

C.T. MALE ASSOCIATES

Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C.

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March 23, 2023

Nathan Knapke
Genie Solar Energy
520 Broad Street
Newark, NJ 07102
Email: nknapke@geniesolarenergy.com

Re: *Visibility Analysis*
Lansing Community Solar Project, Lansingville Road
Town of Lansing, Tompkins County, New York
C.T. Male Project No. 22.2303

Dear Nathan:

C.T. Male Associates, Engineering, Surveying, Architecture, Landscape Architecture, and Geology D.P.C. (C.T. Male) has completed a Visibility Analysis for the Lansing Community Solar Project that is proposed off Lansingville Road in the Town of Lansing. This work was completed to assess potential visual impacts related to the project, in accordance with Town of Lansing Local Law #3 of 2020 (Solar Law).

Compliance with the Solar Law

§ 802.18 (Solar Energy Facility Special Conditions, including for Site Plan Review)

§ 802.18.6 (Visual Effect): *“The Solar Energy Facility must have the least visual effect reasonably practicable on the environment, as determined by the Planning Board. The determination must be based on site specific conditions including topography, adjacent structures, and roadways. Solar Energy Facilities must avoid clearing extensive areas of forest, and practicable efforts must be made to minimize visual impacts by preserving natural vegetation and providing dense evergreen landscape screening to abutting residential properties and roads, yet screening should minimize the shading on solar collectors.”*

The proposed project meets this requirement. The project is sited in way that utilizes setbacks, existing vegetation, topography, and a dense planted vegetative screen (290± trees) to mitigate visual impacts and blend the project with the existing landscape. Several areas of potential project visibility were identified around the site during initial site planning. However, after analyzing the terrain during project layout, along with providing dense vegetative screen, the potential visibility of the project has been minimized and represents the least visual effect on the environment that is reasonably practicable. More detail on specific viewsheds is provided below:

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Viewsheds

- **View from Lansingville Road (Profile 1):** From Lansingville Road the site slopes up to the west. The existing view up this rise is mostly unobstructed as it is a cultivated agricultural field essentially to the bounds of the parcel. The solar array is sited mostly on the top of this rise in the northwest corner of the project site, and will be partially obstructed by the intervening topography in the form of a small ridge. To supplement the intervening topography, two (2) dense vegetative screens are proposed. One consists of a single-row of evergreen trees (a three-species mix) planted 10-feet on-center along the eastern boundary of the parcel along the public roadway. This screen will be planted along the parcel's entire road frontage, except for where the existing driveway entrance will be maintained. The other vegetative screen will be a double row of the three-species evergreen mix along the project fence line, planted 10-feet on-center in a staggered pattern. This double row will be planted outside the fence line, which will be an 8-foot tall agricultural-style woven-wire deer fence with timber posts. The proposed vegetative screen will grow at a rate of approximately one foot per year. In addition, the project fence line is set back 1,150± feet from the center line of Lansingville Road, which is a substantial setback of 0.22± miles.

The location of this viewshed is represented by Profile 1, which is mapped on the attached Sheet C-801. The Profile 1 line-of-sight diagram and the existing conditions viewshed photograph are depicted on the attached Sheet C-802.

Impact Discussion: It is likely that the eastern edge of the array and fenceline will be visible in year one on the east facing slope. The views will be limited to portions of the project that will "peek" over the screening trees such as the top of the perimeter fence and the tops of the solar panels at their full tilt and height. However, as the vegetative screen grows, the views of the project should be substantially screened by year 5 or 6, and fully screened by year 10. In addition, the provision of a 1,150± foot setback from the road will reduce the magnitude of partial visibility, and the screening trees at planting will soften the visibility and blend the project with the natural environment. Based on the above, the limited initial visibility of the project from Lansingville Road does not infer a significant environmental impact.

