Sterling Environmental Engineering, P.C.

APPLICATION FOR A SOLID WASTE MANAGEMENT FACILITY PERMIT

FOR

SARATOGA BIOCHAR SOLUTIONS, LLC
CARBON FERTILIZER MANUFACTURING FACILITY
MOREAU, NY

Prepared For:

Saratoga Biochar Solutions, LLC
26F Congress Street #346
Saratoga Springs, New York 12866

Prepared By:

Sterling Environmental Engineering, P.C.
24 Wade Road
Latham, New York 12110

October 29, 2021

"Serving our clients and the environment since 1993"

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FOR

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MOREAU, NY

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1.0 INTRODUCTION

Saratoga Biochar Solutions, LLC (SBS) is proposing to construct and operate a solid waste management facility (SWMF) to manufacture carbon fertilizer from biosolids and wood waste feedstock (hereinafter the "Facility") with an annual throughput up to 235,200 wet tons of received biosolids and up to 35,280 tons of wood waste. The Facility is designed to be constructed in three phases with each phase consisting of a process line capable of processing up to 10 wet tons per hour of biosolids and up to 1.5 tons per hour of wood waste. Each process line is capable of manufacturing up to 1 ton per hour of Exceptional Quality (EQ) Class A biosolids product (i.e., "carbon fertilizer") in accordance with 40 CFR Part 503 and 6 NYCRR 361. The selected location is on 5.89 acres composed of Tax Parcels 50.-4-16 (3.07 acres) and 50.-4-22 (2.82 acres), on Farnan Road within the Moreau Industrial Park in the Town of Moreau, Saratoga County, New York, owned by Moreau Industrial Park, LLC.

This application and attached supporting documents and drawings provide a complete application under 6 NYCRR 360.16, effective November 4, 2017. Table 1 provides a checklist of the Permit Application contents. A completed SWMF Application is provided as Attachment 1. A completed Record of Compliance Form is provided as Attachment 2. A complete Engineering Report is provided as Attachment 3, and a complete Facility Manual is provided as Attachment 4.

This project is also subject to local approval by the Town of Moreau Planning Board. An initial Site Plan Application, including a Full Environmental Assessment Form (EAF), was submitted to the Town of Moreau Planning Board in August 2021. During the August 2021 meeting, the Town Planning Board voted unanimously to be Lead Agency under the State Environmental Quality Review Act (SEQRA) and undertake a coordinated review with other involved agencies.

Table 1

6 NYCRR Part 360 Application Checklist

Regulatory Requirement	Description	Location
6 NYCRR 621.3	**Uniform Procedures – General Requirements for Permit Applications**	
6 NYCRR 621.3(a)(1)	Application for a Solid Waste Management Facility Permit and Record of Compliance	Attachment 1, Permit Application Attachment 2, Record of Compliance
6 NYCRR 621.3(a)(4)	Other NYSDEC Permits	Attachment 3, Engineering Report
6 NYCRR 621.3(a)(6)	Other Regulatory Agency Permits	Attachment 3, Engineering Report
6 NYCRR 621.3(a)(7)	State Environmental Quality Review Act (SEQRA) Review	Attachment 3, Engineering Report
6 NYCRR 621.3(a)(8)	New York State Historic Preservation Act Review	Attachment 3, Engineering Report
6 NYCRR 360.16	**Permit Application Requirements and Permit Provisions**	
6 NYCRR 360.16(a)	Application for a Solid Waste Management Facility Permit - Signatures	Attachment 1, Permit Application
6 NYCRR 360.16(c)(1)	Contact information	Attachment 1, Permit Application

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6 NYCRR 360.16(c)(2)(i)	Regional Map (Showing Service Area)	Attachment 3, Engineering Report, Figure 1
6 NYCRR 360.16(c)(2)(ii)	Vicinity Map	Attachment 3, Engineering Report, Figure 2
6 NYCRR 360.16(c)(2)(iii)	Site Plan	Attachment 3, Engineering Report, Appendix A
6 NYCRR 360.16(c)(3)	Engineering Report	Attachment 3, Engineering Report
6 NYCRR 360.16(c)(4)	Facility Manual	Attachment 4, Facility Manual
6 NYCRR 360.16(c)(4)(i)	Waste Control Plan	Attachment 4, Facility Manual
6 NYCRR 360.16(c)(4)(ii)	Operations and Maintenance Plan	Attachment 4, Facility Manual
6 NYCRR 360.16(c)(4)(iii)	Training Plan	Attachment 4, Facility Manual
6 NYCRR 360.16(c)(4)(iv)	Emergency Response Plan	Attachment 4, Facility Manual
6 NYCRR 360.16(c)(4)(v)	Noise Monitoring and Control Plan	Attachment 4, Facility Manual
6 NYCRR 360.16(c)(4)(vi)	Closure Plan	Attachment 4, Facility Manual
6 NYCRR 360.16(c)(5)	State and Local Plan Consistency	Attachment 3, Engineering Report
6 NYCRR 362-1	**Thermal Treatment Facilities**	
6 NYCRR 362-1.4(a)	Engineering Report	Attachment 3, Engineering Report
6 NYCRR 362-1.4(b)	Waste Control Plan	Attachment 4, Facility Manual
6 NYCRR 362-1.4(c)	Residue Management Plan	Attachment 4, Facility Manual
6 NYCRR 362-1.4(d)	Radioactive Waste Detection Plan	Attachment 4, Facility Manual

2.0 6 NYCRR PART 360 PERMIT APPLICATION

A completed NYSDEC Solid Waste Management Facility Permit Application Form is provided as Attachment 1. Required elements of the permit application are included as indicated in Table 1. A completed Record of Compliance Form is provided as Attachment 2.

3.0 ENGINEERING REPORT

An Engineering Report prepared in accordance with requirements of 6 NYCRR 360.16(c)(3) is included as Attachment 3. The Engineering Report describes and includes all required engineering and design elements, as indicated in Table 1.

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4.0 FACILITY MANUAL

A Facility Manual prepared in accordance with requirements of 6 NYCRR 360.16(c)(4) is included as Attachment 4. The Facility Manual describes all required operational elements, as indicated in Table 1, including a Waste Control Plan, Operations and Maintenance Plan, Training Plan, Emergency Response Plan, Noise Monitoring and Control Plan, Residue Management Plan, Radioactive Waste Detection Plan, and Closure Plan.

4.1 Waste Control Plan

The Waste Control Plan describes acceptable waste that will be received at the Facility. The Waste Control Plan provides detailed procedures for inspection of incoming waste with specific measures for screening, identifying, and managing unauthorized waste. Unauthorized waste that will not be accepted at the Facility specifically includes, but is not limited to, municipal solid waste, construction and demolition debris, friable asbestos-containing material (ACM), mercury-added consumer products, radioactive waste, infectious and regulated medical waste, and hazardous wastes.

4.2 Operations and Maintenance Plan

The Operations and Maintenance (O&M) Plan describes detailed methods and procedures for proper and safe operation of the Facility. The O&M Plan is prepared in accordance with requirements of 6 NYCRR 360.16(c)(4)(ii). O&M procedures include process flows, machinery types, water handling, noise management, fire control measures, Facility startup and testing procedures, regular planned maintenance, planned shutdown procedures, and contingency plans for troubleshooting, unplanned shutdowns, and emergencies.

4.3 Training Plan

The Training Plan describes training requirements for Facility personnel.

4.4 Emergency Response Plan

The Emergency Response Plan provides comprehensive measures for implementing safety procedures and for addressing anticipated and unanticipated situations and/or emergencies.

4.5 Noise Monitoring and Control Plan

The Noise Monitoring and Control Plan describes noise sources associated with the Facility, offsite receptors, mitigation measures, and monitoring protocols to ensure sound level restrictions are not exceeded.

4.6 Closure Plan

A Closure Plan is provided that is consistent with requirements of 6 NYCRR Part 360 and 362-1, including a closure cost estimate.

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ATTACHMENT 1

APPLICATION FOR A SOLID WASTE MANAGEMENT FACILITY PERMIT

(09/2020)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEPARTMENT USE ONLY

DEC APPLICATION NO. _____

ACTIVITY NUMBER(S) _____

DIVISION OF MATERIALS MANAGEMENT
APPLICATION FOR A SOLID WASTE MANAGEMENT FACILITY PERMIT

Please read all instructions before completing this application

Reset Form

Please **TYPE** or **PRINT** clearly

1. APPLICATION TYPE (CHECK ALL APPLICABLE BOXES):

☑ Initial (New) ☐ Modification ☐ Renewal (*Existing permit expiration date:* _____)

2. APPLICANT IS:

☑ Facility Owner ☑ Facility Operator

3. IS APPLICATION FILED BY OR ON BEHALF OF A MUNICIPALITY?

☐ YES (*Name of municipality:* _____) ☑ NO

4. FACILITY NAME AND LOCATION (Attach USGS Topo Map showing exact location)

Name: Saratoga Biochar Solutions, LLC

Address: 2-12 Electric Drive

Town: Moreau County: Saratoga

Coordinates: NYTM-E 613,193 NYTM-N 4,793,258

Existing solid waste management facility permit number (if applicable): NA

☐ Check here if facility owner, operator and/or real property owner has changed since last application was submitted.

5. FACILITY OWNER'S INFORMATION

Name: Saratoga Biochar Solutions, LLC

Address: 26F Congress Street #346

City/State/Zip: Saratoga Springs, NY 12866

Phone number: 518-391-0566

Email: rapy@northeasternbiochar.com

6. FACILITY OPERATOR'S INFORMATION

Name: Saratoga Biochar Solutions, LLC

Address: 26F Congress Street #346

City/State/Zip: Saratoga Springs, NY 12866

Phone number: 518-391-0566

Email: rapy@northeasternbiochar.com

7. ENGINEER'S INFORMATION

Name: Andrew Millspaugh, P.E.

NYS Professional Engineer License #: 094708

Firm Name: Sterling Environmental Engineering, P.C.

Address: 24 Wade Road

City/State/Zip: Latham, NY 12110

Phone number: 518-456-4900

Email: Andrew.Millspaugh@sterlingenvironmental.com

8. REAL PROPERTY OWNER'S INFORMATION

Name: Moreau Industrial Park, LLC

Address: 296 Ballard Road

City/State/Zip: Wilton, NY 12831

Phone number: 518-461-5139

Email: alan.c.oppenheim@gmail.com

☑ Check here if facility owner is not real property owner.
See instruction page for written permission requirement.

9. TYPE OF FACILITY (CHECK ALL APPLICABLE BOXES)

☑ Combustion & Thermal Treatment (362-1)
☐ C & D Debris Handling & Recovery (361-5)
☐ Composting & Other Organics Processing (361-3)
☐ Household Hazardous Waste Collection (362-4)
☐ Land Application & Associated Storage (361-2)
☐ Landfill (363)
☐ Regulated Medical Waste (365)
☐ Mulch Processing (361-4)
☐ Municipal Solid Waste Processing (362-2)
☐ Navigational Dredge Material Handling & Recovery (361-9)
☐ Nonspecific Facilities (360.17)
☐ Recyclables Handling & Recovery (361-1)
☐ Research, Development, and Demonstration (360.18)
☐ Transfer (362-3)
☐ Waste Oil (374-2)
☐ Waste Tire Handling & Recovery (361-6)
☐ Used Cooking Oil & Yellow Grease (361-8)

10. NAME(S) OF ALL MUNICIPALITIES IN SERVICE AREA:

Communities throughout the entire state of New York and Western New England west of the Connecticut River. The service area may change based on negotiated arrangements over time.

11. SOLID WASTE ACCEPTED: *Identify facility capacity and throughput of each waste type, as applicable*

Up to 235,200 wet tons per year of biosolids sourced from wastewater treatment plants. Up to 35,280 tons per year of wood waste.

FOR MODIFICATION APPLICATION ONLY

12. DOES THE MODIFICATION APPLICATION INVOLVE (CHECK ALL APPLICABLE BOXES):

☐ New waste type ☐ New equipment ☐ Waste acceptance rate increase ☐ Facility expansion (including landfill)

SKIP QUESTION #13 AND #14 IF APPLYING FOR RENEWAL ONLY

13. APPLICATION DESCRIPTION

Include a brief description of new or modification request

Application for a solid waste management facility that will manufacture a marketable Class A carbon fertilizer from a feedstock of primarily biosolids sourced from wastewater treatment plants. Wood will be used as a minor feedstock component for moisture control. The manufacturing process implements drying and pyrolysis to produce a marketable carbon fertilizer for use as a soil fertilizer.

14. FACILITY SIZE

a. Facility size proposed (acres): 3.30

b. Total site area (acres): 5.89

For modification application ONLY

c. Associated facility size change (acres): NA

For Landfill ONLY

d. Facility size ultimately planned (acres): NA

e. Existing landfill area on this site and adjacent properties (acres): NA

f. Ultimate facility height above ground level (feet): NA

15. IS A VARIANCE REQUESTED FROM ANY PROVISION OF 6 NYCRR PART 360 SERIES?

☐ Yes ☑ No If yes, submit an application for variance and cite specific provision(s) here: _____

16. REAL PROPERTY OWNER CERTIFICATION

☐ Corporation ☑ Partnership ☐ Sole Proprietorship ☐ Municipality/other government entity ☐ Other: _____

I hereby attest that I am the owner of the real property on which the facility is located or the proposed or modified facility will be located and am signing in my individual capacity.

Or if signing in a representative capacity: I hereby attest that I am the (indicate title or capacity) MEMBER, an authorized representative of the owner of the real property on which the facility is located or the proposed or modified facility will be located). I am duly authorized on behalf of said owner to sign make this certification on this application.

I grant permission for the applicant to apply for the permit, and construct and operate the facility described in the application in accordance with a final DEC permit or approval. I also grant permission for the department to access the above-described real property, including any adjacent areas, during all reasonable times (including but not limited to 7:00 am to 7:00 pm Monday through Friday, and additional facility hours of operation, and as appropriate during emergencies and similar exigent circumstances) without the property owner, applicant or other representative of the property owner or facility present. If the property is posted with "keep out" signs or fenced with an unlocked gate, department staff may still enter the property. Department staff may traverse the property, inspect the facility, take measurements, analyze site physical characteristics, take soil and vegetation samples, sketch and photograph the property, and conduct other activities necessary to evaluate the permit application or assess the facility's compliance with the permit and any other applicable statutory or regulatory requirements.

I am aware that any false statement made herein is punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Signature: _____ Print Name: Daniel Golwsh Date: 11/1/2021

Title or Representation if signing in a representative capacity: member

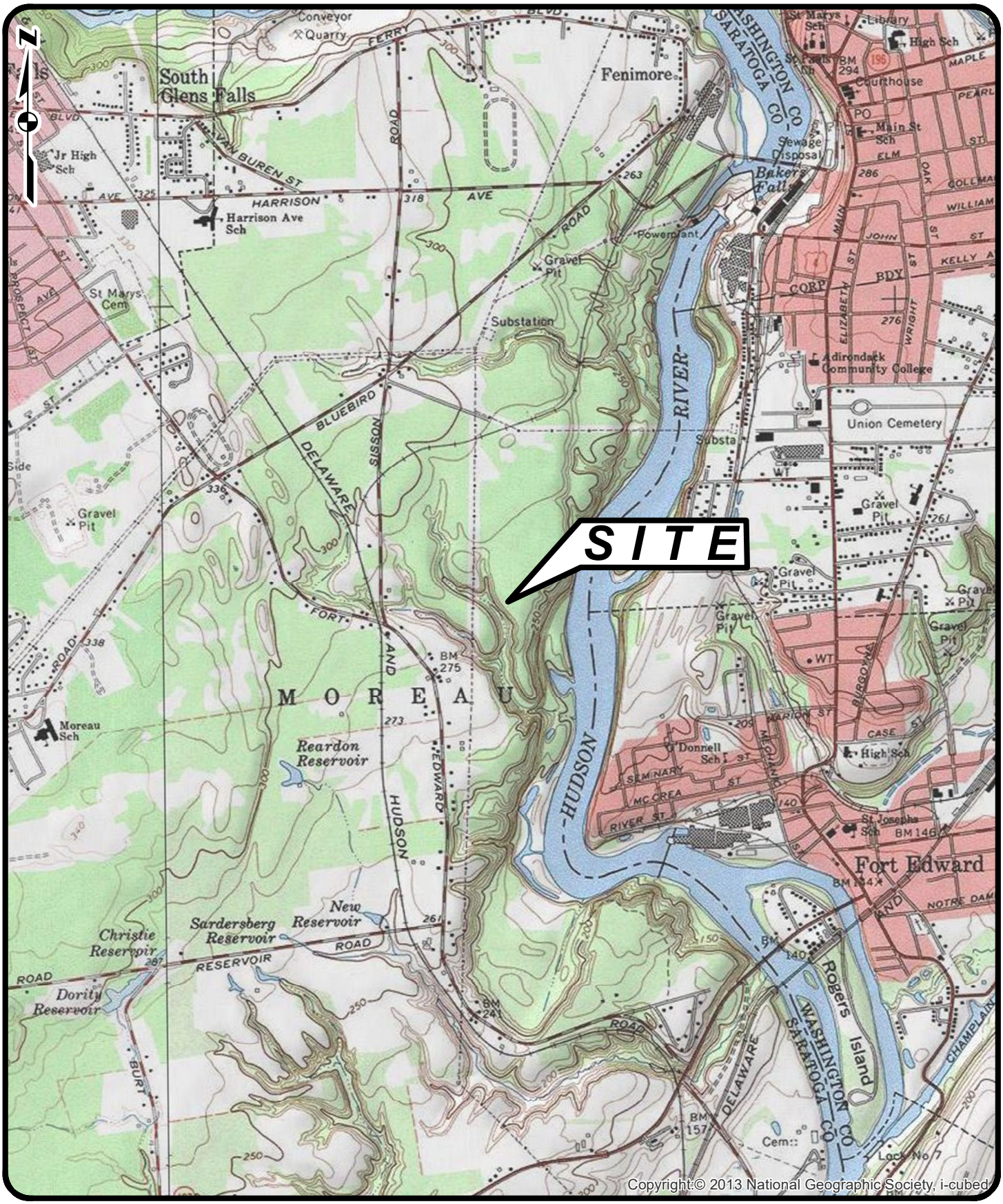
17. APPLICANT CERTIFICATION

☐ Corporation ☑ Partnership ☐ Sole Proprietorship ☐ Municipality/other government entity ☐ Other: _____

I hereby attest that I am the (check one) ☑ President/Vice President ☐ General Partner ☐ Sole Proprietor ☐ Duly Authorized Municipal Representative of (APPLICANT) ~~Raymond Apy~~ SARATOGA BIOCHAR SOL. and the legally responsible party for this application as presented to NYSDEC. I affirm that the statements and information provided on this application and all attachments submitted herewith are true, accurate, and complete.

I am aware that any false statement made herein is punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law. I accept full responsibility for all damage, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein and agree to indemnify and hold harmless the State from any and all causes of action in law or equity, resulting from the said project.

Signature: _____ Print Name: RAYMOND APY Date: 11-1-2021



S:\Sterling\Projects\2020 Projects\Saratoga Biochar Solutions - 2020-20\Drawings-Maps-Figures\GIS\2020-20001G- FIG 1 SITE LOC MAP.mxd\

STERLING

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24 Wade Road • Latham, New York 12110

SITE LOCATION MAP

SARATOGA BIOCHAR SOLUTIONS, LLC

CARBON FERTILIZER MANUFACTURING FACILITY

TOWN OF MOREAU — SARATOGA CO., NY

PROJ.NO. 2020-20	DATE: 10/25/2021	SCALE: 1 " = 2,000 '	DWG.NO. 2020-20001G	FIGURE 1

ATTACHMENT 2

RECORD OF COMPLIANCE – PERMIT APPLICATION SUPPLEMENT

47-19-2A (8/20)-10e

DEPARTMENT USE ONLY

DEC APPLICATION NUMBER:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

RECORD OF COMPLIANCE-Permit Application Supplement

Please read all instructions on reverse side before completing this application

1. FULL NAME OF APPLICANT

Saratoga Biochard Solutions, LLC

2. MAILING ADDRESS (Principal Place of Business)
Street

26F Congress Street #346

City/State/Zip Code

Saratoga Springs, NY 12866

3. NEW YORK STATE MAILING ADDRESS (If different)
Street

City/State/Zip Code

4. TYPE OF ORGANIZATION ☐ Individual ☐ Partnership ☑ Company ☐ Corporation ☐ Other

If other than individual, provide Federal Taxpayer ID Number

84-4087307

5. Does the applicant currently hold any permit issued under the Environmental Conservation Law?

☐ Yes ☑ No

6. a. Has the applicant been denied a permit or has the applicant had a permit revoked or suspended under the Environmental Conservation Law? or
b. Is the applicant currently the subject of an enforcement action under the Environmental Conservation Law?

a. ☐ Yes ☑ No b. ☐ Yes ☑ No

7. If any answer to questions 5, 6(a), or 6(b) is YES, provide details on a separate page and attach it to this form.

8. Has the applicant, and if the applicant is a corporation, has any officer, director, or large stockholder (owner of 25 percent or more of not publicly-traded stock) of the corporation, within the last ten (10) years, been:

a. found in an administrative, civil or criminal proceeding to have violated any provision of the Environmental Conservation Law (ECL), any related order or determination of the Commissioner, any regulation promulgated pursuant to the ECL, the condition of any permit issued thereunder, or any similar statute, regulation, order or permit condition of any other state or federal government agency?

☐ Yes ☑ No

b. an officer, director or large stockholder (owner of 25% or more of not publicly-traded stock) of a corporation which-during the time such person was an officer, director or large stockholder-was determined in an administrative, civil or criminal proceeding to have violated any provision of the Environmental Conservation Law (ECL), any related order or determination of the Commissioner, any regulation promulgated pursuant to the ECL, the condition of any permit issued thereunder, or any similar statute, regulation, order or permit condition of any other state or federal government agency?

☐ Yes ☑ No

c. convicted of a criminal offense under the laws of any state or federal government agency, which involves environmental statutes or regulations, or fraud, bribery, perjury, theft or an offense against public administration as that term is used in Article 195 of the Penal Law, or an offense involving false written statements as those terms are defined in Article 175 of the Penal Law? Out-of-state history may be limited to misdemeanors, felonies and civil penalties assessed at $25,000 or more.

☐ Yes ☑ No

d. an officer, director or large stockholder (owner of 25% or more of not publicly-traded stock) of a corporation which-during the time such person was an officer, director or large stockholder-was convicted of a criminal offense under the laws of any state or federal government agency, which involves environmental statutes or regulations or fraud, **bribery,** perjury, theft, or an offense against public administration as that term is used in Article 195 of the Penal Law, or an offense involving false written statements as those terms are defined in Article 175 of the Penal Law? Out-of- state history may be limited to misdemeanors, felonies and civil penalties assessed at $25,000 or more.

☐ Yes ☑ No

9. If any answer to questions 8a through 8d is YES, provide details on a separate page and attach it to this form.

10. Does the applicant currently owe any regulatory fees pursuant to Article 72 of the Environmental Conservation Law to the Department of Environmental Conservation?

☐ Yes, amount $ ☑ No Under dispute for year(s) Amount $

11. CERTIFICATION (By Applicant who is an **Individual)**

I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. I am aware that any false statement made herein is punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Date: **Signature:** **Print Name:**

ITEMS 12 THROUGH 15 TO BE COMPLETED BY AN APPLICANT OTHER THAN AN INDIVIDUAL

12. SPECIFY UNDER WHAT LAW APPLICANT WAS ORGANIZED	13. STATE	14. DATE OF ORGANIZATION
203 LLC - Limited Liability Company Law	NY	12/23/2019

15. CERTIFICATION (By an Applicant **Other** Than an Individual)

I hereby affirm under penalty of perjury that I am (title) of (entity); that I am authorized by that entity to make this application; that this application was prepared by me or under my supervision and direction; and that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. I am aware that any false statement made herein is punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Date: 11-1-2021 **Signature:** Raymond Apy **Print Name:** Raymond Apy

ATTACHMENT 3

ENGINEERING REPORT

Sterling Environmental Engineering, P.C.

ENGINEERING REPORT

FOR

SARATOGA BIOCHAR SOLUTIONS, LLC
CARBON FERTILIZER MANUFACTURING FACILITY
MOREAU, NY

Prepared For:

Saratoga Biochar Solutions, LLC
26F Congress Street #346
Saratoga Springs, New York 12866

Prepared By:

Sterling Environmental Engineering, P.C.
24 Wade Road
Latham, New York 12110

October 29, 2021

"Serving our clients and the environment since 1993"

ENGINEERING REPORT

FOR

SARATOGA BIOCHAR SOLUTIONS, LLC
CARBON FERTILIZER MANUFACTURING FACILITY
MOREAU, NY

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1.0 INTRODUCTION

Saratoga Biochar Solutions, LLC (SBS) is proposing to construct and operate a solid waste management facility (SWMF) to manufacture carbon fertilizer from biosolids and wood waste feedstock (hereinafter the "Facility") with an annual throughput up to 235,200 wet tons of received biosolids and up to 35,280 tons of wood waste. The Facility is designed to be constructed in three phases with each phase consisting of a process line capable of processing up to 10 wet tons per hour of biosolids and up to 1.5 tons per hour of wood waste. Each process line is capable of manufacturing up to 1 ton per hour of Exceptional Quality (EQ) Class A biosolids product (i.e., "carbon fertilizer") in accordance with 40 CFR Part 503 and 6 NYCRR 361. The selected location is on 5.89 acres composed of Tax Parcels 50.-4-16 (3.07 acres) and 50.-4-22 (2.82 acres), on Farnan Road within the Moreau Industrial Park in the Town of Moreau, Saratoga County, New York, owned by Moreau Industrial Park, LLC. A Site Location Map on a United States Geological Survey quadrangle map is provided as Figure 1, and a Site Vicinity Map on an aerial image is provided as Figure 2.

The Facility is designed to process biosolids and wood waste feedstock through low-temperature drying and pyrolysis to produce a marketable carbon fertilizer that meets specific end-use requirements. The Facility is subject to a New York State Department of Environmental Conservation (NYSDEC) SWMF permit under 6 NYCRR 362-1 (Thermal Treatment Facilities). There is no incineration or combustion of feedstock involved in the manufacturing process, and the feedstock is limited to biosolids sourced from wastewater treatment plants and wood waste consisting of land clearing debris and/or unadulterated wood, wood chips, or bark from logging operations, pulp and paper production, and wood products manufacturing; unauthorized waste that will not be accepted includes municipal solid waste, construction and demolition debris, friable asbestos-containing material (ACM), mercury-added consumer products, radioactive waste, infectious and regulated medical waste, and hazardous wastes.

All manufacturing activities are conducted indoors, and the Facility is maintained under negative pressure to mitigate potential fugitive odor emissions. All exhaust air is treated through engineered air pollution control devices for particulate, ammonia, sulfur dioxide, and odor control.

1.1 Purpose and Objectives

This Engineering Report and supplemental documentation demonstrates compliance with applicable requirements of 6 NYCRR 360.16 (Permit Application Requirements and Permit Provisions), 6 NYCRR 360.19 (Operating Requirements), and 6 NYCRR Part 362-1 (Thermal Treatment Facilities). Site development is subject to local approval by the Town of Moreau Planning Board. An initial Site Plan Application, including a Full Environmental Assessment Form (EAF), was submitted to the Town of Moreau Planning Board in July 2021. Site Plan Drawings are provided in Appendix A and the Full EAF is provided in Appendix B.

Supplemental documentation to this Engineering Report provides operational Facility guidelines for use upon issuance of the Permit to Operate. Supplemental documentation includes the following plans:

- Facility Manual
    - Waste Control Plan
    - Operations & Maintenance (O&M) Plan
    - Training Plan
    - Emergency Response Plan

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- Noise Monitoring and Control Plan
- Residue Management Plan
- Radioactive Waste Detection Plan
- Closure Plan

A copy of this Engineering Report, supplements, and design documents will be maintained at the Facility and be made available, upon request, for inspection and review by agencies having jurisdiction over the Facility or aspects of its operation.

2.0 REGULATORY OVERVIEW

2.1 State Environmental Quality Review Act (SEQRA)

As required by SEQRA, all State, regional, and local government agencies have the responsibility of determining whether actions, including issuance of solid waste permits, may have significant impacts on the environment. If the action is determined to possess the potential for adverse environmental impacts, SEQRA requires submission of an Environmental Impact Statement (EIS).

A Generic Environmental Impact Statement (GEIS) was prepared in 1991 during the initial rezoning and establishment of the Moreau Industrial Park. The GEIS examined the potential impacts of the development of the park and a Statement of Findings and Decision to approve the action was issued on February 21, 1991. Section 8 of the Statement established a series of thresholds as a method for measuring individual project impact. If a proposed individual development exceeds 10-15% above the thresholds, the Lead Agency should consider if additional environmental studies are warranted. If a proposed development does not exceed the thresholds, then no additional studies would be required. A copy of the Statement of Findings for the Moreau Industrial Park is provided in Appendix B.

Also included in Appendix B is a Full EAF for the proposed individual development within the park that was submitted to the Town of Moreau Planning Board in July 2021. In August 2021, the Town of Moreau Planning Board voted unanimously to be Lead Agency and undertake a coordinated review with other involved agencies.

2.2 New York State Historic Preservation Act Review

Section 14.09 of the Parks, Recreation, and Historic Preservation Law requires mandatory review and consultation if a project has potential to cause any change, beneficial or adverse, in the quality of any eligible or registered property. During initial development of the Moreau Industrial Park, the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) was consulted to review the proposed development in accordance with the New York State Historic Preservation Act. Two archaeological sites were identified (Site 1 and Site 2) through a phase 1, 2, and 3 archaeological survey. Both sites were fully excavated to recover artifacts, and OPRHP accepted the final Stage 3 report to authorize construction of the Industrial Park. Therefore, requirements of 6 NYCRR 621.3(a)(8) are complete and additional review and consultation is not necessary. A copy of the Stage 3 acceptance correspondence is provided in Appendix C.

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2.3 Uniform Procedures Act

The Uniform Procedures Act and associated Permit Hearing Procedures (6 NYCRR Parts 621 and 624) establishes timetables for review and approval of environmental permit applications. Under the Uniform Procedures Act, the review process for projects requiring multiple NYSDEC approvals and/or permits is simplified via concurrent review of all applications. The following list identifies NYSDEC environmental approvals and permit:

- Solid Waste Management Facility Permit
- State Facility Air Permit

2.4 Applicability of Part 360

The activities associated with Facility operation are regulated under 6 NYCRR Parts 360 and 362-1, respectively. Revisions to these regulations became effective November 4, 2017.

