



## Meeting Notice

**TO: Board Members**  
**FROM: Andrew Santillo**  
**DATE: December 6, 2021**  
**RE: Planning Board Meeting**

The regular meeting of the Montgomery County Planning Board is scheduled for Thursday, December 9, 2021 at 6:30 p.m. at the Montgomery County Business Development Center, 9 Park Street, Fonda, NY.

Please call Karl at (518) 853-8334 between 8:30 a.m. and 4:00 p.m. if you have any questions.

cc: The Recorder  
Montgomery Co. Legislature  
DPW

The Leader Herald  
Daily Gazette



## **MONTGOMERY COUNTY PLANNING BOARD MEETING**

**Thursday, December 9, 2021**

**6:30 PM – Montgomery County Business Development Center, 9 Park Street, Fonda, NY**

- I. Pledge of Allegiance
- II. Role Call
- III. Adoption of Agenda
- IV. Approval of previous meeting minutes
- V. Public comments on agenda items (3 minute limit per person)
- VI. Town of Florida — Area Variance
- VII. Town of Amsterdam — Site Plan Review
- VIII. Town of Glen — Special Use Permit
- IX. Town of Mohawk — Site Plan Review (BW)
- X. Town of Mohawk — Site Plan Review (Nexamp)
- XI. Any other business



**Montgomery County Planning Board**  
**Meeting Minutes**  
**October 14<sup>th</sup>, 2021**

**MEMBERS PRESENT:**

Wayne DeMallie, Chairman  
Ronald Jemmott, Member  
David Wiener, Member  
Erin Covey, Member  
Mark Hoffman, Vice Chair  
Irene Collins, Member  
Betty Sanders, Alternate

**STAFF MEMBERS PRESENT:**

Alex Kuttesch, Senior Planner  
Karl Gustafson Jr., Grant Assistant  
Andrew Santillo, Assistant

**ABSENT:**

Angela Frederick, Member  
John Lyker, Member  
Doug Stahura, Member

**OTHERS PRESENT:**

**I. Call to Order**

The meeting was called to order by Chairman Wayne DeMallie at 6:31 p.m.

**II. Roll Call**

The roll call of board members was done by Chairman DeMallie.

**III. Adoption of the Agenda**

Irene Collins made a motion to adopt the agenda, Dave Wiener seconded. All members present were in favor.

**IV. Approval of Previous Meeting's Minutes**

Mark Hoffman made a motion to accept previous meeting minutes, Ron Jemmott seconded the motion. The previous minutes were approved.

**V. Public Comment**

There was no public comment.

**VI. City of Amsterdam- Zoning Change**

Alex Kuttesch explained that this referral is for a zoning change that would make a residential zoned property to Employment zone. Alex stated that executive group is trying to obtain a vacant, city owned property on the corner of Third Street and their property. Dave asked if the house was still there and Alex stated that it is still there but it is condemned. There were no other comments.

Erin Covey made the motion to approve the referral, seconded by Mark Hoffman. Irene Collins abstained. All were in favor.

The referral was approved.

**VII. Other Business**

There was no other business.

**VIII. Adjournment**

Mark Hoffman made a motion to adjourn the meeting at 6:52 p.m., seconded by David Wiener. All were in favor.

Respectfully submitted,

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Karl Gustafson Jr.  
Economic Development Grant Assistant

# REFERRAL FORM

## MONTGOMERY COUNTY PLANNING BOARD

Referral Number \_\_\_\_\_

assigned by the MCPB upon  
acceptance of referral for review

This Referral must be received **SEVEN CALENDAR DAYS** prior to the MCPB meeting date in order for it to be placed on the agenda.

**TO:** Montgomery County Planning Board,  
Old County Courthouse,  
PO Box 1500, Fonda, New York 12068  
Phone: 518-853-8334  
Fax: 518-853-8336

**FROM:** Municipal Board: Zoning Board of Appeals  
Referring Officer: Town Clerk  
Mail original resolution to: 214 Fort Hunter Road  
Amsterdam, NY 12010

1. **Applicant:** Borrego Solar 2. **Site Address:** 153 YMCA Road, Amsterdam NY 12010  
3. **Tax Map Number(s):** 102.-1-19 4. **Acres:** 135  
5. **Is the site currently serviced by public water?** ☐ Yes ☒ No  
6. **On-site waste water treatment is currently provided by:** ☐ Public Sewer or ☐ Septic System  
7. **Current Zoning:** Agriculture 8. **Current Land Use:** vacant land  
9. **Project Description:** Borrego is looking to install a Vestas 150 4.3 MW turbine which has a tip height of 649 feet.

### 10. MCPB Jurisdiction:

- ☐ **Text Adoption or Amendment** ☒ **Site is located within 500' of:** The Bean Hill Farm Gaugler Farm  
(Specify by Name)  
☐ a municipal boundary.  
☐ a State or County thruway/highway/roadway  
☐ an existing or proposed State or County park/recreation area  
☐ an existing or proposed County-owned stream or drainage channel  
☐ a State or County-owned parcel on which a public building or institution is situated  
☒ a farm operation within an Agricultural District (Incl. Ag data Statement) (does not apply to area variances)

11. **PUBLIC HEARING:** Date: 12/13/21 Time: 6:45pm Location: 214 Fort Hunter Road

### Referred Action(s)

If referring multiple, related actions, please identify the referring municipal board if different from above.

12. ☐ **Text Adoption or** ☐ **Amendment** **Referring Board:**

☐ Comprehensive Plan ☐ Local Law ☐ Zoning Ordinance ☐ Other \_\_\_\_\_

13. ☐ **Zone Change** **Referring Board:**

Proposed Zone District: \_\_\_\_\_ Number of Acres: \_\_\_\_\_

Purpose of the Zone Change: \_\_\_\_\_

14. ☐ **Site Plan** ☐ **Project Site Review** **Referring Board:**

Proposed Improvements: \_\_\_\_\_

Proposed Use: \_\_\_\_\_

Will the proposed project require a variance? ☐ Yes ☐ No Type: ☐ Area ☐ Use

Specify: \_\_\_\_\_

Is a State or County DOT work permit needed? If Yes : ☐ State or ☐ County ☐ No

Specify: \_\_\_\_\_

**15. ☐ Special Permit****Referring Board:**

Section of local zoning code that requires a special permit for this use: \_\_\_\_\_

Will the proposed project require a variance? ☐ Yes ☐ No Type: ☐ Area ☐ Use**16. Variance****Referring Board:**☒ Area ☐ UseSection(s) of local zoning code to which the variance is being sought: Artical VII Section 45.4Describe how the proposed project varies from the above code section: The wind turbine height of 649 feet will deviate from Town ofFlorida's Zoning Code, Article VII Section 45.4 requiring commercial wind energy systems (WECS) not to exceed a height of 400 feet.Borrego is seeking an area variance for wind turbine height.**SEQR Determination****Action:****Finding:**

- Check  
One
- ☐ Type I  
☐ Type II  
☐ Unlisted Action  
☐ Exempt

- ☐ Positive Declaration – Draft EIS  
☐ Conditional Negative Declaration  
☐ Negative Declaration  
☐ No Finding (Type II Only)

SEQR determination made by (Lead Agency): \_\_\_\_\_ Date: \_\_\_\_\_

**REQUIRED MATERIAL****Send 13 copies of a “Full Statement of the Proposed Action” which includes:**

All materials required by and submitted to the referring body as an application

- If submitting site plans, please submit only 1 large set of plans, and 12 11x17 packets.
- All material may be submitted digitally as well at <http://www.mcfdc.org/planning-services/montgomery-county-planning-board-referrals/>

This referral, as required by GML §239 1 and m, includes complete information, and supporting materials to assist the Montgomery County Planning Board (MCPB) in its review. Recommendations by MCPB shall be made to the Referring Body within thirty days of receipt of the Full Statement.

\_\_\_\_\_  
Name, Title & Phone Number of Person Completing this Form\_\_\_\_\_  
Transmittal Date

This side to be completed by Montgomery County Planning.

## **REFERRAL FORM**

### **MONTGOMERY COUNTY PLANNING BOARD**

TO: \_\_\_\_\_

Receipt of 239-m referral is acknowledged on \_\_\_\_\_. Please be advised that the Montgomery County Planning Board has reviewed the proposal stated on the opposite side of this form on \_\_\_\_\_ and makes the following recommendation.

- ☐ Approves
  
- ☐ Approves (with Modification)
  
- ☐ Disapproves:
  
- ☐ No significant County-wide or inter-community input
  
- ☐ Not subject to Planning Board review
  
- ☐ Took no action

Section 239-m of the General Municipal Law requires that within thirty days after final action by the municipality is taken; a report of the final action shall be filed with the County Planning Board.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Kenneth F. Rose, Director  
Montgomery County Dept. of Economic  
Development and Planning

**Town of Florida  
Zoning Board of Appeals  
Monday, November 8, 2021  
Regular Meeting  
7:00 PM**

A meeting of the Town of Florida Zoning Board of Appeals public comment portion was called to order at 7:00pm by Chairman Richard List. Present for the meeting were Frank Staley, Sam Bursese, Tom Nelson, Scott McKay, Attorney Deb Slezak, and Clerk Emily Staley. Matt Bearcroft, Zoning Enforcement Officer, was absent.

**MOTION** by Scott McKay and seconded by Sam Bursese to adopt the Agenda; all in favor and passed.

**MOTION** by Rich List and seconded by Tom Nelson to accept the minutes from the ZBA meeting on July 13, 2021; all in favor and passed.

**New Business:**

***Dave Strong, Lydia Lake and Camie Jarell*** were present to request a Variance to the Zoning Ordinance for a single wind turbine on YMCA Road. The Town's current Zoning Ordinance only allows for turbine height to be 400' from base to tip and the turbine that Borrego would like to build is 649'.

Dave Strong explained that the power generated by this turbine would go directly into the grid for local purchase; not to NYC or communities outside Montgomery County. The electricity generated will be available for purchase at a discounted rate. Before the project begins Borrego will be approaching the County and the School District for a PILOT program and will be negotiating a Community Host Agreement and direct payment option with the Town of Florida as well. Borrego has entered into a long term land lease with Martin Milano, the owner of the property also. There will only ever be one turbine installed as there is not enough land or infrastructure to support more than one. The State of New York told National Grid that they had to allow this turbine to be installed and the power to be transmitted through their electrical lines, which will be upgraded to accept the power generated. The credit that Borrego receives for the power is at a retail level not a wholesale level. They will make more money in the end by having just one turbine than having two or three or more. There will be more revenue generated per kilowatt hour having just one turbine than having an entire farm. The revenue generated goes directly to Borrego.

Borrego is a family owned company about 30 years old started in CA. Currently they employ about 450 people across the country. Their local office is in Clifton Park, NY. They are a privately held company.

The expected lifespan of the turbine is approximately 25 years. If parts are replaced as they break or wear down then the turbine could last longer and it could produce power for up to approximately 40 years. There is a decommission plan that will be presented to the Planning Board. Instead of taking the turbine down completely they would expect to replace or repair it over the years but a decommissioning plan is in place because the Town requires a plan be done as a protection for the Town.

The Town's current zoning regulations restrict turbine height to only 400' from base to tip of blade and the turbine Borrego would need to install has a height of 649' from base to tip of blade. Chairman Rich List stated that this difference in height is quite a bit. Dave Strong stated that at the time the restriction was put in place that height was the standard and now turbine heights are upwards of 700'.

The model that would be used is quieter than older models; the blades spin less than 10 rpm; the older ones spin at 15/20 rpm. There are only a handful of wind turbine manufacturers that they are able to do business with and Vestes is one of the best manufacturers and they sell the most wind turbines in the world.

Attorney Deborah Slezak spoke to the Board about the requirements for an Area Variance and the requirements for granting one. With their ZBA application Borrego did include a narrative for each point that will be entered with these minutes for the record and the Board did review that questions and the answers given.

Tom Nelson asked what the debris field would be if this turbine was to fail and come apart. Dave Strong explained that it would not be expected to go beyond 1.1 times the tip height of the structure so approximately 700 to 800' and that the turbine is set back 837' from the edge of the property line. The nearest residence is approximately 1,900 – 2,000' away. A turbine that failed out in the western part of the state had a debris field at approximately 710'. No animals are put out to pasture on or near the parcel of land being used.

It was pointed out by Borrego that part of the access road will have to go through a small portion of wetlands but those require a Federal permit and the impact will be very minimal.

Sam Bursese asked how Borrego chose the Town of Florida and why. Dave Strong explained that there are only certain places you can put a turbine due to land height, wind strength and sustained gusts. There are only two spots in the Town that fit this criteria and this one on of them. Also due to the size of the turbine a lot of land is needed for setback and it needs to be close to electrical transmission lines. Sam asked what the elevation height is on the top where the turbine will be place; Dave said 1,127.3 feet.

There is currently a wind monitoring tower on the parcel because proof is needed that the wind strength and sustainability is acceptable before any reputable supplier will see you a turbine.

Tom Nelson asked how much acreage would need to be clear-cut for this turbine to be installed. Camie Jarrell from GHD said approximately 1.32 acres need to be trimmed down; not necessarily clear cut. They will also fix YMCA Road as well because currently it is a dirt road.

The question was asked how will the blades be delivered to the site? A transport study will be done for the best route and they will work with National Grid to lift the lines on any roads and also to move signage out of the way.

Dave Strong asked the Board to look at the handouts of the comparison photos and see that from 400' to 600' the difference in height is not so noticeable.

Sam Bursese asked what would happen if they were denied their variance would they get a smaller turbine to place on the site? Dave said no. This is the height that is needed for the project to work. 400' turbines are not manufactured any longer due to the efficiency of newer models. Newer models generate about 4.3 megawatts which could power about 1,300 – 1,400 homes. Bigger blades will need less wind and spin less. The top speed a turbine will spin is 55 – 60 mph and the blades can be feathered to slow down and even be shut off. Only asking for one turbine due to acreage and the grid can only accept the power generated from one turbine as well.

**MOTION** by Sam Burses and seconded by Frank Staley to set the Public Hearing for Borrego Solar's Variance application for Monday, December 13, 2021 at 6:45pm; all in favor and passed.

**MOTION** by Tom Nelson and seconded by Rich List to declare the Town of Florida Zoning Board of Appeals as Lead Agency for SEQRA; all in favor and passed. SEQRA will be done at the December 13, 2021 meeting.

**Motion** by Scott McKay and seconded by Tom Nelson to adjourn the ZBA meeting at 7:58pm. All in favor and passed.

Respectfully Submitted,  
Emily Staley  
Town Clerk





Eric M. Mead, Supervisor  
Emily Staley, Town Clerk  
Steven Anderson, Hwy. Superintendent

214 Ft. Hunter Rd.  
Amsterdam, NY 12010

Office: 518-843-6372  
Fax: 518-843-3324

Matthew Bearcroft  
Zoning/Code Enforcement Officer

518-419-8279

October 25, 2021

Borrego Solar  
30 Century Hill Drive, Suite 301  
Latham, NY 12110  
Attn: Camie Jarrell

Re: 153 YMCA Rd Wind Turbine

Dear Ms. Camie Jarrell:

After reviewing your site plan for the proposed wind turbine project, the total tower height exceeds the allowable height set in the Town of Florida code Section 45.4 – special Permit Criteria “p”. setting a max height of 400 feet. Unfortunately, I cannot approve your site plan with the submitted plans. You may apply to the Zoning Board of Appeals and apply for a variance. Please contact the town clerk for an application and instructions to get on the ZBA’s agenda. A time and date will be set after receiving your application.

Thank you in advance for your cooperation with this and feel free to contact myself and/or the office with any other concerns or questions

Sincerely,

Matthew Bearcroft  
Zoning Officer

APPLICATION TO BOARD OF APPEALS  
TOWN OF FLORIDA, MONTGOMERY COUNTY, NY  
(page one of two)

Appeal number \_\_\_\_\_ Date \_\_\_\_\_

To: ZONING BOARD OF APPEALS of the TOWN OF FLORIDA,  
MONTGOMERY COUNTY, NEW YORK

I/We \_\_\_\_\_  
PRINT (Name/s of applicant)

\_\_\_\_\_  
(Address) (Mailing address – if different)

\_\_\_\_\_  
(Municipality) (State, Zip)

Hereby appeal to the ZONING BOARD OF APPEALS

Decision of the ZONING ENFORCEMENT OFFICER Dated \_\_\_\_\_

- ☐ Grant ☐ Deny
- ☐ A Permit for us
- ☐ A Permit for Occupancy

1. Location of property \_\_\_\_\_

2. Nearest Intersection \_\_\_\_\_  
Distance and direction \_\_\_\_\_

3. PROVISION OF ZONING ORDINANCE APPEALED Article \_\_\_\_\_ Section \_\_\_\_\_  
Sub-Section and paragraph \_\_\_\_\_  
(do not quote the Ordinance)

4. Appeal is made herewith for  
☐ Interpretation of the Zoning Ordinance or map  
☐ Special permit under the Zoning Ordinance  
☐ Variance to the Zoning Ordinance

5. Previous appeal. A previous appeal \_\_\_\_\_ (has/has not/not applicable-NA) been made  
with respect to this decision of the Zoning Enforcement Officer with respect to this property.

In the form of:

- ☐ A requested Interpretation
- ☐ A requested Special Permit
- ☐ A requested Variance

and was (were) made in:

Appeal number _____	Dated _____
Appeal number _____	Dated _____
Appeal number _____	Dated _____

APPLICATION TO BOARD OF APPEALS  
TOWN OF FLORIDA, MONTGOMERY COUNTY, NY  
(Page two of two)

6. Reason for appeal:

(complete relevant blank, use extra sheet if needed)

A. ( ) Interpretation of the Zoning Ordinance or Map is requested because

B. (X) A Special Permit under the Zoning Ordinance is requested for because

WECS require a special permit according to Zoning Ordinance

C. (X) A Variance to the Zoning Ordinance is requested because a strict application of the Ordinance would produce undo hardship for these reason:

(1) There is no reasonable return for the land because:

See Attached

(2) The hardship created is unique and is not shared by all properties alike in the immediate vicinity of this property and in this use district:

See Attached

(3) The Variance would observe the spirit of the Ordinance and would not change the Character of the district because:

See Attached



Signature

10/28/21

Date

**TOWN BOARD  
TOWN OF FLORIDA, MONTGOMERY COUNTY, NEW YORK**

In the Matter of the Application of

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**Florida Wind 1, LLC (Borrego Solar Systems, Inc.)**

Re: Application for Area Variance

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**STATEMENT OF INTENT  
APPLICATION FOR AREA VARIANCE**

**I. Introduction**

Borrego Solar Systems, Inc., on behalf of its affiliate Florida Wind 1, LLC (the "Applicant") is seeking approval to construct a single wind turbine with associated features and infrastructure located at 153 YMCA Road, Amsterdam, New York, 12010 ( SBL 102.-1-19) in the Town of Florida, Montgomery County. The turbine model anticipated for the project is the Vestas 150 4.3 MW turbine which has a tip height of 649-feet. Permanent features for the project include a wind turbine, turbine foundation, gravel pad around the foundation, crane pad, gravel access road off YMCA Road, overhead and underground utility lines and utility poles. Temporary features needed during construction include a construction staging area, stockpile, blade lay down area and truck route around the turbine. The staging area and truck route will be constructed of gravel, but following the turbine installation, the stone will be removed and the area de-compacted and restored with topsoil and seeding. The remaining areas will remain pervious, but will require de-compaction and reseeded following turbine construction.

The wind turbine height of 649 feet will deviate from the Town of Florida's Zoning Code, Article VII Section 45.4 requiring commercial wind energy conversion systems ("WECS") not to exceed a height of 400 feet. This petition supports the Applicant's application for the request of an area variance for wind turbine height.

**II. Standard for Area Variance**

Upon receiving an application for an area variance, the zoning board of appeals performs a balancing test as set forth in Section 267-b(3)(b) of the New York Town Law: "[T]he zoning board of appeals shall take into consideration the benefit to the applicant if the variance is granted, as weighed against the detriment to the health, safety and welfare of the neighborhood or community by such grant." The ZBA shall also consider the following five factors:

- "(1) whether an undesirable change will be produced in the character of the neighborhood or a detriment to nearby properties will be created by the granting of the area variance;
- (2) whether the benefit sought by the applicant can be achieved by some method, feasible for the applicant to pursue, other than an area variance;
- (3) whether the requested area variance is substantial;
- (4) whether the proposed variance will have an adverse effect or impact on the physical or environmental conditions in the neighborhood or district; and
- (5) whether the alleged difficulty was self-created, which consideration shall be relevant to the decision of the board of appeals, but shall not necessarily preclude the granting of the area variance.

No one factor not dispositive and the ZBA must balance them. "The board of appeals, in the granting of area variances, shall grant the minimum variance that it shall deem necessary and adequate and at the

same time preserve and protect the character of the neighborhood and the health, safety and welfare of the community.” N.Y. Town Law § 267-b (3)(c).

Described below is the Applicant’s justification for each of the five factors that the ZBA will consider in its determination to grant an area variance.

III. **Borrego’s Project meets the requirements for an area variance.**

**A. The variance will not produce an undesirable change in the character of the neighborhood or create a detriment to nearby properties.**

The installation of a 649-foot (total height) turbine instead of a 400-foot turbine (maximum allowable per Town code) does not result in a change of character of the neighborhood, nor will it create a detriment to the nearby properties. Tall wind turbines are an allowable special use, and the project involves the installation of a single wind turbine and associated gravel access road. The change in turbine height does not alter the size of the project or the area coverage. The required property line setback distances are being met for the higher tower, including noise setbacks.<sup>1</sup> An associated gravel access road also remains the same in size and location. Additionally, the project is situated adjacent to multiple high voltage power transmission lines, and thus the Applicant’s proposed plan is not out of character with the existing scheme of development.<sup>2</sup>

The Town Board has determined that tall wind turbines are an appropriate use in this neighborhood by allowing them as a special use, a legislative determination that the use is in harmony with general zoning plan and will not adversely affect the neighborhood.<sup>3</sup> The higher turbine does not create a change in the allowable uses or an impact on the character of the neighborhood.

**B. The benefit sought by the applicant cannot be achieved by another feasible method, other than an area variance**

The Applicant requests an area variance to deviate from Florida’s Zoning Code required wind tower height of 400 feet because wind turbines of that height are no longer available in today’s market. Furthermore, achieving comparable power output from legacy 400 foot turbine technology would require multiple turbines. Multiple turbines could not be sited on this parcel due to required spacing and setbacks as well as exceeding sound requirements due to the shorter/faster blades. There are no other alternatives nor redesigning that will achieve the applicant’s goal of constructing an allowable use - a wind turbine - since manufacturers have moved to higher, more efficient and powerful turbines to increase energy production. The benefit

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<sup>1</sup> There have been significant advances in wind blade technology since the Florida Code was adopted, “including greater size and more height (which means the turbine can tap higher wind speeds), with less noise,” Kevin Hand, *How New Wind Turbines Produce Far More Energy*, Wall Street Journal, May 16, 2021, available at <https://www.wsj.com/articles/wind-turbine-renewable-energy-11620848318>.

<sup>2</sup> Rice, Supplemental Practice Commentaries, McKinney’s Consolidated Laws of New York, Book 61, Town Law 267-b, p. 57 (2006).

<sup>3</sup> The inclusion of a use as a special use is a legislative determination that use is appropriate in that district, *Matter of North Shore Steak House, Inc. v. Bd. of Appeals of Inc. Vil. of Thomaston* (30 N.Y.2d 238 (1972)).

of a renewable energy source, which under community wind project will be provided to the local electrical grid, cannot be achieved by other methods at this site.

Additionally, granting the Applicant's request for a 649 foot tower is the minimum variance necessary as this is the minimum height of turbine towers on the market today. Therefore, it is not feasible to purchase a wind turbine that meets Florida's zoning requirements as the standard height of wind turbines has increased to 649 feet.

**C. The area variance is not substantial**

The increase in turbine height is not substantial. A higher turbine will not appear substantially different to the surrounding area. When comparing the numerical difference of the wind turbines of 400 feet versus 649 feet, this may appear to be a substantial increase. The ZBA should not look at the substantiality of the variance in a vacuum, instead, it should evaluate the totality of the relevant circumstances.<sup>4</sup> This determination is not a purely mathematical calculation, but should consider the unique facts and circumstances, including whether the variance sought will have a negative impact on the community.

This deviation in turbine height will be insignificant and will not cause negative impacts to the community. The visual appearance with the change in height will be minimal and the Project complies with all other applicable local laws.

**D. The proposed variance will not have an adverse effect or impact on the physical or environmental conditions in the community.**

The Project will not adversely affect or impact the physical conditions of the neighborhood or district. As discussed above, the visual impacts of this deviation in height are negligible. Additionally, the advancement of turbine technology results in a decrease in noise production from the turbine at increased heights. A sound study prepared by Epsilon Inc. (attached) conducted on increased tower heights conclude that a tower height of 649 feet will not exceed the 50 decibels requirement in Florida's Zoning Code, Section 45.4(i).

An increase in tower height will not pose a negative environmental impact to the community. The project features that impact the area (i.e., wetlands, trees, surface waters) remain the same under increased tower height. Additionally, the area of the base of the tower does not change, therefore, the project will not increase in lot coverage. Thus, the requested tower height variance will not negatively impact the physical features or environment of the community.

**E. The Applicant did not create the hardship.**

This request is not self-created because it is due to the advance in technology in wind turbines and the increased efficiency of longer blades, which has resulted in turbines complying with the Town Code being unavailable. The Applicant does not have control over the change in technology or the market availability of wind turbines, and cannot construct an allowable use without the variance. It is also respectfully submitted that even if viewed as self-created, it is not a dispositive factor and the self-created nature of the variance must generally be considered through the lens of the impact the variance will have if it is granted, which, as noted above, is minimal.<sup>5</sup>

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<sup>4</sup> *Lodge Hotel, Inc. v. Town of Erin Zoning Bd. Of Appeals*, 21 Misc.3d 1120(A), 873 N.Y.S.2d 512 (Sup. Ct. Stuten Co. 2007), *affd*, 43 A.D.3d 1447, (4th Dep't 2007).

<sup>5</sup> *Goodman v. City of Long Beach*, 128 A.D.3d 1064, 1065 (2d Dept. 2015) ("grant of the application had a rational basis and was not arbitrary and capricious, even though the proposed variances were substantial and the applicant's alleged difficulty was self-created.").

## **Conclusion**

It is respectfully submitted that the benefit of the proposed variance to the Applicant outweighs the potential detriment to the neighborhood and community. When evaluating the five factors, the requested area variance should be granted. Finally, the ZBA, "in the granting of area variances, shall grant the minimum variance that it shall deem necessary and adequate and at the same time preserve and protect the character of the neighborhood and the health, safety and welfare of the community," pursuant to Town Law Section 267-b. The requested variance is the minimum necessary.

Respectfully submitted,

By: \_\_\_\_\_

A handwritten signature in blue ink, appearing to read "David Strong", is written over a horizontal line.

David Strong, Sr. Project Developer  
Borrego Solar Systems, Inc.

# *Short Environmental Assessment Form*

## *Part 1 - Project Information*

### Instructions for Completing

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

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

<b>Part 1 – Project and Sponsor Information</b>				
Name of Action or Project:				
Project Location (describe, and attach a location map):				
Brief Description of Proposed Action:				
Name of Applicant or Sponsor:			Telephone:	
			E-Mail:	
Address:				
City/PO:		State:	Zip Code:	
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation?			NO	YES
If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			<input type="checkbox"/>	<input type="checkbox"/>
2. Does the proposed action require a permit, approval or funding from any other government Agency?			NO	YES
If Yes, list agency(s) name and permit or approval:			<input type="checkbox"/>	<input type="checkbox"/>
3. a. Total acreage of the site of the proposed action? _____ acres b. Total acreage to be physically disturbed? _____ acres c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ acres				
4. Check all land uses that occur on, are adjoining or near the proposed action: <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> Urban</span> <span><input type="checkbox"/> Rural (non-agriculture)</span> <span><input type="checkbox"/> Industrial</span> <span><input type="checkbox"/> Commercial</span> <span><input type="checkbox"/> Residential (suburban)</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> Forest</span> <span><input type="checkbox"/> Agriculture</span> <span><input type="checkbox"/> Aquatic</span> <span><input type="checkbox"/> Other(Specify):</span> </div> <div style="margin-top: 5px;"><input type="checkbox"/> Parkland</div>				



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

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply: <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> Shoreline</span> <span><input type="checkbox"/> Forest</span> <span>Agricultural/grasslands</span> <span>Early mid-successional</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>Wetland</span> <span><input type="checkbox"/> Urban</span> <span>Suburban</span> </div>		
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	NO	YES
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Is the project site located in the 100-year flood plan?	NO	YES
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, <div style="margin-left: 20px; margin-top: 10px;">           a. Will storm water discharges flow to adjacent properties?         </div> <div style="margin-left: 20px; margin-top: 10px;">           b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?         </div> If Yes, briefly describe: <div style="border-bottom: 1px solid black; margin-top: 5px; height: 1.2em;"></div> <div style="border-bottom: 1px solid black; margin-top: 5px; height: 1.2em;"></div>	NO	YES
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment: <div style="border-bottom: 1px solid black; margin-top: 5px; height: 1.2em;"></div> <div style="border-bottom: 1px solid black; margin-top: 5px; height: 1.2em;"></div>	NO	YES
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe: <div style="border-bottom: 1px solid black; margin-top: 5px; height: 1.2em;"></div> <div style="border-bottom: 1px solid black; margin-top: 5px; height: 1.2em;"></div>	NO	YES
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: <div style="border-bottom: 1px solid black; margin-top: 5px; height: 1.2em;"></div> <div style="border-bottom: 1px solid black; margin-top: 5px; height: 1.2em;"></div>	NO	YES
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE</b></p> <p>Applicant/sponsor/name: _____ Date: _____</p> <p>Signature: <u>                    </u> Title: _____</p>		



**BORREGO**

30 CENTURY HILL DRIVE, SUITE 301  
LATHAM, NY 12110  
PHONE: (518) 698-6273  
FAX: (518) 643-6778  
WWW.BORREGOSOLAR.COM

NOT FOR  
CONSTRUCTION

IT IS A VIOLATION OF LAW FOR ANY PERSON TO ALTER ANY DOCUMENT WHICH BEARS THE SEAL OF A PROFESSIONAL ENGINEER, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

PLAN SET  
153 YMCA RD  
AMSTERDAM, NY, 12010

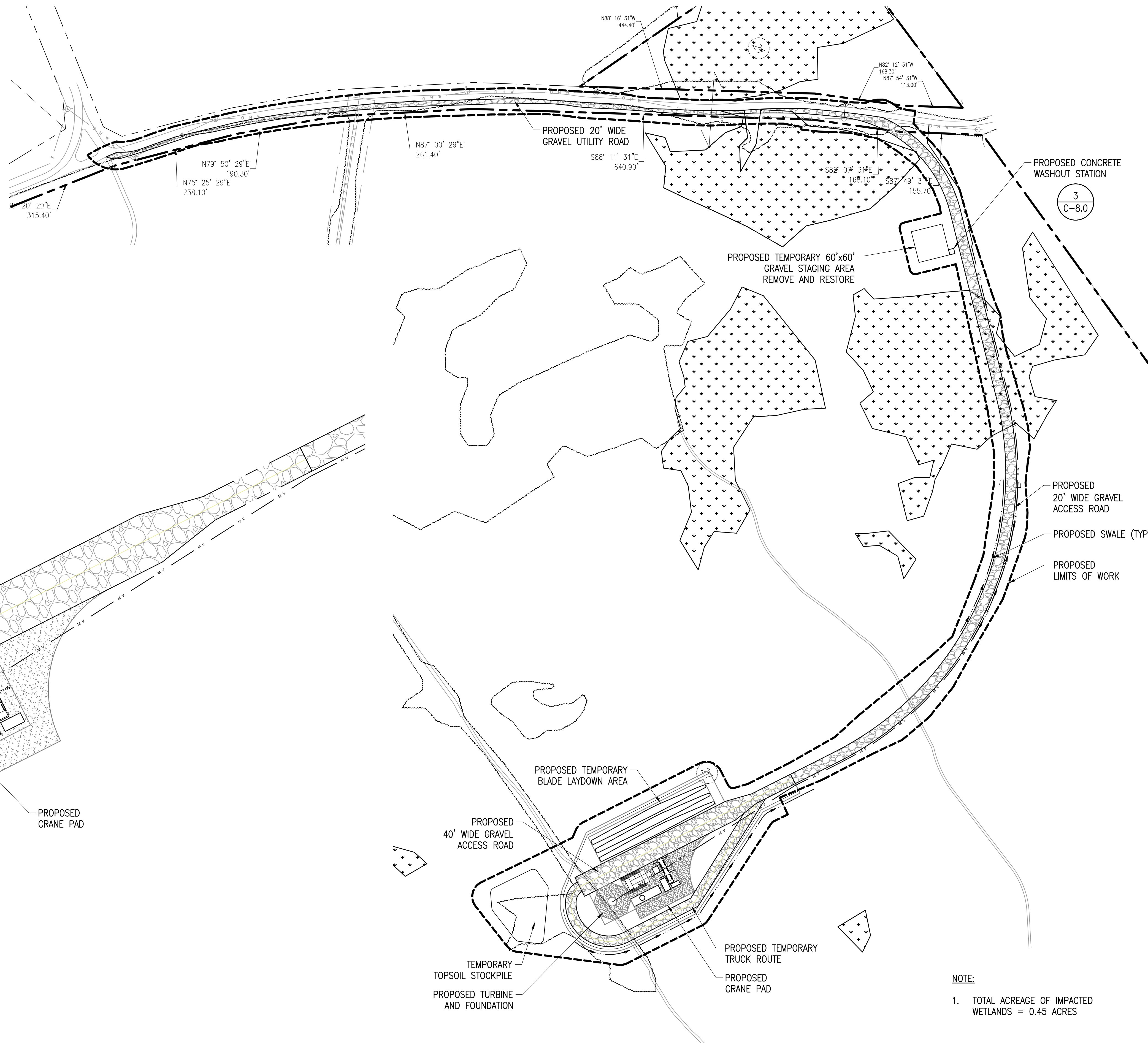
PROJECT NUMBER:  
XXX-XXXX

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
XX/XX/XX	XXX			INTERCONNECTION/PB3/SUP

SCALES STATED ON DRAWINGS  
ARE VALID ONLY WHEN PLOTTED  
ARCH D 24" X 36"

**C-3.0**

LAYOUT AND MATERIALS  
PLAN

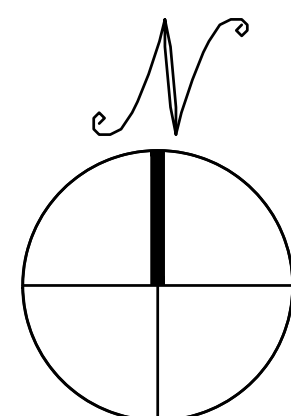


NOTE:

1. TOTAL ACREAGE OF IMPACTED WETLANDS = 0.45 ACRES

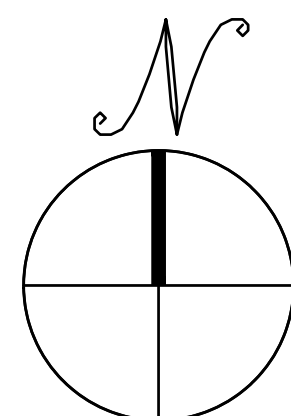
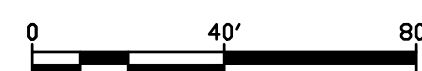
NOTES:

1. ALL TEMPORARY AREAS TO BE RESTORED AND DECOMPACTED AS NEEDED.
2. GRAVEL AND GEOTEXTILE FABRIC TO BE REMOVED AND ALL AREAS TO BE TOPSOIL AND SEEDED.



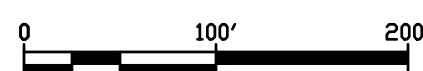
## ENLARGED PERMANENT PLAN

SCALE: 1" = 40'



## LAYOUT AND MATERIALS PLAN

SCALE: 1" = 100'





# REFERRAL FORM

## MONTGOMERY COUNTY PLANNING BOARD

Referral Number \_\_\_\_\_  
 assigned by the MCPB upon  
 acceptance of referral for review

This Referral must be received SEVEN CALENDAR DAYS prior to the MCPB meeting date in order for it to be placed on the agenda.

TO: Montgomery County Planning Board,  
 Old County Courthouse,  
 PO Box 1500, Fonda, New York 12068  
 Phone: 518-853-8334  
 Fax: 518-853-8336

FROM: Municipal Board: Town of Amsterdam

Referring Officer: Secretary

Mail original resolution to: Town of Amsterdam  
283 Manny's Corner Rd.  
Amsterdam, N.Y. 12010

1. Applicant: Benderson Development 2. Site Address: 4930 Route 30 Amsterdam NY  
 3. Tax Map Number(s): 39-1-29.2 & 39-1-29.3 4. Acres: .889  
 5. Is the site currently serviced by public water? ☒ Yes ☐ No  
 6. On-site waste water treatment is currently provided by: ☒ Public Sewer or ☐ Septic System  
 7. Current Zoning: B-1 8. Current Land Use: vacant  
 9. Project Description: Build a 2010 SF building for a Starbucks coffee shop  
With an outdoor patio and drive-thru lane.

### 10. MCPB Jurisdiction:

☐ Text Adoption or Amendment

☐ Site is located within 500' of: \_\_\_\_\_

☐ a municipal boundary.

☒ a State or County thruway/highway/roadway

☐ an existing or proposed State or County park/recreation area

☐ an existing or proposed County-owned stream or drainage channel

☐ a State or County-owned parcel on which a public building or institution is situated

☐ a farm operation within an Agricultural District (incl. Ag data Statement) (does not apply to area variances)

11. PUBLIC HEARING: Date: Dec 1, 2021 Time: 6:55 pm Location: Town of Amsterdam Town Hall 283 Manny's Corner Rd  
Amsterdam, NY 12010

Referred Action(s)

If referring multiple, related actions, please identify the referring municipal board if different from above.

12. ☐ Text Adoption or

☐ Amendment

Referring Board:

☐ Comprehensive Plan

☐ Local Law

☐ Zoning Ordinance

☐ Other \_\_\_\_\_

13. ☐ Zone Change

Referring Board:

Proposed Zone District: \_\_\_\_\_

Number of Acres: \_\_\_\_\_

Purpose of the Zone Change: \_\_\_\_\_

14. ☒ Site Plan ☐ Project Site Review

Referring Board: Planning Board

Proposed Improvements: \_\_\_\_\_

Proposed Use: Starbucks coffee shop

Will the proposed project require a variance?

☐ Yes

☒ No

Type: ☐ Area

☐ Use

Specify: \_\_\_\_\_

Is a State or County DOT work permit needed?

If Yes : ☐ State or

☐ County

☒ No

Specify: \_\_\_\_\_

13. ☐ Special Permit

Referring Board:

Section of local zoning code that requires a special permit for this use: \_\_\_\_\_

Will the proposed project require a variance?

☐ Yes☒ NoType: ☐ Area☐ Use

## 16. Variance

Referring Board:

☐ Area☐ Use

Section(s) of local zoning code to which the variance is being sought: \_\_\_\_\_

Describe how the proposed project varies from the above code section: \_\_\_\_\_

## SEQR Determination

Action:

Finding:

☐ Type I☐ Type II☒ Unlisted Action☐ Exempt☐ Positive Declaration – Draft EIS☐ Conditional Negative Declaration☐ Negative Declaration☐ No Finding (Type II Only)SEQR determination made by (Lead Agency): not determined yet Date: \_\_\_\_\_

## REQUIRED MATERIAL

Send 3 copies of a "Full Statement of the Proposed Action" which includes:

All materials required by and submitted to the referring body as an application

- If submitting site plans, please submit only 1 large set of plans, and 12 11x17 packets.
- All material may be submitted digitally as well at <http://www.mcblc.org/planning-services/montgomery-county-planning-board-referrals/>

This referral, as required by GML §239 1 and m, includes complete information, and supporting materials to assist the Montgomery County Planning Board (MCPB) in its review. Recommendations by MCPB shall be made to the Referring Body within thirty days of receipt of the Full Statement.

Darlene Thibodeau  
Name, Title & Phone Number of Person Completing this Form

Planning Board Secretary  
518-842-1217

12/2/21  
Transmittal Date

This side to be completed by Montgomery County Planning.

**REFERRAL FORM**  
**MONTGOMERY COUNTY PLANNING BOARD**

TO: \_\_\_\_\_

Receipt of 239-m referral is acknowledged on \_\_\_\_\_, Please be advised that the Montgomery County Planning Board has reviewed the proposal stated on the opposite side of this form on \_\_\_\_\_ and makes the following recommendation.

- ☐ Approves
- ☐ Approves (with Modification)
- ☐ Disapproves:
- ☐ No significant County-wide or inter-community input
- ☐ Not subject to Planning Board review
- ☐ Took no action

Section 239-m of the General Municipal Law requires that within thirty days after final action by the municipality is taken; a report of the final action shall be filed with the County Planning Board.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Kenneth F. Rose, Director  
Montgomery County Dept. of Economic  
Development and Planning

2/10/2011

Application #: \_\_\_\_\_

Date: \_\_\_\_\_

**Town of Amsterdam  
Planning Board  
Application to the Planning Board**

A completed Application must be filed at least fourteen (14) days prior to the meeting at which it is to be considered by the Planning Board, including all applicable attached information.

Applicant: \_\_\_\_\_  
(must be property owner)

Address: \_\_\_\_\_  
\_\_\_\_\_

Phone: (    ) \_\_\_\_\_

Professional Advisor: \_\_\_\_\_

(i.e. Engineer, Architect, Surveyor, etc.)

Address: \_\_\_\_\_  
\_\_\_\_\_

Phone: (    ) \_\_\_\_\_

Applicant's Representative: \_\_\_\_\_

(if applicable)

Address: \_\_\_\_\_  
\_\_\_\_\_

Phone: (    ) \_\_\_\_\_

Other : \_\_\_\_\_

(if appropriate, please specify)

Address: \_\_\_\_\_  
\_\_\_\_\_

Phone: (    ) \_\_\_\_\_

**Property Location**

Address: \_\_\_\_\_

General Location: \_\_\_\_\_  
\_\_\_\_\_

Zoning District: \_\_\_\_\_

Tax Parcel ID # (SBL) \_\_\_\_\_

**Type of Application (please check appropriate box(s)):**

☐ Subdivision

☐ Site Plan

☐ Special Use Permit

☐ Planned Unit Development Review (formal action required by Town Board)

Attached please find Appendix A-SEQR compliance, and Appendix B-Ag. Data Statement compliance. Compliance with these items is required under the applicable NYS Laws, a brief explanation is included in the appendices to assist the applicant. For specifics on submission/application requirements, procedures, time frames, etc., the applicant should refer to the applicable Town regulations (Zoning, Subdivision, etc.) and/or NYS law (SEQR, Ag. & Markets, General Municipal, etc.).

\_\_\_\_\_  
Applicant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Applicant's Representative

\_\_\_\_\_  
Date



# PROPOSED COFFEE SHOP

## AMSTERDAM COMMONS

4930 Route 30, Amsterdam, NY 12010

BDC Property # 4161

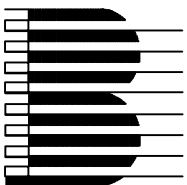
### SITE DEVELOPMENT DRAWINGS

#### INDEX OF DRAWINGS

DWG. #	DRAWING NAME	REVISION	DATE
C1.0	COVER SHEET	1	11.4.2021
C2.0	EXISTING SURVEY		
C3.0	DEMOLITION & EROSION CONTROL PLAN		
C3.1	DEMOLITION & EROSION CONTROL DETAILS		
C4.0	OVERALL SITE PLAN	1	11.4.2021
C4.1	DETAILED SITE PLAN	1	11.4.2021
C4.11	EXISTING EASEMENTS SITE PLAN		
C4.2	CONSTRUCTION DETAILS	1	11.4.2021
C5.0	GRADING PLAN	1	11.4.2021
C5.1	DRAINAGE PLAN		
C5.2	DRAINAGE DETAILS		
C6.0	UTILITY PLAN		
C7.0	LANDSCAPE PLAN		
C8.0	LIGHTING PLAN		

#### OWNER/DEVELOPER:

NAME: BENDERSON DEVELOPMENT COMPANY, LLC  
ADDRESS: 570 DELAWARE AVENUE, BUFFALO, NY 14202  
CONTACT: DAVID ZUPPELLI  
PHONE: 716 - 878 - 9683



**BENDERSON DEVELOPMENT COMPANY, LLC**  
570 Delaware Ave.  
Buffalo, New York 14202

#### SURVEYOR

NAME: GERALD R GRAY  
ADDRESS: -  
CONTACT: GERALD R GRAY, PLS  
PHONE: 518-312-1335



#### UTILITIES:

NATURAL GAS  
NAME/TITLE:  
COMPANY/DEPT: NATURAL GRID  
ADDRESS:  
PHONE: (800) 644 - 6729

TELEPHONE COMPANY  
NAME/TITLE:  
COMPANY/DEPT: VERIZON  
ADDRESS: -  
PHONE: 877 - 297 - 7816

DIG SAFELY NEW YORK  
PHONE: 1 - 800 - 962 - 7962 OR (811)

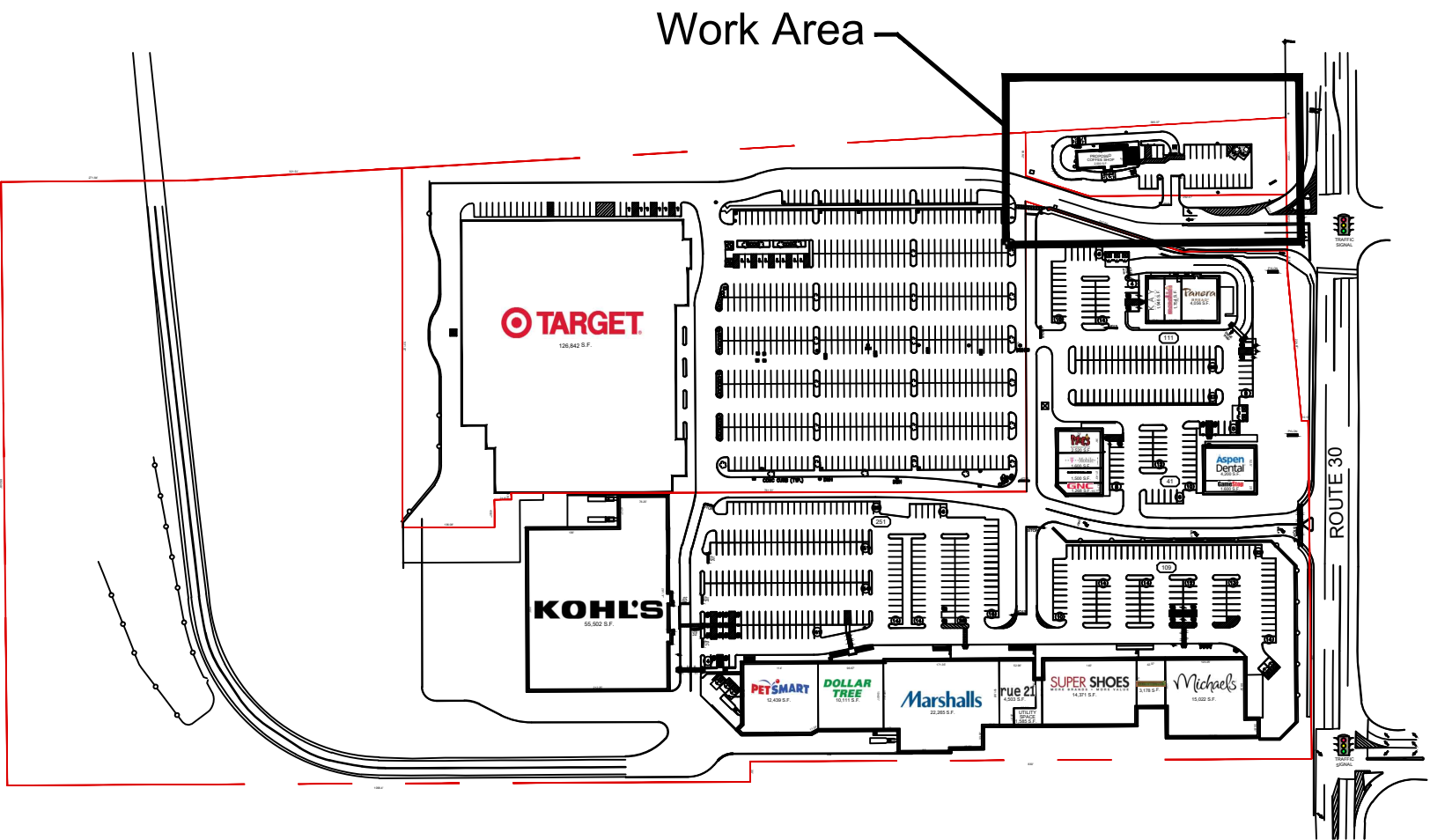
#### AGENCIES:

PLANNING BOARD  
NAME/TITLE: BRENT PHETTEPLACE / CHAIRPERSON  
COMPANY/DEPT: TOWN OF AMSTERDAM, PLANNING BOARD  
ADDRESS: 283 MANNY'S CORS. RD, AMSTERDAM, NY 12010  
PHONE: 518 - 842 - 7961

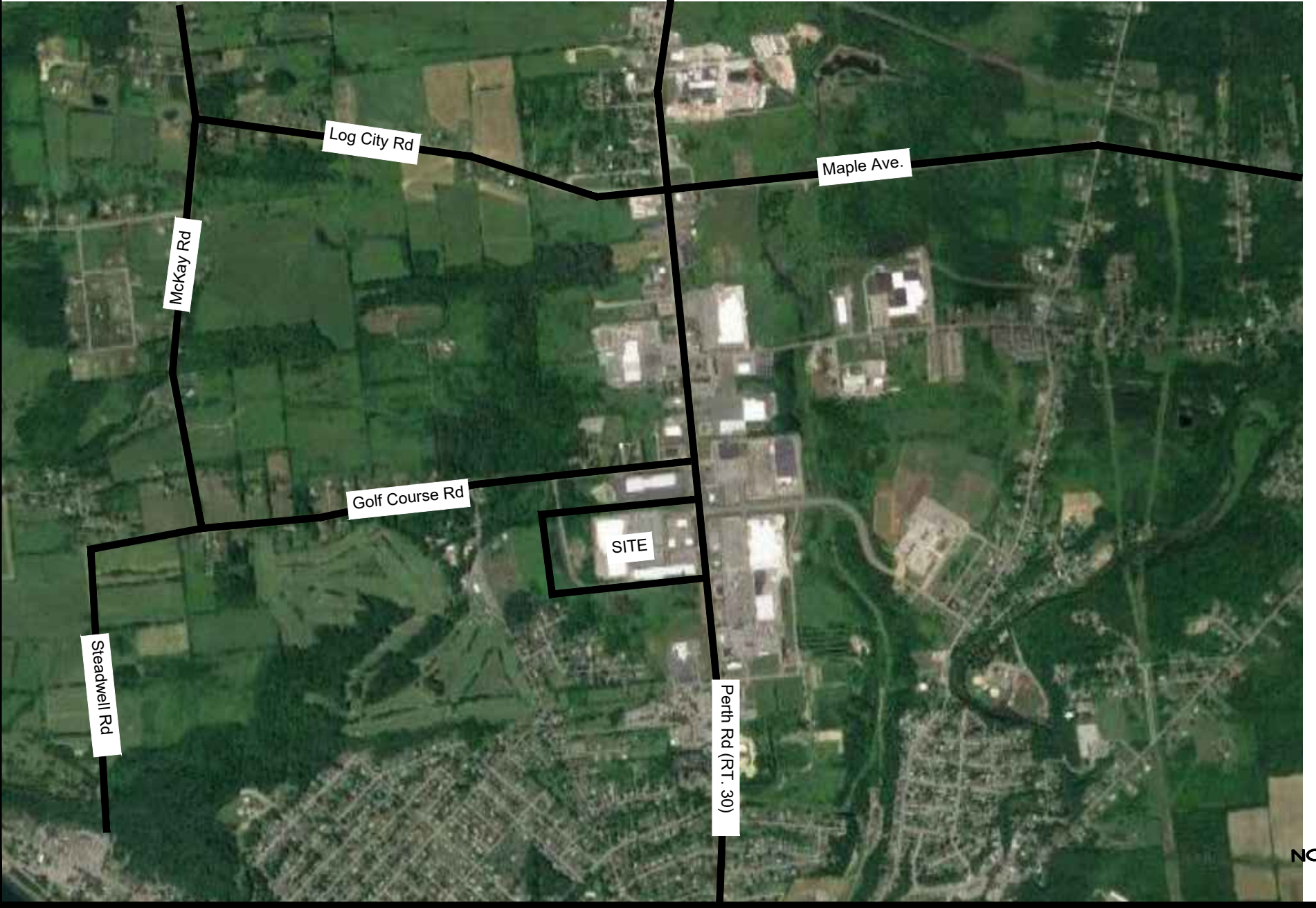
ZONING BOARD  
NAME/TITLE: MICHAEL FARIELLO / CHAIRMAN  
COMPANY/DEPT: TOWN OF AMSTERDAM / ZBA  
ADDRESS: 283 MANNY'S CORS. RD, AMSTERDAM, NY 12010  
PHONE: 518 - 842 - 7961

WATER / SEWER  
NAME/TITLE: CARL J. RUST / SUPERINTENDENT  
COMPANY/DEPT: TOWN OF AMSTERDAM / WATER AND SEWER DEPT.  
ADDRESS: 283 MANNY'S CORS. RD, AMSTERDAM, NY 12010  
PHONE: 518 - 842 - 7961

SITE LOCATION MAP 1:250



REGIONAL LOCATION MAP NTS



#### DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	11.4.2021	DZ	Town Comments

SPECIAL INFORMATION:  
ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

SHOP DRAWING SUBMITTALS ARE REQUIRED FOR ANY AND ALL STRUCTURES.

NOTICE  
UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.



PROPERTY NUMBER:  
# 4161

PROPOSED COFFEE SHOP

Amsterdam Commons  
4930 Route 30  
Amsterdam , NY 12010

CONSULTANT

JAMES ALLEN RUMSEY  
ARCHITECT  
PREPARED FOR

**BENDERSON DEVELOPMENT**  
570 DELAWARE AVE., BUFFALO, NY 14202  
(716) 886-0211

SEAL



TITLE:

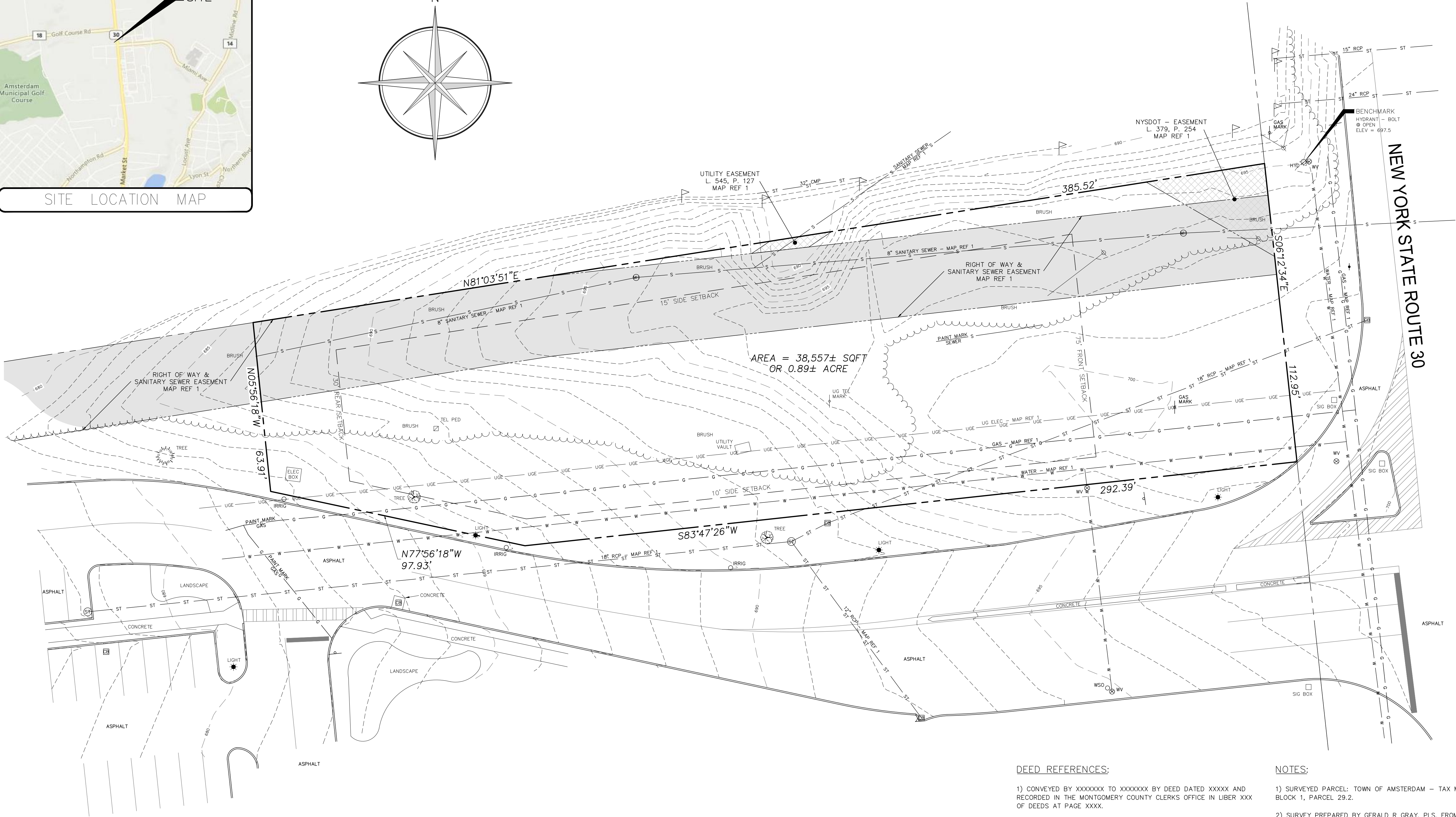
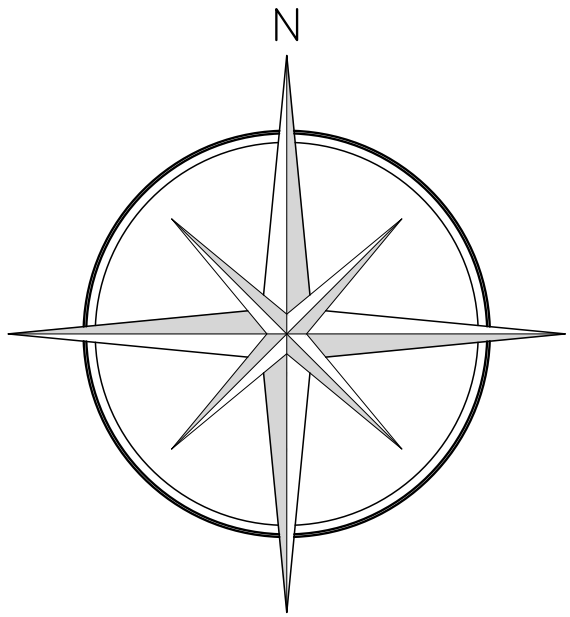
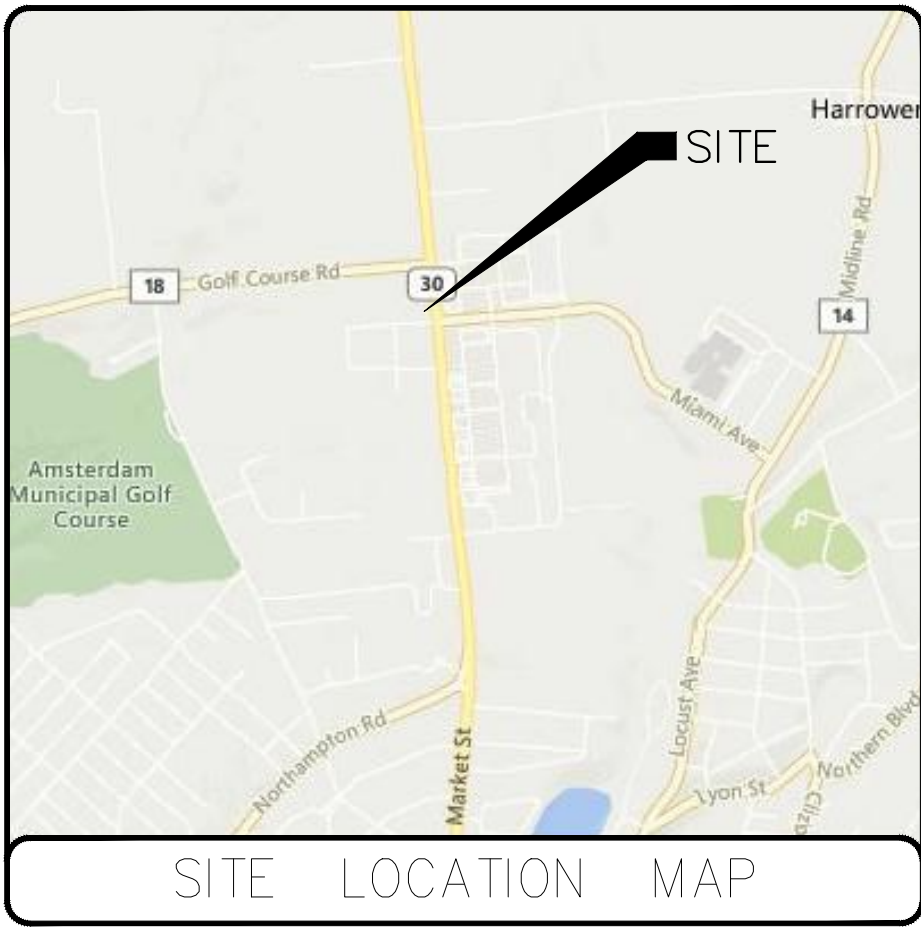
Cover Sheet

SCALE:  
NTS  
DRAWN BY:  
DMZ  
CHECKED BY:  
MAO  
DATE:  
08.24.2021

DRAWING NO.

C1.0





DEED REFERENCES:

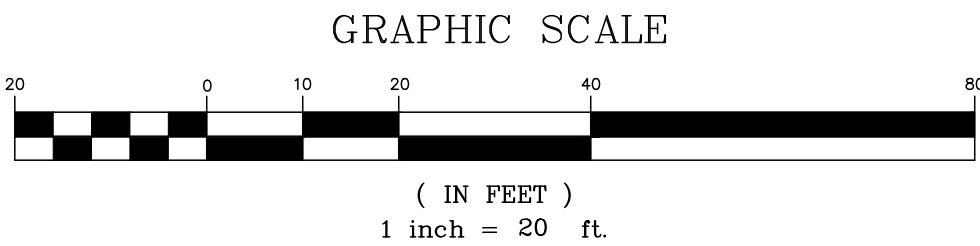
1) CONVEYED BY XXXXXXXX TO XXXXXXXX BY DEED DATED XXXXX AND RECORDED IN THE MONTGOMERY COUNTY CLERKS OFFICE IN LIBER XXX OF DEEDS AT PAGE XXXX.

MAP REFERENCES:

- 1) MAP ENTITLED "ALTA/ACSM LAND TITLE SURVEY - LANDS N/F AMSTERDAM KM I, II & III - (L. 1360 P. 185), - LANDS N/F BENDERSON TRUST ET. AL. - (L. 1514 P. 86)," AS PREPARED BY ABD ENGINEERS & SURVEYORS ON MARCH 19, 2007 AND LAST REVISED ON APRIL 19, 2007. COPY PROVIDED BY CLIENT.
- 2) MAP ENTITLED "ASBUILT MAP - AMSTERDAM COMMONS - LOTS 2 & 3 - SUBDIVISION PLAT" AS PREPARED BY PHILLIPS & ASSOCIATES ON DECEMBER 10, 2009. COPY PROVIDED BY CLIENT.

NOTES:

- 1) SURVEYED PARCEL: TOWN OF AMSTERDAM - TAX MAP 39.00, BLOCK 1, PARCEL 29.2.
- 2) SURVEY PREPARED BY GERALD R GRAY, PLS, FROM MAP REFERENCE 1, DEED REFERENCE 1 AND A NOVEMBER 2019 FIELD SURVEY.
- 3) NORTH IS REFERENCED TO NAD 83 NEW YORK STATE PLANES EAST ZONE.
- 4) SUBJECT TO ALL RIGHTS, EASEMENTS, COVENANTS OR RESTRICTION; RECORDED OR UNRECORDED.
- 5) SUBJECT TO ANY STATEMENT OF FACT CONTAINED IN AN UP TO DATE ABSTRACT OF TITLE OR TITLE REPORT.
- 6) UNDERGROUND UTILITIES IF SHOWN HEREON ARE BASED ON VISIBLE PHYSICAL EVIDENCE. THEY SHOULD BE CONSIDERED SCHEMATIC ONLY AND ARE SHOWN TO DEPICT GENERAL UTILITY CONNECTIONS RATHER THAN EXACT UNDERGROUND LOCATIONS. GERALD R GRAY PLS MAKES NO CERTIFICATION AS TO THE ACCURACY OF THE UNDERGROUND UTILITY LOCATIONS AND OTHER UTILITIES MAY EXIST THAT ARE NOT SHOWN ON THIS MAP. CALL DIGSAFE FOR FURTHER VERIFICATION.
- 7) SURVEY IS PREPARED IN ACCORDANCE WITH THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS CODE OF PRACTICE FOR LAND SURVEYS AS ADOPTED IN OCTOBER OF 1966 AND LAST REVISED ON JULY 18, 1997.



**PRELIMINARY**

Gerald R Gray NYSPLS 50513

UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY MAP IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW. COPIES OF THIS SURVEY MAP NOT BEARING THE LAND SURVEYOR'S EMBOSSED SEAL SHALL NOT BE CONSIDERED TO BE VALID COPIES. CERTIFICATES INDICATED OR IMPLIED HEREON SHALL RUN ONLY TO THE PARTY FOR WHOM THE SURVEY IS PREPARED, AND ON THEIR BEHALF TO THE ADDITIONAL PARTIES LISTED HEREON. CERTIFICATES ARE NOT TRANSFERABLE TO ADDITIONAL PARTIES OR SUBSEQUENT OWNERS, NOT LISTED HEREON.

No.	Submittal / Revision	App'd	Date

Drawn: GRG Date: 11/19/19  
Designed: Date:   
Checked: GRG Date: 11/19/19

Project Number

Project Title

**Amsterdam Commons  
"Developers Tract"**

NYS Route 30  
Town of Amsterdam  
State of New York

Prepared For

**Benderson Development  
Company, LLC**

570 Delaware Ave  
Buffalo, NY 14202

Drawing Title

**Boundary &  
Topographic Survey**

Drawing Scale:

1" = 20'

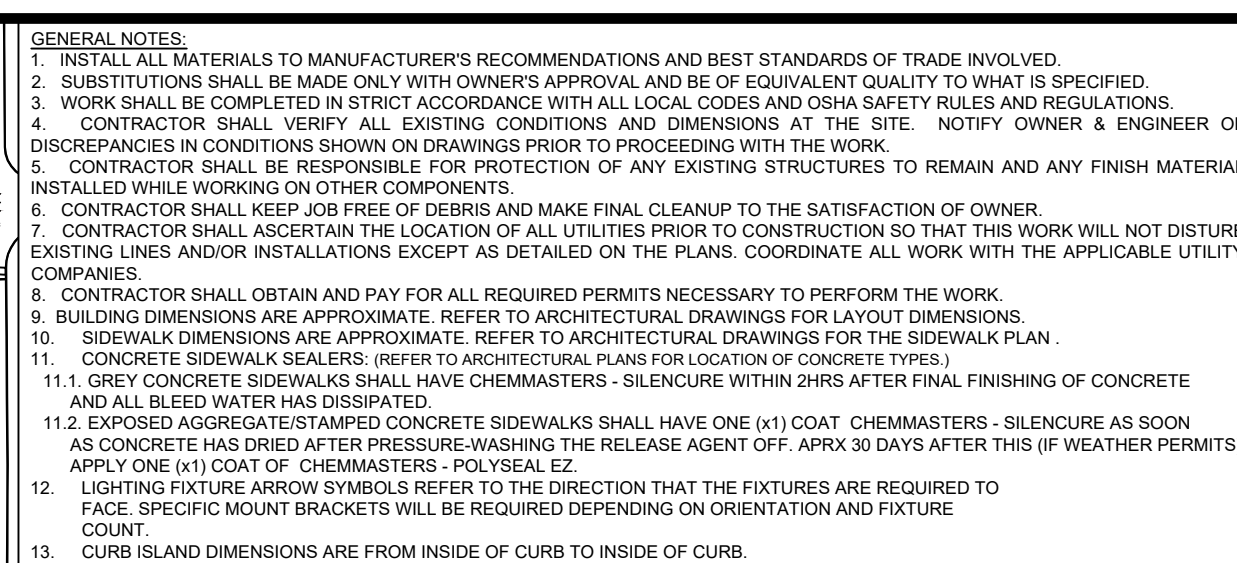
Date:

Nov 19, 2019












Drawing Number

**1 of 1**



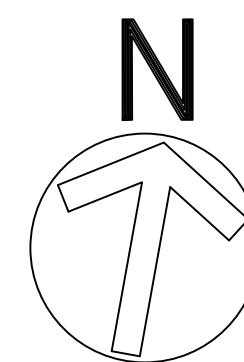


### DEMOLITION LEGEND:

	Property Line
	UGT Existing Electric
	Existing Gas
	Existing Water
	Existing Overhead Utility
	Existing Sanitary
	Existing Storm
	Existing Telecoms
	Limits of Disturbance /Saw-cut
	Silt Fence/Sock
	Inlet Protection

**DEMOLITION NOTES:** (#)

- Existing Curb to be Removed.
- Limit of Curb Removal
- Existing Utility to be Removed.
- Existing Utility to Remain and be protected during construction.
- Existing Storm Inlet Structure to Remain and have inlet protection during construction.
- Existing Landscaping to be Removed.
- Existing Landscaping to remain and be protected during construction.
- Existing Light Pole Base to be removed and to be relocated.
- Existing Light Pole and Base to Remain.
- Proposed Silt-Fence/Sock.

[illegible]

**SPECIAL INFORMATION:**  
ALL CONTRACTORS SHALL GUARANTEE THEIR WORK  
FOR A PERIOD OF ONE YEAR FROM THE DATE OF  
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EDUCATION LAW.



Know what's below.  
Call before you dig.

PROPERTY NUMBER  
# 4161

# PROPOSED COFFEE SHOP

CONSULTANT

JAMES ALLEN RUMSEY  
ARCHITECT

**BENDERSON**  
**DEVELOPMENT**  
570 DELAWARE AVE., BUFFALO, NY 14202  
(716) 886-0211

SEAL



TITLE: Demolition and Erosion Control Plan

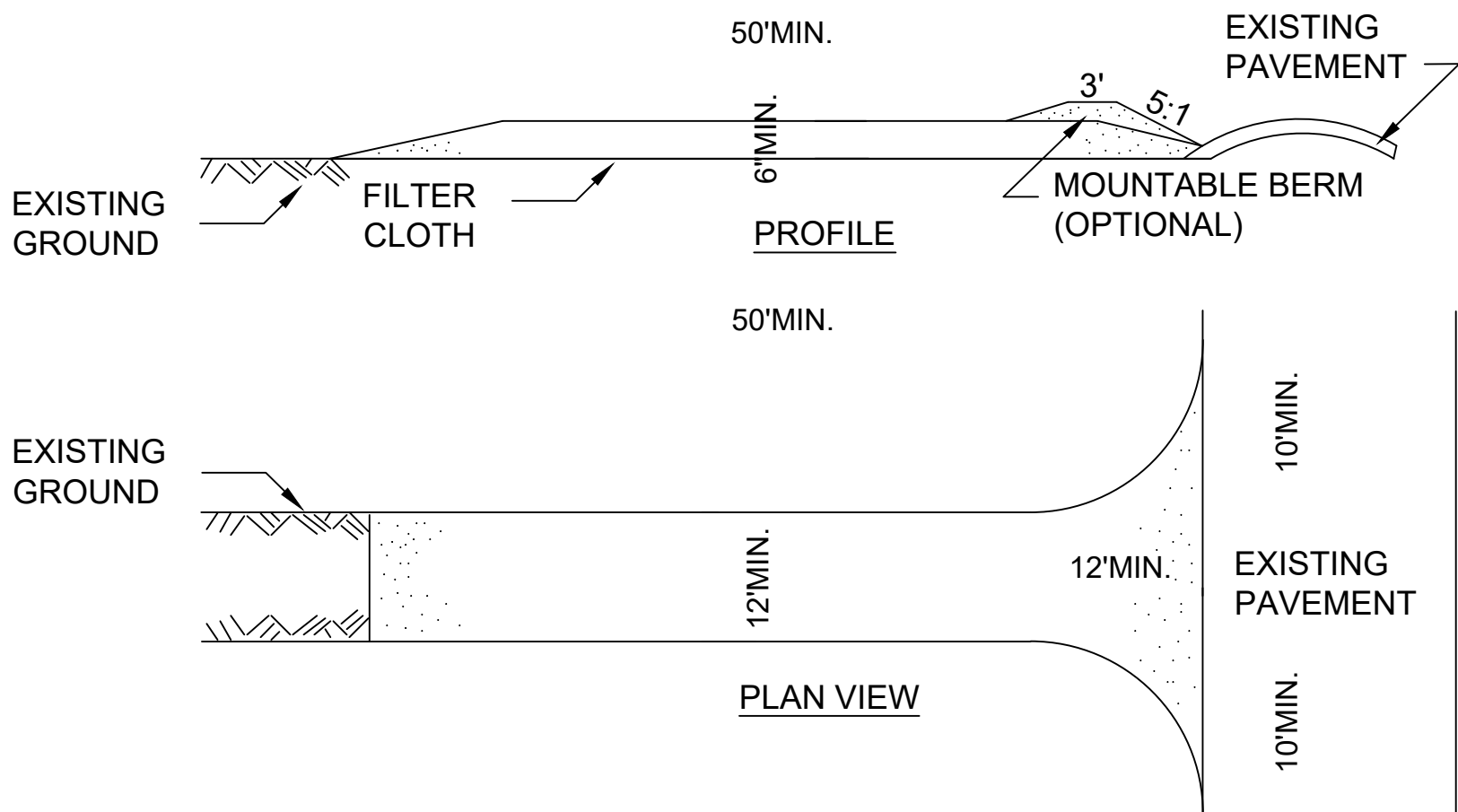
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DRAWN BY: DRAWING NO.

DMZ  
CHECKED BY:  
MAO  
DATE:  
08.24.2021

## C3.0

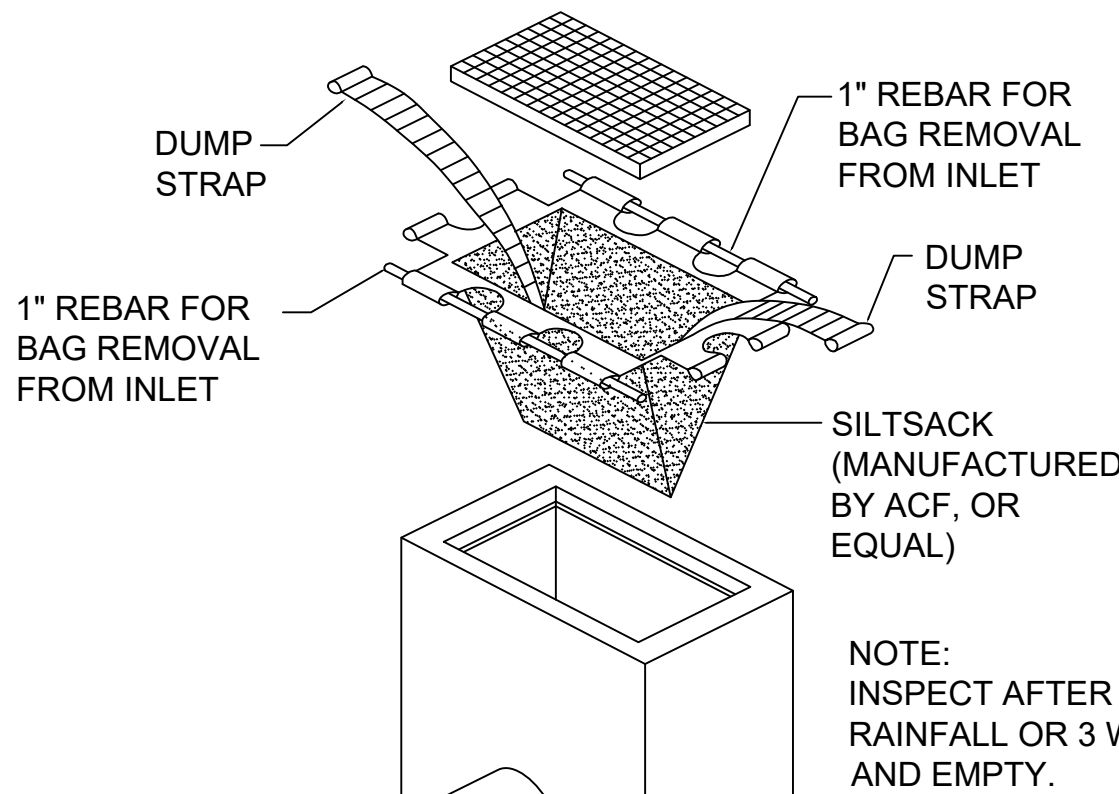
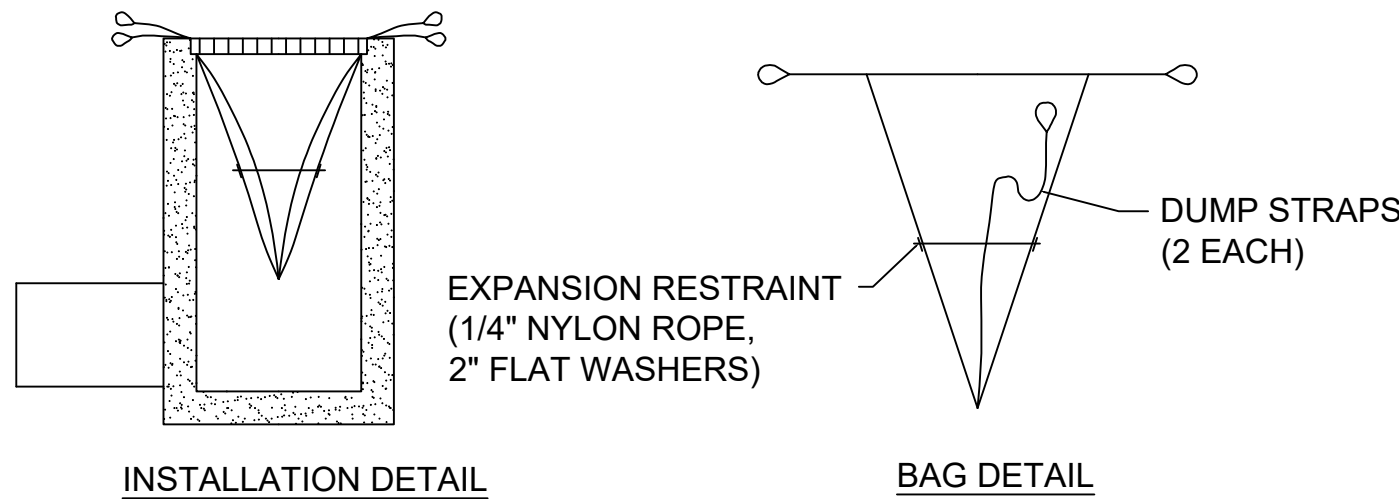




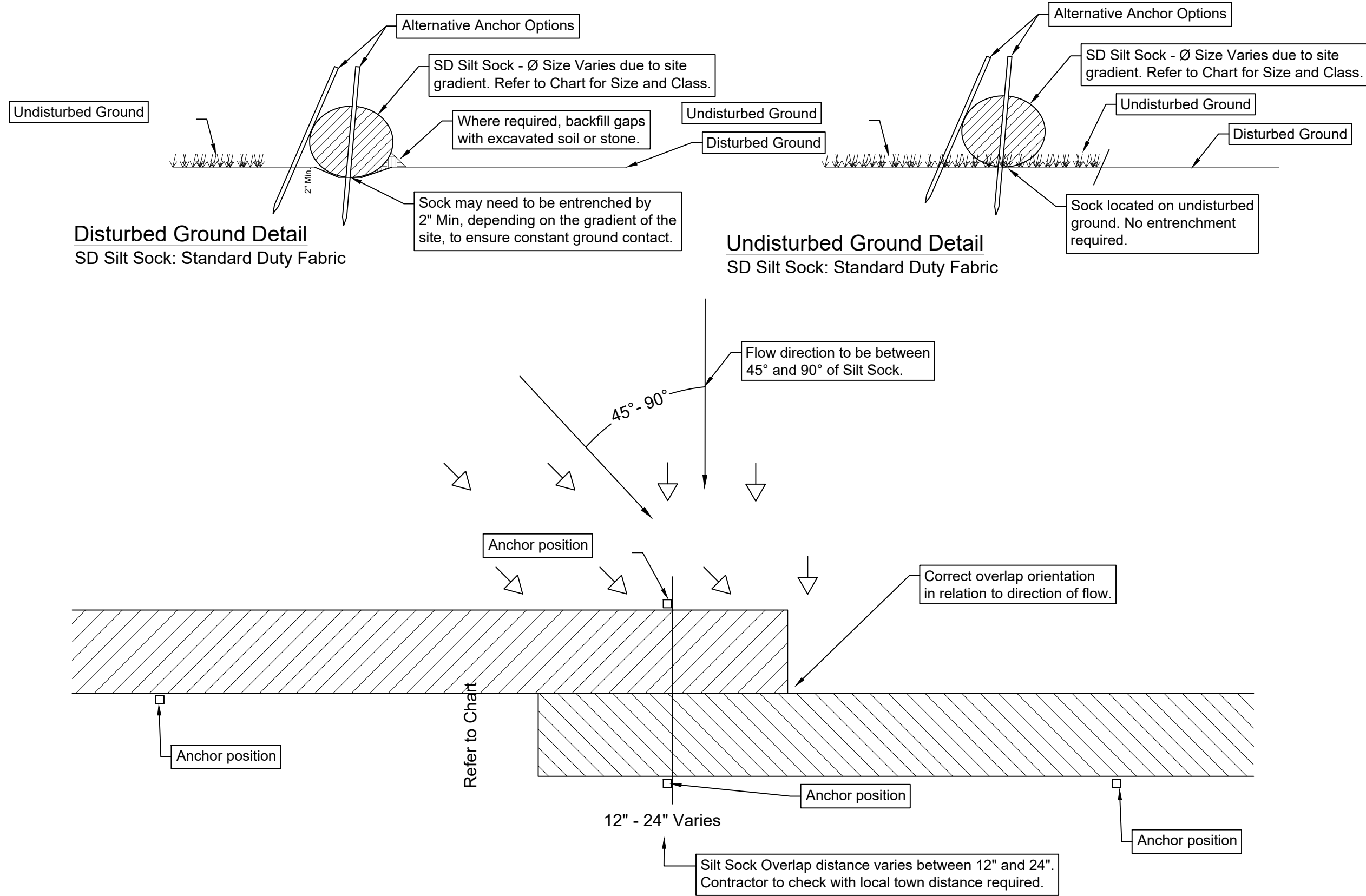
## STABILIZED CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

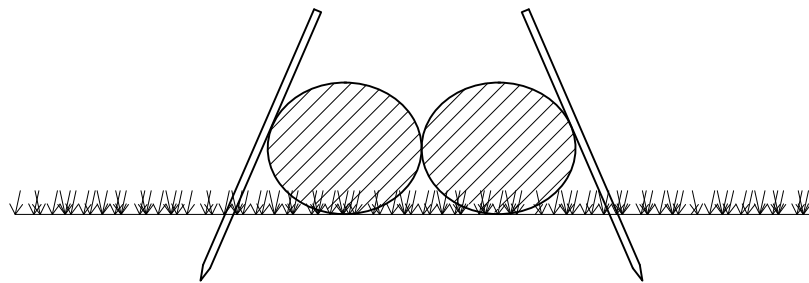


SILT SACK DETAIL  
N.T.S.



### Overlap Detail - PLAN

- 1) Anchors required at the overlap section are to stay outside the Silt Sock and not pierce through the material. See alternative anchor positons in details above.



Anchor at Overlaped Ends - SECTION

Size & Class Chart			
Gradient	Diameter		
	8"	12"	18"
0 - 2%	30	55	75
2.1 - 5%	25	40	55
5.1 - 10%	15	30	40
10.1 - 33%	10	15	20
> 33%	5	10	15

### SD SILT SOCK DETAIL

SD Silt Sock: Standard Duty Fabric

#### Notes:

- 1 - Do not use sock below the normal watermark or perpendicular to flow in river and where the maximum incline is greater than 50%.
- 2 - Contractors should be aware of federal, state and local laws, rules regulations or permit requirements for the use of Silt Socks on site.
- 3 - Sock should be positioned on the outline of the area to be protected, but must be installed between 45° to 90° from directions of flow.
- 4 - Sock may be required to be entrenched a minimum of 2" on disturbed ground to ensure constant ground contact.
- 5 - All gaps and ruts must be backfilled with soil or sock material.
- 6 - Sock overlap should be in the direction of the flow. Overlap amount will be between 12" and 24". Contractor to check with local town for requirements.
- 7 - If sediment collects to 1/2 the height of the sock, then a second sock may be stacked immediately up slope of the original instead of removing the sediment.
- 8 - Sock joint is where two sock sections meet on a level grade, overlap and adjoining ends, tightening the ends together, and anchoring through each end. Where two sections meet on un-level ground, j-hook higher elevated end, anchor, and begin new section just below. Back fill any gaps.
- 9 - Sock should be inspected and repaired as needed.
- 10 - If ruts begin under the sock they should be backfilled with soil and compacted so that the ground and sock have continuous contact.
- 11 - If sock rolls out of place, the sock should be repositioned and secured with additional anchors.
- 12 - Tears in the Sock fabric may be repaired by wrapping a new piece of fabric over the sock and securing, or by place a second sock immediately up slope with the required overlap beyond deformation.
- 13 - A section of sock should be replaced whenever it has weakened to such an extent that the efficiency is reduced or diminished. Weakening can occur because the natural mesh fabric breaks down over time of from being moved/dragged on site.
- 14 - Sock should be replaced when sediment has built up and has been removed three times.
- 15 - All sediment in disturbed area next to sock must be removed and correctly disposed of before the sock can be removed.
- 16 - When removing, cut sock open and spread the filler material around. The netting should be removed from site.
- 17 - Sock should be installed before works commence on site.

DRAWING REVISIONS:			
No.	DATE	BY	REMARKS

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Amsterdam Commons  
4930 Route 30  
Amsterdam , NY 12010

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(716) 886-0211

SEAL



TITLE:  
**Demolition and  
Erosion Control  
Details**

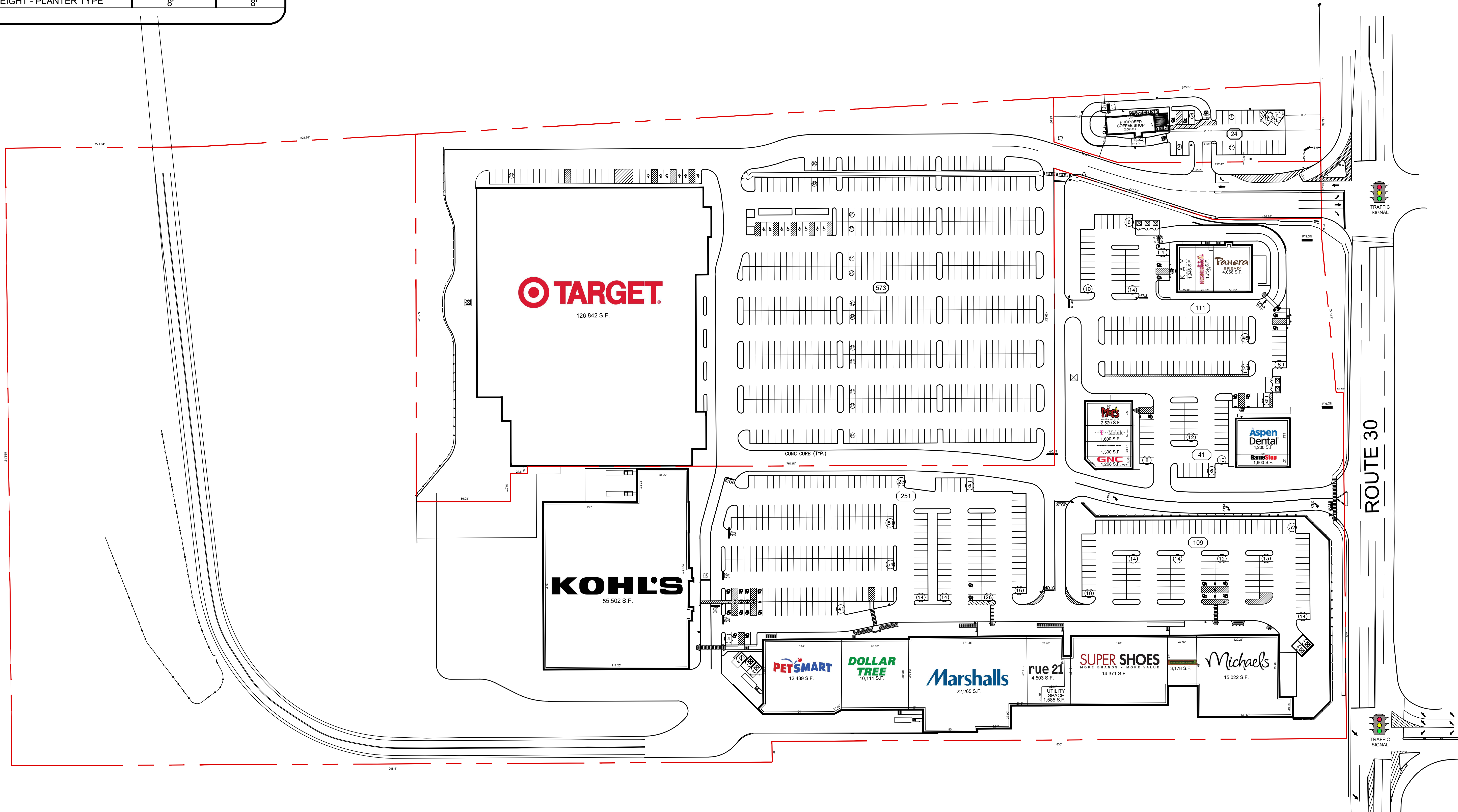
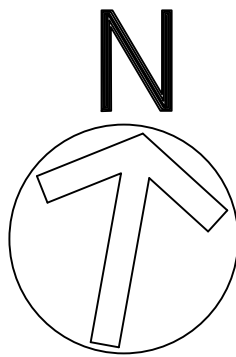
SCALE:  
NTS  
DRAWN BY:  
DMZ  
CHECKED BY:  
MAO  
DATE:  
08.24.2021

DRAWING NO.  
**C3.1**



TOWN OF AMSTERDAM, NY ZONING ANALYSIS		
ZONED	REQUIRED	PROVIDED
B-1	B-1	B-1
MAX. BUILDING HEIGHT	30'	25'
LOT COVERAGE	≤25%	5.2%
BUILDING SETBACKS:		
FRONT (RT. 30)	75'	237.6'
SIDE (EACH)	10'	31.5'
SIDE (TOTAL)	25'	64.0'
REAR	30'	74.2'
PARKING / ROAD SETBACKS:		
FRONT (SHOPPING)	20'	50.9'
SIDE	N/A	10.0'
REAR	N/A	N/A
SIGNAGE		
FRONT	15'	15.0'
SURFACE AREA / FACE	75 S.F.	TBD
HEIGHT - PLANTER TYPE	8'	8'

PROPOSED PARKING ANALYSIS			
USE	CODE	REQUIRED	PROVIDED
Existing Retail	3 Space / 1000 SF	276,347 S.F. x 3/1000 = 829 Spaces	1085 SPACES
Existing Restaurant	1 Space / 3 Seats	367 seats / 3 = 123 Spaces	
Restaurant	1 Space / 3 Seats	50 seats / 3 = 17 Spaces	24 SPACES
TOTAL		969 SPACES	1109 SPACES
STALL SIZE		9'x20'	9'x20'



DRAWING REVISIONS:			
No.	DATE	BY	REMARKS
1	11.4.2021	DZ	Town Comments

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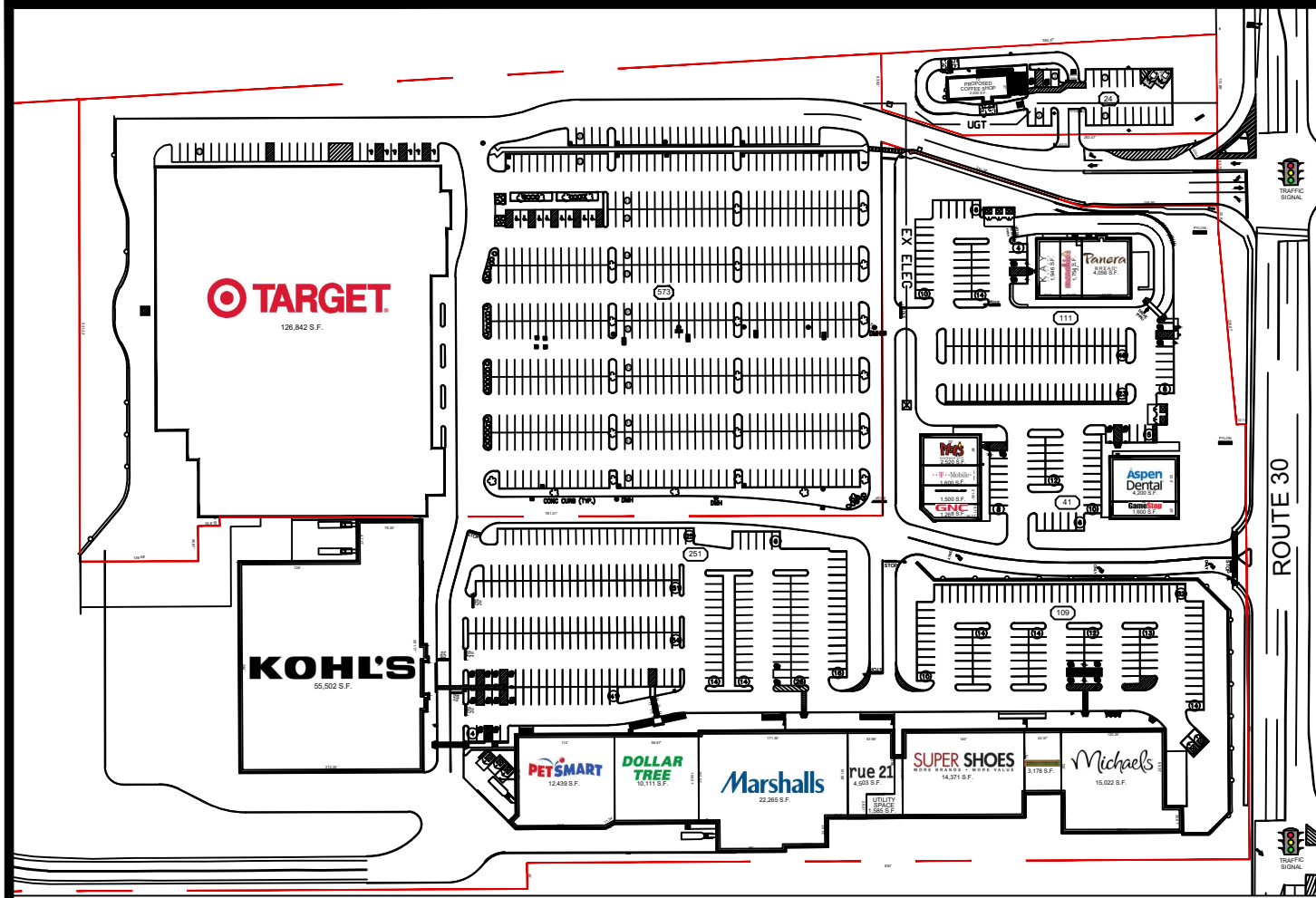


TITLE:  
**Overall Site Plan**

SCALE:  
1"=70'  
DRAWN BY: DMZ  
CHECKED BY: MAO  
DATE: 08.24.2021

DRAWING NO.  
**C4.0**





SITE LOCATION 1:200

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6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN.
11. CONCRETE SIDEWALK SEALERS (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES).
- 11.1 GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
- 11.2 EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS).
12. APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.
13. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

SITE LEGEND:

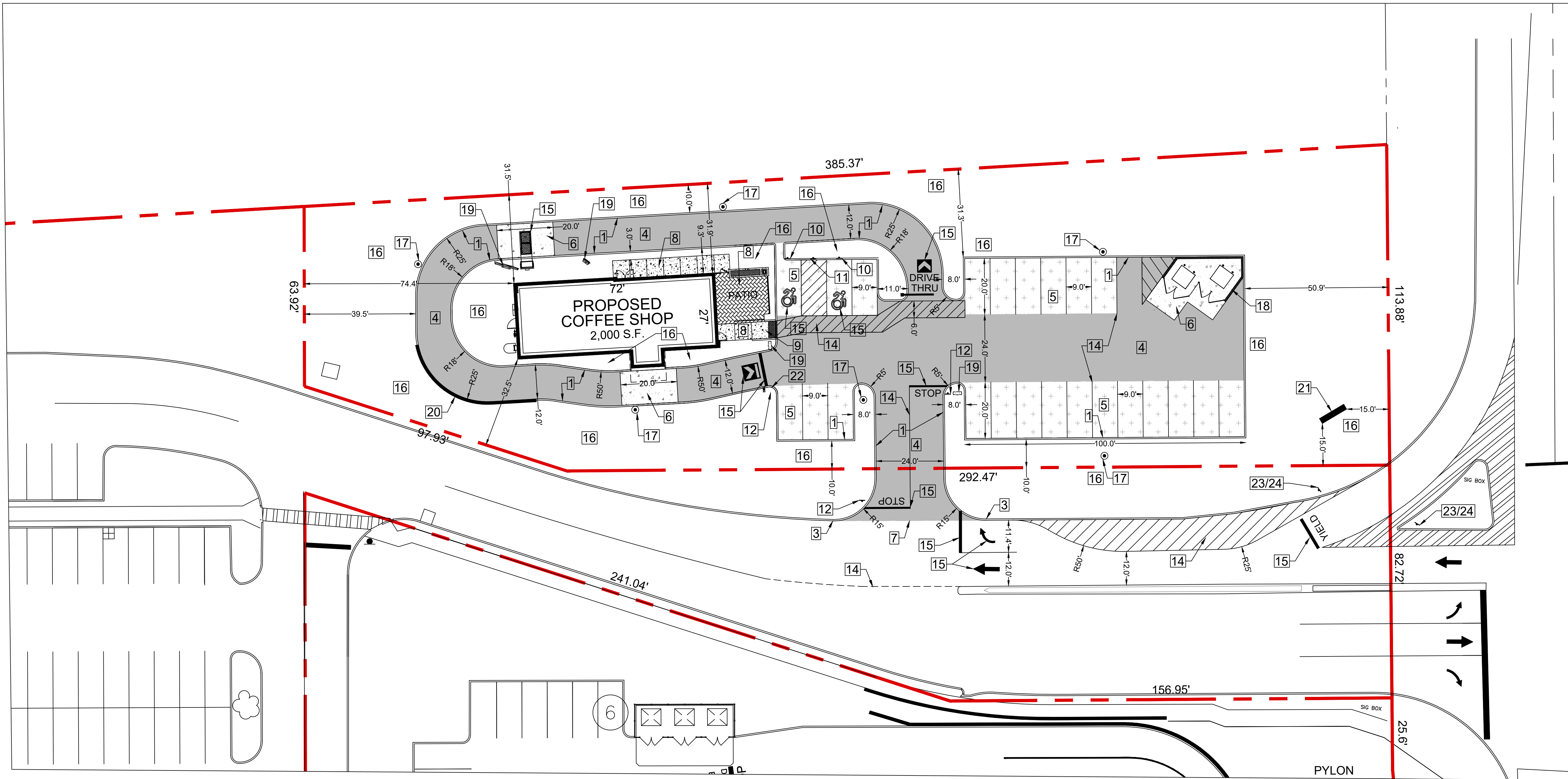
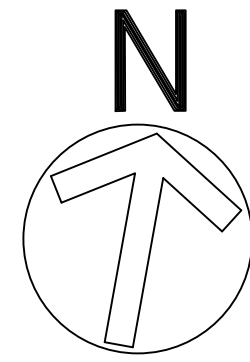
- Property line
- 6" Curb (typ).
- Proposed sign & pole
- Proposed Concrete Pavement/Sidewalk
- Proposed Standard-Duty Pavement
- Proposed Heavy Duty Pavement
- Proposed Patio Pavers
- Proposed ADA Ramps with Detectable Warning Strip

- \* All curb radii are 3ft unless noted.
- \* Refer to General Notes, Construction Details and Architectural Plans for Concrete Sealer information.

SITE NOTES: #

1. Proposed 6" Concrete Curb.
2. Proposed 3' Wide Curb opening
3. Match into Existing Curb or runoff over 2'.
4. Proposed Heavy Duty Pavement.
5. Proposed Standard Duty Pavement
6. Proposed Concrete Pavement..
7. Match into Existing Pavement.
8. Proposed Building Sidewalk and Patio. (Refer to Architectural Plans)
9. Proposed ADA Curb Ramp
10. Proposed "Handicapped Parking Only" sign with Bollard
11. Proposed "No Parking" sign with Bollard
12. Proposed "STOP" Sign
13. Proposed Concrete Sidewalk Ramp
14. 4" Yellow Pavement Stripe (at 2' c-c in no parking zones).
15. Proposed White Pavement symbol (stop bar, directional arrows, accessibility symbol, text)
16. Proposed Landscape Area.
17. Proposed Light Pole Base.
18. Proposed 8' High Masonry Dumpster Enclosure (Refer to Architectural Plans)
19. Proposed Drive Thru Equipment and Signage
20. Proposed Retaining Wall
21. Proposed Tenant Sign
22. Proposed "DO NOT ENTER" Sign
23. Proposed YIELD Sign
24. Proposed Merge Sign

NB: All curb Radii to be 3' unless otherwise noted.



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(716) 886-0211

SEAL



TITLE:

Detailed  
Site Plan

SCALE:

1"=20'

DRAWN BY:

DMZ

DRAWING NO.

CHECKED BY:

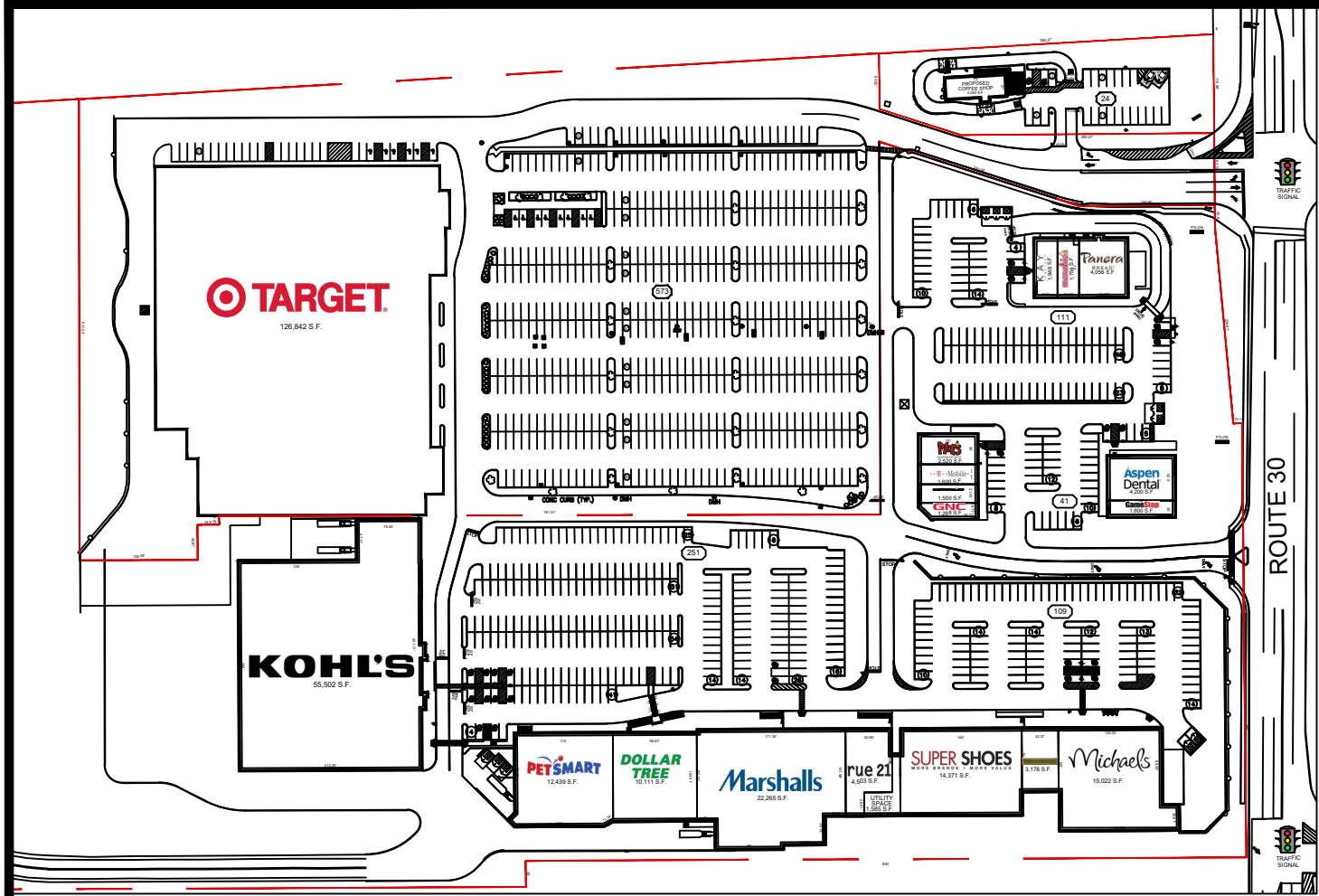
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DATE:

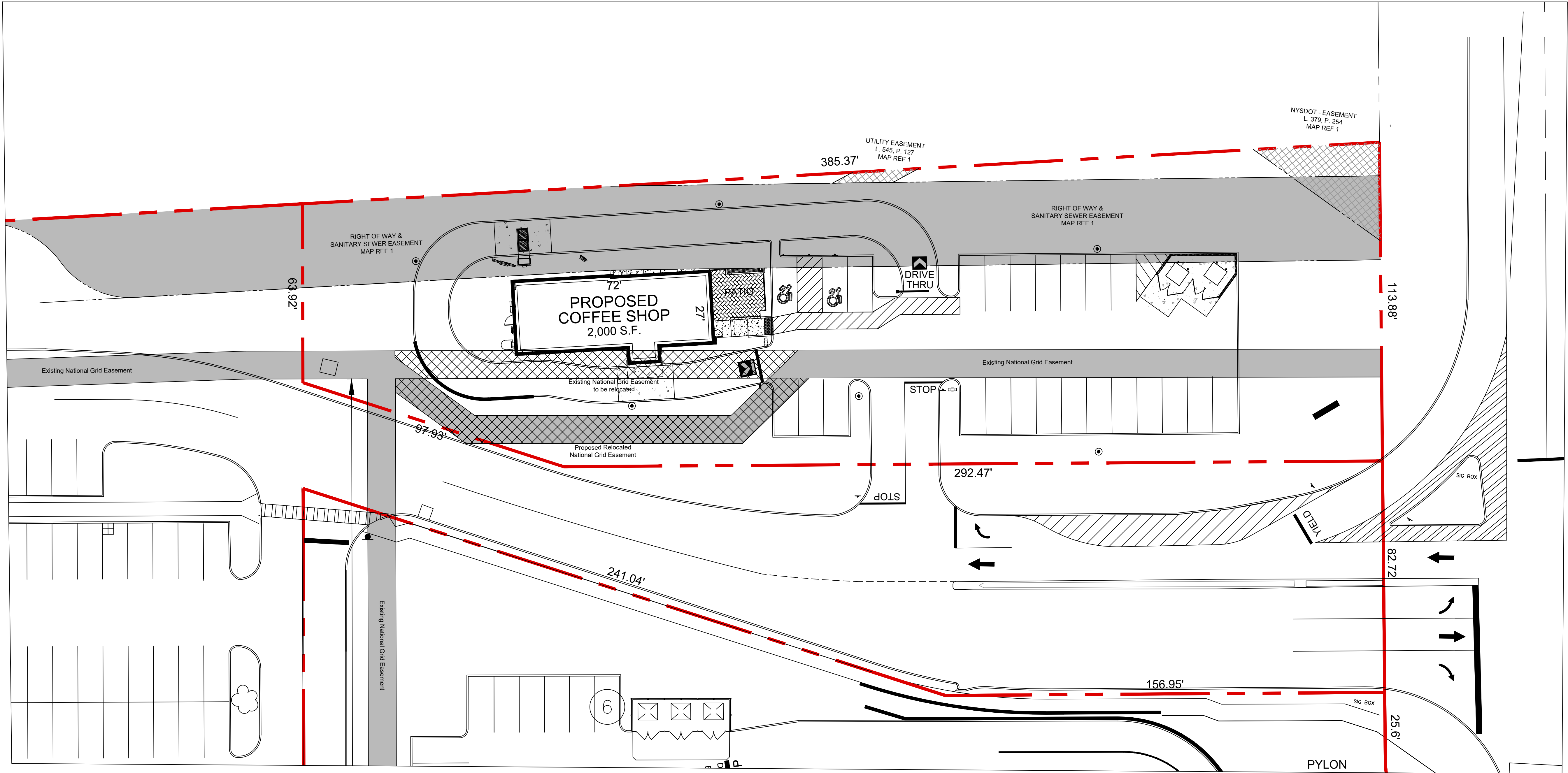
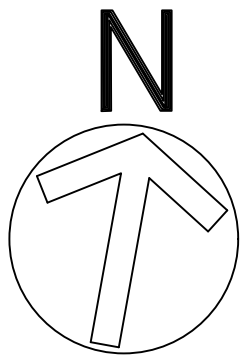
08.24.2021

C4.1





SITE LOCATION 1:200



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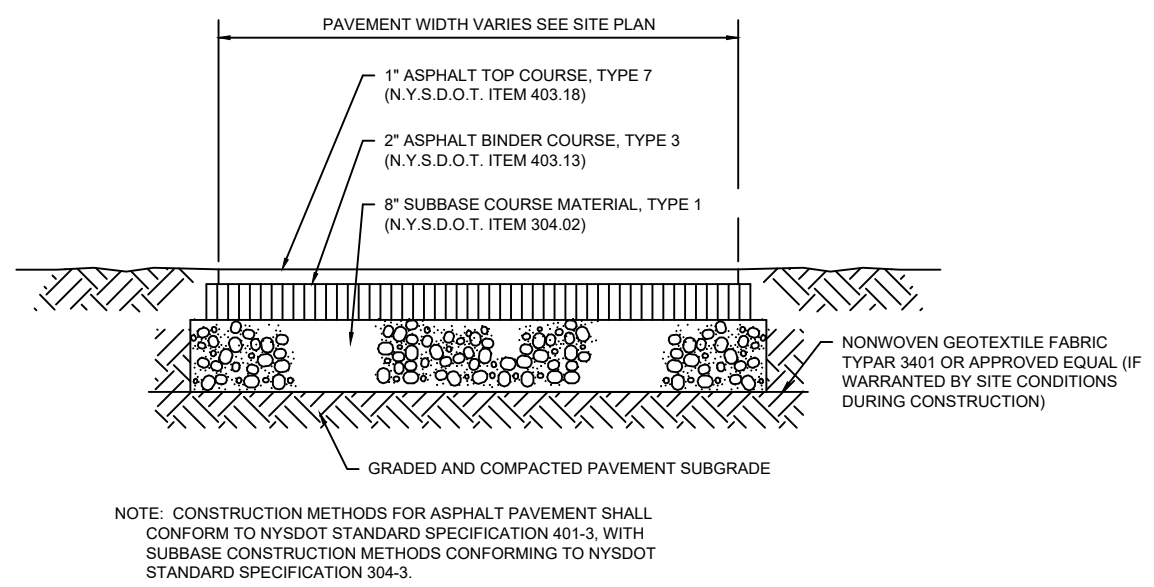


TITLE:  
Existing Easements Site Plan

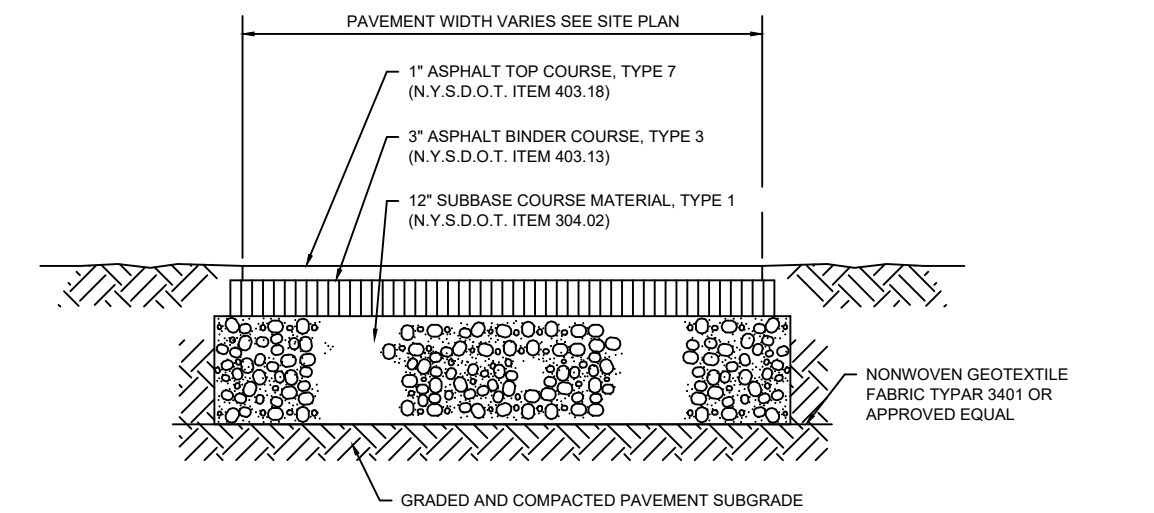
SCALE:  
1"=20'  
DRAWN BY:  
DMZ  
CHECKED BY:  
MAO  
DATE:  
08.24.2021

DRAWING NO.  
**C4.11**

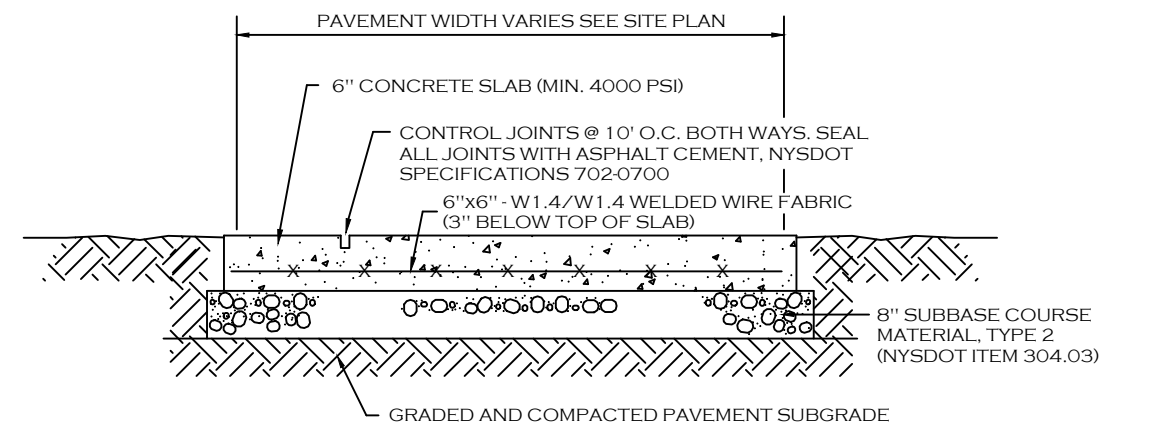




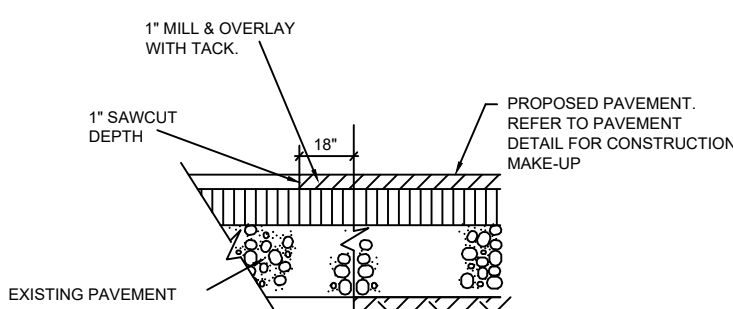
STANDARD DUTY ASPHALT SECTION



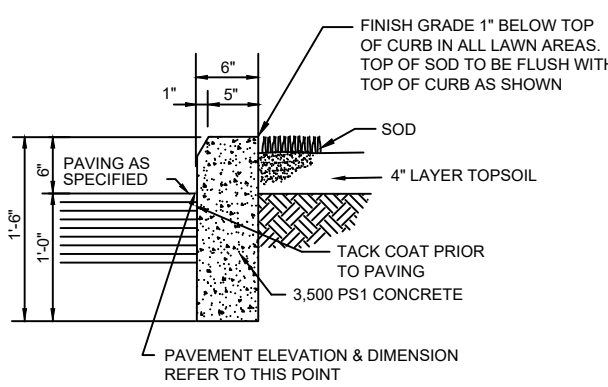
HEAVY DUTY ASPHALT SECTION



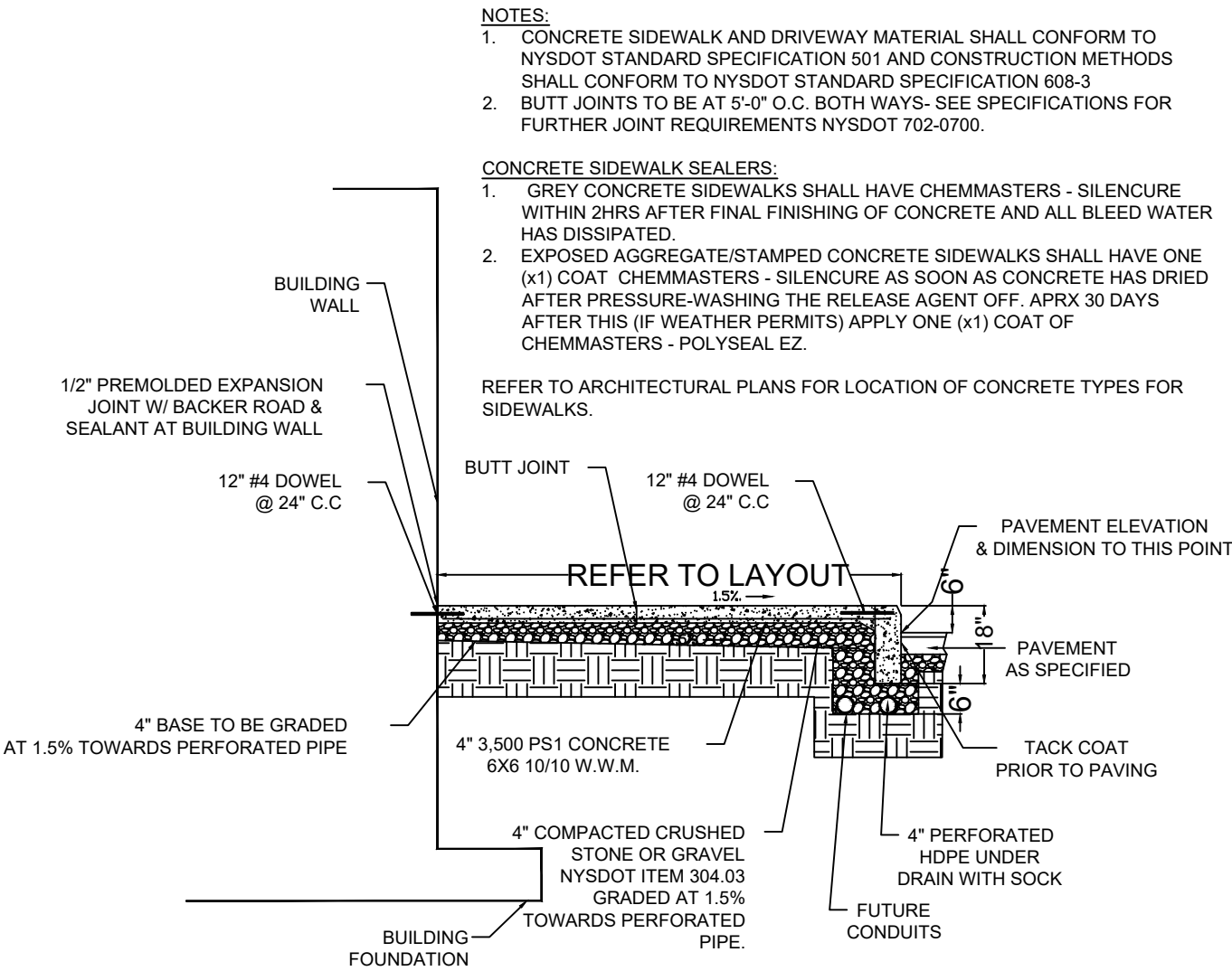
CONCRETE PAVEMENT (INC DUMPSTER)



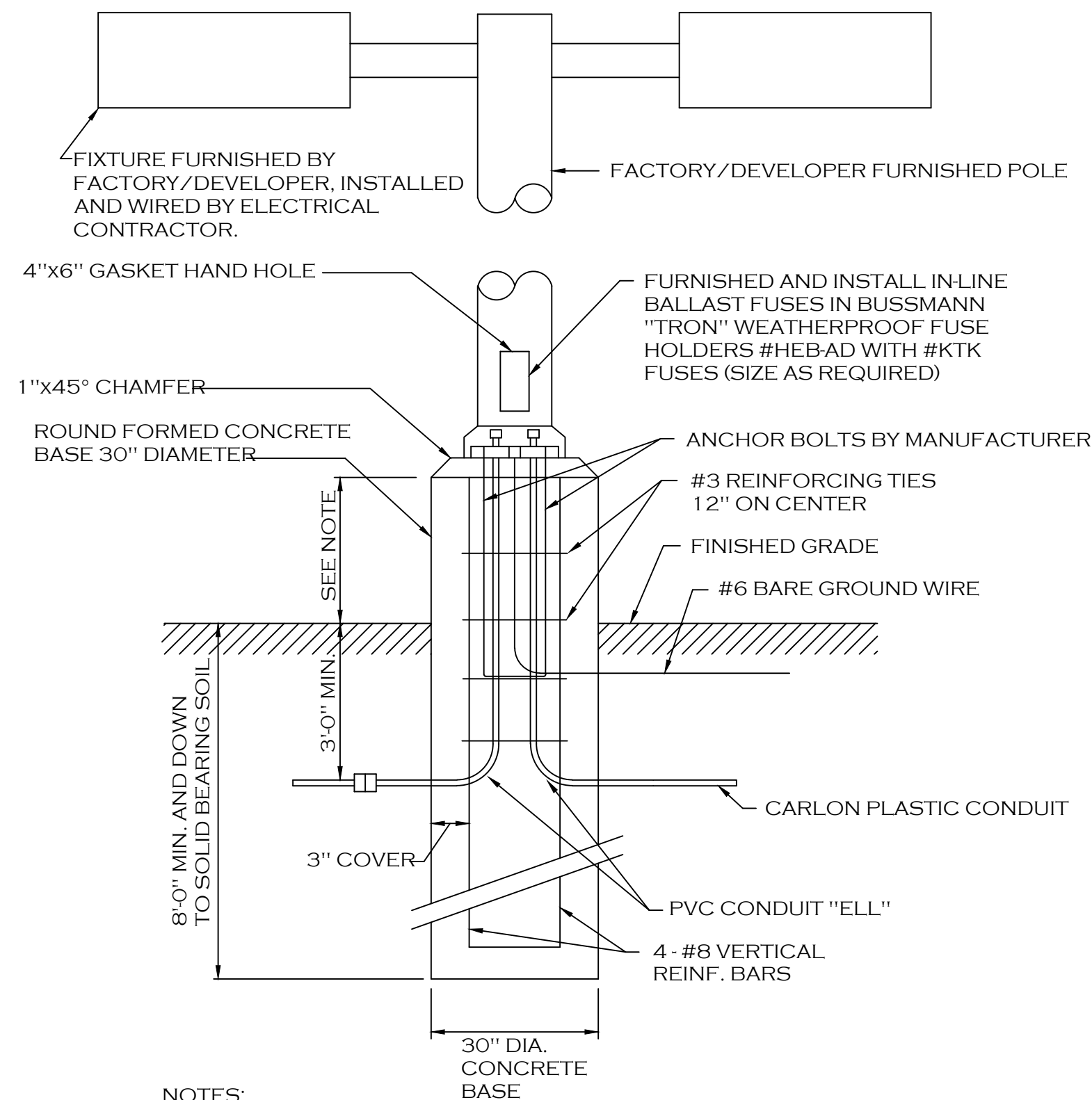
PAVEMENT TRANSITION DETAIL  
(ASPHALT PAVEMENT)



TYPE "A" CONCRETE CURB

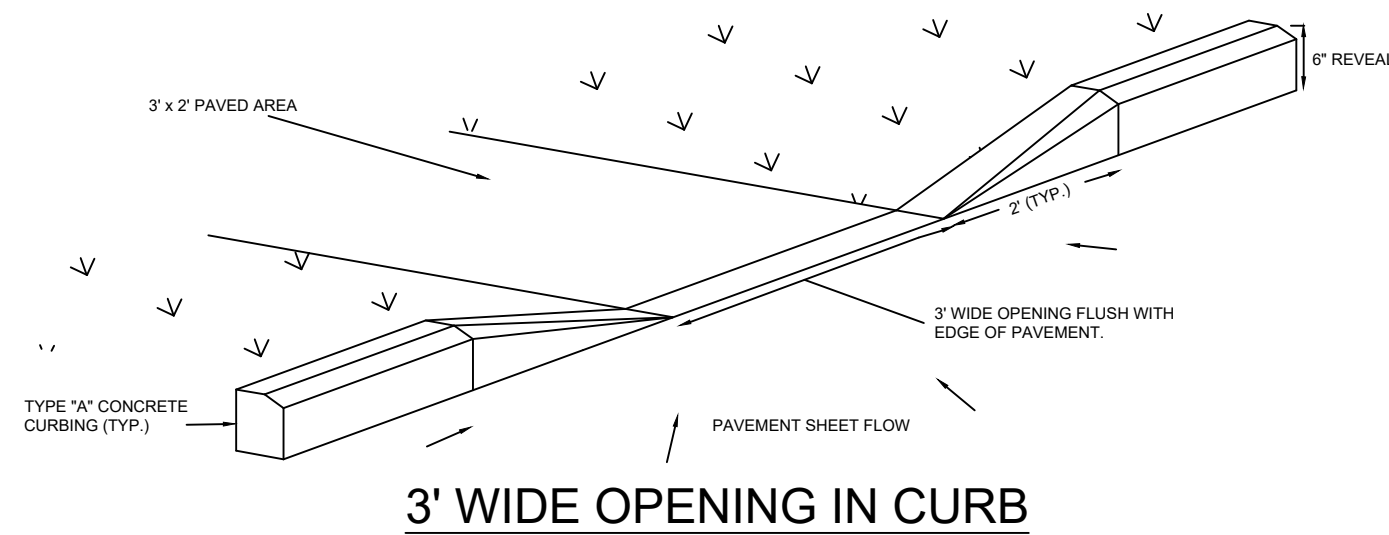


BUILDING SIDEWALK DETAIL



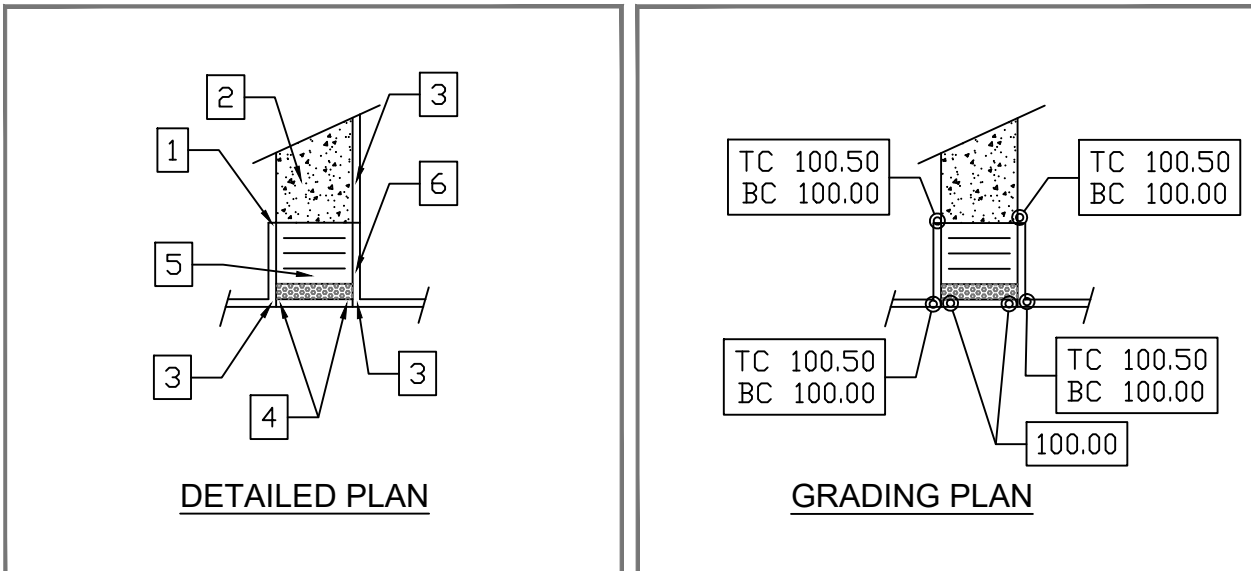
- NOTES:
1. FOR LOCATIONS OF FOUNDATIONS SEE SITE PLAN
  2. FOR LIGHT FIXTURE ORDERING INFORMATION SEE SITE LIGHTING PLAN
  3. LIGHT POLE BASE EXPOSURE ABOVE GRADE SHALL BE:  
IN CURBED ISLANDS: 6" ABOVE TOP OF CURB ELEVATION  
IN PAVEMENT: 3' ABOVE GRADE  
IN NON-CURBED GRASS AREAS: 6" ABOVE GRADE

LIGHT POLE FOUNDATION

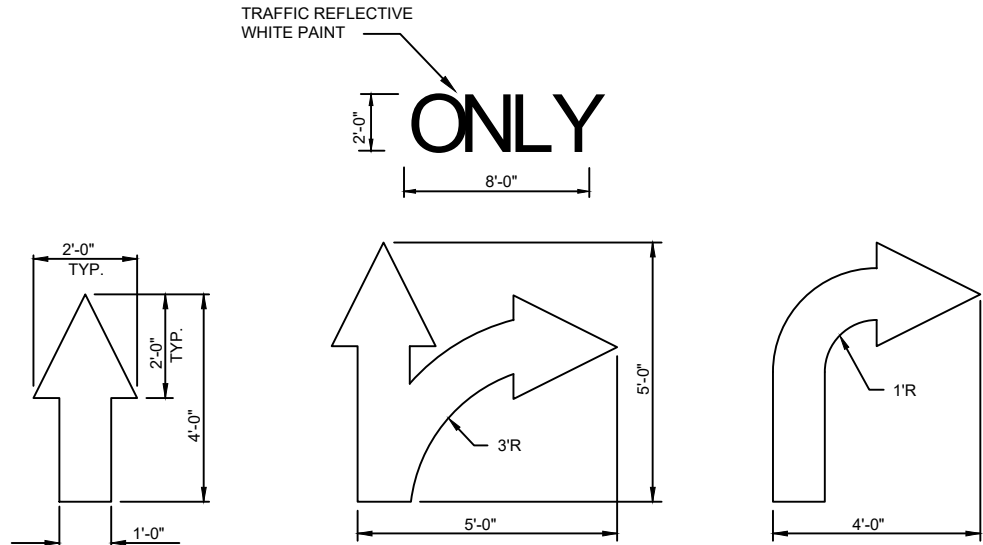


3' WIDE OPENING IN CURB

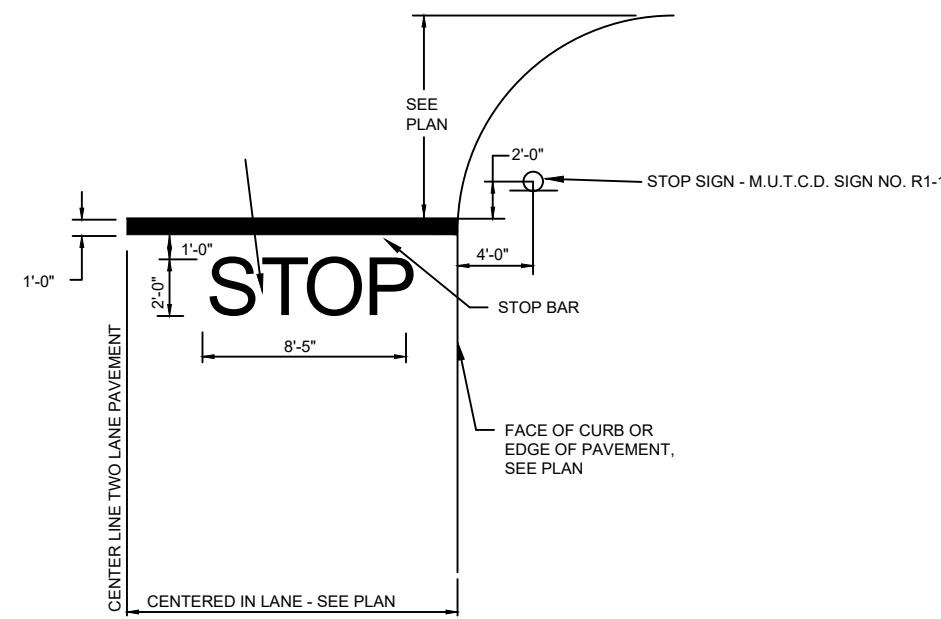
- Site Notes:
1. Proposed curb return to be flush with sidewalk
  2. Proposed concrete sidewalk
  3. Proposed 6" curb reveal
  4. Proposed flush curb & Tactile Warning
  5. Proposed ramp (1:12 max.)
  6. Transition Curb



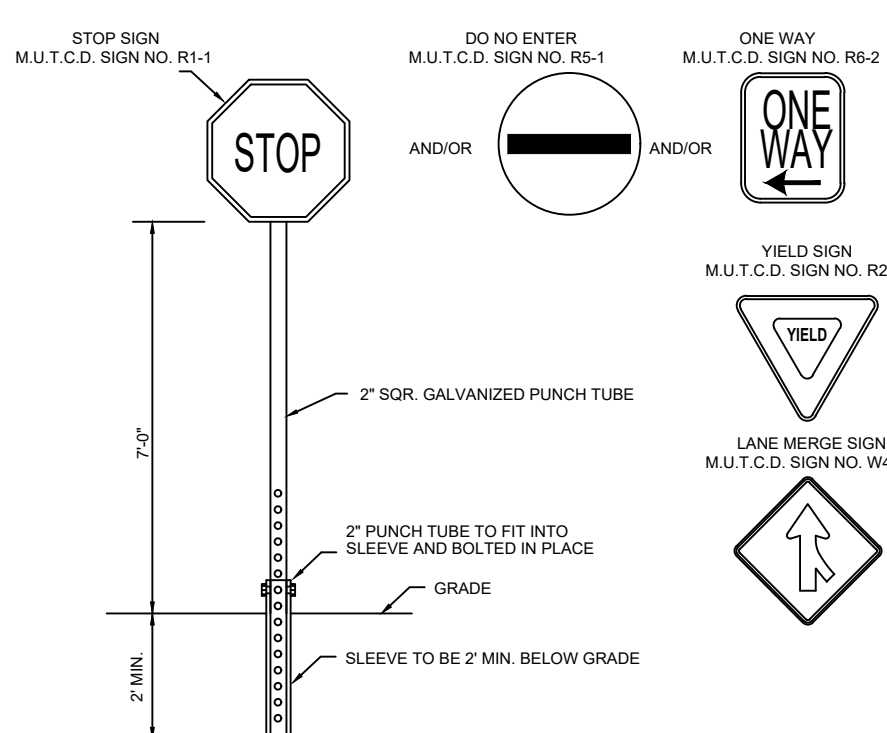
Curb Return Ramp Details  
(To be read in conjunction with Engineering Plans and Details)  
Spots levels are indicative - Refer to Grading Plan



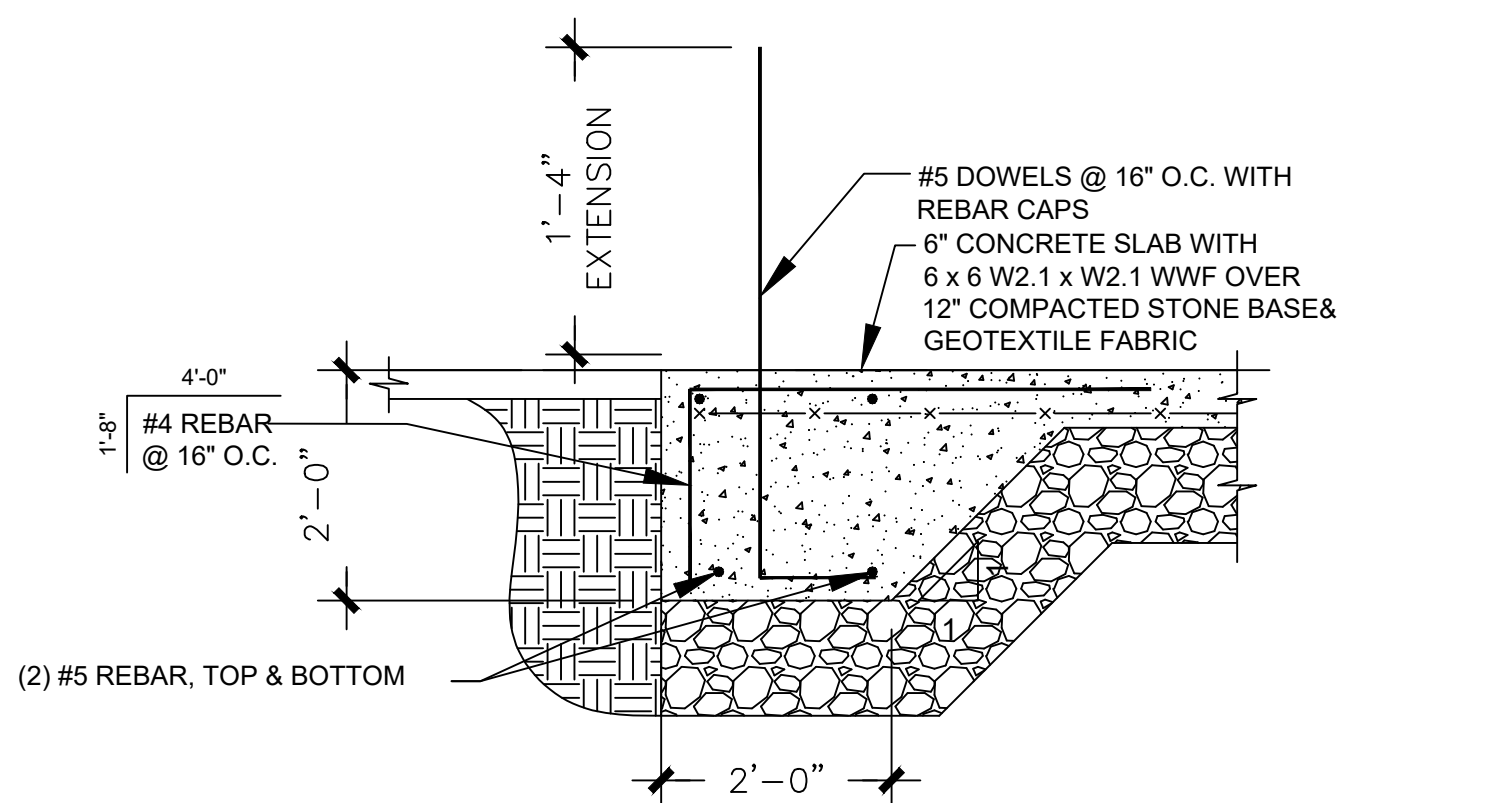
PAINTED TRAFFIC ARROWS



STOP BAR DETAIL

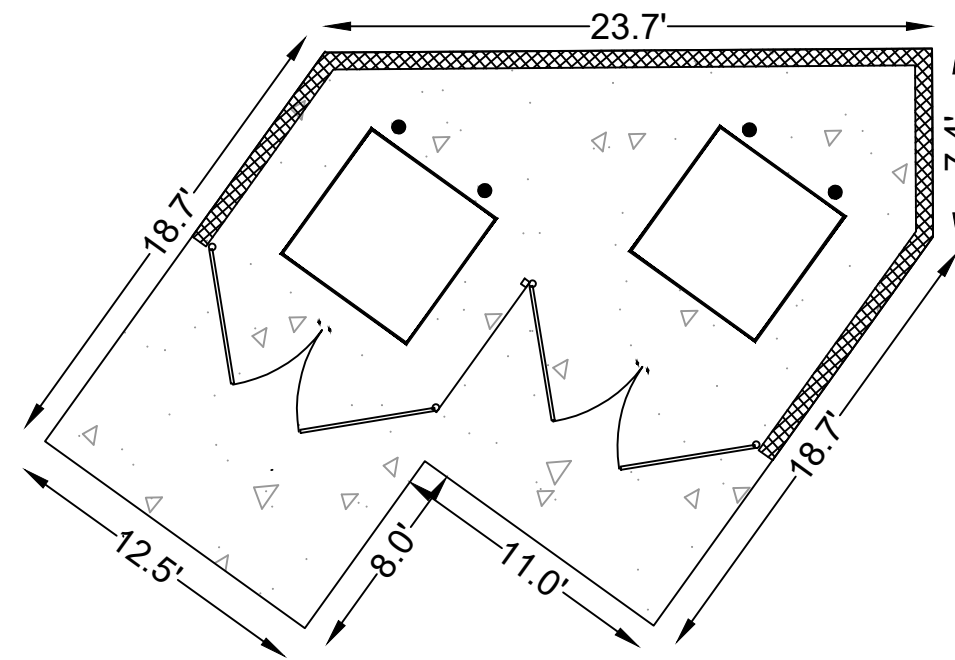


"STOP" / "NO ENTRY" / "ONE WAY" SIGNS

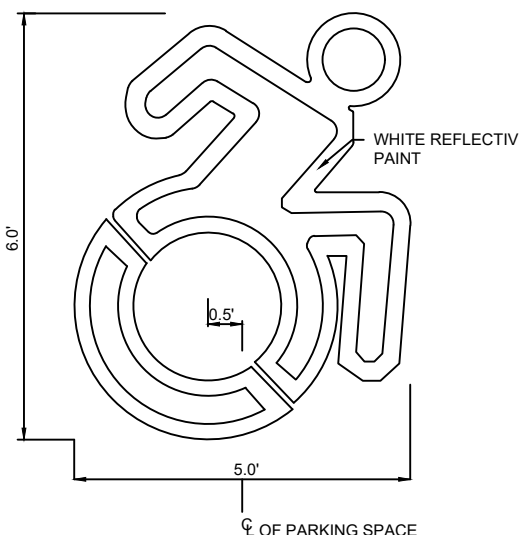


DUMPSTER HAUNCHED CONCRETE DETAIL

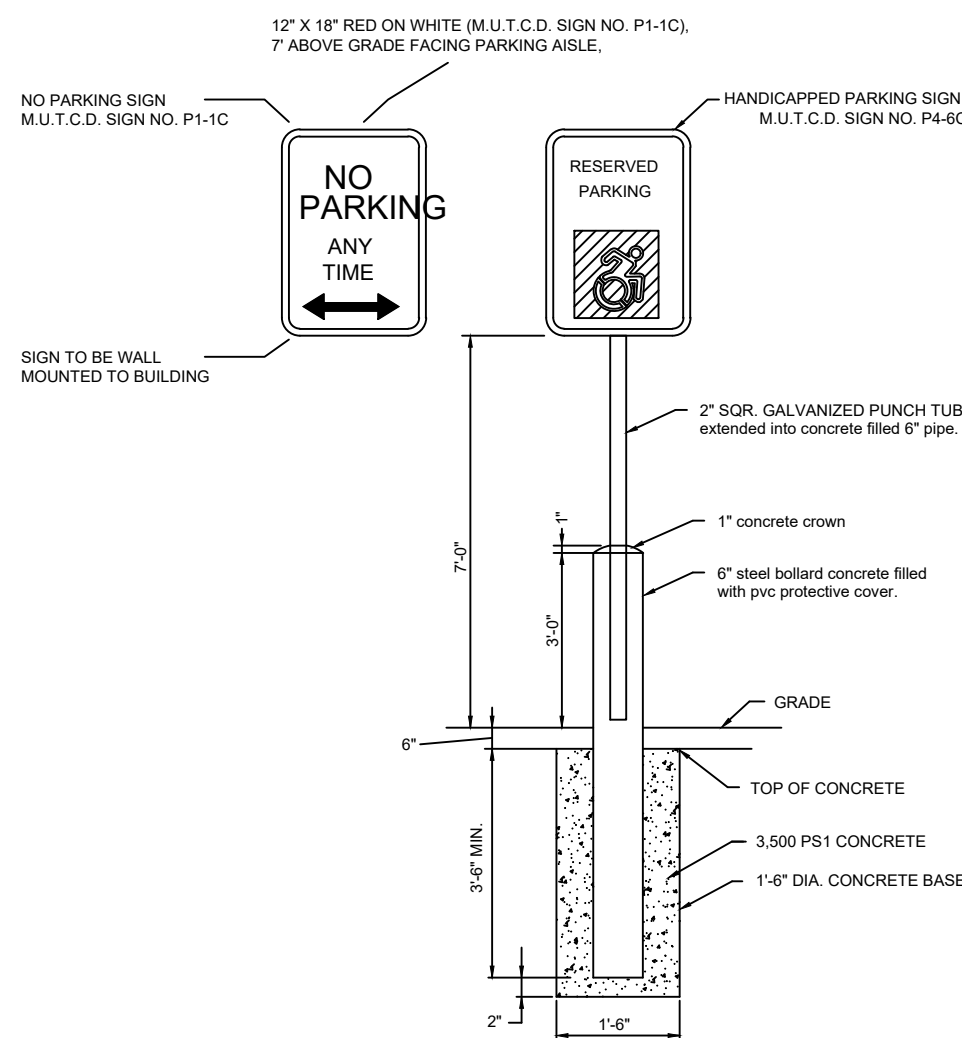
- NOTES:
- TO BE READ IN CONJUNCTION WITH ARCHITECTURAL DETAILS OF DUMPSTER ENCLOSURE
  - SITE CONTRACTOR TO INSTALL TEMP FENCE AROUND DUMPSTER PAD, OUTSIDE OF REBAR IS POURED (SAME DAY AS THE POUR)



CONCRETE PAD - DUMPSTER



INTERNATIONAL HANDICAP  
SYMBOL



HANDICAP / NO PARKING SIGNS

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No.	DATE	BY	REMARKS
1	11.4.2021	DZ	Town Comments

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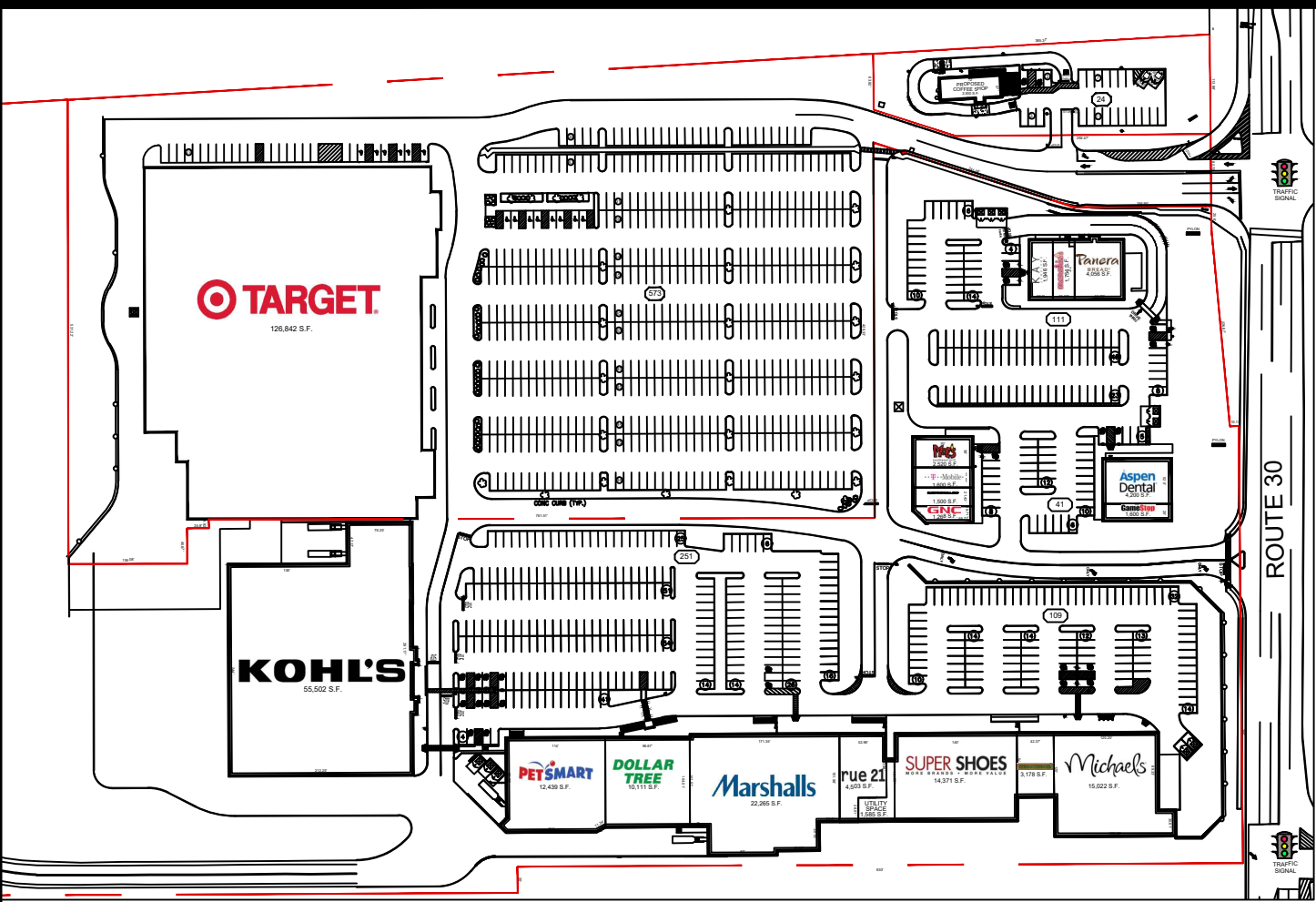


TITLE:  
**Construction  
Details**

SCALE:  
NTS  
DRAWN BY: DMZ  
CHECKED BY: MAO  
DATE: 08.24.2021

DRAWING NO.  
**C4.2**





SITE LOCATION 1:200

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  12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
  13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

GRADING LEGEND:

Property Line

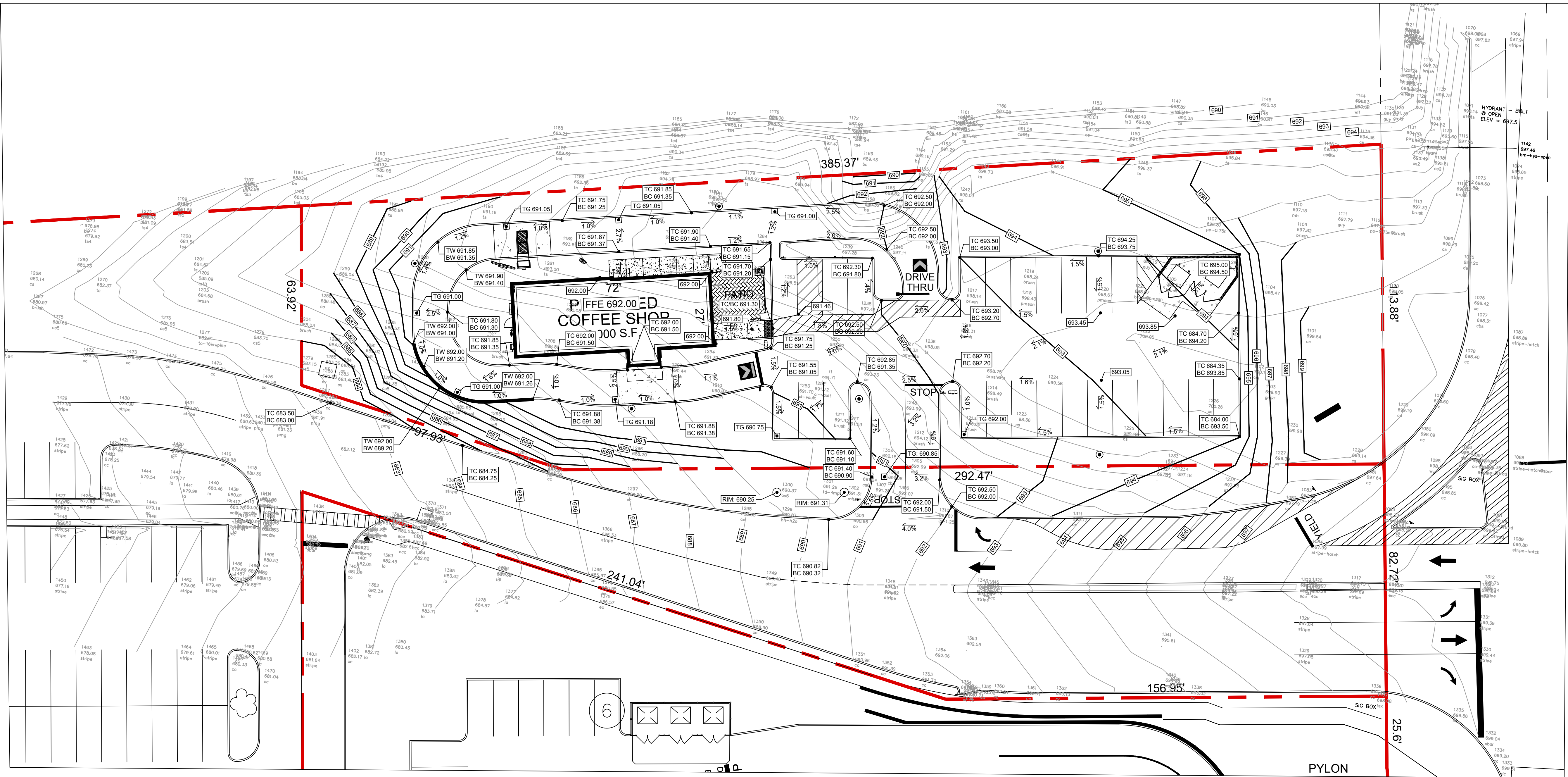
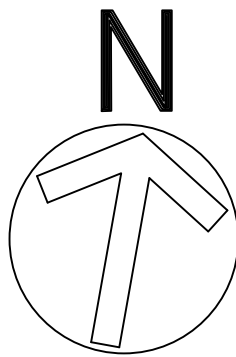
6" Curb (typ).



