

Gabriel E. Senior, P.C.
Engineers Planners Surveyors

90 N. Central Ave.

Hartsdale, NY 10530

Tel. (914) 422-0070

Fax (914) 422-3009

info@gesenor.com

LETTER OF TRANSMITTAL

DATE: April 10, 2023

**TO: Joseline Huerta
Town of North Castle
Planning Department**

**RE: 9 Barnard Rd. Section 108.03, Block 3, Lot 54
GENTILE
Continuation Of Planning Board Site Plan Review**

Please find the following items enclosed:

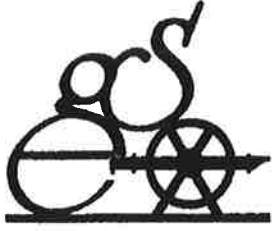
- **Site Development Application Package**
- **Preliminary Site Plan Completeness Review Form**
- **Gross Land Coverage Calculations Worksheet**
- **Floor Area Calculation Worksheet**
- **Analytical Soil Testing Report**
- **Site Plans – with wall options**
- **Drainage Report**
- **Response to Consulting Engineer**
- **Landscape Plan**
- **Architectural Plan of Shed**
- **Wall Certification**

Stephen Anderson

Project Manager

914-422-0070

steve@gesenor.com; info@gesenor.com



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Hartsdale, NY 10530
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Fax: (914) 422-3009
E-Mail: info@gesenor.com

April 10, 2023

Adam R. Kaufman, AICP
Director of Planning
Town of North Castle
17 Bedford Rd.
Armonk, NY 10504

**Re: 9 Barnard Rd. / Section 108.03 – Block 3 – Lot 54
Continuation for Planning Board Site Development Plan Approval**

Dear Mr. Kaufman,

This letter accompanies a continuation for Planning Board site plan review for proposed legalization of improvements of the property at 9 Barnard Rd. Additional information has been provided as the result of the Planning Board site visit and Consulting Engineer review.

To summarize, the property is located in Zoning District R-1A with a total land area of 51,406 sq.ft. reduced to 50,656 sq.ft. for slope deduction for coverage and floor area calculations. The improvements on the property includes the following items:

- Legalization of an addition on an existing shed.
- Legalization of the existing wall at front westerly side of the property – submission to discuss wall options.
- Drainage improvements.

Thank you for your consideration.

Very Truly Yours,

Stephen Anderson
Project Manager



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17 Bedford Road
Armonk, New York 10504-1898**

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Application for Site Development Plan Approval

Application Name

SITE PLAN SHED ADDITION & STONE RETAINING WALL
JOSEPH GENTILE



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Important General Information

- Prior to submitting an application, the "Notice to Applicants" should be reviewed.
- To appear before the Planning Board, all required application materials shall be submitted not later than **12:00 P.M., Monday, fourteen (14) days** prior to the date of the Planning Board meeting at which the application is scheduled to be heard or as otherwise noted by the Planning Board Secretary. Continuing Business can be submitted 12 days prior to the Next Planning Board meeting by the close of business. Except where noted.

If all required application materials, including the pertinent application fee and escrow monies are not submitted by that deadline, the application shall be automatically removed from the agenda.

At the discretion of the Planning Board Chairman, the application may be rescheduled, if appropriate, for the next available Planning Board meeting or the application may be removed from future agendas altogether. Without prior authorization from the Planning Board, application submissions shall not be accepted at Planning Board meetings.

- At the time of submission, all required application materials shall be submitted. **Piecemeal** submissions **shall not** be accepted. Substitution of previously submitted materials shall not be permitted.
- All submissions shall be dated, with revision dates identified on new submissions.
- All submissions shall be accompanied by a cover letter describing the project and/or any changes as compared to previous submissions.
- For distribution purposes and mailing to the Planning Board Members and others (as required), multiple copies of application materials shall be collated into separate sets, each containing one copy of every submitted document. All application materials shall be submitted in a form that fits into a **12" x 17" envelope**. Plans shall be **folded** and **rubber banded** as necessary.
- To be considered complete for Planning Board hearing purposes, an application package shall contain the information identified in Parts IV and V of this application form.
- For purposes of completing this application form, all responses provided shall be printed, except as otherwise specified.



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**AT THE TIME OF SUBMISSION TO THE PLANNING DEPARTMENT
PLEASE MAKE SURE THE FOLLOWING IS PROVIDED**

- ✓ SUBMISSION OF A SINGLE PDF FILE (PLANS, APPLICATION FORM, OTHER PAPERWORK) ON A DISK, THUMBDRIVE OR EMAIL

- ✓ COVER LETTER DESCRIBING THE PROJECT OR CHANGES TO THE PROJECT

- ✓ ALL PLANS ARE SIGNED AND SEALED BY A LICENSED NYS PROFESSIONAL

- ✓ ALL PLANS SHALL BE COLLATED AND FOLDED INTO 8 INDIVIDUAL SETS



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NOTICE TO APPLICANTS

In the Town of North Castle, the Planning Board is responsible for the review and approval of all applications concerning site plans, subdivisions and lot line changes; some applications concerning special use permits, wetlands permits and tree removal permits; and the environmental review of those applications over which it has jurisdiction. The Planning Board may also have an advisory role in connection with some applications before the Town Board, such as those involving other categories of special use permits and zoning amendments.

The Planning Board is composed of five volunteer members – all residents of North Castle – who are appointed by the Town Board for five-year terms. As part of the review of some applications, the Planning Board is assisted on an as-needed basis by other lay boards of the Town, such as the Conservation Board (CB), the Zoning Board of Appeals (ZBA), the Open Space Committee and the Architectural Review Board (ARB). As part of the review of most applications, the Planning Board is also assisted by the Director of Planning, the Town Engineer, the Town Attorney and other special consultants when required.

FEES:

If you submit an application for Planning Board review, you will be required to reimburse the Town for the cost of professional review services, including legal and engineering services, incurred in connection with the review of your application. The charges for professional planning review services have been \$120/hour. If other types of professional consultant review services are required, those charges will be in accord with fees usually charged for such services and pursuant to a contractual agreement between the Town and such professional.

At the time of submission of an application, the Planning Board will require the establishment of an escrow account from which withdrawals shall be made to reimburse the Town for the cost of consultant fees and professional staff services.

ESCROW ACCOUNT:

Escrow Accounts are established for each application. Monies will be deducted from the account for professional review services rendered. Monthly escrow disbursement summaries will be mailed for your reference regarding your project. When the balance in such escrow account is reduced to one-third (1/3) of its initial amount, a letter will be mailed to the applicant and the applicant shall deposit additional funds into such account to restore its balance to the amount of the initial deposit. Additional information on these requirements is provided in the North Castle Town Code (see Sections 355-79B and 275-36.C).



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PROCEDURE:

Prior to submitting an application to the Planning Board for review and approval, prospective applicants should schedule an appointment with the Planning Board Secretary at (914) 273-3542 for a consultation with the Town Planner and the Town Engineer. When the appointment is made, a verbal description of the proposal should be provided to the Planning Board Secretary. The Town of North Castle is providing the services of the Director of Planning and the Town Engineer for *initial* consultation at no cost to the applicant so that it is possible to conduct the application review as efficiently as possible for the benefit of the applicant as well as the Planning Board.

After meeting with the Town Planner and Town Engineer, prospective applicants should prepare one complete set of application documents and plans. This set will be reviewed for completeness by the Town Planner. If determined to be incomplete, the Planning Department will submit a checklist indicating which items have not been adequately addressed. If determined to be complete, the checklist will be initialed and the Applicant should submit the remainder of the required application packages.

Once the checklist has been initialed and all application packages have been submitted, the Planning Board Secretary will schedule the application for the first available opening on the Planning Board's meeting agenda. However, if the required application material packages, including the pertinent application fee are not received at the Planning Board office by 12:00 PM, Monday, 14 days prior to the date of the Planning Board meeting at which you are scheduled to appear (or otherwise scheduled by the Planning Board Secretary), your application will be automatically removed from the agenda. At the discretion of the Planning Board Chairman, your application may be rescheduled, if appropriate, for the next available Planning Board meeting or the application may be removed from future agendas altogether. Additional requirements pertinent to each type of application are provided on the individual application forms, which you should carefully review prior to submitting your application.

When an application is deemed complete and submitted for review, it will be forwarded to the Planning Board Members and its professional advisors in advance of the meeting to allow adequate time for review, preparation of written reports and site inspections as necessary. Your application may also be forwarded to other boards and staff of the Town as well as to agencies outside of the Town, if required. Compliance with State Environmental Quality Review (SEQR) procedures is also required as part of the processing of all applications.

At your first appearance before the Planning Board, the Applicant will describe the project and the Planning Board will discuss any preliminary issues. The Planning Board discussion may be continued at future meetings, or if the Planning Board review has progressed sufficiently, the Application may be scheduled for a public hearing (if one is required) The public hearing may occur at a single Planning Board meeting, or it may be adjourned and continued at another Planning Board meeting. Because the nature and complexity of each application varies



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considerably, it is not possible to predict in advance the length of time needed to secure Planning Board approval. There are certain steps that you can take, however, to expedite the review process. These include, but are not limited to, the following:

- Be thoroughly familiar with the requirements pertinent to your application. Carefully review relevant provisions of the North Castle Town Code and the application form for your particular type of application. Be sure to check on what other types of approvals may be required in addition to that of the Planning Board. Approvals by other Town boards or departments as well as agencies outside of the Town may be required before you will be allowed to proceed with your project.
- Make sure that your application materials are accurately prepared and contain all required information. The information that we initially request is required, so make sure that your submission is complete. If supplementary information is requested as the review process continues, make sure that it is submitted in a timely fashion so the Planning Board can continue to move your application along.
- Follow up to make sure that your application materials are being submitted on time, or deliver them to the Planning office yourself.
- Attend the Planning Board meeting at which your application will be discussed and be on time for the meeting. If you cannot appear personally, make sure that your representative will be there and is thoroughly familiar with your application.

If the Application is approved by the Planning Board, a resolution of approval will be adopted by the Planning Board. It is the Applicant's responsibility to address any and all conditions of approval. Permits from the Building Department cannot be issued until all conditions have been addressed and the plans have been signed by the Planning Board Chair and the Town Engineer.

**ON LINE AGENDAS & PLANNING DEPARTMENT MEMORANDA CAN BE
REVIEWED AT**

WWW.NORTHCASTLENY.COM



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INFORMATION REGARDING PUBLIC HEARINGS

1. The North Castle Assessor's Office shall prepare a list of neighbors to be notified for the neighbor notifications and public hearings - **A minimum of one week's notice is required**. The fee is \$50.00 which includes the list of neighbors and two sets of labels for mailing. The Assessor's Office may be reached Monday – Friday from 8:30 a.m.– 4:30 p.m. at 273-3324. You may also e-mail your request to assessor@northcastleny.com

When requesting your list please reference the list of application types below so that you can tell the Assessor's office how many feet on all sides of the property to create the list for.

Subdivisions - All lots zoned R-10, R-5 and R-2F shall notice all neighbors within 200 feet from all sides of their property. All other zoning districts shall notice neighbors within 500 feet from all sides of their property. Public hearing notice must be published in the newspaper.

Special Use Permit for Structures over 800 sq ft. & Accessory Apartment - All Zoning Districts shall notice all neighbors within 250 feet from all sides of their property. Public hearing notice must be published in the newspaper.

Site Plan, Non Residential - All Zoning Districts shall notice all neighbors within 250 feet from all sides of their property. Public hearing notice must be published in the newspaper.

Site Plan, Residential/ Neighbor Notification – All zoning districts R-3/4A or smaller shall notice all neighbors within 250' from all sides of their property. All zoning districts zoned R-1A or larger shall notice all neighbors within 500' from all sides of the property. No public hearing required, no publication in the newspaper required.

Wetlands Permit - All Zoning Districts shall notice all abutting property owners. Public hearing notice must be published in the newspaper.

2. The Director of Planning will prepare a Public Notice. The applicant and or professional will review, sign, date and return to the Planning Department Secretary. If there are any changes necessary, please edit and return for corrections. The corrections will be made and emailed back to the applicant who will forward it to the Journal Newspaper, when applicable.

If notification to the newspaper is not required, please continue to #3.



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You may email your public notice to legals@lohud.com. Please request an affidavit of publication which must be submitted to the Planning Board secretary prior to the public hearing. The Journal News requires three days prior notice before 12 noon, not counting weekends and holidays, for ad placement. Make sure the notice placement of the ad in the Greater Westchester Area. This notice cannot be published any sooner than 20 days prior to the meeting and must be published no less than 10 days prior to the meeting.

If you have any questions regarding your publication you may call 888-516-9220:
Email Address: legals@lohud.com

It is suggested that you purchase the newspaper for your records the day the notice is published.

3. Send out the Public Hearing Notice/ Neighbor Notification by First Class Mail. Notice shall be mailed by the applicant in official envelopes provided by the North Castle Planning Department; the list of noticed neighbors will be prepared by the Assessor's Office. This must be sent out no less than 10 days prior to the meeting and no more than 20 days prior to the meeting date. A Certificate of Mailing (PS Form 3817 or 3877) shall be filled out and post marked by the Post Office on the day of mailing. Neighbor Notifications – no publication in the newspaper required.
4. The Friday before the meeting or no later than 12:00 p.m. the day of the meeting the following **must** be submitted.
 - List of Neighbors prepared by the Assessor's Office
 - Certificate of Mailing – PS form 3817 or 3877 post marked by the US Post Office
 - Affidavit of publication from the Newspaper (only if published in the newspaper)



Firm Mailing Book For Accountable Mail

Name and Address of Sender

Check type of mail or service

- Adult Signature Required
- Adult Signature Restricted Delivery
- Certified Mail
- Certified Mail Restricted Delivery
- Collect on Delivery (COD)
- Insured Mail
- Priority Mail
- Priority Mail Express
- Registered Mail
- Return Receipt for Merchandise
- Signature Confirmation
- Signature Confirmation Restricted Delivery

USPS Tracking/Article Number

Addressee (Name, Street, City, State, & ZIP Code™)

Affix Stamp Here
(if issued as an international certificate of mailing or for additional copies of this receipt).
Postmark with Date of Receipt.

	Postage	(Extra Service) Fee	Handling Charge	Actual Value if Registered	Insured Value	Due Sender if COD	ASR Fee	ASRD Fee	RD Fee	RR Fee	SC Fee	SCRD Fee	SH Fee
1.													
2.													
3.													
4.													
5.													
6.													
7.													
8.													

Total Number of Pieces Listed by Sender

Postmaster, Per (Name of receiving employee)



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APPLICATIONS REQUIRING PLANNING BOARD APPROVAL
SCHEDULE OF APPLICATION FEES

<u>Type of Application</u>	<u>Application Fee</u>
* Site Development Plan	\$200.00
Each proposed Parking Space	\$10
Special Use Permit (each)	\$200 (each)
Preliminary Subdivision Plat	\$300 1 st Lot \$200 (each additional lot)
Final Subdivision Plat	\$250 1 st Lot \$100 (each additional lot)
Tree Removal Permit	\$75
Wetlands Permit	\$50 (each)
Short Environmental Assessment Form	\$50
Long Environmental Assessment Form	\$100
Recreation Fee	\$10,000 Each Additional Lot
Discussion Fee	\$200.00
Prior to submission of a sketch or preliminary subdivision Plat, an applicant or an applicant's representative wishes to discuss a subdivision proposal to the Planning Board, a discussion fee of \$200.00 shall be submitted for each informal appearance before the board.	

Any amendment to previously approved applications requires new application forms and Fes



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PLANNING BOARD SCHEDULE OF ESCROW ACCOUNT DEPOSITS

<u>Type of Application Deposit*</u>	<u>Amount of Initial Escrow Account</u>
Concept Study	\$500.00
Site Plan Waiver for Change of Use	\$500.00
Site Development Plan for:	
Multifamily Developments	\$3,000.00 plus \$100.00 per proposed dwelling unit
Commercial Developments	\$3,000.00 plus \$50.00 for each required parking space
* 1 or 2 Family Projects	\$2,000.00
Special Use Permit	\$2,000.00 plus \$50.00 for each required parking space
Subdivision:	
Lot Line Change resulting in no new lots	\$1,500.00
All Others	\$3,000.00 plus \$200.00 per proposed new lot in excess of two (2)
Preparation or Review of Environmental Impact Statement	\$15,000.00

* If a proposed action involves multiple approvals, a single escrow account will be established. The total amount of the initial deposit shall be the sum of the individual amounts indicated. When the balance in such escrow account is reduced to one-third (1/3) of its initial amount, the applicant shall deposit additional funds into such account to restore its balance to the amount of the initial deposit.


Applicant Signature


Date:

I. IDENTIFICATION OF PROPERTY OWNER, APPLICANT AND PROFESSIONAL REPRESENTATIVES


Name of Property Owner: <u>JOSEPH GENTILE</u>
Mailing Address: <u>9 BARNARD ROAD ARMONK NY 10504</u>
Telephone: <u>914 755-0900</u> Fax: _____ e-mail <u>JGENTILE72@iCLOUD.COM</u> <u>JGENTILE72@GMAIL.COM</u>
Name of Applicant (if different): _____
Address of Applicant: _____
Telephone: _____ Fax: _____ e-mail _____
Interest of Applicant, if other than Property Owner: _____
Is the Applicant (if different from the property owner) a Contract Vendee? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
If yes, please submit affidavit stating such. If no, application cannot be reviewed by Planning Board
Name of Professional Preparing Site Plan: <u>ELIOT SENOR ~ GABRIELE E. SENOR PC</u>
Address: <u>90 N. CENTRAL AVENUE, HARTSDALE NY 10530</u>
Telephone: <u>914 422-0070</u> Fax: _____ e-mail <u>ELIOT@GESENER.COM</u>
Name of Other Professional: _____
Address: _____
Telephone: _____ Fax: _____ e-mail _____
Name of Attorney (if any): <u>MARCO E. FAVA, ESQ</u>
Address: <u>1809 PALMER AVENUE</u>
Telephone: <u>914 630-0201</u> Fax: <u>914 834-4590</u> e-mail <u>MARCO.FAVA@FAVALAW.NET</u>


Applicant Acknowledgement

By making this application, the undersigned Applicant agrees to permit Town officials and their designated representatives to conduct on-site inspections in connection with the review of this application.

The Applicant also agrees to pay all expenses for the cost of professional review services required for this application.

