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FCC RF Compliance Report, Pinnacle Telecom Group, dated January 3, 2022		**28**
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TACONAH CANTINA AT GOLDENS BRIDGE VILLAGE CENTER, NYS ROUTE 22, GOLDENS BRIDGE	**Cal #02-24PB**	
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Site plan, Helmes Group, dated August 6, 2015		**127**

Architectural drawings, GDA, dated September 12, 2023		**128**
DOUBLE H FARM/REID SUBDIVISION, 20 BOUTONVILLE ROAD - SOUTH, CROSS RIVER	**Cal #06-23PB**	
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MERCHAN AND VALENCIA RESIDENCE, 1324 ROUTE 35, SOUTH SALEM	**Cal #22-23WP**	**Cal #02-23WV**
Restoration plan, Tracy Chalifoux, dated February 9, 2024		**286**
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CAC memo, dated March 12, 2024		**291**
Planning Board applications, undated		**292**
Site plan; Gregory Caccioppoli, P.E.; dated February 14, 2024		**299**
Survey, H. Stanley Johnson and Company, dated July 18, 2023		**300**
Architectural drawings, Luft Architects, dated January 5, 2023		**301**
SCHEDULE A SPECIAL MEETING TO REVIEW THE ZONING CHANGES TO THE TOWN CODE AS DRAFTED BY THE COMPREHENSIVE PLAN CONSULTANTS	**N/A**	
-		-
PUBLIC HEARING NOTICE PROCESS	**N/A**	
-		-

TOWN OF LEWISBORO
Westchester County, New York

Planning Board
79 Bouton Road
South Salem, New York 10590

Tel: (914) 763-5592
Fax: (914) 875-9148
Email: planning@lewisborogov.com

AGENDA

Tuesday, March 19, 2024 **The Commons / Courtroom at 79 Bouton Road**

Meeting will start at 7:30 p.m. and end at or before 11:00 p.m.

I. CONTINUATION OF PUBLIC HEARING

Cal #06-17PB, Cal #43-23WP, Cal #18-23SW
Wolf Conservation Center, Buck Run, South Salem, NY 10590; Sheet 21, Block 10803, Lots 3, 65, 67, 81, 82, 83, 86 & 88 (Wolf Conservation Center, owner of record) - Application for a Site Development Plan Approval, Special Use Permit Approval, Wetland Activity Permit Approval and Stormwater Permit Approval for a private nature preserve.

II. EXTENSION OF TIME REQUEST

Cal #08-14PB, Cal# 95-14WP, Cal# 20-14SW
Goldens Bridge Village Center, NYS Route 22, Goldens Bridge, NY 10526; Sheet 4, Block 11126, Lot 07 (Stephen Cipes, owner of record) – The Planning Board Resolution for Site Development Plan Approval, Wetland Activity Permit Approval and Town Stormwater Permit granted on January 21, 2020 for modifications to the existing shopping center; the current expiration date was January 22, 2024.

III. CORRESPONDENCE

Cal #02-20PB
Mandia Residences, 65 Old Bedford Road, Goldens Bridge, NY 10526 Sheet 4A, Block 11112, Lot 2 (Town of Lewisboro, owner of record) - Request for final release of the apartments' construction performance bond.

IV. SPECIAL USE PERMIT RENEWAL

Cal #6-01PB
T-Mobile Wireless Telecommunications at Leon Levy Preserve, NYS Route 35 AND NYS Route 123, South Salem, NY 10590; Sheet 40, Block 10263, Lot 62 (American Towers, Inc., owner of record) – Application for a Special Use Permit Approval renewal for T-Mobile facility at an existing cell tower.

V. SITE DEVELOPMENT PLAN REVIEWS

Cal #18-22PB
Bichon LLC, 876 Route 35, Cross River, NY 10518; Sheet 20, Block 10801, Lot 2 (Bichon LLC – owner of record) – Application for a change of use from residential to commercial (professional offices and outdoor storage of flatbed trucks).

Cal #02-24PB
Taconah Cantina at Goldens Bridge Village Center, NYS Route 22, Goldens Bridge, NY 10526, Sheet 4, Block 11126, Lot 07 (Stephen Cipes, owner of record) – Application for a change of use from retail to restaurant.

Cal #06-23PB
Double H Farm/Reid Subdivision, 20 Boutonville Road - South, Cross River, NY 10518; Sheet 18, Block 10526, Lot 10 (Double H Farm LLC, owner of record) and 45 Route 121 - South, Cross River, NY 10518; Sheet 18, Block 10526, Lot 4 (Felicia & Kevin Reid, owners of record) – Application for a subdivision and private riding academy.

VI. WETLAND PERMIT REVIEWS

Cal #22-23WP, Cal #02-23WV
Merchan and Valencia Residence, 1324 Route 35, South Salem, NY 10590; Sheet 39, Block 10543, Lot 22 (Lina Merchan and Fabio Valencia, owners of record) - Application for remediation of wetlands.

Cal #01-24PB, Cal#06-24WP, Cal #02-24SW
Mayer and Raiffe Residence, 29 Todd Road, Katonah, NY 10536; Sheet 5, Block 10776, Lot 37 (Jaime Mayer & Daniel Raiffe, owners of record) - Application for septic expansion.

VII. DISCUSSION

Schedule a special meeting to review the zoning changes to the Town Code as drafted by the Comprehensive Plan consultants.

Public Hearing Notice process

VIII. MINUTES OF February 20, 2024.

IX. NEXT MEETING DATE: April 16, 2024.

X. ADJOURN MEETING.

Ciorsdan Conran

From: nancytuccillo@aol.com
Sent: Friday, January 19, 2024 8:42 AM
To: Ciorsdan Conran
Subject: Request for extension of building permit

Hi Ciorsdan,

We would like to request an extension of the existing permit for the development of the north lot at the North County shopping center in Goldens Bridge.

We have done extensive engineering on the site in the north lot and are working with an architect to develop plans to present to the building department currently.

Kindly let us know if this request meets with your approval or if you might need any further information.

With best regards,

Nancy Tuccillo
Property Manager
914-769-3141

Ciorsdan Conran

From: Bruce Mandia <bcjjm75@gmail.com>
Sent: Wednesday, February 28, 2024 9:48 AM
To: Ciorsdan Conran
Cc: katharine mandia
Subject: Re: 65 Old Bedford Rd
Attachments: Mandia PB Res cert 022823.pdf

Hello Ciorsdan,
I hope you have been well.
I am writing to request the release of the remaining 10% of the performance bond in the amount of $4,635.10 regarding the above captioned property. The release of the bond was authorized at the Planning Board meeting of February 28, 2023. The C/O was issued on November 17, 2022.
Thank you for all your help!
Very truly yours,
Bruce Mandia

Sent from my iPhone

> On Mar 1, 2023, at 1:48 PM, Ciorsdan Conran <Planning@lewisborogov.onmicrosoft.com> wrote:
>
> Hi Bruce -
>
> Attached please find the Resolution from last night's Planning Board meeting.
>
> A hard copy will be US mailed to you or hand delivered when you return the public hearing sign.
>
> Ciorsdan
>
>
>
> Ciorsdan Conran
> Town of Lewisboro
> Planning Board Administrator
> email: Planning@lewisborogov.com
> tel # 914-763-5592, fax # 914-875-9148
> mailing address: 79 Bouton Road, South Salem, NY 10590 physical address: 79 Bouton Road, South Salem, NY 10590
Typical hours: 9:00 a.m.. - 4:30 p.m.
>
>

LAW OFFICES OF
SNYDER & SNYDER, LLP
94 WHITE PLAINS ROAD
TARRYTOWN, NEW YORK 10591
(914) 333-0700
FAX (914) 333-0743

WRITER'S E-MAIL ADDRESS
DKenny@snyderlaw.net

NEW YORK OFFICE
445 PARK AVENUE, 9TH FLOOR
NEW YORK, NEW YORK 10022
(212) 749-1448
FAX (212) 932-2693

LESLIE J. SNYDER
ROBERT D. GAUDIOSO (NY/NJ)
DOUGLAS W. WARDEN
JORDAN M. FRY
MICHAEL SHERIDAN (NY/NJ)
DAVID KENNY (NY/NJ)

DAVID L. SNYDER
(1956-2012)

NEW JERSEY OFFICE
ONE GATEWAY CENTER, SUITE 2600
NEWARK, NEW JERSEY 07102
(973) 824-9772
FAX (973) 824-9774

REPLY TO:
Tarrytown Office

February 9, 2024

Honorable Chair Janet Anderson and
Members of the Planning Board
Town of Lewisboro
79 Bouton Road
South Salem, NY 10590

RE: T-Mobile Northeast LLC (Special Permit Renewal)
Special Permit Renewal (S-B-L 40-10263-62)
NYS Route 35 and NYS Route 123, Lewisboro, New York

Dear Chair Anderson and
Members of the Planning Board:

We represent T-Mobile Northeast LLC ("T-Mobile") in connection with its enclosed application to renew its special permit for its existing wireless telecommunications facility ("Facility") located at the above referenced property ("Property").

In connection therewith, enclosed please find a check in the amount of $205.00 representing the application fee and a check in the amount of $1,000.00 representing the escrow submission together with nine (9) copies of the following documents:

1. Application forms signed by applicant and owner;
2. Letter of Authorization from Property Owner and Tower Owner;
3. FCC RF Emissions Compliance Report;
4. EAF with Attachments; and
5. Structural Analysis Report.

T-Mobile also respectfully requests pursuant to §220-41.1(H)(3) of the Town Code, a waiver from holding a public hearing and waiver from the submission of application items generally required for a new special permit.

Thank you for your prompt consideration. We look forward to discussing this matter with the Planning Board further at the next available meeting.

Sincerely yours,
Snyder & Snyder, LLP

By: _____
David J. Kenny

Enclosures
cc: T-Mobile
Z:\SSDATA\WPDATA\SS3\RDG\T-Mobile\Lewisboro\NY09050\Ltr.PB.djk.rtf

GH
ATC 88166
14570284

TOWN OF LEWISBORO PLANNING BOARD

79 Bouton Road, South Salem, NY 10590 Tel: (914) 763-5592 Email: planning@lewisboroogov.com

Site Development Plan/Subdivision Plat Application – Check all that apply:

Waiver of Site Development Plan Procedures	☐		
Site Development Plan Approval	Step I ☐	Step II ☐	
Special Use Permit RENEWAL	Step I ☑	Step II ☑	
Subdivision Plat Approval	Step I ☐	Step II ☐	Step III ☐

Project Information

Project Name: T-Mobile Special Permit Renewal

Project Address: NYS Route 35 and NYS Route 123

Gross Parcel Area: _____ Zoning District: R-4A Sheet(s): 0040 Block (s): 10263 Lot(s): 62A

Project Description: Special Permit Renewal for T-Mobile's Wireless Telecommunications Facility located on the existing tower at the above identified Project Address

Is the site located within 500 feet of any Town boundary?	YES ☐	NO ☑
Is the site located within the New York City Watershed?	YES ☑	NO ☐
Is the site located on a State or County Highway?	YES ☑	NO ☐

Does the proposed action require any other permits/approvals from other agencies/departments?

Town Board ☐	ZBA ☐	Building Dept. ☐	Town Highway ☐
ACARC ☐	NYSDEC ☐	NYCDEP ☐	WCDH ☐
NYSDOT ☐	Town Wetland ☐	Town Stormwater ☐	

Other _____

Owner's Information

Name: American Towers LLC Email: _____

Address: 10 Presidential Way, Woburn, MA 01801 Phone: 781-926-4500

Applicant's Information (If different)

Name: T-Mobile Northeast LLC Email: Dkenny@snyderlaw.net

Address: c/o Snyder & Snyder LLP 94 White Plains Rd Tarrytown, NY 10591 Phone: 914-333-0700

Authorized Agent's Information

Name: _____ Email: _____

Address: _____ Phone: _____

THE APPLICANT understands that any application is considered complete only when all information and documents required have been submitted and received by the Planning Board. The applicant further understands that the applicant is responsible for the payment of all application and review fees incurred by the Planning Board.

THE UNDERSIGNED WARRANTS the truth of all statements contained herein and in all supporting documents according to the best of his/her knowledge and belief, and authorizes visitation and inspection of the subject property by the Town of Lewisboro and its agents.

APPLICANT'S SIGNATURE _____ DATE 1/18/24

OWNER'S SIGNATURE By: _____ DATE _____

Margaret Robinson, Vice President, UST Legal for American Towers LLC.

TOWN OF LEWISBORO PLANNING BOARD

79 Bouton Road, South Salem, NY 10590
Email: planning@lewisborogov.com
Tel: (914) 763-5592 Fax: (914) 875-9148

Tax Payment Affidavit Requirement

This form must accompany all applications to the Planning Board.

Under regulations adopted by the Town of Lewisboro, the Planning Board may not accept any application unless an affidavit from the Town of Lewisboro Receiver of Taxes is on file in the Planning Board office. The affidavit must show that all amounts due to the Town of Lewisboro as real estate taxes and special assessments on the total area encompassed by the application, together with all penalties and interest thereon, have been paid.

Under New York State law, the Westchester County Clerk may not accept any subdivision map for filing unless the same type of affidavit from the Town of Lewisboro Receiver of Taxes is submitted by the applicant at the time of filing.

This form must be completed by the applicant and must accompany all applications to the Planning Board. Upon receipt, the Planning Board Secretary will send the form to the Receiver of Taxes for signature and notarization. If preferred, the applicant may directly obtain the signature of the Receiver of Taxes and notarization prior to submission.

To Be Completed by Applicant
(Please type or print)

T-Mobile Northeast LLC
Name of Applicant

T-Mobile Special Permit Renewal
Project Name

Property Description

Tax Block(s): 10263

Tax Lot(s): 62

Tax Sheet(s): 0040

Property Assessed to:

American Towers ~~LLC~~ Inc. c/o American Towers Corp.
Name

116 Huntington Avenue
Address

Boston, Ma 02116 PO Box 723597 (Suite 88166) Atlanta, GA 31139
City *State* *Zip*

The undersigned, being duly sworn deposes and says that a search of the tax records in the office of the Receiver of Taxes, Town of Lewisboro, reveals that all amounts due to the Town of Lewisboro as real estate taxes and special assessments, together with all penalties and interest thereon, affecting the premises described below, have been paid.

Signature - Receiver of Taxes: _____ 2.20.2024
Date

Sworn to before me this

20th **day of** February, 2024

Signature - Notary Public (affix stamp)

JANET L. DONOHUE
NOTARY PUBLIC, STATE OF NEW YORK
No. 01DO6259627
Qualified in Westchester County
Commission Expires April 16, 2028

AMERICAN TOWER®
CORPORATION

LETTER OF AUTHORIZATION FOR PERMITTING

Licensee Name: T-MOBILE NORTHEAST LLC dba T-MOBILE
@ ATC Site Name: SOUTH SALEM NY ATC Site #: 88166
Site Address: ROUTE 35, South Salem NY
Coordinates- 41.258500, -73.534721 (41°15'30.6"N 73°32'05.0"W)
Site Acquisition Vendor (Applicant Representative): Charles Cherundolo Consulting, Inc.

I, Margaret Robinson, Vice President, UST Legal for American Tower*, by and through their wholly owned subsidiary, **American Towers LLC**, owner of the property and tower facility located at the address identified above (the "Tower Facility"), do hereby authorize **T-MOBILE NORTHEAST LLC dba T-MOBILE, Charles Cherundolo Consulting, Inc.**, their successors and assigns, and/or their agent, (collectively, the "Licensee") to act as American Tower's non-exclusive agent for the sole purpose of filing and consummating any land-use, building, or electrical permit application(s) as may be required by the applicable permitting authorities for the renewal of **T-MOBILE NORTHEAST LLC dba T-MOBILE**'s Special Use Permit.

I understand that these applications may be approved with conditions. The above authorization is limited to the acceptance by Licensee only of conditions related to Licensee's installation and any such conditions of approval or modifications will be Licensee's sole responsibility.

Signature:

Print Name: Margaret Robinson
Vice President, UST Legal
American Tower*

NOTARY BLOCK

Commonwealth of MASSACHUSETTS
County of Middlesex

This instrument was acknowledged before me by Margaret Robinson, Vice President, UST Legal for American Tower*, personally known to me (or proved to me based on satisfactory evidence of identification) to be the person whose name is signed on the preceding or attached document and acknowledged to me that they signed it voluntarily for its stated purpose.

WITNESS my hand and official seal, this 24th day of July 2023

NOTARY SEAL

MELISSA ANN METZLER
Notary Public
Commonwealth of Massachusetts
My Commission Expires March 14, 2025

Notary Public
My Commission Expires: March 14, 2025

* American Tower is defined as American Tower Corporation and any of its affiliates or subsidiaries.

Please Return to:
Intercounty Clearance Corporation
440 Ninth Avenue
New York, NY 10001-1686
862905

11209C
A9943

PIN #Sheet 40, Block 10263, Lot 62
Town of Lewisboro (County of Westchester), NY

After Recordation, Return To:

Sullivan & Worcester LLP
One Post Office Square
Boston, Massachusetts 02109
Attn: Sander Ash, Esq.

Transfer Tax Due:

STATE OF GEORGIA

COUNTY OF FULTON

NEW YORK
QUITCLAIM DEED

Site: South Salem Code: NY3280

THIS INDENTURE is made this 14th day of January, 2005 between **AT&T CORP.**, a New York corporation, formerly known as American Telephone and Telegraph Company, a New York corporation, having as its address 295 North Maple Avenue, Basking Ridge, NJ 07920-1002 ("Grantor"), and **AMERICAN TOWERS, INC.**, a Delaware corporation, having as its address c/o American Tower Corporation, 116 Huntington Avenue, Boston, MA 02116 (hereinafter referred to as "Grantee")(the words "Grantor" and "Grantee" to include their respective heirs, successors, legal representatives and assigns where the context permits or requires).

WITNESSETH:

GRANTOR, for and in consideration of the sum of
and other valuable consideration in hand paid at and before the sealing and delivery of these presents, the receipt, adequacy and sufficiency whereof are hereby acknowledged, does by these presents remise, release and quit-claim unto Grantee forever all of Grantor's right, title and interest in and to:

ALL THE TRACT(S) OR PARCEL(S) OF LAND being more particularly described on Exhibit "A" attached hereto and by this reference made a part hereof (hereinafter referred to as the "Property").

TO HAVE AND TO HOLD said Property unto Grantee forever, so that neither Grantor nor any entity or entities claiming under Grantor shall at any time, by any means or ways, have, claim, or demand any right, title, or interest in or to the Property or its appurtenances, or any rights thereof;

GRANTOR RESERVES UNTO ITSELF, and excepts from the above conveyance, the easements, rights and privileges hereinafter set forth:

(a) By its acceptance of this Deed, Grantee acknowledges and agrees Grantor has and hereby does reserve an exclusive, perpetual easement and right-of-way (the "Reserved Easement") for the benefit of Grantor, its Affiliates[1] and its and their respective transferees, successors and assigns, for the purpose of installing, operating, maintaining, repairing, removing and replacing underground telecommunication cables and conduits of Grantor, its Affiliates and its and their respective transferees, successors and assigns, together with manholes, markers and surface testing terminals and any regeneration huts or other above-surface improvements existing upon, over and under the Property as of the date first above written (collectively, the "Easement Area Equipment"), in such locations (the "Easement Area") where (i) the Easement Area Equipment is currently located and with respect to subsurface installations, as is marked by utility installation markers, and (ii) should there be no existing Easement Area Equipment installed on the date hereof, Easement Area Equipment may be installed within an Easement Area, the location of which Grantee may hereafter approve, which approval shall not be unreasonably withheld, conditioned or delayed (taking into account Grantee's then current use of the burdened Property and the reasonable future use thereof). By its acceptance of this Deed, the Grantee acknowledges its intent to find at least one location for the Reserved Easement. Such Easement Area shall be a minimum of sixteen and one-half (16½) feet in width and a maximum of thirty (30) feet in width. Should the Easement Area Equipment now installed (or that initially installed in the future) not encumber the maximum Easement Area, additional Easement Area Equipment may be constructed or installed within such Easement Area and, with respect to any underground cabling, conduits, wires, lines or similar improvements, such additional Easement Area Equipment shall be installed in a line parallel to and equidistant from the first cable laid; provided sufficient area is available for the installation of the additional Easement Area Equipment in the reasonable discretion of Grantee, taking into account Grantee's then current use

[1] Affiliates. Shall mean, with respect to any person or entity, any other person or entity that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, such first person or entity. As used in this definition, "control" (including, with correlative meanings, "controlled by" and "under common control with") shall mean possession, directly or indirectly, of the power to direct or cause the direction of management or policies (whether through ownership of securities or partnership or other ownership interests, by contract or otherwise).

of the burdened Property and the reasonable future use thereof. Grantor shall install, maintain and replace, as appropriate, surface markers indicating the location of the Easement Area Equipment.

(b) Grantor further reserves the following rights and powers incidental to the Easement Area and the "Temporary Easement Area" (as hereinafter defined):

(i) A non-exclusive temporary right-of-way and easement (the "Temporary Easement") to be used solely for the purpose of installing, repairing, removing or replacing Easement Area Equipment upon a strip of land ten (10) feet wide on either side of the Easement Area (the "Temporary Easement Area"), provided sufficient area is then available for the installation of the additional Easement Area Equipment, taking into account Grantee's then current use of the burdened Property. Subject to the foregoing limitation, Grantor shall be entitled to park its vehicles and store its materials in the Temporary Easement Area in connection with the Grantor's exercising its rights under the Temporary Easement.

(ii) If the Easement Area or the Temporary Easement Area is not accessible other than by crossing over other portions of the Property, the right of vehicular and pedestrian ingress and egress over such portion of the Property as Grantee shall from time to time designate for such purposes to and from the Easement Area or the Temporary Easement Area, as the case may be, in connection with the exercise of the Temporary Easement rights or the Reserved Easement rights;

(iii) The right to clear all trees, roots, brush, vines, overhanging limbs and other obstructions from the surface and subsurface of the Easement Area and, in connection with the exercise of the Temporary Easement rights, the surface or subsurface of the Temporary Easement Area.

(c) Except as provided in paragraph (a) above, no excavation, building, structure or obstruction will be constructed, erected, built or permitted in or on the surface of the Easement Area and no change will be made by grading or otherwise to the surface or subsurface of the Easement Area. Provided there is no interference with above ground installations located upon or across the Easement Area, Grantee shall have the right to use the surface of the Easement Area for vehicular and pedestrian ingress and egress, except that such use shall exclude heavy trucks, equipment and construction vehicles which could impair the use of or damage the Easement Area Equipment. Should Grantee or Grantee's designees desire to use a portion of the Easement Area, Grantor shall not unreasonably withhold, delay or condition its consent to a proposed use, taking into account Grantor's existing use and the planned reasonable future use thereof; and provided, further, Grantor may condition its consent to Grantee's use of the Easement Area being subject to the same conditions respecting the use thereof by Grantor as are set forth in subparagraph (e) hereinbelow.

(d) Any party seeking to construct, install or maintain any subsurface installations shall call the appropriate utility line location service (e.g., Miss Dig) to determine the location of any Grantor- or Grantee-installed communications systems and utilities prior to the commencement of any work on the Property.

(e) The foregoing reservations are intended to benefit Grantor, its Affiliates, and its and their respective transferees, successors and assigns, and are subject to the following terms and conditions, each of which shall be binding upon Grantor, its Affiliates, and its transferees, successors and assigns, as the case may be (each of which of the foregoing parties is for the purpose of this subparagraph (e) referred to as a "Beneficiary" or collectively, if applicable, the "Beneficiaries;" and each Beneficiary by its exercising of any right reserved to it hereunder shall have agreed to be bound by the following), and each of which shall be effective only from and after the date hereof:

(i) Except to the extent caused by or resulting from the negligence or willful misconduct of Grantee, from and after the date hereof, the Beneficiaries shall defend, indemnify and hold harmless Grantee, its officers, directors, employees, partners, tenants, invitees, licensees and contractors from all costs, damages, expenses (including, without limitation, reasonable attorneys' fees and disbursements), foreseen or unforeseen, arising (directly or indirectly) after the date hereof from or in connection with the exercise by any Beneficiary of any right reserved unto the Beneficiaries in this reservation, including, but not limited to, the installation, maintenance, operation, removal, replacement or presence, in each case after the date hereof, of the Easement Area Equipment and other property at the Property, any work or thing done or condition created by Beneficiary after the date hereof at the Property, and any and all costs (including attorneys' fees) of enforcing the terms of subparagraphs (a) through (e) hereof.

(ii) Except in the case of emergency when notice reasonable under the circumstances shall be given and except in the case of normal patrols of the Easement Area for the purpose of observing the presence of surface markers or erosion for which no notice is required, Beneficiary shall give reasonable prior written notice before entering upon the Property. Such notice(s) shall set forth in reasonable detail any and all work and actions to be undertaken in connection with such entry.

(iii) Beneficiary shall not suffer or permit any lien to be filed, or shall promptly bond over such lien, against the Property relating to, or arising out of, work performed or materials supplied by or for Beneficiary after the date hereof.

(iv) All work performed by Beneficiary relating to the Easement shall be reasonably coordinated with Grantee and with other work being performed at the Property

(taking into account any emergency conditions which may exist). Beneficiary shall promptly repair any damage to the Property occasioned by its exercise of any of its rights related to the Reserved Easement or the Temporary Easement.

(v) Beneficiary shall secure all necessary licenses, permits and other governmental approvals before performing any work at the Property and shall, from and after the date hereof, comply with all applicable laws governing its use of the Easement Area, and shall carry, if required by applicable law, and cause each of its contractors and subcontractors to carry, workers' compensation insurance in statutory amounts.

(vi) The agreements, easements, covenants, conditions, undertakings, restrictions, rights, privileges made, granted or assumed, or reserved, as the case may be, by Grantee, the Beneficiaries or Grantor, as the case may be, are made not only personally for the benefit of the other parties hereto but also shall run with the land and constitute an equitable servitude on the portion of the land owned by such party appurtenant to the Property, the Easement Area, or the Temporary Easement Area, as the case may be. Any transferee of all or any portion of the Property or all or any portion of the Easement Area or Temporary Easement Area shall be deemed automatically by acceptance of the same, to have assumed all obligations herein set forth and to have agreed with the party then burdened by the rights herein created and reserved to execute any and all instruments and to do any and all things reasonably required to carry out the intention of the agreements herein set forth, and the transferor shall, upon completion of such transfer involving all of its interest in the Easement Area or the Temporary Easement Area and upon the giving of written notice of such transfer to the other, be relieved of all further liability with respect to the Property, Easement Area and/or the Temporary Easement Area transferred, except liability with respect to matters that may have arisen from and after the date hereof and prior to the date of said transfer. The written notice of transfer shall include the name and address of the transferee.

(vii) If the consolidated net worth of the Beneficiaries who are obligated under the indemnity contained in this subparagraph (e) is at any time less than as determined by generally accepted accounting principles consistently applied, the within reservations shall terminate unless at all times thereafter the Beneficiaries maintain for the benefit of Grantee evidence of insurance reasonably satisfactory to Grantee. In such case, the Beneficiaries shall maintain and deliver from time to time as reasonably requested by Grantee evidence of such insurance reasonably satisfactory to Grantee so long as such party is a Beneficiary of the Easement. By acceptance of this Deed, the Grantee acknowledges that evidence of commercial general liability insurance in the

minimum amount of (as such amount shall be reasonably adjusted from time to time to account for inflation) shall be a reasonable amount of commercial general liability insurance acceptable to Grantee. Unless the stock of Beneficiary or, if Beneficiary is a subsidiary of the Grantor, the stock of its parent company shall then be publicly traded, Beneficiary shall provide evidence of its net worth to Grantee from time to time upon Grantee's request.

IN WITNESS WHEREOF, Grantor has signed and sealed this deed, the day and year first above written.

In the presence of:

Virginia N. Goss

Virginia N. Goss

GRANTOR:

AT & T Corp., a New York corporation,
Formerly known as American Telephone
And Telegraph Company

BY: R S Adler

Richard S. Adler

Manager, Network Services Infrastructure
Program Management (ANS Real Estate)

State of Georgia

County of Fulton

On the 14th day of January in the year, 2000, before me, the undersigned, personally appeared Richard S. Adler, Manager, Network Services Infrastructure Program Management (ANS Real Estate), personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument, and that such individual made such appearance before the undersigned in the City of Atlanta, State of Georgia.

Maurice Marco

Notary Public
Print Name: MAURICE MARCO
My Commission Expires:
Notary Public, Gwinnett County, Georgia
My Commission Expires October 6, 2000

(NOTARIAL SEAL)

NY3280 - Deed
AT&T Corp./QCD /NY
November 18, 1999

EXHIBIT "A"

ALL that certain plot, piece or parcel of land, ~~with the buildings and improvements thereon erected~~, situate, lying and being in the Town of Lewisboro, County of Westchester and State of New York, bounded and described as follows:

BEGINNING at a point south of the southerly side of Old Post Road (Route 35) measured and located as follows:

BEGINNING at a point on the southerly side of Old Post Road (Route 35) where the same is intersected by the center line of a 33 foot right of way which point of beginning is distant westerly as measured along said southerly side of said Old Post Road (Route 35) distant 279.31 feet from the intersection of the southwesterly side of Smith Ridge Road (Route 123) and the southerly side of Old Post Road (Route 35); thence along said center line of the 33 foot right of way the following courses and distances: South 14° 32' West 105.71 feet; South 4° 57' East 19.15 feet; South 12° 13' East 49.86 feet; South 19° 43' East 23.73 feet; South 27° 48' East 19.78 feet; South 32° 31' East 22.95 feet; South 36° 23' East 71.21 feet; South 27° 10' East 28.54 feet; South 19° 42' East 26.88 feet; South 12° 58' East 20.80 feet; South 7° 16' East 39.37 feet; South 6° 11' West 119.97 feet; South 10° 09' West 28.82 feet; South 20° 36' West 57.93 feet; South 11° 51' West 29.56 feet; South 9° 06' West 275.83 feet; South 16° 58' West 24.63 feet; South 25° 10' West 23.95 feet; South 47° 29' West 18.17 feet; South 51° 46' West 122.25 feet; South 57° 20' West 19.91 feet; South 66° 27' West 82.48 feet; South 22° 14' West 49.76 feet; South 12° 06' West 208.30 feet; South 18° 17' West 184.73 feet; South 20° 22' West 174.86 feet; South 27° 22' West 69.54 feet; South 33° 55' West 61.86 feet; South 25° 09' West 53.97 feet; South 31° 00' West 54.24 feet; South 37° 35' West 78.87 feet; South 31° 04' West 32.86 feet; South 31° 25' West 69.48 feet; South 73° 31' West 159.44 feet; South 44° 02' West 46.93 feet; South 52° 48' West 24.56 feet; South 67° 33' West 18.88 feet, and South 84° 14' West 14.53 feet to the point of beginning of the premises herein described; thenee from said point of beginning South 30° 19' 10" West 199.91 feet to the northerly boundary line of lands now or formerly of Edward Lasus and Helen Lasus; thence along the last mentioned boundary line, North 74°

57' 50" West 251.04 feet and North 66° 24' 35" West 166.16 feet; thence through lands now or formerly of Lewisboro Associates, North 30° 45' 20" East 427.00 foot to the northwesterly corner of the premises herein described; thence continuing through lands now or formerly of Lewisboro Associates, South 70° 33' 50" East 411.32 feet to the northeasterly corner of the premises herein described; thence continuing through lands now or formerly of Lewisboro Associates, South 30° 19' 10 West 219.09 feet to the point of beginning.

TOGETHER with a 33 foot right of way and easement for ingress and egress, the center line of which is bounded and described as follows:

BEGINNING at a point on the southeasterly side of the premises hereinabove described distant North 30° 19' 10" East 199.91 feet from the southeasterly corner of the premises hereinabove described; thence from said point of beginning the following courses and distances: North 84° 14' East 14.53 feet; North 67° 33' East 18.88 feet; North 52° 48' East 24.56 feet; North 44° 02' East 46.93 feet; North 73° 31' East 159.44 feet; North 31° 25' East 69.48 feet; North 31° 04' East 32.86 feet; North 37° 35' East 78.87 feet; North 31° 00' East 54.24 feet; North 25° 09' East 53.97 feet; North 33° 55' East 61.86 feet; North 27° 22' East 69.54 feet; North 20° 22' East 174.86 feet; North 18° 17' East 184.73 feet; North 12° 06' East 208.30 feet; North 22° 14' East 49.76 feet; North 66° 27' East 82.48 feet; North 57° 20' East 19.91 feet; North 51° 46' East 122.25 feet; North 47° 29' East 18.17 feet; North 25° 10' East 23.95 feet; North 16° 58' East 24.63

feet; North 9° 06' East 275.83 feet; North 11° 51' East 29.56 feet; North 20° 36' East 57.93 feet; North 10° 09' East 28.82 feet; North 6° 11' East 119.97 feet; North 7° 16' West 39.37 feet; North 12° 58' West 20.80 feet; North 19° 42' West 26.88 feet; North 27° 10' West 28.54 feet; North 36° 23' West 71.21 feet; North 32° 31' West 22.95 feet; North 27° 48' West 19.78 feet; North 19° 43' West 23.73 feet; North 12° 13' West 49.86 feet; North 4° 57' West 19.15 feet; and North 14° 32' East 105.71 feet to the southerly side of Old Post Road (Route 35).

TOGETHER with the right to improve, widen, install culverts and realign existing roads and trails along the above described right of way.

Being the same parcel as conveyed to American Telephone and Telegraph Company by Robert C. Bell, Jr. and John M. Lyden d/b/a Lewisboro Associates Company by Warranty Deed dated February 5, 1968 and recorded in the Westchester County Clerk's Office, Division of Land Records, Westchester County, New York, on February 9, 1968 in Liber 6762 of Deeds, Page 141.

401290869DEDS

Control Number	WIID Number	Instrument Type
401290869	2000129-000376	DED

WESTCHESTER COUNTY RECORDING AND ENDORSEMENT PAGE
(THIS PAGE FORMS PART OF THE INSTRUMENT)
***** DO NOT REMOVE *****

THE FOLLOWING INSTRUMENT WAS ENDORSED FOR THE RECORD AS FOLLOWS:

TYPE OF INSTRUMENT DED - DEED
FEE PAGES 11 **TOTAL PAGES** 11

RECORDING FEES	
STATUTORY CHARGE	
RECORDING CHARGE	
RECORD MGT. FUND	
RP 5217	
TP-584	
CROSS REFERENCE	
MISCELLANEOUS	
TOTAL FEES PAID	

MORTGAGE TAXES	
MORTGAGE DATE	
MORTGAGE AMOUNT	
EXEMPT	
YONKERS	
BASIC	
ADDITIONAL	
SUBTOTAL	
MTA	
SPECIAL	
TOTAL PAID	

TRANSFER TAXES	
CONSIDERATION	
TAX PAID	
TRANSFER TAX #	

SERIAL NUMBER
DWELLING

RECORDING DATE 05/18/2000
TIME 05:05:00

THE PROPERTY IS SITUATED IN WESTCHESTER COUNTY, NEW YORK IN THE:
TOWN OF LEWISBORO

WITNESS MY HAND AND OFFICIAL SEAL

LEONARD N. SPANO
WESTCHESTER COUNTY CLERK

Record & Return to:
SULLIVAN & WORCHESTER LLP
ONE POST OFFICE SQUARE

BOSTON, MA 02109

5/18/2000

Delaware

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE DO HEREBY CERTIFY THAT THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF CONVERSION OF A DELAWARE CORPORATION UNDER THE NAME OF "AMERICAN TOWERS, INC." TO A DELAWARE LIMITED LIABILITY COMPANY, CHANGING ITS NAME FROM "AMERICAN TOWERS, INC." TO "AMERICAN TOWERS LLC", FILED IN THIS OFFICE ON THE THIRTIETH DAY OF JUNE, A.D. 2011, AT 11:54 O'CLOCK A.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF CONVERSION IS THE THIRTIETH DAY OF JUNE, A.D. 2011, AT 11:59 O'CLOCK P.M.

Jeffrey W. Bullock, Secretary of State

2525871 8100V

110780451

AUTHENTICATION: 8874959

DATE: 06-30-11

You may verify this certificate online at corp.delaware.gov/authver.shtml

State of Delaware
Secretary of State
Division of Corporations
Delivered 11:54 AM 06/30/2011
FILED 11:54 AM 06/30/2011
SRV 110780451 - 2525871 FILE

STATE OF DELAWARE
CERTIFICATE OF CONVERSION
FROM A CORPORATION TO A
LIMITED LIABILITY COMPANY PURSUANT TO
SECTION 18-214 OF THE LIMITED LIABILITY ACT

1.) The jurisdiction where the Corporation first formed is Delaware.

2.) The jurisdiction immediately prior to filing this Certificate is Delaware.

3.) The date the corporation first formed is July 19, 1995.

4.) The name of the Corporation immediately prior to filing this Certificate is American Towers, Inc.

5.) The name of the Limited Liability Company as set forth in the Certificate of Formation is American Towers LLC.

6.) The effective date of this Certificate of Conversion is the 30th of June, 2011 at 11:59 p.m.

IN WITNESS WHEREOF, the undersigned have executed this Certificate on the 29 day of June, 2011 A.D.

By: _____
Authorized Person

Name: Michael John McCormack
Print or Type

Delaware

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE DO HEREBY CERTIFY THAT THE ATTACHED IS A TRUE AND CORRECT COPY OF CERTIFICATE OF FORMATION OF "AMERICAN TOWERS LLC" FILED IN THIS OFFICE ON THE THIRTIETH DAY OF JUNE, A.D. 2011, AT 11:54 O'CLOCK A.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF FORMATION IS THE THIRTIETH DAY OF JUNE, A.D. 2011, AT 11:59 O'CLOCK P.M.

Jeffrey W. Bullock, Secretary of State

2525871 8100V

110780451

AUTHENTICATION: 8874959

DATE: 06-30-11

You may verify this certificate online at corp.delaware.gov/authver.shtml

State of Delaware
Secretary of State
Division of Corporations
Delivered 11:54 AM 06/30/2011
FILED 11:54 AM 06/30/2011
SRV 110780451 - 2525871 FILE

CERTIFICATE OF FORMATION

OF

AMERICAN TOWERS LLC

1. The name of the limited liability company is American Towers LLC.

2. The address of its registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, in the City of Wilmington, Delaware 19801. The name of its registered agent at such address is The Corporation Trust Company.

3. The effective date of this Certificate of Formation is June 30, 2011 at 11:59 p.m.

IN WITNESS WHEREOF, the undersigned have executed this Certificate of Formation of American Towers LLC this 29 day of June, 2011.

By: _____
Authorized Person

Michael John McCormack

AMERICAN TOWER®
CORPORATION

AMERICAN TOWER CORPORATION

ASSISTANT SECRETARY'S CERTIFICATE

I, Stephen Greene, a duly elected and acting Assistant Secretary of American Tower Corporation, a Delaware corporation (the "***Company***"), hereby certify that:

Pursuant to the Company's Delegation of Authority Policy, Margaret Robinson, Vice President, Legal, U.S. Tower, has been granted the authority to execute, on behalf of the Company and each of its directly and indirectly held subsidiaries, any contracts, certificates, agreements or other documents to be executed relating to:

- the identification, negotiation and acquisition of new telecommunications antenna sites on behalf of the Company, including, but not limited to, non-disclosure agreements, confidentiality agreements, letters of intent, memoranda of understanding, asset or stock purchase agreements, membership interest agreements, and/or merger agreements, and any amendments to, or renewals of, such agreements and documents (collectively, "***Acquisition Materials***"); and

- the ownership, operation, management, licensing or leasing of existing telecommunications antenna sites (such activities, collectively, "***Core Business***") on behalf of the Company, including, but not limited to, non-disclosure agreements, confidentiality agreements, letters of intent, memoranda of understanding, management agreements, consulting agreements, settlement agreements, lease or license agreements, termination agreements, release agreements, assignments, estoppels, certificates, deeds, and any amendments to, or renewals of, such agreements and documents (collectively, "***Operational Materials***," and together with Acquisition Materials, the "***Executable Materials***");

provided, that, the annual, single year or cumulative economic impact with respect to the Executable Materials in connection with any particular transaction shall not exceed:

- in the case of budgeted capital or expense spending, the lesser of: (a) the amount set forth with respect to such capital or expense items in the applicable budget; and (b) up to Five Hundred Thousand United States dollars ($500,000.00);

- in the case of unbudgeted capital (other than unbudgeted build to suit) or expense spending with respect to Core Business investments, acquisitions and dispositions, One Hundred Thousand United States dollars ($100,000.00); and

- in the case of a revenue-generating transaction, the commitment authority provided to the Delegator in Schedule 1 of the Policy.

IN WITNESS WHEREOF, I have hereunto signed my name as Assistant Secretary of the Company, this 9th day of June 2022.

Stephen Greene

Stephen Greene
Assistant Secretary

Pinnacle Telecom Group
Professional and Technical Services
Telecom Consulting

Antenna Site FCC RF Compliance On-Site Measurement Assessment and Report

prepared for

T-Mobile Northeast LLC

Site NY09050B
Route 35
South Salem, NY

January 3, 2022

14 Ridgedale Avenue - Suite 260 • Cedar Knolls, NJ 07927 • 973-451-1630

Contents

Introduction and Summary

At the request of T-Mobile Northeast LLC ("T-Mobile"), Pinnacle Telecom Group (PTG) has performed an independent assessment of compliance with FCC limits for maximum permissible exposure (MPE) for the following site:

T-Mobile Site ID:	**NY09050B**
Site Address:	**Route 35, South Salem, NY**
Site Type:	**Lattice tower**
Collocated Operators:	**AT&T, Nextel, Sprint, Verizon Wireless, Unidentified**

PTG performed independent expert on-site measurements at the site on December 30, 2021.

Our analysis is based on the FCC general population MPE limits. The result of the on-site measurements and our analysis are as follows:

- ***At street level:*** RF measurements throughout accessible areas at street level around the site indicate a maximum RF level of 0.50 percent of the FCC general population MPE limit. In other words, the maximum RF level is 200 times below the limit identified as safe for continuous human exposure to RF emissions.
- ***Compliance conclusion:*** Based on the results of the on-site measurements, the T-Mobile antenna operation is in compliance with the FCC regulations and related guidelines on controlling potential human exposure to the RF emissions from antennas. Per T-Mobile corporate policy, Notice, Guidelines, and Emergency signs are to be posted at the site access.
- ***Recommendation:*** None; measured RF levels and posted RF alert signs satisfy the compliance requirements.

The remainder of this report provides information on the site, the measurement results and an analysis of those results with respect to RF compliance. Appendix A provides photographs taken the day of the measurements. Appendix B provides

background on the FCC limits for RF exposure, along with a list of FCC references. Appendix C provides a summary of the expert qualifications of the individual certifying compliance for the subject antenna site.

Site Information and Antenna Data

The subject site is a lattice tower populated with a dipole and panel antennas operated by T-Mobile, AT&T, Nextel, Sprint, Verizon Wireless and another unidentified party.

The table below provides antenna detail for the site on the date the measurements were performed.

Ant #	Mounting Height (ft)	Ant. Type	Dim. (ft)	Ant. Mfr	Model	Licensee
❶	85'	Panel	3' 6"	RFS	N/A	T-Mobile
❷	85'	Panel	4' 2"	N/A	N/A	T-Mobile
❸	85'	Panel	3' 6"	RFS	N/A	T-Mobile
❹	85'	Panel	4' 2"	N/A	N/A	T-Mobile
❺	85'	Panel	3' 6"	RFS	N/A	T-Mobile
❻	85'	Panel	4' 2"	N/A	N/A	T-Mobile
❼	75'	Panel	4' 6"	Commscope	N/A	AT&T
❽	75'	Panel	4' 6"	Commscope	N/A	AT&T
❾	75'	Panel	4' 6"	Commscope	N/A	AT&T
❿	75'	Panel	4' 6"	Commscope	N/A	AT&T
⓫	75'	Panel	4' 6"	Commscope	N/A	AT&T
⓬	75'	Panel	4' 6"	Commscope	N/A	AT&T
⓭	75'	Panel	4' 6"	Commscope	N/A	AT&T
⓮	75'	Panel	4' 6"	Commscope	N/A	AT&T
⓯	75'	Panel	4' 6"	Commscope	N/A	AT&T
⓰	100'	Panel	3'	Amphenol	N/A	Nextel
⓱	100'	Panel	3'	Amphenol	N/A	Nextel
⓲	100'	Panel	3'	Amphenol	N/A	Nextel
⓳	100'	Panel	3'	Amphenol	N/A	Nextel
⓴	100'	Panel	3'	Amphenol	N/A	Nextel
㉑	100'	Panel	3'	Amphenol	N/A	Nextel

Ant #	Mounting Height (ft)	Ant. Type	Dim. (ft)	Ant. Mfr	Model	Licensee
㉒	100'	Panel	3'	Amphenol	N/A	Nextel
㉓	100'	Panel	3'	Amphenol	N/A	Nextel
㉔	100'	Panel	3'	Amphenol	N/A	Nextel
㉕	100'	Panel	3'	Amphenol	N/A	Nextel
㉖	100'	Panel	3'	Amphenol	N/A	Nextel
㉗	85'	Panel	6'	RFS	N/A	Sprint
㉘	85'	Panel	4' 8"	RFS	N/A	Sprint
㉙	85'	Panel	6'	RFS	N/A	Sprint
㉚	85'	Panel	4' 8"	RFS	N/A	Sprint
㉛	85'	Panel	6'	RFS	N/A	Sprint
㉜	85'	Panel	4' 8"	RFS	N/A	Sprint
㉝	95'	Panel	4' 4"	Commscope	N/A	Verizon
㉞	95'	Panel	4' 4"	Commscope	N/A	Verizon
㉟	95'	Panel	4' 4"	Commscope	N/A	Verizon
㊱	95'	Panel	4' 4"	Commscope	N/A	Verizon
㊲	95'	Panel	4' 4"	Commscope	N/A	Verizon
㊳	95'	Panel	4' 4"	Commscope	N/A	Verizon
㊴	95'	Panel	4' 4"	Commscope	N/A	Verizon
㊵	95'	Panel	4' 4"	Commscope	N/A	Verizon
㊶	95'	Panel	4' 4"	Commscope	N/A	Verizon
㊷	105'	Dipole	c. 15'	N/A	N/A	Unidentified

**c. signifies "approximately"*

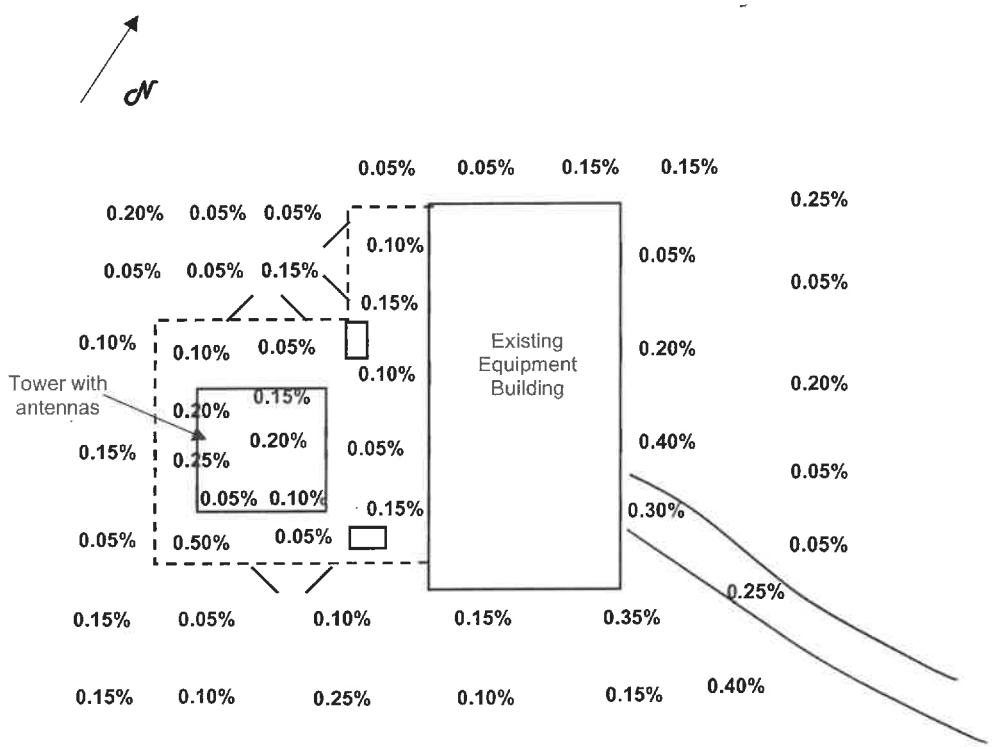
Sector	Latitude	Longitude
Alpha	41.25850	-73.53477
Beta	41.25840	-73.53508
Gamma	41.25851	-73.53480

Results of On-Site Measurements

The RF measurements were performed using a Narda model EA-5091 RF probe and Narda model NBM 520 Broadband meter. Both the probe and meter are capable of broadband RF measurements, covering a range of 300 kHz to 50 GHz. The measuring equipment is designed to automatically register all RF levels within

the frequency range and report them as percentages of the FCC's overall occupational MPE limit. The equipment was calibrated by the manufacturer within the past 24 months.

The results of the on-site measurements, each expressed as a percentage of the FCC general population MPE limit, are overlaid on the plan view that follows.



Note: The plan view is not to scale.

Compliance Conclusion

The maximum RF level measured at street level around the site was 0.50 percent of the FCC MPE limit for publicly accessible areas. In other words, the worst-case at street level is 200 times below the threshold considered by the federal government to be completely safe for continuous exposure.

Therefore, the site is in full compliance with all FCC requirements for the control of RF exposure.

Compliance Mitigation Detail

Access Point(s):

Compliance Requirements: Notice, Guidelines, and Emergency Signs
Installed/Existing: Notice, Guidelines, and Emergency Signs
Mitigation Recommendation: None

Alpha Sector:

Compliance Requirements: None
Installed/Existing: None
Mitigation Recommendation: None

Beta Sector:

Compliance Requirements: None
Installed/Existing: None
Mitigation Recommendation: None

Gamma Sector:

Compliance Requirements: None
Installed/Existing: None
Mitigation Recommendation: None

Note: based on the signs installed, the site is now in compliance with T-Mobile Policy.

Certification

It is the policy of Pinnacle Telecom Group that all FCC RF compliance assessments are reviewed, approved, and signed by the firm's Chief Technical Officer, who certifies as follows:

1. I have read and fully understand the FCC regulations concerning RF safety and the control of human exposure to RF fields (47 CFR 1.1301 *et seq*).
2. The equipment used to perform the RF measurements described herein is appropriate to the task, and calibration of its accuracy has been performed, as recommended by the manufacturer.
3. The on-site RF measurements described herein were performed in a manner consistent with industry standards.
4. To the best of my knowledge, the statements and information disclosed in this report are true, complete and accurate.
5. The analysis of site RF compliance provided herein is consistent with the applicable FCC regulations, additional guidelines issued by the FCC, and industry practice.
6. The results of the assessment indicate that the subject site is in full compliance with the FCC regulations concerning RF exposure.

Daniel Collins
Chief Technical Officer
Pinnacle Telecom Group, LLC

01/03/22
Date

Appendix A. Site Photographs

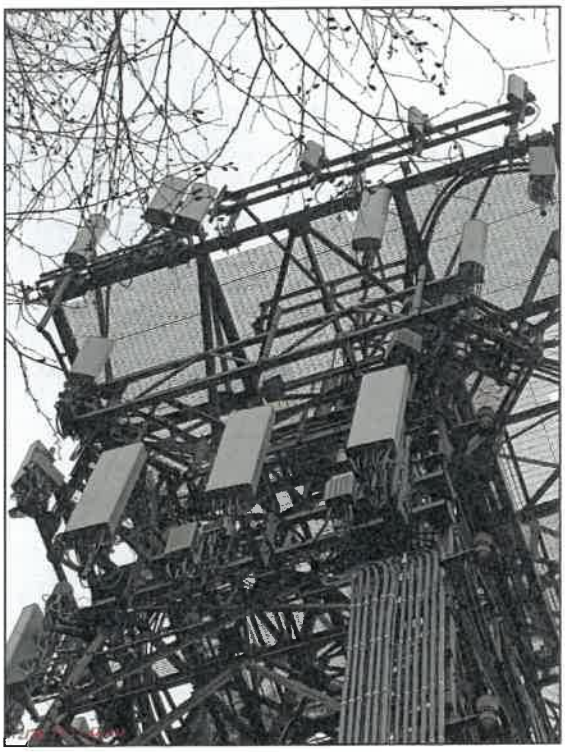
The site is located on Route 35 in South Salem, NY, as illustrated in the photograph below.

The following pages provide copies of photographs taken of the site.

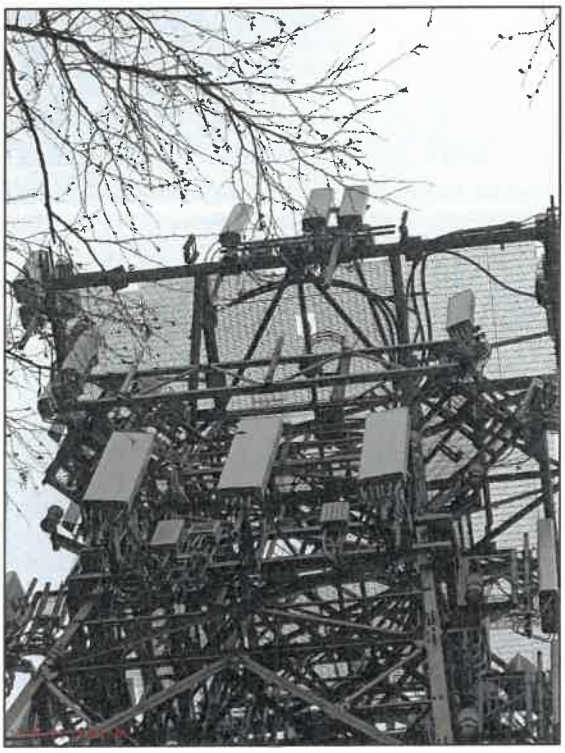
Antennas ❶❷
Alpha – No signs required

Antennas ❸❹
Alpha – No signs required

Antennas 5 6
Gamma – No signs required



Antennas
7 8 9 29 30 33 34 35 16 17 18



Antennas ❿⓫⓬㉛㉜㊱㊲㊳

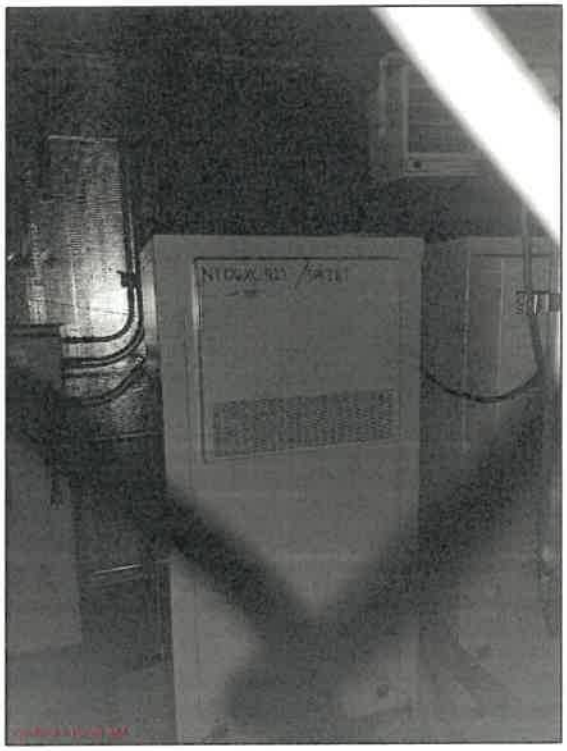
Antennas
⓭⓮⓯㊴㊵㊶⓳⓴㉑㉒

Antennas 27 28 23 24 25 26

Antenna 42

Equipment Building

Nextel Equipment Room



Sprint Equipment

Verizon Wireless Equipment Room

T-Mobile Equipment– Notice, Guidelines and Emergency signs required

T-Mobile Equipment– Notice, Guidelines and Emergency signs posted

Appendix B. Background on the FCC MPE Limits

As directed by the Telecommunications Act of 1996, the FCC has established limits for maximum continuous human exposure to RF fields.

The FCC maximum permissible exposure (MPE) limits represent the consensus of federal agencies and independent experts responsible for RF safety matters. Those agencies include the National Council on Radiation Protection and Measurements (NCRP), the Occupational Safety and Health Administration (OSHA), the National Institute for Occupational Safety and Health (NIOSH), the American National Standards Institute (ANSI), the Environmental Protection Agency (EPA), and the Food and Drug Administration (FDA). In formulating its guidelines, the FCC also considered input from the public and technical community – notably the Institute of Electrical and Electronics Engineers (IEEE).

The FCC's RF exposure guidelines are incorporated in Section 1.301 *et seq* of its Rules and Regulations (47 CFR 1.1301-1.1310). Those guidelines specify MPE limits for both occupational and general population exposure.

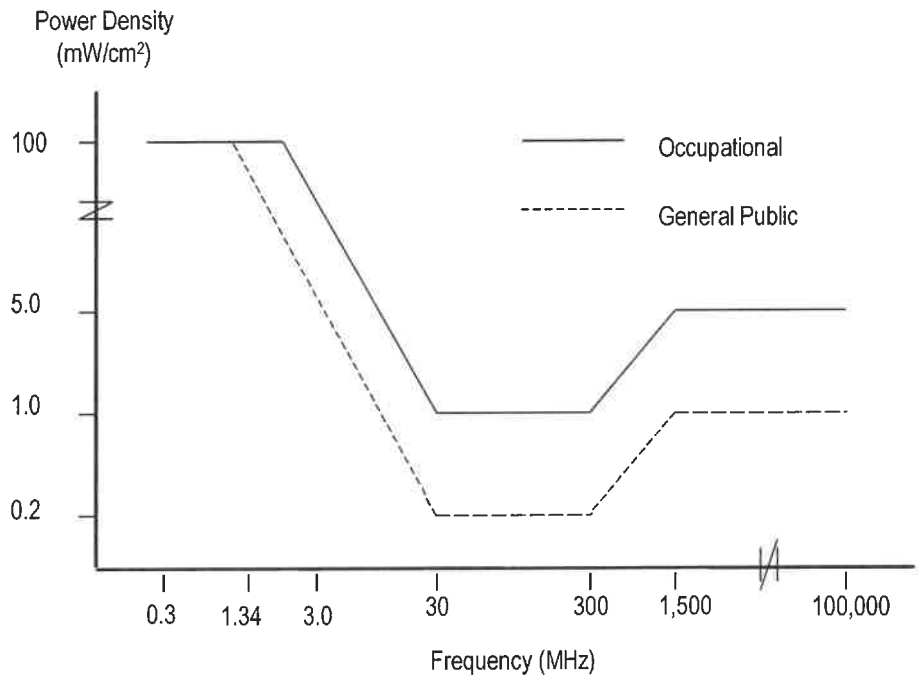
The specified continuous exposure MPE limits are based on known variation of human body susceptibility in different frequency ranges, and a Specific Absorption Rate (SAR) of 4 watts per kilogram, which is universally considered to accurately represent human capacity to dissipate incident RF energy (in the form of heat). The occupational MPE guidelines incorporate a safety factor of 10 or greater with respect to RF levels known to represent a health hazard, and an additional safety factor of five is applied to the MPE limits for general population exposure. Thus, the general population MPE limit has a built-in safety factor of more than 50. Continuous exposure at levels equal to or below the applicable MPE limits is considered to result in no adverse health effects on humans.

The reason for *two* tiers of MPE limits is based on an understanding and assumption that members of the general public are unlikely to have had appropriate RF safety training and may not be aware of the exposures they receive; occupational exposure in controlled environments, on the other hand, is assumed to involve individuals who have had such training, are aware of the exposures, and know how to maintain a safe personal work environment.

The FCC's RF exposure limits are expressed in two equivalent forms, using alternative units of field strength (expressed in volts per meter, or V/m), and power density (expressed in milliwatts per square centimeter, or mW/cm^2). The table on the next page lists the FCC limits for both occupational and general population exposures, using the mW/cm^2 reference, for the different radio frequency ranges.

Frequency Range (F) (MHz)	Occupational Exposure (mW/cm^2)	General Public Exposure (mW/cm^2)
0.3 - 1.34	100	100
1.34 - 3.0	100	180 / F^2
3.0 - 30	900 / F^2	180 / F^2
30 - 300	1.0	0.2
300 - 1,500	F / 300	F / 1500
1,500 - 100,000	5.0	1.0

The diagram below provides a graphical illustration of both the FCC's occupational and general population MPE limits.



Because the FCC's RF exposure limits are frequency-shaped, the exact MPE limits applicable to the instant situation depend on the frequency range used by the systems of interest.

The most appropriate method of determining RF compliance is to calculate the RF power density attributable to a particular system and compare that to the MPE limit

applicable to the operating frequency in question. The result is usually expressed as a percentage of the MPE limit.

For potential exposure from multiple systems, the respective percentages of the MPE limits are added, and the total percentage compared to 100 (percent of the limit). If the result is less than 100, the total exposure is in compliance; if it is more than 100, exposure mitigation measures are necessary to achieve compliance.

References on FCC Compliance

47 CFR, FCC Rules and Regulations, Part 1 (Practice and Procedure), Section 1.1310 (Radiofrequency radiation exposure limits).

FCC Second Memorandum Opinion and Order and Notice of Proposed Rulemaking (FCC 97-303), *In the Matter of Procedures for Reviewing Requests for Relief From State and Local Regulations Pursuant to Section 332(c)(7)(B)(v) of the Communications Act of 1934 (WT Docket 97-192), Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation (ET Docket 93-62), and Petition for Rulemaking of the Cellular Telecommunications Industry Association Concerning Amendment of the Commission's Rules to Preempt State and Local Regulation of Commercial Mobile Radio Service Transmitting Facilities*, released August 25, 1997.

FCC First Memorandum Opinion and Order, ET Docket 93-62, *In the Matter of Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, released December 24, 1996.

FCC Report and Order, ET Docket 93-62, *In the Matter of Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, released August 1, 1996.

FCC Report and Order, Notice of Proposed Rulemaking, Memorandum Opinion and Order (FCC 19-126), *Proposed Changes in the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields; Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies,* released December 4, 2019.

FCC Office of Engineering and Technology (OET) Bulletin 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", Edition 97-01, August 1997.

FCC Office of Engineering and Technology (OET) Bulletin 56, "Questions and Answers About Biological Effects and Potential Hazards of RF Radiation", edition 4, August 1999.

"RF Field Measurements for Antenna Sites", (video), Richard Tell Associates Inc., 1997.

"EME Awareness for Antenna Site Safety", (video), Motorola (produced in association with Richard Tell Associates Inc.), 1997.

Appendix C. Summary of Expert Qualifications

Daniel J. Collins, Chief Technical Officer, Pinnacle Telecom Group, LLC

Synopsis:	• 40+ years of experience in all aspects of wireless system engineering, related regulation, and RF exposure • Has performed or led RF exposure compliance assessments on more than 17,000 antenna sites since the new FCC rules went into effect in 1997 • Has provided testimony as an RF compliance expert more than 1,400 times since 1997 • Have been accepted as an expert in New York, New Jersey, Connecticut, Pennsylvania and more than 40 other states, as well as by the FCC
Education:	• B.E.E., City College of New York (Sch. Of Eng.), 1971 • M.B.A., 1982, Fairleigh Dickinson University, 1982 • Bronx High School of Science, 1966
Current Responsibilities:	• Leads all PTG staff work involving RF safety and FCC compliance, microwave and satellite system engineering, and consulting on wireless technology and regulation
Prior Experience:	• Edwards & Kelcey, VP – RF Engineering and Chief Information Technology Officer, 1996-99 • Bellcore (a Bell Labs offshoot after AT&T's 1984 divestiture), Executive Director – Regulation and Public Policy, 1983-96 • AT&T (Corp. HQ), Division Manager – RF Engineering, and Director – Radio Spectrum Management, 1977-83 • AT&T Long Lines, Group Supervisor – Microwave Radio System Design, 1972-77
Specific RF Safety / Compliance Experience:	• Involved in RF exposure matters since 1972 • Have had lead corporate responsibility for RF safety and compliance at AT&T, Bellcore, Edwards & Kelcey, and PTG • While at AT&T, helped develop the mathematical models later adopted by the FCC for predicting RF exposure • Have been relied on for compliance by all major wireless carriers, the federal government as well as several state and local governments, system integrators, and other consulting and engineering firms
Other Background:	• Author, *Microwave System Engineering* (AT&T, 1974) • Co-author and executive editor, *A Guide to New Technologies and Services* (Bellcore, 1993) • National Spectrum Managers Association (NSMA) – former three-term President and Chairman of the Board of Directors; was founding member, twice-elected Vice President, long-time member of the Board, and was named an NSMA Fellow in 1991 • Published more than 35 articles in industry magazines

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

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

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

Part 1 – Project and Sponsor Information

Name of Action or Project:
T-Mobile Northeast LLC. (T-MOBILE) Special Use Permit Renewal

Project Location (describe, and attach a location map):
NYS Route 35 and NYS Route 123 (41.25847222° N & 73.53472222° W)

Brief Description of Proposed Action:
American Tower Corporation owns and operates an existing lattice (self-support) tower site at the above-noted location. T-MOBILE maintains an existing wireless telecommunications facility at this location and is now completing a Special Use Permit Renewal. In addition to the tower-mounted antennas, T-MOBILE maintains an existing 6' by 7' ground space for their equipment cabinets. AT-MOBILE's equipment is hidden behind the existing fence that surrounds the compound. The existing T-MOBILE facility will result in no effect to the viewshed area.

Tax ID: 55.1-3-18
Parcel SBL: 05500100030180000000

Name of Applicant or Sponsor:	Telephone: (845) 232-6534
T-Mobile Northeast LLC. c/o Camille Mulligan, PMP	E-Mail: Camille.Mulligan2@T-Mobile.com

Address:
976 Tabor Road, Suite 1

City/PO:	State:	Zip Code:
Morris Plains	New Jersey	07950

	NO	YES
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.	☑	☐
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: Special Use Permit Renewal	☐	☑

3. a. Total acreage of the site of the proposed action? .23 (100'x100') 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? 4.044 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☐ Urban ☑ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☐ Residential (suburban)
   ☑ Forest ☐ Agriculture ☐ Aquatic ☑ Other(Specify): American Tower Corporation Tower Site
   ☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	✓	☐
b. Consistent with the adopted comprehensive plan?	☐	✓	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	✓

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	✓	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	✓	☐
b. Are public transportation services available at or near the site of the proposed action?	✓	☐
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	✓	☐

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies: _____	☐	✓

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____	✓	☐

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____	✓	☐

	NO	YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	✓	☐
Special Permit Renewal to keep in place what exists. No construction or ground disturbance is proposed.		
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	✓

	NO	YES
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: _____		
Special Permit Renewal to keep in place what exists. No construction or ground disturbance is proposed.		

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
	☑	☐
16. Is the project site located in the 100-year flood plan?	NO	YES
	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	NO	YES
If Yes,	☑	☐
a. Will storm water discharges flow to adjacent properties?	☐	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☐	☐
If Yes, briefly describe:		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment:	NO	YES
	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	NO	YES
	☑	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	NO	YES
	☑	☐

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

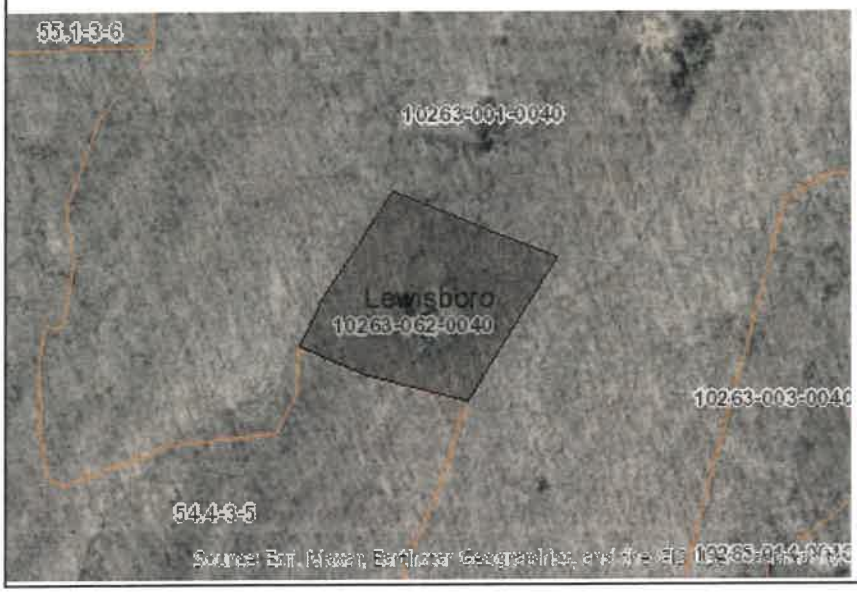
Applicant/sponsor/name: Andrew J. Rice Date: 2024-01-29

Signature: Title: Environmental Specialist

PRINT FORM

EAF Mapper Summary Report

Friday, January 12, 2024 4:19 PM

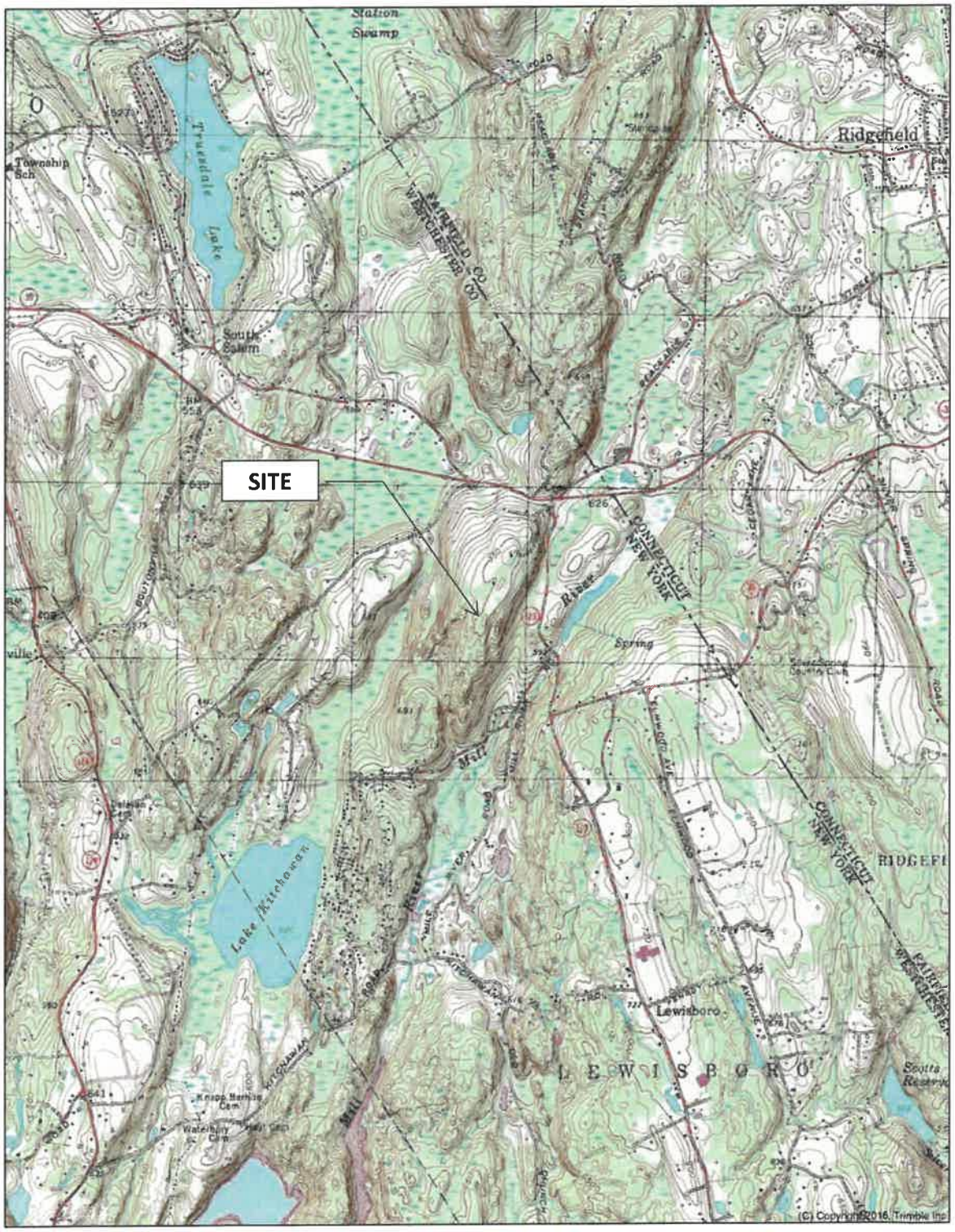


Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the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

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

Charles Cherundolo Consulting, Inc.
976 Tabor Road, Suite 1, Morris Plains, NJ 07950
973-794-3633
www.cherundoloconsulting.com

South Salem NY - ATC # 88166 (NY09050B)
Peach Lake, New York USGS 7.5' Quadrangle Map



NYS Route 35 and NYS Route 123
South Salem (Town of Lewisboro), New York 10590
Westchester County

NORTH

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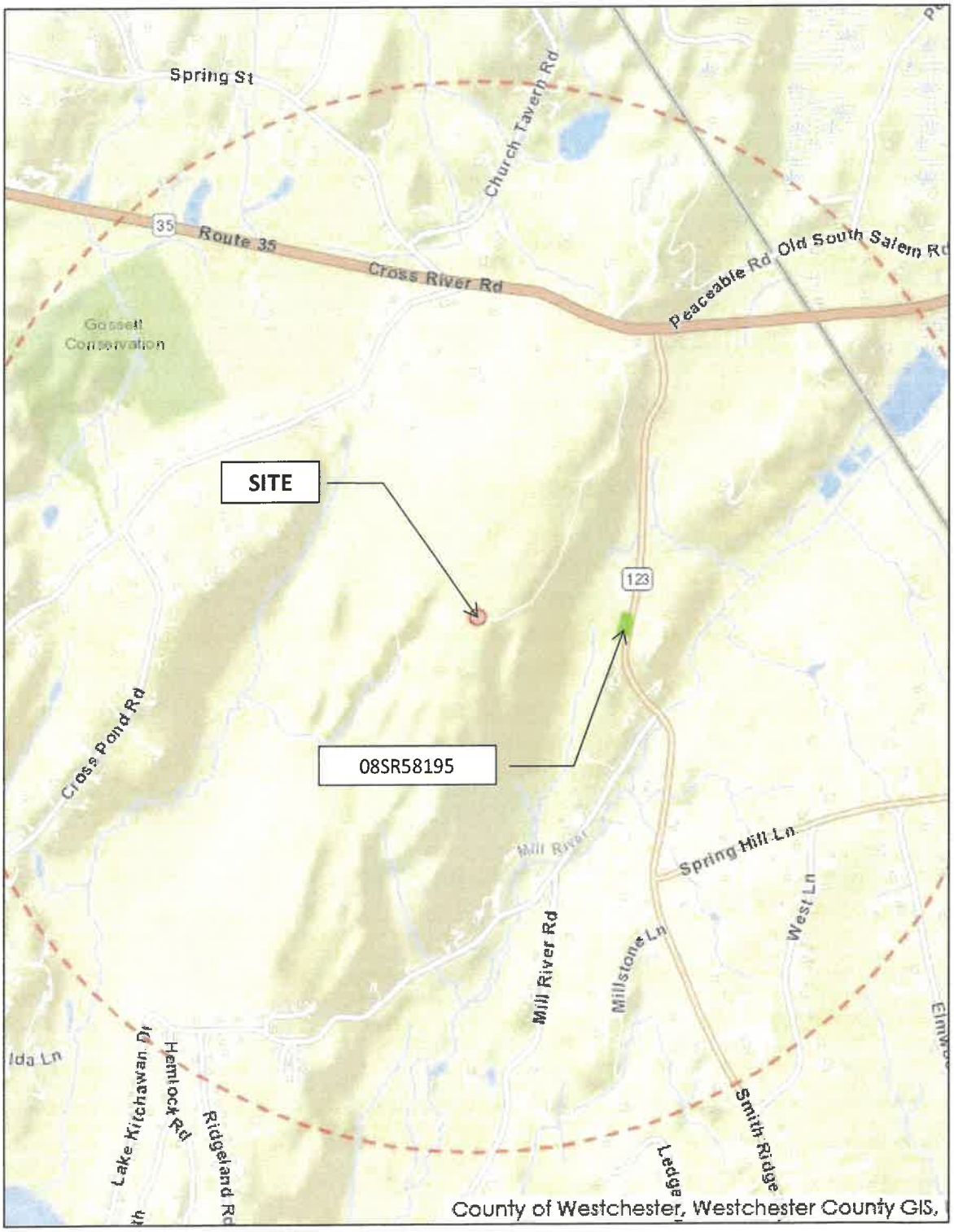
South Salem NY - ATC # 88166 (NY09050B)
SHPO GIS Map & Indirect APE Search Ring



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South Salem NY - ATC # 88166 (NY09050B)
Map 01 - Street Map

NYS Route 35 and NYS Route 123
South Salem (Town of Lewisboro), New York 10590
Westchester County

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South Salem NY - ATC # 88166 (NY09050B)
Map 02 - Street Map

NYS Route 35 and NYS Route 123
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Westchester County

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South Salem NY - ATC # 88166 (NY09050B)
Map 03 - Street Map

NYS Route 35 and NYS Route 123
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Westchester County

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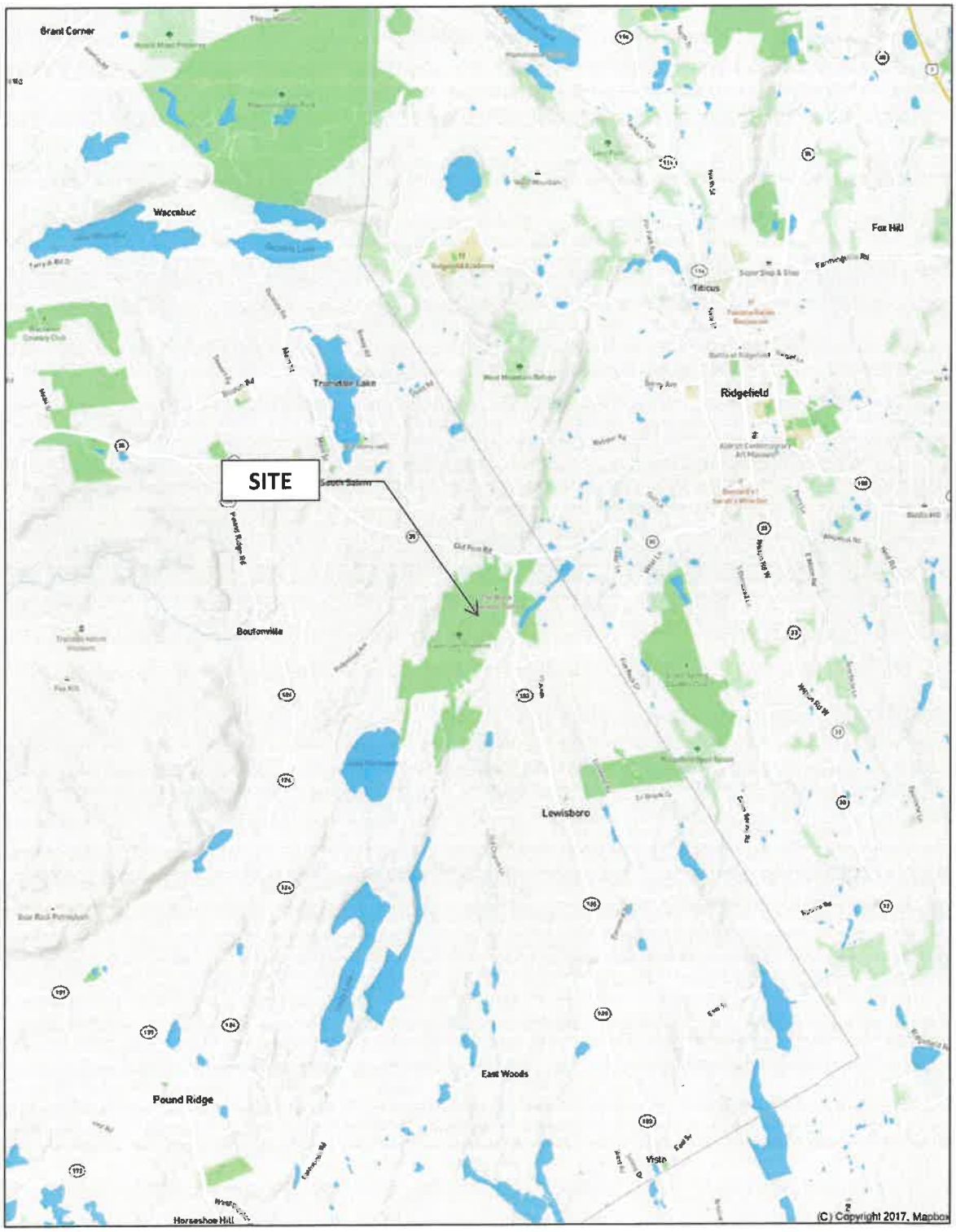
South Salem NY - ATC # 88166 (NY09050B)
Map 04 - Street Map



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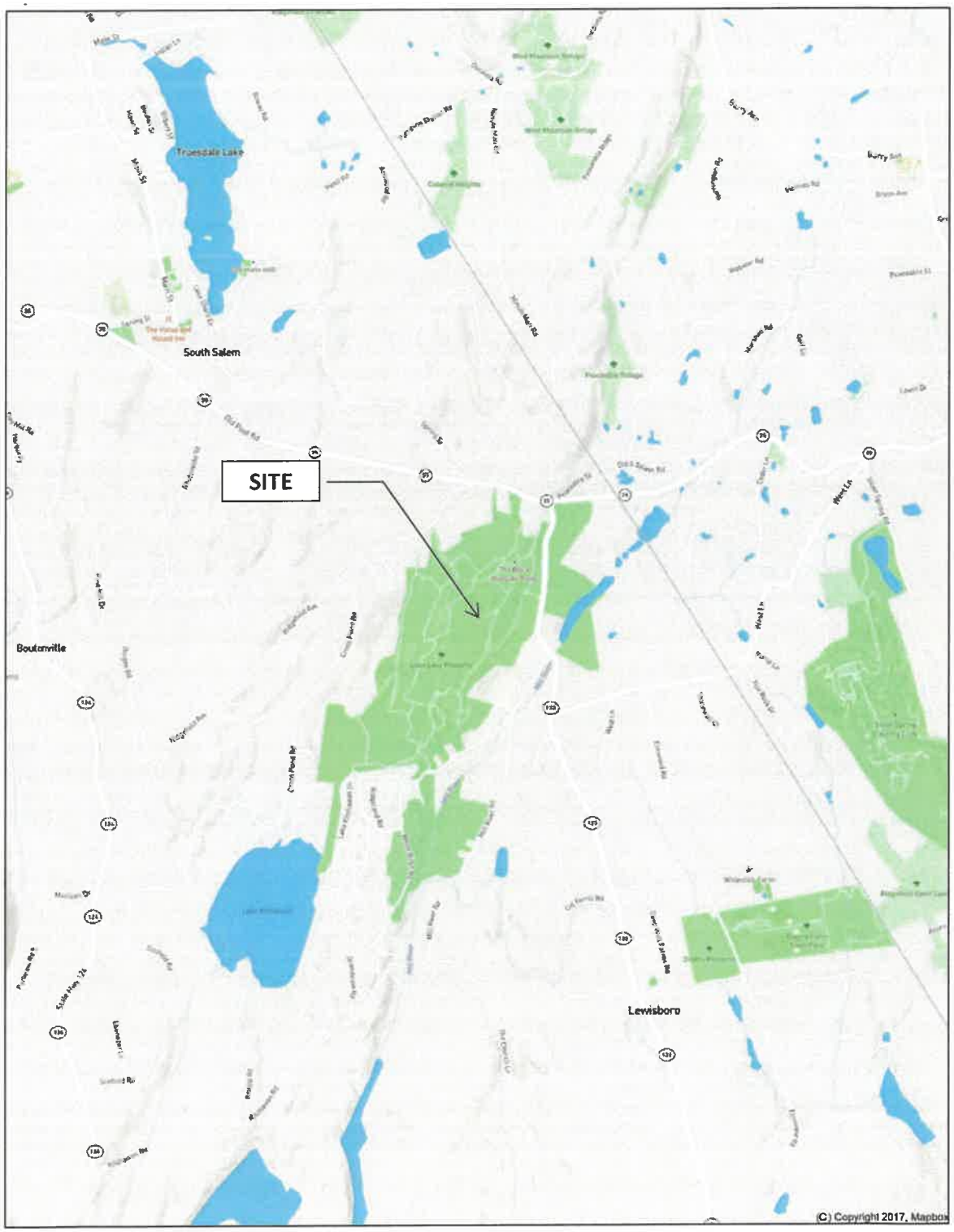
South Salem NY - ATC # 88166 (NY09050B)
Map 05 - Street Map



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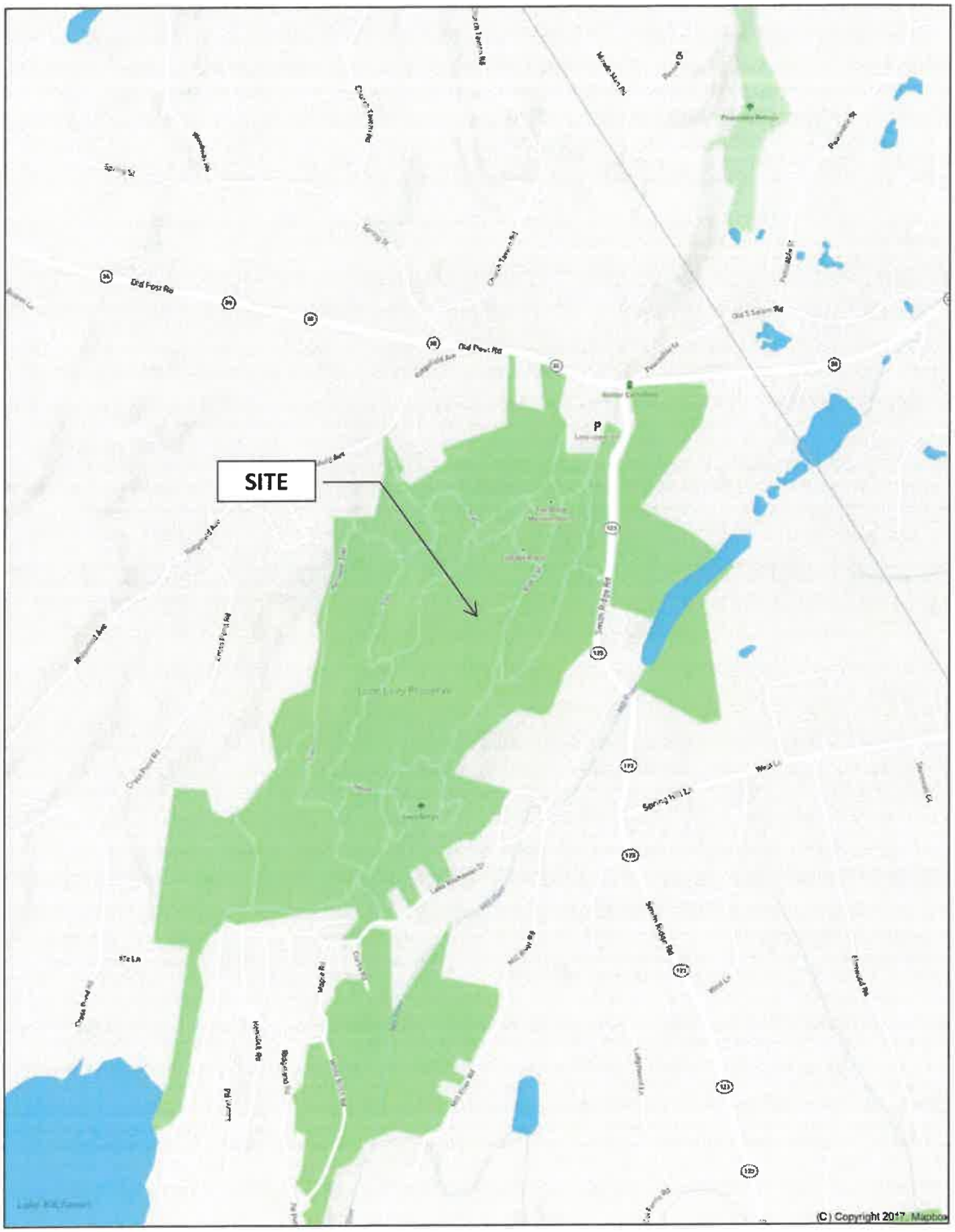
South Salem NY - ATC # 88166 (NY09050B)
Map 06 - Street Map



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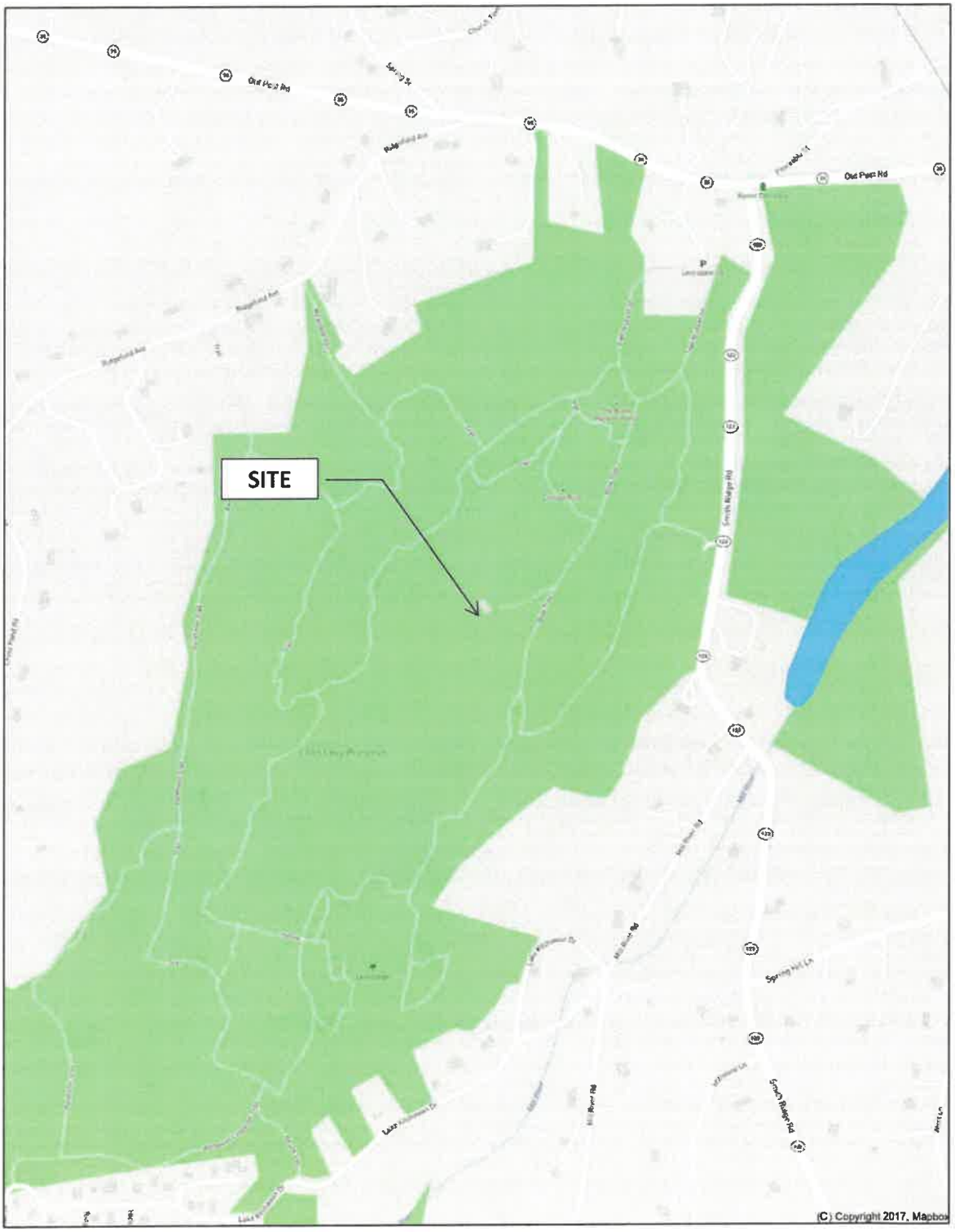
South Salem NY - ATC # 88166
(NY09050B) Map 07 - Street Map



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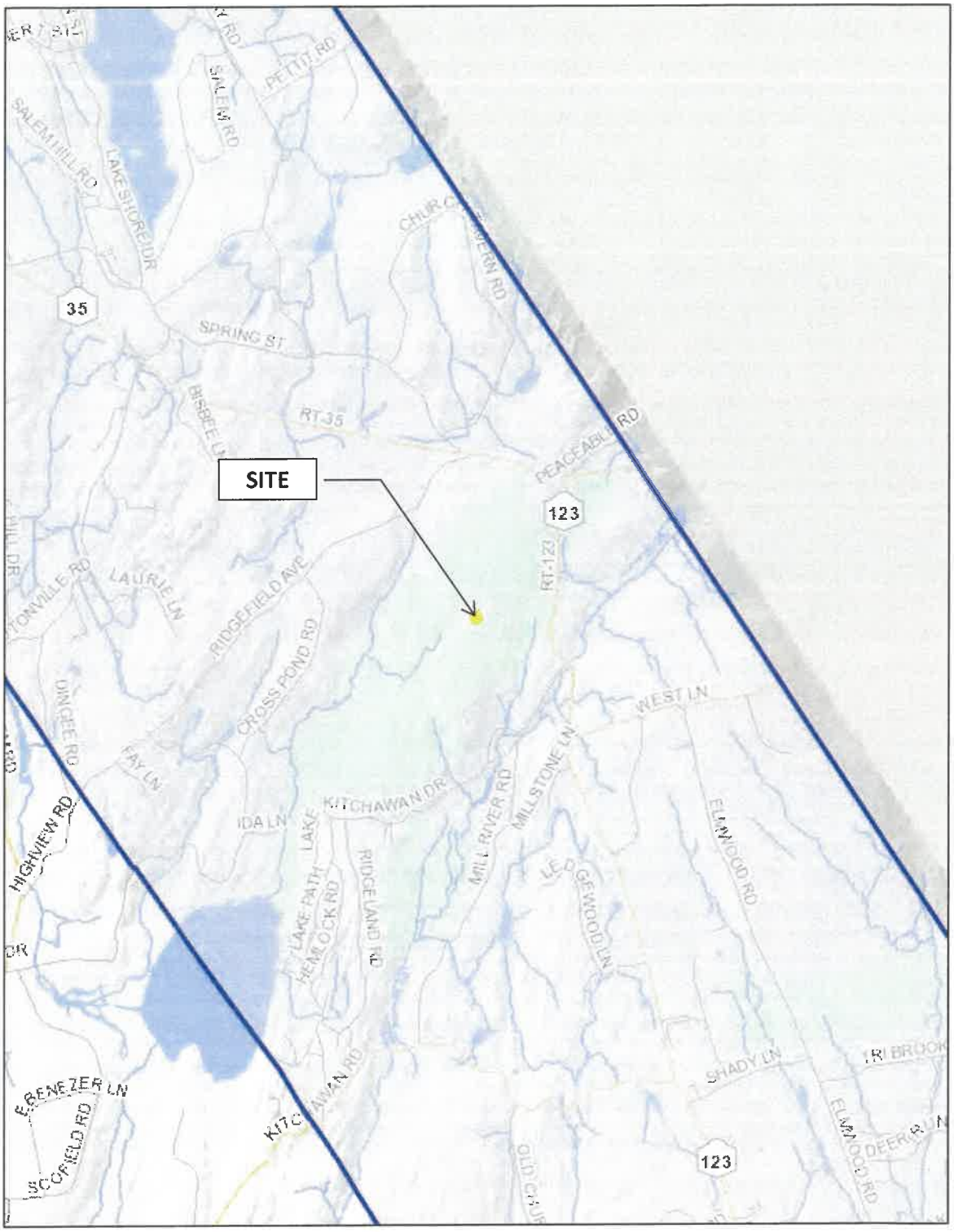
South Salem NY - ATC # 88166 (NY09050B)
Map 01– Westchester County Parcel Map



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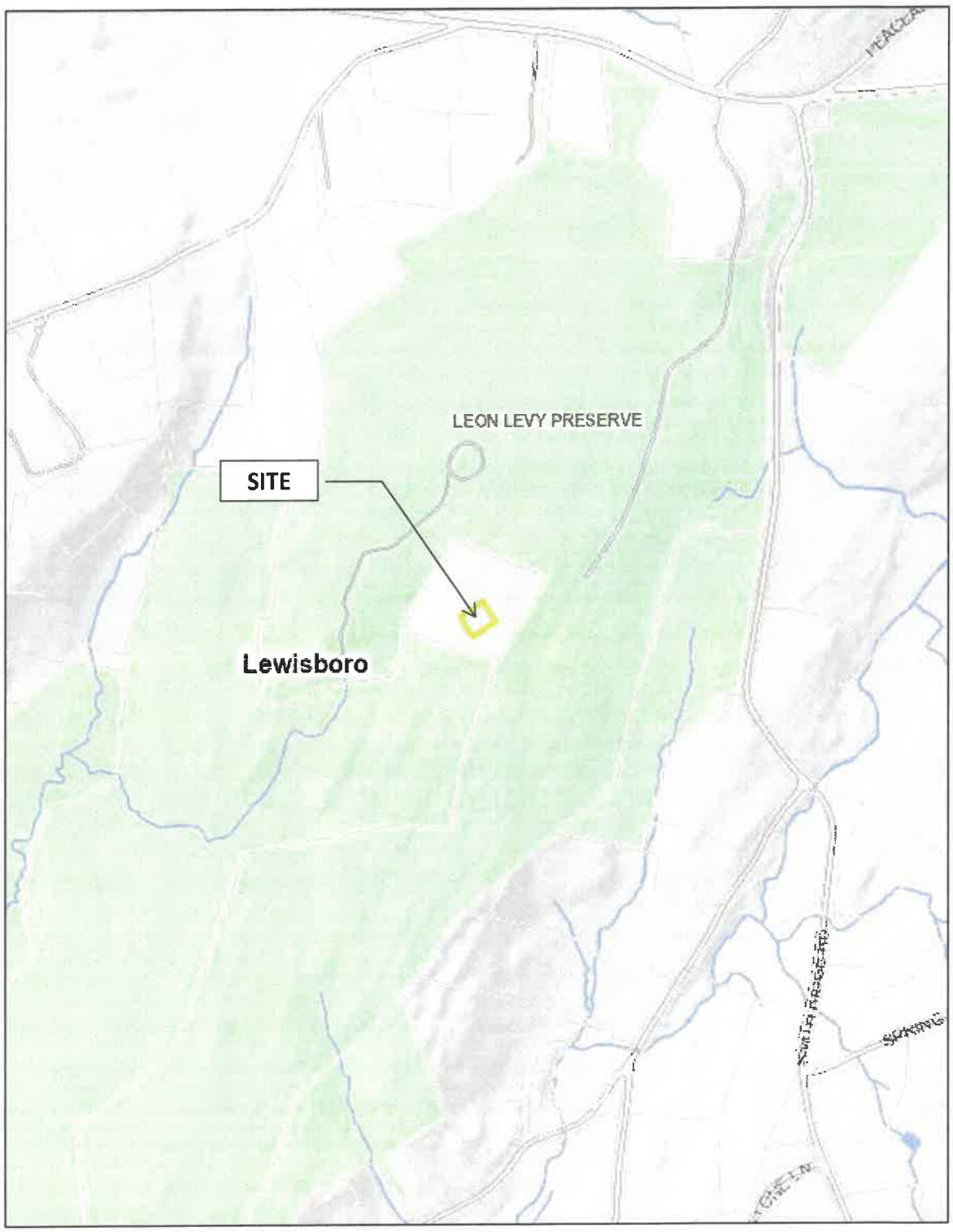
South Salem NY - ATC # 88166 (NY09050B)
Map 02 – Westchester County Parcel Map



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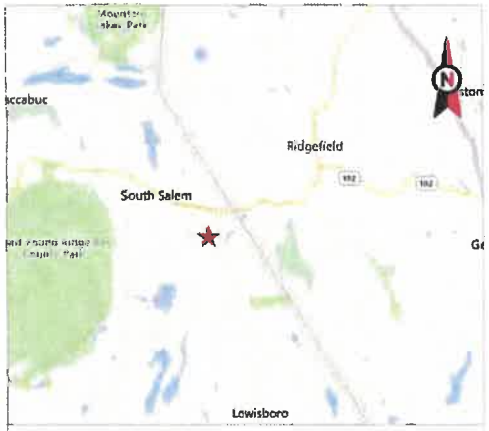
South Salem NY - ATC # 88166 (NY09050B)
Map 03 – Westchester County Parcel Map

NYS Route 35 and NYS Route 123
South Salem (Town of Lewisboro), New York 10590
Westchester County

NORTH



VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: SOUTH SALEM NY
ATC SITE NUMBER: 88166
T-MOBILE SITE ID: NY09050B
SITE ADDRESS: ROUTE 35
SOUTH SALEM, NY 10590

LOCATION MAP

T-MOBILE L600 ANTENNA AMEMENDMENT
67D05F CONFIGURATION

BIRD WATCH SITE
PLEASE CONTACT BIRD WATCH@AMERICANTOWER.COM OR AMERICAN TOWER NOC AT 877-518-9937 FOR ASSISTANCE

COMPLIANCE CODE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

1. INTERNATIONAL BUILDING CODE (IBC)
2. NATIONAL ELECTRIC CODE (NEC)
3. LOCAL BUILDING CODE
4. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: NYSEG
PHONE: (800) 572-1131

TELEPHONE COMPANY: VERIZON
PHONE: (800) 941-9900

811
Know what's below.
Call before you dig.

PROJECT SUMMARY

SITE ADDRESS:

ROUTE 35
SOUTH SALEM, NY 10590
COUNTY: WESTCHESTER

GEOGRAPHIC COORDINATES

LATITUDE: 41.25847222
LONGITUDE: -73.53472222
GROUND ELEVATION: 760' AMSL

PROJECT TEAM

TOWER OWNER:
AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:
T-MOBILE
103 MONARCH DRIVE
LIVERPOOL, NY 13088

ENGINEER:
ATC TOWER SERVICES, LLC
3500 REGENCY PKWY STE 100
CARY, NC 27518

PROPERTY OWNER:
AMERICAN TOWER
116 HUNTINGTON AVE
BOSTON, MA 02116

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW.