2.5 State and Local Consistency

The New York State Solid Waste Management Plan encourages reduction, reuse, and recycling of waste over land disposal. The newly enacted New York State Climate Leadership and Community Protection Act (CLCPA) mandates that State agencies consider the climate implications of agency decisions.

The Facility provides an environmentally beneficial alternative to landfill disposal and incineration for the management of biosolids from local and regional wastewater treatment plants, as well as a local recycling option for wood waste. Landfill disposal is currently the most used biosolids management method in New York, and New York is also the largest exporter of biosolids in the United States for management. Specific to this Facility location, a local incinerator recently closed in Glens Falls with more incinerator closures likely in the future, which drives the demand for an alternative biosolids management method. In addition, incinerators produce high levels of nitrous oxide, which is 264 times the carbon dioxide equivalent as a greenhouse gas over an integrated 20 year timeframe as reported in 6 NYCRR 496. This Facility provides a local management option, an effective alternative to incineration, and operates with a negative carbon footprint and lower nitrous oxide emissions.

The carbon manufacturing process enhances nutrient recovery from biosolids to produce a marketable EQ Class A biosolids product as a direct substitute to traditional chemical fertilizers. The Facility provides a local alternative to disposal that decreases consumption of fossil fuel associated with longer hauling distances for current landfill disposal practices. Currently, some biosolids are being hauled out of state to landfills as far as Colorado, Texas, and Georgia by truck and train. However, most significantly, processing biosolids quickly after generation avoids methane production associated with decomposition in landfills or from land application practices, greatly reducing greenhouse gas emissions and climate change contribution from biosolids. Methane is 84 times the carbon dioxide equivalent as a greenhouse gas over an integrated 20 year timeframe as reported in 6 NYCRR 496.

In addition to avoiding greenhouse gas emissions, the process itself generates and recovers renewable energy to reduce natural gas consumption and associated greenhouse gas emissions by 85 to 90% compared to typical natural gas-fired biosolids dryers. Renewable energy is generated in the form of synthetic gas (syngas), a low-methane gas produced by the pyrolysis reaction in the carbon manufacturing process. The process uses natural gas as fuel for the pyrolysis reactor, which generates sufficient syngas from the

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feedstock to operate the dryer. The carbon manufacturing process maximizes use of the biosolids' inherent renewable energy to further reduce the greenhouse gas and climate change contribution from biosolids and wood waste while producing a marketable end product with a beneficial use as a carbon fertilizer.

Carbon fertilizer, when applied to soil, sequesters carbon in soil while substituting for and reducing chemical fertilizer use and their associated greenhouse gas emissions. The use of traditional chemical fertilizers results in soil degradation that contributes to nutrient runoff into waterbodies with local, regional, and global impacts (e.g., aquatic dead zones). Traditional chemical fertilizers are, in essence, nutrients bound by salt, and the salts are corrosive to soils. Carbon fertilizer represents a new class of fertilizer that binds nutrients with carbon, instead of salt. Carbon absorbs water quickly to reduce nutrient runoff and retain nutrients in the soil, which reduces ongoing fertilizer application that is necessary with traditional fertilizers. Replenishing soil carbon after more than 75 years of employing carbon-extractive agrarian techniques helps restore soil's capacity to act as an environmental filter to the benefit of streams, rivers, lakes, and other waterbodies. Carbon fertilizer is needed now, more than ever, and farmers are aware of the need as they continuously try to improve soil carbon levels. This is evidenced through agricultural adoption of no-till, cover crops, and numerous attempts to preserve soil carbon. Carbon fertilizer is the first commercially viable means of carbon sequestration in soils.

In summary, the carbon fertilizer manufacturing process potentially achieves a negative carbon footprint based on 1) replacing chemical fertilizers, 2) decreasing biosolids hauling, 3) avoiding biosolids decomposition and incineration, 4) generating and using renewable energy in the manufacturing process, and 5) the carbon sequestration benefits associated with using the carbon fertilizer in soil.

For these reasons, the Facility is consistent with the New York State Solid Waste Management Plan and the New York State Climate Leadership and Community Protection Act by providing carbon negative green infrastructure for biosolids management.

3.0 SITE INFORMATION

3.1 Existing Site Conditions

The Facility is located on 5.89 acres composed of Tax Parcels 50.-4-16 (3.07 acres) and 50.-4-22 (2.82 acres), on Farnan Road in the Town of Moreau, Saratoga County, New York, owned by Moreau Industrial Park, LLC. A regional Site Location Map (Figure 1) depicts the site location on the Hudson Falls New York, USGS 7.5-Minute Topographic Quadrangle. A Site Vicinity Map (Figure 2) depicts the Facility location and surrounding land use on an aerial map of Moreau, New York. The Facility will be the second tenant of the industrial park since the development was approved in 1991.

3.2 Land Use

The Facility property and surrounding land use are zoned General Manufacturing & Industrial (M-I). The immediate surrounding area is currently a mix of residential, commercial, industrial and vacant properties. The closest residential zoned property is approximately 1,500 feet west of the western property line. Surrounding land use includes the following:

- To the South: Vacant forested land available for development within the Industrial Park.
- To the North: Vacant land available for development within the Industrial Park.
- To the West: Vacant forested land, an overhead electric utility corridor, and residential use.

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- To the East: Developed industrial property, vacant forested land, and the Hudson River.

As shown in the Site Plan Drawings in Appendix A, the Facility will occupy approximately 3.30 acres of impervious surface (i.e., building and asphalt) upon full buildout of all three process lines. The building will occupy up to approximately 45,000 square feet, which is approximately 17.5% of the parcel area and below the GEIS screening threshold of 23%.

4.0 PROCESS DESCRIPTION

4.1 Carbon Fertilizer Manufacturing Facility

The Facility uses low-temperature thermal drying and low-temperature pyrolysis to process biosolids and wood waste into a marketable EQ Class A biosolids product that meets specific end-use requirements contained in 40 CFR Part 503 and 6 NYCRR 361. Wood waste is used as a supplemental minor feedstock component for moisture control. Pyrolysis is a heating process in the absence of oxygen that separates volatile organic compounds (as syngas) from the inorganic solid fraction, which forms the carbon fertilizer. The Facility consists of the following components and processes that are shown on the Site Plan Drawings in Appendix A:

A. Scale House and Administrative Office – The Scale House and Administrative Office includes a scale operations center, restrooms, showers, and administrative support offices. This area is a specific portion of the Carbon Manufacturing Building that is separated from process equipment.

B. Carbon Manufacturing Building – The Carbon Manufacturing Building is completely enclosed and includes a Biosolids Receiving Area, a Process Input and Biosolids Storage Area, and a Carbon Manufacturing Area. Attached to the Carbon Manufacturing Building is an outdoor and covered Wood Feedstock Receiving and Storage Area and an outdoor Carbon Storage and Loading Area. As shown in the Site Plan Drawings, the Facility construction is anticipated to be built out over three phases with each phase capable of processing up to 10 tons per hour of received biosolids and up to 1.5 tons per hour of wood waste. Phases two and three are planned to be constructed over a five year timeframe following completion of Phase one. Descriptions of each area and associated processes are as follows:

   1. Biosolids Receiving Area – Biosolids are delivered by licensed haulers using standard hauling trucks with covers that will not require modifications. Delivered biosolids are received inside the Carbon Manufacturing Building, which minimizes fugitive noise and odor emissions. The receiving area is isolated from the process area and is serviced by the air treatment system. Trucks back into the building through quick opening garage doors and tip the biosolids into a recessed reception pit. The reception pit is equipped with a scalping grate to separate and remove any oversized material that may be in a load (e.g., unauthorized waste). The receiving area is slightly pitched to ensure that any spillage is contained within the enclosed building. A high-pressure water source is available to wash the wheels and tailgate of delivery trucks if needed. Wash water is collected through a trench drain and for disposal to the sanitary sewer.

   2. Process Input and Biosolids Storage Area – Following biosolids reception, screw conveyors located at the bottom of the reception pit transfer the biosolids across the receiving pit into the Process Input and Storage Area. The receiving pits are sized to provide a combined three-day storage capacity in accordance with NYSDEC regulations (6 NYCRR 362-1.5(b)(3)). Indoor storage of biosolids is necessary to provide sufficient

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material for continuous operation of the manufacturing process 24 hours per day while only receiving biosolids between 6:00 AM and 6:00 PM Monday through Saturday.

3. Wood Feedstock Receiving and Storage Area – Adjacent to the Biosolids Receiving Area is a covered outdoor receiving and storage area for wood waste feedstock. Wood is used as a blending agent with biosolids to control moisture content. Received wood waste will include land clearing debris and/or unadulterated wood, wood chips, or bark from logging operations, pulp and paper production, and wood products manufacturing material. Received wood will be stored in bunkers and loaded into the process input using a bucket loader or similar piece of mobile equipment. To ensure consistent particle size, all wood waste material is passed through a grinder to reduce oversized material. A dust hood is located above the grinder to collect any particulate emissions, and the grinder is locally shielded for noise control in a dedicated grinder building.

4. Carbon Manufacturing Area – Biosolids and wood waste feedstock move by conveyor to the manufacturing process equipment that consist of a rotary dryer, a pyrolysis reactor, and a thermal oxidizer, among other system components as shown on the Process Flow Diagram in Figure 4. Drying high-moisture biosolids is the first step in the carbon manufacturing process, which is common in many municipalities throughout the U.S. The drying process is the only point-source of odor emissions from the Facility. Dryer emissions are ducted to the air treatment system, and dry feedstock is collected in a hopper bin for sizing prior to the second step. Sizing the dried feedstock consists of screening and milling. Only properly sized particles (i.e., the under screen fraction) are sent to the pyrolysis reactor. Oversized particles are reduced through milling and returned to the dryer along with process dust to facilitate particle agglomeration and to reduce dust in the final product.

   The second step in the carbon manufacturing process is pyrolysis. The dried and sized feedstock is received from the dry hopper bin into an oxygen-free chamber that heats the material without direct exposure to flame. The kiln uses natural gas to indirectly heat the feedstock across four sections of the kiln to ensure uniformity of the pyrolysis process along the length of the kiln. Exhaust from the kiln is ducted to the dryer for thermal efficiency. Under a contingency situation for surplus system heat, the kiln exhaust is vented to the atmosphere as an uncontrolled release. Additional detail about process emissions and air treatment is included in the supporting documents for the State Facility Air Permit application.

   The feedstock is never directly combusted or incinerated inside the kiln, which substantially reduces the potential for air emissions. The organic constituents in the feedstock are separated as a synthetic gas (i.e., syngas), which contains methane, sulfur, and other odor compounds. The syngas is piped to and combusted in a thermal oxidizer at a temperature that generates heat, destroys odor compounds, and reduces the formation of nitrogen oxide emissions (i.e., NOx) through the use of low-NOx burners. The generated syngas is a renewable energy that is burned in the thermal oxidizer to produce heat for continuous operation of the dryer. The thermal oxidizer must initiate operations using natural gas or a blend of syngas and natural gas. However, once fully operational, the drying process achieves auto-thermal operations on the generated syngas from the pyrolysis process. The inorganic solids that remain after separating the syngas from the dried feedstock is the carbon fertilizer that is cooled and stabilized for storage and offsite shipment.

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5. Carbon Storage and Loading Area – Manufactured carbon fertilizer is moved by conveyor to the Carbon Storage and Loading Area for temporary storage in vertical silos. Each process line will produce up to approximately 8,322 dry tons of carbon fertilizer annually as agglomerated pellets with a solids content of 95 to 98%. At full buildout, the Facility will produce up to approximately 25,000 tons of carbon fertilizer per year. Carbon fertilizer will be loaded directly into delivery trucks or into approximately one and two cubic yard sacks.

6. Emissions Air Treatment – Particulate, ammonia, sulfur dioxide, and odor emissions from the carbon fertilizer manufacturing process are treated through air pollution control systems prior to exhaust to the atmosphere. The receiving area, reception pits, and process area are all maintained under negative pressure to mitigate potential for fugitive emissions. The biosolids receiving area and reception pits are ducted directly into the combustion air intake of the thermal oxidizer. Auxiliary air input into the dryer is ducted directly from the process area. Therefore, all air inside the Carbon Manufacturing Building is maintained under negative pressure induced by the air treatment system fans. When the manufacturing equipment is not operating, air is continuously pulled through the equipment and the air treatment system to ensure proper odor management at all times.

   Air treatment begins with high efficiency dry cyclones that recover most of the particulates from the air stream. After the dry cyclones, fine particulates are removed through multiple venturi heads that cool the air stream to the dew point. The cooled air stream passes through a packed bed wet scrubber where caustic or sodium bicarbonate is introduced to remove sulfur dioxide (SO_2) and other odorous compounds. The effluent from the SO_2 scrubber is discharged as wastewater effluent. After SO_2 removal, the air stream passes through a second packed bed wet scrubber that uses sulfuric acid for ammonia removal. The effluent from the ammonia scrubber contains ammonium sulfate, which is either discharged as wastewater effluent or recycled into the carbon fertilizer to improve nutrient value. The final component of the air treatment system is a bio-scrubber that consists of two beds packed with microbes to polish the air by removing residual odors and SO_2 prior to release to the atmosphere.

   Process water from the air treatment system that is not recycled is discharged through a direct sewer connection for treatment at the City of Glens Falls publicly owned treatment works (POTW). The air treatment system and associated process emissions are subject to a State Facility Air Permit. Additional details regarding emissions and air treatment are provided in the Air Permit Application narrative.

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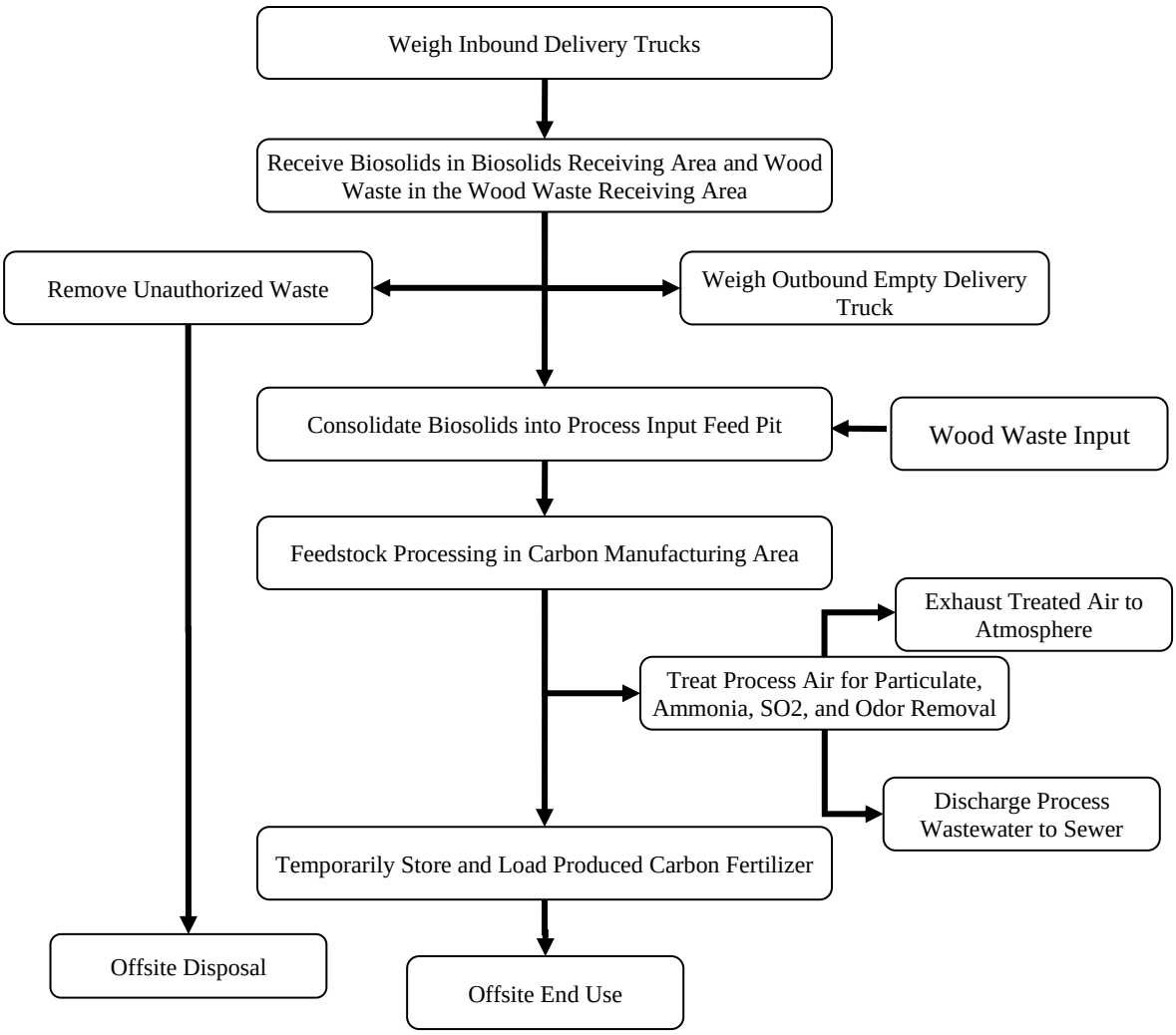
4.2 Process Flow Chart

The Facility process is described visually in the following flow chart and Process Flow Diagram included as Figure 4.



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5.0 FACILITY DESIGN

The Facility is designed to be entirely enclosed with an annual throughput up to 252,000 wet tons of received biosolids and up to 37,800 tons of wood waste. The Facility is designed to be constructed in three phases with each phase consisting of a process line capable of processing up to 10 wet tons per hour of biosolids and up to 1.5 tons per hour of wood waste. Each process line is capable of manufacturing up to 1 ton per hour of Exceptional Quality (EQ) Class A biosolids product in accordance with 40 CFR Part 503 and 6 NYCRR 361.

The Facility operates 24 hours per day, 7 days per week with feedstock deliveries limited to between 6:00 AM and 6:00 PM six (6) days per week (i.e., no deliveries on Sundays or holidays). The operational uptime of the process is expected to be 95% (i.e., 8,322 hours per year) with the balance consisting of scheduled downtime for maintenance. Contingency planning for unexpected shutdowns is discussed in the Facility Manual.

5.1 Materials Handled

The Facility has contracted with an established regional biosolids hauling partner, Casella Organics, for an initial ten-year term with two five-year extensions to source and transport biosolids to the Facility. Detailed material acceptance criteria and procedures for detecting and managing unauthorized waste are provided in the Facility Waste Control Plan contained in the Facility Manual.

Biosolids are the nutrient-rich organic byproducts resulting from wastewater treatment. Sourced biosolids will have been treated and tested by the source prior to receipt at the Facility in accordance with 6 NYCRR 361-3.6. Based on the regional POTWs, sourced biosolids are anticipated approximately 25% anaerobically digested and 75% aerobically digested and otherwise destined for landfill disposal. Biosolids destined for landfill disposal must meet criteria contained in 6 NYCRR 363-7.1(j); therefore, the composition of received biosolids will be relatively consistent. Representative compositional data for biosolids feedstock is provided in Appendix D. For each source of biosolids, the Facility will maintain the following information:

- Name of biosolids generator and quantity received at the Facility.
- Description of generator's biosolids treatment method (e.g., aerobic digestion).
- Description of the biosolids quality including information required by 6 NYCRR 361-3.6 and analytical results of the biosolids for the analytes contained in Table 1 of 6 NYCRR 361-3.9.

Biosolids provide nutrients to plants and organic matter to soils. They can also be used to produce renewable energy through digestion and production of methane (i.e., biogas) or by drying and thermal processing (i.e., syngas). 6 NYCRR Part 360 Regulations define *Biosolids* as: the accumulated semi-solids or solids resulting from treatment of wastewaters from publicly or privately owned or operated sewage treatment plants. Biosolids does not include grit, screenings, or ash generated from the incineration of biosolids.

Wood waste feedstock is an optional minor feedstock component that is not required for processing biosolids. Wood waste is to be sourced from local municipalities, counties, and wood waste generators, and consists only of land clearing debris and/or unadulterated wood, wood chips, or bark from logging operations, pulp and paper production, and wood products manufacturing. Local municipalities and Saratoga County have expressed interest in supplying wood waste because their wood waste is currently landfilled.

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5.2 Service Area

The primary service area for biosolids includes regional wastewater treatment plants within New York State and western New England west of the Connecticut River as sourced and contracted by the Facility's contracted waste hauler. The service area may increase or decrease as negotiated arrangements change over time. The primary service area for wood waste is a 50-mile radius from the Facility.

5.3 Site Access and Traffic

All truck traffic for biosolids delivery, wood waste delivery, and carbon fertilizer distribution will access the Facility from Farnan Road within the Moreau Industrial Park and will be restricted to delivery hours of 6:00 AM to 6:00 PM Monday through Saturday. The established truck routes are the following as shown on Figure 3:

- From the north, south, and west: Exit Interstate 87 via Exit 17N onto Route 9 north. Turn right onto Route 197. Turn left onto Fort Edward Road north. Turn right onto Bluebird Road east. Turn right onto Farnan Road at the Moreau Industrial Park entrance. Turn right into the Facility entrance.
- From the east: Follow Route 197 west. Turn right onto Fort Edward Road north. Turn right onto Bluebird Road east. Turn right onto Farnan Road at the Moreau Industrial Part entrance. Turn right into the Facility entrance.

Access into the Facility is through the constructed entrances from Farnan Road as shown on the Site Plan Drawings included in Appendix A. Delivery vehicles enter the Facility and are directed to the weigh-in scale before being directed to the rear of the Carbon Manufacturing Building to the receiving area. Biosolids delivery trucks back into the Carbon Manufacturing Building through fast opening garage doors to unload biosolids into the reception pit that is isolated from the process area and serviced by the air treatment system. A wash station in the unloading area is available to wash any biosolids from the truck and tires as necessary before exiting the building.

Wood waste delivery trucks are received in the covered outdoor wood waste receiving and storage area. Trucks are tipped onto the concrete floor and visually inspected. Received wood waste is stored in bunkers and loaded into the process input grinder using a wheeled bucket loader or similar piece of mobile equipment. The grinder is in a dedicated housing for noise control and is serviced by an air treatment system for particulate control. After unloading material, empty trucks exit the building and return to the scale to weigh-out. The scale is equipped with a computer system to provide ticket printing and automated recordkeeping.

Each process line is anticipated to require up to 20 trucks per day to support operations: 12 loads of delivered biosolids, 2 loads of delivered wood waste, 1 load of removed carbon fertilizer, and 5 service vehicles. The total anticipated truck traffic to support full buildout of the Facility is approximately 50 trucks per day including 36 loads of biosolids delivery, 6 loads of wood waste delivery, 3 loads carbon fertilizer distribution, and 5 service vehicles to support operations. Because biosolids deliveries will be through a contracted hauler, trucks will target an even spacing between 6:00 AM and 6:00 PM (i.e., approximately 3-5 trucks per hour). This anticipated trip generation is significantly lower than the GEIS threshold criteria of 10 trips per hour per acre. Based on the Facility parcel size of 5.89 acres, the traffic threshold for additional study is approximately 59 vehicles in the peak hour.

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5.4 Environmental Controls

The Facility and process are designed and operated to minimize the potential offsite release of dust, biosolids tracking, leachate, odor, and noise emissions.

5.4.1 Dust and Biosolids Tracking Control

The Facility Manual provides additional details on mitigation of dust and tracking of biosolids. All incoming material is received in covered trucks, and unloading occurs indoors (biosolids) or under cover (wood waste). All vehicle travel surfaces are paved to minimize the potential for fugitive dust. The indoor biosolids receiving area is equipped with a high-pressure water source to wash the wheels and tailgates of delivery trucks if needed to prevent tracking of biosolids out of the Carbon Manufacturing Building. Wash water is collected through a trench drain for discharge to the sanitary sewer.

5.4.2 Leachate Control

The Facility Manual provides additional details on handling and control of Facility leachate. Biosolids are received with solids content of 18 to 32% (average 23% solids content). Trucks permitted to carry biosolids are required to prevent leakage onto driving surfaces. The floor of the reception pit and biosolids storage area is solid concrete to prevent leakage or release of liquids. All liquid associated with the biosolids is evaporated in the carbon manufacturing process and does not require separate management.

5.4.3 Odor Control

The Facility is maintained at a negative air pressure at all times to prevent fugitive odor emissions. Interior air is continuously extracted through the air pollution control devices even if carbon manufacturing is not occurring. Truck doors into the Carbon Manufacturing Building are fast opening/closing and only open during biosolids delivery. A natural gas-powered backup generator provides emergency power in the event of a power service failure to continue operating the manufacturing process and air pollution/odor control equipment.

During daily operations, the Facility is monitored for odors by the operating staff. If odors are detected outside of the Carbon Manufacturing Building that may migrate offsite, the following information will be recorded: Date, time of day, estimated wind speed and direction, type of odor, strength of odor, and duration. If a complaint is received regarding site odor, the following steps will be taken:

1. The complaint and site information will be reviewed to determine if the Facility is the cause of the odor or if the odor is from a different source.
2. If the Facility is determined to be the source, corrective actions will be implemented to eliminate the odor source through process modifications or other controls.
3. The NYSDEC Regional Materials Management Engineer will be notified of all received complaints.

5.5 Noise Assessment

6 NYCRR 360.16 requires SWMF permit applications to include a noise assessment to demonstrate compliance with promulgated maximum sound levels. NYSDEC Program Policy for Assessing and Mitigating Noise Impacts outlines best practices for evaluating the potential for adverse impacts of sound

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generated and emanating to receptors outside of the Facility. The policy describes that activities contained within an area in which local zoning provides for the intended use (referred to as "right of use") do not need a noise impact analysis because noise is addressed in the established zoning. The Facility is consistent with current and proposed future zoning designation as "General Manufacturing & Industrial." This designated zoning allows specific uses and has corresponding performance standards for noise (Town of Moreau Noise Control Local Law Chapter 100). Potential noise impacts were evaluated in the GEIS for the industrial park and concluded that the extensive vegetated buffer surrounding the park will sufficiently attenuate noises associated with the park's tenants.

Operating requirements for noise are subject to the following noise standards contained in 6 NYCRR Part 360.19(j):

> *The owner or operator of a facility must ensure that noise resulting from equipment or operations at the facility does not exceed the following energy equivalent sound levels beyond the property line owned or controlled by the owner or operator of the facility at locations authorized for residential purposes:*

Character of Community (within 1 mile radius)	***Leq Energy Equivalent Sound Levels***	
	7 a.m.-10 p.m.	*10 p.m.-7 a.m.*
Rural	*57 decibels (A)*	*47 decibels (A)*
Suburban	*62 decibels (A)*	*52 decibels (A)*
Urban	*67 decibels (A)*	*57 decibels(A)*

Based on the population density of the Town within a 1-mile radius of the Facility, suburban noise restrictions apply, which limit the maximum sound level to 62 decibels (dBA) from 7:00 AM to 10:00 PM and 52 dBA from 10:00 PM to 7:00 AM as measured beyond the Facility property line at the closest location authorized for residential purposes (i.e., closest potential receptor). The Facility property and immediate surroundings is zoned "General Manufacturing & Industrial" and the closest residential zoned property is approximately 750 feet southwest of the southwestern property line (See Figure 2).

5.5.1 Potential Noise Sources

Facility noise sources consist of stationary equipment associated with the carbon manufacturing process. All noise sources are located inside the Carbon Manufacturing Building except for the wood grinder, which is located in a separate dedicated housing for noise abatement.

The individual sound pressure levels for each noise source are combined to an effective sound pressure level using the following equation:

$$L_{Effective} = 10\log\left[10^{L1/10} + 10^{L2/10} + 10^{L3/10} + \cdots + 10^{Ln/10}\right]$$

Where: $L_{Effective}$ = Sound pressure level (dBA) of all equipment operating simultaneously.
L_1, L_2 = Sound pressure level (dBA) of each individual piece of equipment.

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The effective sound level for each area assumes all listed equipment is operating simultaneously. Anticipated noise sources and estimated sound levels include the following for the full buildout of the Facility:

Item	Description	Quantity	Assumed Reference Sound Pressure Level dB(A)
1	Front End Loader	1	79
2	Process Input Conveyor	3	70
3	Wood Grinder	1	89
4	Rotary Dryer	3	85
5	Dryer Fan	3	79
6	Air Pollution Control Extraction Fans	6	85
7	Transfer Conveyor	3	70
8	Pyrolysis Reactor	3	85
9	Product Conveyor	3	70
Sound Level With All Processing Equipment Operating			**96.9**

5.5.2 First Level Noise Assessment

The initial noise assessment evaluates potential impact to receptors assuming all equipment operates simultaneously and only accounting for attenuation from distance. Sound levels decrease by approximately 6 dBA for each doubling of distance beyond 50 ft. For example, a sound level of 79 dBA at 50 feet from the source would reduce to 73 dBA at 100 ft and 67 dBA at 200 ft. The cumulative sound level with all processing equipment operating is conservatively assumed to occur at a combined central location of the Carbon Manufacturing Building.

Two assessment points were established at the shortest straight-line distance from center of the Carbon Manufacturing Building to the closest residential receptor property line (approximately 750 southwest of the southwest Facility property line) and the shoreline of the Hudson River (approximately 1,200 feet east of the eastern Facility property line). Accounting only for attenuation due to distance, equivalent sound levels at each assessment point are summarized in the following table:

	Calculated Sound Level (dBA)	Screening Level (dBA)
Sound Pressure Level (dBA) at Closest Residential Property Line	70.7	62 Daytime / 52 Nighttime
Sound Pressure Level (dBA) at Hudson River Shoreline	68.9	

The first level assessment indicates that resulting noise from the Facility exceeds screening levels at the receptor locations; therefore, a second level noise assessment is necessary.

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5.5.3 Second Level Noise Assessment

The second level assessment takes into consideration noise attenuating features. All stationary noise sources will be shielded by a roof and walls or localized shielding providing noise attenuation. Further, vegetative screening is present surrounding the Facility to further attenuate noise from the industrial park toward potential receptors. The Federal Highway Administration (FHWA) provides guidance for noise mitigation from common barriers (e.g., walls, ceilings, and berms) in "The Audible Landscape: A Manual for Highway Noise and Land Use." Common constructed building walls can provide noise reduction of 35 to 54 dBA. The NYSDEC Program Policy indicates that dense vegetation that is at least 100 feet thick can provide up to 7 dBA noise reduction.

