TALK OF THE
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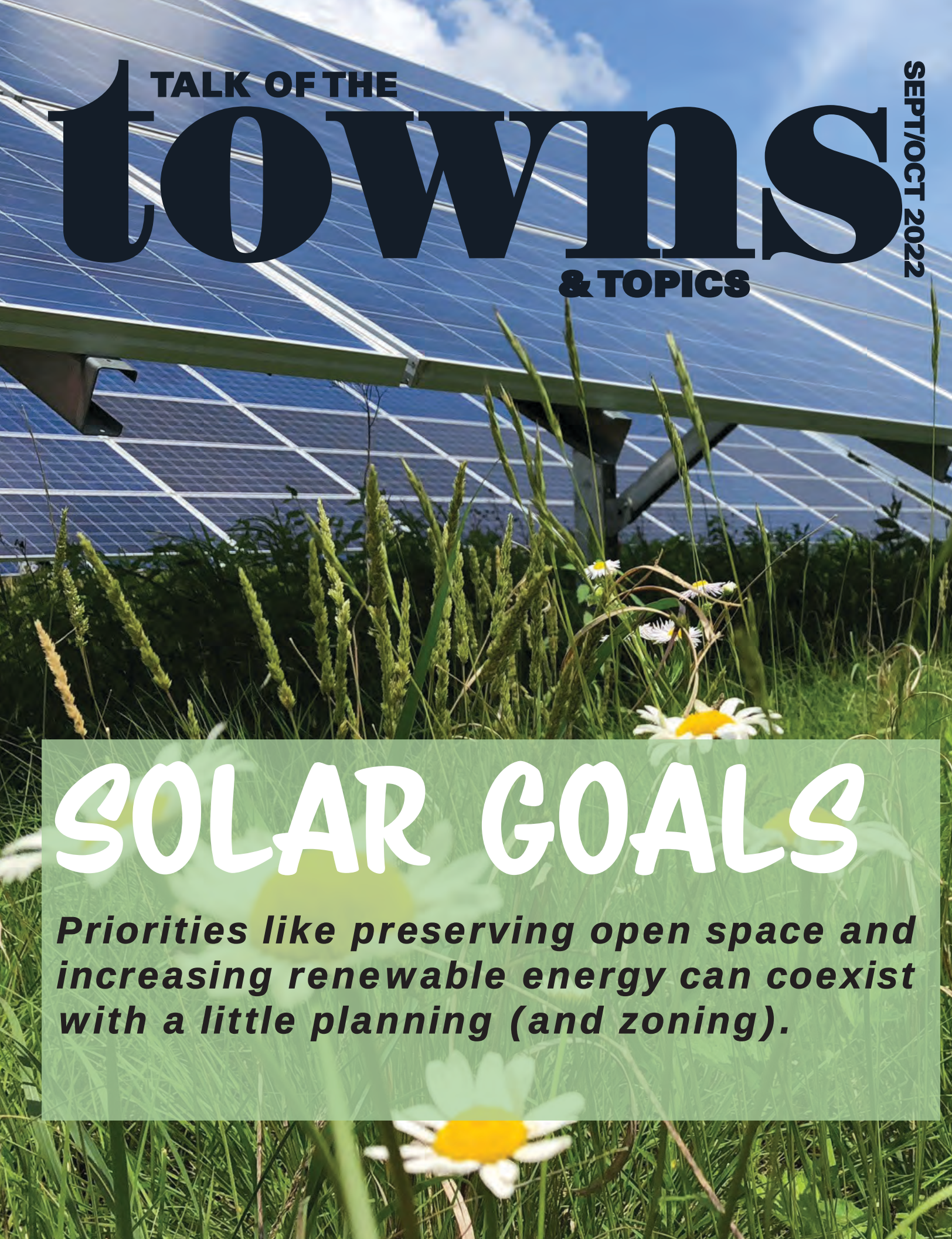

# SOLAR GOALS

***Priorities like preserving open space and increasing renewable energy can coexist with a little planning (and zoning).***

# Setting the Stage: Creation of an Industrial Park

By Andrew Fetherston, P.E., CFM, CPESC, CPSWQ, Geographic Discipline Leader | Civil/Site

Finding land that will accommodate an industrial park project is as important as its location. Finding a location with strategic access to major transportation corridors is golden! Wawayanda is a 35-square-mile town in Orange County, NY, with seven hamlets and open space zoned and available for commercial development. The Dolsontown Road Industrial Park encompasses over 150 acres. While several existing commercial spaces flank Dolsontown Road, the majority of the area is a mixture of open fields, woodlands, and wetlands. As a bonus, the western end of this 1-mile stretch is in close proximity to major highway access. Dolsontown Road intersects with State Route 17M and is a half-mile from Interstate 84 (I-84), one of the region's pre-eminent freeways originating outside Scranton, Penn., and running through the northeastern states to Sturbridge, Mass. Interstate 84 also strategically connects to Interstate 87 through an interchange at Newburgh that runs between New York City and Montreal.

### Let the Due Diligence Begin!

The project is consistent with the municipal zoning and the town's comprehensive plan set forth in the town's zoning law, which stipulates that the site should provide the town with a principal area for intensive nonresidential development such as office, retail, service businesses, and manufacturing. Indeed, the project is anticipated to be less intensive than a variety of other uses that are permitted by site plan approval or special use permit, including contractor yards, motor vehicle sales and services, high-traffic retail and service businesses, industrial and manufacturing uses, and mining operations.

