

Town of Manlius

Planning Board Agenda

February 14, 2022

6:30PM

1. Zoom Meeting Instructions

Documents:

[ZOOM PLANNING BOARD MEETING INSTRUCTIONS FEBRUARY 14, 2022.PDF](#)

2. Pledge Of Allegiance

3. Approval Of Minutes January 10, 2022 And January 24, 2022

4. Ryan Smith - 5460 Lake Road, Tully, NY 13159 Initial Presentation - 2-Lot Subdivision - 5546-5590 North Burdick Street, East Syracuse, NY 13057 Tax Map # 086.-02-08.0

Documents:

[5546 AND 5590 NORTH BURDICK STREET - APPLICATION.PDF](#)

[5546 AND 5590 NORTH BURDICK STREET - SUBDIVISION MAP.PDF](#)

5. Abundant Solar Power, LLC - 700 West Metro Park, Rochester, NY 14623 - Discussion - Site Plan & Special Use Permit - Solar Array - 5701 Bowman Road, East Syracuse, NY 13057 - Tax Map # 074.-01-06.1

Documents:

[5701 BOWMAN ROAD - SOLAR ARRAY - APPLICATION AND DISCLOSURE AFFIDAVIT.PDF](#)

[5701 BOWMAN ROAD - SOLAR ARRAY - COVER LETTER.PDF](#)

[5701 BOWMAN ROAD - SOLAR ARRAY - DELINEATED WETLANDS MAP AND SITE CONDITION PLAN.PDF](#)

[5701 BOWMAN ROAD - SOLAR ARRAY - LETTER TO CHAIRMAN.PDF](#)

[5701 BOWMAN ROAD - SOLAR ARRAY - PRELIMINARY SITE PLAN.PDF](#)

[5701 BOWMAN ROAD - SOLAR ARRAY - SHORT EAF.PDF](#)

[5701 BOWMAN ROAD - SOLAR ARRAY - SPECIAL PERMIT - SUPPLEMENTAL INFORMATION.PDF](#)

[5701 BOWMAN ROAD - SOLAR ARRAY - USGS MAP ONONDAGA QUAD.PDF](#)
[ABUNDANT SOLAR LEASE.PDF](#)

[BOWMAN ROAD SOLAR MEMO FROM MILLER ENGINEERING.PDF](#)

[RESPONSE TO MILLER ENGINEERING AND BOARD COMMENTS.PDF](#)

6. A&E & SNY Center - Suite 38, 5781 Bridge Street, East Syracuse, NY 13057 - Zone Change Recommendation - Medical Center Drive - Behind Resort Lifestyles - Tax Map # 086.-01-03.9

Documents:

[AANDE AND SNY CENTER ZONE CHANGE APPLICATION.PDF](#)

[MANLIUS SUBDIVISION RECORDED MAP.PDF](#)

7. Other Business

8. Adjournment



February 14, 2022

Virtual Planning Board Meeting

Instructions to attend the February 14, 2022 virtual Planning Board meeting:

The easiest way to join is to go to our website www.TownOfManlius.org and click on the link that is located on the homepage. You can also watch on our Facebook page by searching for "Town of Manlius"

Enter the meeting url web address as listed below:

<https://us02web.zoom.us/j/88312441093?>

Password to join when prompted:

Password: 616430

Enter your email address and name and join the meeting!

Join by telephone by dialing the number below:

1-(929) -436-2866

When prompted to enter the Webinar ID, use the number below followed by #

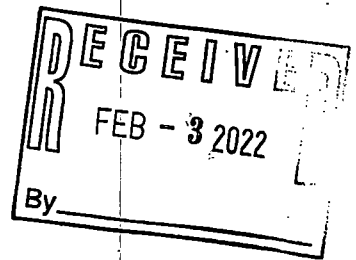
Webinar ID: 883 1244 1093

Press # again to skip the personal id and enter the password below followed by #

Password: 616430

Expected
Fee: _____

TOWN OF MANLIUS
PLANNING DEPARTMENT
INITIAL APPEARANCE APPLICATION



DATE: 2-2-2022

Name of Project: 5546 and 5590 N. Burdick

Applicant must submit 12 copies of all site plans, surveys, and supporting data with the final application before a planning board meeting can be scheduled.

Location of Project: 5546, 5590 Burdick St. North

Type of Project:

☐ Division of Land ☒ Subdivision ☐ Accessory Use ☐ Zone Change ☐ Site Review ☐ Other

Developer: Ryan S. Smith

Phone: 315 729 8109

Address: 5460 Lake Rd. Tully NY

Zip: 13159

Tax Map Number(#)/s: 086.-02-08.0

Present Zoning: RA

Desired Zoning: Same

Total Acreage: 1.072

Total Number of Lots: 1

Property Owner/s: Ryan S. Smith

Phone: 315 729 8109

Address: 2383 Route 11 Lafayette NY

Zip: 13084

Tax Map#(s): _____

Owner's Signature: [Signature]

Printed Name: Ryan Smith

Property Owner/s: _____

Phone: _____

Address: _____

Zip: _____

Tax Map#(s): _____

Owner's Signature: _____

Printed Name: _____

Use next page for additional known property owners' information

Planning Board Meeting Date Assignment: _____

Fee: _____

Paid: _____

Per: ☐ Credit/Debit Card ☐ Check ☐ Cash

Planning Board - Initial

617.20
Appendix B
Short Environmental Assessment Form

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information																		
Name of Action or Project: Subdivision 5546 5590 N. Burdick St. Town of Manlius																		
Project Location (describe, and attach a location map): 5546 / 5590 N. Burdick St. Fayetteville 13066																		
Brief Description of Proposed Action: Subdivision to divide 2 houses on 1 parcel																		
Name of Applicant or Sponsor: Ryan Smith		Telephone: 315 729 8109																
		E-Mail: ryan.smith.construction@gmail.com																
Address: 5460 Lake Rd. 1																		
City/PO: Tully		State: NY	Zip Code: 13159															
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			<table border="1" style="width: 100%; text-align: center;"><tr><td>NO</td><td>YES</td></tr><tr><td>☒</td><td>☐</td></tr></table>	NO	YES	☒	☐											
NO	YES																	
☒	☐																	
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval:			<table border="1" style="width: 100%; text-align: center;"><tr><td>NO</td><td>YES</td></tr><tr><td>☒</td><td>☐</td></tr></table>	NO	YES	☒	☐											
NO	YES																	
☒	☐																	
3.a. Total acreage of the site of the proposed action? <u>1.07</u> acres																		
b. Total acreage to be physically disturbed? _____ acres																		
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ acres																		
4. Check all land uses that occur on, adjoining and near the proposed action. <table style="width: 100%;"><tr><td>☐ Urban</td><td>☐ Rural (non-agriculture)</td><td>☐ Industrial</td><td>☒ Commercial</td><td>☒ Residential (suburban)</td></tr><tr><td>☐ Forest</td><td>☐ Agriculture</td><td>☐ Aquatic</td><td colspan="2">☐ Other (specify): _____</td></tr><tr><td colspan="5">☐ Parkland</td></tr></table>				☐ Urban	☐ Rural (non-agriculture)	☐ Industrial	☒ Commercial	☒ Residential (suburban)	☐ Forest	☐ Agriculture	☐ Aquatic	☐ Other (specify): _____		☐ Parkland				
☐ Urban	☐ Rural (non-agriculture)	☐ Industrial	☒ Commercial	☒ Residential (suburban)														
☐ Forest	☐ Agriculture	☐ Aquatic	☐ Other (specify): _____															
☐ Parkland																		

Page 2 of 4

18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size: _____	NO	YES
	☒	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe: _____	NO	YES
	☒	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: _____	NO	YES
	☒	☐
I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE		
Applicant/sponsor name: _____		Date: _____
Signature: _____		

STOP

Part 2 - Impact Assessment. The Lead Agency is responsible for the completion of Part 2. Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

	No, or small impact may occur	Moderate to large impact may occur
1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations?	☐	☐
2. Will the proposed action result in a change in the use or intensity of use of land?	☐	☐
3. Will the proposed action impair the character or quality of the existing community?	☐	☐
4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)?	☐	☐
5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway?	☐	☐
6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities?	☐	☐
7. Will the proposed action impact existing: a. public / private water supplies?	☐	☐
b. public / private wastewater treatment utilities?	☐	☐
8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources?	☐	☐
9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)?	☐	☐

	No, or small impact may occur	Moderate to large impact may occur
10. Will the proposed action result in an increase in the potential for erosion, flooding or drainage problems?	☐	☐
11. Will the proposed action create a hazard to environmental resources or human health?	☐	☐

Part 3 - Determination of significance. The Lead Agency is responsible for the completion of Part 3. For every question in Part 2 that was answered "moderate to large impact may occur", or if there is a need to explain why a particular element of the proposed action may or will not result in a significant adverse environmental impact, please complete Part 3. Part 3 should, in sufficient detail, identify the impact, including any measures or design elements that have been included by the project sponsor to avoid or reduce impacts. Part 3 should also explain how the lead agency determined that the impact may or will not be significant. Each potential impact should be assessed considering its setting, probability of occurring, duration, irreversibility, geographic scope and magnitude. Also consider the potential for short-term, long-term and cumulative impacts.

☐	Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action may result in one or more potentially large or significant adverse impacts and an environmental impact statement is required.
☐	Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action will not result in any significant adverse environmental impacts.
Name of Lead Agency Date	
Print or Type Name of Responsible Officer in Lead Agency Title of Responsible Officer	
Signature of Responsible Officer in Lead Agency Signature of Preparer (if different from Responsible Officer)	

PRINT

TOWN OF MANLIUS

DISCLOSURE AFFIDAVIT

This affidavit is a part of and must be completed and attached to every application, petition, request submitted for a *site plan, variance, amendment, change of zoning, approval of a plat, exemption from a plat or official map, license or permit.*

STATE OF NEW YORK)
) SS:
COUNTY OF ONONDAGA)

I. Ryan Smith, being duly sworn, deposes and says that (s) he is:

applicant and property owner
(applicant, petitioner, corporation officer, property owner, etc.)

II. That deponent has read and is familiar with the provisions of the General Municipal Law, Section 809 which states:

- A. Every application, petition or request submitted for a site plan, variance, amendment, change of zoning, approval of a plat, exemption from a plat or official map, license or permit, pursuant to the provisions or any ordinance, local law, rule or regulation constituting the zoning and planning regulations of a municipality shall state the name, residence and the nature and extent of the interest of any state officer or any officer or employee of such municipality is a part, in the person, partnership or association making such application, petition or request (hereinafter called the applicant) to the extent known to such applicant.
- B. For the purpose of this action an officer or employee shall be deemed to have an interest in the applicant when (s)he, his/her spouse, or their brothers, sisters, parents, children, grandchildren, or the spouse of any of them:
 - 1) is the applicant, or
 - 2) is an officer, director, partner or employee of the applicant, or
 - 3) legally or beneficially owns or controls stock of a corporate applicant or is a member of a partnership or association applicant, or
 - 4) is a party to an agreement with such an applicant, express or implied, whereby (s) he may receive any payment or other benefit, whether or not for services rendered, or contingent upon the favorable approval of such application, petition or request.
- C. Ownership of less than five percent (5%) of the stock of a corporation whose stock is listed on the New York or American Stock Exchanges shall not constitute an interest for the purposes of this section.
- D. A person who knowingly and intentionally violates this section shall be guilty of a misdemeanor.

III. That no Town of Manlius officer, employee or a relative of either, as defined in Section 809 General Municipal Law has any interest in this application.

-OR-

If a Town of Manlius officer, employee or relative of either as defined in Section 809 General Municipal law has any interest in this application, the full particulars are provided on an attached sheet.

Date: 2/2, 20 22

Date: _____, 20____

Ryan Smith
(Print Name)

(Print Name)

[Signature]
(Signature)

(Signature)

(Entity Name)

(Entity Name)

By (Officer) (Title)

By (Officer) (Title)

2383 Route 11 Lafayette 13084
(Mailing Address of Applicant)

(Mailing Address of Applicant)

315 729-8109
(Telephone Number)

(Telephone Number)

ACKNOWLEDGEMENTS

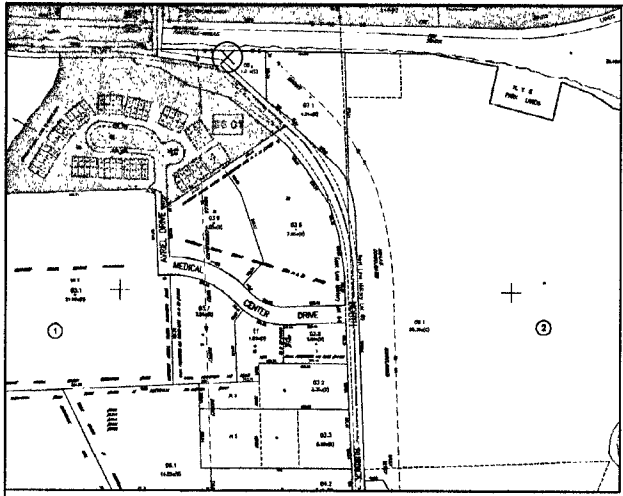
STATE OF NEW YORK)
) SS:
COUNTY OF ONONDAGA)

On this 3rd day of February in the year 2022, before me, the undersigned, a notary public in and for said state, personally appeared Ryan Smith, and _____

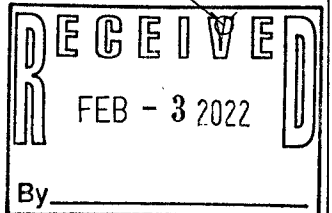
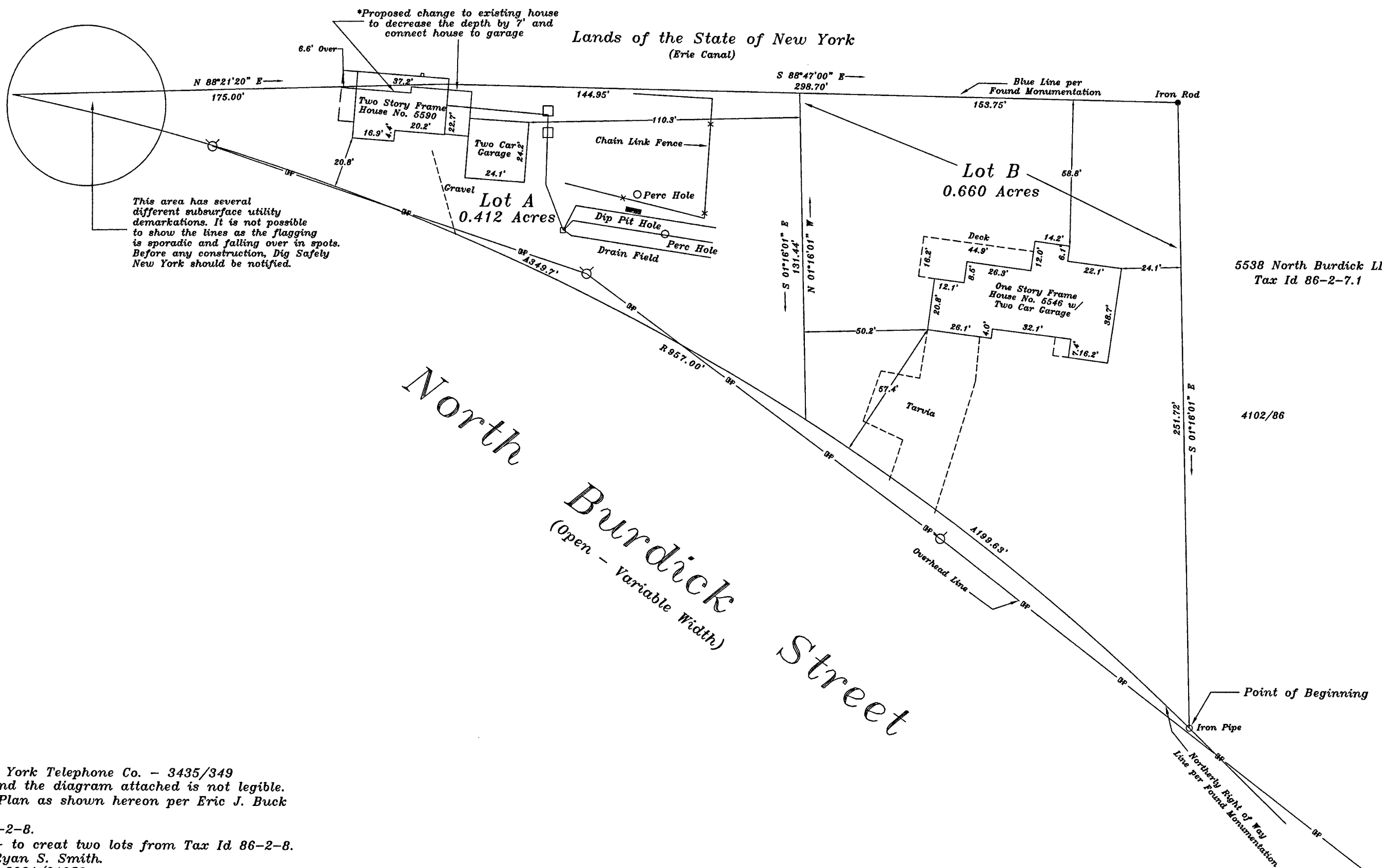
_____ personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within Petition and acknowledged to me the he/she/they executed the same in his/her/their capacity, and that by his/her/their signature(s) on the Petition, the individual or the persons upon behalf of which the individual acted executed the instrument.

[Signature]
Notary Public

LAUREEN E. DOODY
Notary Public, State of New York
Qualified in Onon. Co. No. 01D06279299
My Commission Expires April 8, 2025



Site Vicinity Locator
(not to scale)



Approvals

Abstract: Bradt-Luciani Real Property Services, #211859, 12/15/2020.

Proposed Only

Owner(s)	Town of Manlius	County of Onondaga	Michael J. McCully Land Surveying PLLC 5875 Fieldstone Drive Cazenovia New York 13035 Phone : (315) 815-5034	Minor Subdivision on Part of Military Lot 64 - Manlius.
			I hereby certify that this map was made from an actual survey and same is correct.	Known as No. 5546-5590 North Burdick Street, Town of Manlius, County of Onondaga, State of New York.
			M.J. McCully NYSLS 50696	Drawn by: MJM Scale: 1"= 40'
			Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of Section 7209, Subdivision 2 of the New York State Education Law. Only copies from the original of this survey marked with an original of the land surveyor's inked seal or his embossed seal shall be considered to be valid true copies. Certifications shall run only to the person or entities for whom the survey is prepared and are not transferable to subsequent persons or entities. Copyright 2022, Michael J. McCully Land Surveying, all rights reserved.	Date(s): 01-16-22

Expected
Fee: _____

TOWN OF MANLIUS
PLANNING DEPARTMENT
INITIAL APPEARANCE APPLICATION

DATE: _____

Name of Project: Abundant Solar Power (MI) LLC

Applicant must submit 12 copies of all site plans, surveys, and supporting data with the final application before a planning board meeting can be scheduled.

Location of Project: 5701 Bowman Rd, Manlius, NY 13057

Type of Project:

☐ Division of Land ☐ Subdivision ☐ Accessory Use ☐ Zone Change ☐ Site Review ☒ Other Solar array

Developer: Abundant Solar Power Phone: 416 917 5667

Address: 700 W. Metro Park, Rochester Zip: NY 14623

Tax Map Number(#)/s: 074.-01-06.1

Present Zoning: RA

Desired Zoning: _____

Total Acreage: 17.5 acres

Total Number of Lots: _____

Property Owner/s: Town of Manlius

Phone: _____

Address: 301 Brooklea Drive, Fayetteville Zip: NY 13066

Tax Map#(s): _____

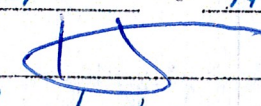
Owner's Signature: _____

Printed Name: _____

Lessee
Property Owner/s: Abundant Solar Power (MI) LLC Phone: 416 264 3880

Address: 700 W. Metro park, Rochester Zip: NY 14623

Tax Map#(s): _____

Owner's Signature: 

Printed Name: Richard Lu

Use next page for additional known property owners' information

Planning Board Meeting Date Assignment: _____

Fee: _____

Paid: _____

Per: ☐ Credit/Debit Card ☐ Check ☐ Cash

Planning Board - Initial

TOWN OF MANLIUS

DISCLOSURE AFFIDAVIT

This affidavit is a part of and must be completed and attached to every application, petition, request submitted for a *site plan, variance, amendment, change of zoning, approval of a plat, exemption from a plat or official map, license or permit.*

Province of Ontario)
) SS:
)

I. Richard Lu., being duly sworn, deposes and says that (s) he is:

Director, Abundant Solar Power (MI) LLC
(applicant, petitioner, corporation officer, property owner, etc.)

II. That deponent has read and is familiar with the provisions of the General
NY Municipal Law, Section 809 which states:

- A Every application, petition or request submitted for a site plan, variance, amendment, change of zoning, approval of a plat, exemption from a plat or official map, license or permit, pursuant to the provisions or any ordinance, local law, rule or regulation constituting the zoning and planning regulations of a municipality shall state the name, residence and the nature and extent of the interest of any state officer or any officer or employee of such municipality is a part, in the person, partnership or association making such application, petition or request (hereinafter called the applicant) to the extent known to such applicant.
- B. For the purpose of this action an officer or employee shall be deemed to have an interest in the applicant when (s)he, his/her spouse, or their brothers, sisters, parents, children, grandchildren, or the spouse of any of them:
- 1) is the applicant, or
 - 2) is an officer, director, partner or employee of the applicant, or
 - 3) legally or beneficially owns or controls stock of a corporate applicant or is a member of a partnership or association applicant, or
 - 4) is a party to an agreement with such an applicant, express or implied, whereby (s) he may receive any payment or other benefit, whether or not for services rendered, or contingent upon the favorable approval of such application, petition or request.
- C. Ownership of less than five percent (5%) of the stock of a corporation whose stock is listed on the New York or American Stock Exchanges shall not constitute an interest for the purposes of this section.
- D. A person who knowingly and intentionally violates this section shall be guilty of a misdemeanor.

III. That no Town of Manlius officer, employee or a relative of either, as defined in Section 809 General Municipal Law has any interest in this application.

-OR-

If a Town of Manlius officer, employee or relative of either as defined in Section 809 General Municipal law has any interest in this application, the full particulars are provided on an attached sheet.

Date: November 30, 2020

D : _____, W _____

Richard Lu

(Print Name)

(Print Name)

(Signature)

(Signature)

Abundant Solar
Power (ml) LLC

(Entity Name)

(Entity Name)

Director

By (Officer) (Title)

By (Officer) (Title)

700 West Metro Park, Rochester NY 13066

(Mailing Address of Applicant)

(Mailing Address of Applicant)

416 264 3880

(Telephone Number)

(Telephone Number)

ACKNOWLEDGEMENTS

Province of Ontario

)
) SS:
)

On this 30th day of November in the year 2020, before me, the undersigned, a notary public in and for said province, personally appeared _____,

_____, and _____ personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within Petition and acknowledged to me that he/she/they executed the same in his/her/their capacity, and that by his/her/their signature(s) on the Petition, the individual or the persons upon behalf of which the individual acted executed the instrument.

Macaw 469361
Notary Public

CORPORATE ACKNOWLEDGEMENT

Province of Ontario

)
) SS:
)

Richard Lu being duly sworn, deposes and says the
s(he) is the Director of Abundant Solar Power (M1) LLC
corporation named in the within
Application/Petition, that s(he) has read the foregoing affidavit and knows the contents thereof; that
the same is true of s(he) own knowledge, except as to those matters therein stated to be alleged upon
information and belief, and as to those matters s(he) believes it to be true.

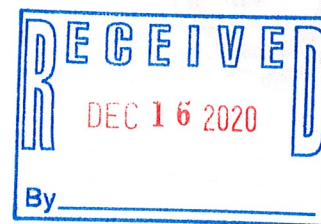
Applicant Signature

Subscribed to me before this 30th day
Of November, 20 20

Macan 46936I
Notary Public

ABUNDANT Solar Power Inc.
700 West Metro Park, Ground Level
Rochester, New York
14623-2678
Tel: 202 818 9194

ABUNDANT Solar Energy Inc.
Suite 900, 2235 Sheppard Ave E.
Toronto, ON M2J 5B5
Tel: 1 416 494 9559
www.abundantsolarenergy.com



Chairman Joe Lupia
Town of Manlius Planning Board
301 Brooklea Drive, Fayetteville,
NY 13066

Friday Dec 11th, 2020

Dear Chairman Lupia

I am reaching out to you today in order to submit our application for Planning board review and approval of the Town of Manlius Closed Landfill Solar project at 5701 Bowman Road, Manlius NY, 13057. The project will be known as Abundant Solar Power (M1) LLC.

I represent Abundant Solar Power and we have leased approximately 20 acres at the closed land fill, property tax id 074.-01-06.1, for the purpose of building and operating a 5MWac solar array. The power generated will be fed into the local distribution grid infrastructure and power local homes and businesses with green, clean, renewable power.

Our submission consists of the following documents:

1. Application Form and affidavit signed and notarized
2. Letter concerning SEQR and Type II status
3. SEAF for information only
4. Preliminary site plan
5. Wetland delineation
6. Slope Image

We have not included a survey at this time, as we are still in submission to the Utility for confirmation of capacity and interconnection. As the result of the Cesir could reduce the scale approved, we do not typically do the survey before we have this certainty. We have, however, had our local engineering partners at Barton & Laguidice conduct a Wetland delineation assessment in the last 60 days in order to gain clarity around Wetland presence and impact on setbacks. This has been included. We are happy to share the Survey when available. The Alta survey is also required for our Title insurance which is a condition of financing.

Should you require it, we are also happy to provide you with a decommissioning plan and associated bond / contribution schedule.

Please let me know if there are any other requirements or questions that you might have.

Sincerely,

A handwritten signature in blue ink that reads "Melissa Clark".

Melissa Clark
VP Business Development
Abundant Solar Power

Mobile: 416 917 5667
Melissa.clark@abundantsolarenergy.com

Legend

-  Survey Limits
-  Delineated Wetlands
-  100-ft Adjacent Area
-  Open Wetland Boundary

Data Plots

-  Upland
-  Wetland



Sources: Base Layer: NYS GIS Aerial, 2018; Survey Limits: B&L, 2020; Delineated Resources: B&L, 2020;

**Barton
& Loguidice**



0 150 300 600
Feet

Abundant Solar Power, Inc.
Manlius Landfill Photovoltaic Array

Delineated Resources

Onondaga County November 2020

New York

Figure

6

Project
No.

2271.004

Path: K:\Projects\2200\2271004\Projects\Wetland Memo\2271.004.001 Figure 6 Delineated Resources.mxd



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100

[illegible]

1000 900 800 700 600 500 400 300 200 100 0

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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ABUNDANT Solar Energy Inc.
Suite 900, 2235 Sheppard Ave E,
Toronto, ON M2J 5B5
Tel: 1 416 494 9559
www.abundantsolarenergy.com



Chairman Joe Lupia
Town of Manlius Planning Board
301 Brooklea Drive, Fayetteville
NY13066

Re: Town of Manlius Landfill Solar project

Monday November 23, 2020

Dear Chairman Lupia

We are writing in reference to the solar array development proposed by Abundant Solar Power, Inc. (ASP) at the closed landfill in the Town of Manlius, New York. As you are likely aware, ASP is progressing with the environmental review, site planning, and permitting process for development of the solar array. We have already assisted the Town of Manlius Board with respect to their review of the project in compliance with the State Environmental Quality Review Act (SEQR) and had identified the project as a "Type II action" under SEQRA in accordance with the current regulations.

As you may or may not be aware, on January 1, 2019, amendments to the SEQR regulations became effective. In the opinion of our Engineers at B & L, these amendments have resulted in the proposed solar array development falling under the definition of a Type II Action. The relevant excerpts from NYCRR Part 617 are outlined below. § 617.5 Type II Actions (a) Actions or classes of actions identified in subdivision (c) of this section are not subject to review under this Part, except as otherwise provided in this section. These actions have been determined not to have a significant impact on the environment or are otherwise precluded from environmental review under Environmental Conservation Law, article 8.

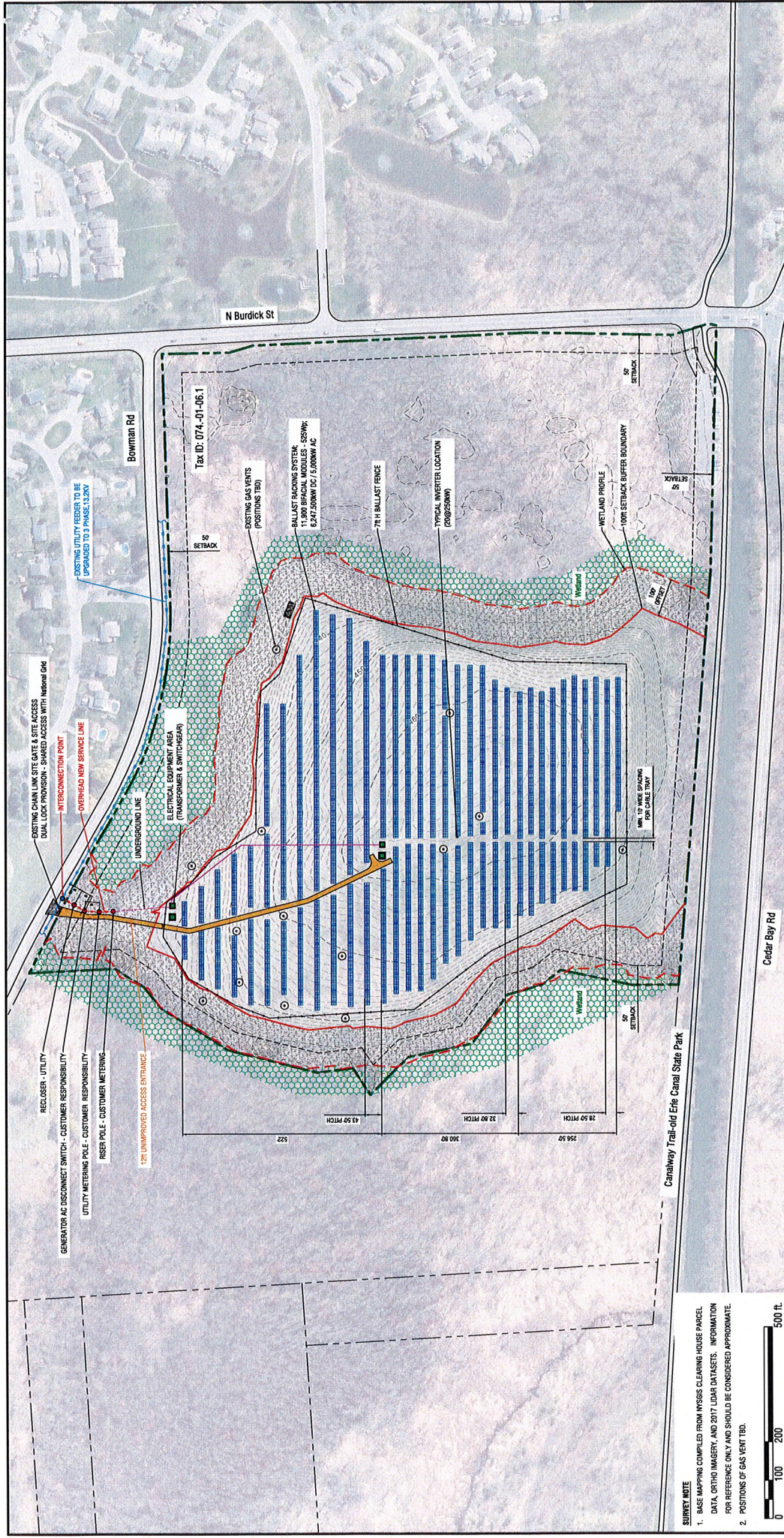
The actions identified in subdivision (c) of this section apply to all agencies. (c) The following actions are not subject to review under this Part: ...(14) installation of solar energy arrays where such installation involves 25 acres or less of physical alteration on the following sites: (i) closed landfills;... According to the New York State Department of Environmental Conservation (NYSDEC), "Any action or class of actions listed as Type II in 617.5 requires no further processing under SEQR. There is no documentation requirement for these actions, although it is recommended that a note be added to the Planning boards project file indicating that the project was considered under SEQR and met the requirement for a Type II action."

We would, therefore, respectfully suggest that it would be acceptable for the Town of Manlius to acknowledge the project classification as a Type II Action. Please contact me at 416-917 5667 should you have any questions or would like to discuss this any further.

Sincerely,
Melissa Clark

A handwritten signature in blue ink that reads "Melissa Clark".

VP Business Development
Abundant Solar Energy Inc.
Melissa.clark@abundantsolarenergy.com



SURVEY NOTE
1. BASE MAPS COMPILED FROM NYSDS CLEARING HOUSE PARCEL DATA, ORTHO IMAGERY AND 2017 LIDAR DATASETS. INFORMATION FOR REFERENCE ONLY AND SHOULD BE CONSIDERED APPROXIMATE.
2. POSITIONS OF GAS VENT TID.



ENGINEER'S SEAL

THIS DRAWING IS AN INSTRUMENT OF SERVICE, IS PROVIDED BY AND IS THE PROPERTY OF ABUNDANT SOLAR ENERGY INC. NO PART OF THIS DRAWING CAN BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE CONSENT OF THIS OFFICE.