To comply with the most restrictive nighttime noise restrictions (52 dBA), a minimum noise reduction of 18.7 dBA is required, which is well within the achievable range for conventional practices. This minimum noise reduction does not take into account the several hundred feet of dense vegetation between the Facility and the assessed receptor locations. There is over 500 feet of dense forest between the Facility and the closest residential property line to the southwest and over 400 feet of dense forest between the Facility and the Hudson River. Therefore, the Facility is expected to operate in compliance with applicable noise restrictions, and significant adverse impacts to proximate receptors are not anticipated. This noise assessment is for the full buildout of the Facility. Compliance with operational noise restrictions can be verified through a noise study during Facility startup of the initial phase, which is a common NYSDEC permit condition.

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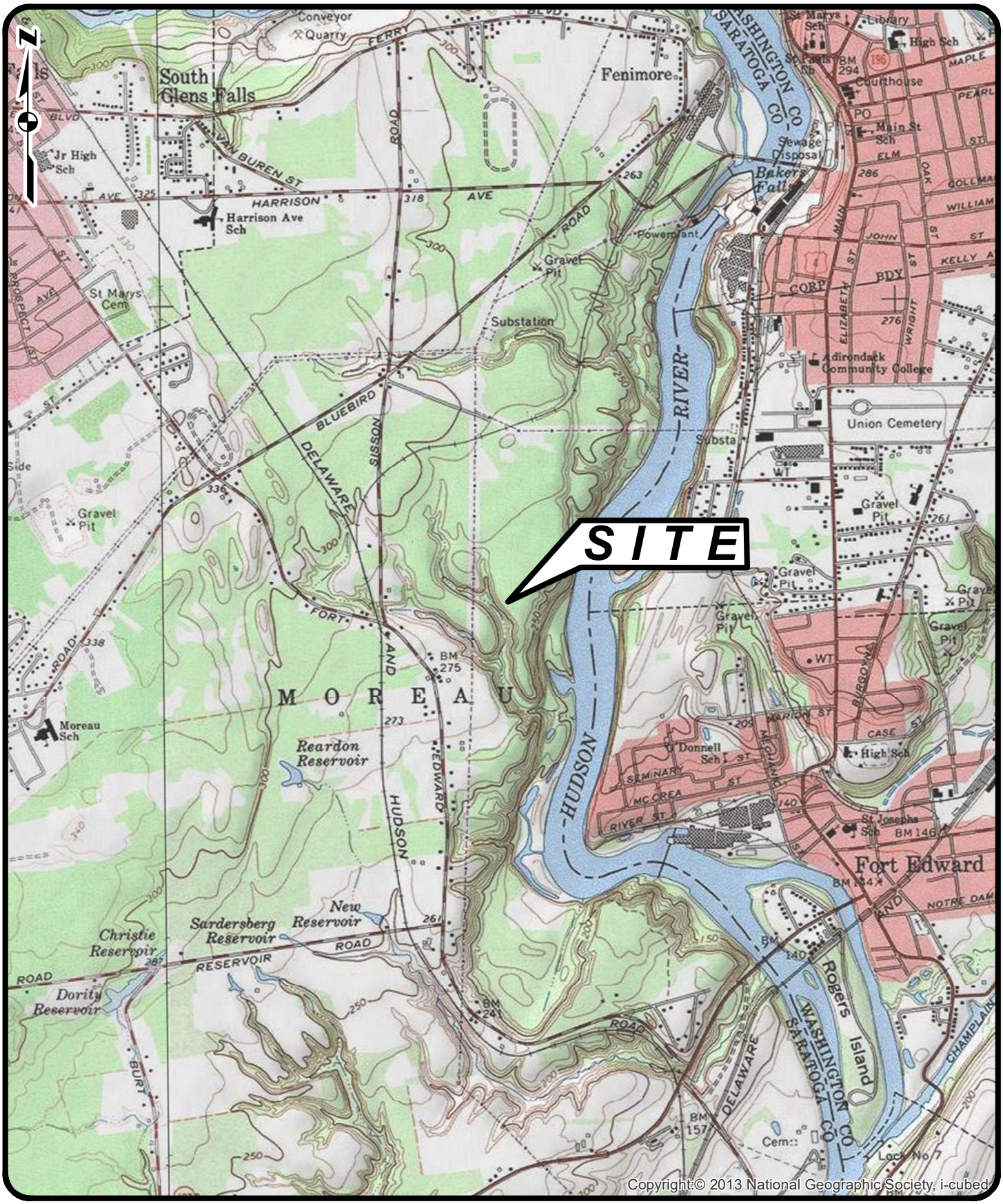
FIGURES



S:\Sterling\Projects\2020 Projects\Saratoga Biochar Solutions - 2020-20\Drawings-Maps-Figures\GIS\2020-20001G- FIG 1 SITE LOC MAP.mxd\

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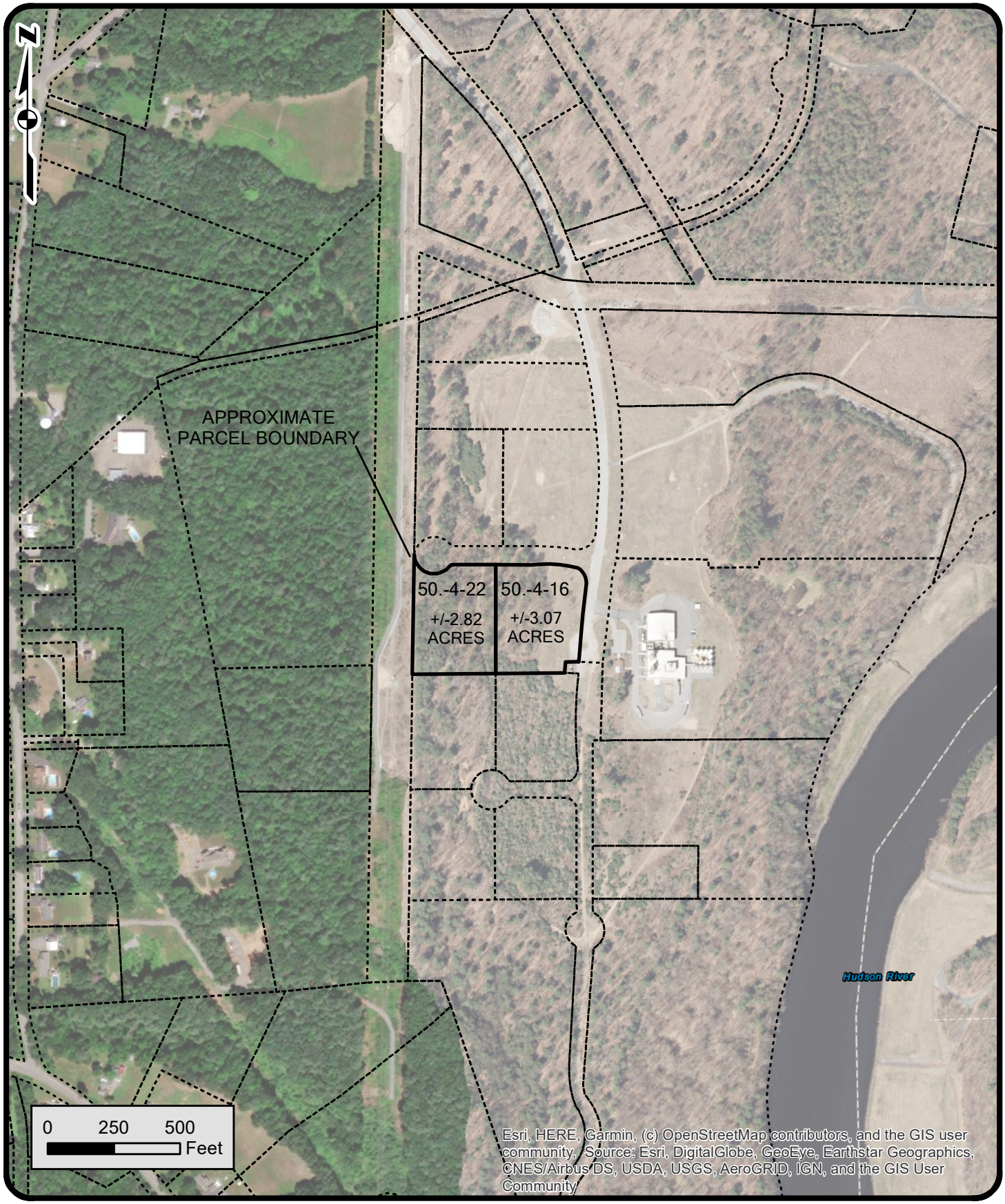
SITE LOCATION MAP

SARATOGA BIOCHAR SOLUTIONS, LLC

CARBON FERTILIZER MANUFACTURING FACILITY

TOWN OF MOREAU — SARATOGA CO., NY

PROJ.NO. 2020-20	DATE: 10/25/2021	SCALE: 1 " = 2,000 '	DWG.NO. 2020-20001G	FIGURE 1



S:\Sterling\Projects\2020 Projects\Saratoga Biochar Solutions - 2020-20\Drawings-Maps-Figures\GIS\2020-20003G- FIG 2 SITE LAYOUT.mxd\

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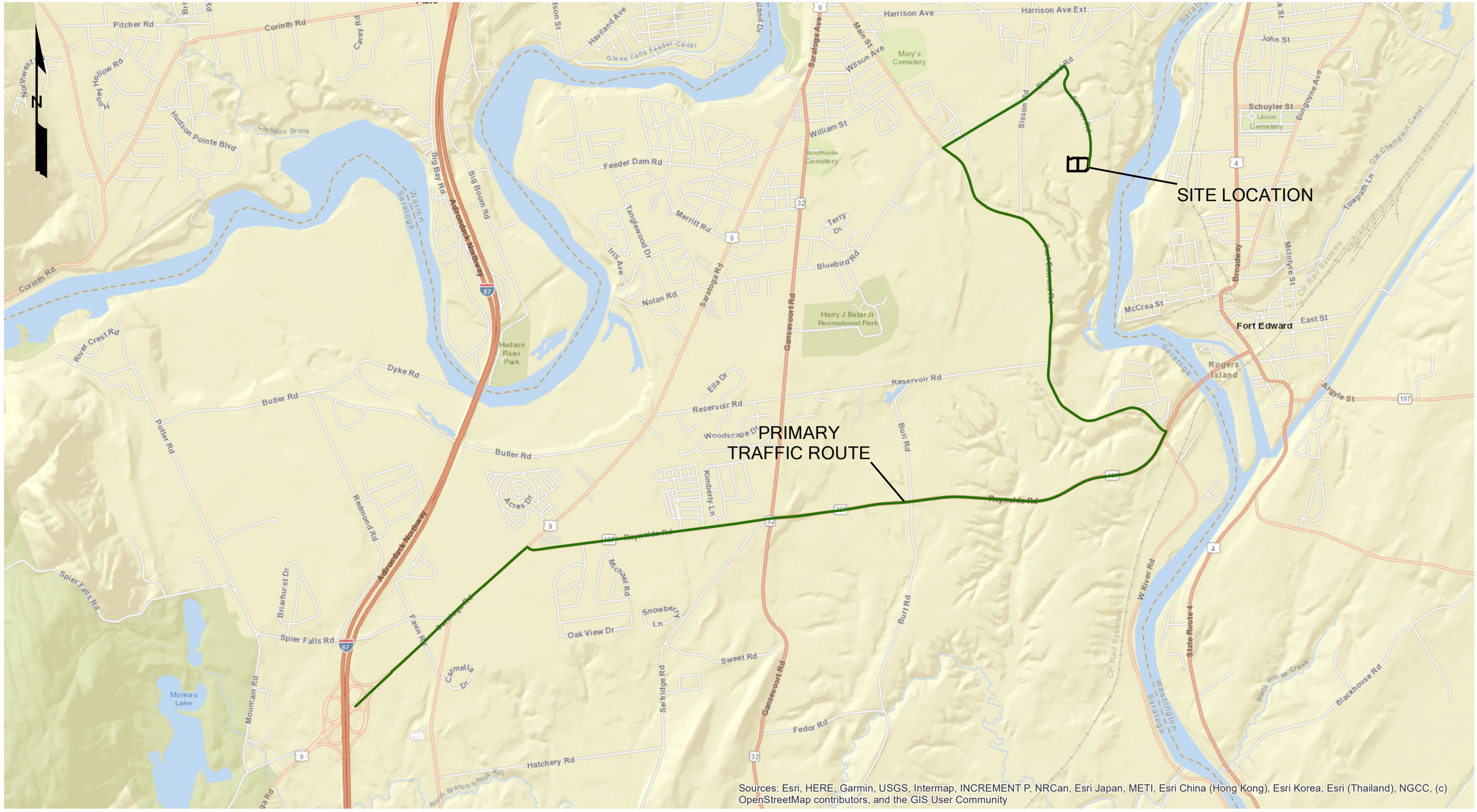
SITE VICINITY MAP

SARATOGA BIOCHAR SOLUTIONS, LLC

CARBON FERTILIZER MANUFACTURING FACILITY

TOWN OF MOREAU SARATOGA CO., NY

PROJ.NO. 2020-20	DATE: 10/14/2021	SCALE: 1 " = 500 '	DWG.NO. 2020-20003G	FIGURE 2



LEGEND

PRIMARY TRAFFIC ROUTE

0 4,000 8,000 FEET

1 inch = 4,000 feet

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TRAFFIC ROUTE MAP

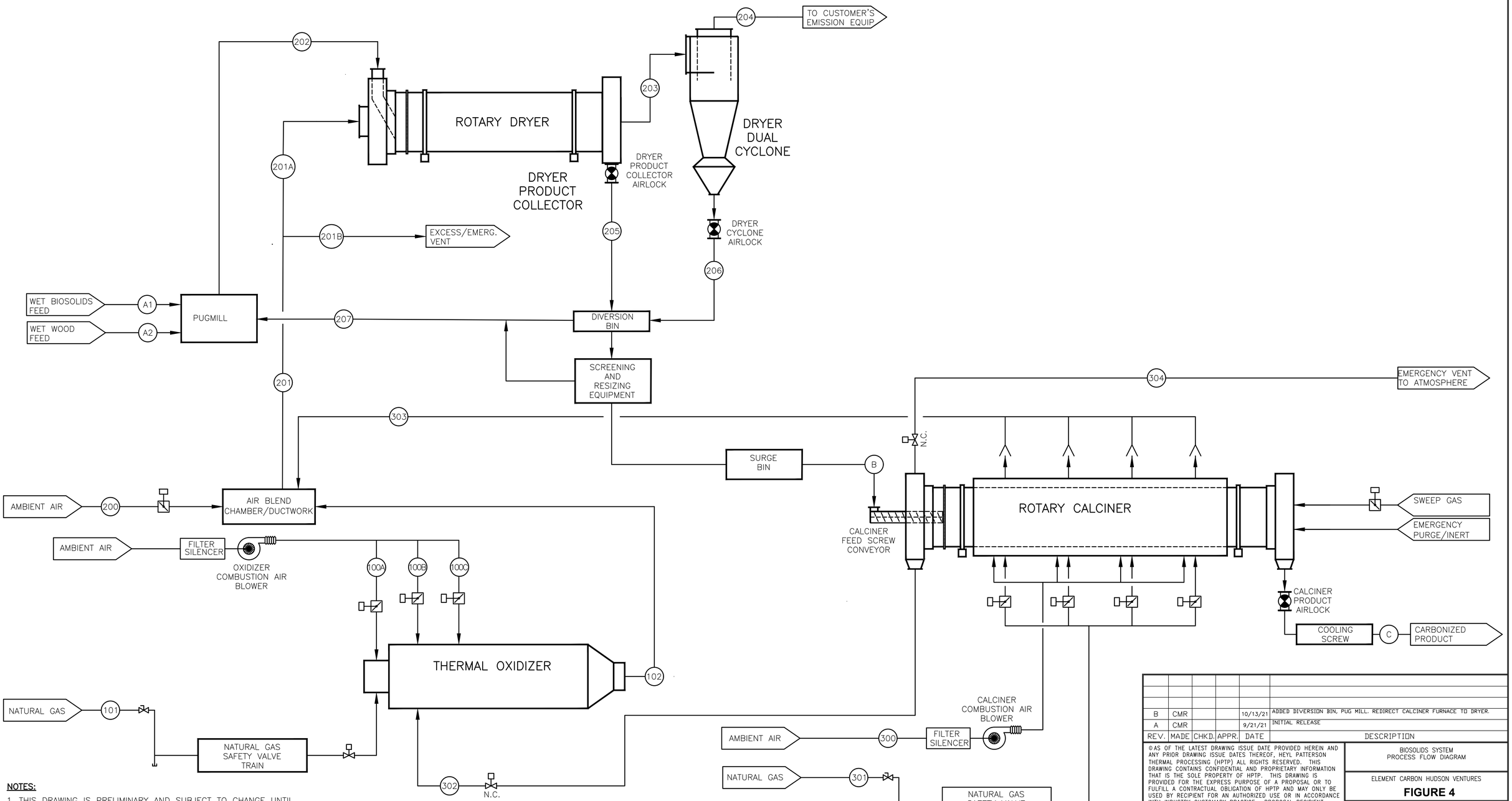
SARATOGA BIOCHAR SOLUTIONS, LLC

CARBON FERTILIZER MANUFACTURING FACILITY

TOWN OF MOREAU SARATOGA CO., NY

PROJ.NO.	DATE:	SCALE:	DWG.NO.	FIGURE
2020-20	10/14/2021	1"=4,000'	2020-20004G	3

S:\Sterling\Projects\2020 Projects\Saratoga Biochar Solutions - 2020-20\Drawings-Maps-Figures\GIS\2020-20004G- FIG 3 Traffic Route Map.mxd



NOTES:

1. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE UNTIL DRAWINGS ARE "ISSUED FOR CONSTRUCTION" REVISION 0.
2. STREAM PROPERTIES AND COMPOSITIONS ARE SHOWN IN EXCEL FILE THAT ACCOMPANIES THIS DRAWING.

PROCESS FLOW DIAGRAM

REV.	MADE	CHKD.	APPR.	DATE	DESCRIPTION
B	CMR			10/13/21	ADDED DIVERSION BIN, PUG MILL. REDIRECT CALCINER FURNACE TO DRYER.
A	CMR			9/21/21	INITIAL RELEASE

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BIOSOLIDS SYSTEM
PROCESS FLOW DIAGRAM

ELEMENT CARBON HUDSON VENTURES

FIGURE 4

HPTP PROJECT NO. 7031

CUSTOMER PROJECT NO.

HEYL PATTERSON CPEG THERMAL PROCESSING

DWG. NO. **7031-2401**

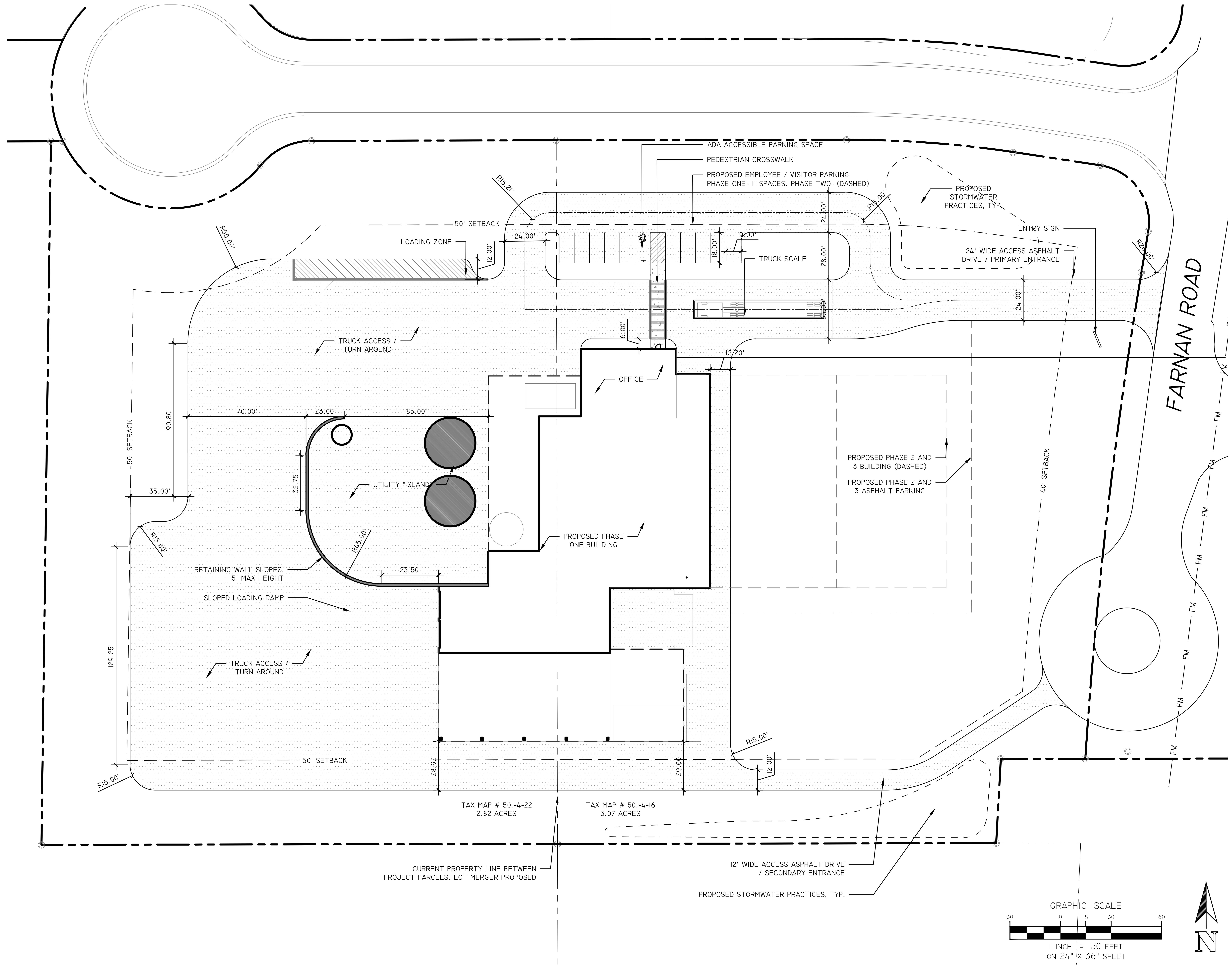
REV. **B**

SCALE 12"=1'-0"

DIV. NO. 24

ENGINEERING REPORT
APPENDIX A

SITE PLAN DRAWINGS



LEGEND:

▬ ▬ ▬	PROPERTY LINE
— — —	PROPERTY LINE SETBACK
- - - -	LIMITS OF DISTURBANCE
—·—·—	ROAD CENTERLINE
▭	PROPOSED ASPHALT SURFACE
▨	PROPOSED CONCRETE WALKWAY
▬	PROPOSED SITE WALL
⬭	PROPOSED STORMWATER PRACTICES

MAP REFERENCE:
BASE MAP INFORMATION OBTAINED FROM "MAP OF TOPOGRAPHIC SURVEY MADE FOR NORTHEAST BIOCHAR SOLUTIONS, INC., TOWN OF MOREAU, SARATOGA COUNTY, NEW YORK" PREPARED BY VAN DUSEN & STEVES SURVEYORS, DATED JULY 28, 2021.

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DESIGN BY: ####
DRAWN BY: ####
CHECKED BY: ####

PLOTTED BY: JGROSS
SAVE DATE: 10/27/2021 9:14 AM
FILE NAME: Z:\PROJECTS\2020 PROJECTS\20019 - BIOCHAR SOLUTIONS\DWG\03 SHEETS\20019_LAYOUT.DWG

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Landscape Architecture + Engineering, DPC
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DRAWINGS NOT FOR CONSTRUCTION

REVISIONS

DATE	DESCRIPTION

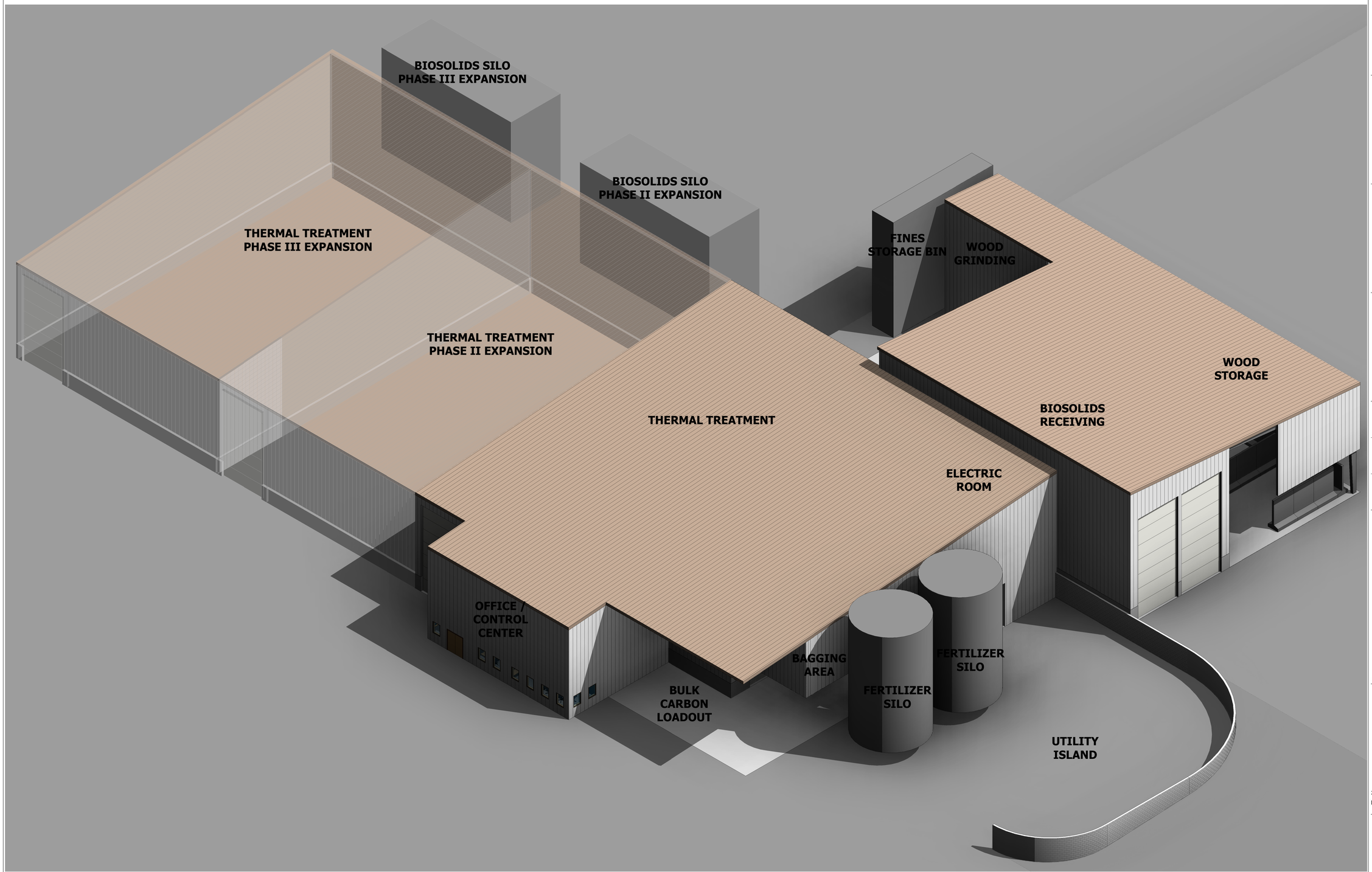
northeastern BIOCHAR SOLUTIONS — WASTE NOT

PREPARED FOR
SARATOGA BIOCHAR SOLUTIONS, LLC
26 F CONGRESS ST. #346
SARATOGA SPRINGS, NY 12866

PROJECT
SARATOGA BIOCHAR SOLUTIONS, LLC

DRAWING TITLE
LAYOUT PLAN

DATE: 10/29/2021
PROJECT NO. 20019
DRAWING NO.
L-0.10
DWG 2 OF 6



SEAL

PROJECT TITLE

10/28/21
SARATOGA
BIOCHAR

Street Address, Suite#
City, State Zip

SHEET
TITLE

AXONOMETRIC

CONSULTANT

DRAWN BY
Author

CHECKED BY
Checker

DATE
X/X/XX

PROJECT NO.
20-020

REVISION
S

NO.	DESCRIPTION	DATE

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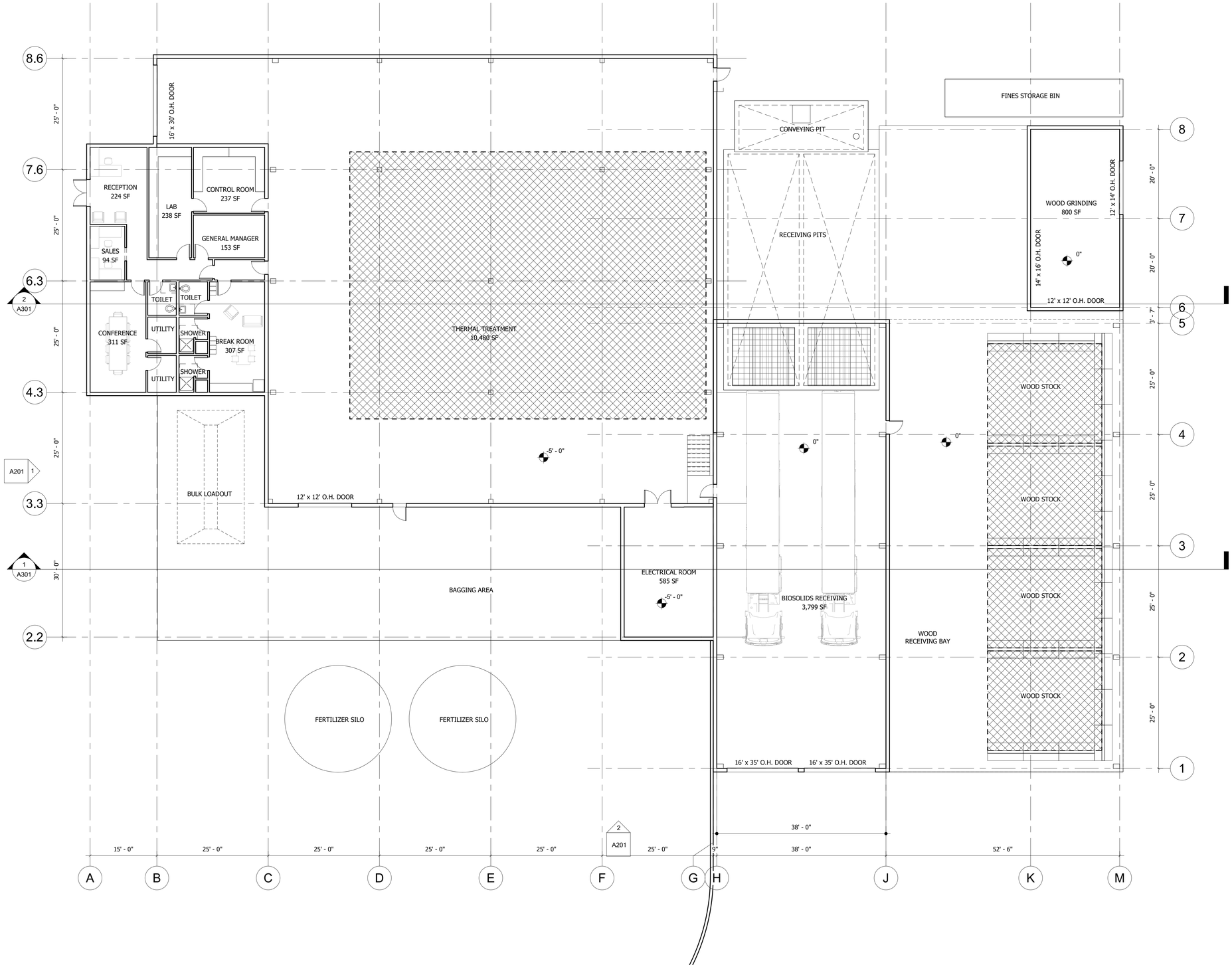