Catch Basin - Top of Grade

Proposed Contour Line

Slope Direction



DRAWING REVISIONS:			
No.	DATE	BY	REMARKS

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PROPERTY NUMBER: # 4161  
AREA: -

Amsterdam Commons  
4930 Route 30  
Amsterdam, NY 12010

PROPOSED COFFEE SHOP

CONSULTANT

JAMES ALLEN RUMSEY  
ARCHITECT  
PREPARED FOR  
**BENDERSON DEVELOPMENT**  
570 DELAWARE AVE., BUFFALO, NY 14202  
(716) 886-0211

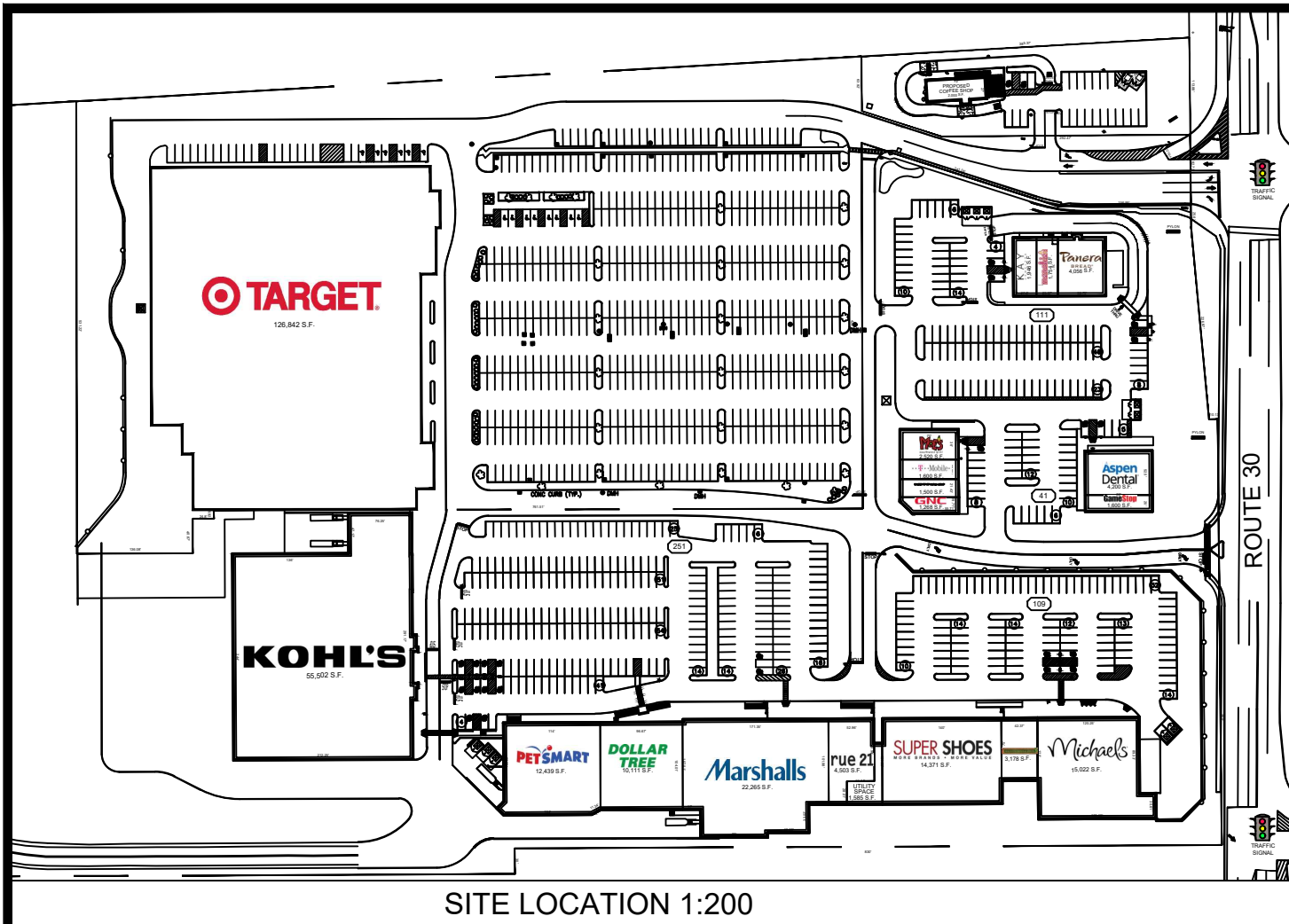
SEAL



TITLE:  
**Grading Plan**

SCALE: 1"=20'  
DRAWN BY: DMZ  
CHECKED BY: MAO  
DATE: 08.24.2021  
DRAWING NO. **C5.0**





SITE LOCATION 1:200

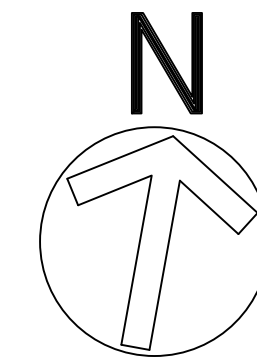
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DRAINAGE LEGEND:

- PROPERTY LINE
- ST --- PROPOSED STORMWATER
- 6" CURB TYP.
- CO / WC --- PROPOSED STORM CLEAN OUT / WYE CONNECTION
- CB - # --- PROPOSED CATCH BASIN

UTILITY LEGEND:

- PROPERTY LINE
- G --- PROPOSED GAS
- W --- PROPOSED WATER
- E --- PROPOSED ELECTRIC/ CONDUIT
- San --- PROPOSED SANITARY
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- EX VTR --- EXISTING WATER
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- EX STM --- EXISTING STORM
- UGT --- EXISTING TELECOMS



DRAWING REVISIONS:			
No.	DATE	BY	REMARKS

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ARCHITECT  
PREPARED FOR

**BENDERSON  
DEVELOPMENT**  
570 DELAWARE AVE., BUFFALO, NY 14202  
(716) 886-0211

SEAL



TITLE:

Drainage  
Plan

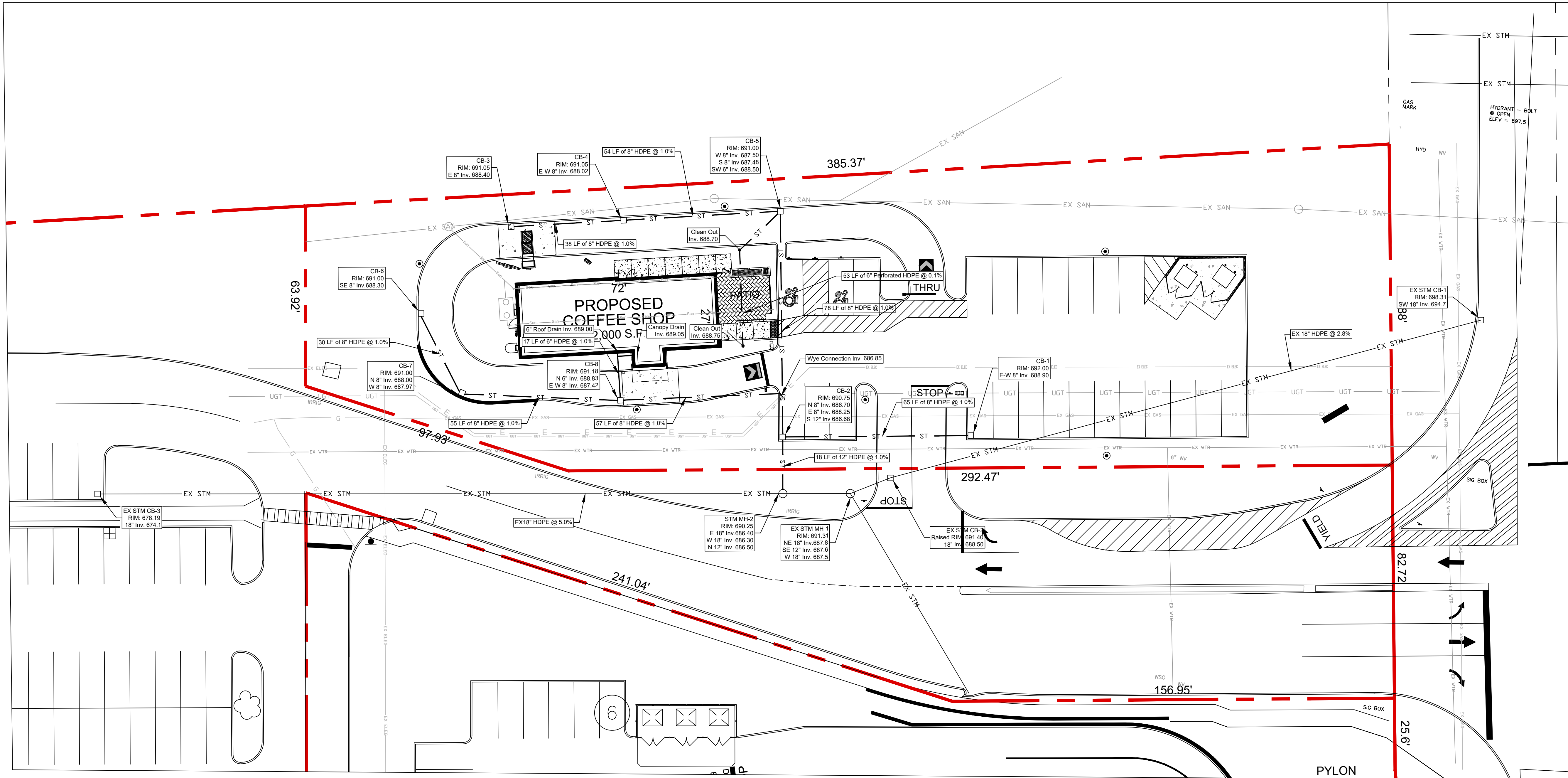
SCALE:  
1"=20'

DRAWN BY:  
DMZ

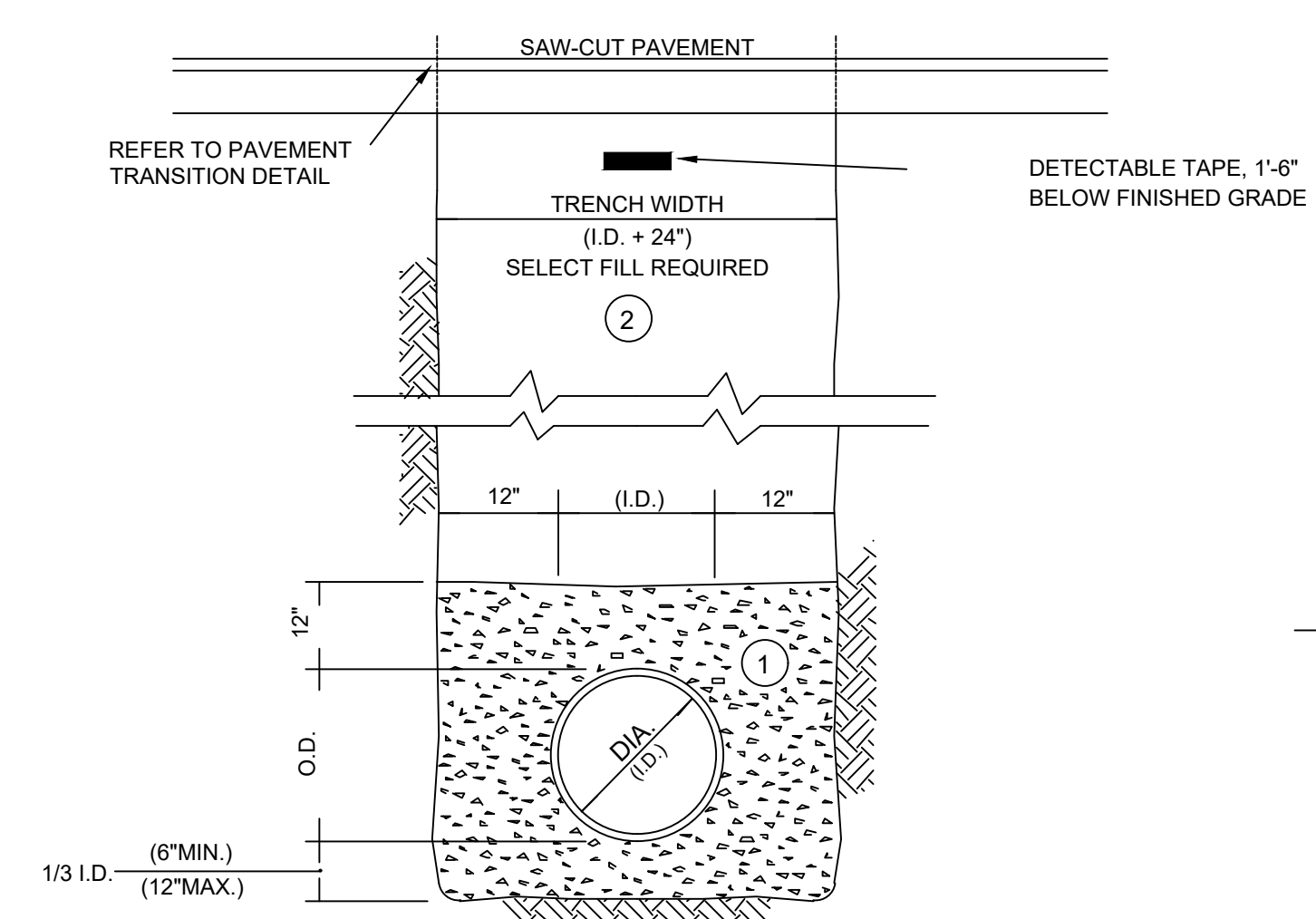
CHECKED BY:  
MAO

DATE:  
08.24.2021

DRAWING NO.  
**C5.1**





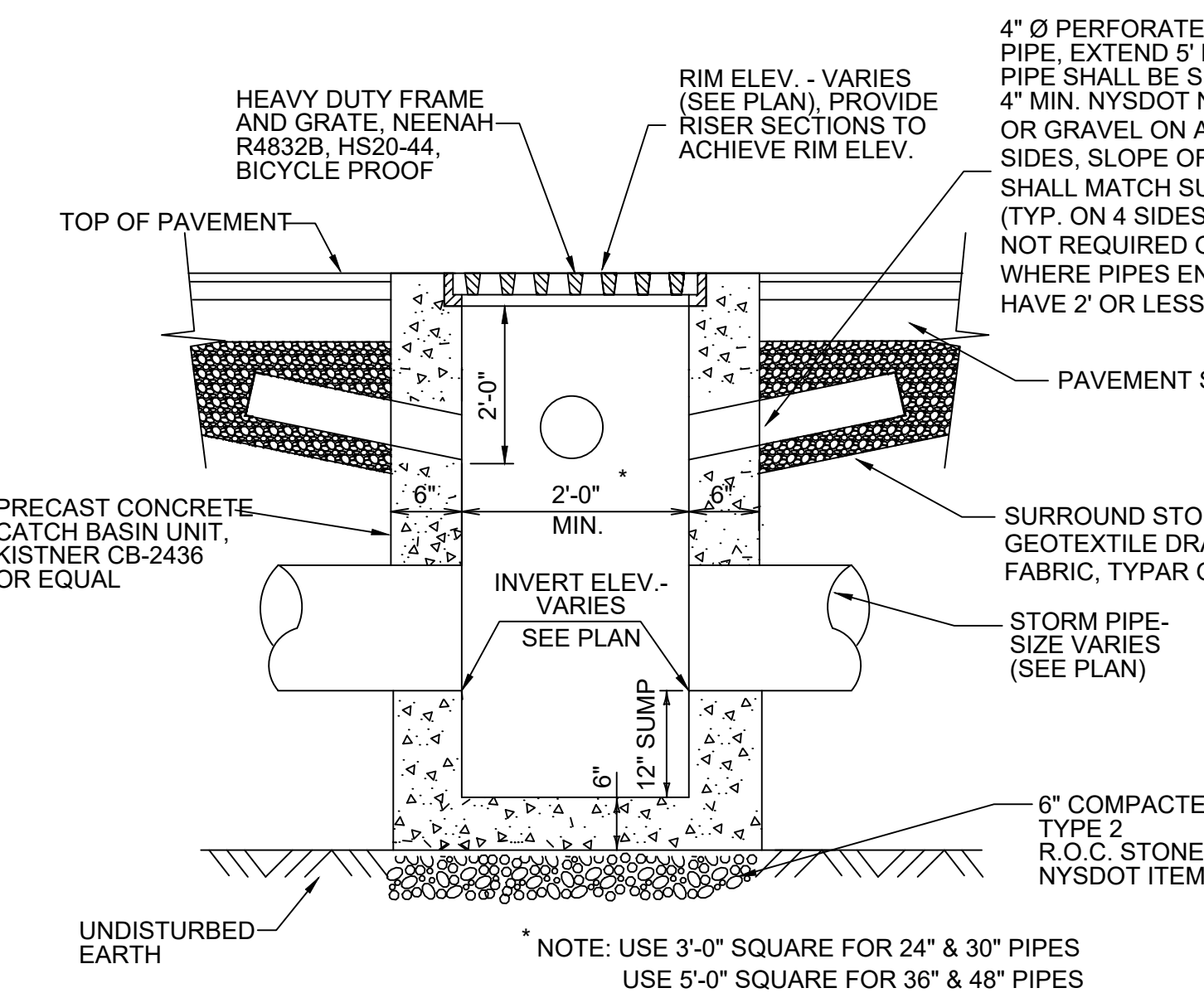


- NOTES:
- A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
  - B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.
  - C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.
  - D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

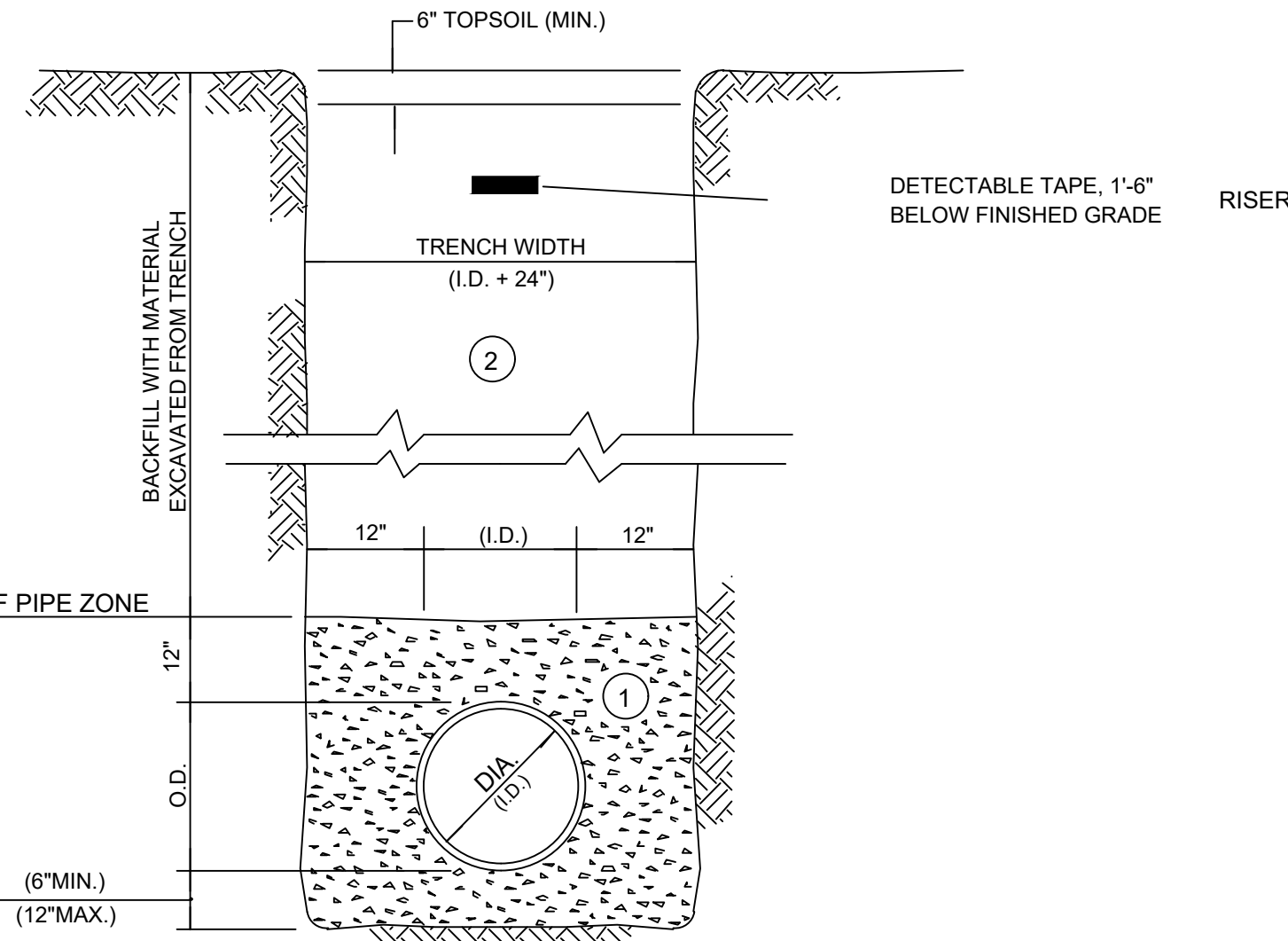
**MATERIALS**

- PIPE BEDDING MATERIAL (NYS DOT 1985 EDITION)
- 1 NO. 1 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.
  - 2 TYPE 2 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 2. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN TWO INCHES AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.
- NO SLAG SHALL BE ALLOWED FOR MATERIAL

**TRENCH SECTION IN PAVED AREAS**



**TYPICAL PRECAST CATCH BASIN**

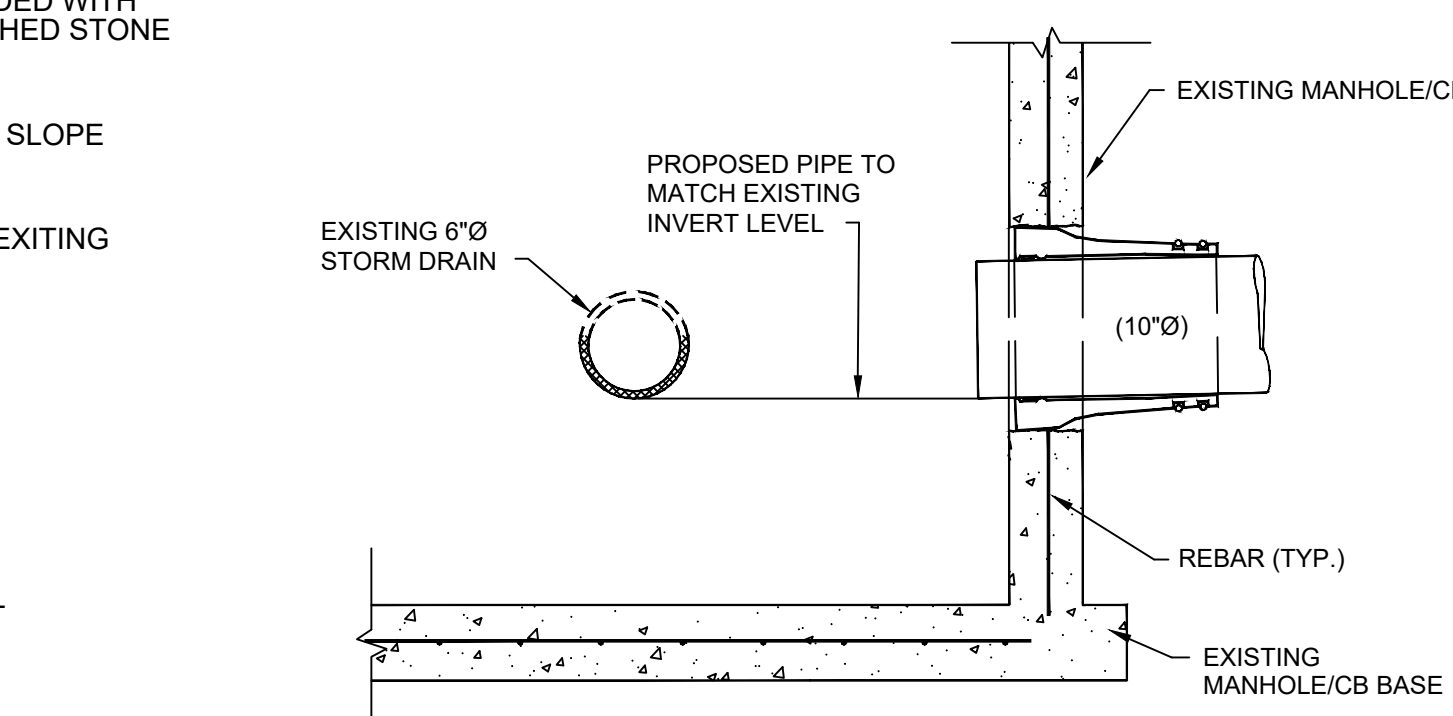


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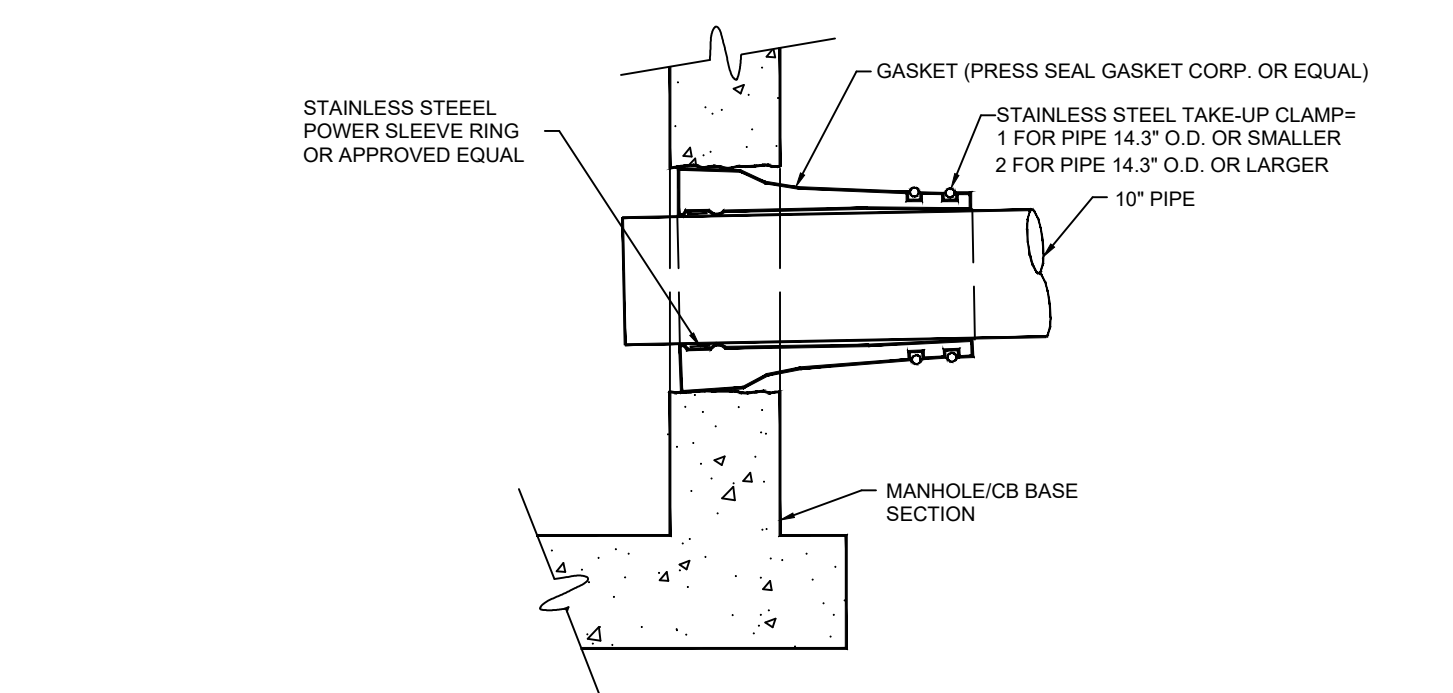
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- NO SLAG SHALL BE ALLOWED FOR MATERIAL

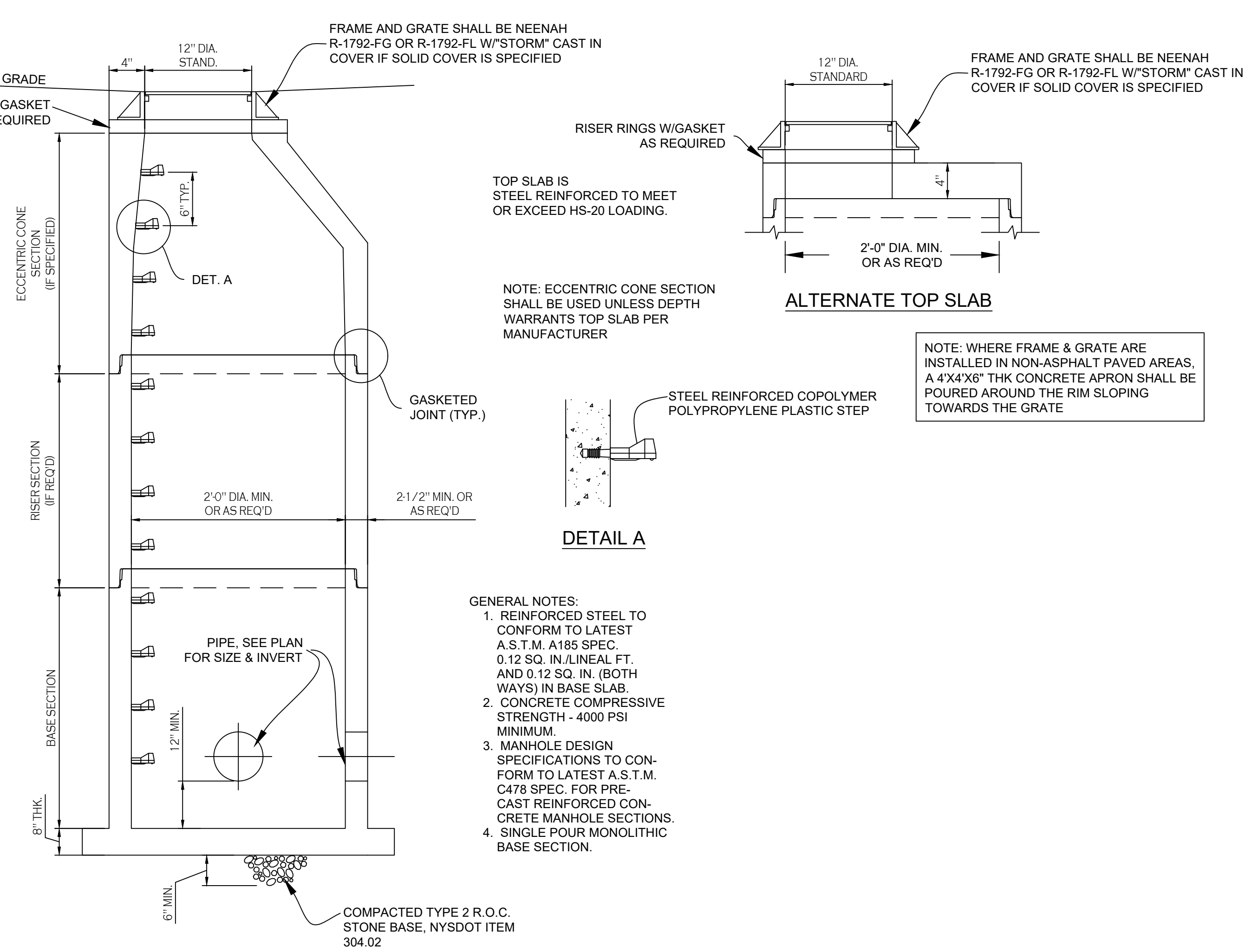
**TRENCH SECTION IN UNPAVED AREAS**



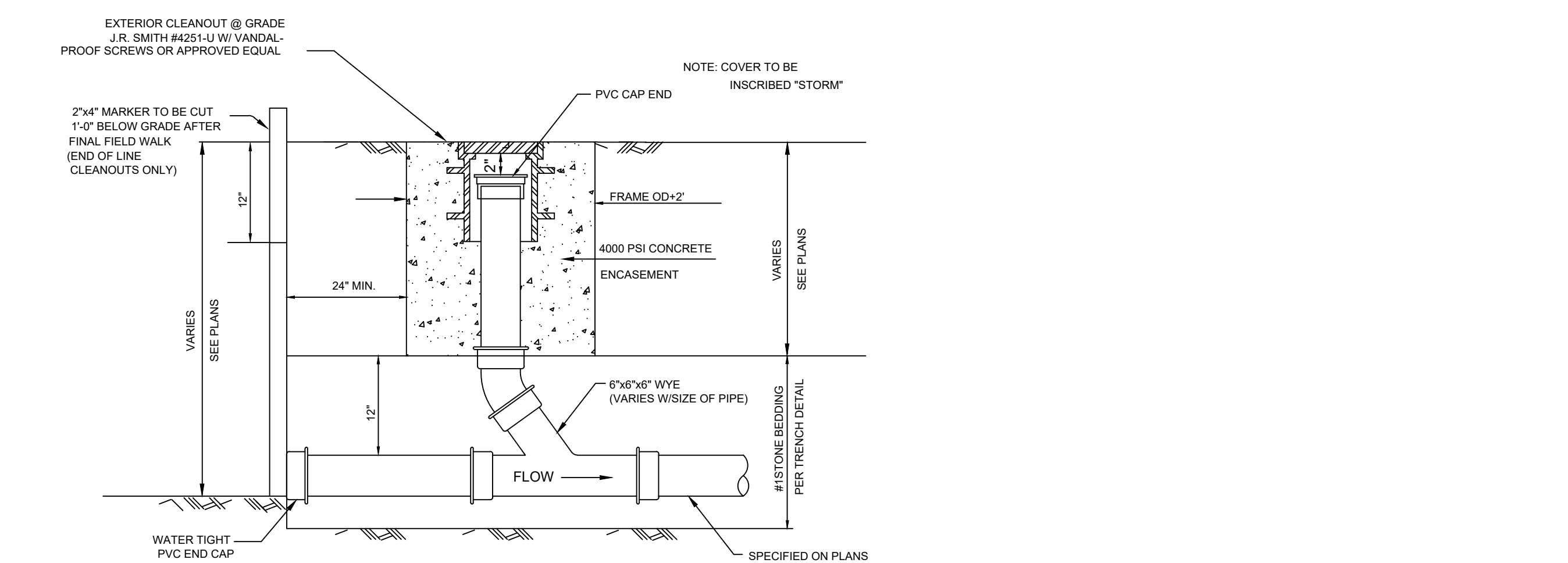
- NOTES:
- 1. CORE DRILL ENTRANCE HOLE IN PRECAST MANHOLE BARREL, BASE AND/OR BENCH FOR REQUIRED PIPE CLEARANCE. PER MANUFACTURERS RECOMMENDATIONS.
  - 2. DOES NOT APPLY TO HOUSE LATERALS.
  - 3. WATERTIGHT PIPE TO MANHOLE BOOT SEAL REQUIRED FOR ALL CORE DRILLED ENTRANCE HOLES IN MANHOLE BARREL AS SHOWN BELOW.



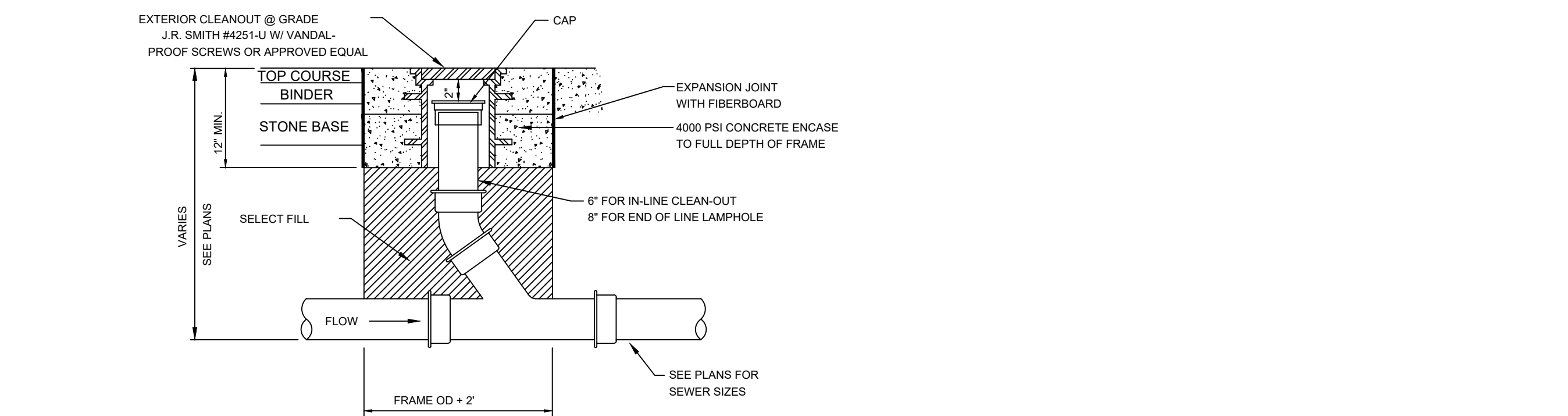
**CONNECTION TO EXISTING MANHOLE/CB**



**TYPICAL STORM MANHOLE DETAIL**



**CLEANOUT IN LANDSCAPED AREAS**



**CLEANOUT IN PAVED AREAS**

DRAWING REVISIONS:			
No.	DATE	BY	REMARKS

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Amsterdam Commons  
4930 Route 30  
Amsterdam , NY 12010

**PROPOSED COFFEE SHOP**

**CONSULTANT**

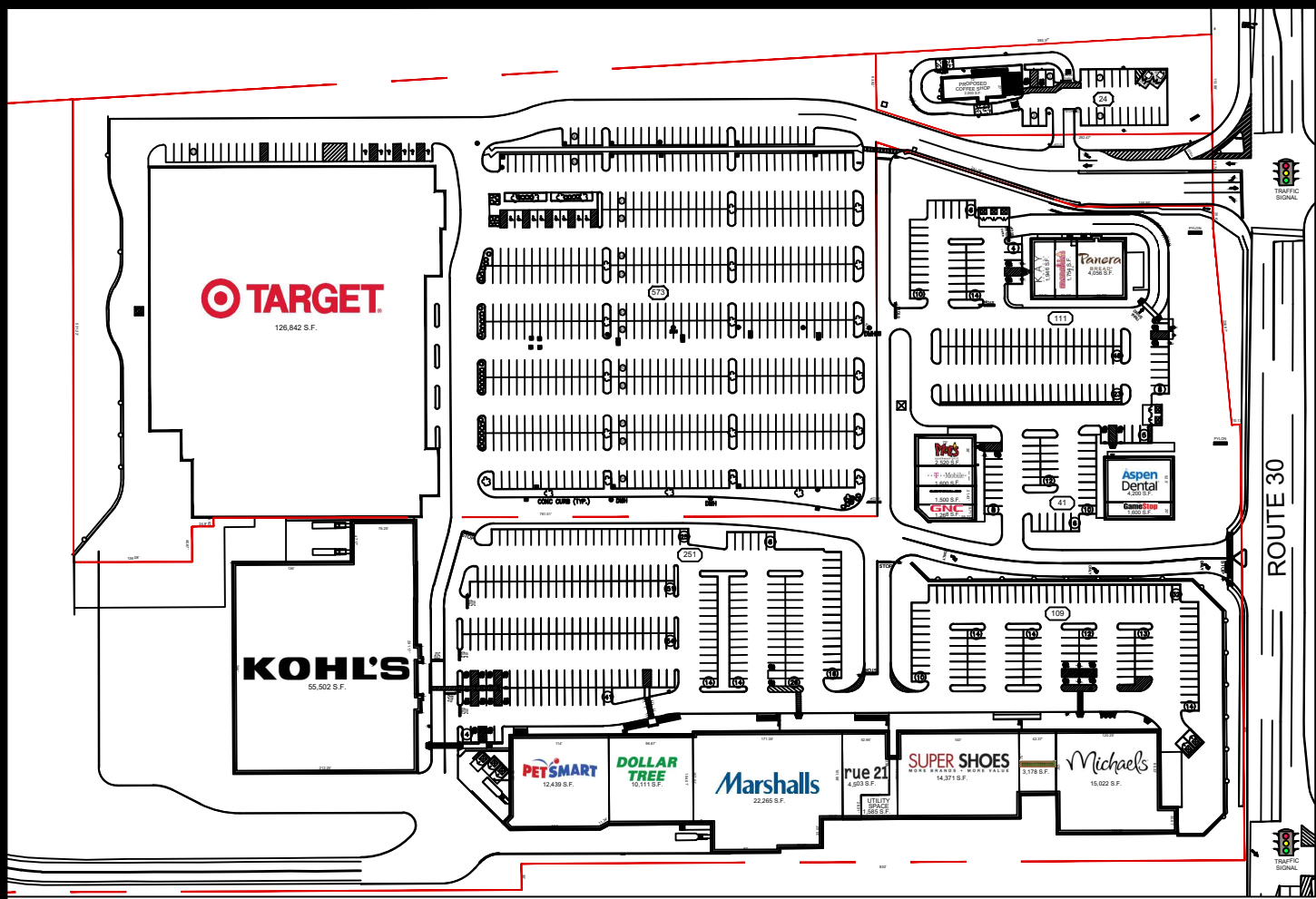
JAMES ALLEN RUMSEY  
ARCHITECT  
PREPARED FOR  
**BENDERSON DEVELOPMENT**  
570 DELAWARE AVE., BUFFALO, NY 14202  
(716) 886-0211

**SEAL**



TITLE:  
**Drainage Details**  
SCALE:  
NTS  
DRAWN BY:  
DMZ  
CHECKED BY:  
MAO  
DATE:  
08.24.2021  
DRAWING NO.:  
**C5.2**

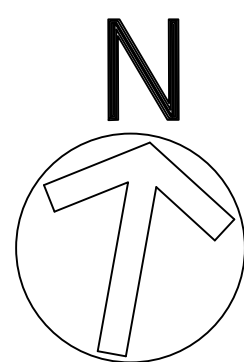




SITE LOCATION 1:200

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  - EX ELEC --- EXISTING ELECTRIC
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Know what's below.  
Call before you dig.

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# 4161

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-

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ARCHITECT

**BENDERSON  
DEVELOPMENT**  
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SEAL



TITLE:

Utility  
Plan

SCALE:  
1"=20'

DRAWN BY:

DMZ

CHECKED BY:

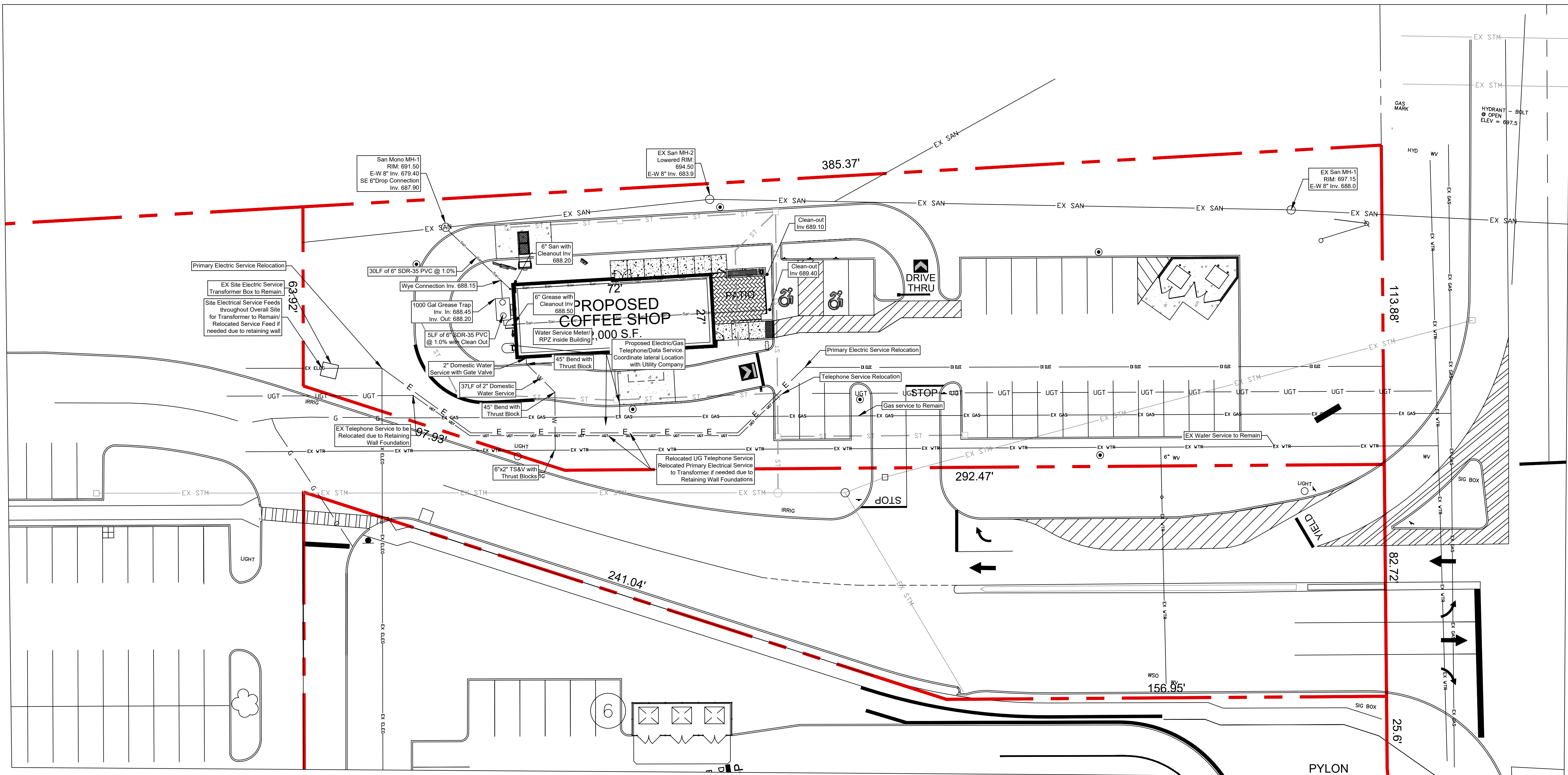
MAO

DATE:

08.24.2021

DRAWING NO.

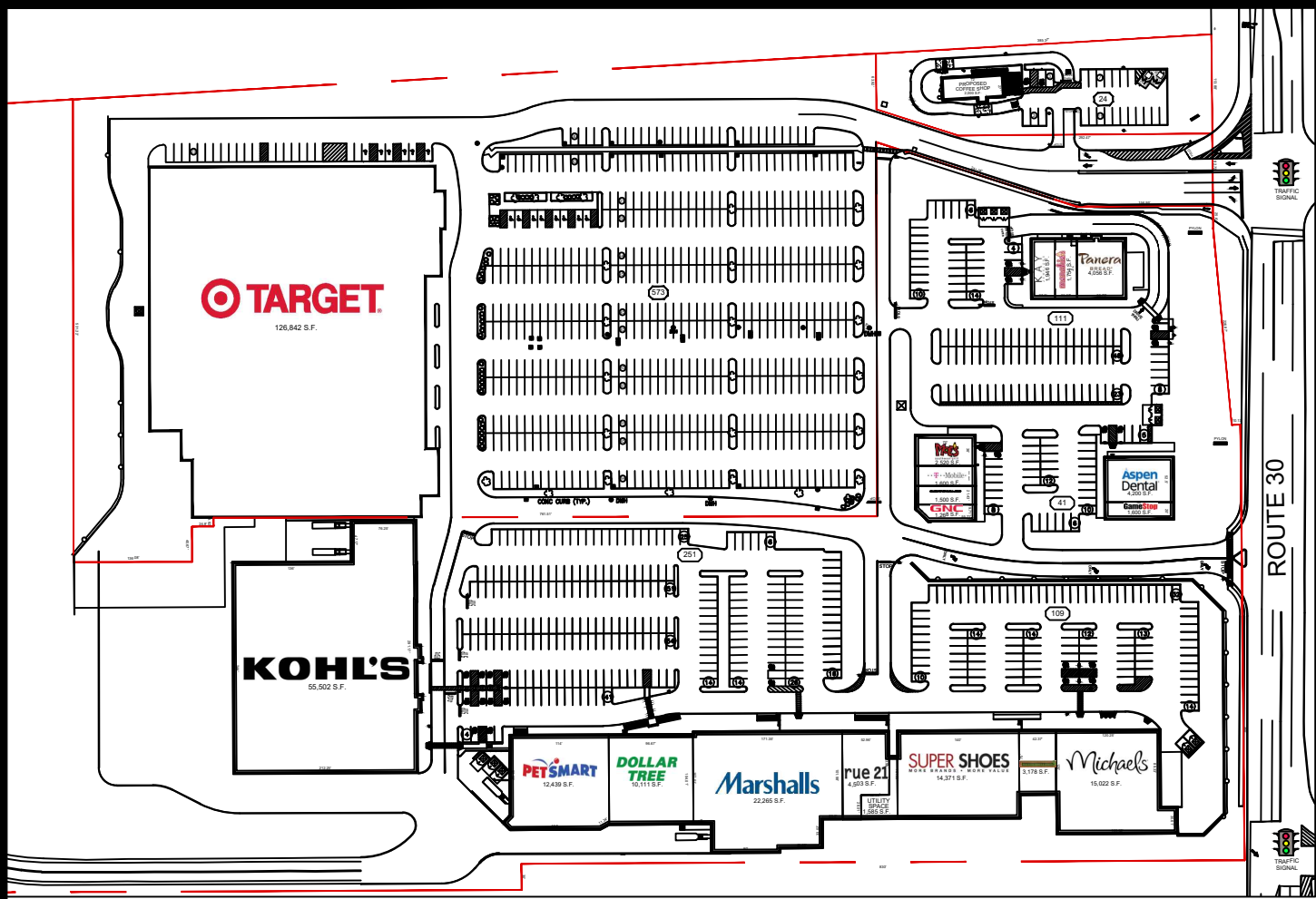
C6.0





## C6.1

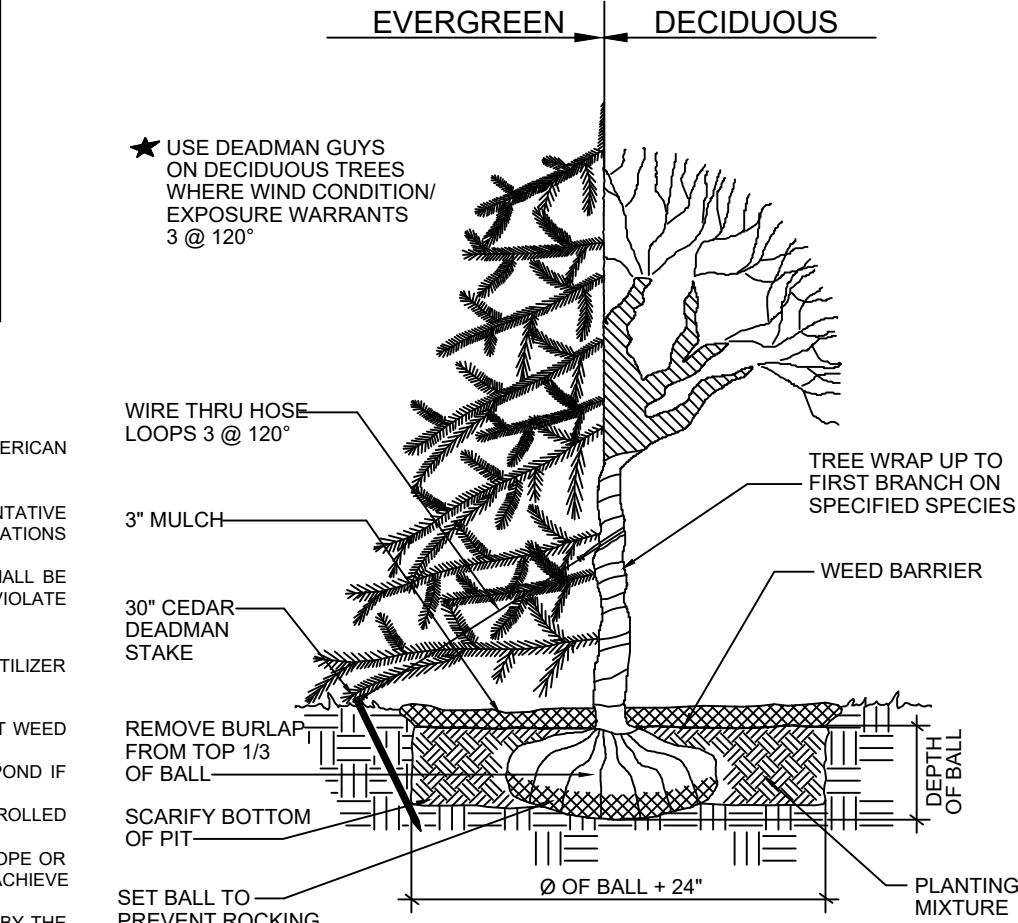




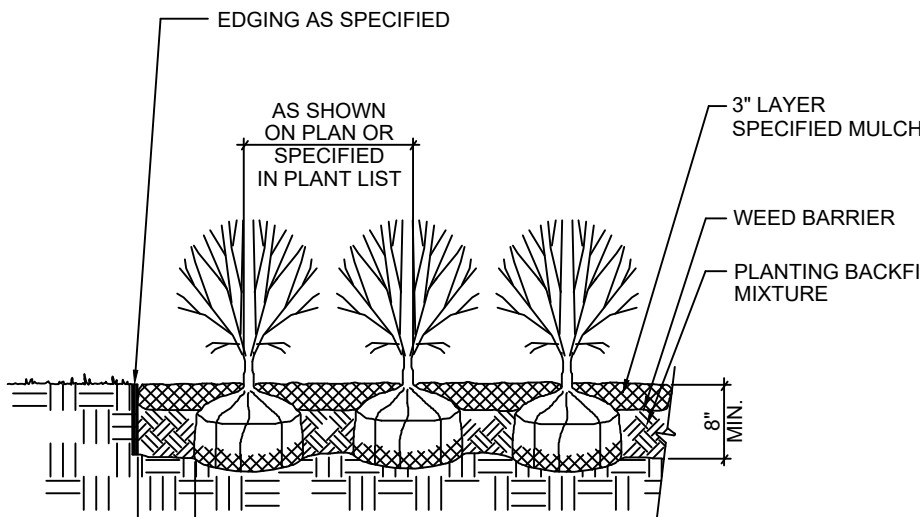
SITE LOCATION 1:200

- LANDSCAPE NOTES:
1. ALL PLANTS INSTALLED SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED ON THE PLANS AND IN THE LATEST EDITION ON THE AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSERMEN, ANSI Z60.1
  2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF. THE QUANTITIES SHOWN ARE A MINIMUM AND ARE FOR REFERENCE ONLY.
  3. THE CONTRACTOR SHALL PERFORM A ROUGH FIELD STAKEOUT OF ALL PLANTING MATERIAL LOCATIONS AND CONTACT THE OWNERS FIELD REPRESENTATIVE PRIOR TO ACTUAL INSTALLING. THE PLANTING MATERIAL LOCATIONS SHOWN ON THE PLANS ARE TO CONVEY THE DESIGN INTENT ONLY. ACTUAL LOCATIONS WILL BE FINALIZED BY THE OWNERS FIELD REPRESENTATIVE AT THE TIME OF INSTALLATION.
  4. THE CONTRACTOR IS HEREBY NOTIFIED THAT IF UNDERGROUND UTILITIES EXIST IN THE VICINITY OF THE PLANTINGS, ALL PROPOSED PLANTINGS SHALL BE INSTALLED A MINIMUM OF 2' FROM ANY UNDERGROUND UTILITY. CONTACT THE OWNERS FIELD REPRESENTATIVE IF PLANTINGS SHOWN ON THE PLANS VIOLATE THIS SITUATION.
  5. ALL TREES SHALL BE INSTALLED A MINIMUM OF 20' FROM ANY OVERHEAD ELECTRIC LINES.
  6. PLANTING BACKFILL MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL, 1 PART PEAT MOSS, 1/2 PART WELL ROTTED MANURE, 10 LBS 5-10-5 PLANTING FERTILIZER THOROUGHLY MIXED PER CUBIC YARD.
  7. STAKE AND WRAP TREES IMMEDIATELY FOLLOWING INSTALLATION.
  8. ALL PLANTED AREAS SHALL RECEIVE A MAX. 2" LAYER OF COCOA BROWN MULCH. WEED MAT EQUAL TO "WEEDBLOCK" BY EASY GARDENER OR DEWITT WEED BARRIER.
  9. ALL DISTURBED AREAS NOT RECEIVING PLANTINGS (INCLUDING RIGHT-OF-WAYS) SHALL BE PROVIDED WITH SOD. SEED PERMITTED AT DETENTION POND IF PLANTED EARLY ENOUGH TO ESTABLISH.
  10. THE AREAS ON THE PLAN TO BE SEEDDED SHALL HAVE 4" MINIMUM OF TOPSOIL, DISK PLOWED, LEVELED AND HAND RAKED SMOOTH. SURFACE SHALL BE ROLLED TO REMOVE LUMPS.
  11. ALL SEEDDED AREAS SHALL BE HYDROSEEDING IN ACCORDANCE WITH THE SPECIFICATION INDICATED. WHERE REQUIRED BY CLIMATIC CONDITIONS, SLOPE OR SEASON OF PLANTING, HYDROSEED SPEC. 20% RYE, 20% BLUE GRASS, 60% TURF TYPE FESCUE. SOD MAY BE SUBSTITUTED FOR SEEDING IN ORDER TO ACHIEVE THE REQUIRED COVERAGE (REFER TO CONTRACTOR FOR SOD/SEED COVERAGE).
  12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING AND OTHER MAINTENANCE TO SEEDDED AREAS UNTIL THE PROJECT IS ACCEPTED BY THE OWNER. THIS SHALL INCLUDE WATERING DAILY FOR 15 DAYS OR AS REQUIRED BY WEATHER CONDITIONS AND RE-SEEDING OF THIN SPOTS FOLLOWING THE GERMINATION OF THE SEEDS.
  13. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING TREES ONSITE AND OFFSITE, WHICH ARE TO BE PRESERVED, FROM ALL POSSIBLE TYPES OF ROOT, TRUNK, AND LIMB DAMAGE.

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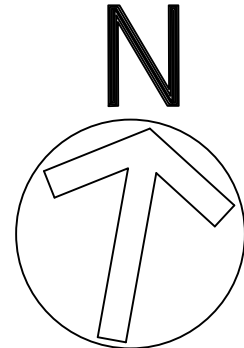


STD. TREE PLANTING



STD. SHRUB PLANTING

PLANT LIST							
SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	CAL.	SIZE	ROOT	QTY.
TREES							
	AF	Acer x Freemanii	ARMSTRONG MAPLE	3"		B&B	7
	TO	Thija occidentalis 'Emerald'	EMERALD GREEN ARBORVITAE		6'	B&B	10
SHRUBS							
	JC	Juniperus conferta 'Blue Pacific'	BLUE PACIFIC JUNIPER		24"	3 GAL.	12
	LV	Ligustrum x vicaryi	GOLDEN VICARY PRIVET		24"	3 GAL.	35
	PC	Prunus x cistena	PURPLE LEAF SAND CHERRY		36"	5 GAL.	27
	LA	Ligustrum amurense	AMUR PRIVET		24"	3 GAL.	28
	SJ	Spiraea japonica 'Gold Mound'	GOLD MOUND SPIRAEA		24"	3 GAL.	33



DRAWING REVISIONS:			
No.	DATE	BY	REMARKS

SPECIAL INFORMATION:

ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

SHOP DRAWING SUBMITTALS ARE REQUIRED FOR ANY AND ALL STRUCTURES.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.



Know what's below.  
Call before you dig.

PROPERTY NUMBER: # 4161

AREA: -

Amsterdam Commons  
4930 Route 30  
Amsterdam, NY 12010

PROPOSED COFFEE SHOP

CONSULTANT

JAMES ALLEN RUMSEY  
ARCHITECT  
PREPARED FOR  
**BENDERSON DEVELOPMENT**  
570 DELAWARE AVE., BUFFALO, NY 14202  
(716) 886-0211

SEAL



TITLE:  
**Landscaping Plan**

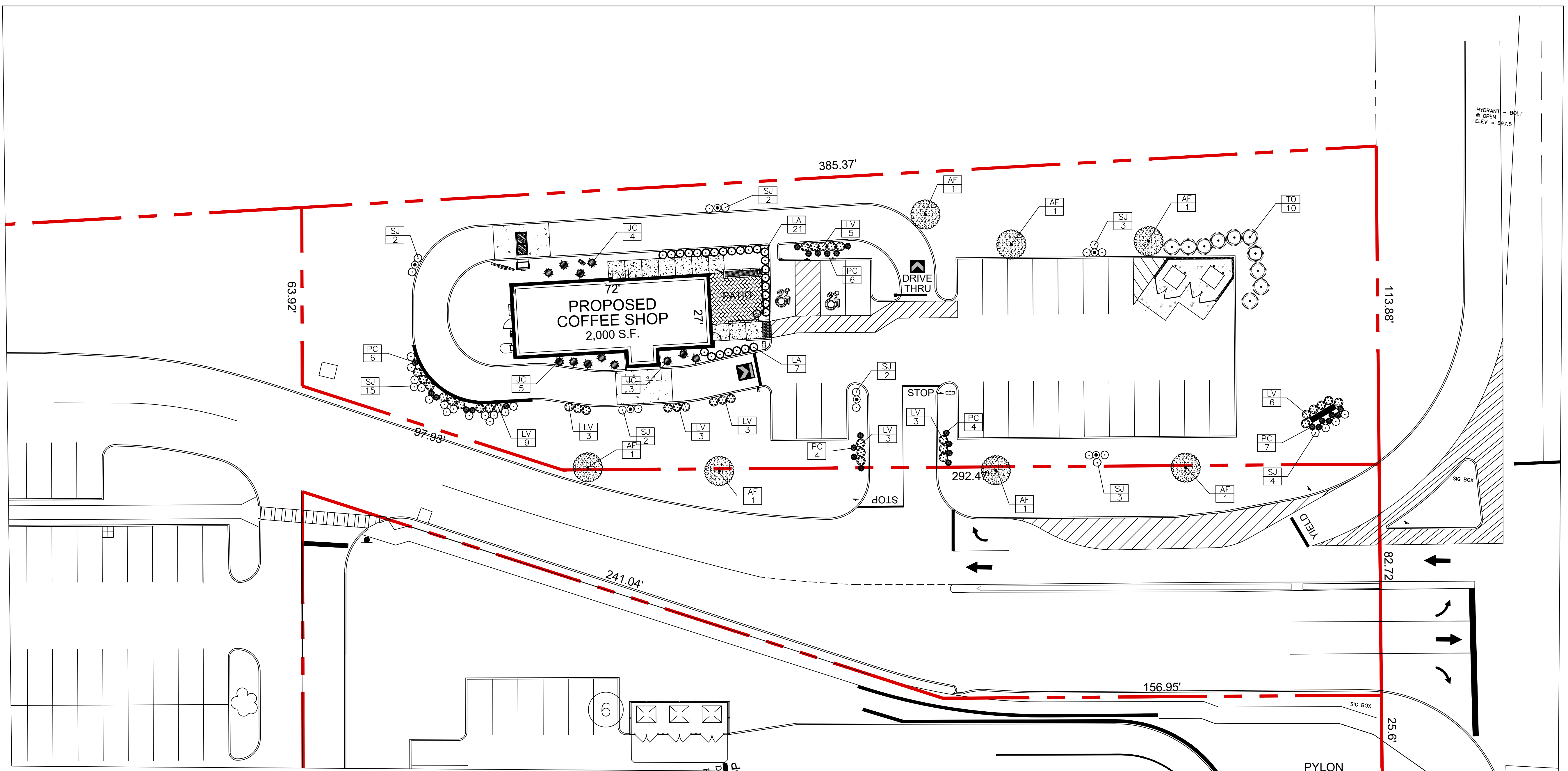
SCALE:  
1"=20'

DRAWN BY:  
DMZ

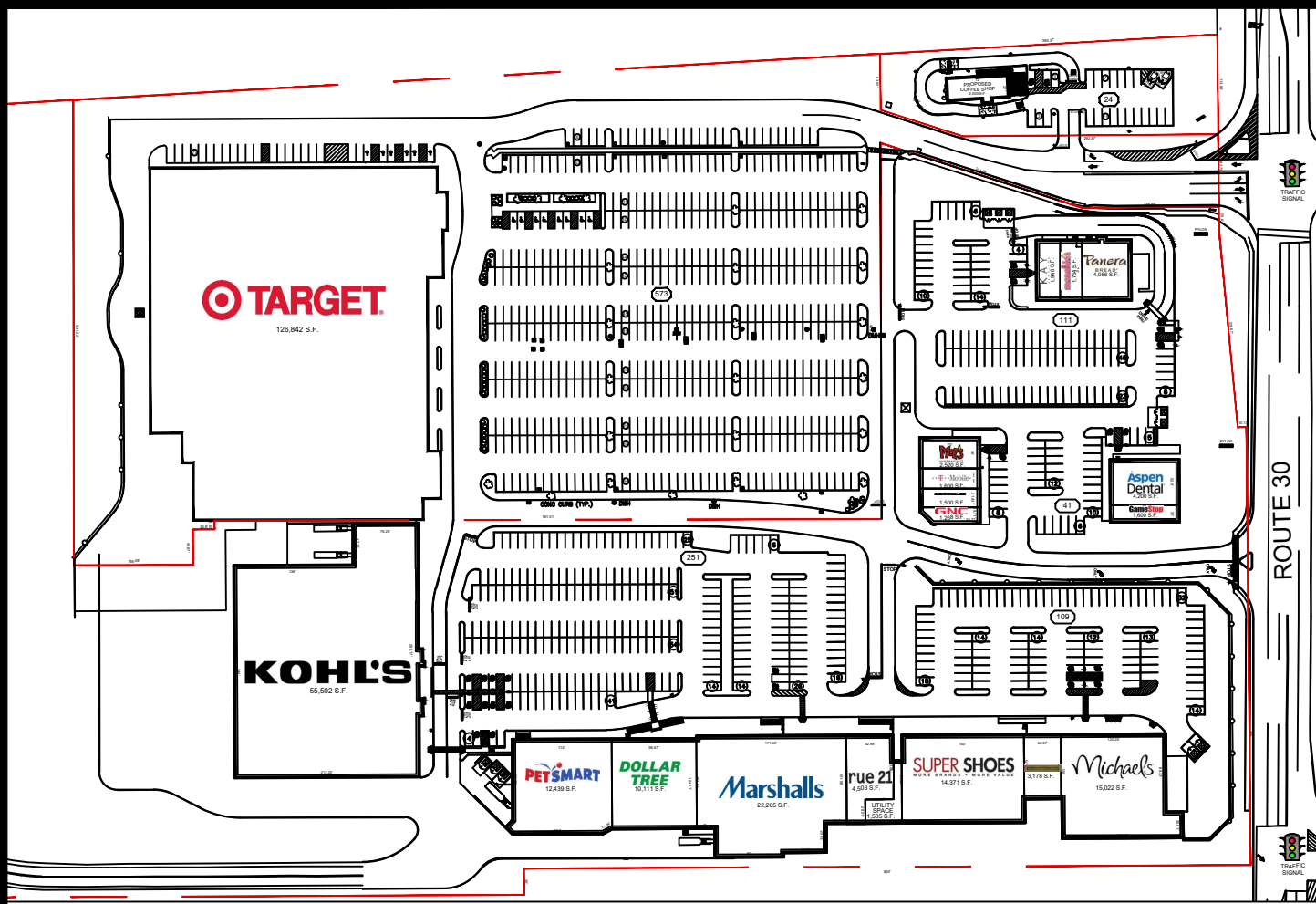
CHECKED BY:  
MAO

DATE:  
08.24.2021

DRAWING NO.:  
**C7.0**







- GENERAL NOTES:
1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
  2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
  3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
  4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
  5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
  6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
  7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
  8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
  9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL PLANS FOR LAYOUT DIMENSIONS.
  10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN.
  11. CONCRETE SIDEWALK SEALERS (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES):
    - 11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
    - 11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS).
  12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
  13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

#	Name	Parameter	Min	Max	Average
1	Parking Summary	Site FC	0.31 fc	6.68fc	1.75 fc

Luminaire Schedule							
Index	Manufacturer	Luminaire type	Item number	Luminous flux	Mounting Height	Connected load	Quantity
	SimplyLEDs	SimplyLEDs FLD-RS Series, T5 Distribution, 90W Power Input, 4000K Double Head Fixture with 90° extension with rear shield	FLD-RS-090 WLM-400K-T4-BL-RS	13069 Lm	25 Ft	90 W	6

## FLD-RS

spec-grade performance

AREA, ROADWAY, & STREET LIGHTING

The FLD-RS is our second generation spec-grade luminaire in the FLD series. Redesigned with increased efficacy and distribution for projects requiring a sleek architectural profile and the high-performance of a SimplyLEDs luminaire. FLD-RS boasts an IP66-rated cast aluminum body with over 1,800sq. in. of surface area & 40kV driver-attuned surge protection standard on every unit we manufacture. Each FLD-RS is equipped with a top-mounted NEMA 7-pin connector & shorting cap.

AVAILABLE IN 60W THRU 340W

Polar Candela Distribution

Available Color Temps (K): 4000, & 5000

CRI: 72+

Lifetime (L70): >150,000

LED Source: Seoul Semi 5050

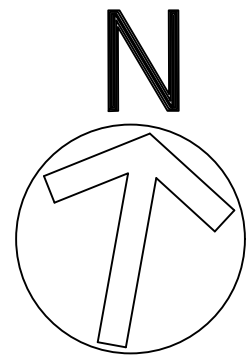
Power Supply: **Inventronics** 0-10V, 120-277VAC (480V optional), 50/60Hz dimming driver

Compliance: ETL, UL 1598, 1598B, 1598C Suitable for wet locations

Warranty: 10 years

60W - 110W	17"L x 12.5"W x 3.5"H
160W - 340W	23"L x 14.75"W x 3.5"H

111 West 34th Street, Boise, ID 83714 sales@simplyleds.com



DRAWING REVISIONS:			
No.	DATE	BY	REMARKS

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PROPERTY NUMBER: # 4161  
AREA: -

PROPOSED COFFEE SHOP

Amsterdam Commons  
4930 Route 30  
Amsterdam, NY 12010

CONSULTANT

JAMES ALLEN RUMSEY  
ARCHITECT  
PREPARED FOR  
**BENDERSON DEVELOPMENT**  
570 DELAWARE AVE., BUFFALO, NY 14202  
(716) 886-0211

SEAL



TITLE:  
**Lighting Plan**

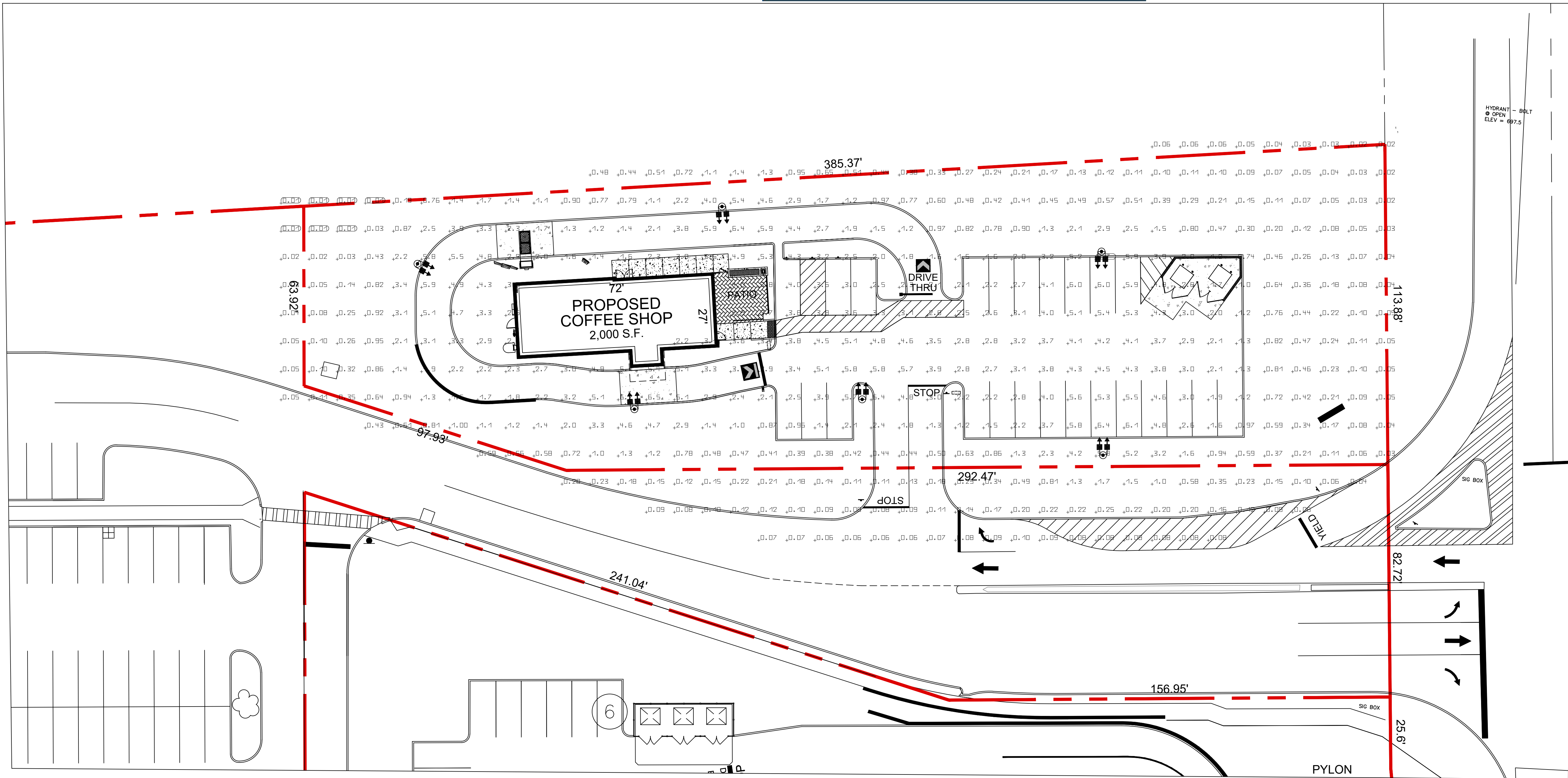
SCALE:  
1"=20'

DRAWN BY:  
DMZ

CHECKED BY:  
MAO

DATE:  
08.24.2021

DRAWING NO.:  
**C8.0**





# *Short Environmental Assessment Form*

## *Part 1 - Project Information*

### Instructions for Completing


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

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

<b>Part 1 – Project and Sponsor Information</b>				
Name of Action or Project:				
Project Location (describe, and attach a location map):				
Brief Description of Proposed Action:				
Name of Applicant or Sponsor:			Telephone:	
			E-Mail:	
Address:				
City/PO:		State:	Zip Code:	
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation?			NO	YES
If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			<input type="checkbox"/>	<input type="checkbox"/>
2. Does the proposed action require a permit, approval or funding from any other government Agency?			NO	YES
If Yes, list agency(s) name and permit or approval:			<input type="checkbox"/>	<input type="checkbox"/>
3.   a. Total acreage of the site of the proposed action? _____ acres b. Total acreage to be physically disturbed? _____ acres c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ acres				
4. Check all land uses that occur on, are adjoining or near the proposed action: <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> Urban</span> <span><input type="checkbox"/> Rural (non-agriculture)</span> <span><input type="checkbox"/> Industrial</span> <span><input type="checkbox"/> Commercial</span> <span><input type="checkbox"/> Residential (suburban)</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> Forest</span> <span><input type="checkbox"/> Agriculture</span> <span><input type="checkbox"/> Aquatic</span> <span><input type="checkbox"/> Other(Specify):</span> </div> <div style="margin-top: 5px;"><input type="checkbox"/> Parkland</div>				

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



14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply: <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> Shoreline</span> <span><input type="checkbox"/> Forest</span> <span>Agricultural/grasslands</span> <span>Early mid-successional</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>Wetland</span> <span><input type="checkbox"/> Urban</span> <span>Suburban</span> </div>		
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	NO	YES
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Is the project site located in the 100-year flood plan?	NO	YES
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, <div style="margin-left: 20px; margin-top: 10px;">           a. Will storm water discharges flow to adjacent properties?         </div> <div style="margin-left: 20px; margin-top: 10px;">           b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?         </div> If Yes, briefly describe: <div style="border-bottom: 1px solid black; margin-top: 5px; height: 1.2em;"></div> <div style="border-bottom: 1px solid black; margin-top: 5px; height: 1.2em;"></div>	NO	YES
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment: <div style="border-bottom: 1px solid black; margin-top: 5px; height: 1.2em;"></div> <div style="border-bottom: 1px solid black; margin-top: 5px; height: 1.2em;"></div>	NO	YES
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe: <div style="border-bottom: 1px solid black; margin-top: 5px; height: 1.2em;"></div> <div style="border-bottom: 1px solid black; margin-top: 5px; height: 1.2em;"></div>	NO	YES
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: <div style="border-bottom: 1px solid black; margin-top: 5px; height: 1.2em;"></div> <div style="border-bottom: 1px solid black; margin-top: 5px; height: 1.2em;"></div>	NO	YES
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE</b></p> <p>Applicant/sponsor/name: _____ Date: _____</p> <p>Signature: <u></u> Title: _____</p>		

**REFERRAL FORM**  
**MONTGOMERY COUNTY PLANNING BOARD**

Referral Number \_\_\_\_\_  
assigned by the MCPB upon  
acceptance of referral for review

This Referral must be received **SEVEN CALENDAR DAYS** prior to the MCPB meeting date in order for it to be placed on the agenda.

**TO:** Montgomery County Planning Board,  
Old County Courthouse,  
PO Box 1500, Fonda, New York 12068  
Phone: 518-853-8334  
Fax: 518-853-8336

**FROM:** Municipal Board: Town of Fonda Planning Bd  
Referring Officer: Tim Reilly  
Mail original resolution to: 7. ERIC STREET  
FULTONVILLE NY  
12072

1. Applicant: PRISCILLA E BARRY 2. Site Address: 208 ROUND BARN ROAD ANDOVERHAM, NY  
3. Tax Map Number(s): 85-1-44 4. Acres: 5.10 12010  
5. Is the site currently serviced by public water? ☐ Yes ☒ No  
6. On-site waste water treatment is currently provided by: ☐ Public Sewer or ☒ Septic System  
7. Current Zoning: Rural Res / Agriculture 8. Current Land Use: Home  
9. Project Description: SPECIAL PERMIT TO ALLOW BED/BREAKFAST ON SITE

**10. MCPB Jurisdiction:**

- ☐ Text Adoption or Amendment ☒ Site is located within 500' of: SPECIAL PERMIT REQUEST  
☐ a municipal boundary.  
☐ a State or County thruway/highway/roadway  
☐ an existing or proposed State or County park/recreation area  
☐ an existing or proposed County-owned stream or drainage channel  
☐ a State or County-owned parcel on which a public building or institution is situated  
☐ a farm operation within an Agricultural District (Incl. Ag data Statement) (does not apply to area variances)

11. PUBLIC HEARING: Date: WAIVED BY RESOLUTION OF PLANNING BD 11/18/2021  
Time: \_\_\_\_\_ Location: \_\_\_\_\_

**Referred Action(s)**

If referring multiple, related actions, please identify the referring municipal board if different from above.

12. ☐ Text Adoption or ☐ Amendment Referring Board: \_\_\_\_\_  
☐ Comprehensive Plan ☐ Local Law ☐ Zoning Ordinance ☐ Other \_\_\_\_\_

13. ☐ Zone Change Referring Board: \_\_\_\_\_  
Proposed Zone District: \_\_\_\_\_ Number of Acres: \_\_\_\_\_  
Purpose of the Zone Change: \_\_\_\_\_

14. ☐ Site Plan ☐ Project Site Review Referring Board: \_\_\_\_\_  
Proposed Improvements: \_\_\_\_\_

Proposed Use: BED/BREAKFAST IN CURRENT RESIDENCE

Will the proposed project require a variance? ☐ Yes ☒ No Type: ☐ Area ☐ Use  
Specify: \_\_\_\_\_

Is a State or County DOT work permit needed? If Yes : ☐ State or ☐ County ☒ No  
Specify: \_\_\_\_\_

This side to be completed by Montgomery County Planning.

## REFERRAL FORM

### MONTGOMERY COUNTY PLANNING BOARD

TO: West of Glen Planning Bd.

Receipt of 239-m referral is acknowledged on \_\_\_\_\_. Please be advised that the Montgomery County Planning Board has reviewed the proposal stated on the opposite side of this form on \_\_\_\_\_ and makes the following recommendation.

- ☐ Approves
- ☐ Approves (with Modification)
- ☐ Disapproves:
- ☐ No significant County-wide or inter-community input
- ☐ Not subject to Planning Board review
- ☐ Took no action

Section 239-m of the General Municipal Law requires that within thirty days after final action by the municipality is taken; a report of the final action shall be filed with the County Planning Board.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Kenneth F. Rose, Director  
Montgomery County Dept. of Economic  
Development and Planning

TOWN OF GLEN  
7 ERIE STREET  
FULTONVILLE, NY 12072  
ROXANNE DOUGLASS, TOWN CLERK - 518-853-3633  
TOM DICAPRIO, TOWN OF GLEN CEO - 518-848-4498

BUILDING PERMIT APPLICATION

APPLICANT MUST COMPLETE ALL BELOW THAT APPLY:

DATE: Oct 21, 2021 \$ \_\_\_\_\_ No. \_\_\_\_\_

DATE YOU INTEND TO BEGIN BUILDING: N/A

NAME OF APPLICANT: Priscilla E. Barry  
HOME PHONE: 518-527-5600 BUSINESS PHONE: 518-922-6778  
APPLICANT'S ADDRESS: \_\_\_\_\_

NAME OF OWNER: Priscilla E. Barry  
ADDRESS: 208 Round Barn Rd. PHONE: 518-527-5600  
Amsterdam NY 12010

SBL #: 85.-1-44

PROPOSED PROJECT: Air BnB in existing home for up to 4 persons

VALUE: \$ \_\_\_\_\_

LOCATION OF PROPERTY: 208 Round Barn Rd.  
LOCATION OF BUILDING ON PROPERTY - DRAW AND ATTACH SKETCH TO ILLUSTRATE -  
INSTRUCTIONS ATTACHED.

ARE YOU INSTALLING A NEW SEPTIC SYSTEM? YES \_\_\_\_\_ \* NO ✓  
REPLACING AN EXISTING SEPTIC SYSTEM? YES \_\_\_\_\_ \* NO ✓

\* IF THE ANSWER IS YES TO EITHER OF THESE TWO QUESTIONS, A PERCOLATION TEST IS REQUIRED (APPLICATION IS AVAILABLE FROM MONTGOMERY COUNTY SOIL AND WATER CONSERVATION DISTRICT, 4001 STHWY 5S, FULTONVILLE, NY, (518) 853-4015). A SITE PLAN GIVING DETAILS OF THE ENTIRE SYSTEM WITH DISTANCES FROM OPEN WATER, WELLS OR WETLANDS, AS WELL AS PROPERTY LINES AND WATER PIPES, IS ALSO REQUIRED.

NAME OF PRINCIPAL CONTRACTOR: \_\_\_\_\_  
CONTRACTOR'S ADDRESS: \_\_\_\_\_  
CONTRACTOR'S PHONE: \_\_\_\_\_  
CONTRACTOR'S WORKMAN'S COMPENSATION INSURANCE COMPANY AND NUMBER: \_\_\_\_\_

**APPLICANT: MUST COMPLETE 1-15 (WHEN APPLICABLE)**

1. LOCATION OF PROPERTY: 208 Round Barn Rd.
2. TAX MAP # (SBL#): 85-1-44 (Survey is available)
3. ZONE DISTRICT: \_\_\_\_\_
4. EXISTING USE OF PROPERTY: Single Family home  
INTENDED USE OF PROPERTY: Air BnB for up to 4 family members
5. NATURE OF WORK:
- |                            |   |
|----------------------------|---|
| NEW BUILDING _____         | REMOVAL/DEMOLITION _____                        |
| REPAIR _____               | ALTERATION/S _____                              |
| ADDITION _____             | OTHER <input checked="" type="checkbox"/> _____ |
| (SINGLE) MOBILE HOME _____ | SEPTIC _____                                    |
| HOME - STICK BUILT _____   | MODULAR _____                                   |
|                            | DOUBLE WIDE _____                               |
6. ESTIMATED COST OF PROJECTS: up to 10,000
7. **IF** MULTIPLE DWELLING: a. NUMBER OF DWELLINGS \_\_\_\_\_ UNITS \_\_\_\_\_  
b. NUMBER OF BEDROOMS \_\_\_\_\_  
c. NUMBER OF FLOORS \_\_\_\_\_
8. **IF** MOBILE HOME: NEW INSTALLATION Y/N \_\_\_\_\_ YEAR OF \_\_\_\_\_
9. **IF** GARAGE: # OF CAR \_\_\_\_\_
10. **IF** BUSINESS, COMMERCIAL OR MIXED OCCUPANCY, SPECIFY NATURE AND EXTENT OF EACH TYPE OF USE: overnight stays with breakfast for up to 4 people
11. DIMENSION OF EXISTING STRUCTURES **IF** ALTERATION OR ADDITIONS ARE MADE:
- |                         |              |
|-------------------------|--------------|
| DEPTH _____             | HEIGHT _____ |
| FRONT _____             | REAR _____   |
| NUMBER OF STORIES _____ |              |
12. DIMENSION OF NEW CONSTRUCTION: (INCLUDING MOBILE HOME)
- |             |              |
|-------------|--------------|
| DEPTH _____ | HEIGHT _____ |
| FRONT _____ | REAR _____   |
13. SIZE OF LOT: FRONT 624' REAR \_\_\_\_\_ DEPTH \_\_\_\_\_ ACRE/S 5.10
14. DISTANCE FROM NEAREST ADJACENT BUILDING:  
LEFT SIDE 7600' RIGHT SIDE 71000' REAR NA
15. DISTANCE FROM NEAREST ADJACENT PROPERTY:  
LEFT SIDE 30' RIGHT SIDE 534' REAR 200'

# Short Environmental Assessment Form

## Part 1 - Project Information

### Instructions for Completing

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

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

<b>Part 1 – Project and Sponsor Information</b>							
Priscilla E. Barry							
Name of Action or Project: A. Knickerbocker Farmhouse							
Project Location (describe, and attach a location map): 208 Round Barn Rd., Amsterdam, NY 12010							
Brief Description of Proposed Action: Request Special Use permit to Use 2 bedrooms & one Bathroom and adjoining areas for BnB							
Name of Applicant or Sponsor: Priscilla E. Barry		Telephone: 518 - 527-5600					
		E-Mail: akfarmhouse@protonmail.com					
Address: 208 Round Barn Rd							
City/PO: P.O. Box 171, Amsterdam, <del>NY</del>		State: NY	Zip Code: 12010				
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			<table border="1" style="width: 100%; text-align: center;"> <tr> <td>NO</td> <td>YES</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	NO	YES	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO	YES						
<input checked="" type="checkbox"/>	<input type="checkbox"/>						
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: Montgomery County			<table border="1" style="width: 100%; text-align: center;"> <tr> <td>NO</td> <td>YES</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </table>	NO	YES	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO	YES						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
3. a. Total acreage of the site of the proposed action?		5.10 acres					
b. Total acreage to be physically disturbed?		0 acres					
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?		5.10 acres					
4. Check all land uses that occur on, are adjoining or near the proposed action:							
<input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural (non-agriculture) <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential (suburban)							
<input type="checkbox"/> Forest <input checked="" type="checkbox"/> Agriculture <input type="checkbox"/> Aquatic <input type="checkbox"/> Other(Specify):							
<input type="checkbox"/> Parkland							

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

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

- ☐ Shoreline ☐ Forest ☒ Agricultural/grasslands ☐ Early mid-successional  
☐ Wetland ☐ Urban ☒ Suburban

15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?

NO	YES
<input checked="" type="checkbox"/>	<input type="checkbox"/>

16. Is the project site located in the 100-year flood plan?

NO	YES
<input checked="" type="checkbox"/>	<input type="checkbox"/>

17. Will the proposed action create storm water discharge, either from point or non-point sources?

If Yes,

NO	YES
<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. Will storm water discharges flow to adjacent properties?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?

<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	-------------------------------------

If Yes, briefly describe:

Storm Water in this area runs into Irish Creek.

18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?

If Yes, explain the purpose and size of the impoundment:

NO	YES
<input checked="" type="checkbox"/>	<input type="checkbox"/>

19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?

If Yes, describe:

NO	YES
<input checked="" type="checkbox"/>	<input type="checkbox"/>

20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?

If Yes, describe:

NO	YES
<input checked="" type="checkbox"/>	<input type="checkbox"/>

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: Priscilla E. Barry Date: Oct. 23, 2021

Signature: Priscilla E. Barry Title: owner



# REFERRAL FORM

## MONTGOMERY COUNTY PLANNING BOARD

Referral Number \_\_\_\_\_  
assigned by the MCPB upon  
acceptance of referral for review

This Referral must be received **SEVEN CALENDAR DAYS** prior to the MCPB meeting date in order for it to be placed on the agenda.

**TO:** Montgomery County Planning Board,  
Old County Courthouse,  
PO Box 1500, Fonda, New York 12068  
Phone: 518-853-8334  
Fax: 518-853-8336

**FROM:** Municipal Board: Town of Mohawk Planning Bd  
Referring Officer: Patrick Clear/Stan Waddle  
Mail original resolution to: Stan Waddle, PO Box 415  
Fonda, New York 12068

1. Applicant: BW Solar 2. Site Address: 182 Boshart Rd, Fonda  
3. Tax Map Number(s): 20, -5-3 4. Acres: 97 acres

5. Is the site currently serviced by public water? ☐ Yes ☒ No  
6. On-site waste water treatment is currently provided by: ☐ Public Sewer or ☒ Septic System

7. Current Zoning: R-2 Residential 8. Current Land Use: Farming

9. Project Description: Build a 5mw solar array, Project to involve construction of ground mounted panels, access roads, Inverter equipment pads on approx 28 acres of the 97 acres

### 10. MCPB Jurisdiction:

☐ Text Adoption or Amendment ☒ Site is located within 500' of: farm operation  
☐ a municipal boundary.  
☐ a State or County thruway/highway/roadway  
☐ an existing or proposed State or County park/recreation area  
☒ an existing or proposed County-owned stream or drainage channel snow machine trail - NOT on Project property  
☐ a State or County-owned parcel on which a public building or institution is situated  
☒ a farm operation within an Agricultural District (Incl. Ag data Statement) (does not apply to area variances)

11. PUBLIC HEARING: Date: 8/17/2021 Time: 7:40 PM Location: TOM Town Hall

### Referred Action(s)

If referring multiple, related actions, please identify the referring municipal board if different from above.

12. ☐ Text Adoption or ☐ Amendment Referring Board:  
☐ Comprehensive Plan ☐ Local Law ☐ Zoning Ordinance ☐ Other \_\_\_\_\_

13. ☐ Zone Change Referring Board:  
Proposed Zone District: \_\_\_\_\_ Number of Acres: \_\_\_\_\_

Purpose of the Zone Change: \_\_\_\_\_

14. ☒ Site Plan ☒ Project Site Review Referring Board: TOM Planning Bd

Proposed Improvements: Solar project

Proposed Use: Construct Solar project on approx 28 acres of 97 acres

Will the proposed project require a variance? ☐ Yes ☐ No Type: ☐ Area ☐ Use

Specify: \_\_\_\_\_

Is a State or County DOT work permit needed? If Yes : ☐ State or ☒ County ☐ No

Specify: Road access Town

15. ☐ **Special Permit**

**Referring Board:**

Section of local zoning code that requires a special permit for this use: \_\_\_\_\_

Will the proposed project require a variance? ☐ Yes ☐ No Type: ☐ Area ☐ Use

16. **Variance**

**Referring Board:**

☐ Area ☐ Use

Section(s) of local zoning code to which the variance is being sought: \_\_\_\_\_

Describe how the proposed project varies from the above code section: \_\_\_\_\_

**SEQR Determination**

**Action:**

**Finding:**

☐ Type I

☐ Positive Declaration – Draft EIS

☒ Type II

☒ Conditional Negative Declaration

☐ Unlisted Action

☐ Negative Declaration

☐ Exempt

☐ No Finding (Type II Only)

SEQR determination made by (Lead Agency): Tom Planning Bd Date: 10/19/2021

**REQUIRED MATERIAL**

Send 3 copies of a “Full Statement of the Proposed Action” which includes:

All materials required by and submitted to the referring body as an application

- If submitting site plans, please submit only 1 large set of plans, and 12 11x17 packets.
- All material may be submitted digitally as well at <http://www.mcbdc.org/planning-services/montgomery-county-planning-board-referrals/>

This referral, as required by GML §239 l and m, includes complete information, and supporting materials to assist the Montgomery County Planning Board (MCPB) in its review. Recommendations by MCPB shall be made to the Referring Body within thirty days of receipt of the Full Statement.

Stanley F. Waddle Building & Zoning Code Official 12/3/2021  
Name, Title & Phone Number of Person Completing this Form Transmittal Date  
518-774-0420

This side to be completed by Montgomery County Planning.

## **REFERRAL FORM**

### **MONTGOMERY COUNTY PLANNING BOARD**

TO: \_\_\_\_\_

Receipt of 239-m referral is acknowledged on \_\_\_\_\_. Please be advised that the Montgomery County Planning Board has reviewed the proposal stated on the opposite side of this form on \_\_\_\_\_ and makes the following recommendation.

- ☐ Approves
  
- ☐ Approves (with Modification)
  
- ☐ Disapproves:
  
- ☐ No significant County-wide or inter-community input
  
- ☐ Not subject to Planning Board review
  
- ☐ Took no action

Section 239-m of the General Municipal Law requires that within thirty days after final action by the municipality is taken; a report of the final action shall be filed with the County Planning Board.

\_\_\_\_\_  
Date


\_\_\_\_\_  
Kenneth F. Rose, Director  
Montgomery County Dept. of Economic  
Development and Planning

# Aquatic Resource Report

## Montgomery Solar Project

### Town of Mohawk, Montgomery County, New York



 <p>PRESENTED TO</p>	 <p>PRESENTED BY</p>
<p><b>BW Solar</b> 505 Duferin Street North York, ON M3H5T5</p>	<p><b>Tetra Tech, Inc.</b> 3136 South Winton Road Suite303 Rochester, NY 14623</p>

June 2021

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## 1.0 INTRODUCTION

BW Solar (BW) of North York, Ontario is proposing to develop multiple agricultural fields into a 5-megawatt (MW) alternating current (AC) solar energy generation facility (the Project). The proposed Project area is located east of Boshart Road within the Town of Mohawk, Montgomery County, New York (Figure 1).

At BW's request, Tetra Tech has performed a wetland and waterbody survey within the Project area on April 21, 2021. During the survey, field conditions were typical for late April in Central New York State.

### 1.1 Project Description

The Project would be located on multiple active agricultural fields (row cropping/hayfields) and would be leased to BW for the purposes of operating the renewable energy facility. The Project is located east of Boshart Road and south of Old Trail Road (CR-30), Town of Mohawk, Montgomery County, New York, less than one mile north of the center of the Village of Fonda (Figure 1). The Project is comprised of one tax parcel making up 92.2 acres. The actual solar array area will be smaller than the total Project area.

### 1.2 General Environmental Setting and Current Land Use

Generally, the project infrastructure will be located within a mix of agricultural fields and woodlots. Slopes are moderate to flat, rolling hills with floodplains along two stream systems. Aerial photography is found in Figure 2.

#### 1.2.1 Physiography, Geology, and Geomorphology

The Project is located within the Mohawk Subprovince, of the Appalachian Plateau Province within the Appalachian Highlands Region (NPS 2021). The Project is located within a series of gently, rolling hills ranging in elevation from approximately 600 ft along the northern boundary (Old Trail Road) to approximately 420 ft along the southern boundary (Kane Road). The surface is underlain by Utica and Canajoharie Shales (USGS 2021).

#### 1.2.2 Hydrology

The Project has one stream system east of the of the Site boundary. Majority of the Project drains to the south and east, eventually draining to the Mohawk River. According to the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer, entirety of the Project area is located within the Zone X which is defined as "*areas of minimal flooding*".

#### 1.2.3 Soils

The Project consists of many soil series, with the Mohawk (31.0 acres), Lansing (22.4 acres), and Darien (11.2 acres) soil series being the primary soil types. The Mohawk series consists of very deep, well drained soils with a dark surface layer. These soils formed in till with a high component of black or dark gray shale. These soils are on glaciated upland summits through upper toe slopes. Saturated hydraulic conductivity is moderately high - high in the surface layer and subsoil and moderately low to moderately high in the substratum (MLRA 2006). The Lansing series consists of very deep, well drained soils formed in till. They are nearly level to rolling and steep soils on till plains. Saturated hydraulic conductivity is moderately high or high within the mineral solum, but moderately low or moderately high in the substratum (MLRA 2015). The Darien series consists of very deep, somewhat poorly drained soils formed in Wisconsinian age till on till plains, drumlins, and moraines. Permeability is moderately slow in the subsoil and slow in the substratum (MLRA 2011). No soils identified on site are identified as hydric soils (USDA NRCS 2021). Table 1 below provides a complete list of soil series mapped by the United States Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS) in the Project. Figure 3 depicts the distribution of soil series within the Project area. Figure 4 is NRCS Hydric Soil Map that provides additional soil information.

Table 1: USDA NRCS Soil Series Mapped in the Project

Map Unit	Map Unit Name	Hydric Rating	Total Acres	% of Total
AnB	Angola silt loam, 3 to 8 percent slopes	10	7.0	7.6%
ChB	Churchville silty clay loam, 3 to 8 percent slopes	10	0.2	0.3%
DaB	Darien silt loam, 3 to 8 percent slopes	10	11.2	12.1%
HrB	Howard gravelly silt loam, 3 to 8 percent slopes	0	1.7	1.8%
HrC	Howard gravelly silt loam, 8 to 15 percent slopes	0	5.4	5.9%
HuB	Hudson silty clay loam, 3 to 8 percent slopes	0	0.6	0.7%
HVF	Hudson soils, very steep	0	0.1	0.1%
LaB	Lansing silt loam, 3 to 8 percent slopes	0	12.8	13.9%
LaC	Lansing silt loam, 8 to 15 percent slopes	0	1.2	1.3%
LaD	Lansing silt loam, 15 to 25 percent slopes	0	8.4	9.1%
LMF	Lansing and Mohawk soils, 25 to 60 percent slopes	0	1.5	1.6%
MmB	Manheim silt loam, 3 to 8 percent slope	5	4.1	4.5%
MsB	Mohawk silt loam, 3 to 8 percent slopes	0	11.3	12.3%
MsC	Mohawk silt loam, 8 to 15 percent slopes	0	18.0	19.5%
MsD	Mohawk silt loam, 15 to 25 percent slopes	0	1.7	1.8%
PaC	Palatine silt loam, 8 to 15 percent slopes	0	2.4	2.7%
PaD	Palatine silt loam, 15 to 25 percent slopes	0	2.3	2.5%
Pr	Phelps gravelly loam, fan	0	0.9	0.9%
UnC	Unadilla silt loam, 8 to 15 percent slopes	0	1.0	1.0%
W	Water	0	0.3	0.3%
<b>Totals for Project</b>			<b>92.2</b>	<b>100.0 %</b>

#### 1.2.4 Vegetation

The Project mainly consists of agricultural land with patches of old fields and forest along the western and eastern boundaries respectively. The active row cropping was primarily corn (*Zea mays*) and soybeans (*Glycine max*). Old fields were dominated by orchard grass (*Dactylis glomerata*), meadow fescue (*Schedonorus pratensis*), kentucky bluegrass (*Poa pratensis*), white clover (*Trifolium repens*), and yarrow (*Achillea millefolium*). Upland forests found along the eastern and western boundaries were dominated by white pine (*Pinus strobus*), sugar maple (*Acer saccharum*), black cherry (*Prunus serotina*), gray dogwood (*Cornus racemosa*), and marginal woodfern (*Dryopteris marginalis*).

Wetlands onsite were palustrine emergent (PEM). These wetlands were dominated by fowl managrass (*Glyceria striata*), fowl bluegrass (*Poa palustris*), late goldenrod (*Solidago gigantea*), jewelweed (*Impatiens capensis*), reed canary grass (*Phalaris arundinacea*), sensitive fern (*Onoclea sensibilis*), and purple loosestrife (*Lythrum salicaria*). Wetland data sheets are included in Appendix A.



## 2.0 METHODS

### 2.1 Desktop Review

Prior to conducting field surveys, Tetra Tech reviewed high-resolution aerial photography and Geographic Information System (GIS) data including National Wetland Inventory (NWI), National Hydrography Dataset (NHD), NRCS Web Soil Survey, and U.S. Geological Survey (USGS) topographic maps. These resources were used both prior to and during field surveys to identify potential wetland or waterbody areas.

The Project area was evaluated using the above desktop resources to determine the potential presence of wetlands and waterbodies (streams and ponds). Data was also collected to document a lack of water features where desktop data, such as NWI, indicated water features may be present but area not indicated in recent aerial photography. These were referred to as non-water points.

### 2.2 Resource Review

The following GIS data sources were reviewed to supplement the wetland and waterbody field surveys.

#### 2.2.1 National Wetland Inventory

NWI data were overlaid on high-resolution aerial imagery and reviewed in conjunction with soil surveys and topographic maps. Because ground conditions change and because the criteria used to identify wetlands for mapping purposes may have been different than the currently required by the U.S. Army Corps of Engineers (USACE), wetland maps were only used as a guide to aide in identifying potential wetlands. This data was provided to field crew to guide fieldwork. NWI mapping is included in Figure 5.

#### 2.2.2 National Hydrography Dataset

The NHD depicts surface waters across the United States, including some, but not all, rivers, streams, canals, lakes, and ponds. The data is provided at a scale of 1:24,000. Not all water features are shown at this scale and those that are provide only a moderate level of detail. The NHD layer includes data for perennial, intermittent, and ephemeral streams as well as artificial paths, canal/ditch, coastline, connector, pipeline, and underground conduit. Table 2 below provides a description of the NHD classifications.

Table 2: Description of NHD Water Classifications

NHD Classification	NHD Waterbody Classification Description
Stream/River	A body of flowing water.
Perennial Stream	Stream that contains water throughout the year, except for infrequent periods of severe drought.
Intermittent Stream	Stream that contains water for only part of the year, but more than just after rainstorms and at snowmelt.
Ephemeral Stream	Stream that contains water only during or after a local rainstorm or heavy snowmelt.
Underground Conduit	Subsurface drainage channels formed from the dissolution of soluble rocks in Karst terrain or in terrain similar to karst but formed in non-soluble rocks, as by melting of permafrost or ground ice or collapse after mining.
Artificial Path	An abstraction to facilitate hydrologic modelling through open water bodies to act as a surrogate for lakes and other water bodies.
Canal/Ditch	An artificial open waterway constructed to transport water, to irrigate or drain land, to connect two or more bodies of water, or to serve as a waterway for watercraft.
Connector	A known, but nonspecific, connection between two nonadjacent network segments.



### 2.2.3 Soil Survey

The NRCS Web Soil Survey, called Soil Survey Geographic Database (SSRUGO), was used to obtain soil survey information for Montgomery County. The information was the most current county soil information available electronically. Existing soils maps were used as a guide to identify locations of potential hydric soils. Field investigation was required to verify the presence of hydric soils, particularly given the disturbed conditions present throughout much of the Project area. Figure 3 presents the soil series mapped in the Project area.

### 2.2.4 Aerial Photography

High resolution aerial photography from June 2018 and several years of older imagery was reviewed to assist in evaluating the Project area for possible wetland signatures and recent disturbances on the landscape that could influence the presence and extent of wetlands. Possible visual signatures include, but are not limited to, surface water, varying color changes in vegetation, and isolated areas within farmland that are not successfully farmed due to poor drainage.

## 2.3 FIELD SURVEY

Wetland delineation field surveys for the Project were conducted during one field mobilization that occurred on April 21, 2021. Wetland boundaries, waterbody thalweg or banks, data collection points, open waterbody boundaries, and non-water points were surveyed using an iPad connected to an Arrow global positioning system (GPS) unit. The field data collection settings within the GPS units used available satellites to capture location data. Note that while the GPS data collected during survey provides reasonably accurate spatial information regarding the wetlands, open waterbodies, and non-water points delineated, typically one-meter accuracy with sufficient satellite reception, it does not constitute the same accuracy as a professional land survey.

### 2.3.1 Wetlands

Wetlands were delineated using the method described in the USACE 1987 Manual (USACE 1987, along with the Northcentral Northeast Regional Supplement (Version 2.0) (USACE 2012). Wetlands were also delineated consistent with the 2015 Clean Water Rule (USACE 2015). The wetland boundaries were delineated using the routine on-site determination method described in the Regional Supplement and the *National Wetland Plant List 2018* (NWPL) (Lichvar et al. 2012) for the determination of the plant indicator status and the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin 1979) to classify wetlands. According to the USACE 1987 Wetland Manual, three criteria or parameter are considered during the wetland delineation; for a plant community to be considered a wetland, it must have:

- A predominance of hydrophytic vegetation,
- Indications of wetland hydrology, and
- The presence of hydric soils under normal circumstances (i.e., where naturally problematic conditions or disturbances are absent).

Wetland datasheets were completed at sample points within each wetland community type (i.e., Cowardin classification) making up the wetland or wetland complex, along with a minimum of one corresponding upland community sample point.

#### 2.3.1.1 Hydrophytic Vegetation

The 1987 Manual and NWPL define the wetland indicator status of plants as follows:

Obligate Wetland Plants (OBL): almost always occur in wetlands (estimated probability >99 percent) in wetlands under natural conditions. With few exceptions, these plants (herbaceous or woody) are found in standing water or seasonally saturated soils (14 or more consecutive days) near the surface. These plants are of four types: submerged, floating, floating-leaved, and emergent.

Facultative Wetland Plants (FACW): usually occur in wetlands (estimated probability >67 percent to 99 percent), but may occur in non-wetlands. These plants predominantly occur with hydric soils, often in geomorphic settings where water saturates the soils or floods the soil surface at least seasonally.

Facultative Plants (FAC): occur in wetlands and uplands (estimated probability 33 percent to 99 percent within wetlands). These plants can grow in hydric, mesic, or xeric habitats. The occurrence of these plants in different habitats represents responses to a variety of environmental variables other than just hydrology, such as shade tolerance, soil pH and elevation. They have a wide tolerance of soil moisture conditions.

Facultative Upland Plants (FACU): usually occur in uplands, but many occur in wetlands (estimated probability 1 percent to <33 percent in wetlands). These plants predominantly occur on drier or more mesic sites in geomorphic settings where water rarely saturates the soils or floods the soil surface seasonally.

Upland Plants (UPL): almost never occur in wetlands (estimated probability <1 percent). These plants occupy mesic to xeric upland habitats. They almost never occur in standing water or saturated soils. Typical growth forms include herbaceous, shrubs, woody vines, and trees.

Dominant vegetation was assessed for each stratum present (tree, sapling/shrub, woody vine, and herbaceous) at a sample point location. In most cases, plant dominance was determined using the USACE's "50/20 Rule" in which species from each stratum that individually or collectively make up more than 50 percent of the total cover in each stratum, plus any other species that account for at least 20 percent of the total cover in the stratum are determined to be dominant species. The hydrophytic vegetation criterion is met when greater than 50 percent of the dominant plant species are classified as OBL, FACW, or FAC. Vegetation information was recorded on the appropriate USACE data forms.

#### 2.3.1.2 *Wetland Hydrology*

Hydrology is influenced by many variables, including seasonal and long-term rainfall patterns, local geology, topography, soil type, local water table conditions, and drainage. According to the 1987 Manual and Regional Supplements, wetland hydrology is present if 14 or more consecutive days of inundation or water saturation within 12 inches of the soil surface occurs during the growing season at a minimum frequency of 5 in 10 years.

Indicators of wetland hydrology provide evidence that a site has a persistent wetland hydrologic regime. The Regional Supplement provides a list of hydrology indicators that include primary and secondary indicators, which are grouped as:

- Observation of Surface Water or Saturated Soils
- Evidence of Recent Inundation
- Evidence of Current and Recent Soil Saturation
- Evidence of Other Site Conditions or Data

One primary indicator or two secondary indicators are required to confirm that wetland hydrology is present or occurs at some time during the growing season. Field observations of hydrology were made at each vegetation community sample point. Examples of key indicators observed include presence of water above the ground surface, high water table within the hole dug for soil observations, saturated soil in the upper portion of the soil profile, water-stained leaves, drainage patterns as evidence of water presence, and the geomorphic position of the vegetation community and sample point location. Hydrology information was recorded on the appropriate USACE datasheets.

#### 2.3.1.3 *Hydric Soil*

Hydric soils are characterized by specific morphological characteristics developed in the soil profile over time due to reduction of iron, manganese, and sulfur under saturated and anaerobic conditions. The 1987 Manual defines hydric soils as soils that are saturated, flooded or ponded long enough during

the growing season to develop anaerobic conditions in the upper part. The hydric soil indicators described in the Regional Supplement are a subset of hydric soil indicators described in *Field Indicators of Hydric Soils in the United States, Version 8.2* (USDA, NRCS 2018). The *Munsell Book of Soil Color Charts (2014)* was used to determine soil matrix and mottle colors (redoximorphic features) and record soil profile descriptions. The soils were observed and documented at representative sample point locations in both wetland communities and adjacent upland communities to help establish the wetland boundary. Soil profile descriptions were recorded on the appropriate USACE datasheets.

#### 2.3.1.4 Cowardin Classification

The Cowardin Classification was developed in 1979 to classify a variety of wetland habitats and divides wetlands into five systems: marine, estuarine, riverine, lacustrine, and palustrine. These represent the five major landscape settings. The classification system further divides wetland communities into systems and classes. This survey was conducted in inland wetlands, and descriptions of the common Cowardin Classification inland community types are described in the bullets below.

- Palustrine System Emergent Wetland Class (PEM): A PEM wetland is defined as a non-tidal wetland characterized by erect, rooted, hydrophytic herbaceous species. These wetland habitats are often dominated by perennial plants, where the vegetation is present for the majority of the growing season (Cowardin, 1979).
- Palustrine System Scrub-Shrub Wetland Class (PSS): A PSS wetland is defined as a non-tidal wetland consisting of woody vegetation that is less than 20 feet tall, including shrubs, young trees, and stunted trees or shrubs (Cowardin, 1979).
- Palustrine Forested Wetland Class (PFO): A PFO wetland is defined as a non-tidal wetland characterized by dominant woody vegetation that is greater than 20 feet tall, with an understory of small trees and shrubs, as well as an herbaceous layer (Cowardin, 1979).

Each wetland delineated was assigned a Cowardin class. For wetland complexes, or wetlands that are comprised of more than one wetland plant community (i.e., Cowardin class) a sample point was established and observations recorded to document each community. Unique wetland IDs and separate polygons were established based on the wetland community present within the complex. The field crews collected wetland information for PEM, PSS, and PFO wetlands.

#### 2.3.2 Waterbodies

Waterbodies documented during each field survey were assigned a Unique ID according to their flow and hydrology regimes: linear or flowing waterbodies, such as streams and rivers were assigned a unique ID starting with an “s”; non-flowing open waterbodies, such as ponds and lakes, were assigned a unique ID starting with an “o.” Linear or flowing waterbodies were identified as landscape features with a channel that include a bed and a bank in a concave landscape position where water flow has resulted in a feature that possesses an ordinary high water mark (OHWM). Waterbodies do not include erosional features, such as gullies, rills, and ephemeral streams that do not have a bed and banks and OHWM, in accordance with the USACE Regulatory Guidance Letter regarding Ordinary High Water Mark Identification (USACE 2005).

Based on evidence of flow regime at the time of survey, linear waterbodies were attributed a flow regime according to the definitions provided by the USACE for the Nationwide Permit Program in Title 33 Code of Federal Regulations (CFR) Part 330 (Federal Register, 1993). Similarly non-flowing, open waterbody features were assigned a Cowardin hydrology regime based on observations recorded at the time of survey. Definitions of these flow and hydrology regimes are included below, as defined in 33 CFR 330.

- Perennial Stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year, and groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

- Intermittent Stream: An intermittent stream has flowing water during most times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water, and runoff from rainfall is a supplemental source of water for stream flow.
- Ephemeral Stream: An ephemeral stream has flowing water only during and for a short duration after precipitation events. Ephemeral stream beds are located above the water table year round, therefore, groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Non-flowing or open waterbodies were documented based on the evidence of inundation/saturation at the time of surveys, utilizing one of four categories based on the Cowardin classification including the following:

- Non-flowing: Water covers the land surface throughout the year in all years.
- Semi-Non-flowing: Surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land surface.
- Seasonally flooded: Surface water is present for extended periods especially early in the growing season but is absent by the end of the season in most years. When surface water is absent, the water table is often near the land surface.
- Temporarily flooded: Surface water is present for brief periods during the growing season, but the water table usually lies well below the soil surface for most of the season.

### 3.0 RESULTS

The following section summarizes wetland and waterbody delineation conducted in the Project area on April 21, 2021. Field conditions were typical for early spring in Central New York, with the surrounding and on site streams at or slightly below OHWM. With the beginning of April being the start of the growing season, vegetation was beginning to grow with some dead making some identification difficult. Nevertheless, it is Tetra Tech wetland biologists' best professional judgment that the growing state of vegetation did not substantially affect the results of the delineation.

Tetra Tech identified two wetlands and one stream within the Project. Table 3 below lists the delineated wetlands and waterbody, included unique ID, location, size within the Project, and Cowardin classification. Data sheets can be found in Appendix A, and photographs of each sample point are provided in Appendix B.

Table 3

Summary Metrics of Waterbodies and Wetlands on the Montgomery Solar Project, Town of Fonda, New York

Wetland or Waterbody Name	Cowardin Class	Centroid (Wetland) or Data Point (Stream) Coordinates		Area (acres)	Length (feet) of Stream Bed	Jurisdiction: USACE / NYSDEC / Non-Jurisdictional
		Latitude (DD) °N	Longitude (DD) °W			
<b>W-1</b>	PEM	42.965962	-74.378219	0.35		USACE
<b>W-2</b>	PEM	42.965962	-74.378269	1.48		USACE
<b>S-1</b>	R4UB1	42.966150	-74.380268		855.65	USACE

## 4.0 REFERENCES

- Lichvar R.W. N.C. Melvin M.L. Butterwick and W.N. Kirchner. 2012 National Wetland Plant List Indicator Rating Definitions. ERDC/CRREL TR-12-1. U.S. Army Engineer Research and Development Center Cold Regions Research and Engineering Laboratory Hanover NH
- U.S. Army Corps of Engineers. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss.
- U.S. Army Corps of Engineers. 2005. *Ordinary High Water Mark Identification*. Regulatory Guidance Letter No. 05-05.
- U.S. Army Corps of Engineers. 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)*. ERDC/EL TR-10-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U.S. Army Corps of Engineers and U.S. Environmental Protection Agency. 2015. *Clean Water Rule: Definition of Waters of the United States*, Final Rule.
- U.S. Department of Agriculture, Natural Resource Conservation Service. 2018. *Field Indicators of Hydric Soils in the United States* (Version 8.2).
- US Department of Agriculture, Natural Resource Conservation Service (USDA NRCS). 2021. USDA NRCS Soils: Official Soil Series Descriptions (OSDs) website. [https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/geo/?cid=nrcs142p2\\_053587](https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/geo/?cid=nrcs142p2_053587). Accessed 4/28/21
- US Geological Service (USGS). 2021. New York Geologic Units in Montgomery County, New York. <https://mrdata.usgs.gov/geology/state/fips-unit.php?code=f36057>. Accessed 4/28/2021.
- US National Parks Service (NPS). 2021. New York Geologic Resources Division. Physiographic Provinces of New York. <https://www.nps.gov/media/photo/view.htm?id=F0A629AB-1DD8-B71B-0BFD0C74E25980AE>. Accessed 4/27/2021.