5701 Bowman Rd., Town of Manlius, NY 13057

ABUNDANT SOLAR

PROJECT NAME: East Syracuse Landfill Solar Farm
SYSTEM SIZE: 6,247.500kW DC / 5,000kW AC
DATE: November 24, 2020
GPS LOCATION: 43.045908, -76.026251



700 WEST METRO PARK
ROCHESTER, NY 14623
T: 416 494 9559
www.abundantsolarenergy.com

Short Environmental Assessment Form

Part 1 - Project Information

Instructions for Completing

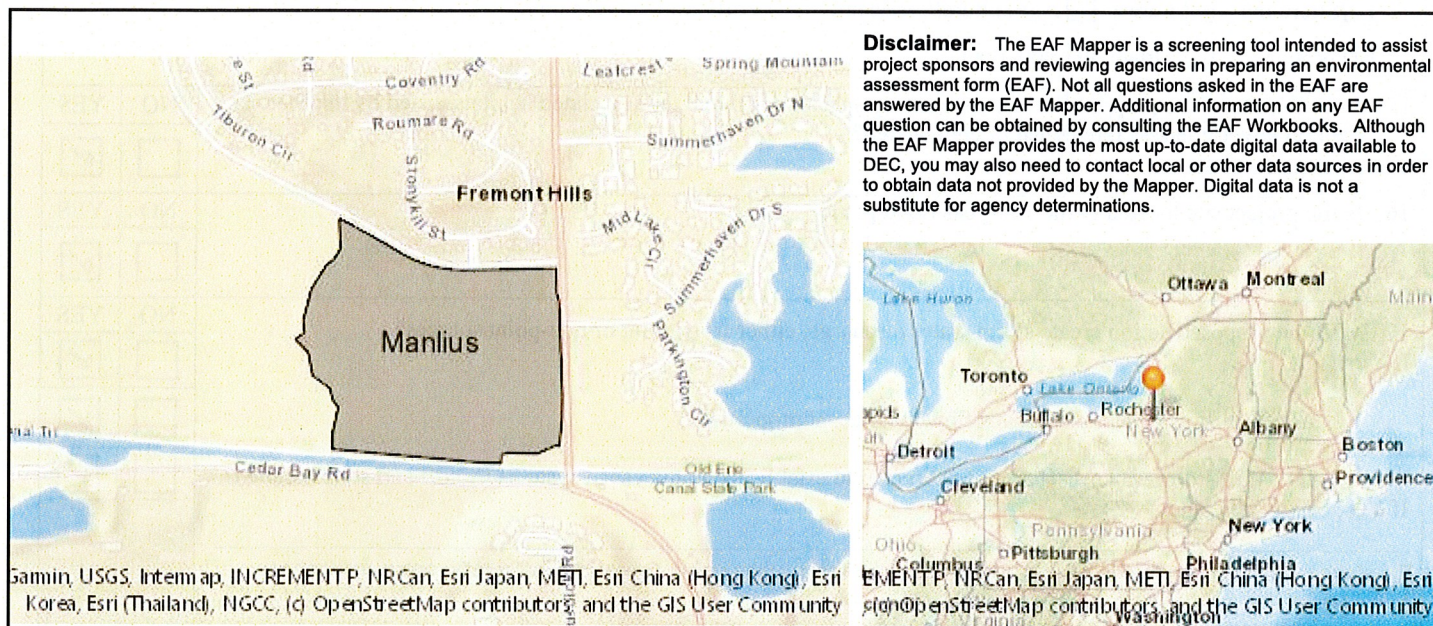
Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information			
Name of Action or Project: Solar Project Manlius - M1			
Project Location (describe, and attach a location map): 5701 Bowman Rd, Manlius, NY 13057, USA			
Brief Description of Proposed Action: Abundant Solar Power, Inc. is developing plans for a 6.25 MW DC/ 5 MW AC solar power photo-voltaic plant which will cover 17.5 -acres (tax parcel 074.-01-06.1). The project will generate clean renewable energy for the local community and surrounding areas. The plant will consist of approximately 660 tables with between 30 to 32 panels per table. This project will yield a panel count approximately 11,900. The solar table modules will be free-standing structures utilizing a ballast system as to not penetrate the land fill cap. To operate the plant, one transformer pad and one main switch gear pad will be installed on concrete pads. The maximum extent of ground disturbance will be approximately 0.5 acre.			
Name of Applicant or Sponsor: Abundant Solar Power (M1) LLC		Telephone: 1-416-494-9559 ext.104 E-Mail: elissa.clark@abundantsolarenergy.com	
Address: 700 West Metro Park			
City/PO: Rochester		State: New York	Zip Code: 14623
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			NO ☐ YES ☒
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: Town Board - Land Lease & Power Purchase Agreements; Town Planning Board - Site Plan Approval; Town Code Enforcement Officer - Building Permi; NYSERDA - Funding approval;			NO ☐ YES ☒
3. a. Total acreage of the site of the proposed action?		+/- 17.5 acres	
b. Total acreage to be physically disturbed?		+/- 0.5 acres	
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?		0 acres	
4. Check all land uses that occur on, are adjoining or near the proposed action:			
5. ☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☒ Commercial ☒ Residential (suburban)			
☒ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):			
☐ Parkland			

5. Is the proposed action,	NO	YES	N/A
a. A permitted use under the zoning regulations?	☐	☒	☐
b. Consistent with the adopted comprehensive plan?	☐	☐	☒
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape? <i>This is a Town project and is supported by the municipality.</i>	NO	YES	
	☐	☒	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____	NO	YES	
	☒	☐	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	NO	YES	
	☒	☐	
b. Are public transportation services available at or near the site of the proposed action?	☒	☐	
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☒	☐	
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: _____ _____	NO	YES	
	☐	☒	
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____ _____	NO	YES	
	☒	☐	
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____ _____	NO	YES	
	☒	☐	
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	NO	YES	
	☒	☐	
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	☒	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	NO	YES	
	☐	☒	
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☒	☐	
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ _____ _____			

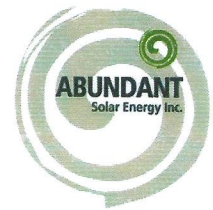
14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply: ☐ Shoreline ☒ Forest ☐ Agricultural/grasslands ☐ Early mid-successional ☒ Wetland ☐ Urban ☒ Suburban		
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered? Northern Long-eared Bat, In...	NO	YES
	☐	☒
16. Is the project site located in the 100-year flood plan? Floodplain is located on the same tax parcel but located outside of the project area (see attached floodplain map)	NO	YES
	☐	☒
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes,	NO	YES
	☐	☒
a. Will storm water discharges flow to adjacent properties?	☐	☒
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe:	☐	☒
The storm water will be directed to adjacent wetlands and the Towns storm drains. Grass cover will mostly remain undisturbed.		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment:	NO	YES
	☒	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	NO	YES
The parcel is a closed landfill owned by the Town of Manlius	☐	☒
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	NO	YES
	☒	☐
I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE Applicant/sponsor/name: <u>Abundant Solar Power (M1) LLC</u> Date: <u>11/23/2020</u> Signature: <u></u> Title: <u>President</u>		



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	Yes
Part 1 / Question 15 [Threatened or Endangered Animal - Name]	Northern Long-eared Bat, Indiana Bat
Part 1 / Question 16 [100 Year Flood Plain]	Yes
Part 1 / Question 20 [Remediation Site]	No

ABUNDANT Solar Power Inc.
700 West Metro Park, Ground Level
Rochester, New York
14623-2678
Tel: 202 818 9194

ABUNDANT Solar Energy Inc.
Suite 900, 2235 Sheppard Ave E.
Toronto, ON M2J 5B5
Tel: 1 416 494 9559
www.abundantsolarenergy.com



Chairman Joe Lupia
Town of Manlius Planning Board
301 Brooklea Drive, Fayetteville,
NY 13066

Thursday Dec 16th, 2021

Dear Chairman Lupia

Please find enclosed an updated preliminary site plan for the Town of Manlius Closed Landfill Solar project at 5701 Bowman Road, Manlius NY, known as Abundant Solar Power (M1) LLC. In our last presentation to the planning board a number of issues were raised for clarification. We believe that in the intervening weeks we have provided responses and or updates to all the identified issues raised.

Our re- submission consists of the following documents:

1. Updated site plan, stamped by Barton & Loguidice
 - a. Identifying recently surveyed vent positions on the landfill cap
 - b. Reflecting 10 ft setbacks on all sides at vent positions to allow for testing access
 - c. Newly defined access pathways around the perimeter of the cap to facilitate testing per Town requirements
2. No conflict letter sent to the Town Supervisor November 24, 2021.
3. Legal description forwarded to the Town Board attorney Tim Frateschi for appending to the lease document as previously discussed and committed to at the Town Board. Other lease related issues raised by the planning board were also discussed with Tim Frateschi. No changes are being brought forward at this time.
4. Decommissioning Bond language sample shared with the Planning board and Town attorney Tim Frateschi. Please also note that we believe ourselves to be in compliance with the Town code regarding the same as outlined below.

155-27.2 Solar photovoltaic energy systems

155-27.2(D)(3)(b)[16]

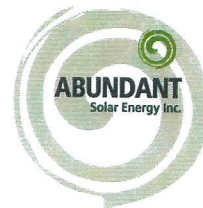
Reclamation bond. A reclamation bond, for a term and in an amount to be determined during special use permit review, shall be filed with the Town Clerk to cover the costs of reclamation of the site. The amount shall be commensurate with the DRP (decommissioning and removal plan) submitted by the applicant.

5. Site Operations and Maintenance Plan prepared for the array.
6. Proof of coordination with the local utility, National Grid, for the project.
7. Equipment cut sheets for the solar voltaic panels, inverters, and racking equipment proposed for the array.

Please note that all the site plan changes have been designed by Barton and Loguidice based on further discussions with the Town's designated engineer, Doug Miller and reflect the solution to his concerns regarding continued site accessibility for site monitoring.

ABUNDANT Solar Power Inc.
700 West Metro Park, Ground Level
Rochester, New York
14623-2678
Tel: 202 818 9194

ABUNDANT Solar Energy Inc.
Suite 900, 2235 Sheppard Ave E.
Toronto, ON M2J 5B5
Tel: 1 416 494 9559
www.abundantsolarenergy.com



Please let me know if there are any other requirements or questions that you might have.

Sincerely,

A handwritten signature in black ink that reads "Melissa Clark". The signature is fluid and cursive, with the first name and last name clearly distinguishable.

Melissa Clark
VP Business Development
Abundant Solar Power

Mobile: 416 917 5667
Melissa.clark@abundantsolarenergy.com

The following Table of Contents can be inserted into the previous submission package for ease of review. The full sized drawing replaces the drawing in Exhibit A. All other documents can be inserted into Exhibit I

Manlius Closed Landfill Solar Array Project
Abundant Solar Power (M1) LLC
Special Permit Application

Table of Contents

Exhibit A – Detailed Site Plan

Exhibit B – Survey Map

Exhibit C – Legal Description

Exhibit D – SWPPP (Intentionally Left Blank)

Exhibit E – SEQRA Type 2 Action Explanation and EAF

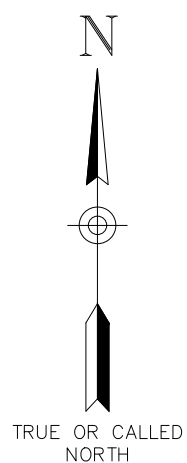
Exhibit F – Freshwater Wetlands Permit

Exhibit G – Professional Fees Reimbursement Agreement

Exhibit H – Disclosure Affidavit

Exhibit I – Additional Project Information

- i. Decommissioning Plan
- ii. No Conflict Letter from Barton & Loguidice
- iii. Legal Description for Lease Agreement
- iv. Decommissioning Bond Language Sample
- v. Site Operations and Maintenance Plan
- vi. Proof of Coordination with Local Utility
- vii. Equipment Cut Sheets for the Project



1. BASE MAPPING COMPILED FROM NYSGIS CLEARING HOUSE PARCEL DATA, ORTHO IMAGERY, AND 2017 LIDAR DATASETS. INFORMATION FOR REFERENCE ONLY AND SHOULD BE CONSIDERED APPROXIMATE.

1. SOLAR ARRAY LOCATION SHOWN SHOULD BE CONSIDERED APPROXIMATE AND SHALL BE CONFIRMED BY FIELD CONDITIONS.
2. EXISTING GROUND COVER SHALL BE MAINTAINED/REPLACED IN BETWEEN SOLAR PANELS TO MAINTAIN THE LANDFILL CAPPING SYSTEM INTEGRITY.
3. SOLAR ARRAY SHALL BE SET BACK 40 FEET FROM ROAD AND NOT EXCEED 20 FEET HEIGHT AS PER ZONING DISTRICT REQUIREMENTS.
4. LOT SIZE = 17.5 ACRES
5. SYSTEM SIZE = 5,435/4,350 (DC/AC) kW

TOWN OF MANLIUS CODE REQUIREMENTS		
REQUIREMENT	CODE VALUE(MIN OR MAX)	PLAN VALUE
FRONT YARD SETBACK	50 Ft	235 Ft
SIDE YARD SETBACK	50 Ft	105 Ft
REAR YARD SETBACK	50 Ft	120 Ft
MAXIMUM HEIGHT OF ARRAY	20FT	9ft



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE LICENSED ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION".

	GENERAL REVISIONS 12/01/21
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ABUNDANT SOLAR POWER
TOWN OF MANLIUS LANDFILL SOLAR ARRAY
PROPOSED SOLAR LAYOUT

TOWN OF MANLIUS

Barton & Loguidice

Date
NOVEMBER 2021

Scale
1" = 120'

Sheet Number

FIGURE 1

File Number	
-------------	--

2271.004.001

Printed: Dec 16, 2022 AM 10:22AM
 Ploated: Dec 16, 2022 AM 10:22AM
 Z:\BL-Vault\ID218217A02-1C71-4823-8927-99D5C405447\O\2216000-2216999\2216434\L\2271004.001 Marius Solar Array Proposed Plan (ID 2216434).dwg



November 24, 2021

Edmond J. Theobald
Manlius Town Supervisor
301 Brooklea Drive
Fayetteville, New York 13066

Re: Abundant Solar Energy, Inc. Community Solar Project
File: 2271.004.001

Dear Mr. Theobald:

As you are aware, Barton & Loguidice, D.P.C. (B&L), has been retained by Abundant Solar Energy, Inc. (Abundant) to provide engineering assistance for a proposed community solar project at the closed Town of Manlius Landfill. B&L has also been retained by the Town of Manlius to perform unrelated consulting services in the past and is currently retained by the Town for assistance with the Comprehensive Plan and a water district planning project.

We are writing to inform the Town, as a past and current client, of our involvement in the project on behalf of Abundant. We understand that the Town has a term services agreement with an engineering consultant outside of B&L to review, on the Town's behalf, any documents generated in support of this project. We also acknowledge that if the Town should require additional engineering consulting services related to their review and approval of the proposed project, B&L would recuse ourselves from consideration to perform these services.

Although our role in the project is not on behalf of the Town, our objective is to apply our knowledge of the Town of Manlius landfill site as well as our overall landfill expertise to ensure that the project design is protective of the existing landfill capping system, which we believe is a benefit to the Town as well as Abundant.

Should you have any questions or comments regarding our involvement in the above referenced project, please do not hesitate to contact me at 315-457-5200.

Sincerely,

BARTON & LOGUIDICE, D.P.C.

Timothy Bolan, P.E.
Vice President

JMB2/jms

cc: Tim Frateschi, Attorney for the Town of Manlius
Joseph Lupia, Chairman – Town of Manlius Planning Board
Jamie Sutphen, Esq. – Attorney for the Town of Manlius Planning Board
Melissa Clark – Abundant Solar Energy, Inc.

ABUNDANT SOLAR PROPOSED LEASE PARCEL DESCRIPTION

All that tract or parcel of land situate in part of part of Military Lot 53, Town of Manlius, County of Onondaga, State of New York, all as shown on a map entitled "Abundant Solar Energy, Inc Lease Parcel within lands owned by the Town of Manlius, being 5701 Bowman Road Alta/Nsps Land Title Survey", prepared by Costich Engineering, D.P.C., having drawing number 8175 VT100, dated 09/27/2021, and being more particularly bounded and described as follows:

Commencing at a point being the northeast corner of lands now or formerly owned by Steven Sturick having T.A. # 74.00-01-05 and the northwest corner of lands now or formerly owned by the Town of Manlius having T.A. # 74.00-01-06.1, said point also being a point on the south right-of-way line of Bowman Road (Width Varies); thence

- A. S13°01'59"E, along a tie line and through said lands now or formerly owned by the Town of Manlius a distance of 375.18 feet to the point and place of beginning; thence
- 1. S80°26'49"E, a distance of 96.58 feet to a point; thence
- 2. S43°47'56"E, a distance of 330.60 feet to a point; thence
- 3. S86°10'25"E, a distance of 332.66 feet to a point; thence
- 4. S46°02'15"E, a distance of 70.49 feet to a point; thence
- 5. S71°54'07"E, a distance of 215.55 feet to a point; thence
- 6. S02°39'52"E, a distance of 50.41 feet to a point; thence
- 7. S24°54'42"W, a distance of 116.86 feet to a point; thence
- 8. S15°09'07"W, a distance of 184.62 feet to a point; thence
- 9. S09°27'04"W, a distance of 252.12 feet to a point; thence
- 10. S01°46'27"E, a distance of 336.27 feet to a point; thence
- 11. N88°15'35"W, a distance of 722.34 feet to a point; thence
- 12. N03°36'31"E, a distance of 191.37 feet to a point; thence
- 13. N27°30'50"W, a distance of 244.21 feet to a point; thence
- 14. N41°19'20"W, a distance of 206.22 feet to a point; thence
- 15. N07°11'21"W, a distance of 323.59 feet to a point; thence
- 16. N14°02'46"E, a distance of 143.30 feet to a point; thence

17. N29°16'35"E, a distance of 133.51 feet to a point; thence
18. N20°38'46"E, a distance of 57.57 feet to a point; thence
19. N58°26'49"E, a distance of 79.59 feet to a point; thence
20. N24°50'27"E, a distance of 61.33 feet to the point and place of beginning. Containing 23.06 acres of land, more or less.

<h:/jobs/8175/documents/descriptions/parcel/lease.doc>

**PERFORMANCE BOND
Annual - Cancellable Form**

**Aspen American Insurance Company
175 Capital Boulevard
Rocky Hill, CT 06067**

Bond No. _____

KNOW ALL BY THESE PRESENTS, That we _____, as Principal, and **Aspen American Insurance Company**, of **Texas**, authorized to do business in the State of New York, as Surety, are held and firmly bound unto County of Cayuga as Obligee, in the maximum penal sum of one hundred and fifty thousand Dollars (\$150,000), lawful money of the United States of America, for which payment well and truly to be made we bind ourselves, our heirs, executors and assigns, jointly and severally, firmly by this Surety Bond.

WHEREAS, the Principal has entered, or is about to enter, into a written agreement with the Obligee to perform in accordance with the following:

1. Tenant's obligations to remove a solar energy facility from the property of the Obligee and restore the Project Site pursuant to the Decommissioning Plan, signed by Robert J. Steehler, PE on September 2, 2020 and annexed to the Amended And Restated Solar PV Lease And Easement Agreement (the "Lease") as Exhibit "F" and

2. Power Provider's obligation to indemnify the Obligee under Article 12 of the Community Distributed Generation Subscriber Agreement (the "Subscriber Agreement") and Section 6(e), and 11 of the Lease (but only to the extent that Power Provider's obligations under Section 11 of the Lease relate to Section 6(e) of the Lease and Section 12 of the Subscriber Agreement);
;(hereinafter collectively referred to as the Contract), said Contract is hereby referred to and made a part hereof;

NOW, THEREFORE, the condition of this obligation is such that if the above named Principal, its successors and assigns, shall well and truly perform its obligations as set forth in the above mentioned Contract, then this Bond shall be void; otherwise to remain in full force and effect pursuant to its terms. Notwithstanding anything to the contrary in the Contract, the Bond is subject to the following express conditions:

1. Whereas, the Obligee has agreed to accept this Bond, this Bond shall be effective for the definite period of April 1, 2021 to March 31, 2026. The Bond may be extended, at the sole option of the Surety, by continuation certificate for additional periods from the expiry date hereof. However, neither (a) Surety's decision not to issue a continuation certificate, nor (b) the failure or inability of the Principal to file a replacement bond or other security in the event the Surety exercises its right to not renew or cancel this Bond (pursuant to paragraph 2 below), shall itself constitute a loss to the Obligee recoverable under this Bond or any extension thereof.

2. This Bond may be canceled at any time upon ninety (90) days advance written notice from the Surety to the Obligee.

3. The above referenced Contract has a term ending Sept 4th, 2060. Regardless of the number of years this Bond is in force or the number of continuation certificates issued, this Bond shall have the final and definite expiration date of March 31, 2026, unless earlier nonrenewed or canceled pursuant to paragraph 1 or 2 above.

4. No claim, action, suit or proceeding, except as hereinafter set forth, shall be had or maintained against the Surety on this instrument unless such claim, action, suit or proceeding is brought or instituted upon the Surety within one year from termination or expiration of the bond term.

5. Regardless of the number of years this Bond is in force or the number of continuation certificates issued, the liability of the Surety shall not be cumulative in amounts from period to period and shall in no event exceed the amount set forth above, or as amended by rider.

6. Any notice, demand, certification or request for payment, made under this Bond shall be made in writing to the Surety at the address specified below. Any demand or request for payment must be made prior to the expiry date of this Bond. Surety Address:

**Aspen American Insurance Company
175 Capital Boulevard
Rocky Hill, CT 06067**

Attn: _____

7. If any conflict or inconsistency exists between the Surety's obligations or undertakings as described in this Bond and as described in the underlying Contract, then the terms of this Bond shall prevail.

SIGNED, SEALED AND DATED this _____ day of _____, _____.

By: _____
Principal

Aspen American Insurance Company

By: _____, Attorney-in-Fact

SAMPLE

Abundant Solar Power
Manlius Landfill Solar Array (M1)
Operations and Maintenance Plan

During the Term of the lease Abundant Solar Power (ASP) shall perform the following services on the System:

Monitoring System

The System will be installed with an internet-based Data Acquisition System (DAS) and System Monitoring System. This system will have the capability to send production data and general system performance in addition to alarms identifying problems, failures, and underperformance of the System to remote locations.

Maintenance Items

Description of Work	Frequency
Remote System Monitoring maintenance and operation	As necessary
On-Call System Service Technician	As necessary
Preventive Maintenance as per planned maintenance activities schedule	One time per year or as required
Corrective Maintenance	As necessary
Snow removal, Grass cutting and Vegetation control	As necessary

1. Remote System Monitoring
 - a. ASP will be actively monitoring the System operations via the System Monitoring System and will dispatch a Subcontractor to respond to any problems within two (2) Business Days.
2. On-Call System Service Technician
 - a. In order to respond to System alarms, power outages, System failures, or other production shortcomings a service technician will be required to visit the Site to troubleshoot, and resolve, any System issue within two (2) Business Days of the notification of such problem.
3. Preventive Maintenance
 - a. ASP will annually visit the Site to inspect and ensure the System is operated within manufacturer's guidelines and consistent with best industry practices, the annual visit scope of work is as follows:

Planned Maintenance Activities**Maintenance
frequency****1. Modules**

1.1	High level of inspection (debris, crack, holes, damages, ...)	Annually
1.2	No cracks and other defects/damage on PV modules	Annually
1.3	No shading issues from surrounding objects	Annually
1.4	No signs of components abnormal wear or excessive corrosion/rust	Annually
1.5	Frames and clamps are in place and appropriate	Annually
1.6	PV wiring is not pinched, damaged or otherwise interfering with module installation	Annually
1.7	There are no unsecured or loose conductors hanging down or touching the ground	Annually
1.8	Inspection of PV cabling for insulation issues, mechanical protection, stress, strain, connector issues, etc.	Annually
1.9	Inspect array bonding/grounding	Annually

2. RBI Racking & Tracker

2.1	Visual Inspection for signs of surface rust	Annually
2.2	Posts - Visual inspection of post settling (10%)	Annually
2.3	Purlin - Visual inspection on bent purlins, attachment to pivot arm (10%)	Annually
2.4	Pivot Arm Assembly - Visual inspection of pivot arm to gearbox (10%)	Annually
2.5	Gearbox - Visual check on to confirm not binding (10%)	Annually
2.6	Modules - Visual check of bolt/nut, torque check (10%)	Annually
2.7	Drive Shaft - Visual check on drive shaft connection (10%)	Annually
2.8	Fasteners - Inspected annually - retorqued if necessary	Annually
2.9	Modules - Inspect for cracked or broken modules, properly secured, replace modules and missing fasteners	Annually
2.10	Wiring - Inspect for loose or damaged wiring	Annually
2.11	Racking - Inspect for bent or deformed structural members	Annually
2.12	Drivetrain - Inspect for bent/damaged components/excessive wear, emphasis on pivot arm	Annually
2.13	Control System - Inspect for physical damage/moisture	Annually

3. Sun track Network Control Unit & Tracker Control Unit

3.1	Check mechanical connections, tighten if necessary	1 Year After Installation, Subsequently every 3 Years
3.2	Check for corrosion/deterioration	
3.3	Simulate Abnormal behavior (Wind, Axis Blockage, etc..) to ensure all alarms are generated and system responds correctly	
3.4	Battery Check: Cut power and wait 10 minutes, plug in again and check monitoring	Annually

4. Panel Washing

4.1	Panels Washed	Annually
-----	---------------	----------

5. Conduits, Cable Trays and Homeruns

5.1	Visual inspection of home-run cables to inverters, CB's, RCB's & disconnects	Annually
5.2	Visual inspections of conduit & cable trays	Annually
5.3	Wire insulation in good conditions (not scuffed or broken)	Annually

6. Combiner & Recombiner boxes:

6.1	Visual internal and external inspection for labelling, moisture entry, rodents & overall cleanliness	Annually
6.2	Verify Fuses, breakers and Surge suppression are in good conditions	Annually
6.3	Inspection of disconnect sealing, Lubrification Hinges	Annually

7. DG Disconnects at Equipment Pad

7.1	Verify Breakers/Fuses and Surge suppression are in good conditions	Annually
7.2	Inspection of disconnect sealing, Lubrification Hinges	Annually

8. Inverters

8.1	Visual internal and external inspection of labelling, heat sinks, moisture entry, rodents & overall cleanliness	Annually
8.2	Check for Alerts/Alarms on inverter screens	Annually
8.3	Enclosure is free from damage, all weather seals are intact, doors and latches operate properly	Annually
8.4	Inverter AFCI (Arc Fault Circuit Interrupter) Status	Annually
8.5	Inspection of internal switch cabinet-cleaning as required & insulation measurements	Annually
8.6	Inspect and if necessary clean heating elements & heat exchangers	Annually
8.7	Check all electrical terminals and fuses	Annually
8.8	Verify all communications and electrical connections	Annually
8.9	IVCT (I-V Curve Tracing) 33% of strings	Remotely /Annually

9. SCADA

9.1	Inspection of SCADA & Monitoring System Equipment	Annually
9.2	Inspect Weather Station	Annually
9.3	Ensure sensors are oriented correctly & cleaned	Annually
9.4	Ensure monitoring data is calibrated with portal and communicating effectively (Smart logger, ECO Portal etc..)	Annually

10. Switchboard

10.1	Cleaning - Remove dust/debris from busbars, connections, supports & enclosure surfaces	Annually
10.2	Bus & Cable Connections - Inspect for visible damage, broken wire strands, damaged insulation on cable connections	Annually
10.3	Insulation - Busbars, Bus Supports, Bus Shields, Insulating Barriers visually checked for damage	Annually
10.4	Circuit Breakers - Inspect for signs of discoloration, overheating, damage. Exercise operating mechanism.	Annually
10.5	Fusible Overcurrent Devices - Visually inspect switching mechanism and fuse connections	Annually
10.6	Meters & Controllers - Remove dust & dirt from exterior	Annually
10.7	Secondary Wiring - check wiring connections for damaged insulation, and for proper connection	Annually
10.8	Ventilation - Check grills/ventilation ports for obstructions/dirt accumulation and clean	Annually
10.9	Physical Damage - Inspect exterior enclosure plus interior components for damage	Annually

11. Transformer

11.1	General - Inspect area for stored tools/materials/debris. Listen for steady hum and no abnormal noises.	Annually
11.2	Exterior Surfaces - Inspect for tampering, battered metal, gouges, damages	Annually
11.3	Paint/Protective Coatings - Inspect for scratches or weathering, touch ups required	Annually
11.4	Tank Leaks - Inspect exterior/base for signs of leakage	Annually
11.5	Pad - Verify pad is not damaged and has not tilted	Annually
11.6	Nameplates - Inspect for proper nameplates and abnormal/unexpected fading	Annually
11.7	Unusual Odors - Inspect for smell of fluid or burning	Annually
11.8	Gauges & Controls - Check for proper operation	1 Year After Installation, subsequently every three years

11.9	Equipment Leaks - Inspect drain cocks, plugs, fuse mounting, and switches for insulating liquid leakage.	1 Year After Installation, subsequently every three years
11.10	Dialectic Fluid Level - Check Dielectric fluid level gauge	
11.11	Fusing - Inspect fuses	
11.12	Bushings - Check condition of HV & LV bushings for dirt, breakage	
11.13	Pressure Relief Valve - Check for dirt, debris, operation	
11.14	Lightning Arrestors - Check for damage/breakage and tight ground connections	
11.15	Dissolved Gas Analysis - Take Oil Sample to check dissolved gas levels (third party testing)	
11.16	Insulation Resistance Test	
11.17	Turns Ration Test (TRT)	
11.18	Power Factor Test (Overall, Arrestors, Bushing, Windings)	
11.19	Excitation-Current Tests	
11.20	Winding Resistance Test	

12. Thermal Imaging

12.1	Thermal Images of Transformer	Annually
12.2	Thermal Images of Inverters	Annually
12.3	Thermal Images of AC Panelboard	Annually
12.4	Thermal Images of main breakers, disconnects, bus & Cable connections	Annually
12.5	Provide a report outlining Thermal and torquing Anomalies detected thanks to thermal imaging & corrective action taken	Annually

13. Medium Voltage

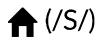
13.1	Inspect medium voltage overhead lines	Annually
13.2	Check the integrity of guy-wires	Annually
13.3	Inspect integrity of the poles	Annually
13.4	Inspect overhead lines for tree clearance	Annually

14. General Site Maintenance

14.1	Grass Cutting and vegetation control as required, to maintain a maximum height of 18 inches	As Required
14.2	Access road clear of debris & in good condition	Annually
14.3	Snow Removal will be performed on an as needed basis. Plowing snow to the side of the access roads is permitted	As Required
14.4	Confirm proper system signage and labelling on equipment	Annually
14.5	Shading management, visual screening maintenance & fence integrity assessment - maintenance if needed	Annually
14.6	Check the integrity of access gate pad-lock	Annually
14.7	Provide Site photos in Maintenance Report/Reports to supplied in digital format	Annually
14.8	Provide annual preventive maintenance & operational report (digital format)	Annually

nationalgrid

Distributed Generation

[Switch to Electric Connections](#)[Switch to Electric Vehicle](#)

(/S/)

APPLICATIONS (/S/CASE/CASE/DEFAULT)

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New Feature! [Infrastructure List View Guide \(/servlet/servlet.FileDownload?file=0150W00000FKqNQ\)](#)

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Also, for most recent updates, please clear your cache settings before viewing documents.

If you need assistance, please use the "Help" Tab above or contact National Grid by using the "Contact Us" button on either the Help or Home Tab

Case

00326621

Status

Step

Agreement

Construction Quote

▼ Case Details

Case Number

00326621

Size of Generator(kW)

5,000.000

Down Sized to 4,350.00 kW
per utility feedback

Case Record Type

New York DG - Complex Application

Status

Agreement

Step

Construction Quote

Date/Time Closed

Power Supply Area

Feeder 1

[36_11_2555 \(/s/infrastructure/a0x0W000005JOmbQAG/36112555\)](#)

Feeder 2

Substation 1

[BUTTERNUT 255 \(/s/infrastructure/a0x0W000005JO6WQAW/butternut-255\)](#)

Substation 2

Substation Transformer 1

[BUTTERNUT 255, Substation Transformer 1 \(/s/infrastructure/a0x0W000005JOLMQA4/butternut-255-substation-transformer-1\)](#)

Substation Transformer 2

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ZXM7-SPLDD144 Series



Znshinesolar 10BB HALF-CELL Bifacial Light-Weight
Double Glass Monocrystalline PERC PV Module

520W | 525W | 530W | 535W | 540W | 545W



Excellent cells efficiency

MBB technology decreases the distance between bus bars and finger grid line which is benefit to power increase.



Better Weak Illumination Response

More power output in weak light condition, such as haze, cloudy, and morning



Anti PID

Limited power degradation caused by PID effect is guaranteed under strict testing condition for mass production



High wind and snow resistance

■ 5400 Pa snow load ■ 2400 Pa wind load



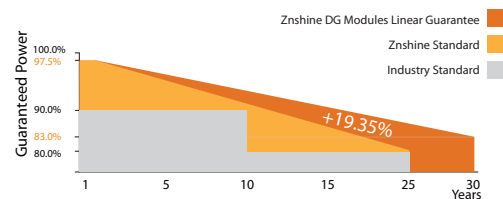
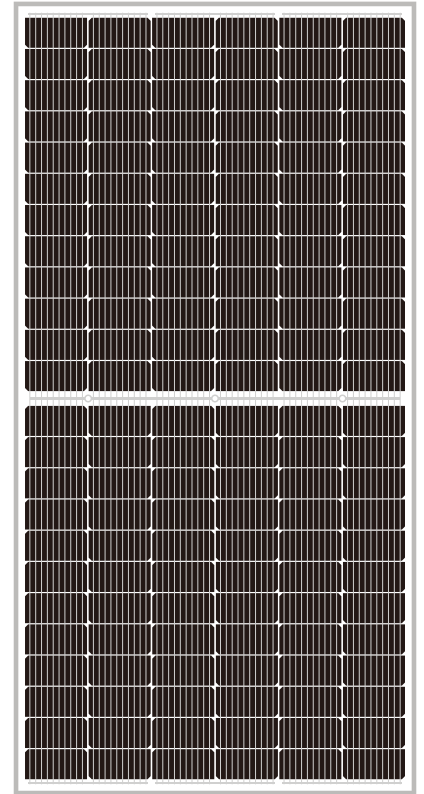
30 years power warranty

After 30 years our solar panel keeps at least 80% of its initial power output



Bifacial technology

Enables additional energy harvesting from rear side (up to 25%)



12 years product guarantee
30 years output guarantee



0.5% annual degradation
over 30 years



Founded in 1988, ZNShine solar is a world's leading high-tech PV module manufacturer. With the state-of-the-art production lines, the company boasts module capacity of 6GW. Bloomberg has listed ZNShine as a global Tier 1 PV module maker. Today Znshine has distributed its sales to more than 60 countries around the globe.

www.znshinesolar.com

ELECTRICAL CHARACTERISTICS | STC*

Nominal Power Watt Pmax(W)*	520	525	530	535	540	545
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	40.70	40.90	41.10	41.30	41.50	41.70
Maximum Power Current Imp(A)	12.79	12.85	12.91	12.96	13.02	13.07
Open Circuit Voltage Voc(V)	49.00	49.20	49.40	49.60	49.80	50.00
Short Circuit Current Isc(A)	13.53	13.59	13.65	13.71	13.77	13.83
Module Efficiency (%)	20.34	20.54	20.74	20.93	21.13	21.32

*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5

*Measuring tolerance: ±3%

ELECTRICAL CHARACTERISTICS | NMOT*

Maximum Power Pmax(Wp)	388.80	392.70	396.40	399.90	403.60	406.80
Maximum Power Voltage Vmpp(V)	37.90	38.00	38.20	38.40	38.50	38.80
Maximum Power Current Imp(A)	10.26	10.33	10.38	10.42	10.47	10.49
Open Circuit Voltage Voc(V)	45.80	46.00	46.20	46.30	46.50	46.70
Short Circuit Current Isc(A)	10.93	10.98	11.02	11.07	11.12	11.17

*NMOT(Nominal module operating temperature):Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s

ELECTRICAL CHARACTERISTICS WITH 25% REAR SIDE POWER GAIN

Front power Pmax/W	520	525	530	535	540	545
Total power Pmax/W	650	656	663	669	675	681
Vmp/V(Total)	40.80	41.00	41.20	41.40	41.60	41.80
Imp/A(Total)	15.93	16.01	16.08	16.15	16.23	16.30
Voc/V(Total)	49.10	49.30	49.50	49.70	49.90	50.10
Isc/A(Total)	16.87	16.95	17.02	17.10	17.17	17.25

MECHANICAL DATA

Solar cells	Mono PERC
Cells orientation	144 (6×24)
Module dimension	2256×1133×35 mm(With Frame)
Weight	33.5 kg
Glass	2.0 mm+2.0mm, High Transmission, AR Coated Heat Strengthened Glass
Junction box	IP 68, 3 diodes
Cables	4 mm ² , 350 mm
Connectors	MC4-compatible

TEMPERATURE RATINGS

NMOT	44°C ±2°C	Maximum system voltage	1500 V DC
Temperature coefficient of Pmax	-0.35%/°C	Operating temperature	-40°C~+85°C
Temperature coefficient of Voc	-0.29%/°C	Maximum series fuse	30 A
Temperature coefficient of Isc	0.05%/°C	Maximum load(snow/wind)	5400 Pa / 2400 Pa

Refer.Bifacial Factor 70±5%

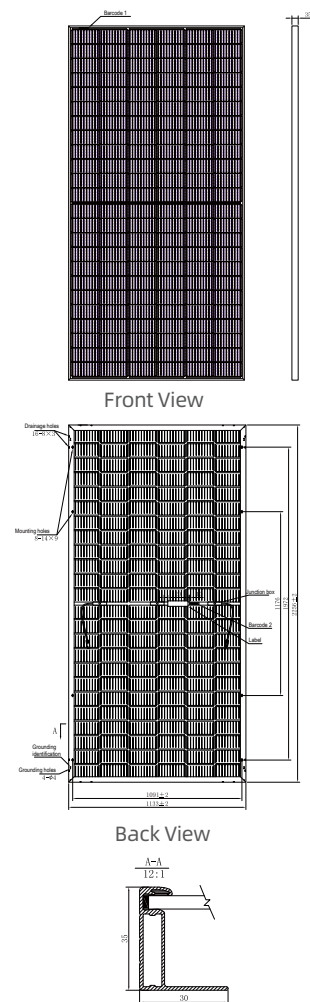
*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

*Remark:Electrical data in this catalog do not refer to a single module and they are not part of the offer.They only serve for comparison among different module types.