SEAL

PROJECT TITLE

10/28/21
SARATOGA
BIOCHAR

Street Address, Suite#
City, State Zip

SHEET TITLE

PLAN

CONSULTANT

DRAWN BY: Author

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DATE

XX/XX/XX

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20-020

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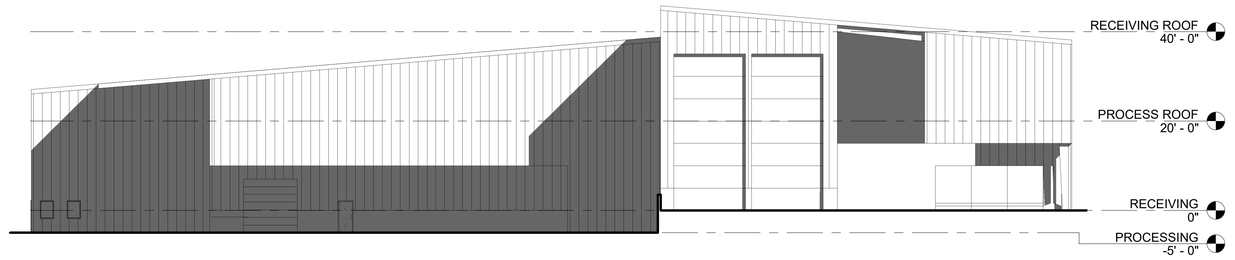
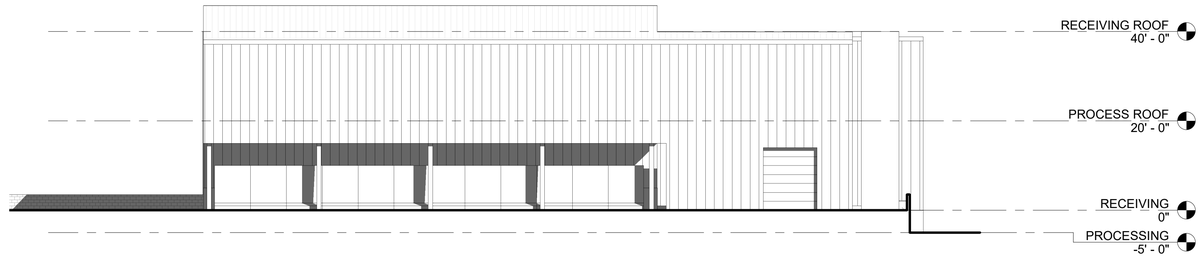
1 EXTERIOR ELEVATION - WEST
1/16" = 1'-0"



2 EXTERIOR ELEVATION - SOUTH
1/16" = 1'-0"



3 EXTERIOR ELEVATION - EAST
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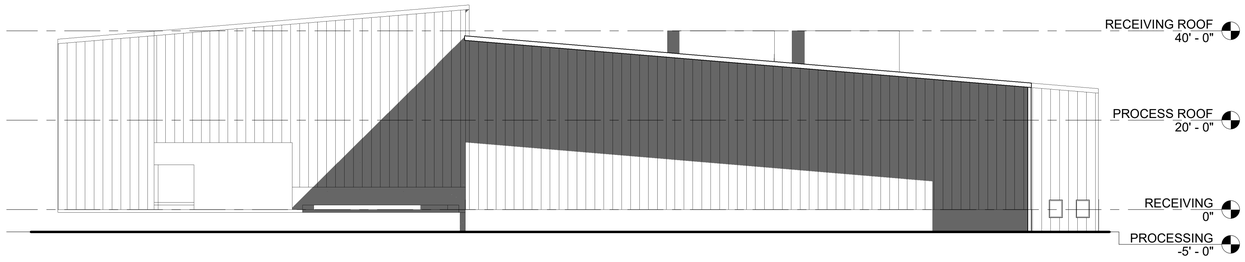

4 EXTERIOR ELEVATION - NORTH
1/16" = 1'-0"

SEAL

PROJECT TITLE

10/28/21
SARATOGA BIOCHAR

Street Address, Suite#
City, State Zip

SHEET TITLE

EXTERIOR ELEVATIONS

CONSULTANT

DRAWN BY: Author
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DATE

XX/XX/XX

PROJECT NO.

20-020

REVISIONS

NO.	DESCRIPTION	DATE

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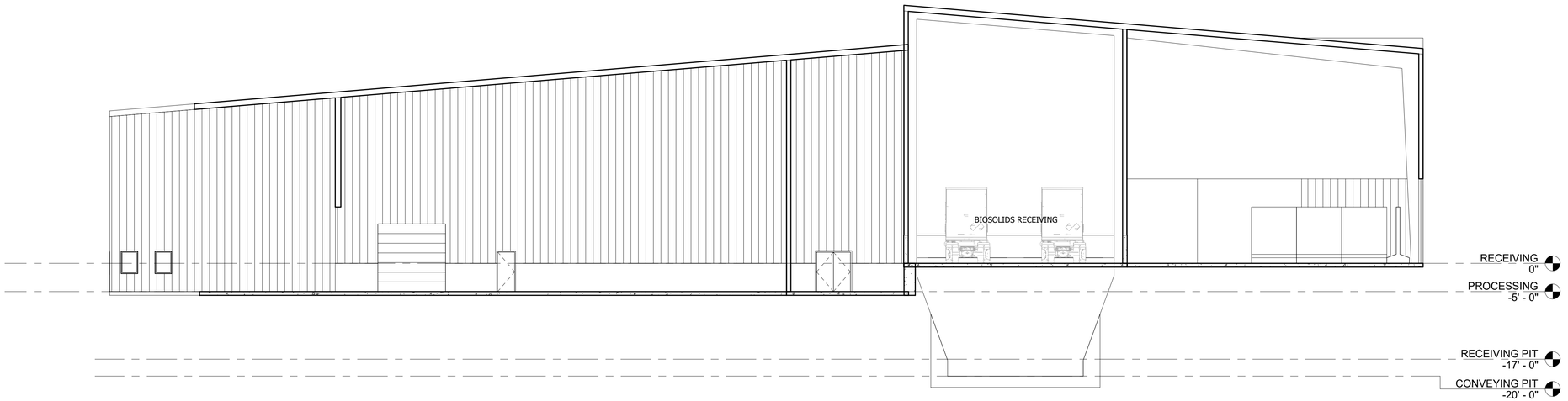
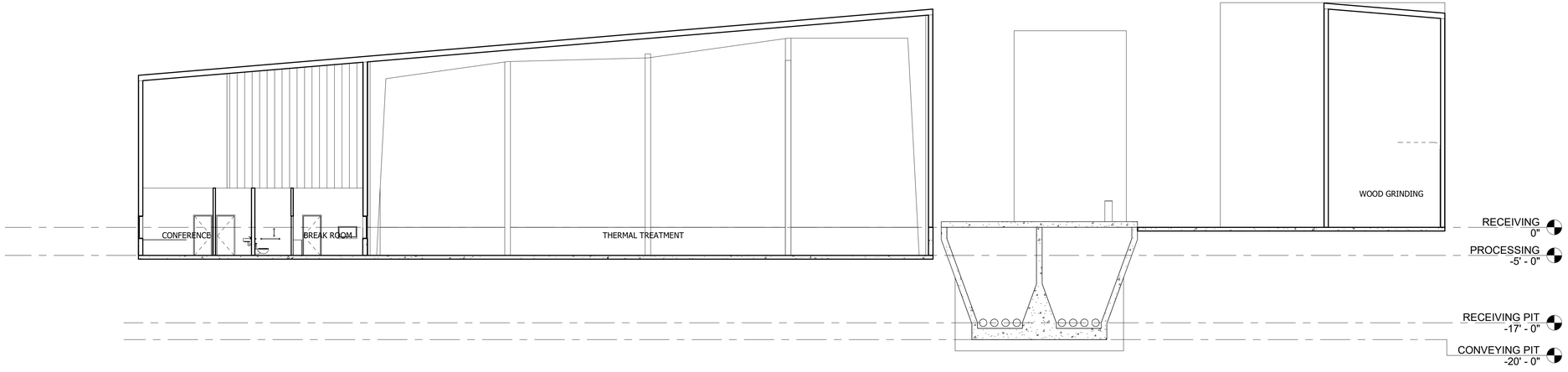


1 BUILDING SECTION 1
3/32" = 1'-0"



2 BUILDING SECTION 2
3/32" = 1'-0"

SEAL

PROJECT TITLE

10/28/21
SARATOGA BIOCHAR

Street Address, Suite#
City, State Zip

SHEET TITLE

BUILDING SECTIONS

CONSULTANT

DRAWN BY: Author
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PROJECT NO.
20-020

REVISIONS

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ENGINEERING REPORT
APPENDIX B

GEIS STATEMENT OF FINDINGS
&
FULL ENVIRONMENTAL ASSESSMENT FORM

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, ENGINEERS, AND PLANNERS

File

September 6, 1991

Mr. Mike Sullivan, Supervisor
Town of Moreau
61 Hudson Street
South Glens Falls, New York 12803

RE: Moreau Industrial Park
TSA #89029.32L

Dear Mike:

Enclosed is a copy of the Moreau Industrial Park Findings Statement. Since you have accepted the Final GEIS as complete and have held the corresponding public hearings, including a rezoning hearing, it is now time to consider the Findings Statement.

The applicant is requesting that the Town Board as lead agency, at its regular meeting on September 10, 1991, resolve to accept the enclosed Findings Statement which is consistent the previously accepted FGEIS/DGEIS. Once the Findings Statement has been accepted, it will be circulated to all involved agencies. At that time you are also free to take any other actions that may be appropriate, including rezoning the necessary 163 acres from residential (R-3) to manufacturing (M-1).

Please don't hesitate to call if you have any questions or if I can be of further assistance. Thank you for your consideration in this matter.

Sincerely,

Susan P. Schank

Susan P. Schank

Enclosure

cc: Gary Mattison - Town of Moreau
Ken Green - SEDC
Curt Foreback - NMPC
JDW, JJB, SJH, RJM

OLD SARATOGA SQUARE, 443 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, NEW YORK, AND SPRINGFIELD

SEQR
FINDINGS STATEMENT

MOREAU INDUSTRIAL PARK

Pursuant to Article 8 (State Environmental Quality Review Act - SEQR) of the Environmental Conservation Law and 6 NYCRR Part 617, the Moreau Town Board, as Lead Agency, makes the following findings.

Title of Action: Moreau Industrial Park
Project Sponsor: Saratoga Economic Development Corporation

Description of Action: The project involves the rezoning and subdivision of an approximately 243-acre parcel for a proposed industrial park. The proposal is to develop a 24-lot subdivision, with lots ranging is size from approximately 2.7 acres to 26.85 acres. Approximately 88 acres will be preserved as a permanent conservation easement. To develop this industrial park it is necessary to rezone approximately 163 acres from a residential zone (R-3) to an industrial zone (M-1). Approximately 80 acres are currently zoned for manufacturing. The project will be developed in two phases. Phase I will include development of a portion of the main access road and the corresponding utility infrastructure, for the initial development of ten lots.

Assuming full build-out, site development may employ as many as 2,500, earning over $150 million. The impact on local governments, due to increased tax revenues, will also be significant.

Location: The project site is located in the northeastern corner of the Town of Moreau, Saratoga County. The proposed site access is from Bluebird Road, through the Niagara Mohawk Power Corporation parcel to the north. The Hudson River forms the eastern border of the site. Sisson Road and an unnamed intermittent stream also form portions of the site boundary. The Town and Village of Fort Edward, and the Village of Hudson Falls, in Washington County are located across the river from the project site.

Date Final GEIS Filed: August 13, 1991

Facts and Conclusions in the DGEIS and FGEIS Relied Upon to Support the Decision[1]:

1) As vegetation is cleared for development, the erosive potential of soils will increase. Due to the generally flat topography of most of the site, this impact will not be significant. Potential impacts will be minimized through implementation of the proposed erosion control plan. A Final Stormwater Management Plan will be submitted for Final Subdivision approval.

---

[1]Refer to DGEIS and FGEIS for complete information.

To reduce the loss of soils and minimize sedimentation in adjacent waterways, all cleared areas will be covered with a layer of hay until revegetation takes place. All disturbed areas will be seeded with grasses as soon as construction permits and silt fencing will be placed down slope of all construction areas, including topsoil stockpiles. Haybales will be utilized around all functioning drain inlets. Two detention basins will intercept flows and allow for settling of sediments before runoff reaches existing watercourses. A riser pipe will be installed in the basins to allow for prolonged detention (and settling) for the duration of the construction period.

The project also proposes to preserve approximately 88 acres as a conservation easement around the entire site. The conservation easement provides a buffer for the Hudson River, the Class C(T) stream (except for the entrance road crossing), a number of intermittent drainageways and the westernmost wetland. Since the easement will only be disturbed for potentially required utility construction, it will further minimize any potential impacts to these resources.

2) Construction related activities, including earthmoving, road and utility installation, and associated equipment operations will generate temporary noise, air quality and visual impacts. Since these impacts will be short-term in nature, they are not considered to be significant. Existing vegetation buffers and limiting these activities to normal working hours, five days a week, will minimize any potential impacts.

3) A number of water courses will be temporarily disturbed for the construction of roadways and detention basin outlets. Both detention basin outlets and one of the roadway stream crossings will not require NYSDEC streambank disturbance permits. As the main access road enters the project site from Bluebird Road, it crosses a NYSDEC protected stream, Class C(T), for which a permit will be required.

Necessary stream bank disturbance activities will be conducted "in the dry" and flowing water will be temporarily diverted to a downstream location to avoid disturbed areas and to minimize potential downstream impacts. Rip-rap or rock gabions will be utilized to stabilize steep stream banks. Aquatic life will return to normal once construction is complete. A Final Stormwater Management Plan will be included as part of the Final Subdivision Plan submission. The proposed mitigation measures will ensure that potential impacts are not significantly adverse.

4) Temporary off-site impacts are likely to occur in conjunction with the extension of municipal sewer and water infrastructure to the project site and off-site roadway improvements. Although a number of water and sewer alternatives have been left open, unless an on-site system is developed off-site, impacts such as the installation of pipes along existing roads will take place. Due to the limited nature of these impacts, they are not considered significant. The impacts associated with off-site construction activities will have the same temporary impacts as those for construction of on-site facilities that are

similar in nature; however, off-site construction activities will be more visible to the community, and may also involve some temporary inconvenience to traffic.

5) Although significant areas on site will remain undisturbed (within the conservation easement approximately 88 acres), the overall character of the site will be changed from undisturbed forestland to a built environment with designed landscaped areas. This impact cannot be avoided, although it can be minimized.

It has been estimated that approximately 145 acres on the project site will be disturbed for final build-out. These activities will result in a loss and change in the types of habitat available for wildlife. The proposed mitigation measures, particularly preservation of the conservation easement, will minimize these impacts.

6) Of the approximately 145 acres to be cleared, about 80 acres will be transformed to landscaped areas and about 65 acres will become buildings and paved areas, including parking and roadways. The transformation of 65 acres of existing pervious surface area to impervious surface will impact the rate of stormwater runoff and could potentially impact runoff quality.

To mitigate these potential impacts, two detention basins will be developed. These basins will slow down the rate of runoff before it enters existing drainageways. The outflow channels will be lined with filter fabric and rip-rap.

The detention basins have also been designed to infiltrate the "first flush", thereby allowing for settling of sediments. The basins will be utilized for sediment control during construction (with a riser pipe) and will be cleaned when construction is complete. Both basins will require periodic maintenance (before sediments exceed one-half of the basin's capacity). A Final Stormwater Management Plan will be submitted for Final Subdivision approval.

7) The proposed erosion control and stormwater management plan will minimize any potential impacts to on-site water resources, including wetlands. A very small portion of the northeastern wetland, approximately half an acre, may require disturbance in conjunction with grading activities for the main access road. The disturbed wetland area will be kept to a minimum and undisturbed areas will be protected.

8) Since the actual industrial firms that will be locating on the project site are unknown, the DGEIS established a series of thresholds (see table following) as a method for measuring project impact. The thresholds have been established as mean or average development scenarios. If development exceeds a reasonable range, 10-15%, above this threshold special notice should be taken by the lead and involved agencies. A determination should be made whether and to what extent more detailed environmental review should be undertaken.

Selected Resource Impacts for Proposed Action				
Impact	Per Acre Estimate	Phase I	Phase II	Full Buildout
Lot Coverage (building only)	23%	12 acres	19 acres	31 acres
Building Construction	10,000 sq ft	523,000 sq ft	809,000 sq ft	1,332,000 sq ft
Parking Area	23%	12 acres	19 acres	31 acres
Employment	82	1,000	1,500	2,500
Water Use (domestic)	564 gpd	28,760 gpd	46,240 gpd	75,000[2] gpd (ave. daily)
Wastewater Flows (domestic)	564 gpd	28,760 gpd	46,240 gpd	75,000 gpd (ave. daily)
Trip Generation (peak hour)	10	545	690	1,235

Some firms locating at the industrial park will have a smaller resource impact on a per acre basis than that assumed for the site as a whole. Such "low impact" firms will make it possible for other firms to have a greater impact without exceeding the maximum thresholds established in the DGEIS. Each industrial development project will undergo site plan review with the Moreau Planning Board.

Potential project-specific industrial impacts that have not been addressed in the DGEIS/FGEIS, such as industrial process water needs or project-specific air quality impacts, will be required to undergo the complete environmental review process in conjunction with site plan review.

[2]The average domestic water demand at full project buildout is expected to be 75,000 gpd. The engineering report considers an additional 25,000 gpd as a safety factor, for a total demand of 100,000 gpd.

9) The socio-economic impacts of the proposed development will be substantial and beneficial. At full build-out of the industrial park, it is likely that employment may be up to approximately 2,500. The same number will likely be employed in "spin-off" industries throughout New York State, about half of which will be located within the region. The total impact on output (gross state product) is estimated at more than $600 million, with earnings for direct and indirect employment estimated at over $150 million.

10) Population impacts will depend on the extent to which the existing labor force can meet the increase in employment demand stimulated directly and indirectly by the industrial park development. Assuming that 1,500 workers can be recruited from the existing labor force in Saratoga, Warren and Washington Counties, induced population growth is estimated at over 4,500 persons.

This expansion of population will increase enrollment of area schools. Since the impact is expected to be diffused across at least six districts, the enrollment will have relatively small impact on any single district.

11) The beneficial fiscal impact of the proposed action on the Town of Moreau could be substantial. Given present tax rates in the town, site development would represent annual tax revenue of about $153,000.

PROPERTY TAX IMPACT OF PROPOSED INDUSTRIAL PARK--FULL BUILDOUT		
Estimated assessed value (AV):		$32,969,466
TAX JURISDICTION	RATE PER $1000 AV	INCREASE FROM DEVELOPMENT (EST)
Town	$3.586	$118,229
General O/S	$0.080	$2,638
Highway	$0.992	$32,706
Fire	$0.596	$19,650
School (Hudson Falls)	$19.130	$630,706
TOTAL		$803,927

The revenue generated will help to mitigate the increased community service costs experienced by the town.

12) The proposed development will also generate an increase in sales tax revenue as new earnings become spending in the community. This beneficial impact has been estimated as follows.

ANNUAL SALES TAX IMPACT FROM PROPOSED DEVELOPMENT--FULL BUILDOUT	
Estimated Earnings Subject to Sales Tax	
Direct Impact	$27 million
Induced Impact	$21 million
Total Earnings Subject to Tax	$48 million
Annual Sales Tax Receipts--County	$574,055
Share of Receipts to Town of Moreau	$18,398
Assumes that Saratoga County captures 40% of new sales volume. Also assumes that present distribution system for sales tax remains in place.	
Sales Tax Impact During Construction Period from Proposed Development--Full Buildout	
Estimated Earnings Subject to Sales Tax	
Receipts from Earnings	$20 million
Total Sales Tax Receipts for County	$237,072
Share of Receipts to Town of Moreau	$7,598
Assumes that Saratoga County captures 40% of new sales volume. Also assumes that present distribution system for sales tax remains in place.	

13) Initially, up to five lots may be developed utilizing on-site water supply and wastewater disposal systems. Prior to final subdivision plan approval an on-site test well and percolation tests will be conducted to determine on-site utility capabilities. The prospective owners will be required to conduct appropriate testing and well tests before building permits are issued for each of the five projects. The prospective owner of each lot will also be required to conform to all appropriate NYSDEC, NYSDOH and Town of Moreau requirements for individual on-site water supply and wastewater disposal systems. Due to the limited nature of these developments, potential impacts will not be significant. Subsequent to development of the initial five lots, a central water supply system is proposed for the industrial park. All developed lots within the subdivision will be required to connect to central water and sewer systems, when such systems become available.

14) Since the project proposes to tie into the City of Glens Falls wastewater treatment facility (for domestic needs), which has ample excess capacity, utilization of the excess capacity will not be an adverse impact. The project sponsor has not made a final determination of how it will connect to the Glens Falls system, either across the river or through the South Glens Falls system. The South Glens Falls alternative is preferred although it may not prove to be feasible and as a result both options have been left open. If due to unforseen circumstances neither of these alternatives proves feasible, then an on-site system will be developed.

A final determination of wastewater treatment will be included in the Final Engineering Report. Agencies can appropriately rely on this GEIS for decision-making, as long as adequate capacities are available and no additional adverse impacts are identified. If specific issues are not addressed or are inadequately addressed in the GEIS, additional environmental review will be required.

If an off-site wastewater treatment alternative is chosen and required pipelines follow existing roads and rights-of-way, the action will fall within the scope of this GEIS. However if the required pipelines cannot avoid wetlands and other natural and cultural resources, then additional environmental review will be required.

15) After up to five lots have been developed with on-site water supplies, no further development may take place until a central water supply for the industrial park has been approved. The central water supply alternative for domestic needs favored by the applicant has been to connect to the Village of South Glens Falls water supply system. If this alternative is available, the proposed industrial park will utilize the majority of the alleged excess capacity of the village system since the daily water usage for the industrial park is estimated at .100 mgd average and .150 mgd maximum.

However, the existing Village of South Glens Falls water supply is a limited resource, and it has not been established that the village system has an excess capacity and use of the village system may or may not prove feasible. As a result, a number of water supply alternatives have been left open, including:

- Fort Edward Supply (located in the Town of Moreau)
- On-site Well Supply System
- Expansion of the South Glens Falls Well Supply
- Potential Regional Water Supply - Town of Queensbury

A Supplemental Draft Generic EIS and a Supplemental Final Generic EIS pursuant to 6 NYCRR 617.8 (g)(l) and 6 NYCRR 617.15 (b) may be required before the town approves a source for the central water supply for the industrial park. The final engineering report will describe and evaluate all options to be implemented. The supplemental GEIS must contain data backed up by engineering information to establish that the village has an excess capacity; an analysis of development proposals under consideration or which have

been approved and are un-built inside the village; additional justifications for the calculations of domestic water usage at the industrial park; additional information to demonstrate that fire flows will be adequate throughout the industrial park; an adequate consideration of alternative sources of water supply such as the Town of Queensbury and Fort Edward and the cost factors on each; proposed contractual terms for allocation of water from South Glens Falls, or Fort Edward, or Queensbury. The environmental review should also consider the effect of the allocation of potential excess in the South Glens Falls water supply on the known need of the town for a source of public water supply for approximately 350 existing houses impacted by contamination from the General Electric Superfund site and undeveloped land in the dead zone of approximately 1100 acres.

Other identified water supply needs of the town include those associated with providing a source of public water supply to the area impacted by the General Electric Superfund Site. It has been estimated that the General Electric Superfund Site has negatively impacted the water supply of approximately 350 houses impacted or potentially impacted in the Willow Street-Jamaica Road areas, and that the plume of contamination prevents development in a dead zone of approximately 1100 acres overlying the contaminated plume (C.A. Rich...). The town should not be financially responsible for providing a clean water supply to the residents whose wells have been damaged by General Electric or to the undeveloped areas where the aquifer has been contaminated by General Electric. The excess capacity from the Village of South Glens Falls water system, if it exists, should be available for beneficial new development and a source of public water supply in the contaminated areas of the town, as well as to allow for full build-out inside the village.

The extent of development approved with the Final Subdivision Plan will be limited by the amount of water proven to be available for supplying the developed industrial park. The allocation of available municipal water resources to serve the domestic needs of the Moreau Industrial Park, as will be considered in the supplemental GEIS, may be an acceptable use of these resources even though other uses have also been identified.

It is understood that public water supply permits will be required by NYSDEC and NYSDOH, and the Town of Moreau. Since the Town Board will be required to sign off on any application to NYSDEC or NYSDOH for a source of public water supply to the industrial park, the Town Board will continue its jurisdiction as lead agency over the Supplemental EIS for the source of public water supply.

16) Traffic generated by the proposed industrial park will impact area roadways. The project proposes to mitigate potential traffic impacts by improving area roadways, through signalization and other intersectional improvements that are anticipated to cost approximately $300,000 and include:

DETAIL OF INTERSECTIONAL ROADWAY IMPROVEMENTS				
INTERSECTION	A - SISSON RD 1-WAY PHASE I,1995	PHASE II,2000	B - SISSON RD 2-WAY PHASE I,1995	PHASE II,2000
Site Rd & Bluebird Rd	No Signal EB RTL into Site L=100+50T	Signal EB RTL into Site L=200+50T	No Signal See "A" I	Signal See "A" II
Bluebird Rd & Ft Edward Rd	No Signal WB LTL=100+50T Widen NE Corner	Signal WB LTL=200+50T WB RTL=100+50T SB RTL=125+50T Widen NE Corner	No Signal Widen NE Corner	Signal See "A" II
Ft Edward Rd & Route 197	No Signal SB RTL=100+50T	Signal SB RTL=200+50T EB LTL=200+50T WB RTL=200+50T	No Signal See "A" I	Signal See "A" II
Sisson Rd & Bluebird Rd	No Signal	Signal or Widen Bluebird Rd to site	No Signal	Signal See "A" II
Sisson Rd & Ft Edward Rd	No Signal Clear NE QUAD	No Signal NB RTL=100+50T Clear NE QUAD	Monitor for Signal Clear NE QUAD	Signal NB. RTL= 100+50T Clear NE QUAD

RTL=100+50T Means right turn lane 100 feet long with 50 foot taper.
LTL=200+50T Means left turn lane 200 feet long with 50 foot taper.
EB=Eastbound, WB=Westbound, NB=Northbound, SB=Southbound, QUAD=Quadrant

The proposed intersectional improvements will bring traffic delays to acceptable levels at most intersections affected. Even though the intersections of Rout 9 and Route 197; Sisson Road and Fort Edward Road; Sisson Road and Bluebird Road; and Bluebird and Fort Edward Road are expected to be at Level of Service D (long traffic delays) after improvements, this level or above is considered acceptable for signalized intersections (according to the 1985 Highway Capacity Manual).

The intersections of Route 9 and Fort Edward Road, and Route 197 and Route 4 are expected to be at Levels of Service E and F (very long and extreme delays) respectively, by full build-out of the proposed industrial park. The Route 197 and Route 4 intersection

is expected to be operating at Level of Service F with or without the proposed site development (NYSDOT recently released plans to relocate and realign this intersection, north of the existing location). The Site Drive and Bluebird Road intersection is expected to be at Level of Service B, short traffic delay, at full project build-out.

The above mitigation measures minimize potential impacts to the maximum extent practicable.

17) Since the project site is located in an archaeologically sensitive area, there is some potential to impact these resources. However this potential has been minimized, since an archaeological investigation has been conducted of the entire site area. Known archaeological resources have been fenced off to avoid further disturbance and if disturbance is necessary further study will be required.

Also as a mitigation measure, the project has proposed the development of a combined historic/recreational trail system. The trial system, available for jogging and walking to all those within the park, will encircle the site and picnic areas will be developed. A foot path will also lead down to the Indian Hollow area and a historical marker designating the significance of this area and Indian Rock will be developed.

18) There will be some impact to air quality as a result of the proposed development. Any construction related impacts will be temporary and short term in nature. Some air quality impacts will be related to increases in traffic, including trucks. However, this increase in traffic will only cause a minor localized increase in air pollutants. Other air quality impacts may be related to specific industries locating on the project site. Industrial related air quality impacts will be addressed as each specific project is presented to the Town of Moreau Planning Board, by each applicable industry.

19) Since the project involves rezoning approximately 163 acres from a residential to an industrial zone, there will be some impact to the existing zoning and land uses in the immediate vicinity of the site. Impacting the existing zoning ordinance is unavoidable, if the project is to be implemented. The impact to surrounding land uses has been minimized by proposed mitigation measures, particularly the conservation easement. This easement, which is at least 100 feet deep, surrounds the entire parcel and will minimize project impact. Traffic related mitigation measures and others (identified throughout the findings statement) will further reduce potential impacts.

