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Albert. A. Capellini Community and Cultural Center, 1974 Commerce Street, Yorktown Heights, New York 10598, Phone: (914) 962-6565, Fax: (914) 962-3986

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363 Underhill Avenue, Yorktown Heights, NY 10598

**November 8, 2021
7:00 PM**

- 1. Correspondence**
- 2. Meeting Minutes – October 18, 2021**

REGULAR SESSION

- 1. Fusco Minor Subdivision
Request for First 90 Day Time Extension**
Location: 16.14-1-10; 3477 Stony Street
Contact: Laura DiGiovanni, property owner
Description: Approved 2-lot subdivision on 2.72 acres in the R1-20 zone, by Planning Board Resolution #19-11 dated May 20, 2019, #20-03 dated May 11, 2020, and #21-07 dated May 10, 2021.
- 2. Strawberry Road Solar (Ciuffetelli) CDG Solar Project
Public Informational Hearing**
Location: 15.12-1-12, 14, & 30; 1696-1700 Route 6 and 1645 Strawberry Road
Contact: Green Street Power Partners
Description: Proposed 2.4 MW-DC ground mounted solar panels disturbing 9.10 acres on 21 acres in the R1-20 zone.
- 3. Arcadia Farm Solar Farm
Adjourned Public Hearing**
Location: 47.11-1-4; 1300 Baptist Church Road
Contact: Croton Energy Group
Description: Proposed 800 kW ground mounted large-scale solar energy system disturbing approximately 6 acres of a 28.85 acre horse farm in the R1-80 zone.
- 4. Kitchawan Farm Solar Farm
Adjourned Public Hearing**
Location: 70.06-1-2 & 3; 716 Kitchawan Road
Contact: Ecology Kitchawan Community Solar Farm, LLC
Description: Proposed 2 MW ground mounted large-scale solar energy system disturbing approximately 8 acres of a 23.13 acre farm in the R1-200 zone.
- 5. Fiore Minor Subdivision
Request for First 90 Day Time Extension**
Location: 26.15-1-69; 2797 Carr Court
Contact: Site Design Consultants
Description: Approved 2-lot subdivision on 1.14 acres in the R1-20 zone, by Planning Board Resolutions #19-10 dated May 20, 2019, #20-04 dated May 11, 2020, and #21-11 dated May 24, 2021.

6. Ricciardella Estates LLC

Request for First One-Year Time Extension

Location: 59.14-1-18; 702 Saw Mill River Road

Contact: Site Design Consultants

Description: Site Plan approved by Planning Board Resolution #19-09 dated May 20, 2019 and #20-22 dated October 26, 2020.

WORK SESSION

7. C3 Holdings LLC fka Generations Building

Discussion Approved Site Plan

Location: 48.11-1-51; 1500 Front Street

Contact: Site Design Consultants

Description: Proposed two-story 3,600 SF building to be used as a 3-bay parking garage on the first floor, material storage on the second floor for one of the existing businesses within the building. This site plan was previously approved by Planning Board Resolution #09-08 on March 9, 2009.

8. Yorktown Rehabilitation and Nursing Center Solar Projects

Discussion Site Plan & Special Use Permit

Location: 35.12-1-3; 2300 Catherine Street

Contact: Ecofy New York

Description: Proposed installation of a 698 kW DC/467 kW AC solar canopy system over existing parking with a 548 kWh Tier 1 Battery Energy Storage System and installation of a 284 kW DC/260 kW AC ground mounted solar array on a 12.84 acre parcel in the RSP-3 zone with existing skilled nursing facility.

9. Old Hill Farm Solar Farm

Discussion Solar Project

Location: 16.08-1-4 & 17; 571 East Main Street, Jefferson Valley

Contact: Hillside Solar LLC

Description: Proposed 3.75 MW ground mounted solar panels disturbing 15 acres on a 19.4 acres in the R1-20 zone.

10. Maryel School of New York at St. Andrew's Lutheran Church

Discussion Proposed Use

Location: 37.09-1-24; 2405 Crompond Road

Contact: Celi Cacho & Pastor Dave Dockweiler

Description: Proposed reuse of the former Montessori School classrooms within the church for a private bilingual elementary school on 5 acres in the R1-40 zone.

11. Town Board Referral

#FSWPPP-T-005-21

Location: 27.14-1-17; 2678 Gregory Street

Contact: Jon Farrell

Description: An application for a Full Stormwater Pollution Prevention Plan and Tree Permit to construct a single-family house on 0.479 acres in the R1-20 zone.

Correspondence

2022 Planning Board Meetings

JANUARY						
S	M	T	W	T	F	S
					1	NEW YEARS
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	MARTIN LUTHER KING	18	19	20	21
23	24	25	26	27	28	29
30	31					

FEBRUARY						
S	M	T	W	T	F	S
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	PRESIDENTS	22	23	24	25
27	28					

MARCH						
S	M	T	W	T	F	S
		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		

APRIL						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	EASTER	18	19	20	21	22
24	25	26	27	28	29	ARBOR DAY

MAY						
S	M	T	W	T	F	S
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	MEMORIAL DAY	31			

JUNE						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	FATHERS DAY	20	21	22	23	24
26	27	28	PRIMAARY DAY	29	30	

JULY						
S	M	T	W	T	F	S
					1	2
3	4	JULY 4TH	5	6	7	8
10	11	12	13	14	15	16
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31						

AUGUST						
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28	29	30	31			

SEPTEMBER						
S	M	T	W	T	F	S
				1	2	3
4	5	LABOR DAY	6	7	8	9
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	ROSH HASHANA	27	28	29	30

OCTOBER						
S	M	T	W	T	F	S
						1
2	3	4	5	YOM KIPPUR	6	7
9	10	COLUMBUS DAY	11	12	13	14
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

NOVEMBER						
S	M	T	W	T	F	S
30	31	HALLOWEEN	1	2	3	4
6	7	8	ELECTION DAY	9	10	11
13	14	15	16	17	18	19
20	21	22	23	24	25	THANKS GIVING
27	28	29	30			

DECEMBER						
S	M	T	W	T	F	S
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4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	CHRISTMAS	26	27	28	29	30

- Regular Meetings held in the **Town Hall Board Room at 7:00 PM**. These meetings include regular & work sessions.
- Work Session Meetings held in the **Town Hall Board Room at 7:00 PM**. These meetings are work sessions only. No public comment is taken.
- Holidays.

SQUARE FEET

As Demand for Green Energy Grows, Solar Farms Face Local Resistance

Developers say industrial-scale farms are needed to meet the nation's climate goals, but locals are fighting back against what they see as an encroachment on their pastoral settings.

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By Ellen Rosen

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Hecate Energy, a renewable energy developer, had hoped to install a 500-acre solar farm in Copake, N.Y., a quiet town nestled between the Catskill and Berkshire Mountains. The setting was ideal because of its proximity to an electrical substation, critical to the power transmission.

But after facing an outcry from some in the community who feared the installation would mar the bucolic setting, Hecate scaled back its plans.

"We heard loud and clear," said Diane Sullivan, Hecate's senior vice president for environmental and permitting. "People felt that the project was too large and they wanted us to shrink it down."

Hecate cut the size of the planned development to 245 acres, which it says will still produce the 60 megawatts of electricity in the original design.

The Copake fight mirrors similar battles raging across the country in rural areas like Lake County, Ore.; Clinton County, Ohio; and Troy, Texas. Developers say industrial-scale solar farms are needed to meet the nation's goals to mitigate the rise of climate change, but locals are fighting back against what they see as an encroachment on their pastoral settings, the loss of agricultural land and a decline in property values.



"This is not a black-and-white situation," said Jeanne E. Mettler, the town supervisor in Copake. Bryan Anselm for The New York Times

Until recently, most farms were built in the West, where abundant sunshine powers industrial-scale solar arrays and installations were farther away from sight lines. But now, with federal and state governments committing to a reduction in fossil fuels, joined by corporate giants like Amazon and Microsoft, the industry is seeking solar installations in areas where the calculus is more complicated.

In the first half of this year alone, developers installed 5.7 gigawatts of solar capacity, for a total of 108.7 gigawatts of capacity, sufficient to reach 18.9 million U.S. homes, according to the Solar Energy Industries Association. That number is only expected to grow, said Sean Gallagher, the group's vice president for state and regulatory affairs.

"Utilities are increasingly interested, corporations want to go green, and consumers want them all to be cleaner," he said.

The proposals often involve hundreds of acres of solar panels. "Typically, five to seven acres are needed to create one megawatt of power," said Matt Birchby, co-founder and president of Swift Current Energy, a solar developer that is working on a proposal for Clark County, Ky.

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Improvements in the capabilities of the panels — including the development of so-called bifacial panels that capture the sun on both sides of a panel — allow for greater electricity generation in fewer panels, meaning a smaller footprint.

Nonetheless, finding appropriate sites with sufficient sunlight, proximity to the grid and up-to-date infrastructure is challenging.

Approximately 0.5 percent of U.S. land would need to be covered with solar panels to achieve the decarbonization goals proposed by the Biden administration in April, according to a study by the Energy Department. Urban settings usually lack enough space for significant projects; as a result, 90 percent of the suitable land sits in rural areas.



A solar farm developed by Hecate Energy in Millen, Ga. Many farms are built where abundant sunshine powers industrial-scale solar arrays and installations are farther away from sight lines. Hecate Energy

But even rural land is not entirely suitable. It needs to be in proximity to the electricity infrastructure that can add more power. The grade of land matters: Steeper slopes can be less efficient in the energy captured than flatter land. And wetlands are usually protected by federal or state law.

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More important, development depends on owners willing to lease their property often for decades over the objection of neighbors. (Proponents say leases can be more lucrative and more reliable than traditional farming.)

Even those dedicated to protecting farmland say that the issue can be complicated. “Answering the question of how and where to put renewable energy installations on our food-producing farmland is not easy; but we know that it’s necessary,” said Samantha Levy, the climate policy manager of the American Farmland Trust, an organization founded to protect farmland from development.

Residents say they want more studies and a voice in the process. “We are not saying not in our backyard, we’re saying the developer can do a lot better in our backyard,” said Darin Johnson, a member of Sensible Solar for Rural New York, which is opposing the Copake project.

Not all in the community are opposed, however. Some residents created a group called Friends of Columbia Solar to promote their view that more solar power is necessary to combat climate change.



Juan-Pablo Velez, a co-founder of Friends of Columbia Solar, which was formed in upstate New York to promote solar power. Bryan Anselm for The New York Times

Nonetheless, the Town of Copake, along with several other New York communities and Audubon groups, sued New York State, challenging a new law aimed at making solar projects easier to build in the state as part of an ambitious plan to reduce fossil fuels by 2030.

A state court judge in September rejected the suit, and the plaintiffs intend to appeal, said Jeanne E. Mettler, the town supervisor. “This is not a black-and-white situation,” she said.

A similar fight has emerged in the Bluegrass region of Kentucky, where community members began organizing last year once word got out that developers were talking to property owners about leasing land for two projects in Clark County.

“Ours is a small town and we all know one another and our efforts are not against our neighbors,” said Will Mayer, the executive director of the Clark Coalition, the opposition group. He added that the project could eclipse agricultural use of the region, which has already lost acreage because of other types of development.

One of the projects is backed by Swift Current, which is proposing a 1,200-acre solar farm there. The company has been working with residents to address their concerns, said Mr. Birchby, who added that the project would have “minimal” impact on their view.

“We want to make sure that any project that we’re developing can be a good long-term neighbor and member of the community,” he said.

The other project in Clark County is being developed by Geenex Solar and EDF Renewables. Both companies declined to disclose details, but Kara W. Price, the senior vice president for permitting and development at Geenex, said in an email that when the two companies “are ready to present our potential project to Clark County officials and the community, it will be done in a very public manner and will provide multiple opportunities for discussion and input.”

Because of public concerns, the local government in late summer denied permits for both projects until a comprehensive plan can be made, said Robert Jeffries, the planning and community development director for Winchester, Ky., the largest municipality in Clark County, which has jurisdiction over land use.

To address residents’ concerns, some developers are adding screens to avoid obstructing views and are contributing to community causes to be good neighbors. Others are trying to create pollinator habitats in and around the panels, and some are creating suitable spaces for grazing.

Another solution for developers is agrivoltaics, a technology that allows land to be used for both farming and solar power. Already in limited use in Europe, including in some French vineyards, agrivoltaics are being tested in the United States by developers like BlueWave Solar, a start-up in Boston that has put its raised panels to use in Grafton, Mass., and is about to start a pilot program in Maine to enhance blueberry production, said John DeVillars, co-founder and chairman of BlueWave.

While the turf fights continue, supporters of the solar farms acknowledge that the discussions with their neighbors and local leaders are a balancing act. “We have been trying to tell local officials that there is support for solar and that it’s not a simple story,” said Juan-Pablo Velez, a co-founder of Friends of Columbia Solar.

§ 300-81.4. Solar power generation systems and facilities. [Added 9-15-2020 by L.L. No. 11-2020 revised 10-19-2021]

A. Statutory authority and jurisdiction.

- (1) This section is hereby enacted pursuant to the provision of § 10 of the Municipal Home Rule Law and §§ 261 and 263 of the Town Law of the State of New York, which authorize the Town of Yorktown to adopt zoning provisions that advance and protect the health, safety, and welfare of the community, and "to make provision for, so far as conditions may permit, the accommodation of solar energy systems and equipment and access to sunlight necessary therefor."
- (2) The authority to issue special use permits pursuant to this section is hereby delegated to the Planning Board.
- (3) References herein to zoning districts in the Town of Yorktown are references to such districts as described in this Chapter 300 of the Code of the Town of Yorktown.

B. Statement of purpose and intent.

- (1) Solar energy is an abundant and nonpolluting energy resource that reduces fossil fuel emissions, reduces dependence on the electrical power grid that generates power from nonrenewable and nuclear sources of fuel, reduces impacts to residential and commercial property resulting from power interruptions resulting from man-made or natural events, and reduces the Town's energy load.
- (2) The use of solar energy to provide electrical power for the needs of the Town's residents and businesses is consistent with the Town of Yorktown's commitment to green infrastructure and practices, and consistent with its goal of promoting long-term sustainability.
- (3) This section is intended to permit and regulate solar energy systems and the requisite provision of, and access to, adequate sunlight; to mitigate the potential impacts to neighboring properties, while promoting the use of solar energy systems in residential, commercial, and industrial districts, in accordance with applicable laws and regulations.
- (4) This section is adopted to advance and protect the public health, safety, and welfare of the Town of Yorktown, including:
 - (a) Taking advantage of a safe, abundant, and nonpolluting energy resource;
 - (b) Decreasing the cost of energy to the owners of commercial and residential properties, including single-family houses; and
 - (c) Increasing employment and business development in the region by furthering the installation of solar energy systems;

- (d) Decreasing the use of fossil fuels, which reduces the carbon footprint of the Town, aids in energy independence of the Town and nation, and reduces polluting greenhouse gas emissions;
 - (e) Increasing resiliency of the energy grid during storm events and times of peak energy demand.
- (5) The Town values its open space, naturalized areas, and rural character. Maintaining high environmental quality and values are a mainstay of the Town's efforts in its guidance and regulation of development in the Town. As such, the Town, in guiding the development of solar installations, will prioritize their placement first on agricultural or greenfield properties in areas that are presently cleared, second on commercial properties over roofs and parking areas, and third, on vacant parcels that are currently in a naturalized state.

C. Definitions. As used in this section, the following terms shall have the meanings indicated:

ABACA — An acronym that refers to the Advisory Board on Architecture and Community Appearance.

ACCESSORY USE — A use which is customarily incidental and subordinate to the principal use of a lot, water area or a building and located on the same lot or water area therewith.

ALTERNATING CURRENT (AC) — An electric current that reverses direction at regular intervals, having a magnitude that varies continuously in sinusoidal manner.

BUILDING INTEGRATED PHOTOVOLTAIC SYSTEM — A combination of photovoltaic building components integrated into any building envelope system, such as vertical facades, including glass and other facade material, semitransparent skylight systems, roofing materials, and shading over windows.

DIRECT CURRENT (DC) — An electric current of constant direction, having a magnitude that does not vary or varies only slightly.

GROUND-MOUNTED SOLAR ENERGY SYSTEM — A solar energy system that is anchored to the ground or supported on a foundation, and attached to a pole, column, or other mounting system, and detached from any other structure for the primary purpose of producing electricity for on-site or off-site consumption.

KILOWATT (kW) — A unit of electrical power equal to 1,000 watts, which constitutes the basic unit of electrical demand. A watt is a metric measurement of power (not energy) and is the rate (not the duration) at which electricity is used. One thousand kW is equal to one megawatt (MW).

KILOWATT-HOUR (kWh) — A unit of energy equivalent to one kilowatt (kW) of power expended for one hour of time.

LARGE-SCALE SOLAR ENERGY SYSTEM — A solar energy system that exceeds 25 kilowatts (kW) DC as rated by its nameplate capacity. The maximum system capacity and the maximum area of land upon which the system shall be

erected are as follows:

- (1) Up to one megawatt AC on an area of land no larger than 10 acres, excluding any easement for accessing the parcel; or over one but not to exceed five megawatt AC on an area of land no larger than 20 acres, excluding any easement for accessing the parcel.

LOT COVERAGE — That percentage of the lot area covered by the combined area of all buildings or structures on the lot.

MAIN USE — A term used for purposes of this Chapter 300, Zoning, as denoting a set of specific uses of land for which each zone has as its intended primary permitted uses.

MEGAWATT (MW) — Equal to 1,000 kilowatts; a measure of the use of electrical power.

MEGAWATT-HOUR (MWh) — A unit of energy equivalent to one megawatt (MW) of power expended for one hour of time.

PRINCIPAL USE — The main use conducted on a lot, dominant in area, extent or purpose to other uses which may also be on the lot.

ROOF-MOUNTED SOLAR ENERGY SYSTEM — A solar panel system located on the roof of any legally permitted building or structure for the purpose of producing electricity for on-site or off-site consumption.

SMALL-SCALE SOLAR ENERGY SYSTEM — A solar energy system that does not exceed more than 25 kW DC as rated by its nameplate capacity, and serves only the buildings or structures on the lot upon which the system is located. Nothing contained in this provision shall be construed to prohibit the sale of excess power through a net billing or net metering arrangement made in accordance with New York Public Service Law (§ 66-j) or similar state or federal statute.

SOLAR ACCESS — Space open to the sun and substantially clear of overhangs or shade, including the orientation of streets and lots to the sun so as to permit the use of a solar energy system on individual properties.

SOLAR ENERGY EQUIPMENT — Electrical energy storage devices, material, hardware, inverters, or other electrical equipment and conduit of photovoltaic devices associated with the production of electrical energy.

SOLAR ENERGY SYSTEM — An electrical generating system composed of a combination of both solar panels and solar energy equipment.

SOLAR PANEL — A photovoltaic device capable of collecting and converting solar energy into electrical energy and is normally attached to a building by mechanical means and is readily removable and replaceable or ground-mounted utilizing structural components.

SOLAR POWER GENERATION SYSTEMS — See "solar energy system" definition.

D. Applicability.

- (1) The requirements of this section shall apply to all solar energy systems and equipment installed or modified after the effective date of this section, excluding general maintenance and repair and building-integrated photovoltaic systems.
- (2) Roof-mounted small-scale solar energy systems installed on single- and two-family residential properties are subject to compliance with this chapter under authority of the Building Inspector, and do not require review and approval from the Planning Board. Roof-mounted solar energy systems mounted facing front yards or any yard facing the street must be referred to the ABACA for review and recommendation. The Building Inspector may refer the application and associated materials to the Planning Board for review and recommendation.

E. Solar as an accessory use or structure.

- (1) Small-scale solar energy systems are permitted through the issuance of a special use permit within all zoning districts, subject to the requirements set forth in this section, including site plan approval. Applications for the installation of a small-scale solar energy system shall be reviewed by the Planning Department and referred, with comments, to the Planning Board for its review and action, which can include approval, approval with conditions, and denial, unless otherwise cited by Subsection D(2) of this section. Where a solar energy system will require a tree removal permit, the application shall be referred to the Tree Conservation Advisory Commission.
- (2) Roof-mounted solar energy systems.
 - (a) Roof-mounted solar energy systems that use the electricity on site or off site are permitted as an accessory use in all zoning districts when attached to any lawfully permitted building or structure.
 - (b) Height. Solar energy systems shall not exceed the maximum height restrictions of the zoning district within which they are located and are provided the same height exemptions granted to building-mounted mechanical devices or equipment.
 - (c) Aesthetics. Roof-mounted solar energy system installations shall incorporate, when feasible, the following design requirements:
 - [1] Panels installed on pitched roofs and facing the front yard must be mounted at the same angle as the roof's surface with a maximum distance of 18 inches between the roof and highest edge of the system. Panels installed on flat roofs must be installed so that they are not visible or suitably screened.
- (3) Ground-mounted solar energy systems.
 - (a) Ground-mounted solar energy systems that use the electricity primarily on site are permitted as accessory structures in all zoning districts.

- (b) Setback and height. Ground-mounted solar energy systems shall adhere to the setback requirements of the underlying zoning district and shall not exceed 15 feet in height in residential zones and 20 feet in height in all other zones.
 - (c) The surface area covered by ground-mounted solar panels shall be included in total lot coverage and shall not exceed 50% of the area of the lot, inclusive of all principal and accessory structures on the lot, as required by the underlying zone. The Planning Board, in its discretion, may increase the allowable lot coverage, if the applicant can demonstrate that there are no adverse impacts to the surrounding neighbors and community character.
 - (d) All such systems in residential districts shall be installed on properties that are a minimum of one acre in size or more and shall be installed in the side or rear yards.
 - (e) Landscape screening and buffering shall be required. A ground-mounted solar energy system shall be fully screened from adjacent residential properties, streets or roads on which it fronts or is visible from, and any other views which the Planning Board determines is necessary.
- F. Approval standards for large-scale solar systems as a main use permitted by special permit.
- (1) Large-scale solar energy systems are permitted through the issuance of a special use permit within all zoning districts, subject to the requirements set forth in this section, including site plan approval. Large-scale solar energy systems are not permitted as a sole, principal use on properties within nonresidential zones. Applications for the installation of a large-scale solar energy system shall be submitted to the Planning Board for its review and action, which can include approval, approval with conditions, and denial. Where a solar energy system will require a tree removal permit, the application shall be referred to the Tree Conservation Advisory Commission.
 - (2) Special use permit application requirements. For a special permit application, the requirements of § 195-40 shall be met unless otherwise waived by the Planning Board, and as supplemented by the following provisions.
 - (a) If the property of the proposed project is to be leased, legal consent between all parties, specifying the use(s) of the land for the duration of the project, including easements and other agreements, shall be submitted.
 - (b) Site plans, survey and other documentation required by the Planning Board showing the layout of the solar energy system signed by a professional engineer or registered architect shall be required.
 - (c) The equipment specification sheets shall be documented and submitted for all photovoltaic panels, significant components, mounting systems,

and inverters that are to be installed.

- (d) Property operation and maintenance plan. Such plan shall describe continuing photovoltaic maintenance and property upkeep, such as mowing and trimming.
 - (e) A statement detailing the loss of trees and other vegetation to be removed and the quantity of carbon sequestered by said trees and vegetation using the "Method for Calculating Carbon Sequestration by Trees in Urban and Suburban Settings" of the U.S. Department of Energy, or other recognized methodology and a comparison of this data to the reduction of carbon emissions representative of the electrical output of the proposed facility that would have been produced from a traditional fossil fuel electrical generation plant.
- (3) Special use permit standards.
- (a) Height and setback. Large-scale solar energy systems shall adhere to the setback requirements of the underlying zoning district, except that the Planning Board may impose greater setbacks if it determines that the minimum setbacks do not provide adequate protection against identified negative impacts. In residential districts the minimum setbacks shall be complied with except that no setback shall be less than 50 feet from any property boundary. The height of ground-mounted systems shall be limited to 15 feet in residential zones and 20 feet in all other zones. Roof-mounted systems shall be limited to the height requirements of the underlying zone except that panels installed on flat roofs must be installed so that they are not visible or suitably screened.
 - (b) Lot size. Large-scale energy systems shall be located on lots with a minimum lot size of two acres in residential zones. Lot size in nonresidential zones shall comply with the requirement in the underlying zone.
 - (c) Lot coverage. A large-scale solar energy system that is ground-mounted shall not exceed 80% of the lot on which it is installed. The surface area covered by solar panels shall be included in total lot coverage. Where a solar energy system is not the principal use of the site, the lot coverage may exceed that of the underlying zone, but in no case shall exceed 50%, including all principal and accessory structures on the lot as required by the underlying zone.
 - (d) All ground-mounted large-scale energy systems shall be enclosed by fencing to prevent unauthorized access. Warning signs with the owner's contact information shall be placed on the entrance and perimeter of the fencing. The type of fencing shall be determined by the Planning Board. The fencing and the system may be further screened by any landscaping needed to avoid adverse aesthetic impacts. Fencing for ground-mounted systems that function as canopies or carports above parking areas may not

be required, provided that the Planning Board determines the visual and aesthetic impacts to the surrounding area is not significantly adversely affected.

- (e) Any application under this section shall meet any substantive provisions contained in site plan requirements in the Chapter 195 of the Town Code entitled "Land Development" and Chapter 300 of the Town Code entitled "Zoning" that, in the judgment of the Planning Board, are applicable to the system being proposed. The Planning Board may waive one or more of the requirements therein.
- (f) The Planning Board may impose conditions on its approval of any special use permit under this section in order to enforce the standards referred to in this section or in order to discharge its obligations under the State Environmental Quality Review Act (SEQRA).
- (g) Landscape screening and buffering shall be required. A landscape plan shall be submitted and approved by the Planning Board. Large-scale solar energy systems shall be fully screened from adjacent residential properties, streets or roads on which it fronts or is visible from, and any other views, which the Planning Board determines is necessary. Views from adjacent commercial properties shall be minimized to the extent reasonably practicable and screened from streets or roads on which it fronts. Screening of systems that function as canopies or carports above parking areas may not be required, provided that the Planning Board determines the visual and aesthetic impacts to the surrounding area is not significantly adversely affected. Screening and buffering may be accomplished using architectural features, earth berms, landscaping, or other screening methods that will harmonize with the character of the property and surrounding area. Native pollinator (birds, bats, bees, and multiple species of insects) habitats may be required to be established on a solar energy system where appropriate. Such habitats may consist of short-growing, low-maintenance, native seed mix underneath and around panels, diverse pollinator seed mix in between panels, buffers of vegetation that attract and benefit pollinators, and native flowering plants and grasses.
- (h) Mitigation for tree loss under Chapter 270, when required, will be developed to mitigate for the carbon sequestration ability of the removed trees to the greatest extent practicable.

G. Abandonment and decommissioning.

- (1) All applications for a solar farm shall be accompanied by a decommissioning plan to be implemented upon abandonment, or cessation of activity, or in conjunction with removal of the facility, prior to issuance of a building permit. The Planning Board in its sole discretion may require the applicant to file a decommissioning bond prior to the issuance of any permits.

- (2) If the applicant begins but does not complete construction of the project within 18 months after receiving final site plan approval, this may be deemed abandonment of the project and require implementation of the decommissioning plan to the extent applicable.
 - (3) The decommissioning plan must ensure that the site will be restored to a useful, nonhazardous condition without delay, including, but not limited to, the following:
 - (a) A cost estimate detailing the projected cost of executing the decommissioning plan shall be prepared by a professional engineer or contractor. Cost estimations shall take into account inflation.
 - (b) Removal of aboveground and below-ground equipment, structures and foundations.
 - (c) Restoration of the surface grade and soil after removal of equipment.
 - (d) Revegetation of restored soil areas with native seed mixes, excluding any invasive species. The Planning Board may require restoration of former forested areas using native species formerly on the site, and at a rate that will ensure the survival and maturation of the forest.
 - (e) The plan shall include a timeframe for the completion of site restoration work.
 - (4) Solar energy systems are deemed abandoned after one year without electrical energy generation and must be removed from the property. Applications for extensions are reviewed by the Planning Board and may be extended for a period of one year. The maximum number of extensions is five. At the expiration of the system, it must be decommissioned.
 - (5) If the large scale solar energy system is not decommissioned after being considered abandoned, the municipality may remove the system and restore the property and impose a lien on the property to cover the costs to the municipality.
- H. Enforcement. Any violation of this Solar Energy Law shall be subject to the same civil and criminal penalties provided for in Chapter 300, Zoning, of the Code of Town of Yorktown.

Draft Minutes

Fusco Subdivision

Robyn Steinberg

From: Laura DiGiovanni <catwoman3477@hotmail.com>
Sent: Wednesday, November 03, 2021 12:25 PM
To: Robyn Steinberg; John Tegeder
Subject: Fusco - DiGiovanni Subdivision time extension

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

November 3 ,2021

Mr. John Tegeder, RA
Director of Planning
Yorktown Planning Department
!974 Commerce Street
Yorktown Heights , New York 10598

Re: Fusco – DiGiovanni Subdivision
Subdivision Application

Dear John,

The Planning Board, at its May 10,2021 meeting adopted a resolution (19-11) reapproving the Fusco Subdivision. As the conditions set forth in the approving resolution have not been satisfied, I respectfully request a 90 day time extension. The existing residence on the property is still being utilized as a single family home and no changes have been made to the site property. There should be no additional analysis pursuant to SEQRA required at this time.

Should you have any questions or require additional information, please call

Sincerely,
Laura DiGiovanni
Sent from [Mail](#) for Windows

Strawberry Solar

Nancy Calicchia

From: John Martin <john.l.martin.100@gmail.com>
Sent: Wednesday, November 3, 2021 11:24 AM
To: Planning Department
Subject: preliminary site plan Ciuffetelli-Strawberry

RECEIVED
PLANNING DEPARTMENT

NOV 8 2021

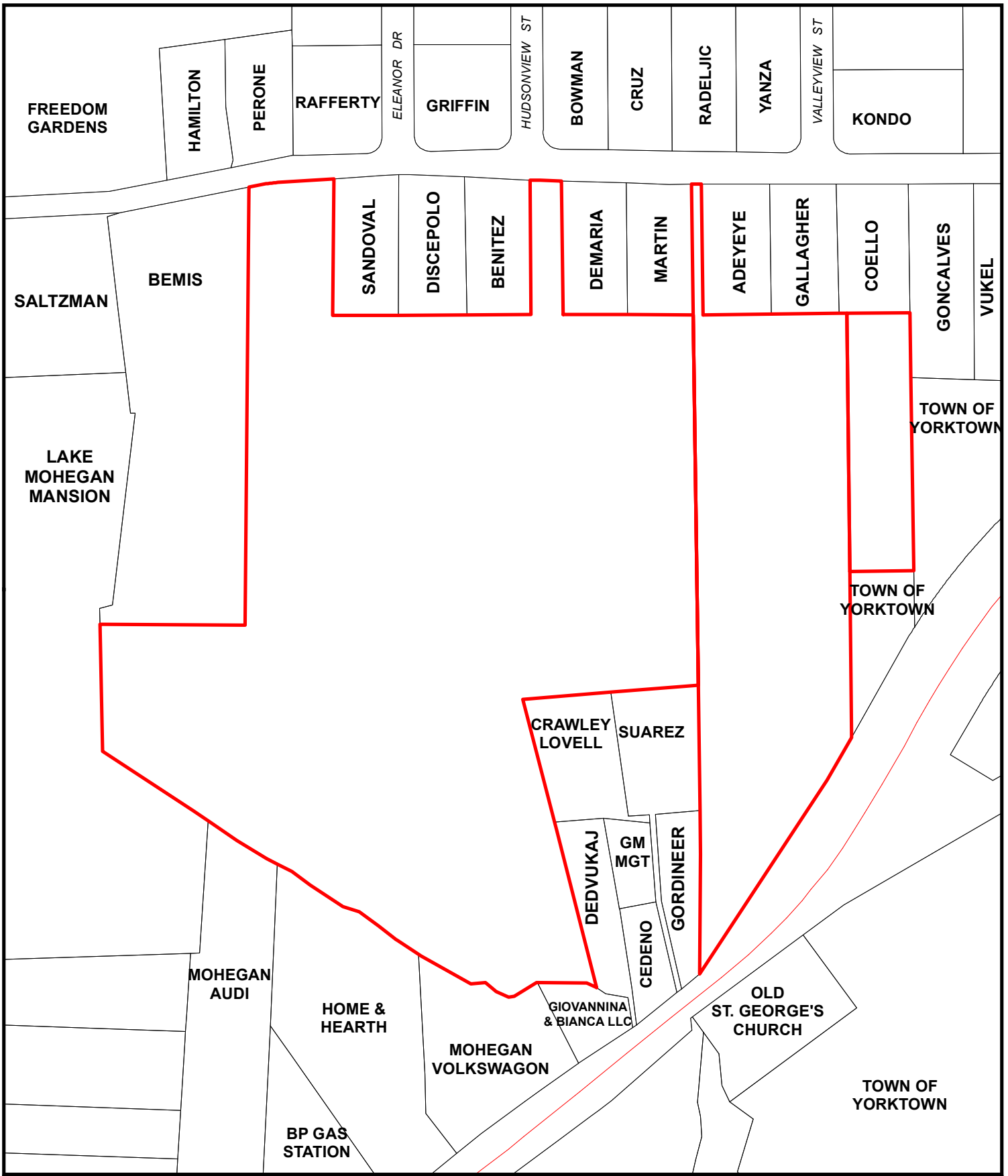
TOWN OF YORKTOWN

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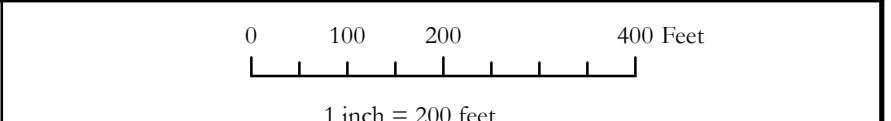
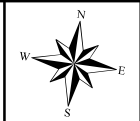
I live at 1595 Strawberry Rd and my back yard abuts on the property for the proposed solar farm. I have several questions:

- 1) How far from the property line will the fence and the berm be?
- 2) Will the existing stone wall be removed?
- 3) How tall will the berm be?
- 4) How tall will the trees on the berm be at planting and how tall are they expected to be?
- 5) Will there be any other access other than off rte 6, including during construction and any emergency entrances once completed?
- 6) If approved, when would the project be complete?
- 7) Is there any limit on how loud the construction work will be allowed?
- 8) Are there any limits to the hours they will be permitted to work?
- 9) Is the electricity produced going directly into the con ed electric grid?
- 10) Is there any reduction in our electric cost or property tax due to the closeness of the solar farm?
- 11) Does a solar farm produce any hum (audible to either humans or pets)?
- 12) Is there any electro magnetic or other emissions from a solar farm?
- 13) Are there any hazardous wastes produced by a solar farm?
- 14) Will the emergency plan be published?

Thank you
John Martin



TOWN OF YORKTOWN PLANNING DEPARTMENT
 Albert A. Capellini Community & Cultural Center
 1974 Commerce Street, Yorktown Heights, NY 10598
 (914) 962-6565, www.yorktownny.org/planning



TITLE: Strawberry Road Solar
 DATE: November 8, 2021

FILE: F:\ArcGIS\PROJECTS\Strawberry Rd Solar.mxd
 BY: RAS

Sources: Town of Yorktown GIS and Westchester County GIS: 2018.



Firm Mailing Book For Accountable Mail

Name and Address of Sender	<input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Certified Mail <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery (COD) <input type="checkbox"/> Insured Mail <input type="checkbox"/> Priority Mail	<input type="checkbox"/> Priority Mail Express <input type="checkbox"/> Registered Mail <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Signature Confirmation <input type="checkbox"/> Signature Confirmation Restricted Delivery	Affix Stamp Here (for additional copies of this receipt). Postmark with Date of Receipt.	RECEIVED PLANNING DEPARTMENT OCT 27 2021 TOWN OF YORKTOWN													
	USPS Tracking/Article Number	Addressee (Name, Street, City, State, & ZIP Code™)		Postage	(Extra Service) Fee	Handling Charge	Actual Value if Registered	Insured Value	Due Sender if COD	ASR Fee	ASRD Fee	RD Fee	RR Fee	SC Fee	SCRD Fee	SH Fee	

USPS Tracking/Article Number	Addressee (Name, Street, City, State, & ZIP Code™)	Postage	(Extra Service) Fee	Handling Charge	Actual Value if Registered	Insured Value	Due Sender if COD	ASR Fee	ASRD Fee	RD Fee	RR Fee	SC Fee	SCRD Fee	SH Fee
1.	Central School dist. 1 Admin Building 1086 E. Main St. Shrub Oak, NY 10588													
2.	T. Michael Bemis 1657 Strawberry Rd. Mohegan lake, NY 10547													
3.	Donald & Danielle Radeljac 1594 Strawberry Rd. Mohegan lake, NY 10547													
4.	Adebisi Adexeye 1587 Strawberry Rd Mohegan lake, NY 10547													
5.	John & Una Gallagher P.O. Box 322 Mohegan lake, NY 10547													
6.	Guillermo & Ana Maria Coello 1569 Strawberry Rd. Mohegan lake, NY 10547													
7.	Town of Yorktown 363 Under Hill Ave. Yorktown Heights, NY 10598													
8.	Old St. George's LLC 10 Gilead Rd. Mahopac, NY 10541													

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1.	Denise Martin 1595 Strawberry Rd. Monegan lake, NY 10547															
2.	Moises & Zaida Suarez 1712 E. Main St. Monegan lake, NY 10547															
3.	K. Crawley & C. Lovell 1714 E. Main St. Monegan lake, NY 10547															
4.	Murach & Victoria Dedvukai 1720 E. Main St. Monegan lake, NY 10547															
5.	Giovannia & Bianca LLC 22 Elm Rd. lake peekskill, NY 10537															
6.	Monegan lake Motors Inc Po Box 965 Monegan lake, NY 10547															
7.	Main Street Home Center 2090 E. Main St. Cortlandt Manor, NY 10567															
8.	Route 6 Realty Holding LLC 1791 E. Main St. Monegan lake, NY 10547															
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1.	Bernadette Perrone 1646 Strawberry Rd. Mohegan lake, NY 10547													
2.	James & Patricia Rafferty 3697 Eleanor Dr Mohegan lake, NY 10547													
3.	Fanta & Steve Sandoval 1633 Strawberry Rd. Mohegan lake, NY 10547													
4.	Aaron Discepalo 1623 Strawberry Rd. Mohegan lake, NY 10547													
5.	Kevin & Gizent Benitez 1615 Strawberry Rd. Mohegan lake, NY 10547													
6.	John Griffin 3698 Eleanor Dr Mohegan lake, NY 10547													
7.	Bowman Family Tru. TRUST 1610 Strawberry Rd. Mohegan lake, NY 10547													
8.	Joseph & Joanne DeMaria 1603 Strawberry Rd. Mohegan lake, NY 10547													

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Postmaster, Per (Name of receiving employee)
Joseph M...





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1.	Lorraine Gordineer 1710 E. Main St. Michigan Lake, NY 10547														
2.															
3.	 			Handling Charge - if Registered and over \$50,000 in value											
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Sign Notification Certification

Per Section §205-7 of the Town of Yorktown Town Code, every applicant that submits an application to an approval authority empowered to approve or deny said application must post one or more notification signs on the property which is the subject of said application.

Section 15.12 Block 1 Lot 30 & Section 15.12 Block 1 Lot 12

Project Name: Strawberry Rd Solar project

Address: 1645 strawberry Rd. & 1700 US-6 Mohegan lake, NY

Applicant's Name: GSPP 1654 Strawberry Rd. LLC

Address: 1 Landmark Sq. Suite 320 Stamford CT 06901

Phone: (914) 365-9338

No. Signs Posted: 4

Sign #1 Location: Souther entrance to 1700 US-6 along road

Sign #2 Location: On Strawberry rd. at entrance to 1700 Rt. 6 property

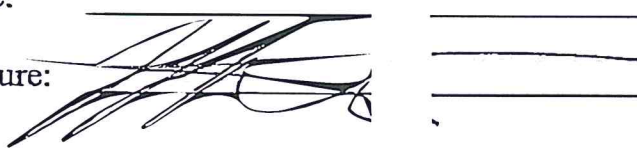
Sign #3 Location: on Strawberry Rd. at Eastern entrance to 1645 Strawberry Rd.

— Sign #4 Location: Western entrance to 1645 Strawberry Rd. along Strawberry Rd.

- Please Attach and Label Photos on Additional Sheets -

Applicant's Signature: _____

Land Owner's Signature: _____

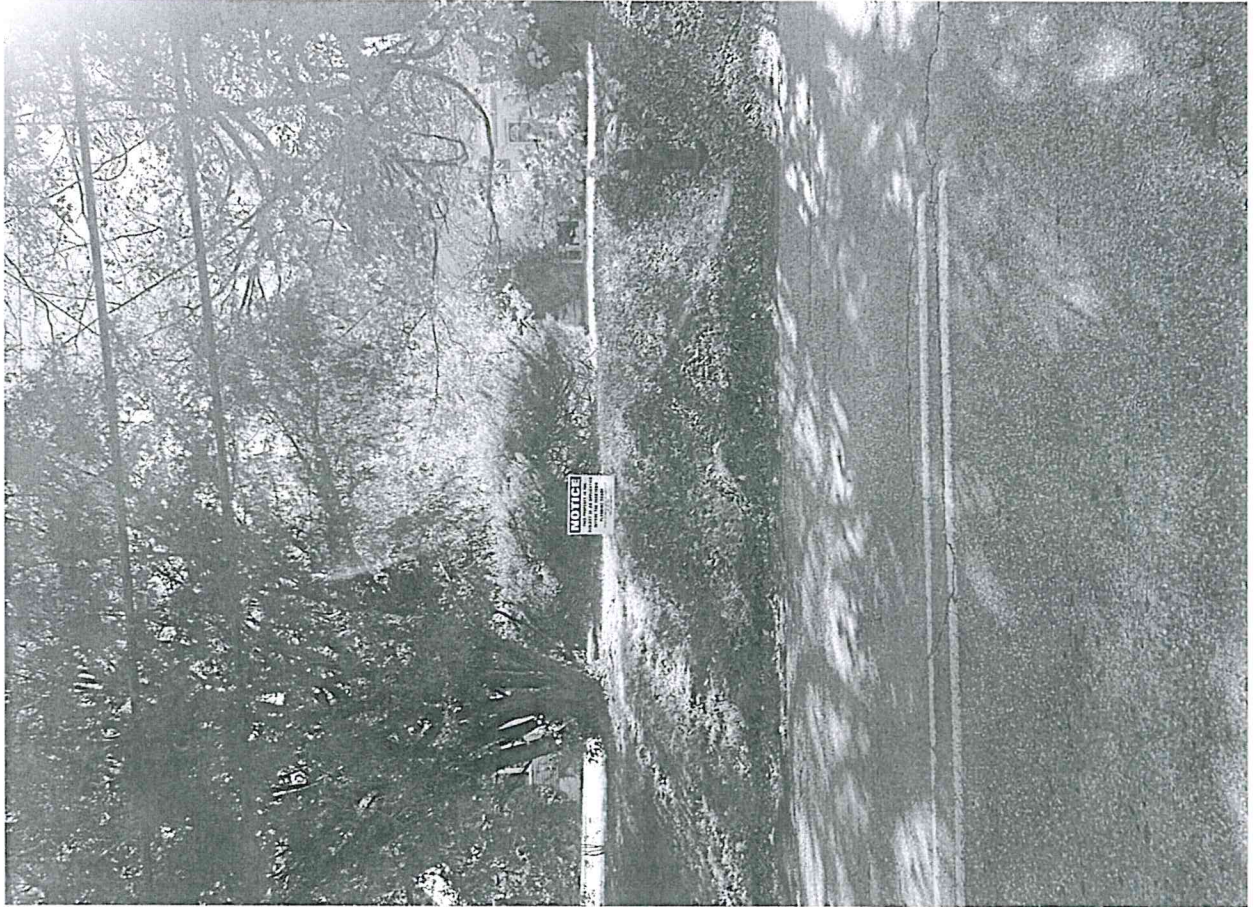


Strawberry Road Solar Proposal – Sign Posting Certification
PIH – November 8, 2021









NOV 2 2021

TOWN OF YORKTOWN

November 1, 2021

Mr. John Tegeder
Director of Planning
Town of Yorktown
Albert A. Capellini Community and Cultural Center
1974 Commerce Street
Yorktown Heights, New York 10598

Re: Ciuffetelli CDG Solar Project
1645 Strawberry Road & 1700 Route 6
Yorktown, New York

Subj: Environmental Review for Strawberry Road Solar Farm

File: 2478.001.001

Dear Mr. Tegeder and Members of the Planning Board:

Barton & Loguidice, D.P.C. (B&L) has completed our initial Environmental Review for the above referenced community solar project. To date B&L has received the following documents for review and comment:

- Application for Site Plan Approval, dated July 22, 2021
- Special Use Permit Application, dated July 22, 2021
- Special Permit Application Addendum
- Short Environmental Assessment Form, signed July 21, 2021
- Strawberry Road Phase I Environmental Site Assessment Report, dated July 16, 2021
- Route 6 Phase I Environmental Site Assessment Report, dated July 16, 2021
- Arborist Report, dated May 25, 2021
- Site Plan, revised July 22, 2021
- Greenhouse Gas Equivalencies form, dated July 12, 2021
- Conservation Board Memo, dated September 2, 2021

Project Description

Green Street Power Partners (GSPP) (Applicant) is proposing the construction of a solar facility and associated electrical appurtenances on two parcels located at 1645 Strawberry Road and 1700 Route 6, Mohegan Lake in the Town of Yorktown. The solar photovoltaic (PV) system is proposed for installation within approximately 9.10 acres of the ±21 acres of the site, with the rest remaining undeveloped.



The development will result in one 1.75-megawatts AC solar project. The PV systems will be comprised of 5,330 Heliene 144HC panels. An existing 13.2kv circuit feeder exists within the right-of-way (ROW) on the south side of East Main Street.

This project is considered a large-scale ground mounted solar energy system by the Town Code and is allowed within the Residential Zoning District (R1-20) by a Special Use Permit subject to Planning Board review. B&L offers the following comments to the Planning Board for consideration in its review and recommendation to the Town Board.

Part 1 of the Short Form EAF

B&L has reviewed Part 1 of the Short Form EAF prepared by GSPP and we offer the following comments and questions:

Environmental Specific Comments:

1. Item 15 – States that the site does not contain any species of animal or associated habitats listed as threatened or endangered. In the attachments, the IPaC resource list shows that the Indiana Bat (endangered) and the Bog Turtle (threatened) are present on the site. There is also a high probability that the Black-caped Chickadee is present on the site as well for a large portion of the year. Please clarify whether endangered or threatened species are present on site or not.
2. Item 17 – States that non-point source storm water discharge will not be created. Non-point source storm water discharge will be created. Forested areas are being replaced with grasslands and an impervious gravel access road. It will also flow adjacent to properties, contrary to what is written on the plan, and likely end up in existing wetlands. Please ensure plans are accounting for change in surface type and therefore stormwater discharge runoff.
3. Item 18 – States that water is not being impounded. While that is true for what is on the plans now, water should be impounded in a stormwater detention pond or something similar to account for the change in runoff.
4. Attachments (Soils) – Soils located on property are prime farmland (ChB (0.2%), PnB (0.1%), SuB (1.9%)). Soils on property are of statewide importance (ChC (28.6%), Sh (29.4%)). Avoid installation of solar rays on the most valuable productive farmland (provided in order of importance of current use: active rotational farmland, permanent hayland, improved pasture, unimproved pasture, other support lands, fallow/inactive farmland), especially when containing prime farmland soils or soils of statewide importance.

General Comments:

5. Item 3a – Total acreage of the site of the proposed action was stated in site plan and special permit applications as 21 acres. Item 3c should be the same as item 3a for this project and should be 21 acres. Item 3b should be 9.10 acres as stated on the special permit addendum.
6. Attachments (Concept Plan) – Concept plan does not match the site plan. Assuming site plan is final. Is electrical information on the concept plan correct (i.e., tie in location and sizing?), if so, show on site plan. Show inverters, transformer locations, etc. on the site plan.

Visual Analysis

A visual analysis has not yet been conducted on this site. In order to properly evaluate the site for a visual analysis, the following information is required:

1. Elevations and locations of both existing and proposed grades.
2. Elevations and locations of surrounding structures.
3. Elevations and locations of both existing and proposed vegetation and landscaping.
4. Details of proposed fencing surrounding the property.

Arborist Report & Greenhouse Gas Equivalencies Form

B&L has reviewed the Arborist Report and the Greenhouse Gas Equivalencies Form. B&L has also evaluated the site for the presence of core forests.

It has been determined that there are no core forests present on the site. While the amount of trees removed is always to be minimized as much as possible, the current amount of tree removal at the property has been deemed acceptable, especially when considering the greenhouse gas equivalencies of the project long term.

Glare Analysis

A glare study has not yet been completed for this site. It is recommended that a glare analysis be performed on the site in order to assess the potential effects of glare on motorists travelling near the location. The location should also be evaluated as to whether it is within proximity of an airport (< 5 miles) or on a flight path (< 18 miles) of an airport. The FAA solar guidance states that is the responsibility of local governments and solar developers in the vicinity of an airport to check with the airport sponsor and the FAA to ensure there are no potential safety or navigational problems with a proposed solar facility. The FAA should be notified and provided an opportunity to participate in review of the proposed activity and findings of the Glare Analysis. In order to provide a glare analysis, the applicant will need the following:

1. Locations and elevations of existing and proposed contours
2. Locations and elevations of existing and proposed trees and other landscaping
3. Locations and elevations of existing roads
4. Location of existing airports and flight paths

Noise Analysis

A noise study has not yet been conducted for this property. In order to properly evaluate the likely operational noise levels at this site, the applicant must provide the following:

1. Proposed location of inverters on the site.
2. Proposed location of the battery energy storage systems on the site.
3. Proposed location of the transformer on the site.
4. Elevations and locations of both existing and proposed grades.
5. Elevations and locations of surrounding structures.

Permitting Site Plans

At this point in time, there does not appear to be a full plan set. The following general comments should be addressed on the final set of plans in accordance with local zoning and best management practices for solar facilities:

Environmental Specific Comments:

1. Where the slope exceeds 10% additional BMPs such as infiltration trenches or infiltration berms may be installed downgradient between each row. Refer to PA Stormwater BMP Manual, BMP 6.4.4: Infiltration Trench and BMP 6.4.10: Infiltration Berm and Retentive Grading for additional guidance.
2. Please provide notes on plans regarding construction timeframes related to endangered species protection.
3. Plans must show some sort of stormwater detention system.
4. Plans must indicate areas where slopes are 15%-25% and indicate proper stabilization techniques.
5. If project is within proximity of an airport (< 5 miles) or on flight path (< 18 miles) of airport, submit Notice of Proposed Construction or Alteration web-based notification to confirm no impact.
6. Depict the location and extent of prime soils, prime soils if drained, soils of statewide importance, and indicate whether the parcel is receiving an agricultural valuation. Avoid installation of solar rays on the most valuable productive farmland (provided in order of importance of current use: active rotational farmland, permanent hayland, improved pasture, unimproved pasture, other support lands, fallow/inactive farmland), especially when containing prime farmland soils or soils of statewide importance.

General Comments:

7. Static mounted solar panels shall not be placed on slopes steeper than 25%. Ensure that no racks are being placed on 25% or greater slopes.
8. Tax map information should be included on the plans, and tax map parcel boundaries (including ownership information for properties adjacent to the subject property).
9. Site plan should indicate set-backs and other applicable zoning provisions.
10. Plans must show information regarding existing utility connection/proposed electrical equipment sizing and capacity/UGC connection etc.
11. Plans must show locations of inverters.
12. Plans must show concrete pad for batteries/transformers and any other required electrical equipment.
13. Existing contours are to be labeled.
14. Site Plan should include zoning table.
15. Plans must show proposed grading, erosion controls and more landscaping details (callouts, table with number of plants and sizing, seeding specs)
16. Plans must provide details of proposed panels, racks, inverters, fencing, gravel access road, slope stabilization.
17. Add site distance at the access driveway.



18. Include a note on the Plans indicating maximum panel height (Yorktown zoning regulations state max height is 15 feet in residential zones and 20 feet in other zones).
19. Dimension access driveway length and turning radius. Verify sufficient access and turning movements for emergency vehicles.
20. Plans must be signed by a Professional Engineer or a Registered Architect.

Additional Information and Anticipated Permits/Coordination

In addition to the items noted in the comments above, B&L anticipates the following information and/or documents be submitted in support of the application:

1. PILOT Agreement, if applicable.
2. Confirm whether NYSERDA funding is being used for this project. For NYSERDA projects, the Applicant must submit the NOI to NYSERDA for referral to Ag & Markets. Provide determination of impact from NYSDAM, including acceptable mitigation options as appropriate.
3. An Operations and Maintenance Manual must be submitted, including a map indicating the limits of maintenance for the site Operator/Owner. The Plan should indicate what the future land use plans are for remaining portions of the property situated outside of the fenced solar array and responsibility for the maintenance of the various portions of the site (i.e. mowing, trimming, etc.). The O&M Plan should address the post-construction monitoring requirements per the NYSDAM Guidelines, dated 10/18/2019.
4. Submit correspondence from SHPO indicating that they have conducted their review of the subject property and reached a conclusion of "No Effect".
5. Provide a letter from the Mohegan Volunteer fire department acknowledging receipt of the Plans and verifying approval of proposed access for fire and emergency vehicles.
6. Provide equipment specification sheets and photos for all significant components of the proposed solar facility, including the mounting/tracking systems.
7. Local and State Permits, as required, including for work performed within the highway or right-of-way. Please note that utility poles, signage, parking, etc. should be located on private property and not within the ROW.

B&L is ready to provide an additional round of review once the above requested information is addressed and subsequent materials are submitted. An itemized response to the comments provided herein would be most efficient.

If you have any questions, please do not hesitate to contact me.

Sincerely,

BARTON & LOGUIDICE, D.P.C.

A handwritten signature in blue ink, appearing to read 'Leigh G. Jones'.

Leigh G. Jones, PLA
Project Manager

NN/LGJ/jms

NEW PROJECT TASK ORDER SUMMARY

TO: Town of Yorktown Planning Board
FROM: Barton & Loguidice - ECRS

Project Name: Ciuffetelli CDG Solar Project
Address of Property: 1645 Strawberry Road, Yorktown, New York
B&L Project No: 2478.001.001 Phase 04
Application Type: Environmental Review for Strawberry Road Solar Array Facility

Project Description

Proposed “Ciuffetelli CDG Solar Array Facility” project (“Application”) located at 1645 Strawberry Road, and as proposed by Green Street Power Partners (“Applicant”). The Applicant has submitted an initial package to the Planning Board containing a number of documents that have since been transmitted from the Town to B&L via Dropbox. It is our understanding that the Applicant has applied to the Planning Board for site plan and special permit approval. The documents provided to B&L include:

- Site Plan Application – 07-22-2021
- Special Use Permit – 07-22-2021
- Special Permit Addendum – 07-22-2021
- EAF with Plans, Soil Resource Report and Fish-Wildlife Report
- 1700 Route 6 – Phase I ESA – 07-16-2021
- Arborist Report – 05-25-2021
- Site Plan – 07-22-2021
- Carbon Offsets
- CB Memo - 09-02-2021

The scope of our project will be focused on the environmental review of the submitted application, and, as specifically requested by the Town, will provide comments and recommendations related to streams, habitat impacts, and woodlands that have the potential to result from the proposed Strawberry Road Solar Array Facility.

Scope of Services

B&L proposes to provide the following general Scope of Services for the above referenced application:

- Provide an environmental review, written comment letters, and follow-up on the documents submitted by the Applicant in support of their application for the proposed solar project. One “major” review and one “minor” follow-up review of the documents are anticipated in this proposal. A final review/support, as needed, will be provided by B&L after the Town’s Planning



Board Approval Review. A final letter would be issued by B&L to provide any concluding project thoughts.

- Documents will be reviewed for the following potential environmental impacts, as requested: existing streams, woodlands, and habitat, and associated species, impacts with respect to the construction phase, as well as, possible long term impacts.
- Communicate with the Town regarding environmental concerns related to the project. Also, communicate with the Applicant's Engineer, if requested by the Town, to discuss any comments and to expedite addressing review comments. Attendance for one (1) B&L representative at one (1) virtual/phone meeting is assumed.
- Conduct one (1) site visit to the project site, accompanied by a Town representative(s) (if desired), to review the site's existing conditions and targeted areas of interest. Additional visit(s) to confirm stream and possible associated wetland boundaries, species habitat, etc. would be completed under supplemental fee, if requested to be completed by the Town.
- Attend one (1) Planning Board meeting to present our review comments/recommendations, if required.

Additional Services

B&L proposes to provide the following Additional Services for the above referenced application as requested, and at an additional fee:

Review of a Visual Impact Assessment

- Review and comment on documents provided for visual and lighting impacts with respect to the surrounding community and neighborhood character.

Fee for Services

- Our estimated time and expense fee for the above listed **Scope of Services** is **\$5,500**.
- Our estimated time and expense fee for the above listed **Additional Services** is **\$2,000**.

As is standard on any review project, the number and quality of submissions that will be received by the Planning Board from the Applicant in support of the Application is unknown at this time and dependent upon issues that arise as the project moves forward. Therefore, it is not feasible for B&L to provide a total estimate of the amount of effort that will be required by our staff in order to complete a thorough environmental review of the project.

OCT 29 2021

TOWN OF YORKTOWN



Town of Yorktown www.yorktownny.org

BUREAU OF FIRE PREVENTION

Town Hall, 363 Underhill Avenue, Yorktown Heights, NY 10598
Tel. (914) 962-5722 ext.254

MEMORANDUM

Edward Kolisz, Fire Inspector

Fax (914) 962-1731

Email: ekolisz@yorktownny.org

Office hours: Weekdays 8:00-10:00 a.m., 3:00-4:00 p.m.

TO: Planning Board, Town of Yorktown
From: Edward Kolisz, Fire Inspector
Re: **Strawberry Rd. – Ciuffetelli Solar Farm**
Date: October 29, 2021

The Bureau of Fire Prevention met on October 25th to discuss the proposed solar farm on Strawberry Rd. and had the following comments:

- Vehicle access to the remote areas of the site needs to be improved. The fire department wants emergency vehicle access to extend to within 300 feet of all panels.
- Proper training will need to be provided to the fire department.
- A lock box for fire department access and document cabinet will need to be provided.

Please contact me with any questions.

OCT 27 2021

TOWN OF YORKTOWN

From: Keith Schepart <keith@taconictreecare.com>
Sent: Wednesday, October 27, 2021 6:59 AM
To: John Tegeder <jtegeder@yorktownny.org>; Nancy Calicchia <ncalicchia@yorktownny.org>; Robyn Steinberg <rsteinberg@yorktownny.org>; Lawrence Klein <lwkleinpe@gmail.com>; tom500sf <tom500sf@aol.com>; phyllisabock@gmail.com
Subject: Strawberry Road Solar

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

To: Yorktown Planning Board
From: Yorktown Tree Conservation Advisory Commission (TCAC)
Date: October 26, 2021
RE: Strawberry Road Solar Farm

Chairman Fon and members of the Planning Board:

The arborist report has a list of 638 trees by common name and amount per species. There are 34 Norway Maples and 32 Trees of Heaven in this tree inventory composition. These are invasive species and not protected by chapter 270.

The tree size distribution states that the trees were measured and assigned a DBH range. The TCAC requests the DBH of each protected tree in order to calculate the appropriate mitigation ratio.

There is no mitigation plan to review.

MITIGATION RATIO - The replacement rate shall be calculated by dividing the dbh of each lost tree by the average dbh of replacement trees. The result shall be the number of replacement trees required to be planted in compensation for each lost tree.

Sincerely,
Lawrence W. Klein, PE, Member
Tom Schmitt, Member
Keith Schepart ISA, Member

TOWN OF YORKTOWN CONSERVATION BOARD

Town of Yorktown Town Hall, 363 Underhill Avenue, Yorktown Heights, New York 10598, Phone (914) 962-5722

MEMORANDUM

To: Planning Board

From: Conservation Board

Date: 10/25/2021

Re: 1645 Strawberry Road Solar Farm (Ciuffetelli)

RECEIVED
PLANNING DEPARTMENT

OCT 25 2021

TOWN OF YORKTOWN

The Conservation Board at its October 20, 2021 meeting discussed Strawberry Road Farm (Ciuffetelli): 1645 Strawberry Road Solar Proposal with Brian Matthews of Green Street Power. The Conservation Board has the following comments:

The Board's review of the documents recommends this development be classified as a Type 1 action and requires a full environmental impact review according to the State Environmental Quality Review Act (SEQRA).

The documents presented state evidence of possible endangered species, breeding habitat for migratory birds and well-established mature forest. The documents show the land has never been developed except for a small section in the northeast corner. The site supports a diverse ecosystem that supports plants, fauna and organisms.

The current plan will disturb 10 acres of mature woodland, altering habitats, stormwater and residential character of the area.

The plans presented show no mitigation for tree removal, stormwater measures and function of the woodland. The Plans are incomplete and not in compliance with town ordinances.

The Conservation Board is not in support of this development and respectfully requests that the Planning Board take a closer look at the potential adverse impacts by having the Applicant prepare an Environmental Impact Statement to address these issues.

Respectfully submitted:

Diane Dreier

For the Conservation Board

CC: Town Board
Planning Board
Supervisors Office
Engineering Dept.
Applicant

TOWN OF YORKTOWN PLANNING BOARD

Albert A. Capellini Community and Cultural Center, 1974 Commerce Street, Yorktown Heights, New York 10598, Phone (914) 962-6565, Fax (914) 962-3986

APPLICATION FOR SITE PLAN APPROVAL

Date 7/22/2021

1. Name of Project: Ciuffetelli CDG Solar project
2. Tax Map Designation (Section, Block, Lot) 15.12-1-30 &
15.12-1-12
3. Zone: R1-20 Total Acreage: Aprox. 21 Acres
4. Is a statement of easements relating to property attached? Yes None exist
5. Project narrative (brief description of proposed development):

The Proposed Project is located at 1645 Strawberry Road & 1700 Route 6, Monegan Lake in the Town of Yorktown, Westchester County, NY and is known and designated by Westchester County as

Tax Map Numbers 15.12-1-12 and 15.12-1-30 (approximately 21 acres). Green Street Power Partners is proposing to construct a solar array facility, with associated equipment, access roads and utilities.

6. Contact Person - CHOOSE ONLY ONE:

- | | | | |
|---|-----------------------------------|------------------------------------|--|
| <input checked="" type="checkbox"/> Applicant | <input type="checkbox"/> Owner | <input type="checkbox"/> Architect | <input type="checkbox"/> Wetland Scientist |
| <input type="checkbox"/> Attorney | <input type="checkbox"/> Engineer | <input type="checkbox"/> Surveyor | <input type="checkbox"/> Landscape Architect |

7. Applicant

Name GSPP 1654 Strawberry Rd. LLC

Firm

Address 1 Landmark Sq. Suite 320, Stamford CT 06901

Phone (914) 365-9338

Fax

Email Commercialoperations@gsp.com

8. Owner of Record

Name Quin Ciuffetelli

Firm 1645 Strawberry Rd., LLC 1645 & RBC Industries, INC.

Address 30 Soundview Dr., Huntington, NY 11743

Phone (914)552-4617

Fax

Email qciuffetelli@gmail.com

9. Attorney

Name David Steinmetz
Firm Zarin & Steinmetz
Address 81 Main St. Suite 415 White Plains, NY 10601
Phone (914) 682-7800
Fax (914) 683-5490
Email David@zarin-steinmetz.com

10. Engineer

Name _____
Firm _____
Address _____
Phone _____
Fax _____
Email _____
Lic. No. _____

11. Surveyor

Name Theodore Haines
Firm Tectonic – Manger of Surveying Services
Address 70 Pleasant Hill Road Mountainville, NY 10953
Phone 845-534-5959
Fax _____
Email TJHaines@Tectonicengineering.com
Lic. No. Lic: 050440-1

12. Architect

Name _____
Firm _____
Address _____
Phone _____
Fax _____
Email _____
Lic. No. _____

13. Wetland Scientist/Specialist

Name Christopher Camacho
Firm Tectonic Engineering
Address 70 Pleasant Hill Rd, Mountainville, NY
Phone (845)534-5959 (office)
Fax N/A
Email ccamacho@tectonicengineering.com

14. Landscape Architect

Name
Firm
Address
Phone
Fax
Email
Lic. No.

- 15. Is this project within 500 feet of the Town line?
16. Is this project within 500 feet of the Putnam County line?
17. Is this project within the Sustainable Development Study Area?

- 18. Is this project within 500 feet of:
The right-of-way of any existing or proposed state or county road?
The boundary of an existing or proposed state or county park or any state or county recreation area?
The boundary of state or county-owned land on which a public building/institution is located?
An existing or proposed county drainage line?
The boundary of a farm located in an agricultural district?

19. Does the entire development plan for this project propose the disturbance of more than 5,000 SF of land? Note: If project is phased, include all phases in determination.

- 20. This project requires the following permits or approvals from the Town of Yorktown:
Wetland Permit
Stormwater Permit
Tree Permit
Planning Board special permit: large scale solar
Town Board variance or approval:
Zoning Board of Appeals variance or special permit:

21. This project requires the following permits or approvals from other outside agencies:

- Westchester County Board of Health
- NYC DEP
- NYS DEC
- Other: _____

22. This parcel is in the following districts:

School District	<u>Lakeland</u>	Water District	<u>Yorktown</u>
Fire District	<u>Mohegan Volunteer</u>	Sewer District	<u>Yorktown</u>

A Short or Full EAF with the original signature of the applicant must be attached to this application when submitted.

The applicant agrees to comply with the requirements of the Road Specifications, the Land Use Regulations, Zoning Ordinance, Tree Removal and Excavation ordinance, and any additions or amendments thereto.