- **Views from Rear Yards of 361 and 383 Jerry Smith Road (Profiles 2 & 3):** Between the rear yards of these residential properties and the proposed solar array, the topography is relatively flat. There exists a vegetative buffer around portions of the rear yards that is approximately 25 feet wide and is fully off the project site, which partially screens the view of the site currently. To mitigate the view from these properties, two (2) dense vegetative screens are proposed, which will be double rows

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of the three-species evergreen mix along the project fence line and along the property boundary, planted 10-feet on-center in a staggered pattern. In addition, a 100-foot minimum setback from the property boundary to the screened fence line is proposed. The setback to 361 Jerry Smith Road is 350± feet and the setback to 383 Jerry Smith Road is 150± feet.

The location of this viewshed is represented by Profiles 1 and 2, which are mapped on the attached Sheet C-801. The Profile 1 and 2 line-of-sight diagrams and the existing conditions viewshed photographs are depicted on the attached Sheet C-802.

- **Impact Discussion:** The view of the project from these adjoining residences will be substantially mitigated by existing off-site vegetative buffers as well as two (2) proposed intervening dense evergreen vegetative screens. Based on the flat topography in this area, the view of the array should be substantially screened and blended with the existing environment upon planting and fully screened by year 3. Based on the above, this limited visibility does not infer a significant environmental impact, and the provision of dense evergreen screens minimize the impact.

Other Visual Considerations

- **Other Residences:** Other residential properties nearby the site along Jerry Smith Road, Lansingville Road, and Dublin Road are not expected to have any significant visibility of the project due primarily to existing treelines that are not planned for removal, intervening topography, and setback/distance to the array.
- **Utility Poles:** A series of seven (7) utility poles will be located near the site entrance and set back off Lansingville Road approximately 225 feet. The utility poles will be standard timber, 40-foot poles that will house the interconnection equipment, some of which will be owned by NYSEG. The poles will be set behind the existing overhead line that runs north-south through this area of the site and will connect into this line. The remainder of the electrical lines within the array and up to the poles will be underground. The utility pole series associated with the utility interconnection is an unavoidable component of the project. However, the poles are of similar visual character to the existing line running through this area of the property as well as along the east side of Lansingville Road.

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- **Officially Designed Federal, State, or Local Scenic or Aesthetic Resources:** The proposed project will not be visible from any designed scenic or aesthetic resources, including those listed as “distinctive” and “noteworthy” in the Tompkins County Scenic Resources Inventory (2007) or the compendium Tompkins County Protecting Our Scenic Resources Guide (2010). In addition, the project will not be visible from the Cayuga Lake Scenic Byway, which is NY-34B on the east side of Cayuga Lake, and NY-89 on the west side of Cayuga Lake.

Summary

Based on the project siting, as well as the preservation of existing vegetation around the property, and the provision of dense evergreen vegetative screens, the project will have the least visual impact on the environment that is reasonably practicable and is in compliance with the solar law as it pertains to visual effect. Furthermore, the limited visibility of the array from Lansingville Road upon construction prior to the full development of the vegetative screen and the visibility of the interconnection utility poles does not represent a significant adverse impact on the environment and will not affect any designated scenic or aesthetic resources in the Town of Lansing or Tompkins County.

Respectfully Submitted,

C.T. MALE ASSOCIATES



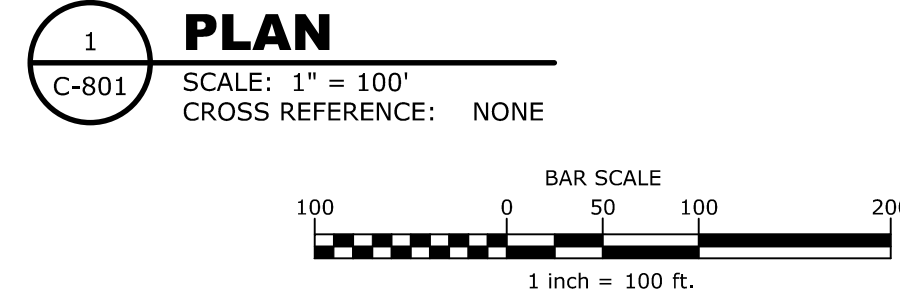
Chris Koenig
Project Manager

Attachment: Line-of-Sight Profiles (1-3)



