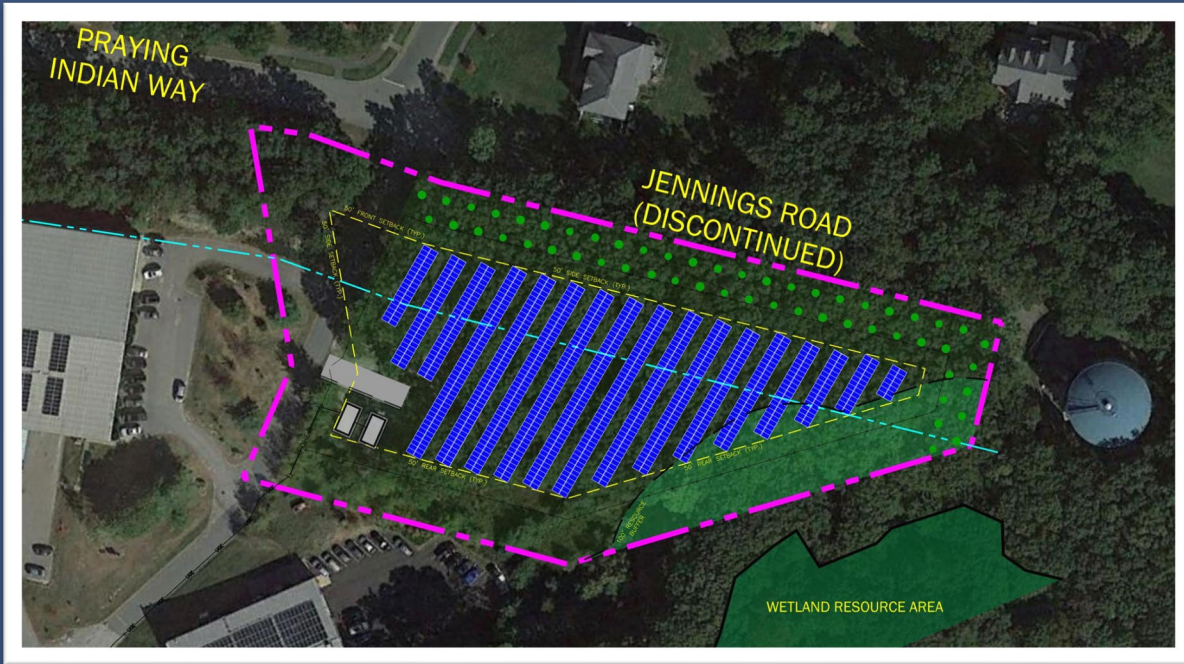


# HOLLISTON PLANNING BOARD

JANUARY 12, 2023

## SITE PLAN REVIEW SPECIAL PERMIT



**GALE HEAD**  
DEVELOPMENT

BEALS • ASSOCIATES INC.

0 BARTZAK DRIVE, HOLLISTON MA

# AMBIENT SOUND MEASUREMENTS

Cavanaugh Tocci Associates

- Measurements recorded last week
- Report is expected at the end of January, for discussion with the Board in February

# HOURS OF OPERATION

- Solar panels only operate during hours where sunlight is available to generate energy, meaning only during daylight hours, which change throughout the year.
- In 2023, the earliest sunrise is 5:08:44 AM on June 14th and the latest sunset is 8:26:11 PM on June 26th & 27th. This period would result in the longest daily operations.
- Conversely, the latest sunrise is on January 2nd & 3<sup>rd</sup> at 7:14:23 AM and the earliest sunset is December 9th at 4:13:37 PM, which would be the shortest daily operation period.
- The exact hours of operation may differ slightly from the listed times based on surrounding topography and trees that will cast shadows on the array as the sun rises and sets.
- There are no batteries in this project so there will be no energy generation once the sun sets and before the sun rises. In other words, no energy will be generated during the night.