The applicant agrees to execution and delivery of deeds and required documents for reserved parks/recreation/open space/drainage control, roads and road widening strips and descriptions of easements at the time of the public hearing. Such execution and delivery shall not operate to vest title of said property in the Town of Yorktown until such dedication is accepted in the form of a resolution adopted by the Town Board at a regular meeting of said Board.

The execution and delivery of the deeds to the roads in the proposed subdivision as provided for by the terms of the deeds to the roads in the proposed subdivision as provided for by the terms of the approving resolution shall not operate to vest title of said roads in the Town of Yorktown until such deed is accepted in the form of a resolution adopted by the Town Board at regular meeting of said Board.

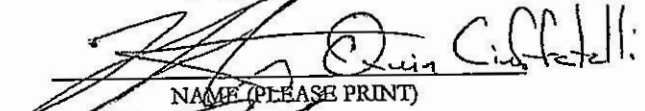
Applicant

Scott Kerner, Authorized Rep. of Applicant
NAME (PLEASE PRINT)


SIGNATURE

7/26/21
DATE

Owner of Record


NAME (PLEASE PRINT)


SIGNATURE

7/23/21
DATE

Note: If the property owner is not the applicant for this application, in addition to the signature above, the owner of the property must also complete and have notarized one of the owner affidavits on the following page.

Note: By signing this document the owner of the subject property grants permission for Town Officials to enter the property for the purpose of reviewing this application.

REFER TO AFFIDAVITS ON THE FOLLOWING PAGES

ONE OF THE FOLLOWING AFFIDAVITS MUST BE COMPLETED

AFFIDAVIT TO BE COMPLETED BY OWNER, OTHER THAN CORPORATION

STATE OF NEW YORK; COUNTY OF WESTCHESTER SS.:

_____, being duly sworn, deposes and says that he is the owner in fee of the property described in the foregoing application for consideration of preliminary plat, and that the statements contained therein are true to the best of his knowledge and belief.

Sworn before me this _____ date of _____, 20__

Notary Public

AFFIDAVIT TO BE COMPLETED BY CORPORATION OWNER

STATE OF NEW YORK; COUNTY OF WESTCHESTER SS.:

Quin Crufftelli, being duly sworn, deposes and says that he resides at 30 Sandvian Dr. Huntington in the County of Suffolk and State of NY. That he is the Owner of 1845 Stranbold LLC v BC Industries the corporation which is owner in fee of the property described in the foregoing application for _____ and that the statements contained therein are true to the best of his knowledge and belief.

Sworn before me this 25rd date of July, 2019

Notary Public

Thomas P Crescenzo
Notary Public, State of New York
NO. 01CR6397182
Qualified in Suffolk County
Commission Expires September 03, 2023

AFFIDAVIT TO BE COMPLETED BY AGENT OF OWNER

STATE OF NEW YORK; COUNTY OF WESTCHESTER SS. :

_____, being duly sworn, deposes and says that he is the agent named in the foregoing application for _____ and that he has been duly authorized by the owner in fee to make such application and that foregoing statements are true to the best of his knowledge and belief.

Sworn before me this _____ date of _____, 20 __

Notary Public

F:\Office\WordPerfect\APPLICATION FORMS\APPSITEPLAN.wpd
Last updated: December 2011

TOWN OF YORKTOWN PLANNING BOARD

Yorktown Community and Cultural Center, 1974 Commence Street, Yorktown Heights, New York 10598, Phone (914) 962-6565, Fax (914) 962-3986

SPECIAL USE PERMIT APPLICATION

If this application is not being made in conjunction with a request for site plan approval from the Planning Board, a site plan/plot plan and Short EAF must also be submitted with this application. The required fee is \$625.00 for new applications and \$312.00 for requests to renew an existing permit.

Date 7/22/2021

1. Tax Map Designation (Section, Block, Lot) 15.12-1-30 ; 15.12-1-12

2. Property Address 1645 Strawberry Rd. & 1700 RT. 6, Mohegan Lake, NY 10547

3. Zone: R1-20

Total Acreage: Aprox. 21 Acres

4. Indicate requested special use permit:

- | | | |
|-------------------------------------|------------------|---|
| <input type="checkbox"/> | §300-21(8)(a)[1] | Outdoor service in commercial districts. |
| <input type="checkbox"/> | §300-40 | Bus passenger shelters. |
| <input type="checkbox"/> | §300-54 | Religious institutions, social, cultural, charitable and recreational nonprofit uses. |
| <input type="checkbox"/> | §300-55 | Parochial, private elementary and high schools, colleges and seminaries. |
| <input type="checkbox"/> | §300-69 | Valet parking at banquet halls. |
| <input type="checkbox"/> | §300-71 | New and/or used car automobile sales. |
| <input type="checkbox"/> | §300-73.1(A)(2) | Permanent seasonal outdoor sales in commercial districts. |
| <input type="checkbox"/> | §300-75 | Warehouse or storage in retail shopping centers. |
| <input type="checkbox"/> | §300-78 | Cemeteries. |
| <input type="checkbox"/> | §300-79 | Self-storage centers. |
| <input type="checkbox"/> | §300-80 | Sidewalk cafes. (outdoor dining for more than 12 seats) |
| <input type="checkbox"/> | §300-81.1 | Helistops. |
| <input type="checkbox"/> | §300-81.2 | Accessory recycling facilities. |
| <input checked="" type="checkbox"/> | §300-81.4 | Large-Scale Solar Power Generation Systems and Facilities |
| <input type="checkbox"/> | §300-81.5 | Tier 2 Battery Energy Storage Systems |
| <input type="checkbox"/> | §300-238.1 | Multifamily dwelling units in the Country Commercial Zone. |

5. Description of proposed use (if applying for outdoor dining, indicate proposed dining area square footage and number of seats):

The Proposed Project is located at 1645 Strawberry Road & 1700 Route 6, Mohegan Lake in the Town of Yorktown, Westchester County, NY and is known and designated by Westchester County as Tax Map Numbers 15.12-1-12 and 15.12-1-30 (approximately 21 acres). GSPP 1654 Strawberry Rd., LLC is proposing to construct a solar array facility, with associated equipment, access roads and utilities.


6. Applicant


Name GSPP 1654 Strawberry Rd., LLC
Firm _____
Address 1 Landmark Sq. Suite 320 Stamford, CT 06901
Phone (914) 365-9338
Email commercialoperations@gspp.com

7. Owner of Record

Name Quin Ciuffetelli
Firm 1645 Strawberry Rd., LLC & RBC Industries, INC.
Address 30 Soundview Dr., Huntington, NY 11743
Phone (914) 552-4617
Email qciuffetelli@gmail.com

In the event the permit is issued, the undersigned applicant will comply with all provisions of the Code of the Town of Yorktown and all other applicable laws, codes, rules and regulations of any Federal, State or County Government, bureau or department thereof, having jurisdiction over said premises and the use to be conducted thereat.


Applicant
SIGNATURE
Scott Kerner, Authorized Rep. of Applicant
PRINT NAME
7/26/21
DATE


Owner of Record
SIGNATURE
Quin Ciuffetelli
PRINT NAME
7/23/21
DATE

Note: By signing this document the owner of the subject property grants permission for Town Officials to enter the property for the purpose of reviewing this application.

F:\Office\WordPerfect\Application Forms\APP-SpecialPermit.wpd
This form last updated: September 2020

TOWN OF YORKTOWN PLANNING BOARD

Large Scale Solar Power Generation Systems & Facilities Special Permit Application Addendum

GENERAL PROJECT INFORMATION

Project Name: _____

Section, Block, Lot: _____

Existing Site Use: Residential Commercial Zone: _____

Is Applicant? Property Owner Lessee

Proposed Lot Coverage: _____

PROVIDE THE TOTAL SYSTEM CAPACITY RATING

A Large Scale Solar Energy system is a Solar Energy System that exceeds 20 kW DC as rated by its nameplate capacity. The maximum system capacity and the maximum area of land upon which the system shall be erected are as follows:

- (1) Up to one megawatt AC on an area of land no larger than 10 acres, excluding any easement for accessing the parcel; or over 1 but not to exceed 5 Megawatt AC on an area of land no larger than 20 acres, excluding any easement for accessing the parcel.

Total System Capacity Rating: _____ kWh Power Rating _____ kW (Select One) AC or DC

SELECT INSTALLATION TYPE

Ground Rooftop

PROPOSED SOLAR ENERGY SYSTEM INSTALLATION INFORMATION

Sponsor Company

Contact Name _____

Business Name _____

Address _____

Phone _____

Email **Commercialoperations@GSPP.com**

Contractor/Installation Company

Contact Name _____
Business Name **GSPP 1654 Strawberry Rd Land, LLC**
Address _____
Phone _____
Email **Bmatthews@GSPP.com**

PROPOSED OWNER AND/OR OPERATOR (IF DIFFERENT FROM ABOVE)

Name _____
Firm _____
Address _____
Phone _____
Email _____

SUBMITTAL REQUIREMENTS

In order to submit a complete permit application for a new large-scale solar power generation system, the applicant must include:

- a) Completed Planning Board Special Use Permit Application with this Large Scale Solar Power Generation System Addendum.
- b) A special permit application fee of \$625.00 paid by check made payable to the Town of Yorktown.
- c) Required documents as listed in Section 300-84.1(F):
 - Equipment specification sheets shall be submitted for all photovoltaic panels, significant components, mounting systems, and inverters that are to be installed.
 - A property Operation and Maintenance Plan shall be submitted.
 - A carbon sequestration for tree loss calculation.
 - Proposed tree loss mitigation, if applicable.
 - A Decommissioning Plan
- d) All site plan application requirements pursuant to Section 300-85/1(I) of the Town of Yorktown Town Code.

Short Environmental Assessment Form

Part 1 - Project Information

Instructions for Completing

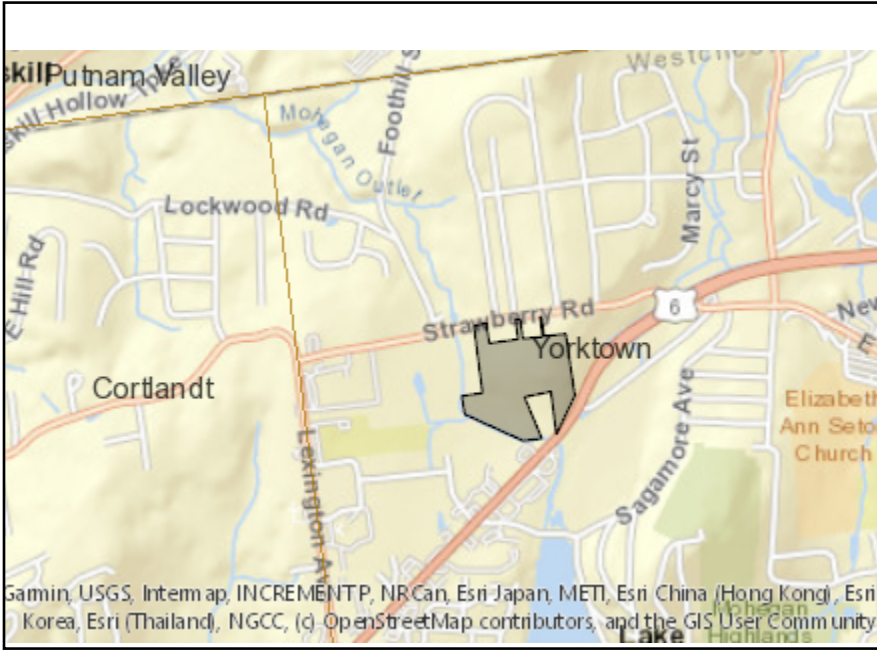
Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. 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:			
Project Location (describe, and attach a location map):			
Brief Description of Proposed Action:			
Name of Applicant or Sponsor:		Telephone:	
		E-Mail:	
Address:			
City/PO:		State:	Zip Code:
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation?		NO	YES
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.		<input type="checkbox"/>	<input type="checkbox"/>
2. Does the proposed action require a permit, approval or funding from any other government Agency?		NO	YES
If Yes, list agency(s) name and permit or approval:		<input type="checkbox"/>	<input type="checkbox"/>
3. a. Total acreage of the site of the proposed action?		_____ 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, are adjoining or near the proposed action:			
5. Urban Rural (non-agriculture) Industrial Commercial Residential (suburban)			
<input type="checkbox"/> Forest Agriculture Aquatic Other(Specify):			
<input type="checkbox"/> Parkland			

5. Is the proposed action,	NO	YES	N/A
a. A permitted use under the zoning regulations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Consistent with the adopted comprehensive plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	NO	YES	
	<input type="checkbox"/>	<input type="checkbox"/>	
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	
	<input type="checkbox"/>	<input type="checkbox"/>	
8. a. Will the proposed action result in a substantial increase in traffic above present levels? 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?	NO	YES	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
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	
	<input type="checkbox"/>	<input type="checkbox"/>	
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____ _____	NO	YES	
	<input type="checkbox"/>	<input type="checkbox"/>	
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____ _____	NO	YES	
	<input type="checkbox"/>	<input type="checkbox"/>	
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? 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?	NO	YES	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
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? 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: _____ _____ _____	NO	YES	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply: <input type="checkbox"/> Shoreline <input type="checkbox"/> Forest Agricultural/grasslands Early mid-successional <input type="checkbox"/> Wetland <input type="checkbox"/> 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?	NO <input type="checkbox"/>	YES <input type="checkbox"/>
16. Is the project site located in the 100-year flood plan? <u>The proposed development is not located in a 100-year flood plain.</u>	NO <input type="checkbox"/>	YES <input type="checkbox"/>
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, <ul style="list-style-type: none"> 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: _____ _____	NO <input type="checkbox"/>	YES <input type="checkbox"/>
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 <input type="checkbox"/>	YES <input type="checkbox"/>
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 <input type="checkbox"/>	YES <input type="checkbox"/>
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 <input type="checkbox"/>	YES <input type="checkbox"/>
<p>I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE</p> <p>Applicant/sponsor/name: <u>GSPB 1654 Strawberry Rd, LLC, By GSPB Holdco, LLC,</u> Date: <u>7/21/21</u></p> <p>Signature: <u></u> Title: <u>Manager</u></p>		



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



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]	No
Part 1 / Question 16 [100 Year Flood Plain]	Yes
Part 1 / Question 20 [Remediation Site]	No

DECOMMISSIONING PLAN FOR GSPP 1645 STRAWBERRY RD. SOLAR FARM SITE PLAN & SPECIAL USE PERMIT
(SOLAR FARM)

LOCATED AT 1645 STRAWBERRY RD & 1700 RT.6 YORKTOWN, NY

Use of the Solar Farm will be discontinued at the end of its effective life, expected to be approximately 20-25 years after installation. At that time the Owners, GSPP Strawberry Rd. Land, LLC will physically remove the Solar Farm from the site.

Scope:

“Physically remove” will include, but not be limited to the following scope:

- Removal of the solar array:
 - Solar Collection of Panels
 - Racking and support structures (rails, purlins, beams, etc.)
 - Foundations (I-beam piles).
- Removal of the electrical equipment:
 - Inverters
 - Transformers
 - Switchgear
 - AC Collection Equipment
 - DAS Equipment
 - Electric Poles and Associated supporting Equipment
 - Electrical equipment concrete pads
 - Electrical conductors, conduits and all misc, connections
 - Electrical vaults, as applicable.
- Removal of other equipment, as applicable:
 - Equipment shelters
 - Security barriers and all appurtenant structures.
- Proper disposal of all solid or hazardous materials and wastes from the site in accordance with local and state solid waste disposal regulations.
- Restoration of the location of the Solar Farm site to its natural conditions, except that any landscaping consistent with the character of the site and neighborhood may remain.

Schedule:

The estimated timeframe of the decommissioning work will be 3-5 weeks to complete. The electrical equipment will be sold back to the manufacturers or to a recycling facility. The project contains copper, aluminum, and other metals that will be recycled. Racking materials and fencing will be pulled from the ground and folded for transport.

Cost and Permitting:

The Owner will be responsible for all decommissioning costs and will obtain all permits or approvals required by the Town prior to commencing decommissioning work.

If additional information is needed, contact Green Street Power Partners at (347) 491-4560 or

CommercialOperations@gssp.com.

SITE INFORMATION

SITE NAME/ADDRESS: 1654 STRAWBERRY ROAD
MOHEGAN LAKE, NY 10547

LANDOWNER: 1654 STRAWBERRY ROAD LLC
1654 STRAWBERRY ROAD
MOHEGAN LAKE, NY 10547

APPLICANT: GREEN STREET POWER PARTNERS
1 LANDMARK SQUARE, SUITE 320
STAMFORD, CT 06901

PV SYSTEM SPECIFICATIONS

INVERTER: (16) 125kW CHINT POWER CPS 125KTL

SOLAR MODULE: (6,221) 435W LONGI SOLAR MODULE (LR4-72HBD 435M)

STRING SIZE: (232) 26-MODULE STRING
(7) 27-MODULE STRING

RACKING: 20° TILT 180° AZIMUTH GROUND MOUNTED RACKING

- NOTES:**
1. THIS CONCEPTUAL PLAN AND ELECTRICAL SINGLE LINE DIAGRAM ARE NOT FOR CONSTRUCTION.
 2. THIS CONCEPTUAL PLAN IS BASED SOLELY ON AERIAL PHOTOGRAPHS AND PROVIDED PLANS. NO SITE VISITS WERE CONDUCTED.
 3. GROUND MOUNTED ELECTRICAL EQUIPMENT NOT SHOWN ON THIS PLAN, MAY INCLUDE, INVERTERS, SWITCHGEAR, AND/OR TRANSFORMERS.
 4. NO VERIFICATION OF SOIL CAPACITY WAS CONDUCTED. A FULL GEOTECHNICAL ANALYSIS IS SUGGESTED.



WHITMAN
Environmental • Geotechnical • Civil
Structural • Mechanical • Electrical

7 PLEASANT HILL ROAD
CRANBURY, NJ 08512
TEL: (732) 390-5858
FAX: (732) 390-9496

SEAL:

MICHAEL W. WELLET JR., P.E. DATE
NEW YORK PROFESSIONAL ENGINEER
LIC. NO. 081403-1

- DRAWING NOTES:**
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 2. THIS DRAWING HAS BEEN PREPARED AS A 'D' SIZE DOCUMENT. DO NOT SCALE THIS DRAWING IF IT IS PLOTTED AS ANY OTHER SIZE.

GREEN STREET POWER PARTNERS

GREEN STREET POWER PARTNERS
1 LANDMARK SQUARE, SUITE 320
STAMFORD, CT 06901
(203) 496-8950

NO.	DATE:	REVISION DESCRIPTION
0	08/06/20	PRELIMINARY SUBMISSION
1	08/18/20	REVISED MODULE
2	08/26/20	COMMENTS INCORPORATED

PROJECT:

±2.7 MW (DC), 2 MW (AC)
GROUND MOUNTED
PHOTOVOLTAIC SYSTEM

1654 STRAWBERRY ROAD
MOHEGAN LAKE, NY 10547
WESTCHESTER COUNTY

TAX ID: XX	LOT: ---
SCALE: AS SHOWN	PROJECT NO: 20-07-30
PLOT DATE: 8/26/20	CLIENT: GREEN
DRAWN BY: M.E.D./K.K.	REVIEWED BY: J.T.

DRAWING TITLE:

CONCEPTUAL PLAN

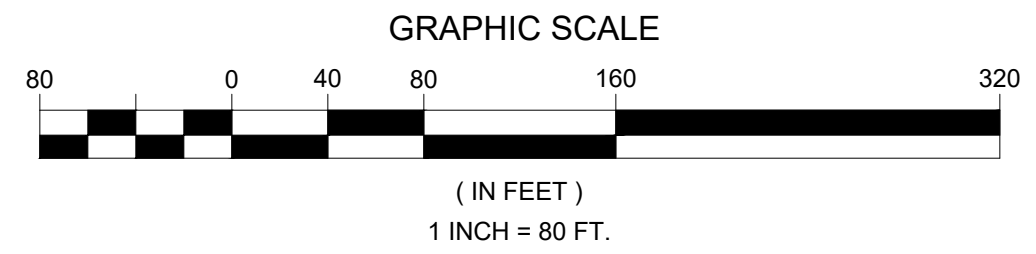
DRAWING NO.:

CP-1

SHEET NO.:

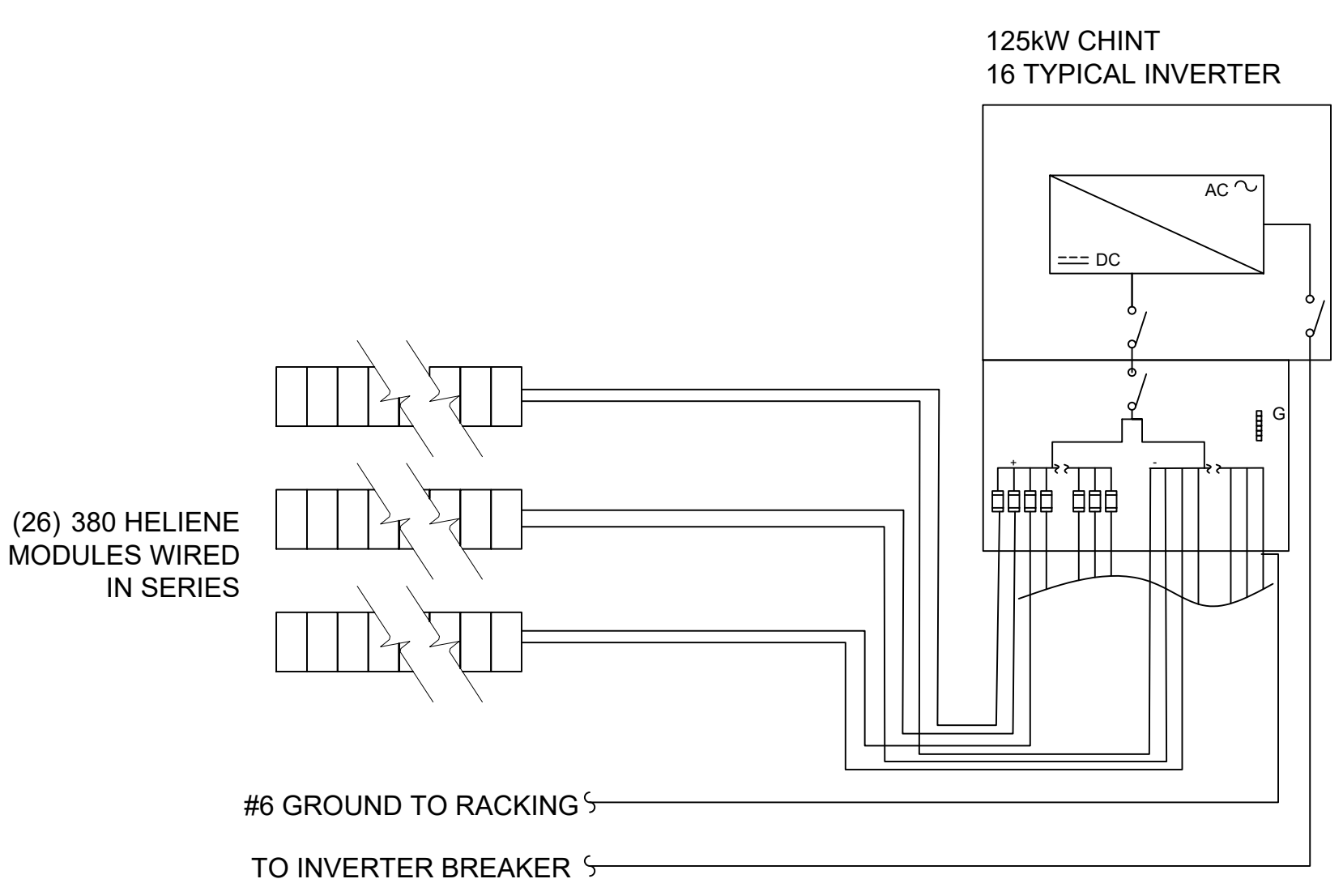
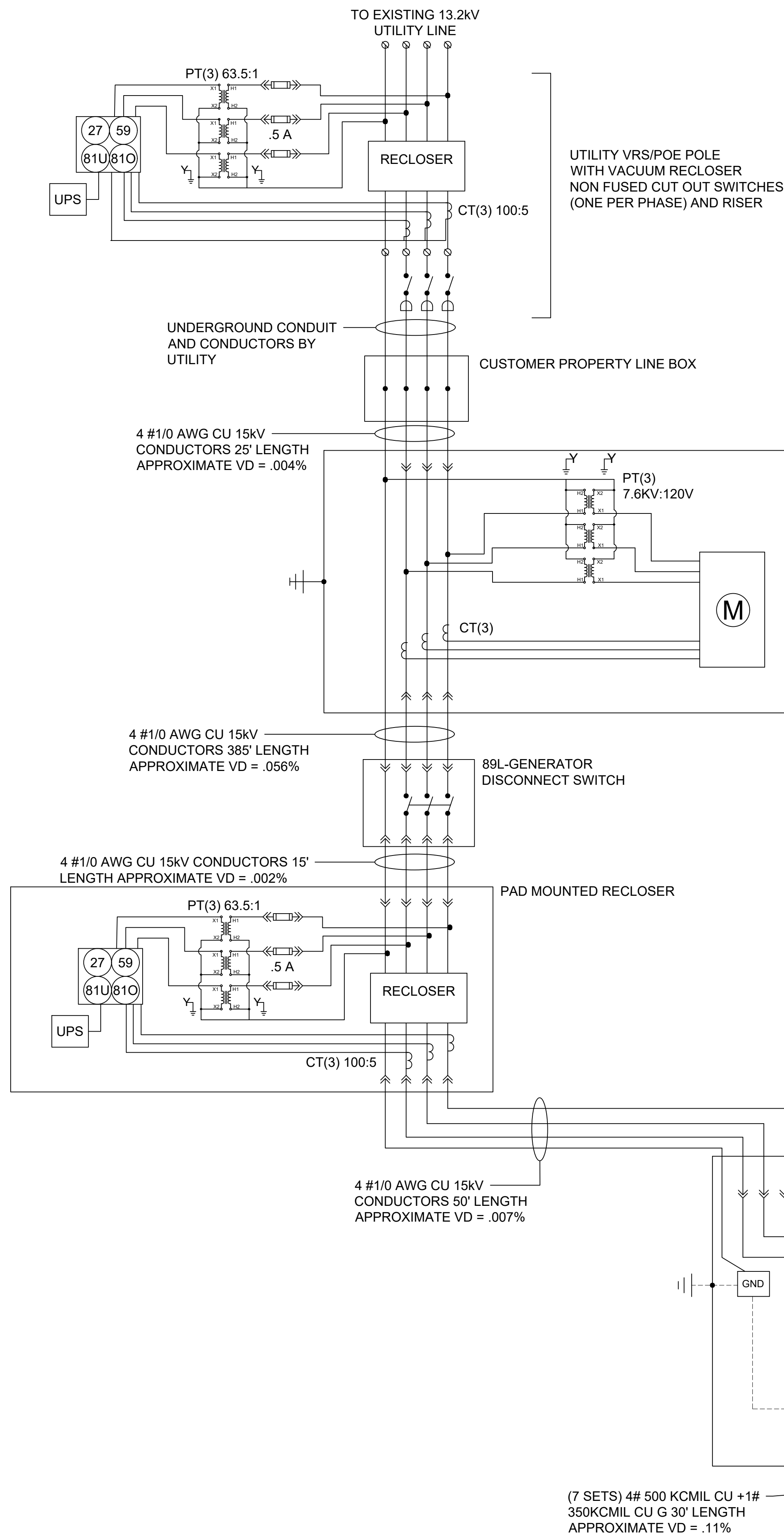
1 OF 2

1 CONCEPTUAL PLAN
CP-1 SCALE: 1:80



W/12020/20-07-30T GREEN STREET POWER PARTNERS - STRAWBERRY ROAD/021 ENGINEERING CAD/REV 2/20-07-30T CP-1

W/2020-07-30T GREEN STREET POWER PARTNERS - STRAWBERRY ROAD/021 ENGINEERING CAD/REV 2/20-07-30T E500

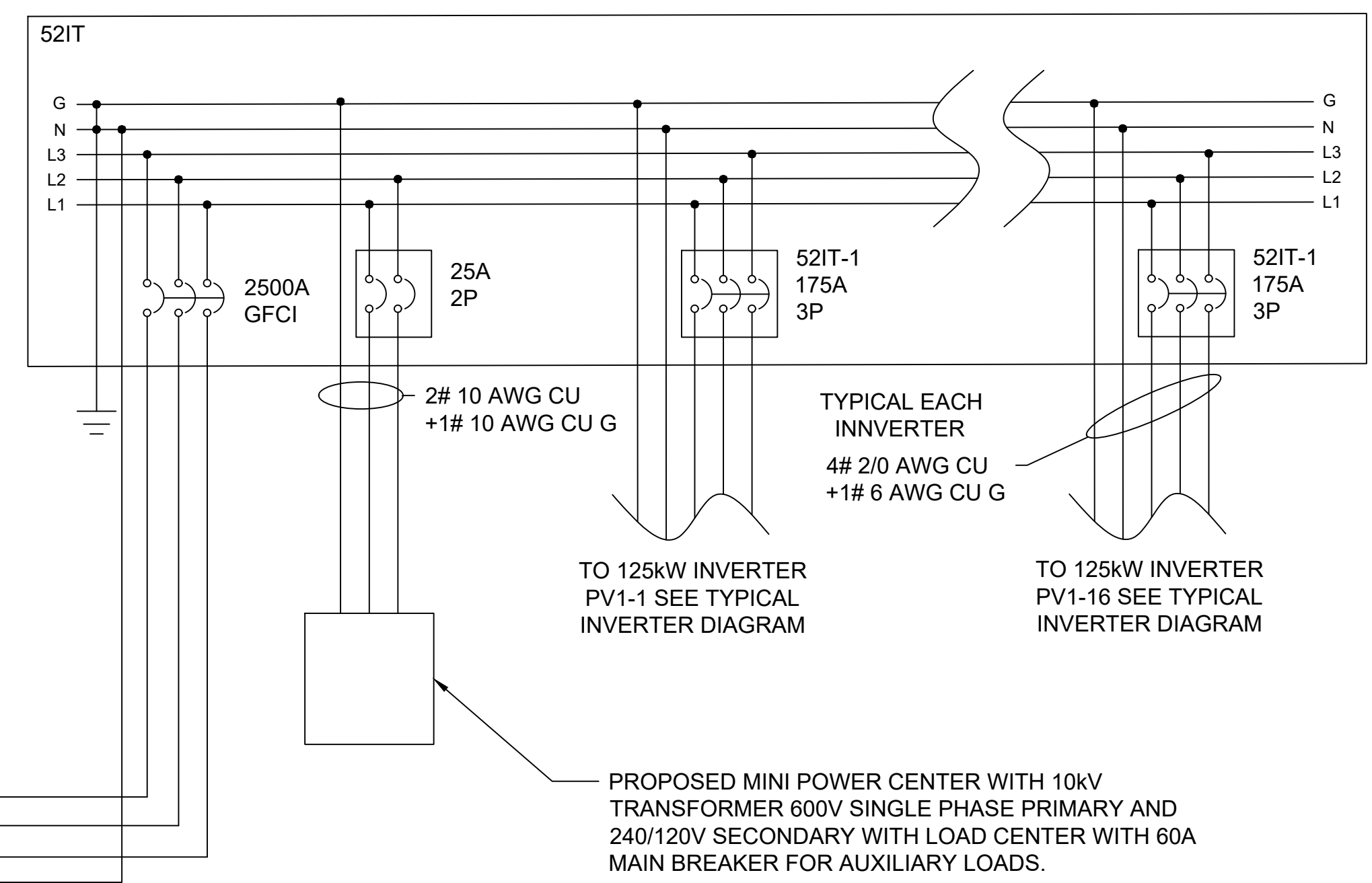


2 TYPICAL INVERTER DIAGRAM
E-500 NOT TO SCALE

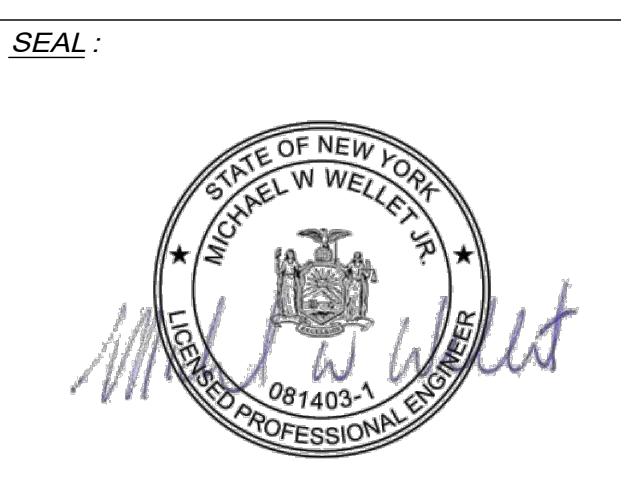
RELAY FUNCTIONS			
ELEMENT	PICKUP RANGE	CLEARING TIME	DESCRIPTION
27-1	50% OF NOMINAL (60V)	1.1s	UNDERVOLTAGE RELAY
27-2	88% OF NOMINAL (105.6V)	2s	UNDERVOLTAGE RELAY
59-1	110% OF NOMINAL (132V)	2s	OVERVOLTAGE RELAY
59-2	120% OF NOMINAL (144V)	0.16s	OVERVOLTAGE RELAY
81U-1	56.5HZ	0.16s	UNDERFREQUENCY RELAY
81U-2	58.5HZ	300s	UNDERFREQUENCY RELAY
81O-1	61.2Hz	300s	OVERFREQUENCY RELAY
81O-2	62.0Hz	0.16s	OVERFREQUENCY RELAY

SETTING INCLUDED 3 CYCLE ESTIMATE CONTACTOR OPENING TIME.
VOLTAGE SETTING ARE BASED ON A 120V SECONDARY PT BASE.
UTILITY RESTORATION SETTINGS:
RELAY TO AUTO RECLOSE 5 MINUTES AFTER ALL RELAY CLEAR

PROPOSED 3000A 346/600V 3 PHASE 4 WIRE NEMA 3R 52IT SWITCHBOARD SDP-1 WITH 3000A GFCI BI-DIRECTIONAL MAIN BREAKER, (16) 175A 3 POLE BI-DIRECTIONAL BREAKERS FOR INVERTERS AND (1) 25A 2 POLE BREAKER FOR MINI POWER CENTER.



1 ELECTRICAL THREE LINE DIAGRAM
E-500 NOT TO SCALE



MICHAEL W. WELLET JR., P.E. DATE
NEW YORK PROFESSIONAL ENGINEER
LIC. NO. 081403-1

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GREEN STREET POWER PARTNERS
GREEN STREET POWER PARTNERS
1 LANDMARK SQUARE, SUITE 320
STAMFORD, CT 06901
(203) 496-8950

NO.	DATE:	REVISION DESCRIPTION
0	08/06/20	PRELIMINARY SUBMISSION
1	08/18/20	REVISED MODULE
2	08/26/20	COMMENTS INCORPORATED

PROJECT:
±2.7 MW (DC), 2 MW (AC)
GROUND MOUNTED
PHOTOVOLTAIC SYSTEM

1654 STRAWBERRY ROAD
MOHEGAN LAKE, NY 10547
WESTCHESTER COUNTY

TAX ID: XX LOT: ---
SCALE: AS SHOWN PROJECT NO: 20-07-30
PLOT DATE: 8/26/20 CLIENT: GREEN
DRAWN BY: M.E.D./K.K. REVIEWED BY: J.T.

DRAWING TITLE:
ELECTRICAL THREE LINE
DIAGRAM

DRAWING NO.:
E-500

SHEET NO.:
2 OF 2



Environmental Resource Mapper

Base Map: **Topographical** Using this map

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

Mussel Screening Ponded Waters

Mussel Screening Streams

Significant Natural Communities

Other Wetland Layers

Reference Layers

Tell Me More...

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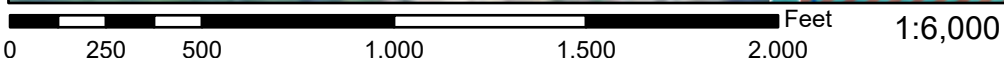
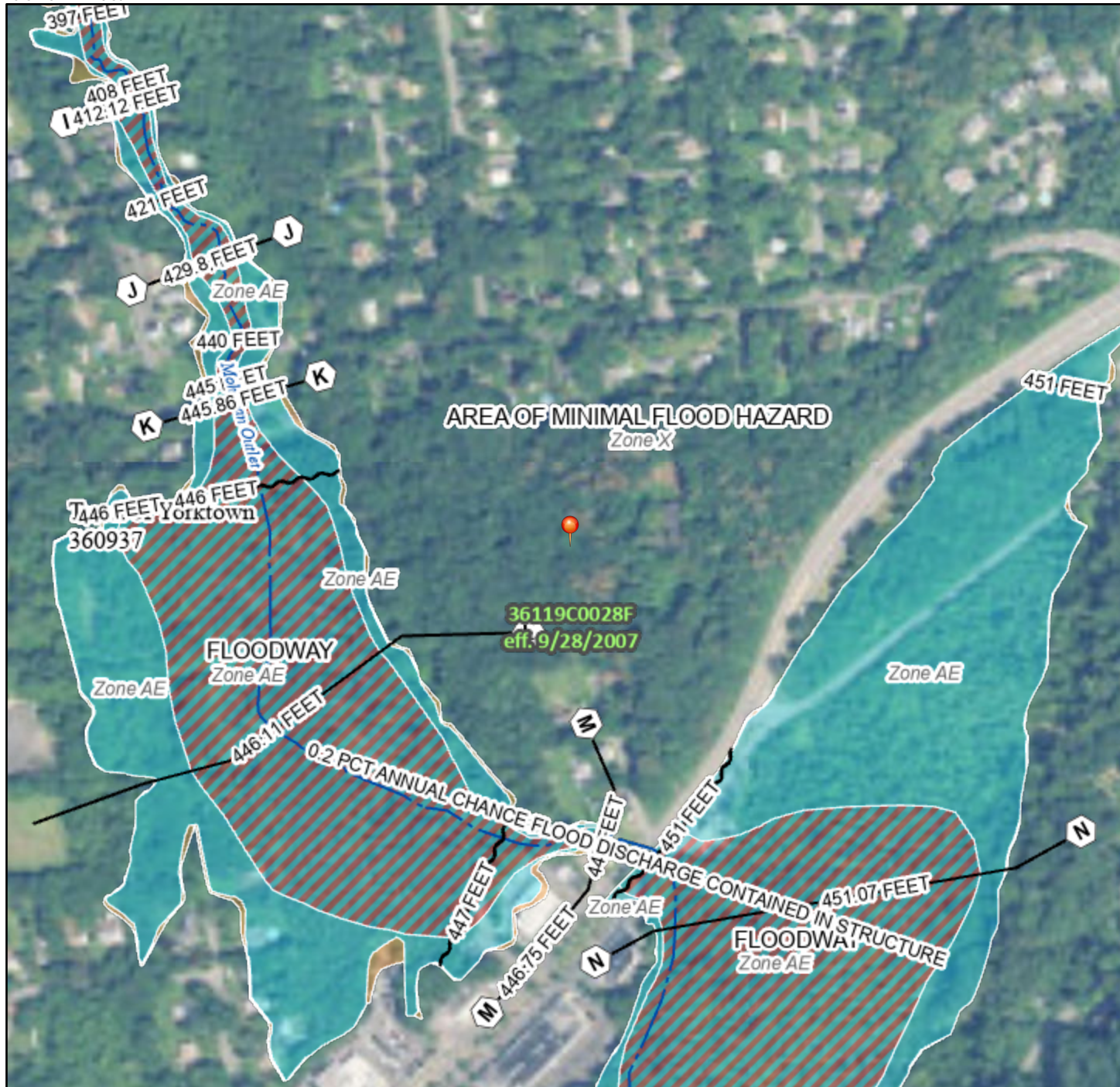
Contacts



National Flood Hazard Layer FIRMette



73°51'25"W 41°19'50"N



Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
OTHER FEATURES		Profile Baseline
		Hydrographic Feature

MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 7/9/2021 at 2:26 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



Environmental Resource Mapper

Base Map: Topographical Using this map

Search

Tools

Layers and Legend

- Waterbody Classifications for Lakes
- State Regulated Freshwater Wetlands (Outside of the Adirondack Park)
- State Regulated Wetland Checkzone i
- Imperiled Mussels
- Mussel Screening Ponded Waters
- Mussel Screening Streams
- Significant Natural Communities i
- Natural Communities Near This Location i
- Rare Plants or Animals
- Base Flood Elevation Plus 72/75 Inches Sea-level Rise
- Limit to Moderate Wave Action

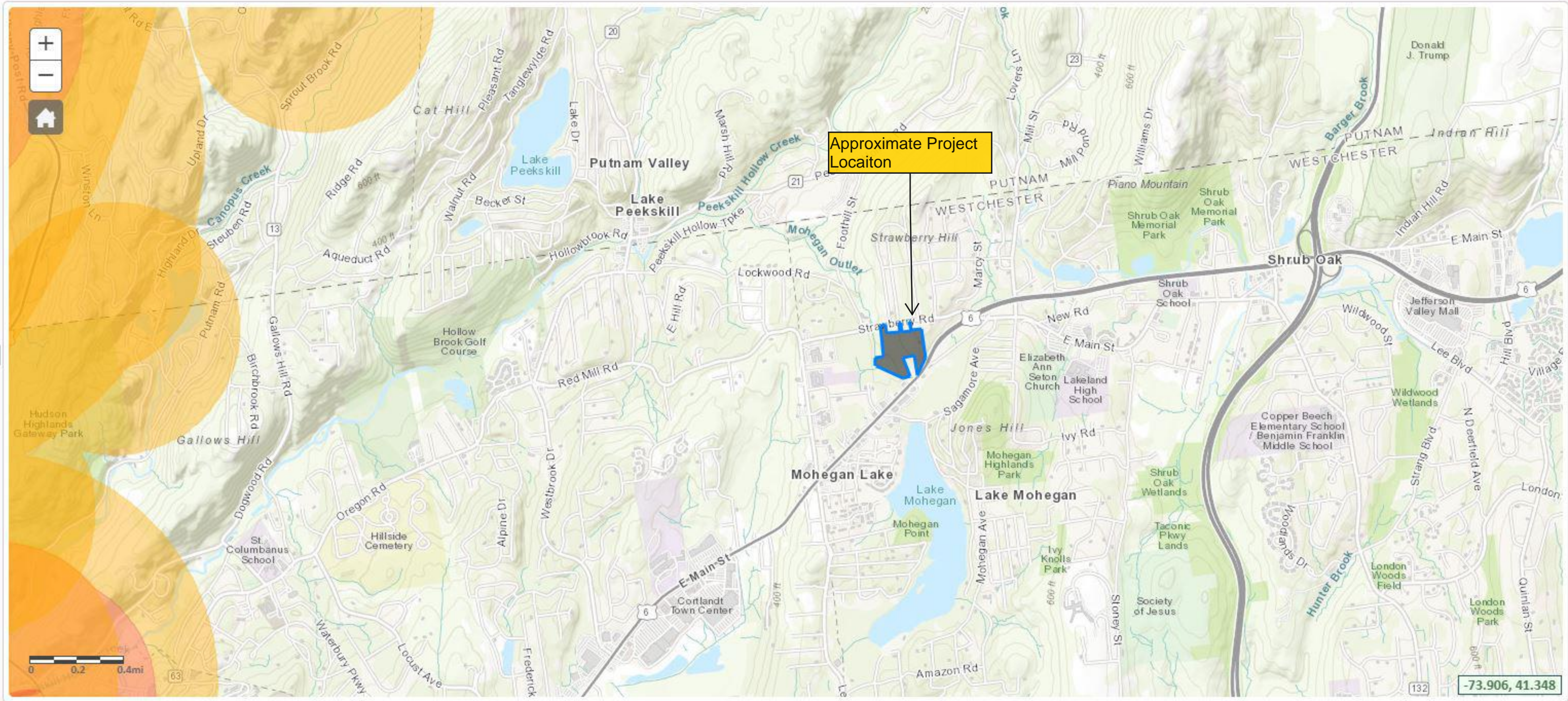
Other Wetland Layers

Reference Layers

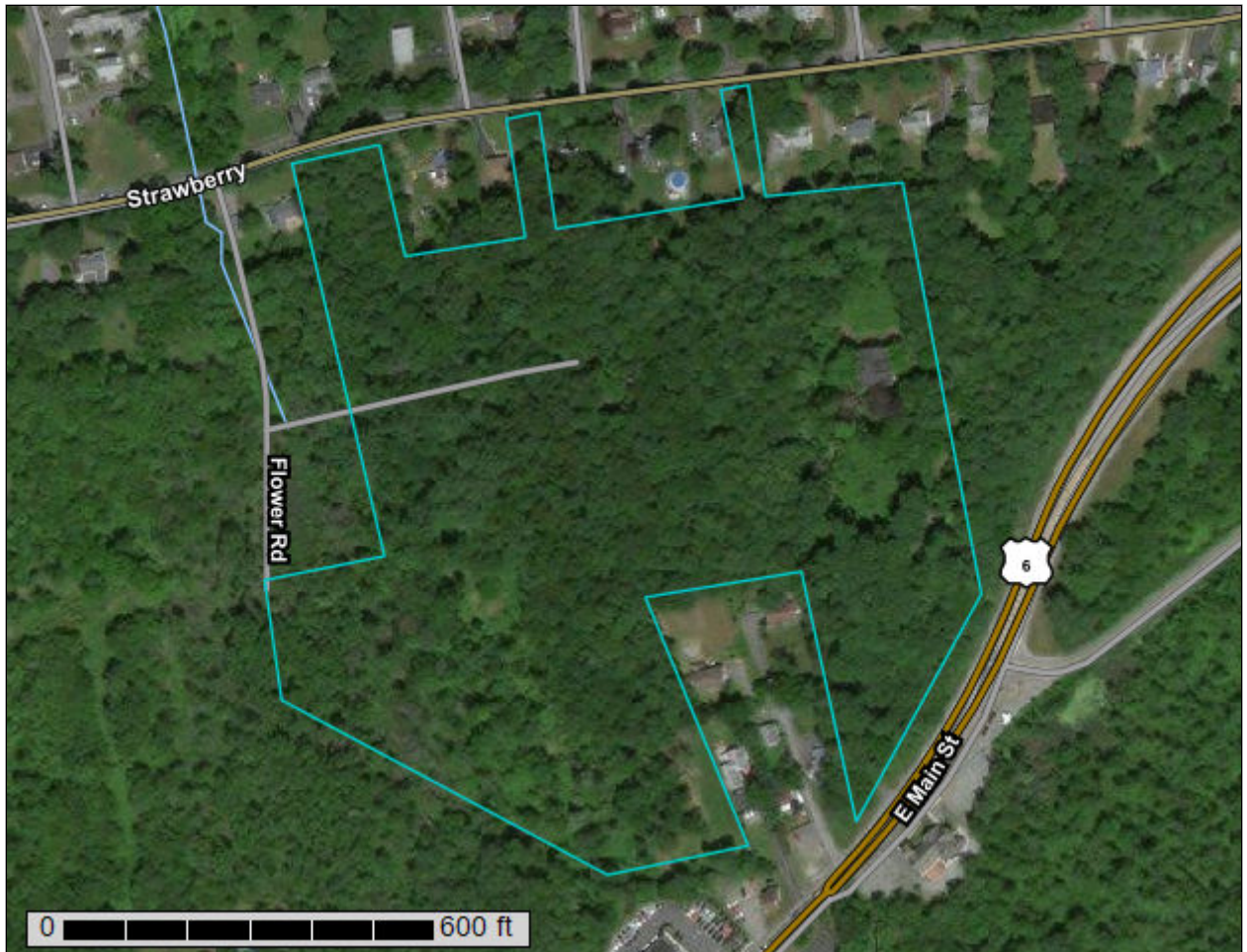
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Contacts



Custom Soil Resource Report for **Westchester County, New York**



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

Preface	2
How Soil Surveys Are Made	5
Soil Map	8
Soil Map.....	9
Legend.....	10
Map Unit Legend.....	11
Map Unit Descriptions.....	11
Westchester County, New York.....	13
ChB—Charlton fine sandy loam, 3 to 8 percent slopes.....	13
ChC—Charlton fine sandy loam, 8 to 15 percent slopes.....	14
ChD—Charlton fine sandy loam, 15 to 25 percent slopes.....	16
LcB—Leicester loam, 3 to 8 percent slopes, stony.....	18
NcA—Natchaug muck, 0 to 2 percent slopes.....	20
PnB—Paxton fine sandy loam, 3 to 8 percent slopes.....	21
Sh—Sun loam.....	23
SuB—Sutton loam, 3 to 8 percent slopes.....	24
Uc—Udorthents, wet substratum.....	26
Soil Information for All Uses	28
Suitabilities and Limitations for Use.....	28
Building Site Development.....	28
Shallow Excavations.....	28
Land Classifications.....	36
Farmland Classification.....	36
Hydric Rating by Map Unit.....	41
References	46

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

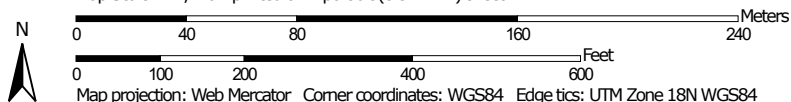
The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Soil Map may not be valid at this scale.


Map Scale: 1:2,740 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84


MAP LEGEND


Area of Interest (AOI)

 Area of Interest (AOI)

Soils







 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

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: Westchester County, New York
 Survey Area Data: Version 16, Jun 11, 2020

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

Date(s) aerial images were photographed: Oct 7, 2013—Feb 26, 2017

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
ChB	Charlton fine sandy loam, 3 to 8 percent slopes	0.0	0.2%
ChC	Charlton fine sandy loam, 8 to 15 percent slopes	6.0	28.6%
ChD	Charlton fine sandy loam, 15 to 25 percent slopes	5.2	24.9%
LcB	Leicester loam, 3 to 8 percent slopes, stony	1.2	5.7%
NcA	Natchaug muck, 0 to 2 percent slopes	1.8	8.5%
PnB	Paxton fine sandy loam, 3 to 8 percent slopes	0.0	0.1%
Sh	Sun loam	6.2	29.4%
SuB	Sutton loam, 3 to 8 percent slopes	0.4	1.9%
Uc	Udorthefts, wet substratum	0.2	0.7%
Totals for Area of Interest		21.0	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas

Custom Soil Resource Report

are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Westchester County, New York

ChB—Charlton fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2wh0n
Elevation: 0 to 1,440 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Charlton and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton

Setting

Landform: Hills, ground moraines, ridges
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Crest, side slope, nose slope
Down-slope shape: Linear, convex
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Ap - 0 to 7 inches: fine sandy loam
Bw - 7 to 22 inches: gravelly fine sandy loam
C - 22 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high
(0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water capacity: Moderate (about 6.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Minor Components

Sutton

Percent of map unit: 8 percent
Landform: Ground moraines, hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Paxton

Percent of map unit: 5 percent
Landform: Drumlins, hills, ground moraines
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear, convex
Across-slope shape: Convex
Hydric soil rating: No

Leicester

Percent of map unit: 1 percent
Landform: Drainageways, depressions
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Chatfield

Percent of map unit: 1 percent
Landform: Hills, ridges
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Crest, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Linear, convex
Hydric soil rating: No

ChC—Charlton fine sandy loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2wh0q
Elevation: 0 to 1,440 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Charlton and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton

Setting

Landform: Ground moraines, ridges, hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Ap - 0 to 7 inches: fine sandy loam
Bw - 7 to 22 inches: gravelly fine sandy loam
C - 22 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water capacity: Moderate (about 6.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Minor Components

Paxton

Percent of map unit: 5 percent
Landform: Drumlins, hills, ground moraines
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Convex
Hydric soil rating: No

Sutton, fine sandy loam

Percent of map unit: 5 percent
Landform: Hills, ridges, ground moraines
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Chatfield

Percent of map unit: 3 percent
Landform: Hills, ridges
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Crest, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Convex, linear
Hydric soil rating: No

Canton

Percent of map unit: 2 percent
Landform: Hills, ground moraines, ridges
Landform position (two-dimensional): Shoulder, backslope, summit
Landform position (three-dimensional): Side slope, nose slope, crest
Down-slope shape: Linear, convex
Across-slope shape: Convex
Hydric soil rating: No

ChD—Charlton fine sandy loam, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: 2wh0t
Elevation: 0 to 1,290 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Charlton and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton

Setting

Landform: Hills, ground moraines, ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss and/or schist

Typical profile

Ap - 0 to 7 inches: fine sandy loam
Bw - 7 to 22 inches: gravelly fine sandy loam
C - 22 to 65 inches: gravelly fine sandy loam

Custom Soil Resource Report

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high
(0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water capacity: Moderate (about 6.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Minor Components

Sutton, fine sandy loam

Percent of map unit: 5 percent
Landform: Ridges, ground moraines, hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Paxton

Percent of map unit: 5 percent
Landform: Drumlins, hills, ground moraines
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Convex
Hydric soil rating: No

Chatfield

Percent of map unit: 3 percent
Landform: Hills, ridges
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Crest, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Canton

Percent of map unit: 2 percent
Landform: Ridges, hills, moraines
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex

Hydric soil rating: No

LcB—Leicester loam, 3 to 8 percent slopes, stony

Map Unit Setting

National map unit symbol: bd8w
Elevation: 0 to 1,120 feet
Mean annual precipitation: 46 to 50 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 115 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Leicester, somewhat poorly drained, and similar soils: 50 percent
Leicester, poorly drained, and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Leicester, Somewhat Poorly Drained

Setting

Landform: Hills, ridges, till plains
Landform position (two-dimensional): Footslope, summit
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Loamy acid till derived mostly from schist and gneiss

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 26 inches: sandy loam
C - 26 to 60 inches: sandy loam

Properties and qualities

Slope: 3 to 8 percent
Surface area covered with cobbles, stones or boulders: 0.1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 5.95 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: A/D
Ecological site: F144AY009CT - Wet Till Depressions
Hydric soil rating: No

Description of Leicester, Poorly Drained

Setting

Landform: Ridges, till plains, hills

Landform position (two-dimensional): Foothlope, summit

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Loamy acid till derived mostly from schist and gneiss

Typical profile

H1 - 0 to 8 inches: loam

H2 - 8 to 26 inches: sandy loam

C - 26 to 60 inches: sandy loam

Properties and qualities

Slope: 3 to 8 percent

Surface area covered with cobbles, stones or boulders: 0.1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 5.95 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: A/D

Ecological site: F144AY009CT - Wet Till Depressions

Hydric soil rating: Yes

Minor Components

Sun

Percent of map unit: 7 percent

Landform: Depressions

Hydric soil rating: Yes

Sutton

Percent of map unit: 5 percent

Hydric soil rating: No

Leicester, very stony

Percent of map unit: 3 percent

Hydric soil rating: No

NcA—Natchaug muck, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2w68z

Elevation: 0 to 1,550 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 145 to 240 days

Farmland classification: Not prime farmland

Map Unit Composition

Natchaug and similar soils: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Natchaug

Setting

Landform: Depressions, depressions, depressions

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Highly decomposed organic material over loamy glaciofluvial deposits and/or loamy glaciolacustrine deposits and/or loamy till

Typical profile

Oa1 - 0 to 12 inches: muck

Oa2 - 12 to 31 inches: muck

2Cg1 - 31 to 39 inches: silt loam

2Cg2 - 39 to 79 inches: fine sandy loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high
(0.01 to 14.17 in/hr)

Depth to water table: About 0 to 6 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Calcium carbonate, maximum content: 25 percent

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water capacity: Very high (about 17.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: B/D

Ecological site: F144AY042NY - Semi-Rich Organic Wetlands

Custom Soil Resource Report

Hydric soil rating: Yes

Minor Components

Catden

Percent of map unit: 8 percent
Landform: Depressions, depressions, depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Limerick

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Sun

Percent of map unit: 4 percent
Landform: Depressions, hills
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Halsey

Percent of map unit: 3 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

PnB—Paxton fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2t2qp
Elevation: 0 to 1,570 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Paxton and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Paxton

Setting

Landform: Drumlins, ground moraines, hills

Landform position (two-dimensional): Backslope, summit, shoulder

Landform position (three-dimensional): Side slope, crest, nose slope

Down-slope shape: Linear, convex

Across-slope shape: Convex

Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Ap - 0 to 8 inches: fine sandy loam

Bw1 - 8 to 15 inches: fine sandy loam

Bw2 - 15 to 26 inches: fine sandy loam

Cd - 26 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: 18 to 39 inches to densic material

Drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)

Depth to water table: About 18 to 37 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water capacity: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: C

Ecological site: F144AY007CT - Well Drained Dense Till Uplands

Hydric soil rating: No

Minor Components

Woodbridge

Percent of map unit: 9 percent

Landform: Hills, drumlins, ground moraines

Landform position (two-dimensional): Backslope, footslope, summit

Landform position (three-dimensional): Side slope

Down-slope shape: Concave

Across-slope shape: Linear

Hydric soil rating: No

Ridgebury

Percent of map unit: 6 percent

Landform: Drainageways, hills, ground moraines, depressions

Landform position (two-dimensional): Backslope, footslope, toeslope

Landform position (three-dimensional): Head slope, base slope, dip

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Charlton

Percent of map unit: 5 percent
Landform: Hills
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Sh—Sun loam

Map Unit Setting

National map unit symbol: bd9q
Elevation: 600 to 1,800 feet
Mean annual precipitation: 46 to 50 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 115 to 215 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Sun and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sun

Setting

Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Loamy till derived primarily from limestone and sandstone, with a component of schist, shale, or granitic rocks in some areas

Typical profile

H1 - 0 to 9 inches: loam
H2 - 9 to 27 inches: loam
H3 - 27 to 60 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 15 percent
Available water capacity: Moderate (about 6.7 inches)

Custom Soil Resource Report

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C/D
Ecological site: F144AY039NY - Semi-Rich Wet Till Depressions
Hydric soil rating: Yes

Minor Components

Leicester

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Ridgebury

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Palms

Percent of map unit: 3 percent
Landform: Swamps, marshes
Hydric soil rating: Yes

Sun, stony

Percent of map unit: 2 percent
Landform: Depressions
Hydric soil rating: Yes

SuB—Sutton loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2xftp
Elevation: 10 to 1,250 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 145 to 240 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Sutton, loam, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sutton, Loam

Setting

Landform: Hills, ridges, ground moraines
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave

Custom Soil Resource Report

Across-slope shape: Linear

Parent material: Coarse-loamy melt-out till derived from gneiss, granite, and/or schist

Typical profile

Ap - 0 to 9 inches: loam

Bw1 - 9 to 17 inches: fine sandy loam

Bw2 - 17 to 30 inches: sandy loam

C1 - 30 to 39 inches: sandy loam

C2 - 39 to 60 inches: sandy loam

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high
(0.14 to 14.17 in/hr)

Depth to water table: About 12 to 27 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: High (about 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: B/D

Ecological site: F144AY008CT - Moist Till Uplands

Hydric soil rating: No

Minor Components

Charlton

Percent of map unit: 10 percent

Landform: Ridges, ground moraines, hills

Landform position (two-dimensional): Backslope, shoulder, summit

Landform position (three-dimensional): Crest, side slope

Down-slope shape: Convex, linear

Across-slope shape: Convex

Hydric soil rating: No

Leicester, loam

Percent of map unit: 5 percent

Landform: Depressions, drainageways, hills, ground moraines

Landform position (two-dimensional): Toeslope, footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear, concave

Across-slope shape: Concave

Hydric soil rating: Yes

Woodbridge, loam

Percent of map unit: 5 percent

Landform: Drumlins, hills, ground moraines

Landform position (two-dimensional): Footslope, summit, backslope

Landform position (three-dimensional): Crest, side slope

Down-slope shape: Convex

Custom Soil Resource Report

Across-slope shape: Linear
Hydric soil rating: No

Uc—Udorthents, wet substratum

Map Unit Setting

National map unit symbol: bd7g
Elevation: 50 to 2,400 feet
Mean annual precipitation: 46 to 50 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 115 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents, wet substratum, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents, Wet Substratum

Typical profile

H1 - 0 to 4 inches: gravelly loam
H2 - 4 to 72 inches: very gravelly loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: 40 to 60 inches to lithic bedrock
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high
(0.06 to 5.95 in/hr)
Depth to water table: About 6 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water capacity: Low (about 4.6 inches)

Minor Components

Udorthents

Percent of map unit: 5 percent
Hydric soil rating: No

Urban land

Percent of map unit: 5 percent
Hydric soil rating: Unranked

Raynham

Percent of map unit: 2 percent
Hydric soil rating: Yes

Fredon

Percent of map unit: 2 percent

Custom Soil Resource Report

Landform: Depressions

Hydric soil rating: Yes

Paxton

Percent of map unit: 2 percent

Hydric soil rating: No

Ipswich

Percent of map unit: 2 percent

Landform: Tidal marshes

Hydric soil rating: Yes

Hinckley

Percent of map unit: 2 percent

Hydric soil rating: No

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Building Site Development

Building site development interpretations are designed to be used as tools for evaluating soil suitability and identifying soil limitations for various construction purposes. As part of the interpretation process, the rating applies to each soil in its described condition and does not consider present land use. Example interpretations can include corrosion of concrete and steel, shallow excavations, dwellings with and without basements, small commercial buildings, local roads and streets, and lawns and landscaping.

Shallow Excavations

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate

Custom Soil Resource Report

maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

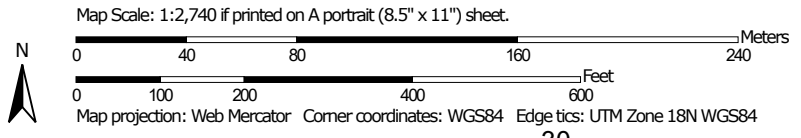
The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.





















Custom Soil Resource Report Map—Shallow Excavations



Soil Map may not be valid at this scale.



MAP LEGEND

- Area of Interest (AOI)**
 -  Area of Interest (AOI)
- Background**
 -  Aerial Photography
- Soils**
 - Soil Rating Polygons**
 -  Very limited
 -  Somewhat limited
 -  Not limited
 -  Not rated or not available
 - Soil Rating Lines**
 -  Very limited
 -  Somewhat limited
 -  Not limited
 -  Not rated or not available
 - Soil Rating Points**
 -  Very limited
 -  Somewhat limited
 -  Not limited
 -  Not rated or not available
- Water Features**
 -  Streams and Canals
- Transportation**
 -  Rails
 -  Interstate Highways
 -  US Routes
 -  Major Roads
 -  Local Roads

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

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: Westchester County, New York
 Survey Area Data: Version 16, Jun 11, 2020

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

Date(s) aerial images were photographed: Oct 7, 2013—Feb 26, 2017

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.

Custom Soil Resource Report

Tables—Shallow Excavations

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
ChB	Charlton fine sandy loam, 3 to 8 percent slopes	Somewhat limited	Charlton (85%)	Unstable excavation walls (0.01)	0.0	0.2%
				Dusty (0.00)		
ChC	Charlton fine sandy loam, 8 to 15 percent slopes	Somewhat limited	Charlton (85%)	Slope (0.63)	6.0	28.6%
				Unstable excavation walls (0.01)		
				Dusty (0.00)		
			Canton (2%)	Slope (0.63)		
				Unstable excavation walls (0.10)		
				Dusty (0.00)		
ChD	Charlton fine sandy loam, 15 to 25 percent slopes	Very limited	Charlton (85%)	Slope (1.00)	5.2	24.9%
				Unstable excavation walls (0.01)		
				Dusty (0.00)		
			Paxton (5%)	Slope (1.00)		
				Depth to saturated zone (1.00)		
				Dense layer (0.50)		
				Unstable excavation walls (0.01)		
				Dusty (0.00)		
			Sutton, fine sandy loam (5%)	Slope (1.00)		
				Depth to saturated zone (1.00)		
				Unstable excavation walls (0.01)		
				Dusty (0.00)		
			Chatfield (3%)	Depth to hard bedrock (1.00)		
				Slope (1.00)		
				Unstable excavation walls (0.01)		

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Dusty (0.00)		
			Canton (2%)	Slope (1.00)		
				Unstable excavation walls (0.10)		
				Dusty (0.00)		
LcB	Leicester loam, 3 to 8 percent slopes, stony	Very limited	Leicester, somewhat poorly drained (50%)	Depth to saturated zone (1.00)	1.2	5.7%
				Unstable excavation walls (0.01)		
				Dusty (0.00)		
			Leicester, poorly drained (35%)	Depth to saturated zone (1.00)		
				Unstable excavation walls (0.01)		
				Dusty (0.00)		
NcA	Natchaug muck, 0 to 2 percent slopes	Very limited	Natchaug (80%)	Ponding (1.00)	1.8	8.5%
				Depth to saturated zone (1.00)		
				Unstable excavation walls (0.01)		
				Dusty (0.01)		
			Catden (8%)	Ponding (1.00)		
				Depth to saturated zone (1.00)		
				Organic matter content (1.00)		
				Unstable excavation walls (0.01)		
				Dusty (0.01)		
			Limerick (5%)	Depth to saturated zone (1.00)		
				Flooding (0.80)		
				Unstable excavation walls (0.01)		
				Dusty (0.01)		

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			Sun (4%)	Depth to saturated zone (1.00)		
				Unstable excavation walls (0.01)		
				Dusty (0.01)		
			Halsey (3%)	Ponding (1.00)		
				Depth to saturated zone (1.00)		
				Unstable excavation walls (0.75)		
				Dusty (0.00)		
PnB	Paxton fine sandy loam, 3 to 8 percent slopes	Very limited	Paxton (80%)	Depth to saturated zone (1.00)	0.0	0.1%
				Dense layer (0.50)		
				Unstable excavation walls (0.01)		
				Dusty (0.00)		
			Woodbridge (9%)	Depth to saturated zone (1.00)		
				Dense layer (0.50)		
				Unstable excavation walls (0.01)		
				Dusty (0.00)		
			Ridgebury (6%)	Depth to saturated zone (1.00)		
				Dense layer (0.50)		
				Unstable excavation walls (0.01)		
				Dusty (0.00)		
Sh	Sun loam	Very limited	Sun (85%)	Ponding (1.00)	6.2	29.4%
				Depth to saturated zone (1.00)		
				Unstable excavation walls (0.01)		

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI					
				Dusty (0.01)							
SuB	Sutton loam, 3 to 8 percent slopes	Very limited	Sutton, loam (80%)	Depth to saturated zone (1.00)	0.4	1.9%					
				Unstable excavation walls (0.01)							
				Dusty (0.00)							
			Leicester, loam (5%)	Depth to saturated zone (1.00)							
				Unstable excavation walls (0.01)							
				Dusty (0.00)							
			Woodbridge, loam (5%)	Depth to saturated zone (1.00)							
				Dense layer (0.50)							
				Unstable excavation walls (0.01)							
				Dusty (0.00)							
			Uc	Udorthents, wet substratum			Very limited	Udorthents, wet substratum (80%)	Depth to saturated zone (1.00)	0.2	0.7%
									Depth to hard bedrock (0.42)		
Unstable excavation walls (0.01)											
Dusty (0.01)											
Totals for Area of Interest					21.0	100.0%					

Rating	Acres in AOI	Percent of AOI
Very limited	14.9	71.3%
Somewhat limited	6.0	28.7%
Totals for Area of Interest	21.0	100.0%

Rating Options—Shallow Excavations

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Land Classifications

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

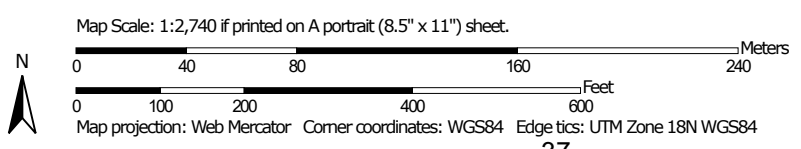
Farmland Classification

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Custom Soil Resource Report Map—Farmland Classification




Soil Map may not be valid at this scale.