The Town Board as lead agency has determined not to accept dedication of a proposed conservation easement consisting of approximately 88 acres in the industrial park. The town may reconsider its decision at any time in the future upon receipt of a complete environmental audit, including a subsurface investigation based on independently acquired information, which is certified to the town. The town as lead agency may require a separate environmental review under SEQRA at that time. Since the town will not accept dedication of the proposed conservation easement, the sponsors of the industrial park

should plan for some other form of ownership of these 88 acres, and the plan will be reviewed by the Planning Board in the Final Subdivision Plan.

20) There will be some impact to existing views and noise in the vicinity of the site. The most significant impacts will be construction related and they will be temporary and generally limited to normal working hours, five days a week. Other noise and visual impacts will be related to the actual industries that will locate in the park and they will be evaluated on an individual basis. The proposed conservation easement will significantly minimize potential impacts to the surrounding community.

CERTIFICATION OF FINDINGS TO APPROVE/FUND/UNDERTAKE

Having considered the Draft GEIS and the Final GEIS, and having considered the preceding written facts and conclusions relied upon to meet the requirements of 6 NYCRR 617.9, this Statement of Findings certifies that:

1. The requirements of 6 NYCRR Part 617 have been met;

2. Consistent with the social, economic and other essential considerations from among the reasonable alternatives thereto, the actions approved are ones which minimize or avoid adverse environmental effects to the maximum extent practicable; including the effects disclosed in the environmental impact statement, and

3. Consistent with social, economic and other essential considerations, to the maximum extent practicable, adverse environmental effects will be minimized or avoided by incorporating as conditions to the decision those mitigative measures which were identified as practicable.

_____

Name of Lead Agency

_____ _____

Signature of Responsible Official | Name of Responsible Official

_____ _____

Title of Responsible Official | Date

_____

Address of Lead Agency

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 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Saratoga Biochar Solutions, LLC. - Carbon Fertilizer Manufacturing Facility - Moreau Industrial Park		
Project Location (describe, and attach a general location map): Moreau Industrial Park (Parcels 50.-4-16 and 50.-4-22) , Moreau, NY (Map Attached)		
Brief Description of Proposed Action (include purpose or need): The Applicant is proposing to construct and operate a Carbon Fertilizer Manufacturing Facility (the "Facility") within the Moreau Industrial Park (Parcels 50.-4-16 and 50.-4-22) that will manufacture carbon fertilizer (a form of biochar) from biosolids at a rate of 720 tons of received biosolids per day. Construction is proposed in three phases over five years. Each phase will be capable of processing 240 tons of received biosolids per day. The Facility includes a fully enclosed building for receiving and handling biosolids as the feedstock for the carbon fertilizer manufacturing process. The Facility requires Site Plan approval by the Town of Moreau Planning Board and issuance of a Solid Waste Management Facility Permit and Air State Facility Permit from the New York State Department of Environmental Conservation (NYSDEC). The development proposes to merge parcels 50.-4-16 and 50.4-22 into a single parcel with access directly from Farnan Road.		
Name of Applicant/Sponsor: Saratoga Biochar Solutions, LLC.	Telephone: 518-391-0566 E-Mail: ray@northeasternbiochar.com	
Address: 26F Congress Street #346		
City/PO: Saratoga Springs	State: NY	Zip Code: 12833
Project Contact (if not same as sponsor; give name and title/role): Raymond Apy, CEO Northeastern Biochar Solutions, LLC	Telephone: 518-391-0566 E-Mail: ray@northeasternbiochar.com	
Address: 26F Congress Street #346		
City/PO: Saratoga Springs	State: NY	Zip Code: 12833
Property Owner (if not same as sponsor): Moreau Industrial Park, LLC	Telephone: 518-461-5139 E-Mail: alan.c.oppenheim@gmail.com	
Address: 269 Ballard Road		
City/PO: Wilton	State: NY	Zip Code: 12831

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, or Village Board of Trustees ☐Yes ☑No		
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	Town of Moreau Planning Board - Site Plan Application	July 2021
c. City, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☑Yes ☐No	City of Glens Falls Wastewater Discharge Permit	September 2021
e. County agencies ☐Yes ☑No		
f. Regional agencies ☐Yes ☑No		
g. State agencies ☑Yes ☐No	NYSDEC Region 5 - Part 360 SWMF Permit, Air State Facility Permit, Construction SPDES	September 2021
h. Federal agencies ☐Yes ☑No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑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):

NYS Heritage Areas:Mohawk Valley Heritage Corridor

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?
M1 - Manufacturing 1

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? Hudson Falls

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

c. Which fire protection and emergency medical services serve the project site?
Moreau Fire Protection (FD026)

d. What parks serve the project site?
None

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)? Industrial - Manufacturing

b. a. Total acreage of the site of the proposed action? 5.89 acres
b. Total acreage to be physically disturbed? 2.35 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 5.89 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: _____ months
ii. If Yes:
- Total number of phases anticipated 3
- Anticipated commencement date of phase 1 (including demolition) Dec month 2021 year
- Anticipated completion date of final phase Dec month 2026 year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

Following approval, Phase 1 will be constructed to achieve 240 tons per day capacity of received biosolids. Phase 2 and 3 will be constructed over the first 5 years of operation to bring the facility to the target manufacturing capacity of 720 tons per day of received biosolids.

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

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
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 1

ii. Dimensions (in feet) of largest proposed structure: 50 height; 303 width; and 222 length

iii. Approximate extent of building space to be heated or cooled: 2,860 square feet

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? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No

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.

_____

_____

i*v.* 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: 10,584 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: Moreau Water District #3
- 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: 1,512 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): _____

Sanitary Wastewater - 25%, Truck Wash - 25%, and Processing - 50%

_____

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

If Yes:

- Name of wastewater treatment plant to be used: City of Glens Falls Wastewater Treatment Plant
- Name of district: Sewer District #1
- 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 2.27 acres (impervious surface)

_____ Square feet or 5.89 acres (parcel size)

ii. Describe types of new point sources. _____

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)?

_____

- 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)

Delivery vehicles during operation.

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

None.

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

Process Emissions from manufacturing process requiring air permit.

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:
- 34,164 Tons/year (short tons) of Carbon Dioxide (CO_2)
- 0.18 Tons/year (short tons) of Nitrous Oxide (N_2O)
- 0 Tons/year (short tons) of Perfluorocarbons (PFCs)
- 0 Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- 0 Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- <25 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): TBD

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

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): Up to 50 truck trips per day (90% rear dump semi trailers; <5% roll-off trucks; <5% single unit box truck)

iii. Parking spaces: Existing 0 Proposed 22 Net increase/decrease 22

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: No new roads proposed.

vi. Are public/private transportation service(s) or facilities available within ½ 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: 1,500 kW/hr (500 kW/hr per phase)

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

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: 7 AM - 5 PM
- Sunday: NA
- Holidays: NA

ii. During Operations:

- Monday - Friday: 24/7 Ops, Deliveries 6 AM-6PM
- Saturday: 24/7 Ops, Deliveries 6 AM-6PM
- Sunday: 24/7 Ops, No Deliveries
- Holidays: 24/7 Ops, No Deliveries

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:

Construction equipment during workday hours will temporarily exceed ambient noise levels during construction.
Noise sources during operations will be indoors and operations are not expected to result in offsite exceedances of 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:

Lighting will be used to to illuminate onsite driving areas consisting of LED wallpack and pole mounted fixtures. Lights will be shielded and directed to prevent offsite dispersion. The nearest building is located approximately 225 feet east of parcel 50.-4-16 across Farnan Road.

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: _____

Biosolids deliveries (6 days/week) during receiving hours (6 AM-6 PM). Manufacturing operations occur 24/7. All biosolids receipt and manufacturing operations occur indoors with advanced odor control systems. The nearest occupied structure is located approximately 225 feet east of parcel 50.-4-16.

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 Sulfuric Acid

ii. Volume(s) 216 Gal per unit time day (e.g., month, year)

iii. Generally, describe the proposed storage facilities:

5,000 gallon sulfuric acid tank located outdoors within secondary containment and accessible for truck loading.

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: TBD tons per Week (unit of time)
- Operation : TBD tons per Week (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: Recycling containers will be maintained during construction to collect recyclables for recycling.
- Operation: Recycling containers will be maintained during operations to collect recyclables for recycling.

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: Waste containers will be maintained onsite during construction that will be serviced weekly by a local hauling company for landfill disposal.
- Operation: Waste containers will be maintained onsite during operations that will be serviced weekly by a local hauling company for landfill disposal.

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): Receiving and thermally treating biosolids to manufacture a "beneficial use" carbon fertilizer.

ii. Anticipated rate of disposal/processing:

- N/A Tons/month, if transfer or other non-combustion/thermal treatment, or
- 30 Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: N/A 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 proposed development is located within the Moreau Industrial Park consisting of industrial use. Undeveloped land within the industrial park and immediate surrounding area is predominantly forest.

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0	2.27	+2.27
• Forested	2.6	1.5	-1.1
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	3.29	2.12	-1.17
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• 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): 546031

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

Site 546031 is the Hudson River PCB Sediments, a Class 2 State Superfund Site. The Hudson River is located approximately 1,300 feet east of parcel 50.-4-16.

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? >6.5 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: Loamy Sand (WnB) 100 %
_____ _____%
_____ _____%

d. What is the average depth to the water table on the project site? Average: >6.5 feet

e. Drainage status of project site soils:
☐ Well Drained: 100 % of site
☐ Moderately Well Drained: _____% of site
☐ Poorly Drained _____% of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: 100 % of site
☐ 10-15%: _____% 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 _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ 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: _____

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: Principal Aquifer

m. Identify the predominant wildlife species that occupy or use the project site:
Typical suburban wildlife

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ 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:
- 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? ☐ Yes ☑ 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? ☐ Yes ☑ No

If Yes:
i. Species and listing: _____

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ 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? ☐ Yes ☑ No
If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No
i. If Yes: acreage(s) on project site? _____
ii. Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ 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? ☐ Yes ☑ No
If Yes:
i. CEA name: _____
ii. Basis for designation: _____
iii. Designating agency and date: _____

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 fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Mohawk Valley Corridor

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): NYS Designated Heritage Area

iii. Distance between project and resource: 0 (includes entire county) 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.

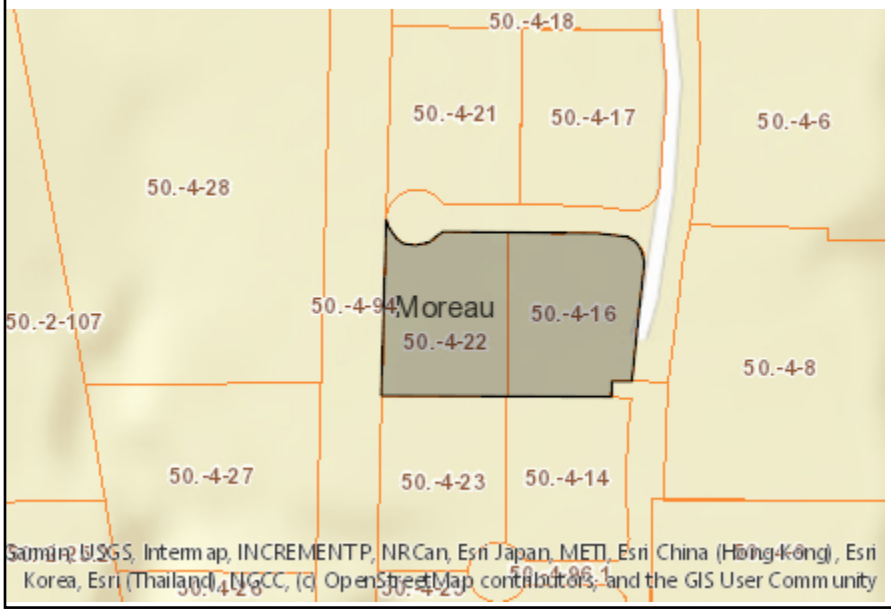
Applicant/Sponsor Name RAYMOND H. APY Date JULY 1, 2021

Signature Raymond H. Apy Title PRESIDENT

PRINT FORM

EAF Mapper Summary Report

Monday, June 28, 2021 3:54 PM



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]	NYS Heritage Areas:Mohawk Valley Heritage Corridor
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]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	546031
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	No
E.2.h.iii [Surface Water Features]	No
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.j. [100 Year Floodplain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.k. [500 Year Floodplain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.l. [Aquifers]	Yes

E.2.l. [Aquifer Names]	Principal Aquifer
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]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
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

ENGINEERING REPORT
APPENDIX C

OPRHP CORRESPONDENCE

OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
NEW YORK STATE
Bernadette Castro
Commissioner

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189 518-237-8643

August 11, 2000

Jay I. Kalter
Vice President
Moreau Park, Inc.
200 Erie Boulevard West, B-1
Syracuse, New York 13202

Dear Mr. Kalter:

Re: SEQRA
Moreau Industrial Park
Moreau, Saratoga County
95PR1690

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the end-of-field letter summarizing the archeological investigations for the Moreau Industrial Park project in accordance with the New York State Parks, Recreation and Historic Preservation Law, Section 14.09.

Based upon this review, the OPRHP approves the end-of-field letter. No further archeological fieldwork is warranted and in the opinion of the OPRHP the project can proceed to construction. This determination is based upon the understanding that a final report of the archeological work will be submitted to the OPRHP no later than August, 2001, and that subsequent to that date arrangements will be made for the appropriate curation of the archeological collections from the sites.

When responding please be sure to refer to the OPRHP project review (PR) number noted above. If you have any questions, please feel free to call me at (518) 237-8643 ext. 3255.

Sincerely,

Robert D. Kuhn
Assistant Director

RDK:bsd

cc: Harry Gutheil, Jr.
Edward Curtin

OFFICE OF PARKS · RECREATION · HISTORIC PRESERVATION
NEW YORK STATE
Bernadette Castro
Commissioner

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189 518-237-8643

January 7, 2002

Jon A. Kelley
Senior Vice President
Saratoga Economic Development Corp.
28 Clinton Street
Saratoga Springs, New York 12866-2110

Dear Mr. Kelley:

Re: SEQRA
Moreau Industrial Park
Moreau, Saratoga County
95PR1690

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have received the Final Report for the Moreau Industrial Park Archaeological Data Recovery Project from Consulting Archaeologist Edward V. Curtin and reviewed the report in accordance with the New York State Parks, Recreation and Historic Preservation Law, Section 14.09.

Based upon this review, the OPRHP accepts and approves the final report. This work represents a major contribution to the archaeology of the upper Hudson region. The consultant should be commended for the quality of the work. Moreau Park, Inc., the Saratoga Economic Development Corporation, and the Town of Moreau also deserve recognition for their commitment and support for this project. OPRHP will be distributing the additional copies of the report to the New York State Library and other college and university libraries across the state so that this research will be available to the general public, archaeologists, and other researchers.

OPRHP concurs with the recommendations of the report. It would be unfortunate if this important archaeological investigation were allowed to go unnoticed and we certainly support efforts to disseminate this information to the public. Local presentations of the project results within the school system or in conjunction with a town or local historical society event would be highly recommended. In addition, the artifact collection should be professionally curated at an appropriate museum or institution. OPRHP would recommend either the New York State Museum or Skidmore College.

If you have any questions, please feel free to call me at (518) 237-8643 ext. 3255.

Sincerely,

Robert D. Kuhn
Assistant Director

RDK:bsd

cc: E. Curtin
J. Kalter, Moreau Park
H. Gutheil, Town of Moreau

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printed on recycled paper

APPENDIX D

BIOSOLIDS BENCH TEST COMPOSITION DATA

ANALYTICAL CHEMISTS
and
BACTERIOLOGISTS
Approved by State of California

SOIL CONTROL LAB

42 HANGAR WAY
WATSONVILLE
CALIFORNIA
95076
USA

TEL: 831-724-5422
FAX: 831-724-3188
www.controllabs.com

Account #: 1050509-1/1-10865
Group: May21C #56
Reporting Date: June 4, 2021

Element Carbon Hudson Ventures, LLC
20 Riviera Lane
Sunrise Beach, MO 65079
Attn: Bryce Meeker

Date Received: 21 May. 21
Sample Identification: Zion Dried Biosolids
Sample ID #: 1050509 - 1/1

Nutrients-Primary + Secondary	Units	Wet wt. Basis	Dry wt. Basis	TMECC Method
Total Nitrogen:	%	5.5	5.8	4.02-D
Ammonia (NH_4-N):	mg/kg	730	760	4.02-C
Nitrate (NO_3-N):	mg/kg	7.2	7.6	4.02-B
Organic Nitrogen (Org.-N):	%	5.4	5.7	Calc.
Phosphorus (as P_2O_5):	%	4.3	4.5	Calc.
Phosphorus (P):	mg/kg	19000	20000	4.03-A
Potassium (as K_2O):	%	0.49	0.52	Calc.
Potassium (K):	mg/kg	4100	4300	4.04-A
Calcium (Ca):	%	1.6	1.7	4.05
Magnesium (Mg):	%	0.47	0.49	4.05
Sulfate (SO_4):	mg/kg	220	230	4.12-D/IC
Nutrients - Trace elements				
Copper (Cu):	mg/kg	230	240	4.05-Cu
Zinc (Zn):	mg/kg	380	400	4.05-Zn
Iron (Fe):	mg/kg	7500	7900	4.05-Fe
Manganese (Mn):	mg/kg	400	420	4.05-Mn
Boron (B):	mg/kg	7.9	8.3	4.05-B
Salts, pH, Bulk Density, Carbonates				
Sodium (Na):	%	0.11	0.11	4.05-Na
Chloride (Cl):	%	0.064	0.067	04.05/IC
pH Value:	units	5.86	NA	04.11-A
Electrical Conductivity (EC5 dw):	mmhos/cm	NA	3.3	04.10-A
Bulk Density :	lb/cu ft	42	40	SCL
Carbonates (as $CaCO_3$) :	lb/ton	9.9	10	04.08-A
Organic Matter:	%	80.5	84.2	05.07-A
Organic Carbon:	%	43	45	4.01
Ash:	%	15.1	15.8	3.02
C/N Ratio	ratio	7.76	7.76	calc.
Moisture:	%	4.36	0	3.09
AgIndex	ratio	> 10	> 10	SCL

To Calculate lbs/ton: (%Nutrient) x (20)
To Calculate lbs/ton: (mg/kg Nutrient/10,000) x (20)
To Calculate lbs/cu yd: (%Nutrient/100) x B.D. x 27
To Calculate lbs/cu yd: (mg/kgNutrient/1,000,000) x B.D. x 27

Analyst: Assaf Sadeh

ANALYTICAL CHEMISTS
and
BACTERIOLOGISTS
Approved by State of California

SOIL CONTROL LAB

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Account #: 1050509-1/1-10865
Group: May21C #56
Reporting Date: June 4, 2021

Element Carbon Hudson Ventures, LLC
20 Riviera Lane
Sunrise Beach, MO 65079
Attn: Bryce Meeker

Date Received: 21 May. 21
Sample Identification: Zion Dried Biosolids
Sample ID #: 1050509 - 1/1

Metals

Metals		Results	Units	MDL	% Recovery	Date Tested
Arsenic (As):		8.3	mg/kg dw	1.0	85.8	27 May. 21
Cadmium (Cd):	Less than	1.0	mg/kg dw	1.0	87.3	27 May. 21
Chromium (Cr):		12	mg/kg dw	1.0	82.7	27 May. 21
Copper (Cu):		240	mg/kg dw	1.0	79.6	27 May. 21
Lead (Pb):		11	mg/kg dw	1.0	91.3	27 May. 21
Mercury (Hg):	Less than	1.0	mg/kg dw	1.0	83.5	27 May. 21
Molybdenum (Mo):		7.7	mg/kg dw	1.0	82.2	27 May. 21
Nickel (Ni):		15	mg/kg dw	1.0	83.0	27 May. 21
Selenium (Se):		2.8	mg/kg dw	1.0	87.5	27 May. 21
Zinc (Zn):		400	mg/kg dw	1.0	80.8	27 May. 21
Cobalt (Co)		2.1	mg/kg dw	0.50	83.1	27 May. 21
Total Solids (TMECC 03.09)		96	%	0.05	NA	21 Jul. 21

Pollutant Loading Rate:
Multiply mg/kg dry weight values times 0.0956 to give you kilograms pollutant per 100 metric ton compost as-received based on a moisture content of 4.36 percent.

Method (metals): EPA 3050B / EPA 6010
Method (metals): TMECC 04.12-B / 04.14-A
Method (Mercury Hg) TMECC 04.06 / EPA 7471
Method (Fecal Coliform): Standard Methods 9221E
Method (Salmonella): TMECC 07.02-A

Analyst: Assaf Sadeh

ATTACHMENT 4

FACILITY MANUAL

Sterling Environmental Engineering, P.C.

FACILITY MANUAL

FOR

SARATOGA BIOCHAR SOLUTIONS, LLC
CARBON FERTILIZER MANUFACTURING FACILITY
MOREAU, NY

Prepared For:

Saratoga Biochar Solutions, LLC.
26F Congress Street #346
Saratoga Springs, NY 12866

Prepared By:

Sterling Environmental Engineering, P.C.
24 Wade Road
Latham, New York 12110

October 28, 2021

"Serving our clients and the environment since 1993"

FACILITY MANUAL

FOR

SARATOGA BIOCHAR SOLUTIONS, LLC
CARBON FERTILIZER MANUFACTURING FACILITY
MOREAU, NY

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Figures

Appendices

S:\Sterling\Projects\2020 Projects\Saratoga Biochar Solutions - 2020-20\Reports & Work Plans\Facility Manual\2021-10-28_Saratoga Biochar_Moreau_Facility Manual.docx

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1.0 INTRODUCTION

1.1 General Information

This Facility Manual for the Saratoga Biochar Solutions, LLC (SBS) carbon fertilizer manufacturing facility (hereinafter the "Facility") has been prepared in accordance with 6 NYCRR Parts 360.16 (Permit Application Requirements and Permit Provisions), 360.19 (Operating Requirements), and 362-1 (Thermal Treatment Facilities). This Facility Manual serves as a guide for the efficient, safe, and environmentally sound operation of the Facility.

Effective operation and maintenance of the Facility is imperative to comply with prevailing environmental rules and regulations and the operational requirements of 6 NYCRR Parts 360 and 362-1. The Facility Manual provides methods and procedures for operation of the Facility under routine and emergency conditions. Also included are personnel roles, responsibilities, and training requirements.

Copies of the Facility Manual will be maintained onsite for employees and management and will be modified when necessary to reflect operational or maintenance changes.

1.2 Facility Design and Operation

The Facility is designed to manufacture carbon fertilizer from biosolids and wood waste feedstock with an annual throughput up to 235,200 wet tons of received biosolids and up to 35,280 tons of wood waste. The Facility is designed to be constructed in three phases with each phase consisting of a process line capable of processing up to 10 wet tons per hour of biosolids and up to 1.5 tons per hour of wood waste. Each process line is capable of manufacturing up to 1 ton per hour of Exceptional Quality (EQ) Class A biosolids product (i.e., "carbon fertilizer") in accordance with 40 CFR Part 503 and 6 NYCRR 361. The selected location is on 5.89 acres composed of Tax Parcels 50.-4-16 (3.07 acres) and 50.-4-22 (2.82 acres), on Farnan Road within the Moreau Industrial Park in the Town of Moreau, Saratoga County, New York, owned by Moreau Industrial Park, LLC. A Site Location Map on a United States Geological Survey quadrangle map is provided as Figure 1, and a Site Vicinity Map on an aerial image is provided as Figures 2. Site Plan drawings showing the Facility layout is provided in Appendix A.

The Facility is designed to process biosolids and wood waste feedstock through low-temperature drying and pyrolysis to produce a marketable carbon fertilizer that meets specific end-use requirements. The Facility is subject to a New York State Department of Environmental Conservation (NYSDEC) SWMF permit under 6 NYCRR 362-1 (Thermal Treatment Facilities). There is no incineration or combustion of feedstock involved in the manufacturing process, and the feedstock is limited to biosolids sourced from wastewater treatment plants and wood waste consisting of land clearing debris and/or unadulterated wood, wood chips, or bark from logging operations, pulp and paper production, and wood products manufacturing; unauthorized waste that will not be accepted includes municipal solid waste, construction and demolition debris, friable asbestos-containing material (ACM), mercury-added consumer products, radioactive waste, infectious and regulated medical waste, and hazardous wastes.

All manufacturing activities are conducted indoors, and the Facility is maintained under negative pressure to mitigate potential fugitive odor emissions. All exhaust air is treated through engineered air pollution control devices for particulate, ammonia, sulfur dioxide, and odor control. The Facility operates 24 hours per day, 7 days per week with feedstock deliveries limited to between 6:00 AM and 6:00 PM six (6) days per week (i.e., no deliveries on Sundays or holidays). The operational uptime of the process is expected to be 95% (i.e., 8,322 hours per year) with the balance consisting of scheduled downtime for maintenance.

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2.0 WASTE CONTROL PLAN

2.1 General

This Waste Control Plan has been developed to ensure that Facility employees properly manage all received biosolids and wood waste. The Facility has contracted with an established regional hauling partner, Casella Organics, for a ten-year term plus two five-year extensions to source and transport biosolids to the Facility. As a private merchant facility, the service area and customer base may change over time. The primary service area for biosolids includes regional wastewater treatment plants within New York State and western New England west of the Connecticut River as sourced and contracted by the Facility's contracted waste hauler. The service area may increase or decrease as negotiated arrangements change over time. The primary service area for wood waste is a 50-mile radius from the Facility.

2.2 Materials Handled

Sourced biosolids will have been treated and tested by the source prior to receipt at the Facility in accordance with 6 NYCRR 361-3.6. Based on the regional POTWs, sourced biosolids are anticipated approximately 25% anaerobically digested and 75% aerobically digested and otherwise destined for landfill disposal or incineration. Biosolids destined for landfill disposal in New York must meet criteria contained in 6 NYCRR 363-7.1(j); therefore, the composition of received biosolids will be relatively consistent. The anticipated solids content is an average of 23% with a range of 18 to 32%. For each source of biosolids, the Facility will maintain the following information:

- Name of biosolids generator and quantity received at the Facility.
- Description of generator's biosolids treatment method (e.g., aerobic digestion)
- Description of the biosolids quality including information required by 6 NYCRR 361-3.6 and analytical results of the biosolids for the analytes contained in Table 1 of 6 NYCRR 361-3.9.

Sourced biosolids must not exceeds the following pollutant concentrations listed in Table 6 of 6 NYCRR 361-3.9:

Source Biosolids Maximum Pollutant Concentration

Parameter	Maximum Concentration (mg/kg, dry wt)
Arsenic	41
Cadmium	10
Chromium (total)	1,000
Copper	1,500
Lead	300
Mercury	10
Molybdenum	40
Nickel	200
Selenium	100
Zinc	2,500

Wood waste feedstock is an optional minor feedstock component that is not required for processing biosolids. Wood waste is to be sourced from local municipalities, counties, and wood waste generators, and consists only of land clearing debris and/or unadulterated wood, wood chips, or bark from logging operations, pulp and paper production, and wood products manufacturing.

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2.3 Unauthorized Wastes

The Facility only receives biosolids and wood waste that is sourced and delivered by haulers. No unsolicited loads will be accepted. Agreements with source wastewater treatment plants include Terms and Conditions that specifically list acceptable condition of biosolids that are accepted. Only loads of biosolids coordinated by the hauling partner will be received at the Facility. Independent haulers attempting to enter the Facility will be rejected.

Non-accepted items are considered unauthorized waste, including municipal solid waste (MSW), construction and demolition debris, friable asbestos-containing material (ACM), mercury-added consumer products, radioactive waste, infectious and regulated medical waste, and hazardous wastes. Any material not permitted for handling at this Facility will be rejected. Facility personnel are trained to recognize, remove, segregate, and report all unauthorized solid waste in accordance with this Plan. Unauthorized waste specifically includes the following:

- MSW
- Source separated recyclables
- Construction and demolition waste
- Bulky goods (appliances, large furniture, white goods)
- Hazardous wastes
- Tires
- Liquid wastes
- Friable asbestos containing material
- Medical wastes
- Dead animals
- Radioactive or special wastes
- Batteries
- Oil
- Paint
- Compressed gas containers
- E-wastes
- Mercury containing products

Conspicuous signs at the Facility entrance remind delivery drivers of acceptable waste and that delivery is by contract only.

2.4 Unauthorized Waste Detection

The evaluation of waste begins with the hauling partner sourcing biosolids from regional wastewater treatment plants. Only sources with biosolids meeting specific criteria will be contracted for management at the Facility. Due to acceptance of strictly biosolids and wood waste from only contracted sources, the occurrence of unauthorized waste is expected to be minimal.

Biosolids are unloaded in the biosolids receiving area, and each load passes through a scalping grate to separate and remove any oversized material. Wood waste is unloaded on the concrete surface of the wood waste receiving and storage area for visual inspection before being moved into storage bunkers with a wheeled bucket loader or similar piece of mobile equipment. The unloading process of all material is visually inspected by personnel with necessary training and experience to identify unauthorized waste. Facility personnel are trained in the recognition, management, and reporting procedures for prohibited wastes. At least one employee is onsite at all times that has the knowledge and ability to recognize different forms of unauthorized waste that may be received and is able to execute proper procedures for managing each hazard if encountered.

If unauthorized waste is observed within the received load, the Facility Manager will be notified, and the waste will be removed to a designated area for temporary storage and management. Segregated unauthorized waste will be stored in a dumpster or roll-off container for weekly disposal to a properly permitted facility. In no event will hazardous waste be retained onsite for more than 90 days.

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2.4.1 Scale House Inspection

To discourage unacceptable loads from entering the Facility, signs posted at the entrance clearly inform drivers of acceptable waste, that only contracted haulers are accepted, and that all vehicles are subject to random search. All inspections of biosolids loads will occur inside the biosolids receiving area to minimize odor potential. Results of random load inspections is documented on the Random Load Inspection Form provided in Appendix B, kept in a logbook, and the records stored onsite. At least one random inspection will be performed each day material is received.

All vehicles entering the Facility are weighed at the scale to determine the weight of delivered feedstock. Upon entering the scale, a visual inspection is performed to identify suspicious loads and confirm the load is being delivered by a contracted hauler. The scale house computer system will record the following information for each received load:

- Truck number
- Date and time of arrival
- Origin of material
- Weight

Loads that are identified containing unacceptable material or being delivered by a non-contracted hauler will be rejected at the scale and not permitted to proceed to unload.