REMOVE (3) PANELS AND (6) TTAs

INSTALL (3) NEW PANELS, (6) TTAs, (3) RRUs, AND (3) 1-5/8" HYBRID CABLE

EXISTING (3) PANELS AND (12) 1-5/8" COAX CABLE TO REMAIN

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.

PROJECT LOCATION DIRECTIONS

FROM RT. 684 TAKE RT 35 EXIT. GO EAST THROUGH SOUTH SALEM, LOOK FOR # 1423 WHICH IS ACROSS THE STREET FROM LA CHATEAU RESTAURANT, JUST BEFORE THE ROAD SIGN SAYS "VISTA". TURN RIGHT INTO THE DRIVEWAY FOR 1423 AND YOU WILL SEE A CHAIN. FOLLOW THE ROAD STRAIGHT UP TO ANOTHER CHAIN, THEN FOLLOW UP TO THE SITE

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	07/23/19	LM
G-002	GENERAL NOTES	0	07/23/19	LM
C-101	DETAILED SITE PLAN & TOWER ELEVATION	0	07/23/19	LM
C-501	ANTENNA INFORMATION & SCHEDULE	0	07/23/19	LM
E-501	GROUNDING DETAILS	0	07/23/19	LM
R-601	SUPPLEMENTAL			

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: 0012746

REV	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	LM	07/23/19

ATC SITE NUMBER
88166

ATC SITE NAME
SOUTH SALEM NY

SITE ADDRESS:
ROUTE 35
SOUTH SALEM, NY 10590

SEAL:

Authorized by "EOR"
Jul 24, 2019 2:50 PM
T-Mobile

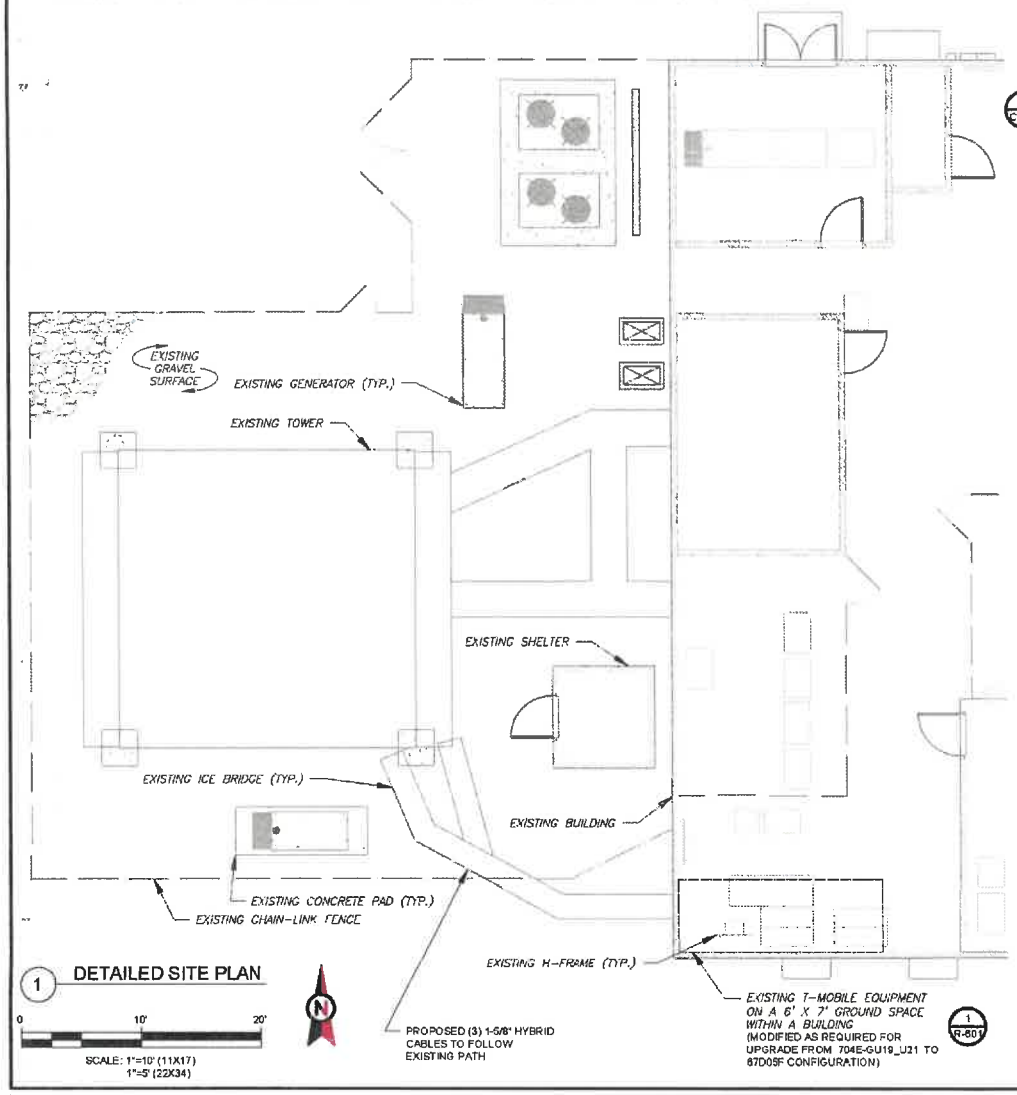
DRAWN BY:	LM
APPROVED BY:	KRF
DATE DRAWN:	07/23/19
ATC JOB NO:	12964383

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	0

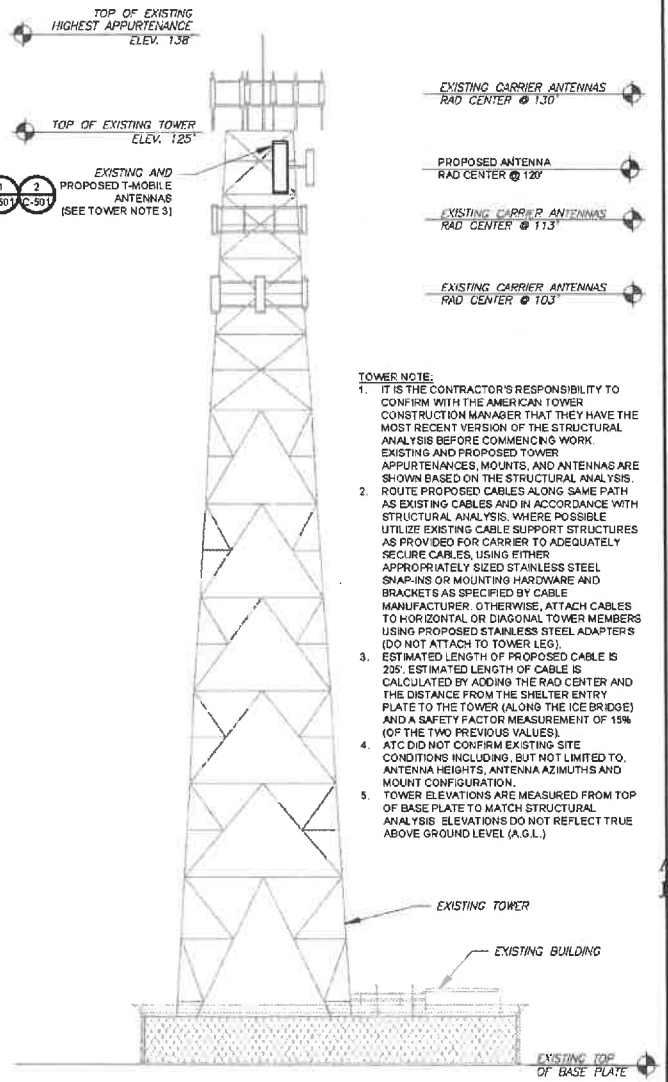
SITE PLAN NOTES:

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT
2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE T-MOBILE REPRESENTATIVE AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.



1 DETAILED SITE PLAN

SCALE: 1"=10' (11X17)
1"=5' (22X34)



2 TOWER ELEVATION

SCALE: NOT TO SCALE

TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE AMERICAN TOWER CONSTRUCTION MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).
3. ESTIMATED LENGTH OF PROPOSED CABLE IS 205'. ESTIMATED LENGTH OF CABLE IS CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES).
4. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA HEIGHTS, ANTENNA AZIMUTHS AND MOUNT CONFIGURATION.
5. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: 0012746

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	LM	07/23/19

ATC SITE NUMBER:
88166

ATC SITE NAME:
SOUTH SALEM NY

SITE ADDRESS:
ROUTE 35
SOUTH SALEM, NY 10590

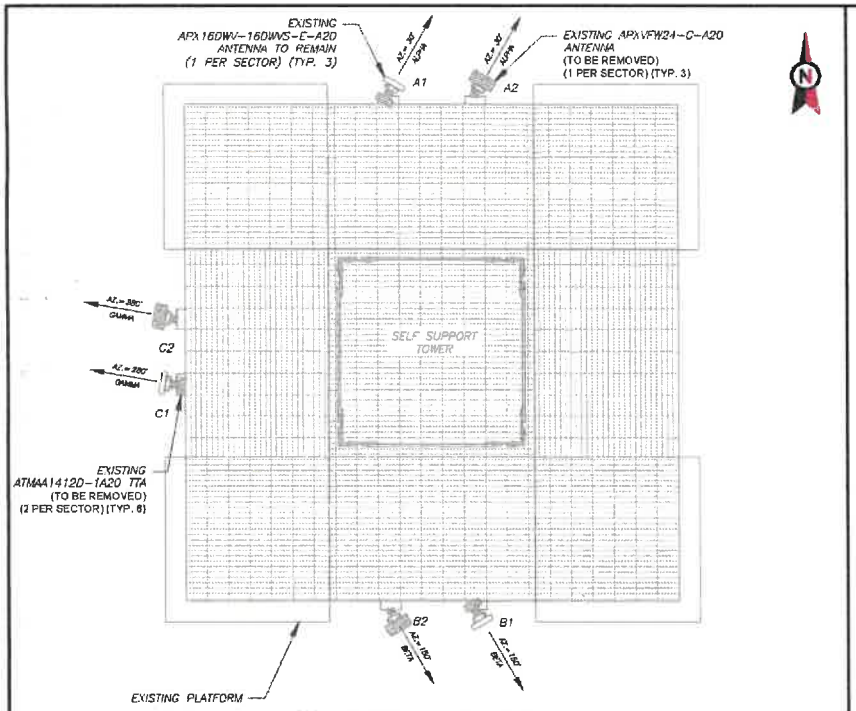
SEAL:

Authorized by "EOR"
Jul 24 2019 2:51 PM
T-Mobile

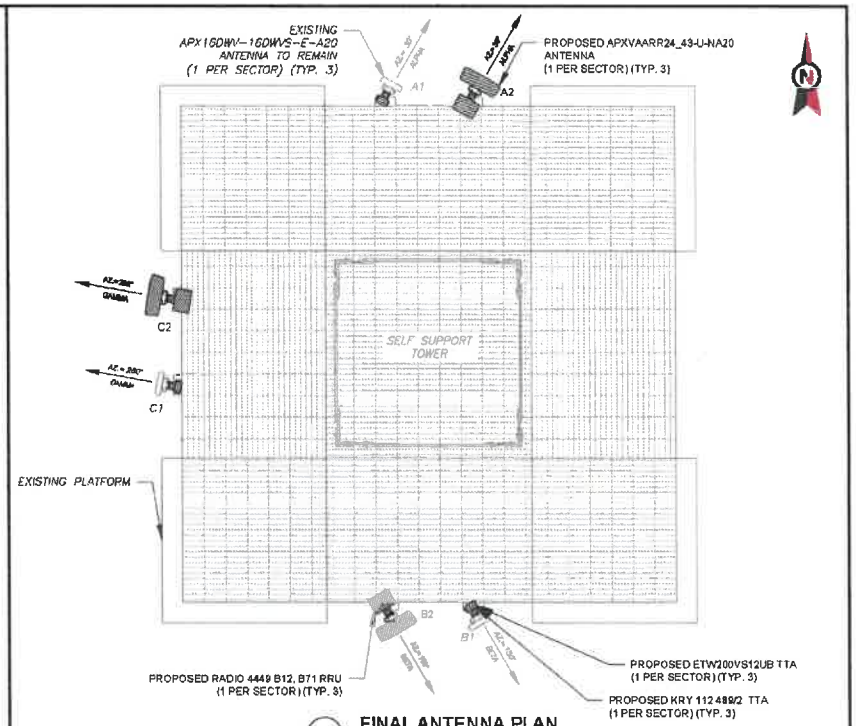
DRAWN BY:	LM
APPROVED BY:	KRF
DATE DRAWN:	07/23/19
ATC JOB NO:	12984383

DETAILED SITE PLAN & TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-101	0



1 EXISTING ANTENNA PLAN



2 FINAL ANTENNA PLAN

EXISTING ANTENNA / EQUIPMENT SCHEDULE

SECTOR	ANT.	MANUFACTURER (MODEL #)	RAD CENTER	AZIMUTH (TN)	MECH. D-TILT	ELEC. D-TILT	ADDITIONAL TOWER MOUNTED EQUIPMENT
ALPHA	A1	APX16DWV-16DWVS-E-A20	120'-0"	30°	0	0	ATMAA1412D-1A20
ALPHA	A2	APXVFW24-C-A20	120'-0"	30°	0	0	-
BETA	B1	APX16DWV-16DWVS-E-A20	120'-0"	150°	0	0	ATMAA1412D-1A20
BETA	B2	APXVFW24-C-A20	120'-0"	150°	0	0	-
GAMMA	C1	APX16DWV-16DWVS-E-A20	120'-0"	280°	0	0	ATMAA1412D-1A20
GAMMA	C2	APXVFW24-C-A20	120'-0"	280°	0	0	-

NOTES

1. BASED ON APPROVED ATC APPLICATION NY09050B, DATED 05/21/19. CONFIRM WITH T-MOBILE REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
2. ATC HAS NOT YET VERIFIED ANY EXISTING ANTENNA CONFIG OR MOUNT CONFIG. CONTRACTOR TO VERIFY MOUNT CONFIG HAS SUFFICIENT SPACE FOR PROPOSED LESSEE EQUIPMENT (EQUIP) (I.E. CLEARANCES, MOUNT PIPE, SUFFICIENT LENGTH, ETC.) ATC DID NOT ANALYZE ANTENNA MOUNT TO DETERMINE ADEQUATE STRUCTURAL CAPACITY FOR ANY LESSEE LOADING.
3. ALL PROPOSED EQUIP INCLUDING ANTENNAS, COAX, ETC. SHALL BE MOUNTED IN ACCORDANCE WITH THE TOWER STRUCTURAL ANALYSIS ON FILE WITH ATC'S CM.
4. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
5. POSITIONS START WITH FIRST PIPE ON THE LEFT SIDE (AS VIEWED FROM BEHIND THE MOUNT).

FINAL ANTENNA / EQUIPMENT SCHEDULE

SECTOR	ANT.	MANUFACTURER (MODEL #)	RAD CENTER	AZIMUTH (TN)	MECH. D-TILT	ELEC. D-TILT	ADDITIONAL TOWER MOUNTED EQUIPMENT
ALPHA	A1	APX16DWV-16DWVS-E-A20	120'-0"	30°	0	0	ETW200VS12UB KRY 112 489/2
ALPHA	A2	APXVAARR24_43-U-NA20	120'-0"	30°	0	0	RADIO 4449 B12, B71
BETA	B1	APX16DWV-16DWVS-E-A20	120'-0"	150°	0	0	ETW200VS12UB KRY 112 489/2
BETA	B2	APXVAARR24_43-U-NA20	120'-0"	150°	0	0	RADIO 4449 B12, B71
GAMMA	C1	APX16DWV-16DWVS-E-A20	120'-0"	280°	0	0	ETW200VS12UB KRY 112 489/2
GAMMA	C2	APXVAARR24_43-U-NA20	120'-0"	280°	0	0	RADIO 4449 B12, B71

CURRENT FIBER DISTRIBUTION/OVP BOX		CURRENT CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
-	-	(12) 1-5/8"	-	RMN
-	-	-	-	-

STATUS ABBREVIATIONS
RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
DSC: TO BE DISCONNECTED & REMAIN
ADD: TO BE ADDED

3 ANTENNA SCHEDULE

PROPOSED FIBER DISTRIBUTION/OVP BOX		PROPOSED CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
-	-	(12) 1-5/8"	-	RMN
-	-	-	(3) 1-5/8"	ADD

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 469-0112
COA: 0012746

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	LM	07/23/19
△			
△			
△			
△			

ATC SITE NUMBER:
88166

ATC SITE NAME
SOUTH SALEM NY

SITE ADDRESS:
ROUTE 35
SOUTH SALEM, NY 10590

SEAL.

Authorized by "EOR"
Jul 24 2019 2:51 PM
T-Mobile

DRAWN BY:	LM
APPROVED BY:	KRF
DATE DRAWN:	07/23/19
ATC JOB NO:	12984383

ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:	REVISION:
C-501	0

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	**125 ft Self Supported Tower**
ATC Site Name	:	**SOUTH SALEM NY, NY**
ATC Asset Number	:	**88166**
Engineering Number	:	**13698411_C3_03**
Proposed Carrier	:	**DISH WIRELESS L.L.C.**
Carrier Site Name	:	**NJJER01194A**
Carrier Site Number	:	**NJJER01194A**
Site Location	:	**ROUTE 35** **South Salem, NY 10590-1923** **41.258500,-73.534700**
County	:	**Westchester**
Date	:	**July 13, 2021**
Max Usage	:	**83%**
Result	:	**Pass**

Prepared By:
Faisal Wakid
Structural Engineer

Faisal Wakid

Reviewed By:

STATE OF NEW YORK
ESHA KAUSHAL MODI
102024
LICENSED PROFESSIONAL ENGINEER

Authorized by "EOR"
14 Jul 2021 09:53:44 cosign

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Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 125 ft self supported tower to reflect the change in loading by DISH WIRELESS L.L.C..

Supporting Documents

Tower Drawings	HTS Mapping Project #HTS101507 CSEI Analysis, ATC Eng. #26240121, dated August 21, 2006
Foundation Drawing	Foundation Mapping by TEP Job #071970, dated October 19, 2007 Rose, Chulkoff And Rose Structural Engineers Job # C67227, dated September 21, 1967
Geotechnical Report	GEOServices Project #21-07254, dated October 29, 2007

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	115 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1" radial ice concurrent
Code:	ANSI/TIA-222-H / 2018 IBC 2020 New York Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 2
Topographic Category:	3
Crest Height (H):	160 ft
Crest Length (L):	1570 ft
Distance to Apex (x):	0 ft
Spectral Response:	$Ss = 0.25$, $S_1 = 0.06$
Site Class:	D - Stiff Soil

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Existing and Reserved Equipment

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
132.0	1	Generic 12' Omni	Square Platform with Handrails	-	OTHER
128.0	3	Samsung B2/B66A RRH-BR049		(12) 1 5/8" Coax (3) 1 5/8" Hybriflex	VERIZON WIRELESS
	3	Samsung B5/B13 RRH-BR04C			
	3	Raycap RxxDC-3315-PF-48			
	3	Samsung MT6407-77A			
	3	Samsung RT4401-48A			
	6	Commscope NHH-65B-R2B			
	3	Samsung Outdoor CBRS 20W RRH –Clip-on Antenna			
	3	Commscope SBNHH-1D65B			
125.0	12	Decibel DB844H90E-XY		(12) 1 1/4" Coax	SPRINT NEXTEL
	3	RFS APX16DWV-16DWVS-E-A20		(18) 1 5/8" Coax (1) 3/8" Coax	T-MOBILE
	6	RFS ATMAA1412D-1A20			
	3	RFS APXVFW24-C-A20			
111.0	3	RFS ACU-A20-N	Sector Frame	(3) 1 1/4" Hybriflex Cable (1) 1.54" (39.2mm) Hybrid	SPRINT NEXTEL
	3	Alcatel-Lucent 1900MHz RRH (65MHz)			
	3	RFS APXVSPP18-C			
	3	RFS APXVTM14-ALU-I20			
	3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield			
	3	Alcatel-Lucent 800 MHz RRH w/ Notch Filter			
104.0	1	Raycap DC6-48-60-18-8F (23.5" Height)	Sector Frame	(2) 0.39" (10mm) Fiber Trunk (4) 0.78" (19.7mm) 8 AWG 6 (2) 2" conduit (12) 7/8" Coax	AT&T MOBILITY
	3	Nokia AirScale RRH 4T4R B5 160W AHCA			
	1	Raycap DC6-48-60-18-8F ("Squid")			
	3	Alcatel-Lucent RRH4x25-WCS-4R			
	3	Alcatel-Lucent B25 RRH4x30			
	3	Nokia Airscale Dual RRH 4T4R B12/B14 320W AHLBA			
	9	Commscope NNHH-65C-R4			
	3	Alcatel-Lucent 9442 RRH2x40-AWS			
75.0	1	Generic GPS	Sector Frame	(1) 1/2" Coax	SPRINT NEXTEL
53.0	4	Generic GPS	Stand-Offs	(4) 1/2" Coax	VERIZON WIRELESS

Equipment to be Removed

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
No loading was considered as removed as part of this analysis.					

Proposed Equipment

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
93.0	1	Commscope RDIDC-9181-PF-48	Sector Frame	(1) 1.75" (44.5mm) Hybrid	DISH WIRELESS L.L.C.
	3	Fujitsu TA08025-B604			
	3	Fujitsu TA08025-B605			
	3	JMA Wireless MX08FRO665-21			

[1] Contracted elevations are shown for appurtenances within contracted installation tolerances. Appurtenances outside of contract limits are shown at installed elevations.

Install proposed lines on the tower face with the least amount of existing lines.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	54%	Pass
Diagonals	83%	Pass
Horizontals	33%	Pass
Anchor Bolts	43%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Uplift (Kips)	148.1	59%
Axial (Kips)	184.2	11%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
93.0	Commscope RDIDC-9181-PF-48	DISH WIRELESS L.L.C.	0.049	0.004	0.050
	Fujitsu TA08025-B605				
	Fujitsu TA08025-B604				
	JMA Wireless MX08FRO665-21				

***Deflection, Twist and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-H**

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Standard Conditions

All engineering services performed by ATC Tower Services, Inc. are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of ATC Tower Services, Inc.

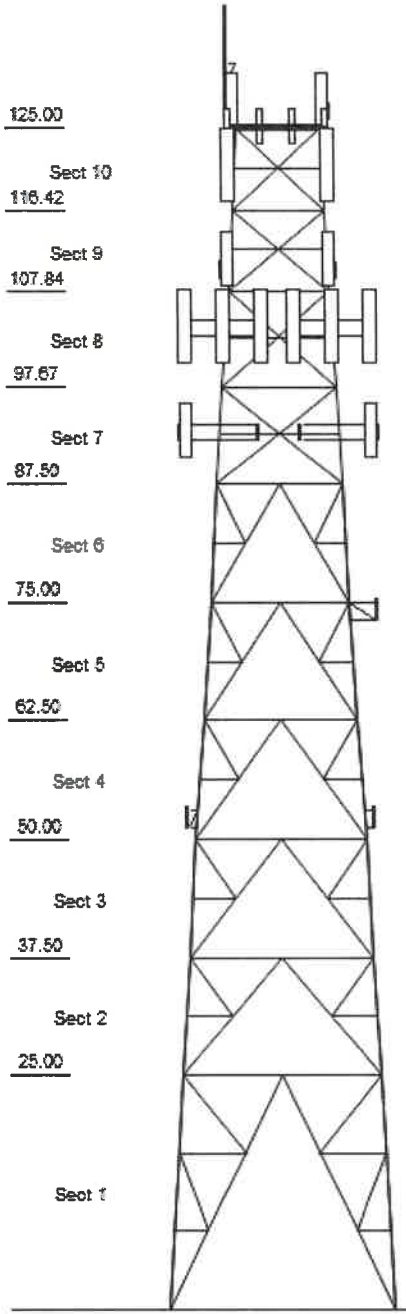
It is the responsibility of the client to ensure that the information provided to ATC Tower Services, Inc. and used in the performance of our engineering services is correct and complete.

All assets of American Tower Corporation, its affiliates and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and ATC Tower Services, Inc., all services will be performed in accordance with the current revision of ANSI/TIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Tower Services, Inc. is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

Quadrant 1



Loads: 115 mph no ice
50 mph w/ 1" radial ice
Site Class: D Ss: 0.25 S1: 0.06
60 mph Serviceability

Job Information

Client : DISH WIRELESS L.L.C.					
Tower : 88166	Location :	SOUTH SALEM	Base Width : 24.25 ft		
Code : ANSI/TIA-222-H	Topo Method:	Method 2	Top Width : 9.00 ft		
Risk Cat : II	Topo Feature:	Hill	Tower Ht : 125.00 ft		
	Exposure :	B	Shape : Square		

Sections Properties

Section	Leg Members		Diagonal Members	Horizontal Members
1	SAE 33 ksi	8X8X0.625	DAS 33 ksi 3.5X3X0.25	DAE 33 ksi 2.5X2.5X0.25
2 - 3	SAE 33 ksi	6X6X0.75	DAE 33 ksi 2.5X2.5X0.25	DAE 33 ksi 2.5X2.5X0.25
4 - 5	SAE 33 ksi	6X6X0.5625	DAL 33 ksi 2.5X2X0.25	DAE 33 ksi 2.5X2.5X0.25
6	SAE 33 ksi	6X6X0.4375	DAL 33 ksi 2.5X2X0.25	DAE 33 ksi 2.5X2.5X0.25
7	SAE 33 ksi	5X5X0.4375	SAE 33 ksi 3.5X3.5X0.25	SAU 33 ksi 3X2.5X0.25
8	SAE 33 ksi	5X5X0.4375	SAE 33 ksi 3.5X3.5X0.25	DAL 33 ksi 3X2.5X0.25
9	SAE 33 ksi	5X5X0.3125	SAE 33 ksi 3X3X0.25	SAU 33 ksi 3X2.5X0.25
10	SAE 33 ksi	5X5X0.3125	SAE 33 ksi 3X3X0.25	CHN 36 ksi C8 x 11.5

Redundant Secondary Bracing

Section	Sub Diag 1	Sub Horiz 1	Sub Diag 2	Sub Horiz 2	Sub Diag 3	Sub Horiz 3
1	D2.5X2X0.1875	S2.5X2.5X0.1875	D2.5X2X0.1875	S2.5X2.5X0.1875	-	-
2 - 4	S2.5X2.5X0.1875	S2.5X2X0.1875	-	-	-	-
5 - 6	S2.5X2X0.1875	S2.5X2X0.1875	-	-	-	-
7	-	S2.5X2X0.1875	-	-	-	-
8	-	S3X2.5X0.25	-	-	-	-
9 - 10	-	S2.5X2X0.1875	-	-	-	-

Discrete Appurtenance

Elev (ft)	Type	Qty	Description
132.00	Whip	1	Generic 12' Omni
128.00	Panel	3	Samsung Outdoor CBRS 20W
128.00	Panel	6	Commscope NHH-65B-R2B
128.00	Panel	3	Samsung MT6407-77A
128.00		3	Raycap RxxDC-3315-PF-48
128.00	Panel	3	Commscope SBNHH-1D65B
128.00		3	Samsung B5/B13 RRH-BR04C
128.00		3	Samsung B2/B66A RRH-BR049
128.00		3	Samsung RT4401-48A
125.00	Platform	1	Heavy Platform with Handrails
125.00	Straight Arm	1	20' Pipe
125.00	Mounting Frame	3	Round Sector Frame
125.00	Platform	9	Generic General Pole Mount
125.00	Panel	3	RFS APXVFW24-C-A20
125.00	Panel	3	RFS APX16DWV-16DWVS-E-A20
125.00		6	RFS ATMAA1412D-1A20
125.00	Panel	12	Decibel DB844H90E-XY
113.00	Mounting Frame	3	Heavy Sector Frame
112.50	Platform	1	Catwalk
111.00	Panel	3	RFS APXVSPP18-C
111.00	Panel	3	RFS APXVTM14-ALU-I20
111.00		3	Alcatel-Lucent TD-RRH8x20-25 w
111.00		3	Alcatel-Lucent 800 MHz RRH w/
111.00		3	Alcatel-Lucent 1900MHz RRH (65
111.00		3	RFS ACU-A20-N
104.00	Mounting Frame	3	Sector Frame Sabre 12' EHD V-B
104.00	Panel	9	Commscope NNHH-65C-R4
104.00		3	Alcatel-Lucent 9442 RRH2x40-AW
104.00		3	Nokia Airscale Dual RRH 4T4R B
104.00		3	Alcatel-Lucent B25 RRH4x30
104.00		3	Alcatel-Lucent RRH4x25-WCS-4R
104.00		1	Raycap DC6-48-60-18-8F ("Squid
104.00		3	Nokia AirScale RRH 4T4R B5 160
104.00		1	Raycap DC6-48-60-18-8F (23.5"

Job Information

Client : DISH WIRELESS L.L.C.

Tower : 88166	Location :	SOUTH SALEM	Base Width : 24.25 ft
Code : ANSI/TIA-222-H	Topo Method:	Method 2	Top Width : 9.00 ft
Risk Cat : II	Topo Feature:	Hill	Tower Ht : 125.00 ft
	Exposure :	B	Shape : Square

93.00	Mounting Frame	3	Generic Flat Light Sector Fram
93.00	Panel	3	JMA Wireless MX08FRO665-21
93.00		3	Fujitsu TA08025-B605
93.00		1	Commscope RDIDC-9181-PF-48
93.00		3	Fujitsu TA08025-B604
85.00	Straight Arm	1	Generic Flat Side Arm
76.00	Platform	1	Rest Platform
75.00	Straight Arm	1	Stand-Off
75.00	Whip	1	Generic GPS
56.00	Straight Arm	1	Stand-Off
53.00	Whip	4	Generic GPS
37.80	Other	3	Generic RAC 8' Ice Shield
25.00	Platform	1	Rest Platform

Linear Appurtenance

Elev (ft) From	To	Qty	Description
0.00	128.00	3	1 5/8" Hybriflex
0.00	128.00	12	1 5/8" Coax
0.00	125.00	2	Waveguide Ladder
0.00	125.00	1	Waveguide Ladder
0.00	125.00	1	Climbing Ladder
0.00	125.00	1	3/8" Coax
0.00	125.00	18	1 5/8" Coax
0.00	125.00	12	1 1/4" Coax
0.00	111.00	1	1.54" (39.2mm) Hybri
0.00	111.00	3	1 1/4" Hybriflex Cab
0.00	104.00	12	7/8" Coax
0.00	104.00	1	2" conduit
0.00	104.00	1	2" conduit
0.00	104.00	4	0.78" (19.7mm) 8 AWG
0.00	104.00	2	0.39" (10mm) Fiber T
0.00	93.00	1	1.75" (44.5mm) Hybri
0.00	75.00	1	1/2" Coax
0.00	53.00	4	1/2" Coax

Global Base Foundation Design Loads

Load Case	Moment (k-ft)	Vertical (kip)	Horizontal (kip)
DL + WL	5,610.90	82.12	69.40
DL + WL + IL	1,713.24	166.91	22.11

Individual Base Foundation Design Loads

Vertical (kip)	Uplift (kip)	Horizontal (kip)
184.20	148.08	26.28

Site Number:	88166	Code:	ANSI/TIA-222-H	
Site Name:	SOUTH SALEM NY, NY	Engineering Number:	13698411_C3_03	7/13/2021 4:29:11 PM
Customer:	DISH WIRELESS L.L.C.			

Analysis Parameters

Location:	Westchester County, NY	Height (ft):	125
Code:	ANSI/TIA-222-H	Base Elevation (ft):	0.00
Shape:	Square	Bottom Face Width (ft):	24.25
Tower Manufacturer:	AT&T TAG	Top Face Width (ft):	9.00
Tower Type:	Self Support	Anchor Bolt Detail Type	c
Kd:	0.85		
Ke:	0.97		

Ice & Wind Parameters

Exposure Category:	B	Design Windspeed Without Ice:	115 mph
Risk Category:	II	Design Windspeed With Ice:	50 mph
Topographic Factor Procedure:	Method 2	Operational Windspeed:	60 mph
Feature:	Hill	Design Ice Thickness:	1.00 in
Crest Height (H):	160 ft	HMSL:	760.00 ft
Crest Length (L):	1570 ft		
Distance from Apex (x):	0 ft		
Upwind / Downwind	Upwind		

Seismic Parameters

Analysis Method:	Equivalent Lateral Force Method
Site Class:	D - Stiff Soil
Period Based on Rayleigh Method (sec):	0.49

T_L(sec):	6	p:	1.3	C_S:	0.063
S_S:	0.251	S_1:	0.058	C_S, Max:	0.063
F_a:	1.599	F_V:	2.400	C_S, Min:	0.030
S_{ds}:	0.268	S_{d1}:	0.093		

Load Cases

1.2D + 1.0W Normal	115 mph Normal with No Ice
1.2D + 1.0W 45 deg	115 mph 45 degree with No Ice
0.9D + 1.0W Normal	115 mph Normal with No Ice (Reduced DL)
0.9D + 1.0W 45 deg	115 mph 45 deg with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	50 mph Normal with 1.00 in Radial Ice
1.2D + 1.0Di + 1.0Wi 45 deg	50 mph 45 deg with 1.00 in Radial Ice
1.2D + 1.0Ev + 1.0Eh Normal	Seismic Normal
1.2D + 1.0Ev + 1.0Eh 45 deg	Seismic 45 deg
0.9D - 1.0Ev + 1.0Eh Normal	Seismic (Reduced DL) Normal
0.9D - 1.0Ev + 1.0Eh 45 deg	Seismic (Reduced DL) 45 deg
1.0D + 1.0W Service Normal	Serviceability - 60 mph Wind Normal
1.0D + 1.0W Service 45 deg	Serviceability - 60 mph Wind 45 deg

Tower Loading

Discrete Appurtenance Properties 1.2D + 1.0W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
132.0	Generic 12' Omni	1	40	3.6	12.0	3.0	3.0	0.75	1.00	0.0	0.0	36.23	83	48
128.0	Samsung Outdoor	3	4	0.9	1.0	8.7	1.4	0.75	0.50	0.0	0.0	36.05	31	16
128.0	Samsung RT4401-	3	19	1.0	1.2	8.6	4.2	0.75	0.50	0.0	0.0	36.05	34	67
128.0	Samsung B2/B66A	3	84	1.9	1.3	15.0	10.0	0.75	0.50	0.0	0.0	36.05	65	304
128.0	Samsung B5/B13	3	70	1.9	1.3	15.0	8.1	0.75	0.50	0.0	0.0	36.05	65	253
128.0	Raycap RxxDC-3315-	3	21	2.5	1.6	15.7	10.3	0.75	0.50	0.0	0.0	36.05	87	77
128.0	Samsung MT6407-	3	82	4.7	2.9	16.1	5.5	0.75	0.61	0.0	0.0	36.05	198	294
128.0	Commscope NHH-	6	44	8.1	6.0	11.9	7.1	0.75	0.69	0.0	0.0	36.05	769	315
128.0	Commscope SBNHH-	3	51	8.2	6.1	11.9	7.1	0.75	0.69	0.0	0.0	36.05	389	183
125.0	Generic General	9	5	5.0	3.3	5.0	6.0	1.00	1.00	-3.0	4103.8	35.76	1368	54
125.0	RFS ATMAA1412D-	6	13	1.0	1.0	10.0	4.0	0.75	0.50	-3.0	205.2	35.76	68	94
125.0	20' Pipe	1	100	3.4	20.0	2.5	2.5	1.00	1.00	0.0	0.0	35.91	104	120
125.0	Decibel DB844H90E-	12	14	3.6	4.0	6.5	8.0	0.75	0.73	0.0	0.0	35.91	725	202
125.0	RFS APX16DWV-	3	41	6.6	4.7	13.3	3.1	0.75	0.60	-3.0	810.8	35.76	270	147
125.0	RFS APXVFW24-C-	3	73	11.3	8.0	11.8	7.9	0.75	0.71	-3.0	1647.7	35.76	549	263
125.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	35.91	663	1080
125.0	Heavy Platform with	1	6000	80.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	35.91	2442	7200
113.0	Heavy Sector Frame	3	500	29.3	0.0	0.0	0.0	0.75	0.67	0.0	0.0	35.30	1325	1800
112.5	Catwalk	1	5000	65.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	35.27	1949	6000
111.0	RFS ACU-A20-N	3	1	0.1	0.3	2.0	3.5	0.80	0.50	0.0	0.0	35.19	4	4
111.0	Alcatel-Lucent	3	60	2.4	2.1	11.1	11.4	0.80	0.50	0.0	0.0	35.19	85	216
111.0	Alcatel-Lucent 800	3	62	2.5	1.6	13.0	15.2	0.80	0.50	0.0	0.0	35.19	90	222
111.0	Alcatel-Lucent TD-	3	70	4.0	2.2	18.6	6.7	0.80	0.50	0.0	0.0	35.19	145	252
111.0	RFS APXVTM14-ALU-	3	56	6.3	4.7	12.6	6.3	0.80	0.66	0.0	0.0	35.19	301	202
111.0	RFS APXVSPP18-C	3	57	8.0	6.0	11.8	7.0	0.80	0.69	0.0	0.0	35.19	397	205
104.0	Raycap DC6-48-60-	1	20	1.3	2.0	9.7	9.7	0.80	0.50	0.0	0.0	34.80	15	24
104.0	Nokia AirScale RRH	3	35	1.3	1.1	11.6	6.5	0.80	0.50	0.0	0.0	34.80	46	127
104.0	Raycap DC6-48-60-	1	32	1.5	2.0	11.0	11.0	0.80	0.50	0.0	0.0	34.80	17	38
104.0	Alcatel-Lucent B25	3	53	2.1	1.8	12.0	7.2	0.80	0.50	0.0	0.0	34.80	75	191
104.0	Nokia Airscale Dual	3	77	2.2	1.8	12.1	7.0	0.80	0.50	0.0	0.0	34.80	79	278
104.0	Alcatel-Lucent 9442	3	49	2.5	2.1	12.0	9.0	0.80	0.50	0.0	0.0	34.80	89	176
104.0	Alcatel-Lucent	3	70	3.2	2.6	12.0	8.7	0.80	0.50	0.0	0.0	34.80	112	252
104.0	Commscope NNHH-	9	99	17.1	8.0	19.6	7.8	0.80	0.64	0.0	0.0	34.80	2327	1071
104.0	Sector Frame Sabre	3	530	17.5	0.0	0.0	0.0	0.75	0.67	0.0	0.0	34.80	780	1908
93.00	Commscope RDIDC-	1	22	1.9	1.3	14.0	8.0	0.80	1.00	0.0	0.0	34.10	43	26
93.00	Fujitsu TA08025-	3	75	2.0	1.3	15.0	9.1	0.80	0.50	0.0	0.0	34.10	68	270
93.00	Fujitsu TA08025-	3	64	2.0	1.3	15.0	7.9	0.80	0.50	0.0	0.0	34.10	68	230
93.00	JMA Wireless	3	65	12.5	6.0	20.0	8.0	0.80	0.64	0.0	0.0	34.10	556	232
93.00	Generic Flat Light	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	34.10	782	1440
85.00	Generic Flat Side	1	188	6.3	0.0	0.0	0.0	1.00	0.67	0.0	0.0	33.54	120	225
76.00	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	32.83	419	600
75.00	Generic GPS	1	10	0.9	1.0	9.0	6.0	1.00	1.00	0.0	0.0	32.74	25	12
75.00	Stand-Off	1	100	3.5	0.0	0.0	0.0	1.00	0.67	0.0	0.0	32.74	65	120
56.00	Stand-Off	1	100	3.5	0.0	0.0	0.0	1.00	0.67	0.0	0.0	30.85	61	120
53.00	Generic GPS	4	10	0.9	1.0	9.0	6.0	0.80	0.50	0.0	0.0	30.49	37	48
37.80	Generic RAC 8' Ice	3	600	6.0	8.0	60.0	24.0	1.00	1.00	0.0	0.0	28.26	432	2160
25.00	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	26.93	343	600
	Totals	143	24804	1026.3									18767	29765

Tower Loading

Discrete Appurtenance Properties 0.9D + 1.0W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a(DL) (lb)
132.0	Generic 12' Omni	1	40	3.6	12.0	3.0	3.0	0.75	1.00	0.0	0.0	36.23	83	36
128.0	Samsung Outdoor	3	4	0.9	1.0	8.7	1.4	0.75	0.50	0.0	0.0	36.05	31	12
128.0	Samsung RT4401-	3	19	1.0	1.2	8.6	4.2	0.75	0.50	0.0	0.0	36.05	34	50
128.0	Samsung B2/B66A	3	84	1.9	1.3	15.0	10.0	0.75	0.50	0.0	0.0	36.05	65	228
128.0	Samsung B5/B13	3	70	1.9	1.3	15.0	8.1	0.75	0.50	0.0	0.0	36.05	65	190
128.0	Raycap RxxDC-3315-	3	21	2.5	1.6	15.7	10.3	0.75	0.50	0.0	0.0	36.05	87	58
128.0	Samsung MT6407-	3	82	4.7	2.9	16.1	5.5	0.75	0.61	0.0	0.0	36.05	198	220
128.0	Commscope NHH-	6	44	8.1	6.0	11.9	7.1	0.75	0.69	0.0	0.0	36.05	769	236
128.0	Commscope SBNHH-	3	51	8.2	6.1	11.9	7.1	0.75	0.69	0.0	0.0	36.05	389	137
125.0	Generic General	9	5	5.0	3.3	5.0	6.0	1.00	1.00	-3.0	4103.8	35.76	1368	41
125.0	RFS ATMAA1412D-	6	13	1.0	1.0	10.0	4.0	0.75	0.50	-3.0	205.2	35.76	68	70
125.0	20' Pipe	1	100	3.4	20.0	2.5	2.5	1.00	1.00	0.0	0.0	35.91	104	90
125.0	Decibel DB844H90E-	12	14	3.6	4.0	6.5	8.0	0.75	0.73	0.0	0.0	35.91	725	151
125.0	RFS APX16DWV-	3	41	6.6	4.7	13.3	3.1	0.75	0.60	-3.0	810.8	35.76	270	110
125.0	RFS APXVFW24-C-	3	73	11.3	8.0	11.8	7.9	0.75	0.71	-3.0	1647.7	35.76	549	197
125.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	35.91	663	810
125.0	Heavy Platform with	1	6000	80.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	35.91	2442	5400
113.0	Heavy Sector Frame	3	500	29.3	0.0	0.0	0.0	0.75	0.67	0.0	0.0	35.30	1325	1350
112.5	Catwalk	1	5000	65.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	35.27	1949	4500
111.0	RFS ACU-A20-N	3	1	0.1	0.3	2.0	3.5	0.80	0.50	0.0	0.0	35.19	4	3
111.0	Alcatel-Lucent	3	60	2.4	2.1	11.1	11.4	0.80	0.50	0.0	0.0	35.19	85	162
111.0	Alcatel-Lucent 800	3	62	2.5	1.6	13.0	15.2	0.80	0.50	0.0	0.0	35.19	90	167
111.0	Alcatel-Lucent TD-	3	70	4.0	2.2	18.6	6.7	0.80	0.50	0.0	0.0	35.19	145	189
111.0	RFS APXVTM14-ALU-	3	56	6.3	4.7	12.6	6.3	0.80	0.66	0.0	0.0	35.19	301	152
111.0	RFS APXVSPP18-C	3	57	8.0	6.0	11.8	7.0	0.80	0.69	0.0	0.0	35.19	397	154
104.0	Raycap DC6-48-60-	1	20	1.3	2.0	9.7	9.7	0.80	0.50	0.0	0.0	34.80	15	18
104.0	Nokia AirScale RRH	3	35	1.3	1.1	11.6	6.5	0.80	0.50	0.0	0.0	34.80	46	95
104.0	Raycap DC6-48-60-	1	32	1.5	2.0	11.0	11.0	0.80	0.50	0.0	0.0	34.80	17	29
104.0	Alcatel-Lucent B25	3	53	2.1	1.8	12.0	7.2	0.80	0.50	0.0	0.0	34.80	75	143
104.0	Nokia Airscale Dual	3	77	2.2	1.8	12.1	7.0	0.80	0.50	0.0	0.0	34.80	79	208
104.0	Alcatel-Lucent 9442	3	49	2.5	2.1	12.0	9.0	0.80	0.50	0.0	0.0	34.80	89	132
104.0	Alcatel-Lucent	3	70	3.2	2.6	12.0	8.7	0.80	0.50	0.0	0.0	34.80	112	189
104.0	Commscope NNHH-	9	99	17.1	8.0	19.6	7.8	0.80	0.64	0.0	0.0	34.80	2327	804
104.0	Sector Frame Sabre	3	530	17.5	0.0	0.0	0.0	0.75	0.67	0.0	0.0	34.80	780	1431
93.00	Commscope RDIDC-	1	22	1.9	1.3	14.0	8.0	0.80	1.00	0.0	0.0	34.10	43	20
93.00	Fujitsu TA08025-	3	75	2.0	1.3	15.0	9.1	0.80	0.50	0.0	0.0	34.10	68	203
93.00	Fujitsu TA08025-	3	64	2.0	1.3	15.0	7.9	0.80	0.50	0.0	0.0	34.10	68	173
93.00	JMA Wireless	3	65	12.5	6.0	20.0	8.0	0.80	0.64	0.0	0.0	34.10	556	174
93.00	Generic Flat Light	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	34.10	782	1080
85.00	Generic Flat Side	1	188	6.3	0.0	0.0	0.0	1.00	0.67	0.0	0.0	33.54	120	169
76.00	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	32.83	419	450
75.00	Generic GPS	1	10	0.9	1.0	9.0	6.0	1.00	1.00	0.0	0.0	32.74	25	9
75.00	Stand-Off	1	100	3.5	0.0	0.0	0.0	1.00	0.67	0.0	0.0	32.74	65	90
56.00	Stand-Off	1	100	3.5	0.0	0.0	0.0	1.00	0.67	0.0	0.0	30.85	61	90
53.00	Generic GPS	4	10	0.9	1.0	9.0	6.0	0.80	0.50	0.0	0.0	30.49	37	36
37.80	Generic RAC 8' Ice	3	600	6.0	8.0	60.0	24.0	1.00	1.00	0.0	0.0	28.26	432	1620
25.00	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	26.93	343	450
	Totals	143	24804	1026.3									18767	22324

Tower Loading

Discrete Appurtenance Properties 1.2D + 1.0Di + 1.0Wi

Elevation (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a(DL) (lb)
132.0	Generic 12' Omni	1	104	6.6	12.0	3.0	3.0	0.75	1.00	0.0	0.0	6.85	29	112
128.0	Samsung Outdoor	3	17	1.3	1.0	8.7	1.4	0.75	0.50	0.0	0.0	6.81	9	54
128.0	Samsung RT4401-	3	38	1.5	1.2	8.6	4.2	0.75	0.50	0.0	0.0	6.81	10	124
128.0	Samsung B2/B66A	3	129	2.5	1.3	15.0	10.0	0.75	0.50	0.0	0.0	6.81	16	438
128.0	Samsung B5/B13	3	111	2.5	1.3	15.0	8.1	0.75	0.50	0.0	0.0	6.81	16	374
128.0	Raycap RxxDC-3315-	3	77	3.2	1.6	15.7	10.3	0.75	0.50	0.0	0.0	6.81	21	245
128.0	Samsung MT6407-	3	153	5.8	2.9	16.1	5.5	0.75	0.61	0.0	0.0	6.81	46	509
128.0	Commscope NHH-	6	166	10.0	6.0	11.9	7.1	0.75	0.69	0.0	0.0	6.81	181	1051
128.0	Commscope SBNHH-	3	174	10.2	6.1	11.9	7.1	0.75	0.69	0.0	0.0	6.81	91	553
125.0	Generic General	9	18	5.6	3.3	5.0	6.0	1.00	1.00	-3.0	864.3	6.76	288	173
125.0	RFS ATMAA1412D-	6	32	1.5	1.0	10.0	4.0	0.75	0.50	-3.0	57.0	6.76	19	206
125.0	20' Pipe	1	198	5.1	20.0	2.5	2.5	1.00	1.00	0.0	0.0	6.79	29	218
125.0	Decibel DB844H90E-	12	86	3.6	4.0	6.5	8.0	0.75	0.73	0.0	0.0	6.79	138	1066
125.0	RFS APX16DWV-	3	123	8.1	4.7	13.3	3.1	0.75	0.60	-3.0	188.7	6.76	63	393
125.0	RFS APXVFW24-C-	3	240	13.6	8.0	11.8	7.9	0.75	0.71	-3.0	373.9	6.76	125	763
125.0	Round Sector Frame	3	559	26.0	0.0	0.0	0.0	0.75	0.67	0.0	0.0	6.79	227	1856
125.0	Heavy Platform with	1	9029	104.7	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.79	604	10229
113.0	Heavy Sector Frame	3	886	41.5	0.0	0.0	0.0	0.75	0.67	0.0	0.0	6.67	354	2957
112.5	Catwalk	1	9881	96.7	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.67	548	10881
111.0	RFS ACU-A20-N	3	4	0.3	0.3	2.0	3.5	0.80	0.50	0.0	0.0	6.65	2	13
111.0	Alcatel-Lucent	3	118	3.1	2.1	11.1	11.4	0.80	0.50	0.0	0.0	6.65	21	390
111.0	Alcatel-Lucent 800	3	125	3.2	1.6	13.0	15.2	0.80	0.50	0.0	0.0	6.65	22	412
111.0	Alcatel-Lucent TD-	3	136	5.0	2.2	18.6	6.7	0.80	0.50	0.0	0.0	6.65	34	450
111.0	RFS APXVTM14-ALU-	3	152	7.9	4.7	12.6	6.3	0.80	0.66	0.0	0.0	6.65	70	490
111.0	RFS APXVSPP18-C	3	177	10.0	6.0	11.8	7.0	0.80	0.69	0.0	0.0	6.65	93	566
104.0	Raycap DC6-48-60-	1	57	1.7	2.0	9.7	9.7	0.80	0.50	0.0	0.0	6.58	4	61
104.0	Nokia AirScale RRH	3	63	1.8	1.1	11.6	6.5	0.80	0.50	0.0	0.0	6.58	12	209
104.0	Raycap DC6-48-60-	1	75	2.0	2.0	11.0	11.0	0.80	0.50	0.0	0.0	6.58	4	81
104.0	Alcatel-Lucent B25	3	95	2.8	1.8	12.0	7.2	0.80	0.50	0.0	0.0	6.58	19	317
104.0	Nokia Airscale Dual	3	120	2.9	1.8	12.1	7.0	0.80	0.50	0.0	0.0	6.58	20	408
104.0	Alcatel-Lucent 9442	3	103	3.3	2.1	12.0	9.0	0.80	0.50	0.0	0.0	6.58	22	337
104.0	Alcatel-Lucent	3	134	4.1	2.6	12.0	8.7	0.80	0.50	0.0	0.0	6.58	27	443
104.0	Commscope NNHH-	9	328	19.6	8.0	19.6	7.8	0.80	0.64	0.0	0.0	6.58	506	3131
104.0	Sector Frame Sabre	3	533	17.6	0.0	0.0	0.0	0.75	0.67	0.0	0.0	6.58	148	1916
93.00	Commscope RDIDC-	1	61	2.5	1.3	14.0	8.0	0.80	1.00	0.0	0.0	6.45	11	66
93.00	Fujitsu TA08025-	3	118	2.6	1.3	15.0	9.1	0.80	0.50	0.0	0.0	6.45	17	400
93.00	Fujitsu TA08025-	3	104	2.6	1.3	15.0	7.9	0.80	0.50	0.0	0.0	6.45	17	351
93.00	JMA Wireless	3	243	14.4	6.0	20.0	8.0	0.80	0.64	0.0	0.0	6.45	122	767
93.00	Generic Flat Light	3	609	28.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	6.45	234	2066
85.00	Generic Flat Side	1	279	8.4	0.0	0.0	0.0	1.00	0.67	0.0	0.0	6.34	30	317
76.00	Rest Platform	1	974	22.1	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.21	117	1074
75.00	Generic GPS	1	30	1.3	1.0	9.0	6.0	1.00	1.00	0.0	0.0	6.19	7	32
75.00	Stand-Off	1	133	4.7	0.0	0.0	0.0	1.00	0.67	0.0	0.0	6.19	17	153
56.00	Stand-Off	1	132	4.7	0.0	0.0	0.0	1.00	0.67	0.0	0.0	5.83	16	152
53.00	Generic GPS	4	29	1.3	1.0	9.0	6.0	0.80	0.50	0.0	0.0	5.76	10	125
37.80	Generic RAC 8' Ice	3	1092	11.4	8.0	60.0	24.0	1.00	1.00	0.0	0.0	5.34	155	3636
25.00	Rest Platform	1	906	21.1	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.09	91	1006
	Totals	143	46608	1339.4									4664	51569

Tower Loading

Discrete Appurtenance Properties 1.0D + 1.0W Service

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
132.0	Generic 12' Omni	1	40	3.6	12.0	3.0	3.0	0.75	1.00	0.0	0.0	9.86	23	40
128.0	Samsung Outdoor	3	4	0.9	1.0	8.7	1.4	0.75	0.50	0.0	0.0	9.81	8	13
128.0	Samsung RT4401-	3	19	1.0	1.2	8.6	4.2	0.75	0.50	0.0	0.0	9.81	9	56
128.0	Samsung B2/B66A	3	84	1.9	1.3	15.0	10.0	0.75	0.50	0.0	0.0	9.81	18	253
128.0	Samsung B5/B13	3	70	1.9	1.3	15.0	8.1	0.75	0.50	0.0	0.0	9.81	18	211
128.0	Raycap RxxDC-3315-	3	21	2.5	1.6	15.7	10.3	0.75	0.50	0.0	0.0	9.81	24	64
128.0	Samsung MT6407-	3	82	4.7	2.9	16.1	5.5	0.75	0.61	0.0	0.0	9.81	54	245
128.0	Commscope NHH-	6	44	8.1	6.0	11.9	7.1	0.75	0.69	0.0	0.0	9.81	209	262
128.0	Commscope SBNHH-	3	51	8.2	6.1	11.9	7.1	0.75	0.69	0.0	0.0	9.81	106	152
125.0	Generic General	9	5	5.0	3.3	5.0	6.0	1.00	1.00	-3.0	1117.1	9.74	372	45
125.0	RFS ATMAA1412D-	6	13	1.0	1.0	10.0	4.0	0.75	0.50	-3.0	55.9	9.74	19	78
125.0	20' Pipe	1	100	3.4	20.0	2.5	2.5	1.00	1.00	0.0	0.0	9.77	28	100
125.0	Decibel DB844H90E-	12	14	3.6	4.0	6.5	8.0	0.75	0.73	0.0	0.0	9.77	197	168
125.0	RFS APX16DWV-	3	41	6.6	4.7	13.3	3.1	0.75	0.60	-3.0	220.7	9.74	74	122
125.0	RFS APXVFW24-C-	3	73	11.3	8.0	11.8	7.9	0.75	0.71	-3.0	448.5	9.74	150	219
125.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	9.77	180	900
125.0	Heavy Platform with	1	6000	80.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	9.77	665	6000
113.0	Heavy Sector Frame	3	500	29.3	0.0	0.0	0.0	0.75	0.67	0.0	0.0	9.61	361	1500
112.5	Catwalk	1	5000	65.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	9.60	531	5000
111.0	RFS ACU-A20-N	3	1	0.1	0.3	2.0	3.5	0.80	0.50	0.0	0.0	9.58	1	3
111.0	Alcatel-Lucent	3	60	2.4	2.1	11.1	11.4	0.80	0.50	0.0	0.0	9.58	23	180
111.0	Alcatel-Lucent 800	3	62	2.5	1.6	13.0	15.2	0.80	0.50	0.0	0.0	9.58	24	185
111.0	Alcatel-Lucent TD-	3	70	4.0	2.2	18.6	6.7	0.80	0.50	0.0	0.0	9.58	40	210
111.0	RFS APXVTM14-ALU-	3	56	6.3	4.7	12.6	6.3	0.80	0.66	0.0	0.0	9.58	82	169
111.0	RFS APXVSPP18-C	3	57	8.0	6.0	11.8	7.0	0.80	0.69	0.0	0.0	9.58	108	171
104.0	Raycap DC6-48-60-	1	20	1.3	2.0	9.7	9.7	0.80	0.50	0.0	0.0	9.47	4	20
104.0	Nokia AirScale RRH	3	35	1.3	1.1	11.6	6.5	0.80	0.50	0.0	0.0	9.47	12	106
104.0	Raycap DC6-48-60-	1	32	1.5	2.0	11.0	11.0	0.80	0.50	0.0	0.0	9.47	5	32
104.0	Alcatel-Lucent B25	3	53	2.1	1.8	12.0	7.2	0.80	0.50	0.0	0.0	9.47	20	159
104.0	Nokia Airscale Dual	3	77	2.2	1.8	12.1	7.0	0.80	0.50	0.0	0.0	9.47	22	232
104.0	Alcatel-Lucent 9442	3	49	2.5	2.1	12.0	9.0	0.80	0.50	0.0	0.0	9.47	24	147
104.0	Alcatel-Lucent	3	70	3.2	2.6	12.0	8.7	0.80	0.50	0.0	0.0	9.47	31	210
104.0	Commscope NNHH-	9	99	17.1	8.0	19.6	7.8	0.80	0.64	0.0	0.0	9.47	633	893
104.0	Sector Frame Sabre	3	530	17.5	0.0	0.0	0.0	0.75	0.67	0.0	0.0	9.47	212	1590
93.00	Commscope RDIDC-	1	22	1.9	1.3	14.0	8.0	0.80	1.00	0.0	0.0	9.28	12	22
93.00	Fujitsu TA08025-	3	75	2.0	1.3	15.0	9.1	0.80	0.50	0.0	0.0	9.28	19	225
93.00	Fujitsu TA08025-	3	64	2.0	1.3	15.0	7.9	0.80	0.50	0.0	0.0	9.28	19	192
93.00	JMA Wireless	3	65	12.5	6.0	20.0	8.0	0.80	0.64	0.0	0.0	9.28	151	194
93.00	Generic Flat Light	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	9.28	213	1200
85.00	Generic Flat Side	1	188	6.3	0.0	0.0	0.0	1.00	0.67	0.0	0.0	9.13	33	188
76.00	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	8.94	114	500
75.00	Generic GPS	1	10	0.9	1.0	9.0	6.0	1.00	1.00	0.0	0.0	8.91	7	10
75.00	Stand-Off	1	100	3.5	0.0	0.0	0.0	1.00	0.67	0.0	0.0	8.91	18	100
56.00	Stand-Off	1	100	3.5	0.0	0.0	0.0	1.00	0.67	0.0	0.0	8.40	17	100
53.00	Generic GPS	4	10	0.9	1.0	9.0	6.0	0.80	0.50	0.0	0.0	8.30	10	40
37.80	Generic RAC 8' Ice	3	600	6.0	8.0	60.0	24.0	1.00	1.00	0.0	0.0	7.69	118	1800
25.00	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	7.33	93	500
	Totals	143	24804	1026.3									5109	24804

Tower Loading

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out Of Zone	Spacing (in)	Orientation Factor	Ka Override
0.00	128.0	1 5/8" Coax	12	1.98	0.82	75	1	Block	0.00	N	1.00	1.00	0.00
0.00	128.0	1 5/8" Hybriflex	3	1.98	1.30	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	125.0	1 1/4" Coax	12	1.55	0.63	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	125.0	1 5/8" Coax	18	1.98	0.82	100	2	Individual	0.00	N	1.00	1.00	0.00
0.00	125.0	3/8" Coax	1	0.44	0.08	100	2	Individual	0.00	N	1.00	1.00	0.00
0.00	125.0	Climbing Ladder	1	2.00	6.90	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	125.0	Waveguide Ladder	1	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	125.0	Waveguide Ladder	2	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	111.0	1 1/4" Hybriflex	3	1.54	1.00	33	1	Block	0.00	N	1.00	1.00	0.00
0.00	111.0	1.54" (39.2mm)	1	1.54	1.60	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	104.0	0.39" (10mm) Fiber	2	0.39	0.06	50	1	Block	0.00	N	1.00	1.00	0.00
0.00	104.0	0.78" (19.7mm) 8	4	0.78	0.59	50	1	Block	0.00	N	1.00	1.00	0.00
0.00	104.0	2" conduit	1	2.38	3.65	100	1	Individual	0.00	N	1.00	1.00	0.01
0.00	104.0	2" conduit	1	2.38	3.65	100	1	Individual	0.00	N	1.00	1.00	0.01
0.00	104.0	7/8" Coax	12	1.09	0.33	50	1	Block	0.00	N	1.00	1.00	0.00
0.00	93.00	1.75" (44.5mm)	1	1.75	2.72	100	3	Individual	0.00	N	1.00	1.00	0.00
0.00	75.00	1/2" Coax	1	0.63	0.15	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	53.00	1/2" Coax	4	0.63	0.15	100	1	Cluster	1.26	N	1.00	1.00	0.00

Section Forces

LoadCase 1.2D + 1.0W Normal

115 mph Normal with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
10	120.71	35.70	22.079	0.000	0.000	0.261	2.73	1.00	1.00	0.0	22.08	60.33	0.00	2727	0	1831	1526	3357
9	112.13	35.25	20.058	0.000	0.000	0.216	2.91	1.00	1.00	0.0	20.06	58.39	0.00	2363	0	1750	1527	3277
8	102.75	34.72	23.880	0.000	0.000	0.196	3.00	1.00	1.00	0.0	23.88	71.54	0.00	3646	0	2111	2010	4121
7	92.59	34.08	24.651	0.000	0.000	0.182	3.06	1.00	1.00	0.0	24.65	75.43	0.00	3336	0	2185	2101	4286
6	81.25	33.25	25.491	0.000	0.000	0.138	3.26	1.00	1.00	0.0	25.49	83.19	0.00	4735	0	2351	2537	4889
5	68.75	32.18	26.139	0.000	0.000	0.129	3.31	1.00	1.00	0.0	26.14	86.43	0.00	5176	0	2364	2469	4833
4	56.25	30.88	26.938	0.000	0.000	0.120	3.35	1.00	1.00	0.0	26.94	90.22	0.00	5390	0	2368	2374	4742
3	43.75	29.22	27.768	0.000	0.000	0.114	3.38	1.00	1.00	0.0	27.77	93.86	0.00	6163	0	2331	2265	4597
2	31.25	27.02	28.411	0.000	0.000	0.109	3.41	1.00	1.00	0.0	28.41	96.77	0.00	6326	0	2223	2094	4317
1	12.50	27.45	66.209	0.000	0.000	0.113	3.38	1.00	1.00	0.0	66.21	224.00	0.00	12493	0	5227	4256	9483
														52355	0			47902

LoadCase 1.2D + 1.0W 45 deg

115 mph 45 degree with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
10	120.71	35.70	22.079	0.000	0.000	0.261	2.73	1.20	1.20	0.0	26.40	72.14	0.00	2727	0	2189	1526	3715
9	112.13	35.25	20.058	0.000	0.000	0.216	2.91	1.16	1.16	0.0	23.31	67.86	0.00	2363	0	2033	1527	3560
8	102.75	34.72	23.880	0.000	0.000	0.196	3.00	1.15	1.15	0.0	27.40	82.07	0.00	3646	0	2422	2010	4432
7	92.59	34.08	24.651	0.000	0.000	0.182	3.06	1.14	1.14	0.0	28.01	85.71	0.00	3336	0	2483	2101	4584
6	81.25	33.25	25.491	0.000	0.000	0.138	3.26	1.10	1.10	0.0	28.12	91.78	0.00	4735	0	2594	2537	5132
5	68.75	32.18	26.139	0.000	0.000	0.129	3.31	1.10	1.10	0.0	28.66	94.78	0.00	5176	0	2593	2469	5061
4	56.25	30.88	26.938	0.000	0.000	0.120	3.35	1.09	1.09	0.0	29.36	98.35	0.00	5390	0	2581	2374	4956
3	43.75	29.22	27.768	0.000	0.000	0.114	3.38	1.09	1.09	0.0	30.14	101.87	0.00	6163	0	2530	2265	4796
2	31.25	27.02	28.411	0.000	0.000	0.109	3.41	1.08	1.08	0.0	30.73	104.66	0.00	6326	0	2404	2094	4498
1	12.50	27.45	66.209	0.000	0.000	0.113	3.38	1.08	1.08	0.0	71.83	243.02	0.00	12493	0	5671	4256	9927
														52355	0			50661

LoadCase 0.9D + 1.0W Normal

115 mph Normal with No Ice (Reduced DL)

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F'_a (lb)	Force (lb)
10	120.71	35.70	22.079	0.000	0.000	0.261	2.73	1.00	1.00	0.0	22.08	60.33	0.00	2045	0	1831	1526	3357
9	112.13	35.25	20.058	0.000	0.000	0.216	2.91	1.00	1.00	0.0	20.06	58.39	0.00	1772	0	1750	1527	3277
8	102.75	34.72	23.880	0.000	0.000	0.196	3.00	1.00	1.00	0.0	23.88	71.54	0.00	2735	0	2111	2010	4121
7	92.59	34.08	24.651	0.000	0.000	0.182	3.06	1.00	1.00	0.0	24.65	75.43	0.00	2502	0	2185	2101	4286
6	81.25	33.25	25.491	0.000	0.000	0.138	3.26	1.00	1.00	0.0	25.49	83.19	0.00	3551	0	2351	2537	4889
5	68.75	32.18	26.139	0.000	0.000	0.129	3.31	1.00	1.00	0.0	26.14	86.43	0.00	3882	0	2364	2469	4833
4	56.25	30.88	26.938	0.000	0.000	0.120	3.35	1.00	1.00	0.0	26.94	90.22	0.00	4042	0	2368	2374	4742
3	43.75	29.22	27.768	0.000	0.000	0.114	3.38	1.00	1.00	0.0	27.77	93.86	0.00	4622	0	2331	2265	4597
2	31.25	27.02	28.411	0.000	0.000	0.109	3.41	1.00	1.00	0.0	28.41	96.77	0.00	4745	0	2223	2094	4317
1	12.50	27.45	66.209	0.000	0.000	0.113	3.38	1.00	1.00	0.0	66.21	224.00	0.00	9370	0	5227	4256	9483

Section Forces

														39266	0				47902

LoadCase 0.9D + 1.0W 45 deg — 115 mph 45 deg with No Ice (Reduced DL)

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
10	120.71	35.70	22.079	0.000	0.000	0.261	2.73	1.20	1.20	0.0	26.40	72.14	0.00	2045	0	2189	1526	3715
9	112.13	35.25	20.058	0.000	0.000	0.216	2.91	1.16	1.16	0.0	23.31	67.86	0.00	1772	0	2033	1527	3560
8	102.75	34.72	23.880	0.000	0.000	0.196	3.00	1.15	1.15	0.0	27.40	82.07	0.00	2735	0	2422	2010	4432
7	92.59	34.08	24.651	0.000	0.000	0.182	3.06	1.14	1.14	0.0	28.01	85.71	0.00	2502	0	2483	2101	4584
6	81.25	33.25	25.491	0.000	0.000	0.138	3.26	1.10	1.10	0.0	28.12	91.78	0.00	3551	0	2594	2537	5132
5	68.75	32.18	26.139	0.000	0.000	0.129	3.31	1.10	1.10	0.0	28.66	94.78	0.00	3882	0	2593	2469	5061
4	56.25	30.88	26.938	0.000	0.000	0.120	3.35	1.09	1.09	0.0	29.36	98.35	0.00	4042	0	2581	2374	4956
3	43.75	29.22	27.768	0.000	0.000	0.114	3.38	1.09	1.09	0.0	30.14	101.87	0.00	4622	0	2530	2265	4796
2	31.25	27.02	28.411	0.000	0.000	0.109	3.41	1.08	1.08	0.0	30.73	104.66	0.00	4745	0	2404	2094	4498
1	12.50	27.45	66.209	0.000	0.000	0.113	3.38	1.08	1.08	0.0	71.83	243.02	0.00	9370	0	5671	4256	9927
														39266	0			50661

LoadCase 1.2D + 1.0Di + 1.0Wi Normal — 50 mph Normal with 1.00 in Radial Ice

Gust Response Factor (Gh): 0.85 Ice Dead Load Factor 1.00 Ice Importance Factor : 1.00

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)	
10	120.71	6.75	22.079	10.563	10.56	0.378	2.34	1.00	1.00	1.2	32.64	76.41	10.56	6699	3973	438	620	1040	**
9	112.13	6.66	20.058	10.997	10.99	0.329	2.49	1.00	1.00	1.2	31.05	77.41	11.00	6286	3923	439	656	1095	
8	102.75	6.56	23.880	12.571	12.57	0.295	2.61	1.00	1.00	1.2	36.45	95.08	12.57	8813	5167	530	871	1401	
7	92.59	6.44	24.651	13.188	13.18	0.275	2.68	1.00	1.00	1.2	37.84	101.43	13.19	8462	5126	555	912	1467	
6	81.25	6.29	25.491	13.553	13.55	0.208	2.95	1.00	1.00	1.2	39.04	115.00	13.55	11160	6424	614	1166	1780	
5	68.75	6.08	26.139	13.832	13.83	0.195	3.00	1.00	1.00	1.2	39.97	120.06	13.83	11697	6522	621	1151	1772	
4	56.25	5.84	26.938	14.159	14.15	0.181	3.06	1.00	1.00	1.2	41.10	125.85	14.16	12017	6627	624	1113	1738	
3	43.75	5.52	27.768	14.374	14.37	0.171	3.11	1.00	1.00	1.1	42.14	130.96	14.37	12924	6761	615	1065	1680	
2	31.25	5.11	28.411	14.465	14.46	0.163	3.15	1.00	1.00	1.1	42.88	134.92	14.47	13040	6714	586	980	1566	
1	12.50	5.19	66.209	21.476	21.47	0.149	3.21	1.00	1.00	1.0	87.68	281.50	21.48	24243	11750	1242	1924	3166	
														115342	62987			16704	

** = Section Force Exceeds Solidity Ratio Criteria

LoadCase 1.2D + 1.0Di + 1.0Wi 45 deg — 50 mph 45 deg with 1.00 in Radial Ice

Gust Response Factor (Gh): 0.85 Ice Dead Load Factor 1.00 Ice Importance Factor : 1.00

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)	
10	120.71	6.75	22.079	10.563	10.56	0.378	2.34	1.20	1.20	1.2	39.17	91.70	10.56	6699	3973	526	620	1040	**
9	112.13	6.66	20.058	10.997	10.99	0.329	2.49	1.20	1.20	1.2	37.27	92.89	11.00	6286	3923	526	656	1124	**
8	102.75	6.56	23.880	12.571	12.57	0.295	2.61	1.20	1.20	1.2	43.74	114.10	12.57	8813	5167	637	871	1449	**
7	92.59	6.44	24.651	13.188	13.18	0.275	2.68	1.20	1.20	1.2	45.41	121.72	13.19	8462	5126	666	912	1578	
6	81.25	6.29	25.491	13.553	13.55	0.208	2.95	1.16	1.16	1.2	45.14	132.95	13.55	11160	6424	710	1166	1876	
5	68.75	6.08	26.139	13.832	13.83	0.195	3.00	1.15	1.15	1.2	45.80	137.57	13.83	11697	6522	711	1151	1862	
4	56.25	5.84	26.938	14.159	14.15	0.181	3.06	1.14	1.14	1.2	46.68	142.95	14.16	12017	6627	709	1113	1822	
3	43.75	5.52	27.768	14.374	14.37	0.171	3.11	1.13	1.13	1.1	47.55	147.76	14.37	12924	6761	694	1065	1759	

Section Forces

2	31.25	5.11	28.411	14.465	14.46	0.163	3.15	1.12	1.12	1.1	48.10	151.37	14.47	13040	6714	657	980	1637
1	12.50	5.19	66.209	21.476	21.47	0.149	3.21	1.11	1.11	1.0	97.47	312.93	21.48	24243	11750	1380	1924	3304
														115342	62987			17452

** = Section Force Exceeds Solidity Ratio Criteria

LoadCase 1.0D + 1.0W Service Normal — Serviceability - 60 mph Wind Normal

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
10	120.71	9.72	22.079	0.000	0.000	0.261	2.73	1.00	1.00	0.0	22.08	60.33	0.00	2272	0	498	415	914
9	112.13	9.60	20.058	0.000	0.000	0.216	2.91	1.00	1.00	0.0	20.06	58.39	0.00	1969	0	476	416	892
8	102.75	9.45	23.880	0.000	0.000	0.196	3.00	1.00	1.00	0.0	23.88	71.54	0.00	3039	0	575	547	1122
7	92.59	9.28	24.651	0.000	0.000	0.182	3.06	1.00	1.00	0.0	24.65	75.43	0.00	2780	0	595	572	1167
6	81.25	9.05	25.491	0.000	0.000	0.138	3.26	1.00	1.00	0.0	25.49	83.19	0.00	3946	0	640	691	1331
5	68.75	8.76	26.139	0.000	0.000	0.129	3.31	1.00	1.00	0.0	26.14	86.43	0.00	4313	0	644	672	1316
4	56.25	8.40	26.938	0.000	0.000	0.120	3.35	1.00	1.00	0.0	26.94	90.22	0.00	4491	0	645	646	1291
3	43.75	7.95	27.768	0.000	0.000	0.114	3.38	1.00	1.00	0.0	27.77	93.86	0.00	5136	0	635	617	1251
2	31.25	7.36	28.411	0.000	0.000	0.109	3.41	1.00	1.00	0.0	28.41	96.77	0.00	5272	0	605	570	1175
1	12.50	7.47	66.209	0.000	0.000	0.113	3.38	1.00	1.00	0.0	66.21	224.00	0.00	10411	0	1423	1159	2581
														43629	0			13039

** = Section Force Exceeds Solidity Ratio Criteria

LoadCase 1.0D + 1.0W Service 45 deg — Serviceability - 60 mph Wind 45 deg

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
10	120.71	9.72	22.079	0.000	0.000	0.261	2.73	1.20	1.20	0.0	26.40	72.14	0.00	2272	0	596	415	1011
9	112.13	9.60	20.058	0.000	0.000	0.216	2.91	1.16	1.16	0.0	23.31	67.86	0.00	1969	0	554	416	969
8	102.75	9.45	23.880	0.000	0.000	0.196	3.00	1.15	1.15	0.0	27.40	82.07	0.00	3039	0	659	547	1207
7	92.59	9.28	24.651	0.000	0.000	0.182	3.06	1.14	1.14	0.0	28.01	85.71	0.00	2780	0	676	572	1248
6	81.25	9.05	25.491	0.000	0.000	0.138	3.26	1.10	1.10	0.0	28.12	91.78	0.00	3946	0	706	691	1397
5	68.75	8.76	26.139	0.000	0.000	0.129	3.31	1.10	1.10	0.0	28.66	94.78	0.00	4313	0	706	672	1378
4	56.25	8.40	26.938	0.000	0.000	0.120	3.35	1.09	1.09	0.0	29.36	98.35	0.00	4491	0	703	646	1349
3	43.75	7.95	27.768	0.000	0.000	0.114	3.38	1.09	1.09	0.0	30.14	101.87	0.00	5136	0	689	617	1305
2	31.25	7.36	28.411	0.000	0.000	0.109	3.41	1.08	1.08	0.0	30.73	104.66	0.00	5272	0	654	570	1224
1	12.50	7.47	66.209	0.000	0.000	0.113	3.38	1.08	1.08	0.0	71.83	243.02	0.00	10411	0	1544	1159	2702
														43629	0			13791

** = Section Force Exceeds Solidity Ratio Criteria

Equivalent Lateral Force Method

Spectral Response Acceleration for Short Period (S_s):	0.25
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Long-Period Transition Period (T_L - Seconds):	6
Importance Factor (I_e):	1.00
Site Coefficient F_a:	1.60
Site Coefficient F_v:	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.27
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.09
Seismic Response Coefficient (C_s):	0.06
Upper Limit C_s:	0.06
Lower Limit C_s:	0.03
Period based on Rayleigh Method (sec):	0.49
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.00
Total Unfactored Dead Load:	68.43 k
Seismic Base Shear (E):	5.65 k

LoadCase 1.2D + 1.0Ev + 1.0Eh

Seismic

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
10	120.71	2,272	274,267	0.054	305	2,848
9	112.13	1,969	220,815	0.043	246	2,469
8	102.75	3,039	312,234	0.061	347	3,809
7	92.58	2,780	257,378	0.051	286	3,485
6	81.25	3,946	320,618	0.063	357	4,946
5	68.75	4,313	296,525	0.058	330	5,407
4	56.25	4,491	252,638	0.050	281	5,630
3	43.75	5,136	224,689	0.044	250	6,438
2	31.25	5,272	164,752	0.032	183	6,609
1	12.50	10,411	130,132	0.026	145	13,050
Generic 12' Omni	125.00	40	5,000	0.001	6	50
Samsung Outdoor CBRS 20W RRH –Clip-	125.00	13	1,650	0.000	2	17
Samsung RT4401-48A	125.00	56	6,975	0.001	8	70
Samsung B2/B66A RRH-BR049	125.00	253	31,650	0.006	35	317
Samsung B5/B13 RRH-BR04C	125.00	211	26,363	0.005	29	264
Raycap RxxDC-3315-PF-48	125.00	64	8,025	0.002	9	80
Samsung MT6407-77A	125.00	245	30,600	0.006	34	307
Commscope NHH-65B-R2B	125.00	262	32,775	0.006	36	329
Commscope SBNHH-1D65B	125.00	152	19,012	0.004	21	191
Generic General Pole Mount	125.00	45	5,625	0.001	6	56
RFS ATMAA1412D-1A20	125.00	78	9,750	0.002	11	98
20' Pipe	125.00	100	12,500	0.002	14	125
Decibel DB844H90E-XY	125.00	168	21,000	0.004	23	211
RFS APX16DWV-16DWVS-E-A20	125.00	122	15,263	0.003	17	153
RFS APXVFW24-C-A20	125.00	219	27,375	0.005	30	275

Equivalent Lateral Force Method

Round Sector Frame	125.00	900	112,500	0.022	125	1,128
Heavy Platform with Handrails	125.00	6,000	750,000	0.148	834	7,521
Heavy Sector Frame	113.00	1,500	169,500	0.033	189	1,880
Catwalk	112.50	5,000	562,500	0.111	626	6,268
RFS ACU-A20-N	111.00	3	333	0.000	0	4
Alcatel-Lucent 1900MHz RRH (65MHz)	111.00	180	19,980	0.004	22	226
Alcatel-Lucent 800 MHz RRH w/ Notch	111.00	185	20,579	0.004	23	232
Alcatel-Lucent TD-RRH8x20-25 w/ Solar	111.00	210	23,310	0.005	26	263
RFS APXVTM14-ALU-I20	111.00	169	18,715	0.004	21	211
RFS APXVSPP18-C	111.00	171	18,981	0.004	21	214
Raycap DC6-48-60-18-8F (23.5" Height)	104.00	20	2,080	0.000	2	25
Nokia AirScale RRH 4T4R B5 160W AHCA	104.00	106	11,014	0.002	12	133
Raycap DC6-48-60-18-8F ("Squid")	104.00	32	3,307	0.001	4	40
Alcatel-Lucent B25 RRH4x30	104.00	159	16,536	0.003	18	199
Nokia Airscale Dual RRH 4T4R B12/B14	104.00	232	24,086	0.005	27	290
Alcatel-Lucent 9442 RRH2x40-AWS	104.00	147	15,288	0.003	17	184
Alcatel-Lucent RRH4x25-WCS-4R	104.00	210	21,840	0.004	24	263
Commscope NNHH-65C-R4	104.00	893	92,851	0.018	103	1,119
Sector Frame Sabre 12' EHD V-Boom	104.00	1,590	165,360	0.033	184	1,993
Commscope RDIDC-9181-PF-48	93.00	22	2,037	0.000	2	27
Fujitsu TA08025-B605	93.00	225	20,925	0.004	23	282
Fujitsu TA08025-B604	93.00	192	17,828	0.004	20	240
JMA Wireless MX08FRO665-21	93.00	193	17,995	0.004	20	243
Generic Flat Light Sector Frame	93.00	1,200	111,600	0.022	124	1,504
Generic Flat Side Arm	85.00	188	15,938	0.003	18	235
Rest Platform	76.00	500	38,000	0.007	42	627
Generic GPS	75.00	10	750	0.000	1	13
Stand-Off	75.00	100	7,500	0.001	8	125
Stand-Off	56.00	100	5,600	0.001	6	125
Generic GPS	53.00	40	2,120	0.000	2	50
Generic RAC 8' Ice Shield	37.80	1,800	68,040	0.013	76	2,256
Rest Platform	25.00	500	12,500	0.002	14	627
		68,433	5,077,204	1.000	5,647	85,782

LoadCase 0.9D - 1.0Ev + 1.0Eh

Seismic (Reduced DL)

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
10	120.71	2,272	274,267	0.054	305	1,923
9	112.13	1,969	220,815	0.043	246	1,667
8	102.75	3,039	312,234	0.061	347	2,572
7	92.58	2,780	257,378	0.051	286	2,353
6	81.25	3,946	320,618	0.063	357	3,340
5	68.75	4,313	296,525	0.058	330	3,651
4	56.25	4,491	252,638	0.050	281	3,802
3	43.75	5,136	224,689	0.044	250	4,347
2	31.25	5,272	164,752	0.032	183	4,463
1	12.50	10,411	130,132	0.026	145	8,812
Generic 12' Omni	125.00	40	5,000	0.001	6	34
Samsung Outdoor CBRS 20W RRH –Clip-	125.00	13	1,650	0.000	2	11
Samsung RT4401-48A	125.00	56	6,975	0.001	8	47
Samsung B2/B66A RRH-BR049	125.00	253	31,650	0.006	35	214
Samsung B5/B13 RRH-BR04C	125.00	211	26,363	0.005	29	179
Raycap RxxDC-3315-PF-48	125.00	64	8,025	0.002	9	54

Equivalent Lateral Force Method

Samsung MT6407-77A	125.00	245	30,600	0.006	34	207
Commscope NHH-65B-R2B	125.00	262	32,775	0.006	36	222
Commscope SBNHH-1D65B	125.00	152	19,012	0.004	21	129
Generic General Pole Mount	125.00	45	5,625	0.001	6	38
RFS ATMAA1412D-1A20	125.00	78	9,750	0.002	11	66
20' Pipe	125.00	100	12,500	0.002	14	85
Decibel DB844H90E-XY	125.00	168	21,000	0.004	23	142
RFS APX16DWV-16DWVS-E-A20	125.00	122	15,263	0.003	17	103
RFS APXVFW24-C-A20	125.00	219	27,375	0.005	30	185
Round Sector Frame	125.00	900	112,500	0.022	125	762
Heavy Platform with Handrails	125.00	6,000	750,000	0.148	834	5,079
Heavy Sector Frame	113.00	1,500	169,500	0.033	189	1,270
Catwalk	112.50	5,000	562,500	0.111	626	4,232
RFS ACU-A20-N	111.00	3	333	0.000	0	3
Alcatel-Lucent 1900MHz RRH (65MHz)	111.00	180	19,980	0.004	22	152
Alcatel-Lucent 800 MHz RRH w/ Notch	111.00	185	20,579	0.004	23	157
Alcatel-Lucent TD-RRH8x20-25 w/ Solar	111.00	210	23,310	0.005	26	178
RFS APXVTM14-ALU-I20	111.00	169	18,715	0.004	21	143
RFS APXVSPP18-C	111.00	171	18,981	0.004	21	145
Raycap DC6-48-60-18-8F (23.5" Height)	104.00	20	2,080	0.000	2	17
Nokia AirScale RRH 4T4R B5 160W AHCA	104.00	106	11,014	0.002	12	90
Raycap DC6-48-60-18-8F ("Squid")	104.00	32	3,307	0.001	4	27
Alcatel-Lucent B25 RRH4x30	104.00	159	16,536	0.003	18	135
Nokia Airscale Dual RRH 4T4R B12/B14	104.00	232	24,086	0.005	27	196
Alcatel-Lucent 9442 RRH2x40-AWS	104.00	147	15,288	0.003	17	124
Alcatel-Lucent RRH4x25-WCS-4R	104.00	210	21,840	0.004	24	178
Commscope NNHH-65C-R4	104.00	893	92,851	0.018	103	756
Sector Frame Sabre 12' EHD V-Boom	104.00	1,590	165,360	0.033	184	1,346
Commscope RDIDC-9181-PF-48	93.00	22	2,037	0.000	2	19
Fujitsu TA08025-B605	93.00	225	20,925	0.004	23	190
Fujitsu TA08025-B604	93.00	192	17,828	0.004	20	162
JMA Wireless MX08FRO665-21	93.00	193	17,995	0.004	20	164
Generic Flat Light Sector Frame	93.00	1,200	111,600	0.022	124	1,016
Generic Flat Side Arm	85.00	188	15,938	0.003	18	159
Rest Platform	76.00	500	38,000	0.007	42	423
Generic GPS	75.00	10	750	0.000	1	8
Stand-Off	75.00	100	7,500	0.001	8	85
Stand-Off	56.00	100	5,600	0.001	6	85
Generic GPS	53.00	40	2,120	0.000	2	34
Generic RAC 8' Ice Shield	37.80	1,800	68,040	0.013	76	1,524
Rest Platform	25.00	500	12,500	0.002	14	423
		68,433	5,077,204	1.000	5,647	57,927

Force/Stress Summary

Section: 1 1 Bot Elev (ft): 0.00 Height (ft): 25.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Bracing % Y	Bracing % Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 8X8X0.625	-151.15	1.2D + 1.0W 45 deg	25.09	33	33	33	62.9	33.0	280.97	40	4	715.69	1,980.0	53	Member Z
HORIZ DAE - 2.5X2.5X0.25	-9.59	1.2D + 1.0W Normal	10.60	100	100	16	154.6	33.0	28.49	4	2	79.52	79.20	33	Member X
DIAG DAS - 3.5X3X0.25	-24.95	1.2D + 1.0W Normal	27.82	33	67	6	135.7	33.0	48.66	6	2	119.28	118.80	51	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 8X8X0.625	118.56	0.9D + 1.0W 45 deg	33	55	285.42	40	4	715.69	1,960.41		41	Member
HORIZ DAE - 2.5X2.5X0.25	10.04	1.2D + 1.0W Normal	33	55	61.06	4	2	79.52	63.53	39.24	25	Blk Shear
DIAG DAS - 3.5X3X0.25	23.79	1.2D + 1.0W Normal	33	55	84.27	6	2	119.28	103.13	63.68	37	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	117.71	0.9D + 1.0W 45 deg	0.00	0	0	
Top Compression	150.26	1.2D + 1.0W 45 deg	0.00	0		
Bot Tension	150.22	0.9D + 1.0W 45 deg	412.21	14	4	2" C1015
Bot Compression	184.66	1.2D + 1.0W 45 deg	469.67	43		

Section: 2 1 Bot Elev (ft): 25.00 Height (ft): 12.500

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Bracing % Y	Bracing % Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 6X6X0.75	-132.96	1.2D + 1.0W 45 deg	12.55	50	50	50	64.4	33.0	245.27	32	4	572.56	1,900.8	54	Member Z
HORIZ DAE - 2.5X2.5X0.25	-9.06	1.2D + 1.0W Normal	9.820	100	100	20	145.4	33.0	32.24	4	2	79.52	79.20	28	Member X
DIAG DAE - 2.5X2.5X0.25	-15.34	1.2D + 1.0W Normal	16.40	50	100	12	162.0	33.0	25.96	4	2	79.52	79.20	59	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 6X6X0.75	103.82	0.9D + 1.0W 45 deg	33	55	247.60	32	4	572.56	1,877.29		41	Member
HORIZ DAE - 2.5X2.5X0.25	9.01	1.2D + 1.0W Normal	33	55	61.06	4	2	79.52	63.53	39.24	22	Blk Shear
DIAG DAE - 2.5X2.5X0.25	14.30	1.2D + 1.0W Normal	33	55	61.06	4	2	79.52	63.53	39.24	36	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	103.09	0.9D + 1.0W 45 deg	0.00	0	0	
Top Compression	132.25	1.2D + 1.0W 45 deg	0.00	0		
Bot Tension	117.71	0.9D + 1.0W 45 deg	0.00	0		
Bot Compression	0.00		0.00	0		

Force/Stress Summary

Section: 3 1 Bot Elev (ft): 37.50 Height (ft): 12.500

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 6X6X0.75	-112.33	1.2D + 1.0W 45 deg	12.53	50	50	50	64.3	33.0	245.36	0	0	0.00	0.00	45	Member Z
HORIZ DAE - 2.5X2.5X0.25	-8.83	1.2D + 1.0W Normal	9.190	100	100	20	137.9	33.0	35.83	4	2	79.52	79.20	24	Member X
DIAG DAE - 2.5X2.5X0.25	-16.53	1.2D + 1.0W Normal	15.90	50	100	12	157.9	33.0	27.32	4	2	79.52	79.20	60	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 6X6X0.75	87.20	0.9D + 1.0W 45 deg	33	55	250.67	0	0	0.00	0.00		34	Member
HORIZ DAE - 2.5X2.5X0.25	9.83	1.2D + 1.0W Normal	33	55	61.06	4	2	79.52	63.53	39.24	25	Blk Shear
DIAG DAE - 2.5X2.5X0.25	15.55	1.2D + 1.0W Normal	33	55	61.06	4	2	79.52	63.53	39.24	39	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	86.44	0.9D + 1.0W 45 deg	0.00	0	0	
Top Compression	111.49	1.2D + 1.0W 45 deg	0.00	0		
Bot Tension	103.09	0.9D + 1.0W 45 deg	0.00	0		
Bot Compression	0.00		0.00	0		

Section: 4 1 Bot Elev (ft): 50.00 Height (ft): 12.500

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 6X6X0.5625	-95.66	1.2D + 1.0W 45 deg	12.57	50	50	50	63.9	33.0	187.21	24	4	429.42	1,069.2	51	Member Z
HORIZ DAE - 2.5X2.5X0.25	-7.42	1.2D + 1.0W Normal	8.260	100	100	20	126.8	33.0	42.13	4	2	79.52	79.20	17	Member X
DIAG DAL - 2.5X2X0.25	-13.91	1.2D + 1.0W Normal	15.54	50	100	12	188.2	33.0	17.22	4	2	79.52	79.20	80	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 6X6X0.5625	73.03	0.9D + 1.0W 45 deg	33	55	189.83	24	4	429.42	1,051.57		38	Member
HORIZ DAE - 2.5X2.5X0.25	7.35	1.2D + 1.0W Normal	33	55	61.06	4	2	79.52	63.53	39.24	18	Blk Shear
DIAG DAL - 2.5X2X0.25	13.07	1.2D + 1.0W Normal	33	55	53.33	4	2	79.52	63.53	39.24	33	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	72.32	0.9D + 1.0W 45 deg	0.00	0	0	
Top Compression	94.97	1.2D + 1.0W 45 deg	0.00	0		
Bot Tension	86.44	0.9D + 1.0W 45 deg	0.00	0		
Bot Compression	0.00		0.00	0		

