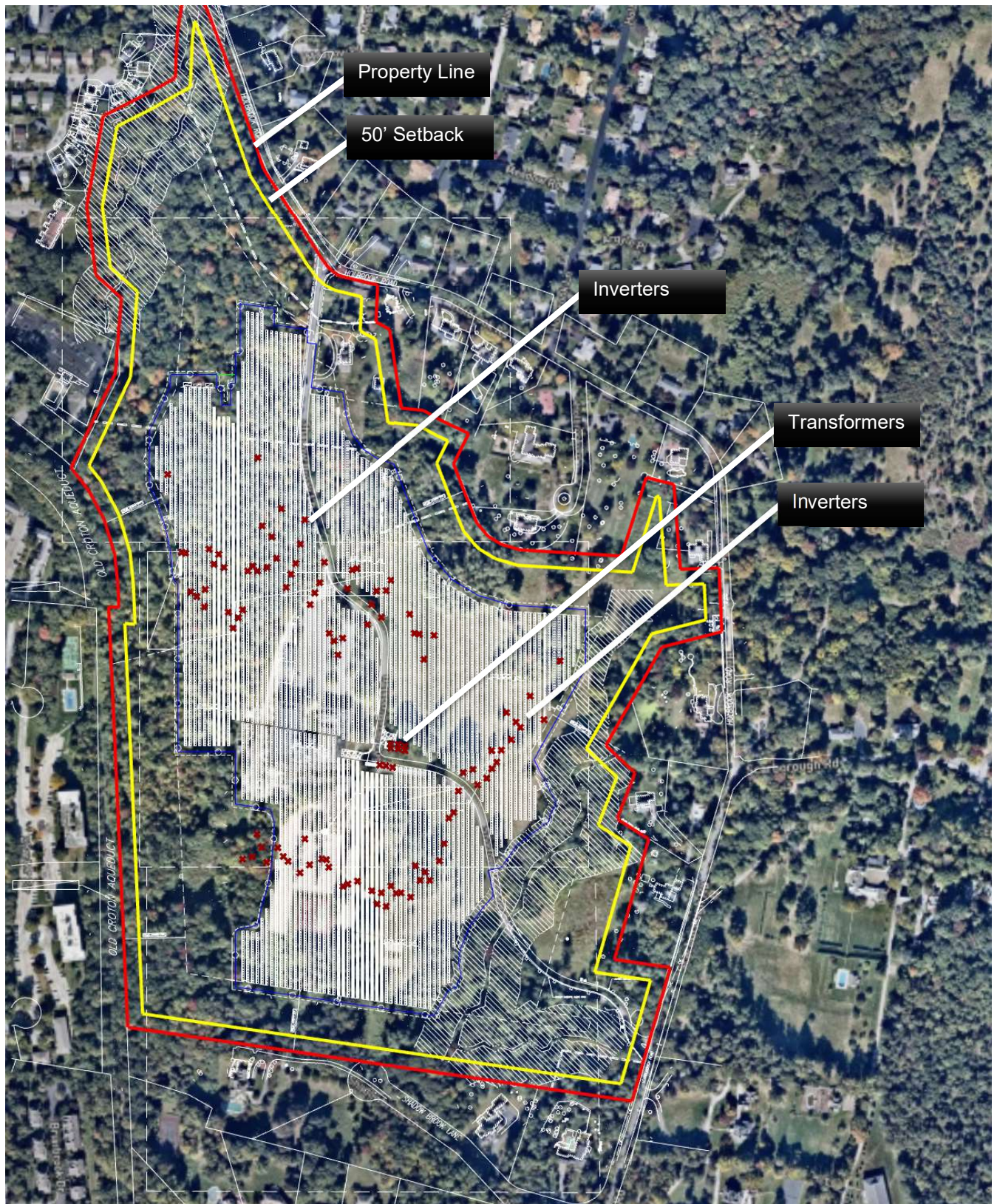
## Analysis of Equipment

There are two pieces of equipment that occur on the solar farm – the transformers, and the inverters. The Transformers are located at a central location in the center of the site, as far from any property line as possible, and emit approximately 64 dBA at 1 meter.



The inverters are distributed throughout the site, and emit up to 69 dBA at 1 meter, and are distributed all over the site, and much closer to the property lines. In general, the inverters present the greater risk of violating the noise code. The approximate inverter and transformer locations are marked with a red 'X' in the aerial photograph shown below:









## Site Analysis

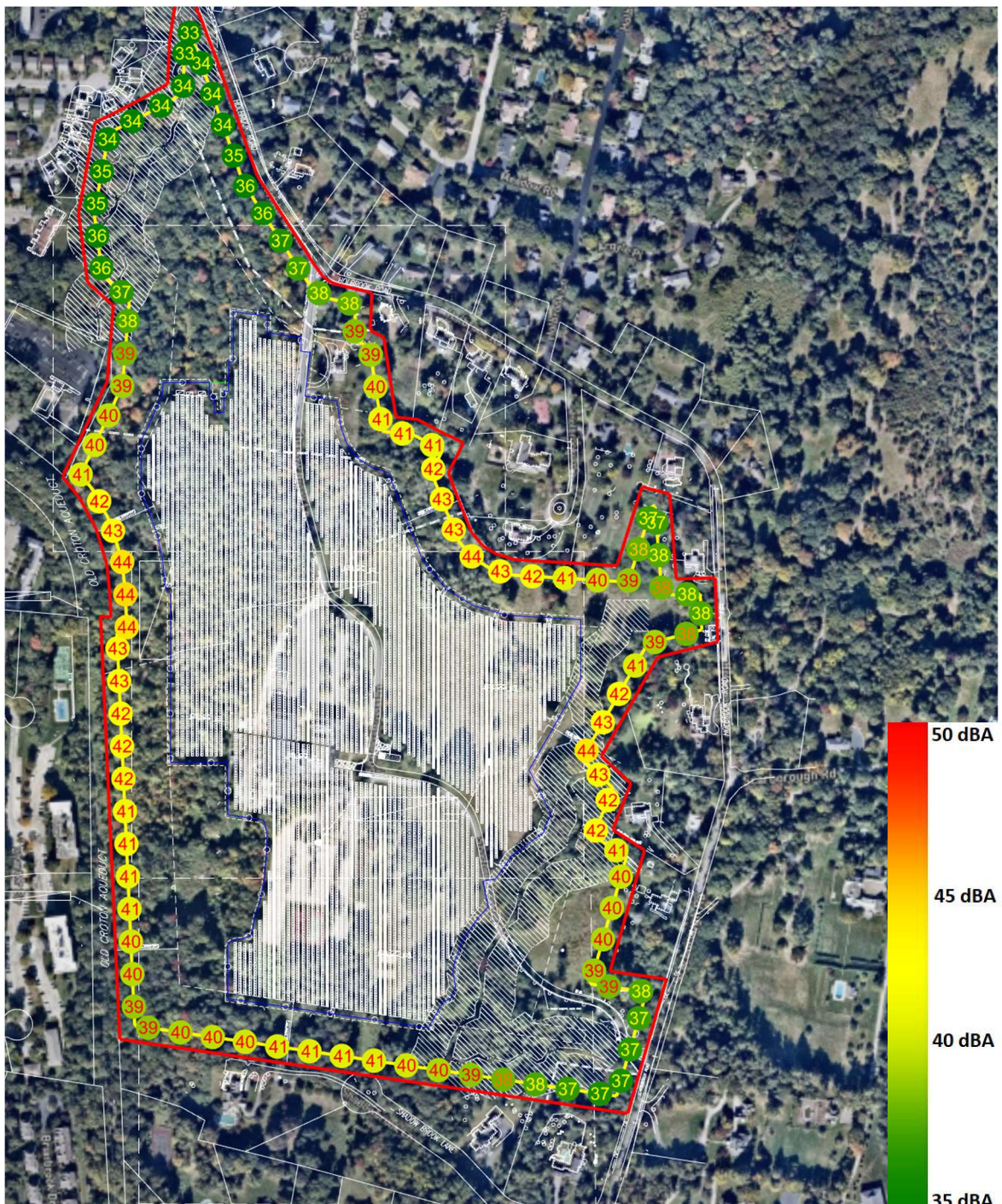
AD has constructed a computer model of the site, including the terrain as provided by Cesium World Terrain), and the approximate location of each piece of equipment as provided by Briarcliff Solar LLC. The model is shown below. The red line below is the property line of the site of the solar farm. And the yellow line is a setback 50 feet from the property line. Noise levels from the site must not exceed 45 dBA at the yellow setback line.







An environmental noise calculation is executed which sums up the noise contribution of each transformer and inverter on the site (represented by the red marks on the plan). At 100 locations along the 50 foot setback line, the sound pressure level of the entire installation is calculated (represented by a colored dot with a number. The color is green at the lowest values, and yellow at the highest values. The number is the sound pressure level in dBA). Note that this simulation includes terrain geometry, but omits trees and other obstructions that might exist on-site. In reality the sound pressure levels may be lower than shown.





The simulation reveals that the solar installation will comply with the requirements of the Village of Briarcliff General Legislation, section 146-5.A, even operating on Sundays.

## **Conclusions**

This report describes a study to understand the noise generated by future equipment on the site of the proposed Briarcliff Manor solar farm. Acoustic Distinctions built a model of the site, and performed a detailed calculation of the noise resulting from the required inverters and transformers.

The study demonstrates that the proposed solar farm will comply with the Village of Briarcliff noise ordinance, even on Sundays, when the noise ordinance requires the equipment not exceed 45 dBA at the property line all day. Levels from the operation of all transformers and inverters will not exceed 44 dBA at any location on the property within 50 feet of the property line.

We trust that this is sufficient to satisfy any concerns regarding noise from the solar installation at 345 Scarborough Road, Briarcliff Manor.

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## **End of Report**