## FIGURES

**Full Environmental Assessment Form**  
**Part 1 - Project and Setting**

**Instructions for Completing Part 1**

**Part 1 is to be completed by the applicant or project sponsor.** Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

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

**A. Project and Applicant/Sponsor Information.**

Name of Action or Project: NY CDG Montgomery 1, LLC		
Project Location (describe, and attach a general location map): 182 Boshart Road, Fonda, NY. Located south of Old Trail Rd (CR-30), east of Boshart Rd in the Town of Mohawk, NY		
Brief Description of Proposed Action (include purpose or need): BW Solar proposes to build a 5 MW solar array in the Town of Mohawk, NY. The project will involve the construction of a ground-mounted solar photovoltaic (PV) array, permanent access roads, and concrete equipment pads on 27.1 acres subset (the Site) of a larger 97.7 acre property.		
Name of Applicant/Sponsor: Dan Huntington - Project Developer, BW Solar	Telephone: 585-727-9918	
	E-Mail: Daniel.Huntington@BWSolar.com	
Address: 5050 Dufferin Street		
City/PO: North York	State: ON	Zip Code: M3H5T5
Project Contact (if not same as sponsor; give name and title/role): Anthony Cimpi, PWS - Project Manager, Tetra Tech	Telephone: 315-420-0106	
	E-Mail: tony.cimpi@tetrattech.com	
Address: 3136 South Winton Road		
City/PO: Rochester	State: New York	Zip Code: 14623
Property Owner (if not same as sponsor): Henry Boshart	Telephone:	
	E-Mail:	
Address: 182 Boshart Road		
City/PO: Fonda	State: NY	Zip Code:



## B. Government Approvals

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

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No or Village Board of Trustees	Town of Mohawk: Building Permit, Special Use Permit	
b. City, Town or Village Planning Board or Commission <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Town of Mohawk Planning Board	
c. City, Town or Village Zoning Board of Appeals <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Town of Mohawk Zoning Board	
d. Other local agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Town of Mohawk Building Office	
e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Montgomery County Department of Permitting Services	
f. Regional agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYSDEC; NYSDAM; SHPO	
h. Federal agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	USFWS; USACE	
i. Coastal Resources. i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No iii. Is the project site within a Coastal Erosion Hazard Area? <input type="checkbox"/> Yes <input type="checkbox"/> No		

## C. Planning and Zoning

### C.1. Planning and zoning actions.

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

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

### C.2. Adopted land use plans.

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

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

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

If Yes, identify the plan(s):

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):

<b>C.3. Zoning</b>	
a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. If Yes, what is the zoning classification(s) including any applicable overlay district? Agricultural	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<hr/>	
b. Is the use permitted or allowed by a special or conditional use permit?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
c. Is a zoning change requested as part of the proposed action? If Yes,	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
i. What is the proposed new zoning for the site? <hr/>	
<b>C.4. Existing community services.</b>	
a. In what school district is the project site located? Fonda - Fultonville Central School District	<hr/>
b. What police or other public protection forces serve the project site? Montgomery Sheriff	<hr/>
c. Which fire protection and emergency medical services serve the project site? Sammonsville Fire Department and Nassau Lake West Ambulance	<hr/>
d. What parks serve the project site? NYOPRHP	<hr/>

#### D. Project Details

<b>D.1. Proposed and Potential Development</b>	
a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Solar array	
<hr/>	
b. a. Total acreage of the site of the proposed action?	97.7 acres
b. Total acreage to be physically disturbed?	27.1 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?	97.7 acres
c. Is the proposed action an expansion of an existing project or use? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>	
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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>	
If Yes,	
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types) <hr/>	
ii. Is a cluster/conservation layout proposed? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>	
iii. Number of lots proposed? _____	
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____	
e. Will the proposed action be constructed in multiple phases? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>	
i. If No, anticipated period of construction: _____ 4 months	
ii. If Yes:	
<ul style="list-style-type: none"> <li>• Total number of phases anticipated _____</li> <li>• Anticipated commencement date of phase 1 (including demolition) _____ month _____ year</li> <li>• Anticipated completion date of final phase _____ month _____ year</li> <li>• Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____</li> </ul>	
<hr/>	
<hr/>	

f. Does the project include new residential uses? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes, show numbers of units proposed.				
	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	_____
At completion	_____	_____	_____	_____
of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span> If Yes,	
i. Total number of structures _____ 600 ii. Dimensions (in feet) of largest proposed structure: _____ <sup>13</sup> height; _____ <sup>550</sup> width; and _____ <sup>800</sup> length iii. Approximate extent of building space to be heated or cooled: _____ <sup>0</sup> 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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes,	
i. Purpose of the impoundment: _____ ii. If a water impoundment, the principal source of the water: <input type="checkbox"/> Ground water <input type="checkbox"/> Surface water streams <input type="checkbox"/> 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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) If Yes:	
i. What is the purpose of the excavation or dredging? _____ ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site? • Volume (specify tons or cubic yards): _____ • Over what duration of time? _____ iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. _____ _____ iv. Will there be onsite dewatering or processing of excavated materials? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> 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? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> 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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> 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: \_\_\_\_\_

\_\_\_\_\_

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*c.* Will the proposed action use, or create a new demand for water? ☐ Yes ☒ No  
If Yes:

*i.* Total anticipated water usage/demand per day: \_\_\_\_\_ gallons/day

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

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

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

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

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

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

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

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

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*d.* Will the proposed action generate liquid wastes? ☐ Yes ☒ No  
If Yes:

*i.* Total anticipated liquid waste generation per day: \_\_\_\_\_ gallons/day

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

\_\_\_\_\_

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

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

<ul style="list-style-type: none"> <li>• Do existing sewer lines serve the project site? _____</li> <li>• Will a line extension within an existing district be necessary to serve the project? _____</li> </ul> <p>If Yes:</p> <ul style="list-style-type: none"> <li>• Describe extensions or capacity expansions proposed to serve this project: _____          _____          _____</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	
<p>iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? _____</p> <p>If Yes:</p> <ul style="list-style-type: none"> <li>• Applicant/sponsor for new district: _____</li> <li>• Date application submitted or anticipated: _____</li> <li>• What is the receiving water for the wastewater discharge? _____</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<p>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): _____          _____          _____</p>		
<p>vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____          _____          _____</p>		
<p>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? _____</p> <p>If Yes:</p> <p>i. How much impervious surface will the project create in relation to total size of project parcel?</p> <p style="margin-left: 40px;">         _____ Square feet or _____ 0.45 acres (impervious surface)          _____ Square feet or _____ 97.7 acres (parcel size)       </p> <p>ii. Describe types of new point sources. _____          _____</p> <p>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)? _____          _____</p> <ul style="list-style-type: none"> <li>• If to surface waters, identify receiving water bodies or wetlands: _____          _____</li> <li>• Will stormwater runoff flow to adjacent properties? _____</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<p>iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? _____</p>		
<p>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? _____</p> <p>If Yes, identify:</p> <p>i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles) _____</p> <p>ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers) _____</p> <p>iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation) _____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<p>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? _____</p> <p>If Yes:</p> <p>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) _____</p> <p>ii. In addition to emissions as calculated in the application, the project will generate:</p> <ul style="list-style-type: none"> <li>• _____ Tons/year (short tons) of Carbon Dioxide (CO<sub>2</sub>)</li> <li>• _____ Tons/year (short tons) of Nitrous Oxide (N<sub>2</sub>O)</li> <li>• _____ Tons/year (short tons) of Perfluorocarbons (PFCs)</li> <li>• _____ Tons/year (short tons) of Sulfur Hexafluoride (SF<sub>6</sub>)</li> <li>• _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs)</li> <li>• _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)</li> </ul>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No

<p>h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Estimate methane generation in tons/year (metric): _____</p> <p>ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____</p>			
<p>i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____</p>			
<p>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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. When is the peak traffic expected (Check all that apply): <input type="checkbox"/> Morning <input type="checkbox"/> Evening <input type="checkbox"/> Weekend  <input type="checkbox"/> Randomly between hours of _____ to _____.</p> <p>ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____</p> <p>iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____</p> <p>iv. Does the proposed action include any shared use parking? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: _____</p> <p>vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p>			
<p>k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Estimate annual electricity demand during operation of the proposed action: _____</p> <p>ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):  On-site renewable _____</p> <p>iii. Will the proposed action require a new, or an upgrade, to an existing substation? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p>			
<p>l. Hours of operation. Answer all items which apply.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>i. During Construction:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____ 7am-5pm</li> <li>• Saturday: _____ N/A</li> <li>• Sunday: _____ N/A</li> <li>• Holidays: _____ N/A</li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <p>ii. During Operations:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____ Daylight Hours</li> <li>• Saturday: _____ Daylight Hours</li> <li>• Sunday: _____ Daylight Hours</li> <li>• Holidays: _____ Daylight Hours</li> </ul> </td> </tr> </table>		<p>i. During Construction:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____ 7am-5pm</li> <li>• Saturday: _____ N/A</li> <li>• Sunday: _____ N/A</li> <li>• Holidays: _____ N/A</li> </ul>	<p>ii. During Operations:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____ Daylight Hours</li> <li>• Saturday: _____ Daylight Hours</li> <li>• Sunday: _____ Daylight Hours</li> <li>• Holidays: _____ Daylight Hours</li> </ul>
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<p>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration: Construction equipment between 7am-5pm for 4 months once construction starts</p> <p>_____</p> <p>_____</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>Describe: _____</p> <p>_____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>n. Will the proposed action have outdoor lighting? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If yes:</p> <p>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>Describe: _____</p> <p>_____</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>o. Does the proposed action have the potential to produce odors for more than one hour per day? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Product(s) to be stored _____</p> <p>ii. Volume(s) _____ per unit time _____ (e.g., month, year)</p> <p>iii. Generally, describe the proposed storage facilities: _____</p> <p>_____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Describe proposed treatment(s):</p> <p>_____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>ii. Will the proposed action use Integrated Pest Management Practices? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Describe any solid waste(s) to be generated during construction or operation of the facility:</p> <ul style="list-style-type: none"> <li>• Construction: _____ tons per _____ (unit of time)</li> <li>• Operation : _____ tons per _____ (unit of time)</li> </ul> <p>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</p> <ul style="list-style-type: none"> <li>• Construction: _____</li> <li>• Operation: _____</li> </ul> <p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> <li>• Construction: _____</li> <li>• Operation: _____</li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☒ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): \_\_\_\_\_

ii. Anticipated rate of disposal/processing:

- \_\_\_\_\_ Tons/month, if transfer or other non-combustion/thermal treatment, or
- \_\_\_\_\_ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: \_\_\_\_\_ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☒ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: \_\_\_\_\_

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

iii. Specify amount to be handled or generated \_\_\_\_\_ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: \_\_\_\_\_

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: \_\_\_\_\_

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

## E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site			
a. Existing land uses.			
i. Check all uses that occur on, adjoining and near the project site.			
<input type="checkbox"/> Urban	<input type="checkbox"/> Industrial	<input type="checkbox"/> Commercial	<input type="checkbox"/> Residential (suburban)
<input checked="" type="checkbox"/> Forest	<input checked="" type="checkbox"/> Agriculture	<input type="checkbox"/> Aquatic	<input type="checkbox"/> Other (specify): _____
ii. If mix of uses, generally describe: _____			
b. Land uses and coverytypes on the project site.			
Land use or Coverytype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0	0	0
• Forested	0	0	0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	0
• Agricultural (includes active orchards, field, greenhouse etc.)	27.1	0	-27.1
• 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: ground mounted solar array, equipment pad, and gravel access roads	0	27.1	+27.1



<p>c. Is the project site presently used by members of the community for public recreation?  <i>i. If Yes: explain:</i> _____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>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?          If Yes,  <i>i. Identify Facilities:</i>          _____          _____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>e. Does the project site contain an existing dam?          If Yes:  <i>i. Dimensions of the dam and impoundment:</i></p> <ul style="list-style-type: none"> <li>• Dam height: _____ feet</li> <li>• Dam length: _____ feet</li> <li>• Surface area: _____ acres</li> <li>• Volume impounded: _____ gallons OR acre-feet</li> </ul> <p><i>ii. Dam's existing hazard classification:</i> _____  <i>iii. Provide date and summarize results of last inspection:</i>          _____          _____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>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?          If Yes:  <i>i. Has the facility been formally closed?</i>              • If yes, cite sources/documentation: _____  <i>ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:</i>          _____          _____  <i>iii. Describe any development constraints due to the prior solid waste activities:</i> _____          _____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  <input type="checkbox"/> Yes <input type="checkbox"/> No
<p>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?          If Yes:  <i>i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:</i>          _____          _____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>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?          If Yes:  <i>i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply:</i></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> Yes – Spills Incidents database  <input type="checkbox"/> Yes – Environmental Site Remediation database  <input type="checkbox"/> Neither database </div> <div style="width: 50%;"> Provide DEC ID number(s): _____  Provide DEC ID number(s): _____ </div> </div> <p><i>ii. If site has been subject of RCRA corrective activities, describe control measures:</i> _____          _____          _____</p> <p><i>iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database?</i>          If yes, provide DEC ID number(s): _____</p> <p><i>iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):</i>          _____          _____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  <input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

v. Is the project site subject to an institutional control limiting property uses? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> <ul style="list-style-type: none"> <li>If yes, DEC site ID number: _____</li> <li>Describe the type of institutional control (e.g., deed restriction or easement): _____</li> <li>Describe any use limitations: _____</li> <li>Describe any engineering controls: _____</li> <li>Will the project affect the institutional or engineering controls in place? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></li> <li>Explain: _____  _____</li> </ul>													
<b>E.2. Natural Resources On or Near Project Site</b>													
a. What is the average depth to bedrock on the project site? _____ 3 feet													
b. Are there bedrock outcroppings on the project site? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %													
c. Predominant soil type(s) present on project site: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Mohawk silt loam</td> <td style="width: 20%; text-align: right;">45.3 %</td> </tr> <tr> <td>Lansing silt loam</td> <td style="text-align: right;">24.7 %</td> </tr> <tr> <td>Darien silt loam</td> <td style="text-align: right;">12.1 %</td> </tr> </table>		Mohawk silt loam	45.3 %	Lansing silt loam	24.7 %	Darien silt loam	12.1 %						
Mohawk silt loam	45.3 %												
Lansing silt loam	24.7 %												
Darien silt loam	12.1 %												
d. What is the average depth to the water table on the project site? Average: _____ 12 feet													
e. Drainage status of project site soils: <input checked="" type="checkbox"/> Well Drained: _____ 100 % of site <input type="checkbox"/> Moderately Well Drained: _____ % of site <input type="checkbox"/> Poorly Drained: _____ % of site													
f. Approximate proportion of proposed action site with slopes: <input checked="" type="checkbox"/> 0-10%: _____ 52.9 % of site <input checked="" type="checkbox"/> 10-15%: _____ 32.7 % of site <input checked="" type="checkbox"/> 15% or greater: _____ 14.4 % of site													
g. Are there any unique geologic features on the project site? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes, describe: _____ _____													
h. Surface water features. <ul style="list-style-type: none"> <li>i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></li> <li>ii. Do any wetlands or other waterbodies adjoin the project site? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></li> </ul> If Yes to either <i>i</i> or <i>ii</i> , continue. If No, skip to E.2.i. <ul style="list-style-type: none"> <li>iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></li> <li>iv. For each identified regulated wetland and waterbody on the project site, provide the following information: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">• Streams:</td> <td style="width: 50%;">Name <u>UNT</u></td> <td style="width: 40%;">Classification <u>C</u></td> </tr> <tr> <td>• Lakes or Ponds:</td> <td>Name _____</td> <td>Classification _____</td> </tr> <tr> <td>• Wetlands:</td> <td>Name _____</td> <td>Approximate Size _____</td> </tr> <tr> <td>• Wetland No. (if regulated by DEC)</td> <td colspan="2">_____</td> </tr> </table> </li> </ul>		• Streams:	Name <u>UNT</u>	Classification <u>C</u>	• Lakes or Ponds:	Name _____	Classification _____	• Wetlands:	Name _____	Approximate Size _____	• Wetland No. (if regulated by DEC)	_____	
• Streams:	Name <u>UNT</u>	Classification <u>C</u>											
• 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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If yes, name of impaired water body/bodies and basis for listing as impaired: _____ _____													
i. Is the project site in a designated Floodway? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>													
j. Is the project site in the 100-year Floodplain? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>													
k. Is the project site in the 500-year Floodplain? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>													
l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span> If Yes: <ul style="list-style-type: none"> <li>i. Name of aquifer: <u>Principal Aquifer</u></li> </ul>													

<p>m. Identify the predominant wildlife species that occupy or use the project site: _____</p> <p>_____</p> <p>_____</p>
<p>n. Does the project site contain a designated significant natural community? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Describe the habitat/community (composition, function, and basis for designation): _____</p> <p style="margin-left: 20px;">ii. Source(s) of description or evaluation: _____</p> <p style="margin-left: 20px;">iii. Extent of community/habitat:</p> <ul style="list-style-type: none"> <li>• Currently: _____ acres</li> <li>• Following completion of project as proposed: _____ acres</li> <li>• Gain or loss (indicate + or -): _____ acres</li> </ul>
<p>o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing (endangered or threatened): _____</p> <p>_____</p> <p>_____</p>
<p>p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing: _____</p> <p>_____</p> <p>_____</p>
<p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If yes, give a brief description of how the proposed action may affect that use: _____</p> <p>_____</p>
<p><b>E.3. Designated Public Resources On or Near Project Site</b></p>
<p>a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes, provide county plus district name/number: <u>MONT002</u></p>
<p>b. Are agricultural lands consisting of highly productive soils present? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p style="margin-left: 20px;">i. If Yes: acreage(s) on project site? <u>84.6</u></p> <p style="margin-left: 20px;">ii. Source(s) of soil rating(s): <u>USDA Web Soil Survey</u></p>
<p>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature</p> <p style="margin-left: 20px;">ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____</p> <p>_____</p> <p>_____</p>
<p>d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. CEA name: _____</p> <p style="margin-left: 20px;">ii. Basis for designation: _____</p> <p style="margin-left: 20px;">iii. Designating agency and date: _____</p>

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? If Yes: i. Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> Historic Building or District ii. Name: _____ iii. Brief description of attributes on which listing is based: _____	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
g. Have additional archaeological or historic site(s) or resources been identified on the project site? If Yes: i. Describe possible resource(s): _____ ii. Basis for identification: _____	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? If Yes: i. Identify resource: _____ ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____ iii. Distance between project and resource: _____ miles.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    <input type="checkbox"/> Yes <input type="checkbox"/> No

#### F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

#### G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name \_\_\_\_\_ Date \_\_\_\_\_

Signature \_\_\_\_\_ Title \_\_\_\_\_



**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.

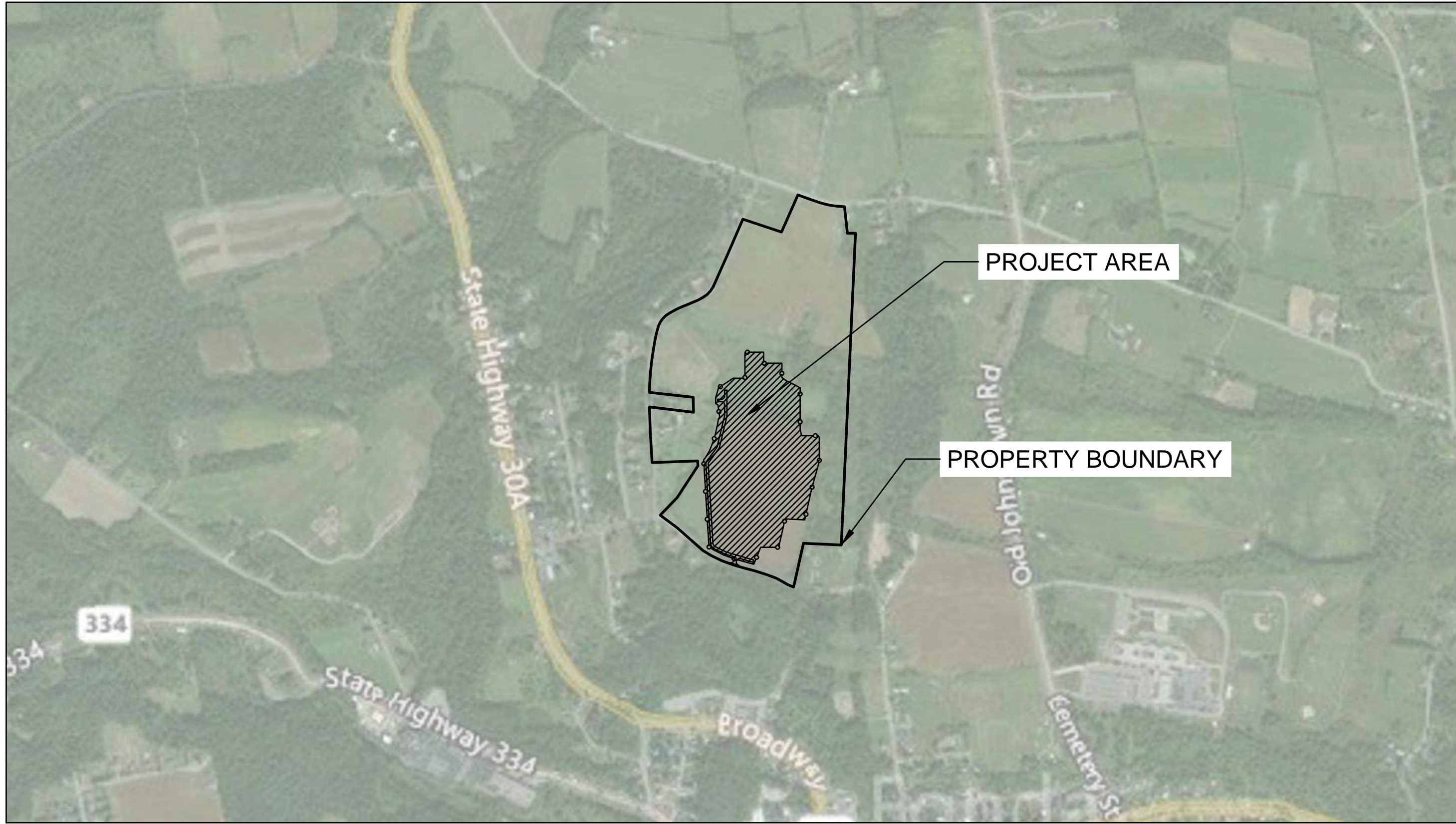


B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYS Heritage Areas: Mohawk Valley 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]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	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]	Yes
E.3.a. [Agricultural District]	MONT002
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



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<b>PROJECT DEVELOPER</b>  BW SOLAR 5050 DUFFERIN STREET NORTH YORK, ON M3H 5T5 +65 9647-3605	<b>PROJECT SCOPE</b>  THIS PERMITTING PACKAGE PROVIDES DRAWINGS AND DETAILS FOR THE INSTALLATION OF A SOLAR PHOTOVOLTAIC SYSTEM IN THE STATE OF NEW YORK. THIS DRAWING SET IS FOR DISCRETIONARY PERMITTING PURPOSES ONLY, NOT FOR CONSTRUCTION.
<b>CIVIL ENGINEER</b>  TETRA TECH ENGINEERING CORPORATION, P.C. CERT #0015490 3136 SOUTH WINTON RD, SUITE 303 ROCHESTER, NEW YORK 14623 (585) 417-4009	<b>APPLICABLE CODES &amp; STANDARDS</b> <ul style="list-style-type: none"><li>NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)</li><li>NFPA 855 (REFERENCE ONLY)</li><li>2020 FIRE CODE OF NEW YORK STATE</li><li>2020 BUILDING CODE OF NEW YORK STATE</li><li>2016 NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL</li><li>2015 NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL</li><li>MONTGOMERY COUNTY ZONING ORDINANCES</li></ul>
<b>PROPERTY OWNER</b>  MARJORIE E BOSHART 182 BOSHART ROAD FONDA, NY 12068	

# MONTGOMERY 1 SOLAR PROJECT

182 BOSHART ROAD  
FONDA, NY 12068

## 30% CIVIL DESIGN SET

DRAWING INDEX			
SHEET NUMBER	SHEET TITLE	REV NO.	DATE
C-001	CIVIL TITLE SHEET	C	08/04/2021
C-002	NOTES	A	07/07/2021
C-101	EXISTING CONDITIONS	B	07/19/2021
C-200	SITE PLAN OVERVIEW	D	08/04/2021
CD-201	TREE CLEARING AND TRIMMING PLAN	C	08/04/2021
C-201	SITE PLAN	D	08/04/2021
C-202	GRADING PLAN	C	08/04/2021
C-203	EROSION & SEDIMENT CONTROL PLAN	C	08/04/2021
C-204	LANDSCAPING PLAN	C	08/04/2021
C-301	ACCESS ROAD DETAILS	A	07/07/2021
C-302	ACCESS ROAD PROFILE	A	07/07/2021
C-401	EROSION & SEDIMENT CONTROL DETAILS	A	07/07/2021
C-402	FENCE & GATE DETAILS	A	07/07/2021

PROJECT SUMMARY	
PARCEL NUMBER	20.-5-3
PARCEL ACREAGE	97.72 ACRES
ZONING CLASSIFICATION	AGRICULTURAL
FRONT SETBACK	340 FT
REAR SETBACK	50 FT
SIDE SETBACK	50 FT
PROJECT AREA	28.82 ACRES
LATITUDE/LONGITUDE	42.9644°/-74.3790°
TREE CLEARING	± 0.79 ACRES
ROAD LENGTH	± 1,760 LF
PERIMETER FENCE LENGTH	± 5,065 LF
SILT FENCE LENGTH	± 3,255 LF
CUT VOLUME	± 334 CY
FILL VOLUME	± 719 CY

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CONSTRUCTION**



**BW SOLAR**  
5050 DUFFERIN STREET  
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MONTGOMERY 1  
SOLAR PROJECT

182 BOSHART ROAD  
FONDA, NY 12068

PROJECT NUMBERS:  
194-1264-0001

SHEET TITLE:  
CIVIL TITLE SHEET

SHEET SIZE:  
ARCH "D"  
24" X 36" (610 x 914)  
0 1/2" 1"

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NO.	REVISION	DATE	INIT.
A	30% DESIGN	07/07/2021	AGF
B	30% DESIGN	07/19/2021	CNT
C	30% DESIGN	08/04/2021	CNT

DATE: 06/29/2021  
DRAWN BY: AGF  
ENGINEER: AGF  
APPROVED BY: BMS

PROJECT PHASE:  
30% DESIGN

SCALE:  
AS SHOWN

SHEET NO.:  
**C-001**



**ACRONYMS/ABBREVIATIONS:**

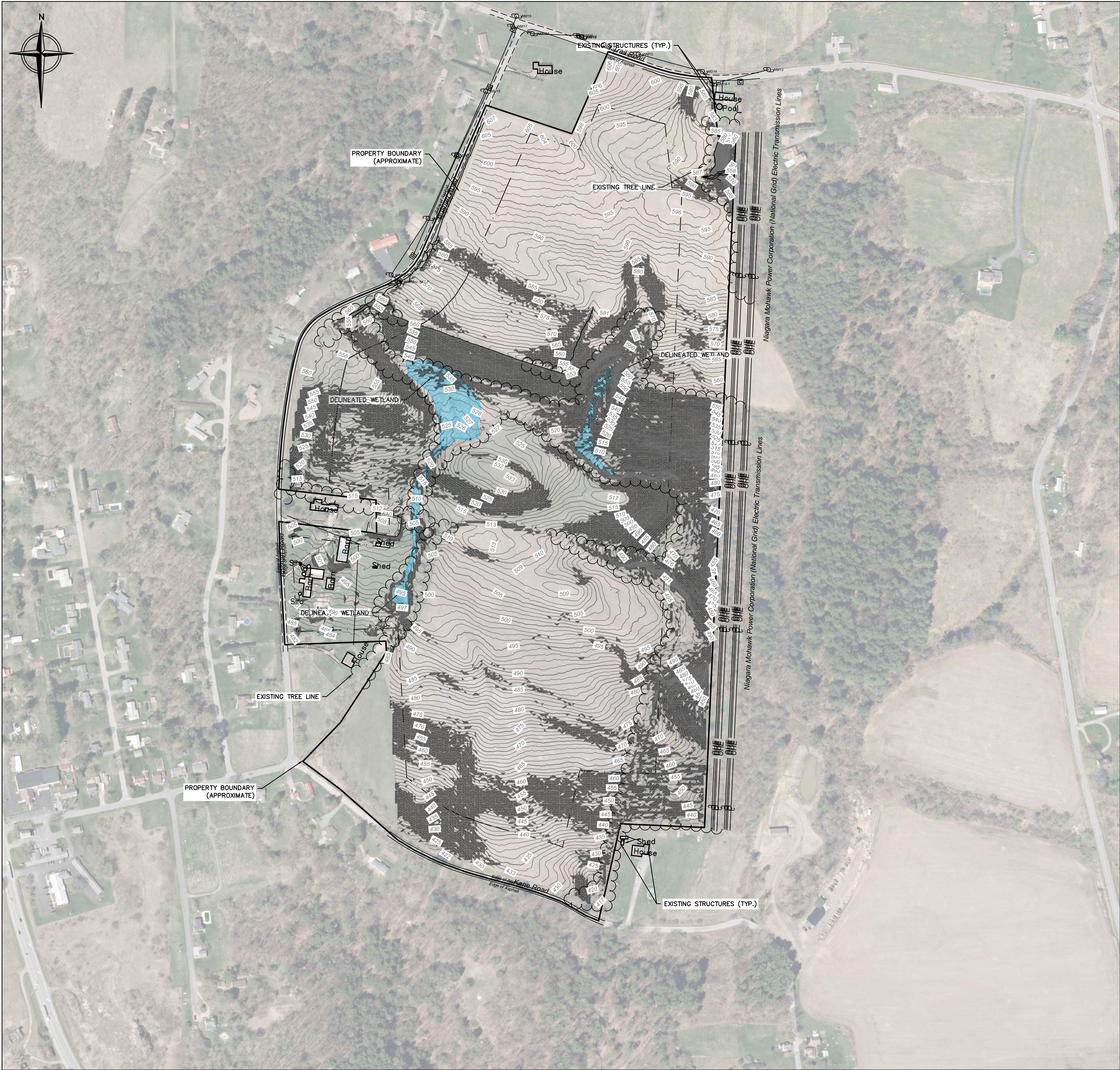
AC	ALTERNATING CURRENT
CMP	CORRUGATED METAL
DIA	DIAMETER
FT	FOOT
IN	INCH
INV	INVERT ELEVATION
N/F	NOW OR FORMALLY
N.T.S.	NOT TO SCALE
OHE	OVERHEAD ELECTRIC
PV	PHOTOVOLTAIC
RCP	REINFORCED CONCRETE PIPE
SQ FT	SQUARE FEET
SWPPP	STORMWATER POLLUTION PREVENTION PLAN
TAG	TAX MAP NUMBER
TYP.	TYPICAL
	UNDERGROUND ELECTRIC

B

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LEGEND

- PROPERTY LINE
- ZONING SETBACKS
- EXISTING GRAVEL DRIVEWAY
- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- EXISTING TREE LINE
- DELINEATED WETLANDS (USACE)
- EXISTING UTILITY POLE
- OHE EXISTING OVERHEAD ELECTRIC
- OHU EXISTING OVERHEAD UTILITIES
- COMM EXISTING UNDERGROUND COMM. LINE
- EXISTING COMMUNICATIONS PEDESTAL
- EXISTING STORM PIPE
- SLOPES 10% OR GREATER

GENERAL NOTES:

- THE DEPICTED CONTOUR DATA AND EXISTING CONDITIONS INFORMATION REFERENCES THE "MAP SHOWING EXISTING TOPOGRAPHY MONTGOMERY 1 COMMUNITY SOLAR PROJECT" BY THE ASSOCIATES PE-LS, PLLC., DATED MAY 14, 2021.
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- ORTHOIMAGERY OBTAINED FROM NYS GIS CLEARING HOUSE, 2017.
- THE SUBSURFACE UTILITIES SHOWN ON THIS DRAWING ARE OF QUALITY LEVEL "C" AS DEFINED BY THE AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) IN THE "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA". THE SUBSURFACE UTILITIES DEPICTED ON THESE DRAWINGS ARE BASED ON PHYSICAL EVIDENCE LOCATED DURING THE FIELD SURVEY AND EXISTING UTILITY DRAWINGS. SOME INFORMATION MAY HAVE BEEN DERIVED FROM INFORMATION PROVIDED TO THE ENGINEER BY OTHERS. SUCH INFORMATION MAY BE INCOMPLETE OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES.
- WETLANDS DATA OBTAINED FROM WETLAND DELINEATION REPORT DATE JUNE 2021 BY TETRA TECH, INC.
- TREE LINE IS APPROXIMATE.

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STAMP:

MONTGOMERY 1  
SOLAR PROJECT

182 BOSHA RT ROAD  
FONDA, NY 12068

PROJECT NUMBERS:  
194-1264-0001

SHEET TITLE:  
EXISTING CONDITIONS

SHEET SIZE:  
ARCH "D"  
24" X 36" (610 x 914)  
0 1/2" 1"

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NO.	REVISION	DATE	INIT.
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B	30% DESIGN	07/19/2021	CNT

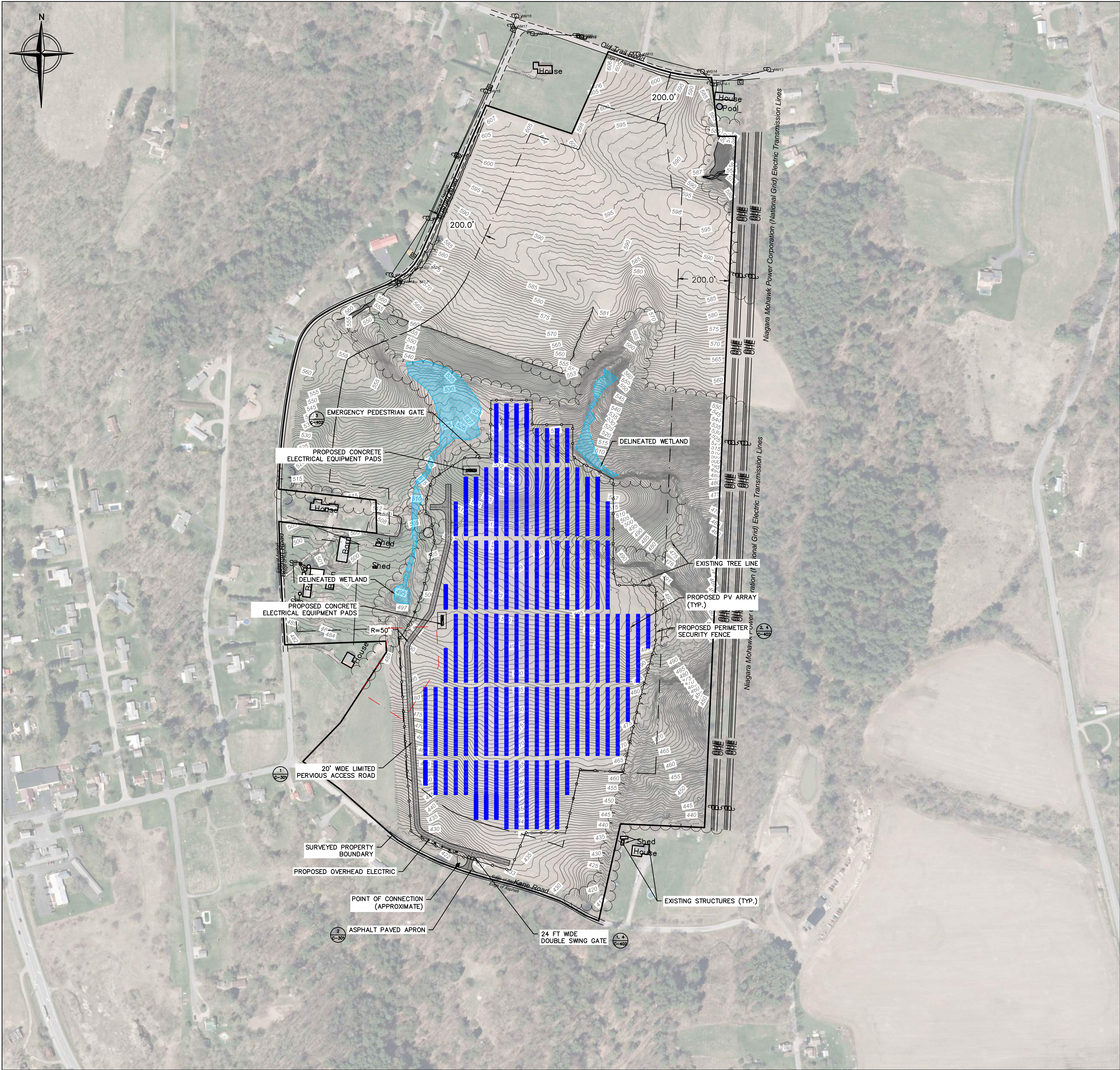
DATE: 06/04/2021  
DRAWN BY: MDN  
ENGINEER: MDN  
APPROVED BY: KMG

PROJECT PHASE:  
30% DESIGN

SCALE:  
AS SHOWN

SHEET NO.:  
C-101





**LEGEND**

- PROPERTY LINE
- ZONING SETBACKS
- 200' SETBACK AREA
- EXISTING GRAVEL DRIVEWAY
- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- EXISTING TREE LINE
- DELINEATED WETLANDS (USACE)
- EXISTING UTILITY POLE
- EXISTING OVERHEAD ELECTRIC
- PROPOSED ACCESS ROAD
- PROPOSED PERIMETER SECURITY FENCE
- ASPHALT PAVED APRON

- GENERAL NOTES:**
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  - WETLANDS DATA OBTAINED FROM WETLAND DELINEATION REPORT DATE JUNE 2021 BY TETRA TECH, INC.
  - TREE LINE IS APPROXIMATE.

PROJECT DESCRIPTION	
FENCED AREA	28.82 ACRES
SYSTEM SIZE (DC)	6.19 MW
SYSTEM SIZE (AC)	5.00 MW
MODULE STC RATING	450 W
# OF MODULES	13,754
RACKING SYSTEM	SINGLE AXIS TRACKER
ROW SPACING	39.37 FT (CENTER TO CENTER)
GCR	33.6%

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**MONTGOMERY 1  
SOLAR PROJECT**

182 BOSHAUT ROAD  
FONDA, NY 12068

PROJECT NUMBERS:  
194-1264-0001

SHEET TITLE:  
SITE PLAN OVERVIEW

SHEET SIZE:  
ARCH "D"  
24" X 36" (610 x 914)

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A	PERMITTING	06/08/2021	KMG
B	30% DESIGN	07/07/2021	AGF
C	30% DESIGN	07/19/2021	CNT
D	30% DESIGN	08/04/2021	CNT

DATE: 06/04/2021  
DRAWN BY: MDN  
ENGINEER: MDN  
APPROVED BY: KMG

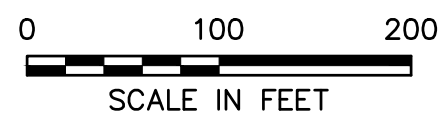
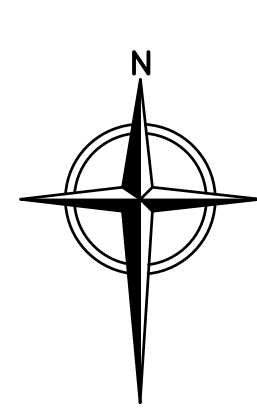
PROJECT PHASE:  
30% DESIGN

SCALE:  
AS SHOWN

SHEET NO.:  
**C-200**



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LEGEND

- PROPERTY LINE
- ZONING SETBACKS
- EXISTING GRAVEL DRIVEWAY
- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- EXISTING TREE LINE
- DELINEATED WETLANDS (USACE)
- EXISTING UTILITY POLE
- EXISTING OVERHEAD ELECTRIC
- PROPOSED ACCESS ROAD
- PROPOSED PERIMETER SECURITY FENCE
- ASPHALT PAVED ARPON
- PROPOSED TREE CLEARING
- PROPOSED TREE TRIMMING

GENERAL NOTES:

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- WETLANDS DATA OBTAINED FROM WETLAND DELINEATION REPORT DATE JUNE 2021 BY TETRA TECH, INC.
- TREE LINE IS APPROXIMATE.

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STAMP:

MONTGOMERY 1  
SOLAR PROJECT

182 BOSHAUT ROAD  
FONDA, NY 12068

PROJECT NUMBERS:  
194-1264-0001

SHEET TITLE:  
TREE CLEARING AND  
TRIMMING PLAN

SHEET SIZE:  
ARCH "D"  
24" X 36" (610 x 914)  
0 1/2" 1"

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C	30% DESIGN	08/04/2021	CNT

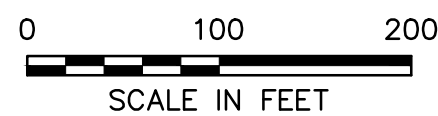
DATE: 06/04/2021  
DRAWN BY: MDN  
ENGINEER: MDN  
APPROVED BY: KMG














PROJECT PHASE:  
30% DESIGN

SCALE:  
AS SHOWN

SHEET NO.:  
CD-201





	PROPERTY LINE
	ZONING SETBACKS
	200' SETBACK AREA
	EXISTING GRAVEL DRIVEWAY
	EXISTING CONTOUR (MAJOR)
	EXISTING CONTOUR (MINOR)
	EXISTING TREE LINE
	DELINEATED WETLANDS (USACE)
	EXISTING UTILITY POLE
	EXISTING OVERHEAD ELECTRIC
	PROPOSED ACCESS ROAD
	PROPOSED PERIMETER SECURITY FENCE
	ASPHALT PAVED APRON

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5. WETLANDS DATA OBTAINED FROM WETLAND DELINEATION REPORT DATED JUNE 2021 BY TETRA TECH, INC.
6. TREE LINE IS APPROXIMATE.

20' WIDE LIMITED USE PERVIOUS ACCESS ROAD

PAVED ASPHALT APRON

R30'

KANE ROAD

EDGE OF ASPHALT

1

2

C-301

F34

F32

F1

2+00

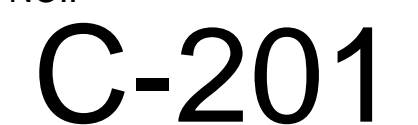
1+00

0+00

1+22

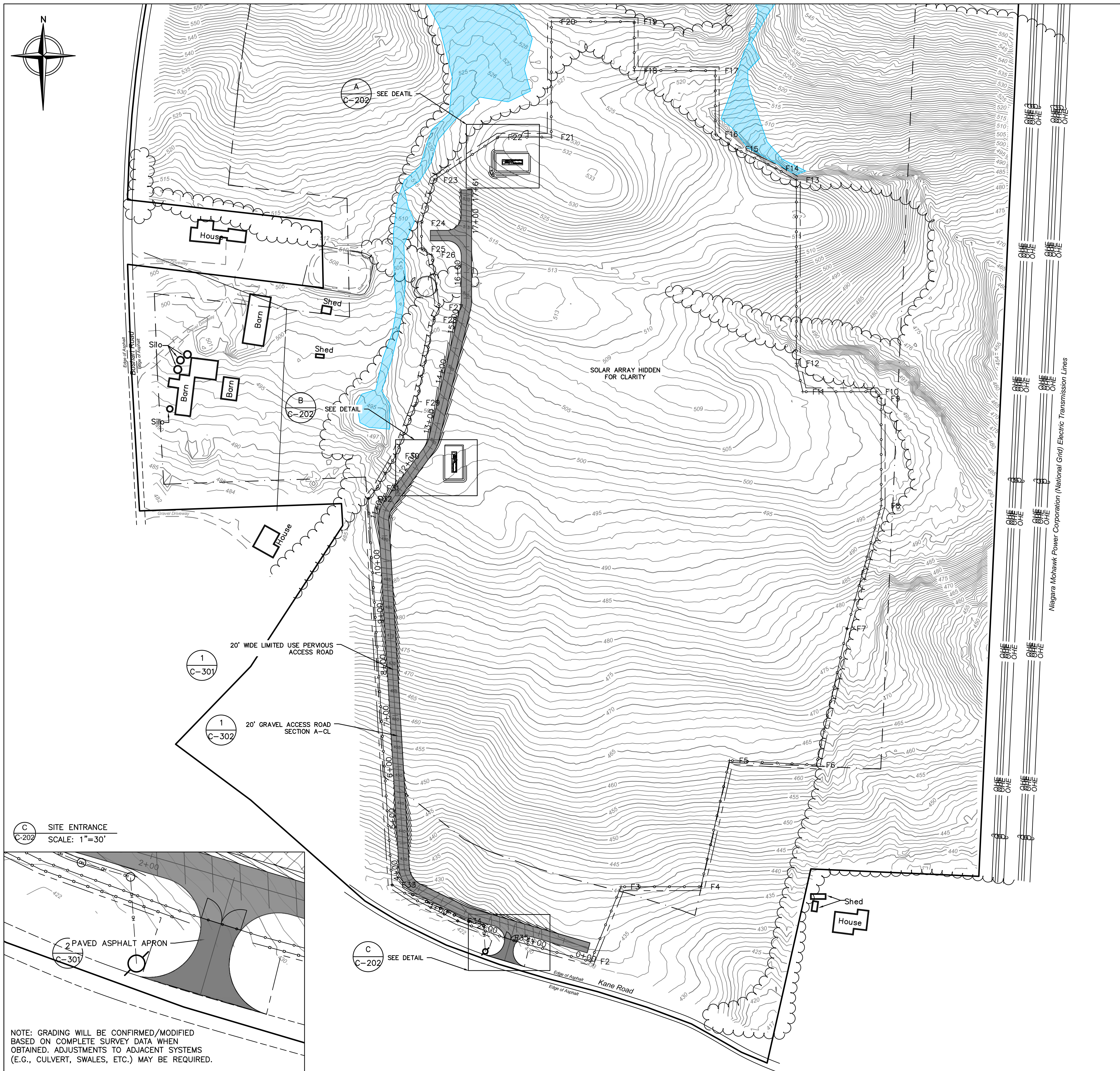
NOTE: SURVEY DATA DOES NOT EXTEND TO KANE ROAD. ACTUAL CONDITIONS MAY WARRANT ADJUSTMENT AND/OR REDESIGN TO ASPHALT APRON AND ADJACENT SYSTEMS (E.G., CULVERT, DRAINAGE, ETC.)

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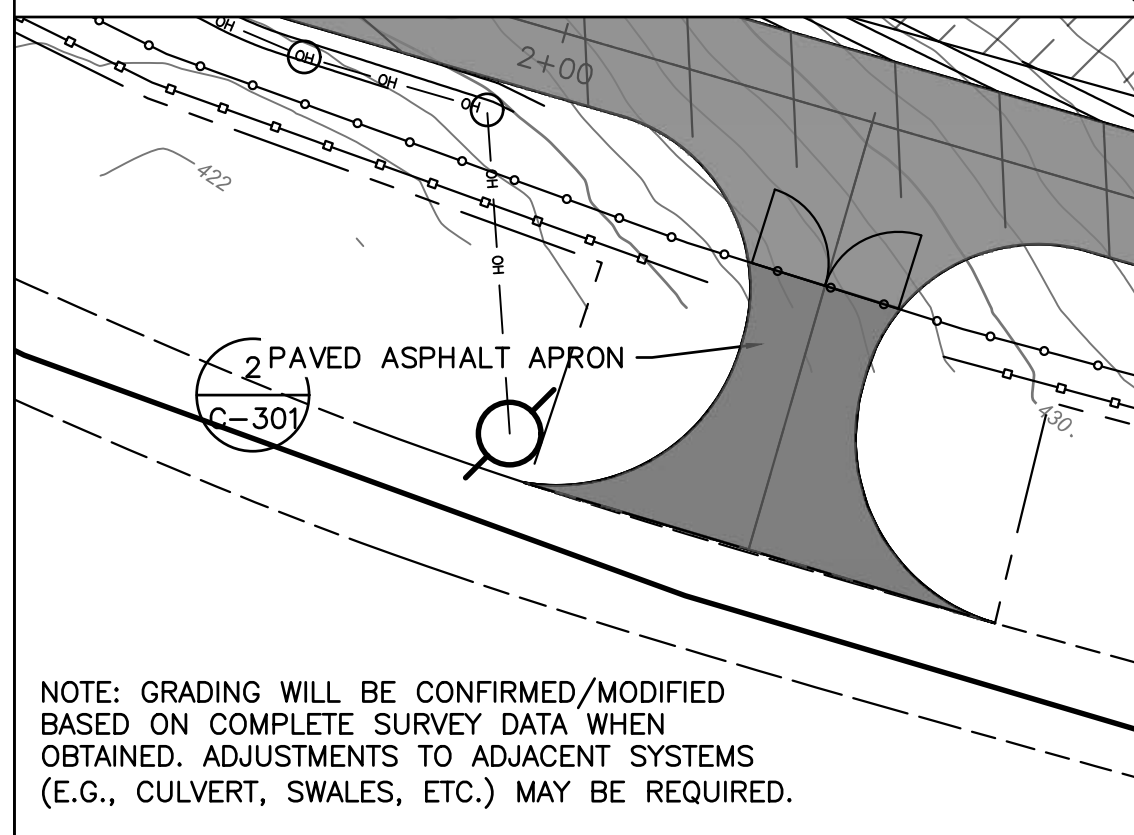




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C SITE ENTRANCE  
SCALE: 1"=30'



NOTE: GRADING WILL BE CONFIRMED/MODIFIED  
BASED ON COMPLETE SURVEY DATA WHEN  
OBTAINED. ADJUSTMENTS TO ADJACENT SYSTEMS  
(E.G., CULVERT, SWALES, ETC.) MAY BE REQUIRED.

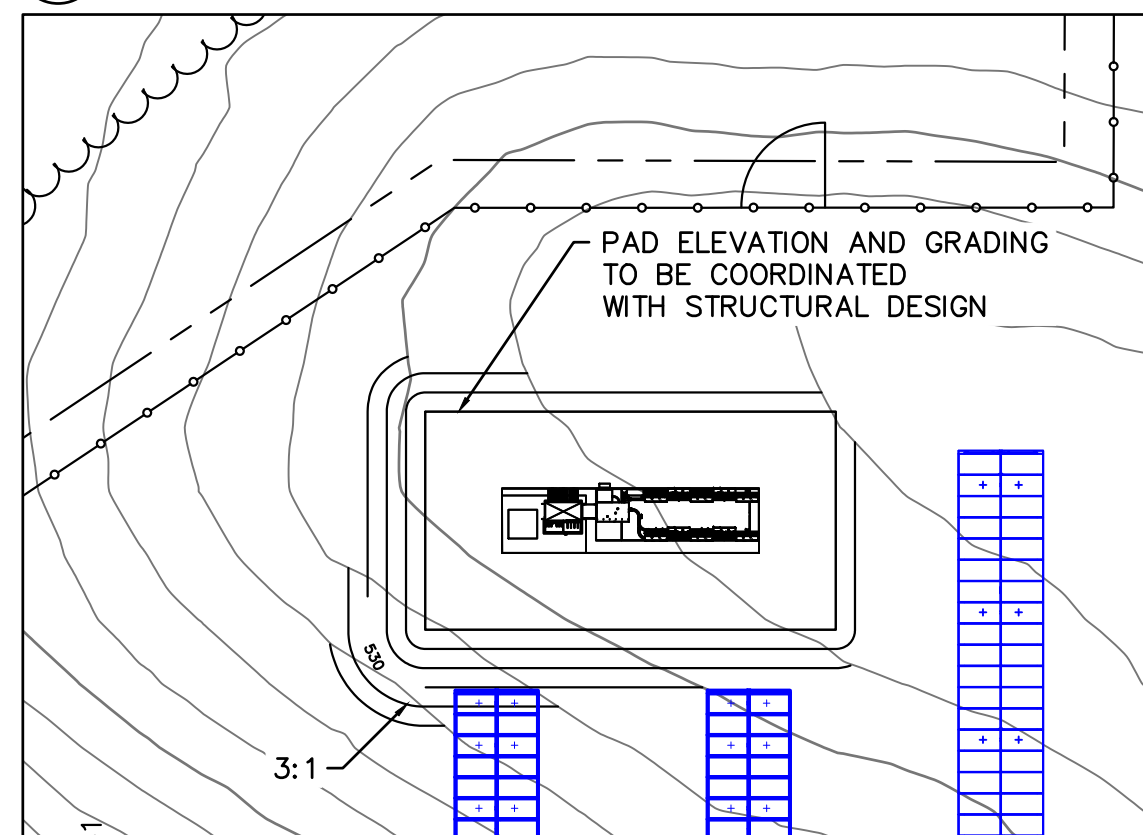
#### LEGEND

	PROPERTY LINE
	ZONING SETBACKS
	EXISTING GRAVEL DRIVEWAY
	EXISTING CONTOUR (MAJOR)
	EXISTING CONTOUR (MINOR)
	EXISTING TREE LINE
	DELINEATED WETLANDS (USACE)
	EXISTING UTILITY POLE
	EXISTING OVERHEAD ELECTRIC
	PROPOSED CONTOUR (MAJOR)
	PROPOSED CONTOUR (MINOR)
	PROPOSED ACCESS ROAD
	PROPOSED PERIMETER SECURITY FENCE
	ASPHALT PAVED APRON

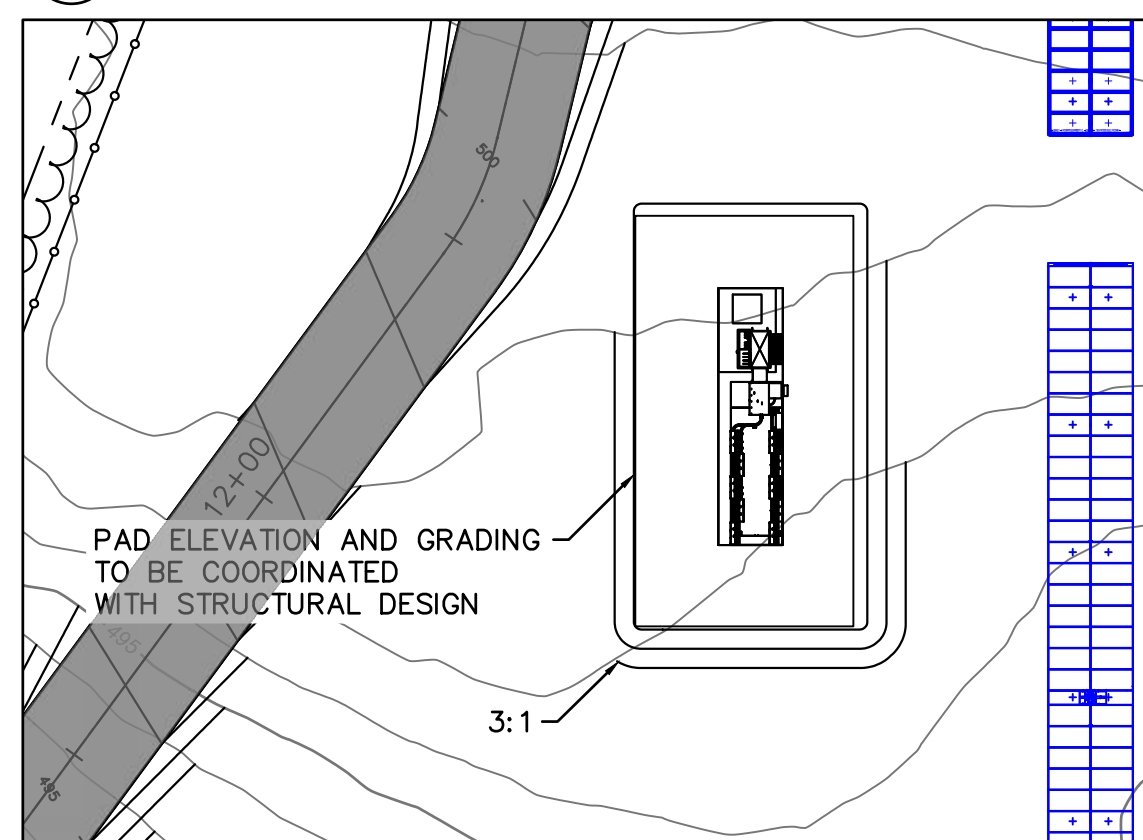
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5. WETLANDS DATA OBTAINED FROM WETLAND DELINEATION REPORT DATE JUNE 2021 BY TETRA TECH, INC.
6. TREE LINE IS APPROXIMATE.

A EQUIPMENT PAD  
SCALE: 1"=30'



B EQUIPMENT PAD  
SCALE: 1"=30'



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STAMP:

## MONTGOMERY 1 SOLAR PROJECT

182 BOSHAUT ROAD  
FONDA, NY 12068

PROJECT NUMBERS:  
194-1264-0001

SHEET TITLE:  
GRADING PLAN

SHEET SIZE:  
ARCH "D"  
24" X 36" (610 X 914)  
0 1/2" 1"

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C	30% DESIGN	08/04/2021	CNT

DATE: 06/04/2021  
DRAWN BY: MDN  
ENGINEER: MDN  
APPROVED BY: KMG

PROJECT PHASE:  
30% DESIGN

SCALE:  
AS SHOWN

SHEET NO.:

**C-202**



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**LEGEND**

—	PROPERTY LINE
- - -	ZONING SETBACKS
- - -	EXISTING GRAVEL DRIVEWAY
— 500 —	EXISTING CONTOUR (MAJOR)
—	EXISTING CONTOUR (MINOR)
—	EXISTING TREE LINE
—	DELINEATED WETLANDS (USACE)
—	EXISTING UTILITY POLE
— OHE —	EXISTING OVERHEAD ELECTRIC
—	PROPOSED ACCESS ROAD
—	PROPOSED PERIMETER SECURITY FENCE
—	TEMPORARY SILT FENCE
—	LIMITS OF DISTURBANCE
—	TEMPORARY CONSTRUCTION SAFETY FENCE
—	TEMPORARY SOIL STOCKPILE
—	TEMPORARY EQUIPMENT LAYDOWN AREA
—	TEMPORARY CONSTRUCTION ENTRANCE
—	TEMPORARY CONCRETE WASHOUT AREA

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  3. ORTHOIMAGERY OBTAINED FROM NYS GIS CLEARING HOUSE, 2017.
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  5. TEMPORARY STAGING AREA TO BE RESTORED TO ORIGINAL CONDITION ON COMPLETION.
  6. WETLANDS DATA OBTAINED FROM WETLAND DELINEATION REPORT DATED JUNE 2021 BY TETRA TECH, INC.
  7. TREE LINE IS APPROXIMATE.
  8. INSTALL SILT FENCING J-HOOKS AS REQUIRED TO ENSURE THAT CONCENTRATED FLOW IS NOT PARALLEL TO THE SILT FENCE.

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CONTROL PLAN**

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ENGINEER: MDN  
APPROVED BY: KMG

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SHEET NO.:  
**C-203**





0 100 200  
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LEGEND

- PROPERTY LINE
- ZONING SETBACKS
- EXISTING GRAVEL DRIVEWAY
- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- EXISTING TREE LINE
- DELINEATED WETLANDS (USACE)
- EXISTING UTILITY POLE
- EXISTING OVERHEAD ELECTRIC
- PROPOSED ACCESS ROAD
- PROPOSED PERIMETER SECURITY FENCE
- ASPHALT PAVED APRON
- AREA TO BE SEED

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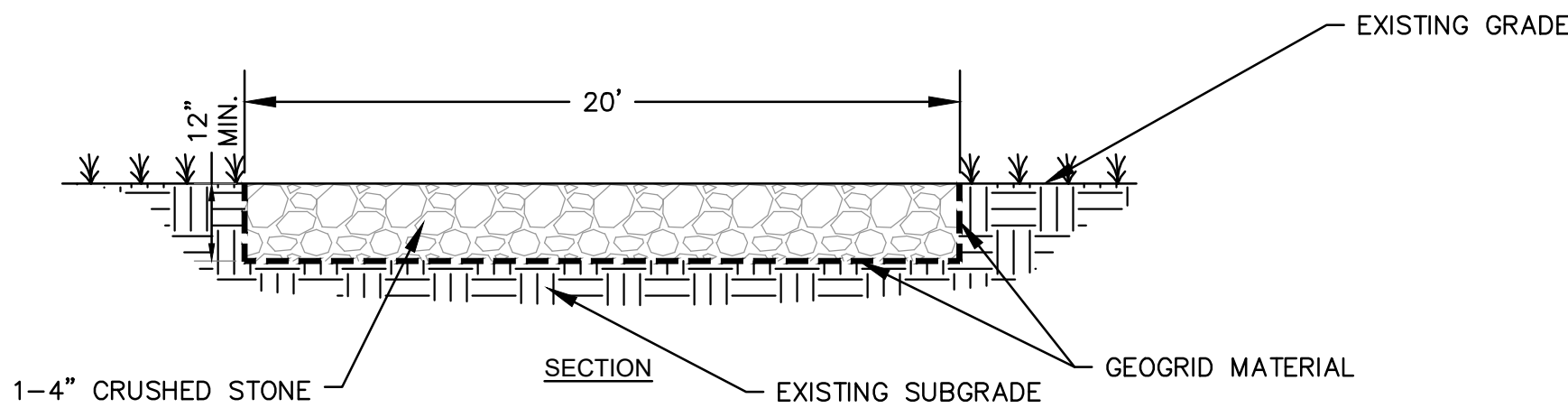
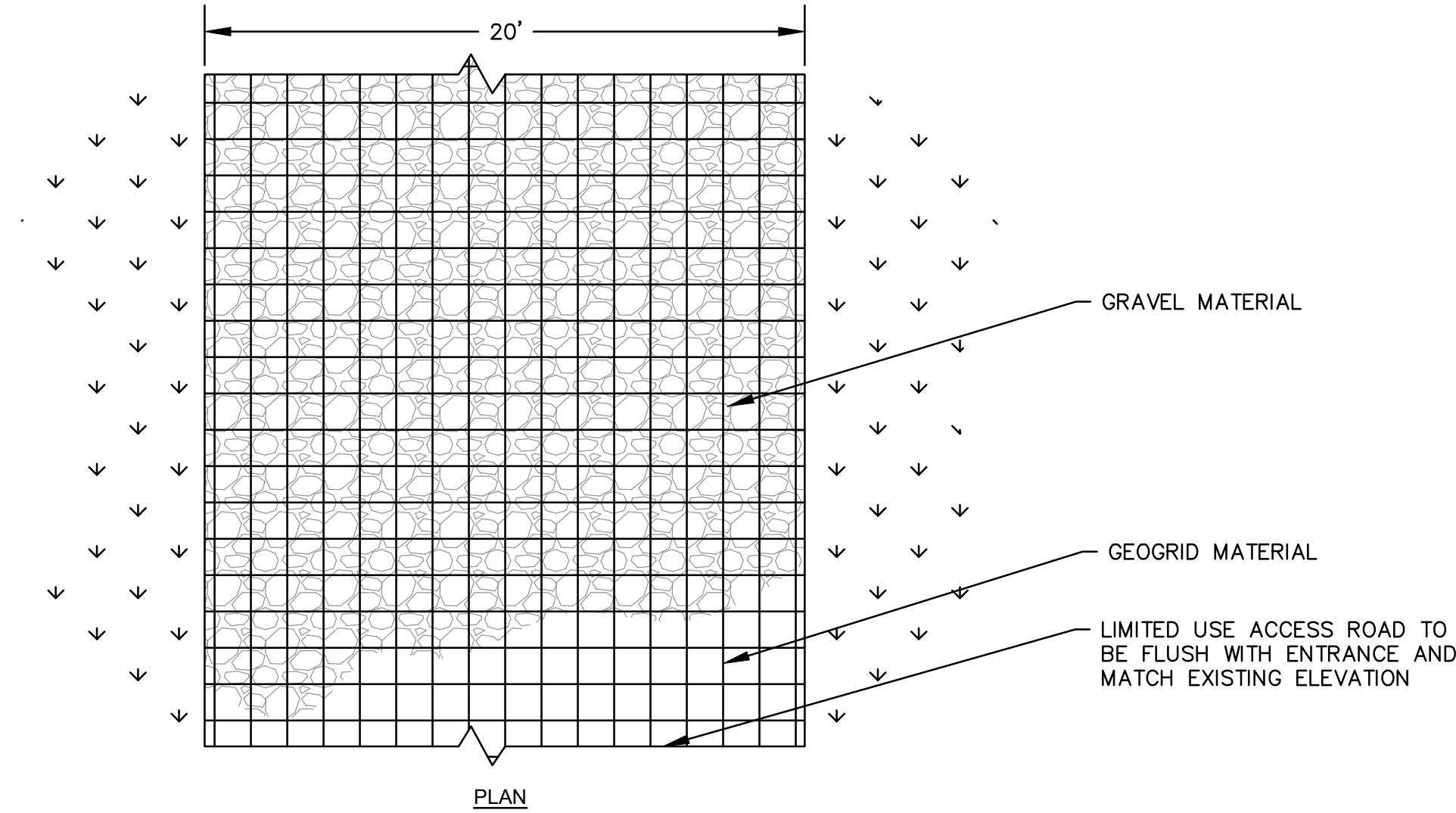
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GENERAL NOTES FOR LIMITED USE PERVIOUS ACCESS ROAD:

1. LIMITED TO MINIMAL USE ONLY (I.E., MAINTENANCE AND EMERGENCY RESPONSE.)
2. LIMITED TO LOW TRAFFIC LOW IMPACT MAINTENANCE ACCESS ASSOCIATED WITH RENEWABLE ENERGY PROJECTS IN NEW YORK STATE.
3. WHERE NECESSARY, GRADE ROADWAY TO DESIRED ELEVATION. MINOR GRADING FOR CROSS SLOPE MAY BE REQUIRED.
4. REMOVE REFUSE SOILS AS DIRECTED BY PROJECT ENGINEER. DO NOT PLACE IN AN AREA THAT IMPEDES STORMWATER DRAINAGE.
5. CROSS SLOPE SHALL BE 2% IN MOST CASES AND SHOULD NOT EXCEED 6%. THE LONGITUDINAL SLOPE OF THE ACCESS ROAD SHOULD NOT EXCEED 13%.
6. ROAD IS NOT INTENDED TO BE UTILIZED FOR CONSTRUCTION WHICH MAY SUBJECT THE ACCESS ROAD TO SEDIMENT TRACKING. ROAD IS TO BE DEVELOPED FOR POST-CONSTRUCTION USE ONLY. SOIL RESTORATION PRACTICES MAY BE APPLICABLE TO RESTORE CONSTRUCTION RELATED COMPACTION TO PRE-EXISTING CONDITIONS AND SHOULD BE VERIFIED BY SOIL PENETROMETER READINGS. COMPARE PENETROMETER READINGS TO THE RESPECTIVE RECORDED READINGS TAKEN PRIOR TO CONSTRUCTION, EVERY 100 LINEAR FEET ALONG THE PROPOSED ROADWAY.
7. DO NOT USE CONSTRUCTION VEHICLES TRANSPORTING SOIL, FILL MATERIAL, ETC. ON ACCESS ROAD TO PREVENT SOIL FROM BEING TRACKED ONTO ACCESS ROAD. IF THE LIMITED USE PERVIOUS ACCESS ROAD IS COMPLETED DURING THE INITIAL PHASES OF CONSTRUCTION, CONSTRUCT AND UTILIZE A STANDARD NEW YORK STATE STABILIZED CONSTRUCTION ACCESS TO REMOVE SEDIMENT FROM CONSTRUCTION VEHICLES AND EQUIPMENT PRIOR TO ENTERING THE LIMITED USE PERVIOUS ACCESS ROAD FROM ANY LOCATION ON OR OFF SITE. MAINTAIN ACCESS ROAD IF SEDIMENT IS OBSERVED WITHIN THE CLEAN STONE.
8. DO NOT CONSTRUCT OR USE UNTIL ALL AREAS SUBJECT TO RUNOFF ONTO THE ACCESS ROAD HAVE ACHIEVED FINAL STABILIZATION.
9. SUBGRADE COMPACTION IS NOT REQUIRED.
10. ESTABLISH A PERENNIAL VEGETATIVE COVER, CONSISTING OF UNIFORM VEGETATION 20 FEET WIDE AND PARALLEL TO THE DOWN GRADIENT SIDE OF THE ACCESS ROAD. POST-CONSTRUCTION OPERATION AND MAINTENANCE PRACTICES WILL MAINTAIN THIS VEGETATIVE COVER TO ENSURE FINAL STABILIZATION FOR THE LIFE OF THE ACCESS ROAD.

GEOGRID MATERIAL NOTES:

1. THE GEOGRID, TENSAR T-130, OR COMPARABLE PRODUCT, IS INTENDED FOR USE FOR ALL CONDITIONS, IN ORDER TO ASSIST IN MATERIAL SEPARATION FROM NATIVE SOILS AND PRESERVE ACCESS LOADS.
2. GRAVEL FILL MATERIAL SHALL CONSIST OF 1-4" CLEAN, CURABLE, SHARP-ANGLED CRUSHED STONE OF UNIFORM QUALITY, MEETING THE SPECIFICATIONS OF NYSDOT ITEM 703-02, SIZE DESIGNATION 3-5 OF TABLE 7803-4. STONE MAY BE PLACED IN FRONT OF, AND SPREAD WITH, A TRACKED VEHICLE. GRAVEL SHALL NOT BE COMPACTED.
3. THE GEOGRID SHALL BE TENSAR T-130 OR APPROVED EQUAL. GEOGRID SHALL BE DESIGNED BASED ON EXISTING SOIL CONDITIONS AND PROPOSED HAUL ROAD SLOPED.
4. IF MORE THAN ONE ROLL WIDTH IS REQUIRED, ROLLS SHOULD OVERLAP A MINIMUM OF 6".
5. REFER TO MANUFACTURER'S SPECIFICATION FOR PROPER TYING AND CONNECTIONS.
6. LIMITED USE PERVIOUS ACCESS ROAD SHALL BE TOP DRESSED AS REQUIRED WITH ONLY 1-4" CRUSHED STONE MEETING NYSDOT ITEM 703-02 SPECIFICATIONS.

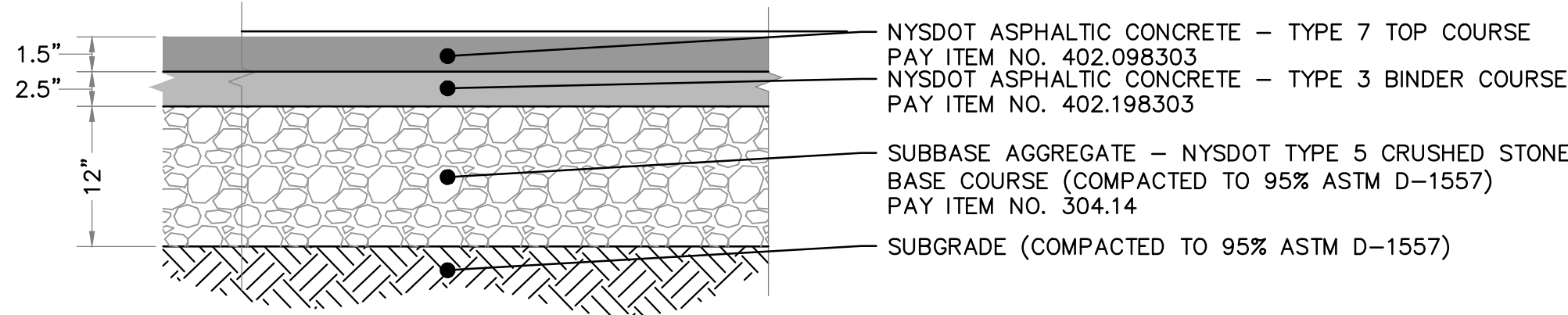


LIMITED USE PERVIOUS ACCESS ROAD

DETAIL

SCALE: N.T.S.

1  
C-301



NOTES:

1. ALL MATERIALS PERMANENTLY INCORPORATED INTO THE RIGHT-OF-WAY ARE BY REFERENCE LISTED AS NYSDOT PAY ITEMS PER [HTTPS://WWW.DOT.NY.GOVE/PIC](https://www.dot.ny.gov/e/pic)
2. SAWCUT EDGE OF ASPHALT TO ALLOW FOR A CLEAN BUTT JOINT WITH THE NEW ASPHALT.
3. PROVIDE ASPHALT JOINT SEALANT (PAY ITEM NO. 418.603) BETWEEN EXISTING AND PROPOSED ASPHALT JOINT.

ASPHALT PAVED ARPON

DETAIL

SCALE: N.T.S.

2  
C-301

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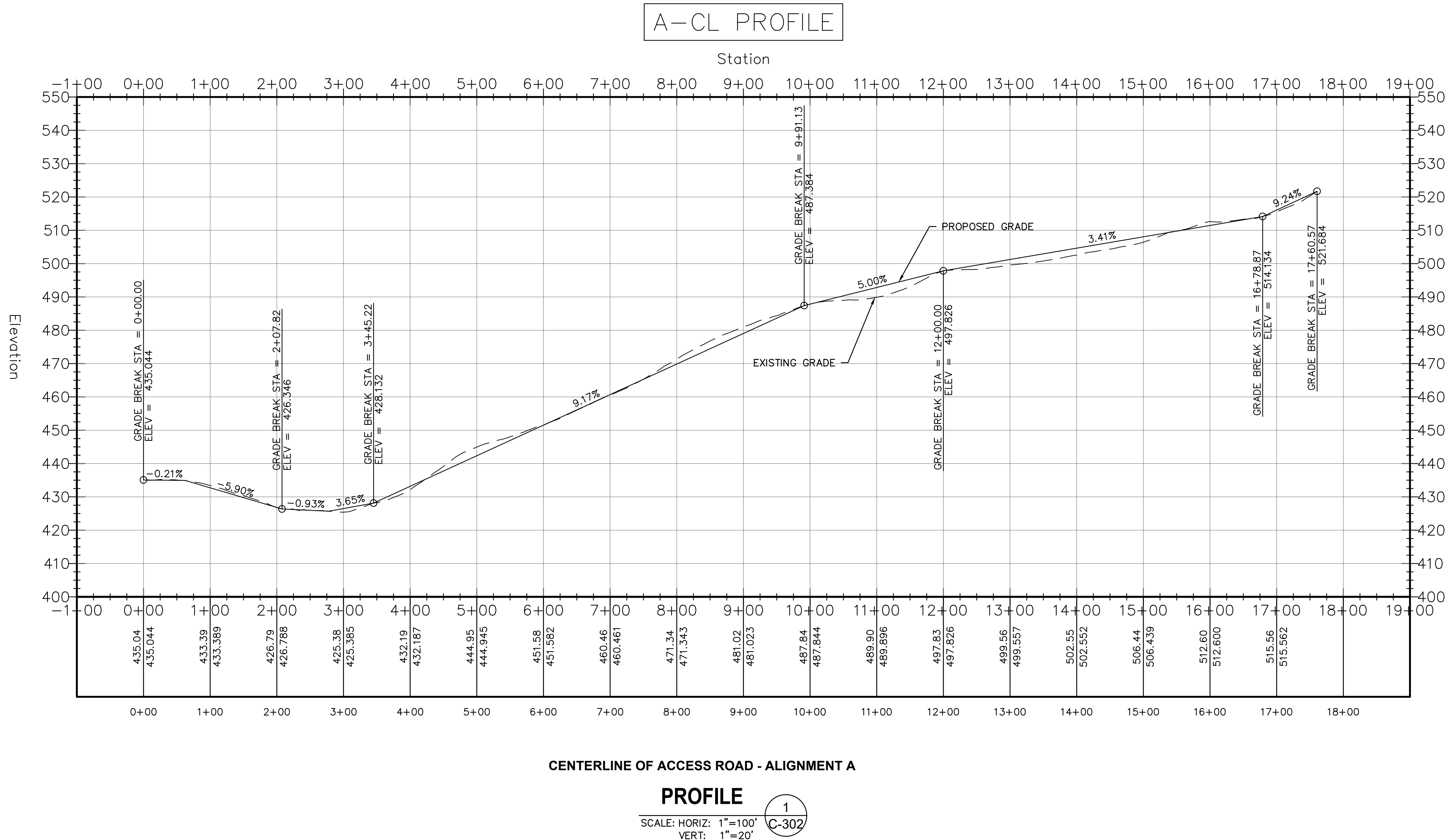
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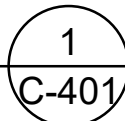
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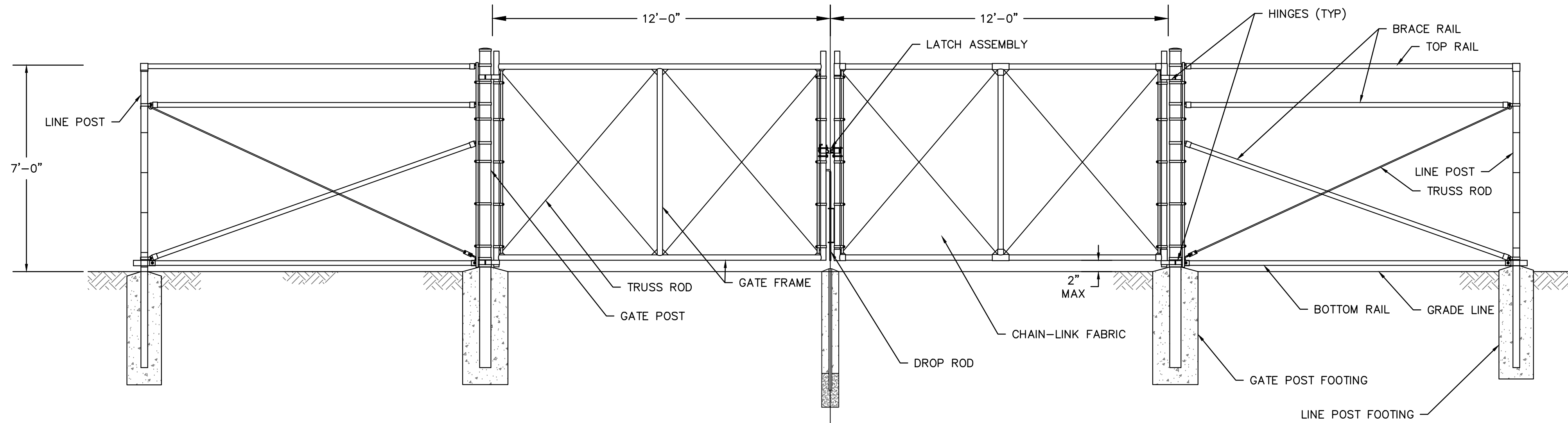
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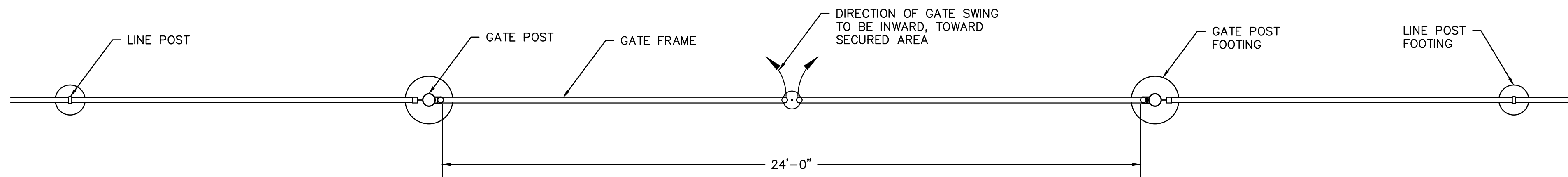
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ELEVATION



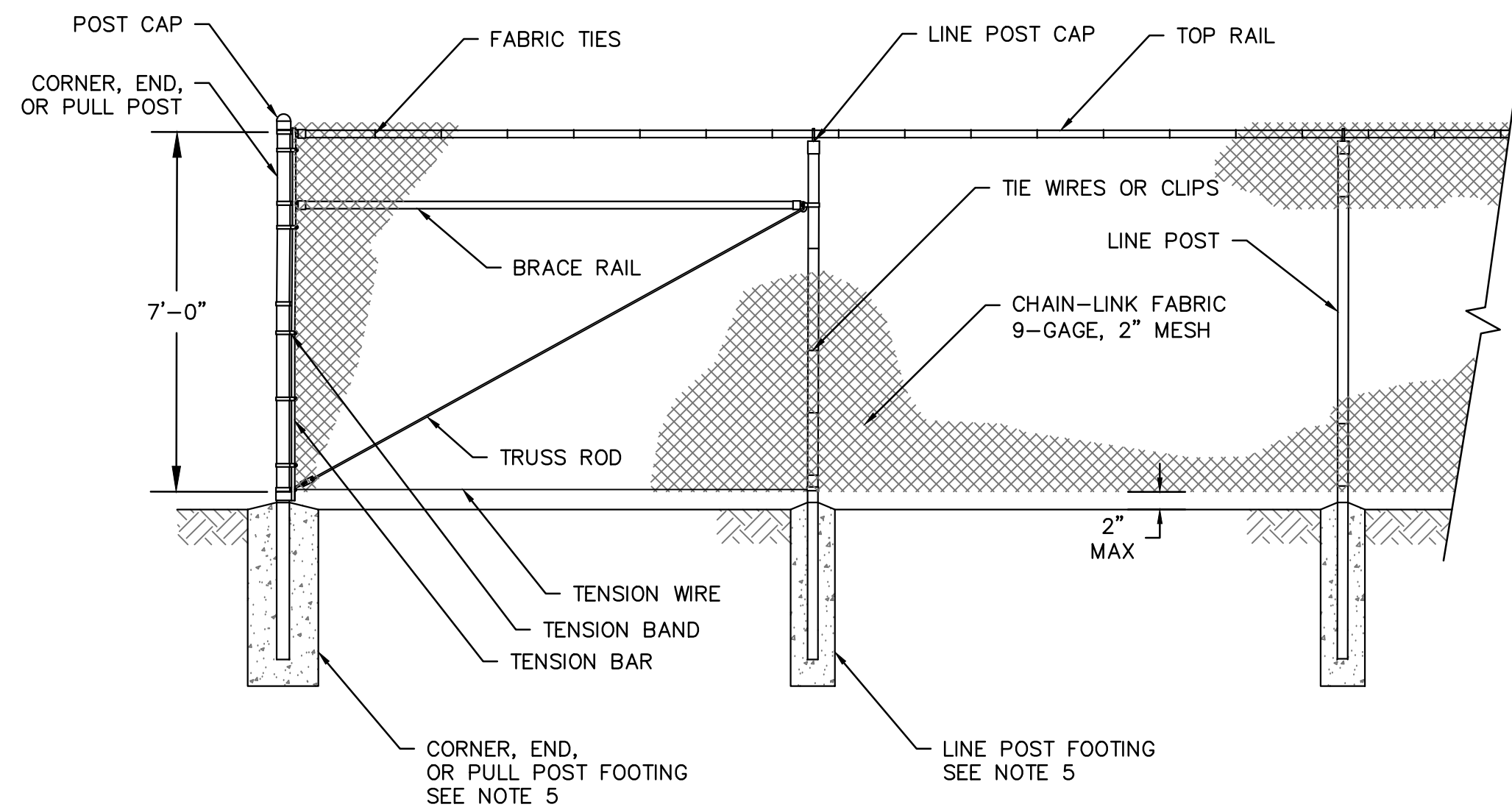
PLAN VIEW

TYPICAL 20' CANTILEVER SLIDE ACCESS GATE

DETAIL

SCALE: NTS

1  
C-402

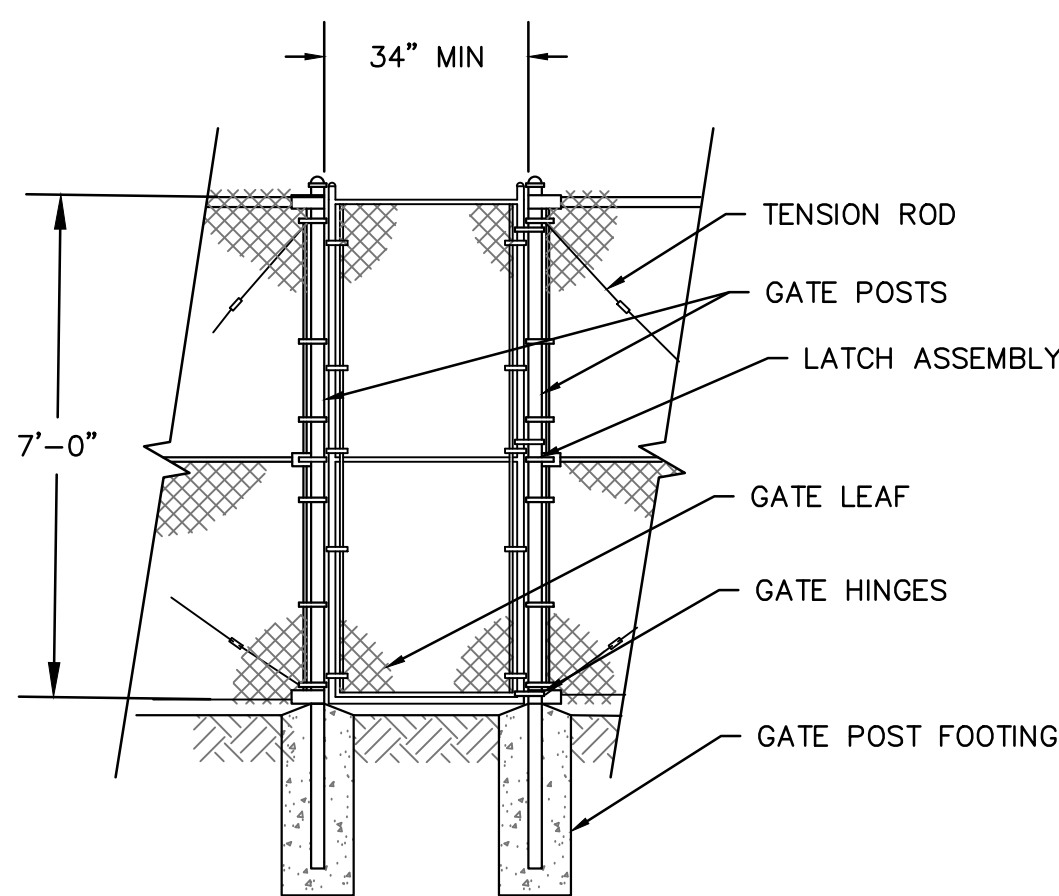


TYPICAL SECURITY PERIMETER FENCE

DETAIL

SCALE: NTS

2  
C-402

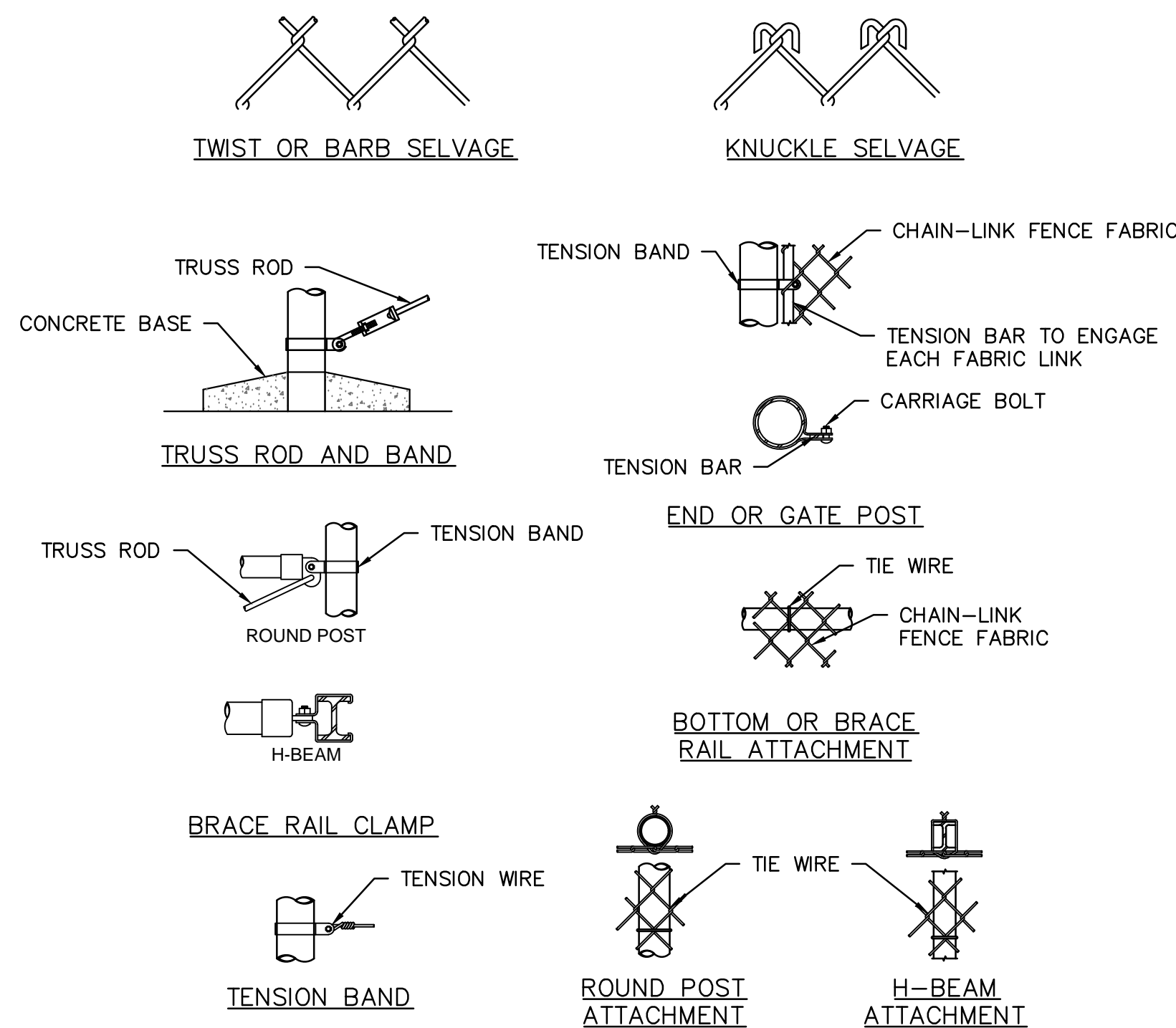


TYPICAL EMERGENCY PEDESTRIAN GATE

DETAIL

SCALE: NTS

3  
C-402



TYPICAL CHAIN LINK FENCE FASTENING

DETAILS

SCALE: NTS

4  
C-402

FENCE & GATE NOTES:

1. SIZE AND DIMENSIONS OF THE FENCE AND GATE COMPONENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH THE CHAIN-LINK FENCE MANUFACTURER SPECIFICATIONS UNLESS OTHERWISE NOTED ON THIS DRAWING.
2. GROUNDING AND BONDING OF THE SECURITY FENCE SYSTEM SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC), AND ALL OTHER APPLICABLE STATE AND LOCAL CODE REQUIREMENTS.
3. DOUBLE SWING GATE TO OPEN INWARD, TOWARD SECURED AREA AS SHOWN ON THE SITE PLAN.
4. INSTALL WIRE TIES, RAILS, POSTS, AND BRACES ON THE SECURE SIDE OF THE FENCE ALIGNMENT. PLACE CHAIN-LINK FABRIC ON THE OPPOSITE SIDE OF THE SECURE AREA.
5. DESIGN AND INSTALL GATE, LINE, CORNER, END, AND PULL POST CONCRETE FOOTINGS, AS REQUIRED, PER APPLICABLE CODES, ASTM F567, AND CHAIN-LINK FENCE MANUFACTURER SPECIFICATIONS.
6. TOP SELVAGES TO BE TWISTED, BOTTOM SELVAGES TO BE KNUCKLED.
7. SIGNAGE SHALL BE AS REQUIRED BY CODE WITH DETAILS INCLUDING FACILITY NAME, OWNER, AND CONTACT PHONE NUMBER. WARNING SIGNAGE TO BE PLACED AT BASE OF ALL PAD-MOUNTED TRANSFORMERS AND SUBSTATIONS.

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# Preliminary Stormwater Pollution Prevention Plan (Prelim SWPPP)

Montgomery 1 Solar  
182 Boshart Road  
Fonda, New York 12068

July 13, 2021

PREPARED FOR:

PREPARED BY:

**BW Solar**  
5050 Dufferin Street  
North York, ON M3H 5T5



**Tetra Tech, Inc.**  
3136 South Winton Road, Suite 303  
Rochester, NY 14623



**SWPPP AMENDMENT LOG**

Amendment No.	Description of the Amendment	Date of Amendment	Amendment Prepared By [Name(s) and Title]



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**APPENDIX B – NYSDEC GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITY PERMIT NO. GP-0-20-001**

**APPENDIX C – LETTER FROM NYS OPRHP**

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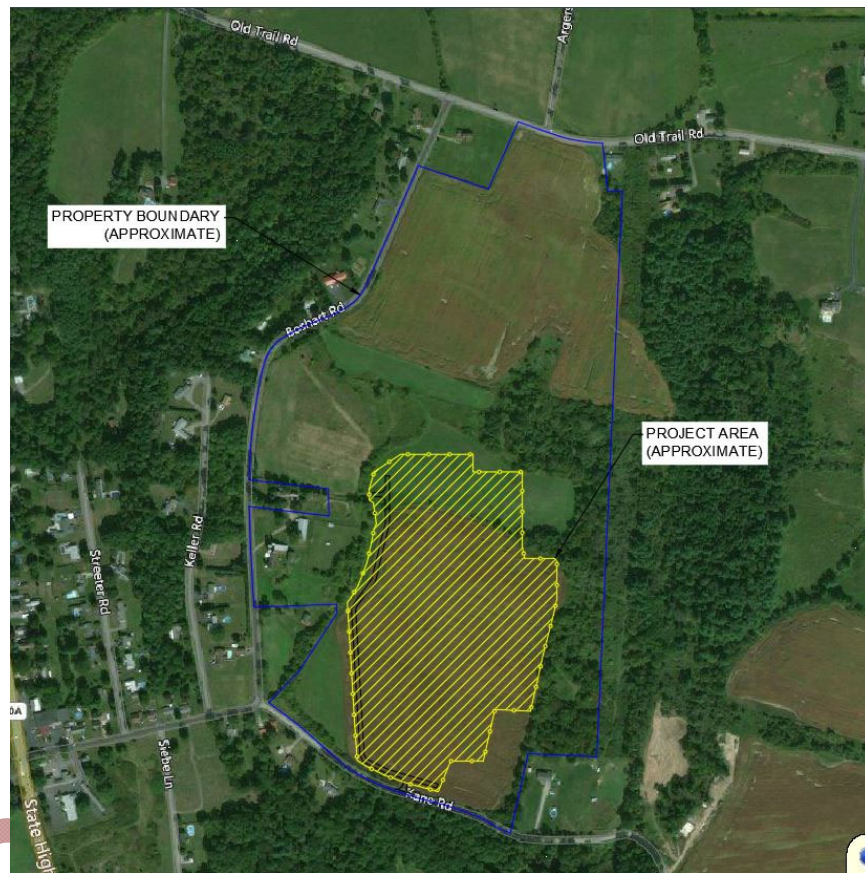


## ACRONYMS/ABBREVIATIONS

Acronyms/Abbreviations	Definition
cfs	Cubic Feet per Second
CWA	Clean Water Act
ECL	Environmental Conservation Law
ESC	Erosion & Sediment Controls
FIRM	Flood Insurance Rate Map
HSG	Hydrologic Soil Group
NOI	Notice of Intent
NOT	Notice of Termination
NTS	Not to Scale
NYCRR	New York Code of Rules and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
OPRHP	Office of Parks, Recreation and Historic Preservation
PCC	Portland Cement Concrete
PV	Photovoltaic
SCS	Soil Conservation Service
SHPA	State Historic Preservation Act
SMDM	Stormwater Management Design Manual (NYS)
SMP	Stormwater Management Practice
SPDES	State Pollutant Discharge Elimination System
SWPPP	Stormwater Pollution Prevention Plan
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture

## 1.0 INTRODUCTION

This Stormwater Pollution Prevention Plan (SWPPP) has been prepared for BW Solar for activities associated with construction of the Montgomery 1 Solar project (the Project) located at 182 Boshart Road, Town of Mohawk, Montgomery County, New York. The property on which the Project is located comprises approximately 97.72 acres of land. The Project will encompass an approximately 27.1-acre subset of that property (the Site). See Figure 1 for the Project area and property boundary.



**Figure 1 – Property Boundary & Project Area**

Pursuant to Section 402 of the Clean Water Act (CWA), stormwater discharges from certain construction activities are unlawful unless they are authorized by a National Pollutant Discharge Elimination System (NPDES) permit or by a state permit program. The New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) permit program is a NPDES-approved program with permits issued in accordance with the Environmental Conservation Law (ECL). The General Permit for Stormwater Discharges from Construction Activity, General Permit Number GP-0-20-001 (the Permit) is issued pursuant to Article 17, Titles 7, 8 and Article 70 of the ECL.

The Permit authorizes stormwater discharges to surface waters of the State from construction activities involving soil disturbances of one or more acres, provided the eligibility provisions of the Permit are met. Part III.C of the Permit states that construction activities identified in Table 1 of



Appendix B (of the Permit) are required to prepare a SWPPP that only includes erosion and sediment control practices. Construction activities identified in Table 2 of Appendix B (of the Permit) are required to prepare a SWPPP that also includes post-construction stormwater management practices.

The Project involves construction of a ground-mounted solar photovoltaic (PV) array, permanent access roads, and concrete equipment pads. Although overall impervious area is relatively small and most of the Site will consist of vegetative cover, the construction activities described above are identified in Table 2 of the Permit, and therefore post-construction stormwater management practices will be included in this SWPPP.

The area of soil disturbance considered for this project is 0.993 acres. This calculation is based on the information provided in Table 1.

**Table 1 – Areas of Soil Disturbance**

Access Roads	0.89 acres
Equipment Pads	0.10 acres
Fence Post Footings	0.003 acres
<b>Total Area of Soil Disturbance</b>	<b>0.993 acres</b>

The impervious surfaces include the proposed concrete equipment pads and fence post footings. The total area of proposed impervious surface is 0.103 acres.

It is not expected that more than 5 acres of the Project area will be disturbed at one given time. **If more than 5 acres of the Project area will be disturbed at one given time, the following items are required by the Owner and Contractor:**

- Obtain written authorization from the NYSDEC prior to construction.
- Conduct at least two site inspections in accordance with Part IV.C of the General Permit every seven calendar days, for as long as greater than five acres of soil remain disturbed. The two inspections shall be separated by a minimum of two full calendar days.
- Initiate soil stabilization measures by the end of the next business day in areas where soil disturbance has temporarily or permanently ceased and complete within seven days from the date the current soil disturbance activity ceased.
- Prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
- Install additional site-specific practices needed to protect water quality.

Refer to Appendix B for a copy of the Permit.

## 2.0 SITE DESCRIPTION

### 2.1 PROPERTY

The Site, as previously noted, covers approximately 27.1 acres of a larger parcel located within Montgomery County, New York. The Site is located in a rural area approximately 0.5-mile north of the Village of Fonda. The general area around the Site consists of residential and agricultural properties. The Site is bounded by Kane Road to the south, residential properties to the west, Old Trail Road and agricultural lands to the north, and a National Grid electrical transmission right-of-way to the east. The Site was primarily used for agricultural purposes.

### 2.2 TOPOGRAPHY

The maximum elevation of the Project area is approximately 533 feet above mean sea level. The Site generally slopes toward the south and east. There is a depression in the central portion of the property that also directs runoff to the east. Various highpoints are also located within the southern portion of the Site. The majority of the Site has slopes between 0-10%. There are steep slopes within the central portion of the Site that range from 10-16%. An unnamed tributary to Cayadutta Creek is located approximately 500 feet east of the Site.

### 2.3 SOILS

The United States Department of Agriculture (USDA) Soil Conservation Service (SCS) Soil Survey for Montgomery County was reviewed to determine surficial soil conditions for the Site. The SCS identified the presence of 20 soil types on the property, of which 10 are within the Site. Figure 2 shows the soil map for the property.





Figure 2 – Soil Map (NTS)

Soil data as provided by the SCS is presented in Table 2.

Table 2 – Soils Data

MAP SYMBOL/ DESCRIPTION	HYDROLOGIC SOIL GROUP	SLOPE (%)	SOIL PROFILE		K VALUE	DEPTH TO WATER TABLE (FT)
			DEPTH (IN)	USDA TEXTURE		
Angola Silt Loam (AnB)	D	3-8	0-9	Silt Loam	0.32	0.5-1.5
			9-24	Silty Clay Loam		
			24-28	Weathered Bedrock		
Churchville Silty Clay Loam (ChB)	C/D	3-8	0-7	Silty Clay Loam	0.49	0.5-1.5
			7-32	Clay		
			32-84	Channery Loam		
Darien Silt Loam (DaB)	C/D	3-8	0-7	Silt Loam	0.32	0.5-1.0
			7-10	Silt Loam		
			10-31	Channery Silty Clay Loam		
			31-60	Channery Silty Clay Loam		
Howard Gravelly Silt Loam (HrB)	A	3-8	0-9	Gravelly Silt Loam	0.15	>6.67
			9-19	Very Gravelly Sandy Loam		
			19-60	Very Gravelly Sandy Loam		
			60-64	Stratified Very Gravelly Sand Loam		
	A	8-15	0-9	Gravelly Silt Loam	0.15	>6.67

MAP SYMBOL/ DESCRIPTION	HYDROLOGIC SOIL GROUP	SLOPE (%)	SOIL PROFILE		K VALUE	DEPTH TO WATER TABLE (FT)
			DEPTH (IN)	USDA TEXTURE		
Howard Gravelly Silt Loam (HrC)			9-19	Very Gravelly Sandy Loam		
			19-60	Very Gravelly Sandy Loam		
			60-64	Stratified Very Gravelly Sand Loam		
Hudson Silt Clay Loam (HuB)	C/D	3-8	0-6	Silty Clay Loam	0.49	>6.67
			6-12	Silty Clay Loam		
			12-26	Silty Clay		
			26-60	Stratified Clay to Silt Loam		
Hudson Soils, Very Steep (HVF)	C/D	25-60	0-6	Silty Clay Loam	0.49	>6.67
			6-12	Silty Clay Loam		
			12-26	Silty Clay		
			26-60	Stratified Clay to Silt Loam		
Lansing Silt Loam (LaB)	B	3-8	0-8	Silt Loam	0.32	>6.67
			8-13	Gravelly Silt Loam		
			13-21	Gravelly Silt Loam		
			21-28	Gravelly Silt Loam		
			28-39	Gravelly Silt Loam		
			39-79	Gravelly Loam		
Lansing Silt Loam (LaC)	B	8-15	0-8	Silt Loam	0.32	>6.67
			8-13	Gravelly Silt Loam		
			13-21	Gravelly Silt Loam		
			21-28	Gravelly Silt Loam		
			28-39	Gravelly Silt Loam		
			39-79	Gravelly Loam		
Lansing Silt Loam (LaD)	B	15-25	0-8	Silt Loam	0.32	>6.67
			8-13	Gravelly Silt Loam		
			13-21	Gravelly Silt Loam		
			21-28	Gravelly Silt Loam		
			28-39	Gravelly Silt Loam		
			39-79	Gravelly Loam		
Lansing and Mohawk Soils (LMF)	B	25-60	0-8	Silt Loam	0.32	>6.67
			8-13	Gravelly Silt Loam		
			13-21	Gravelly Silt Loam		
			21-28	Gravelly Silt Loam		
			28-39	Gravelly Silt Loam		
			39-79	Gravelly Loam		
Manheim Silt Loam (MmB)	C/D	3-8	0-9	Silt Loam	0.28	>6.67
			9-28	Gravelly Silt Loam		
			28-50	Gravelly Silt Loam		



MAP SYMBOL/ DESCRIPTION	HYDROLOGIC SOIL GROUP	SLOPE (%)	SOIL PROFILE		K VALUE	DEPTH TO WATER TABLE (FT)
			DEPTH (IN)	USDA TEXTURE		
Mohawk Silt Loam (MsB)	B	3-8	0-9	Silt Loam	0.32	>6.67
			9-27	Silt Loam		
			27-68	Channery Silt Loam		
Mohawk Silt Loam (MsC)	B	8-15	0-9	Silt Loam	0.32	>6.67
			9-27	Silt Loam		
			27-68	Channery Silt Loam		
Mohawk Silt Loam (MsD)	B	15-25	0-9	Silt Loam	0.32	>6.67
			9-27	Silt Loam		
			27-68	Channery Silt Loam		
Palatine Silt Loam (PaC)	C	8-15	0-11	Silt Loam	0.32	>6.67
			11-18	Channery Silt Loam		
			18-28	Very Channery Silt Loam		
			28-32	Unweathered Bedrock		
Palatine Silt Loam (PaD)	C	15-25	0-11	Silt Loam	0.32	>6.67
			11-18	Channery Silt Loam		
			18-28	Very Channery Silt Loam		
			28-32	Unweathered Bedrock		
Phelps Gravelly Loam, Fan (Pr)	C	0-8	0-7	Gravelly Loam	0.15	>6.67
			7-13	Gravelly Silt Loam		
			13-25	Gravelly Silt Loam		
			25-35	Gravelly Silt Loam		
			35-60	Stratified Very Gravelly Sand		
Unadilla Silt Loam (UnC)	B	8-15	0-9	Silt Loam	0.37	>6.7
			9-28	Very Fine Sandy Loam		
			28-50	Very Fine Sandy Loam		
			50-60	Stratified Very Gravelly Sand		
Water (W)	N/A	N/A	N/A	N/A	N/A	N/A

N/A: Not Applicable

The SCS defines the hydrologic soil groups as follows:

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

Type B Soils: Soils having a moderate infiltration rate when thoroughly wet and consists mainly of moderately deep to deep, moderately well to well drained soils with

moderately fine to moderately coarse textures. These soils have a moderate rate of water transmission.

**Type C Soils:** Soils having a low infiltration rate when thoroughly wet. These soils consist chiefly of soils with a layer that impedes downward movement of water and soils with moderately fine-to-fine texture. These soils have a low rate of water transmission.

**Type D Soils:** Soils having a very low infiltration rate and high runoff potential when thoroughly wet. These soils consist chiefly of clays that have high shrink-swell potential, soils that have a permanent high-water table, soils that have a clay pan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very low rate of water transmission.

The complete USDA Soil Survey (including the soil map to scale) for the Site can be found in Appendix E.

## 2.4 COVER CONDITIONS

The existing Site cover condition at the time of the field visit was primarily pasture/grassland, with meadow, some wooded areas and wetlands. Historically, the site has been used as an agricultural field with row crops. The Site cover condition post-construction is to be a permanent grassed vegetative cover, a previous access road, and concrete equipment pads, with a portion of the Site remaining as wooded area and wetlands. Disturbed areas to be vegetated will receive topsoil and seeding for final stabilization to a meadow condition.

Runoff curve numbers for the various cover types and descriptions used in the stormwater evaluation for this Project were obtained from Tables 2-2a-d of the *Urban Hydrology for Small Watersheds Technical Release 55* by the USDA. A summary of the curve numbers is provided in Table 3.

**Table 3 – Curve Numbers for Hydrologic Soil Group**

Cover Type	Hydrologic Soil Group			
	A	B	C	D
Woods, Good Condition	30	55	70	77
Pasture, grassland, or range	39	61	74	80
>75% Grass Cover, Good (Pervious Access Road)	39	61	74	80
Meadow, Non-Grazed	30	58	71	78
Unconnected Pavement (Equipment Pads)	98	98	98	98



## 2.5 WETLANDS

The parcel contains two delineated wetlands and one stream with jurisdictional status under the U.S. Army Corps of Engineers. No construction is permitted within the wetlands.

## 2.6 HISTORIC PRESERVATION

The NYSDEC and NYS Office of Parks, Recreation and Historic Preservation (OPRHP) have developed a process for construction projects to identify and address potential impacts on archeological and historic resources. This process is documented in a Letter of Resolution (LOR) that was developed between the NYSDEC and OPRHP. A Historic Preservation Act (SHPA) Review (OPRHP/DEC) will be completed prior to construction to ensure that the proposed Project will not have an adverse effect on cultural or historical resources.

## 2.7 SURFACE WATERS & FLOODPLAINS

The Site is located in the Mohawk River Watershed. This watershed is not identified in Appendix C of the Permit; as such, enhanced phosphorous removal standards are not required. Runoff from the Site flows over agricultural areas (currently row crops) and infiltrates into surface soils. The Site runoff primarily discharges via overland flow to an unnamed tributary to Cayadutta Creek east of the Site. Runoff from the Site does not discharge to the 303(d) segments listed in Appendix E of the Permit.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel No. 36057C0159E, effective January 19, 2018, the Site is identified in Zone X, an area of minimal flood hazard (unshaded).. This map can be found in Appendix D.

## 2.8 RAINFALL DATA

In accordance with the *2016 New York State Standards and Specifications for Erosion and Sediment Control*, hydrologic data and rainfall distributions published by the Northeast Regional Climate Center (NRCC) on their website (<http://precip.eas.cornell.edu/>) are used in the stormwater hydrology calculations herein. The rainfall data for various 24-hour storm events anticipated at the Site are presented in Table 4.

**Table 4 – Rainfall Data**

Storm Event	24-Hour Rainfall
1-year	2.17-inches
2-year	2.50-inches
10-year	3.50-inches
100-year	5.68-inches

### 3.0 EROSION & SEDIMENT CONTROL

This section of the SWPPP and the associated construction drawings identify the temporary and permanent erosion and sediment control (ESC) measures that have been incorporated into the design of this Project. These measures will be implemented during construction to protect the waters of the State from sediment loads during runoff events.

The anticipated order of construction activities is outlined along with the ESC measures to be implemented for each construction activity that will result in soil disturbance. The SWPPP and construction drawings provide a description of the temporary and permanent ESC measures including limitations on the duration of soil exposure, criteria and specifications for placement and installation of the ESC measures, and a maintenance schedule.

An emphasis was placed on the preservation of natural features, conserving existing drainage patterns and vegetation, minimizing impervious surfaces, reducing runoff velocity, and increasing infiltration throughout the design process.

### 3.1 CONSTRUCTION SEQUENCE

Construction is anticipated to start in late 2021/early 2022. Operation is targeted for 2022. The Project's construction will be approximately four months in duration. The construction will begin with initial site preparation, preliminary site grading, installation of access roadway, erection of arrays, electrical installation, and commissioning/startup.

The following is a typical sequence of operations and phasing plan describing the intended order of construction activities:

#### Initial Phase

1. Hold a pre-construction meeting on-site attended by the qualified inspector, and any involved subcontractors to discuss responsibilities as they relate to the implementation of the SWPPP, identify the secure location where the SWPPP will be kept on the Site (must be accessible during normal business hours), and review appropriate measures to avoid and minimize impacts to protected species during remediation, demolition and construction. If contractors and subcontractors have not already done so, the certification statements in Appendix L shall be signed at this time.
2. Delineate limits of work disturbance, proposed infrastructure areas for the Project, and resources to protect.
3. Identify post-construction stormwater management practice areas to be protected in order to preserve native soil permeability.
4. Minimally clear areas as required for the following:
  - a. Installation of perimeter controls and stabilized construction entrance;
  - b. Placement of construction office trailer and parking areas; and
  - c. Placement of temporary ESC measures.



5. Establish equipment staging (laydown area), temporary soil stockpile areas, and concrete truck washout areas.
6. Install and stabilize temporary ESC measures.
7. Install temporary infrastructure (e.g., construction office trailer, interim road, fence, security measures, etc.).

#### Interim Phase

1. Perform grading, clearing, grubbing for the remainder of the site per approved construction drawings.
2. Mount and install the supporting structure and racking system.
3. Install permanent perimeter fencing.
4. Install solar panels, combiners, and connections.
5. Construct equipment pads (transformer, central inverters, etc.).
6. Install underground electric wiring and/or above ground cable management systems.

#### Final Phase

1. Install permanent ESC measures.
2. Install permanent access road and paved access road entrance (if required).
3. Install permanent post-construction stormwater management practices.
4. Conduct soil restoration.
5. Complete fine grading, landscaping, seeding and soil stabilization.
6. Remove temporary ESC measures.
7. Restore and stabilize any disturbed areas remaining upon removal of temporary ESC measures

If the disturbed area exceeds 5 acres at any given time, written acceptance of this plan from the Regional NYSDEC office must be received and attached.

### **3.2 TEMPORARY EROSION & SEDIMENT CONTROL MEASURES**

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Temporary erosion and sediment control measures are included as part of the construction drawings and described herein.

### **3.2.1 Stabilized Construction Entrance**

During the initial phase, a stabilized construction entrance shall be installed, as shown on the construction drawings, to reduce the tracking of sediment onto public roadways.

Construction traffic must enter and exit the Site at the stabilized construction entrance. The intent is to trap dust and mud that would otherwise be carried off-Site by construction traffic.

The entrance will be maintained in a condition that controls tracking of sediment onto the local roadway. When necessary, the placement of additional aggregate atop the filter fabric shall be done to assure the minimum thickness is maintained. Sediments and soils spilled, dropped, or washed onto any public right-of-way must be removed immediately. Periodic inspection and needed maintenance shall be provided after each substantial rainfall event.

### **3.2.2 Dust Control**

Water trucks may be used as needed during construction to reduce dust generated on the Site. Dust control must be provided by the Contractor to a degree that is acceptable to the Owner, and in compliance with the applicable local and State dust control requirements.

### **3.2.3 Material Storage & Equipment Staging Areas**

Construction materials shall be stored in a dedicated staging area. The staging area shall be located in an area that minimizes the impacts of the construction materials affecting stormwater quality and protected by a temporary sediment control barrier.

Chemicals, paints, solvents, fertilizers, and other toxic material must be stored in waterproof containers. Except during application, the contents must be kept in trucks or within storage facilities. Runoff containing such material must be collected, removed from the Site, treated, and disposed at an approved solid waste or chemical disposal facility.

Material resulting from the clearing and grubbing operation shall be stockpiled up slope from adequate sedimentation controls or at an off-site location with appropriate protections for re-use during the restoration stage.

### **3.2.4 Concrete Wash Area**

Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site, but only in a specifically designated diked and impervious washout area which has been prepared to prevent contact between the concrete wash and stormwater. Waste generated from concrete wash water shall not be allowed to flow into drainage ways, inlets, receiving waters, highway right of ways, or any location other than the designated Concrete Wash Areas. Proper signage designating the "Concrete Wash Area" shall be implemented. The Concrete Wash Area shall be located at minimum 100 linear feet from drainage ways, inlets, and surface waters.

The hardened residue from the Concrete Wash Area shall be disposed of in the same manner as other non-hazardous construction waste materials. Maintenance of the wash area shall include removal of hardened concrete. The Concrete Washout Area shall have sufficient volume to contain all the concrete waste resulting from washout and a minimum freeboard of 12 inches.



The Facility shall not be filled beyond 95 percent capacity and shall be cleaned out once 75 percent full unless a new facility is constructed. The Contractor is responsible for seeing that these procedures are followed.

Saw-cut Portland Cement Concrete (PCC) slurry shall not be allowed to enter storm drains or watercourses. Saw-cut residue should not be left on the surface of pavement or be allowed to flow over and off pavement.

All concrete washout areas shall be inspected daily and repaired or replaced as necessary. The Site shall be inspected daily to ensure that no concrete discharges are taking place in non-designated areas.

### **3.2.5 Sediment Control Barrier**

Prior to the initiation of and during construction activities, a geotextile filter fabric (or silt fence) or compost filter sock will be established along the perimeter of areas to be disturbed as a result of the construction that lies upgradient of water courses or adjacent properties. These barriers may extend into non-impact areas to ensure adequate protection of adjacent lands.

Clearing and grubbing will be performed only as necessary for the installation of the sediment control barrier. To ensure effectiveness of the sediment control barrier, daily inspections and inspections immediately after significant storm events shall be performed by Site personnel. Maintenance of the sediment control barrier will be performed as needed.

### **3.2.6 Dewatering**

Dewatering shall be used to intercept sediment-laden stormwater or pumped groundwater and allow it to settle out of the pumped discharge prior to being discharged from the Site. Water from dewatering operations shall be treated to eliminate the discharge of sediment and other pollutants. Water resulting from dewatering operations shall be directed to the temporary sediment traps, or dewatering devices, such as the Dandy Dewatering Bag, manufactured by Mirafi Geosynthetics or approved equivalent. Temporary sediment traps and dewatering bags shall be provided, installed, and maintained at down-gradient locations to control sediment deposits to wetlands.

### **3.2.7 Temporary Soil Stockpile**

Materials, such as topsoil or removed soil for special handling, shall be temporarily stockpiled (if necessary) on the Site during the grading and construction process. Stockpiles shall be located in an area away from storm drainage, water bodies and/or courses, and properly protected from erosion by a surrounding sediment control barrier.

### **3.2.8 Preservation of Natural Areas**

During the initial phase, limits of construction and resources to protect shall be identified in accordance with the construction drawings. Sturdy fences or other protective materials shall be

placed around valuable vegetation for protection from construction equipment. Soil placement over existing tree and shrub roots shall be limited to a maximum of 3 inches.

### **3.2.9 Temporary Seeding**

In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased.

### **3.2.10 Temporary Diversion Swales**

Temporary diversion swales shall be used, if necessary, to divert off-site runoff around the construction Site, divert runoff from stabilized areas around disturbed areas, and direct runoff from disturbed areas into sediment traps.

### **3.2.11 Temporary Slope Protection**

Erosion control blankets shall be installed on all slopes exceeding 3H:1V. Erosion control blankets provide temporary erosion protection, rapid vegetative establishment, and long-term erosion resistance to shear stresses associated with high runoff flow velocities associated with steep slopes.

### **3.2.12 Temporary Soil Stabilization**

In areas where soil disturbance activity has temporarily ceased (*i.e.*, an existing disturbed area will not be disturbed again within fourteen (14) calendar days of the previous soil disturbance), the application of temporary soil stabilization measures shall be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased.

Temporary soil stabilization can be achieved by covering exposed soil with mulch, seed and mulch, and/or erosion control mats (*e.g.*, jute twisted yarn, excelsior wood fiber mats) to prevent the exposed soil from eroding until permanent soil stabilization has been implemented and achieved.

## **3.3 PERMANENT EROSION & SEDIMENT CONTROL MEASURES**

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Permanent erosion and sediment control measures are included as part of the construction drawings provided in Appendix A and described herein.

### **3.3.1 Permanent Soil Stabilization**

Disturbed areas that will be vegetated must be seeded in accordance with the construction drawings. The type of seed, mulch, and maintenance measures are also defined in the construction drawings.

All areas at final grade must be seeded and mulched within fourteen (14) days after completion of the major construction activity. All seeded areas should be protected with mulch.



Final Site stabilization is achieved when all soil-disturbing activities at the Site have been completed and a uniform, perennial vegetative cover with a density of 80 percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

### 3.3.2 Rock Outlet Protection

Outlet protection will be utilized as necessary using rock riprap at culvert outlets, new channels constructed as outlets for culverts and conduits, and pipe conduits from sediment basins, dry storm water ponds, and permanent ponds. Rock for riprap shall consist of field rock or rough unhewn quarry rock. The rock shall be hard and angular, and of a quality that will not disintegrate on exposure to water or weathering. The specific gravity of the individual rocks shall be at least 2.5. A filter shall be placed under the rock riprap as specified in the construction drawings. Permanent sections of rock protection at outlets reduce the depth, velocity, and energy of the water in order to prevent the flow from eroding the downstream reach.

### 3.3.3 Soil Restoration

The structure of healthy soil is permeable, with spaces between solid particles where water, air, and soil organisms can move. Soil compaction occurs when weight on the soil surface collapses these spaces, creating a hard, solid mass. Water, air, and roots may be completely unable to penetrate compacted soil, reducing or destroying its capacity to sustain life. Soil restoration promotes greater stormwater infiltration in areas with pervious cover and, therefore, helps to reduce runoff volume.

Soil restoration is achieved by aeration through mechanical loosening, and addition of organic matter and soil amendments. In areas where significant soil disturbance has occurred outside of pavement areas, the disturbed sub-soils shall be returned to rough grade and soil restoration steps applied, in accordance with Table 4.6, Soil Restoration Requirements of the NYS Standards and Specifications for Erosion and Sediment Control dated November 2016 and Section 5.1.6, Soil Restoration of the NYS Stormwater Management Design Manual, dated January 2015.

Table 5 provides the soil restoration requirements for various types of soil disturbance. Grading and soil restoration requirements shall be in accordance with the construction drawings.

**Table 5 – Soil Restoration Requirements**

Type of Soil Disturbance	Soil Restoration Requirement		Comments/Examples
No Soil Disturbance	Restoration not permitted.		Preservation of natural features.
Minimal Soil Disturbance	Restoration not required.		Clearing and grubbing.
Areas where topsoil is stripped only – no change in grade	HSG A & B	HSG C & D	Protect areas from any ongoing construction activities.
	Apply 6 inches of topsoil	Aerate* and apply 6 inches of topsoil	
Areas of cut or fill	HSG A & B	HSG C & D	None

	Aerate and apply 6 inches of topsoil	Apply full soil restoration**	
Heavy traffic areas on site (especially within 5-25 feet of buildings but not within a 5-foot perimeter around foundation walls)	Apply full soil restoration (de- compaction and compost enhancement)		None
Areas where runoff reduction and/or infiltration practices are applied	Restoration not required but may be applied to enhance the reduction specified for appropriate practices.		Keep construction equipment away from crossing these areas.

\* Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler.

\*\* Per "Deep Ripping and De-compaction, DEC 2008"



## 4.0 STORMWATER MANAGEMENT DESIGN

The design described herein is in conformance with the sizing criteria outlined in the Permit, and the performance criteria provided in New York State Stormwater Management Design Manual (SMDM). The SMDM outlines provisions for water quality, runoff reduction, channel protection, overbank flood control, and extreme flood management in the State of New York.

The design objectives are focused on water quality and quantity. Utilization of green infrastructure techniques to the maximum extent possible reduces the total water quality volume and the overall site runoff volume. Additional structural SMPs may be required to maintain the pre-development rate of runoff in order to minimize impacts to adjacent or downstream properties, but only after all other techniques to reduce runoff have been exhausted or deemed infeasible.

### 4.1 STORMWATER MANAGEMENT PRACTICES (SMPS)

The SWPPP and construction drawings identify the stormwater management practices that have been incorporated into the design of this Project. Stormwater runoff from the proposed development will be collected and conveyed to the quantity and quality control systems described herein.

#### 4.1.1 Preservation of Undisturbed Areas & Buffers

Important natural features and areas such as undisturbed forested and native vegetated areas, natural terrain, riparian corridors, wetlands and other important site features have been delineated and placed into permanent conservations areas. These areas are shown on the construction drawings as delineated wetlands and remain outside the limits of disturbance.

#### 4.1.2 Reduction of Clearing & Grading

Clearing and grading of the site has been limited to the minimum amount needed for the development function, road access, and infrastructure. No tree clearing is proposed. Limits of disturbance have been established for all development activities.

#### 4.1.3 Locating Development in Less Sensitive Areas

The site layout has been located to avoid sensitive resource areas such as floodplains, mature forests, wetlands, critical habitat areas, and excessive slopes. There are no mapped 100-year or 500-year floodplains on this Site. See Appendix D for the FEMA Flood map.

#### 4.1.4 Reduction of Impervious Cover

Reduction of impervious cover utilized in this design includes methods to reduce the amount of parking lots, roadways, and other surfaces that do not allow rainfall to infiltrate the soil, in order to reduce the volume of stormwater runoff, increase groundwater recharge, and reduce pollutant loadings that are generated from a site.

The proposed access road design includes a Geoweb® system that is considered as a pervious surface, since the material allows stormwater to flow into the void space and gravel, then infiltrate

into the existing subsurface. The remaining areas impervious areas on-Site are limited to the proposed gravel/concrete equipment pads and chain-link fence post footings. The total increase in impervious cover on-Site is calculated to be approximately 0.103 acres.

#### 4.1.5 Vegetated Filter Strips

Vegetated filter strips are used to slow and treat the stormwater runoff for a portion of the site. The filter strip is a vegetated surface designed to treat sheet flow from the adjacent drainage area and remove pollutants through filtration and infiltration. Vegetated filter strips will be incorporated into the final SWPPP to treat runoff from the two concrete equipment pads.

Areas draining by sheet flow to a filter strip can be subtracted from the total contributing drainage area for water quality volume calculations. If the area draining contains impervious surface, the runoff reduction volume is reduced as well.

The New York SMDM specifies the minimum width of a vegetated filter strip to be 50 feet (for slopes of 0% to 8%). For the northern equipment pad situated within Type C soils, the filter strip will be extended by 15% for a total length of 57.5 feet. Furthermore, the first 10 feet of the filter strips shall be graded less than 2%, while the overall slope of the filter strip shall be less than 8%.

A pea-gravel diaphragm or riprap will be installed at the top of the slope of the filter strips receiving runoff from the adjacent equipment pads to promote sheet flow. A 2-inch drop is specified from the edge of the road to the top of the gravel diaphragm to prevent runoff from moving laterally along the pavement edge and bypassing the filter strip. A permeable berm is proposed at the toe of the filter strip to create a shallow ponding area. The media for the berm and gravel diaphragm, along with design specifications will be included in the final construction documents.

Compost soil amendments shall extend over the full length and width of the filter strip. The required depth of compost and specifications shall be in accordance with Section 5.3.2 of the New York SMDM. Rake the amended area to achieve the most level slope possible without using heavy construction equipment and stabilize rapidly with perennial grass and/or herbaceous species.

Soil compaction or disturbance in the area of the proposed filter strip should be minimized to the extent practicable. If this is unavoidable, the area should be restored by tilling or otherwise reestablishing the soil permeability.

#### 4.1.6 Disconnection of Non-rooftop Runoff

Due to the nature of ground mounted solar system installation, the solar panels themselves are not considered to contribute to the amount of impervious area provided they are designed as a non-rooftop disconnection. The memorandum from the NYSDEC dated February 21, 2020 provides guidance for solar panel construction stormwater permitting. This Project falls under scenario 2 which requires post-construction stormwater practices to be designed in accordance with chapter 4 of the SMDM. However, the water quality volume and runoff reduction volume sizing criteria can be addressed by design and constructing the solar panels in accordance with the criteria in items 1-4, which are summarized below.



1. Solar panels are constructed on post or rack systems elevated off the ground surface.
2. The panels are spaced apart so that rainwater can flow off the down gradient side of the panel and continue as sheet flow across the ground surface.
3. For solar panels constructed on slopes, the individual rows of solar panels are generally installed along the contour so rainwater sheet flows down slope.
4. The ground surface below the panels consist of a well-established vegetative cover (see "Final Stabilization" definition in Appendix A of the General Permit)

Items 2 & 3 reference the Maryland Department of the Environment's stormwater design guidance for solar panel installations. Due to the steep slopes on-Site exceeding the limitations within the provided guidance, hydroseeding with tackifier and compost filter socks are proposed to ensure vegetated cover can be well established in areas that have been disturbed during construction. Due to the nature of the panel rows being installed at an angle to the contour, flow spreaders at the edge of the drip line are not proposed in order to avoid channeling the runoff from the panels and disrupting the existing hydrology and natural drainage paths of the Site. Tetra Tech has observed previously constructed solar projects on slopes exceeding 10% that have not displayed signs of erosion at the drip edge. However, permanent reinforced turf matting may be installed during construction in areas with excessive slopes where adequate ground cover cannot be established.

## 4.2 DRAINAGE AREAS

The study area for this Project consists of seven drainage areas that encompass approximately 41.60 acres. These drainage areas discharge separate outfall locations, each defined as a Design Point (DP).

The separation of the drainage areas was dictated by watershed conditions, methods of collection, conveyance, and points of discharge. Watershed characteristics for each drainage area were assessed using aerial photographs, a topographical survey, soil surveys, Site investigations, and land use maps.

Table 6 summarizes the location and acreage for each of the drainage areas.

**Table 6 – Summary of Drainage Areas**

Drainage Area	Acreage	Description
1	11.02	Drainage occurs from the north to the south, in the western portion of the site, and discharges to a low point along the northern edge of Kane Road. This drainage area includes the pervious access road, solar panels, and a 0.05-acre equipment pad.
2	12.40	Drainage occurs from north to south and discharges to another low point along the north side of Kane Road. This drainage area also contains solar panels, a small section of woods, and undisturbed pasture.

3	1.15	Drainage generally occurs from north to southeast and discharges to a natural channel along the eastern portion of the property. This drainage area contains solar panels and woods.
4	0.88	Drainage occurs from north south and discharges to an undisturbed wooded area on the southern portion of the site. This drainage area primarily includes wooded areas.
5	6.45	Drainage generally occurs from west to east and discharges to a natural channel along the eastern boundary of the Property. This drainage area contains solar panels, undisturbed pasture, and wooded areas.
6	3.69	Drainage occurs from west to east and discharges to an existing wetland situated within the central portion of the Property. This drainage area largely includes undisturbed pasture, wooded areas, and small portion of solar panels.
7	6.27	Drainage occurs from north to south and discharges to an existing wetland/pond along the western portion of the Property. This drainage area includes solar panels, wooded areas, the pervious access road, a 0.05-acre equipment pad, and undisturbed pasture.

Drainage maps are provided in Appendix F and depict the extent of the drainage areas, the locations of the design points, the flow paths and routing, and the soils within each drainage area for both pre-development and post-development conditions.

### 4.3 STORMWATER QUALITY CONTROL

Stormwater runoff from impervious surfaces is recognized as a significant contributor of pollution that can adversely affect the quality of the receiving water bodies. Therefore, treatment of stormwater runoff is important since most runoff related water quality contaminants are transported from land, particularly the impervious surfaces, during the initial stages of storm events.

The objective for this design in accordance with the Permit is to reduce the total water quality volume of the Site by application of runoff reduction techniques and standard SMPs with runoff reduction volume capacity. The NYS SMDM provides a unified approach for calculating the water quality volume, runoff reduction volumes, and sizing green infrastructure and SMPs to meet pollutant removal goals.

#### 4.3.1 Water Quality Volume (WQ<sub>v</sub>)

The Water Quality Volume (WQ<sub>v</sub>) is intended to improve water quality by capturing and treating runoff from small, frequent storm events that tend to contain higher pollutant levels. New York has defined the WQ<sub>v</sub> as the volume generated from the 90<sup>th</sup> percentile rain event.

The following equation is used to determine the water quality volume (in acre-feet of storage):

$$WQ_v = \frac{(P)(R_v)(A)}{12}$$

Where:



WQ <sub>v</sub>	=	Water Quality Volume (acre-feet)
P	=	90% Rainfall Event Number (Figure 4.1 in NYS SMDM)
R <sub>v</sub>	=	0.05 + 0.009(I), where I is percent impervious cover
A	=	Site contributing area (acres)

Drainage Areas 2 through 6 contain solar panels and pervious access roads and have been excluded from these calculations as the runoff reduction technique and guidance discussed in Section 4.1.6 satisfies the requirement for water quality volume. While Drainage Areas 1 and 7 each include a 0.05-acre concrete equipment pad, vegetated filter strips will be incorporated into the final design to provide water quality treatment. Additionally, portions of the drainage areas that are not altered from pre- to post-development conditions have not been included in these calculations.

Full calculations are provided in Appendix G. Runoff reduction techniques previously discussed that help to reduce the overall contributing area have been accounted for in this calculation and are summarized in Table 7.

#### 4.3.2 Runoff Reduction Volume (RR<sub>v</sub>)

The NYS SMDM states that runoff reduction shall be achieved by infiltration, groundwater recharge, reuse, recycle, or evaporation/evapotranspiration of 100 percent of the post-development water quality volume to the maximum extent practical. If the runoff reduction volume (RR<sub>v</sub>) is greater than the WQ<sub>v</sub>, then the Project has already met the requirement for WQ<sub>v</sub> by applying runoff reduction techniques.

Projects that do not achieve runoff reduction requirements must, at a minimum, reduce a percentage of the runoff from impervious areas to be constructed on the Site. In no case shall the runoff reduction achieved be less than the minimum RR<sub>v</sub>.

The percent reduction is based upon the Hydrologic Soil Group (HSG) of the Site and is defined as the Specific Reduction Factor (S). Section 4.3 of the NYS SMDM defines the minimum Runoff Reduction Volume (RR<sub>vmin</sub>) as:

$$RR_{vmin} = \frac{(P)(\bar{R}_v^*)(A_{ic})(S)}{12}$$

Where:

RR <sub>vmin</sub>	=	Minimum Runoff Reduction Volume required (acre-feet)
P	=	90 percent Rainfall Event Number
$\bar{R}_v^*$	=	0.05 + 0.009 (I), where I is 100% impervious
A <sub>ic</sub>	=	Total Area of New Impervious Cover (Acres)
S	=	HSG Specific Reduction Factor where:

HSG A = 0.55

HSG C = 0.30

HSG B = 0.40

HSG D = 0.20

The  $RR_v$  provided and the  $RR_{vmin}$  are calculated in the Runoff Reduction Worksheet provided by NYSDEC. Full calculations are provided in Appendix G and summarized in Table 7.

The minimum runoff reduction volume is 132 cubic feet. The runoff reduction volume for each of the SMPs utilized in this Project are summarized in Table 7.

### 4.3.3 Summary

The following table summarizes the green infrastructure practice that has been implemented for each drainage area to meet the water quality volume requirements. As shown, the water quality requirements have been satisfied through the implementation of runoff reduction techniques.

As shown, the water quality requirements have been satisfied through the implementation of runoff reduction techniques and standards SMPs.

**Table 7** – Summary of the Water Quality Volume ( $WQ_v$ ) Calculations

Drainage Areas	$WQ_v$ (cf)	Runoff Reduction Technique(s)	$RR_v$ (cf)	$WQ_v$ Treated (cf)
1	190	Vegetated Filter Strip & Non-Rooftop Disconnection	--	--
2 – 6	--	No Impervious Surfaces Proposed	--	--
7	190	Vegetated Filter Strip & Non-Rooftop Disconnection	--	--
* $WQ_v$ adjusted after application of area reduction techniques.				

## 4.4 STORMWATER QUANTITY CONTROL

This section presents the methodology and analysis performed for the pre- and post-development conditions of the Site to address erosion and flood control during specified storm events.

### 4.4.1 Hydrologic & Hydraulic Analysis

HydroCAD® Storm and Sanitary Analysis, a comprehensive hydrology and hydraulic analysis application, was used to compute the stormwater peak discharge rate at the drainage area outfalls for each storm event. A stormwater network model was produced consisting of three types of components as described below:

- **Subbasin:** Hydrologic areas of land whose topography and drainage system elements direct surface runoff to a single discharge point.
- **Conveyance Link:** Channels, pipes and culverts used to route the stormwater runoff to various features.



- **Storage Nodes:** Catch basins, detention ponds, reservoirs and lakes associated with storage volume.

A comparison of the pre- and post-development watershed conditions was performed for all design points and storm events evaluated herein.

The hydrologic and hydraulic analysis considers the SCS Type II 24-hour storm events and uses TR-20 methodology. The TR-55 method is used for calculating the time of concentration ( $T_c$ ). Input data required to perform the analysis includes acreages and curve numbers for the associated drainage areas, and slopes and flow lengths for the time of concentration calculations.

The analyses demonstrate that the peak rate of runoff will not be increased post-development for each design point and design storm. While there is a slight increase in the runoff rate from Design Point 7 in the post-construction condition, the flow increase is limited to 0.47% for the 100-year storm and is considered insignificant. Therefore, the Project will not have a significant adverse impact on the adjacent or downstream properties or receiving water courses.

The results of the computer modeling used to analyze the pre- and post-development conditions are presented in Appendix H and Appendix I, respectively. Tables 8 & 9 summarize the results.

**Table 8 – Summary of Pre-Development & Post-Development Peak Discharge Rates**

Design Point (DP #)	24-Hour Storm Event (cfs)					
	1-year		10-year		100-year	
	Pre	Post	Pre	Post	Pre	Post
1	0.83	0.26	8.16	5.56	27.37	22.22
2	0.44	0.20	7.13	5.23	26.65	22.30
3	0.01	0.01	0.53	0.47	2.37	2.29
4	0.00	0.00	0.29	0.22	1.79	1.48
5	1.92	1.68	8.40	8.01	22.42	21.99
6	0.22	0.22	2.71	2.71	9.49	9.49
7	<b>2.21</b>	<b>2.22</b>	<b>8.35</b>	<b>8.39</b>	<b>21.25</b>	<b>21.35</b>
<b>Total</b>	<b>5.63</b>	<b>4.59</b>	<b>35.57</b>	<b>30.59</b>	<b>111.34</b>	<b>101.12</b>

**Table 9 – Summary of Pre-Development & Post-Development Runoff Volume**

Design Point (DP #)	24-Hour Storm Event (acre-feet)					
	1-year		10-year		100-year	
	Pre	Post	Pre	Post	Pre	Post
1	0.149	0.099	0.645	0.522	1.868	1.639
2	0.126	0.093	0.618	0.533	1.887	1.725
3	0.007	0.006	0.047	0.043	0.156	0.149
4	0.002	0.002	0.025	0.025	0.098	0.098
5	0.165	0.150	0.540	0.511	1.368	1.321
6	0.044	0.044	0.202	0.202	0.599	0.599
7	<b>0.190</b>	<b>0.191</b>	<b>0.580</b>	<b>0.583</b>	<b>1.416</b>	<b>1.422</b>
<b>Total</b>	<b>0.683</b>	<b>0.585</b>	<b>2.657</b>	<b>2.419</b>	<b>7.392</b>	<b>6.953</b>

Tables 8 & 9 show that overall post-development runoff rates and volumes for the 1-year, 10-year, and 100-year 24-hour storm events are less than the pre-development condition.

#### 4.4.2 Stream Channel Protection Volume ( $C_{pv}$ )

The stream channel protection volume requirement is designed to protect stream channels from erosion. This is accomplished by providing 24 hours of extended detention for the 1 year, 24-hour storm event, remaining from runoff reduction. The NYS SMDM defines the  $C_{pv}$  detention time as the center of mass detention time through each stormwater management practice.

The  $C_{pv}$  requirement does not apply when the reduction of the entire  $C_{pv}$  is achieved at a site through green infrastructure or infiltration systems. This reduction is shown in Table 8.

#### 4.4.3 Overbank Flood Control ( $Q_p$ )

The overbank flood control requirement is designed to prevent an increase in the frequency and magnitude of flow events that exceed the bank-full capacity of a channel, and, therefore, must spill over into the floodplain. The control requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate ( $Q_p$ ) to pre-development rates.

Table 8 shows the results of the 24-hour, 10-year storm event for pre- and post-development.

#### 4.4.4 Extreme Flood Control ( $Q_f$ )

The extreme flood control requirement is designed to prevent the increased risk of flood damage from large storm events, to maintain the boundaries of the pre-development 100-year floodplain, and to protect the physical integrity of stormwater management practices. The control requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate ( $Q_f$ ) to pre-development rates.

Table 8 shows the results of the 24-hour, 100-year storm event for pre- and post-development.



## 5.0 SPILL PREVENTION & SOLID WASTE MANAGEMENT

The following describes other control measures to be employed during all phases of construction.

### 5.1 SPILL PREVENTION & RESPONSE

A Spill Prevention and Response Plan shall be developed for the Site by the Contractor. The plan shall detail the steps needed to be followed in the event of an accidental spill and shall identify contact names and phone numbers of people and agencies that must be notified.

The plan shall include Safety Data Sheets (SDS) for materials to be stored on-Site. Workers on-Site will be required to be trained on safe handling and spill prevention procedures for all materials used during construction.

The use of detergents for large scale washing is prohibited (e.g., vehicles, buildings, pavement surfaces, etc.).

In accordance with the United States Environmental Protection Agency's (USEPA) Clean Water Act, the Oil Pollution Prevention Regulations, 40 CFR, Part 112, a Spill Prevention, Control and Countermeasures (SPCC) Plan may be required for the subject Site. This SWPPP does not include a SPCC Plan. Should the oil storage capacity at the Site meet or exceed regulatory standards, the Contractor shall provide a compliant SPCC Plan.

### 5.2 SOLID & LIQUID WASTE DISPOSAL

No solid or liquid waste, including building materials, are allowed to be discharged from the Site with stormwater. All solid waste, including disposable materials incidental to the major construction activities, must be collected and placed in containers. The containers shall be emptied periodically by a licensed solid waste disposal service and hauled away from the Site and disposed at a permitted facility.

Substances that have the potential for polluting surface and/or groundwater must be controlled by whatever means necessary in order to ensure that they do not discharge from the Site. As an example, special care must be exercised during equipment fueling and servicing operations. A designated refueling area will be provided that will allow for appropriate containment; however, if a spill occurs, it must be contained and disposed so that it will not flow from the Site or enter groundwater, even if this requires removal, treatment, and disposal of soil. In this regard, potentially polluting substances should be handled in a manner consistent with the impact they represent.

#### 5.2.1 Sanitary Facilities

Temporary sanitary facilities will be provided throughout the construction phase. These facilities will be utilized by construction personnel and will be serviced by an outside contractor. These facilities shall comply with state and local sanitary or septic system regulations.

### 5.2.2 Water Source

Non-stormwater components of Site discharge must be clean water. Water used for construction, which discharged from the Site, must originate from a public water supply or private well approved by the Montgomery County Health Department. Water used for construction that does not originate from an approved public supply must not discharge from the Site. It can be retained until it infiltrates and evaporates.

PRELIMINARY



## 6.0 INSPECTION & MAINTENANCE REQUIREMENTS

### 6.1 PRE-CONSTRUCTION INSPECTION

Prior to the commencement of construction, the Owner or Operator must identify the Contractor(s) and Subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the Contractor(s) and Subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The Owner or Operator shall have each of the Contractors and Subcontractors identify at least one (1) person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the Trained Contractor as defined in Appendix A of the General Permit GP-0-020-001, who shall be on site on a daily basis when soil disturbance activities are being performed.

The responsible Contractor or Subcontractor shall sign the form included in Appendix L.

A Qualified Inspector shall conduct an assessment of the Site and certify that the appropriate erosion and sediment control structures have been adequately installed and implemented. Refer to the inspection forms in Appendix M.

### 6.2 CONSTRUCTION PHASE INSPECTIONS & MAINTENANCE

A Qualified Inspector, as defined in Appendix A of the General Permit GP-0-020-001, shall conduct weekly Site inspections between the time the SWPPP is implemented and final site stabilization. To ensure the stability and effectiveness of all protective measures and practices during construction, all erosion and sediment control measures employed will be inspected by the Qualified Inspector at least every 7 calendar days. If disturbance exceeds 5 acres, the Qualified Inspector shall conduct at least two inspections every 7 calendar days. The two inspections shall be separated by a minimum of two full calendar days.

The purpose of Site inspections is to assess performance of pollutant controls. Based on these inspections, the Qualified Inspector shall decide whether it is necessary to modify this SWPPP, add or relocate sediment barriers, or whatever else may be needed in order to prevent pollutants from leaving the Site via stormwater runoff. The Construction Contractor has the duty to cause pollutant control measures to be repaired, modified, maintained, supplemented, or whatever else is necessary in order to achieve effective pollutant control.

Examples of particular items to evaluate during Site inspections are listed below. This list is not intended to be comprehensive. During each inspection the inspector must evaluate overall pollutant control system performance as well as particular details of individual system components. Additional factors should be considered as appropriate to the circumstances.

- Locations where vehicles enter and exit the Site must be inspected for evidence of off-site sediment tracking. A stabilized construction entrance will be constructed where vehicles enter and exit. This entrance will be maintained or supplemented as necessary to prevent sediment from leaving the Site on vehicles.

- Sediment barriers must be inspected and, if necessary, they must be enlarged or cleaned in order to provide additional capacity. All material from behind sediment barriers will be stockpiled on the up-slope side. Additional sediment barriers must be constructed as needed.
- Inspections will evaluate disturbed areas and areas used for storing materials that are exposed to rainfall for evidence of, or the potential for, pollutants entering the drainage system. If necessary, the materials must be covered, or original covers must be repaired or supplemented. Also, protective berms must be constructed, if needed, in order to contain runoff from material storage areas.
- Grassed areas will be inspected to confirm that a healthy stand of grass is maintained. The Site will be considered to have achieved final stabilization once all areas are covered with building foundation, pavement, or gravel, or have a stand of grass with at least 80 percent density, which is considered stabilized or mulched. Areas must be watered, fertilized, and reseeded as needed to achieve this goal.
- All discharge points must be inspected to determine whether erosion control measures are effective in preventing significant impacts to receiving waters.

Within 1 business day of the completion of an inspection, the Qualified Inspector shall notify the Owner or Operator and appropriate contractor (or subcontractor) of any corrective actions that need to be taken. The Contractor (or subcontractor) shall begin implementing corrective actions within 1 business day of this notification and shall complete the corrective actions in a reasonable time frame.

In addition to the inspections performed by the Qualified Inspector, the Contractor shall perform routine inspections that include a visual check of all erosion and sediment control measures. All inspections and maintenance shall be performed in accordance with the inspection and maintenance schedule provided on the Drawings. Sediment removed from erosion and sediment control measures will be exported from the Site, stockpiled for later use, or used immediately for general non-structural fill.

It is the responsibility of the Contractor to assure the adequacy of Site pollutant discharge controls. Actual physical Site conditions or contractor practices could make it necessary to install more erosion and sediment controls than shown on the attached Drawings. (For example, localized concentrations of runoff could make it necessary to install additional sediment barriers.) Assessing the need for additional controls and implementing them or adjusting existing controls will need to be addressed throughout all aspects of this Project, and until the Site achieves final stabilization.

### **6.3 INSPECTION & MAINTENANCE REPORTS**

Inspection reports must be completed for every inspection conducted and include additional remarks if needed to fully describe a situation. An important aspect of the inspection report is the description of additional measures that need to be taken to enhance plan effectiveness. The inspection report must identify whether the Site was in compliance with the SWPPP at the time of inspection and specifically identify all incidents of non-compliance.



Sample inspection forms are included in Appendix M. At a minimum, the inspection report shall include and/or address the following:

- Date and time of inspection;
- Name and title of person(s) performing inspection;
- A description of the weather and soil conditions (e.g., dry, wet, saturated) at the time of the inspection;
- A description of the condition of the runoff at all points of discharge from the construction Site. This shall include identification of any discharges of sediment from the construction Site. Include discharges from conveyance systems (e.g., pipes, culverts, ditches, etc.) and overland flow;
- Identification of all erosion and sediment control practices that need repair or maintenance;
- Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
- Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection;
- Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
- Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices, and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s); and
- Include color photographs with date stamp, taken with a digital camera that clearly show the condition of all practices that have been identified as needing corrective actions. Color copies of photographs shall be attached to the inspection report within 7 calendar days of inspection. Color photographs with date stamp, taken with a digital camera must clearly show the condition of practice(s) after the corrective action has been completed. Color copies of the photographs, that document completion of the corrective action work within 7 calendar days of inspection, shall be attached to inspection report.

**All inspection reports shall be signed by the Qualified Inspector and shall be maintained on Site with the SWPPP, kept in Appendix N.**

## **6.4 TEMPORARY SUSPENSION OF CONSTRUCTION ACTIVITIES**

For constructions areas where soil disturbance activities have been temporarily suspended (e.g., winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the frequency of Qualified Inspector inspections can be reduced to once every 30 calendar days.