Force/Stress Summary

Section: 5 1 Bot Elev (ft): 62.50 Height (ft): 12.500

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 6X6X0.5625	-76.46	1.2D + 1.0W 45 deg	12.55	50	50	50	63.8	33.0	187.29	0	0	0.00	0.00	40	Member Z
HORIZ DAE - 2.5X2.5X0.25	-7.64	1.2D + 1.0W Normal	7.480	100	120	25	116.7	33.0	47.70	4	2	79.52	79.20	16	Member X
DIAG DAL - 2.5X2X0.25	-15.33	1.2D + 1.0W Normal	15.00	50	100	12	182.6	33.0	18.29	4	2	79.52	79.20	83	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 6X6X0.5625	56.15	0.9D + 1.0W 45 deg	33	55	190.97	0	0	0.00	0.00		29	Member
HORIZ DAE - 2.5X2.5X0.25	7.60	1.2D + 1.0W Normal	33	55	61.06	4	2	79.52	63.53	39.24	19	Blk Shear
DIAG DAL - 2.5X2X0.25	14.56	1.2D + 1.0W Normal	33	55	53.33	4	2	79.52	63.53	39.24	37	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	55.52	0.9D + 1.0W 45 deg	0.00	0	0	
Top Compression	75.84	1.2D + 1.0W 45 deg	0.00	0		
Bot Tension	72.32	0.9D + 1.0W 45 deg	0.00	0		
Bot Compression	0.00		0.00	0		

Section: 6 1 Bot Elev (ft): 75.00 Height (ft): 12.500

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 6X6X0.4375	-55.92	1.2D + 1.0W 45 deg	12.53	50	50	50	63.2	33.0	147.76	24	4	429.42	831.60	37	Member Z
HORIZ DAE - 2.5X2.5X0.25	-6.57	1.2D + 1.0W Normal	6.830	100	107	33	106.6	33.0	52.82	4	2	79.52	79.20	12	Member X
DIAG DAL - 2.5X2X0.25	-16.01	1.2D + 1.0W Normal	14.58	50	100	12	178.2	33.0	19.19	4	2	79.52	79.20	83	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 6X6X0.4375	38.07	0.9D + 1.0W 45 deg	33	55	150.07	24	4	429.42	817.88		25	Member
HORIZ DAE - 2.5X2.5X0.25	8.27	1.2D + 1.0W Normal	33	55	61.06	4	2	79.52	63.53	39.24	21	Blk Shear
DIAG DAL - 2.5X2X0.25	15.32	1.2D + 1.0W Normal	33	55	53.33	4	2	79.52	63.53	39.24	39	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	37.41	0.9D + 1.0W 45 deg	0.00	0	0	
Top Compression	55.12	1.2D + 1.0W 45 deg	0.00	0		
Bot Tension	55.52	0.9D + 1.0W 45 deg	0.00	0		
Bot Compression	0.00		0.00	0		

Force/Stress Summary

Section: 7 1 Bot Elev (ft): 87.50 Height (ft): 10.170

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 5X5X0.4375	-45.10	1.2D + 1.0W 45 deg	10.22	50	50	50	62.2	33.0	122.55	24	4	429.42	831.60	36	Member Z
HORIZ SAU - 3X2.5X0.25	-2.13	0.9D + 1.0W Normal	12.18	100	50	100	239.5	33.0	6.53	2	1	39.76	39.60	32	Member Z
DIAG SAE - 3.5X3.5X0.25	-9.23	1.2D + 1.0W Normal	16.45	50	50	50	138.0	33.0	25.41	2	1	39.76	39.60		Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 5X5X0.4375	30.17	0.9D + 1.0W 45 deg	33	55	113.77	24	4	429.42	817.88		26	Member
HORIZ SAU - 3X2.5X0.25	3.32	1.2D + 1.0W Normal	33	55	34.24	2	1	39.76	31.76	20.91	15	Blk Shear
DIAG SAE - 3.5X3.5X0.25	7.61	0.9D + 1.0W Normal	33	55	46.00	2	1	39.76	31.76	23.49	32	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	23.51	0.9D + 1.0W 45 deg	0.00	0	0	
Top Compression	40.30	1.2D + 1.0W 45 deg	0.00	0		
Bot Tension	37.41	0.9D + 1.0W 45 deg	0.00	0		
Bot Compression	0.00		0.00	0		

Section: 8 1 Bot Elev (ft): 97.67 Height (ft): 10.170

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 5X5X0.4375	-29.77	1.2D + 1.0W 45 deg	10.21	50	50	50	62.1	33.0	122.59	0	0	0.00	0.00	24	Member Z
HORIZ DAL - 3X2.5X0.25	-1.23	0.9D + 1.0W Normal	10.90	100	100	67	198.1	33.0	19.18	4	2	79.52	79.20	6	Member Y
DIAG SAE - 3.5X3.5X0.25	-8.72	1.2D + 1.0W Normal	15.39	50	50	50	130.9	33.0	28.22	2	1	39.76	39.60		Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 5X5X0.4375	17.53	0.9D + 1.0W 45 deg	33	55	124.15	0	0	0.00	0.00		14	Member
HORIZ DAL - 3X2.5X0.25	2.40	1.2D + 1.0W Normal	33	55	68.80	4	2	79.52	63.53	41.82	5	Blk Shear
DIAG SAE - 3.5X3.5X0.25	7.13	0.9D + 1.0W Normal	33	55	46.00	2	1	39.76	31.76	23.49	30	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	10.14	0.9D + 1.0W 45 deg	0.00	0	0	
Top Compression	24.48	1.2D + 1.0W 45 deg	0.00	0		
Bot Tension	23.51	0.9D + 1.0W 45 deg	0.00	0		
Bot Compression	0.00		0.00	0		

Force/Stress Summary

Section: 9 1 Bot Elev (ft): 107.8 Height (ft): 8.580

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 5X5X0.3125	-16.10	1.2D + 1.0W 45 deg	8.61	50	50	50	52.0	33.0	92.21	24	4	429.42	594.00	17	Member Z
HORIZ SAU - 3X2.5X0.25	-0.42	0.9D + 1.0W Normal	9.880	100	50	100	199.7	33.0	9.40	4	2	79.52	79.20	4	Member Z
DIAG SAE - 3X3X0.25	-6.08	1.2D + 1.0W Normal	13.48	50	50	50	132.7	33.0	23.39	2	1	39.76	39.60		Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 5X5X0.3125	7.51	0.9D + 1.0W 45 deg	33	55	83.09	24	4	429.42	584.20		9	Member
HORIZ SAU - 3X2.5X0.25	1.14	1.2D + 1.0W Normal	33	55	27.96	4	2	79.52	71.36	37.61	4	Member
DIAG SAE - 3X3X0.25	4.60	1.2D + 1.0W Normal	33	55	38.27	2	1	39.76	31.76	20.91	22	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	2.43	0.9D + 1.0W 45 deg	0.00	0	0	
Top Compression	13.09	1.2D + 1.0Di + 1.0Wi	0.00	0		
Bot Tension	10.14	0.9D + 1.0W 45 deg	0.00	0		
Bot Compression	0.00		0.00	0		

Section: 10 1 Bot Elev (ft): 116.4 Height (ft): 8.580

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 5X5X0.3125	-6.22	1.2D + 1.0W 45 deg	8.60	50	50	50	51.9	33.0	92.22	0	0	0.00	0.00	6	Member Z
HORIZ CHN - C8 x 11.5	-0.37	0.9D + 1.0W Normal	9.000	100	100	100	160.3	36.0	37.66	2	2	39.76	36.75	1	Bolt Bear
DIAG SAE - 3X3X0.25	-4.05	1.2D + 1.0W Normal	12.76	50	50	50	127.2	33.0	25.37	2	1	39.76	39.60		Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 5X5X0.3125	1.27	0.9D + 1.0W 45 deg	33	55	89.99	0	0	0.00	0.00		1	Member
HORIZ CHN - C8 x 11.5	0.65	1.2D + 1.0W 45 deg	36	58	98.61	2	2	39.76	29.48	0.00	2	Bolt Bear
DIAG SAE - 3X3X0.25	3.23	0.9D + 1.0W Normal	33	55	38.27	2	1	39.76	31.76	20.91	15	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	0.00		0.00	0	0	
Top Compression	6.87	1.2D + 1.0Di + 1.0Wi	0.00	0		
Bot Tension	2.43	0.9D + 1.0W 45 deg	0.00	0		
Bot Compression	0.00		0.00	0		

Detailed Reactions

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX (kip)	FY (kip)	FZ (kip)	(-) = Uplift (+) = Down
1.2D + 1.0W Normal	17.15	00.00	45	1	-7.98	131.72	-18.20	
	17.15	00.00	135	1a	5.16	-89.77	-15.48	
	17.15	00.00	225	1b	-5.50	-90.54	-15.18	
	17.15	00.00	315	1c	8.32	130.70	-17.80	
1.2D + 1.0W 45 deg	17.15	00.00	45	1	-18.30	184.20	-18.86	
	17.15	00.00	135	1a	-8.97	21.55	-6.09	
	17.15	00.00	225	1b	-16.14	-143.01	-15.71	
	17.15	00.00	315	1c	-5.66	19.38	-8.42	
0.9D + 1.0W Normal	17.15	00.00	45	1	-7.63	126.52	-17.84	
	17.15	00.00	135	1a	5.51	-95.05	-15.84	
	17.15	00.00	225	1b	-5.86	-95.63	-15.53	
	17.15	00.00	315	1c	7.97	125.75	-17.45	
0.9D + 1.0W 45 deg	17.15	00.00	45	1	-17.95	178.97	-18.49	
	17.15	00.00	135	1a	-8.62	16.21	-6.45	
	17.15	00.00	225	1b	-16.49	-148.08	-16.05	
	17.15	00.00	315	1c	-6.01	14.48	-8.08	
1.2D + 1.0Di + 1.0Wi Normal	17.15	00.00	45	1	-4.85	76.09	-8.28	
	17.15	00.00	135	1a	-0.85	9.13	-2.49	
	17.15	00.00	225	1b	0.78	7.57	-2.50	
	17.15	00.00	315	1c	4.92	74.12	-8.08	
1.2D + 1.0Di + 1.0Wi 45 deg	17.15	00.00	45	1	-8.16	91.75	-8.39	
	17.15	00.00	135	1a	-5.35	43.44	0.45	
	17.15	00.00	225	1b	-2.59	-8.09	-2.58	
	17.15	00.00	315	1c	0.46	39.82	-5.12	
1.2D + 1.0Ev + 1.0Eh Normal M1	17.15	00.00	45	1	-1.82	25.86	-2.40	
	17.15	00.00	135	1a	-0.80	9.15	0.22	
	17.15	00.00	225	1b	0.80	9.15	0.22	
	17.15	00.00	315	1c	1.82	25.86	-2.40	
1.2D + 1.0Ev + 1.0Eh 45 deg M1	17.15	00.00	45	1	-2.44	29.32	-2.44	
	17.15	00.00	135	1a	-1.72	17.51	0.90	
	17.15	00.00	225	1b	0.18	5.69	0.18	
	17.15	00.00	315	1c	0.90	17.51	-1.72	
0.9D - 1.0Ev + 1.0Eh Normal M1	17.15	00.00	45	1	-1.39	20.17	-1.97	
	17.15	00.00	135	1a	-0.38	3.47	-0.20	
	17.15	00.00	225	1b	0.38	3.47	-0.20	
	17.15	00.00	315	1c	1.39	20.17	-1.97	
0.9D - 1.0Ev + 1.0Eh 45 deg M1	17.15	00.00	45	1	-2.01	23.63	-2.01	
	17.15	00.00	135	1a	-1.29	11.82	0.48	
	17.15	00.00	225	1b	-0.24	0.01	-0.24	
	17.15	00.00	315	1c	0.48	11.82	-1.29	
1.0D + 1.0W Service Normal	17.15	00.00	45	1	-2.95	47.39	-5.78	
	17.15	00.00	135	1a	0.60	-12.43	-3.39	
	17.15	00.00	225	1b	-0.69	-13.07	-3.34	
	17.15	00.00	315	1c	3.04	46.54	-5.63	
1.0D + 1.0W Service 45 deg	17.15	00.00	45	1	-5.77	61.68	-5.96	
	17.15	00.00	135	1a	-3.25	17.85	-0.85	
	17.15	00.00	225	1b	-3.57	-27.36	-3.48	
	17.15	00.00	315	1c	-0.77	16.26	-3.07	

Site Number:	**88166**	**Code:**	**ANSI/TIA-222-H**	
Site Name:	**SOUTH SALEM NY, NY**	**Engineering Number:**	**13698411_C3_03**	7/13/2021 4:29:12 PM
Customer:	**DISH WIRELESS L.L.C.**			

Max Uplift:	**148.08 (kip)**	**Moment Ice:**	**1,713.24 (kip-ft)**	**Moment:**	**5,610.90 (kip-ft)**	**1.2D + 1.0W 45 deg**
Max Down:	**184.20 (kip)**	**Total Down Ice:**	**166.91 (kip)**	**Total Down:**	**82.12 (kip)**	
Max Shear:	**26.28 (kip)**	**Total Shear Ice:**	**22.11 (kip)**	**Total Shear:**	**69.40 (kip)**	

Deflections and Rotations

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
115 mph Normal with No Ice	25.00	0.019	0.0017	0.0624	0.0625
115 mph Normal with No Ice	37.50	0.034	0.0002	0.0787	0.0787
115 mph Normal with No Ice	50.00	0.054	-0.0008	0.0990	0.0990
115 mph Normal with No Ice	75.00	0.107	-0.0032	0.1465	0.1466
115 mph Normal with No Ice	87.50	0.141	-0.0052	0.1607	0.1608
115 mph Normal with No Ice	97.67	0.170	-0.0080	0.1735	0.1737
115 mph Normal with No Ice	107.84	0.201	-0.0109	0.1734	0.1739
115 mph Normal with No Ice	116.42	0.229	-0.0097	0.2261	0.2267
115 mph Normal with No Ice	125.00	0.256	-0.0130	0.0793	0.0806
115 mph 45 degree with No Ice	25.00	0.020	0.0026	0.0674	0.0675
115 mph 45 degree with No Ice	37.50	0.036	-0.0029	0.0828	0.0828
115 mph 45 degree with No Ice	50.00	0.056	-0.0044	0.1044	0.1044
115 mph 45 degree with No Ice	75.00	0.112	-0.0084	0.1538	0.1538
115 mph 45 degree with No Ice	87.50	0.148	-0.0111	0.1692	0.1695
115 mph 45 degree with No Ice	97.67	0.178	-0.0145	0.1819	0.1823
115 mph 45 degree with No Ice	107.84	0.212	-0.0171	0.1928	0.1934
115 mph 45 degree with No Ice	116.42	0.241	-0.0148	0.2020	0.2032
115 mph 45 degree with No Ice	125.00	0.270	-0.0181	0.2755	0.2761
115 mph Normal with No Ice (Reduced DL)	25.00	0.019	0.0017	0.0623	0.0623
115 mph Normal with No Ice (Reduced DL)	37.50	0.034	0.0002	0.0787	0.0787
115 mph Normal with No Ice (Reduced DL)	50.00	0.054	-0.0008	0.0990	0.0990
115 mph Normal with No Ice (Reduced DL)	75.00	0.107	-0.0032	0.1466	0.1466
115 mph Normal with No Ice (Reduced DL)	87.50	0.141	-0.0052	0.1609	0.1609
115 mph Normal with No Ice (Reduced DL)	97.67	0.170	-0.0080	0.1737	0.1738
115 mph Normal with No Ice (Reduced DL)	107.84	0.202	-0.0109	0.1739	0.1744
115 mph Normal with No Ice (Reduced DL)	116.42	0.229	-0.0096	0.2264	0.2270
115 mph Normal with No Ice (Reduced DL)	125.00	0.256	-0.0130	0.0799	0.0811
115 mph 45 deg with No Ice (Reduced DL)	25.00	0.020	0.0026	0.0674	0.0675
115 mph 45 deg with No Ice (Reduced DL)	37.50	0.036	-0.0029	0.0827	0.0827
115 mph 45 deg with No Ice (Reduced DL)	50.00	0.056	-0.0044	0.1043	0.1043
115 mph 45 deg with No Ice (Reduced DL)	75.00	0.112	-0.0084	0.1537	0.1537
115 mph 45 deg with No Ice (Reduced DL)	87.50	0.148	-0.0111	0.1690	0.1693
115 mph 45 deg with No Ice (Reduced DL)	97.67	0.178	-0.0145	0.1818	0.1821
115 mph 45 deg with No Ice (Reduced DL)	107.84	0.212	-0.0170	0.1926	0.1932
115 mph 45 deg with No Ice (Reduced DL)	116.42	0.240	-0.0147	0.2019	0.2031
115 mph 45 deg with No Ice (Reduced DL)	125.00	0.269	-0.0181	0.2748	0.2755
50 mph Normal with 1.00 in Radial Ice	25.00	0.008	0.0007	0.0253	0.0253
50 mph Normal with 1.00 in Radial Ice	37.50	0.013	0.0002	0.0247	0.0247
50 mph Normal with 1.00 in Radial Ice	50.00	0.018	0.0001	0.0301	0.0301
50 mph Normal with 1.00 in Radial Ice	75.00	0.034	-0.0006	0.0421	0.0421
50 mph Normal with 1.00 in Radial Ice	87.50	0.043	-0.0012	0.0452	0.0452
50 mph Normal with 1.00 in Radial Ice	97.67	0.051	-0.0020	0.0477	0.0477
50 mph Normal with 1.00 in Radial Ice	107.84	0.059	-0.0026	0.0468	0.0469
50 mph Normal with 1.00 in Radial Ice	116.42	0.066	-0.0024	0.0581	0.0582
50 mph Normal with 1.00 in Radial Ice	125.00	0.074	-0.0031	0.0244	0.0247
50 mph 45 deg with 1.00 in Radial Ice	25.00	0.009	0.0010	0.0268	0.0268
50 mph 45 deg with 1.00 in Radial Ice	37.50	0.013	-0.0007	0.0262	0.0262
50 mph 45 deg with 1.00 in Radial Ice	50.00	0.020	-0.0011	0.0317	0.0318
50 mph 45 deg with 1.00 in Radial Ice	75.00	0.036	-0.0021	0.0449	0.0449
50 mph 45 deg with 1.00 in Radial Ice	87.50	0.046	-0.0028	0.0489	0.0490
50 mph 45 deg with 1.00 in Radial Ice	97.67	0.054	-0.0036	0.0518	0.0519
50 mph 45 deg with 1.00 in Radial Ice	107.84	0.063	-0.0042	0.0547	0.0548
50 mph 45 deg with 1.00 in Radial Ice	116.42	0.071	-0.0036	0.0562	0.0564
50 mph 45 deg with 1.00 in Radial Ice	125.00	0.080	-0.0044	0.0737	0.0738
Seismic Normal M1	25.00	0.001	0.0002	0.0045	0.0046

Seismic Normal M1	37.50	0.002	0.0002	0.0063	0.0063
Seismic Normal M1	50.00	0.004	0.0002	0.0078	0.0078
Seismic Normal M1	75.00	0.008	0.0003	0.0118	0.0118
Seismic Normal M1	87.50	0.011	0.0003	0.0130	0.0130
Seismic Normal M1	97.67	0.013	0.0002	0.0139	0.0139
Seismic Normal M1	107.84	0.016	0.0001	0.0146	0.0146
Seismic Normal M1	116.42	0.018	0.0001	0.0142	0.0142
Seismic Normal M1	125.00	0.020	0.0000	0.0135	0.0135
Seismic 45 deg M1	25.00	0.001	0.0003	0.0045	0.0045
Seismic 45 deg M1	37.50	0.002	0.0003	0.0064	0.0064
Seismic 45 deg M1	50.00	0.004	0.0003	0.0079	0.0079
Seismic 45 deg M1	75.00	0.008	0.0004	0.0119	0.0119
Seismic 45 deg M1	87.50	0.011	0.0004	0.0131	0.0131
Seismic 45 deg M1	97.67	0.013	0.0003	0.0140	0.0140
Seismic 45 deg M1	107.84	0.016	0.0001	0.0146	0.0146
Seismic 45 deg M1	116.42	0.018	0.0001	0.0142	0.0142
Seismic 45 deg M1	125.00	0.020	0.0000	0.0136	0.0136
Seismic (Reduced DL) Normal M1	25.00	0.001	0.0002	0.0044	0.0044
Seismic (Reduced DL) Normal M1	37.50	0.002	0.0002	0.0063	0.0063
Seismic (Reduced DL) Normal M1	50.00	0.004	0.0002	0.0078	0.0078
Seismic (Reduced DL) Normal M1	75.00	0.008	0.0003	0.0118	0.0118
Seismic (Reduced DL) Normal M1	87.50	0.011	0.0003	0.0130	0.0130
Seismic (Reduced DL) Normal M1	97.67	0.013	0.0002	0.0138	0.0138
Seismic (Reduced DL) Normal M1	107.84	0.016	0.0001	0.0145	0.0145
Seismic (Reduced DL) Normal M1	116.42	0.018	0.0001	0.0141	0.0141
Seismic (Reduced DL) Normal M1	125.00	0.020	0.0000	0.0135	0.0135
Seismic (Reduced DL) 45 deg M1	25.00	0.001	0.0003	0.0044	0.0044
Seismic (Reduced DL) 45 deg M1	37.50	0.002	0.0003	0.0063	0.0063
Seismic (Reduced DL) 45 deg M1	50.00	0.004	0.0003	0.0078	0.0078
Seismic (Reduced DL) 45 deg M1	75.00	0.008	0.0004	0.0118	0.0118
Seismic (Reduced DL) 45 deg M1	87.50	0.011	0.0004	0.0131	0.0131
Seismic (Reduced DL) 45 deg M1	97.67	0.013	0.0003	0.0138	0.0138
Seismic (Reduced DL) 45 deg M1	107.84	0.016	0.0001	0.0145	0.0145
Seismic (Reduced DL) 45 deg M1	116.42	0.018	0.0001	0.0141	0.0141
Seismic (Reduced DL) 45 deg M1	125.00	0.020	0.0000	0.0135	0.0135
Serviceability - 60 mph Wind Normal	25.00	0.005	0.0005	0.0172	0.0172
Serviceability - 60 mph Wind Normal	37.50	0.009	0.0001	0.0213	0.0213
Serviceability - 60 mph Wind Normal	50.00	0.015	-0.0002	0.0268	0.0268
Serviceability - 60 mph Wind Normal	75.00	0.029	-0.0008	0.0394	0.0394
Serviceability - 60 mph Wind Normal	87.50	0.038	-0.0014	0.0432	0.0432
Serviceability - 60 mph Wind Normal	97.67	0.046	-0.0022	0.0465	0.0466
Serviceability - 60 mph Wind Normal	107.84	0.054	-0.0030	0.0458	0.0459
Serviceability - 60 mph Wind Normal	116.42	0.061	-0.0026	0.0601	0.0603
Serviceability - 60 mph Wind Normal	125.00	0.069	-0.0036	0.0191	0.0194
Serviceability - 60 mph Wind 45 deg	25.00	0.005	0.0007	0.0184	0.0184
Serviceability - 60 mph Wind 45 deg	37.50	0.010	-0.0008	0.0225	0.0225
Serviceability - 60 mph Wind 45 deg	50.00	0.015	-0.0012	0.0284	0.0284
Serviceability - 60 mph Wind 45 deg	75.00	0.031	-0.0023	0.0418	0.0419
Serviceability - 60 mph Wind 45 deg	87.50	0.040	-0.0031	0.0461	0.0462
Serviceability - 60 mph Wind 45 deg	97.67	0.049	-0.0040	0.0495	0.0496
Serviceability - 60 mph Wind 45 deg	107.84	0.058	-0.0047	0.0526	0.0527
Serviceability - 60 mph Wind 45 deg	116.42	0.065	-0.0040	0.0549	0.0552
Serviceability - 60 mph Wind 45 deg	125.00	0.073	-0.0050	0.0769	0.0771

Maximum Reactions Summary

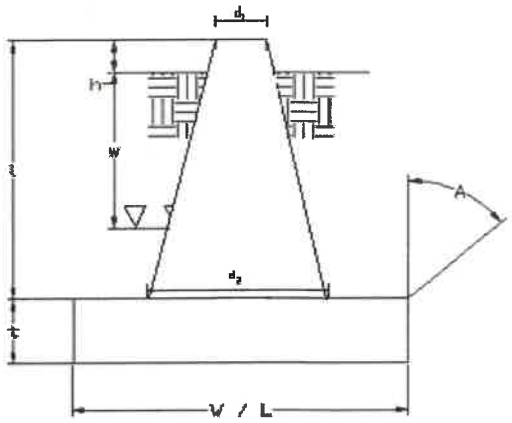
	Vertical (kip)				Horizontal (kip)		Moment (kip-ft)	
Anchor Group	DL+WL	DL+WL+IL	UpLift	Shear	DL+WL	DL+WL+IL	DL+WL	DL+WL+IL
Base	82.12	166.91	184.20	26.28	69.40	22.11	5610.90	1713.24

Site Name:	South Salem NY, NY	*Program Last Updated:* *9/27/2016*
Site Number:	88166	*American Tower Corporation*
Engineering Number:	Structural	
Engineer:	Faisal.Wakid	
Date:	07/13/21	

Foundation

Design Loads (Factored)

Compression/Leg:	184.20	k
Uplift/Leg:	148.10	k
Face Width @ Top of Pier (d_1):	3.00	ft
Face Width @ Bottom of Pier (d_2):	6.50	ft
Total Length of Pier (l):	7.00	ft
Height of Pedestal Above Ground (h):	0.50	ft
Width of Pad (W):	15.00	ft
Length of Pad (L):	15.00	ft
Thickness of Pad (t):	2.00	ft
Water Table Depth (w):	99.00	ft
Unit Weight of Concrete:	150.0	pcf
Unit Weight of Soil (Above Water Table):	115.0	pcf
Unit Weight of Soil (Below Water Table):	52.6	pcf
Friction Angle of Uplift (A):	30	°
Ultimate Compressive Bearing Pressure:	9750	psf
Ultimate Skin Friction:	0	psf



Volume Pier (Total):	165.08	ft^3
Volume Pad (Total):	450.00	ft^3
Volume Soil (Total):	2129.96	ft^3
Volume Pier (Buoyant):	0.00	ft^3
Volume Pad (Buoyant):	0.00	ft^3
Volume Soil (Buoyant):	0.00	ft^3
Weight Pier:	24.76	k
Weight Pad:	67.50	k
Weight Soil:	244.94	k

Ultimate Skin Friction:	0.00	k
Difference in Soil Volume 1:	519.62	ft^3
Difference in Soil Volume 2:	118.51	ft^3
Difference in Soil Weight:	73.38	k

Uplift Check

ϕs Uplift Resistance (k)	Ratio	Result
252.91	0.59	**OK**

Axial Check

ϕs Axial Resistance (k)	Ratio	Result
1645.31	0.11	**OK**

(914) 763-3060
FAX (914) 875-9148
TTY 800-662-1220
Email:kkelly@lewisborogov.com

TOWN OF LEWISBORO
Building Department
79 Bouton Road
South Salem, NY 10590
www.lewisborogov.com

March 13, 2024

Ms. Janet Andersen, Chair
Town of Lewisboro Planning Board

Re: Bichon LLC
876 Route 35, Cross River

As requested at the February 20, 2024, Planning Board meeting, I have reviewed the application materials submitted by the applicant Bichon LLC for consideration at that meeting. The proposed use as a commercial / contract yard is not allowed in this zone. In addition, the reported lack of potable water further limits allowable uses.

Please do not hesitate to contact me with questions.

Kevin J. Kelly Building Inspector

Town of Lewisboro
79 Bouton Road
South Salem, NY 10590
P: (914) 763-3060
F: (914) 875-9148

Submission Form to the Westchester County Planning Board

For Planning and Zoning Referrals Requiring Notification Only

County Reference Number LEW N24-001

The Westchester County Planning Board has predetermined that certain categories of planning and zoning applications are matters for local determination only. For any application listed below, submission of this completed form will satisfy the requirement of NYS General Municipal Law and the Westchester County Administrative Code that the local board provided adequate notification to the county Planning Board in accordance with Planning Board procedures. No other material need be sent. Upon receipt, the county Planning Board will complete the bottom section of this form and return it to you for your records to indicate compliance with referral requirements.

When completed, save this form as a .pdf file and e-mail to: muniref@westchestergov.com or print and fax to (914) 995-3780.

Please note: All applications given a positive declaration pursuant to SEQR must be referred as a complete application. Do not use this form.

Municipality: Lewisboro

Referring Agency (check one):

- [x] Planning Board or Commission
- [ ] Zoning Board of Appeals
- [ ] City or Common Council/Town Board/Village Board of Trustees

Application Name and Local Case Number: Bichon LLC - change of use Cal #18-22PB

Address: 876 Route 35, South Salem, NY 10590

Section: 20 Block: 10801 Lot: 2

Submitted by (Name and Title): Ciorsdan Conran, Planning Board administrator

E-mail address or fax number: planning@lewisborogov.com

The above-referenced application qualifies for the notification-only procedure to the county Planning Board because it falls within the category of action checked below:

- [ ] **Zoning Area Variance** to decrease front yard setback, decrease minimum street frontage or decrease average lot width for property abutting a state or county road or park.
- [ ] **Special Use Permit** or **Use Variance** to allow less than 5,000 square feet of new or renovated floor area and less than 10,000 square feet of land disturbance.
- [x] **Site Plan** to allow less than 5,000 square feet of new or renovated floor area and less than 10,000 square feet of land disturbance on property within 500 feet of:
  - The boundary of a city, town or village
  - The boundary of an existing or proposed state or county park, recreation area or road right-of-way
  - An existing or proposed county drainage channel line
  - The boundary of state- or county-owned land on which a public building or institution is located or
  - The boundary of a farm located in an agricultural district.

Do not write below this line.

Date received by the Westchester County Planning Board: 3/7/24

Notification acknowledged by (name and title): Michael Vernon, Associate Planner

KSCJ CONSULTING

John Kellard, P.E.
David Sessions, RLA, AICP
Joseph M. Cermele, P.E., CFM
Jan K. Johannessen, AICP

MEMORANDUM

TO: Chairperson Janet Andersen and
Members of Lewisboro Planning Board

CC: Ciorsdan Conran
Judson Siebert, Esq.
Kevin Kelly, Building Inspector

FROM: Jan K. Johannessen, RLA, AICP JKJ
Joseph M. Cermele, P.E., CFM JMC
Town Consulting Professionals

DATE: March 14, 2024

RE: Taconah Cantina
Goldens Bridge Shopping Center
108 North County Shopping Center
Sheet 4, Block 11126, Lot 7

PROJECT DESCRIPTION

The applicant is proposing a 25-seat restaurant use within a former video store located within the Goldens Bridge Shopping Center.

REQUIRED APPROVALS/REFERRALS

1. Site Development Permit Approval is required from the Planning Board

2. Depending on how the use is classified, a Special Use Permit may be required from the Planning Board. If a Special Use Permit is deemed applicable, a public hearing will be required.

3. Proposed signage is required to be approved by the ACARC.

4. The applicant has received a Change of Use Permit Approval from the Westchester County Department of Health (WCDH).

5. The application must be referred to the Westchester County Planning Board in accordance with Section 239-m of the General Municipal Law.

SEQRA

The proposed action has been preliminarily identified as a Type II Action and is therefore categorically exempt from the State Environmental Quality Review Act (SEQRA).

COMMENTS

1. The applicant is proposing a 25-seat restaurant type use within a former video store space. According to the documents submitted to the WCDH, the business will be open 7 days per week, 11 a.m. – 10 p.m. and will serve food, beer, and wine. A formal business plan should be provided describing the business operation.

2. The Building Inspector should clarify whether this use has been classified as a "limited-service carry-out restaurant" or a "full-service restaurant," both defined terms in the Code and both allowed uses within the RB Zone. Given the number of seats proposed, the "limited-service carry-out restaurant" would require a Special Use Permit from the Planning Board, while the "full-service restaurant" would not. Both uses have the same parking calculation.

3. A parking calculation shall be provided comparing the proposed use to the former video store (or last approved use). If the parking requirement exceeds that of the former use, the applicant would need to evaluate all of the existing uses within the shopping center and compare their applicable parking requirements to the number of spaces provided ensure adequate parking from a zoning perspective.

4. The applicant submitted an inspection report associated with the existing septic system; have the items noted to be addressed within the report been resolved (pumping/cleaning of the tank and junction boxes)?

In order to expedite the review of subsequent submissions, the applicant should provide annotated responses to each of the comments outlined herein.

PLANS REVIEWED, PREPARED BY GREENWICH DESIGN ARCHITECTS, INC., DATED JUNE 27, 2023:

- Title, Notes, Location Map, Zoning, ADA & Code Compliance, Survey, Drawings Schedule (A-100.00)
- Construction Floor Plan, Partitions Details, Doors & Finish Schedule (A-101.00)
- Equipment Plan and Schedule (A-102.00)
- Reflected Ceiling Plan, Plumbing Riser Diagram, Legends, Notes (A-103.00)

DOCUMENTS REVIEWED:

- Waiver of Site Development Plan Procedures Application
- Westchester County Department of Health Approval, dated April 3, 2023
- Certificate of Occupancy, dated February 14, 2024
- Proposed Architectural Site Plan, prepared by The Helmes Group, dated August 6, 2015 (Previously Approved)

JKJ/dc

2/28/24
#205 pd
Escrow est'd

TOWN OF LEWISBORO PLANNING BOARD

79 Bouton Road, South Salem , NY 10590 Tel: (914) 763-5592 Email: planning@lewisborogov.com

Site Development Plan/Subdivision Plat Application – Check all that apply:

Waiver of Site Development Plan Procedures	☑		
Site Development Plan Approval	Step I ☐	Step II ☐	
Special Use Permit Approval	Step I ☐	Step II ☐	
Subdivision Plat Approval	Step I ☐	Step II ☐	Step III ☐

Project Information

Project Name: TACONAH CANTINA

Project Address: 108 N COUNTY SHOPPING CTR, GOLDENS BRIDGE, NY 10526 (PERMIT 104 ROUTE 22)

Gross Parcel Area: 1600 Zoning District: RB Sheet(s): 4 Block (s): 11126 Lot(s): 7

Project Description: Build fast-casual eating and drinking establishment in a commercial space that was formally a video store.

Is the site located within 500 feet of any Town boundary?	YES ☐	NO ☐
Is the site located within the New York City Watershed?	YES ☐	NO ☐
Is the site located on a State or County Highway?	YES ☑	NO ☐

Does the proposed action require any other permits/approvals from other agencies/departments?

Town Board ☐	ZBA ☐	Building Dept. ☑	Town Highway ☐
ACARC ☐	NYSDEC ☐	NYCDEP ☐	WCDH ☑
NYSDOT ☐	Town Wetland ☐	Town Stormwater ☐	

Other

Owner's Information

Name: STEPHEN CIPES Email: NANCYTUCCILLO@AOL.COM

Address: PO BOX 544, GOLDENS BRIDGE, NY, 10526 Phone: 914-769-3141

Applicant's Information (if different)

Name: DAVID CHIONG Email: NYCTACOS@GAIL.COM

Address: PO BOX 342, GOLDENS BRIDGE, NY, 10526 Phone: 212-596-7083

Authorized Agent's Information

Name: Nancy Tuccillo Email: NancyTuccillo@AOL.COM

Address: P.O. Box 544, GOLDENS BRIDGE NY 10526 Phone: 914-769-3141

THE APPLICANT understands that any application is considered complete only when all information and documents required have been submitted and received by the Planning Board. The applicant further understands that the applicant is responsible for the payment of all application and review fees incurred by the Planning Board.

THE UNDERSIGNED WARRANTS the truth of all statements contained herein and in all supporting documents according to the best of his/her knowledge and belief, and authorizes visitation and inspection of the subject property by the Town of Lewisboro and its agents.

APPLICANT'S SIGNATURE DATE 2/27/24

OWNER'S SIGNATURE DATE

TOWN OF LEWISBORO PLANNING BOARD

79 Bouton Road, South Salem, NY 10590
Email: planning@lewisborogov.com
Tel: (914) 763-5592
Fax: (914) 875-9148

Affidavit of Ownership

State of: NEW YORK

County of: WESTCHESTER

STEPHEN R. GIPES, being duly sworn, deposes and says that he/she

resides at _____

in the County of _____, State of _____

and that he/she is (check one) ☑ the owner, or ☐ the _____
Title

of _____
Name of corporation, partnership, or other legal entity

which is the owner, in fee of all that certain log, piece or parcel of land situated, lying and being in the Town of Lewisboro, New York, aforesaid and know and designated on the Tax Map in the Town of Lewisboro as:

Block 11126, Lot 7, on Sheet 4.

_____
Owner's Signature

Sworn to before me this

_____ **day of** _____, 2_____

THAT STEPHEN GIPES IS KNOWN TO ME AND HAS SIGNED IN FRONT OF ME

DAVE LANGER
4654 RAYMER Rd. Kelowna B.C.
(250) 863-7687 V1W 1T7

Li Zhou
271 Clifton Rd. N. Kelowna BC, V1V1N3
2504709382

~~Notary Public - affix stamp~~ WITNESS WITH (#1) PRINTED NAME AND ADDRESS

WITNESS (#2)

TOWN OF LEWISBORO PLANNING BOARD

79 Bouton Road, South Salem, NY 10590
Email: planning@lewisborogov.com
Tel: (914) 763-5592 Fax: (914) 875-9148

Tax Payment Affidavit Requirement

This form must accompany all applications to the Planning Board.

Under regulations adopted by the Town of Lewisboro, the Planning Board may not accept any application unless an affidavit from the Town of Lewisboro Receiver of Taxes is on file in the Planning Board office. The affidavit must show that all amounts due to the Town of Lewisboro as real estate taxes and special assessments on the total area encompassed by the application, together with all penalties and interest thereon, have been paid.

Under New York State law, the Westchester County Clerk may not accept any subdivision map for filing unless the same type of affidavit from the Town of Lewisboro Receiver of Taxes is submitted by the applicant at the time of filing.

This form must be completed by the applicant and must accompany all applications to the Planning Board. Upon receipt, the Planning Board Secretary will send the form to the Receiver of Taxes for signature and notarization. If preferred, the applicant may directly obtain the signature of the Receiver of Taxes and notarization prior to submission.

To Be Completed by Applicant
(Please type or print)

DAVID CHIONG
Name of Applicant

TACONAH CANTINA
Project Name

Property Description

Tax Block(s): 11126

Tax Lot(s): 7

Tax Sheet(s): 4

Property Assessed to:

STEPEN CIPES
Name

P. O. BOX 544
Address

GOLDENS BRIDGE NY 10526
City State Zip

The undersigned, being duly sworn deposes and says that a search of the tax records in the office of the Receiver of Taxes, Town of Lewisboro, reveals that all amounts due to the Town of Lewisboro as real estate taxes and special assessments, together with all penalties and interest thereon, affecting the premises described below, have been paid.

Signature - Receiver of Taxes: [signature] 2/27/2024
Date

Sworn to before me this

27th **day of** February, 2024

Janet L Donohue

JANET L. DONOHUE
NOTARY PUBLIC, STATE OF NEW YORK
No. 01DO6259627
Qualified in Westchester County
Commission Expires April 16, 2028

Signature - Notary Public (affix stamp)

RECEIVED
JAN 22 2020
Town Clerk Office

RESOLUTION
LEWISBORO PLANNING BOARD

NEGATIVE DECLARATION OF SIGNIFICANCE
SITE DEVELOPMENT PLAN APPROVAL
TOWN STORMWATER PERMIT

NORTH COUNTY SHOPPING CENTER
A/K/A GOLDENS BRIDGE VILLAGE CENTRE
NYS ROUTE 22

Sheet 4, Block 11126, Lot 7
Cal. #8-14 PB, Cal. #95-14 WP & Cal. #20-14SW

January 21, 2020

WHEREAS, the subject property consists of ±8.96 acres of land and is situated on NYS Route 22, NYS Route 138, and the NYS Route 138 Extension (aka North Street). The subject property is located within the Town's Retail Business (RB) Zoning District, within the hamlet of Goldens Bridge, and is currently developed with a shopping center, including an Acme Supermarket, U.S. Post Office, a Bank of America, Dunkin' Donuts, Subway, a restaurant, liquor store and other retail and service businesses ("the subject property"); and

WHEREAS, the subject property has access off of North Street and NYS Route 22, contains parking for ±218 vehicles and contains septic systems, drainage features, lighting, landscaping and other site improvements; and

WHEREAS, the applicant has made application to the Planning Board for the following items, collectively referred to hereafter as "the proposed action":

a) The construction of a 2-story building (±16,844 s.f.) to be located in the northeast portion of the property, in proximity to the NYS Route 138 and North Street intersection; and

b) The new building is proposed to be occupied by a 2-story (6,889 s.f.) day care center, with the remaining first floor area to be occupied by retail uses and the remainder of the second floor by professional offices; and

c) The construction of an outdoor play area associated with the proposed day care center; and

d) The installation of additional off-street parking spaces (±74 spaces); and

e) Installation of new and upgrade of existing outdoor lighting, landscaping and screening; and

f) The installation of drainage systems to control and mitigate stormwater runoff; and

g) Architectural building and pedestrian plaza upgrades to the existing shopping center; and

h) Installation of sidewalks, walkways, crosswalks, speed table, traffic-related signage and other pedestrian and transportation-related circulation improvements; and

i) The new building is proposed to be served by the existing septic and water systems; and

j) Associated grading, including the construction of retaining walls and fencing; and

WHEREAS, via Resolution dated April 19, 2016, the Planning Board issued a Negative Declaration of Significance and granted Site Development Plan Approval, Wetland Activity Plan Approval and a Town Stormwater Permit, all subject to conditions for the proposed action; and

WHEREAS, the conditions of approval were satisfied by the applicant, the Site Development Plans were signed by the Planning Board Chairman on November 4, 2016, and construction soon after commenced; and

WHEREAS, the Zoning Code states that Site Development Plan Approval shall expire unless all required improvements are complete within three (3) years of the signing of the plans (by November 4, 2019). As construction remains in its early stages and as all available extensions have been granted, the applicant has reapplied to the Planning Board in connection with the reapproval of the proposed action; and

WHEREAS, in addition to required Planning Board Approvals and referrals to local and regional agencies, the applicant has obtained or requires approvals/permits from the Town of Lewisboro Zoning Board of Appeals, the Architecture and Community Appearance Review Council (ACARC), the Westchester County Department of Health (WCDH), the New York State Department of Environmental Conservation (NYSDEC), the New York City Department of Environmental Protection (NYCDEP), and the New York State Department of Transportation (NYSDOT); and

WHEREAS, the applicant has provided the Planning Board with a master plan for the subject property, which includes a second future phase of work comprised, in part, of an additional detached 10,000 s.f. retail building to be located at the south end of the

subject property, along with addition parking, site access and vehicle circulation improvements, a new septic system, and other related site improvements; and

WHEREAS, Phase II, described above, remains conceptual in nature and is illustrated on a plan entitled "Phase 1 & 2 – Proposed Architectural Site Plan for Entire Property", prepared by The Helmes Group, LLP and dated (last revised) February 22, 2016; and

WHEREAS, while Phase II has been presented to the Planning Board as a conceptual master plan for the subject property, Phase II is not currently proposed for development, is not part of the proposed action, has not been reviewed by the Planning Board or its consultants, and will require a separate and new Site Development Plan application and review and action under the State Environmental Quality Review Act (SEQRA); and

WHEREAS, the subject property is located within the New York City East of Hudson Watershed and is subject to the rules and regulations of the NYCDEP; and

WHEREAS, a jurisdictional watercourse is located off-site and to the north of the subject property, adjacent to NYS Route 138, and the Town's 150-foot regulated buffer area extends onto the subject property; and

WHEREAS, a small portion of the proposed building, outdoor play area, parking lot and associated retaining walls are proposed to be located within the Town's regulated buffer area; and

WHEREAS, the proposed action will result in a total of ±2.23 acres of land disturbance, ±9,046 s.f. of which will occur within the Town's buffer area; no disturbance to the watercourse is proposed; and

WHEREAS, to compensate for impacts proposed within the Town's buffer area, the applicant is proposing to remove invasive shrubs and vines located primarily between North Street and the subject property; and

WHEREAS, reference is made to a "Wetland Delineation Report", dated (last revised) June 16, 2015 and a "Wetlands Impact and Proposed Mitigation Assessment Report", dated January 6, 2016, both prepared by Evan Associates; and

WHEREAS, several area variances were granted by the Zoning Board of Appeals on September 30, 2015 (see Cal. No. 28-15-BZ); and

WHEREAS, the proposed action was approved by the ACARC on February 10, 2016 (see Cal. No. 7-16-ACARC); and

WHEREAS, on March 15, 2016, the NYCDEP approved the Stormwater Pollution Prevention Plan (SWPPP); and

WHEREAS, on September 3, 2014, the NYSDOT granted an Interim Permit for Use of State-owned Property; and

WHEREAS, relating to physical work proposed within the NYSDOT right-of-way, reference is made to an email prepared by Michael Sassi of the NYSDOT, dated January 26, 2016, which grants conditional conceptual approval of the project; and

WHEREAS, on April 20, 2015, the WCDH granted an Amended Change of Use Permit associated with the proposed day care center; and

WHEREAS, the proposed action exceeds land disturbance thresholds and the applicant will require coverage under the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002); and

WHEREAS, the application had been referred to the Westchester County Planning Board in accordance with Section 239-m of the General Municipal Law; and

WHEREAS, reference is made to a comment letter from the Westchester County Planning Board, dated January 26, 2016; and

WHEREAS, the comments provided by the County were addressed by the applicant's Architect via a letter dated February 22, 2016; and

WHEREAS, the comments provided by the County have been considered by the Planning Board and have been addressed and/or incorporated to the extent practicable; and

WHEREAS, the project has been referred to the Goldens Bridge Fire District for review; and

WHEREAS, reference is made to a letter from George Hunter Roberts, Counsel for the Goldens Bridge Fire District, which states that the District has no objections to the proposed Site Development Plan; and

WHEREAS, reference is made to the Stormwater Pollution Prevention Plan (SWPPP), prepared by Bibbo Associates, LLP and dated (last revised) February 17, 2016; and

WHEREAS, reference is made to a Traffic Impact Study, prepared by Maser Consulting, P.A., dated March 27, 2015; and

WHEREAS, reference is made to an Engineer's Report, prepared by Bibbo Associates, LLP, dated April 7, 2015; and

WHEREAS, reference is made to an existing conditions survey, entitled "Survey of Property Prepared for Goldens Bridge Shopping Center", prepared by DeRosa Land Surveying, dated February 10, 2015; and

WHEREAS, given the nature and unique circumstances related to the development of the subject property, site limitations, and the number of existing trees and trees to be removed, the Planning Board has agreed to limit the tree plan to those trees located within the wetland buffer and which have a minimum diameter of 8-inches or greater, as required by Chapter 217, Wetlands and Watercourses, of the Town Code of the Town of Lewisboro; and

WHEREAS, the application has been referred to the Conservation Advisory Council (CAC) for review and comment and the CAC has provided comment throughout the Planning Board review process; and

WHEREAS, the applicant has prepared and submitted Parts 1, 2 and 3 of the Full Environmental Assessment Form (EAF), dated (last revised) December 21, 2015; and

WHEREAS, at its December 17, 2019 meeting, the Planning Board referred the Wetland Activity Permit Application to the Town Wetland Inspector in accordance with Section 217-5D(2) of the Wetland Ordinance; and

WHEREAS, given the fact that the Planning Board conducted a public hearing for the original application and as the application and project plans remain the same, in accordance with Section §220-46D of the Zoning Code, the Planning Board waived the public hearing on the instant application at its December 17, 2019 Planning Board meeting; and

WHEREAS, construction under the new expired Site Development Plan, Wetland Activity Permit and Town Stormwater Permit has commenced and the prevailing conditions and circumstances related to the subject property and the proposed action when these permits were issued remain in place; and

WHEREAS, the Planning Board is familiar with the subject property and has considered the prior permits; the submitted Site Development Plan Application; Wetland Activity Permit Application; Town Stormwater Permit Application; correspondence from outside agencies; other materials submitted by the applicant in support of its proposal; the written and verbal comments from the Board's professional consultants; the verbal commentary and written submissions made during Planning Board meetings and the public hearing; observations made at a Planning Board site visit; and the decisions, comments and recommendations of the other permitting agencies.

NOW, THEREFORE, BE IT RESOLVED THAT, the proposed action has been determined to be an Unlisted Action, pursuant to the New York State Environmental Quality Review Act (SEQRA), 6 NYCRR Part 617 and a coordinated review was not conducted; and

BE IT FURTHER RESOLVED THAT, the Planning Board has compared the proposed action with the Criteria for Determining Significance in 6 NYCRR 617.7(c) and determined that the proposed action will not have a significant adverse impact on the environment; and

BE IT FURTHER RESOLVED THAT, the Planning Board has considered all reasonably related long-term, short-term, direct, indirect, and cumulative environmental effects associated with the proposed action including other simultaneous or subsequent actions; and

BE IT FURTHER RESOLVED THAT, the Planning Board hereby issues the attached Negative Declaration of Significance; and

BE IT FURTHER RESOLVED THAT, the Planning Board hereby grants Site Development Plan Approval, subject to the below conditions; and

BE IT FURTHER RESOLVED THAT, the Planning Board hereby reapproves the following drawings, hereafter referred to as "the approved Site Development Plans", subject to the below conditions:

Plans, prepared by Bibbo Associates, LLP and dated (last revised) May 16, 2016:

- Aerial Plan (AP-1)
- Existing Conditions Plan (E-1)
- Entire Property Layout (LT-1)
- Layout Plan (LA-1)
- Utilities Site Plan (US-1)
- Erosion Control Plan (EC-1)
- Erosion Control Notes (ES-1)
- Erosion Control Details (ED-1)
- Drainage Profiles (P-1)
- Site Details (SD-1)
- Drainage Details (DD-1)
- Drainage Details (DD-2)
- Retaining Wall Elevations & Details (W-1)

Plans, prepared by The Helmes Group, LLP and dated (last revised) May 16, 2016:

- Existing Architectural Site Plan for Entire Property (EX-1)
- Front Façade – Materials & Colors (T-1)
- Phases 1 & 2 – Proposed Architectural Site Plan for Entire Property (A-1)

- Phase 1-New Building – Enlarged Architectural Site Plan (A-2)
- Phase 1-New Building – Proposed Floor Plans & Floor Area Tabulations (A-3)
- Phase 1-New Building – Proposed Exterior Elevations (A-4)
- Phase 1-Existing Shopping Center Proposed Plaza Upgrades (A-5)
- Phase 1-Existing Shopping Center Proposed Plaza & Exterior Façade Upgrades (A-6)
- Phase 1-Existing Shopping Center Proposed Large Scale Façade Upgrades (A-7)
- Phases 1 & 2-Proposed Architectural Site Lighting Plan for Entire Property (SL-1)
- Site Lighting Luminaire Schedule & Calculations (SL-2)
- Site Lighting Photometric Plan (SL-3)
- Designated Employee Parking For Phase 1 "Existing Shopping Center" (EP-1)
- Designated Employee Parking For Phase 1 "Existing Shopping Center" (EP-2)
- Typical Precast Concrete Outdoor Plaza Table W/ Bench Seating and Typical Bollard Detail (F-1)

Plans, prepared by Diane Dreier Designs, dated (last revised) May 16, 2016:

- Planting Plan (P-1)
- Planting Plan (P-2)
- Planting Plan (P-3)
- Detail (P-4)

BE IT FURTHER RESOLVED THAT, pursuant to Section 220-15B(7) of the Zoning Code, the Planning Board hereby grants a waiver to permit permanent encroachments into the landscape buffer, as shown on the Site Development Plans approved herein; and

BE IT FURTHER RESOLVED THAT, the granting of this waiver is based on existing site constraints, the existing developed condition, the proximity of the proposed improvements in relationship to the property lines, the minimization of the proposed encroachments to only that necessary, and placement of a significant amount of landscaping both within and outside the buffer area and the overall aesthetic improvements proposed to the shopping center; and

BE IT FURTHER RESOLVED THAT, Site Development Plan Approval, defined as the signing of the approved Site Development Plans by the Planning Board Chairman, shall expire unless a Building Permit is applied for within one (1) year of the date of the signing of the plans or if all required improvements are not completed within three (3) years of the signing of the plans or if the construction or use shall cease for more than one (1) year; and

BE IT FURTHER RESOLVED THAT, as no changes to the plans are proposed and as a new or updated set of plans is not necessary to be submitted for signature, for the purposes of this Resolution and for establishing expiration dates, the date of this Resolution shall

be considered the date of plan signature and all expiration dates shall be determined based upon this Resolution date (January 21, 2020); and

BE IT FURTHER RESOLVED THAT, the Planning Board may extend conditional approval and approval of the Site Development Plans by not more than two (2) additional periods of 90 days each if, in the Planning Board's opinion, such extension is warranted by the particular circumstances; and

BE IT FURTHER RESOLVED THAT, any subsequent alterations, modifications, additions or changes to the approved and/or constructed improvements shall require the prior review and written approval by the Planning Board as a new, modified and/or amended application for Site Development Plan Approval; and

BE IT FURTHER RESOLVED THAT, failure to comply with the approved Site Development Plans or any of the conditions set forth herein shall be deemed a violation of Site Development Plan Approval, which may lead to the revocation of said approval or the revocation by the Building Inspector of any issued Building Permit or Certificate of Occupancy; and

BE IT FURTHER RESOLVED THAT, a Town Stormwater Permit is required from the Planning Board in accordance with Section 189-5A of the Town of Lewisboro Town Code; and

BE IT FURTHER RESOLVED THAT, the submitted SWPPP has been prepared to comply with the requirements of the NYSDEC, NYCDEP and the Town of Lewisboro; and

BE IT FURTHER RESOLVED THAT, the Planning Board finds that the applicant has complied with Chapter 189, Stormwater Management and Erosion and Sediment Control, of the Town Code of the Town of Lewisboro and a Town Stormwater Permit is hereby issued, subject to the conditions set forth below; and

BE IT FURTHER RESOLVED THAT, this Town Stormwater Permit shall expire upon completion of work and shall be valid for a period of two (2) years from the date of this Resolution; and

BE IT FURTHER RESOLVED THAT, the applicant is responsible for obtaining all relevant and necessary permits, approvals and variances from other Boards and agencies and applying for and obtaining any necessary amendments, extensions or reapprovals that may be required.

Conditions to be Satisfied by the Applicant within Six (6) Months of the Date of this Resolution:

1. The applicant shall obtain a Wetland Implementation Permit as issued by the Town Wetland Inspector.

2. The applicant shall provide a written statement identifying the person or firm responsible for mandatory SWPPP inspections required under the NYSDEC SPDES General Permit (GP-0-15-002). A copy of all inspection reports shall be submitted to the Planning Board and Building Inspector during construction.

3. The applicant shall provide a written statement to the Planning Board Secretary acknowledging that they have read and will abide by all conditions of this Resolution.

4. The applicant shall pay to the Town of Lewisboro, by certified check, all outstanding professional review fees.

Conditions to be Satisfied Prior to the Re-Commencement of Work or the Issuance of a Building Permit for the Proposed Building:

5. All proposed retaining walls ≥4-feet in height shall be fully designed to the satisfaction of the Town Consulting Engineer.

6. The applicant shall demonstrate that coverage has been obtained under the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002).

7. The applicant shall obtain a Blasting Permit, as determined necessary by the Building Inspector.

8. Prior to re-commencement of any site work or construction activity, a site visit shall be conducted with the applicant, contractor, Building Inspector, and the Town's consultants. Prior to the site visit, all erosion and sedimentation controls shall be properly installed by the applicant, the limits of disturbance shall be staked in the field and construction fencing shall be installed as specified on the approved Site Development Plans.

Conditions to be Satisfied Prior to the Commencement of Work within the NYSDOT Right-of-Way:

9. The applicant shall obtain and submit all necessary permits and approvals from the NYSDOT, including a NYSDOT Highway Work Permit.

Conditions to be Satisfied During Construction:

10. During construction, the Town's consultants may conduct site inspections, as necessary, to determine compliance with the provisions of this Resolution and the approved Site Development Plans.

11. A copy of this Resolution, approved Site Development Plans, Wetland Implementation Permit, and SWPPP shall be kept on site at all times during construction.

12. All plant material shall be installed between April 1st and October 15th. Plant substitutions, if any, must be previously approved by the Town's consultants.

13. The applicant shall employ the services of a NYS Licensed Professional Engineer to supervise and inspect site work during construction.

Conditions to be Satisfied Prior to the Issuance of a Certificate of Occupancy:

14. No Certificate of Occupancy shall issue until all proposed improvements, both site and building related, are complete to the satisfaction of the Building Inspector and the Town's consultants.

15. Submission of an as-built survey, prepared by a NYS Licensed Land Surveyor and to the satisfaction of the Town Engineer, demonstrating compliance with the approved Site Development Plans shall be submitted to the Building Inspector and Planning Board (four (4) copies).

16. An as-built plan of the stormwater management practices, and associated improvements shall be submitted and shall be certified by a NYS Professional Engineer (four (4) copies).

17. An as-built planting plan shall be prepared to the satisfaction of the Town's consultants and submitted to the Planning Board (four (4) copies).

18. Certification by a NYS Professional Engineer that all stormwater management practices and associated improvements have been installed in conformance with the approved Site Development Plans shall be submitted to the Building Inspector and Planning Board.

19. The Building Inspector and Town's consultants shall conduct a final site visit to determine conformance with the approved Site Development Plans, Wetland Implementation Permit and this Resolution. A final inspection report shall be prepared by the Town Consulting Engineer.

20. The applicant shall obtain a Wetland Certificate of Compliance from the Town of Lewisboro Wetland Inspector.

21. The owner/operator shall submit a completed Notice of Termination (NOT) to the NYSDEC, Division of Water and the Planning Board Secretary.

22. The applicant shall obtain and submit any necessary certificates of compliance from the NYSDOT, WCDH, and NYCDEP.

23. The applicant shall obtain any and all approvals from the ACARC relating to building and freestanding/monuments signs.

24. The applicant shall obtain and submit any and all required approvals from the NYS Department of Licensure relating to the proposed day care center.

25. The applicant shall pay to the Town of Lewisboro, by certified check, all outstanding professional review fees.

Other Conditions:

26. Should any outside approving agency require significant plan changes, as determined by the Town's consultants, the applicant shall return to the Planning Board for review.

27. Unless approved by the Planning Board, the existing and proposed tenants/uses shall not increase in size, utilization, or intensity so as increase the parking requirement as specified on the Site Development Plans.

28. Employees shall park their personal vehicles in designated locations as shown on the approved Site Development Plans.

29. With the exception of security lighting, all exterior parking lot lighting shall be turned off during non-operating hours.

30. To the extent possible, all deliveries, loading and unloading to tenants within the existing shopping center shall take place within the designated loading zone at the rear of the building.

31. Snow and ice removal from on-site driveways, parking areas and walkways shall be the responsibility of the owner and the owner's designated snow contractor.

32. Landscaping shall be maintained for the life of the facility and in accordance with the approved landscaping plan. The applicant shall be responsible for any re-grading, replanting, or irrigation necessary to ensure that the landscaping is installed and maintained in accordance with the approved plan.

33. All signage, including within windows, shall be fully compliant with Chapter 185, Signs, of the Town Code of the Town of Lewisboro. No signs, lights or other materials or devices, except as approved and detailed on the approved plans, shall be permitted to be supported, hung, flown, or otherwise attached to site buildings, structures or the site grounds.

34. The continued validity of a Certificate of Occupancy shall be subject to continued conformance with the approved Site Development Plans and the conditions of this Resolution.

ADOPTION OF RESOLUTION

WHEREUPON, the Resolution herein was declared adopted by the Planning Board of the Town of Lewisboro as follows:

The motion was moved by: Jerome Kerner

The motion was seconded by: Greg La Forsa

The vote was as follows:

JANET ANDERSEN	aye
JEROME KERNER	aye
GREG LASORSA	aye
RICHARD SKLARIN	aye
MAUREEN MAGUIRE	aye

Janet E Andersen

Janet Andersen **January 21, 2020**

State Environmental Quality Review
NEGATIVE DECLARATION
Notice of Determination of Non-Significance

Date: January 21, 2020

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law.

The Town of Lewisboro Planning Board has determined that the proposed action described below will not have a significant environmental impact and a Draft Environmental Impact Statement will not be prepared.

Name of Action: North County Shopping Center – A/K/A Goldens Bridge Village Centre

SEQRA Status: □ Type 1

■ Unlisted

Conditioned Negative Declaration: □ Yes

■ No

Location: NYS Route 22, Hamlet of Goldens Bridge, Town of Lewisboro, Westchester County, New York

Description of Action: The subject property consists of ±8.96 acres of land and is situated along NYS Route 22, NYS Route 138, and the NYS Route 138 Extension (aka North Street). The subject property is located within the Town's Retail Business (RB) Zoning District, within the hamlet of Goldens Bridge, and is currently developed with a shopping center, including an Acme Supermarket, U.S. Post Office, a Bank of America, Dunkin' Donuts, Subway, a restaurant, liquor store and other retail and service businesses. The subject property has access off of North Street and NYS Route 22, contains parking for ±218 vehicles and contains septic systems, drainage features, lighting, landscaping and other site improvements.

The applicant has made application to the Planning Board for the following items, collectively referred to hereafter as "the proposed action":

a) The construction of a 2-story building (±16,844 s.f.) to be located in the northeast portion of the property, in proximity to the NYS Route 138 and North Street intersection; and

b) The new building is proposed to be occupied by a 2-story (6,889 s.f.) day care center, with the remaining first floor area to be occupied by retail uses and the remainder of the second floor by professional offices; and

c) The construction of an outdoor play area associated with the proposed day care center; and

d) The installation of additional off-street parking spaces (±74 spaces); and

e) Installation of new and upgrade of existing outdoor lighting, landscaping and screening; and

f) The installation of drainage systems to control and mitigate stormwater runoff; and

g) Architectural building and pedestrian plaza upgrades to the existing shopping center; and

h) Installation of sidewalks, walkways, crosswalks, speed table, traffic related signage and other pedestrian and transportation related circulation improvements; and

i) The new building is proposed to be served by the existing septic and water systems; and

j) Associated grading, including the construction of retaining walls and fencing; and

k) A previously approved Site Development Plan Approval, Wetland Activity Permit, and Town Stormwater Permit have since expired, due to incompletion of the required improvements within three (3) years of the signing of the Plans (by November 4, 2019); and

l) No changes to the previously approved Site Development Plans are proposed for reapproval of the proposed improvements; and

Via Resolution dated April 19, 2016, the Planning Board issued a Negative Declaration of Significance and granted Site Development Plan Approval, Wetland Activity Plan Approval and a Town Stormwater Permit, all subject to conditions, for the proposed action. The conditions of approval were satisfied by the applicant, the Site Development Plans were signed by the Planning Board Chairman on November 4, 2016, and construction soon after commenced. The Zoning Code states that Site Development Plan Approval shall expire unless all required improvements are complete within three (3) years of the signing of the plans (by November 4, 2019). As construction remains in its early stages and as all available extensions have been granted, the applicant has

reapplied to the Planning Board in connection with the reapproval of the proposed action. The prevailing conditions and circumstances related to the subject property and the proposed action have remained in place since the issuance of the prior Negative Declaration and the now expired Site Development Plan Approval, Wetland Activity Permit and Town Stormwater Permit.

Reasons Supporting This Determination: The Planning Board has compared the proposed action with the Criteria for Determining Significance in 6 NYCRR 617.7 (c).

1. The proposed action will not result in a substantial adverse change in the existing air quality, ground or surface water quality or quantity, traffic or noise levels; a substantial increase in solid waste production.

   The subject property is currently developed and the proposed action will result in 2.23 acres of land disturbance. According to the submitted Environmental Assessment Form, the proposed action is anticipated to generate a demand of 1,672 gallons of water per day and will connect to an existing water supply and on-site septic system.

   Reference is made to a Traffic Impact Study, prepared by Maser Consulting, P.A., dated March 27, 2015. The Traffic Impact Study concludes that the proposed action will not significantly change the overall Levels of Service of the studied locations; however, minor increases in vehicle delay at each location will occur. The study recommends internal traffic circulation improvements which have been incorporated into the proposed action.

   A jurisdictional watercourse is located off-site and to the north of the subject property, adjacent to NYS Route 138, and the Town's 150-foot regulated buffer area extends onto the subject property. To compensate for impacts proposed within the Town's buffer area, the applicant is proposing to remove invasive shrubs and vines located primarily between North Street and the subject property. Reference is made to a "Wetland Delineation Report", dated (last revised) June 16, 2015 and a "Wetlands Impact and Proposed Mitigation Assessment Report", dated January 6, 2016, both prepared by Evans Associates.

   Solid waste production is not anticipated to be significant and all refuse will be stored within appropriate enclosures and will be picked-up by a private carter.

2. The proposed action will not result in the removal or destruction of large quantities of vegetation or fauna; substantial interference with the movement of any resident or migratory fish or wildlife species; impact a significant habitat area; result in substantial adverse impacts on a threatened or endangered species of animal or plant, or the habitat of such species; and will not result in other significant adverse impacts to natural resources.

The subject property is primarily developed and there are no known threatened, endangered or special concern species located on or proximate to the subject property. According to mapping available through the NYSDEC website, the subject property is not located in an area known to be occupied by such species. According to the applicant, the proposed action will result in 2.23 acres of land disturbance and the removal of 32 trees with a diameter of 8 inches or greater.

3. The proposed action will not result in the impairment of the environmental characteristics of a Critical Environmental Area as designated pursuant to 6 NYCRR Part 617.14(g).

   The subject property is not located in proximity to a Critical Environmental Area.

4. The proposed action will not result in a material conflict with the Town's officially approved or adopted plans or goals.

   With the exception of area variances granted by the Zoning Board of Appeals on September 30, 2015, the proposed action is zoning compliant and is consistent with the Town Master Plan.

5. The proposed action will not result in the impairment of the character or quality of important historical, archaeological, architectural, aesthetic resources or the existing character of the community or neighborhood.

   The subject property is primarily developed and is not located within a mapped archaeological sensitive area. The proposed action will result in significant aesthetic improvements to the shopping center which were approved by the ACARC on February 10, 2016 (see Cal. No. 7-16-ACARC).

6. The proposed action will not result in a major change in the use of either the quantity or type of energy.

7. The proposed action will not create a hazard to human health.

   The proposed action includes transportation and pedestrian improvements which will improve public safety.

8. The proposed action will not create a substantial change in the use, or intensity of use, of land including agricultural, open space or recreational resources, or in its capacity to support existing uses.

   See Finding #1 above.

9. The proposed action will not encourage or attract a large number of people to a place or place for more than a few days, compared to the number of people who would come to such place absent the action.

10. The proposed action will not create a material demand for other actions that would result in one of the above consequences.

11. The proposed action will not result in changes in two (2) or more elements of the environment, no one of which has a significant impact on the environment, but when considered together result in a substantial adverse impact on the environment.

12. When analyzed with two (2) or more related actions, the proposed action will not have a significant impact on the environment and when considered cumulatively, will not meet one or more of the criteria under 6 NYCRR 617.7(c).

13. A conceptual plan for development of additional lands within the subject property was presented. However, the plan is conceptual in nature and no development is proposed on this portion of the property. The Planning Board has concluded that all impacts associated with such development can be effectively analyzed and addressed upon SEQRA review conducted if and when development of this portion of the property is formally proposed.

14. The Planning Board has considered reasonably related long-term, short-term, direct, indirect and cumulative impacts, including other simultaneous or subsequent actions.

For further information contact:

Ciorsdan Conran, Planning Board Administrator
Town of Lewisboro
79 Bouton Road, South Salem, NY 10590
Phone: (914) 763-5592
Fax: (914) 763-3637

This notice is being filed with:

Ciorsdan Conran, Planning Board Administrator
Town of Lewisboro
79 Bouton Road, South Salem, NY 10590
Phone: (914) 763-5592
Fax: (914) 763-3637

Westchestergov.com

George Latimer
County Executive

Sherlita Amler, M.D.
Commissioner of Health

April 3, 2023

Bibbo Associates, LLP
293 Route 100 – Suite 203
Somers, NY 10589
Attn: Timothy Allen, P.E.

Re: Approval for Change of Use
Taconah Cantina
North County Shopping Center
Routes 22 and 138
Section 4 Block 11126 Lot 7
Lewisboro (T)
NYCDEP Log# 2000-MU-0196-DJI.4
WCDOH File #2023-03-CU

Dear Mr. Allen:

A Change of Use at the North County Shopping Center is approved for the proposed Taconah Cantina effective this day pursuant to Chapter 873, Article VIII, Section 873.726 of the Laws of Westchester County, and subject to the following conditions:

1. THAT this approval is for a Change of Use to allow for the proposed Taconah Cantina as shown on the floor plans prepared by your office, dated March 16, 2022,Engineers Report, dated December 15, 2022 and Narrative Report, dated December 16, 2022. The total wastewater flows associated with the Taconah Cantina is estimated to be 700 gallons per day (gpd), and will discharge to the existing Onsite Wastewater Treatment System #4 (OWTS) for the site which has a total stated capacity of 1000 gpd.

2. THAT the construction, operation and the occupancy of the Taconah Cantina shall conform to the narrative report, engineers report and floor plans cited above.

3. THAT a Food Service Establishment (FSE) permit is required for the operation of the Taconah Cantina. Please contact Jennifer Zagami of the Westchester County Department of Health office of Public Health Protection (WCDOH-PHP) for the requirements for this permit.

4. THAT all new plumbing fixtures installed shall be low flow fixtures and that all existing plumbing fixtures be replaced with low flow fixtures.

5. THAT a water meter be installed on the water service line for the Taconah Cantina.

6. THAT water meter readings are to be recorded on each day of operation, at the same time of day, and submitted to the Department on a monthly basis until further notice.

7. THAT the water meter readings are maintained by the owner of the property and available for review.

REUSE RECYCLE

Department of Health
25 Moore Avenue
Mt. Kisco, New York 10549 Telephone: (914) 864-7333 Fax: (914) 864-7341

8. THAT this approval letter be maintained on file by the applicant.

9. THAT the sewage flows to the OWTS shall not exceed the existing capacity pursuant to Chapter 873, Article VII, Section 873.737(A).

10. THAT any deviation from the conditions contained herein may constitute a Change of Use and/or may result in a revocation of this approval.

11. THAT this approval is valid for one (1) and will expire one (1) year from the date of this letter.

Very truly yours,

Delroy Taylor, P.E.
Assistant Commissioner.
Bureau of Environmental Quality

Cc: Stephen Cipes - owner
Kevin Kelly. – Building Inspector – Town of Lewisboro
Dan Shedlo, P.E. – NYCDEP
Heather McVeigh, P.E. – WCDOH
Jennifer Zagami - WCDOH - PHP
Anthony Kunny - WCDOH
File

TOWN OF LEWISBORO

BUILDING DEPARTMENT

79 Bouton Road
South Salem, NY 10590
(914)763-3060

CERTIFICATE OF OCCUPANCY

Certificate No: 0091-2024 Date: 02/14/2024
Permit No: 2023-0676
Location: 104 ROUTE 22
B/L/S: 11126-007-0004

THIS CERTIFIES that the building located at the premises indicated above conforms substantially to the approved plans and specifications heretofore filed in this office with Application for Building Permit dated 11/02/2023 pursuant to which Building Permit was issued, and conforms to all of the requirements of the applicable provisions of law. The occupancy for which this certificate is issued is:

Build a 25-seat fast-casual eating and drinking establishment in a commercial space that was formerly a video rental business as per the manufacturer specification, approved plans, the 2020 residential code of NYS & the Lewisboro Town Code

This certificate is issued to: CIPES, STEPHEN
P.O.BOX 544
GOLDENS BRIDGE, NY 10526

Building Inspector: _____
Kevin Kelly

PROPOSED ARCHITECTURAL SITE PLAN
SCALE: 1" = 50'-0"

BULK REQUIREMENTS

	REQUIRED	EXISTING	PROPOSED PHASE I	FUTURE PHASE II
MIN. LOT SIZE:	21,780 SF. (1/2 Acre)	390,341 SF (8.961 Ac.)	390,341 SF (8.961 Ac.) NO CHANGE	390,341 SF (8.961 Ac.) NO CHANGE
MIN. LOT FRONTAGE:	100'	2000' +/-	2000' +/-	2000' +/-
MIN. FRONT YARD:	20'	86' +/-	84.5' +/-	78' +/-
MIN. SIDE YARD:	15'	37.5'	26.0' +/-	26.0' +/-
MIN. REAR YARD:	15'	30.9' +/-	25.0' +/-	25' +/-
MAX. BLDG. HEIGHT:	30'/2-1/2 STY.	30' 2 STY.	30' 2 STY. (AVG. MEAN GR.)	30' 2 STY. (AVG. MEAN GR.)
MAX. SINGLE STRUCTURE COVERAGE:	10,000 SF	37,228 S.F. (EXISTING NON-CONFORMING)	37,228 S.F. (NO CHANGE)	37,228 S.F. (NO CHANGE)
MAX. SITE COVERAGE:	50% 390,340.8÷234,206 SF.	41.00% 159,984/390,341 SF.	60.58% 197,925/390,341 SF. (SEE NOTE #4)	63.97% 249,632/390,341 SF. (VARIANCE REQ'D.)
MAX. BLDG. COVERAGE:	20% = 78,068 SF.	9.54% = 37,228 SF.	11.75% 45,890/390,341	14.37% 56,141/390,341
MAX. F.A.R.	.30 =117,102	.11 44,404 SF	.16 61,249 SF	.18 71,475/390,341

TOTAL BUILDING FLOOR AREA

	REQUIRED	EXISTING	PROPOSED PHASE I	FUTURE PHASE II
RETAIL (INCLUDES 3910 SF. FOR POST OFFICE)	NA	10,861 SF	14,787 S.F. (3,906 SF NEW)	24,787 SF (10,000 SF NEW)
SUPERMARKET (INCLUDES STORAGE)	NA	18,080 SF	18,080 SF	18,080 SF
LIMITED SERVICE CARRYOUT RESTAURANTS W/ LESS THAN 10 SEATS	NA	2,864 SF	2,864 SF	2,864 SF
OFFICE FOR BUSINESS OR PROFESSIONAL USE (INCLUDES ALL COMMON AREAS)	NA	5,447 SF (463 SF 1ST. FL. ENT.)	12,497 SF (6,060 SF NEW)	12,497 SF
OFFICE FOR MEDICAL OR DENTAL USE		1,192 SF	1,192 SF	1,192 SF
BANK	NA	3,000 SF	3,000 SF	3,000 SF
LITTLEFEET CHILDCARE FACILITY	NA	0 SF	6,889 SF	6,889 SF
GAZEBO	NA	0 SF	0 SF	226 SF
RESTAURANT	NA	1,920 SF	1,920 SF	1,920 SF
TOTAL		44,404 SF	61,249 SF	71,475 SF

COLOR CHART / FLOOR AREA TABULATIONS

USE OF SPACE	FIRST FLOOR	SECOND FLOOR	TOTAL
LITTLE FEET CHILDCARE :	4,186 GSF	2,703 GSF	6,889 GSF
COMMON AREAS : (LOBBY, STAIRS, ELEVATOR MACHINE ROOM & BATHROOMS)	568 GSF	1,067 GSF	1,635 GSF
RETAIL TENANT #1 :	1,069 GSF		
RETAIL TENANT #2 :	1,517 GSF		3,906 RETAIL
RETAIL TENANT #3 :	1,320 GSF		
OFFICE TENANT #1		1,174 GSF	
OFFICE TENANT #2		989 GSF	4,415 OFFICE
OFFICE TENANT #3		1,032 GSF	
OFFICE TENANT #4		1,220 GSF	
TOTAL :	8,660 GSF	8,185 GSF	16,845 GSF

EFFICIENCY RATIO = 1,535/8,752 =18.68% COMMON AREAS & 81.32% RENTABLE AREAS

NOTE: SINCE 2ND FLOOR CHILDCARE SPACE REQUIRES ELEVATOR ACCESS & ACCESS TO COMMON HALLWAY FOR EGRESS PURPOSES; & SINCE CHILDCARE STAFF ARE PERMITTED TO USE THE PUBLIC RESTROOMS; THE APPLICABLE PERCENTAGE OF 2ND FLOOR AREAS USED FOR CHILDCARE WILL SHARE A PRO-RATED PORTION OF THE COMMON CHARGES. HOWEVER THE 1ST FLOOR CHILDCARE AREAS WILL NOT SHARE ANY OF THE COMMON AREA CHARGES

PARKING

	REQUIRED	EXISTING	PROPOSED PHASE I	FUTURE PHASE II
MIN. STALL SIZE:	9'x19' OR 9'x16' W/2 OH	9'x19' OR 9'x16' W/2 OH	9'x19' OR 9'x16' W/2 OH	9'x19' OR 9'x16' W/2 OH
MIN. AISLE WIDTH:	25'	25'	25'	25'
MIN. NUMBER OF SPACES: RETAIL: RETAIL USE 1/200 SF		10,861 S.F./200 =54.41 SP.	14,787 S.F. = 73.94 SP.	24,787 S.F. =123.94 SP.
SUPERMARKET: RETAIL USE 1/125 SF		18,080 S.F./125. =144.64 SP.	18,080 S.F. =144.64 SP.	18,080 S.F. =144.64 SP.
LIMITED SERVICE CARRYOUT RESTAURANTS W/ LESS THAN 10 SEATS: RETAIL USE 1/200 SF		2,864 SF/200 =14.42 SP.	2,864 SF =14.42 SP.	2,864 SF =14.42 SP.
OFFICE FOR BUSINESS OR PROFESSIONAL USE 1/250 SF		5,447 S.F./250 =25.79 SP.	12,497 SF./250 =49.99 SP.	12,497 SF./250 =49.99 SP.
OFFICE FOR MEDICAL OR DENTAL USE (5) PER PRACTITIONER		1,192 S.F. =5 SP.	1,192 S.F. =5 SP.	1,192 S.F. =5 SP.
BANK 1/150 SF		3,000 S.F./150 =20 SP.	3,000 S.F./150 =20 SP.	3,000 S.F./150 =20 SP.
LITTLEFEET CHILDCARE FACILITY: 1 SPACE / EMPLOYEE & 1 PUBLIC SPACE PER CLASSROOM (SEE NOTE 3)		0 SF =0 SP.	6,889 SF =22 SP.	6,889 SF =22 SP.
RESTAURANT (SEE NOTE 4): RESTAURANT 1/100 SF OR (1) PER TWO SEATS WHICHEVER IS GREATER		1,920 SF/100= 24 SP.	1,920 SF/100 =24 SP.	1,920 SF/100= 24 SP.
TOTAL SPACES REQUIRED:		288.25 SP.	353.98 SP.	403.98 SP.
TOTAL SPACES PROVIDED:		218 SP.	292 SP.	384 SP.
DEFICIENCY:		70.25 SP.	61.98 SP.	19.98 SP.
NET CUMULATIVE GAIN		0 SP.	8.27 SP.	50.27 SP.

ADDITIONAL PARKING & LOADING REQUIREMENTS

	REQUIRED	EXISTING	PROPOSED PHASE I	FUTURE PHASE II
SETBACK/ BUFFERS				
(FRONT): ACROSS FROM NON-RESIDENTIAL	20'	TOUCHES EXISTING & @ NORTH END OF PROPERTY (EXISTING NON-CONFORMING)	TOUCHES EXISTING & @ NORTH END OF PROPERTY (NO CHANGE, NEW PARKING AREAS COMPLY)	TOUCHES EXISTING & @ NORTH END OF (NO CHANGE, HOWEVER, VARIANCE REQ NEW PARKING AREAS @ SOUTH END
(SIDE & REAR): ADJACENT TO NON-RESIDENTIAL	15'	15'	15' (NO CHANGE)	15' (NO CHANGE)
MIN. ISLAND WIDTH	5'	0' (EXISTING NON-CONFORMING)	5' (NEW AREAS COMPLY, NO CHANGE AT EXISTING)	5' (NEW AREAS COMPLY, NO CHANGE AT EXISTING)
MIN. HANDICAPPED SPACES NYS TABLE 1106.1 (PG. 232)	DEPENDENT ON TOTAL NUMBER OF SPACES	7 REQ'D. / 7 PROVIDED (7 /200-300 SPACES)	8 REQ'D. / 11 PROVIDED (8 /300-400 SPACES)	9 REQ'D. / 15 PROVIDED (9 /400-500 SPACES)
RETAIL: LOADING REQUIREMENTS TOTAL SPACES	10	5 REQ'D. / 5 PROVIDED	7 REQ'D. / 7 PROVIDED	8 REQ'D. / 9 PROVIDED
1 SPACE for 4,000 SF OF G.F.A.		4,000 SF = 1.00 SPACE	4,000 SF = 1.00 SPACE	=4,000 SF 1.00 SPACE
1 SPACE / 10,000 SF OVER 4K		40,837 SF = +4.08 SPACES	56,803 SF = +5.68 SPACES	=56,803 SF +5.68 SPACES
		44,837 SF = 5.08 SPACES OR 5 REQ'D.	60,803 SF= 6.68 SPACES OR 7 REQ'D.	70,803 SF= 7.68 SPACES OR 8 REQ'D.

LANDSCAPE REQUIREMENTS FOR PARKING AREAS

	MIN. REQUIRED LANDSCAPE AREA AT PARKING	LANDSCAPE / PARKING (AT EXISTING PARKING LOTS)	LANDSCAPE / PARKING	LANDSCAPE / PARKING
	10%	4,391 / 83,027= 5.3% (EXISTING NON-CONFORMING)	10,511/ 145,407 =7.2% (1.6% AT NEW PARKING)	16,190/ 157,355 = 10.2% (OVERALL)
OVERALL AREA OF DISTURBANCE		0 S.F.	57,983 S.F. INC. 5,754 SF DRAINAGE EASEMENT & 9,046 SF WETLANDS (SEE NOTE #4)	TBD
AREA OF DISTURBANCE WITHIN WETLANDS BUFFER		N/A	9,046 S.F.	N/A

NOTES:
1. TOWN HAS APPROVED 48 SEATS WHICH REQUIRES 24 PARKING SPACES
2. ELIMINATED 42 SPACES AT SOUTH LOT FOR (4) STORY RETAIL
3. (2) EMPLOYEES PER CLASSROOM, PLUS (1) ADMINISTRATOR & (1) RECEPTIONIST
4. CALCULATION PROVIDED BY SBBO ASSOCIATES, LLP
5. VARIANCE REQUIRED FOR NEW RETAINING WALLS & FENCES WHERE THEY EXCEED MAX. PERMITTED HEIGHT

EXISTING PARKING CALCULATIONS

PARKING SPACES AT NORTH LOT	PARKING SPACES AT MAIN LOT	PARKING SPACES TOTAL:
3 SPACES	2 SPACES	31 SPACES
3 SPACES	16 SPACES	+187 SPACES
7 SPACES	5 SPACES	218 SPACES
7 SPACES	14 SPACES	
+11 SPACES	13 SPACES	
31 SPACES	5 SPACES	
	5 SPACES	
	42 SPACES	
	41 SPACES	
	12 SPACES	
	10 SPACES	
	10 SPACES	
	+10 SPACES	
	187 SPACES	

(REFER TO "EXISTING SITE PLAN")

PROPOSED PARKING CALCULATIONS (PHASE I)

PARKING SPACES AT NORTH LOT	PARKING SPACES AT MAIN LOT	PARKING SPACES TOTAL
9 SPACES	19 SPACES	105 SPACES
4 SPACES	4 SPACES	+187 SPACES
7 SPACES	15 SPACES	292 SPACES
8 SPACES	1 SPACE	
7 SPACES	13 SPACES	
7 SPACES	6 SPACES	
10 SPACES	5 SPACES	
10 SPACES	41 SPACES	
10 SPACES	41 SPACES	
10 SPACES	12 SPACES	
5 SPACES	10 SPACES	
7 SPACES	10 SPACES	
+11 SPACES	+10 SPACES	
105 SPACES	187 SPACES	

PROPOSED PARKING CALCULATIONS (PHASE II)

PARKING SPACES AT NORTH LOT & AT MAIN LOT	PARKING SPACES AT SOUTH LOT	PARKING SPACES TOTAL
250 SPACES (SEE NOTE 2)	8 SPACES	250 SPACES
	9 SPACES	+134 SPACES
	7 SPACES	384 SPACES
	23 SPACES	
	4 SPACES	
	12 SPACES	
	9 SPACES	
	11 SPACES	
	10 SPACES	
	15 SPACES	
	7 SPACES	
	7 SPACES	
	5 SPACES	
	+7 SPACES	
	134 SPACES	

VARIANCES REQUIRED

AS PER 07-28-15 MEETING WITH PETER BARRETT BUILDING INSPECTOR

1. OVERALL PARKING DEFFICIENCY
2. HEIGHT OF RETAINING WALLS / FENCES
3. MAXIMUM SITE COVERAGE (WHEN PHASE II IS CONSTRUCTED)

ISSUE DATES:

08/06/15
12/22/14 PLANNING BOARD

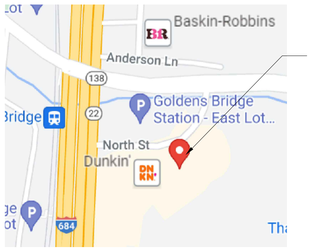
NEW MIXED-USE BUILDING FOR:
GOLDENS BRIDGE VILLAGE CENTRE
NYS ROUTE 22 ROUTE 138 — GOLDENS BRIDGE-TOWN OF LEWISBORO, N.Y.

PROPOSED ARCHITECTURAL SITE PLAN, ZONING & SITE DATA FOR ENTIRE PROPERTY
SCALE: 1"=50'-0"

DRAWN BY: TRH
CHECKED BY: PJH

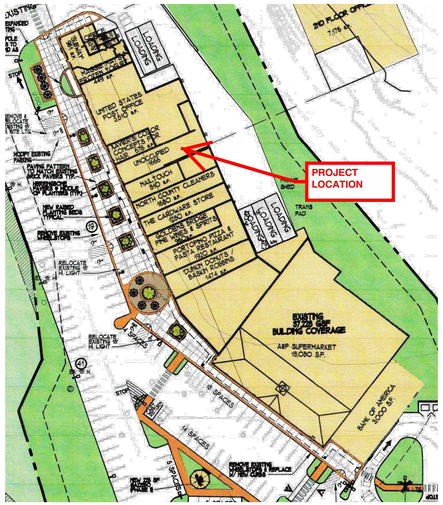
THE HELMES GROUP, LLP
ARCHITECTURE • ENGINEERING
PROJECT MANAGEMENT
184 KATONAH AVENUE, KATONAH, NY 10536
TEL: (914) 232-4633 FAX: (914) 232-0768
EMAIL: thg@thehelmesgroup.com

DRAWING NO.: A-1



LOCATION MAP

SCALE: NONE



PARTIAL SITE PLAN

SCALE: NONE

GENERAL NOTES

1. THE CONTRACTOR SHALL VISIT THE PROJECT SITE TO FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AND TO VERIFY ALL DIMENSIONS AND CONDITIONS. ANY DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND THE ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE ARCHITECT, IN WRITING, FOR CORRECTION.
2. EXISTING CONDITIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY. THE CONTRACTOR WILL BE HELD TO HAVE EXAMINED THE SITE, AND TO DRAW HIS OWN CONCLUSIONS AS TO THE CONDITIONS THAT WILL BE ENCOUNTERED AT THE START AND DURING THE PROGRESS OF THE WORK.
3. THE CONTENT OF THE SPECIFICATION SECTIONS IS NOT INTENDED TO ESTABLISH LIMITS TO SUBCONTRACTORS OR JURISDICTIONS OF TRADES, IN ANY QUESTION REGARDING QUALITY OR QUANTITY OF WORK, THE BETTER QUALITY AND THE GREATER QUANTITY SHALL BE PROVIDED.
4. ALL WORK TO COMPLY WITH THE NY STATE BUILDING CODES 2018 AND LATER.
5. DO NOT LEAVE BUILDING, OR PORTION THEREOF, OPEN TO WEATHER NOR INADEQUATELY PROTECTED WHEN WORK IS NOT ACTUALLY IN PROGRESS.
6. THE TERM "TO REMAIN" IS USED TO INDICATE THAT AN ITEM IS EXISTING AND NO MAJOR WORK IS REQUIRED. HOWEVER, THE TERM DOES NOT PRECLUDE PATCHING, REPAIRING, REFINISHING, ETC.
7. WHEN PATCHING AND REPAIRING IS CALLED FOR IN THE DOCUMENTS, IT IS NOT TO BE CONSTRUED THAT THESE ARE THE ONLY PLACES WHERE SUCH WORK IS REQUIRED.
8. ALL PATCHING AND REPAIRING OF WALLS, CEILING AND FLOORS IS TO BE DONE WITH MATERIALS TO MATCH ADJACENT SURFACE.
9. SUBMIT SHOP DRAWINGS AND OR SPECS IF REQUIRED TO TOWNSHIP OF BLOOMFIELD, NY BUILDING DEPARTMENT AND TO OWNER.
10. THE CONTRACTOR(S) SHALL PERFORM HIS WORK SO THAT A MINIMUM OF DISRUPTION IS CAUSED TO THOSE PORTIONS OF THE BUILDING WHERE THERE IS NO WORK.
11. THE PERFORMANCE OF THE CONTRACT WORK CONSISTS OF FURNISHING ALL MATERIALS AND EQUIPMENT, PROVIDING ALL LABOR AND SERVICES NECESSARY FOR THE CONSTRUCTION OF THE WORK DESCRIBED IN THE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE AND PAY FOR MATERIALS, LABOR, TOOLS, EQUIPMENT, TRANSPORTATION, PROTECTION, FACILITIES OR SERVICES, PERMITS AND FEES, INSURANCE AND TAXES, EACH AS NECESSARY AND/OR APPROPRIATE FOR THE COMPLETION OF THE CONTRACT WORK AND OR AS AGREED WITH OWNER.

CONSTRUCTION NOTES

1. PRIOR TO COMMENCEMENT OF THE WORK THE CONTRACTOR SHALL SUBMIT TO THE OWNER ALL REQUIRED CERTIFICATES OF INSURANCE.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE ACTS AND OMISSIONS OF HIS SUBCONTRACTOR OR SUPPLIERS AND OF PERSONS EITHER DIRECTLY EMPLOYED BY HIM OR THEM.
3. WORK WHICH DOES NOT CONFORM TO CONTRACT DOCUMENTS AND WORK WHICH IS DEFECTIVE, MARRED OR DAMAGED, IS SUBJECT TO REJECTION.
4. FINAL CLEANING: THE CONTRACTOR SHALL PROVIDE CLEANING SERVICES AS FOLLOWS: THE SITE SHALL BE FREE OF RUBBISH AND SWEPT CLEAN. ALL SPACES AND SURFACES SHALL BE CLEANED TO BE FREE OF ANY MARKS, DIRT AND DUST. FLOORS SHALL BE CLEAN AND WASHED, VACUUM CLEANED OR BUFFED AS APPROPRIATE TO FINISH. METAL SURFACES SHALL BE POLISHED OR WIPED CLEAN.
5. THE CONTRACTOR SHALL FULLY GUARANTEE, WITHOUT QUALIFICATIONS EXCEPT FOR MISUSE OR ABUSE, THE SATISFACTORY PERFORMANCE OF THE WORK, BEGINNING ON THE DATE THAT THE OWNER ACCEPTS THE WORK AND CONTINUING FOR A PERIOD OF ONE (1) YEAR. NEITHER FINAL PAYMENT NOR ANY OTHER PROVISIONS OF THE DOCUMENTS SHALL RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY UNDER THIS GUARANTEE UNTIL THE EXPIRATION OF THE GUARANTEE PERIOD.
6. THE CONTRACTOR SHALL PROTECT AND INDEMNIFY THE OWNER AGAINST ALL LIENS, INCLUDING ACTIONS AFTER FINAL PAYMENT HAS BEEN MADE. PRIOR TO FINAL PAYMENT, THE CONTRACTOR SHALL DELIVER A COMPLETE RELEASE OF ALL LIENS AFFIDAVIT THAT THE RELEASE INCLUDE ALL INDEBTEDNESS FOR WHICH A LIEN COULD BE FILED. IN THE ABSENCE OF SATISFACTORY RELEASES OR RECEIPTS, THE CONTRACTOR AT HIS OWN EXPENSE SHALL FURNISH A SURETY BOND TO INDEMNIFY THE OWNER AGAINST LIENS.
7. FREE STANDING FURNITURE IS TO BE PROVIDED BY THE OWNER.

DEMOLITION NOTES

1. DASHED LINES ON DEMO PLANS REPRESENT WALLS, DOORS, SOFFITS, CASEWORK, ETC TO BE REMOVED. PATCH & REPAIR EXISTING ADJOINING AREAS TO REMAIN.
2. THE CONTRACTOR SHALL NOT CONSIDER DEMOLITION AND ALTERATION NOTES TO BE ALL-INCLUSIVE. IT IS CONTRACTOR'S RESPONSIBILITY TO INSPECT AND ASSESS EACH AREA AND TO FULFILL THE INTENT OF THE DESIGN INDICATED BY THE CONTRACT DOCUMENTS.
3. PATCH OR REBUILD ANY AREAS TO REMAIN THAT HAVE BEEN DAMAGED OR DISTURBED BY HVAC, ELECTRICAL, FIRE PROTECTION AND PLUMBING DEMOLITION.
4. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS WITHIN THE CONTRACT LIMITS AND NOTIFY THE ARCHITECT IMMEDIATELY IN WRITING OF ANY DEVIATION FROM CONTRACT DOCUMENTS NECESSITATED BY FIELD CONDITIONS OR ITEMS NOT COVERED.
5. MAINTAIN ACCESS TO EXITS AND EXIT STAIRS AT ALL TIMES. FIRE ALARM AND SMOKE DETECTION SYSTEM SHALL REMAIN OPERATIONAL AT ALL TIMES. PROTECT SMOKE DETECTORS AS REQUIRED AND IN CONFORMANCE WITH CODES AND LOCAL AUTHORITIES HAVING JURISDICTION.
6. FOR ALL SURFACES SCHEDULED TO REMAIN, PATCH AND MATCH SURFACES DISTURBED BY DEMOLITION OR REMOVAL OF EQUIPMENT OR UTILITIES. INSTALL PATCHING TO MATCH ADJACENT WORK IN FINISH, STRUCTURAL QUALITIES, COURSING OF MASONRY, AND OTHER CHARACTERISTICS. PATCH SURFACES TO COMPLY WITH FIRE RATINGS, SMOKE-TIGHT RATINGS, ACOUSTICAL CRITERIA AND OTHER PERFORMANCE CRITERIA INDICATED.
7. ALL DEMOLITION SHALL BE PERFORMED IN A SAFE AND ACCEPTABLE MANNER TO ALL AUTHORITIES HAVING JURISDICTION AND THE OWNER.
8. THOROUGHLY CLEAN ADJACENT AREAS OF DUST, DIRT AND DEBRIS CAUSED BY DEMOLITION WORK. BEFORE NEW WORK BEGINS, RETURN ADJACENT AREAS TO CONDITION FOUND PRIOR TO START OF DEMOLITION WORK.
9. PROVIDE TEMPORARY PARTITIONS/DUST PROTECTION (RATED AND/OR NON-RATED) AS REQUIRED. REVIEW LOCATIONS OF TEMPORARY PARTITIONS/DUST PROTECTION WITH OWNER AND ARCHITECT PRIOR TO START OF WORK.
10. HAZARDOUS MATERIAL NOTE: CONTRACTOR SHALL STOP WORK AND INFORM OWNER IMMEDIATELY IN WRITING OF ANY HAZARDOUS MATERIAL ENCOUNTERED OR THOUGHT TO BE HAZARDOUS MATERIAL. THE OWNER, AFTER RECEIVING WRITTEN NOTICE SHALL INSTRUCT CONTRACTOR ON HOW TO PROCEED.
11. ALL WORK SHALL BE DONE IN PROTECTED SPACE. NO DUST OR DIRT SHALL TRAVEL FROM CONSTRUCTION AREA TO ADJACENT AREAS. TEMPORARY DUST PROTECTION SHALL BE ERECTED PRIOR TO START OF WORK.
12. PRIOR TO ANY DEMOLITION, THE CONTRACTOR SHALL COORDINATE BRACING AND MAINTAIN THE STRUCTURAL INTEGRITY OF THE REMAINING ELEMENTS OF THE BUILDING AND ITS SYSTEMS AS REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPORT OF ADJACENT STRUCTURES DURING DEMOLITION AND NEW CONSTRUCTION WORK. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY SHORING, SCAFFOLDING, ETC., WHICH ARE NECESSARY TO PREVENT COLLAPSE, SUBSIDENCE, DEFLECTION OR ANY OTHER TYPE OF DAMAGE. REPAIR SPRAY FIREPROOFING DAMAGED DURING DEMOLITION WORK TO ITS REQUIRED ASSEMBLY AND FIRE RATING AS SCHEDULED ON ARCHITECTURAL DRAWINGS.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL CONDITIONS AND MATERIALS WITHIN THE PROPOSED CONSTRUCTION AREA.
14. CONTRACTOR SHALL REVIEW ALL ITEMS TO BE DEVOLISHED WITH OWNER TO IDENTIFY ANY ITEMS TO BE SALVAGED PRIOR TO START OF DEMOLITION.
15. ANY FLOOR OPENINGS SHALL BE COVERED DURING DEMOLITION AND CONSTRUCTION.
16. THE CONTRACTOR SHALL HAVE SOLE RESPONSIBILITY FOR ANY DAMAGE OR INYURIES CAUSED BY OR DURING THE EXECUTION OF THE WORK.
17. REFUSE FROM DEMOLITION SHALL BECOME PROPERTY OF THE CONTRACTOR, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DISPOSE OF ALL CONSTRUCTION REFUSE LEGALLY.
18. REMOVE AND DISCONNECT AS PER CODE ALL EXISTING ELECTRIC, TELEPHONE, ALARM CONDUIT, WIRING, RECEPTACLES, LIGHT FIXTURES, PANELS AND EQUIPMENT.
19. REMOVE AND DISCONNECT AS PER CODE ALL EXISTING PLUMBING, SANITARY, STORM, SUPPLY AND GAS RISERS, VALVES AND PIPING.
20. ALL PIPING AND WIRING SHALL BE REMOVED TO A POINT OF CONCEALMENT AND SHALL BE PROPERLY CAPPED OR PLUGGED AS PER APPLICABLE CODES.
21. REMOVE ENTIRE EXISTING FLOOR FINISH THROUGHOUT EXISTING SPACE DOWN TO EXISTING CONCRETE SLAB. GRIND EXISTING GLUE OFF EXISTING SLAB AND PREPARE SLAB FOR NEW TILE INSTALLATION AS PER MANUFACTURERS SPECIFICATIONS.
22. REMOVE IN ITS ENTIRETY ALL LIGHT FIXTURES IMPACTED BY PROPOSED CONSTRUCTION PLAN AND STORE ON SITE.
23. REMOVE ALL FLOOR FINISH IN ITS ENTIRETY IMPACTED BY PROPOSED CONSTRUCTION PLAN.
24. REMOVE ALL ELECTRICAL OUTLETS, TELEPHONE JACKS AND EMERGENCY LIGHTS IMPACTED BY PROPOSED CONSTRUCTION PLAN.