It is further acknowledged by the Applicant that all bills for the professional review services shall be mailed to the Applicant, unless the Town is notified in writing by the Applicant at the time of initial submission of the application that such mailings should be sent to a designated representative instead.

Signature of Applicant:  _____ Date: 6/24/21

Signature of Property Owner:  _____ Date: 6/24/21

MUST HAVE BOTH SIGNATURES

II. IDENTIFICATION OF SUBJECT PROPERTY

Street Address: 9 BARNARD ROAD

Location (in relation to nearest intersecting street):

500 feet (north, south, east or west) of NICHOLS ROAD

Abutting Street(s): _____

Tax Map Designation (NEW): Section 108.03 Block 3 Lot 54

Tax Map Designation (OLD): Section 21617 Block _____ Lot 17

Zoning District: R-1A Total Land Area 1.18 ACRES

Land Area in North Castle Only (if different) _____

Fire District(s) # 2 School District(s) BYRAM HILLS

Is any portion of subject property abutting or located within five hundred (500) feet of the following:

The boundary of any city, town or village?

No Yes (adjacent) _____ Yes (within 500 feet) _____

If yes, please identify name(s): _____

The boundary of any existing or proposed County or State park or any other recreation area?

No _____ Yes (adjacent) _____ Yes (within 500 feet) JOHNSTON PARK TOWN PARK (NICHOLS RD)

The right-of-way of any existing or proposed County or State parkway, thruway, expressway, road or highway?

No Yes (adjacent) _____ Yes (within 500 feet) _____

The existing or proposed right-of-way of any stream or drainage channel owned by the County or for which the County has established channel lines?

No Yes (adjacent) _____ Yes (within 500 feet) _____

The existing or proposed boundary of any county or State owned land on which a public building or institution is situated?

No Yes (adjacent) _____ Yes (within 500 feet) _____

The boundary of a farm operation located in an agricultural district?

No Yes (adjacent) _____ Yes (within 500 feet) _____

Does the Property Owner or Applicant have an interest in any abutting property?

No Yes _____

If yes, please identify the tax map designation of that property:

III. DESCRIPTION OF PROPOSED DEVELOPMENT

Proposed Use: ADDITION TO SHED & STONE RETAINING WALL

Gross Floor Area: Existing _____ S.F. Proposed _____ S.F.

Proposed Floor Area Breakdown:

Retail N/A S.F.; Office N/A S.F.;

Industrial N/A S.F.; Institutional N/A S.F.;

Other Nonresidential _____ S.F.; Residential _____ S.F.;

Number of Dwelling Units: 1 FAMILY

Number of Parking Spaces: Existing _____ Required _____ Proposed _____ N/A

Number of Loading Spaces: Existing _____ Required _____ Proposed _____ N/A

Earthwork Balance: Cut _____ C.Y. Fill _____ C.Y. N/A

Will Development on the subject property involve any of the following:

Areas of special flood hazard? No Yes _____

(If yes, application for a Development Permit pursuant to Chapter 177 of the North Castle Town Code may also be required)

Trees with a diameter at breast height (DBH) of 8" or greater?

No Yes _____

(If yes, application for a Tree Removal Permit pursuant to Chapter 308 of the North Castle Town Code may also be required.)

Town-regulated wetlands? No Yes _____

(If yes, application for a Town Wetlands Permit pursuant to Chapter 340 of the North Castle Town Code may also be required.)

State-regulated wetlands? No Yes _____

(If yes, application for a State Wetlands Permit may also be required.)

V. INFORMATION TO BE INCLUDED ON SITE DEVELOPMENT PLAN

The following checklist is provided to enable the Applicant to determine if he/she has provided enough information on the site development plan for the Planning Board to review his/her proposal. Applicants are advised to review ARTICLE VIII, Site Development Plan of the North Castle Town Code for a complete enumeration of pertinent requirements and standards prior to making application for site development plan approval.

The application for site development plan approval will not be accepted for Planning Board review unless all items identified below are supplied and **so indicated with a check mark in the blank line provided**. If a particular item is not relevant to the subject property or the development proposal, **the letters "NA" should be entered instead**. In addition, the project will not be scheduled on a Planning Board agenda until the Applicant receives an initialed "site plan checklist" from the Planning Department.

The information to be included on a site development plan shall include:

Legal Data:

- Name of the application or other identifying title.
- Name and address of the Property Owner and the Applicant, (if different).
- Name, address and telephone number of the architect, engineer or other legally qualified professional who prepared the plan.
- Names and locations of all owners of record of properties abutting and directly across any and all adjoining streets from the subject property, including the tax map designation of the subject property and abutting and adjoining properties, as shown on the latest tax records.
- Existing zoning, fire, school, special district and municipal boundaries.
- Size of the property to be developed, as well as property boundaries showing dimensions and bearings as determined by a current survey; dimensions of yards along all property lines; name and width of existing streets; and lines of existing lots, reservations, easements and areas dedicated to public use.
- NA Reference to the location and conditions of any covenants, easements or deed restrictions that cover all or any part of the property, as well as identification of the document where such covenants, easements or deed restrictions are legally established.
- Schedule of minimum zoning requirements, as well as the plan's proposed compliance with those requirements, including lot area, frontage, lot width, lot depth, lot coverage, yards, off-street parking, off-street loading and other pertinent requirements.
- Locator map, at a convenient scale, showing the Applicant's entire property in relation to surrounding properties, streets, etc., within five hundred (500) feet of the site.
- North arrow, written and graphic scales, and the date of the original plan and all revisions, with notation identifying the revisions.
- A signature block for Planning Board endorsement of approval.

Existing Conditions Data:

- Location of existing use and design of buildings, identifying first floor elevation, and other structures.
- Location of existing parking and truck loading areas, with access and egress drives thereto.
- Location of existing facilities for water supply, sanitary sewage disposal, storm water drainage, and gas and electric service, with pipe sizes, grades, rim and inverts, direction of flow, etc. indicated.
- Location of all other existing site improvements, including pavement, walks, curbing, retaining walls and fences.
- N/A Location, size and design of existing signs.
- N/A Location, type, direction, power and time of use of existing outdoor lighting.
- Location of existing outdoor storage, if any. (SHED)
- Existing topographical contours with a vertical interval of two (2) feet or less.
- Location of existing floodplains, wetlands, slopes of 15% or greater, wooded areas, landscaped areas, single trees with a DBH of 8" or greater, rock outcrops, stone walls and any other significant existing natural or cultural features.

Proposed Development Data:

- N/A Proposed location of lots, streets, and public areas, and property to be affected by proposed easements, deed restrictions and covenants.
- N/A Proposed location, use and architectural design of all buildings, including proposed floor elevations and the proposed division of buildings into units of separate occupancy.
- N/A Proposed means of vehicular and pedestrian access to and egress from the site onto adjacent streets.
- N/A Proposed sight distance at all points of vehicular access.
- N/A Proposed number of employees for which buildings are designed
- N/A Proposed streets, with profiles indicating grading and cross-sections showing the width of the roadway; the location and width of sidewalks; and the location and size of utility lines.
- N/A Proposed location and design of any pedestrian circulation on the site and off-street parking and loading areas, including handicapped parking and ramps, and including details of construction, surface materials, pavement markings and directional signage.
- N/A Proposed location and design of facilities for water supply, sanitary sewage disposal, storm water drainage, and gas and electric service, with pipe sizes, grades, rim and inverts, direction of flow, etc. indicated.

- Proposed location of all structures and other uses of land, such as walks, retaining walls, fences, designated open space and/or recreation areas and including details of design and construction.
- N/A Location, size and design of all proposed signs.
- N/A Location, type, direction, power and time of use of proposed outdoor lighting.
- N/A Location and design of proposed outdoor garbage enclosure.
- N/A Location of proposed outdoor storage, if any.
- Location of proposed landscaping and buffer screening areas, including the type (scientific and common names), size and amount of plantings.
- N/A Type of power to be used for any manufacturing
- N/A Type of wastes or by-products to be produced and disposal method
- N/A In multi-family districts, floor plans, elevations and cross sections
- The proposed location, size, design and use of all temporary structures and storage areas to be used during the course of construction.
- Proposed grade elevations, clearly indicating how such grades will meet existing grades of adjacent properties or the street.
- Proposed soil erosion and sedimentation control measures.
- N/A For all proposed site development plans containing land within an area of special flood hazard, the data required to ensure compliance with Chapter 177 of the North Castle Town Code.
- N/A For all proposed site development plans involving clearing or removal of trees with a DBH of 8" or greater, the data required to ensure compliance with Chapter 308 of the North Castle Town Code.
- N/A For all proposed site development plans involving disturbance to Town-regulated wetlands, the data required to ensure compliance with Chapter 340 of the North Castle Town Code.

Short Environmental Assessment Form

Part 1 - Project Information

Instructions for Completing

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

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

Part 1 - Project and Sponsor Information							
Name of Action or Project: SITE PLAN PREPARED FOR JOSEPH GENTILE							
Project Location (describe, and attach a location map): 9 BARNARD ROAD							
Brief Description of Proposed Action: SITE PLAN SHED ADDITION PROPOSED STONE RETAINING WALL DRAINAGE IMPROVEMENTS							
Name of Applicant or Sponsor: JOSEPH GENTILE		Telephone: 914-755-0900					
Address: 9 BARNARD		E-Mail: JGENTILE@ICLOUD.COM JGENTILE@GMAIL.COM					
City/PO: ARMONK		State: NY	Zip Code: 10504				
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%; text-align: center;">NO</th> <th style="width: 50%; text-align: center;">YES</th> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	NO	YES	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO	YES						
<input checked="" type="checkbox"/>	<input type="checkbox"/>						
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval:			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%; text-align: center;">NO</th> <th style="width: 50%; text-align: center;">YES</th> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	NO	YES	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO	YES						
<input checked="" type="checkbox"/>	<input type="checkbox"/>						
3.a. Total acreage of the site of the proposed action?		1.18 acres					
b. Total acreage to be physically disturbed?		0.10 acres					
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?		1.18 acres					
4. Check all land uses that occur on, adjoining and near the proposed action.							
<input type="checkbox"/> Urban <input type="checkbox"/> Rural (non-agriculture) <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential (suburban)							
<input type="checkbox"/> Forest <input type="checkbox"/> Agriculture <input type="checkbox"/> Aquatic <input type="checkbox"/> Other (specify): _____							
<input type="checkbox"/> Parkland							

<p>18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)?</p> <p>If Yes, explain purpose and size: _____</p> <p>_____</p> <p>_____</p>	<p>NO</p> <p><input checked="" type="checkbox"/></p>	<p>YES</p> <p><input type="checkbox"/></p>
<p>19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?</p> <p>If Yes, describe: _____</p> <p>_____</p> <p>_____</p>	<p>NO</p> <p><input checked="" type="checkbox"/></p>	<p>YES</p> <p><input type="checkbox"/></p>
<p>20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?</p> <p>If Yes, describe: _____</p> <p>_____</p> <p>_____</p>	<p>NO</p> <p><input checked="" type="checkbox"/></p>	<p>YES</p> <p><input type="checkbox"/></p>
<p>I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE</p> <p>Applicant/sponsor name: <u>STEPHEN ANDERSON</u> <u>GABRIEL E SENOR PC</u></p> <p>Signature: <u>Stephen Anderson</u></p> <p>Date: <u>6/25/21</u></p>		



Town of North Castle Planning Department

17 Bedford Road Armonk, New York 10504

(914) 273-3542 (914) 273-3554 (fax)

PRELIMINARY SITE PLAN COMPLETENESS REVIEW FORM

This form represents the standard requirements for a completeness review for all preliminary site plans. Failure to provide all of the information requested will result in a determination that the site plan application is incomplete. The review of the site plan for completeness will be based on the requirements of the Town of North Castle Town Code.

Project Name on Plan:

SITE PLAN - SHED ADDITION AND STONE RETAINING WALL

Initial Submittal Revised Preliminary

JOSEPH GENTILE

Street Location:

9 BARNARD ROAD

Zoning District: R-1A Property Acreage: 1.18 Tax Map Parcel ID: 108.03-3-54

Date: JUNE 28, 2021

DEPARTMENTAL USE ONLY

Date Filed: _____ Staff Name: _____

Preliminary Plan Completeness Review Checklist

Items marked with a "☒" are complete, items left blank "☐" are incomplete and must be completed, "NA" means not applicable.

- 1. A complete application for site development plan approval form
- 2. Plan prepared by a registered architect or professional engineer
- 3. Map showing the applicant's entire property and adjacent properties and streets
- 4. A locator map at a convenient scale
- 5. The proposed location, use and design of all buildings and structures
- 6. Proposed division of buildings into units of separate occupancy, detailed breakdowns of all proposed floor space by type of use and floor level
- 7. Existing topography and proposed grade elevations
- 8. Location of drives

PRELIMINARY SITE PLAN COMPLETENESS REVIEW FORM

Page 2

- 9. Location of any outdoor storage
- 10. Location of all existing and proposed site improvements, including drains, culverts, retaining walls and fences
- 11. Description of method of water supply and sewage disposal and location of such facilities
- 12. Location, design and size of all signs
- 13. Location and design of lighting, power and communication facilities
- 14. In an industrial district, specific uses proposed, number of employees for which buildings are designed, type of power to be used for any manufacturing process, type of wastes or by-products to be produced by any manufacturing process and proposed method of disposal of such wastes or by-products
- 15. In a multifamily district, floor plans of each dwelling unit shall be shown, and elevations and cross sections also may be required
- 16. The name and address of the applicant, property owner(s) if other than the applicant and of the planner, engineer, architect, surveyor and/or other professionals engaged to work.
- 17. Submission of a Zoning Conformance Table depicting the plan's compliance with the minimum requirements of the Zoning District
- 18. If a tree removal permit is being sought, submission of a plan depicting the location and graphical removal status of all Town-regulated trees within the proposed area of disturbance. In addition, the tree plan shall be accompanied by a tree inventory includes a unique ID number, the species, size, health condition and removal status of each tree.
- 19. If a wetlands permit is being sought, identification of the wetland and the 100-foot wetland buffer.

More information about the items required herein can be obtained from the North Castle Planning Department. A copy of the Town Code can be obtained from Town Clerk or on the North Castle homepage: <http://www.northcastleny.com>

_____ On this date, all items necessary for a technical review of the proposed site plan have been submitted and constitute a COMPLETE APPLICATION.



TOWN OF NORTH CASTLE
WESTCHESTER COUNTY
 17 Bedford Road
 Armonk, New York 10504-1898

PLANNING DEPARTMENT
Adam R. Kaufman, AICP
Director of Planning

Telephone: (914) 273-3542
Fax: (914) 273-3554
www.northcastleny.com

GROSS LAND COVERAGE CALCULATIONS WORKSHEET

Application Name or Identifying Title: JOSEPH GENTILE Date: 6-25-21
 Tax Map Designation or Proposed Lot No.: 108.03-3-54

Gross Lot Coverage

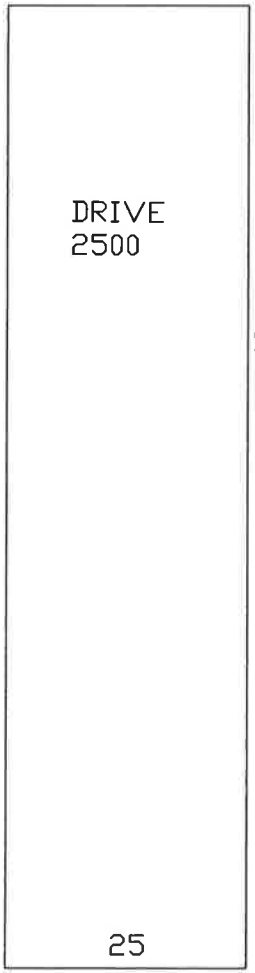
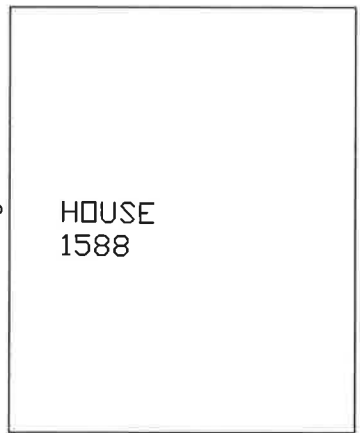
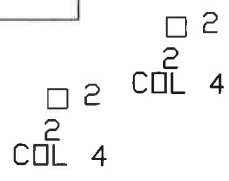
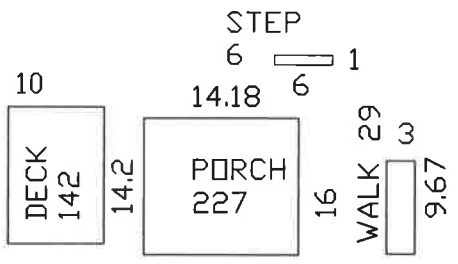
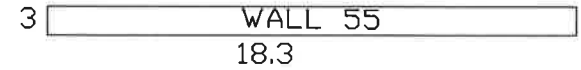
- | | | |
|-----|--|--|
| 1. | Total lot Area (Net Lot Area for Lots Created After 12/13/06): | <u>51406</u>
<u>50656</u> (SLOPE REDUCTION) |
| 2. | Maximum permitted gross land coverage (per Section 355-26.C(1)(a)): | <u>9988</u> |
| 3. | BONUS maximum gross land cover (per Section 355-26.C(1)(b)): | |
| | Distance principal home is beyond minimum front yard setback
<u>51</u> x 10 = | <u>510</u> |
| 4. | TOTAL Maximum Permitted gross land coverage = Sum of lines 2 and 3 | <u>10498</u> |
| 5. | Amount of lot area covered by principal building :
<u>1588</u> existing + _____ proposed = | <u>1588</u> |
| 6. | Amount of lot area covered by accessory buildings :
<u>358</u> existing + _____ proposed = | <u>358</u> |
| 7. | Amount of lot area covered by decks :
<u>142</u> existing + _____ proposed = | <u>142</u> |
| 8. | Amount of lot area covered by porches :
<u>227</u> existing + _____ proposed = | <u>227</u> |
| 9. | Amount of lot area covered by driveway, parking areas and walkways :
<u>2660</u> existing + _____ proposed = | <u>2660</u> |
| 10. | Amount of lot area covered by terraces :
<u>0</u> existing + _____ proposed = | <u>0</u> |
| 11. | Amount of lot area covered by tennis court, pool and mechanical equip :
_____ existing + _____ proposed = | _____ |
| 12. | Amount of lot area covered by all other structures :
<u>559</u> existing + <u>133</u> proposed = | <u>692</u> |
| 13. | Proposed gross land coverage : Total of Lines 5 – 12 = | <u>5667</u> |

If Line 13 is less than or equal to Line 4, your proposal **complies** with the Town's maximum gross land coverage regulations and the project may proceed to the Residential Project Review Committee for review. If Line 13 is greater than Line 4 your proposal does not comply with the Town's regulations.