Custom Soil Resource Report









MAP LEGEND








Area of Interest (AOI)






 Area of Interest (AOI)








Soils



Soil Rating Polygons

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season









-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of statewide importance, if drained
-  Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated

-  Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated and drained
-  Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
-  Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60

-  Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough
-  Farmland of statewide importance, if thawed
-  Farmland of local importance
-  Farmland of local importance, if irrigated

-  Farmland of unique importance
-  Not rated or not available

Soil Rating Lines

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Custom Soil Resource Report

	Prime farmland if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium		Farmland of unique importance		Prime farmland if subsoiled, completely removing the root inhibiting soil layer
	Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if irrigated and drained		Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season	Soil Rating Points			Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
	Prime farmland if irrigated and reclaimed of excess salts and sodium		Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season		Not prime farmland		Prime farmland if irrigated and reclaimed of excess salts and sodium
	Farmland of statewide importance		Farmland of statewide importance, if drained		Farmland of statewide importance, if thawed		Prime farmland if drained		Farmland of statewide importance
	Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer		Farmland of local importance		Prime farmland if protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if drained
	Farmland of statewide importance, if irrigated		Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of local importance, if irrigated		Prime farmland if irrigated		Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
							Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated
							Prime farmland if irrigated and drained		
							Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season		

Custom Soil Resource Report

<ul style="list-style-type: none"> Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season Farmland of statewide importance, if irrigated and drained Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60 	<ul style="list-style-type: none"> Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season Farmland of statewide importance, if warm enough Farmland of statewide importance, if thawed Farmland of local importance Farmland of local importance, if irrigated 	<ul style="list-style-type: none"> Farmland of unique importance Not rated or not available <p>Water Features</p> <ul style="list-style-type: none"> Streams and Canals <p>Transportation</p> <ul style="list-style-type: none"> Rails Interstate Highways US Routes Major Roads Local Roads <p>Background</p> <ul style="list-style-type: none"> Aerial Photography 	<p>The soil surveys that comprise your AOI were mapped at 1:12,000.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Warning: Soil Map may not be valid at this scale.</p> <p>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.</p> </div> <p>Please rely on the bar scale on each map sheet for map measurements.</p> <p>Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)</p> <p>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.</p> <p>This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.</p> <p>Soil Survey Area: Westchester County, New York Survey Area Data: Version 16, Jun 11, 2020</p> <p>Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.</p> <p>Date(s) aerial images were photographed: Oct 7, 2013—Feb 26, 2017</p> <p>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.</p>
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Table—Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
ChB	Charlton fine sandy loam, 3 to 8 percent slopes	All areas are prime farmland	0.0	0.2%
ChC	Charlton fine sandy loam, 8 to 15 percent slopes	Farmland of statewide importance	6.0	28.6%
ChD	Charlton fine sandy loam, 15 to 25 percent slopes	Not prime farmland	5.2	24.9%
LcB	Leicester loam, 3 to 8 percent slopes, stony	Not prime farmland	1.2	5.7%
NcA	Natchaug muck, 0 to 2 percent slopes	Not prime farmland	1.8	8.5%
PnB	Paxton fine sandy loam, 3 to 8 percent slopes	All areas are prime farmland	0.0	0.1%
Sh	Sun loam	Farmland of statewide importance	6.2	29.4%
SuB	Sutton loam, 3 to 8 percent slopes	All areas are prime farmland	0.4	1.9%
Uc	Udorthents, wet substratum	Not prime farmland	0.2	0.7%
Totals for Area of Interest			21.0	100.0%

Rating Options—Farmland Classification

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

Hydric Rating by Map Unit

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

Custom Soil Resource Report

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

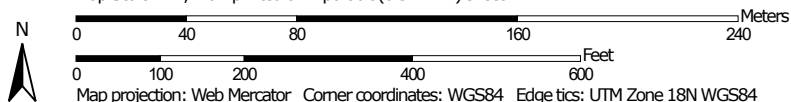
Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Custom Soil Resource Report Map—Hydric Rating by Map Unit




Map Scale: 1:2,740 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84







MAP LEGEND

Area of Interest (AOI)







 Area of Interest (AOI)

Soils







Soil Rating Polygons

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available

Soil Rating Lines

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available






Soil Rating Points

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

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: Westchester County, New York
 Survey Area Data: Version 16, Jun 11, 2020

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

Date(s) aerial images were photographed: Oct 7, 2013—Feb 26, 2017

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.

Table—Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
ChB	Charlton fine sandy loam, 3 to 8 percent slopes	1	0.0	0.2%
ChC	Charlton fine sandy loam, 8 to 15 percent slopes	0	6.0	28.6%
ChD	Charlton fine sandy loam, 15 to 25 percent slopes	0	5.2	24.9%
LcB	Leicester loam, 3 to 8 percent slopes, stony	42	1.2	5.7%
NcA	Natchaug muck, 0 to 2 percent slopes	100	1.8	8.5%
PnB	Paxton fine sandy loam, 3 to 8 percent slopes	6	0.0	0.1%
Sh	Sun loam	100	6.2	29.4%
SuB	Sutton loam, 3 to 8 percent slopes	5	0.4	1.9%
Uc	Udorthents, wet substratum	6	0.2	0.7%
Totals for Area of Interest			21.0	100.0%

Rating Options—Hydric Rating by Map Unit

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
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- National Research Council. 1995. Wetlands: Characteristics and boundaries.
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- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

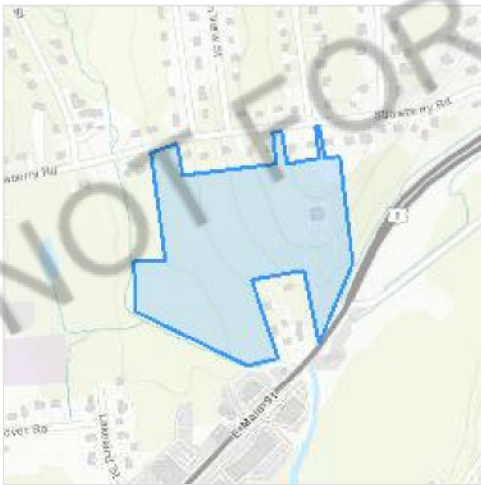
Project information

NAME

Ciuffetelli Solar Project

LOCATION

Westchester County, New York



DESCRIPTION

Some(The Proposed Project is located at 1645 Strawberry Road & 1700 Route 6, Mohegan Lake in the Town of Yorktown, Westchester County, NY and is known and designated by Westchester County as Tax Map Numbers 15.12-1-12 and 15.12-1-30 (approximately 21 acres). Green Street Power Partners is proposing to construct a solar array facility, with associated equipment, access roads and utilities.)

Local offices

Long Island Ecological Services Field Office

☎ (631) 286-0485

📠 (631) 286-4003

340 Smith Road
Shirley, NY 11967-2258

New York Ecological Services Field Office

☎ (607) 753-9334

📠 (607) 753-9699

3817 Luker Road
Cortland, NY 13045-9385

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME

STATUS

Indiana Bat *Myotis sodalis*

Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/5949>

Reptiles

NAME

STATUS

Bog Turtle *Clemmys muhlenbergii*

Threatened

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/6962>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ

[below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
<p>Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626</p>	Breeds Sep 1 to Aug 31
<p>Black-capped Chickadee <i>Poecile atricapillus praticus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds Apr 10 to Jul 31
<p>Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 10 to Aug 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/8792>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Yellow-bellied
Sapsucker
BCC - BCR (This is a
Bird of
Conservation
Concern (BCC) only
in particular Bird
Conservation
Regions (BCRs) in
the continental
USA)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

[PFO1Ed](#)

[PSS1E](#)

FRESHWATER POND

[PUBHx](#)

RIVERINE

[R3UBH](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385

Phone: (607) 753-9334 Fax: (607) 753-9699

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

In Reply Refer To:

July 20, 2021

Consultation Code: 05E1NY00-2021-SLI-3476

Event Code: 05E1NY00-2021-E-10642

Project Name: Ciuffetelli Solar Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: <http://www.fws.gov/northeast/nyfo/es/section7.htm>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the Services wind

energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office

3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

This project's location is within the jurisdiction of multiple offices. Expect additional species list documents from the following office, and expect that the species and critical habitats in each document reflect only those that fall in the office's jurisdiction:

Long Island Ecological Services Field Office

340 Smith Road
Shirley, NY 11967-2258
(631) 286-0485

Project Summary

Consultation Code: 05E1NY00-2021-SLI-3476

Event Code: 05E1NY00-2021-E-10642

Project Name: Ciuffetelli Solar Project

Project Type: Federal Grant / Loan Related

Project Description: The Proposed Project is located at 1645 Strawberry Road & 1700 Route 6, Mohegan Lake in the Town of Yorktown, Westchester County, NY and is known and designated by Westchester County as Tax Map Numbers 15.12-1-12 and 15.12-1-30 (approximately 21 acres). Green Street Power Partners is proposing to construct a solar array facility, with associated equipment, access roads and utilities.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.326493400000004,-73.8519581671764,14z>



Counties: Westchester County, New York

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered

Reptiles

NAME	STATUS
Bog Turtle <i>Clemmys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967-2258
Phone: (631) 286-0485 Fax: (631) 286-4003

In Reply Refer To:
Consultation Code: 05E1LI00-2021-SLI-0735
Event Code: 05E1LI00-2021-E-01746
Project Name: Ciuffetelli Solar Project

July 20, 2021

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Long Island Ecological Services Field Office

340 Smith Road
Shirley, NY 11967-2258
(631) 286-0485

This project's location is within the jurisdiction of multiple offices. Expect additional species list documents from the following office, and expect that the species and critical habitats in each document reflect only those that fall in the office's jurisdiction:

New York Ecological Services Field Office

3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Consultation Code: 05E1LI00-2021-SLI-0735

Event Code: 05E1LI00-2021-E-01746

Project Name: Ciuffetelli Solar Project

Project Type: Federal Grant / Loan Related

Project Description: The Proposed Project is located at 1645 Strawberry Road & 1700 Route 6, Mohegan Lake in the Town of Yorktown, Westchester County, NY and is known and designated by Westchester County as Tax Map Numbers 15.12-1-12 and 15.12-1-30 (approximately 21 acres). Green Street Power Partners is proposing to construct a solar array facility, with associated equipment, access roads and utilities.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.326493400000004,-73.8519581671764,14z>



Counties: Westchester County, New York

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered

Reptiles

NAME	STATUS
Bog Turtle <i>Clemmys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



SYSTEM COMPONENTS			
	COUNT	RATING (W)	MODEL
PV MODULE	5330	450	HELIENE 144HC
INVERTER TYPE 1	14	125,000	CPS 125KW
INVERTER TYPE 2	0	0	-
INVERTER TYPE 3	0	0	-
INVERTER TYPE 4	0	0	-
TOTAL INVERTER	14		
SYSTEM SIZE			
SYSTEM DC RATING (KW)	2398.50		
SYSTEM AC NAME PLATE (KW)	1750.00	DC: AC RATIO	1.37
		TOTAL STRING	205
SYSTEM MOUNTING INFORMATION			
	GROUND MOUNTED		
MODULE MOUNTING METHOD	20' GROUND, 180° AZI		
RACKING BRAND	RBI		

EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE

DO NOT STAKE OR WRAP TRUNK
2" DOUBLE SHREDDED HARDWOOD MULCH (DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK)
HOLE SHALL BE 2 1/2 TIMES THE WIDTH OF THE ROOT BALL
ROPE AT TOP OF BALL SHALL BE CUT AND REMOVED. FOLD BACK TOP 1/3 OF BURLAP. ALL NON-BIODEGRADABLE MATERIAL SHALL BE REMOVED.
UNDISTURBED SUBGRADE
DIG WIDE, SHALLOW HOLE WITH FLARED SIDES

AVOID PURCHASING TREES WITH TWO LEADERS OR REMOVE ONE AT PLANTING; OTHERWISE, DO NOT PRUNE TREE AT PLANTING EXCEPT FOR SPECIFIC STRUCTURAL CORRECTIONS
SET ROOT BALL FLUSH TO GRADE OR SEVERAL INCHES HIGHER IN POORLY DRAINING SOILS
CUT BANDS OF WIRE BASKET AND FOLD AWAY FROM TOP OF ROOT BALL
4" BUILT-UP EARTH SAUCER
BACKFILL SOIL
1 PART SOIL AMENDMENT (BASED ON SOIL TEST)
3 PARTS NATIVE TOPSOIL
4-6" DEEPER THAN ROOT BALL
TAMP SOIL SOLIDLY AROUND BASE OF ROOT BALL
SET ROOT BALL ON FIRM PAD IN BOTTOM OF HOLE

NOTES:
1. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
2. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
3. SOIL AMENDMENTS:
MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX
4. EVERGREEN TREES TO BE PLANTED SHALL BE THUJA GREEN GIANT (THUJA STANDISHI X PLICATA). DOUBLE STAGGERED ROW OF TREES SHALL BE PLANTED WITH A 15' SPACING HORIZONTAL AND DIAGONAL. EVERGREEN TREE PLANTINGS SHALL BE GUARANTEED FOR A PERIOD OF 1 YEAR. 12" TALL EVERGREENS SHALL BE PLANTED AS SHOWN ON THIS PLAN.

GREEN STREET POWER PARTNERS

THIS DOCUMENT CONTAINS SENSITIVE AND/OR PROPRIETARY INFORMATION AND IS THE PROPERTY OF GREEN STREET POWER PARTNERS. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED IN THIS DOCUMENT. ANY REPRODUCTION OR DISTRIBUTION OF THIS DOCUMENT IN ANY MANNER, NO PART OF THIS DOCUMENT SHALL BE REPRODUCED OR DISTRIBUTED WITHOUT THE WRITTEN CONSENT OF GREEN STREET POWER PARTNERS. ANY THIRD PARTY MUST BE SUBJECT TO A WRITTEN CONTRACT WITH GREEN STREET POWER PARTNERS.

SCALE	PROJECT NUMBER:	SHEET	SHEET SIZE	NO.	DATE	REVISIONS	BY	APP
NTS	KIMCO GREENRIDGE	1 OF 1	24" X 36"	1	07/19/2021	PRELIMINARY	GSPF	GSPF
				2	07/22/2021	PRELIMINARY REV.	GSPF	GSPF
				3				
				4				
				5				
				6				
				7				

PROJECT NAME: **CIUFFETELLI - STRAWBERRY**
PROJECT ADDRESS: **1645 STRAWBERRY ROAD, MOHEGAN LAKE, NY 10547**
SHEET NAME: **PRELIMINARY SITE PLAN**

Arborist Report for Project Site Located at:

1645 Strawberry Rd

Yorktown, NY 10547

Prepared for:



1 Landmark Square, Suite 320

Stamford, CT 06901

Prepared by:



PLANIT GEO™
mapping a greener future

7878 Wadsworth Blvd, Suite 340

Arvada, CO 80003

(303)214-5067

info@planitgeo.com

Contact: Nathan Cummings

ISA Certified Arborist #NY-6214A

May 25, 2021

On May 17, 2021, PlanIT Geo's ISA Certified Arborist Nathan Cummings met with Brian Matthews from Green Street Power Partners at the project site located at 1645 Strawberry Rd in Yorktown, New York to review the site and discuss the project scope and boundaries for an inventory of trees on the property.

While on site, Mr. Matthews walked the project boundaries with Mr. Cummings and discussed overall goals of the project. Data was collected on-site using a handheld mobile device and PlanIT Geo's tree inventory software, TreePlotter. Data collected during the project included: tree location (latitude and longitude), species, condition rating (Excellent, Good, Fair, Poor), diameter at breast height (DBH) measured to the nearest inch, as well as standard arboriculture observations. Upon initial walkthrough, it was determined and agreed upon that 8" DBH would be the threshold for inclusion in the survey. This size threshold was agreed upon to include an accurate representation of trees within the canopy and tree species diversity on-site. Dead trees were not included in the inventory.

The inventory area at the project site located at 1645 Strawberry Rd encompasses 15 acres. While conducting the inventory, it was observed that the upper (emergent) layer of the canopy consisted mainly of sugar maple (*Acer saccharum*) and red maple (*Acer rubrum*), with smaller percentages of black locust (*Robinia pseudoacacia*) and tulip tree (*Liriodendron tulipifera*). The understory is mainly sugar maple (*Acer saccharum*) and red maple (*Acer rubrum*), with smaller percentages of black locust (*Robinia pseudoacacia*), Norway maple (*Acer platanoides*), and shagbark hickory (*Carya ovata*). There is spotty ground cover throughout the inventory area of wild rose (*Rosa spp.*) and Japanese barberry (*Berberis thunbergii*), which is listed as a "prohibited and regulated invasive plant" per New York State Department of Environmental Conservation.

The tree inventory of the property identified a total of 638 trees within the canopy measuring 8" or larger in DBH. Composition and condition of the 638 inventoried trees is shown in Table 1 below:

Table 1: Tree Inventory Composition & Condition

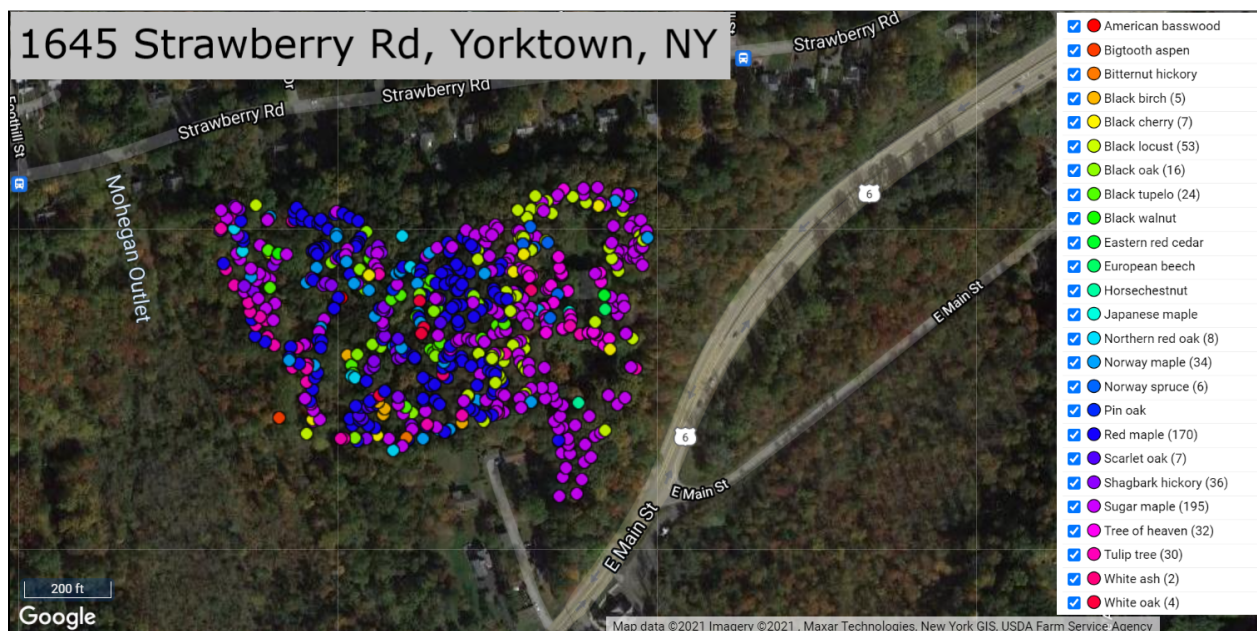
Common Name	Total	Percent (%)	Excellent	Good	Fair	Poor
Sugar maple	195	30.56	0	179	12	4
Red maple	170	26.65	0	154	11	5
Black locust	53	8.31	0	5	11	37
Shagbark hickory	36	5.64	0	31	5	0
Norway maple	34	5.33	0	31	3	0
Tree of heaven	32	5.02	0	0	31	1
Tulip tree	30	4.70	0	26	3	1
Black tupelo	24	3.76	0	18	6	0
Black oak	16	2.51	0	16	0	0
Northern red oak	8	1.25	0	8	0	0
Black cherry	7	1.10	0	6	1	0
Scarlet oak	7	1.10	0	7	0	0

Common Name	Total	Percent (%)	Excellent	Good	Fair	Poor
Norway spruce	6	0.94	0	3	2	1
Black birch	5	0.78	0	4	1	0
White oak	4	0.63	0	4	0	0
White ash	2	0.31	0	0	0	2
American basswood	1	0.16	0	1	0	0
Bigtooth aspen	1	0.16	0	0	1	0
Bitternut hickory	1	0.16	0	1	0	0
Black walnut	1	0.16	0	1	0	0
Eastern red cedar	1	0.16	0	0	1	0
European beech	1	0.16	0	0	0	1
Horsechestnut	1	0.16	0	0	0	1
Japanese maple	1	0.16	0	1	0	0
Pin oak	1	0.16	0	1	0	0

Tree Species Composition

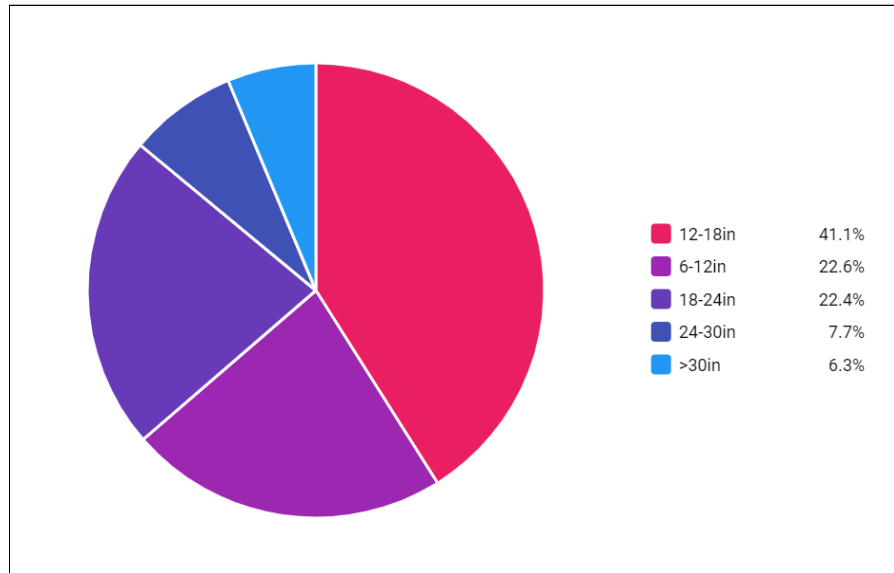
Of the 638 trees inventoried within the inventory area, the predominant species are sugar maple (*Acer saccharum*) and red maple (*Acer rubrum*), comprising over 57% of the total trees inventoried. Black locust (*Robinia pseudoacacia*) accounted for 8.31%. Shagbark hickory (*Carya ovata*), Norway maple (*Acer platanoides*), tree of heaven (*Ailanthus altissima*), and tulip tree (*Liriodendron tulipifera*) accounted for roughly 5% each. The remaining 15% of trees within the inventory area consist of the other 18 species listed in the table above and the site map below.

Site Map - Tree Species (common name)

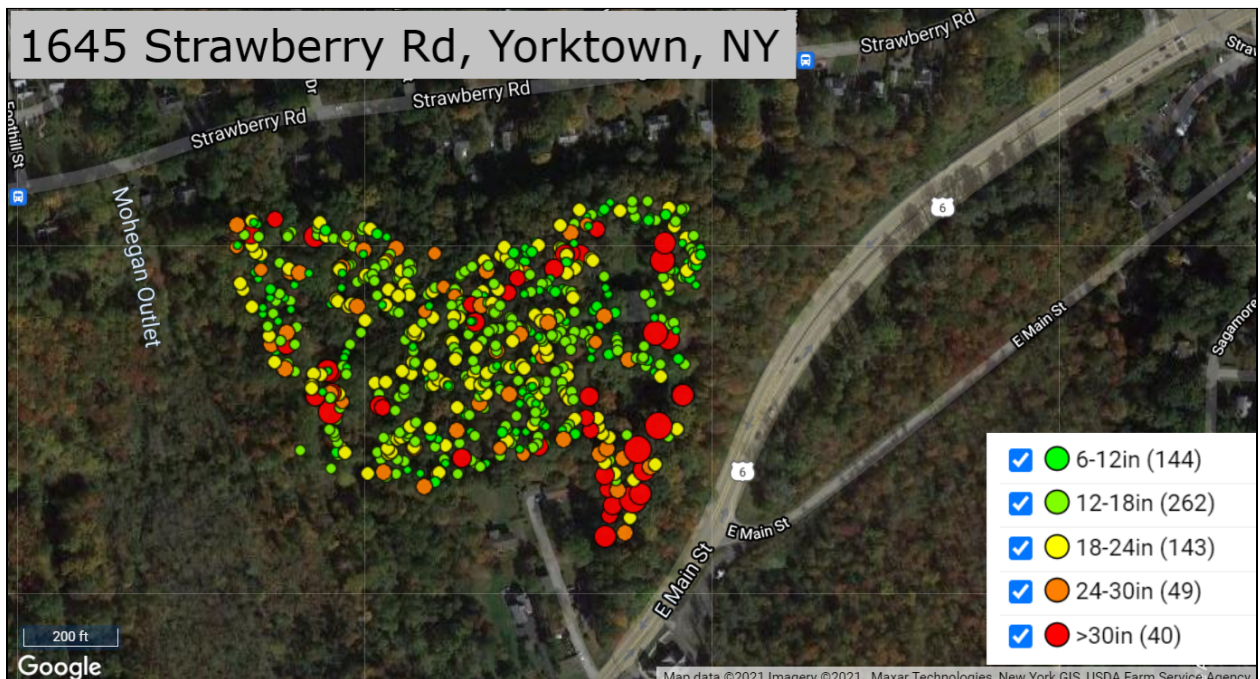


Tree Size Distribution

Diameter at breast height (DBH) was measured for all trees within the scope of the inventory to the nearest inch and assigned a DBH range. Of the 638 trees inventoried, 144 (22.57%) measured 6-12 inches, 262 (41.07%) measured 12-18 inches, 143 (22.41%) measured 18-24 inches, 49 (7.68%) measured 24-30 inches, and 40 (6.27%) measured 30 inches or greater.



Site Map - Tree DBH Range



Conclusion and Disclaimer



Arborists are tree specialists who use their education, knowledge, training and experience to examine and identify trees, recommend measures to enhance the beauty and health of trees, or attempt to reduce the risk of living near trees. Arborists cannot detect every condition that could possibly lead to structural failure of a tree or anticipate all environmental factors that could contribute to failure; as a living organism, a tree's condition may change at any time. Since these trees are within the proposed project area and are to be removed, this report does not include any maintenance recommendations or tree risk assessments. This report is solely intended for the purpose of identifying arboricultural resources onsite that may be subject to regulation by the Town of New Castle, NY.

Equivalency Results [How are they calculated?](#)




The sum of the greenhouse gas emissions you entered above is of Carbon Dioxide Equivalent. This is equivalent to:




2,541 Metric Tons




Greenhouse gas emissions from

553	-or-	6,386,879
		
Passenger vehicles driven for one year		Miles driven by an average passenger vehicle

CO₂ emissions from

285,961	-or-	249,640	-or-	2,808,896
				
gallons of gasoline consumed		gallons of diesel consumed		Pounds of coal burned

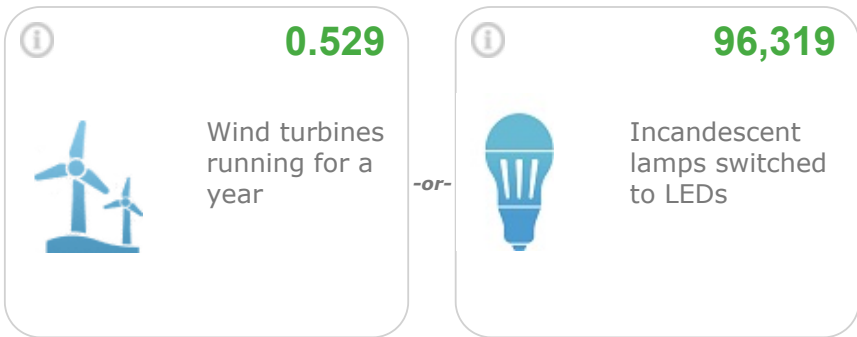
33.6	-or-	306	-or-	462
				
tanker trucks' worth of gasoline		homes' energy use for one year		homes' electricity use for one year

14	-or-	5,884	-or-	103,889
				
railcars' worth of coal burned		barrels of oil consumed		propane cylinders used for home barbeques

0.0006	-or-	309,134,759
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Greenhouse gas emissions avoided by



Carbon sequestered by



100/125kW, 1500Vdc String Inverters for North America



CPS SCH100/125KTL-DO/US-600

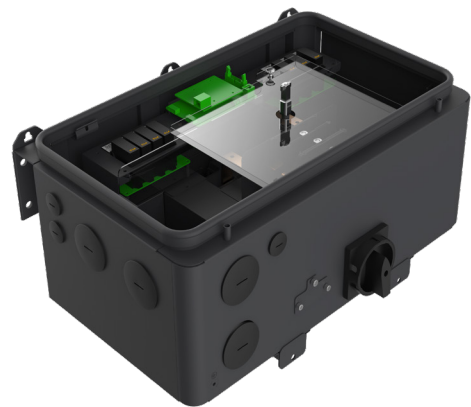
The 100 & 125kW high power CPS three phase string inverters are designed for ground mount applications. The units are high performance, advanced and reliable inverters designed specifically for the North American environment and grid. High efficiency at 99.1% peak and 98.5% CEC, wide operating voltages, broad temperature ranges and a NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications. The CPS 100/125kW products ship with the Standard or Centralized Wire-box, each fully integrated and separable with AC and DC disconnect switches. The Standard Wire-box includes touch safe fusing for up to 20 strings. The CPS Flex Gateway enables communication, controls and remote product upgrades.

Key Features

- NFPA 70, NEC 2014 and 2017 compliant
- Touch safe DC Fuse holders adds convenience and safety
- CPS Flex Gateway enables remote FW upgrades
- Integrated AC & DC disconnect switches
- 1 MPPT with 20 fused inputs for maximum flexibility
- Copper and Aluminum compatible AC connections
- NEMA Type 4X outdoor rated, tough tested enclosure
- Advanced Smart-Grid features (CA Rule 21 certified)
- kVA Headroom yields 100kW @ 0.9PF and 125kW @ 0.95PF
- Generous 1.87 and 1.5 DC/AC Inverter Load Ratios
- Separable wire-box design for fast service
- Standard 5 year warranty with extensions to 20 years



100/125KTL Standard Wire-box



100/125KTL Centralized Wire-box

Model Name	CPS SCH100KTL-DO/US-600	CPS SCH125KTL-DO/US-600
DC Input		
Max. PV Power	187.5kW	
Max. DC Input Voltage	1500V	
Operating DC Input Voltage Range	860-1450Vdc	
Start-up DC Input Voltage / Power	900V / 250W	
Number of MPP Trackers	1	
MPPT Voltage Range ¹	870-1300Vdc	
Max. PV Input Current (Isc x1.25)	275A	
Number of DC Inputs	20 PV source circuits, pos. & neg. fused (Standard Wire-box) 1 PV output circuit, 1-2 terminations per pole, non-fused (Centralized Wire-box)	
DC Disconnection Type	Load-rated DC switch	
DC Surge Protection	Type II MOV (with indicator/remote signaling), Up=2.5kV, In=20kA (8/20uS)	
AC Output		
Rated AC Output Power	100kW	125kW
Max. AC Output Power ²	100kVA (111KVA @ PF>0.9)	125kVA (132KVA @ PF>0.95)
Rated Output Voltage	600Vac	
Output Voltage Range ³	528-660Vac	
Grid Connection Type ⁴	3Φ / PE / N (Neutral optional)	
Max. AC Output Current @600Vac	96.2/106.8A	120.3/127.2A
Rated Output Frequency	60Hz	
Output Frequency Range ³	57-63Hz	
Power Factor	>0.99 (±0.8 adjustable)	>0.99 (±0.8 adjustable)
Current THD	<3%	
Max. Fault Current Contribution (1-cycle RMS)	41.47A	
Max. OCPD Rating	150A	175A
AC Disconnection Type	Load-rated AC switch	
AC Surge Protection	Type II MOV (with indicator/remote signaling), Up=2.5kV, In=20kA (8/20uS)	
System		
Topology	Transformerless	
Max. Efficiency	99.1%	
CEC Efficiency	98.5%	
Stand-by / Night Consumption	<4W	
Environment		
Enclosure Protection Degree	NEMA Type 4X	
Cooling Method	Variable speed cooling fans	
Operating Temperature Range	-22°F to +140°F / -30°C to +60°C (derating from +113°F / +45°C)	
Non-Operating Temperature Range ⁵	-40°F to +158°F / -40°C to +70°C maximum	
Operating Humidity	0-100%	
Operating Altitude	8202ft / 2500m (no derating)	
Audible Noise	<65dBA@1m and 25°C	
Display and Communication		
User Interface and Display	LED Indicators, WiFi + APP	
Inverter Monitoring	Modbus RS485	
Site Level Monitoring	CPS Flex Gateway (1 per 32 inverters)	
Modbus Data Mapping	SunSpec/CPS	
Remote Diagnostics / FW Upgrade Functions	Standard / (with Flex Gateway)	
Mechanical		
Dimensions (WxHxD)	45.28x24.25x9.84in (1150x616x250mm) with Standard Wire-box 39.37x24.25x9.84in (1000x616x250mm) with Centralized Wire-box	
Weight	Inverter: 121lbs / 55kg; Wire-box: 55lbs / 25kg (Standard Wire-box); 33lbs / 15kg (Centralized Wire-box)	
Mounting / Installation Angle	15 - 90 degrees from horizontal (vertical or angled)	
AC Termination	M10 Stud Type Terminal Block [3Φ] (Wire range: 1/0AWG - 500kcmil CU/AL, Lugs not supplied) Screw Clamp Terminal Block [N] (#12 - 1/0AWG CU/AL)	
DC Termination	Screw Clamp Fuse Holder (Wire range: #12 - #6AWG CU) - Standard Wire-box Busbar, M8 PEMserts (Wire range: #1AWG - 250kcmil CU/AL, Lugs not supplied) - Centralized Wire-box	
Fused String Inputs	15A or 20A fuses provided (Determined by product SKU)	
Safety		
Safety and EMC Standard	UL1741-SA-2016, CSA-C22.2 NO.107.1-01, IEEE1547a-2014; FCC PART15	
Selectable Grid Standard	IEEE 1547a-2014, CA Rule 21, ISO-NE	
Smart-Grid Features	Volt-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAr, Freq-Watt, Volt-Watt	
Warranty		
Standard ⁶	5 years	
Extended Terms	10, 15 and 20 years	

1) See user manual for further information regarding MPPT Voltage Range when operating at non-unity PF

2) "Max. AC Apparent Power" rating valid within MPPT voltage range and temperature range of -30°C to +40°C (-22°F to +104°F) for 100kW PF ≥0.9 and 125kW PF ≥0.95

3) The "Output Voltage Range" and "Output Frequency Range" may differ according to the specific grid standard.

4) Wye neutral-grounded, Delta may not be corner-grounded.

5) See user manual for further requirements regarding non-operating conditions.

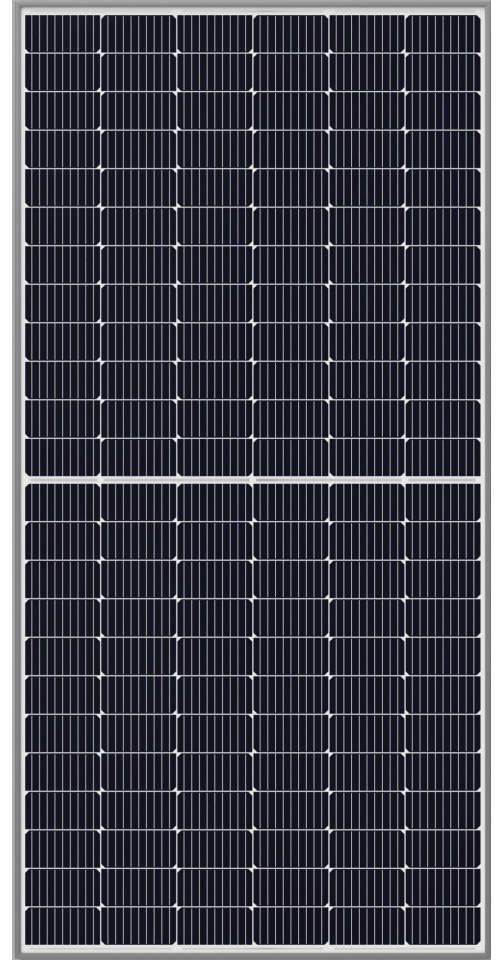
6) 5 year warranty effective for units purchased after October 1st, 2019.



HELIENE

144HC BIFACIAL

HALF CUT MONOCRYSTALLINE M6 CELLS



460 Wp

MAX POWER OUTPUT

20.8%

MAX EFFICIENCY

15 YEAR

PRODUCT WARRANTY

25 YEAR

LINEAR PERFORMANCE
GUARANTEE

HELIENE IS A PREMIER SOLAR MODULE MANUFACTURER, SERVICING THE GROWING SOLAR ENERGY MARKETS OF NORTH AMERICA.

COMBINING PROVEN EUROPEAN TECHNOLOGY WITH NORTH AMERICAN INGENUITY ALLOWS HELIENE TO MAKE A REAL COMMITMENT IN PROVIDING SMARTER ENERGY CHOICES FOR THE FUTURE.

HELIENE
www.heliene.com



HALF CELL DESIGN WITH SPLIT J-BOX TECHNOLOGY



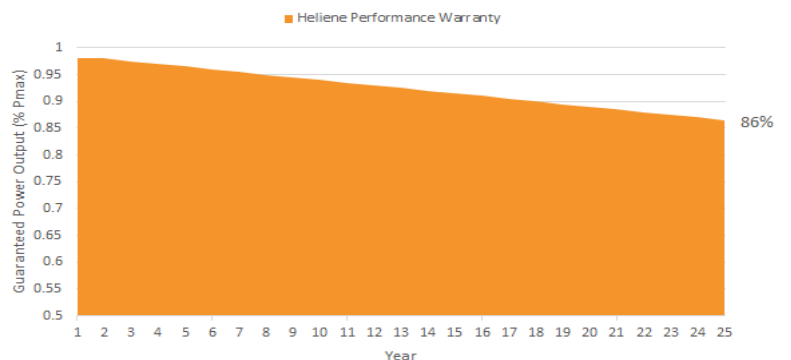
1500V MAX. SYSTEM VOLTAGE RATING



QUALITY MANAGEMENT SYSTEM FOLLOWING INTERNATIONAL STANDARD: ISO9001

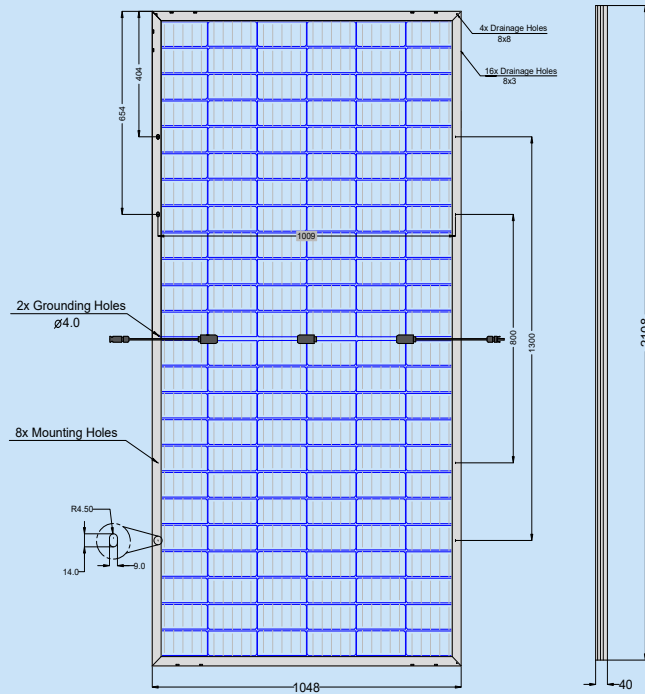
LINEAR PERFORMANCE GUARANTEE

15 YEAR WORKMANSHIP WARRANTY • 25 YEAR LINEAR PERFORMANCE GUARANTEE

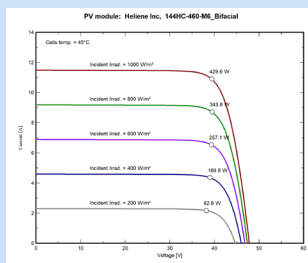
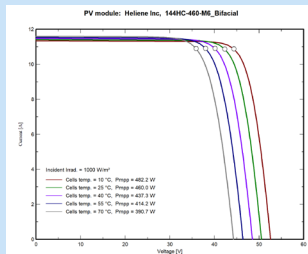


144HC BIFACIAL

DIMENSIONS FOR HELIENE 144HC M6 SERIES



I-V CURVE FOR HELIENE 144HC M6 SERIES



CERTIFICATIONS



ELECTRICAL DATA (STC)

Peak Rated Power	P_{mpp} (W)	460	450	440
Maximum Power Voltage	V_{mpp} (V)	42.58	42.16	41.74
Maximum Power Current	I_{mpp} (A)	10.80	10.68	10.58
Open Circuit Voltage	V_{oc} (V)	50.53	50.03	49.04
Short Circuit Current	I_{sc} (A)	11.40	11.29	11.21
Module Efficiency *	Eff (%)	20.8	20.4	19.9
Maximum Series Fuse Rating	MF (A)	20	20	20
Power Output Tolerance		[- 3/+3%]		

STC - Standard Test Conditions: Irradiation 1000 W/m² - Air mass AM 1.5 - Cell temperature 25 °C

MECHANICAL DATA

Dimensions (L x W x D)	2108 x 1048 x 40 mm (82.99 x 41.25 x 1.6 inch)
Weight	25 kg (55.12 lbs)
Output Cables	0.3 m symmetrical cables with MC4 style connectors
Junction Box	IP-68 rated with 3 bypass diodes
Frame	Double webbed 15 micron anodized aluminum alloy
Front Glass	Low-iron content, high-transmission PV solar glass with anti-reflective coating
Solar Cells	144 Half-Cut, M6, 166mm, PERC Cells
Construction	Glass-Clear Backsheet with Bifacial Cells

TEMPERATURE RATINGS

Nominal Operating Cell Temperature (NOCT)	+45°C (±2°C)
Temperature Coefficient of P_{max}	-0.39%/°C
Temperature Coefficient of V_{oc}	-0.30%/°C
Temperature Coefficient of I_{sc}	0.037%/°C

PACKAGING CONFIGURATION

Modules per box:	27 pieces
Modules per 53' trailer:	702 pieces

MAXIMUM RATINGS

Operational Temperature	-40°C to +85°C
Max System Voltage	1500V

WARRANTY

15 Year Manufacturer's Workmanship Warranty

25 Year Linear Power Guarantee

(Refer to product warranty page for details)



CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.



Fixed-Tilt Ground Mount Solution | GM-2

When EPCs and project developers across the USA need dependable, low-maintenance ground mount racking, they turn to RBI Solar. As a single-source provider, we take responsibility for the Design, Engineering, Manufacturing, and Installation of PV mounting solutions. When you choose RBI Solar for your next ground mount, you're choosing peace of mind that your project is in the hands of the most trusted solar racking team in the industry.

Why choose RBI Solar?

- Professional Engineers licensed in all 50 states
- Quick response & efficient communication
- National installation capabilities
- Our in-house team members are an extension of your staff
- 85+ years manufacturing experience
- Complete turn-key process, reduction in your vendor coordination
- Company owned post driving equipment
- National project management capabilities with roaming site service personnel
- More time to focus on your business





GM-2 Solution Features

Foundation and racking design	Site wind speeds 170+ mph and ground snow loads 90+ psf
Signed and sealed drawings	Available in all 50 states
Proprietary on-site testing	Pull testing & corrosion testing - no geotechnical report required
Pre-assembled parts	Reduction in installation time
Variable slope	Accommodates slopes up to 30% (with topographic site map)
20-yr standard warranty	Proven rack reliability and bankability
G115 minimum galvanized coating	Exceeds ASTM and UL standards for 30% extended life
Driven posts	Cost-effective cee channel or I-beam post options available
Up to 24' long post driving	Ability to address challenging soils or elevate array structure
Module configurations	Portrait, landscape (all module types)
Raised purlins	Integrated bonding and grounding to UL 2703
Corrosion class	System available for all corrosion classes
Wire management and electrical	Integrated wire management solution and inverter mounting

Contact us at info@rbisolar.com or (513) 242-2051

DESIGN • ENGINEERING • MANUFACTURING • INSTALLATION

6715 Steger Drive, Cincinnati, OH 45237 | 513-242-2051 | info@rbisolar.com | www.rbisolar.com



Arcadia Solar

NOV 8 2021

TOWN OF YORKTOWN

To: Yorktown Planning Board
From: Yorktown Tree Conservation Advisory Commission (TCAC)
Date: November 8, 2021
RE: **Mitigation Plan for 1300 Baptist Church Road (Arcadia Farm - Solar Farm)**

Chairman Fon and members of the Planning Board,

Chapter 270 - 10.C(4) - Use of native species of trees, understory shrubs and herbaceous ground cover if planting is required. The mitigation plan for 1300 Baptist Church Road has fulfilled the provisions of this part of the tree ordinance.

The Arborist needs to provide a mitigation ratio calculation to determine the number of replacement trees. Any deficit will require a payment to the Tree Bank Fund.

They have 12 deciduous trees with an average DBH of 3" and 8 coniferous trees measuring 10' - 12' in height. The DBH of White Spruce trees are needed to calculate their contribution to the mitigation ratio.

The use of 27 Witch Hazel and 17 Highbush Blueberry creates a monoculture. Mixing in other native shrubs would be of benefit to the health and aesthetics of the new landscape. Seviceberry and Spicebush mix well with Witch Hazel. Bayberry and winterberry do well with Highbush Blueberry.

Sincerely,
Lawrence W. Klein, PE, Member
Tom Schmitt, Member
Keith Schepart ISA, Member



Town of Yorktown www.yorktownny.org

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PLANNING DEPARTMENT

OCT 29 2021

TOWN OF YORKTOWN

BUREAU OF FIRE PREVENTION

Town Hall, 363 Underhill Avenue, Yorktown Heights, NY 10598
Tel. (914) 962-5722 ext.254

MEMORANDUM

Edward Kolisz, Fire Inspector

Fax (914) 962-1731

Email: ekolisz@yorktownny.org

Office hours: Weekdays 8:00-10:00 a.m., 3:00-4:00 p.m.

TO: Planning Board, Town of Yorktown
From: Edward Kolisz, Fire Inspector
Re: **Arcadia Farms Solar Farm**
Date: October 29, 2021

The Bureau of Fire Prevention met on October 25th to discuss the proposed solar farm at Arcadia Farm and had the following comments:

- Vehicle access to the remote areas of the site needs to be improved. The fire department wants emergency vehicle access to extend to within 300 feet of all panels.
- Proper training will need to be provided to the fire department.
- A lock box for fire department access and document cabinet will need to be provided.
- The fire department would like detailed drawings of the road that is to be used for access to the site. They would like to see the roads width, grade, make up, etc.

Please contact me with any questions.

From: Keith Schepart <keith@taconictreecare.com>
Sent: Saturday, October 9, 2021 7:23 AM
To: Keith Schepart <keith@taconictreecare.com>
Cc: Lawrence Klein <lwkleinpe@gmail.com>; tom500sf <tom500sf@aol.com>; Nancy Calicchia <ncalicchia@yorktownny.org>; John Tegeder <jtegeder@yorktownny.org>; Robyn Steinberg <rsteinberg@yorktownny.org>
Subject: Baptiste Church Road

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

To: Yorktown Planning Board
From: Yorktown Tree Conservation Advisory Commission (TCAC)
Date: October 11, 2021
RE: **Mitigation Plan for 1300 Baptist Church Road (Arcadia Solar Farm)**

Chairman Fon and members of the Planning Board

Chapter 270 - 10.C(4) Use of native species of trees, understory shrubs and herbaceous ground cover if planting is required. The mitigation plan for 1300 Baptist Church Road fails the provisions of this part of the tree ordinance.

1. *Cornus Kousa* = Also known as Korean Dogwood. As the name suggests this tree is native to China and Korea.
2. *Malus x domestica* = Common Apple. Acceptable general species and curious as to what species will be chosen.
3. *Picea abies* = Norway Spruce. Although these trees were introduced in the 19 century they are native to Scandanavia.
4. *Pyrus communis* = Common Pear. The name is misleading. This species of Pear are native to Europe and southwest asia.
5. *Hibiscus syriacus* = Rose of sharon. This popular flowering shrub is native to Asia.
6. *Mahonia aquifolium* = Oregon Grape. This shrub is native to the pacific coast from British Columbia to Northern California. At least this one is on our continent.
7. *Viburnum dentatum* = Arrowwood viburnum. This is a native shrub. However, Cornell University has identified this viburnum highly susceptible to Viburnum Leaf Beetle.

These are the comments regarding the four trees and three shrubs in the Plant Schedule provided by 1300 Baptist Church Road.

Sincerely,

Lawrence W. Klein, PE, Member
Tom Schmitt, Member
Keith Schepart ISA, Member

George Latimer
County Executive

August 30, 2021

Robyn A. Steinberg, Town Planner
Town of Yorktown Planning Department
1974 Commerce Street
Yorktown Heights, NY 10598

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PLANNING DEPARTMENT

SEP 1 2021

TOWN OF YORKTOWN

**County Planning Board Referral File YTN 21-009 – Arcadia Farm Solar Farm
1300 Baptist Church Road
Site Plan and Special Use Permit**

Dear Ms. Steinberg:

The Westchester County Planning Board has received a site plan (dated July 28, 2021) and related materials for the proposed installation of a solar farm to be located on an 11.67-acre parcel located at 1300 Baptist Church Road (SBL 47.11-1-4). The site is part of the Arcadia Farm horse training and boarding facility and contains paddock areas and forest. While the site abuts Mohansic County Golf Course to the north, the solar panels would be installed on a 5.11-acre portion of the site in its southeastern quadrant, surrounded by other aspects of the horse farm. Access to the solar array would be provided via the existing driveway for the farm. A new underground electric line would connect the array to the existing electric lines adjacent to Baptist Church Road.

We have no objection to the Yorktown Planning Board assuming Lead Agency status for this review.

We have reviewed this matter under the provisions of Section 239 L, M and N of the General Municipal Law and Section 277.61 of the County Administrative Code and we offer the following comments:

1. Impacts to Agricultural Land

The New York State Department of Agriculture and Markets considers solar installations on farmland as ancillary to the farm operation if generating a maximum of 110% of the electricity needs of the farm operation. Such an installation would be considered part of the farm operation and would receive protection under NYS Agricultural District Law. However, installations that generate in excess of 110% of the needs of the farm would not be considered an agricultural operation. This scale of installation would not receive the protections under Agricultural District Law and would also be considered conversion of the land to a non-agricultural use, which may have tax implications with respect to the agricultural tax assessment program. Refer to the Solar Energy Guidelines prepared by NYSEDA (attached).

We recommend that applications for ground-mounted solar installations on farmland, particularly prime agricultural soils and soils of statewide importance (NRCS Soil Survey), should include a narrative description of how the impacts to the farm operation will be minimized and mitigated. That narrative should include a description of whether the area will be fenced off from the farm operation, if dual-use

agriculture (such as solar grazing, <https://solargrazing.org/>) was investigated for the solar array area or if the solar array will be planted as pollinator habitat or other valuable habitat intended to support the agricultural operation or ecology in the area. A decommissioning plan should detail the conditions under which the use of the solar array will be discontinued, a timeline and methods to be used to decommission the site and restore the land for agricultural use, and demonstration of an adequate escrow or other financing mechanism to ensure the decommissioning and restoration will be performed. We note that compaction of soils during installation and decommissioning can significantly impact the viability of the land for future agricultural use. We recommend that the project follow the guidelines developed by the New York State Department of Agriculture and Markets (attached).

2. Impacts of deforestation.

While the proposed solar farm would be located mostly within cleared paddock land, the site plans indicate that 197 trees are to be removed. The landscaping plan indicates that 73 new trees are to be planted. While we are generally supportive of adding more solar power to our region's energy grid, such installations should balance the expense of other environmental factors, such as the carbon-negative impact of deforestation. We recommend the Town consider if the replacement trees suitably offset this impact.

3. Potential visual impact to Mohansic County Golf Course

The subject site abuts Mohansic County Golf Course which raises a concern about visual impact. While open paddock area and forest area will remain between the solar farm and the golf course, potentially providing a visual buffer, we request the applicant prepare a visual impact analysis evaluating potential impacts to the golf course and proposing adequate mitigation.

4. Croton Watershed protection.

The site is located in the Croton Watershed. Components of the site development may be subject to compliance with the New York City Department of Environmental Protection (NYC DEP) *Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and its Sources*, including the preparation of a Stormwater Pollution Prevention Plan. Adequate erosion and sediment control and stormwater runoff water quality protection, both during and after construction, are of critical importance.

Please inform us of the Town's decision so that we can make it a part of the record.

Thank you for calling this matter to our attention.

Respectfully,
WESTCHESTER COUNTY PLANNING BOARD

By: 

Norma V. Drummond
Commissioner

NVD/MV

cc: Kathy O'Connor, Commissioner, Department of Parks, Recreation & Conservation
Peter Tartaglia, First Deputy Commissioner, Department of Parks, Recreation & Conservation
Cynthia Garcia, Bureau of Water Supply, SEQR Coordination Section, NYC DEP



September 1, 2021

RECEIVED
PLANNING DEPARTMENT
SEP 1 2021
TOWN OF YORKTOWN

Robyn A. Steinberg, AICP
Town of Yorktown Planning Board
363 Underhill Avenue, P.O. Box 703
Yorktown Heights, NY 10598

*Vincent Sapienza P.E.
Commissioner*

**Re: Notice of Intent to be Lead Agency
Arcadia Solar Farm
1300 Baptist Church Road
Town of Yorktown, Westchester County
Tax Map #: 47.11-1-4
DEP Log #: 2019-CNC-0252-SQ.1**

Paul V. Rush, P.E.
Deputy Commissioner
Bureau of Water Supply
prush@dep.nyc.gov

Dear Ms. Steinberg and Members of the Planning Board:

165 Columbus Avenue
Valhalla, NY 10595

T: (845) 340-7800
F: (845) 334-7175

The New York City Department of Environmental Protection (DEP) has reviewed the Town of Yorktown Planning Board's (Board) Notice of Intent to act as Lead Agency and short Environmental Assessment Form (EAF) for the above referenced project. DEP does not object to the Board acting as Lead Agency for the Coordinated Review of the proposed action pursuant to the New York State Environmental Quality Review Act (SEQRA).

The proposed site is located in the New Croton Reservoir drainage basin of New York City's Water Supply. As New Croton Reservoir is phosphorous restricted, water quality impacts to the receiving reservoir from pollutant-laden runoff must be avoided or mitigated.

The proposed action involves the installation of 2,236 445W Solar Modules, eight (8) 100kWAC Solar Edge Inverters, one (1) 800A Combinar Panel, one (1) 800A A/C Disconnect Switch, and one (1) 100kVA Transformer.

DEP's status as an involved agency stems from its review and approval authority for a Stormwater Pollution Prevention Plan (SWPPP) pursuant to Section 18-39 of the *Rules and Regulations for the Protection from Contamination, Degradation, and Pollution of the New York City Water Supply and Its Sources* (Watershed Regulations).

Based upon review of the submitted documents, DEP respectfully submits the following comments for the Board's consideration:

1. Although the solar panels are shown on the site plan as mounted on the ground using piles, it is unclear how the rain falling on the panels will be dissipated. The project sponsor must show the arrays with onsite topographic contours labeled on the site plan to verify whether the configuration of the arrays will result in parallel and concentrated flows

converging to the nearest watercourse. The project sponsor should explain how stormwater runoff will be dispersed onto the ground surface based on this solar panel arrangement. Please also note that offsite contours are not provided in order to verify whether a significant offsite drainage area contributes runoff to the proposed area of construction. At a minimum, contour information should be shown to confirm how runoff is managed both during and after construction.

2. According to SPDES General Permit, GP-015-002, Table 1 in Appendix B, solar arrays are considered an environment enhancement project. As such, pursuant to Watershed Regulations Section 18-39(b) (3) (ii), the applicant's representative must demonstrate whether this project will alter the hydrology from pre to post development conditions, and thus whether permanent post-development stormwater practices are required.
3. It appears that the some of the panels will be placed over the existing access roads and, as such, the applicant must confirm and indicate on the plans all proposed access roads that will be installed as part of this project. Also, the plans include some rectangular symbols that are not called out and should be properly labeled.
4. Although the EAF indicates 5.11 acres of project disturbance, the extent and nature of soil disturbance associated with panel installation must be provided. For example, a breakdown must be included for all disturbances associated with new access roads, trenching activities anticipated for the installation of MC cable, and the pad-mounted utility meter, generator, and transformer pad. The applicant's representative is encouraged to schedule a virtual pre-application meeting with DEP via Microsoft Teams to discuss the project SWPPP further. In addition, the applicant's representative should contact DEP representative Mariyam Zachariah at (914) 749-5357 to schedule a site walk to validate the presence and status of any watercourses onsite or in proximity to the site.
5. It is not clear from the information provided exactly how many trees will be removed. Loss of trees and/or vegetative cover increases the volume of stormwater runoff and the potential for pollutant loading and turbid stormwater flows to receiving wetlands and other surface water features. The project sponsor is encouraged to explain how these potential impacts will be alleviated both during and after the construction of the facility.
6. The submitted plans do not include information on proposed erosion and sediment control practices and methods to be utilized during construction. Without this information, it is difficult for involved

parties to analyze the extent of disturbance and potential adverse impacts in a presently dense vegetated area.

7. The proposed action may alter drainage flow or patterns of surface water runoff and may be incompatible with existing drainage patterns. Physical changes to the site may alter the existing direction of flow and may cause additional erosion and sedimentation. The impact of site improvements on existing flow patterns must be addressed, and mitigation proposed for adverse impacts that cannot be avoided.
8. The majority of the plants listed in the landscape plan L-701 are not native to the Hudson Valley region including *Cornus kousa*, *Malus x domestica*, *Picea abies*, *Pyrus communis*, *Hibiscus syriacus*, and *Mahonia aquifolium*. In addition, *Hibiscus syriacus* does have a tendency to escape cultivation and while not yet considered an invasive species in New York State, this species is considered invasive in several southeastern states. The submission included a Planting Recommendation letter from Paul Cowie Forestry that includes a diverse list of native tree and shrub species. It is suggested that the plant list be revised to include more of the native species that were recommended by the environmental consultant.
9. The seed mix to be utilized is not identified on the plan. A native seed mix should be applied at the manufacturer's suggested rate. The seed mix selected should tolerate the challenging microhabitat surrounding and below a solar array. For instance, if the site will be mowed only once annually, ERNMX-611 Northeast Solar Pollinator 4' Mix from Ernst Conservation Seed or equivalent should be considered. This mix provides a diverse species palette to accommodate the alternating shade/sun and moist/dry habitat of the solar farm. If the site will be regularly mowed, ERNMX-186-1 Native/ Naturalized Solar Farm Seed Mix is a turf grass option.
10. The submission included an analysis of the CO2 sequestration services provided by the trees that will be removed if the plan is approved as currently proposed. It is important to note that CO2 sequestration is one of many ecosystem services provided by forested land cover. Forested ecosystems also provide many important water quality and habitat functions. It is understandable in this context that an impact analysis focuses on CO2 sequestration but assessing only one function misses a more comprehensive assessment of function loss. The totality of ecosystem services provided by native forest cover, especially in a drinking water supply watershed, should be considered.

Thank you for the opportunity to provide comments. You may reach the undersigned at cgarcia@dep.nyc.gov or (914) 749-5302 with any questions or if you care to discuss the matter further.

Sincerely,

Cynthia Garcia

Cynthia Garcia,
Supervisor
SEQRA Coordination Section

X: J. Petronella, NYSDEC Region 3
H. Lukas, WCPD

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. 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; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either “Yes” or “No”. If the answer to the initial question is “Yes”, complete the sub-questions that follow. If the answer to the initial question is “No”, proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Ecogy Arcadia Ground Mount Community Solar System		
Project Location (describe, and attach a general location map): 1300 Baptist Church Rd, Yorktown Heights, NY 10598		
Brief Description of Proposed Action (include purpose or need): Construction and operation of a 993.9 kW DC/800 kW AC ground mounted community solar system. The proposed solar system would occupy approximately 6 acres, with the remaining acreage of the site continuing existing farm operations. The project consists of the installation of 2208 450W Solar Modules, 8 100kW AC SolarEdge Inverters, 1 1200A Combiner Panel, 1 1200A A/C Disconnect Switch, and 1 1000kVA Transformer. A maximum of 87 trees will be removed to accommodate the solar system and the stumps of some trees will remain in place around the perimeter of the solar system. The solar system will be enclosed in a wildlife-friendly fence and accessed via an extension of the existing road on the property. The new section of access road will be gravel. Some of the equipment will be mounted on concrete pads. The solar modules will be mounted on racking above the ground and the racking will be supported by driven piles.		
Name of Applicant/Sponsor: Michael Tarzian, Croton Energy Group	Telephone: 646-866-4734	E-Mail: mtarzian@crotonenergy.com
Address: 75 South Riverside Ave		
City/PO: Croton-on-Hudson	State: NY	Zip Code: 10520
Project Contact (if not same as sponsor; give name and title/role): Julia Magliozzo, Ecogy Energy	Telephone: 718-304-0945 ext 2	E-Mail: julia.magliozzo@ecogyenergy.com
Address: 315 Flatbush Ave #393		
City/PO: Brooklyn	State: NY	Zip Code: 11217
Property Owner (if not same as sponsor): Arcadia Holding Co., LLC	Telephone: 914-455-2477	E-Mail: arcadia6706@aol.com
Address: 1300 Baptist Church Rd		
City/PO: Yorktown Heights	State: NY	Zip Code: 10598

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. (“Funding” includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No or Village Board of Trustees		
b. City, Town or Village Planning Board or Commission <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Yorktown Planning Board Site Plan Approval and Special Use Permit Application	Submitted 4/28/2021
c. City, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
d. Other local agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Yorktown Conservation Board Approval	Submitted May 2021
e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Westchester County Planning Board	Deferred to Yorktown Planning Board on 8/30/2021
f. Regional agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYC DEP	Expected submission 11/15/2021
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NY DEC	Expected submission 11/15/2021
h. Federal agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
i. Coastal Resources.		
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
iii. Is the project site within a Coastal Erosion Hazard Area?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? Yes No

- If Yes, complete sections C, F and G.
- If No, proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? Yes No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? Yes No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) Yes No

If Yes, identify the plan(s):

NYC Watershed Boundary
 Westchester County Agricultural District 2017 Recertification Report and 2018 Westchester County Agricultural District

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? Yes No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. Yes No
If Yes, what is the zoning classification(s) including any applicable overlay district?

R1-160 _____

b. Is the use permitted or allowed by a special or conditional use permit? Yes No

c. Is a zoning change requested as part of the proposed action? Yes No

If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Yorktown Central School District

b. What police or other public protection forces serve the project site?
Yorktown Police Department

c. Which fire protection and emergency medical services serve the project site?
Yorktown Fire Station

d. What parks serve the project site?
N/A

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Mixed Use: Large Scale Solar Power Generation System (Ground Mount) to be added to existing Agricultural use

b. a. Total acreage of the site of the proposed action? _____ 11.67 acres
b. Total acreage to be physically disturbed? _____ 1.5 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ 6.3 acres

c. Is the proposed action an expansion of an existing project or use? Yes No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? Yes No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types) _____

ii. Is a cluster/conservation layout proposed? Yes No

iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? Yes No

i. If No, anticipated period of construction: _____ 5 months

ii. If Yes:
• Total number of phases anticipated _____
• Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
• Anticipated completion date of final phase _____ month _____ year
• Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? Yes No

If Yes, show numbers of units proposed.