ELECTRICAL WORK

ALL ELECTRICAL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICIAN AND SHALL OBTAIN ALL REQUIRED PERMITS. ALL ELECTRICAL WORK TO CONFORM TO NY STATE ELECTRICAL CODE AND APPLICABLE CODES.

PLUMBING WORK

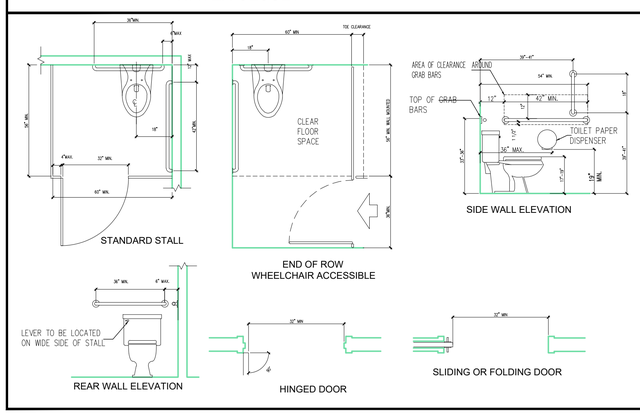
ALL PLUMBING SHALL BE PERFORMED BY A LICENSED PLUMBER, WHO SHALL OBTAIN ALL REQUIRED, ALL PLUMING WORK SHALL CONFORM TO THE NY STATE PLUMBING, MECHANICAL, GAS AND ANY OTHER APPLICABLE CODES.

MECHANICAL WORK

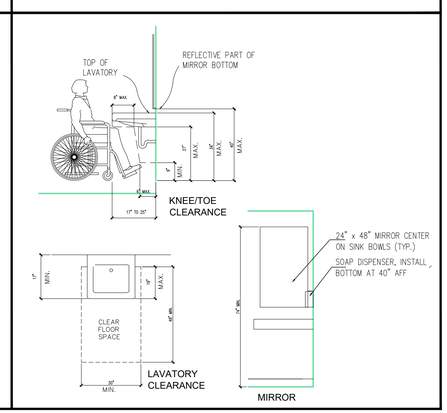
ALL MECHANICAL WORK, INCLUDING KITCHEN EXHAUST & FIRE SUPPRESSION SYSTEM SHALL BE DESIGNED, & INSTALLED BY LICENSED MECHANICAL CONTRACTOR. CONTRACTOR SHALL FILE FOR & OBTAIN ALL REQUIRED PERMITS. ALL MECHANICAL WORK SHALL CONFORM TO THE NY STATE PLUMBING, MECHANICAL, GAS, ELECTRICAL, HEALTH & ANY OTHER APPLICABLE CODES & REGULATIONS.

ADA COMPLIANCE

WATER CLOSET



LAVATORY



ADA COMPLIANCE

SCALE: NONE

TACONAH CANTINA RESTAURANT INTERIOR ALTERATIONS

PROPERTY OWNER:	TACONAH CANTINA, LLC 108 NORTH COUNTY SHOPPING CENTER GOLDENS BRIDGE, NY, 10536.
PROPERTY INFORMATION: ADDRESS: SECTION: BLOCK: LOT:	 108 NORTH COUNTY SHOPPING CENTER GOLDENS BRIDGE, NY, 10536 4 11126 7
ZONING INFORMATION ZONING DISTRICT: STORIES: BUILDING OCCUPANCY: LOT SIZE: LOT AREA: BUILDING SIZE: BUILDING COVERAGE: BUILDING GROSS AREA:	 RB 1 LEVEL. (NO CHANGE) EXISTING. NO CHANGE EXISTING. NO CHANGE. EXISTING. NO CHANGE. EXISTING. NO CHANGE. EXISTING. NO CHANGE. EXISTING. NO CHANGE.
FEMA FLOOD NOTE:	NOT IN THE FLOOD ZONE

DRAWINGS SCHEDULE	
A-100.00	TITLE, NOTES, LOCATION MAP, ZONING, ADA & CODE COMPLIANCE, SURVEY, DRAWINGS SCHEDULE.
1-101.00	CONSTRUCTION FLOOR PLANS, PARTITION DETAILS, DOORS & FINISH SCHEDULES
A-102.00	EQUIPMENT PLAN AND SCHEDULE
A-103.00	REFLECTED CEILING PLAN, PLUMBING RISER DIAGRAM, LEGENDS, NOTES

ZONING INFORMATION				
ZONING DISTRICT	RB. RETAIL BUSINESS			
USE REGULATIONS				
ZR SECTION	SUBJECT	PERMITTED/ REQUIRED	PROPOSED / PROVIDED	NOTES/ REFERENCE
§ 220-30	PERMITTED USE	RESTAURANT	LIMITED-SERVICE CARRY-OUT RESTAURANTS WITH MORE THAN 10 SEATS	COMPLIES.
BULK REGULATIONS				
§ 220-43. A	THE TOTAL BUILDING FLOOR AREA	2,000 SQ.FT.	1,604.38 SQ.FT.	COMPLIES.
§ 220-43. C	THE FLOOR AREA DEVOTED TO FOOD AND BEVERAGE PREPARATION SHALL NOT EXCEED 25% OF THE TOTAL GROSS FLOOR AREA.	1,604.38 SQ. FT. x 25% = 401.1 SQ.FT.	362.83 SQ.FT. - 23%	COMPLIES.
§ 220-43. C	THE TOTAL FLOOR AREA DEVOTED TO CUSTOMER SERVICE AND INTERIOR SEATING SHALL NOT EXCEED 50% OF THE TOTAL GROSS FLOOR AREA.	1,604.38 SQ. FT. x 50% = 502.19 SQ.FT.	629 SQ.FT. - 39%	COMPLIES.
315 ATTACHMENT 1 SCHEDULE A	ALL BULK REQULATIONS	EXISTING. NO CHANGE	EXISTING. NO CHANGE	EXISTING CONDITION. COMPLIES.
TABLE OF PARKING REQUIREMENTS				
§ 220-56. D. COMMERCIAL. RESTAURANT, FAST FOOD	SPECIFIC OFF-STREET PARKING REQUIREMENTS	EXISTING. NO CHANGE	EXISTING. NO CHANGE	EXISTING CONDITION. COMPLIES.

2020 BUILDING CODE OF NEW YORK STATE					
CODE REFERENCE	CODE SECTION	SUBJECT	PERMITTED/ REQUIRED	PROPOSED/ PROVIDED	NOTES/ REFERENCE
CHAPTER 3 OCCUPANCY CLASSIFICATION AND USE	303.3 - ASSEMBLY - GROUP A-2	ASSEMBLY GROUP "B" SMALL BUILDINGS AND TENANT SPACES	RESTAURANTS, CAFETERIAS, AND SIMILAR DINING FACILITIES	RESTAURANT	COMPLIES.
CHAPTER 6 TYPES OF CONSTRUCTION	TABLE 601	SECTION 601 GENERAL. FIRE-RESISTANCE RATING REQUIREMENTS	TYPE III-B	TYPE III-B	COMPLIES.
CHAPTER 9 FIRE PROTECTION AND LIFE SAFETY SYSTEMS	904.12 COMMERCIAL COOKING SYSTEMS	AUTOMATIC FIRE-EXTINGUISHING SYSTEM FOR COMMERCIAL COOKING SYSTEMS	SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THIS CODE, NFPA 96, ITS LISTING AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.	LICENSED CONTRACTOR SHALL INSTALL CONFORMING SYSTEM UNDER SEPARATE SUBMITTAL	COMPLIES.
CHAPTER 9 FIRE PROTECTION AND LIFE SAFETY SYSTEMS	906.1.2 PORTABLE FIRE EXTINGUISHERS	MAXIMUM DISTANCE OF TRAVEL TO EXTINGUISHER	30 FEET	16 FEET	COMPLIES.
CHAPTER 9 FIRE PROTECTION AND LIFE SAFETY SYSTEMS	906.3.1 PORTABLE FIRE EXTINGUISHERS	MAXIMUM FLOOR AREA PER UNIT	3,000 SQ. FT.	363 SF	COMPLIES.
CHAPTER 9 FIRE PROTECTION AND LIFE SAFETY SYSTEMS	907 FIRE ALARM AND DETECTION SYSTEMS	ALARM, CO2, AND SMOKE DETECTION SYSTEMS INSTALLATION	APPROVED FIRE ALARM, CO2, AND SMOKE DETECTION SYSTEMS SHALL BE INSTALLED WITH THE PROVISIONS OF THIS CODE AND NFPA 72	LICENSED CONTRACTOR SHALL INSTALL CONFORMING SYSTEM AS PER DRAWINGS	COMPLIES.
CHAPTER 9 FIRE PROTECTION AND LIFE SAFETY SYSTEMS	1003.2 CEILING HEIGHT	THE MEANS OF EGRESS CEILING HEIGHT	NOT LESS THAN 7 FEET SIX INCHES ABOVE THE FINISHED FLOOR	NINE FEET	COMPLIES.
CHAPTER 10 MEANS OF EGRESS	TABLE 1004.5 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT	ASSEMBLY WITHOUT FIXED SEATS UNCONCENTRATED (TABLES AND CHAIRS)	15 SF NET PER OCCUPANT. 629 SF NET FLOOR AREA / 15 SF = 42 OCCUPANTS.	PROPOSED 25 OCCUPANTS	COMPLIES.
CHAPTER 10 MEANS OF EGRESS	1013 EXIT SIGNS	READILY VISIBLE EXIT SIGNS SHOWING EXIT AND EXIT PATH	EXITS SHALL BE MARKED BY AN APPROVED EXIT SIGN READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL.	PROVIDED	COMPLIES.
2020 PLUMBING CODE OF NEW YORK STATE					
CHAPTER 4 FIXTURES, FAUCETS AND FIXTURE FITTINGS	TABLE 403.1 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES	TABLE 403.1 MINIMUM PLUMBING FACILITIES SEPARATE TOILET FACILITIES PROVISION FOR EACH SEX.	ONE TOILET FACILITY, FOR USE BY NO MORE THAN ONE PERSON AT A TIME. 1 FIXTURE PER 75 OCCUPANTS	TOTAL MAXIMUM 35 OCUPANTS, INCLUDING EMPLOYEES	COMPLIES.

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ILLINOIS	MARYLAND	FLORIDA

REGISTRATION NUMBERS

NOTES

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108 N. COUNTRY SHOPPING CENTER
GOLDENS BRIDGE, NY, 10536

CLIENT

KEY PLAN

TACONAH CANTINA INTERIOR ALTERATIONS
NORTH COUNTY SHOPPING CENTER
ROUTES 22 & 138. LEWISBORO, NY

PROJECT

TITLE, NOTES, LOCATION MAP, ZONING, ADA & CODE COMPLIANCE, SURVEY, DRAWINGS SCHEDULE

SHEET TITLE

SIGNATURE & SEAL

A-100.00

SHEET NUMBER

PAGE 1 OF 4

NUMBER OF PAGES

Taconah Cantina 06.27.23.dwg

CAD DWG FILE

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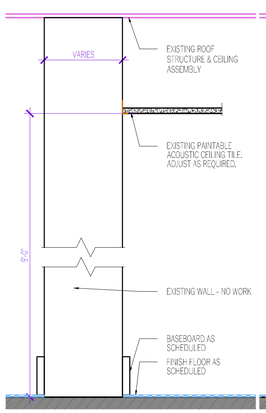
DRAWING BY:	SCALE:	PROJECT NUMBER:
CF	AS NOTED	2023-06/03-TACO
CHECKED BY:	SCALE:	DATE ISSUED:
VNS		June 27, 2023

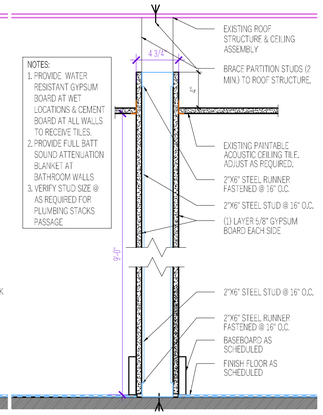
CLIENT APPROVAL | DATE

No.	REVISION / ISSUE	DATE	No.	REVISION / ISSUE	DATE
			1	ISSUED FOR PERMITS	Sep. 12, 2023



1 EXISTING WALL
SCALE: 1 1/2" = 1'-0"

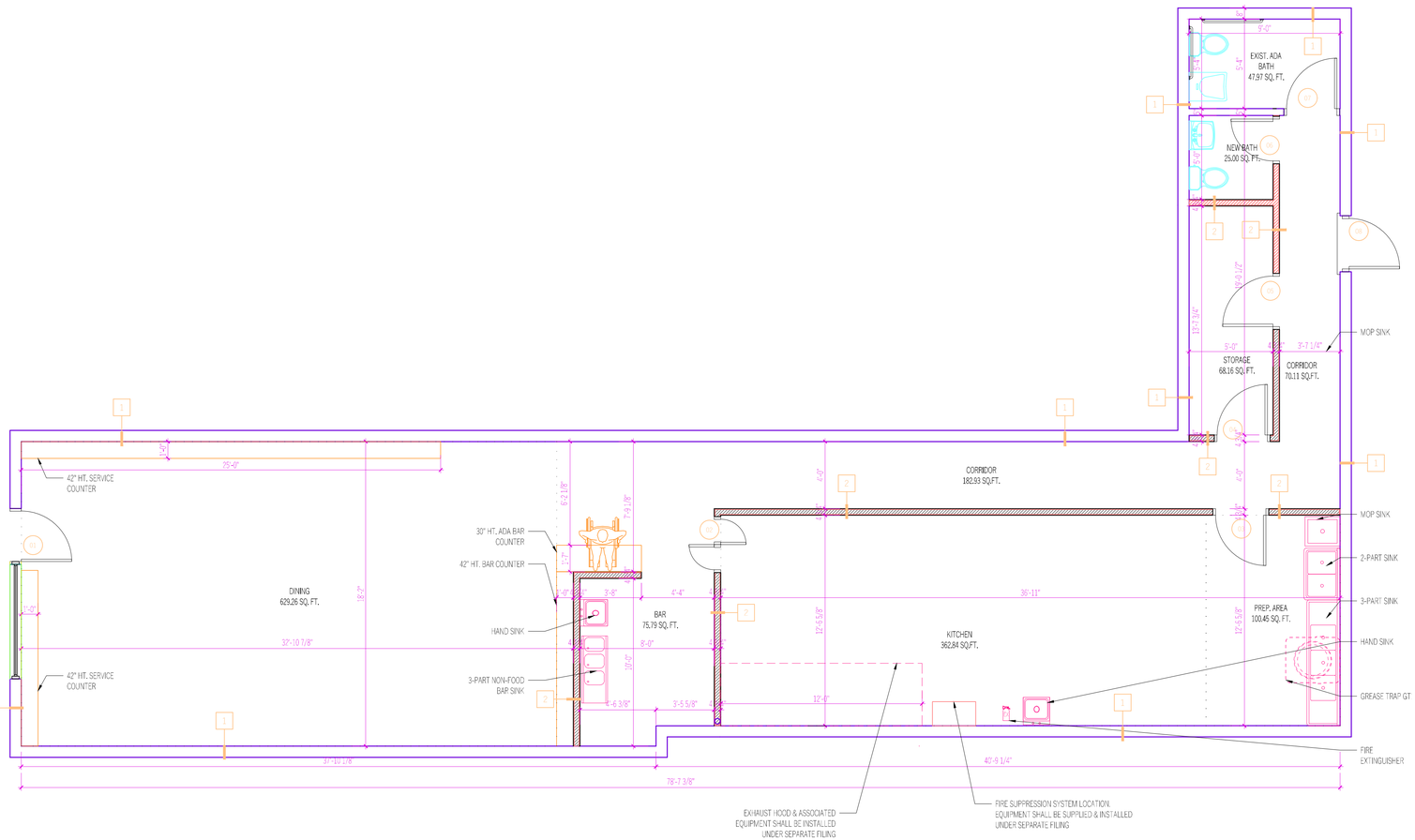
NOTES:
1. PROVIDE WATER RESISTANT GYPSUM BOARD AT WET LOCATIONS & CEMENT BOARD AT ALL WALLS TO RECEIVE TILES.
2. PROVIDE FULL BATT SOUND ATTENUATION BLANKET AT BATHROOM WALLS
3. VERIFY STUD SIZE @ AS REQUIRED FOR PLUMBING STACKS PASSAGE



2 NEW GYPSUM BOARD PARTITION
SCALE: 1 1/2" = 1'-0"

DOORS SCHEDULE

MARK	SIZE WD	SIZE HGT	SIZE THK	MATL	GLAZING	NOTES
1	3'-0"	7'-0"	1 3/4"	ALUMINUM	FULL GLASS	EXISTING
2	3'-0"	7'-0"	1 3/4"	WOOD	1/4"FR	DOUBLE SWING BAR DOOR
3	3'-0"	7'-0"	1 3/4"	WOOD	---	---
4	3'-0"	7'-0"	1 3/4"	WOOD	---	---
5	3'-0"	7'-0"	1 3/4"	WOOD	---	---
6	3'-0"	7'-0"	1 3/4"	WOOD	---	---
7	3'-0"	7'-0"	1 3/4"	WOOD	---	EXISTING
8	3'-0"	7'-0"	1 3/4"	STEEL	---	EXISTING



FLOOR PLAN
SCALE: 1/4" = 1'-0"

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GOLDENS BRIDGE, NY, 10536

CLIENT

KEY PLAN
TACONAH CANTINA INTERIOR ALTERATIONS
NORTH COUNTY SHOPPING CENTER
ROUTES 22 & 138. LEWISBORO, NY

PROJECT
CONSTRUCTION FLOOR PLAN, PARTITIONS DETAILS, DOORS & FINISH SCHEDULE

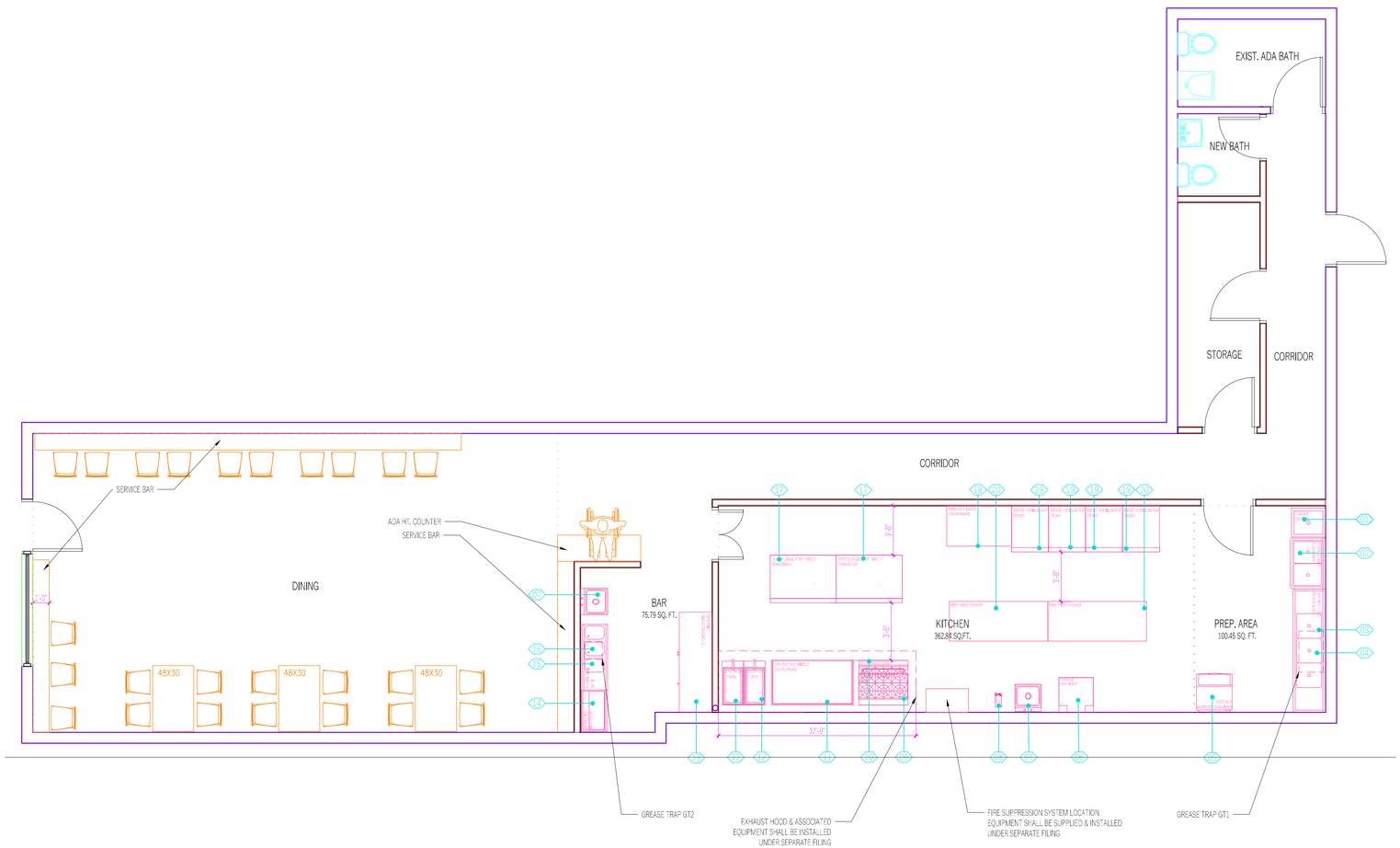
SHEET TITLE

SIGNATURE & SEAL
REGISTERED ARCHITECT VITALY N. SORKIN 016756 STATE OF NEW YORK

SHEET NUMBER
A-101.00

NUMBER OF PAGES
PAGE 2 OF 4

CAD DWG FILE
Taconah Cantina 06.27.23.dwg



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NORTH COUNTY SHOPPING CENTER
ROUTES 22 & 138. LEWISBORO, NY

PROJECT

EQUIPMENT PLAN AND SCHEDULE

SHEET TITLE

REGISTERED ARCHITECT VITALY N. SOKHIN 018756 STATE OF NEW YORK

SIGNATURE & SEAL

A-102.00

SHEET NUMBER

PAGE 3 OF 4

NUMBER OF PAGES

Taconah Cantina 06.27.23.dwg

GREASE TRAP GP1 DISCHARGE RATE CALCULATIONS

3-COMPARTMENT SINK (13)
18"X18"X14" X 3 BASINS =13,608 CUBIC INCHES
13,608 CUBIC INCHES / 231 = 58.91 GALLONS
58.91 GALLONS X 0.75 = 44.18 GALLONS
DRAIN TIME ALLOWANCE 2 MIN. 44.18 / 2 = 22.09 GPM

2- COMPARTMENT SINK (12)
16"X20"X12" X 2 BASINS =7,680 CUBIC INCHES
13,608 CUBIC INCHES / 231 = 33.25 GALLONS
58.91 GALLONS X 0.75 = 24.93 GALLONS
DRAIN TIME ALLOWANCE 2 MIN. 44.18 / 2 = 12.47 GPM

LEG MOUNTED SLOP SINK (11)
21"X24"X8" = 4,032 CUBIC INCHES
4,032 CUBIC INCHES / 231 = 17.45 GALLONS
17.45 GALLONS X 0.75 = 13.09 GALLONS
DRAIN TIME ALLOWANCE 2 MIN. 13.33 / 2 = 6.54 GPM

TOTAL DISCHARGE = 41.10 GPM
PROPOSED GREASE TRAP: GP1 "WATTS" MODEL WD-35 OR EQUAL (14)

GREASE TRAP GP2 DISCHARGE RATE CALCULATIONS

3-COMPARTMENT BAR SINK (15)
10"X14"X10" X 3 BASINS =4,200 CUBIC INCHES
4,200 CUBIC INCHES / 231 = 18.18 GALLONS
18.18 GALLONS X 0.75 = 13.64 GALLONS
DRAIN TIME ALLOWANCE 2 MIN. 43.05 / 2 = 6.82 GPM

TOTAL DISCHARGE = 6.82 GPM
PROPOSED GREASE TRAP: GP2 "WATTS" MODEL WD-7 OR EQUAL (16)

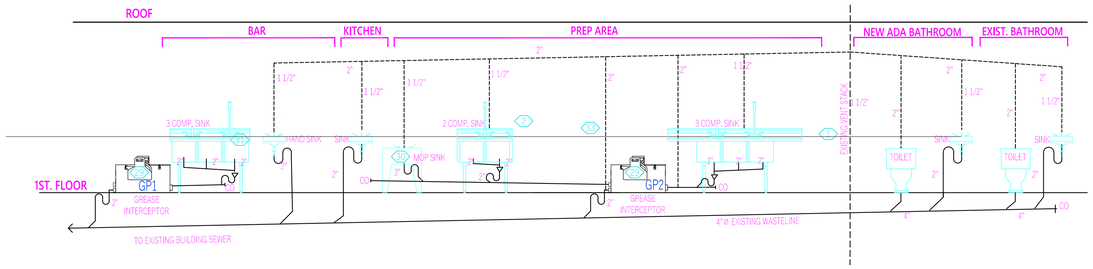
PLUMBING NOTES:

- GREASE INTERCEPTORS INDICATED ON HIS DRAWING ARE FOR GENERAL REFERENCE ONLY. CONSTRUCTOR SHALL VERIFY THE GREASE INTERCEPTOR'S MODELS TYPES, & FLOW RATES REQUIREMENTS WITH MANUFACTURER, WHEN FINAL FOOD SERVICE EQUIPMENT'S FINAL SELECTION.
- CONTRACTOR SHALL ADAPT THE TYPE OF GREASE INTERCEPTOR TO CONDITIONS & LOCATIONS OF EXISTING SEWER PIPING & CONNECTIONS. FINAL GREASE INTERCEPTOR MODEL SHALL BE SIZED AS PER NEW YORK STATE PLUMBING CODE.
- CONTRACTOR TO FIELD VERIFY AND LOCATE EXISTING PLUMBING LINES, VENT & WASTE STACKS.
- ALL SANITARY DRAINAGE & VENTS TO COMPLY WITH LOCAL PLUMBING AND LATEST NEW YORK PLUMBING CODES.
- COLD & HOT WATER SUPPLY TO COMPLY WITH LOCAL PLUMBING AND LATEST NEW YORK PLUMBING CODES. ALL PLUMBING SHALL BE PERFORMED BY A LICENSED PLUMBER, WHO SHALL OBTAIN ALL REQUIRED PERMITS & APPROVALS.
- ALL PLUMING WORK SHALL CONFORM TO THE NY STATE PLUMBING, MECHANICAL, GAS, HEALTH & ANY OTHER APPLICABLE CODES.

CHANGE OF USE NOTES

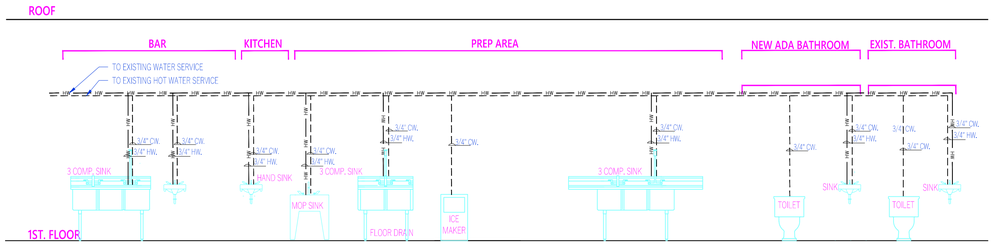
A CHANGE OF USE AT THE NORTH COUNTY SHOPPING CENTER IS APPROVED FOR THE PROPOSED TACONAH CANTINA EFFECTIVE THIS DAY PURSUANT TO CHAPTER 873, ARTICLE VIII, SECTION 873. 726 OF THE LAWS OF WESTCHESTER COUNTY, AND SUBJECT TO THE FOLLOWING CONDITIONS:

1. THE APPROVAL IS FOR A CHANGE OF USE TO ALLOW FOR THE PROPOSED TACONAH CANTINA AS SHOWN ON THE FLOOR PLANS PREPARED BY BIBBO ASSOCIATES, LLP., DATED MARCH 16, 2022, ENGINEERS REPORT, DATED DECEMBER 15, 2022 & NARRATIVE REPORT, DATED DECEMBER 16, 2022. THE TOTAL WASTEWATER FLOWS ASSOCIATED WITH THE TACONAH CANTINA IS ESTIMATED TO BE 700 GALLONS PER DAY (GPD), & WILL DISCHARGE TO THE EXISTING ONSITE WASTEWATER TREATMENT SYSTEM #4 (OWTS) FOR THE SITE WHICH HAS A TOTAL STATED CAPACITY OF 1000 GPD.
2. THE CONSTRUCTION, OPERATION & THE OCCUPANCY OF THE TACONAH CANTINA SHALL CONFORM TO THE NARRATIVE REPORT, & FLOOR PLANS CITED ABOVE.
3. A FOOD SERVICE ESTABLISHMENT (FSE) PERMIT IS REQUIRED FOR THE OPERATION OF THE TACONAH CANTINA.
4. ALL NEW PLUMBING FIXTURES INSTALLED SHALL BE LOW FLOW FIXTURES AND THAT ALL EXISTING PLUMBING FIXTURES SHALL BE REPLACED WITH LOW FLOW FIXTURES.
5. A WATER METER SHALL BE INSTALLED ON THE WATER SERVICE LINE FOR THE TACONAH CANTINA.
6. THE WATER METER READINGS ARE TO BE RECORDED ON EACH DAY OF OPERATION, AT THE SAME TIME OF DAY, AND SUBMITTED TO THE DEPARTMENT ON A MONTHLY BASIS UNTIL FURTHER NOTICE.
7. THE WATER METER READINGS ARE MAINTAINED BY THE OWNER OF THE PROPERTY & AVAILABLE FOR REVIEW.
8. THIS APPROVAL LETTER SHALL BE MAINTAINED ON FILE BY THE APPLICANT.
9. THE SEWAGE FLOWS TO THE OWTS SHALL NOT EXCEED THE EXISTING CAPACITY PURSUANT TO CHAPTER 873, ARTICLE VIII, SECTION 873. 737(A).
10. ANY DEVIATION FROM THE CONDITIONS CONTAINED HEREIN MAY CONSTITUTE A CHANGE OF USE AND/OR MAY RESULT IN A REVOCATION OF THIS APPROVAL.
11. THIS APPROVAL IS VALID FOR ONE (1) AND WILL EXPIRE ONE (1) YEAR FROM THE DATE OF THIS LETTER.



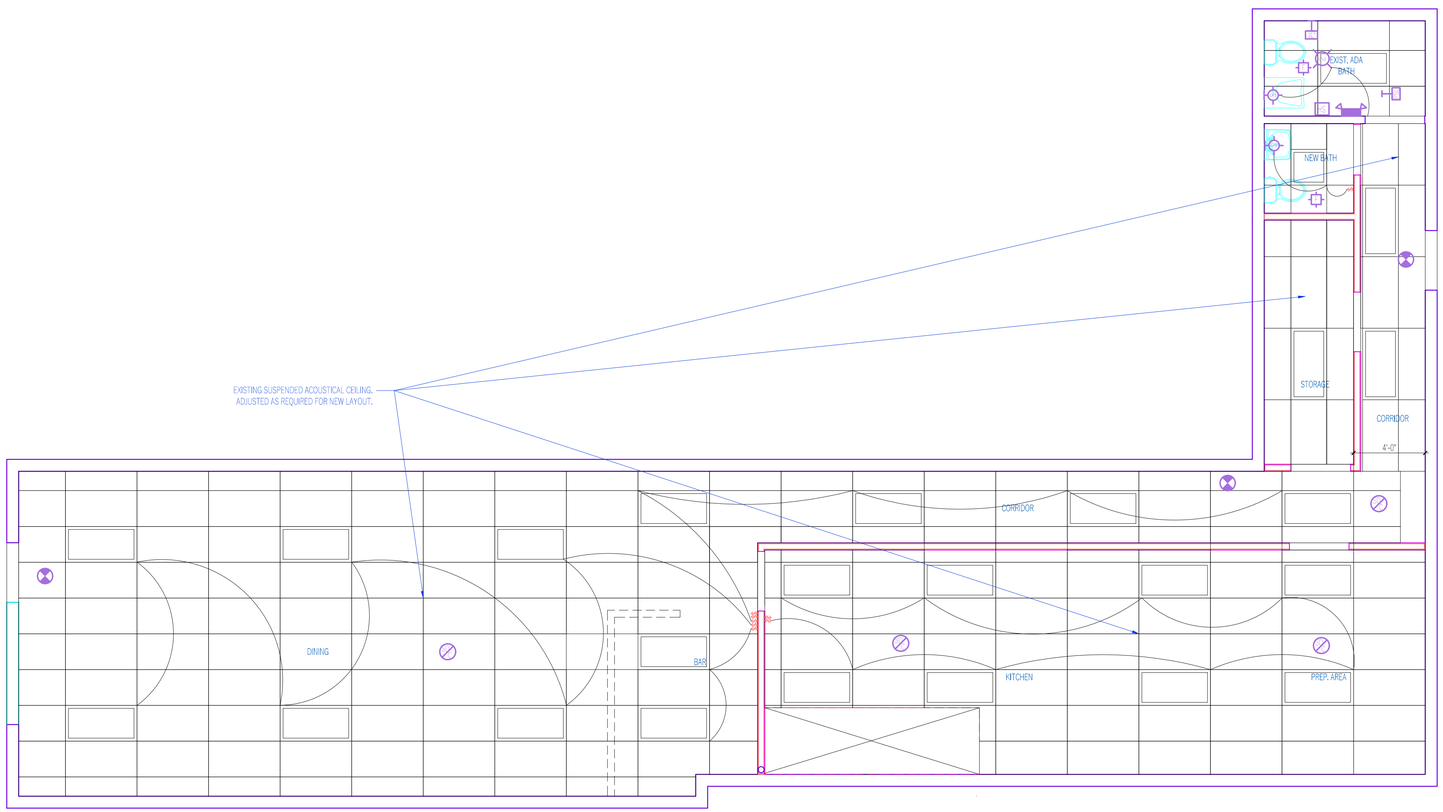
SANITARY DRAINAGE DIAGRAM

SCALE: NONE



WATER RISER DIAGRAM

SCALE: NONE



ELECTRIC & REFLECTED CEILING PLAN

SCALE: 1/4"=1'-0"

ELECTRICAL & LIGHTING LEGENDS

KEY	FIXTURE TYPE
	WALL MOUNTED LED LIGHT
	24 X 24 LED LIGHT FIXTURE
	24 X 48 LED LIGHT FIXTURE
	LINEAR LED LIGHTS - VARIABLE LENGTH
	MECHANICAL EXHAUST FAN
	ILLUMINATED EXIT SIGN WITH EMERGENCY LIGHTS
	EMERGENCY LIGHT
	WALL FIRE EXTINGUISHER (SEE CONSTRUCTION PLAN)
	PULL CORD ALARM
	PULL STATION LIGHT ABOVE BATHROOM DOOR ZORD MODEL P3RL
	FIRE ALARM, MODEL "ES-50X"
	HORN STROBE
	HEAT / SMOKE DETECTOR, HONEYWELL MODEL "S808W3"
	HEAT DETECTOR, HONEYWELL MODEL "H355"
	SMOKE DETECTOR, HONEYWELL MODEL "SD355"
	SMOKE & CARBON/MONOXIDE DETECTOR, HONEYWELL MODEL "CO1224T"
	DUPLEX OUTLET
	QUAD OUTLET

ELECTRICAL & LIGHTING NOTES

- HARD-WIRED INTERCONNECTED SMOKE / CARBON MONOXIDE DETECTORS SHALL BE TIED TO HORN STROBES.
- FIXTURES TO BE INSTALLED AS REQUIRED BY LOCAL CODE.
- ALL OUTLETS IN "WET" LOCATIONS SHALL BE GFCI (GROUND FAULT CIRCUIT INTERRUPTER)

AL EQUIPMENT (DIRECT WIRED & PLUG CONNECTED) SHALL BE INSTALLED AS REQUIRED BY LOCAL CODE, & PER EQUIPMENT MANUFACTURERS' SPECIFICATIONS.

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CLIENT

KEY PLAN

TACONAH CANTINA INTERIOR ALTERATIONS
NORTH COUNTY SHOPPING CENTER
ROUTES 22 & 138. LEWISBORO, NY

PROJECT

REFLECTED CEILING PLAN, PLUMBING RISER DIAGRAM, LEGENDS, NOTES

SHEET TITLE

REGISTERED ARCHITECT VITALY N. SOMKIN 018756 STATE OF NEW YORK

SIGNATURE & SEAL

A-103.00

SHEET NUMBER

PAGE 4 OF 4

NUMBER OF PAGES

Taconah Cantina 06.27.23.dwg

THE ARCHITECT SHALL NEITHER HAVE CONTROL OVER OR CHARGE OF; NOR BE RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, SINCE THESE ARE SOLELY THE CONTRACTOR'S RIGHTS AND RESPONSIBILITIES UNDER THE CONTRACT DOCUMENTS.

DRAWING BY:	SCALE:	PROJECT NUMBER:
CF	AS NOTED	2022-6/02-TACO
CHECKED BY:	SCALE:	DATE ISSUED:
VNS		June 27, 2023

CLIENT APPROVAL	DATE

No.	REVISION / ISSUE	DATE	No.	REVISION / ISSUE	DATE
			1	ISSUED FOR PERMITS	Sep. 12, 2023

CAD DWG FILE

KSCJ CONSULTING

John Kellard, P.E.
David Sessions, RLA, AICP
Joseph M. Cermele, P.E., CFM
Jan K. Johannessen, AICP

MEMORANDUM

TO: Chairperson Janet Andersen and
Members of Lewisboro Planning Board

CC: Ciorsdan Conran
Judson Siebert, Esq.
Kevin Kelly, Building Inspector

FROM: Jan K. Johannessen, RLA, AICP
Joseph M. Cermele, P.E., CFM
Town Consulting Professionals

DATE: March 14, 2024

RE: Double H Farm, LLC
20 Boutonville Road
Sheet 53.1, Block 3, Lot 20

PROJECT DESCRIPTION

The subject property consists of ±37.2 acres of land and is located at 20 Boutonville Road within the Town of Lewisboro's R-2A Residential Zoning District, as well as the Westchester County Agricultural District. The applicant also owns the adjacent property to the east (17.2 acres) located within the Town of Pound Ridge. The subject property is currently a horse farm developed with a one (1) story frame barn, one (1) story dwelling, a sand riding ring, various horse paddocks, asphalt and gravel driveways.

The applicant is proposing a Subdivision/Lot Line Change, which would merge a total of 6.9 acres of the subject property into the co-applicant's property located at 45 Cross River Road (53.1-3-21).

Additionally, on the existing horse farm parcel, the applicant is proposing the construction of a new outdoor horse-riding ring and a grand prix horse riding field (Phase 1). Phase 2 consists of a complete tear down of the existing barn and construction of a new barn and indoor riding ring in the same location. Also proposed is the re-arrangement and regrading of various paddocks, construction of a new manure housing structure, a new cottage, reconstruction of the existing dwelling and a new farrier shop. Some asphalt and gravel driveway improvements are also proposed to service the new site features.

We note that no improvements are being proposed within the Pound Ridge parcel, however, coordination with the Town of Pound Ridge should be made due to the improvements being in close proximity to the Town Boundary.

REQUIRED APPROVALS/REFERRALS

1. Site Development Plan Approval is required from the Planning Board; unless waived by the Planning Board, a public hearing is required to be held on the Site Development Plan.

2. Preliminary and Final Subdivision Plat Approval is required from the Planning Board; a public hearing is required to be held unless waived by the Planning Board.

3. A Town Stormwater Permit is required from the Planning Board

4. A Wetland Activity Permit is required from the Planning Board; a public hearing is required to be held on the Wetland Permit.

5. The proposed action must be referred to the Architectural and Community Appearance Review Council (ACARC).

6. Work proposed within the Town right-of-way will require a Driveway Opening Permit from the Town Highway Superintendent.

7. The proposed subdivision requires Realty Subdivision Approval from the Westchester County Department of Health (WCDH).

8. The proposed potable water well and sanitary sewage treatment system require approval from the Westchester County Department of Health (WCDH). A determination should be made whether the well will be a non-community public water supply.

9. The application must be referred to the Westchester County Planning Board in accordance with Section 239-m of the General Municipal Law. The Planning Board Administrator will coordinate this referral.

10. The subject property is located within the NYC East of Hudson Watershed and is located within an Agricultural District. Proposed land disturbance exceeds five (5) acres. Therefore, coverage under New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-20-001) will be required.

SEQRA

The proposed action has been preliminarily identified as an Unlisted Action under the State Environmental Quality Review Act (SEQRA). Prior to taking action on this pending application, the Planning Board must issue a determination of significance.

COMMENTS

1. As the applicant is proposing a phased site plan, we recommend that the Planning Board evaluate both phases under SEQRA; the Stormwater Pollution Prevention Plan (SWPPP) should also include the buildout of both phases (which it does). The applicant has requested that the lot line change occur along with the Phase 1 Site Plan Approval. Accordingly, our preliminary comments provided below revolve around SEQRA, the submitted SWPPP, the lot line change, or Phase 1 site improvements.

2. It is recommended that the Planning Board conduct a site visit.

3. This office defers review of the plan for zoning compliance to the Building Inspector. It is recommended that the application be referred to the Building Inspector for review.

4. In accordance with Section 195-13 of the Town's Subdivision Regulations, the Planning Board may adjust the normal 3-step subdivision application process and waive the public hearing for a line change that does not result in the formation of any new lots or result in a zoning nonconformity; the subject application appears to qualify for this waiver.

5. The applicant shall submit a Wetland Report, which shall contain the information required under Sections 217-5 and 6 of the Town's Wetland Ordinance.

6. The applicant shall develop a Wetland Mitigation Plan, which provides at a minimum, mitigation at a ratio of 1:1 (for every s.f. of wetland or wetland buffer disturbance proposed, an equal or greater amount of mitigation shall be provided). Reference is made to the Town's mitigation guidelines provided in Chapter 217, Appendix B.

7. Given the responses provided in the Short EAF, it is recommended that the applicant coordinate with the State Historic Preservation Office (SHPO) and the NYSDEC Natural Heritage Program.

8. Provide paddock fence and gate details, including height, material, color, etc.

9. The plan shall note that the construction of all walls greater than or equal to four (4) feet in height shall be certified by the Design Professional prior to issuance of a Certificate of Occupancy/Completion.

10. Provide a determination from the WCDH as to whether the water system with be considered public or private.

11. Demonstrate that the minimum required WCDH separation distances to the septic system, structures, drainage improvements, etc., are maintained. Additionally, the water services supplying the structures and paddock water fountains should be shown on the plans.

12. The existing well and septic for Lot B should be clearly illustrated.

13. Show the area of the proposed septic system cordoned off during construction.

14. Indicate existing trees to be protected with a dbh of eight (8) inches or greater and located within the limits of disturbance and 25 feet beyond.

15. Additional silt fence is required downhill of the Phase 1 improvements and erosion controls should also be shown for all the Phase 2 improvements. Additionally, soil stockpile areas should be shown on the plans for Phase 1 and 2. All the erosion controls must be shown within the limits of disturbance.

16. It appears that the Water Quality Volume (WQV) noted in the SWPPP for Areas 1.2 and 1.3 is actually the calculation for Area 1.1. Please revise.

17. The WQV calculations should clearly itemize the area to be re-developed (the barn), which takes in account 25% of the water quality volume required and the newly developed areas (proposed barn parking, barn driveways, the proposed cottage, cottage parking and cottage driveways) accounting for 100% of the WQV required, per Chapter 9 of the NYS Stormwater Management Design Manual.

18. The applicant shall perform deep and percolation soil testing in the vicinity of the proposed mitigation system to be witnessed by the Town Engineer. The test locations and results shall be shown on the plan. Contact this office to schedule the testing.

19. The subject property is located within the NYC East of Hudson Watershed and is located within an Agricultural District. Proposed land disturbance exceeds five (5) acres. Therefore, conformance with New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit (GP-0-20-001) and filing of a Notice of Intent (NOI) and MS4 Acceptance Form with the NYSDEC is

required. Submit draft copies to this office for review. We note that the project is proposed in two (2) phases, but the applicant will need to file the NOI for the entire project.

20. Details and cross sections must be provided for the proposed irrigation pond, along with details for the pump and irrigation system located within the Phase 2 improvements.

21. A detailed construction sequence should be added to the plans and the SWPPP. The sequencing should be broken up in the two (2) stages as proposed.

22. Provide rim and invert elevations along with the size and materials of all drainage facilities located within the Phase 1 and Phase 2 improvements. Additionally, the practice proposed to mitigate stormwater for the proposed cottage and associated lawn and drives should also be shown on the plans. The emergency overflow for the cottage system should be shown and how you will mitigate the overflow storm water from flowing onto Boutonville Road.

23. The plan shall illustrate the location and connection between all proposed roof drains and shall identify the size, slope, and material of all proposed drainage pipes for all improvements located within Phase 1 and Phase 2. Also illustrate the footing drain locations for all proposed structures on the site plan. Include the size, slope, and material of the footing drain pipe and provide outlet protection details.

24. Provide the dimensions and elevations on the Rock Outlet Protection and Level Spreader Details.

25. The plan shall note and detail the material of the proposed trail leading to the riding rink from the proposed barn. Additionally, all the proposed driveway improvement materials should be clearly labeled on the Site Plans, as well as the driveway and parking lot associated with the cottage.

26. Explain the intent of the underground fire suppression tank, which is noted on the Overall Plan sheet OP-1. Clarify if the tank is existing or proposed and provide details.

In order to expedite the review of subsequent submissions, the applicant should provide annotated responses to each of the comments outlined herein.

PLANS REVIEWED, PREPARED BY INSITE ENGINEERING:

- Overall Plan (OP-1)
- Existing Conditions and Removals Plan (EX-1)
- Layout & Landscape Plan (SP-1.1 & SP-1.2)
- Grading & Utilities Plan (SP-2.1 & SP-2.2)
- Sediment & Erosion Controls Plan (SP-3.1 & SP-3.2)

- Details (D-1, D-2, D-3)

DOCUMENTS REVIEWED:

- Letter, prepared by Charles V. Martabano, dated February 13, 2024
- Site Development Plan, Special Use Permit & Subdivision Plat Application
- Short EAF, dated February 13, 2024
- Preliminary Stormwater Pollution Prevention Plan Report, dated February 13, 2024
- Horse Management Plan, dated February 13, 2024
- Survey of Property
- Preliminary Lot Line Change Map
-

JKJ/dc

TO: The Town of Lewisboro Planning Board

FROM: Lewisboro Conservation Advisory Council

SUBJECT: **Double H Farm/Reid Subdivision, 20 Boutonville Road**

DATE: March 12, 2024

The Conservation Advisory Council (CAC) has reviewed the materials submitted by the applicant for an application for a subdivision and private riding academy.

The application shows the creation of large areas for use by the riding academy and construction of buildings. The town code 220-46.1 requires that the owners insure that no animal waste can flow to the wetland.

The CAC would like to see a wetland plan that ensures that the provisions of 220.46.1 are being met. The CAC would also like to see if trees are being removed and a listing showing size, location and type.

CHARLES V. MARTABANO
Attorney at Law

9 Mekeel Street
Katonah, New York 10536
cmartabano@gmail.com
(914) 242-6200 Telephone
(914) 242-3291 Facsimile
(914) 760-9241 Cell

February 13, 2024

Chair Janet Anderson, and
Members of the Planning Board
Town of Lewisboro
79 Bouton Road
South Salem, NY 10590

Re: Application of Double H Farms, LLC
Site Development Plan Approval for Riding Academy
Subdivision/Lot Line Adjustment

Dear Chair Anderson and Members of the Planning Board:

I am pleased to serve as counsel to Double H Farms, LLC (hereinafter "Double H") in connection with the above-entitled application. Double H has acquired a total of 61.4 acres of property known as 20 Boutonville Road located primarily in the Town of Lewisboro (presently approximately 44.2 acres and hereinafter referred to as the "Lewisboro Parcel") and partially in the Town of Pound Ridge (approximately 17.2 acres). The property is included within the Westchester County Agricultural District. For many years this property has operated as a horse farm and was known colloquially as Birdstone Farm.

Nature of Application

The purpose of this application is twofold in nature:

1. To effectuate a subdivision/lot line change of two (2) parcels from the Lewisboro Parcel with subsequent conveyance/attachment to a contiguous lot owned by co-applicants Kevin L. Reid and Felicia M. Reid (please see submitted Preliminary Plat Lot Line Change Map and Site Plan). As demonstrated by reference to the Preliminary Plat Lot Line Change Map, parcel X consisting of approximately 4.4 acres and parcel Y consisting of approximately 2.5 acres will be attached to property owned by the Reids. This will *not* result in the creation of any new lots

as parcel X and parcel Y will be attached to the Reid lot and the existing lot lines will be erased;

2. With respect to the Lewisboro Parcel as remaining after the above referenced subdivision (approximately 37.3 acres), it is the intention of Double H to, in phases, totally renovate the Lewisboro Parcel to be subsequently utilized for a use which is characterized under the Lewisboro Code (hereinafter "Code") as a Riding Academy Use. The proposed development phases will be described below.

Documents Submitted

In support of the foregoing, being delivered simultaneously herewith please find ten (10) copies of the following:

a. Site Development Plan and Subdivision Application (2 sheets);

b. Horse Management Plan, dated February 13, 2024;

c. Short Environmental Assessment Form (EAF), dated February 13, 2024;

d. Site Plan Drawing Set[1] (11 sheets), dated last revised February 13, 2024

e. Preliminary Plat Lot Line Change Map prepared for Double H Farms LLC and Kevin and Felicia Reid, dated February 12, 2024;

f. Preliminary Stormwater Pollution Prevention Plan for Double H Farms, dated February 13, 2024;

g. Survey of Property, dated November 29, 2022;

h. Affidavit of Ownership for 20 Boutonville Road;

i. Affidavit of Ownership for 45 Cross River Road;

j. Tax Payment Affidavit for 20 Boutonville Road;

[1] The Site Plan depicts both the proposed Phase I and Phase II improvements.

k. Tax Payment Affidavit for 45 Cross River Road.

Previously submitted or under separate cover to the Town was:

- Check Number 2028 for $205, dated October 18, 2023 (Phase I Review Fee);
- Escrow Deposit in the amount of $2000.

Riding Academy Use

As respects the proposed Riding Academy use, Lewisboro Code § 220-2B provides a definition for the term "Riding Academy" which is defined as follows:

> "A facility for the boarding, keeping, training and showing of horses and for the instruction of persons in the art of horsemanship, including boarding stables and breeding farms. A riding academy shall include such improvements as are necessary for the safety and welfare of the horses, the persons using or employed at the facility and the general public and may include paddocks and other enclosures, stables, barns and other storage buildings, riding rings, riding trails, residential facilities for the managers and employees of the facility and such other improvements as are customary or incidental to the use of property as a riding academy, as determined by the approving agency."

As will be shown below, proposed operations to be conducted by Double H and the improvements (which will be phased as outlined below) and subsequent use proposed by Double H clearly comport with the definition of a Riding Academy.

Background of Double H

Double H has a very long and distinguished record of designing and developing equestrian properties in Florida, Connecticut and New York, starting with the efforts of Hunter and Jeannie Harrison, parents of the Vice President and Director of Double H, Cayce Harrison, herself a very accomplished equestrian. Moreover, and as specifically relevant to this application, Double H proposes to operate, at this location, a private bespoke hunter and jumper training operation (see full description of use below) working at the very highest level of the sport. Director Cayce Harrison and Head Trainer Quentin Judge have many years of experience as both clients and professionals in a variety of different training operations and use their experience in order to deliver the attention and care that each client and their horses require. A short biographical narrative of the background of Double H, Cayce Harrison and Quentin Judge and the accomplishments of horses trained by Double H Farms is being submitted simultaneously herewith. As can be seen from this biographical information, despite the small-scale nature of its operations, horses trained by Double H Farms have won many North American, Olympic, Pan Am Games and World Cup competitions.

Double H also provides consulting services in connection with horse sales for their clients as well as breeding services with champion stallions, although the actual breeding services are conducted at European locations.

Specific Operations Proposed

As pertains to this property, Double H's operations will be what can best be described as a small-scale boutique course training and boarding facility, the operation of which will impose what can only be described as very minimal impacts to the neighborhood. As set forth below, the barn will only accommodate 22 horses and of these 22 horses, generally speaking 12 to 15 of the horses will be horses owned by Double H. Other horses which will be housed at this facility will belong to clients. Some horses will be trained to be sold; some horses will be trained to compete; and some horses will be utilized for breeding purposes off site. Double H will also purchase horses to be trained for subsequent sale.

What is most significant to understand regarding this operation is that, by reason of the fact that all horses at this facility are being trained for the competitive show circuit, generally speaking from December through April of each year, operations at the facility will be very minimal in scope as the majority of horses that are able to compete will be out on the show circuit. Most of the horses owned by Double H, along with a majority of the staff, are relocated to Florida and also compete at other locations during this time period. Double H may leave a few of its horses at the location during the winter and individual clients boarding horses at the facility may elect to have their horses remain at the facility during the winter but again, this is expected to be minimal in scope and the majority of these horses would not leave the property during the winter months. Accordingly, when evaluating impacts, it is imperative to understand that from December through April of each year, operations at the facility will be extremely limited both in terms of horse occupancy and staff occupancy.

As indicated above, generally speaking less than half the horses to be housed at the Double H facility will be horses owned by clients. At present, Double H is providing training services for horses owned by four (4) clients but this can, of course, fluctuate. These clients entrust their horses to Double H and rarely, if ever, visit during what we can described as the training season (generally the summer months). If clients are local, clients might visit on a weekend but generally speaking clients visit approximately once a month thereby underscoring the very low impact of the proposed use.

Double H proposes to have eight (8) staff members and it is planned that all staff members will be living on site thereby minimizing traffic in the area. In terms of vehicles utilized by Double H, it is presently anticipated that Double H will maintain two (2) horse trailers on site, one which would be capable of carrying three (3) horses and one which will be

capable of carrying five (5) horses. Occasionally, the horses will travel from the facility to competitions and at such time, a professional horse transport company will be utilized with the result that, at most, during the training season there may be two (2) roundtrips per month by a professional horse transport company, once again underscoring the limited nature of the operation and its minimal impacts on surrounding properties.

As indicated above, as part of its application and in accordance with the requirements of the Code, Double H has submitted herewith a horse management plan demonstrating compliance with the specific requirements set forth therein relating to such things as the storage, disposal or removal of manure and other wastes, provision for the feeding and exercise of the horses and provision for the protection of adjacent properties as well as delineation of the areas of the property which will be actually be utilized by the horses (see site plan being submitted simultaneously herewith).

Phasing of Improvements

As set forth above, with respect to the Riding Academy operations in a site plan context, Double H seeks to take a phased approach (please see attached site plans). In Phase 1, proposed site improvements will be minimal and will include the creation of a new Grand Prix field in an area which is now an open field. Additionally, and again as can be seen by reference to those portions of the site plan depicting Phase 1 improvements, a new outdoor riding ring will be constructed with a viewing platform in the northeast corner of the property.

As can be seen from the site plans being submitted simultaneously herewith, in Phase 2, Double H proposes to tear down or, where appropriate, to renovate existing structures and construct the following improvements or replacement structures:

- A new 22 stall horse barn;
- A new connected 100' x 200' indoor riding ring;
- A new caretaker's cottage (identified as "Proposed Carriage House");
- Replacement of the existing maintenance barn with a new two-story structure providing storage for maintenance equipment on the ground floor and staff housing on the 2nd floor;
- A new horse hot walker;
- Reconfigured paddock locations with a total of 10 paddocks;

- Revised circulation around the barn;

- Two (2) small accessory buildings for farrier services and Code compliant manure and shavings storage.

Lewisboro Code § 220-46.1 sets forth the site plan requirements for riding academies. Your Board is respectfully referred to the documents being submitted simultaneously herewith which confirm the application's compliance with Subsections A through H (confirming in this regard that if an outdoor public address system was utilized it would comply with the provisions of Subsection H.)

As set forth above, the property is in fact located within the Westchester County Agricultural District. In this regard we note that Lewisboro Code §220-47 entitled "Waiver of Application Procedures" specifies that "[a] property owner may apply to the Planning Board for a waiver of the site development plan application procedures specified in §§ 220-45 and 220-46 when the proposal is for one of the following activities". §220-47 A (4) identifies "[a]n agricultural use on a property located within a county-adopted, state-certified agricultural district". In connection with the requested waiver, Subsection B of §220-47 requires submission of a written description of the proposed action together with annotated site plans, maps, sketches and other drawings. It is respectfully submitted that this letter and the documents being submitted simultaneously herewith should suffice to comply with the provisions of Subsection B of §220-47 in support of the Applicant's request for a waiver. The Planning Board's action on the requested waiver is guided by the provisions of Subsection C of §220-47.

We very much look forward to appearing before your Board for the purpose of moving this application forward to an expeditious approval. We believe that, when completed, the Double H Farm facility and its operations will be viewed as a welcome addition to the Town of Lewisboro.

If, prior to our appearance before your Board, any member of the Board should have any questions regarding any aspect of the application or subsequent facility operation, please feel free to contact me.

Yours very truly,

Charles V. Martabano

cc: Jan Johannessen, AICP
Jud Siebert, Esq.
Kevin L. Reid and Felicia M. Reid (through counsel Greg Monteleone, Esq.)
Insite Engineering
Double H Farms LLC
John L. Arons, Esq.

TOWN OF LEWISBORO PLANNING BOARD

79 Bouton Road, South Salem , NY 10590 Tel: (914) 763-5592 Email: planning@lewisborogov.com

Site Development Plan/Subdivision Plat Application – Check all that apply:

Waiver of Site Development Plan Procedures	☐		
Site Development Plan Approval	Step I ☑	Step II ☐	
Special Use Permit Approval	Step I ☑	Step II ☐	
Subdivision Plat Approval	Step I ☑	Step II ☐	Step III ☐

Project Information

Project Name: Double H Farm Site Plan
Double H Farm / Reid Subdivision - parcel merge

Project Address: Double H Farm - Parcel 1) 20 Boutonville Road South and (Reid - parcel 2) 45 Cross River Road

Gross Parcel Area Parcel 1 - 61.4 ac +/- Parcel 2 - 5 ac +/- District: R-2A Sheet(s): 18 Block (s): 10526 Lot(s): Parcel 1 - Lot 10 Parcel 2 - Lot 4

Project Description: Refer to attached project descriptions for the Double H Farm Site Plan and the Double H Farm / Reid Subdivision

Is the site located within 500 feet of any Town boundary?	YES ☑	NO ☐
Is the site located within the New York City Watershed?	YES ☑	NO ☐
Is the site located on a State or County Highway?	YES ☐	NO ☑

Does the proposed action require any other permits/approvals from other agencies/departments?

Town Board	☐	ZBA	☐	Building Dept.	☑	Town Highway	☑
ACARC	☑	NYSDEC	☑	NYCDEP	☐	WCDH	☑
NYSDOT	☐	Town Wetland	☐	Town Stormwater	☑		

Other

Owner's/Applicant's Information Parcel 1

Name: Double H Farm LLC Email: cayceharrison@gmail.com

Address: 2890 Long Meadow Drive, Wellington, FL 33414 Phone: 203-788-4660

Owner's/Applicant's Information (if different) Parcel 2

Name: Kevin L. Reid and Felicia M. Reid Email:

Address: 45 Cross River Road, Pound Ridge, NY 10576 Phone:

Authorized Agent's Information

Name: Richard D. Williams, Jr., P.E. Email: rwilliams@insite-eng.com
Insite Engineering, Surveying & Landscape Architecture, P.C.

Address: 3 Garrett Place, Carmel, NY 10512 Phone: 845-225-9690

THE APPLICANT understands that any application is considered complete only when all information and documents required have been submitted and received by the Planning Board. The applicant further understands that the applicant is responsible for the payment of all application and review fees incurred by the Planning Board.

THE UNDERSIGNED WARRANTS the truth of all statements contained herein and in all supporting documents according to the best of his/her knowledge and belief, and authorizes visitation and inspection of the subject property by the Town of Lewisboro and its agents.

OWNER'S/APPLICANT'S SIGNATURE PARCEL 1 Cayce Harrison Double H Farm DATE 10/18/23

OWNER'S/APPLICANT'S SIGNATURE PARCEL 2 _____ Reid DATE _____

TOWN OF LEWISBORO PLANNING BOARD

79 Bouton Road, South Salem, NY 10590 Tel: (914) 763-5592 Email: planning@lewisborogov.com

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Project Description: Refer to attached project descriptions for the Double H Farm Site Plan and the Double H Farm / Reid Subdivision

Is the site located within 500 feet of any Town boundary? YES ☑ NO ☐
Is the site located within the New York City Watershed? YES ☑ NO ☐
Is the site located on a State or County Highway? YES ☑ NO ☐

Does the proposed action require any other permits/approvals from other agencies/departments?

Town Board	☐	ZBA	☐	Building Dept.	☑	Town Highway	☑
ACARC	☑	NYSDEC	☑	NYCDEP	☐	WCDH	☑
NYSDOT	☐	Town Wetland	☐	Town Stormwater	☑		

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Name: Double H Farm LLC Email: cayceharrison@gmail.com
Address: 2890 Long Meadow Drive, Wellington, FL 33414 Phone: 203-788-4660

Owner's/Applicant's Information (if different) Parcel 2

Name: Kevin L. Reid and Felicia M. Reid Email: reidkmail@gmail.com
Address: 45 Cross River Road, Pound Ridge, NY 10576 Phone: 646-864-7920

Authorized Agent's Information

Name: Richard D. Williams, Jr., P.E. Email: rwilliams@insite-eng.com
Insite Engineering, Surveying & Landscape Architecture, P.C.
Address: 3 Garrett Place, Carmel, NY 10512 Phone: 845-225-9690

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THE UNDERSIGNED WARRANTS the truth of all statements contained herein and in all supporting documents according to the best of his/her knowledge and belief, and authorizes visitation and inspection of the subject property by the Town of Lewisboro and its agents.

OWNER'S/APPLICANT'S SIGNATURE PARCEL 1 _____ DATE _____

OWNER'S/APPLICANT'S SIGNATURE PARCEL 2 Double H Farm / Reid _____ DATE 2 Nov 2023

TOWN OF LEWISBORO PLANNING BOARD

79 Bouton Road, South Salem, NY 10590
Email: planning@lewisborogov.com
Tel: (914) 763-5592
Fax: (914) 875-9148

Affidavit of Ownership

State of : Florida

County of: Palm Beach

Cayce Harrison, being duly sworn, deposes and says that he/she

resides at 2890 Long Meadow Drive

in the County of Palm Beach, State of Florida

and that he/she is (check one) ☐ the owner, or ☑ the Vice President
Title

of Double H Farm LLC
Name of corporation, partnership, or other legal entity

which is the owner, in fee of all that certain log, piece or parcel of land situated, lying and being in the Town of Lewisboro, New York, aforesaid and know and designated on the Tax Map in the Town of Lewisboro as:

Block 10526, Lot 10, on Sheet 18.

Cayce Harrison
Owner's Signature

Sworn to before me this

18 **day of** October, 2023

Notary Public State of Florida
Viviane F. Garner
My Commission HH 140560
Expires 10/04/2025

Notary

Notary Public – affix stamp

TOWN OF LEWISBORO PLANNING BOARD

79 Bouton Road, South Salem, NY 10590
Email: planning@lewisborogov.com
Tel: (914) 763-5592
Fax: (914) 875-9148

Affidavit of Ownership

State of : New York

County of: Westchester

Kevin L. Reid, being duly sworn, deposes and says that he/she resides at 45 Cross River Road, Pound Ridge in the County of Westchester, State of New York and that he/she is (check one) ☑ the owner, or ☐ the _____ (*Title*) of _____ (*Name of corporation, partnership, or other legal entity*) which is the owner, in fee of all that certain log, piece or parcel of land situated, lying and being in the Town of Lewisboro, New York, aforesaid and know and designated on the Tax Map in the Town of Lewisboro as:

Block 10526, Lot 4, on Sheet 18

Owner's Signature

Sworn to before me this

9 **day of** November, **2** 023

JANET L. DONOHUE
NOTARY PUBLIC, STATE OF NEW YORK
No. 01DO6259627
Qualified in Westchester County
Commission Expires April 16, 2020

Notary Public – affix stamp

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

HORSE MANAGEMENT PLAN

For

Double H Farms, LLC
20 Boutonville Road

TOWN OF LEWISBORO, NEW YORK

Tax Maps Numbers. 18-10526-10 (Lewisboro)
& 31-10526-49.2 (Pound Ridge)

February 13, 2024

Double H Farms LLC (hereinafter "Double H") is an established equestrian operation focusing on the training of horses for show jumping competitions (National and International A level show jumping circuit). Double H has acquired a total of 61.4 acres of property known as 20 Boutonville Road located primarily in the Town of Lewisboro and partially in the Town of Pound Ridge. For many years this property has operated as a horse farm and was known colloquially as Birdstone Farm. It is the intention of Double H to renovate the property to be subsequently utilized for a use which is characterized under the Lewisboro Code as a Riding Academy Use. Refer to letter prepared by Charles V. Martabano, Attorney at Law, for additional information.

The facility will be most active seasonally - spring through fall and would be operating at less than half capacity December through April in the off season.

In addition, the subject property is proposed to be subdivided to transfer ownership of two pieces of the subject parcel along NYS Route 121 to be merged with the adjacent property at 45 Route 121 (N/F Reid). After the subdivision, Double H will retain 37.2 acres in the Town of Lewisboro (along with the 17.4 acres in the Town of Pound Ridge) for their Riding Academy.

Double H proposes to tear down or, where appropriate, to renovate existing structures and construct the following improvements or replacement structures in two (2) Phases:

Phase 1 improvements:

- A new Grand Prix field in the location of an existing open field;
- A new outdoor riding ring with viewing platform in the location of an existing open field;

Phase 2 improvements:

- A new 22-stall horse barn – to replace the existing;

- A new 100'x200' indoor riding ring – to replace the existing;
- A new cottage to provide housing (the "proposed Carriage House");
- Replacement of the existing maintenance barn with a new 2 story structure providing storage for maintenance equipment on the ground floor and staff housing on the second floor;
- A new horse hot walker;
- Reconfigured paddock locations with a total of 10 paddocks;
- Revised circulation and parking around the barn;
- Two new, small accessory buildings: one for the farrier and one for code compliant storage of manure & shavings.

In accordance with **Section 220-46.1** of the Town of Lewisboro Town Code, this Horse Management Plan addresses the following items:

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(1) *The method for the storage and disposal of manure, soiled bedding and other materials that could potentially negatively affect air quality and surface water and groundwater quality must be specified.*

Soiled bedding, manure and other materials will be removed from the barn stalls and paddocks routinely, transported by cart and temporarily stored in the new manure storage building until such time as it is transported from the site to an appropriate disposal facility.

The storage of such materials must be in compliance with applicable Westchester County and New York State requirements.

In accordance with NYS and Westchester County requirements, the manure storage building is specifically designed to protect stored material from precipitation with walls and a roof over storage area; adjacent ground surfaces around the building will be graded as such to divert surface and groundwater around the storage. Manure levels will be regularly monitored within the manure storage building and outside areas of the building will be maintained clean of bedding, manure and other materials that would be subject to runoff.

Barnyards and animal pens may not be located within 100 feet of a water well.

The new well will be located greater than 100 feet from the manure storage building.

Any storage and disposal of manure and soiled bedding located within 100 feet of a street or property line, or within a watercourse, wetlands, or wetlands buffer area, must be identified and mitigation of potential impacts described.

No manure or soil bedding will be stored within 100 feet of a street or property line, or within a watercourse, wetlands or wetlands buffer area.

(2) *Provisions must be made for the storage of feed and bedding. All processed feed must be stored in rodentproof containers.*

Feed and bedding for horses will be stored in a specified location within the barn. All processed feed will be stored in rodentproof containers.

(3) *A description of any proposed stables, storage buildings, grooms' quarters and other facilities must be provided, including provisions for fire safety.*

A 22 stall barn is provided to house horses indoors. There are 10 paddocks proposed for the property, some with stables for horses during daytime hours. Manure storage will be in a separate building outside the horse barn. Grooms' and staff quarters will be in separate buildings from the horse barn, namely the new Carriage House and the new staff apartments on the upper floor of new 2 story building at the north end of the property. There are two existing locations adjacent to the horse barn with underground water tanks and fire department connections.

(4) *Areas where existing vegetation will be cleared for grazing and/or exercising must be identified, including provisions for the upkeep and maintenance of those areas.*

The site plan depicts the locations for the reconfiguration of paddocks for horses at the site within the locations of existing paddocks. Fencing, gates and paddock vegetation will be inspected and maintained on a regular basis to insure integrity of enclosures / surface vegetation for horse safety and security, and prevention of erosion.

If riding trails are included as part of the facility, provision must be made for the upkeep and maintenance of such trails.

The site plan depicts some defined riding trails on the site that will be inspected and maintained on a regular basis, to insure the integrity of surface materials for horse safety and prevention of erosion. Grassed areas between paddocks will also serve as less formal trails and will be similarly inspected and maintained.

(5) *All New York State and federal, as identified on the National Wetlands Inventory Maps, and local wetlands must be designated (which may be through the use of GPS and/or a second source to be confirmed by the Town's consultants, as long as such method is deemed to be sufficient in each case to adequately identify the wetlands) and measures identified to prevent animal waste from contaminating groundwater or surface waters. An applicant shall not be required to designate local wetlands if such designation would be unreasonably restrictive as applied to a particular agricultural operation.*

Town regulated wetlands have been identified and delineated on-site and are depicted on the site plans along with the 150 foot wetland buffer. There are no NYSDEC wetlands or 100 foot adjacent areas identified on-site. No site disturbance, formal trails, paddocks, or riding arenas are proposed within the regulated wetland buffer of the easterly wetland. The northerly wetland is located between the two existing entrance driveways. There are existing paddocks and proposed paddocks and stormwater management within the regulated buffer of this wetland. As noted in Item (1) no manure or soil bedding will be stored within a watercourse, wetlands or wetlands buffer area and manure will be cleaned from paddocks on a regular basis.

(6) *If the horses are to leave the property other than by vehicle, there must be a description of the proposed use of horse trails and roadways.*

There are a number of trails on the property typically used to exercise the horses or to move horses from one location on the site to another. On rare occasions, horses/riders may leave the property for a trail ride at a nearby park / facility and would use the road to access the offsite facility.

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

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

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

Part 1 – Project and Sponsor Information

Name of Action or Project:

Double H Farms

Project Location (describe, and attach a location map):

20 Boutonville Road, Pound Ridge, NY 10576

The Double H Farm project has two overall project components, a site plan for the private riding academy to be constructed in two phases, and a subdivision application:
Private Riding Academy Site Plan:The new owner / applicant is proposing to use the property as a private riding academy. The existing horse farm facilities will be updated and permitted in two (2) phases with the following improvements:
Phase 1 improvements (part 1 of the current application):
• A new grand prix field in the location of existing paddocks in the northwest corner of the property.
• A new outdoor riding ring with viewing platform in the northwest corner of the property.
Phase 2 improvements (to be refined and reviewed / permitted as a separate application):
• A new 22-stall horse barn with a connected 100'x200' indoor riding ring – to replace the existing.
• A new cottage to provide housing for workers ("the Carriage House").
• The existing maintenance barn will be replaced with a new 2 story building providing storage for maintenance equipment on the ground floor and staff housing on the second floor. • Two new, small accessory buildings: one for the farrier and one for manure & shavings.
• A new horse hot walker. • Reconfigured paddock locations. • Revised circulation around the barn.
Subdivision:Working with our neighbor to subdivide two pieces of the Double H Farm parcel along NYS Route 121 to convey them to N/F Reid.
Phase 2 improvements are provided on the site plans as part of the Phase 1 application for the purposes of SEQR review.

Name of Applicant or Sponsor:	Telephone: 203-788-4660
Double H Farms, LLC	E-Mail: cayceharrison@gmail.com

Address:

2890 Long Meadow Drive

City/PO:	State:	Zip Code:
Wellington	FL	33414

	NO	YES
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.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: Town of Lewisboro: Site Development Plan Approval, Wetland Permit, Stormwater Permit, Building Permit, Subdivision Approval; WCDOH Well & SSTS Approval, NYSDEC GP-0-20-001 Coverage	☐	☑

3. a. Total acreage of the site of the proposed action? 49.2± acres
   b. Total acreage to be physically disturbed? 15.5± acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 61.4± acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☐ Urban ☑ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☑ Residential (suburban)
   ☑ Forest ☑ Agriculture ☑ Aquatic ☐ Other(Specify):
   ☑ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: Name:County & State Park Lands, Reason:Exceptional or unique character, Agency:Westchester County, Date:1-31-90 CEA is located off-site and not adjacent to subject parcels	☐	☑
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?	☑	☐
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:	☐	☑
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: The existing well is proposed to be abandoned and a new well will be provided.	☐	☑
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: The existing SSTS area for the barn will be relocated and new SSTS areas will be provided for staff housing.	☐	☑
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 pc archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? Cross River Hamlet Historic District, Gideon Reynolds House at 45 Cross River Road, Former M.E. Church at 29 Cross River Road, 27 Cross River Road, Baptist Parsonage at 2 Boutonville Rd, 9 Boutonville Rd.	☐	☑
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? Cross River, Cross River Reservoir adjoin. (not on or adjacent to subject property)	☐	☑
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 disturbance is proposed to Town of Lewisboro regulated wetland but 2.6 acres +/- of disturbance is proposed to wetland buffer for grading the new grandprix field in Phase 1 and driveway widening in Phase 2.		

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

	NO	YES
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? Bald Eagle per NYSDEC environmental resource mapper	☐	☑
16. Is the project site located in the 100-year flood plan?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes,	☐	☑
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☐	☑
If Yes, briefly describe: A portion of the property currently and will continue to discharge to existing road side swales and Boutonville Road.		
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: A proposed irrigation pond and subsurface infiltration is proposed to treat onsite stormwater in Phase 2.	☐	☑
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:	☑	☐
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:	☑	☐

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

Applicant/sponsor/name: Richard D. Williams, Jr., P.E.
Insite Engineering, Surveying & Landscape Architecture, P.C.

Date: February 13, 2024

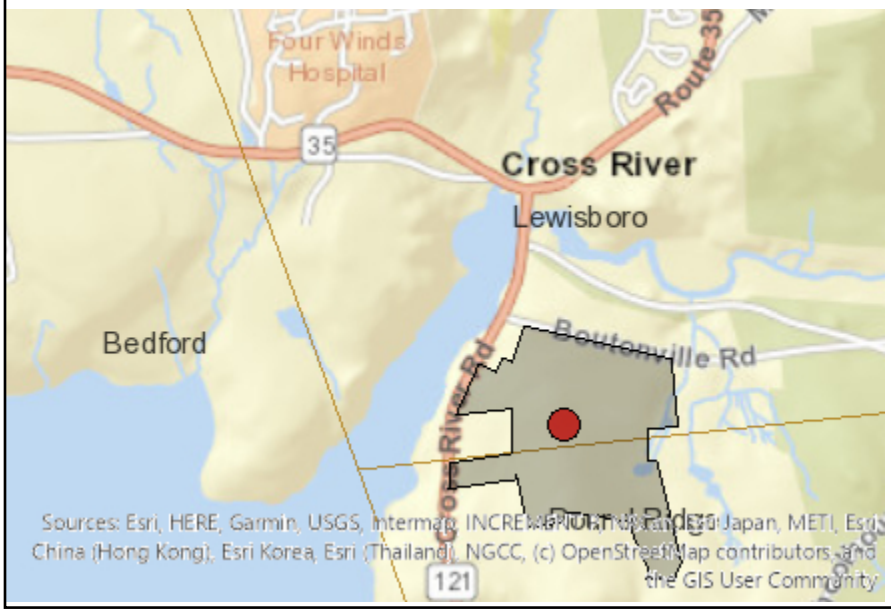
Signature: R Williams

Title: Senior Principal Engineer

PRINT FORM

EAF Mapper Summary Report

Friday, August 11, 2023 12:55 PM



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

Part 1 / Question 7 [Critical Environmental Area]	Yes
Part 1 / Question 7 [Critical Environmental Area - Identify]	Name:County & State Park Lands, Reason:Exceptional or unique character, Agency:Westchester County, Date:1-31-90
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	Yes
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	Yes
Part 1 / Question 15 [Threatened or Endangered Animal - Name]	Bald Eagle
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	No

INSITE
ENGINEERING, SURVEYING &
LANDSCAPE ARCHITECTURE, P.C.

PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN

For

Double H Farms
20 Boutonville Road
Town of Lewisboro, New York

February 13, 2024

Owner / Applicant Information:

Double H Farms LLC
2890 long Meadow Drive
Wellington, FL 33414

Note: This report in conjunction with the project plans make up the complete Stormwater Pollution Prevention Plan.

Prepared by:
Insite Engineering, Surveying & Landscape Architecture, P.C.
3 Garrett Place
Carmel, New York 10512

CONTENTS

1.0 INTRODUCTION

1.1 Project Description

The subject property comprises 61.4 acres and is located within the Town of Lewisboro and the Town of Pound Ridge at 20 Boutonville Road, Cross River. The Tax Map Numbers are 18-10526-10 (Town of Lewisboro) and 31-10526-4.9-2 (Town of Pound Ridge). The property is currently used as a private equestrian center. The applicant proposes the razing and redevelopment of several onsite structures, creation of a new outdoor riding arena, and reshaping of several paddock areas at the existing horse farm for use by Double H Farms as a riding academy. There are no improvements proposed on the property located in the Town of Pound Ridge. As part of the project, two small pieces of property will be subdivided and conveyed to the neighbor.

The existing stormwater collection system along Boutonville Road will remain to capture the stormwater runoff from the majority of the site. Additional drainage structures will be installed to capture the stormwater runoff from the new impervious and redeveloped site to direct the stormwater runoff to the Stormwater Management Practices (SMPs) for treatment and attenuation of the new impervious areas. The SMPs mentioned above will discharge to grade and ultimately reach the surrounding existing collection systems.

The proposed project is separated into two (2) phases. Phase 1 will only consist of slope flattening with no change in hydrology to allow for the construction of a grand prix field and outdoor riding ring. Phase 1 will require an Erosion Control only SWPPP based on NYSDEC requirements. Phase 2 will include the remaining improvements noted in this SWPPP and shown on the project plans, such as the redevelopment of the existing barn, proposed carriage house & driveway and reshaping several paddock areas. The subject property is considered an agricultural use. As such, this project is exempt from NYCDEP stormwater requirements. However, since the subject project proposes the disturbance of more than 5 acres and increase in impervious areas, the General Permit requires post construction stormwater management controls for the Phase 2 improvements.

1.2 Existing Site Conditions

The subject project is located on Bountonville Road at the corner of NYS Route 121 in the Town of Lewisboro, New York. The site generally slopes to the west towards an existing collection system along Boutonville Road or south towards the existing onsite stormwater collection system along NYS Route 121. It should be noted there is currently no stormwater treatment at the site.

Onsite soils belong to the Hydrologic Groups C & D. Pursuant to the National Resource Conservation Service Web Soil Survey, the soil designations of the onsite soils consist of Paxton fine sandy loam (PnB & PnC), Ridgebury loam (RgB) and Woodbridge Loam (WdB). The soil boundaries are shown on the enclosed pre- and post-development drainage figures, Figures 2 and 3 of this report. Based on soil testing, underground infiltration systems have been located in areas suitable for infiltration.

Stormwater runoff from the site drains currently to two (2) design points, as shown on Figures 2 and 3. Design Point 1 represents the drainage structure that is part of the existing collection system along Bountonville Road. Design Point 2 represents the drainage structure that is part of the existing collection system at the corner of Boutonville Road and NYS Route 121.

1.3 Proposed Site Conditions

As mentioned above, the subject application includes the razing and redevelopment of several onsite structures, creation of a new outdoor riding arena, and reshaping of several paddock areas at the existing horse farm for use by Double H Farms as a riding academy. The proposed project is separated into two (2) phases. Phase 1 will only consist of slope flattening for the proposed

grand prix field and outdoor riding ring. Phase 1 will require an Erosion Control only SWPPP based on NYSDEC requirements. Phase 2 will include the remaining improvements noted in this SWPPP and shown on the project plans, such as the redevelopment of the existing barn, proposed carriage house & driveway and reshaping several paddock areas. The subject property is considered an agricultural use. As such, this project is exempt from NYCDEP stormwater requirements. However, since the subject project proposes the disturbance of more than 5 acres, the General Permit requires post construction stormwater management controls for Phase 2 of the project.

There is no increase in impervious surfaces in Phase 1. The redevelopment project associated with Phase 2 will include an increase in impervious surfaces (approximately 1.0 +/- acre increase). As such, treatment and mitigation for the newly created impervious surfaces will be provided in the form of proposed stormwater management practices (SMP's) discussed further in later sections of this report.

As noted above, there is currently no stormwater treatment at the site. It is proposed to maintain the existing drainage patterns on the site to the maximum extent practical to minimize the impact to the existing downstream areas. Stormwater treatment for the subject development will be accomplished through the use of an underground infiltration system (NYSDEC I-4), an Irrigation Pond for Rainwater Harvesting and a Hydrodynamic Separator as SMPs. As noted above, there is an increase in impervious surface of approximately 1.0 +/- acres. The underground infiltration system and irrigation pond have been sized to treat the new and redeveloped impervious surfaces. The remaining redeveloped impervious area will be treated through the use of the Hydrodynamic Separator.

As shown in the following sections of this report, the stormwater quality and quantity for the proposed development have been mitigated in accordance with the Town of Lewisboro, NYSDEC and NYCDEP design standards. Additionally, an erosion and sediment control plan has been prepared in accordance with the *New York State Standards and Specifications for Erosion and Sediment Control* to protect downstream features during construction activities.

2.0 STORMWATER MANAGEMENT

The proposed stormwater management system for the Double H Farms project has been designed to meet the requirements of local, regional, and state stormwater ordinances and guidelines, including but not limited to the Town of Lewisboro, and the NYSDEC. Specifically, the following codes / regulations have been used to design this SWPPP:

- *NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities, General Permit GP-0-20-001* (GP-0-20-001).
- *Town of Lewisboro Code, Chapter 189 – Stormwater Management and Erosion & Sediment Control*.

Since the subject project proposes the disturbance of more than 5 acres, the General Permit requires post construction stormwater management controls for the project. As such, the latest edition of the NYSDEC *New York State Stormwater Management Design Manual* (Design Manual), including Chapter 10: *Enhanced Phosphorus Removal Standards* (Chapter 10), was referenced for the design of the proposed stormwater collection, conveyance and treatment system. A discussion of the requirements of Chapter 10 is included below.

The Design Manual specifies five design criteria that are discussed in detail below. They are Runoff Reduction Volume (RR_v), Water Quality Volume (WQ_v), Stream Channel Protection Volume (CP_v), Overbank Flood Control (Q_f), and Extreme Storm Control (Q_p). The first two requirements relate to treating water quality, while the later pertain to stormwater quantity (peak flow) attenuation. As noted in previous sections of this report, this project is a redevelopment project with an increase in impervious area. Per the requirements of Chapter 9 of the NYSSMDM, all new impervious areas are required to be treated in

accordance with the requirements of Chapter 4 and 10 for both stormwater quality and quantity. Per Chapter 9, 25% of the water quality from the existing impervious area within the subcatchments reaching the stormwater practice is required to be treated to meet the WQv requirements for redevelopment projects. As shown in the calculations Appendix A of this report, the 25% of the existing impervious areas were accounted for in the WQv sizing of the stormwater treatment practices.

As noted above, the project will results in a total increase in impervious surfaces of approximately 1.0 +/- acre. All of the new impervious area shall be directed to a standard SMP with RRv capacity as discussed in Section 2.1. However, a portion of the redeveloped impervious areas cannot be directed to a standard SMP with RRv capacity. Therefore, a Hydrodynamic Separator has been proposed, as an Alternative Practice in accordance with Chapter 9 of the Design Manual. The proposed Hydrodynamic Separator shall capture and treat the redeveloped impervious area. Per Chapter 9, flow through practices must be sized to treat the peak rate of runoff from the WQv design storm, as defined in Chapter 10 of the Design Manual. The proposed Hydrodynamic Separator has been sized accordingly as shown in later sections of this report, Appendix C and Appendix F.

To meet the above referenced requirements, the following post construction stormwater management practices are proposed for the project:

Table 2.0.1 – Proposed SMP Design Criteria Summary Table

Proposed SMP ID	NYSSMDM Ch. 6 Design Designation	Contributing Subcatchments	NYSDEC Uniform Stormwater Sizing Criteria Satisfied
SMP 1.1P	Hydrodynamic Separator	1.1S	WQ_v
SMP 1.2P	Irrigation Pond – Rainwater Harvesting (Ch. 5.3.10)	1.2S	RRv, WQ_v, CP_v
SMP 1.3P	I-4, Underground Infiltration	1.3S	RRv, WQ_v, CP_v

To address stormwater quantity requirements of the NYSDEC, the "HydroCAD" Stormwater Modeling System," by HydroCAD Software Solutions LLC in Tamworth, New Hampshire, was used to model and assess the peak stormwater flows for the subject project. HydroCAD is a computer aided design program for modeling the hydrology and hydraulics of stormwater runoff. It is based primarily on hydrology techniques developed by the United States Department of Agriculture, Soil Conservation Service (USDA, SCS) TR-20 method combined with standard hydraulic calculations. For details on the input data for the subcatchments and design storms, please refer to Appendices B and C.

The input requirements for the HydroCAD computer program are as follows:

Subcatchments (contributing watershed/sub-watersheds)

- Design storm rainfall in inches
- CN (runoff curve number) values which are based on soil type and land use/ground cover
- T_c (time of concentration) flow path information
- Watershed Area in Acres

Stormwater Basins

- Surface area at appropriate elevations
- Flood elevation
- Outlet structure information

The following is a general description of the input data used to calculate the pre- and post-development stormwater runoff values. For detailed information for each subcatchment and stormwater management practice, see Appendices B & C. The 1-year, 10-year, and 100-year 24-hour design storm

were obtained from the New York State Stormwater Management Design Manual. The values provided are for 24-hour design storms.

Table 2.0.1 – Precipitation Values for Corresponding Design Storms

Design Storm	24-Hour Rainfall
1-Year	2.82”
10-Year	5.08”
100-Year	9.05”

The CN (runoff curve number) values utilized in this report were referenced from the USDA, SCS publication *Urban Hydrology for Small Watersheds*. The following is a summary of the various land uses/ground covers and their associated CN values utilized in this report.

Table 2.0.2 – Project Ground Cover and Associated Curve Numbers (CN)

Land Use/Ground Cover	CN Value
Paved Parking & Roofs, All Soils	98
>75% Grass Cover, B Soils	61
>75% Grass Cover, C Soils	74
>75% Grass Cover, D Soils	80
>Woods, Good, B Soils	55
>Woods, Good, C Soils	70
>Woods, Good, D Soils	77
Sand Ring	87

2.1 Chapter 10: Enhanced Phosphorus Removal Standards

The New York City East of Hudson Watershed has been identified in the SPDES General Permit GP-0-20-001 as a watershed requiring compliance with the Enhanced Phosphorus Removal Standards when post-construction stormwater management practices are proposed. Chapter 10 establishes four goals to meet sizing performance standards:

- Goal 1: Reducing Runoff Volumes
- Goal 2: Effective Bypass Treatment
- Goal 3: Achieving Effluent Concentrations for Particulate Phosphorus
- Goal 4: Achieving Effluent Concentrations for Dissolved Phosphorus

In order to achieve the first goal, the site design shall,” assess the feasibility of hydrological source controls and reduce the total water quality volume by source control, implementation of green infrastructure, or standard SMP’s with RR_v capacity, according to the process defined in Chapters 3 and 4 of the Design Manual. Each plan must include a rationale for acceptance and rejection of the various controls.” A discussion on RR_v can be found in section 2.2 below. Based upon the results of onsite soil testing, the soils onsite in select areas are suitable for infiltration where proposed. Therefore, the use of infiltration system and rainwater harvesting systems (classified as Standard SMP’s with RRv capacity) have been utilized to treat the stormwater runoff from the proposed impervious surfaces and satisfy RRv minimum requirements. As such, Goal 1 has been achieved in this SWPPP.

Goal 2 cites that proposed stormwater management practices should achieve less than 15% effective treatment bypass of the long-term runoff volume. Chapter 10 further notes this goal is satisfied by capturing and treating the 1-year 24-hour design storm. The NYSDEC stormwater quality treatment practices proposed for this have been designed in accordance with Chapter 10 by utilizing the 1-yr, 24-hour design storm to generate the WQ_v / RR_v. As such, Goal 2 has been achieved in this SWPPP.

Achieving effluent concentrations for particulate phosphorus, Goal 3, is satisfied by achieving an 80% net removal of particulate phosphorus for a median influent concentration of 0.5mg/l. Chapter 10 states that through designing proposed SMP's in accordance with Section 10.4 this goal will be achieved. The proposed SMP's have been designed in accordance with Section 10.4.4 of Chapter 10 thus satisfying the requirements of this goal.

Goal 4, achieving effluent concentration for dissolved phosphorus, is achieved by obtaining a 60% net removal of dissolved phosphorus given a median influent concentration of 0.15mg/l. As with Goal 3, Goal 4 is achieved by designing the proposed SMP's in accordance with Section 10.4 of Chapter 10. As noted above, the proposed SMP's have been designed in accordance with section 10.4.4 of Chapter 10 thus satisfying the requirements of this goal.

2.2 NYSDEC Runoff Reduction Volume (RR_v)

The Runoff Reduction Volume (RR_v) criterion is intended to replicate pre-development hydrology by maintaining preconstruction infiltration, peak flow runoff, discharge volume, as well as minimizing concentrated stormwater flow. As stated in Chapter 4 of the NYSSMDM, RR_v may be treated with standard stormwater management practices (SMP's) sized in accordance with the Chapter 4/6 requirements, or with green infrastructure practices (GIP's) sized in accordance with the requirements set forth for each practice in Chapter 5. This requirement is addressed on the subject project by providing an irrigation pond (rainwater harvesting) and an underground infiltration system, designed as SMPs in accordance with the latest design standards. Runoff reduction is achieved when runoff from a percentage of the impervious area on the site is captured, routed through a SMP or a GIP, infiltrated to the ground, reused, reduced by evapotranspiration, and eventually removed from the stormwater discharge from the site. Through this implementation, the design of the irrigation pond and underground infiltration system as SMPs with the runoff reduction capacity equal to 100% of the WQ_v, the RRv requirements will be achieved.

Section 4.3 of the NYSSMDM states for sites that do not achieve runoff reduction to pre-construction condition must, at a minimum reduce a percentage of the runoff from impervious areas to be constructed on the site a minimum RR_v. The following equation can be used to determine the minimum runoff reduction volume:

The minimum runoff reduction volume shall be $RRv_{minimum} = \frac{(P)(R_v)(Ai)}{12}$

Where,

S	= Hydrologic Soil Group (HSG) Specific Reduction Factor
A*i*c	= Total Area of New Impervious Cover
A*i*	= Impervious cover targeted for Runoff Reduction
	= (S)(A*i*c)
Rv	= 0.95

For detailed calculations of the runoff reduction for the proposed SMP's see Appendix A & C. Listed in Table 2.2.1 below is a summary of the NYSDEC compliant practice, and its satisfaction of the NYSDEC RRv requirements:

Table 2.2.1 Runoff Reduction Volume Summary

Design Point	Subcatchment	RR_v *Required* = WQ_v (c.f.) From Appendix C	RR_v *Minimum* (c.f.) Calculated in Appendix A	NYSDEC Practice Designation	Allowable % of WQv provided to be applied towards RRv	Storage Volume Provided below System Outlet (c.f.) (From Appendix C)	RRv *Provided* (c.f.)
1	1.1S	Not Required per Ch. 9 (Redevelopment)		Hydrodynamic Separator (Alt. Practice)	Not Required per Ch. 9 (Redevelopment)		
	1.2S	11,403		Irrigation Pond (Cistern)	100%	12,000	11,403
	1.3S			I-4 Underground Infiltration	100%	3,006	

The $RRv_{provided}$ for Design Point 1 is equal to the $RRv_{required}$ for the newly developed impervious areas, as shown. As discussed above, there is a portion of the redeveloped impervious area where soils are not conducive to infiltration and cannot be direct to a standard SMP with RRv capacity. As such, an irrigation pond (for rainwater harvesting) has been proposed. Also, a hydrodynamic separator has been proposed as an Alternative SMP, in accordance with Chapter 9 of the Design Manual, for water quality treatment of only redeveloped impervious areas. As noted above, RRv is not required per Chapter 9 of the Design Manual. As such, by providing 100% RRv for the newly developed impervious areas, the requirements of the NYSDEC for RRv have been met.

2.3 NYSDEC Water Quality Volume (WQ_v)

The SMP's have been sized to capture the proposed new impervious cover and portions of the existing redeveloped impervious cover. As mentioned above in this report, as a redevelopment project, 25% of the existing impervious areas were accounted for in the WQv sizing of the stormwater treatment practices. The underground infiltration system (SMP 1.3P), Irrigation Pond (SMP 1.2P) and Hydrodynamic Separator (SMP 1.1P) have been sized in accordance with Chapter 4 & 10 of the Design Manual, as it has been sized to capture and treat the entire water quality volume (WQ_v) from the proposed improvements. The subject project is located in the New York City Watershed, which is listed as a phosphorus-limited watershed per the NYSDEC regulations. Therefore, the stormwater management practices have been designed in general accordance with the Enhanced Phosphorus Removal Supplement (Chapter 10) of the Design Manual. As outlined in Chapter 10, the treatment volume for the WQv is the runoff volume produced during the 1-year 24-hour design storm.

The tables below summarize the WQv treatment and Required Elements for the proposed SMP's sized in accordance with Chapters 3 and 6 of the NYSSMDM for the proposed practice. The proposed infiltration system (SMP 1.3P) has been designed to treat the WQv of the proposed impervious area associated with the new Carriage House. A flowsplitter is proposed upstream of the infiltrator system to make the practice offline. The flowsplitter is sized to convey at a minimum the peak WQv flow (1-year, 24-hour storm) to the infiltration system, while allowing portions of larger storms to bypass the infiltration units as allowed by the Design Manual. As noted in Appendix C, all of the 1-year, 24-hour storm reaches infiltration system. Pretreatment has been provided for the infiltration system (1.3P) in the form of hydrodynamic separators. The peak flow was also used to size the hydrodynamic separators used as pretreatment for the infiltration units. The data (including capacities) for the hydrodynamic separators are included in Appendix E. The tables below summarizes the WQv peak flows and hydrodynamic separate flow rates.

Table 2.3.1 Infiltration System Water Quality Volume Treatment Summary

Subcatchment	Treatment Practice	NYSDEC Design Practice Designation	WQv (Required Volume) (c.f.)	Proposed WQv Volume (c.f.)
1.3S	1.3P	Underground Infiltration (I-4)	3,006	3,006

Table 2.3.2 – Pretreatment Hydrodynamic Separator Summary

Subcatchment	WQ_v Peak Flow (C.F.S).	Hydrodynamic Separator Model	Maximum Treatment Flow Rate (C.F.S.)
1.3S	1.05	3ft First Defense	1.81 CFS

As noted in the table above the capacity of the hydrodynamic separator exceeds the calculated WQv peak flow.