 Signature and Seal of Professional Preparing Worksheet



6/25/21
 Date





TOWN OF NORTH CASTLE
WESTCHESTER COUNTY
17 Bedford Road
Armonk, New York 10504-1898

PLANNING DEPARTMENT
Adam R. Kaufman, AICP
Director of Planning

Telephone: (914) 273-3542
Fax: (914) 273-3554
www.northcastleny.com

FLOOR AREA CALCULATIONS WORKSHEET

Application Name or Identifying Title: JOSEPH GENTILE Date: 6-25-21

Tax Map Designation or Proposed Lot No.: 108.03-3-54

Floor Area

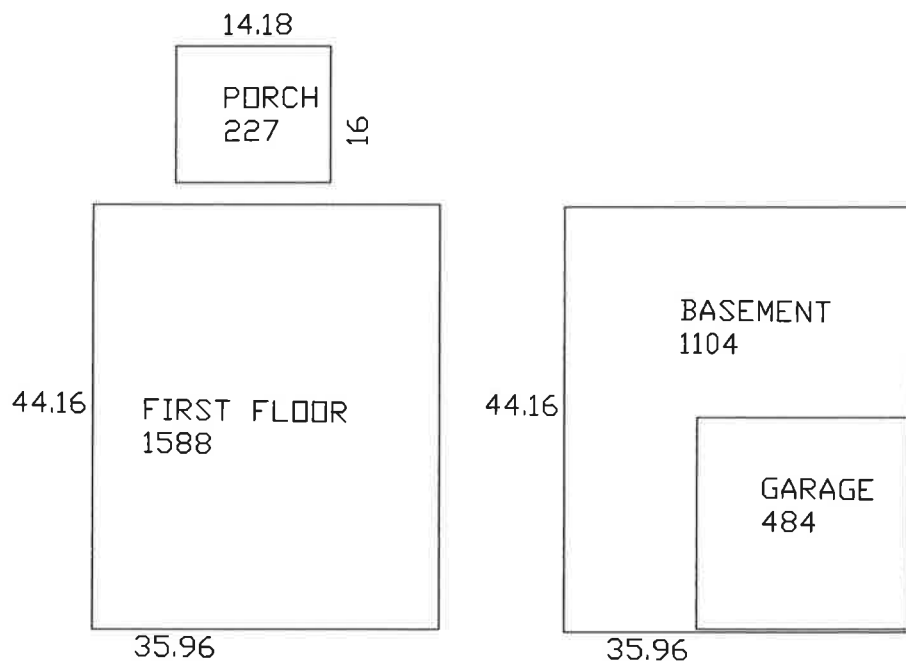
- | | | |
|-----|---|--|
| 1. | Total Lot Area (Net Lot Area for Lots Created After 12/13/06): | <u>51406</u>
<u>50656</u> (SLOPE REDUCTION) |
| 2. | Maximum permitted floor area (per Section 355-26.B(4)): | <u>8153</u> |
| 3. | Amount of floor area contained within first floor:
<u>1588</u> existing + _____ proposed = | <u>1588</u> |
| 4. | Amount of floor area contained within second floor:
<u>0</u> existing + _____ proposed = | <u>0</u> |
| 5. | Amount of floor area contained within garage:
<u>484</u> existing + _____ proposed = | <u>484</u> |
| 6. | Amount of floor area contained within porches capable of being enclosed:
<u>227</u> existing + _____ proposed = | <u>227</u> |
| 7. | Amount of floor area contained within basement (if applicable – see definition):
<u>1104</u> existing + _____ proposed = | <u>1104</u> |
| 8. | Amount of floor area contained within attic (if applicable – see definition):
<u>0</u> existing + _____ proposed = | <u>0</u> |
| 9. | Amount of floor area contained within all accessory buildings:
<u>358</u> existing + _____ proposed = | <u>358</u> |
| 10. | Proposed floor area: Total of Lines 3 – 9 = | <u>3761</u> |

If Line 10 is less than or equal to Line 2, your proposal **complies** with the Town's maximum floor area regulations and the project may proceed to the Residential Project Review Committee for review. If Line 10 is greater than Line 2 your proposal does not comply with the Town's regulations.

Signature and Seal of Professional Preparing Worksheet



6/25/21
Date



STERLING

Sterling Environmental Engineering, P.C.

March 19, 2021

Mr. Joe Gentile
9 Barnard Road
Armonk, New York 10504

Via Email (jgentile72@gmail.com)

Subject: Gentile Residence
9 Barnard Road, Armonk, NY 10504
STERLING File #26009

Dear Mr. Gentile,

Attached please find analytical results for a representative soil sample obtained at the subject address. Also attached is a figure by EMSL Analytical, Inc. indicating the sample location. We understand approximately 300 cubic yards (CY) of soil was delivered to the property for placement during construction of a retaining wall. The analytical results confirm that the soil conforms to the General Fill Use criteria presented in 6 NYCRR 360.13(f), with reported concentrations below the Protection of Public Health Residential Land Use Values and Protection of Groundwater Values expressed at 6 NYCRR 375-6.8(b). Accordingly, the soils fully comply with the testing requirements of §161-1 of the Town of North Castle code.

We note that the §161-1(A)(3) requirement to provide a certification by a professional engineer only applies to fill quantities in excess of 1,000 CY. Notwithstanding, I have reviewed the data provided to me and hereby certify the soil conforms to the General Fill criteria of 6 NYCRR 360.13 and is acceptable for use on residential property.

Please contact me should you have any questions or comments.

Very truly yours,

STERLING ENVIRONMENTAL ENGINEERING, P.C.



Mark P. Millspaugh, P.E.
President

Mark.Millspaugh@sterlingenvironmental.com

MPM/bc
Email/First Class Mail
Attachments

S:\Sterling\Projects\2006 Projects\All About Recycling - Yonkers NY - 26009\Correspondence\2021\2021-03-19_Gentile Letter.docx

"Serving our clients and the environment since 1993"

24 Wade Road ♦ Latham, New York 12110 ♦ Tel: 518-456-4900 ♦ Fax: 518-456-3532
E-mail: sterling@sterlingenvironmental.com ♦ Website: www.sterlingenvironmental.com



EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077

Phone: (856) 303-2500 Fax: (856) 858-4571 Email: EnvChemistry2@emsl.com

Attn: **Charles Copple**
Applied Technology Services, Inc.
481 Main Street
Suite 503
New Rochelle, NY 10801

10/6/2020

Phone: (914) 654-0080
Fax: (914) 654-1332

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/18/2020. The results are tabulated on the attached data pages for the following client designated project:

9 Bernard

The reference number for these samples is EMSL Order #012010263. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (856) 303-2500.

Approved By:

Phillip Worby, Environmental Chemistry
Laboratory Director



The test results contained within this report meet the requirements of NELAP and/or the specific certification program that is applicable, unless otherwise noted.
NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, CA ELAP 1877

The MS recovery for Antimony and Lead fell outside control limits low. All other QC results met criteria.
The LCS/RSD recoveries for Thallium was outside the control limits (high), therefore the reported result may be biased high.

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements established by the NELAP, unless specifically indicated. All results for soil samples are reported on a dry weight basis, unless otherwise noted. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077
 Phone/Fax: (856) 303-2500 / (856) 858-4571
<http://www.EMSL.com> EnvChemistry2@emsl.com

EMSL Order: 012010263
 CustomerID: APPL53
 CustomerPO:
 ProjectID:

Attn: **Charles Cople**
Applied Technology Services, Inc.
481 Main Street
Suite 503
New Rochelle, NY 10801

Phone: (914) 654-0080
 Fax: (914) 654-1332
 Received: 09/18/20 9:30 AM

Project: 9 Bernard

Analytical Results

Client Sample Description 01 Front

Collected: 9/15/2020
 4:25:00 PM

Lab ID: 012010263-0001

Method	Parameter	Result	RL Units	Prep Date & Analyst	Analysis Date & Analyst
GCMS-SVOA					
3546/8270E	1,2,4-Trichlorobenzene	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	1,2-Dichlorobenzene	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	1,3-Dichlorobenzene	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	1,4-Dichlorobenzene	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	2,4,6-Trichlorophenol	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	2,4-Dichlorophenol	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	2,4-Dimethylphenol	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	2,4-Dinitrophenol	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	2,4-Dinitrotoluene	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	2,6-Dinitrotoluene	ND	360 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	2-Chloronaphthalene	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	2-Chlorophenol	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	2-Nitrophenol	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	3,3'-Dichlorobenzidine	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	4,6-Dinitro-2-methylphenol	ND	360 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	4-Bromophenyl-phenylether	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	4-Chloro-3-methylphenol	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	4-Chlorophenyl-phenylether	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	4-Nitrophenol	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Acenaphthene	ND	18 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Acenaphthylene	ND	18 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Anthracene	ND	18 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Benzidine	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Benzo(a)anthracene	20	18 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Benzo(a)pyrene	27	18 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Benzo(b)fluoranthene	32	18 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Benzo(g,h,i)perylene	ND	18 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Benzo(k)fluoranthene	ND	18 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Bis(2-chloroethoxy)methane	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Bis(2-chloroethyl)ether	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Bis(2-chloroisopropyl)ether	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Bis(2-ethylhexyl)phthalate	ND	530 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Butylbenzylphthalate	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Chrysene	19	18 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Di-n-butylphthalate	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077
 Phone/Fax: (856) 303-2500 / (856) 858-4571
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EMSL Order: 012010263
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Attn: **Charles Cople**
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Suite 503
New Rochelle, NY 10801

Phone: (914) 654-0080
 Fax: (914) 654-1332
 Received: 09/18/20 9:30 AM

Project: 9 Bernard

Analytical Results

Client Sample Description 01 Front **Collected:** 9/15/2020 **Lab ID:** 012010263-0001
 4:25:00 PM

Method	Parameter	Result	RL Units	Prep Date & Analyst	Analysis Date & Analyst
GCMS-SVOA					
3546/8270E	Di-n-octylphthalate	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Dibenz(a,h)anthracene	ND	18 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Diethylphthalate	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Dimethylphthalate	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Fluoranthene	33	18 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Fluorene	ND	18 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Hexachlorobenzene	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Hexachlorobutadiene	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Hexachlorocyclopentadiene	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Hexachloroethane	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Indeno(1,2,3-cd)pyrene	22	18 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Isophorone	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	N-Nitroso-di-n-propylamine	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	N-Nitrosodimethylamine	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	N-Nitrosodiphenylamine	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Naphthalene	ND	18 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Nitrobenzene	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Pentachlorophenol	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Phenanthrene	ND	18 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Phenol	ND	180 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
3546/8270E	Pyrene	29	18 µg/Kg	9/28/2020 AB	09/28/20 0:00 AC
8270D Library Search-Semivolatiles	See Attached		N/A	9/28/2020 AB	09/28/20 0:00 AC
GCMS-VOA					
8260D	1,1,1,2-Tetrachloroethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,1,1-Trichloroethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,1,2,2-Tetrachloroethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,1,2-Trichloroethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,1,2-Trichloro-1,2,2-trifluoroethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,1-Dichloroethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,1-Dichloroethene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,1-Dichloropropene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,2,3-Trichlorobenzene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,2,3-Trichloropropane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF

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Attn: **Charles Cople**
Applied Technology Services, Inc.
481 Main Street
Suite 503
New Rochelle, NY 10801

Phone: (914) 654-0080
 Fax: (914) 654-1332
 Received: 09/18/20 9:30 AM

Project: 9 Bernard

Analytical Results

Client Sample Description 01 Front Collected: 9/15/2020 Lab ID: 012010263-0001
 4:25:00 PM

Method	Parameter	Result	RL Units	Prep Date & Analyst	Analysis Date & Analyst
GCMS-VOA					
8260D	1,2,4-Trichlorobenzene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,2,4-Trimethylbenzene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,2-Dibromo-3-chloropropane	ND	11 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,2-Dibromoethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,2-Dichlorobenzene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,2-Dichloroethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,2-Dichloropropane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,3,5-Trimethylbenzene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,3-Dichlorobenzene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,3-Dichloropropane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	1,4-Dichlorobenzene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	2,2-Dichloropropane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	2-Butanone	ND	11 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	2-Chloroethyl Vinyl Ether	ND	11 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	2-Chlorotoluene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	2-Hexanone	ND	11 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	4-Chlorotoluene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	4-Isopropyltoluene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	4-Methyl-2-pentanone	ND	11 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Acetone	ND	11 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Acetonitrile	ND	54 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Acrolein	ND	22 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Acrylonitrile	ND	11 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Benzene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Bromobenzene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Bromochloromethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Bromodichloromethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Bromoform	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Bromomethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Carbon Disulfide	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Carbon Tetrachloride	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Chlorobenzene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Chloroethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Chloroform	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Chloromethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF

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Project: 9 Bernard

Analytical Results

Client Sample Description 01 Front *Collected:* 9/15/2020 *Lab ID:* 012010263-0001
 4:25:00 PM

<i>Method</i>	<i>Parameter</i>	<i>Result</i>	<i>RL Units</i>	<i>Prep Date & Analyst</i>	<i>Analysis Date & Analyst</i>
GCMS-VOA					
8260D	Cis-1,2-dichloroethene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Cis-1,3-dichloropropene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Dibromochloromethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Dibromomethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Dichlorodifluoromethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Ethylbenzene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Hexachlorobutadiene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Hexachloroethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Isopropylbenzene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	m&p-xylenes	ND	11 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	o-xylene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Methyl-tert butyl ether	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	N-butylbenzene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Methylene Chloride	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	N-propylbenzene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Naphthalene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Sec-butylbenzene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Styrene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	tert-Butyl Alcohol	ND	22 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Tert-butylbenzene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Tetrachloroethene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Tetrahydrofuran	ND	11 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Toluene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Trans-1,2-dichloroethene	ND	5.4 µg/Kg	9/28/2020 WF	08/29/20 0:00 WF
8260D	Trans-1,3-dichloropropene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Trans-1,4-dichloro-2-butene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Trichloroethene	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Trichlorofluoromethane	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Vinyl Acetate	ND	11 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260D	Vinyl Chloride	ND	5.4 µg/Kg	9/28/2020 WF	09/29/20 0:00 WF
8260C Library Search-Volatiles	See Attached		N/A	9/28/2020 WF	09/29/20 0:00 WF
GC-SVOA					
3540C/8082A	Aroclor-1016	ND	52 µg/Kg	9/24/2020 AB	09/25/20 0:00 EH
3540C/8082A	Aroclor-1221	ND	52 µg/Kg	9/24/2020 AB	09/25/20 0:00 EH

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Analytical Results

Client Sample Description 01 Front **Collected:** 9/15/2020 **Lab ID:** 012010263-0001
 4:25:00 PM

<i>Method</i>	<i>Parameter</i>	<i>Result</i>	<i>RL Units</i>	<i>Prep Date & Analyst</i>		<i>Analysis Date & Analyst</i>	
GC-SVOA							
3540C/8082A	Aroclor-1232	ND	52 µg/Kg	9/24/2020	AB	09/25/20 0:00	EH
3540C/8082A	Aroclor-1242	ND	52 µg/Kg	9/24/2020	AB	09/25/20 0:00	EH
3540C/8082A	Aroclor-1248	ND	52 µg/Kg	9/24/2020	AB	09/25/20 0:00	EH
3540C/8082A	Aroclor-1254	ND	52 µg/Kg	9/24/2020	AB	09/25/20 0:00	EH
3540C/8082A	Aroclor-1260	ND	52 µg/Kg	9/24/2020	AB	09/25/20 0:00	EH
3540C/8082A	Aroclor-1262	ND	52 µg/Kg	9/24/2020	AB	09/25/20 0:00	EH
3540C/8082A	Aroclor-1268	ND	52 µg/Kg	9/24/2020	AB	09/25/20 0:00	EH
8081A	Alpha-BHC	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Gamma-BHC	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Heptachlor	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Aldrin	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Beta-BHC	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Delta-BHC	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Heptachlor Epoxide	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Endosulfan II	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Endosulfan I	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Gamma-chlordane	3.9	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Alpha-chlordane	4.8	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	4,4'-DDE	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Dieldrin	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Endrin	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	4,4'-DDD	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	4,4'-DDT	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Endrin Aldehyde	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Endosulfan Sulfate	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Methoxychlor	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Endrin Ketone	ND	3.6 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Tech Chlordane	31	14 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
8081A	Toxaphene	ND	36 µg/Kg	9/29/2020	AB	09/30/20 0:00	TL
METALS							
Mercury by EPA 7471B	Mercury	0.055	0.049 mg/Kg	9/28/2020	SW	09/28/20 12:40	SW
3050B/6010D	Antimony	3.3	2.0 mg/Kg	9/24/2020	AM	09/25/20 18:41	BE
3050B/6010D	Arsenic	9.7	2.0 mg/Kg	9/24/2020	AM	09/25/20 18:41	BE
3050B/6010D	Beryllium	ND	0.39 mg/Kg	9/24/2020	AM	09/25/20 18:41	BE

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Analytical Results

Client Sample Description 01 Front **Collected:** 9/15/2020 **Lab ID:** 012010263-0001
 4:25:00 PM

Method	Parameter	Result	RL Units	Prep Date & Analyst	Analysis Date & Analyst
METALS					
3050B/6010D	Cadmium	ND	0.39 mg/Kg	9/24/2020 AM	09/25/20 18:41 BE
3050B/6010D	Chromium	30	0.99 mg/Kg	9/24/2020 AM	09/25/20 18:41 BE
3050B/6010D	Copper	25	2.0 mg/Kg	9/24/2020 AM	09/25/20 18:41 BE
3050B/6010D	Lead	79	0.99 mg/Kg	9/24/2020 AM	09/25/20 18:41 BE
3050B/6010D	Nickel	18	2.0 mg/Kg	9/24/2020 AM	09/25/20 18:41 BE
3050B/6010D	Selenium	ND	2.0 mg/Kg	9/24/2020 AM	09/25/20 18:41 BE
3050B/6010D	Silver	ND	0.99 mg/Kg	9/24/2020 AM	09/25/20 18:41 BE
3050B/6010D	Thallium	31	1.8 mg/Kg	9/24/2020 AM	09/28/20 18:43 BE
3050B/6010D	Zinc	86	1.8 mg/Kg	9/24/2020 AM	09/28/20 18:43 BE
WET					
SM 2540G	Total Solids	93	N/A %	9/29/2020 AS	09/29/20 0:00 AS
9010B/9014	Total Cyanide	ND	0.53 mg/Kg	9/22/2020 MM	09/22/20 0:00 MM
9065	Phenolics	ND	2.7 mg/Kg	10/5/2020 MM	10/05/20 0:00 MM

Definitions:

MDL - method detection limit
 J - Result was below the reporting limit, but at or above the MDL
 ND - indicates that the analyte was not detected at the reporting limit
 RL - Reporting Limit (Analytical)
 D - Dilution Sample required a dilution which was used to calculate final results

EMSL Analytical Inc.

VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

		Customer Sample#:	01 Front		
Lab Name:	EMSL ANALYTICAL	Project:			
EMSL Sample ID:	012010263-0001	Sample Matrix:	Soils		
Lab File ID:	R03922.D	Sampling Date:	9/15/2020		
Instrument ID:	VOA MSD-R	Analysis Date:	9/29/2020 12:49:00 AM		
Analyst:	WRF	Level (low/med):	LOW		
GC Column:	RTX-624 SIL MS (0.25 mm)	Nominal Amount:	5 G		
Sample wt/vol:	5 G	Method:	SW846 8260D		
Dilution Factor:	1	Moisture(%)	7		
Sample Container:	Jar (SW-846 5035)				
Heated Purge (Y/N):	Y				
Compounds Found:	1				
CAS NO	COMPOUND NAME	RT	EST. CONC. (µg/Kg)	Q	
No Compounds Found					
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected below Practical Quantitation Level D = Dilution					

EMSL Analytical Inc.

SEMIVOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Customer Sample#:		01 Front		
Lab Name:	EMSL Analytical Inc.	Project:		
EMSL Sample ID:	012010263-0001	Sample Matrix:	Soils	
Lab File ID:	C031836.D	Sampling Date:	9/15/2020	
Instrument ID:	SVOA MSD-C	Date Extracted:	9/28/2020	
Analyst:	ac	Analysis Date:	9/28/2020 2:26:00 PM	
GC Column:	Rxi-5SiIMS (0.25 mm)	Sample wt/vol:	30.15 G	
Level (low/med):	LOW	Dilution Factor:	1	
% Moisture:	7	Conc. Extract Volume:	1000 (ml)	
PH:		Injection Volume:	1 (ul)	
GPC Cleanup(Y/N):	N			
Method:	SW846 8270-D BNA			
Compounds Found:	4			

CAS NO	COMPOUND NAME	RT	EST. CONC. (µg/Kg)	Q
	aldol condensation	3.02	990	J
000099-98-9	1,4-Benzenediamine, N,N-dimethyl-	6.17	220	J
000126-86-3	2,4,7,9-Tetramethyl-5-decyn-4,7-diol	6.33	160	J
	Alkane: Straight-Chain	12.48	210	J

Qualifier Definitions
 U = Undetected
 B = Compound detected in method blank
 E = Estimated value
 J = Estimated Concentration.
 D = Dilution

Appendix 5
Allowable Constituent Levels for Imported Fill or Soil
Subdivision 5.4(e)

Source: This table is derived from soil cleanup objective (SCO) tables in 6 NYCRR 375. Table 375-6.8(a) is the source for unrestricted use and Table 375-6.8(b) is the source for restricted use.

Note: For constituents not included in this table, refer to the contaminant for supplemental soil cleanup objectives (SSCOs) in the Commissioner Policy on Soil Cleanup Guidance. If an SSCO is not provided for a constituent, contact the DER PM to determine a site-specific level.

Constituent	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial or Industrial Use	If Ecological Resources are Present
Metals					
Arsenic	13	16	16	16	13
Barium	350	350	400	400	433
Beryllium	7.2	14	47	47	10
Cadmium	2.5	2.5	4.3	7.5	4
Chromium, Hexavalent ¹	1 ³	19	19	19	1 ³
Chromium, Trivalent ¹	30	36	180	1500	41
Copper	50	270	270	270	50
Cyanide	27	27	27	27	NS
Lead	63	400	400	450	63
Manganese	1600	2000	2000	2000	1600
Mercury (total)	0.18	0.73	0.73	0.73	0.18
Nickel	30	130	130	130	30
Selenium	3.9	4	4	4	3.9
Silver	2	8.3	8.3	8.3	2
Zinc	109	2200	2480	2480	109
PCBs/Pesticides					
2,4,5-TP Acid (Silvex)	3.8	3.8	3.8	3.8	NS
4,4'-DDE	0.0033 ³	1.8	8.9	17	0.0033 ³
4,4'-DDT	0.0033 ³	1.7	7.9	47	0.0033 ³
4,4'-DDD	0.0033 ³	2.6	13	14	0.0033 ³
Aldrin	0.005	0.019	0.097	0.19	0.14
Alpha-BHC	0.02	0.02	0.02	0.02	0.04 ⁴
Beta-BHC	0.036	0.072	0.09	0.09	0.6
Chlordane (alpha)	0.094	0.91	2.9	2.9	1.3
Delta-BHC	0.04	0.25	0.25	0.25	0.04 ⁴
Dibenzofuran	7	14	59	210	NS
Dieldrin	0.005	0.039	0.1	0.1	0.006
Endosulfan I	2.4 ²	4.8	24	102	NS
Endosulfan II	2.4 ²	4.8	24	102	NS
Endosulfan sulfate	2.4 ²	4.8	24	200	NS
Endrin	0.014	0.06	0.06	0.06	0.014
Heptachlor	0.042	0.38	0.38	0.38	0.14
Lindane	0.1	0.1	0.1	0.1	6
Polychlorinated biphenyls	0.1	1	1	1	1

Constituent	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial or Industrial Use	If Ecological Resources are Present
Semi-volatile Organic Compounds					
Acenaphthene	20	98	98	98	20
Acenaphthylene	100	100	100	107	NS
Anthracene	100	100	100	500	NS
Benzo(a)anthracene	1	1	1	1	NS
Benzo(a)pyrene	1	1	1	1	2.6
Benzo(b)fluoranthene	1	1	1	1.7	NS
Benzo(g,h,i)perylene	100	100	100	500	NS
Benzo(k)fluoranthene	0.8	1	1.7	1.7	NS
Chrysene	1	1	1	1	NS
Dibenz(a,h)anthracene	0.33 ³	0.33 ³	0.33 ³	0.56	NS
Fluoranthene	100	100	100	500	NS
Fluorene	30	100	100	386	30
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	5.6	NS
m-Cresol(s)	0.33 ³	0.33 ³	0.33 ³	0.33 ³	NS
Naphthalene	12	12	12	12	NS
o-Cresol(s)	0.33 ³	0.33 ³	0.33 ³	0.33 ³	NS
p-Cresol(s)	0.33	0.33	0.33	0.33	NS
Pentachlorophenol	0.8 ³	0.8 ³	0.8 ³	0.8 ³	0.8 ³
Phenanthrene	100	100	100	500	NS
Phenol	0.33 ³	0.33 ³	0.33 ³	0.33 ³	30
Pyrene	100	100	100	500	NS
Volatile Organic Compounds					
1,1,1-Trichloroethane	0.68	0.68	0.68	0.68	NS
1,1-Dichloroethane	0.27	0.27	0.27	0.27	NS
1,1-Dichloroethene	0.33	0.33	0.33	0.33	NS
1,2-Dichlorobenzene	1.1	1.1	1.1	1.1	NS
1,2-Dichloroethane	0.02	0.02	0.02	0.02	10
1,2-Dichloroethene(cis)	0.25	0.25	0.25	0.25	NS
1,2-Dichloroethene(trans)	0.19	0.19	0.19	0.19	NS
1,3-Dichlorobenzene	2.4	2.4	2.4	2.4	NS
1,4-Dichlorobenzene	1.8	1.8	1.8	1.8	20
1,4-Dioxane	0.1 ³	0.1 ³	0.1 ³	0.1 ³	0.1
Acetone	0.05	0.05	0.05	0.05	2.2
Benzene	0.06	0.06	0.06	0.06	70
Butylbenzene	12	12	12	12	NS
Carbon tetrachloride	0.76	0.76	0.76	0.76	NS
Chlorobenzene	1.1	1.1	1.1	1.1	40
Chloroform	0.37	0.37	0.37	0.37	12
Ethylbenzene	1	1	1	1	NS
Hexachlorobenzene	0.33 ³	0.33 ³	1.2	3.2	NS
Methyl ethyl ketone	0.12	0.12	0.12	0.12	100
Methyl tert-butyl ether	0.93	0.93	0.93	0.93	NS
Methylene chloride	0.05	0.05	0.05	0.05	12

Volatile Organic Compounds (continued)					
Propylbenzene-n	3.9	3.9	3.9	3.9	NS
Sec-Butylbenzene	11	11	11	11	NS
Tert-Butylbenzene	5.9	5.9	5.9	5.9	NS
Tetrachloroethene	1.3	1.3	1.3	1.3	2
Toluene	0.7	0.7	0.7	0.7	36
Trichloroethene	0.47	0.47	0.47	0.47	2
Trimethylbenzene-1,2,4	3.6	3.6	3.6	3.6	NS
Trimethylbenzene-1,3,5	8.4	8.4	8.4	8.4	NS
Vinyl chloride	0.02	0.02	0.02	0.02	NS
Xylene (mixed)	0.26	1.6	1.6	1.6	0.26

All concentrations are in parts per million (ppm)

NS = Not Specified

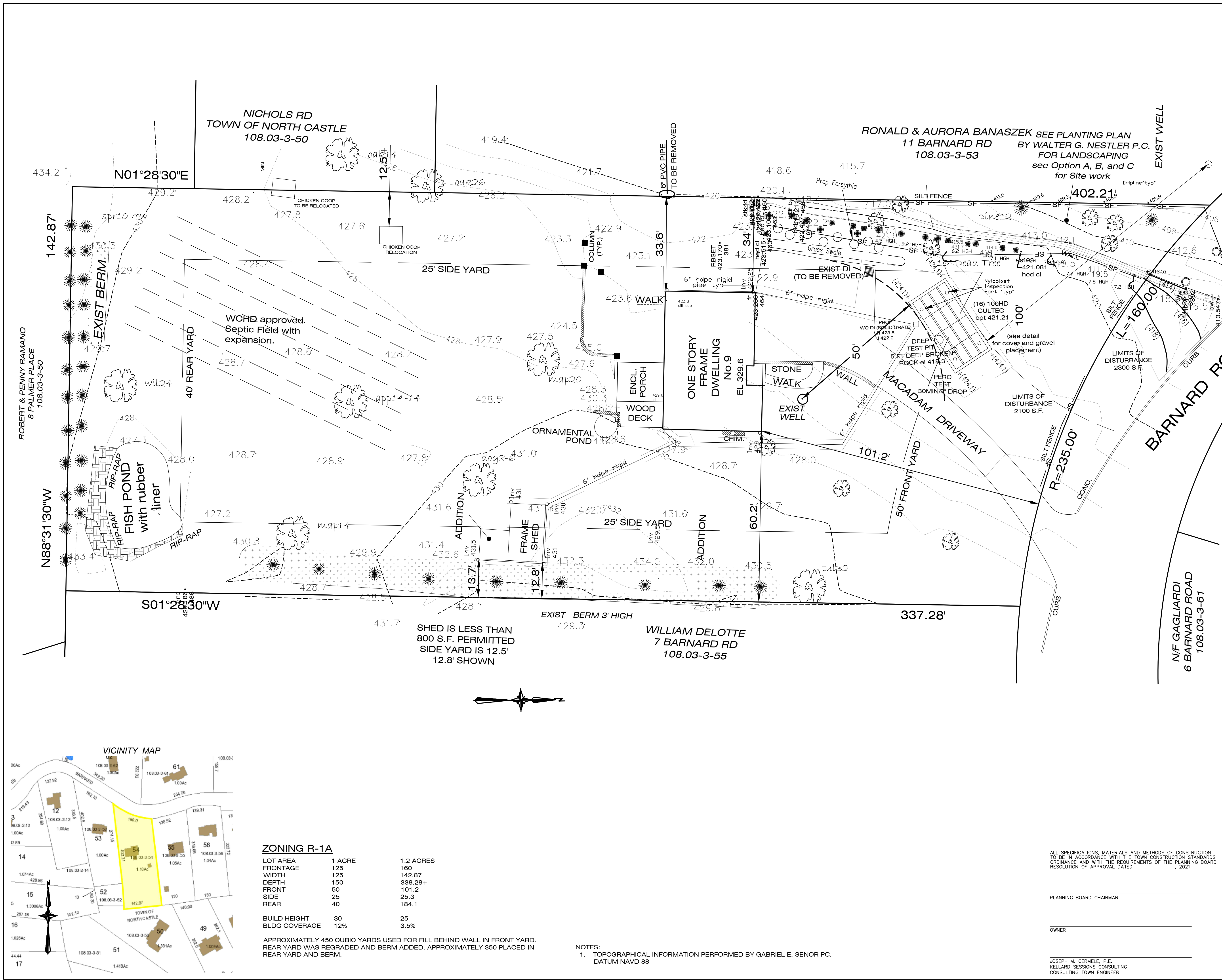
Footnotes:

¹ The SCO for Hexavalent or Trivalent Chromium is considered to be met if the analysis for the total species of this contaminant is below the specific SCO for Hexavalent Chromium.

² The SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.

³ For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.

⁴ This SCO is derived from data on mixed isomers of BHC.



LEGEND

UTILITY POLE	SEWER MANHOLE
SIGN POST	WATER MANHOLE
HYDRANT	ELECTRIC MANHOLE
WATER VALVE	DRAIN MANHOLE
GAS VALVE	MANHOLE
LIGHT POLE	ELECTRIC BOX
GUY WIRES	EXISTING GRADE
TELE. MANHOLE	PROPOSED GRADE
SILT FENCE	14 TREE
	TREE TO BE REMOVED

2	APRIL 10, 2023	SGA
1	JULY 21, 2022	SGA
NO	DATE	DESC BY

REVISIONS

SITE PLAN
SHED ADDITION AND
STONE RETAINING WALL
PROPOSED CONDITIONS

PREPARED FOR:
 JOSEPH GENTILE
 STREET: 9 BARNARD RD

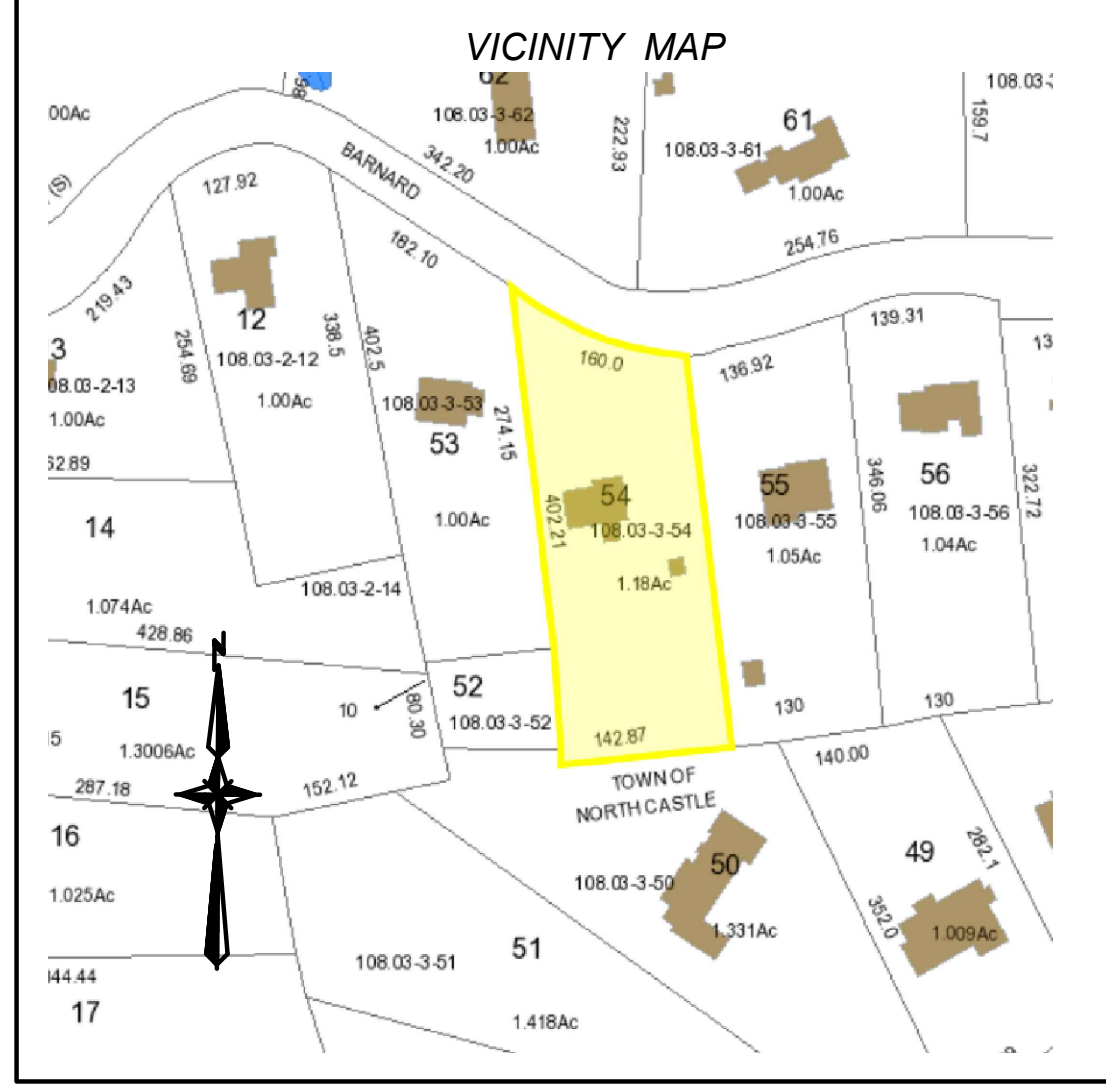
TOWN OF NORTH CASTLE
 TAX LOT 108.03-3-54

WESTCHESTER COUNTY, NEW YORK
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GABRIEL E. SENOR, P.C.
 CONSULTING ENGINEER & LANDSCAPE ARCHITECT
 30 NORTH CENTRAL AVE., HARTSDALE, NEW YORK 10530
 (914) 422-0070 FAX 422-8029

SCALE: 1" = 15'
 DATE: JUNE 20, 2021
 DRAWN BY: SGA
 CHECKED BY: ES.