LANDS NOW OR FORMERLY
DAVID A. TUREK & FRANK A. TUREK
LIBER 827 PAGE 153
107.211 ACRES PORTION OF TAX MAP PARCEL 16.-1-19.2

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107.211 ACRES PORTION OF TAX MAP PARCEL 16.-1-19.2



DATE	REVISIONS RECORD/DESCRIPTION	DRAFTER	CHECK	APPR.

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DESIGNER: MLS
DRAFTED: MLS
CHECKED: OKS
PROJ. NO: 22.2303
SCALE: AS NOTED
DATE: MARCH 24, 2023

VIEW SHED EXHIBIT - PLAN VIEW

LANSING COMMUNITY SOLAR, LLC
GENIE SOLAR ENERGY

TOWN OF LANSING TOMPKINS COUNTY, NEW YORK

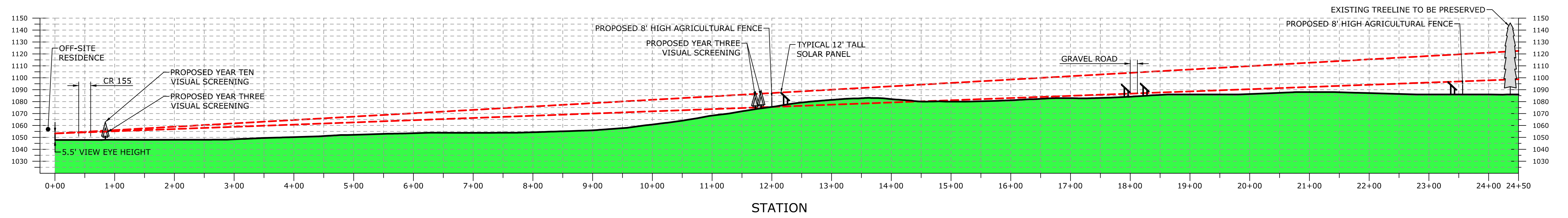
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C-801
SHEET 15 OF 16
DWG. NO: 23-0157