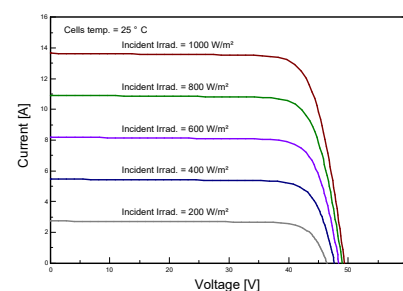
PACKAGING CONFIGURATION

Piece/Box	30
Piece/Container(40'HQ)	600
Piece/Container(with additional small package)	/

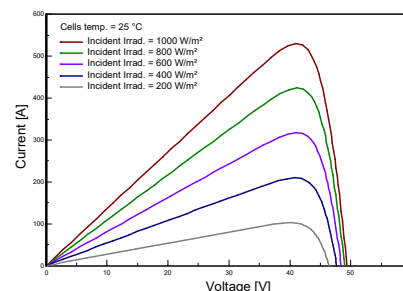
DIMENSIONS(MM)



I-V CURVES OF PV MODULE(530W)



P-V CURVES OF PV MODULE(530W)



SG250HX-US ^{New}

SUNGROW
Clean power for all

Multi-MPPT String Inverter for 1500 Vdc System



HIGH YIELD

- 12 MPPTs with max. efficiency 99%
- Compatible with bifacial module
- Built-in Anti-PID and PID recovery function



SMART O&M

- Touch free commissioning and remote firmware upgrade
- Online IV curve scan and diagnosis*
- Fuse free design with smart string current monitoring



LOW COST

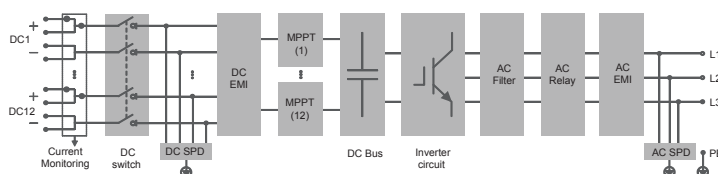
- Compatible with Al and Cu AC cables
- DC 2 in 1 connection enabled
- Power line communication (PLC)
- Reactive power at night function



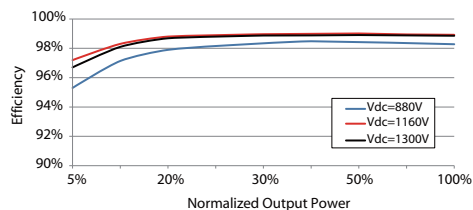
PROVEN SAFETY

- Integrated Arc fault circuit protection
- NEMA 4X protection and C5 anti-corrosion grade
- Type II SPD for both DC and AC

CIRCUIT DIAGRAM



EFFICIENCY CURVE



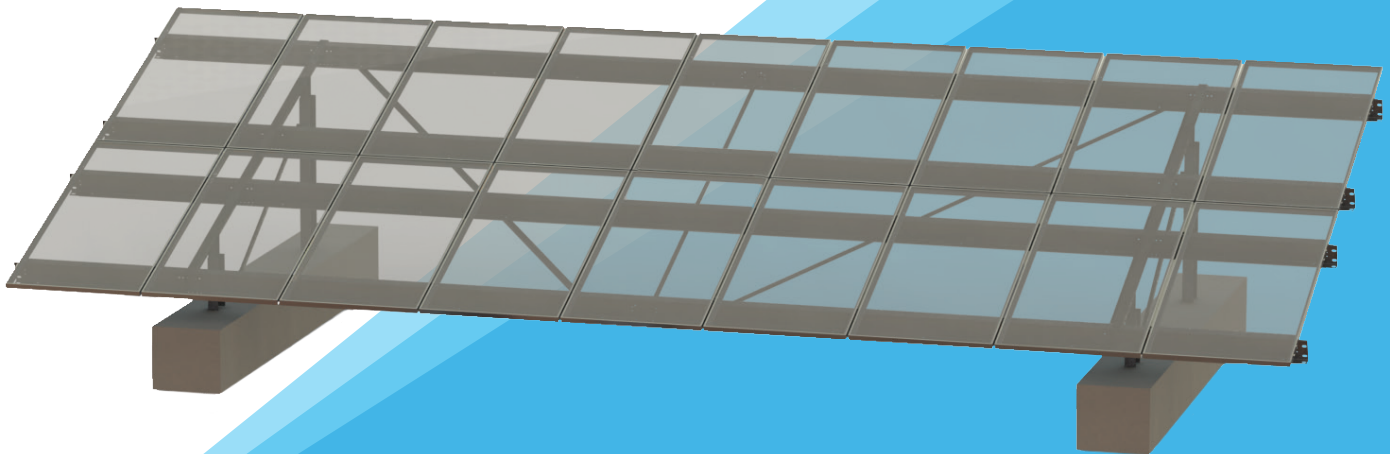
Type designation	SG250HX-US
Input (DC)	
Max. PV input voltage	1500 V
Min. PV input voltage / Startup input voltage	600 V / 600 V
Nominal PV input voltage	1080 V
MPP voltage range	600 V – 1500 V
MPP voltage range for nominal power	860 V – 1300 V
No. of independent MPP inputs	12
Max. PV input current	26 A * 12
Max. DC short-circuit current	50 A * 12
Output (AC)	
AC output power	250 kVA @ 30 °C / 225 kVA @ 40 °C / 200 kVA @ 50 °C
Max. AC output current	180.5 A
Nominal AC voltage	3 / PE, 800 V
AC voltage range	680 – 880V
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 57 – 63 Hz
THD	< 3 % (at nominal power)
DC current injection	< 0.5 % In
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging
Feed-in phases / connection phases	3 / 3
Efficiency	
Max. efficiency	99.0 %
CEC efficiency	98.5 %
Protection	
DC reverse connection protection	Yes
AC short circuit protection	Yes
Leakage current protection	Yes
Grid monitoring	Yes
Ground fault monitoring	Yes
DC switch	Yes
AC switch	No
Arc fault circuit interrupter (AFCI)	Yes
PV String current monitoring	Yes
Reactive powe at night function	Yes
PID protection	Anti-PID or PID recovery
Overvoltage protection	DC Type II and AC Type II
General Data	
Dimensions (W*H*D)	1051 * 660 * 363 mm (41.4" * 26" * 14.3")
Weight	99 kg (218.25 lbs)
Isolation method	Transformerless
Ingress protection rating	NEMA 4X
Night power consumption	< 2 W
Operating ambient temperature range	-30 to 60 °C (-22 to 140 °F)
Allowable relative humidity range (non-condensing)	0 – 100 %
Cooling method	Smart forced air cooling
Max. operating altitude	4000 m (> 3000 m derating) 13123 ft (> 9843 ft derating)
Display	LED, Bluetooth+APP
Communication	RS485 / PLC
DC connection type	MC4-Evo2 (Max. 10AWG)
AC connection type	OT / DT terminal (Max. 300 mm ² 600 Kcmil)
Compliance	UL1741, UL1741SA, IEEE1547, IEEE1547.1, CSA C22.2 107.1-01-2001, FCC Part15 Sub-part B Class A Limits, California Rule 21,UL 1699B
Grid Support	Reactive power at night function, LVRT, HVRT, active & reactive power control and power ramp rate control, Volt/Watt, Frequency/Watt

*: Only compatible with Sungrow logger and iSolarCloud

TECHNICAL DATASHEET

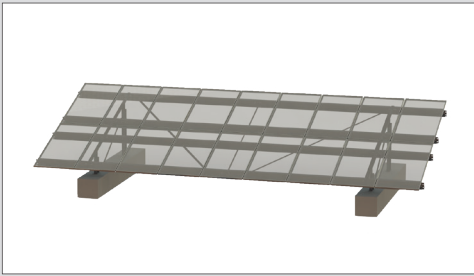
PRECAST™
BALLASTED GROUND SYSTEM

**FAST INSTALLING SOLAR MOUNTING
SYSTEM FOR LANDFILL SITES**



LANDFILL AND BROWNFIELD LEADER

- 8" [20.3 cm] Vertical Adjustment
- Integrated grounding & wire management
- Industry's longest spans and fewest foundations: As few as 190 per MW
- Supports all poly and thin film panels for all vendors
- Integrated grounding and wire management
- Foundations may be precast at site or nearest precast location
- Full layout and engineering analysis for every project



Fast installing solar mounting system
for landfill sites



Articulating purlin connections to navigate
up to 15% terrain slopes



Slots enable vertical adjustability



Galvanized purlins with large wire management tray

FEATURES

- Up to 4 ft. [1.2 m] high ground clearance to allow for snow and vegetation
- 5 to 35° tilt with multiple inter-row spacing options
- Full layout and engineering analysis for every project
- 51% overall lower cost than competitors
- Integrated grounding and wire management
- Up to 8" [20 cm] total vertical adjustability using post extender option including use of integrated slots
- Articulating purlin connections to navigate up to 15% terrain slopes

TEST & CERTIFICATION

- Wind tunnel tested by industry leader CPP and rated for 175 mph [78 m/s] wind speed
- Independent assessment by Black & Veatch
- Rated up to 90 psf [4,300 Pa] snow load
- ETL / UL 2703 tested (similar to the relevant sections of IEC 61215 & 61730)
- Meets IBC and ASCE standards for structural loading
- Warranty 20 years - Designed and Engineered in USA

CALCULATIONS

- PE Stamped Drawings - Design loads according to local building codes: ASCE 7, NBC, Eurocode, AS1170, GB 50009
- 100% code compliant designs for any jurisdiction
- Available 2 or 3 up in portrait and 4 or 6 up in landscape poly as well as multiple glass on glass module configurations including First Solar Series 4™ & First Solar Series 6™

MATERIAL

- Rail support structure components and module mounting rails: G90+ [20 µm] galvanized steel. Standard up to G180 [40 µm] special order.
- Magnicoat bolts and serrated flange nuts for structural member connections
- Module mounting hardware - Top mount: module mounting clips & serrated flange nuts: magnicoat. Bottom mount: hex bolts, serrated flange nuts, star washers: magnicoat
- Integrated grounding with star bolts or teathed module clamps included - both approved under ETL / UL 2703, (similar to the relevant sections of IEC 61215 & 61730)
- Proprietary Integrated Hardware™: For faster structure assembly, module mounting and reduced O&M cost. Oversized Serrated Flange Nyloc Nut and Oversized Flange Star Bolt with integrated star washer eliminates the need for washers and star washers.

GameChange Solar HEADQUARTERS

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Zug, Switzerland
Madrid, Spain

RESEARCH & DEVELOPMENT CENTER

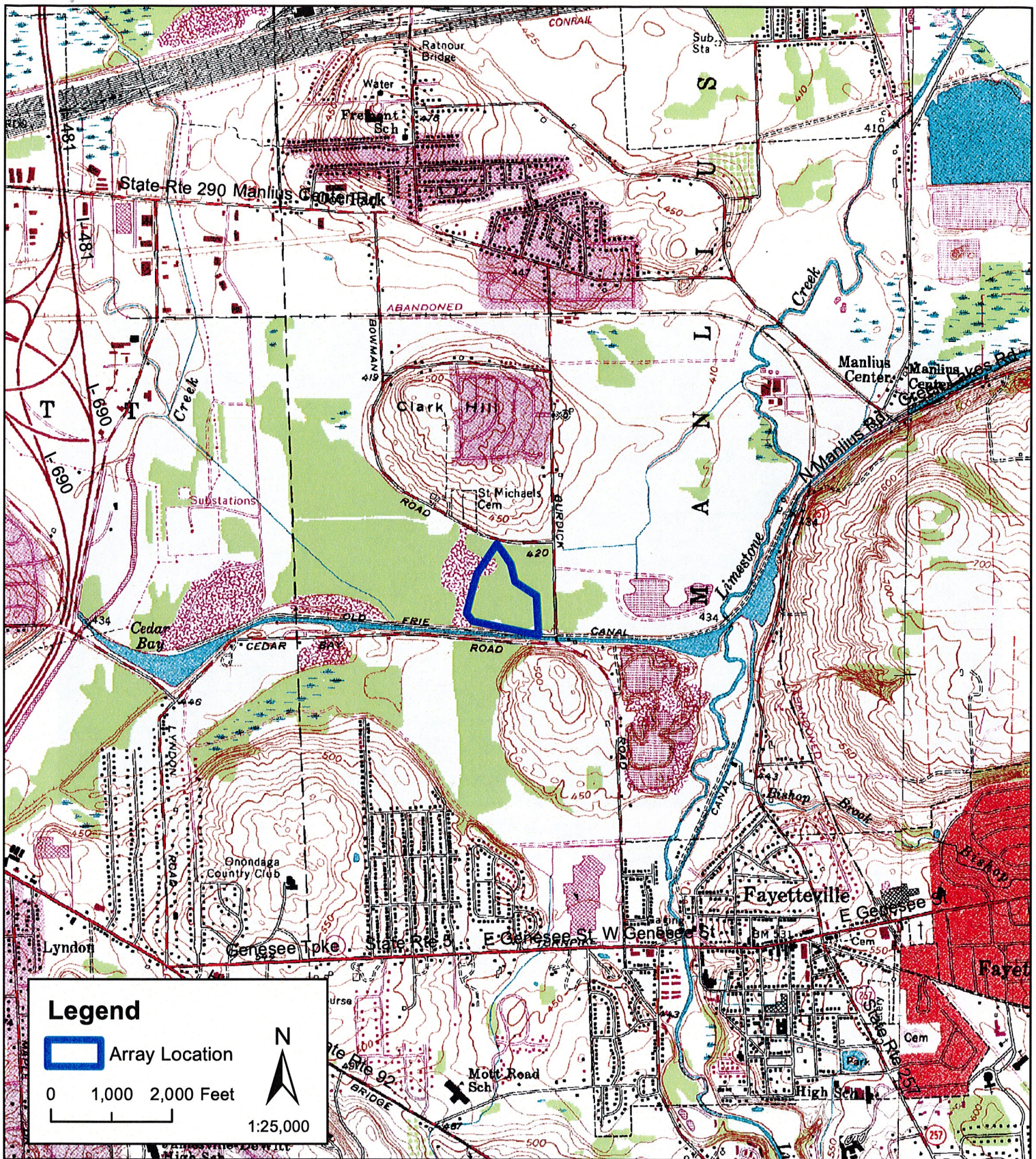
Brimfield, MA, USA

ASIA OFFICES

Wuxi, China
Mumbai, India
Dubai, UAE

SERVICE SUPERCENTERS

Lakeland, FL, USA
Mesa, AZ, USA



Data Sources:

1. USGS Quads: CUGIR

2. Roads: TIGER 2017

Prepared

11/23/2020 by:

Abundant Solar Power Inc.

Contact: 416-494-9559

www.abundantsolarenergy.com

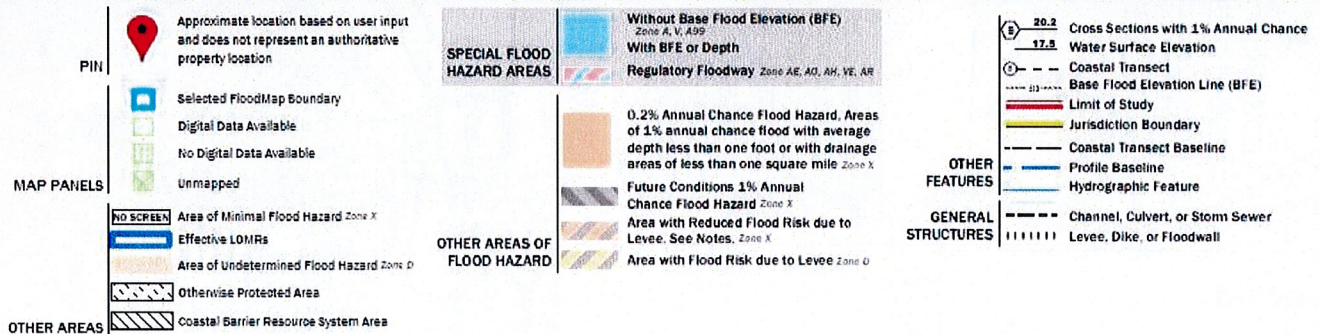
Justin Lam, GIS Analyst

**Abundant Solar
Power Inc.**



**MI
Town of Manlius
Onondaga County**

**USGS Map
Onondaga
QUAD
Figure I**



SOLAR LEASE AGREEMENT

This Solar Lease Agreement (this “Lease”) is entered into on this ____ day of _____, 2020, (the “Commencement Date”), by and between the **Town of Manlius**, a New York municipal corporation (“Landlord” or the “Town”), and [**Abundant Solar Power () LLC**] (“Tenant”), and together with Landlord, each a “Party” and collectively, the “Parties”.

Recitals

[**WHEREAS**, the Town expressed interest to the CNY Regional Planning and Development Board (RPDB) to participate in the Municipal Collaborative Solar Procurement Project (aka Solarize NY Initiative) that was funded through NYSERDA PON 2672; and

WHEREAS, the purpose of the Solarize CNY Initiative is to provide technical support to the Town in evaluating the feasibility of installing solar energy systems for municipal buildings, facilities, and to leverage economies of scale through the collective purchasing power of multiple municipalities in CNY in order to reduce project costs; and]¹

WHEREAS, the Town owns certain real property located at 5701 Bowman Road in Town of Manlius, County of Onondaga, Tax Parcel No. 074.-01-06.1 (the “Property”), as described in **Exhibit “A”** attached hereto, which Property is approximately 59 acres and contains a closed surface landfill; and

WHEREAS, the Town has negotiated with Abundant Solar Power Inc., the direct owner of the Tenant and the developer selected by the CNY RPDB, to develop a mutually beneficial agreement to locate a 4 MWac community solar array on a portion of the Property containing approximately 13.6 acres.

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants and agreements contained herein, and intending to be legally bound hereby, Tenant and Landlord hereby agree as follows:

1. Premises.

1.1 **The Premises.** Landlord, for and in consideration of the covenants and agreements on the part of Tenant contained in this Lease, does hereby lease unto Tenant, and Tenant does hereby take from Landlord, upon and subject to the conditions hereinafter expressed, a certain portion of the Property referred to as the “Lease Area,” as more particularly described in **Exhibit “A”** and preliminarily depicted in Exhibit “**A-1**”, each attached hereto and incorporated herein, for the sole and exclusive purpose of conducting due diligence activities, designing, financing, constructing, installing, owning, operating, maintaining, repairing, replacing and removing the System (as defined in Section 2 hereof). In addition to the foregoing, Landlord hereby grants Tenant a license across the Property to the proposed interconnection point with the regulated electric local distribution company (the “LDC”) that provides electric

¹ NTD: Please confirm whether these should be removed or if they are still applicable.

distribution service to the Town. Tenant shall provide Landlord notice of the LDC's grant of an Interconnection Permit (defined in Section 3.3) when the exact location for installation of cable necessary to support the System is known. Landlord hereby grants to Tenant a non-exclusive easement or easements on, over, across, under and through the Property as necessary to allow Tenant to install and maintain its cables and related equipment as required by the Interconnection Permit and any other utility easements reasonably required in connection with the Permitted Uses (defined below) (the "Easement Areas"). Upon Tenant providing notice to Landlord of the final Easement Areas, the Parties shall execute a separate stand-alone non-exclusive easement or easements reflecting the final Easement Areas and otherwise being satisfactory to Tenant (the "Easements"), at which time the license provided above shall terminate. The Lease Area and the area subject to the license or the subsequent Easement Areas are referred to herein, collectively, as the "Premises." The Parties agree to amend **Exhibit "A"** upon Landlord's grant of the easements referenced above, which revised **Exhibit "A"** shall replace the initial Exhibit A attached to this Lease as of the Commencement Date and be incorporated into this Lease. With respect to each Easement, (a) the term shall not exceed the Term of this Lease, (b) to the extent permitted by applicable federal, state and local laws, such Easement shall be appurtenant to the Lease Area and shall run with and benefit the Lease Area and inure to the benefit of and be binding upon Landlord and Tenant and their respective successors and assigns, (c) no act or failure to act on the part of Tenant shall be deemed to constitute an abandonment, surrender or termination thereof, except (i) upon recordation by Tenant of a quitclaim deed specifically conveying the Easement back to Landlord or (ii) the termination of this Lease pursuant to its terms, (d) non-use of the Easement shall not prevent the future use of the entire scope thereof, and (e) no use of or improvement to the Lease Area or any lands benefited by the Easement, and no assignment or sublease hereof or thereof, shall, separately or in the aggregate, constitute an overburdening of the Easement.

1.2 Right of Access. Landlord further grants to Tenant, during the period commencing on the Commencement Date of this Lease and ending upon the Termination Date or such additional time as required to remove the System and restore the Premises, as set forth in Section 16:

(a) A non-exclusive right of access to the Lease Area across or through the surrounding or adjacent area owned or leased by Landlord which is necessary or convenient to gain access to the System;

(b) The exclusive use of, and right to develop, design, install and operate, the System within the Lease Area, and the exclusive right to maintain, repair and replace the System throughout the Term of this Lease;

(c) A right of access for the installation, operation and maintenance of electric lines necessary to interconnect the System to the LDC's system, whether through the area subject to the aforesaid license or the Easement Area; and

(d) The exclusive right to receive sunlight ("Insolation") at the Lease Area (the "Solar Easement") during every hour of each day that sunlight could be received by the System, under which Tenant shall have the right to capture, use and convert the unobstructed solar resources on the Premises which shall extend horizontally

three hundred sixty degrees (360°) across the entire Property, together extending vertically through all space located above the surface of the Property, that is one hundred eighty degrees (180°) or such greater numbers of degrees as may be necessary to extend from each point on and along a line drawn along the surface of the ground and from each point along the exterior boundary of the Property. Landlord shall not permit any vegetation, structures or other objects on the Property to obstruct the passage of sunlight on or to the Lease Area. To the extent that it has the authority to do so, Landlord shall not permit any abutter to the Property, including other lands owned by Landlord, from constructing or obstructing the passage of sunlight on or to the Lease Area. This grant of Solar Easement shall run with the terms of this Lease and is not terminable by Landlord or its successor-in-interest so long as this Lease is in effect.

The preliminary locations of such access areas are set forth on Exhibit "A-1" attached hereto and such exhibit will be supplemented prior to the start of construction of the System.

1.3 Condition of Premises/Leased Area. Landlord represents to Tenant that, to the best of Landlord's knowledge, there are no covenants, restrictions, rights of way, easements or other encumbrances on the Premises or Leased Area which will prevent the Tenant's right of access and use of the Premises or Leased Area for the purposes described herein. Given that the Premises consist, all or in part, of land associated with a former landfill (the "Landfill Area"), Landlord further represents that at the time of the commencement of construction of the System the Landfill Area will be in compliance with all applicable federal, state and local laws, regulations, bylaws, codes and other legal requirements applicable to the Landfill Area and Landlord shall provide documentation of same which it has in its possession as reasonably requested by Tenant. During the Due Diligence Period (defined below) Tenant will review the condition of Landlord's title to the Premises, including any recorded rights of way and easements, and investigate the status of any existing permits that are associated with the Landfill Area. In the event that there exist other uses or covenants, conditions or restrictions affecting the Premises that prevent Tenant from its right of access and use of the Premises, or in the event that there are any violations or evidence of non-compliance with any applicable governmental permits or licenses for the Landfill Area, Tenant may terminate this Lease in accordance with the Early Termination provisions of Section 3.3. Tenant shall not be liable for any conditions on the Premises arising from or related to acts or omissions occurring prior to the Commencement Date, including conditions related to any Hazardous Materials.

1.4 Utilities. Tenant shall be solely responsible for providing, and paying for, all electrical and other utilities of sufficient capacity to serve Tenant's use of the Premises, which shall be installed in accordance with the reasonable requirements of Landlord and in a manner that avoids unnecessary interference to other activities on the Easement Premises in the reasonable judgment of Landlord.

1.5 Remaining Property. The Property, excepting the Lease Area, is referred to as the "Remaining Property."

2. Permitted Uses. Tenant shall use the Premises solely for the purpose of testing, designing, financing, constructing, installing, owning, operating, maintaining, repairing, replacing and removing a solar photovoltaic system with a nameplate capacity of 4.0 MW ac on

the Premises, together with any and all solar arrays and all necessary associated inverters, wiring, metering, and other equipment and appurtenances related thereto (the “System”) as Tenant deems necessary for the design, installation, operation and maintenance of the System or as required by any county, state or federal agency or department for the operation of a photovoltaic generation system (the “Permitted Uses”). The Permitted Uses shall also include the right to test, survey and check title on the Property and perform any other acts necessary to the successful and secure operation of the System, as determined by Tenant in its sole discretion. Tenant’s use of the Premises shall at all times conform to all applicable federal, state and local laws, regulations, bylaws, codes and other legal requirements (the “Governmental Requirements”). Absent written approval by the Landlord, Tenant shall not use the Premises for any use other than as set forth herein.

3. Term.

3.1 Initial Term. The initial term of this Lease (“Initial Term”) shall commence upon execution of this Agreement, which shall be deemed the Commencement Date hereof and, unless terminated pursuant to the Early Termination provisions of Section 3.3 or as otherwise allowed by this Lease, shall terminate on the last day of the month after the twenty-fifth (25th) annual anniversary of the commencement of Commercial Operation of the System (the “Termination Date”). Commercial Operation is defined as the date upon which a power purchasing utility or other entity first receives and purchases power produced by the System, excluding electric energy delivered to the electric grid in connection with testing, start-up or commissioning of the System. Tenant shall promptly provide Landlord written notice of the date Commercial Operation is achieved (the “Commercial Operation Date”).

3.2 Extension Term. Tenant shall have the right, to be exercised at least sixty (60) days prior to the expiration of the Initial Term, to extend the term of this Lease for two additional (5) year periods (the “Extension Term”), on the same terms and conditions set forth herein. The Initial Term, and the Extension Terms, if permitted and exercised, shall be referred to, together, as the “Term.” The term “Lease Year” means a period of one (1) year commencing on the Commercial Operation Date (or the anniversary thereof) and ending on each subsequent annual anniversary date thereof.

3.3 Early Termination. The Parties hereby acknowledge and agree that Tenant’s obligations under this Lease are contingent on Tenant 1) completing, to Tenant’s satisfaction, certain due diligence as to title, survey, topographical, environmental, wetlands delineations and surveying, soil conditions and availability of utilities, sewer use and water supply, the overall regulatory framework governing the Premises and the System, including zoning and any other land use requirements; 2) obtaining, in Tenant’s sole discretion, any and all required financing for the design, construction, installation, operation and management of the System including but not limited to financing that may be associated with certain tax credits and financial incentives contained in either state or federal law; 3) obtaining any and all required permits, including, without limitation, (a) a permit from the LDC to connect the System to the LDC (the “Interconnection Permit”), (b) obtaining, with Landlord’s cooperation, all approvals from the New York State Department of Environmental Conservation (“DEC”) necessary to authorize construction of the System on the landfill, including, if necessary, amendments to the Post-Closure Plan and/or Site

Management Plan for the landfill, and (c) any other federal, state, or local permits or approvals necessary to construct and operate the System on the Premises (all such permits and approvals being referred to as the “Governmental Approvals”), and on Tenant inspecting the Premises to determine if they are suitable for the Permitted Uses, in Tenant’s sole discretion; and 4) purchasing the necessary equipment required for the System from a manufacturer of solar photovoltaic systems and equipment. Tenant shall have a period commencing on the Commencement Date through and including the Commercial Operation Date, or as otherwise agreed to by the Landlord and Tenant in writing (the “Due Diligence Period”) to conduct its continued due diligence as described herein, obtain the financing Tenant reasonably determines is required for the System, obtain such Governmental Approvals and conduct all inspections of the Premises, and to purchase the necessary equipment required for the System, provided that Tenant shall have procured the insurance required under Section 12 prior to entering the Property. If Tenant is unable to obtain sufficient financing (as described above), obtain the Governmental Approvals, or purchase the necessary equipment despite its diligent efforts, or reasonably determines that the Premises are not suitable for Tenant’s intended use, or reasonably determines that the Premises, or the Tenant’s use of the Premises for the System, are not in conformance with any of the Governmental Requirements, or reasonably determines that any of the Governmental Requirements will cause the Project to be no longer economically viable, Tenant may terminate this Lease, without recourse to the Parties, by delivering written notice to Landlord, in which event this Lease shall terminate and be null and void, except for those provisions that are stated to survive the expiration or earlier termination of this Lease.

3.4 Holdover. If Tenant or any party claiming by, through or under Tenant, retains possession of the Premises or any part thereof after the expiration or earlier termination of this Lease, then Landlord may, at its option, serve written notice upon Tenant that such holding over constitutes (i) an Event of Default under the Lease, or (ii) a month-to-month tenancy, upon the terms and conditions set forth in this Lease, or (iii) the creation of a tenancy-at-sufferance, in any case upon the terms and conditions set forth in this Lease. Tenant shall also pay to Landlord all damages sustained by Landlord resulting from retention of possession by Tenant. The provisions of this Section 3.4 shall not constitute a waiver by Landlord of any right of re-entry as set forth in this Lease; nor shall receipt of any Rent or any other act in apparent affirmance of the tenancy operate as a waiver of Landlord’s right to terminate this Lease for a breach of any of the terms, covenants, or obligations herein on Tenant’s part to be performed.

4. Rent.

4.1 Rent. Beginning on the Commercial Operation Date, Tenant shall pay Landlord without notice or demand therefore and without any deduction or set-off whatsoever, except as expressly otherwise provided herein, Base Rent and taxes as such terms are defined below, in yearly installments.

4.2 Base Rent and Taxes.

(a) Tenant shall pay a base rent for each Lease Year in the amount set forth for such Lease Year on Exhibit B (the “Base Rent”). Base Rent shall be paid in quarterly installments, with the first payment due and payable on the Commercial Operation Date.

(b) The Parties acknowledge that Landlord, as a municipal corporation of New York State, or not-for-profit organization validly organized under New York State law, is exempt from the assessment of, and obligation to pay real property taxes, ad valorem levies or special assessments (“Property Taxes”) for property owned by such municipal corporation or not-for-profit corporation and used for public or not-for-profit purposes, respectively. To the extent that the installation of the System on the Premises results in any Property Taxes being assessed against the Premises or the System, or the requirement of payments in lieu of real property taxes to one or more taxing jurisdictions or other authority in accordance with a payment in lieu of taxes agreement (“PILOT”), Tenant shall solely be responsible for the payment of all such Property Taxes, whether as a direct payment to the relevant taxing jurisdiction(s) or as a reimbursement to Landlord, provided, however, that in the event Tenant must pay such Property Taxes, the Base Rent due to Landlord shall be reduced by an amount necessary to ensure that the total amount Tenant pays in Base Rent, Property Taxes and under any PILOT in any Lease Year does not exceed the Maximum Payment for such Lease Year set forth on Exhibit B. If Tenant fails to pay such Property Taxes when same become due and payable, then, in addition to the Landlord’s other rights and remedies, the Landlord shall have the right to pay such Taxes, and Seller shall indemnify and reimburse Landlord for the cost thereof within thirty (30) days of receipt of written demand from Landlord with respect to such payment.

4.3 Governmental Charges. Tenant shall pay or cause to be paid all of the following, if applicable: utilities of every kind or nature provided to the Lease Area, or reasonably attributable to Tenant’s use of the Easement Premises. Landlord shall cause to be paid all charges, excises, levies, license and permit fees and all other governmental charges of any kind and nature which during the Term may be assessed, levied, imposed upon or become due with respect to, or become a lien on, the Premises or the leasehold, or any part thereof, or any appurtenance thereto (“Governmental Charges”).

4.4 General Rent Provisions. All Rent and other payments required to be made by Tenant to Landlord under this Lease shall be paid by check made payable to “Town of Manlius” and delivered to Landlord at the address set forth below, or at such other place as Landlord may from time to time direct by written notice to Tenant.

4.5 Interest. All payments becoming due under this Lease and not paid within ten (10) days of the date due or upon written demand as required herein shall bear interest from the applicable due date until received by Landlord at an annual rate equal to the prime rate of interest charged by Bank of America or its successor or similar entity, as published in the Wall Street Journal for the applicable due date, plus two percent (2%).

5. System Construction, Installation and Operation.

5.1 Installation Work. Landlord hereby consents to the construction of the System by Tenant on the Premises (“Installation Work”) in accordance with this Lease, including, without limitation, grading and required leveling, pouring foundations and other substructure as required for the Installation Work, the installation of solar panels, mounting substrates or supports, wiring and connections, power inverters, service equipment, metering equipment, utility interconnections, storage buildings, security offices, electrical equipment shelters and security fencing. Landlord acknowledges that the installation of all or a portion of the System will require physically mounting and adhering the System to the ground and consents to such mounting or adhering, as applicable, consistent with all applicable Governmental Requirements.

5.2 Appurtenant Rights. Tenant shall also have the right from time to time during the term hereof in connection with this Lease, to: (a) maintain, clean, repair, replace and dispose of part or all of the System; to add to or remove (if this Lease has terminated or as otherwise allowed by this Lease or required under applicable Governmental Requirements) the System or any part thereof; and (c) perform (or cause to be performed) all tasks necessary or appropriate, as reasonably determined by Tenant, to use the Premises for the Permitted Uses or carry out the activities set forth in this Section 5, including but not limited to, trimming or clearing brush, limbs, branches or foliage on the Lease Area or Property.

5.3 Access to and Use of Leased Premises. Tenant shall have access to the Premises twenty-four (24) hours, seven (7) days a week for the purpose of performing the Installation Work, providing utilities to the Premises, and using the Premises for the Permitted Uses and any other uses incidental thereto. To the extent requested by Tenant and reasonably necessary for the performance of the Installation Work, Landlord shall provide necessary space for the temporary storage of parts and supplies on the Premises or portions of the Property adjacent thereto, as reasonably agreed to by the Parties. Tenant shall perform the Installation Work and ongoing repair and maintenance in a manner that minimizes inconvenience to Landlord’s use of the Remaining Property to the extent commercially practical. Tenant shall inform Landlord of Tenant’s construction schedule at least five (5) business days prior to commencement of Installation Work.

5.4 Site Restoration. Tenant may make such modifications to the Premises as reasonably required or convenient to perform the Installation Work or ongoing maintenance, including, without limitation, running wires and conduits from the System to the electrical panels and other areas on the Premises, provided that Tenant shall maintain the Premises in good condition and repair and shall restore the Premises to substantially the same condition as existed immediately prior to such modifications (other than the improvements and modifications made in connection with the System).

5.5 As-Built Plans. Subsequent to the completion of the Installation Work, Tenant shall provide Landlord with “as-built” drawings setting forth in detail the location of all components of the System (“As-Built Plans”). All repairs or replacements to the System shall meet all applicable Governmental Requirements.

5.6 Construction Schedule. Within three (3) months of the execution of this Agreement, Tenant shall provide a schedule for construction including when Tenant shall commence construction of the System. The parties expressly agree that construction shall be complete and that the Commercial Operation Date of the System shall be no longer than four (4) years after execution of this Agreement, provided, however, that such time period shall be extended as a result of any *force majeure* event or any other delay caused by circumstances outside of the Tenant's control. In the event that construction is not completed within four (4) years of execution of this Agreement (as such time period may be extended as described in this Section 5.6), this Agreement shall be deemed terminated and null and void by the Town.