### GEIS

Before design could begin, topographical and boundary surveys were carried out to identify the site constraints that affect the yield of the properties and where it would be economical and permitted to build. An extensive Generic Environmental Impact Statement (GEIS) was performed. Prepared pursuant to the scoping document approved by the Town of Wawayanda Planning Board, the GEIS is a thorough document combining individual studies of each building site. The study addresses the cumulative impacts on the roadway system, water and sewer infrastructure, stormwater discharge, threatened and endangered species, and archeological resources within the Dolsontown Corridor.

For this article, we're concentrating on the parcel designated as Dolsontown East, the largest of the proposed warehouse/distribution facilities, with 463,000 square feet of warehousing space planned. The Dolsontown East development is proposed to consist of two parcels (Lots 1 & 2). Lot 1 will be accessed via two driveways, the easterly most provided for truck ingress/egress; each has a width of 30 feet. Westerly access is located approximately mid-site frontage and will service passenger vehicles. Lot 2 development will be furnished with a single 30-foot-wide access drive located at the site's easterly limit.

### Traffic Considerations

Dolsontown Road is a two-lane roadway that will be widened to provide adequate through-traffic and turning lanes into each facility. The overall development plan will accommodate semi-trailer traffic within the corridor with ingress/egress access at Route 17M. The improved Dolsontown Road structure will provide access to accommodate the seven proposed facilities, with a total of approximately 1.3 million square feet of warehouse/manufacturing/distribution facility space.

In order to accommodate the semi-trailer ingress/egress, the driveway aprons are designed with an adequate vehicle turning radii to ensure that two large vehicles can enter and exit the site simultaneously. Confirming in the field and via sight distance profiles, the required distance is measured to allow these large vehicles to enter and exit the driveways safely. Where possible, lining-up driveways across from one another is favored. Avoidance of existing obstructions like utility poles, transformers, fire hydrants and ecologically sensitive areas is a consideration.

**Threatened and Endangered Species**

The New York State Department of Environmental Conservation (NYSDEC) and US Fish and Wildlife Service (USFWS) identified the potential existence of vulnerable and endangered animals, plants, and insects at the Dolsontown East site. As a result, in November 2021, Ecological Solutions, LLC completed a thorough Threatened and Endangered Species Habitat Suitability Assessment, seeking first to establish whether such habitats existed and then to recommend potential mitigation measures should any detrimental impacts be unavoidable.

In every case, from Monarch butterflies to Indiana and northern long-eared bats to small whorled pogonias, there was no potential for construction to impact these protected species. The project site either did not support the identified wildlife, or the work being carried out would pose no threat.

**Stormwater Pollution Prevention Plan (SWPPP)**

Understanding the potential effects of flooding and water quality is required for a project of this magnitude. After analyzing each individual site, a Stormwater Pollution Prevention Plan (SWPPP) was prepared in compliance with NYSDEC and the State Pollutant Discharge Elimination System (SPDES). For each of the building sites, it was key to provide adequate erosion controls, and mitigate the impact of stormwater runoff on water sources by controlling the peak rate of runoff to minimize any effects on nearby Monhagen Brook.

By implementing the SWPPP, the site will be well-prepared for whatever Mother Nature throws its way. The new impervious areas have been treated for the required water quality and runoff reduction through the use of bioretention ponds. DEC-approved practices will be used in the design to help maintain the existing water flow. Because the SWPPP also provides water quality treatment and peak flow mitigation, there should be no adverse effects due to stormwater, on-site or off-site, as a result of the proposed development.

**NYSHPO Archeological Report**

To be certain no historic or culturally

significant sites are disturbed by construction, archaeological surveys were performed. During the first session, over 450 shovel test pits were excavated at intervals of 50 feet. During subsequent sessions, 96 additional test pits were dug in the Northern Portion, 135 in the Southern Portion, and 25 more along a utility route. In areas with the highest likelihood of uncovering evidence of archeological significance, the distance between test pits was shortened to ensure nothing was missed.

With the exception of a single chert flake, sometimes indicative of ancient tool-making, no other features or objects were discovered to encourage further inquiry. After that minor find, four holes were dug in that area at intervals of 1 meter and yielded no results. At the conclusion of the survey, it was determined that no additional archaeological research was warranted, and the NYSHPO Report was filed.

**Geotechnical Report**

To ensure all construction will be supported properly, a geotechnical investigation was conducted in early November of 2021. Soil borings were drilled by the hollow-stem auger method, utilizing a track-mounted drill rig. In addition, soil sampling and testing were performed using the Standard Penetration Test (SPT). With bedrock indicated at an average of 10 feet and moisture contents well below levels of concern, the report was encouraging. The only area of note was located in the west building area, where bedrock was indicated at shallow depths. While soils excavated on-site are expected to be of fair to poor quality for re-use, the excavated rock should make for great fill in the proposed building pad area, especially as a base layer.

As part of the overall GEIS study, the studies above concluded that the results pertaining to the Dolsontown East property were indicative of all the other properties, setting the stage to move forward with the site development plans.

**Conclusion**

Waiting for the bad news? There is none. This is a perfect example of a project set up for success in all regards. The town had the right zoning in place for development at a location that would encourage semi-trailer traffic to traveling the Route 17M State Highway directly to the I-84 interstate ramps. After the GEIS review, no issues were identified that could not be adequately mitigated by the project. The local community will benefit from the generation of tax ratables from converting non-productive land into viable operations that produce job opportunities, extend the water/sewer infrastructure, provide significant improvements to the intersection of Dolsontown Road, and Route 17M, while minimizing negative affects to the quality of life. ❒