	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	_____
At completion	_____	_____	_____	_____
of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? Yes No

If Yes,

i. Total number of structures 17 rows

ii. Dimensions (in feet) of largest proposed structure: 8 ft height; 335 ft width; and 395 ft length

iii. Approximate extent of building space to be heated or cooled: _____ N/A square feet

Area given is total area of the solar system

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? Yes No

If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: Ground water Surface water streams Other specify: _____

iii. If other than water, identify the type of impounded/contained liquids and their source. _____

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? Yes No
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)

If Yes:

i. What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. _____

iv. Will there be onsite dewatering or processing of excavated materials? Yes No
If yes, describe. _____

v. What is the total area to be dredged or excavated? _____ acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? Yes No

ix. Summarize site reclamation goals and plan: _____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? Yes No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will the proposed action cause or result in disturbance to bottom sediments? Yes No

If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? Yes No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

c. Will the proposed action use, or create a new demand for water? Yes No

If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? Yes No

If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? Yes No
- Is the project site in the existing district? Yes No
- Is expansion of the district needed? Yes No
- Do existing lines serve the project site? Yes No

iii. Will line extension within an existing district be necessary to supply the project? Yes No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? Yes No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? Yes No

If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

iii. Will the proposed action use any existing public wastewater treatment facilities? Yes No

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? Yes No
- Is the project site in the existing district? Yes No
- Is expansion of the district needed? Yes No

Do existing sewer lines serve the project site? Yes No
 Will a line extension within an existing district be necessary to serve the project? Yes No
 If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? Yes No
 If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? Yes No
 If Yes:

- i. How much impervious surface will the project create in relation to total size of project parcel?
 _____ 2000 Square feet or _____ acres (impervious surface)
 _____ Square feet or 11.67 acres (parcel size)
- ii. Describe types of new point sources. None
- iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?
Stormwater runoff will follow existing ground contours and is expected to infiltrate beneath the solar array.
- If to surface waters, identify receiving water bodies or wetlands: _____
 - Will stormwater runoff flow to adjacent properties? Yes No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? Yes No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? Yes No
 If Yes, identify:

- i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)
- ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)
- iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? Yes No
 If Yes:

- i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) Yes No
- ii. In addition to emissions as calculated in the application, the project will generate:
 - _____ Tons/year (short tons) of Carbon Dioxide (CO₂)
 - _____ Tons/year (short tons) of Nitrous Oxide (N₂O)
 - _____ Tons/year (short tons) of Perfluorocarbons (PFCs)
 - _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆)
 - _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflouorocarbons (HFCs)
 - _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? Yes No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? Yes No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? Yes No

If Yes:

i. When is the peak traffic expected (Check all that apply): Morning Evening Weekend
 Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? Yes No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: _____

vi. Are public/private transportation service(s) or facilities available within 1/2 mile of the proposed site? Yes No

vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? Yes No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? Yes No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? Yes No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): _____

iii. Will the proposed action require a new, or an upgrade, to an existing substation? Yes No

l. Hours of operation. Answer all items which apply.

<p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ Sunrise to Sunset _____ • Saturday: _____ • Sunday: _____ • Holidays: _____ 	<p>ii. During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ Sunrise to Sunset _____ • Saturday: _____ • Sunday: _____ • Holidays: _____
--	---

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? Yes No
 If yes:
 i. Provide details including sources, time of day and duration:
 Only during construction, Monday through Friday, small machinery will be operated such as forklifts and other instruments to move panels around to certain parts of the site to be installed. During operation the site will be at normal ambient noise levels.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? Yes No
 Describe: _____

n. Will the proposed action have outdoor lighting? Yes No
 If yes:
 i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? Yes No
 Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? Yes No
 If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? Yes No
 If Yes:
 i. Product(s) to be stored _____
 ii. Volume(s) _____ per unit time _____ (e.g., month, year)
 iii. Generally, describe the proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? Yes No
 If Yes:
 i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? Yes No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? Yes No
 If Yes:
 i. Describe any solid waste(s) to be generated during construction or operation of the facility:
 • Construction: _____ tons per _____ (unit of time)
 • Operation : _____ tons per _____ (unit of time)
 ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:
 • Construction: _____
 • Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:
 • Construction: _____
 • Operation: _____

s. Does the proposed action include construction or modification of a solid waste management facility? Yes No
 If Yes:
 i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____
 ii. Anticipated rate of disposal/processing:
 • _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
 • _____ Tons/hour, if combustion or thermal treatment
 iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? Yes No
 If Yes:
 i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

 ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

 iii. Specify amount to be handled or generated _____ tons/month
 iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

 v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? Yes No
 If Yes: provide name and location of facility: _____

 If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.
 i. Check all uses that occur on, adjoining and near the project site.
 Urban Industrial Commercial Residential (suburban) Rural (non-farm)
 Forest Agriculture Aquatic Other (specify): _____
 ii. If mix of uses, generally describe:
 The site is used for Agricultural use only. Nearby properties are residential and agricultural uses.

b. Land uses and coverytypes on the project site.

Land use or Coverytype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces			
• Forested			
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)	11.67	5.37	6.3
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)			
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: _____ _____			

c. Is the project site presently used by members of the community for public recreation? Yes No
i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? Yes No
If Yes,
i. Identify Facilities: _____

e. Does the project site contain an existing dam? Yes No
If Yes:
i. Dimensions of the dam and impoundment:
• Dam height: _____ feet
• Dam length: _____ feet
• Surface area: _____ acres
• Volume impounded: _____ gallons OR acre-feet
ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection: _____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? Yes No
If Yes:
i. Has the facility been formally closed? Yes No
• If yes, cite sources/documentation: _____
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility: _____
iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? Yes No
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred: _____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? Yes No
If Yes:
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: Yes No
 Yes – Spills Incidents database Provide DEC ID number(s): _____
 Yes – Environmental Site Remediation database Provide DEC ID number(s): _____
 Neither database
ii. If site has been subject of RCRA corrective activities, describe control measures: _____
iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? Yes No
If yes, provide DEC ID number(s): _____
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s): _____

v. Is the project site subject to an institutional control limiting property uses? Yes No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? Yes No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? _____ 12 feet

b. Are there bedrock outcroppings on the project site? Yes No
 If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %

c. Predominant soil type(s) present on project site:

Sandy loam	_____	61 %
Ridgebury complex	_____	26 %
Woodbridge loam	_____	13 %

d. What is the average depth to the water table on the project site? Average: _____ 9 feet

e. Drainage status of project site soils: Well Drained: _____ 65 % of site
 Moderately Well Drained: _____ 35 % of site
 Poorly Drained _____ % of site

f. Approximate proportion of proposed action site with slopes: 0-10%: _____ 75 % of site
 10-15%: _____ 25 % of site
 15% or greater: _____ % of site

g. Are there any unique geologic features on the project site? Yes No
 If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? Yes No

ii. Do any wetlands or other waterbodies adjoin the project site? Yes No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? Yes No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name Riverine R3UBH Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name Freshwater Wetland PFO1A Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? Yes No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

None of the identified are on the project site. They are all on adjacent properties/

i. Is the project site in a designated Floodway? Yes No

j. Is the project site in the 100-year Floodplain? Yes No

k. Is the project site in the 500-year Floodplain? Yes No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? Yes No
 If Yes:
 i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:		
<u>Butterflies and Skippers</u>	<u>Dragonflies</u>	<u>Flowering Plants</u>
<u>Edwards Hairstreak</u>	<u>Mocha Emerald</u>	<u>Globe-Fruited Ludwigia</u>
<u>Atlantic White Cedar</u>	<u>Red Maple Hardwood Swamp</u>	
n. Does the project site contain a designated significant natural community? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If Yes:		
i. Describe the habitat/community (composition, function, and basis for designation): _____		
ii. Source(s) of description or evaluation: _____		
iii. Extent of community/habitat:		
<ul style="list-style-type: none"> • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres 		
o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If Yes:		
i. Species and listing (endangered or threatened): _____		

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If Yes:		
i. Species and listing: _____		

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If yes, give a brief description of how the proposed action may affect that use: _____		

E.3. Designated Public Resources On or Near Project Site		
a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
If Yes, provide county plus district name/number: <u>WEST001</u>		
b. Are agricultural lands consisting of highly productive soils present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
i. If Yes: acreage(s) on project site? <u>4 acres</u>		
ii. Source(s) of soil rating(s): <u>Westchester Watershed Agricultural Council March 2021 map titled "Arcadia Farm Soil Boundary Map"</u>		
c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If Yes:		
i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature		
ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____		

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
If Yes:		
i. CEA name: <u>County & State Park Lands</u>		
ii. Basis for designation: <u>Exceptional or unique character</u>		
iii. Designating agency and date: <u>Agency: Westchester County, Date: 1-31-90</u>		

e. 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes:	
<i>i.</i> Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> Historic Building or District	
<i>ii.</i> Name: _____	
<i>iii.</i> Brief description of attributes on which listing is based: _____	
f. 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
g. Have additional archaeological or historic site(s) or resources been identified on the project site?	
If Yes:	
<i>i.</i> Describe possible resource(s): _____	
<i>ii.</i> Basis for identification: _____	
h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes:	
<i>i.</i> Identify resource: _____	
<i>ii.</i> Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____	
<i>iii.</i> Distance between project and resource: _____ miles.	
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes:	
<i>i.</i> Identify the name of the river and its designation: _____	
<i>ii.</i> Is the activity consistent with development restrictions contained in 6NYCRR Part 666?	
<input type="checkbox"/> Yes <input type="checkbox"/> No	

F. Additional Information


Attach any additional information which may be needed to clarify your project.

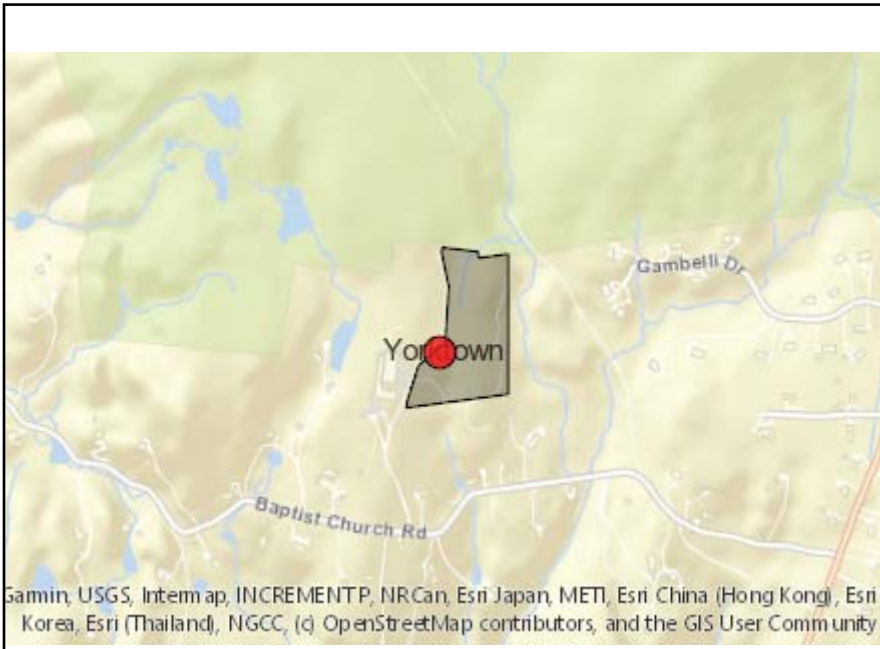
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Michael Tarzian Date 10/5/2021

Signature  Title Applicant



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYC Watershed Boundary
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	No

E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	Yes
E.3.a. [Agricultural District]	WEST001
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	Yes
E.3.d [Critical Environmental Area - Name]	County & State Park Lands
E.3.d.ii [Critical Environmental Area - Reason]	Exceptional or unique character
E.3.d.iii [Critical Environmental Area – Date and Agency]	Agency:Westchester County, Date:1-31-90
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	No
E.3.i. [Designated River Corridor]	No

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Agency Use Only [If applicable]

Project :
 Date :

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer “**Yes**” to a numbered question, please complete all the questions that follow in that section.
- If you answer “**No**” to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box “Moderate to large impact may occur.”
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the “whole action”.
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1) <i>If “Yes”, answer questions a - j. If “No”, move on to Section 2.</i>			
		<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____ _____		<input checked="" type="checkbox"/>	<input type="checkbox"/>

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g)

NO

YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____ _____	E2g	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	<input type="checkbox"/>	<input type="checkbox"/>
c. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h)

NO

YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	<input checked="" type="checkbox"/>	<input type="checkbox"/>
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	<input checked="" type="checkbox"/>	<input type="checkbox"/>

I. Other impacts: _____ _____		<input checked="" type="checkbox"/>	<input type="checkbox"/>
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4. Impact on groundwater
 The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. NO YES
 (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t)
If "Yes", answer questions a - h. If "No", move on to Section 5.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	<input type="checkbox"/>	<input type="checkbox"/>
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	<input type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

5. Impact on Flooding
 The proposed action may result in development on lands subject to flooding. NO YES
 (See Part 1. E.2)
If "Yes", answer questions a - g. If "No", move on to Section 6.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in development within a 100 year floodplain.	E2j	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in development within a 500 year floodplain.	E2k	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	<input type="checkbox"/>	<input type="checkbox"/>
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	<input type="checkbox"/>	<input type="checkbox"/>

g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
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6. Impacts on Air			
The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D.2.h, D.2.g) <i>If "Yes", answer questions a - f. If "No", move on to Section 7.</i>		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels: i. More than 1000 tons/year of carbon dioxide (CO ₂) ii. More than 3.5 tons/year of nitrous oxide (N ₂ O) iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs) iv. More than .045 tons/year of sulfur hexafluoride (SF ₆) v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions vi. 43 tons/year or more of methane	D2g D2g D2g D2g D2g D2h	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	<input type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

7. Impact on Plants and Animals			
The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) <i>If "Yes", answer questions a - j. If "No", move on to Section 8.</i>		<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	<input checked="" type="checkbox"/>	<input type="checkbox"/>

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____ _____	E1b	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

8. Impact on Agricultural Resources			
The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.)		<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
<i>If "Yes", answer questions a - h. If "No", move on to Section 9.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, E1b	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	E1 a, E1b	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____		<input checked="" type="checkbox"/>	<input type="checkbox"/>

9. Impact on Aesthetic Resources The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.) <i>If "Yes", answer questions a - g. If "No", go to Section 10.</i>			
		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	<input type="checkbox"/>	<input type="checkbox"/>
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile 1/2 -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	<input type="checkbox"/>	<input type="checkbox"/>
g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

10. Impact on Historic and Archeological Resources The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.) <i>If "Yes", answer questions a - e. If "No", go to Section 11.</i>			
		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on the National or State Register of Historical 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.	E3e	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	<input type="checkbox"/>	<input type="checkbox"/>

d. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
e. If any of the above (a-d) are answered “Moderate to large impact may occur”, continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	<input type="checkbox"/>	<input type="checkbox"/>
ii. The proposed action may result in the alteration of the property’s setting or integrity.	E3e, E3f, E3g, E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	<input type="checkbox"/>	<input type="checkbox"/>

11. Impact on Open Space and Recreation			
The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan. (See Part 1. C.2.c, E.1.c., E.2.q.) <i>If “Yes”, answer questions a - e. If “No”, go to Section 12.</i>		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or “ecosystem services”, provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	<input type="checkbox"/>	<input type="checkbox"/>
e. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

12. Impact on Critical Environmental Areas			
The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d) <i>If “Yes”, answer questions a - c. If “No”, go to Section 13.</i>		<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

13. Impact on Transportation

The proposed action may result in a change to existing transportation systems.

NO

YES

(See Part 1. D.2.j)

If "Yes", answer questions a - f. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action will degrade existing transit access.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

14. Impact on Energy

The proposed action may cause an increase in the use of any form of energy.

NO

YES

(See Part 1. D.2.k)

If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	<input type="checkbox"/>	<input type="checkbox"/>
e. Other Impacts: _____ _____			

15. Impact on Noise, Odor, and Light

The proposed action may result in an increase in noise, odors, or outdoor lighting.

NO

YES

(See Part 1. D.2.m., n., and o.)

If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in routine odors for more than one hour per day.	D2o	<input checked="" type="checkbox"/>	<input type="checkbox"/>

d. The proposed action may result in light shining onto adjoining properties.	D2n	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input checked="" type="checkbox"/>	<input type="checkbox"/>

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.)
If "Yes", answer questions a - m. If "No", go to Section 17.

NO

YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	<input type="checkbox"/>	<input type="checkbox"/>
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	<input type="checkbox"/>	<input type="checkbox"/>
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	<input type="checkbox"/>	<input type="checkbox"/>
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	<input type="checkbox"/>	<input type="checkbox"/>
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	<input type="checkbox"/>	<input type="checkbox"/>
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	<input type="checkbox"/>	<input type="checkbox"/>
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	<input type="checkbox"/>	<input type="checkbox"/>
m. Other impacts: _____ _____			

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans.
 (See Part 1. C.1, C.2. and C.3.)
 If “Yes”, answer questions a - h. If “No”, go to Section 18.

NO

YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action’s land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, E1b	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	<input type="checkbox"/>	<input type="checkbox"/>
h. Other: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character.
 (See Part 1. C.2, C.3, D.2, E.3)
 If “Yes”, answer questions a - g. If “No”, proceed to Part 3.

NO

YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	<input type="checkbox"/>	<input type="checkbox"/>
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	<input type="checkbox"/>	<input type="checkbox"/>
g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

May 15, 2021

Julia Magliozzo
Director of Operations
Ecogy Energy
315 Flatbush Avenue #393
Brooklyn, NY 11217

**Re: Arcadia Farm, Yorktown, NY
Tree Inventory Evaluation and Results – Revised Project Layout**

Dear Julia:

As requested, Paul Cowie + Associates (PC+A) inventoried and evaluated the condition of existing trees at 1300 Baptist Church Road on several days between March 27 and April 5, 2021.

On May 6, 2021, PC+A returned to the site to inventory additional trees and revise the original inventory (dated April 7, 2021) to reflect a proposed new layout for the project.

The goals of this study were to:

1. Identify, measure, and evaluate the current health and structural condition of existing 'Protected Trees' within the designated tree removal areas;
2. Calculate carbon storage and sequestration benefits provided by these inventoried trees;
3. Compile a list of tree species suitable and recommended for mitigation plantings based on a review of current species performance, existing site conditions, Town preferences, and other relevant factors.

The data collected and the recommendations made for each inventoried tree are presented in the attached spreadsheet. The following is an explanation of the data parameters included and an overview of our general finding and recommendations.

Tree Included

This tree inventory and evaluation was limited to trees within and approximately 10-feet beyond the proposed tree removal area, as indicated with a blue line on the attached site plan. Tree stumps, standing dead tree trunks less than 15-feet in height, shrubs, vines, and other vegetation within these areas were not inventoried and evaluated. No other trees in any other portions of the property, or on adjacent properties, were inventoried and evaluated.

Within the designated tree removal areas, trees were included based on whether they met the definition of a 'Protected Tree,' as per Chapter 270 of the Yorktown Town Code, *Trees*. Specifically, trees rooted on the subject private property were included if they possessed at least one stem measuring at least 8.0-inches in diameter (DBH). 'Street Trees' (defined by Town Code as trees with their base at least 50-percent within the public right-of-way) were included regardless of size.

A temporary aluminum tag hand-embossed with the corresponding tree ID number (#1 - #197) was attached to each of the

trees inventoried. The approximate location of each tree is indicated on the attached site plan. Trees #1 through #110 were inventoried, measured, and evaluated in March and April 2021. Trees #160 through #197 were added on May 6, 2021. Gaps in the Tree ID sequence are a result of previously inventoried trees being dropped from this revised inventory because they were more than 10-feet outside the revised project limit.

A total of 87 standing trees are included in this revised tree inventory.

Tree Species + Exotic Invasive Status

Each tree is identified in the attached data table by both its regionally accepted common name and its botanical name.

The invasive status of each species is indicated based on species index information published by the Lower Hudson Partnership for Regional Invasive Species Management and accessed via <https://www.lhprism.org/species-information> on February 26, 2021. Within the current proposed project limit, there are no tree species that are designated as invasive per the aforementioned source.

Tree Size + Age Classification

The diameter of each inventoried tree was measured with a diameter tape to the nearest one-tenth inch at a point 4.5-feet above ground level (DBH), or at the height indicated when branching or abnormal swellings at 4.5-feet would produce an inaccurate measurement.

In the case of multiple-stem trees, the diameter of each stem was measured and recorded, and the root sum squared of the stems ($RSS = \sqrt{D1^2 + D2^2 + D3^2 \dots}$) was calculated to provide a single-stem equivalence for the purpose of determining critical root zone radii.

Total tree height, crown height, and crown width were measured using a Leica Disto D810 Touch laser distance meter.

- Total tree height was measured to the nearest whole foot from the ground to the highest main body foliage.
- Crown height was measured from the ground to the bottom of main body foliage at the outer edge of the crown and/or lowest scaffold branch (whichever came first); individual low hanging small branches were excluded.
- Crown spread was measured at the widest point of the main body drip line; individual extended small branches were excluded. For asymmetrical crowns, the crown was either measured 1) by averaging two perpendicular crown diameters or 2) by averaging four crown radii at right angles relative to each other, multiplying by 2, and adding the diameter in feet. Measurements were rounded to the nearest whole foot.

The age class of each individually inventoried tree was recorded based on apparent age relative to the normal life expectancy of the species. Age was classified as 'Young' if the tree had exhausted up to 20% of the species' typical life expectancy, 'Mature' if it had exhausted 20% to 80% of the species' life expectancy, or 'Over-Mature' if it had exhausted more than 80% of the species' life expectancy.

Critical Root Zone (CRZ)

Critical root zone radius (CRZ) is the ground area around a tree which, if fully protected from soil compaction, grade changes, excavation, and other soil and root-damaging impacts, will ensure that tree health and structural integrity will not be compromised by construction activity. This information is provided to assist designers in locating grading, pavement, underground utilities, and other proposed improvements in a manner that minimizes impacts to any trees that may be retained.

Tree Condition

The condition of each inventoried tree was systematically evaluated and rated with consideration given to both the health and vigor and the structural integrity of the root system, primary stems, scaffold branching, small branches and twigs, and foliage.

A rating of 'Good', 'Fair', or 'Poor' was assigned separately to the health and vigor as well as to the structure and form of each inventoried tree. An 'Overall Condition' rating was then assigned, as follows:

- *Good*: The tree had no more than one or two minor health disorders and/or structural defects and was growing with normal vigor;
- *Fair*: The tree had 2 – 4 minor, or one major, health disorders and/or structural defects, and/or was growing with below-normal vigor or other limitations.
- *Poor*: The tree had several minor, or two or more major, health disorders and/or structural defects, and/or was declining in vigor.
- *Dead*: 75% or more of the crown was dead and any remaining live portions were deteriorating in health.

For the purpose of carbon benefits modeling, health and vigor ratings were converted to corresponding percentages (i.e. Good = 75% - 100%, Fair = 50% - 75%, Poor = 25% - 50%, Dead/Dying = 0% - 25%) and percent crown dieback and percent missing crown were recorded.

Please note that inspection of the inventoried trees was limited to visual observations from the ground and did not include climbing, aerial inspections, subsurface exploration, wood strength testing, or other advanced diagnostic techniques, which may be necessary to fully identify and evaluate the severity of certain health disorders and structural defects. Therefore, certain health disorders and/or structural defects may have not been noted or their extent may not have been fully determined.

Observations

The 'Disorders + Defects, Comments, Additional Recommendations' column contains various comments regarding the nature and severity of disorders and defects noted, particularly where they resulted in reduced condition ratings and/or recommendations for tree removal.

Additionally, this column contains additional treatment recommendations not included in the subsequent recommendation columns.

Maintenance Recommendations

It is PC+A's understanding that all existing trees within the designated areas are proposed for removal. Nevertheless, where appropriate, recommendations for pruning to remove dead, dying, damaged, and/or diseased limbs, pruning to improve branch architecture, cabling to reduce the risk of failure at certain branch defects, or other treatments were made based on conditions observed at the time each tree was evaluated.

This information is provided to further characterize the trees' current condition and provide guidance in the event that decisions are made to preserve any of the trees.

Terminology for various pruning types (e.g. 'Clean Crown', 'Raise Crown', 'Reduce Crown', 'Structural prune', etc.) correspond to ANSI A300 *American National Standard for Tree Care Operations*.

Each recommendation was prioritized based on the severity of potential safety risks first (e.g. large dead trees versus small dead trees, trees containing large dead limbs versus small dead branches, etc.) and addressing tree health and appearance

second. The priority of each recommendation was ranked as High ('H'), Medium ('M'), or Low ('L'). These recommendations should be implemented in order of decreasing priority.

Tree Removal Recommendations

Definitive recommendations for tree removal were made for trees that were dead, had substantial dieback and/or limited remaining life expectancy, or possessed severe, irreparable structural defects that pose potential safety risks.

It is PC+A's opinion that those trees for which a specific removal recommendation was made should be removed whether or not the project proceeds. Further, it is PC+A's interpretation that those trees satisfy the 'Permit Not Required' exemptions provided in Section 270-5 of the Yorktown Town Code.

At this time, twenty-eight trees are recommended for removal due to death, severely deteriorated and irreparable health or structural condition, or limited remaining life expectancy. Seventeen of the trees recommended for removal are white ash (*Fraxinus americana*) trees with severe emerald ash borer infestation. Many of these ash trees are dead or near dead and the remainder will almost certainly succumb within the next year or two.

Tree Inventory Summary

Count of Protected Trees by Lower Hudson PRISM invasive status and current condition (Viable Trees = trees to be removed for design reasons only; Non-Viable Trees = trees requiring removal regardless of the design because they are dead, dying, diseased, or in an otherwise deteriorated and irreparable health or structural condition and, therefore, exempt from permit requirements).

INVASIVE STATUS	VIABLE TREES TO BE REMOVED	NON-VIABLE TREES REQUIRING REMOVAL DUE TO CONDITION	TOTAL
Invasive	0	0	0
Non-Invasive	59	28	87
TOTAL	59	28	87

Carbon Benefits Estimation via iTree Eco

The Eco module of the iTree software suite was used to calculate current carbon storage and annual sequestration rates for the inventoried trees. Relevant reports produced by the iTree Eco model are attached.

iTree was developed and is under active review and constant improvement by a consortium of industry organizations and experts led by the U.S. Forest Service. It is widely considered to be the current state of the art and is the most widely used tool for calculating the level and value of a variety of ecosystem services that trees provide in urban and rural settings.

iTree Eco requires specific inputs to run its models. PC+A used the following data derived from the measurements described above to run the carbon models:

- Weather: 2016 weather and pollution data from the Westchester County Airport weather station in White Plains, NY.
- Species
- DBH: Diameter at breast height (4.5-feet above the ground), or the single-stem equivalent for multi-stem trees.
- Total Tree Height
- Crown Height
- Crown Width
- Crown Condition
- Crown Dieback / Missing Crown

Please do not hesitate to contact me if you have any questions or require any additional information.

Sincerely,

PAUL COWIE AND ASSOCIATES



Paul F. Cowie
President

PFC:pc
Encl.

ARCADIA GROUND MOUNT PV SYSTEM

985.88 KW-DC SOLAR PV SYSTEM
1300 BAPTIST CHURCH ROAD
YORKTOWN HEIGHTS, NEW YORK 10598

SCOPE OF WORK:

TO INSTALL A GROUND MOUNTED SOLAR PHOTOVOLTAIC (PV) SYSTEM. THE POWER GENERATED BY THE PV SYSTEM WILL BE INTERCONNECTED WITH THE UTILITY GRID

THE PV SYSTEM DOES NOT INCLUDE STORAGE BATTERIES

CODES & STANDARDS:

2017 NATIONAL ELECTRICAL CODE
2015 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL FIRE CODE
UL 1741

LOT INFORMATION:

11 +/- ACRES
PARCEL ID # 47.11-1-4
ZONING DISTRICT - R-1 ONE FAMILY RESIDENTIAL

RECORD OWNER:

ARCADIA HOLDING CO., LLC
14 SUN VALLEY ROAD
NORTH SALEM, NEW YORK 10560

RECORD APPLICANT:

ECOGY NEW YORK XIII, LLC
315 FLATBUSH AVENUE #393
BROOKLYN, NEW YORK 11217

SYSTEM SUMMARY:

985.88 KW DC
800.0 KW-AC

TILT ANGLE = 20 °
AZIMUTH = 172 °

EQUIPMENT:

MODULE:
(2,186) BOVIET 450W MODULE

INVERTER:
(8) SOLAREEDGE 100K-US INVERTER

RACKING:
UNIRAC

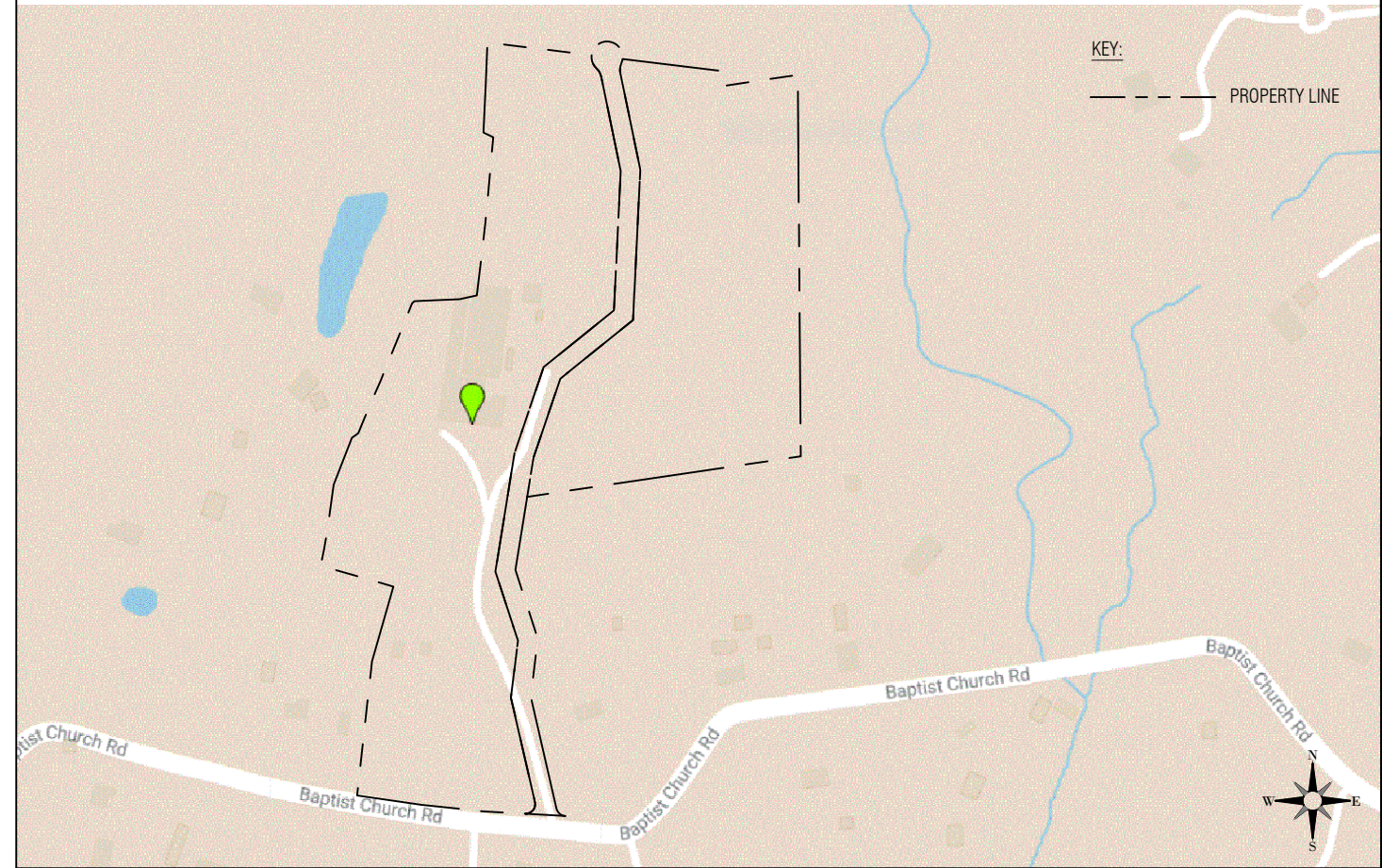
DAS:
ECOGY ECONODE

UTILITY:

CON ED

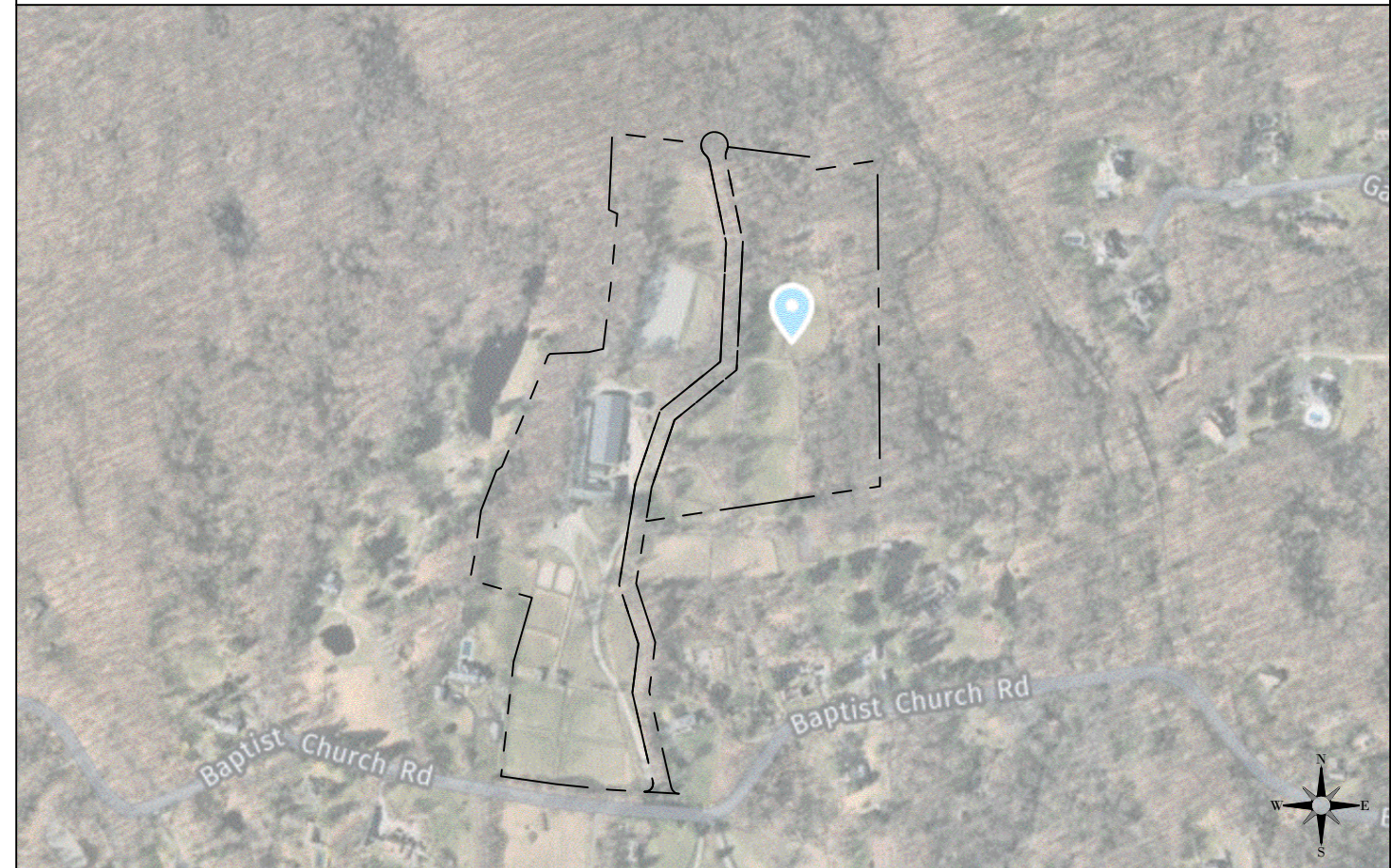
LOCATION MAP

SCALE: NTS



SATELLITE MAP

SCALE: NTS



ECOGY ENERGY
315 FLATBUSH AVENUE, #393
BROOKLYN, NY 11217
projectmanagement@ecogyenergy.com
(718)-304-0945

Ecogy New York XIII LLC

Project Name:
**ARCADIA GROUND
985.88 kW-DC**

Project Site:
**1300 BAPTIST CHURCH RD
YORKTOWN, NY, 10598**

										BY	DATE	REVISION DESCRIPTION	#

Professional Stamp

PRELIMINARY

SHEET NAME:

TITLE SHEET

PROJECT NUMBER: ---	DRAWN BY: DQP	CHECKED BY: ---
DATE: 07/28/2021	DWG. NUMBER: G-001	SHEET NUMBER: - of -

DRAWING LIST	
DWG. NO.	DRAWING TITLE
G-001	TITLE SHEET
PV-101	SITE PLAN
PV-101.1	PARTIAL SITE PLAN
PV-507	MISCELLANEOUS DETAILS
PV-200	GROUND MOUNT ELEVATION
PV-200.1	GROUND MOUNT DETAIL

**REVIEW PLAN SET
ISSUE DATE: 07/28/2020**

CUSTOMER EQUIPMENT KEY:

- (A) SOLAREEDGE INVERTERS
- (B) 600A AC COMBINER PANEL
MAIN PV AC 1200 A DISCONNECT
SECONDARY METER
DAS (ECONODE)
- (C) NEW CUSTOMER OWNED RISER POLE WITH METER

UTILITY EQUIPMENT KEY:

- (1) EXISTING UTILITY POLE #30
- (2) EXISTING UTILITY POLE #29
- (3) NEW UTILITY OWNED POLE
- (4) NEW UTILITY OWNED TRANSFORMER

SYMBOLS LEGEND:

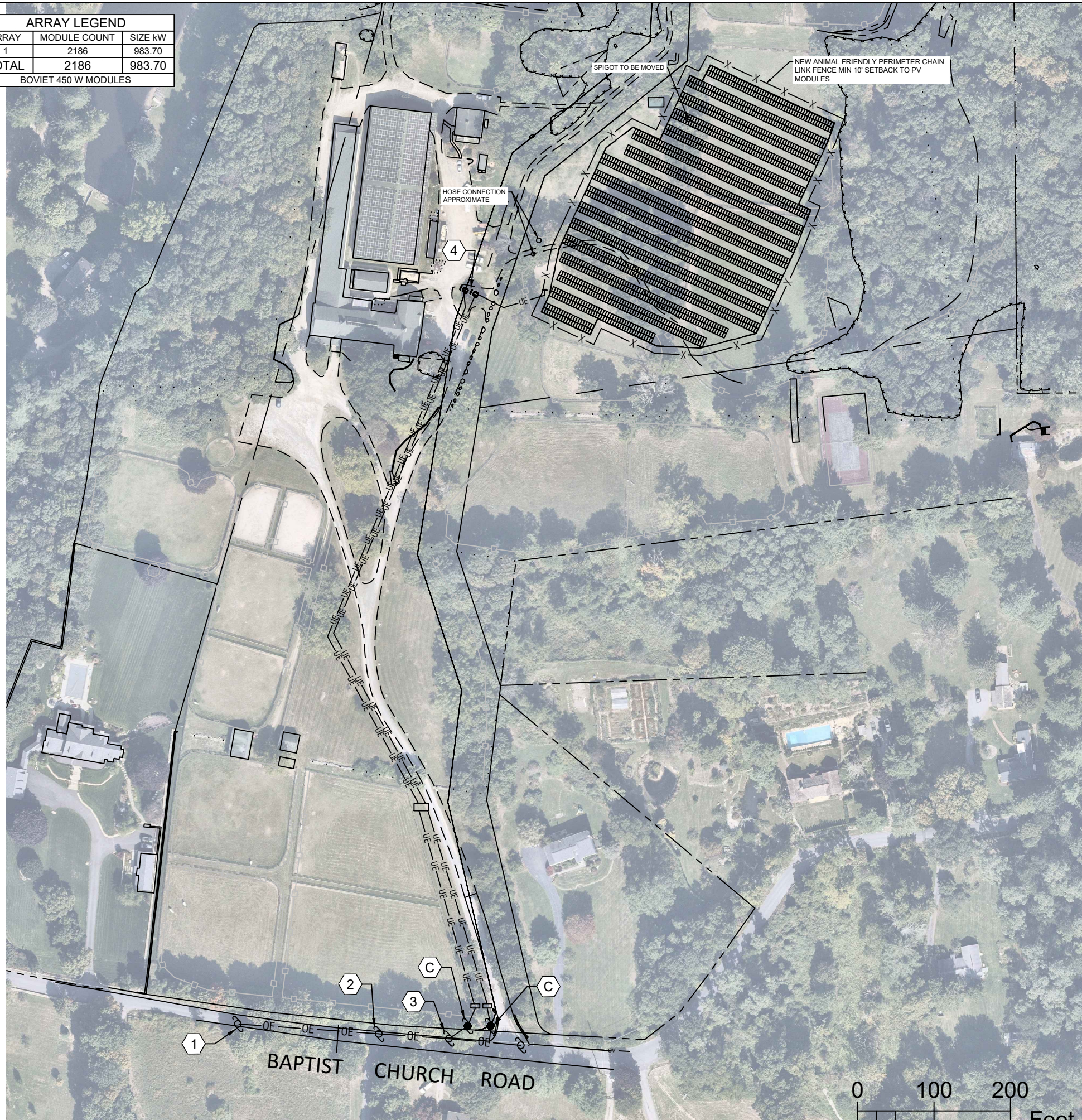
- EXISTING UTILITY POLE
- PROPOSED UTILITY POLE

LINETYPE LEGEND:

- APPROXIMATE PROPERTY LINE
- - - - - PROPERTY LINE SETBACK
- x-x-x- PROPOSED CHAINLINK FENCE
- OE-OE- OVERHEAD ELECTRIC
- UE-UE- UNDERGROUND ELECTRIC
- . . . - APPROXIMATE WETLAND BOUNDARY
- - - - - WETLAND 100' BUFFER

ARRAY LEGEND		
ARRAY	MODULE COUNT	SIZE KW
1	2186	983.70
TOTAL	2186	983.70

BOVIET 450 W MODULES



ECOGY ENERGY
 315 FLATBUSH AVENUE, #393
 BROOKLYN, NY 11217
 projectmanagement@ecogyenergy.com
 (718)-304-0945

Ecogy New York XIII LLC

Project Name:
ARCADIA GROUND
985.88 kW-DC

Project Site:
1300 BAPTIST CHURCH RD
YORKTOWN, NY, 10598

#	REVISION DESCRIPTION	DATE	BY

Professional Stamp

PRELIMINARY

SHEET NAME:

SITE PLAN

PROJECT NUMBER: ---	DRAWN BY: SCG	CHECKED BY: ---
DATE: 07/28/2021	DWG. NUMBER:	
SHEET NUMBER: X of X	PV-100	



ECOGY ENERGY

ECOGY ENERGY
315 FLATBUSH AVENUE, #393
BROOKLYN, NY 11217
projectmanagement@ecogyenergy.com
(718)-304-0945

Ecogy New York XIII LLC

Project Name:
**ARCADIA GROUND
985.88 kW-DC**

Project Site:
**1300 BAPTIST CHURCH RD
YORKTOWN, NY, 10598**

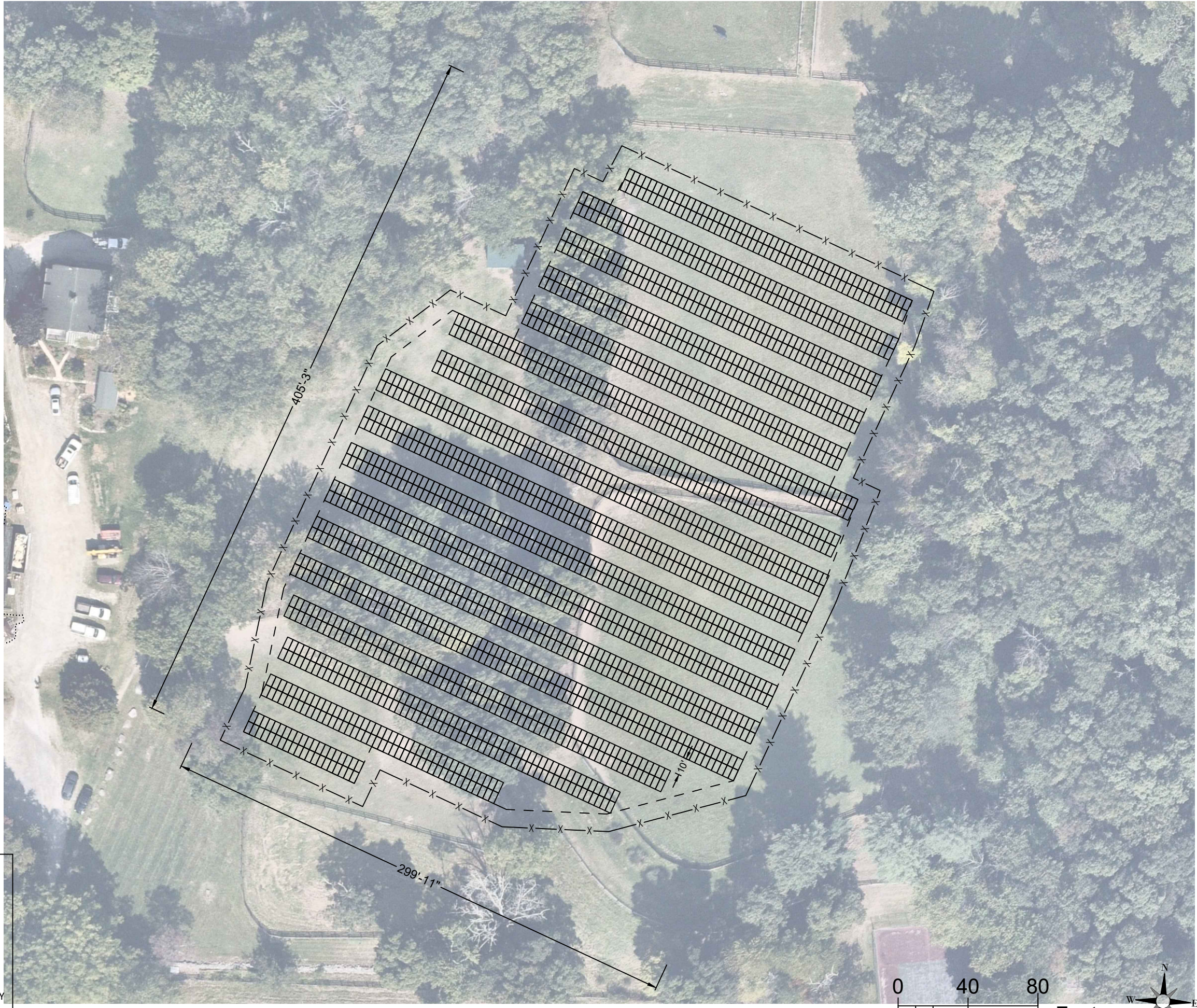
#	REVISION DESCRIPTION	DATE	BY

Professional Stamp

PRELIMINARY

SHEET NAME:
**PARTIAL
SITE PLAN**

PROJECT NUMBER: ---	DRAWN BY: SCG	CHECKED BY: ---
DATE: 07/28/2021	DWG. NUMBER: PV-100.1	
SHEET NUMBER: X of X		

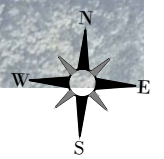


SYMBOLS LEGEND:

- EXISTING UTILITY POLE
- PROPOSED UTILITY POLE

LINETYPE LEGEND:

- APPROXIMATE PROPERTY LINE
- PROPERTY LINE SETBACK
- PROPOSED CHAINLINK FENCE
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC
- APPROXIMATE WETLAND BOUNDARY
- WETLAND 100' BUFFER





ECOGY ENERGY
315 FLATBUSH AVENUE, #393
BROOKLYN, NY 11217
projectmanagement@ecogyenergy.com
(718)-304-0945

Ecogy New York XIII LLC

Project Name:
**ARCADIA GROUND
985.88 kW-DC**

Project Site:
**1300 BAPTIST CHURCH RD
YORKTOWN, NY, 10598**

#	BY
---	----

#	DATE
---	------

#	REVISION DESCRIPTION
---	----------------------

#

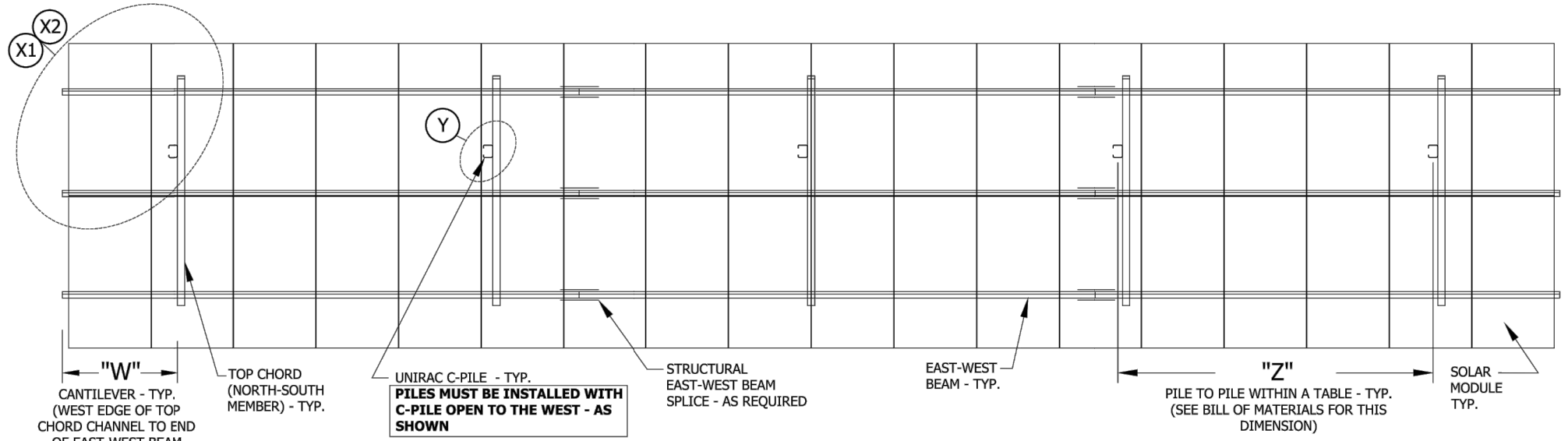
PRELIMINARY

SHEET NAME:
**GROUND MOUNT
ELEVATION**

PROJECT NUMBER: ---	DRAWN BY: DQP	CHECKED BY: ---
------------------------	------------------	--------------------

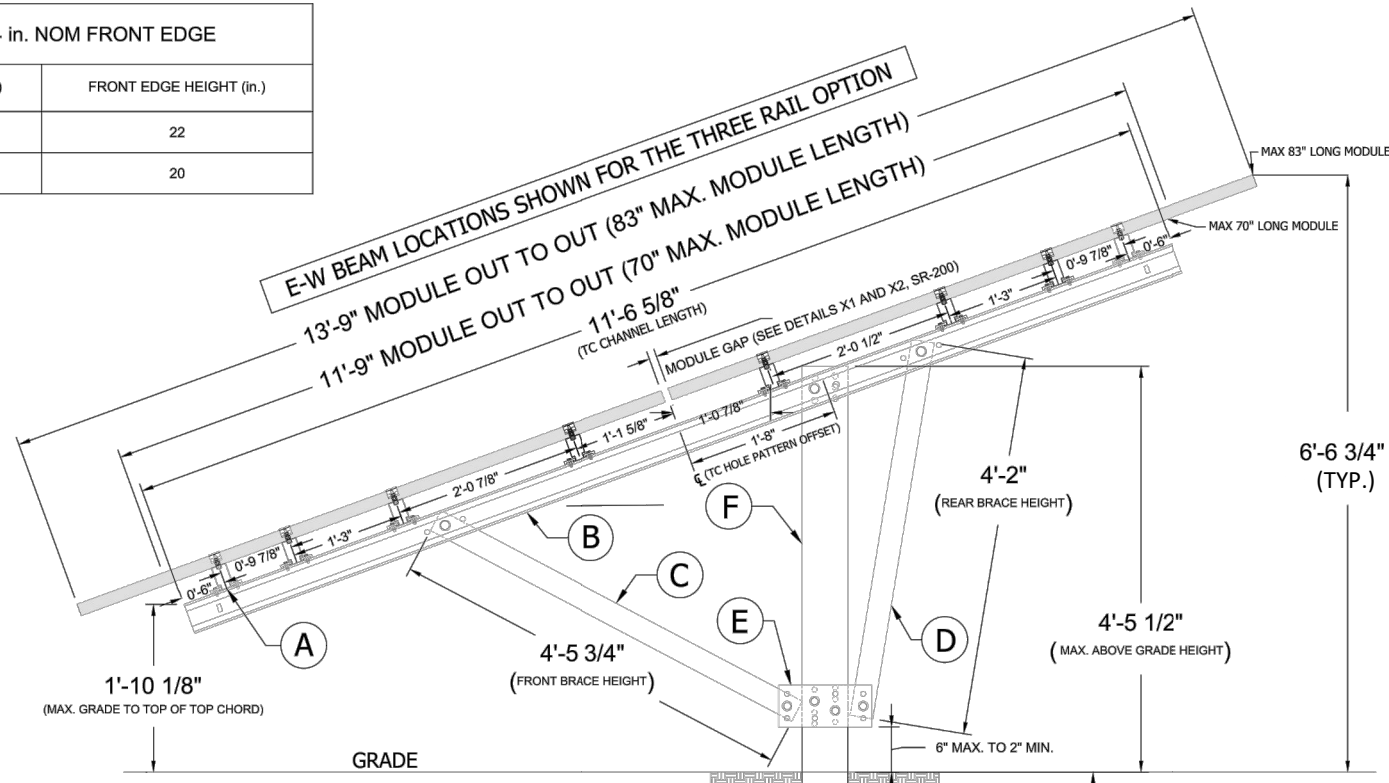
DATE: 07/28/2021	DWG. NUMBER: ---
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SHEET NUMBER: of	PV-200
---------------------	--------



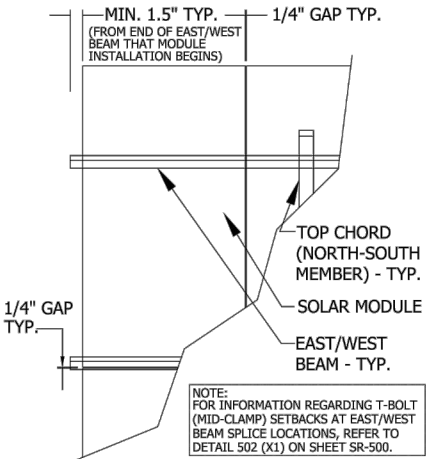
PLAN VIEW OF TABLE
SEE LETTER FOR PILE QUANTITY REQUIREMENT PER TABLE SIZE
TABLE SIZE CANNOT EXCEED 30 COLUMNS OF MODULES

20° 20-24 in. NOM FRONT EDGE	
MODULE LENGTH (in.)	FRONT EDGE HEIGHT (in.)
77	22
83	20

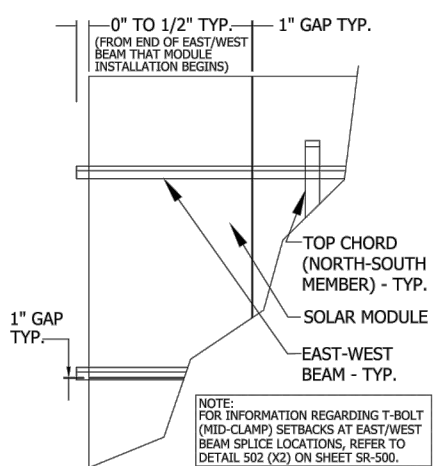


- RACKING DIMENSION NOTES:**
- THIS CROSS SECTION AND DIMENSIONS SHOWN ARE SPECIFIC TO AN 83" LONG MODULE AND A 70" LONG MODULE. ACTUAL MODULE LENGTHS WILL BE LESS THAN OR EQUAL TO WHAT IS SHOWN BASED ON THE ACTUAL SOLAR MODULE SELECTED. REFER TO THE STATE SPECIFIC CERTIFICATION LETTER FOR MORE INFORMATION ON THE LIMITS OF THIS REGION SPECIFIC RACKING DESIGN.
 - FINE TUNE ADJUSTMENTS IN THE EAST-WEST BEAM TO TOP CHORD CHANNEL CONNECTIONS EXIST. SEE SHEET SR-500 FOR ALL RACKING CONNECTION DETAILS. REFER TO THE GFT INSTALLATION GUIDE FOR ADDITIONAL INFORMATION.
 - ALL DIMENSIONS SHOWN WITH PARENTHESIS (), ARE OPTIMUM DIMENSIONS THAT MAY VARY SLIGHTLY DUE TO THE FOLLOWING: INSTALLATION SYSTEM USING DIFFERENT HOLE OPTIONS, VARIANCE IN THE PILE STICK-UP HEIGHT, MODULE SELECTION, OR VARIANCE IN THE FINISHED/EXISTING GRADE. ALL OTHER DIMENSIONS ARE FIXED.

SECTION VIEW OF GFT TABLE - 20° TILT

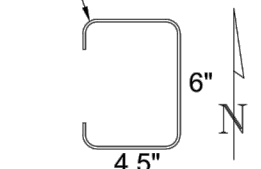


X1
DETAILED VIEW STANDARD CLAMPS
(SEE ALSO SHEET SR-500, DETAIL 502 (X1) AND 503 (X1))



X2
DETAILED VIEW PRO SERIES CLAMPS
(SEE ALSO SHEET SR-500, DETAIL 502 (X2) AND 503 (X2))

PILES MUST ALWAYS
BE INSTALLED WITH
C-PILES OPEN TO
THE WEST



Y
DETAILED VIEW

GFT PARTS LIST				
REF NUMBER	PART DESCRIPTION	CATALOG #	GAUGE/ THICKNESS	FINISH
A	ALUMINUM E-W BEAM (166\"/>			



75 S. Riverside Ave.
Croton-on-Hudson, NY 10520
914-862-4220

Developer



67 West St Suite 202 Brooklyn, NY 11222
718-304-0945
O&M Contact: John Gorman
jgorman@ecogyenergy.com
Construction Contact: Jim Donnelly
jim.donnelly@ecogyenergy.com
Project Manager: Julia Magliozzo
Projectmanagement@ecogyenergy.com

Page Size: 24" x 36"

Power Clerk Project #:

PROPERTY INFORMATION

SBL: 47.11-1-4

Block Group: 1

Lot: 4

Lot Area: 11.67 Acres

Latitude: 41°15'34.3"N

Longitude: 73°49'24.5"W

Array 1 Azimuth: 205°

Panel Tilt: 20°

PE Stamps/ Signatures

Rev	Date	Description	Initial
00	4/1/21	Design	MT

Legend

- Solar Panel
- FD Setbacks & Pathways
- Gas Line
- D/C Home Run
- A/C Home Run
- Light Shade
- Heavy Shade
- Obstruction (Vent Pipe)
- Building Outline
- Solar Inverter Electrical Equipment

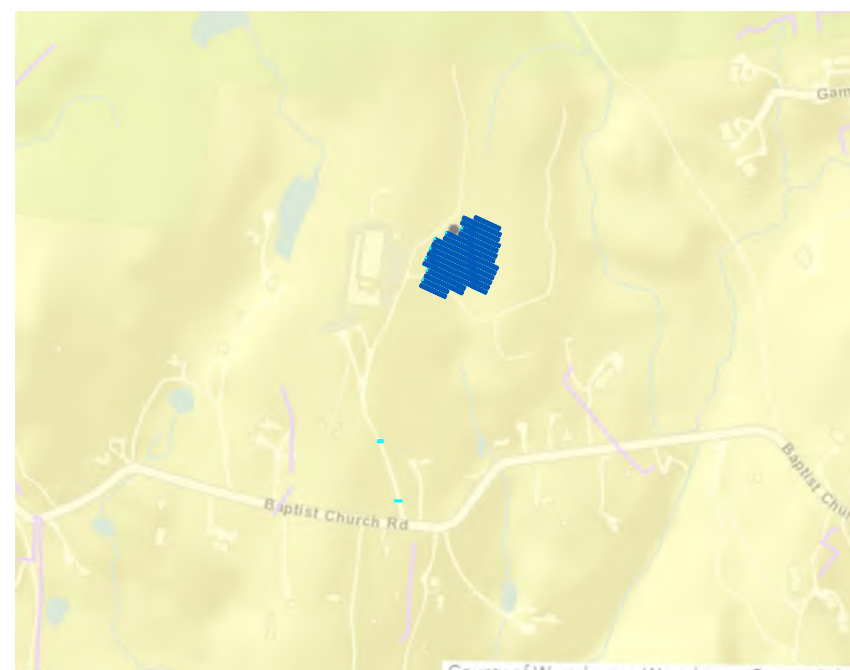
SCOPE OF WORK

- Installation of:
- (2232) Solar Modules 445W (49,662 sqft)
- (8) SolarEdge 100kW 480V Inverters
- (1) 52IT 800A Solar AC Combiner Panel
- (1) 89L 800A AC Disconnect Switch

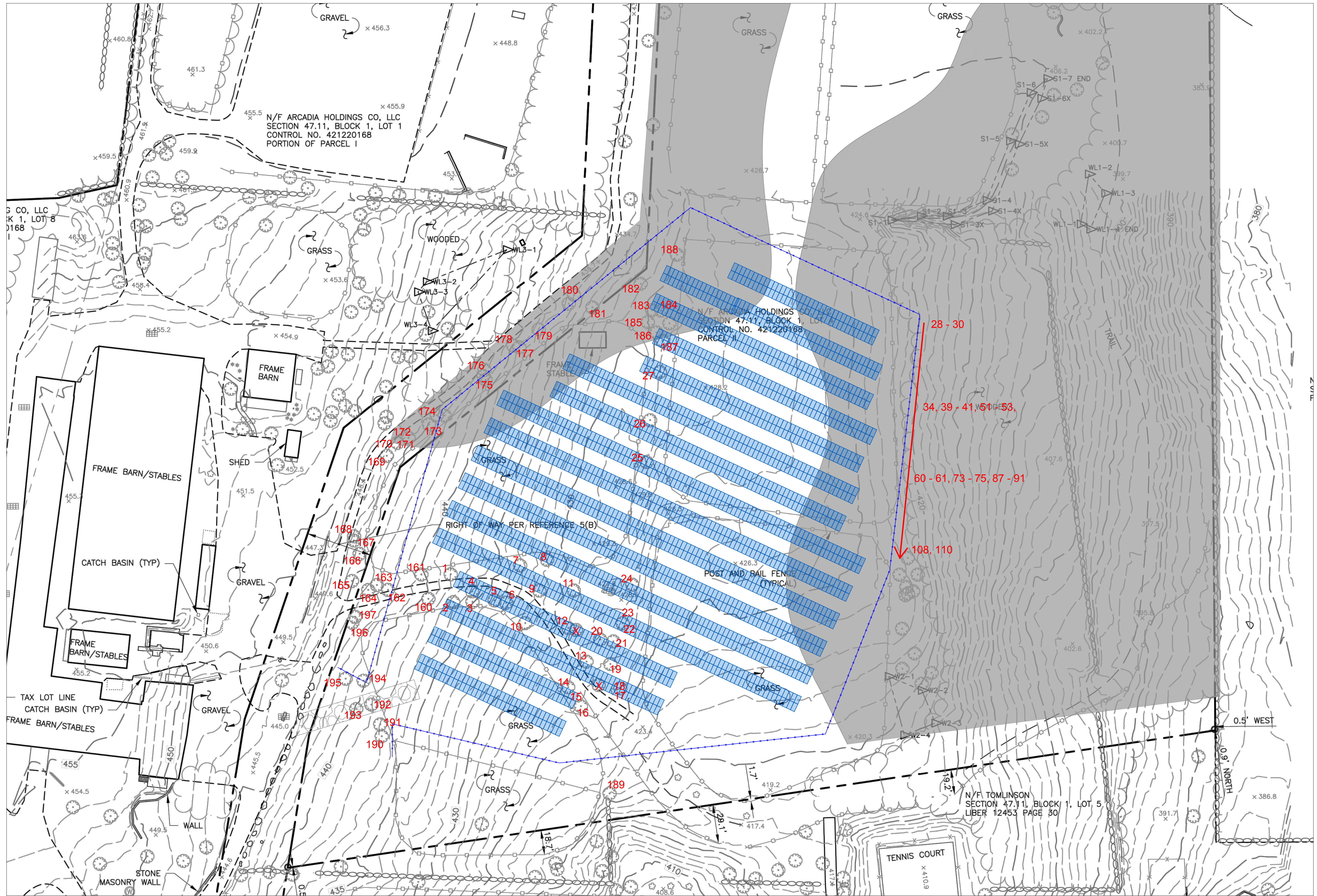
2 TAX MAP
A-000
Scale: NTS



3 UTILITY CAPACITY MAP
A-000
Scale: NTS



SCALE: 1"=10'-0" (IN FEET)
0 5 10 20



T1.0.7

0.9' NORTH

0.5' WEST

1300 Baptist Church Rd
Yorktown Hts. NY
10598







Owner: Arcadia Holding Co., LLC
Solar Modules:
(2232) 445W Solar Modules
Solar Inverters:
(8) SolarEdge 100kW 3p 480V Inv's
Solar System DC Size: 993.24kW
Solar System AC Size: 800kW
Interconnection Type:
Community Solar

SITE PLAN
OVERVIEW

Scale: See Scales Page 2 of 2

A-001.01

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
	5	Cornus alternifolia	Alternate-leaved Dogwood	3-3.5"
	7	Malus x domestica	Apple	2.5-3"
	8	Picea glauca	White Spruce	10-12'
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
	27	Hamamelis virginiana	Witchhazel	4-5'
	17	Vaccinium corymbosum	Highbush Blueberry	3-4'
GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
	32	Schizachyrium scoparium	Little Bluestem Grass	2 Gal



Malus domestica (Apple tree)



Cornus alternifolia



Picea glauca



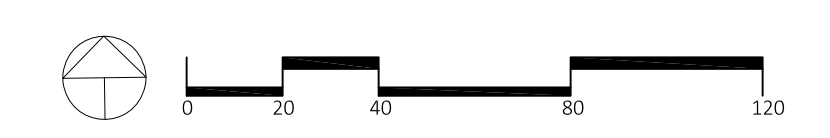
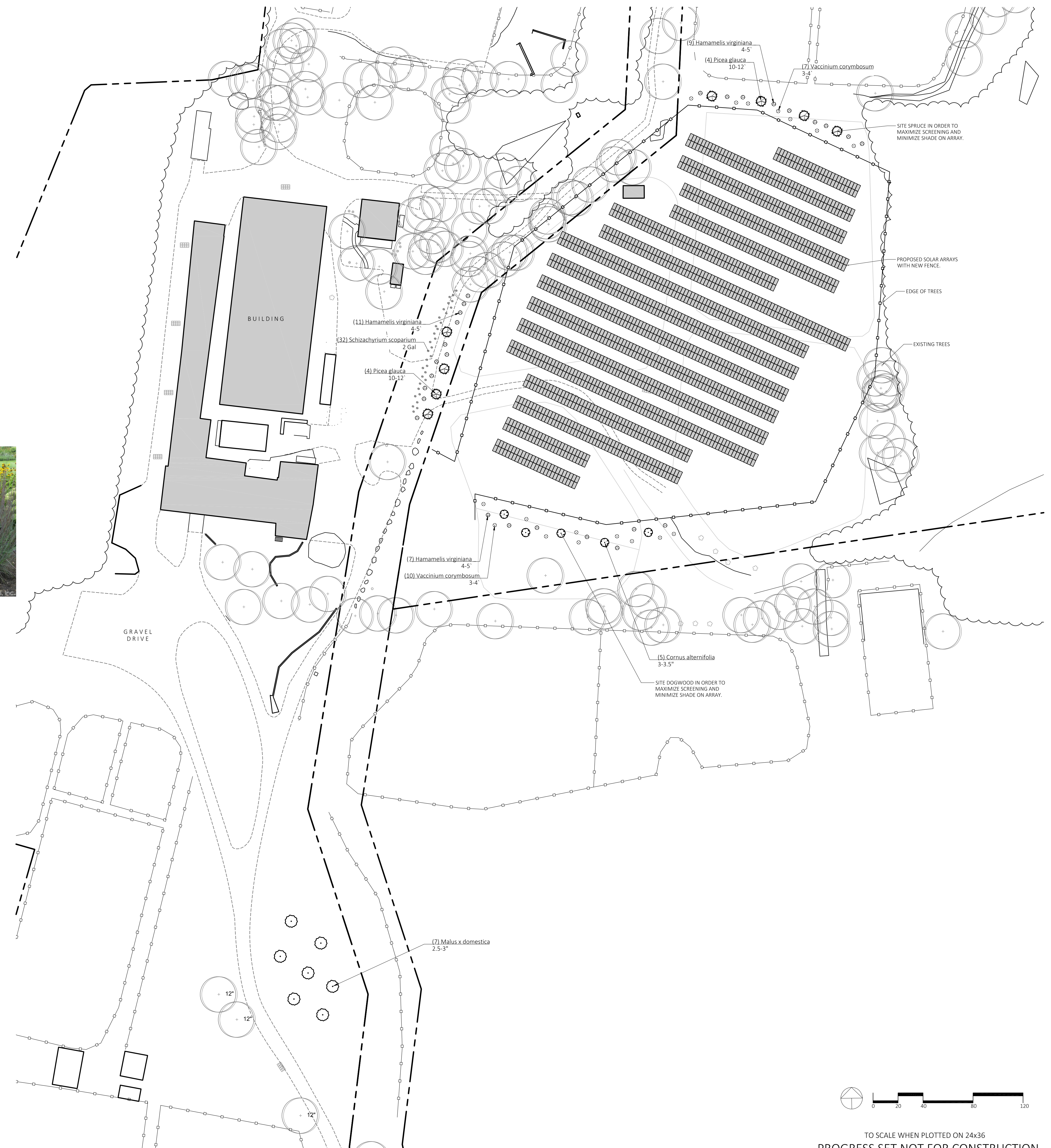
Schizachyrium scoparium



Vaccinium corymbosum



Hamamelis virginiana



TO SCALE WHEN PLOTTED ON 24x36
PROGRESS SET NOT FOR CONSTRUCTION

YOST DESIGN
LANDSCAPE ARCHITECTURE
178 elizabeth st
pearl river, ny 10965
p 845.365.4595 | f 914.361.4473
yostdesign.com

SURVEYOR:

YORKTOWN SOLAR
ARCADIA FARM
NEW YORK

DATE: MAY 25, 2021
DRAWN BY: ZIS
JOB NO: 052521
SCALE: 1" = 40'
FILENAME: 2021_0823 Yorktown Solar-Arcadia

REVISIONS:
6/2/2021
6/4/2021
6/7/2021
6/14/2021
8/23/2021

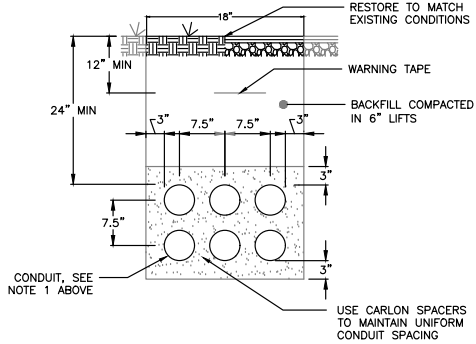
By the M Yost ASLA | Registered Landscape Architect

PLANTING PLAN

SHEET NO.

