Vegetative Maintenance Plan Ellis North and Ellis South

Prepared for the Town of Dryden By Dryden-Tompkins Solar I, LLC December 2018

Introduction

Dryden-Tompkins Solar I, LLC has prepared the following long-term Vegetative Maintenance Plan for the Town of Dryden to provide an overview for how vegetative screening will be planted and maintained at the Ellis North and Ellis South community solar projects. The Ellis projects refer to the 18 megawatts AC of solar projects located to the North and South of Stevenson Road in the Town of Dryden.

We have worked with local nurseries in Tompkins County to select non-invasive species according to the Tompkins County Regional Invasive Species List (Regional Invasive Species List. F. Robert Wesley, January 2009). The purpose of the vegetative screening is to mitigate views for neighbors, community members, and passing vehicles. This vegetative screening maintenance plan includes the following:

- Site maps showing the vegetative screening as per the project construction plans;
- Best practices for tree care in the early years and subsequent long-term care;
- Specified heights at planting and appropriate heights at which vegetation will be trimmed to mitigate shading of the solar panels; and
- Time limits and specifications for replacing damaged or dying plantings.

While not expected, in the event that glare from the project is experienced within any residence or home business adjacent to these projects, the applicant shall assess the glare onsite and determine whether to install additional vegetative screening of the species and height needed at appropriate line-of-sight locations to intercept the glare, with such screening subject to approval of the Town Director of Planning.

Vegetative Screening Map – Ellis North

At Ellis North, there will be one line of vegetative screening planted to the East of system N5 along Turkey Hill Road.



Vegetative Screening to be Planted

Natural Vegetative Screening (Tree Management, > 20')

Natural Vegetative Screening (Tree Management, > 30')

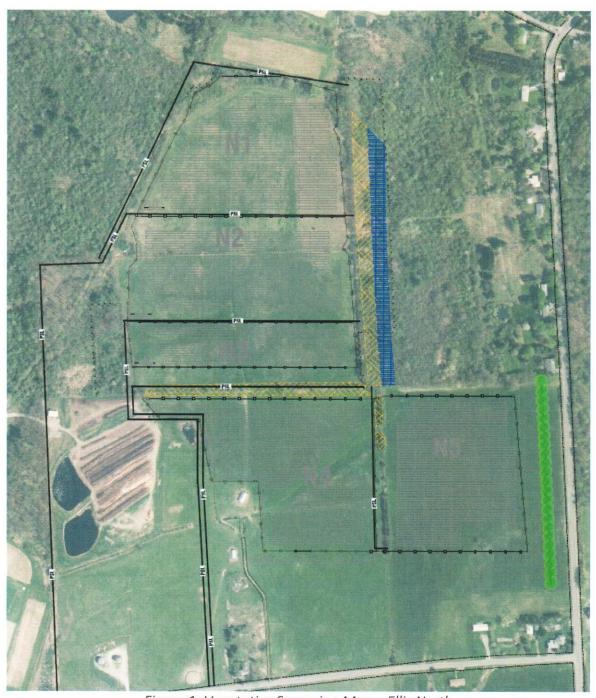


Figure 1: Vegetative Screening Map – Ellis North

DECEMBER 2018

Vegetative Screening Map – Ellis South

At Ellis South, there will be a path of vegetative screening to the West of systems S1, S2, and S3 along Dodge Road. The vegetative screening will wrap around system S3 to the South. To the West of S2, there will also be two areas of trees planted with a heights of 14'-16' to provide additional screening for neighbors.



Vegetative Screening to be Planted Natural Vegetative Screening (Tree Management, > 20') Natural Vegetative Screening (Tree Management, > 30')



Figure 2: Vegetative Screening Map – Ellis South



Figure 3: Two clusters of 14'-16' trees along Dodge Road

Plant Selection

The following non-invasive species are to be planted as vegetative screening:







Burkii Juniper



Red Maple

Botanical Name	Common Name	Size	Notes
Juniperus Virginiana 'Burkii'	Burkii Juniper	3'-6' H; 14'-16' H	Un-sheared
Pinus Flexilis 'Vanderworlf's Pyramid'	Vanderwolf's Pyramid Pine	3′-6′ H	Un-sheared
Acer Rubrum	Red Maple	14'-16' H	Multistem or Clump

Figure 4: Plant Selection

Source for Photos: http://www.missouribotanicalgarden.org

The 14 to 16 ft Burkii Juniper and Red Maple trees will be planted in the two clusters along Dodge Road (see Figure 3). All other vegetative screening has been designed as a mix of Burkii Juniper and Vanderwolf Pyramid Pine trees with initial planting heights of 3 to 6 ft. Other non-invasive species of similar species, height, and aesthetics may be planted due to local availability.

All trees will be balled and burlapped, which allows the trees to be replanted with the original soil still clinging to the plant's roots and reduce the amount of plant shock during transplanting. Further, based on conversations with local nurseries, all of these species can be safely pruned and trimmed without the risk of damaging the trees.

Planting Detail

The vegetative screening will be planted as two rows in a staggered fashion, which will allow the trees to root and grow with adequate space, and will provide effective screening from multiple vantagepoints.

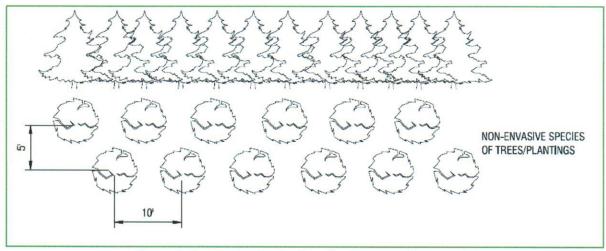


Figure 5: Vegetative Barrier Detail - Staggered Layout of Trees

Planting Stages

Initial Planting:

- The trees will be planted either early to middle of Spring or early to middle of Fall because these seasonal timeframes provide moderate temperatures and natural rain.
- For the first two weeks, the plants will be watered every day, either by us or by nature.
- The initial plantings will be mulched to hold moisture around the base, neutralize the temperature, and contribute organic matter through composting.
- For the remainder of the first month, the plants can be watered 1-2 times per week.

First Year:

• Trees will be visually inspected monthly and any health problems will be addressed. After 1-2 years, the trees are expected to be very well established and it is not expected that they will need to be watered. Trees will be pruned and trimmed annually as needed to maintain height.

Long-Term Maintenance:

- Semi-annual visual inspections of the trees. Trees will be pruned and trimmed annually to maintain a height of maximum 20 ft, which will provide adequate screening and prevent shading on the solar panels. Additional pruning will be performed as needed to maintain height. Pruning and trimming will be planned for early to middle of Summer following the Spring tree growth.
- If any dead trees are discovered, replacement plantings will be of similar species and size as the
 original plantings. Dead trees will be replaced at the most desirable time of year for that species.
- Natural vegetative screening as shown on the site plan will be maintained similarly and replaced in the case of failure, if failure is a result of trimming and results in adverse visual impacts.

This Vegetative Maintenance Plan for Ellis North and Ellis South was prepared by Dryden-Tompkins Solar I, LLC for the Town of Dryden.

Bruce Wiegand

Sincerely,

Dryden-Tompkins Solar I, LLC