2.4.2 Radioactive Waste Detection Plan

As required pursuant to 6 NYCRR 362-1.4, a fixed radiation detection unit must be installed at the scale to monitor each incoming load. Only loads with a concentration of radium-226 less than 25 pCi/g can be accepted. Loads with concentrations exceeding the acceptance limit will be rejected and not allowed to proceed to the thermal treatment building. The NYSDEC Regional Materials Management Engineer must be notified within 24 hours of all documented radiation exceedances, including the date, time, customer name, and truck number. Records must be kept of each instance in which the radiation detector is triggered. Recorded information will include the date of the incident, transporter name, origin of the waste, truck number, detection reading, disposition of the waste, and date of disposition.

The radiation detection unit setpoint will be between two and five times the background radiation level, and the background site radiation will be determined by daily readings. The detection unit will be calibrated at least annually, or more frequently according to manufacturer recommendations. During normal use, the radiation unit will be field checked weekly with a known radiation source. All Facility personnel involved in scale house operations will be properly trained in the operation of the detection unit as recommended by the manufacturer and as required by applicable State and Federal laws.

2.5 Unauthorized Waste Handling

Due to acceptance of strictly biosolids from contracted sources, the occurrence of unauthorized waste is expected to be minimal. In the event that unauthorized waste is detected after being unloaded, the following procedures will be followed:

2.5.1 MSW, Tires, Industrial Waste, C&D, etc.

1. Safely remove unauthorized item from current operations according to approved training.
2. Direct the hauler, if still onsite, to reload the unauthorized item.

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3. If hauler is no longer onsite, notify hauler to return and remove the unauthorized item. If hauler declines, handling and disposal charges will be assessed.
4. Complete an Unauthorized Waste Incident Form (Appendix C).
5. Submit completed form to the Facility Manager and retain in the Facility office.

2.5.2 Asbestos

1. Halt operations in the current work area. Safely remove unauthorized item from current operations according to approved training.
2. Contact the Site Supervisor.
3. Direct the hauler, if still onsite to reload the unauthorized item.
4. If hauler is no longer onsite, notify hauler to return and remove the unauthorized item. If hauler declines, handling and disposal charges will be assessed.
5. Place unauthorized waste in a safe container for proper disposal by an appropriately licensed company.
6. Fill out an Unauthorized Waste Incident Form (Appendix C).
7. Submit complete form to the Facility Manager and retain in the Facility office.

2.5.3 Hazardous or Unknown Waste

1. Halt operations in the current work area.
2. Contact the Site Supervisor. If unauthorized waste poses an immediate threat to health and safety, evacuate the area and call 911.
3. Direct the hauler, if still onsite and safe to do so, to reload the unauthorized item.
4. If hauler is no longer onsite, notify hauler to return and remove the unauthorized item. If hauler declines, handling and disposal charges will be assessed.
5. Contact NYSDEC hotline (1-800-457-7362) to determine corrective actions. The container must be kept closed, and must be labeled with the words, "Hazardous Waste," the type of waste, the hazardous waste ID number, and the date accumulated onsite.
6. Notify the hauler of the offense and inform of corrective actions to be taken.
7. Contact an appropriately licensed company for proper response and disposal.
8. Fill out an Unauthorized Waste Incident Form (Appendix C).
9. Submit complete form to the Facility Manager and retain in the Facility office.

Records of each incident of unauthorized waste detection will be documented with the following information on an Unauthorized Waste Incident Form (Appendix C):

- Date and time
- Description of the waste
- Contact and vehicle information for the transporter that delivered the waste.
- Contact information for the generator of the waste, if known.
- Description of the response action and final disposition of the waste.

Incidents of unauthorized waste must be summarized in the Facility Annual Report to the NYSDEC.

2.6 On-Call Response

If unauthorized waste is received that requires special handling (e.g., petroleum, hazardous waste), a qualified on-call response contractor will be retained, such as the following:

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On-Call Response Contractors	
Organization	**Contact Information**
Heritage Environmental	877-436-8778
Clean Harbors	518-434-0149
Miller Environmental Group	518-465-4000

3.0 OPERATIONS AND MAINTENANCE PLAN

Whenever the Facility is in operation, the following must be on site and available for review:

- The current NYSDEC Solid Waste Management Facility Permit. (insert in Appendix D)
- The current NYSDEC State Facility Air Permit (insert in Appendix D)
- The most recent Facility Annual Report (insert in Appendix E).
- The current Engineering Report and this Facility Manual.

3.1 Control Measures

Control measures are implemented as necessary precautions for Facility operations to occur in a safe, environmentally sound manner. Specific control measures for identified areas of concern set forth in 6 NYCRR Part 360 are addressed in the following sections.

3.1.1 Facility Inspections

Routine daily inspections are performed each morning prior to opening the Facility for acceptance of feedstock deliveries. Critical operations and safety devices are checked and documented on the Daily Facility Inspection Form (Appendix F). Daily inspections verify operations are in conformance with the applicable sections of 6 NYCRR Parts 360 and 362-1, and the provisions of this Operations and Maintenance Plan (O&M Plan). The following areas are reviewed during the daily inspections:

- Carbon Manufacturing Building
    - Condition of working areas (i.e., biosolids receiving area, process input and storage area, carbon manufacturing area, carbon storage and loadout area).
    - Operation of truck doors and truck wash area.
    - Condition of and access to emergency equipment.
- Wood Reception/Storage Area
    - Condition of working areas.
    - Condition of dedicated equipment.
- Exterior Grounds
    - Presence of litter, dust, odors, vectors, noise, or biosolids tracking.
    - Condition of truck scale.
    - Condition of stormwater management system.

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- Safety Equipment
    - Mobile equipment mirrors, backup alarms, and maintenance records.
    - Employee compliance with required personal protective equipment.
    - Communication systems.

A copy of the Facility's Inspection Form is included as Appendix F. Completed Inspection Forms will be available for review upon request. In the event of community complaints related to Facility operations (e.g., noise, traffic, odor), the Facility Manager will investigate and complete the Complaint Action Form included as Appendix F. The form will document the complaint, results of any investigation, and corrective actions implemented. The NYSDEC Regional Materials Management Engineer will be notified of all received complaints.

3.1.2 Dust and Tracking Control

Dust and tracking of biosolids is controlled by good housekeeping procedures and proper material handling. Loaded trucks entering or leaving the Facility are covered in accordance with applicable laws. Material receiving, handling, and manufacturing activities occur within the enclosed Carbon Manufacturing Building or within the covered wood receiving and storage area. A high-pressure water source is available at the biosolids unloading area to wash the wheels and tailgate of delivery trucks if needed. Wash water is collected through a trench drain for discharge to the sanitary sewer. Dust and biosolids tracking observed on asphalt surfaces on the Facility property or on the roadway will be promptly cleaned up. In the event that complaints of dust or tracking are received, the complaint will be investigated, and appropriate corrective actions implemented.

3.1.3 Insect and Vector Control

Biosolids are received, handled, and processed entirely within the enclosed Carbon Manufacturing Building to prevent infestation by insects, rodents, or other vectors. Delivery trucks enter the building through fast opening and closing garage doors to minimize the amount of time that there is a direct opening into the building. The manufacturing process complies with the pathogen and vector attraction criteria outlined in 6 NYCRR 361-3.7 for the production of an EQ Class A biosolids product. Adequate pathogen and vector reduction will be achieved through heat drying and verified through product testing. In the unlikely event of an insect or vector control problem, a qualified exterminator will be retained.

3.1.4 Odor Control

The Facility is maintained at a negative air pressure at all times to prevent fugitive odor emissions. Interior air is continuously extracted through the air pollution control devices even if carbon manufacturing is not occurring. Truck doors into the Carbon Manufacturing Building are fast opening/closing and only open during biosolids delivery. A natural gas-powered backup generator provides emergency power in the event of a power service failure to continue operating the manufacturing process and air pollution/odor control equipment.

Particulate, ammonia, sulfur dioxide, and odor emissions from the carbon fertilizer manufacturing process are treated through air pollution control systems prior to exhaust to the atmosphere. The receiving area, reception pits, and process area are all maintained under negative pressure to mitigate potential for fugitive emissions. The biosolids receiving area and reception pits are ducted directly into the combustion air intake of the thermal oxidizer. Auxiliary air input into the dryer is ducted directly from the process area. Therefore, all air inside the Carbon Manufacturing Building is maintained under negative pressure induced by the air

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treatment system fans. Even when the manufacturing equipment is not operating, air is continuously pulled through the equipment and the air treatment system to ensure proper odor management at all times.

Air treatment begins with high efficiency dry cyclones that recover most of the particulates from the air stream. After the dry cyclones, fine particulates are removed through multiple venturi heads that cool the air stream to the dew point. The cooled air stream passes through a packed bed wet scrubber where sulfuric acid is introduced to remove ammonia. The effluent from the ammonia scrubber contains ammonium sulfate, which is either discharged as wastewater effluent of recycled into the carbon fertilizer to improve nutrient value. After ammonia removal, the air stream passes through a second packed bed wet scrubber that uses caustic or sodium bicarbonate to scrub sulfur dioxide (SO2) and other odorous compounds. The effluent from the SO2 scrubber is discharged as wastewater effluent. The final component of the air treatment system is a bio-scrubber that consists of two beds packed with microbes to polish the air by removing residual odors and SO2 prior to release to the atmosphere.

Process water from the air treatment system that is not recycled is discharged through a direct sewer connection for treatment at the City of Glens Falls publicly owned treatment works (POTW). The air treatment system and associated process emissions are subject to a State Facility Air Permit. Additional details regarding emissions and air treatment are provided in the air permit application narrative.

During daily operations, the Facility is monitored for odors by the operating staff. If odors are detected outside of the Carbon Manufacturing Building that may migrate offsite, the following information will be recorded: Date, time of day, estimated wind speed and direction, type of odor, strength of odor, and duration. If a complaint is received regarding site odor, the following steps will be taken:

1. The complaint and site information will be reviewed to determine if the Facility is the cause of the odor or if the odor is from a different source.
2. If the Facility is determined to be the source, corrective actions will be implemented to eliminate the odor source through process modifications or other controls.
3. The NYSDEC Regional Materials Management Engineer will be notified of all received complaints.

The Facility must be operated in accordance with a State Facility Air Permit issued by the NYSDEC for process emissions to the atmosphere. A copy of the current permit must be maintained onsite in Appendix D.

3.1.5 Stormwater Management

All industrial activities associated with carbon manufacturing are performed indoors or under cover with no exposure to precipitation. Therefore, coverage is not required under the Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activity. A No Exposure Certification must be filed with NYSDEC every five years certifying that industrial activity is not exposed to precipitation. If Facility operations change such that a No Exposure Certification no longer applies, the Facility must apply for MSGP coverage. A copy of the current No Exposure Certification must be maintained onsite in Appendix D.

3.1.6 Leachate Control

Biosolids are received with solids content of 18 to 32% (average 23% solids content). Trucks permitted to carry biosolids are required to prevent leakage onto driving surfaces. All liquid associated with the biosolids is evaporated in the carbon manufacturing process and does not require separate management. The floor

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and walls of the biosolids reception pit and storage area are solid concrete to prevent leakage or release of liquids as required by 6 NYCRR 361-2 for storage facilities. The receiving and storage area is fully enclosed, not located within a floodplain, and is designed to prevent stormwater runoff from entering the area. No leachate is generated that requires collection and management.

3.1.7 Wastewater Control

Approximately 1,500 gallons per day (gpd) of wastewater will be generated from sanitary wastewater (25%), the truck wash (25%), and processing wastewater (50%). Industrial wastewater is discharged directly to the City of Glens Falls publicly owned treatment works (POTW). Testing of process wastewater, if required, will be performed in accordance with the Facility permit for industrial discharge. A copy of the wastewater discharge permit must be maintained on site in Appendix D.

3.1.8 Biosolids Handling

Biosolids are delivered by licensed haulers using standard hauling trucks with covers that will not require modifications. Delivered biosolids are received inside the Carbon Manufacturing Building, which minimizes fugitive noise and odor emissions. The receiving area is isolated from the process area and is serviced by the air treatment system. Trucks back into the building through quick opening garage doors and tip the biosolids into a recessed reception pit. The reception pit is equipped with a scalping grate to separate and remove any oversized material that may be in a load (e.g., unauthorized waste). The receiving area is slightly pitched to ensure that any spillage is contained within the enclosed building. A high-pressure water source is available to wash the wheels and tailgate of delivery trucks if needed. Wash water is collected through a trench drain and for disposal to the sanitary sewer.

Following biosolids reception, screw conveyors located at the bottom of the reception pit transfer the biosolids across the receiving pit into the Process Input and Storage Area. The receiving pits are sized to provide a combined three-day storage capacity in accordance with NYSDEC regulations (6 NYCRR 362-1.5(b)(3)). Indoor storage of biosolids is necessary to provide sufficient material for continuous operation of the manufacturing process 24 hours per day while only receiving biosolids between 6:00 AM and 6:00 PM Monday through Saturday.

At least once per year, the entire concrete surface of the receiving area and the process input and storage area must be cleaned and inspected for structural deficiencies (e.g., cracks) that may require repair.

3.1.9 Wood Handling

Adjacent to the Biosolids Receiving Area is a covered outdoor receiving and storage area for wood waste feedstock. Wood waste is used as a blending agent with biosolids to control moisture content. Received wood waste will include land clearing debris and/or unadulterated wood, wood chips, or bark from logging operations, pulp and paper production, and wood products manufacturing material. Received wood waste will be stored in bunkers and loaded into the process input using a bucket loader or similar piece of mobile equipment. To ensure consistent particle size, all wood waste material is passed through a grinder to reduce oversized material. A dust hood is located above the grinder to collect any particulate emissions, and the grinder is locally shielded for noise control in a dedicated grinder building.

3.1.10 Residue Management Plan

The Facility implements a specific process to manufacture a marketable Exceptional Quality (EQ) Class A biosolids product in accordance with 40 CFR Part 503 and 6 NYCRR 361. Each process line will produce

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up to approximately 8,322 dry tons of carbon fertilizer annually as agglomerated pellets with a solids content of 95 to 98%. At full buildout, the Facility will produce up to approximately 25,000 tons of carbon fertilizer per year. Carbon fertilizer will be loaded directly into delivery trucks or into approximately one cubic yard sacks.

The carbon fertilizer will be registered as a commercial fertilizer in the State of New York per Article 10 of the Agriculture and Markets Law relating to Sale and Analysis of Commercial Fertilizer. The carbon fertilizer will also be registered and marketed in several neighboring states and in the Midwest.

The consistency of biosolids feedstock ensures a "guaranteed analysis" of the minimum percentage of plant nutrients claimed can be consistently achieved, which is a requirement for registering carbon fertilizer in many states including New York. Testing of the manufactured carbon fertilizer will be in accordance with 40 CFR Par 503 and 6 NYCRR 361-3.9. Each sample for analysis must be a composite of a least five discrete grab samples.

In the event the Facility cannot produce or sell carbon fertilizer that meets the guaranteed analysis, the feedstock agreement with the hauling partner ensures the hauling partner will remove the carbon fertilizer at no charge other than transport. The hauling partner owns composting operations and landfills that can beneficially incorporate the produced carbon fertilizer into their operations.

3.1.11 Roadways and Traffic Control

All truck traffic for biosolids delivery, wood waste delivery, and carbon fertilizer distribution will access the Facility from Farnan Road within the Moreau Industrial Park and will be restricted to delivery hours of 6:00 AM to 6:00 PM Monday through Saturday. The established truck routes are the following as shown on Figure 3:

- From the north, south, and west: Exit Interstate 87 via Exit 17N onto Route 9 north. Turn right onto Route 197. Turn left onto Fort Edward Road north. Turn right onto Bluebird Road east. Turn right onto Farnan at the Moreau Industrial Park entrance. Turn right into the Facility entrance.
- From the east: Follow Route 197 west. Turn right onto Fort Edward Road north. Turn right onto Bluebird Road east. Turn right onto Farnan at the Moreau Industrial Part entrance. Turn right into the Facility entrance.

Access into the Facility is through the constructed entrances from Farnan Road as shown on the Site Plan Drawings included in Appendix A. Delivery vehicles enter the Facility and are directed to the weigh-in scale before being directed to the rear of the Carbon Manufacturing Building to the receiving area. Biosolids delivery trucks back into the Carbon Manufacturing Building through fast opening garage doors to unload biosolids into the reception pit that is isolated from the process area and serviced by the air treatment system. A wash station in the unloading area is available to wash any biosolids from the truck and tires as necessary before exiting the building.

Wood waste delivery trucks are received in the covered outdoor wood waste receiving and storage area. Trucks are tipped onto the concrete floor and visually inspected. Received wood waste is stored in bunkers and loaded into the process input grinder using a wheeled bucket loader or similar piece of mobile equipment. The grinder is in a dedicated housing for noise control and is serviced by an air treatment system for particulate control. After unloading material, empty trucks exit the building and return to the scale to weigh-out. The scale is equipped with a computer system to provide ticket printing and automated recordkeeping.

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All deliveries are made by commercial haulers with rear dump trailers. Produced carbon fertilizer is removed by commercial dump trailers (in bulk) or flatbed trucks (in sacks). Access driveways and onsite driving surfaces are designed to accommodate truck traffic and are maintained in a safe and passable condition. During winter months, snowplowing and ice removal are conducted as needed.

3.1.12 Lighting

The Facility is equipped with pole-mounted and building-mounted lights that are configured so light is not projecting offsite in a manner that could pose a nuisance or deleterious effect. Lights will be replaced as needed to maintain adequate lighting.

3.1.13 Security

Facility access is restricted to the posted hours of operation. Unauthorized access is prevented by fencing, lockable gates, and lockable building doors. The gates to the Facility are locked during non-receiving periods to prevent unauthorized access. All visitors are required to check in at the administrative office and sign the visitor log so an accurate count is maintained of all persons onsite. A conspicuous sign is posted at the site entrance that reads "VISITORS AND UNAUTHORIZED PERSONNEL MUST FIRST REPORT TO THE OFFICE".

3.2 Equipment Maintenance

Facility equipment undergoes routine maintenance according to manufacturer recommendations. Routine maintenance includes:

- Heavy Equipment (e.g., front-end loader): Lubrication, oil changes, fluid levels, hoses and belts. Maintenance will be performed in accordance with manufacturer recommendations and schedule.
- Carbon Manufacturing Equipment: lubrication and maintenance in accordance with manufacturer recommendations and schedule.
- Air Pollution Control Equipment: lubrication and maintenance in accordance with manufacturer recommendations and schedule.
- Administrative Office: cleaning, replace lighting, HVAC system, general repairs.
- Site Exterior: Litter removal, sweeping and washing paved areas, lawn maintenance, stormwater system cleaning.

Copies of equipment manuals and maintenance records must be maintained onsite in the Facility office.

4.0 TRAINING PLAN

4.1 General

Training is essential to the safe operation and maintenance of the Facility. All employees are trained to perform in a manner that will safeguard human health and the environment and be compliant with applicable regulations established by the Occupational Safety and Health Administration (OSHA). The program is also designed to minimize to the greatest extent possible the potential for receiving unacceptable waste. Employee training will be documented on the training form included in Appendix G.

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New employees receive orientation training to familiarize the employee with Facility operations and each employee's specific job role. Additional on-the-job training is implemented whenever a job role is changed or when performance improvements are needed. The Facility Manager is responsible for the instruction and observation of a new employee. At no time will any employee be asked or required to perform any task they lack the required skill or knowledge of proper safety precautions. Employees are trained to recognize potential hazards that exist in the workplace, follow standard safety procedures, and respond effectively to emergencies.

4.2 Facility Staffing

The following positions are assigned to the Facility:

Facility Manager: Responsible for daily operations, scheduling, permit compliance, recordkeeping, supervision of staff and direction of training programs. There will be a Facility Manager on duty during receiving hours.

Site Supervisor: Responsible for personnel supervision and coordination of safety procedures. There will be a Site Supervisor on duty during operating hours.

Facility Operator: Responsible for operation and inspection of carbon manufacturing equipment, air pollution control equipment, and mobile machinery (e.g., front loader). Fully trained in the safe operation and inspection procedures of assigned equipment, and identification and handing of unauthorized waste. At least two Facility Operators will be on duty during operating hours.

Administrative Support: Responsible for operation of the truck scale and preparation and maintenance of facility records. Administrative Support will be on duty during receiving hours.

The number of Facility Operators on site will vary with workload. The anticipated regular facility staffing is between two and six employees. The Facility will not remain in operation without sufficient staffing for safe operation.

4.3 Personal Protection and Safety

Employees will be instructed in the use of protective clothing, hard hats, safety vests, and eye and ear protection. Training will be hands-on whenever possible and will review basic safety rules and the function and limitations of equipment.

4.4 Training Sequence

Employees receive initial and ongoing training according to the following sequence:

1. Initial training will review Facility operations with a focus on each employee's assigned job function. Basic safety and emergency procedures will be emphasized. The training will be conducted by the Facility Manager or designee.

2. Newly hired employees will work closely with the Site Supervisor or designee during the initial week of employment to develop a full understanding of the Facility operations and each newly hired employee's assigned role. Workers will be tutored by a superior on each task or piece of equipment prior to unsupervised work. All employees will receive safety training required by OSHA. Training will review emergency response in the event of a fire, use of communication

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equipment in the event of an emergency, and Facility shutdown procedures. No employee will work unsupervised in a specific job until all related training programs are satisfactorily completed.

3. All employees will be continually trained in general procedures of their job function. Regular training will emphasize procedures to identify and manage unauthorized waste. Employees will be instructed to immediately report any unacceptable waste to the on-duty Site Supervisor. Training will primarily be on-the-job and will be supervised by the Facility Manager. Personnel not performing in conformance with this Facility Manual will receive additional training, disciplinary measures, or be terminated.

4.5 Safety Training

There are employee-related safety mandates established pursuant to New York State Labor Law and Federal OSHA rules and regulations that extend beyond the scope of this Facility Manual. This section clarifies only the Facility policy specifically regarding health and safety issues regarding the operation of the solid waste management facility.

GENERAL SAFETY RULES

Employees are required to maintain a professional demeanor. Running, jumping, shoving, etc. is not allowed.

SAFETY EQUIPMENT/PRECAUTIONS

Employees will be trained in the proper use of the following safety equipment:

- Gloves
- Safety Shoes
- Eye Protection
- Ear Protection
- Hard Hats
- Safety Vests

EMERGENCY EQUIPMENT

Employees are trained in the proper use and location of the following emergency equipment:

- Fire Extinguishers
- Electrical Main Shut Off
- Gas Main Shut Off

EVACUATION ROUTES

Employees are trained in the evacuation routes to safely exit the Facility during emergency conditions. Facility exits are clearly marked. During an evacuation, employees will move to the closest exit and meet at a designated safe location for a head count and further instruction.

SMOKING POLICY

Smoking is strictly prohibited on the entire premise and is not allowed at the Facility.

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5.0 EMERGENCY RESPONSE PLAN

5.1 General

This Facility Manual will be made available to emergency response groups such as the local police and fire department, New York State Police, and Saratoga County Office of Emergency Services. The Site Plan in Appendix A provides a general layout of the Facility for quick access and orientation. A list of emergency coordinators and contact information is posted at the Facility.

At least annually, an onsite familiarization session will be held with first responders to review the Facility layout, equipment, materials stored, and operations.

5.2 Spill Control

In the event of a spill of a petroleum product or hazardous substance, employees are instructed to immediately contact the Facility Manager, or most senior person on the site at the time. The person notified will determine the extent and nature of the spill, and direct remedial efforts, as appropriate. Spill cleanup will not be undertaken unless adequate personal protective equipment and safety measures are implemented. All such equipment will be maintained onsite at a readily accessible location. Spill cleanup activities will be with proper notification to the NYSDEC and will be in accordance with NYSDEC requirements. If necessary, an on-call response contractor will be retained to perform the cleanup.

When a discharge/spill is discovered, contained, and cleaned up, the material and supplies used for cleanup must be disposed. For small spills, onsite spill equipment may be used for cleanup. Once the spill cleanup is complete, a professional spill contractor or waste management company will be contacted to remove and dispose of the spill materials.

For large spills, a spill response contractor will be contacted to respond to the spill emergency. The spill contractor will clean up the spill, remove the waste from the site, and dispose of the waste materials in the proper manner required by law.

Should a spill occur, the circumstance will be evaluated to determine the cause of the spill and to review the corrective or preventive measures taken to ensure that these actions are adequate to prevent the incident from being repeated.

Immediately after a spill has been detected, proper notifications will be made. All petroleum spills will be reported to the NYSDEC Spill Hotline (1-800-457-7362) within two hours of discovery, except spills which meet each of the following criteria:

1. The quantity is known to be less than five gallons.
2. The spill is contained and under the control of the spiller.
3. The spill has not and will not reach the State's water or any land. Spills on dirt or gravel are considered to have reached land. Spills occurring on asphalt or concrete have not reached land.
4. The spill is cleaned up within two hours of discovery.

5.3 Equipment Breakdown

In the event of equipment breakdown, equipment will either be repaired or replaced. Breakdown of mobile equipment can be mitigated through temporary equipment rental or lease, if needed. Service contracts are

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in place for all mechanical and safety equipment that are not maintained by Facility personnel. During extensive breakdown and any other emergency, receipt of incoming material will cease. The Facility storage area is sufficiently sized to continue receiving material throughout the remainder of a receiving day in the event of a breakdown to the carbon manufacturing equipment while repairs are made.

5.4 Fire and Emergency Services

Facility personnel are trained in emergency shutdown procedures, evacuation routes, and the location and use of first aid and firefighting devices (e.g., fire extinguishers). In the case of an emergency, material receipt and handling will cease immediately, and personnel will follow established evacuation routes to a designated safe assembly location. The Facility Manager or Site Supervisor will perform a head count with the employee attendance sheet and the visitor's log to confirm all persons are accounted for. Re-entry to Facility buildings will be authorized by the Facility Manager only after a determination has been made that the conditions are safe.

There is combustion potential associated with the storage of produced carbon fertilizer. Produced fertilizer is slightly moistened during storage to reduce combustion potential. A fire suppression system is installed in the carbon fertilizer storage area for automated response actions in the event a fire is detected.

5.5 Natural Disasters

In the event of formal warnings during non-receiving hours issued by weather monitoring services (e.g., tornado warning by National Weather Service), the Facility will remain closed to receiving until such warning is terminated. If a warning is issued during Facility receiving hours, material receipt will cease immediately. In both instances, material handling and carbon manufacturing will cease immediately and personnel will evacuate to an interior meeting location where the Facility Manager will perform a head count with the employee attendance sheet and the visitor's log to confirm all persons are accounted for.

In the event of a natural or manmade disaster that requires increased solid waste management services, the Facility will work within the permitted operating capacity to accommodate the need in addition to regular customers. As described in 6 NYCRR 360.16(c)(4)(iv)(b), the Facility will request to temporarily increase capacity, as authorized by NYSDEC, to assist in emergency response/cleanup efforts.

5.6 Communication

Facility personnel communication is verbal with the assistance of two-way radio devices and cellular phones. When appropriate, hand signals are used such as when equipment operating noise prohibits the use of verbal communication.

6.0 EMERGENCY RESPONSE CONTACTS

The following emergency contact and telephone numbers will be posted at the site.

Emergency Directory

Emergencies (Fire, Medical, Safety)	911
NYSDEC Spill Notification:	(800) 457-7362

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NYSDEC Region 5 Materials Management:	(518) 623-1200
On-Call Response Contractors	
Heritage Environmental	877-436-8778
Clean Harbors	518-434-0149
Miller Environmental Group	518-465-4000

7.0 NOISE MONITORING AND CONTROL PLAN

Operating requirements for noise are subject to the following noise standards contained in 6 NYCRR Part 360.19(j):

> *The owner or operator of a facility must ensure that noise resulting from equipment or operations at the facility does not exceed the following energy equivalent sound levels beyond the property line owned or controlled by the owner or operator of the facility at locations authorized for residential purposes:*

Character of Community (within 1 mile radius)	***Leq Energy Equivalent Sound Levels***	
	7 a.m.-10 p.m.	*10 p.m.-7 a.m.*
Rural	*57 decibels (A)*	*47 decibels (A)*
Suburban	*62 decibels (A)*	*52 decibels (A)*
Urban	*67 decibels (A)*	*57 decibels(A)*

Based on the population density of the Town within a 1-mile radius of the Facility, suburban noise restrictions apply, which limit the maximum sound level to 62 decibels (dBA) from 7:00 AM to 10:00 PM and 52 dBA from 10:00 PM to 7:00 AM as measured beyond the Facility property line at the closest location authorized for residential purposes (i.e., closest potential receptor). The Facility property and immediate surroundings is zoned "General Manufacturing & Industrial" and the closest residential zoned property is approximately 750 feet southwest of the southwestern property line (See Figure 2).

A Noise Assessment included in the Facility Engineering Report demonstrates expected compliance with operating requirements in 6 NYCRR 360.19(j); therefore, a Noise Monitoring and Control Plan is not required. If a noise complaint is received, the Facility Manager will investigate the complaint, notify the NYSDEC Regional Materials Management Engineer, and implement corrective actions, if necessary. At least annually, a noise survey will be performed to demonstrate compliance with operating standards unless a waiver is obtained from NYSDEC.

8.0 CLOSURE PLAN

When the Facility ceases operation, any remaining feedstock will be processed into carbon fertilizer and the product shipped to end users. Salvageable equipment will be resold or scrapped and the Facility will be cleaned.

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Notice will be sent to the NYSDEC 30 days prior to the anticipated final date that the Facility will receive biosolids and wood waste for carbon fertilizer manufacturing. Within 30 days after receiving the final material, an annual report will be submitted to NYSDEC. Within 60 days after receiving the final material, any remaining biosolids and wood waste that are processed will be removed from the Facility for offsite management at a permitted Facility. All closure activities will be completed within 90 days after receiving the final material.

NYSDEC must be notified within 7 days of the completion of closure activities that closure is complete. The NYSDEC or an acceptable agent may arrange to inspect the site to determine if closure is complete of if additional work is required.