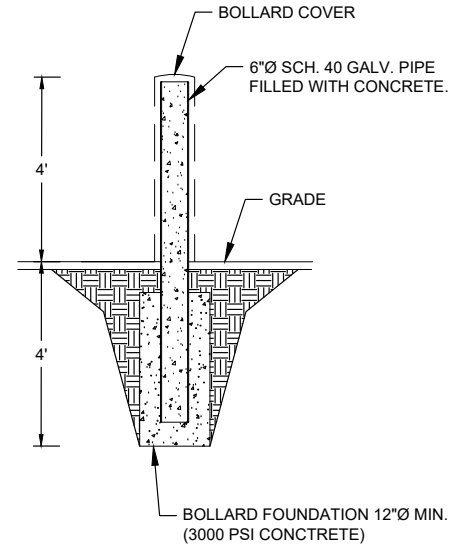
L-701

SHEET: 1 of 1

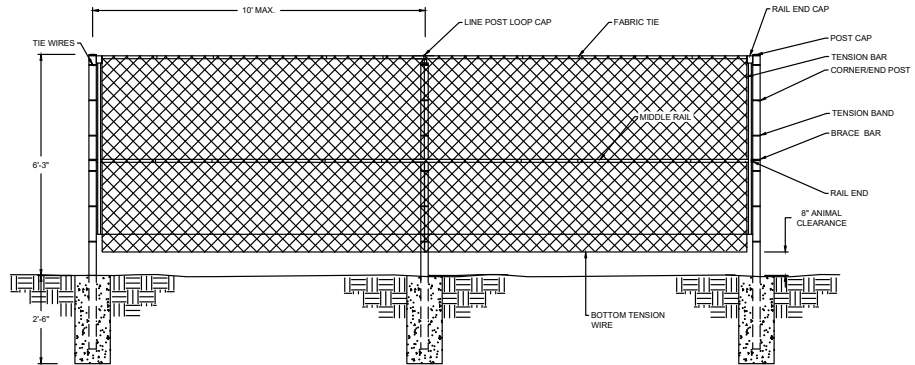


- NOTE:
1. ALL UNDERGROUND CONDUIT SHALL BE PVC AND TRANSITION TO RMC FOR ELBOW. RMC ELBOW DOES NOT NEED TO BE BONDED IF ANY PART OF THE ELBOW IS 18" DEEP (NEC 250.86 EXCEPTION 3)
 2. UNDER ROADS AND PARKING AREAS ENCASEMENT SHALL BE 3000 PSI CONCRETE. UNDER GRASSY AREAS ENCASEMENT SHALL BE SAND
 3. COORDINATE WITH DIG SAFE AND LOCAL UTILITIES PRIOR TO EXCAVATING

TRENCH DETAIL
N.T.S.



BOLLARD DETAIL
N.T.S.



FENCE DETAIL
N.T.S.

- NOTE:
1. FENCING TO BE ANIMAL FRIENDLY WITH AN 8" MIN. CLEARANCE FROM BOTTOM OF FENCE TO THE GROUND.



ECOGY ENERGY
315 FLATBUSH AVENUE, #393
BROOKLYN, NY 11217
projectmanagement@ecogyenergy.com
(718)-304-0945

Ecogy New York XIII LLC

Project Name:
**ARCADIA GROUND
985.88 kW-DC**

Project Site:
**1300 BAPTIST CHURCH RD
YORKTOWN, NY, 10598**

#	REVISION DESCRIPTION	DATE	BY

Professional Stamp

PRELIMINARY

SHEET NAME:
**MISC. MECHANICAL
DETAILS**

PROJECT NUMBER: ---	DRAWN BY: DQP	CHECKED BY: ---
DATE: 07/28/2021	DWG. NUMBER: PV-507	
SHEET NUMBER: X of X		



Mr. Richard Fon, Chairman
Mr. Aaron Bock, Board Member
Mr. Robert Garrigan, Board Member
Mr. William LaScala, Board Member
Ms. Roxanne Visconti, Board Member
Yorktown Planning Board
Albert A. Capellini Community & Cultural Center
1974 Commerce Street – Room 222
Yorktown Heights, NY 10598

September 24, 2021

RE: Application for a Solar Farm Special Permit – Response to letter from Mark Giordano

Dear Chairman and Board Members:

Ecogy Energy (“Ecogy”) and Arcadia Holding Co. LLC (“Arcadia”) would like to formally respond to the letter dated July 21, 2021 received by the Yorktown Planning Department and forwarded to Ecogy on September 24, 2021 from Mark Giordano at 1340 Baptist Church Rd Yorktown Heights NY 10598.

In Mark’s 1st paragraph, he states Arcadia Holding Co. LLC owns 1330, 1350 and 1300 Baptist Church Road for an aggregate of 28.85 acres. This is correct, however, he further states that documents on file with the County Clerk’s office “...confirm that Ecogy has legally enforceable interests in all three parcels for the construction of a ‘Solar System,’”. Ecogy would like to clarify how this statement is untrue. Ecogy has attached to this document our recorded Memorandum of Lease recorded at the Westchester County office on 09/25/2020 which show that Ecogy New York XIII LLC only has legal interests in 1300 Baptist Church Road (Assessor’s parcel number 47.11-1-4), which is an 11.67 acre parcel.

In Mark’s 2nd paragraph, he further states that the Short Form Environmental Assessment Form “...is patently false, the total acreage including “contiguous properties” owned and controlled by the applicant is 28.85 acres not 11.67.” Again, this statement is false. As stated above and shown in the attached recorded Memorandum of Lease, Ecogy New York XIII LLC, the applicant, only has legal interests and rights to build a Solar System on a portion of the 1300 Baptist Church parcel (47.11-1-4) which is 11.67 acres, not 28.85 acres. Further, Ecogy only intends to occupy roughly 6 acres of the 11.67 acre parcel – of which the remaining northern 5 acres will continue to be under agriculture use to further support Arcadia’s operations as a Yorktown farm. This is also evidenced by the Memorandum of Lease, which states the Premises being leased from Arcadia to Ecogy is approximately 275,000 square feet, or roughly 6.3 acres.

In Mark’s 3rd paragraph, he states that “...aerials of the site confirm that numerous trees will have to be removed on the current site.” Ecogy has conducted a tree inventory to accurately quantify the number of trees that need to be removed to accommodate the solar system, some of which are damaged or diseased and would otherwise pose safety concerns. To mitigate the tree removal, Ecogy will be replanting trees, adding shrubs, and making a donation to the Yorktown Tree Fund. Our project has been reviewed by the Conservation Board as well as the Tree Conservation Commission; both approved of our screening and our landscaping plan use of native species, which has seen multiple iterations throughout the planning process.

In Mark’s 4th paragraph, he states that it “...is particularly disturbing when Arcadia Holding Co LLC already has option agreements filed regarding the installation of a 20,000 sq. ft roof mounted solar system on the property it owns adjacent to the subject parcel.” The roof mounted system at Arcadias is complete and is therefore not an option agreement but an executed lease agreement that generates needed additional revenue




for the farm. The rooftop project, one of the first community solar systems in the Town of Yorktown, serves Arcadia as the anchor community solar subscriber as well as other Yorktown residents and small businesses including multiple on Baptist Church Rd, such as the Alpaca Farm across the street from Arcadia. Per the recorded Memorandum of Lease with Ecogy for the rooftop system, the rights of Ecogy New York VIII LLC are only for the roof space on the riding arena located at 1330 Baptist Church Rd (Parcel 47.11-1-1) for that rooftop solar project, which is entirely separate from the project under consideration now from Ecogy New York XIII LLC.

In Mark's last paragraph, he states that "...DEC should review this proposal." Ecogy wants to reiterate our understanding of the environmental review process with the Planning Board, which is that the DEC has started reviewing this project, however, for it to be officially under their purview, the Planning Board must approve of the project and refer it forward for final review and comment.

We want to stress that we welcome any questions, comments or concerns from Mark Giordano or the Planning Board, however, the letter as submitted is not factually accurate and therefore it required a prompt response from Ecogy and Arcadia. We strive to be transparent about our solar projects and want to make sure the Planning Board has factual information with which to review our application.

Thank you for your consideration.

Sincerely,

DocuSigned by:

D6DFA39357B842D...
Patty Peckham
Owner
Arcadia Holding Co. LLC


DocuSigned by:

59B6A7A3E78D427...
Jack Bertuzzi
CEO
Ecogy Energy



Exhibit A: Recorded Memorandum of Lease Agreements

The Office of the Westchester County Clerk: This page is part of the instrument; the County Clerk will rely on the information provided on this page for purposes of indexing this instrument. To the best of submitter's knowledge, the information contained on this Recording and Endorsement Cover Page is consistent with the information contained in the attached document.



601476460LAG002Y

Westchester County Recording & Endorsement Page

Submitter Information

Name: Ecogy Energy Phone: 7183040945
 Address 1: 67 West St. Fax:
 Address 2: Suite 232 Email: julia.magliozzo@ecogyenergy.com
 City/State/Zip: Brooklyn NY 11222 Reference for Submitter: Memo of Lease for Ecogy New York XIII

Document Details

Control Number: **601476460** Document Type: **Lease Agreement (LAG)**
 Package ID: 2020052601452001001 Document Page Count: **9** Total Page Count: **10**

Parties

Additional Parties on Continuation page

1st PARTY **2nd PARTY**
 1: ARCADIA HOLDING CO LLC - Other 1: ECOGY NEW YORK XIII LCC - Other
 2: 2:

Property

Additional Properties on Continuation page

Street Address: 1300 BAPTIST CHURCH RD. Tax Designation: 47.11 -1 -4
 City/Town: YORKTOWN Village:

Cross-References

Additional Cross-Refs on Continuation page

1: 2: 3: 4:

Supporting Documents

1: TP-584

Recording Fees

Statutory Recording Fee: \$40.00
 Page Fee: \$50.00
 Cross-Reference Fee: \$0.00
 Mortgage Affidavit Filing Fee: \$0.00
 RP-5217 Filing Fee: \$0.00
 TP-584 Filing Fee: \$5.00
 RPL 291 Notice Fee: \$0.00
 Total Recording Fees Paid: **\$95.00**

Mortgage Taxes

Document Date:
 Mortgage Amount:
 Basic: \$0.00
 Westchester: \$0.00
 Additional: \$0.00
 MTA: \$0.00
 Special: \$0.00
 Yonkers: \$0.00
 Total Mortgage Tax: **\$0.00**

Transfer Taxes

Consideration: \$0.00
 Transfer Tax: \$0.00
 Mansion Tax: \$0.00
 Transfer Tax Number: 17604

Dwelling Type: Exempt:
 Serial #:

RECORDED IN THE OFFICE OF THE WESTCHESTER COUNTY CLERK



Recorded: 09/25/2020 at 11:12 AM
 Control Number: **601476460**
 Witness my hand and official seal

Timothy C. Idoni
 Westchester County Clerk

Record and Return To

Pick-up at County Clerk's office

Julia Magliozzo
 195 Garfield Place
 Apt 2N
 Brooklyn, NY 11215

RECORDING REQUESTED BY AND WHEN RECORDED RETURN TO:	
--	--

Anthony J. Lebe
RECL Group
39 Quail Court
Suite #306
Walnut Creek, CA 94596

Space above this line for Recorder's Use

MEMORANDUM OF OPTION AND LEASE AGREEMENT

THIS MEMORANDUM OF OPTION AND LEASE AGREEMENT (“**Memorandum**”), dated as of May 1, 2020, is entered into by and between Arcadia Holding Co., LLC, a New York limited liability company (“**Lessor**”), and Ecogy New York XIII, LLC, a Delaware limited liability company (“**Lessee**”). All capitalized terms used but not otherwise defined shall have the meanings ascribed to them in the Option and Lease Agreement (defined below).

WITNESSETH:

That for value received, Lessor and Lessee do hereby covenant, promise and agree as follows:

LESSOR: Arcadia Holding Co., LLC, a New York Limited Liability Company

Address: 1300 Baptist Church Road
Yorktown Heights, NY 10598

LESSEE: Ecogy New York XIII, LLC, a Delaware Limited Liability Company

Address: 9 Binney Lane
Old Greenwich, CT 06870

DESCRIPTION OF PREMISES:

The Premises consists of approximately 275,000 square feet located on the Property owned by Lessor and identified as the Ground Mount Area together with access rights to such ground space as defined in Recital A of this Option and Lease Agreement and commonly known as 1300 Baptist Church Rd, Yorktown NY 10598 and more particularly described in **Exhibit 1** attached to and incorporated into this Memorandum.

For Lessor's title to the Property, reference is herein made to Deed dated and recorded in Westchester County.

OPTION COMMENCEMENT DATE:

The Effective Date of the Option and Lease Agreement.

LEASE COMMENCEMENT DATE:

The date Lessee exercises the Option.

TERM OF OPTION:

Five hundred forty (540) days

TERM OF LEASE:

25 years

Two (2) five (5) year extension term options.

NO FIXTURE:

The System, as defined in the Agreement, installed and operated by Lessee at the Premises shall not be deemed a fixture. The System is Lessee's personal property and Lessor has no right, title or interest in the System. Further, Lessor has waived all right of levy for rent, all claims and demands against the System and all rights it may have to place a lien on the System.

IN WITNESS WHEREOF, the parties hereto have duly executed this instrument as of the day and year first written.

LESSOR:

Arcadia Holding Co., LLC,
a New York limited liability company

By: 

Name: Patricia Peckham

Title: **PRESIDENT**

LESSEE:

Ecogy New York XIII, LLC,
a Delaware limited liability company

By:

Name: John Bertuzzi
Title: Managing Member

1

LEASE COMMENCEMENT DATE:

The date Lessee exercises the Option.

TERM OF OPTION:

Five hundred forty (540) days

TERM OF LEASE:

25 years

Two (2) five (5) year extension term options.

NO FIXTURE:

The System, as defined in the Agreement, installed and operated by Lessee at the Premises shall not be deemed a fixture. The System is Lessee's personal property and Lessor has no right, title or interest in the System. Further, Lessor has waived all right of levy for rent, all claims and demands against the System and all rights it may have to place a lien on the System.

IN WITNESS WHEREOF, the parties hereto have duly executed this instrument as of the day and year first written.

LESSOR:

Arcadia Holding Co., LLC,
a New York limited liability company

By:

Name:

Title:

LESSEE:

Ecogy New York XIII, LLC,
a Delaware limited liability company

By:



Name: John Bertuzzi

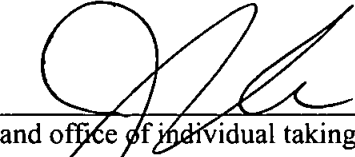
Title: Managing Member

1

ACKNOWLEDGMENT

STATE OF NEW YORK)
) ss.:
COUNTY OF WESTCHESTER)

On the 1st day of May in the year 2020, before me, the undersigned, personally appeared Patricia Peckham 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 instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.



(signature and office of individual taking acknowledgment)

JERRY GERSHNER
Notary Public, State of New York
No. 01GE4500961
QUALIFIED IN WESTCHESTER COUNTY
COMMISSION EXPIRES JULY 31, 2021

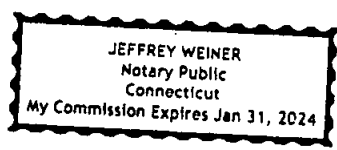


ACKNOWLEDGMENT

STATE OF NEW YORK)
COUNTY OF Fairfield) ss.:

On the 30 day of 7 in the year 2020, before me, the undersigned, personally appeared John DeFizzi 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 instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Jeffrey Weiner
(signature and office of individual taking acknowledgment)



1

Exhibit 1 to Memorandum

Description of Property

That real property commonly known as: 1300 Baptist Church Road Yorktown NY 10598 (Assessor's Parcel Number 47.11 -1 -4) and more fully described in the Legal Description set forth below:

LEGAL DESCRIPTION

All that certain plot, piece or parcel of land, situate, lying and being in the Town of Yorktown, County of Westchester, State of New York, bounded and described as follows:

Beginning at a point on the northerly side of Baptist Church Road where the same is intersected by the premises now being described and land now or formerly of Imogene Hubbard;

Running thence along said land and along the mean center line of a stone wall, North 18 degrees 48 minutes 00 seconds East 346.12 feet;

Thence North 28 degrees 28 minutes 00 seconds East 200.05 feet;

Thence North 61 degrees 32 minutes 00 seconds West 194.12 feet to lands now or formerly of George W. Johnston;

Running thence along said land and the mean center line of an old stone wall the following courses and distances:

North 24 degrees 03 minutes 45 seconds East 42.45 feet;
North 22 degrees 30 minutes 55 seconds East 41.01 feet;
North 20 degrees 31 minutes 35 seconds East 127.40 feet;
North 33 degrees 39 minutes 20 seconds East 129 feet;
North 66 degrees 27 minutes 50 seconds East 20 feet;
North 35 degrees 00 minutes 50 seconds East 57.62 feet;
North 35 degrees 57 minutes 40 seconds East 90.39 feet;
North 34 degrees 35 minutes 00 seconds East 213.14 feet;
North 61 degrees 48 minutes 40 seconds East 8.16 feet;
South 79 degrees 54 minutes 00 seconds East 115.85 feet; and South 89 degrees 54 minutes 20 seconds East 45.18 feet to a point of intersection with the northerly boundary of lands now or formerly of Imogene Hubbard;

Thence continuing along said lands of George W. Johnston and the mean center line of a stone wall the following courses and distances:

North 19 degrees 14 minutes 00 seconds East 188.75 feet;
North 17 degrees 41 minutes 44 seconds East 219.74 feet;
North 52 degrees 28 minutes 17 seconds West 27.91 feet;
North 15 degrees 14 minutes 38 seconds East 131.21 feet; and
North 14 degrees 42 minutes 38 seconds East 100.24 feet to the northwest corner of property described and to land conveyed by Elizabeth H. Hall to William J. Murphy by deed dated December 12, 1950 and recorded in the Office of the Clerk of Westchester County on December 18, in Liber 4935 of Deeds, page 277

and now or formerly of the County of Westchester;

Thence along land formerly of said Murphy and now or formerly of the County of Westchester,

South 70 degrees 35 minutes 50 seconds East 269.53 feet to the westerly side of a Right-of-Way on a certain map entitled, "Survey of Property to be Acquired by the County of Westchester from New Jersey Industries, Inc. for a County Use and Purpose and also for, but now limited to Park Sites and Recreational Areas", filed in the Office of the County Clerk of Westchester County, October 28, 1966 as Filed Map No. 15027, Section 2 of 2 Section;

Thence along the westerly side of said Right-of-Way the, following courses and distances:

Southerly on a curve to the left with a radius of 40 feet, 37.85 feet; and continuing southeasterly along said right of way on a curve to the right with a radius of 40 feet, 24.89 feet;

Thence continuing along said right of way the following courses and distances:

South 0 degrees 51 minutes 00 seconds West 247.39 feet;
South 15 degrees 14 minutes 40 seconds West 357.54 feet;
South 63 degrees 35 minutes 20 seconds West 231.80 feet;
South 31 degrees 14 minutes 10 seconds West 232.95 feet;
South 21 degrees 36 minutes 50 seconds West 308.04 feet;
South 5 degrees 33 minutes 20 seconds East 186.50 feet;
South 19 degrees 27 minutes 30 seconds West 147.70 feet;
South 0 degrees 28 minutes 50 seconds East 274.31 feet to a point;

Thence on a curve to the right tangent to the northerly side of the Baptist Church Road and having a radius of 25 feet, a distance of 46.35 feet to a point on the northerly side of said Baptist Church Road;

Thence along the northerly side of said road,

North 74 degrees 15 minutes 56 seconds West 104.90 feet;
North 71 degrees 29 minutes 44 seconds West 162.02 feet; and
North 69 degrees 15 minutes 29 seconds West 166.35 feet to the place of beginning.

PARCEL II

All that certain lot, piece or parcel of land, situate, lying and being in the Town of Yorktown, County of Westchester and State of New York, bounded and described as follows:

Beginning at a point on the easterly side of a proposed right of way which extends northerly from the Baptist Church Road which place of beginning is the

Southwest corner of premises described and the northwest corner of property conveyed by Elizabeth H. Hall to Robert B. Adelmar, by deed dated July 9, 1948 and recorded in the Office of the Clerk of the County of Westchester, Division of Land Records, in Liber 4654 cp 236;

Thence running from said point of beginning along the easterly side of said Right-of-Way the following courses and distances:

North 2.1 degrees 36 minutes 50 seconds East 101.75 feet;
North 31 degrees 14 minutes 10 seconds East 214.24 feet;
North 63 degrees 35 minutes 20 seconds East 239.74 feet;
North 15 degrees 14 minutes 40 second East 386.30 feet;
North 00 degrees 51 minutes 00 seconds East 253.71 feet to a point;

Thence on a curve to the right having a radius of 40 feet a distance of 24.89 feet;
Thence on a curve to the left having a radii.rs of 40 feet a distance of 11.94 feet to the northwest corner of premises described and to property formerly of William J. Murphy and now or formerly of the County of Westchester;

Thence along said property, South 70 degrees 35 minutes 50 seconds East 248.02 feet to a point in the face of a stone wall and property of New York City;

thence South 04 degrees 55 .minutes 30 seconds West 40.93 feet to a corner;

Thence South 86 degrees 00 minutes 30 seconds East 200 feet along the south face of a stone wall to the northeast corner of premises described;

Thence South 12 degrees 01 minutes 30 seconds West along property of the City of New York and along the westerly face of a stone wall 979.10 feet to the southeast corner of premises described;

Thence North degrees 56 minutes 37 seconds West 709.76 feet to the point and place of beginning.

PARCEL III

All the certain plot, piece or parcel of land, situate, lying and being in the Town of Yorktown, County of Westchester and State of New York shown and designated as a Right of Way on a certain map entitled, "Survey of Property to be Acquired by the County of Westchester from New Jersey Industries, Inc. for a County use and Purpose and also for, but not limited to Park Sites and Recreational Areas"; filed in the Office of the County Clerk of Westchester County, October 28, 1966 as Filed Map Number 15027, Section 2 of 2 Sections, said premises being more particularly bounded and described as follows:

Beginning at a point on the northerly side of Baptist Church Road where the same is intersected by the extreme easterly end of a curve having a radius of 25 feet, a distance of 32.19 feet which curve connects the easterly side of said Right of Way being described herein and the northerly side of Baptist Church Road, said point being the point of intersection of the northerly side of Baptist Church Road with the southwesterly corner of said lands now or formerly of Dansereau as _described in deed Liber 5525 cp 52;

Running thence from said point of beginning along lands now or formerly of Dansereau the following courses and distances;

4. In a general northerly direction along the arc of a curve bearing to the right having a radius of 25 feet, a distance of 32.19 feet;

5. North 01 degrees 03 minutes 36 seconds East a distance of 294.61 feet; and
6. North 20 degrees 59 minutes 55 seconds East, a distance of 150 feet;

Running thence North 04 degrees 00 minutes 55 seconds West, a distance of 185.51 feet to lands now or formerly of Adelman by deed Liber 4654 cp 236;

Running thence along land now or formerly of Adelman and land now or formerly of Kourland by deed Liber 5512 cp 373;

North 23 degrees 09 minutes 15 seconds East a distance of 291.75 feet;

Running thence still along land now or formerly of Kourland the following six courses and distances:

3. North 32 degrees 46 minutes 35 seconds East a distance of 214.24 feet;
4. North 65 degrees 07 minutes 45 seconds East a distance of 239.74 feet;
3. North 16 degrees 47 minutes 05 seconds East a distance of 386.30 feet;
7. North 02 degrees 23 minutes 25 seconds East a distance of 253.71 feet;
8. In a general northerly direction, along the arc of a curve bearing to the right having a radius of 40 feet a distance of 24.89 feet; and
9. In a general northerly direction along the arc of a curve bearing to the left having a radius of 40 feet a distance of 11.94 feet to lands now or formerly of the County of Westchester;

Running thence along said lands now or formerly of the County of Westchester in a general northerly, westerly and southerly direction along the arc of a curve bearing to the left having a radius of 40 feet a distance of 125.66 feet to other lands now or formerly of Kourland by deed Liber 4998 cp 216;

Running thence along said land now or formerly of Kourland the following 11 courses and distances:

9. In a general southerly direction along the arc of a curve bearing to the left having a radius of 40 feet a distance of 37.85 feet;
10. In a general southerly direction along the arc of a curve bearing to the right having a radius of 40 feet a distance of 24.89 feet;
11. South 02 degrees 23 minutes 25 seconds West a distance of 247.39 feet;
12. South 16 degrees 47 minutes 05 seconds West a distance of 357.54 feet;
13. South 65 degrees 07 minutes 45 seconds West a distance 231.80 feet;
14. South 32 degrees 46 minutes 35 seconds West a distance of 232.95 feet;
15. South 23 degrees 09 minutes 15 seconds West a distance of 308.04 feet;
16. South 04 degrees 00 minutes 55 seconds East a distance of 186.50 feet;
9. South 20 degrees 59 minutes 55 seconds West a distance of 147.70 feet;
10. South 01 degrees 03 minutes 35 seconds West a distance of 274.31 feet to the extreme northerly end of a curve;
11. Running thence in a general southwesterly direction along the arc of a curve to the right having radius of 25 feet a distance of 46.35 feet to the northerly side of Baptist Church Road; and

Thence along the northerly side of Baptist Church Road, South 72 degrees 43 minutes 31 seconds East a distance of 104.15 feet to the point or place of beginning.

The Office of the Westchester County Clerk: This page is part of the instrument; the County Clerk will rely on the information provided on this page for purposes of indexing this instrument. To the best of submitter's knowledge, the information contained on this Recording and Endorsement Cover Page is consistent with the information contained in the attached document.



592543650LAG0033

Westchester County Recording & Endorsement Page

Submitter Information

Name: Ecogy Energy Phone: 7183040945
 Address 1: 67 West St. Fax:
 Address 2: Suite 232 Email: julia.magliozzo@ecogyenergy.com
 City/State/Zip: Brooklyn NY 11222 Reference for Submitter: Arcadia Roof Lease

Document Details

Control Number: **592543650** Document Type: **Lease Agreement (LAG)**
 Package ID: 2019091100366001001 Document Page Count: **12** Total Page Count: **13**

Parties

Additional Parties on Continuation page

1st PARTY

2nd PARTY

1: ARCADIA HOLDING CO LLC - Other 1: ECOGY NEW YORK VIII LLC - Other
 2: 2:

Property

Additional Properties on Continuation page

Street Address: 1330 BAPTIST CHURCH RD. Tax Designation: 47.11 -1 -1
 City/Town: YORKTOWN Village:

Cross-References

Additional Cross-Refs on Continuation page

1: 2: 3: 4:

Supporting Documents

1: TP-584

Recording Fees

Statutory Recording Fee: \$40.00
 Page Fee: \$65.00
 Cross-Reference Fee: \$0.00
 Mortgage Affidavit Filing Fee: \$0.00
 RP-5217 Filing Fee: \$0.00
 TP-584 Filing Fee: \$5.00
 Total Recording Fees Paid: **\$110.00**

Mortgage Taxes

Document Date:
 Mortgage Amount:
 Basic: \$0.00
 Westchester: \$0.00
 Additional: \$0.00
 MTA: \$0.00
 Special: \$0.00
 Yonkers: \$0.00
 Total Mortgage Tax: **\$0.00**

Transfer Taxes

Consideration: \$0.00
 Transfer Tax: \$0.00
 Mansion Tax: \$0.00
 Transfer Tax Number: 4362

Dwelling Type: Exempt:
 Serial #:

RECORDED IN THE OFFICE OF THE WESTCHESTER COUNTY CLERK



Recorded: 10/23/2019 at 10:35 AM
 Control Number: **592543650**
 Witness my hand and official seal

Timothy C. Idoni
 Westchester County Clerk

Record and Return To

Pick-up at County Clerk's office

Ecogy Energy c/o Jack Bertuzzi
 59 Kent St.
 Unit 1D
 Brooklyn, NY 11222
 Attn: Jack Bertuzzi

RECORDING REQUESTED BY AND WHEN
RECORDED RETURN TO:

Anthony J. Lebe
RECL Group
39 Quail Court
Suite #306
Walnut Creek, CA 94596

EXHIBIT REVIEWED

Space above this line for Recorder's Use

MEMORANDUM OF OPTION AND LEASE AGREEMENT

THIS MEMORANDUM OF OPTION AND LEASE AGREEMENT ("**Memorandum**"), dated as of September 18, 2019, is entered into by and between Arcadia Holding Co., LLC, a New York limited liability company ("**Lessor**"), and Ecogy New York VIII, LLC, a Delaware limited liability company ("**Lessee**"). All capitalized terms used but not otherwise defined shall have the meanings ascribed to them in the Option and Lease Agreement (defined below).

WITNESSETH:

That for value received, Lessor and Lessee do hereby covenant, promise and agree as follows:

LESSOR: Arcadia Holding Co., LLC, a New York Limited Liability Company

Address: 1300 Baptist Church Road
Yorktown Heights, NY 10598

LESSEE: Ecogy New York VIII, LLC, a Delaware Limited Liability Company

Address: 9 Binney Lane
Old Greenwich, CT 06870

DESCRIPTION OF PREMISES:

The Premises consists of approximately 20,000 square feet of roof space on the building located on the Property owned by Lessor and commonly known as 1330 Baptist Church Rd Yorktown Heights NY 10598. The Property is more particularly described in Exhibit 1 attached to and incorporated into this Memorandum.

For Lessor's title to the Property, reference is herein made to Deed dated and recorded in Westchester County.

OPTION COMMENCEMENT DATE:

The Effective Date of the Option and Lease Agreement.

EXHIBIT REVIEWED

LEASE COMMENCEMENT DATE:

The date Lessee exercises the Option.

EXHIBIT REVIEWED

TERM OF OPTION:

Five hundred forty (540) days

TERM OF LEASE:

25 years

Two (2) five (5) year extension term options.

NO FIXTURE:

The System, as defined in the Agreement, installed and operated by Lessee at the Premises shall not be deemed a fixture. The System is Lessee's personal property and Lessor has no right, title or interest in the System. Further, Lessor has waived all right of levy for rent, all claims and demands against the System and all rights it may have to place a lien on the System.

IN WITNESS WHEREOF, the parties hereto have duly executed this instrument as of the day and year first written.

LESSOR:

Arcadia Holding Co., LLC,
a New York limited liability company

By: Pat Pecknam

By: Molly Flawerty

Name: PATRICIA PECKNAM

Name: MOLLY FLAWERTY

Title: President

Title: SEC/Treasurer

LESSEE:

Ecogy New York VIII, LLC,
a Delaware limited liability company

By: _____

Name: John Bertuzzi

Title: Managing Member



ACKNOWLEDGMENT

STATE OF NEW YORK
COUNTY OF *Westchester*

)
) ss.:
)

On the 10th day of October in the year 2019, before me, the undersigned, personally appeared Molly Ffaherty 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 instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Kyle T Dalrymple

(signature and office of individual taking acknowledgment)

KYLE T DALRYMPLE
Notary Public - State of New York
NO. 01DA6392664
Qualified in Putnam County
My Commission Expires Jun 3, 2023



ACKNOWLEDGMENT

STATE OF NEW YORK
COUNTY OF Westchester

)
) ss.:
)

On the 10th day of October in the year 2019, before me, the undersigned, personally appeared Patricia A Peckham 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 instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Kyle T Dalrymple Notary Public
(signature and office of individual taking acknowledgment)

KYLE T DALRYMPLE
Notary Public - State of New York
NO. 01DA6392664
Qualified in Putnam County
My Commission Expires Jun 3, 2023

LEASE COMMENCEMENT DATE:

The date Lessee exercises the Option.

TERM OF OPTION:

Five hundred forty (540) days

TERM OF LEASE:

25 years

Two (2) five (5) year extension term options.

NO FIXTURE:

The System, as defined in the Agreement, installed and operated by Lessee at the Premises shall not be deemed a fixture. The System is Lessee's personal property and Lessor has no right, title or interest in the System. Further, Lessor has waived all right of levy for rent, all claims and demands against the System and all rights it may have to place a lien on the System.

IN WITNESS WHEREOF, the parties hereto have duly executed this instrument as of the day and year first written.

LESSOR:

Arcadia Holding Co., LLC,
a New York limited liability company

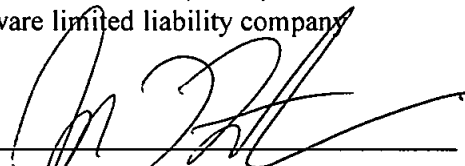
By: _____ By: _____

Name: _____ Name: _____

Title: _____ Title: _____

LESSEE:

Ecogy New York VIII, LLC,
a Delaware limited liability company

By:  _____

Name: John Bertuzzi

Title: Managing Member

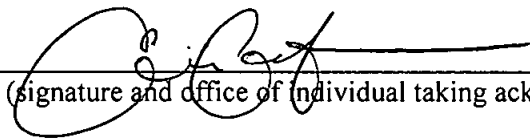


ACKNOWLEDGMENT

STATE OF NEW YORK
COUNTY OF KINGS

)
) ss.:
)

On the 18 day of ~~September~~ in the year 2019, before me, the undersigned, personally appeared JOHN BERTUZZI 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 instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.



(signature and office of individual taking acknowledgment)

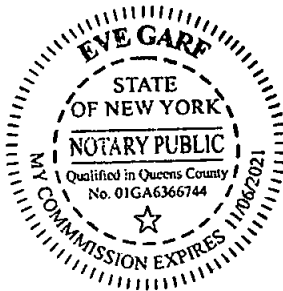


Exhibit 1 to Memorandum

Description of Property

That real property commonly known as: 1330 Baptist Church Road Yorktown NY 10598 (Assessor's Parcel Number 47.11 -1 -1) and more fully described in the Legal Description set forth below:

LEGAL DESCRIPTION

The Property described herein consists of two adjacent lots at 1330 Baptist Church Road Yorktown NY 10598, Assessor's Parcel Numbers 47.11-1-1 and 47.10-1-8, as well as the non-exclusive right to access the Right of Way adjacent to Assessor's Parcel Number 47.11-1-1, all described in the Legal Description set forth below:

LEGAL DESCRIPTION FOLLOWS

Schedule A Description

Title Number CSA01-00637-W

Page 1

All that certain plot, piece or parcel of land, situate, lying and being in the Town of Yorktown, County of Westchester, State of New York, bounded and described as follows:

Beginning at a point on the northerly side of Baptist Church Road where the same is intersected by the premises now being described and land now or formerly of Imogene Hubbard;

Running thence along said land and along the mean center line of a stone wall, North 18 degrees 48 minutes 00 seconds East 346.12 feet;

Thence North 28 degrees 28 minutes 00 seconds East 200.05 feet;

Thence North 61 degrees 32 minutes 00 seconds West 194.12 feet to lands now or formerly of George W. Johnston;

Running thence along said land and the mean center line of an old stone wall the following courses and distances:

North 24 degrees 03 minutes 45 seconds East 42.45 feet;

North 22 degrees 30 minutes 55 seconds East 41.01 feet;

North 20 degrees 31 minutes 35 seconds East 127.40 feet;

North 33 degrees 39 minutes 20 seconds East 129 feet;

North 66 degrees 27 minutes 50 seconds East 20 feet;

North 35 degrees 00 minutes 50 seconds East 57.62 feet;

North 35 degrees 57 minutes 40 seconds East 90.39 feet;

North 34 degrees 35 minutes 00 seconds East 213.14 feet;

North 61 degrees 48 minutes 40 seconds East 8.16 feet;

South 79 degrees 54 minutes 00 seconds East 115.85 feet; and

South 89 degrees 54 minutes 20 seconds East 45.18 feet to a point of intersection with the northerly boundary of lands now or formerly of Imogene Hubbard;

Thence continuing along said lands of George W. Johnston and the mean center line of a stone wall the following courses and distances:

North 19 degrees 14 minutes 00 seconds East 188.75 feet;

North 17 degrees 41 minutes 44 seconds East 219.74 feet;

North 52 degrees 28 minutes 17 seconds West 27.91 feet;

North 15 degrees 14 minutes 38 seconds East 131.21 feet; and

North 14 degrees 42 minutes 38 seconds East 100.24 feet to the northwest corner of property described and to land conveyed by Elizabeth H. Hall to William J. Murphy by deed dated December 12, 1950 and recorded in the Office of the Clerk of Westchester County on December 18, in Liber 4935 of Deeds, page 277 and now or formerly of the County of Westchester;

Schedule A Description

Title Number CSA01-00637-W

Page 2

Thence along land formerly of said Murphy and now or formerly of the County of Westchester,

South 70 degrees 35 minutes 50 seconds East 269.53 feet to the westerly side of a Right-of-Way on a certain map entitled, "Survey of Property to be Acquired by the County of Westchester from New Jersey Industries, Inc.. for a County Use and Purpose and also for, but now limited to Park Sites and Recreational Areas", filed in the Office of the County Clerk of Westchester County, October 28, 1966 as Filed Map No. 15027, Section 2 of 2 Section;

Thence along the westerly side of said Right-of-Way the following courses and distances:

Southerly on a curve to the left with a radius of 40 feet, 37.85 feet; and continuing southeasterly along said right of way on a curve to the right with a radius of 40 feet, 24.89 feet;

Thence continuing along said right of way the following courses and distances:

South 0 degrees 51 minutes 00 seconds West 247.39 feet;
South 15 degrees 14 minutes 40 seconds West 357.54 feet;
South 63 degrees 35 minutes 20 seconds West 231.80 feet;
South 31 degrees 14 minutes 10 seconds West 232.95 feet;
South 21 degrees 36 minutes 50 seconds West 308.04 feet;
South 5 degrees 33 minutes 20 seconds East 186.50 feet;
South 19 degrees 27 minutes 30 seconds West 147.70 feet;
South 0 degrees 28 minutes 50 seconds East 274.31 feet to a point;

Thence on a curve to the right tangent to the northerly side of the Baptist Church Road and having a radius of 25 feet, a distance of 46.35 feet to a point on the northerly side of said Baptist Church Road;

Thence along the northerly side of said road,

North 74 degrees 15 minutes 56 seconds West 104.90 feet;
North 71 degrees 29 minutes 44 seconds West 162.02 feet; and
North 69 degrees 15 minutes 29 seconds West 166.35 feet to the place of beginning.

PARCEL II

All that certain lot, piece or parcel of land, situate, lying and being in the Town of Yorktown, County of Westchester and State of New York, bounded and described as follows:

Beginning at a point on the easterly side of a proposed right of way which extends northerly from the Baptist Church Road which place of beginning is the

Schedule A Description

Title Number CSA01-00637-W

Page 3

southwest corner of premises described and the northwest corner of property conveyed by Elizabeth H. Hall to Robert B. Adelman by deed dated July 9, 1948 and recorded in the Office of the Clerk of the County of Westchester, Division of Land Records, in Liber 4654 cp 236;

Thence running from said point of beginning along the easterly side of said Right-of-Way the following courses and distances:

North 21 degrees 36 minutes 50 seconds East 101.75 feet;
North 31 degrees 14 minutes 10 seconds East 214.24 feet;
North 63 degrees 35 minutes 20 seconds East 239.74 feet;
North 15 degrees 14 minutes 40 second East 386.30 feet;
North 00 degrees 51 minutes 00 seconds East 253.71 feet to a point;

Thence on a curve to the right having a radius of 40 feet a distance of 24.89 feet;
Thence on a curve to the left having a radius of 40 feet a distance of 11.94 feet to the northwest corner of premises described and to property formerly of William J. Murphy and now or formerly of the County of Westchester;

Thence along said property, South 70 degrees 35 minutes 50 seconds East 248.02 feet to a point in the face of a stone wall and property of New York City;

thence South 04 degrees 55 minutes 30 seconds West 40.93 feet to a corner;

Thence South 86 degrees 00 minutes 30 seconds East 200 feet along the south face of a stone wall to the northeast corner of premises described;

Thence South 12 degrees 01 minutes 30 seconds West along property of the City of New York and along the westerly face of a stone wall 979.10 feet to the southeast corner of premises described;

Thence North 85 degrees 56 minutes 37 seconds West 709.76 feet to the point and place of beginning.

PARCEL III

All the certain plot, piece or parcel of land, situate, lying and being in the Town of Yorktown, County of Westchester and State of New York shown and designated as a Right of Way on a certain map entitled, "Survey of Property to be Acquired by the County of Westchester from New Jersey Industries, Inc. for a County use and Purpose and also for, but not limited to Park Sites and Recreational Areas"; filed in the Office of the County Clerk of Westchester County, October 28, 1966 as Filed Map Number 15027, Section 2 of 2 Sections, said premises being more particularly bounded and described as follows:

Beginning at a point on the northerly side of Baptist Church Road where the

Schedule A Description

same is intersected by the extreme easterly end of a curve having a radius of 25 feet, a distance of 32.19 feet which curve connects the easterly side of said Right of Way being described herein and the northerly side of Baptist Church Road, said point being the point of intersection of the northerly side of Baptist Church Road with the southwesterly corner of said lands now or formerly of Dansereau as described in deed Liber 5525 cp 52;

Running thence from said point of beginning along lands now or formerly of Dansereau the following courses and distances;

1. In a general northerly direction along the arc of a curve bearing to the right having a radius of 25 feet, a distance of 32.19 feet;
2. North 01 degrees 03 minutes 36 seconds East a distance of 294.61 feet; and
3. North 20 degrees 59 minutes 55 seconds East, a distance of 150 feet;

Running thence North 04 degrees 00 minutes 55 seconds West, a distance of 185.51 feet to lands now or formerly of Adelman by deed Liber 4654 cp 236;

Running thence along land now or formerly of Adelman and land now or formerly of Kourland by deed Liber 5512 cp 373;

North 23 degrees 09 minutes 15 seconds East a distance of 291.75 feet;

Running thence still along land now or formerly of Kourland the following six courses and distances:

1. North 32 degrees 46 minutes 35 seconds East a distance of 214.24 feet;
2. North 65 degrees 07 minutes 45 seconds East a distance of 239.74 feet;
3. North 16 degrees 47 minutes 05 seconds East a distance of 386.30 feet;
4. North 02 degrees 23 minutes 25 seconds East a distance of 253.71 feet;
5. In a general northerly direction along the arc of a curve bearing to the right having a radius of 40 feet a distance of 24.89 feet; and
6. In a general northerly direction along the arc of a curve bearing to the left having a radius of 40 feet a distance of 11.94 feet to lands now or formerly of the County of Westchester;

Running thence along said lands now or formerly of the County of Westchester in a general northerly, westerly and southerly direction along the arc of a curve bearing to the left having a radius of 40 feet a distance of 125.66 feet to other lands now or formerly of Kourland by deed Liber 4998 cp 216;

Running thence along said land now or formerly of Kourland the following 11 courses and distances:

1. In a general southerly direction along the arc of a curve bearing to the left having a radius of 40 feet a distance of 37.85 feet;
2. In a general southerly direction along the arc of a curve bearing to the right

Schedule A Description

Title Number CSA01-00637-W

Page 5

having a radius of 40 feet a distance of 24.89 feet;

3. South 02 degrees 23 minutes 25 seconds West a distance of 247.39 feet;
4. South 16 degrees 47 minutes 05 seconds West a distance of 357.54 feet;
5. South 65 degrees 07 minutes 45 seconds West a distance 231.80 feet;
6. South 32 degrees 46 minutes 35 seconds West a distance of 232.95 feet;
7. South 23 degrees 09 minutes 15 seconds West a distance of 308.04 feet;
8. South 04 degrees 00 minutes 55 seconds East a distance of 186.50 feet;
9. South 20 degrees 59 minutes 55 seconds West a distance of 147.70 feet;
10. South 01 degrees 03 minutes 35 seconds West a distance of 274.31 feet to the extreme northerly end of a curve;
11. Running thence in a general southwesterly direction along the arc of a curve to the right having radius of 25 feet a distance of 46.35 feet to the northerly side of Baptist Church Road; and

Thence along the northerly side of Baptist Church Road, South 72 degrees 43 minutes 31 seconds East a distance of 104.15 feet to the point or place of beginning.

MARK GIORDANO
1340 BAPTIST CHURCH ROAD
YORKTOWN HEIGHTS, NEW YORK 10598

July 21, 2021

Mr. Richard Fon, Chairman
Mr. Aaron Bock, Board Member
Mr. Robert Garrigan, Board Member
Mr. William LaScala, Board Member
Ms. Roxanne Visconti, Board Member
Yorktown Planning Board
Albert A. Capellini Community & Cultural Center
1974 Commerce Street — Room 222
Yorktown Heights, New York 10598

RECEIVED
PLANNING DEPARTMENT
SEP 24 2021
TOWN OF YORKTOWN

Re: Application for a Solar Farm Special Permit
1300 Baptist Church Road
Yorktown Heights, New York 10598

Dear Chairman and Board Members:

I own a residence adjacent to the properties owned by Arcadia Holding Coe LLC which consist of 1330, 1350, and 1300 Baptist Church Road, for an aggregate of 28.85 acres, as per the Tax Assessor's records. All parcels are contiguous. In addition, documents on file with the County Clerk's Office confirm that Ecology has legally enforceable interests in all three parcels for the construction of a "Solar System," All three parcels are even covered by the same mortgage. However, only one parcel is mentioned in the current application.

This is extremely disturbing from an environmental perspective as well as to the impact on the neighbors. The cumulative impact should be addressed now. The response to question 3(c) of the Short Form Environmental Assessment Form is patently false, The total acreage including "contiguous properties" owned and controlled by the applicant is 28.85 acres not 11.67. The applicant should not be permitted to play a shell game with properties to avoid

having the cumulative impact properly assessed by the Town's environmental consultant and neighbors.

This application is in an area deemed by the Town of Yorktown deemed so environmentally sensitive that it was zoned R-120. The proposal abuts DEC owned property as well as property owned by the Town of Yorktown and is well within the New York City Watershed area.

The aeriels of the site confirm that numerous trees will have to be removed on the current site. I've seen no documentation regarding the impact of the ground mounted panels and their ancillary systems on the wildlife habitats, storm water management, run off, the Reservoir and other environmental concerns,

This is particularly disturbing when Arcadia Holding Co LLC already has option agreements filed regarding the installation of a 20,000 sq. ft. roof mounted solar system on the property it owns adjacent to the subject parcel.

At base minimum, in addition to Town's extensive and comprehensive environmental review, DEC should review this proposal. These reviews should be available for public review and comment before any special permit is approved. Consistent with the Town's policies, the applicant should be required "to put all its cards on the table" regarding the adjacent parcels or, as a condition of a permit approving this application, the applicant be precluded from making any subsequent application on the adjacent parcels it owns.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'M. Giordano', written in a cursive style.

MARK GIORDANO

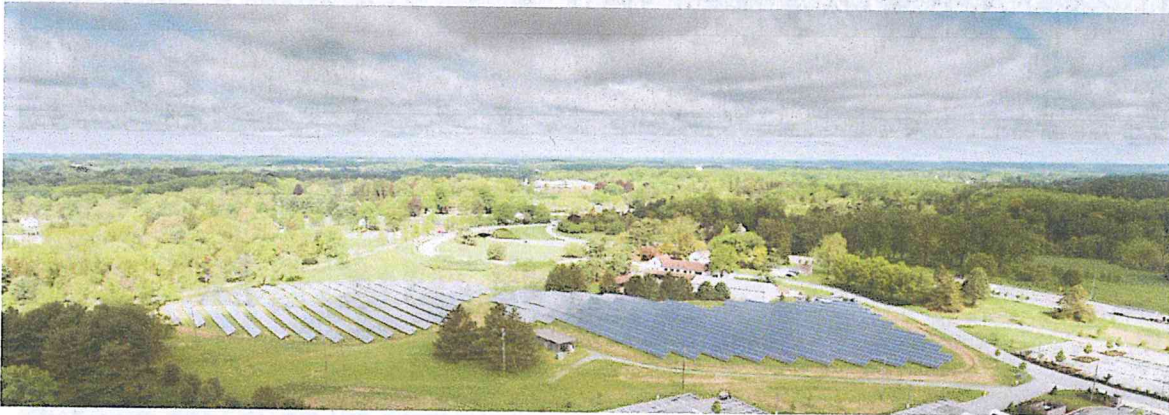
AUG 16 2021

TOWN OF YORKTOWN



TO: Town of Yorktown Planning Board
FROM: Ecogy Energy
DATE: July 28, 2021 corrected on Aug. 16, 2021
RE: Example Ground-Mounted Solar Array and Spec Sheets for Equipment for Ecogy Arcadia Farm Solar Farm

Example Ground-Mounted Solar Array by Ecogy at Longwood Gardens in Kennett Square, PA
Ecogy Longwood is a 1.57 MW ground-mount system installed in 2011-2012 for Longwood Gardens, the largest botanical garden in the U.S. Using a special mounting system, we were able to avoid stripping the land, altering the topography, or affecting Longwood's storm water plan. Partnering with Longwood allowed for the development of a special meadow seed mix that was planted between rows to minimize storm water runoff, maximize biodiversity, and create aesthetic appeal.





As shown in these images, the array was installed to follow the contours of the existing topography, which avoided the need for grading. The proposed solar farm will be similar in installation type and aesthetic quality.

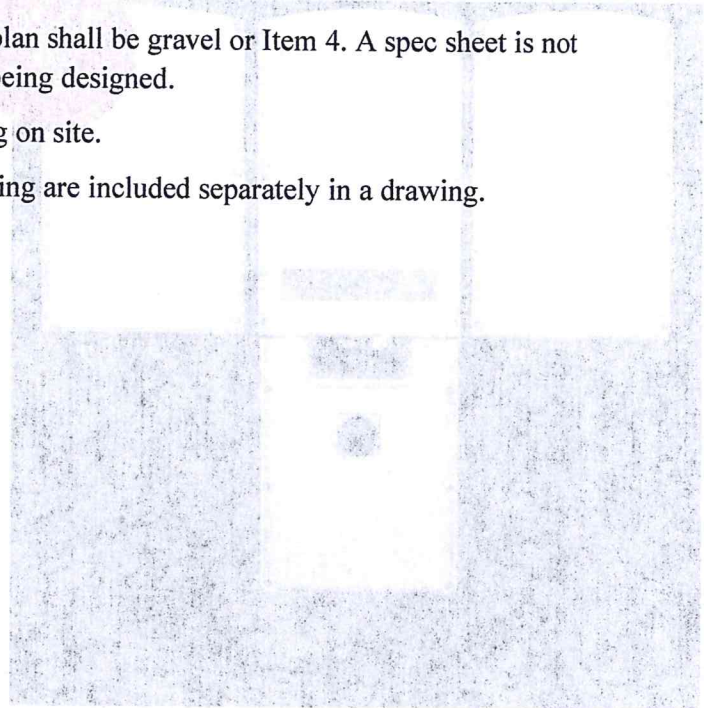




Spec Sheets

Spec Sheets for Major Equipment are included on the following pages. To address some comments previously received, please note:

1. The solar panels have anti-reflective coatings. See the below spec sheet for confirmation (anti-reflective is abbreviated AR).
2. The access road shown on the site plan shall be gravel or Item 4. A spec sheet is not included for this detail as it is still being designed.
3. There will be minimal or no grading on site.
4. Details of the wildlife-friendly fencing are included separately in a drawing.



Specifically designed to work with power optimizers

- Low two-person installation – each unit mounted separately, equipped with cables for simple connection between units
- Balance of System and labor reduction compared to using multiple smaller string inverters
- Independent operation of each unit enables higher uptime and easy serviceability
- No wasted ground area, wall/floor mounted or rooftop-mounted under the modules (10' installation)
- If needed, arc fault protection and rapid shutdown for NEC 2020, NEC 505, and IEEE 1547-2018 and IEEE 1547-2013
- 100% DC overvoltage protection, ensuring efficient energy production
- Built-in RS485 Surge Protection to prevent withstand surge caused by lightning or other events
- Integrated DC Safety Switch
- Fixed voltage level for superior efficiency (60V and 120V)
- Built-in module-level protection with EMI/RFI cellular GSM



Three Phase Inverter with Synergy Technology

for the 277/480V Grid for North America

SE66.6KUS / SE100KUS

INVERTERS



Specifically designed to work with power optimizers

- Easy two-person installation – each unit mounted separately, equipped with cables for simple connection between units
- Balance of System and labor reduction compared to using multiple smaller string inverters
- Independent operation of each unit enables higher uptime and easy serviceability
- No wasted ground area: wall/rail mounted, or horizontally mounted under the modules (10° inclination)
- Integrated arc fault protection and rapid shutdown for NEC 2014, NEC 2017 and NEC 2020, per article 690.11 and 690.12
- Built-in module-level monitoring with Ethernet or cellular GSM
- Fixed voltage inverter for superior efficiency (98.5%) and longer strings
- Integrated DC Safety Switch
- Built-in RS485 Surge Protection, to better withstand surges caused by lightning or other events
- 150% DC oversizing, enabling higher energy production

Three Phase Inverter with Synergy Technology

for the 277/480V Grid for North America

SE66.6KUS / SE100KUS

	SE66.6KUS	SE100KUS	
OUTPUT			
Rated AC Power Output	66600	100000	VA
Maximum AC Power Output	66600	100000	VA
AC Output Line Connections	4-wire WYE (L1-L2-L3-N) plus PE		
AC Output Voltage Minimum-Nominal-Maximum ⁽¹⁾ (L-N)	244 - 277 - 305		Vac
AC Output Voltage Minimum-Nominal-Maximum ⁽¹⁾ (L-L)	422.5 - 480 - 529		Vac
AC Frequency Min-Nom-Max ⁽¹⁾	59.3 - 60 - 60.5		Hz
Maximum Continuous Output Current (per Phase) @277V	80	120	A
GFDI Threshold	1		A
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes		
INPUT			
Maximum DC Power (Module STC) / Unit	100000 / 50000	150000 / 50000	W
Transformer-less, Ungrounded	Yes		
Maximum Input Voltage DC to Gnd	500		Vdc
Maximum Input Voltage DC+ to DC-	1000		Vdc
Nominal Input Voltage DC to Gnd	425		Vdc
Nominal Input Voltage DC+ to DC-	850		Vdc
Maximum Input Current	2 x 40	3 x 40	Adc
Maximum Input Short Circuit Current	120		Adc
Reverse-Polarity Protection	Yes		
Ground-Fault Isolation Detection	350kΩ Sensitivity per Unit		
CEC Weighted Efficiency	98.5		%
Nighttime Power Consumption	< 12		W
ADDITIONAL FEATURES			
Supported Communication Interfaces	RS485, Ethernet, Cellular GSM (optional)		
Rapid Shutdown	NEC2014, NEC2017 and NEC2020 compliant/certified, upon AC Grid Disconnect		
RS485 Surge Protection	Built-in		
DC SAFETY SWITCH			
DC Disconnect	1000V / 2 x 40A	1000V / 3 x 40A	
STANDARD COMPLIANCE			
Safety	UL1741, UL1741 SA, UL1699B, UL1998, CSA 2.22		
Grid Connection Standards	IEEE 1547, Rule 21, Rule 14 (H-I)		
Emissions	FCC part15 class A		
INSTALLATION SPECIFICATIONS			
Number of units	2	3	
AC Output Conduit Size / Max AWG / Max PE AWG	1.5" / 2/0 / 6	2" / 4/0 / 4	
DC Output Conduit Size / Terminal Block AWG Range / Number of Strings ⁽²⁾	2 x 1.25" / 6-14 / 6 strings	2 x 1.25" / 6-14 / 9 strings	
Dimensions (H x W x D)	Primary Unit: 37 x 12.5 x 10.5 / 940 x 315 x 260; Secondary Unit: 21 x 12.5 x 10.5 / 540 x 315 x 260		in / mm
Weight	Primary Unit: 105.8 / 48; Secondary Unit 99.2 / 45		lb / kg
Operating Temperature Range	-40 to +140 / -40 to +60 ⁽³⁾		
Cooling	Fan (user replaceable)		
Noise	< 60		
Protection Rating	NEMA 3R		
Mounting	Brackets provided		

(1) For other regional settings please contact SolarEdge support

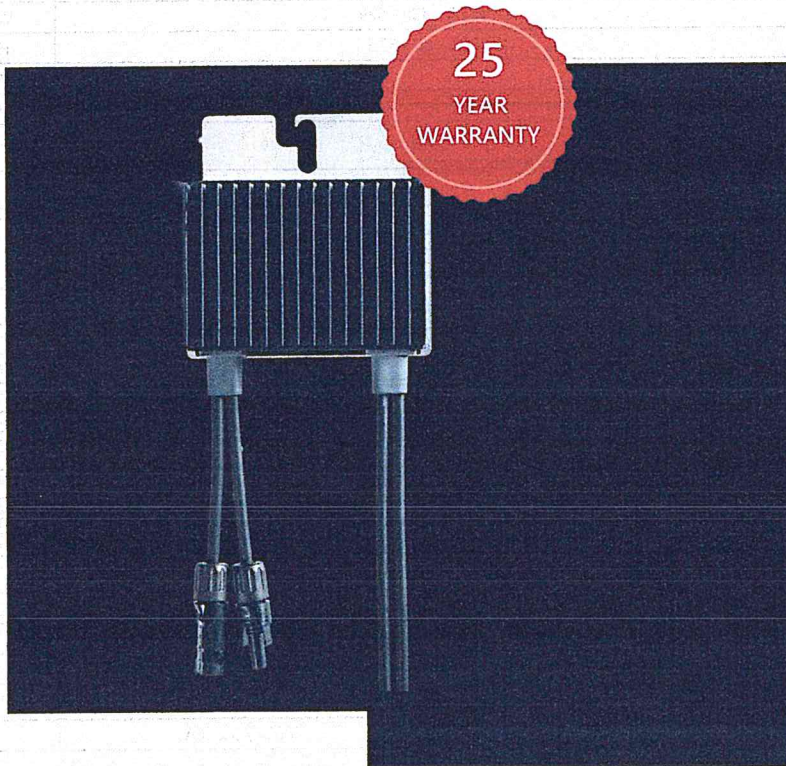
(2) Single Input option per unit (up to 3AWG) available

(3) De-rating from 50°C

Power Optimizer

For North America

P801 / P850 / P950 / P1100



POWER OPTIMIZER

PV power optimization at the module-level

The most cost-effective solution for commercial and large field installations

- Specifically designed to work with SolarEdge inverters
- Up to 25% more energy
- Superior efficiency (99.5%)
- Balance of System cost reduction; 50% less cables, fuses and combiner boxes, over 2x longer string lengths possible
- Fast installation with a single bolt
- Advanced maintenance with module-level monitoring
- Module-level voltage shutdown for installer and firefighter safety
- Meets NEC requirements for arc fault protection (AFCI), Photovoltaic Rapid Shutdown System (PVRSS)
- Use with two PV modules connected in series or in parallel

Power Optimizer For North America

P801 / P850 / P950 / P1100

Power Optimizer Model (Typical Module Compatibility)	P801 (for up to 2 x 72-cell PV modules)	P850 (for up to 2 x high power or bi-facial modules)	P950 (for up to 2 x high power or bi-facial modules)	P1100 (for up to 2 x high power or bi-facial modules)
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INPUT

Rated Input DC Power ⁽¹⁾	800	850	950	1100	W
Connection Method	Single input for series connected modules				
Absolute Maximum Input Voltage (Voc at lowest temperature)	125				Vdc
MPPT Operating Range	12.5 - 105				Vdc
Maximum Short Circuit Current per input (Isc)	11.75	14.1*		14.1	Adc
Maximum Efficiency	99.5				%
Weighted Efficiency	98.6				%
Overvoltage Category	II				

OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREEDGE INVERTER)

Maximum Output Current	15	18			Adc
Maximum Output Voltage	80				Vdc

OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE INVERTER OFF)

Safety Output Voltage per Power Optimizer	1 ± 0.1				Vdc
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STANDARD COMPLIANCE

Photovoltaic Rapid Shutdown System	NEC 2014				
EMC	FCC Part 15 Class A, IEC61000-6-2, IEC61000-6-3				
Safety	IEC62109-1 (class II safety), UL1741			IEC62109-1 (class II safety), UL1741, UL3741	
Material	UL94 V-0, UV Resistant				
RoHS	Yes				

INSTALLATION SPECIFICATIONS

Compatible SolarEdge Inverters	SE9K & larger		SE20K & larger		SE30K & larger		
Maximum Allowed System Voltage	1000						Vdc
Dimensions (W x L x H)	129 x 153 x 49.5 / 5.1 x 6 x 1.9		129 x 162 x 59 / 5.1 x 6.4 x 2.3				mm / in
Weight	933 / 2.05		1064 / 2.34				gr / lb
Input Connector	MC4 ⁽²⁾						
Input Wire Length	0.16 / 0.52	1.3 / 4.27	0.16 / 0.52	1.6 / 5.24	1.3 / 4.27	1.6 / 5.24	m / ft
Output Wire Length	2.2 / 7.2		2.1 / 6.9	2.2 / 7.2	2.2 / 7.2	2.4 / 7.8	m / ft
Output Wire Type / Connector	Double Insulated / MC4						
Operating Temperature Range ⁽³⁾	-40 to +85 / -40 to +185						°C / °F
Protection Rating	IP68 / NEMA6P						
Relative Humidity	0 - 100						%

* For P850/P950 models manufactured in work week 06/2020 or earlier, the maximum Isc per input is 12.5A. The manufacture code is indicated in the Power Optimizer's serial number
example: S/N SJ0620A-xxxxxxx (work week 06 in 2020)

(1) Rated power of the module at STC will not exceed the Power Optimizer "Rated Input DC Power". Modules with up to +5% power tolerance are allowed

(2) For other connector types please refer to: <https://www.solaredge.com/sites/default/files/optimizer-input-connector-compatibility.pdf>

(3) For ambient temperature above +70°C / +158°F power de-rating is applied. Refer to <https://www.solaredge.com/sites/default/files/se-temperature-derating-note-na.pdf> for more

PV System Design Using a SolarEdge Inverter ⁽⁴⁾⁽⁵⁾⁽⁶⁾		208V Grid SE14.4K*		208V Grid SE17.3K*		277/480V Grid SE20K, SE30K, SE33.3K*, SE40K*	277/480V Grid SE20K, SE30K	277/480V Grid SE33.3K*, SE40K*
Compatible Power Optimizers		P801	P850, P950, P1100	P801	P850, P950, P1100	P801	P850, P950, P1100	P850, P950, P1100
Minimum String Length	Power Optimizers	8	8	9	9	14	14	14
	PV Modules	15	15	17	17	27	27	27
Maximum String Length	Power Optimizers	30	30	30	30	30	30	30
	PV Modules	60	60	60	60	60	60	60
Maximum Continuous Power per String		6000	7200	7275	8730	12750	15300	15300
Maximum Allowed Connected Power per String ⁽⁷⁾ (Permitted only when the difference in connected power between strings is up to 2,000W for the 277/480V grid, or 1,000W for the 208V grid)		2 strings or less - 7200	1 string - 8400	2 strings or less - 8475	1 string - 9930	15000	1 string 17550	2 strings or less - 17550
		3 strings or more - 7800	2 strings or more - 9000	3 strings or more - 9075	2 strings or more - 10530		2 strings or more - 20300	3 strings or more - 20300
Parallel Strings of Different Lengths or Orientations		Yes						

* The same rules apply for Synergy units of equivalent power ratings, that are part of the modular Synergy Technology Inverter

(4) P850/P950/P1100 can be mixed in one string only with P850/P950/P1100. P801 cannot be mixed with any other Power Optimizer in the same string

(5) For each string, a Power Optimizer may be connected to a single PV module if 1) each Power Optimizer is connected to a single PV module or 2) it is the only Power Optimizer connected to a single PV module in the string

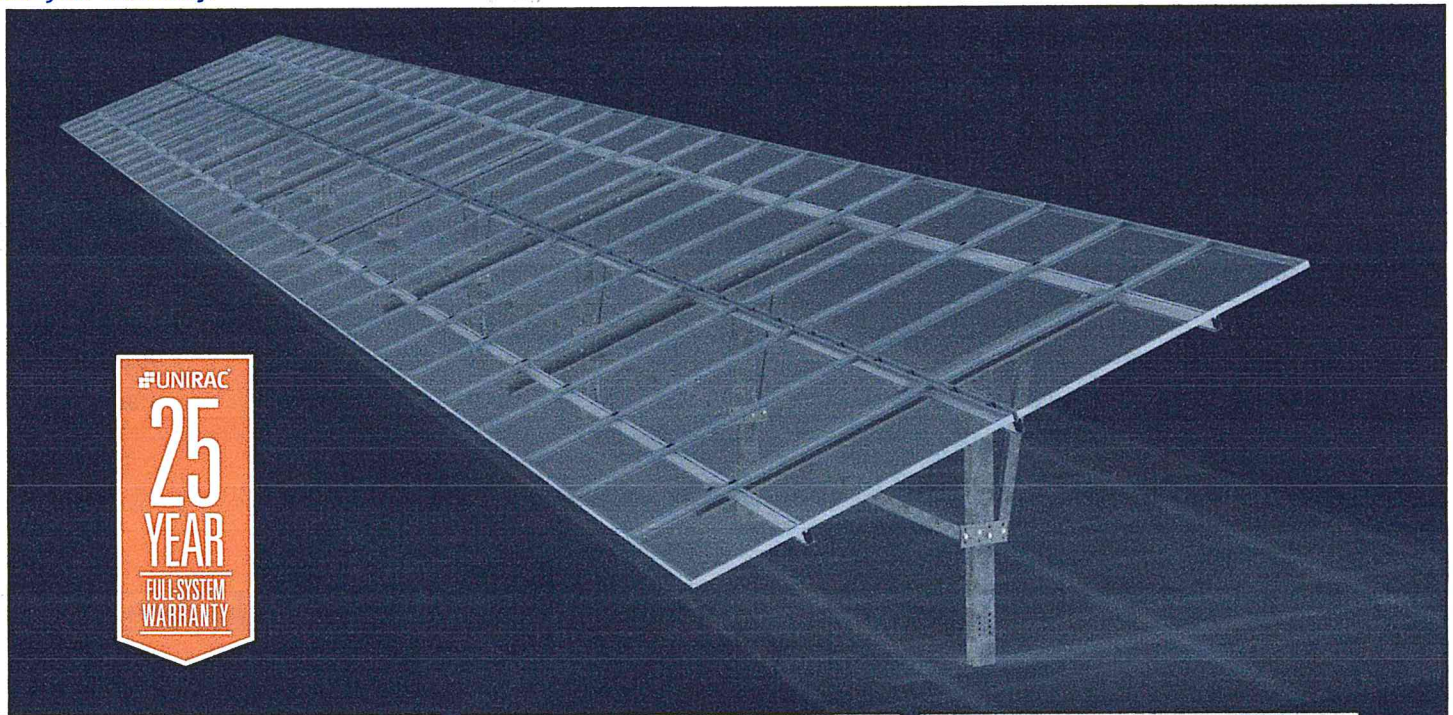
(6) Design with three phase 208V inverters is limited. Use the [SolarEdge Designer](#) for verification

(7) To connect more STC power per string, design your project using [SolarEdge Designer](#)

GROUND FIXED TILT



GROUND FIXED TILT (GFT) is an engineered system of standard, lightweight ground mount components that are in stock and ready to ship from North America's largest ground mount distribution network. UNIRAC's unmatched commercial project support makes construction easy, from permitting through installation, including region-specific engineering. GFT's refined solution, including a new shared rail design, delivers enhanced system and labor optimization. Plus, enjoy peace of mind with **SOLARMOUNT** Mounting Technology and UNIRAC's industry-leading 25-year warranty.