The Irrigation Pond (SMP 1.2P) has been designed to treat the WQ_v from subcatchment 1.2S as well as meet the runoff reduction criteria for Design Line 1. The Irrigation Pond has been sized to provide a storage volume greater than the WQv from subcatchment 1.2S. See Appendix G for the irrigation pond sizing calculations. The irrigation pond is proposed to provide a portion of the non-potable irrigation water demand for the onsite landscaping. An irrigation system, designed by others, will be connected to the pump within the irrigation pond to irrigate the onsite landscaping.

Table 2.3.3 Irrigation Pond (Cistern) - Water Quality Volume Treatment Summary

Subcatchment	Treatment Practice	NYSDEC Design Practice Designation	Required WQ_v (c.f.)	Proposed WQ_v (c.f.)
1.2S	1.2P	Irrigation Pond / Rainwater Harvesting (Ch. 5.3.10)	8,397	12,000

* Information regarding required Cistern Sizing is calculated shown in Appendix G

A Hydrodynamic Separator (HDS 1.1) has been proposed to capture and treat a portion of the redeveloped impervious area that cannot be directed to a standard SMP. The Hydrodynamic Separator (HDS 1.1) has been analyzed as an Alternative Practice as discussed above. As noted in Chapter 9 of the the Design Manual, flow through alternative practices must be sized to treat the peak rate of runoff from the WQv design storm, as Defined in Chapter 10 of the Design Manual. The WQv peak flow was modeled in Appendix C and was used to size the hydrodynamic separator. The data (including capacities) for the hydrodynamic separators are included in Appendix F. The table below summarizes the WQv peak flows and hydrodynamic separate flow rates.

Table 2.3.3 Alternative Practice (Hydrodynamic Separator HDS 1.1) Sizing Summary

Subcatchment	WQ_v Peak Flow (C.F.S)	Hydrodynamic Separator Model	Maximum Treatment Flow Rate (C.F.S.)
1.1S	3.7	6ft First Defense	4.07 CFS

It should be noted that the above tables illustrate the water quality volume storage requirements set forth in the NYSSMDM have been met for the proposed SMPs. See Appendix A, F & G for detailed calculations and further information.

2.4 NYSDEC Stream Channel Protection Volume (CP_v)

The Stream Channel Protection (CP_v) criterion is intended to protect stream channels from erosion and is accomplished by completely infiltrating the one-year, 24-hour storm volume, or providing 24-hour extended detention of the one-year, 24-hour storm event, using either the center of mass or plug flow methods.

As stated in Chapter 9 of the Design Manual, Channel Protection for redevelopment activities is not required if there are no change to hydrology that increases the discharge rate from the project site. As shown in Table 2.5.1, the post construction 1-year, 24-hour discharge rate is less than the pre-construction discharge rate. Therefore providing 24-hour detention of the 1-year storm to meet the channel protection criteria is not required.

2.5 NYSDEC Overbank Flood Control (Q_p), and Extreme Flood Control (Q_f)

The Overbank Flood Control (Q_p) requirement is intended to prevent an increase in the frequency and magnitude of out-of-bank flooding events generated by urban development. Overbank control requires storage to attenuate the post-development 10-year, 24-hour peak discharge to pre-development rates. The Extreme Flood Control (Q_f) requirement is intended to prevent the increased risk of flood damage from large storm events, maintain the boundaries of the pre-development 100-year flood plain, and protect the physical integrity of stormwater management practice. Extreme flood control requires storage to attenuate the post-development 100-year, 24-hour peak discharge to pre-ddevelopment rates.

The 1-year, 10-year and 100-year 24-hour storms were utilized in the HydroCAD analysis shown in Appendix B & C. As shown in Table 2.5.1 attenuation for both the 1-year, 10-year and 100-year 24-hour storms has been provided.

Table 2.5.1– Existing and Proposed Conditions Peak Flows

24-HOUR DESIGN STORM PEAK FLOWS (c.f.s.)						
	1-YEAR (Channel Protection)		10-YEAR (Overbank Flood Control)		100-YEAR (Extreme Flood Control)	
	Pre	Post	Pre	Post	Pre	Post
Design Point 1	20.8	19.7	60.2	56.5	129.2	128.0
Design Point 2	9.1	9.1	28.0	27.9	62.2	61.9

As shown in the above tables, the peak flows from the contributing areas to the design points in the post development condition have been mitigated to below the existing condition levels, thus meeting the general requirements of the NYSDEC.

3.0 STORMWATER CONVEYANCE SYSTEM

The stormwater conveyance system for the project consists precast concrete drainage structures, HDPE and PVC SDR 35 drainage piping. In the locations of proposed stormwater piping, the system will be sized utilizing the Rational Method and is a standard method used by engineers to develop flow rates for sizing collection systems. The Rational Method calculates flows based on a one-hour design storm. Pipe sizing calculations will be provided in future reports.

4.0 EROSION AND SEDIMENT CONTROL

Erosion and sediment control should be accomplished by four basic principles: diversion of clean water, containment of sediment, treatment of dirty water, and stabilization of disturbed areas. Diversion of clean water should be accomplished with swales. This diverted water should be safely conveyed around the construction area as necessary and discharged downstream of the disturbed areas. Sediment should be contained with the use of silt fence at the toe of disturbed slopes. Disturbed areas should be permanently stabilized within 7 days of final grading to limit the required length of time that the temporary facilities must be utilized. The owner will be responsible for the maintenance of the temporary erosion control facilities. Refer to the Project Drawings for further information implementation of the Erosion Control Plan and Construction Sequence.

4.1 Temporary Erosion and Sediment Control Facilities

Temporary erosion and sediment control facilities should be installed and maintained as required to reduce the impacts to off-site properties. The owner will be required to provide maintenance for the temporary erosion and sediment control facilities. In general, the following temporary methods and materials should be used to control erosion and sedimentation from the project site:

- Silt Fence Barriers
- Stabilized Construction Entrance
- Temporary Soil Stabilization
- Storm Drain Inlet Protection

All temporary erosion control measures shall be maintained in accordance with the Erosion & Sediment Control Maintenance Schedule contained on the Project Drawings, and as discussed below.

A stabilized construction entrance should be installed in locations as shown on the plan. The design drawings will include details to guide the contractor in the construction of this entrance. Siltation barriers constructed of geosynthetic filter cloth should be installed at the toe of all disturbed slopes. The intent of these barriers is to contain silt and sediment at the source and inhibit its transport by stormwater runoff. The siltation barriers will also help reduce the rate of runoff by creating filters through which the stormwater must pass. During construction, the siltation barriers shall be inspected weekly and after a rainfall event and shall be cleaned/replaced when needed. Siltation barriers will also be installed around drain inlets. The intent of these barriers is to prevent silt and sedimentation from entering the stormwater collection system.

When land is exposed during development, the exposure shall be kept to the shortest practical period, but in no case more than 7 days. Temporary grass seed and mulch shall be applied to any construction area idle for two weeks. The temporary seeding and mulching shall be performed in accordance with the seeding notes illustrated on the project drawings. Disturbance shall be minimized in the areas required to perform construction. Upon completion of final grading topsoil, permanent seeding and mulch shall be applied in accordance with the project drawings.

The stormwater runoff will be managed by the temporary erosion and sediment control facilities during construction. As discussed in the construction sequences provided the project plans the stabilized construction entrance shall be installed at the site entrance and silt fence shall be installed along the downhill perimeter of where soil disturbing activities will occur containing sediment laden stormwater runoff on-site.

4.2 Permanent Erosion and Sediment Control Facilities

Permanent erosion and sediment control will be accomplished by diverting stormwater runoff from steep slopes, controlling/reducing stormwater runoff velocities and volumes, and vegetative and structural surface stabilization. All of the permanent facilities are relatively maintenance free and only require periodic inspections. The owner will provide maintenance for all the permanent erosion and sediment control facilities.

Other than the paved or gravel surfaces, disturbed surfaces will be stabilized with vegetation within 7 days of final grading. Permanent seed mix and mulch shall be applied to idle areas to minimize the amount of exposed soil. Permanent seed mixtures are proposed for the project and illustrated on project drawings. Application rates for the seed and mulch are provided on the project drawings. The vegetation will control stormwater runoff by preventing soil erosion, reducing runoff volume and velocities, and providing a filter medium. Permanent seeding should optimally be undertaken in the spring from March 21st through May 20th and in late summer from August 15th to October 15th.

5.0 IMPLEMENTATION AND MAINTENANCE

5.1 Construction Phase

Details associated with the implementation and maintenance of the proposed stormwater facilities and erosion control measures during construction are shown on the project drawings. Soil disturbance for both the subject project shall not exceed five acres at any given time. The erosion control plan will include associated details and notes to aid the contractor in implementing the plan. Construction is anticipated to begin in the Spring of 2024 and anticipated to be completed by the Fall of 2025.

During construction, a Site Log Book, Appendix E, is required to be kept per NYSDEC SPDES General Permit GP-0-20-001. Erosion and sediment control inspections are required to be conducted as necessary under coverage of the permit (minimum twice a week) and an updated logbook and a copy of the SWPPP is required to be kept on site for the duration of the construction activities. The Construction Site Log Book is an appendix taken from the *New York Standards and Specifications for Erosion and Sediment Control* (Blue Book).

In addition to the proposed erosion and sediment control facilities, the following good housekeeping best management practices shall be implemented to mitigate potential pollution during the construction phase of the project. The general contractor overseeing the day-to-day site operation shall be responsible for the good housekeeping best management practices included in the following general categories:

- Material Handling and Waste Management
- Establishment of Building Material Staging Areas
- Establishment of Washout Areas
- Proper Equipment Fueling and Maintenance Practices
- Spill Prevention and Control Plan

All construction waste materials shall be collected and removed from the site regularly by the general contractor. The general contractor shall supply waste barrels for proper disposal of waste materials. All personnel working on the site shall be instructed of the proper procedures for construction waste disposal.

Although it is not anticipated any hazardous waste materials will be utilized during construction, any hazardous waste materials shall be disposed of in accordance with federal, state, and local regulations. No hazardous waste shall be disposed of on-site. Hazardous waste materials shall be stored in appropriate and clearly marked containers and segregated from the other non-waste materials. All hazardous waste shall be stored in a structurally sound and sealed shipping containers located in the staging areas. Material safety data sheets, material inventory, and emergency contact numbers will be maintained in the office trailer. All personnel working on the site shall be instructed of the proper procedures for hazardous waste disposal.

Temporary sanitary facilities (portable toilets) shall be provided on site during the entire length of construction. The sanitary facilities shall be located in the project staging area, or in an alternate area away

from the construction activities on the site. The portable toilets shall be inspected weekly for evidence of leaking holding tanks.

All recyclables, including wood pallets, cardboard boxes, and all other recyclable construction scraps shall be disposed of in a designated recycling barrel provided by the contractor and removed from the site regularly. All personnel working on the site shall be instructed of the proper procedures for construction waste recycling.

All construction equipment and maintenance materials shall be stored in a construction staging area. Silt fence shall be installed down gradient of the construction staging area. Shipping containers shall be utilized to store hand tools, small parts, and other construction materials, not taken off site daily. Construction waste barrels, recycling barrels and if necessary hazardous waste containers shall be located within the limits of the construction staging area.

Throughout the construction of the project, several types of vehicles and equipment will be used on-site. Fueling of the equipment shall occur within the limits of the construction staging area. Fuel will be delivered to the site as needed, by the general contractor, or a party chosen by the general contractor. Only minor vehicle equipment maintenance shall occur on-site, all major maintenance shall be performed off-site. All equipment fluids generated from minor maintenance activities shall be disposed of into designated drums and stored in accordance with the hazardous waste storage as previously discussed.

The designated temporary concrete washout areas shall be constructed in accordance with the detail in the general locations as shown on the project plans. The temporary concrete washout areas shall be lined with plastic sheeting as specified on the detail free of holes or tears. Should the liner rip or tear at any time it shall be replaced immediately. All concrete mixer trucks and chutes shall be washed in the designated concrete wash areas. All personnel working on the site including concrete equipment operators shall be instructed of the locations and proper procedures for concrete washout. When the temporary concrete washout areas are no longer needed the hardened concrete and materials used to construct the washout area shall be broken up and removed from the site and disposed of in a landfill.

Vehicles and equipment shall be inspected on each day of use. Any leak discovered shall be repaired immediately. All leaking equipment unable to be repaired shall be removed from the site. Ample supplies of absorbent, spill-cleanup materials, and spill kits shall be located in the construction staging area. All spills shall be cleaned up immediately upon discovery. Spent absorbent materials and rags shall be hauled off-site immediately after the spill is cleaned for disposal at a local landfill. All personnel working on the site shall be instructed of the proper procedures for spill prevention and control. Any spill large enough to discharge to surface water will be immediately reported to the local fire / police departments, NYCDEP, and the National Response Center 1-800-424-8802.

Vegetation should be inspected every 30 days and after every major storm event until established, after which inspections should take place on a quarterly basis and after every large storm event. Damaged areas should be immediately re-seeded and re-mulched.

5.2 Soil Restoration

Soil Restoration is required to be applied across areas of the development site where soils have been disturbed and will be vegetated. The purpose is to recover the original properties and porosity of the soil compacted during construction activity. Soil Restoration is applied in the cleanup, restoration, and landscaping phase of construction followed by the permanent establishment of an appropriate, deep-rooted groundcover to help maintain the restored soil structure. Soil restoration includes mechanical decompaction and compost amendment. The table below describes various soil disturbance activities related to land development, soil types and the requirements for soil restoration for each activity as identified in the Design Manual. Restoration is applied across areas of a development site where soils have been compacted and will be vegetated according to the criteria defined in the table below:

Soil Restoration Requirements[1, 2,4] (Onsite soils within the limit of disturbance belong to Hydrologic Soil Groups (HSG) A, B & D)			
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 area from any ongoing construction activities.
	Apply 6 inches of topsoil	Aerate[3] and apply 6 inches of topsoil	
Areas of cut or fill	HSG A &B	HSG C&D	
	Aerate[1] and apply 6 inches of topsoil	Apply full Soil Restoration [2]	
Heavy traffic areas on site (especially in a zone 5-25 feet around buildings but not within a 5-foot perimeter around foundation walls)	Apply full Soil Restoration (decompaction and compost Enhancement[6])		
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 from crossing these areas. To protect newly installed practice from any ongoing construction activities construct a single-phase operation fence area
Redevelopment projects	Soil Restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.		

1. 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.
2. Per "Deep Ripping and De-compaction, DEC 2008".
3. 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 functions like a mini-subsoiler.
4. During periods of relatively low to moderate subsoil moisture, the disturbed soils are returned to rough grade and the following Soil Restoration steps applied:
   - 5.1. Apply 3 inches of compost over subsoil.
   - 5.2. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor-mounted disc, or tiller, mixing, and circulating air and compost into subsoils.
   - 5.3. Rock-pick until uplifted stone/rock materials of four inches and larger size area cleaned off the site.
   - 5.4. Apply topsoil to a depth of 6 inches.
   - 5.5. Vegetate as required by seeding notes located on the project drawings.
   - 5.6. Tilling should not be performed within the drip line of any existing trees or over any utility installations that are within 24 inches of the surface.
6. Compost shall be aged, from plant derived materials, free of viable weed seeds, have no visible free water or dust produced when handling, pass through a half inch screen and have a pH suitable to grow desired plants.

After soil restoration is completed an inspector should be able to push a 3/8" metal bar twelve inches into the soil with just body weight. Following decompaction/soil restoration activities, the following maintenance is anticipated during the first year:

- Initial inspections for the first six months (once after each storm greater than a half-inch).
- Reseeding to repair bare or eroding areas to assure grass stabilization.
- Water once every three days for first month, and then provide a half inch of water per week during first year. Irrigation plan may be adjusted according to the rain event.
- Fertilization may be needed in the fall after the first growing season to increase plant vigor.

In order to ensure the soil remains decompacted the following ongoing maintenance is recommended:

- Planting the appropriate ground cover with deep roots to maintain the soil structure.
- Keeping the site free of vehicular and foot traffic or other weight loads. Consider pedestrian footpaths (sometimes it may be necessary to de-thatch the turf every few years).

5.3 Long Term Maintenance Plan

The stormwater facilities for the subject project have been designed to minimize the required maintenance. This section discusses the minimum maintenance requirements to insure long-term performance of the stormwater facilities. Initially the stormwater facilities will require an increased maintenance and inspection schedule until all portions of the site are stable. Generally, the stormwater facilities consist of either collection and conveyance components or treatment components.

The stormwater collection and conveyance system is composed of HDPE drainage pipe and precast concrete drainage structures. The owner will assume the maintenance responsibilities for the drainage system. Minimal maintenance is typically required for these facilities. All pipes should be checked for debris and blockages and cleaned as required. All drain inlet sumps shall be cleaned to removed deposited sediment. During the cleaning process, the pipes should be inspected for structural integrity and overall condition; repairs and/or replacement should be made as required.

Additionally, the infiltration system, irrigation pond and hydrodynamic separator shall be checked for deposited sediment as well. Visual inspection of system through the inspection ports shall take place yearly, and the system shall be cleaned / jetted as necessary to remove deposited sediment. See Appendix F and project plans for more information.

APPENDIX A

WQv HydroCAD Computer Data and Runoff Reduction RRv Calculation Worksheets

RRv Calculation Worksheet - Design Point 1

Project #: Double H Farms
Project #: 23139.100
Date: 2/12/2024

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

1. RRv Initial = Water Quality Volume (WQv) *0.262 ac-ft* = *11,403 c.f.*
(refer to HydroCAD Subcatchments for Water Quality Volume)

2. *RRv Minimum* = [(P) (Rv) (S) (Aic)] /12 where…

P = Rainfall (in.)	=	2.82 in.
Rv = 0.05 + 0.009 (100%)	=	0.95
S = Hydrologic Soil Group Specific Reduction Factor	=	0.30
[HSG A = 0.55] [HSG B = 0.40] [HSG C = 0.30] [HSG D = 0.20]		
Aic = Total area of new impervious cover	=	1.0 Acres
RRv Minimum	=	*2,917 c.f.*

3. *RRv Required* = RRv Initial - Green Infrastructure Practice (GIP) with Area Reduction

GIP with Area Reduction Applied in Project

5.3.1 Conservation of Natural Area	N/A	
5.3.2 Sheet Flow to Riparian Buffers or Filter Strips	N/A	
5.3.4 Tree Planting / Tree Box (100 s.f. per tree - 15 trees)		c.f.
5.3.5 Disconnection of Rooftop Runoff	-	
5.3.6 Stream Daylighting	N/A	
RRv Required(=WQv-RRV by area)(Refer to HydroCAD output in this Appendix)	=	11,403 c.f.

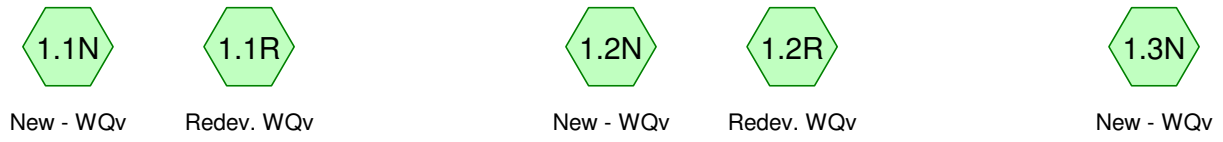
4. *RRv Provided*

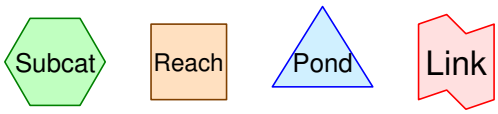
GIP with Volume Reduction Applied in Project	WQv Treated (c.f.)	% of WQv Applied to *RRv Provided*	*RRv Provided (c.f.)*
5.3.3 Vegetated Open Swales [HSG A / B = 20%] [HSG C / D = 10%] {Modified HSG C - D = 15% - 12%]		20% 10%	0 0
5.3.7 Rain Garden [No underdrains / Good Soils = 100%] [With underdrains / Poor Soils = 40%]		40%	0
5.3.8 Green Roof [RRv provided equals volume provided in Green Roof]		100%	N/A
5.3.9 Stormwater Planters [Infiltration Planters = 100%] [Flow Through HSG C = 45%] [Flow Though HSG D = 30%]		45%	N/A
5.3.10 Rain Tank / Cisterns	8397	100%	8,397
5.3.11 Porous Pavement		100%	0
Infiltration Practice (Standard SMP)	3006	100%	3006
Bioretention Practice (Standard SMP) [Without Underdrains HSG A/B = 80%] [With Underdrain HSG C\D = 40%]		40%	0
Dry Swale (Open Channel Practice) (Standard SMP) [HSG A/B = 40%] [HSG C/D = 20%]		20%	N/A
RRv Provided =			*11,403*

5. Summary

RRv Initial	=	11,403 c.f.	
RRv Required	=	11,403 c.f.	
RRv Minimum	=	2,917 c.f.	
RRv Provided	=	11,403 c.f.	
WQv Required for Downstream SMP	=	0 c.f.	(= RRv Required - RRv Provided)

Is RRv Provided greater than or equal to RRv Minimum? No





Routing Diagram for App A - Double H WQv

Prepared by Insite Engineering, Surveying and Landscape Architecture, P.C., Printed 2/13/2024

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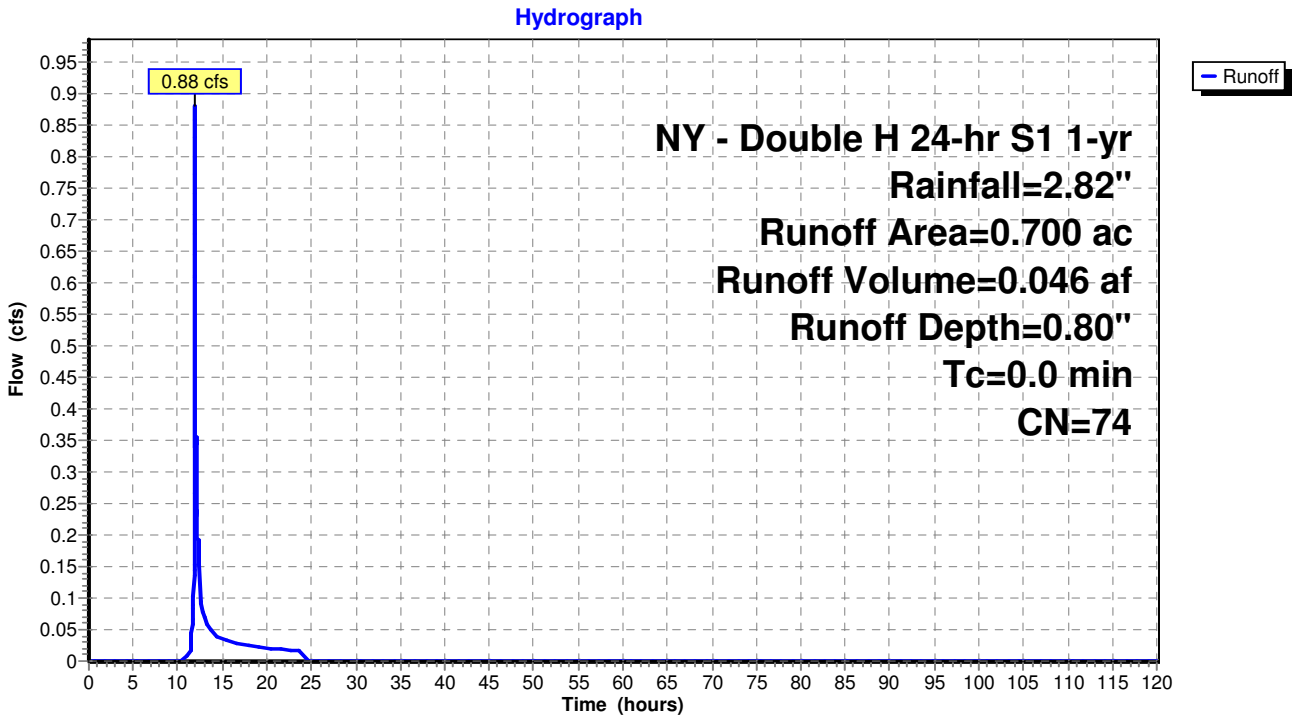
Summary for Subcatchment 1.1N: New - WQv

Runoff = 0.88 cfs @ 11.99 hrs, Volume= 0.046 af, Depth= 0.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 1-yr Rainfall=2.82"

Area (ac)	CN	Description
0.700	74	>75% Grass cover, Good, HSG C
0.700		100.00% Pervious Area

Subcatchment 1.1N: New - WQv



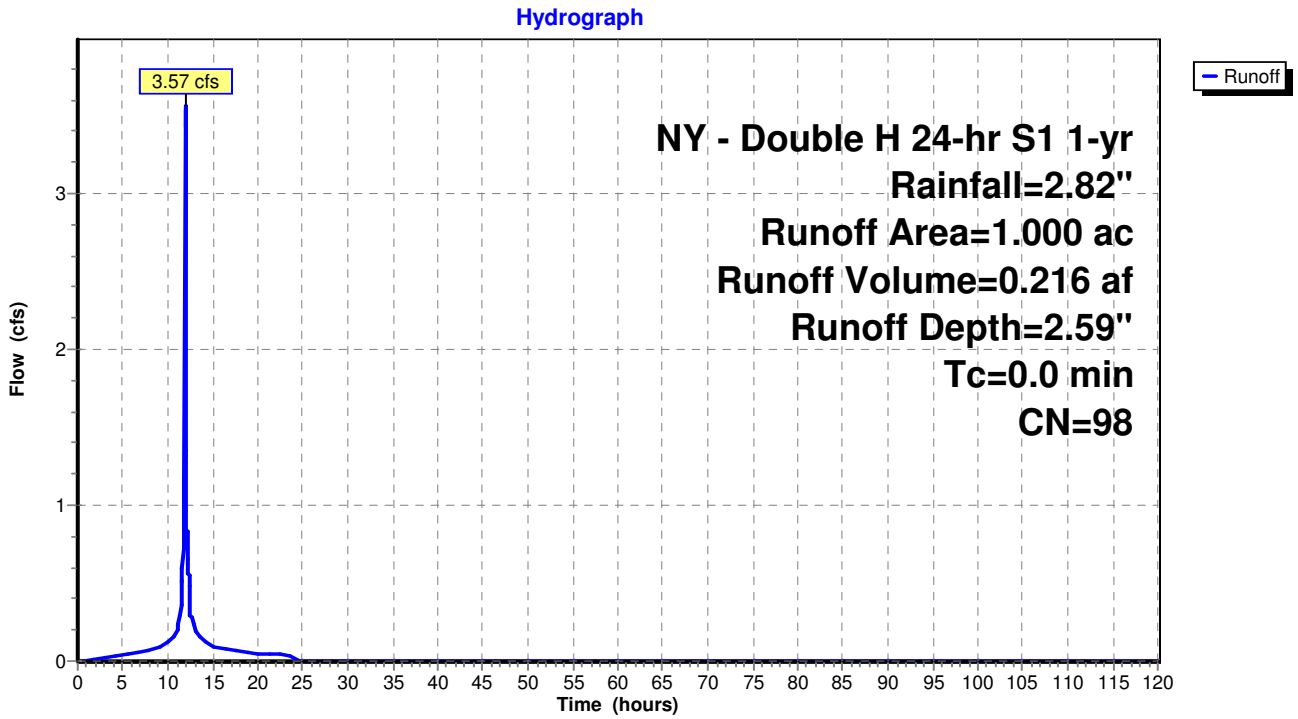
Summary for Subcatchment 1.1R: Redev. WQv

Runoff = 3.57 cfs @ 11.99 hrs, Volume= 0.216 af, Depth= 2.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 1-yr Rainfall=2.82"

Area (ac)	CN	Description
1.000	98	Paved parking, HSG C
1.000		100.00% Impervious Area

Subcatchment 1.1R: Redev. WQv



Summary for Subcatchment 1.2N: New - WQv

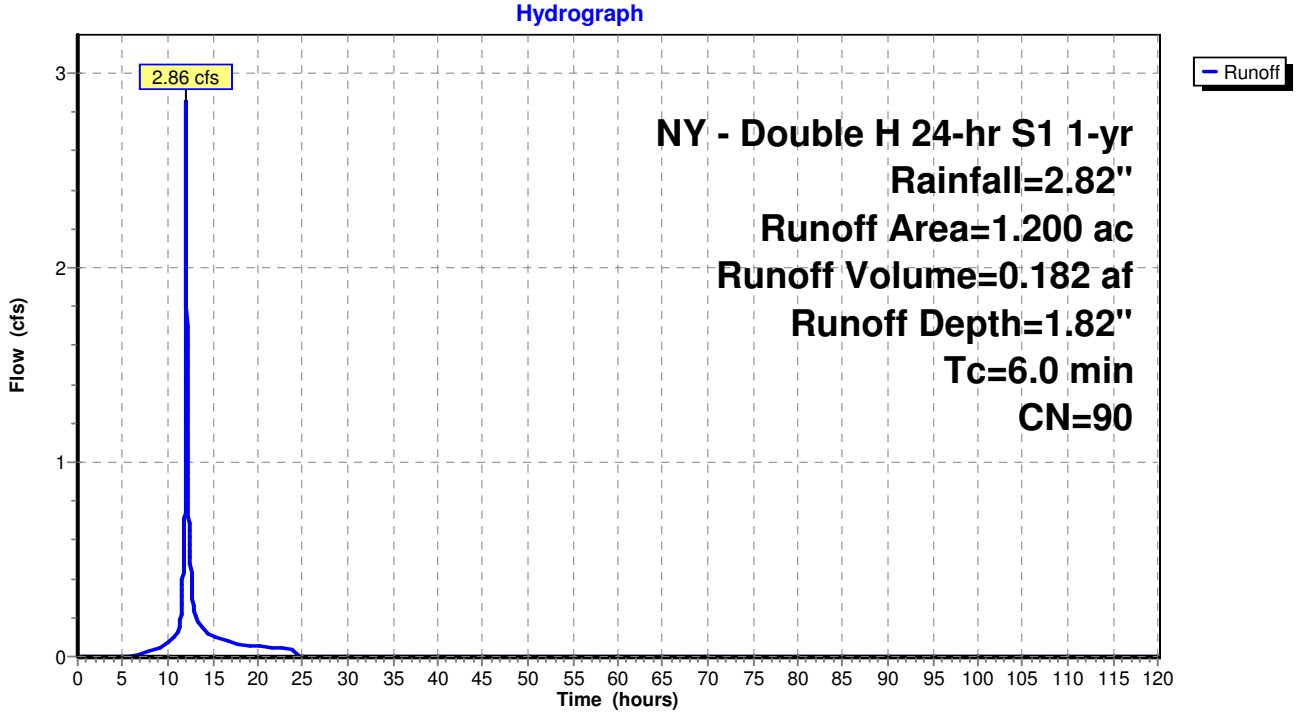
Runoff = 2.86 cfs @ 12.04 hrs, Volume= 0.182 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 1-yr Rainfall=2.82"

Area (ac)	CN	Description
0.800	98	Paved parking, HSG C
0.400	74	>75% Grass cover, Good, HSG C
1.200	90	Weighted Average
0.400		33.33% Pervious Area
0.800		66.67% Impervious Area

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

Subcatchment 1.2N: New - WQv



Summary for Subcatchment 1.2R: Redev. WQv

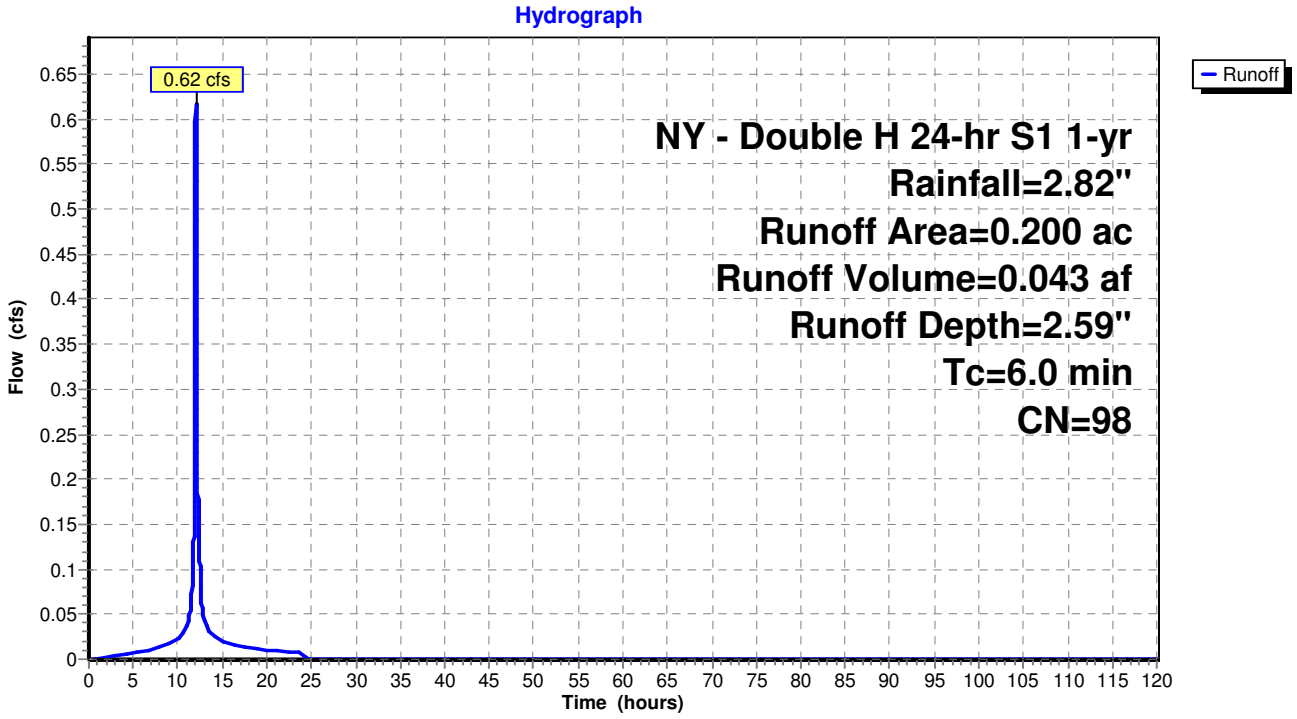
Runoff = 0.62 cfs @ 12.04 hrs, Volume= 0.043 af, Depth= 2.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 1-yr Rainfall=2.82"

Area (ac)	CN	Description
0.200	98	Paved parking, HSG C
0.200		100.00% Impervious Area

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

Subcatchment 1.2R: Redev. WQv



Summary for Subcatchment 1.3N: New - WQv

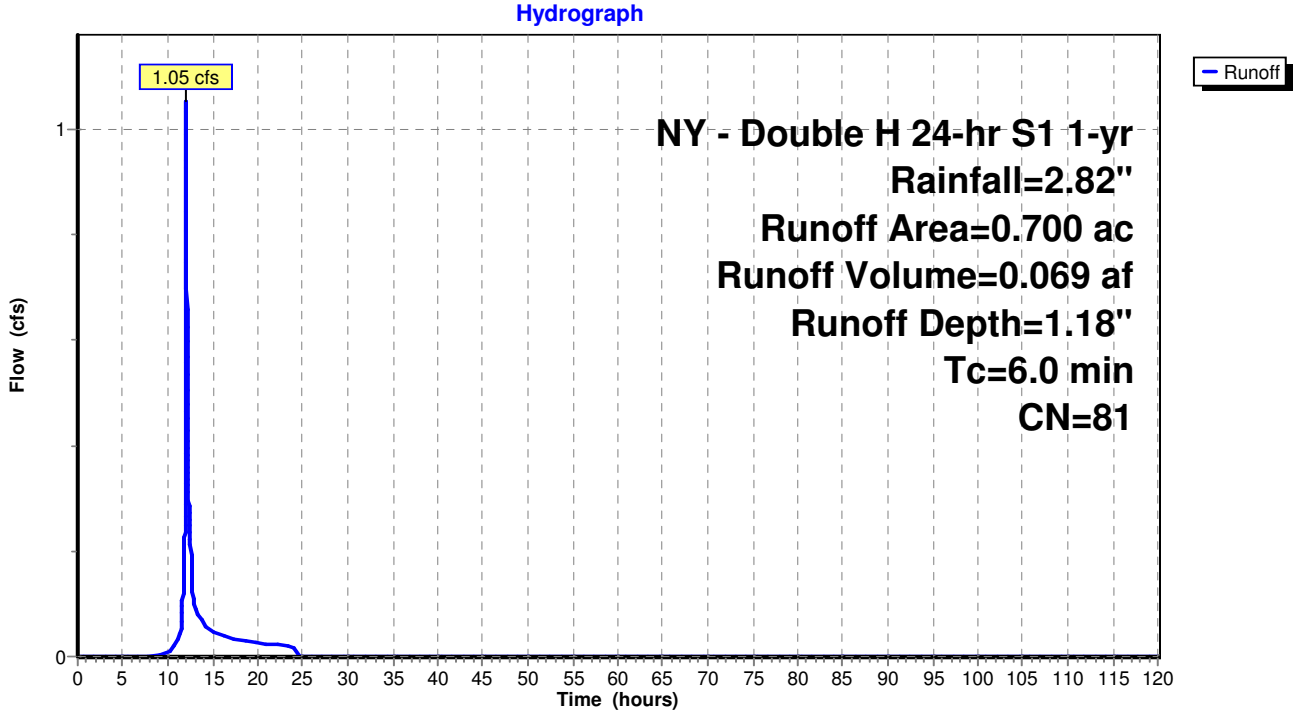
Runoff = 1.05 cfs @ 12.04 hrs, Volume= 0.069 af, Depth= 1.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 1-yr Rainfall=2.82"

Area (ac)	CN	Description
0.200	98	Paved parking, HSG D
0.500	74	>75% Grass cover, Good, HSG C
0.700	81	Weighted Average
0.500		71.43% Pervious Area
0.200		28.57% Impervious Area

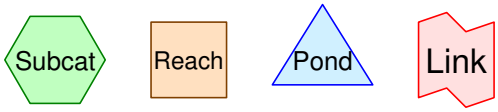
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1.3N: New - WQv



APPENDIX B

Pre-Development Computer Data



Routing Diagram for App B - Double H Pre Dev

Prepared by Insite Engineering, Surveying and Landscape Architecture, P.C., Printed 2/13/2024

Summary for Subcatchment PRE 1:

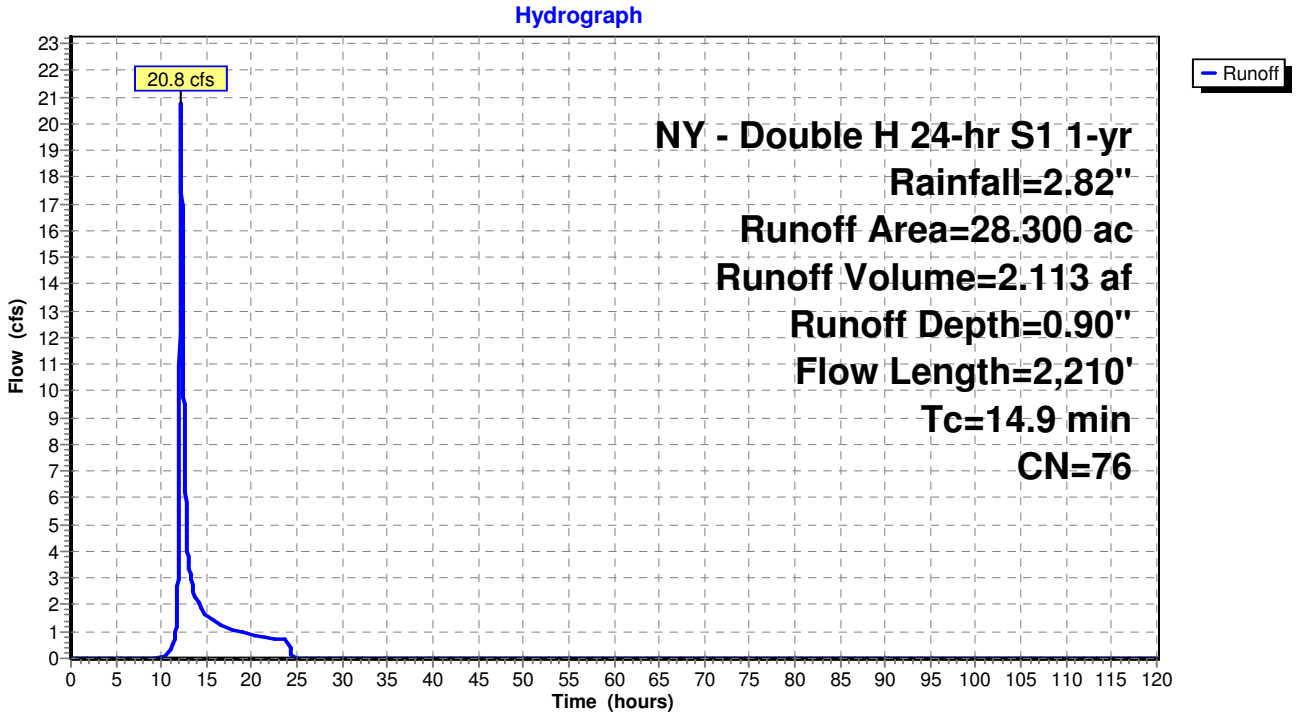
Runoff = 20.8 cfs @ 12.17 hrs, Volume= 2.113 af, Depth= 0.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 1-yr Rainfall=2.82"

Area (ac)	CN	Description
2.000	98	Paved parking, HSG D
20.200	74	>75% Grass cover, Good, HSG C
1.900	70	Woods, Good, HSG C
1.200	80	>75% Grass cover, Good, HSG D
3.000	77	Woods, Good, HSG D
28.300	76	Weighted Average
26.300		92.93% Pervious Area
2.000		7.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	100	0.0700	0.29		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.50"
3.1	850	0.0950	4.62		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.0	160	0.0700	1.32		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
3.4	800	0.0700	3.97		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.7	300	0.0230	6.88	5.40	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Concrete pipe, bends & connections
14.9	2,210	Total			

Subcatchment PRE 1:



Summary for Subcatchment PRE 2:

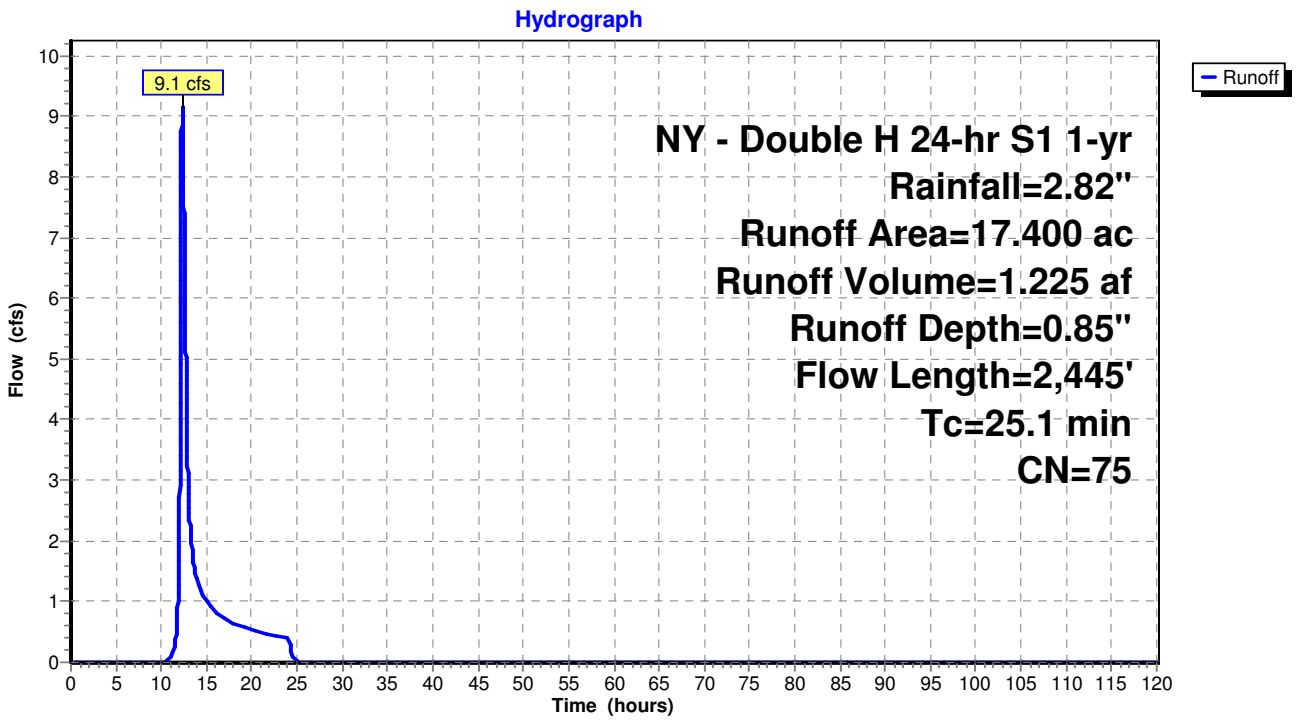
Runoff = 9.1 cfs @ 12.32 hrs, Volume= 1.225 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 1-yr Rainfall=2.82"

Area (ac)	CN	Description
0.800	98	Paved parking, HSG C
7.400	74	>75% Grass cover, Good, HSG C
6.100	70	Woods, Good, HSG C
2.900	80	>75% Grass cover, Good, HSG D
0.200	77	Woods, Good, HSG D
17.400	75	Weighted Average
16.600		95.40% Pervious Area
0.800		4.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	100	0.0550	0.27		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.50"
8.5	720	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.3	680	0.1100	4.97		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
6.1	545	0.0900	1.50		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	400	0.0300	3.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
25.1	2,445	Total			

Subcatchment PRE 2:



Summary for Subcatchment PRE 1:

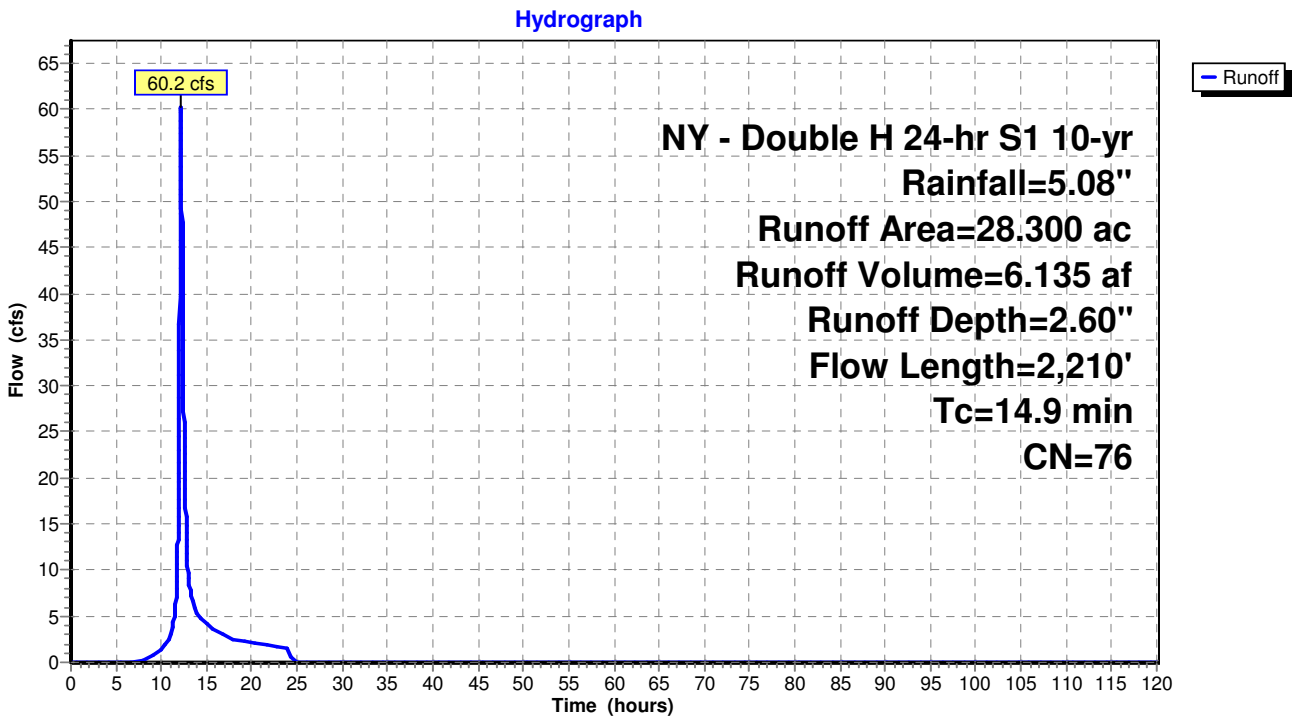
Runoff = 60.2 cfs @ 12.16 hrs, Volume= 6.135 af, Depth= 2.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 10-yr Rainfall=5.08"

Area (ac)	CN	Description
2.000	98	Paved parking, HSG D
20.200	74	>75% Grass cover, Good, HSG C
1.900	70	Woods, Good, HSG C
1.200	80	>75% Grass cover, Good, HSG D
3.000	77	Woods, Good, HSG D
28.300	76	Weighted Average
26.300		92.93% Pervious Area
2.000		7.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	100	0.0700	0.29		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.50"
3.1	850	0.0950	4.62		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.0	160	0.0700	1.32		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
3.4	800	0.0700	3.97		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.7	300	0.0230	6.88	5.40	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Concrete pipe, bends & connections
14.9	2,210	Total			

Subcatchment PRE 1:



Summary for Subcatchment PRE 2:

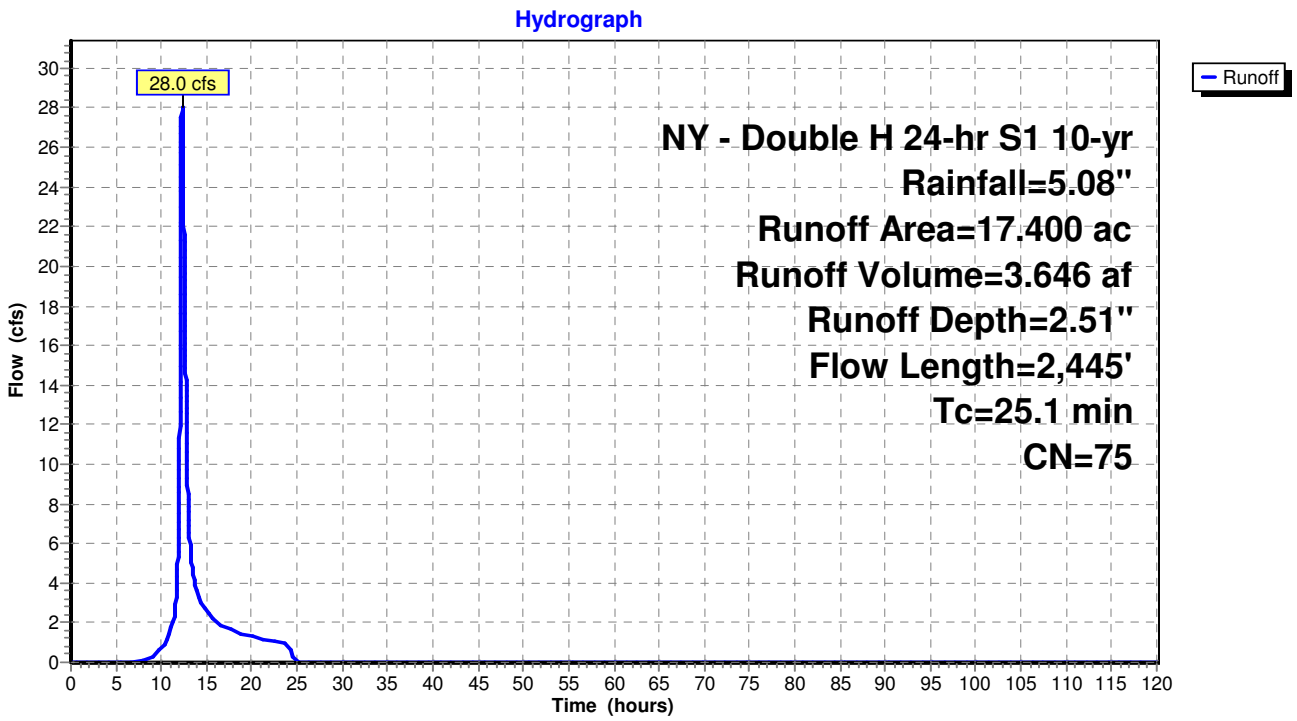
Runoff = 28.0 cfs @ 12.30 hrs, Volume= 3.646 af, Depth= 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 10-yr Rainfall=5.08"

Area (ac)	CN	Description
0.800	98	Paved parking, HSG C
7.400	74	>75% Grass cover, Good, HSG C
6.100	70	Woods, Good, HSG C
2.900	80	>75% Grass cover, Good, HSG D
0.200	77	Woods, Good, HSG D
17.400	75	Weighted Average
16.600		95.40% Pervious Area
0.800		4.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	100	0.0550	0.27		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.50"
8.5	720	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.3	680	0.1100	4.97		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
6.1	545	0.0900	1.50		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	400	0.0300	3.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
25.1	2,445	Total			

Subcatchment PRE 2:



Summary for Subcatchment PRE 1:

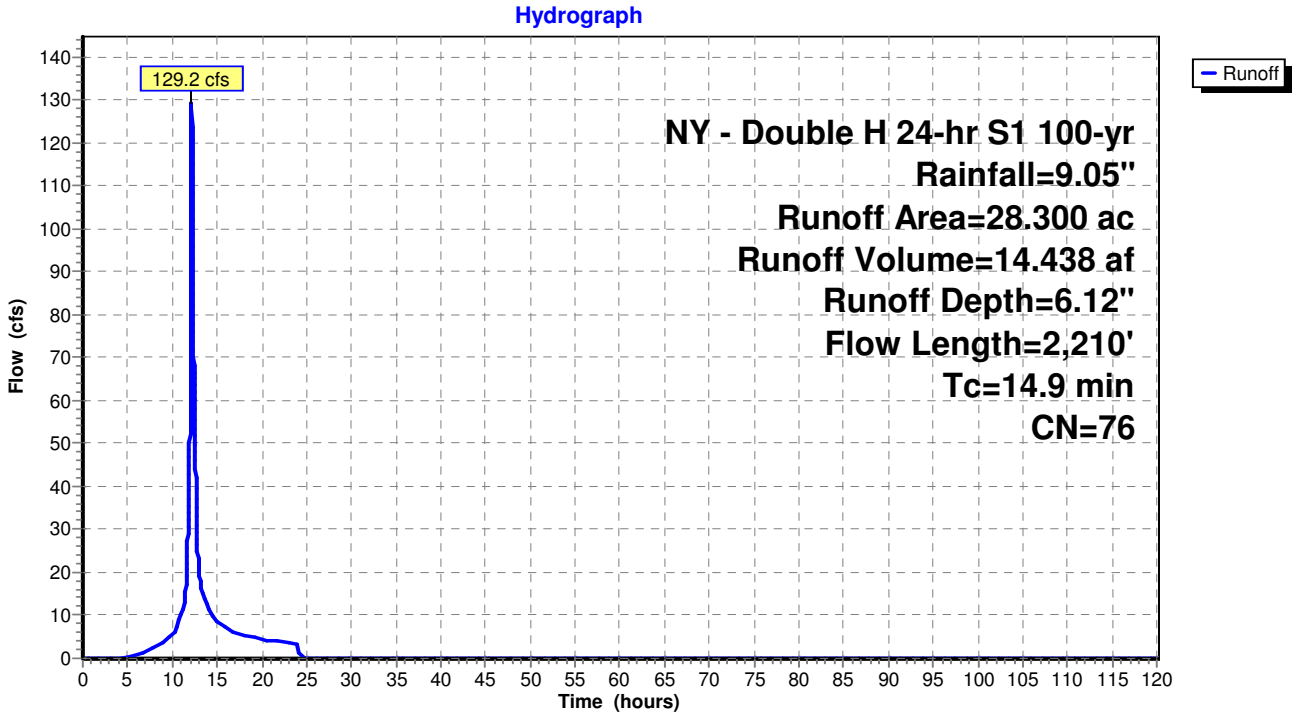
Runoff = 129.2 cfs @ 12.16 hrs, Volume= 14.438 af, Depth= 6.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 100-yr Rainfall=9.05"

Area (ac)	CN	Description
2.000	98	Paved parking, HSG D
20.200	74	>75% Grass cover, Good, HSG C
1.900	70	Woods, Good, HSG C
1.200	80	>75% Grass cover, Good, HSG D
3.000	77	Woods, Good, HSG D
28.300	76	Weighted Average
26.300		92.93% Pervious Area
2.000		7.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	100	0.0700	0.29		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.50"
3.1	850	0.0950	4.62		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.0	160	0.0700	1.32		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
3.4	800	0.0700	3.97		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.7	300	0.0230	6.88	5.40	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Concrete pipe, bends & connections
14.9	2,210	Total			

Subcatchment PRE 1:



Summary for Subcatchment PRE 2:

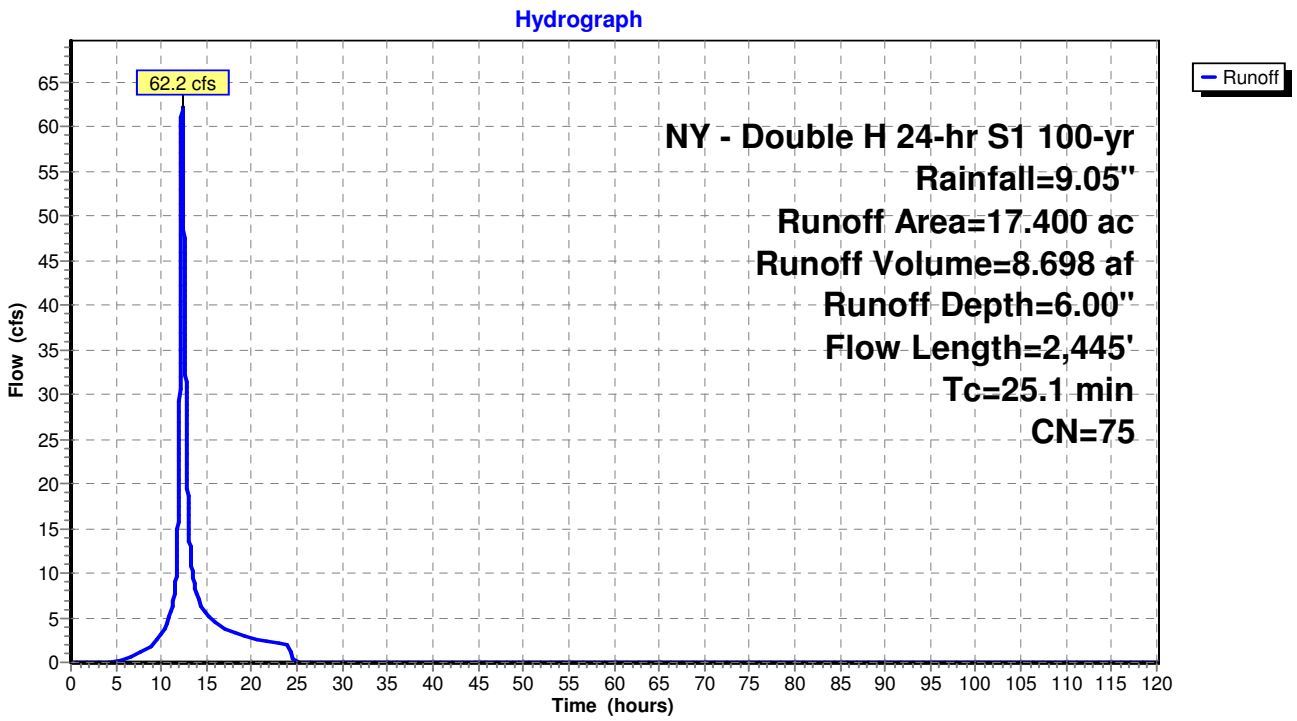
Runoff = 62.2 cfs @ 12.30 hrs, Volume= 8.698 af, Depth= 6.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 100-yr Rainfall=9.05"

Area (ac)	CN	Description
0.800	98	Paved parking, HSG C
7.400	74	>75% Grass cover, Good, HSG C
6.100	70	Woods, Good, HSG C
2.900	80	>75% Grass cover, Good, HSG D
0.200	77	Woods, Good, HSG D
17.400	75	Weighted Average
16.600		95.40% Pervious Area
0.800		4.60% Impervious Area

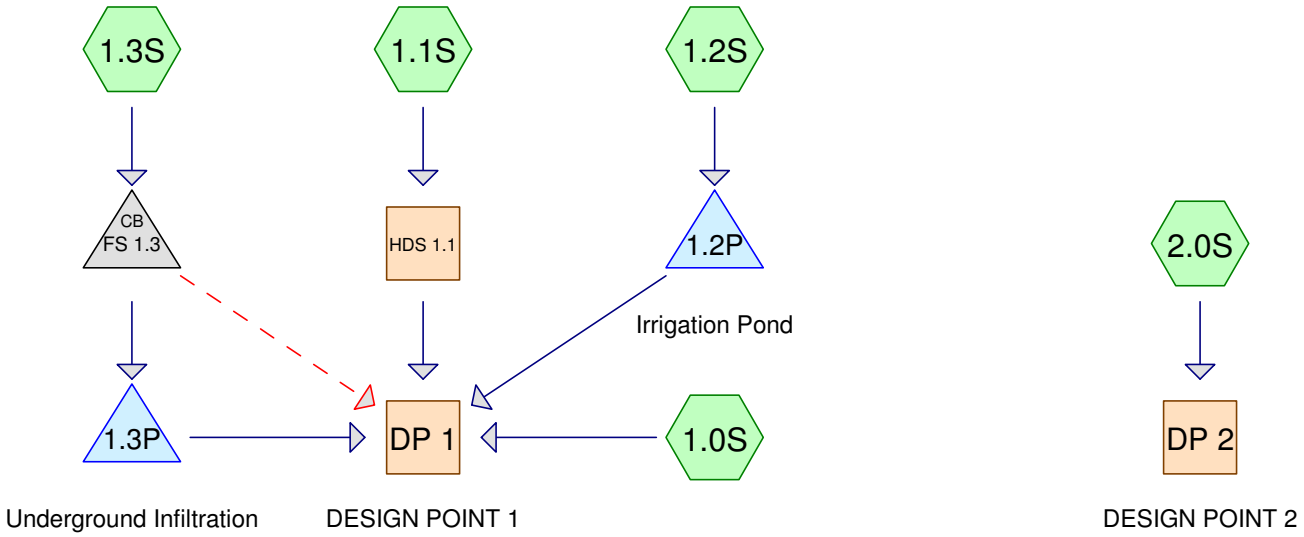
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	100	0.0550	0.27		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.50"
8.5	720	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.3	680	0.1100	4.97		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
6.1	545	0.0900	1.50		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	400	0.0300	3.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
25.1	2,445	Total			

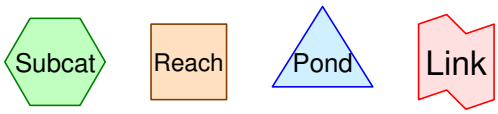
Subcatchment PRE 2:



APPENDIX C

Post-Development Computer Data





Routing Diagram for App C - Double H Post Dev

Prepared by Insite Engineering, Surveying and Landscape Architecture, P.C., Printed 2/13/2024

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Summary for Subcatchment 1.0S:

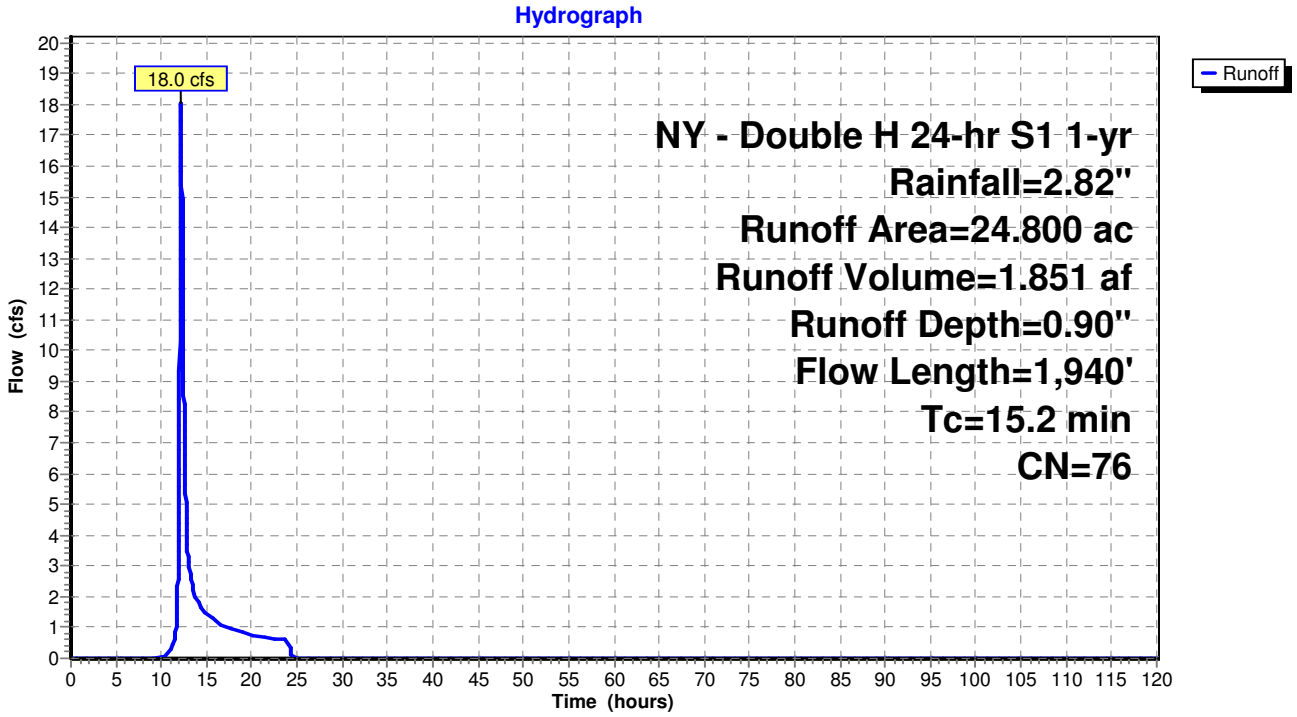
Runoff = 18.0 cfs @ 12.18 hrs, Volume= 1.851 af, Depth= 0.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 1-yr Rainfall=2.82"

	Area (ac)	CN	Description
	1.000	98	Paved parking, HSG D
	16.700	74	>75% Grass cover, Good, HSG C
	1.900	70	Woods, Good, HSG C
	1.000	80	>75% Grass cover, Good, HSG D
	3.000	77	Woods, Good, HSG D
*	1.200	87	Sand Ring
	24.800	76	Weighted Average
	23.800		95.97% Pervious Area
	1.000		4.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	100	0.0700	0.29		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.50"
2.3	265	0.1500	1.94		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.9	255	0.0900	4.50		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
3.8	490	0.1800	2.12		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.5	830	0.1400	5.61		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
15.2	1,940	Total			

Subcatchment 1.0S:



Summary for Subcatchment 1.1S:

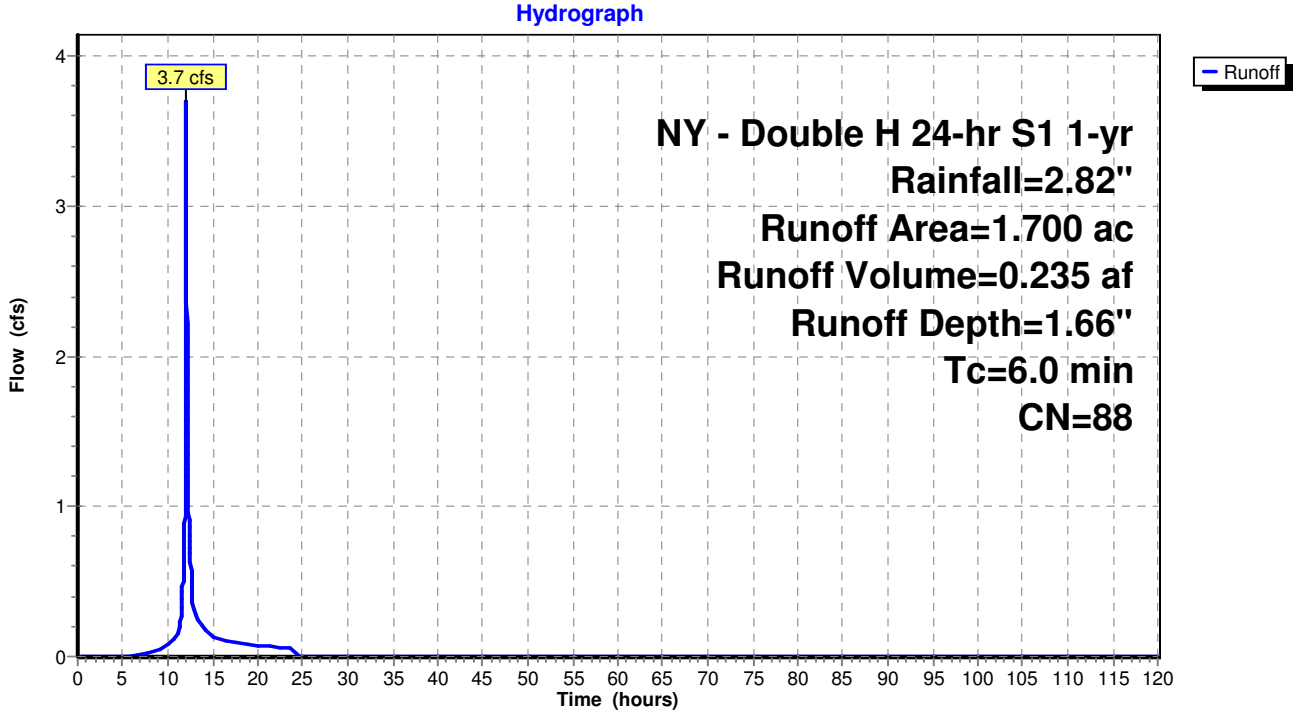
Runoff = 3.7 cfs @ 12.04 hrs, Volume= 0.235 af, Depth= 1.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 1-yr Rainfall=2.82"

Area (ac)	CN	Description
0.700	74	>75% Grass cover, Good, HSG C
1.000	98	Paved parking, HSG C
1.700	88	Weighted Average
0.700		41.18% Pervious Area
1.000		58.82% Impervious Area

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

Subcatchment 1.1S:



Summary for Subcatchment 1.2S:

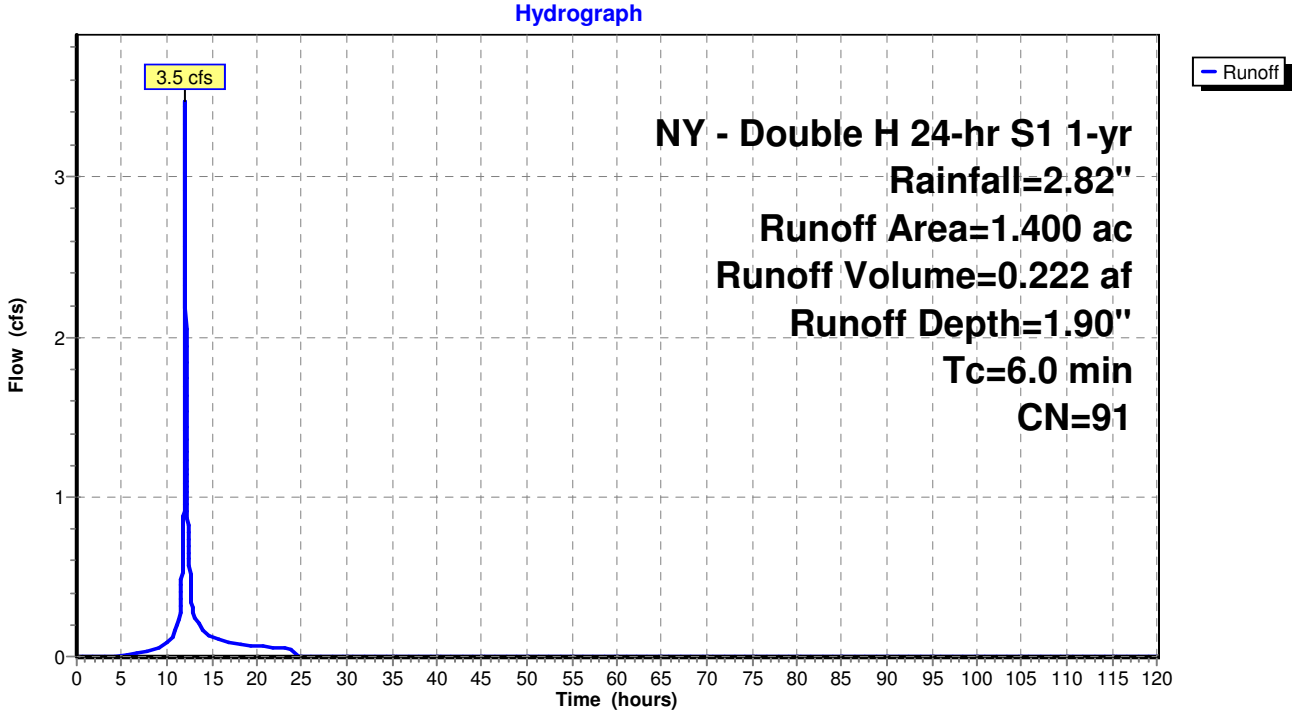
Runoff = 3.5 cfs @ 12.04 hrs, Volume= 0.222 af, Depth= 1.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 1-yr Rainfall=2.82"

Area (ac)	CN	Description
0.400	74	>75% Grass cover, Good, HSG C
1.000	98	Paved parking, HSG C
1.400	91	Weighted Average
0.400		28.57% Pervious Area
1.000		71.43% Impervious Area

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

Subcatchment 1.2S:



Summary for Subcatchment 1.3S:

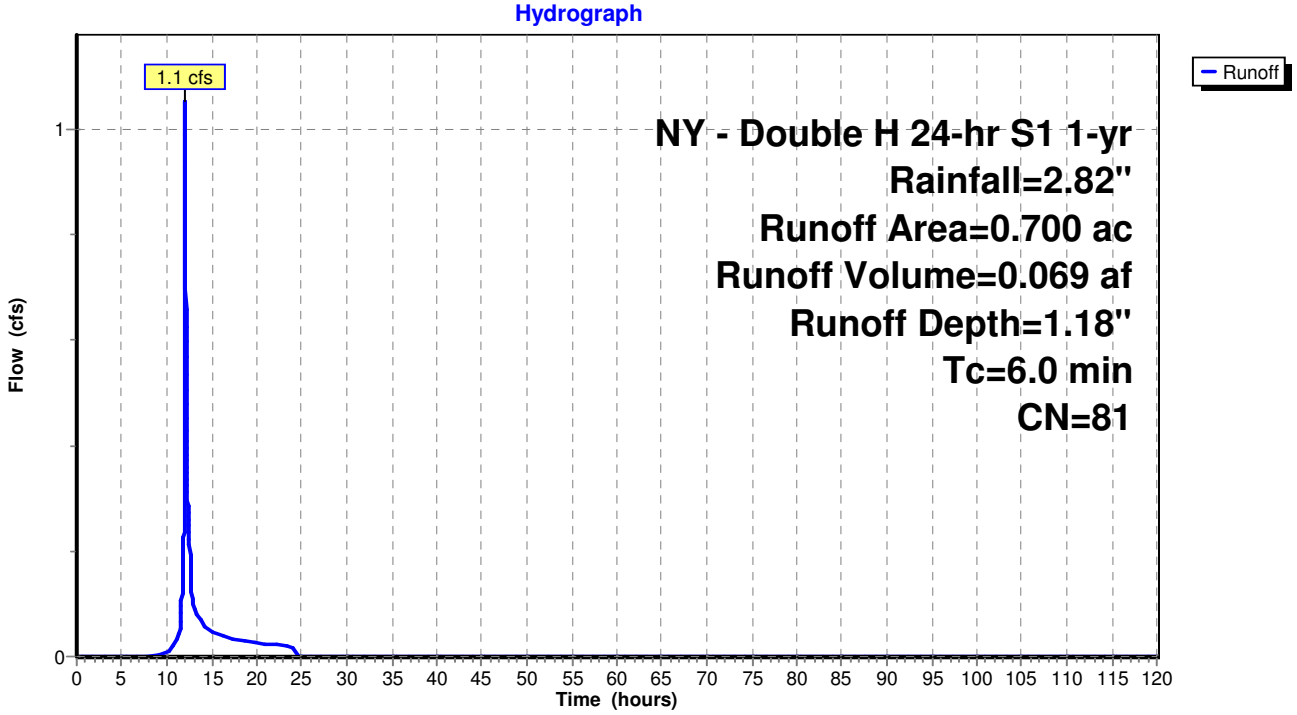
Runoff = 1.1 cfs @ 12.04 hrs, Volume= 0.069 af, Depth= 1.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 1-yr Rainfall=2.82"

Area (ac)	CN	Description
0.200	98	Paved parking, HSG D
0.500	74	>75% Grass cover, Good, HSG C
0.700	81	Weighted Average
0.500		71.43% Pervious Area
0.200		28.57% Impervious Area

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

Subcatchment 1.3S:



Summary for Subcatchment 2.0S:

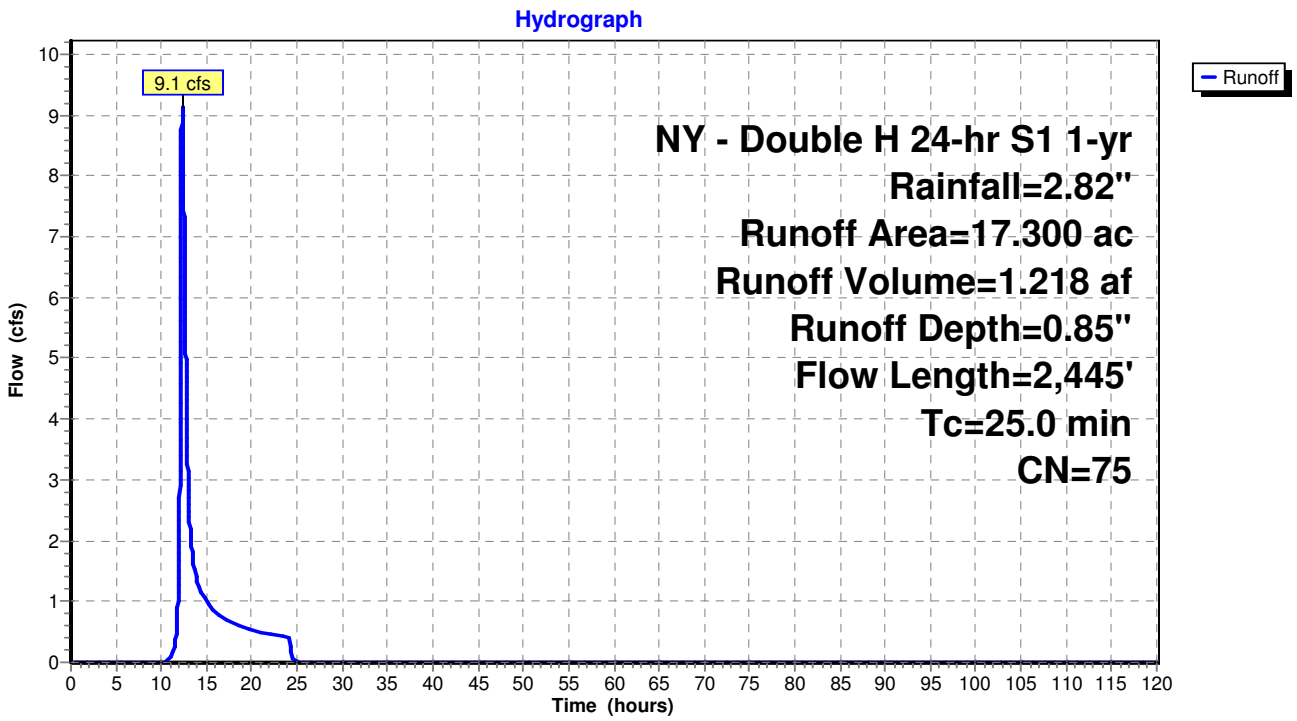
Runoff = 9.1 cfs @ 12.31 hrs, Volume= 1.218 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 1-yr Rainfall=2.82"

Area (ac)	CN	Description
0.800	98	Paved parking, HSG C
7.500	74	>75% Grass cover, Good, HSG C
6.000	70	Woods, Good, HSG C
2.800	80	>75% Grass cover, Good, HSG D
0.200	77	Woods, Good, HSG D
17.300	75	Weighted Average
16.500		95.38% Pervious Area
0.800		4.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	100	0.0550	0.27		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.50"
8.3	705	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.4	695	0.1000	4.74		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
6.1	545	0.0900	1.50		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	400	0.0300	3.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
25.0	2,445	Total			

Subcatchment 2.0S:

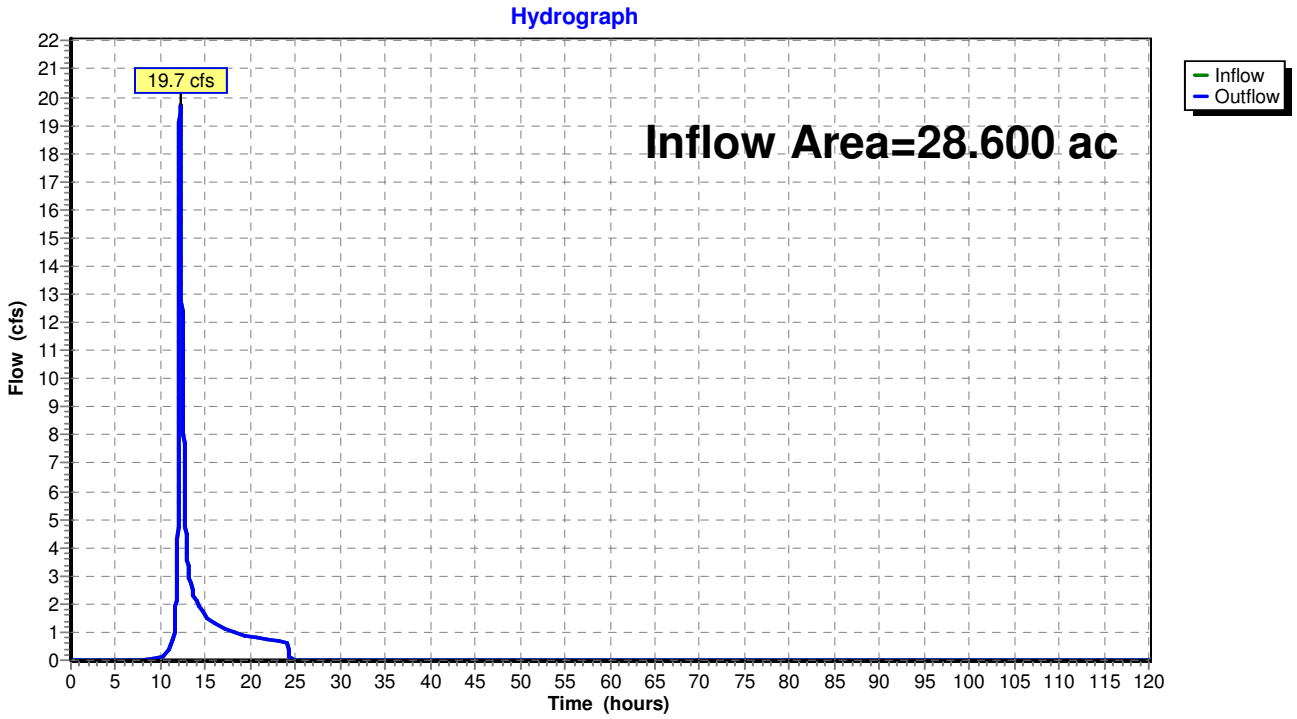


Summary for Reach DP 1: DESIGN POINT 1

Inflow Area = 28.600 ac, 11.19% Impervious, Inflow Depth = 0.88" for 1-yr event
Inflow = 19.7 cfs @ 12.16 hrs, Volume= 2.088 af
Outflow = 19.7 cfs @ 12.16 hrs, Volume= 2.088 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach DP 1: DESIGN POINT 1

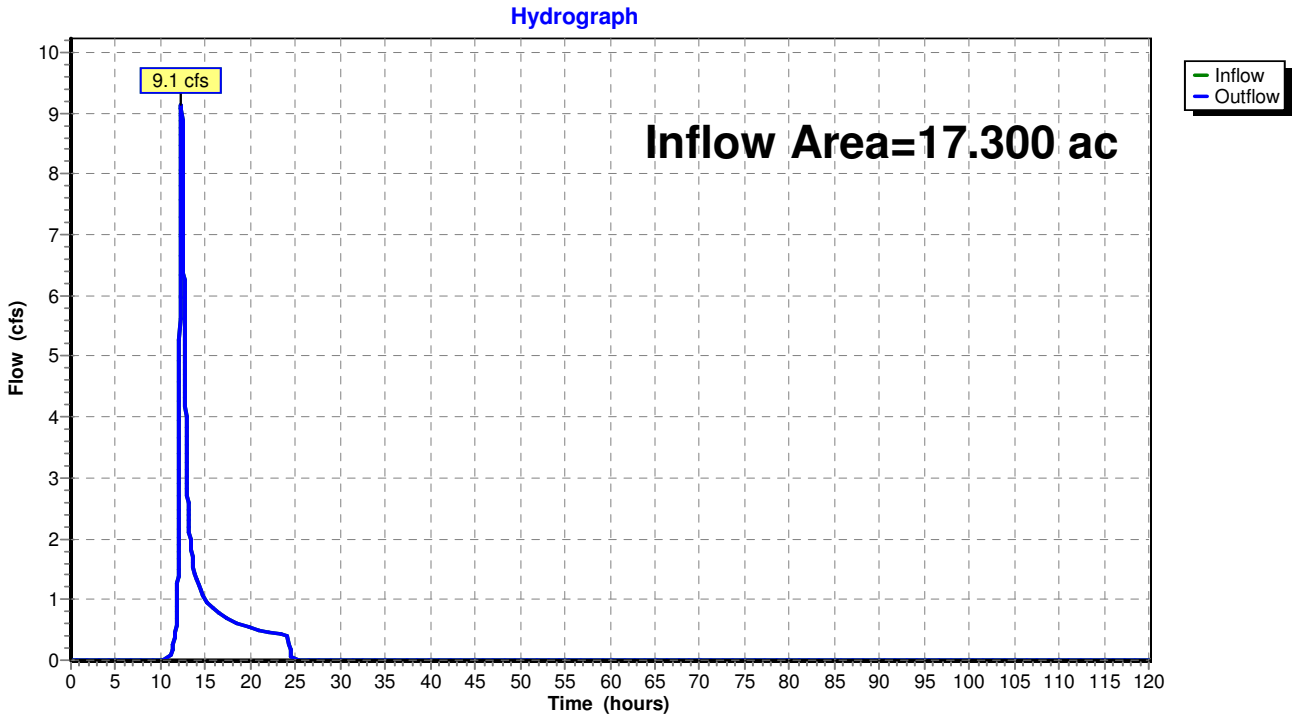


Summary for Reach DP 2: DESIGN POINT 2

Inflow Area = 17.300 ac, 4.62% Impervious, Inflow Depth = 0.85" for 1-yr event
Inflow = 9.1 cfs @ 12.31 hrs, Volume= 1.218 af
Outflow = 9.1 cfs @ 12.31 hrs, Volume= 1.218 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach DP 2: DESIGN POINT 2

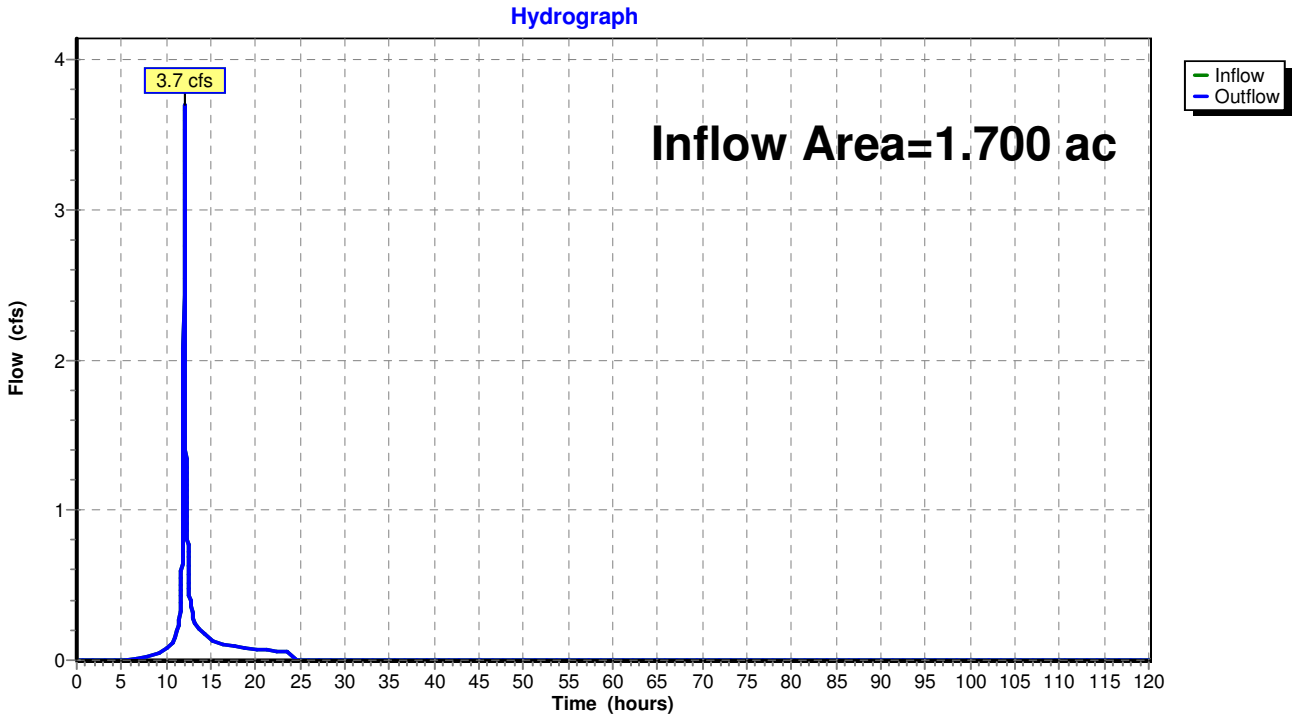


Summary for Reach HDS 1.1:

Inflow Area = 1.700 ac, 58.82% Impervious, Inflow Depth = 1.66" for 1-yr event
Inflow = 3.7 cfs @ 12.04 hrs, Volume= 0.235 af
Outflow = 3.7 cfs @ 12.04 hrs, Volume= 0.235 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach HDS 1.1:



Summary for Pond 1.2P: Irrigation Pond

Inflow Area = 1.400 ac, 71.43% Impervious, Inflow Depth = 1.90" for 1-yr event
Inflow = 3.5 cfs @ 12.04 hrs, Volume= 0.222 af
Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Starting Elev= 444.00' Surf.Area= 5,000 sf Storage= 8,300 cf
Peak Elev= 445.66' @ 24.34 hrs Surf.Area= 6,660 sf Storage= 17,976 cf (9,676 cf above start)

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

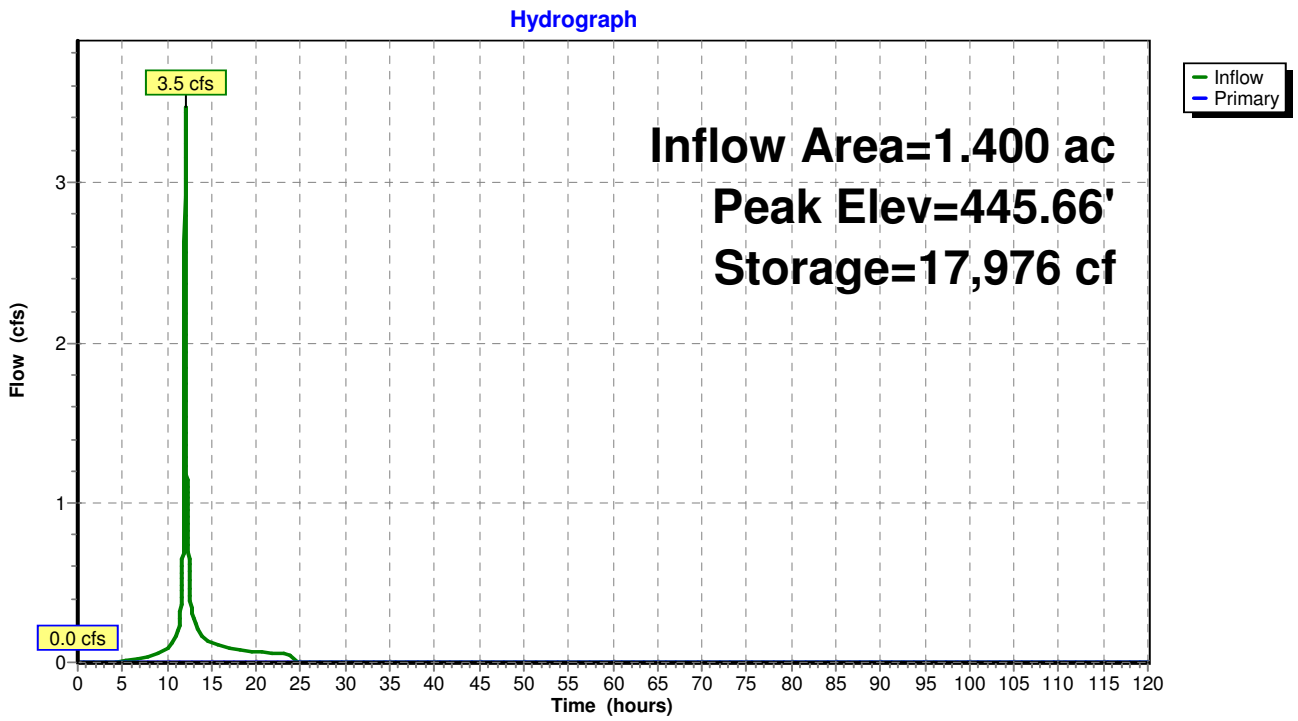
Volume	Invert	Avail.Storage	Storage Description
#1	442.00'	36,500 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
442.00	3,300	0	0
444.00	5,000	8,300	8,300
446.00	7,000	12,000	20,300
448.00	9,200	16,200	36,500

Device	Routing	Invert	Outlet Devices
#1	Primary	446.00'	**2.5' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Device 1	442.00'	**18.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 442.00' / 441.00' S= 0.1000 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=444.00' TW=0.00' (Dynamic Tailwater)
└─**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)
  └─**2=Culvert** (Controls 0.0 cfs)

Pond 1.2P: Irrigation Pond



Summary for Pond 1.3P: Underground Infiltration

Inflow Area =	0.700 ac, 28.57% Impervious, Inflow Depth = 1.15" for 1-yr event				
Inflow =	0.8 cfs @	12.04 hrs,	Volume=	0.067 af	
Outflow =	0.1 cfs @	11.72 hrs,	Volume=	0.067 af,	Atten= 93%, Lag= 0.0 min
Discarded =	0.1 cfs @	11.72 hrs,	Volume=	0.067 af	
Primary =	0.0 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 387.95' @ 14.48 hrs Surf.Area= 0.053 ac Storage= 0.029 af

Plug-Flow detention time= 250.6 min calculated for 0.067 af (100% of inflow)
Center-of-Mass det. time= 250.6 min (1,121.7 - 871.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	387.00'	0.051 af	**33.00'W x 69.52'L x 3.50'H Field A** 0.184 af Overall - 0.057 af Embedded = 0.127 af x 40.0% Voids
#2A	387.50'	0.057 af	**ADS_StormTech SC-740** x 54 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 6 rows
		0.108 af	Total Available Storage