Prior to reducing the frequency of inspections, the Owner/Operator shall notify the NYSDEC Division of Water in writing.

## 6.5 PARTIAL PROJECT COMPLETION

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For construction areas where soil disturbance activities have been shut down with partial project completion, the Qualified Inspector can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved final stabilization and all post-construction stormwater management practices required for the completed portion of the Project have been constructed in conformance with the SWPPP and are operational. The Owner or Operator shall notify the NYSDEC Region 6 Water (SPDES) Program contact in writing prior to the shutdown.

If soil disturbance activities are not resumed within 2 years from the date of shutdown, the Owner or Operator shall have the Qualified Inspector perform a final inspection and certify that all disturbed areas have achieved final stabilization, and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice" certification statements on the Notice of Termination (NOT).

## 6.6 POST-CONSTRUCTION OR PLANNED SHUTDOWN INSPECTION

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The Owner or Operator shall have the Qualified Inspector perform a final Site inspection prior to submitting the NOT when all disturbed areas are stabilized, and all stormwater management systems are in place and operable. The Qualified Inspector shall certify that all disturbed areas have achieved final stabilization; and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice" certification statements on the NOT.

Prior to submitting the NOT, the Owner or Operator must have a deed restriction in place to ensure that the Operation and Maintenance Plan is implemented for the post-construction stormwater management practices.

## 6.7 RETENTION OF RECORDS

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The Owner or Operator shall retain a copy of the Notice of Intent (NOI), NOI Acknowledgment Letter, SWPPP, and any inspection reports that were prepared in conjunction with this permit for a period of at least 5 years from the date that the Site achieves final stabilization. This period may be extended by the NYSDEC, in its sole discretion, at any time upon written notification.

With the exception of the NOI, and NOT, all written correspondence requested by the NYSDEC, including individual permit applications, shall be sent to the following NYSDEC address:

NYSDEC Region 4 Headquarters  
1130 N. Westcott Road  
Schenectady, NY 12306



## 7.0 CONCLUSION

This Project is not subject to the requirements of a regulated Municipal Separate Storm Sewer System (MS4), and this SWPPP has been prepared in conformance with the New York State Stormwater Design Manual 2015 with additional guidance provided by the NYSDEC. As such, it is anticipated that GP-0-20-001 coverage will be effective 5 business days from the date the NYSDEC receives the complete electronic version of the NOI (eNOI) or 10 business days from the date the NYSDEC receives the complete paper version of the NOI, unless notified otherwise by the NYSDEC.

Following construction of the Project, the Site soils shall be restored in accordance with Section 5.1.6 of the NYS SMDM, and re-vegetation shall be implemented.

The post-construction stormwater management practice(s) will be owned by the Owner. Policies and procedures will be put in place that ensure that operation and maintenance of the practice(s) are in accordance with the operation and maintenance plan.

As demonstrated within this SWPPP, the proposed Project will not adversely impact adjacent or downstream properties.

## 8.0 LIMITATIONS

The work product included in this report was undertaken in full conformity with generally accepted professional consulting principles and practices and to the fullest extent as allowed by law we expressly disclaim all warranties, express or implied, including warranties of merchantability or fitness for a particular purpose. The work product was completed in full conformity with the contract with our client and this document is solely for the use and reliance of our client (unless previously agreed upon that a third party could rely on the work product) and any reliance on this work product by an unapproved outside party is at such party's risk.

The work product herein (including opinions, conclusions, suggestions, etc.) was prepared based on the situations and circumstances as found at the time, location, scope and goal of our performance and, thus, should be relied upon and used by our client recognizing these considerations and limitations. Tetra Tech shall not be liable for the consequences of any change in environmental standards, practices, or regulations following the completion of our work and there is no warrant to the veracity of information provided by third parties, or the partial utilization of this work product.



## 9.0 REFERENCES

NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity, Permit No. GP-0-20-001 (effective January 29, 2020, expires January 28, 2025).

New York State Department of Environmental Conservation, Stormwater Toolbox, from World Wide Web: <http://www.dec.ny.gov/>.

New York State Department of Environmental Conservation, Memorandum "Solar Panel Construction Stormwater Permitting/SWPPP Guidance" (February 21, 2020).

New York State Stormwater Management Design Manual (January 2015).

New York State Standards and Specifications for Erosion and Sediment Control, NYSDEC (November 2016).

Maryland Department of the Environment Stormwater Design Guidance – Solar Panel Installations.

Virginia Department of Environmental Quality Stormwater Design Specification No. 2, Sheetflow to a Vegetated Filter Strip or Conserved Open Space, Version 1.9 (March 1, 2011).

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## APPENDIX A – CONSTRUCTION DRAWINGS

Refer to the 30% civil design set issued for discretionary permitting. Construction drawings will be attached and included in the final SWPPP prior to construction.

PRELIMINARY



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**APPENDIX B – NYSDEC GENERAL PERMIT FOR STORMWATER  
DISCHARGES FROM CONSTRUCTION ACTIVITY PERMIT NO. GP-0-20-  
001**

PRELIMINARY



Department of  
Environmental  
Conservation

NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT  
FOR STORMWATER DISCHARGES

From

**CONSTRUCTION ACTIVITY**

Permit No. GP- 0-20-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70  
of the Environmental Conservation Law

Effective Date: January 29, 2020

Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator

A handwritten signature in black ink, appearing to be "John J. Ferguson", written over a horizontal line. The signature is stylized and cursive.

Authorized Signature

1-23-20

Date

Address: NYS DEC  
Division of Environmental Permits  
625 Broadway, 4th Floor  
Albany, N.Y. 12233-1750



## PREFACE

Pursuant to Section 402 of the Clean Water Act (“CWA”), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System (“NPDES”)* permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of “*construction activity*”, as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

**\*Note: The italicized words/phrases within this permit are defined in Appendix A.**

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM  
CONSTRUCTION ACTIVITIES**

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## Part 1. PERMIT COVERAGE AND LIMITATIONS

### A. Permit Application

This permit authorizes stormwater *discharges to surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;
2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants to surface waters of the State*.
3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

### B. Effluent Limitations Applicable to Discharges from Construction Activities

*Discharges* authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement and maintain control measures to *minimize the discharge of pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in the *Stormwater Pollution Prevention Plan* (“SWPPP”) the reason(s) for the



deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

- a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge of pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:
- (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharges*;
  - (ii) Control stormwater *discharges*, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;
  - (iii) *Minimize* the amount of soil exposed during *construction activity*;
  - (iv) *Minimize* the disturbance of *steep slopes*;
  - (v) *Minimize* sediment *discharges* from the site;
  - (vi) Provide and maintain *natural buffers* around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharges*, unless *infeasible*;
  - (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;
  - (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and
  - (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.
- b. **Soil Stabilization.** In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments

listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

- c. **Dewatering.** *Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, must be managed by appropriate control measures.*
- d. **Pollution Prevention Measures.** Design, install, implement, and maintain effective pollution prevention measures to *minimize the discharge of pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:
  - (i) *Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;*
  - (ii) *Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and*
  - (iii) *Prevent the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.*
- e. **Prohibited Discharges.** The following *discharges* are prohibited:
  - (i) *Wastewater from washout of concrete;*
  - (ii) *Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;*



- (iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;
  - (iv) Soaps or solvents used in vehicle and equipment washing; and
  - (v) Toxic or hazardous substances from a spill or other release.
- f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

### **C. Post-construction Stormwater Management Practice Requirements**

1. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual (“Design Manual”), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices (“SMPs”) are not designed in conformance with the *performance criteria* in the Design Manual, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
2. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

#### **a. Sizing Criteria for New Development**

- (i) Runoff Reduction Volume (“RRv”): Reduce the total Water Quality Volume (“WQv”) by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.
- (ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

**In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual.**

The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume (“Cpv”): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
  - (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
  - (2) The site discharges directly to tidal waters, or fifth order or larger streams.
- (iv) *Overbank* Flood Control Criteria (“Qp”): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
  - (1) the site discharges directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.
- (v) Extreme Flood Control Criteria (“Qf”): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
  - (1) the site discharges directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.

**b. Sizing Criteria for New Development in Enhanced Phosphorus Removal Watershed**

- (i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (WQv) by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be



calculated in accordance with the criteria in Section 10.3 of the Design Manual.

- (ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv shall be documented in the SWPPP. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible*.

**In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 10.3 of the Design Manual.** The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
  - (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
  - (2) The site *discharges* directly to tidal waters, or fifth order or larger streams.
- (iv) Overbank Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
  - (1) the site *discharges* directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.
- (v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
  - (1) the site *discharges* directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.

### c. Sizing Criteria for Redevelopment Activity

- (i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.
  - (1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or
  - (2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or
  - (3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or
  - (4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above.

- (ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iii) Overbank Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site



**d. Sizing Criteria for Combination of Redevelopment Activity and New Development**

Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

**D. Maintaining Water Quality**

The Department expects that compliance with the conditions of this permit will control *discharges* necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any discharge to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;
2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and
3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the stormwater *discharges* authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standards*; the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this general permit and document in accordance with Part IV.C.4. of this general permit. To address the *water quality standard* violation the *owner or operator* may need to provide additional information, include and implement appropriate controls in the SWPPP to correct the problem, or obtain an individual SPDES permit.

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharges* authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharges* will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

## **E. Eligibility Under This General Permit**

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.
2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharges*; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.
3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: “Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned”; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharges* from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.
4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

## **F. Activities Which Are Ineligible for Coverage Under This General Permit**

All of the following are **not** authorized by this permit:

1. *Discharges* after *construction activities* have been completed and the site has undergone *final stabilization*;
2. *Discharges* that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;
3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;
4. *Construction activities* or *discharges* from *construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*



*operator* has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;
6. *Construction activities* for residential, commercial and institutional projects:
  - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
  - b. Which are undertaken on land with no existing *impervious cover*; and
  - c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.
7. *Construction activities* for linear transportation projects and linear utility projects:
  - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
  - b. Which are undertaken on land with no existing *impervious cover*; and
  - c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase "D" (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:
- a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.
    - 1-5 acres of disturbance - 20 feet
    - 5-20 acres of disturbance - 50 feet
    - 20+ acres of disturbance - 100 feet, or
  - b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
    - (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
    - (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
    - (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
    - (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or
  - c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:



- (i) No Affect
- (ii) No Adverse Affect
- (iii) Executed Memorandum of Agreement, or

d. Documentation that:

- (i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.

9. *Discharges from construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

## Part II. PERMIT COVERAGE

### A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.
2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the "MS4 SWPPP Acceptance" form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.
3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of Owner or Operator) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4*. This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

## **B. Notice of Intent (NOI) Submittal**

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (<http://www.dec.ny.gov/>). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

**NOTICE OF INTENT  
NYS DEC, Bureau of Water Permits  
625 Broadway, 4<sup>th</sup> Floor  
Albany, New York 12233-3505**

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.
3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.
4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

## **C. Permit Authorization**

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.
2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:
  - a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (<http://www.dec.ny.gov/>) for more information,
  - b. where required, all necessary Department permits subject to the *Uniform Procedures Act* ("UPA") (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators of construction activities* that are required to obtain UPA permits



must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

- c. the final SWPPP has been prepared, and
  - d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.
3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:
- a. For *construction activities* that are not subject to the requirements of a *regulated, traditional land use control MS4*:
    - (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or
    - (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;
    - (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

- b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:
  - (i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed “MS4 SWPPP Acceptance” form, or
  - (ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed “MS4 SWPPP Acceptance” form.
- 4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

#### **D. General Requirements For Owners or Operators With Permit Coverage**

- 1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination (“NOT”) has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.
- 2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor’s or subcontractor’s certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.
- 3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*



*use control MS4, the regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*). At a minimum, the *owner or operator* must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:

- a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
  - b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.
  - c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
  - d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.
  - e. The *owner or operator* shall include the requirements above in their SWPPP.
4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..
  5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.
  6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

*regulated, traditional land use control MS4* in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

#### **E. Permit Coverage for Discharges Authorized Under GP-0-15-002**

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of a *construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

#### **F. Change of Owner or Operator**

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4*, the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.
2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.
3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*



*operator* was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

### Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

#### A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.
2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.
3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.
4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:
  - a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

- b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;
  - c. to address issues or deficiencies identified during an inspection by the *qualified inspector*, the Department or other regulatory authority; and
  - d. to document the final construction conditions.
5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.
6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with



the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharges* from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

## **B. Required SWPPP Contents**

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:
  - a. Background information about the scope of the project, including the location, type and size of project

- b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge(s)*;
- c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);
- d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;
- e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;
- f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;
- g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;
- h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;
- i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection



schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

- j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the stormwater *discharges*;
  - k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and
  - l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

The post-construction stormwater management practice component of the SWPPP shall include the following:

- a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

- b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;
- c. A Stormwater Modeling and Analysis Report that includes:
  - (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;
  - (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;
  - (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;
  - (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;
  - (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and
  - (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;
- d. Soil testing results and locations (test pits, borings);
- e. Infiltration test results, when required; and
- f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.



3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria*, Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

### **C. Required SWPPP Components by Project Type**

Unless otherwise notified by the Department, *owners or operators of construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1 of this permit. *Owners or operators of the construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

## **Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS**

### **A. General Construction Site Inspection and Maintenance Requirements**

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.
2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

### **B. Contractor Maintenance Inspection Requirements**

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall

begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.
3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

### C. Qualified Inspector Inspection Requirements

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- licensed Professional Engineer,
  - Certified Professional in Erosion and Sediment Control (CPESC),
  - New York State Erosion and Sediment Control Certificate Program holder
  - Registered Landscape Architect, or
  - someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].
1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:
    - a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

- b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;
  - c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and
  - d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.
2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:
- a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.
  - b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
  - c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.



- d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization*, and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the “*Final Stabilization*” and “*Post-Construction Stormwater Management Practice*” certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.
  - e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
- 3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization*, all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.
  - 4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

- a. Date and time of inspection;
- b. Name and title of person(s) performing inspection;
- c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;
- d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
- e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;
- f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;
- g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
- h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;
- i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
- j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);
- k. Identification and status of all corrective actions that were required by previous inspection; and

- I. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.
6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

## **Part V. TERMINATION OF PERMIT COVERAGE**

### **A. Termination of Permit Coverage**

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.
2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:
  - a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;



- b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;
  - c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.
  - d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.
3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the “*Final Stabilization*” and “Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.
4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the “MS4 Acceptance” statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector’s* final site inspection certification(s) required in Part V.A.3. of this permit.
5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:
- a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

- b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),
- c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,
- d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

## **Part VI. REPORTING AND RETENTION RECORDS**

### **A. Record Retention**

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

### **B. Addresses**

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

## **Part VII. STANDARD PERMIT CONDITIONS**

### **A. Duty to Comply**

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

## **B. Continuation of the Expired General Permit**

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

## **C. Enforcement**

Failure of the *owner or operator*, its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

## **D. Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.



### **E. Duty to Mitigate**

The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

### **F. Duty to Provide Information**

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

### **G. Other Information**

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit, or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

### **H. Signatory Requirements**

1. All NOIs and NOTs shall be signed as follows:
  - a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

- (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
    - (ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
  - b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or
  - c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
    - (i) the chief executive officer of the agency, or
    - (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

superintendent, position of *equivalent* responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,

- c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.
3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.
4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person.

It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

## **I. Property Rights**

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

## **J. Severability**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

## **K. Requirement to Obtain Coverage Under an Alternative Permit**

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall



include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge(s)*, the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

#### **L. Proper Operation and Maintenance**

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

#### **M. Inspection and Entry**

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the owner's or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.
4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

## **N. Permit Actions**

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

## **O. Definitions**

Definitions of key terms are included in Appendix A of this permit.

## **P. Re-Opener Clause**

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.
2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

## **Q. Penalties for Falsification of Forms and Reports**

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

## **R. Other Permits**

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.



## **APPENDIX A – Acronyms and Definitions**

### **Acronyms**

APO – Agency Preservation Officer  
BMP – Best Management Practice  
CPESC – Certified Professional in Erosion and Sediment Control  
Cpv – Channel Protection Volume  
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)  
DOW – Division of Water  
EAF – Environmental Assessment Form  
ECL - Environmental Conservation Law  
EPA – U. S. Environmental Protection Agency  
HSG – Hydrologic Soil Group  
MS4 – Municipal Separate Storm Sewer System  
NOI – Notice of Intent  
NOT – Notice of Termination  
NPDES – National Pollutant Discharge Elimination System  
OPRHP – Office of Parks, Recreation and Historic Places  
Qf – Extreme Flood  
Qp – Overbank Flood  
RRv – Runoff Reduction Volume  
RWE – Regional Water Engineer  
SEQR – State Environmental Quality Review  
SEQRA - State Environmental Quality Review Act  
SHPA – State Historic Preservation Act  
SPDES – State Pollutant Discharge Elimination System  
SWPPP – Stormwater Pollution Prevention Plan  
TMDL – Total Maximum Daily Load  
UPA – Uniform Procedures Act  
USDA – United States Department of Agriculture  
WQv – Water Quality Volume

## Definitions

All definitions in this section are solely for the purposes of this permit.

**Agricultural Building** – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

**Agricultural Property** – means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State” prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

**Alter Hydrology from Pre to Post-Development Conditions** - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

**Combined Sewer** - means a sewer that is designed to collect and convey both “sewage” and “stormwater”.

**Commence (Commencement of) Construction Activities** - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for “*Construction Activity(ies)*” also.

**Construction Activity(ies)** - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

**Construction Site** – means the land area where *construction activity(ies)* will occur. See definition for “*Commence (Commencement of) Construction Activities*” and “*Larger Common Plan of Development or Sale*” also.

**Dewatering** – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

**Direct Discharge (to a specific surface waterbody)** - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

**Discharge(s)** - means any addition of any pollutant to waters of the State through an outlet or *point source*.

**Embankment** – means an earthen or rock slope that supports a road/highway.

**Endangered or Threatened Species** – see 6 NYCRR Part 182 of the Department’s rules and regulations for definition of terms and requirements.

**Environmental Conservation Law (ECL)** - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

**Equivalent (Equivalence)** – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

**Final Stabilization** - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

**General SPDES permit** - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

**Groundwater(s)** - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

**Historic Property** – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

**Impervious Area (Cover)** - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

**Infeasible** – means not technologically possible, or not economically practicable and achievable in light of best industry practices.



**Larger Common Plan of Development or Sale** - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term “plan” in “larger common plan of development or sale” is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

**Minimize** – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

**Municipal Separate Storm Sewer (MS4)** - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State;
- (ii) Designed or used for collecting or conveying stormwater;
- (iii) Which is not a *combined sewer*; and
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

**National Pollutant Discharge Elimination System (NPDES)** - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

**Natural Buffer** – means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

**New Development** – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.

**New York State Erosion and Sediment Control Certificate Program** – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

**NOI Acknowledgment Letter** - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

**Nonpoint Source** - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

**Overbank** –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

**Owner or Operator** - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

**Performance Criteria** – means the design criteria listed under the “Required Elements” sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf ) in Part I.C.2. of the permit.

**Point Source** - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be discharged.

**Pollutant** - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

**Qualified Inspector** - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

**Qualified Professional** - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

**Redevelopment Activity(ies)** – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

**Regulated, Traditional Land Use Control MS4** - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's



SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

**Routine Maintenance Activity** - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

**Site limitations** – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

**Sizing Criteria** – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank Flood* (Qp), and *Extreme Flood* (Qf).

**State Pollutant Discharge Elimination System (SPDES)** - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

**Steep Slope** – means land area designated on the current United States Department of Agriculture (“USDA”) Soil Survey as Soil Slope Phase “D”, (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

**Streambank** – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

**Stormwater Pollution Prevention Plan (SWPPP)** – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

**Surface Waters of the State** - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

**Temporarily Ceased** – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

**Temporary Stabilization** - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

**Total Maximum Daily Loads (TMDLs)** - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint sources*. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standards*, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint sources*, and a margin of safety (MOS).

**Trained Contractor** - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed

training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

**Uniform Procedures Act (UPA) Permit** - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

**Water Quality Standard** - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.



## APPENDIX B – Required SWPPP Components by Project Type

**Table 1**  
**Construction Activities that Require the Preparation of a SWPPP That Only**  
**Includes Erosion and Sediment Controls**

<p><b>The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:</b></p> <ul style="list-style-type: none"><li>• Single family home <u>not</u> located in one of the watersheds listed in Appendix C or <u>not directly discharging</u> to one of the 303(d) segments listed in Appendix E</li><li>• Single family residential subdivisions with 25% or less impervious cover at total site build-out and <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E</li><li>• Construction of a barn or other <i>agricultural building</i>, silo, stock yard or pen.</li></ul>
<p><b>The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:</b></p> <p>All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.</p>
<p><b>The following construction activities that involve soil disturbances of one (1) or more acres of land:</b></p> <ul style="list-style-type: none"><li>• Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains</li><li>• Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects</li><li>• Pond construction</li><li>• Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover</li><li>• Cross-country ski trails and walking/hiking trails</li><li>• Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;</li><li>• Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path.</li><li>• Slope stabilization projects</li><li>• Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics</li></ul>

**Table 1 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP  
THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS**

**The following construction activities that involve soil disturbances of one (1) or more acres of land:**

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State”, excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

**Table 2**  
**CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES**  
**POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES**

**The following construction activities that involve soil disturbances of one (1) or more acres of land:**

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development conditions*
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1



Table 2 (Continued)

**CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES  
POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES**

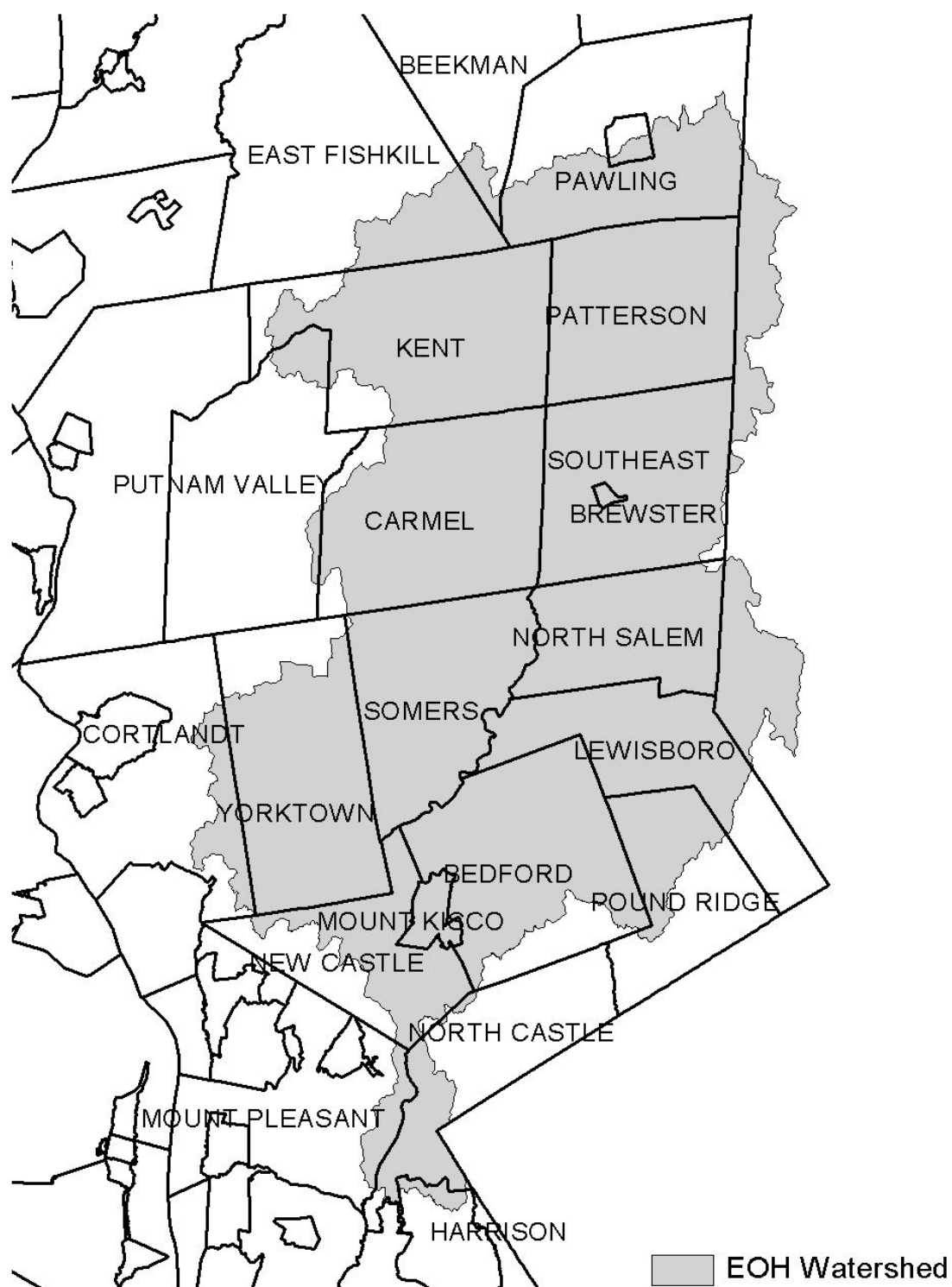
**The following construction activities that involve soil disturbances of one (1) or more acres of land:**

- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover*, and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development* conditions, and are not listed in Table 1

## APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

**Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual (“Design Manual”).**

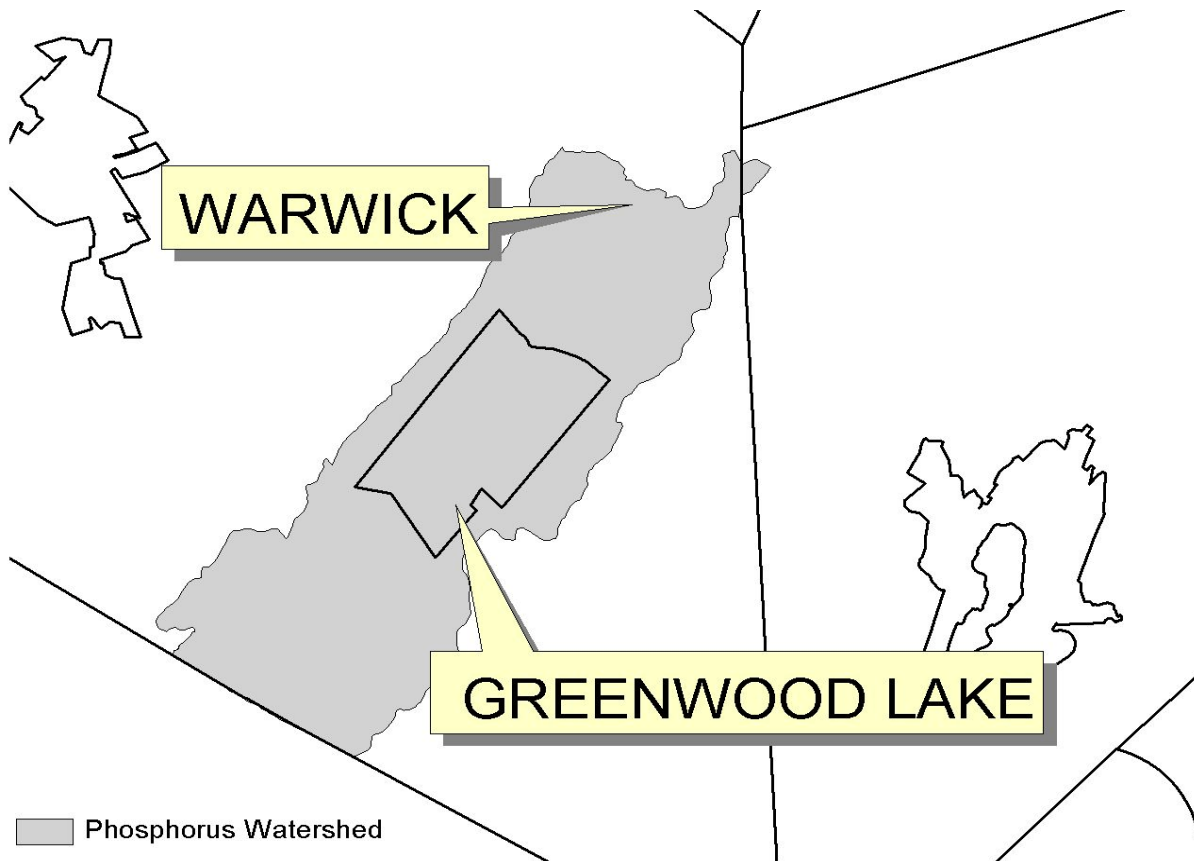
- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

**Figure 1 - New York City Watershed East of the Hudson**

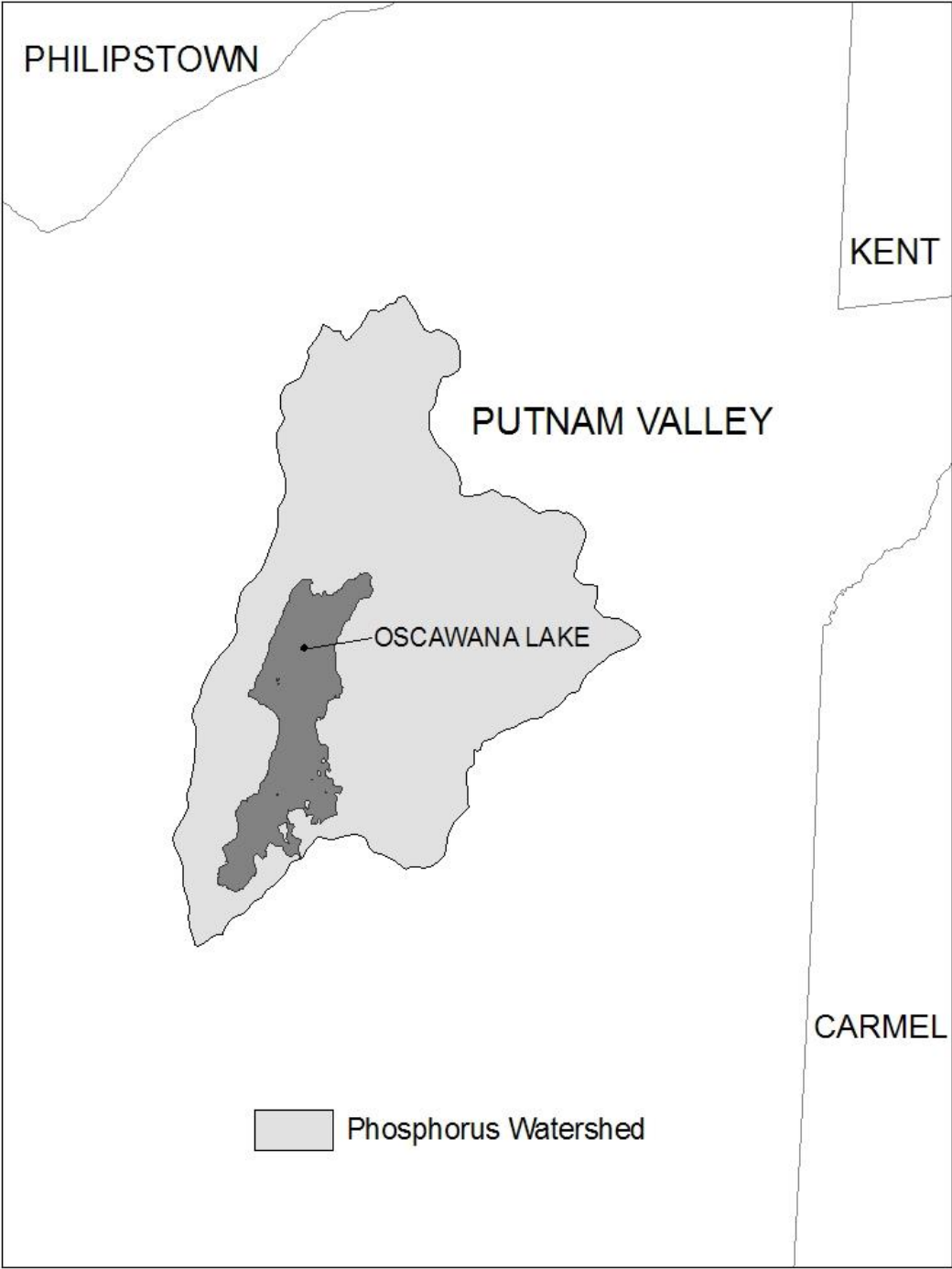


**Figure 2 - Onondaga Lake Watershed**

**Figure 3 - Greenwood Lake Watershed**

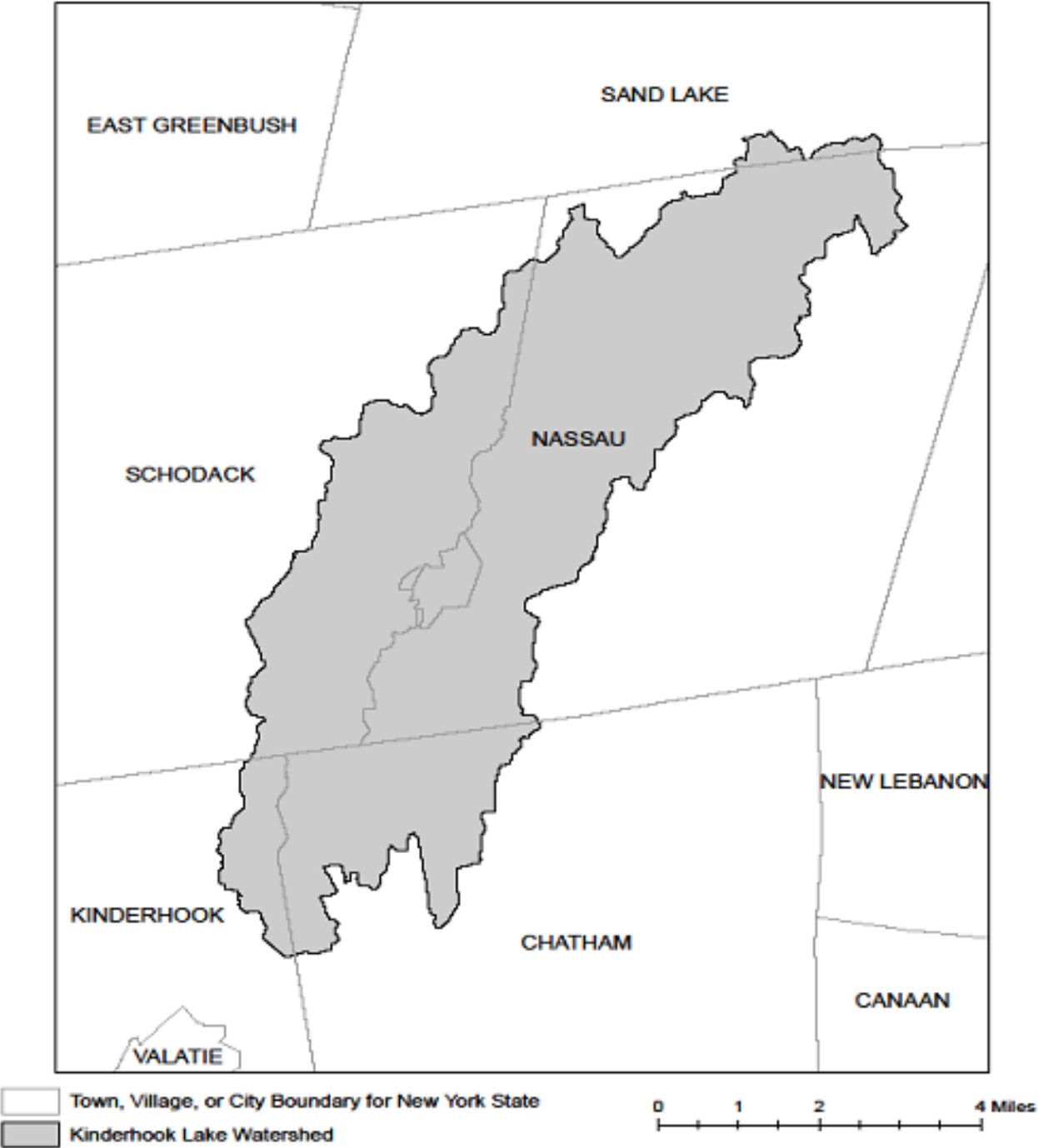


**Figure 4 - Oscawana Lake Watershed**





**Figure 5 - Kinderhook Lake Watershed**



## **APPENDIX D – Watersheds with Lower Disturbance Threshold**

**Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.**

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C
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## APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linlyco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients



### 303(d) Segments Impaired by Construction Related Pollutant(s)

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scajaquada Creek, Lower, and tribs	Nutrients
Erie	Scajaquada Creek, Middle, and tribs	Nutrients
Erie	Scajaquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willsboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

### 303(d) Segments Impaired by Construction Related Pollutant(s)

Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Camaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Milburn/Parsonage Creeks, Upp, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmere Channel	Nutrients
New York	Harlem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Oneida	Ballou, Nail Creeks and tribs	Nutrients
Onondaga	Harbor Brook, Lower, and tribs	Nutrients
Onondaga	Ley Creek and tribs	Nutrients
Onondaga	Minor Tribs to Onondaga Lake	Nutrients
Onondaga	Ninemile Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Middle, and tribs	Nutrients

### 303(d) Segments Impaired by Construction Related Pollutant(s)

Onondaga	Onondaga Lake, northern end	Nutrients
Onondaga	Onondaga Lake, southern end	Nutrients
Ontario	Great Brook and minor tribs	Silt/Sediment
Ontario	Great Brook and minor tribs	Nutrients
Ontario	Hemlock Lake Outlet and minor tribs	Nutrients
Ontario	Honeoye Lake	Nutrients
Orange	Greenwood Lake	Nutrients
Orange	Monhagen Brook and tribs	Nutrients
Orange	Orange Lake	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neatahwanta	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swartout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Ballston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients



### 303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Mariaville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Marratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and Seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Moriches Bay, East	Nutrients
Suffolk	Moriches Bay, West	Nutrients
Suffolk	Peconic River, Lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Moriches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Davies Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

### 303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood Cr/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Amawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolndale	Nutrients
Westchester	Lake Meahagh	Nutrients
Westchester	Lake Mohegan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscoot/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titicus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

## APPENDIX F – List of NYS DEC Regional Offices

<u>Region</u>	<u>COVERING THE FOLLOWING COUNTIES:</u>	<u>DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS</u>	<u>DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM</u>
1	NASSAU AND SUFFOLK	50 CIRCLE ROAD STONY BROOK, NY 11790 TEL. (631) 444-0365	50 CIRCLE ROAD STONY BROOK, NY 11790-3409 TEL. (631) 444-0405
2	BRONX, KINGS, NEW YORK, QUEENS AND RICHMOND	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4997	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4933
3	DUTCHESS, ORANGE, PUTNAM, ROCKLAND, SULLIVAN, ULSTER AND WESTCHESTER	21 SOUTH PUTT CORNERS ROAD NEW PALTZ, NY 12561-1696 TEL. (845) 256-3059	100 HILLSIDE AVENUE, SUITE 1W WHITE PLAINS, NY 10603 TEL. (914) 428 - 2505
4	ALBANY, COLUMBIA, DELAWARE, GREENE, MONTGOMERY, OTSEGO, RENSSELAER, SCHENECTADY AND SCHOHARIE	1150 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2069	1130 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2045
5	CLINTON, ESSEX, FRANKLIN, FULTON, HAMILTON, SARATOGA, WARREN AND WASHINGTON	1115 STATE ROUTE 86, Po Box 296 RAY BROOK, NY 12977-0296 TEL. (518) 897-1234	232 GOLF COURSE ROAD WARRENSBURG, NY 12885-1172 TEL. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070



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## APPENDIX C – LETTER FROM NYS OPRHP

PRELIMINARY

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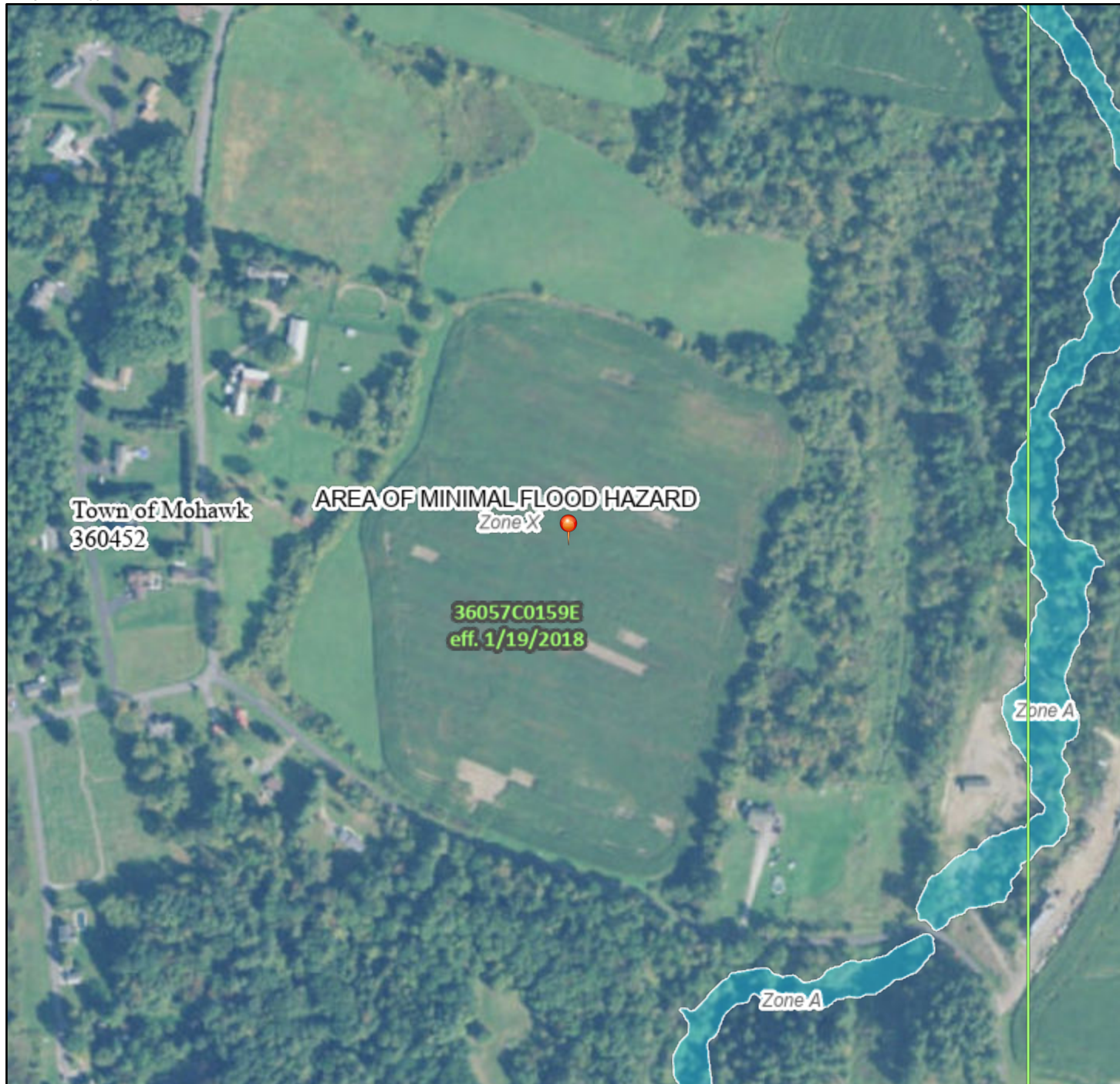
## APPENDIX D – FLOOD INSURANCE RATE MAP (FIRM)

PRELIMINARY

# National Flood Hazard Layer FIRMette



74°23'4"W 42°58'1"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000

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

## Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/25/2021 at 4:46 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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



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## APPENDIX E – NRCS SOILS REPORT

PRELIMINARY



United States  
Department of  
Agriculture

**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for **Montgomery County, New York**



May 25, 2021

# Preface

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

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

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

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

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

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

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# How Soil Surveys Are Made

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

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

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

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

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



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

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

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

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

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

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

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

## Custom Soil Resource Report

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

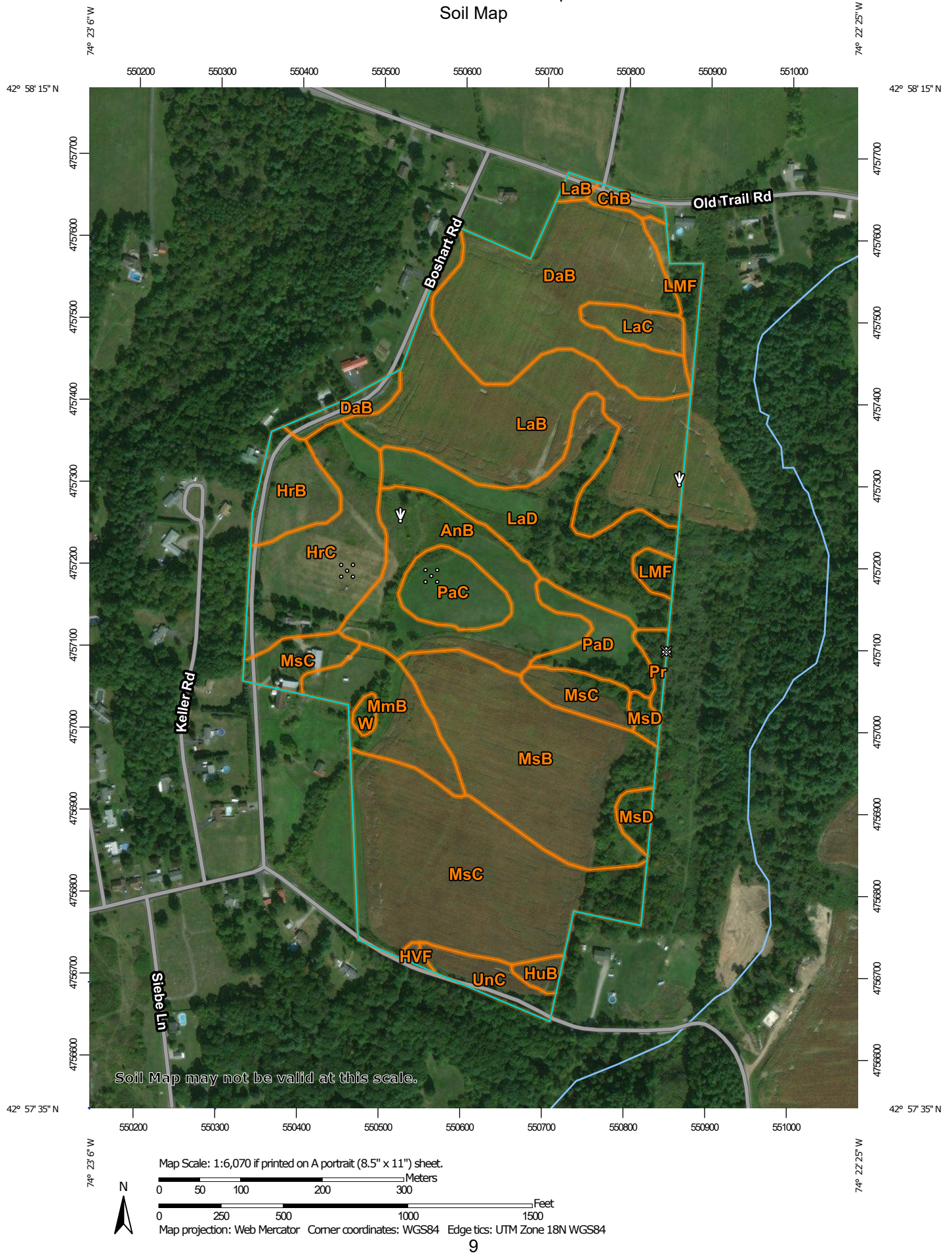
# Soil Map

---

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



# Custom Soil Resource Report Soil Map



# Custom Soil Resource Report

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

### Water Features

 Streams and Canals

### Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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

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

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

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

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

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

Soil Survey Area: Montgomery County, New York  
Survey Area Data: Version 18, Jun 11, 2020

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

Date(s) aerial images were photographed: Oct 7, 2013—Nov 9, 2016

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

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AnB	Angola silt loam, 3 to 8 percent slopes	7.1	7.5%
ChB	Churchville silty clay loam, 3 to 8 percent slopes	0.5	0.6%
DaB	Darien silt loam, 3 to 8 percent slopes	12.2	13.0%
HrB	Howard gravelly silt loam, 3 to 8 percent slopes	2.5	2.6%
HrC	Howard gravelly silt loam, 8 to 15 percent slopes	6.8	7.3%
HuB	Hudson silty clay loam, 3 to 8 percent slopes	0.5	0.5%
HVF	Hudson soils, very steep	0.2	0.2%
LaB	Lansing silt loam, 3 to 8 percent slopes	13.3	14.2%
LaC	Lansing silt loam, 8 to 15 percent slopes	1.2	1.3%
LaD	Lansing silt loam, 15 to 25 percent slopes	8.3	8.8%
LMF	Lansing and Mohawk soils, 25 to 60 percent slopes	1.6	1.7%
MmB	Manheim silt loam, 3 to 8 percent slopes	3.7	3.9%
MsB	Mohawk silt loam, 3 to 8 percent slopes	11.2	11.9%
MsC	Mohawk silt loam, 8 to 15 percent slopes	16.7	17.8%
MsD	Mohawk silt loam, 15 to 25 percent slopes	1.0	1.1%
PaC	Palatine silt loam, 8 to 15 percent slopes	2.4	2.6%
PaD	Palatine silt loam, 15 to 25 percent slopes	2.3	2.5%
Pr	Phelps gravelly loam, fan	0.5	0.6%
UnC	Unadilla silt loam, 8 to 15 percent slopes	1.5	1.6%
W	Water	0.3	0.3%
<b>Totals for Area of Interest</b>		<b>94.0</b>	<b>100.0%</b>



## Map Unit Descriptions

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

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

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

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

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

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

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas

shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

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

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

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

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

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

## Montgomery County, New York

### AnB—Angola silt loam, 3 to 8 percent slopes

#### Map Unit Setting

*National map unit symbol:* 9tnk  
*Elevation:* 300 to 1,410 feet  
*Mean annual precipitation:* 38 to 44 inches  
*Mean annual air temperature:* 45 to 48 degrees F  
*Frost-free period:* 110 to 170 days  
*Farmland classification:* Prime farmland if drained

#### Map Unit Composition

*Angola and similar soils:* 75 percent  
*Minor components:* 25 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Angola

##### Setting

*Landform:* Till plains, benches, ridges  
*Landform position (two-dimensional):* Footslope  
*Landform position (three-dimensional):* Base slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Parent material:* Loamy till derived mainly from shale and siltstone

##### Typical profile

*H1 - 0 to 9 inches:* silt loam  
*H2 - 9 to 24 inches:* silty clay loam  
*R - 24 to 28 inches:* weathered bedrock

##### Properties and qualities

*Slope:* 3 to 8 percent  
*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock  
*Drainage class:* Somewhat poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low (0.00 to 0.00 in/hr)  
*Depth to water table:* About 6 to 18 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 1 percent  
*Available water capacity:* Low (about 4.1 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3w  
*Hydrologic Soil Group:* D  
*Ecological site:* F101XY013NY - Moist Till  
*Hydric soil rating:* No

#### Minor Components

##### Ilion

*Percent of map unit:* 5 percent  
*Landform:* Depressions



*Hydric soil rating: Yes*

**Brockport**

*Percent of map unit: 5 percent*

*Hydric soil rating: No*

**Appleton**

*Percent of map unit: 5 percent*

*Hydric soil rating: No*

**Burdett**

*Percent of map unit: 5 percent*

*Hydric soil rating: No*

**Madalin, variant**

*Percent of map unit: 5 percent*

*Landform: Depressions*

*Hydric soil rating: Yes*

**ChB—Churchville silty clay loam, 3 to 8 percent slopes**

**Map Unit Setting**

*National map unit symbol: 9tpb*

*Elevation: 260 to 1,100 feet*

*Mean annual precipitation: 38 to 44 inches*

*Mean annual air temperature: 45 to 48 degrees F*

*Frost-free period: 110 to 170 days*

*Farmland classification: Prime farmland if drained*

**Map Unit Composition**

*Churchville and similar soils: 80 percent*

*Minor components: 20 percent*

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

**Description of Churchville**

**Setting**

*Landform: Till plains, lake plains*

*Landform position (two-dimensional): Footslope*

*Landform position (three-dimensional): Base slope, tread*

*Down-slope shape: Concave*

*Across-slope shape: Linear*

*Parent material: Clayey glaciolacustrine deposits over loamy till*

**Typical profile**

*H1 - 0 to 7 inches: silty clay loam*

*H2 - 7 to 32 inches: clay*

*H3 - 32 to 84 inches: channery loam*

**Properties and qualities**

*Slope: 3 to 8 percent*

*Depth to restrictive feature: More than 80 inches*

## Custom Soil Resource Report

*Drainage class:* Somewhat poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 6 to 18 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 15 percent  
*Available water capacity:* Moderate (about 8.4 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3w  
*Hydrologic Soil Group:* C/D  
*Ecological site:* F101XY009NY - Moist Lake Plain  
*Hydric soil rating:* No

### Minor Components

#### Darien

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

#### Madalin

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

#### Fonda

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

#### Rhinebeck

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

## DaB—Darien silt loam, 3 to 8 percent slopes

### Map Unit Setting

*National map unit symbol:* 9tph  
*Elevation:* 300 to 1,250 feet  
*Mean annual precipitation:* 38 to 44 inches  
*Mean annual air temperature:* 45 to 48 degrees F  
*Frost-free period:* 110 to 170 days  
*Farmland classification:* Prime farmland if drained

### Map Unit Composition

*Darien and similar soils:* 75 percent  
*Minor components:* 25 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Darien

### Setting

*Landform:* Till plains, drumlinoid ridges, hills  
*Landform position (two-dimensional):* Footslope, summit  
*Landform position (three-dimensional):* Base slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Parent material:* Loamy till derived predominantly from calcareous gray shale

### Typical profile

*H1 - 0 to 7 inches:* silt loam  
*H2 - 7 to 10 inches:* silt loam  
*H3 - 10 to 31 inches:* channery silty clay loam  
*H4 - 31 to 60 inches:* channery silty clay loam

### Properties and qualities

*Slope:* 3 to 8 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Somewhat poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 6 to 12 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 15 percent  
*Available water capacity:* Moderate (about 7.3 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3w  
*Hydrologic Soil Group:* C/D  
*Ecological site:* F101XY013NY - Moist Till  
*Hydric soil rating:* No

## Minor Components

### Rhinebeck

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

### Ilion

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

### Burdett

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

### Churchville

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

### Madalin

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



## **HrB—Howard gravelly silt loam, 3 to 8 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* 9tq2  
*Elevation:* 210 to 1,030 feet  
*Mean annual precipitation:* 38 to 44 inches  
*Mean annual air temperature:* 45 to 48 degrees F  
*Frost-free period:* 110 to 170 days  
*Farmland classification:* All areas are prime farmland

### **Map Unit Composition**

*Howard and similar soils:* 75 percent  
*Minor components:* 25 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Howard**

#### **Setting**

*Landform:* Terraces, valley trains  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Gravelly loamy glaciofluvial deposits over sandy and gravelly glaciofluvial deposits, containing significant amounts of limestone

#### **Typical profile**

*H1 - 0 to 9 inches:* gravelly silt loam  
*H2 - 9 to 19 inches:* very gravelly sandy loam  
*H3 - 19 to 60 inches:* very gravelly sandy loam  
*H4 - 60 to 64 inches:* stratified very gravelly loamy sand

#### **Properties and qualities**

*Slope:* 3 to 8 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 5.95 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 15 percent  
*Available water capacity:* Low (about 5.4 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2s  
*Hydrologic Soil Group:* A  
*Hydric soil rating:* No

**Minor Components**

**Palmyra**

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

**Colonie**

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

**Alton**

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

**Unnamed soils**

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

**Phelps**

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

**HrC—Howard gravelly silt loam, 8 to 15 percent slopes**

**Map Unit Setting**

*National map unit symbol: 9tq3*  
*Elevation: 250 to 920 feet*  
*Mean annual precipitation: 38 to 44 inches*  
*Mean annual air temperature: 45 to 48 degrees F*  
*Frost-free period: 110 to 170 days*  
*Farmland classification: Farmland of statewide importance*

**Map Unit Composition**

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

**Description of Howard**

**Setting**

*Landform: Terraces, valley trains*  
*Landform position (two-dimensional): Shoulder*  
*Landform position (three-dimensional): Tread*  
*Down-slope shape: Convex*  
*Across-slope shape: Convex*  
*Parent material: Gravelly loamy glaciofluvial deposits over sandy and gravelly glaciofluvial deposits, containing significant amounts of limestone*

**Typical profile**

*H1 - 0 to 9 inches: gravelly silt loam*  
*H2 - 9 to 19 inches: very gravelly sandy loam*

## Custom Soil Resource Report

*H3 - 19 to 60 inches: very gravelly sandy loam*

*H4 - 60 to 64 inches: stratified very gravelly loamy sand*

### Properties and qualities

*Slope: 8 to 15 percent*

*Depth to restrictive feature: More than 80 inches*

*Drainage class: Well drained*

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

*Depth to water table: More than 80 inches*

*Frequency of flooding: None*

*Frequency of ponding: None*

*Calcium carbonate, maximum content: 15 percent*

*Available water capacity: Low (about 5.4 inches)*

### Interpretive groups

*Land capability classification (irrigated): None specified*

*Land capability classification (nonirrigated): 3e*

*Hydrologic Soil Group: A*

*Hydric soil rating: No*

### Minor Components

#### Phelps

*Percent of map unit: 5 percent*

*Hydric soil rating: No*

#### Colonie

*Percent of map unit: 5 percent*

*Hydric soil rating: No*

#### Palmyra

*Percent of map unit: 5 percent*

*Hydric soil rating: No*

#### Alton

*Percent of map unit: 5 percent*

*Hydric soil rating: No*

## HuB—Hudson silty clay loam, 3 to 8 percent slopes

### Map Unit Setting

*National map unit symbol: 9tq5*

*Elevation: 300 to 1,800 feet*

*Mean annual precipitation: 38 to 44 inches*

*Mean annual air temperature: 45 to 48 degrees F*

*Frost-free period: 110 to 170 days*

*Farmland classification: All areas are prime farmland*

### Map Unit Composition

*Hudson and similar soils: 75 percent*

*Minor components: 25 percent*



## Custom Soil Resource Report

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

### Description of Hudson

#### Setting

*Landform:* Lake plains

*Landform position (two-dimensional):* Summit

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Concave

*Across-slope shape:* Convex

*Parent material:* Clayey and silty glaciolacustrine deposits

#### Typical profile

*H1 - 0 to 6 inches:* silty clay loam

*H2 - 6 to 12 inches:* silty clay loam

*H3 - 12 to 26 inches:* silty clay

*H4 - 26 to 60 inches:* stratified clay to silt loam

#### Properties and qualities

*Slope:* 3 to 8 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)

*Depth to water table:* About 18 to 24 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum content:* 20 percent

*Available water capacity:* High (about 9.6 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 2e

*Hydrologic Soil Group:* C/D

*Hydric soil rating:* No

### Minor Components

#### Rhinebeck

*Percent of map unit:* 8 percent

*Hydric soil rating:* No

#### Odessa

*Percent of map unit:* 7 percent

*Hydric soil rating:* No

#### Churchville

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### Unnamed soils

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

## **HVF—Hudson soils, very steep**

### **Map Unit Setting**

*National map unit symbol:* 9tpv  
*Elevation:* 300 to 1,800 feet  
*Mean annual precipitation:* 38 to 44 inches  
*Mean annual air temperature:* 45 to 48 degrees F  
*Frost-free period:* 110 to 170 days  
*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Hudson and similar soils:* 75 percent  
*Minor components:* 25 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Hudson**

#### **Setting**

*Landform:* Lake plains  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Riser  
*Down-slope shape:* Concave  
*Across-slope shape:* Convex  
*Parent material:* Clayey and silty glaciolacustrine deposits

#### **Typical profile**

*H1 - 0 to 6 inches:* silty clay loam  
*H2 - 6 to 12 inches:* silty clay loam  
*H3 - 12 to 26 inches:* silty clay  
*H4 - 26 to 60 inches:* stratified clay to silt loam

#### **Properties and qualities**

*Slope:* 25 to 60 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 18 to 24 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 20 percent  
*Available water capacity:* High (about 9.6 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7e  
*Hydrologic Soil Group:* C/D  
*Hydric soil rating:* No

**Minor Components**

**Colonie**

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

**Unnamed soils**

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

**Unadilla**

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

**Lansing**

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

**Nunda**

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

**LaB—Lansing silt loam, 3 to 8 percent slopes**

**Map Unit Setting**

*National map unit symbol: 2w3mg*  
*Elevation: 330 to 1,970 feet*  
*Mean annual precipitation: 31 to 57 inches*  
*Mean annual air temperature: 41 to 50 degrees F*  
*Frost-free period: 100 to 190 days*  
*Farmland classification: All areas are prime farmland*

**Map Unit Composition**

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

**Description of Lansing**

**Setting**

*Landform: Till plains, drumlins, hills*  
*Landform position (two-dimensional): Backslope, shoulder, summit*  
*Landform position (three-dimensional): Side slope, crest*  
*Down-slope shape: Convex*  
*Across-slope shape: Convex*  
*Parent material: Calcareous loamy lodgment till derived from limestone, sandstone, and shale*

**Typical profile**

*Ap - 0 to 8 inches: silt loam*  
*E - 8 to 13 inches: gravelly silt loam*



## Custom Soil Resource Report

*Bt/E - 13 to 21 inches:* gravelly silt loam  
*Bt1 - 21 to 28 inches:* gravelly silt loam  
*Bt2 - 28 to 39 inches:* gravelly silt loam  
*C - 39 to 79 inches:* gravelly loam

### Properties and qualities

*Slope:* 3 to 8 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.01 to 1.42 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 40 percent  
*Available water capacity:* Moderate (about 8.2 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2e  
*Hydrologic Soil Group:* B  
*Ecological site:* F101XY012NY - Till Upland  
*Hydric soil rating:* No

### Minor Components

#### Conesus

*Percent of map unit:* 8 percent  
*Landform:* Till plains, drumlins, hills  
*Landform position (two-dimensional):* Backslope, shoulder, summit  
*Landform position (three-dimensional):* Side slope, crest  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Hydric soil rating:* No

#### Kendaia

*Percent of map unit:* 3 percent  
*Landform:* Till plains, drumlins  
*Landform position (two-dimensional):* Footslope  
*Landform position (three-dimensional):* Base slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

#### Appleton

*Percent of map unit:* 2 percent  
*Landform:* Drumlins, till plains  
*Landform position (two-dimensional):* Footslope  
*Landform position (three-dimensional):* Base slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

#### Palatine

*Percent of map unit:* 1 percent  
*Landform:* Benches, ridges

## Custom Soil Resource Report

*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Crest, tread  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Hydric soil rating:* No

### **Danley**

*Percent of map unit:* 1 percent  
*Landform:* Till plains, drumlinoid ridges, hills  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Crest  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Hydric soil rating:* No

## **LaC—Lansing silt loam, 8 to 15 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* 2w3mh  
*Elevation:* 330 to 2,130 feet  
*Mean annual precipitation:* 31 to 57 inches  
*Mean annual air temperature:* 41 to 50 degrees F  
*Frost-free period:* 100 to 190 days  
*Farmland classification:* Farmland of statewide importance

### **Map Unit Composition**

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

### **Description of Lansing**

#### **Setting**

*Landform:* Till plains, drumlins, hills  
*Landform position (two-dimensional):* Summit, shoulder, backslope  
*Landform position (three-dimensional):* Crest, side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Calcareous loamy lodgment till derived from limestone, sandstone, and shale

#### **Typical profile**

*Ap - 0 to 8 inches:* silt loam  
*E - 8 to 13 inches:* gravelly silt loam  
*Bt/E - 13 to 21 inches:* gravelly silt loam  
*Bt1 - 21 to 28 inches:* gravelly silt loam  
*Bt2 - 28 to 39 inches:* gravelly silt loam  
*C - 39 to 79 inches:* gravelly loam

#### **Properties and qualities**

*Slope:* 8 to 15 percent

## Custom Soil Resource Report

*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.01 to 1.42 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 40 percent  
*Available water capacity:* Moderate (about 8.2 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* B  
*Ecological site:* F101XY012NY - Till Upland  
*Hydric soil rating:* No

### Minor Components

#### Conesus

*Percent of map unit:* 8 percent  
*Landform:* Till plains, drumlins, hills  
*Landform position (two-dimensional):* Summit, shoulder  
*Landform position (three-dimensional):* Crest  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex  
*Hydric soil rating:* No

#### Kendaia

*Percent of map unit:* 3 percent  
*Landform:* Till plains, drumlins  
*Landform position (two-dimensional):* Footslope  
*Landform position (three-dimensional):* Base slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

#### Appleton

*Percent of map unit:* 2 percent  
*Landform:* Drumlins, till plains  
*Landform position (two-dimensional):* Footslope  
*Landform position (three-dimensional):* Base slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

#### Danley

*Percent of map unit:* 1 percent  
*Landform:* Hills, till plains, drumlinoid ridges  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Crest  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Hydric soil rating:* No



**Wassaic**

*Percent of map unit:* 1 percent  
*Landform:* Till plains, benches, ridges  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Crest  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Hydric soil rating:* No

**LaD—Lansing silt loam, 15 to 25 percent slopes**

**Map Unit Setting**

*National map unit symbol:* 2w3mf  
*Elevation:* 660 to 1,740 feet  
*Mean annual precipitation:* 31 to 57 inches  
*Mean annual air temperature:* 41 to 50 degrees F  
*Frost-free period:* 100 to 190 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

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

**Description of Lansing**

**Setting**

*Landform:* Till plains, drumlins, hills  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Calcareous loamy lodgment till derived from limestone, sandstone, and shale

**Typical profile**

*Ap - 0 to 8 inches:* silt loam  
*E - 8 to 13 inches:* gravelly silt loam  
*Bt/E - 13 to 21 inches:* gravelly silt loam  
*Bt1 - 21 to 28 inches:* gravelly silt loam  
*Bt2 - 28 to 39 inches:* gravelly silt loam  
*C - 39 to 79 inches:* gravelly loam

**Properties and qualities**

*Slope:* 15 to 25 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.01 to 1.42 in/hr)

## Custom Soil Resource Report

*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 40 percent  
*Available water capacity:* Moderate (about 8.2 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 4e  
*Hydrologic Soil Group:* B  
*Ecological site:* F101XY012NY - Till Upland  
*Hydric soil rating:* No

### Minor Components

#### Conesus

*Percent of map unit:* 9 percent  
*Landform:* Till plains, drumlins, hills  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex  
*Hydric soil rating:* No

#### Wassaic

*Percent of map unit:* 3 percent  
*Landform:* Till plains, benches, ridges  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Crest  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Hydric soil rating:* No

#### Kendaia

*Percent of map unit:* 2 percent  
*Landform:* Till plains, drumlins  
*Landform position (two-dimensional):* Footslope  
*Landform position (three-dimensional):* Base slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

#### Appleton

*Percent of map unit:* 1 percent  
*Landform:* Till plains, drumlins  
*Landform position (two-dimensional):* Footslope  
*Landform position (three-dimensional):* Base slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

## **LMF—Lansing and Mohawk soils, 25 to 60 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* 2w3nb  
*Elevation:* 300 to 1,510 feet  
*Mean annual precipitation:* 31 to 57 inches  
*Mean annual air temperature:* 41 to 50 degrees F  
*Frost-free period:* 100 to 190 days  
*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Lansing and similar soils:* 40 percent  
*Mohawk and similar soils:* 35 percent  
*Minor components:* 25 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Lansing**

#### **Setting**

*Landform:* Hills, till plains, drumlins  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Calcareous loamy lodgment till derived from limestone, sandstone, and shale

#### **Typical profile**

*Ap - 0 to 8 inches:* silt loam  
*E - 8 to 13 inches:* gravelly silt loam  
*Bt/E - 13 to 21 inches:* gravelly silt loam  
*Bt1 - 21 to 28 inches:* gravelly silt loam  
*Bt2 - 28 to 39 inches:* gravelly silt loam  
*C - 39 to 79 inches:* gravelly loam

#### **Properties and qualities**

*Slope:* 25 to 60 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.01 to 1.42 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 40 percent  
*Available water capacity:* Moderate (about 8.2 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified



## Custom Soil Resource Report

*Land capability classification (nonirrigated): 7e*  
*Hydrologic Soil Group: B*  
*Ecological site: F101XY012NY - Till Upland*  
*Hydric soil rating: No*

### Description of Mohawk

#### Setting

*Landform: Till plains, drumlinoid ridges, hills*  
*Landform position (two-dimensional): Backslope*  
*Landform position (three-dimensional): Side slope*  
*Down-slope shape: Convex*  
*Across-slope shape: Convex*  
*Parent material: Loamy till that is generally calcareous, derived mainly from black soft shale*

#### Typical profile

*H1 - 0 to 9 inches: silt loam*  
*H2 - 9 to 27 inches: silt loam*  
*H3 - 27 to 68 inches: channery silt loam*

#### Properties and qualities

*Slope: 25 to 35 percent*  
*Depth to restrictive feature: More than 80 inches*  
*Drainage class: Well drained*  
*Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 1.98 in/hr)*  
*Depth to water table: About 36 to 72 inches*  
*Frequency of flooding: None*  
*Frequency of ponding: None*  
*Calcium carbonate, maximum content: 1 percent*  
*Available water capacity: High (about 9.3 inches)*

#### Interpretive groups

*Land capability classification (irrigated): None specified*  
*Land capability classification (nonirrigated): 7e*  
*Hydrologic Soil Group: B*  
*Ecological site: F101XY012NY - Till Upland*  
*Hydric soil rating: No*

### Minor Components

#### Cazenovia

*Percent of map unit: 10 percent*  
*Landform: Till plains, reworked lake plains*  
*Landform position (two-dimensional): Summit*  
*Landform position (three-dimensional): Crest, side slope*  
*Down-slope shape: Concave*  
*Across-slope shape: Convex*  
*Hydric soil rating: No*

#### Nellis

*Percent of map unit: 10 percent*  
*Landform: Till plains, drumlinoid ridges, hills*  
*Landform position (two-dimensional): Backslope*  
*Landform position (three-dimensional): Side slope*  
*Down-slope shape: Convex*

## Custom Soil Resource Report

*Across-slope shape:* Convex

*Hydric soil rating:* No

### **Wassaic**

*Percent of map unit:* 5 percent

*Landform:* Till plains, benches, ridges

*Landform position (two-dimensional):* Summit

*Landform position (three-dimensional):* Crest

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Hydric soil rating:* No

## **MmB—Manheim silt loam, 3 to 8 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* 9tqs

*Elevation:* 500 to 1,800 feet

*Mean annual precipitation:* 38 to 44 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 110 to 170 days

*Farmland classification:* Prime farmland if drained

### **Map Unit Composition**

*Manheim and similar soils:* 80 percent

*Minor components:* 20 percent

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

### **Description of Manheim**

#### **Setting**

*Landform:* Drumlinoid ridges, hills, till plains

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

*Landform position (three-dimensional):* Base slope

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Parent material:* Loamy till dominated by black or dark gray shale that is neutral or calcareous

#### **Typical profile**

*H1 - 0 to 9 inches:* silt loam

*H2 - 9 to 28 inches:* gravelly silt loam

*H3 - 28 to 50 inches:* gravelly silt loam

#### **Properties and qualities**

*Slope:* 3 to 8 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)

*Depth to water table:* About 6 to 18 inches

## Custom Soil Resource Report

*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 1 percent  
*Available water capacity:* Moderate (about 7.4 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3w  
*Hydrologic Soil Group:* C/D  
*Ecological site:* F101XY013NY - Moist Till  
*Hydric soil rating:* No

### Minor Components

#### Darien

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

#### Appleton

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

#### Mohawk

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

#### Ilion

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

## MsB—Mohawk silt loam, 3 to 8 percent slopes

### Map Unit Setting

*National map unit symbol:* 9tqy  
*Elevation:* 250 to 1,050 feet  
*Mean annual precipitation:* 38 to 44 inches  
*Mean annual air temperature:* 45 to 48 degrees F  
*Frost-free period:* 110 to 170 days  
*Farmland classification:* All areas are prime farmland

### Map Unit Composition

*Mohawk and similar soils:* 75 percent  
*Minor components:* 25 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Mohawk

#### Setting

*Landform:* Till plains, drumlinoid ridges, hills  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Crest



## Custom Soil Resource Report

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Parent material:* Loamy till that is generally calcareous, derived mainly from black soft shale

### Typical profile

*H1 - 0 to 9 inches:* silt loam

*H2 - 9 to 27 inches:* silt loam

*H3 - 27 to 68 inches:* channery silt loam

### Properties and qualities

*Slope:* 3 to 8 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to high  
(0.06 to 1.98 in/hr)

*Depth to water table:* About 36 to 72 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum content:* 1 percent

*Available water capacity:* High (about 9.3 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 2e

*Hydrologic Soil Group:* B

*Ecological site:* F101XY012NY - Till Upland

*Hydric soil rating:* No

### Minor Components

#### Lansing

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### Unnamed soils

*Percent of map unit:* 5 percent

#### Manheim

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### Darien

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### Palatine

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

## **MsC—Mohawk silt loam, 8 to 15 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* 9tqz  
*Elevation:* 330 to 1,050 feet  
*Mean annual precipitation:* 38 to 44 inches  
*Mean annual air temperature:* 45 to 48 degrees F  
*Frost-free period:* 110 to 170 days  
*Farmland classification:* Farmland of statewide importance

### **Map Unit Composition**

*Mohawk and similar soils:* 75 percent  
*Minor components:* 25 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Mohawk**

#### **Setting**

*Landform:* Till plains, drumlinoid ridges, hills  
*Landform position (two-dimensional):* Shoulder  
*Landform position (three-dimensional):* Crest  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Loamy till that is generally calcareous, derived mainly from black soft shale

#### **Typical profile**

*H1 - 0 to 9 inches:* silt loam  
*H2 - 9 to 27 inches:* silt loam  
*H3 - 27 to 68 inches:* channery silt loam

#### **Properties and qualities**

*Slope:* 8 to 15 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to high (0.06 to 1.98 in/hr)  
*Depth to water table:* About 36 to 72 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 1 percent  
*Available water capacity:* High (about 9.3 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* B  
*Ecological site:* F101XY012NY - Till Upland  
*Hydric soil rating:* No

**Minor Components**

**Manheim**

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

**Appleton**

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

**Lansing**

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

**Palatine**

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

**Unnamed soils**

*Percent of map unit: 5 percent*

**MsD—Mohawk silt loam, 15 to 25 percent slopes**

**Map Unit Setting**

*National map unit symbol: 9tr0*  
*Elevation: 210 to 1,150 feet*  
*Mean annual precipitation: 38 to 44 inches*  
*Mean annual air temperature: 45 to 48 degrees F*  
*Frost-free period: 110 to 170 days*  
*Farmland classification: Not prime farmland*

**Map Unit Composition**

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

**Description of Mohawk**

**Setting**

*Landform: Till plains, drumlinoid ridges, hills*  
*Landform position (two-dimensional): Backslope*  
*Landform position (three-dimensional): Side slope*  
*Down-slope shape: Convex*  
*Across-slope shape: Convex*  
*Parent material: Loamy till that is generally calcareous, derived mainly from black soft shale*

**Typical profile**

*H1 - 0 to 9 inches: silt loam*  
*H2 - 9 to 27 inches: silt loam*  
*H3 - 27 to 68 inches: channery silt loam*

**Properties and qualities**

*Slope:* 15 to 25 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to high  
(0.06 to 1.98 in/hr)

*Depth to water table:* About 36 to 72 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum content:* 1 percent

*Available water capacity:* High (about 9.3 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 4e

*Hydrologic Soil Group:* B

*Ecological site:* F101XY012NY - Till Upland

*Hydric soil rating:* No

**Minor Components**

**Palatine**

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

**Manheim**

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

**Angola**

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

**Lansing**

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

**PaC—Palatine silt loam, 8 to 15 percent slopes**

**Map Unit Setting**

*National map unit symbol:* 9trf

*Elevation:* 600 to 1,800 feet

*Mean annual precipitation:* 38 to 44 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 110 to 170 days

*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**

*Palatine and similar soils:* 75 percent

*Minor components:* 25 percent

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



## Description of Palatine

### Setting

*Landform:* Benches, ridges, till plains

*Landform position (two-dimensional):* Shoulder

*Landform position (three-dimensional):* Crest

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Parent material:* Channery loamy till dominated by calcareous dark shale

### Typical profile

*H1 - 0 to 11 inches:* silt loam

*H2 - 11 to 18 inches:* channery silt loam

*H3 - 18 to 28 inches:* very channery silt loam

*H4 - 28 to 32 inches:* unweathered bedrock

### Properties and qualities

*Slope:* 8 to 15 percent

*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock

*Drainage class:* Well drained

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

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum content:* 15 percent

*Available water capacity:* Low (about 3.3 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3e

*Hydrologic Soil Group:* C

*Ecological site:* F101XY012NY - Till Upland

*Hydric soil rating:* No

## Minor Components

### Mohawk

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

### Brockport

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

### Angola

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

### Darien

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

### Arnot

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

## **PaD—Palatine silt loam, 15 to 25 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* 9trg  
*Elevation:* 600 to 1,800 feet  
*Mean annual precipitation:* 38 to 44 inches  
*Mean annual air temperature:* 45 to 48 degrees F  
*Frost-free period:* 110 to 170 days  
*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Palatine and similar soils:* 75 percent  
*Minor components:* 25 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Palatine**

#### **Setting**

*Landform:* Till plains, benches, ridges  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Channery loamy till dominated by calcareous dark shale

#### **Typical profile**

*H1 - 0 to 11 inches:* silt loam  
*H2 - 11 to 18 inches:* channery silt loam  
*H3 - 18 to 28 inches:* very channery silt loam  
*H4 - 28 to 32 inches:* unweathered bedrock

#### **Properties and qualities**

*Slope:* 15 to 25 percent  
*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low (0.00 to 0.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 15 percent  
*Available water capacity:* Low (about 3.3 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 4e  
*Hydrologic Soil Group:* C  
*Ecological site:* F101XY012NY - Till Upland  
*Hydric soil rating:* No

**Minor Components**

**Arnot**

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

**Mohawk**

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

**Farmington**

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

**Angola**

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

**Nellis**

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

**Pr—Phelps gravelly loam, fan**

**Map Unit Setting**

*National map unit symbol: 9trp*  
*Elevation: 230 to 1,200 feet*  
*Mean annual precipitation: 38 to 44 inches*  
*Mean annual air temperature: 45 to 48 degrees F*  
*Frost-free period: 110 to 170 days*  
*Farmland classification: All areas are prime farmland*

**Map Unit Composition**

*Phelps, fan, and similar soils: 75 percent*  
*Minor components: 25 percent*  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Phelps, Fan**

**Setting**

*Landform: Alluvial fans*  
*Landform position (two-dimensional): Summit*  
*Landform position (three-dimensional): Tread*  
*Down-slope shape: Concave*  
*Across-slope shape: Convex*  
*Parent material: Loamy glaciofluvial deposits over sandy and gravelly glaciofluvial deposits, containing significant amounts of limestone*

**Typical profile**

*H1 - 0 to 7 inches: gravelly loam*  
*H2 - 7 to 13 inches: gravelly silt loam*

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*H3 - 13 to 25 inches:* gravelly silt loam  
*H4 - 25 to 35 inches:* gravelly silt loam  
*H5 - 35 to 60 inches:* stratified very gravelly sand

### Properties and qualities

*Slope:* 0 to 8 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.57 to 1.98 in/hr)  
*Depth to water table:* About 24 to 36 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 15 percent  
*Available water capacity:* Low (about 5.0 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2w  
*Hydrologic Soil Group:* C  
*Hydric soil rating:* No

### Minor Components

#### Scio

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

#### Copake

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

#### Howard

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

#### Teel

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

#### Hamlin

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

## UnC—Unadilla silt loam, 8 to 15 percent slopes

### Map Unit Setting

*National map unit symbol:* 9ts7  
*Elevation:* 600 to 1,800 feet  
*Mean annual precipitation:* 38 to 44 inches  
*Mean annual air temperature:* 45 to 48 degrees F  
*Frost-free period:* 110 to 170 days



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*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Unadilla and similar soils:* 75 percent

*Minor components:* 25 percent

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

### Description of Unadilla

#### Setting

*Landform:* Lake plains

*Landform position (two-dimensional):* Shoulder

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Parent material:* Glaciolacustrine deposits, eolian deposits, or old alluvium, comprised mainly of silt and very fine sand

#### Typical profile

*H1 - 0 to 9 inches:* silt loam

*H2 - 9 to 28 inches:* very fine sandy loam

*C - 28 to 50 inches:* very fine sandy loam

*2C - 50 to 60 inches:* stratified very gravelly sand

#### Properties and qualities

*Slope:* 8 to 15 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum content:* 1 percent

*Available water capacity:* Moderate (about 8.7 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3e

*Hydrologic Soil Group:* B

*Hydric soil rating:* No

### Minor Components

#### Plainfield

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### Hudson

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### Scio

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### Howard

*Percent of map unit:* 5 percent

## Custom Soil Resource Report

*Hydric soil rating:* No

### **Hamlin**

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

## **W—Water**

### **Map Unit Setting**

*National map unit symbol:* 9tsc

*Mean annual precipitation:* 38 to 44 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 110 to 170 days

*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Water:* 100 percent

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

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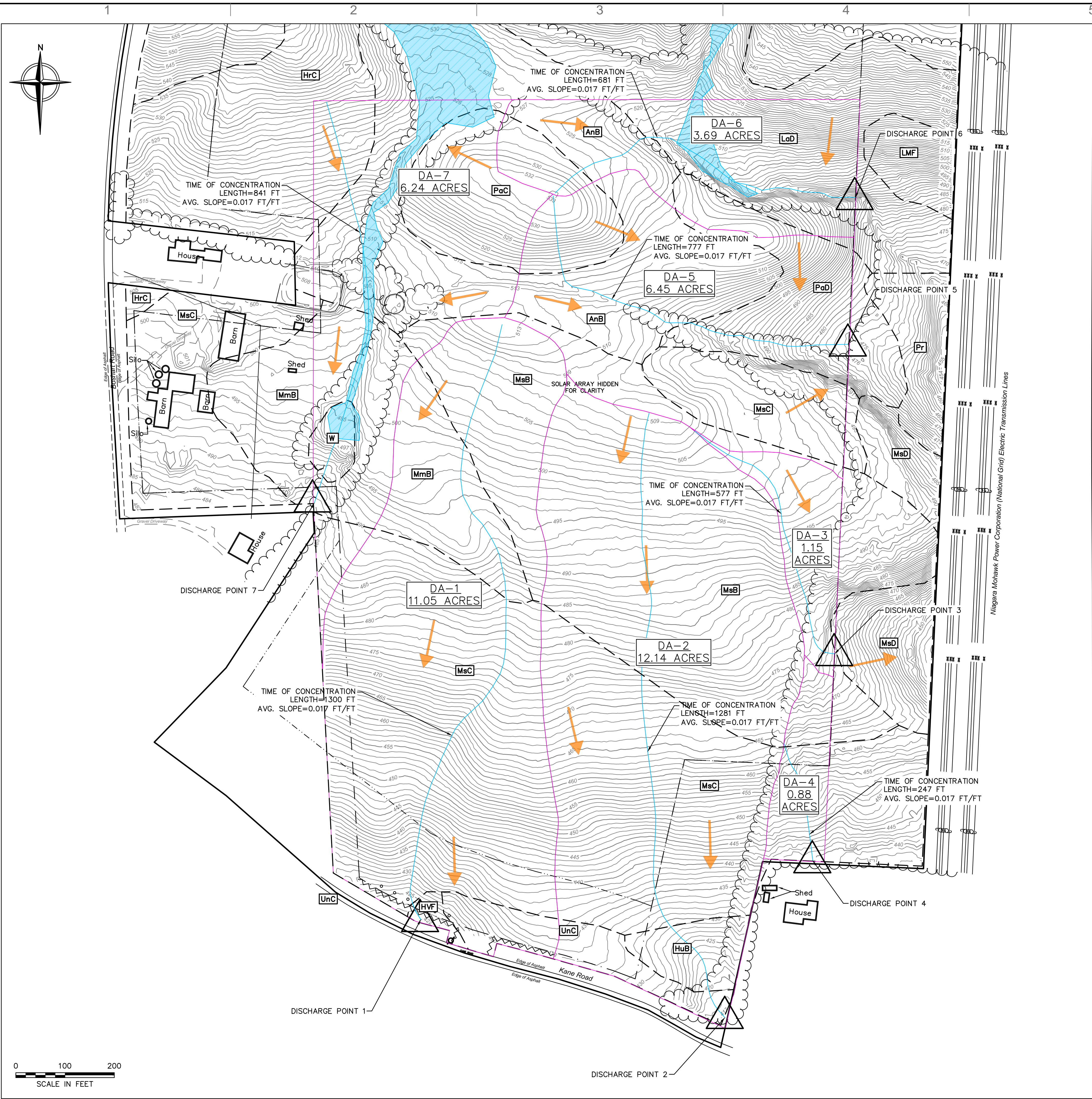
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## APPENDIX F – DRAINAGE MAPS