S-2



ZONING R-1A

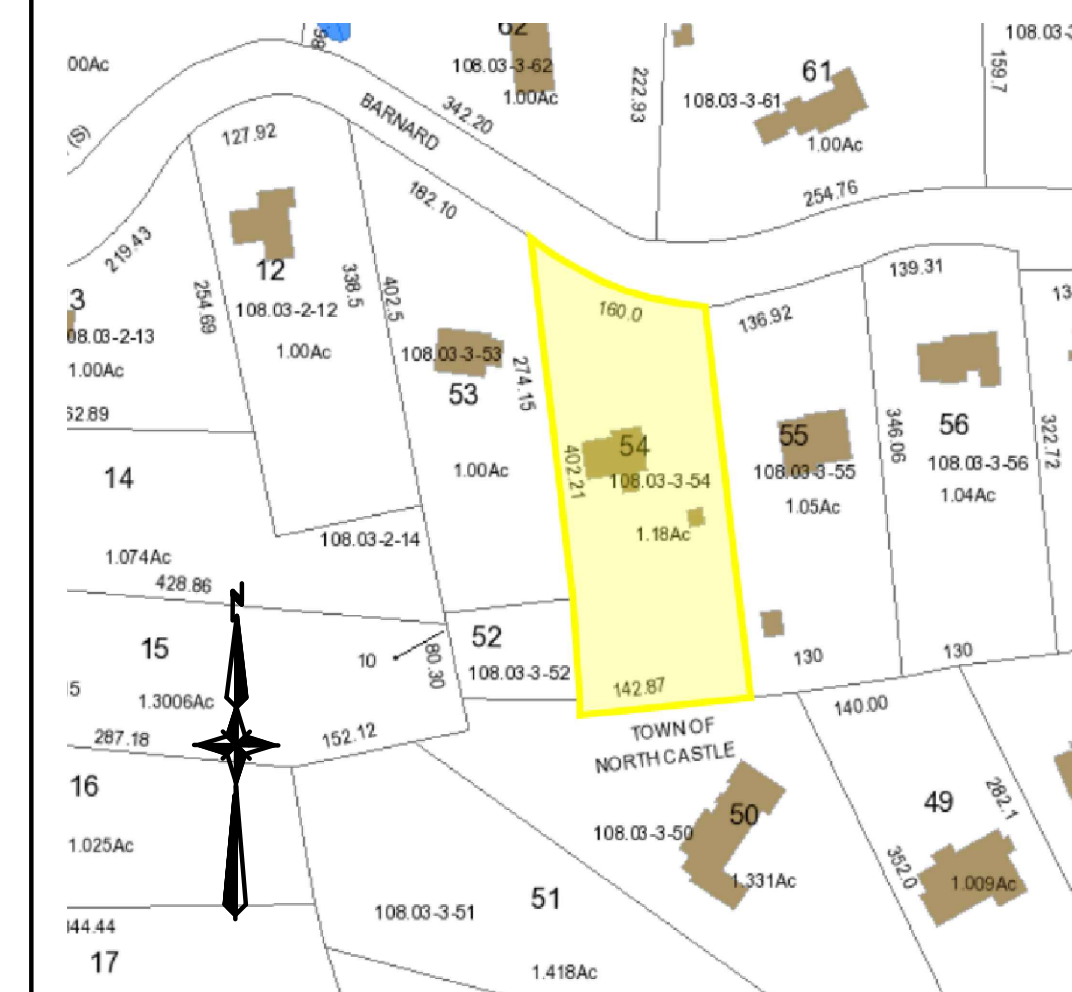
LOT AREA	1 ACRE	1.2 ACRES
FRONTAGE	125	160
WIDTH	125	142.87
DEPTH	150	338.28+
FRONT	50	101.2
SIDE	25	25.3
REAR	40	184.1
BUILD HEIGHT	30	25
BLDG COVERAGE	12%	3.5%

APPROXIMATELY 450 CUBIC YARDS USED FOR FILL BEHIND WALL IN FRONT YARD. REAR YARD WAS REGRADED AND BERM ADDED. APPROXIMATELY 350 PLACED IN REAR YARD AND BERM.

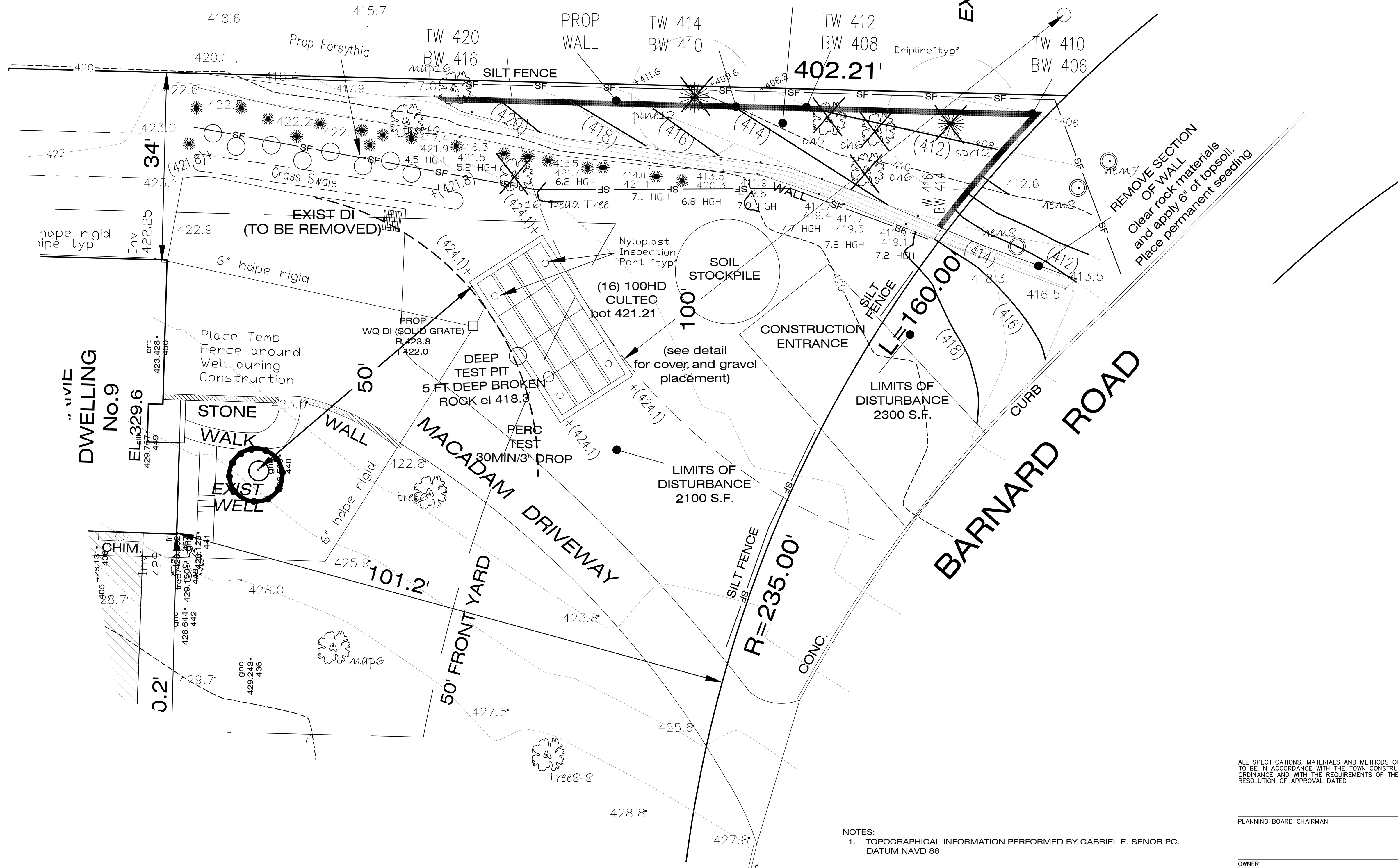
NOTES:
 1. TOPOGRAPHICAL INFORMATION PERFORMED BY GABRIEL E. SENOR P.C. DATUM NAVD 88

PLANNING BOARD CHAIRMAN _____
 OWNER _____
 JOSEPH M. CERMELE, P.E.
 KELLARD SESSIONS CONSULTING
 CONSULTING TOWN ENGINEER

VICINITY MAP



RONALD & AURORA BANASZEK SEE PLANTING PLAN
11 BARNARD RD BY WALTER G. NESTLER P.
108.03-3-53 FOR LANDSCAPING



LEGEND

UTILITY POLE	SEWER MANHOLE
SIGN POST	WATER MANHOLE
HYDRANT	ELECTRIC MANHOLE
WATER VALVE	DRAIN MANHOLE
GAS VALVE	MANHOLE
LIGHT POLE	ELECTRIC BOX
GUY WIRES	EXISTING GRADE (102)
TELE. MANHOLE	PROPOSED GRADE (102)
SILT FENCE	14" TREE
	TREE TO BE REMOVED

NO	DATE	DESC	BY
1	APRIL 10, 2023		SGA

REVISIONS

SITE PLAN "Option A"
SHED ADDITION AND
STONE RETAINING WALL

PROPOSED CONDITIONS

PREPARED FOR:
 JOSEPH GENTILE
 STREET: 9 BARNARD RD

TOWN OF NORTH CASTLE

TAX LOT 108.03-3-54

WESTCHESTER COUNTY, NEW YORK

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GABRIEL E. SENOR, P.C.
 CONSULTING ENGINEER, ARCHITECT, SURVEYOR
 30 NORTH CENTRAL AVE., HARTSDALE, NEW YORK, 10802
 (914) 422-0090 FAX 422-3009



SCALE: 1" = 10'
 DATE: JUNE 20, 2021
 DRAWN BY: SGA
 CHECKED BY: ES.

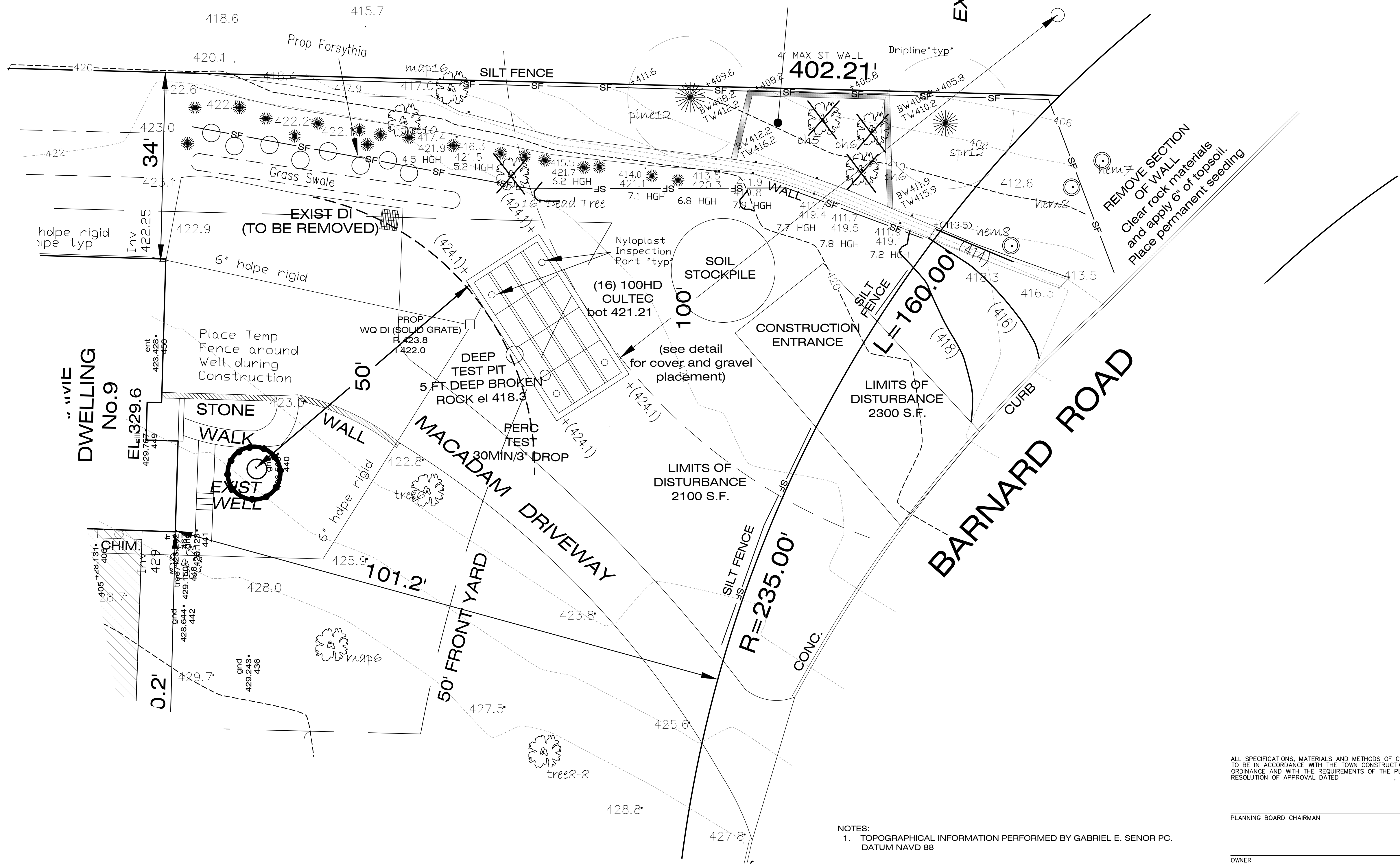
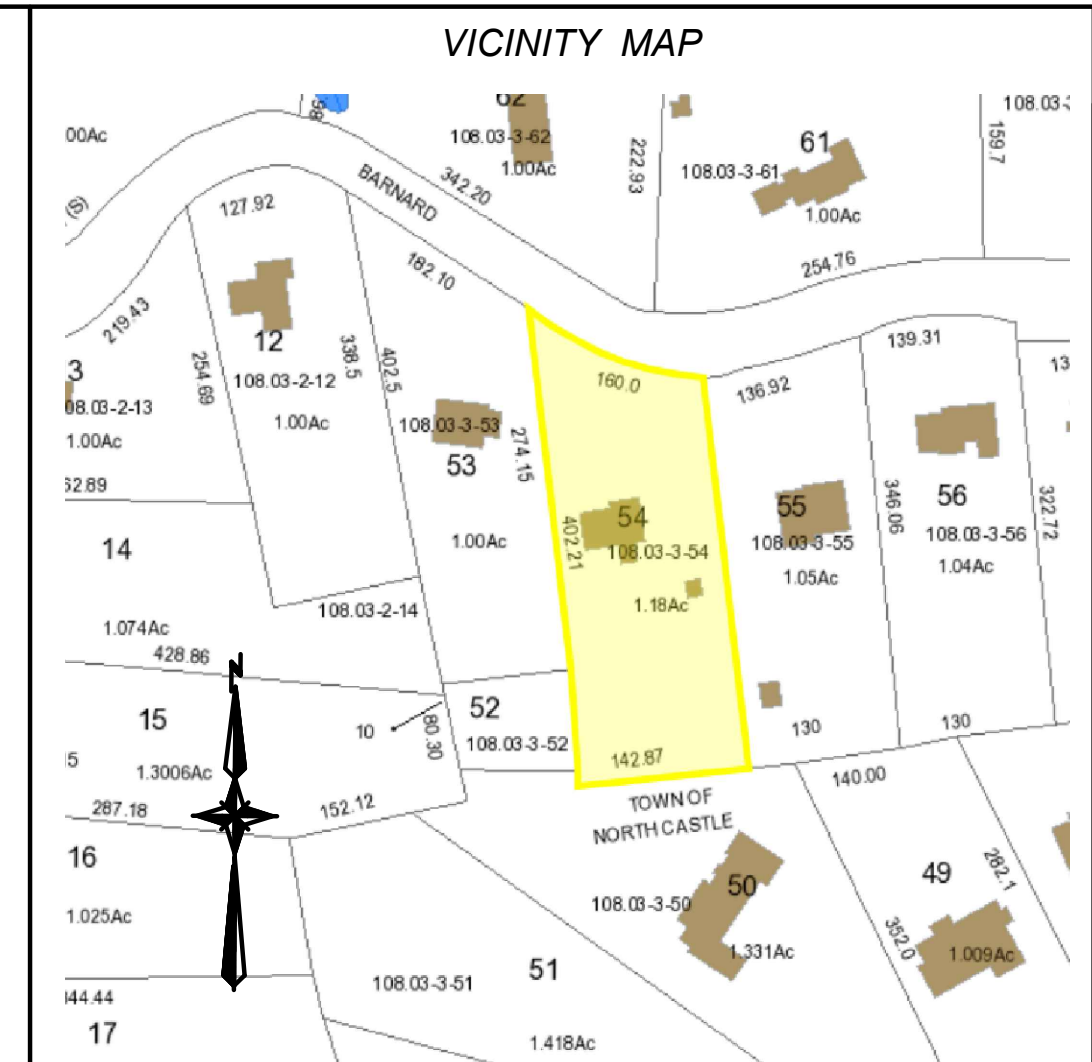
S-3A

NOTES:
 1. TOPOGRAPHICAL INFORMATION PERFORMED BY GABRIEL E. SENOR P.C.
 DATUM NAVD 88

PLANNING BOARD CHAIRMAN _____
 OWNER _____
 JOSEPH M. CERMELE, P.E.
 KELLARD SESSIONS CONSULTING
 CONSULTING TOWN ENGINEER



RONALD & AURORA BANASZEK SEE PLANTING PLAN
11 BARNARD RD BY WALTER G. NESTLER P.
108.03-3-53 FOR LANDSCAPING



LEGEND

○ UTILITY POLE	⊙ SEWER MANHOLE
— SIGN POST	⊙ WATER MANHOLE
⊗ HYDRANT	⊙ ELECTRIC MANHOLE
· WATER VALVE	⊙ DRAIN MANHOLE
· GAS VALVE	⊙ MANHOLE
· LIGHT POLE	⊗ ELECTRIC BOX
● GUY WIRES	— 102 —
Ⓣ TELE. MANHOLE	— 102 —
SF — SF — SF — SILT FENCE	— 102 —
	EXISTING GRADE (102)
	PROPOSED GRADE
	⊙ 14 TREE
	SIZE
	⊗ TREE TO BE REMOVED

NO	DATE	DESC	BY
1	APRIL 10, 2023		SGA

REVISIONS

SITE PLAN "OPTION B"
SHED ADDITION AND
STONE RETAINING WALL
PROPOSED CONDITIONS

PREPARED FOR:
 JOSEPH GENTILE
 STREET: 9 BARNARD RD
 TOWN OF NORTH CASTLE
 TAX LOT 108.03-3-54
 WESTCHESTER COUNTY, NEW YORK

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 CONSULTING ENGINEERS & LANDSCAPE ARCHITECTS
 30 NORTH CENTRAL AVE., HARTSDALE, NEW YORK 10806
 (914) 422-0070 FAX 422-3009

SCALE: 1" = 10'
 DATE: JUNE 20, 2021
 DRAWN BY: SGA
 CHECKED BY: ES.