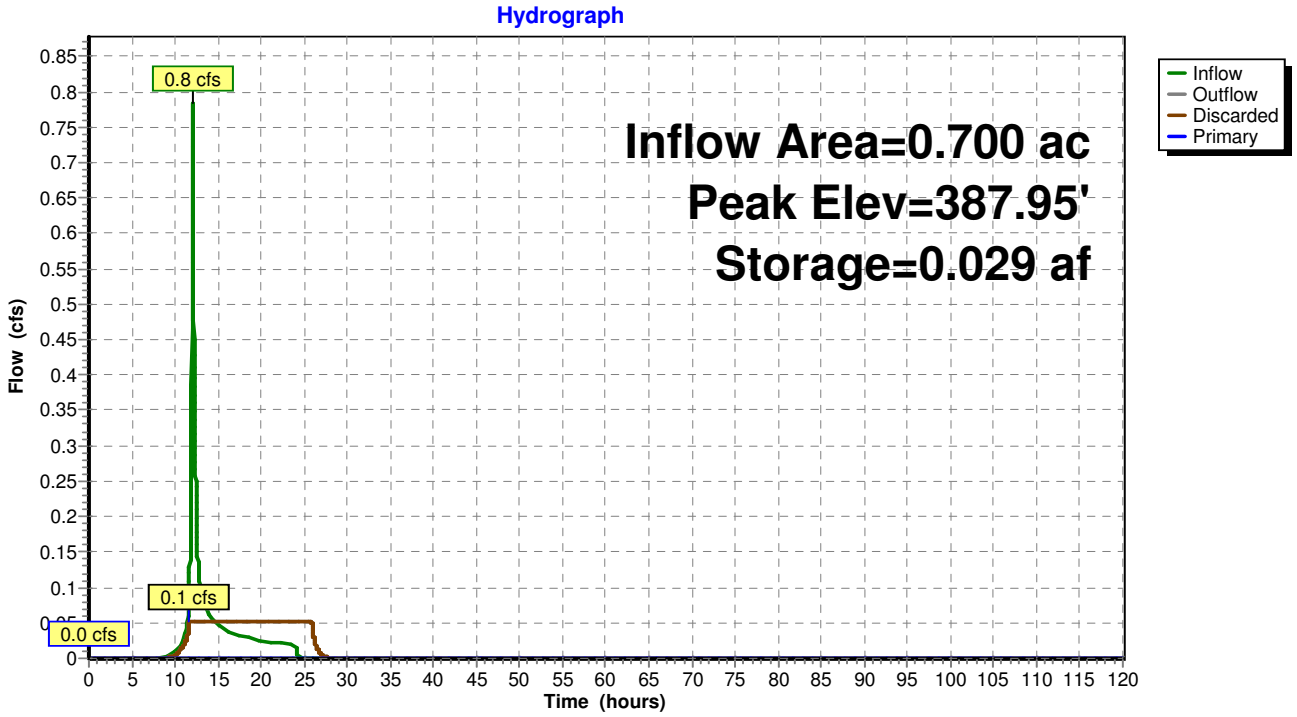
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	389.00'	**6.0" Round Culvert** L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 389.00' / 388.00' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#2	Discarded	387.00'	**1.000 in/hr Exfiltration over Horizontal area** Phase-In= 0.10'

Discarded OutFlow Max=0.1 cfs @ 11.72 hrs HW=387.11' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=387.00' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.0 cfs)

Pond 1.3P: Underground Infiltration



Summary for Pond FS 1.3:

Inflow Area =	0.700 ac, 28.57% Impervious, Inflow Depth = 1.18" for 1-yr event				
Inflow =	1.1 cfs @	12.04 hrs,	Volume=	0.069 af	
Outflow =	1.1 cfs @	12.04 hrs,	Volume=	0.069 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.8 cfs @	12.04 hrs,	Volume=	0.067 af	
Secondary =	0.3 cfs @	12.04 hrs,	Volume=	0.002 af	

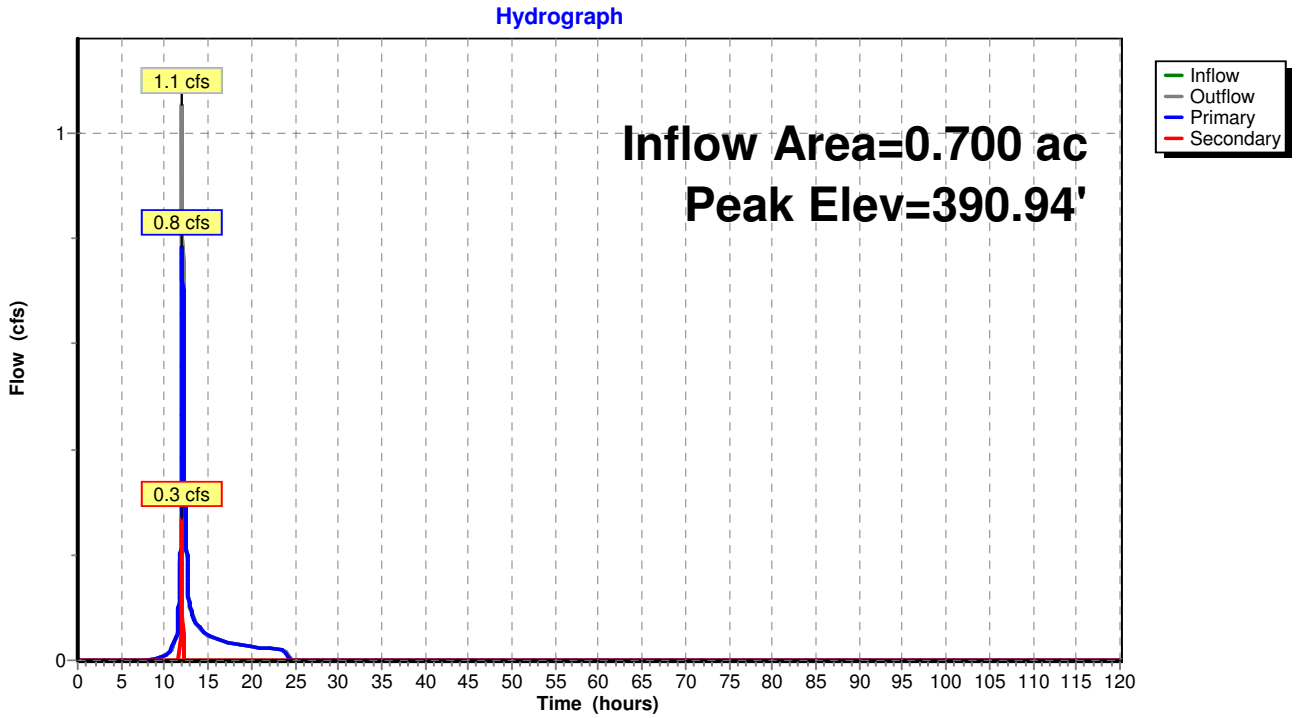
Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 390.94' @ 12.04 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	390.00'	**6.0" Round Culvert** L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.00' / 389.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#2	Secondary	390.70'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.70' / 390.00' S= 0.0140 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.8 cfs @ 12.04 hrs HW=390.94' TW=387.46' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 0.8 cfs @ 3.99 fps)

Secondary OutFlow Max=0.3 cfs @ 12.04 hrs HW=390.94' TW=0.00' (Dynamic Tailwater)
└─**2=Culvert** (Inlet Controls 0.3 cfs @ 1.66 fps)

Pond FS 1.3:



Summary for Subcatchment 1.0S:

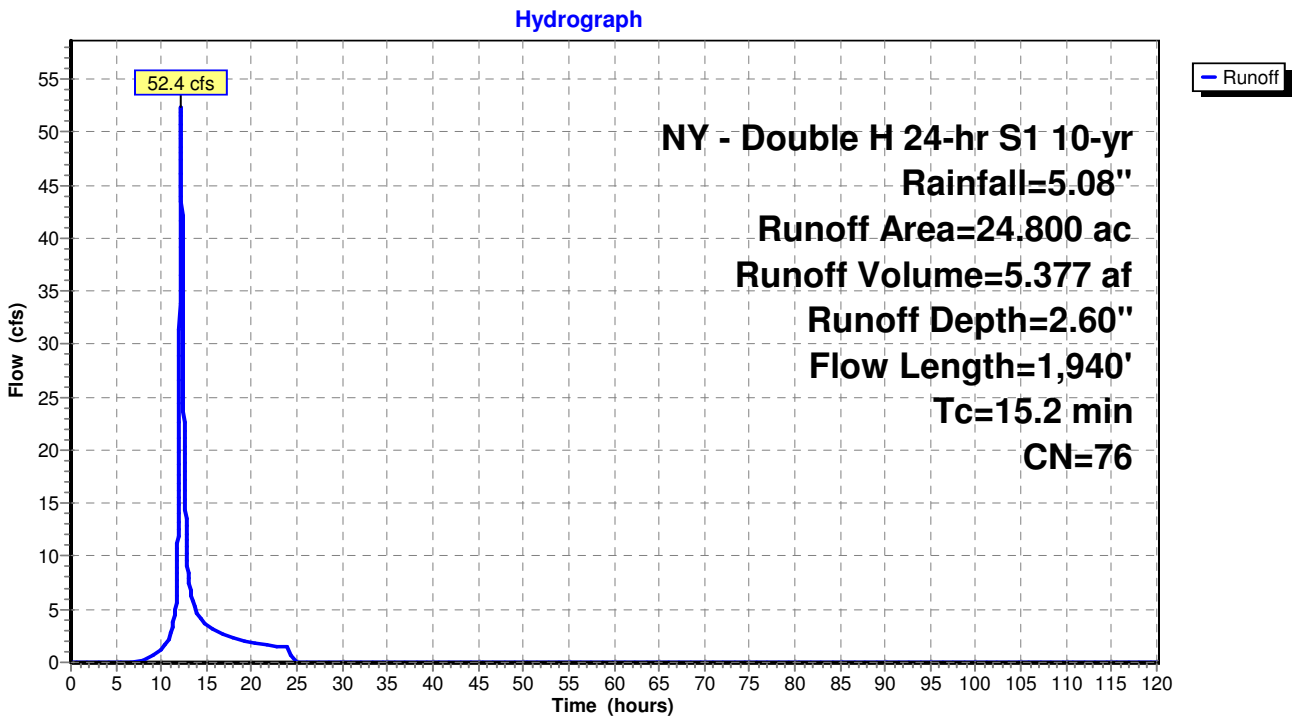
Runoff = 52.4 cfs @ 12.16 hrs, Volume= 5.377 af, Depth= 2.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 10-yr Rainfall=5.08"

	Area (ac)	CN	Description
	1.000	98	Paved parking, HSG D
	16.700	74	>75% Grass cover, Good, HSG C
	1.900	70	Woods, Good, HSG C
	1.000	80	>75% Grass cover, Good, HSG D
	3.000	77	Woods, Good, HSG D
*	1.200	87	Sand Ring
	24.800	76	Weighted Average
	23.800		95.97% Pervious Area
	1.000		4.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	100	0.0700	0.29		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.50"
2.3	265	0.1500	1.94		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.9	255	0.0900	4.50		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
3.8	490	0.1800	2.12		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.5	830	0.1400	5.61		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
15.2	1,940	Total			

Subcatchment 1.0S:



Summary for Subcatchment 1.1S:

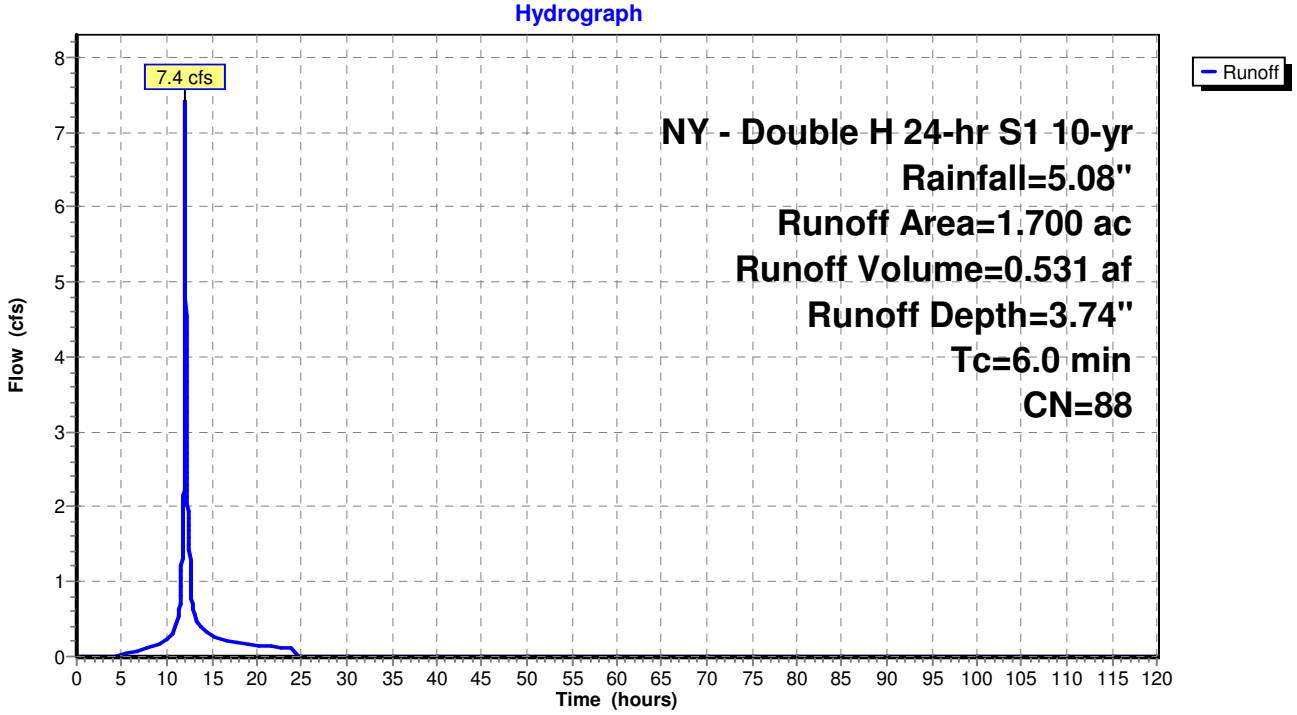
Runoff = 7.4 cfs @ 12.04 hrs, Volume= 0.531 af, Depth= 3.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 10-yr Rainfall=5.08"

Area (ac)	CN	Description
0.700	74	>75% Grass cover, Good, HSG C
1.000	98	Paved parking, HSG C
1.700	88	Weighted Average
0.700		41.18% Pervious Area
1.000		58.82% Impervious Area

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

Subcatchment 1.1S:



Summary for Subcatchment 1.2S:

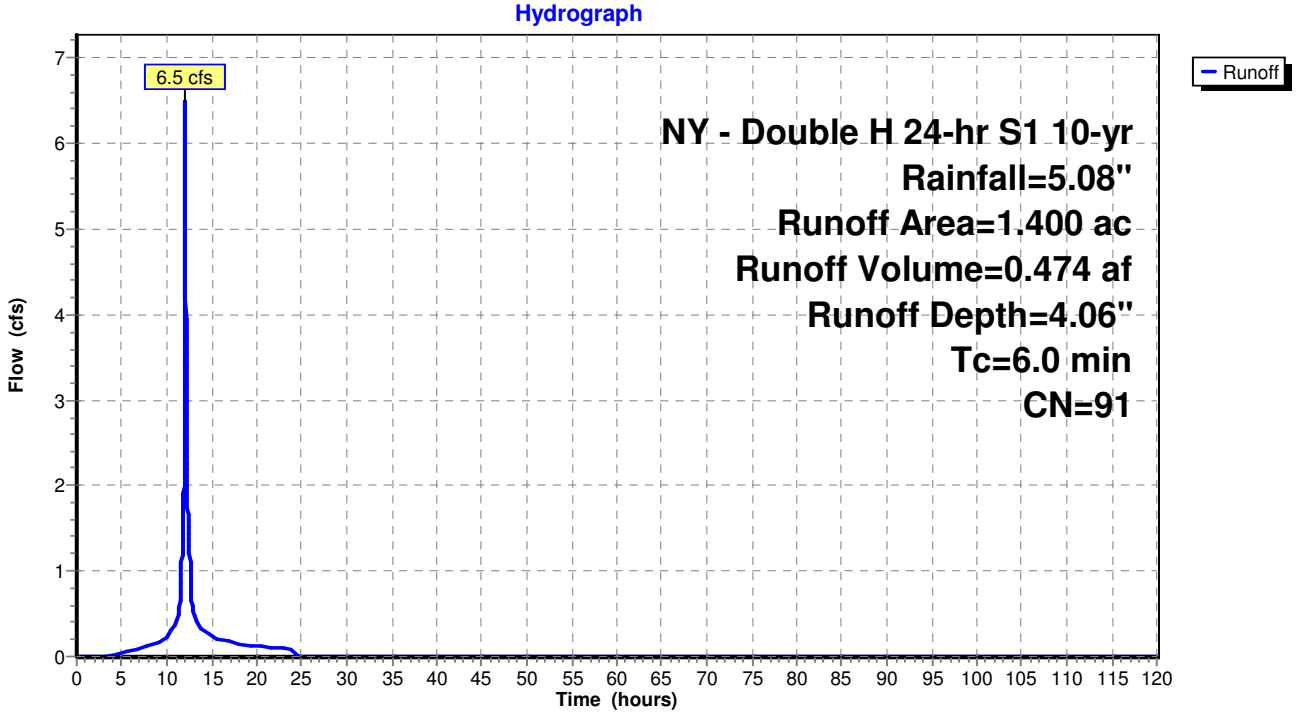
Runoff = 6.5 cfs @ 12.04 hrs, Volume= 0.474 af, Depth= 4.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 10-yr Rainfall=5.08"

Area (ac)	CN	Description
0.400	74	>75% Grass cover, Good, HSG C
1.000	98	Paved parking, HSG C
1.400	91	Weighted Average
0.400		28.57% Pervious Area
1.000		71.43% Impervious Area

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

Subcatchment 1.2S:



Summary for Subcatchment 1.3S:

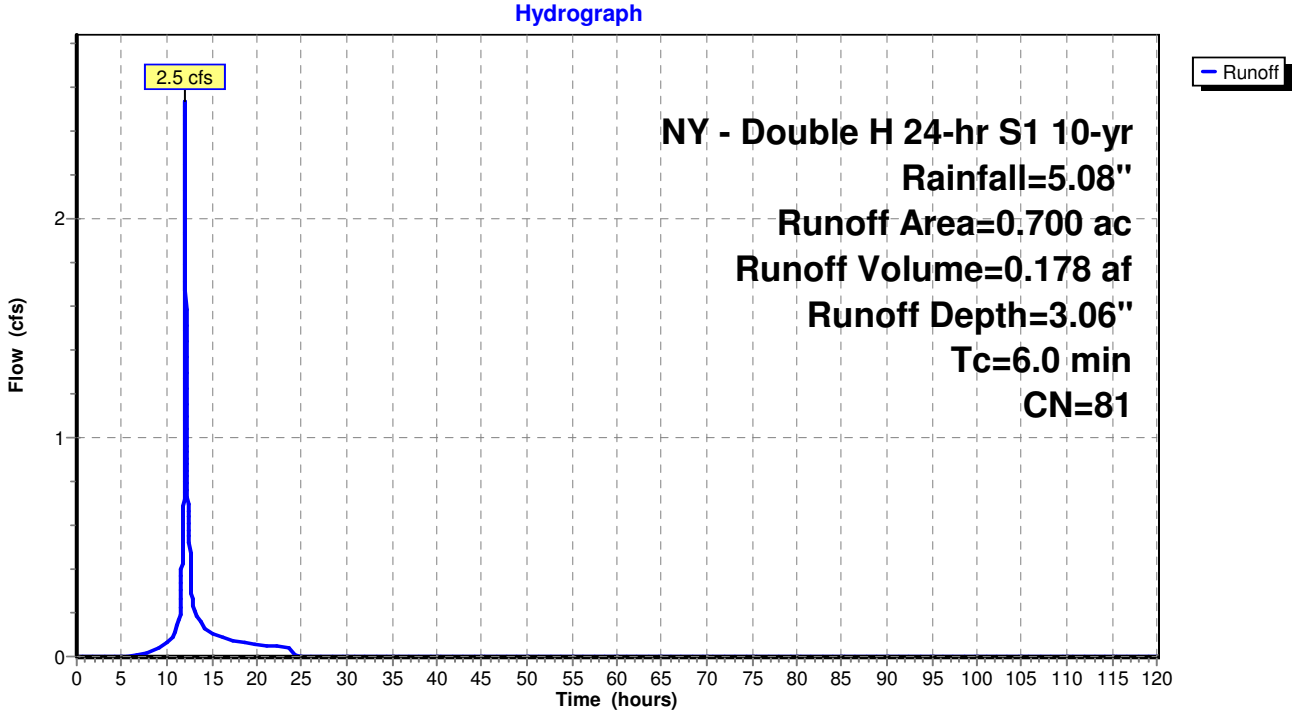
Runoff = 2.5 cfs @ 12.04 hrs, Volume= 0.178 af, Depth= 3.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 10-yr Rainfall=5.08"

Area (ac)	CN	Description
0.200	98	Paved parking, HSG D
0.500	74	>75% Grass cover, Good, HSG C
0.700	81	Weighted Average
0.500		71.43% Pervious Area
0.200		28.57% Impervious Area

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

Subcatchment 1.3S:



Summary for Subcatchment 2.0S:

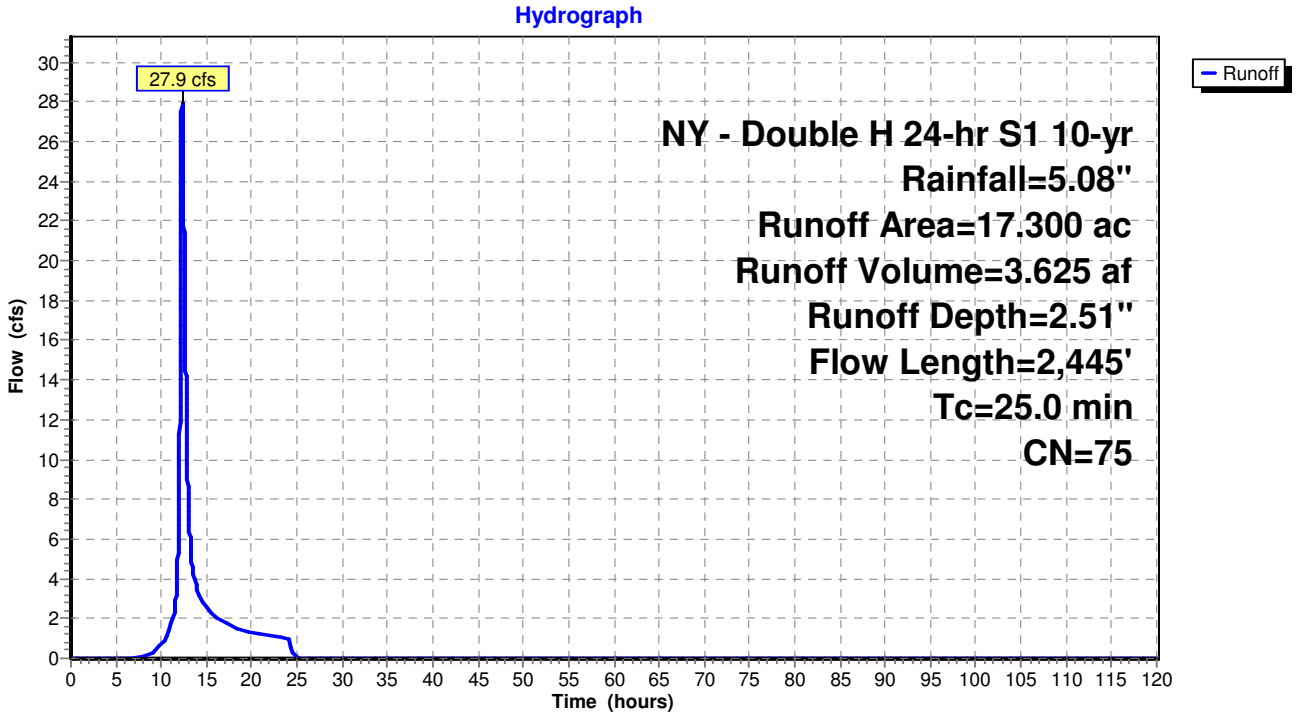
Runoff = 27.9 cfs @ 12.30 hrs, Volume= 3.625 af, Depth= 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 10-yr Rainfall=5.08"

Area (ac)	CN	Description
0.800	98	Paved parking, HSG C
7.500	74	>75% Grass cover, Good, HSG C
6.000	70	Woods, Good, HSG C
2.800	80	>75% Grass cover, Good, HSG D
0.200	77	Woods, Good, HSG D
17.300	75	Weighted Average
16.500		95.38% Pervious Area
0.800		4.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	100	0.0550	0.27		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.50"
8.3	705	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.4	695	0.1000	4.74		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
6.1	545	0.0900	1.50		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	400	0.0300	3.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
25.0	2,445	Total			

Subcatchment 2.0S:

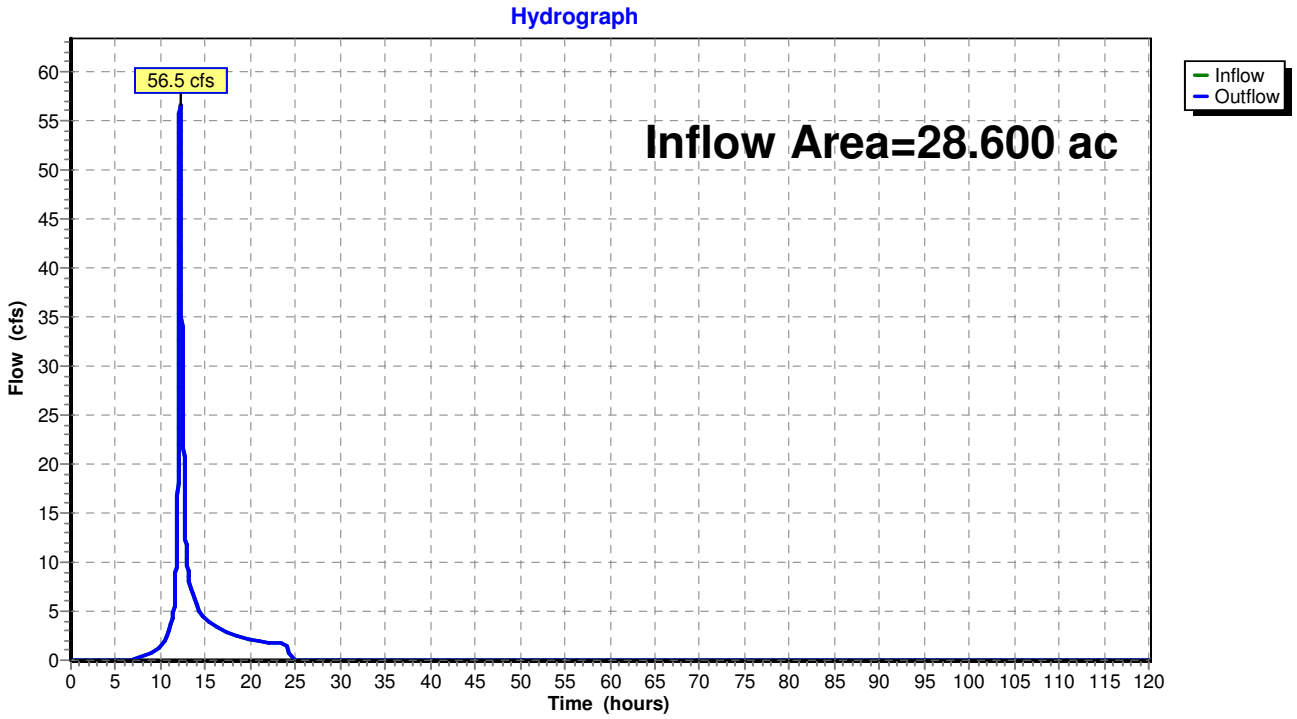


Summary for Reach DP 1: DESIGN POINT 1

Inflow Area = 28.600 ac, 11.19% Impervious, Inflow Depth = 2.58" for 10-yr event
Inflow = 56.5 cfs @ 12.15 hrs, Volume= 6.148 af
Outflow = 56.5 cfs @ 12.15 hrs, Volume= 6.148 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach DP 1: DESIGN POINT 1

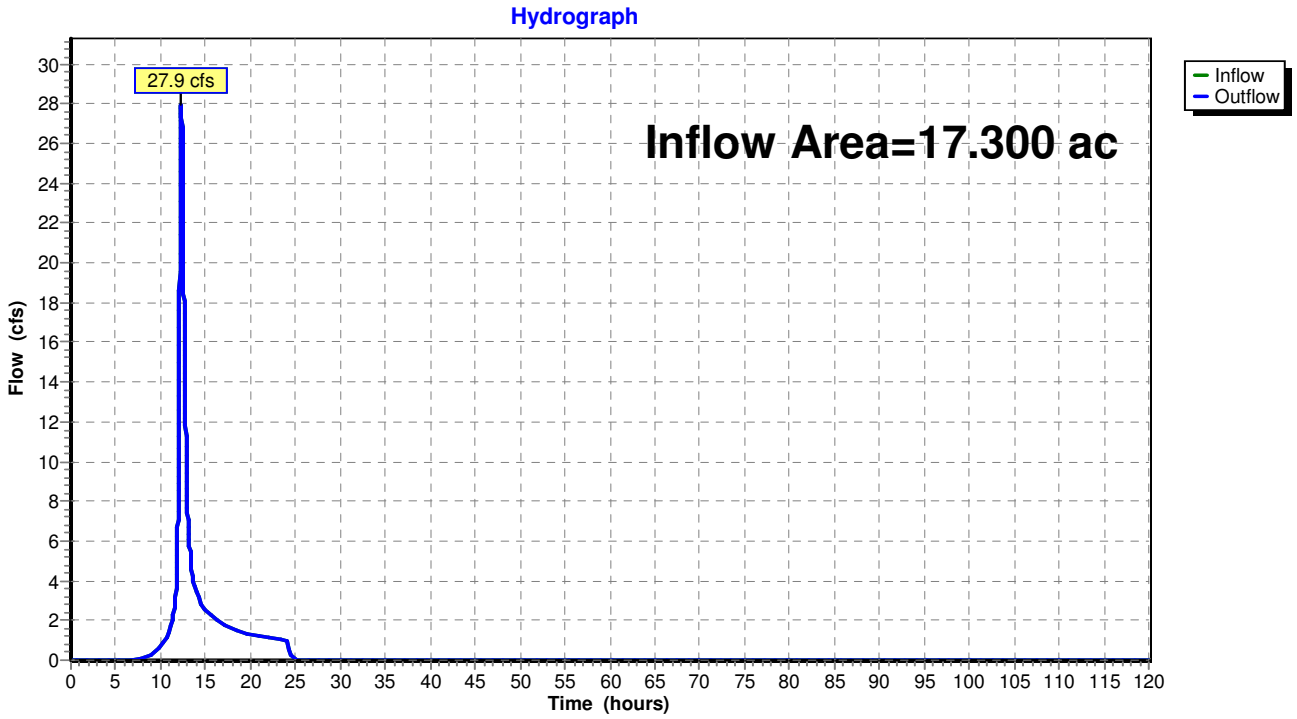


Summary for Reach DP 2: DESIGN POINT 2

Inflow Area = 17.300 ac, 4.62% Impervious, Inflow Depth = 2.51" for 10-yr event
Inflow = 27.9 cfs @ 12.30 hrs, Volume= 3.625 af
Outflow = 27.9 cfs @ 12.30 hrs, Volume= 3.625 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach DP 2: DESIGN POINT 2

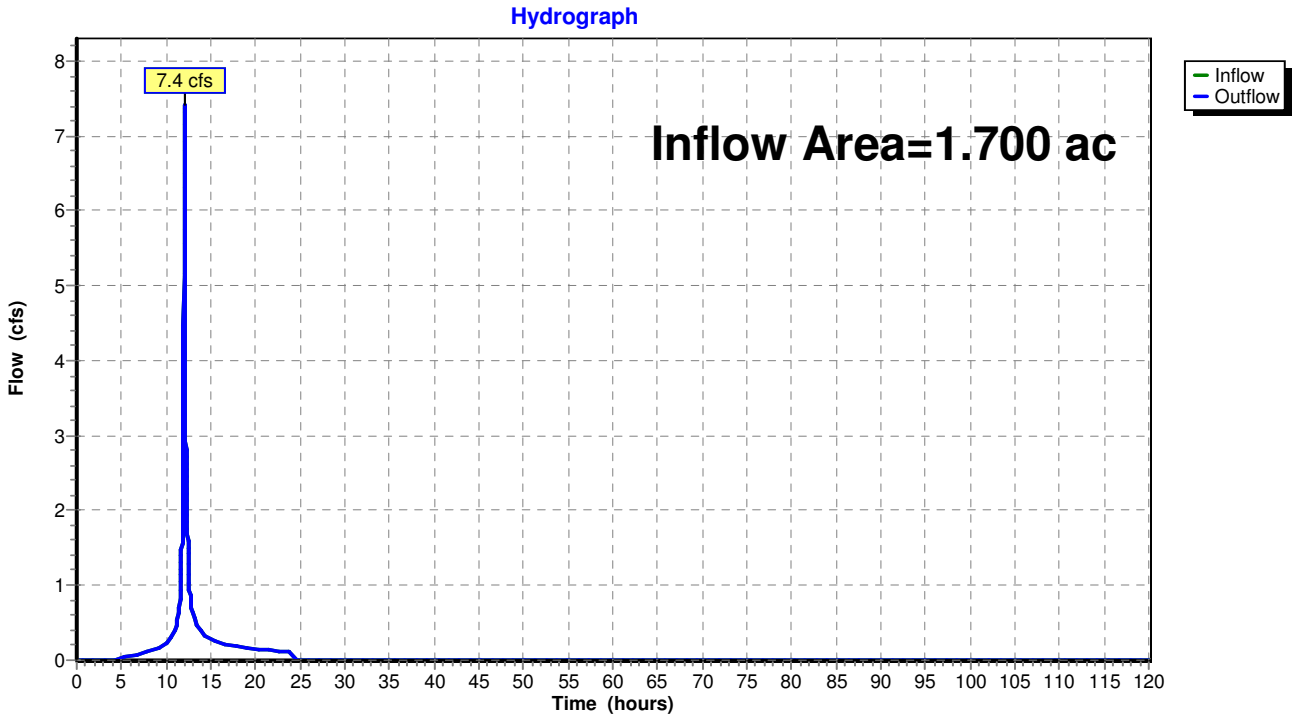


Summary for Reach HDS 1.1:

Inflow Area = 1.700 ac, 58.82% Impervious, Inflow Depth = 3.74" for 10-yr event
Inflow = 7.4 cfs @ 12.04 hrs, Volume= 0.531 af
Outflow = 7.4 cfs @ 12.04 hrs, Volume= 0.531 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach HDS 1.1:



Summary for Pond 1.2P: Irrigation Pond

Inflow Area = 1.400 ac, 71.43% Impervious, Inflow Depth = 4.06" for 10-yr event
Inflow = 6.5 cfs @ 12.04 hrs, Volume= 0.474 af
Outflow = 0.5 cfs @ 12.94 hrs, Volume= 0.198 af, Atten= 92%, Lag= 53.9 min
Primary = 0.5 cfs @ 12.94 hrs, Volume= 0.198 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Starting Elev= 444.00' Surf.Area= 5,000 sf Storage= 8,300 cf
Peak Elev= 446.11' @ 12.94 hrs Surf.Area= 7,126 sf Storage= 21,112 cf (12,812 cf above start)

Plug-Flow detention time= 1,216.9 min calculated for 0.008 af (2% of inflow)
Center-of-Mass det. time= 216.5 min (1,011.8 - 795.3)

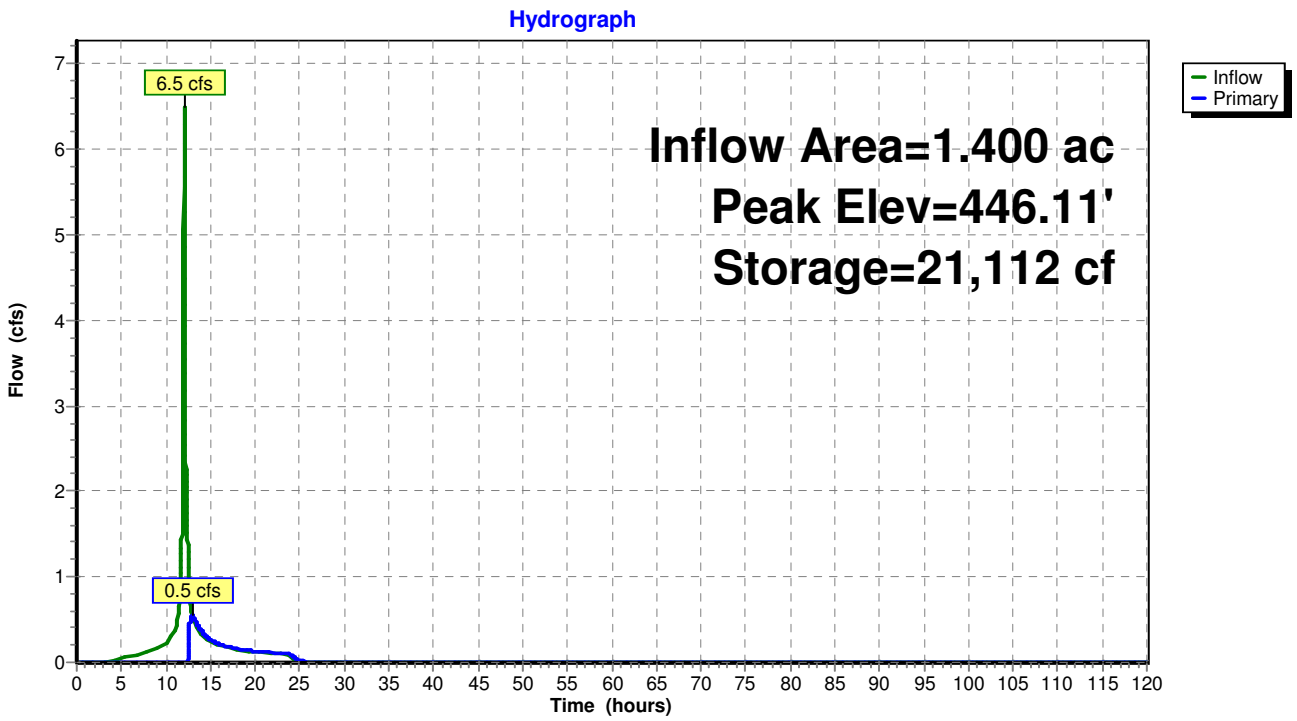
Volume	Invert	Avail.Storage	Storage Description
#1	442.00'	36,500 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
442.00	3,300	0	0
444.00	5,000	8,300	8,300
446.00	7,000	12,000	20,300
448.00	9,200	16,200	36,500

Device	Routing	Invert	Outlet Devices
#1	Primary	446.00'	**2.5' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Device 1	442.00'	**18.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 442.00' / 441.00' S= 0.1000 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=0.5 cfs @ 12.94 hrs HW=446.11' TW=0.00' (Dynamic Tailwater)
└─**1=Broad-Crested Rectangular Weir** (Weir Controls 0.5 cfs @ 0.95 fps)
  └─**2=Culvert** (Passes 0.5 cfs of 2.9 cfs potential flow)

Pond 1.2P: Irrigation Pond



Summary for Pond 1.3P: Underground Infiltration

Inflow Area =	0.700 ac, 28.57% Impervious, Inflow Depth = 2.71" for 10-yr event				
Inflow =	1.0 cfs @	12.04 hrs,	Volume=	0.158 af	
Outflow =	0.1 cfs @	14.18 hrs,	Volume=	0.158 af,	Atten= 86%, Lag= 128.6 min
Discarded =	0.1 cfs @	10.28 hrs,	Volume=	0.136 af	
Primary =	0.1 cfs @	14.18 hrs,	Volume=	0.022 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 389.17' @ 14.18 hrs Surf.Area= 0.053 ac Storage= 0.074 af

Plug-Flow detention time= 526.3 min calculated for 0.158 af (100% of inflow)
Center-of-Mass det. time= 526.3 min (1,376.4 - 850.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	387.00'	0.051 af	**33.00'W x 69.52'L x 3.50'H Field A** 0.184 af Overall - 0.057 af Embedded = 0.127 af x 40.0% Voids
#2A	387.50'	0.057 af	**ADS_StormTech SC-740** x 54 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 6 rows
		0.108 af	Total Available Storage

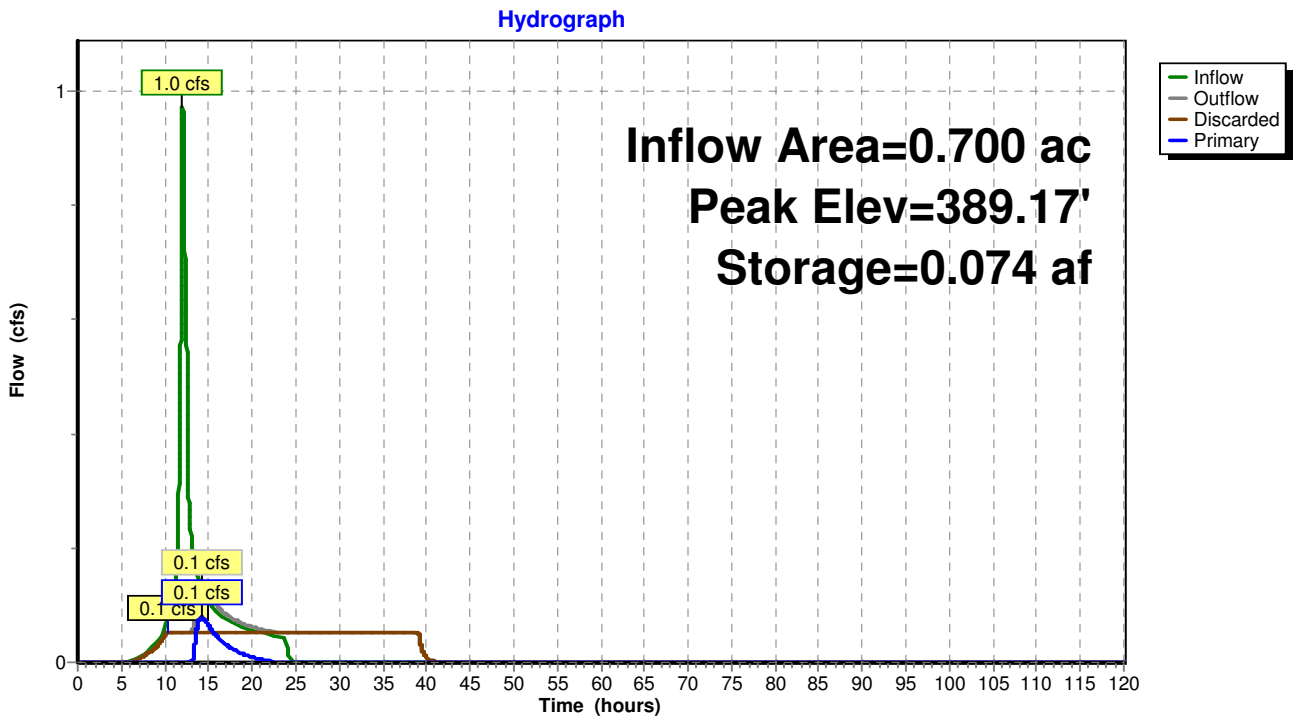
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	389.00'	**6.0" Round Culvert** L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 389.00' / 388.00' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#2	Discarded	387.00'	**1.000 in/hr Exfiltration over Horizontal area** Phase-In= 0.10'

Discarded OutFlow Max=0.1 cfs @ 10.28 hrs HW=387.11' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.1 cfs @ 14.18 hrs HW=389.17' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 0.1 cfs @ 1.38 fps)

Pond 1.3P: Underground Infiltration



Summary for Pond FS 1.3:

Inflow Area =	0.700 ac, 28.57% Impervious, Inflow Depth = 3.06" for 10-yr event				
Inflow =	2.5 cfs @	12.04 hrs,	Volume=	0.178 af	
Outflow =	2.5 cfs @	12.04 hrs,	Volume=	0.178 af,	Atten= 0%, Lag= 0.0 min
Primary =	1.0 cfs @	12.04 hrs,	Volume=	0.158 af	
Secondary =	1.6 cfs @	12.04 hrs,	Volume=	0.020 af	

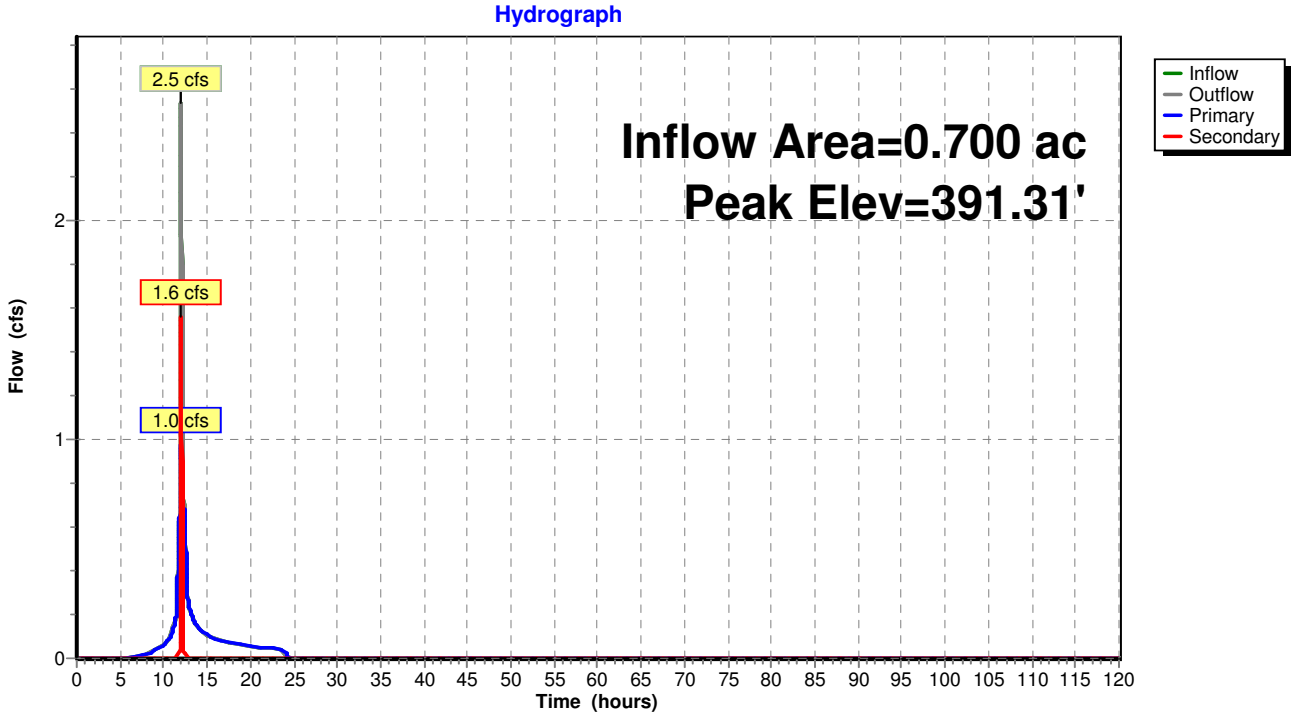
Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 391.31' @ 12.04 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	390.00'	**6.0" Round Culvert** L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.00' / 389.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#2	Secondary	390.70'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.70' / 390.00' S= 0.0140 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.0 cfs @ 12.04 hrs HW=391.31' TW=387.99' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 1.0 cfs @ 4.95 fps)

Secondary OutFlow Max=1.6 cfs @ 12.04 hrs HW=391.31' TW=0.00' (Dynamic Tailwater)
└─**2=Culvert** (Inlet Controls 1.6 cfs @ 2.65 fps)

Pond FS 1.3:



Summary for Subcatchment 1.0S:

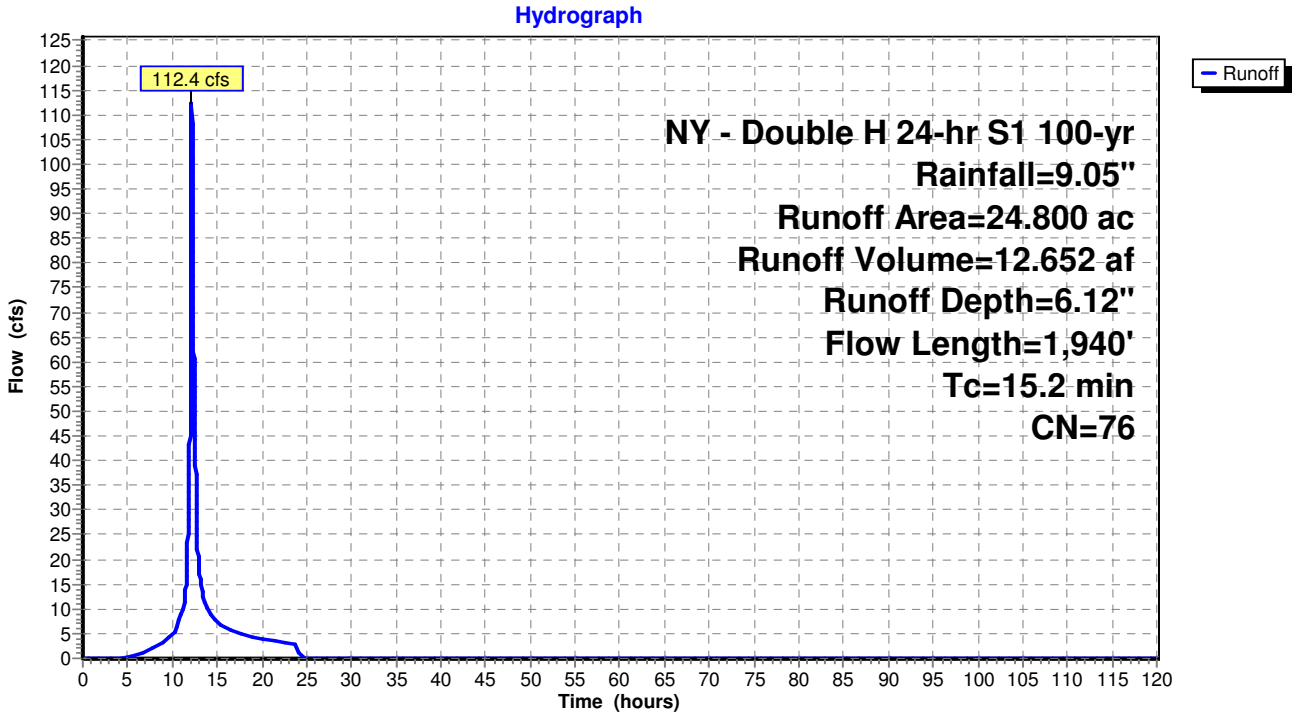
Runoff = 112.4 cfs @ 12.16 hrs, Volume= 12.652 af, Depth= 6.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 100-yr Rainfall=9.05"

	Area (ac)	CN	Description
	1.000	98	Paved parking, HSG D
	16.700	74	>75% Grass cover, Good, HSG C
	1.900	70	Woods, Good, HSG C
	1.000	80	>75% Grass cover, Good, HSG D
	3.000	77	Woods, Good, HSG D
*	1.200	87	Sand Ring
	24.800	76	Weighted Average
	23.800		95.97% Pervious Area
	1.000		4.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	100	0.0700	0.29		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.50"
2.3	265	0.1500	1.94		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.9	255	0.0900	4.50		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
3.8	490	0.1800	2.12		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.5	830	0.1400	5.61		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
15.2	1,940	Total			

Subcatchment 1.0S:



Summary for Subcatchment 1.1S:

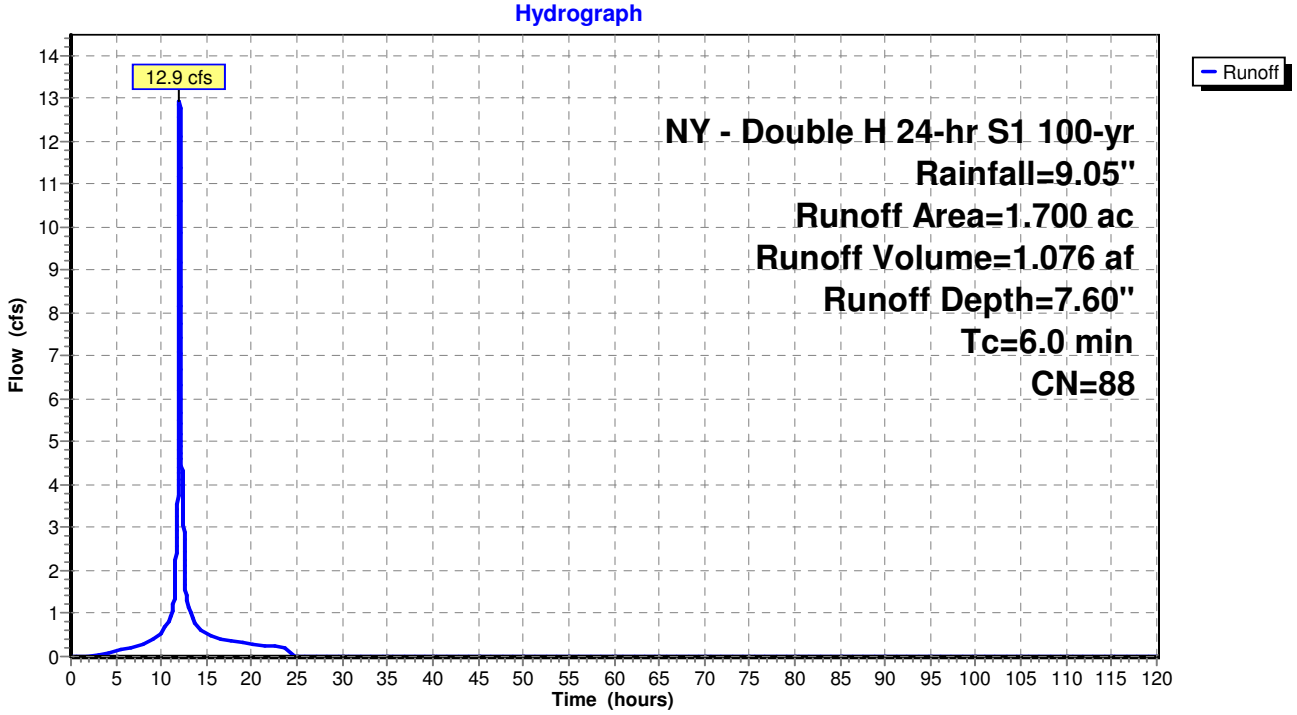
Runoff = 12.9 cfs @ 12.04 hrs, Volume= 1.076 af, Depth= 7.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 100-yr Rainfall=9.05"

Area (ac)	CN	Description
0.700	74	>75% Grass cover, Good, HSG C
1.000	98	Paved parking, HSG C
1.700	88	Weighted Average
0.700		41.18% Pervious Area
1.000		58.82% Impervious Area

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

Subcatchment 1.1S:



Summary for Subcatchment 1.2S:

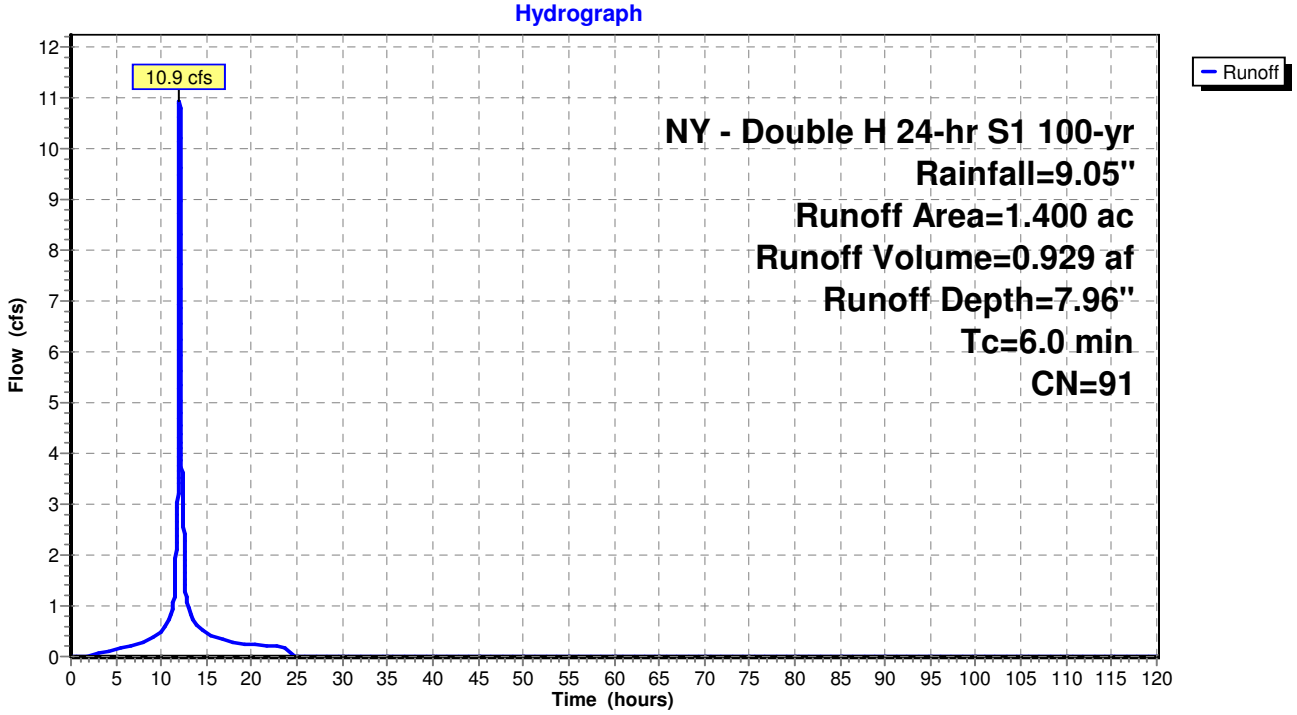
Runoff = 10.9 cfs @ 12.04 hrs, Volume= 0.929 af, Depth= 7.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 100-yr Rainfall=9.05"

Area (ac)	CN	Description
0.400	74	>75% Grass cover, Good, HSG C
1.000	98	Paved parking, HSG C
1.400	91	Weighted Average
0.400		28.57% Pervious Area
1.000		71.43% Impervious Area

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

Subcatchment 1.2S:



Summary for Subcatchment 1.3S:

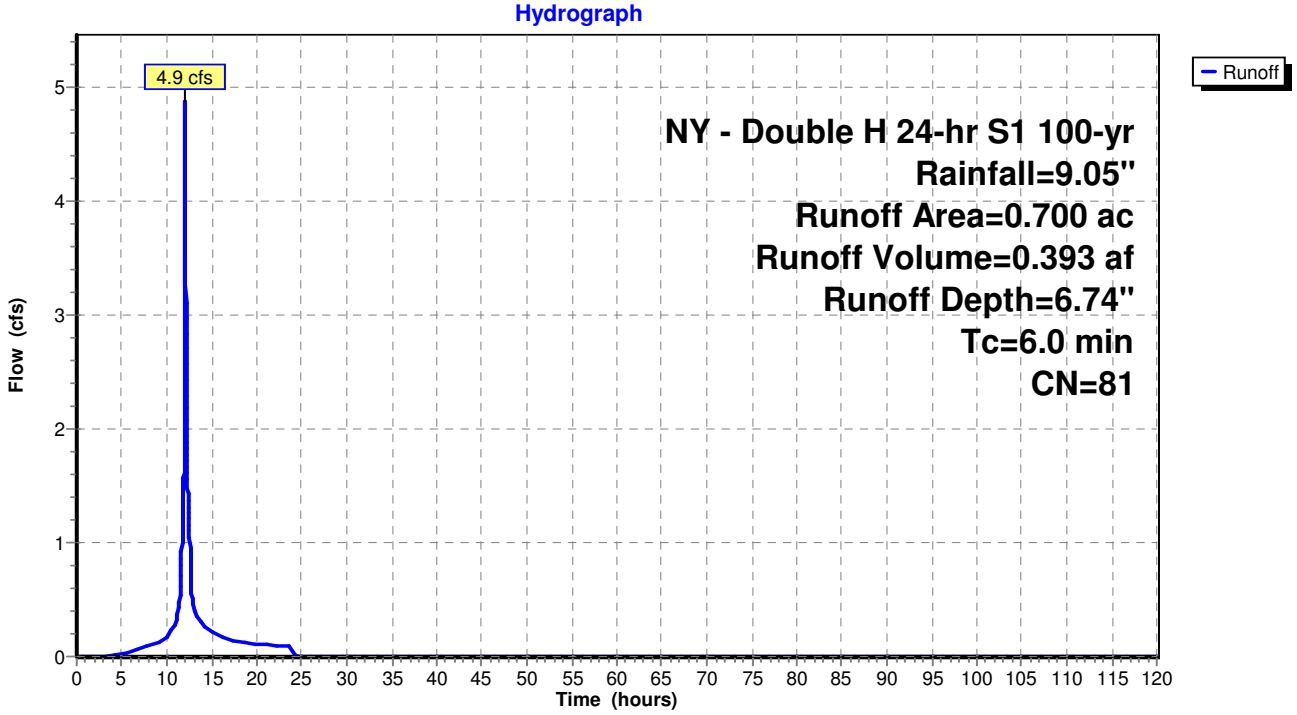
Runoff = 4.9 cfs @ 12.04 hrs, Volume= 0.393 af, Depth= 6.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 100-yr Rainfall=9.05"

Area (ac)	CN	Description
0.200	98	Paved parking, HSG D
0.500	74	>75% Grass cover, Good, HSG C
0.700	81	Weighted Average
0.500		71.43% Pervious Area
0.200		28.57% Impervious Area

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

Subcatchment 1.3S:



Summary for Subcatchment 2.0S:

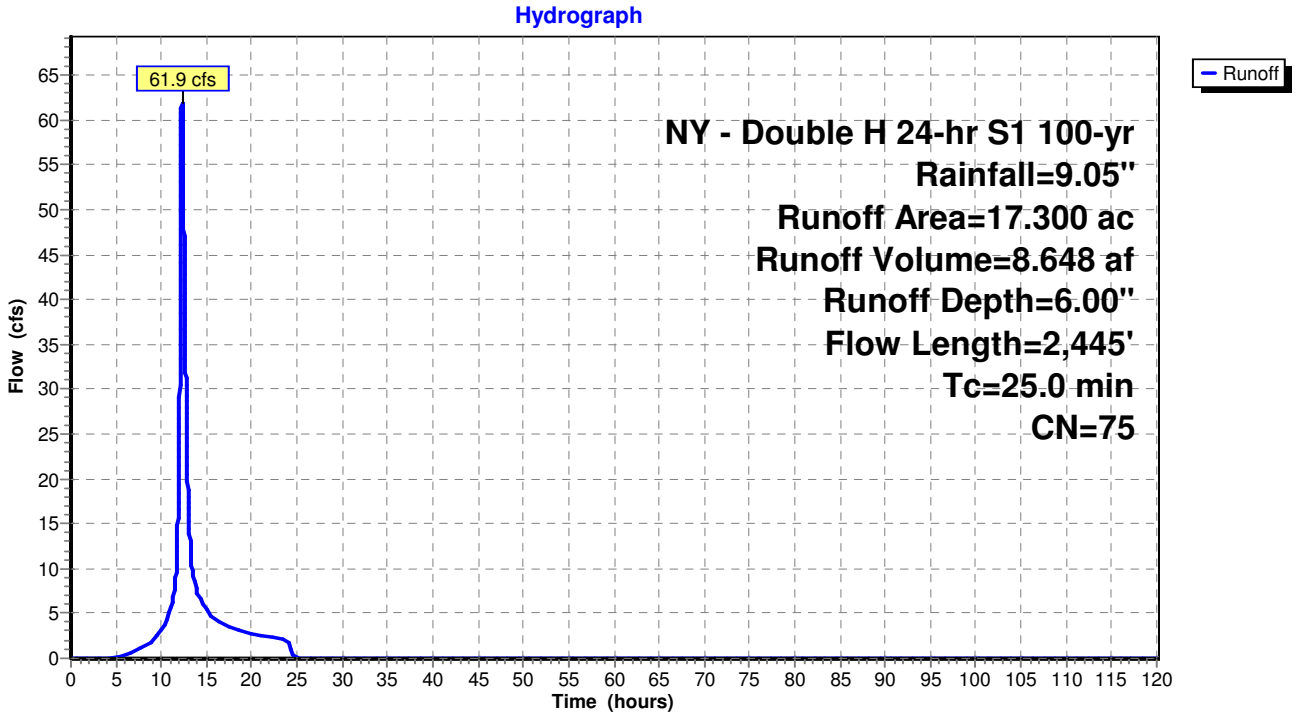
Runoff = 61.9 cfs @ 12.30 hrs, Volume= 8.648 af, Depth= 6.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NY - Double H 24-hr S1 100-yr Rainfall=9.05"

Area (ac)	CN	Description
0.800	98	Paved parking, HSG C
7.500	74	>75% Grass cover, Good, HSG C
6.000	70	Woods, Good, HSG C
2.800	80	>75% Grass cover, Good, HSG D
0.200	77	Woods, Good, HSG D
17.300	75	Weighted Average
16.500		95.38% Pervious Area
0.800		4.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	100	0.0550	0.27		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.50"
8.3	705	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.4	695	0.1000	4.74		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
6.1	545	0.0900	1.50		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	400	0.0300	3.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
25.0	2,445	Total			

Subcatchment 2.0S:

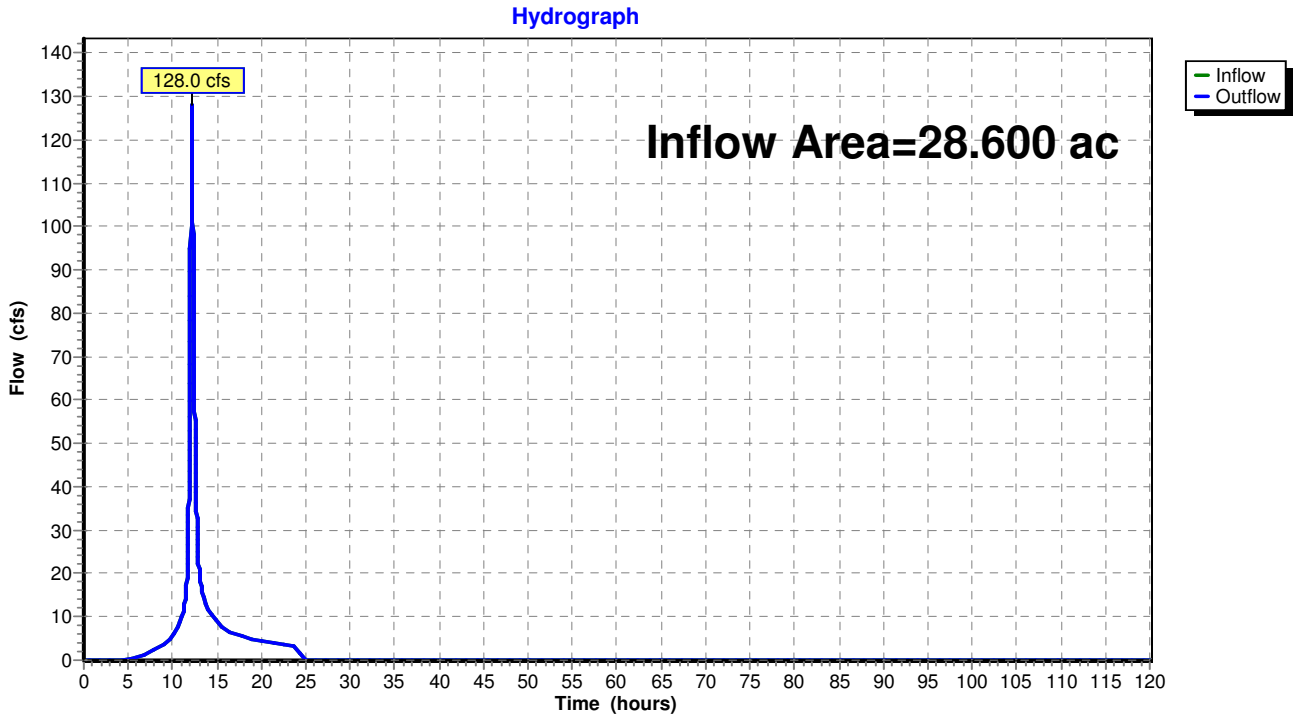


Summary for Reach DP 1: DESIGN POINT 1

Inflow Area = 28.600 ac, 11.19% Impervious, Inflow Depth = 6.13" for 100-yr event
Inflow = 128.0 cfs @ 12.15 hrs, Volume= 14.622 af
Outflow = 128.0 cfs @ 12.15 hrs, Volume= 14.622 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach DP 1: DESIGN POINT 1

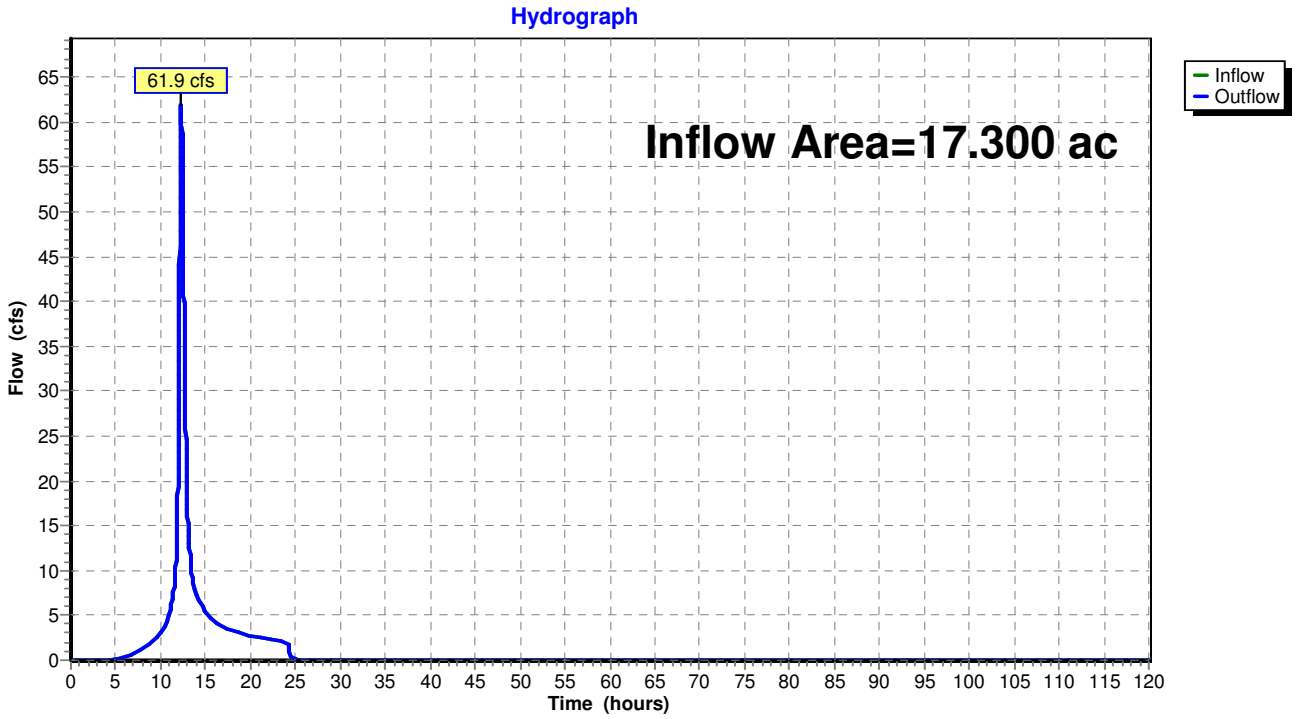


Summary for Reach DP 2: DESIGN POINT 2

Inflow Area = 17.300 ac, 4.62% Impervious, Inflow Depth = 6.00" for 100-yr event
Inflow = 61.9 cfs @ 12.30 hrs, Volume= 8.648 af
Outflow = 61.9 cfs @ 12.30 hrs, Volume= 8.648 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach DP 2: DESIGN POINT 2

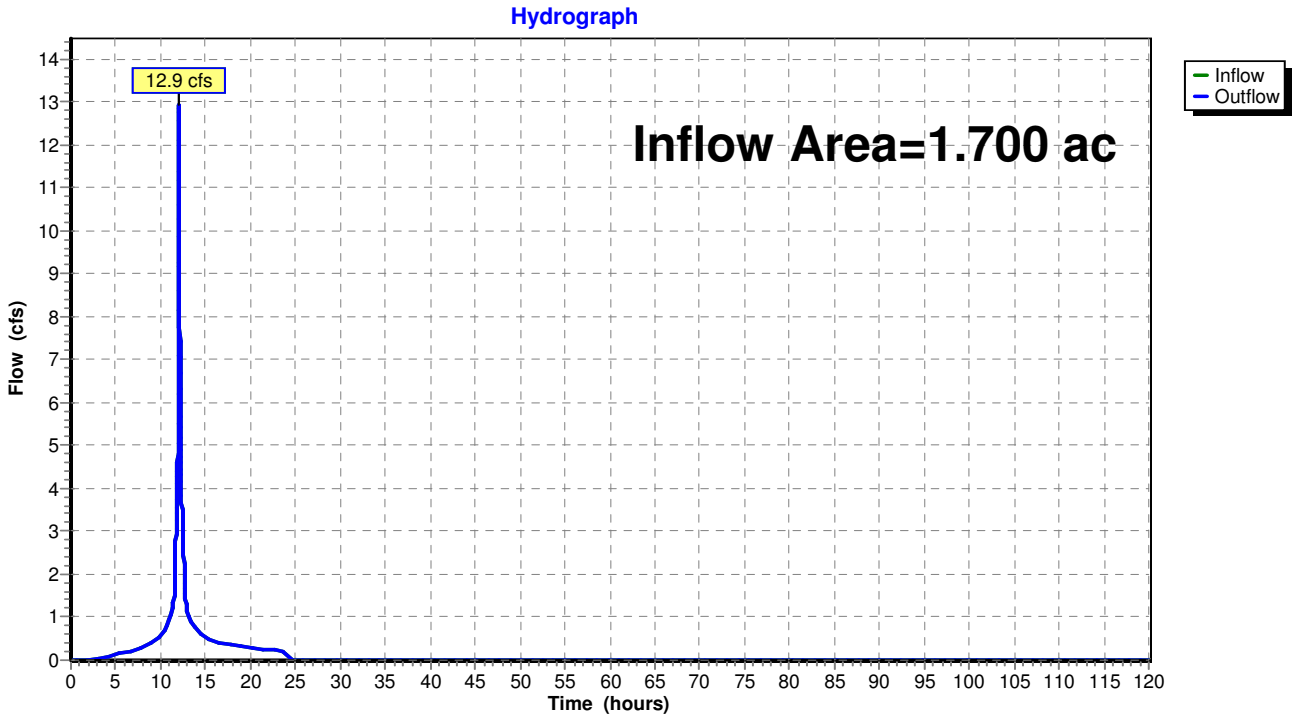


Summary for Reach HDS 1.1:

Inflow Area = 1.700 ac, 58.82% Impervious, Inflow Depth = 7.60" for 100-yr event
Inflow = 12.9 cfs @ 12.04 hrs, Volume= 1.076 af
Outflow = 12.9 cfs @ 12.04 hrs, Volume= 1.076 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach HDS 1.1:



Summary for Pond 1.2P: Irrigation Pond

Inflow Area = 1.400 ac, 71.43% Impervious, Inflow Depth = 7.96" for 100-yr event
Inflow = 10.9 cfs @ 12.04 hrs, Volume= 0.929 af
Outflow = 6.6 cfs @ 12.13 hrs, Volume= 0.653 af, Atten= 40%, Lag= 5.5 min
Primary = 6.6 cfs @ 12.13 hrs, Volume= 0.653 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Starting Elev= 444.00' Surf.Area= 5,000 sf Storage= 8,300 cf
Peak Elev= 446.60' @ 12.13 hrs Surf.Area= 7,661 sf Storage= 24,707 cf (16,407 cf above start)

Plug-Flow detention time= 336.3 min calculated for 0.463 af (50% of inflow)
Center-of-Mass det. time= 114.9 min (889.9 - 775.0)

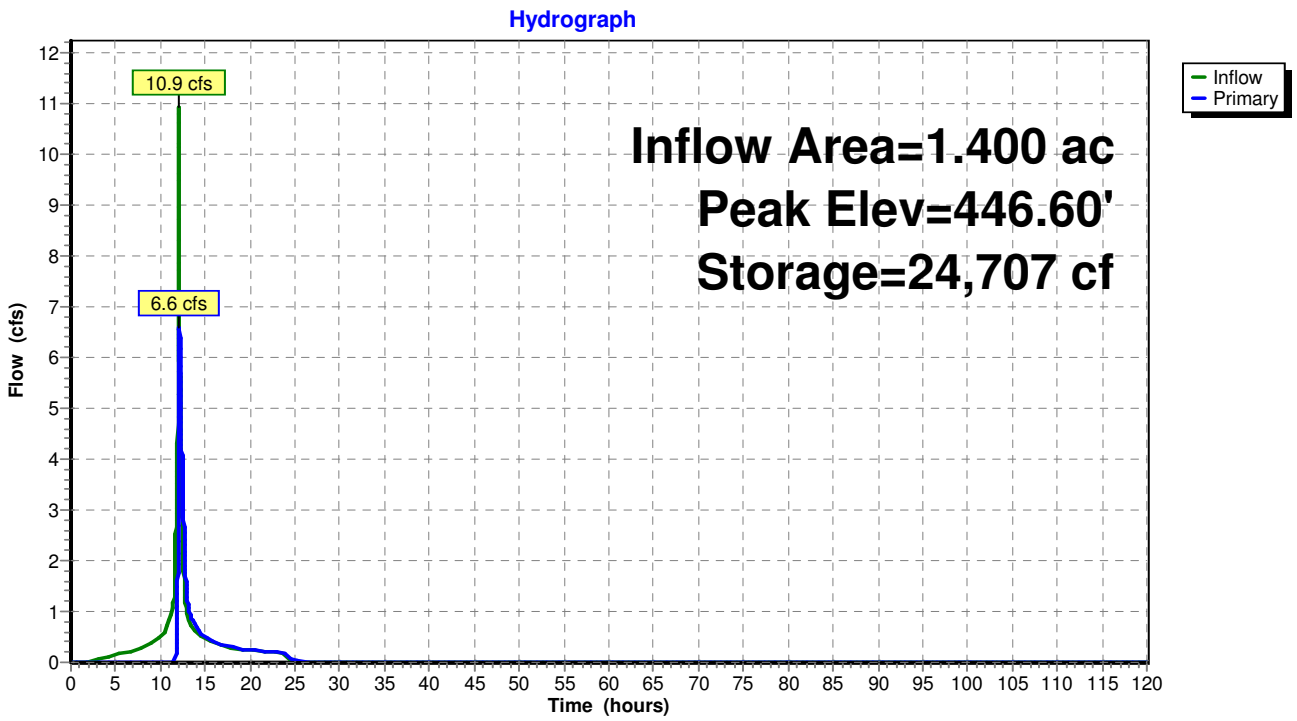
Volume	Invert	Avail.Storage	Storage Description
#1	442.00'	36,500 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
442.00	3,300	0	0
444.00	5,000	8,300	8,300
446.00	7,000	12,000	20,300
448.00	9,200	16,200	36,500

Device	Routing	Invert	Outlet Devices
#1	Primary	446.00'	**2.5' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Device 1	442.00'	**18.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 442.00' / 441.00' S= 0.1000 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=6.6 cfs @ 12.13 hrs HW=446.60' TW=0.00' (Dynamic Tailwater)
└─**1=Broad-Crested Rectangular Weir** (Passes 6.6 cfs of 7.2 cfs potential flow)
  └─**2=Culvert** (Inlet Controls 6.6 cfs @ 3.73 fps)

Pond 1.2P: Irrigation Pond



Summary for Pond 1.3P: Underground Infiltration

Inflow Area =	0.700 ac, 28.57% Impervious, Inflow Depth = 5.34" for 100-yr event				
Inflow =	1.1 cfs @	12.04 hrs,	Volume=	0.312 af	
Outflow =	0.7 cfs @	12.60 hrs,	Volume=	0.312 af,	Atten= 37%, Lag= 33.5 min
Discarded =	0.1 cfs @	7.13 hrs,	Volume=	0.153 af	
Primary =	0.7 cfs @	12.60 hrs,	Volume=	0.158 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 389.75' @ 12.60 hrs Surf.Area= 0.053 ac Storage= 0.092 af

Plug-Flow detention time= 309.1 min calculated for 0.312 af (100% of inflow)
Center-of-Mass det. time= 309.1 min (1,140.4 - 831.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	387.00'	0.051 af	**33.00'W x 69.52'L x 3.50'H Field A** 0.184 af Overall - 0.057 af Embedded = 0.127 af x 40.0% Voids
#2A	387.50'	0.057 af	**ADS_StormTech SC-740** x 54 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 6 rows
		0.108 af	Total Available Storage

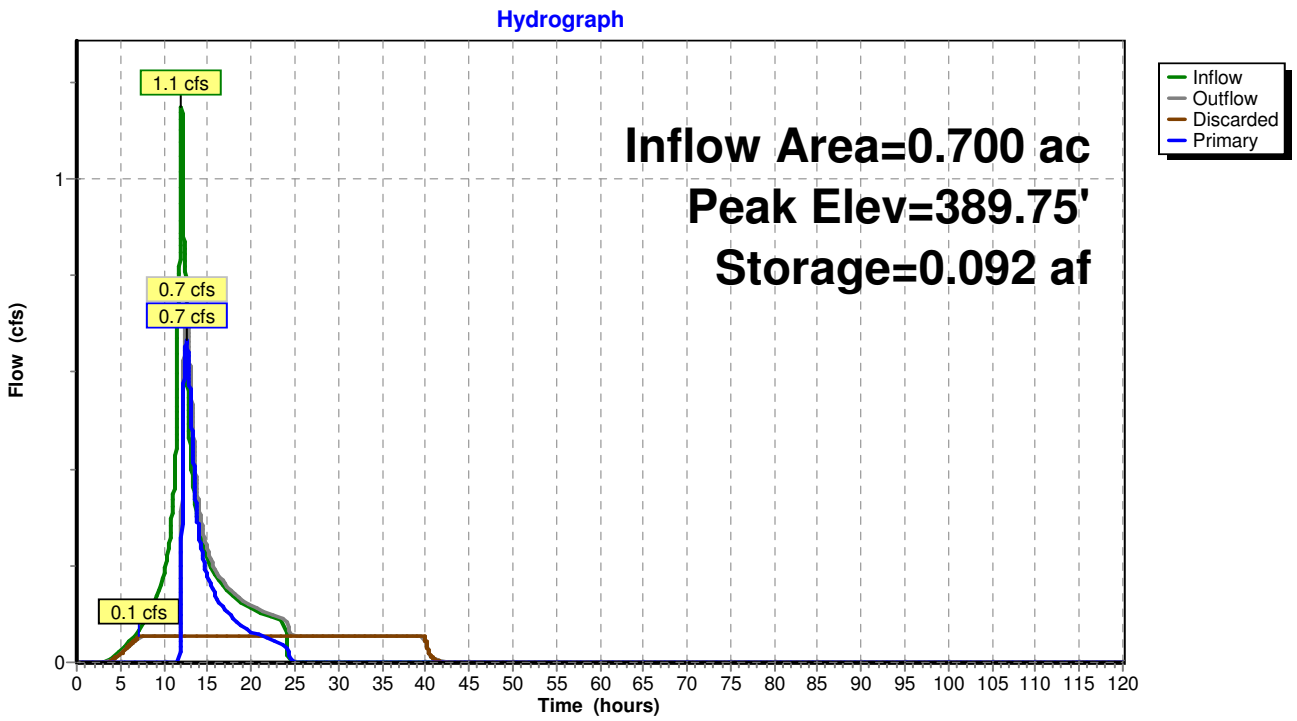
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	389.00'	**6.0" Round Culvert** L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 389.00' / 388.00' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#2	Discarded	387.00'	**1.000 in/hr Exfiltration over Horizontal area** Phase-In= 0.10'

Discarded OutFlow Max=0.1 cfs @ 7.13 hrs HW=387.11' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.7 cfs @ 12.60 hrs HW=389.75' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 0.7 cfs @ 3.40 fps)

Pond 1.3P: Underground Infiltration



Summary for Pond FS 1.3:

Inflow Area =	0.700 ac, 28.57% Impervious, Inflow Depth = 6.74" for 100-yr event				
Inflow =	4.9 cfs @	12.04 hrs,	Volume=	0.393 af	
Outflow =	4.9 cfs @	12.04 hrs,	Volume=	0.393 af,	Atten= 0%, Lag= 0.0 min
Primary =	1.1 cfs @	12.04 hrs,	Volume=	0.312 af	
Secondary =	3.7 cfs @	12.04 hrs,	Volume=	0.081 af	

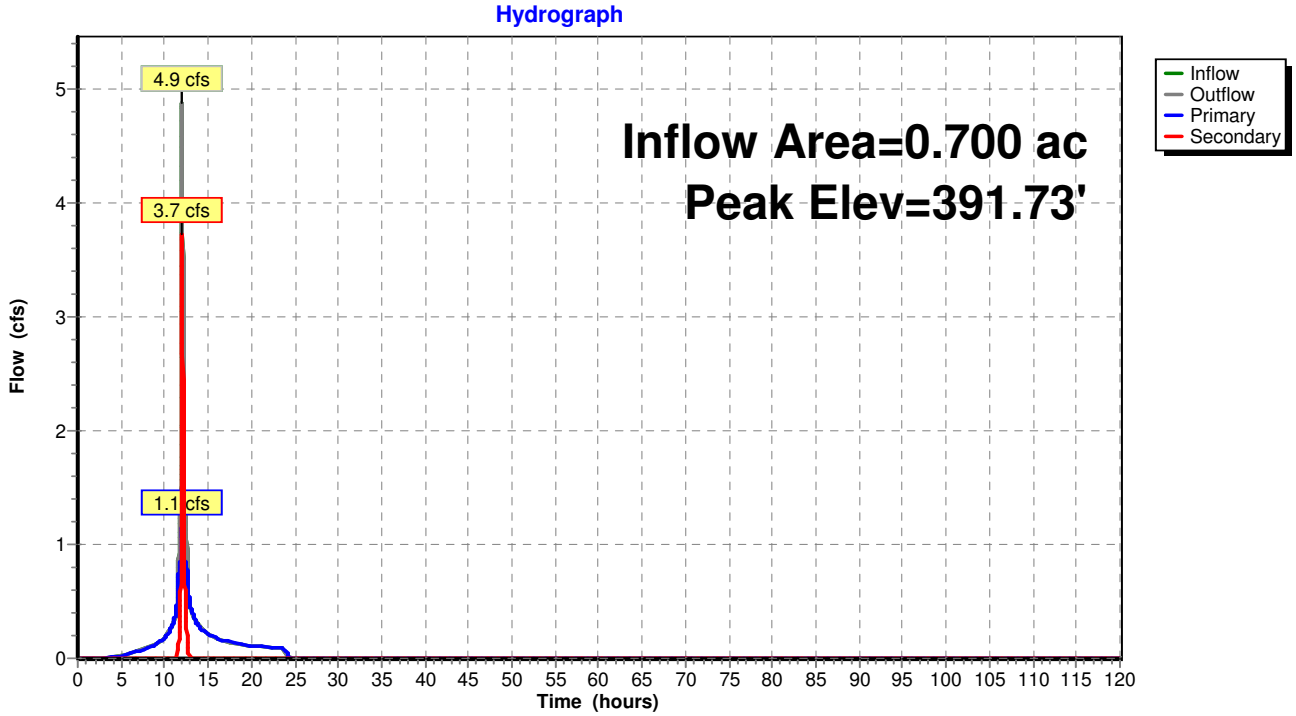
Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 391.73' @ 12.04 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	390.00'	**6.0" Round Culvert** L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.00' / 389.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#2	Secondary	390.70'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.70' / 390.00' S= 0.0140 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.1 cfs @ 12.04 hrs HW=391.73' TW=389.31' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 1.1 cfs @ 5.85 fps)

Secondary OutFlow Max=3.7 cfs @ 12.04 hrs HW=391.73' TW=0.00' (Dynamic Tailwater)
└─**2=Culvert** (Inlet Controls 3.7 cfs @ 3.45 fps)

Pond FS 1.3:



APPENDIX D

Project and Owner Information

Site Data:

Double H Farms
20 Boutonville Road South
Cross River, New York 10576

Owner Information:
Double H Farms LLC
2890 long Meadow Drive
Wellington, FL 33414

Party Responsible for Implementation of the Stormwater Pollution Prevention Plan:

To be determined prior to construction

Qualified Professional Responsible for Inspection of the Stormwater Pollution Prevention Plan:

Inspector to be determined at time of construction

APPENDIX E

NYSDEC SPDES General Permit for Construction Activities Construction Site Log Book

APPENDIX F
CONSTRUCTION SITE INSPECTION AND MAINTENANCE LOG BOOK

STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM FOR CONSTRUCTION ACTIVITIES

SAMPLE CONSTRUCTION SITE LOG BOOK

Table of Contents

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[1] conduct an assessment of the site prior to the commencement of construction[2] 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[3] 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
[ ] [ ] [ ] Are construction limits 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.
[ ] [ ] [ ] Are clearing and grading operations 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.

SITE PLAN/SKETCH

_____	_____
Inspector (print name)	**Date of Inspection**
_____	_____
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
[ ] [ ] [ ] Is there an increase in turbidity causing a substantial visible contrast to natural conditions at the outfalls?
[ ] [ ] [ ] Is there residue from oil and floating substances, visible oil film, or globules or grease at the outfalls?
[ ] [ ] [ ] All disturbance is within the limits of the approved plans.
[ ] [ ] [ ] Have receiving lake/bay, stream, and/or wetland been impacted by 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?
[ ] [ ] [ ] Is construction 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 1acre 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.

CONSTRUCTION DURATION INSPECTIONS

b. Modifications to the SWPPP (To be completed as described below)

The Operator shall amend the SWPPP whenever:

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.

Modification & Reason:

b. Operators Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. Further, I hereby certify that the SWPPP meets all Federal, State, and local erosion and sediment control requirements. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law. "

Name (please print):_____

Title _____**Date:**_____

Address: _____

Phone: _____ **Email:**_____

Signature:_____

c. Qualified Professional's Credentials & Certification

“ I hereby certify that I meet the criteria set forth in the General Permit to conduct site inspections for this project and that the appropriate erosion and sediment controls described in the SWPPP and as described in the following Pre-construction Site Assessment Checklist have been adequately installed or implemented, ensuring the overall preparedness of this site for the commencement of construction.”

Name (please print):_____

Title _____**Date:**_____

Address: _____

Phone: _____ **Email:**_____

Signature:_____

d. Contractors Certification Statement

"I hereby certify 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 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."

_____

Signature of Contractor Date

_____

Print Name Title

_____

Signature of Trained Contractor Date

_____

Print Name of Trained Contractor Title

Name of Contracting Firm _____

Street Address _____

City, State, Zip _____

Telephone No. _____

A copy of this statement shall be retained as part of the Stormwater Pollution Prevention Plan (SWPPP) for a period off at least five (5) years after the subject property is stabilized.

APPENDIX F

Hydrodynamic Separator Sizing Information

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

DIVISION OF WATERSHED PROTECTION AND RESTORATION
BUREAU OF NJPDES STORMWATER PERMITTING & WATER QUALITY MANAGEMENT
P.O. Box 420 Mail Code 401-02B
Trenton, New Jersey 08625-0420
609-633-7021 / Fax: 609-777-0432
www.njstormwater.org

SHAWN M. LATOURETTE
Commissioner

July 19, 2021

Mr. Jeremy Fink
Pr. Product Development Engineer
Hydro International
94 Hutchins Drive
Portland, ME 04102

Re: MTD Lab Certification
First Defense® Optimum Vortex Separator by Hydro International
Online Installation

TSS Removal Rate 50%

Dear Mr. Fink:

The Stormwater Management rules under N.J.A.C. 7:8-5.2(f) and 5.2(j) allow the use of manufactured treatment devices (MTDs) for compliance with the design and performance standards at N.J.A.C. 7:8-5 if the pollutant removal rates have been verified by the New Jersey Corporation for Advanced Technology (NJCAT) and have been certified by the New Jersey Department of Environmental Protection (NJDEP). Bio Clean Environmental, Inc. has requested an MTD Laboratory Certification for the First Defense® Optimum Vortex Separator (FD Optimum).

The project falls under the "Procedure for Obtaining Verification of a Stormwater Manufactured Treatment Device from New Jersey Corporation for Advance Technology" dated January 25, 2013. The applicable protocol is the "New Jersey Laboratory Testing Protocol to Assess Total Suspended Solids Removal by a Hydrodynamic Sedimentation Manufactured Treatment Device" dated January 25, 2013.

NJCAT verification documents submitted to the NJDEP indicate that the requirements of the protocol have been met or exceeded. The NJCAT letter also included a recommended certification TSS removal rate and the required maintenance plan. The NJCAT Verification Report dated June 2021 with the Verification Appendix for this device is published online at http://www.njcat.org/verification-process/technology-verification-database.html.

The NJDEP certifies the use of the First Defense® Optimum Vortex Separator by Hydro International at a TSS removal rate of 50% when designed, operated and maintained in accordance with the information provided in the Verification Appendix and the following conditions:

1. The maximum treatment flow rate (MTFR) for the manufactured treatment device (MTD) is calculated using the New Jersey Water Quality Design Storm (1.25 inches in 2 hrs) in N.J.A.C. 7:8-5.5.

2. The FD Optimum shall be installed using the same configuration reviewed by NJCAT and shall be sized in accordance with the criteria specified in in item 6 below.

3. This FD Optimum cannot be used in series with another MTD or a media filter (such as a sand filter), to achieve an enhanced removal rate for total suspended solids (TSS) removal under N.J.A.C. 7:8-5.5.

4. Additional design criteria for MTDs can be found in Chapter 11.3 of the New Jersey Stormwater Best Management Practices (NJ Stormwater BMP) Manual which can be found online at www.njstormwater.org.

5. The maintenance plan for a site using this device shall incorporate, at a minimum, the maintenance requirements for the FD Optimum, which is attached to this document. However, it is recommended to review the maintenance manual at https://www.hydro-int.com/en/resources/first-defense-operations-maintenance-manual for any changes to the maintenance requirements.

6. Sizing Requirements:

   The example below demonstrates the sizing procedure for the FD Optimum:

   Example: A 0.25-acre impervious site is to be treated to 50% TSS removal using a FD Optimum. The impervious site runoff (Q) based on the New Jersey Water Quality Design Storm was determined to be 0.79 cfs.

   Maximum Treatment Flow Rate (MTFR) Evaluation:

   The site runoff (Q) was based on the following:
   time of concentration = 10 minutes
   i=3.2 in/hr (page 21, Fig. 5-10 of Chapter 5 of the NJ Stormwater BMP Manual)
   c=0.99 (curve number for impervious)
   Q=ciA=0.99x3.2x0.25=0.79 cfs

   Given the site runoff is 0.79 cfs and based on Table 1 below, the FD Optimum 3-ft model with a MTFR of 1.02 cfs would be the smallest model approved that could be used for this site that could remove 50% of the TSS from the impervious area without exceeding the MTFR.

   The sizing table corresponding to the available system models is noted below. Additional specifications regarding each model can be found in the Verification Appendix under Table A-1 and Table A-2.

Table 1. FD Optimum Model and MTFRs

FD Optimum Model	Manhole Diameter (ft)	MTFR (cfs)
3-ft	3	1.02
4-ft	4	1.81
5-ft	5	2.83
6-ft	6	4.07
7-ft	7	5.53
8-ft	8	7.23
10-ft	10	11.33

Be advised a detailed maintenance plan is mandatory for any project with a Stormwater BMP subject to the Stormwater Management Rules, N.J.A.C. 7:8. The plan must include all the items identified in the Stormwater Management Rules, N.J.A.C. 7:8-5.8. Such items include, but are not limited to, the list of inspection and maintenance equipment and tools, specific corrective and preventative maintenance tasks, indication of problems in the system, and training of maintenance personnel. Additional information can be found in Chapter 8: Maintenance and Retrofit of Stormwater Management Measures.

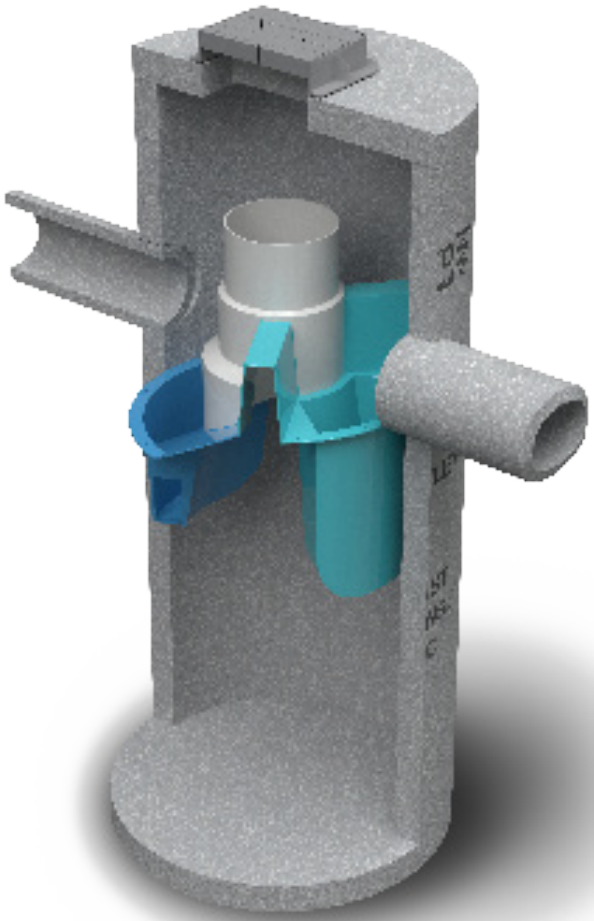
If you have any questions regarding the above information, please contact Lisa Schaefer of my office at lisa.schaefer@dep.nj.gov.