PRELIMINARY



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**LEGEND**

—	PROPERTY LINE
- - -	ZONING SETBACKS
- - -	EXISTING GRAVEL DRIVEWAY
- - -	EXISTING CONTOUR (MAJOR)
- - -	EXISTING CONTOUR (MINOR)
- - -	EXISTING TREE LINE
~~~~~	DELINEATED WETLANDS (USACE)
⊗	EXISTING UTILITY POLE
—O—	EXISTING OVERHEAD ELECTRIC
—	FLOWPATHS
- - -	SOIL TYPE BOUNDARY
- - -	DRAINAGE AREA BOUNDARY
△	DISCHARGE POINT
←	DIRECTION OF RUNOFF
MsC	SOIL MAP UNIT NAME

- GENERAL NOTES:**
1. THE DEPICTED CONTOUR DATA AND EXISTING CONDITIONS INFORMATION REFERENCES THE "MAP SHOWING EXISTING TOPOGRAPHY MONTGOMERY 1 COMMUNITY SOLAR PROJECT" BY THEW ASSOCIATES PE-LS, PLLC., DATED MAY 14, 2021.
  2. THIS SURVEY IS REFERENCED HORIZONTALLY TO THE NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT (NAD83/2011), PROJECTED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM (EAST ZONE), AND VERTICALLY TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88-GEOID18).
  3. ORTHOIMAGERY OBTAINED FROM MICROSOFT CORPORATION BING MAPPING.
  4. THE SUBSURFACE UTILITIES SHOWN ON THIS DRAWING ARE OF QUALITY LEVEL "C" AS DEFINED BY THE AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) IN THE "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA". THE SUBSURFACE UTILITIES DEPICTED ON THESE DRAWINGS ARE BASED ON PHYSICAL EVIDENCE LOCATED DURING THE FIELD SURVEY AND EXISTING UTILITY DRAWINGS. SOME INFORMATION MAY HAVE BEEN DERIVED FROM INFORMATION PROVIDED TO THE ENGINEER BY OTHERS. SUCH INFORMATION MAY BE INCOMPLETE OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES.
  5. SOILS DATA WAS OBTAINED FROM THE NATIONAL RESOURCES CONSERVATION SERVICE (NRCS) WEB SOIL SURVEY, ACCESSED JULY 2, 2021.

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STAMP:

**MONTGOMERY 1  
SOLAR PROJECT**

182 BOSCHART ROAD  
FONDA, NY 12068

PROJECT NUMBERS:  
194-1264-0001

SHEET TITLE:  
**PRE-DEVELOPMENT  
DRAINAGE MAP**

SHEET SIZE:  
ARCH "D"  
24" X 36" (610 x 914)

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NO.	REVISION	DATE	INIT.

DATE: 7/9/2021  
DRAWN BY: MDN  
ENGINEER: KMG  
APPROVED BY: BMS

PROJECT PHASE:  
PRELIMINARY SWPPP

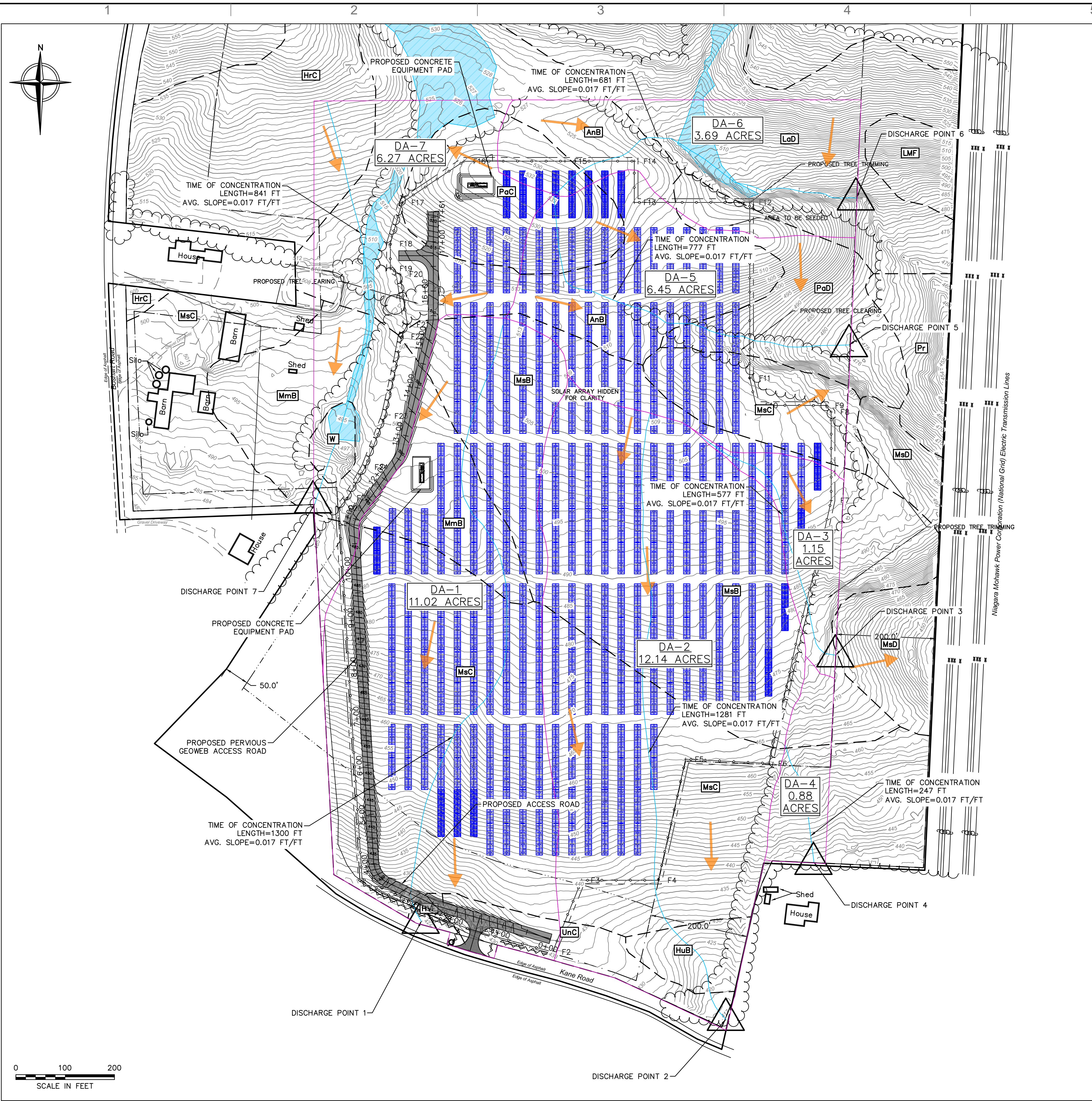
SCALE:  
AS SHOWN

SHEET NO.:  
**D-001**



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LEGEND

- PROPERTY LINE
- ZONING SETBACKS
- EXISTING GRAVEL DRIVEWAY
- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- EXISTING TREE LINE
- DELINEATED WETLANDS (USACE)
- EXISTING UTILITY POLE
- EXISTING OVERHEAD ELECTRIC
- PROPOSED ACCESS ROAD
- PROPOSED PERIMETER SECURITY FENCE
- PROPOSED SOLAR PV ARRAY
- FLOWPATHS
- SOIL TYPE BOUNDARY
- DRAINAGE AREA BOUNDARY
- DISCHARGE POINT
- DIRECTION OF RUNOFF
- SOIL MAP UNIT NAME

GENERAL NOTES:

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- THIS SURVEY IS REFERENCED HORIZONTALLY TO THE NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT (NAD83/2011), PROJECTED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM (EAST ZONE), AND VERTICALLY TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88-GEOD18).
- ORTHOIMAGERY OBTAINED FROM MICROSOFT CORPORATION BING MAPPING.
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STAMP:

MONTGOMERY 1  
SOLAR PROJECT

182 BOSCHART ROAD  
FONDA, NY 12068

PROJECT NUMBERS:  
194-1264-0001

SHEET TITLE:  
POST-DEVELOPMENT  
DRAINAGE MAP

SHEET SIZE:  
ARCH "D"  
24" X 36" (610 x 914)

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NO.	REVISION	DATE	INIT.

DATE: 7/9/2021  
DRAWN BY: MDN  
ENGINEER: KMG  
APPROVED BY: BMS

PROJECT PHASE:  
PRELIMINARY SWPPP

SCALE:  
AS SHOWN

SHEET NO.:  
D-002



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## APPENDIX G – DESIGN CALCULATIONS

PRELIMINARY



Is this project subject to Chapter 10 of the NYS Design Manual (i.e. WQv is equal to post-development 1 year runoff volume)?..... **No**

Design Point: 1  
P= 1.10 inch *Manually enter P, Total Area and Impervious Cover.*

Breakdown of Subcatchments						
Catchment Number	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (ft <sup>3</sup> )	Description
1	0.05	0.05	100%	0.95	190	Filter Strips
2	0.05	0.05	100%	0.95	190	Filter Strips
3						
4						
5						
6						
7						
8						
9						
10						
Subtotal (1-30)	0.10	0.10	100%	0.95	<b>379</b>	<b>Subtotal 1</b>
<b>Total</b>	0.10	0.10	100%	0.95	<b>379</b>	<b>Initial WQv</b>

**0.01 af**

Identify Runoff Reduction Techniques By Area			
Technique	Total Contributing Area	Contributing Impervious Area	Notes
	(Acre)	(Acre)	
Conservation of Natural Areas	0.00	0.00	<i>minimum 10,000 sf</i>
Riparian Buffers	0.00	0.00	<i>maximum contributing length 75 feet to 150 feet</i>
Filter Strips	0.10	0.10	
Tree Planting	0.00	0.00	<i>Up to 100 sf directly connected impervious area may be subtracted per tree</i>
<b>Total</b>	<b>0.10</b>	<b>0.10</b>	

Recalculate WQv after application of Area Reduction Techniques					
	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Runoff Coefficient Rv	WQv (ft <sup>3</sup> )
"<<Initial WQv"	0.10	0.10	100%	0.95	379
Subtract Area	-0.10	-0.10			
WQv adjusted after Area Reductions	<b>0.00</b>	<b>0.00</b>	0%	0.05	0
Disconnection of Rooftops		0.00			
Adjusted WQv after Area Reduction and Rooftop Disconnect	0.00	0.00	0%	0.05	<b>0</b>
WQv reduced by Area Reduction techniques					379

**0.00 af**  
**0.01 af**

Total Water Quality Volume Calculation

$$WQv(\text{acre-feet}) = [(P)(Rv)(A)] / 12$$

All Subcatchments						
Catchment	Total Area (Acres)	Impervious Cover (Acres)	Percent Impervious %	Runoff Coefficient Rv	WQv (ft <sup>3</sup> )	Description
1	0.05	0.05	1.00	0.95	189.67	Filter Strips
2	0.05	0.05	1.00	0.95	190	Filter Strips
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

Runoff Reduction Volume and Treated volumes						
	Runoff Reduction Techniques/Standard SMPs		Total Contributing Area	Total Contributing Impervious Area	WQv Reduced (RRv)	WQv Treated
			(acres)	(acres)	cf	cf
Area/Volume Reduction	Conservation of Natural Areas	RR-1	0.00	0.00		
	Sheetflow to Riparian Buffers/Filter Strips	RR-2	0.10	0.10		
	Tree Planting/Tree Pit	RR-3	0.00	0.00		
	Disconnection of Rooftop Runoff	RR-4		0.00		
	Vegetated Swale	RR-5	0.00	0.00	0	
	Rain Garden	RR-6	0.00	0.00	0	
	Stormwater Planter	RR-7	0.00	0.00	0	
	Rain Barrel/Cistern	RR-8	0.00	0.00	0	
	Porous Pavement	RR-9	0.00	0.00	0	
	Green Roof (Intensive & Extensive)	RR-10	0.00	0.00	0	
Standard SMPs w/RRv Capacity	Infiltration Trench	I-1	0.00	0.00	0	0
	Infiltration Basin	I-2	0.00	0.00	0	0
	Dry Well	I-3	0.00	0.00	0	0
	Underground Infiltration System	I-4				
	Bioretention & Infiltration Bioretention	F-5	0.00	0.00	0	0
	Dry swale	O-1	0.00	0.00	0	0
Standard SMPs	Micropool Extended Detention (P-1)	P-1				
	Wet Pond (P-2)	P-2				
	Wet Extended Detention (P-3)	P-3				
	Multiple Pond system (P-4)	P-4				
	Pocket Pond (p-5)	P-5				
	Surface Sand filter (F-1)	F-1				
	Underground Sand filter (F-2)	F-2				
	Perimeter Sand Filter (F-3)	F-3				
	Organic Filter (F-4)	F-4				
	Shallow Wetland (W-1)	W-1				
	Extended Detention Wetland (W-2)	W-2				
	Pond/Wetland System (W-3)	W-3				
	Pocket Wetland (W-4)	W-4				
	Wet Swale (O-2)	O-2				
Totals by Area Reduction →			0.10	0.10	379	
Totals by Volume Reduction →			0.00	0.00	0	
Totals by Standard SMP w/RRV →			0.00	0.00	0	0
Totals by Standard SMP →			0.00	0.00		0
Totals ( Area + Volume + all SMPs) →			0.10	0.10	379	0
	Impervious Cover √	okay				
	Total Area √	okay				

Minimum RRv

Enter the Soils Data for the site		
Soil Group	Acres	S
A	0.54	55%
B	27.58	40%
C	4.26	30%
D	9.22	20%
Total Area	41.6	
Calculate the Minimum RRv		
S =	0.35	
Impervious =	0.10	acre
Precipitation	1.1	in
Rv	0.95	
Minimum RRv	132	ft3
	0.00	af



# Filter Strip

<b>Design Point:</b>	1						
<b>Enter Site Data For Drainage Area to be Treated by Practice</b>							
<b>Catchment Number</b>	<b>Total Area (Acres)</b>	<b>Impervious Area (Acres)</b>	<b>Percent Impervious %</b>	<b>Rv</b>	<b>WQv (ft<sup>3</sup>)</b>	<b>Precipitation (in)</b>	<b>Description</b>
1	0.05	0.05	1.00	0.95	189.67	1.10	Filter Strips
<b>Design Elements</b>							
Is another area based practice applied to this area?			No	Y/N			
Amended Soils & Dense Turf Cover?			Yes	Y/N			
Is area protected from compaction from heavy equipment during construction?			Yes	Y/N			
Small Area of Impervious Area & close to source?			Yes	Y/N			
Composte Amendments?			Yes	Y/N			
Boundary Spreader?			Yes	Y/N	Gravel Diaphragm at top		
Boundary Zone?			Yes	Y/N	25 feet of level grass		
Specify how sheet flow will be ensured.			Sheet Flow from Conc. Pad		level spreader shall be used for buffer slopes ranging from 3-15%		
Average contributing slope			3	%	3% maximum unless a level spreader is		
Slope of first 10 feet of Filter Strip			2	%	2% maximum		
Overall Slope			8	%	8% maximum		
Contributing Length of Pervious Areas (PC)			10	ft	150 ft maximum		
Contributing Length of Impervious areas (IC)			65	ft	75 ft maximum		
Maximum PC Contributing Length for combination of PC & IC			85	ft			
Soil Group (HSG)			B				
Filter Strip Width			50	ft	50 ft minimum for slopes 0-8% 75 ft minimum for slopes 8-12% 100 ft minimum for slopes 12-15% HSG C or D increase by 15-20%		
Are All Criteria for Filter Strips in Section 5.3.2 met?			Yes				
<b>Area Reduction Adjustments</b>							
Subtract			0.05	Acres from total Area			
Subtract			0.05	Acres from total Impervious Area			

# Filter Strip

TRUE

<b>Design Point:</b>	1						
<b>Enter Site Data For Drainage Area to be Treated by Practice</b>							
Catchment Number	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (ft <sup>3</sup> )	Precipitation (in)	Description
2	0.05	0.05	1.00	0.95	189.67	1.10	Filter Strips
<b>Design Elements</b>							
Is another area based practice applied to this area?			No	Y/N			
Amended Soils & Dense Turf Cover?			Yes	Y/N			
Is area protected from compaction from heavy equipment during construction?			Yes	Y/N			
Small Area of Impervious Area & close to source?			Yes	Y/N			
Composte Amendments?			Yes	Y/N			
Boundary Spreader?			Yes	Y/N	Gravel Diaphragm at top		
Boundary Zone?			Yes	Y/N	25 feet of level grass		
Specify how sheet flow will be ensured.			Sheet Flow from Conc. Pad		level spreader shall be used for buffer slopes ranging from 3-15%		
Average contributing slope			3	%	3% maximum unless a level spreader is used.		
Slope of first 10 feet of Filter Strip			2	%	2% maximum		
Overall Slope			8	%	8% maximum		
Contributing Length of Pervious Areas (PC)			15	ft	150 ft maximum		
Contributing Length of Impervious areas			60	ft	75 ft maximum		
Maximum PC Contributing Length for combination of PC & IC			90	ft			
Soil Group (HSG)			C				
Filter Strip Width			57.5	ft	50 ft minimum for slopes 0-8% 75 ft minimum for slopes 8-12% 100 ft minimum for slopes 12-15% HSG C or D increase by 15-20%		
Are All Criteria for filter strips in Section 5.3.2 met?			Yes				
<b>Area Reduction Adjustments</b>							
Subtract			0.05	Acres from total Area			
Subtract			0.05	Acres from total Impervious Area			

FALSE

# NOI QUESTIONS

#	NOI Question	Reported Value	
		cf	af
28	Total Water Quality Volume (WQv) Required	379	0.009
30	Total RRV Provided	379	0.009
31	Is RRV Provided ≥WQv Required?	Yes	
32	Minimum RRV	132	0.003
32a	Is RRV Provided ≥ Minimum RRV Required?	Yes	
33a	Total WQv Treated	0	0.000
34	Sum of Volume Reduced & Treated	379	0.009
34	Sum of Volume Reduced and Treated	379	0.009
35	Is Sum RRV Provided and WQv Provided ≥WQv Required?	Yes	

100.00%

Apply Peak Flow Attenuation			
36	Channel Protection	$C_{pv}$	
37	Overbank	$Q_p$	
37	Extreme Flood Control	$Q_f$	
	Are Quantity Control requirements met?	Yes	Plan Completed

### Time of Concentration - Pre-Development

Drainage Area 1			
Type	Length (ft)	Slope (ft/ft)	Cover Type
Sheet Flow	100	0.084	Cultivated Soils, R>20%
Shallow Concentrated	367	0.041	Cultivated Straight Rows
Shallow Concentrated	350	0.064	Cultivated Straight Rows
Shallow Concentrated	449	0.099	Cultivated Straight Rows
Shallow Concentrated	34	0.050	Short Grass Pasture
<b>Total Length/Average Slope</b>	1300	0.068	--

Drainage Area 2			
Type	Length (ft)	Slope (ft/ft)	Cover Type
Sheet Flow	100	0.060	Cultivated Soils, R>20%
Shallow Concentrated	290	0.052	Cultivated Straight Rows
Shallow Concentrated	288	0.076	Cultivated Straight Rows
Shallow Concentrated	471	0.090	Cultivated Straight Rows
Shallow Concentrated	130	0.038	Short Grass Pasture
<b>Total Length/Average Slope</b>	1279	0.063	--

Drainage Area 3			
Type	Length (ft)	Slope (ft/ft)	Cover Type
Sheet Flow	100	0.038	Cultivated Soils, R>20%
Shallow Concentrated	145	0.032	Cultivated Straight Rows
Shallow Concentrated	216	0.092	Cultivated Straight Rows
Shallow Concentrated	116	0.061	Woodlands
<b>Total Length/Average Slope</b>	577	0.056	--

Drainage Area 4			
Type	Length (ft)	Slope (ft/ft)	Cover Type
Sheet Flow	100	0.095	Cultivated Soils, R>20%
Shallow Concentrated	147	0.100	Woodlands
<b>Total Length/Average Slope</b>	247	0.098	--

Drainage Area 5			
Type	Length (ft)	Slope (ft/ft)	Cover Type
Sheet Flow	100	0.100	Grass, Short
Shallow Concentrated	75	0.120	Short Grass Pasture
Shallow Concentrated	252	0.048	Short Grass Pasture
Shallow Concentrated	350	0.077	Woodlands
<b>Total Length/Average Slope</b>	777	0.086	--



Drainage Area 6			
Type	Length (ft)	Slope (ft/ft)	Cover Type
Sheet Flow	100	0.070	Grass, Short
Shallow Concentrated	125	0.067	Short Grass Pasture
Shallow Concentrated	306	0.067	Woodlands
Shallow Concentrated	150	0.080	Woodlands
<b>Total Length/Average Slope</b>	681	0.071	--

Drainage Area 7			
Type	Length (ft)	Slope (ft/ft)	Cover Type
Sheet Flow	100	0.100	Grass, Short
Shallow Concentrated	210	0.080	Short Grass Pasture
Shallow Concentrated	226	0.042	Short Grass Pasture
Shallow Concentrated	190	0.021	Woodlands
Shallow Concentrated	40	0.150	Woodlands
Shallow Concentrated	75	0.063	Woodlands
<b>Total Length/Average Slope</b>	841	0.076	--

**Time of Concentration - Post-Development**

Drainage Area 1			
Type	Length (ft)	Slope (ft/ft)	Cover Type
Sheet Flow	100	0.084	Grass, Short
Shallow Concentrated	367	0.041	Short Grass Pasture
Shallow Concentrated	350	0.064	Short Grass Pasture
Shallow Concentrated	426	0.099	Short Grass Pasture
Shallow Concentrated	23	0.030	Paved
Shallow Concentrated	34	0.050	Short Grass Pasture
<b>Total Length/Average Slope</b>	1300	0.061	--

Drainage Area 2			
Type	Length (ft)	Slope (ft/ft)	Cover Type
Sheet Flow	100	0.060	Grass, Short
Shallow Concentrated	290	0.052	Short Grass Pasture
Shallow Concentrated	288	0.076	Short Grass Pasture
Shallow Concentrated	275	0.090	Short Grass Pasture
Shallow Concentrated	326	0.038	Short Grass Pasture
<b>Total Length/Average Slope</b>	1279	0.063	--

Drainage Area 3			
Type	Length (ft)	Slope (ft/ft)	Cover Type
Sheet Flow	100	0.038	Grass, Short
Shallow Concentrated	145	0.032	Short Grass Pasture
Shallow Concentrated	297	0.092	Short Grass Pasture
Shallow Concentrated	35	0.110	Woodlands
<b>Total Length/Average Slope</b>	577	0.068	--

Drainage Area 4			
Type	Length (ft)	Slope (ft/ft)	Cover Type
Sheet Flow	45	0.095	Grass, Short
Sheet Flow	55	0.095	Woods, Light Underbrush
Shallow Concentrated	147	0.100	Woodlands
<b>Total Length/Average Slope</b>	247	0.097	--

Drainage Area 5			
Type	Length (ft)	Slope (ft/ft)	Cover Type
Sheet Flow	100	0.100	Grass, Short
Shallow Concentrated	75	0.120	Short Grass Pasture
Shallow Concentrated	252	0.048	Short Grass Pasture
Shallow Concentrated	148	0.074	Short Grass Pasture
Shallow Concentrated	202	0.077	Woodlands
<b>Total Length/Average Slope</b>	777	0.084	--

Drainage Area 6			
Type	Length (ft)	Slope (ft/ft)	Cover Type
Sheet Flow	100	0.070	Grass, Short
Shallow Concentrated	125	0.067	Short Grass Pasture
Shallow Concentrated	306	0.067	Woodlands
Shallow Concentrated	150	0.080	Woodlands
<b>Total Length/Average Slope</b>	681	0.071	--

Drainage Area 7			
Type	Length (ft)	Slope (ft/ft)	Cover Type
Sheet Flow	100	0.100	Grass, Short
Shallow Concentrated	210	0.080	Short Grass Pasture
Shallow Concentrated	226	0.042	Short Grass Pasture
Shallow Concentrated	190	0.021	Woodlands
Shallow Concentrated	40	0.150	Woodlands
Shallow Concentrated	75	0.063	Woodlands
<b>Total Length/Average Slope</b>	841	0.076	--

**Ground Cover Acreages - Pre-Development**

<b>Drainage Area</b>	<b>Type</b>	<b>Area (acres)</b>
1	Pasture, Grassland, or Range - B	9.12
	Pasture, Grassland, or Range - D	1.61
	Meadow - B	0.24
	Meadow - D	0.08
	<b>Total</b>	<b>11.05</b>
2	Pasture, Grassland, or Range - B	11.12
	Woods - B	0.40
	Woods - D	0.14
	Pasture, Grassland, or Range - D	0.48
	<b>Total</b>	<b>12.14</b>
3	Pasture, Grassland, or Range - B	0.85
	Woods - B	0.30
	<b>Total</b>	<b>1.15</b>
4	Woods - B	0.88
	<b>Total</b>	<b>0.88</b>
5	Meadow - B	0.02
	Meadow - C	1.74
	Meadow - D	1.66
	Pasture, Grassland, or Range - B	1.79
	Pasture, Grassland, or Range - C	0.03
	Pasture, Grassland, or Range - D	0.54
	Woods - B	0.28
	Woods - C	0.34
	Woods - D	0.05
	<b>Total</b>	<b>6.45</b>



6	Woods - B	1.92
	Woods - C	0
	Woods - D	0.04
	Meadow - B	0.21
	Meadow - C	0.76
	Meadow - D	0.76
	<b>Total</b>	<b>3.69</b>
7	Meadow - A	0.54
	Meadow - B	0.01
	Meadow - C	1.21
	Meadow - D	1.7
	Woods - B	0.01
	Woods - C	0.19
	Woods - D	1.20
	Pasture, Grassland, or Range - B	0.42
	Pasture, Grassland, or Range - D	0.71
	Water	0.25
	<b>Total</b>	<b>6.24</b>
Total Study Area		41.60

Ground Cover Acreages - Post-Development		
Drainage Area	Type	Area (acres)
1	Pasture, Grassland, or Range - B	0.64
	Impervious	0.05
	Meadow - B	8.29
	Meadow - D	1.52
	>75% Grass Cover (Pervious Road) - B	0.5
	>75% Grass Cover (Pervious Road) - D	0.02
<b>Total</b>		<b>11.02</b>
2	Pasture, Grassland, or Range - B	2.19
	Woods - B	0.31
	Woods - D	0.14
	Pasture, Grassland, or Range - B	0.48
	Meadow - B	9.02
<b>Total</b>		<b>12.14</b>
3	Pasture, Grassland, or Range - B	0.15
	Woods - B	0.10
	Meadow - B	0.90
<b>Total</b>		<b>1.15</b>
4	Woods - B	0.76
	Meadow - B	0.12
	<b>Total</b>	<b>0.88</b>
5	Meadow - B	1.68
	Meadow - C	1.89
	Meadow - D	2.25
	Pasture, Grassland, or Range - B	0.17
	Woods - B	0.25
	Woods - C	0.21
	<b>Total</b>	<b>6.45</b>

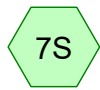
6	Woods - B	1.92
	Woods - C	0
	Woods - D	0.04
	Meadow - B	0.21
	Meadow - C	0.76
	Meadow - D	0.76
	<b>Total</b>	<b>3.69</b>
7	Meadow - A	0.54
	Meadow - B	0.11
	Meadow - C	1.12
	Meadow - D	2.17
	Woods - B	0.01
	Woods - C	0.19
	Woods - D	1.13
	Pasture, Grassland, or Range - B	0.20
	Pasture, Grassland, or Range - D	0.13
	Water	0.25
	>75% Grass Cover (Pervious Road) - B	0.07
	>75% Grass Cover (Pervious Road) - C	0.04
	>75% Grass Cover (Pervious Road) - D	0.26
	Impervious	0.05
	<b>Total</b>	<b>6.27</b>
Total Study Area		41.60

---

## APPENDIX H – PRE-DEVELOPMENT ANALYSIS

PRELIMINARY





DA-7



DA-7



DA-6



DA-6



DA-5



DA-5



DA-3



DA-3



DA-1



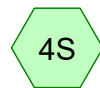
DA-1



DA-2



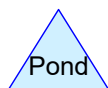
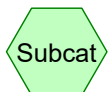
DA-2



DA-4



DA-4



**Routing Diagram for Montgomery\_1\_\_PRE\_07062021**

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# Montgomery\_1\_\_PRE\_07062021

Prepared by Tetra Tech Inc

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Page 2

## Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type II 24-hr		Default	24.00	1	2.17	2
2	10-Year	Type II 24-hr		Default	24.00	1	3.50	2
3	100-Year	Type II 24-hr		Default	24.00	1	5.68	2

**Area Listing (all nodes)**

Area (acres)	CN	Description (subcatchment-numbers)
0.540	30	Meadow, non-grazed, HSG A (7S)
0.480	58	Meadow, non-grazed, HSG B (1S, 5S, 6S, 7S)
3.710	71	Meadow, non-grazed, HSG C (5S, 6S, 7S)
4.200	78	Meadow, non-grazed, HSG D (1S, 5S, 6S, 7S)
23.300	61	Pasture/grassland/range, Good, HSG B (1S, 2S, 3S, 5S, 7S)
0.030	74	Pasture/grassland/range, Good, HSG C (5S)
3.340	80	Pasture/grassland/range, Good, HSG D (1S, 2S, 5S, 7S)
0.250	98	Water Surface, HSG C (7S)
3.790	55	Woods, Good, HSG B (2S, 3S, 4S, 5S, 6S, 7S)
0.530	70	Woods, Good, HSG C (5S, 7S)
1.430	77	Woods, Good, HSG D (2S, 5S, 6S, 7S)
<b>41.600</b>	<b>65</b>	<b>TOTAL AREA</b>

**Soil Listing (all nodes)**

Area (acres)	Soil Group	Subcatchment Numbers
0.540	HSG A	7S
27.570	HSG B	1S, 2S, 3S, 4S, 5S, 6S, 7S
4.520	HSG C	5S, 6S, 7S
8.970	HSG D	1S, 2S, 5S, 6S, 7S
0.000	Other	
<b>41.600</b>		<b>TOTAL AREA</b>



**Montgomery\_1\_\_PRE\_07062021**

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**Ground Covers (all nodes)**

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.540	0.480	3.710	4.200	0.000	8.930	Meadow, non-grazed	1S, 5S, 6S, 7S
0.000	23.300	0.030	3.340	0.000	26.670	Pasture/grassland/range, Good	1S, 2S, 3S, 5S, 7S
0.000	0.000	0.250	0.000	0.000	0.250	Water Surface	7S
0.000	3.790	0.530	1.430	0.000	5.750	Woods, Good	2S, 3S, 4S, 5S, 6S, 7S
<b>0.540</b>	<b>27.570</b>	<b>4.520</b>	<b>8.970</b>	<b>0.000</b>	<b>41.600</b>	<b>TOTAL AREA</b>	

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

<b>Subcatchment1S: DA-1</b>	Runoff Area=11.050 ac 0.00% Impervious Runoff Depth>0.16" Flow Length=1,300' Tc=15.9 min CN=64 Runoff=0.83 cfs 0.149 af
<b>Subcatchment2S: DA-2</b>	Runoff Area=12.140 ac 0.00% Impervious Runoff Depth>0.12" Flow Length=1,279' Tc=16.7 min CN=62 Runoff=0.44 cfs 0.126 af
<b>Subcatchment3S: DA-3</b>	Runoff Area=1.150 ac 0.00% Impervious Runoff Depth>0.08" Flow Length=577' Tc=13.9 min CN=59 Runoff=0.01 cfs 0.007 af
<b>Subcatchment4S: DA-4</b>	Runoff Area=0.880 ac 0.00% Impervious Runoff Depth>0.03" Flow Length=247' Tc=8.1 min CN=55 Runoff=0.00 cfs 0.002 af
<b>Subcatchment5S: DA-5</b>	Runoff Area=6.450 ac 0.00% Impervious Runoff Depth>0.31" Flow Length=777' Tc=13.2 min CN=70 Runoff=1.92 cfs 0.165 af
<b>Subcatchment6S: DA-6</b>	Runoff Area=3.690 ac 0.00% Impervious Runoff Depth>0.14" Flow Length=681' Tc=13.5 min CN=63 Runoff=0.22 cfs 0.044 af
<b>Subcatchment7S: DA-7</b>	Runoff Area=6.240 ac 4.01% Impervious Runoff Depth>0.36" Flow Length=841' Tc=15.9 min CN=72 Runoff=2.21 cfs 0.190 af
<b>Link 1L: DA-1</b>	Inflow=0.83 cfs 0.149 af Primary=0.83 cfs 0.149 af
<b>Link 2L: DA-2</b>	Inflow=0.44 cfs 0.126 af Primary=0.44 cfs 0.126 af
<b>Link 3L: DA-3</b>	Inflow=0.01 cfs 0.007 af Primary=0.01 cfs 0.007 af
<b>Link 4L: DA-4</b>	Inflow=0.00 cfs 0.002 af Primary=0.00 cfs 0.002 af
<b>Link 5L: DA-5</b>	Inflow=1.92 cfs 0.165 af Primary=1.92 cfs 0.165 af
<b>Link 6L: DA-6</b>	Inflow=0.22 cfs 0.044 af Primary=0.22 cfs 0.044 af
<b>Link 7L: DA-7</b>	Inflow=2.21 cfs 0.190 af Primary=2.21 cfs 0.190 af

**Total Runoff Area = 41.600 ac Runoff Volume = 0.683 af Average Runoff Depth = 0.20"**  
**99.40% Pervious = 41.350 ac 0.60% Impervious = 0.250 ac**

### Summary for Subcatchment 1S: DA-1

Runoff = 0.83 cfs @ 12.17 hrs, Volume= 0.149 af, Depth> 0.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.17"

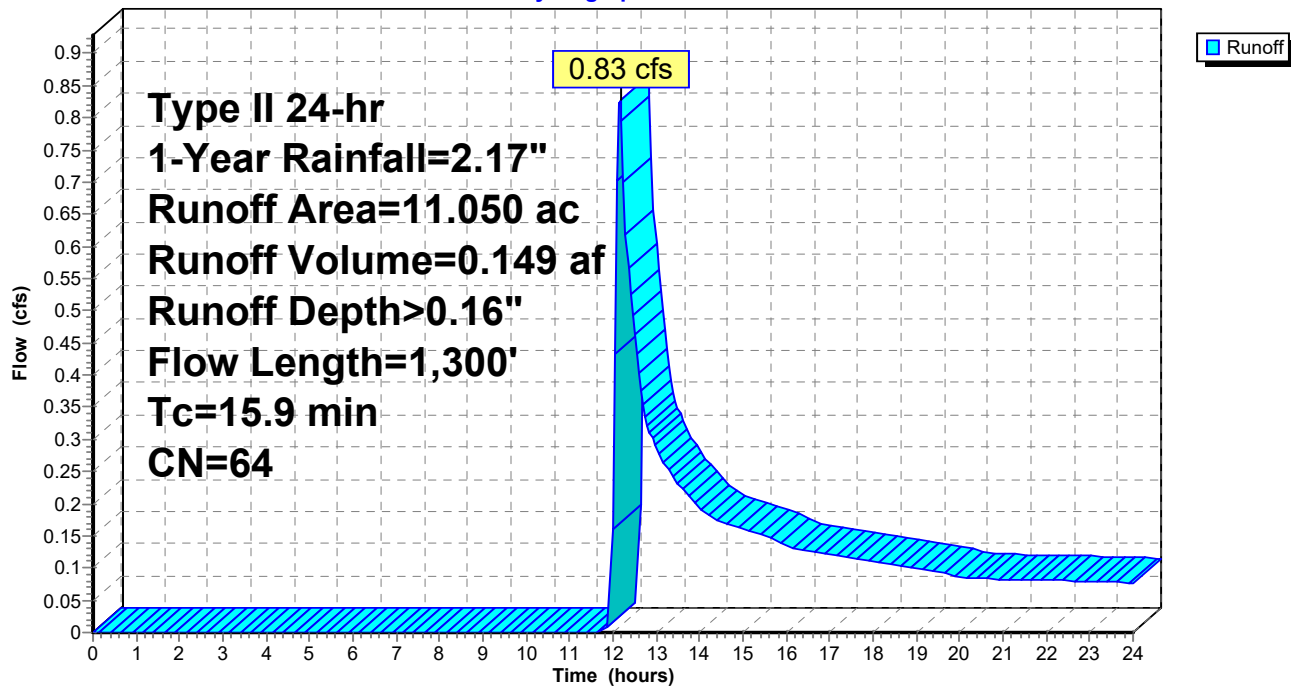
Area (ac)	CN	Description
9.120	61	Pasture/grassland/range, Good, HSG B
1.610	80	Pasture/grassland/range, Good, HSG D
0.240	58	Meadow, non-grazed, HSG B
0.080	78	Meadow, non-grazed, HSG D
11.050	64	Weighted Average
11.050		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	100	0.0840	0.24		<b>Sheet Flow,</b> Cultivated: Residue>20% n= 0.170 P2= 2.50"
3.4	367	0.0410	1.82		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
2.6	350	0.0640	2.28		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
2.6	449	0.0990	2.83		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
0.4	34	0.0500	1.57		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
15.9	1,300	Total			

# Subcatchment 1S: DA-1

Hydrograph





### Summary for Subcatchment 2S: DA-2

Runoff = 0.44 cfs @ 12.22 hrs, Volume= 0.126 af, Depth> 0.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.17"

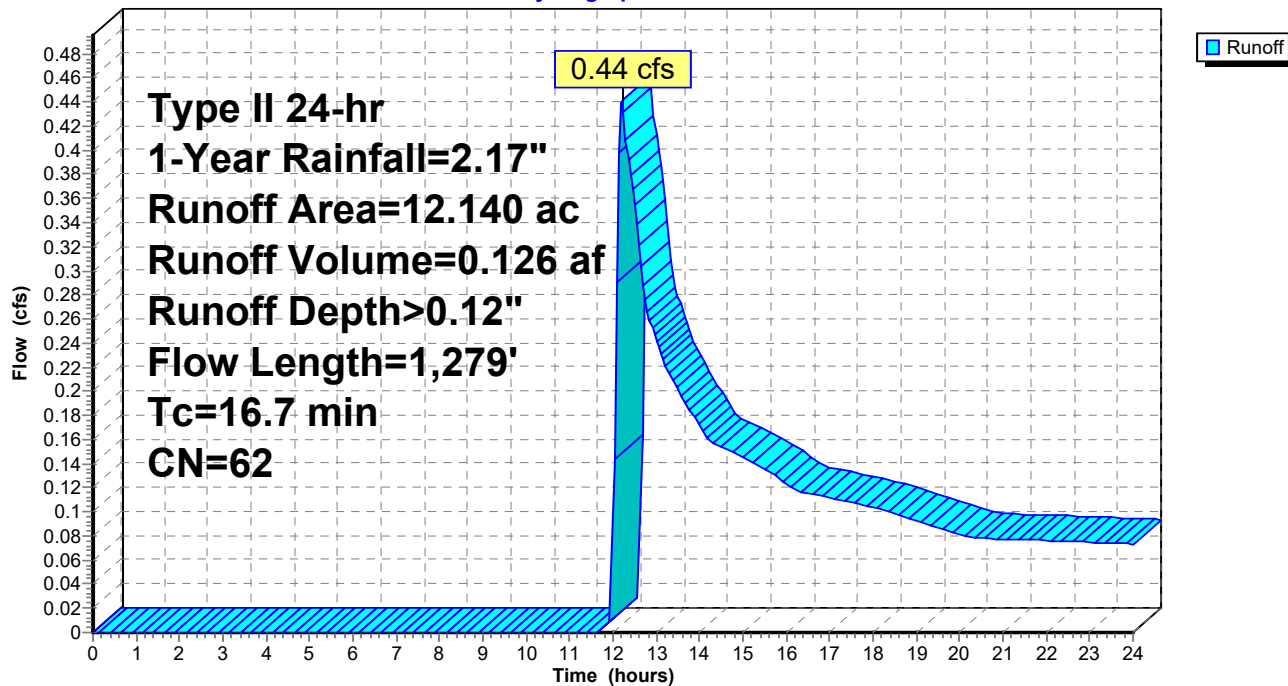
Area (ac)	CN	Description
11.120	61	Pasture/grassland/range, Good, HSG B
0.400	55	Woods, Good, HSG B
0.140	77	Woods, Good, HSG D
0.480	80	Pasture/grassland/range, Good, HSG D
12.140	62	Weighted Average
12.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	100	0.0600	0.21		<b>Sheet Flow,</b> Cultivated: Residue>20% n= 0.170 P2= 2.50"
2.4	290	0.0520	2.05		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
1.9	288	0.0760	2.48		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
2.9	471	0.0900	2.70		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
1.6	130	0.0380	1.36		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
16.7	1,279	Total			

## Subcatchment 2S: DA-2

Hydrograph



**Summary for Subcatchment 3S: DA-3**

Runoff = 0.01 cfs @ 12.53 hrs, Volume= 0.007 af, Depth> 0.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.17"

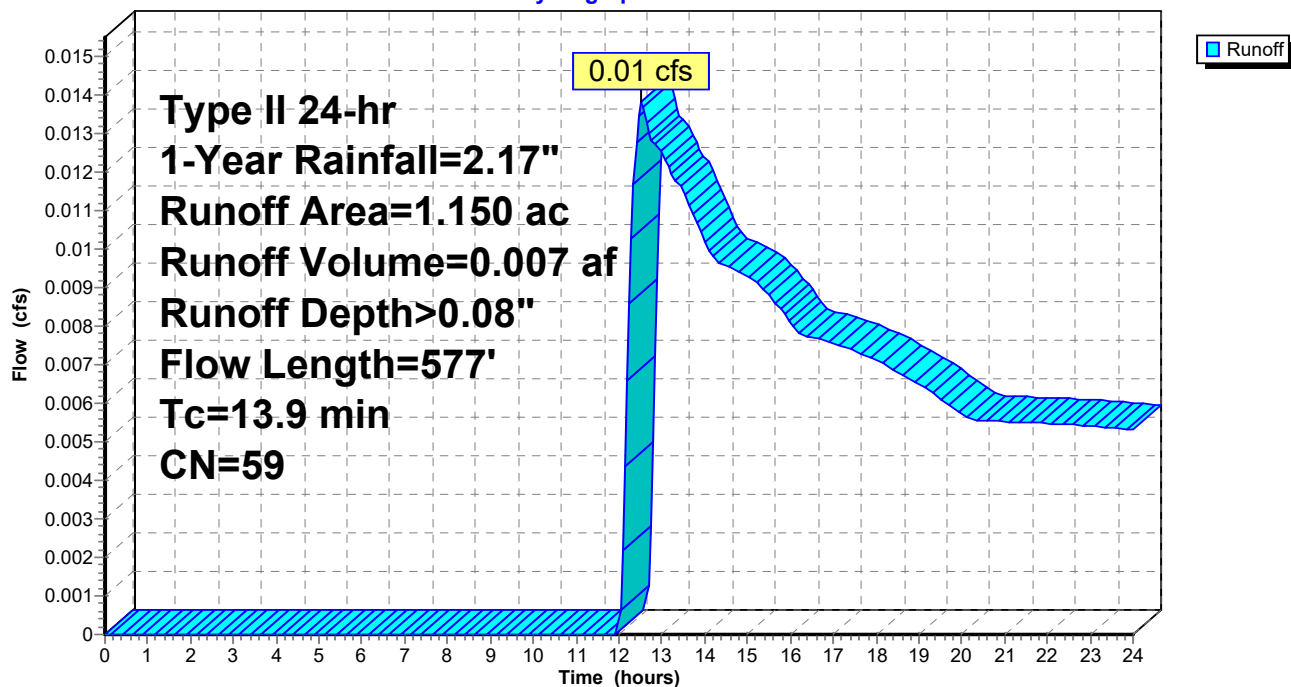
Area (ac)	CN	Description
0.850	61	Pasture/grassland/range, Good, HSG B
0.300	55	Woods, Good, HSG B
1.150	59	Weighted Average
1.150		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0380	0.18		<b>Sheet Flow,</b> Cultivated: Residue>20% n= 0.170 P2= 2.50"
1.5	145	0.0320	1.61		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
1.3	216	0.0920	2.73		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
1.6	116	0.0610	1.23		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.9	577	Total			

**Subcatchment 3S: DA-3**

Hydrograph



**Summary for Subcatchment 4S: DA-4**

Runoff = 0.00 cfs @ 15.41 hrs, Volume= 0.002 af, Depth> 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.17"

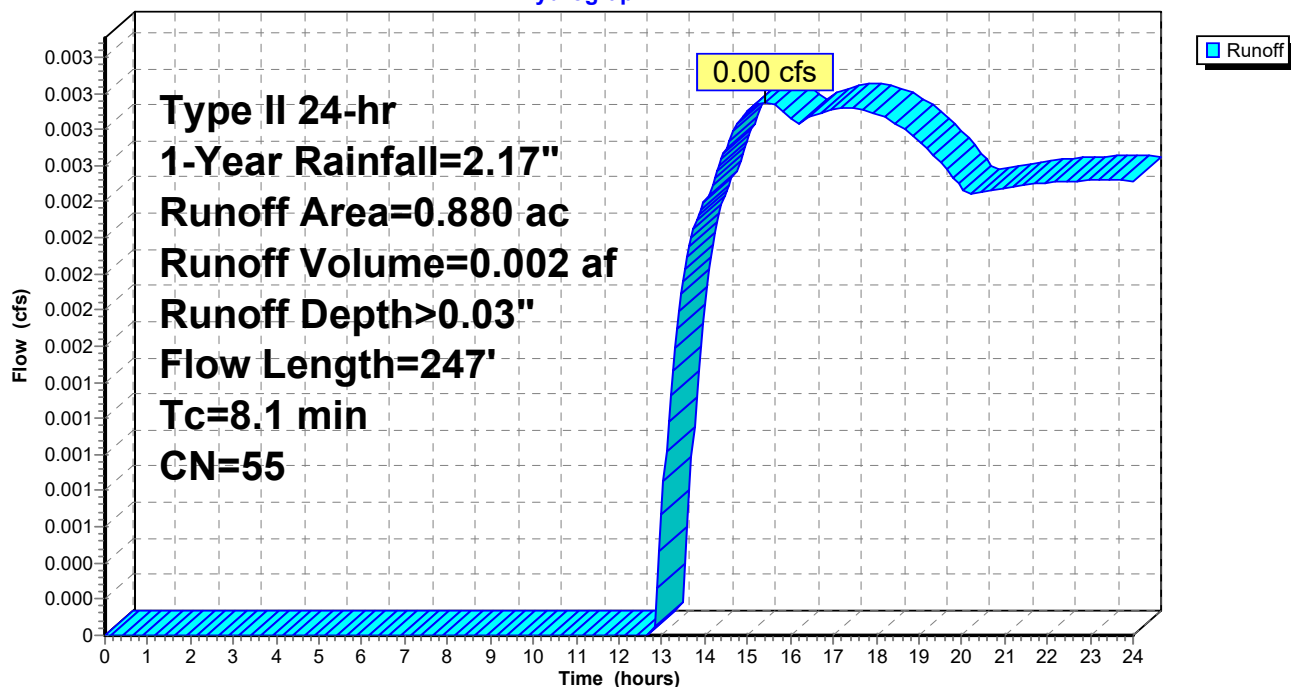
Area (ac)	CN	Description
0.880	55	Woods, Good, HSG B
0.880		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0950	0.25		<b>Sheet Flow,</b> Cultivated: Residue>20% n= 0.170 P2= 2.50"
1.5	147	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
8.1	247	Total			

**Subcatchment 4S: DA-4**

Hydrograph





**Summary for Subcatchment 5S: DA-5**

Runoff = 1.92 cfs @ 12.09 hrs, Volume= 0.165 af, Depth> 0.31"

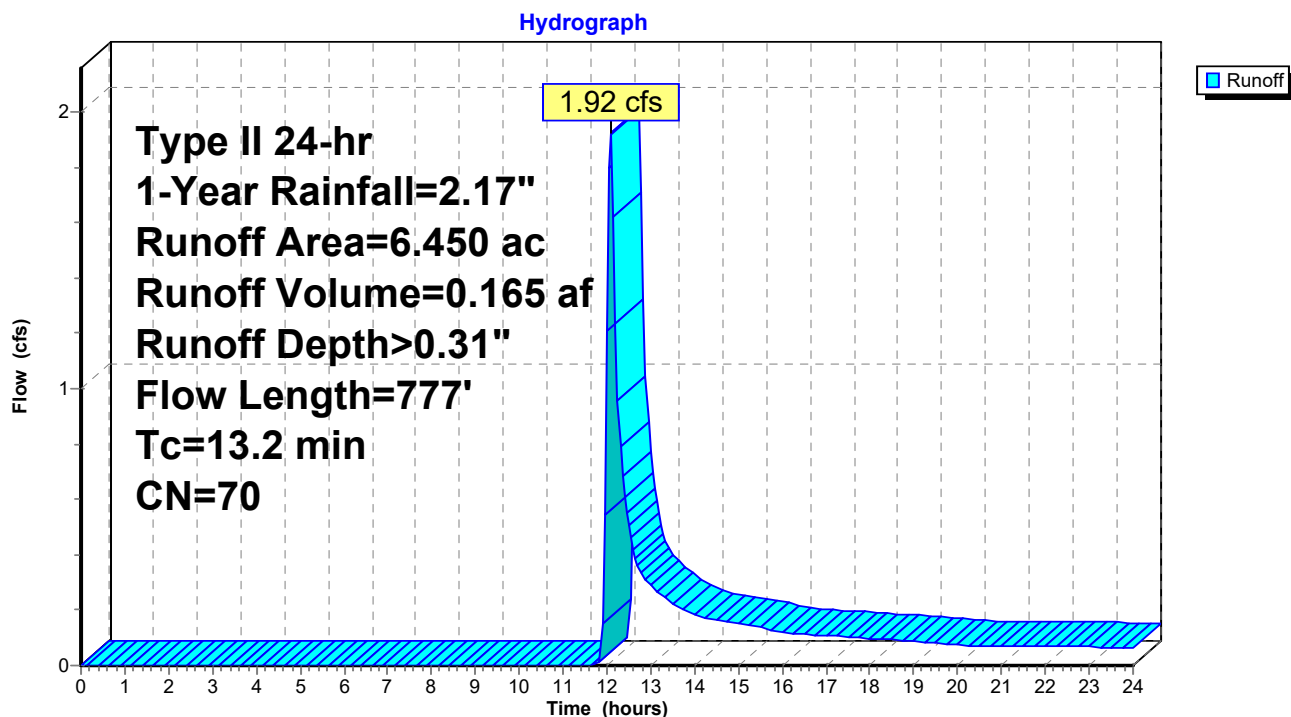
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
0.020	58	Meadow, non-grazed, HSG B
1.740	71	Meadow, non-grazed, HSG C
1.660	78	Meadow, non-grazed, HSG D
1.790	61	Pasture/grassland/range, Good, HSG B
0.030	74	Pasture/grassland/range, Good, HSG C
0.540	80	Pasture/grassland/range, Good, HSG D
0.280	55	Woods, Good, HSG B
0.340	70	Woods, Good, HSG C
0.050	77	Woods, Good, HSG D
6.450	70	Weighted Average
6.450		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1000	0.29		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
0.5	75	0.1200	2.42		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.7	252	0.0480	1.53		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
4.2	350	0.0770	1.39		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.2	777	Total			

# Subcatchment 5S: DA-5



**Summary for Subcatchment 6S: DA-6**

Runoff = 0.22 cfs @ 12.14 hrs, Volume= 0.044 af, Depth> 0.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.17"

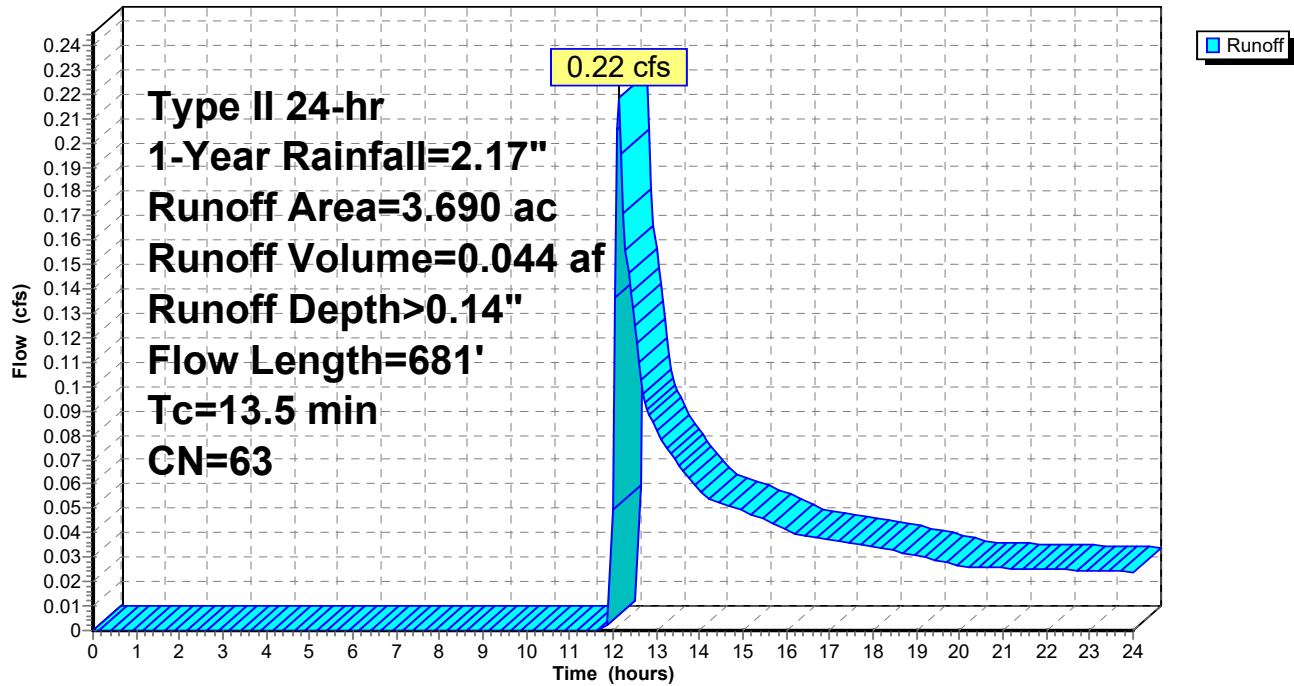
Area (ac)	CN	Description
1.920	55	Woods, Good, HSG B
0.040	77	Woods, Good, HSG D
0.210	58	Meadow, non-grazed, HSG B
0.760	71	Meadow, non-grazed, HSG C
0.760	78	Meadow, non-grazed, HSG D
3.690	63	Weighted Average
3.690		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.0700	0.25		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
1.1	125	0.0670	1.81		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
3.9	306	0.0670	1.29		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
1.8	150	0.0800	1.41		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.5	681	Total			

# Subcatchment 6S: DA-6

Hydrograph





**Summary for Subcatchment 7S: DA-7**

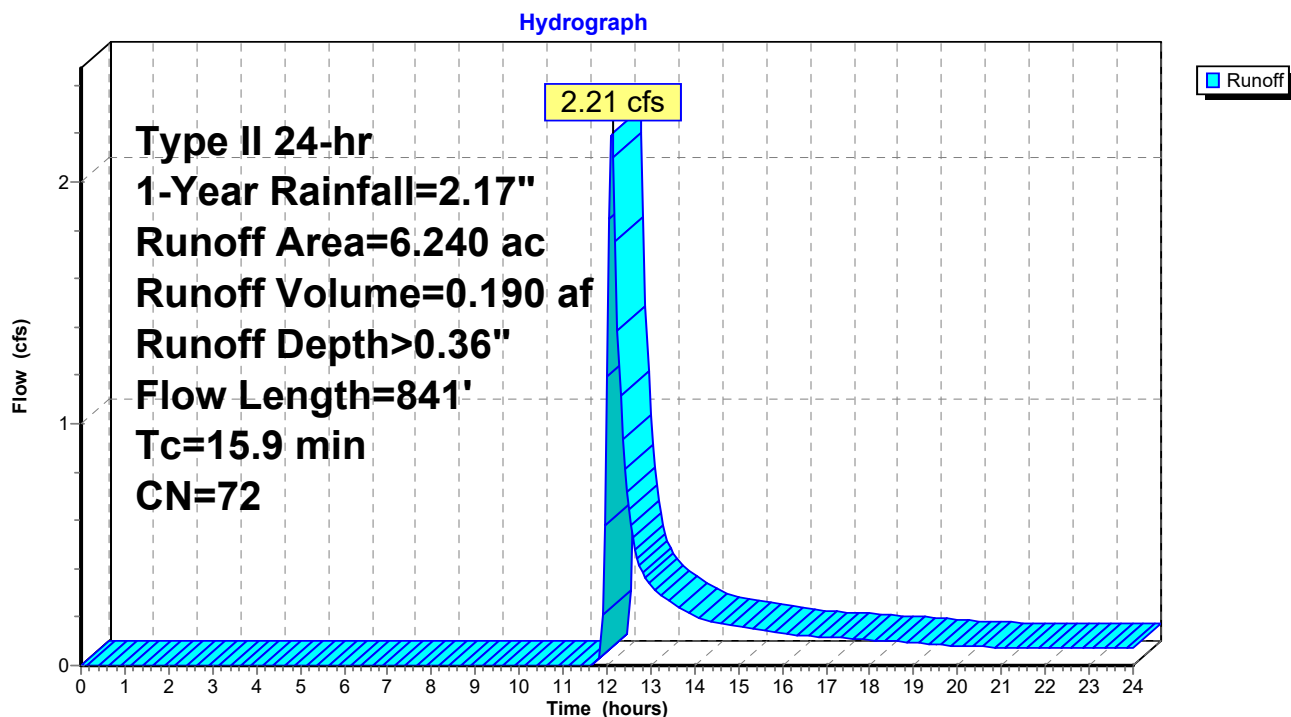
Runoff = 2.21 cfs @ 12.11 hrs, Volume= 0.190 af, Depth> 0.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
0.540	30	Meadow, non-grazed, HSG A
0.010	58	Meadow, non-grazed, HSG B
1.210	71	Meadow, non-grazed, HSG C
1.700	78	Meadow, non-grazed, HSG D
0.010	55	Woods, Good, HSG B
0.190	70	Woods, Good, HSG C
1.200	77	Woods, Good, HSG D
0.420	61	Pasture/grassland/range, Good, HSG B
0.710	80	Pasture/grassland/range, Good, HSG D
0.250	98	Water Surface, HSG C
6.240	72	Weighted Average
5.990		95.99% Pervious Area
0.250		4.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1000	0.29		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
1.8	210	0.0800	1.98		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.6	226	0.0420	1.43		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
4.4	190	0.0210	0.72		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
0.3	40	0.1500	1.94		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
1.0	75	0.0630	1.25		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
15.9	841	Total			

# Subcatchment 7S: DA-7

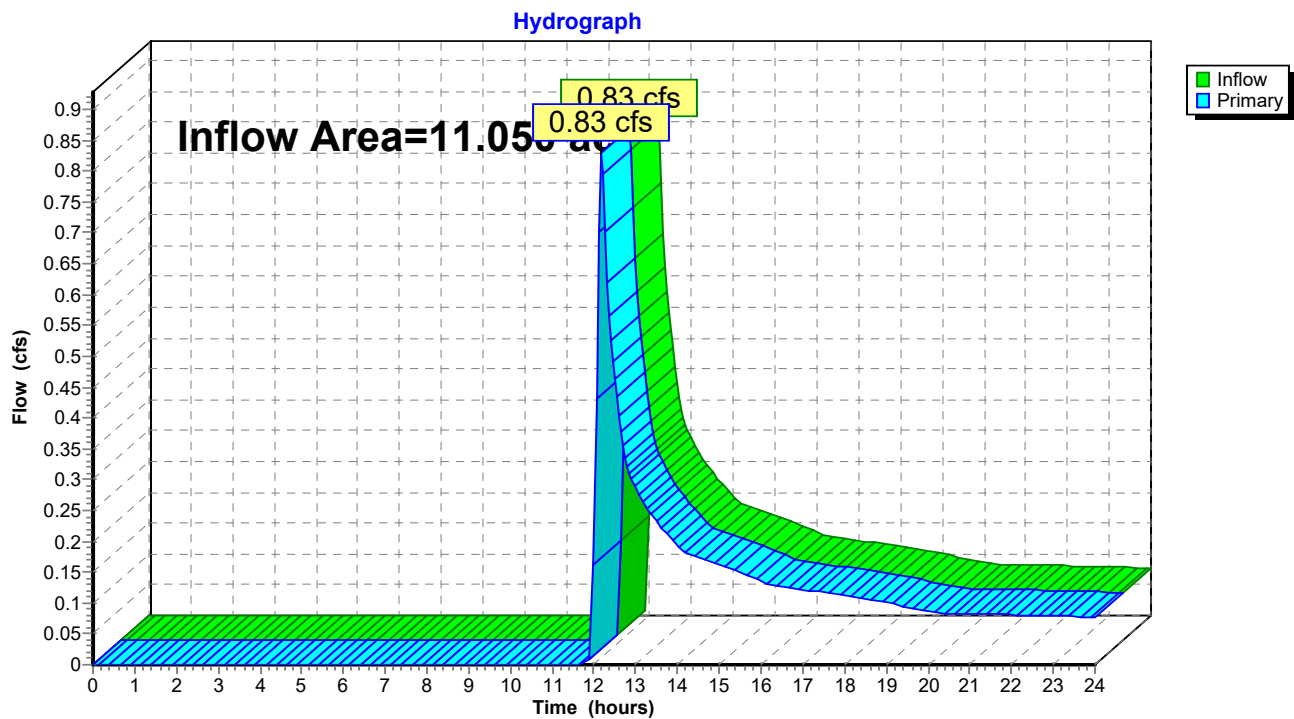


### Summary for Link 1L: DA-1

Inflow Area = 11.050 ac, 0.00% Impervious, Inflow Depth > 0.16" for 1-Year event  
 Inflow = 0.83 cfs @ 12.17 hrs, Volume= 0.149 af  
 Primary = 0.83 cfs @ 12.17 hrs, Volume= 0.149 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 1L: DA-1



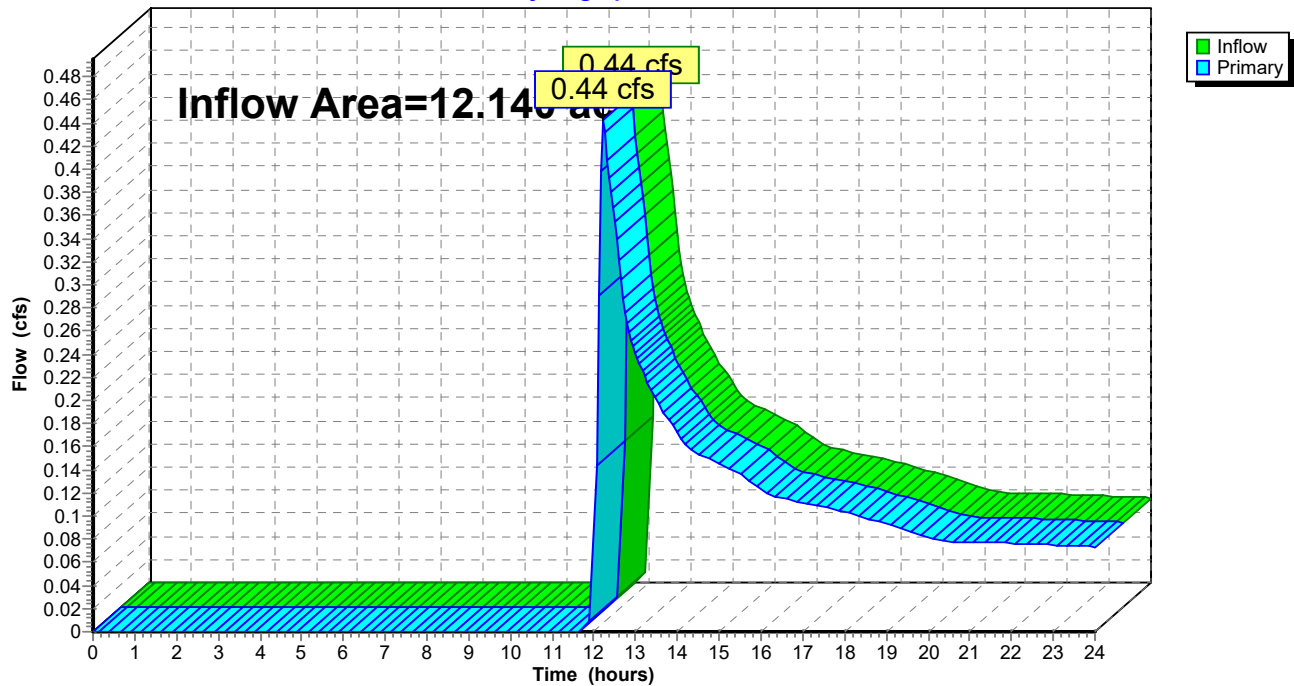
### Summary for Link 2L: DA-2

Inflow Area = 12.140 ac, 0.00% Impervious, Inflow Depth > 0.12" for 1-Year event  
 Inflow = 0.44 cfs @ 12.22 hrs, Volume= 0.126 af  
 Primary = 0.44 cfs @ 12.22 hrs, Volume= 0.126 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 2L: DA-2

Hydrograph



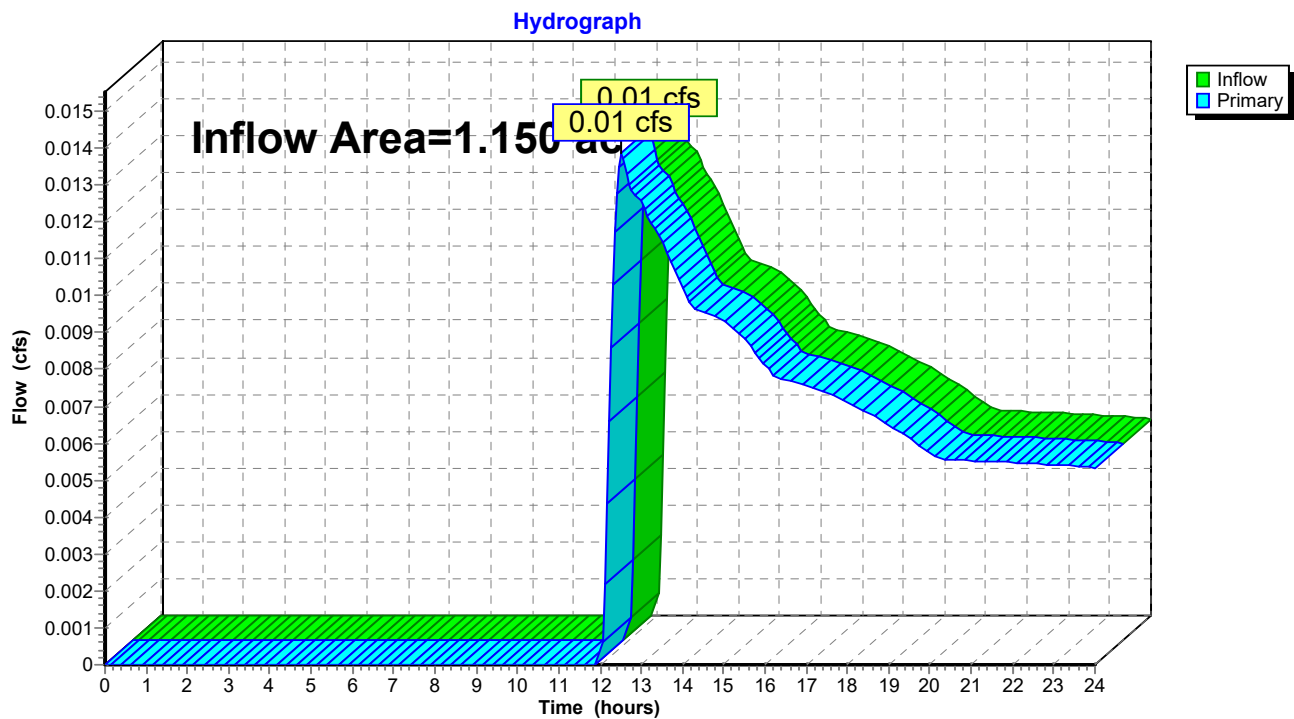


### Summary for Link 3L: DA-3

Inflow Area = 1.150 ac, 0.00% Impervious, Inflow Depth > 0.08" for 1-Year event  
 Inflow = 0.01 cfs @ 12.53 hrs, Volume= 0.007 af  
 Primary = 0.01 cfs @ 12.53 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 3L: DA-3

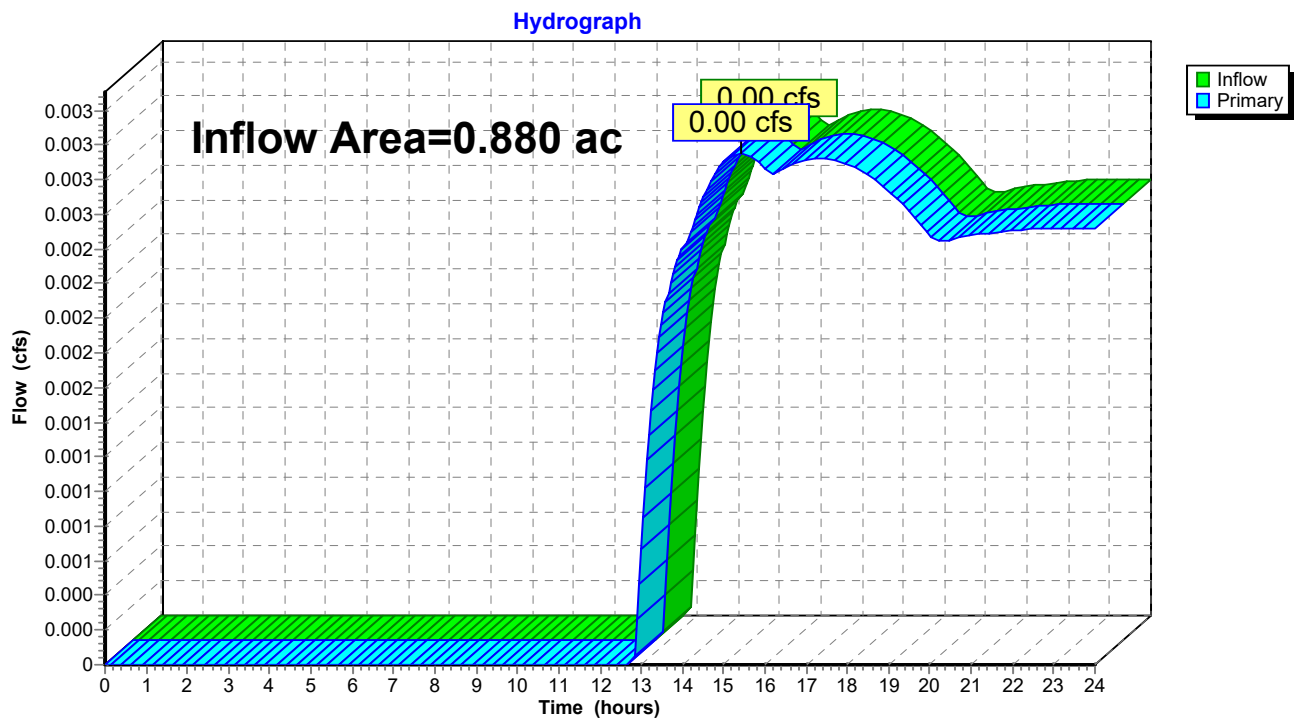


### Summary for Link 4L: DA-4

Inflow Area = 0.880 ac, 0.00% Impervious, Inflow Depth > 0.03" for 1-Year event  
 Inflow = 0.00 cfs @ 15.41 hrs, Volume= 0.002 af  
 Primary = 0.00 cfs @ 15.41 hrs, Volume= 0.002 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 4L: DA-4

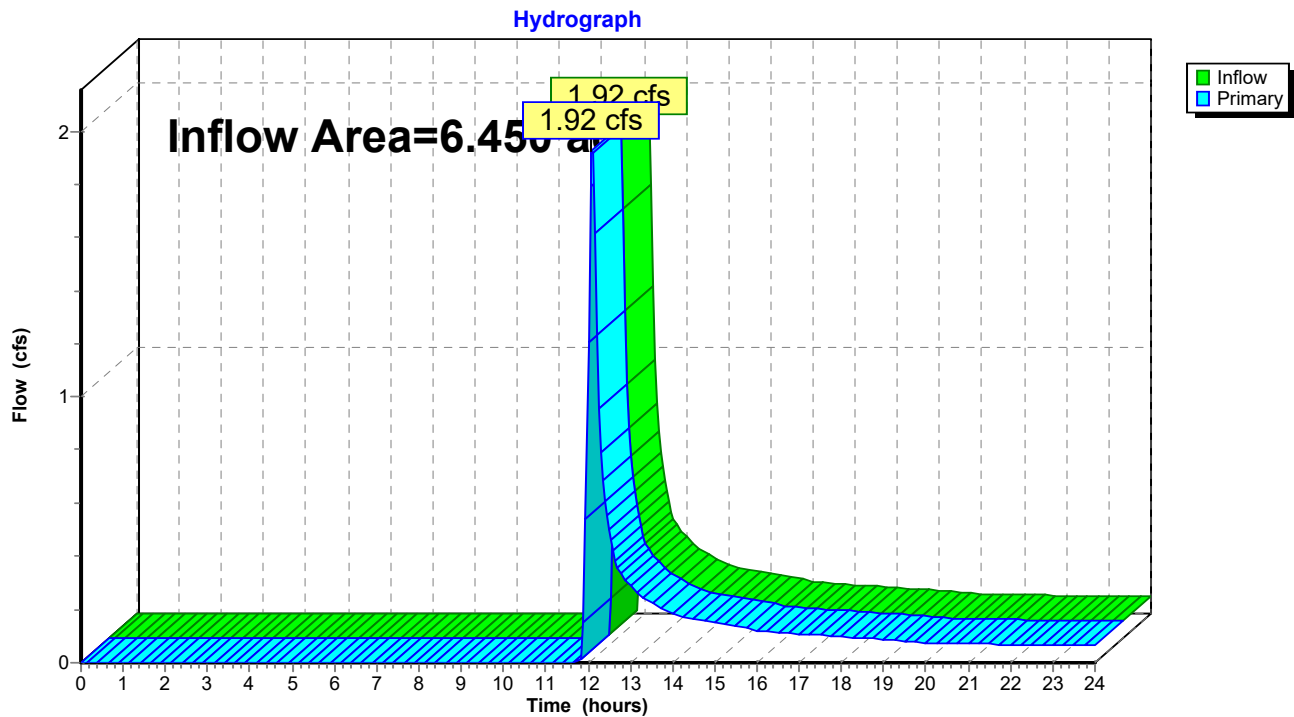


### Summary for Link 5L: DA-5

Inflow Area = 6.450 ac, 0.00% Impervious, Inflow Depth > 0.31" for 1-Year event  
 Inflow = 1.92 cfs @ 12.09 hrs, Volume= 0.165 af  
 Primary = 1.92 cfs @ 12.09 hrs, Volume= 0.165 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 5L: DA-5

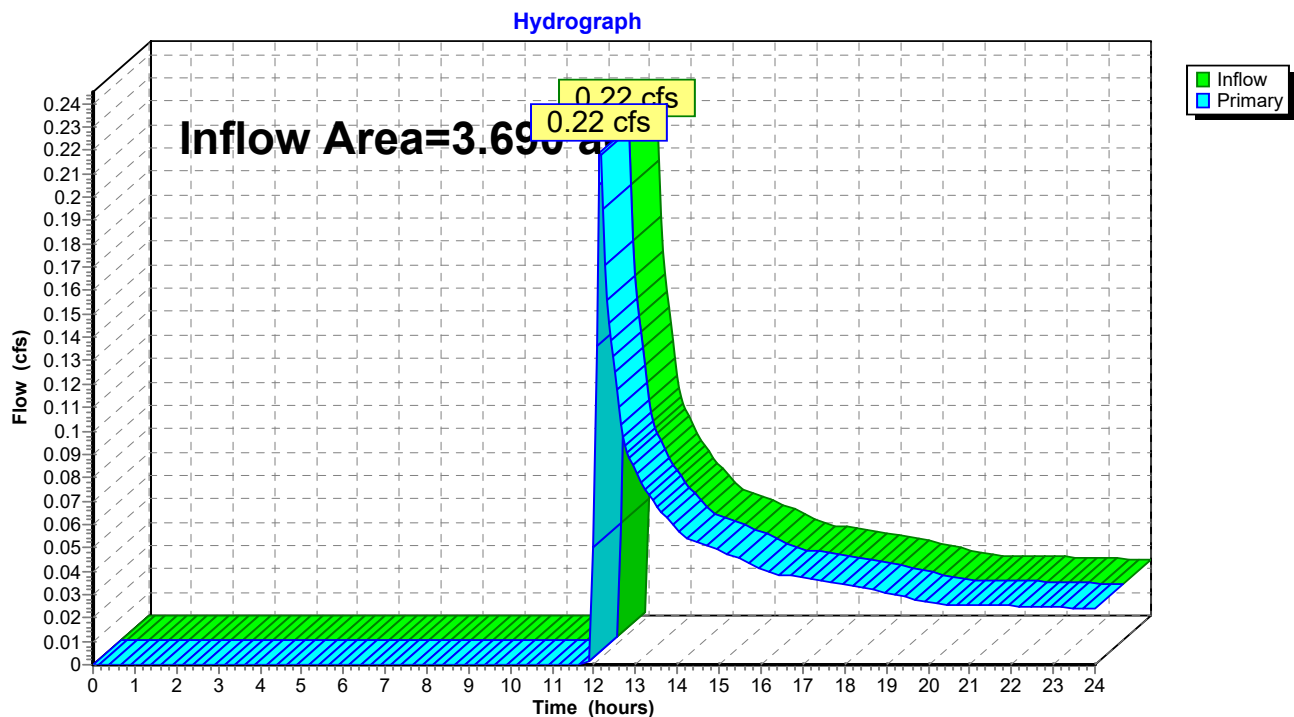


### Summary for Link 6L: DA-6

Inflow Area = 3.690 ac, 0.00% Impervious, Inflow Depth > 0.14" for 1-Year event  
 Inflow = 0.22 cfs @ 12.14 hrs, Volume= 0.044 af  
 Primary = 0.22 cfs @ 12.14 hrs, Volume= 0.044 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 6L: DA-6



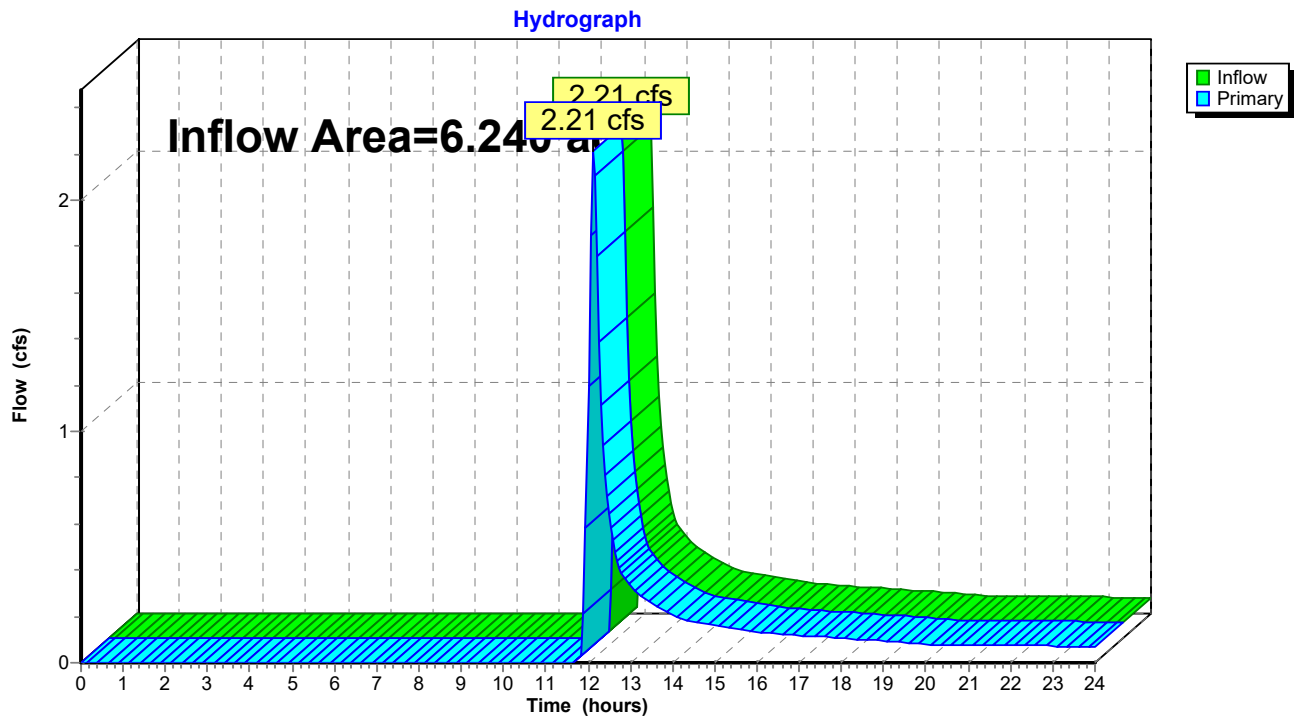


### Summary for Link 7L: DA-7

Inflow Area = 6.240 ac, 4.01% Impervious, Inflow Depth > 0.36" for 1-Year event  
 Inflow = 2.21 cfs @ 12.11 hrs, Volume= 0.190 af  
 Primary = 2.21 cfs @ 12.11 hrs, Volume= 0.190 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 7L: DA-7



Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points  
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

<b>Subcatchment1S: DA-1</b>	Runoff Area=11.050 ac 0.00% Impervious Runoff Depth>0.70" Flow Length=1,300' Tc=15.9 min CN=64 Runoff=8.16 cfs 0.645 af
<b>Subcatchment2S: DA-2</b>	Runoff Area=12.140 ac 0.00% Impervious Runoff Depth>0.61" Flow Length=1,279' Tc=16.7 min CN=62 Runoff=7.13 cfs 0.618 af
<b>Subcatchment3S: DA-3</b>	Runoff Area=1.150 ac 0.00% Impervious Runoff Depth>0.49" Flow Length=577' Tc=13.9 min CN=59 Runoff=0.53 cfs 0.047 af
<b>Subcatchment4S: DA-4</b>	Runoff Area=0.880 ac 0.00% Impervious Runoff Depth>0.34" Flow Length=247' Tc=8.1 min CN=55 Runoff=0.29 cfs 0.025 af
<b>Subcatchment5S: DA-5</b>	Runoff Area=6.450 ac 0.00% Impervious Runoff Depth>1.00" Flow Length=777' Tc=13.2 min CN=70 Runoff=8.40 cfs 0.540 af
<b>Subcatchment6S: DA-6</b>	Runoff Area=3.690 ac 0.00% Impervious Runoff Depth>0.66" Flow Length=681' Tc=13.5 min CN=63 Runoff=2.71 cfs 0.202 af
<b>Subcatchment7S: DA-7</b>	Runoff Area=6.240 ac 4.01% Impervious Runoff Depth>1.12" Flow Length=841' Tc=15.9 min CN=72 Runoff=8.35 cfs 0.580 af
<b>Link 1L: DA-1</b>	Inflow=8.16 cfs 0.645 af Primary=8.16 cfs 0.645 af
<b>Link 2L: DA-2</b>	Inflow=7.13 cfs 0.618 af Primary=7.13 cfs 0.618 af
<b>Link 3L: DA-3</b>	Inflow=0.53 cfs 0.047 af Primary=0.53 cfs 0.047 af
<b>Link 4L: DA-4</b>	Inflow=0.29 cfs 0.025 af Primary=0.29 cfs 0.025 af
<b>Link 5L: DA-5</b>	Inflow=8.40 cfs 0.540 af Primary=8.40 cfs 0.540 af
<b>Link 6L: DA-6</b>	Inflow=2.71 cfs 0.202 af Primary=2.71 cfs 0.202 af
<b>Link 7L: DA-7</b>	Inflow=8.35 cfs 0.580 af Primary=8.35 cfs 0.580 af

**Total Runoff Area = 41.600 ac Runoff Volume = 2.657 af Average Runoff Depth = 0.77"**  
**99.40% Pervious = 41.350 ac 0.60% Impervious = 0.250 ac**

### Summary for Subcatchment 1S: DA-1

Runoff = 8.16 cfs @ 12.11 hrs, Volume= 0.645 af, Depth> 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.50"

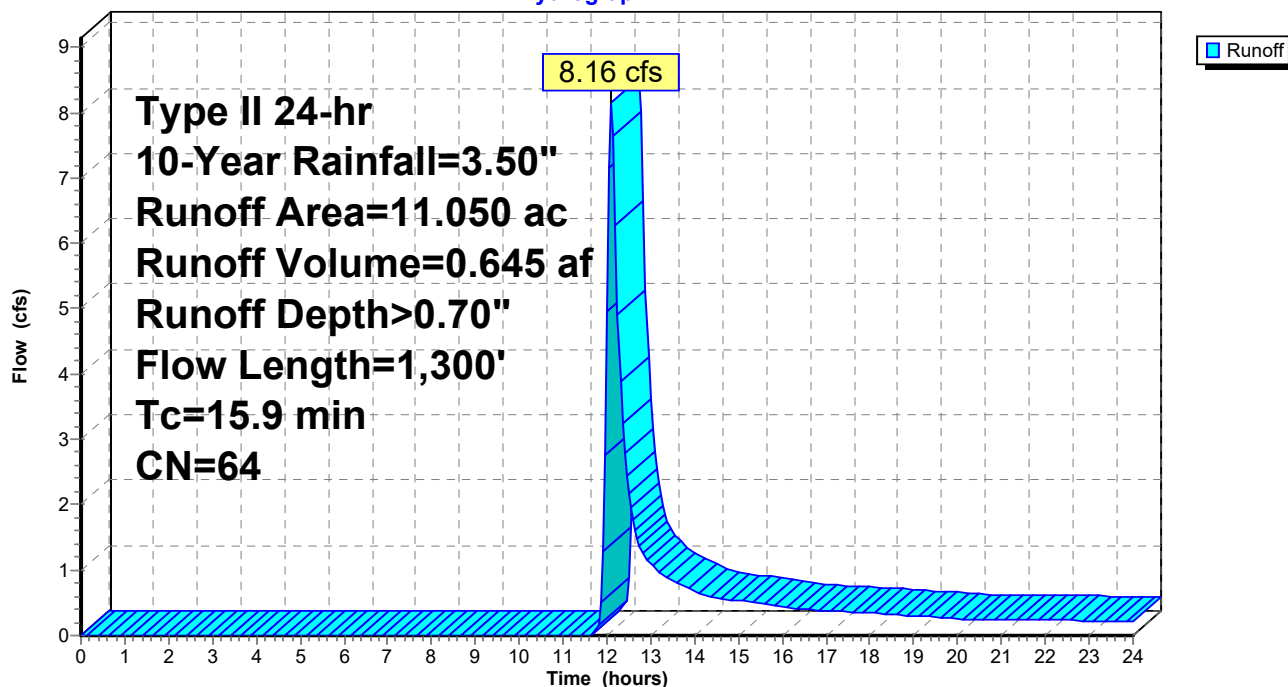
Area (ac)	CN	Description
9.120	61	Pasture/grassland/range, Good, HSG B
1.610	80	Pasture/grassland/range, Good, HSG D
0.240	58	Meadow, non-grazed, HSG B
0.080	78	Meadow, non-grazed, HSG D
11.050	64	Weighted Average
11.050		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	100	0.0840	0.24		<b>Sheet Flow,</b> Cultivated: Residue>20% n= 0.170 P2= 2.50"
3.4	367	0.0410	1.82		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
2.6	350	0.0640	2.28		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
2.6	449	0.0990	2.83		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
0.4	34	0.0500	1.57		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
15.9	1,300	Total			

# Subcatchment 1S: DA-1

Hydrograph





### Summary for Subcatchment 2S: DA-2

Runoff = 7.13 cfs @ 12.12 hrs, Volume= 0.618 af, Depth> 0.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.50"

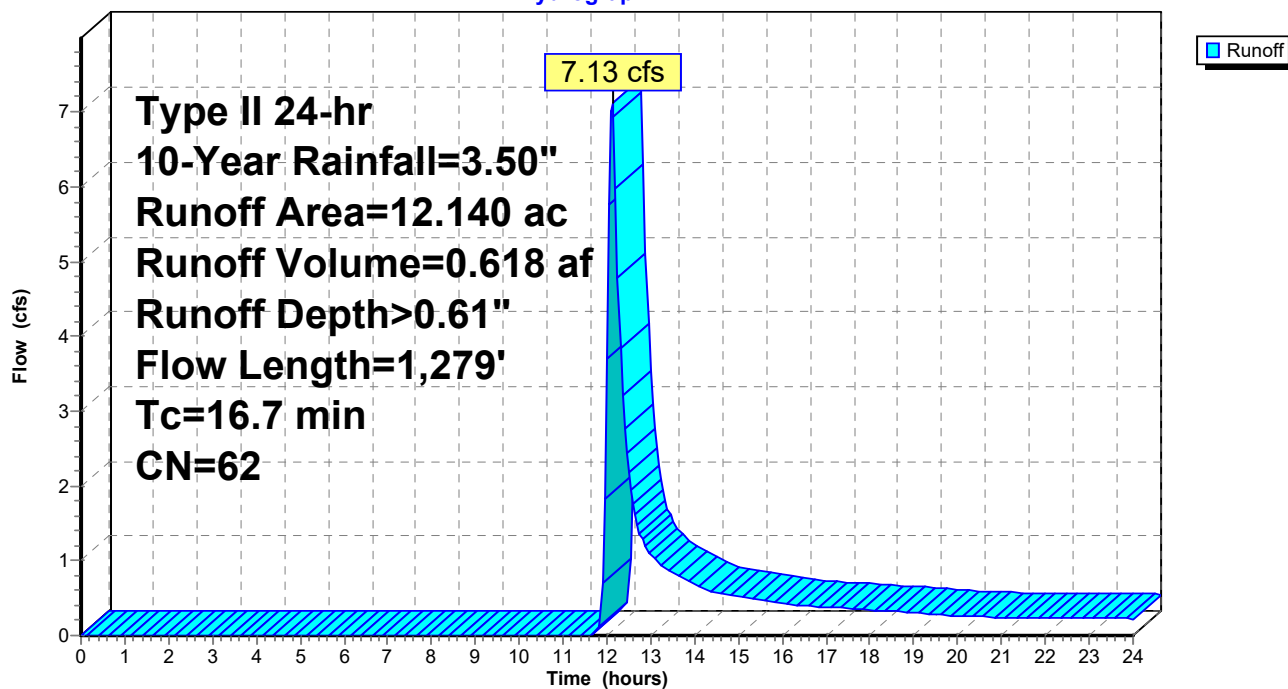
Area (ac)	CN	Description
11.120	61	Pasture/grassland/range, Good, HSG B
0.400	55	Woods, Good, HSG B
0.140	77	Woods, Good, HSG D
0.480	80	Pasture/grassland/range, Good, HSG D
12.140	62	Weighted Average
12.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	100	0.0600	0.21		<b>Sheet Flow,</b> Cultivated: Residue>20% n= 0.170 P2= 2.50"
2.4	290	0.0520	2.05		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
1.9	288	0.0760	2.48		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
2.9	471	0.0900	2.70		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
1.6	130	0.0380	1.36		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
16.7	1,279	Total			

## Subcatchment 2S: DA-2

Hydrograph



**Summary for Subcatchment 3S: DA-3**

Runoff = 0.53 cfs @ 12.10 hrs, Volume= 0.047 af, Depth> 0.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.50"

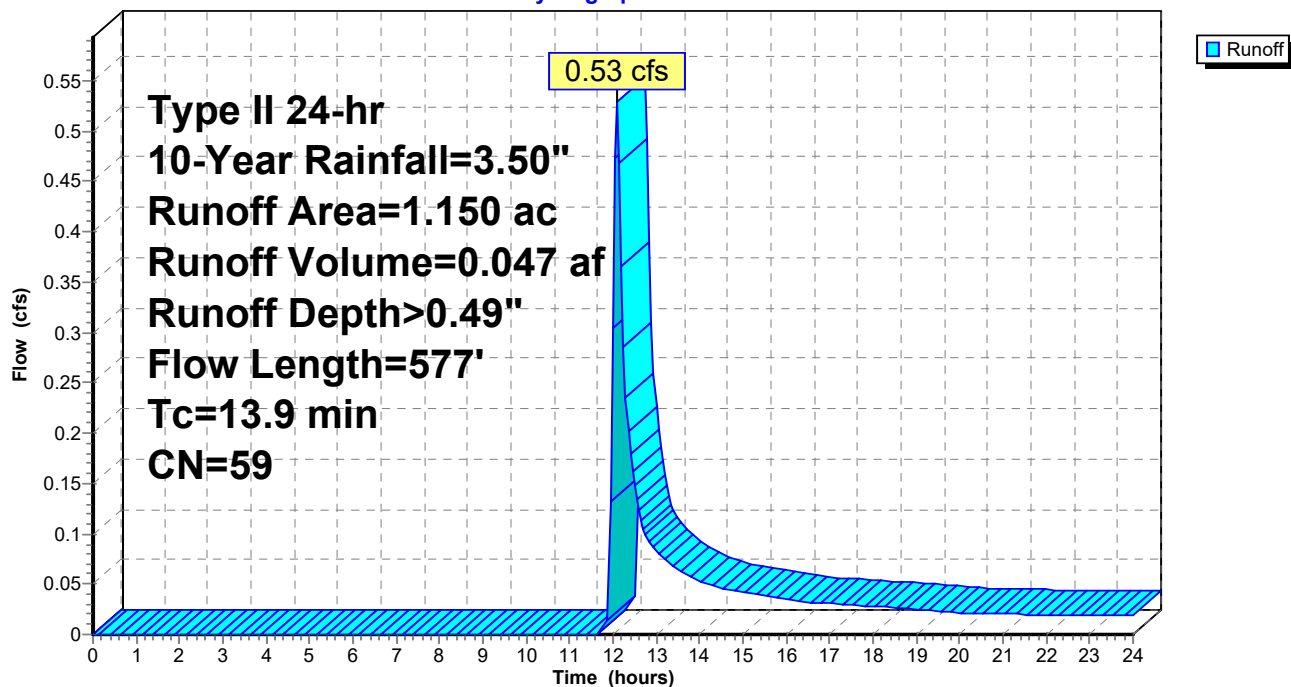
Area (ac)	CN	Description
0.850	61	Pasture/grassland/range, Good, HSG B
0.300	55	Woods, Good, HSG B
1.150	59	Weighted Average
1.150		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0380	0.18		<b>Sheet Flow,</b> Cultivated: Residue>20% n= 0.170 P2= 2.50"
1.5	145	0.0320	1.61		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
1.3	216	0.0920	2.73		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
1.6	116	0.0610	1.23		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.9	577	Total			

**Subcatchment 3S: DA-3**

Hydrograph



### Summary for Subcatchment 4S: DA-4

Runoff = 0.29 cfs @ 12.04 hrs, Volume= 0.025 af, Depth> 0.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.50"

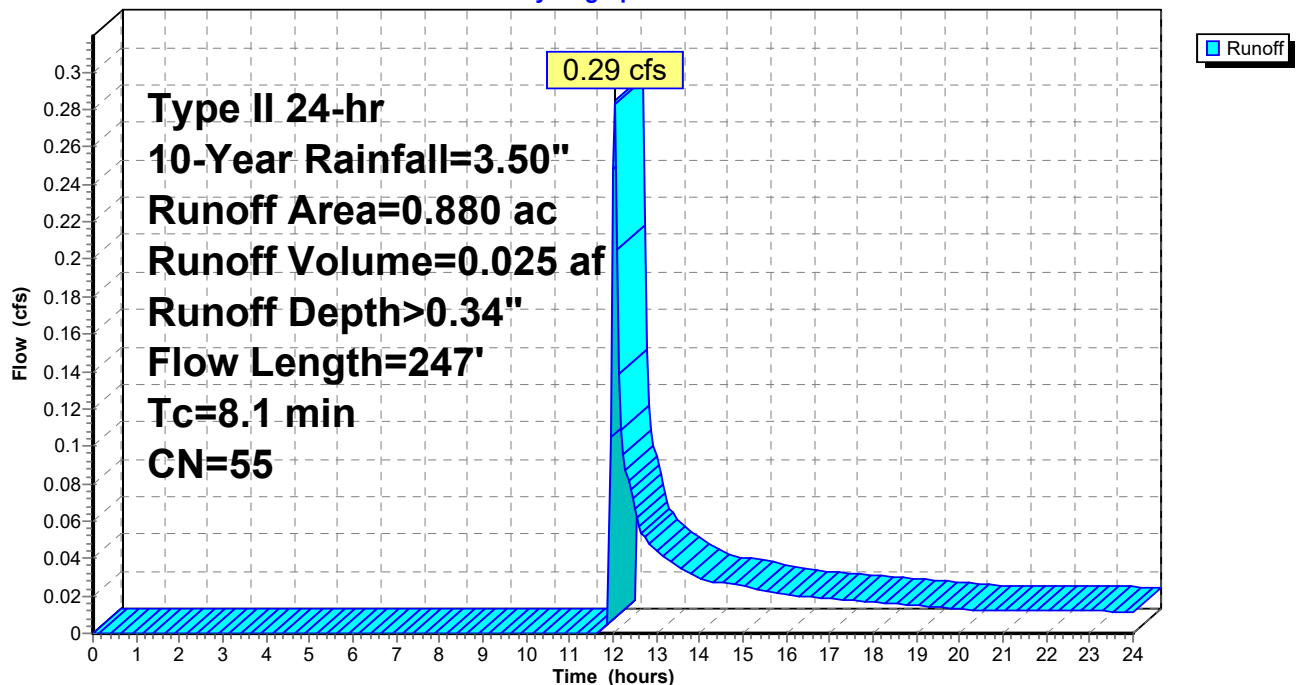
Area (ac)	CN	Description
0.880	55	Woods, Good, HSG B
0.880		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0950	0.25		<b>Sheet Flow,</b> Cultivated: Residue>20% n= 0.170 P2= 2.50"
1.5	147	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
8.1	247	Total			

### Subcatchment 4S: DA-4

Hydrograph





### Summary for Subcatchment 5S: DA-5

Runoff = 8.40 cfs @ 12.06 hrs, Volume= 0.540 af, Depth> 1.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.50"

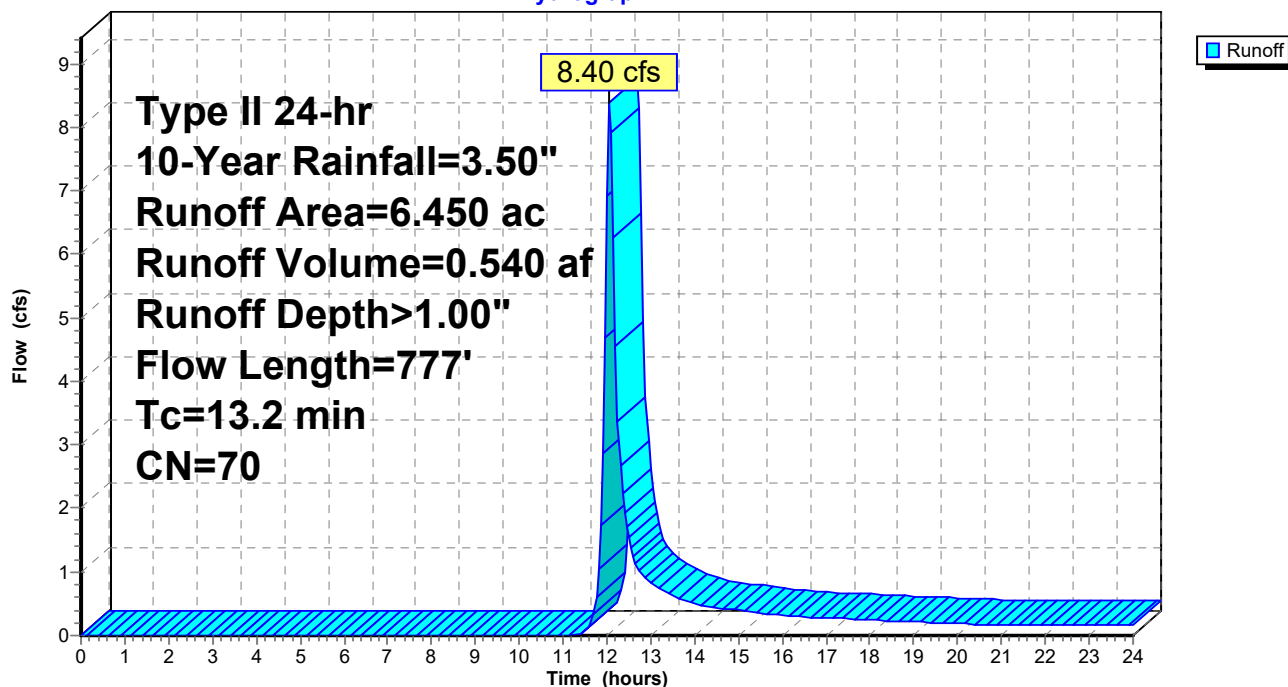
Area (ac)	CN	Description
0.020	58	Meadow, non-grazed, HSG B
1.740	71	Meadow, non-grazed, HSG C
1.660	78	Meadow, non-grazed, HSG D
1.790	61	Pasture/grassland/range, Good, HSG B
0.030	74	Pasture/grassland/range, Good, HSG C
0.540	80	Pasture/grassland/range, Good, HSG D
0.280	55	Woods, Good, HSG B
0.340	70	Woods, Good, HSG C
0.050	77	Woods, Good, HSG D
6.450	70	Weighted Average
6.450		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1000	0.29		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
0.5	75	0.1200	2.42		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.7	252	0.0480	1.53		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
4.2	350	0.0770	1.39		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.2	777	Total			

# Subcatchment 5S: DA-5

Hydrograph



### Summary for Subcatchment 6S: DA-6

Runoff = 2.71 cfs @ 12.08 hrs, Volume= 0.202 af, Depth> 0.66"

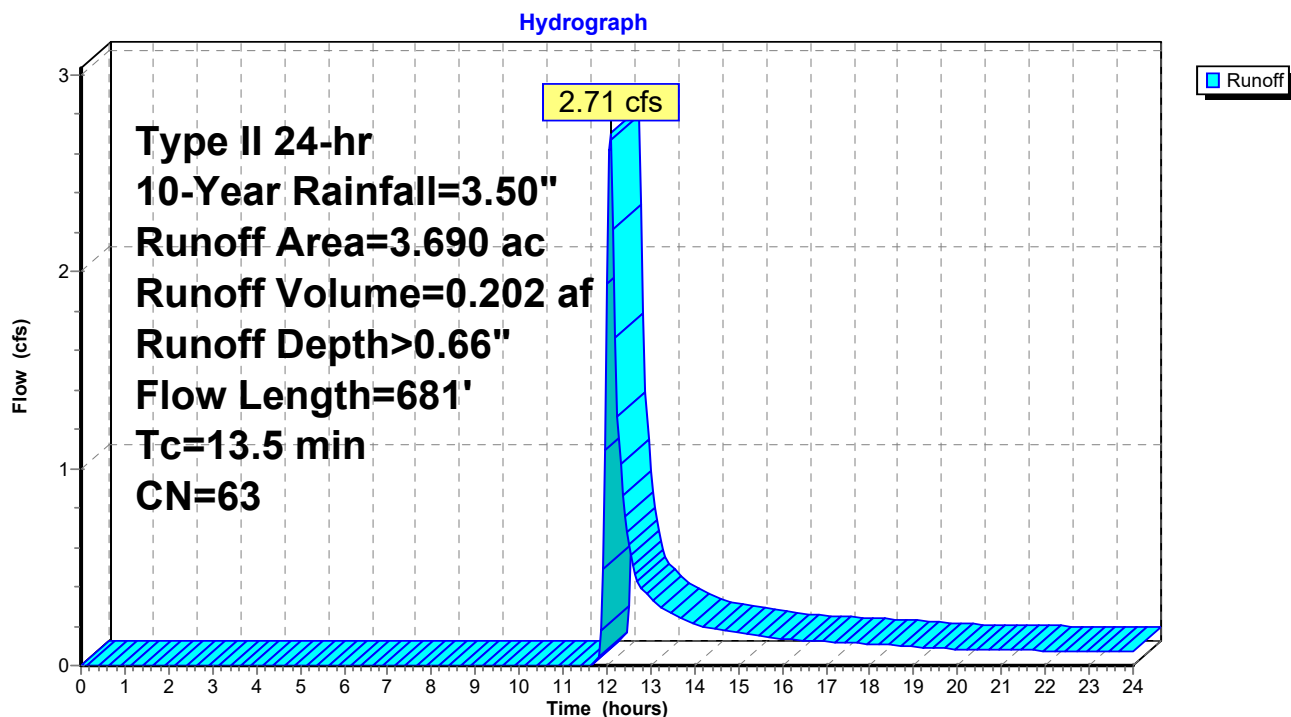
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.50"

Area (ac)	CN	Description
1.920	55	Woods, Good, HSG B
0.040	77	Woods, Good, HSG D
0.210	58	Meadow, non-grazed, HSG B
0.760	71	Meadow, non-grazed, HSG C
0.760	78	Meadow, non-grazed, HSG D
3.690	63	Weighted Average
3.690		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.0700	0.25		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
1.1	125	0.0670	1.81		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
3.9	306	0.0670	1.29		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
1.8	150	0.0800	1.41		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.5	681	Total			

# Subcatchment 6S: DA-6





**Summary for Subcatchment 7S: DA-7**

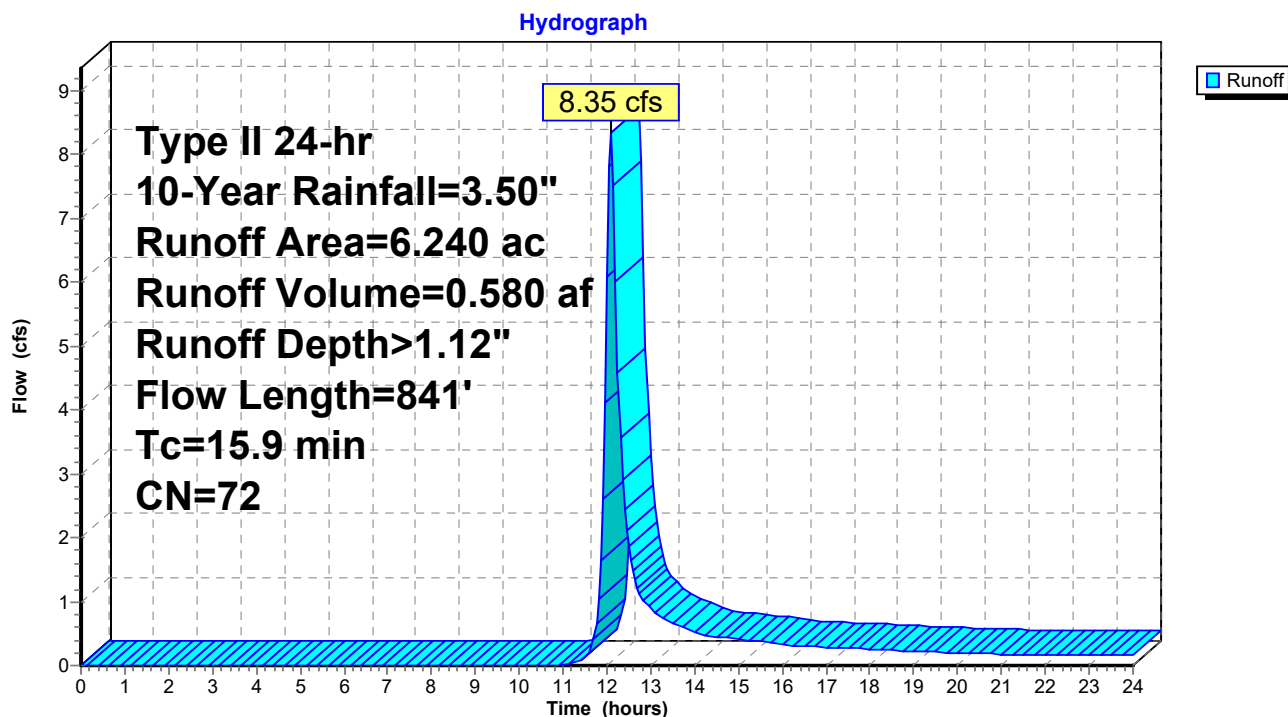
Runoff = 8.35 cfs @ 12.09 hrs, Volume= 0.580 af, Depth> 1.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.50"

Area (ac)	CN	Description
0.540	30	Meadow, non-grazed, HSG A
0.010	58	Meadow, non-grazed, HSG B
1.210	71	Meadow, non-grazed, HSG C
1.700	78	Meadow, non-grazed, HSG D
0.010	55	Woods, Good, HSG B
0.190	70	Woods, Good, HSG C
1.200	77	Woods, Good, HSG D
0.420	61	Pasture/grassland/range, Good, HSG B
0.710	80	Pasture/grassland/range, Good, HSG D
0.250	98	Water Surface, HSG C
6.240	72	Weighted Average
5.990		95.99% Pervious Area
0.250		4.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1000	0.29		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
1.8	210	0.0800	1.98		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.6	226	0.0420	1.43		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
4.4	190	0.0210	0.72		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
0.3	40	0.1500	1.94		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
1.0	75	0.0630	1.25		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
15.9	841	Total			

Subcatchment 7S: DA-7

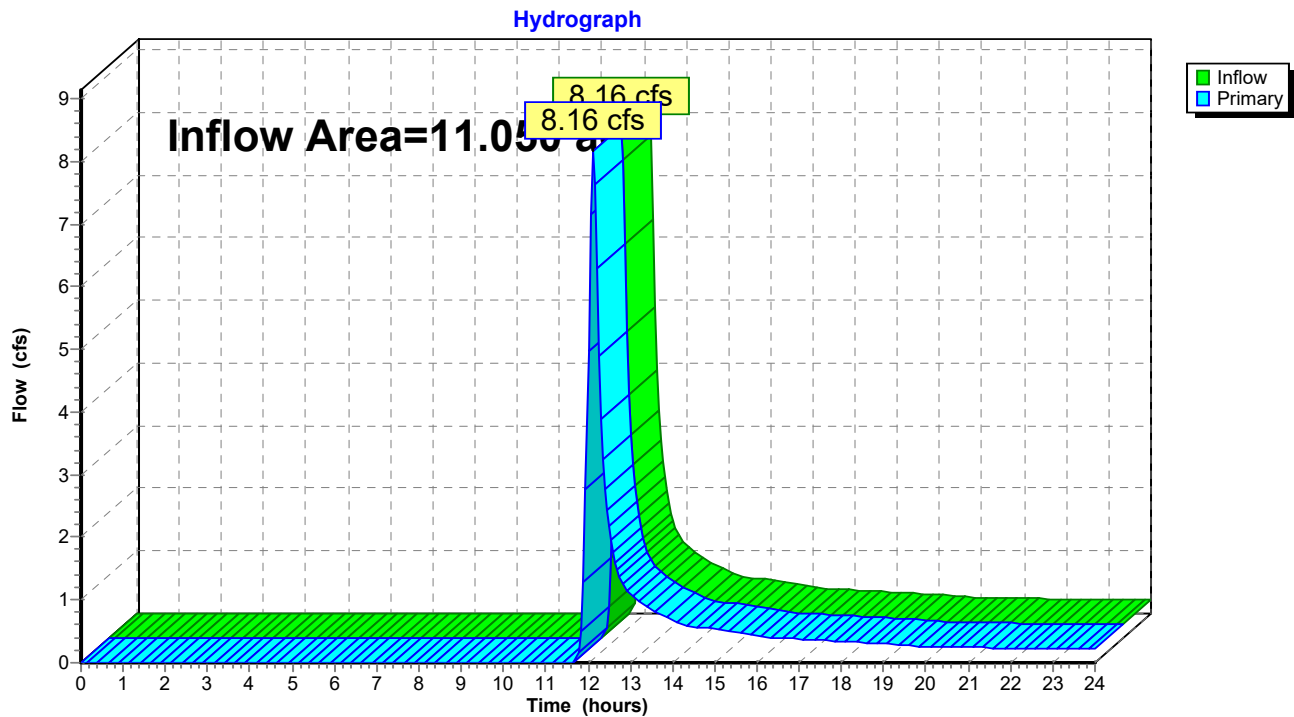


### Summary for Link 1L: DA-1

Inflow Area = 11.050 ac, 0.00% Impervious, Inflow Depth > 0.70" for 10-Year event  
 Inflow = 8.16 cfs @ 12.11 hrs, Volume= 0.645 af  
 Primary = 8.16 cfs @ 12.11 hrs, Volume= 0.645 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 1L: DA-1

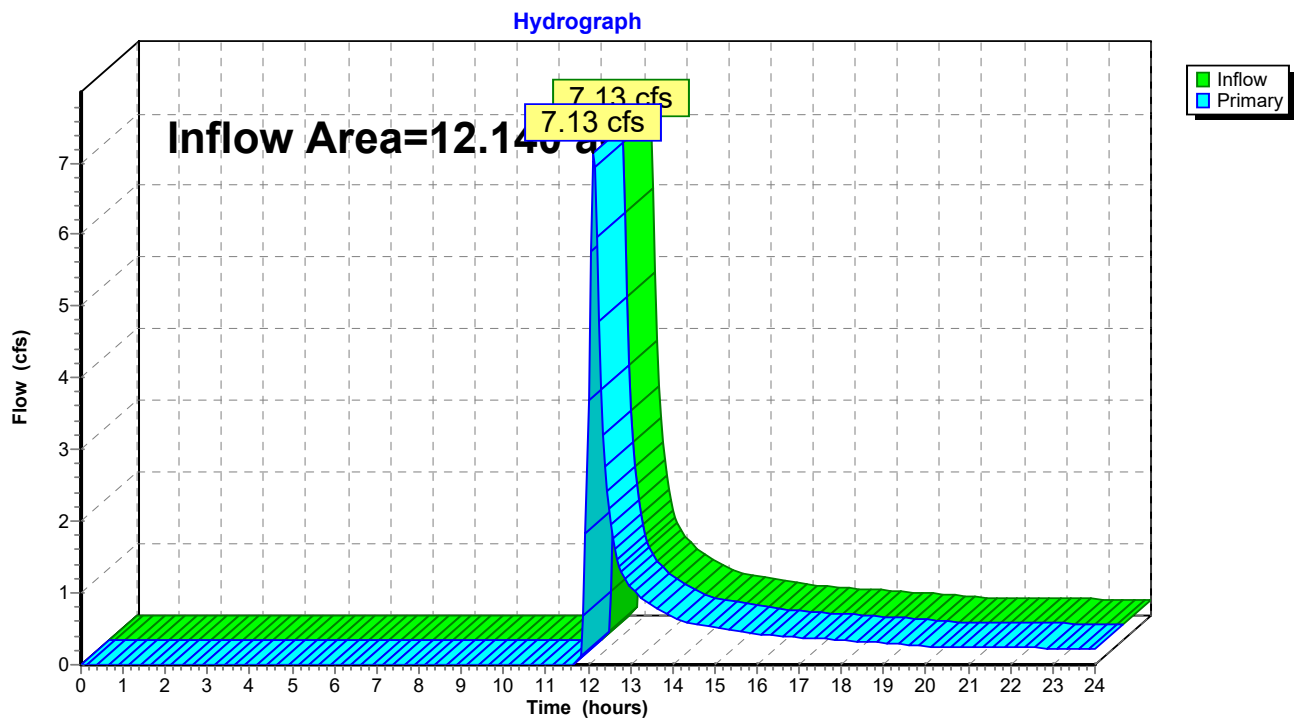


### Summary for Link 2L: DA-2

Inflow Area = 12.140 ac, 0.00% Impervious, Inflow Depth > 0.61" for 10-Year event  
 Inflow = 7.13 cfs @ 12.12 hrs, Volume= 0.618 af  
 Primary = 7.13 cfs @ 12.12 hrs, Volume= 0.618 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 2L: DA-2





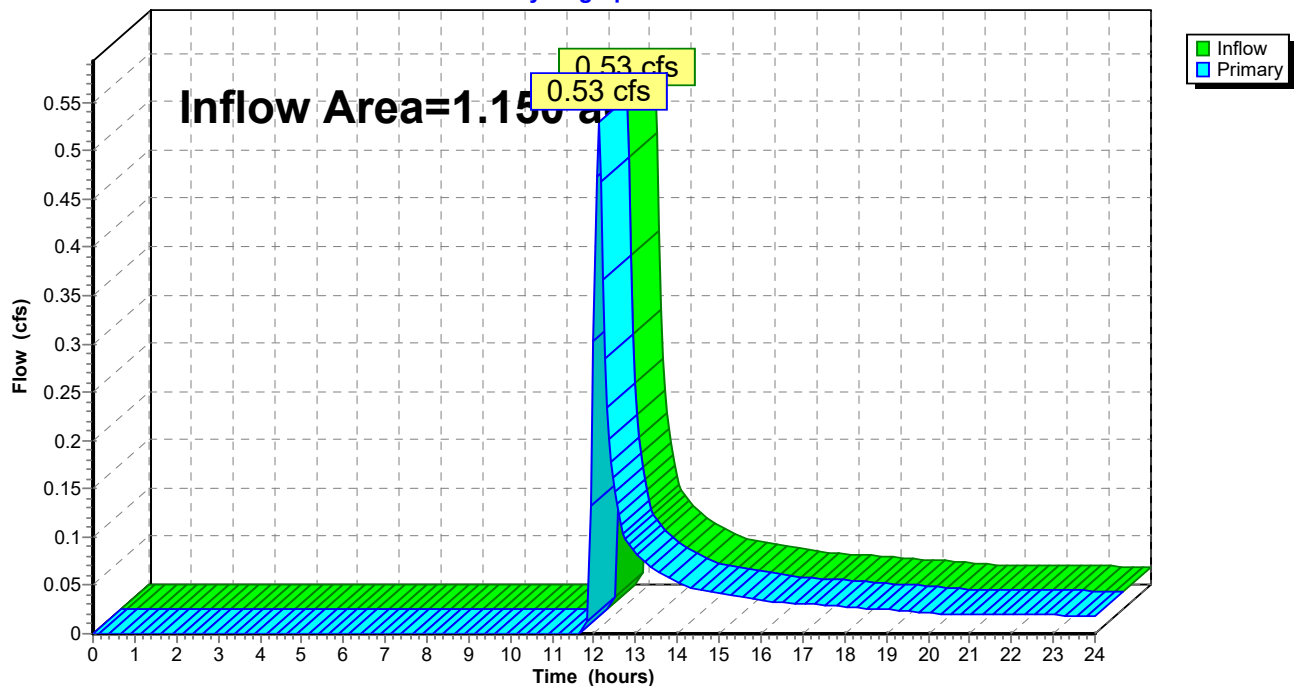
### Summary for Link 3L: DA-3

Inflow Area = 1.150 ac, 0.00% Impervious, Inflow Depth > 0.49" for 10-Year event  
 Inflow = 0.53 cfs @ 12.10 hrs, Volume= 0.047 af  
 Primary = 0.53 cfs @ 12.10 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 3L: DA-3

Hydrograph

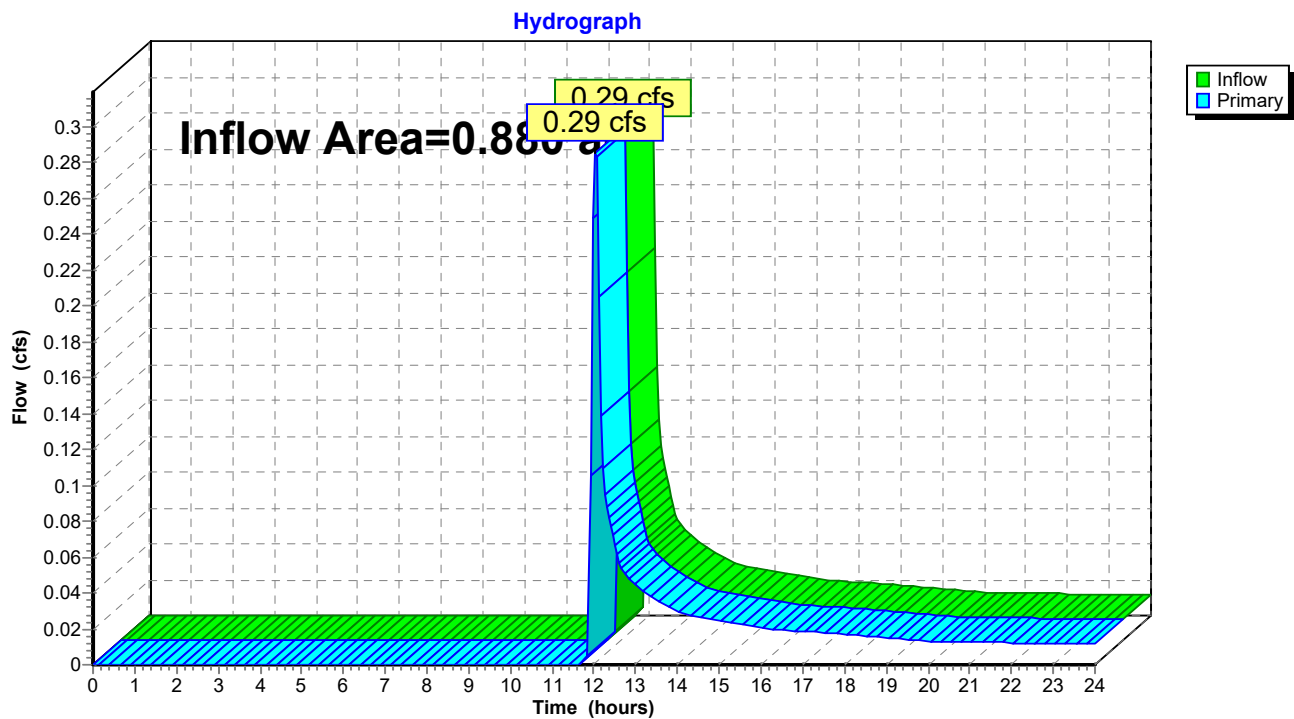


### Summary for Link 4L: DA-4

Inflow Area = 0.880 ac, 0.00% Impervious, Inflow Depth > 0.34" for 10-Year event  
 Inflow = 0.29 cfs @ 12.04 hrs, Volume= 0.025 af  
 Primary = 0.29 cfs @ 12.04 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 4L: DA-4

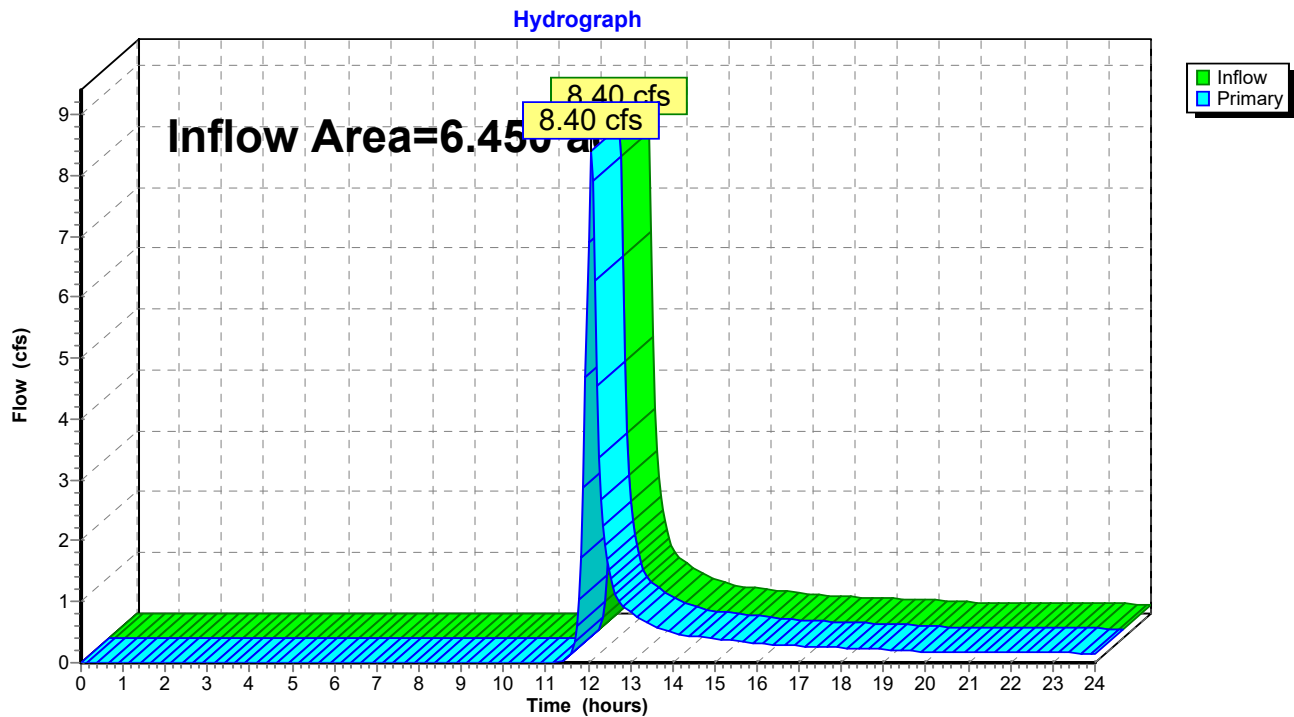


### Summary for Link 5L: DA-5

Inflow Area = 6.450 ac, 0.00% Impervious, Inflow Depth > 1.00" for 10-Year event  
 Inflow = 8.40 cfs @ 12.06 hrs, Volume= 0.540 af  
 Primary = 8.40 cfs @ 12.06 hrs, Volume= 0.540 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 5L: DA-5

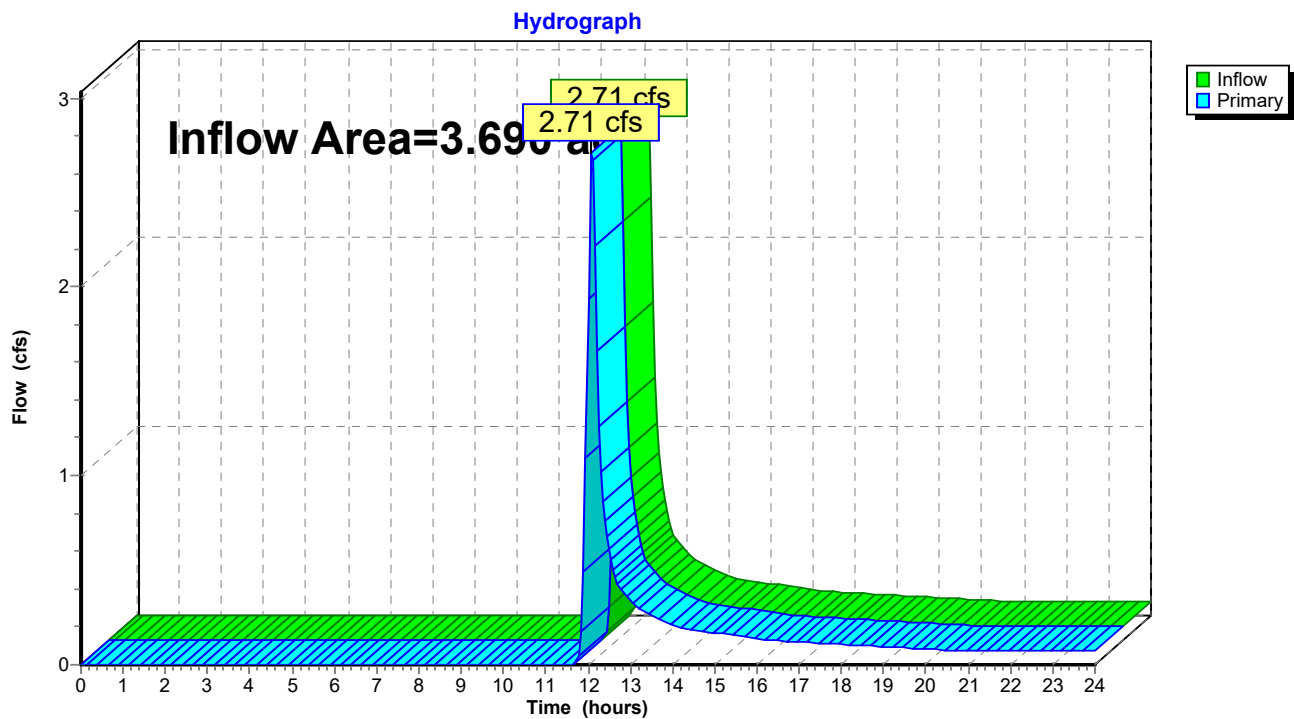


### Summary for Link 6L: DA-6

Inflow Area = 3.690 ac, 0.00% Impervious, Inflow Depth > 0.66" for 10-Year event  
 Inflow = 2.71 cfs @ 12.08 hrs, Volume= 0.202 af  
 Primary = 2.71 cfs @ 12.08 hrs, Volume= 0.202 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 6L: DA-6



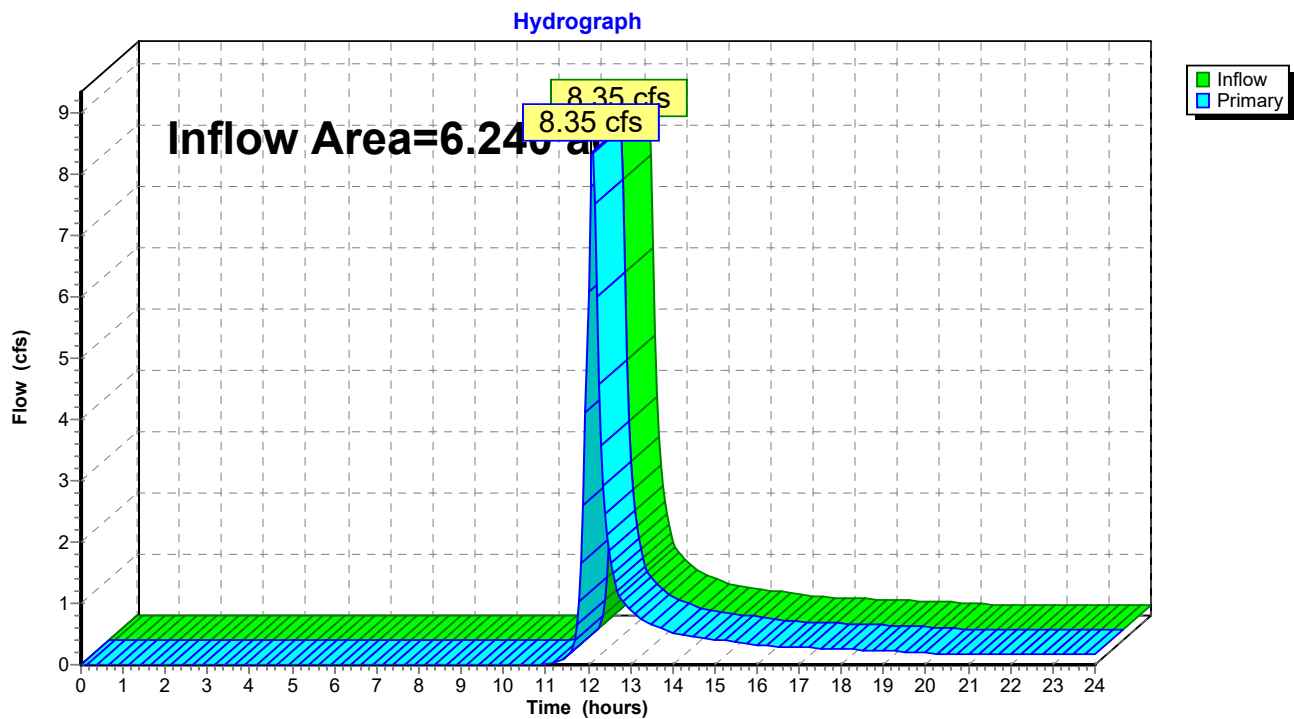


### Summary for Link 7L: DA-7

Inflow Area = 6.240 ac, 4.01% Impervious, Inflow Depth > 1.12" for 10-Year event  
 Inflow = 8.35 cfs @ 12.09 hrs, Volume= 0.580 af  
 Primary = 8.35 cfs @ 12.09 hrs, Volume= 0.580 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 7L: DA-7



Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

<b>Subcatchment1S: DA-1</b>	Runoff Area=11.050 ac 0.00% Impervious Runoff Depth>2.03" Flow Length=1,300' Tc=15.9 min CN=64 Runoff=27.37 cfs 1.868 af
<b>Subcatchment2S: DA-2</b>	Runoff Area=12.140 ac 0.00% Impervious Runoff Depth>1.86" Flow Length=1,279' Tc=16.7 min CN=62 Runoff=26.65 cfs 1.887 af
<b>Subcatchment3S: DA-3</b>	Runoff Area=1.150 ac 0.00% Impervious Runoff Depth>1.63" Flow Length=577' Tc=13.9 min CN=59 Runoff=2.37 cfs 0.156 af
<b>Subcatchment4S: DA-4</b>	Runoff Area=0.880 ac 0.00% Impervious Runoff Depth>1.33" Flow Length=247' Tc=8.1 min CN=55 Runoff=1.79 cfs 0.098 af
<b>Subcatchment5S: DA-5</b>	Runoff Area=6.450 ac 0.00% Impervious Runoff Depth>2.54" Flow Length=777' Tc=13.2 min CN=70 Runoff=22.42 cfs 1.368 af
<b>Subcatchment6S: DA-6</b>	Runoff Area=3.690 ac 0.00% Impervious Runoff Depth>1.95" Flow Length=681' Tc=13.5 min CN=63 Runoff=9.49 cfs 0.599 af
<b>Subcatchment7S: DA-7</b>	Runoff Area=6.240 ac 4.01% Impervious Runoff Depth>2.72" Flow Length=841' Tc=15.9 min CN=72 Runoff=21.25 cfs 1.416 af
<b>Link 1L: DA-1</b>	Inflow=27.37 cfs 1.868 af Primary=27.37 cfs 1.868 af
<b>Link 2L: DA-2</b>	Inflow=26.65 cfs 1.887 af Primary=26.65 cfs 1.887 af
<b>Link 3L: DA-3</b>	Inflow=2.37 cfs 0.156 af Primary=2.37 cfs 0.156 af
<b>Link 4L: DA-4</b>	Inflow=1.79 cfs 0.098 af Primary=1.79 cfs 0.098 af
<b>Link 5L: DA-5</b>	Inflow=22.42 cfs 1.368 af Primary=22.42 cfs 1.368 af
<b>Link 6L: DA-6</b>	Inflow=9.49 cfs 0.599 af Primary=9.49 cfs 0.599 af
<b>Link 7L: DA-7</b>	Inflow=21.25 cfs 1.416 af Primary=21.25 cfs 1.416 af

**Total Runoff Area = 41.600 ac Runoff Volume = 7.391 af Average Runoff Depth = 2.13"**  
**99.40% Pervious = 41.350 ac 0.60% Impervious = 0.250 ac**

### Summary for Subcatchment 1S: DA-1

Runoff = 27.37 cfs @ 12.09 hrs, Volume= 1.868 af, Depth> 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=5.68"

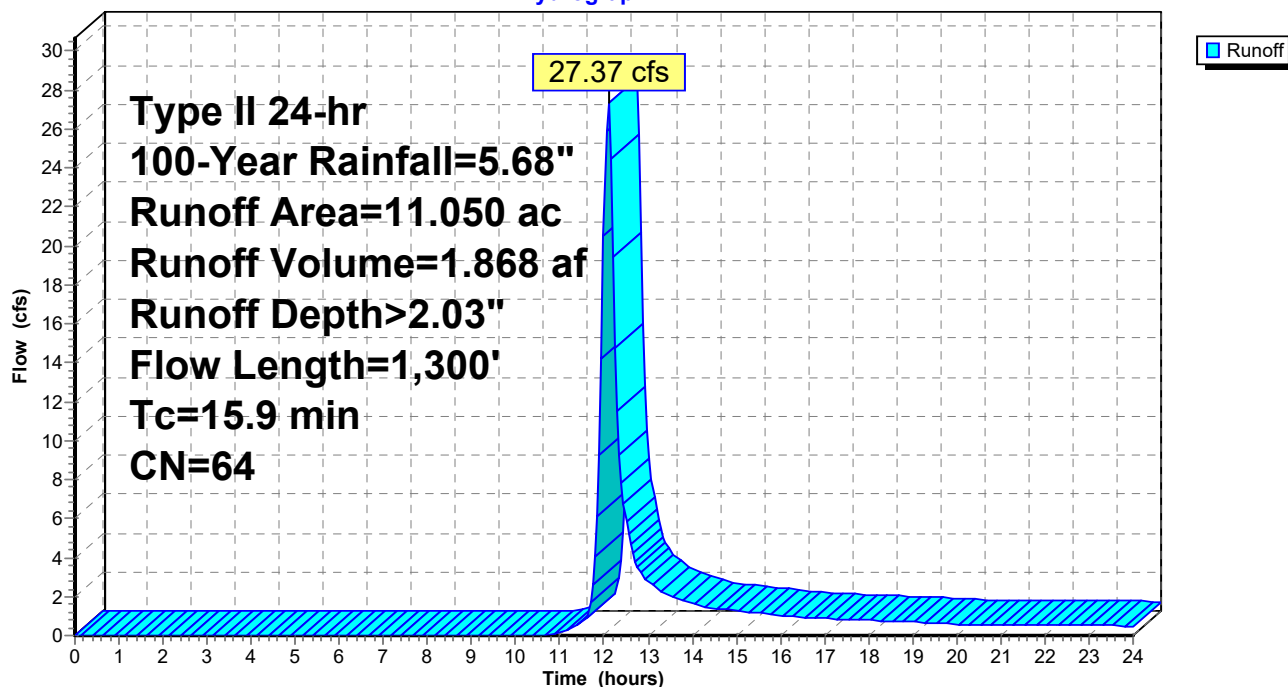
Area (ac)	CN	Description
9.120	61	Pasture/grassland/range, Good, HSG B
1.610	80	Pasture/grassland/range, Good, HSG D
0.240	58	Meadow, non-grazed, HSG B
0.080	78	Meadow, non-grazed, HSG D
11.050	64	Weighted Average
11.050		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	100	0.0840	0.24		<b>Sheet Flow,</b> Cultivated: Residue>20% n= 0.170 P2= 2.50"
3.4	367	0.0410	1.82		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
2.6	350	0.0640	2.28		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
2.6	449	0.0990	2.83		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
0.4	34	0.0500	1.57		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
15.9	1,300	Total			

# Subcatchment 1S: DA-1

Hydrograph





### Summary for Subcatchment 2S: DA-2

Runoff = 26.65 cfs @ 12.10 hrs, Volume= 1.887 af, Depth> 1.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=5.68"

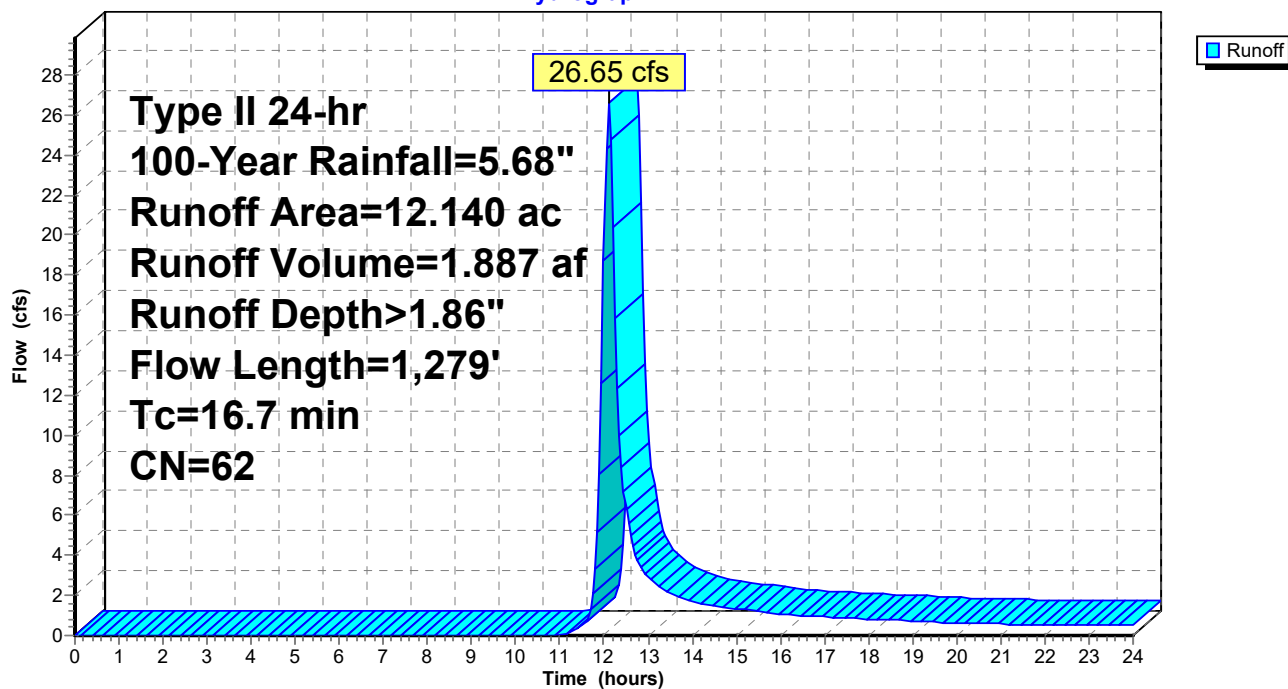
Area (ac)	CN	Description
11.120	61	Pasture/grassland/range, Good, HSG B
0.400	55	Woods, Good, HSG B
0.140	77	Woods, Good, HSG D
0.480	80	Pasture/grassland/range, Good, HSG D
12.140	62	Weighted Average
12.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	100	0.0600	0.21		<b>Sheet Flow,</b> Cultivated: Residue>20% n= 0.170 P2= 2.50"
2.4	290	0.0520	2.05		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
1.9	288	0.0760	2.48		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
2.9	471	0.0900	2.70		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
1.6	130	0.0380	1.36		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
16.7	1,279	Total			

## Subcatchment 2S: DA-2

Hydrograph



**Summary for Subcatchment 3S: DA-3**

Runoff = 2.37 cfs @ 12.07 hrs, Volume= 0.156 af, Depth> 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=5.68"

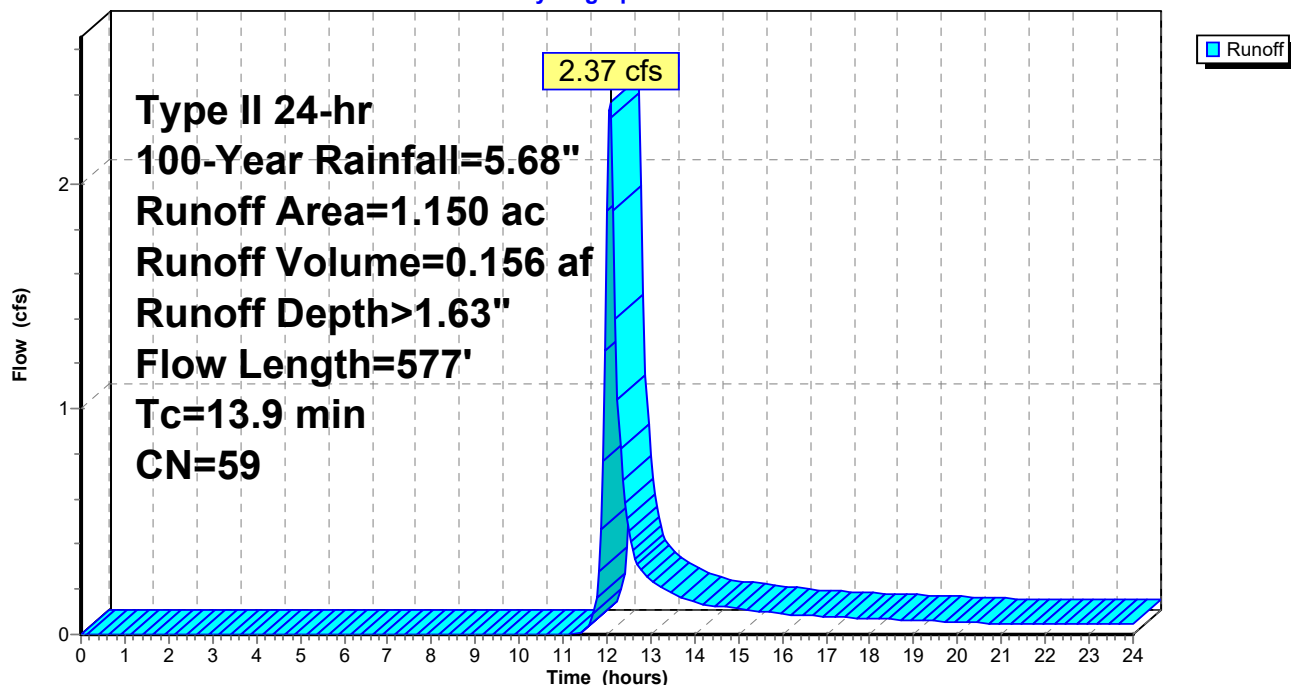
Area (ac)	CN	Description
0.850	61	Pasture/grassland/range, Good, HSG B
0.300	55	Woods, Good, HSG B
1.150	59	Weighted Average
1.150		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0380	0.18		<b>Sheet Flow,</b> Cultivated: Residue>20% n= 0.170 P2= 2.50"
1.5	145	0.0320	1.61		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
1.3	216	0.0920	2.73		<b>Shallow Concentrated Flow,</b> Cultivated Straight Rows Kv= 9.0 fps
1.6	116	0.0610	1.23		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.9	577	Total			

**Subcatchment 3S: DA-3**

Hydrograph



### Summary for Subcatchment 4S: DA-4

Runoff = 1.79 cfs @ 12.01 hrs, Volume= 0.098 af, Depth> 1.33"

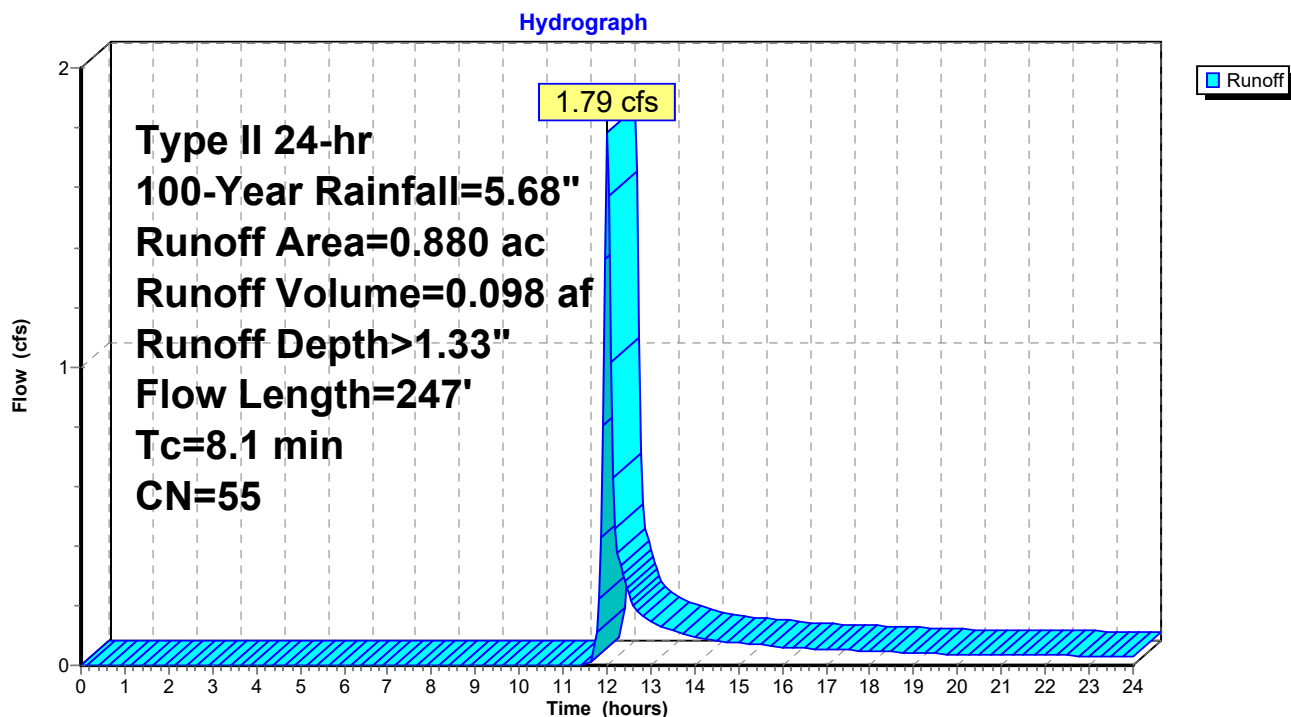
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=5.68"

Area (ac)	CN	Description
0.880	55	Woods, Good, HSG B
0.880		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0950	0.25		<b>Sheet Flow,</b> Cultivated: Residue>20% n= 0.170 P2= 2.50"
1.5	147	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
8.1	247	Total			

### Subcatchment 4S: DA-4





**Summary for Subcatchment 5S: DA-5**

Runoff = 22.42 cfs @ 12.06 hrs, Volume= 1.368 af, Depth> 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=5.68"

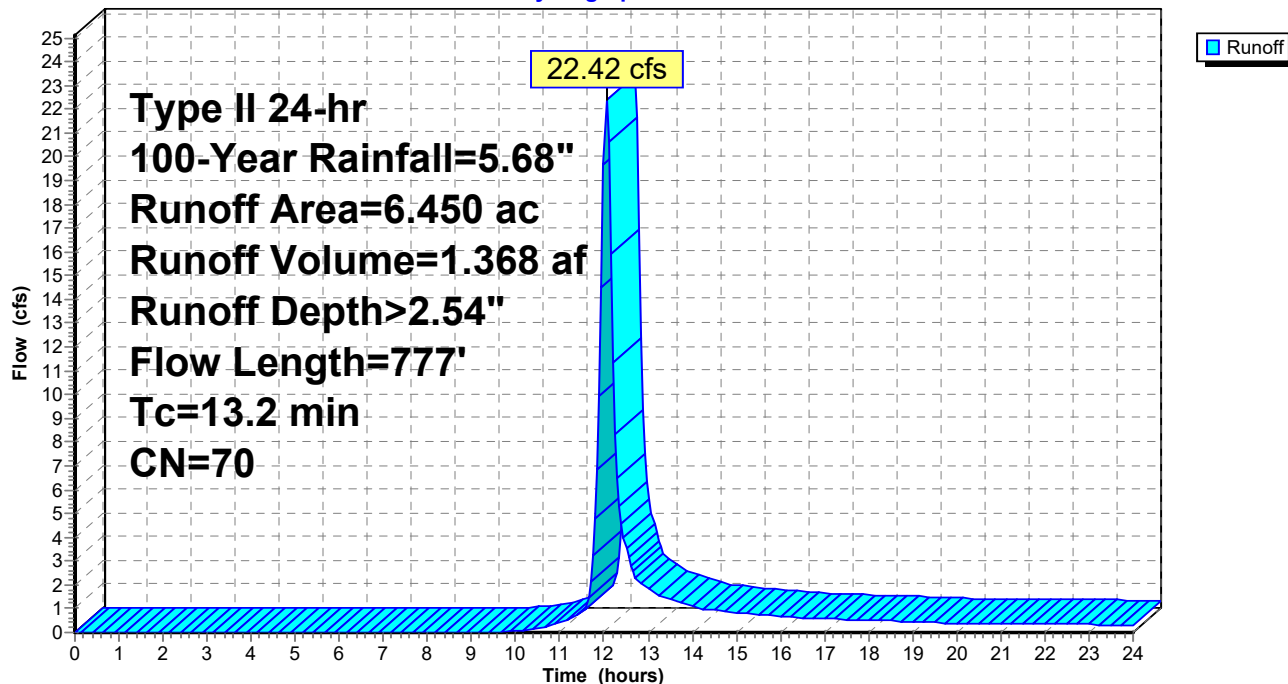
Area (ac)	CN	Description
0.020	58	Meadow, non-grazed, HSG B
1.740	71	Meadow, non-grazed, HSG C
1.660	78	Meadow, non-grazed, HSG D
1.790	61	Pasture/grassland/range, Good, HSG B
0.030	74	Pasture/grassland/range, Good, HSG C
0.540	80	Pasture/grassland/range, Good, HSG D
0.280	55	Woods, Good, HSG B
0.340	70	Woods, Good, HSG C
0.050	77	Woods, Good, HSG D
6.450	70	Weighted Average
6.450		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1000	0.29		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
0.5	75	0.1200	2.42		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.7	252	0.0480	1.53		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
4.2	350	0.0770	1.39		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.2	777	Total			

# Subcatchment 5S: DA-5

Hydrograph



**Summary for Subcatchment 6S: DA-6**

Runoff = 9.49 cfs @ 12.06 hrs, Volume= 0.599 af, Depth> 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=5.68"

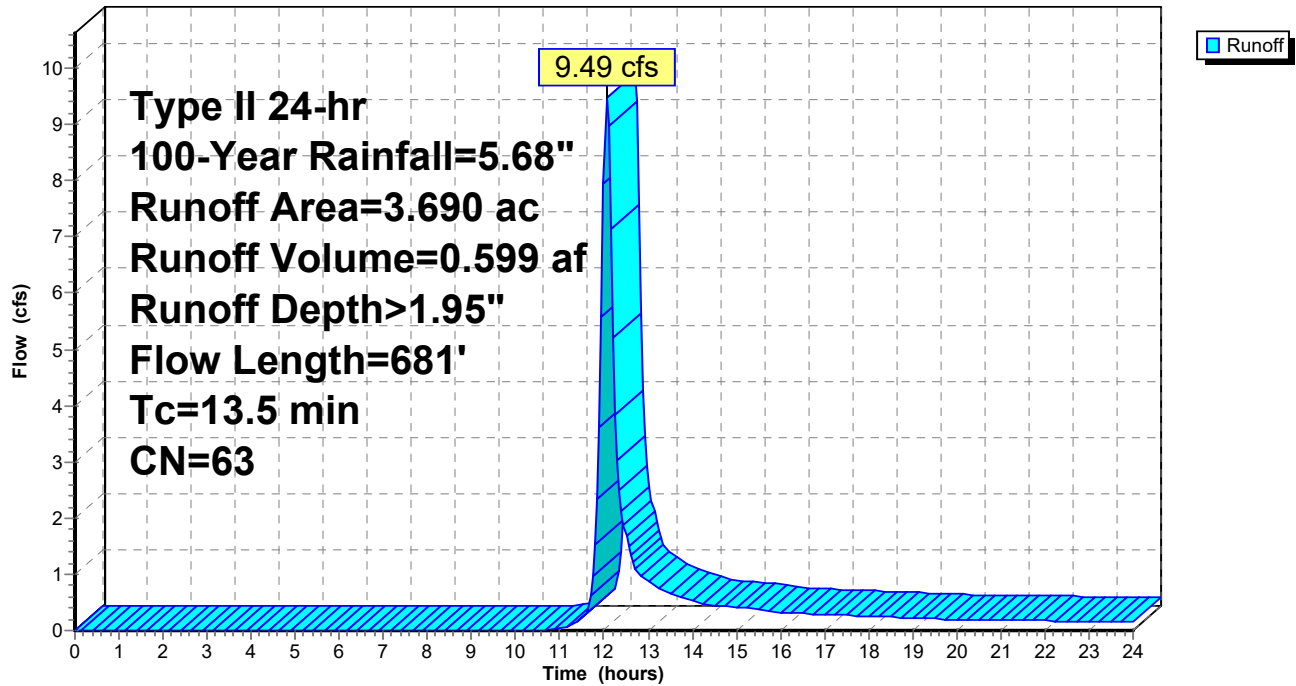
Area (ac)	CN	Description
1.920	55	Woods, Good, HSG B
0.040	77	Woods, Good, HSG D
0.210	58	Meadow, non-grazed, HSG B
0.760	71	Meadow, non-grazed, HSG C
0.760	78	Meadow, non-grazed, HSG D
3.690	63	Weighted Average
3.690		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.0700	0.25		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
1.1	125	0.0670	1.81		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
3.9	306	0.0670	1.29		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
1.8	150	0.0800	1.41		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.5	681	Total			

# Subcatchment 6S: DA-6

Hydrograph





**Summary for Subcatchment 7S: DA-7**

Runoff = 21.25 cfs @ 12.08 hrs, Volume= 1.416 af, Depth> 2.72"

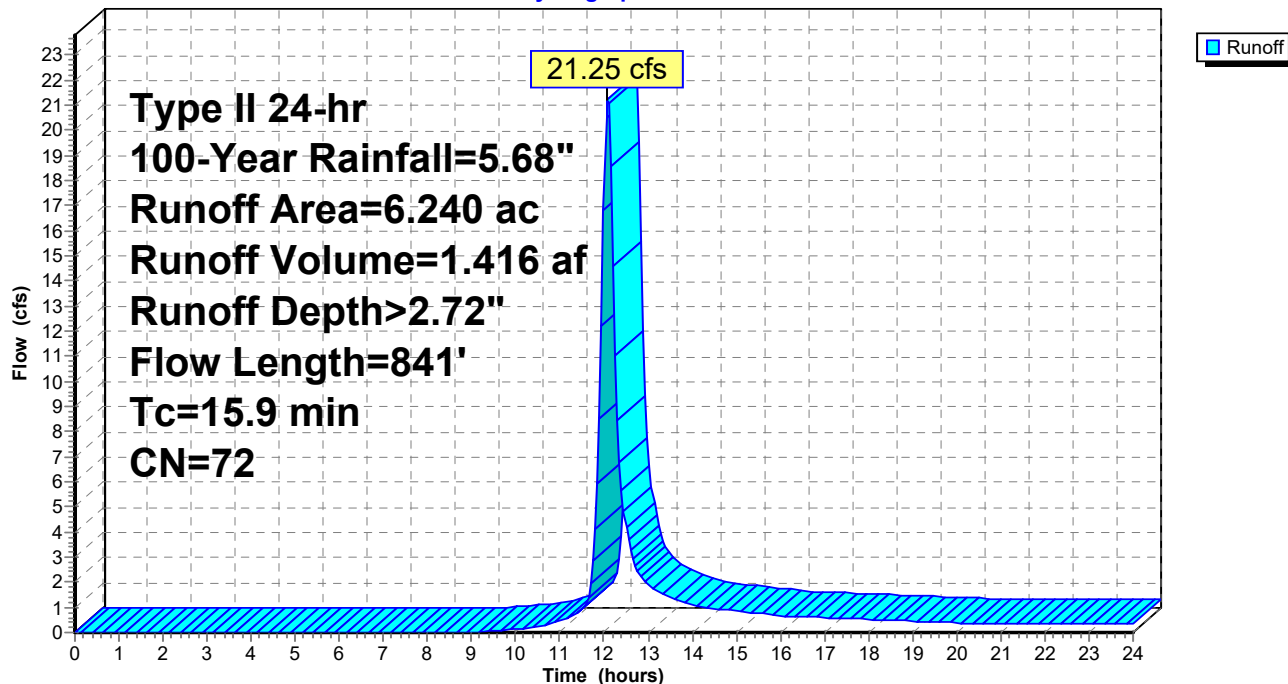
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=5.68"

Area (ac)	CN	Description
0.540	30	Meadow, non-grazed, HSG A
0.010	58	Meadow, non-grazed, HSG B
1.210	71	Meadow, non-grazed, HSG C
1.700	78	Meadow, non-grazed, HSG D
0.010	55	Woods, Good, HSG B
0.190	70	Woods, Good, HSG C
1.200	77	Woods, Good, HSG D
0.420	61	Pasture/grassland/range, Good, HSG B
0.710	80	Pasture/grassland/range, Good, HSG D
0.250	98	Water Surface, HSG C
6.240	72	Weighted Average
5.990		95.99% Pervious Area
0.250		4.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1000	0.29		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
1.8	210	0.0800	1.98		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.6	226	0.0420	1.43		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
4.4	190	0.0210	0.72		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
0.3	40	0.1500	1.94		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
1.0	75	0.0630	1.25		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
15.9	841	Total			

# Subcatchment 7S: DA-7

Hydrograph

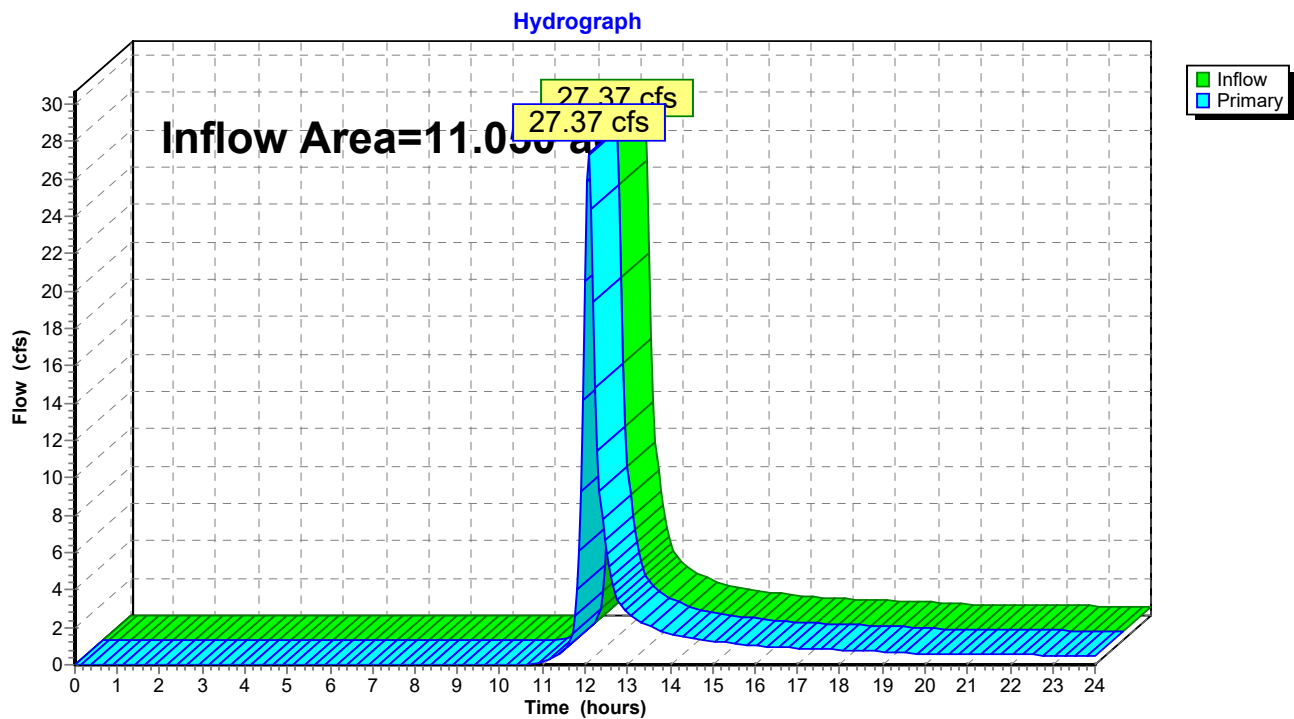


### Summary for Link 1L: DA-1

Inflow Area = 11.050 ac, 0.00% Impervious, Inflow Depth > 2.03" for 100-Year event  
 Inflow = 27.37 cfs @ 12.09 hrs, Volume= 1.868 af  
 Primary = 27.37 cfs @ 12.09 hrs, Volume= 1.868 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 1L: DA-1

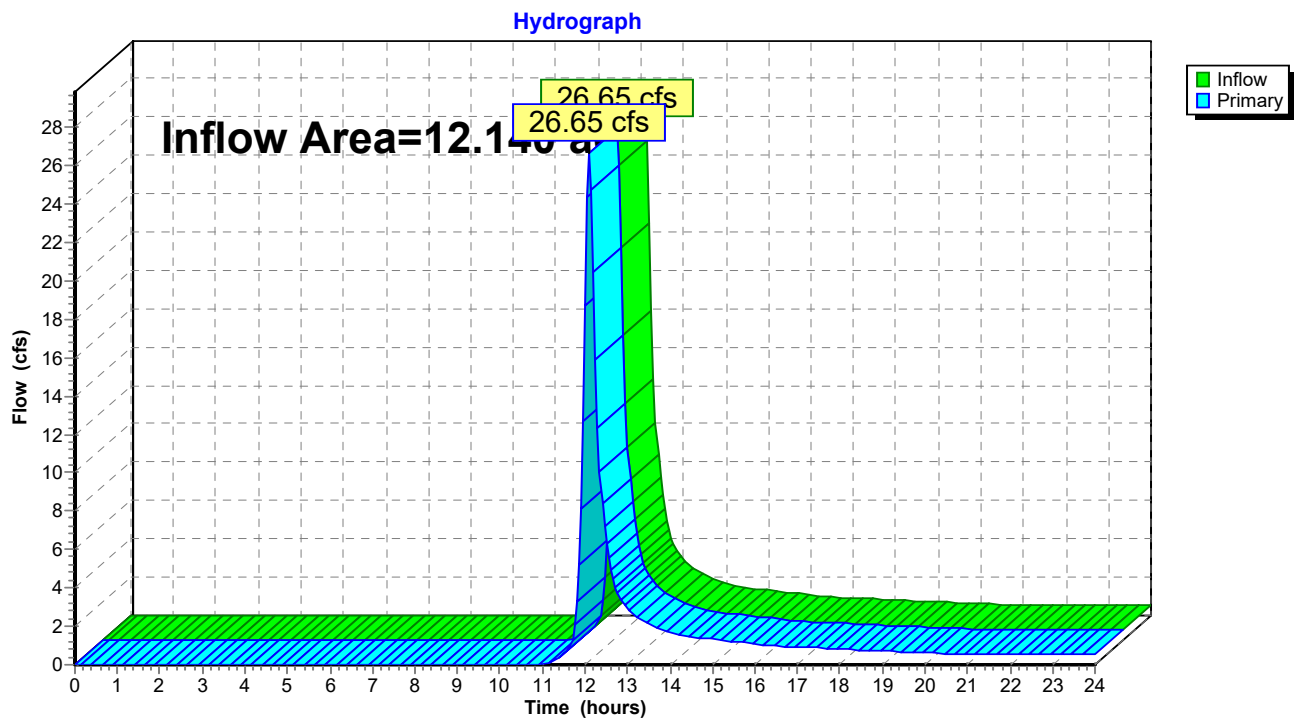


### Summary for Link 2L: DA-2

Inflow Area = 12.140 ac, 0.00% Impervious, Inflow Depth > 1.86" for 100-Year event  
 Inflow = 26.65 cfs @ 12.10 hrs, Volume= 1.887 af  
 Primary = 26.65 cfs @ 12.10 hrs, Volume= 1.887 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 2L: DA-2



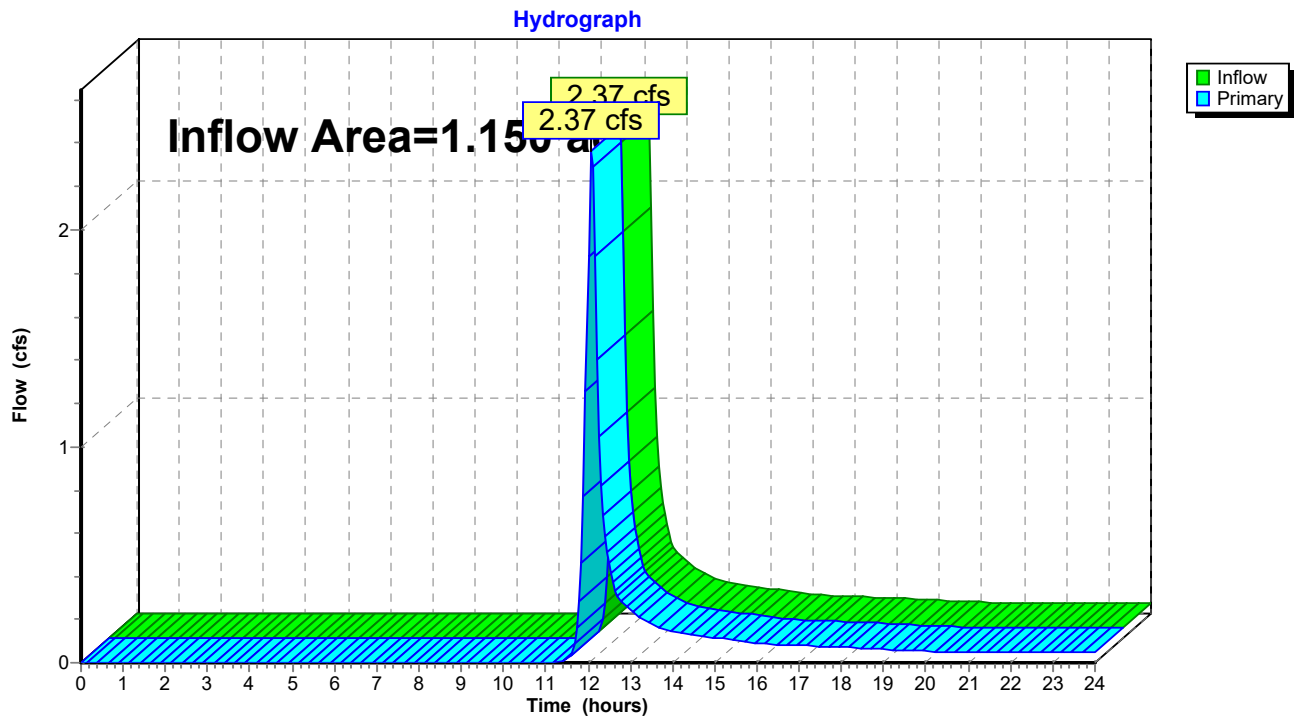


### Summary for Link 3L: DA-3

Inflow Area = 1.150 ac, 0.00% Impervious, Inflow Depth > 1.63" for 100-Year event  
 Inflow = 2.37 cfs @ 12.07 hrs, Volume= 0.156 af  
 Primary = 2.37 cfs @ 12.07 hrs, Volume= 0.156 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 3L: DA-3

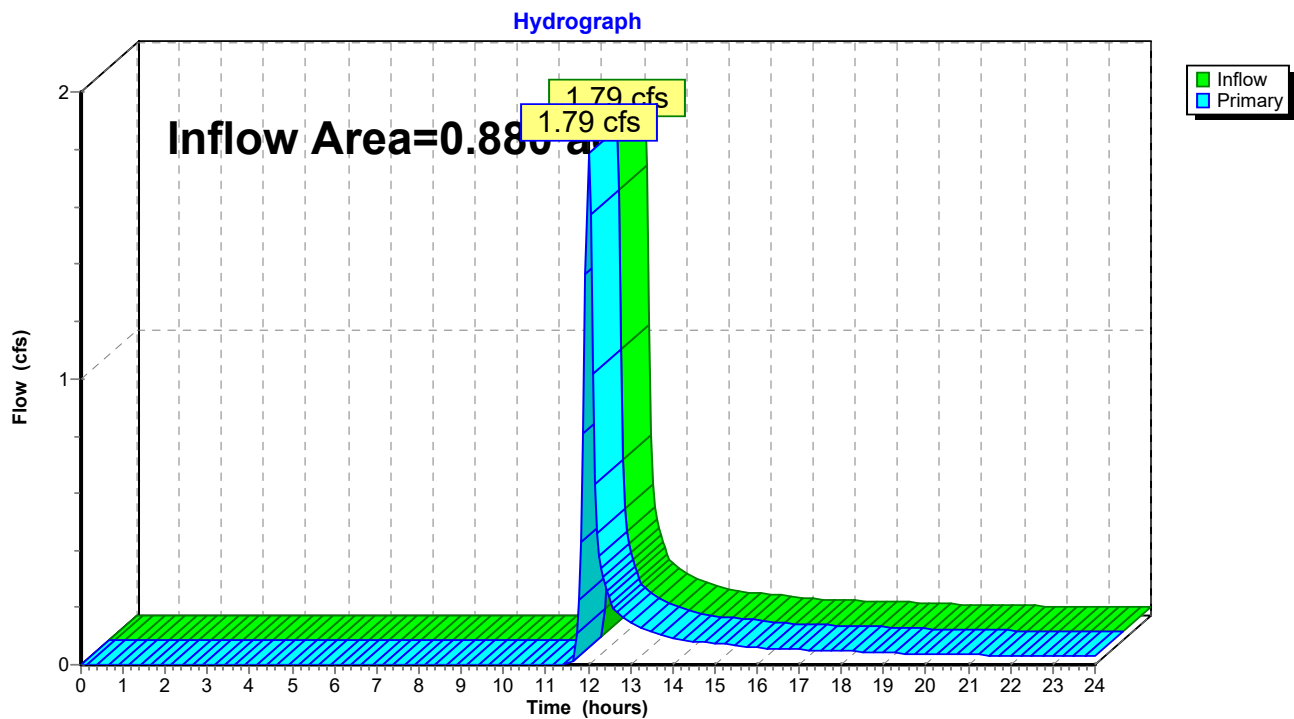


### Summary for Link 4L: DA-4

Inflow Area = 0.880 ac, 0.00% Impervious, Inflow Depth > 1.33" for 100-Year event  
 Inflow = 1.79 cfs @ 12.01 hrs, Volume= 0.098 af  
 Primary = 1.79 cfs @ 12.01 hrs, Volume= 0.098 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 4L: DA-4

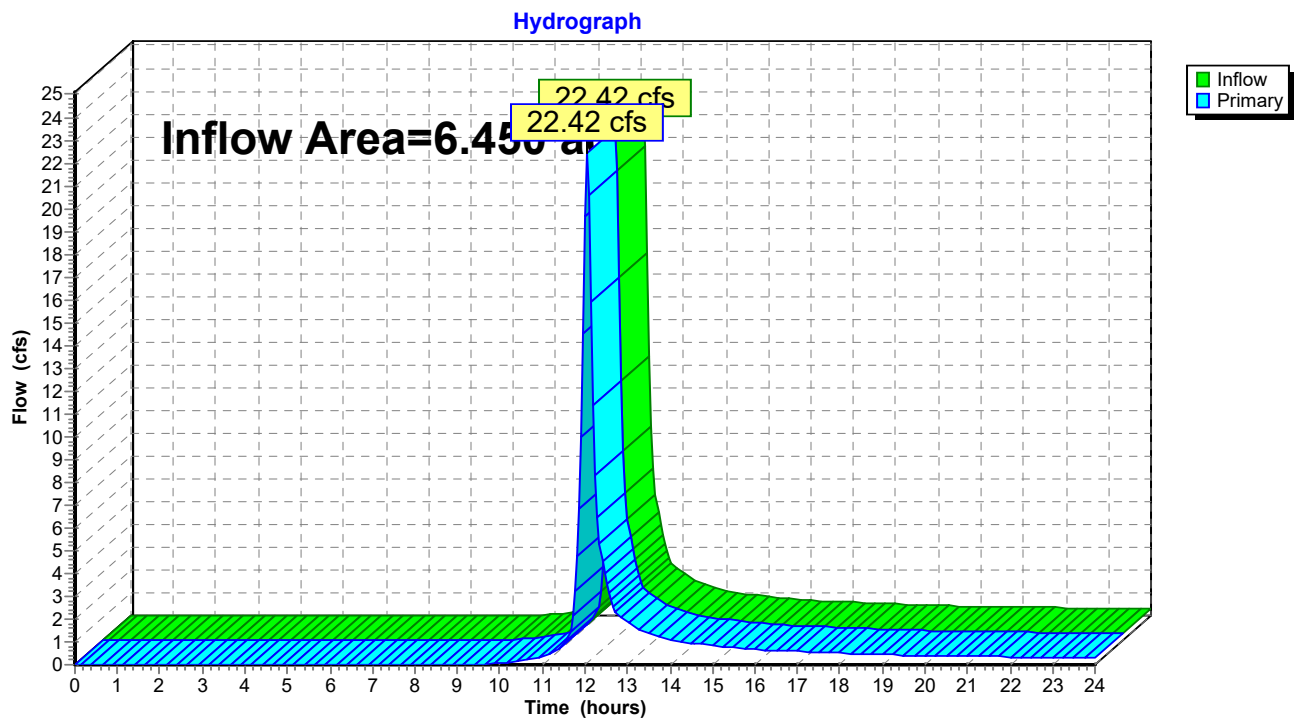


### Summary for Link 5L: DA-5

Inflow Area = 6.450 ac, 0.00% Impervious, Inflow Depth > 2.54" for 100-Year event  
 Inflow = 22.42 cfs @ 12.06 hrs, Volume= 1.368 af  
 Primary = 22.42 cfs @ 12.06 hrs, Volume= 1.368 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

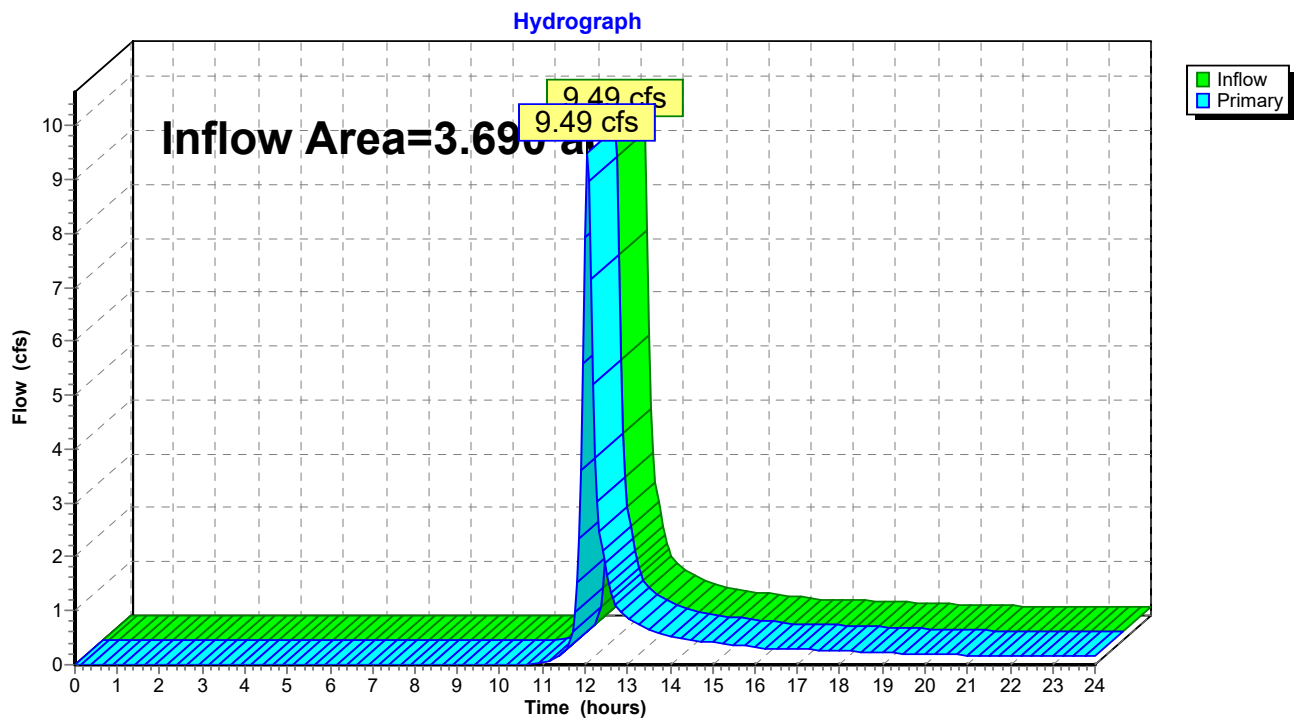
### Link 5L: DA-5



**Summary for Link 6L: DA-6**

Inflow Area = 3.690 ac, 0.00% Impervious, Inflow Depth > 1.95" for 100-Year event  
Inflow = 9.49 cfs @ 12.06 hrs, Volume= 0.599 af  
Primary = 9.49 cfs @ 12.06 hrs, Volume= 0.599 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

**Link 6L: DA-6**

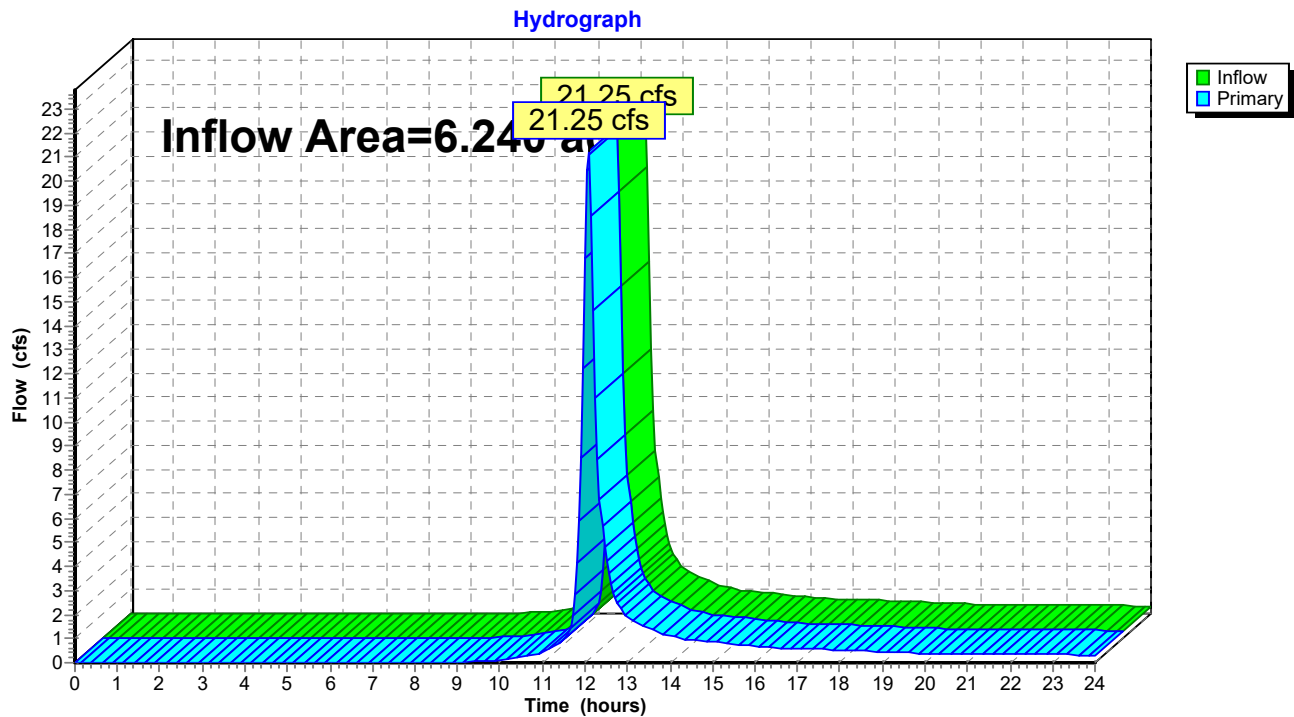


### Summary for Link 7L: DA-7

Inflow Area = 6.240 ac, 4.01% Impervious, Inflow Depth > 2.72" for 100-Year event  
 Inflow = 21.25 cfs @ 12.08 hrs, Volume= 1.416 af  
 Primary = 21.25 cfs @ 12.08 hrs, Volume= 1.416 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

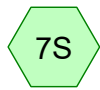
### Link 7L: DA-7



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## APPENDIX I – POST-DEVELOPMENT ANALYSIS

PRELIMINARY



DA-7



DA-7



DA-6



DA-6



DA-5



DA-5



DA-3



DA-3



DA-1



DA-1



DA-2



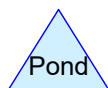
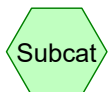
DA-2



DA-4



DA-4



**Routing Diagram for Montgomery\_1\_POST\_07062021**

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## Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type II 24-hr		Default	24.00	1	2.17	2
2	10-Year	Type II 24-hr		Default	24.00	1	3.50	2
3	100-Year	Type II 24-hr		Default	24.00	1	5.68	2



**Area Listing (all nodes)**

Area (acres)	CN	Description (subcatchment-numbers)
0.570	61	>75% Grass cover, Good, HSG B (1S, 7S)
0.040	74	>75% Grass cover, Good, HSG C (7S)
0.280	80	>75% Grass cover, Good, HSG D (1S, 7S)
0.540	30	Meadow, non-grazed, HSG A (7S)
20.330	58	Meadow, non-grazed, HSG B (1S, 2S, 3S, 4S, 5S, 6S, 7S)
3.770	71	Meadow, non-grazed, HSG C (5S, 6S, 7S)
6.700	78	Meadow, non-grazed, HSG D (1S, 5S, 6S, 7S)
3.350	61	Pasture/grassland/range, Good, HSG B (1S, 2S, 3S, 5S, 7S)
0.610	80	Pasture/grassland/range, Good, HSG D (2S, 7S)
0.100	98	Paved parking, HSG C (1S, 7S)
0.250	98	Water Surface, HSG C (7S)
3.350	55	Woods, Good, HSG B (2S, 3S, 4S, 5S, 6S, 7S)
0.400	70	Woods, Good, HSG C (5S, 7S)
1.310	77	Woods, Good, HSG D (2S, 6S, 7S)
<b>41.600</b>	<b>64</b>	<b>TOTAL AREA</b>

# Montgomery\_1\_\_POST\_07062021

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## Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.540	HSG A	7S
27.600	HSG B	1S, 2S, 3S, 4S, 5S, 6S, 7S
4.560	HSG C	1S, 5S, 6S, 7S
8.900	HSG D	1S, 2S, 5S, 6S, 7S
0.000	Other	
<b>41.600</b>		<b>TOTAL AREA</b>

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**Ground Covers (all nodes)**

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.570	0.040	0.280	0.000	0.890	>75% Grass cover, Good	1S, 7S
0.540	20.330	3.770	6.700	0.000	31.340	Meadow, non-grazed	1S, 2S, 3S, 4S, 5S, 6S, 7S
0.000	3.350	0.000	0.610	0.000	3.960	Pasture/grassland/range, Good	1S, 2S, 3S, 5S, 7S
0.000	0.000	0.100	0.000	0.000	0.100	Paved parking	1S, 7S
0.000	0.000	0.250	0.000	0.000	0.250	Water Surface	7S
0.000	3.350	0.400	1.310	0.000	5.060	Woods, Good	2S, 3S, 4S, 5S, 6S, 7S
<b>0.540</b>	<b>27.600</b>	<b>4.560</b>	<b>8.900</b>	<b>0.000</b>	<b>41.600</b>	<b>TOTAL AREA</b>	

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

<b>Subcatchment1S: DA-1</b>	Runoff Area=11.020 ac 0.45% Impervious Runoff Depth>0.11" Flow Length=1,323' Tc=17.7 min CN=61 Runoff=0.26 cfs 0.099 af
<b>Subcatchment2S: DA-2</b>	Runoff Area=12.140 ac 0.00% Impervious Runoff Depth>0.09" Flow Length=1,279' Tc=18.8 min CN=60 Runoff=0.20 cfs 0.093 af
<b>Subcatchment3S: DA-3</b>	Runoff Area=1.150 ac 0.00% Impervious Runoff Depth>0.06" Flow Length=577' Tc=13.2 min CN=58 Runoff=0.01 cfs 0.006 af
<b>Subcatchment4S: DA-4</b>	Runoff Area=0.880 ac 0.00% Impervious Runoff Depth>0.03" Flow Length=247' Tc=12.7 min CN=55 Runoff=0.00 cfs 0.002 af
<b>Subcatchment5S: DA-5</b>	Runoff Area=6.450 ac 0.00% Impervious Runoff Depth>0.28" Flow Length=777' Tc=12.7 min CN=69 Runoff=1.68 cfs 0.150 af
<b>Subcatchment6S: DA-6</b>	Runoff Area=3.690 ac 0.00% Impervious Runoff Depth>0.14" Flow Length=681' Tc=13.5 min CN=63 Runoff=0.22 cfs 0.044 af
<b>Subcatchment7S: DA-7</b>	Runoff Area=6.270 ac 4.78% Impervious Runoff Depth>0.36" Flow Length=841' Tc=15.9 min CN=72 Runoff=2.22 cfs 0.191 af
<b>Link 1L: DA-1</b>	Inflow=0.26 cfs 0.099 af Primary=0.26 cfs 0.099 af
<b>Link 2L: DA-2</b>	Inflow=0.20 cfs 0.093 af Primary=0.20 cfs 0.093 af
<b>Link 3L: DA-3</b>	Inflow=0.01 cfs 0.006 af Primary=0.01 cfs 0.006 af
<b>Link 4L: DA-4</b>	Inflow=0.00 cfs 0.002 af Primary=0.00 cfs 0.002 af
<b>Link 5L: DA-5</b>	Inflow=1.68 cfs 0.150 af Primary=1.68 cfs 0.150 af
<b>Link 6L: DA-6</b>	Inflow=0.22 cfs 0.044 af Primary=0.22 cfs 0.044 af
<b>Link 7L: DA-7</b>	Inflow=2.22 cfs 0.191 af Primary=2.22 cfs 0.191 af

**Total Runoff Area = 41.600 ac Runoff Volume = 0.585 af Average Runoff Depth = 0.17"**  
**99.16% Pervious = 41.250 ac 0.84% Impervious = 0.350 ac**



### Summary for Subcatchment 1S: DA-1

Runoff = 0.26 cfs @ 12.40 hrs, Volume= 0.099 af, Depth> 0.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.17"

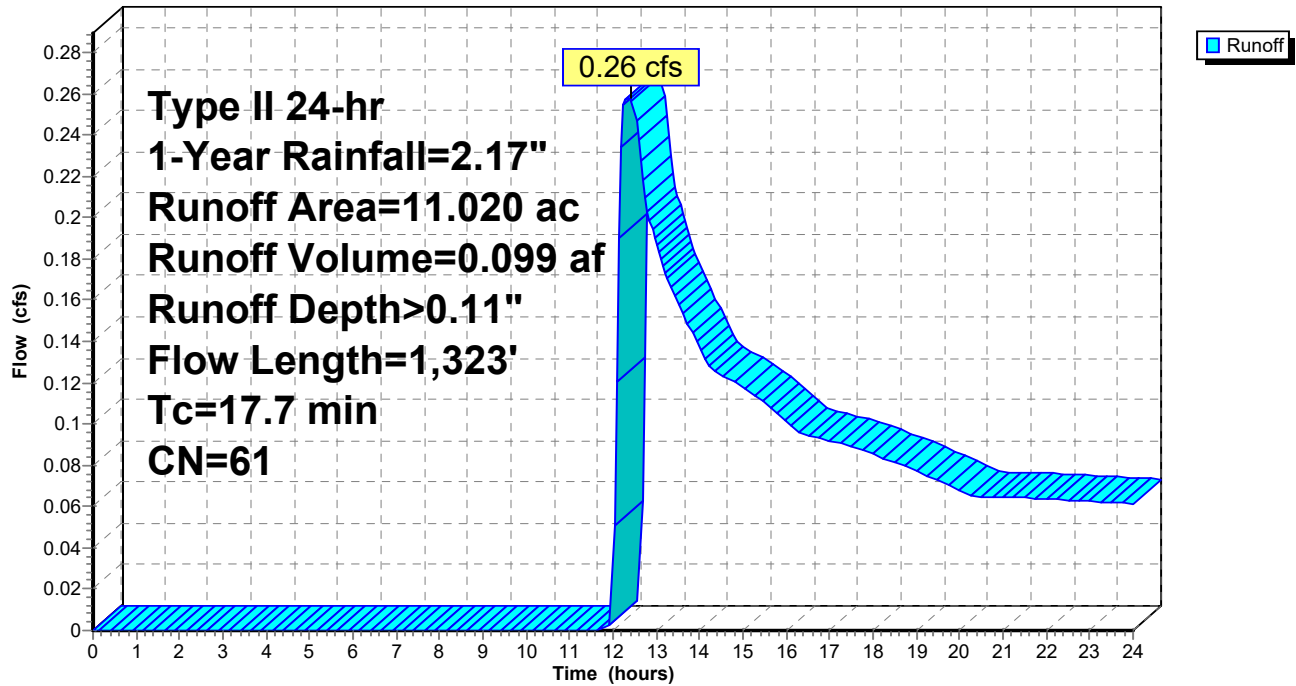
Area (ac)	CN	Description
0.640	61	Pasture/grassland/range, Good, HSG B
0.050	98	Paved parking, HSG C
8.290	58	Meadow, non-grazed, HSG B
1.520	78	Meadow, non-grazed, HSG D
0.500	61	>75% Grass cover, Good, HSG B
0.020	80	>75% Grass cover, Good, HSG D
11.020	61	Weighted Average
10.970		99.55% Pervious Area
0.050		0.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.0840	0.27		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
4.3	367	0.0410	1.42		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
3.3	350	0.0640	1.77		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
3.4	449	0.0990	2.20		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.1	23	0.0300	3.52		<b>Shallow Concentrated Flow,</b> Paved Kv= 20.3 fps
0.4	34	0.0500	1.57		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
17.7	1,323	Total			

# Subcatchment 1S: DA-1

Hydrograph



### Summary for Subcatchment 2S: DA-2

Runoff = 0.20 cfs @ 12.53 hrs, Volume= 0.093 af, Depth> 0.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.17"

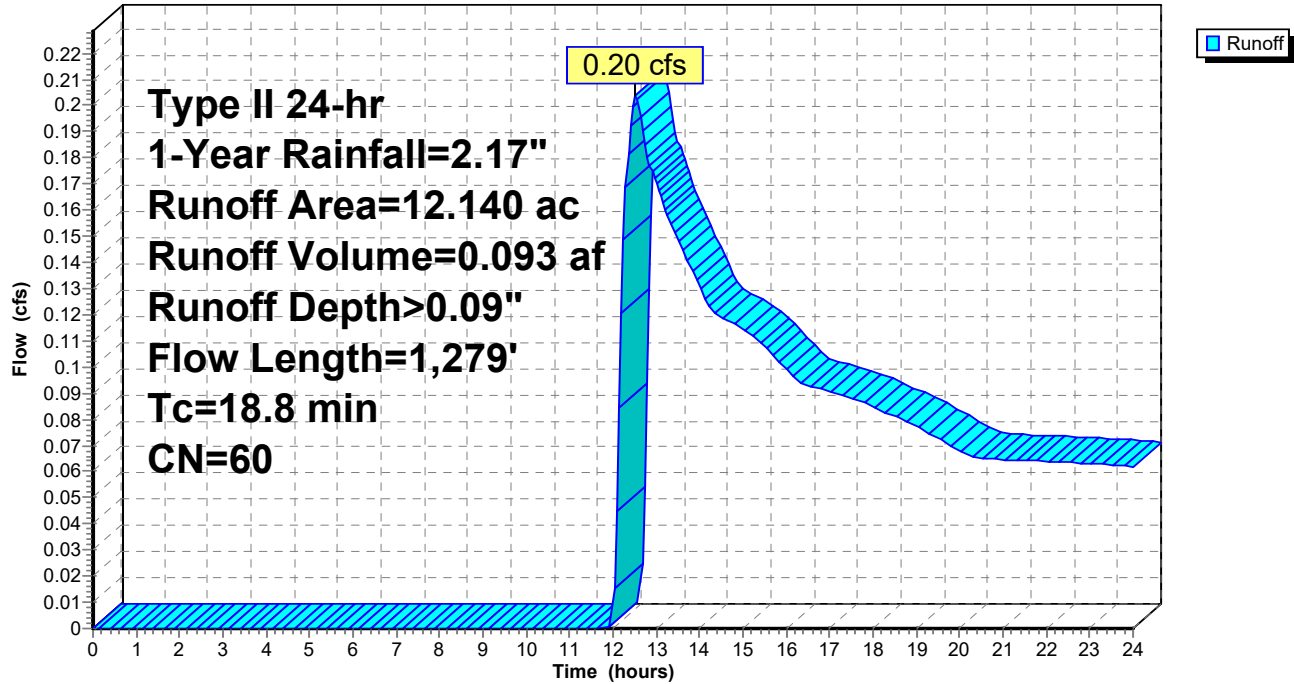
Area (ac)	CN	Description
2.190	61	Pasture/grassland/range, Good, HSG B
0.310	55	Woods, Good, HSG B
0.140	77	Woods, Good, HSG D
0.480	80	Pasture/grassland/range, Good, HSG D
9.020	58	Meadow, non-grazed, HSG B
12.140	60	Weighted Average
12.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0600	0.23		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
3.0	290	0.0520	1.60		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.5	288	0.0760	1.93		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.2	275	0.0900	2.10		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
4.0	326	0.0380	1.36		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
18.8	1,279	Total			

## Subcatchment 2S: DA-2

Hydrograph





### Summary for Subcatchment 3S: DA-3

Runoff = 0.01 cfs @ 13.01 hrs, Volume= 0.006 af, Depth> 0.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.17"

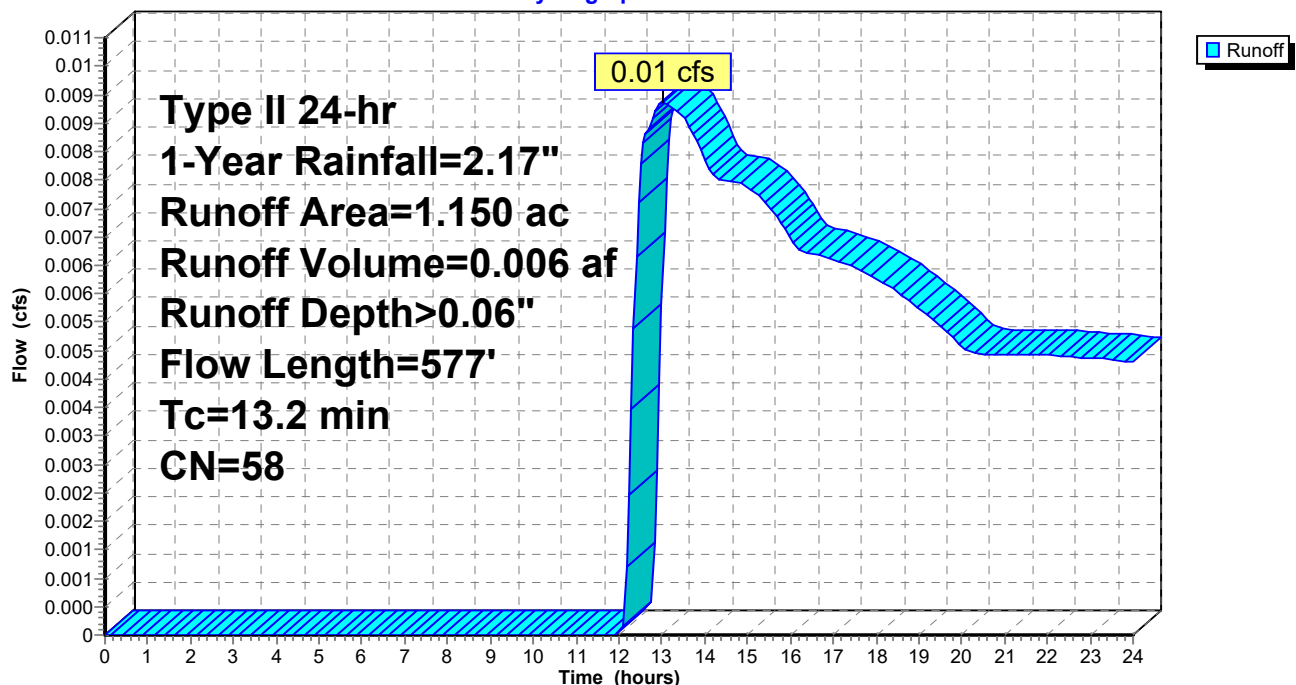
Area (ac)	CN	Description
0.150	61	Pasture/grassland/range, Good, HSG B
0.100	55	Woods, Good, HSG B
0.900	58	Meadow, non-grazed, HSG B
1.150	58	Weighted Average
1.150		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.6	100	0.0380	0.19		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
1.9	145	0.0320	1.25		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.3	297	0.0920	2.12		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	35	0.1100	1.66		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.2	577	Total			

### Subcatchment 3S: DA-3

Hydrograph



### Summary for Subcatchment 4S: DA-4

Runoff = 0.00 cfs @ 15.49 hrs, Volume= 0.002 af, Depth> 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.17"

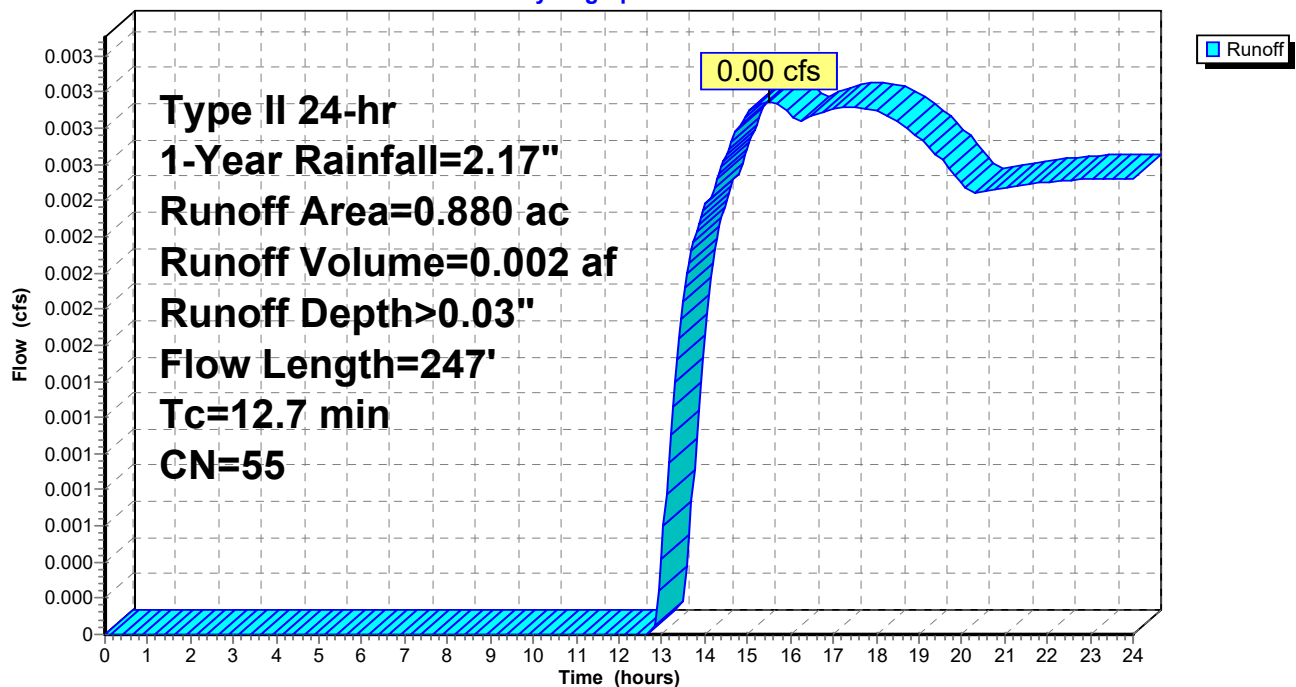
Area (ac)	CN	Description
0.760	55	Woods, Good, HSG B
0.120	58	Meadow, non-grazed, HSG B
0.880	55	Weighted Average
0.880		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.1	45	0.0950	0.24		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
8.1	55	0.0950	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.50"
1.5	147	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.7	247	Total			

### Subcatchment 4S: DA-4

Hydrograph



### Summary for Subcatchment 5S: DA-5

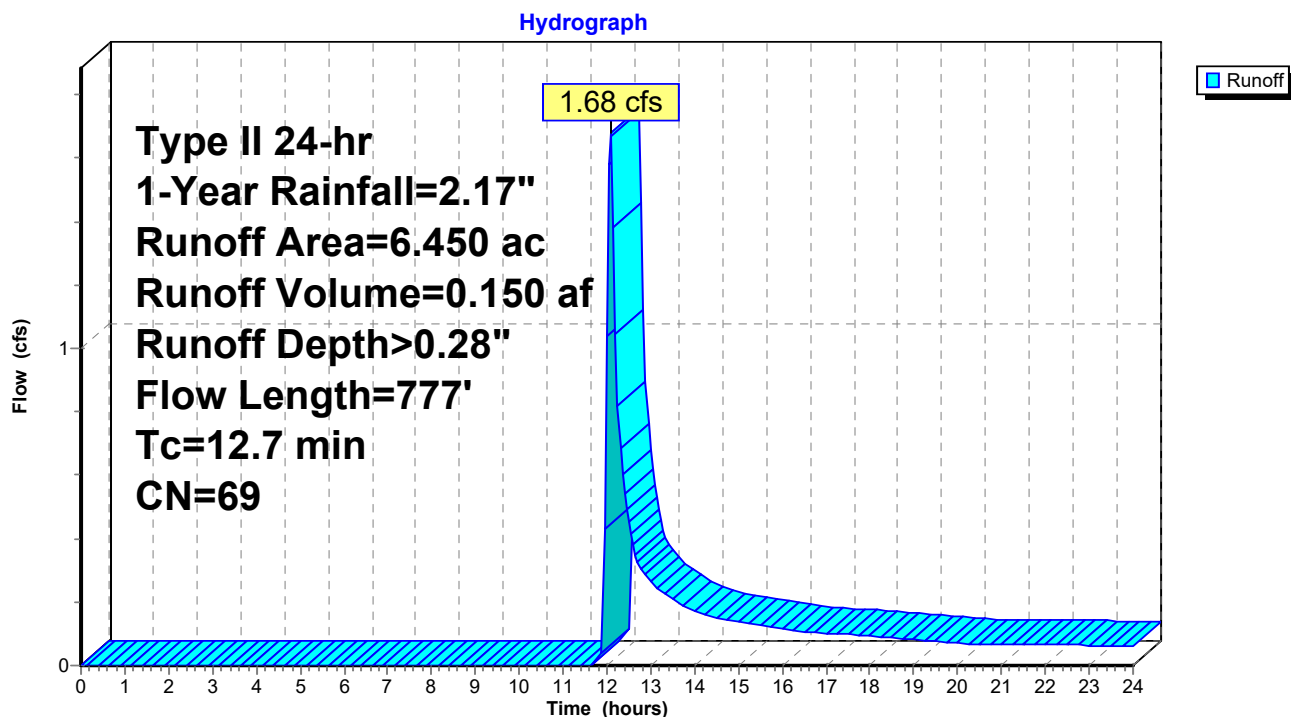
Runoff = 1.68 cfs @ 12.09 hrs, Volume= 0.150 af, Depth> 0.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
1.680	58	Meadow, non-grazed, HSG B
1.890	71	Meadow, non-grazed, HSG C
2.250	78	Meadow, non-grazed, HSG D
0.170	61	Pasture/grassland/range, Good, HSG B
0.250	55	Woods, Good, HSG B
0.210	70	Woods, Good, HSG C
6.450	69	Weighted Average
6.450		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1000	0.29		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
0.5	75	0.1200	2.42		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.7	252	0.0480	1.53		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
1.3	148	0.0740	1.90		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.4	202	0.0770	1.39		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
12.7	777	Total			

# Subcatchment 5S: DA-5



### Summary for Subcatchment 6S: DA-6

Runoff = 0.22 cfs @ 12.14 hrs, Volume= 0.044 af, Depth> 0.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.17"

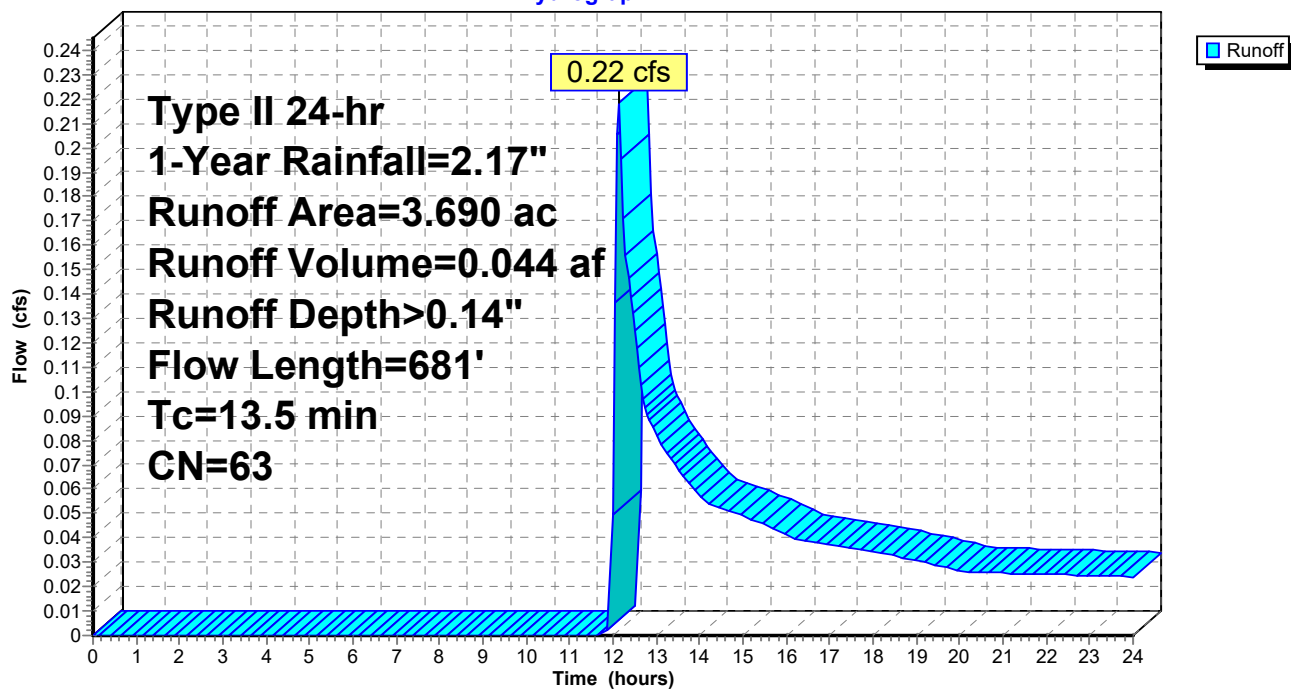
Area (ac)	CN	Description
1.920	55	Woods, Good, HSG B
0.040	77	Woods, Good, HSG D
0.210	58	Meadow, non-grazed, HSG B
0.760	71	Meadow, non-grazed, HSG C
0.760	78	Meadow, non-grazed, HSG D
3.690	63	Weighted Average
3.690		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.0700	0.25		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
1.1	125	0.0670	1.81		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
3.9	306	0.0670	1.29		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
1.8	150	0.0800	1.41		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.5	681	Total			



# Subcatchment 6S: DA-6

Hydrograph



**Summary for Subcatchment 7S: DA-7**

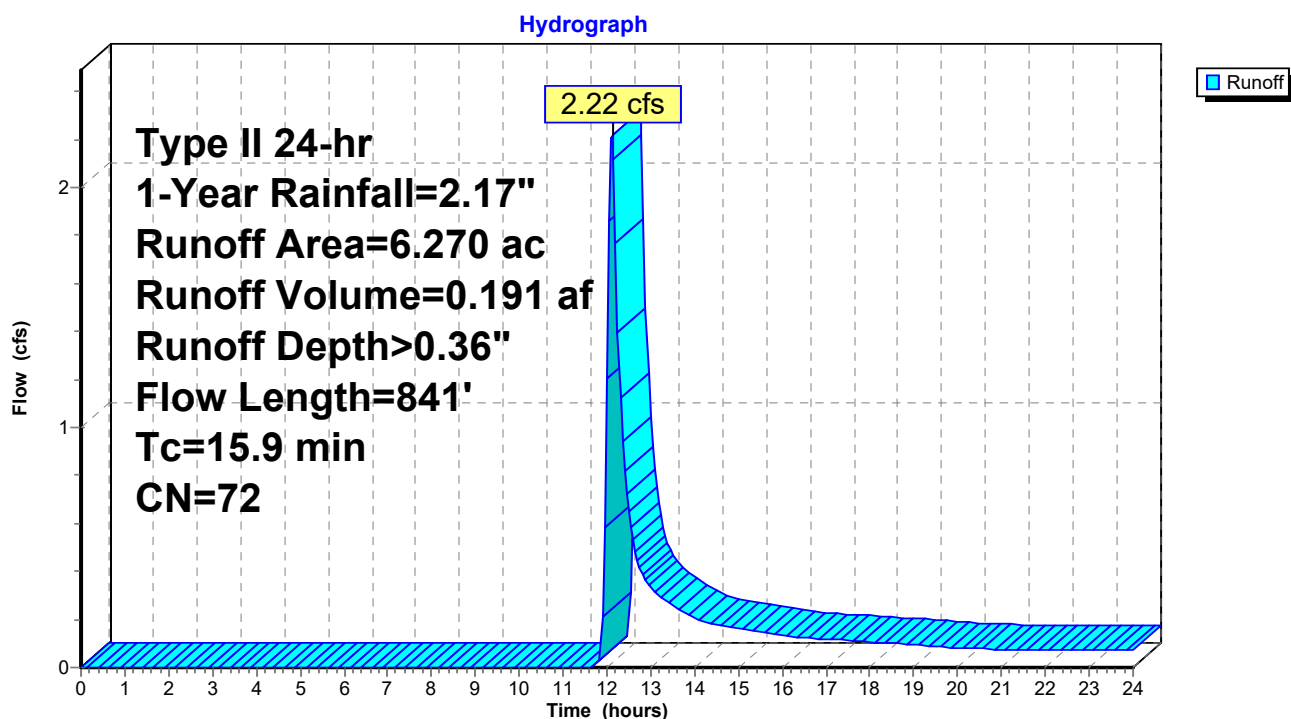
Runoff = 2.22 cfs @ 12.11 hrs, Volume= 0.191 af, Depth> 0.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
0.540	30	Meadow, non-grazed, HSG A
0.110	58	Meadow, non-grazed, HSG B
1.120	71	Meadow, non-grazed, HSG C
2.170	78	Meadow, non-grazed, HSG D
0.010	55	Woods, Good, HSG B
0.190	70	Woods, Good, HSG C
1.130	77	Woods, Good, HSG D
0.200	61	Pasture/grassland/range, Good, HSG B
0.130	80	Pasture/grassland/range, Good, HSG D
0.250	98	Water Surface, HSG C
0.050	98	Paved parking, HSG C
0.070	61	>75% Grass cover, Good, HSG B
0.040	74	>75% Grass cover, Good, HSG C
0.260	80	>75% Grass cover, Good, HSG D
6.270	72	Weighted Average
5.970		95.22% Pervious Area
0.300		4.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1000	0.29		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
1.8	210	0.0800	1.98		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.6	226	0.0420	1.43		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
4.4	190	0.0210	0.72		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
0.3	40	0.1500	1.94		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
1.0	75	0.0630	1.25		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
15.9	841	Total			

# Subcatchment 7S: DA-7



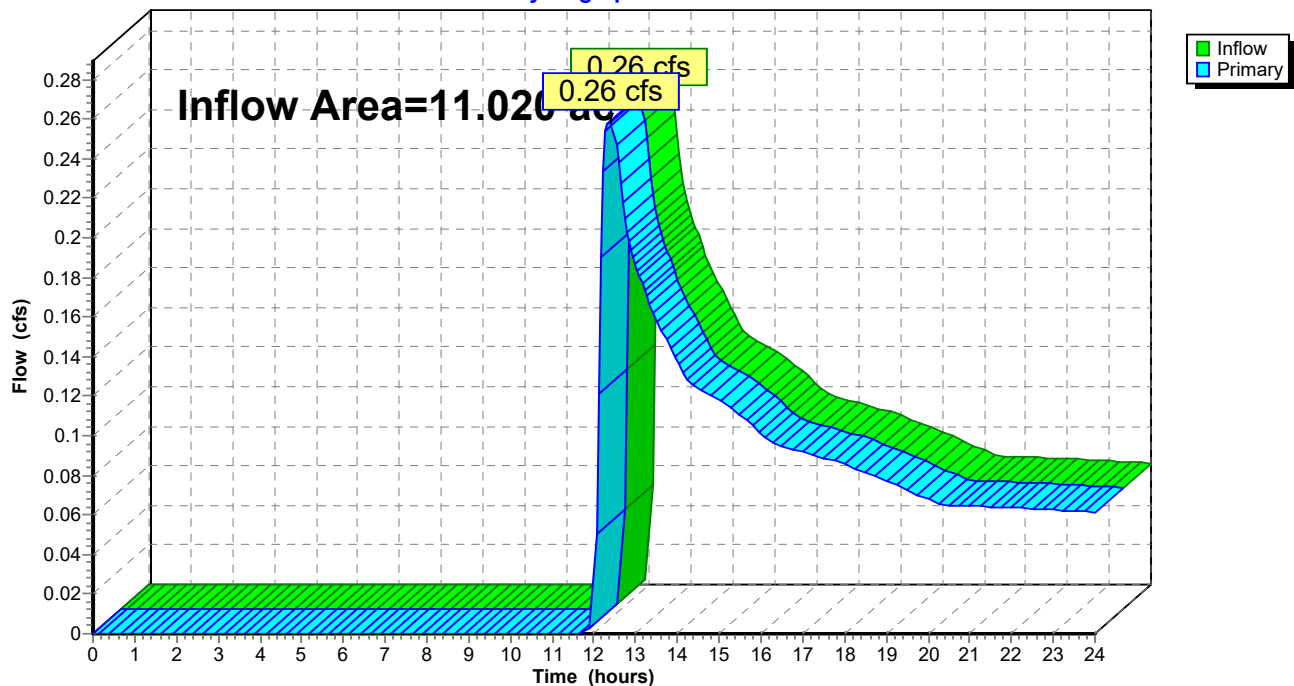
### Summary for Link 1L: DA-1

Inflow Area = 11.020 ac, 0.45% Impervious, Inflow Depth > 0.11" for 1-Year event  
 Inflow = 0.26 cfs @ 12.40 hrs, Volume= 0.099 af  
 Primary = 0.26 cfs @ 12.40 hrs, Volume= 0.099 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 1L: DA-1

Hydrograph



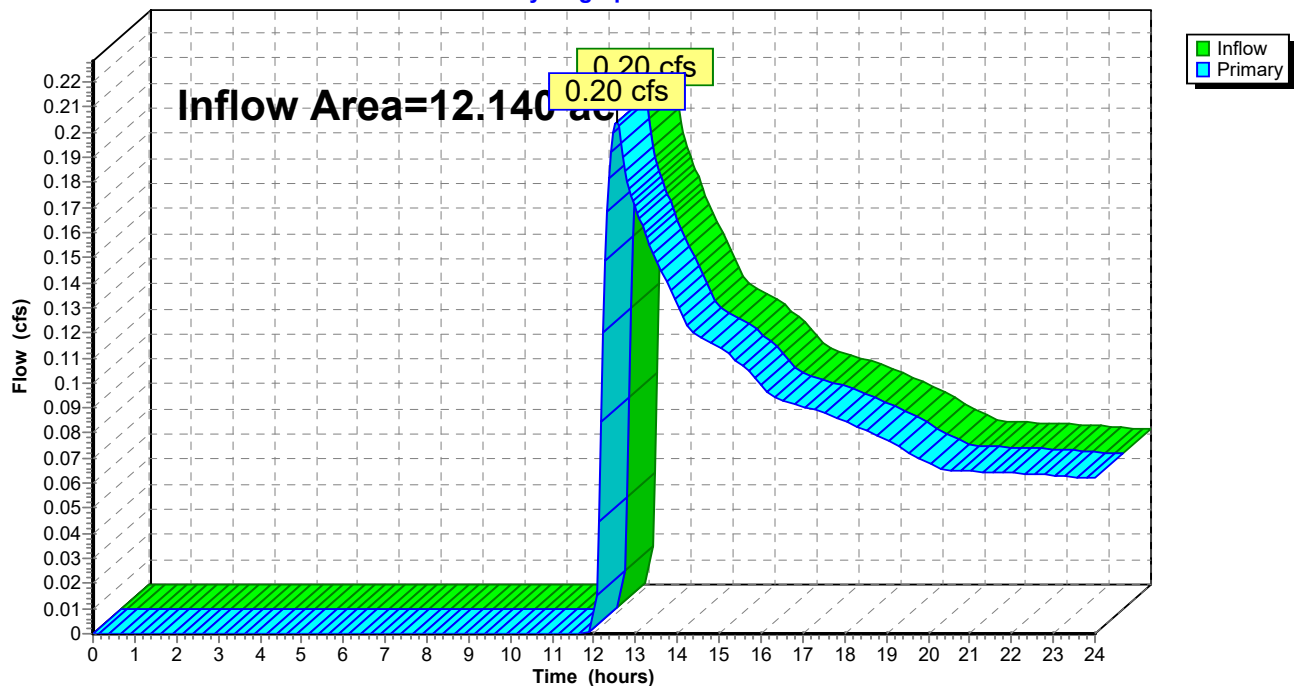
### Summary for Link 2L: DA-2

Inflow Area = 12.140 ac, 0.00% Impervious, Inflow Depth > 0.09" for 1-Year event  
 Inflow = 0.20 cfs @ 12.53 hrs, Volume= 0.093 af  
 Primary = 0.20 cfs @ 12.53 hrs, Volume= 0.093 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 2L: DA-2

Hydrograph





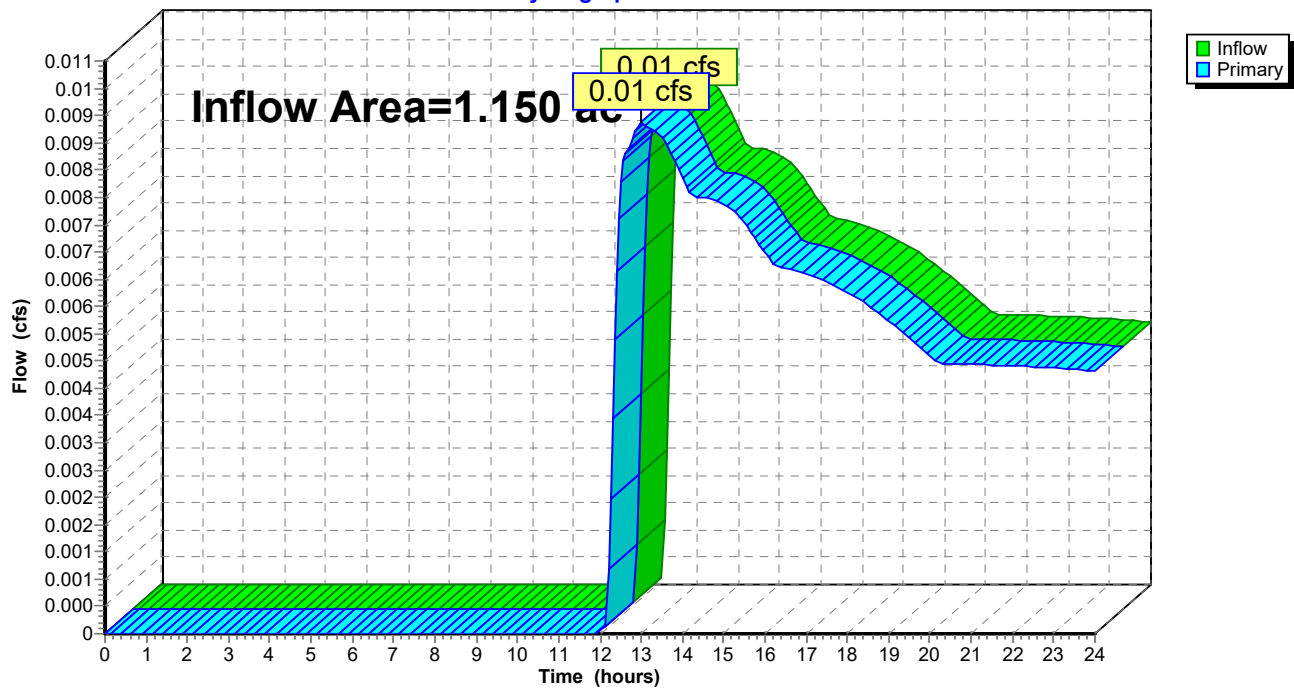
### Summary for Link 3L: DA-3

Inflow Area = 1.150 ac, 0.00% Impervious, Inflow Depth > 0.06" for 1-Year event  
 Inflow = 0.01 cfs @ 13.01 hrs, Volume= 0.006 af  
 Primary = 0.01 cfs @ 13.01 hrs, Volume= 0.006 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 3L: DA-3

Hydrograph

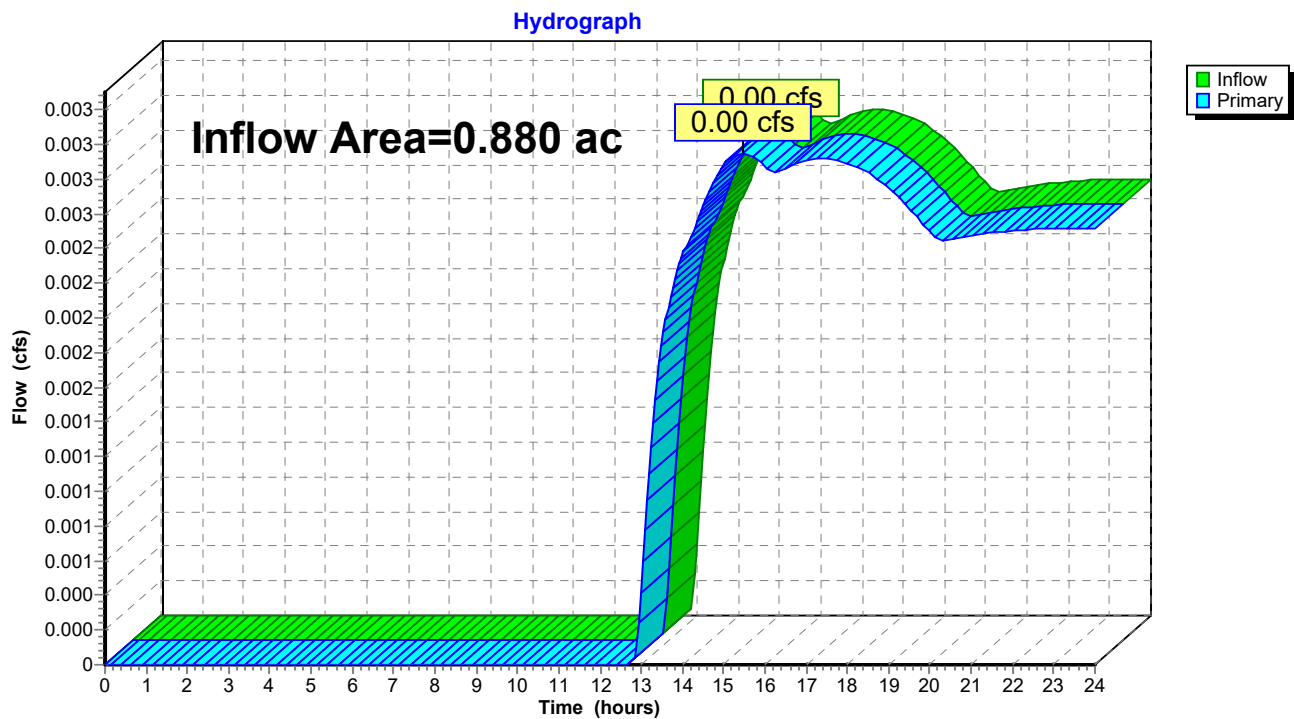


### Summary for Link 4L: DA-4

Inflow Area = 0.880 ac, 0.00% Impervious, Inflow Depth > 0.03" for 1-Year event  
 Inflow = 0.00 cfs @ 15.49 hrs, Volume= 0.002 af  
 Primary = 0.00 cfs @ 15.49 hrs, Volume= 0.002 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 4L: DA-4

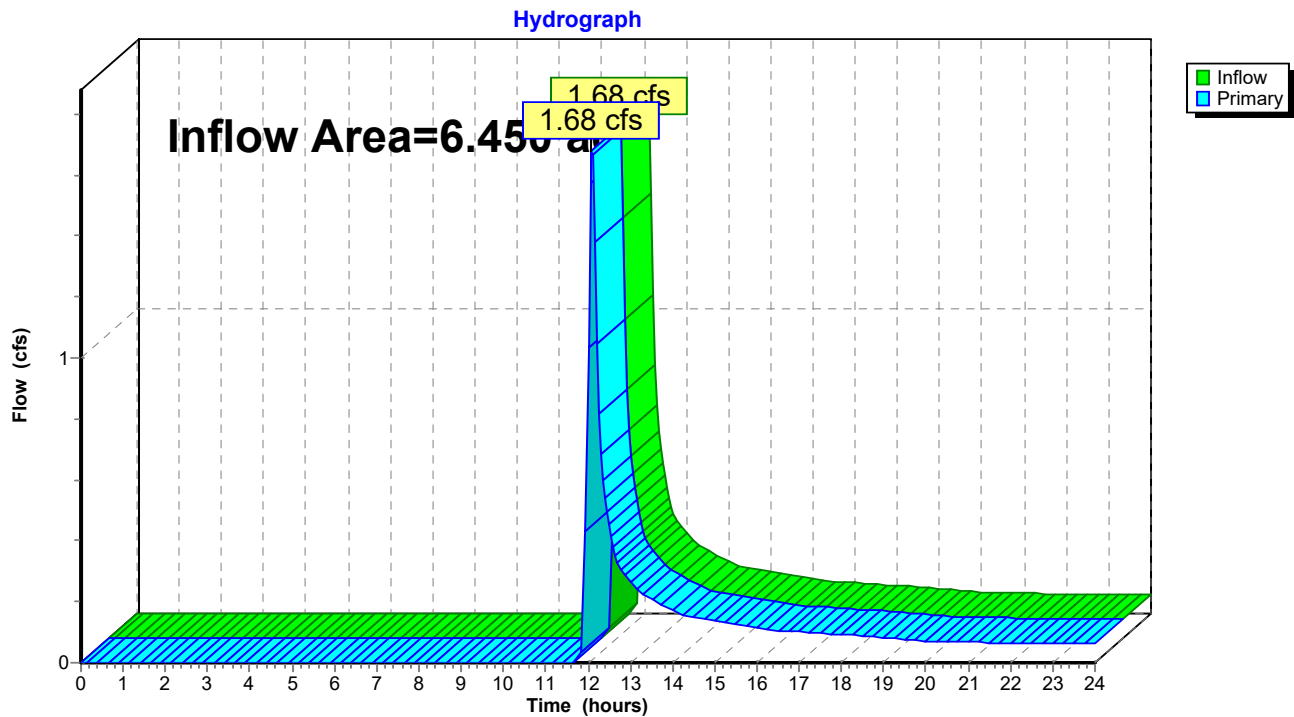


### Summary for Link 5L: DA-5

Inflow Area = 6.450 ac, 0.00% Impervious, Inflow Depth > 0.28" for 1-Year event  
 Inflow = 1.68 cfs @ 12.09 hrs, Volume= 0.150 af  
 Primary = 1.68 cfs @ 12.09 hrs, Volume= 0.150 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 5L: DA-5

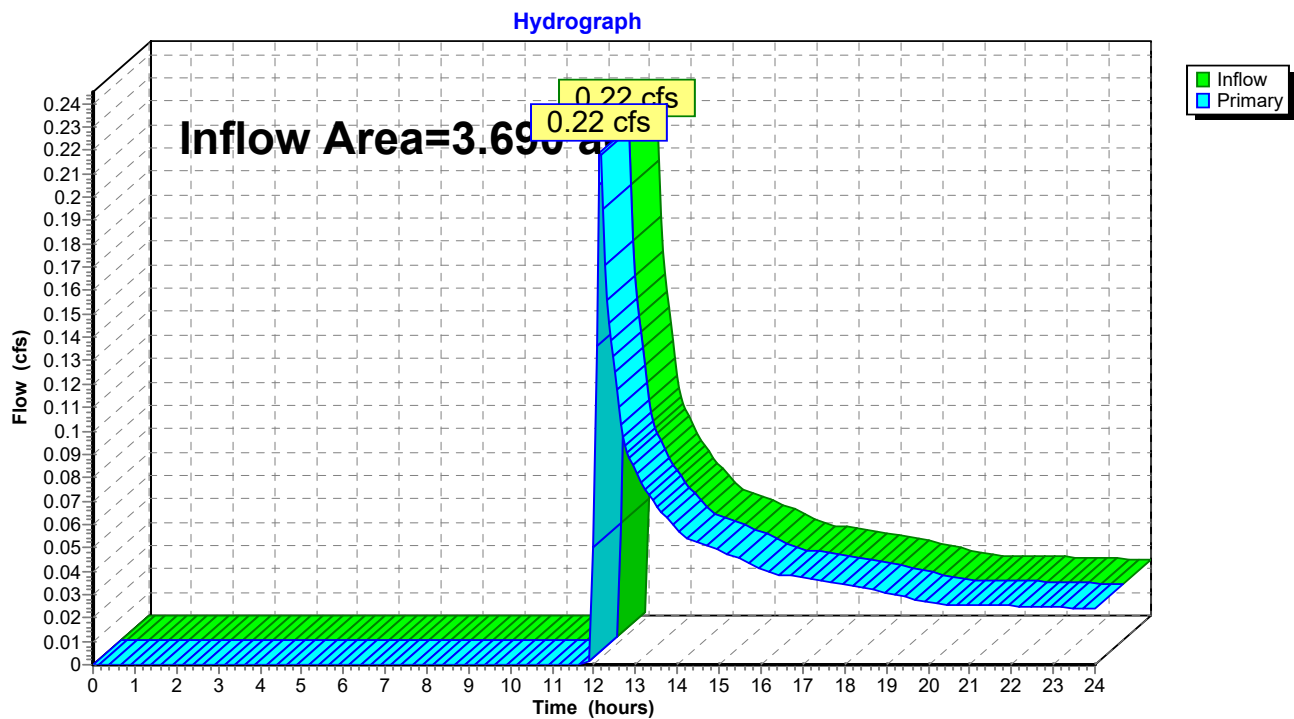


### Summary for Link 6L: DA-6

Inflow Area = 3.690 ac, 0.00% Impervious, Inflow Depth > 0.14" for 1-Year event  
 Inflow = 0.22 cfs @ 12.14 hrs, Volume= 0.044 af  
 Primary = 0.22 cfs @ 12.14 hrs, Volume= 0.044 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 6L: DA-6

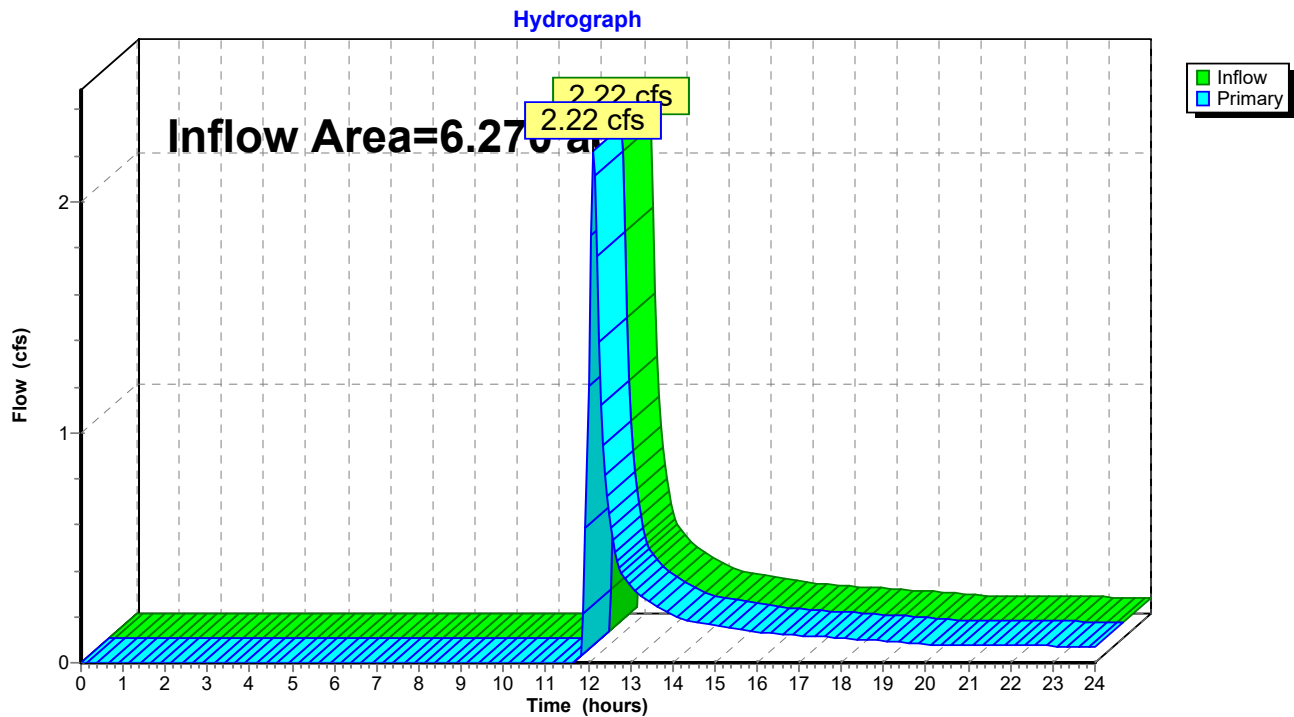


### Summary for Link 7L: DA-7

Inflow Area = 6.270 ac, 4.78% Impervious, Inflow Depth > 0.36" for 1-Year event  
 Inflow = 2.22 cfs @ 12.11 hrs, Volume= 0.191 af  
 Primary = 2.22 cfs @ 12.11 hrs, Volume= 0.191 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 7L: DA-7





Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

<b>Subcatchment1S: DA-1</b>	Runoff Area=11.020 ac 0.45% Impervious Runoff Depth>0.57" Flow Length=1,323' Tc=17.7 min CN=61 Runoff=5.56 cfs 0.522 af
<b>Subcatchment2S: DA-2</b>	Runoff Area=12.140 ac 0.00% Impervious Runoff Depth>0.53" Flow Length=1,279' Tc=18.8 min CN=60 Runoff=5.23 cfs 0.533 af
<b>Subcatchment3S: DA-3</b>	Runoff Area=1.150 ac 0.00% Impervious Runoff Depth>0.45" Flow Length=577' Tc=13.2 min CN=58 Runoff=0.47 cfs 0.043 af
<b>Subcatchment4S: DA-4</b>	Runoff Area=0.880 ac 0.00% Impervious Runoff Depth>0.34" Flow Length=247' Tc=12.7 min CN=55 Runoff=0.22 cfs 0.025 af
<b>Subcatchment5S: DA-5</b>	Runoff Area=6.450 ac 0.00% Impervious Runoff Depth>0.95" Flow Length=777' Tc=12.7 min CN=69 Runoff=8.01 cfs 0.511 af
<b>Subcatchment6S: DA-6</b>	Runoff Area=3.690 ac 0.00% Impervious Runoff Depth>0.66" Flow Length=681' Tc=13.5 min CN=63 Runoff=2.71 cfs 0.202 af
<b>Subcatchment7S: DA-7</b>	Runoff Area=6.270 ac 4.78% Impervious Runoff Depth>1.12" Flow Length=841' Tc=15.9 min CN=72 Runoff=8.39 cfs 0.583 af
<b>Link 1L: DA-1</b>	Inflow=5.56 cfs 0.522 af Primary=5.56 cfs 0.522 af
<b>Link 2L: DA-2</b>	Inflow=5.23 cfs 0.533 af Primary=5.23 cfs 0.533 af
<b>Link 3L: DA-3</b>	Inflow=0.47 cfs 0.043 af Primary=0.47 cfs 0.043 af
<b>Link 4L: DA-4</b>	Inflow=0.22 cfs 0.025 af Primary=0.22 cfs 0.025 af
<b>Link 5L: DA-5</b>	Inflow=8.01 cfs 0.511 af Primary=8.01 cfs 0.511 af
<b>Link 6L: DA-6</b>	Inflow=2.71 cfs 0.202 af Primary=2.71 cfs 0.202 af
<b>Link 7L: DA-7</b>	Inflow=8.39 cfs 0.583 af Primary=8.39 cfs 0.583 af

**Total Runoff Area = 41.600 ac Runoff Volume = 2.419 af Average Runoff Depth = 0.70"**  
**99.16% Pervious = 41.250 ac 0.84% Impervious = 0.350 ac**

### Summary for Subcatchment 1S: DA-1

Runoff = 5.56 cfs @ 12.14 hrs, Volume= 0.522 af, Depth> 0.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.50"

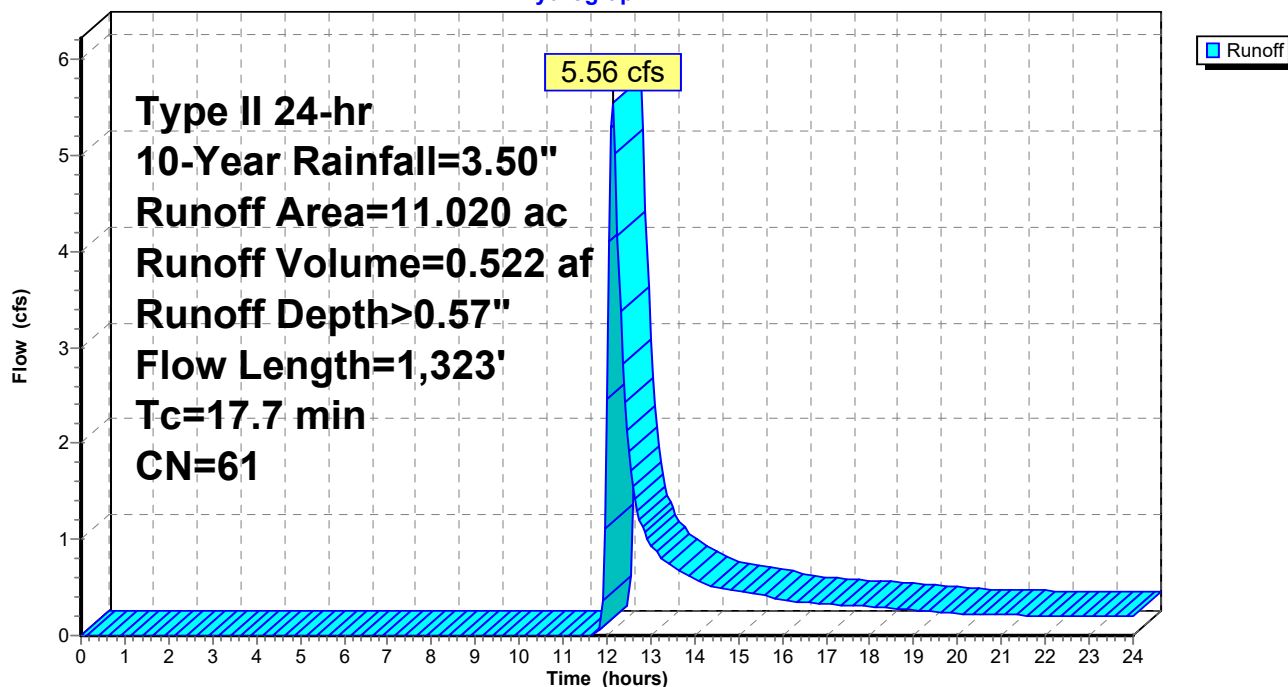
Area (ac)	CN	Description
0.640	61	Pasture/grassland/range, Good, HSG B
0.050	98	Paved parking, HSG C
8.290	58	Meadow, non-grazed, HSG B
1.520	78	Meadow, non-grazed, HSG D
0.500	61	>75% Grass cover, Good, HSG B
0.020	80	>75% Grass cover, Good, HSG D
11.020	61	Weighted Average
10.970		99.55% Pervious Area
0.050		0.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.0840	0.27		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
4.3	367	0.0410	1.42		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
3.3	350	0.0640	1.77		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
3.4	449	0.0990	2.20		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.1	23	0.0300	3.52		<b>Shallow Concentrated Flow,</b> Paved Kv= 20.3 fps
0.4	34	0.0500	1.57		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
17.7	1,323	Total			

# Subcatchment 1S: DA-1

Hydrograph



### Summary for Subcatchment 2S: DA-2

Runoff = 5.23 cfs @ 12.16 hrs, Volume= 0.533 af, Depth> 0.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.50"

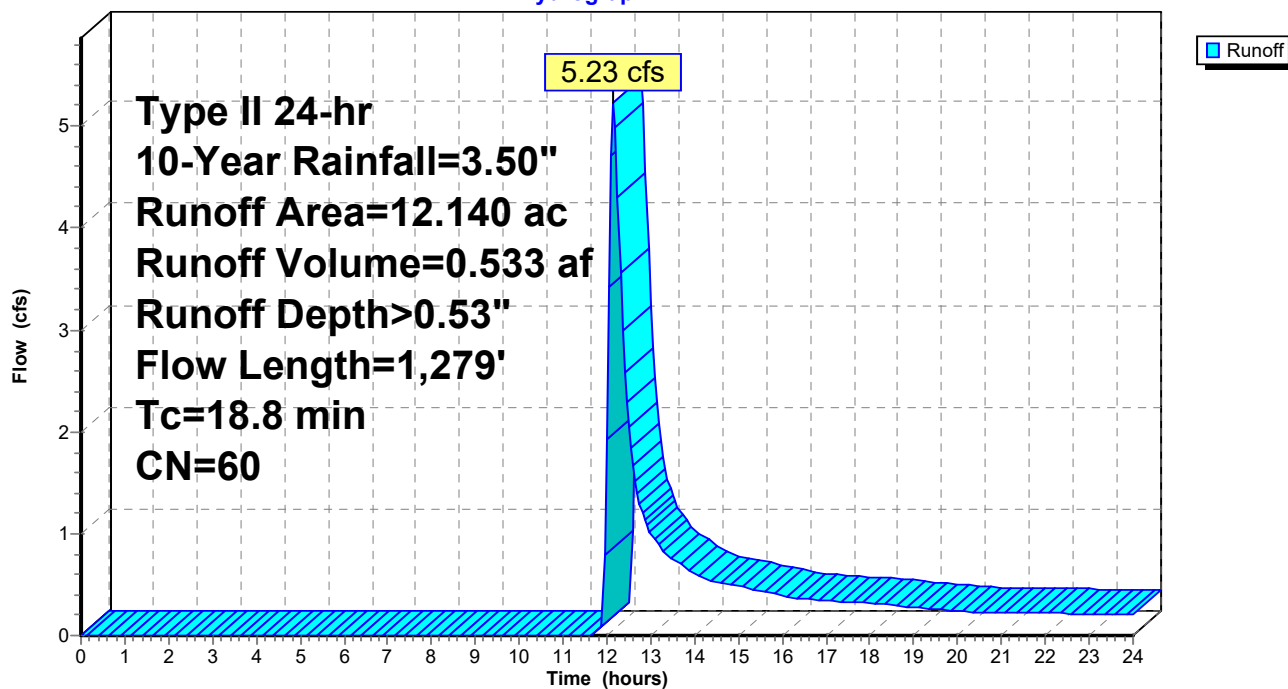
Area (ac)	CN	Description
2.190	61	Pasture/grassland/range, Good, HSG B
0.310	55	Woods, Good, HSG B
0.140	77	Woods, Good, HSG D
0.480	80	Pasture/grassland/range, Good, HSG D
9.020	58	Meadow, non-grazed, HSG B
12.140	60	Weighted Average
12.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0600	0.23		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
3.0	290	0.0520	1.60		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.5	288	0.0760	1.93		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.2	275	0.0900	2.10		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
4.0	326	0.0380	1.36		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
18.8	1,279	Total			

## Subcatchment 2S: DA-2

Hydrograph





**Summary for Subcatchment 3S: DA-3**

Runoff = 0.47 cfs @ 12.09 hrs, Volume= 0.043 af, Depth> 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.50"

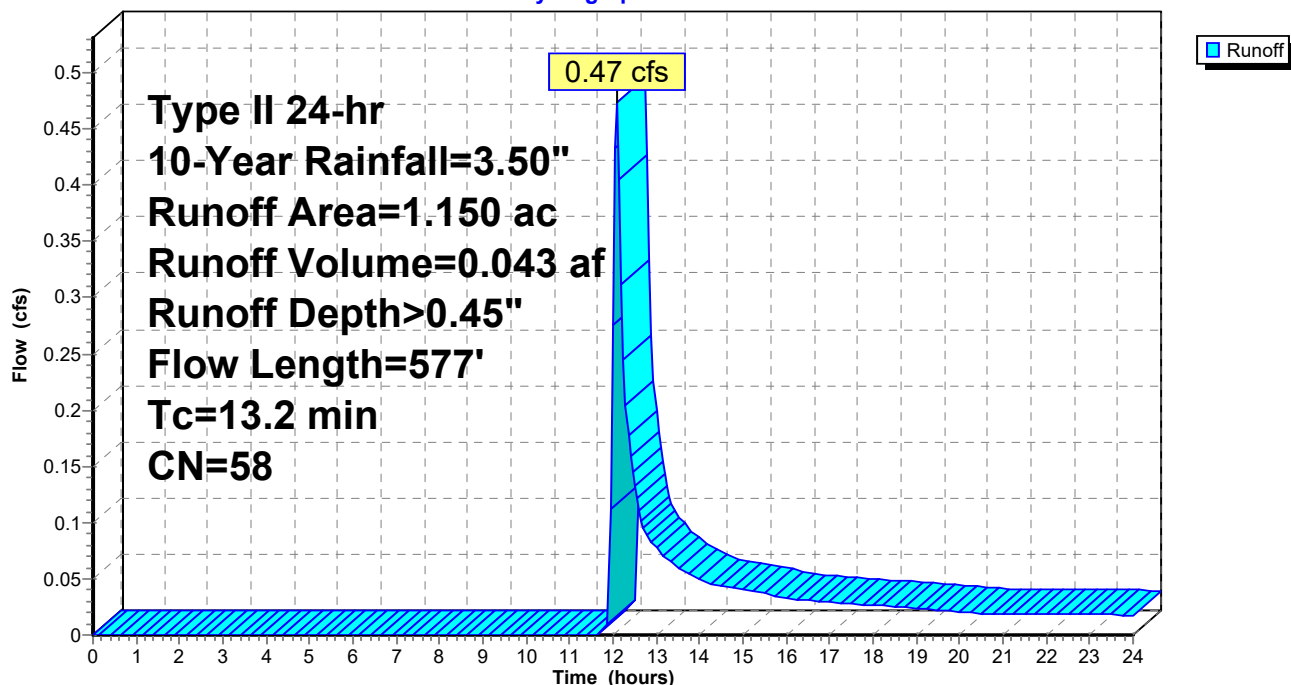
Area (ac)	CN	Description
0.150	61	Pasture/grassland/range, Good, HSG B
0.100	55	Woods, Good, HSG B
0.900	58	Meadow, non-grazed, HSG B
1.150	58	Weighted Average
1.150		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.6	100	0.0380	0.19		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
1.9	145	0.0320	1.25		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.3	297	0.0920	2.12		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	35	0.1100	1.66		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.2	577	Total			

**Subcatchment 3S: DA-3**

Hydrograph



**Summary for Subcatchment 4S: DA-4**

Runoff = 0.22 cfs @ 12.10 hrs, Volume= 0.025 af, Depth> 0.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.50"

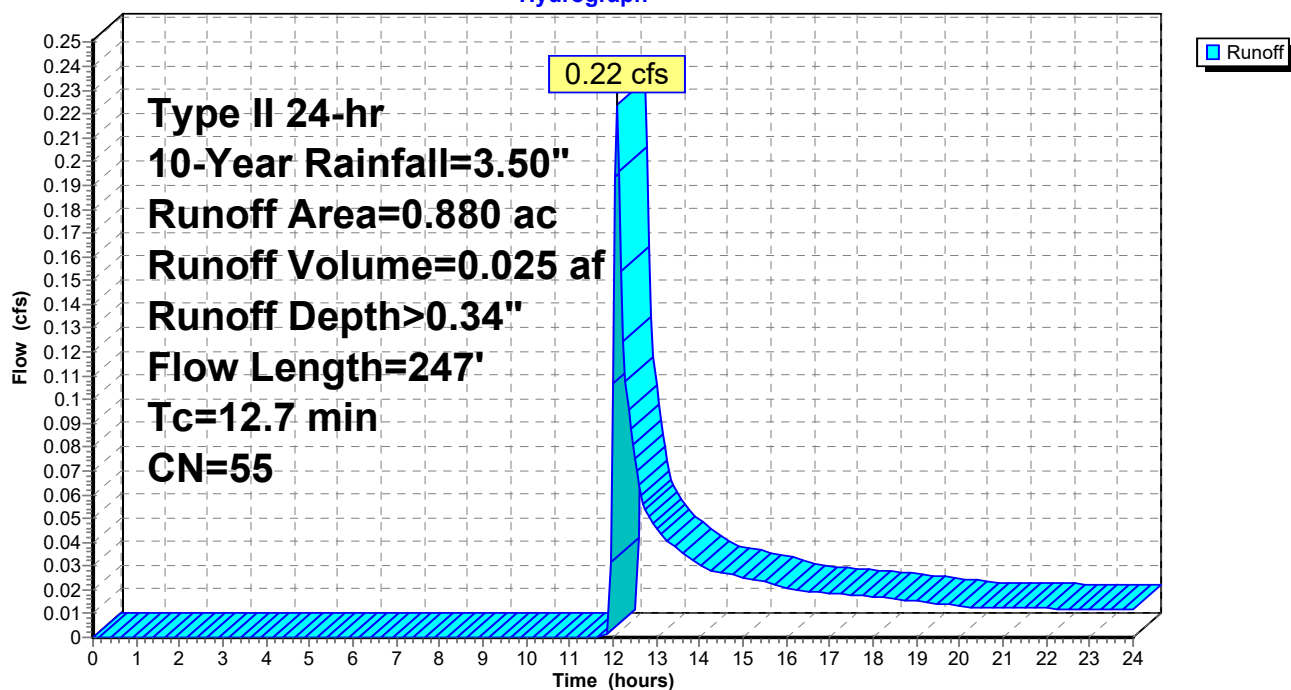
Area (ac)	CN	Description
0.760	55	Woods, Good, HSG B
0.120	58	Meadow, non-grazed, HSG B
0.880	55	Weighted Average
0.880		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.1	45	0.0950	0.24		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
8.1	55	0.0950	0.11		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 2.50"
1.5	147	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
12.7	247	Total			

**Subcatchment 4S: DA-4**

Hydrograph



### Summary for Subcatchment 5S: DA-5

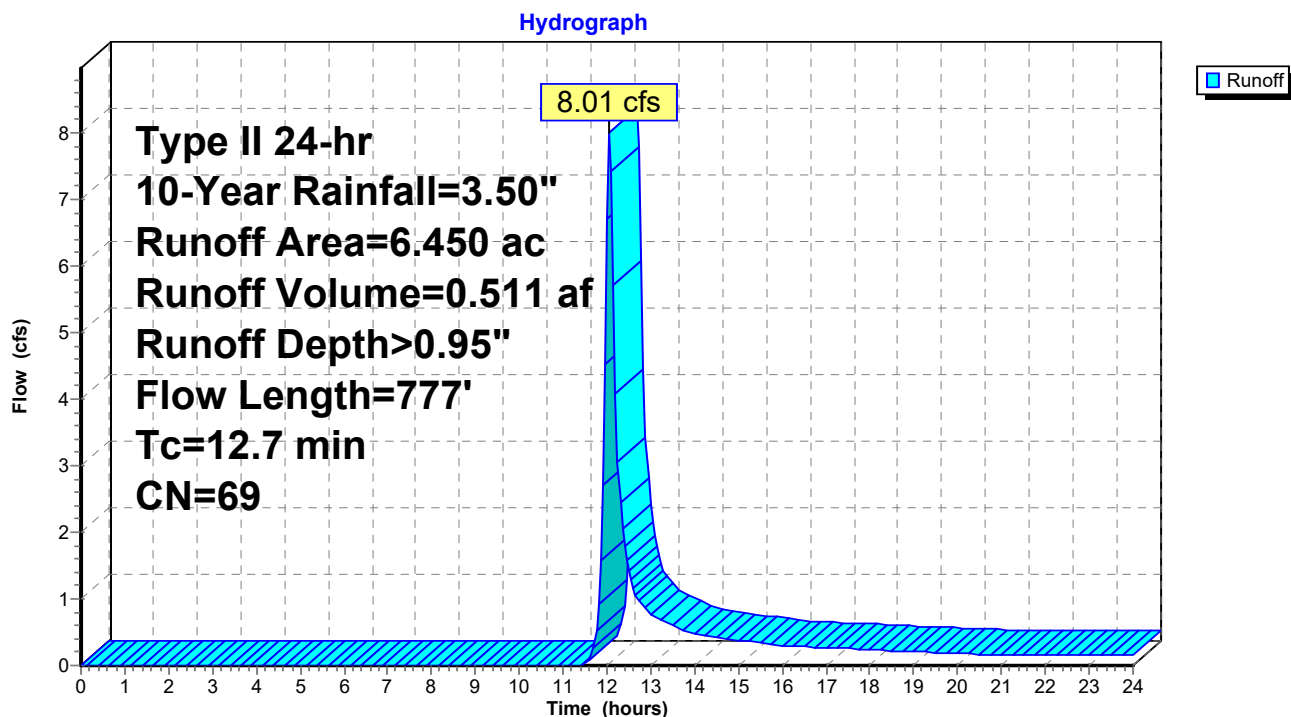
Runoff = 8.01 cfs @ 12.06 hrs, Volume= 0.511 af, Depth> 0.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.50"

Area (ac)	CN	Description
1.680	58	Meadow, non-grazed, HSG B
1.890	71	Meadow, non-grazed, HSG C
2.250	78	Meadow, non-grazed, HSG D
0.170	61	Pasture/grassland/range, Good, HSG B
0.250	55	Woods, Good, HSG B
0.210	70	Woods, Good, HSG C
6.450	69	Weighted Average
6.450		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1000	0.29		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
0.5	75	0.1200	2.42		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.7	252	0.0480	1.53		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
1.3	148	0.0740	1.90		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.4	202	0.0770	1.39		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
12.7	777	Total			

### Subcatchment 5S: DA-5



### Summary for Subcatchment 6S: DA-6

Runoff = 2.71 cfs @ 12.08 hrs, Volume= 0.202 af, Depth> 0.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.50"

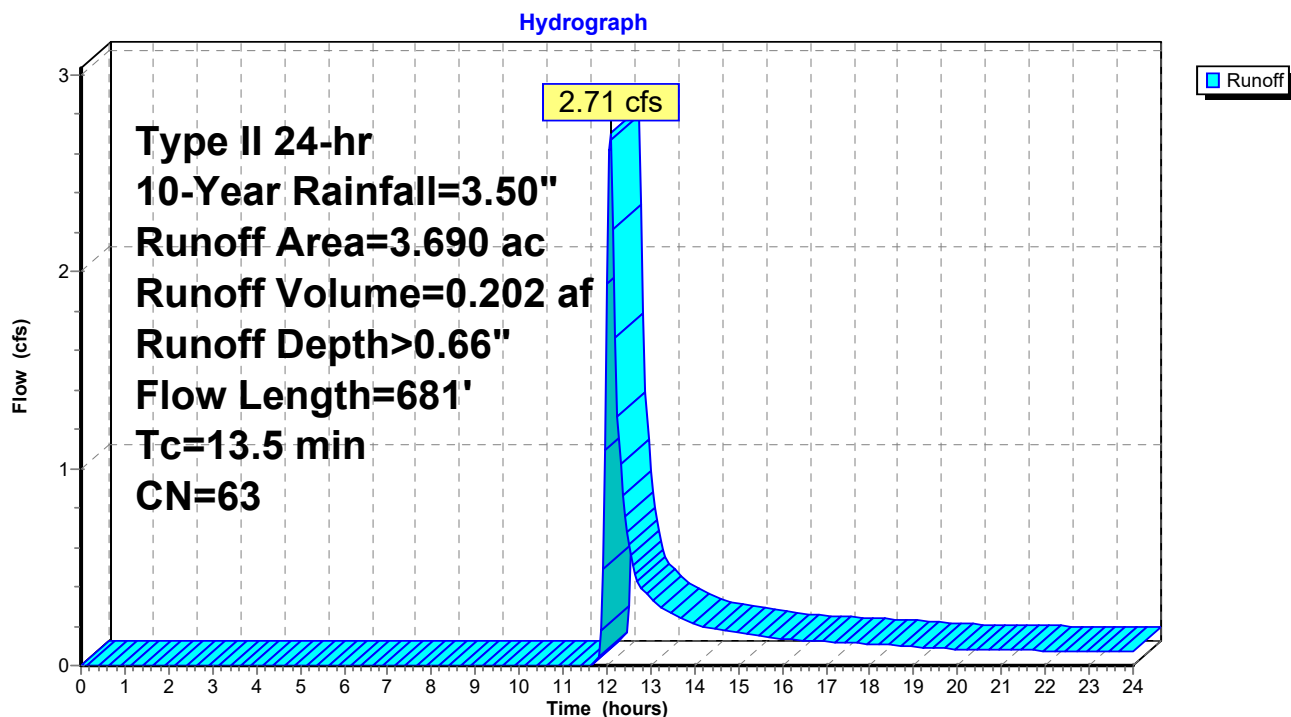
Area (ac)	CN	Description
1.920	55	Woods, Good, HSG B
0.040	77	Woods, Good, HSG D
0.210	58	Meadow, non-grazed, HSG B
0.760	71	Meadow, non-grazed, HSG C
0.760	78	Meadow, non-grazed, HSG D
3.690	63	Weighted Average
3.690		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.0700	0.25		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
1.1	125	0.0670	1.81		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
3.9	306	0.0670	1.29		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
1.8	150	0.0800	1.41		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.5	681	Total			



# Subcatchment 6S: DA-6



### Summary for Subcatchment 7S: DA-7

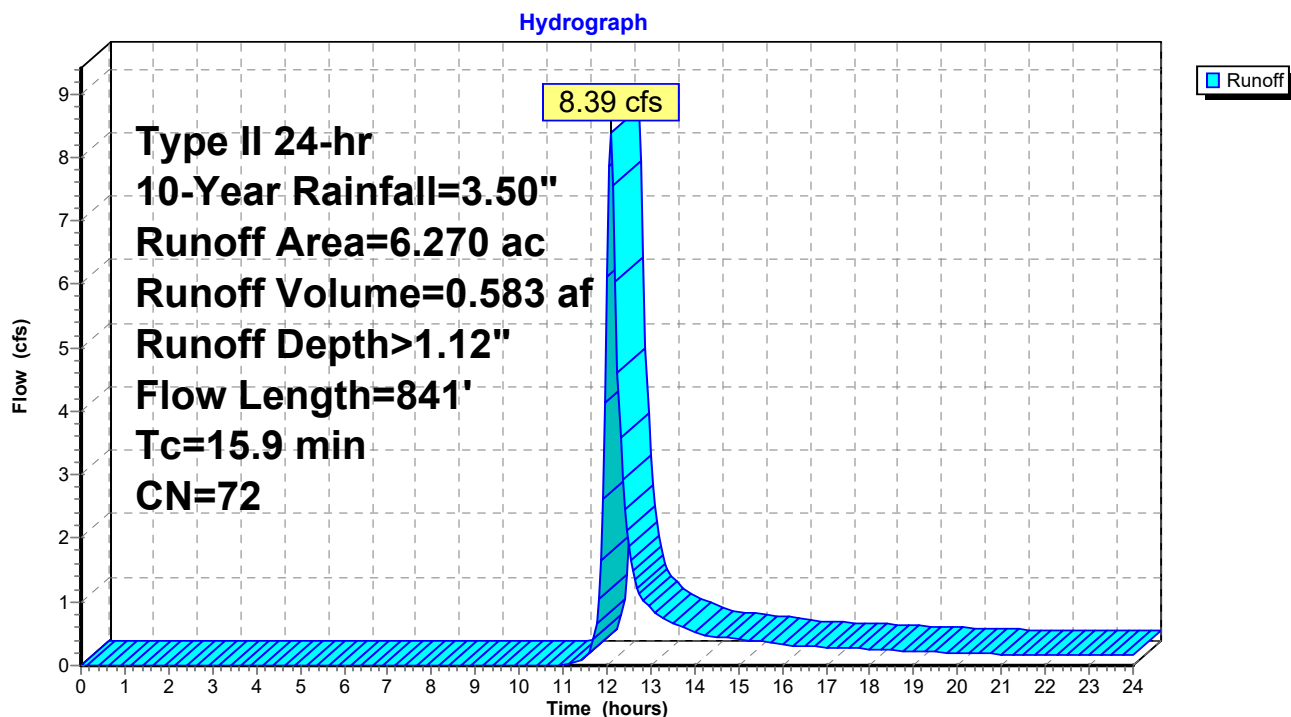
Runoff = 8.39 cfs @ 12.09 hrs, Volume= 0.583 af, Depth> 1.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.50"

Area (ac)	CN	Description
0.540	30	Meadow, non-grazed, HSG A
0.110	58	Meadow, non-grazed, HSG B
1.120	71	Meadow, non-grazed, HSG C
2.170	78	Meadow, non-grazed, HSG D
0.010	55	Woods, Good, HSG B
0.190	70	Woods, Good, HSG C
1.130	77	Woods, Good, HSG D
0.200	61	Pasture/grassland/range, Good, HSG B
0.130	80	Pasture/grassland/range, Good, HSG D
0.250	98	Water Surface, HSG C
0.050	98	Paved parking, HSG C
0.070	61	>75% Grass cover, Good, HSG B
0.040	74	>75% Grass cover, Good, HSG C
0.260	80	>75% Grass cover, Good, HSG D
6.270	72	Weighted Average
5.970		95.22% Pervious Area
0.300		4.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1000	0.29		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
1.8	210	0.0800	1.98		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.6	226	0.0420	1.43		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
4.4	190	0.0210	0.72		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
0.3	40	0.1500	1.94		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
1.0	75	0.0630	1.25		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
15.9	841	Total			

# Subcatchment 7S: DA-7

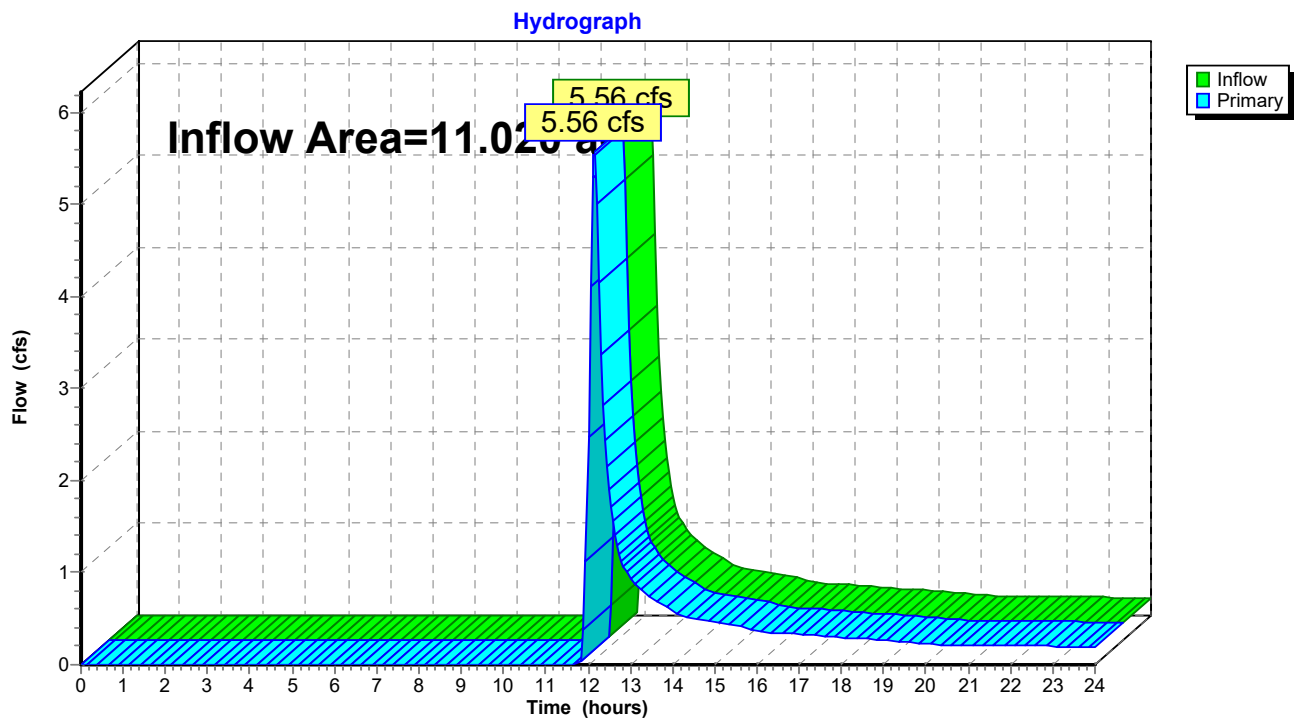


### Summary for Link 1L: DA-1

Inflow Area = 11.020 ac, 0.45% Impervious, Inflow Depth > 0.57" for 10-Year event  
 Inflow = 5.56 cfs @ 12.14 hrs, Volume= 0.522 af  
 Primary = 5.56 cfs @ 12.14 hrs, Volume= 0.522 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 1L: DA-1

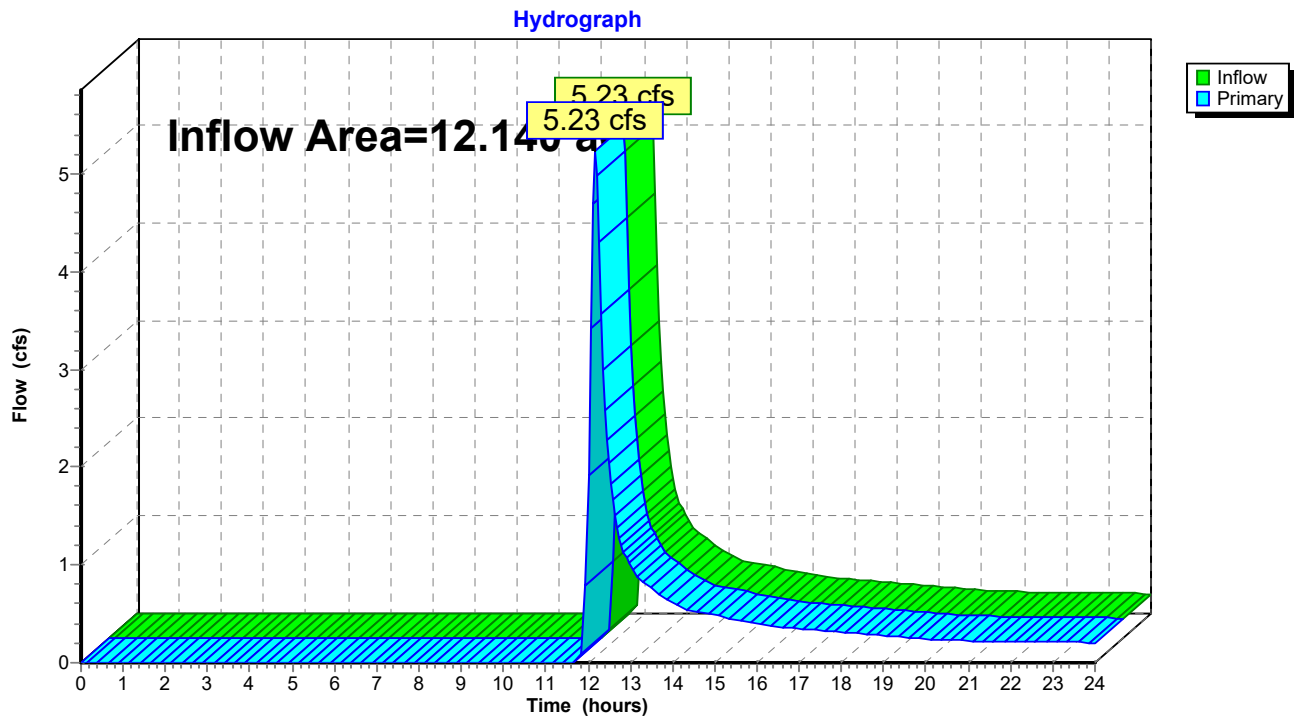


### Summary for Link 2L: DA-2

Inflow Area = 12.140 ac, 0.00% Impervious, Inflow Depth > 0.53" for 10-Year event  
 Inflow = 5.23 cfs @ 12.16 hrs, Volume= 0.533 af  
 Primary = 5.23 cfs @ 12.16 hrs, Volume= 0.533 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 2L: DA-2



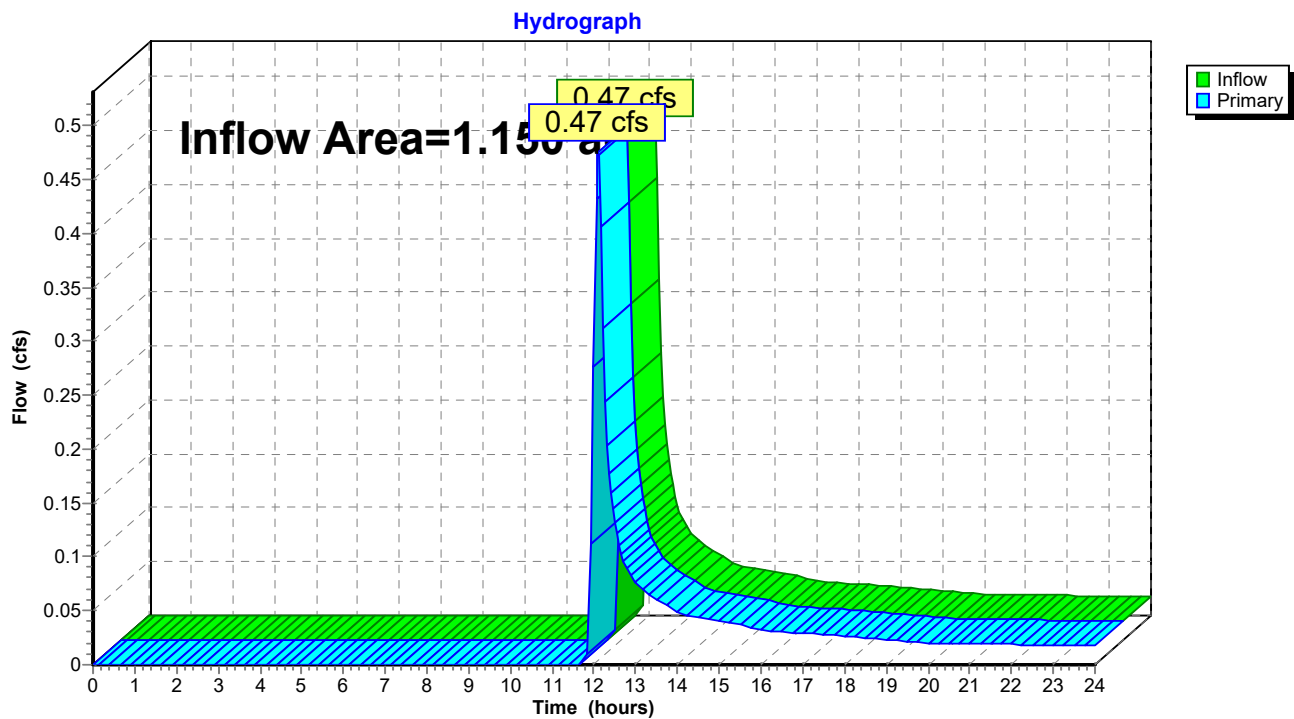


### Summary for Link 3L: DA-3

Inflow Area = 1.150 ac, 0.00% Impervious, Inflow Depth > 0.45" for 10-Year event  
 Inflow = 0.47 cfs @ 12.09 hrs, Volume= 0.043 af  
 Primary = 0.47 cfs @ 12.09 hrs, Volume= 0.043 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 3L: DA-3



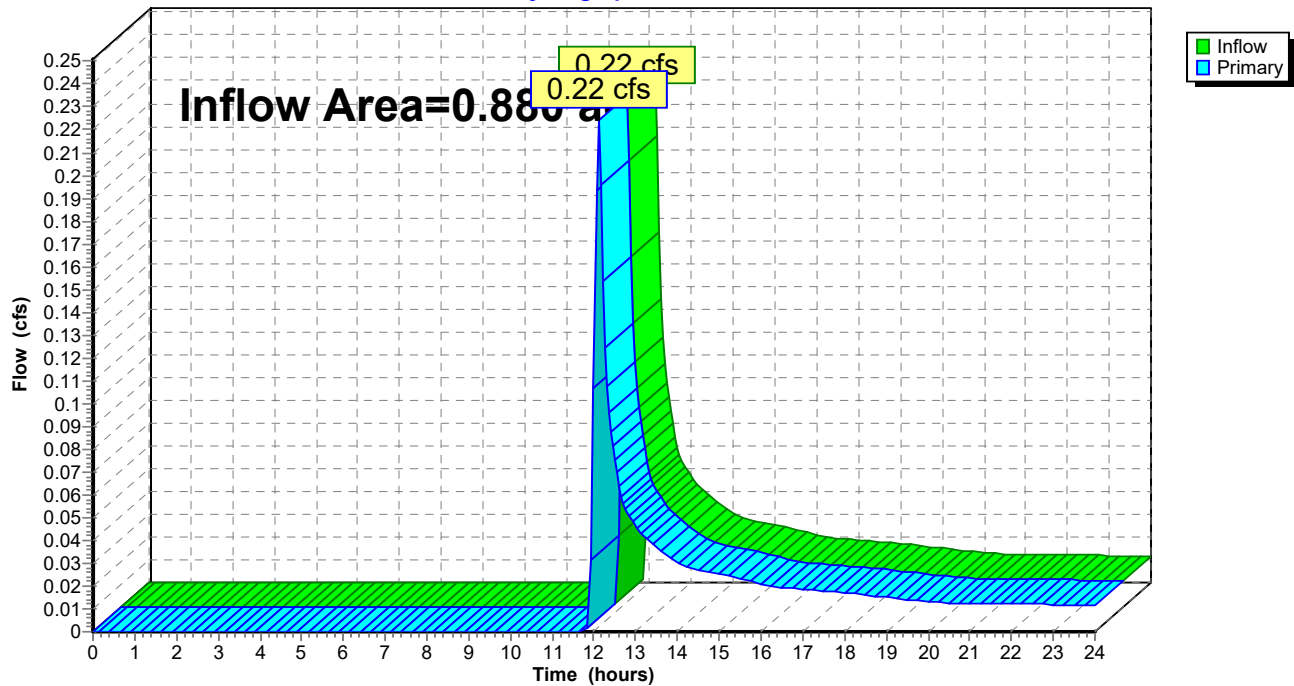
### Summary for Link 4L: DA-4

Inflow Area = 0.880 ac, 0.00% Impervious, Inflow Depth > 0.34" for 10-Year event  
 Inflow = 0.22 cfs @ 12.10 hrs, Volume= 0.025 af  
 Primary = 0.22 cfs @ 12.10 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 4L: DA-4

Hydrograph

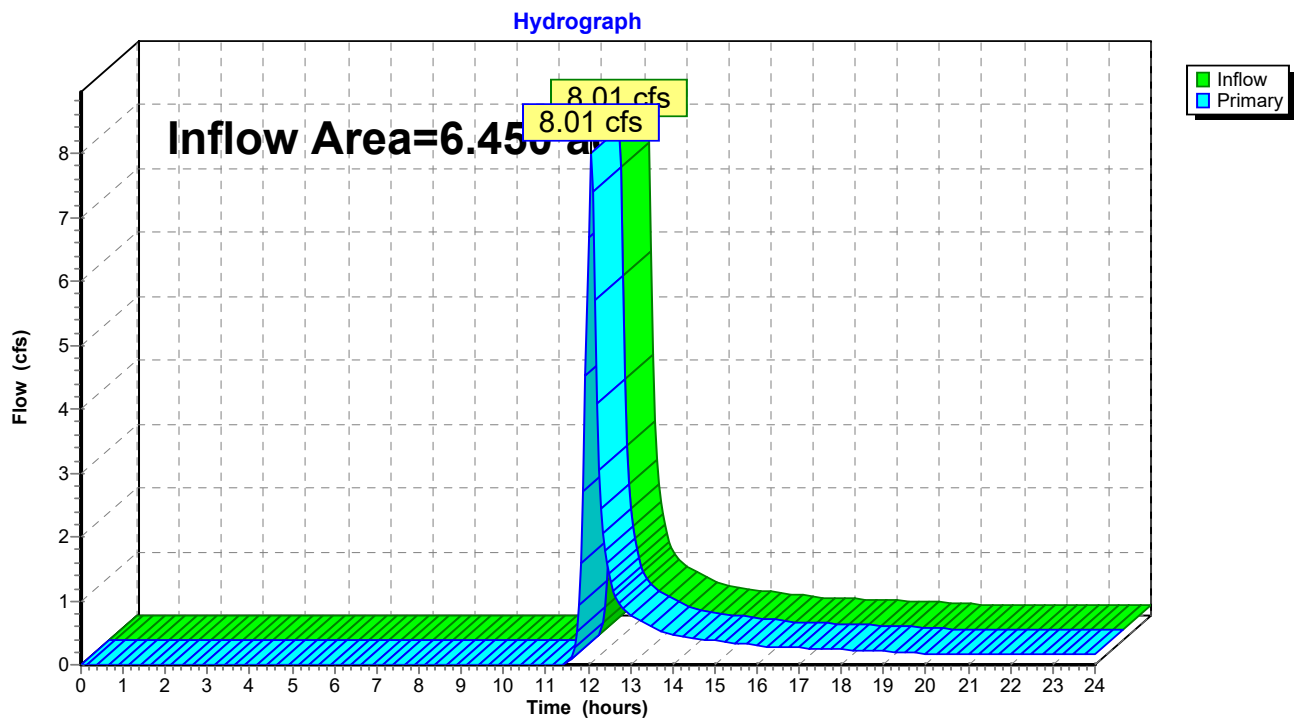


### Summary for Link 5L: DA-5

Inflow Area = 6.450 ac, 0.00% Impervious, Inflow Depth > 0.95" for 10-Year event  
 Inflow = 8.01 cfs @ 12.06 hrs, Volume= 0.511 af  
 Primary = 8.01 cfs @ 12.06 hrs, Volume= 0.511 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 5L: DA-5

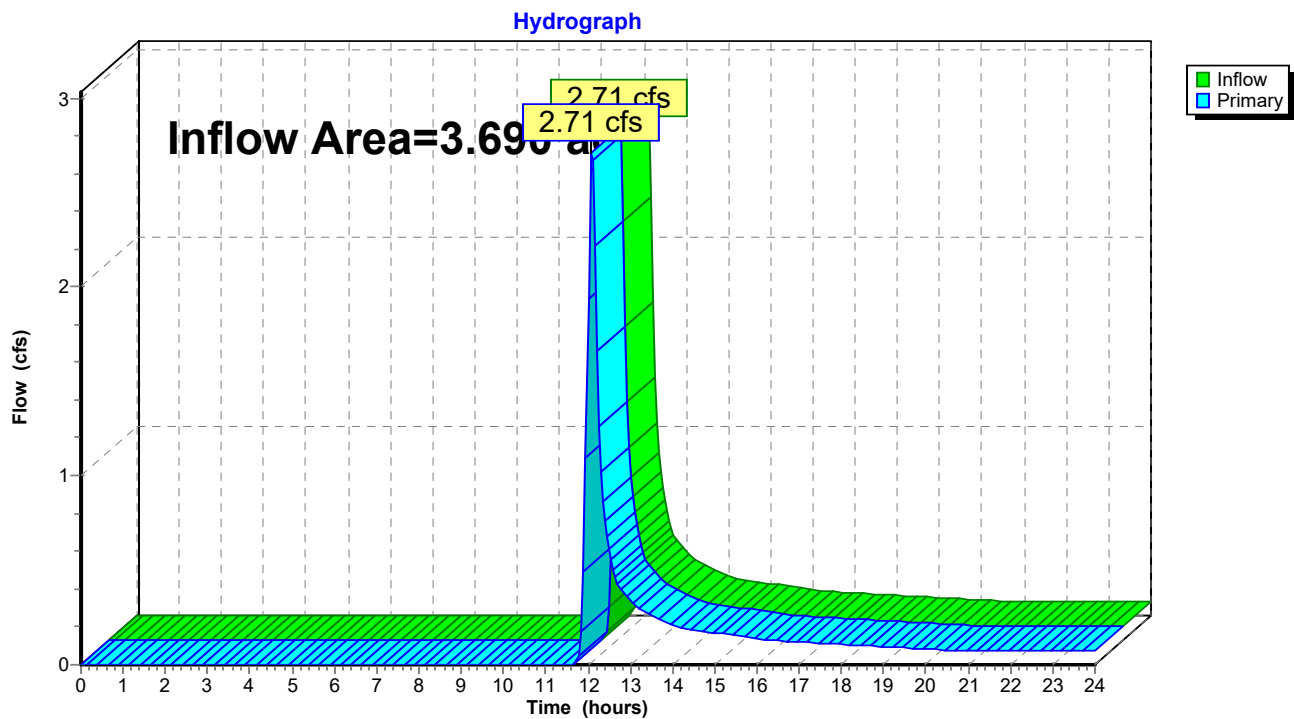


### Summary for Link 6L: DA-6

Inflow Area = 3.690 ac, 0.00% Impervious, Inflow Depth > 0.66" for 10-Year event  
 Inflow = 2.71 cfs @ 12.08 hrs, Volume= 0.202 af  
 Primary = 2.71 cfs @ 12.08 hrs, Volume= 0.202 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 6L: DA-6

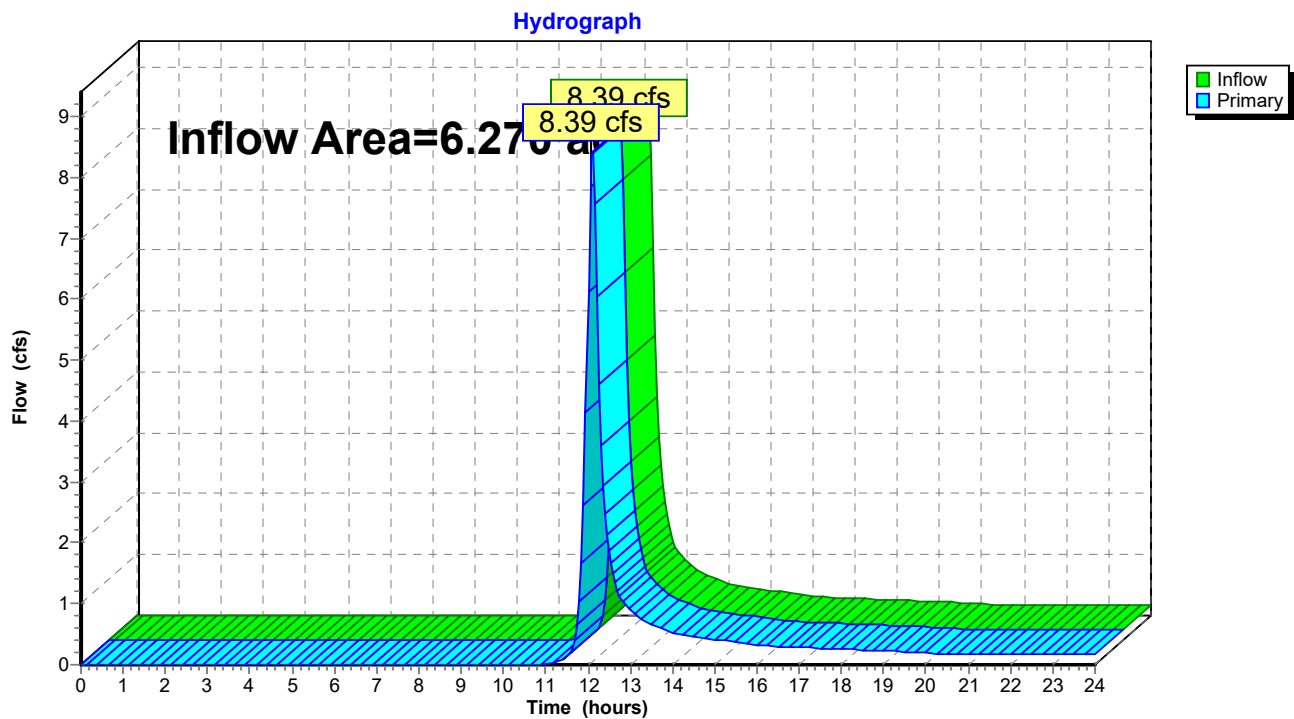


### Summary for Link 7L: DA-7

Inflow Area = 6.270 ac, 4.78% Impervious, Inflow Depth > 1.12" for 10-Year event  
 Inflow = 8.39 cfs @ 12.09 hrs, Volume= 0.583 af  