5.7 Construction Standards. Any and all improvements to be constructed, erected or maintained on or at the Premises shall be constructed, erected and maintained in good and workmanlike manner, and in accordance with local building permits. Tenant's construction, operation, use and maintenance of the System and any and all other improvements on or at the Premises shall at all times comply with all applicable Governmental Requirements. Tenant will be responsible for obtaining and maintaining, at its sole cost and expense, all approvals, and permits necessary for the construction of the System and any and all other improvements on or at the Premises.

5.8 Construction Costs. Tenant will pay all costs and expenses incurred in connection with the construction, maintenance and operation of the System and any and all related improvements on or at the Premises, including utility connections and the cost of electricity and other utilities the Tenant consumes in its construction, maintenance and operational activities at the rate charged by the servicing utility company, for which Tenant will make payments directly to said company. Tenant shall repair, at its sole cost and expense, any damage caused to the Property as a result of any act or omission of Tenant or its employees, agents, contractors, or invitees.

5.9 Mechanics Liens. Tenant shall use commercially reasonable efforts to not permit any mechanics' liens, or similar liens, to remain upon the Premises for labor and material furnished to Tenant or claimed to have been furnished to Tenant in connection with work of any character performed or claimed to have been performed at the direction of Tenant, and shall cause any such lien to be released of record without cost to the Landlord within forty-five (45) days after Tenant receives notice of filing of same. In connection with the foregoing, Tenant agrees to indemnify, save, defend, and hold harmless the Landlord against, of and from all costs, liabilities, suits, penalties, claims and demands, including reasonable counsel fees, resulting therefrom.

5.10 Insurance for Tenant's Work. During the performance of the Installation Work or other work done on or to the Premises, Tenant shall have and maintain in force public liability and property insurance, builder's risk insurance covering Landlord, and workmen's compensation insurance affording applicable statutory coverage and containing statutory limits, all in compliance with the provisions of Section 12.

5.11 Removal Bond/Security. Tenant shall be responsible for removal of the System and other improvements made to or structures placed on the Premises by or on behalf of Tenant; provided, however, that Tenant shall have no obligation to remove any road, utility

installations, or building foundations installed upon the Premises. Before Tenant commences the Installation Work, Tenant shall provide Landlord with an estimate from an independent third party engineer reasonably approved by Landlord and Tenant (and paid for by Tenant) establishing the cost required to remove the System from the Premises and to repair any damage caused to the Premises from such removal. No later than the Commercial Operation Date, Tenant shall provide Landlord with a bond in the amount established by the engineer in favor of Landlord from a bond company authorized to issue such bonds in the State of New York and reasonably satisfactory to Landlord (the “Removal Bond”) to secure the removal of the System at the expiration or earlier termination of the Lease, to pay for any costs for repairs to the Premises caused as a result of such removal, and to restore the Premises to the condition in which they are required to be maintained if Tenant fails to do the same. The Removal Bond shall be maintained during the Term of this Lease, and the amount of said bond shall be recalculated by Tenant at least every five (5) years and adjusted accordingly based upon the updated costs of removal of the System. Tenant shall provide such calculations to Landlord for its review. The Removal Bond shall not be cancelled, materially changed, or reduced without first giving written notice to Landlord and Tenant at least thirty (30) days in advance and obtaining Landlord’s prior written consent.

5.12 Safety. During construction of the System or any parts thereof or other improvements to the Premises, Tenant shall install such commercially reasonable safety devices as may be necessary to ensure the safety of Landlord’s personnel on the Property, persons on the Premises, the Remaining Property, adjacent property owners and their property, and the general public with respect to their activities at the Property.

6. System and Output Ownership.

6.1 Ownership of System. Landlord acknowledges and agrees that Tenant or one of its affiliates with the financial and technical expertise capable of fulfilling this Lease is the exclusive owner and operator of the System, that all alterations, additions, improvements, installations or equipment used in connection with the installation, operation or maintenance of the System or comprising the System is, and shall remain, the personal property of Tenant and shall not become fixtures, notwithstanding the manner in which such System is or may be affixed to any real property of Landlord and neither Landlord nor any affiliate, lender or successor in- interest of Landlord shall have any right, title or interest in the System or any component thereof, notwithstanding that the System may be physically mounted or adhered to the Premises or structures, buildings and fixtures on the Premises. Landlord shall have no development or other interest in the System or other equipment or personal property of Tenant installed on the Premises (regardless whether such personal property is affixed to any real property), and Tenant may remove all or any portion of the System at any time and from time to time in Tenant’s sole discretion. Without limiting the generality of the foregoing, Landlord hereby waives any statutory or common law lien that it might otherwise have in or to the System or any portion thereof.

6.2 Ownership of Output. Landlord acknowledges that Tenant is the exclusive owner of electric energy generated by the System and owner of all environmental attributes, tax attributes and environmental incentives and other governmental benefit or incentive programs attributable to the System.

6.3 Security Interests in System. Except as otherwise provided herein and in the Lease, Landlord acknowledges and agrees that Tenant may grant or cause to be granted to a lender or other project financing party, together with any Tax Investor (defined below), security or collateral agent, indenture trustee, loan trustee or participating or syndicated lender and their respective representatives, purchasers, transferees, successors and assigns (any of the foregoing, a “Financing Party”) a security interest in the System and Tenant’s interest in this Lease, and Landlord expressly disclaims and waives any rights in the System at law or in equity pursuant to this Lease. Any security interest granted to a Financing Party shall be subordinate to the interest of the Landlord in the Premises and subject to the terms and conditions of this Lease.

(a) Rights & Obligations. A Financing Party may enforce its lien or other rights and acquire title to the System or Tenant’s interest in this Lease (collectively, the “System Estate”) in any lawful way, pending foreclosure of such lien or exercise of such other rights, any Financing Party may take possession of and operate the System Estate. Upon foreclosure of such lien by power of sale, judicial foreclosure or acquisition of the System Estate by deed in lieu of foreclosure, a Financing Party may, upon notice to Landlord, sell and assign the System Estate to a third party. No Financing Party shall have any obligation or liability under this Agreement prior to the time that such Financing Party or its designee succeeds to absolute title to Tenant’s interest in this Agreement. Following and only following the acquisition of the System Estate by a Financing Party or its designee as set forth above, the Financing Party or other person acquiring title to the System Estate shall (i) within twenty (20) days of acquiring the System Estate, cure all defaults by Tenant hereunder that are capable of being cured; provided, however, if such defaults cannot be cured within the said twenty (20) day period, the cure period shall be extended for a reasonable period of time for the Financing Party or other person to cure such default as long as Financing Party or other person has commenced cure and is diligently pursuing the same; and (ii) assume and commence performance of all of Tenant’s obligations under this Lease thereafter arising. Landlord agrees that no Financing Party shall be obligated to perform any obligation or be deemed to incur any liability or obligation provided in this Lease on the part of Tenant or shall have any obligation or liability to Landlord with respect to this Lease except to the extent any Financing Party has expressly assumed the obligations of Tenant hereunder pursuant to this Section 6.3.

(b) Notice. Tenant shall notify Landlord in writing of the name, address, and telephone and facsimile numbers of any such Financing Parties. When giving notice to Tenant of any default by Tenant under this Lease, Landlord shall also serve a copy of such notice upon each Financing Party at the same time.

(c) Right to Cure. Each Financing Party shall have the right (but not the obligation) to cure any default by Tenant (i) within thirty (30) days (or twenty (20) days in the case of payment default) after the later of the receipt of the notice referenced above or the expiration of Tenant’s applicable cure period as provided herein or (ii) for a default other than a payment default, within such longer period as may reasonably be necessary to cure such default, if such default is not reasonably

curable within 30 days after the expiration of Tenant's applicable cure period, provided that the cure is commenced within such 30-day period and thereafter diligently continued to completion. Landlord shall accept such cure and performance as though the same had been done or performed by Tenant so long as such cure and performance is provided by such Financing Party or any agent on its behalf. Any Financing Party shall have the right to do any act or thing required to be performed by Tenant or any assignee under this Lease, and such act or thing performed by a Financing Party shall be effective to prevent a default under this Lease as if done by Tenant or the assignee itself. The time available to a Financing Party to cure any default by Tenant shall be extended by (i) such number of days as may be necessary for such Financing Party to obtain a receiver, or to initiate and complete foreclosure proceedings, if possession of the System is necessary to cure such default, and (ii) the number of days of delay occasioned by bankruptcy stay or other judicial restriction against such remedies or occasioned by other circumstances beyond such Financing Party's reasonable control.

(d) New Lease to Financing Party. If the Lease is rejected, disaffirmed or terminated as a result of any insolvency proceeding involving the Tenant, Landlord shall give prompt written notice thereof to each Financing Party. A Financing Party, its nominee or their purchaser, assignee or transferee, as the case may be, may, within thirty (30) days after the receipt of such written notice, certify in writing that it intends to perform the obligations of the Tenant arising after the date of such certification upon the terms and conditions of the Lease and to enter into a new lease. In such event, Landlord shall within thirty (30) days of receiving written request from a Financing Party, execute and deliver a new lease to such Financing Party, its nominee or to their purchaser, assignee or transferee, as the case may be, which new lease shall be effective as of the date of such rejection, disaffirmation, or termination, shall be for a term equal to or greater than the remainder of the Term of this Lease and shall be upon the same terms, covenants, conditions and agreements as contained in this Lease; and, until such time as such new lease is executed and delivered, such Financing Party may enter, use and enjoy the Property and conduct operations thereon as if this Lease were still in effect. This paragraph shall survive the rejection, disaffirmation or other termination of the Lease and shall continue in full force and effect thereafter to the same extent as if this paragraph were a separate and independent contract made by Landlord, Tenant and each Financing Party; provided that the relevant Financing Party shall cure all defaults of Tenant capable of being cured hereunder, simultaneously with the delivery of such new lease.

(e) Upon the receipt of a written request from Tenant or any Financing Party, Landlord shall, at Tenant's or such Financing Party's expense, execute or arrange for the delivery of such certificates, consents, estoppels, opinions, and other documents as may be reasonably necessary for Tenant to consummate any financing or refinancing and will enter into reasonable agreements with such Financing Party that provide that Landlord recognizes the rights of such Financing Party upon foreclosure or other exercise of rights by the Financing Party and such other provisions as may be reasonably requested by any such Financing Party.

7. Representations and Warranties, Covenants of Landlord.

7.1 Authorization; Enforceability. The execution and delivery by Landlord of, and the performance of its obligations under, this Lease have been duly authorized by all necessary action, do not and will not require any further consent or approval of any other person, and do not contravene any provision of, or constitute a default under, any indenture, mortgage or other material agreement binding on Landlord or any valid order of any court, or regulatory agency or other body having authority or jurisdiction to which Landlord is subject. This Lease constitutes a legal and valid obligation of Landlord, enforceable against Landlord in accordance with its terms, except as may be limited by bankruptcy, reorganization, insolvency, bank moratorium or laws relating to or affecting creditors' rights generally and general principles of equity whether such enforceability is considered in a proceeding in equity or at law.

7.2 Landlord's Title to Leased Premises. Landlord shall not sell, assign or otherwise alienate or encumber the Premises unless Landlord shall have given Tenant at least ninety (90) days' prior written notice thereof, which notice shall identify the transferee, the Premises to be so transferred and the proposed date of transfer. Landlord agrees that this Lease, Tenant's easement rights in the Easement Area and the Solar Easement shall run with the Premises and survive any transfer of any of the Premises. In furtherance of the foregoing, Landlord agrees that it shall cause any purchaser, tenant, assignee, mortgagee, pledgee or party to whom a lien has been granted to execute and deliver to Tenant a document pursuant to which such party acknowledges and consents to Tenant's rights in the Premises as set forth herein including, without limitation, an acknowledgement by the transferee that it has no interest in the System and shall not gain any interest in the System by virtue of Landlord's transfer.

7.3 No Interference With and Protection of System. Landlord will not conduct activities on, in or about the Premises that have a reasonable likelihood of causing damage to, or impairment of the System, or otherwise adversely affecting the System or the operation thereof. Landlord shall not enter into any agreements, leases (including any renewals thereof), easement, or any other arrangements for rights to the Property that could affect the operations of the System or the Premises including the energy output of the System, without express written consent of Tenant. Tenant, at Tenant's sole expense, shall be solely responsible for implementing and maintaining reasonable and appropriate security measures to prevent unauthorized parties from accessing the Lease Area or the System, and to prevent any theft, vandalism or other actions that have a reasonable likelihood of causing damage to, or impairment of the System, or otherwise adversely affecting the System. Landlord covenants that it will cause any third party who now has or may in the future obtain an interest in the Premises including any lenders to Landlord, to execute and deliver a Subordination, Non-Disturbance, and Attornment Agreement (an "SNDA") with Tenant, providing that each such lien or interest is subordinate to this Lease, does not and shall not encumber the System or other interests of Tenant in the Premises under this Lease or any amendments thereto and extensions thereof, with the effect that in the event of any foreclosure, trustee's sale or conveyance in lieu of foreclosure or trustee's sale of such mortgagee's lien, (a) Tenant shall not be named as a defendant therein unless required to be named by applicable law, (b) Tenant's rights and interests under this Lease shall not be affected or impaired thereby, (c) this Lease shall continue in effect during the Term, and (d) Tenant shall recognize any acquirer of title to the Premises by any such process as Landlord hereunder so long as the transferee continues to hold such title.

7.4 Insolation. Landlord acknowledges and agrees that the Solar Easement granted pursuant to this Lease is essential to the value of the interest granted herein and is a material inducement to Tenant in entering into this Lease. Accordingly, Landlord shall not permit any interference with Insolation on and at the Lease Area. Without limiting the foregoing, Landlord shall not construct or permit to be constructed any structure on the Premises, the Remaining Property or any adjacent or nearby property that could adversely affect Insolation levels, permit the growth of foliage that could adversely affect Insolation levels, or emit or permit the emission of suspended particulate matter, smoke, fog or steam or other air borne impediments to Insolation. If Landlord becomes aware of any potential development or other activity on adjacent or nearby properties that has a reasonable likelihood of diminishing the Insolation to the Lease Area, Landlord shall cooperate with Tenant's efforts to prevent interference with Insolation on or at the Lease Area including but not limited to efforts to obtain, at Tenant's sole expense, solar easement agreements from adjacent property owners.

7.5 Leased Premises Conditions. Landlord represents and warrants to Tenant that Landlord is unaware of any site conditions, restrictions, title defects, rights of way, easements or other encumbrances on the Premises, or construction requirements or restrictions associated with any Governmental Requirements (i) that would materially increase the cost of installing the System at the planned locations on the Lease Area or would materially increase the cost of maintaining the System at the Lease Area over the cost that would be typical or customary for solar photovoltaic systems substantially similar to the System installed on former landfill sites in the state of New York or (ii) that would adversely affect the ability and efficiency of the System as designed to produce electricity once installed. Tenant acknowledges that Landlord is not in the business of either constructing or using solar photovoltaic systems, that Landlord has acquired no specialized knowledge concerning such systems, and that Landlord has not and is not required to undertake any investigation to determine if the Lease Area is suitable for Tenant's purposes. Landlord represents and warrants that, except as to the existence of the Landfill Area, as of the Commencement Date there are no Environmental Claims (as defined in Section 10.5(c) below) in connection with the Premises and that there have been no Environmental Claims in connection with the Premises that have not been fully remediated.

7.6 RPTL Exemption. Landlord represents and warrants that neither the Landlord nor any other governmental authority with taxing authority at the Property has "opted out" of the exemption from taxation of solar or wind energy systems pursuant to N.Y. Real Property Tax Law Section 487 ("RPTL Exemption").

8. Representations and Warranties, Covenants of Tenant.

8.1 Authorization: Enforceability. The execution and delivery by Tenant of, and the performance of its obligations under, this Lease have been duly authorized by all necessary action, do not and will not require any further consent or approval of any other person, and do not contravene any provision of, or constitute a default under, any indenture, mortgage or other material agreement binding on Tenant or any valid order of any court, or regulatory agency or other body having authority to which Tenant is subject. This Lease constitutes a legal and valid obligation of Tenant, enforceable against Tenant in accordance

with its terms, except as may be limited by bankruptcy, reorganization, insolvency, bank moratorium or laws relating to or affecting creditors' rights generally and general principles of equity whether such enforceability is considered in a proceeding in equity or at law.

9. Maintenance.

9.1 Maintenance of Premises. Tenant acknowledges that Landlord shall have no obligation to maintain the Premises or the System except as otherwise required of the Landlord by any Governmental Requirements related to the Landlord's obligations associated with the Landfill Area. Tenant shall, at its sole cost and expense, keep the Premises in good and safe order and condition, reasonable wear and tear and damage by fire or other casualty excepted, and shall not commit or permit its agents, employees, representatives or invitees to commit waste to the Premises. If Tenant or its agents, employees, representatives or invitees (including subtenants) damage the Property or any property of Landlord or any other tenant on the Property, Tenant shall, at its sole cost and expense, promptly repair and restore the Property and/or any property of Landlord or of other tenants. Tenant shall be responsible for the removal of all of its trash and waste and for reasonably removing snow and ice from the Premises, if required by Landlord.

9.2 Maintenance of System. Tenant shall maintain and repair the System in good order and condition, reasonable wear and tear and damage by casualty excepted, and shall maintain the System and related equipment so as to keep it safe, sanitary, and in good working order and condition, all at its sole cost and expense.

9.3 Landlord's Cure Rights. If repairs are required to be made to the Premises or Property, specifically excluding the System, by Tenant pursuant to the terms hereof, Landlord may demand that Tenant make the same forthwith, and, if Tenant refuses or neglects to commence and diligently pursue the completion of such repairs within thirty (30) days after such written demand, or forthwith in the case of emergency repairs, Landlord may (but shall not be required to) make or cause such repairs to be made. Except in the case of emergency repairs, such repairs made or caused to be made by Landlord shall not unreasonably interfere with Tenant's use of the Premises. If Landlord makes or causes such repairs to be made, Tenant agrees that Tenant shall forthwith, within thirty (30) days after such written demand with reasonable written evidence of payment, pay to Landlord the costs thereof and, if Tenant shall default in such payment, Landlord shall have the remedies provided herein as it does for the failure to pay Rent.

10. Hazardous Materials.

10.1 "Environmental Laws" shall mean and include all Governmental Requirements interpreting, relating to, regulating or imposing liability (including, but not limited to, response, removal, remediation and damage costs) or standards of conduct or performance relating to industrial hygiene, landfill land use plans, occupational health and/or safety conditions, environmental conditions, or exposure to, contamination by, or clean-up of, any and all Hazardous Materials, including without limitation, all federal or state super lien or environmental clean-up statutes.

10.2 “Hazardous Materials” shall mean any and all (a) substances, products, by-products, waste, or other materials of any nature or kind whatsoever which is or becomes listed, regulated or addressed under any Environmental Laws, and (b) any materials, substances, products, by-products, waste, or other materials of any nature or kind whatsoever whose presence in and of itself or in combination with other materials, substances, products, by-products, or waste may give rise to liability under any Environmental Law or any statutory or common law theory based on negligence, trespass, intentional tort, nuisance, strict or absolute liability or under any reported decisions of any state or federal court; and (c) any substance, product, by-product, waste or any other material which may be hazardous or harmful to the air, water, soil, environment or affect industrial hygiene, occupational health, safety and/or general welfare conditions, including without limitation, petroleum and/or asbestos materials, products, and by-products.

10.3 Tenant Covenants.

(a) Tenant acknowledges that the Premises is located, either wholly or partially, on a former landfill site, which is subject to particular requirements under Environmental Laws as well as particular work plans, closure plans, operating and maintenance plans or other permits, approvals, directives or orders from or agreements with applicable Governmental Authorities (the “Applicable Landfill Documents”), including but not limited to the New York State Department of Environmental Conservation. Tenant further acknowledges that below the surface of the Landfill Area on the Premises there are capped or covered soils possibly encapsulating Hazardous Substances, which cap or cover must be safeguarded and cannot be punctured, degraded or compromised in any way by Tenant or Tenant’s activities on the Premises, and that any protection, containment, monitoring or environmental control system installed in connection with the Landfill Area, or closure thereof, must not be disturbed or interfered with in any way. Tenant agrees and acknowledges that it shall have the opportunity during the Due Diligence Period to conduct all necessary due diligence and site investigations and assessments with respect to the Premises and the Landfill Area and to make a reasonable request for, and review, any and all Applicable Landfill Documents within Landlord’s possession or from applicable Governmental Authorities. Prior to conducting any site investigations or assessments, Tenant shall provide advance notification to the Landlord such that Landlord, or its representative, can be present during such investigation or assessment.

(b) Tenant recognizes that the Landlord has certain on-going obligations to maintain and/or monitor the Landfill Area in accordance with Applicable Law and the Applicable Landfill Documents. Tenant covenants that it will not interfere with the proper maintenance and protection of the Landfill Area, or any cap or cover or other protection, containment, monitoring or environmental control system installed in connection with the Landfill Area or closure thereof. Notwithstanding anything to the contrary contained herein, Tenant agrees and covenants that it shall not do any excavation, trenching, digging or soil borings on the Premises or the Property without the prior written consent of the Landlord, and if necessary, applicable Governmental Authorities. As necessary, Tenant will take all necessary actions and precautions in order to construct and operate the System in compliance with all Governmental Requirements

and the Applicable Landfill Documents and to avoid interference with the proper maintenance and protection of the Landfill Area and its cap or cover and any other protection, containment, monitoring or environmental control system installed in connection with the Landfill Area or closure thereof, including but not limited to, surface placement of conduit and foundations rather than subsurface placement, a design that accommodates settling, if needed, use of low ground pressure construction/maintenance vehicles, ensuring properly designed access roads to allow for storm water drainage, ensuring access roads do not cause rutting or erosion of cover soils, the location of inverters/transformers off-cover if practicable, proper separation between solar panels and vents from any monitoring and environmental control system (gas vents/collection wells) and ensuring the maintenance of healthy cover vegetation. Tenant shall provide the Landlord with copies of all its design documents and work plans for review and approval by Landlord.

10.4 Tenant Indemnity. Tenant will defend, indemnify, and hold harmless the Landlord and its agents, contractors, and employees (collectively, "Landlord Parties") from and against any and all claims, liabilities, or losses (collectively, "Losses") to the extent such Losses arise or result from, or are based on: (i) the failure of the Tenant to comply with any Environmental Laws or Applicable Landfill Documents; (ii) the installation, operation and maintenance of the System within the Landfill Area in violation of such Environmental Laws or Applicable Landfill Documents; (iii) Tenant's interference with the Landfill Area, any cap or cover on the Landfill Area and any monitoring or environmental control system in connection with the Landfill Area, or the closure thereof; and (iv) the presence, release or discharge of any Hazardous Materials in, on, or within the Landfill Area or the Premises, to the extent reasonably attributable to the actions or inactions of Tenant or its agents, contractors, or employees.

10.5 Landlord Representations and Warranties; Covenants.

(a) The Landlord agrees that it has provided a true, complete and correct copy of the Applicable Landfill Documents that are in Landlord's possession or control, to Tenant.

(b) The Landlord acknowledges and agrees that, solely by virtue of its entry upon the Premises or Property and the taking of actions authorized by, permitted under or consistent with this Lease, neither the Tenant nor any of Tenant's agents, representatives, contractors, consultants, engineers, materialmen, investors, potential investors, invitees, employees, officers, and directors (collectively, "Tenant Parties") shall have, or shall be deemed to have in any way participated in the operation of the Landfill Area or its closure, and so long as Tenant and the Tenant Parties comply with all Environmental Laws and Applicable Landfill Documents in developing, constructing, installing, operating, repairing, maintaining and decommissioning the System and neither Tenant nor any of the Tenant Parties interferes with the Landfill Area, its cap or cover, or other protection, containment, or monitoring or environmental control system installed in connection with the Landfill Area in violation of the Environmental Laws or Applicable Landfill Documents, then neither Tenant nor any of the Tenant Parties shall have assumed any liability or obligation associated with materials of any type or description

(including Hazardous Materials) deposited, stored, or received on or within the Landfill Area by the Landlord or any predecessor owner or operator.

(c) Landlord represents and warrants that, except as to the existence of the Landfill Area, as of the Commencement Date, no claims, suits, penalties, damages, losses, liabilities, payments, costs and expenses (including without limitation reasonable legal fees) arising out of or related to any spill, discharge, leakage, contamination or storage of any Hazardous Materials at the Property, whether or not such an event or condition required remediation, corrective or other action in order to comply with any Environmental Laws (collectively, “Environmental Claims”) have arisen that have not been fully paid or remediated.

10.6 Landlord Indemnity. The Landlord will defend, indemnify, and hold harmless the Tenant and the Tenant Parties from and against any Losses to the extent such Losses result or arise from, or are based on: (i) the presence, discharge or release of any Hazardous Materials in, on, or within the Landfill Area or the Premises, except to the extent that the presence, discharge or release of such Hazardous Materials is attributable to the actions or inactions of Tenant or Tenant’s agents, contractors, and employees from and after the Commencement Date; (ii) the failure of the Landfill Area or Landlord to comply with any applicable Environmental Laws or Applicable Landfill Documents. The Landlord will not defend, indemnify, or hold harmless the Tenant or Tenant Parties for any Losses resulting from the failure of the Tenant to comply with any applicable Environmental Laws or Applicable Landfill Documents regarding non-interference with the Landfill Area, any cap or cover of the Landfill Area and any monitoring or environmental control system in connection with the Landfill Area, or the closure thereof, or resulting from the installation, operation and maintenance of the System within the Landfill Area.

10.7 Costs. The indemnifications of this Section 10 specifically include reasonable and actual costs, expenses and fees incurred in connection with any investigation of Premises conditions or any clean-up, remedial, removal or restoration work required by any governmental authority.

10.8 Survival. The provisions of this Section 10 will survive the expiration or termination of this Lease.

11. Indemnification; Release

11.1 Tenant Indemnity. In addition to Tenant’s obligations under Section 10, Tenant shall indemnify, hold harmless, release and defend Landlord and the Landlord Parties from and against all Claims (a) arising directly or indirectly from the failure of any of the Tenant Parties to comply with the terms of this Lease or with any applicable Governmental Requirements; and (b) caused by or arising, directly or indirectly, from the act, omission, or negligence on the part of the Tenant Parties. However, in no event shall Tenant be obligated to indemnify Landlord or any Landlord Parties to the extent such claim, expense, or liability results from the act, omission, negligence or willful misconduct of Landlord or any of the Landlord Parties.

11.2 Release. To the maximum extent permissible by law, Tenant agrees to use and occupy the Premises at Tenant's own risk, and Landlord shall have no responsibility or liability for any loss or damage to the System or other personal property of Tenant unless caused by Landlord's failure to comply with any obligation of Landlord set forth in this Lease, or by the negligence or willful misconduct of any of the Landlord Parties.

11.3 Landlord Indemnity. To the extent permitted by law, Landlord shall indemnify, hold harmless, release and defend Tenant and the Tenant Parties from and against any and all Claims, (a) arising directly or indirectly from the failure of any of the Landlord Parties to comply with the terms of this Lease or with any Governmental Requirements; and (b) caused by or arising, directly or indirectly, from the act, omission, or negligence on the part of the Landlord Parties, or the breach of any provision of this Lease, except to the extent attributable to the act, omission, negligence or willful misconduct of any of the Tenant Parties.

11.4 Limitation on Liability. Notwithstanding anything to the contrary in this Lease, neither the Landlord nor the Tenant shall in any event be liable for any punitive or special damages and both the Landlord and Tenant hereby waive any claims either Party may have with respect to the foregoing.

11.5 No Personal Liability. To the fullest extent permitted by law, no official, employee, agent or representative of Landlord shall be individually or personally liable for any obligation or liability of Landlord under this Lease.

11.6 Survival. The provisions of this Section shall survive the termination or expiration of this Lease.

12. Insurance

12.1 Required Insurance. Tenant shall maintain, during the Term of this Lease and for so long as Tenant or the System continues to be on the Premises, the following insurance:

(a) General comprehensive liability insurance, written on an occurrence basis, with a combined single limit of not less than One Million Dollars (\$1,000,000.00) for injury to or death of any one person, for injury to or death of any number of persons in one occurrence, and for damage to property, insuring against any and all liability of Landlord (as additional insured) and Tenant, including, without limitation, coverage for contractual liability and broad form property damage, with respect to the Premises, the System, or arising out of the maintenance, use, or occupancy of the Premises and/or the System; and (ii) excess liability (so-called umbrella) coverage having a limit of Five Million Dollars (\$5,000,000.00) written on an occurrence basis;

(b) All-risk property damage insurance for replacement of the System and Tenant's other personal property. Said insurance shall include coverage for all natural disasters, including earthquakes, hurricanes, tornadoes and floods; and

(c) During the performance of the Installation Work, Tenant shall also require the construction manager and/or general contractor to maintain (i) for the benefit

of Tenant and Landlord, as additional insured, commercial general liability insurance, including products and completed operations coverage, against any claims for bodily injury, death and property damage occurring upon, in or about the Premises and on, in and about the adjoining sidewalks and passageways during the construction of the System for at least Three Million Dollars \$3,000,000 combined single limit; (ii) worker's compensation in amounts required by statute; (iii) employer's liability insurance with limits of not less than One Million Dollars (\$1,000,000), and (iv) automobile liability insurance, including the ownership, maintenance and operation of any automotive equipment, owned, hired or non-owned, in an amount not less than One Million Dollars (\$1,000,000) combined single limit;

12.2 General Requirements. The following conditions shall apply to the insurance policies required herein:

(a) Tenant shall provide certificates to Landlord evidencing the insurance coverage required to be carried hereunder on the Commencement Date and on each anniversary thereof, or at Landlord's reasonable request. All the liability insurance required under this Section 12 shall name Landlord as additional insured, and all insurance policies and certificates shall include a provision requiring thirty (30) day's written notice to Landlord by certified mail of any cancellation, material change, or reduction in coverage.

(b) All insurance of Tenant shall be primary with respect to any insurance maintained by Landlord and shall not call on Landlord's insurance for contributions.

(c) All insurance shall be issued through valid and enforceable policies issued by insurers authorized to transact insurance business in the state of New York and having an A+ or better financial rating from a recognized insurance accreditation institution (such as A.M. Best Company).

(d) The coverage amounts set forth above may be met by a combination of underlying and umbrella policies so long as the limits in combination equal or exceed those required herein.

(e) Tenant's failure to obtain, procure or maintain the required insurance shall constitute a material breach of this Lease.

(f) Tenant's obligation to hold harmless and indemnify Landlord shall not be limited by the requirement for, or existence of, insurance coverage.

(g) Landlord shall have the right to require Tenant to increase such limits when, during the term of this Lease, minimum limits of liability insurance commonly and customarily carried on properties comparable to the Premises by responsible owners or tenants are more or less generally increased, it being the intention of this sentence to require Tenant to take account of inflation in establishing minimum limits of liability insurance maintained from time to time on the Premises.

12.3 Landlord's Cure Rights. In the event of Tenant's failure, in whole or in part, at any time during the Term of this Lease or thereafter, to obtain insurance required to be carried by Tenant under the provisions hereof or to provide such evidence thereof in timely fashion, Landlord shall have the right (but shall not be obligated) to procure such insurance and Tenant shall pay to Landlord the costs and expenses thereof as additional rent.

13. Default.

13.1 Default by Tenant.

(a) It shall be an event of default ("Event of Default") under this Lease by Tenant if:

(i) Tenant fails to pay Rent or comply with any provision curable by the payment of money (including, without limitation, Tenant's obligation to maintain the insurance required under this Lease) when due hereunder and such failure continues for twenty (20) days after written notice from Landlord that the same is due;

(ii) Tenant fails to perform or observe any other material term or condition contained in this Lease and such failure is not cured within thirty (30) days after receipt of written notice from Landlord specifying such failure, provided, however, that if such failure is of such a nature that Tenant cannot reasonably remedy the same within such thirty (30) day period, no such failure will be deemed to exist if Tenant commences to cure the default within such thirty (30) day period and thereafter prosecutes the same to completion with reasonable diligence (but in no event later than one hundred twenty (120) days from the date of the notice from Landlord unless otherwise agreed upon in writing); or

(iii) Tenant shall be bankrupt or insolvent according to law, or, if any assignment shall be made of Tenant's property for the benefit of creditors, or a receiver or trustee is appointed to take over and conduct the business of Tenant, whether in receivership, reorganization, bankruptcy or other action or proceeding, and such bankruptcy or insolvency proceeding, receivership or trusteeship shall not have been vacated for more than ninety (90) days after such declaration, election or appointment, unless (i) such debtor in possession, receiver or trustee, within said ninety (90) days, shall have remedied all defaults under this Lease; or (ii) such debtor in possession, receiver or trustee shall have, within said ninety (90) days, executed an agreement, duly approved by Landlord, whereby such debtor in possession, receiver or trustee shall assume and agree to be bound by each and every material term, provision and limitation of this Lease, and if in bankruptcy Tenant, for itself, for the debtor in possession, the receiver or trustee waives its ability to request an extension of the period to assume or reject this Lease in excess of ninety (90) days from the Court's Order for Relief.

(b) Upon the occurrence of an Event of Default, Landlord shall have the right, upon prior written notice, while such default continues, to re-enter and take complete possession of the Premises, to declare the Term of this Lease ended and cause Tenant to remove the System and other property on the Premises, without prejudice to any remedies which might otherwise be available to Landlord.

(c) Tenant agrees to reimburse Landlord for all actual and reasonable costs associated with the enforcement of this Lease, or any and all provisions therein, including but not limited to all legal and court costs. Without limiting any of Landlord's rights and remedies hereunder, and in addition to all other amounts Tenant is otherwise obligated to pay, it is expressly agreed that the Landlord shall be entitled to recover from Tenant all actual and reasonable costs and expenses, including reasonable attorneys' fees, incurred by Landlord in enforcing this Lease from and after Tenant's default.

(d) The provisions of this Section 13.1 shall survive the expiration or earlier termination of this Lease.

13.2 Default by Landlord.

(a) It shall be an event of default under this Lease if Landlord fails to perform any material term or condition under this Lease within thirty (30) days after receipt of written notice from Tenant specifying the failure, provided, however, that if such failure is of such a nature that Landlord cannot reasonably remedy the same within such thirty (30) day period, no such failure will be deemed to exist if Landlord commences to cure the default within such thirty (30) day period and thereafter prosecutes the same to completion with reasonable diligence (but in no event later than sixty (60) days from the date the notice is received from Tenant unless otherwise agreed upon in writing). In the event that Tenant terminates this Lease because of Landlord's default hereunder, Tenant's obligation to pay any further Rent and other obligations hereunder (other than those expressly survive termination) shall cease as of the date of written notice of default to Landlord, and Tenant shall have the right to pursue any and all remedies available to it at law and/or equity.

(b) Landlord agrees to reimburse Tenant for all actual and reasonable costs associated with the enforcement of Tenant's rights under this Lease, or any and all provisions therein, including but not limited to all legal and court costs. Without limiting any of Tenant's rights and remedies hereunder, and in addition to all other amounts Landlord is otherwise obligated to pay, it is expressly agreed that Tenant shall be entitled to recover from Landlord all actual and reasonable costs and expenses, including reasonable attorneys' fees, incurred by Tenant in enforcing this Lease from and after Landlord's default.

14. Termination and Expiration of this Lease.

14.1 Right to Terminate. This Lease shall terminate upon the expiration of the Term, unless earlier terminated pursuant to its terms. In addition to the Parties' termination rights provided elsewhere in this Lease, Landlord and Tenant shall each have the right to terminate this Lease in the event that the other fails to cure a default within the cure period set forth in Section 13, subject to Section 6.3(c), immediately upon written notice to the defaulting Party.