Sincerely,

Gabriel Mahon, Chief
Bureau of NJPDES Stormwater Permitting & Water Quality Management
Division of Watershed Protection and Restoration
New Jersey Department of Environmental Protection

Attachment: Maintenance Plan

cc: Richard Magee, NJCAT



Operation and Maintenance Manual

First Defense® High Capacity and First Defense® Optimum

Vortex Separator for Stormwater Treatment

Table of Contents

Hydro International (Stormwater), 94 Hutchins Drive, Portland ME 04102
Tel: (207) 756-6200 Fax: (207) 756-6212 Web: www.hydro-int.com

I. First Defense® by Hydro International

Introduction

The First Defense® is an enhanced vortex separator that combines an effective and economical stormwater treatment chamber with an integral peak flow bypass. It efficiently removes total suspended solids (TSS), trash and hydrocarbons from stormwater runoff without washing out previously captured pollutants. The First Defense® is available in several model configurations to accommodate a wide range of pipe sizes, peak flows and depth constraints.

The two product models described in this guide are the First Defense® High Capacity and the First Defense® Optimum; they are inspected and maintained identically.

Operation

The First Defense® operates on simple fluid hydraulics. It is self-activating, has no moving parts, no external power requirement and is fabricated with durable non-corrosive components. No manual procedures are required to operate the unit and maintenance is limited to monitoring accumulations of stored pollutants and periodic clean-outs. The First Defense® has been designed to allow for easy and safe access for inspection, monitoring and clean-out procedures. Neither entry into the unit nor removal of the internal components is necessary for maintenance, thus safety concerns related to confined-space-entry are avoided.

Pollutant Capture and Retention

The internal components of the First Defense® have been designed to optimize pollutant capture. Sediment is captured and retained in the base of the unit, while oil and floatables are stored on the water surface in the inner volume (Fig.1).

The pollutant storage volumes are isolated from the built-in bypass chamber to prevent washout during high-flow storm events. The sump of the First Defense® retains a standing water level between storm events. This ensures a quiescent flow regime at the onset of a storm, preventing resuspension and washout of pollutants captured during previous events.

Accessories such as oil absorbent pads are available for enhanced oil removal and storage. Due to the separation of the oil and floatable storage volume from the outlet, the potential for washout of stored pollutants between clean-outs is minimized.

Applications

- Stormwater treatment at the point of entry into the drainage line
- Sites constrained by space, topography or drainage profiles with limited slope and depth of cover
- Retrofit installations where stormwater treatment is placed on or tied into an existing storm drain line
- Pretreatment for filters, infiltration and storage

Advantages

- Inlet options include surface grate or multiple inlet pipes
- Integral high capacity bypass conveys large peak flows without the need for “offline” arrangements using separate junction manholes
- Long flow path through the device ensures a long residence time within the treatment chamber, enhancing pollutant settling
- Delivered to site pre-assembled and ready for installation

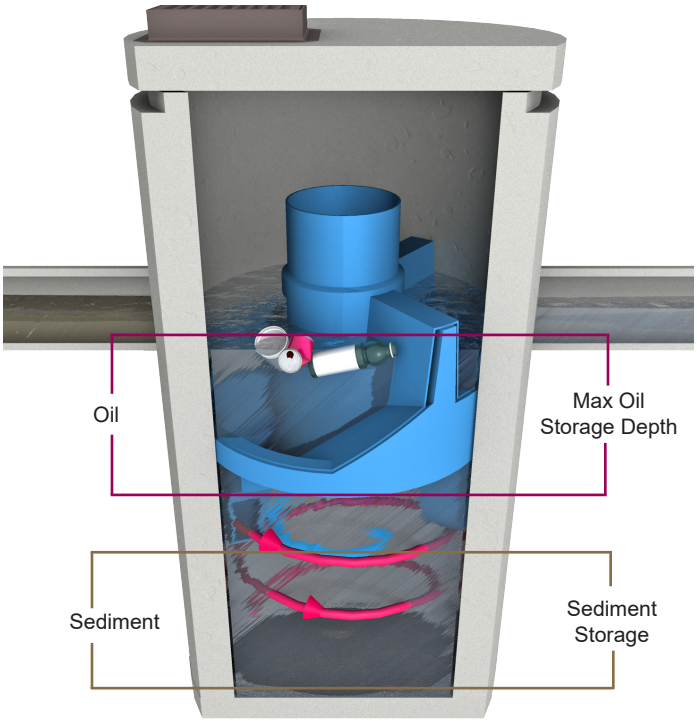


Fig.1 Pollutant storage volumes in the First Defense®.

II. Model Sizes & Configurations

The First Defense® inlet and internal bypass arrangements are available in several model sizes and configurations. The components have modified geometries allowing greater design flexibility to accommodate various site constraints.

All First Defense® models include the internal components that are designed to remove and retain total suspended solids (TSS), gross solids, floatable trash and hydrocarbons (Fig.2). First Defense® model sizes (diameter) are shown in Table 1.

III. Maintenance

First Defense® Components

1. **Built-In Bypass**
2. **Inlet Pipe**
3. **Inlet Chute**
4. **Floatables Draw-off Port**
5. **Outlet Pipe**
6. **Floatables Storage**
7. **Sediment Storage**
8. **Inlet Grate or Cover**

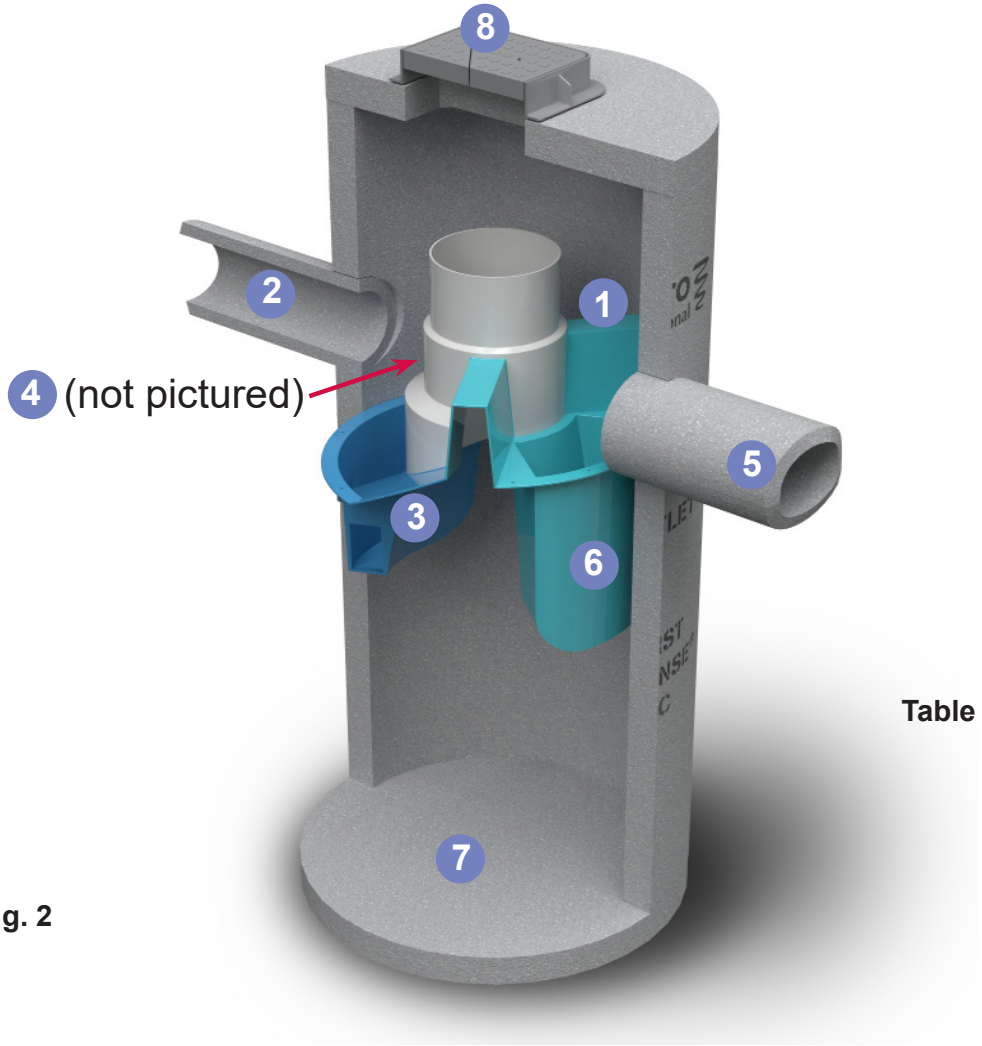


Fig. 2

Table 1

First Defense® Model Sizes
(ft / m) diameter
3 / 0.9
4 / 1.2
5 / 1.5
6 / 1.8
7 / 2.1
8 / 2.4
10 / 3.0

Overview

The First Defense® protects the environment by removing a wide range of pollutants from stormwater runoff. Periodic removal of these captured pollutants is essential to the continuous, long-term functioning of the First Defense®. The First Defense® will capture and retain sediment and oil until the sediment and oil storage volumes are full to capacity. When sediment and oil storage capacities are reached, the First Defense® will no longer be able to store removed sediment and oil.

The First Defense® allows for easy and safe inspection, monitoring and clean-out procedures. A commercially or municipally owned sump-vac is used to remove captured sediment and floatables. Access ports are located in the top of the manhole.

Maintenance events may include Inspection, Oil & Floatables Removal, and Sediment Removal. Maintenance events do not require entry into the First Defense®, nor do they require the internal components of the First Defense® to be removed. In the case of inspection and floatables removal, a vactor truck is not required. However, a vactor truck is required if the maintenance event is to include oil removal and/or sediment removal.

Maintenance Equipment Considerations

The internal components of the First Defense® have a centrally located circular shaft through which the sediment storage sump can be accessed with a sump vac hose. The open diameter of this access shaft is 15 inches in diameter (Fig.3). Therefore, the nozzle fitting of any vactor hose used for maintenance should be less than 15 inches in diameter.

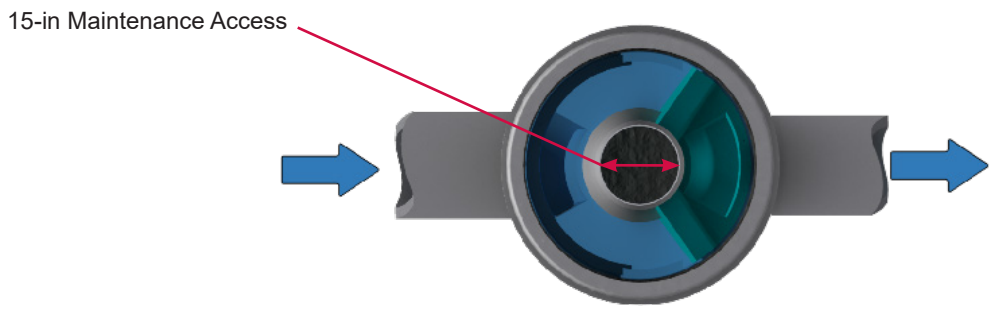


Fig.3 The central opening to the sump of the First Defense®is 15 inches in diameter.

Determining Your Maintenance Schedule

The frequency of clean out is determined in the field after installation. During the first year of operation, the unit should be inspected every six months to determine the rate of sediment and floatables accumulation. A simple probe such as a Sludge-Judge® can be used to determine the level of accumulated solids stored in the sump. This information can be recorded in the maintenance log (see page 9) to establish a routine maintenance schedule.

The vactor procedure, including both sediment and oil / flotables removal, for First Defense® typically takes less than 30 minutes and removes a combined water/oil volume of about 765 gallons.

Inspection Procedures

1. Set up any necessary safety equipment around the access port or grate of the First Defense® as stipulated by local ordinances. Safety equipment should notify passing pedestrian and road traffic that work is being done.

2. Remove the grate or lid to the manhole.

3. Without entering the vessel, look down into the chamber to inspect the inside. Make note of any irregularities. Fig.4 shows the standing water level that should be observed.

4. Without entering the vessel, use the pole with the skimmer net to remove floatables and loose debris from the components and water surface.

5. Using a sediment probe such as a Sludge Judge®, measure the depth of sediment that has collected in the sump of the vessel.

6. On the Maintenance Log (see page 9), record the date, unit location, estimated volume of floatables and gross debris removed, and the depth of sediment measured. Also note any apparent irregularities such as damaged components or blockages.

7. Securely replace the grate or lid.

8. Take down safety equipment.

9. Notify Hydro International of any irregularities noted during inspection.

Floatables and Sediment Clean Out

Floatables clean out is typically done in conjunction with sediment removal. A commercially or municipally owned sump-vac is used to remove captured sediment and floatables (Fig.4).

Floatables and loose debris can also be netted with a skimmer and pole. The access port located at the top of the manhole provides unobstructed access for a vactor hose to be lowered to the base of the sump.

Scheduling

- Floatables and sump clean out are typically conducted once a year during any season.

- Floatables and sump clean out should occur as soon as possible following a spill in the contributing drainage area.

Fig.4 Floatables are removed with a vactor hose

Recommended Equipment

- Safety Equipment (traffic cones, etc)

- Crow bar or other tool to remove grate or lid

- Pole with skimmer or net (if only floatables are being removed)

- Sediment probe (such as a Sludge Judge®)

- Vactor truck (flexible hose recommended)

- First Defense® Maintenance Log

Floatables and Sediment Clean Out Procedures

1. Set up any necessary safety equipment around the access port or grate of the First Defense® as stipulated by local ordinances. Safety equipment should notify passing pedestrian and road traffic that work is being done.

2. Remove the grate or lid to the manhole.

3. Without entering the vessel, look down into the chamber to inspect the inside. Make note of any irregularities.

4. Remove oil and floatables stored on the surface of the water with the vactor hose or with the skimmer or net

5. Using a sediment probe such as a Sludge Judge®, measure the depth of sediment that has collected in the sump of the vessel and record it in the Maintenance Log (page 9).

6. Once all floatables have been removed, drop the vactor hose to the base of the sump. Vactor out the sediment and gross debris off the sump floor

7. Retract the vactor hose from the vessel.

8. On the Maintenance Log provided by Hydro International, record the date, unit location, estimated volume of floatables and gross debris removed, and the depth of sediment measured. Also note any apparent irregularities such as damaged components, blockages, or irregularly high or low water levels.

9. Securely replace the grate or lid.

Maintenance at a Glance

Inspection	- Regularly during first year of installation - Every 6 months after the first year of installation
Oil and Floatables Removal	- Once per year, with sediment removal - Following a spill in the drainage area
Sediment Removal	- Once per year or as needed - Following a spill in the drainage area
NOTE: For most clean outs the entire volume of liquid does not need to be removed from the manhole. Only remove the first few inches of oils and floatables from the water surface to reduce the total volume of liquid removed during a clean out.	

First Defense® Installation Log

HYDRO INTERNATIONAL REFERENCE NUMBER:	
SITE NAME:	
SITE LOCATION:	
OWNER:	CONTRACTOR:
CONTACT NAME:	CONTACT NAME:
COMPANY NAME:	COMPANY NAME:
ADDRESS:	ADDRESS:
TELEPHONE:	TELEPHONE:
FAX:	FAX:

INSTALLATION DATE: / /

MODEL SIZE (CIRCLE ONE): [3-FT] [4-FT] [5-FT] [6-FT] [7-FT] [8-FT] [10-FT]

INLET (CIRCLE ALL THAT APPLY): GRATED INLET (CATCH BASIN) INLET PIPE (FLOW THROUGH)

Hydro International (Stormwater), 94 Hutchins Drive, Portland ME 04102
Tel: (207) 756-6200 Fax: (207) 756-6212 Web: www.hydro-int.com

First Defense® Inspection and Maintenance Log

Date	Initials	Depth of Floatables and Oils	Sediment Depth Measured	Volume of Sediment Removed	Site Activity and Comments

Hydro International (Stormwater), 94 Hutchins Drive, Portland ME 04102
Tel: (207) 756-6200 Fax: (207) 756-6212 Web: www.hydro-int.com

APPENDIX G

Stormwater Irrigation Pond Sizing Calculations

Stormwater Irrigation Pond sizing to treat the NYSDEC WQv for the contributing area from the proposed reconfiguration.

Water Quality Volume (WQ_v)

WQv = = 8,397 cubic feet from Appendix A.

Required Storage Volume of Stormwater Cisterns:

$V_f = (WQ_v \times 7.48)$

The following applies for the detention system:

WQv = 8,397 cf
7.48 = conversion factor to gallons

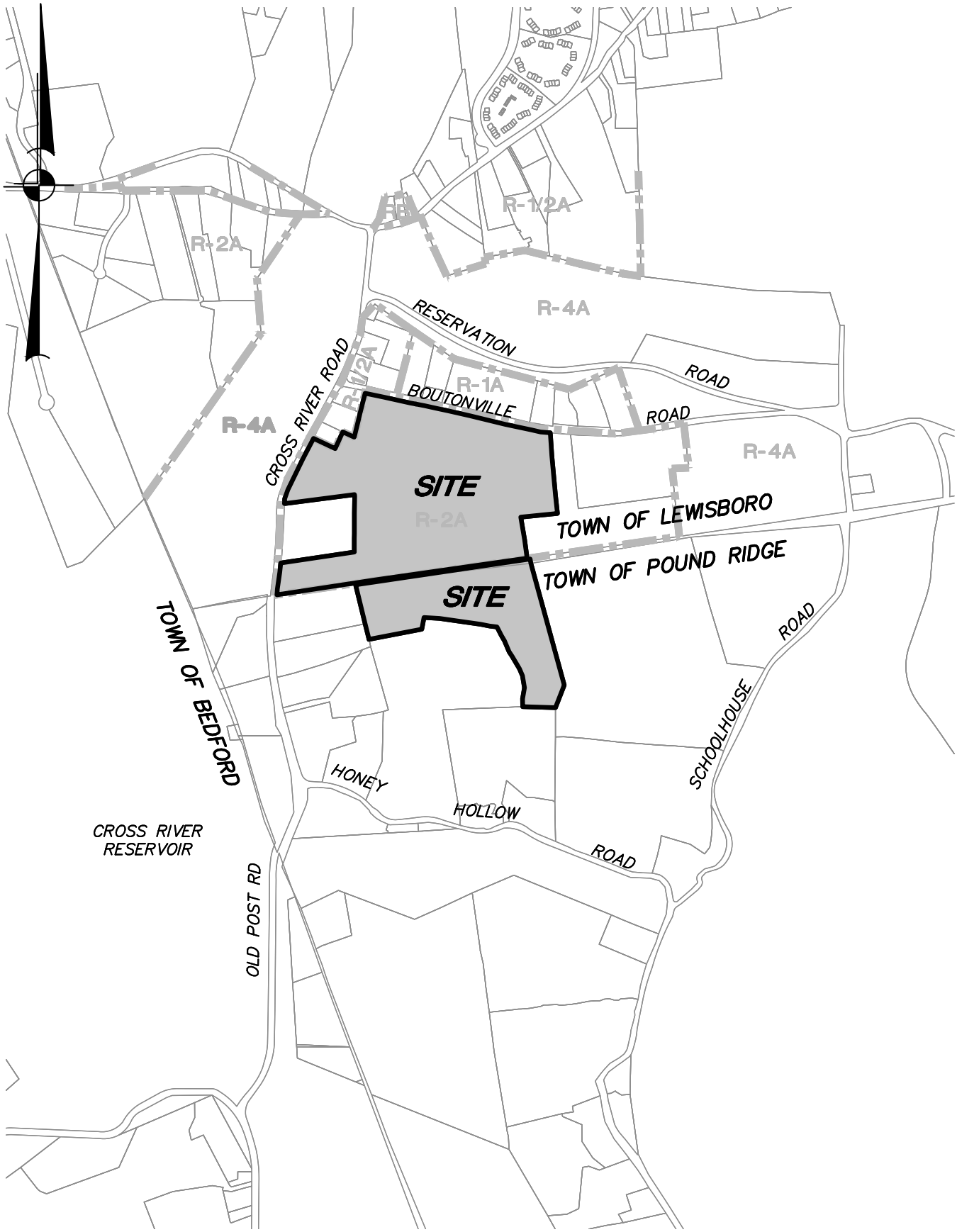
Therefore,

$V_f = (8{,}397)\ (7.48)$

V_f = 62,810 gallons storage volume required

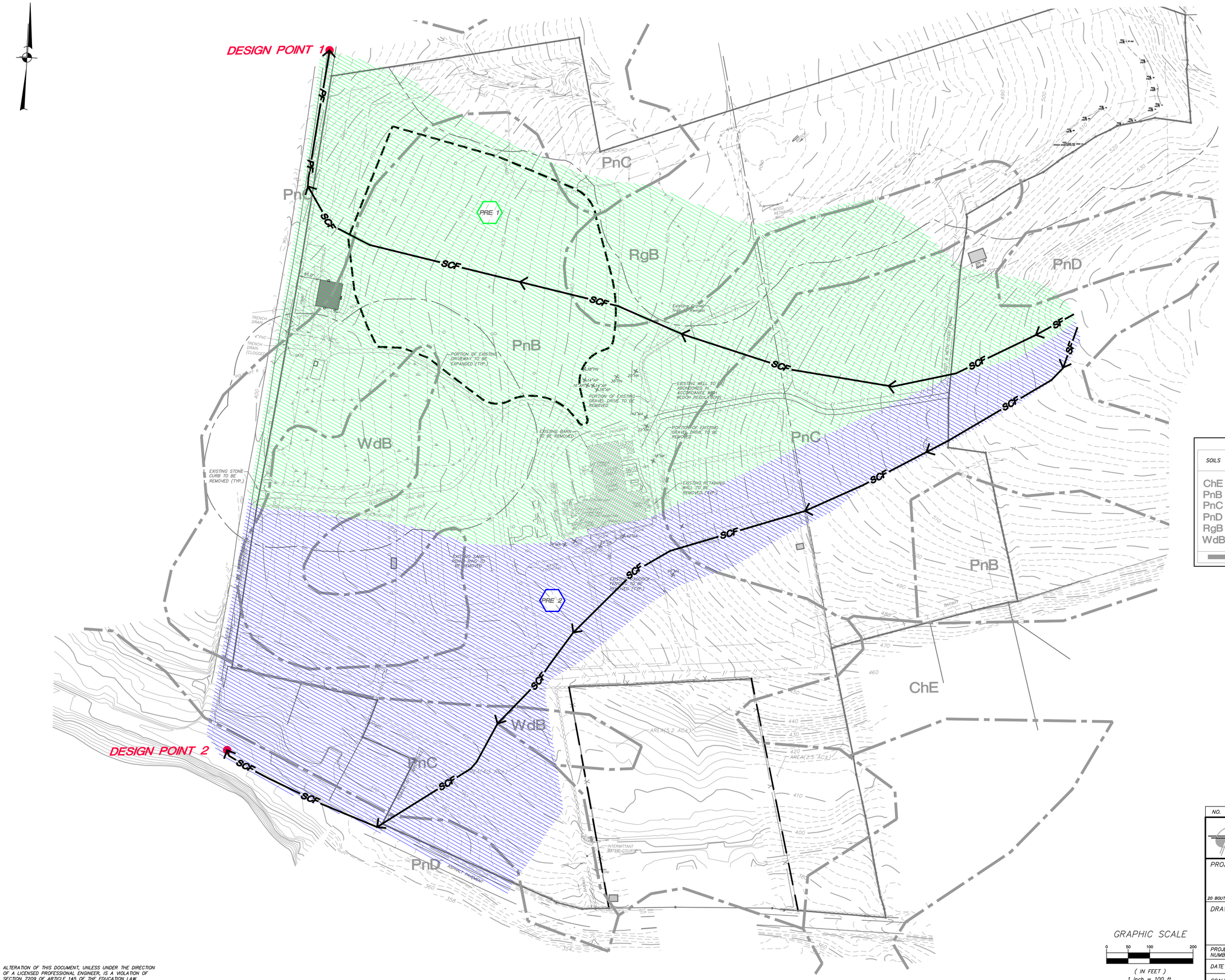
The storage below the outlet within irrigation pond as shown on the project plans and appendix C is 89,760 gallons (12,000 cf) > 62,810 gallons required, therefore the stormwater irrigation pond has been sized in general accordance with the NYSDEC Design Manual. A pump and irrigation system will be provided to dewater the system approximately every 2 days.

FIGURES



PROJECT: DOUBLE H FARMS 20 BOUTONVILLE ROAD SOUTH, LEWISBORO, WESTCHESTER CO, NY	PREPARED BY: INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C. 3 Garrett Place • Carmel, New York 10512 Phone (845) 225-9690 • Fax (845) 225-9717 www.insite-eng.com	DATE: 2-12-24
DRAWING: LOCATION MAP		SCALE: 1" = 1000'
		PROJECT NO.: 23139.100
		FIGURE: 1

Z:\E\23139100 Double H Farm, 20 Boutonville Rd\Stormwater\Figures\FIG 1 - LOCATION.dwg, 2/12/2024 9:19:08 AM, jmcmanus, 1:1



LEGEND

PRE 1	SUBCATCHMENT
SF	TIME OF CONCENTRATION SHEET FLOW
SCF	TIME OF CONCENTRATION SHALLOW CONCENTRATED FLOW
PF	TIME OF CONCENTRATION PIPE FLOW
DESIGN POINT	DESIGN POINT
	SUBCATCHMENT CONTRIBUTING AREA

SOILS LEGEND

SOILS	DESCRIPTION	HYDROLOGICAL GROUP
ChE	Charlton loam, 25% to 35% slopes	B
PnB	Paxton fine sandy loam, 2% to 8% slopes	C
PnC	Paxton fine sandy loam, 8% to 15% slopes	C
PnD	Paxton fine sandy loam, 15% to 25% slopes	C
RgB	Ridgebury loam, 2% to 8% slopes, very stony	D
WdB	Woodbridge loam, 3% to 8% slopes	D
	NRCS Soil Boundary Line	

NO.	DATE	REVISION	BY

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:

DOUBLE H FARMS

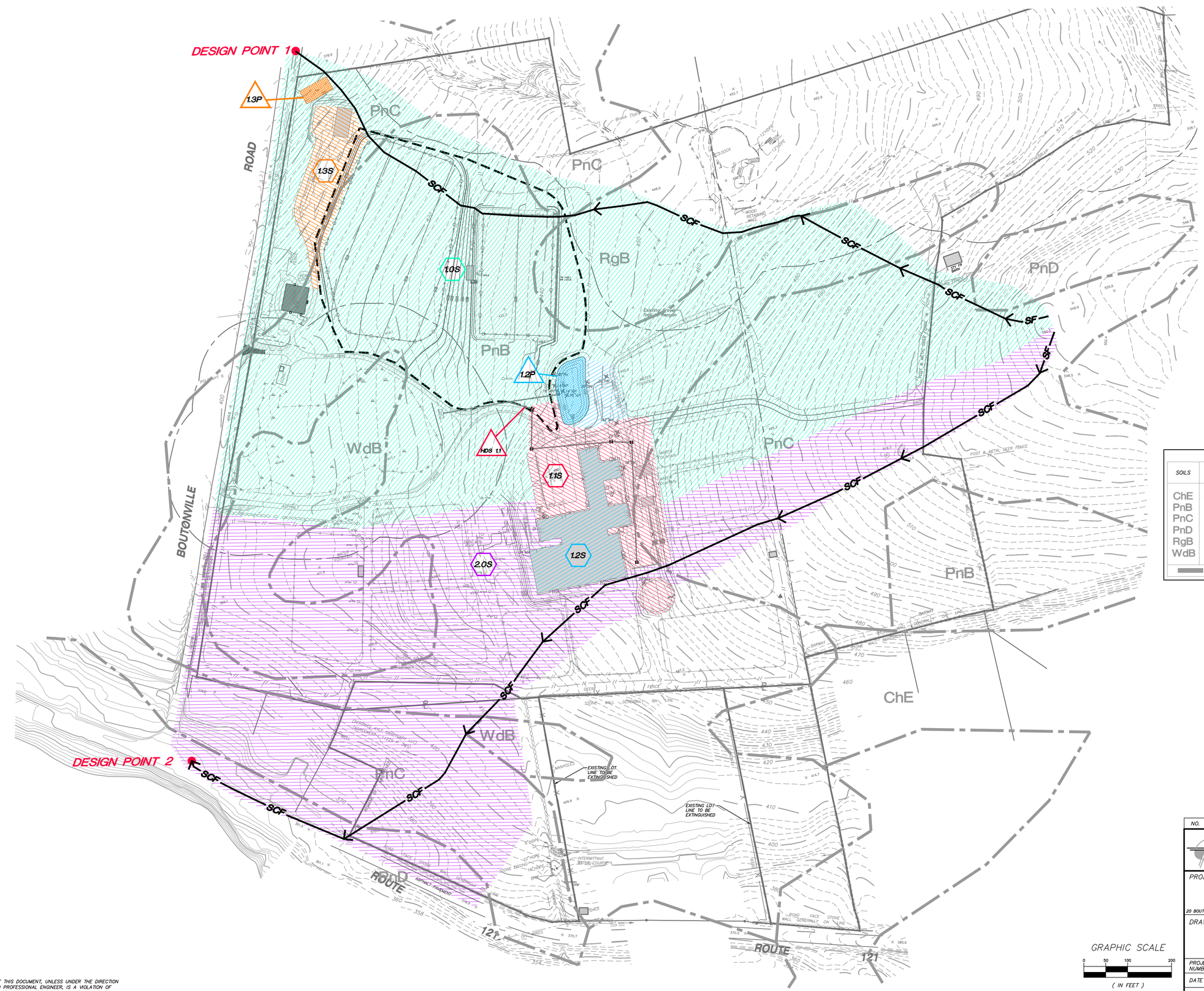
20 BOUTONVILLE ROAD SOUTH, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK

DRAWING:

PRE-DEVELOPMENT DRAINAGE MAP

PROJECT NUMBER	23139.100	PROJECT MANAGER	R.D.W.	DRAWING NO.
DATE	2-12-24	DRAWN BY	J.J.S.	FIG-2
SCALE	1" = 100'	CHECKED BY	J.W.M.	

Z:\E\23139500 Double H Farm, 20 Boutonville Rd\Stormwater\#Figures\FIG 2- PRE.dwg, 2/12/2024 9:21:31 AM, jmcmanus, 1:1



LEGEND

1.0S	SUBCATCHMENT
1.2P	STORMWATER MANAGEMENT PRACTICE
SF	TIME OF CONCENTRATION SHEET FLOW
SCF	TIME OF CONCENTRATION SHALLOW CONCENTRATED FLOW
PF	TIME OF CONCENTRATION PIPE FLOW
DESIGN POINT	DESIGN POINT
	SUBCATCHMENT CONTRIBUTING AREA
	STORMWATER MANAGEMENT / GREEN INFRASTRUCTURE PRACTICE AREA

SOILS LEGEND

SOILS	DESCRIPTION	HYDROLOGICAL GROUP
ChE	Charlton loam, 25% to 35% slopes	B
PnB	Paxton fine sandy loam, 2% to 8% slopes	C
PnC	Paxton fine sandy loam, 8% to 15% slopes	C
PnD	Paxton fine sandy loam, 15% to 25% slopes	C
RgB	Ridgebury loam, 2% to 8% slopes, very stony	D
WdB	Woodbridge loam, 3% to 8% slopes	D
	NRCS Soil Boundary Line	

GRAPHIC SCALE

0 50 100 200

(IN FEET)
1 inch = 100 ft.

NO.	DATE	REVISION	BY

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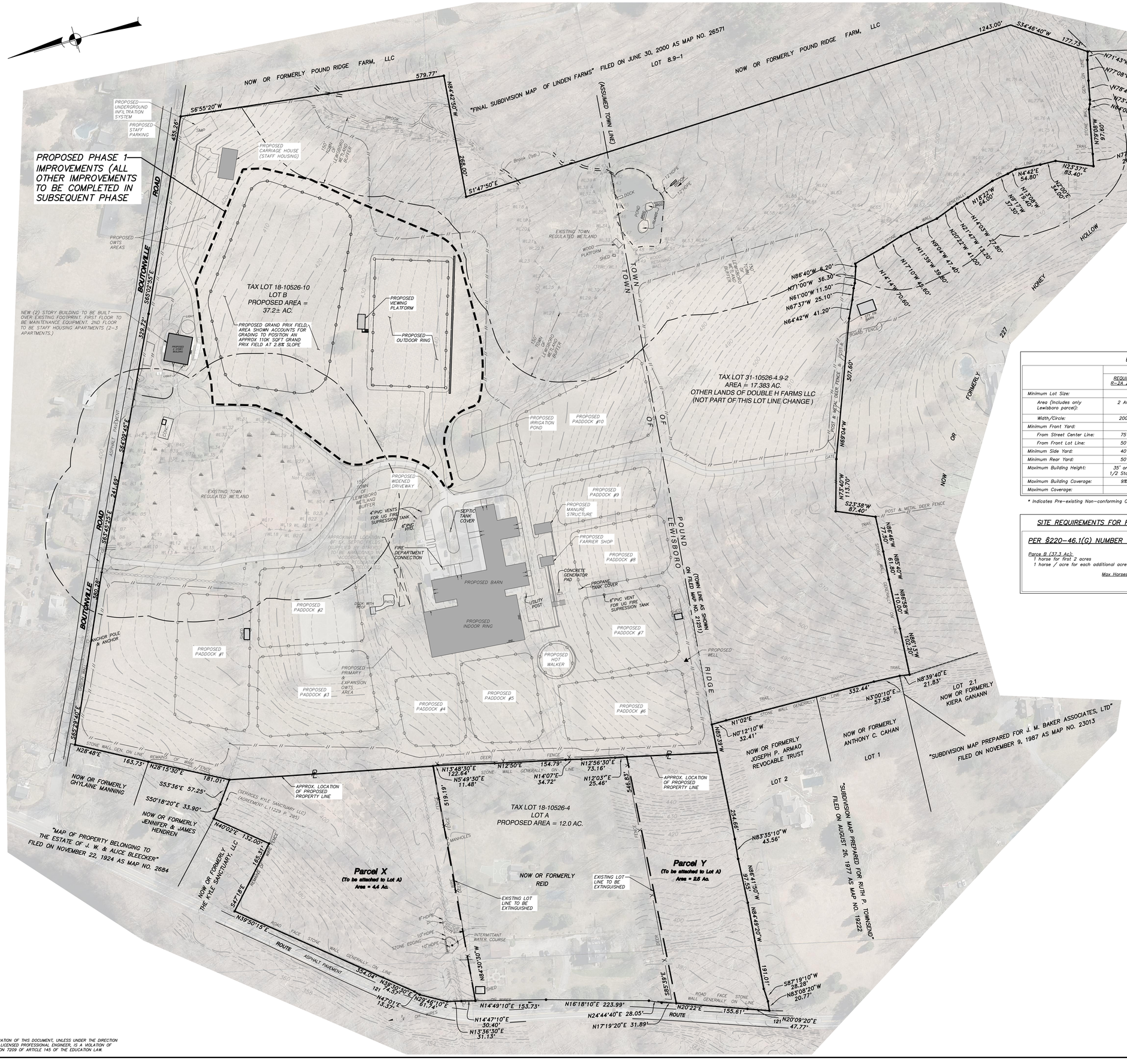
PROJECT:
DOUBLE H FARMS
20 BOUTONVILLE ROAD SOUTH, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK

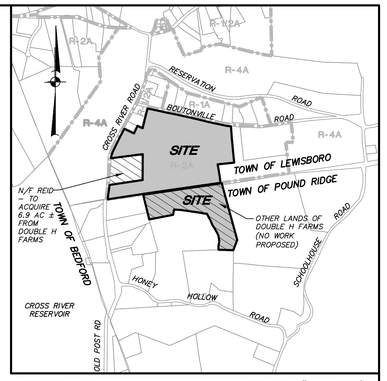
DRAWING:
POST-DEVELOPMENT DRAINAGE MAP

PROJECT NUMBER	23139.100	PROJECT MANAGER	R.D.W.
DATE	2-12-24	DRAWN BY	J.J.S.
SCALE	1" = 100'	CHECKED BY	J.W.M.

DRAWING NO.
FIG-3

Z:\E\23139\00 Double H Farm_20 Boutonville Rd\Stormwater\Figures\FIG-3 - POST.dwg, 2/13/2024 9:02:05 AM, jeromeac, 1:1





LOCATION MAP SCALE: 1" = 1,000'±

OWNER/APPLICANT:

Double H Farms LLC.
2890 Long Meadow Drive
Wellington, FL 33414

SITE DATA:

Zone: R-2A
Total Acreage 61.443 AC
Tax Map No.: 18-10526-10
Lot Area: 44.1 AC ±
(Town of Lewisboro)
31-10526-4.9-2
Lot Area: 17.4 AC±
(Town of Pound Ridge)

GENERAL NOTES:

1. Property lines and locations per "Survey of Property Prepared for 20 Boutonville LLC", prepared by Insite Engineering, Surveying & Landscape Architecture, P.C., dated November 29, 2022.
2. Topography per "Topographic Survey situate in Town of Lewisboro and the Town of Pound Ridge prepared by Bunney Associates, dated June 15, 1998.
3. Wetlands flagged by Mary Jaehnig, Soil Scientist, on November 18th, 2022

R-2A ZONE REQUIREMENTS / §220-46.1 REQUIREMENTS

	LOT A			LOT B				
	REQUIRED R-2A ZONE	EXISTING	PROPOSED	REQUIRED R-2A ZONE	REQUIRED PER §220-46.1	EXISTING	PROPOSED PHASE 1	PROPOSED PHASE 2
Minimum Lot Size:								
Area (Includes only Lewisboro parcel):	2 AC.	5.1 AC.±	12.0 AC.±	2 AC.	–	44.1 AC.±	37.2 AC.±	37.2 AC.±
Width/Circle:	200'	430'±	1,030'±	200'	–	1,200'±	1,200'±	1,200'±
Minimum Front Yard:								
From Street Center Line:	75'	115'±	No Change	75'	–	78'±	78'±	78'±
From Front Lot Line:	50'	86'±	No Change	50'	100'	51'±	51'± *	51'± *
Minimum Side Yard:	40'	132'±	327'±	40'	80'	362'±	337'±	81'±
Minimum Rear Yard:	50'	394'±	No Change	50'	100'	354'±	1,047'±	618'±
Maximum Building Height:	35' or 2 1/2 Stories	2 1/2 Stories	No Change	35' or 2 1/2 Stories	–	n/a	Indoor Ring 30'	Indoor Ring 30'
Maximum Building Coverage:	9%	1.8%	0.8%	9%	20%	1.5% ±	1.5% ±	3.0% ±
Maximum Coverage:					50%	2.9% ±	3.0% ±	7.1% ±

* Indicates Pre-existing Non-conforming Condition

SITE REQUIREMENTS FOR RIDING ACADEMIES:

PER §220-46.1(G) NUMBER OF HORSES:

Parce B (37.3 Ac):
1 horse for first 2 acres = 1 horse
1 horse / acre for each additional acre (35.3 Ac) = 35 horses

Max Horses Permitted = 36 horses

TABLE OF PROPOSED IMPROVEMENTS BY PHASE:

PHASE 1:

- A new grand prix field in the location of existing paddocks in the northwest corner of the property.
- A new outdoor riding ring with viewing platform in the northwest corner of the property.

PHASE 2:

- A new 22-stall horse barn with a connected 100'x200' indoor riding ring – to replace the existing.
- A new cottage to provide housing for workers ("the Carriage House").
- The existing maintenance barn will be replaced with a new 2 story building providing storage for maintenance equipment on the ground floor and staff housing on the second floor.
- Two new, small accessory buildings: one for the farrier and one for manure & shavings.
- A new horse hot walker.
- Reconfigured paddock locations.
- Revised circulation around the barn.

GRAPHIC SCALE
0 40 80 160
(IN FEET)
1 inch = 80 ft.

NO.	DATE	REVISION	BY
1	2-13-24	PLANNING BOARD SUBMISSION	DLM

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PROJECT:
DOUBLE H FARMS – PHASE 1
20 BOUTONVILLE ROAD SOUTH, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK

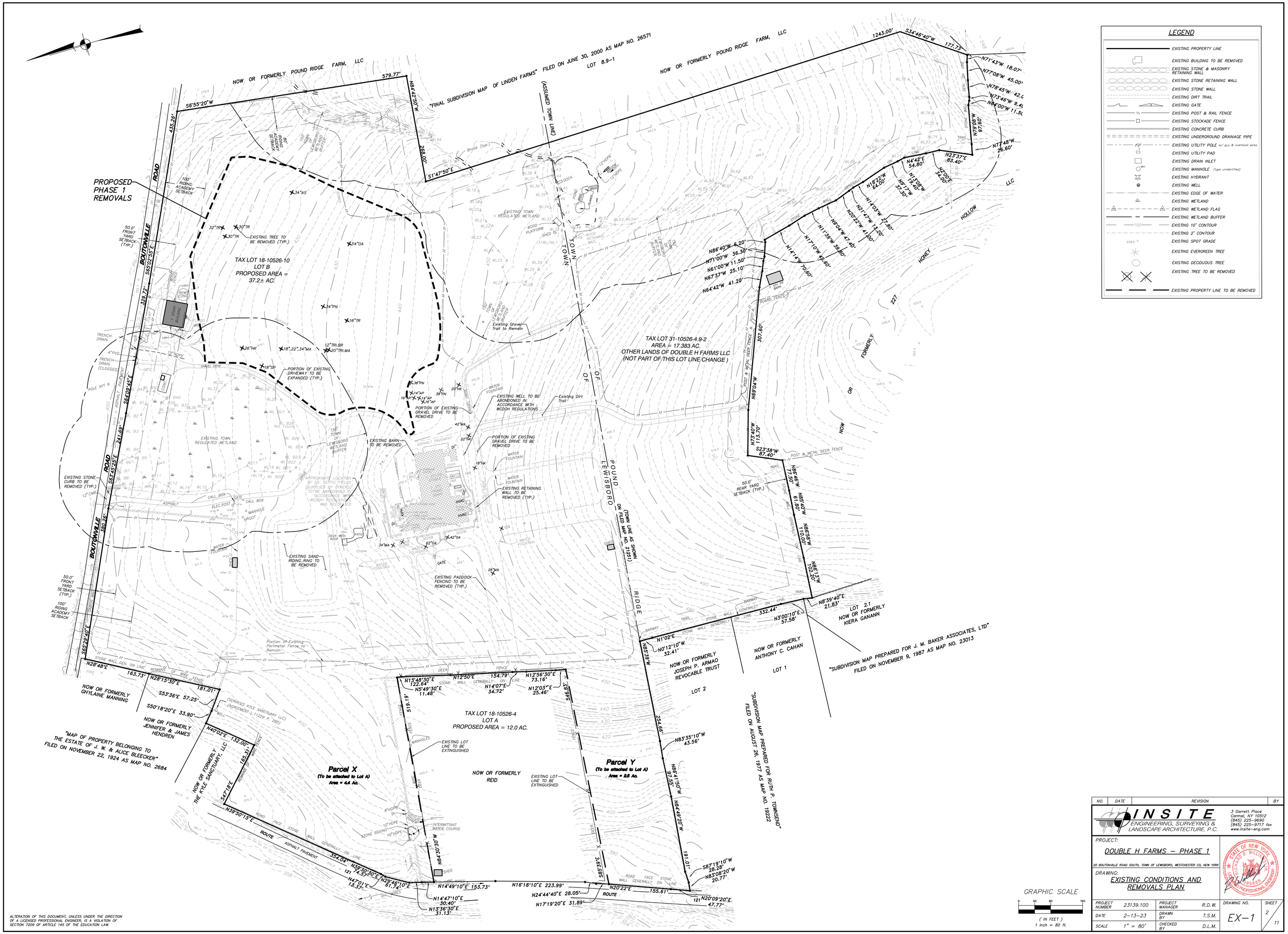
DRAWING:
OVERALL PLAN

STATE OF NEW YORK · RICHARD D. WILLIAMS · 089866 · LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	23139.100	PROJECT MANAGER	R.D.W.
DATE	2-2-24	DRAWN BY	T.S.M.
SCALE	1" = 80'	CHECKED BY	D.L.M.

DRAWING NO. OP-1 SHEET 1 / 11

Z:\E23139\00 Double H Farm, 20 Boutonville Rd\OP1.dwg, 2/13/2024 12:26:48 AM, dlaubenzer, 1:1



LEGEND

- EXISTING PROPERTY LINE
- EXISTING BUILDING TO BE REMOVED
- EXISTING STONE & MASONRY RETAINING WALL
- EXISTING STONE RETAINING WALL
- EXISTING STONE WALL
- EXISTING DIRT TRAIL
- EXISTING GATE
- EXISTING POST & RAIL FENCE
- EXISTING STOCKADE FENCE
- EXISTING CONCRETE CURB
- EXISTING UNDERGROUND DRAINAGE PIPE
- EXISTING UTILITY POLE w/ guy & overhead wires
- EXISTING UTILITY PAD
- EXISTING DRAIN INLET
- EXISTING MANHOLE (type unidentified)
- EXISTING HYDRANT
- EXISTING WELL
- EXISTING EDGE OF WATER
- EXISTING WETLAND
- EXISTING WETLAND FLAG
- EXISTING WETLAND BUFFER
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING SPOT GRADE
- EXISTING EVERGREEN TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE TO BE REMOVED
- EXISTING PROPERTY LINE TO BE REMOVED

NO.	DATE	REVISION	BY

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PROJECT:
DOUBLE H FARMS – PHASE 1
20 BOUTONVILLE ROAD SOUTH, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK

DRAWING:
EXISTING CONDITIONS AND REMOVALS PLAN

STATE OF NEW YORK · RICHARD D. WILLIAMS · 089868 · LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	23139.100	PROJECT MANAGER	R.D.W.
DATE	2-13-23	DRAWN BY	T.S.M.
SCALE	1" = 80'	CHECKED BY	D.L.M.

DRAWING NO. EX-1
SHEET 2 / 11

Z:\C\23139\00 Double H Farms, 20 Boutonville Rd\02 EX-1.dwg 2/13/2023 10:44:18 AM, Hellis, 1:1

NOW OR FORMERLY POUND RIDGE FARM, LLC

"FINAL SUBDIVISION MAP OF LINDEN FARMS" FILED ON JUNE 30, 2000 AS MAP NO. 26571

LOT 8.9-1

(ASSUMED TOWN LINE)

S6°55'20"W

579.77'

N84°42'50"W

265.00'

S1°47'50"E

435.26'

BOUTONVILLE ROAD

S65°02'55"E

328.72'

S64°09'45"E

241.69'

50.0' FRONT YARD SETBACK (TYP.)

100' RIDING ACADEMY SETBACK

80' RIDING ACADEMY SETBACK

150' TOWN OF LEWISBORO WETLAND BUFFER

PROPOSED UNDERGROUND INFILTRATION SYSTEM

PROPOSED EVERGREEN PLANTINGS FOR SCREENING

PROPOSED STAFF PARKING

PROPOSED CARRIAGE HOUSE (STAFF HOUSING)

PROPOSED PHASE 1 IMPROVEMENTS

PROPOSED GRAND PRIX FIELD, AREA SHOWN ACCOUNTS FOR GRADING TO POSITION AN APPROX 110K SQFT GRAND PRIX FIELD AT 2.8%

450.4'

537.1'

PROPOSED VIEWING PLATFORM

PROPOSED OUTDOOR RING (160' X 275')

PROPOSED STONE RETAINING WALL

NEW (2) STORY BUILDING TO BE BUILT OVER EXISTING FOOTPRINT. FIRST FLOOR TO BE MAINTENANCE EQUIPMENT. 2ND FLOOR TO BE STAFF HOUSING APARTMENTS (2-3 APARTMENTS.)

51.0'

81.0'

LIGHT

PROPOSED WIDENED DRIVEWAY ENTRANCE

GATE

CONC.

CONC. SLAB

ASPHALT PAVEMENT

BROOK

Brook (typ.)

Wetland

EXISTING TOWN REGULATED WETLAND

DOCK

POND

BRDG

ISLANDS

12"HDPE

BROOK

WOOD PLATFORM

SHED

WOOD RETAINING WALL

TOWN OF LEWISBORO

TOWN OF POUND RIDGE

150' TOWN OF LEWISBORO WETLAND BUFFER

PROPOSED PADDOCK FENCE (TYP.)

PROPOSED PADDOCK #10

PROPOSED TRAIL

PROPOSED IRRIGATION POND

Existing Dirt Trail

52"OA

MATCHLINE TO DRAWING SP-12

MATCHLINE TO DRAWING SP-12

LEGEND

- EXISTING PROPERTY LINE
- EXISTING STONE WALL
- EXISTING DIRT TRAIL
- EXISTING GATE
- EXISTING POST & RAIL FENCE
- EXISTING STOCKADE FENCE
- EXISTING CONCRETE CURB
- EXISTING EDGE OF WATER
- EXISTING WETLAND
- EXISTING WETLAND FLAG
- EXISTING WETLAND BUFFER
- EXISTING EVERGREEN TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREELINE
- PROPOSED # OF STALLS TO BE STRIPED
- PROPOSED CONCRETE CURB
- PROPOSED EDGE OF SIDEWALK
- PROPOSED RETAINING WALL
- PROPOSED PADDOCK FENCE
- PROPOSED PAINTED HANDICAP PARKING SYMBOL
- RAMP — PROPOSED ADA COMPLIANT RAMP
- PROPOSED STRIPED ISLAND
- PROPOSED SINGLE POLE SIGN
- PROPOSED POLE MOUNTED LIGHT
- PROPOSED POST MOUNTED LIGHT
- PROPOSED BUILDING MOUNTED LIGHT
- PROPOSED DOOR LOCATION
- OHD — PROPOSED OVERHEAD DOOR LOCATION
- PROPOSED LANDSCAPING

GRAPHIC SCALE

0 20 40 80

(IN FEET)
1 inch = 40 ft.

NO.	DATE	REVISION	BY

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PROJECT:

DOUBLE H FARMS – PHASE 1

20 BOUTONVILLE ROAD SOUTH, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK

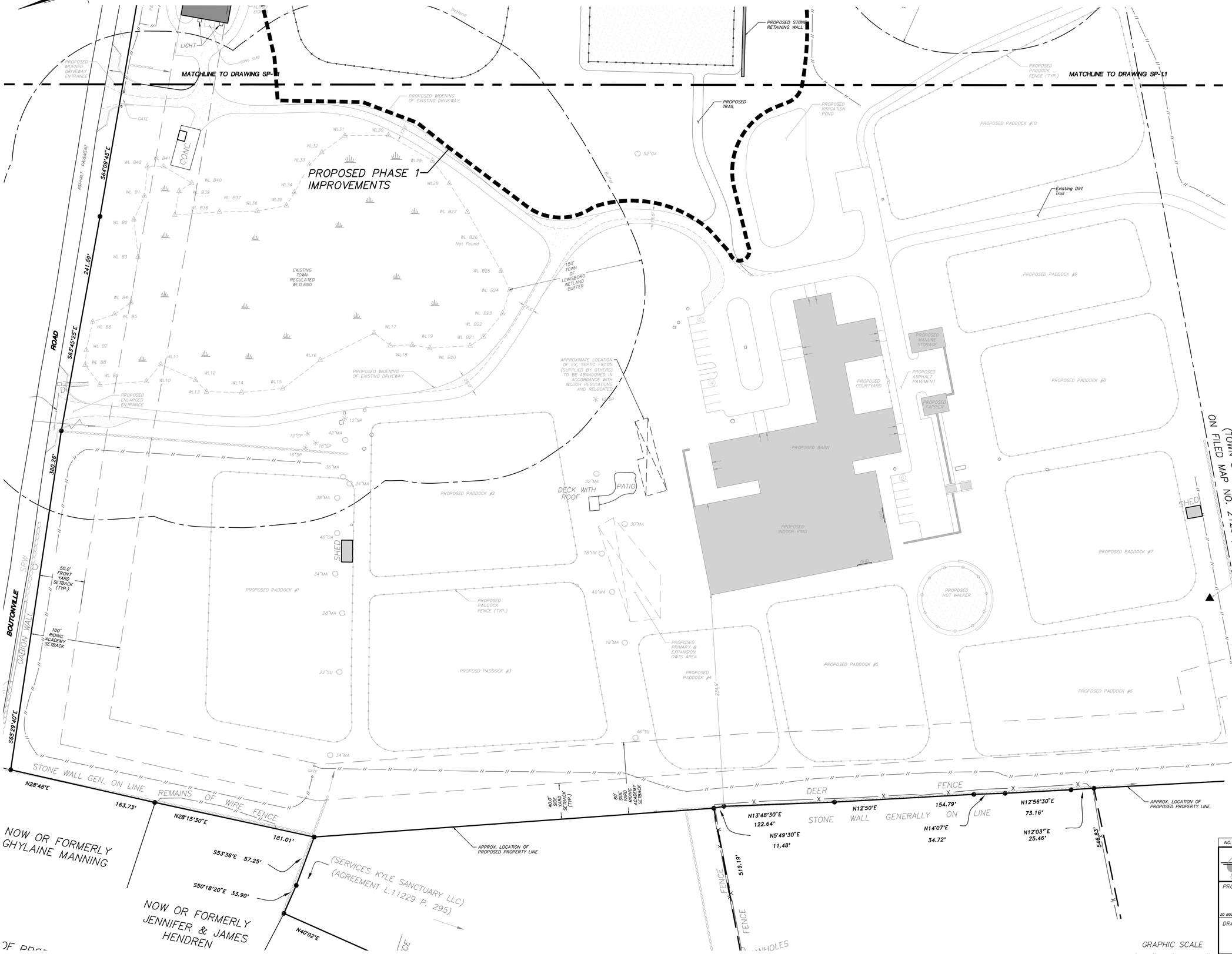
DRAWING:

LAYOUT & LANDSCAPE PLAN

STATE OF NEW YORK · RICHARD D. WILLIAMS JR. · 069868 · PROFESSIONAL ENGINEER

PROJECT NUMBER	23139.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	2-13-24	DRAWN BY	T.S.M.	SP-1.1	3 / 11
SCALE	1" = 40'	CHECKED BY	D.L.M.		

Z:\C\23139300 Double H Farm, 20 Boutonville Rd\03 SP 1.1-1.2.dwg 2/13/2024 10:24:49 AM, rwills, 1:1



LEGEND

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- EXISTING STONE WALL
- EXISTING DIRT TRAIL
- EXISTING GATE
- EXISTING POST & RAIL FENCE
- EXISTING STOCKADE FENCE
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- PROPOSED PADDOCK FENCE
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- PROPOSED ADA COMPLIANT RAMP
- PROPOSED STRIPED ISLAND
- PROPOSED SINGLE POLE SIGN
- PROPOSED POLE MOUNTED LIGHT
- PROPOSED POST MOUNTED LIGHT
- PROPOSED BUILDING MOUNTED LIGHT
- PROPOSED DOOR LOCATION
- PROPOSED OVERHEAD DOOR LOCATION
- PROPOSED LANDSCAPING

NO.	DATE	REVISION	BY

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DRAWING:
LAYOUT & LANDSCAPE PLAN

STATE OF NEW YORK · RICHARD D. WILLIAMS JR. · LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	23139.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	2–13–24	DRAWN BY	T.S.M.	SP–1.2	4 / 11
SCALE	1" = 40'	CHECKED BY	D.L.M.		

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NOW OR FORMERLY POUND RIDGE FARM, LLC

"FINAL SUBDIVISION MAP OF LINDEN FARMS" FILED ON JUNE 30, 2000 AS MAP NO. 26571

LOT 8.9-1

(ASSUMED TOWN LINE)

S6°55'20"W 579.77'

N84°42'50"W 265.00'

S1°47'50"E

435.26'

S6°02'55"E 328.72'

S64°09'45"E 241.89'

BOUTONVILLE ROAD

PROPOSED PHASE 1 IMPROVEMENTS

MATCHLINE TO DRAWING SP-2.2

MATCHLINE TO DRAWING SP-2.2

TW : 440.1
BW : 437.8

434.9

436.8

TOWN OF POUND RIDGE
TOWN OF LEWISBORO

LEGEND

- EXISTING PROPERTY LINE
- EXISTING STONE WALL
- EXISTING DIRT TRAIL
- EXISTING GATE
- EXISTING POST & RAIL FENCE
- EXISTING STOCKADE FENCE
- EXISTING CONCRETE CURB
- EXISTING UNDERGROUND DRAINAGE PIPE
- EXISTING UTILITY POLE *w/ guy & overhead wires*
- EXISTING UTILITY PAD
- EXISTING DRAIN INLET
- EXISTING MANHOLE *(type unidentified)*
- EXISTING HYDRANT
- EXISTING WELL
- EXISTING EDGE OF WATER
- EXISTING WETLAND
- EXISTING WETLAND FLAG
- EXISTING WETLAND BUFFER
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING SPOT GRADE
- PROPOSED PADDOCK FENCE
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED TOP OF WALL & BOTTOM OF WALL ELEVATIONS
- PROPOSED CATCH BASIN
- PROPOSED OUTLET STRUCTURE
- PROPOSED DRAINAGE MANHOLE
- PROPOSED END SECTION
- PROPOSED DRAINAGE PIPE
- PROPOSED GRASS SWALE
- PITCH TO DRAIN

GRAPHIC SCALE

0 20 40 80

(IN FEET)
1 inch = 40 ft.

NO.	DATE	REVISION	BY

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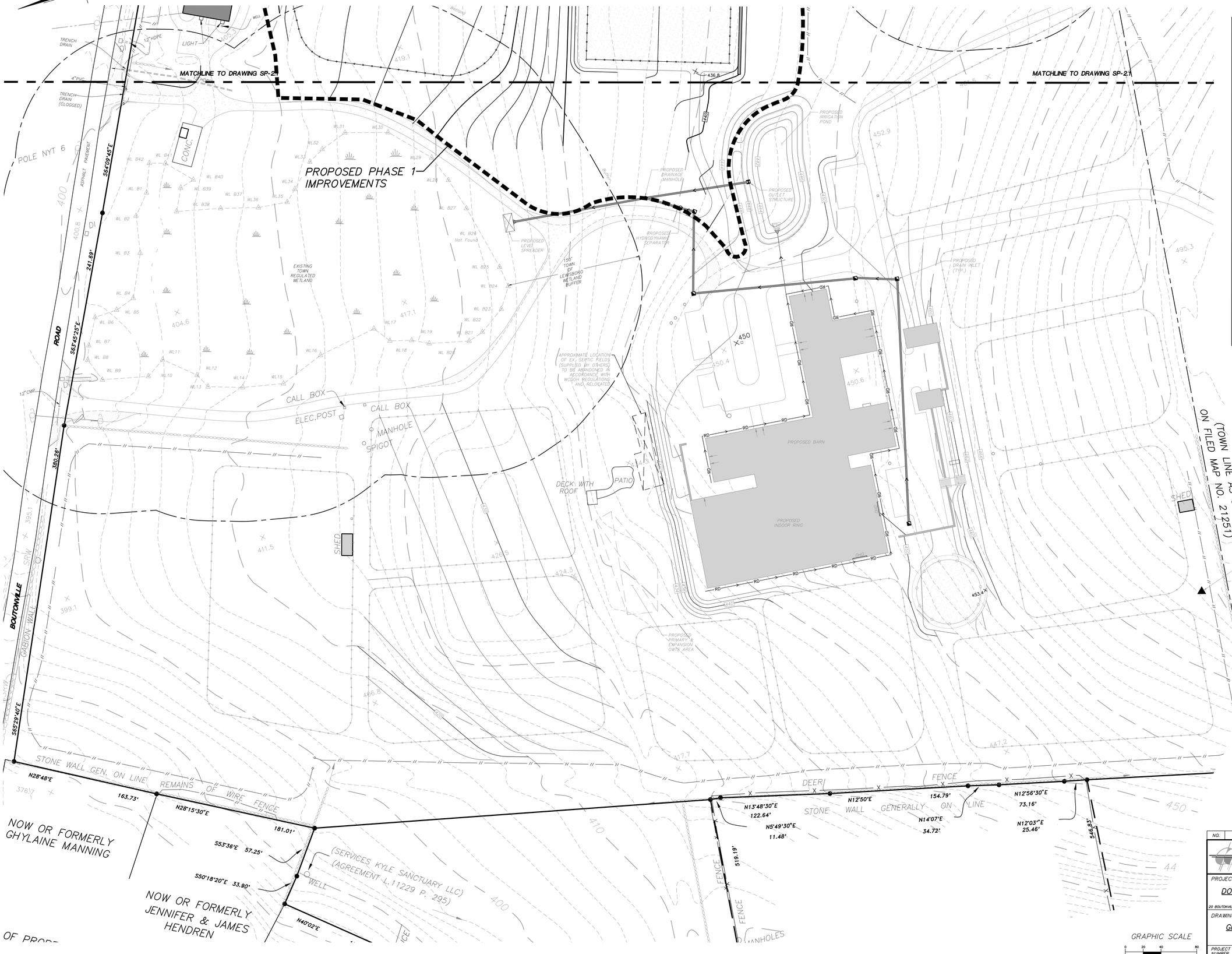
PROJECT:
DOUBLE H FARMS – PHASE 1
20 BOUTONVILLE ROAD SOUTH, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK

DRAWING:
GRADING & UTILITIES PLAN

STATE OF NEW YORK · RICHARD D. WILTSIE · 089668 · LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	23139.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	2-13-24	DRAWN BY	T.S.M.	SP-2.1	5 / 11
SCALE	1" = 40'	CHECKED BY	D.L.M.		

Z:\EC\23139100 Double H Farms, 20 Boutonville Rd\SP\SP-2.1-2.2.dwg, 2/13/2024 10:20:34 AM, tsmith, 1:1



LEGEND

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- PROPOSED GRASS SWALE
- PITCH TO DRAIN

NO.	DATE	REVISION	BY

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PROJECT:
DOUBLE H FARMS – PHASE 1
20 BOUTONVILLE ROAD SOUTH, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK

DRAWING:
GRADING & UTILITIES PLAN

STATE OF NEW YORK · RICHARD D. WILLIAMS · 069868 · LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	231.39.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	2-13-24	DRAWN BY	T.S.M.	SP-2.2	6 / 11
SCALE	1" = 40'	CHECKED BY	D.L.M.		

Z:\E-231339100 Double H Farms_20 Boutonville Rd\DD SP 2.1-2.2.dwg, 2/13/2024 10:26:57 AM, rwilb, 1:1

NOW OR FORMERLY POUND RIDGE FARM, LLC

"FINAL SUBDIVISION MAP OF LINDEN FARMS" FILED ON JUNE 30, 2000 AS MAP NO. 26571

LOT 8.9-1

(ASSUMED TOWN LINE)

579.77'

S6°55'20"W

435.26'

N84°42'50"W

265.00'

S1°47'50"E

S65°02'55"E

328.72'

S64°09'45"E

241.69'

BOUTONVILLE ROAD

PROPOSED SILT FENCE (TYP.)

PROPOSED PHASE 1 LIMIT OF DISTRUBANCE (244,100 SF / 5.6 Ac)

PROPOSED PHASE 1 IMPROVEMENTS

PROPOSED TEMPORARY SOIL STOCKPILE (TYP.)

TSS

PROPOSED STABILIZED CONSTRUCTION ENTRANCE (TYP.)

434.9

TW 440.1
BW 437.8

436.8

MATCHLINE TO DRAWING SP-3.2

MATCHLINE TO DRAWING SP-3.2

BROOK

Brook (typ.)

12"HDPE

DOCK

POND

BRDG

ISLANDS

WOOD PLATFORM

SHED

WOOD RETAINING WALL

TOWN OF POUND RIDGE

TOWN OF LEWISBORO

EXISTING TOWN REGULATED WETLAND

100' TOWN OF LEWISBORO WETLAND BUFFER

LIGHT

CONC.

ASPHALT PAVEMENT

Walkway

LEGEND

- EXISTING PROPERTY LINE
- EXISTING STONE WALL
- EXISTING DIRT TRAIL
- EXISTING GATE
- EXISTING POST & RAIL FENCE
- EXISTING STOCKADE FENCE
- EXISTING CONCRETE CURB
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- EXISTING DRAIN INLET
- EXISTING MANHOLE (Type unidentified)
- EXISTING WETLAND
- EXISTING WETLAND FLAG
- EXISTING WETLAND BUFFER
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING SPOT GRADE
- PROPOSED PADDOCK FENCE
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED TOP OF CURB & BOTTOM OF CURB ELEVATIONS
- PROPOSED TOP OF WALL & BOTTOM OF WALL ELEVATIONS
- PROPOSED CATCH BASIN
- PROPOSED DRAINAGE PIPE
- PROPOSED GRASS SWALE
- PITCH TO DRAIN
- PROPOSED SILT FENCE
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED TEMPORARY SOIL STOCKPILE
- PROPOSED DRAINAGE STRUCTURE W/ INLET PROTECTION
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE

GRAPHIC SCALE

0 20 40 80

(IN FEET)
1 inch = 40 ft.

NO.	DATE	REVISION	BY

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ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
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PROJECT:
DOUBLE H FARMS – PHASE 1
20 BOUTONVILLE ROAD SOUTH, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK

DRAWING:
SEDIMENT & EROSION CONTROLS PLAN

STATE OF NEW YORK · RICHARD D. WILTON · 089868 · LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	23139.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	2-13-24	DRAWN BY	T.S.M.	SP-3.1	7 / 11
SCALE	1" = 40'	CHECKED BY	D.L.M.		

Z:\C23139100 Double H Farm, 20 Boutonville Rd\SP SP 3-1-3.2.dwg, 2/13/2024 10:26:17 AM, Hinds, 1:1

MATCHLINE TO DRAWING SP-3.1

MATCHLINE TO DRAWING SP-3.1

PROPOSED PHASE 1 IMPROVEMENTS

PROPOSED STABILIZED CONSTRUCTION ENTRANCE (TYP.)

PROPOSED PHASE 2 LIMIT OF DISTRUBANCE (416,600 SF / 9.6 Ac)

PROPOSED STABILIZED CONSTRUCTION ENTRANCE (TYP.)

PROPOSED BARN

PROPOSED INDOOR RING

PROPOSED PRIMARY & EXPANSION SWTS AREA

PROPOSED WELL

EXISTING TOWN REGULATED WETLAND

TOWN OF LEWISBORO WETLAND BUFFER

DECK WITH ROCK

PATIO

SHED

BOUTONVILLE ROAD

S64°09'45"E

S63°45'25"E

S65°29'40"E

241.69'

380.26'

ASPHALT PAVEMENT

GABION WALL

SRW

STONE WALL GEN. ON LINE

REMAINS OF WIRE FENCE

DEER FENCE GENERALLY ON LINE

STONE WALL

N28°48'E

163.73'

N28°15'30"E

181.01'

S53°36'E 57.25'

S50°18'20"E 33.90'

N40°02'E

N13°48'30"E 122.64'

N5°49'30"E 11.48'

N12°50'E

154.79'

N14°07'E 34.72'

N12°56'30"E 73.16'

N12°03'"E 25.46'

519.19'

546.83'

FENCE

NOW OR FORMERLY GHYLAINE MANNING

NOW OR FORMERLY JENNIFER & JAMES HENDREN

(SERVIGES KYLE SANCTUARY LLC) (AGREEMENT L.11229 P. 295)

(TOWN LINE AS SHOWN ON FILED MAP NO. 21251)

MANHOLES

LEGEND

- EXISTING PROPERTY LINE
- EXISTING STONE WALL
- EXISTING DIRT TRAIL
- EXISTING GATE
- EXISTING POST & RAIL FENCE
- EXISTING STOCKADE FENCE
- EXISTING CONCRETE CURB
- EXISTING UNDERGROUND DRAINAGE PIPE
- EXISTING DRAIN INLET
- EXISTING MANHOLE (Type unidentified)
- EXISTING WETLAND
- EXISTING WETLAND FLAG
- EXISTING WETLAND BUFFER
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING SPOT GRADE
- PROPOSED PADDOCK FENCE
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED TOP OF CURB & BOTTOM OF CURB ELEVATIONS
- PROPOSED TOP OF WALL & BOTTOM OF WALL ELEVATIONS
- PROPOSED CATCH BASIN
- PROPOSED DRAINAGE PIPE
- PROPOSED GRASS SWALE
- PITCH TO DRAIN
- PROPOSED SILT FENCE
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED TEMPORARY SOIL STOCKPILE
- PROPOSED DRAINAGE STRUCTURE W/ INLET PROTECTION
- PROPOSED STABILIZED CONSTRUCTION ENTRAINCE

GRAPHIC SCALE

0 20 40 80

(IN FEET)
1 inch = 40 ft.

NO.	DATE	REVISION	BY

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:
DOUBLE H FARMS – PHASE 1
20 BOUTONVILLE ROAD SOUTH, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK

DRAWING:
SEDIMENT & EROSION CONTROLS PLAN

STATE OF NEW YORK · RICHARD D. WILLIAMS · 095855 · LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	23139.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	2-13-24	DRAWN BY	T.S.M.	SP-3.2	8 / 11
SCALE	1" = 40'	CHECKED BY	D.L.M.		

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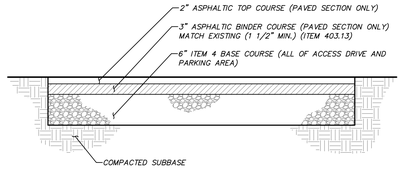
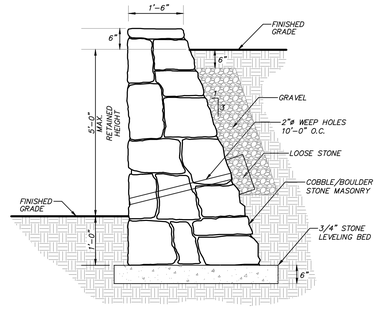


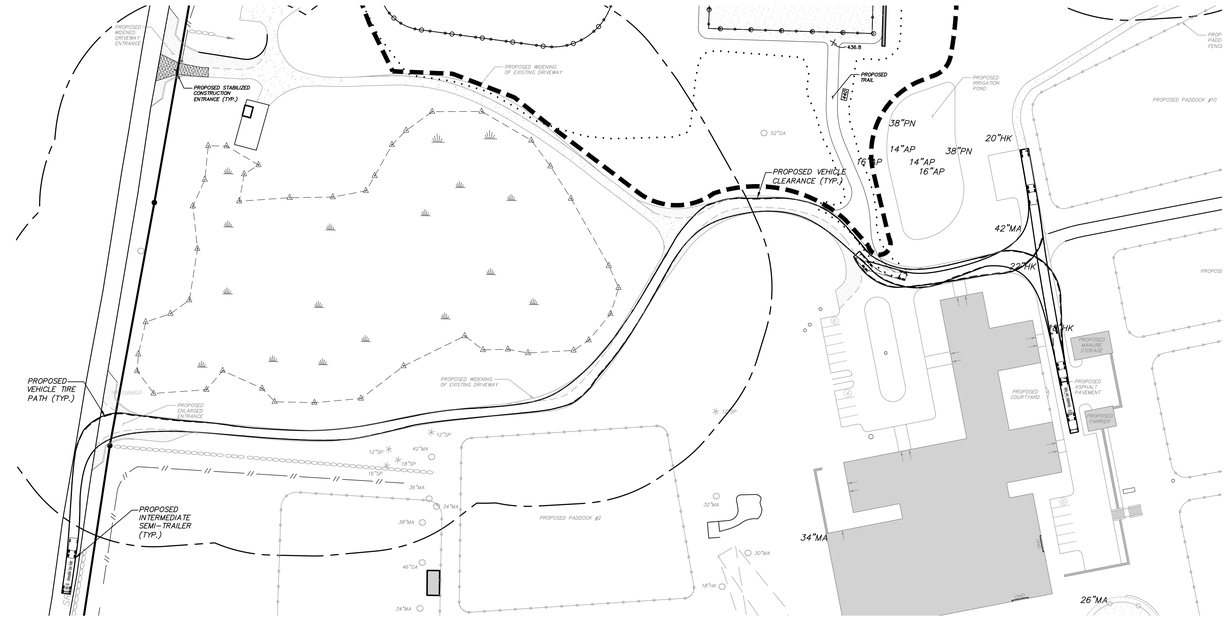
ASPHALT DRIVEWAY DETAIL

(N.T.S.)



STONE RETAINING WALL DETAIL

(N.T.S.)



VEHICLE MANEUVERING PLAN

SCALE: 1" = 60'

GENERAL PLANTING NOTES:

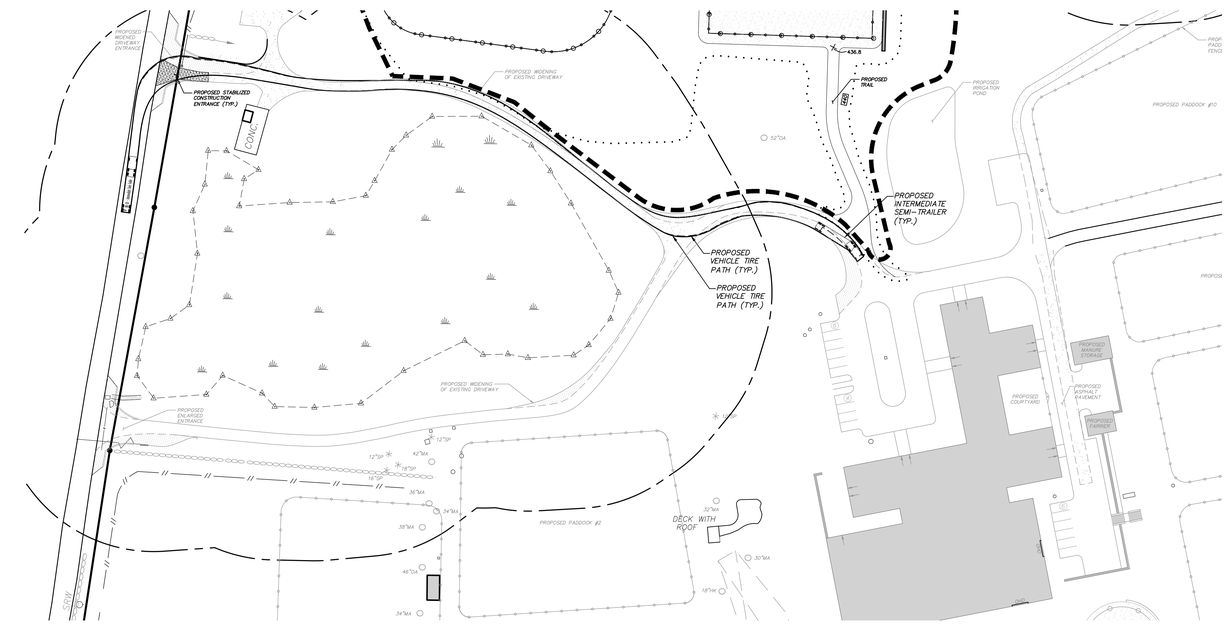
1. All proposed planting beds to receive a 12" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.
2. Any new soils added will be amended as required by results of soil testing and placed using a method that will not cause compaction.
3. No fertilizer shall be added in stormwater basin plantings. Nutrient requirements to be met by incorporation of acceptable organic matter.
4. All plant material to be nursery grown.
5. Plants shall conform with ANSI Z60.1 American Standard for Nursery Stock in all ways including dimensions.
6. Plant material shall be taken from healthy nursery stock.
7. All plants shall be grown under climate conditions similar to those in the locality of the project.
8. Plants shall be planted in all locations designed on the plan or as staked in the field by the Landscape Architect.
9. The location and layout of landscape plants shown on the site plan shall take precedence in any discrepancies between the quantities of plants shown on the plans and the quantity of plants in the Plant List.
10. Provide a 3" layer of shredded pine bark mulch (or as specified) over entire watering saucer at all tree pits or over entire planting bed. Do not place mulch within 3" of tree or shrub trunks.
11. All landscape plantings shall be maintained in a healthy condition at all times. Any dead or diseased plants shall immediately be replaced "in kind" by the contractor (during warranty period) or project owner.
12. See Drawing D-X "Site Details" for Stormwater Basin plantings.

GENERAL SITE SEEDING NOTES:

1. All proposed seeded areas to receive 4" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.
2. Upon final grading and placement of topsoil and any required soil amendments, areas to receive permanent vegetation cover in combination with suitable mulch as follows:
   - select seed mixture per drawings and seeding notes.
   - fertilizer applied at the manufacturer's recommended rate using a 10-18-10 lawn starter fertilizer or equivalent.
   - mulch: salt hay or small grain straw applied at a rate of 90 lbs./1000 s.f. or 2 tons/acre, to be applied and anchored according to New York State Standards and Specifications for Erosion and Sediment Control, August 2005.
   - if the season prevents the establishment of a permanent vegetation cover, the disturbed areas will be mulched with straw or equivalent.
3. The seed mixes as specified on these drawings are as follows:
   A. Seed Mix for lawn areas and mow strip along roads at a rate of 100 lbs. per acre:

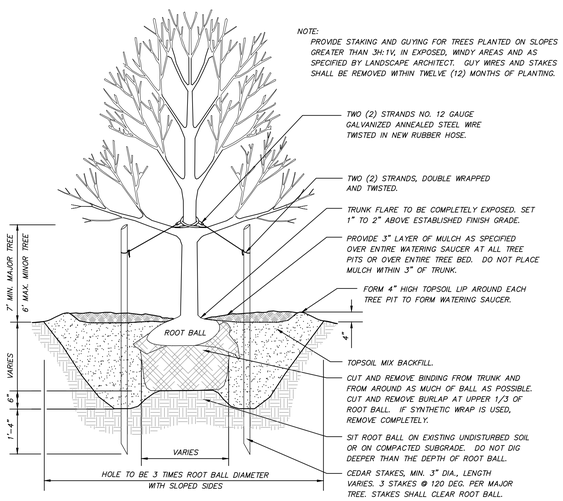
Kentucky Bluegrass	20%
Creeping Red Fescue	40%
Perennial Ryegrass	20%
Annual Ryegrass	20%

   B. Seed Mix for Wildflower Meadow areas and SSTS area as shown on the drawings at a rate of 15 lbs. per acre:
      Low-Growing Wildflower & Grass Mix (ERNMX-156) from Ernst Conservation Seeds of Meadville, PA.
   C. Seed Mix for paddock / pasture areas as shown on the drawings at a rate of 25 lbs per acre:
      Horse Pasture & Hay Mix (ERNMX-107) from Ernst Conservation Seeds of Meadville, PA or as directed by owner..



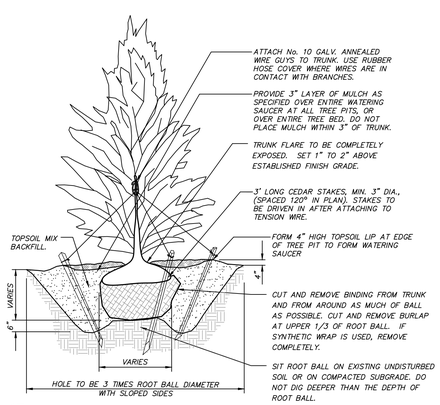
VEHICLE MANEUVERING PLAN

SCALE: 1" = 60'



TREE PLANTING DETAIL

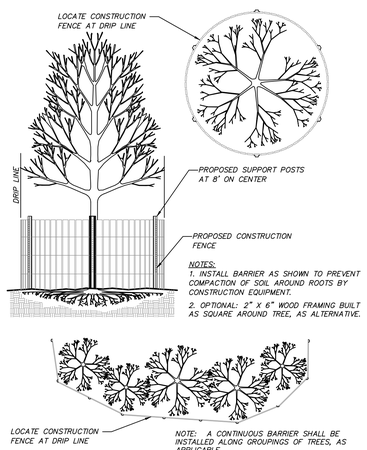
(N.T.S.)



NOTE:
PROVIDE STAKING AND GUYING FOR TREES PLANTED ON SLOPES GREATER THAN 3H:1V, IN EXPOSED, WINDY AREAS AND AS SPECIFIED BY LANDSCAPE ARCHITECT. GUY WIRES AND STAKES SHALL BE REMOVED WITHIN TWELVE MONTHS OF PLANTING.

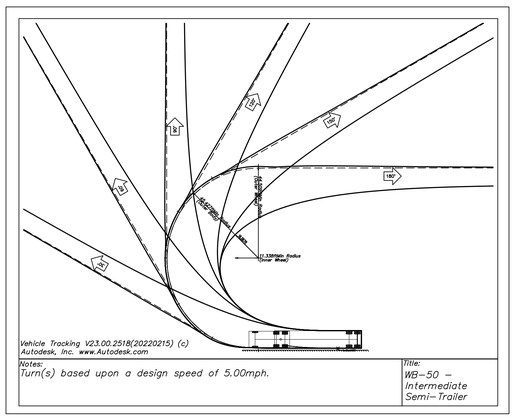
EVERGREEN TREE PLANTING DETAIL

(N.T.S.)



TREE PROTECTION DETAIL

(N.T.S.)



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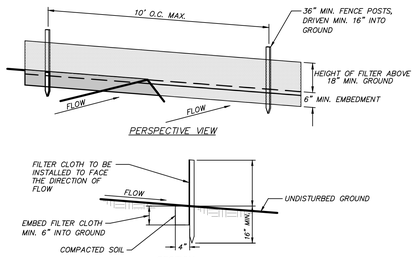
PROJECT:
DOUBLE H FARMS - PHASE I
20 BOUTONVILLE ROAD SOUTH, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK

DRAWING:
DETAILS

STATE OF NEW YORK · RICHARD D. WILLIAMS · 069888 · LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	23139.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	2-13-24	DRAWN BY	T.S.M.	D-1	9 / 11
SCALE	NTS	CHECKED BY	D.L.M.		

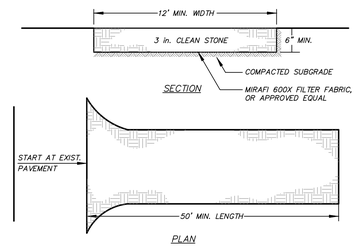


CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

STANDARD SILT FENCE DETAIL

(N.T.S.)



INSTALLATION NOTES

1. STONE SIZE – USE 3" STONE
2. LENGTH – AS REQUIRED, BUT 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 – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCUR. TWENTY FOUR (24) FOOT IF SINGLE ACCESS TO SITE.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
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 RIGHT OF WAY . THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN 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.

STABILIZED CONSTRUCTION ACCESS DETAIL

(N.T.S.)

PERMANENT STORMWATER FACILITIES MAINTENANCE SCHEDULE

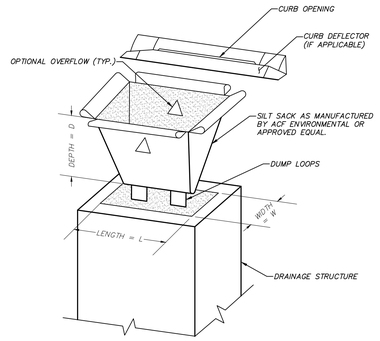
PRACTICE/FACILITY	MONTHLY	AFTER MAJOR STORM EVENTS	BI-ANNUALLY	YEARLY	EVERY 5 to 10 YEARS
INFILTRATION UNITS	–	Confirm infiltrators dewater within 40 hours	Inspect & clean	Inspect outlet structures & remove accumulated sediment.	Clean isolator row per manufactures recommendations
SUBSURFACE STORMWATER COLLECTION SYSTEMS	–	–	Inspect & clean	Inspect, clean, repair and/or replace structures. Remove debris.	–
IRRIGATION POND	Inspect first few months after construction for eroding soils & slumpage & repair immediately	Inspect orifices, inlets & outlets for clogging, eroding soils on the basin berm & embankments, & sources of erosion; & stabilize and/or repair immediately.	Mow berm and exterior embankments Remove debris & litter from basin & outlet structures	–	Inspect for & remove accumulated sediment
DEEP SUMP CATCH BASINS	–	–	Inspect for damage to frame and grate, and pipe inlets/outlets. Clean accumulated sediment in sump.	–	–
GRASS SWALES	Inspect first few months after construction for eroding soils & slumpage & repair immediately	–	Inspect & clean Mow & remove debris & litter. Revegetate as needed.	–	Inspect for & remove accumulated sediment

Note: The party responsible for implementation of the maintenance schedule during and after construction is:

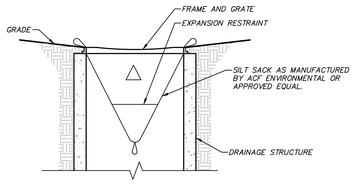
Double H Farms LLC.
2890 Long Meadow Drive
Wellington, FL 33414

EROSION & SEDIMENT CONTROL NOTES:

1. The Erosion and Sediment Control Plan is only to be referred to for the installation of erosion and sediment control measures. For all other construction related activities, including, but not limited to, grading and utilities, refer to the appropriate drawings.
2. Each contractor or subcontractor responsible for soil disturbance shall have a NYSDEC trained contractor onsite during soil disturbing activities. The NYSDEC trained contractor will be responsible to comply with the stormwater pollution prevention plan and for the implementation and maintenance of erosion and sediment control measures on this site prior to and during construction. The NYSDEC trained contractor shall sign a certification statement required by GP-0-20-001.
3. All construction activities involving the removal or disposition of soil are to be provided with appropriate protective measures to minimize erosion and contain sediment disposition within. Minimum soil erosion and sediment control measures shall be implemented as shown on the plans and shall be installed in accordance with "New York Standards and Specifications For Erosion and Sediment Control," latest edition.
4. Wherever feasible, natural vegetation should be retained and protected. Disturbance shall be minimized in the areas required to perform construction. No more than 5 acres of unprotected soil shall be exposed at any one time.
5. When land is exposed during development, the exposure shall be kept to the shortest practical period of time, but in no case more than 7 days after the construction activity in that portion of the site has ceased. Disturbance shall be minimized in the areas required to perform construction.
6. All construction vehicles shall be kept clear of the watercourses and wetland control areas outside the areas of proposed development. Silt fence and orange construction fence shall be installed in the areas where the grading is in close proximity of the watercourses or wetland control areas.
7. The stabilized construction entrances, silt fence, and orange construction fence shall be installed as shown on the plans prior to beginning any clearing, grubbing or earthwork.
8. All topsoil to be stripped from the area being developed shall be stockpiled and immediately seeded for temporary stabilization. Ryegrass (annual or perennial) at a rate of 30 lbs. per acre shall be used for temporary seeding in spring, summer or early fall. "Aristook" Winter Rye (cereal rye) shall be used for temporary seeding in late fall and winter.
9. Any graded areas not subject to further disturbance or construction traffic shall, within 7 days of final grading, receive permanent vegetation cover in combination with a suitable mulch. All seeded areas to receive a minimum 4" topsoil (from stockpile area) and be seeded and mulched between March 21 and May 20 or between August 15 and October 15 or as directed by project representative, with specified seed mixes as shown in the General Site Seeding Notes.
   - Mulch: Salt hay or small grain straw applied at a rate of 90 lbs./1000 S.F. or 2 tons/acre, to be applied and anchored according to "New York Standards and Specification For Erosion and Sediment Control," latest edition.
10. Grass seed mix may be applied by either mechanical or hydroseeding methods. Seeding shall be performed in accordance with the current edition of the "NYSDOT Standard Specification, Construction and Materials, Section 610-3.02, Method No. 1". Hydroseeding shall be performed using materials and methods as approved by the site engineer.
11. Cut or fill slopes steeper than 2:1 shall be stabilized immediately after grading with Curlex I Single Net Erosion Control Blanket, or approved equal.
12. Paved roadways shall be kept clean at all times.
13. The site shall at all times be graded and maintained such that all stormwater runoff is diverted to soil erosion and sediment control facilities.
14. All storm drainage outlets shall be stabilized, as required, before the discharge points become operational.
15. Stormwater from disturbed areas must be passed through erosion control barriers before discharge beyond disturbed areas or discharged into other drainage systems.
16. Erosion and sediment control measures shall be inspected and maintained on a daily basis by the NYSDEC Trained Contractor. to insure that channels, temporary and permanent ditches and pipes are clear of debris, that embankments and berms have not been breached and that all straw bales and silt fences are intact. Any failure of erosion and sediment control measures shall be immediately repaired by the contractor and inspected for approval by the site engineer.
17. Dust shall be controlled by sprinkling or other approved methods as necessary, or as directed by the trained contractor or site engineer.
18. Cut and fills shall not endanger adjoining property, nor divert water onto the property of others.
19. All fills shall be placed and compacted in 6" lifts to provide stability of material and to prevent settlement.
20. The NYSDEC Trained Contractor shall inspect downstream conditions for evidence of sedimentation on a weekly basis and after rainstorms.
21. As warranted by field conditions, special additional erosion and sediment control measures, as specified by the site engineer, the Wetlands Inspector, the Town Engineer and/or NYCDEP shall be installed by the contractor.
22. Erosion and sediment control measures shall remain in place until all disturbed areas are suitably stabilized.
23. After completion of the site improvements, the owner will assume responsibility for maintenance of the roads, parking lots, drainage systems and stormwater facilities. Each spring the paved areas shall be cleaned to remove the winter accumulation of traction sand. After this is completed all drain inlet and catch basin sumps should be cleaned. All pipes should be checked for debris and blockage and cleaned as required. During the cleaning process, the drain inlets, catch basins and pipes should be inspected for structural integrity and overall condition. Repairs and/or replacements should be made as required.
24. Inspection of the stormwater basins should be performed every 6 months and after large storm events. These inspections should, at a minimum, check the outlet pipes for blockage and the general overall integrity of the basin and appurtenances.
25. Maintain basin vegetation including removal of trees and replacement of vegetation that should die. Remove any litter which accumulates as necessary. Typically, the accumulated silt will be required to be removed every 10 to 20 years. Any accumulated silt shall be removed from the stormwater basins once the site has been stabilized.
26. Refer to the Stormwater Pollution Prevention Plan for additional details regarding long-term maintenance of the storm drainage facilities.
27. Cover all soil stockpiles on asphalt areas with tarps in lieu of silt fence.



EXPLODED ISOMETRIC



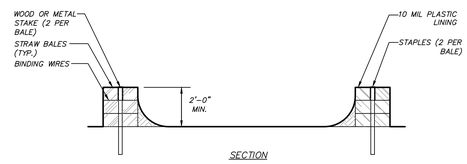
ELEVATION

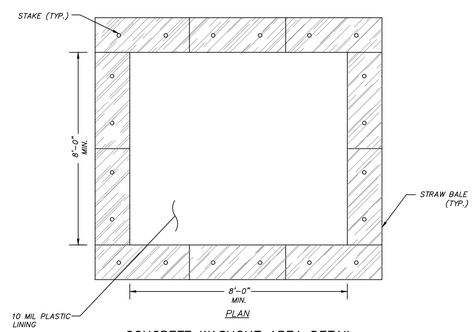
NOTE:
FABRIC FOR INSERT SHALL MEET THE FOLLOWING:

FABRIC PROPERTIES	MINIMUM ACCEPTABLE VALUE	TEST METHOD
Grab Tensile Strength (lbs)	110	ASTM D 4632
Mullen Burst Strength (PSI)	300	ASTM D 3786
Puncture Strength (lbs)	60	ASTM D 4833
Minimum Trapezoidal Tear Strength (lbs)	50	ASTM D 4533
Flow Through Rate (gal/min/sf)	25	ASTM D 4491
Equivalent Opening Size	40-80	US Std Sieve ASTM D 4751

MANUFACTURED INSERT INLET PROTECTION DETAIL

(N.T.S.)





CONCRETE WASHOUT AREA DETAIL

(N.T.S.)

NOTES

1. TEMPORARY CONCRETE WASHOUT TYPE ABOVE GRADE WILL BE CONSTRUCTED AS SHOWN ABOVE, WITH RECOMMENDED MINIMUM LENGTH AND MINIMUM WIDTH OF 8 FT.
2. THE WASHOUT WILL BE MINIMUM OF 100 FT FROM DRAINAGE SWALES, STORM DRAIN INLETS, WETLANDS, STREAMS AND OTHER SURFACE WATERS.
3. PLASTIC LINING WILL BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.

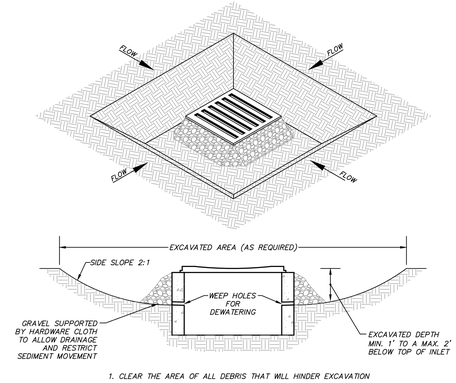
SOIL RESTORATION REQUIREMENTS[1,2]

(ONSITE SOILS WITHIN THE LIMIT OF DISTURBANCE BELONG TO THE HYDROLOGIC SOIL GROUP (HSG) D)

THE CONTRACTOR SHALL BE REQUIRED TO PERFORM THE FOLLOWING SOIL RESTORATION TECHNIQUES PRIOR TO INSTALLING TOPSOIL, SEED AND MULCH. ITEMS STRICKEN IN THE FOLLOWING TABLE DO NOT NEED TO BE PERFORMED.

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 area from any ongoing construction activities
	Apply 6" of topsoil	Aerate[3] and apply 6" of topsoil	
Areas of cut or fill	HSG A & B	HSG C & D	
	Aerate[3] and apply 6" of topsoil	Apply full Soil Restoration[4]	
Heavy traffic areas on site (especially in a zone 5-25 feet around buildings but not within a 5 foot perimeter around foundation walls.)	Apply full Soil Restoration[5] (de-compaction and compost enhancement)[5]		
Areas where runoff reduction and/or infiltration practices are applied	Restoration not required, but may be applied for appropriate practices.		Keep construction equipment from crossing these areas. To protect newly installed practices from any ongoing construction activities construction a single phase operation fence area.
Redevelopment projects	Soil restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.		

1. 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.
2. Per Deep Ripping and De-compaction, DEC 2008 .
3. 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 functions like a mini-subsoiler.
4. During periods of relatively low to moderate subsoil moisture, the disturbed soils are returned to rough grade and the following Soil Restoration steps applied:
   a. Apply 3 inches of compost over subsoil.
   b. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor-mounted disc, or tiller, mixing, and circulating air and compost into subsoils.
   c. Rock-pick until uplifted stone/rock materials of four inches and larger size area cleaned off the site.
   d. Apply topsoil to a depth of 6 inches.
   e. Vegetate as required by seeding notes located on the project drawings.
   f. Tilling should not be performed within the drip line of any existing trees or over any utility installations that are within 24 inches of the surface.
5. Compost shall be aged, from plant derived materials, free of viable weed seeds, have no visible free water or dust produced when handling, pass through a half inch screen and have a pH suitable to grow desired plants.



1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION
2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN
3. WEEP HOLES SHALL BE PROTECTED BY GRAVEL
4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL EXCAVATION WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY, AND STABILIZE WITH PERMANENT SEEDING
5. MAXIMUM DRAINAGE AREA = 1 ACRE

EXCAVATED DROP INLET PROTECTION DETAIL

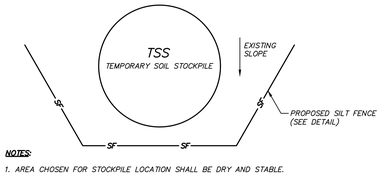
(N.T.S.)

EROSION AND SEDIMENT CONTROL MAINTENANCE SCHEDULE

MONITORING REQUIREMENTS				MAINTENANCE REQUIREMENTS	
PRACTICE	DAILY	WEEKLY	AFTER RAINFALL	DURING CONSTRUCTION	AFTER CONSTRUCTION
SILT FENCE BARRIER	–	Inspect	Inspect	Clean/Replace	Remove
STABILIZED CONSTRUCTION ENTRANCE	Inspect	–	Inspect	Clean/Replace Stone and Fabric	Remove
DUST CONTROL	Inspect	–	Inspect	Mulching/ Spraying Water	N/A
*VEGETATIVE ESTABLISHMENT	–	Inspect	Inspect	Water/Reseed/ Remulch	Reseed to 80% Coverage
INLET PROTECTION	–	Inspect	Inspect	Clean/Repair/ Replace	Remove
SOIL STOCKPILES	–	Inspect	Inspect	Mulching/ Silt Fence Repair	Remove
SWALES	–	Inspect	Inspect	Clean/Mulch/ Repair	Mow Permanent Grass/Replace/ Repair Rip Rap
CHECK DAMS	–	Inspect	Inspect	Clean/Replace Stones/Repair	Clean/Replace Stones/Repair
CONCRETE DRAINAGE STRUCTURES	–	Inspect	Inspect	Clean Sumps/ Remove Debris/ Repair/Replace	Clean Sumps/ Remove Debris/ Repair/Replace
DRAINAGE PIPES	–	Inspect	Inspect	Clean/Repair	Clean/Repair
ROAD & PAVEMENT	–	Inspect	Inspect	Clean	Clean
IRRIGATION POND	–	Inspect	Inspect	Clean/Mulch/ Repair/Reseed	See Permanent Stormwater Facilities Maintenance Schedule on Drawing D-1

* Permanent vegetation is considered stabilized when 80% of the plant density is established. Erosion control measures shall remain in place until all disturbed areas are permanently stabilized.