8.1 Financial Assurance

In accordance with 6 NYCRR 362-1.5, the Facility must maintain financial assurance in an amount sufficient to cover the cost of closure. The provided closure cost estimate is for the full buildout of the Facility. Based on the phased construction approach, the closure cost and corresponding financial assurance should be pro-rated for the number of phases constructed and operating. The estimated closure cost is as follows:

8.2 Closure Cost Estimate

A closure cost estimate for the Facility is estimated as follows:

Item	Description	Quantity	Unit Price	Cost
1	Wet Biosolids removal	2,160 tons	$105	$226,800
2	Dry Biosolids removal	30 tons	$105	$3,150
3	Wood Feedstock Removal	20 tons	$105	$2,100
4	Carbon Fertilizer removal	504 tons	$30	$15,120
5	Equipment Disconnection and Removal	1 Lump Sum	$101,000	$101,000
6	Facility Cleaning	1 Lump Sum	$10,000	$10,000
			SUBTOTAL:	**$358,170**
			Contingency @ 10%:	**$35,817**
			TOTAL:	**$393,987**

Notes (by Item Number):

1 Assumes three days of stored wet biosolids. Unit price includes loading, transportation, and landfill disposal. Under planned closure, all biosolids will be processed through normal facility operations such that no unprocessed wet biosolids will require management for disposal.

2 Assumes three process lines are shut down with full capacity of biosolids requiring disposal. Unit price includes loading, transportation, and landfill disposal. Under planned closure, all biosolids will be processed through normal facility operations such that no unprocessed wet biosolids will require management for disposal.

3 Allowance for wood feedstock removal. Unit price includes loading, transportation, and disposal. Under planned closure, all wood waste will be processed through normal facility operations such that no unprocessed wood will require management for disposal.

3 Assumes maximum seven days of stored carbon fertilizer. Unit price includes loading and transportation. Management cost includes transportation only due to beneficial use value of carbon fertilizer.

4 Cost based on representative estimate for equipment delivery and installation assuming similar effort for disconnection and removal.

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5 Allowance for dry sweep cleaning of Facility interior and exterior.

9.0 REPORTING AND RECORDKEEPING

9.1 Daily Operational Records

The following records must be maintained:

- Daily operating record of the quantity of biosolids received. Records are generated by the scale record system and include time, gross and net weights (in tons), source of feedstock, name and number of delivery truck, results of load inspections, identification of unauthorized waste, and any rejected loads.
- Daily operating record of the quantity of biosolids and wood waste that is processed and the quantity of carbon fertilizer produced.
- Routine inspection logs that include the date and time of inspection, name of inspector, description of inspected areas, observations, and required remedial actions.
- Results of material tests, including feedstock moisture content and manufactured product samples.
- Personnel training records.

9.2 Annual Reports

Annual reports are prepared and filed in accordance with 6 NYCRR 360.19(k)(3) by March 1st of each year for the previous calendar year. A blank annual report form is included in Appendix E.

9.3 Tracking Documents

Tracking documents are used for all materials being shipped to and from the Facility. The document will record the material source, type, quantity, name of hauler, shipment date, and the final destination. The hauler and receiving facility operator sign the tracking document upon arrival at the destination.

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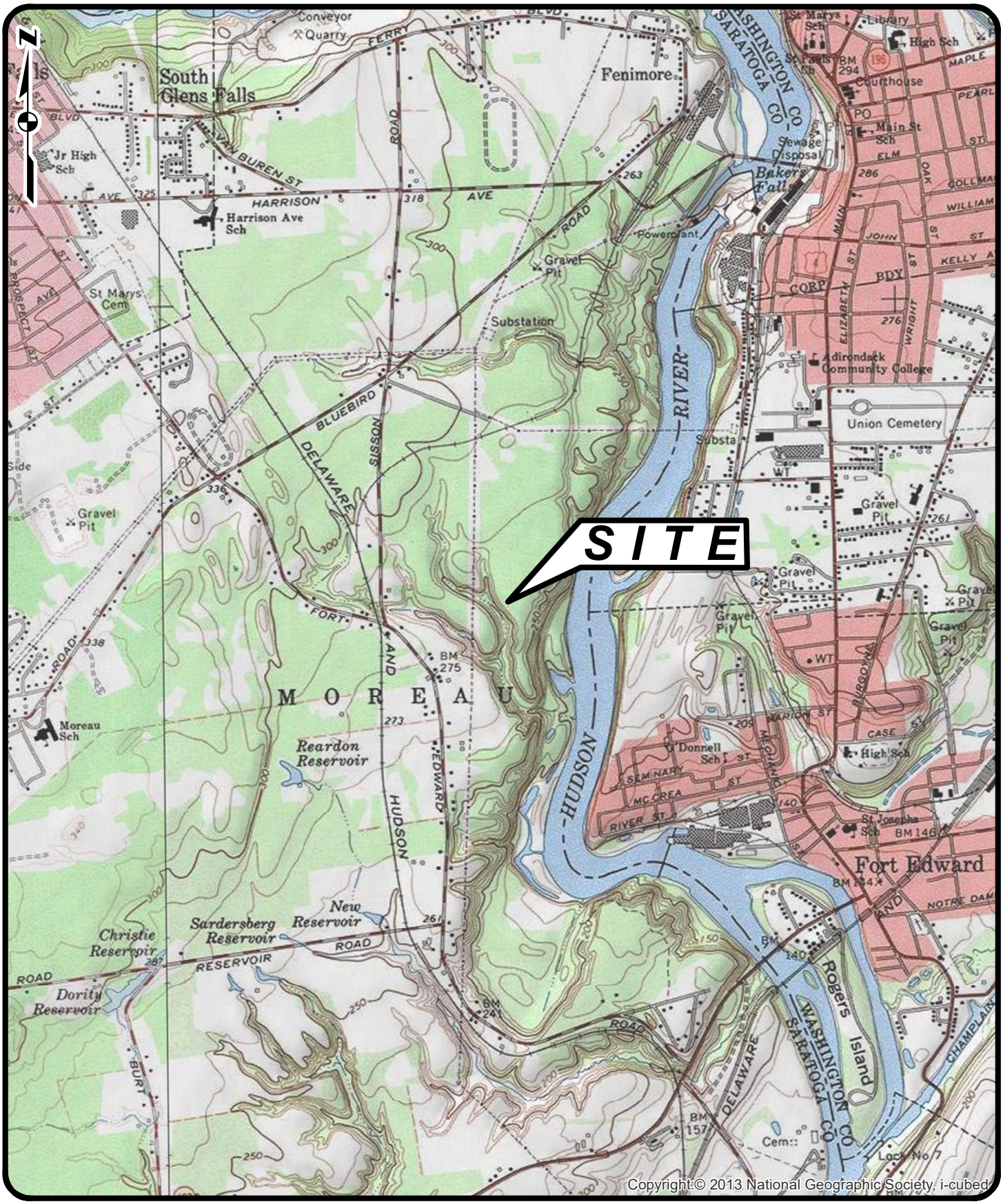
FIGURES



S:\Sterling\Projects\2020 Projects\Saratoga Biochar Solutions - 2020-20\Drawings-Maps-Figures\GIS\2020-20001G- FIG 1 SITE LOC MAP.mxd\

STERLING

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24 Wade Road • Latham, New York 12110

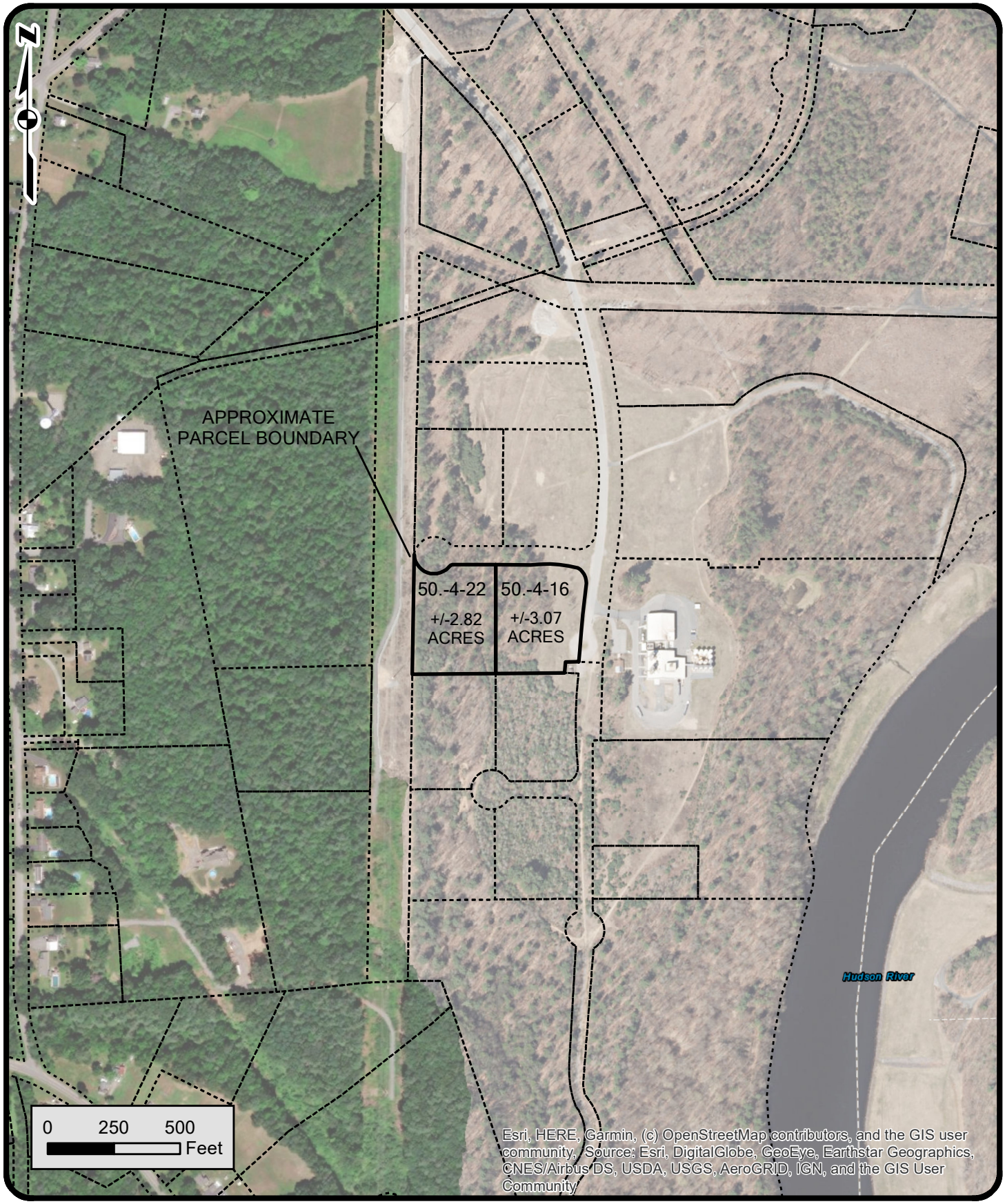
SITE LOCATION MAP

SARATOGA BIOCHAR SOLUTIONS, LLC

CARBON FERTILIZER MANUFACTURING FACILITY

TOWN OF MOREAU — SARATOGA CO., NY

PROJ.NO. 2020-20	DATE: 10/25/2021	SCALE: 1 " = 2,000 '	DWG.NO. 2020-20001G	FIGURE 1



S:\Sterling\Projects\2020 Projects\Saratoga Biochar Solutions - 2020-20\Drawings-Maps-Figures\GIS\2020-20003G- FIG 2 SITE LAYOUT.mxd\

STERLING

Sterling Environmental Engineering, P.C.

24 Wade Road • Latham, New York 12110

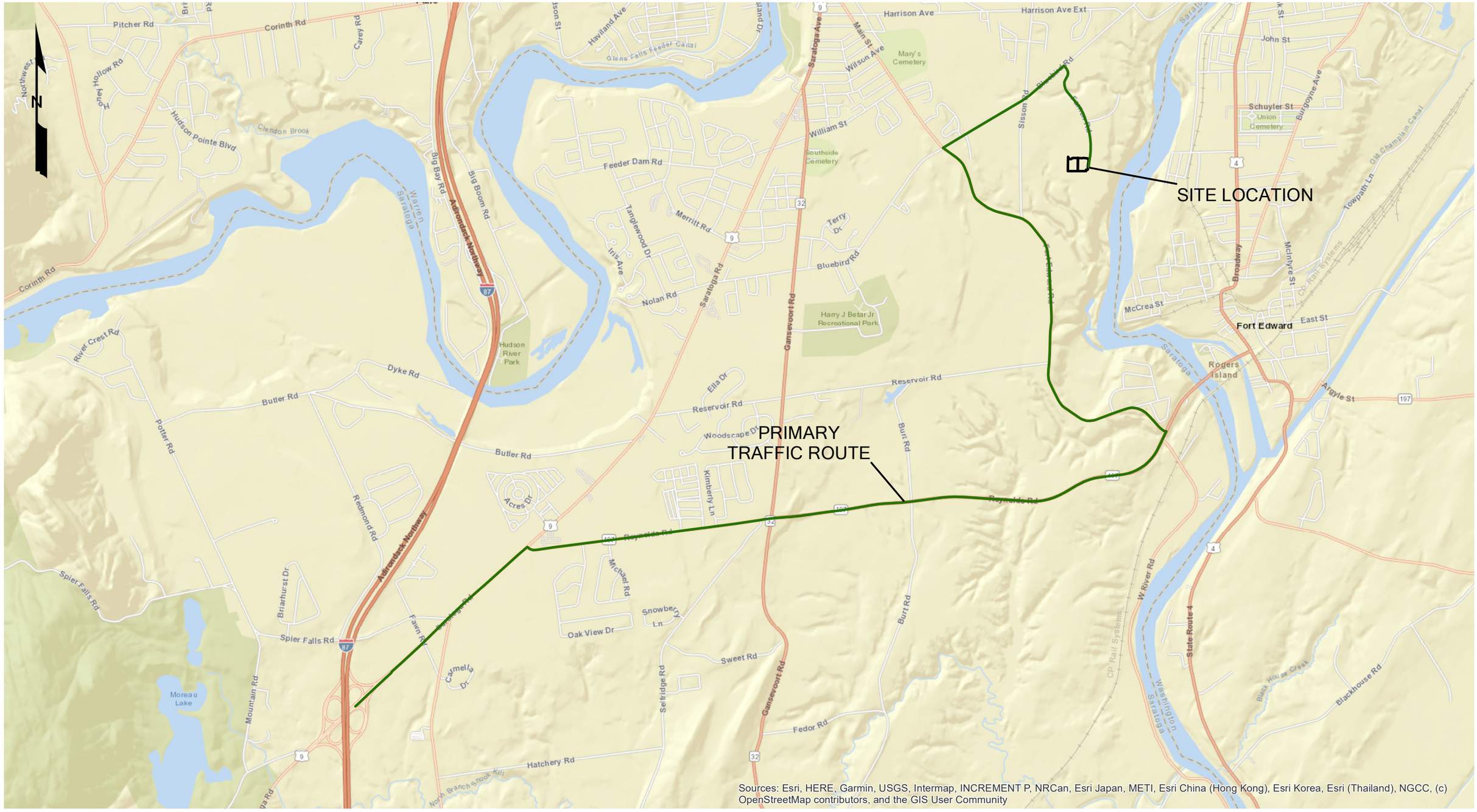
SITE VICINITY MAP

SARATOGA BIOCHAR SOLUTIONS, LLC

CARBON FERTILIZER MANUFACTURING FACILITY

TOWN OF MOREAU SARATOGA CO., NY

PROJ.NO. 2020-20	DATE: 10/14/2021	SCALE: 1 " = 500 '	DWG.NO. 2020-20003G	FIGURE 2



LEGEND

PRIMARY TRAFFIC ROUTE

0 4,000 8,000 FEET

1 inch = 4,000 feet

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TRAFFIC ROUTE MAP

SARATOGA BIOCHAR SOLUTIONS, LLC

CARBON FERTILIZER MANUFACTURING FACILITY

TOWN OF MOREAU SARATOGA CO., NY

PROJ.NO.	DATE:	SCALE:	DWG.NO.	FIGURE
2020-20	10/14/2021	1"=4,000'	2020-20004G	3

S:\Sterling\Projects\2020 Projects\Saratoga Biochar Solutions - 2020-20\Drawings-Maps-Figures\GIS\2020-20004G- FIG 3 Traffic Route Map.mxd

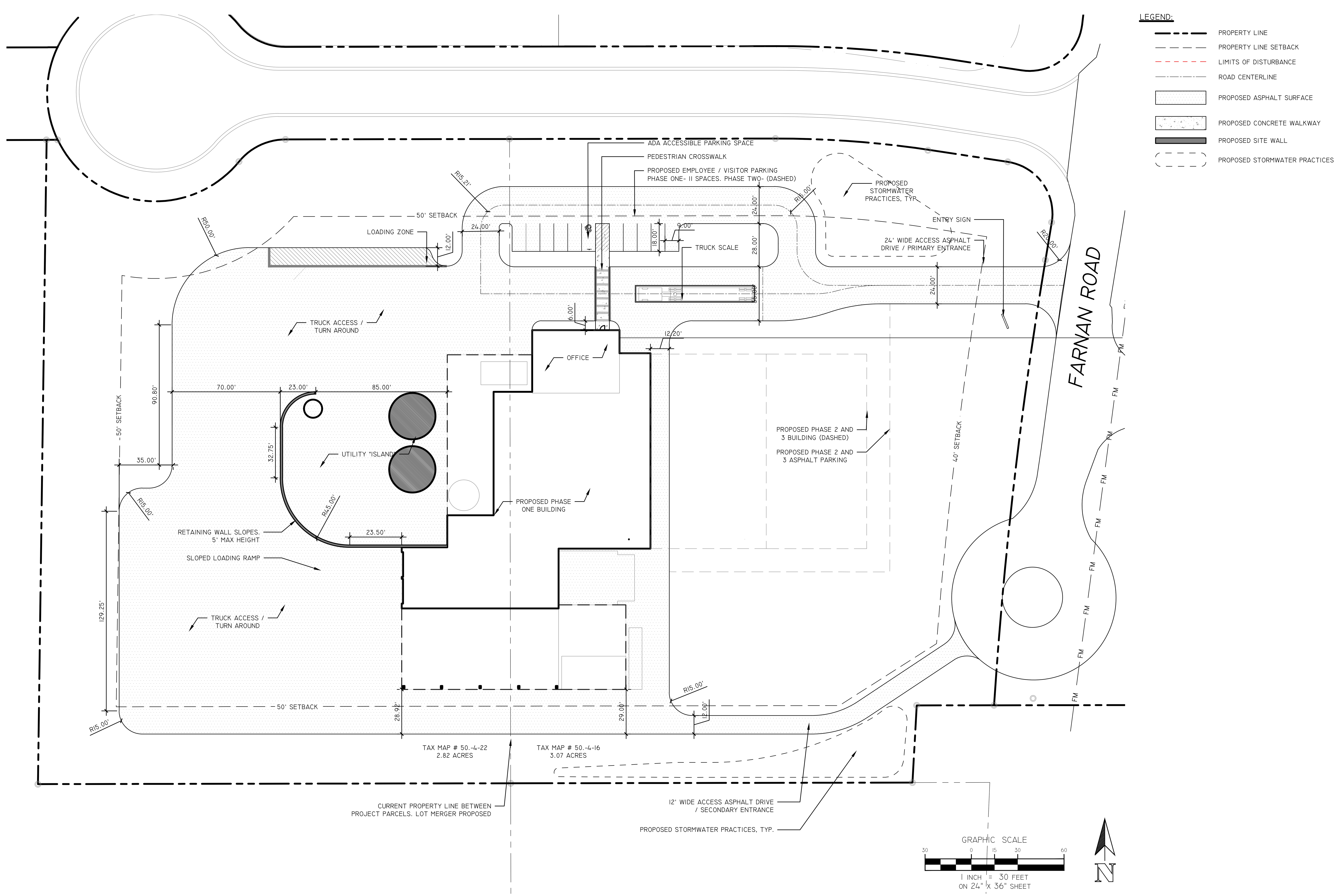
FACILITY MANUAL
APPENDIX A

SITE PLAN

DESIGN BY: ####

DRAWN BY: ####

CHECKED BY: ####



PLOTTED BY: JGROSS
SAVE DATE: 10/27/2021 9:14 AM
FILE NAME: Z:\PROJECTS\2020 PROJECTS\20019 - BIOCHAR SOLUTIONS\DWG\03 SHEETS\20019_LAYOUT.DWG

MAP REFERENCE:
BASE MAP INFORMATION OBTAINED FROM "MAP OF TOPOGRAPHIC SURVEY MADE FOR NORTHEAST BIOCHAR SOLUTIONS, INC., TOWN OF MOREAU, SARATOGA COUNTY, NEW YORK" PREPARED BY VAN DUSEN & STEVES SURVEYORS, DATED JULY 28, 2021.

DIG SAFE NOTE:
THIS PLAN SET WAS DRAFTED WITHOUT THE BENEFIT OF "DIG SAFE" MARKINGS. UTILITIES SHOWN ARE NOT WARRANTED TO BE EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT "DIG SAFE" AT 811 BEFORE COMMENCING ANY WORK AND SHALL PRESERVE EXISTING UTILITIES WHICH ARE NOT SPECIFIED TO BE REMOVED IN THIS PLAN SET.

studioA
Landscape Architecture + Engineering, DPC

STUDIO A
LANDSCAPE ARCHITECTURE + ENGINEERING, DPC
MAILING:
PO BOX 272
SARATOGA SPRINGS, NY 12866
OFFICE LOCATION:
38 HIGH ROCK AVE, SUITE 3
SARATOGA SPRINGS, NY 12866
(518) 450-4030

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DRAWINGS NOT FOR CONSTRUCTION

REVISIONS						
DATE						
DESCRIPTION						

northeastern BIOCHAR SOLUTIONS — WASTE NOT

PREPARED FOR
SARATOGA BIOCHAR SOLUTIONS, LLC
26 F CONGRESS ST. #346
SARATOGA SPRINGS, NY 12866

PROJECT
SARATOGA BIOCHAR SOLUTIONS, LLC

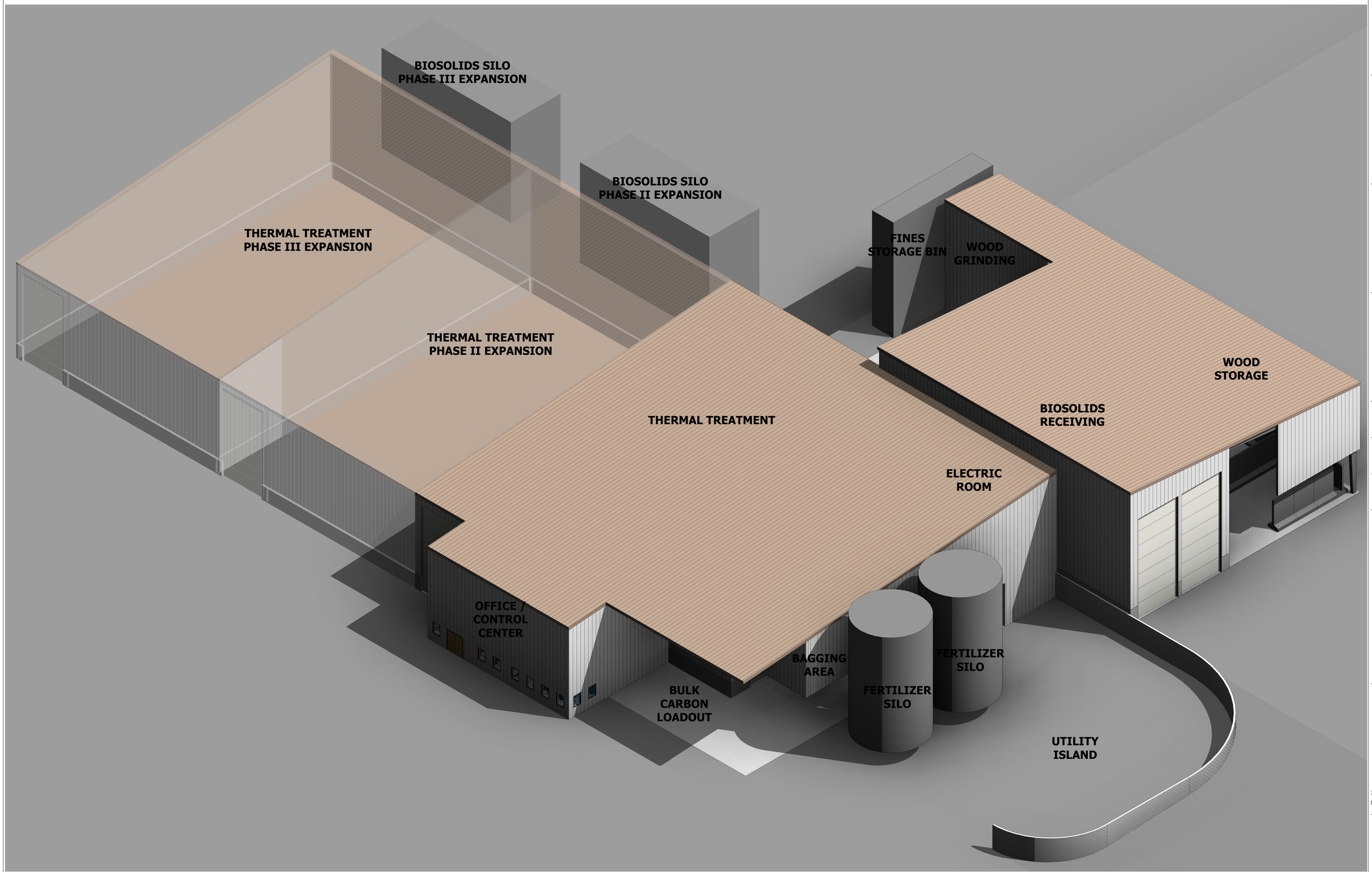
DRAWING TITLE
LAYOUT PLAN

DATE: 10/29/2021

PROJECT NO. 20019

DRAWING NO.
L-0.10

DWG 2 OF 6



SEAL

PROJECT TITLE

10/28/21
SARATOGA
BIOCHAR

Street Address, Suite#
City, State Zip

SHEET
TITLE

AXONOMETRIC

CONSULTANT

DRAWN BY
Author

CHECKED BY
Checker

DATE
X/X/XX

PROJECT NO.
20-020

REVISION
S

NO.	DESCRIPTION	DATE

PRINTED ON: 10/28/2021 12:28:20 PM

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SHEET
NO.

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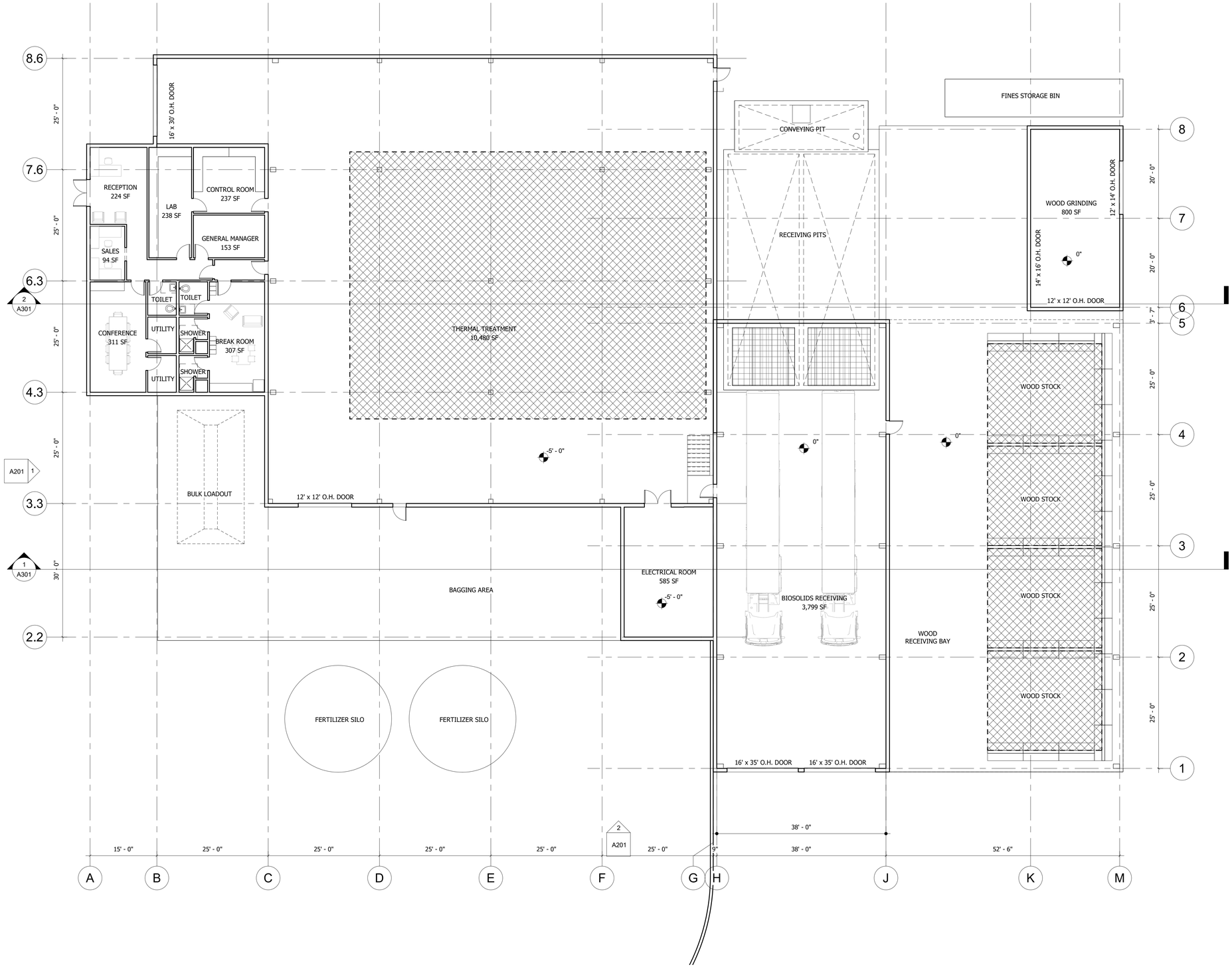

SEAL

PROJECT TITLE

10/28/21
SARATOGA
BIOCHAR

Street Address, Suite#
City, State Zip

SHEET TITLE

PLAN

CONSULTANT

DRAWN BY: Author

CHECKED BY: Checker

DATE

XX/XX/XX

PROJECT NO.

20-020

REVISION S

NO.	DESCRIPTION	DATE

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SHEET NO.