IN STOCK & READY TO SHIP
THE BEST SOLUTION IS AVAILABLE



COMMERCIAL PARTNERSHIP
EXPERIENCE THAT MAKES A DIFFERENCE



INSTALLATION EXPERIENCE
REFINED WITH YOU IN MIND

MAKE GROUND MOUNT SIMPLE

FOR QUESTIONS OR CUSTOMER SERVICE VISIT UNIRAC.COM OR CALL (505) 248-2702

GROUND FIXED TILT



IN STOCK AND READY TO SHIP

THE BEST SOLUTION IS AVAILABLE

Single post configurations with 20° and 30° tilt options. Standardized components and kitted hardware bring ease of stockability and repeatability, from 2KW to multi-MW. North America's largest Ground Mount Distributor network ensures the fastest lead times and empowers you to finish your projects on schedule.

COMMERCIAL PARTNERSHIP

EXPERIENCE THAT MAKES A DIFFERENCE

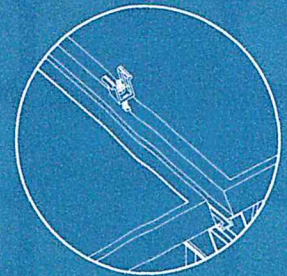
Permit ready, pre-engineered regional designs save you valuable time. Standard construction drawings with general structural notes, table and component cross sections, foundation options and structural details speed permit submittal and construction. Industry leading commercial customer service supports you across your project, from design and logistics thru installation.

INSTALLATION EXPERIENCE

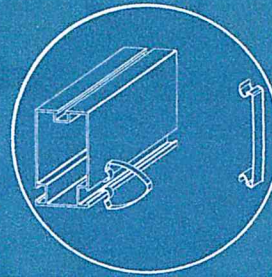
REFINED WITH YOU IN MIND

Kitted hardware, integrated bonding, and pre-assembled parts streamline construction, from pre-mobilization to installation. Straightforward connections ensure maximum strength and require no specialized labor or training. Lightweight components allow for one or two-person assembly. System flexibility enables you to mount 60 & 72 cell modules and choose from multiple foundation and rail options to optimize your projects.

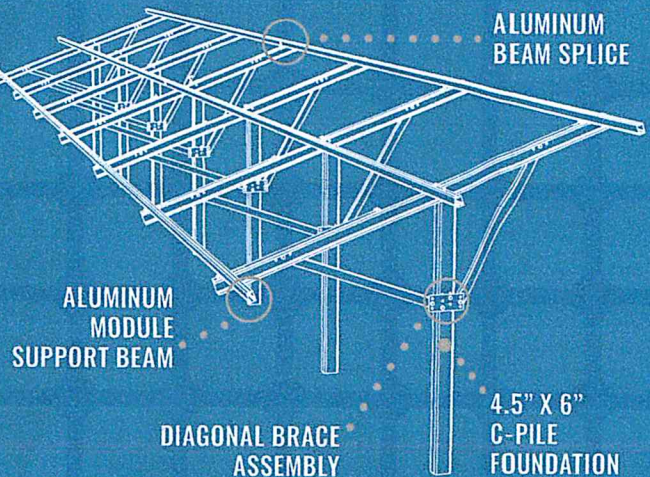
TOP MOUNTING
MODULE CLAMPS
W/ INTEGRATED BONDING



SNAP-ON
WIRE MANAGEMENT



ALUMINUM
BEAM SPLICE



ALUMINUM
MODULE
SUPPORT BEAM

DIAGONAL BRACE
ASSEMBLY

4.5" X 6"
C-PILE
FOUNDATION



UL2703 ELECTRICAL
BONDING &
GROUNDING



UNMATCHED



CERTIFIED



ENGINEERING



BANKABLE



DESIGN



PERMIT

ON-TIME DELIVERY

No waiting. Our goal is simple: Consistently deliver solutions and services correctly, efficiently and dependably to exceed your expectations. Our world-class operations provide a 99% on-time delivery to help you meet your commitment dates.

CERTIFIED QUALITY PROVIDER

UNIRAC is the only PV mounting vendor with ISO certifications for 9001:2008, 14001:2004 and OHSAS 18001:2007, which means we deliver the highest standards for fit, form, and function. These certifications demonstrate our excellence and our commitment to first class business.

BANKABLE WARRANTY

UNIRAC has the financial strength to back our products and reduce your risk. Have peace of mind knowing you are receiving products of exceptional quality. GFT is covered by a 25-year manufacturing warranty on all parts.

GENERAL NOTES

- ALL CONSTRUCTION FOR UNIRAC'S "GROUND FIXED TILT" (GFT) RACKING SYSTEM AND FOUNDATION REQUIREMENTS SHALL CONFORM TO THE 2009, 2012, 2015 & 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).
- WHEREVER THE TERM "CONTRACTOR" IS USED IN THE CONSTRUCTION DOCUMENTS, IT SHALL BE DEEMED TO REFER TO THE GENERAL CONTRACTOR AND ANY SUB-CONTRACTOR COLLECTIVELY AS APPLICABLE AND AS REQUIRED.
- THE CONTRACT "STRUCTURAL RACKING" DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INCLUDE THE MEANS, METHODS, OR SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND PROVIDE ALL MEASURES NECESSARY TO PROTECT THE RACKING SYSTEM FROM THE POINT OF MATERIAL DELIVERY THROUGH THE COMPLETION OF CONSTRUCTION UNIRAC AND THE ENGINEER OF RECORD WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION. UNIRAC AND THE ENGINEER OF RECORD WILL NOT BE RESPONSIBLE FOR CONSTRUCTION SITE SAFETY, OR SAFETY PRECAUTIONS AND PROGRAMS INCIDENT HERETO.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT AND ENSURE THAT ALL WORK IS IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY STRUCTURAL INSPECTION/OBSERVATION PROVIDED BY OTHERS DOES NOT RELIEVE THE CONTRACTOR OF THIS RESPONSIBILITY.
- ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS THAT ARE ENCOUNTERED AT A LATER DATE AND ARE DECLARED TO BE SIGNIFICANT BY THE RACKING DISTRIBUTOR SHALL BE CORRECTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND COORDINATE SITE CONDITIONS WITH THESE DRAWINGS PRIOR TO BIDDING OR THE START OF CONSTRUCTION. ANY CONFLICTS, DISCREPANCIES, OR OMISSIONS SHALL BE RESOLVED THROUGH YOUR RACKING DISTRIBUTOR PRIOR TO PROCEEDING.
- DO NOT SCALE OFF OF THESE DRAWINGS. WRITTEN DIMENSIONS SHALL BE USED OR WHERE NO DIMENSIONS ARE SHOWN, CONSULT WITH YOUR RACKING DISTRIBUTOR FOR CLARIFICATION BEFORE PROCEEDING WITH THE BID OR THE WORK.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE EQUIPMENT AND INSTALLATION PROCESS (MEANS AND METHODS) ARE APPROPRIATE FOR THE FOUNDATIONS AND THAT THE PILES ARE INSTALLED TO THE SPECIFIED TOLERANCES. UNIRAC IS NOT RESPONSIBLE FOR DAMAGED AND/OR OUT-OF-TOLERANCE PILES DUE TO IMPROPER INSTALLATION EQUIPMENT, METHODS, AND SOIL RELATED ISSUES INCLUDING DENSE SOILS, GRAVEL, OR BEDROCK.
- WHERE ANY DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, STRUCTURAL NOTES AND SPECIFICATIONS, THE GREATER (MOST CONSERVATIVE) REQUIREMENTS SHALL GOVERN. WHERE NO SPECIFIC DETAIL IS SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, OR IF THERE IS NO SIMILAR WORK, THEN CONSTRUCTION SHALL CONFORM TO INDUSTRY STANDARDS. CONTRACTOR MUST INFORM UNIRAC OF ANY DISCREPANCIES.
- REFER TO SITE PLAN, PILE LAYOUT DRAWING, ELECTRICAL DRAWINGS AND/OR OTHER CIVIL DRAWINGS FOR SPECIFIC PILE LOCATIONS, NORTH-SOUTH PILE SPACING, LOCATION AND DETAILS OF CURBS, INVERTER/EQUIPMENT PADS, TRENCH/CONDUIT LOCATIONS, JUNCTION BOXES, SITE WORK ITEMS, ETC. AND DIMENSIONS NOT SHOWN ON STRUCTURAL RACKING DRAWINGS.
- CONTRACTOR SHALL INVESTIGATE THE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAVATIONS OR OTHER STRUCTURES, SUCH AS CESSPOOLS, CISTERNS, EXISTING FOUNDATIONS, OR OTHER.
- ASTM SPECIFICATIONS ON THE DRAWINGS SHALL BE OF THE LATEST ASTM STANDARD SPECIFICATION.
- ANY ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF A PROFESSIONAL CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF THE LOCAL JURISDICTION.
- THE FOLLOWING DESIGN CRITERIA ARE EXCLUDED FROM THE RACKING AND FOUNDATION DESIGN: FLOOD LOADING, DEBRIS LOADING, DYNAMIC ANALYSIS, ACTS OF GOD (TERRAQUE, HURRICANE, WATER INUNDATION LOADING, ETC.), CROSSWIND EXPANSIVE AND FROST HEAVE, SOIL LIQUEFACTION, DYNAMIC LOADING FROM SEISMIC EVENTS AND CONDITIONS. THE DESIGN CAN CONSIDER THESE CRITERIA FOR SPECIFIC PROJECTS IN A SEPARATE DOCUMENT FROM UNIRAC OR BY A THIRD PARTY ENGINEER.
- DESIGN CRITERIA PER ASCE 7-05, 7-10, OR ASCE 7-16:
 DESIGN WIND SPEED * VARIES (SEE DESIGN PACKAGE AND STATE LETTER)
 GROUND SNOW LOAD * VARIES (SEE DESIGN PACKAGE AND STATE LETTER)
 ICE THICKNESS * VARIES (SEE DESIGN PACKAGE AND STATE LETTER)
 ICE LOAD WIND SPEED * VARIES (SEE DESIGN PACKAGE AND STATE LETTER)
 SEISMIC S_s * VARIES (SEE DESIGN PACKAGE AND STATE LETTER)
 SEISMIC S₁ * VARIES (SEE DESIGN PACKAGE AND STATE LETTER)
 SOIL SITE CLASS = D
 WIND EXPOSURE CATEGORY = B OR C (SEE LETTER)
 HURRICANE ZONE * SEE LETTER
 RISK CATEGORY = I OR II (SEE LETTER)
 MINIMUM OF 20' OFFSET FROM NEAREST ADJACENT BUILDING (TO AVOID SNOW DRIFT)
- *DESIGN WIND PRESSURES PER ASCE 7-05, SECTION 6.5.13, WIND LOADS ON OPEN BUILDINGS WITH MONOSLOPE, PITCHED OR TROUGHED ROOFS; AND SECTION 6.5.13.3, *COMPONENTS AND CLADDING FOR MONOSLOPE OR TROUGHED ROOFS; AND SECTION 27.4.3, WIND LOAD ON OPEN BUILDING WITH MONOSLOPE, PITCHED OR TROUGHED ROOFS; AND SECTION 30.7.1, *COMPONENTS AND CLADDING FOR MONOSLOPE, PITCHED OR TROUGHED ROOFS; AND SECTION 30.7.2, *COMPONENTS AND CLADDING FOR MONOSLOPE, PITCHED OR TROUGHED ROOFS.
- SOLAR REQUIREMENTS: FROST-FREE
- CORROSION PROTECTION REQUIREMENTS:
 COLD-FORMED STEEL MEMBERS * SEE MEMBER SECTION TABLE
 HARDWARE * STAINLESS STEEL OR DELTA PROTEK
- ABOVE GRADE CORROSION PROTECTION: BELOW GRADE CORROSION PROTECTION WILL SUFFICE FOR MOST SOILS WITH RESISTIVITY VALUES GREATER THAN 10,000 OHM-CM. IT IS THE OWNER'S RESPONSIBILITY TO DETERMINE IF THE SOILS ARE MORE CORROSIVE AND FURTHER CORROSION PROTECTION WILL BE REQUIRED.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO PLACE EAST-WEST BEAMS (AS REQUIRED) TO COMPLETE THE TABLE AND AVOID SPACE CONFLICTS SPECIFIED IN DETAIL 501 ON SHEET SR-500.
- each ROW CAN NOT EXCEED 100 FEET IN LENGTH WITHOUT HAVING A THERMAL BREAK.

SPECIAL INSPECTION (PER CHAPTER 17 OF THE IBC):
 STRUCTURAL ONLY: SPECIAL INSPECTION PROVIDED FOR THE ITEMS LISTED BELOW IN ADDITION TO THE INSPECTIONS CONDUCTED BY THE BUILDING JURISDICTION. "SPECIAL STRUCTURAL INSPECTION" SHALL NOT RELIEVE THE OWNER OR THEIR AGENT FROM REQUESTING THE BUILDING JURISDICTION INSPECTIONS REQUIRED.
 DRIVEN PILE ELEMENTS: SPECIAL INSPECTION DURING THE PLACEMENT OF ALL DRIVEN DEEP FOUNDATION ELEMENTS ON STRUCTURAL DRAWINGS.
 A VERIFICATION OF ELEMENT MATERIALS, SIZES, AND LENGTHS
 B. OBSERVATION AND DOCUMENTATION OF DRIVING OPERATIONS. MAINTAIN A

COMPLETE AND ACCURATE RECORD FOR EACH PILE DRIVEN.
 C. VERIFICATION OF PILE PLACEMENT LOCATIONS AND PLUMBNESS, TYPE OF PILE DRIVER, ELEVATION OF TIP AND BUTT, ANY DAMAGE TO FOUNDATION ELEMENT, ETC.

2. BOLTING: VERIFICATION OF TORQUE PER TORQUE TABLE SHOWN:

TORQUE REQUIREMENTS:	SOCKET SIZE:
1/4" HARDWARE:	
BEAM CLAMP:	9 - 11 FT-LBS
STANDARD 7/8" END CLAMP:	9 - 11 FT-LBS
PRO-SERIES MID-CLAMP:	10 - 12 FT-LBS
PRO-SERIES END CLAMP:	10 - 12 FT-LBS
5/8" HARDWARE:	54 - 60 FT-LBS
3/4" HARDWARE:	92 - 121 FT-LBS

3. CONCRETE: SEE CHAPTER 17 OF MOST CURRENT IBC FOR REQUIRED INSPECTIONS.

- ALUMINUM:**
- ALL ALUMINUM EAST-WEST BEAM MEMBERS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE "ALUMINUM DESIGN MANUAL" BY THE ALUMINUM DESIGN ASSOCIATION, CURRENT EDITION.
 - ALL ALUMINUM EAST-WEST BEAMS CONFORM TO ONE OF THE FOLLOWING:
 ALLOY: 6005A TEMPER: T61 (F_y = 38 KSI, F_y = 35 KSI)
 ALLOY: 6061 TEMPER: T5 (F_y = 34 KSI, F_y = 35 KSI)
 ALLOY: 6061 TEMPER: T6 (F_y = 38 KSI, F_y = 35 KSI)
 - ALL ALUMINUM EAST-WEST BEAMS HAVE A MILL FINISH.
 - WELDING IS NOT REQUIRED OR PERMITTED UNLESS SPECIFICALLY APPROVED BY UNIRAC AND THE ENGINEER OF RECORD.
 - FIELD CUTTING OF ALUMINUM MEMBERS IS PERMITTED WHEN REQUIRED TO ACCOMMODATE PROJECT SPECIFIC MODULE WIDTHS.

- HARDWARE:**
- ALL 1/4" HARDWARE SHALL CONFORM TO 188 STAINLESS STEEL (AISI 304 SERIES STAINLESS, 304 OF DIMENSIONS PER ASME B18.2.1).
 - ALL 1/4" SELF DRILLING SCREW HARDWARE SHALL CONFORM TO GRADE 5 A518 J429 AND ASTM A449.
 - ALL 5/8" AND 3/4" BOLTS SHALL CONFORM TO GRADE 2 A518 J429 OR ASTM A307.
 - ALL 5/8" AND 3/4" SERIALIZED PILE NUTS SHALL CONFORM TO ASME B18.10.4.
 - ALL 5/8" AND 3/4" WASHERS SHALL CONFORM TO USS TYPE A WIDE OR ANSI TYPE A WIDE.
 - UNIRAC BOLTS, MID CLAMPS, AND END CLAMPS ARE PROPRIETARY. TECHNICAL DATA SHEETS WITH TESTED CAPACITIES CAN BE PROVIDED UPON REQUEST.
 - CORROSION PROTECTION FOR HARDWARE CAN BE FOUND IN THE GENERAL NOTES SECTION OF THIS DOCUMENT, NOTE 17.
 - ALL HARDWARE RECEIVED ON SITE SHALL BE CHECKED BY CONTRACTOR AGAINST THE SPECIFICATIONS ON THIS SHEET SR-100. DIAMETERS AND LENGTHS CALLED OUT ON RACKING DETAIL SHEET SR-500, AS WELL AS THE PROJECT BILL OF MATERIAL. ANY CONFLICTS, DISCREPANCIES, OR OMISSIONS MUST BE RESOLVED WITH THE RACKING DISTRIBUTOR AS SOON AS POSSIBLE AND PRIOR TO PROCEEDING.

SOLAR DESIGN:
 UNIRAC IS NOT THE SOLAR DESIGN ENGINEER OF RECORD AND IS NOT RESPONSIBLE FOR ANY SOLAR DESIGN, OUTPUT EFFICIENCIES, SHADING, ROW SPACING, POWER PRODUCTION, ETC.

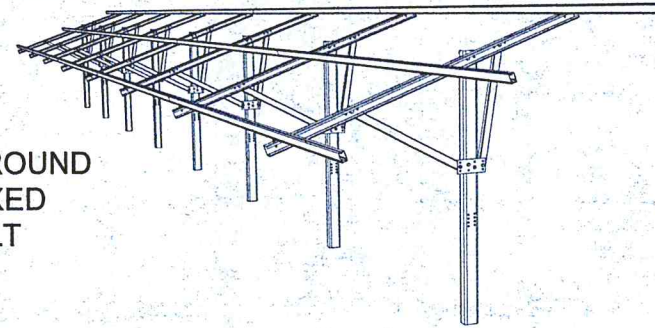
ELECTRICAL DESIGN:
 UNIRAC IS NOT THE ELECTRICAL ENGINEER OF RECORD AND IS NOT RESPONSIBLE FOR THE ELECTRICAL DESIGN FOR THIS PROJECT. THE UNIRAC GFT RACKING SYSTEM IS CERTIFIED TO UL-2703 WHEN PROPERLY INSTALLED. SEE THE GFT INSTALLATION GUIDE FOR MORE DETAIL.

CIVIL/GRADING/SITE WORK:
 UNIRAC IS NOT THE CIVIL ENGINEER OF RECORD FOR THIS PROJECT AND IS NOT RESPONSIBLE FOR ANY SITE GRADING, SURVEYING, TRENCHING, EARTHWORK, LAYOUT, STORM WATER POLLUTION PREVENTION PLANS, SURFACE WATER MITIGATION, PERMITTING, OR EROSION CONTROL PLANS.

MATERIAL MANAGEMENT:
 PRIOR TO INSTALLATION, ALL MATERIALS MUST BE STORED PROPERLY. MATERIALS REMAINING IN PLACE FOR MORE THAN ONE WEEK MUST BE IN OPEN AIR CONDITIONS (I.E. OFF THE GROUND). IF TARPIS OR OTHER PROTECTIVE COVERS ARE USED, THE ENDS SHALL BE LEFT OPEN FOR VENTILATION. TIGHT FITTING COVERS ARE NOT RECOMMENDED AS MATERIAL COATINGS ARE NOT DESIGNED FOR THIS CONDITION. LOADS STORED HORIZONTALLY FOR MORE THAN ONE WEEK SHOULD NOT REMAIN UNLOADED TO PREVENT ACCELERATED CORROSION. BLOCKING IS REQUIRED BENEATH THE BUNDLED GOODS AT PROPER INTERVALS TO ENSURE THE PRODUCT IS OFF THE GROUND.

- FOUNDATION NOTES:**
- SEE THE "COLD FORMED STEEL" SECTION FOR STEEL AND GALVANIZATION REQUIREMENTS FOR FOUNDATIONS.
 - UNIRAC SHALL NOT BE HELD LIABLE FOR ANY UTILITY LINES DAMAGED DURING FOUNDATION INSTALLATION. IT SHALL BE THE RESPONSIBILITIES OF OTHERS TO DETERMINE THE PLACEMENT OF EXISTING AND NEW UTILITY LINES.
 - PILES ARE DESIGNED TO SOIL CONDITIONS STATED IN IBC. IT IS THE CLIENTS RESPONSIBILITY TO VERIFY SOILS MEET THE MINIMUM REQUIREMENTS. UNIRAC AND/OR THE ENGINEER OF RECORD WILL NOT BE HELD RESPONSIBLE FOR FOUNDATIONS INSTALLED IN SOILS WITH LOWER CAPACITY OR FOR IMPROPER FOUNDATION INSTALLATION OR CHOICE.
 - ALL CONCRETE ARE ASSUMED TO HAVE PROPERTIES OF CLASS 4 OR BETTER STATED IN IBC.

NOTE: SEE GFT INSTALLATION GUIDE FOR SYSTEM ADJUSTMENTS AND TOLERANCES



UNIRAC GROUND GFT FIXED TILT

- COLD FORMED STEEL:**
- ALL COLD FORMED STRUCTURAL STEEL MEMBER CONSTRUCTION SHALL BE IN ACCORDANCE WITH AISI *SPECIFICATIONS FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS' CURRENT EDITION.
 - ALL COLD FORMED STRUCTURAL MEMBERS SHALL BE PER ICC-ER-404P.
 - ALL COLD-FORMED STEEL CONFORMS TO ONE OF THE FOLLOWING:
 A653 HSLAS 50 (F_y = 50 KSI, F_u = 60 KSI)
 A653 SS 50 CLASS 4 (F_y = 50 KSI, F_u = 60 KSI)
 - ALL COLD-FORMED STEEL MEMBERS ARE GALVANIZED PER ASTM A653 (MOST RECENT EDITION).
 - WELDING IS NOT REQUIRED OR PERMITTED UNLESS SPECIFICALLY APPROVED BY UNIRAC AND/OR THE ENGINEER OF RECORD.
 - FIELD CUTTING OF COLD-FORMED STEEL MEMBERS IS NOT REQUIRED OR PERMITTED UNLESS THE PILE IS BEING MODIFIED DUE TO ALTERNATIVE FOUNDATION REQUIREMENTS PROVIDED ON SHEET 400.
 - ALL CALCULATED COLD-FORMED MEMBER PROPERTIES PER AISI SPECIFICATIONS ARE BASED ON THE FOLLOWING MINIMUM THICKNESSES:
 14 GAUGE (0.075" TO 0.145")
 11 GAUGE (0.120" OR 120 MILS)

UNIRAC CUSTOM RACKING MEMBER SECTIONS					
RACKING MEMBER	DEPTH	WIDTH	THICKNESS MIN.	CORROSION PROTECT	
ALUMINUM BEAM	3.25 IN.	2.0 RL	0.063-0.125 IN.		AAMA 611-12
ALUMINUM SPLICE	3.061 IN.	1.818 IN.	0.060-0.110 IN.		AA-M12
TOP CHORD CHANNEL	4.1 IN.	3.42 IN.	14 GAUGE		G180
DIAGONAL BRACE	3.1 IN.	2.81	14 GAUGE		G180
C-PILE	6 IN.	4.5 IN.	11 GAUGE		G225

- DRIVEN STEEL PILE NOTES:**
- STEEL PILES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE DESIGN CRITERIA STATED IN THE GENERAL NOTES.
 - PILES SHALL BE INSTALLED TO THE PILE TOLERANCES IN THE UNIRAC GFT INSTALLATION GUIDE WITHOUT EXCESSIVE DEFORMATION. EXCESSIVE DEFORMATION IS DEFINED AS DISTORTION PREVENTS THE RACKING FROM CONNECTING PILE TO THE PILE.
 - FOUNDATIONS MUST NOT BE INSTALLED IN ORGANIC SOILS OR IN AREAS WITH GROUND WATER WITHIN 12 FEET OF THE SURFACE.
 - IT IS THE OWNER OR CONTRACTOR'S RESPONSIBILITY TO DETERMINE WHICH FROST ZONE THEIR PROJECT IS LOCATED IN.
 - IF PILE REFUSAL IS ENCOUNTERED, AN ALTERNATE FOUNDATION DESIGN ON SHEET SR-400 CAN BE UTILIZED OR OTHER FOUNDATIONS APPROVED BY A REGISTERED PROFESSIONAL ENGINEER AND UNIRAC.
 - DRAINAGE SHALL BE DIRECTIONED AWAY FROM PILES. PILES SHALL NOT BE PLACED IN SHADES, DRAINAGE AREAS OR ARE WHERE WATER MAY BE ALLOWED TO FLOW OR STAND WITHOUT SPECIFIC ALLOWANCE IN WRITING FROM UNIRAC. ALL POSSIBLE EFFORTS SHALL BE MADE TO PREVENT WATER FROM FLOWING OR PONDING ON THE PILE OR NEAR TO THE PILE.
 - PILES MAY NOT BE PAINTED PRIOR TO INSTALLATION OF THE RACKING SYSTEM. AFTER INSTALLATION OF THE COMPLETE RACKING SYSTEM, PILES MAY BE PAINTED AT THE CONTRACTOR'S/CLIENTS DISCRETION. NO ADJUSTMENTS MAY BE MADE AFTER THE PILES HAVE BEEN PAINTED.
 - PILES DRIVEN TOO SHALLOW OR TOO DEEP WILL NOT BE ALTERED AT THE CONTRACTOR'S EXPENSE. UNIRAC HAS PROVIDED TOLERANCES IN THE GFT INSTALLATION GUIDE THAT SHALL BE FOLLOWED.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE MEANS AND METHODS FOR DRIVING PILES. THE PILE INSTALLATION METHOD UTILIZED DURING ON-SITE PILE TESTING SHALL BE THE SAME AS INSTALLATION. THE CONTRACTOR MUST INSTALL PILES UTILIZING A PILE DRIVING RIG WITH A PERCUSSION PNEUMATIC HAMMER. A VIBRATORY PILE DRIVER IS NOT RECOMMENDED. SEE PILE TEST PLAN FOR DETAILS.

- THE RACKING DISTRIBUTOR SHALL NOT BE HELD RESPONSIBLE FOR DAMAGE TO THE PILE AFTER IT ARRIVES TO THE SITE OR THE POINT OF AGREED DROP OFF.
- IF DAMAGE OCCURS WHERE GALVANIZATION IS REMOVED FROM THE PILE, THE PILE SHALL BE TOUCHED UP IN THE GENERAL CONTRACTOR'S OFFICE PRIOR TO INSTALLATION AT THE CONTRACTOR'S EXPENSE.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT VIBRATIONS FROM DRIVING EQUIPMENT DO NOT EXCEED 100 FT/LBS AND DO NOT AFFECT ANY ADJACENT PROPERTY STRUCTURES. THE CONTRACTOR SHALL BE HELD LIABLE FOR DAMAGE TO THE ADJACENT PROPERTY IF DAMAGE OCCURS.
- ANY EXCAVATIONS NEAR THE PILE SHALL NOT BE MADE CLOSER THAN 2 FEET FROM PILE OR DEEPER THAN 7 FEET FROM GRADE. IF EXCAVATIONS ARE NECESSARY, THEY SHALL BE ON THE EAST OR WEST SIDE OF THE PILE, SHALL BE TEMPORARY, AND SHALL BE COMPACTED PER THE ENGINEER OF RECORD'S RECOMMENDATIONS. NORTH SOUTH EXCAVATIONS SHALL BE A MINIMUM OF 3 FEET FROM THE PILE. IF EXCAVATIONS EXCEED THESE DIMENSIONAL REQUIREMENTS, THE CONTRACTOR SHALL NOTIFY UNIRAC. THE ENGINEER OF RECORD SHALL BE INFORMED OF ANY EXCAVATION AND COMPACTION EFFORTS ON THE SITE.
- PILES MAY NOT BE ALTERED IN ANY WAY WITHOUT UNIRAC WRITTEN APPROVAL. UNLESS IT IS TO CUT A PILE FOR USE IN THE CONCRETE FOUNDATION OPTION. PILES HAVE BEEN DESIGNED FOR STATIC LOADING UNDER THE DESIGN CRITERIA IN GENERAL NOTE 15.

QUALITY ASSURANCE AND SPECIAL INSPECTION:

- TESTING LABORATORY: RETAINED BY OWNER AND SATISFACTORY TO ENGINEER OF RECORD (THROUGH UNIRAC) AND GOVERNING CODE AUTHORITY TO PERFORM REQUIRED TESTS AND INSPECTIONS OF THIS CONTRACT AND APPLICABLE CODE THE TYPE AND FREQUENCY OF SPECIAL INSPECTION, STRUCTURAL TESTING AND SUBSEQUENT REPORTING SHALL CONFORM TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE (IBC).

- CONCRETE:**
- ALL ASPECTS OF WORK PERTAINING TO THE CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318-14, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND THE LATEST EDITION OF "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" ACI 301, WITH MODIFICATIONS AS NOTED ON THE PROJECT DRAWINGS AND/OR SPECIFICATIONS.
 - HOT WEATHER CONCRETE SHALL CONFORM TO ACI 305, "HOT WEATHER CONCRETING".
 - COLD WEATHER CONCRETING SHALL CONFORM TO ACI 306, "COLD WEATHER CONCRETING".
 - ALL MIX DESIGNS SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND SHALL BE WET WEIGHTED BY A CIVIL ENGINEER LICENSED IN THE JURISDICTION OF THE PROJECT, AS STIPULATED IN IBC CHAPTER 19.
 - TYPE II PORTLAND CEMENT SHALL BE USED AT ALL CONCRETE ALTERNATE FOUNDATION LOCATIONS FOR THE RACKING SYSTEM. TYPE I WHERE SPECIFIED IS REQUIRED AS AN ALTERNATE SOLUTION. (TYPE V CEMENT SHALL BE USED WHERE THE CONCRETE IS IN CONTACT WITH SOIL CONTAINING SULFATES IN EXCESS OF 3000 PPM. CONCRETE THAT WILL BE EXPOSED TO SULFATE-CONTAINING SOLUTIONS SHALL COMPLY WITH IBC CHAPTER 19 AND ACI 318 SEVERE AND VERY SEVERE SULFATE EXPOSURES AS IDENTIFIED IN THE PROJECT GEOTECHNICAL REPORT. THE WATER-CEMENT RATIO SHALL NOT EXCEED 0.44).
 - IN THE PRESENCE OF REACTIVE AGGREGATE, CLASS F FLY ASH OR OTHER ASR MITIGATING ADMIXTURE SHALL BE INCORPORATED IN THE MIX SUCH THAT THE EXPANSION PROCEEDED BY THE MORTAR-BAR METHOD (ASTM C156) USING BLENDED AGGREGATES IS LESS THAN 0.1% AT 14 DAYS IMMERSED IN SOLUTION. WHERE CLASS F FLY ASH IS SELECTED AS A SUPPLEMENTAL ADMIXTURE, THE LOSS OF LIGHTNESS SHALL BE LIMITED TO 2%. THE CONTRACTOR SHALL SUBMIT ALL CERTIFICATE TESTS SHOWING THE FLY ASH IS IN ACCORDANCE WITH ASTM 618.
 - DO NOT USE CONCRETE OR GROUT CONTAINING CHLORIDES. WATER SHALL CONTAIN A CHLORIDE CONTENT LESS THAN 1000 PPM AS CL. DO NOT USE CONCRETE CONTAINING ALKALI CARBONATE AND BICARBONATES PRESENT IN AGGREGATE IN EXCESS OF 1000 PPM. TESTS FOR THEIR EFFECT ON SETTING TIME AND 28-DAY STRENGTH SHALL BE EVALUATED.
 - HARD ROCK CONCRETE AGGREGATE SHALL CONFORM TO ALL REQUIREMENTS AND TESTS OF THE ASTM C33 CLASS DESIGNATION 35 AND PROJECT SPECIFICATIONS. EXCEPTIONS MAY BE USED ONLY WITH APPROVAL OF THE STRUCTURAL ENGINEER. PROVIDE CONCRETE DESIGN WITH PROVEN SHRINKAGE CHARACTERISTICS OF LESS THAN 0.0005 INCHES/INCH.
 - MAXIMUM SIZE AGGREGATE OF 0.75".
 - SUMP RANGE OF 3" ± PER ASTM C143.
 - CONCRETE PLACEMENT SHALL BE IN ACCORDANCE WITH ACI STANDARD 304 AND PROJECT SPECIFICATIONS.
 - THE UNIRAC PILE SHALL BE CENTERED IN THE HOLE TO MAXIMIZE CONTACT TO ALLOW FOR RACKING INSTALLABILITY.
 - THE TOP OF THE CONCRETE SHALL BE SMOOTHED AND SLOPED AT 2% TO FACILITATE POSITIVE DRAINAGE AWAY FROM THE UNIRAC PILE.
 - CONCRETE CHLORIDE PERMEABILITY SHALL BE CLASSIFIED AS HAVING "NEGLECTABLE" TO "VERY LOW" CHLORIDE ION PERMEABILITY PER ASTM C1202.
 - CONCRETE SHOULD BE PLACED IN A CONTINUOUS FLOW WITHOUT SEGREGATING THE CONCRETE. DO NOT ALLOW CONCRETE TO FREE FALL MORE THAN 5 FEET UNLESS MEASURES ARE TAKEN TO ENSURE THAT CONCRETE DOES NOT HIT THE SIDES OF THE EXCAVATION DURING FLOW.
 - MECHANICALLY VIBRATE THE CONCRETE AT EACH PIER.
 - PRECAUTIONS SHOULD BE TAKEN DURING THE INSTALLATION OF PIERS TO MINIMIZE THE RISK OF POSSIBLE DAMAGE TO THE PILE. THE PILE SHALL BE FILLED WITH CONCRETE AS SOON AFTER DRILLING AND INSPECTION AS POSSIBLE. SONOTUBES (OR EQUIVALENT) CAN BE UTILIZED, AS REQUIRED, ONLY IN THE UPPER 1 FT. OF THE CONCRETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONCRETE MIXING OPERATION SHALL CONFORM TO ASTM C-94.
 - AGGREGATE FOR HARDROCK CONCRETE SHALL CONFORM TO ALL REQUIREMENTS AND TESTS OF THE ASTM C-83 AND PROJECT SPECIFICATIONS. EXCEPTIONS MAY BE USED ONLY WITH THE PERMISSION OF THE ENGINEER OF RECORD.
 - THE DENSITY OF CONCRETE SHALL BE DETERMINED IN 140 PCF TO 150 PCF. THE 28-DAY STRENGTH OF CONCRETE SHALL BE 2500 PSI WITH A MAXIMUM WATER-CEMENT RATIO OF 0.40.

SHEET INDEX

SHEET NUMBER	SHEET TITLE
SR-100	GENERAL STRUCTURAL RACKING NOTES
SR-200	GFT TABLE SECTION AND PART I (0 TO 2 DEGREE TILT)
SR-201	GFT 4 BEAM LOCATION OPTIONS (0 TO 2 DEGREE TILT)
SR-300	GFT 4 BEAM CROSS SECTION AND PART II (2 TO 4 DEGREE TILT)
SR-301	GFT 4 BEAM LOCATION OPTIONS (2 TO 4 DEGREE TILT)
SR-400	FOUNDATION OPTION 1 DETAILS
SR-401	FOUNDATION OPTION 2 DETAILS
SR-402	FOUNDATION OPTION 3 DETAILS
SR-403	FOUNDATION OPTION 4 DETAILS
SR-404	FOUNDATION OPTION 5 DETAILS
SR-500	RACKING DETAILS

REVISION BLOCK

NO.	DATE	DESCRIPTION
1	04/14/2018	Original Release
2	04/26/2018	Rev 1
3	04/26/2018	Rev 2
4	04/26/2018	Rev 3

PROFESSIONAL SEAL

SEE STATE SPECIFIC STAMPED & SIGNED GFT CERTIFICATION LETTER

UNIRAC'S GFT
GROUND FIXED TILT
STRUCTURAL RACKING DRAWINGS

UNIRAC

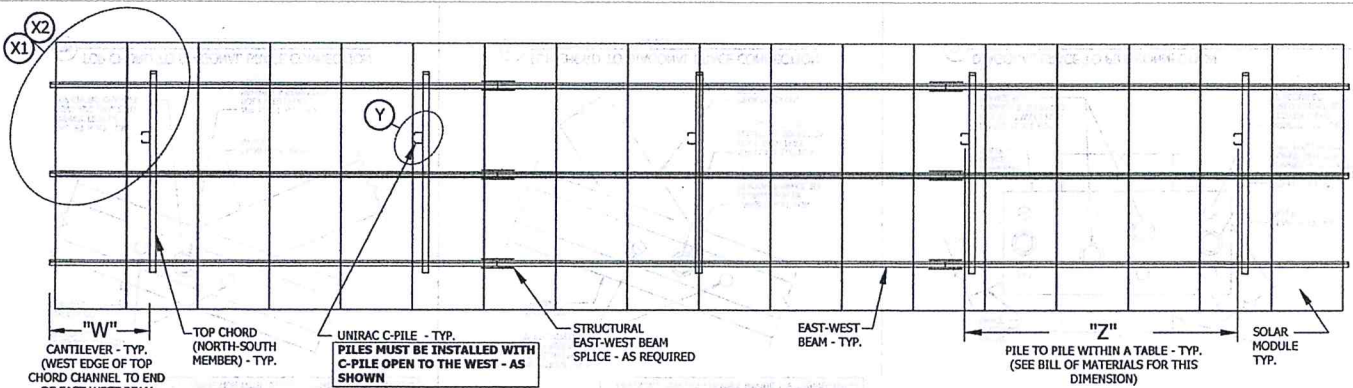
11111
 Attention: Sales Representative
 Phone: (800) 848-4411
 Fax: (800) 848-4411
 Email: sales@unirac.com

UNIRAC

GENERAL STRUCTURAL RACKING NOTES

SHEET NUMBER
SR-100

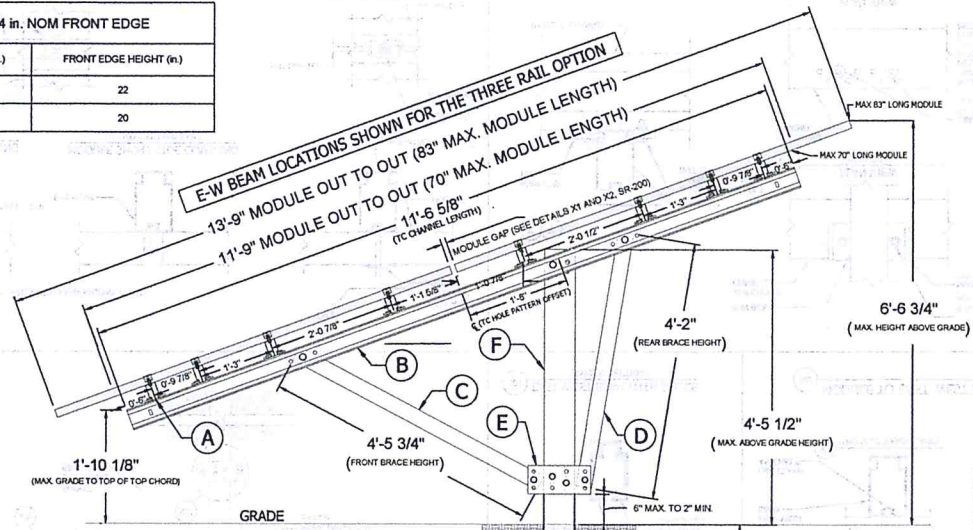
1 of 11



PLAN VIEW OF TABLE

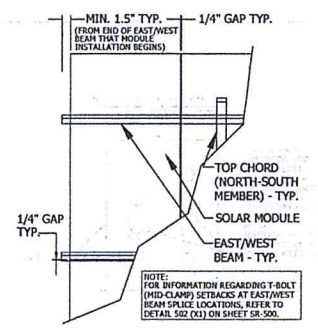
SEE LETTER FOR PILE QUANTITY REQUIREMENT PER TABLE SIZE
TABLE SIZE CANNOT EXCEED 30 COLUMNS OF MODULES

20" 20-24 in. NOM FRONT EDGE	
MODULE LENGTH (in.)	FRONT EDGE HEIGHT (in.)
77	22
83	20

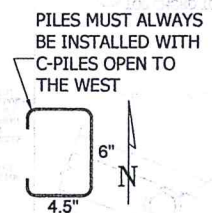


SECTION VIEW OF GFT TABLE - 20° TILT

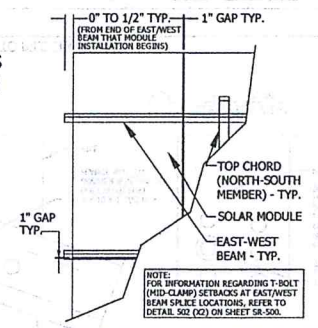
- RACKING DIMENSION NOTES:**
- THIS CROSS SECTION AND DIMENSIONS SHOWN ARE SPECIFIC TO AN 83" LONG MODULE AND A 70" LONG MODULE. ACTUAL MODULE LENGTHS WILL BE LESS THAN OR EQUAL TO WHAT IS SHOWN BASED ON THE ACTUAL SOLAR MODULE SELECTED. REFER TO THE STATE SPECIFIC CERTIFICATION LETTER FOR MORE INFORMATION ON THE LIMITS OF THIS REGION SPECIFIC RACKING DESIGN.
 - FINE TUNE ADJUSTMENTS IN THE EAST-WEST BEAM TO TOP CHORD CHANNEL CONNECTIONS EXIST. SEE SHEET SR-500 FOR ALL RACKING CONNECTION DETAILS. REFER TO THE GFT INSTALLATION GUIDE FOR ADDITIONAL INFORMATION.
 - ALL DIMENSIONS SHOWN WITH PARENTHESIS () ARE OPTIMUM DIMENSIONS THAT MAY VARY SLIGHTLY DUE TO THE FOLLOWING: INSTALLATION SYSTEM USING DIFFERENT HOLE OPTIONS, VARIANCE IN THE PILE STICK-UP HEIGHT, MODULE SELECTION, OR VARIANCE IN THE FINISHED EXISTING GRADE. ALL OTHER DIMENSIONS ARE FIXED.



X1 DETAILED VIEW STANDARD CLAMPS
(SEE ALSO SHEET SR-500, DETAIL 502 (X1) AND 503 (X1))



Y DETAILED VIEW



X2 DETAILED VIEW PRO SERIES CLAMPS
(SEE ALSO SHEET SR-500, DETAIL 502 (X2) AND 503 (X2))

GFT PARTS LIST				
REF NUMBER	PART DESCRIPTION	CATALOG #	GAUGE/THICKNESS	FINISH
A	ALUMINUM E-W BEAM (165\"/>			

REVISION BLOCK

NO.	DATE	DESCRIPTION
1	04/14/2010	Original Release
2	02/02/2011	Rev-1
3	01/26/2012	Rev-2
4	01/26/2012	Rev-3

DESIGNED BY: _____
CHECKED BY: _____
APPROVED BY: _____

PROFESSIONAL SEAL

SEE STATE SPECIFIC STAMPED & SIGNED GFT CERTIFICATION LETTER

UNIRAC'S GFT
GROUND FIXED TILT
STRUCTURAL RACKING DRAWINGS

UNIRAC

1411 Broadway Boulevard NE
Albuquerque, New Mexico 87108
Tel: (505) 242-8412
Fax: (505) 242-8412
www.unirac.com

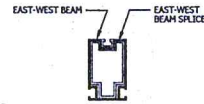
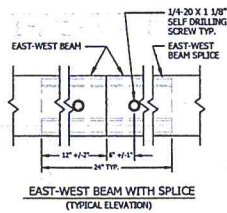
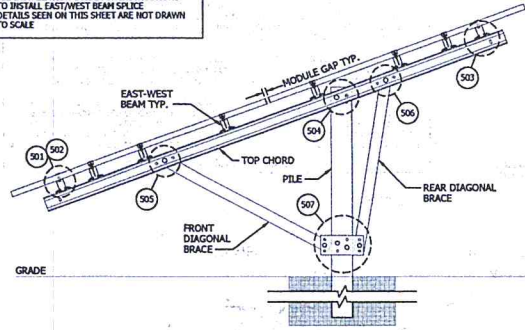
ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES AND DECIMALS THEREOF. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.

FRONT VIEW: _____
TOP VIEW: _____
SIDE VIEW: _____
REAR VIEW: _____
ISOMETRIC: _____
TANKING: _____

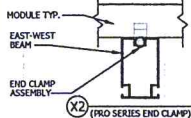
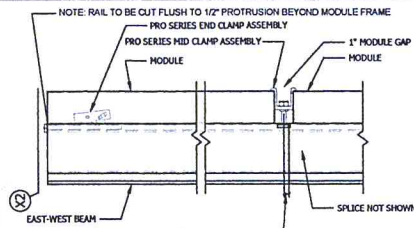
SEE THE GFT TABLE CROSS-SECTION AND PARTS LIST (20 DEGREE TILT)

SHEET NUMBER
SR-200

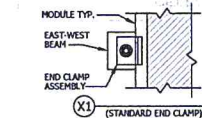
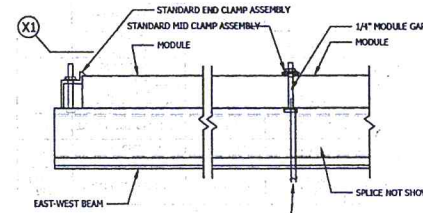
RACKING DETAIL NOTES:
 1. SEE INSTALLATION GUIDE FOR PILE TOLERANCES
 2. SEE INSTALLATION GUIDE FOR CONNECTION ADJUSTMENT INSTRUCTIONS
 3. SEE INSTALLATION GUIDE FOR INSTRUCTIONS TO INSTALL EAST/WEST BEAM SPLICE
 4. DETAILS SEEN ON THIS SHEET ARE NOT DRAWN TO SCALE



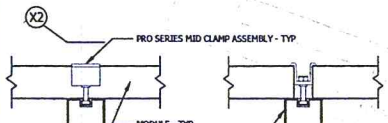
501 EAST-WEST BEAM WITH SPLICE (TYPICAL SECTION)



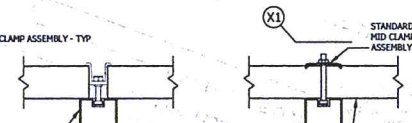
502 MODULE TO EAST-WEST BEAM END CLAMP CONNECTION



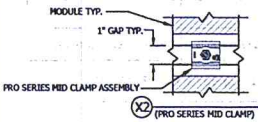
NOTE: CENTERLINE OF T-BOLT SHALL NOT BE CLOSER THAN 1/4\"/>



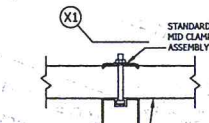
MODULE LONG SIDE CLAMPING (UPPER & LOWER RAIL)



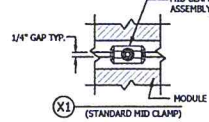
MODULE SHORT SIDE CLAMPING (CENTER SHARED RAIL)



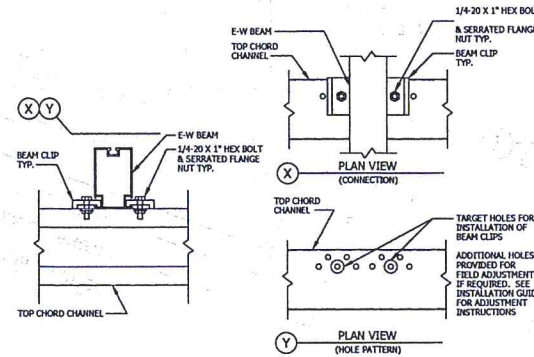
503 MODULE TO EAST-WEST BEAM MID CLAMP CONNECTION



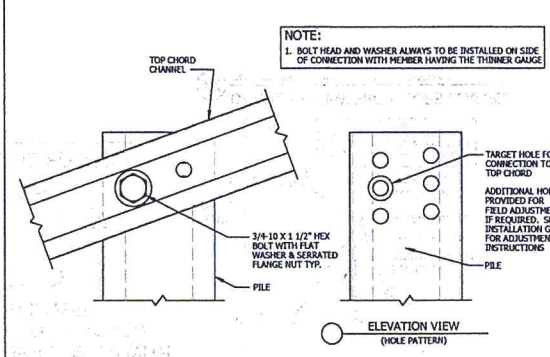
MODULE TO EAST-WEST BEAM MID CLAMP CONNECTION (CENTER SHARED RAIL)



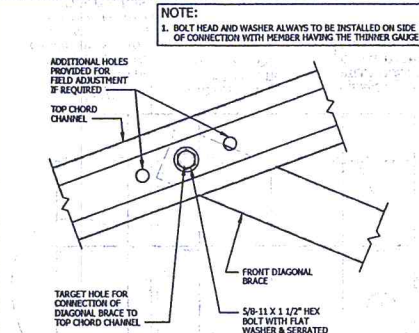
504 MODULE TO EAST-WEST BEAM MID CLAMP CONNECTION (CENTER SHARED RAIL)



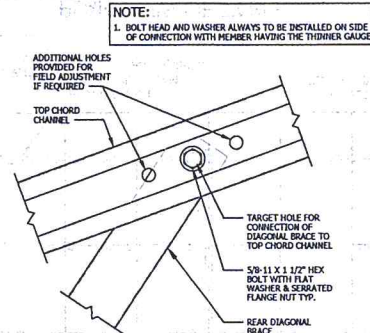
504 EAST-WEST BEAM TO TOP CHORD CONNECTION



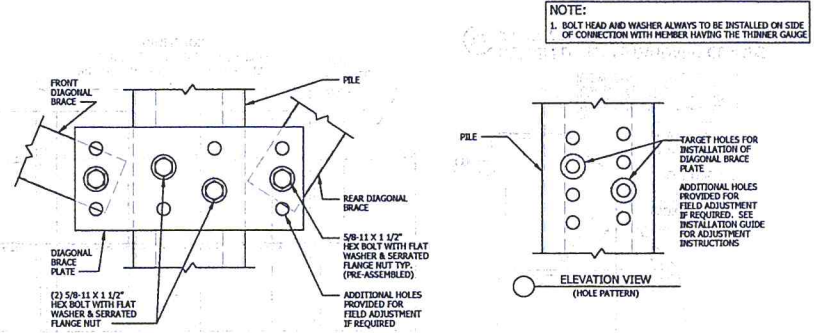
505 TOP CHORD TO PILE CONNECTION



506 TOP CHORD TO DIAGONAL BRACE CONNECTION (FRONT BRACE)



507 TOP CHORD TO DIAGONAL BRACE CONNECTION (REAR BRACE)



508 DIAGONAL BRACE TO PILE CONNECTION

REVISIONS		
NO.	DATE	DESCRIPTION
0	08/14/2013	Original Release
1	08/26/2013	Rev-1
2	08/26/2013	Rev-2
3	07/26/2014	Rev-3

OWNER/CLIENT:

 ENGINEERING CONSULTANT:

 PROFESSIONAL SEAL

SEE STATE SPECIFIC STAMPED & SIGNED GFT CERTIFICATION LETTER

UNIRAC'S GFT
 GROUND FIXED TILT
 STRUCTURAL RACKING DRAWINGS

UNIRAC
 1411 Broadway, Brentwood, TN 37027
 Phone: (615) 848-8411
 Fax: (615) 848-8411
 WWW.UNIRAC.COM

PROPERTY NUMBER	GFT
UNIRAC 001	001
UNIRAC 002	002
UNIRAC 003	003
UNIRAC 004	004
UNIRAC 005	005
UNIRAC 006	006
UNIRAC 007	007
UNIRAC 008	008
UNIRAC 009	009
UNIRAC 010	010

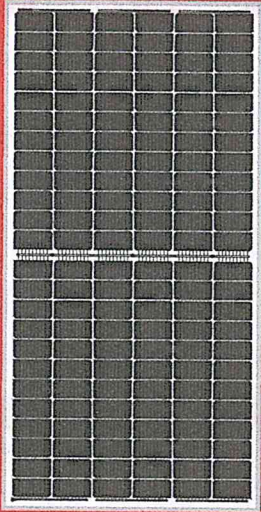
UNIRAC'S GFT
 RACKING DETAILS

UNIRAC'S GFT
 SR-500
 11 of 11

LR4-72HBD 425~455M

Hi-MO4

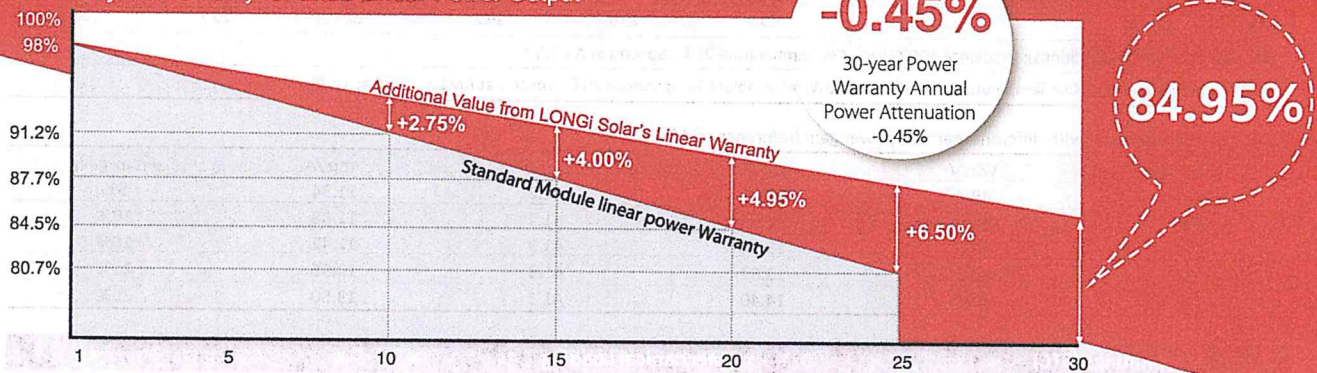
NEW



*Both 6BB & 9BB are available

**High Efficiency
Low LID Bifacial PERC with
Half-cut Technology**

12-year Warranty for Materials and Processing;
30-year Warranty for Extra Linear Power Output



Complete System and Product Certifications

IEC 61215, IEC 61730, UL 61730

ISO 9001:2008: ISO Quality Management System

ISO 14001: 2004: ISO Environment Management System

TS62941: Guideline for module design qualification and type approval

OHSAS 18001: 2007 Occupational Health and Safety



* Specifications subject to technical changes and tests. LONGi Solar reserves the right of interpretation.

Front side performance equivalent to conventional low LID mono PERC:

- High module conversion efficiency (up to 20.9%)
- Better energy yield with excellent low irradiance performance and temperature coefficient
- First year power degradation <2%

Bifacial technology enables additional energy harvesting from rear side (up to 25%)

Glass/glass lamination ensures 30 year product lifetime, with annual power degradation < 0.45%, 1500V compatible to reduce BOS cost

Solid PID resistance ensured by solar cell process optimization and careful module BOM selection

Reduced resistive loss with lower operating current

Higher energy yield with lower operating temperature

Reduced hot spot risk with optimized electrical design and lower operating current

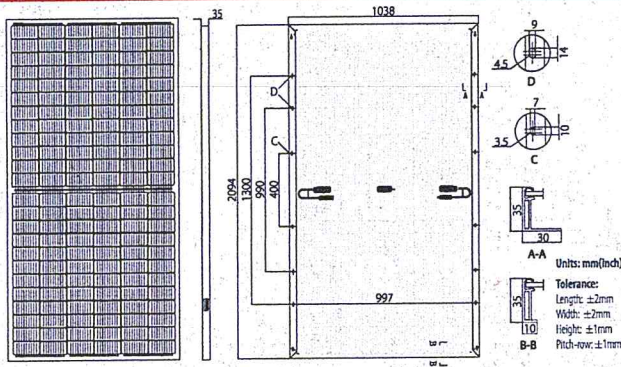
LONGi

Room 801, Tower 3, Lujiazui Financial Plaza, No.826 Century Avenue, Pudong Shanghai, 200120, China
Tel: +86-21-80162606 E-mail: module@longi-silicon.com Facebook: www.facebook.com/LONGi Solar

Note: Due to continuous technical innovation, R&D and Improvement, technical data above mentioned may be of modification accordingly. LONGi have the sole right to make such modification at anytime without further notice; Demanding party shall request for the latest datasheet for such as contract need, and make it a consisting and binding part of lawful documentation duly signed by both parties.