 Primary = 8.39 cfs @ 12.09 hrs, Volume= 0.583 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 7L: DA-7





Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

<b>Subcatchment1S: DA-1</b>	Runoff Area=11.020 ac 0.45% Impervious Runoff Depth>1.78" Flow Length=1,323' Tc=17.7 min CN=61 Runoff=22.22 cfs 1.639 af
<b>Subcatchment2S: DA-2</b>	Runoff Area=12.140 ac 0.00% Impervious Runoff Depth>1.70" Flow Length=1,279' Tc=18.8 min CN=60 Runoff=22.30 cfs 1.725 af
<b>Subcatchment3S: DA-3</b>	Runoff Area=1.150 ac 0.00% Impervious Runoff Depth>1.55" Flow Length=577' Tc=13.2 min CN=58 Runoff=2.29 cfs 0.149 af
<b>Subcatchment4S: DA-4</b>	Runoff Area=0.880 ac 0.00% Impervious Runoff Depth>1.33" Flow Length=247' Tc=12.7 min CN=55 Runoff=1.48 cfs 0.098 af
<b>Subcatchment5S: DA-5</b>	Runoff Area=6.450 ac 0.00% Impervious Runoff Depth>2.46" Flow Length=777' Tc=12.7 min CN=69 Runoff=21.99 cfs 1.321 af
<b>Subcatchment6S: DA-6</b>	Runoff Area=3.690 ac 0.00% Impervious Runoff Depth>1.95" Flow Length=681' Tc=13.5 min CN=63 Runoff=9.49 cfs 0.599 af
<b>Subcatchment7S: DA-7</b>	Runoff Area=6.270 ac 4.78% Impervious Runoff Depth>2.72" Flow Length=841' Tc=15.9 min CN=72 Runoff=21.35 cfs 1.422 af
<b>Link 1L: DA-1</b>	Inflow=22.22 cfs 1.639 af Primary=22.22 cfs 1.639 af
<b>Link 2L: DA-2</b>	Inflow=22.30 cfs 1.725 af Primary=22.30 cfs 1.725 af
<b>Link 3L: DA-3</b>	Inflow=2.29 cfs 0.149 af Primary=2.29 cfs 0.149 af
<b>Link 4L: DA-4</b>	Inflow=1.48 cfs 0.098 af Primary=1.48 cfs 0.098 af
<b>Link 5L: DA-5</b>	Inflow=21.99 cfs 1.321 af Primary=21.99 cfs 1.321 af
<b>Link 6L: DA-6</b>	Inflow=9.49 cfs 0.599 af Primary=9.49 cfs 0.599 af
<b>Link 7L: DA-7</b>	Inflow=21.35 cfs 1.422 af Primary=21.35 cfs 1.422 af

**Total Runoff Area = 41.600 ac Runoff Volume = 6.952 af Average Runoff Depth = 2.01"**  
**99.16% Pervious = 41.250 ac 0.84% Impervious = 0.350 ac**

**Summary for Subcatchment 1S: DA-1**

Runoff = 22.22 cfs @ 12.11 hrs, Volume= 1.639 af, Depth> 1.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=5.68"

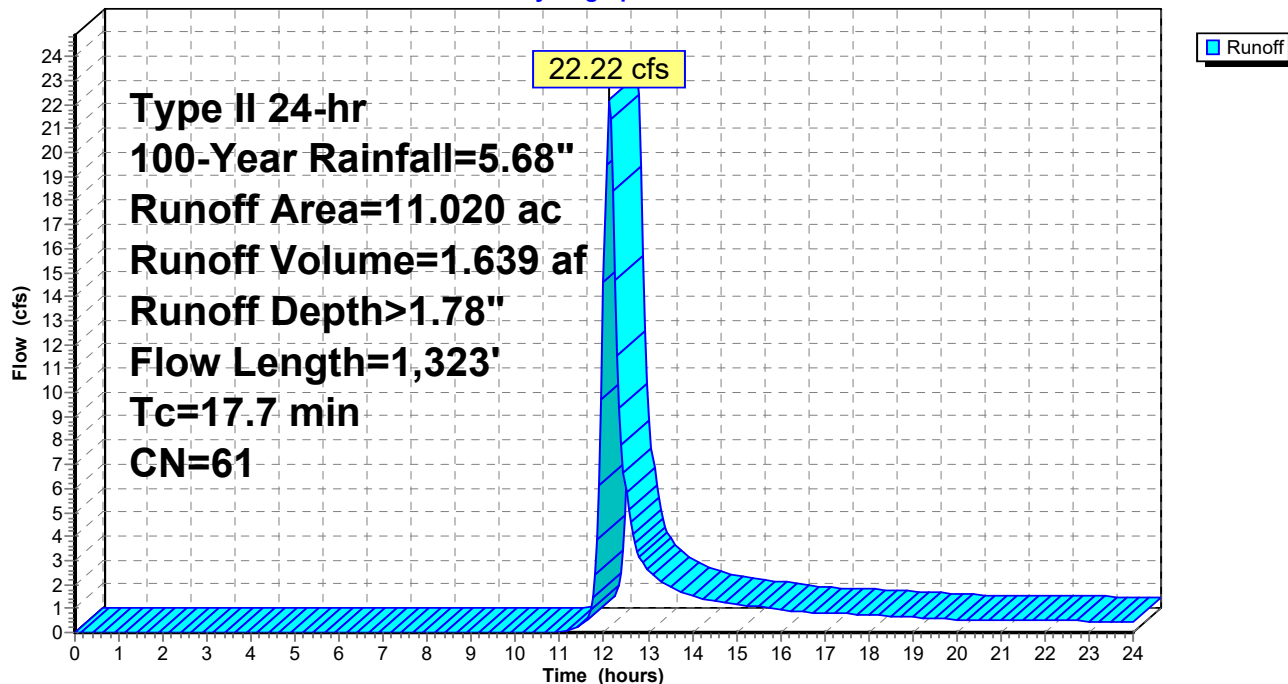
Area (ac)	CN	Description
0.640	61	Pasture/grassland/range, Good, HSG B
0.050	98	Paved parking, HSG C
8.290	58	Meadow, non-grazed, HSG B
1.520	78	Meadow, non-grazed, HSG D
0.500	61	>75% Grass cover, Good, HSG B
0.020	80	>75% Grass cover, Good, HSG D
11.020	61	Weighted Average
10.970		99.55% Pervious Area
0.050		0.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.0840	0.27		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
4.3	367	0.0410	1.42		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
3.3	350	0.0640	1.77		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
3.4	449	0.0990	2.20		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.1	23	0.0300	3.52		<b>Shallow Concentrated Flow,</b> Paved Kv= 20.3 fps
0.4	34	0.0500	1.57		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
17.7	1,323	Total			

# Subcatchment 1S: DA-1

Hydrograph



**Summary for Subcatchment 2S: DA-2**

Runoff = 22.30 cfs @ 12.13 hrs, Volume= 1.725 af, Depth> 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=5.68"

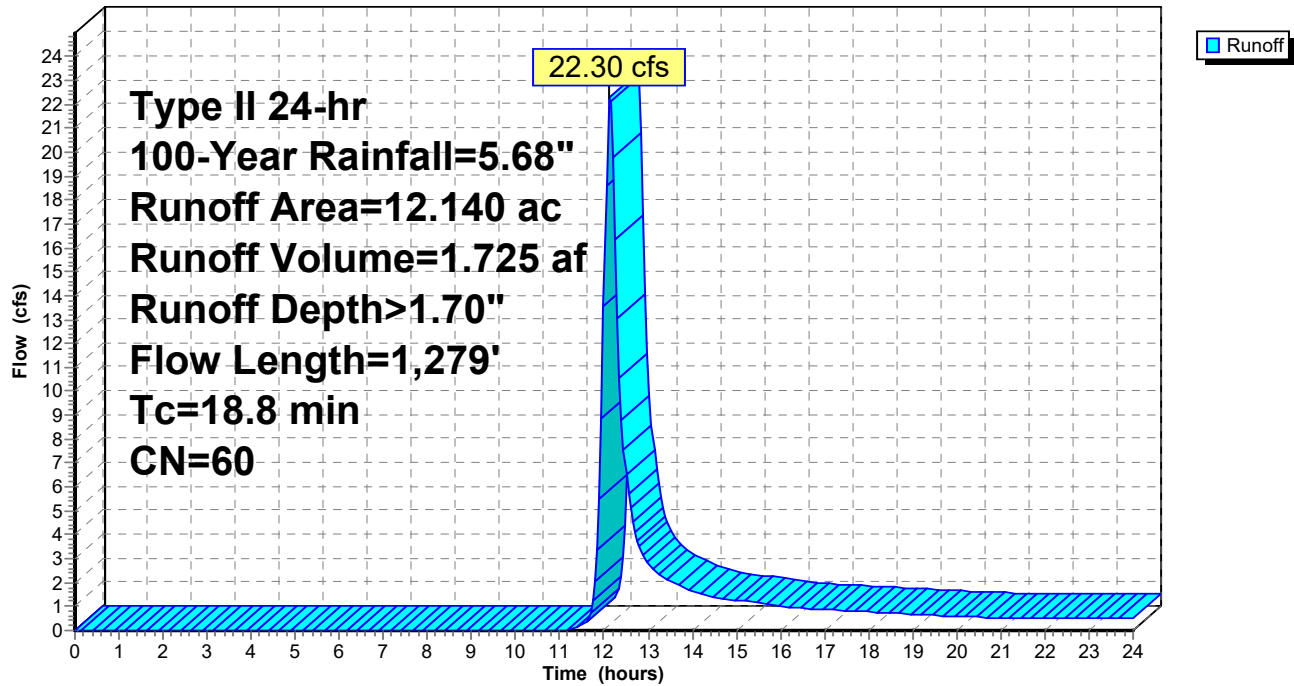
Area (ac)	CN	Description
2.190	61	Pasture/grassland/range, Good, HSG B
0.310	55	Woods, Good, HSG B
0.140	77	Woods, Good, HSG D
0.480	80	Pasture/grassland/range, Good, HSG D
9.020	58	Meadow, non-grazed, HSG B
12.140	60	Weighted Average
12.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0600	0.23		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
3.0	290	0.0520	1.60		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.5	288	0.0760	1.93		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.2	275	0.0900	2.10		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
4.0	326	0.0380	1.36		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
18.8	1,279	Total			

## Subcatchment 2S: DA-2

Hydrograph





### Summary for Subcatchment 3S: DA-3

Runoff = 2.29 cfs @ 12.06 hrs, Volume= 0.149 af, Depth> 1.55"

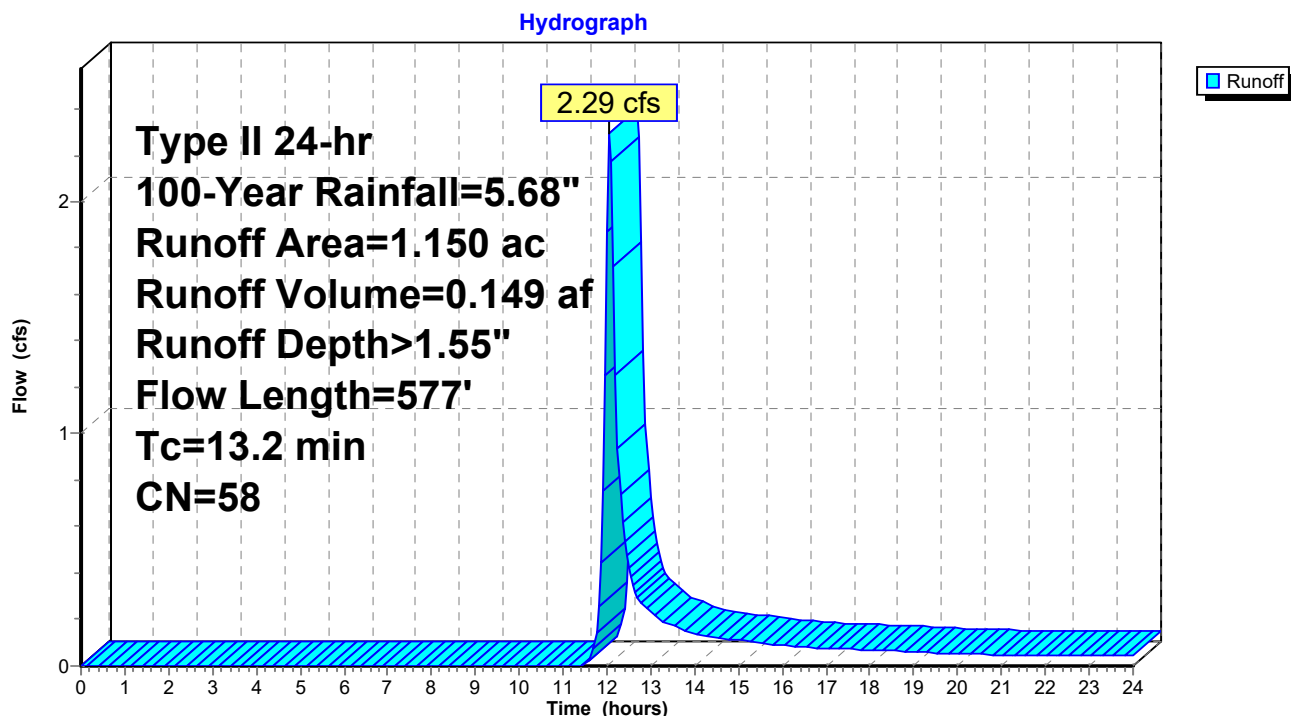
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=5.68"

Area (ac)	CN	Description
0.150	61	Pasture/grassland/range, Good, HSG B
0.100	55	Woods, Good, HSG B
0.900	58	Meadow, non-grazed, HSG B
1.150	58	Weighted Average
1.150		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.6	100	0.0380	0.19		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
1.9	145	0.0320	1.25		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.3	297	0.0920	2.12		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
0.4	35	0.1100	1.66		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.2	577	Total			

### Subcatchment 3S: DA-3



### Summary for Subcatchment 4S: DA-4

Runoff = 1.48 cfs @ 12.06 hrs, Volume= 0.098 af, Depth> 1.33"

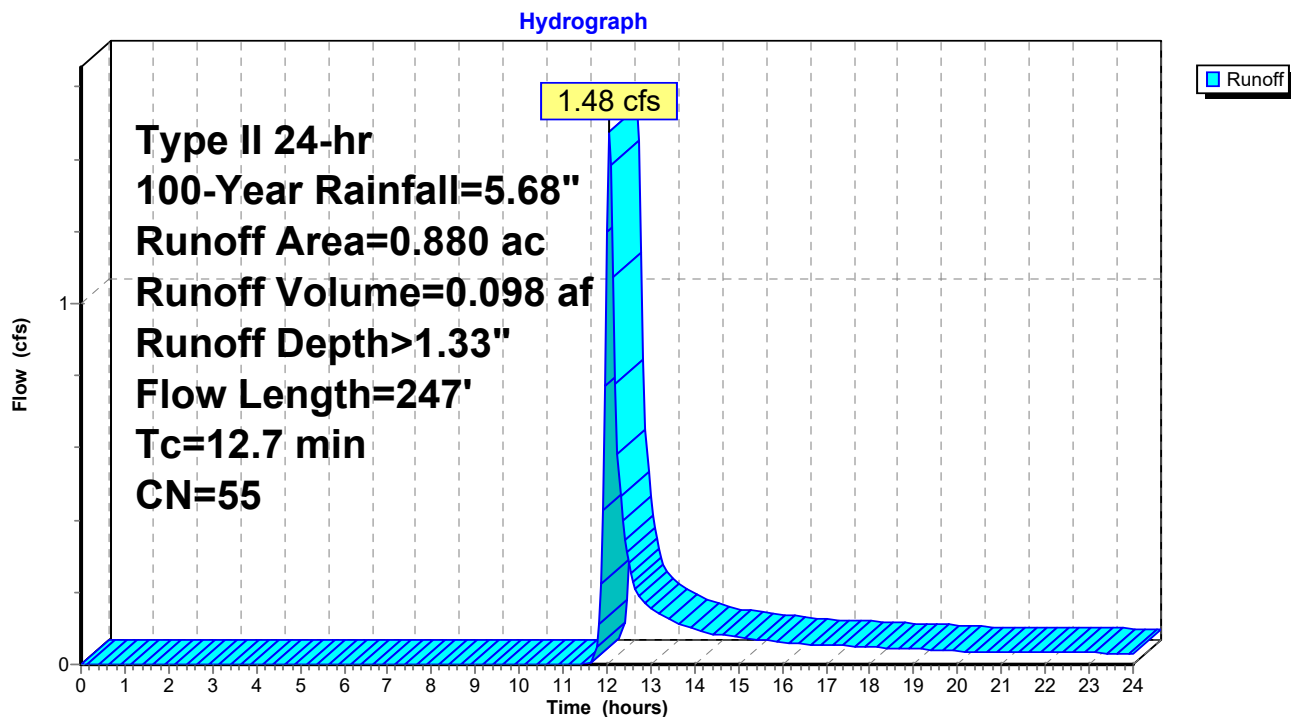
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=5.68"

Area (ac)	CN	Description
0.760	55	Woods, Good, HSG B
0.120	58	Meadow, non-grazed, HSG B
0.880	55	Weighted Average
0.880		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.1	45	0.0950	0.24		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
8.1	55	0.0950	0.11		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 2.50"
1.5	147	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
12.7	247	Total			

### Subcatchment 4S: DA-4



### Summary for Subcatchment 5S: DA-5

Runoff = 21.99 cfs @ 12.05 hrs, Volume= 1.321 af, Depth> 2.46"

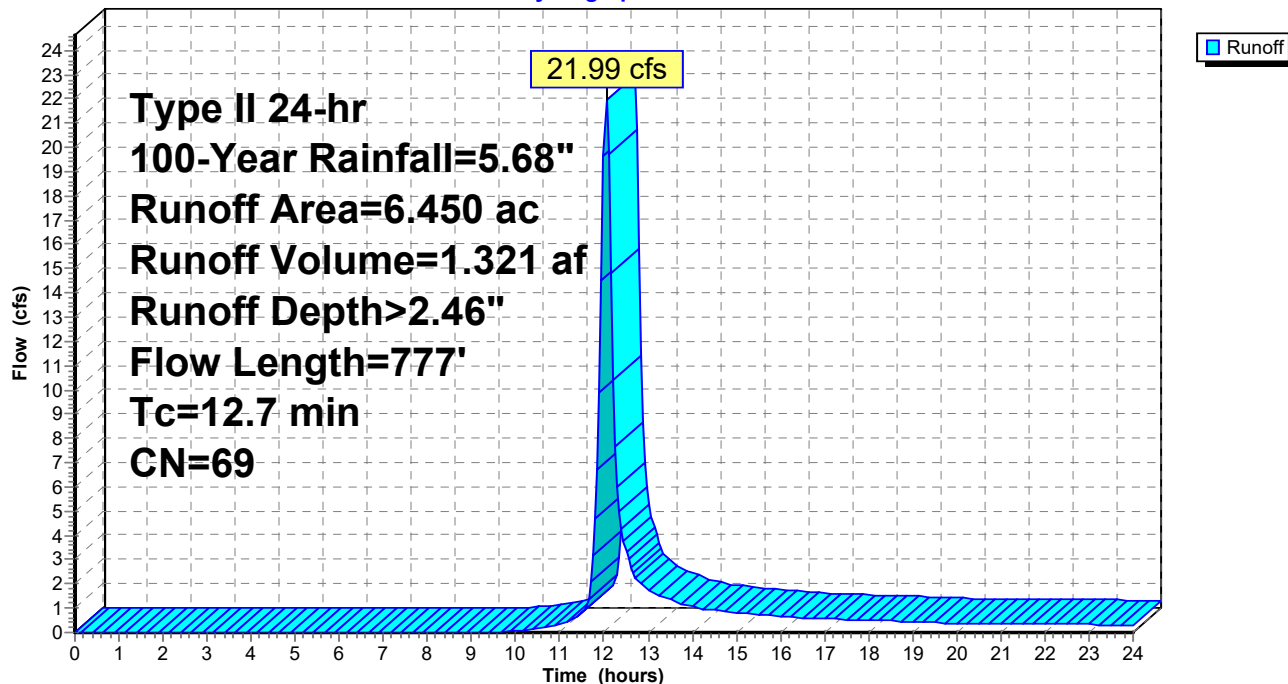
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=5.68"

Area (ac)	CN	Description
1.680	58	Meadow, non-grazed, HSG B
1.890	71	Meadow, non-grazed, HSG C
2.250	78	Meadow, non-grazed, HSG D
0.170	61	Pasture/grassland/range, Good, HSG B
0.250	55	Woods, Good, HSG B
0.210	70	Woods, Good, HSG C
6.450	69	Weighted Average
6.450		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1000	0.29		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
0.5	75	0.1200	2.42		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.7	252	0.0480	1.53		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
1.3	148	0.0740	1.90		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.4	202	0.0770	1.39		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
12.7	777	Total			

# Subcatchment 5S: DA-5

Hydrograph



### Summary for Subcatchment 6S: DA-6

Runoff = 9.49 cfs @ 12.06 hrs, Volume= 0.599 af, Depth> 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=5.68"

Area (ac)	CN	Description
1.920	55	Woods, Good, HSG B
0.040	77	Woods, Good, HSG D
0.210	58	Meadow, non-grazed, HSG B
0.760	71	Meadow, non-grazed, HSG C
0.760	78	Meadow, non-grazed, HSG D
3.690	63	Weighted Average
3.690		100.00% Pervious Area

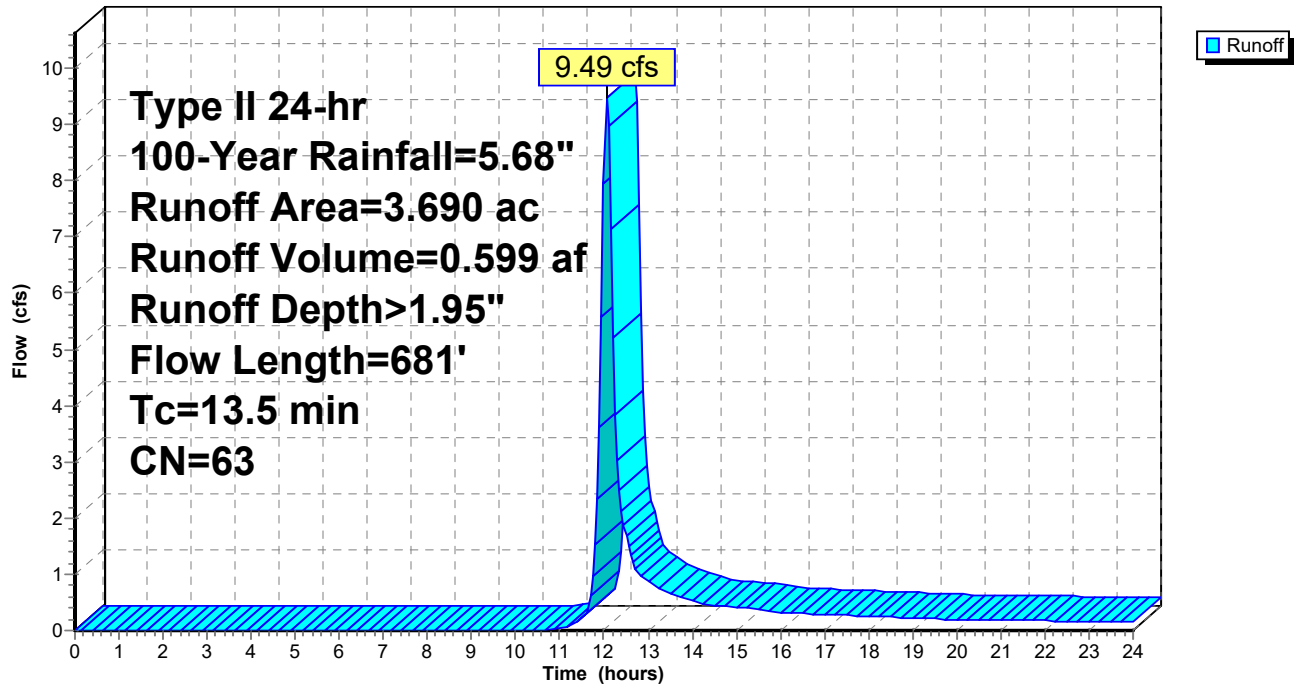
  

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.0700	0.25		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
1.1	125	0.0670	1.81		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
3.9	306	0.0670	1.29		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
1.8	150	0.0800	1.41		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
13.5	681	Total			



# Subcatchment 6S: DA-6

Hydrograph



### Summary for Subcatchment 7S: DA-7

Runoff = 21.35 cfs @ 12.08 hrs, Volume= 1.422 af, Depth> 2.72"

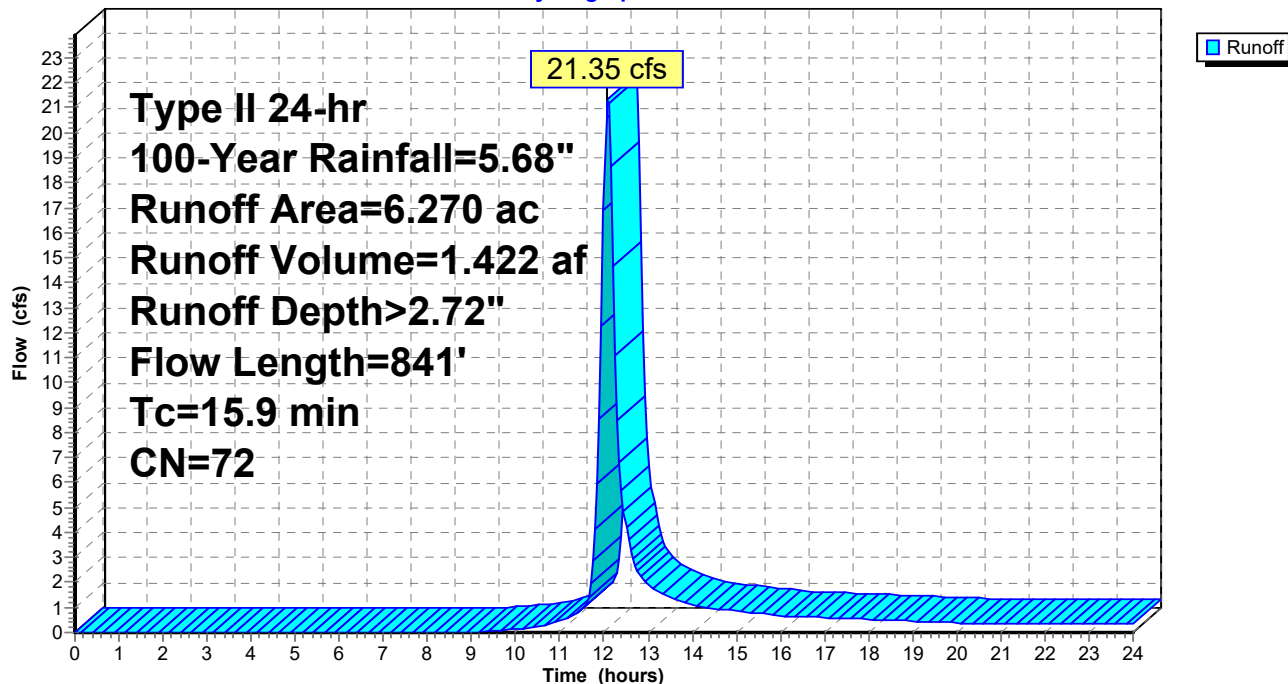
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=5.68"

Area (ac)	CN	Description
0.540	30	Meadow, non-grazed, HSG A
0.110	58	Meadow, non-grazed, HSG B
1.120	71	Meadow, non-grazed, HSG C
2.170	78	Meadow, non-grazed, HSG D
0.010	55	Woods, Good, HSG B
0.190	70	Woods, Good, HSG C
1.130	77	Woods, Good, HSG D
0.200	61	Pasture/grassland/range, Good, HSG B
0.130	80	Pasture/grassland/range, Good, HSG D
0.250	98	Water Surface, HSG C
0.050	98	Paved parking, HSG C
0.070	61	>75% Grass cover, Good, HSG B
0.040	74	>75% Grass cover, Good, HSG C
0.260	80	>75% Grass cover, Good, HSG D
6.270	72	Weighted Average
5.970		95.22% Pervious Area
0.300		4.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.1000	0.29		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.50"
1.8	210	0.0800	1.98		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
2.6	226	0.0420	1.43		<b>Shallow Concentrated Flow,</b> Short Grass Pasture Kv= 7.0 fps
4.4	190	0.0210	0.72		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
0.3	40	0.1500	1.94		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
1.0	75	0.0630	1.25		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
15.9	841	Total			

# Subcatchment 7S: DA-7

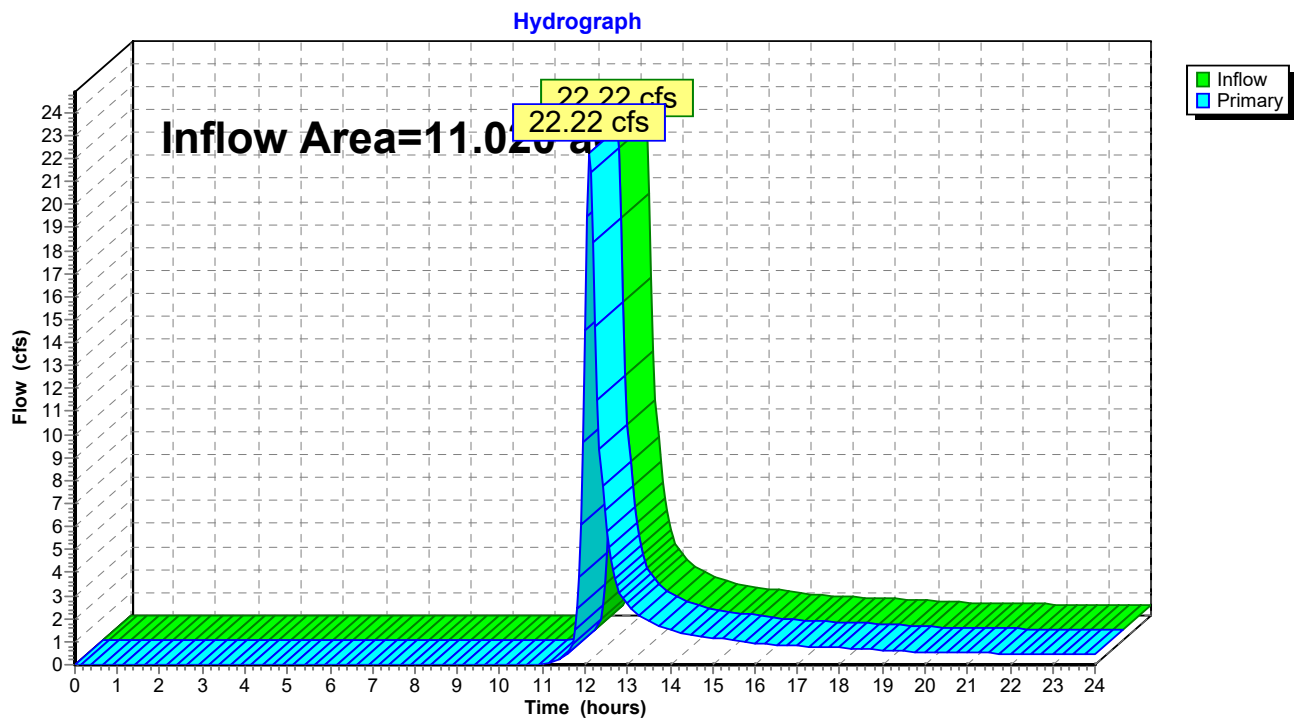
Hydrograph



**Summary for Link 1L: DA-1**

Inflow Area = 11.020 ac, 0.45% Impervious, Inflow Depth > 1.78" for 100-Year event  
Inflow = 22.22 cfs @ 12.11 hrs, Volume= 1.639 af  
Primary = 22.22 cfs @ 12.11 hrs, Volume= 1.639 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

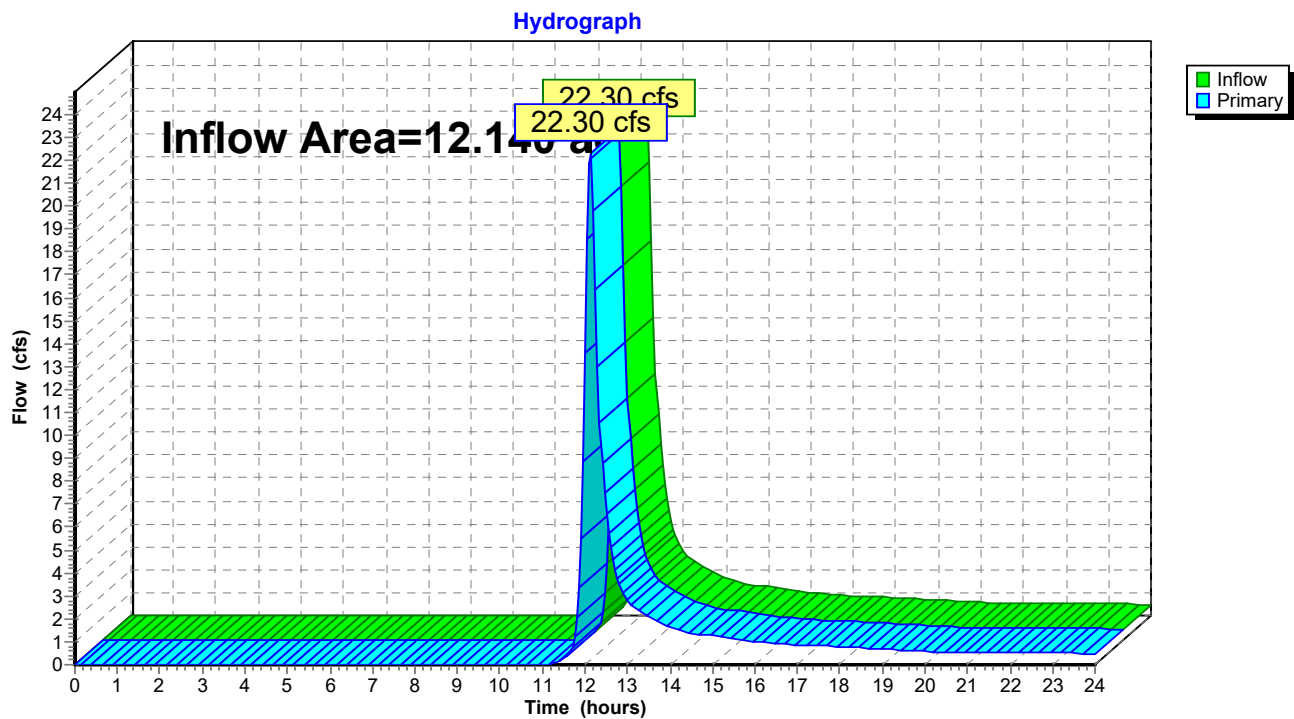
**Link 1L: DA-1**

### Summary for Link 2L: DA-2

Inflow Area = 12.140 ac, 0.00% Impervious, Inflow Depth > 1.70" for 100-Year event  
 Inflow = 22.30 cfs @ 12.13 hrs, Volume= 1.725 af  
 Primary = 22.30 cfs @ 12.13 hrs, Volume= 1.725 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 2L: DA-2



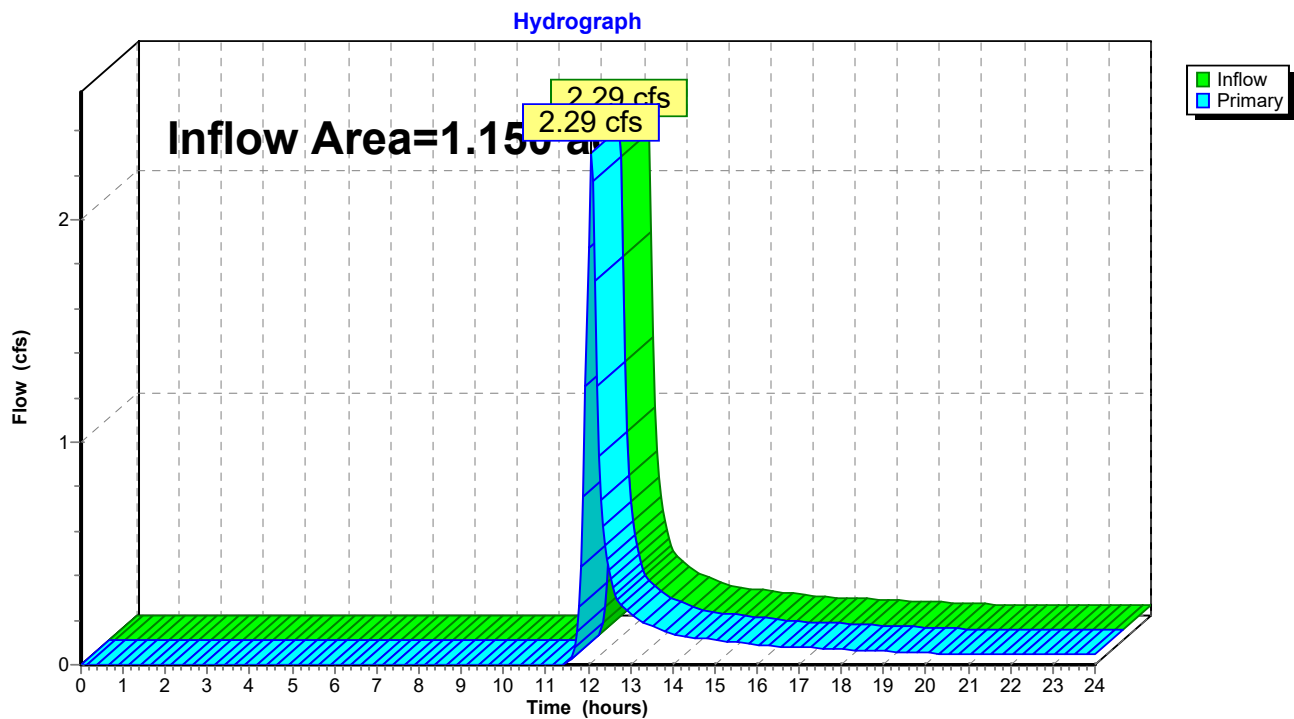


### Summary for Link 3L: DA-3

Inflow Area = 1.150 ac, 0.00% Impervious, Inflow Depth > 1.55" for 100-Year event  
 Inflow = 2.29 cfs @ 12.06 hrs, Volume= 0.149 af  
 Primary = 2.29 cfs @ 12.06 hrs, Volume= 0.149 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 3L: DA-3

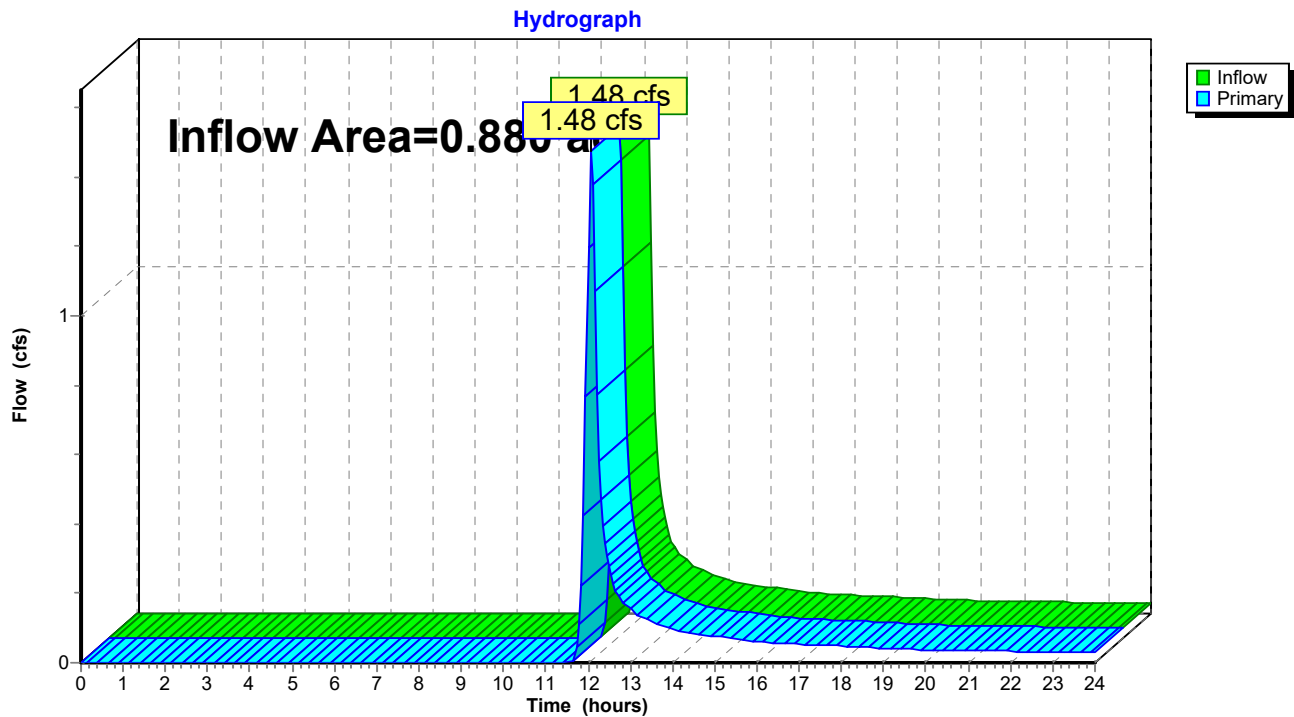


### Summary for Link 4L: DA-4

Inflow Area = 0.880 ac, 0.00% Impervious, Inflow Depth > 1.33" for 100-Year event  
 Inflow = 1.48 cfs @ 12.06 hrs, Volume= 0.098 af  
 Primary = 1.48 cfs @ 12.06 hrs, Volume= 0.098 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 4L: DA-4

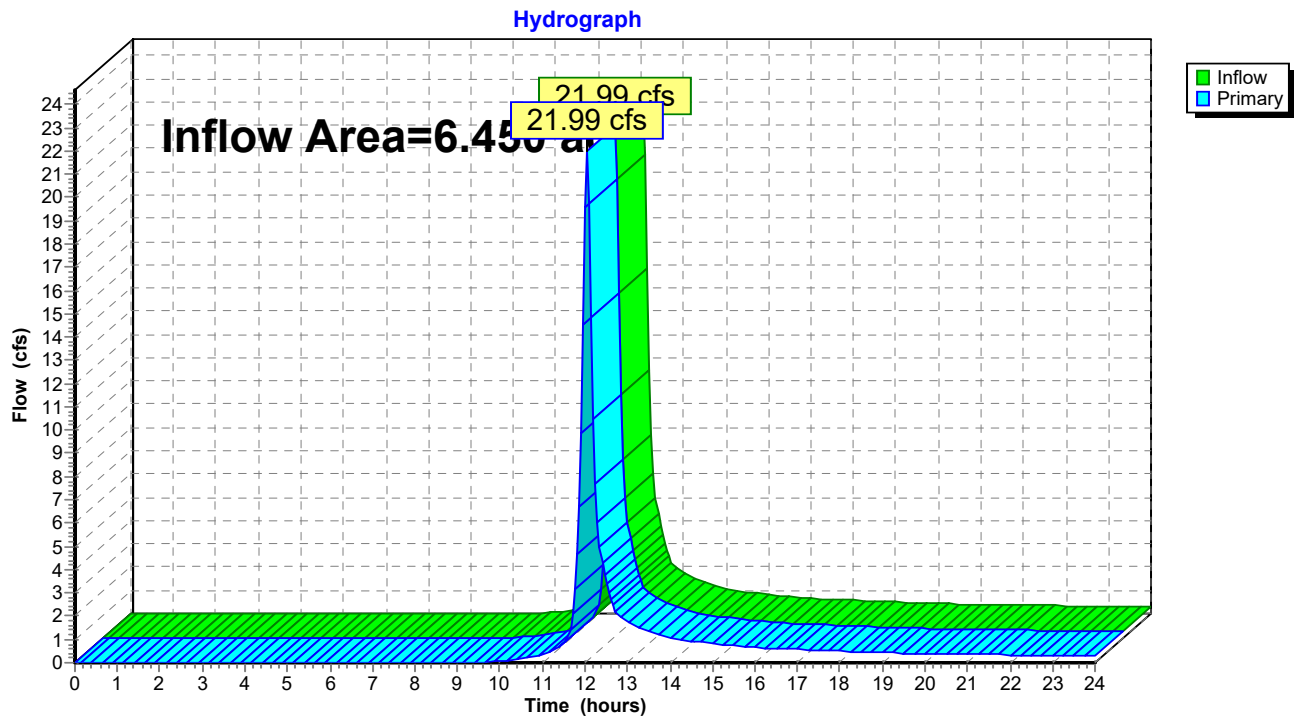


### Summary for Link 5L: DA-5

Inflow Area = 6.450 ac, 0.00% Impervious, Inflow Depth > 2.46" for 100-Year event  
 Inflow = 21.99 cfs @ 12.05 hrs, Volume= 1.321 af  
 Primary = 21.99 cfs @ 12.05 hrs, Volume= 1.321 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 5L: DA-5

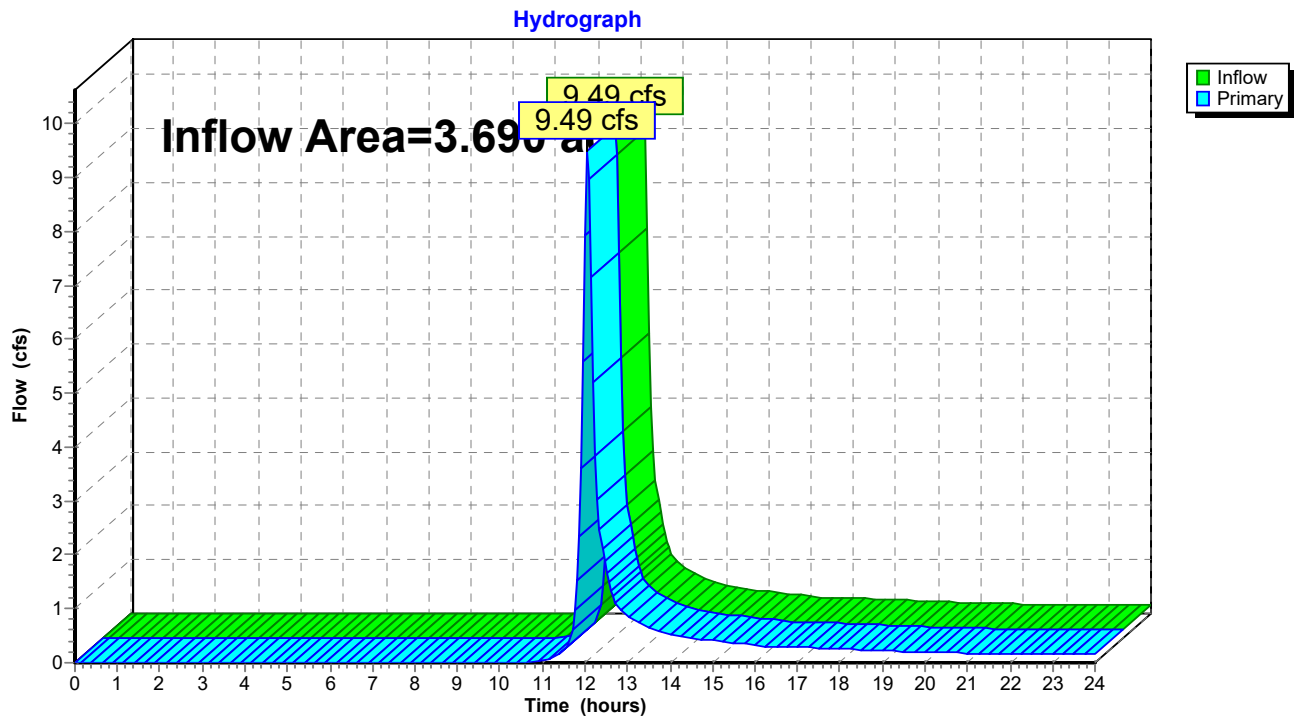


### Summary for Link 6L: DA-6

Inflow Area = 3.690 ac, 0.00% Impervious, Inflow Depth > 1.95" for 100-Year event  
 Inflow = 9.49 cfs @ 12.06 hrs, Volume= 0.599 af  
 Primary = 9.49 cfs @ 12.06 hrs, Volume= 0.599 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 6L: DA-6

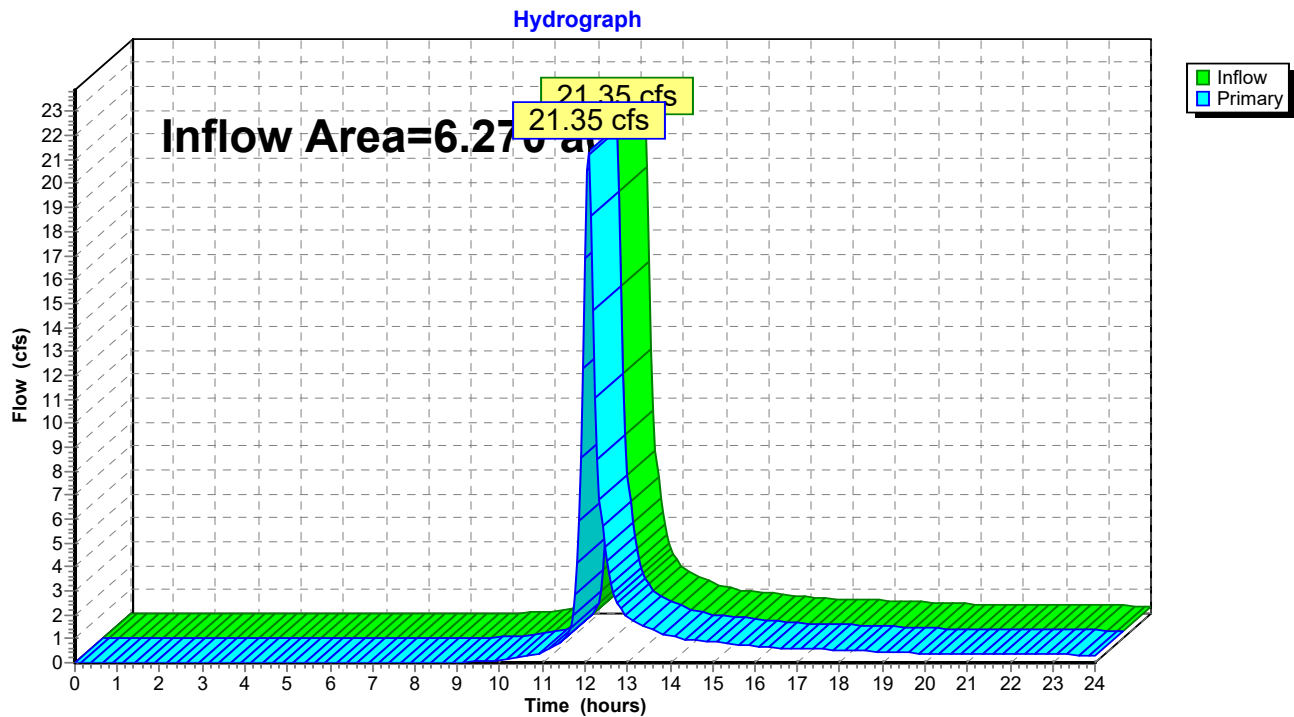


### Summary for Link 7L: DA-7

Inflow Area = 6.270 ac, 4.78% Impervious, Inflow Depth > 2.72" for 100-Year event  
 Inflow = 21.35 cfs @ 12.08 hrs, Volume= 1.422 af  
 Primary = 21.35 cfs @ 12.08 hrs, Volume= 1.422 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Link 7L: DA-7



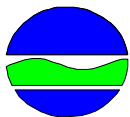


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## APPENDIX J – NOTICE OF INTENT (NOI)

PRELIMINARY

# NOTICE OF INTENT



New York State Department of Environmental Conservation

## Division of Water

625 Broadway, 4th Floor

Albany, New York 12233-3505

**NYR**

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(for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State  
Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-

**All sections must be completed unless otherwise noted.** Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-00

**- IMPORTANT -**

**RETURN THIS FORM TO THE ADDRESS ABOVE**

**OWNER/OPERATOR MUST SIGN FORM**

### Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)

[illegible]

Owner/Operator Contact Person Last Name (NOT CONSULTANT)

[illegible]

Owner/Operator Contact Person First Name

[illegible]

Owner/Operator Mailing Address

[illegible]

City

[illegible]

State

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Zip

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Phone (Owner/Operator)

			-				-			
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Fax (Owner/Operator)

			-				-			
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Email (Owner/Operator)

[illegible][illegible]

FED TAX ID

		-							
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(not required for individuals)

## Project Site Information

Project/Site Name

[illegible]

Street Address (NOT P.O. BOX)

[illegible]

Side of Street

☐ North    ☐ South    ☐ East    ☐ West

City/Town/Village (THAT ISSUES BUILDING PERMIT)

[illegible]

State

--	--

Zip

--	--	--	--	--

—

--	--	--	--

County

[illegible]DEC Region

--	--

Name of Nearest Cross Street

[illegible]

Distance to Nearest Cross Street (Feet)

--	--	--	--	--

## Project In Relation to Cross Street

☐ North    ☐ South    ☐ East    ☐ West

## Tax Map Numbers

Section-Block-Parcel

[illegible]

## Tax Map Numbers

[illegible]

1. Provide the Geographic Coordinates for the project site in NYTM Units. To do this you **must** go to the NYSDEC Stormwater Interactive Map on the DEC website at:

[www.dec.ny.gov/imsmaps/stormwater/viewer.htm](http://www.dec.ny.gov/imsmaps/stormwater/viewer.htm)

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located your project site, go to the tool boxes on the top and choose "i"(identify). Then click on the center of your site and a new window containing the X, Y coordinates in UTM will pop up. Transcribe these coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting)

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Y Coordinates (Northing)

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2. What is the nature of this construction project?

- New Construction

- Redevelopment with increase in impervious area

- Redevelopment with no increase in impervious area

3. Select the predominant land use for both pre and post development conditions.

**SELECT ONLY ONE CHOICE FOR EACH**

**Pre-Development  
Existing Land Use**

- ☐ FOREST  
☐ PASTURE/OPEN LAND  
☐ CULTIVATED LAND  
☐ SINGLE FAMILY HOME  
☐ SINGLE FAMILY SUBDIVISION  
☐ TOWN HOME RESIDENTIAL  
☐ MULTIFAMILY RESIDENTIAL  
☐ INSTITUTIONAL/SCHOOL  
☐ INDUSTRIAL  
☐ COMMERCIAL  
☐ ROAD/HIGHWAY  
☐ RECREATIONAL/SPORTS FIELD  
☐ BIKE PATH/TRAIL  
☐ LINEAR UTILITY  
☐ PARKING LOT  
☐ OTHER

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**Post-Development  
Future Land Use**

- ☐ SINGLE FAMILY HOME  
☐ SINGLE FAMILY SUBDIVISION  
☐ TOWN HOME RESIDENTIAL  
☐ MULTIFAMILY RESIDENTIAL  
☐ INSTITUTIONAL/SCHOOL  
☐ INDUSTRIAL  
☐ COMMERCIAL  
☐ MUNICIPAL  
☐ ROAD/HIGHWAY  
☐ RECREATIONAL/SPORTS FIELD  
☐ BIKE PATH/TRAIL  
☐ LINEAR UTILITY (water, sewer, gas, etc.)  
☐ PARKING LOT  
☐ CLEARING/GRADING ONLY  
☐ DEMOLITION, NO REDEVELOPMENT  
☐ WELL DRILLING ACTIVITY \*(Oil, Gas, etc.)  
☐ OTHER

Number of Lots

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**\*Note:** for gas well drilling, non-high volume hydraulic fractured wells only

4. In accordance with the larger common plan of development or sale, enter the total project site area; the total area to be disturbed; existing impervious area to be disturbed (for redevelopment activities); and the future impervious area constructed within the disturbed area. (Round to the nearest tenth of an acre.)

Total Site Area	Total Area To Be Disturbed	Existing Impervious Area To Be Disturbed	Future Impervious Area Within Disturbed Area
<div> <div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div> </div>	<div> <div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div> </div>	<div> <div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div> </div>	<div> <div></div><div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div> </div>

5. Do you plan to disturb more than 5 acres of soil at any one time? ☐ Yes ☐ No

6. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

A	B	C	D
<div> <div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div> </div>	<div> <div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div> </div>	<div> <div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div> </div>	<div> <div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div> </div>

7. Is this a phased project? ☐ Yes ☐ No

8. Enter the planned start and end dates of the disturbance activities.

Start Date	End Date
<div> <div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div> </div>	<div> <div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div> </div>

[illegible]

☐ Wetland / State Jurisdiction On Site (Answer 9b)  
☐ Wetland / State Jurisdiction Off Site  
☐ Wetland / Federal Jurisdiction On Site (Answer 9b)  
☐ Wetland / Federal Jurisdiction Off Site  
☐ Stream / Creek On Site  
☐ Stream / Creek Off Site  
☐ River On Site  
☐ River Off Site  
☐ Lake On Site  
☐ Lake Off Site  
☐ Other Type On Site  
☐ Other Type Off Site

- ☐ Regulatory Map
- ☐ Delineated by Consultant
- ☐ Delineated by Army Corps of Engineers
- ☐ Other (identify)

☐ Yes      ☐ No

☐ Yes    ☐ No

☐ Yes      ☐ No

☐ Yes    ☐ No

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☐ Yes      ☐ No



15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)? ☐ Yes ☐ No ☐ Unknown

- [illegible]

17. Does any runoff from the site enter a sewer classified as a Combined Sewer? ☐ **Yes** ☐ **No** ☐ **Unknown**

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law? ☐ Yes ☐ No

19. Is this property owned by a state authority, state agency, federal government or local government? ☐ Yes ☐ No

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) ☐ **Yes** ☐ **No**

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)? ☐ Yes ☐ No

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)? ☐ Yes ☐ No
- If No, skip questions 23 and 27-39.**

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? ☐ Yes ☐ No

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- ☐ Professional Engineer (P.E.)
- ☐ Soil and Water Conservation District (SWCD)
- ☐ Registered Landscape Architect (R.L.A.)
- ☐ Certified Professional in Erosion and Sediment Control (CPESC)
- ☐ Owner/Operator
- ☐ Other

[illegible]

SWPPP Preparer

[illegible]

Contact Name (Last, Space, First)

[illegible]

Mailing Address

[illegible]

City

[illegible]

State Zip

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Phone

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Fax

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Email

[illegible][illegible]

## SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0- -00 Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name

[illegible]

MI

7

**Last Name**

[illegible]

Signature

--	--

Date \_\_\_\_\_

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25. Has a construction sequence schedule for the planned management practices been prepared? ☐ Yes ☐ No

26. Select **all** of the erosion and sediment control practices that will be employed on the project site:

## Temporary Structural

- ☐ Check Dams
- ☐ Construction Road Stabilization
- ☐ Dust Control
- ☐ Earth Dike
- ☐ Level Spreader
- ☐ Perimeter Dike/Swale
- ☐ Pipe Slope Drain
- ☐ Portable Sediment Tank
- ☐ Rock Dam
- ☐ Sediment Basin
- ☐ Sediment Traps
- ☐ Silt Fence
- ☐ Stabilized Construction Entrance
- ☐ Storm Drain Inlet Protection
- ☐ Straw/Hay Bale Dike
- ☐ Temporary Access Waterway Crossing
- ☐ Temporary Stormdrain Diversion
- ☐ Temporary Swale
- ☐ Turbidity Curtain
- ☐ Water bars

## Biotechnical

- Brush Matting
- Wattling

## Other

[illegible]

## Vegetative Measures

- ☐ Brush Matting
- ☐ Dune Stabilization
- ☐ Grassed Waterway
- ☐ Mulching
- ☐ Protecting Vegetation
- ☐ Recreation Area Improvement
- ☐ Seeding
- ☐ Sodding
- ☐ Straw/Hay Bale Dike
- ☐ Streambank Protection
- ☐ Temporary Swale
- ☐ Topsoiling
- ☐ Vegetating Waterways

## Permanent Structural

- ☐ Debris Basin
- ☐ Diversion
- ☐ Grade Stabilization Structure
- ☐ Land Grading
- ☐ Lined Waterway (Rock)
- ☐ Paved Channel (Concrete)
- ☐ Paved Flume
- ☐ Retaining Wall
- ☐ Riprap Slope Protection
- ☐ Rock Outlet Protection
- ☐ Streambank Protection

**Post-construction Stormwater Management Practice (SMP) Requirements**

**Important:** Completion of Questions 27-39 is not required if response to Question 22 is No.

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- ☐ Preservation of Undisturbed Areas
- ☐ Preservation of Buffers
- ☐ Reduction of Clearing and Grading
- ☐ Locating Development in Less Sensitive Areas
- ☐ Roadway Reduction
- ☐ Sidewalk Reduction
- ☐ Driveway Reduction
- ☐ Cul-de-sac Reduction
- ☐ Building Footprint Reduction
- ☐ Parking Reduction

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

- ☐ All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
- ☐ Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

**Total WQv Required**

.     acre-feet

29. Identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required(#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

**Note:** Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

Table 1 - Runoff Reduction (RR) Techniques  
and Standard Stormwater Management  
Practices (SMPs)

RR Techniques (Area Reduction)	Total Contributing Area (acres)	Total Contributing Impervious Area(acres)
○ Conservation of Natural Areas (RR-1) ...	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>	and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>
○ Sheetflow to Riparian Buffers/Filters Strips (RR-2) .....	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>	and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>
○ Tree Planting/Tree Pit (RR-3) .....	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>	and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>
○ Disconnection of Rooftop Runoff (RR-4) ..	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>	and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>
<b>RR Techniques (Volume Reduction)</b>		
○ Vegetated Swale (RR-5) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Rain Garden (RR-6) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Stormwater Planter (RR-7) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Rain Barrel/Cistern (RR-8) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Porous Pavement (RR-9) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Green Roof (RR-10) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
<b>Standard SMPs with RRv Capacity</b>		
○ Infiltration Trench (I-1) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Infiltration Basin (I-2) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Dry Well (I-3) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Underground Infiltration System (I-4) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Bioretention (F-5) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Dry Swale (O-1) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
<b>Standard SMPs</b>		
○ Micropool Extended Detention (P-1) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Wet Pond (P-2) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Wet Extended Detention (P-3) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Multiple Pond System (P-4) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Pocket Pond (P-5) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Surface Sand Filter (F-1) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Underground Sand Filter (F-2) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Perimeter Sand Filter (F-3) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Organic Filter (F-4) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Shallow Wetland (W-1) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Extended Detention Wetland (W-2) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Pond/Wetland System (W-3) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Pocket Wetland (W-4) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>
○ Wet Swale (O-2) .....	<input type="text"/> <input type="text"/> <input type="text"/>	. <input type="text"/> <input type="text"/> <input type="text"/>



Table 2 - Alternative SMPs  
(DO NOT INCLUDE PRACTICES BEING  
USED FOR PRETREATMENT ONLY)

Alternative SMP		Total Contributing <u>Impervious Area(acres)</u>																								
<input type="radio"/> Hydrodynamic .....		<table border="1" style="display: inline-table; margin-right: 5px;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table> <div style="display: inline-block; font-size: 8pt; vertical-align: middle;">.</div> <table border="1" style="display: inline-table;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>																								
<input type="radio"/> Wet Vault .....		<table border="1" style="display: inline-table; margin-right: 5px;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table> <div style="display: inline-block; font-size: 8pt; vertical-align: middle;">.</div> <table border="1" style="display: inline-table;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>																								
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Provide the name and manufacturer of the Alternative SMPs (i.e.  
proprietary practice(s)) being used for WQv treatment.

Name	<table border="1" style="height: 20px; width: 90%;"></table>
Manufacturer	<table border="1" style="height: 20px; width: 90%;"></table>

**Note:** Redevelopment projects which do not use RR techniques, shall  
use questions 28, 29, 33 and 33a to provide SMPs used, total  
WQv required and total WQv provided for the project.

[illegible]

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 acre-feet

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acre-feet

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Page 10 of 14

33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

**Note:** Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

- 33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

**WQv Provided**

.  acre-feet

**Note:** For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRv provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a).

.

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? ☐ Yes ☐ No

If Yes, go to question 36.

If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv) required and provided or select waiver (36a), if applicable.

**CPv Required**

.  acre-feet

**CPv Provided**

.  acre-feet

- 36a. The need to provide channel protection has been waived because:

- ☐ Site discharges directly to tidal waters or a fifth order or larger stream.
- ☐ Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable.

**Total Overbank Flood Control Criteria (Qp)**

**Pre-Development**

.  CFS

**Post-development**

.  CFS

**Total Extreme Flood Control Criteria (Qf)**

**Pre-Development**

.  CFS

**Post-development**

.  CFS

37a. The need to meet the Qp and Qf criteria has been waived because:

- ☐ Site discharges directly to tidal waters or a fifth order or larger stream.
- ☐ Downstream analysis reveals that the Qp and Qf controls are not required

- Site discharges directly to tidal waters or a fifth order or larger stream.
- Downstream analysis reveals that the Qp and Qf controls are not required

☐ Yes      ☐ No

If Yes, Identify the entity responsible for the long term  
Operation and Maintenance

[illegible]

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required(#28). (See question 32a)  
This space can also be used for other pertinent project information.

40. Identify other DEC permits, existing and new, that are required for this project/facility.

○ Air Pollution Control

○ Coastal Erosion

☐ Hazardous Waste

○ Long Island Wells

○ Mined Land Reclamation

○ Solid Waste

○ Navigable Waters Protection / Article 15

○ Water Quality Certificate

○ Dam Safety

○ Water Supply

○ Freshwater Wetlands/Article 24

○ Tidal Wetlands

○ Wild, Scenic and Recreational Rivers

○ Stream Bed or Bank Protection / Article 15

○ Endangered or Threatened Species(Incidental Take Permit)

- Individual SPDES

○ SPDES Multi-Sector GP								
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☐ Other \_\_\_\_\_

☐ None

41. Does this project require a US Army Corps of Engineers Wetland Permit? ☐ ☐ ☐ ☐ ☐ ☐

☐ Yes    ☐ No

If Yes, Indicate Size of Impact.				
.				

42. Is this project subject to the requirements of a regulated, traditional land use control MS4?  
(If No, skip question 43)

☐ Yes      ☐ No

43. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI?

☐ Yes    ☐ No

44. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned.

<b>Owner/Operator Certification</b>	
<p>I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.</p>	
<b>Print First Name</b> <div style="border: 1px solid black; height: 30px; width: 100%; position: relative;"> <!-- Empty grid representation --> </div>	<b>MI</b> <div style="border: 1px solid black; height: 30px; width: 100%; position: relative;"> <!-- Empty grid representation --> </div>
<b>Print Last Name</b> <div style="border: 1px solid black; height: 30px; width: 100%; position: relative;"> <!-- Empty grid representation --> </div>	
<b>Owner/Operator Signature</b> <div style="border: 1px solid black; height: 60px; width: 100%;"></div>	
<div style="float: right; text-align: right;"> <b>Date</b>  <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 40px; height: 30px; margin-right: 5px;"></div> <span>/</span> <div style="border: 1px solid black; width: 40px; height: 30px; margin-right: 5px;"></div> <span>/</span> <div style="border: 1px solid black; width: 60px; height: 30px;"></div> </div> </div>	

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## APPENDIX K – NOTICE OF TERMINATION (NOT)

PRELIMINARY

**New York State Department of Environmental Conservation  
Division of Water  
625 Broadway, 4th Floor  
Albany, New York 12233-3505**

\*(NOTE: Submit completed form to address above)\*

**NOTICE OF TERMINATION** for Storm Water Discharges Authorized  
under the SPDES General Permit for Construction Activity

**Please indicate your permit identification number:** NYR \_\_\_\_ \_

**I. Owner or Operator Information**

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. Contact Person:

4a. Telephone:

4b. Contact Person E-Mail:

**II. Project Site Information**

5. Project/Site Name:

6. Street Address:

7. City/Zip:

8. County:

**III. Reason for Termination**

9a. 'All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. \***Date final stabilization completed** (month/year): \_\_\_\_\_

9b. 'Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR \_\_\_\_ \_

(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c. 'Other (Explain on Page 2)

**IV. Final Site Information:**

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices?    'yes    'no    ( If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed?    'yes    'no    (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

\_\_\_\_\_

**NOTICE OF TERMINATION for Storm Water Discharges Authorized under the  
SPDES General Permit for Construction Activity - continued**

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit?      'yes      'no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

    'Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.

    'Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).

    'For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.

    'For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? \_\_\_\_\_  
(acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4?      'yes  
    'no  
    (If Yes, complete section VI - "MS4 Acceptance" statement

**V. Additional Information/Explanation:**

(Use this section to answer questions 9c. and 10b., if applicable)

**VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative** (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:

Title/Position:

Signature:

Date:

**NOTICE OF TERMINATION** for Storm Water Discharges Authorized under the  
SPDES General Permit for Construction Activity - continued

**VII. Qualified Inspector Certification - Final Stabilization:**

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

**VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):**

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

**IX. Owner or Operator Certification**

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

(NYS DEC Notice of Termination - January 2015)

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## APPENDIX L – CERTIFICATION STATEMENTS

PRELIMINARY



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## CONTRACTOR CERTIFICATION PAGE

---

Montgomery 1 Solar  
182 Boshart Road, Fonda, NY 12068

**"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *Qualified Inspector* during a site inspection. I also understand that the *Owner or Operator* must comply with the terms and conditions of the most current version of the New York State Pollution Discharge Elimination System ("SPDES") general permit for stormwater *discharges* from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations."**

Name of Contractor/Subcontractor	Phone Number
Address	City, State, Zip Code
Signature of Person Completing this Form	Date
Printed Name	Title
Name of Trained Contractor	Title

Responsibilities (check all that apply):

*Erosion and Sediment Control Practices:*

- ☐ Installation and/or construction
- ☐ Repair
- ☐ Replacement
- ☐ Inspection
- ☐ Maintenance

*Post-construction SMPs:*

- ☐ Construction
- ☐ Repair
- ☐ Inspection
- ☐ Operation & Maintenance

---

## CONTRACTOR CERTIFICATION PAGE

---

Montgomery 1 Solar  
182 Boshart Road, Fonda, NY 12068

**"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *Qualified Inspector* during a site inspection. I also understand that the *Owner or Operator* must comply with the terms and conditions of the most current version of the New York State Pollution Discharge Elimination System ("SPDES") general permit for stormwater *discharges from construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations."**

\_\_\_\_\_  
Name of Contractor/Subcontractor

\_\_\_\_\_  
Phone Number

\_\_\_\_\_  
Address

\_\_\_\_\_  
City, State, Zip Code

\_\_\_\_\_  
Signature of Person Completing this Form

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name of Trained Contractor

\_\_\_\_\_  
Title

Responsibilities (check all that apply):

*Erosion and Sediment Control Practices:*

- ☐ Installation and/or construction
- ☐ Repair
- ☐ Replacement
- ☐ Inspection
- ☐ Maintenance

- ☐ Repair
- ☐ Inspection
- ☐ Operation & Maintenance

*Post-construction SMPs:*

- ☐ Construction

---

## APPENDIX M – INSPECTION FORMS

PRELIMINARY

## I. PRE-CONSTRUCTION MEETING DOCUMENTS

**Project Name** \_\_\_\_\_  
**Permit No.** \_\_\_\_\_ **Date of Authorization** \_\_\_\_\_  
**Name of Operator** \_\_\_\_\_  
**Prime Contractor** \_\_\_\_\_

### a. Preamble to Site Assessment and Inspections

The Following Information To Be Read By All Person's Involved in The Construction of Stormwater Related Activities:

The Operator agrees to have a qualified inspector<sup>1</sup> conduct an assessment of the site prior to the commencement of construction<sup>2</sup> and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements. A preconstruction meeting should be held to review all of the SWPPP requirements with construction personnel.

When construction starts, site inspections shall be conducted by the qualified inspector at least every 7 calendar days. The Operator shall maintain a record of all inspection reports in this site logbook. The site logbook shall be maintained on site and be made available to the permitting authorities upon request.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified inspector perform a final site inspection. The qualified inspector shall certify that the site has undergone final stabilization<sup>3</sup> using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

1 Refer to "Qualified Inspector" inspection requirements in the current SPDES General Permit for Stormwater Discharges from Construction Activity for complete list of inspection requirements.

2 "Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.

3 "Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.



**b. Pre-construction Site Assessment Checklist**

**(NOTE: Provide comments below as necessary)**

**1. Notice of Intent, SWPPP, and Contractors Certification:**

**Yes No NA**

- ☐ ☐ ☐ Has a Notice of Intent been filed with the NYS Department of Conservation?
- ☐ ☐ ☐ Is the SWPPP on-site? Where? \_\_\_\_\_
- ☐ ☐ ☐ Is the Plan current? What is the latest revision date? \_\_\_\_\_
- ☐ ☐ ☐ Is a copy of the NOI (with brief description) onsite? Where? \_\_\_\_\_
- ☐ ☐ ☐ Have all contractors involved with stormwater related activities signed a contractor's certification?

**2. Resource Protection**

**Yes No NA**

- ☐ ☐ ☐ Construction limits are clearly flagged or fenced.
- ☐ ☐ ☐ Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.
- ☐ ☐ ☐ Creek crossings installed prior to land-disturbing activity, including clearing and blasting.

**3. Surface Water Protection**

**Yes No NA**

- ☐ ☐ ☐ Clean stormwater runoff has been diverted from areas to be disturbed.
- ☐ ☐ ☐ Bodies of water located either on site or in the vicinity of the site have been identified and protected.
- ☐ ☐ ☐ Appropriate practices to protect on-site or downstream surface water are installed.
- ☐ ☐ ☐ Clearing and grading operations are divided into areas <5 acres.

**4. Stabilized Construction Access**

**Yes No NA**

- ☐ ☐ ☐ A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.
- ☐ ☐ ☐ Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.
- ☐ ☐ ☐ Sediment tracked onto public streets is removed or cleaned on a regular basis.

**5. Sediment Controls**

**Yes No NA**

- ☐ ☐ ☐ Silt fence material and installation comply with the standard drawing and specifications.
- ☐ ☐ ☐ Silt fences are installed at appropriate spacing intervals.
- ☐ ☐ ☐ Sediment/detention basin was installed as first land disturbing activity.
- ☐ ☐ ☐ Sediment traps and barriers are installed.

**6. Pollution Prevention for Waste and Hazardous Materials**

**Yes No NA**

- ☐ ☐ ☐ The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.
- ☐ ☐ ☐ The plan is contained in the SWPPP on page \_\_\_\_\_
- ☐ ☐ ☐ Appropriate materials to control spills are onsite. Where? \_\_\_\_\_





## II. CONSTRUCTION DURATION INSPECTIONS

### a. Directions:

**Inspection Forms will be filled out during the entire construction phase of the project.**

Required Elements:

- 1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;
- 2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;
- 3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;
- 4) Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);
- 5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and
- 6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.



**Date of Inspection:** \_\_\_\_\_

**Time on site:** \_\_\_\_\_

**Time off site:** \_\_\_\_\_

**Name and title of person(s) performing inspection:** \_\_\_\_\_

**Description of weather:** \_\_\_\_\_

**Description of soil conditions:** \_\_\_\_\_

\_\_\_\_\_  
**Qualified Inspector (print name)**

\_\_\_\_\_  
**Qualified Inspector Signature**

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.



**Maintaining Water Quality****Yes No NA**

- ☐ ☐ ☐ No substantial visible contrast to natural conditions at the outfalls caused by an increase in turbidity.
- ☐ ☐ ☐ Are outfalls free from residue from oil and floating substances, visible oil film, or globules or grease?
- ☐ ☐ ☐ All disturbance is within the limits of the approved plans.
- ☐ ☐ ☐ Are receiving lakes/bays, streams, and/or wetlands free from silt from project?

**Housekeeping****1. General Site Conditions****Yes No NA**

- ☐ ☐ ☐ Is construction site litter, debris and spoils appropriately managed?
- ☐ ☐ ☐ Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?
- ☐ ☐ ☐ Construction has not been impacting the adjacent property.
- ☐ ☐ ☐ Is dust adequately controlled?

**2. Temporary Stream Crossing****Yes No NA**

- ☐ ☐ ☐ Maximum diameter pipes necessary to span creek without dredging are installed.
- ☐ ☐ ☐ Installed non-woven geotextile fabric beneath approaches.
- ☐ ☐ ☐ Is fill composed of aggregate (no earth or soil)?
- ☐ ☐ ☐ Rock on approaches is clean enough to remove mud from vehicles & prevent sediment from entering stream during high flow.

**3. Stabilized Construction Access****Yes No NA**

- ☐ ☐ ☐ Stone is clean enough to effectively remove mud from vehicles.
- ☐ ☐ ☐ Installed per standards and specifications?
- ☐ ☐ ☐ Does all traffic use the stabilized entrance to enter and leave site?
- ☐ ☐ ☐ Is adequate drainage provided to prevent ponding at entrance?

**Runoff Control Practices****1. Excavation Dewatering****Yes No NA**

- ☐ ☐ ☐ Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan.
- ☐ ☐ ☐ Clean water from upstream pool is being pumped to the downstream pool.
- ☐ ☐ ☐ Sediment laden water from work area is being discharged to a silt-trapping device.
- ☐ ☐ ☐ Constructed upstream berm with one-foot minimum freeboard.



**Runoff Control Practices (continued)**2. Flow Spreader**Yes No NA**

- ☐ ☐ ☐ Installed per plan.
- ☐ ☐ ☐ Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow.
- ☐ ☐ ☐ Flow sheets out of level spreader without erosion on downstream edge.

3. Interceptor Dikes and Swales**Yes No NA**

- ☐ ☐ ☐ Installed per plan with minimum side slopes 2H:1V or flatter.
- ☐ ☐ ☐ Stabilized by geotextile fabric, seed, or mulch with no erosion occurring.
- ☐ ☐ ☐ Sediment-laden runoff directed to sediment trapping structure

4. Stone Check Dam**Yes No NA**

- ☐ ☐ ☐ Is channel stable? (flow is not eroding soil underneath or around the structure).
- ☐ ☐ ☐ Check is in good condition (rocks in place and no permanent pools behind the structure).[ ]
- ☐ ☐ ☐ Has accumulated sediment been removed?

5. Rock Outlet Protection**Yes No NA**

- ☐ ☐ ☐ Installed per plan.
- ☐ ☐ ☐ Installed concurrently with pipe installation.

**Soil Stabilization**1. Topsoil and Spoil Stockpiles**Yes No NA**

- ☐ ☐ ☐ Stockpiles are stabilized with vegetation and/or mulch.
- ☐ ☐ ☐ Sediment control is installed at the toe of the slope.

2. Revegetation**Yes No NA**

- ☐ ☐ ☐ Temporary seedings and mulch have been applied to idle areas.
- ☐ ☐ ☐ 4 inches minimum of topsoil has been applied under permanent seedings

**Sediment Control Practices**1. Silt Fence and Linear Barriers**Yes No NA**

- ☐ ☐ ☐ Installed on Contour, 10 feet from toe of slope (not across conveyance channels).
- ☐ ☐ ☐ Joints constructed by wrapping the two ends together for continuous support.
- ☐ ☐ ☐ Fabric buried 6 inches minimum.
- ☐ ☐ ☐ Posts are stable, fabric is tight and without rips or frayed areas.
- Sediment accumulation is \_\_\_\_% of design capacity.



**Sediment Control Practices (continued)****2. Storm Drain Inlet Protection** (Use for Stone & Block; Filter Fabric; Curb; or, Excavated; Filter Sock or Manufactured practices)**Yes No NA**

- ☐ ☐ ☐ Installed concrete blocks lengthwise so open ends face outward, not upward.
- ☐ ☐ ☐ Placed wire screen between No. 3 crushed stone and concrete blocks.
- ☐ ☐ ☐ Drainage area is 1 acre or less.
- ☐ ☐ ☐ Excavated area is 900 cubic feet.
- ☐ ☐ ☐ Excavated side slopes should be 2:1.
- ☐ ☐ ☐ 2" x 4" frame is constructed and structurally sound.
- ☐ ☐ ☐ Posts 3-foot maximum spacing between posts.
- ☐ ☐ ☐ Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
- ☐ ☐ ☐ Posts are stable, fabric is tight and without rips or frayed areas.
- ☐ ☐ ☐ Manufactured insert fabric is free of tears and punctures.
- ☐ ☐ ☐ Filter Sock is not torn or flattened and fill material is contained within the mesh sock.
- Sediment accumulation \_\_\_\_% of design capacity.

**3. Temporary Sediment Trap****Yes No NA**

- ☐ ☐ ☐ Outlet structure is constructed per the approved plan or drawing.
- ☐ ☐ ☐ Geotextile fabric has been placed beneath rock fill.
- ☐ ☐ ☐ Sediment trap slopes and disturbed areas are stabilized.
- Sediment accumulation is \_\_\_\_% of design capacity.

**4. Temporary Sediment Basin****Yes No NA**

- ☐ ☐ ☐ Basin and outlet structure constructed per the approved plan.
- ☐ ☐ ☐ Basin side slopes are stabilized with seed/mulch.
- ☐ ☐ ☐ Drainage structure flushed and basin surface restored upon removal of sediment basin facility.
- ☐ ☐ ☐ Sediment basin dewatering pool is dewatering at appropriate rate.
- Sediment accumulation is \_\_\_\_% of design capacity.

**Note:** Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site specific design. All practices shall be maintained in accordance with their respective standards.

Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.





**b. Modifications to the SWPPP (To be completed as described below)**

1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
2. The SWPPP proves to be ineffective in:
  - a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
  - b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

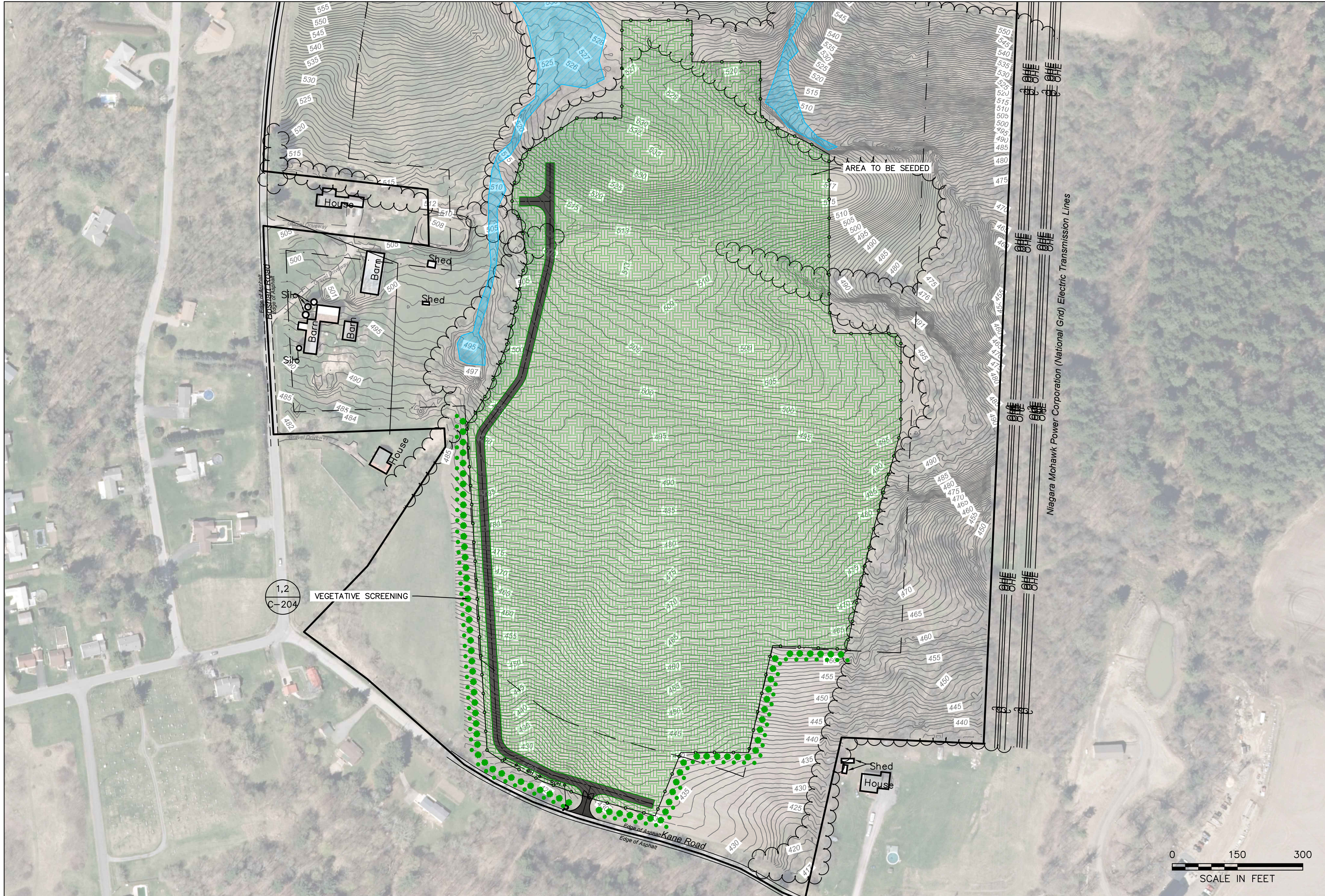
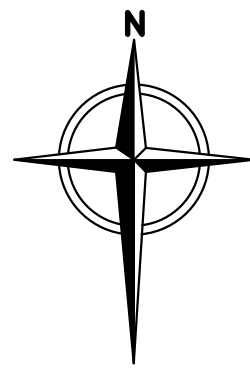
## This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal black lines across its entire width, providing a guide for handwriting or typing. The paper itself is a clean, off-white color.

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## APPENDIX N – INSPECTION REPORTS & PHOTO LOG

PRELIMINARY





LEGEND

- PROPERTY LINE
- ZONING SETBACKS
- EXISTING GRAVEL DRIVEWAY
- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- EXISTING TREE LINE
- DELINEATED WETLANDS (USACE)
- EXISTING UTILITY POLE
- EXISTING OVERHEAD ELECTRIC
- PROPOSED ACCESS ROAD
- PROPOSED PERIMETER SECURITY FENCE
- ASPHALT PAVED APRON
- AREA TO BE SEED

GENERAL NOTES:

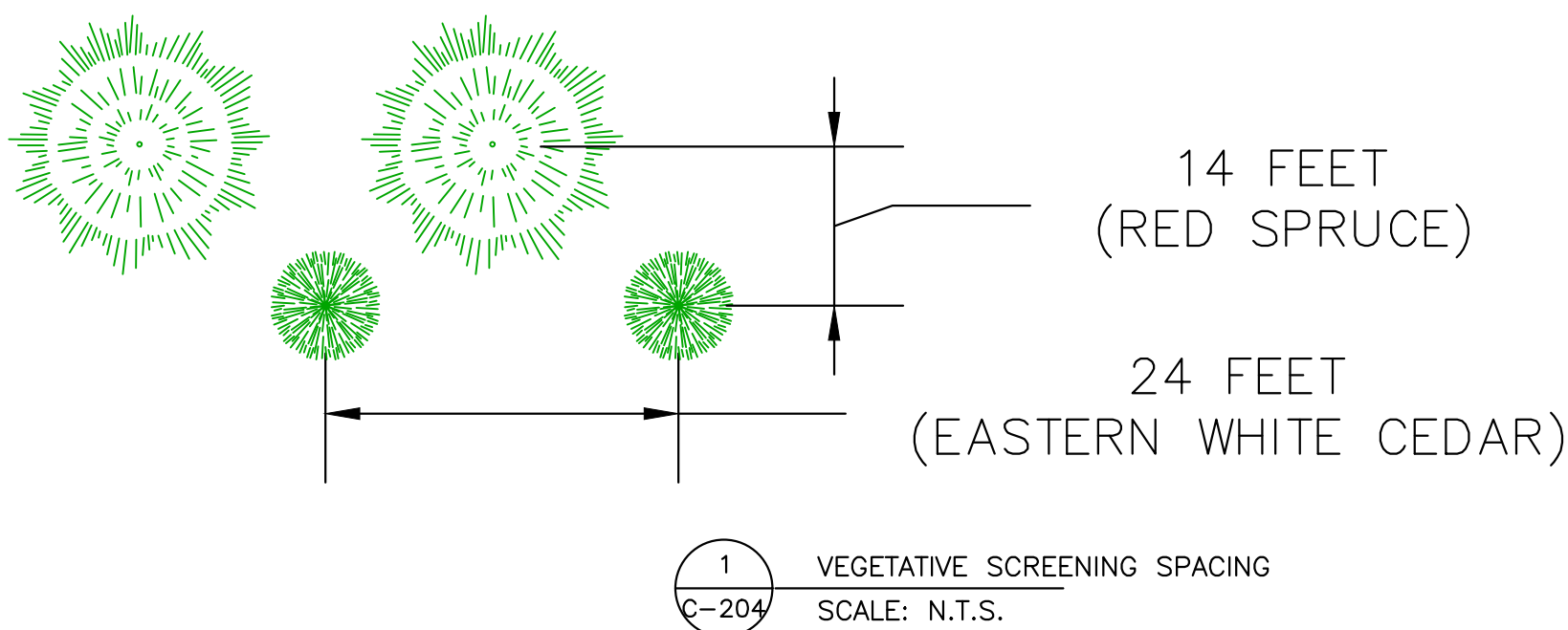
- THE DEPICTED CONTOUR DATA AND EXISTING CONDITIONS INFORMATION REFERENCES THE "MAP SHOWING EXISTING TOPOGRAPHY MONTGOMERY 1 COMMUNITY SOLAR PROJECT" BY THEW ASSOCIATES PE-LS, PLLC., DATED MAY 14, 2021.
- THIS SURVEY IS REFERENCED HORIZONTALLY TO THE NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT (NAD83/2011), PROJECTED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM (EAST ZONE), AND VERTICALLY TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88-GEOD18).
- ORTHOIMAGERY OBTAINED FROM NYS GIS CLEARING HOUSE, 2017.
- THE SUBSURFACE UTILITIES SHOWN ON THIS DRAWING ARE OF QUALITY LEVEL "C" AS DEFINED BY THE AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) IN THE "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA". THE SUBSURFACE UTILITIES DEPICTED ON THESE DRAWINGS ARE BASED ON PHYSICAL EVIDENCE LOCATED DURING THE FIELD SURVEY AND EXISTING UTILITY DRAWINGS. SOME INFORMATION MAY HAVE BEEN DERIVED FROM INFORMATION PROVIDED TO THE ENGINEER BY OTHERS. SUCH INFORMATION MAY BE INCOMPLETE OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES.
- WETLANDS DATA OBTAINED FROM WETLAND DELINEATION REPORT DATED JUNE 2021 BY TETRA TECH, INC.
- TREE LINE IS APPROXIMATE.

LANDSCAPING PLANTING NOTES:

- REFER TO THE GRADING PLAN FOR GRADING INFORMATION. IF ACTUAL SITE CONDITIONS VARY FROM WHAT IS SHOWN ON THE PLANS OR IF THERE ARE DISCREPANCIES BETWEEN THE PLANS, CONTACT THE ENGINEER FOR DIRECTION AS TO HOW TO PROCEED.
- VERIFY LOCATION OF PERTINENT SITE FEATURES. IF ANY PART OF THIS PLAN CANNOT BE FOLLOWED DUE TO SITE CONDITIONS, CONTACT ENGINEER FOR INSTRUCTIONS PRIOR TO COMMENCING WORK.
- LOCATION OF PLANT MATERIALS TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION.
- VERIFY PLANT COUNTS AND SQUARE FOOTAGES: QUANTITIES ARE PROVIDED AS OWNER INFORMATION ONLY.
- CONTACT THE LOCAL UNDERGROUND UTILITY SERVICES FOR UTILITY LOCATION AND IDENTIFICATION.
- PERFORM EXCAVATION IN THE VICINITY OF UNDERGROUND UTILITIES WITH CARE AND IF NECESSARY, BY HAND. THE CONTRACTOR BEARS FULL RESPONSIBILITY FOR THIS WORK AND DISRUPTION OR DAMAGE TO UTILITIES SHALL BE REPAIRED IMMEDIATELY AT NO EXPENSE TO THE OWNER.
- PROVIDE MATCHING FORMS AND SIZES FOR PLANT MATERIALS WITHIN EACH SPECIES.
- ALIGN AND EQUALLY SPACE THE TREES IN ALL DIRECTIONS SO DESIGNATED PER THESE NOTES.
- REMOVE ENTIRE WIRE CAGE FROM ROOTBALL.
- CUT AND REMOVE BURLAP FROM TOP  $\frac{1}{3}$  OF BALL.
- SPACE SHRUBS 7-8 FT BETWEEN PLANTINGS.
- SPACE TREES WITH MINIMUM DISTANCE OF 20 FT.
- RESEED AREA OF DISTURBANCE DUE TO CONSTRUCTION ACTIVITIES WITH A NORTHEAST WILDFLOWER SEED MIX OR REGIONAL EQUIVALENT.
- IF LISTED SPECIES CANNOT BE ACQUIRED OR AN INSUFFICIENT QUANTITY OR QUALITY IS AVAILABLE, CONSULT ENGINEER FOR APPROVED REPLACEMENTS.
- BE RESPONSIBLE AND ENSURE THAT PLANTS AND TREES ARE SUITABLE FOR SITE LOCATION AND SOIL TYPES.

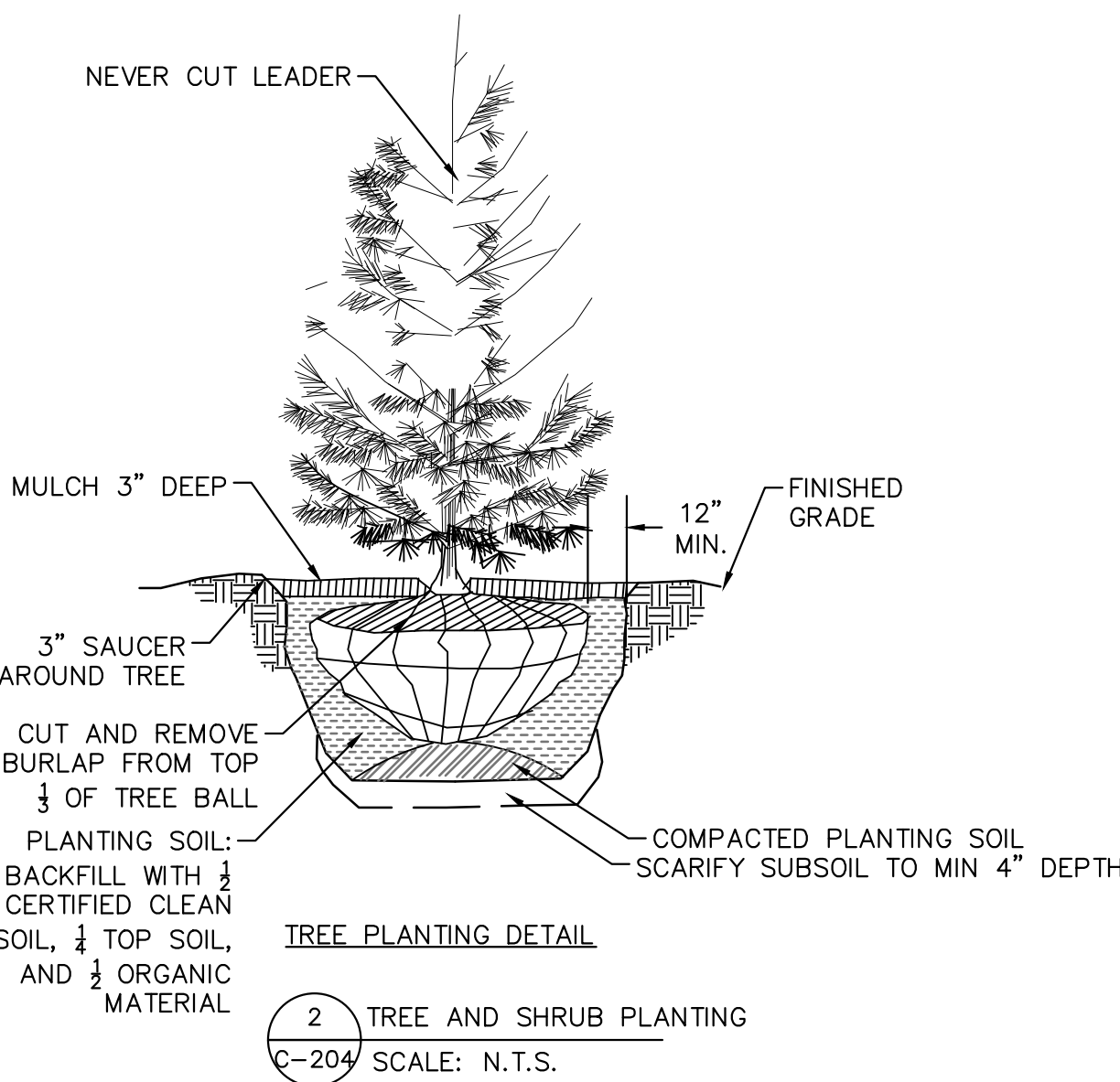
THIS PERMITTING PACKAGE, AND THE DATA HEREIN, IS INTENDED FOR PERMITTING PURPOSES ONLY, AND IS NOT TO BE USED FOR CONSTRUCTION.

NOT FOR  
CONSTRUCTION



LANDSCAPING KEY

SYMBOL	COMMON NAME OR EQUIVALENT	QUANTITY	HEIGHT (AT PLANTING)	HEIGHT (AT MATURITY)	WIDTH (AT MATURITY)	SPACING
	RED SPRUCE	80	3-4'	15-40'	10'-20'	24' O.C.
	EASTERN WHITE CEDAR	78	3-4'	15-25'	6'-8'	24' O.C.



NOTES:

- AMEND SOIL WITHIN A 4' RADIUS OF TRUNK BY PLACING A 4" DEEP LAYER OF ACCEPTABLE ORGANIC MATERIAL AROUND TREE AND TILL INTO TOP 8" OF SOIL.
- TREE SHALL BEAR SAME RELATION TO FINISHED GRADE AS IT BORE IN THE NURSERY, EXCEPT WHERE PLANTING TREE IN CLAY SOIL, PLACE TOP OF ROOT BALL 6" ABOVE SURROUNDING GRADE.
- CONTRACTOR TO MAINTAIN FOR 1 YEAR

**BW SOLAR**  
5050 DUFFERIN STREET  
NORTH YORK, ON M3H 5T5  
T: +65 9647 3605  
WWW.BWSOLAR.COM



IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145, FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM IN THIS DOCUMENT IN ANY WAY.

STAMP:

MONTGOMERY 1  
SOLAR PROJECT

182 BOSHAUT ROAD  
FONDA, NY 12068

PROJECT NUMBERS:  
194-1264-0001

SHEET TITLE:  
SEEDING AND  
VEGETATIVE SCREENING  
PLAN

SHEET SIZE:  
ARCH "D"  
24" X 36" (610 x 914)

THIS DOCUMENT IS THE PROPERTY OF TETRA TECH WHO HAS UNLIMITED RIGHTS. THIS DOCUMENT IS PROVIDED UPON CONDITION THAT IT WILL NEITHER BE REPRODUCED, COPIED, OR ISSUED TO A THIRD PARTY AND WILL BE USED SOLELY FOR THE ORIGINAL INTENDED PURPOSE.

NO.	REVISION	DATE	INIT.
A	30% DESIGN	07/07/2021	AGF
B	30% DESIGN	07/19/2021	CNT
C	30% DESIGN	08/04/2021	CNT
D	30% DESIGN	11/03/2021	AGF

DATE: 06/04/2021  
DRAWN BY: MDN  
ENGINEER: MDN  
APPROVED BY: KMG

PROJECT PHASE:  
30% DESIGN

SCALE:  
AS SHOWN

SHEET NO.:  
C-204



# REFERRAL FORM

## MONTGOMERY COUNTY PLANNING BOARD

Referral Number \_\_\_\_\_

assigned by the MCPB upon  
acceptance of referral for review

This Referral must be received **SEVEN CALENDAR DAYS** prior to the MCPB meeting date in order for it to be placed on the agenda.

**TO:** Montgomery County Planning Board,  
Old County Courthouse,  
PO Box 1500, Fonda, New York 12068  
Phone: 518-853-8334  
Fax: 518-853-8336

**FROM:** Municipal Board: TOM Planning Bd  
Referring Officer: Patrick Clear / Stan Waddle  
Mail original resolution to: Town of Mohawk  
Stan Waddle, PO Box 415  
Fonda, New York 12068

1. Applicant: Kayachrosseras Solar LLC 2. Site Address: 2778 State Highway 67  
3. Tax Map Number(s): 22-2-3.1 4. Acres: 138 acres

5. Is the site currently serviced by public water? ☐ Yes ☒ No

6. On-site waste water treatment is currently provided by: ☐ Public Sewer or ☐ Septic System ☒ None

7. Current Zoning: R-1 and Agriculture 8. Current Land Use: \_\_\_\_\_

9. Project Description: 2.4 Mvac Solar System, lot size is 138 acres  
but only 10 acres used for project. Approx 5765 - 525 watt tracker  
panels, Power will be converted to AC and exported to existing power lines  
No Battery Storage

10. MCPB Jurisdiction:

☐ Text Adoption or Amendment

☒ Site is located within 500' of: see below

☒ a municipal boundary.

☒ a State or County thruway/highway/roadway

☒ an existing or proposed State or County park/recreation area

☐ an existing or proposed County-owned stream or drainage channel

☒ a State or County-owned parcel on which a public building or institution is situated

☒ a farm operation within an Agricultural District (Incl. Ag data Statement) (does not apply to area variances)

11. PUBLIC HEARING: Date: 07/20/2021 Time: 7:05 PM Location: TOM Town Hall

### Referred Action(s)

If referring multiple, related actions, please identify the referring municipal board if different from above.

12. ☐ Text Adoption or

☐ Amendment

Referring Board:

☐ Comprehensive Plan

☐ Local Law

☐ Zoning Ordinance

☐ Other \_\_\_\_\_

13. ☐ Zone Change

Referring Board:

Proposed Zone District: \_\_\_\_\_

Number of Acres: \_\_\_\_\_

Purpose of the Zone Change: \_\_\_\_\_

14. ☒ Site Plan ☒ Project Site Review

Referring Board: TOM Planning Bd

Proposed Improvements: Construct Solar project on approx 10 acres

Proposed Use: Solar Project

Will the proposed project require a variance?

☐ Yes

☐ No

Type: ☐ Area

☐ Use

Specify: \_\_\_\_\_

Is a State or County DOT work permit needed?

If Yes : ☒ State or

☐ County

☐ No

Specify: on State Highway - will need access.

15. ☐ Special Permit

Referring Board:

Section of local zoning code that requires a special permit for this use: \_\_\_\_\_

Will the proposed project require a variance? ☐ Yes ☐ No Type: ☐ Area ☐ Use

16. Variance

Referring Board:

☐ Area ☐ Use

Section(s) of local zoning code to which the variance is being sought: \_\_\_\_\_

Describe how the proposed project varies from the above code section: \_\_\_\_\_

SEQR Determination

Action:

Finding:

☐ Type I

☐ Positive Declaration – Draft EIS

☒ Type II

☐ Conditional Negative Declaration

☐ Unlisted Action

☒ Negative Declaration

☐ Exempt

☐ No Finding (Type II Only)

SEQR determination made by (Lead Agency): Town of Mohawk Planning Bd Date: 07/20/2021

REQUIRED MATERIAL

Send 3 copies of a "Full Statement of the Proposed Action" which includes:

All materials required by and submitted to the referring body as an application

- If submitting site plans, please submit only 1 large set of plans, and 12 11x17 packets.
- All material may be submitted digitally as well at <http://www.mcfdc.org/planning-services/montgomery-county-planning-board-referrals/>

This referral, as required by GML §239 l and m, includes complete information, and supporting materials to assist the Montgomery County Planning Board (MCPB) in its review. Recommendations by MCPB shall be made to the Referring Body within thirty days of receipt of the Full Statement.

Stanley F. Waddle Building & Zoning Code Official 12/03/2021  
Name, Title & Phone Number of Person Completing this Form Transmittal Date  
518-774-0420



This side to be completed by Montgomery County Planning.

**REFERRAL FORM**  
**MONTGOMERY COUNTY PLANNING BOARD**

TO: \_\_\_\_\_

Receipt of 239-m referral is acknowledged on \_\_\_\_\_. Please be advised that the Montgomery County Planning Board has reviewed the proposal stated on the opposite side of this form on \_\_\_\_\_ and makes the following recommendation.

- ☐ Approves
- ☐ Approves (with Modification)
- ☐ Disapproves:
- ☐ No significant County-wide or inter-community input
- ☐ Not subject to Planning Board review
- ☐ Took no action

Section 239-m of the General Municipal Law requires that within thirty days after final action by the municipality is taken; a report of the final action shall be filed with the County Planning Board.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Kenneth F. Rose, Director  
Montgomery County Dept. of Economic  
Development and Planning



**Site Plan Application**  
**Kayaderosseras Solar**  
Town of Mohawk, NY

**Primary Contact:**

Ryan McCune  
Nexamp, Inc.  
101 Summer Street, 2nd Fl  
Boston, MA 02110  
RMcCune@nexamp.com

Application #: \_\_\_\_\_

Date: \_\_\_\_\_

Project Name: \_\_\_\_\_

Page 1 of 2

**For Office Use Only**

Total Amount received: \$ \_\_\_\_\_

Check # (s)/Date: \_\_\_\_\_

Received By: \_\_\_\_\_

Zoning Enforcement Officer's certification that application is complete and in conformance with Zoning Regulations.

\_\_\_\_\_  
(Zoning Enforcement Officer)

**For Planning Board Use Only**

The Planning Board held a Public Hearing on \_\_\_\_\_ (day) of \_\_\_\_\_ (date),  
\_\_\_\_\_ (year) in consideration of this application.

The application is hereby:

- ☐ **Approved**
- ☐ **Approved with modifications**
- ☐ **Disapproved**

Modifications and comments: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Chairman, Town of Mohawk Planning Board

\_\_\_\_\_  
Date



Application #: \_\_\_\_\_  
Date: 05/10/2021  
Project Name: Kayaderosseras Solar, LLC

Page 1 of 2

**Town of Mohawk  
Planning Board  
Application to the Planning Board**

A completed Application must be filed at least ten (10) days prior to the meeting at which it is to be considered by the Planning Board, including all applicable attached information.

<b>Applicant:</b> Kayaderosseras Solar, LLC <b>Address:</b> 101 Summer St Boston, MA 02110 <b>Phone:</b> ( ) 607 592 5648  <b>Professional Advisor:</b> Chazen / LaBella Associates <b>Address:</b> 356 Meadow Hill Rd Newburgh, NY 12550 <b>Phone:</b> ( ) 518-273-0055	<b>Property Owner:</b> The Estate of Richard Opalka, Sr. (if different) <b>Address:</b> 7219 E. Kramer Street Mesa, AZ 85207 <b>Phone:</b> ( ) (480) 797-6901  <b>Other:</b> _____ (if appropriate, please specify) <b>Address:</b> _____ <b>Phone:</b> ( ) _____
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**1) Property Location:** 2778 State Highway 67, Mohawk, NY  
**Address:** \_\_\_\_\_  
**General Location:** \_\_\_\_\_  
**Zoning District:** Agricultural  
**Tax Parcel ID# (SBL):** 22-2-3.1

**2) Type of Application (please check appropriate box(s)):**

<input type="checkbox"/> Major Subdivision/	\$500
<input type="checkbox"/> Minor Subdivision	\$100
<input checked="" type="checkbox"/> Major Site Plan	\$500
<input type="checkbox"/> Minor Site Plan	\$100
<input type="checkbox"/> Special Permit	\$100
<input type="checkbox"/> Lot Line Adjustment	\$100

**3) Project Description:** Development of a 2.4MWac Community Solar Farm

For each type of application a checklist detailing the required information has been attached. These checklists are only intended to be a guide to the applicant, for specifics on submission requirements, procedures, timeframes, etc., the applicant should refer to the applicable Town Ordinance (Zoning, Subdivision, etc.), and or State Law (SEQR, Ag & Markets, etc.).

**Applicant Signature:** R. McE... **Date:** \_\_\_\_\_

**Property Owner's Signature:** Sherri Opalka  
(Sherri Opalka (Indy) LLC, 2022-12-29-07) **Date:** \_\_\_\_\_



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# Project Summary

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Dear Town of Mohawk Planning & Zoning Boards,

Kayaderosseras Solar, LLC is excited to bring forward this application for a 2.4MWac solar system to be located at 2778 St. Rt 67 in the Town of Mohawk. The 138-acre lot is owned by the Richard Opalka Trust, who has set up a lease agreement with Nexamp Solar, LLC via Kayaderosseras Solar, LLC.

The facility will be composed of approximately 5765 525-watt panels, anchored to the land via a single-axis tracker system by Terratrak. Power will be aggregated onsite and converted to AC current for export to the local utility via an SMA 2660 Central inverter. There is no energy storage associated with this project, and it has been fully approved by National Grid for interconnection.

The facility will be surrounded by a 7' tall farm fence with small animal friendly entrances along its base. The facility is set back from the abutting property lines 200' on all sides. All property lines with visual impact are generously screened using a year-round mix of deciduous and evergreen trees. This planting and screening plan, combined with the natural topography and vegetation of the surrounding area should nearly completely screen the project from nearby high-traffic viewsheds.

Attached to this permit narrative are several appendices covering site design, SEQR, abutter information, insurance details and more. A draft SWPPP has been prepared for the Town, but is not included in this application due to its length. Standalone copies have been provided to the town, should any board member want to familiarize themselves with this preliminary plan.

We look forward to conversations with the town over the following months. Should any members request additional information, or wish to discuss the project outside of a meeting environment, the project lead's contact information is below.

Ryan M McCune

607.592.5648

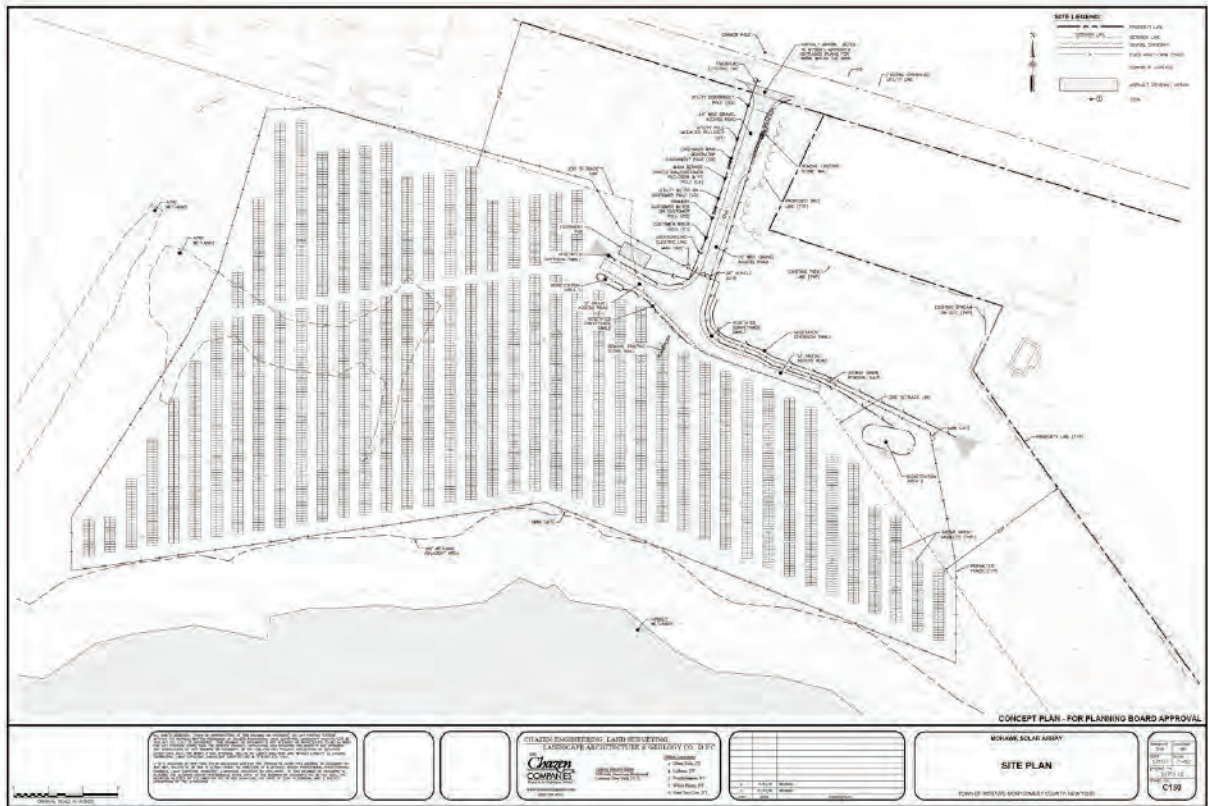
[RMcCune@Nexamp.com](mailto:RMcCune@Nexamp.com)

Best Regards,

The Nexamp Solar Team



# Design



As designed, Nexamp intends to submit permits for the system above. The 2.4MWac system includes a single-axis tracker mounting system that will support Bi-Facial Solar PV panels. The tracker system will be ground mounted with a combination of ground screws and steel I-beams. Aside from concrete pads necessary for the central inverter and transformer, no concrete will be used on-site.

This project does not include any energy storage.

Additionally, the project has been designed with a fire-code compliant access road leading to a central inverter within the 7ft tall farm fence. The facility will be secured via access gate and lock, but will include knox box access for first-responders should access be necessary.

With the exception of the necessary above-ground utility poles running to the point of interconnection, all wires within the fenced area will be buried to prevent tampering or damage by the elements.

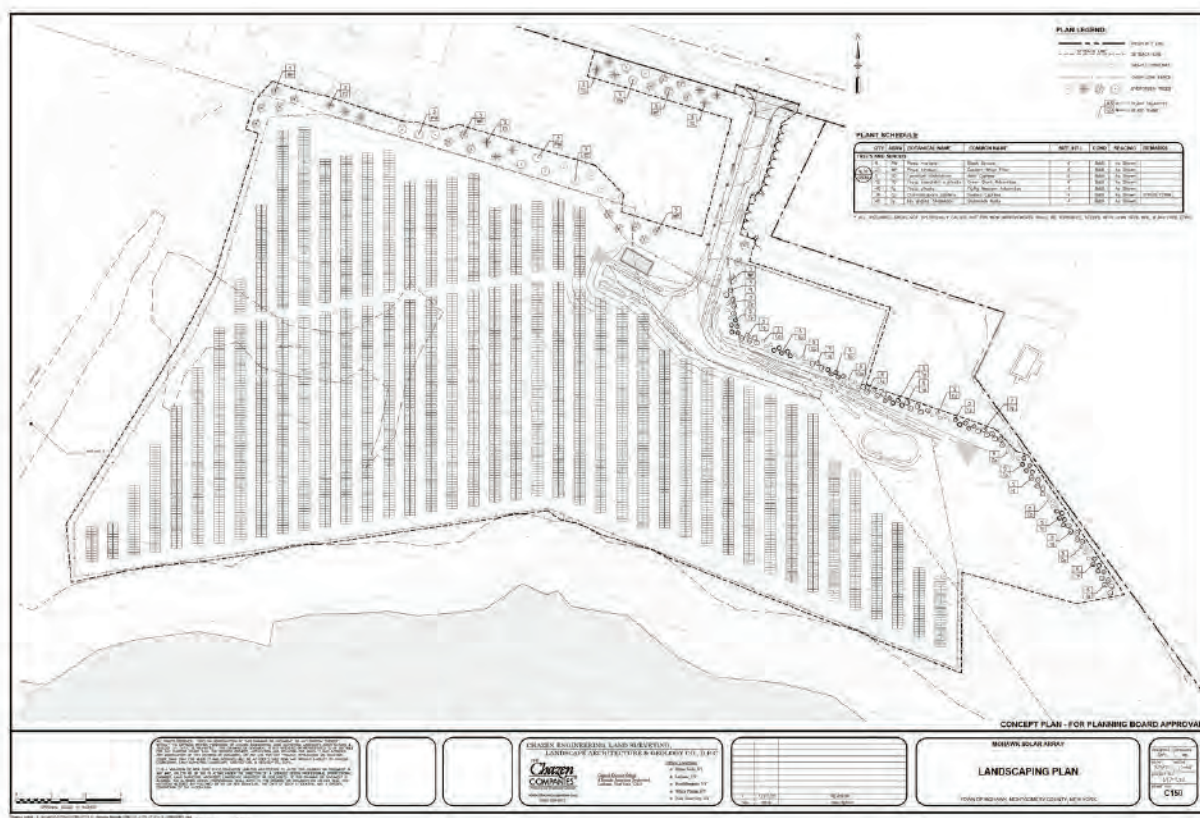
Lastly, Nexamp intends to include a season-friendly mix of evergreen and deciduous trees planted along the road, and immediately along the North-east property line to limit the visual impact of the facility to neighbors and commuters.



Nexamp's screening plan was created to screen the property at three different levels from its most expose viewsheds to the north. While the array actually occurs 11 feet in elevation below the road level, naturally screening it from view, Nexamp has proposed an additional layer of screening to ensure the system is adequately hidden from view. The proposed plan includes 168 planted trees and bushes in three principal locations; west of the access road, north of the array and east of the array.

Location two provides a second layer of screening from route 37, and stretches approximately 600 feet along the northern array, between the fence line and the landlord's home. This installation of 44 trees will include Giant Green Arborvitae, Black Spruce, Eastern White Pine and Bald Cypress.

Location three provides screening on the eastern viewshed and augments an existing hedgerow in the area to better screen the facility from neighboring properties. This planting of Cypress and Holly shrubs has been strategically chosen to screen the existing fence line but limit long term height to preserve the neighboring viewshed.





















# Existing Environmental Conditions

Upon the execution of site control agreements and the reception of necessary interconnection agreements by the utility, Nexamp commissioned initial environmental studies including wetland delineation and a Phase I environmental study. While these studies were largely positive, and yielded no concerns related to endangered species, significant environments, or issues related to past development, there were features discovered that changed the direction of the project.

The predominant feature discovered in these studies was the existence of a large DEC regulated set of wetlands that runs east to west directly across the center of the property. Building on these wetlands, while legally possible, was not advisable, thus the project was downsized and moved to leverage the portions of the site that were available for construction. Ultimately the project size was cut in half to accommodate environmental conditions on the site. This decision has also forced us to apply for variances on the western and northern portions of the site, due to land availability and constraints.

There was also discovery of Army Corps regulated wetlands, but those wetlands require no remediation nor setbacks to be legally developed. All construction of solar racking over these wetlands does not constitute disturbance, per the amendments to the US Clean Water Act.

During the due diligence stage of our project research, it was documented that the field in question may be a potential nesting area for the Northern Harrier. As part of our application process a jurisdictional request and mitigation plan were presented to DEC for review. DEC has approved this plan, and our project can move forward without any necessary permits.

NYSHPO was also contacted during the due diligence phase of this project, letters of no impact will be submitted upon their receipt.

This project was given a negative declaration on \_\_\_\_\_ via resolution, attached in Appendix B. While the design of the project has in fact changed, based on the reduction of impact to disturbed areas overall, we do not feel that an amendment to the existing SEQR declaration is necessary.

Land Use or Overttype	Current Acreage	Acreage Approved	Revised Acreage	% change
Roads, buildings, and other paved or impervious surfaces	0.91	1.5	1.25	-17% in constructed land use.
Forested	63.79	63.5	63.5	0%
Meadows, grasslands, or brushlands (non-agricultural, including abandoned agricultural)	32.95	38.64	37.4	-3% reduction in brushland
Agricultural ( includes active orchards, field, greenhouse, etc.)	25.69	20	21.25	+6% in agricultural land
Wetlands (freshwater or tidal)	0.3	0.3	0.3	0
Non-vegetated (Bare rock, earth or fill)	8.36	8.36	8.36	0

# Agricultural Impacts

---

The field in question has been leased as hayfield for most of its life, and the proposed array will result in roughly 10 acres of the total 65 acres of tillable land on the property being removed from production. The remaining 55 acres of tillable land will remain untouched, and available for cultivation at the pleasure of the current landowners.

Nexamp solar has completed an agricultural data statement and filed an NOI with NYS Agriculture and Markets as part of its permit application. The Agricultural Data Statement is attached to this application as Appendix F.



# Interconnection

---

Nexamp has formally completed the necessary interconnection studies with National Grid, and is in the possession of an Interconnection Service Agreement (ISA) for the interconnection of the project.

Nexamp has made 100% of these payments, and work at the substation will begin in Q4 2021. It should be noted that Nexamp originally applied for energy storage as part of its formal National Grid study, but is no longer pursuing a storage solution at this site due to its lack of financial viability.

Copies of the ISA and its supporting documentation are included as Appendix D to this proposal

# Construction Schedule

Nexamp has prepared an estimated construction schedule for the project to help communicate to the Town and its residents our approximate timeline. While this schedule is reasonably accurate given conditions today, the fluid dynamics of supply chain logistics, construction scheduling, and site-specific adaptation mean that the project's schedule will have to be responsive to a myriad of factors immediately prior to our receipt of a building permit.

Generally speaking; regardless of season, Nexamp expects its schedule to follow the same weekly schedule; Monday through Friday – 7am to 6pm. Weekend construction will be limited to managerial site visits, and electrical contracting.

Through the process of applying for use variances, and discussing the project with neighbors, abutters have expressed concern about noise from the project during construction. *To help mitigate these concerns, Nexamp suggests that the town board apply conditions to our approval that limit the installation of racking and civil construction on weekends.* Racking and civil construction are the two most machine-intensive portions of the project, as a result they tend to be the noisiest portions of construction. Limiting their construction windows will mitigate concerns by the neighbors, while not materially delaying the overall construction timeline as to cause undue burdens on Nexamp's contractors.

Site Prep	4-6 Weeks	Brush Clearing ,Trash Removal, Impact Area Staking, Survey
Civil Construction	6-8 Weeks	Road Installation, Laydown Area Installation, Stormwater & Grading, Trenching and Inverter and Conduit Install
Racking Installation	6-8 Weeks	Racking post, motor, and combiner box installations
Panel Installation	4-8 Weeks	Balance of racking, panel installation, conduit continuation
BOS and Wiring	6-10 Weeks	Wiring Continued, inverter commissioning and testing, pole installation
Testing & Commissioning	4-6 Weeks	
	7-12 months	

The above timelines are estimates, and there may be lagging periods between each stage because of weather, logistical challenges, or other dynamics. A more accurate construction timeline will be filed at the time of building permit application.



# Decommissioning Plan

---

Nexamp enters into decommissioning agreements with every Municipality with which it does business in NYS. These decommissioning plans ensure that if the system is left inoperable, or is abandoned for any reason, that Nexamp will be responsible for the removal of that system. In the case that Nexamp or its affiliate companies no longer possessing the capacity to remove the system, a decommissioning bond is taken out and provided to the Town in question ensuring that there is financial mechanism in place to pay for the decommissioning of the system.

The system will be decommissioned by completing the following major steps: Dismantlement, Demolition, and Disposal or Recycle; and Site Stabilization, as further described below:

## Dismantlement, Demolition, and Disposal or Recycle

A significant portion of the components that comprise the System will include recyclable or re-saleable components, including copper, aluminum, galvanized steel, and modules. Due to their re-sale monetary value, these components will be dismantled, disassembled, and recycled rather than being demolished and disposed of. All materials removed from the site shall be done in accordance with any local, state and federal waste disposal regulations.

Following coordination with National Grid regarding timing and required procedures for disconnecting the System from the utility distribution network, all electrical connections to the system will be disconnected and all connections will be tested locally to confirm that no electric current is running through them before proceeding. All electrical connections to the PV modules will be severed at each module, and the modules will then be removed from their framework by cutting or dismantling the connections to the supports. Modules will be removed and sold to a purchaser or recycler. In the event of a total fracture of any modules, the interior materials are silicon-based and are not hazardous. Disposal of these materials at a landfill will be permissible.

The PV mounting system framework will be dismantled and recycled. The metal piles will be removed from their approximated depth of four feet and recycled. All other associated structures will be demolished and removed from the site for recycling or disposal. This will include the site fence and gates, which will likely be reclaimed or recycled.

Grade slabs will be broken and removed to a depth of one foot below grade, and clean concrete will be crushed and disposed of off-site or recycled (reused either on- or off-site). The portion of the gravel access road created specifically for the project, namely that portion within the perimeter fence surrounding the PV modules, will be removed as well, unless Town requests for it to remain.

Aboveground utility poles owned by Nexamp will be completely removed and disposed of off-site in accordance with utility best practices. Any overhead wires will be removed from the System and will terminate at the utility-owned connections. Coordination with National Grid personnel will be conducted to facilitate their removal of any poles and overhead wires located on the site.

A final site walkthrough will be conducted to remove debris and/or trash generated during the decommissioning process, and will include removal and proper disposal of any debris that may have been wind-blown to areas outside the immediate footprint of the System being removed.



### **Site Stabilization**

The areas of each Facility that are disturbed during decommissioning will be re-graded to establish a uniform slope and stabilized via hydroseeding with a ground treatment approved by the Building Inspector.

### **Permitting Requirements**

Given the size and location of each Facility, several approvals will be obtained prior to initiation of the decommissioning process. Table 1 provides a summary of the expected approvals if the decommissioning were to take place in January 2021. Noting that the decommissioning is expected to occur at a much later date, the permitting requirements listed in the table below will be reviewed at that time and updated based on then current local, state, and federal regulations.

**Table 1. Current Permitting Requirements for Decommissioning**

<b>Permit</b>	<b>Agency</b>	<b>Threshold/Trigger</b>
State Pollutant Discharge Elimination System (SPDES) General Permit for Discharges from Construction Activity	New York State Department of Environmental Conservation (NYSDEC)	Ground disturbance of greater than 1 acre with discharge to wetlands or water bodies. Requires preparation of a Stormwater Pollution Prevention Plan, including erosion and sedimentation controls.
Building Permit	Town Building Department	A building permit must be obtained for any construction, alteration, repair, demolition, or change to the use or occupancy of a building.