S-3B

ALL SPECIFICATIONS, MATERIALS AND METHODS OF CONSTRUCTION TO BE IN ACCORDANCE WITH THE TOWN CONSTRUCTION STANDARDS ORDINANCE AND WITH THE REQUIREMENTS OF THE PLANNING BOARD RESOLUTION OF APPROVAL DATED 6/20/21

PLANNING BOARD CHAIRMAN _____

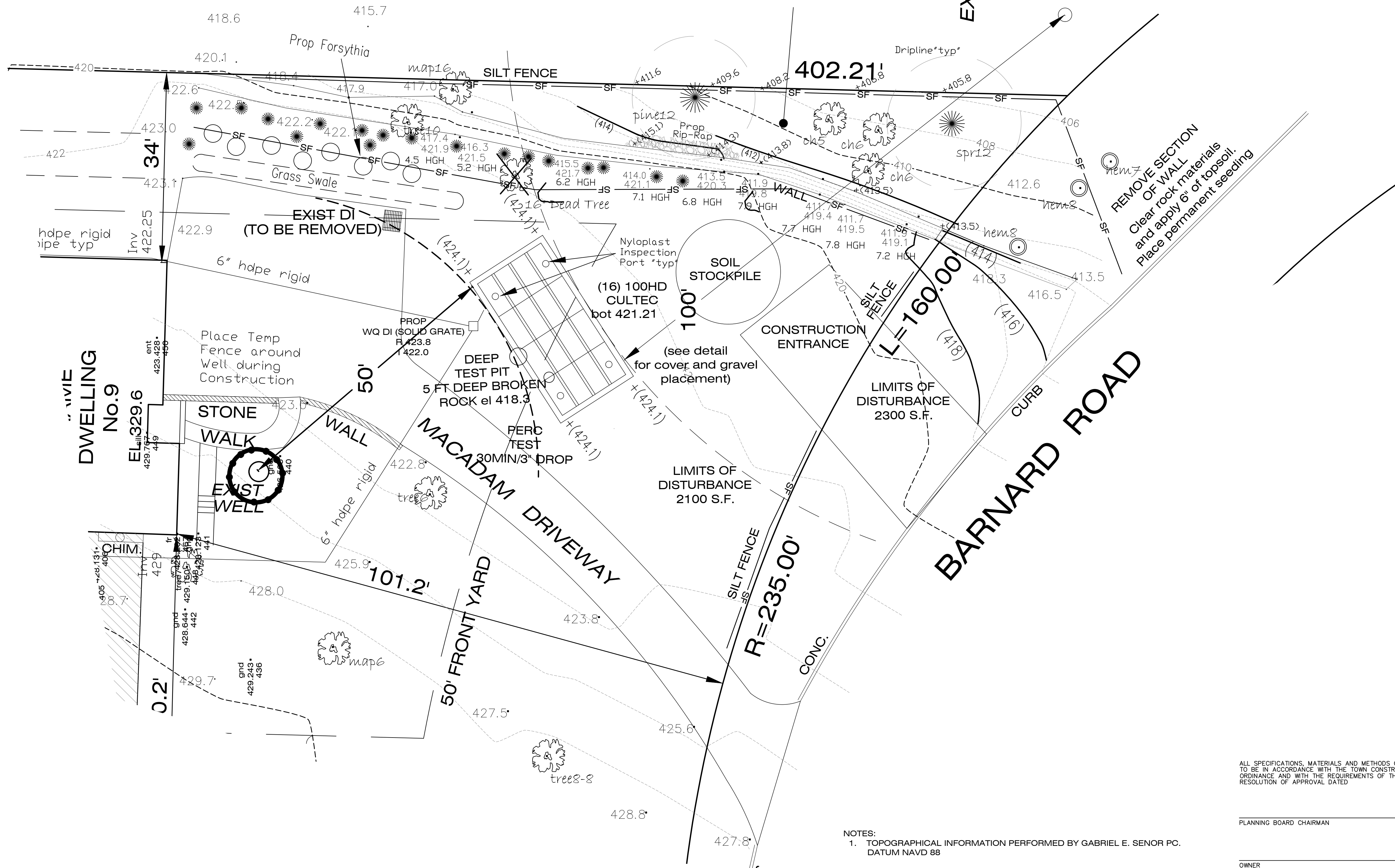
OWNER _____

JOSEPH M. CERMELE, P.E.
 KELLARD SESSIONS CONSULTING
 CONSULTING TOWN ENGINEER

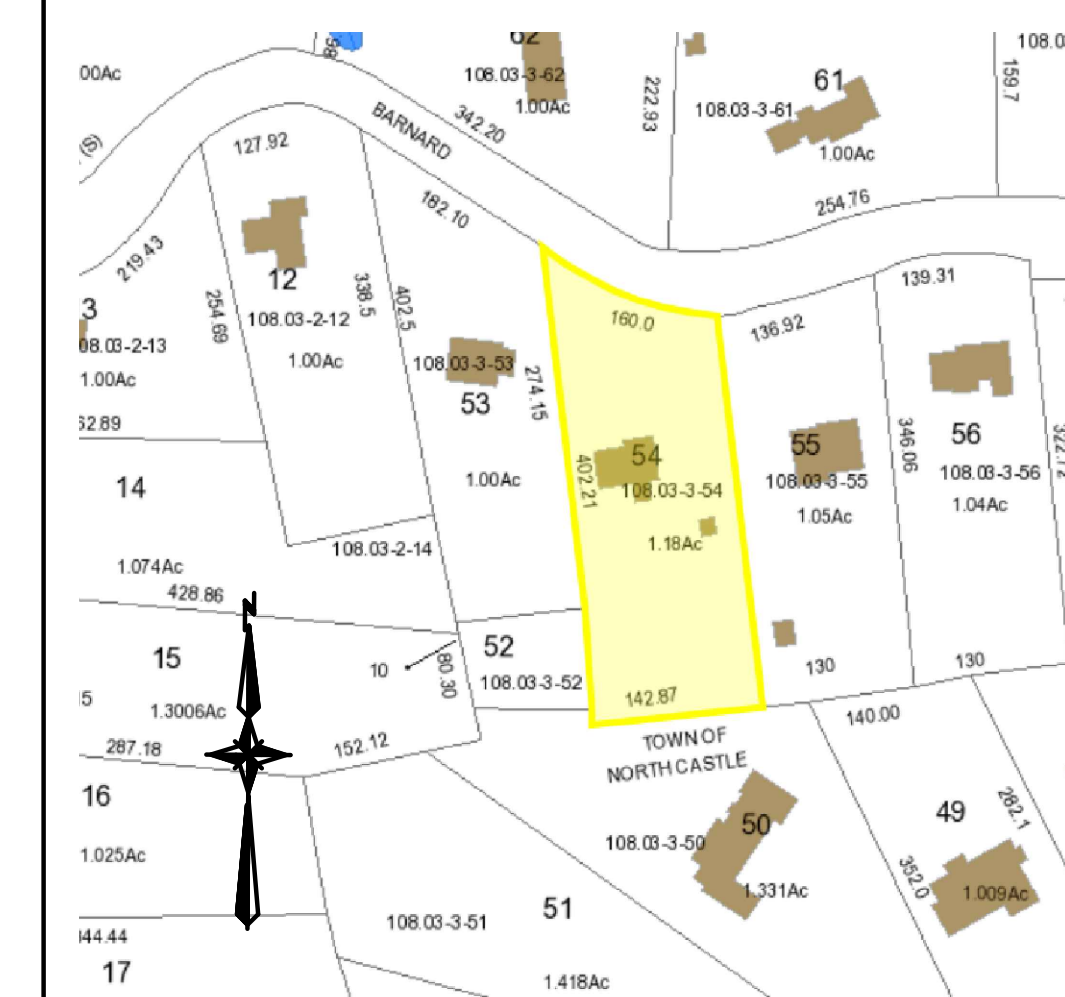
NOTES:
 1. TOPOGRAPHICAL INFORMATION PERFORMED BY GABRIEL E. SENOR P.C.
 DATUM NAVD 88



RONALD & AURORA BANASZEK SEE PLANTING PLAN
11 BARNARD RD BY WALTER G. NESTLER P.E.
108.03-3-53 FOR LANDSCAPING



VICINITY MAP



LEGEND

- UTILITY POLE
- SIGN POST
- HYDRANT
- WATER VALVE
- GAS VALVE
- LIGHT POLE
- GUY WIRES
- TELE. MANHOLE
- SILT FENCE
- SEWER MANHOLE
- WATER MANHOLE
- ELECTRIC MANHOLE
- DRAIN MANHOLE
- MANHOLE
- ELECTRIC BOX
- EXISTING GRADE (102)
- PROPOSED GRADE
- 14 TREE SIZE
- TREE TO BE REMOVED

NO	DATE	DESC	BY
1	APRIL 10, 2023		SGA

SITE PLAN "C"
SHED ADDITION AND
STONE RETAINING WALL
PROPOSED CONDITIONS

PREPARED FOR:
 JOSEPH GENTILE
 STREET: 9 BARNARD RD
 TOWN OF NORTH CASTLE
 TAX LOT 108.03-3-54

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GABRIEL E. SENOR, P.C.

30 NORTH CENTRAL AVE., HARTSDALE, NEW YORK 10500
 (914) 422-0070 FAX 422-3009



SCALE: 1" = 10'
 DATE: JUNE 20, 2021
 DRAWN BY: SGA
 CHECKED BY: ES.

S-3C

ALL SPECIFICATIONS, MATERIALS AND METHODS OF CONSTRUCTION TO BE IN ACCORDANCE WITH THE TOWN CONSTRUCTION STANDARDS ORDINANCE AND WITH THE REQUIREMENTS OF THE PLANNING BOARD RESOLUTION OF APPROVAL DATED 6/20/21

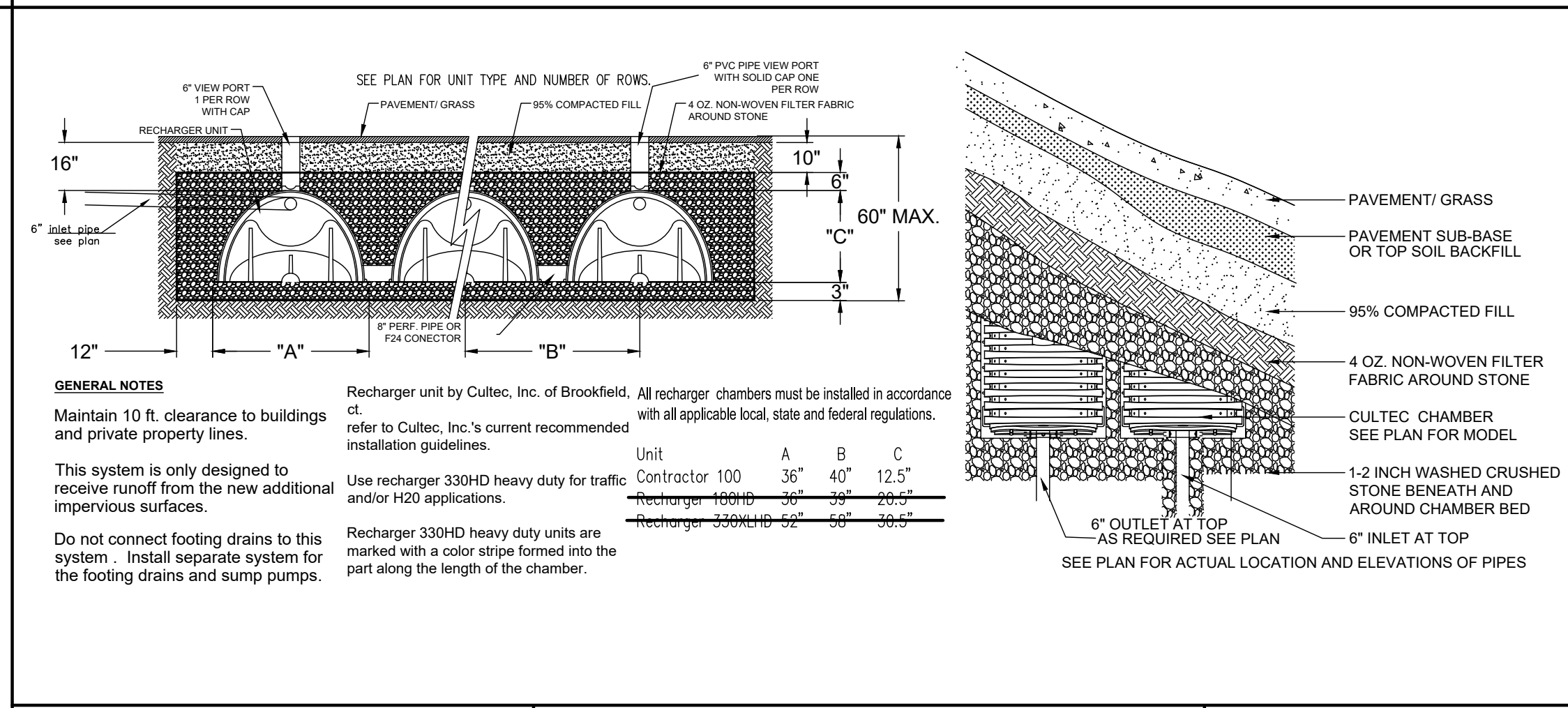
PLANNING BOARD CHAIRMAN _____
 OWNER _____
 JOSEPH M. CERMELE, P.E.
 KELLARD SESSIONS CONSULTING
 CONSULTING TOWN ENGINEER