LR4-72HBD 425~455M

Design (mm)



Mechanical Parameters

Cell Orientation: 144 (6x24)
 Junction Box: IP68, three diodes
 Output Cable: 4mm², 300mm in length,
 length can be customized
 Glass: Dual glass
 2.0mm coated tempered glass
 Frame: Anodized aluminum alloy frame
 Weight: 27.5kg
 Dimension: 2094x1038x35mm
 Packaging: 30pcs per pallet
 150pcs per 20'GP
 660pcs per 40'HC

Operating Parameters

Operational Temperature: -40°C ~ +85°C
 Power Output Tolerance: 0 ~ +5 W
 Voc and Isc Tolerance: ±3%
 Maximum System Voltage: DC1500V (IEC/UL)
 Maximum Series Fuse Rating: 25A
 Nominal Operating Cell Temperature: 45±2°C
 Safety Class: Class II
 Fire Rating: UL type 3
 Bifaciality: 70±5%

Electrical Characteristics

Test uncertainty for Pmax: ±3%

Model Number	LR4-72HBD-425M		LR4-72HBD-430M		LR4-72HBD-435M		LR4-72HBD-440M		LR4-72HBD-445M		LR4-72HBD-450M		LR4-72HBD-455M	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	425	317.4	430	321.1	435	324.9	440	328.6	445	332.3	450	336.1	455	339.8
Open Circuit Voltage (Voc/V)	48.7	45.6	48.9	45.8	49.1	45.9	49.2	46.0	49.4	46.2	49.6	46.4	49.8	46.6
Short Circuit Current (Isc/A)	11.22	9.06	11.30	9.13	11.36	9.18	11.45	9.25	11.52	9.30	11.58	9.36	11.65	9.41
Voltage at Maximum Power (Vmp/V)	40.4	37.7	40.6	37.9	40.8	38.0	41.0	38.2	41.2	38.4	41.4	38.6	41.6	38.8
Current at Maximum Power (Imp/A)	10.52	8.42	10.60	8.49	10.66	8.54	10.73	8.60	10.80	8.65	10.87	8.70	10.93	8.76
Module Efficiency(%)	19.6		19.8		20.0		20.2		20.5		20.7		20.9	

STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25°C, Spectra at AM1.5

NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m², Ambient Temperature 20°C, Spectra at AM1.5, Wind at 1m/s

Electrical characteristics with different rear side power gain (reference to 445W front)

Pmax /W	Voc/V	Isc /A	Vmp/V	Imp /A	Pmax gain
467	49.4	12.09	41.2	11.34	5%
490	49.4	12.67	41.2	11.88	10%
512	49.5	13.24	41.3	12.42	15%
534	49.5	13.82	41.3	12.96	20%
556	49.5	14.40	41.3	13.50	25%

Temperature Ratings (STC)

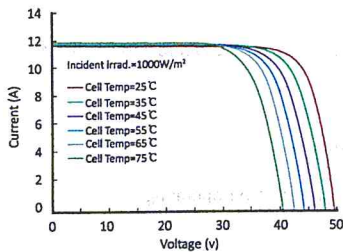
Temperature Coefficient of Isc	+0.050%/°C
Temperature Coefficient of Voc	-0.284%/°C
Temperature Coefficient of Pmax	-0.350%/°C

Mechanical Loading

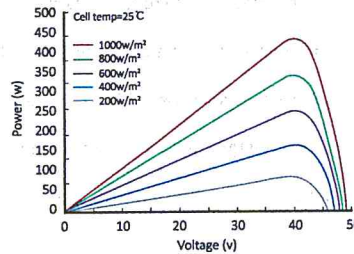
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

I-V Curve

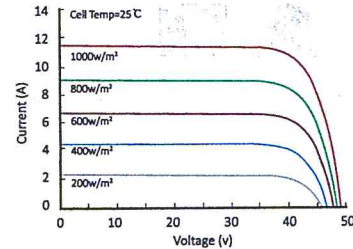
Current-Voltage Curve (LR4-72HBD-440M)



Power-Voltage Curve (LR4-72HBD-440M)



Current-Voltage Curve (LR4-72HBD-440M)



LONGI

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Kitchawan Solar

Diane Dreier Co-Chair
Phyllis Bock Co-Chair

Matthew Slater
Town Supervisor

TOWN OF YORKTOWN CONSERVATION BOARD

Town of Yorktown Town Hall, 363 Underhill Avenue, Yorktown Heights, New York 10598, Phone (914) 962-5722

MEMORANDUM

To: Planning Board
From: Conservation Board
Date: November 4, 2021
Re: Kitchawan Farm Proposed Solar: 716 Kitchawan Road

RECEIVED
PLANNING DEPARTMENT

NOV 8 2021

TOWN OF YORKTOWN

The Conservation Board at its November 3, 2021 meeting discussed a proposed solar project located at 716 Kitchawan Road with Julia Magliozzo of Ecology Energy regarding the wetland setback created by the applicants addition of a manmade pond to the property. The Conservation Board has agreed that they will wait to comment until after the DEC has given their recommendations.

Respectfully submitted:

Diane Dreier

For the Conservation Board

CC: Town Board
Planning Board
Supervisors Office
Engineering Dept.
Applicant

RECEIVED
PLANNING DEPARTMENT

OCT 18 2021

TOWN OF YORKTOWN

To: Yorktown Planning Board
From: Yorktown Tree Conservation Advisory Commission (TCAC)
Date: October 18, 2021
RE: Mitigation Plan for Kitchawan Solar Farm

Chairman Fon and members of the Planning Board,

The Norway Spruce and the Green Giant Arborvitae are non- native trees. The allowance of the arborvitae has been used in other projects in the town. We do not want to set another unwanted precedent of planting another non native species. Our suggestion is to plant White Spruce along with the other native conifers.

The Arrowood Viburnum is highly susceptible to the leaf beetle. They can be replaced with moderately susceptible Viburnum lentago (nannyberry)and Viburnum prunifolium (Black Haw). Of course other native shrubs can be planted that have berries for the wildlife.

Sincerely,

Lawrence W. Klein, PE, Member

Tom Schmitt, Member

Keith Schepart ISA, Member

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. 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; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Ecogy Kitchawan Ground Mount Community Solar System		
Project Location (describe, and attach a general location map): 716 Kitchawan Rd, Yorktown, NY 10562; parcel #s 70.06-1-2 and 70.06-1-3 (see tax parcel map attached)		
Brief Description of Proposed Action (include purpose or need): Proposed solar farm to be located on two parcels associated with Kitchawan Farm totaling 23.13 acres located at 716 Kitchawan Rd (parcel #s 70.06-1-2 and 70.06-1-3). The proposed solar farm would occupy approximately 8 acres of the site, with the remainder of the property continuing as farm operations. Access to the solar farm and associated electronic infrastructure will be provided via a new gravel access road built along the western side of a proposed wildlife-friendly chain-link fence that will surround the array. A new electric line across this access drive would connect the array to the utility's existing overhead electric lines adjacent to Kitchawan Road (NYS Route 134), with the northern portion of the new electric line being buried underground. Approximately 75,400 sq feet of trees will need to be removed at the southern end of Parcel 70.6-1-2. Steel pipe bollards will be used to anchor the racking that supports the modules.		
Name of Applicant/Sponsor: Ecogy New York XI LLC	Telephone: 718-304-0845, Ext. 2	E-Mail: projectmanagement@ecogyenergy.com
Address: 315 Flatbush Ave #393		
City/PO: Brooklyn	State: New York	Zip Code: 11217
Project Contact (if not same as sponsor; give name and title/role): N/A	Telephone:	E-Mail:
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): Van Brunt Cochran LLC	Telephone: (914) 602-4005	E-Mail:
Address: 716 Kitchawan Rd		
City/PO: Ossining	State: NY	Zip Code: 10562

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. (“Funding” includes grants, loans, tax relief, and any other forms of financial assistance.)		
Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No or Village Board of Trustees		
b. City, Town or Village Planning Board or Commission <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Yorktown Planning Board Site Plan Approval and Special Use Permit Application	Submitted: 4/28/2021
c. City, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
d. Other local agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Town of Yorktown Conservation Board	Approved: 8/19/2021
e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Westchester County Planning Board	Deferred to Yorktown Planning Board: 8/30/2021
f. Regional agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYC DEP review and approval of Stormwater Pollution Plan	Expected submission date: 12/15/2021
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NY DEC	Expected submission date: 12/15/2021
h. Federal agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
i. Coastal Resources.		
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
iii. Is the project site within a Coastal Erosion Hazard Area?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

C. Planning and Zoning

C.1. Planning and zoning actions.	
Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> • If Yes, complete sections C, F and G. • If No, proceed to question C.2 and complete all remaining sections and questions in Part 1 	
C.2. Adopted land use plans.	
a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes, identify the plan(s): NYC Watershed Boundary	

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes, identify the plan(s):	

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. Yes No
 If Yes, what is the zoning classification(s) including any applicable overlay district?

Zoning classification is R1-200

b. Is the use permitted or allowed by a special or conditional use permit? Yes No

c. Is a zoning change requested as part of the proposed action? Yes No

If Yes,

i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Yorktown Central School District

b. What police or other public protection forces serve the project site?

Yorktown Police Department

c. Which fire protection and emergency medical services serve the project site?

Yorktown Fire Station 3

d. What parks serve the project site?

Adjacent to Kitchawan Preserve but none on project site

D. Project Details**D.1. Proposed and Potential Development**

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Mixed: Addition of large scale solar energy generation system to existing Agricultural use

b. a. Total acreage of the site of the proposed action? _____ 23.12 acres

b. Total acreage to be physically disturbed? _____ 8 acres

c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ 11 acres

c. Is the proposed action an expansion of an existing project or use? Yes No

i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? Yes No

If Yes,

i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)

ii. Is a cluster/conservation layout proposed? Yes No

iii. Number of lots proposed? _____

iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? Yes No

i. If No, anticipated period of construction: _____ 5 months

ii. If Yes:

- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year

• Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? Yes No

If Yes, show numbers of units proposed.

	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	_____
At completion	_____	_____	_____	_____
of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? Yes No

If Yes,

- i. Total number of structures 40 rows
- ii. Dimensions (in feet) of largest proposed structure: 7' - 5 5/8" height; 523' - 2" width; and 740' - 4" length
- iii. Approximate extent of building space to be heated or cooled: _____ 0 square feet

Area given is total area of the solar system, not a single row

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? Yes No

If Yes,

- i. Purpose of the impoundment: _____
- ii. If a water impoundment, the principal source of the water: Ground water Surface water streams Other specify: _____
- iii. If other than water, identify the type of impounded/contained liquids and their source. _____
- iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres
- v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length
- vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? Yes No
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)

If Yes:

- i. What is the purpose of the excavation or dredging? _____
- ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?
 - Volume (specify tons or cubic yards): _____
 - Over what duration of time? _____
- iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. _____
- iv. Will there be onsite dewatering or processing of excavated materials? Yes No
If yes, describe. _____
- v. What is the total area to be dredged or excavated? _____ acres
- vi. What is the maximum area to be worked at any one time? _____ acres
- vii. What would be the maximum depth of excavation or dredging? _____ feet
- viii. Will the excavation require blasting? Yes No
- ix. Summarize site reclamation goals and plan: _____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? Yes No

If Yes:

- i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will the proposed action cause or result in disturbance to bottom sediments? Yes No
If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? Yes No
If Yes:
• acres of aquatic vegetation proposed to be removed: _____
• expected acreage of aquatic vegetation remaining after project completion: _____
• purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
• proposed method of plant removal: _____
• if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

c. Will the proposed action use, or create a new demand for water? Yes No
If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? Yes No
If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? Yes No
- Is the project site in the existing district? Yes No
- Is expansion of the district needed? Yes No
- Do existing lines serve the project site? Yes No

iii. Will line extension within an existing district be necessary to supply the project? Yes No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? Yes No
If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? Yes No
If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

iii. Will the proposed action use any existing public wastewater treatment facilities? Yes No
If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? Yes No
- Is the project site in the existing district? Yes No
- Is expansion of the district needed? Yes No

- Do existing sewer lines serve the project site? Yes No
- Will a line extension within an existing district be necessary to serve the project? Yes No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? Yes No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? Yes No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 0.37 acres (impervious surface)
 _____ Square feet or 11 acres (parcel size)

ii. Describe types of new point sources. None

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Stormwater runoff will flow over existing ground contours. Infiltration pattern is not expected to significantly change from existing conditions. Any runoff will be managed and controlled with a SWPPP.

- If to surface waters, identify receiving water bodies or wetlands: _____

- Will stormwater runoff flow to adjacent properties? Yes No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? Yes No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? Yes No

If Yes, identify:

- i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

- ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

- iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? Yes No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) Yes No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____ Tons/year (short tons) of Carbon Dioxide (CO₂)
- _____ Tons/year (short tons) of Nitrous Oxide (N₂O)
- _____ Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆)
- _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs)
- _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? Yes No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? Yes No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? Yes No

If Yes:

i. When is the peak traffic expected (Check all that apply): Morning Evening Weekend

Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? Yes No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

Creation of gravel access road for utility access to array and equipment

vi. Are public/private transportation service(s) or facilities available within 1/2 mile of the proposed site? Yes No

vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? Yes No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? Yes No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? Yes No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

iii. Will the proposed action require a new, or an upgrade, to an existing substation? Yes No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: _____ 7 AM - 5 PM _____
- Saturday: _____
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: _____ Sunrise to Sunset _____
- Saturday: _____
- Sunday: _____
- Holidays: _____

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? Yes No

If yes:

i. Provide details including sources, time of day and duration:

During construction only, Monday through Friday, normal construction noise levels from small machinery are expected. During operation there will be no noise over existing ambient noise levels.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? Yes No

Describe: _____

n. Will the proposed action have outdoor lighting? Yes No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? Yes No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? Yes No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? Yes No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? Yes No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? Yes No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? Yes No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

• Construction: _____ tons per _____ (unit of time)

• Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

• Construction: _____

• Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

• Construction: Dumpster will be located on site during construction, but solid waste generation will not be substantial.

• Operation: _____

s. Does the proposed action include construction or modification of a solid waste management facility? Yes No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? Yes No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? Yes No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility: _____

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

- Urban Industrial Commercial Residential (suburban) Rural (non-farm)
- Forest Agriculture Aquatic Other (specify): _____

ii. If mix of uses, generally describe:

The site is used for Agricultural operations and a family residence. Neighboring properties are agricultural and residential uses also.

b. Land uses and covertypes on the project site.

Land use or Covertypes	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	-	-	+0.37 acres
• Forested	1.73 acres	0.30 acres	-1.43 acres
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	N/A	N/A	No change
• Agricultural (includes active orchards, field, greenhouse etc.)	23 acres	15 acres	-8 acres
• Surface water features (lakes, ponds, streams, rivers, etc.)	N/A	N/A	No change
• Wetlands (freshwater or tidal)	N/A	N/A	No change
• Non-vegetated (bare rock, earth or fill)	N/A	N/A	No change
• Other Describe: _____			

c. Is the project site presently used by members of the community for public recreation? Yes No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? Yes No

If Yes,

i. Identify Facilities:

e. Does the project site contain an existing dam? Yes No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? Yes No

If Yes:

i. Has the facility been formally closed? Yes No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? Yes No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? Yes No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: Yes No

Yes – Spills Incidents database

Provide DEC ID number(s): _____

Yes – Environmental Site Remediation database

Provide DEC ID number(s): _____

Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? Yes No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

v. Is the project site subject to an institutional control limiting property uses?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
<ul style="list-style-type: none"> • If yes, DEC site ID number: _____ • Describe the type of institutional control (e.g., deed restriction or easement): _____ • Describe any use limitations: _____ • Describe any engineering controls: _____ • Will the project affect the institutional or engineering controls in place? <input type="checkbox"/> Yes <input type="checkbox"/> No • Explain: _____ 							
E.2. Natural Resources On or Near Project Site							
a. What is the average depth to bedrock on the project site? _____	28 feet						
b. Are there bedrock outcroppings on the project site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %							
c. Predominant soil type(s) present on project site:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border-bottom: 1px solid black;">Fine sandy loam</td> <td style="border-bottom: 1px solid black; text-align: right;">45 %</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Other loam soils</td> <td style="border-bottom: 1px solid black; text-align: right;">49 %</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Chatfield complex</td> <td style="border-bottom: 1px solid black; text-align: right;">6 %</td> </tr> </table>	Fine sandy loam	45 %	Other loam soils	49 %	Chatfield complex	6 %
Fine sandy loam	45 %						
Other loam soils	49 %						
Chatfield complex	6 %						
d. What is the average depth to the water table on the project site? Average: _____							
e. Drainage status of project site soils: <table style="width: 100%; border-collapse: collapse;"> <tr> <td><input checked="" type="checkbox"/> Well Drained:</td> <td style="text-align: right;">65 % of site</td> </tr> <tr> <td><input checked="" type="checkbox"/> Moderately Well Drained:</td> <td style="text-align: right;">35 % of site</td> </tr> <tr> <td><input type="checkbox"/> Poorly Drained</td> <td style="text-align: right;">_____ % of site</td> </tr> </table>		<input checked="" type="checkbox"/> Well Drained:	65 % of site	<input checked="" type="checkbox"/> Moderately Well Drained:	35 % of site	<input type="checkbox"/> Poorly Drained	_____ % of site
<input checked="" type="checkbox"/> Well Drained:	65 % of site						
<input checked="" type="checkbox"/> Moderately Well Drained:	35 % of site						
<input type="checkbox"/> Poorly Drained	_____ % of site						
f. Approximate proportion of proposed action site with slopes: <table style="width: 100%; border-collapse: collapse;"> <tr> <td><input checked="" type="checkbox"/> 0-10%:</td> <td style="text-align: right;">100 % of site</td> </tr> <tr> <td><input type="checkbox"/> 10-15%:</td> <td style="text-align: right;">_____ % of site</td> </tr> <tr> <td><input type="checkbox"/> 15% or greater:</td> <td style="text-align: right;">_____ % of site</td> </tr> </table>		<input checked="" type="checkbox"/> 0-10%:	100 % of site	<input type="checkbox"/> 10-15%:	_____ % of site	<input type="checkbox"/> 15% or greater:	_____ % of site
<input checked="" type="checkbox"/> 0-10%:	100 % of site						
<input type="checkbox"/> 10-15%:	_____ % of site						
<input type="checkbox"/> 15% or greater:	_____ % of site						
g. Are there any unique geologic features on the project site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
If Yes, describe: _____							
h. Surface water features.							
i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
ii. Do any wetlands or other waterbodies adjoin the project site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
If Yes to either <i>i</i> or <i>ii</i> , continue. If No, skip to E.2.i.							
iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
iv. For each identified regulated wetland and waterbody on the project site, provide the following information:							
<ul style="list-style-type: none"> • Streams: Name _____ Classification _____ • Lakes or Ponds: Name _____ Classification _____ • Wetlands: Name _____ Classification code: R4SBC; Classification code: R5UBH Approximate Size 1.25 acres; 0.03 acres • Wetland No. (if regulated by DEC) _____ 							
v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
If yes, name of impaired water body/bodies and basis for listing as impaired: _____							
i. Is the project site in a designated Floodway?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
j. Is the project site in the 100-year Floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
k. Is the project site in the 500-year Floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
If Yes:							
i. Name of aquifer: _____							

<p>m. Identify the predominant wildlife species that occupy or use the project site:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; border-bottom: 1px solid black;">Butterflies and moths</td> <td style="width: 33%; border-bottom: 1px solid black;">Flowering plants</td> <td style="width: 33%; border-bottom: 1px solid black;">Agricultural species</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Dragonflies</td> <td style="border-bottom: 1px solid black;">Conifers</td> <td style="border-bottom: 1px solid black;"></td> </tr> </table>	Butterflies and moths	Flowering plants	Agricultural species	Dragonflies	Conifers		
Butterflies and moths	Flowering plants	Agricultural species					
Dragonflies	Conifers						
<p>n. Does the project site contain a designated significant natural community? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Describe the habitat/community (composition, function, and basis for designation): _____</p> <p style="margin-left: 20px;">ii. Source(s) of description or evaluation: _____</p> <p style="margin-left: 20px;">iii. Extent of community/habitat:</p> <ul style="list-style-type: none"> • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres 							
<p>o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing (endangered or threatened): _____</p> <p>Bald Eagle</p>							
<p>p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing: _____</p>							
<p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes, give a brief description of how the proposed action may affect that use: _____</p>							
<p>E.3. Designated Public Resources On or Near Project Site</p>							
<p>a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes, provide county plus district name/number: <u>WEST001</u></p>							
<p>b. Are agricultural lands consisting of highly productive soils present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p style="margin-left: 20px;">i. If Yes: acreage(s) on project site? <u>approximately 11 acres</u></p> <p style="margin-left: 20px;">ii. Source(s) of soil rating(s): <u>Web Soil Survey from USDA.gov</u></p>							
<p>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature</p> <p style="margin-left: 20px;">ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____</p>							
<p>d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. CEA name: <u>County & State Park Lands</u></p> <p style="margin-left: 20px;">ii. Basis for designation: <u>Exceptional or unique character</u></p> <p style="margin-left: 20px;">iii. Designating agency and date: <u>Agency: Westchester County, Date: 1-31-90</u></p>							

e. 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? Yes No

If Yes:

i. Nature of historic/archaeological resource: Archaeological Site Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based: _____

f. 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? Yes No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? Yes No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? Yes No

If Yes:

i. Identify resource: Kitchawan Preserve; NYS Route 134

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): Scenic park; scenic byway

iii. Distance between project and resource: _____ .01 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? Yes No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? Yes No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

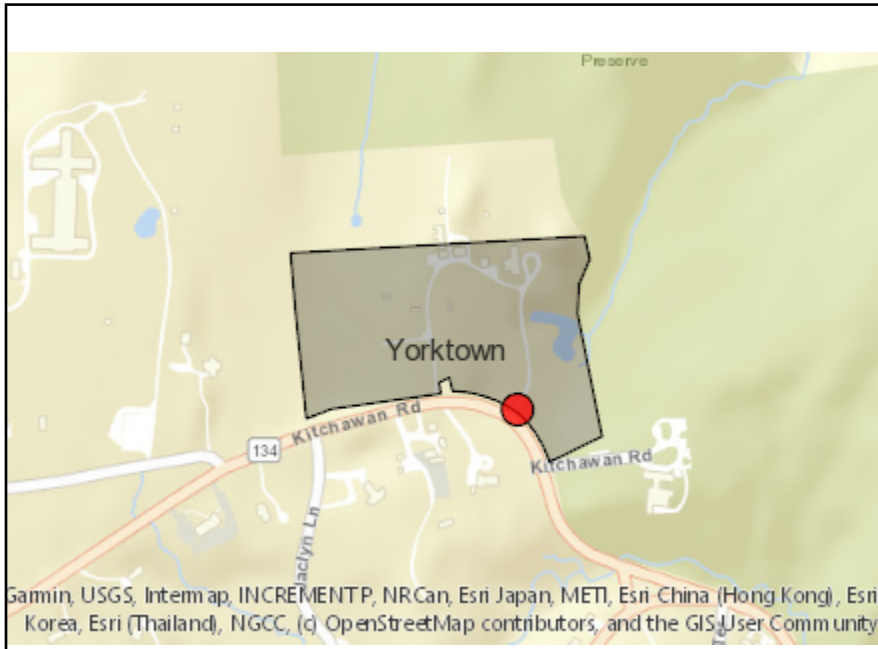
I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name John A. Bertuzzi, Ecogy New York XI LLC Date 10/6/2021

Signature  Title Chief Executive Officer, Ecogy Energy

EAF Mapper Summary Report

Tuesday, September 28, 2021 8:56 AM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

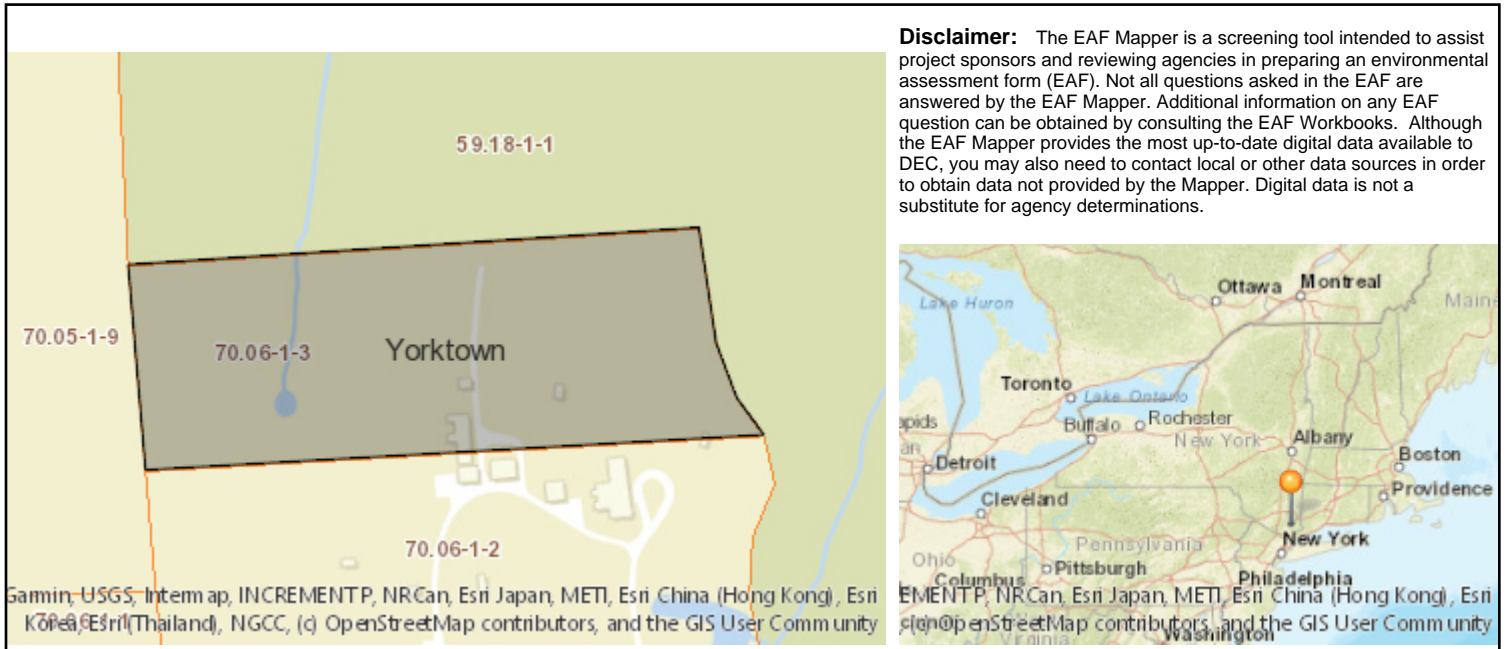


B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYC Watershed Boundary
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No

E.2.o. [Endangered or Threatened Species - Name]	Yes Bald Eagle
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	Yes
E.3.a. [Agricultural District]	WEST001
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	Yes
E.3.d [Critical Environmental Area - Name]	County & State Park Lands
E.3.d.ii [Critical Environmental Area - Reason]	Exceptional or unique character
E.3.d.iii [Critical Environmental Area – Date and Agency]	Agency:Westchester County, Date:1-31-90
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

EAF Mapper Summary Report

Tuesday, September 28, 2021 9:12 AM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYC Watershed Boundary
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	Yes

E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	Yes
E.3.a. [Agricultural District]	WEST001
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	Yes
E.3.d [Critical Environmental Area - Name]	County & State Park Lands
E.3.d.ii [Critical Environmental Area - Reason]	Exceptional or unique character
E.3.d.iii [Critical Environmental Area – Date and Agency]	Agency:Westchester County, Date:1-31-90
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Agency Use Only [If applicable]
Project : Ecology Kitchawan Solar System
Date :

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency’s reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer “**Yes**” to a numbered question, please complete all the questions that follow in that section.
- If you answer “**No**” to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box “Moderate to large impact may occur.”
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the “whole action”.
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1) <i>If “Yes”, answer questions a - j. If “No”, move on to Section 2.</i>				<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur		
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
h. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>		

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g)

NO

YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____ _____	E2g	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	<input type="checkbox"/>	<input type="checkbox"/>
c. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h)

NO

YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	<input checked="" type="checkbox"/>	<input type="checkbox"/>
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	<input checked="" type="checkbox"/>	<input type="checkbox"/>

I. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
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4. Impact on groundwater
 The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer.
 (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t)
If “Yes”, answer questions a - h. If “No”, move on to Section 5.

NO YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	<input type="checkbox"/>	<input type="checkbox"/>
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	<input type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

5. Impact on Flooding
 The proposed action may result in development on lands subject to flooding.
 (See Part 1. E.2)
If “Yes”, answer questions a - g. If “No”, move on to Section 6.

NO YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in development within a 100 year floodplain.	E2j	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in development within a 500 year floodplain.	E2k	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	<input type="checkbox"/>	<input type="checkbox"/>
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	<input type="checkbox"/>	<input type="checkbox"/>

g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
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6. Impacts on Air			
The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D.2.h, D.2.g) <i>If "Yes", answer questions a - f. If "No", move on to Section 7.</i>		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. More than 1000 tons/year of carbon dioxide (CO ₂)	D2g	<input type="checkbox"/>	<input type="checkbox"/>
ii. More than 3.5 tons/year of nitrous oxide (N ₂ O)	D2g	<input type="checkbox"/>	<input type="checkbox"/>
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	<input type="checkbox"/>	<input type="checkbox"/>
iv. More than .045 tons/year of sulfur hexafluoride (SF ₆)	D2g	<input type="checkbox"/>	<input type="checkbox"/>
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	<input type="checkbox"/>	<input type="checkbox"/>
vi. 43 tons/year or more of methane	D2h	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	<input type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

7. Impact on Plants and Animals			
The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) <i>If "Yes", answer questions a - j. If "No", move on to Section 8.</i>		<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	<input checked="" type="checkbox"/>	<input type="checkbox"/>

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____	E1b	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j. Other impacts: _____		<input type="checkbox"/>	<input type="checkbox"/>

8. Impact on Agricultural Resources			
The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.)		<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
<i>If "Yes", answer questions a - h. If "No", move on to Section 9.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, E1b	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	E1 a, E1b	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____		<input type="checkbox"/>	<input type="checkbox"/>

9. Impact on Aesthetic Resources The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.) <i>If "Yes", answer questions a - g. If "No", go to Section 10.</i>				<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur		
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile 1/2 -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>		

10. Impact on Historic and Archeological Resources The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.) <i>If "Yes", answer questions a - e. If "No", go to Section 11.</i>				<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur		
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on the National or State Register of Historical 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.	E3e	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

d. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
e. If any of the above (a-d) are answered “Moderate to large impact may occur”, continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	<input type="checkbox"/>	<input type="checkbox"/>
ii. The proposed action may result in the alteration of the property’s setting or integrity.	E3e, E3f, E3g, E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	<input type="checkbox"/>	<input type="checkbox"/>

11. Impact on Open Space and Recreation			
The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan. (See Part 1. C.2.c, E.1.c., E.2.q.) <i>If “Yes”, answer questions a - e. If “No”, go to Section 12.</i>		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or “ecosystem services”, provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	<input type="checkbox"/>	<input type="checkbox"/>
e. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

12. Impact on Critical Environmental Areas			
The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d) <i>If “Yes”, answer questions a - c. If “No”, go to Section 13.</i>		<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

13. Impact on Transportation

The proposed action may result in a change to existing transportation systems.

 NO YES

(See Part 1. D.2.j)

If "Yes", answer questions a - f. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action will degrade existing transit access.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

14. Impact on Energy

The proposed action may cause an increase in the use of any form of energy.

 NO YES

(See Part 1. D.2.k)

If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	<input type="checkbox"/>	<input type="checkbox"/>
e. Other Impacts: _____ _____			

15. Impact on Noise, Odor, and Light

The proposed action may result in an increase in noise, odors, or outdoor lighting.

 NO YES

(See Part 1. D.2.m., n., and o.)

If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in routine odors for more than one hour per day.	D2o	<input checked="" type="checkbox"/>	<input type="checkbox"/>

d. The proposed action may result in light shining onto adjoining properties.	D2n	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.)
If "Yes", answer questions a - m. If "No", go to Section 17.

NO

YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	<input type="checkbox"/>	<input type="checkbox"/>
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	<input type="checkbox"/>	<input type="checkbox"/>
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	<input type="checkbox"/>	<input type="checkbox"/>
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	<input type="checkbox"/>	<input type="checkbox"/>
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	<input type="checkbox"/>	<input type="checkbox"/>
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	<input type="checkbox"/>	<input type="checkbox"/>
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	<input type="checkbox"/>	<input type="checkbox"/>
m. Other impacts: _____ _____			

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans.
 (See Part 1. C.1, C.2. and C.3.)
 If “Yes”, answer questions a - h. If “No”, go to Section 18.

NO

YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action’s land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, E1b	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	<input type="checkbox"/>	<input type="checkbox"/>
h. Other: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character.
 (See Part 1. C.2, C.3, D.2, E.3)
 If “Yes”, answer questions a - g. If “No”, proceed to Part 3.

NO

YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	<input type="checkbox"/>	<input type="checkbox"/>
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	<input type="checkbox"/>	<input type="checkbox"/>
g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

SEP 14 2021

TOWN OF YORKTOWN

From: Edward Kolisz
Sent: Tuesday, September 14, 2021 3:10 PM
To: Julia Magliozzo' <julia.magliozzo@ecogyenergy.com>
Cc: Robyn Steinberg <rsteinberg@yorktownny.org>; John Tegeder <jtegeder@yorktownny.org>
Subject: Kitchawan Farm Solar Farm Layout Review

Julia,

I have reviewed the plans or the proposed solar farm at 716 Kitchawan Rd, Town of Yorktown, NY and have the following comments:

1. The access road on the west side should extend to the end of the fence line and shall comply with section 503 of the Fire Code of New York State (FCNYS.)
2. The turn arounds shall comply with Appendix D of the FCNYS.
3. There shall be a plan to keep the access roads free of snow, ice buildup and debris.
4. The plan does not show any access gates to the solar fields. There shall be access gates at the northeast, northwest, southeast corners and at the equipment areas. Access to the gates shall be maintained.
5. All access gates shall be accessible to the fire department. The fire department uses the Knox Rapid Entry System.
6. Training on the solar farm operation shall be provided to the local fire department.

Please contact me with any questions.

Edward W. Kolisz
Fire Inspector, Town of Yorktown, NY
363 Underhill Ave.
Yorktown Heights, NY 10598
Office: 914-962-5722 Ext. 254
Fax: 914-962-1731
www.yorktownny.org

From: Julia Magliozzo <julia.magliozzo@ecogyenergy.com>
Sent: Thursday, September 9, 2021 3:01 PM
To: Edward Kolisz <edward@yorktownny.org>
Cc: James Albert <james@ecogysolar.com>; Simon Curtis-Ginsberg <simon@ecogysolar.com>;
Debbie Pallone <debbie@ecogysolar.com>
Subject: Kitchawan Farm Solar Farm Layout Review

Good afternoon Ed,

I am writing from Ecogy Energy, the developer working on the Kitchawan Farm Solar Farm Project at 716 Kitchawan Rd. I am submitting the attached drawings of the solar layout for your review with regards to the applicable fire code. In particular, we would like your review and approval of the proposed access road. Please let me know if there are any concerns with the proposed layout. I have copied our engineering team should you have any technical comments. We would be happy to work with you if any changes are necessary.

Best regards,

Julia Magliozzo
Director of Operations, Ecogy Energy
www.ecogyenergy.com
Brooklyn, NY
Office: 718-304-0945 ext 2
Mobile: 347-410-1198



SEP 8 2021

TOWN OF YORKTOWN

September 8, 2021

Robyn A. Steinberg, AICP
Town of Yorktown Planning Board
363 Underhill Avenue, P.O. Box 703
Yorktown Heights, NY 10598

Vincent Sapienza P.E.
Commissioner

Re: **Notice of Intent to be Lead Agency**
Kitchawan Solar Farm
716 Kitchawan Road
Town of Yorktown; Westchester County, NY
Tax Map #: 70.06-1-2
DEP Log #: 2021-CNC-0579-SQ.1

Paul V. Rush, P.E.
Deputy Commissioner
Bureau of Water Supply
prush@dep.nyc.gov

Dear Ms. Steinberg and Members of the Planning Board:

465 Columbus Avenue
Valhalla, NY 10595

T: (845) 340-7800
F: (845) 334-7175

The New York City Department of Environmental Protection (DEP) has reviewed the Town of Yorktown Planning Board's (Board) Notice of Intent to act as Lead Agency for the above referenced project. DEP does not object to the Board acting as Lead Agency for the Coordinated Review of the proposed action pursuant to the New York State Environmental Quality Review Act (SEQRA).

The proposed site is located in the New Croton Reservoir drainage basin of New York City's Water Supply. As New Croton Reservoir is phosphorous restricted, water quality impacts to the receiving reservoir from pollutant-laden runoff must be avoided or mitigated.

The proposed action involves the installation of a two (2) Mega Watt ground-mounted solar array energy system to be surrounded by a perimeter fence. Access to the array will be via a new gravel access road off Kitchawan Road (aka NYS Rt. 134).

The activity will require DEP review and approval of a Stormwater Pollution Prevention Plan (SWPPP) pursuant to Section 18-39 of the *Rules and Regulations for the Protection from Contamination, Degradation, and Pollution of the New York City Water Supply and Its Sources* (Watershed Regulations).

Based upon review of the submitted documents, DEP respectfully submits the following comments for the Board's consideration:

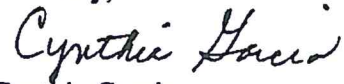
1. According to the EAF, eight (8) acres of disturbance is proposed. However, the extent and nature of soil disturbance associated with panel installation must be provided. For example, a breakdown must be included for all disturbances associated with new access roads,

trenching activities anticipated for the installation of MC cable, and the pad-mounted utility meter, generator, and transformer pad. The applicant's representative is encouraged to schedule a pre-application meeting with DEP via Microsoft Teams to discuss the project SWPPP further. In addition, the applicant's representative should contact DEP representative Mariyam Zachariah at (914) 749-5357 to schedule a site walk to validate the presence and status of any watercourses onsite or in proximity to the site.

2. Clarify whether the panels will be ground mounted and provide a construction detail. The project sponsor must show the arrays with onsite topographic contours labeled on the site plan to verify whether the configuration of the arrays will result in parallel and concentrated flows converging to the nearest watercourse. The project sponsor should explain how stormwater runoff will be dispersed onto the ground surface based on this solar panel arrangement. Please also note that offsite contours are not provided in order to verify whether a significant offsite drainage area contributes runoff to the proposed area of construction. At a minimum, contour information should be shown to confirm how runoff is managed both during and after construction.
3. According to SPDES General Permit, GP-015-002, Table 1 in Appendix B, solar arrays are considered an environment enhancement project. As such, pursuant to Watershed Regulations Section 18-39(b) (3) (ii), the applicant's representative must demonstrate whether this project will alter the hydrology from pre- to post-development conditions, and thus whether permanent post-development stormwater practices are required.
4. It is not clear from the information provided exactly how many trees will be removed. Loss of trees and/or vegetative cover increases the volume of stormwater runoff and the potential for pollutant loading and turbid stormwater flows to receiving wetlands and other surface water features. The project sponsor is encouraged to explain how these potential impacts will be alleviated both during and after the construction of the facility.
5. No information is provided on erosion control practices to be utilized during construction. Without this information, it is difficult to analyze the potential adverse impacts and extent of disturbance in an area that is presently densely vegetated.
6. The proposed action may alter drainage flow or patterns of surface water runoff and may be incompatible with existing drainage patterns. Physical changes to the site may alter the existing direction of flow and may cause additional erosion and sedimentation. The impact of site improvements on existing flow patterns must be addressed, and mitigation proposed for adverse impacts that cannot be avoided.

Thank you for the opportunity to provide comments. You may reach the undersigned at cgarcia@dep.nyc.gov or (914) 749-5302 with any questions or if you care to discuss the matter further.

Sincerely,

A handwritten signature in black ink that reads "Cynthia Garcia". The signature is written in a cursive style with a distinct dot over the 'i' in Garcia.

Cynthia Garcia,
Supervisor
SEQRA Coordination Section

X: J. Petronella, NYSDEC Region 3
N. Drummond, WCPD



Mr. Richard Fon, Chairman
Mr. Aaron Bock, Board Member
Mr. Robert Garrigan, Board Member
Mr. William LaScala, Board Member
Ms. Roxanne Visconti, Board Member
Yorktown Planning Board
Albert A. Capellini Community & Cultural Center
1974 Commerce Street – Room 222
Yorktown Heights, NY 10598

September 27, 2021

RECEIVED
PLANNING DEPARTMENT
SEP 27 2021
TOWN OF YORKTOWN

RE: Application for a Solar Farm Special Permit – Response to letter from Jamie Spillane, Esq. of Hogan & Rossi representing Centerline Farm, LLC

Dear Chairman and Board Members:

Ecogy Energy (“Ecogy”) and Van Brunt Cochran, LLC (“Kitchawan Farm”) would like to formally respond to the Letter dated September 24, 2021 received from Jamie Spillane, Esq. representing the abutting property owner Centerline Farm, LLC (“Centerline”).

Ecogy respects and welcomes all comments from Centerline on the proposed solar project at 716 Kitchawan Rd as Centerline is an abutter with a similar equine farm. However, we find some of the comments submitted in the Letter to be misleading or misrepresenting of the application currently under consideration by the Board for the solar installation at Kitchawan Farm at 716 Kitchawan Rd. We would like to take this opportunity to outline our understanding of the environmental review process, the potential impacts of the proposed solar project, and other concerns raised in the Letter with regards to Ecogy’s proposed project.

Before addressing the Letter directly, Ecogy would note that the proposed solar project has received only support from other neighbors and has generally been viewed as a positive addition to the farm. Ecogy received letters in support of the solar project from the abutter to the East at 712 Kitchawan Rd (Steven Spiro), an abutter across the street from the farm at 709 Kitchawan Rd (Michael Lugassy), an abutter to the West at 730 Kitchawan Rd (Lynne Schultz), as well as other neighbors who frequently pass in front of the property (for example, Holly Ross and Tim Hartung at 500 Arcady Rd, and Brian and Celia Carroll at 855 Old Kitchawan Road).

To respond to the Letter as it pertains to Ecogy’s proposed solar project at Kitchawan Farm, first, with regards to the SEQR Review process, Ecogy believes the Letter incorrectly portrays the SEQR process and how cumulative actions are defined. The Letter gives reasons as to why Centerline believes the proposed Kitchawan solar project to be a Type I action and states “an Environmental Impact Statement should be required” and that “the applicant has not complied with the requirements of SEQRA”. While the Letter correctly identifies what qualifies as a Type I action, it appears to misrepresent how the SEQR process will unfold. At the time of this letter, the Yorktown Planning Board has not yet taken up the question of environmental impacts subject to SEQR nor has any determination been made regarding the Type of action. At such a time that the Board is ready to consider the project under the SEQR process, Ecogy will gladly submit any



and all materials required, including but not limited to a Full Environmental Assessment Form, a stormwater analysis, and other supporting documents. Only then will the Board be able to make an informed decision about the Environmental Impacts and make a determination on whether it is appropriate to issue a Negative Declaration or require an Environmental Impact Statement. Ecogy has not asked the Board to make any decision about the environmental impacts at this time and feels the Letter is misrepresenting Ecogy's intentions by implying the SEQR steps are not being followed. On the contrary, Ecogy is continuously working to assess the environmental impacts of the project such that, come time for the SEQR review, Ecogy will be fully prepared to address any concerns.

In addition, the Letter asks that the Board consider "the cumulative impact of the numerous solar farms including concerns over glint and glare". Per the SEQR Handbook, Ecogy does not believe there is basis for grouping various solar projects within Yorktown as related so that cumulative impacts must be considered. To require a cumulative impact assessment, "the lead agency must clearly articulate the functional connections of potential impacts to resources, as courts have generally not accepted proximity alone as a basis for requiring cumulative impact analysis." The Letter seems to rely only on the proximity of the solar projects all being within Yorktown, however, that alone does not justify a review of cumulative impacts. Further, glint and glare may be considered as part of the aesthetic impacts of the project but such impacts are already being addressed by the screening of the solar project as proposed in Ecogy's landscaping plan.

Second, with regards to the submission of a decommissioning plan, such a plan was submitted by Ecogy for the project early in the application process and was guided by the NYSERDA Decommissioning Guidebook for Municipalities. The decommissioning plan can be found in the Public Hearing resources as posted by Yorktown prior to the public hearing here: <https://www.yorktownny.org/planning/kitchawan-farm-solar-farm>. The file is called "*Contacts, Project Narrative, Operations & Maintenance Plan, Decommissioning Plan*". Ecogy's decommissioning plan for the project clearly outlines the various components of decommissioning work as well as the expected costs. Ecogy would further like to note that per our agreement with Kitchawan Farm, Ecogy must fully remove the solar system and associated equipment and restore the site within 120 days of the termination of the lease at Ecogy's expense. Finally, per Ecogy's agreement with Kitchawan Farm, Ecogy must provide either to Yorktown or to Kitchawan Farm, whichever is appropriate, a Security Deposit to cover the costs of removal of the solar system and restoration of the premises in the unlikely event Ecogy fails to remove the system at the end of the useful solar project life. Given this, Ecogy has already addressed the second concern raised in the Letter.

Third, regarding a review of the proposed project by the Yorktown Conservation Board, Ecogy has already participated in reviews of the project with the Conservation Board and has met their requirements. Ecogy first presented the project to the Conservation Board on May 5, 2021 and subsequently conducted a site visit with members of both the Planning Board and Conservation Board together on June 12. After that site visit, Ecogy again presented to the Conservation Board on August 18, 2021. On August 19, 2021, the Conservation Board issued a Memorandum to the Planning Board stating "The Conservation Board concerns have been met and requests that all plant material used be native." Ecogy is aware of the native plant requirements and will adhere to



that request. Thus, we believe the third concern stated in the Letter with regards to the Kitchawan solar project has been adequately addressed.

Finally, we would like to respond to the additional concerns raised in the Letter about solar development in Yorktown more generally. The Letter states that the existing solar projects being considered by Yorktown “are not consistent with the Comprehensive Plan”, specifically as the Comprehensive Plan pertains to open space and agricultural land uses. Contrary to the Letter, Ecogy believes solar development can support those exact goals. With respect to preserving open space, solar development is a favorable use of land in that the solar systems are temporary. Installing a solar system on a property will impact the property for 25 to 30 years but at the end of the solar project’s useful life the property can be restored to its original functionality with relative ease. Compare such a solar installation with building a building or parking lot, both uses which do not allow the open space to easily be restored. It is for this reason that the Kitchawan Farm wanted to pursue solar development as it is one of the rare development opportunities that allows them to retain ownership of the land, and eventually return to using the land that has been in their family for over 100 years. In addition, the Letter states the Comprehensive Plan has a goal of continuing to support agricultural land uses, which the Kitchawan Farm solar project does. The solar project will provide revenue to the farm to allow them to continue their operations as well as create a new plot for planting vegetables and other agricultural opportunities. The solar project at Kitchawan Farm will operate in synergy with the farm operations rather than working against them, particularly due to the incorporation of a native pollinator-friendly seed mix, which will aid and increase productivity of the farm.

Regarding the taxation of solar installations, Ecogy and Kitchawan both recognize the installation of solar on the property will currently result in a loss of the Agricultural Assessment for that portion of the property, however, Senate Bill S7603 which was passed in both the State Assembly and Senate and sponsored by State Sen. Harckham and currently sits in the Agricultural Committee proposes to make solar exempt comparable to if a farm adopted wind or fossil fuel energy infrastructure which by law currently does not result in a loss of an agricultural exemption.

Agricultural assessments are separate from payments due by Ecogy to the Town of Yorktown on our personal property. Currently, NYS Real Property Tax Law 487 exempts solar personal property from local taxation for a period of 15-years. Ecogy intends to not seek this exemption but rather have assumed the project would enter into a Payment In Lieu of Taxes (PILOT) agreement with Yorktown. We have modeled this project, as it is greater than 1,000 kW AC, to pay PILOT payments that adhere to the draft Yorktown ordinance from 6-24-2019 as well as neighboring town’s solar tax ordinances (i.e. the Town of Ossining). The PILOT assumptions also follow the NYSERDA guidebook to municipalities on PILOT payments for solar systems that can be found here: <https://www.nyserdera.ny.gov/-/media/Files/Programs/NYSun/Solar-PILOT-Toolkit.pdf>.

Ecogy has modeled \$9,000/MWac/Year for the solar project for the full 25-year life with a 2% annual escalator to be paid directly to the Town of Yorktown. The assumed PILOT payments at the current proposed system size would result in Ecogy paying to the Town of Yorktown \$576,545 over the 25-year term with minimal municipal services needed. Ecogy welcomes any



discussion with Yorktown regarding the potential PILOT agreement for the Kitchawan solar project.

Ecogy and Kitchawan Farm are open to all comments with regards to the proposed solar project at 716 Kitchawan Rd. We hope to continue the review process with the Planning Board and will continue to be transparent and forthcoming with all information, plans, and applications as they pertain to the proposed solar project. We thank the Planning Board for their consideration of the letter.

Sincerely,

DocuSigned by:
Alexander Cochran
8A561FA7B64B4BB
Alexander Cochran, Managing Member
Van Brunt Cochran, LLC

DocuSigned by:
Jack Bertuzzi
50B6A7A3E78D427
Jack Bertuzzi, CEO
Ecogy Energy

HOGAN & ROSSI

Attorneys at Law

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Adriana Nolan

Telephone: (845) 279-2986
Facsimile: (845) 279-6425
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RECEIVED
PLANNING DEPARTMENT

SEP 24 2021

TOWN OF YORKTOWN

* Also Admitted in CT
† Also Admitted in NJ

September 24, 2021

VIA Federal Express Overnight Courier and Electronic Mail

Hon. Richard Fon, Chairman
Town of Yorktown Planning Board
363 Underhill Avenue
Yorktown Heights, New York 10598

Re: Kitchawan Farm Solar Farm: Installation of a Large Scale Solar Energy Farm (the
"Project")

716 Kitchawan Road, Yorktown, New York and Kitchawan Road, Yorktown, New
York, Tax Map Id Nos. 70.06-1-2 and 70.06-1-3 (collectively, the "Premises")

Dear Mr. Fon:

We represent Centerline Farm, LLC (hereinafter "Centerline") and its principals, Elizabeth Manocherian and Donald Manocherian, the owners of 480 Arcady Road, 800 Old Kitchawan Road and 802 Old Kitchawan Road in the Town of Yorktown. Centerline operates a pristine Equine Farm at the addresses listed above which directly abuts the premises on which the Applicant proposes to install a large scale solar farm. Centerline has concerns about the adverse environmental and aesthetic impacts that such a large installation would have on the Premises, especially with regard to their business operation and property values.

It is respectfully submitted that the application submitted to the Town of Yorktown Planning Board is incomplete, the Project is incompatible with the neighboring area and, as further detailed below, when viewed in conjunction with the significant number of solar farms being proposed or previously approved within the Town, is contrary to the stated goals specified in the Town's 2010 Comprehensive Plan. For the reasons detailed below we respectfully request that the Planning Board determine that the Project is a Type I Action under the State Environmental Quality Review Act ("SEQRA"), require a full application before making any determination on this matter, and, in addition, we respectfully urge the Planning Board to join us in requesting that the Town Board should consider a moratorium on solar farm applications until such a time as a full review of the potential impacts which large scale solar farms can have on neighboring residential and farm properties and the Town as a whole via updates of the Comprehensive Plan and Zoning Code..

I. THE APPLICATION BEFORE THE PLANNING BOARD

The application submitted by Van Brunt Cochran, LLC is incomplete in that (i) SEQRA requires that a full environmental assessment form be submitted on this Project for an extensive review of negative impacts to the environment; (ii) pursuant to the Town of Yorktown Zoning Code, a “decommissioning plan” is required and has not been submitted; and (iii) a referral to the Conservation Board should be required to correct and clarify the misinformation that the record herein indicates was previously provided to said Board.

(A) SEQRA REVIEW

The Premises are within the Westchester County Agricultural District Number 1, an Agricultural District certified pursuant to the Agriculture and Markets Law. In addition, the Premises abuts the Kitchawan Preserve, which is parkland owned and operated by the County of Westchester, on the side and rear boundary lines. A Short Environmental Assessment Form dated October 8, 2020 was submitted in connection with the pending application. The Project, however, involves a disturbance of approximately 8 acres for the installation of a large scale solar farm.

Pursuant to 6 CRR-NY 617.4, subsection (b)(8) includes as a Type I Action “*any Unlisted action that includes a nonagricultural use occurring wholly or partially within an agricultural district (certified pursuant to Agriculture and Markets Law, article 25-AA, sections 303 and 304) and exceeds 25 percent of any threshold established in this section*”. Since the Premises is within the Westchester County Agricultural District, any solar installation requiring more than 2.5 acres of land is a Type I action requiring, at the minimum, a Full Environmental Assessment Form. Here, the proposal is for a solar installation that will impact approximately 8 acres of land, which far exceeds the minimum requirement for Type I review. Given the scope of the Project, its proximity to estate properties, including our client’s mixed use residential and farm property, and the prevalence of similar Projects in residential areas throughout the Town, an Environmental Impact Statement should be required. See also, State Environmental Quality Review (SEQR) for Solar published by NYSERDA at page 106.

In addition, since the Premises borders the Kitchawan Preserve on two sides, and will disturb approximately 8 acres of land, the action constitutes a Type I action under subsection (b)(10) which provides, in relevant part, that the following shall be considered a Type I Action: “any Unlisted action, that exceeds 25 percent of any threshold in this section, occurring wholly or partially within or substantially contiguous to any publicly owned or operated parkland, recreation area or designated open space, including any site on the Register of National Natural Landmarks pursuant to 36 CFR part 62...”

The Board is required to review the environmental impacts of each individual application and may not make a broad generalization based on specific uses. The applicant has not complied with the requirements of SEQRA, and the Board is not in a position to make any determinations on the Project without a full environmental review.

When an appropriate Full Environmental Assessment Form is received, we would urge the Board to review this matter in light of the numerous pending and approved solar projects in the Town. In doing so, the Board should be aware of the cumulative impact of the numerous solar farms including concerns over glint and glare. Where one project may not have an impact deemed significant, the cumulative effect to the environment of the significant number of proposed installations may be devastating.

(B) DECOMMISSION PLAN

Pursuant to Section 300-81.4 of the Town of Yorktown Zoning Code entitled "Solar Power Generation Systems and Facilities", all applicants for a solar farm must include with their application a "decommissioning plan to be implemented upon abandonment or cessation of activity..." No such plan was included with the application submitted on this Project. As such, the Board is not in a position to grant a special permit for this proposal until such a plan has been submitted and made available for public review and comment. The preparation and submittal of this plan is to include an approximate cost for decommission. Without the appropriate plan in place and incorporated in a special permit that may be granted, the risk exists that Project site will not be cleared of substantial equipment and safety and aesthetic issues will ensue. The decommissioning plan should include a requirement for adequate security to insure that, if the Project is abandoned, funds are readily available to remove the installation and otherwise restore the Project site to its previous condition.

(C) APPEARANCE BEFORE THE CONSERVATION BOARD

From a review of the records, it appears that this Project was referred to the Town of Yorktown Conservation Board. The Board reviewed the application at its meeting on or about May 5, 2021. The minutes of the May 5th meeting provide that the Conservation Board recommended that the applicant "reduce the size of the arrays" and noted that they would be conducting a site visit. There is no indication if that site visit occurred and, if it did, if there are any further recommendations from the Conservation Board. In an email dated July 1, 2021 that is included with the August 16, 2021 Agenda Packet, Julia Magliozzo, Director of Operations of Ecogy Energy, wrote that in reviewing the correspondence from the Conservation Board, it became clear that the Project is impacting a larger number of trees than those that were noted in the correspondence from the Conservation Board. If the Conservation Board recommended a reduction of size of the Project, then the additional removal of trees and change in the application should be referred once again to the Conservation Board prior to any further processing and review of the special permit and site plan applications.

II. COMPREHENSIVE PLAN

At the July 12, 2021 Informational Public Hearing on the above referenced application, numerous members of the Planning Board noted that the Town of Yorktown is becoming a popular location for solar installations. One Board member went as far as noting that "[t]he Board's role is to look at the aesthetics and locations which is exactly what they have been doing and is not sure an adjustment to the law is necessary" when discussing solar farms. Solar farming is not a goal recognized in the Town of Yorktown Comprehensive Plan. In fact Goal 2-A is to "[p]rovide for

low-density development and preserve open space throughout Yorktown's residential neighborhoods, as discussed in Chapter 5, in a manner consistent with community character.”

The Premises is located in a residential zoning district as are the multiple other farms that are currently purposing solar installations. Chapter 5, Goal 5-A, once again reiterates the importance of open space in residential districts with a goal to “[r]educe the future residential buildout of Yorktown, in order to further preserve open space and limit the potential for adverse development impacts.” The Comprehensive Plan does not include a goal or policy of increasing solar installations but instead at Policy 2-6 includes that the Town “[c]ontinue to support agricultural land uses, including horse farms and the cultivation of fruits, vegetables and nursery stock.” The installation of solar paneling on usable farm land is in direct contradiction of Policy 2-6. There are currently four pending applications before the Planning Board for installation of solar panels. Of the four pending applications, three applications pertain to farm land. In addition to the pending applications, at the August 16, 2021, a work session was held on another potential solar farm. Given the number of pending and potential applications the Town is receiving and the fact that these applications are not consistent with the Comprehensive Plan, the Town should engage in a review of the Plan and its Zoning Code. The review and approval of any applications of this nature should be more than an aesthetic review.

III. TAXATION OF SOLAR INSTALLATIONS

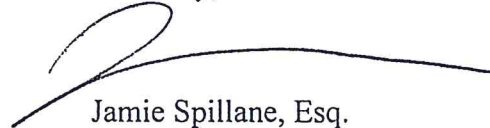
As previously noted, the Premises is in Westchester County Agricultural District Number 1. It is our understanding that the Premises was operated as a farm. According to the Town of Yorktown Assessment Roll the Premises “[m]ay be subject to payment under AGDIST till 2027”. If the Premises has benefitted from an Agricultural Assessment, then once the Premises is used for a non agricultural purpose, it will be a conversion of the land and should subject the owner of the Premises to a penalty under Sections 305 and 306 of the Agriculture and Markets Law. The conversion would not apply if the solar installations provide only 110% of the power necessary to operate the farm. In this case, the plan for the land being converted to non agricultural use is to power 330 to 450 households and small businesses which is substantially more than the 110%. The converted land, in this case, approximately 8 acres, should be subject to penalty payments “equaling five times the taxes saved in the last year in which the land benefited from an agricultural assessment. Interest of six percent per year, compounded annually for each year in which an agricultural assessment was granted, but not exceeding five years, is added to the payment amount. AML §§ 305(1)(d); 306(2)(a).” See https://www.tax.ny.gov/research/property/assess/valuation/ag_conversion.htm. The applicant, as well as any and all other proposed applicants for similar projects within an Agricultural District should be assessed such a penalty upon conversion of the Premises to the solar farm use, if approved.

Though the Town may argue that there are benefits to these properties losing an agricultural assessment and thus returning to the tax rolls, agricultural assessments only benefit the assessment of land. The improvements on the properties are taxed at the established rates set by the Town, County and School District. New York Courts have found that solar installation equipment, however, is personal property and not real property, and, as such, any solar equipment placed on the site is not subject to real property taxes as improvements. The Town should review

and consider the actual tax implications of the numerous projects that have been proposed and weigh the benefits of exemption and maintaining the estate type atmosphere (and property values) against the minimal tax revenue from the project. This is one of the various significant issues that should be analyzed during the Project's environmental review.

For the foregoing reasons, the Town Planning Board does not have the necessary information to make a determination on this application, and the Town should consider a review of the zoning provisions and comprehensive plan to ensure that the application of the special use permits are not being granted in contravention of the Comprehensive Plan. We would suggest the Town consider a moratorium on these applications until the plan and code are extensively reviewed with a view towards protecting active and historic farmland within the Town.

Sincerely,



Jamie Spillane, Esq.

cc: John A. Tegeder, R.A., Director of Planning (jtegeder@yorktownny.org)
Robyn A. Steinberg, AIPC, Town Planner (rsteinberg@yorktownny.org)
Town of Yorktown Conservation Board (kimh@yorktownny.org)
Matthew J. Slater, Town Supervisor ([mslater@yorktownny.org](mailto:m Slater@yorktownny.org))
Tom Diana, Councilman (tdiana@yorktownny.org)
Ed Lachterman, Councilman (elachterman@yorktownny.org)
Vishnu Patel, Councilman (vishnuv@yorktownny.org)
Alice E. Roker, Councilwoman (bellealice472@gmail.com)
Kim Adams Penner, Town Assessor (assessor@yorktownny.org)
Adam Rodriguez, Town Attorney (townattorney@yorktownny.org)
James W. Glatthaar, Esq., Planning Board Attorney (jwglatthaar@bpslaw.com)
Brittany Friese, Junior Project Manager at Ecogy Energy (brittany@ecogyenergy.com)
Centerline Farm, LLC

Permitting Application by Ecogy Kitchawan Community Solar Farm LLC for Construction of a Ground Mounted Solar System at 716 Kitchawan Road

Solar Energy System Details

Location: 716 Kitchawan Road, Yorktown, NY 10562

Type of System: Ground-Mounted System in field lot

Size: 2,000 kW AC

The proposed solar system is a Community Solar project interconnected with Con Edison's distribution grid.

Contact Information

System Owner and Applicant:

Ecogy Kitchawan Community Solar Farm LLC

c/o Ecogy Energy

Attn: John Bertuzzi and Julia Magliozzo

315 Flatbush Ave #393, Brooklyn, NY 11217

Email: projectmanagement@ecogyenergy.com

Phone: 718-304-0945

Property Owner:

Van Brunt Cochran, LLC

Attn: Alexander Cochran

716 Kitchawan Road, Yorktown, NY 10562

Email: alex@kitchawanfarm.com

Phone: 914-602-4005

Ecogy Energy Kitchawan Solar Project Narrative

The proposed Ecogy Energy Kitchawan Solar Project is a 2,000 kW AC ground-mounted solar located in the field lot southwest of the main building at 716 Kitchawan Road, Yorktown. The project was developed by Ecogy Energy for Kitchawan Farm as a community solar project, which will allow businesses and residents of Yorktown to subscribe to the solar generation and receive discounted solar electricity credits on their Con Edison utility bills.

The benefits of this solar project also extend to the environment and in meeting New York's Reforming the Energy Vision 2030 Renewable Energy Goals. The proposed system will generate approximately 3,615,000 kWh of clean, renewable energy every year and over 84,678, 838 kWh over its lifetime, which is equivalent to 59,871 metric tons of CO₂ and represents significant environmental benefits as detailed in the following graphic:

Est. Lifetime Production: 84,678,838 kWh*

This is equivalent to the CO₂ emissions from:



6,736,956 Gallons of gasoline consumed



138,615 Barrels of oil consumed



10,137 Homes' electricity use for one year



This is equivalent to Carbon sequestered



989,985 Tree seedlings grown for 10 years



78,189 Acres of US forests in one year



405 Acres of US forests preserved from conversion to cropland in one year



Source: EPA Greenhouse Gas Equivalencies Calculator

<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator> | ***Includes 0.5% Annual Panel Degradation**

Ecogy and the Kitchawan Farm are proposing to introduce novel design techniques learned over Ecogy's decade of experience aimed at improving the sustainability and aesthetics of the farm. These include permeable wildlife fencing around the array, a native meadow seed mix planted between rows and vegetative buffers screened around the array including a tree orchard to provide a new farming opportunity for Kitchawan. Ecogy has also agreed in our contract with Kitchawan that we will not use any herbicide, pesticide or other non-organic means on the Farm so as to not affect the Kitchawan Farm operations that plan to continue throughout construction

and operation of the solar energy system. Ecogy has also agreed to introduce bird nesting boxes and bee nesting boxes around the array for pollinator friendliness, which in turn will support the Kitchawan Farm harvest.

LOW IMPACT DESIGN

There is no “one size fits all” approach to Ecogy’s Solar Ground Mount Design. Each solar facility needs to be evaluated based on natural landform and hydrology, native plant and wildlife species presence, and ecosystem functions.

Ecogy strives to take a comprehensive view of Ground-Mount development including incorporating the following:

- 1) Allow for wildlife connectivity by using wildlife-friendly fencing including creating clearance underneath.
- 2) Integrate planting of native and pollinator vegetation where appropriate to increase biodiversity, require less mowing and herbicide use, minimize erosion issues, and increase soil health and carbon sequestration.
- 3) Provide wildlife habitat and supplemental habitat features including bird nesting boxes, sand piles for native bees.



Comparison of a standard chain-link fence (left) with a wildlife-permeable fence (right). © Liz Kelley/TNC



DOWN WOOD BIRD NESTING BOXES BIRD PERCHES BAT BOXES BEE NESTING BOXES

Tree removal for installation of the proposed solar project will be limited to the area that is necessary to safely and efficiently build and operate the solar system. Hence, Ecogy has contracted a Certified Arborist to identify said trees and to calculate the avoid carbon sequestration from such tree removal. A detailed report is attached below for the Board’s review. Ecogy has also contracted a landscape architect to design a screening plan that is amenable to the Planning Board and the neighboring property owners. Finally, Ecogy has contracted a stormwater engineer that will assess the extent to which the solar project will alter the existing drainage conditions on site and to propose mitigation measures.

Ecogy has also performed a geotech analysis of the subsurface conditions to ensure proper engineering of the foundations. We have completed a property survey to ensure compliance with lot size and setback requirements. Ecogy will comply with all other requirements as outlined in the Yorktown Solar Code as shown on the site plan, equipment specification sheets, operation and maintenance plan, and decommissioning plan provided with this application.

Due to Ecogy’s background and history of projects serving underserved communities including the largest system for a public housing authority in the U.S., Ecogy Kitchawan Community Solar has partnered with Sustainable Westchester to prioritize Yorktown residents and businesses as

well as Low-Moderate Income households to help support an equitable renewable energy transition. Ecogy intends to focus all marketing efforts in the initial customer acquisition phase towards Yorktown in the hopes of subscribing 100% Yorktown community solar subscribers which we estimate to be roughly 300-350 utility accounts.

Ecogy additionally intends to use bifacial solar modules for this project due to our experience installing these first in 2015 for our project with the Wilmington Housing Authority. Bifacial panels have the added benefit of capturing sunlight from both sides of the panel, have better aesthetics with transparent glass and increased durability and longevity.



Figure 3: This picture denotes the 500 kW bifacial panel expansion on the Western side of this picture. Bifacial panels create a better aesthetic and are more durable panels than monofacial panels.

Ecogy thanks you for your consideration of the proposed Kitchawan Solar Project and hopes to receive all Town approvals as required by the Yorktown Solar Code to be permitted to construct the ground-mounted solar system at 716 Kitchawan Road.

Ecogy Kitchawan Solar Project Operation and Maintenance Plan

Ecogy Energy will partner with a dedicated Operations and Maintenance provider (“Contractor”) for the below services throughout the life of the ground-mounted solar system. Ecogy can submit information about the Operations and Maintenance Contractor to the Town for the record once a contract has been signed with a provider.