# SOLAR GLARE

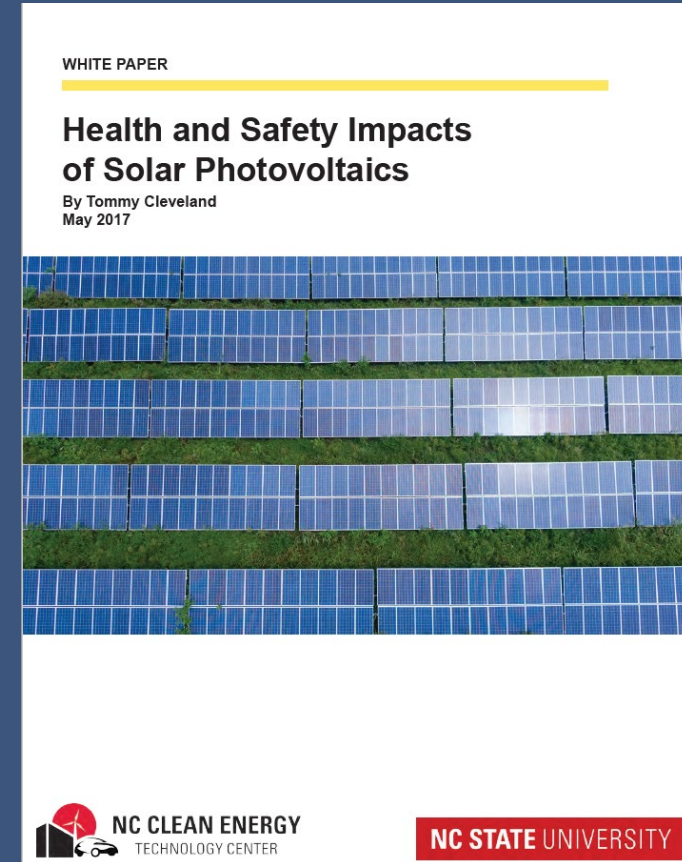
- The fundamental purpose of a solar project is to absorb sunlight to generate electricity.
- Therefore, it would be inefficient and counterproductive to install equipment that reflects sunlight (i.e., create glare), and panels are therefore not designed to do this.

# CO<sub>2</sub> Vs. OTHER SOURCES OF EMISSION

- While there are multiple greenhouse gases, CO<sub>2</sub> is the accepted metric for these types of professional analyses.
- Focusing on CO<sub>2</sub> is so common that the standard unit of these analyses is "CO<sub>2</sub> equivalent." This is a best attempt to distill down complex science and hundreds of variables into as close to an "apples to apples" comparison as possible.

# EMF

- The Federal Government, through Section 704 of the Federal 1996 Telecommunications Act, regulates facilities that transmit EMF levels, so no local municipalities may unreasonably regulate the placement of telecommunication equipment based on EMF output
- Solar is exempt from these regulations and reporting requirements because the EMF levels are so low.
- The FAA has indicated that Electromagnetic Interference (EMI) from solar installations is very low risk as well.
- We have provided the Board with a study that further demonstrates that solar projects do not pose EMF-related health concerns to the surrounding community