The decommissioning process is estimated to take approximately six to eight (6-8) weeks and is intended to occur outside of the winter season.

## DECOMMISSIONING SURETY PLAN

Consistent with the approach it has taken in other communities, Kayaderosseras Solar, LLC, offers to provide a decommissioning surety bond, to be posted prior at the commercial operation date, in the amount of **\$84,000**, for decommissioning of the solar system in the unlikely event that the company is unable to meet its contractual obligations for solar project removal and restoration.

The decommissioning bond, of which Kayaderosseras Solar will serve as the principal and the Town of Mohawk shall serve as the obligee, shall have a one-year term, starting at the commercial operation date, and be renewed annually for the life of the system. The Town shall have the right to draw on this bond should it be made aware that the system has not produced energy and conveyed it to the electric grid for any 12 consecutive months.

In developing the decommissioning surety bond, the company utilized recent decommissioning costs estimate from similar Community Solar projects to *propose a \$35,000/MWac cost*. The estimation leading to this rate is attached to this proposal as Exhibit B, alongside a third-party certification of this estimation and that estimation's methodology.

*This bond is renewed annually, at an escalator of two percent (2.0%) until which time the company's decommissioning obligations have been fulfilled. The bond's start date shall be the first month following the commercial operation date of the facility. Renewals will be conducted on an annual basis, one year from the bond's date of issuance.*

Below is a summary of the analysis:

Project Size (MW)	2.4
Decommissioning	\$35,000/MWac
<hr/>	
Total	\$84,000

Kayaderosseras Solar, LLC agrees that if the surety is not renewed or cancelled it will forfeit its Certificate of Occupancy and right to continue to operate until a replacement surety has been posted.



# Traffic Control Plan

---

Access to the site will be sporadic and as needed leading up to construction, and most the traffic seen at the site will occur during the 8-12 month construction window. Ongoing access will be provided by a new access road, approved by the NYS DEC.

During construction, Nexamp expects to see daily traffic of at least a dozen vehicles per day, the vast majority being small and light-duty trucks and employee traffic. Due to the project's location on NY 67, and its proximity to major traffic generated by the community college, Nexamp will be submitting a traffic management plan with its Phase 1 DOT permit application this summer. This plan can be turned into the town upon its acceptance to be on file with the permit application.

Following construction, the site will be accessed 6-10 times per year depending on maintenance schedules. Access will be largely comprised of light duty trucks with trailers of vegetative and mechanical maintenance. Nexamp believes this low level of traffic does not justify a long-term traffic control plan or drastic changes to NY-67 that may be needed to accommodate more visited project locations.

# Company Overview

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## About Nexamp

In 2007, U.S. Army veterans Will Thompson and Dan Leary realized a vision for making a range of renewable energy options more affordable and accessible to homeowners and businesses throughout the Commonwealth of Massachusetts. The pair launched NexGen Energy Solutions, a turnkey provider of renewable energy and carbon solutions, in their hometown of North Andover, Massachusetts. NexGen became Nexamp later in 2007.

During the early years, Nexamp delivered a variety of energy systems for residential, commercial, municipal and agricultural customers. Energy solutions offered included solar PV, solar thermal, micro-wind, geothermal heating and cooling, and a wide array of energy efficiency services. In 2011, Nexamp shifted its focus fully toward commercial and industrial scale solar facilities, working with businesses, municipalities, and property owners that wanted to realize the various benefits of renewable solar generation.

2015 marked Nexamp's first community solar project and the beginning of a new chapter for the company. Leveraging its integrated approach of developing, building, owning and operating solar plants, Nexamp turned its focus to community solar, and alongside that the mission of making the benefits of solar power available to everyone—homeowners, renters, non-profits, small businesses, farms and more. Nexamp was named NECEC Clean Energy Company of the Year in 2015 and a Solar Power World Top 3 Commercial Solar Developer in 2017.

In 2016, Mitsubishi's Diamond Generating Corporation made a significant investment in Nexamp, and in 2018 the group made an additional investment that gave it a controlling interest. Serving a rapidly expanding network of individuals, property owners, businesses, and communities that benefit from its nationally distributed portfolio of solar assets, Nexamp is a Massachusetts-based, nationally headquartered solar company that is laying the groundwork for a cleaner, more secure and resilient energy future.

## Company Information

<b>Year Founded</b>	2007
<b>Number of Continuous Years in Business</b>	12
<b>Ownership Status</b>	Privately-held
<b>Form of Legal Entity and Year Established</b>	Delaware Corporation, 2007
<b>Other Legal Names of Firm</b>	Nexamp Capital, LLC Nexamp Solar, LLC Nexamp Asset Management Services, LLC
<b>Parent Company</b>	Nexamp, Inc.
<b>Federal Tax Identification</b>	261541318
<b>Number of Employees,</b>	310 full-time employees

## **Appendix A : Full Site Design**

---





2,400 kW AC

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LANDSCAPE ARCHITECTURE CO., D.P.C.  
4 BRITISH AMERICAN BOULEVARD  
ATLANTA, NY 12110

TOTAL PARCEL ACREAGE : 132 ACRES

**TOWN OF MOHAWK ZONING DISTRICT: RESIDENTIAL (R-1) AND AGRICULTURAL (A)**

ZONING REQUIREMENT:		PROPOSED
MINIMUM LOT AREA	N/A	15.3 ACRES
MINIMUM YARDS		
FRONT	200 FT	218 FT
SIDES	200 FT	203 FT
REAR	200 FT	1,134 FT
MAXIMUM PANEL HEIGHT	20 FT	<20 FT

# CONSTRUCTION MITIGATION GUIDELINES FOR AGRICULTURAL LANDS

1. CONSTRUCTION ACTIVITIES ON THIS SITE MUST COMPLY WITH THE DEPARTMENT OF AGRICULTURE AND MARKETS (NDAM), PERMITS ONLY, A CONSOLIDATED SUMMARY OF THE GUIDELINES, IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE FAMILIAR WITH THE COMPLETE GUIDELINES AND COMPLY WITH THE APPLICABLE REQUIREMENTS DURING CONSTRUCTION.
2. EXCAVATE WILL BE OR DISSEMINATE AN ENVIRONMENTAL MONITORING (EM) TO DETERMINE CONSTRUCTION, RESTORATION, AND FOLLOW-UP MONITORING IN AGRICULTURAL LANDS. THE EM SHALL BE AVAILABLE FOR CONSULTATION AND/OR ON-SITE WHENEVER CONSTRUCTION OR RESTORATION WORK THAT CAUSES GROUND DISTURBANCE IS OCCURRING ON LESS THAN 90 ACRES OF AGRICULTURAL LAND.
3. STRIPPED TOPSOIL SHALL BE STOCKPILED FROM WORK AREAS AND KEPT SEPARATE FROM OTHER EXCAVATED MATERIAL UNTIL THE RESTORATION OF THE FACILITY FOR FINAL RESTORATION. TOPSOIL SHALL BE STRIPPED TO MATERIALS STORAGE AND LANDOWN AREA AND STABILIZED ACCORDING TO PLANS. EXCESS TOPSOIL SHALL BE SPREAD EVENLY IN AGRICULTURAL AREAS WITHIN THE LIMIT OF DISTURBANCE OR AS NOTED ON THE PLANS. IN NO CASE SHALL THE SPREADING OF EXCESS TOPSOIL ALTER THE HYDROLOGY OF THE AREA.
4. FOR ALL OPEN-OUT EXCAVATIONS, TOPSOIL AND SUBSOIL SHALL BE STOCKPILED. WHEN OPEN-OUT TRENCHING IS PROPOSED, TOPSOIL STRIPPING IS REQUIRED FROM THE WORK AREA ADJACENT TO THE TRENCH (INCLUDING STOCKPILED STOCKPILE AREAS AND EQUIPMENT ACCESS).
5. TOPSOIL STOCKPILE AREAS AND TOPSOIL DISPOSAL AREAS SHALL BE CLEARLY MARKED IN THE FIELD AND ON THE PLANS.
6. EQUIPMENT ON AGRICULTURAL AREAS LEFT IN PLACE PRIOR TO OCTOBER 31 SHALL BE SEEDED WITH AGROSTOYD WINTER PTE OR BALS PER 1000 SF.
7. TOPSOIL STOCKPILES ON AGRICULTURAL AREAS LEFT IN PLACE DURING OCTOBER 31 AND MAY 31 SHALL BE MULCHED WITH STRAW AT A RATE OF TWO TO THREE BALS PER 1000 SF TO PREVENT SOIL LOSS.
8. THE SURFACE OF THE ACCESS ROADS LOCATED OUTSIDE OF THE FENCED AREA AND CONSTRUCTED THROUGH AGRICULTURAL FIELDS SHALL BE LEVEL WITH THE ADJACENT FIELD SURFACE, UNLESS OTHERWISE NOTED.
9. THE CONTRACTOR SHALL ENSURE THAT NO VEHICLES OR EQUIPMENT ARE ALLOWED OUTSIDE THE DESIGNED LIMIT OF DISTURBANCE. VEHICLE ACCESS SHALL BE LIMITED TO THE ACCESS ROADS AND/OR DESIGNATED WORK AREAS WITH THE EXCEPTION OF LOW GROUND PRESSURE EQUIPMENT.
10. ALL BARRIED UTILITIES LOCATED WITHIN THE FENCED AREA MUST HAVE A MINIMUM COVER DEPTH OF 18 INCHES IF LOCATED WITHIN CONDUIT AND 24 INCHES IF DIRECTLY BURIED.
11. ALL BURIED UTILITIES LOCATED OUTSIDE OF THE FENCED AREA SHALL HAVE A MINIMUM COVER DEPTH OF 48 INCHES IF LOCATED WITHIN CONDUIT AND 60 INCHES IF DIRECTLY BURIED. UTILITIES IN EXCESS OF 48 INCHES COVER DEPTH SHALL BE REPAIRED OR RELOCATED. THE ELECTRICAL CONDUITS MUST BE BURIED BELOW THE SURFACE OF THE BARBEROCK OR PRAIRIE/ARABLE AREAS AS POSSIBLY TO THE SURFACE OF THE BARBEROCK. ALL BURIED UTILITIES LOCATED IN UNMOWED GRASSLAND AREAS OR ON LAND PERMANENTLY DEVOTED TO PASTURE SHALL HAVE A MINIMUM COVER DEPTH OF 36 INCHES. WHERE ELECTRICAL CONDUITS ARE BURIED DIRECTLY BELOW THE FENCED AREA, THE ACCESS ROAD OR IMMEDIATELY ADJACENT TO THE ACCESS ROAD THE MINIMUM DEPTH OF COVER MUST BE 24 INCHES.
12. EXCESS STRIPPED TOPSOIL SHALL NOT BE UTILIZED FOR FILL WITHIN THE PROJECT AREAS.
13. EXCESS CONCRETE WILL NOT BE BURIED OR LEFT ON THE SURFACE IN ACTIVE AGRICULTURAL AREAS. CONCRETE BLOCKS WILL BE WASHED OUTSIDE OF ACTIVE AGRICULTURAL AREAS, ON-SITE DISPOSAL OF SUBSOIL, AND ROCK UNWEATHERED FROM CONSTRUCTION RELATED ACTIVITIES IS NOT FERTILIZABLE IN ACTIVE AGRICULTURAL LANDS.
14. CONTRACTOR TO REPAIR ALL SURFACE OR SUBSURFACE DRAINAGE STRUCTURES DAMAGED DURING CONSTRUCTION.
15. RESTORATION WORK ON AGRICULTURAL LAND SHALL BE COMPLETED DURING FAVORABLE (WORKABLE, RELATIVELY DRY) CONDITIONS AND NOT WHILE SOILS ARE IN A WET OR PLASTIC STATE OF CONSISTENCY.
16. IN ALL CONTINUED USE AGRICULTURAL LAND WHERE THE TOPSOIL WAS STRIPPED, SUBSOIL DECOMPOSITION SHALL BE CONDUCTED PRIOR TO TOPSOIL REPLACEMENT TO A DEPTH OF 18 INCHES WITH A TROWEL MOUNTED DIRT SPREADER OR HEAVY-DUTY GRASSLAW FLOW.
17. CONTRACTOR SHALL SEED AREAS FROM WHICH VEGETATION WAS REMOVED OR DESTROYED WITH THE SEED MIX SPECIFIED BY OWNER.

## INDEX OF DRAWINGS

DESCRIPTION

## DING, DRAINAGE, AND EROSION & SEDIMENT CONTROL PLAN

## DETAILS

### SECTION & SEDIMENT CONTROL DETAILS AND NOTES

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MOHAWK SOLAR ARRAY

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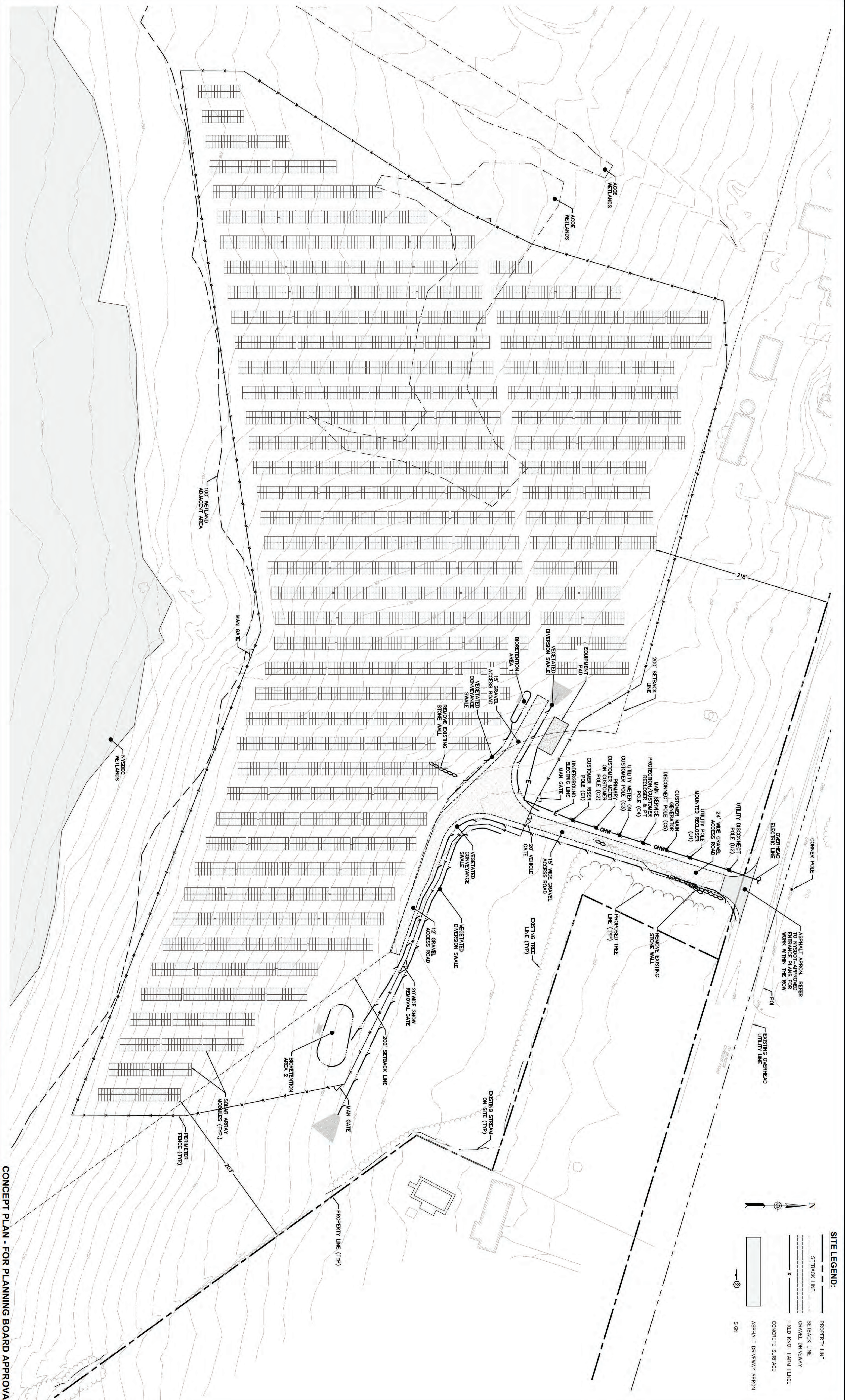
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- Poughkeepsie, NY
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- New York City, NY

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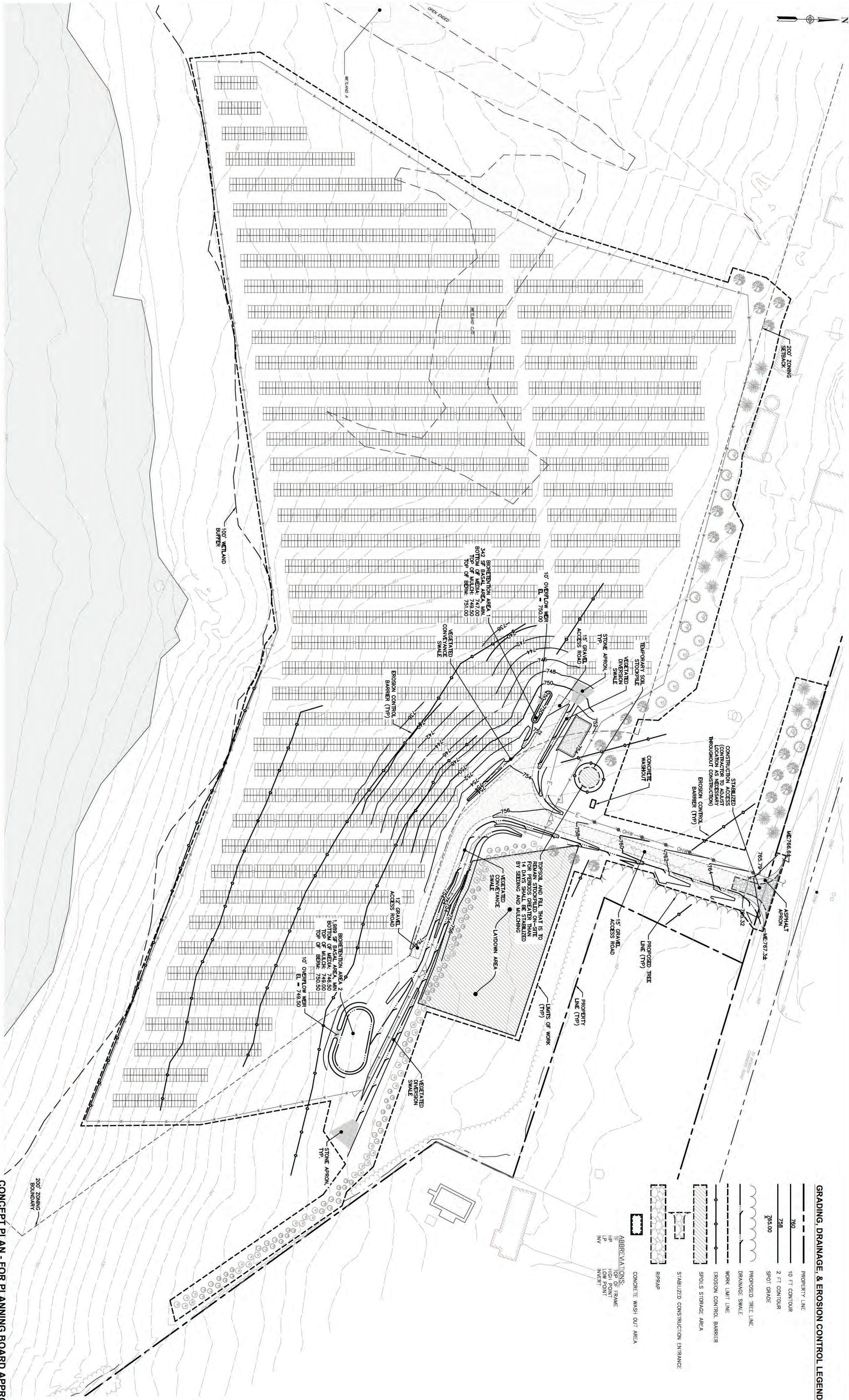
# MOHAWK SOLAR ARRAY

## SITE PLAN

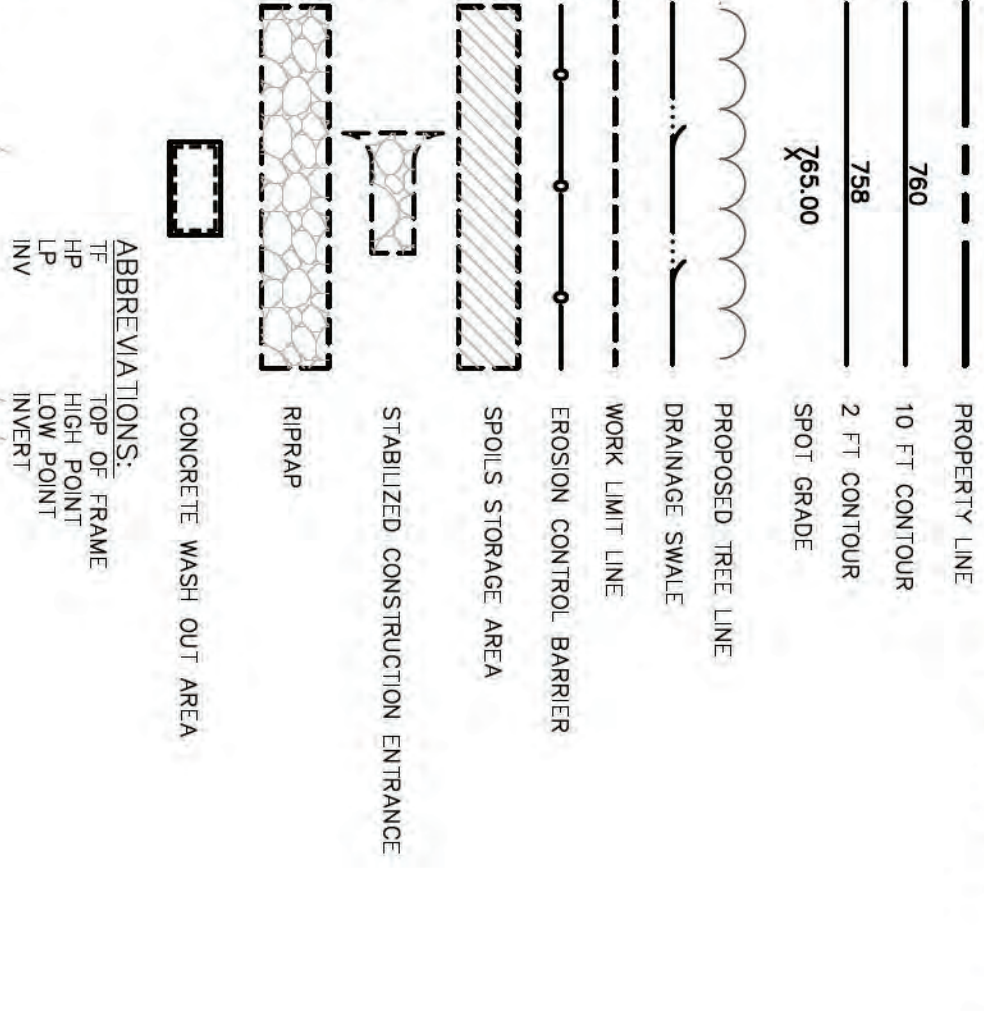
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sheet no. <b>C130</b>	







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2	1/13/21	REVISION	
1	07/22/21	REVISION	

MOHAWK SOLAR ARRAY  
GRADING, DRAINAGE, AND  
EROSION & SEDIMENT CONTROL PLAN

TOWN OF MOHAWK, MONTGOMERY COUNTY, NEW YORK

designed	checked
CAR	WK
date	scale
5/5/21	1"=50'
project no.	
51711.12	
sheet no.	
C140	



PLAN LEGEND:

- PROPERTY LINE

SETBACK LINE

SETBACK LINE

GRAVEL DRIVEWAY

CHAIN LINK FENCE

EVERGREEN TREES

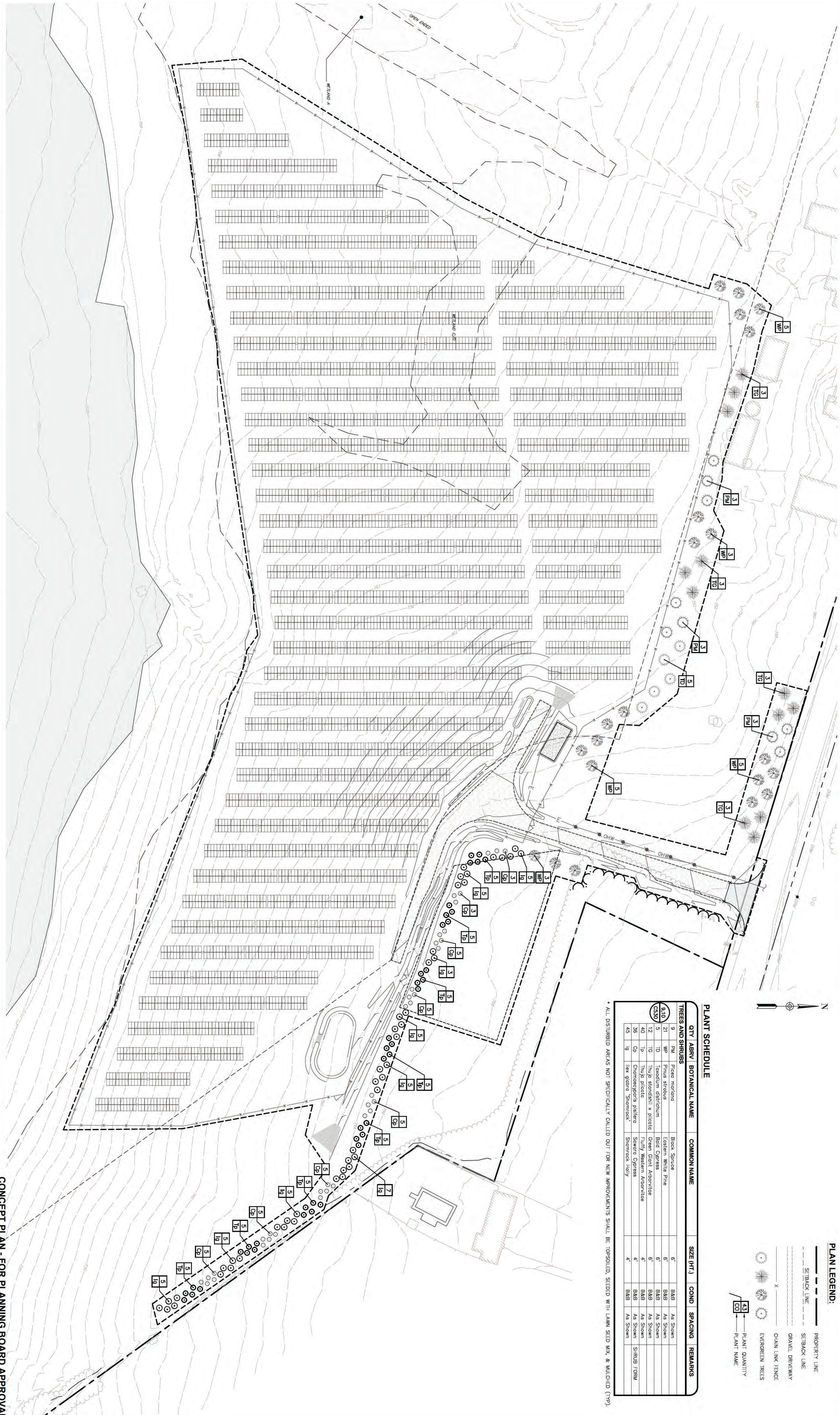
PLANT QUANTITY

PLANT NAME

PLANT SCHEDULE

QTY	ABREV	BOTANICAL NAME	COMMON NAME	SIZE (H.T.)	COND	SPACING	REMARKS
TREES AND SHRUBS							
9	PM	Picea mariana	Black Spruce	6'	B&B	As Shown	
21	WP	Pinus strobus	Eastern White Pine	6'	B&B	As Shown	
5	TD	Toxodum distichum	Bald Cypress	6'	B&B	As Shown	
12	TC	Thuja standishii x plicata	Green Giant Arborvitae	6'	B&B	As Shown	
40	TP	Thuja plicata	Fully Western Arborvitae	4'	B&B	As Shown	
36	CP	Chamaecyparis palmeri	Sawara Cypress	4'	B&B	As Shown	SHRUB FORM
45	IG	Ilex glabra 'Shamrock'	Shamrock Hely	4'	B&B	As Shown	

\* ALL DISTURBED AREAS NOT SPECIFICALLY CALLED OUT FOR NEW IMPROVEMENTS SHALL BE TOP-SOILED, SEEDED WITH LAWN SEED MIX, & MULCHED (TYP).



CONCEPT PLAN - FOR PLANNING BOARD APPROVAL

0 1 2 3  
ORIGINAL SCALE IN INCHES

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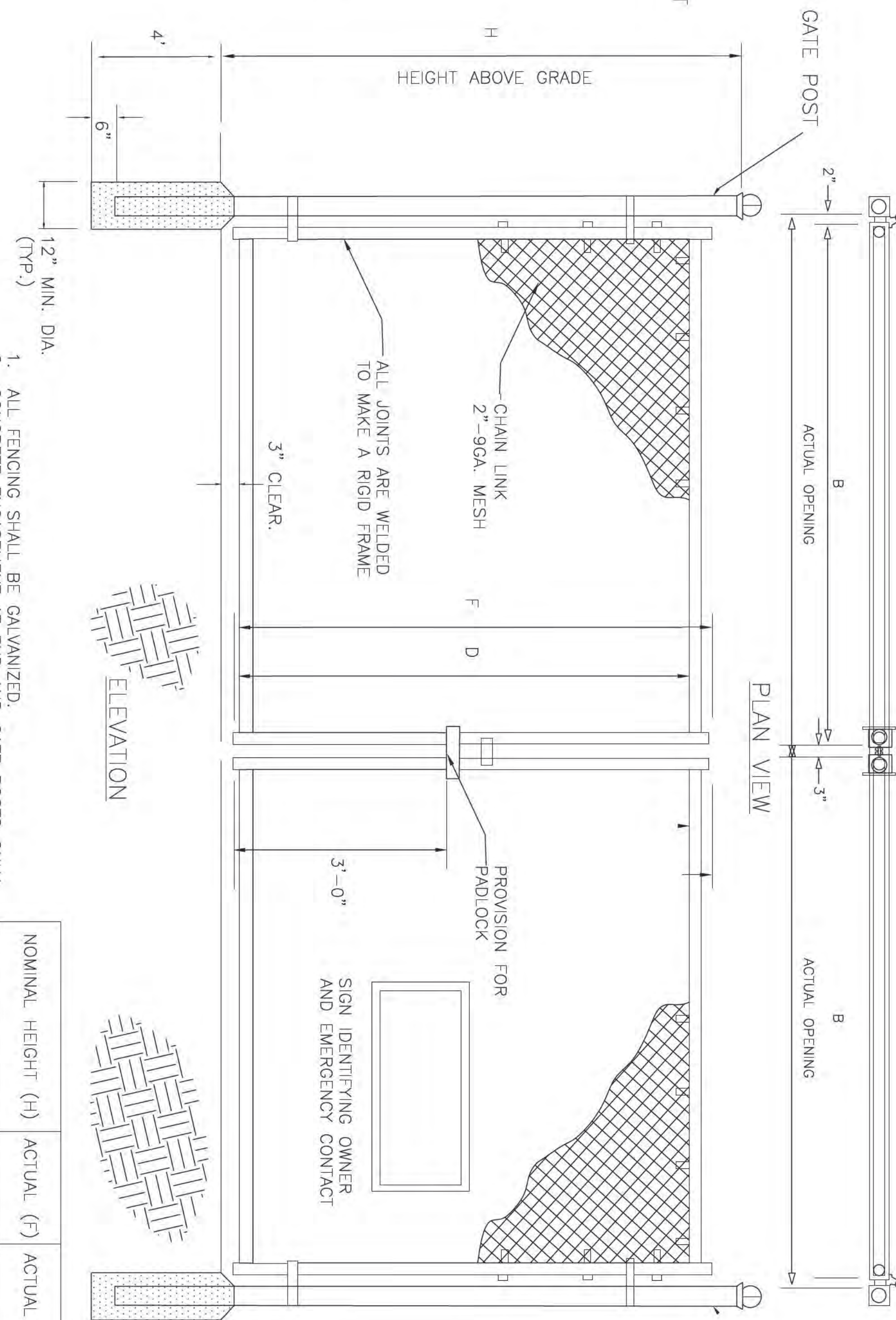
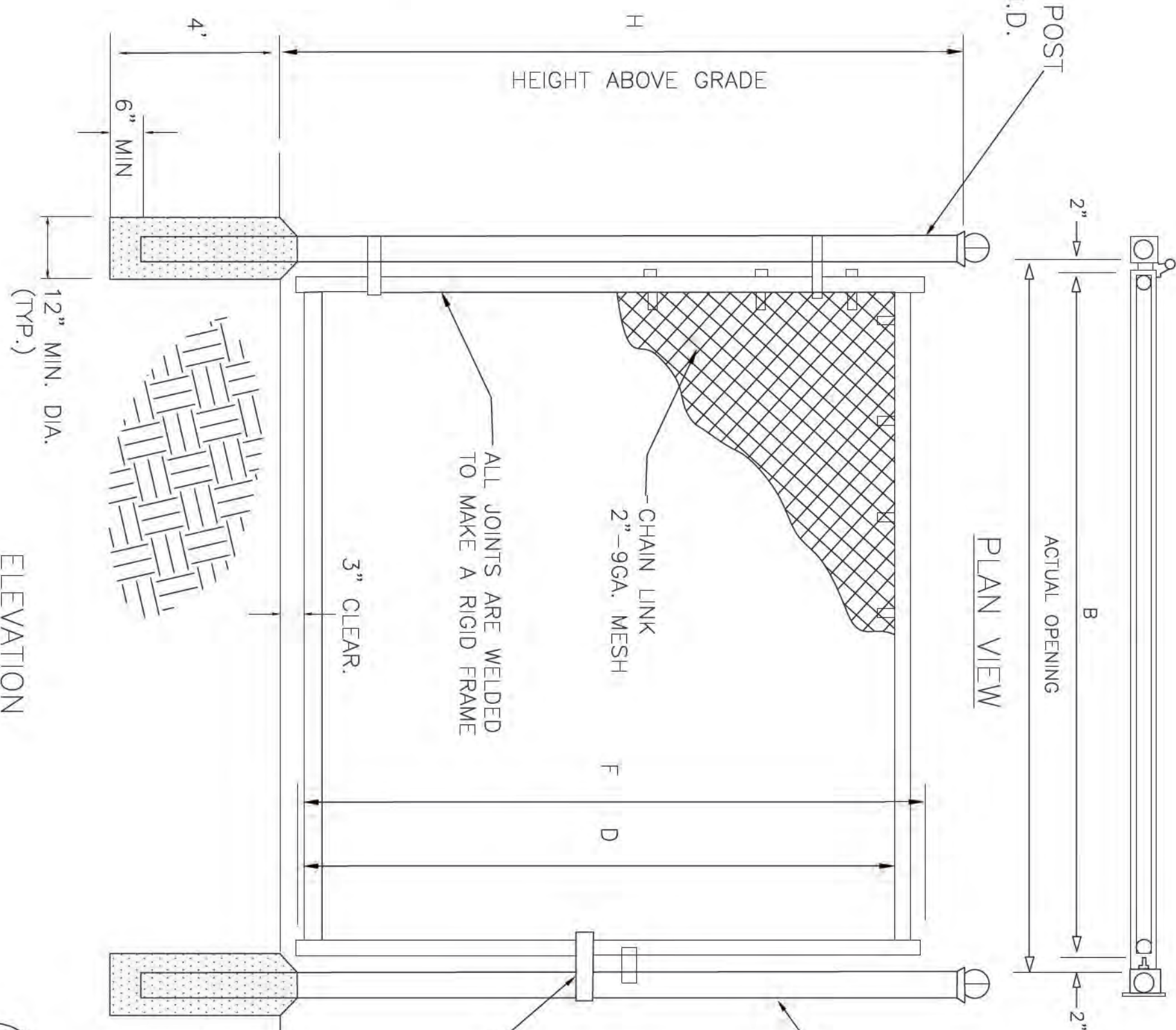
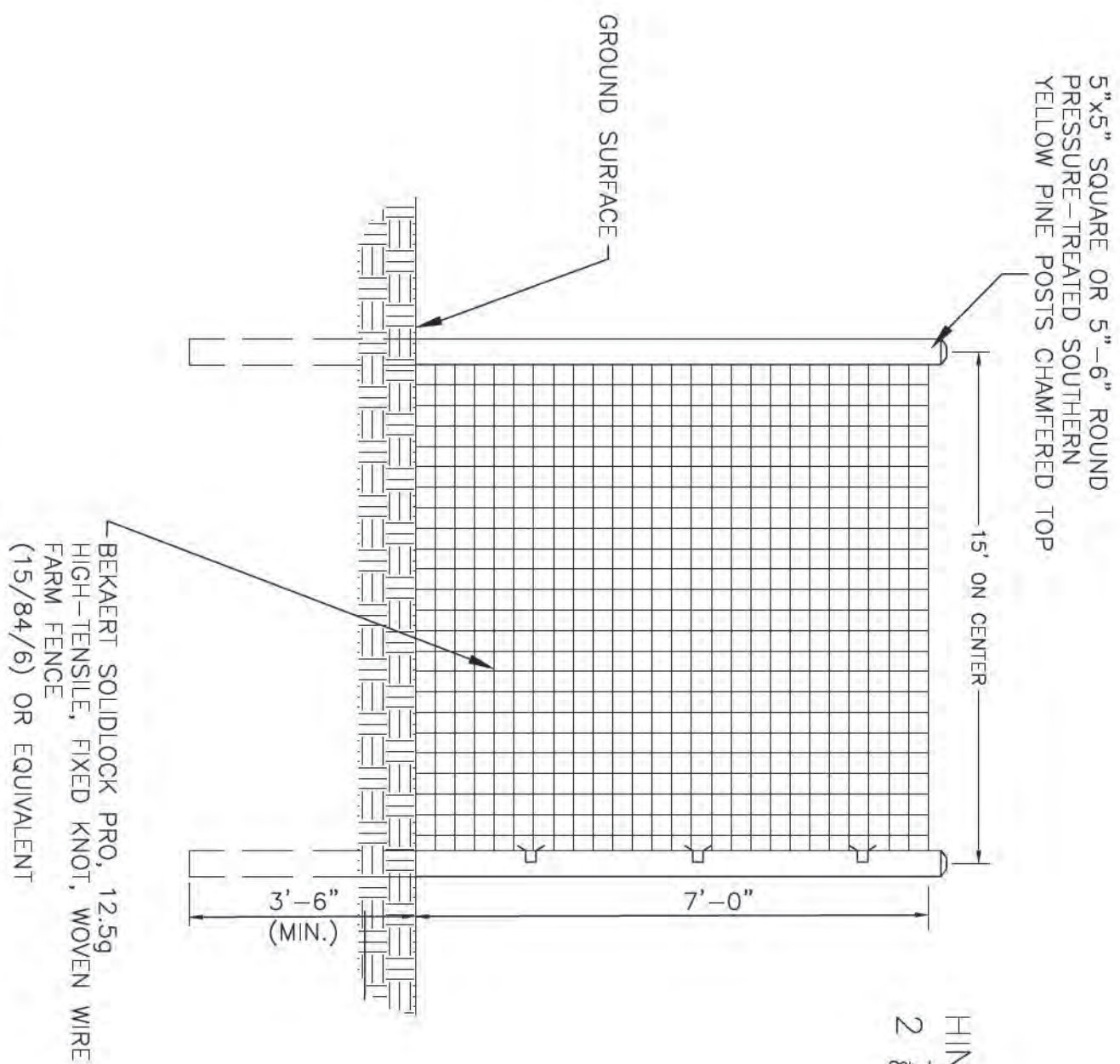
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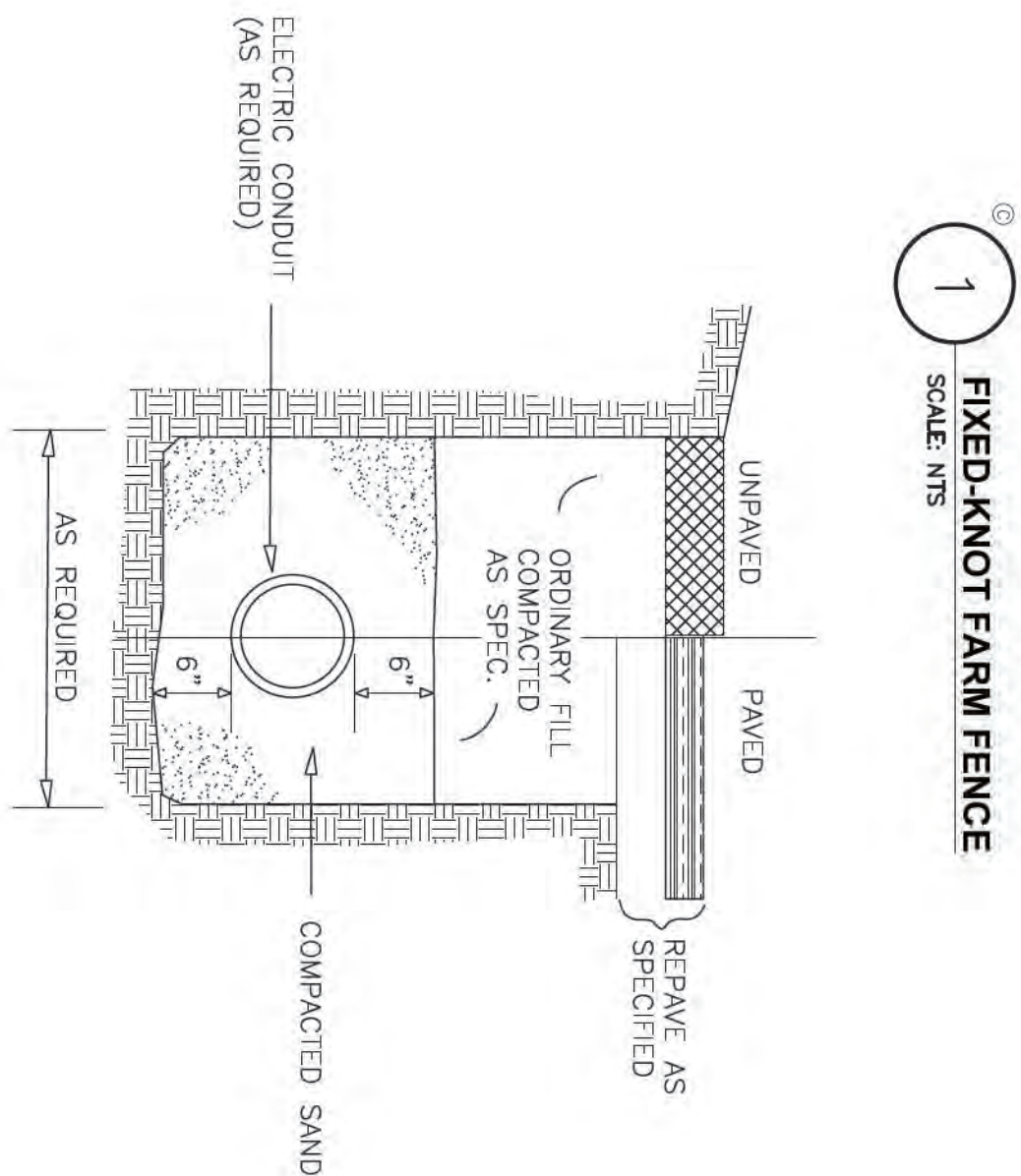
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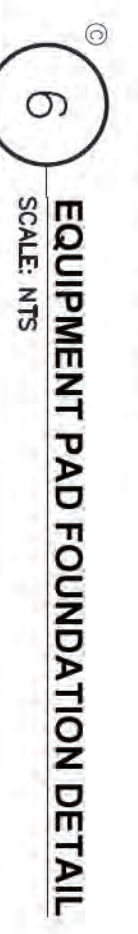
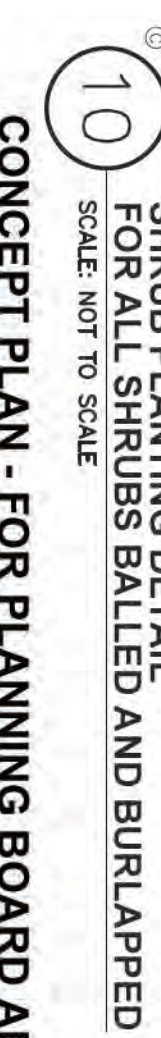
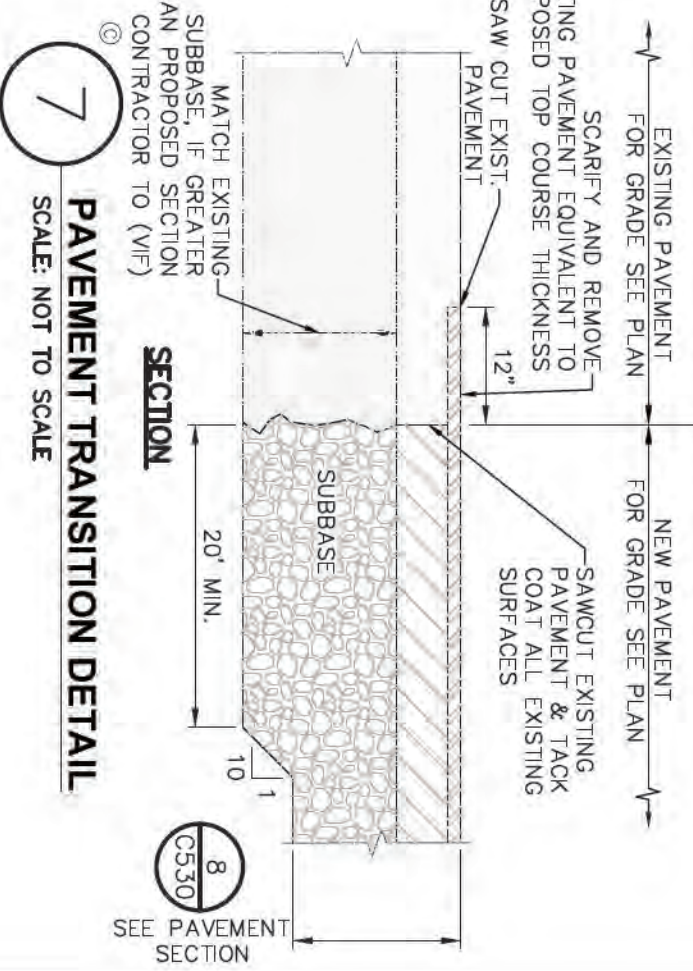
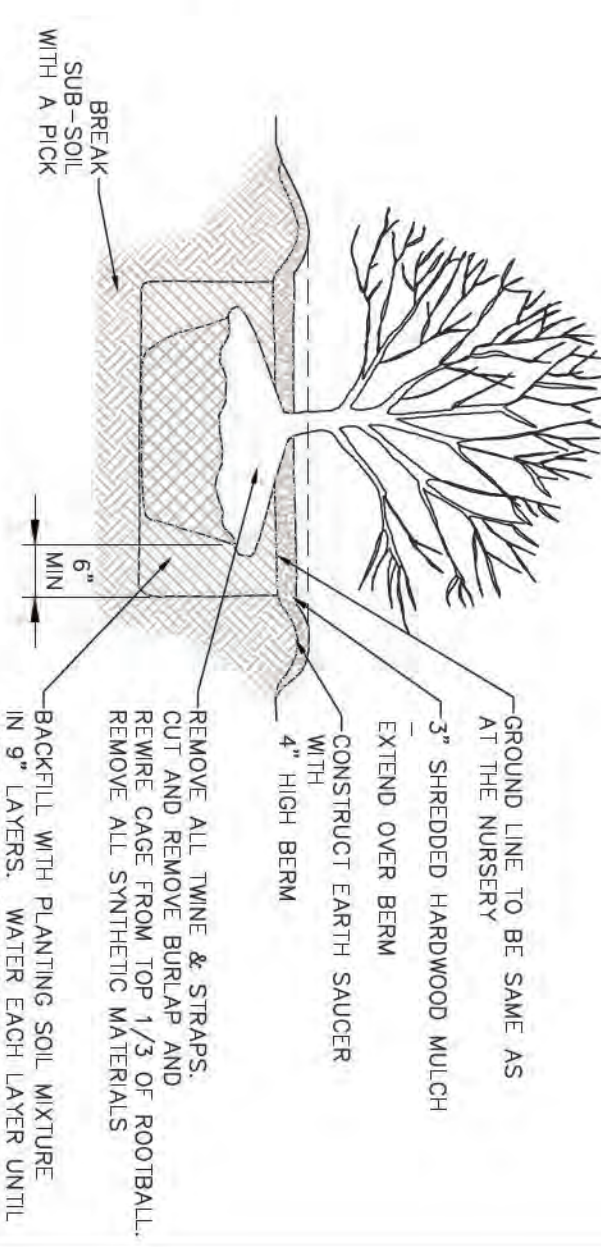
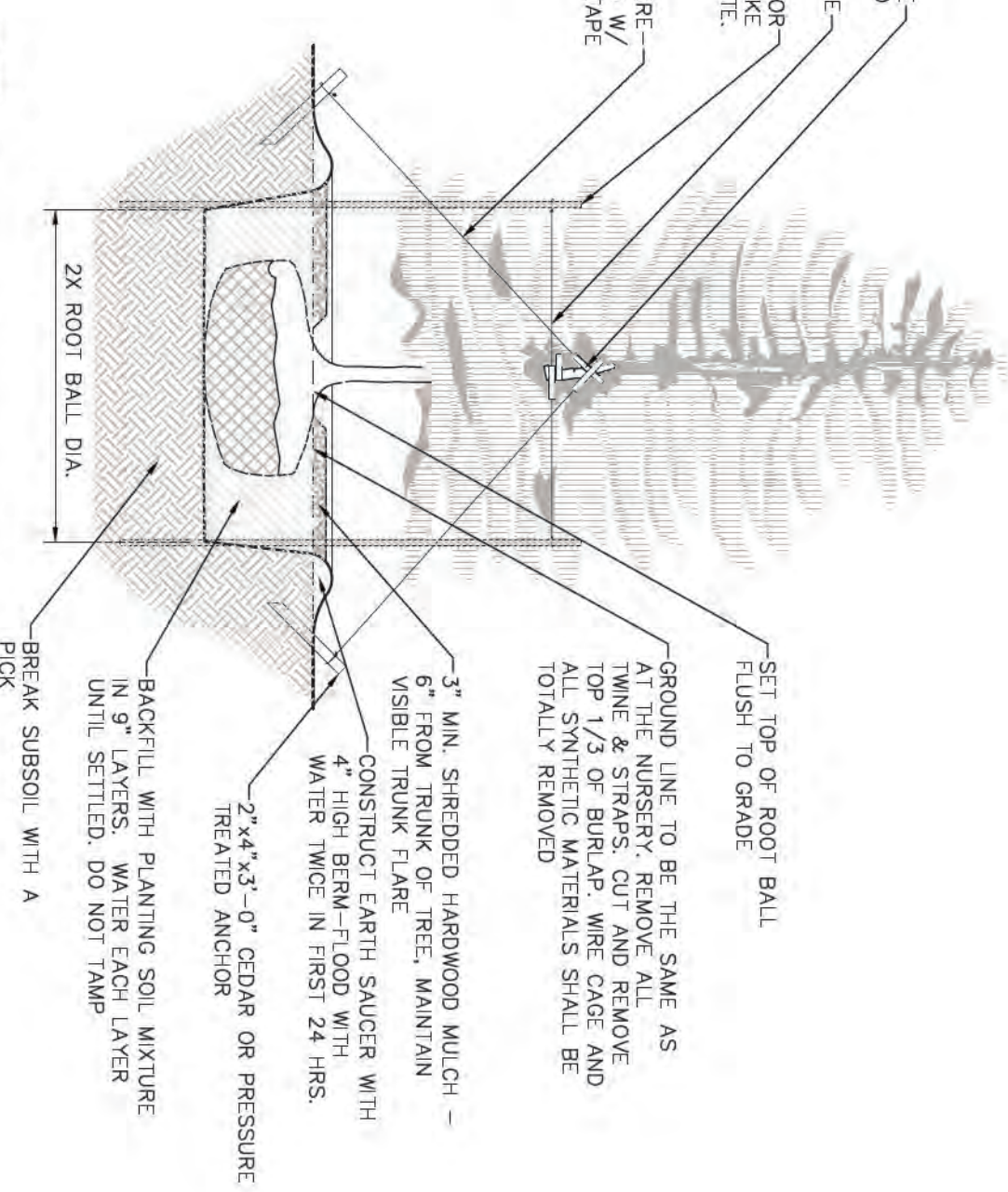
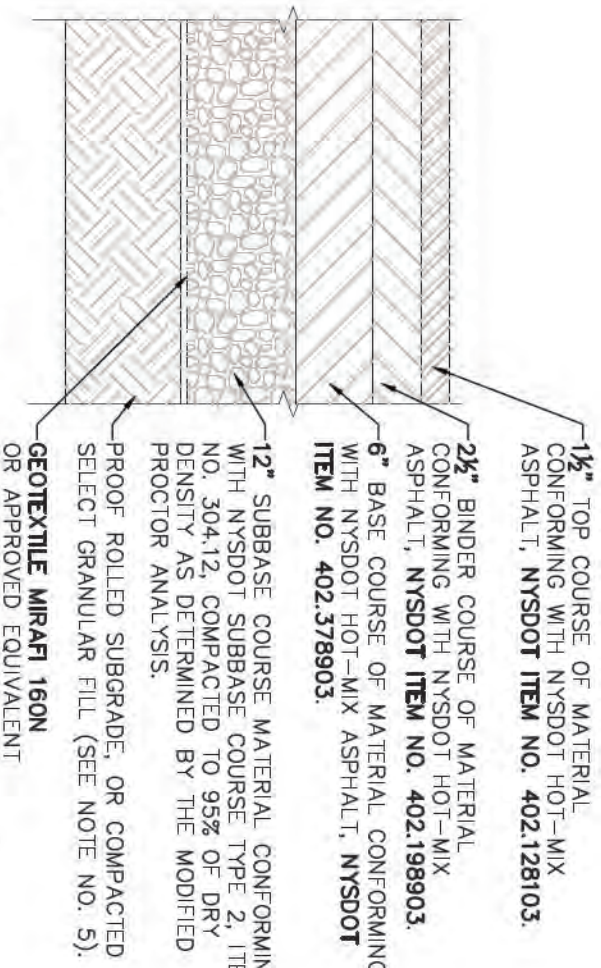
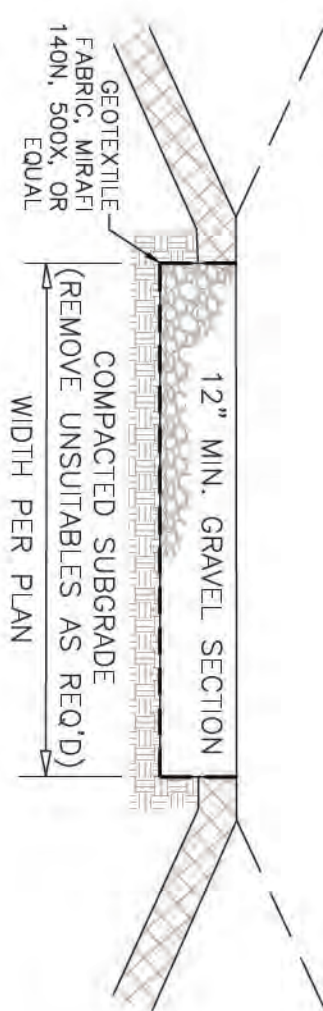
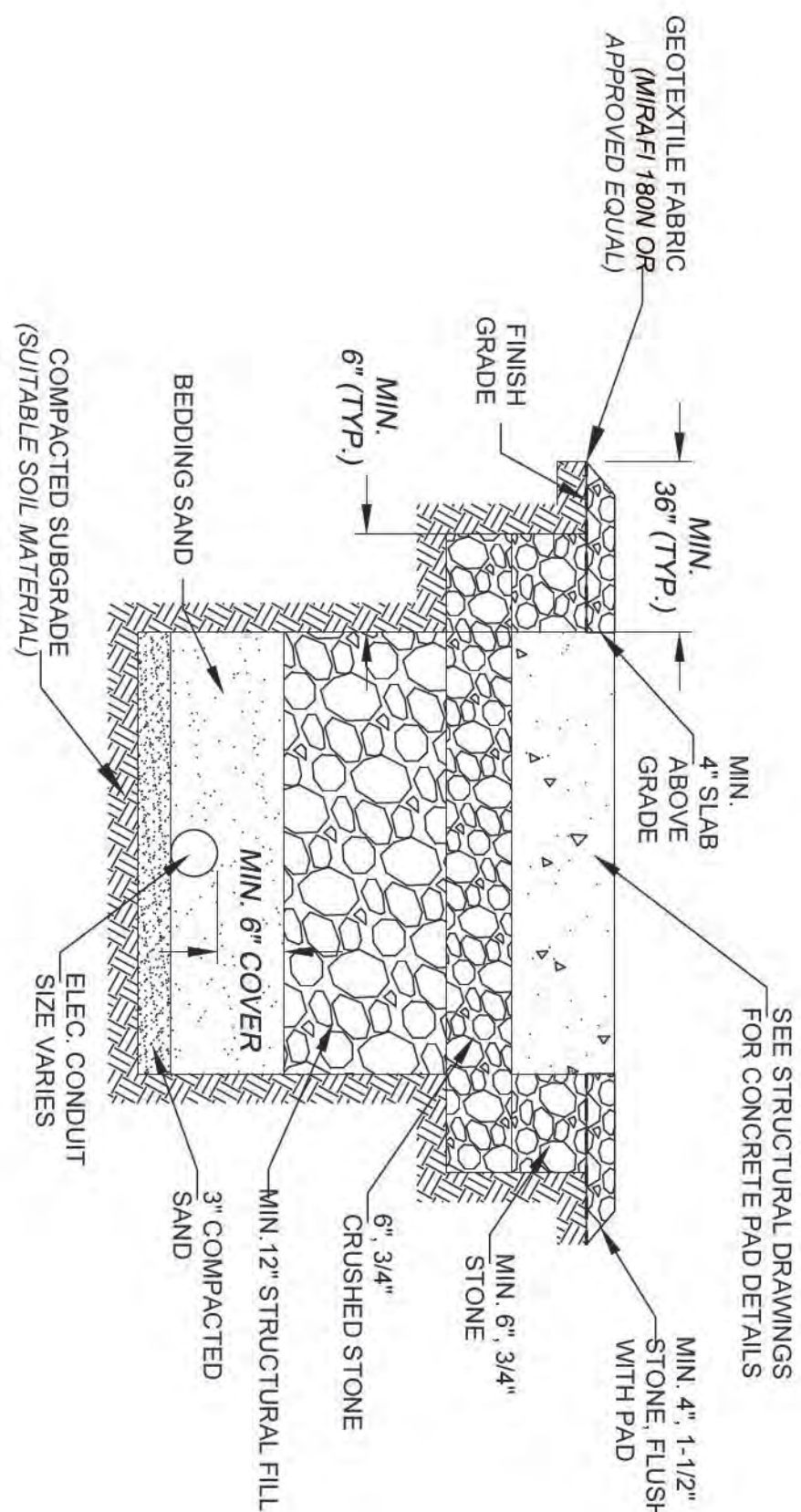
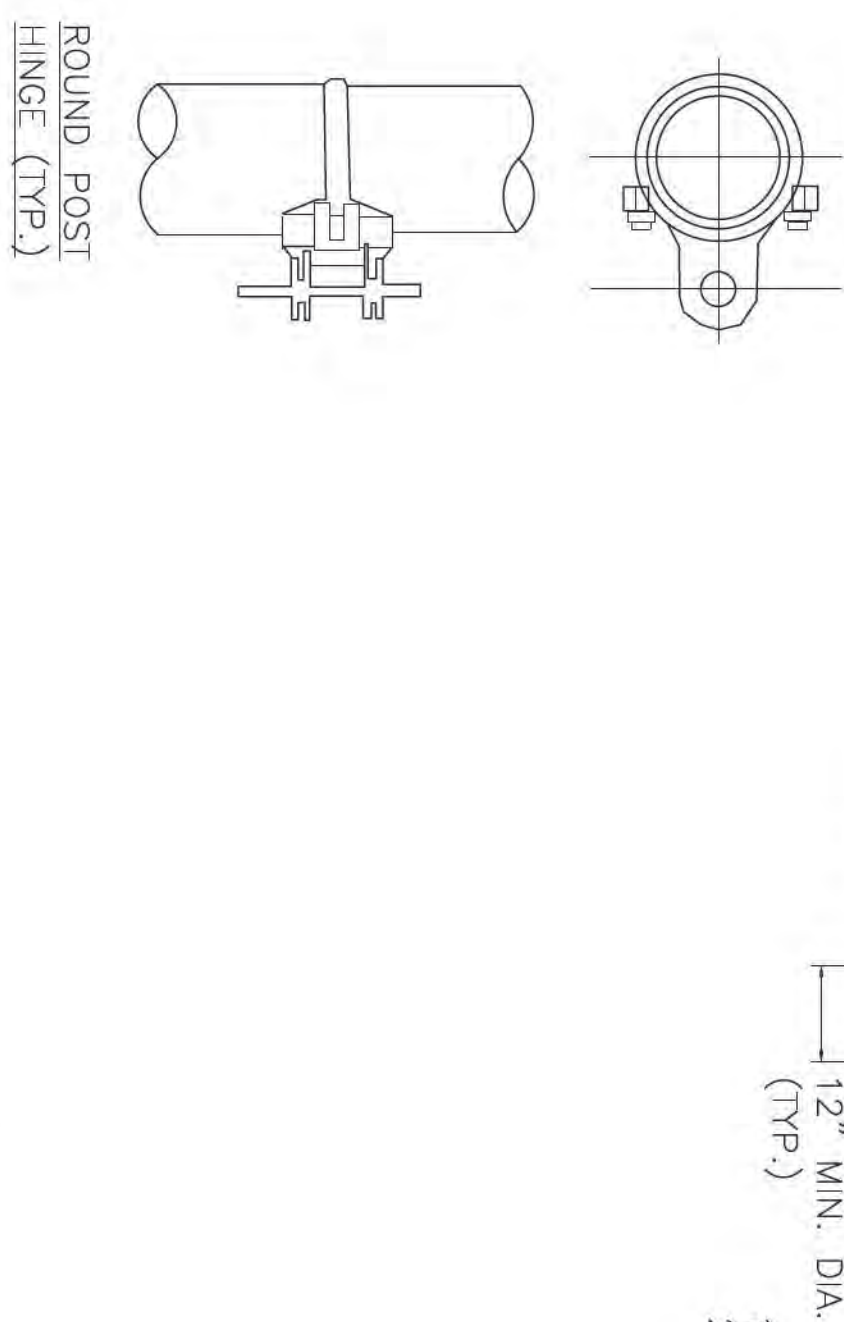




NOMINAL HEIGHT (H)	ACTUAL (F)	ACTUAL (D)	OPENING (B)
7'-0"	6'-10"	6'-8 1/2"	10'-0"



NOMINAL HEIGHT (H)	ACTUAL (F)	ACTUAL (D)	OPENING (B)
7'-0"	6'-10"	6'-8 1/2"	4'-0"









## **Appendix B: SEQR FEAR**

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**Full Environmental Assessment Form**  
**Part 3 - Evaluation of the Magnitude and Importance of Project Impacts**  
**and**  
**Determination of Significance**

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

**Reasons Supporting This Determination:**

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

The Planning Board identified three areas of impact on Part 2 of the Full EAF form for the NexAmp Solar project (as outlined below). However, after further review and consideration, the Planning Board, as Lead Agency, determined that there would not be a significant adverse impact to the environment as a result of this project.

- 1.) FEAF Pt. 2, Section 1(e): While the proposed action would involve construction that may continue for more than a year (partially due to the construction season being interrupted during the winter), there will be no or little additional impacts as a result of the construction time frames.
- 2.) FEAF Pt. 2, Section 9(f): There is another solar project within a half-mile of the site of the proposed NexAmp project. However, this proximity will not cause the proposed project to have any moderate or large impacts on the Town's aesthetic resources.
- 3.) FEAF Pt. 2, Section 18(f): Although the proposed project is inconsistent with the character of the existing natural landscape (insofar as it will develop otherwise vacant land), the solar facility will have little to no impact on the Town's community character.

**Determination of Significance - Type 1 and Unlisted Actions**

SEQR Status:

☒ Type 1

☐ Unlisted

Identify portions of EAF completed for this Project:

☒ Part 1

☒ Part 2

☒ Part 3



Upon review of the information recorded on this EAF, as noted, plus this additional support information

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the  
Town of Mohawk Planning Board as lead agency that:

☒ A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

☐ B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.7(d)).

☐ C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action: NexAmp Solar

Name of Lead Agency: Town of Mohawk Planning Board

Name of Responsible Officer in Lead Agency: Patrick Clear

Title of Responsible Officer: Planning Board Chairman

Signature of Responsible Officer in Lead Agency:

Date: 8/17/21

Signature of Preparer (if different from Responsible Officer)

Date:

**For Further Information:**

Contact Person: Edward Bishop, Town Supervisor

Address: 2-4 Park Street, Fonda, New York 12068

Telephone Number: (518) 853-3031

E-mail: embishop0616@yahoo.com

**For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:**

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)

Other involved agencies (if any)

Applicant (if any)

Environmental Notice Bulletin: <http://www.dec.ny.gov/enb/enb.html>

*Full Environmental Assessment Form Part 1*  
**NEXAMP MOHAWK SOLAR PROJECT**

2778 NY Route 67  
Town of Mohawk  
Montgomery County, New York

June 1<sup>st</sup>, 2021



Engineers  
Land Surveyors  
Planners  
Environmental Professionals  
Landscape Architects

Prepared by:  
The Chazen Companies  
4 British American Boulevard  
Latham, NY 12110

Prepared for:  
Nexamp, Inc.  
101 Summer Street, 2<sup>nd</sup> Floor  
Boston, MA 02110

## **CONTENTS**

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- Figure 2: Orthophoto Tax Map
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- Figure 4: Land Use Map
- Figure 5: Soils Map
- Figure 6: NYSDEC Environmental Resource Map
- Figure 7: NYSOPRHP Cultural Resource Information System (CRIS) Map
- Figure 8: Map of Publicly Accessible Federal, State, or Local Scenic or Aesthetic Resources

#### **ATTACHMENTS**

- Attachment A: NYSDEC Correspondence and USFWS Official Species List



## PROJECT DESCRIPTION

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## PROJECT NARRATIVE

### Introduction

The Applicant, Nexamp, Inc., is proposing the construction of a 2.4 megawatt (MW), alternating current (AC) solar energy farm (ground-mounted photovoltaic or "PV" system) on a portion of a 132-acre parcel located at 2778 NY Route 67 in the Town of Mohawk, Montgomery County, NY. The subject parcel is identified on the Town's official tax map as Tax Parcel #22-2-3.1 and currently consists of agricultural land and undeveloped forest land. The proposed solar farm will be located on the northeastern portion of an existing agricultural field, with minimal forestland disturbance; the remainder of the subject parcel would continue to be occupied by agricultural and forest land.

For the purpose of this Full Environmental Assessment Form (FEAF), the "Project Area" is defined as the 132-acre Tax Parcel #22-2-3.1. The project would involve approximately 4 acres of physical ground disturbance, which would be limited to the installation of panel poles, power line trenching, inverter pad, construction entrance, access drive, and tree clearing. The New York State Department of Environmental Conservation (NYSDEC) has determined that solar panels do not constitute impervious surface for stormwater management purposes as such, the project would result in approximately 0.6 acres of new impervious surface area.

### Zoning

According to the Town of Mohawk Zoning Map, the Project Area is zoned Residential (R-1) and Agricultural (A); the R-1 district is mapped to a depth of 250 feet from NY Route 67, with the remainder of the Project Area zoned A. As outlined in Article V the Town of Mohawk Zoning Law (Local Law No. 1 of 2016), the following uses are permitted as-of-right in R-1 districts: one- or two-family dwellings; churches, parish houses, convents, religious museums; public parks, playgrounds; public buildings or public schools; customary accessory uses or buildings; and mobile homes as part of a farm operation. Permitted uses in A (agricultural) districts include: farms, nurseries, truck gardens, greenhouses, customary agricultural operations; one-family dwellings, two-family dwellings; public parks, playgrounds; public buildings or public schools; churches, parish houses, convents; customary accessory uses or buildings; and mobile homes as part of a farm operation. Solar farms, among other uses, are an allowed Special Use and must also receive site plan approval pursuant to Local Law No. 2 of 2017.

## Permitting

The following permits/approvals are anticipated for the proposed project.

Agency	Permit/Approval
Town of Mohawk Planning Board	SEQRA review and determination; Site Plan and Special Use Permit
Town of Mohawk Zoning Board of Appeals	Zoning area variance
Montgomery County	239m referral
New York State Department of Environmental Conservation (NYSDEC)	GP-0-15-002 (Stormwater Pollution Prevention Plan), Section 401 Water Quality Certificate
New York State Department of Transportation	Driveway entrance permit
NYS Office of Parks, Recreation and Historic Preservation	Project review/consultation
<p>NYSDEC Wetland Permits – a NYSDEC mapped wetland is located partially within the Project Area. No approvals are currently being sought. A Section 401 Water Quality Certificate will be required per below.</p> <p>Federal Wetland Permits – The U.S. Army Corps of Engineer (USACOE) is not an involved agency under SEQRA. Use of a federal wetland permit would trigger the need for a NYSDEC Section 401 Water Quality Certificate (6 NYCRR 608.9). A Nationwide Permit(s) for the project is anticipated.</p>	

The FEAF was completed utilizing the NYSDEC EAF Mapper, based on the entire Project Area parcel. The EAF Mapper tool sometimes indicates limited availability for certain digital data. Further project details are provided in the “Endnotes” section of this document for clarification of, or reference information used in the response.

# FULL ENVIRONMENTAL ASSESSMENT FORM (FEAF) PART 1 WITH ENDNOTES

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**Full Environmental Assessment Form**  
**Part 1 - Project and Setting**

**Instructions for Completing Part 1**

**Part 1 is to be completed by the applicant or project sponsor.** Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

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

**A. Project and Applicant/Sponsor Information.**

Name of Action or Project: Nexamp Mohawk Solar Project		
Project Location (describe, and attach a general location map): 2778 NY Route 67, Town of Mohawk, Montgomery County, NY (p/o Tax Parcel #22-2-3.1)		
Brief Description of Proposed Action (include purpose or need): The Applicant, Nexamp, Inc., is proposing the construction of a 2.4 megawatt (MW), alternating current (AC) solar energy farm (ground-mounted photovoltaic or "PV" system) on a portion of an approximately 132-acre parcel located at 2778 NY Route 67 in the Town of Mohawk, Montgomery County, New York (Tax Parcel #22-2-3.1; the "Project Area"). The Project Area currently consists of agricultural and forestland. The proposed solar farm will be located on the northeastern portion of the Project Area. The Proposed Action would involve approximately 4 acres of physical ground disturbance, which would be limited to the installation of panel pole foundations, power line trenching, inverter pads, construction entrance, access drive, stormwater management practices, and limited tree clearing. The New York State Department of Environmental Conservation (NYSDEC) has determined that solar panels do not constitute impervious surface for stormwater management purposes; as such, the Proposed Action would result in approximately 0.6 acres of new impervious surface area.		
Name of Applicant/Sponsor: Nexamp, Inc. (Ryan McCune)	Telephone: 607-592-5648	
	E-Mail: rrmccune@nexamp.com	
Address: 101 Summer Street, 2nd Floor		
City/PO: Boston	State: MA	Zip Code: 02110
Project Contact (if not same as sponsor; give name and title/role): Same as Applicant	Telephone:	
	E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): Richard Opalka Sr. Estates	Telephone:	
	E-Mail:	
Address: 7219 E. Kramer St.		
City/PO: Mesa	State: AZ	Zip Code: 85207



## B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)		
Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No or Village Board of Trustees		
b. City, Town or Village Planning Board or Commission <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Site Plan, Special Use Permit	June 2021
c. City, Town or Village Zoning Board of Appeals <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Zoning board of appeal, area variance	June 2021
d. Other local agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Montgomery Co. Planning 239m Referral	TBD
f. Regional agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYSDEC GP-0-15-002; NYSOPRHP consultation; NYSDOT driveway	TBD
h. Federal agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	ACOE NWP	
i. Coastal Resources.		
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
iii. Is the project site within a Coastal Erosion Hazard Area?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## C. Planning and Zoning

<b>C.1. Planning and zoning actions.</b>	
Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<ul style="list-style-type: none"> <li>If Yes, complete sections C, F and G.</li> <li>If No, proceed to question C.2 and complete all remaining sections and questions in Part 1</li> </ul>	
<b>C.2. Adopted land use plans.</b>	
a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes, identify the plan(s): 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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes, identify the plan(s): The Project Area is identified as a "Moderate Viability" priority land for protection in Montgomery County's 2017 Agricultural and Farmland Protection Plan.	

### 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?

R-1 residential and Agricultural zoning district

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? Fonda-Fultonville

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

Montgomery County Sherriff

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

Town of Mohawk Volunteer Fire Department

d. What parks serve the project site?

Guy Park, Sir William Johnson Park

### 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)? Utilities

b. a. Total acreage of the site of the proposed action? Approx. 132 acres

b. Total acreage to be physically disturbed? 4 acres

c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? Approx. 132 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: 8-12 months

ii. If Yes:

- Total number of phases anticipated \_\_\_\_\_

- Anticipated commencement date of phase 1 (including demolition) \_\_\_\_\_ month \_\_\_\_\_ year

- Anticipated completion date of final phase \_\_\_\_\_ month \_\_\_\_\_ year

- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: \_\_\_\_\_



f. Does the project include new residential uses? ☐ Yes ☒ No  
 If Yes, show numbers of units proposed.

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

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

i. Total number of structures \_\_\_\_\_ 1 equipment pad

ii. Dimensions (in feet) of largest proposed structure: \_\_\_\_\_ 6' height; \_\_\_\_\_ 20 width; and \_\_\_\_\_ 43 length

iii. Approximate extent of building space to be heated or cooled: \_\_\_\_\_ 0 square feet (no buildings)

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

i. Purpose of the impoundment: \_\_\_\_\_

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

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

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

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

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

---

**D.2. Project Operations**

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

i. What is the purpose of the excavation or dredging? \_\_\_\_\_

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

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

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

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

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

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

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

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan: \_\_\_\_\_

---

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

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): federal wetland area, designated C/D



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: Encroachment will include installation of access road and associated grading. Total impact is approximately 3,000 SF.

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

If Yes, describe: \_\_\_\_\_

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

If Yes:

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

v. Describe any proposed reclamation/mitigation following disturbance: \_\_\_\_\_

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

If Yes:

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

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

If Yes:

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

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

If Yes:

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

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

If Yes:

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

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

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

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

If Yes:

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

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

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

If Yes:

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



<ul style="list-style-type: none"> <li>• Do existing sewer lines serve the project site? _____</li> <li>• Will a line extension within an existing district be necessary to serve the project? _____</li> </ul> <p>If Yes:</p> <ul style="list-style-type: none"> <li>• Describe extensions or capacity expansions proposed to serve this project: _____</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	
<p>iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? _____</p> <p>If Yes:</p> <ul style="list-style-type: none"> <li>• Applicant/sponsor for new district: _____</li> <li>• Date application submitted or anticipated: _____</li> <li>• What is the receiving water for the wastewater discharge? _____</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<p>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): _____</p> <p>_____</p>		
<p>vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____</p> <p>_____</p>		
<p>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? _____</p> <p>If Yes:</p> <p>i. How much impervious surface will the project create in relation to total size of project parcel?</p> <p>_____ Square feet or <u>0.6</u> acres (impervious surface)</p> <p>_____ Square feet or <u>132</u> acres (parcel size)</p> <p>ii. Describe types of new point sources. <u>gravel access road and equipment pad</u></p> <p>_____</p> <p>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)?</p> <p><u>Runoff will be directed to onsite stormwater treatment practices via grass swales. Stormwater practices ultimately will discharge to onsite wetland areas.</u></p> <ul style="list-style-type: none"> <li>• If to surface waters, identify receiving water bodies or wetlands: _____  <u>Federal wetland area, designated C/D, and state wetland area, designated B/Z</u></li> <li>• Will stormwater runoff flow to adjacent properties? _____</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<p>iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? _____</p>		
<p>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? _____</p> <p>If Yes, identify:</p> <p>i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles) _____</p> <p>ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers) _____</p> <p>iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation) _____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<p>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? _____</p> <p>If Yes:</p> <p>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) _____</p> <p>ii. In addition to emissions as calculated in the application, the project will generate:</p> <ul style="list-style-type: none"> <li>• _____ Tons/year (short tons) of Carbon Dioxide (CO<sub>2</sub>)</li> <li>• _____ Tons/year (short tons) of Nitrous Oxide (N<sub>2</sub>O)</li> <li>• _____ Tons/year (short tons) of Perfluorocarbons (PFCs)</li> <li>• _____ Tons/year (short tons) of Sulfur Hexafluoride (SF<sub>6</sub>)</li> <li>• _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs)</li> <li>• _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)</li> </ul>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No



<p>h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Estimate methane generation in tons/year (metric): _____</p> <p>ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____</p>			
<p>i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____</p>			
<p>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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. When is the peak traffic expected (Check all that apply): <input type="checkbox"/> Morning <input type="checkbox"/> Evening <input type="checkbox"/> Weekend  <input type="checkbox"/> Randomly between hours of _____ to _____.</p> <p>ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____</p> <p>iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____</p> <p>iv. Does the proposed action include any shared use parking? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: _____</p> <p>vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p>			
<p>k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? <b>Project is a solar farm, which would generate energy.</b> <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Estimate annual electricity demand during operation of the proposed action: _____</p> <p>ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): _____</p> <p>iii. Will the proposed action require a new, or an upgrade, to an existing substation? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p>			
<p>l. Hours of operation. Answer all items which apply.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>i. During Construction:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____ 7:00 AM - 7:00 PM</li> <li>• Saturday: _____ 7:00 AM - 7:00 PM</li> <li>• Sunday: _____ N/A</li> <li>• Holidays: _____ N/A</li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <p>ii. During Operations: <span style="float: right; font-size: small;">A technician will visit the site approximately six times per year for maintenance inspections.</span></p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____ 24 hours (unmanned)</li> <li>• Saturday: _____ 24 hours (unmanned)</li> <li>• Sunday: _____ 24 hours (unmanned)</li> <li>• Holidays: _____ 24 hours (unmanned)</li> </ul> </td> </tr> </table>		<p>i. During Construction:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____ 7:00 AM - 7:00 PM</li> <li>• Saturday: _____ 7:00 AM - 7:00 PM</li> <li>• Sunday: _____ N/A</li> <li>• Holidays: _____ N/A</li> </ul>	<p>ii. During Operations: <span style="float: right; font-size: small;">A technician will visit the site approximately six times per year for maintenance inspections.</span></p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____ 24 hours (unmanned)</li> <li>• Saturday: _____ 24 hours (unmanned)</li> <li>• Sunday: _____ 24 hours (unmanned)</li> <li>• Holidays: _____ 24 hours (unmanned)</li> </ul>
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<p>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration:</p> <p>Temporary noise that exceeds local ambient levels may occur during construction, but would be limited to intermittently during the short-term (3-month) construction period. No noise above local ambient levels would be produced during operation of the facility.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>Describe: The project would require the removal of some trees and foliage in the Project Area, but would retain surrounding natural growth to the extent practicable to serve as a noise barrier/screen. New screening plantings are proposed as part of the Project.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>n. Will the proposed action have outdoor lighting? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If yes:</p> <p>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>Describe: The project would require removal of some trees and foliage in the Project Area, but would retain surrounding natural growth to the extent practicable to serve as a noise barrier/screen. New screening plantings are proposed as part of the Project.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>o. Does the proposed action have the potential to produce odors for more than one hour per day? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Product(s) to be stored _____</p> <p>ii. Volume(s) _____ per unit time _____ (e.g., month, year)</p> <p>iii. Generally, describe the proposed storage facilities: _____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Describe proposed treatment(s):</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>ii. Will the proposed action use Integrated Pest Management Practices? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Describe any solid waste(s) to be generated during construction or operation of the facility:</p> <ul style="list-style-type: none"> <li>• Construction: _____ tons per _____ (unit of time)</li> <li>• Operation : _____ tons per _____ (unit of time)</li> </ul> <p>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</p> <ul style="list-style-type: none"> <li>• Construction: _____</li> <li>• Operation: _____</li> </ul> <p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> <li>• Construction: _____</li> <li>• Operation: _____</li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☒ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): \_\_\_\_\_

ii. Anticipated rate of disposal/processing:

- \_\_\_\_\_ Tons/month, if transfer or other non-combustion/thermal treatment, or
- \_\_\_\_\_ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: \_\_\_\_\_ years

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r. 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): Vacant, community services, recreation

ii. If mix of uses, generally describe:

Mix of agricultural, residential, commercial, community services, recreation, forestland, and vacant land

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b. Land uses and covertsypes on the project site.

Land use or Covertypes	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.91	1.5	
• Forested	63.79	63.5	
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	32.95	38.64	
• Agricultural (includes active orchards, field, greenhouse etc.)	25.69	20	
• Surface water features (lakes, ponds, streams, rivers, etc.)	0.30	0.30	
• Wetlands (freshwater or tidal)	8.36	8.36	
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: _____			

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v. Is the project site subject to an institutional control limiting property uses? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>									
<ul style="list-style-type: none"> <li>• If yes, DEC site ID number: _____</li> <li>• Describe the type of institutional control (e.g., deed restriction or easement): _____</li> <li>• Describe any use limitations: _____</li> <li>• Describe any engineering controls: _____</li> <li>• Will the project affect the institutional or engineering controls in place? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></li> <li>• Explain: _____</li> </ul>									
<b>E.2. Natural Resources On or Near Project Site</b>									
a. What is the average depth to bedrock on the project site? _____ > 6.5 feet									
b. Are there bedrock outcroppings on the project site? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %									
c. Predominant soil type(s) present on project site: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Appleton silt loam (ApB)</td> <td style="width: 20%; text-align: right;">30 %</td> </tr> <tr> <td>Madalin silty clay loam (Ma)</td> <td style="text-align: right;">12 %</td> </tr> <tr> <td>Lansing silt loam, 15-25% (LaD)</td> <td style="text-align: right;">10 %</td> </tr> </table>		Appleton silt loam (ApB)	30 %	Madalin silty clay loam (Ma)	12 %	Lansing silt loam, 15-25% (LaD)	10 %		
Appleton silt loam (ApB)	30 %								
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Lansing silt loam, 15-25% (LaD)	10 %								
d. What is the average depth to the water table on the project site? Average: 0 to > 6.5 feet									
e. Drainage status of project site soils: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;"><input checked="" type="checkbox"/> Well Drained:</td> <td style="width: 40%; text-align: right;">5 % of site</td> </tr> <tr> <td><input checked="" type="checkbox"/> Moderately Well Drained:</td> <td style="text-align: right;">24 % of site</td> </tr> <tr> <td><input checked="" type="checkbox"/> Poorly Drained</td> <td style="text-align: right;">72 % of site</td> </tr> </table>		<input checked="" type="checkbox"/> Well Drained:	5 % of site	<input checked="" type="checkbox"/> Moderately Well Drained:	24 % of site	<input checked="" type="checkbox"/> Poorly Drained	72 % of site		
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<input checked="" type="checkbox"/> Moderately Well Drained:	24 % of site								
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f. Approximate proportion of proposed action site with slopes: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;"><input checked="" type="checkbox"/> 0-10%:</td> <td style="width: 40%; text-align: right;">98 % of site</td> </tr> <tr> <td><input checked="" type="checkbox"/> 10-15%:</td> <td style="text-align: right;">2 % of site</td> </tr> <tr> <td><input checked="" type="checkbox"/> 15% or greater:</td> <td style="text-align: right;">&lt; 1 % of site</td> </tr> </table>		<input checked="" type="checkbox"/> 0-10%:	98 % of site	<input checked="" type="checkbox"/> 10-15%:	2 % of site	<input checked="" type="checkbox"/> 15% or greater:	< 1 % of site		
<input checked="" type="checkbox"/> 0-10%:	98 % of site								
<input checked="" type="checkbox"/> 10-15%:	2 % of site								
<input checked="" type="checkbox"/> 15% or greater:	< 1 % of site								
g. Are there any unique geologic features on the project site? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> 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)? Refer to Figure 3 and Endnote 4. <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span>									
ii. Do any wetlands or other waterbodies adjoin the project site? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span>									
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? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span>									
iv. For each identified regulated wetland and waterbody on the project site, provide the following information: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">• Streams: Name _____</td> <td style="width: 40%;">Classification _____</td> </tr> <tr> <td>• Lakes or Ponds: Name _____</td> <td>Classification _____</td> </tr> <tr> <td>• Wetlands: Name Federal Waters, NYS Wetland, Federal Waters</td> <td>Approximate Size NYS Wetland (in a...</td> </tr> <tr> <td>• Wetland No. (if regulated by DEC) TH-6</td> <td></td> </tr> </table>		• Streams: Name _____	Classification _____	• Lakes or Ponds: Name _____	Classification _____	• Wetlands: Name Federal Waters, NYS Wetland, Federal Waters	Approximate Size NYS Wetland (in a...	• Wetland No. (if regulated by DEC) TH-6	
• Streams: Name _____	Classification _____								
• Lakes or Ponds: Name _____	Classification _____								
• Wetlands: Name Federal Waters, NYS Wetland, Federal Waters	Approximate Size NYS Wetland (in a...								
• Wetland No. (if regulated by DEC) TH-6									
v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If yes, name of impaired water body/bodies and basis for listing as impaired: _____									
i. Is the project site in a designated Floodway? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>									
j. Is the project site in the 100-year Floodplain? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>									
k. Is the project site in the 500-year Floodplain? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>									
l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes:									
i. Name of aquifer: _____									



<p>m. Identify the predominant wildlife species that occupy or use the project site: _____</p> <p style="margin-left: 20px;">Typical Montgomery County species _____</p> <p>_____</p>	
<p>n. Does the project site contain a designated significant natural community? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Describe the habitat/community (composition, function, and basis for designation): _____</p> <p style="margin-left: 20px;">ii. Source(s) of description or evaluation: _____</p> <p style="margin-left: 20px;">iii. Extent of community/habitat: _____</p> <ul style="list-style-type: none"> <li>• Currently: _____ acres</li> <li>• Following completion of project as proposed: _____ acres</li> <li>• Gain or loss (indicate + or -): _____ acres</li> </ul>	
<p>o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing (endangered or threatened): _____</p> <p>_____</p>	
<p>p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing: _____</p> <p>_____</p>	
<p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If yes, give a brief description of how the proposed action may affect that use: _____</p> <p>_____</p>	
<p><b>E.3. Designated Public Resources On or Near Project Site</b></p>	
<p>a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes, provide county plus district name/number: MONT002 _____</p>	
<p>b. Are agricultural lands consisting of highly productive soils present? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p style="margin-left: 20px;">i. If Yes: acreage(s) on project site? Approx. 106 acres</p> <p style="margin-left: 20px;">ii. Source(s) of soil rating(s): USGS soil data - "all areas are prime farmland," "farmland of statewide importance," &amp; "prime farmland if drained" _____</p>	
<p>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature</p> <p style="margin-left: 20px;">ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____</p> <p>_____</p>	
<p>d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. CEA name: _____</p> <p style="margin-left: 20px;">ii. Basis for designation: _____</p> <p style="margin-left: 20px;">iii. Designating agency and date: _____</p>	

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes: <span style="float: right;">Refer to Figure 7 and Endnote 6</span> i. Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> 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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> Refer to Figure 7 and Endnote 6	
g. Have additional archaeological or historic site(s) or resources been identified on the project site? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes: i. Describe possible resource(s): _____ ii. Basis for identification: _____	
h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span> Refer to Figure 8. If Yes: i. Identify resource: NYS Scenic Byway, Schoharie Crossing, Mohawk River State Trailway, and other S/NR-listed sites ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): State recreation, S/NR-listed sites, NYS scenic byway iii. Distance between project and resource: _____ 1.3 - 5 miles.	
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> 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? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span>	

#### 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.

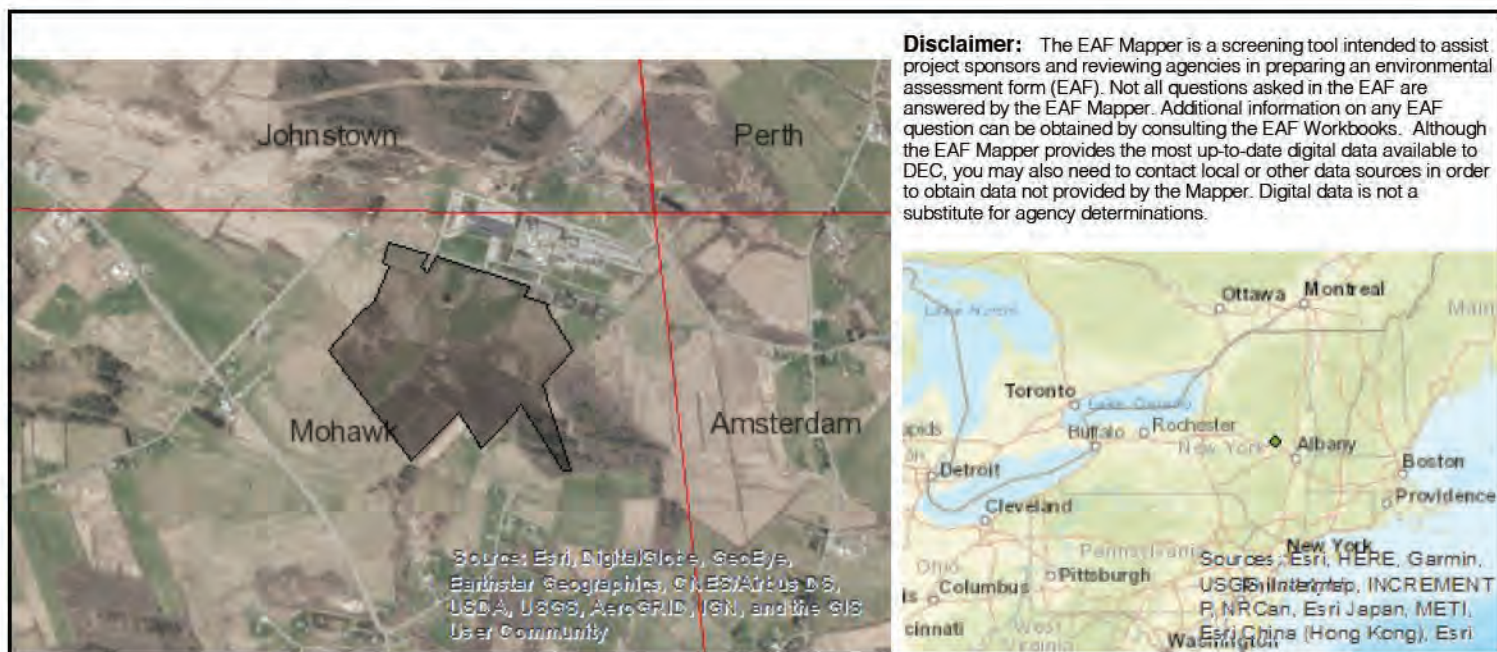
#### G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name \_\_\_\_\_ Date \_\_\_\_\_

Signature \_\_\_\_\_ Title \_\_\_\_\_





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]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters, NYS Wetland
E.2.h.iv [Surface Water Features - Wetlands Size]	NYS Wetland (in acres): 46.8
E.2.h.iv [Surface Water Features - DEC Wetlands Number]	TH-6
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No

E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	Yes
E.3.a. [Agricultural District]	MONT002
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National Register of Historic Places]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	No
E.3.i. [Designated River Corridor]	No



## ENDNOTES

### 1. Project Area

The "Project Area" (for purposes of the FEAF) is the 132-acre tax parcel that contains the proposed solar farm. The Proposed Action would result in approximately 4 acres of physical ground disturbance within the parcel, which would be limited to the foundations for the poles on which the panels are located, power line trenching, inverter pad, construction entrance, access drive, stormwater management facilities, and limited tree clearing.

### 2. Stormwater

A Stormwater Pollution Prevention Plan (SWPPP) is currently being prepared in in conformance with the New York State Stormwater Management Design Manual, dated January 2015 and New York State Standards and Specifications for Erosion and Sediment Control, dated August 2005. The NYSDEC has determined that solar panels do not constitute impervious surface for stormwater management purposes; as such, the project would result in approximately 0.6 acres of new impervious surface area.

### 3. Soils

The following table provides the soil characteristics for each soil type expected to be found within the Project Area, according to available Geographic Information Systems (GIS) information (Figure 4) and the USDA Natural Resources Conservation Service website (<http://efotg.sc.egov.usda.gov/treemenuFS.aspx>).

SOIL SYMBOL	SOIL TYPE	SLOPES	DRAINAGE	DEPTH TO WATER TABLE (CM)	DEPTH TO BEDROCK (CM)
ApB	Appleton silt loam, 3 to 8% slopes	3 to 8%	Somewhat poorly drained	> 200	20
ChA	Churchville silty clay loam, 0 to 3% slopes	0 to 3%	Somewhat poorly drained	> 200	18
ClB	Claverack loamy fine sand, 3 to 8% slopes	3 to 8%	Moderately well drained	> 200	46
DaB	Darien silt loam, 3 to 8% slopes	3 to 8%	Somewhat poorly drained	> 200	18
FL	Fluvaquents, loamy	1%	Poorly drained	> 200	15
Fo	Fonda mucky silt clay loam	2%	Very poorly drained	> 200	0
IIA	Ilion silt loam, 0 to 3% slopes	0 to 3%	Poorly drained	> 200	> 200
IIB	Ilion silt loam, 3 to 8% slopes	3 to 8%	Poorly drained	> 200	0



SOIL SYMBOL	SOIL TYPE	SLOPES	DRAINAGE	DEPTH TO WATER TABLE (CM)	DEPTH TO BEDROCK (CM)
LaB	Lansing silt loam, 3 to 8% slopes	3 to 8%	Well drained	> 200	> 200
LaC	Lansing silt loam, 8 to 15% slopes	8 to 15%	Well drained	> 200	> 200
LaD	Lansing silt loam, 15 to 25% slopes	15 to 25%	Well drained	> 200	> 200
Ma	Madalin silty clay loam	1%	Poorly drained	> 200	0
W	Water	N/A	N/A	> 200	> 200

The area of the proposed solar farm contains primarily the Appleton silt loam, Madalin silty clay loam, and Lansing silt loam, 15 to 25% slopes.

#### 4. *Wetlands and Surface Waters*

According to NYSDEC EAF Mapper, available GIS mapping (Figure 3), and the NYSDEC Environmental Resource Map (Figure 6), one NYSDEC mapped wetland (Wetland ID TH-6) and its associated 100-foot adjacent area are partially located within the southeastern portion of the Project Area. There are no NYSDEC mapped streams within the Project Area. Under the Freshwater Wetlands Act, NYSDEC regulates activities in freshwater wetlands and in their adjacent areas. No impact to the state regulated wetland nor its adjacent area is proposed as part of the project.

The National Wetlands Inventory (NWI) maps one freshwater pond within the Project Area. The NWI wetland map is not a regulatory map; it identifies potential areas of wetlands using remote sensing. Aquatic resources on-site will be determined by a delineation process. The USACOE regulates waters with a significant nexus to Traditionally Navigable Waters. The USACOE regulates the discharge of dredged or fill material into Waters of the United States; typically impacts less than 0.5 acre can be permitted using a Nationwide Permit, with impacts greater than 0.1 acre requiring compensatory mitigation. It is anticipated that Nationwide Permits will be required for this project.

#### 5. *Endangered, Threatened, and/or Rare Species and Significant Natural Communities*

The NYSDEC Environmental Resource Map (Figure 6) indicates that there no rare, threatened, or endangered plants or animals in the vicinity of the Project Area, and this is confirmed by the EAF mapper. In addition, based on NYSDEC data, there is no state involvement with the northern long-eared bat (NLEB). The closest known hibernaculum for this species is approximately 11 miles to the southwest, and there are no known occupied maternity roost trees in the Town of Mohawk.<sup>1</sup> Therefore, the project is more than five miles from a hibernaculum and there are no known maternity roost trees at this site, and given these distances, the Project Area is not subject to the

<sup>1</sup> NYSDEC. 2019. Northern Long-Eared Bat Occurrences by Town. NYSDEC Protection of Northern Long Eared Bats Guidelines. <https://www.dec.ny.gov/animals/106090.html>

special protective measures that NYSDEC requires for this species in “occupied” habitat. There is no additional coordination required with the NYSDEC under 6 NYCRR 182, NYS Endangered Species.

The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) interface identifies the Project Area as being within the range of the northern long-eared bat (NLEB), using different metrics than the NYSDEC. Therefore, the federal regulations concerning the NLEB must be addressed. The NLEB is a species that utilizes trees greater than 3” diameter at breast height (dbh) for summer roosting; it is likely that these trees exist in the Project Area.

The NLEB is listed by the federal government as a threatened species with an allowance for “take” under a 4(d) rule. If the Proposed Action does not involve any federal permits, does not receive any federal funding, and therefore does not have a federal nexus, it would be reviewed under Section 10 of the federal Endangered Species Act. Under the USFWS Section 4(d) rule, which went into effect February 16, 2016, incidental take of the NLEB associated with tree removal is allowed at any time unless the site is within 0.25 mile of a known hibernaculum or within 150-feet of a known roost tree. Given the NYSDEC data cited above, Chazen can conclude that neither of these conditions is present at the Project Area and therefore, under the 4(d) rule for NLEB, and Section 10, there are no restrictions to removal of vegetation at this site. That said, it is noted that clearing the trees during the winter (October 1 to March 30) would ensure no take of the species; clearing the trees outside the June 1 to July 31 timeframe would avoid impacts to any roosting bats or pups.

If it is determined that a federal wetland permit is needed any impacts to the NLEB would be reviewed under Section 7 of the Endangered Species Act as part of a federal wetland permitting process. By law, the Applicant is allowed to clear trees under the 4(d) rule allowing for Incidental Take. Given the amount of forested land in this part of the state, it is unlikely that the removal of trees in this area would constitute a habitat take for the species. Information about impacts to trees and the species would be presented in the Joint Permit Application to the USACOE, and the USACOE would consult with the USFWS as part of the permit review process.

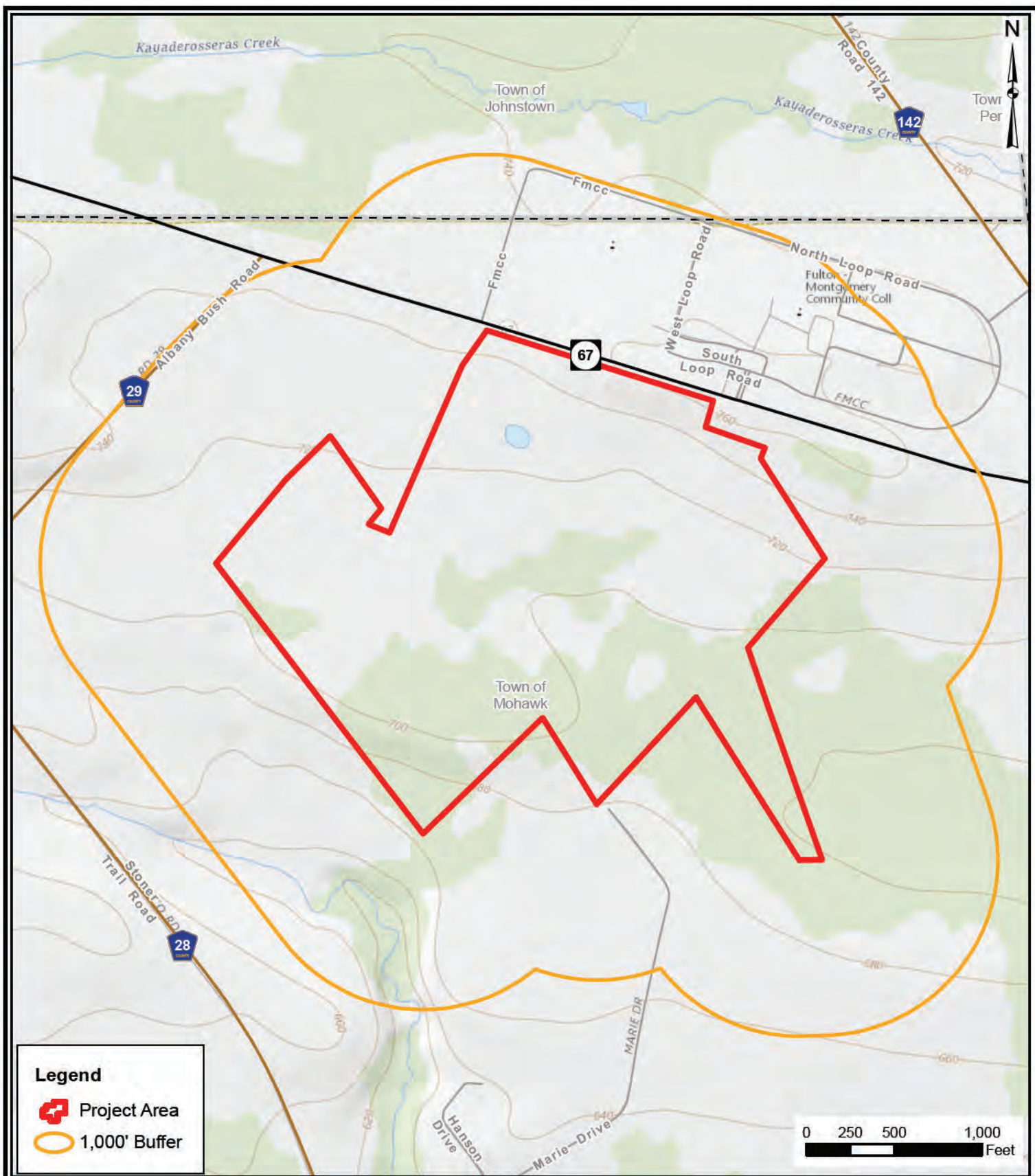
## **6. Cultural/Historic Resources**

According to the NYS Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) Cultural Resource Information System (CRIS) mapping (Figure 7), there are no National or State Historic Register sites on or adjacent to the Project Area parcel, nor is the Project Area located within a known archeologically sensitive area. Therefore, no impacts to cultural resources are anticipated. Project information will be uploaded to the NYSOPRHP CRIS for a review and determination.



## FIGURES

---



#### Legend

- Project Area
- 1,000' Buffer

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**Chazen**  
COMPANIES

ENGINEERS  
LAND SURVEYORS  
PLANNERS  
ENVIRONMENTAL & SAFETY PROFESSIONALS  
LANDSCAPE ARCHITECTS

**Dutchess County Office:**  
21 Fox Street, Poughkeepsie, NY 12601  
Phone: (845) 454-3980

**Capital District Office:**  
547 River Street, Troy, NY 12180  
Phone: (518) 273-0055

**North Country Office:**  
20 Elm Street, Glens Falls, NY 12801  
Phone: (518) 812-0513

#### Nexamp Mohawk Solar Project

### USGS Location Map

2778 NY Route 67, Town of Mohawk, Montgomery County, NY

Drawn:	NRG
Date:	3/29/2019
Scale:	1:9,000
Project:	51711.12
Figure:	1





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## Nexamp Mohawk Solar Project

### Orthophoto Tax Map

2778 NY Route 67, Town of Mohawk, Montgomery County, NY

Drawn:	NRG
Date:	3/27/2019
Scale:	1:14,000
Project:	51711.12
Figure:	2





### Legend



Project Area



NWI Wetlands



NYSDEC-mapped streams

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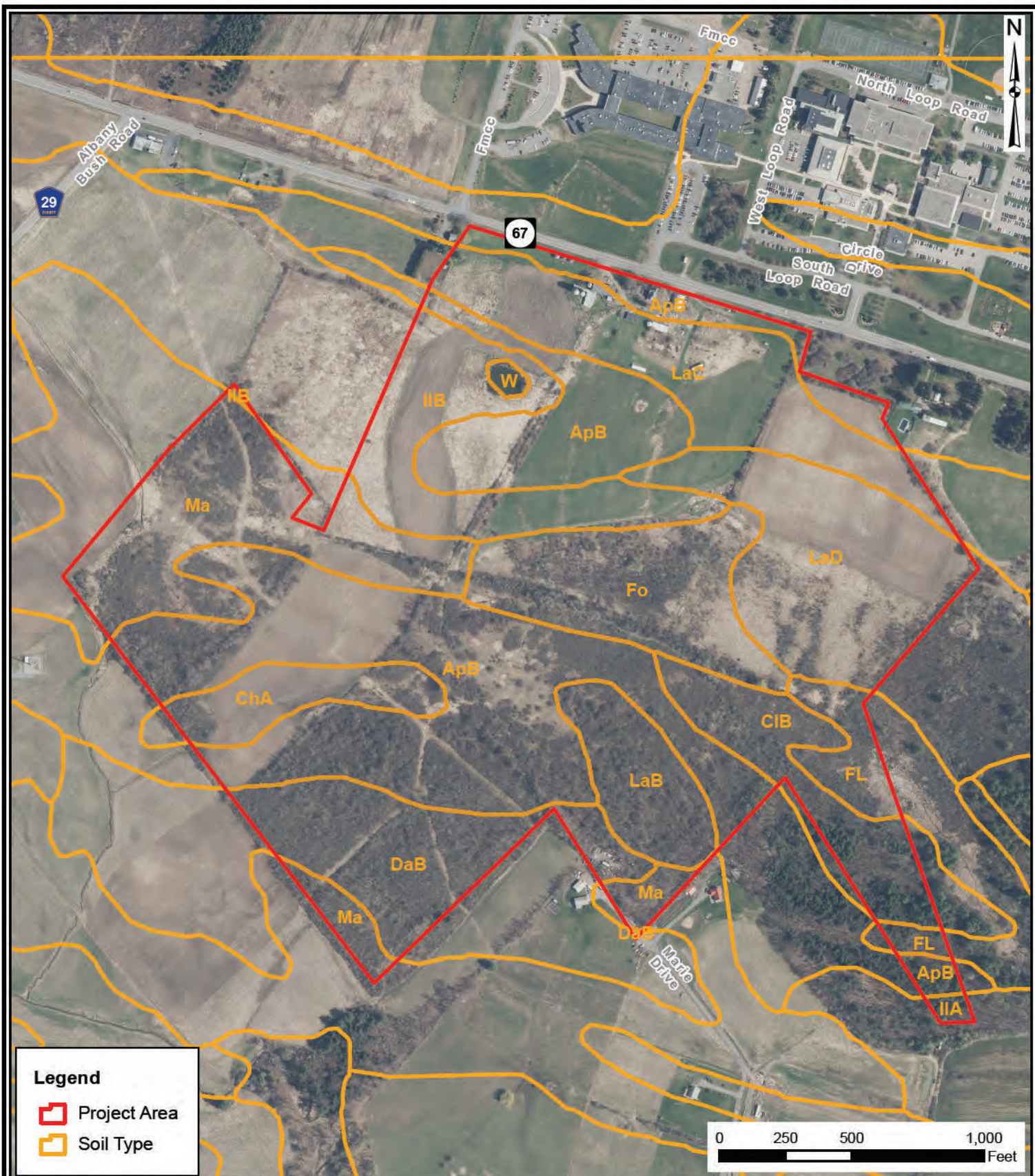
### Nexamp Mohawk Solar Project

## Wetlands & Streams Map

2778 NY Route 67, Town of Mohawk, Montgomery County, NY

Drawn:	NRG
Date:	3/27/2019
Scale:	1:6,000
Project:	51711.12
Figure:	3





#### Legend

- ▮ Project Area
- ▮ Soil Type

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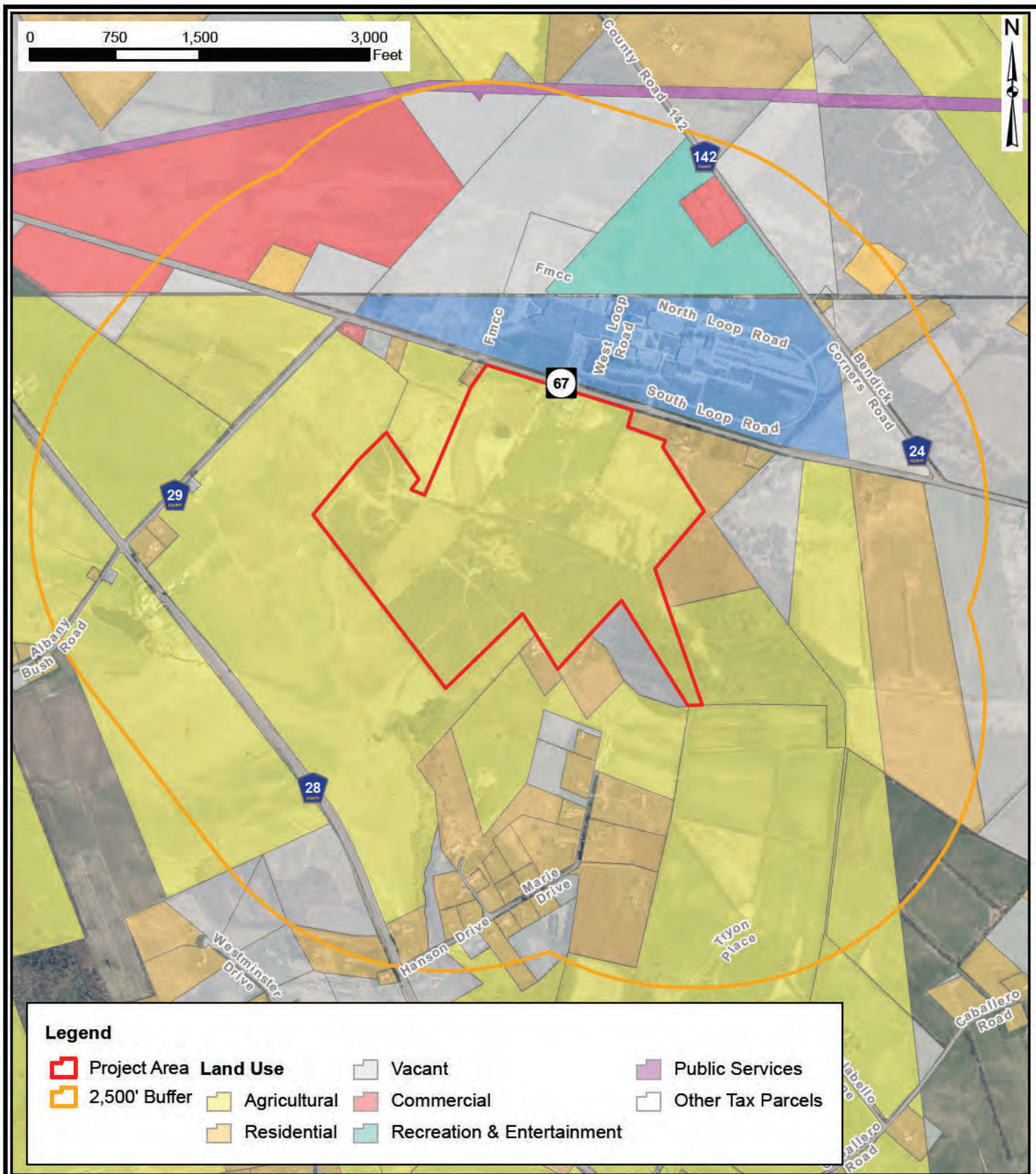
#### Nexamp Mohawk Solar Project

### Soils Map

2778 NY Route 67, Town of Mohawk, Montgomery County, NY

Drawn:	NRG
Date:	3/27/2019
Scale:	1:6,000
Project:	51711.12
Figure:	4





**Legend**

- |               |                 |                            |                   |
|---------------|-----------------|----------------------------|-------------------|
| Project Area  | <b>Land Use</b> | Vacant                     | Public Services   |
| 2,500' Buffer | Agricultural    | Commercial                 | Other Tax Parcels |
|               | Residential     | Recreation & Entertainment |                   |

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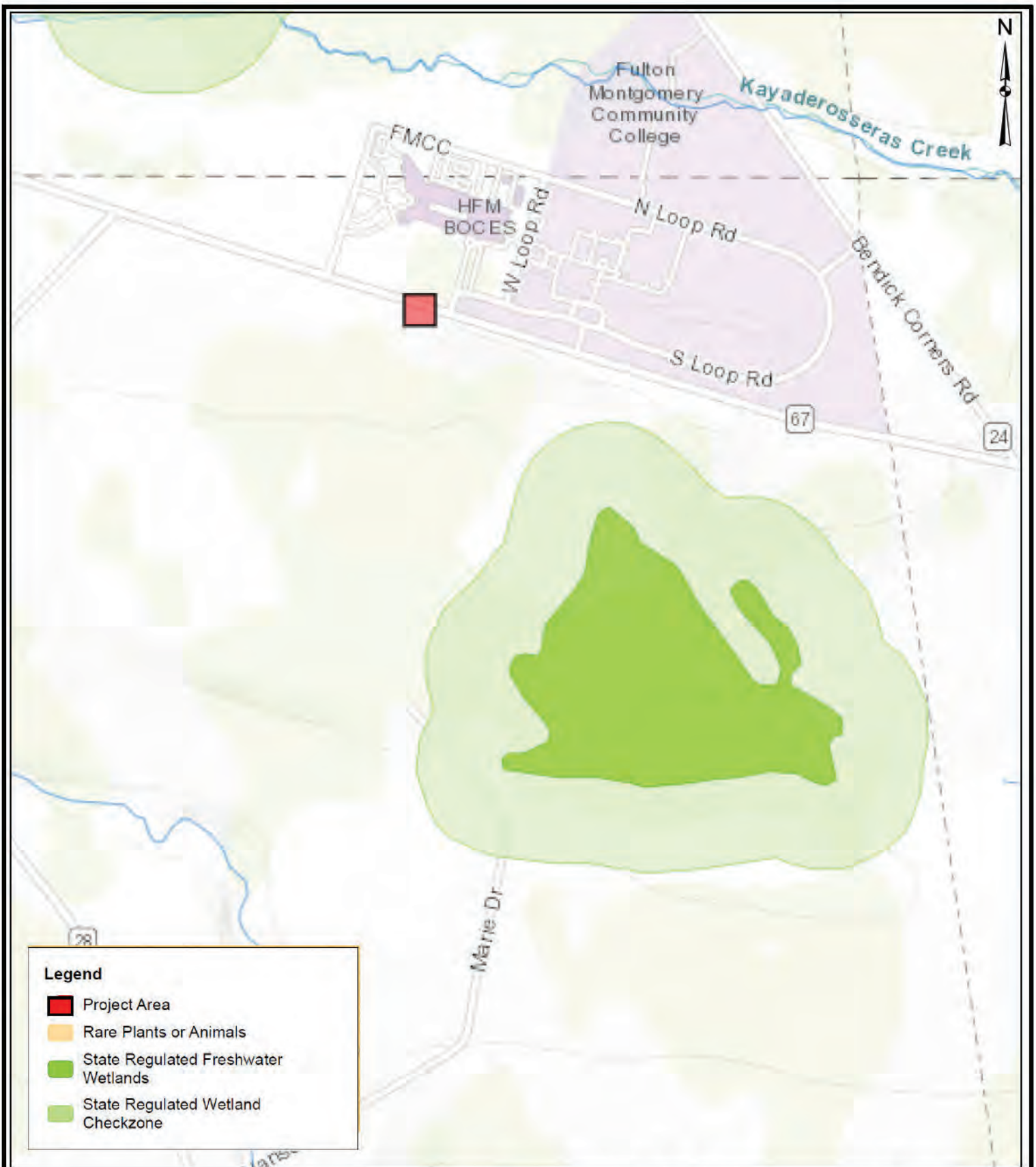
**Nexamp Mohawk Solar Project**

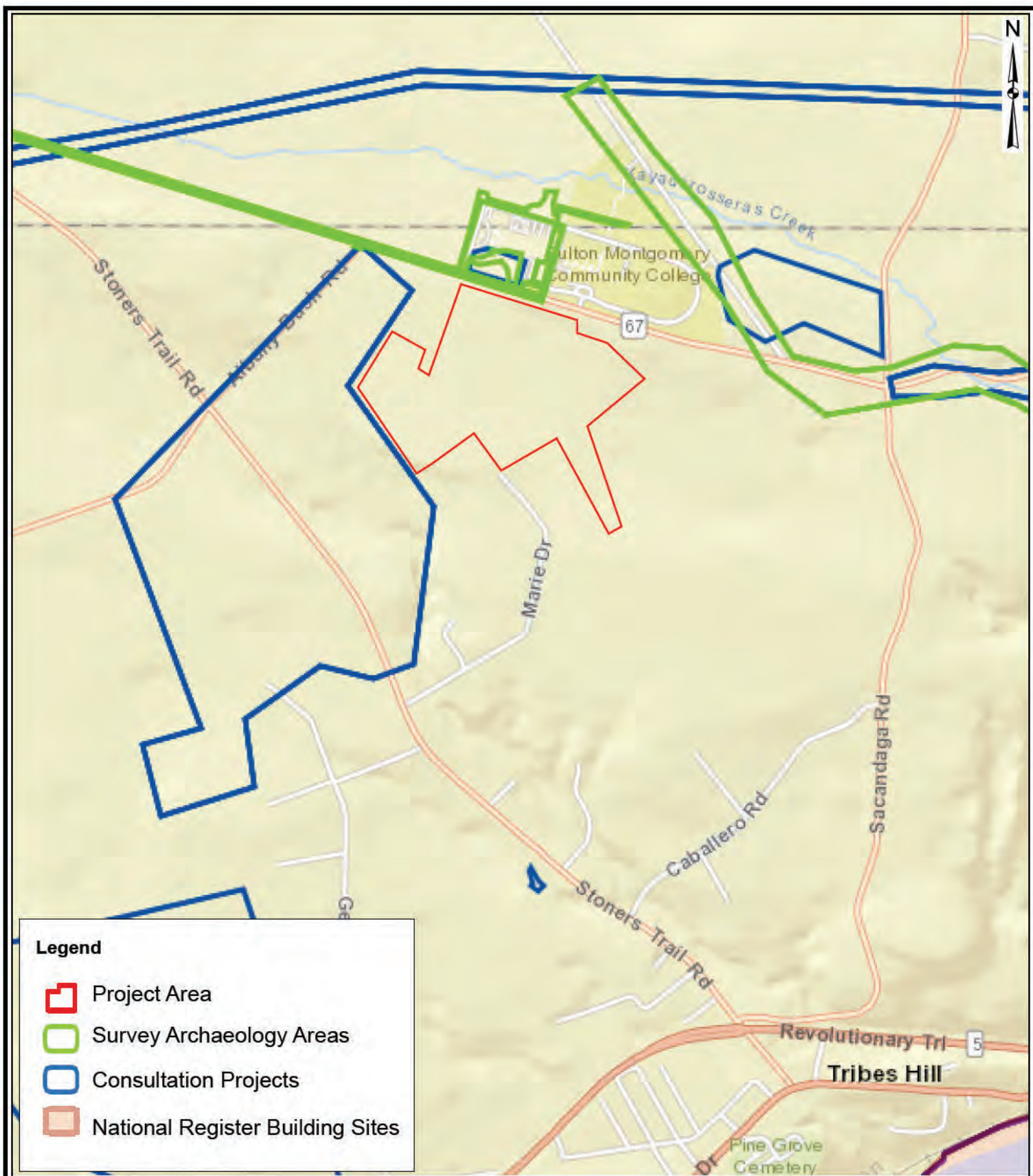
**Land Use Map**

2778 NY Route 67, Town of Mohawk, Montgomery County, NY

Drawn:	NRG
Date:	3/27/2019
Scale:	1:14,000
Project:	51711.12
Figure:	5













# ATTACHMENT A

## NYSDEC Correspondence and USFWS Official Species List

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## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
New York Ecological Services Field Office

3817 Luker Road

Cortland, NY 13045-9385

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

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



In Reply Refer To:

March 28, 2019

Consultation Code: 05E1NY00-2019-SLI-1499

Event Code: 05E1NY00-2019-E-04611

Project Name: Nexamp Mohawk Solar Project

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

### To Whom It May Concern:

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

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

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

[eagle\\_guidance.html](#)). Additionally, wind energy projects should follow the Services wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

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

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

Attachment(s):

- Official Species List



## Official Species List

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

This species list is provided by:

**New York Ecological Services Field Office**

3817 Luker Road

Cortland, NY 13045-9385

(607) 753-9334

---



## Project Summary

Consultation Code: 05E1NY00-2019-SLI-1499

Event Code: 05E1NY00-2019-E-04611

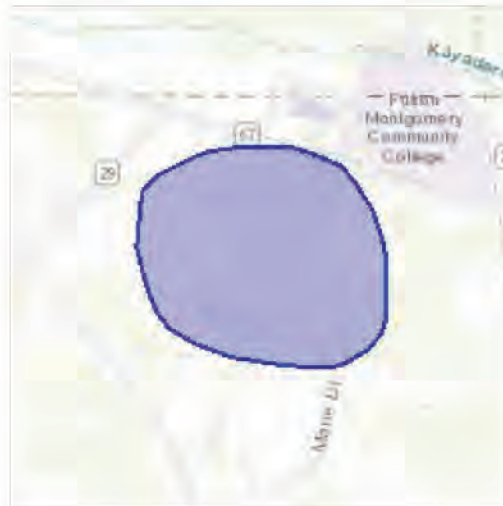
Project Name: Nexamp Mohawk Solar Project

Project Type: SPECIAL USE PERMIT

**Project Description:** The Applicant, Nexamp, Inc., is proposing the construction of a 6.5 megawatt (MW), direct current (DC) solar energy farm (ground-mounted photovoltaic or "PV" system) on a portion of a 132-acre parcel located at 2778 NY Route 67 in the Town of Mohawk, Montgomery County, NY. The subject parcel is identified on the Town's official tax map as Tax Parcel #22-2-3.1 and currently consists of agricultural land and undeveloped forest land. The proposed solar farm will be located on the northeastern portion of an existing agricultural field, with minimal forestland disturbance; the remainder of the subject parcel would continue to be occupied by agricultural and forest land. Physical ground disturbance, which would be limited to the installation of panel poles, power line trenching, inverter pad, construction entrance, access drive, and tree clearing.

**Project Location:**

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/42.978404427856866N74.30072184698935W>



Counties: Montgomery, NY

## Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

## Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

## Critical habitats

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

---



## NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program  
625 Broadway, Fifth Floor, Albany, NY 12233-4757  
P: (518) 402-8935 | F: (518) 402-8925  
[www.dec.ny.gov](http://www.dec.ny.gov)

April 22, 2019

Norabelle Greenberger  
The Chazen Companies  
20 Elm Street  
Glens Falls, NY 12801

Re: Nexamp Mohawk Solar Project  
County: Montgomery Town/City: Mohawk

Dear Ms. Greenberger:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity.

The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information that indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities, and other significant habitats maintained in the Natural Heritage database. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 4 Office, Division of Environmental Permits, at [dep.r4@dec.ny.gov](mailto:dep.r4@dec.ny.gov), 518-357-2449.

Sincerely,



Andrea Chaloux  
Environmental Review Specialist  
New York Natural Heritage Program







**Parks, Recreation,  
and Historic Preservation**

**ANDREW M. CUOMO**  
Governor

**ERIK KULLESEID**  
Commissioner

May 18, 2021

William Sparkman  
The Chazen Companies  
4 British American Boulevard  
Latham, NY 12110

Re: USACE  
Mohawk Solar Array/3.05 MW/12 of 132 Acres  
2778 State Route 67, Johnstown, NY 12095  
21PR03259

Dear William Sparkman:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

Based upon this review, it is the opinion of the New York SHPO that no historic properties, including archaeological and/or historic resources, will be affected by this undertaking.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

A handwritten signature in black ink that reads "R. Daniel Mackay".

R. Daniel Mackay

Deputy State Historic Preservation Officer  
Division for Historic Preservation

## Appendix C : Components

---

Component	Make/Model
Project Size	2,400kWac, 3300 kWdc
Modules	(6370) JAM72D09-530/BP, JA Solar
Inverter(s)	(1) SMA Sunny Central 2660-EV-US
Racking System	TerraTrak – Ground screws
Monitoring System	Data Acquisition System (DAS), AlsoEnergy

Spec sheets and warranties for all components can be provided upon request.

## **Appendix D : CESIR Interconnection Documents**

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nationalgrid	<b>Coordinated Electric System Interconnect Review</b>	Doc. #SP.NY-204039 Page 1 of 9
	<b>Distributed Energy Resources - NYSSIR</b>	Version 1.0 – 10/08/2019

**For**  
**NEXAMP Solar LLC**  
**2,400 kW PV Generator System**  
**9.6 MWh Energy Storage System**  
**2778 State Highway 67 Johnstown, NY 12095**

**Interconnection to National Grid**  
**NY East**  
**Northeast Region**  
**Gloversville District**  
**Stoner Substation**  
**13.2 kV Feeder 35854**

---

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	<b>Distributed Energy Resources - NYSSIR</b>	Version 1.0 – 10/08/2019

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2.0 EXECUTIVE SUMMARY	3
3.0 COMPANY EPS PARAMETERS	3
4.0 INTERCONNECTION CUSTOMER SITE	4
5.0 SYSTEM IMPACT ANALYSIS	5
6.0 MITIGATIONS FOR SYSTEM IMPACT ANALYSIS FAILURES	7
7.0 CONCEPTUAL COST ESTIMATE	8



nationalgrid	<b>Coordinated Electric System Interconnect Review</b>	Doc. #SP.NY-204039 Page 3 of 9
	<b>Distributed Energy Resources - NYSSIR</b>	Version 1.0 – 10/08/2019

## 1.0 INTRODUCTION

This report presents the analysis results of the Niagara Mohawk Power Corporation d/b/a National Grid ("National Grid" or the "Company") interconnection study based on the proposed interconnection and design submittal from the Interconnection Customer in accordance with the National Grid Electric System Bulletin No. 756, Appendix B 'Distributed Generation Connected To National Grid Distribution Facilities Per The New York State Standardized Interconnection Requirements'. The intent of this report is to assess this project's feasibility, determine its impact to the existing electric power system (EPS), determine interconnection scope and installation requirements, and determine costs associated with interconnecting the Interconnection Customer's generation to the Company's Electric Power System (EPS). This Coordinated Electric System Impact Review (CESIR) study; according to the NYSSIR Section I.C Step 6; identifies the scope, schedule, and costs specific to this Interconnection Customer's installation requirements.

## 2.0 EXECUTIVE SUMMARY

The total estimated planning grade cost of the work associated with the interconnection of the Interconnection Customer is **\$367,521**

The interconnection with the Company EPS was found to **not** be feasible unless modifications to the Interconnecting Customer's system are completed, which are described in further detail in the body of this Study.

The ability to generate is contingent on this facility being served by the interconnecting circuit during normal Utility operating conditions. Therefore, if the interconnecting circuit is out of service, or if abnormal Utility operating conditions of the area EPS are in effect National Grid reserves the right to disengage the facility.

The proposed Energy Storage System (ESS) in combination with the generation component of this project shall at no time exceed the generation component of this project or 2,400 kW. The ESS is approved to release energy to the EPS 24 hours a day.

No future increase in generation output beyond that which specified herein for this interconnection has been studied. Any increase in system size and/or design change is subject to a new study and costs associated shall be borne by the Interconnection Customer. An increase in system size may also forfeit the Interconnection Customer's existing queue position.

## 3.0 COMPANY EPS PARAMETERS

Substation	Stoner
Transformer Name	TB1
Transformer Peak Load (kW)	13,860
Contingency Condition Load, N-1 Criteria (kW) (as applicable)	9,534
Daytime Light Load (kW)	7,449
Generation: Total, Connected, Queued (kW)	22,340, 11,094, 11,246



nationalgrid	<b>Coordinated Electric System Interconnect Review</b>	Doc. #SP.NY-204039 Page 4 of 9
	<b>Distributed Energy Resources - NYSSIR</b>	Version 1.0 – 10/08/2019

Contingency Condition Generation: Total, Connected, Queued (kW)	22,226, 10980, 11,246
Supply Voltage (kV)	115
Transformer Maximum Nameplate Rating (MVA)	22.4
Distribution Bus Voltage Regulation	Bi-Directional LTC
Transmission GFOV Status	Installed
Bus Tie	None
Number of Feeders Served from this Bus	4

Connecting Feeder/Line	35854
Peak Load on feeder (kW)	4,653
[Daytime, 24 hour] Light Load on Feeder (kW)	2,422, 1,577
Feeder Primary Voltage at POI (kV)	13.2
Line Phasing at POI	3-Phase
Distance to nearest 3-phase, (if applicable)	N/A
Line/Source Grounding Configuration at POI	Effectively Grounded
Other Generation: Total, Connected, Queued (kW)	9,627, 4,627, 5,000

System Fault Characteristics without Interconnection Customer DG at POI	
Interconnection Customer POI Location	P60 State Highway 67
I 3-phase (3LLL)	3,659 Amps
I Line to Ground (3I0)	3,026 Amps
Z1 (100 MVA base)	0.3383 + j1.0110 PU
Z0 (100 MVA base)	0.5867 + j1.8313 PU

#### 4.0 INTERCONNECTION CUSTOMER SITE

The Interconnection Customer is proposing a new primary service connection with Account No. 1561418292

This location is presently served National Grid 13.2kV radial distribution feeder 35854 from the Stoner Substation.

The proposed generating system consists of:

- 9600kWh Energy Storage System with 2,767.23kWDC PV system connected to
- One (1) SMA SC2500-EV-US 1500Vdc inverter derated to 2,400kW for a total System size of 2,400kWAC.
- One (1) 2,400kVA 13.2kV/550V, Wye-grounded primary/Delta secondary step-up interconnection transformer with Z% = 5.75 and X/R= 6.8
- 40 Ohm Neutral Grounding Reactor with 110A current rating and X/R = 12.
- Customer riser pole with 10kV 8.4kV MCOV surge arresters.
- Customer owned pole with Customer metering
- Customer owned pole with Utility metering and 300A solid blade disconnect.
- Customer pole with Customer owned pole mounted recloser.



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- Customer pole with Customer owned S&C Omni Rupter 17kV 900A gang operated lockable load break disconnect switch.
- Utility pole with utility owned recloser.
- Transition pole with solid blade disconnects.

## 5.0 SYSTEM IMPACT ANALYSIS

Category	Criteria	Limit	Result
Voltage	Overtoltage	< 105% (ANSI C84.1)	Fail
With the addition of the subject generator the maximum voltage as modeled on the Feeder is 105.99 % of nominal.			
Solution: Install a bank of 3-167kVA regulators with bi-directional controllers on or near P.55 NYS Hwy 67.			
Voltage	Undervoltage	> 95% (ANSI C84.1)	Pass
With the addition of the subject generator the minimum voltage as modeled on the Feeder is 95.01% of nominal.			
Voltage	Substation Regulation for Reverse Power	minimum load criteria	Fail
The total generation on Feeders 35851, 35852, 35853, and 35854 is 22.340 MW. The total minimum load on these Feeders is 7.45 MW. Therefore, the generation to load ratio is 300% and reverse power can flow through TB2 onto the transmission system. However, a bi-directional LTC is already installed on TB2, therefore no additional upgrades are required for the subject generator.			
Voltage	Feeder Regulation for Reverse Power	Minimum load to generation ratio	Pass
There are no regulators between the subject generator's POI and the substation. However, the addition of the subject generator causes a voltage rise above Company limits, requiring the addition of a regulator bank on or near P55 NYS Highway 67			
Voltage	Fluctuation	<3% steady state from proposed generation on feeder, <5% steady state from aggregate DER on substation bus, Regulator tap movement exceeds 1 position.	Pass
The greatest voltage fluctuation on the feeder occurs at P75 E Main St. The resulting fluctuation at the feeder location is 1.76% due to the proposed generation and 1.1% on the substation bus due to the aggregate generation.			
Voltage	Flicker	Screen H Flicker	Pass



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The Pst for the location with the greatest voltage fluctuation is 0.070 and the emissions limit is 0.35.			
Equipment Ratings	Thermal (continuous current)	thermal limits	Fail
Under minimum load conditions and with the addition of the subject generator, the thermal limits of the 3/0 CU conductor from P264 to P261 NYS Highway 67 are exceeded requiring approximately 1,150ft of mainline reconductoring to 336.4 SAL conductor.			
Equipment Ratings	Withstand (fault current)	<90% withstand limits	Pass
The additional fault current contribution from the generation does not contribute to interrupting ratings in excess of existing EPS equipment.			
Protection	Unintentional Islanding	Unintentional Islanding Document & Company Guidelines	Fail
The subject generator is a 2.4MW PV generation system. The subject generation exceeds the Company's criteria for islanding a distributed resource under light load conditions and will require a National Grid protection and control package.			
Protection	Protective device coordination	Company Guidelines	Pass
<p>There are no protective devices between the subject generator's POI and the substation. A Customer owned recloser is proposed for site overcurrent protection with the below settings:</p> <ul style="list-style-type: none"> <li>- 51G, Curve=U4, PU=52A, TM=2.4</li> <li>- 51, Curve=U4, PU=130A, TM=2</li> </ul> <p>The submitted settings provide adequate coordination with upstream devices on the Company's EPS.</p>			
Protection	Fault Sensitivity	Rated capabilities of EPS equipment	Pass
Fault studies show that contribution from the subject generator for faults on the feeder will not have a significant increase in fault current seen by utility equipment. Aggregate source fault contribution with the addition of the subject generator is within the rated capabilities of EPS equipment.			
Protection	Ground Fault Detection	Reduction of reach > 0%	Fail
The Interconnection Customer has proposed a 2400kVA grounded wye primary - delta secondary interconnecting transformer with an impedance of 5.75% and X/R ratio of 6.8 equipped with a 40 ohm neutral connected grounding reactor. To be within Company guidelines, the neutral reactor shall have an impedance of 25 ohms. With this neutral grounding reactor in service, the Interconnection Customer will contribute approximately 63A of 3I0 current to remote bolted line to ground and 125A to faults at the PCC.			
Protection	Overvoltage - Transmission System Fault	Company 3V0 criteria	Fail



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The generation to load ratio on the serving distribution system has failed the Company's planning threshold in which transmission ground fault overvoltage becomes an electrical hazard due to the distribution source contribution. An evaluation of the existing EPS has been performed and it has been determined that no additional protection mitigation methods are required.			