A101

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FACILITY MANUAL
APPENDIX B

RANDOM LOAD INSPECTION FORM

RANDOM LOAD INSPECTION FORM
SARATOGA BIOCHAR SOLUTIONS, LLC.
MOREAU, NEW YORK

1. **Completed by**: _____ _____
Print Signature

2. **Date**: _____ **Time**: _____

INSPECTION INFORMATION

3. **Delivery Vehicle Information** (company, truck number, etc.):

_____

_____

_____

_____

4. **Load Contents and Source** (biosolids, wood waste, generator location):

_____

_____

_____

5. **Authorized Waste?** (Yes/No):_____

6. **If Yes, the load may be accepted.**

7. **If No, the load may not be accepted and must be rejected. Describe Response Action:**

_____

_____

_____

_____

FACILITY MANUAL
APPENDIX C

UNAUTHORIZED WASTE INCIDENT FORM

UNAUTHORIZED WASTE INCIDENT FORM
SARATOGA BIOCHAR SOLUTIONS, LLC.
MOREAU, NEW YORK

1. **Completed by**: _____ _____
Print Signature

2. **Date**: _____ **Time**: _____

INCIDENT INFORMATION

3. **Unauthorized Waste Description:**

_____

_____

_____

_____

4. **Delivery Vehicle Information** (company, truck number, etc.):

_____

_____

_____

5. **Generator Information** (Name, contact information):

_____

_____

_____

6. **Response Action**:

_____

_____

_____

_____

FACILITY MANUAL
APPENDIX D

PERMITS

FACILITY MANUAL
APPENDIX E

FACILITY ANNUAL REPORT

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

COMBUSTION AND THERMAL TREATMENT FACILITY ANNUAL / QUARTERLY REPORT

Submit the Annual Report no later than March 1, 2021.

A. This annual/quarterly is for the year of operation from January 01, 2020 to December 31, 2020

B. Quarterly Report for: ☐ Quarter 1 ☐ Quarter 2 ☐ Quarter 3 ☐ Quarter 4

SECTION 1 – FACILITY INFORMATION

FACILITY INFORMATION			
FACILITY NAME:			
FACILITY LOCATION ADDRESS:	**FACILITY CITY:**	**STATE:**	**ZIP CODE:**
FACILITY TOWN:	**FACILITY COUNTY:**	**FACILITY PHONE NUMBER:**	
FACILITY NYS PLANNING UNIT: (A list of NYS Planning Units can be found at the end of this report).		**NYSDEC REGION #:**	

360 PERMIT #:	**DATE ISSUED:**	**DATE EXPIRES:**	**NYS DEC ACTIVITY CODE:**

FACILITY CONTACT:	☐ **public** ☐ **private**	**CONTACT PHONE NUMBER:**	**CONTACT FAX NUMBER:**
CONTACT EMAIL ADDRESS:			

OWNER INFORMATION			
OWNER NAME:	**OWNER PHONE NUMBER:**	**OWNER FAX NUMBER:**	
OWNER ADDRESS:	**OWNER CITY:**	**STATE:**	**ZIP CODE:**
OWNER CONTACT:	**OWNER CONTACT EMAIL ADDRESS:**		

OPERATOR INFORMATION	
OPERATOR NAME: ☐ *same as owner*	☐ **public** ☐ **private**

PREFERENCES
Preferred address to receive correspondence: ☐ *Facility location address* ☐ *Owner address* ☐ *Other (provide):*
Preferred email address: ☐ *Facility Contact* ☐ *Owner Contact* ☐ *Other (provide):*
Preferred individual to receive correspondence: ☐ *Facility Contact* ☐ *Owner Contact* ☐ *Other (provide):*

Did you operate in 2020? ☐ Yes; Complete this form.

☐ No; Complete and submit Sections 1 and 16. If you no longer plan to operate and wish to relinquish your permit/registration associated with this solid waste management activity, also complete the "Inactive Solid Waste Management Facility or Activity Notification Form" located at: http://www.dec.ny.gov/chemical/52706.html .

SECTION 2 - SOLID WASTE RECEIVED/PROCESSED

Provide the tonnages of solid waste received. DO NOT REPORT IN CUBIC YARDS!

Specify the methods used to measure the quantities received and the percentages measured by each method

_____% Scale Weight _____% Estimated

_____% Truck Count _____% Other (Specify: _____)

Type of Solid Waste	January (tons)	February (tons)	March (tons)	April (tons)	May (tons)	June (tons)	July (tons)
Construction & Demolition Debris							
Industrial Waste (Including Industrial Process Sludges)							
Mixed Municipal Solid Waste (Residential, Institutional & Commercial)							
Sewage Treatment Plant Sludge							
Treated Regulated Medical Waste							
Emergency Authorization Waste (Storm Debris)							
Other (specify)							
Total Tons Received							
Total Tons Processed							

SECTION 2 - SOLID WASTE RECEIVED/PROCESSED (continued)

Type of Solid Waste	Tip Fee ($/ton)	August (tons)	September (tons)	October (tons)	November (tons)	December (tons)	Total Year (tons)	Daily Avg. (tons)
Construction & Demolition Debris								
Industrial Waste (Including Industrial Process Sludges)								
Mixed Municipal Solid Waste (Residential, Institutional & Commercial)								
Sewage Treatment Plant Sludge								
Treated Regulated Medical Waste								
Emergency Authorization Waste (Storm Debris)								
Other (specify)								
Total Tons Received								
Total Tons Processed								

SECTION 3 – SERVICE AREA OF SOLID WASTE RECEIVED

Please identify where the waste is coming from. The total tons received reported below should equal the total tons received in Section 2 (Solid Waste Received/ Processed). DO NOT REPORT IN CUBIC YARDS!

- If the waste ***WAS*** received from another solid waste management facility, please write in the name *and* address of the facility along with the appropriate state, county and planning unit/municipality.
- If the waste ***WAS NOT*** received from another solid waste management facility, please write in "***Direct Haul***" along with the appropriate state, county and planning unit/municipality where the waste was generated.

Specify transport method and percentages of total waste transported by each:

_____% Road _____% Rail _____% Water _____% Other (specify: _____)

Explain which waste types and service areas below are included in these transport methods _____

_____

SERVICE AREA OF SOLID WASTE RECEIVED					
TYPE OF SOLID WASTE	**SOLID WASTE MANAGEMENT FACILITY FROM WHICH IT WAS RECEIVED (Name & Address) OR "Direct Haul"**	**SERVICE AREA STATE OR COUNTRY**	**SERVICE AREA COUNTY OR PROVINCE**	**SERVICE AREA NYS PLANNING UNIT (See Attached List of NYS Planning Units)**	**TONS RECEIVED**
Construction & Demolition Debris					
Industrial Waste (Including Industrial Process Sludges)					

SERVICE AREA OF SOLID WASTE RECEIVED					
TYPE OF SOLID WASTE	**SOLID WASTE MANAGEMENT FACILITY FROM WHICH IT WAS RECEIVED (Name & Address) OR "Direct Haul"**	**SERVICE AREA STATE OR COUNTRY**	**SERVICE AREA COUNTY OR PROVINCE**	**SERVICE AREA NYS PLANNING UNIT (See Attached List of NYS Planning Units)**	**TONS RECEIVED**
Mixed Municipal Solid Waste (Residential, Institutional & Commercial)					
Sewage Treatment Plant Sludge					
Treated Regulated Medical Waste (TRMW)*					
Emergency Authorization Waste (Storm Debris)					
Other (specify)					
				TOTAL RECEIVED (tons):	_____

Part 360 Permit Limit (tpy) _____

Permit Limit based on Steaming rate (tpy) _____

* List generators that provide you Certificates of Treatment forms and quantities of TRMW from each _____

Reprinted (12/20)

SECTION 4 – PLANT PERFORMANCE LOG

Complete the following Annual/Quarterly Plant Performance Log:

PLANT PERFORMANCE LOG ANNUAL/QUARTERLY SUMMARY

Processible Waste Bypassed (Tons): _____

Untreatable Waste Bypassed (Tons): _____

Incinerator #1 Operations (Hours): _____

Incinerator #2 Operations (Hours): _____

Incinerator #3 Operations (Hours): _____

Incinerator #4 Operations (Hours): _____

Steam Generated (Klbs): _____

Steam Sold (Klbs): _____

Turbine Operation (Hours): _____

Turbine Steam Consumption (Klbs): _____

Power Generation (MWH): _____

Purchased Power (MWH): _____

Annual Electricity Sold to User (MWH): _____

Ash Residue (Tons): _____

Volatile Matter in Ash (%):_____

Ferrous Metal Recovered (Tons): _____

Ferrous Metal Sold (Tons): _____

Non-ferrous Metal Recovered (Tons): _____

Non-ferrous Metal Sold (Tons) _____

Water Consumption (Kgal): _____

Facility's Size	**Operations**
Number of Units Installed: _____	Facility is in production:
	Hours per day: _____
Nominal rated capacity of each unit: _____	Days per week: _____
	Days per year: _____

Hours of Downtime	Unit #1	Unit #2	Unit #3	Unit #4	Total
Scheduled Maintenance	_____	_____	_____	_____	_____
Unscheduled Maintenance	_____	_____	_____	_____	_____
Total	_____	_____	_____	_____	_____
Availability (%) Reprinted	_____	_____	_____	_____	

SECTION 5 – TRANSFER OR DISPOSAL DESTINATION

Identify the transfer or disposal destination of waste removed by indicating the name of the transfer or disposal facility, the type of solid waste transferred, the corresponding State/Country, the County/Province, the NYS Planning Unit of the transfer or disposal destination facility, and the amount transferred or disposed or used as alternative operating cover (AOC) at each destination. This only includes waste sent off-site for disposal, not metal recovered reported in Section 6. **Refer to the list of NYS Planning Units that can be found at the end of this report.** DO NOT REPORT IN CUBIC YARDS!

Transport (specify percentages):

_____% Road _____% Rail

_____% Water _____% Other (specify: ________________________________)

Explain which waste types and service areas below are included in these transport methods ____

____

TRANSFER OR DISPOSAL DESTINATION								
TYPE OF SOLID WASTE	SOLID WASTE MANAGEMENT FACILITY TO WHICH IT WAS SENT (Name & Address)	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	AMOUNT TO TRANSFER DESTINATION (TONS)	AMOUNT TO DISPOSAL DESTINATION (TONS)	AMOUNT USED AS AOC (TONS)	TOTAL YEAR (TONS)
Ash (MSW Energy Recovery)								
Bypass								
Emergency Authorization Waste (Storm Debris)								
Other (specify)								
							TOTAL SENT (tons):	________

Reprinted (12/20)

SECTION 6 – METAL RECOVERED

Provide the tonnages of metal recovered from the mixed solid waste stream. Identify the location or solid waste management facility to which the recovered metal was sent from your facility, by indicating the name of the facility, the type of metal recovered, the corresponding State/Country, the County/Province, the NYS Planning Unit, and the amount recovered. **Refer to the list of NYS Planning Units that can be found at the end of this report.** DO NOT REPORT IN CUBIC YARDS!

Transport (specify percentages):

_____% Road _____% Rail

_____% Water _____% Other (specify: _____)

Explain which waste types and service areas are in these transport methods_____

_____

METAL RECOVERED FOR REUSE/RECYCLING					
METAL RECOVERED	**DESTINATION** (Name & Address)	**DESTINATION STATE OR COUNTRY**	**DESTINATION COUNTY OR PROVINCE**	**DESTINATION NYS PLANNING UNIT** (See Attached List of NYS Planning Units)	**TONS RECOVERED** (out of facility)
Ferrous Metal					
Non-ferrous Metal					
Other Metal (specify)					
				TOTAL METAL RECOVERED (tons):	

SECTION 7 - FIRE AND SAFETY INCIDENTS

Provide a summary of the time, date, and details of any incidents which required the implementation of the contingency plan.

_____

_____

_____

_____

SECTION 8 - BUDGET

Provide an annual income and expense statement providing details on the major accounting items and operating and maintenance costs.

_____

_____

_____

_____

SECTION 9 - INSPECTIONS

Provide a copy of the annual facility inspection report conducted and stamped by a professional engineer licensed to practice in New York State.

_____

_____

_____

_____

SECTION 10 - GOALS

Provide a narrative of the goals and objectives to be attained in the next future calendar year and any major repairs or renovations proposed.

_____

_____

_____

_____

SECTION 11 – UNAUTHORIZED SOLID WASTE

Has unauthorized solid waste been received at the facility during the reporting period?

☐ Yes ☐ No If yes, give information below for each incident (attach additional sheets if necessary):

Date Received	Type Received	Date Disposed	Disposal Method & Location

Radiation Monitoring

Does your facility use a fixed radiation monitor? _____ Yes _____ No

Identify Manufacturer _____ and Model _____ of fixed unit.

Does your facility use a portable radiation monitor? _____ Yes _____ No

Identify Manufacturer _____ and Model _____ of fixed unit.

If the radiation monitors been triggered give information below for each incident:

Incident Number	Received		Hauler	Origin	Truck Number	Reading	Disposal Status	Removed	
	Date	Time						Date	Time

SECTION 12 - COST ESTIMATES AND FINANCIAL ASSURANCE DOCUMENTS

Are there required cost estimates and financial assurance documents for closure?

☐ Yes ☐ No If yes, attach additional sheets reflecting annual adjustments for inflation and any changes to the Closure Plan?

SECTION 13 – PROBLEMS

Were any problems encountered during the reporting period (e.g., specific occurrences which have led to changes in facility procedures)?

☐ Yes ☐ No If yes, attach additional sheets identifying each problem and the methods for resolution of the problem.

SECTION 14 – CHANGES

Were there any changes from approved reports, plans, specifications, and permit conditions?

☐ Yes ☐ No If yes, attach additional sheets identifying changes with a justification for each change.

SECTION 15 - PERMIT/CONSENT ORDER REPORTING REQUIREMENTS

Are there any additional permit/consent order reporting requirements not covered by the previous sections of this form?

☐ Yes ☐ No If yes, attach additional sheets identifying the reporting requirements with their respective responses.

SECTION 16 - SIGNATURE AND DATE BY OWNER OR OPERATOR

Owner or Operator must sign, date and submit one completed form to the appropriate Regional Office (See attachment for Regional Office addresses, email addresses and Materials Management Contacts.)

The Owner or Operator must also submit one copy by email, fax or mail to:

New York State Department of Environmental Conservation
Division of Materials Management
Bureau of Solid Waste Management
625 Broadway
Albany, New York 12233-7260
Fax 518-402-9041
Email address: SWMFannualreport@dec.ny.gov

I certify, under penalty of law, that the data and other information identified in this report have been prepared under my direction and supervision in compliance with a system designed to ensure that qualified personnel properly and accurately gather and evaluate this information. I am aware that any false statement I make in such report is punishable pursuant to section 71-2703(2) of the Environmental Conservation Law and section 210.45 of the Penal Law.

_____ _____
Signature Date

_____ _____
Name (Print or Type) Title (Print or Type)

_____
Email (Print or Type)

_____ _____
Address City

_____ (_____)_____-_____
State and Zip Phone Number

ATTACHMENTS: ☐ YES ☐ NO
(Please check appropriate line)

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Division of Materials Management
New York State Department of Environmental Conservation
Albany, New York 12233-7260

COMBUSTION AND THERMAL TREATMENT FACILITY

These facilities use combustion to treat solid waste, including . but not limited to: mass burn, modular, and fluidized bed combustors; thermal treatment facilities that utilize plasma arc, pyrolysis and gasification; low-temperature thermal desorption units such as thermal strippers and soil roasters; and facilities that combust refuse-derived fuel.

Forms for all solid waste management facilities can be found at http://www.dec.ny.gov/chemical/52706.html and a brief description of each type of facility can be found at http://www.dec.ny.gov/chemical/8495.html.

Annual/Quarterly Report

Submit the Annual Report no later than March 1, 2021.

Reporting of the information indicated on this Combustion and Thermal Treatment Facility Annual/Quarterly Report form is required pursuant to 6 NYCRR Part 360. Failure to provide the required information requested is a violation of Environmental Conservation Law. Timely submission of a properly completed form to the Department's Regional Office that has jurisdiction over your facility and to the Department's Central Office is required to meet the Annual/Quarterly Report requirements of 6 NYCRR Part 360.

Where the Annual Report requirements have been modified, appropriate Sections (as necessary to reflect the modification) must be completed and submitted with a copy of the Department's written notification which allows the modification.

Entries on the report forms should be either typewritten or neatly printed in black ink. Attach additional sheets if space on the pages is insufficient or supplementary information is required or appropriate.

SECTION 3 – SERVICE AREA OF SOLID WASTE RECEIVED

Identify the facility's service area by indicating the type of solid waste received, the Solid Waste Management facility (SWMF) from which it was received (or Direct Haul), the corresponding State/Country, the County/Province, and the NYS Planning Unit and the amount received. **Refer to the list of NYS Planning Units that can be found at the end of this report.** DO NOT REPORT IN CUBIC YARDS!

Additional Service Area Guidance:

1) Direct hauled from the generator of the waste. In the case where the waste is hauled to your facility from the generator (i.e. hauled from residences, commercial establishments, etc.), "Direct Haul" is the appropriate response in Column 2 under "Service Area." Please report the tonnage by waste type and identify the state, county and planning unit where it was generated;

2) Sent to your municipal waste combustion or thermal treatment facility from another solid waste management facility. Waste may be sent to your municipal waste combustion or thermal treatment facility from another solid waste management facility. In this case, please report the tonnage by waste type from each sending solid waste management facility, as well as the sending facility's name, address, county, and the planning unit where the sending facility is located.

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New York State Planning Units & Regions

When completing the annual report, please use the ***Planning Unit*** listed below that corresponds with the municipality and county. Note: The Planning Unit is not the DEC Region.

DEC Region	Planning Unit	County	Municipality
1	Glen Cove	Nassau	Glen Cove (City)
	Hempstead		Hempstead (Town)
	Long Beach		Long Beach (City)
	North Hempstead Solid Waste Management Authority		North Hempstead (Town), except 10 villages (see below)
	Oyster Bay Solid Waste Disposal District		Oyster Bay (Town), except 17 villages (see below)
	Babylon	Suffolk	Babylon (Town)
	Brookhaven		Brookhaven (Town)
	East Hampton		East Hampton (Town)
	Fishers Island Waste Management District		Fishers Island
	Huntington		Huntington (Town)
	Islip Resource Recovery Agency		Islip (Town)
	Riverhead		Riverhead (Town)
	Shelter Island		Shelter Island (Town)
	Smithtown		Smithtown (Town)
	Southampton		Southampton (Town)
	Southold		Southold (Town), except Fishers Island
2	New York City	Bronx	Bronx
		Kings	Kings (Brooklyn)
		New York	New York (Manhattan)
		Queens	Queens
		Richmond	Richmond (Staten Island)
3	Dutchess County	Dutchess	
	Orange County	Orange	
	Putnam County	Putnam	
	Rockland County Solid Waste Management Authority (RCSWMA)	Rockland	
	Sullivan County	Sullivan	
	Ulster County Resource Recovery Agency (UCRRA)	Ulster	
	Westchester County	Westchester	
4	Colonie	Albany	Cohoes (City)
			Colonie (Town)
			Colonie (Village)
			Menands (Village)
			Watervliet (City)
	Capital Region Solid Waste Management Partnership	Albany	Albany (City)
			Altamont (Village)
			Berne (Town)
			Bethelehem (Town)
			Green Island (Town/Village)
			Guilderland (Town)
			Knox (Town)
			New Scotland (Town)
			Rensselaerville (Town)
			Voorheesville (Village)
			Westerlo (Town)

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		Rensselaer	East Greenbush (Town)	
			Rensselaer (City)	
4	Eastern Rensselaer County Solid Waste Management Authority	Rensselaer	Castleton-on-Hudson (Village)	
			Hoosick Falls (Village)	
			Nassau (Village)	
			Pittstown (Town)	
			Schaghticoke (Town/Village)	
			Stephentown (Town)	
			Valley Falls (Village)	
			Berlin (Town)	Inactive Members
			Grafton (Town)	
			Hoosick (Town)	
			Nassau (Town)	
			Petersburg (Town)	
			Poestenkill (Town)	
	Columbia County	Columbia	All, except Town of Canaan	
	Delaware County	Delaware		
	Greene County	Greene		
	Montgomery County	Montgomery		
	Otsego County	Otsego		
	Schoharie County	Schoharie		
	Schenectady County	Schenectady		
5	Clinton County	Clinton		
	Essex County	Essex		
	County of Franklin Solid Waste Management Authority (CFSWMA)	Franklin		
	Fulton County	Fulton		
	Hamilton County	Hamilton		
	Saratoga County	Saratoga		
	Warren County	Warren		
	Washington County	Washington		
6	Development Authority of the North Country (DANC)	Jefferson		
		Lewis		
		St. Lawrence		
	Oneida-Herkimer Solid Waste Authority	Oneida		
		Herkimer		
7	Broome County	Broome		
	Cayuga County	Cayuga		
	Chenango County	Chenango		
	Cortland County	Cortland		
	Madison County	Madison		
	Onondaga County	Onondaga	All municipalities, except Town and Village of Skaneatles (See below)	
	Oswego County	Oswego		
	Tioga County	Tioga		
	Tompkins County	Tompkins		
8	Chemung County	Chemung		
	GLOW Region Solid Waste Management Committee	Genesee		
		Livingston		
	Monroe County	Monroe		
	Ontario County	Ontario		
	Orleans County	Orleans		
	Schuyler County	Schuyler		
	Seneca County	Seneca		

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	Steuben County	Steuben	
	Wayne County	Wayne	
	Yates County	Yates	
9	Allegany County	Allegany	
	Cattaraugus County	Cattaraugus	
	Chautauqua County	Chautauqua	
	GLOW Region Solid Waste Management Committee	Wyoming	
	Niagara	Niagara	
	Northeast-Southtowns Solid Waste Management Board (NEST)	Erie	Akron (Village)
			Alden (Town/Village)
			Angola (Village)
			Aurora (Town)
			Blasdell (Village)
			Boston (Town)
			Brant (Town)
			Cheektowaga (Town)
			Clarence (Town)
			Colden (Town)
			Collins (Town)
			Concord (Town)
			Depew (Village)
			East Aurora (Village)
			Eden (Town)
			Elma (Town)
			Evans (Town)
			Farnham (Village)
			Gowanda (Village)
			Hamburg (Town/Village)
			Holland (Town)
			Lackawanna (City)
			Lancaster (Town/Village)
			Marilla (Town)
			Newstead (Town)
			North Collins (Town/Village)
			Orchard Park (Town/Village)
			Sardinia (Town)
			Sloan (Village)
			Springville (Village)
			Wales (Town)
			West Seneca (Town)
	Northwest Communities Solid Waste Management Board (NWCB)	Erie	Amherst (Town)
			Grand Island (Town)
			Kenmore (Village)
			Tonawanda (Town/Village)
			Williamsville (Village)

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Municipalities Not Currently Affiliated With a Recognized Planning Unit

DEC Region	County	Non-Member Municipality	
1	Nassau	North Hempstead	Great Neck Estates (Village)
			Great Neck Plaza (Village)
			Mineola (Village)
			New Hyde Park (Village)
			Old Westbury (Village) (portion)
			Plandome (Village)
			Plandome Manor (Village)
			Roslyn Harbor (Village) (portion)
			Westbury (Village)
			Williston Park (Village)
		Oyster Bay	Bayville (Village)
			Brookville (Village)
			Centre Island (Village)
			Cove Neck (Village)
			East Hills (Village) (portion)
			Glenwood – Glen Head Garbage District
			Lattington (Village)
			Laurel Hollow (Village)
			Matinecock (Village)
			Mill Neck (Village)
			Muttontown (Village)
			Old Brookville (Village)
			Old Westbury (Village) (portion)
			Oyster Bay Cove (Village)
			Roslyn Harbor (Village) (portion)
			Sea Cliff (Village)
			Upper Brookville (Village)
4	Albany	Coeymans (Town)	
		Ravena (Village)	
	Rensselaer	Brunswick (Town)	
		North Greenbush (Town)	
		Sand Lake (Town)	
		Schodack (Town)	
		Troy (City)	
	Columbia	Canaan (Town)	
7	Onondaga	Skaneatles (Town/Village)	
9	Erie	Buffalo (City)	

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New York State Department of Environmental Conservation
Division of Materials Management
Bureau of Solid Waste Management

MATERIAL MANAGEMENT PROGRAM CONTACTS

CENTRAL OFFICE
Bureau of Solid Waste Management
625 Broadway
Albany, NY 12233-7260
Phone: (518) 402-8678

For Submission of Solid Waste Management Facility Annual Reports only:
Fax: (518) 402-9041
Email: swmfannualreport@dec.ny.gov

REGIONAL OFFICE ADDRESS & LEAD CONTACT PERSON

REGION 1 (Nassau, Suffolk)

Syed Rahman/David Gibb
SUNY @ Stony Brook
50 Circle Road
Stony Brook, NY 11790
Phone: (631) 444-0375
SWMFannualreportR1@dec.ny.gov

REGION 2 (Bronx, Kings, New York, Queens, Richmond)

Joseph O'Connell
47-40 21st Street
Long Island City, NY 11101-5407
Phone: (718) 482-4896
SWMFannualreportR2@dec.ny.gov

REGION 3 (Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester)

Lee Reiff
21 South Putt Corners Road
New Paltz, NY 12561
Phone: (845) 256-3134
SWMFannualreportR3@dec.ny.gov

REGION 4 (Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady, Schoharie)

Brian Maglienti
1130 North Westcott Road
Schenectady, NY 12306
Phone: (518) 357-2085
SWMFannualreportR4@dec.ny.gov

REGION 5 (Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington)

Jessie Sangster
1115 State Route 86, PO Box 296
Ray Brook, NY 12977
Phone: (518) 897-1266
SWMFannualreportR5@dec.ny.gov

REGION 6 (Herkimer, Jefferson, Lewis, Oneida, St. Lawrence)

Gary McCullouch
317 Washington Street
Watertown, NY 13601
Phone: (315) 785-2513
SWMFannualreportR6@dec.ny.gov

REGION 7 (Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga, Tompkins)

Thomas Annal
615 Erie Boulevard West
Syracuse, NY 13204
Phone: (315) 426-7419
SWMFannualreportR7@dec.ny.gov

REGION 8 (Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Yates)

Greg MacLean
6274 East Avon-Lima Road
Avon, NY 14414
Phone: (585) 226-5411
SWMFannualreportR8@dec.ny.gov

REGION 9 (Allegany, Cattaraugus, Chautauqua, Erie, Niagara, Wyoming)

Peter Grasso
270 Michigan Avenue
Buffalo, NY 14203
Phone: (716) 851-7220
SWMFannualreportR9@dec.ny.gov

September 2020

FACILITY MANUAL
APPENDIX F

FACILITY INSPECTION FORM

DAILY FACILITY INSPECTION FORM

SARATOGA BIOCHAR SOLUTIONS, LLC.

MOREAU, NEW YORK

DATE: _____ TIME: _____

INSPECTOR: _____

CARBON FERTILIZER MANUFACTURING BUILDING

ACTIVITY	COMPLETED Y	COMPLETED N	CONDITION S	CONDITION D	ACTION/COMMENTS
TRUCK DOORS OPERATIONAL	☐	☐	☐	☐	
TRUCK WASH OPERATIONAL	☐	☐	☐	☐	
GENERAL HOUSEKEEPING	☐	☐	☐	☐	
ACCESS TO EMERGENCY EQUIPMENT	☐	☐	☐	☐	

GROUNDS

CONDITION	STATUS S	STATUS D	ACTIONS/COMMENTS
LITTER	☐	☐	
DUST	☐	☐	
ODORS	☐	☐	
VECTORS	☐	☐	
STORMWATER SYSTEM	☐	☐	
NOISE	☐	☐	

SAFETY EQUIPMENT

EQUIPMENT	CONDITION S	CONDITION D	ACTION TAKEN/COMMENTS
	MOBILE EQUIPMENT		
MIRRORS	☐	☐	
BACK-UP INDICATORS	☐	☐	
MAINTENANCE RECORDS	☐	☐	
	PERSONAL PROTECTIVE EQUIPMENT		
HARDHATS	☐	☐	
SAFETY GLASSES	☐	☐	
STEEL TOE BOOTS	☐	☐	
HEARING PROTECTION	☐	☐	
GLOVES	☐	☐	
	COMMUNICATION SYSTEMS		
TELEPHONES	☐	☐	
EMERGENCY TELEPHONE LIST	☐	☐	
RADIOS	☐	☐	

SPECIFIC EQUIPMENT

ITEM	UTILIZED TODAY Y	UTILIZED TODAY N	CONDITION S	CONDITION D	COMMENTS
		MOBILE EQUIPMENT			
FRONT END LOADER	☐	☐	☐	☐	
		CARBON MANUFACTURING EQUIPMENT			
PROCESS LINE NO. 1	☐	☐	☐	☐	
PROCESS LINE NO. 2	☐	☐	☐	☐	
PROCESS LINE NO. 3					
AIR TREATMENT SYSTEM	☐	☐	☐	☐	
		OTHER			
TRUCK SCALE	☐	☐	☐	☐	
SCALE HOUSE	☐	☐	☐	☐	

NOTES:

Y = YES N = NO S = SATISFACTORY D = DEFICIENT

ADDITIONAL COMMENTS: _____

_____

_____

_____

_____

FACILITY MANUAL
APPENDIX G

COMPLAINT ACTION FORM

COMPLAINT ACTION FORM
SARATOGA BIOCHAR SOLUTIONS, LLC.
MOREAU, NEW YORK

1. **Completed by**: _____ _____
Print Signature

2. **Date**: _____ 3. **Time**: _____

4. **Weather**: _____
Temp, Wind Direction, and Speed

COMPLAINT INFORMATION

5. **Complaint made by**:

Name: _____

Address: _____

_____

_____

6. **Date of Complaint**: _____ 7. **Time of Complaint**: _____

8. **Specific Complaint** (odor, dust, noise, truck traffic, litter, facility appearance, vibrations, etc):

_____

_____

_____

9. **Specific action taken to address complaint** (describe):

_____

_____

10. **Notification of officials** (Name and Date):

City _____ **NYSDEC** _____

11. **Attach all relevant documentation** (correspondence, photographs, etc.)

FACILITY MANUAL
APPENDIX H

EMPLOYEE TRAINING FORM

EMPLOYEE TRAINING FORM

SARATOGA BIOCHAR SOLUTIONS, LLC.
MOREAU, NEW YORK

Purpose: This form documents employee training in accordance with the Facility Manual.

Employee Signature: _____

Employee Name: _____**(Print)**

Date Hired: _____

Date of Initial Training: _____

Trainer Signature: _____

	Continued Training Topic	**Date**	**Trainer**
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			