NOTES:
 1. TOPOGRAPHICAL INFORMATION PERFORMED BY GABRIEL E. SENOR P.C. DATUM NAVD 88

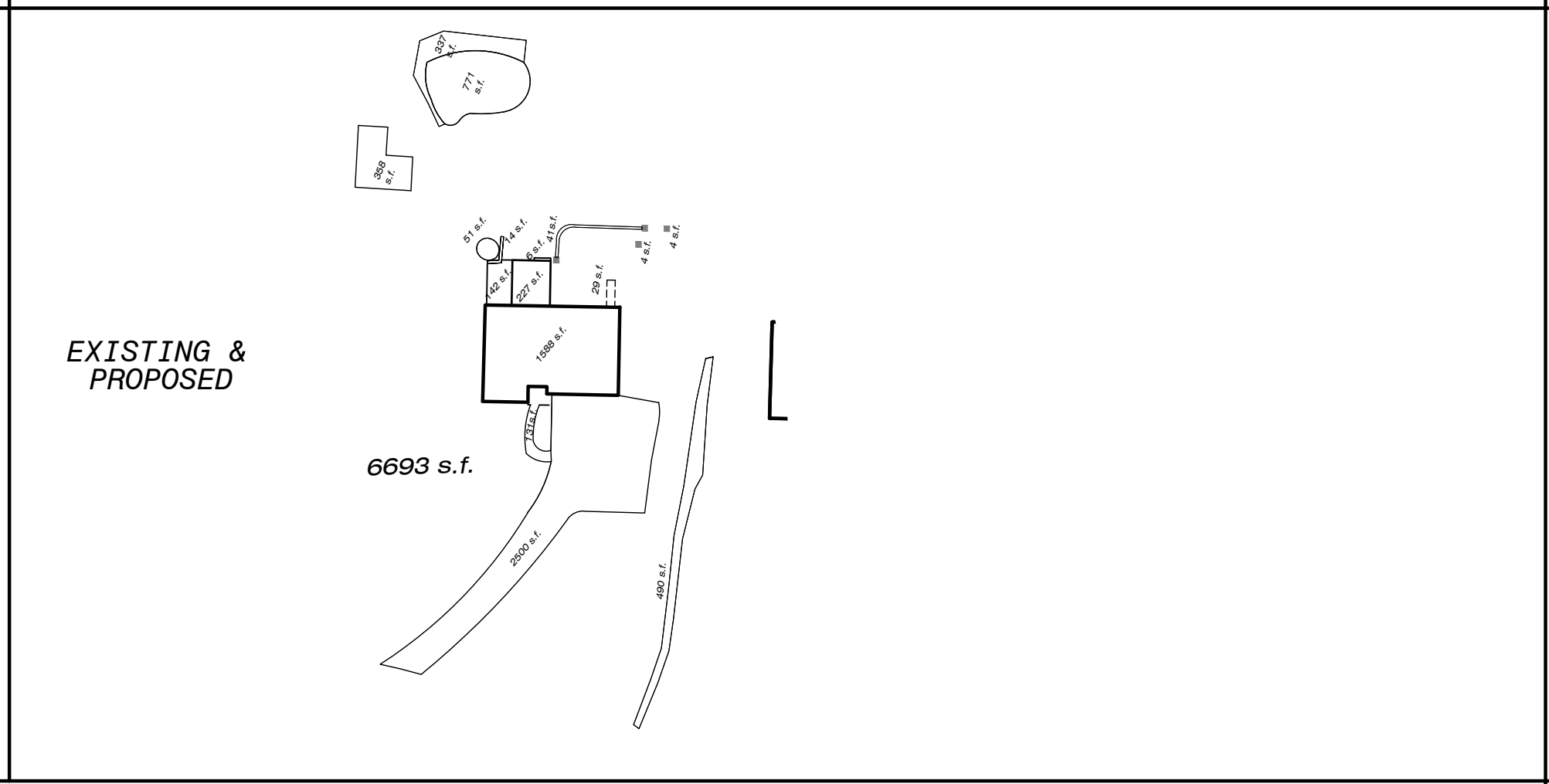
GENERAL NOTES

- 1. Gabriel E. Senor, P.C. is not responsible for construction supervision unless retained under separate contract.
2. Gabriel E. Senor, P.C. must be notified prior to backfilling any storm water system for inspection if the Engineering Dept. will require a final letter of certification from the design engineer for the storm water approval, site work and drainage installation.
3. Any changes made to these plans shall be approved by Gabriel E. Senor, P.C. Any changes must be filed and approved by the appropriate Department as amendments.
4. Gabriel E. Senor, P.C. is not responsible for damages if changes are made and not approved as in item 1 above.
5. All conditions, locations, dimensions and elevations shall be verified by the Contractor or Owner and must report all discrepancies to the Design Engineer prior to the start of construction.
6. All work and materials shall comply with all applicable codes including, but not limited to the following: NYS Building Code, Local Zoning Code, A.C.I. and A.I.S.C.
7. The Contractor is responsible for all construction means and methods to implement the designs shown.
8. Safety during construction is the responsibility of the Contractor and shall conform to all Local, State and Federal Agencies' requirements.
9. The Contractor shall apply for and receive all necessary permits to perform the work shown on these plans prior to the start of construction.
10. Final grading shall be sloped away from the building and foundations.
11. Unless noted, all drainage piping on this plan is to be 6" Rigid HDPE ASTM 1910-07 or better.
12. This storm water design plan is not designed to accept footing drains. Refer to Architectural plans for footing drain design. Do not connect footing drains or sump pumps to this surface water drainage system.
13. If the drainage system is to be built in a fill area, the fill should be well drained material with a settling period of one to three months prior to the system installation. Additional percolations are required after the settling period and the system design will be revised as necessary.
14. Proposed Silt Fence to be installed along existing and proposed contours.
15. Orange Construction Fences to be installed along the limits of the proposed disturbance limits line.
16. Roof leaders to be connected to the drainage system with 6" rigid HDPE pipe at 2% min. slope or as shown.
17. The Contractor and all Sub-Contractors must submit a "Contractor Certification Statement" as per section 294-8 of the NYS DEC "Stormwater Pollution Prevention Plan" manual prior to the start of construction.
18. If imported fill material is required, it shall be certified in writing by a New York State Licensed Professional Engineer as non-contaminated, clean fill suitable for the intended use. Percolation tests shall be performed by the Design Engineer to demonstrate that the stormwater management practice will draw down the entire water quality volume within 48 hours. The results of the percolation test (s) shall be submitted to the Village/ town or City Engineer for review and approval.
19. All proposed temporary seeding mixture shall be in accordance with the New York State Standards and Specifications for Urban Erosion Control, dated August 2005.
20. New sewer laterals are required for all new construction. Laterals must be extra heavy cast iron or ductile iron pipe or as directed by Municipal Engineer.
21. Connection permits are required from the Department of Public Works for Sewer, Water, and Storm Water System overflows.
22. All trenches in Village/Town or City Right of Way must be backfilled with controlled density fill (k-crete) or as directed by Municipal Engineer.
23. A street opening permit must be obtained from the Village/Town or City for all work in the Right of Way and an inspection performed prior to back filling and final approval.
24. Replace or re-lay stone curb as directed by Town/Village Engineer.
25. A non-conversion agreement for the basement in Special Flood Hazard Zone must be signed and filed prior to the issuance of a C of C for properties subjected to flooding.
26. Curb cut permit is required from the Department of Public Works. Curb cut maximum width is 18 feet.
27. The contractor shall schedule with the Village a rough grading inspection prior to any framing of a building above the first floor brook decking. Excess soils of significance shall be removed and disposed of upon completion of the rough grading.
28. The structures for the storm water management system shall be installed at the earliest date possible when the structure's roof is complete. The contractor shall consult with the Village and schedule this work upon completion and inspection of the rough grading activities.
29. The contractor shall secure a Street Opening Permit with the Village for all work to take place on the right of way including construction of a new driveway apron, and installation of new vehicle laterals.
30. If necessary, the Contractor shall secure a Tree Removal Permit with the Village prior to the commencement of construction activities.
31. Contractor required to provide Dig Safe NY ticket prior to issuance of permits.

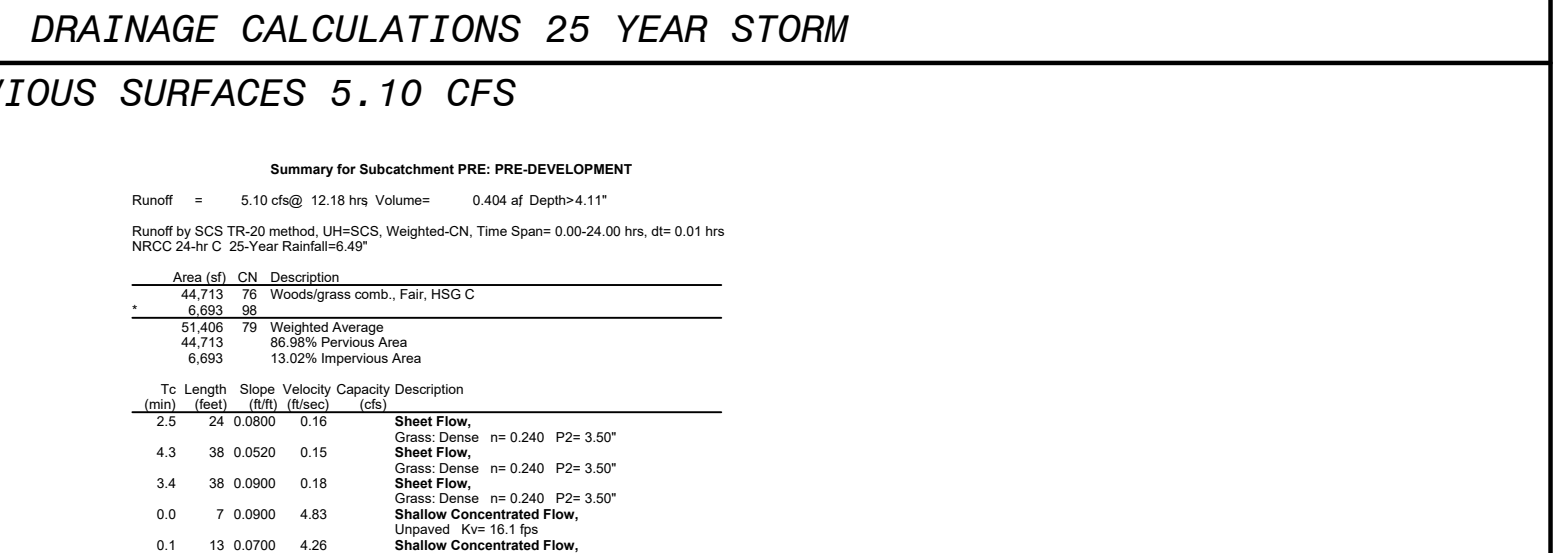
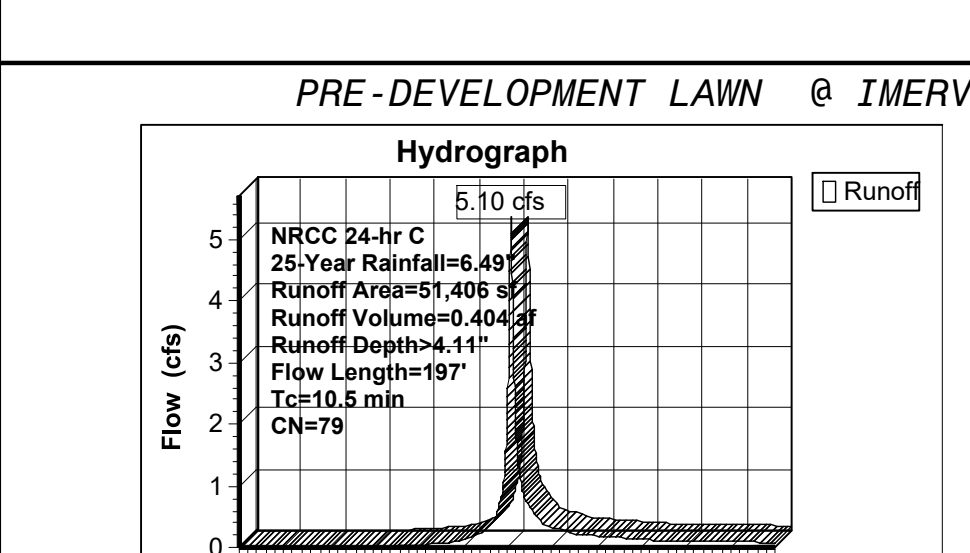
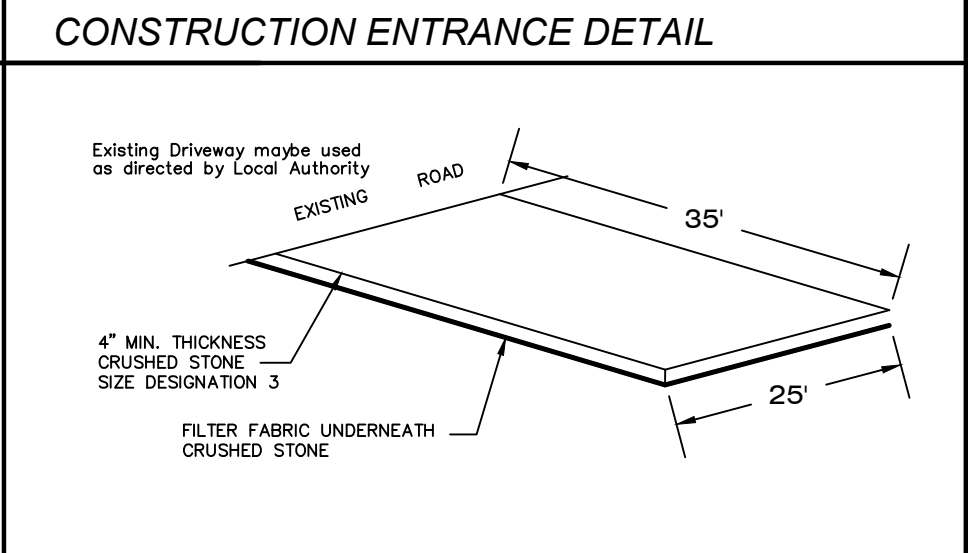
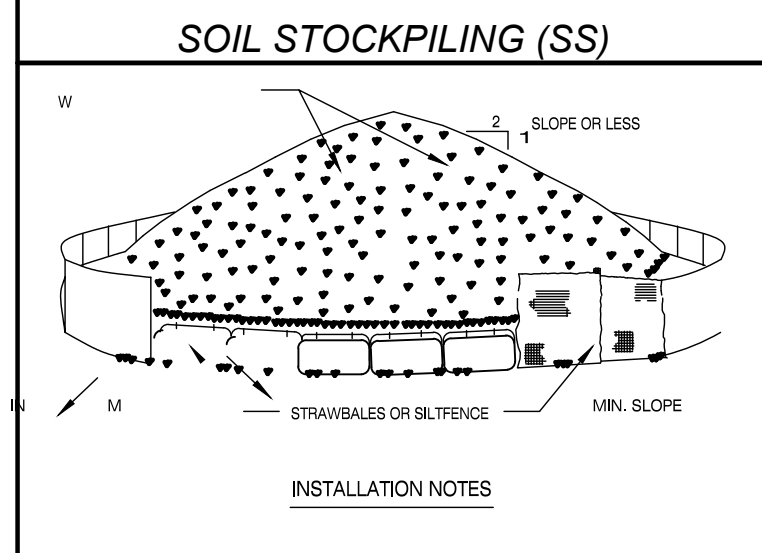
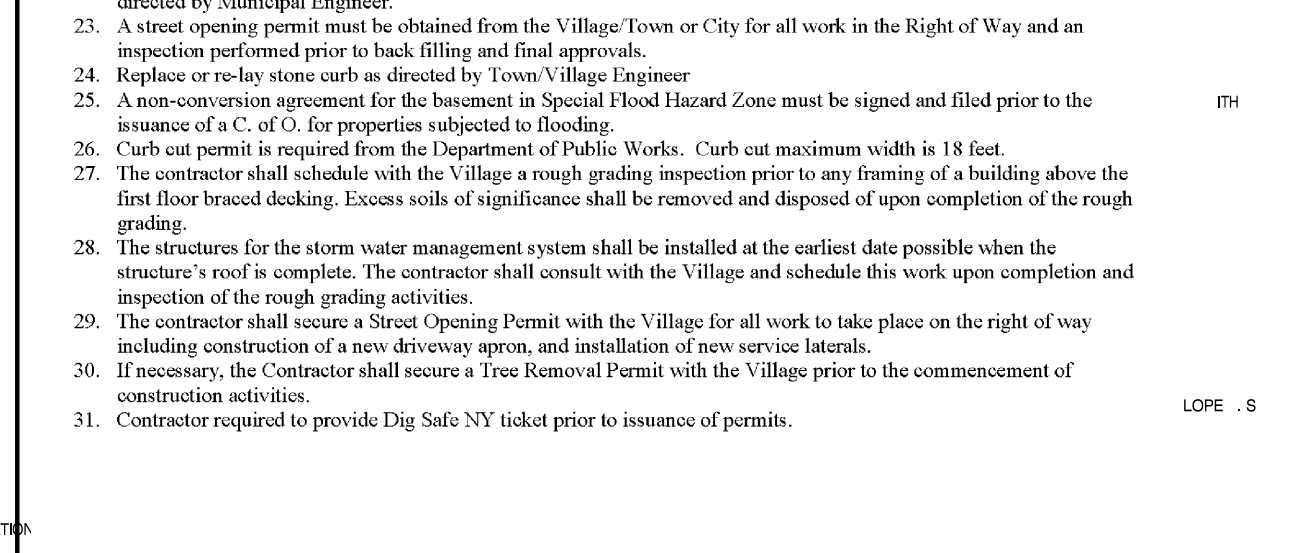
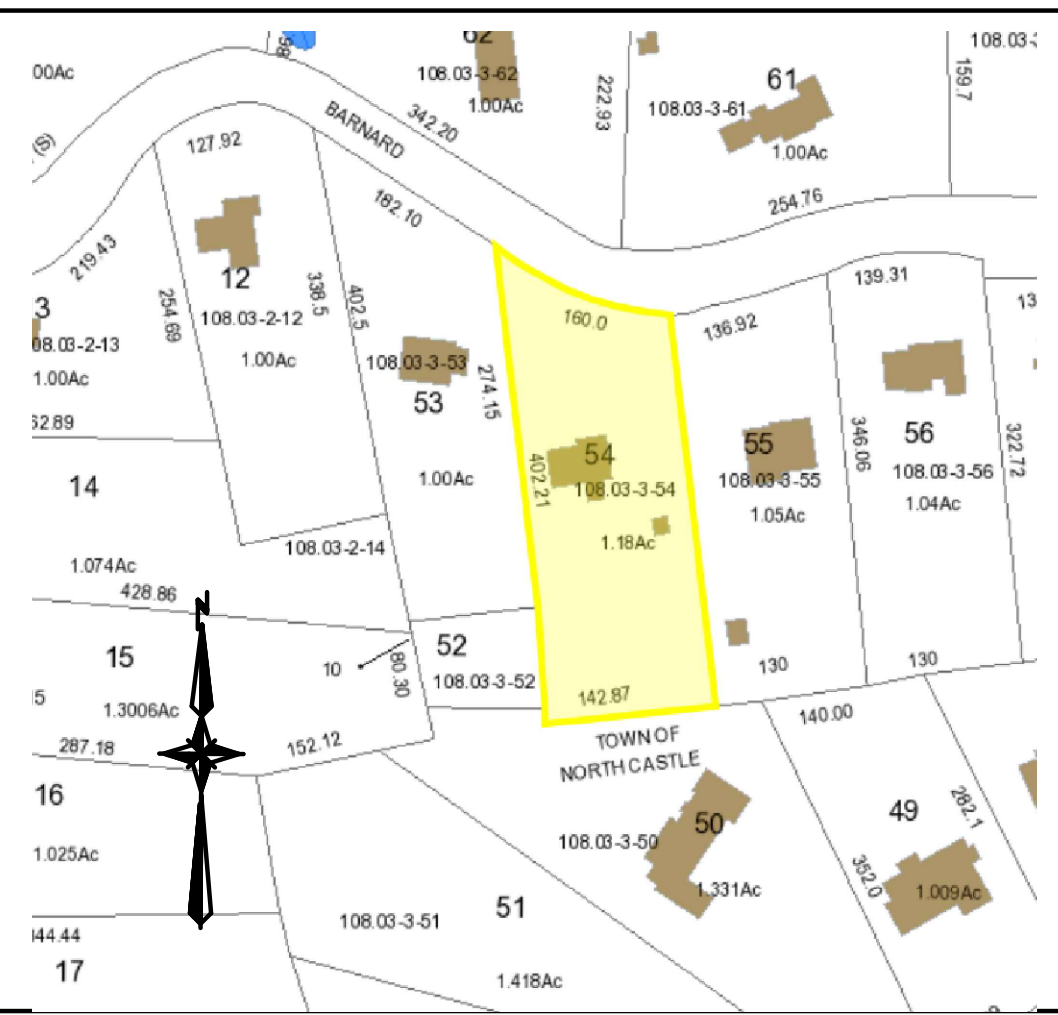
CULTEC CHAMBERS