14.2 Change in Law. In the event that, at any time after the Effective Date of this Agreement, there is a Change in Law that is applicable to the construction, repair, maintenance or operation of the System, the sale of energy produced by the System, or any other obligation of the Tenant with respect to the System or the output of the System, and compliance

with the Change in Law results in a material increase in Tenant's costs to construct, repair, operate and/or maintain the System or otherwise operate its business relating to the System, Tenant will have the right to terminate this Lease upon thirty days' written notice to Landlord. For purposes of this paragraph, "Change in Law" shall mean any circumstance in which any constitutional provision, rule, regulation, ordinance, treaty, order, decree, judgment, decision, certificate, holding, injunction, registration, license, franchise, permit, authorization, award, determination, guideline, approval, LDC tariff, consent or requirement of any governmental authority or LDC having jurisdiction over the Landlord, the Property or Tenant (collectively, "Applicable Law") is enacted, amended, modified, interpreted, nullified, suspended, repealed, found unconstitutional or unlawful, or changed or affected in any material respect. For the avoidance of doubt, Change in Law shall also include (a) the imposition of and/or increase in the amount of any import tariff or similar charges on the physical equipment to be used in the construction of the System, (b) any decision by any governmental authority after the Effective Date to either "opt-out" of the RPTL Exemption, or require a payment in lieu of taxes in connection with the System of the Premises, and (c) any change to Applicable Law that prevents, conditions or impedes the Tenant from operating the System as a "community distributed generation facility" under Applicable Law.

15. Fire or Other Casualty; Condemnation.

15.1 Casualty. If the System is substantially damaged or destroyed by fire or other casualty, or an occurrence of a *force majeure* event such that Tenant reasonably determines that the continued operation, replacement or repair of the System will not be economic and feasible, then Tenant may elect to terminate this Lease without any further obligation to pay Rent by giving Landlord at least thirty (30) days' prior notice thereof, and on the date so specified, this Lease shall expire as fully as if such date were the date set forth above for the expiration of this Lease, and this Lease shall be null and void, without recourse to the Parties, other than Tenant's obligation to remove its property as herein provided and such other provisions that are stated herein to survive said termination. In no event shall Landlord be required to repair, replace or restore the System or any parts thereof, or any other improvements made by or on behalf of Tenant on the Premises except to the extent that such damage was due to Landlord's gross negligent, willful acts or intentional omission.

15.2 Condemnation. If a condemning authority takes all of the Premises, this Lease shall terminate as of the date title vests with the condemning authority. If a substantial portion of the Premises are taken and the taking, in Tenant's reasonable determination, renders the Remaining Property substantially unsuitable for Tenant's intended use of the Premises described hereunder, Tenant may terminate this Lease, without any further obligation to pay Rent, by written notice thereof to Landlord within thirty (30) days of such taking; provided that the effective termination date of the Lease shall be the same date title vests with the condemning authority and any obligations of Tenant hereunder shall terminate as of that date. The parties will be entitled to share in the condemnation proceeds in proportion to the values of their respective interests in the Premises, which for Tenant will include, where applicable, the unamortized value of the System, moving expenses of its property on the Premises and business dislocation and relocation expenses.

16. Surrender. Within six (6) months from the expiration or termination of this Lease, Tenant shall, to the extent required by Section 5.11 hereof, remove the System and all other improvements installed by Tenant on the Premises in compliance with all applicable legal requirements. In connection with such removal, Landlord shall continue to provide Tenant with access to the Premises without payment of further rent or consideration. Any improvements not removed from the Premises within the foregoing six (6) month period shall be deemed abandoned and shall become the sole property of Landlord. In such case, Landlord shall have the right to use the removal bond to pay for the removal of the system, any costs associated with repairing any damage caused to the System, any costs associated with repairing any damage caused to the Premises for the removal of the System and/or to make such repairs or improvements to the Premises to restore the premises to the condition in which they were required to be maintained under this Lease. The provisions of this Section shall survive expiration or earlier termination of this Lease.

17. Assignment. The Tenant shall not assign this Lease or sublet the Premises or any portion thereof absent the written approval of Landlord, which consent may not be unreasonably conditioned, withheld or delayed, provided, that Tenant may assign this Lease without the written approval of Landlord to an affiliate of Tenant or any successor to Tenant by merger or consolidation or to any entity that acquires a substantial portion of all of the assets, stock or equity of Tenant. Provided that such assignee expressly assumes in writing the obligations of Tenant hereunder, and provided that such assignee has sufficient expertise and experience in the ownership or operation of electric generating facilities comparable to the System to be reasonably capable of performing the obligations of Tenant under this Lease in accordance with good utility practice, Tenant shall be automatically released from all further liability under this Lease from and after the date of such assignment. Notwithstanding the foregoing, Landlord acknowledges that Tenant's obligations under any financing that Tenant obtains for the purchase and installation of the System through a loan, lease or partnership from or with one or more Financing Parties may be secured by, among other collateral, a pledge or collateral assignment of this Lease. In order to facilitate any such transaction, Landlord consents (a) to the collateral or full assignment by Tenant to the lender of the Tenant's right, title and interest in and to this Lease, any mortgage of Tenant's interest in this Lease and the System, or any sublease of Tenant's interest in this Lease in connection with such financing and such assignment shall not be subject to any conditions or restrictions set forth in this paragraph, and (b) agrees to take any actions and provide any documentation reasonably requested by Tenant or any Financing Party in connection with such a transaction, all at Tenant's sole cost and expense. In addition, a transfer of any ownership interests in Tenant to an investor for purposes of allowing such investor to claim certain tax benefits (a "Tax Investor") pursuant to which such Tax Investor shall not have ordinary control over the management and operations of Tenant (and further transfers of such ownership interests by such Tax Investors) shall not be treated as an assignment of this Lease and no consent of Landlord shall be required in connection therewith.

18. Miscellaneous.

18.1 Landlord's Access. Landlord or Landlord's agents may, at reasonable times, and after reasonable advance notice to Tenant, except in case of emergency when no such notice shall be necessary, enter upon any and all portions of the Premises for the purpose of carrying out Landlord's obligations with respect to maintenance and monitoring of the Landfill

Area. Landlord and Landlord's representatives shall at all times comply with all reasonable safety and other operating procedures established by Tenant, and with all applicable Governmental Requirements.

18.2 Preference to Town of Manlius Residents. Tenant agrees to exclusively offer subscriptions to its services to the individuals and entities that own property in the Town for a period of ninety (90) days from the date that subscriptions are first available and offered in the load zone that is impacted by the System. During the ninety (90) day window, Tenant agrees to provide notice and information to Town residents for its subscription services by way of public meetings, mailing notifications, and notification on the Town's website and social media pages.

18.3 Quiet Enjoyment.

(a) Landlord covenants that so long as no Event of Default has occurred and is continuing, Tenant shall quietly have and enjoy the Lease Area during the Term.

(b) So long as the use by Landlord and other occupants of the Remaining Property is not inconsistent with the rights granted to Tenant herein to use the Lease Area for the Permitted Use, Tenant shall operate, maintain and repair the System in a manner that will not obstruct or interfere with Landlord's use of the license area, the Easement Area, or the Remaining Property or the rights of any other occupants in and to such areas. Tenant will use its best efforts to maintain its System in a manner that does not interfere with the Remaining Property. Landlord may construct, reconstruct, modify or make alterations to the license area, the Easement Area, and the Remaining Property so long as such activities do not materially interfere (including shading) with the operation of the System.

18.4 No Limitation of Regulatory Authority. The Parties acknowledge that nothing in this Lease shall be deemed to be an agreement by Landlord to issue or cause the issuance of any approval or permit, or to limit or otherwise affect the ability of Landlord or any regulatory authority of Landlord to fulfill its regulatory mandate or execute its regulatory powers consistent with all applicable legal requirements. Without limiting the foregoing, Landlord agrees to take all reasonable measures with respect to which it has legal capacity to facilitate and expedite the review of all local permits, if any, and approvals necessary for the design, construction, engineering, operations, maintenance and deconstruction of the System and to act at all times during such review within its legal capacity.

18.5 Further Leases; Easements and Rights of Way. Landlord reserves the right to grant additional leases, easements, leases or rights of way of the Remaining Property, whether recorded or unrecorded, as may be necessary, which do not unreasonably interfere (including shading) with Tenant's use of the Premises and the operation of the System.

18.6 Amendments. This Lease may be amended only in writing signed by Tenant and Landlord or their respective successors in interest; provided, however, Landlord and Tenant agree that so long as there exists unpaid financing from a Financing Party or a loan or other financing held by a lender that is secured by Tenant's grant of security interest in this Lease and/or the System, this Lease shall not be terminated, modified or amended, and Landlord shall not accept a surrender of all or any part of the Leased Area or a cancellation or release of this Lease from Tenant, prior to the expiration of the Term without the prior written consent of such Financing Party or lender.

18.7 Notices. Any notice required or permitted to be given in writing under this Lease shall be (a) mailed by certified mail, postage prepaid, return receipt requested, (b) sent by overnight air courier service, (c) personally delivered to a representative of the receiving Party, or (d) sent by facsimile or email with confirmation of receipt (provided an identical notice is also sent simultaneously by mail, overnight courier, or personal delivery as otherwise provided in this Section 18.7). All such communications shall be mailed, sent or delivered, addressed to the Party for whom it is intended, at its address set forth below:

If to Landlord:

With a copy to:

If to Tenant:

Abundant Solar Power (____) LLC
c/o Abundant Solar Power, Inc.
700 W. Metro Park
Rochester, New York 14623
Attn: Richard Lu, President

With a copy to:

18.8 Waiver. Failure of either Party to complain of any act or omission on the part of the other Party, no matter how long the same may continue, shall not be deemed to be a waiver by said party of any of its rights hereunder. No waiver by either Party at any time, express or implied, of any breach of any provision of this Lease shall be deemed a waiver of a breach of any other provision of this Lease or a consent to any subsequent breach of the same or any other provision. If any action by either Party shall require the consent or approval of the other Party, the other Party's consent to or approval of such

action on any one occasion shall not be deemed a consent to or approval of said action on any subsequent occasion or a consent to or approval of any other action on any subsequent occasion.

18.9 Remedies Cumulative. No remedy herein conferred upon or reserved to Tenant or Landlord shall exclude any other remedy herein or by law provided, but each shall be cumulative and in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute.

18.10 No Third Party Beneficiaries. This Lease is solely for the benefit of the Parties hereto and no right or cause of action shall accrue by reason hereof for the benefit of any third Party not a Party hereto, other than any lender or other secured parties.

18.11 Captions. The captions and headings throughout this Lease are for convenience of reference only and the words contained therein shall in no way be held or deemed to define, limit, explain, modify, amplify or add to the interpretation, construction or meaning of any provisions of, or the scope or intent of this Lease, nor in any way affect this Lease, and shall have no legal effect.

18.12 Prevailing Party. In any litigation between the parties arising out of this Lease, or in connection with any other actions taken or notices delivered in relation to a default by any party to this Lease, the non-prevailing party shall pay to the prevailing party the prevailing party's reasonable attorneys' fees and costs incurred in connection with the enforcement of the terms of this Lease.

18.13 Estoppel. Either Party will, at any time upon thirty (30) days prior written notice from the other, execute, acknowledge and deliver to the other a statement in writing (i) certifying that this Lease is unmodified and in full force and effect (or, if modified, stating the nature of such modification and certifying this Lease, as so modified, is in full force and effect) and the date to which the Rent and other charges are paid in advance, if any, and (ii) acknowledging that there are not, to such Party's knowledge, any uncured defaults on the part of the other Party hereunder, or specifying such defaults if any are claimed. Any such statement may be conclusively relied upon by any prospective purchaser or lender.

18.14 Severability. If any term or provision of this Lease or the application thereof to any person or circumstances shall, to any extent, be invalid or unenforceable, the remainder of this Lease, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Lease shall be valid and be enforced to the fullest extent permitted by law.

18.15 Choice of Law. This Lease shall be construed in accordance with the laws of the State of New York.

18.16 Binding Effect. This Lease and its rights, privileges, duties and obligations shall inure to the benefit of and be binding upon each of the Parties hereto, together with their respective successors and permitted assigns.

18.17 Counterparts. This Lease may be executed in counterparts, which shall together constitute one and the same agreement. Facsimile or “.pdf” signatures shall have the same effect as original signatures and each Party consents to the admission in evidence of a facsimile or photocopy of this Lease in any court or arbitration proceedings between the parties.

18.18 Entire Agreement. This Lease represents the full and complete agreement between the Parties with respect to the subject matter contained herein and supersedes all prior written or oral agreements between said Parties with respect to said subject matter.

18.19 Further Assurances. Upon the receipt of a written request from the other Party, each Party shall execute such additional documents, instruments and assurances and take such additional actions as are reasonably necessary to carry out the terms and intent hereof. Neither Party shall unreasonably withhold, condition or delay its compliance with any reasonable request made pursuant to this section.

18.20 Notice of Lease. Landlord and Tenant mutually agree to execute herewith, in triplicate, a Notice of Lease in recordable form with respect to this Lease, which shall be recorded forthwith with the County Clerk’s office, and agree to execute, upon termination of this Lease for whatever cause, a Notice of Termination of Lease in recordable form.

[signature page to follow]

IN WITNESS WHEREOF, the Parties have executed this Lease on the day and year first above written.

LANDLORD:

TOWN OF MANLIUS

By: _____
Name:
Title:

TENANT:

ABUNDANT SOLAR POWER (Man1) LLC

By: Abundant Solar Power Inc., its Sole Member

By: _____
Name: Richard Lu
Title: President

EXHIBIT A

DESCRIPTION OF PROPERTY

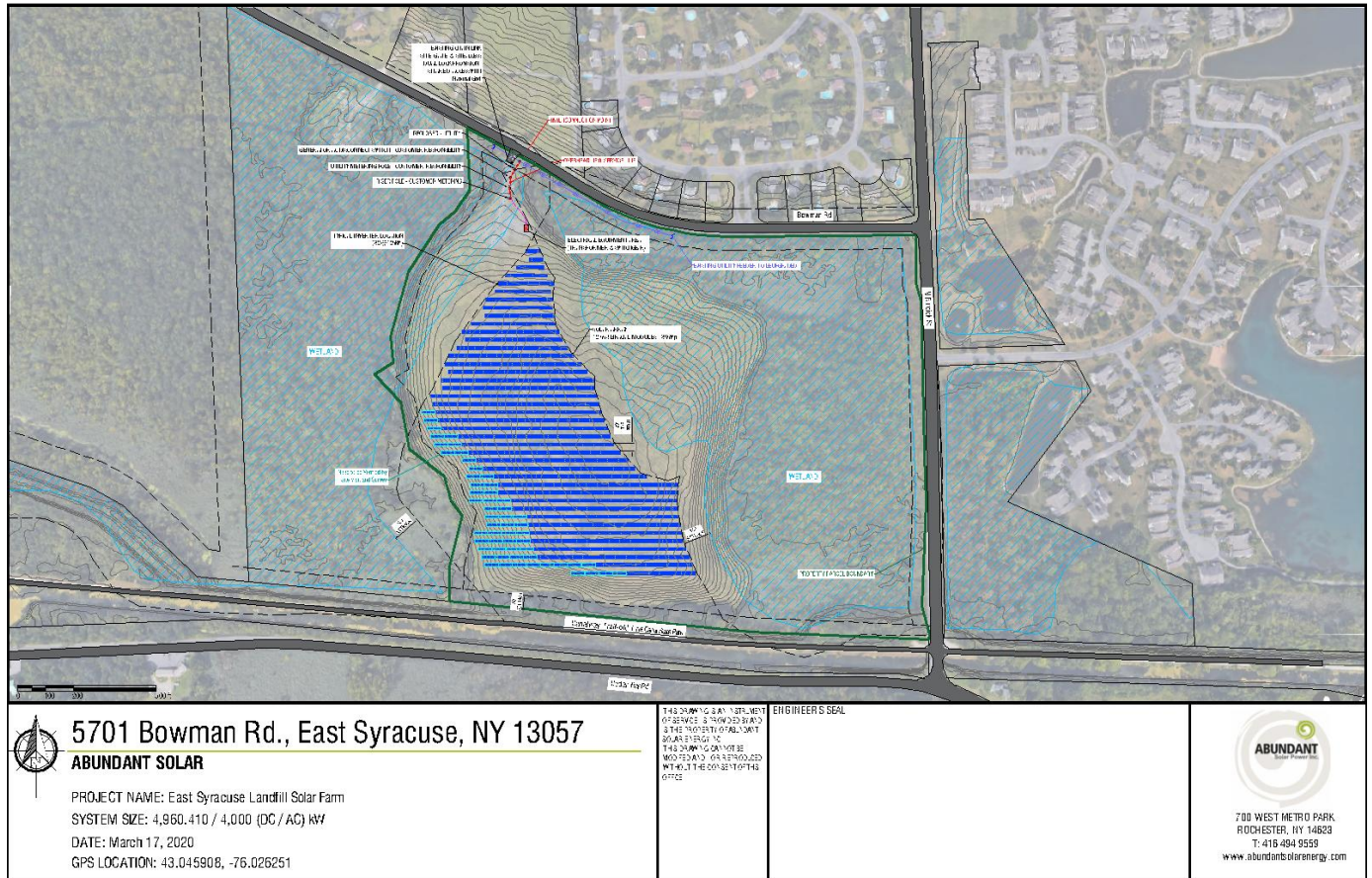
5701 Bowman Road
Town of Manlius
County of Onondaga
Tax Parcel No. 074.-01-06.1

[Metes and bounds description to be inserted, if available]

DESCRIPTION OF PREMISES

[To be inserted upon receipt of metes and bound description]

EXHIBIT A-1



Preliminary Depiction of Lease Area

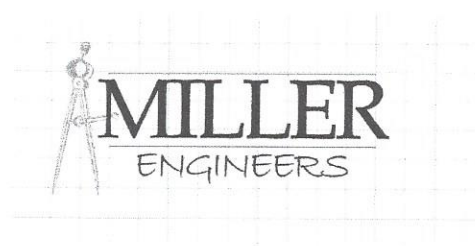
EXHIBIT B

Base Rent

Lease Payment to Manlius w/ 2% annual escalator

Year	Payment
1	16,000
2	16,320
3	16,646
4	16,979
5	17,319
6	17,665
7	18,019
8	18,379
9	18,747
10	19,121
11	19,504
12	19,894
13	20,292
14	20,698
15	21,112
16	21,534
17	21,965
18	22,404
19	22,852
20	23,309
21	23,775
22	24,251
23	24,736

24	25,230
25	25,735
Total	512,485



December 31, 2021

Mr. Joseph Lupia
Town of Manlius Planning Board
301 Brooklea Drive
Fayetteville, New York 13066

Re: Proposed Solar Array: Town of Manlius Landfill

Dear Mr. Lupia

Miller Engineers has conducted a preliminary review of the above referenced project submission to the Town of Manlius Planning Board. The solar array proposed for the Town of Manlius Landfill location is required to meet the requirements of Section 155-27.2 Solar photovoltaic energy systems of the Town Code. In addition to recently received documents from the applicant, the following items should be requested submittals as outlined in the Town Code for review of the proposed project:

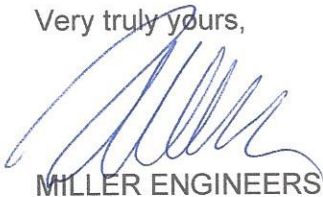
- View sheds and screening. Adequate measures shall be taken to screen through landscaping, grading or other means to mitigate the view of the solar panels and other equipment of the solar systems from roadways and neighboring residential properties. Digital model-based renderings have been submitted on recent similar projects
- Solar system must meet all Federal Aviation Administration requirements, and documented as compliant.
- Lightning protection. All solar systems shall have adequate lightning protection via internal lightning arrestors, surge protectors or adequate grounding.
- Utility notification and approval. No solar system shall be constructed until evidence has been given to the Town Board that the utility company that operates the electrical grid where the installation is to be located has been informed of the construction of the solar system and has agreed to an interconnection.
- Access road. Local first responders have requested the proposed access road to be twenty feet wide in accordance with all other solar arrays in the Town
- Property operation and maintenance plan is required. Plan shall also address Town requirements to access the site for environmental monitoring associated with landfill closure plan including but not limited to water sampling, air sampling, site security and landfill cap/cover maintenance & mowing. Town Highway Dept currently conducts mowing of the landfill cover 2-3 times per year. Formal input and coordination on these operations from the Highway Dept should be obtained by the applicant and included in the operation and maintenance plan. Coordination of the operation and maintenance plan should be coordinated with NYSDEC and documented in the submission to the Planning Board and incorporated into current procedures as required.
- Decommissioning plan and security

In coordination with the Planning Board issuing a special use permit, the Planning Board shall review the site plan for the GMSs pursuant to Section 155-28 Site Plan Review of the Code. The following submission requirements are of special note and must be observed regarding a site plan application.

- Submit a stormwater management plan, certified by a professional engineer that demonstrates stormwater runoff will infiltrate into the ground beneath at a rate equal to that of the infiltration rate prior to the placement of the system. Stormwater issues have arisen on other recent solar arrays within the Town and submission of a Stormwater management plan for this site is imperative. Applicant has indicated pursuit of a waiver for this activity. It is strongly advised that a stormwater plan be submitted by the applicant for this site in accordance with local regulations and potential impacts to stormwater reporting criteria on the site required by the Town Landfill closure operation and maintenance program.
- Location and elevation of the proposed solar system.
- Electrical diagram detailing the installation, associated components, electrical interconnection methods with all National Electrical Code compliant disconnects and overcurrent devices.
- Documentation of the major system components to be used, including PV panels, mounting system additional on-site poles, structures, and inverters.
- Location of all existing aboveground utility lines and other on-site solar energy conversion systems within 1,200 linear feet of the site.
- Plan showing proposed changes to the site including grading, clearing, lighting, screening, and structures.
- All applications shall be accompanied by a long environmental assessment form, including a visual impact analysis.
- Digital elevation model-based project visibility map showing the impact of topography upon visibility of the project from any affected locations.
- That there be reasonable compatibility on all respects with any structure or use in the neighborhood, actual or permitted, which may be directly substantially affected.
- Details approvals and need for oversight on any on-site proposed modifications and/or penetrations to the existing NYSDEC landfill cap to be coordinated and approved by NYSDEC.

Additionally, it is advised that the entire submission for the project be coordinated with NYSDEC for their input and approvals as to integrate any requirements into the site closure requirements and annual reporting of the same. Other recent site reviews for solar arrays have including integration of impacts of glare, migratory bird overview and potential environmental impacts of internal panel construction material review and insight and should be considered by the Planning Board

Very truly yours,

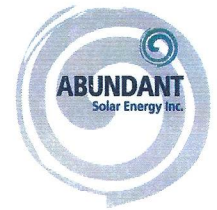


MILLER ENGINEERS

Douglas A Miller, P.E.

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700 West Metro Park, Ground Level
Rochester, New York
14623-2678
Tel: 202 818 9194

ABUNDANT Solar Energy Inc.
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www.abundantsolarenergy.com



Chairman Joe Lupia
Town of Manlius Planning Board
301 Brooklea Drive
Fayetteville, NY 13066

January 19, 2022

Re: Proposed Solar Array: Town of Manlius Landfill

Dear Mr. Lupia:

On January 11, 2022, we received a letter sent from Doug Miller or Miller Engineers to the Town Planning Board dated December 31, 2021, which outlines the submittals which should be requested from the Town in regards to the above referenced solar array. As you are aware, Abundant Solar Power (ASP) has provided two formal submissions to the Town; an initial request for a Special Permit dated October 1, 2021 and a package of supplemental information dated December 16, 2021. Much of the information outlined by Mr. Miller has already been submitted to the Town Planning Board as part of these two submittals. Where necessary, ASP and our engineers, Barton & Loguidice, DPC, will provide additional information and documentation. Each of the requested items and its status has been outlined below.

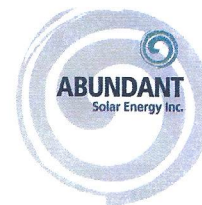
Comment No. 1: View sheds and screening. Adequate measures shall be taken to screen through landscaping, grading or other means to mitigate the view of the solar panels and other equipment of the solar systems from roadways and neighboring residential properties. Digital model-based renderings have been submitted on recent similar projects.

Response No. 1: Ground reconnaissance from the landfill cap, combined with a review of existing topography and mature vegetation documentation, indicates that during leaf-on conditions, the array would potentially be seen from the second story window of five residences located along Roumare Road – over 800' from the closest point of the proposed array. All other residences would be screened by existing vegetation during leaf-on conditions. During winter months, additional residences would have an obstructed view of the array, seen through the leafless vegetation. This includes up to four buildings in the Start Light Estates development on Avriel Drive located over 700' away from the proposed array. In snow conditions, the array would also likely be covered with snow, allowing the panels to blend in with the surrounding groundcover. Views from the north side of the proposed array would be of the back of the solar panels, alleviating any concerns for view of solar glare. ASP proposes to use panels with low reflectivity and low glare in order to provide an efficient array. This will also limit the occasional glare impact to remote observers. We do not believe screening measures are necessary given this analysis. In addition, the existing mature trees provide the best screening measures possible due to the location of the project on a closed landfill and the relative elevations of the project and surrounding properties.

A site plan with aerial imagery showing the location of residences, approximate elevations, and tree cover has been attached to this letter.

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Comment No. 2: Solar system must meet all Federal Aviation Administration requirements, and documented as compliant.

Response No. 2: **ASP received determinations of no hazard to air navigation for all corners of the array. This documentation has been attached.**

Comment No. 3: Lightning protection. All solar systems shall have adequate lightning protection via intern; lightning arrestors, surge protectors or adequate grounding.

Response No. 3: **The final design will conform to required lighting protection standards, specifically all requirements of the National Electric Code (NEC). In general, all components, including the fence, are grounded and overhead lines will have lightning arrestors.**

Comment No. 4: Utility notification and approval. No solar system shall be constructed until evidence has been given to the Town Board that the utility company that operates the electrical grid where the installation is to be located has been informed of the construction of the solar system and has agreed to an interconnection.

Response No. 4: **Abundant has completed the CESIR with National Grid (Case Number 00326621) and received a determination on the project size. Documentation of the case filing with National Grid was included in the Supplement Information submitted on December 16, 2021. Final interconnect approval documentation will be provided to the Town prior to issuance of the building permit.**

Comment No. 5: Access road. Local first responders have requested the proposed access road to be twenty feet wide in accordance with all other solar arrays in the Town

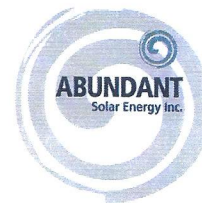
Response No. 5: **The access road to the array will be widened to 20' as requested. A revised site plan indicating this will be provided at the Planning Board meeting on January 24, 2022.**

Comment No. 6: Property operation and maintenance plan is required. Plan shall also address Town requirements to access the site for environmental monitoring associated with landfill closure plan including but not limited to water sampling, air sampling, site security and landfill cap/cover maintenance & mowing. Town Highway Dept currently conducts mowing of the landfill cover 2-3 times per year. Formal input and coordination on these operations; from the Highway Dept should be obtained by the applicant and included in the operation and maintenance plan. Coordination of the operation and maintenance plan should be coordinated with NYSDEC and documented in the submission to the Planning Board and incorporated into current procedures as required.

Response No. 6: **An Operation and Maintenance Plan was submitted with the documentation provided on December 16, 2021. This plan calls for ASP to take over mowing responsibilities for the lease parcel on an as-needed basis. This plan has been updated to indicate that**

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the lease parcel will be mowed once per year at a minimum. In addition, the plan has been revised to indicate that the Town will be given a copy of the annual condition report prepared for the site on an annual basis, as requested by the Town Planning Board. A copy of the revised Operations and Maintenance Plan is attached.

Comment No. 7: Decommissioning plan and security

Response No. 7: The decommissioning plan was included in the original submission dated October 1, 2021 under Exhibit I.

Comment No. 8: Submit a stormwater management plan, certified by a professional engineer that demonstrates stormwater runoff will infiltrate into the ground beneath at a rate equal to that of the infiltration rate prior to the placement of the system. Stormwater issues have arisen on other recent solar arrays within the Town and submission of a Stormwater management plan for this site is imperative. Applicant has indicated pursuit of a waiver for this activity. It is strongly advised that a stormwater plan be submitted by the applicant for this site in accordance with local regulations and potential impacts to stormwater reporting criteria on the site required by the Town Landfill closure operation and maintenance program.

Response No. 8: Based on the anticipated disturbance for this project being less than 1 acre as initially designed, coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity is not required. Due to the location of the project on an engineered, highly compacted, soil layer designed to limit infiltration of stormwater, changes to the infiltration of the soils beneath the array due to construction methods or the solar panels themselves are not expected. In addition to the SPDES requirements, NYSDEC requires that design consideration be given to heavy precipitation events addressing at a minimum the precipitation from a 25-Year 24-Hour storm event to ensure that the project does not alter the hydrology from pre to post development conditions prior to approval of permits issue by the division of Materials Management, under whose purview the closed landfill falls. This analysis will be completed and provided during the development and submission of NYSDEC Change of End Use Request as discussed here-in under Comment No. 15 and will be subject to NYSDEC approval.

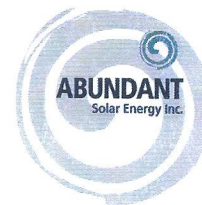
Impacts to stormwater resulting from the request for installation of a 20-foot wide improved road may have further impacts on the stormwater considerations for the project, which will be discussed further at the upcoming Planning Board presentation on January 24, 2022.

Comment No. 9: Location and elevation of the proposed solar system.

Response No. 9: Multiple site plans have been provided showing the proposed layout of solar array which includes topography of the project area. The proposed array will be ground mounted and will not alter existing grades other than some minor leveling.

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Comment No. 10: Electrical diagram detailing the installation, associated components, electrical interconnection methods with all National Electrical Code compliant disconnects and overcurrent devices.

Response No. 10: The electrical three-line diagram for the solar array has been attached.

Comment No. 11: Documentation of the major system components to be used, including PV panels, mounting system additional on-site poles, structures, and inverters. Location of all existing aboveground utility lines and other on-site solar energy conversion systems within 1,200 linear feet of the site.

Response No. 11: Site plans showing location of proposed electrical routing, including pole locations, and the cut sheets for the proposed major system components (panels, inverters, and racking) was included in the supplemental submission dated December 16, 2021.

Comment No. 12: Plan showing proposed changes to the site including grading, clearing, lighting, screening, and structures.

Response No. 12: A site plan has been provided showing location of array and site improvements planned which included a few equipment pads, access road extension, and perimeter fencing. All features will be surface mounted and minimal earthwork is planned in order to preserve integrity of landfill cap.

Comment No. 13: All applications shall be accompanied by a long environmental assessment form, including a visual impact analysis.

Response No. 13: Based on January 1, 2019 SEQRA amendments, the installation of solar arrays involving 25 Acres or less of physical disturbance on closed landfills are now classified as Type II actions and thus require no further review under SEQRA. A letter further detailing the SEQRA requirements and specific sections was included in the original submission dated October 1, 2021 under Exhibit E.

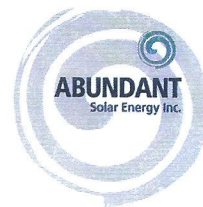
Comment No. 14: Digital elevation model-based project visibility map showing the impact of topography upon visibility of the project from any affected locations.

Response No. 14: Town regulations state that this may be required as part of the Visual Assessment completed under the Long Form Environmental Assessment Form (Long EAF). As the Long EAF and Visual Assessment are not required for this project, this item would not be required. Visibility of the project has been addressed under Comment 1, above.

Comment No. 15: That there be reasonable compatibility on all respects with any structure or use in the neighborhood, actual or permitted, which may be directly substantially affected. Details approvals and need for oversight on any on-site proposed modifications and/or penetrations to the existing NYSDEC landfill cap to be coordinated and approved by NYSDEC. Additionally, it is advised that the entire submission for the project be coordinated with NYSDEC for their input and approvals as to integrate any requirements into the site closure requirements and annual reporting of the same.

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www.abundantsolarenergy.com



- Response No. 15:** Approval for Change in End Use of the closed landfill will be required by the NYSDEC prior to installation of the solar array. Pending Special Use Permit approval from the Town (conditional or final) a Change of Use Request will be submitted to the DEC for approval. Requirements for this submission included ensuring the project will not adversely affect the final closure system. A sample table of contents for this document has been attached to this letter for the Town's information. Final contents are subject to change based on NYSDEC feedback. As part of this submission, modifications to the existing post closure monitoring, maintenance, and financial assurance are all required to be updated. Final Change of Use approvals obtained from NYSDEC will be forwarded to the Town for their records prior to obtaining the building permit.
- Comment No. 16:** Other recent site reviews for solar arrays have including integration of impacts of glare, migratory bird overview and potential environmental impacts of internal panel construction material review and insight and should be considered by the Planning Board.
- Response No. 16:** ASP is happy to provide documentation required by Section 155-27.2 of the Town Code.

Sincerely,

A handwritten signature in black ink, appearing to read "m c lark", is written over a light blue horizontal line.

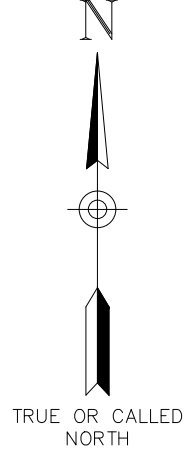
Melissa Clark
VP Business Development
Abundant Solar Power
Mobile: 416 917 5667
Melissa.clark@abundantsolarenergy.com

Lisa Beeman – Town of Manlius Planning Board Clerk
Doug Miller – Town of Manlius Planning Board Engineer
Jamie Sutphen – Town of Manlius Planning Board Attorney
John Deer – Town of Manlius Supervisor

- LEGEND**
- PROPERTY BOUNDARY
 - LIMITS OF DELINEATED WETLANDS
 - 100 FOOT WETLAND OFFSET
 - OPEN WETLAND BOUNDARY
 - MAJOR CONTOUR
 - MINOR CONTOUR
 - EXISTING GAS VENT 10 FOOT BUFFER
 - MONITORING WELL
 - MANHOLE
 - PROPOSED BALLAST FENCE
 - LIMITS OF MATURE TREES

SURVEY NOTE

1. BASE MAPPING COMPILED FROM NYSGIS CLEARING HOUSE PARCEL DATA, ORTHO IMAGERY, AND 2017 LIDAR DATASETS. INFORMATION FOR REFERENCE ONLY AND SHOULD BE CONSIDERED APPROXIMATE.



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED. THE PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION".

REVISIONS	
GENERAL REVISIONS	
12/01/21	

ABUNDANT SOLAR POWER
TOWN OF MANLIUS LANDFILL SOLAR ARRAY
PROPOSED SOLAR LAYOUT

TOWN OF MANLIUS
ONONDAGA COUNTY, NEW YORK

Barton & Loguidice

Date
NOVEMBER 2021

Scale
1" = 150'

Sheet Number
FIGURE 1

File Number
2271.004.001



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2021-AEA-13570-OE

Issued Date: 12/14/2021

Aisha Lewis
Abundant Solar Power Inc.
700 West Metro Park
Rochester, NY 14623

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Solar Panel M1 Array Corner 1
Location:	Manlius, NY
Latitude:	43-02-51.29N NAD 83
Longitude:	76-01-37.06W
Heights:	420 feet site elevation (SE) 10 feet above ground level (AGL) 430 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

This determination expires on 06/14/2023 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

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This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6582, or Stephanie.Kimmel@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2021-AEA-13570-OE.