Description of System Services that Contractor will provide on a MONTHLY basis:

- I. Performance Monitoring:
 - A. Contractor shall monitor System production beginning on Commencement Date continuously throughout the Term and shall provide a System performance report on a monthly basis, detailing the following:
 1. Actual vs. expected performance of the System for the prior period expressed in kWh
 2. Any shortfall in System production resulting in less than 85% of expected performance

Description of System Services that Contractor will provide on a SEMI-ANNUAL basis:

- I. Site and System Inspection:
 - A. Contractor shall perform Site and System inspection on or around a mutually agreed upon date no later than six months after Commencement Date and then on a semi-annual basis thereafter. Results of inspection will be provided to Customer within five business days of inspection and shall include:
 1. Array Inspection
 - a) Inspect PV modules for damage, discoloration or delamination
 - b) Inspect mounting system for damage or corrosion
 2. Site Conditions
 - a) Inspect drainage conditions
 - b) Inspect system site for array shading which may diminish efficiency of the System (i.e. vegetation, construction, etc.)
 - c) Inspect System for fire hazards
 - d) Inspect safety conditions and proper signage
 3. Maintenance Reporting
 - a) Record results of all inspections
 - b) Take photographs of any damage or defects identified
 - c) Inform Customer and warranty providers of all deficiencies identified
 - d) Provide Customer with recommendations for corrective actions
 - e) Take photographs of the System and Site, dated within 30 days of end of semi-annual period

Description of System Services that Contractor will provide on an ANNUAL basis:

I. Performance Monitoring:

A. Contractor will provide, on or around the first anniversary of the Contract and annually thereafter, an annual operations and maintenance report, such report to include:

1. Actual vs. expected production of solar energy by System for the previous year and on a cumulative basis to date, expressed in kWh
2. System Availability percentage
3. Performance Index Measure
4. Operation and Maintenance Records
5. Safety, Accidents and Environmental Reporting
6. Proposal of Recommended Actions
7. Photographs of the System and Premises, dated within 30 days of anniversary period.

B. Preventative Maintenance, Inspections & Testing:

1. Array
 - a) Inspect PV modules for damage, discoloration or delamination
 - b) Inspect mounting system for damage or corrosion
2. Inverter
 - a) Torque checks on critical electrical terminations
 - b) Clean all filters and fans
 - c) Inspect inverter pad and container
3. Electrical Balance of System (BOS)
 - a) Inspect ground braids, electrodes and conductors for damage
 - b) Perform thermo-graphic analysis of combiner boxes, inverters, transformers, and conductor connections to buses, breakers or disconnects
4. Premises Conditions
 - a) Inspect drainage conditions
 - b) Inspect site for array shading which may diminish efficiency of the System (i.e. vegetation, construction, etc.)
 - c) Inspect System for fire hazards
 - d) Inspect safety conditions and proper signage
5. Maintenance Reporting
 - a) Record results of all inspections
 - b) Take photographs of any damage or defects identified
 - c) Inform Customer and warranty providers of all deficiencies identified
 - d) Provide Customer with recommendations for corrective actions

Description of System Services that Contractor will provide on an AS-NEEDED basis at an additional cost:

- I. Corrective Maintenance, including:
 - A. Module cleaning, to include surface washing of all modules with pressure washing settings not to exceed 1,500 PSI. Contractor will provide before and after photographs of System.
 - B. On-site troubleshooting & diagnostics of all system components (service included at no additional cost for systems under Contractor Warranty)
 - C. Inverter and Data Acquisition System resets: (service included at no additional cost for systems under Contractor Warranty):
 1. Remote resets (if capability enabled and connection available)
 2. On-site resets
 - D. Processing of warranty claims on behalf of Customer and verification of replaced equipment (service included at no additional cost for systems under Contractor Warranty)
 - E. Management of repair and replacement for equipment out of warranty (service included at no additional cost for systems under Contractor Warranty).
 - F. Ongoing warranty support and representation of Customer's interest with System equipment manufacturers (service included at no additional cost for systems under Contractor Warranty).
 - G. All repair and replacement services beyond the installation and workmanship warranty as outlined in Section 3.1.
 - H. Repair and replacement of equipment covered by the Manufacturer's warranties as listed in Attachment D.

If the system is performing at or above 100% of the expected system production for the prior six month period, Contractor may elect to forgo the scheduled semi-annual site inspection, maintenance and testing.

Ecogy Kitchawan Solar Project Decommissioning Plan

1. Executive Summary:

As stated in the Yorktown Solar Code, a decommissioning plan for the solar energy system shall be submitted by the applicant. Below is a full report of Ecogy’s decommissioning plan for the Kitchawan Solar Project, including costs and timeline.

This report includes an analysis of the estimated decommissioning costs broken down by system components, as well as a description of the associated time required to perform the decommissioning tasks. In addition, we describe each component’s salvage value, the time required to decommission and remove the solar energy system and any ancillary structures, and the time required to repair any damage caused to the property on which the solar energy system is located by the removal of the system. Future costs projected in the model escalate 2% annually due to estimated inflation over the next 25 years.

It is worth noting that Ecogy has agreed separately with the Kitchawan Farm to decommission and remove the system at a faster schedule than required by the Town of Yorktown. This includes removal within 120 days of the end of our term or else significant liquidated damages are assessed onto Ecogy.

2. Methodology

Throughout this report, assumptions are based on current market values, assessments of labor costs, and our professional development experience. Table 2 below shows the proposed ground mount solar system’s technical specifications as submitted with this application.

2.1 Proposed PV System Details

Table 1. Kitchawan Solar Project Technical Details

Proposed Solar System Technical Details	
AC System Size	2,000 kW AC
Racking Type	Ground Mounted

Component	Type	Quantity	Warranty
PV Module	TBD		30-Year Linear Power Output Warranty

Inverter	SolarEdge SolarEdge P860 Optimizer		15-Year Standard Warranty Extendable to 20 Years w/ Inverter Replacement Fund incorporated into proforma
Transformer	Utility Owned	1	Utility is responsible for maintenance and replacement.
Racking System	TBD	1	25-Year Warranty

2.2 Solar PV Decommissioning Tasks and Costs

Through Ecogy’s decade of experience and additional research, we have created a list of solar system equipment and its associated decommissioning tasks and timelines. This list forms the basis of Ecogy’s decommissioning plan and outlines the steps Ecogy would take to remove the solar system from the property. The equipment and steps are as follows:

1. Modules: The modules’ frame and surface would be mechanically separated. The glass and aluminum frames would be sold as recycled material.
2. Inverters: Inverters would be properly disposed of at an electronic waste facility.
3. Racking: Racking would be consolidated and sold as recycled scrap steel.
4. Wiring: All wiring would be disconnected and sold as recycled insulated cable.
5. Foundations: Foundations would be broken up on site and either removed or recycled as ABC material. Remediation on site would restore the site to its original condition per our agreement with the Kitchawan Farm.
6. Power Poles: Grid connection wiring and utility owned transformer would be removed or kept depending on preference of the Landowner.

To estimate the associated costs for major tasks needed to decommission a PV system, Ecogy used the NYSERDA “*Decommissioning Solar Panel Systems; Information for local governments and landowners on the decommissioning of large-scale solar panel systems - 2016*”, which provides estimates of potential decommissioning costs for a ground-mounted 2,000 kW solar panel system over 20-years. It is estimated that many components could be salvaged to offset the labor cost. This analysis is shown in Table 2 below. Ecogy has revised this analysis to incorporate the 25-year Term as afforded by the Value of Distributed Energy Resources Term.

Ecogy analyzed the decommissioning costs and salvage values with a 2.5% escalator over the lifetime of the solar system of 25 years due to inflation and to correspond with NYSERDA’s guidance. Ecogy has determined decommissioning costs to be approximately \$50,119.10 but a

\$49,129.52 salvage value would offset this cost. Lastly, decommissioning would take approximately 4-10 weeks.

Table 2: Summary of Cost Assumptions for Proposed Solar PV System

Component	Est. Cost for NYSERDA 2,000 kW System	Est. Salvage Value	Est. Net Cost of Decommissioning	Est. Timeline
Remove Rack Wiring	\$2,459.00	\$4,500.00	(\$2,041.00)	1-5 Days
Remove Panels	\$2,450.00	\$8,500.00	(\$6,050.00)	5-10 Days
Dismantle Racks	\$12,350.00	\$10,000.00	\$2,350.00	5-10 Days
Remove Electrical Equipment	\$1,850.00	\$3,500.00	(\$1,650.00)	5-10 Days
Breakup and Remove Concrete Pads	\$1,500.00	\$0.00	\$1,500.00	1-5 Days
Remove Racks	\$7,800.00	\$0.00	\$7,800.00	1-5 Days
Remove Cable	\$6,500.00	\$0.00	\$6,500.00	1-5 Days
Remove Power Poles	\$13,850.00	\$0.00	\$13,850.00	5-10 Days
Remove Fence	\$4,950.00	\$0.00	\$4,950.00	1-3 Days
Grading	\$4,000.00	\$0.00	\$4,000.00	5-10 Days
Seed Disturbed Areas	\$250.00	\$0.00	\$250.00	1-3 Days
Truck to Recycling Center	\$2,250.00	\$0.00	\$2,250.00	1-5 Days
Current Total Cost	\$60,200	\$26,500.00	\$33,709.00	32-81 Days

Table 4: 25 Year Decommissioning Plan

25 Year Decommissioning Plan with 2.5% Annual Inflation			
Year	Est. Decommissioning Cost	Value of Salvage Material	Net Cost of Decommissioning
0	\$60,200.00	\$26,500.00	\$33,700.00
1	\$61,705.00	\$27,162.50	\$34,542.50
2	\$62,939.10	\$27,841.56	\$35,097.54
3	\$64,197.88	\$28,537.60	\$35,660.28
4	\$65,481.84	\$29,251.04	\$36,230.80
5	\$66,791.48	\$29,982.32	\$36,809.16

6	\$68,127.31	\$30,731.88	\$37,395.43
7	\$69,489.85	\$31,500.17	\$37,989.68
8	\$70,879.65	\$32,287.68	\$38,591.97
9	\$72,297.24	\$33,094.87	\$39,202.37
10	\$73,743.19	\$33,922.24	\$39,820.95
11	\$75,218.05	\$34,770.30	\$40,447.75
12	\$76,722.41	\$35,639.55	\$41,082.86
13	\$78,256.86	\$36,530.54	\$41,726.32
14	\$79,822.00	\$37,443.81	\$42,378.19
15	\$81,418.44	\$38,379.90	\$43,038.54
16	\$83,046.81	\$39,339.40	\$43,707.41
17	\$84,707.74	\$40,322.88	\$44,384.86
18	\$86,401.90	\$41,330.96	\$45,070.94
19	\$88,129.93	\$42,364.23	\$45,765.70
20	\$89,892.53	\$43,423.34	\$46,469.20
21	\$91,690.38	\$44,508.92	\$47,181.47
22	\$93,524.19	\$45,621.64	\$47,902.55
23	\$95,394.68	\$46,762.18	\$48,632.49
24	\$97,302.57	\$47,931.24	\$49,371.33
25	\$99,248.62	\$49,129.52	\$50,119.10

KITCHAWAN GROUND MOUNT PV SYSTEM

2,670.3 KW-DC SOLAR PV SYSTEM
716 KITCHAWAN ROAD
OSSINING, NEW YORK 10562

SCOPE OF WORK:

TO INSTALL A GROUND MOUNTED SOLAR PHOTOVOLTAIC (PV) SYSTEM. THE POWER GENERATED BY THE PV SYSTEM WILL BE INTERCONNECTED WITH THE UTILITY GRID

THE PV SYSTEM DOES NOT INCLUDE STORAGE BATTERIES

CODES & STANDARDS:

2017 NATIONAL ELECTRICAL CODE
2015 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL FIRE CODE
UL 1741

LOT INFORMATION:

11 +/- ACRES
PARCEL ID # 70.06-1-2 & 70.06-1-3
ZONING DISTRICT - R1-200 - ONE FAMILY RESIDENTIAL

RECORD OWNER:

VAN BRUNT COCHRAN, LLC
716 KITCHAWAN ROAD
OSSINING, NY 10562

RECORD APPLICANT:

ECOGY NEW YORK XIII, LLC
315 FLATBUSH AVENUE #393
BROOKLYN, NEW YORK 11217

SYSTEM SUMMARY:

2670.3 KW DC
2000.0 KW-AC

TILT ANGLE = 20 °
AZIMUTH = 190 °

EQUIPMENT:

MODULE:
(5,934) LONGI 450W MODULES

INVERTER:
SOLAREEDGE 100K-US INVERTER

RACKING:
RBI SOLAR

DAS:
ECOGY ECONODE

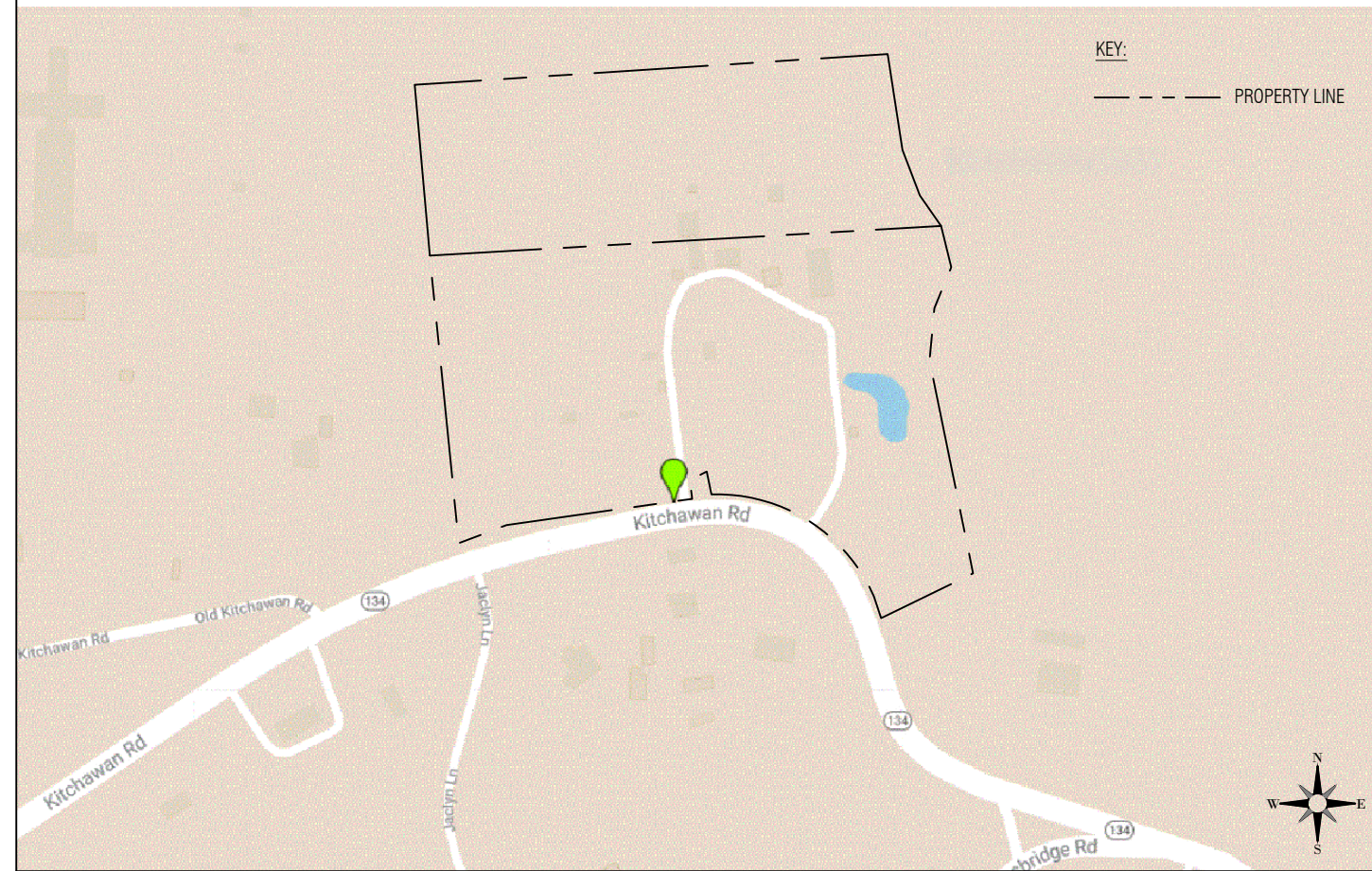
UTILITY:

CON ED

REVIEW PLAN SET
ISSUE DATE: 09/24/2021

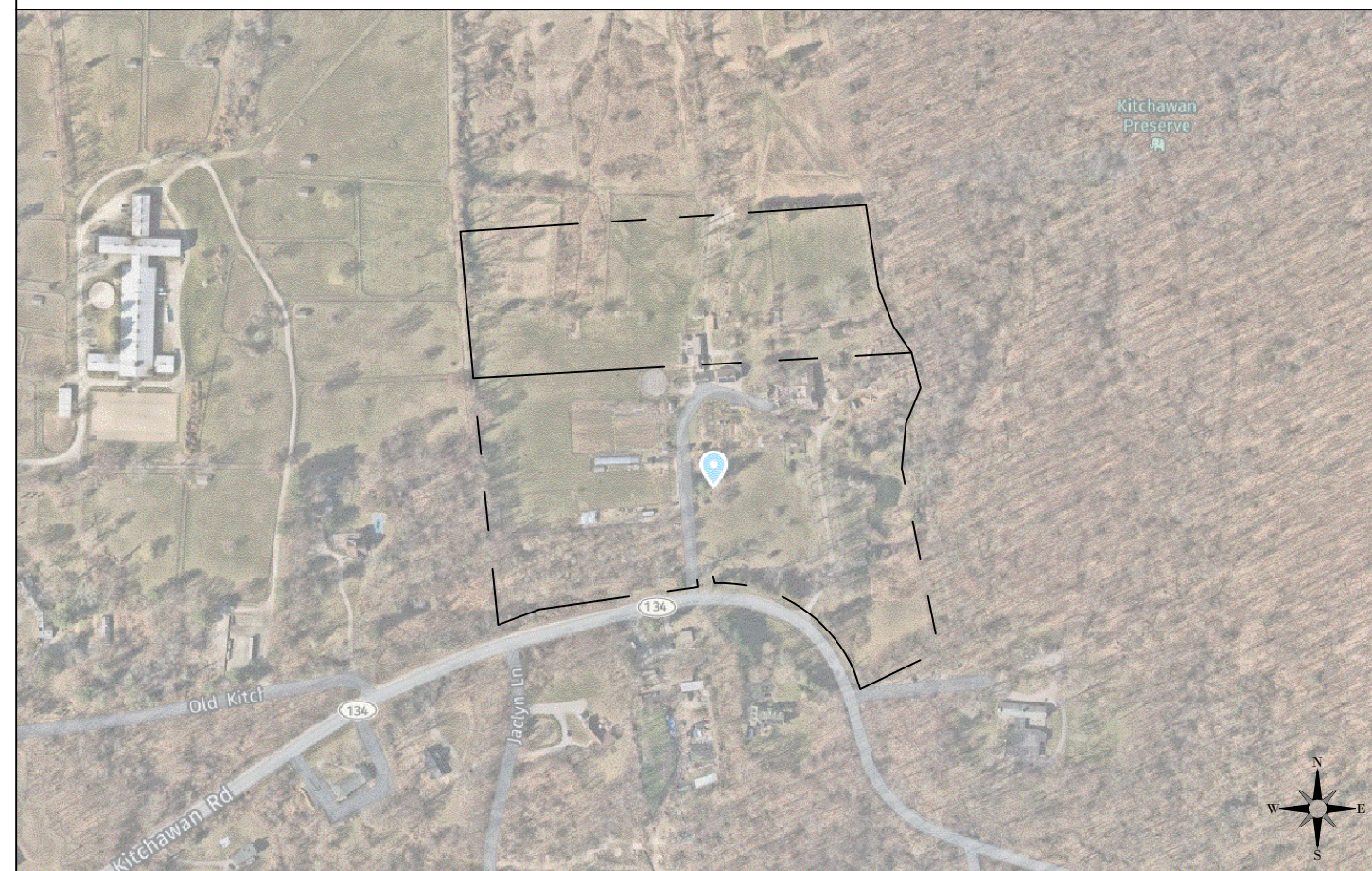
LOCATION MAP

SCALE: NTS



SATELLITE MAP

SCALE: NTS



ECOGY ENERGY
315 FLATBUSH AVENUE, SUITE 393
BROOKLYN, NY 11217
projectmanagement@ecogyenergy.com
(718)-304-0945

Ecogy New York XI LLC

Project Name:
KITCHAWAN
2670.3 KW-DC PV SYSTEM
GROUND MOUNT

Project Site:
**716 KITCHAWAN ROAD,
OSSINING, NY, 10562**

Account No: xxxxx
New Service Case #: xxxxx

NO.	DATE	REVISION DESCRIPTION
1	9/24/2021	RE-ISSUE DATE 9/24/2021

Professional Stamp

SHEET NAME:

TITLE SHEET

PROJECT NUMBER: ---
DRAWN BY: DQP
CHECKED BY:
DATE: 07/28/21
SHEET NUMBER: X of X
DWG. NUMBER: G-001

DRAWING LIST

DWG. NO.	DRAWING TITLE
G-001	TITLE SHEET
PV-101	SITE PLAN
PV-101.1	PARTIAL SITE PLAN
PV-200	GROUND MOUNT ELEVATION
PV-507	MISCELLANEOUS DETAILS

UTILITY EQUIPMENT KEY:

- ① NEW UTILITY OWNED 2000 kVA TXFMR
13.2 KV WYE PRIMARY, 480 V WYE SECONDARY
- ② UTILITY OWNED RECLOSER POLE AND DISCONNECT
- ③ EXISTING UTILITY POLE #W.55

CUSTOMER EQUIPMENT KEY:

- A AC DISCONNECT SWITCH (PV SYSTEM)
SOLAREGE INVERTERS
AC COMBINER PANEL
PV SYSTEM UTILITY METER
DAS
- B (NEW) CUSTOMER OWNED RISER POLE WITH UTILITY
SUPPLIED KYLE SWITCH TO BE INSTALLED BY CUSTOMER

NOTE:

1. MEADOW SEED MIXTURE TO BE PLANTED BETWEEN PV ARRAY ROWS
2. FENCING AROUND THE ARRAY WILL BE WILDLIFE FRIENDLY

SYMBOLS LEGEND:

- ⊕ EXISTING UTILITY POLE
- ⊕ PROPOSED UTILITY POLE

LINETYPE LEGEND:

- - - - - APPROXIMATE PROPERTY LINE
- - - - - PROPERTY LINE SETBACK
- x-x-x- PROPOSED CHAINLINK FENCE
- OE-OE- OVERHEAD ELECTRIC
- UE-UE- UNDERGROUND ELECTRIC
- · · · - APPROXIMATE WETLAND BOUNDARY GIS
- - - - - 10' ARRAY SETBACK



Module Count = 5934
 Longei 450W MODULE
 190 deg AZIMUTH
 2670.3 kW-DC



ECOGY ENERGY
 315 FLATBUSH AVENUE, SUITE 393
 BROOKLYN, NY 11217
 projectmanagement@ecogyenergy.com
 (718)-304-0945

Ecogy New York XI LLC

Project Name:
KITCHAWAN
 2670.3 kW-DC PV SYSTEM
 GROUND MOUNT

Project Site:
**716 KITCHAWAN ROAD,
 OSSINING, NY, 10562**

Account No: xxxxx
 New Service Case #: xxxxx

				DOP	SCG	BY
				9/24/2021	7/8/2021	DATE
				REVISION DESCRIPTION		
2				UPDATED ACCESS ROAD		
1				UPDATED ARRAY LAYOUT AND MISC NOTES		
#						

Professional Stamp

PRELIMINARY

SHEET NAME:
SITE PLAN

PROJECT NUMBER: ---	DRAWN BY: SCG	CHECKED BY: JLA
DATE: 07/28/21	DWG. NUMBER:	
SHEET NUMBER: X of X	PV-100	

UTILITY EQUIPMENT KEY:

- ① NEW UTILITY OWNED 2000 kVA TXFMR
13.2 KV WYE PRIMARY, 480 V WYE SECONDARY
- ② UTILITY OWNED RECLOSER POLE AND DISCONNECT
- ③ EXISTING UTILITY POLE #W.55

CUSTOMER EQUIPMENT KEY:

- A AC DISCONNECT SWITCH (PV SYSTEM)
SOLAREEDGE INVERTERS
AC COMBINER PANEL
PV SYSTEM UTILITY METER
DAS
- B (NEW) CUSTOMER OWNED RISER POLE WITH UTILITY
SUPPLIED KYLE SWITCH TO BE INSTALLED BY CUSTOMER

NOTE:

1. MEADOW SEED MIXTURE TO BE PLANTED BETWEEN PV ARRAY ROWS
2. FENCING AROUND THE ARRAY WILL BE WILDLIFE FRIENDLY

SYMBOLS LEGEND:

- ⊗ EXISTING UTILITY POLE
- ⊙ PROPOSED UTILITY POLE

LINETYPE LEGEND:

- - - - - APPROXIMATE PROPERTY LINE
- - - - - PROPERTY LINE SETBACK
- x-x-x- PROPOSED CHAINLINK FENCE
- OE-OE- OVERHEAD ELECTRIC
- UE-UE- UNDERGROUND ELECTRIC
- · · · - APPROXIMATE WETLAND BOUNDARY GIS
- - - - - 10' ARRAY SETBACK



ECOGY ENERGY
315 FLATBUSH AVENUE, SUITE 393
BROOKLYN, NY 11217
projectmanagement@ecogyenergy.com
(718)-304-0945

Ecogy New York XI LLC

Project Name:
KITCHAWAN
2670.3 kW-DC PV SYSTEM
GROUND MOUNT

Project Site:
**716 KITCHAWAN ROAD,
OSSINING, NY, 10562**

Account No: xxxxx
New Service Case #: xxxxx

NO.	DATE	BY	REVISION DESCRIPTION
1	9/24/2021	DQP	UPDATED ACCESS ROAD

Professional Stamp

PRELIMINARY

SHEET NAME:
**PARTIAL
SITE PLAN**

PROJECT NUMBER: ---	DRAWN BY: SCG	CHECKED BY: ---
DATE: 07/28/21	DWG. NUMBER:	
SHEET NUMBER: X of X	PV-100.1	



- GENERAL NOTES:**
- CONTACT CALL DIG SAFELY NEW YORK AT 811 OR WWW.DIGSAFELYNEWYORK.COM TO HAVE UNDERGROUND UTILITY LINES MARKED PRIOR TO START OF ANY EXCAVATION WORK.
 - BASE MAP INFORMATION WAS TAKEN FROM "PARTIAL BOUNDARY AND TOPOGRAPHIC SURVEY" PREPARED BY TECTONIC ENGINEERING CONSULTANTS, GEOLOGISTS & LAND SURVEYORS, P.P.C., DATED APRIL 22, 2021.

- CLEAN UP NOTES:**
- DEAD ASH TREES WITHIN THIS AREA TO BE REMOVED
 - PROTECT ALL HEALTHY TREES, WHICH ARE TO REMAIN
 - UNDERGROWTH VEGETATION TO REMAIN

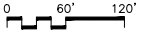

Revisions	Date

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Tracy Chalifoux LLC
 Landscape Architect
 7 King Street, Danbury, CT 06811
 Office: 860-244-1389
 E-mail: tchalifoux@gmail.com

Seal

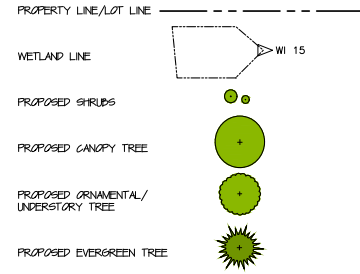
LANDSCAPE MASTER PLAN
 ECOGY NEW YORK XI LLC
 KITCHAWAN
 Location: 716 KITCHAWAN ROAD
 YORKTOWN, NY 10562

Graphic Scale and North Arrow


 Date: June 3, 2021
 Scale: 1"=60'-0"
 Checked: TLC
 Drawn: TLC

Drawing Title
OVERALL LANDSCAPE PLAN

Drawing No.
L-1
 SHEET 1 OF 4

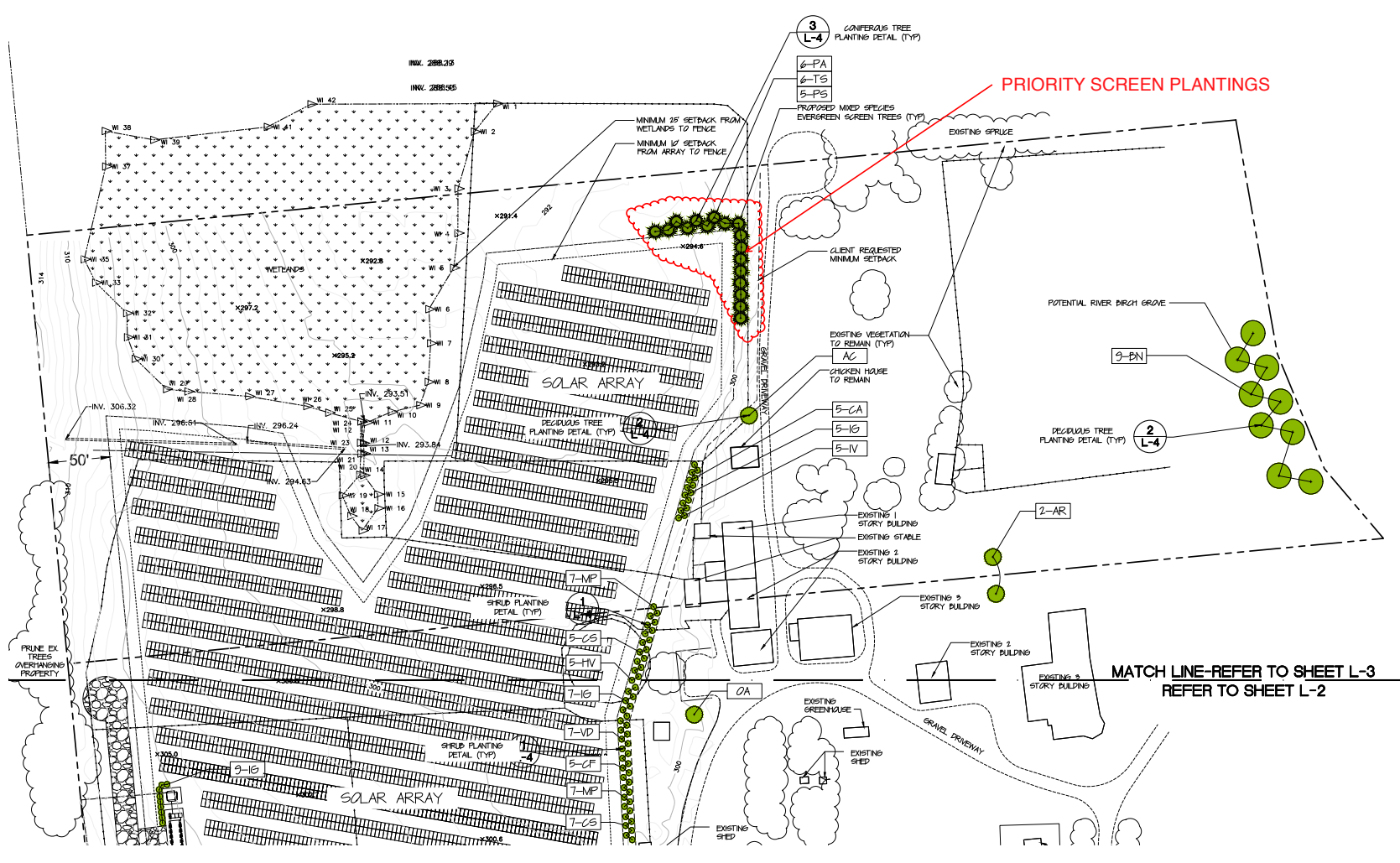
PLANTING LEGEND



GENERAL NOTES:

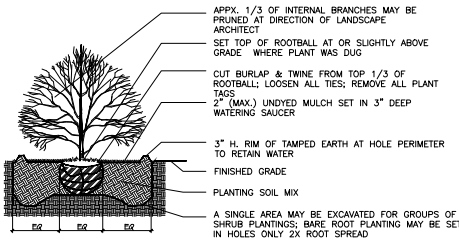
- CONTACT D&B SAFELY NEW YORK AT 811 OR WWW.DIGSAFELYNEWYORK.COM TO HAVE UNDERGROUND UTILITY LINES MARKED PRIOR TO START OF ANY EXCAVATION WORK.
- BASE MAP INFORMATION WAS TAKEN FROM "PARTIAL BOUNDARY AND TOPOGRAPHIC SURVEY" PREPARED BY TECTONIC ENGINEERING CONSULTANTS, GEOLOGISTS & LAND SURVEYORS, P.C., DATED APRIL 23, 2021.

REFER TO SHEET L-4 FOR PLANTING DETAILS, PLANT LIST AND PLANTING NOTES

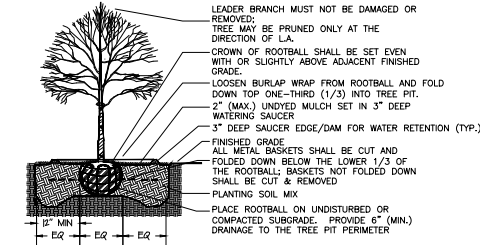


MATCH LINE-REFER TO SHEET L-3
REFER TO SHEET L-2

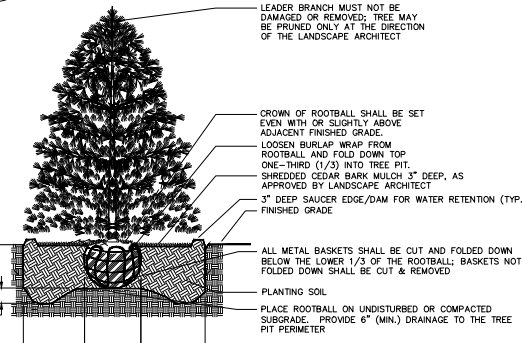
<p>Revisions</p> <p>Date</p>	<p>c d</p> <p>Tracy Chalifoux LLC</p> <p>Landscape Architect</p> <p>7 King Street, Danbury, CT 06811</p> <p>Office: 860-348-1389</p> <p>E-mail: dchalifoux@gmail.com</p>	<p>Seal</p>	<p>Project Title</p> <p>LANDSCAPE MASTER PLAN</p> <p>ECOGY NEW YORK XI LLC</p> <p>KITCHAWAN</p>	<p>Location</p> <p>716 KITCHAWAN ROAD</p> <p>YORKTOWN, NY 10562</p>	<p>Graphic Scale and North Arrow</p> <p>0 40' 80'</p> <p>Date: June 3, 2021</p> <p>Scale: 1"=40'-0"</p> <p>Checked: TLC</p> <p>Drawn: TLC</p>	<p>Drawing Title</p> <p>PLANTING PLAN</p> <p>SITE NORTHERN PORTION</p>	<p>Drawing No.</p> <p>L-3</p> <p>SHEET 3 OF 4</p>
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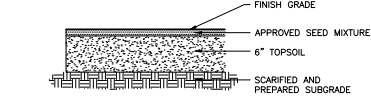
1 SHRUB PLANTING DETAIL
L-4 NOT TO SCALE



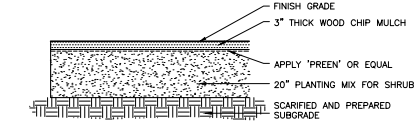
2 DECIDUOUS TREE PLANTING DETAIL
L-4 NOT TO SCALE



3 CONIFEROUS TREE PLANTING DETAIL
L-4 NOT TO SCALE



4 TOPSOIL AND SEED DETAIL
L-4 NOT TO SCALE



5 SECTION THROUGH SHRUB BED DETAIL
L-4 NOT TO SCALE

PLANT LIST - Kitchawan Farm-Overall Site Plantings

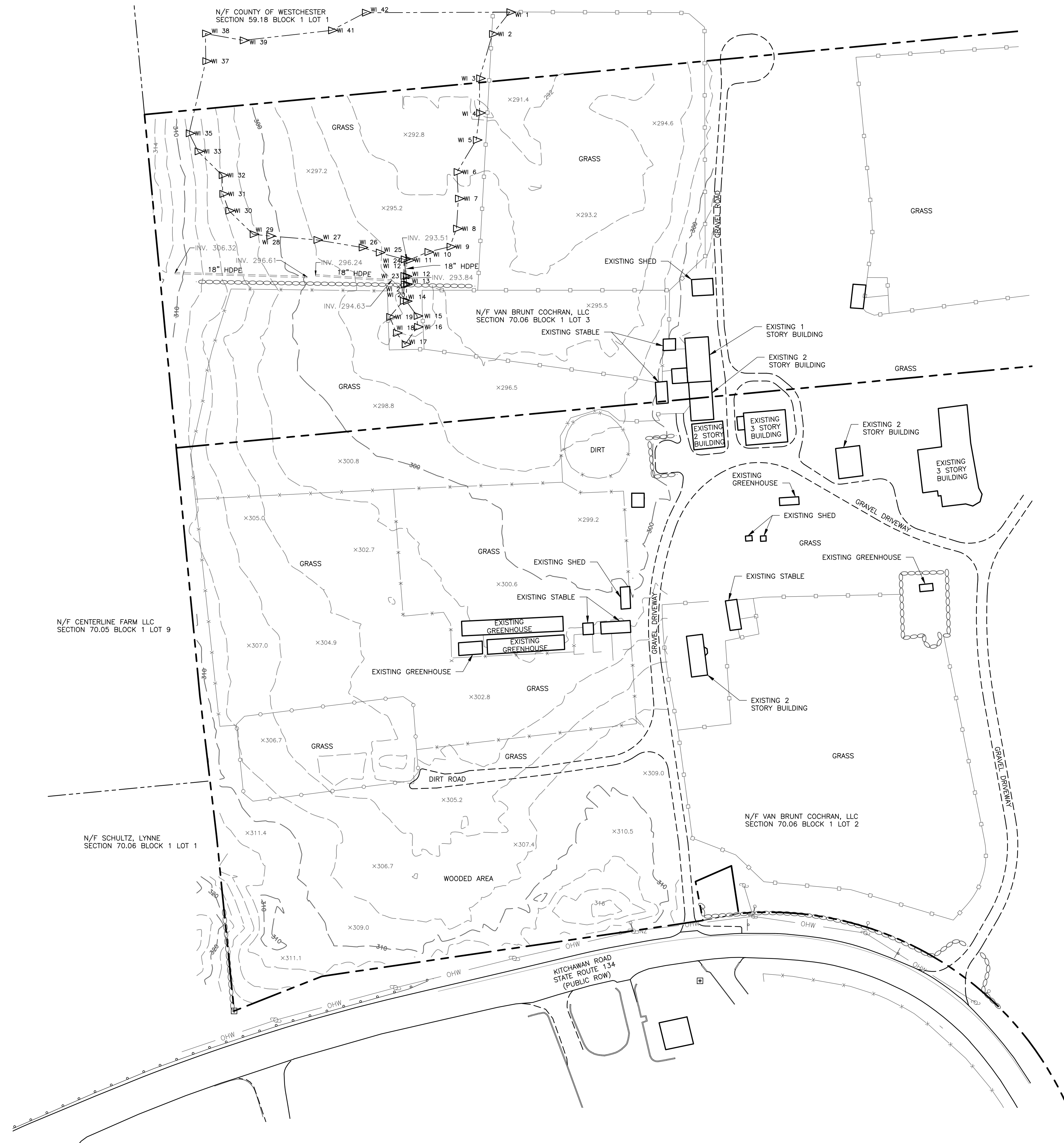
QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	NOTES	SPACING
TREES						
3	AR	Acer rubrum 'Autumn Flame'	Autumn Flame Red Maple	2'-2 1/2' cal.	Full, Heavy, Matching	
5	AC	Amelanchier canadensis	Shadbowl Serviceberry	8'-10' ht.	Full, Heavy, Multi-stem, B&B	
9	BN	Betula nigra 'Heritage'	Heritage River Birch	8'-10' ht.	Full, Heavy, Matching, Clumps	25' O.C.
3	CC	Cercis canadensis	Eastern Redbud	8'-10' ht.	Full, Heavy, Multi-stem, B&B	
3	CRH	Cornus rugelensis 'Hyperion'	Hyperion Dogwood	2'-2 1/2' cal.	Full, Heavy, Matching, Specimen, B&B	20' O.C.
3	CRS	Cornus rugelensis 'Stellar Pink'	Stellar Pink Dogwood	2'-2 1/2' cal.	Full, Heavy, Matching, Specimen, B&B	20' O.C.
4	IO	Ilex opaca	American Holly	8'-9' ht.	Full, Heavy, Specimen, B&B	
6	IV	Juniperus virginiana	Eastern Red Cedar	8'-10' ht.	Full, Heavy, Specimen, B&B	
1	NS	Nyssa sylvatica 'Wildfire'	Wildfire Sourwood	2'-2 1/2' cal.	Full, Heavy, Specimen, B&B	
1	OV	Ostrya virginiana	American Hophornbeam	2'-2 1/2' cal.	Full, Heavy, Specimen, B&B	
3	OA	Oxydendrum arboreum	Sourwood	8'-10' ht.	Full, Heavy, Specimen, B&B	
30	PA	Picea abies	Norway Spruce	8'-10' ht.	Full, Heavy, Specimen, B&B	9' O.C.
12	PA	Picea abies	Norway Spruce	12'-18' ht.	Full, Heavy, Specimen, B&B	12' O.C.
5	PS	Pinus strobus	White Pine	8'-10' ht.	Full, Heavy, Specimen, B&B	9' O.C.
1	OB	Quercus bicolor	Swamp White Oak	2'-2 1/2' cal.	Full, Heavy, Specimen, B&B	
1	OR	Quercus rubra	Red Oak	2'-2 1/2' cal.	Full, Heavy, Specimen, B&B	
37	TS	Taxa standishii	Green Giant Arborvitae	8'-10' ht.	Full, Heavy, Specimen, B&B	10' O.C.
SHRUBS						
8	CF	Calycanthus floridus	Common Sweetshrub	3'-3 1/2' ht.	Full, Heavy, Container	3' O.C.
5	CA	Clethra alnifolia	Sweet Pepperbush	3'-3 1/2' ht.	Full, Heavy, Container	6' O.C.
40	CS	Cornus sericea 'Bailey'	Redtwig Dogwood	3'-3 1/2' ht.	Full, Heavy, Container	6' O.C.
24	HV	Hammamelis virginiana	Witchhazel	3'-3 1/2' ht.	Full, Heavy, Container	6' O.C.
59	IS	Ilex glabra	Inkberry	3'-3 1/2' ht.	Full, Heavy, Matching, Container	6' O.C.
12	IGC	Ilex glabra 'Shamrock'	Shamrock Inkberry	3'-3 1/2' ht.	Full, Heavy, Matching, Container	6' O.C.
41	IV	Ilex verticillata 'Winter Red'	Winter Red Winterberry	3'-3 1/2' ht.	Full, Heavy, Container	6' O.C.
13	LB	Unders benzoin	Spicebush	3'-3 1/2' ht.	Full, Heavy, Container	6' O.C.
69	MP	Myrica pensylvanica	Bayberry	3'-3 1/2' ht.	Full, Heavy, Matching, Container	6' O.C.
7	RM	Rhododendron maximum	Reynolds Rhododendron	3'-3 1/2' ht.	B&B Full, Heavy	6' O.C.
26	VD	Viburnum dentatum	Arrowwood Viburnum	3'-3 1/2' ht.	Full, Heavy, Container	6' O.C.
11	VL	Viburnum lentago	Nannyberry	3'-3 1/2' ht.	Full, Heavy, Container	6' O.C.
39	VT	Viburnum trilobum 'Wentworth'	Wentworth Viburnum	3'-3 1/2' ht.	Full, Heavy, Container	5' O.C.

Note: Provide 3" of shredded bark mulch in all planting beds.

PLANTING NOTES:

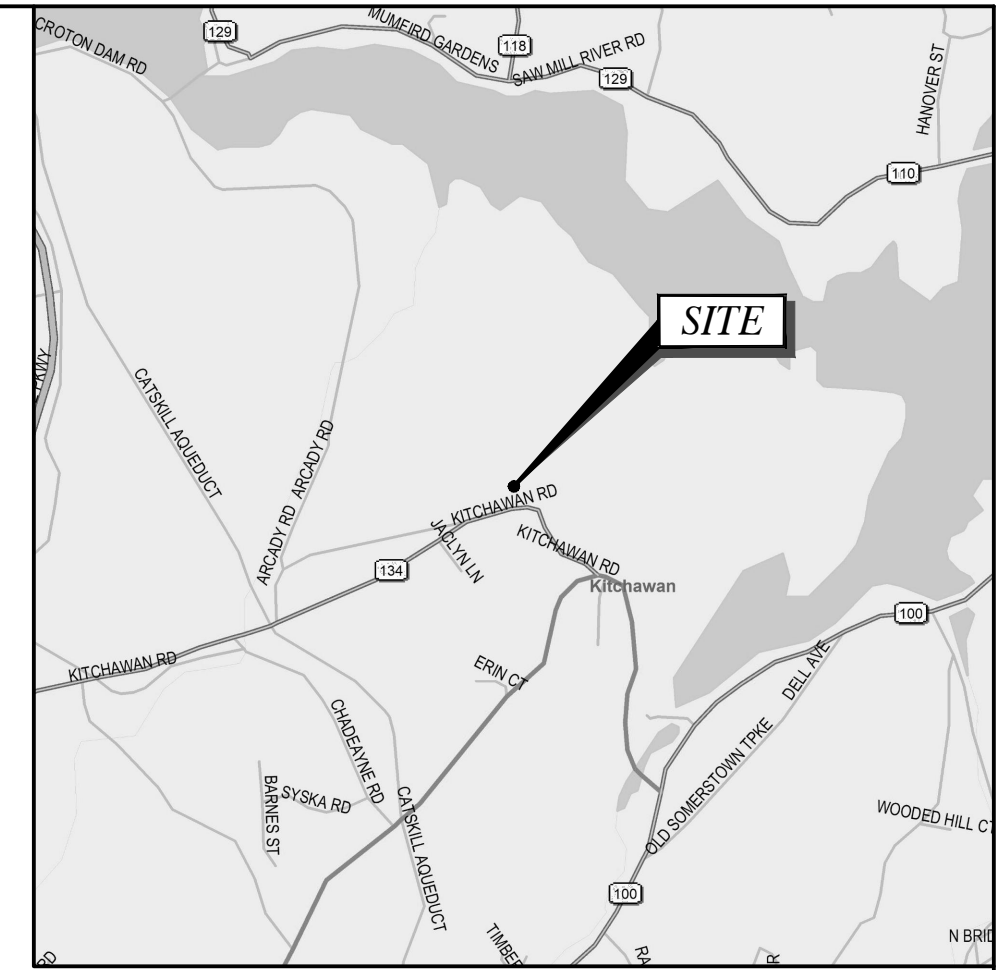
- CONTACT CALL DIE SAFELY NEW YORK AT 811 OR WWW.DIESAFELYNEWYORK.COM TO HAVE UNDERGROUND UTILITIES MARKED PRIOR TO START OF ANY EXCAVATION WORK.
- BASE MAP INFORMATION WAS TAKEN FROM 'PARTIAL BOUNDARY AND TOPOGRAPHIC SURVEY' PREPARED BY TECTONIC ENGINEERING CONSULTANTS, GEOLOGISTS & LAND SURVEYORS, P.C., DATED APRIL 23, 2021.
- EXACT LOCATION OF PLANTINGS, SPECIES TYPES AND QUANTITIES MAY VARY FROM THIS PLAN BASED ON SITE PLAN REVISIONS AND/OR ACTUAL FIELD CONDITIONS.
- IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITIES OF PLANTS IN THE 'PLANT LIST' AND THE ACTUAL QUANTITIES SHOWN ON THE PLAN THE PLAN SHALL GOVERN.
- ANY PLANTINGS SUSCEPTIBLE TO BEER DRINKING SHALL BE SPRAYED WITH ORGANIC BEER REPELLENT, OR PROTECTED BY PHYSICAL MEASURES, SUCH AS WITH TEMPORARY FENCING OR TREE TUBES WHERE APPROPRIATE.
- ALL NEW PLANTINGS SHALL EITHER BE HAND WATERED OR A TEMPORARY IRRIGATION SYSTEM SHALL BE PROVIDED UNTIL PLANTINGS ARE ESTABLISHED.
- THE LANDSCAPE CONTRACTOR SHALL READ ALL LANDSCAPE PLANS, SPECIFICATIONS AND VISIT THE PROJECT SITE TO BECOME FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BEING THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE BEGINS THE WORK.
- ANY AND ALL QUESTIONS CONCERNING THE LANDSCAPE PLANS AND SPECIFICATIONS SHALL BE DIRECTED TO THE LANDSCAPE ARCHITECT.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR (I) TO VERIFY THE LOCATIONS OF UTILITY LINES AND ADJACENT TO THE WORK AREA (S) TO PROTECT OF ALL UTILITY LINES DURING THE CONSTRUCTION PERIOD BY TO REPAIR ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE CONSTRUCTION.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MULCHING, AND OTHER REQUIREMENTS OF PLANT MATERIALS WHILE THEY ARE TEMPORARILY STORED ON OR OFF SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY SCHEDULE AND PROTECTION BETWEEN DELIVERY AND PLANTING PER SPECIFICATIONS TO MAINTAIN HEALTHY PLANT CONDITIONS.
- THE LANDSCAPE CONTRACTOR SHALL COORDINATE LAYOUT OF PLANTING BEDS, PLANT MASSING, SPACING OF TREES AND INDICATION OF PLANT MATERIAL WITH LANDSCAPE ARCHITECT PRIOR TO COMMENCEMENT OF WORK.
- ALL LANDSCAPE MATERIAL SHALL MEET THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z603-2008) PER THE AMERICAN ASSOCIATION OF NURSERIES. ALL PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, AND FREE OF PESTS AND DISEASE. ALL PLANT MATERIAL SHALL BE CONTAINER GROWN OR PALLED AND PARLAFED AS INDICATED IN THE PLANT LIST.
- PER OWNER'S REQUEST, THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO INSPECT ALL PLANT MATERIAL AT THE NURSERY, PRIOR TO SELECTION OR PISING.
- CONDUCT PLANTING UNDER FAVORABLE WEATHER CONDITIONS DURING EITHER THE SPRING PLANTING SEASON (MARCH 1 TO JUNE 1) OR THE FALL PLANTING SEASON (SEPTEMBER 30 UNTIL FREEZING OF THE GROUND). DURING THE FALL PLANTING SEASON, CONFEROUS MATERIAL PLANTING SHALL BE CONDUCTED ABOUT 90 TO OCTOBER 1. DEVIATION FROM THE ABOVE PLANTING DATES WILL ONLY BE PERMITTED WITH APPROVAL IN WRITING BY THE LANDSCAPE ARCHITECT.
- THE PLANTING SOIL MIXTURE FOR ALL TREE PLANTINGS SHALL INCLUDE SOIL EXCAVATED FROM THE HOLE. RATIO: 50% VIRGIN SOIL + 50% AMENDED TOP SOIL.
- ROOT STIMULATOR SHALL BE APPLIED TO ALL PLANT MATERIALS WITH THE EXCEPTION OF LAWN AREAS. APPLY AS PER THE MANUFACTURERS SPECIFICATIONS.
- THE LANDSCAPE CONTRACTOR SHALL RESTORE FINISH GRADES IN ALL PLANTING AREAS (PER GRADING PLANS) WHICH MAY HAVE BEEN DISTURBED DURING PLANTING OPERATIONS.
- ALL TREE SAUCERS AND PLANTING BEDS ARE TO BE MULCHED WITH A MINIMUM OF 5" DOUBLE-GRADE HARDWOOD MULCH (NON-DYED). LANDSCAPE CONTRACTOR TO PROVIDE MULCH SAMPLE TO LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO INSTALLATION. WHERE PLANTING BEDS ARE ADJACENT TO WALKS AND CURBS THE SOIL LEVEL SHALL BE 6" LOWER TO ALLOW FOR MULCH LAYER.
- MULCH STRIPES 6" WIDE, PRE-EMERGENT HERBICIDES, ETC. SHALL BE SUBSIDIARY TO REMOVE PLANTS.
- LABEL EACH TREE AND SHRUB WITH A SECURELY ATTACHED WATERPROOF TAG BEARING LESSELE DESIGNATION OF BOTH BOTANICAL AND COMMON NAME. LABEL EACH ORNAMENTAL GRASS, GROUNDERCOVER, PERENNIAL AND ANNUAL WITH THE LABEL PROVIDED BY THE ORIGINAL GROWER OF THE PLANT. LABELS SHALL NOT BE REMOVED UNTIL AFTER PROVISIONAL ACCEPTANCE BY LANDSCAPE ARCHITECT.
- STAKES AND GUY WIRES, IF USED, SHALL BE REMOVED AT THE END OF ONE FULL GROWING SEASON.
- LOOSEN SOIL FOR ALL PLANTING ISLANDS AND SHRUB/PERENNIAL BEDS TO A DEPTH OF 12". TOPSOIL SHALL BE FERTILE NATURAL TOPSOIL, TYPICAL OF THE LOCALITY, OBTAINED FROM WELL-DRAINED AREAS. SPOILED TOPSOIL MAY BE USED, IF SHALL BE WITHOUT ADVERSE OF SUBSOIL OR SLAS AND SHALL BE FREE OF STONES, LUMPS, STICKS, PLANTS OR THEIR ROOTS, TOXIC SUBSTANCES OR OTHER EXTRANEOUS MATTER THAT MAY BE HARMFUL TO PLANT GROWTH OR WOULD INTERFERE WITH FUTURE MAINTENANCE. TOPSOIL PH RANGE SHALL BE 5.5 TO 7.
- THERE SHALL BE NO ADDITIONS, DELETIONS OR SUBSTITUTION OF PLANT MATERIAL SPECIES WITHOUT THE WRITTEN APPROVAL BY THE OWNER OR LANDSCAPE ARCHITECT. ANY SUBSTITUTION THAT HAS NOT BEEN APPROVED SHALL BE REMOVED AND REPLACED WITH THE CORRECT PLANT AT LANDSCAPE CONTRACTORS EXPENSE.
- THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE OWNER AN UNCONVENTIONAL 2-YEAR WARRANTY OF PLANT MATERIAL SHALL BEGIN FROM THE TIME OF HANDLING PLANT MATERIAL AT THE TIME OF DELIVERY THROUGH INSTALLATION AND END AFTER SUBSTANTIAL COMPLETION AND FINAL FINCH-LIST APPROVAL BY LANDSCAPE ARCHITECT. WARRANTY SHALL INCLUDE ALL LABOR REQUIRED REPLACING MATERIALS ON-SITE.
- THE LANDSCAPE CONTRACTOR WILL BE RESPONSIBLE FOR THE COLLECTION, REMOVAL, AND PROPER DISPOSAL OF ANY AND ALL DEBRIS GENERATED DURING THE INSTALLATION OF THE LANDSCAPE CONSTRUCTION.
- ANY PLANT MATERIAL WHICH IS DISEASED, DISTRESSED, DEAD, OR REJECTED PRIOR TO SUBSTANTIAL COMPLETION SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL PLANT LIST SPECIFICATIONS.

Revisions	Date	<p>Tracy Chalifoux LLC Landscape Architect 7 King Street, Danbury, CT 06811 Office: 860-764-1369 E-mail: tchalifoux@gmail.com</p>	<p>Seal</p>	<p>Project Title</p> <p>LANDSCAPE MASTER PLAN ECOGY NEW YORK XI LLC KITCHAWAN</p>	<p>Graphic Scale and North Arrow</p>	<p>Drawing Title</p> <p>PLANTING DETAILS, PLANT LIST & PLANTING NOTES</p>	<p>Drawing No.</p> <p>L-4</p>



LEGEND

- — — — — PROPERTY LINE
- - - - - ADJOINING PROPERTY LINE
- - - - - EASEMENT LINE
- - - - - INDEX CONTOUR LINE
- - - - - CONTOUR LINE
- x - x - CHAIN LINK FENCE
- o - o - STOCKADE FENCE
- o - o - WROUGHT IRON FENCE
- — — — — CURB LINE
- — — — — EDGE OF GRAVEL
- — — — — EDGE OF PAVEMENT
- — — — — EDGE OF WATER/SWALE
- - - - - GUIDE RAIL
- - - - - PAINTED TRAFFIC LINES
- - - - - EDGE OF WETLANDS
- o o o o o STONE WALL
- ▭ STRUCTURE
- GUY ANCHOR
- ⊥ UTILITY POLE
- ⊥ SIGN
- ◻ WETLAND FLAG
- ⊠ MONUMENT FOUND



LOCATION MAP

SCALE: 1" = 2000'

GENERAL NOTES

1. PLANIMETRIC AND TOPOGRAPHY FEATURES, SHOWN HEREON, BASED ON AERIAL PHOTOGRAPHY AND DELINEATED USING PHOTOGRAMMETRIC METHODS BY TECTONIC ENGINEERING CONSULTANTS, GEOLOGISTS & LAND SURVEYORS, D.P.C. COMPLETED ON 12/15/2020.
2. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988.
3. MERIDIAN AND COORDINATES REFER TO NEW YORK STATE PLANE, NAD 83, NEW YORK EAST ZONE AND ARE BASED ON GPS OBSERVATIONS.
4. ANGLES OR BEARINGS SHOWN HEREON ARE FORMATTED IN DEGREES, MINUTES, AND SECONDS. DISTANCES OR ELEVATIONS SHOWN HEREON ARE IN U.S. SURVEY FEET, UNLESS NOTED OTHERWISE.
5. REFERENCES:
 - (A) MAP ENTITLED: "SURVEY OF VAN BRUNT ESTATE" AS FILED IN THE WESTCHESTER COUNTY CLERK'S OFFICE ON 06/18/53 AS MAP #8136.
 - (B) MAP ENTITLED: "SURVEY OF A PORTION OF VAN BRUNT ESTATE" AS FILED IN THE WESTCHESTER COUNTY CLERK'S OFFICE ON 06/18/53 AS MAP #8137.
 - (C) MAP ENTITLED: "SURVEY OF A PORTION OF VAN BRUNT ESTATE" AS FILED IN THE WESTCHESTER COUNTY CLERK'S OFFICE ON 06/18/53 AS MAP #8138.
 - (D) MAP ENTITLED: "SURVEY OF PROPERTY PREPARED FOR THE COUNTY OF WESTCHESTER" AS FILED IN THE WESTCHESTER COUNTY CLERK'S OFFICE ON 10/16/89 AS MAP #23918.
6. AREA OF SUBJECT PARCEL BLOCK 70.06, BLOCK 1, LOT 2: 14.848± ACRES OR 646,764 SQUARE FEET.
7. AREA OF SUBJECT PARCEL BLOCK 70.06, BLOCK 1, LOT 3: 8.125± ACRES OR 353,922 SQUARE FEET.
8. THIS SURVEY IS SUBJECT TO A COMPLETE AND UP TO DATE ABSTRACT OF TITLE, COVENANTS, EASEMENTS, GRANTS AND RIGHTS-OF-WAY NOT VISIBLE AND NOT REFERENCED ARE NOT SHOWN. TECTONIC ENGINEERING CONSULTANTS, GEOLOGISTS & LAND SURVEYORS, D.P.C. SHALL NOT BE LIABLE FOR THE DISTURBANCE TO ANYONE'S RIGHT TO THE USE OF THE PROPERTY OR THE DISTURBANCE TO ANY UTILITIES NOT SHOWN OR REFERENCED ON THIS SURVEY PLAT.
9. UNDERGROUND IMPROVEMENTS IF ANY AND NOT VISIBLE AT THE TIME OF THE SURVEY, HAVE NOT BEEN LOCATED IN THE FIELD OR SHOWN HEREON.
10. LOCATIONS OF ALL UTILITIES AND SUBSTRUCTURES ARE APPROXIMATE ONLY BASED ON SURFACE EVIDENCE AND EXISTING PLANS. THE INFORMATION GIVEN ON THE SURVEY PERTAINING TO UTILITIES AND SUBSTRUCTURES IS NOT CERTIFIED TO ACCURACY OR COMPLETENESS. CONSULT WITH THE APPROPRIATE COMPANY OR AGENCY BEFORE DESIGNING OR CONSTRUCTING IMPROVEMENTS. TECTONIC ENGINEERING CONSULTANTS, GEOLOGISTS & LAND SURVEYORS, D.P.C. WILL NOT BE RESPONSIBLE FOR ANY DAMAGE SUBSEQUENTLY CAUSED TO PERSONNEL, STRUCTURES, OR UTILITIES.
11. THIS SURVEY PLAT IS FOR SITE PLAN/ENGINEERING PURPOSES ONLY AND IS NOT INTENDED TO BE USED FOR THE TRANSFER OF TITLE.
12. THE SUBJECT PROPERTY FALLS WITHIN FLOOD ZONE "X" AS PER THE NATIONAL FLOOD INSURANCE RATE MAP FOR THE TOWN OF YORKTOWN, COUNTY OF WESTCHESTER, STATE OF NEW YORK, COMMUNITY PANEL NO #36119C0131F, EFFECTIVE DATE OF 09/28/07. THIS DETERMINATION IS BASED ON SCALED MAP LOCATION AND GRAPHIC PLOTTING.
13. THE PROPERTY LINES SHOWN HEREON ARE APPROXIMATE AND FOR ORIENTATION PURPOSE ONLY AND THEY DO NOT REPRESENT A PROPERTY/BOUNDARY OPINION BY THE LAND SURVEYOR.
14. WETLAND FLAGS SHOWN AS DELINEATED BY TECTONIC ENGINEERING CONSULTANTS, GEOLOGISTS & LAND SURVEYORS, D.P.C. ON 12/15/20, AND FIELD SURVEYED BY TECTONIC ENGINEERING CONSULTANTS, GEOLOGISTS & LAND SURVEYORS, D.P.C. ON 12/15/20.
15. NOT ALL IMPROVEMENTS ON THE PARCEL BEING SURVEYED ARE SHOWN HEREON.

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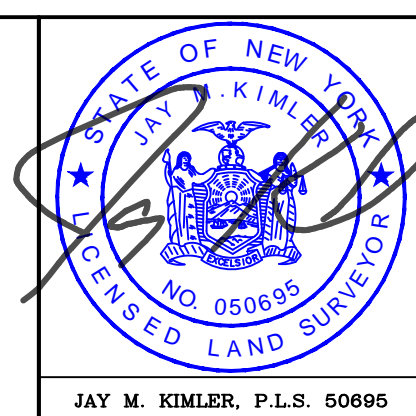
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ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved
0	02/04/21	ISSUED	

DRAWING CONTROL			
Designed by:	Drawn by:	Checked by:	
N/A	Ryan Dembeck	DS	
Purpose	Released by	Date	
<input type="radio"/> For Comment			
<input type="radio"/> For Approval			
<input type="radio"/> For Bid			
<input type="radio"/> For Construction			

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 PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.
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 70 Pleasant Hill Road Phone: (845) 534-5959
 P.O. Box 37 Mountaintown, NY 10953 (800) 829-6531
 www.tectonicengineering.com



PARTIAL BOUNDARY AND TOPOGRAPHIC SURVEY			
ECOGY NEW YORK XI LLC KITCHAWAN 716 KITCHAWAN ROAD YORKTOWN, NY 10562			
Date	02/04/21	Work Order	Drawing No.
Scale	1" = 60'	10734.KITCHAWAN	SU-101
			0

Fiore Subdivision

Site Design Consultants

Civil Engineers • Land Planners

October 28, 2021

Mr. Richard Fon, Chairman
Members of the Yorktown Planning Board
1974 Commerce Street – Room 202
Yorktown Heights, NY 10598

RECEIVED
PLANNING DEPARTMENT

OCT 28 2021

TOWN OF YORKTOWN

Re: Fiore
Two-lot Subdivision
2797 Carr Court

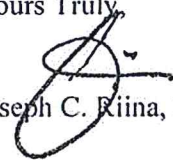
Dear Chairman Fon and Members of the Planning Board:

Regarding the above captioned, the Re-approval is about to expire on November 13, 2021, and we are therefore requesting a First 90-Day Time Extension of the Subdivision Resolution #21-11.

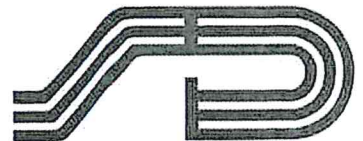
Please place this project on the next Planning Board Agenda for review and approval.

With thanks for your continuing courtesy and consideration.

Yours Truly,


Joseph C. Riina, P.E.

/cm /Enc./ sdc 08-41



Ricciardella

Site Design Consultants

Civil Engineers • Land Planners

October 26, 2021

Mr. Richard Fon, Chairman
Members of the Yorktown Planning Board
1974 Commerce Street
Yorktown Heights, NY 10598

RECEIVED
PLANNING DEPARTMENT

OCT 26 2021

TOWN OF YORKTOWN

Re: Ricciardella Estates LLC
702 Saw Mill River Road

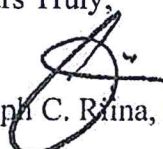
Dear Chairman Fon and Members of the Yorktown Planning Board:

On behalf of our client, Ricciardella Estates LLC, we are respectfully requesting a one-year time extension of Resolution #20-22 on this approval.

Please place this on the next Planning Board Agenda for discussion.

With thanks for your continuing courtesy and consideration.

Yours Truly,


Joseph C. Reina, P.E.

Cc: Ricciardella Estates

JCR / cm / sdc 08-08

251-F Underhill Avenue • Yorktown Heights, New York 10598

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