CAD DWG. FILE NAME: K:\Projects\222303\Civil\00_Drawings and Maps\C-801.dwg



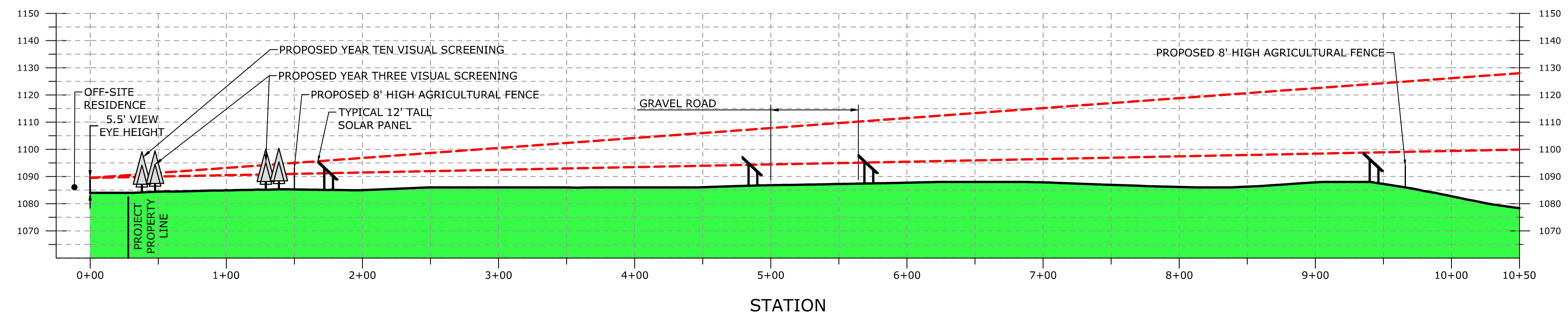
EXISTING PROFILE VIEW 1 FACING WEST



1 PROFILE VIEW 1
 SCALE: HORZ. 1" = 100'
 VERT. 1" = 50'
 CROSS REFERENCE: 1/C-801



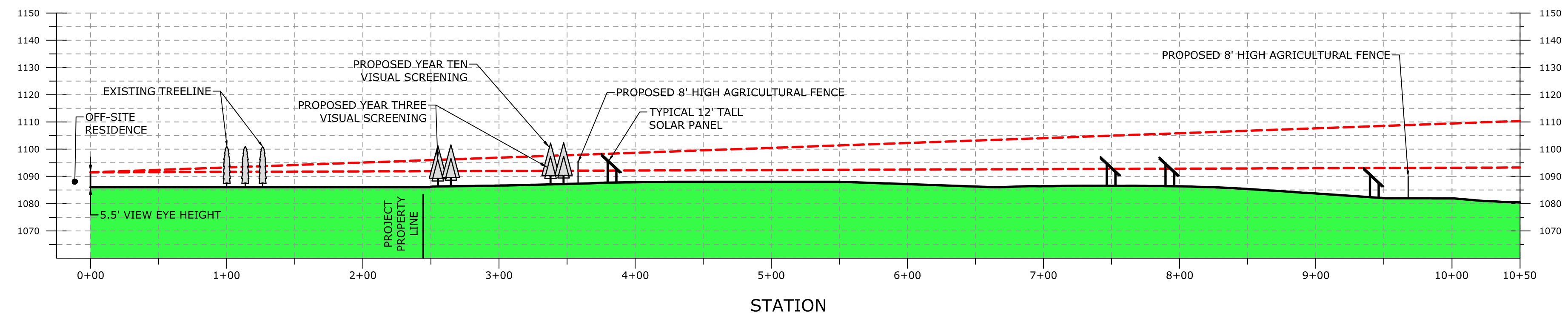
EXISTING PROFILE VIEW 2 FACING SOUTHEAST



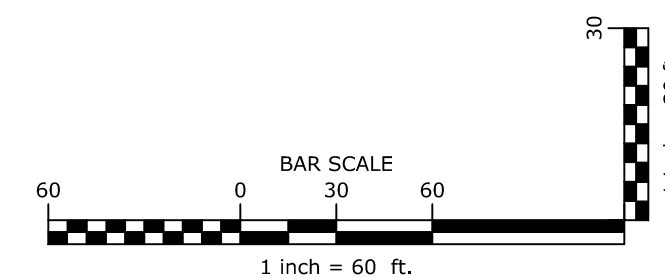
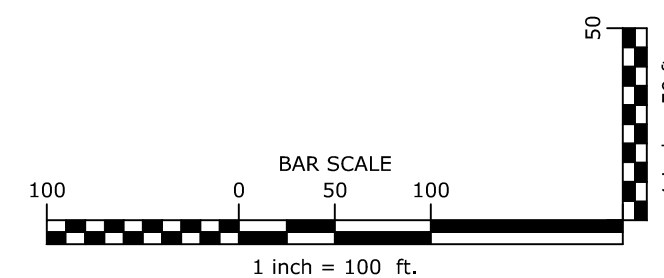
2 PROFILE VIEW 2
 SCALE: HORZ. 1" = 60'
 VERT. 1" = 30'
 CROSS REFERENCE: 1/C-801



EXISTING PROFILE VIEW 3 FACING SOUTHEAST



3 PROFILE VIEW 3
 SCALE: HORZ. 1" = 60'
 VERT. 1" = 30'
 CROSS REFERENCE: 1/C-801



PRELIMINARY

VIEW SHED EXHIBIT - PROFILE VIEW

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