Signature Control No: 496253823-504521840

(DNE)

Stephanie Kimmel
Specialist

Attachment(s)
Map(s)





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2021-AEA-13571-OE

Issued Date: 12/14/2021

Aisha Lewis
Abundant Solar Power Inc.
700 West Metro Park
Rochester, NY 14623

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Solar Panel M1 Array Corner 2
Location:	Manlius, NY
Latitude:	43-02-49.09N NAD 83
Longitude:	76-01-32.91W
Heights:	420 feet site elevation (SE) 10 feet above ground level (AGL) 430 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

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This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

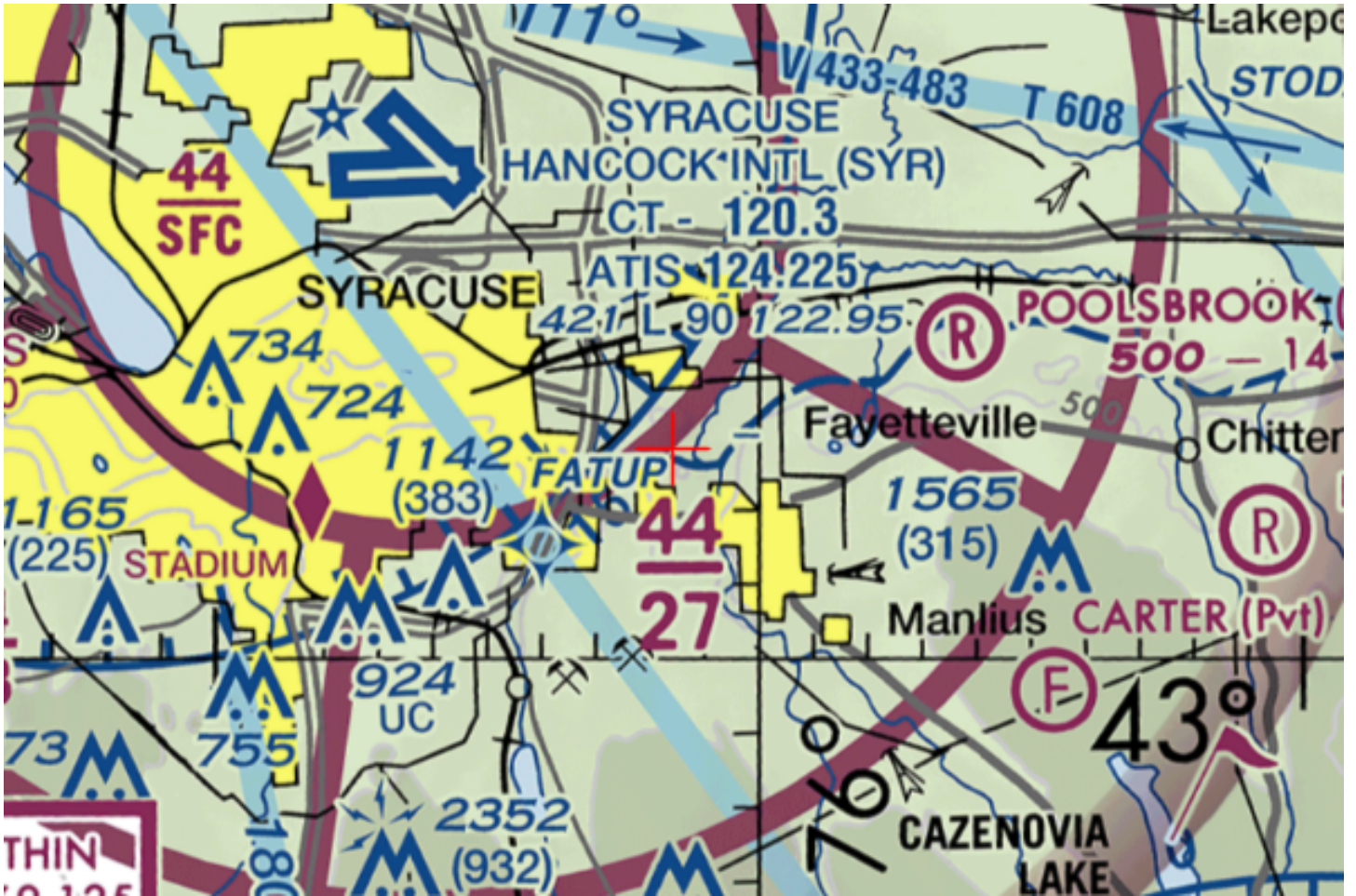
If we can be of further assistance, please contact our office at (404) 305-6582, or Stephanie.Kimmel@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2021-AEA-13571-OE.

Signature Control No: 496253825-504521842

(DNE)

Stephanie Kimmel
Specialist

Attachment(s)
Map(s)





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2021-AEA-13572-OE

Issued Date: 12/14/2021

Aisha Lewis
Abundant Solar Power Inc.
700 West Metro Park
Rochester, NY 14623

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Solar Panel M1 Array Corner 3
Location:	Manlius, NY
Latitude:	43-02-47.36N NAD 83
Longitude:	76-01-25.25W
Heights:	420 feet site elevation (SE) 10 feet above ground level (AGL) 430 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

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If we can be of further assistance, please contact our office at (404) 305-6582, or Stephanie.Kimmel@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2021-AEA-13572-OE.

Signature Control No: 496253832-504521837

(DNE)

Stephanie Kimmel
Specialist

Attachment(s)
Map(s)





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2021-AEA-13573-OE

Issued Date: 12/14/2021

Aisha Lewis
Abundant Solar Power Inc.
700 West Metro Park
Rochester, NY 14623

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Solar Panel M1 Array Corner 4
Location:	Manlius, NY
Latitude:	43-02-38.00N NAD 83
Longitude:	76-01-27.22W
Heights:	420 feet site elevation (SE) 10 feet above ground level (AGL) 430 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

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If we can be of further assistance, please contact our office at (404) 305-6582, or Stephanie.Kimmel@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2021-AEA-13573-OE.

Signature Control No: 496253835-504521838

(DNE)

Stephanie Kimmel
Specialist

Attachment(s)
Map(s)





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2021-AEA-13574-OE

Issued Date: 12/14/2021

Aisha Lewis
Abundant Solar Power Inc.
700 West Metro Park
Rochester, NY 14623

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Solar Panel M1 Array Corner 5
Location:	Manlius, NY
Latitude:	43-02-38.00N NAD 83
Longitude:	76-01-37.90W
Heights:	420 feet site elevation (SE) 10 feet above ground level (AGL) 430 feet above mean sea level (AMSL)

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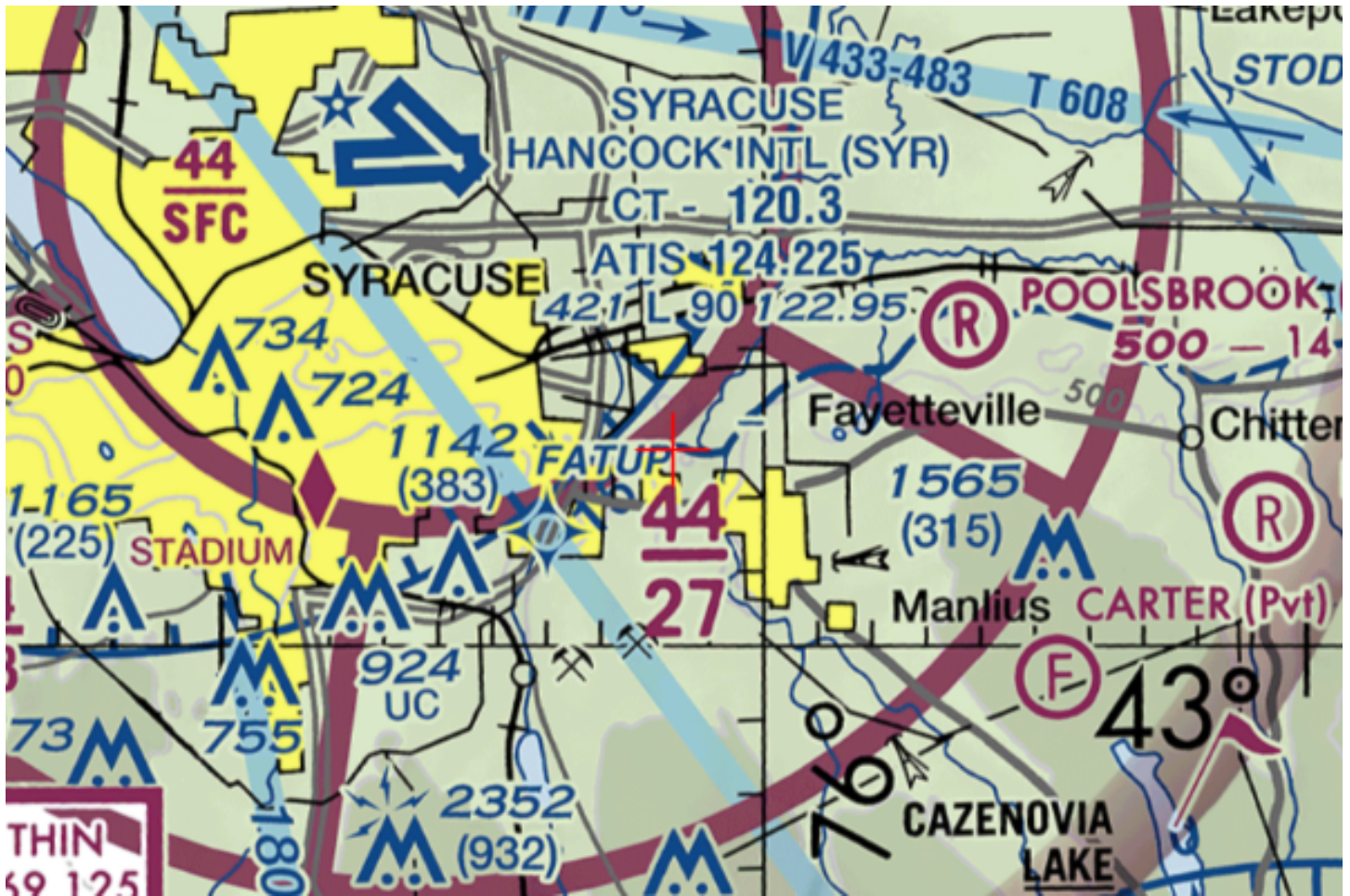
If we can be of further assistance, please contact our office at (404) 305-6582, or Stephanie.Kimmel@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2021-AEA-13574-OE.

Signature Control No: 496253837-504521843

(DNE)

Stephanie Kimmel
Specialist

Attachment(s)
Map(s)





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2021-AEA-13576-OE

Issued Date: 12/14/2021

Aisha Lewis
Abundant Solar Power Inc.
700 West Metro Park
Rochester, NY 14623

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Solar Panel M1 Array Corner 7
Location:	Manlius, NY
Latitude:	43-02-49.21N NAD 83
Longitude:	76-01-40.74W
Heights:	420 feet site elevation (SE) 10 feet above ground level (AGL) 430 feet above mean sea level (AMSL)

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If we can be of further assistance, please contact our office at (404) 305-6582, or Stephanie.Kimmel@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2021-AEA-13576-OE.

Signature Control No: 496253855-504521841

(DNE)

Stephanie Kimmel
Specialist

Attachment(s)
Map(s)





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2021-AEA-13576-OE

Issued Date: 12/14/2021

Aisha Lewis
Abundant Solar Power Inc.
700 West Metro Park
Rochester, NY 14623

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

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Structure:	Solar Panel M1 Array Corner 7
Location:	Manlius, NY
Latitude:	43-02-49.21N NAD 83
Longitude:	76-01-40.74W
Heights:	420 feet site elevation (SE) 10 feet above ground level (AGL) 430 feet above mean sea level (AMSL)

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Signature Control No: 496253855-504521841

(DNE)

Stephanie Kimmel
Specialist

Attachment(s)
Map(s)



Abundant Solar Power
Manlius Landfill Solar Array (M1)
Operations and Maintenance Plan

During the Term of the lease Abundant Solar Power (ASP) shall perform the following services on the System:

Monitoring System

The System will be installed with an internet-based Data Acquisition System (DAS) and System Monitoring System. This system will have the capability to send production data and general system performance in addition to alarms identifying problems, failures, and underperformance of the System to remote locations.

Maintenance Items

Description of Work	Frequency
Remote System Monitoring maintenance and operation	As necessary
On-Call System Service Technician	As necessary
Preventive Maintenance as per planned maintenance activities schedule	One time per year or as required
Corrective Maintenance	As necessary
Grass cutting and Vegetation control	Grass cutting annually or as required by the NYSDEC, additional vegetation control as needed
Snow Removal	As necessary for site maintenance activities
Annual Report	

1. Remote System Monitoring
 - a. ASP will be actively monitoring the System operations via the System Monitoring System and will dispatch a Subcontractor to respond to any problems within two (2) Business Days.
2. On-Call System Service Technician
 - a. In order to respond to System alarms, power outages, System failures, or other production shortcomings a service technician will be required to visit the Site to troubleshoot, and resolve, any System issue within two (2) Business Days of the notification of such problem.

3. Preventive Maintenance

a. ASP will annually visit the Site to inspect and ensure the System is operated within manufacturer's guidelines and consistent with best industry practices, the annual visit scope of work is as follows:

Planned Maintenance Activities		Maintenance frequency
1. Modules		
1.1	High level of inspection (debris, crack, holes, damages, ...)	Annually
1.2	No cracks and other defects/damage on PV modules	Annually
1.3	No shading issues from surrounding objects	Annually
1.4	No signs of components abnormal wear or excessive corrosion/rust	Annually
1.5	Frames and clamps are in place and appropriate	Annually
1.6	PV wiring is not pinched, damaged or otherwise interfering with module installation	Annually
1.7	There are no unsecured or loose conductors hanging down or touching the ground	Annually
1.8	Inspection of PV cabling for insulation issues, mechanical protection, stress, strain, connector issues, etc.	Annually
1.9	Inspect array bonding/grounding	Annually

2. RBI Racking

2.1	Visual Inspection for signs of surface rust	Annually
2.2	Posts - Visual inspection of post settling (10%)	Annually
2.3	Purlin - Visual inspection on bent purlins, attachment to pivot arm (10%)	Annually
2.4	Modules - Visual check of bolt/nut, torque check (10%)	Annually
2.5	Fasteners - Inspected annually - retorqued if necessary	Annually
2.6	Modules - Inspect for cracked or broken modules, properly secured, replace modules and missing fasteners	Annually
2.7	Wiring - Inspect for loose or damaged wiring	Annually
2.8	Racking - Inspect for bent or deformed structural members	Annually

3. Panel Washing

3.1	Panels Washed	Annually
-----	---------------	----------

4. Conduits, Cable Trays and Homeruns

4.1	Visual inspection of home-run cables to inverters, CB's, RCB's & disconnects	Annually
4.2	Visual inspections of conduit & cable trays	Annually
4.3	Wire insulation in good conditions (not scuffed or broken)	Annually

5. Combiner & Recombiner boxes:

5.1	Visual internal and external inspection for labelling, moisture entry, rodents & overall cleanliness	Annually
5.2	Verify Fuses, breakers and Surge suppression are in good conditions	Annually
5.3	Inspection of disconnect sealing, Lubrification Hinges	Annually

6. DG Disconnects at Equipment Pad

6.1	Verify Breakers/Fuses and Surge suppression are in good conditions	Annually
6.2	Inspection of disconnect sealing, Lubrification Hinges	Annually

7. Inverters

7.1	Visual internal and external inspection of labelling, heat sinks, moisture entry, rodents & overall cleanliness	Annually
7.2	Check for Alerts/Alarms on inverter screens	Annually
7.3	Enclosure is free from damage, all weather seals are intact, doors and latches operate properly	Annually
7.4	Inverter AFCI (Arc Fault Circuit Interrupter) Status	Annually
7.5	Inspection of internal switch cabinet-cleaning as required & insulation measurements	Annually
7.6	Inspect and if necessary clean heating elements & heat exchangers	Annually
7.7	Check all electrical terminals and fuses	Annually
7.8	Verify all communications and electrical connections	Annually
7.9	IVCT (I-V Curve Tracing) 33% of strings	Remotely /Annually

8. SCADA

8.1	Inspection of SCADA & Monitoring System Equipment	Annually
8.2	Inspect Weather Station	Annually
8.3	Ensure sensors are oriented correctly & cleaned	Annually
8.4	Ensure monitoring data is calibrated with portal and communicating effectively (Smart logger, ECO Portal etc..)	Annually

9. Switchboard

9.1	Cleaning - Remove dust/debris from busbars, connections, supports & enclosure surfaces	Annually
9.2	Bus & Cable Connections - Inspect for visible damage, broken wire strands, damaged insulation on cable connections	Annually
9.3	Insulation - Busbars, Bus Supports, Bus Shields, Insulating Barriers visually checked for damage	Annually
9.4	Circuit Breakers - Inspect for signs of discoloration, overheating, damage. Exercise operating mechanism.	Annually
9.5	Fusible Overcurrent Devices - Visually inspect switching mechanism and fuse connections	Annually
9.6	Meters & Controllers - Remove dust & dirt from exterior	Annually
9.7	Secondary Wiring - check wiring connections for damaged insulation, and for proper connection	Annually
9.8	Ventilation - Check grills/ventilation ports for obstructions/dirt accumulation and clean	Annually
9.9	Physical Damage - Inspect exterior enclosure plus interior components for damage	Annually

10. Transformer

10.1	General - Inspect area for stored tools/materials/debris. Listen for steady hum and no abnormal noises.	Annually
10.2	Exterior Surfaces - Inspect for tampering, battered metal, gouges, damages	Annually
10.3	Paint/Protective Coatings - Inspect for scratches or weathering, touch ups required	Annually
10.4	Tank Leaks - Inspect exterior/base for signs of leakage	Annually
10.5	Pad - Verify pad is not damaged and has not tilted	Annually
10.6	Nameplates - Inspect for proper nameplates and abnormal/unexpected fading	Annually
10.7	Unusual Odors - Inspect for smell of fluid or burning	Annually
10.8	Gauges & Controls - Check for proper operation	1 Year After Installation, subsequently every three years
10.9	Equipment Leaks - Inspect drain cocks, plugs, fuse mounting, and switches for insulating liquid leakage.	1 Year After Installation, subsequently every three years
10.10	Dialectic Fluid Level - Check Dielectric fluid level gauge	
10.11	Fusing - Inspect fuses	
10.12	Bushings - Check condition of HV & LV bushings for dirt, breakage	
10.13	Pressure Relief Valve - Check for dirt, debris, operation	
10.14	Lightning Arrestors - Check for damage/breakage and tight ground connections	
10.15	Dissolved Gas Analysis - Take Oil Sample to check dissolved gas levels (third party testing)	
10.16	Insulation Resistance Test	

10.17	Turns Ration Test (TRT)	
10.18	Power Factor Test (Overall, Arrestors, Bushing, Windings)	
10.19	Excitation-Current Tests	
10.20	Winding Resistance Test	

11. Thermal Imaging

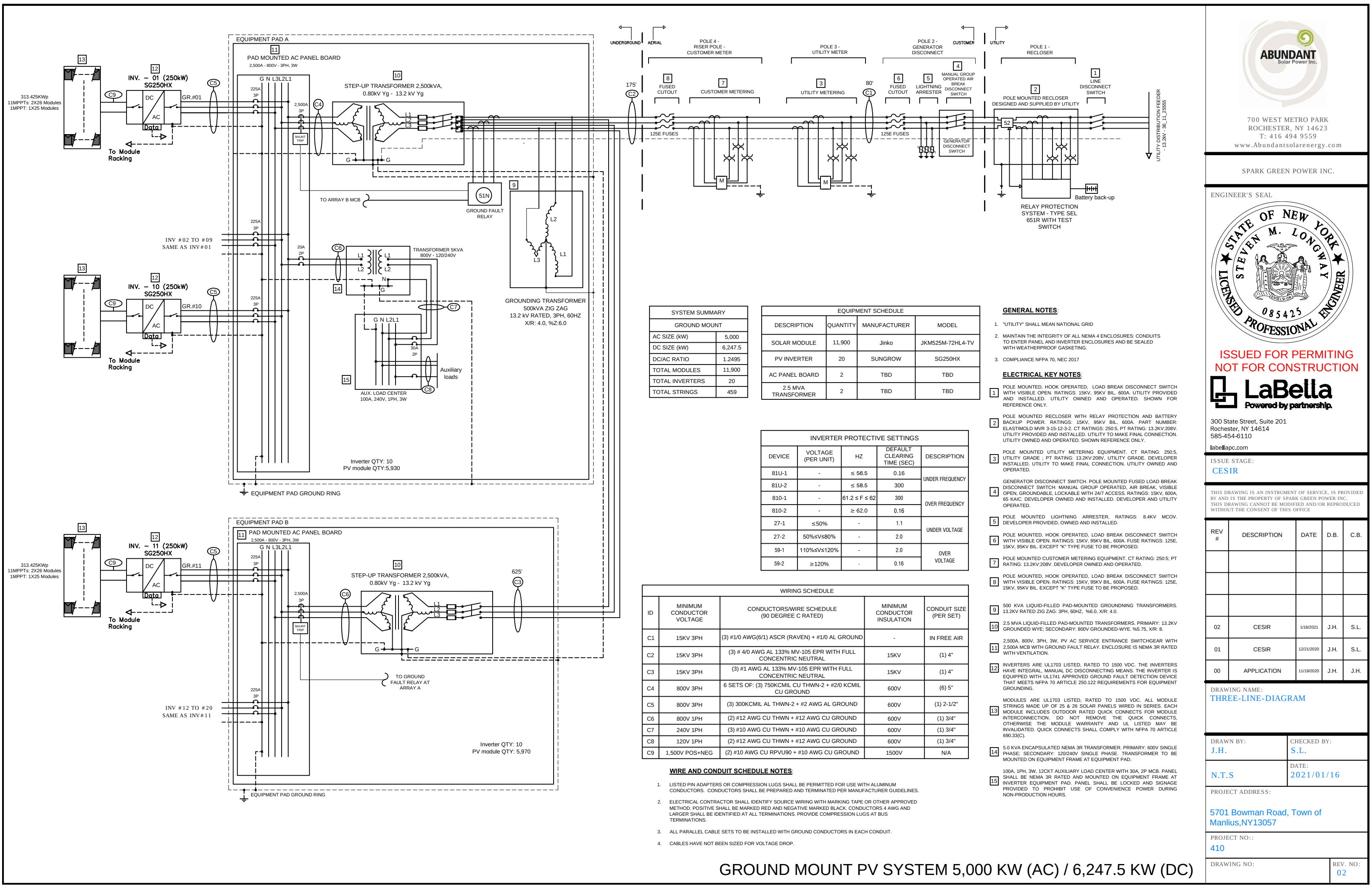
11.1	Thermal Images of Transformer	Annually
11.2	Thermal Images of Inverters	Annually
11.3	Thermal Images of AC Panelboard	Annually
11.4	Thermal Images of main breakers, disconnects, bus & Cable connections	Annually
11.5	Provide a report outlining Thermal and torquing Anomalies detected thanks to thermal imaging & corrective action taken	Annually

12. Medium Voltage

12.1	Inspect medium voltage overhead lines	Annually
12.2	Check the integrity of guy-wires	Annually
12.3	Inspect integrity of the poles	Annually
12.4	Inspect overhead lines for tree clearance	Annually

13. General Site Maintenance

13.1	Grass Cutting and vegetation control as required, to maintain a maximum height of 18 inches	As Required
13.2	Access road clear of debris & in good condition	Annually
13.3	Snow Removal will be performed on an as needed basis. Plowing snow to the side of the access roads is permitted	As Required
13.4	Confirm proper system signage and labelling on equipment	Annually
13.5	Shading management, visual screening maintenance & fence integrity assessment - maintenance if needed	Annually
13.6	Check the integrity of access gate pad-lock	Annually
13.7	Provide Site photos in Maintenance Report/Reports to be supplied in digital format/Reports submitted to land owner	Annually
13.8	Provide annual preventive maintenance & operational report (digital format)/Reports submitted to land owner	Annually



Engineering Report

Prepared in Support of the Change of Use Approval

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2.2 Stability and Cap Integrity	
2.2.1 Waste Settlement	
2.2.2 Slope Stability	
2.4 Stormwater Management.....	
2.5 Landfill Gas Collection System Integrity.....	
2.6 Wetland Considerations.....	

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Figure 1 – Site Location Map

Appendices

Appendix A – Project Drawings (Bound Separately)

Appendix B – Landfill Engineering Calculations

Appendix C – Updated Post-Closure Monitoring & Maintenance Plan

A&E & SNY CENTER

MEDICAL CENTER DRIVE
TOWN OF MANLIUS
ONONDAGA COUNTY, NEW YORK

TOWN OF MANLIUS ZONE CHANGE APPLICATION



APPLICANT:

A&E & SNY CENTER
SUITE 38
5781 BRIDGE STREET
EAST SYRACUSE, NY 13057

PREPARED BY:

NAPIERALA CONSULTING
110 FAYETTE STREET
MANLIUS, NY 13104



JANUARY 14, 2022

January 14, 2022

Mr. John Deer, Supervisor
Town of Manlius
301 Brooklea Drive
Fayetteville, NY 13066

Re: Zone Change Application
A&E & SNY Center
Medical Center Drive

Dear Supervisor Deer,

On behalf of our client, A&E & SNY Center, we are submitting the enclosed zone change application with exhibits for the Town's consideration. The project is located on the parcel of land on the northerly side of Medical Center Drive adjacent to the Towne Center Retirement Community (tax parcel 086.-01-03.9). The proposed project will construct a two buildings, one a 14,242-square foot building (one-story with a "walk-out" type basement) and the other an 11,332-square foot building. The parcel is currently zone Restricted Agriculture (RA); the proposed use, medical offices with complimentary personal services, is not an allowable use in the RA zone. Therefore, the applicant is seeking a zone change to the Commercial A (CA) zone, which allows medical offices and personal services.

This application submittal includes the required exhibits specified on the permit application as well as additional preliminary information, notably preliminary site plans and a preliminary stormwater pollution prevention. The materials will continue to develop as the project progresses through the permitting processes. The included site plans are at a level of detail to provide the Town Board (and Planning Board) with the scope of the project. The site plans will be advanced towards a formal site plan submission after approval of the zone change. Similarly, the SWPPP and corresponding stormwater system design will be more detailed in future submissions as the project continues to progress towards site plan approval.

Based on our previous experience with the Town, it is our understanding that the project will be placed on the Town Board's agenda for an initial introductory meeting. We appreciate the opportunity to present the project and begin the zone change process.



We look forward to working with the Town. If you should have any questions or comments, please feel free to contact us.

Respectfully,

NAPIERALA CONSULTING
Professional Engineer, P.C.

A handwritten signature in black ink, appearing to read 'R. Ives' with a stylized flourish extending to the right.

Rod Ives, P.E.
Project Manager

Enclosures

cc: Michael Papa, A&E & SNY Center

**TOWN OF MANLIUS
ZONE CHANGE APPLICATION**

1. Name of Person applying for Zone Change A&E & SNY Center
Address of person applying Suite 38, 5781 Bridge Street, East Syracuse, NY 13057
Cell Number _____ Phone Number _____
2. Name: (owner of record) of land where Zone Change would occur Walnut Grove, LLC
Address (owner of record) 7101 82nd Street, Lincoln, NE 68516
Cell Number (owner of record) _____ Phone Number _____
3. Tax Map Number of property where Zone Change would occur 086.-01-03.9
4. Is this property located in a flood hazard area? No
If so, what flood area is the property in it in?

5. Present zoning classification of property Restricted Agricultural - RA
6. Desired zoning classification Commercial A - CA
Reason for Change of Zone (use additional sheets if necessary) The proposed use (medical offices & personal services) is not an allowed use in the RA Zone

7. What is lot size? 4.03 Acres
8. If the Zone Change is granted, will the use of the property conform to the District regulations as stated in Chapter 155 Article III of the Town of Manlius Municipal Code? Yes
9. Is the property within the protectively zoned area of a housing project authorized under the public housing law? No
10. Is the property within five hundred (500) feet of the boundaries of any city, village, town, county, state park or parkway? No
If yes, please specify _____
11. Is the property within five hundred (500) feet from the boundary of any existing or proposed County or State park or other recreation area, or from the right-of-way of any existing or proposed county or state parkway, thruway, expressway, road or highway, or from the existing or proposed right-of-way of any stream or drainage channel owned by the county or for which the county has established channel lines, or from the existing or proposed boundary of any county or state owned land on which a public building or institution is situated? Yes

If yes, please specify Right-of-way of Burdick Street, a County Highway

12. List the uses of all abutting property Medical office building, retirement community,
single-family residential, vacant land

13. The following must be included with your 12 application packets unless otherwise specified and/or specifically waived by the Town Board:

- An environmental assessment form which can be obtained from the Town Clerk, or an environmental impact statement.
- Copy of a survey of the premises certified by a New York State licensed surveyor.
- Legal description of the premises.
- This application must be signed by both the owner of record of the property and the applicant.

The failure to answer any question on this application, the failure to submit any item as specified or the failure to execute this application will result in a delay in the processing of the application.

Date 1.18.22

[Signature]
Applicant 1

Date _____

Applicant 2

Date _____

Applicant

Subscribed and Sworn to before me
this 18th day of JAN, 2022
[Signature]
Notary Public

NEDZADA KAPIC
01KA6176345
Notary Public, State of New York
Qualified in Onondaga County
My commission expires OCTOBER 29th, 2023

If yes, please specify Right-of-way of Burdick Street, a County Highway

12. List the uses of all abutting property Medical office building, retirement community,
single-family residential, vacant land

13. The following must be included with your 12 application packets unless otherwise specified and/or specifically waived by the Town Board:

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- This application must be signed by both the owner of record of the property and the applicant.

The failure to answer any question on this application, the failure to submit any item as specified or the failure to execute this application will result in a delay in the processing of the application.

Date

01/18/2022

Bruce C. Callingsworth

Applicant 1

Date

01/18/2022

M. J. Pape

Applicant 2

Date

Applicant



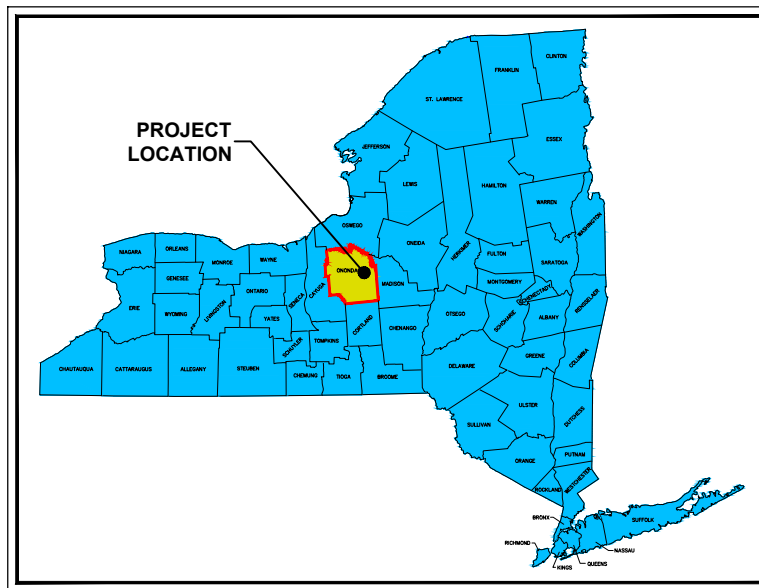
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EXHIBIT A	SITE PLANS & ARCHITECTURALS (11"x17")
EXHIBIT B	SURVEY (11"x17")
EXHIBIT C	LEGAL DESCRIPTION
EXHIBIT D	PRELIMINARY SWPPP
EXHIBIT E	ENVIRONMENTAL ASSESSMENT FORM
EXHIBIT F.....	FRESHWATER WETLANDS LETTER
EXHIBIT G	DISCLOSURE AFFIDAVIT



EXHIBIT A

SITE PLANS & ARCHITECTURALS (11"x17")



SITE LOCATION MAP
NOT TO SCALE



A&E & SNY CENTER

MEDICAL CENTER DRIVE

TAX PARCEL No. 086.-01-03.9

TOWN OF MANLIUS

ONONDAGA COUNTY

STATE OF NEW YORK

PREPARED BY:



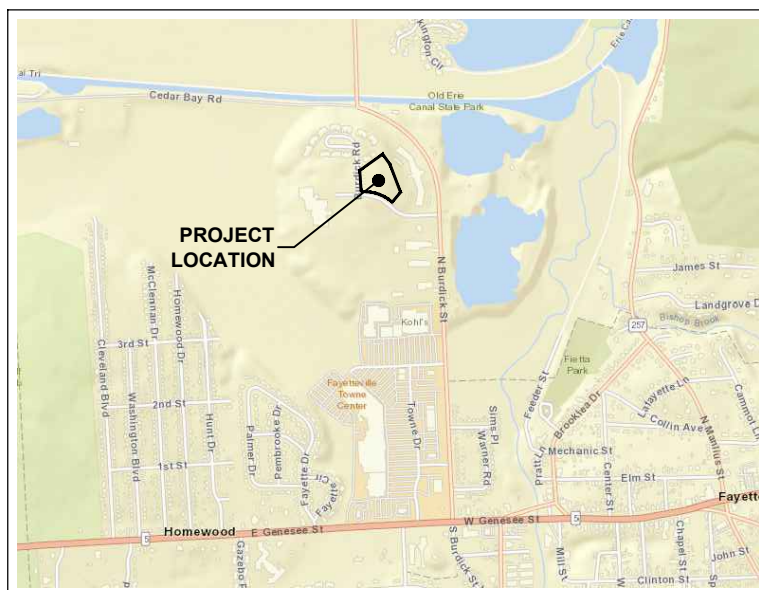
110 FAYETTE STREET
MANLIUS, NEW YORK 13104

email: MNAP@NAPCON.COM
PH: (315) 682-5580 FAX: (315) 682-5544

PREPARED FOR:

A&E & SNY CENTER

SUITE 38
5781 BRIDGE STREET
EAST SYRACUSE, NY 13057



PROJECT LOCATION MAP
NOT TO SCALE



AERIAL MAP
1"=200'



SHEET INDEX:

TITLE SHEET	SP-1
NEIGHBORHOOD PLAN	SP-2
PRELIMINARY SITE PLAN	SP-3
PRELIMINARY GRADING PLAN	SP-4
PRELIMINARY UTILITY PLAN	SP-5

SHEET

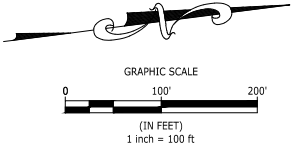
SP-1

PROJECT NO.

21-2022

DATE

01/14/2022



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WRITTEN PERMISSION OF NAPIERALA
CONSULTING, INC.