Note: The party responsible for implementation of the maintenance schedule during and after construction is:
Double H Farms LLC.
2890 Long Meadow Drive
Wellington, FL 33414
and/or the current owner(s) of the subject property.



NOTES:

1. AREA CHOSEN FOR STOCKPILE LOCATION SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE IMMEDIATELY SEEDED WITH K31 PERENNIAL TALL FESCUE.
4. ALL STOCKPILES SHALL BE PROTECTED WITH SILT FENCING INSTALLED ON THE DOWNGRADIENT SIDE.

TEMPORARY SOIL STOCKPILE DETAIL

(N.T.S.)

NO.	DATE	REVISION	BY

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

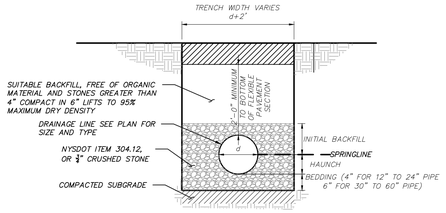
PROJECT:
DOUBLE H FARMS – PHASE I
20 BOUTONVILLE ROAD SOUTH, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK

DRAWING:
DETAILS

STATE OF NEW YORK · RICHARD D. WILLITS · 069868 · LICENSED PROFESSIONAL ENGINEER

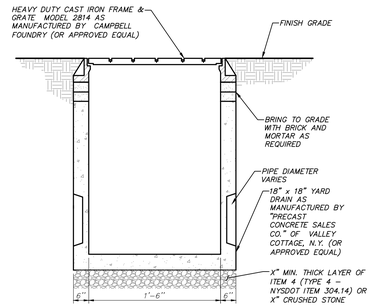
PROJECT NUMBER	23139.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	2-13-24	DRAWN BY	T.S.M.	D-2	10 / 11
SCALE	NTS	CHECKED BY	D.L.M.		

Z:\E23139\00 Double H Farms, 20 Boutonville Rd\09 Civil\Dwg 2023\C2024 4.62.dwg Plot, Inside, 1:1



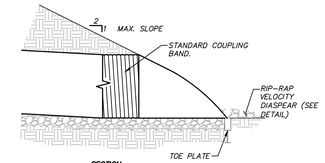
DRAINAGE LINE TRENCH DETAIL

(N.T.S.)

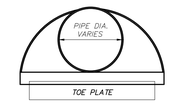


18" X 18" YARD DRAIN DETAIL

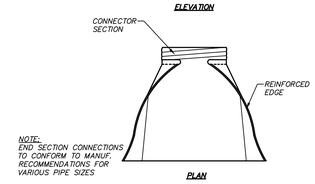
(N.T.S.)



SECTION



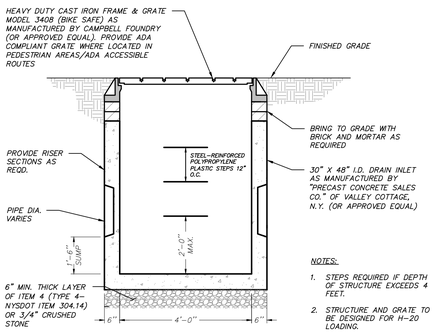
ELEVATION



PLAN

END SECTION DETAIL

(N.T.S.)

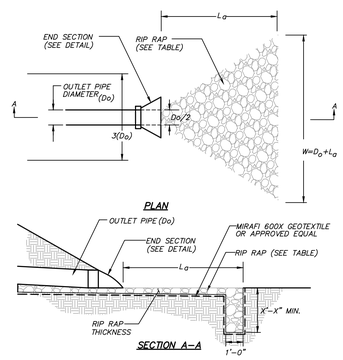


NOTES:

1. STEPS REQUIRED IF DEPTH OF STRUCTURE EXCEEDS 4 FEET.
2. STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING.

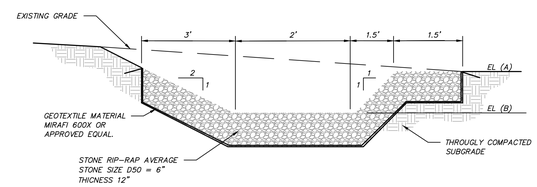
30" X 48" DRAIN INLET DETAIL

(N.T.S.)



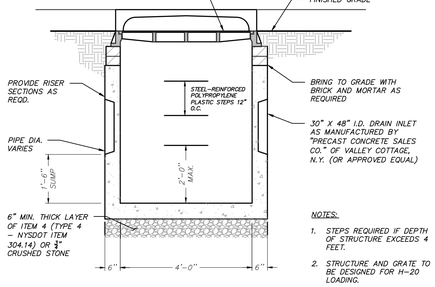
ROCK OUTLET PROTECTION DETAIL

(N.T.S.)



LEVEL SPREADER DETAIL

(N.T.S.)

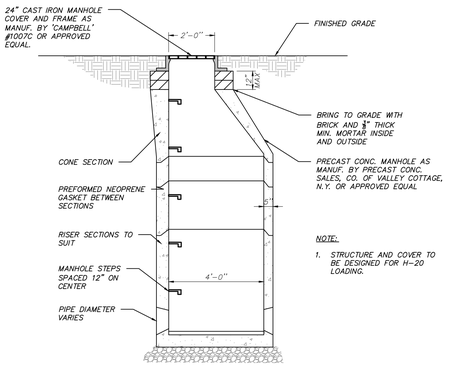


NOTES:

1. STEPS REQUIRED IF DEPTH OF STRUCTURE EXCEEDS 4 FEET.
2. STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING.

30" X 48" CATCH BASIN DETAIL

(N.T.S.)

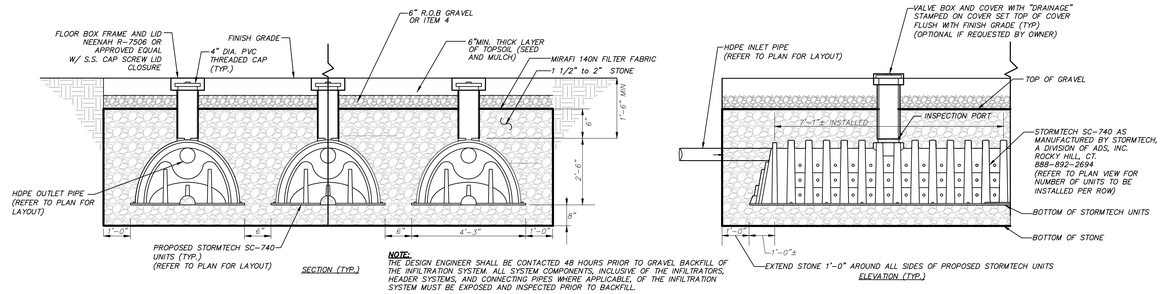


NOTE:

1. STRUCTURE AND COVER TO BE DESIGNED FOR H-20 LOADING.

DRAINAGE MANHOLE DETAIL

(N.T.S.)



NOTE:
THE DESIGN ENGINEER SHALL BE CONTACTED 48 HOURS PRIOR TO GRAVEL BACKFILL OF THE INFILTRATION SYSTEM. ALL SYSTEM COMPONENTS, INCLUSIVE OF THE INFILTRATORS, HEADER SYSTEMS, AND CONNECTING PIPES WHERE APPLICABLE, OF THE INFILTRATION SYSTEM MUST BE EXPOSED AND INSPECTED PRIOR TO BACKFILL.

STORMWATER INFILTRATION SYSTEM DETAIL

(N.T.S.)

REQUIRED SWPPP CONTENTS PER GP-0-20-001:

1. Pursuant to the NYSDEC "SPDES General Permit for Stormwater Discharges from Construction Activity" (GP-0-20-001), all Stormwater Pollution Prevention Plan's (SWPPP) shall include erosion and sediment control practices designed in conformance with the most current version of the technical standard, "New York Standards and Specifications for Erosion and Sediment Control." Where erosion and sediment control practices are not designed in conformance with this technical standard, the owner or operator must demonstrate equivalence to the technical standard. The following list of required SWPPP components is provided in accordance with Part III.B.1a–l of General Permit GP-0-20-001:

Note: The property has an agriculturally exempt status. Not withstanding Phase 1 consists of a slope flattening project that changes the grade of the site but does not significantly change the runoff characteristics, and as such is subject to an erosion and sediment control SWPPP only. The Phase 2 improvements require post-construction storm water controls and as such have been included in the project SWPPP.

Background Information: The subject project consists of the redevelopment of an existing private equestrian center.

a. The applicant proposes to raze and redevelop several onsite structures, construct a new outdoor riding area and reshape several existing paddock areas. A Stormwater Pollution Prevention Plan has been provided.

b. Site map / construction drawing: These plans serve to satisfy this SWPPP requirement.

c. Description of the soils present at the site: Onsite soils located within the proposed limits of disturbance consist of Paxton fine sandy loam (PnB, PnC), Ridgebury loam (RgB) and Woodbridge loam (WdB) as identified on the Soil Conservation Service Web Soil Survey. These soil types belong to the Hydrologic Soil Group C & D.

d. Construction phasing plan / sequence of operations: The Construction Sequence and phasing found on these plans provide the required phasing. A Construction Sequence and Erosion and Sediment Control Maintenance Schedule has been provided. The Sedimentation and Erosion Control Notes contained hereon outline a general sequence of operations for the proposed project. In general all erosion and sediment control facilities shall be installed prior to commencement with land disturbing activities, and areas of disturbance shall be limited to the shortest period of time as practicable.

e. Description of erosion and sediment control practices: This plan, and details / notes shown hereon serve to satisfy this SWPPP requirement.

f. Temporary and permanent soil stabilization plan: The Sedimentation and Erosion Control Notes and Details provided heron identify temporary and permanent stabilization measures to be employed with respect to specific elements of the project, and at the various stages of development.

g. Site map / construction drawing: This plan serves to satisfy this SWPPP requirement.

h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices: The details, Erosion and Sediment Control Notes, and Erosion and Sediment Control Maintenance Schedule serve to satisfy this SWPPP requirement.

i. An inspection schedule: Inspections are to be performed twice weekly and by a qualified professional as required by the General Permit GP-0-20-001. In addition the NYSDEC Trained Contractor shall perform additional inspections as cited in the Sedimentation and Erosion Control Notes.

j. A description of pollution prevention measures that will be used to control litter, construction chemicals and construction debris: In general, all construction litter / debris shall be collected and removed from the site. The general contractor shall supply either waste barrels or dumpster for proper waste disposal. Any construction chemicals utilized during construction shall either be removed from site daily by the contractor or stored in a structurally sound and weatherproof building. No hazardous waste shall be disposed of onsite, and shall ultimately be disposed of in accordance with all federal, state and local regulations. Material Safety Data Sheets (MSDS), material inventory, and emergency contact numbers shall be maintained by the general contractor for all construction chemicals utilized onsite. Finally, temporary sanitary facilities (portable toilets) shall be provided onsite during the entire length of construction, and inspected weekly for evidence of leaking holding tanks.

k. A description and location of any stormwater discharges associated with industrial activity other than construction at the site: There are no known industrial stormwater discharges present or proposed at the site.

l. Identification of any elements of the design that are not in conformance with the technical standard, "New York Standards and Specifications for Erosion and Sediment Control." All proposed elements of this SWPPP have been designed in accordance with the "New York Standards and Specifications for Erosion and Sediment Control."

2. Pursuant to the NYSDEC "SPDES General Permit for Stormwater Discharges from Construction Activity" (GP-0-20-001), all construction projects needing post-construction stormwater management practices shall prepare a SWPPP that also includes practices designed in conformance with the most current version of the technical standard, New York State Stormwater Management Design Manual ("Design Manual"). Where post-construction stormwater management practices are not designed in conformance with this technical standard, the owner or operator must demonstrate equivalence to the technical standard. The following list of SWPPP components is provided in accordance with Part III.B.2a–f and III.B.3:

a. Identification of all post-construction stormwater management practices to be constructed as part of the project; This plan, and details/notes shown hereon serve to satisfy this SWPPP requirement.

b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice; This plan, and details/notes shown hereon serve to satisfy this SWPPP requirement.

c. A Stormwater Modeling and Analysis Report including pre-development conditions, post-development conditions, the results of the stormwater modeling, a summary table demonstrating that each practice has been designed in conformance with the sizing criteria, identification of and justification for any deviations from the Design Manual, and identification of any design criteria that are not required. The required analysis is provided in the report titled Amended Stormwater Pollution Prevention Plan for Double H Farms.

d. Soil testing results and locations. This SWPPP requirement is provided in the report titled Amended Stormwater Pollution Prevention Plan for Double H Farms.

e. Infiltration testing results. This SWPPP requirement is provided in the report titled Amended Stormwater Pollution Prevention Plan for Double H Farms.

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. The Permanent Stormwater Facilities Maintenance Schedule provided on these plans serves to satisfy this requirement.

3. Enhanced Phosphorus Removal Standards – Beginning on September 30, 2008, 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 Enhanced Phosphorus Removal Standards included in the most current version of the technical standard, New York Stormwater Management Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a – 2.f above. The permanent stormwater practices for this project have been sized according to chapter 10 of the Design Manual Enhanced Phosphorus Removal Standards. Please see 2.a – 2.f above.

NO.	DATE	REVISION	BY

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

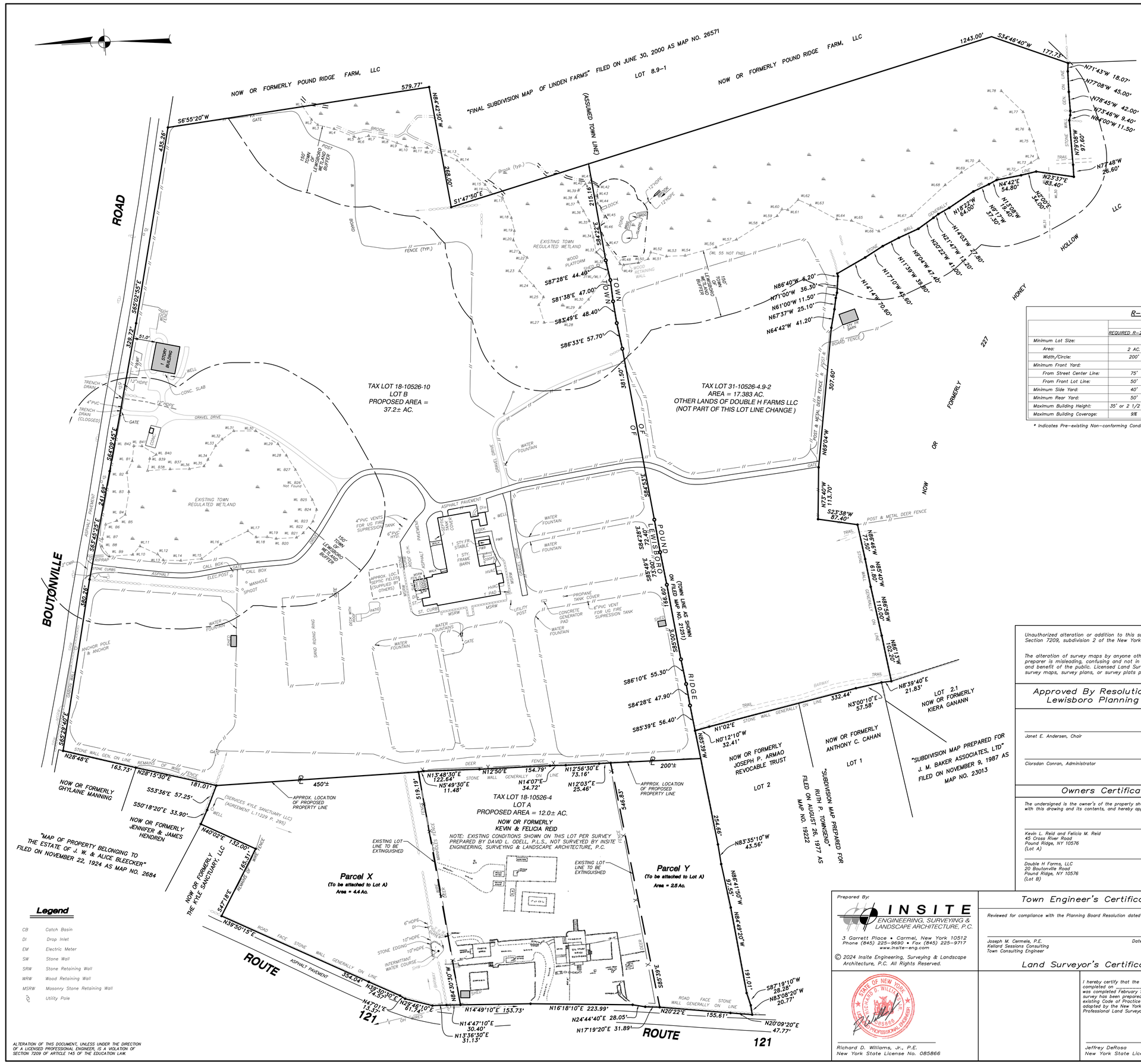
PROJECT:
DOUBLE H FARMS – PHASE I
20 BOUTONVILLE ROAD SOUTH, TOWN OF LEWISBORO, WESTCHESTER CO, NEW YORK

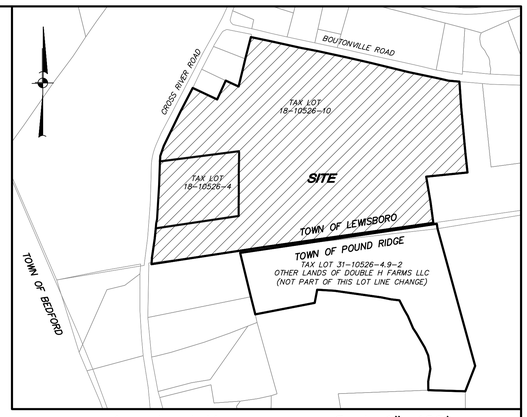
DRAWING:
DETAILS

STATE OF NEW YORK · RICHARD D. WILLIAMS · 095868 · LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	23139.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	2-13-24	DRAWN BY	T.S.M.	D-3	11 / 11
SCALE	NTS	CHECKED BY	D.L.M.		

Z:\E\23139\00 Double H Farms, 20 Bouthonville Rd\09 Dr S-Dwg, 2/12/2024 4:53:55 PM, rtwills, 1:1





Area Inset Map Scale: 1"=400'

R-2A ZONE REQUIREMENTS / §220-46.1 REQUIREMENTS

	LOT A			LOT B			
	REQUIRED R-2A ZONE	EXISTING	PROPOSED	REQUIRED R-2A ZONE	REQUIRED PER § 220-46.1	EXISTING	PROPOSED
Minimum Lot Size:							
Area:	2 AC.	5.1 AC.±	12.0 AC.±	2 AC.	--	44.1 AC.±	37.2 AC.±
Width/Circle:	200'	430'±	1,030'±	200'	--	1,200'±	1,200'±
Minimum Front Yard:							
From Street Center Line:	75'	115'±	No Change	75'	--	78'±	No Change
From Front Lot Line:	50'	86'±	No Change	50'	100'	51'±	51'± *
Minimum Side Yard:	40'	132'±	327'±	40'	80'	362'±	No Change
Minimum Rear Yard:	50'	394'±	No Change	50'	100'	354'±	No Change
Maximum Building Height:	35' or 2 1/2 Stories	2 1/2 Stories	No Change	35' or 2 1/2 Stories	--	n/a	Indoor Ring 30'
Maximum Building Coverage:	9%	1.8%	0.8%	9%	20%	1.3%	1.5%

* Indicates Pre-existing Non-conforming Condition

Westchester County Dept. of Health

No Jurisdiction

Westchester County Department of Health
New Rochelle, New York

This map does not constitute a subdivision as defined by Chapter 873, Article X of the Westchester County Sanitary Code. Permission is hereby granted for the filing of this map in the Office of the Westchester County Clerk, Division of Land Records. The appearance of the signature of the Commissioner of Health on this plat is not an endorsement and does not in any way indicate conformance with the Department's Rules and Regulations pertaining to water supply and sewage disposal.

Each purchaser of property shown hereon shall be furnished a true copy of this plat showing this endorsement. Any erasures, changes, additions or alterations of any kind, except the addition of signatures of other approving authority and the date thereof made on this plan after this approval, shall invalidate this approval.

Approved by the Assistant Commissioner of Health on Behalf of the Department of Health — **Date:**

Property shown hereon is subject to the "Rules and Regulations for the Protection from Contamination of the New York City Water Supply and Its Sources".

TABLE OF LOT AREAS:

LOT A (TAX LOT 18-10526-4)		LOT B (TAX LOT 18-10526-10)	
EXISTING	5.1 AC.	EXISTING	44.1 AC.
Parcel X	+4.4 AC.	Parcel X	-4.4 AC.
Parcel Y	+2.5 AC.	Parcel Y	-2.5 AC.
TOTAL	12.0 AC.	TOTAL	37.2 AC.

Unauthorized alteration or addition to this survey is a violation of Section 7209, subdivision 2 of the New York State Education Law.

The alteration of survey maps by anyone other than the original preparer is misleading, confusing and not in the general welfare and benefit of the public. Licensed Land Surveyors shall not alter survey maps, survey plans, or survey plats prepared by others.

Approved By Resolution of The Lewisboro Planning Board

Janet E. Andersen, Chair — Date

Clorsdan Conron, Administrator — Date

Owners Certification

The undersigned is the owner's of the property shown hereon, is familiar with this drawing and its contents, and hereby approves same for filing.

Kevin L. Reid and Felicia M. Reid — Date
45 Cross River Road
Pound Ridge, NY 10576
(Lot A)

Double H Farms, LLC — Date
20 Boutonville Road
Pound Ridge, NY 10576
(Lot B)

Prepared By:

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place • Carmel, New York 10512
Phone (845) 225-9690 • Fax (845) 225-9717
www.insite-eng.com

STATE OF NEW YORK · RICHARD D. WILLIAMS · 085866 · LICENSED PROFESSIONAL ENGINEER

Richard D. Williams, Jr., P.E.
New York State License No. 085866

Town Engineer's Certification

Reviewed for compliance with the Planning Board Resolution dated _____.

Joseph M. Cermele, P.E. — Date
Kellard Sessions Consulting
Town Consulting Engineer

Land Surveyor's Certification

I hereby certify that the survey shown hereon was completed on _____; that this map was completed February 12, 2024; and that this survey has been prepared in accordance with the existing Code of Practice for Land Surveys as adopted by the New York State Association of Professional Land Surveyors, Inc.

Jeffrey DeRosa
New York State License No. 50749

Preliminary Lot Line Change Map
Prepared for
Double H Farms LLC
and
Kevin & Felicia Reid
Situate in the
Town of Lewisboro
Westchester County, New York

Scale: 1" = 80' **Date: February 12, 2024**

GRAPHIC SCALE
0 40 80 160
(IN FEET)
1 inch = 80 ft.

23139.100

Legend

CB	Catch Basin
DI	Drop Inlet
EM	Electric Meter
SW	Stone Wall
SRW	Stone Retaining Wall
WRW	Wood Retaining Wall
MSRW	Masonry Stone Retaining Wall
	Utility Pole

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

Z:\C\23139\00 Double H Farms, 20 Boutonville Rd\JPR-1.dwg, 2/13/2024 10:36:24 AM, dwilliams, 1:1

FIELDWORK COMPLETED: November 2, 2022

DEED REFERENCE:
Control No. 621013688
Recorded: September 16, 2022
Grantor: Lee Vogelstein
Grantee: 20 Boutonville LLC

FILED MAP REFERENCES:

"Subdivision Map prepared for Scott B. Taylor", filed in The Westchester County Clerks Office Division of Land Records on June 28, 1983 As Map No. 21251.

Subject Lot: Portion of Lot 3 in Town of Lewisboro

"Subdivision Map prepared for Lee Vogelstein", filed in The Westchester County Clerks Office Division of Land Records on September 12, 2013 As Map No. 28714.

Subject Lot: 4.9-2 in Town of Pound Ridge

GENERAL NOTES:

Property corner monuments were not placed as part of this survey.

This map may not be used in connection with a "Survey Affidavit" or similar document, statement or mechanism to obtain title insurance for any subsequent or future grantees.

Unauthorized alteration or addition to this survey is a violation of Section 7209, subdivision 2 of the New York State Education Law.

The alteration of survey maps by anyone other than the original preparer is misleading, confusing and not in the general welfare and benefit of the public. Licensed Land Surveyors shall not alter survey maps, survey plans, or survey plats prepared by others.

Underground structures, if any exist, are not shown hereon, except as noted. The location of underground improvements or encroachments are not always known and often must be estimated. If underground improvements, easements, or encroachments exist and are neither visible during normal field survey operations nor described in instruments provided to this surveyor, they may not be shown on this map and are not certified.

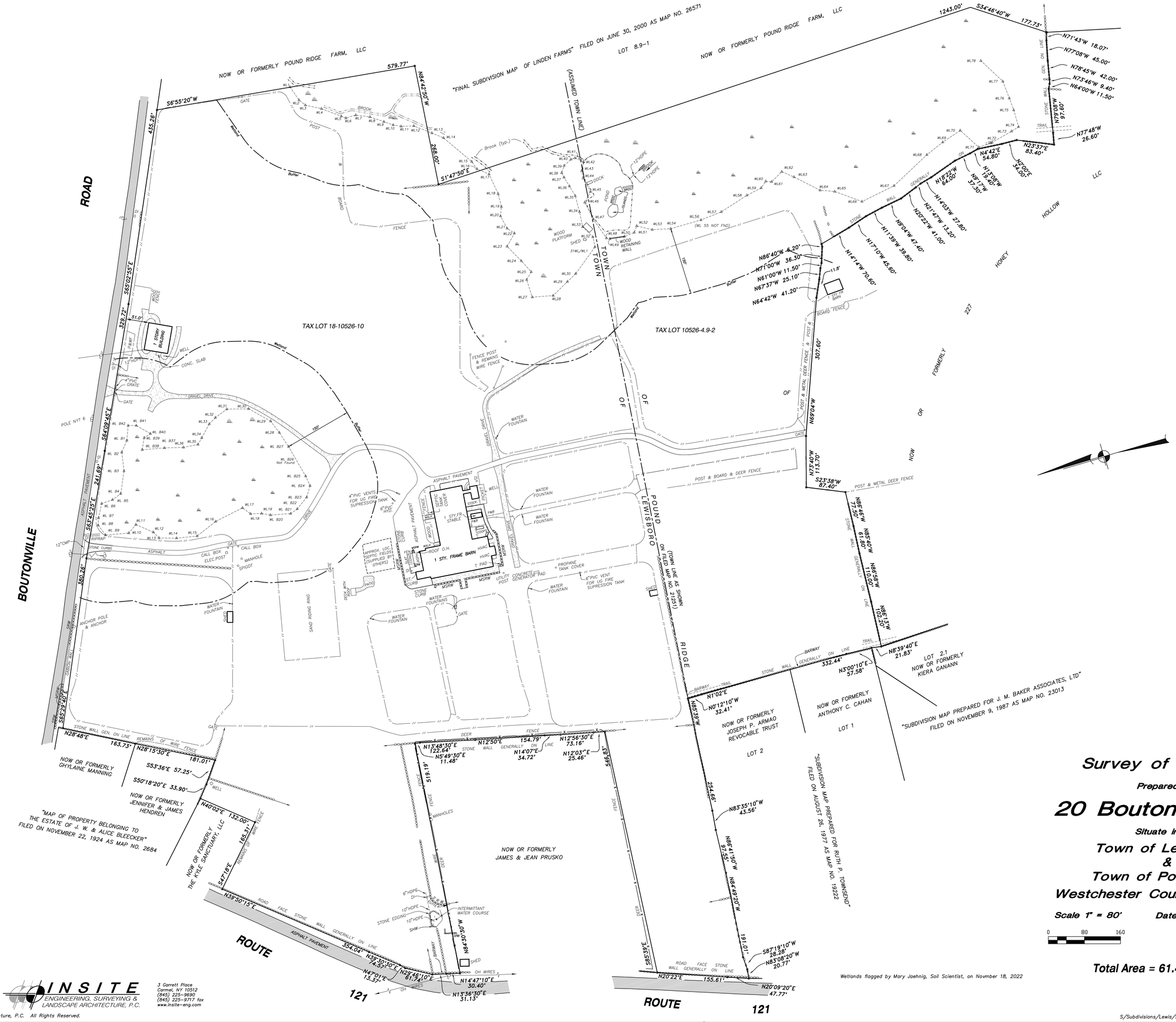
Certifications indicated hereon signify that this survey was prepared in accordance with the existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors, Inc. Said certifications shall run only to the person or entity for whom this survey was prepared and on their behalf to the title company, governmental agency and/or lending institution listed hereon, and to the assignees thereof.

Certifications are not transferable to additional lending institutions or subsequent owners.

This property may be affected by instruments which have not been provided to this surveyor. Users of this map should verify title with their attorney or a qualified title examiner.

Only copies from the original of this survey marked with the surveyor's embossed seal are genuine, true and correct copies of the surveyor's original work and opinion. A copy of this document without a proper application of the surveyor's embossed seal should be assumed to be an unauthorized copy.

Stone walls as surveyed may deviate from dimensioned deed lines. Subject & adjoining property rights may be defined by the location of the centerline of the stone wall.



Survey of Property

Prepared for

20 Boutonville LLC

Situate in the

Town of Lewisboro & Town of Pound Ridge

Westchester County, New York

Scale 1" = 80' Date: November 29, 2022

0 80 160

Total Area = 61.443 Acres

Wetlands flagged by Mary Jaehnig, Soil Scientist, on Novnber 18, 2022

JEFFREY B. DEROSA, L.S. 50749
New York State License No. 050749

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

T559 59-13 P4-10
S/Subdivisions/Lewis/Scott B. Taylor Linden Farms /Heuser/22233.200

Z:\S:\1_SUBDIVISIONS\Westchester\Lewisboro\Scott B Taylor-Linden Farm-Vogelstein\22233200 Heuser\PUBLISHED SURVEYS\2022-11-29\22233200 Heuser Survey.dwg

GENERAL NOTES:

1. CONTACT DIG SAFELY NEW YORK AT 800-962-7962 WWW.DIGSAFELYNEWYORK.ORG TO HAVE UNDERGROUND UTILITY LINES MARKED PRIOR TO START OF ANY EXCAVATION WORK.
2. BASE MAP INFORMATION WAS TAKEN FROM "TOPOGRAPHIC SURVEY" PREPARED BY H. STANLEY JOHNSON AND COMPANY LAND SURVEYORS, P.C. DATED NOVEMBER 29, 2023.
3. WETLANDS WERE DELINEATED ON SEPTEMBER 6, 2023 BY MARY JAEHNIG, SOIL SCIENTIST, PFEIZER-JAEHNIG ENVIRONMENTAL CONSULTING.

WORK SEQUENCE:

1. INSTALL SILT FENCE.
2. REMOVE TRASH, BRUSH, LOGS AND DEBRIS FROM THE WETLANDS AND FROM WITHIN THE FIRST 20 FEET OF WETLAND BUFFER.
3. UTILIZING TRACKED MACHINERY, AND PERFORMING WORK BY HAND IN SENSITIVE AREAS, REMOVE FILL FROM AREAS SHOWN ON PLAN.
4. EXISTING TREES ARE TO BE PROTECTED. FILL ADJACENT TO TREES SHALL BE REMOVED BY HAND. DO NOT OPERATE MACHINERY WITHIN 5 FEET OF ANY EXISTING TREES.
5. EXPORT EXCESS FILL FROM THE SITE.
6. VERIFY THE SUITABILITY OF SOIL WITHIN THE AREAS WHERE FILL HAS BEEN REMOVED FOR RE-PLANTING. IF EXISTING SOIL IS FOUND TO BE DEFICIENT, PROVIDE A MINIMUM OF FOUR INCHES OF CLEAN, SCREENED TOPSOIL IN AREAS TO BE SEEDED. IN AREAS OF SHRUB PLANTING PROVIDE A MINIMUM OF 12 INCHES DEPTH OF CLEAN, SCREENED TOPSOIL WITHIN THE PLANT HOLES, OR AMEND THE EXISTING SOIL.
7. INSTALL NEW NATIVE SHRUBS ACCORDING TO THE PLAN.
8. APPLY CONSERVATION/WILDLIFE MIX BY NEW ENGLAND WETLAND PLANTS, INC, OR EQUAL TO ALL DISTURBED AREAS WITHIN THE WETLAND BUFFER, ACCORDING TO MANUFACTURER'S DIRECTIONS.
9. RESTORE ALL DISTURBED LAWN AREAS: TOPSOIL, FINE RAKE, SEED AND HAY MULCH ALL DISTURBED AREAS TO BE MAINTAINED AS LAWN.

PLANTING NOTES:

1. EXACT LOCATION OF PLANTINGS, SPECIES TYPES AND QUANTITIES MAY VARY FROM THIS PLAN BASED ON SITE PLAN REVISIONS AND/OR ACTUAL FIELD CONDITIONS.
2. PLANT SPECIES SUBSTITUTIONS MAY BE MADE WITH THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT PRIOR TO PLANTING. SUBSTITUTED PLANTS SHALL BE AT AN EQUAL OR GREATER SIZE AS NOTED USING A SIMILAR TYPE, NATIVE PLANT.
3. ALL PLANTING METHODS SHALL BE IN ACCORDANCE WITH THE 'AMERICAN STANDARDS FOR NURSERY STOCK' LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
4. IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITIES OF PLANTS IN THE 'PLANT LIST' AND THE ACTUAL QUANTITIES SHOWN ON THE PLAN THE PLAN SHALL GOVERN.
5. ALL PLANTING WORK SHALL BE PERFORMED EITHER BY HAND.
6. ANY PLANTINGS SUSCEPTIBLE TO DEER BROWSING SHALL BE SPRAYED WITH ORGANIC DEER REPELLENT AND/OR PROTECTED WITH A PHYSICAL BARRIER, SUCH AS TREE TUPES, MESH FENCING, OR SIMILAR.
7. PLANTINGS SHALL BE HAND WATERED OR WATERED BY A TEMPORARY IRRIGATION SYSTEM UNTIL ESTABLISHMENT

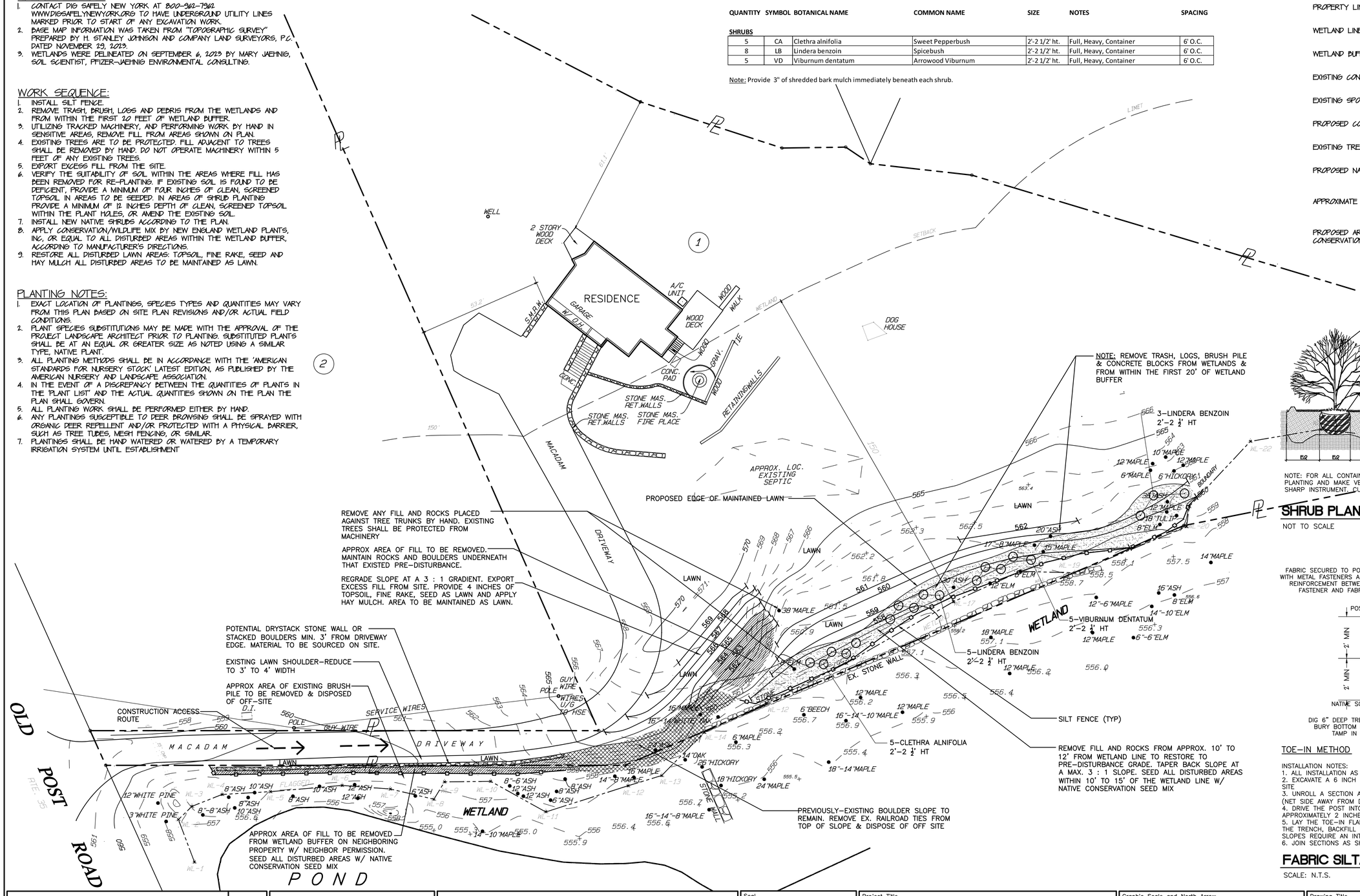
PLANT LIST-1324 Route 35

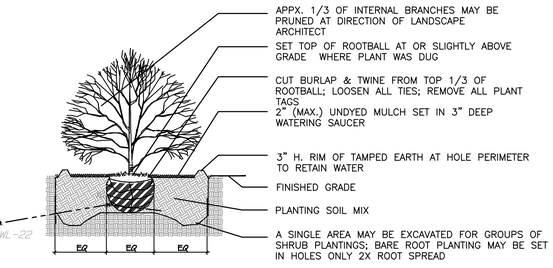
QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	NOTES	SPACING
SHRUBS						
5	CA	Clethra alnifolia	Sweet Pepperbush	2'-2 1/2' ht.	Full, Heavy, Container	6' O.C.
8	LB	Lindera benzoin	Spicebush	2'-2 1/2' ht.	Full, Heavy, Container	6' O.C.
5	VD	Viburnum dentatum	Arrowood Viburnum	2'-2 1/2' ht.	Full, Heavy, Container	6' O.C.

Note: Provide 3" of shredded bark mulch immediately beneath each shrub.

GENERAL LEGEND

PROPERTY LINE
WETLAND LINE — WL-19
WETLAND BUFFER LINE
EXISTING CONTOUR — 569
EXISTING SPOT GRADE — 563.4
PROPOSED CONTOUR — 562
EXISTING TREE TO REMAIN — 38"MAPLE
PROPOSED NATIVE SHRUB
APPROXIMATE AREA OF FILL REMOVAL
PROPOSED AREA OF NATIVE CONSERVATION SEED MIX

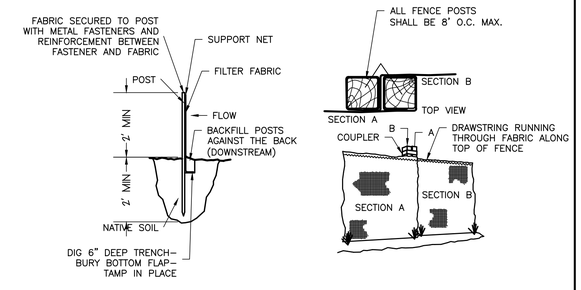




NOTE: FOR ALL CONTAINER GROWN PLANTS, REMOVE FROM CONTAINER JUST PRIOR TO PLANTING AND MAKE VERTICAL INCISIONS ALONG THE SURFACE OF THE ROOTBALL WITH A SHARP INSTRUMENT. CUT THROUGH CIRCULAR ROOTS AND GENTLY COMB OUT ROOTS.

SHRUB PLANTING DETAIL

NOT TO SCALE



TOE-IN METHOD

JOINING SECTIONS OF FENCING

INSTALLATION NOTES:
1. ALL INSTALLATION AS PER ASTM STANDARDS
2. EXCAVATE A 6 INCH TRENCH ALONG THE LOWER PERIMETER OF THE SITE
3. UNROLL A SECTION AT A TIME AND POSITION WALL OF THE TRENCH (NET SIDE AWAY FROM DIRECTION OF FLOW)
4. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS APPROXIMATELY 2 INCHES FROM THE TRENCH BOTTOM
5. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. STEEPER SLOPES REQUIRE AN INTERCEPT TRENCH
6. JOIN SECTIONS AS SHOWN ABOVE

FABRIC SILTATION FENCE DETAIL

SCALE: N.T.S.

Revisions	Date

Tracy Chalifoux LLC
Landscape Architect
7 King Street, Danbury, CT 06811
Office: 845-364-1360
E-mail: tlchalifoux@gmail.com

Seal: REGISTERED LANDSCAPE ARCHITECT TRACY LEE CHALIFOUX LA NO. 001985 STATE OF NEW YORK

Project Title: **RESTORATION PLAN**
PREPARED FOR:
FABIO VALENCIA AD LINA MERCHAN

Location: 1324 ROUTE 35
SOUTH SALEM, NEW YORK, TOWN OF LEWISBORO

Graphic Scale and North Arrow: 0 20' 40'

Date: February 9, 2024

Scale: 1" = 20'-0" | Checked: TLC | Drawn: TLC

Drawing Title: CONCEPTUAL RESTORATION PLAN

Drawing No. **WP-1**

SHEET 1 OF 1

KSCJ CONSULTING

John Kellard, P.E.
David Sessions, RLA, AICP
Joseph M. Cermele, P.E., CFM
Jan K. Johannessen, AICP

MEMORANDUM

TO: Chairperson Janet Andersen and
Members of Lewisboro Planning Board

CC: Ciorsdan Conran
Judson Siebert, Esq.
Kevin Kelly, Building Inspector

FROM: Jan K. Johannessen, RLA, AICP
Joseph M. Cermele, P.E., CFM
Town Consulting Professionals

DATE: March 14, 2024

RE: Jaime Mayer & Daniel Raiffe
29 Todd Road
Sheet 5, Block 10776, Lot 37

PROJECT DESCRIPTION

The subject property consists of ±4.9 acres of land and is located at 29 Todd Road within the R-4A Residential Zoning District. The subject property is developed with an existing one (1) family dwelling, a gravel driveway, and an inground pool. The applicant is proposing the construction of two (2) second story additions, totaling approximately 500 s.f. Additional bedrooms are proposed and the project will require either the expansion of the existing or a new septic system to accommodate the additional demand. The applicant is exploring options for septic locations, some of which occur within the Town's regulated wetland buffer.

SEQRA:

The proposed action has been preliminarily identified as a Type II Action and is therefore categorically exempt from the State Environmental Quality Review Act (SEQRA).

REQUIRED APPROVALS

1. Any land disturbance within the Town's regulated 150-foot wetland buffer will require a Wetland Permit from the Planning Board; a public hearing is required to be held on the Wetland Permit.

2. If land disturbance exceeds 5,000 s.f., a Town Stormwater Permit will be required, as will coverage under the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activities (GP-0-20-001).

3. The proposed sanitary sewage treatment system requires approval from the Westchester County Department of Health (WCDH).

COMMENTS

1. The wetland boundary line must be confirmed by this office.

2. The applicant shall submit a Wetland Report, which shall contain the information required under Sections 217-5 and 6 of the Town's Wetland Ordinance.

3. If the project results in wetland buffer disturbance, the applicant will be required to develop a Wetland Mitigation Plan, which provides at a minimum, mitigation at a ratio of 1:1 (for every s.f. of wetland or wetland buffer disturbance proposed, an equal or greater amount of mitigation shall be provided). Reference is made to the Town's mitigation guidelines provided in Chapter 217, Appendix B.

4. On-site wetlands are jurisdictional to the New York State Department of Conservation (NYSDEC) and the wetland boundary must be verified and validated by same. The submitted Wetland Validation Block must be signed by the NYSDEC.

5. Several options have been provided to situate the proposed septic leaching fields, some of which occur within the regulated wetland buffer and others within steep slopes. We note that the WCDH generally does not permit septic leaching fields within 100-feet of a wetland or watercourse and on slopes in excess of 15%. Locating septic leaching fields within the regulated buffer should only be considered when there is no reasonable alternative. The applicant does identify a location outside of the Town's 150-foot buffer and outside of steep slopes (adjacent to the existing driveway), which appears to be the best alternative from an environmental perspective.

6. Once received, the applicant shall provide a copy of the WCDH Approval, including signed plans and permits, to this office for our file.

7. Once the septic area is selected, at minimum, the following listed items will need to be addressed on the site plan:

a. The plan shall illustrate and identify the location, specie type and diameter at breast height (dbh) of all trees with a dbh of eight (8) inches or greater and located within the limits of disturbance and 25 feet beyond. Indicate trees to be removed and/or protected.

b. The plan shall illustrate and quantify the limits of disturbance (s.f.). The plan shall note that disturbance limits shall be staked in the field prior to construction.

c. Include erosion control measures on the plan, including, but not limited to, temporary construction access, silt fence, tree protection, construction sequence, etc. Details shall be provided and shall be in conformance with the most recent version of the New York State Standards and Specifications for Erosion and Sediment Control. Additionally, the proposed erosion controls must be shown to be located within the proposed limits of disturbance line.

d. If disturbances are proposed to exceed ≥5,000 s.f., submit draft copies of the NYSDEC Notice of Intent (NOI) and MS4 Acceptance Form to this office for review.

e. If disturbances are proposed to exceed ≥5,000 s.f., submit a Stormwater Pollution Prevention Plan (SWPPP) prepared in compliance with Chapter 189, Stormwater Management and Erosion and Sediment Control, as well as the NYSDEC General Permit (GP-0-20-001) and the NYS Stormwater Management Design Manual. Further, the applicant shall provide stormwater mitigation and design calculations for the runoff generated by the net increase in impervious surface for the 25-year, 24-hour storm event. Provide details of the stormwater mitigation system.

f. The plan shall illustrate the location and connection between all existing and proposed roof drains and shall identify the size, slope, and material of all proposed drainage pipe. Provide details and include outlet protection for any new roof drain discharges.

In order to expedite the review of subsequent submissions, the applicant should provide annotated responses to each of the comments outlined herein.

PLANS REVIEWED, PREPARED BY GREGORY CACCIOPPOLI, P.E., DATED FEBRUARY 14, 2024:

- Predevelopment Sketch (1-1)

PLANS REVIEWED, PREPARED BY LUFT ARCHITECTS, DATED JANUARY 5, 2024:

- Demolition (A2)
- Construction Plans (A4)

DOCUMENTS REVIEWED:

- Letter, prepared by Gregory Caccioppoli, P.E., dated February 13, 2024
- Stormwater Permit Application
- Wetland Permit Application
- Site Development Plan Approval Application
- Topographic Survey

JKJ/dc

https://kellardsessionsconsulti.sharepoint.com/sites/Kellard/Municipal/Lewisboro/Correspondence/2024-03-14_LWPB_Raiffe - 29 Todd Road_Review Memo.docx

TO: The Town of Lewisboro Planning Board

FROM: Lewisboro Conservation Advisory Council

SUBJECT: Mayer and Raiffe Residence, 29 Todd Road

DATE: March 12, 2024

The Conservation Advisory Council (CAC) has reviewed the materials submitted by the applicant for either expansion of the current septic field or creation of a new one.

The applicant is adding new bedrooms to the existing house which requires the expansion of the current septic field. The current field is too close to the wetland buffer to expand without a waiver. Alternatively, the homeowner could create a new septic field in a different location. In all three cases there are issues with the wetland buffer and in one with the well buffer.

The CAC would like to see any mitigation plans that need to be developed for the options and a listing of any trees that need to be removed including type and size.

TOWN OF LEWISBORO PLANNING BOARD

79 Bouton Road, South Salem , NY 10590 Tel: (914) 763-5592 Email: planning@lewisborogov.com

Site Development Plan/Subdivision Plat Application – Check all that apply:

Waiver of Site Development Plan Procedures	☐		
Site Development Plan Approval	Step I ☑	Step II ☐	
Special Use Permit Approval	Step I ☐	Step II ☐	
Subdivision Plat Approval	Step I ☐	Step II ☐	Step III ☐

Project Information

Project Name: 29 Todd Rd proposed addition with septic expansion

Project Address: 29 Todd Rd, Katonah, NY 10536

Gross Parcel Area: 4.924 AC Zoning District: R-4A Sheet(s): 40.2 Block (s): 2 Lot(s): 9

Project Description: Construction of addition for the existing home and the expansion of the existing septic system

Is the site located within 500 feet of any Town boundary?	YES ☐	NO ☑
Is the site located within the New York City Watershed?	YES ☑	NO ☐
Is the site located on a State or County Highway?	YES ☐	NO ☑

Does the proposed action require any other permits/approvals from other agencies/departments?

Town Board	☐	ZBA	☐	Building Dept.	☑	Town Highway	☐
ACARC	☐	NYSDEC	☐	NYCDEP	☐	WCDH	☑
NYSDOT	☐	Town Wetland	☑	Town Stormwater	☑		

Other _____

Owner's Information

Name: Jaimie Mayer & Daniel Raiffe Email: jaimiemayer@gmail.com

Address: 876 Route 35, South Salem, NY 10590 Phone: 1 (773) 852-6657

Applicant's Information (if different)

Name: Same as owner Email: _____

Address: _____ Phone: 1 (917) 309-5410

Authorized Agent's Information

Name: Gregory Caccioppoli, P.E. Email: greg@caccioeng.com

Address: 441 Central Park Ave, Suite 1238, Scarsdale, NY 10583 Phone: 1 (917) 309-5410

THE APPLICANT understands that any application is considered complete only when all information and documents required have been submitted and received by the Planning Board. The applicant further understands that the applicant is responsible for the payment of all application and review fees incurred by the Planning Board.

THE UNDERSIGNED WARRANTS the truth of all statements contained herein and in all supporting documents according to the best of his/her knowledge and belief, and authorizes visitation and inspection of the subject property by the Town of Lewisboro and its agents.

APPLICANT'S SIGNATURE _____ DATE _____

OWNER'S SIGNATURE _____ DATE _____

Application No.: _____
Fee: _____ Date: _____

TOWN OF LEWISBORO
WETLAND PERMIT APPLICATION

79 Bouton Road, South Salem, NY 10590
Phone: (914) 763-5592
Fax: (914) 875-9148

Project Address: 29 Todd Rd, Katonah, NY 10536

Sheet: 40.2 Block: 10801 Lot(s): 9

Project Description (Identify the improvements proposed within the wetland/wetland buffer and the approximate amount of wetland/wetland buffer disturbance): Expansion of existing septic system or the construction of new septic system

Owner's Name: Jaimie Mayer & Daniel Raiffe Phone: 1 (773) 852-6657

Owner's Address: 29 Todd Rd, Katonah, NY 10536 Email: jaimiemayer@gmail.com

Applicant's Name (if different): Same as owner Phone: 1 (917) 309-5410

Applicant's Address: _____ Email: _____

Agent's Name (if applicable): Gregory Caccioppoli, P.E. Phone: 1 (917) 309-5410

Agent's Address: 441 Central park Ave., Suite 1238, Scarsdale, NY 10583 Email: greg@caccioeng.com

TO BE COMPLETED BY OWNER/APPLICANT

What type of Wetland Permit is required? (see §217-5C and §217-5D of the Town Code)

□ Administrative ■ Planning Board

Is the project located within the NYCDEP Watershed? ■ Yes □ No

Total area of proposed disturbance: □ < 5,000 s.f. ■ 5,000 s.f. - < 1 acre □ ≥1 acre

Does the proposed action require any other permits/approvals from other agencies/departments? (Planning Board, Town Board, Zoning Board of Appeals, Building Department, Town Highway, ACARC, NYSDEC, NYCDEP, WCDOH, NYSDOT, etc): Identify all other permits/approvals required: Planning Board , building department & WCDOH

Note: Initially, all applications shall be submitted with a plan that illustrates the existing conditions and proposed improvements. Said plan must include a line which encircles the total area of proposed land disturbance and the approximate area of disturbance must be calculated (square feet). The Planning Board and/or Town Wetland Inspector may require additional materials, information, reports and plans, as determined necessary, to review and evaluate the proposed action. If the proposed action requires a Planning Board Wetland Permit, the application materials outlined under §217-7 of the Town Code must be submitted, unless waived by the Planning Board. The Planning Board may establish an initial escrow deposit to cover the cost of application/plan review and inspections conducted by the Town's consultants.

For administrative wetland permits, see attached Administrative Wetland Permit Fee Schedule.

Owner Signature: _____ Date: _____

Application No.: _____
Fee: _____ Date: _____

TOWN OF LEWISBORO
STORMWATER PERMIT APPLICATION

79 Bouton Road, South Salem, NY 10590
Phone: (914) 763-5592
Fax: (914) 875-9148

Project Address: 29 Todd Rd, Katonah, NY 10536

Sheet: 40.2 Block: 10801 Lot(s): 9

Project Description (describe overall project including all proposed land development activities):
Expansion of existing Septic System or The construction of new septic system

Owner's Name: Jaimie Mayer & Daniel Raiffe Phone: 1 (773) 852-6657

Owner's Address: 29 Todd Rd, Katonah, Ny 10536 Email: jaimiemayer@gmail.com

Applicant's Name (if different): Same as applicant Phone: 1 (917) 309-5410

Applicant's Address: _____ Email: _____

Agent's Name (if applicable): Gregory Caccioppoli, P.E. Phone: 1 (917) 309-5410

Agent's Address: 441 Central park Ave., Suite 1238, Scarsdale, NY 10583 Email: greg@caccioeng.com

TO BE COMPLETED BY OWNER/APPLICANT

The approval authority is? (see §189-5 of the Town Code)

☐ Town Engineer and Stormwater Management Officer ☐ Planning Board

Is the project located within the NYCDEP Watershed? ☐ Yes ☐ No

Total area of proposed disturbance: ☐ 5,000 s.f. - < 1 acre ☐ ≥1 acre

Will the project require coverage under the NYSDEC General Permit for Stormwater Discharges from Construction Activity? ☐ Yes ☐ No ☐ Requires post-construction stormwater practice

Does the proposed action require any other permits/approvals from other agencies/departments? (Wetland Inspector, Planning Board, Town Board, Zoning Board of Appeals, Building Department, Town Highway, ACARC, NYSDEC, NYCDEP, WCDOH, NYSDOT, etc): Identify all other permits/approvals required: Planning Board, building Department & WCDOH

Note: The applicant, owner and/or agent is responsible for reviewing and complying with Chapter 189, "Stormwater Management and Erosion and Sediment Control," of the Town Code. This application must be submitted with all applicable plans, reports and documentation specified under §189-8, "SWPPP requirements," of the Town Code; all SWPPP's shall be prepared in conformance with Chapter 189 and shall be prepared by a qualified professional, as defined therein. The provision for obtaining a Town Stormwater Permit is in addition to the requirement of obtaining coverage under the SPDES General Permit for Stormwater Discharges from Construction Activity, if applicable.

Owner Signature: _____ Date: _____

TOWN OF LEWISBORO PLANNING BOARD

79 Bouton Road, South Salem, NY 10590
Email: planning@lewisborogov.com
Tel: (914) 763-5592
Fax: (914) 875-9148

Affidavit of Ownership

FILE

State of : New York

County of: Westchester

Jaimie Mayer & Daniel Raiffe, being duly sworn, deposes and says that he/she

resides at 29 Todd Rd, Katonah, NY 10536

in the County of Westchester, State of New York

and that he/she is (check one) X the owner, or ____ the _____
Title

of 29 Todd Rd, Katonah, NY 10536
Name of corporation, partnership, or other legal entity

which is the owner, in fee of all that certain log, piece or parcel of land situated, lying and being in the Town of Lewisboro, New York, aforesaid and know and designated on the Tax Map in the Town of Lewisboro as:

Block 2, Lot 9, on Sheet 40.2.

Owner's Signature

Sworn to before me this

2 **day of** Feb., 2024

YESENIA LEPE
Notary Public - State of New York
NO. 01LE0007691
Qualified in Westchester County
My Commission Expires May 16, 2027

Notary Public – affix stamp

Revised 2-2019

TOWN OF LEWISBORO PLANNING BOARD

79 Bouton Road, South Salem, NY 10590
Email: planning@lewisborogov.com
Tel: (914) 763-5592 Fax: (914) 875-9148

Tax Payment Affidavit Requirement

This form must accompany all applications to the Planning Board.

Under regulations adopted by the Town of Lewisboro, the Planning Board may not accept any application unless an affidavit from the Town of Lewisboro Receiver of Taxes is on file in the Planning Board office. The affidavit must show that all amounts due to the Town of Lewisboro as real estate taxes and special assessments on the total area encompassed by the application, together with all penalties and interest thereon, have been paid.

Under New York State law, the Westchester County Clerk may not accept any subdivision map for filing unless the same type of affidavit from the Town of Lewisboro Receiver of Taxes is submitted by the applicant at the time of filing.

This form must be completed by the applicant and must accompany all applications to the Planning Board. Upon receipt, the Planning Board Secretary will send the form to the Receiver of Taxes for signature and notarization. If preferred, the applicant may directly obtain the signature of the Receiver of Taxes and notarization prior to submission.

To Be Completed by Applicant
(Please type or print)

Jaimie Mayer + Daniel Raiffe
Name of Applicant

29 Todd RD
Project Name

FILE

Property Description

Tax Block(s): ~~1~~ 10776

Tax Lot(s): ~~1~~ 37

Tax Sheet(s): ~~40.2~~ 5

Property Assessed to:

Jaimie Mayer & Daniel Raiffe
Name

29 Todd Rd
Address

Katonah NY 10536
City State Zip

The undersigned, being duly sworn deposes and says that a search of the tax records in the office of the Receiver of Taxes, Town of Lewisboro, reveals that all amounts due to the Town of Lewisboro as real estate taxes and special assessments, together with all penalties and interest thereon, affecting the premises described below, have been paid.

Signature - Deputy Receiver of Taxes: Ann Brent 2/14/24
Date

Sworn to before me this 14 **day of** February, 2024

JANET L. DONOHUE
NOTARY PUBLIC, STATE OF NEW YORK
No. 01DO6259627
Qualified in Westchester County
Commission Expires April 16, 2025

Janet L Donohue

Signature - Notary Public (affix stamp)

GREGORY CACCIOPPOLI PE

441 CENTRAL PARK AVE

SUITE 1238
SCARSDALE, NY 10583

Gregory Caccioppoli, PE
TELEPHONE: (914)-689-0220
Email: greg@caccioeng.com

February 13, 2024

Town of Lewisboro Planning Board
79 Bouton Rd,
South Salem, NY 10590

Re: 29 TODD RD RESIDENTIAL ADDITION – SEPTIC DRAIN FIELD NARRATIVE

Dear Members of the Board

I am pleased to present this narrative outlining the proposed addition/modification to the residence situated at 29 Todd Rd. The property encompasses 4.294 acres characterized by a mix of steep slopes, wetlands, and tree vegetation. The parcel is identified by SBL 04000200020090000000, with a corresponding Tax ID of 40.2-2-9. The existing dwelling occupies approximately 2,300 square feet of heated space.

The proposed project entails a +/- 500 square foot addition to the existing structure, specifically building on the north and northeast sections of the home. On November 6, 2023, Mary Jaehnig, Soil Scientist, visited the property and located the wetlands within the vicinity. Following her flagging of the wetland the surveyor on the project, Stephen Johnson, located the wetland flags. The buffer locations shown on the plans are based on Mary's flag locations. Upon investigating the current water and sewer infrastructure serving the property, it was identified that the existing septic drain field is within a 150' wetland buffer zone. The goal of the project would be to expand the existing septic fields, however, if not permitted by the Town of Lewisboro or the WCDOH we have explored alternative locations on site, for the septic drain field. Due to the prevalence of steep slopes, existing wells, and wetlands, only two viable locations for a new septic emerged.

Since the proposed addition includes additional bedrooms, the project requires more length of septic fields to accommodate the additional bedrooms. To reduce disturbance, our first option would be to add trenches to the existing septic system, if allowed by the WCDOH (OPTION 1). This would require the least amount of disturbance. If expanding on the existing absorption trenches is not acceptable, we will need to install a new septic system (OPTION 2). We have identified two possible locations for the new septic system, if necessary. The first prospective site is south of the existing dwelling, positioned 20 feet from its southern facade and situated between a 200-foot well buffer and a 150-foot wetland buffer. A section of this area is occupied by an existing gravel driveway, necessitating modification to accommodate the drain field, and raising questions as to the feasibility since the soil is most likely compacted in that area due to the vehicular traffic. The second, most likely area for the new septic would be the

area to the far northeast, characterized by relatively level ground approximately 120 feet from the northeast corner of the existing dwelling. Additionally, this area is adjacent to two wetland buffer lines. Other sections of the property were excluded from consideration due to existing topographical constraints and permanent site features associated with residential use.

We have explored all potential options for locations and alteration of the septic drain field to accommodate the addition, with a paramount objective to minimize impact on the surrounding wetlands. Following our assessment, if an expansion of the existing septic is not allowed, and a new septic is necessary, two potential locations have been identified, each requiring further testing to determine suitability.

Thank you for your attention to this matter. We remain committed to upholding the highest standards of environmental stewardship and compliance throughout this project.

Respectfully,

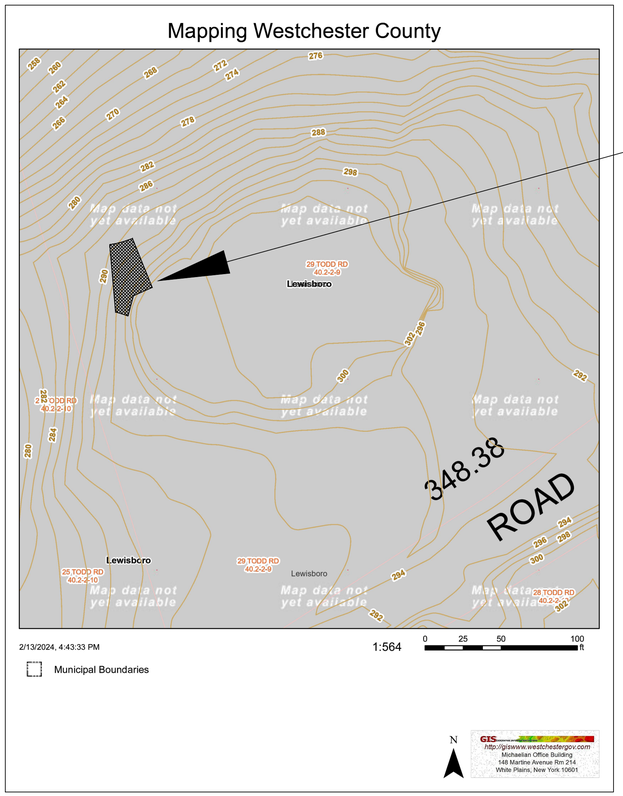
greg@caccioeng.com

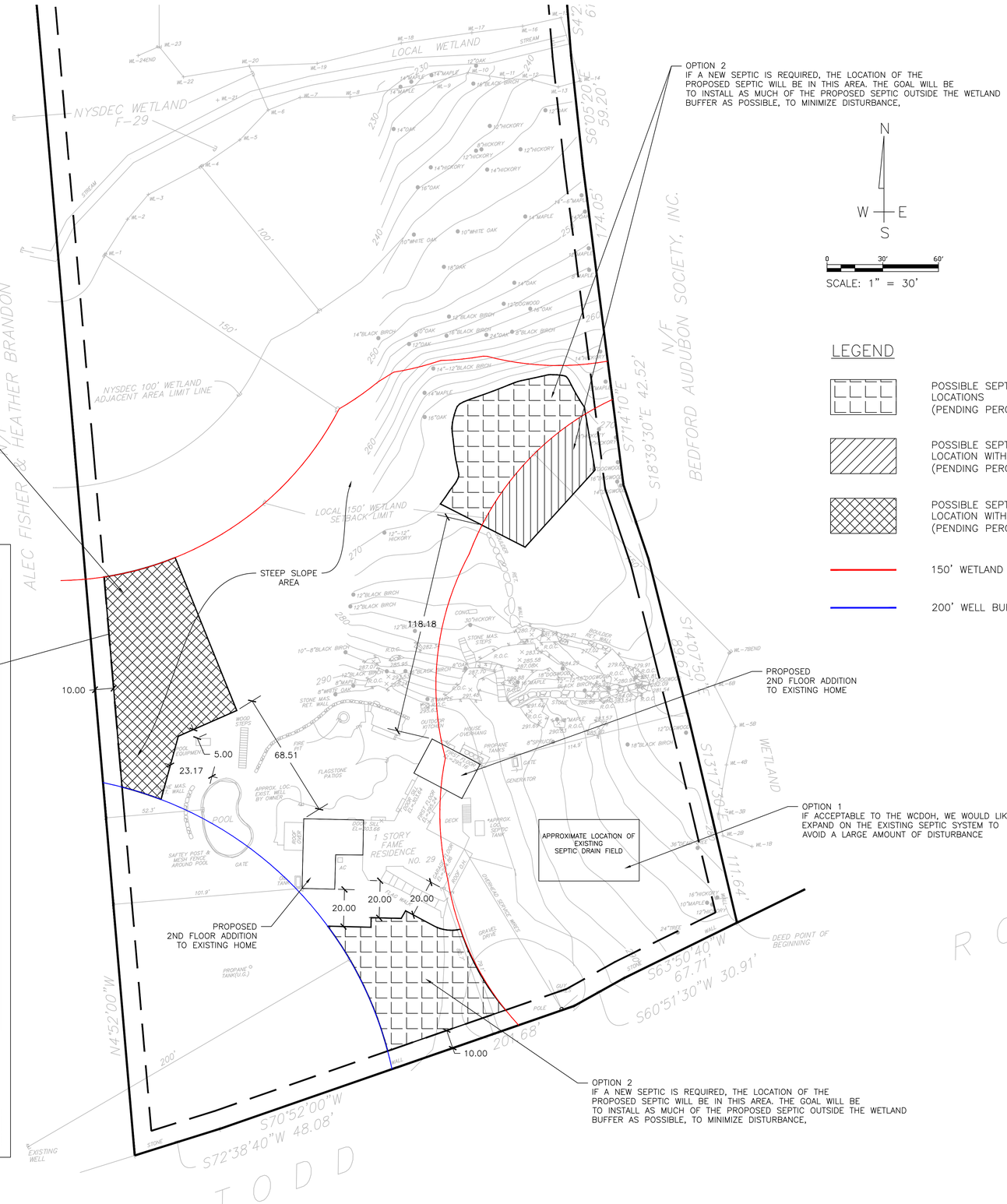
GREGORY CACCIOPPOLI PE

PLEASE RECYCLE

OPTION 2
IF A NEW SEPTIC IS REQUIRED, THE LOCATION OF THE PROPOSED SEPTIC WILL BE IN THIS AREA. THE GOAL WILL BE TO INSTALL AS MUCH OF THE PROPOSED SEPTIC OUTSIDE THE WETLAND BUFFER AS POSSIBLE, TO MINIMIZE DISTURBANCE,

THIS LOCATION SPECIFICALLY INVOLVES TOPOGRAPHIC CHALLENGES DUE TO THE STEEP SLOPES IN THE AREA.





OPTION 2
IF A NEW SEPTIC IS REQUIRED, THE LOCATION OF THE PROPOSED SEPTIC WILL BE IN THIS AREA. THE GOAL WILL BE TO INSTALL AS MUCH OF THE PROPOSED SEPTIC OUTSIDE THE WETLAND BUFFER AS POSSIBLE, TO MINIMIZE DISTURBANCE,

N
W E
S

0 30' 60'
SCALE: 1" = 30'

LEGEND

- POSSIBLE SEPTIC DRAIN FIELD LOCATIONS (PENDING PERCOLATION TEST)
- POSSIBLE SEPTIC DRAIN FIELD LOCATION WITHIN WETLAND BUFFER (PENDING PERCOLATION TEST)
- POSSIBLE SEPTIC DRAIN FIELD LOCATION WITH STEEP SLOPE (PENDING PERCOLATION TEST)
- 150' WETLAND BUFFER LINE
- 200' WELL BUFFER LINE

OPTION 1
IF ACCEPTABLE TO THE WCDOH, WE WOULD LIKE TO EXPAND ON THE EXISTING SEPTIC SYSTEM TO AVOID A LARGE AMOUNT OF DISTURBANCE

OPTION 2
IF A NEW SEPTIC IS REQUIRED, THE LOCATION OF THE PROPOSED SEPTIC WILL BE IN THIS AREA. THE GOAL WILL BE TO INSTALL AS MUCH OF THE PROPOSED SEPTIC OUTSIDE THE WETLAND BUFFER AS POSSIBLE, TO MINIMIZE DISTURBANCE,

GREGORY CACCIOPPOLI 105839
TYPE OR PRINT NAME PE #
2/14/24
DATE

NO.	DATE	REVISION
-	-	
-	-	
-	-	

JOHN MAYER & DANIEL RAIFFE
29 TODD RD
KATONAH, NY 10536
TOWN OF LEWISBORO
WESTCHESTER COUNTY
SECTION: 40.2 BLK: 2 & LOT: 9

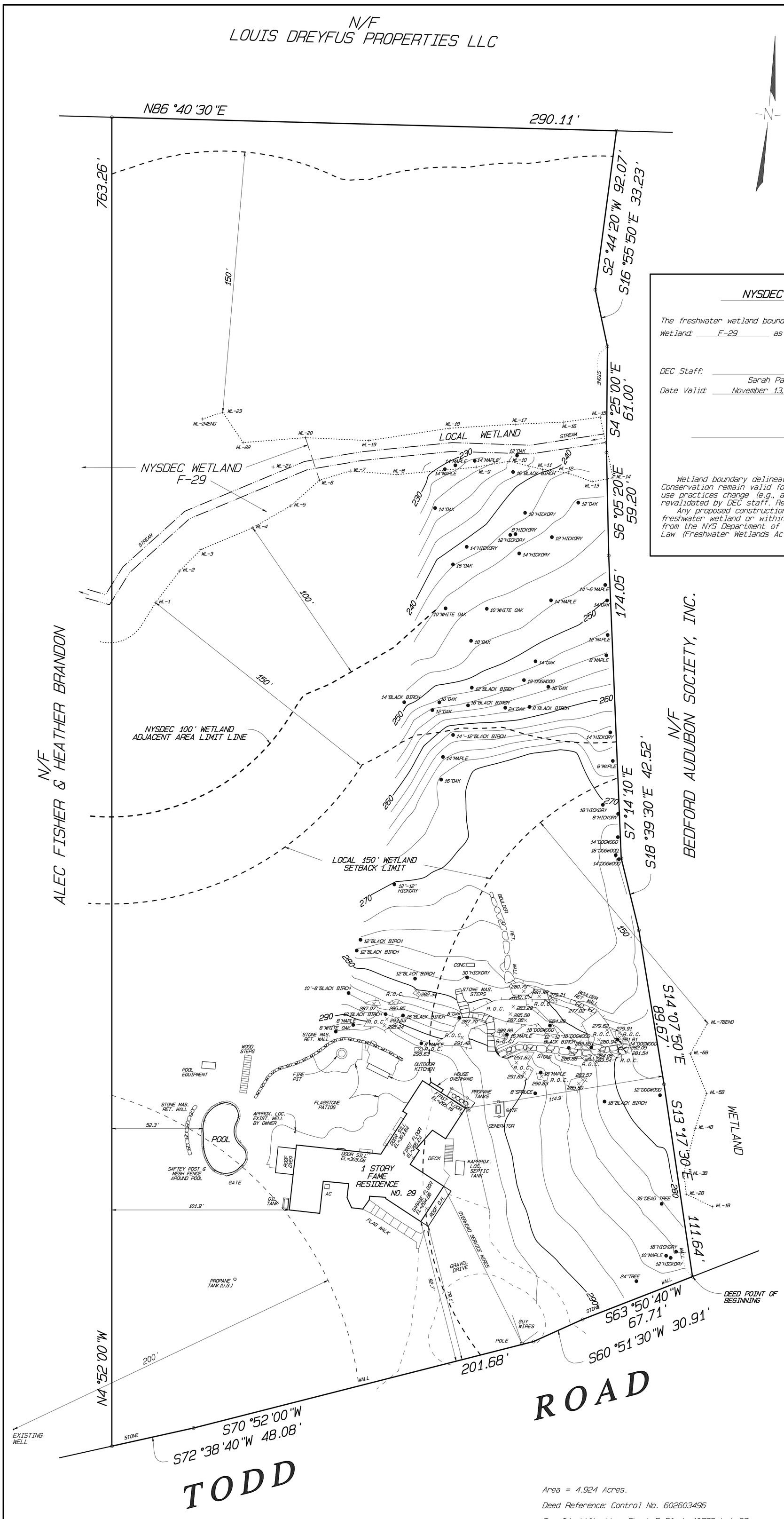
PREDEVELOPMENT SKETCH

GREGORY CACCIOPPOLI, P.E.
N.Y. LIC. #105839
441 CENTRAL PARK AVE, SUITE 1238
SCARSDALE, NY 10583
CONTACT: 914-689-0220
EMAIL: greg@caccioeng.com

DESIGNED: MB	DATE	SCALE	SHEET
DRAWN: MB	2/14/2024	1"=30'	1-1
REVIEWER: GC			

NOT FOR CONSTRUCTION

Dig Safely New York Call811 before you dig



NYSDEC FRESHWATER WETLAND BOUNDARY VALIDATION

The freshwater wetland boundary as represented on these plans accurately depicts the limits of Freshwater Wetland: F-29 as delineated by: Mary Jaehnig, Soil Scientist on: November 6, 2023

DEC Staff: Sarah Pawliczak

Surveyor/Engineer: Stephen T. Johnson, PLS

Date Valid: November 13, 2023

Expiration Date:

LICENSED LAND SURVEYOR STEPHEN T. JOHNSON No. 49749 STATE OF NEW YORK

Wetland boundary delineations as validated by the New York State Department of Environmental Conservation remain valid for five (5) years unless existing exempt activities, area hydrology, or land use practices change (e.g., agricultural to residential). After five (5) years the boundary must be revalidated by DEC staff. Revalidation may include a new delineation and survey of the wetland boundary.

Any proposed construction, grading, filling, excavating, clearing or other regulated activity in the freshwater wetland or within 100 feet of the wetland boundary as depicted on this plan requires a permit from the NYS Department of Environmental Conservation under Article 24 of the Environmental Conservation Law (Freshwater Wetlands Act) prior to commencement of work.

Area = 4.924 Acres.

Deed Reference: Control No. 602603496

Tax Identification: Sheet 5 Block 10776 Lot 37.

In accordance with the existing Code of Practice for Land Surveys as adopted by The New York State Association of Professional Land Surveyors, Inc.

Unauthorized alteration or addition to a survey map bearing a Licensed Land Surveyor's seal is a violation of Section 7209, Subdivision 2 of the New York State Education Law.

All certifications are valid for this map and copies thereof only if said map or copies bear the impressed seal of the surveyor whose signature appears hereon.

*The location of underground improvements or encroachments hereon, if any exist, are not certified.

Notes:

1) Elevations shown hereon are generally in accordance with Westchester County GIS.

2) Additional underground easements, utilities or structures, etc. other than those shown hereon may be encountered.

3) The subsurface information shown hereon, if any, is not guaranteed as to accuracy or completeness and should be verified by the contractor before any excavation.

Wetland Delineated November 6, 2023
by: Mary Jaehnig, Soil Scientist
17 Fairview Ave.
Ridgeview, CT. 06877
203-431-8113

NEIGHBOR'S WELL LOCATED: JANUARY 19, 2024
MAP REVISED: JANUARY 23, 2024
NYSDEC REF: DECEMBER 13, 2023
SURVEY BROUGHT TO DATE: NOVEMBER 28, 2023
MAP REVISED: DECEMBER 8, 2023
SURVEYED: JULY 10, 2023
MAP PREPARED: JULY 18, 2023

BY: _____
NEW YORK STATE LICENSED LAND SURVEYOR NO. 49749
STEPHEN T. JOHNSON, P.L.S.

LICENSED LAND SURVEYOR STEPHEN T. JOHNSON No. 49749 STATE OF NEW YORK

H. STANLEY JOHNSON AND COMPANY
LAND SURVEYORS, P.C.
42 SMITH AVENUE P.O. BOX 93
MT. KISCO, N.Y. 10549
TEL. 914-241-3872
FAX. 914-241-0438

TOPOGRAPHIC SURVEY
PREPARED FOR

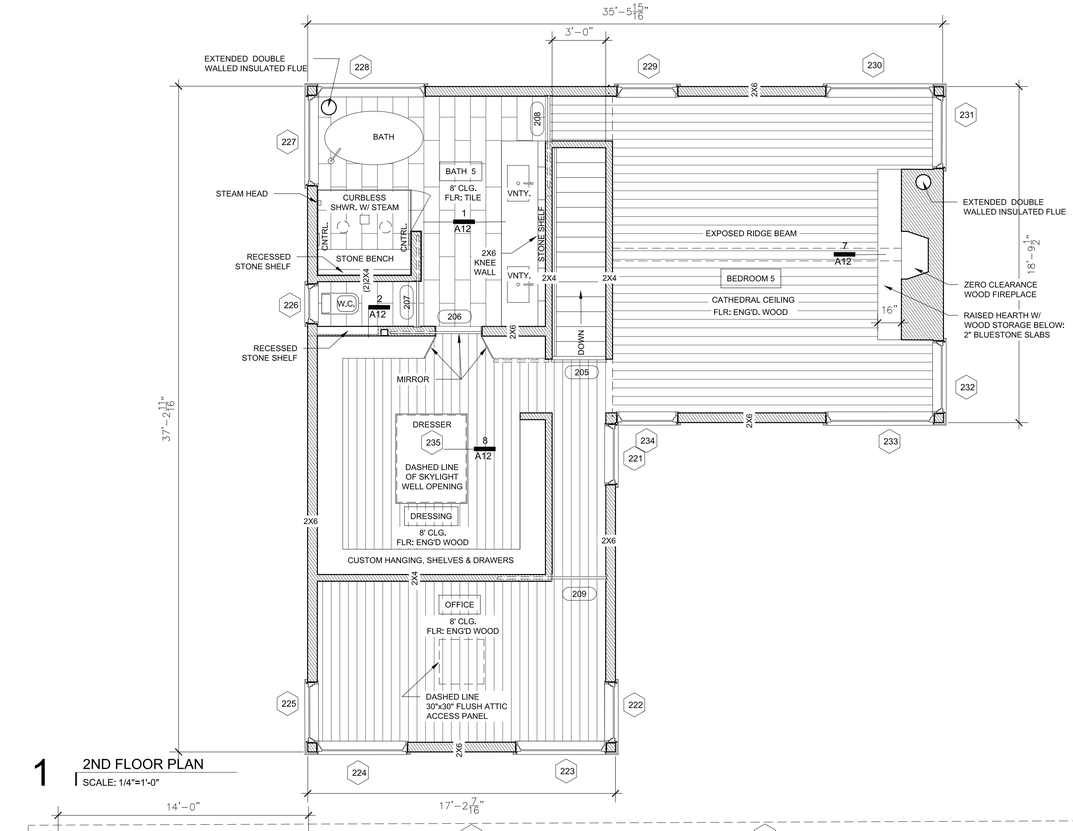
JAMIE MAYER
and
DANIEL RAIFFE

SITUATE IN THE
TOWN OF LEWISBORO
WESTCHESTER COUNTY, NEW YORK

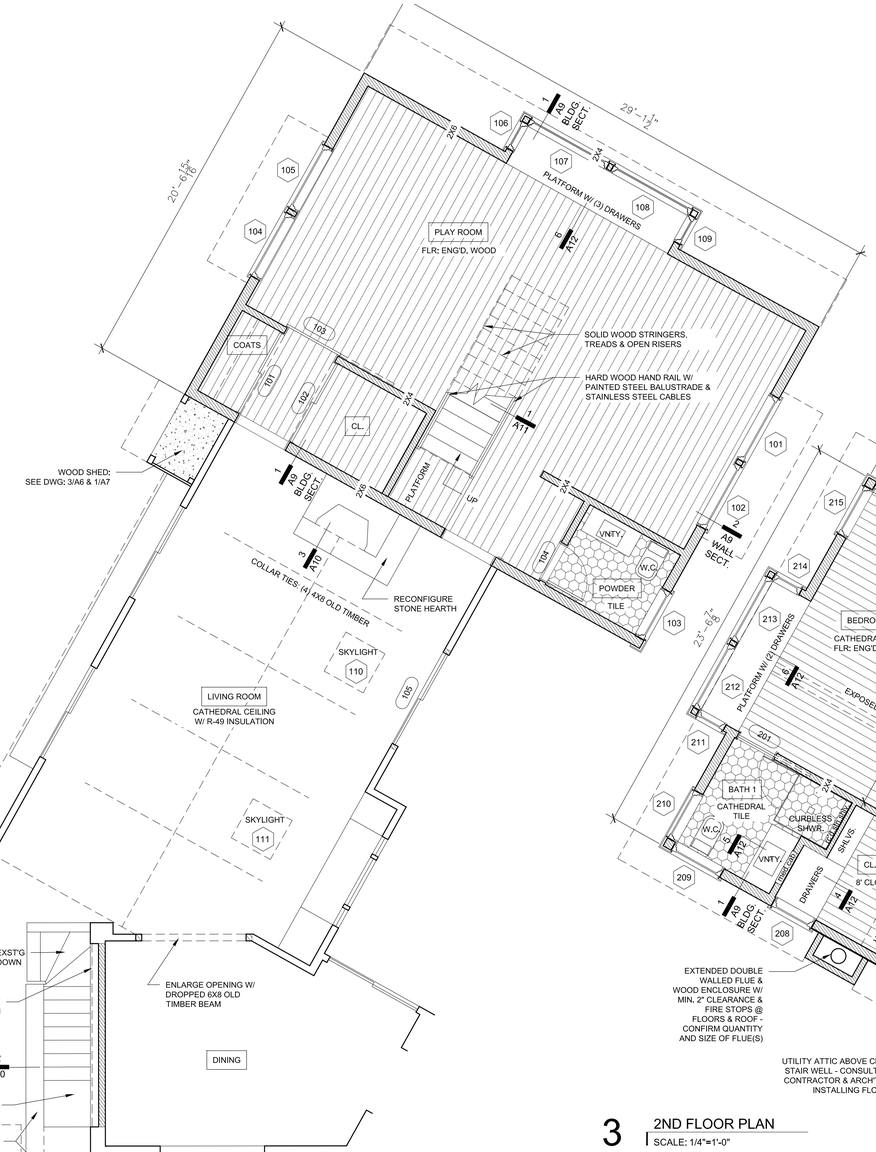
SCALE: 1" = 30'

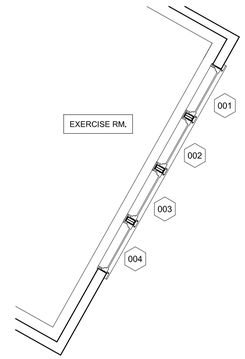
PREPARED BY: JAA CHECKED BY: STJ

JOB No. F93-083.04

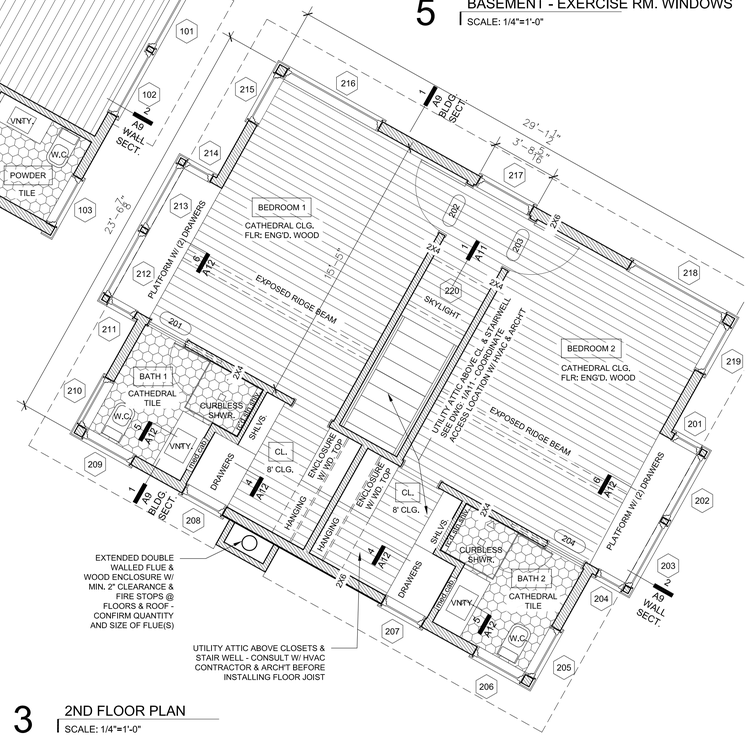


1 2ND FLOOR PLAN
SCALE: 1/4"=1'-0"

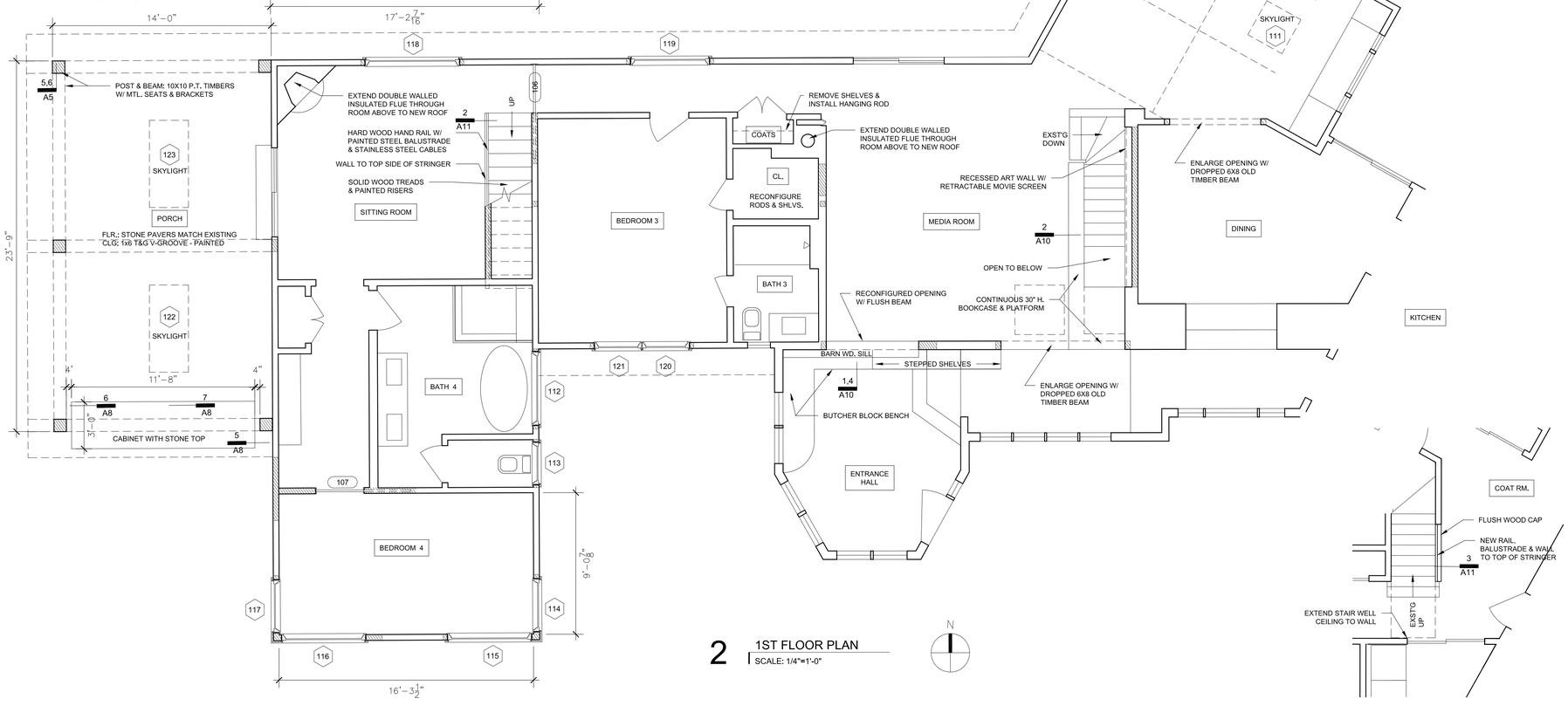




5 BASEMENT - EXERCISE RM. WINDOWS
SCALE: 1/4"=1'-0"



3 2ND FLOOR PLAN
SCALE: 1/4"=1'-0"



2 1ST FLOOR PLAN
SCALE: 1/4"=1'-0"

4 BASEMENT - COAT RM. STAIR
SCALE: 1/4"=1'-0"

GENERAL CONSTRUCTION LEGEND	
X#	NEW WINDOW WITH WINDOW NUMBER
X#	NEW DOOR WITH DOOR NUMBER
	NEW PARTITION / WALL
	NEW CMU WALL
	NEW CONCRETE WALL
	LINE ABOVE
	BEAM
	JOIST/RAFTER DIRECTION
x'-x"	ELEVATION (HEIGHT) INDICATOR
DETAIL # / SHEET #	DETAIL INDICATOR

BID

REVISION: 1 2 3 4 5 6

LUFT ARCHITECTS
1827 SPRING VALLEY RD. OSSINING NY 10562
917.647.5627 STUDIO@LUFTARC.COM

MAYER RESIDENCE
29 TODD RD., KATONAH, NY

CONSTRUCTION PLANS

DATE : JANUARY 5, 2023

DWG No. :
A4

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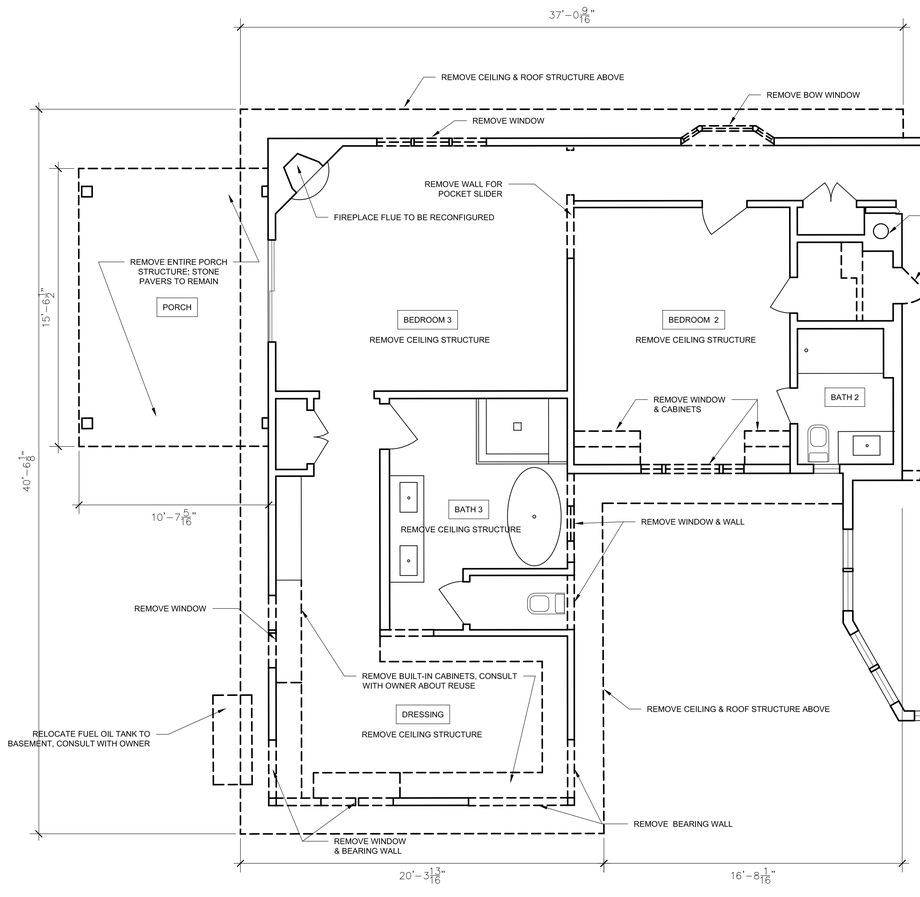
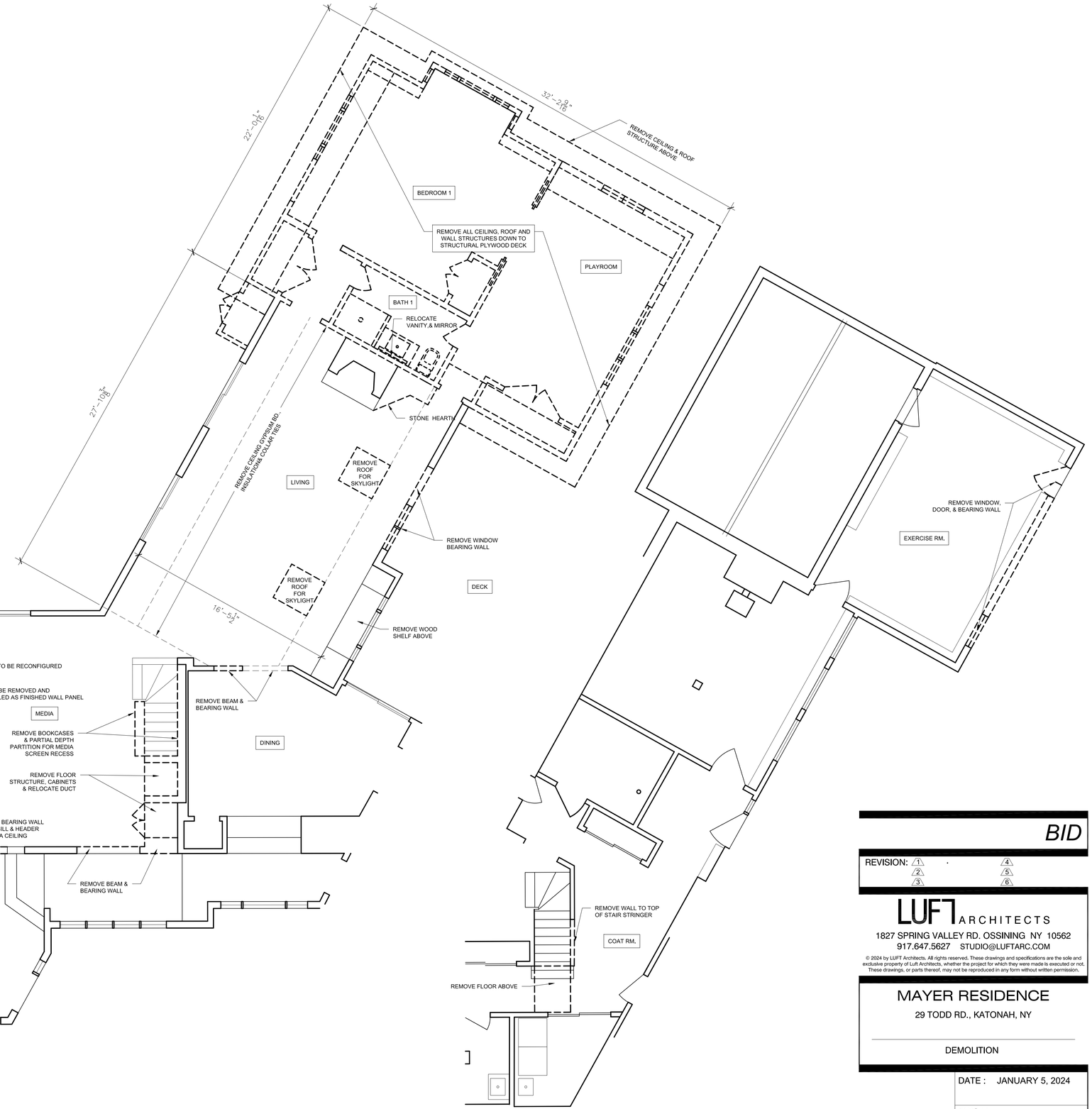


1 1ST. FLOOR DEMOLITION PLAN

SCALE: 1/4"=1'-0"



2 BASEMENT DEMOLITION PLAN

SCALE: 1/4"=1'-0"

BID

REVISION: 1 2 3 4 5 6

LUFT ARCHITECTS
1827 SPRING VALLEY RD. OSSINING NY 10562
917.647.5627 STUDIO@LUFTARC.COM

MAYER RESIDENCE

29 TODD RD., KATONAH, NY

DEMOLITION

DATE : JANUARY 5, 2024

DWG No. :

A2

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