Protection	Overvoltage - Distribution System Fault	< 125 % voltage rise	Pass
With subject generator interconnected the modeled voltage rise on the unfaulted phases of the system is 112.2%.			
Protection	Effective Grounding	R0/X1 < 1 and X0/X1 < 3	Pass
With subject generator interconnected the modeled R0/X1 is 0.7555 PU and the X0/X1 is 2.1971 PU			
SCADA	Required EMS Visibility for Generation Sources	Monitoring & Control Requirements	Fail
The 2.4MW subject generator triggers the requirement for SCADA reporting to the Utility.			
Other			
N/A			

## 6.0 MITIGATIONS FOR SYSTEM IMPACT ANALYSIS FAILURES

Detail below is intended to provide sufficient information and clarity to give the Interconnection Customer an understanding to the relationship of costs and scope associated with the DER interconnection and the system modifications due to the DER impact. Where scope items are identified, associated labor, equipment rentals and indirect project support functions (such as engineering and project management) are intended and implied.

Upgrade Required	Option 1	Option 2	Failures Addressed
National Grid protection and control package	\$104,018	N/A	Unintentional Islanding
SCADA Integration	\$6,848	N/A	Required EMS Visibility for Generation Sources
Install 3-167kVA regulators on or near P55 State Hwy 67	\$115,891	N/A	Overvoltage
Reconductor Approx. 1,150ft of 3-phase mainline from P264-P261 with 336.4SAL conductor	\$122,764	N/A	Thermal Limits



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Additional details on the scope of each option can be found below:

Option 1:

The substation upgrades required to facilitate the proposed installation include the following:

- None

The Distribution upgrades required to facilitate the proposed installation include the following:

- National Grid PCC protection and control package.
- SCADA Integration (Equipment integrated into PCC Recloser).
- Install bank of 3-176kVA regulators on or near P55 State Hwy 67.
- Reconductor 1,150ft from P264 to P261 NYS Highway 67 with 336.4 SAL conductor.

## 7.0 CONCEPTUAL COST ESTIMATE

The following items are a good faith estimate for the scope and work required to interconnect the project estimated under rates and schedules in effect at the time of this study in accordance with the most recent version of the New York State Standardized Interconnection Requirements ("SIR").

### Planning Grade Estimate

National Grid Work Segment	Planning Grade Cost Estimate not including Tax Liability					Capital portion for calculating tax liability	Tax Liability Applied to Capital	Customer Cost Total
	Material	Labor	Overheads	Pre-Tax	Total	Capital Costs	Rate	Total \$
				\$				
Distribution Modifications							14.14%	
Distribution System Modifications								
National Grid Protection and Control Package (Recloser, Switches, and Poles)	\$ 37,478	\$ 16,566	\$ 37,415	\$ 91,459	\$ 88,816	\$ 12,559		\$ 104,018
SCADA Integration (equipment integrated into PCC Recloser)	\$ 4,000	\$ -	\$ 2,000	\$ 6,000	\$ 6,000	\$ 848		\$ 6,848
Install 3-167kVA regulators on or near P.55 State Hwy 67	\$ 57,318	\$ 10,181	\$ 36,670	\$ 104,169	\$ 82,898	\$ 11,722		\$ 115,891
Reconductor Approx. 1,150ft of 3-phase mainline from P264-P261 NYS Highway 67 with 336.3 SAL conductor	\$ 9,448	\$ 60,971	\$ 42,340	\$ 112,759	\$ 70,757	\$ 10,005		\$ 122,764
Substation Modifications							14.14%	
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-System Costs							0.00%	
Customer Documentation Review, Field Verification and Witness Testing	\$ -	\$ 12,000	\$ 6,000	\$ 18,000	\$ -	\$ -		\$ 18,000
<b>Total Project Costs:</b>	<b>\$ 108,244</b>	<b>\$ 99,718</b>	<b>\$ 124,425</b>	<b>\$ 332,387</b>	<b>\$ 248,471</b>	<b>\$ 35,134</b>		<b>\$ 367,521</b>
<b>Dline Summary</b>	<b>\$ 108,244</b>	<b>\$ 87,718</b>	<b>\$ 118,425</b>	<b>\$ 314,387</b>	<b>\$ 248,471</b>	<b>\$ 35,134</b>		<b>\$ 349,521</b>
<b>Station Summary</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>		<b>\$ -</b>
<b>Total</b>	<b>\$ 108,244</b>	<b>\$ 99,718</b>	<b>\$ 124,425</b>	<b>\$ 332,387</b>	<b>\$ 248,471</b>	<b>\$ 35,134</b>		<b>\$ 367,521</b>

Notes:

1. These estimated costs are based upon the results of this study and are subject to change. All costs anticipated to be incurred by the Company are listed.
2. The Company will reconcile actual charges upon project completion and the

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Interconnection Customer will be responsible for all final charges, which may be higher or lower than estimated according to the SIR I.C step 11.

3. This estimate does not include the following:
  - additional interconnection study costs, or study rework
  - additional application fees,
  - applicable surcharges,
  - property taxes,
  - overall project sales tax,
  - future operation and maintenance costs,
  - adverse field conditions such as weather and Interconnection Customer equipment obstructions,
  - extended construction hours to minimize outage time or Company's public duty to serve,
  - the cost of any temporary construction service, or
  - any required permits.
4. Cost adders estimated for overtime would be based on 1.5 and 2 times labor rates if required for work beyond normal business hours. Per Diems are also extra costs potentially incurred for overtime labor.



## **Appendix E : Lease Agreement**

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## GROUND LEASE

This GROUND LEASE (the "Lease") is made and entered into as of December 17th, 2019 (the "Effective Date") by and between **Sherri Opalka as Administrator of the Estate of Richard Opalka Sr.** (the "Landlord"), and **Nexamp Solar, LLC**, a Delaware limited liability company (the "Tenant") (each a "Party" and together, the "Parties").

WHEREAS, Landlord owns the real property located at 2778 State Highway 67, Mohawk, New York in Montgomery County, containing approximately 132.00 acres, as more particularly described in Exhibit A attached hereto (the "Property"); and

WHEREAS, the parties entered into a lease option agreement, dated December 17th, 2019, under which Landlord granted to Tenant the right to perform specific due diligence work regarding a solar energy generating project and an option to lease the Lease Area for the project (the "Option Agreement"), and under which Tenant did exercise its Option; and

WHEREAS, Landlord is willing to lease the Lease Area to Tenant, and Tenant is willing to lease the Lease Area from Landlord, to develop, construct, operate and maintain a solar powered electric generation facility and energy storage facility and any uses necessary or ancillary thereto.

### Exhibits:

- A: Property Description
- B: Lease Area and Easement Descriptions
- C: Existing Encumbrances

NOW THEREFORE, in consideration of the premises, the covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant agree as follows:

SECTION 1. DEFINITIONS. Capitalized terms within this Lease shall have the meanings as set forth in the Glossary of Terms, attached hereto and incorporated herein.

SECTION 2. LEASE. Landlord hereby leases the Lease Area to Tenant and Tenant leases the Lease Area from Landlord for the Permitted Uses for the Term. Subject to the rights of Landlord following an Event of Default by Tenant, Tenant shall have quiet and peaceful possession of the Lease Area and any other rights granted by this Lease for the entire Term without hindrance, interruption, suit, trouble or interference of any kind by Landlord or any other person or entity claiming (whether at law or in equity) by, through or under Landlord.

### SECTION 3. EASEMENTS.

(a) Landlord hereby grants the following easements (the "Easements") to Tenant for the following purposes, all as detailed on Exhibit B:

- (i) A non-exclusive right of pedestrian, vehicular and equipment access to the Facility across or through Landlord's remaining property at all times, which is necessary or convenient for ingress and egress to the Facility and is located as described on Exhibit B;



(ii) an exclusive right to construct, operate, maintain, reconstruct, relocate, remove, and/or repair the electric utility service infrastructure and associated wires, lines and poles and other infrastructure necessary and convenient to interconnect each Facility unit to the LDC electrical distribution system, the location of which will be determined by the LDC prior to the Commercial Operation Date; and

(iii) a solar easement, upon which Landlord shall not construct buildings or structures, or plant new trees or vegetation of any type or allow any trees or other vegetation on the Property which now or hereafter in Tenant's reasonable opinion may be a hazard to the Facility, overshadow or otherwise block or interfere with access of sunlight to the Facility and/or interfere with Tenant's exercise of its rights hereunder. Tenant may (but shall not be obligated to) remove, at Landlord's reasonable cost, any buildings or other structures which violate this easement. Tenant acknowledges and agrees that there are no structures currently on the Property which violate this easement.

(iv) a non-exclusive easement of approximately 75,000 square feet to be located at a mutually acceptable location on the Property for temporary (A) storage and staging of tools, materials and equipment, (B) construction laydown, (C) parking of construction crew vehicles and temporary construction trailers, (D) vehicular and pedestrian access and access for Facility construction activities, and (E) other facilities reasonably necessary to construct, erect, install, expand, modify or remove the Facility. Upon completion of each construction phase, said easement shall terminate.

(b) Landlord's grant of Easements in Sections (3)(a)(i) through (3)(a)(iii) shall commence on the Effective Date and continue throughout the Term and any extensions of the Term. Landlord's grant of Easement in Sections (3)(a)(iv)) shall commence on the Effective Date and shall continue through the Development and Construction Period, during the Operations Period if Tenant is performing activities associated with expanding, modifying or repairing the Facility, and during the Decommissioning Period, but only for the amount of time associated with such activity.

(c) If required by the LDC, Landlord shall grant to the LDC an exclusive right to construct, operate, maintain, reconstruct, relocate, remove, and/or repair the electric utility service infrastructure and associated wires, lines and poles and other infrastructure necessary and convenient to interconnect each unit of the Facility to the LDC electrical distribution system, the location of which will be determined by the LDC prior to the Commercial Operation Date subject to Landlord's prior written approval which will not be unreasonably withheld, conditioned or delayed. Landlord's grant under this Section 3(c) shall commence on its effective date and continue through the Term and any extensions of the Term, unless otherwise required by the LDC.

(d) At Tenant's request, Landlord shall timely execute agreements necessary to give effect to the grant of Easements under this Section 3.

#### SECTION 4. TERM; EARLY TERMINATION.

(a) This Lease will consist of a Development and Construction Period, an Operations Period, and a Decommissioning Period.



(i) Development and Construction Period. The Development and Construction Period will begin on the Effective Date and will terminate on the earliest of:

(A) Delivery by Tenant of notice of termination in accordance with Section 4(b);

(B) 365 days after the commencement of the Development and Construction Period, except that such period shall automatically extend for up to two (2) additional periods of nine (9) months each for permitting and interconnection delays, or for changes in solar market conditions regarding New York solar programs. Extensions under this subsection are contingent upon Tenant providing evidence, at Landlord's reasonable request, that it continues to actively pursue developing the Facility; and

(C) the day after the Commercial Operation Date.

If the Commercial Operation Date does not occur prior to expiration of the Development and Construction Period (as it may be extended), this Lease shall terminate by its own terms with no action being required of either Party. Termination of this Lease in accordance with this Section 4(a)(i) shall not release either Party from any obligations arising prior to the effective date of such termination, but neither Party shall have the obligation to perform any obligations hereunder which, but for such termination, would have arisen after the effective date of such termination.

(ii) Operations Period. The Operations Period will commence at 12:01 a.m. on the day after the Commercial Operation Date and will end at 11:59 p.m. on the 25<sup>th</sup> anniversary of the Commercial Operation Date. Tenant may extend the Operations Period, first for one (1) ten (10) year term, and then for one (1) additional five (5) year terms. At least ninety (90) days prior to the beginning of an extension term, Tenant shall deliver in writing notice to Landlord of Tenant's intent to exercise that extension option, and Tenant and Landlord, at Tenant's expense, shall prepare and record any amendments to the Notice of Lease and/or any other documents necessary to evidence and give effect to the extension.

(iii) Decommissioning Period. The Decommissioning Period shall commence on the expiration of the Operations Period, and any extensions thereto, and shall continue for a period of 180 days, (provided that if such 180 day term begins or ends within the months of December, January, February, March, or April, the Decommissioning Period shall extend to the next-occurring July 31) whereupon this Lease shall expire and shall be of no further force and effect, except that such termination shall not release or modify any of the obligations of the Parties arising prior to such termination.

(b) At any time during the Development and Construction Period, including any extensions thereof, Tenant may, in its sole discretion, terminate this Lease upon thirty (30) days' written notice to Landlord (the thirtieth day after delivery of the notice shall be the effective date of the termination). Tenant shall execute and deliver to Landlord any amendments to the Notice of Lease and/or other documents reasonably necessary to evidence terminating this Lease. Termination of this Lease in accordance with this Section 4(b) shall not release either Party from any obligations arising prior to the effective date of such termination, but neither Party shall have



the obligation to perform any obligations hereunder which, but for such termination, would have arisen after the effective date of such termination.

SECTION 5. TENANT'S USE OF THE PROPERTY. Tenant may use the Lease Area and Easements for Permitted Uses, subject to limitations set forth below:

(a) Development and Construction Period. During the Development and Construction Period, Tenant and its agents, employees, contractors, and/or subcontractors may use the Lease Area for development work and tests, project permitting and interconnection, and other activities associated with constructing the Facility.

(b) Operations Period. During the Operations Period, Tenant may use the Lease Area for any of the Permitted Uses.

(c) Decommissioning Period. Promptly following the Operations Period expiration, or an earlier termination of this Lease following a Tenant Default, Tenant shall cease the Facility's commercial operation, shall remove all structures, equipment, security barriers, and transmission lines from the Lease Area, and dispose of all Facility materials in accordance with Applicable Law and the Property returned to the condition reasonably similar to its original condition, all at Tenant's sole cost and expense. This Section 5(c) shall survive Lease termination.

SECTION 6. DEFINING THE LEASE AREA; CONSTRUCTING THE FACILITY;  
LANDLORD RESTRICTIONS.

(a) During the Development and Construction Period, Tenant may, at its discretion, determine the Facility size and the specific location of the Lease Area (within the area described in Exhibit B) and the Easements on the Property by means of a survey, and such survey shall then define the Lease Area and the Easements and shall be an amendment to this Lease as a revised Exhibit B except, if any portion of the Lease Area and Easements are outside the areas depicted on Exhibit B attached to this Lease as of the Effective Date, Landlord shall have the right to review and provide written approval, such approval not to be unreasonably withheld or delayed.

(b) Tenant may construct the Facility, at Tenant's sole expense, as Tenant, in its sole discretion, determines, provided such construction shall comply with Applicable Law and with this Lease.

(c) Tenant may remove trees as necessary within the Property to obtain solar access to the Facility, consistent with Section 3(a)(iii) (regarding the solar easement).

(d) After Tenant determines the Facility is capable of Commercial Operations, Tenant shall notify Landlord that Facility installation is complete and shall specify the Commercial Operation Date.

(e) Landlord has no obligation to improve the Lease Area or Property to accommodate the Facility.

(f) Landlord shall not engage in activities at the Property that will materially impact the Lease Area topography or soil conditions, or construct any structures or improvements on the Lease Area.



(g) Landlord shall not construct or install, or knowingly permit to be constructed or installed, or grow or allow to grow, on any property owned or leased by Landlord any alterations, modifications or improvements or vegetation on or to such property which would interfere with or block the Facility's access to sunlight.

(h) Landlord shall not enter the Lease Area without Tenant's consent, such consent not to be unreasonably withheld, conditioned or delayed. Landlord will retain the right to use the portion of the Property not within the Lease Area as shown on Exhibit B to the extent: (i) its use is not inconsistent with Tenant's rights under the Lease; (ii) for uses such as farming, grazing, recreation, hunting, or conservation; (iii) its use does not inhibit access to or from the Facility; and (iv) its use does not violate the terms of the Easements, or substantially interfere with Tenant's enjoyment or use of the Easements. Any hunting activities undertaken pursuant to this Section 6(h) must be done in a safe manner that does not interfere with Tenant's use of the Lease Area, damage any Facilities, or endanger or injure any of Tenant's (or any third party's) personnel, business invitees, agents, contractors or property. Landlord, and any successors and assigns, jointly and severally, will indemnify, defend and hold Tenant harmless from any such interference, damage, costs, fees or injury caused by hunting undertaken or authorized by Landlord. Landlord will be entitled to use any private road constructed by Tenant on the Property, so long as such use takes place outside of the fenced area and does not substantially interfere with, or inhibit, Tenant's access to and from the Facility.

(i) Landlord shall have no right or claim to any products, output, incentives, or credits created by or arising out of the Facility, including but not limited to electricity, Environmental Attributes, Tax Attributes, other tax incentives or payments, any incentives or other payments offered by any Governmental Authority, and/or payments from the LDC or other entity with respect to the Facility itself or any output therefrom. To avoid any conflicts with fair trade rules regarding claims of solar or renewable energy use, Landlord shall not submit any statements for publication regarding the Facility without the prior written approval of Tenant.

- (j) (1) After Tenant determines the Lease Area pursuant to Section 6(a), before Landlord may sell the Lease Area to a third party, Landlord shall, in writing, first offer to sell the Lease Area to Tenant on the same terms and conditions as are offered to or by the third party. Tenant shall have ten (10) Business Days from the date of Landlord's notice to Tenant during which to accept the terms of the offer. If Tenant accepts the terms of the offer, the Parties shall use good faith efforts to consummate the transaction within sixty (60) days from the date of Tenant's acceptance, and shall negotiate any remaining terms in good faith and to a commercially reasonable standard.
- (2) If Tenant does not accept the offer within the 10-day period, Landlord may accept the third-party's offer on the terms presented to Tenant. If Landlord does not close the sale to the third party within ninety (90) days of the termination of Tenant's 10-day period, or if the material terms of the offer are amended, Landlord's right to sell the Lease Area to the third party shall expire and Tenant's rights and the procedure described in this subsection (j) shall again apply.

SECTION 7. RENT PAYMENTS. Tenant shall pay Rent to Landlord as follows:



(a) Development and Construction Period. [REDACTED] ) per month, pro-rated for partial months, to be paid in advance each month.

(b) Operations Period.

(i) During the Operations Period, Tenant shall pay to Landlord Rent [REDACTED] per constructed Megawatt (MW) capacity per Operating Year, pro-rated for partial Megawatts.

(ii) As of every anniversary of the Commercial Operation Date the Rent shall be adjusted for the ensuing year by a compounding rate of [REDACTED]

(iii) Rent for each Operating Year, including any Operations Period extensions, shall be paid quarterly in advance, with the initial quarterly payment made within thirty (30) days of the Commercial Operation Date.

(c) Decommissioning Period. Rent for the Decommissioning Period shall be [REDACTED], prorated for partial months to be paid in advance each month.

(d) Payment Method. Rent may be paid by check or wire transfer. Upon request by Tenant, Landlord shall provide Tenant with account information to which wire transfers may be made. Any payment not made within fifteen days of written notice from Landlord shall be paid [REDACTED] accruing as of the date of notice.

## SECTION 8. TAXES

(a) Landlord shall be responsible for all taxes related to the Property other than Tenant's obligations stated in Section 8(b) and 8(c).

(b) Tenant shall be responsible for the following taxes from the Commercial Operation Date through the end of the Decommissioning Period:

(i) any increase in real estate property taxes assessed against the land area of the Facility footprint on the Lease Area or the Facility structures, fixtures or equipment located on the Property that are solely attributable to the Facility; and

(ii) any penalties or increase in real estate property taxes assessed against the land area of the Facility footprint on the Lease Area resulting from the loss of an agricultural assessment solely attributable to converting such land from agricultural use to a non-agricultural use.

(c) Tenant shall pay all taxes for which Tenant is directly billed on or before the date such amounts are due, subject however to the right of Tenant to contest taxes in accordance with this Lease and Applicable Law. Tenant shall pay Landlord, within ten (10) business days after Tenant's receipt of the applicable invoice from Landlord, the amount of such taxes for which Tenant is responsible hereunder and which have not been billed directly to Tenant. Landlord will submit



copies of tax bills or notices of assessments, appraisals or statements applicable to the Facility to Tenant promptly upon receipt thereof and, to the extent Landlord pays the same directly to the taxing authorities, Landlord will promptly provide evidence of such payment to Tenant.

(d) Each Party may contest in good faith any tax assessments or payments, provided that all payments are made when due and such contest (or appeal, as the case may be) complies with New York law. Each Party shall use all reasonable efforts to cooperate with the other in any such contests of tax assessments or payments. In no event shall either Party postpone during the pendency of an appeal of a tax assessment the payment of taxes otherwise due except to the extent such postponement in payment has been bonded or otherwise secured in accordance with Applicable Law.

(e) If Tenant fails to pay directly or reimburse Landlord for taxes for which Tenant is responsible hereunder, Landlord may pay the same and in such event shall be entitled to recover such amount from Tenant together with interest thereon at a rate equal to the lesser of (i) [REDACTED] per month [REDACTED] or (ii) [REDACTED].

(f) If Landlord fails to pay any taxes, judgments or liens that become a lien upon Tenant's interest in the Lease Area or improvements thereon for which Landlord is responsible hereunder, Tenant may pay such amounts and in such event shall be entitled to recover such paid amount from Landlord, together with interest thereon at rate equal to the lesser of (i) [REDACTED] per month [REDACTED] or (ii) [REDACTED].

#### SECTION 9. TITLE AND LIENS.

(a) Landlord represents and warrants as of the Effective Date that Landlord has fee simple title to the Property subject to no liens, easements, options or other encumbrances other than the Existing Encumbrances.

(b) After the Effective Date, in addition to Existing Encumbrances, and any refinancing of such Existing Encumbrances, Landlord may grant a mortgage on all or part of its interest in the Property if (i) such mortgage is subject to this Lease; and (ii) the mortgagee enters into an agreement, on terms and conditions reasonably acceptable to Tenant, recognizing the priority of Tenant's interest in the Property pursuant to this Lease. Tenant shall be permitted to record any such agreement, whether related to an Existing Encumbrance or a mortgage arising after the Effective Date, in the County land records.

(c) Landlord shall not allow any encumbrances against the Property other than Permitted Encumbrances. Landlord shall promptly pay all obligations secured by encumbrances against the Property (whether or not such encumbrances are Permitted Encumbrances) and shall not allow any uncured default to occur under obligations secured by encumbrances against the Property. In lieu of paying amounts secured by encumbrances which are not Permitted Encumbrances, Landlord may provide a surety bond or other adequate security in accordance with applicable law and Tenant's reasonable requirements.

(d) At Tenant's request, Landlord shall obtain from holders of Permitted Encumbrances such subordinations or non-disturbance agreements as Tenant may reasonably request to protect and



secure Tenant's interest in the Property or for or in connection with a financing or other financial arrangement related to the Property and/or the Facility. Such agreements shall include undertakings by the holders of Permitted Encumbrances (i) to notify Tenant of any defaults by Landlord in performing its obligations secured by the Permitted Encumbrances; and (ii) to provide Tenant a reasonable period of time after Tenant's receipt of notice from the holder of the Permitted Encumbrance, not less than [REDACTED] in the event of a "Payment Default" (as defined below), and [REDACTED] in event of a "Non-Payment Default" (as defined below), to cure the default on behalf of Landlord, before the holder of the Permitted Encumbrance can exercise any rights to foreclose upon or otherwise take ownership of the Property. If the default cannot reasonably be cured within a sixty-day period then, provided Tenant has promptly commenced and is diligently performing actions to cure the default, Tenant shall have such period of time as is reasonably necessary to cure the default, but not more [REDACTED] days.

(e) All equipment and structures included within the Facility shall, to the extent permitted by law, be personal property and not real property, and title to the Facility shall be in Tenant or its mortgagees and assigns. Neither Landlord nor anyone claiming through Landlord may file liens on the Facility or Tenant's interest in the Property, except to the extent that a Default under the terms of this Lease exists and remains uncured after any notice and cure period required herein.

(f) Except for those encumbrances permitted pursuant to Section 15 of this Lease, Tenant shall not create or permit to be created any lien, encumbrance or charge (including any mechanic's, laborer's or materialman's lien, conditional sale, title retention agreement or otherwise) which might be or become a lien, encumbrance or charge upon the Property or the Facility, and Tenant shall not suffer any other matter or thing whereby the estate, rights and interest of Landlord in the Property or the Facility or any part thereof might be impaired. Tenant shall take all commercially reasonable steps to prevent the imposition of such a lien, encumbrance or charge on the Property or the Facility. If any lien, encumbrance or charge other than one permitted pursuant to Section 15 of this Lease shall at any time be filed against the Property or the Facility or any part thereof as a result of the acts or omissions of Tenant or its agents, or contractors, or subtenants and other parties for which Tenant may be legally liable, then Tenant, within thirty (30) days after receiving notice thereof, and at Tenant's own cost and expense, shall cause the same to be discharged of record by bonding or otherwise and Tenant shall indemnify Landlord against and defend and hold Landlord harmless from and against all loss, liability, cost and expense including reasonable attorneys' fees and disbursements, resulting from Tenant's failure to so discharge said lien, encumbrance or charge. If Tenant shall fail to cause such lien to be discharged within the aforesaid period, then, in addition to any other right or remedy Landlord may, but shall not be obligated to, only after providing the Tenant with [REDACTED] business days' written notice of the Landlord's intention to do so, discharge the same either by paying the amount claimed to be due or by procuring the discharge of such lien by deposit or by bonding proceedings, and in any such event Landlord shall be entitled, if Landlord so elects, to compel the prosecution of an action for the foreclosure of such lien by the lienor and to pay the amount of the judgment in favor of the lienor with interest, costs and allowances. Any amount so paid by Landlord and all reasonable costs and expenses incurred by Landlord in connection therewith, together with interest thereon at five percent (5%) per annum, shall constitute additional rent payable by Tenant under this Lease.

## SECTION 10. FILINGS.



Landlord hereby acknowledges Tenant intends to develop, construct and operate the Facility on the Lease Area. Tenant is hereby authorized, in the name of Landlord, Tenant or both, as Tenant may deem to be necessary or appropriate, to file with such federal, state and local authorities and the LDC as Tenant deems appropriate (i) one or more applications to obtain any zoning relief regarding the Property or portions thereof as may be necessary and/or desirable to develop, construct and operate the Facility on the Lease Area; (ii) one or more applications to obtain construction, use or occupancy permits for the Facility or any portion thereof, and (iii) one or more applications with the LDC to obtain approval to interconnect the Facility with the LDC's distribution system. Landlord shall cooperate in good faith with Tenant and shall execute any such applications promptly upon Tenant's request, and shall not oppose or interfere with Tenant in such regard. Landlord is not obligated to incur expense in connection with such efforts.

#### SECTION 11. INSURANCE AND INDEMNITY.

(a) Each party shall maintain appropriate insurance for its respective interests in, and activities on, the Property, and shall provide certificates of insurance to the other Party evidencing such coverage promptly following the request. Tenant shall be entitled to all proceeds of any insurance policy that Tenant maintains with respect to the Facility. Tenant will obtain and maintain in force the following policies of insurance covering the Facility and Tenant's activities on the Property at all times during the term of the Lease: comprehensive general liability insurance with minimum coverage of at least [REDACTED] for property damage, [REDACTED] for bodily injury or death to any one person, and a minimum combined occurrence and annual coverage of [REDACTED]. Such insurance coverage for the Facility and Property may be provided as part of a blanket policy that covers other Facilities or properties as well. Any such policies will provide for [REDACTED] days prior written notice to Landlord of any cancellation. Tenant will provide Landlord with copies of certificates of insurance evidencing this coverage prior to entering upon the Property and thereafter upon request by Landlord. No coverage is provided for liability arising out of Landlord's own negligent or intentional act or omission.

(b) To the fullest extent permitted by law, each Party (the "Indemnifying Party") shall indemnify, defend and hold the other Party, its shareholders, partners, members, directors, officers, employees, agents and contractors (the "Indemnified Persons"), harmless from and against all Losses incurred by the Indemnified Persons to the extent arising from, or out of, any claim for, or arising out of, any injury to or death of any person or loss or damage to property to the extent arising out of the Indemnifying Party's, its employees' and agents' negligence, willful misconduct, or unlawful conduct. The Indemnifying Party shall not be obligated to indemnify any Indemnified Person for any Loss to the extent such Loss is due to the negligence or willful misconduct of any Indemnified Person or for statutory violation of, or punitive damages against, any Indemnified Person except to the extent the statutory violation or punitive damages are caused by or result from the acts or omissions of the Indemnifying Party or of any of the Indemnifying Party's contractors, subcontractors, sub-subcontractors, materialmen, or agents of any tier or their respective employees. Such obligation shall not be construed to negate, abridge, or otherwise reduce other rights or obligations of indemnity which would otherwise exist as to a Party or person described in this Agreement.

(c) Landlord shall indemnify, defend and hold harmless the Tenant from and against any and all Losses arising from or out of any pollution or contamination that violates any local, state or federal environmental protection law, policy or regulation, that existed on or before the Effective



Date or that is caused by the Landlord or any of its employees, invitees, agents or contractors following the Effective Date. Tenant shall indemnify, defend and hold harmless Landlord from and against any and all Losses arising from or out of any pollution or contamination that violates any local, state or federal environmental protection law, policy or regulation, that is caused by the Tenant or any of its employees, invitees, agents or contractors following the Effective Date.

## SECTION 12. MAINTENANCE, SECURITY AND UTILITIES.

(a) Maintenance. The Lease Area and all Easements shall be maintained in clean and orderly condition by Tenant at its own expense.

(b) Security. Tenant is responsible for Lease Area security.

(c) Utilities. Tenant is responsible for utilities installed and/or furnished to the Lease Area and Facility and used by Tenant throughout the Term hereof, and for all other costs and expenses in connection with the Facility use, operation, and maintenance.

## SECTION 13. CONDEMNATION.

(a) If, during the Term, any competent authority for any public or quasi-public purpose ("Condemnor") seeks to take or condemn all or any portion of the Lease Area, Landlord and Tenant may use all reasonable and diligent efforts, each at its own expense, to contest such taking. In the event either party seeks to contest any such taking the other party agrees to cooperate in any such proceeding provided such party is not obligated to incur any expense in connection with such efforts.

(b) If, at any time during the Term, any Condemnor shall condemn all or substantially all of the Lease Area, or the Facility, so that the purposes of this Lease are frustrated, then the interests and obligations of Tenant under this Lease in or affecting the Lease Area shall cease and terminate upon the earlier of (i) the date that the Condemnor takes possession of the Lease Area or the Facility, (ii) the date that Tenant is, in its sole reasonable judgment, no longer able or permitted to operate the Facility on the Lease Area in a commercially viable manner, or (iii) the date title vests in the Condemnor. Tenant shall continue to pay all amounts payable hereunder to Landlord until the earlier of such dates at which time Landlord and Tenant shall be relieved of any and all further obligations and conditions to each other under this Lease, except for indemnity obligations and Tenant's decommissioning obligations under Section 18, which shall survive any termination thereunder.

(c) If, at any time during the Term any Condemnor shall condemn a portion, but not all or substantially all of the Facility or the Lease Area, then the interest and obligations of Tenant under this Lease as to that portion of the Facility or the Lease Area so taken shall cease and terminate upon the earlier of, (i) the date that the Condemnor takes possession of such portion of the Facility or the Lease Area, (ii) the date that Tenant, in its sole reasonable judgment, is no longer able or permitted to operate the Facility on the Lease Area, or any portion thereof, in a commercially viable manner, or (iii) the date title vests in the Condemnor; and, unless this Lease is terminated as herein provided, this Lease shall continue in full force and effect as to the remainder of the Facility or the Lease Area. If the Lease Area becomes insufficient or unsuitable for Tenant's purposes hereunder, as determined by Tenant in its sole discretion, then Tenant may terminate this Lease in accordance with this Section 13 as to the portion of the Lease Area to which Tenant continues to



hold the rights, at which time Landlord and Tenant shall be relieved of any further obligations and duties to each other under this Lease, except for indemnity obligations and Tenant's decommissioning obligations under Section 18, which shall survive any termination hereunder.

(d) For any taking covered by Sections 13(b) or 13(c), all sums, including damages and interest, awarded shall be paid and distributed to Tenant and Landlord in accordance with their respective interests under this Lease. In determining their respective interests:

(i) Landlord's interest shall be based on the value of Landlord's interest in the Lease Area (but excluding any of Tenant's interest in the Facility or any other of Tenant's improvements on the Lease Area), taking into account the amounts paid or due to be paid by Tenant hereunder and all other terms and provisions of this Lease; and

(ii) Tenant's interest shall be based on the value of Tenant's interest in the Lease Area (determined at the time of the taking), including the value of the Facility and Tenant's other improvements for the Term, plus any cost or loss that Tenant may sustain in the removal and/or relocation of any Facility; provided, however, that in each case the value of the respective interests of Landlord and Tenant shall be calculated as if no taking covered by Sections 13(b) or 13(c) were to occur.

#### SECTION 14. ASSIGNMENT.

(a) This Lease and rights hereunder may be assigned by Tenant

(i) in Tenant's sole discretion,

A. to any entity in which Tenant, or an affiliate thereof, has a controlling interest;

B. to any entity as security for or in connection with a financing or other financial arrangement related to the Lease Area and/or the Facility, as set forth in Section 15; and,

(ii) subject to Landlord's approval and consent, such consent not to be unreasonably withheld, conditioned or delayed, to any other person or entity who assumes all of Tenant's rights and obligations hereunder, provided however that the effectiveness of any such assignment shall be conditioned on the Tenant not being then in Default. In connection with Landlord's approval and consent to any proposed assignment, Tenant shall provide Landlord with all financial information and other information about the proposed assignee reasonably requested by Landlord to determine the suitability of the assignee.

(b) Any assignment permitted hereunder shall release the assignor from obligations accruing after the date that liability is assumed by the assignee.

(c) Upon any assignment pursuant to this Section 14, Tenant shall provide to Landlord current information regarding Tenant's and all Financing Parties' addresses and the term "Tenant" in this Lease shall refer to the entity that was assigned the rights and obligations of Tenant hereunder.



## SECTION 15. FINANCING.

(a) Tenant may encumber its interest in the Lease Area and in the Facility by mortgage, lease, sale and leaseback, deed of trust or similar instrument or instruments and by security agreement, fixture filing and financing statements or similar instrument or instruments in favor of any person or persons providing all or a portion of the financing for the Facility or any person or persons providing a refinancing of any such financing or any trustee for such person or persons (each, a "Financing Party").

(b) If Tenant's rights or property are foreclosed upon or seized, or if a Financing Party exercises any other right under a security agreement granted by Tenant to that Financing Party, Landlord shall permit such Financing Party to exercise any and all Tenant rights hereunder, so long as there are no existing uncured Defaults. Landlord shall execute any document reasonably requested by any Financing Party to evidence and give effect to the provisions of this Section 15(b), subject only to the condition precedent that no Tenant Default exists.

(c) At Tenant's request, Landlord shall amend this Lease to include any provision reasonably be requested by an existing or proposed Financing Party, provided such amendment shall not impair Landlord's rights under this Lease.

(d) Landlord shall, within ten (10) days after Tenant's written request, execute and deliver to Tenant (or to such party or parties as Tenant shall designate, including a Financing Party) the following written statements:

(i) (1) certifying whether this Lease is in full force and effect (or modified and stating the modification), (2) stating the dates on which amounts due to Landlord have been paid, (3) stating that there are no known defaults existing at the time of execution of the statement, or that defaults exist and the nature of such defaults, and (4) stating that, as of the date of such estoppel certificate, there are no disputes or proceedings under this Lease between Landlord and Tenant or, if any such dispute exists, describe the nature of such disputes or proceedings;

(ii) (1) recognizing a particular entity as a Financing Party under this Agreement and (2) agreeing to accord to such entity all the rights and privileges of a Financing Party hereunder.

## SECTION 16. RECORDATION, CONFIDENTIALITY.

(a) This Lease shall not be recorded, but the Parties shall, at Tenant's expense, execute and record with the County an appropriate notice of lease ("Notice of Lease" or "Memorandum of Lease"). Also, a Financing Party may record Tenant's mortgage of this Lease to the Financing Party, and may record subordinations and/or non-disturbance agreements obtained from holders of Permitted Encumbrances.

(b) Except as provided in Section 16(a), neither Party may disclose the terms of this Lease to any other person, other than immediate family members and assignees or prospective purchasers of Parties, except that either Party may disclose the terms hereof to any counsel, lender, accountant or advisor engaged by it, and that Tenant may disclose the terms hereof to any contractor or supplier bidding upon construction of all or part of the Facility, to any person which may seek to



provide financing for or to invest in the Facility and to any future subtenant or assignee. Further, each Party may disclose any terms hereof to the extent required by law, provided that the disclosing Party, to the extent practicable, gives notice of any request for disclosure to the non-disclosing Party and cooperates with efforts by the non-disclosing Party to minimize the extent of the information disclosed and the persons to whom it is disclosed.

#### SECTION 17. DEFAULT AND REMEDIES.

(a) If Tenant fails to perform any of Tenant's material obligations under this Lease and such failure remains uncured following the required notice and cure periods as required in Section 17(c) (a "Default"), Landlord may terminate this Lease by notice to Tenant and exercise any other remedies provided in this Lease or under Applicable Law. A Default may be either a Payment Default or a Non-Payment Default.

(b) Landlord shall simultaneously notify in writing Tenant and all Tenant Financing Parties who have given advance notice of their interest in this Lease to Landlord, of any failure by Tenant to perform any Tenant obligations under this Lease, which notice shall be sent according to Section 20 and shall set forth in reasonable detail the facts pertaining to such failure and specify a reasonable method of cure.

(c) Before Landlord exercises any rights or remedies against Tenant as a result of a Tenant Default, Landlord shall give Tenant and each Financing Party [REDACTED] days' notice of and the opportunity to cure any Tenant Payment Default, [REDACTED] days' notice of and the opportunity to cure any Tenant Non-Payment Default, and (iii) a reasonable further opportunity to cure a Tenant Non-Payment Default, in which case Tenant, or the Financing Party on the Tenant's behalf, shall notify Landlord of the anticipated date for curing of the Non-Payment Default and shall begin to diligently undertake the cure within the [REDACTED] period, weather permitting.

(d) Tenant and any Financing Party may cure any Payment Default by paying all then overdue payments in full together with interest thereon at the rate of [REDACTED] [REDACTED].

(e) If Landlord fails to perform any of its obligations hereunder, including failure to perform with respect to any obligations secured by encumbrances against the Property, Tenant may offset against any amounts owing to Landlord hereunder any amounts paid by Tenant to cure such non-performance by Landlord together with interest [REDACTED] per annum and exercise any other remedies available under this Lease or Applicable Law.

SECTION 18. FORCE MAJEURE. If performance of this Lease or of any obligation hereunder (other than an obligation to pay any Rent) is prevented or substantially restricted or interfered with by reason of an event of "Force Majeure" (defined below), the affected party, upon giving notice to the other party, shall be excused from such performance to the extent of and for the duration of such prevention, restriction or interference. The affected party shall use reasonable efforts to avoid or remove such causes of nonperformance, and shall continue performance hereunder whenever such causes are removed. "Force Majeure" means any act or event that prevents the affected Party from performing its obligations in accordance with this Agreement, if such act or event is beyond the reasonable control, and not the result of the fault or negligence, of the affected Party and such Party had been unable to overcome such act or event with the exercise of due diligence (including the expenditure of reasonable sums). Subject to the foregoing, Force



Majeure may include the following acts or events: (i) Acts of God or acts of Providence including hurricanes, floods, washouts, lightning, earthquakes, storm warnings and any other adverse weather conditions which directly result in a party's inability to perform its obligations, (ii) acts of civil disorder including acts of sabotage, acts of war, lockouts, insurrection, riot, mass protests or demonstrations, threats of any of the foregoing, and police action in connection with or in reaction to any such acts of civil disorder, when any such acts of civil disorder directly results in a party's inability to perform its obligations, and (iii) failures resulting from fires, washouts, mechanical breakdowns of or necessities for making repairs or alterations to transformers, power lines, switching equipment, inverters, machinery, cables, meters or any of the equipment therein or thereon, when any such failure directly results in a Party's inability to perform its obligations.

SECTION 19. NOTICES. Notices under this Lease shall be sent to the addresses set forth below:

LANDLORD: Sherri Opalka  
[REDACTED] St  
Mesa, AZ 85207  
[REDACTED]

TENANT: Nexamp Solar, LLC  
101 Summer Street  
Boston, MA 02110  
[REDACTED]

Notices shall be deemed received if sent by certified mail (return receipt requested), courier or nationally recognized overnight delivery service to last known address of the intended recipient. Notices may also be sent by email for which the sending Party receives an affirmative confirmation that the email message has been completely transmitted without error (of which auto-replies are insufficient) and, in the case of notice by email, a copy of such notice is mailed by first class, prepaid mail within one (1) business day of delivery of such email. Email messages received on any day that is not a business day, or after 5:00 p.m. local time on a business day, shall be deemed to have been delivered on the next business day. A Party may change its address for delivery of notices hereunder by notice given in accordance with this Section. Failure of the Tenant to notify the Landlord of an address change for it or any Financing Party shall excuse the Landlord from complying with any notice obligation herein to such changed addresses, provided however that the Landlord will in no event be excused from providing notices required herein to all addresses that Landlord has notice of. Notices will be deemed given upon receipt or upon the failure to accept delivery.

SECTION 20. NO PARTNERSHIP. Landlord does not, in any way or for any purpose, become a partner of Tenant in the conduct of its business, or otherwise, or joint venturer or a member of a joint enterprise with Tenant by reason of this Lease.

SECTION 21. DISPUTE RESOLUTION.



(a) Negotiation Period. The Parties shall negotiate in good faith and attempt to resolve any dispute, controversy or claim arising out of or relating to this Agreement (a “Dispute”) within 30 days after the date that a Party gives written notice of such Dispute to the other Party.

(b) Mediation. If, after such negotiation in accordance with Section 21(a), the Dispute remains unresolved, a Party may require that a non-binding mediation take place. In such mediation, representatives of the Parties with authority to resolve the dispute shall meet for at least three (3) hours with a mediator whom they choose together. If the Parties are unable to agree on a mediator, then either Party is hereby empowered to request the American Arbitration Association (the “AAA”) to appoint a mediator. The mediator’s fee and expenses shall be paid equally by each involved Party.

(c) Arbitration of Disputes.

(i) Rules of Arbitration. Any Dispute that is not settled to the mutual satisfaction of the Parties pursuant to Sections 21(a) or 21(b) shall (except as provided in Section 21(c)(iii)) be settled by binding arbitration between the Parties conducted in a location mutually agreeable to the Parties located in New York State, and in accordance with the AAA Commercial Arbitration Rules in effect on the date that a Party gives notice of its demand for arbitration. The award rendered by the arbitrator(s) shall be final and binding on the parties and may be entered and enforced in any court having jurisdiction thereof.

(ii) Expenses. Unless otherwise ordered by the arbitrator, each Party shall bear its own expenses and proportionate cost of the arbitration panel. Payments of the arbitrator’s costs shall be made on a monthly basis prior to any award.

(iii) Exceptions to Arbitration. The obligation to arbitrate shall not be binding upon any Party with respect to (i) requests for preliminary injunctions, temporary restraining orders, specific performance, or other procedures in a court of competent jurisdiction to obtain interim relief deemed necessary by such court to preserve the status quo or prevent irreparable injury pending resolution by arbitration of the actual Dispute; (ii) actions to enforce an award of an arbitrator or otherwise to collect payments not subject to bonafide dispute; or (iii) claims involving third parties who have not agreed to participate in the arbitration of the Dispute.

(iv) Survival of Arbitration Provisions. The provisions of this Section 21 shall survive any termination of this Agreement and shall apply (except as provided herein) to any Disputes arising out of this Agreement.

## SECTION 22. MISCELLANEOUS PROVISIONS.

(a) Governing Law. This Lease shall be governed by and construed in accordance with the laws of the state of New York.

(b) Rules of Interpretation. References to sections are, unless the context otherwise requires, references to sections of this Lease. The words “hereto”, “hereof” and “hereunder” shall refer to this Lease as a whole and not to any particular provision of this Lease. The word “person” shall include individuals; partnerships; corporate bodies (including to corporations, limited



partnerships and limited liability companies); non-profit corporations or associations; governmental bodies and agencies; and regulated utilities. The word "including" shall be deemed to be followed by the words "without limitation".

(c) Entire Agreement/Amendment. This Lease contains the entire agreement of the Parties and there are no other promises, conditions, understandings or other agreements, whether oral or written, relating to the subject matter of this Lease. This Lease may be modified or amended in writing, if the writing is signed by the Parties obligated under the amendment and notice thereof is registered with the County.

(d) Severability. If any non-material part of this Lease is held to be unenforceable, the rest of the Lease will continue in effect. If a material provision is determined to be unenforceable and the Party which would have been benefited by the provision does not waive its unenforceability, then the Parties shall negotiate in good faith to amend the Lease to restore to the Party that was the beneficiary of such unenforceable provision the benefits of such provision. If the Parties are unable to agree upon an amendment that restores the Parties benefits, the matter shall be resolved under Section 21 (regarding dispute resolution) and an arbitrator may reform the Agreement as the arbitrator deems just and equitable in order to restore to the Party that was the beneficiary of the unenforceable provision the economic benefits of such provision.

(e) Waiver. The failure of either Party to enforce any provisions of this Lease shall not be construed as a waiver or limitation of that Party's right to subsequently enforce and compel strict compliance with every provision of this Lease.

(f) Binding Effect. The provisions of this Lease shall be binding upon and inure to the benefit of the Parties and their respective heirs, legal representatives, successors and permitted assigns.

(g) No Assurance as to Development. Tenant makes no representations, warranties, commitments or guarantees of any kind as to the likelihood of Tenant successfully developing, financing and/or constructing the Facility on the Lease Area.

(h) Cooperation. The Parties acknowledge that the performance of each Party's obligations under this Lease may often require the assistance and cooperation of the other Party. Each Party therefore agrees, in addition to those provisions in this Lease specifically providing for assistance from one Party to the other, that it will at all times during the Term cooperate with the other Party as required, in its reasonable discretion, and provide all reasonable assistance to the other Party to help the other Party perform its obligations hereunder. From time to time and at any time at and after the execution of this Lease, each Party shall execute, acknowledge and deliver such documents, and assurances, reasonably requested by the other and shall take any other action consistent with the terms of the Lease that may be reasonably requested by the other for the purpose of effecting or confirming (but not altering or expanding) any of the transactions contemplated by this Lease. Neither Party shall unreasonably withhold, condition or delay its compliance with any reasonable request made pursuant to this Section 22(h).

(i) Business Days. Any payment or other obligation which is due to be performed on or before a day which is not a business day in the state of New York may be performed on or before the next business day following the date provided herein.

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

*(Signatures appear on the following page.)*



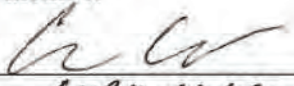
IN WITNESS WHEREOF, the Parties entered into this Lease as of the Effective Date.

**TENANT**

**Nexamp Solar, LLC**

By: Nexamp Capital, LLC,  
its sole member

By: Nexamp, Inc.,  
its sole member

By:   
Name: CHRIS CLARK  
Title: Authorized Officer

**LANDLORD**

**Sherri Opalka as Administrator  
of the Estate of Richard Opalka Sr**

By: 

Name: Sherri Opalka  
Title: Administrator

01 / 02 / 2020

## GLOSSARY OF TERMS

As used herein, the following terms shall have the meanings set forth beside them:

“Applicable Law” means any constitutional provision, law, statute, rule, regulation, ordinance, treaty, order, decree, judgment, decision, certificate, holding injunction, registration, license, franchise, permit, authorization, or guideline issued by a Governmental Authority that is applicable to a Party to this Agreement or the transaction described herein.

“Commercial Operation” shall occur for the Facility when (i) Tenant has obtained all necessary licenses, permits and approvals under Applicable Law for installing and operating the Facility, (ii) the Facility has been connected to the LDC’s electricity distribution system, and (iii) the Facility is ready and able to generate and supply electricity to the LDC electricity distribution system.

“Commercial Operation Date” means the date Tenant receives authority to interconnect the Facility from the LDC, notice of which shall be given according to Section 6(d).

“Condemnor” is defined in Section 13(a).

“County” means the county within which the Facility is located.

“Decommission” or “Decommissioning”: means performing the activities described in Section 5(c).

“Decommissioning Period” is defined in Section 4(a)(iii).

“Default” is defined in Section 17(a).

“Development and Construction Period” is defined in Section 4(a)(i).

“Dispute” is defined in Section 21(b).

“Easement(s)” shall mean those areas of land described in Section 3, as detailed in Exhibit B, until during the Development and Construction Period when Tenant shall determine the boundaries of the easements by means of a survey, and such survey shall then define the Lease Area as an amendment to this Lease as a revised Exhibit B.

“Environmental Attributes” means Renewable Energy Certificates, carbon trading credits, emissions reductions credits, emissions allowances, green tags, Green-e certifications, or other entitlements, certificates, products, or valuations attributed to the Facility and its displacement of conventional energy generation, or any other entitlement pursuant to any federal, state, or local program applicable to renewable energy sources, whether legislative or regulatory in origin, as amended from time to time, and excluding, for the avoidance of doubt, any Tax Attributes.

“Existing Encumbrances” mean those interests in the Lease Area set forth in Exhibit C attached hereto.

“Facility” means the solar powered electric generating facility, any electric energy storage facility, and all related equipment and structures, including inverters, transformers and facilities for



interconnection with the LDC, to be installed by Tenant on the Lease Area in accordance with this Lease.

“Financing Party” is defined in Section 15(a).

“Force Majeure” is defined in Section 18.

“Governmental Authority” means any international, national, federal, state, municipal, county, regional or local government, administrative, judicial or regulatory entity, and includes any department, commission, bureau, board, administrative agency or regulatory body of any government.

“Indemnified Persons” is defined in Section 11(b).

“Indemnifying Party” is defined in Section 11(b).

“Landlord” is defined in the Preamble.

“LDC” means the local electric power distribution company.

“Lease” is defined in the Preamble.

“Lease Area” means the Property, unless during the Development and Construction Period Tenant determines the boundaries of the final Lease Area, by means of a survey, which survey shall then define the Lease Area as an amendment to this Lease as a revised Exhibit B.

“Losses” means any and all losses, liabilities, claims, demands, suits, causes of action, judgments, awards, damages, cleanup and remedial obligations, interest, fines, fees, penalties, costs, and expenses (including all reasonable attorney’s fees and other costs and expenses incurred in defending any such claims or matters or in asserting or enforcing any indemnity obligation).

“Memorandum of Lease” is defined in Section 16(a).

“Non-Payment Default” means a Default due to reasons other than failure to make timely payments required under the terms of the Lease.

“Notice of Lease” is defined in Section 16(a).

“Operating Year” means a twelve month period commencing on an anniversary of the Commercial Operation Date (or with respect to the first Operating Year, commencing on the Commercial Operation Date) and ending on the date immediately preceding the next anniversary of the Commercial Operation Date.

“Operations Period” is defined in Section 4(a)(ii).

“Option Agreement” is defined in the Preamble.

“Party” is defined in the Preamble.

“Payment Default” means a failure to make timely payments required under the terms of the Lease.



“Permitted Encumbrances” mean the Existing Encumbrances and any additional mortgages granted by Landlord in accordance with Section 9(b) hereof.

“Permitted Use” means the use of the Lease Area i) to develop, install, construct, interconnect, maintain, operate, repair, replace and decommission the Facility and energy storage device(s), ii) to produce, deliver and sell electricity produced by the Facility and associated Environmental Attributes and Tax Attributes and iii) to store such equipment, supplies, tools and replacement parts as reasonably required to accomplish (i) and (ii) above, including the construction of a single story storage shed within the Lease Area.

“Property” means the real property located at State Highway 67, Amsterdam, New York, containing approximately 132.00 acres, as more particularly described in Exhibit A.

“Renewable Energy Certificate” or “REC” means a certificate, credit, allowance, green tag, or other transferable indicia, howsoever entitled, created by an applicable program or certification authority indicating generation of a particular quantity of energy, or product associated with the generation of a megawatt-hour (MWh) from a renewable energy source by a renewable energy generating facility.

“Rent” means the payments to be made in accordance with Section 7 hereof.

“Tax Attributes” means investment tax credits (including any grants or payments in lieu thereof) and any tax deductions or other benefits under the Internal Revenue Code or applicable federal, state, or local law available as a result of the ownership and/or operation of the Facility or the output generated by the Facility (including, without limitation, tax credits (including any grants or payments in lieu thereof) and accelerated and/or bonus depreciation). Tax Attributes do not include Environmental Attributes.

“Tenant” is defined in the Preamble.

“Term” means all of the Development and Construction Period, the Operations Period, and the Decommissioning Period, as such periods are described in Section 4.

## **EXHIBIT A**

### **PROPERTY DESCRIPTION**

The Property means the real property located at 2778 State Highway 67, Mohawk, New York, containing approximately 132.00 acres, which is all or a portion of the property conveyed to Landlord by deed recorded in the Montgomery County Registry of Deeds at Book 2017, Page 73368.

A handwritten signature in black ink, appearing to be 'SQ' or similar, located below the property description.

01 / 02 / 2020

**EXHIBIT B**  
**LEASE AREA AND EASEMENTS DESCRIPTION**

**Lease Area:**

The Lease Area shall mean the Property unless during the Development and Construction Period Tenant determines the boundaries of the final Lease Area by means of a survey, which survey shall then define the Lease Area and shall be an amendment to this Lease as a revised Exhibit B.

**Easements:**

The Easements shall mean those areas of land described in Section 3 of the Lease. During the Development and Construction Period the Easements boundaries shall be determined according to this Lease by means of a survey, and such survey shall then define the Easements and shall be an amendment to this Lease as a revised Exhibit B.



*SO*

01 / 02 / 2020



**EXHIBIT C**  
**EXISTING ENCUMBRANCES**

*Landlord to provide]*

<b>TITLE</b>	Opalka - Nexamp Lease - FINAL
<b>FILE NAME</b>	Opalka-Nexamp Lea...AL - 1.2.2020.pdf
<b>DOCUMENT ID</b>	1bc6976d6a76b4bfd8a8d750bff154af35b7872c
<b>AUDIT TRAIL DATE FORMAT</b>	MM / DD / YYYY
<b>STATUS</b>	● Completed

## Document History



SENT

01 / 02 / 2020

15:29:13 UTC

Sent for signature to Sherri Opalka [REDACTED]  
from [REDACTED]  
[REDACTED]



VIEWED

01 / 02 / 2020

15:37:38 UTC

Viewed by Sherri Opalka [REDACTED]  
[REDACTED]



SIGNED

01 / 02 / 2020

15:39:09 UTC

Signed by Sherri Opalka [REDACTED]  
[REDACTED]



COMPLETED

[REDACTED] 02 / 2020

15:39:09 UTC

The document has been completed.

## **Appendix F : Ag Data Statement**

---



## Appendix G: Abutter List



Owner Name	Property Address	Owner Address	Calculated Acres	County	State
FULTON MONTGOMERY COMM COL	2805 STHWY 67, JOHNSTOWN, NY 12095	2805 STATE HIGHWAY 67 JOHNSTOWN, NY 12095- 3749	80.06276832	Montgomery	NY
RICHARD, OPALKA	2778 STHWY 67, FONDA, NY 12068	7219 E KRAMER ST MESA, AZ 85207-1912	132.07781311	Montgomery	NY
HOHENFORST, THOMAS R	ST HWY 67, FONDA, NY 12068	300 FOREST AVE AMSTERDAM, NY 12010- 2710	14.8724136	Montgomery	NY
LAPLANTE, STEVEN	2820 STHWY 67, FONDA, NY 12068	2820 STATE HIGHWAY 67 JOHNSTOWN, NY 12095- 3748	20.35232655	Montgomery	NY

## **Appendix H: Insurance Information**

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# CERTIFICATE OF LIABILITY INSURANCE

Page 1 of 1

DATE (MM/DD/YYYY)  
02/04/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Willis Towers Watson Northeast, Inc. c/o 26 Century Blvd P.O. Box 305191 Nashville, TN 37205191 USA		<b>CONTACT</b> NAME: Willis Towers Watson Certificate Center PHONE (A/C, No, Ext): 1-877-945-7378 FAX (A/C, No): 1-888-467-2378 E-MAIL ADDRESS: certificates@willis.com															
<b>INSURED</b> Nexamp, Inc. 101 Summer Street Boston, MA 02110		<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A: Lloyds Syndicate 0457</td> <td>B0518</td> </tr> <tr> <td>INSURER B: Crum &amp; Forster Indemnity Company</td> <td>31348</td> </tr> <tr> <td>INSURER C: United States Fire Insurance Company</td> <td>21113</td> </tr> <tr> <td>INSURER D:</td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </tbody> </table>		INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Lloyds Syndicate 0457	B0518	INSURER B: Crum & Forster Indemnity Company	31348	INSURER C: United States Fire Insurance Company	21113	INSURER D:		INSURER E:		INSURER F:	
INSURER(S) AFFORDING COVERAGE	NAIC #																
INSURER A: Lloyds Syndicate 0457	B0518																
INSURER B: Crum & Forster Indemnity Company	31348																
INSURER C: United States Fire Insurance Company	21113																
INSURER D:																	
INSURER E:																	
INSURER F:																	

## COVERAGES

CERTIFICATE NUMBER: W20041510

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC OTHER:			SO204794302	12/31/2020	12/31/2021	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
B	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input checked="" type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> DESCRIPTION OF OPERATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule may be attached if more space is required) <input type="checkbox"/> AUTOS ONLY			133-749015-3	12/31/2020	12/31/2021	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR EXCESS LIAB CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 0			SO204794302	12/31/2020	12/31/2021	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N No	N/A	408-740383-B	12/31/2020	12/31/2021	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

## CERTIFICATE HOLDER

## CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

*Julia M. Powers*

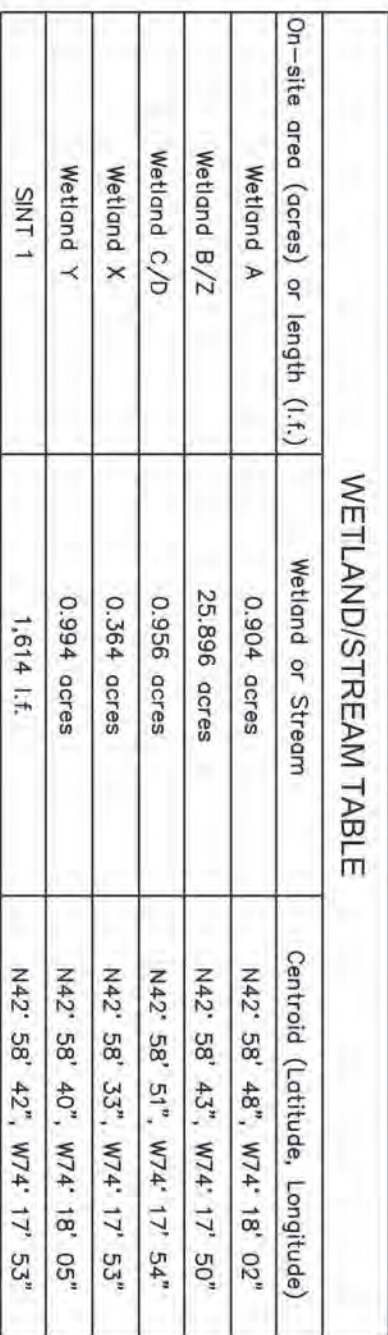
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## **Appendix I: Full Survey**

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WETLAND/STREAM TABLE		
On-site area (acres) or length (ft.)	Wetland or Stream	Centroid (Latitude, Longitude)
Wetland A	0.504 acres	N42° 58' 48", W74° 18' 02"
Wetland B	25.868 acres	N42° 58' 45", W74° 17' 50"
Wetland C/D	0.556 acres	N42° 58' 51", W74° 17' 54"
Wetland X	0.564 acres	N42° 58' 33", W74° 17' 53"
Wetland Y	0.994 acres	N42° 58' 40", W74° 18' 05"
SNIT 1	1.614 ft.	N42° 58' 42", W74° 17' 53"



JASON M. TOMMELL, L.S. #50605

**CH2M HILL ENGINEERING, LAND SURVEYING,  
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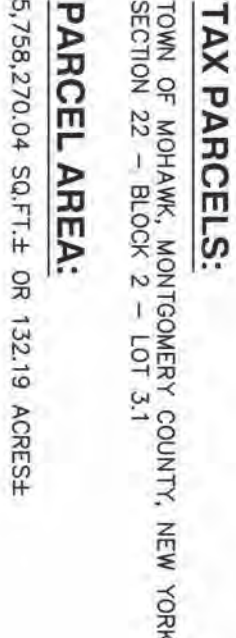
**Office Locations**

- Orono Falls, NY
- Lehigh, NY
- Poughkeepsie, NY
- White Plains, NY
- New York City, NY

[illegible]

**LANDS NOW OR FORMERLY OF THE  
ESTATE OF RICHARD OPALKA, SR., BY  
SHERRI OPALKA, ADMINISTRATRIX**

designed DML	checked JMT
date 04/27/21	scale 1"=200'
project no. 51711.12	
sheet no. <b>SV1</b>	



**DEED REFERENCE:**

### MAP REFERENCES:

- MAP ENTITLED "SURVEY MAP OF A PORTION OF LANDS OF ESTATE OF STELLA OPALKA", PREPARED FERGUSON & FOSS, DATED OCTOBER 28, 2013, FILED IN THE MONTGOMERY COUNTY CLERK'S OFFICE.

**GENERAL NOTES:**

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED ENGINEER'S SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

DISBURSEMENT STRUCTURES NOT VISIBLE OR READILY APPARENT ARE NOT SHOWN AND THEIR LOCATION AND EXISTENCE ARE NOT CERTIFIED.

THE CONTRACTOR SHALL COMPLY WITH NEW YORK STATE INDUSTRIAL CODE RULE 53-1.48 HOURS PRIOR TO DIGGING CALL U.F.P.O. 1-800-962-7962 TO HAVE PUBLIC UTILITY LOCATIONS PAINTED.

HORIZONTAL DATUM AND NORTH ORIENTATION ARE BASED ON THE NYS PLANE COORDINATE SYSTEM (NA083-CENTRAL ZONE) UTILIZING GNSS OBSERVATIONS ON THE NYS DOT RTN NETWORK, NAVD88, GEOID 18. HORIZONTAL AND VERTICAL DATUMS WERE DETERMINED BY GNSS OBSERVATION AT THE TIME OF FIELD SURVEY. (APRIL 2020).

TOPOGRAPHY SHOWN HEREON WAS COMPLETED FROM AERIAL PHOTOGRAPHY COMPLETED ON MARCH 16, 2020 BY BLUESKY GEOSPATIAL, DATUM NAD83, 2 FOOT CONTROL INTERVAL SUPPLEMENTED BY FIELD SURVEY EDITS COMPLETED ON APRIL 2, 2020 BY CHAZEN COMPANIES.

THE UNDERGIRD UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING RECORDS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGIRD UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGIRD UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE REASONABLY ACCURATE, AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGIRD UTILITIES.

SUBJECT TO ANY STATE OF FACTS AN UP TO DATE ABSTRACT OF TITLE WOULD DISCLOSE  
SURVEY SUBJECT TO ANY RIGHT, TITLE OR INTEREST THE PUBLIC MAY HAVE FOR  
HIGHWAY USE.

POTENTIAL AQUIFIC RESOURCES DELINEATED AND LOCATED BY DAVID MACDOUGALL AND AMANDA VESCOVI OF THE CHAZEN COMPANIES ON APRIL 16 & 18, 2020 USING A HAND-HELD GEO XT TRIMBLE UNIT.

### FLOOD ZONE CLASSIFICATION:

LANDS ARE SHOWN TO LIE WITHIN ZONE X, AREA OF MINIMAL FLOODING, AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD INSURANCE RATE MAP (FIRM) FOR THE TOWN OF MOHAWK, MONTGOMERY COUNTY, NEW YORK IDENTIFIED AS MAP NUMBER 36057C0185E BEARING AN EFFECTIVE DATE OF JANUARY 9, 2018, NOT PRINTED

THIS INTERPRETATION OF THE BASE FLOOD ELEVATION SHOULD NOT BE RELIED UPON FOR DESIGN PURPOSES WITHOUT OBTAINING CONFIRMATION FROM THE LOCAL FLOOD ADMINISTRATOR AND/OR FEMA AS TO AGREEMENT OF THIS INTERPRETATION OF THE SPECIAL FLOOD HAZARD AREA.

# PRELIMINARY