PREPARED BY:
RODNEY C. IVES, JR., P.E.
NY'S REGISTRATION NO. 071642

PROJECT NO.
21-2022

DATE
01/14/2022

SCALE
1"=100'

PREPARED BY:
NAPIERALA CONSULTING
PROFESSIONAL ENGINEER, P.C.
SITE • DESIGN • ENGINEERING
110 FAYETTE STREET
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email: MANAP@NAPCON.COM
PH: (315) 682-5580 FAX: (315) 682-5544

SHEET TITLE:
NEIGHBORHOOD PLAN

PROJECT TITLE:
**A&E & SNY CENTER
MEDICAL CENTER DRIVE**
TOWN OF MANLIUS ONONDAGA COUNTY, NEW YORK
PREPARED FOR:
A&E & SNY CENTER
SUITE 38
5781 BRIDGE STREET
EAST SYRACUSE, NY 13087

NO.	REVISION/ISSUE	DATE

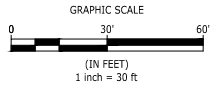
SP-2



AVRIEL DRIVE
(FORMERLY ENED B' ROAD)

GRADING PLAN LEGEND

- 458 ——— EXISTING CONTOUR GRADES
- 459 ——— PROPOSED CONTOUR GRADES
- 459.8 ——— PROPOSED FINISHED SPOT ELEVATION
- TC= XXX.XX
BC= XXX.XX ——— PROPOSED TOP OF CURB AND BOTTOM OF CURB ELEVATIONS
- MEE ——— MATCH/MEET EXISTING ELEVATION



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PROJECT NO. 21-2022

DATE 01/14/2022

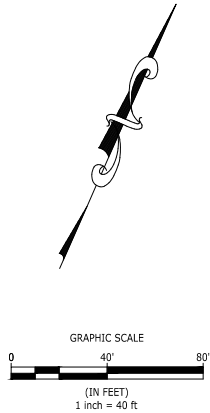
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email: MNAP@NAPCON.COM
TEL: (315) 682-5580 FAX: (315) 682-5544

PRLIMINARY GRADING PLAN

PROJECT TITLE: **A&E & SNY CENTER
MEDICAL CENTER DRIVE**
TOWN OF MANLIUS ONONDAGA COUNTY, NEW YORK
PREPARED FOR: **A&E & SNY CENTER
SUITE 38
5781 BRIDGE STREET
EAST SYRACUSE, NY 13087**

SP-4



PROJECT NO. 21-2022
DATE 01/14/2022
SCALE 1"=40'

SP-5

PROJECT TITLE:
**A&E & SNY CENTER
MEDICAL CENTER DRIVE**
TOWN OF MANLIUS ONONDAGA COUNTY, NEW YORK

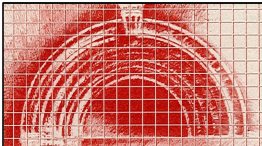
PREPARED FOR:
A&E & SNY CENTER
SUITE 38
5781 BRIDGE STREET
EAST SYRACUSE, NY 13057

SHEET TITLE:
**PRLIMINARY
UTILITY PLAN**

NO.	REVISION/ISSUE	DATE

PREPARED BY:
**NAPIERALA
CONSULTING**
PROFESSIONAL ENGINEER, P.C.
SITE • DESIGN • ENGINEERING
110 FAYETTE STREET
MANLIUS, NEW YORK 13104
email: MNAP@NAPCON.COM
PH: (315) 682-5580 FAX: (315) 682-5444

PLAN SEAL BY:
RODNEY C. IVES, JR., P.E.
NYS REGISTRATION # 071942



CONCEPT
ELEVATION

2021.12.21
Revised:
2021.12.21

HOLMES-KING-KALLQUIST & ASSOCIATES, ARCHITECTS

575 North Salina Street - Syracuse, New York 13208 - 315.476.8371 - hkkarchitects.com

Avriel Drive
Fayetteville,
New York

A & E SPA





EXHIBIT B

SURVEY (11"x17")



EXHIBIT C

LEGAL DESCRIPTION

Lot 3A

ALL THAT CERTAIN PIECE OR PARCEL OF LAND situate in the Town of Manlius, County of Onondaga and State of New York, known and distinguished as part of Military Lot 64, also being part of Lot 3 of the Northeast Medical Center Subdivision recorded in the Onondaga County Clerk's Office as Map Number 8583 and being more particularly bounded and described as follows:

Beginning at a point in the easterly line of Avriel Drive at its intersection with the northerly line of Medical Center Drive; thence North 08 deg. 00 min. 20 sec. East along the said easterly line of Avriel Drive, a distance of 254.01 feet to a point on the division line of the lands now or formerly of DB Real Estate of Fayetteville as described in Book 5233 of Deeds at Page 385 on the south and the lands now or formerly of Star View Homeowners Association as described in Book 4882 of Deeds at Page 906 on the north; thence North 66 deg. 22 min. 43 sec. East along said division line, a distance of 343.87 to a point; thence through the said lands of DB Real Estate of Fayetteville, the following three (3) courses and distances: 1.) South 23 deg. 37 min. 17 sec. East a distance of 156.68 feet to a point; thence 2.) South 08 deg. 52 min. 11 sec. East a distance of 363.17 feet to a point; and 3.) South 51 deg. 59 min. 54 sec. West a distance of 158.24 feet to a point on the said northerly line of Medical Center Drive; thence northwesterly along said northerly line of Medical Center Drive, along a curve to the left having a radius of 517.00 feet, length of 411.42 feet and chord of North 59 deg. 30 min. 50 sec. West, 400.65 feet to the point of beginning. Containing 4.038 acres of lands, more or less.



EXHIBIT D

PRELIMINARY SWPPP

**A&E & SNY CENTER
Medical Center Drive
Town of Manlius, Onondaga County, NY**

**PRELIMINARY STORMWATER POLLUTION
PREVENTION PLAN**

Prepared for the Town of Manlius Zone Change Application

January 14, 2022

Prepared By:





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Background	1
Project Description	2
Project Soils.....	2
Environmental Resources.....	2
Hydrology.....	2
Preliminary Summary of Sizing Criteria	2
Drainage Area Delineation.....	2
Water Quality Treatment.....	5
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Erosion & Sediment Control	7

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- Appendix A – NRCS Soil Map
- Appendix B – NYSDEC & GIS Environmental Resources Maps
- Appendix C – Drainage Area Maps
- Appendix D – HydroCAD Modelin



Introduction:

A&E & SNY Center proposes to construct medical office development located at the northeast corner of the intersection of Medical Center Drive and Avriel Drive in the Town of Manlius, New York. The project will develop approximately 2.9 acres of a predominantly brush-weed-grass field; the master plan includes two buildings, one a multi-story building with a footprint of 14,242 square feet and the other, future building having a footprint of 11,332 square feet. A 108-vehicle parking lot will be constructed. As the project will disturb greater than one acre of land, the project will require coverage under the New York State Pollution Discharge Elimination System General Permit for Stormwater Discharges from Construction Activity. To obtain coverage under the General Permit, the project must include post-construction stormwater management practices in order to mitigate the impacts to stormwater runoff quality and quantity that the project will create.

The purpose of this preliminary stormwater pollution prevention plan (SWPPP) is to supplement the zone change application to the Town of Manlius Town Board. It is provided as evidence that the site can properly manage stormwater runoff so as not to impact downstream areas. As the project details will continue develop as the application is reviewed, this preliminary plan will develop into a complete SWPPP including erosion and sediment control, operation and maintenance requirements, and other elements that the SPDES General Permit requires.

Background:

Site Location:

Tax Parcel 086.-01-03.9
Medical Center Drive
Town of Manlius, Onondaga County, NY

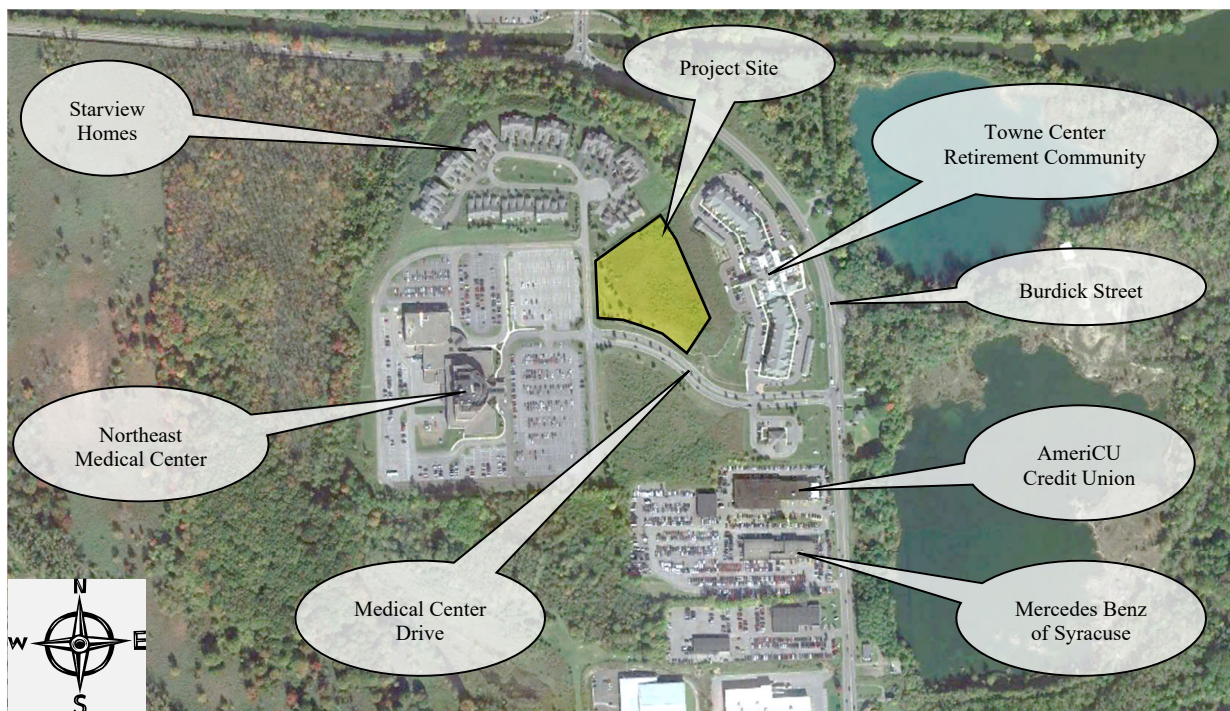


Figure 1: Site Location (source: Google Earth)



Project Description:

The existing parcel of land is approximately 4.038 acres located at the northeast corner of the intersection of Medical Center Drive and Avriel Drive in the Town of Manlius. The site is currently vacant and has a fairly consistent grass/brush cover throughout the lot. The property is the top of the hillside and generally drains in three directions: to the west and Avriel Drive, to the south and Medical Center Drive, and east towards the Towne Center Retirement Community.

The proposed development will occur in two phases. The first phase is the construction of a two-story building with a footprint of 14,242 square feet and the construction of a 108-vehicle parking lot. The second phase is the construction of a one-story, 17,484 square foot building. After completion of Phase 2, the total impervious area of the site will be approximately 1.74 acres.

Project Soils:

Soils information for the watershed was collected from the Natural Resource Conservation Service soils mapping database. The watershed consists of one distinct mapping unit, Ontario gravelly loam which belongs to hydrologic soil group B. Group B soils have a moderate infiltration rate and are moderately well-drained. See Appendix A for the NRCS soils map within the project area.

Environmental Resources:

The National Wetlands Inventory Mapper and the NYSDEC Environmental Resources Mapper (seen in Appendix B) show that no Federal or DEC regulated wetlands are within the vicinity of this project. Additionally, the project is not located within a floodplain. The NYSDEC Resource Mapper does show that the project is located within a check zone for having the potential to contain rare plants and animals or significant natural communities. The specific species in question on this site is the northern long-eared bat. However, given that flora on this site is predominantly brush without any groupings of trees, the presence of the bat on this site is not likely.

Hydrology:

The peak runoff rates for the site were calculated for the existing and proposed hydrologic conditions using HydroCAD software. The HydroCAD program uses the standard SCS TR-55 Curve Number Method for calculation of the time of concentration, composite curve number, and peak runoff rates for the drainage area(s) based on user input. The input data was taken from soil maps, detailed topographic and utility survey information, rainfall distribution maps, and aerial images. Watershed areas were delineated using the contour data obtained from the site survey. The hydrologic conditions are used to assess the impacts to the runoff characteristics and to design appropriate measures to mitigate these impacts.

Preliminary Summary of Sizing Criteria:

A preliminary analysis has been performed to determine the potential stormwater mitigation practices to be implemented on-site in order to achieve the required water quality and water quantity standards as set forth in the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-20-001). The stormwater runoff from the new impervious surfaces on site will be collected and routed through the mitigation system in order to improve water quality, reduce the volume of stormwater runoff, and reduce the peak runoff flow rate before discharging to an existing drainage channel at the southwest corner of the site.

Drainage Area Delineation:

Three drainage systems are located in the vicinity of the project site that can be used to collect stormwater runoff from the proposed project. At the intersection of Medical Center Drive and Avriel Drive, the southwest corner of the project site, is a 15" diameter culvert that collects runoff along the easterly shoulder of Avriel Drive and conveys it to an open ditch to the south along to perimeter roadway around Northeast Medical Center. Within Medical Center Drive, the southeast of the project site, is a storm drain inlet that collects stormwater runoff from the hillside and the inbound travel lane of Medical Center Drive; the inlet is part of a storm drainage system that conveys to Burdick Street. The third drainage system is the stormwater



management system that was constructed as part of the Towne Center Retirement Community project; Towne Center sits at the base of the hill and runoff from a portion of the proposed project site flows into the system.

In order to eliminate any impacts to the Medical Center Drive or Towne Center Retirement Community drainage systems, the stormwater management system for the proposed project will discharge to the 15" culvert at the intersection of Medical Center Drive and Avriel Drive. In order to properly design and manage the runoff, the existing drainage area tributary to the 15" culvert is mapped and compared to the proposed condition drainage area, which includes stormwater management practices that will attenuate the runoff. The following table summarizes the hydrologic characteristics of the existing condition drainage area tributary to the culvert.

Table 1: Existing Condition Drainage to the 15" Culvert

Area (ac)	CN	Description
0.451	65	Brush, Good, HSG C
0.107	61	>75% Grass cover, Good, HSG B
0.558	64	Weighted Average
0.558		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0	100	0.0100	0.11		Sheet Flow, Grass: Short n= 0.150 P2= 2.38"
0.4	69	0.0277	2.68		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	70	0.2000	7.20		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.6	239	Total			

The post-construction drainage area mapping is based on preliminary grading of the site, the location of the stormwater management practices, and the preliminary stormwater conveyance system. The proposed condition drainage area to the 15" culvert is split between two sub-drainage areas, each tributary to separate stormwater management practices. As the soils are classified as HSG B soils and are a gravelly loam, each practice will be designed as an infiltration basin to allow a portion of the stormwater runoff to recharge the groundwater, reduce the volume of stormwater runoff that discharges to the surface, and attenuate the peak rates of runoff so as not to impact downstream areas. The following tables summarize the hydrologic characteristics of the proposed condition drainage areas as well as the preliminary hydraulics (stage-storage-discharge characteristics) of the stormwater management practices.

Table 2: Proposed Condition, East Drainage Area

Area (ac)	CN	Description
1.460	98	Unconnected roofs, HSG B
0.720	61	>75% Grass cover, Good, HSG B
2.180	86	Weighted Average
0.720		33.03% Pervious Area
1.460		66.97% Impervious Area
1.460		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,



Table 3: East Infiltration Basin

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
500.00	0	0	0
501.00	3,605	1,803	1,803
502.00	6,059	4,832	6,635
503.00	7,835	6,947	13,582
504.00	8,851	8,343	21,925
505.00	9,892	9,372	31,296
506.00	10,958	10,425	41,721
507.00	12,050	11,504	53,225

Device	Routing	Invert	Outlet Devices
#1	Primary	501.80'	12.0" Round Culvert L= 365.0' Ke= 0.500 Inlet / Outlet Invert= 501.80' / 495.00' S= 0.0186 '/' Cc=0.900 n= 0.012,
#2	Device 1	501.80'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Table 4: Proposed Condition, West Drainage Area

Area (ac)	CN	Description
0.274	98	Paved parking, HSG B
0.522	61	>75% Grass cover, Good, HSG B
0.796	74	Weighted Average
0.522		65.58% Pervious Area
0.274		34.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	26	0.1000	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 2.38"
3.8	28	0.0607	0.12		Sheet Flow, Grass: Dense n= 0.240 P2= 2.38"
0.1	38	0.2488	8.03		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.3	240		3.00		Direct Entry,
8.2	332	Total			

Table 5: West Infiltration Basin

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
496.00	0	0	0
497.00	490	245	245
498.00	1,097	794	1,039
499.00	1,848	1,473	2,511
500.00	2,759	2,304	4,815

Device	Routing	Invert	Outlet Devices
#1	Primary	498.20'	12.0" Round Culvert L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 498.20' / 495.00' S= 0.0320 '/' Cc=0.900 n= 0.012,
#2	Device 1	498.20'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads



Water Quality Treatment:

The infiltration basins will be designed in accordance with the NYS Stormwater Design Manual. The Design Manual specifies the volumes necessary to provide water quality treatment and runoff reduction. These calculations are provided below:

East Drainage Area/Infiltration Basin

$$WQ_v = \frac{P \cdot R_v \cdot A}{12}$$

Drainage Area Tributary to Practice (A) = 2.180 acres

Impervious Areas (A_I) = 1.460 acre

$$R_v = 0.05 + 0.9 \left(\frac{1.460 \text{ ac}}{2.180 \text{ ac}} \right)$$

$$R_v = 0.65$$

90th Percentile Rainstorm (P) = 1.0 inch

$$WQ_v = \frac{1.00 \cdot 0.65 \cdot 2.180 \text{ ac}}{12}$$

$$WQ_v = 0.119 \text{ ac} \cdot \text{ft}$$

$$RR_v = \frac{0.95 \cdot P \cdot S \cdot A_I}{12}$$

A_I = total impervious area

S = 0.55 (A Soils), 0.40 (B Soils), 0.30 (C Soils), 0.20 (D Soils), or weighted HSG average in drainage area

B Soils = 100% of area

$$RR_v = \frac{0.95 \cdot 1.00 \cdot 0.40 \cdot 1.460 \text{ ac}}{12}$$

$$RR_v = 0.046 \text{ ac} \cdot \text{ft}$$

The preliminary design for the infiltration basin sets the overflow outlet 1.8 feet above the bottom of the basin. At this depth, the basin will hold 0.130 ac·ft, allowing it to percolate into the groundwater.



West Drainage Area/Infiltration Basin

Drainage Area Tributary to Practice (A) = 0.796 acres

Impervious Areas (A_I) = 0.274 acre

$$R_v = 0.05 + 0.9 \left(\frac{0.274 \text{ ac}}{0.796 \text{ ac}} \right)$$

$$R_v = 0.36$$

$$WQ_v = \frac{1.00 \cdot 0.36 \cdot 0.796 \text{ ac}}{12}$$

$$WQ_v = \mathbf{0.0.024 \text{ ac} \cdot \text{ft}}$$

$$RR_v = \frac{0.95 \cdot P \cdot S \cdot A_I}{12}$$

$$RR_v = \frac{0.95 \cdot 1.00 \cdot 0.40 \cdot 0.274 \text{ ac}}{12}$$

$$RR_v = \mathbf{0.009 \text{ ac} \cdot \text{ft}}$$

The preliminary design for the infiltration basin sets the overflow outlet 2.2 feet above the bottom of the basin. At this depth, the basin will hold 0.030 ac·ft, allowing it to percolate into the groundwater.

Peak Flow Mitigation:

In accordance with the SPDES General Permit, the 1-year, 10-year, and 100-year frequency storms will be analyzed to ensure that post-development conditions will not adversely impact downstream areas.

The project site must provide sufficient storage of the 1-year, 24-hour runoff event such that the volume is released over a 24-hour period. The NYS Stormwater Design Manual methodology for determining the storage volume was used (Appendix B.1) and is discussed below.

Tributary Area = 2.976 acres

CN = 83

t_c = 8.2 mins

I_a = 0.410

P = 2.04"

$$\frac{I_a}{P} = 0.201$$

Using I_a/P and T_c , $q_u = 900 \text{ csm/in}$ (TR-55, Exhibit 4-II)

Using q_u and $T = 24 \text{ hr}$, $q_o/q_i = .020$ (Design Manual, Figure B.1)

Using formula 2.1.16 (Design Manual, Appendix B.1), calculate V_s/V_r



$$\frac{V_s}{V_r} = 0.654$$

Using formula 2.1.17 (Design Manual, Appendix B.1), calculate V_s

$$V_s = \frac{\left(\frac{V_s}{V_r}\right) Q_d A}{12}$$

HydroCAD provides the volume of runoff ($Q_d A / 12$) = 0.162 ac · ft

$$V_s = 0.654 \cdot 0.162 \text{ ac} \cdot \text{ft}$$

$$V_s = 0.106 \text{ ac} \cdot \text{ft} \text{ Required}$$

The provided RR_v is subtracted from V_s to determine the required Cp_v .

$$Cp_v = 0.106 \text{ ac} \cdot \text{ft} - 0.143 \text{ ac} \cdot \text{ft}$$

As RR_v exceeds the storage volume required, the Cp_v requirement is met.

Additionally, the stormwater management system must provide sufficient storage and attenuation such that the peak rate of discharge to the 15" culvert during the 10- and 100-year, 24-hour design storms after construction is less than or equal to the existing condition peak flows. The table below summarizes the hydrologic and hydraulic calculations:

Table 6. Peak Flow Summary

Storm Event	Rainfall	Existing Condition Peak Runoff (cfs)	Post–Construction Peak Runoff (cfs)
10 year (Q_p)	3.43"	0.39	0.29
100 year (Q_f)	5.78"	1.45	0.63

Erosion & Sediment Control:

Erosion and sediment control is any temporary or permanent measure taken to reduce erosion, control siltation and sedimentation, and ensure that sediment-laden water or wind does not leave the site. All applicable standards for reduction of sediment and pollution leaving the construction site will be followed by the on-site contractor. Below is an outline of the temporary and permanent erosion and sediment control practices to be implemented on site.

1. Stabilization Practices (Permanent) for this site include:
 - a. Land clearing activities shall be done only in areas where earthwork will be performed and shall progress as earthwork is needed.
 - b. Permanent seeding and planting of all unpaved areas.
2. Stabilization Practices (Temporary) for this site include:
 - a. Temporary seeding and planting of all unpaved areas when construction activity has ceased, or will cease, in an area for 14 days.
 - b. Mulching of exposed areas where construction activity has ceased.
 - c. Frequent watering to minimize wind erosion during construction.
3. Structural Practices (Permanent) for this site include:
 - a. Land grading. Land grading is the reshaping of the existing land surface in accordance with a plan as determined by the engineering survey and layout. The purpose of a land grading specification is to provide erosion control and vegetative establishment on areas where the existing land is to be reshaped according to the plan.



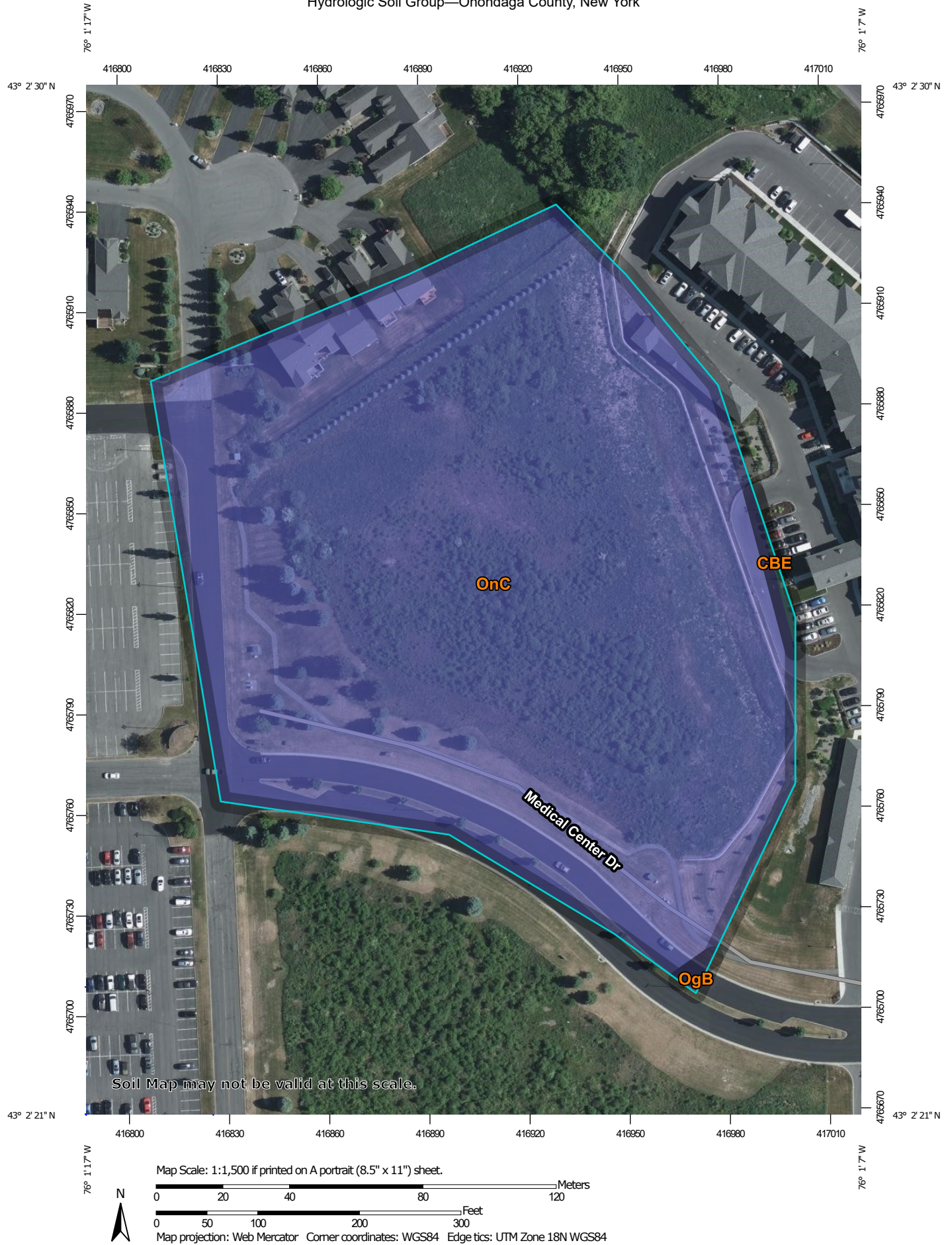
-
4. Structural Practices (Temporary) for this site include:
- a. Silt fence. Silt fence is a temporary barrier of geotextile fabric installed on the contours across from a slope used to intercept sediment laden runoff from small drainage areas of disturbed soil. The purpose of silt fence is to reduce runoff velocity and effect deposition of transported sediment load.
 - b. Stabilized construction entrance/exit. A stabilized construction entrance/exit is a stabilized pad of aggregate underlain with geotextile located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk, or parking area. The purpose of the stabilized construction entrance is to reduce or eliminate the tracking of sediment onto public rights-of-way or streets.
 - c. Concrete washout area. A temporary excavated or above ground lined constructed pit where concrete truck mixers and equipment can be washed after their loads have been discharged to prevent highly alkaline runoff from entering storm drainage systems or leaching into the soil.



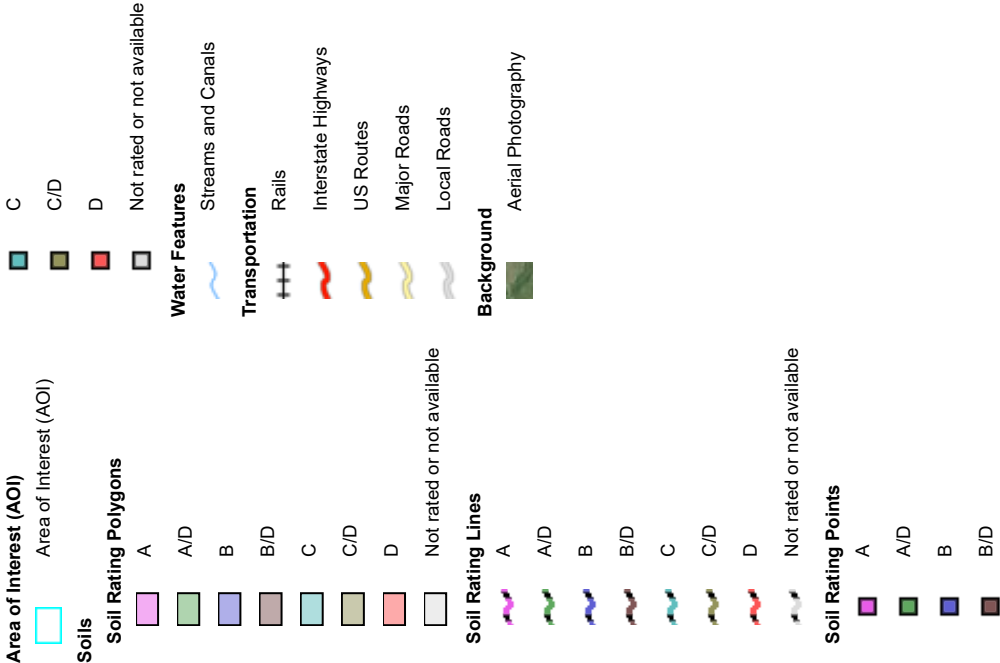
APPENDIX A

NRCS SOIL MAP

Hydrologic Soil Group—Onondaga County, New York



MAP LEGEND



MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Onondaga County, New York
Survey Area Data: Version 16, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 21, 2020—Jun 17, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CBE	Camillus and Lairdsville channery soils, steep	C	0.0	0.2%
OgB	Ontario loam, 3 to 8 percent slopes	B	0.0	0.1%
OnC	Ontario gravelly loam, 8 to 15 percent slopes	B	7.4	99.7%
Totals for Area of Interest			7.4	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

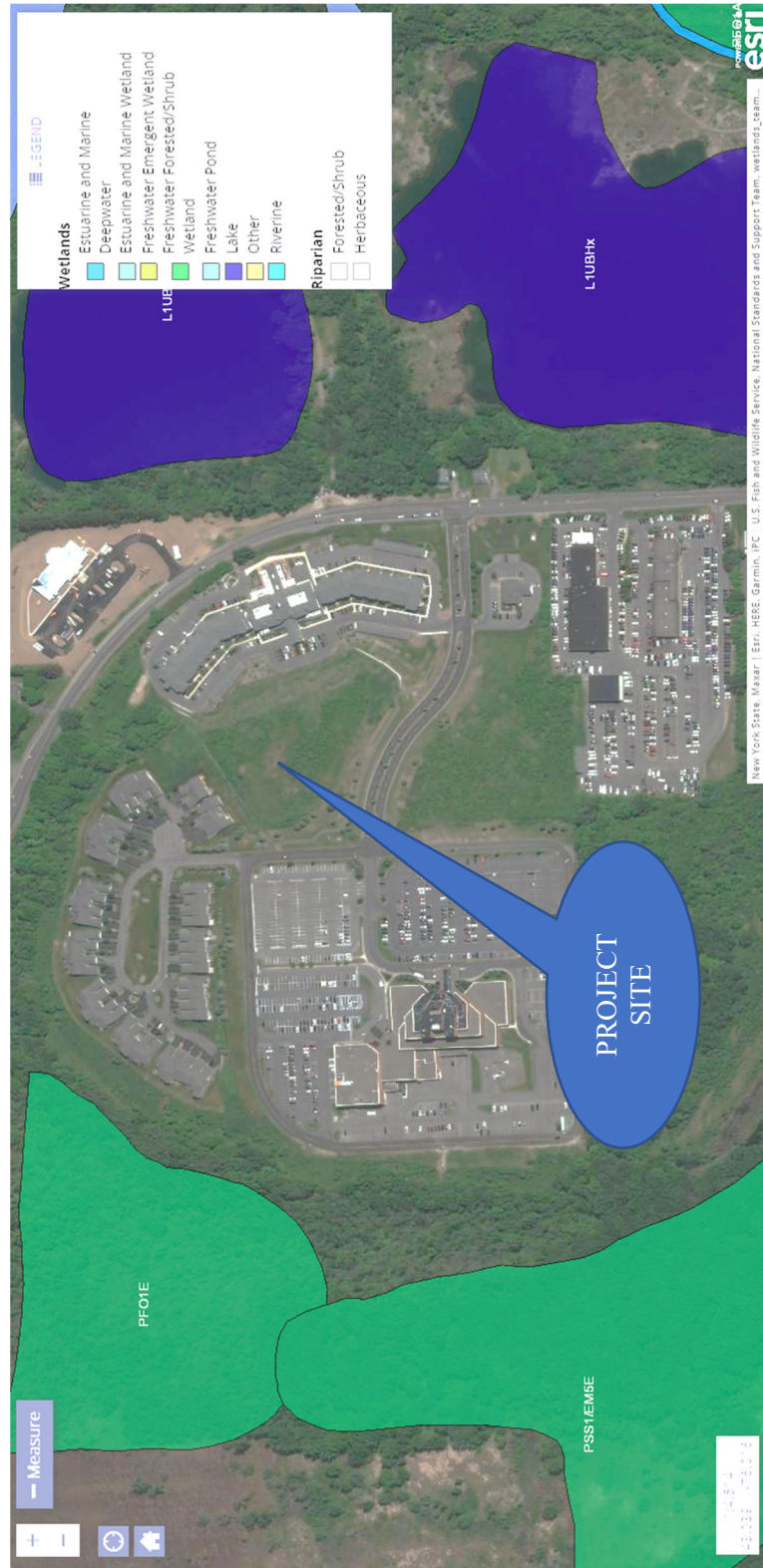
Component Percent Cutoff: None Specified

Tie-break Rule: Higher



APPENDIX B

NATIONAL & STATE WETLAND MAPPING



National Wetlands Inventory Mapping



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Environmental Resource Mapper

Base Map: [Sat](#)

+

-

Home

Search

Tools

Layers and Legend

☐ All Layers

☐ Unique Geological Features

☐ Waterbody Classifications for Rivers/Streams

☒ Waterbody Classifications for Lakes

☒ State Regulated Freshwater Wetlands (Outside of the Adirondack Park)

☐ State Regulated Wetland Checkzone

☐ Imperiled Mussels

Other Wetland Layers

Reference Layers

Tell Me More...

Need A Permit?

Contacts

PROJECT SITE

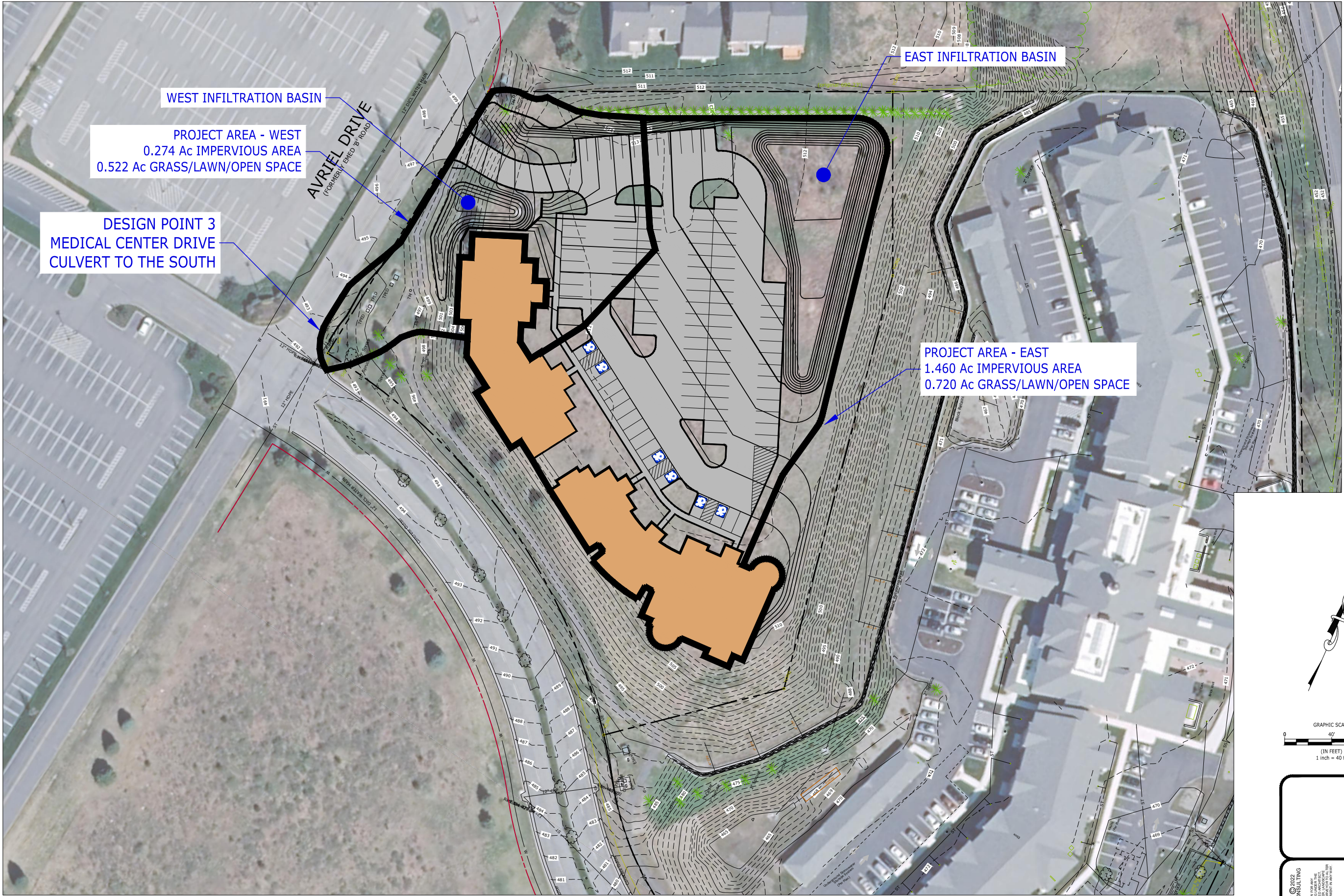
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NYSDEC Wetlands Mapping



APPENDIX C

DRAINAGE AREA MAPS



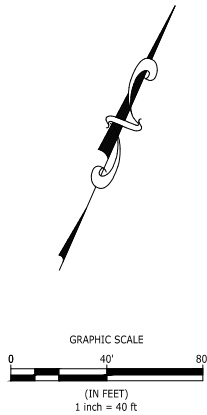
WEST INFILTRATION BASIN

PROJECT AREA - WEST
0.274 Ac IMPERVIOUS AREA
0.522 Ac GRASS/LAWN/OPEN SPACE

DESIGN POINT 3
MEDICAL CENTER DRIVE
CULVERT TO THE SOUTH

EAST INFILTRATION BASIN

PROJECT AREA - EAST
1.460 Ac IMPERVIOUS AREA
0.720 Ac GRASS/LAWN/OPEN SPACE



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TO THE FULL EXTENT OF THE LAW.