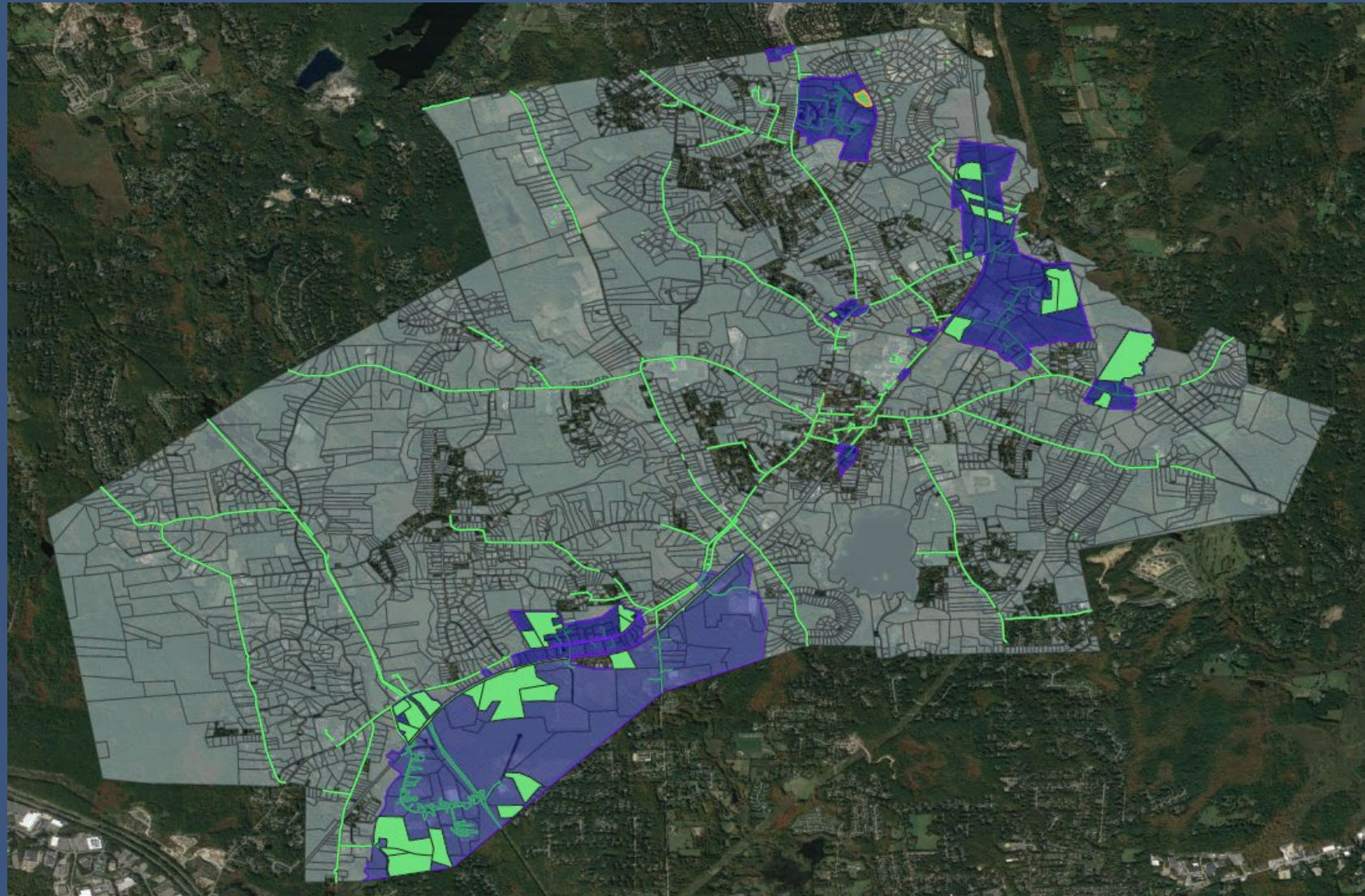


## AVAILABILITY OF OTHER POTENTIAL SITES

- General impression that Holliston's local code already promotes solar development and there is plenty of land available better-suited for solar development than this property on Bartzak Dr.
- Galehead conducted an analysis that shows the Town, the parcels within the Industrial District and Commercial Districts (shaded blue), the Eversource Feeder lines with adequate hosting capacity (green lines), and parcels we have determined are suited for solar development (green polygons).



# SOLAR DEVELOPABLE AREA



- Bartzak Project
- Potential Project Sites - with hosting capacity (295 acres)
- Selected Zoning Areas (1,585 acres)
- Eversource Feeders ( $\geq 0.2$  MW Capacity)
- Eversource Feeders

Area	Acres	Percent of Town
Total Town Footprint	12,194	100.00%
Selected Zoning Areas	1,585	13.00%
Potential Project Sites - with hosting capacity	295	2.42%

0 0.3 0.6 mi

0 0.5 1 km





## AVAILABILITY OF OTHER POTENTIAL SITES

- Conclusion is that of the 12,194 acres in town, 1,585 acres or 13% falls within an approved zone for solar. However, much of that land is inaccessible, undevelopable due to site constraints, or too distant from the feeder lines to be viable for utility interconnection.
- In total, only 295 acres or 2.4% of the town is available for a solar project.
- This is a conservative figure because analysis does not consider further regulatory restrictions like property line setbacks that further reduce the amount of potential buildable land or practical matters like if parcels are already occupied by preexisting uses or are unavailable for acquisition at a given time.

THANK YOU  
QUESTIONS OR COMMENTS