DESIGNED BY:
RODNEY C. IVES, JR., P.E.
NY'S REGISTRATION NO. 071842

PROJECT NO. 21-2022

DATE 01/14/2022

SCALE 1"=40'

PROJECT TITLE:
**A&E & SNY CENTER
MEDICAL CENTER DRIVE**

TOWN OF MANLIUS ONONDAGA COUNTY, NEW YORK

PREPARED FOR:
A&E & SNY CENTER
SUITE 38
5781 BRIDGE STREET
EAST SYRACUSE, NY 13057

SHEET TITLE:
**PROPOSED CONDITION
DRAINAGE AREA MAP**

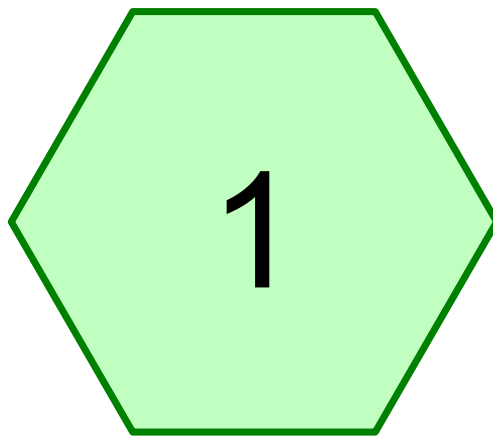
NO.	REVISION/ISSUE	DATE

PREPARED BY:
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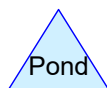
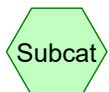


APPENDIX D

HydroCAD Modeling



15" CULVERT AT MED CENTER DR



Routing Diagram for EXISTING CONDITION

Prepared by Napierala Consulting

HydroCAD® 10.10-6a s/n 01332 © 2020 HydroCAD Software Solutions LLC

EXISTING CONDITION

Prepared by Napierala Consulting

HydroCAD® 10.10-6a s/n 01332 © 2020 HydroCAD Software Solutions LLC

Type II 24-hr 1-yr Rainfall=2.04"

Page 2

Summary for Subcatchment 1: 15" CULVERT AT MED CENTER DR

Runoff = 0.02 cfs @ 12.18 hrs, Volume= 0.006 af, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-30.00 hrs, dt= 0.05 hrs

Type II 24-hr 1-yr Rainfall=2.04"

Area (ac)	CN	Description
0.451	65	Brush, Good, HSG C
0.107	61	>75% Grass cover, Good, HSG B
0.558	64	Weighted Average
0.558		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0	100	0.0100	0.11		Sheet Flow, Grass: Short n= 0.150 P2= 2.38"
0.4	69	0.0277	2.68		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	70	0.2000	7.20		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.6	239	Total			

EXISTING CONDITION

Prepared by Napierala Consulting

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Type II 24-hr 10-yr Rainfall=3.43"

Page 3

Summary for Subcatchment 1: 15" CULVERT AT MED CENTER DR

Runoff = 0.39 cfs @ 12.11 hrs, Volume= 0.031 af, Depth= 0.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-30.00 hrs, dt= 0.05 hrs

Type II 24-hr 10-yr Rainfall=3.43"

Area (ac)	CN	Description
0.451	65	Brush, Good, HSG C
0.107	61	>75% Grass cover, Good, HSG B
0.558	64	Weighted Average
0.558		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0	100	0.0100	0.11		Sheet Flow, Grass: Short n= 0.150 P2= 2.38"
0.4	69	0.0277	2.68		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	70	0.2000	7.20		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.6	239	Total			

EXISTING CONDITION

Prepared by Napierala Consulting

HydroCAD® 10.10-6a s/n 01332 © 2020 HydroCAD Software Solutions LLC

Type II 24-hr 100-yr Rainfall=5.78"

Page 4

Summary for Subcatchment 1: 15" CULVERT AT MED CENTER DR

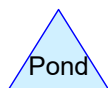
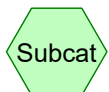
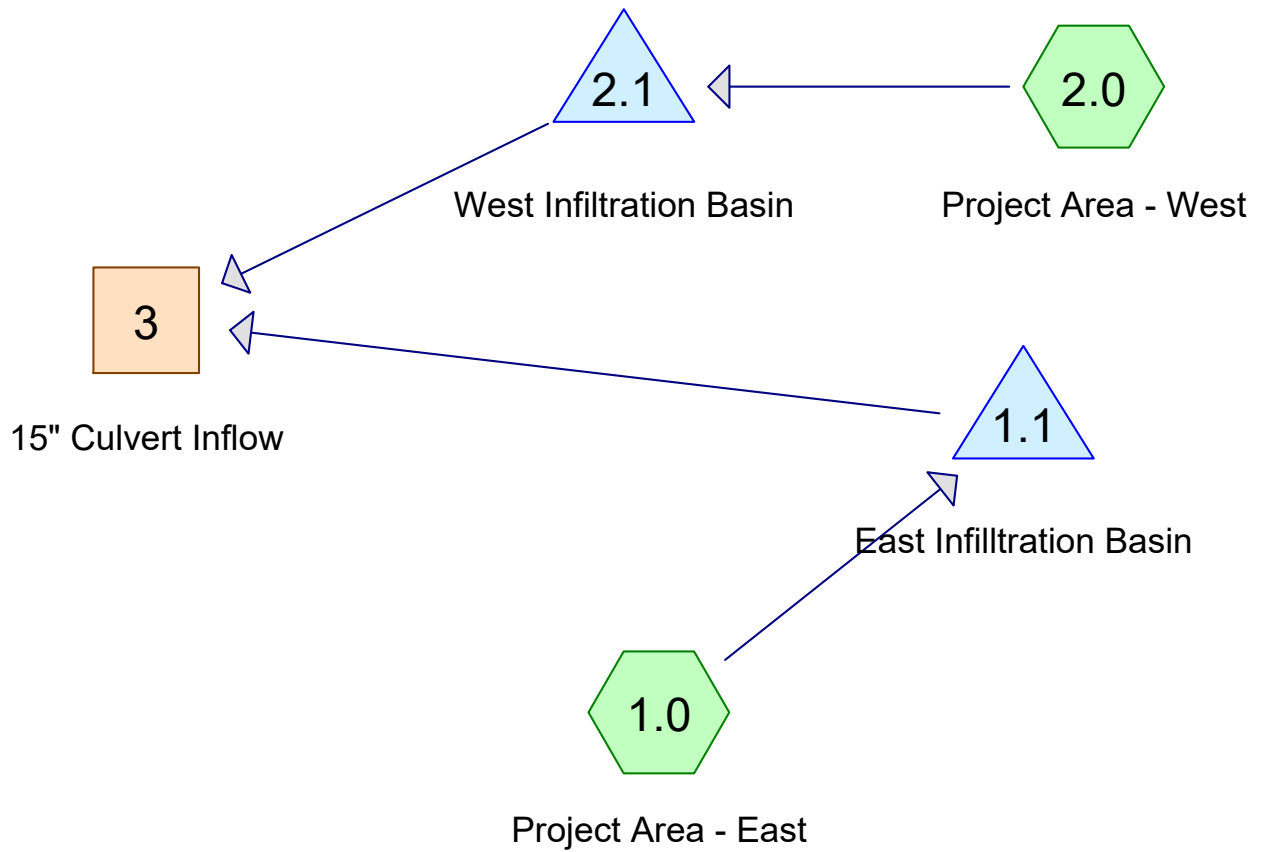
Runoff = 1.45 cfs @ 12.09 hrs, Volume= 0.098 af, Depth= 2.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-30.00 hrs, dt= 0.05 hrs

Type II 24-hr 100-yr Rainfall=5.78"

Area (ac)	CN	Description
0.451	65	Brush, Good, HSG C
0.107	61	>75% Grass cover, Good, HSG B
0.558	64	Weighted Average
0.558		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0	100	0.0100	0.11		Sheet Flow, Grass: Short n= 0.150 P2= 2.38"
0.4	69	0.0277	2.68		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	70	0.2000	7.20		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.6	239	Total			



PROPOSED CONDITION

Prepared by Napierala Consulting

HydroCAD® 10.10-6a s/n 01332 © 2020 HydroCAD Software Solutions LLC

Type II 24-hr 1-yr Rainfall=2.04"

Page 2

Summary for Subcatchment 1.0: Project Area - East

Runoff = 3.34 cfs @ 11.98 hrs, Volume= 0.146 af, Depth> 0.80"
 Routed to Pond 1.1 : East Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type II 24-hr 1-yr Rainfall=2.04"

Area (ac)	CN	Description
1.460	98	Unconnected roofs, HSG B
0.720	61	>75% Grass cover, Good, HSG B
2.180	86	Weighted Average
0.720		33.03% Pervious Area
1.460		66.97% Impervious Area
1.460		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Pond 1.1: East Infiltration Basin

Inflow Area = 2.180 ac, 66.97% Impervious, Inflow Depth > 0.80" for 1-yr event
 Inflow = 3.34 cfs @ 11.98 hrs, Volume= 0.146 af
 Outflow = 0.03 cfs @ 20.00 hrs, Volume= 0.005 af, Atten= 99%, Lag= 481.5 min
 Primary = 0.03 cfs @ 20.00 hrs, Volume= 0.005 af
 Routed to Reach 3 : 15" Culvert Inflow

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 501.92' @ 20.00 hrs Surf.Area= 5,860 sf Storage= 6,151 cf

Plug-Flow detention time=464.1 min calculated for 0.005 af (3% of inflow)
 Center-of-Mass det. time=327.5 min (1,123.1 - 795.6)

Volume	Invert	Avail.Storage	Storage Description
#1	500.00'	53,225 cf	SURFACE STORAGE (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
500.00	0	0	0
501.00	3,605	1,803	1,803
502.00	6,059	4,832	6,635
503.00	7,835	6,947	13,582
504.00	8,851	8,343	21,925
505.00	9,892	9,372	31,296
506.00	10,958	10,425	41,721
507.00	12,050	11,504	53,225

Device	Routing	Invert	Outlet Devices
#1	Primary	501.80'	12.0" Round Culvert L= 365.0' Ke= 0.500 Inlet / Outlet Invert= 501.80' / 495.00' S= 0.0186 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	501.80'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 20.00 hrs HW=501.92' (Free Discharge)

1=Culvert (Passes 0.03 cfs of 0.06 cfs potential flow)

2=Orifice/Grate (Orifice Controls 0.03 cfs @ 1.17 fps)

PROPOSED CONDITION

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Type II 24-hr 1-yr Rainfall=2.04"

Page 3

Summary for Subcatchment 2.0: Project Area - West

Runoff = 0.41 cfs @ 12.02 hrs, Volume= 0.021 af, Depth> 0.32"
 Routed to Pond 2.1 : West Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type II 24-hr 1-yr Rainfall=2.04"

Area (ac)	CN	Description
0.274	98	Paved parking, HSG B
0.522	61	>75% Grass cover, Good, HSG B
0.796	74	Weighted Average
0.522		65.58% Pervious Area
0.274		34.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	26	0.1000	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 2.38"
3.8	28	0.0607	0.12		Sheet Flow, Grass: Dense n= 0.240 P2= 2.38"
0.1	38	0.2488	8.03		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.3	240		3.00		Direct Entry,
8.2	332	Total			

Summary for Pond 2.1: West Infiltration Basin

Inflow Area = 0.796 ac, 34.42% Impervious, Inflow Depth > 0.32" for 1-yr event
 Inflow = 0.41 cfs @ 12.02 hrs, Volume= 0.021 af
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
 Routed to Reach 3 : 15" Culvert Inflow

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 497.90' @ 20.00 hrs Surf.Area= 1,035 sf Storage= 929 cf

Plug-Flow detention time=(not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time=(not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	496.00'	4,815 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
496.00	0	0	0
497.00	490	245	245
498.00	1,097	794	1,039
499.00	1,848	1,473	2,511
500.00	2,759	2,304	4,815

Device	Routing	Invert	Outlet Devices
#1	Primary	498.20'	12.0" Round Culvert L= 100.0' Kc= 0.500 Inlet / Outlet Invert= 498.20' / 495.00' S= 0.0320 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	498.20'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=496.00' (Free Discharge)

1=Culvert (Controls 0.00 cfs)

2=Orifice/Grate (Controls 0.00 cfs)

PROPOSED CONDITION*Type II 24-hr 1-yr Rainfall=2.04"*

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Summary for Reach 3: 15" Culvert Inflow

Inflow Area = 2.976 ac, 58.27% Impervious, Inflow Depth > 0.02" for 1-yr event

Inflow = 0.03 cfs @ 20.00 hrs, Volume= 0.005 af

Outflow = 0.03 cfs @ 20.00 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-yr Rainfall=3.43"

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Summary for Subcatchment 1.0: Project Area - East

Runoff = 7.55 cfs @ 11.97 hrs, Volume= 0.343 af, Depth> 1.89"
 Routed to Pond 1.1 : East Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-yr Rainfall=3.43"

Area (ac)	CN	Description
1.460	98	Unconnected roofs, HSG B
0.720	61	>75% Grass cover, Good, HSG B
2.180	86	Weighted Average
0.720		33.03% Pervious Area
1.460		66.97% Impervious Area
1.460		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Pond 1.1: East Infiltration Basin

Inflow Area = 2.180 ac, 66.97% Impervious, Inflow Depth > 1.89" for 10-yr event
 Inflow = 7.55 cfs @ 11.97 hrs, Volume= 0.343 af
 Outflow = 0.19 cfs @ 15.04 hrs, Volume= 0.123 af, Atten= 97%, Lag= 184.3 min
 Primary = 0.19 cfs @ 15.04 hrs, Volume= 0.123 af
 Routed to Reach 3 : 15" Culvert Inflow

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 502.61' @ 15.04 hrs Surf.Area= 7,134 sf Storage= 10,629 cf

Plug-Flow detention time=270.5 min calculated for 0.122 af (36% of inflow)
 Center-of-Mass det. time=184.3 min (961.5 - 777.2)

Volume	Invert	Avail.Storage	Storage Description
#1	500.00'	53,225 cf	SURFACE STORAGE (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
500.00	0	0	0
501.00	3,605	1,803	1,803
502.00	6,059	4,832	6,635
503.00	7,835	6,947	13,582
504.00	8,851	8,343	21,925
505.00	9,892	9,372	31,296
506.00	10,958	10,425	41,721
507.00	12,050	11,504	53,225

Device	Routing	Invert	Outlet Devices
#1	Primary	501.80'	12.0" Round Culvert L= 365.0' Ke= 0.500 Inlet / Outlet Invert= 501.80' / 495.00' S= 0.0186 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	501.80'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.19 cfs @ 15.04 hrs HW=502.61' (Free Discharge)

1=Culvert (Passes 0.19 cfs of 2.07 cfs potential flow)

2=Orifice/Grate (Orifice Controls 0.19 cfs @ 3.97 fps)

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Type II 24-hr 10-yr Rainfall=3.43"

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Summary for Subcatchment 2.0: Project Area - West

Runoff = 1.52 cfs @ 12.00 hrs, Volume= 0.071 af, Depth> 1.08"
 Routed to Pond 2.1 : West Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-yr Rainfall=3.43"

Area (ac)	CN	Description
0.274	98	Paved parking, HSG B
0.522	61	>75% Grass cover, Good, HSG B
0.796	74	Weighted Average
0.522		65.58% Pervious Area
0.274		34.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	26	0.1000	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 2.38"
3.8	28	0.0607	0.12		Sheet Flow, Grass: Dense n= 0.240 P2= 2.38"
0.1	38	0.2488	8.03		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.3	240		3.00		Direct Entry,
8.2	332	Total			

Summary for Pond 2.1: West Infiltration Basin

Inflow Area = 0.796 ac, 34.42% Impervious, Inflow Depth > 1.08" for 10-yr event
 Inflow = 1.52 cfs @ 12.00 hrs, Volume= 0.071 af
 Outflow = 0.10 cfs @ 13.08 hrs, Volume= 0.039 af, Atten= 93%, Lag= 64.9 min
 Primary = 0.10 cfs @ 13.08 hrs, Volume= 0.039 af
 Routed to Reach 3 : 15" Culvert Inflow

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 498.51' @ 13.08 hrs Surf.Area= 1,481 sf Storage= 1,698 cf

Plug-Flow detention time=191.7 min calculated for 0.039 af (54% of inflow)
 Center-of-Mass det. time=105.6 min (912.8 - 807.2)

Volume	Invert	Avail.Storage	Storage Description
#1	496.00'	4,815 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
496.00	0	0	0
497.00	490	245	245
498.00	1,097	794	1,039
499.00	1,848	1,473	2,511
500.00	2,759	2,304	4,815

Device	Routing	Invert	Outlet Devices
#1	Primary	498.20'	12.0" Round Culvert L= 100.0' Kc= 0.500 Inlet / Outlet Invert= 498.20' / 495.00' S= 0.0320 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	498.20'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.10 cfs @ 13.08 hrs HW=498.51' (Free Discharge)

1=Culvert (Passes 0.10 cfs of 0.40 cfs potential flow)

2=Orifice/Grate (Orifice Controls 0.10 cfs @ 2.08 fps)

PROPOSED CONDITION

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Type II 24-hr 10-yr Rainfall=3.43"

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Summary for Reach 3: 15" Culvert Inflow

Inflow Area = 2.976 ac, 58.27% Impervious, Inflow Depth > 0.65" for 10-yr event

Inflow = 0.29 cfs @ 13.44 hrs, Volume= 0.161 af

Outflow = 0.29 cfs @ 13.44 hrs, Volume= 0.161 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-yr Rainfall=5.78"

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Summary for Subcatchment 1.0: Project Area - East

Runoff = 15.06 cfs @ 11.97 hrs, Volume= 0.715 af, Depth> 3.93"
 Routed to Pond 1.1 : East Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-yr Rainfall=5.78"

Area (ac)	CN	Description
1.460	98	Unconnected roofs, HSG B
0.720	61	>75% Grass cover, Good, HSG B
2.180	86	Weighted Average
0.720		33.03% Pervious Area
1.460		66.97% Impervious Area
1.460		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Pond 1.1: East Infiltration Basin

Inflow Area = 2.180 ac, 66.97% Impervious, Inflow Depth > 3.93" for 100-yr event
 Inflow = 15.06 cfs @ 11.97 hrs, Volume= 0.715 af
 Outflow = 0.35 cfs @ 15.15 hrs, Volume= 0.230 af, Atten= 98%, Lag= 191.3 min
 Primary = 0.35 cfs @ 15.15 hrs, Volume= 0.230 af
 Routed to Reach 3 : 15" Culvert Inflow

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 504.12' @ 15.15 hrs Surf.Area= 8,977 sf Storage= 23,000 cf

Plug-Flow detention time=296.6 min calculated for 0.230 af (32% of inflow)
 Center-of-Mass det. time=197.1 min (957.4 - 760.4)

Volume	Invert	Avail.Storage	Storage Description
#1	500.00'	53,225 cf	SURFACE STORAGE (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
500.00	0	0	0
501.00	3,605	1,803	1,803
502.00	6,059	4,832	6,635
503.00	7,835	6,947	13,582
504.00	8,851	8,343	21,925
505.00	9,892	9,372	31,296
506.00	10,958	10,425	41,721
507.00	12,050	11,504	53,225

Device	Routing	Invert	Outlet Devices
#1	Primary	501.80'	12.0" Round Culvert L= 365.0' Ke= 0.500 Inlet / Outlet Invert= 501.80' / 495.00' S= 0.0186 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	501.80'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.35 cfs @ 15.15 hrs HW=504.12' (Free Discharge)

1=Culvert (Passes 0.35 cfs of 5.10 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.35 cfs @ 7.13 fps)

PROPOSED CONDITION

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Type II 24-hr 100-yr Rainfall=5.78"

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Summary for Subcatchment 2.0: Project Area - West

Runoff = 3.88 cfs @ 12.00 hrs, Volume= 0.183 af, Depth> 2.76"
 Routed to Pond 2.1 : West Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-yr Rainfall=5.78"

Area (ac)	CN	Description
0.274	98	Paved parking, HSG B
0.522	61	>75% Grass cover, Good, HSG B
0.796	74	Weighted Average
0.522		65.58% Pervious Area
0.274		34.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	26	0.1000	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 2.38"
3.8	28	0.0607	0.12		Sheet Flow, Grass: Dense n= 0.240 P2= 2.38"
0.1	38	0.2488	8.03		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.3	240		3.00		Direct Entry,
8.2	332	Total			

Summary for Pond 2.1: West Infiltration Basin

Inflow Area = 0.796 ac, 34.42% Impervious, Inflow Depth > 2.76" for 100-yr event
 Inflow = 3.88 cfs @ 12.00 hrs, Volume= 0.183 af
 Outflow = 0.29 cfs @ 12.71 hrs, Volume= 0.145 af, Atten= 92%, Lag= 42.8 min
 Primary = 0.29 cfs @ 12.71 hrs, Volume= 0.145 af
 Routed to Reach 3 : 15" Culvert Inflow

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 499.87' @ 12.71 hrs Surf.Area= 2,636 sf Storage= 4,451 cf

Plug-Flow detention time=189.5 min calculated for 0.145 af (79% of inflow)
 Center-of-Mass det. time=132.7 min (920.2 - 787.4)

Volume	Invert	Avail.Storage	Storage Description
#1	496.00'	4,815 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
496.00	0	0	0
497.00	490	245	245
498.00	1,097	794	1,039
499.00	1,848	1,473	2,511
500.00	2,759	2,304	4,815

Device	Routing	Invert	Outlet Devices
#1	Primary	498.20'	12.0" Round Culvert L= 100.0' Kc= 0.500 Inlet / Outlet Invert= 498.20' / 495.00' S= 0.0320 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	498.20'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.29 cfs @ 12.71 hrs HW=499.87' (Free Discharge)

1=Culvert (Passes 0.29 cfs of 4.08 cfs potential flow)

2=Orifice/Grate (Orifice Controls 0.29 cfs @ 5.98 fps)

PROPOSED CONDITION*Type II 24-hr 100-yr Rainfall=5.78"*

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Summary for Reach 3: 15" Culvert Inflow

Inflow Area = 2.976 ac, 58.27% Impervious, Inflow Depth > 1.51" for 100-yr event

Inflow = 0.63 cfs @ 13.22 hrs, Volume= 0.376 af

Outflow = 0.63 cfs @ 13.22 hrs, Volume= 0.376 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



EXHIBIT E

ENVIRONMENTAL ASSESSMENT FORM

Short Environmental Assessment Form

Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information			
Name of Action or Project: A&E & SNY Center			
Project Location (describe, and attach a location map): Medical Center Drive at Avriel Drive (Tax Parcel 086.-01-03.9), Town of Manlius, Onondaga County			
Brief Description of Proposed Action: A two-phase development of a medical office / personal services center. The first phase is the construction of a one-story building with a "walk-out" basement with a footprint of 14,242 sq ft (total 28,484 sq ft), a 108-vehicle parking lot and associated utilities (water, sewer, stormwater management, electric, natural gas, communications). Phase 2 is the construction of a second, one-story building with a footprint of 11,332 sq ft.			
Name of Applicant or Sponsor: A&E & SNY CENTER		Telephone: (315) 445-1177	
		E-Mail: papam42020@gmail.com	
Address: Suite 38, 5781 Bridge Street			
City/PO: East Syracuse		State: New York	Zip Code: 13057
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.		NO ☒	YES ☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: Manlius Planning Board - Site Plan Approval Manlius Town Board - Zone Change		NO ☐	YES ☒
3. a. Total acreage of the site of the proposed action?		4.038 acres	
b. Total acreage to be physically disturbed?		2.890 acres	
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?		4.038 acres	
4. Check all land uses that occur on, are adjoining or near the proposed action:			
5. ☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☒ Commercial ☒ Residential (suburban)			
☐ Forest ☐ Agriculture ☐ Aquatic ☒ Other(Specify): Undeveloped			
☐ Parkland			

5. Is the proposed action,	NO	YES	N/A
a. A permitted use under the zoning regulations? <i>With an approved Zone Change</i>	☐	☒	☐
b. Consistent with the adopted comprehensive plan?	☐	☒	☐
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	NO ☐	YES ☒	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____	NO ☒	YES ☐	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	NO ☒	YES ☐	
b. Are public transportation services available at or near the site of the proposed action?	☐	☒	
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☒	
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: _____ _____	NO ☐	YES ☒	
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____ _____	NO ☐	YES ☒	
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____ _____	NO ☐	YES ☒	
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	NO ☒	YES ☐	
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☒	☐	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	NO ☒	YES ☐	
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☐	☐	
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ _____ _____			

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply: ☐ Shoreline ☐ Forest ☒ Agricultural/grasslands ☐ Early mid-successional ☐ Wetland ☐ Urban ☐ Suburban		
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered? Northern Long-eared Bat	NO	YES
	☐	☒
16. Is the project site located in the 100-year flood plan?	NO	YES
	☒	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes,	NO	YES
a. Will storm water discharges flow to adjacent properties?	☐	☒
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe:	☐	☒
Existing 15" culvert at the intersection of Medical Center Drive and Avriel Drive		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment:	NO	YES
Stormwater management practice to attenuate runoff so as not to adversely impact downstream properties.	☐	☒
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	NO	YES
	☒	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	NO	YES
	☒	☐
I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE Applicant/sponsor/name: <u>RODNEY LUIS JR</u> Date: <u>01/14/2022</u> Signature: <u>[Signature]</u> Title: <u>AGENT FOR AFE & SNY CENTER</u> <u>Project Manager</u>		



EXHIBIT F

FRESHWATER WETLANDS LETTER

November 14, 2022

Mr. John Deer, Supervisor
Town of Manlius
301 Brooklea Drive
Fayetteville, NY 13066

Re: Zone Change Application – Freshwater Wetlands
A&E & SNY Center
Medical Center Drive

Dear Supervisor Deer,

This letter is in reference to the zone change application for the proposed A&E & SNY Center on Medical Center Drive. A preliminary review of the subject parcel has been performed to determine the potential presence of on-site freshwater wetlands. After site observation and evaluation of the National Wetlands Inventory and the NYSDEC Environmental Resources Mapper, it has been determined that the subject parcel and adjoining parcels within a 100 foot buffer do not contain any jurisdictional wetlands.

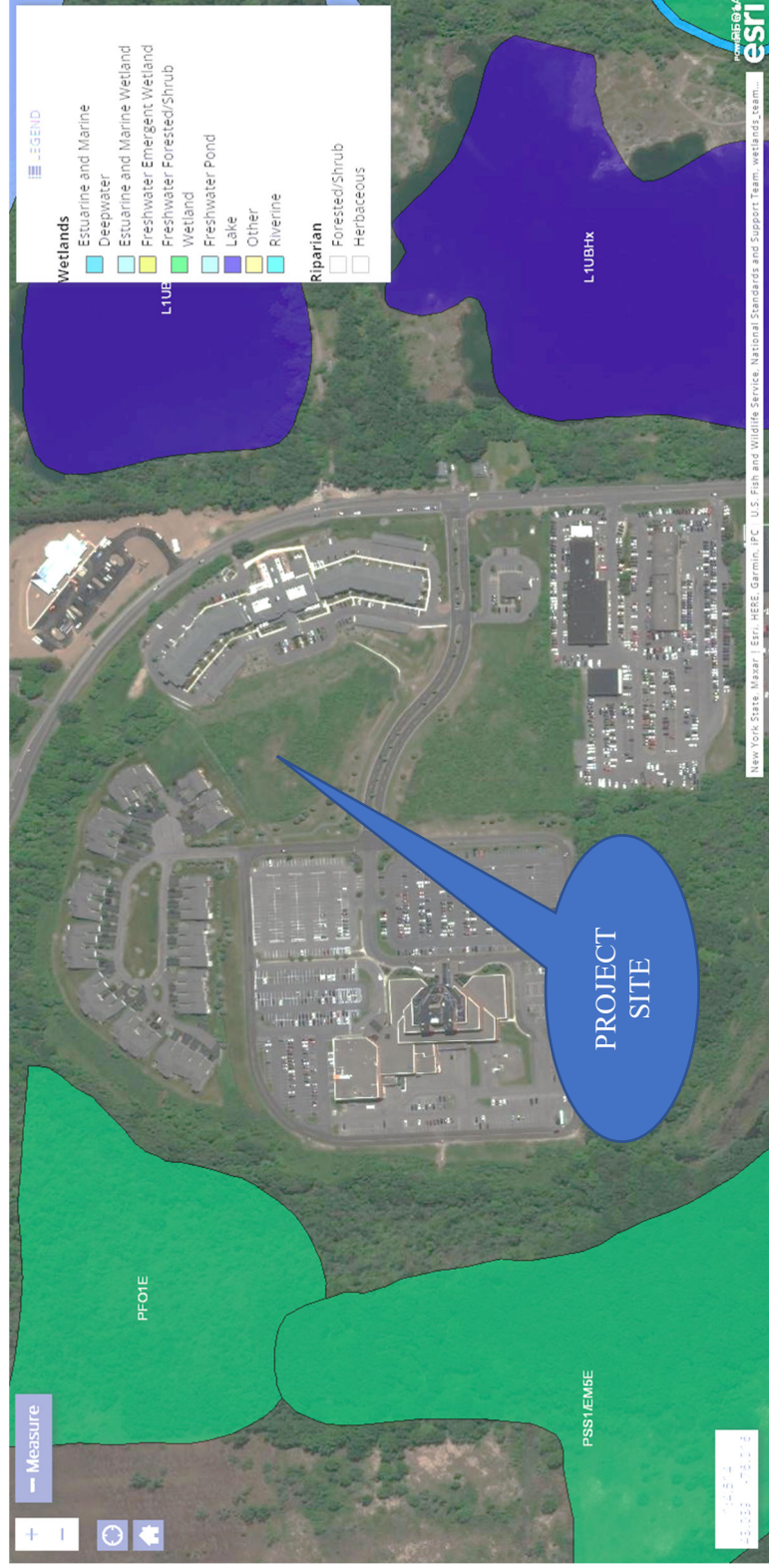
If you should have any questions or comments, please feel free to contact us.

Respectfully,

NAPIERALA CONSULTING
Professional Engineer, P.C.



Rodney Ives, Jr., PE
Project Manager



National Wetlands Inventory Mapping



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Environmental Resource Mapper

Base Map: [Satellite](#)

Search

Tools

Layers and Legend

- ☐ All Layers
- ☐ Unique Geological Features
- ☐ Waterbody Classifications for Rivers/Streams
- ☒ Waterbody Classifications for Lakes
- ☒ State Regulated Freshwater Wetlands (Outside of the Adirondack park)
- ☐ State Regulated Wetland Checkzone
- ☐ Imperiled Mussels
- ☐ Other Wetland Layers
- ☐ Reference Layers

Tell Me More...

Need A Permit?

Contacts

NYSDEC Wetlands Mapping



EXHIBIT G

DISCLOSURE AFFIDAVIT

TOWN OF MANLIUS

DISCLOSURE AFFIDAVIT

This affidavit is a part of and must be completed and attached to every application, petition, request submitted for a *site plan, variance, amendment, change of zoning, approval of a plat, exemption from a plat or official map, license or permit.*

STATE OF NEW YORK)
) SS:
COUNTY OF ONONDAGA)

I. Mike Dafa, being duly sworn, deposes and says that (s) he is:
applicant
(applicant, petitioner, corporation officer, property owner, etc.)

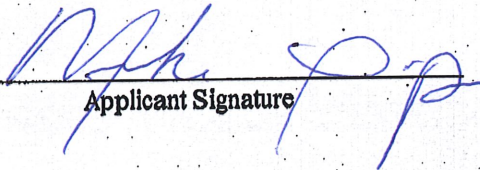
II. That deponent has read and is familiar with the provisions of the General Municipal Law, Section 809 which states:

- A. Every application, petition or request submitted for a site plan, variance, amendment, change of zoning, approval of a plat, exemption from a plat or official map, license or permit, pursuant to the provisions or any ordinance, local law, rule or regulation constituting the zoning and planning regulations of a municipality shall state the name, residence and the nature and extent of the interest of any state officer or any officer or employee of such municipality is a part, in the person, partnership or association making such application, petition or request (hereinafter called the applicant) to the extent known to such applicant.
- B. For the purpose of this action an officer or employee shall be deemed to have an interest in the applicant when (s)he, his/her spouse, or their brothers, sisters, parents, children, grandchildren, or the spouse of any of them:
 - 1) is the applicant, or
 - 2) is an officer, director, partner or employee of the applicant, or
 - 3) legally or beneficially owns or controls stock of a corporate applicant or is a member of a partnership or association applicant, or
 - 4) is a party to an agreement with such an applicant, express or implied, whereby (s) he may receive any payment or other benefit, whether or not for services rendered, or contingent upon the favorable approval of such application, petition or request.
- C. Ownership of less than five percent (5%) of the stock of a corporation whose stock is listed on the New York or American Stock Exchanges shall not constitute an interest for the purposes of this section.
- D. A person who knowingly and intentionally violates this section shall be guilty of a misdemeanor.

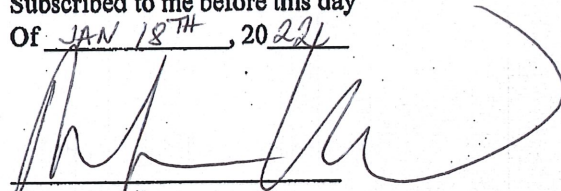
CORPORATE ACKNOWLEDGEMENT

STATE OF NEW YORK)
) SS:
COUNTY OF ONONDAGA)

Mike Papc, being duly sworn, deposes and says the
s(he) is the owner of A+E 2020 Corp
corporation named in the within Application/Petition, that s(he) has read the foregoing affidavit and
knows the contents thereof; that the same is true of s(he) own knowledge, except as to those matters
therein stated to be alleged upon information and belief, and as to those matters s(he) believes it to be
true.


Applicant Signature

Subscribed to me before this day
Of JAN 18TH, 2022


Notary Public

NEDZADA KAPIC
01KA6176345
Notary Public, State of New York
Qualified in Onondaga County
My commission expires OCTOBER 29th, 2023