IMPERVIOUS SURFACE FOR DRAINAGE CALCULATIONS



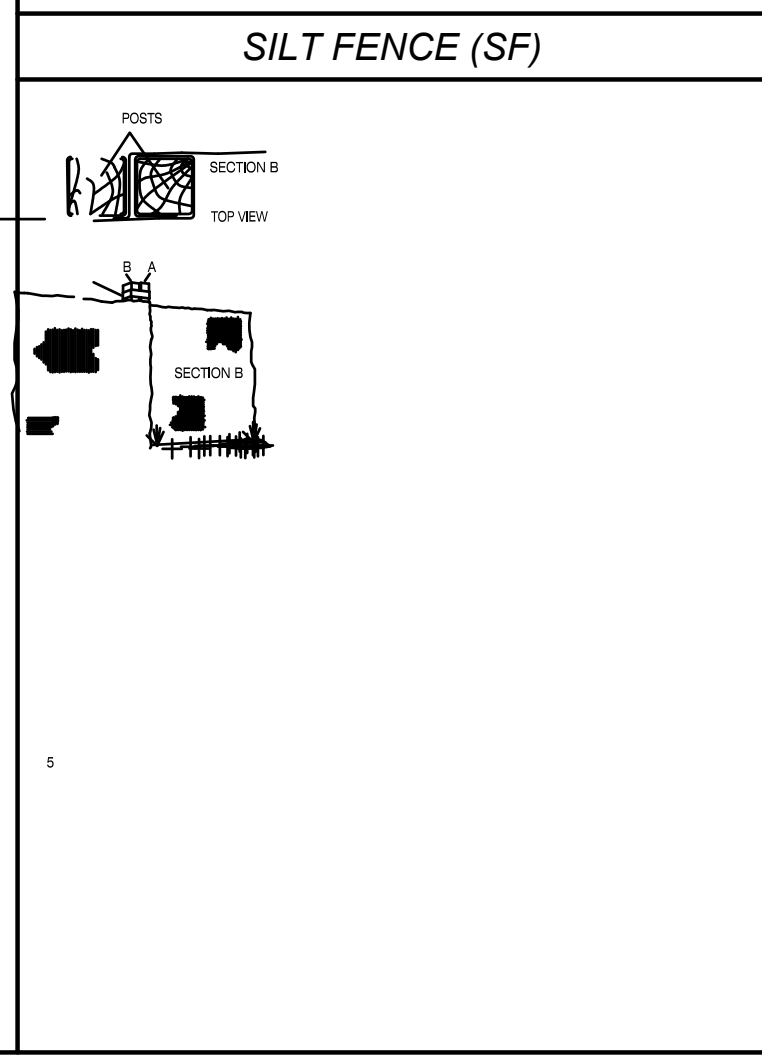
VICINITY MAP



EROSION CONTROL NOTES

- INSTALLATION & MAINTENANCE OF EROSION CONTROL
CONSTRUCTION SCHEDULE
NOTIFY APPROPRIATE MUNICIPAL AGENCY HAVING JURISDICTION AT LEAST 5 DAYS PRIOR TO START.
EROSION CONTROL MEASURES
1. Install all erosion control measures prior to start of construction.
2. Call for inspection from the appropriate Municipal Agency having jurisdiction at least 2 Days prior to finish.
INSPECTION BY MUNICIPALITY
MAINTENANCE (TO BE PERFORMED DURING ALL PHASES OF CONSTRUCTION)
1. After any rain causing runoff, Contractor to inspect silt fences, etc. and remove any excessive sediment and inspect stockpiles and correct and problems with seed establishment.
2. Inspections shall be documented in writing and submitted to the appropriate Municipal Agency having jurisdiction.
STOCK PILING OF EXCAVATED MATERIAL
1. Strip Topsoil and Stockpile.
2. Stockpile Excavation Subgrade.
3. Seed piles with 1 lb. total annual ryegrass or remove from site within two days.
INSPECTION BY MUNICIPALITY
FINAL GRADING
1. Remove unseeded subgrade from site.
2. Call for inspection from the appropriate Municipal Agency having jurisdiction at least 2 days prior to finish.
INSPECTION BY MUNICIPALITY
LANDSCAPING
1. Spread topsoil evenly over areas to be seeded. Hand rake level.
2. Broadcast 1 25lb. bag of Jonathan Green "Fastgrow" mix or equal over areas to be seeded.

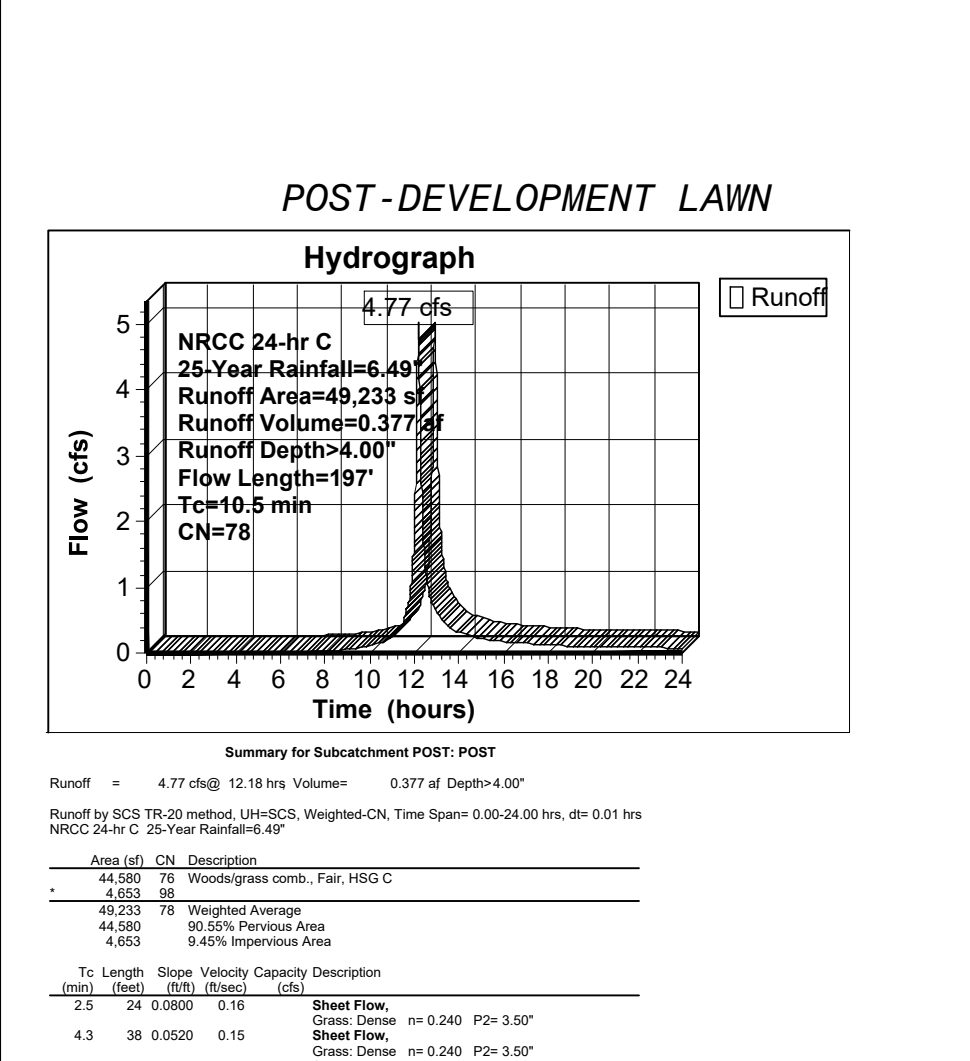
SILT FENCE (SF)



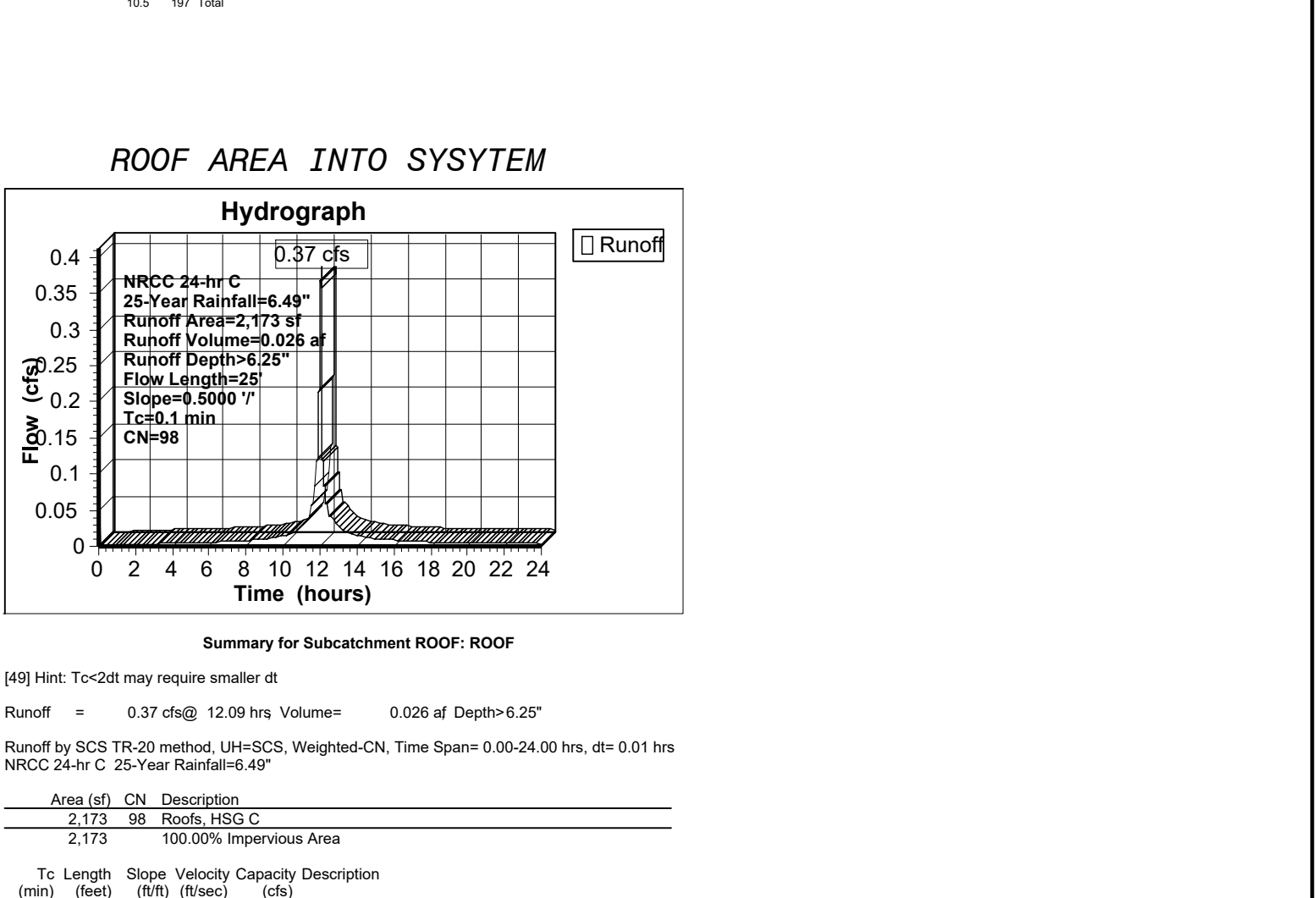
SOIL PROPERTIES

Soil Properties description: P-10-Piston fine sandy loam, 8 to 15 percent slopes. Landform: Ground moraine, drumlins, hills. Landform position (two-dimensional): Backslope. Landform position (three-dimensional): Side slope. Down-slope slope: Concave. Across-slope slope: Convex. Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist. Topsoil profile: Ap - 0 to 8 inches: fine sandy loam; Bw1 - 8 to 15 inches: fine sandy loam; Bw2 - 15 to 26 inches: fine sandy loam; C1 - 26 to 65 inches: gravelly fine sandy loam. Properties and qualities: Slope: 8 to 15 percent; Depth to restrictive feature: 20 to 39 inches to dense material; Natural drainage class: Well drained; Runoff class: Medium; Capacity of the root limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr); Depth to water table: About 16 to 37 inches; Frequency of flooding: None; Frequency of ponding: None; Saturated hydraulic conductivity (Ksat): 0.0 to 1.9 inches/cm; Interpretive groups: Land capability classification (irrigated): None specified; Land capability classification (nonirrigated): 3e; Hydrologic soil group: C; Hydraulic soil rating: No; Water components: Quatern. Percent of map unit: 7 percent. Landform: Hills, ground moraine, drumlins. Landform position (two-dimensional): Backslope. Landform position (three-dimensional): Side slope. Down-slope slope: Concave. Across-slope slope: Convex. Hydraulic soil rating: No. Woodlot: Percent of map unit: 6 percent. Landform: Hills, ground moraine, drumlins. Landform position (two-dimensional): Footslope, summit, backslope. Landform position (three-dimensional): Side slope. Down-slope slope: Concave. Across-slope slope: Convex. Hydraulic soil rating: No. Ripology: Percent of map unit: 2 percent. Landform: Depressions, elongate, drumlins, hills, ground moraine. Landform position (two-dimensional): Topedge, footslope. Landform position (three-dimensional): Base slope, head slope. Down-slope slope: Concave, linear. Across-slope slope: Concave, linear. Hydraulic soil rating: Yes.

POST-DEVELOPMENT LAWN



ROOF AREA INTO SYSTEM



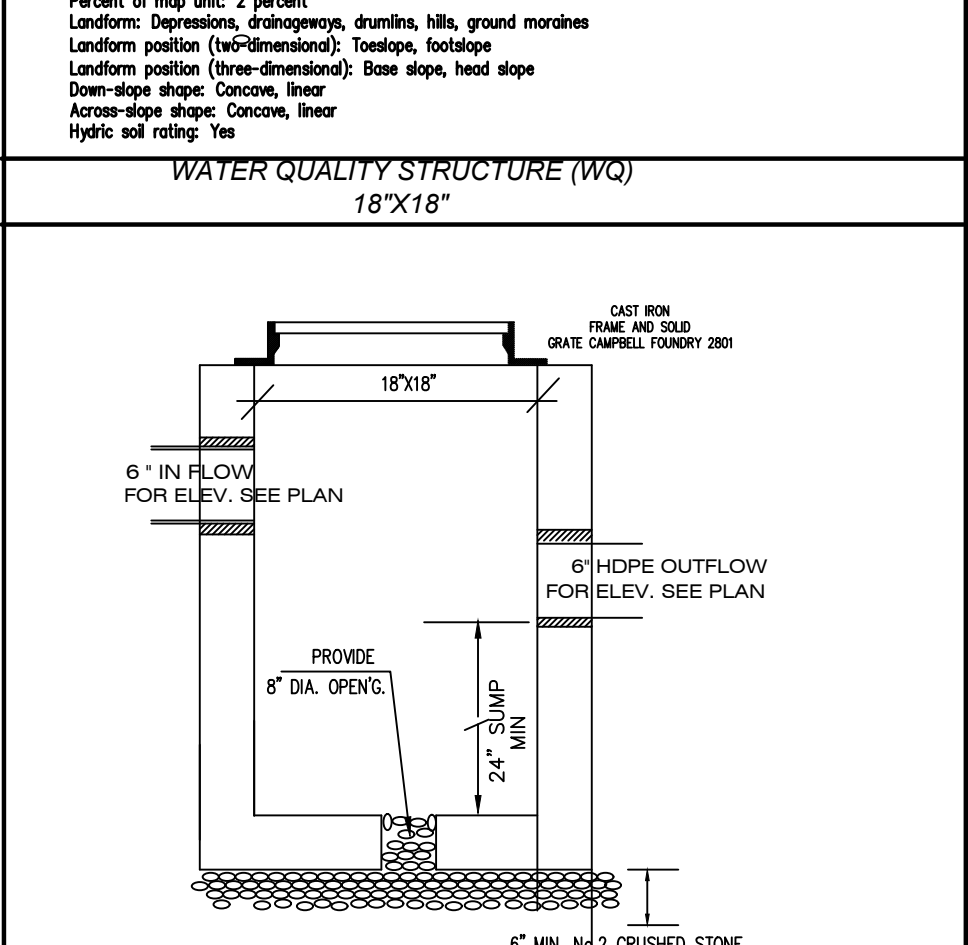
WATER QUALITY STRUCTURE (WQ)



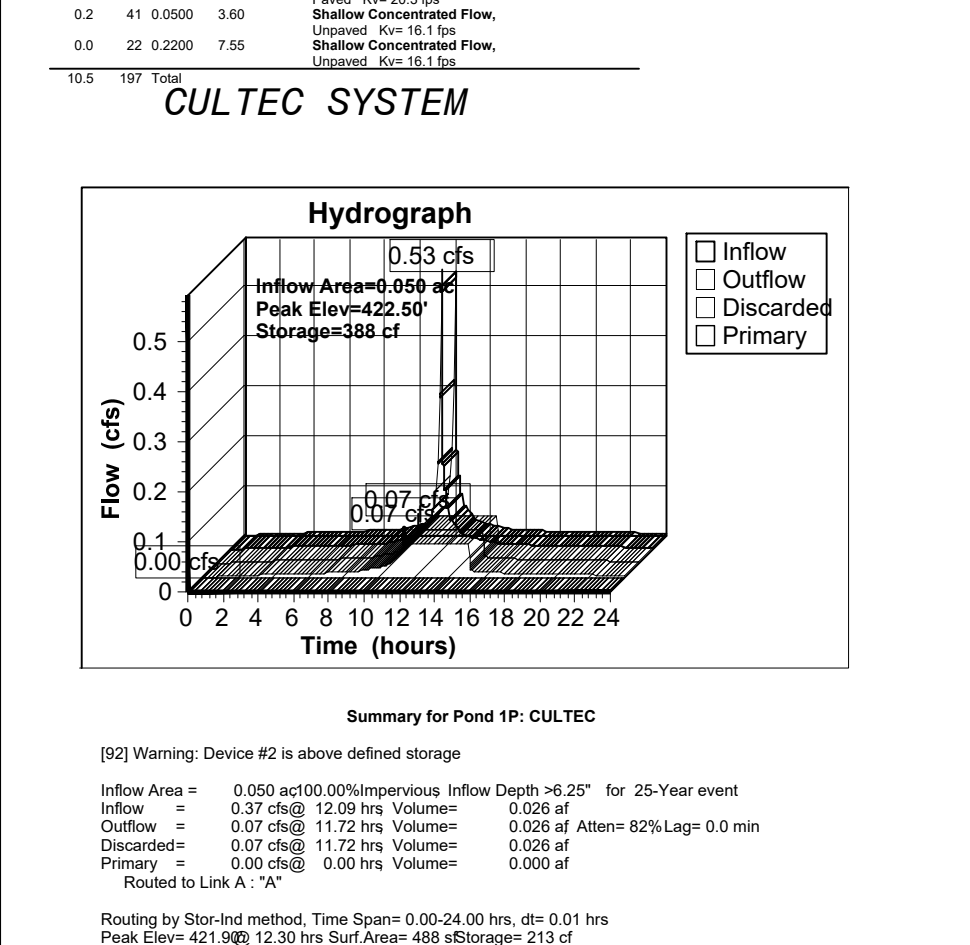
SWALE



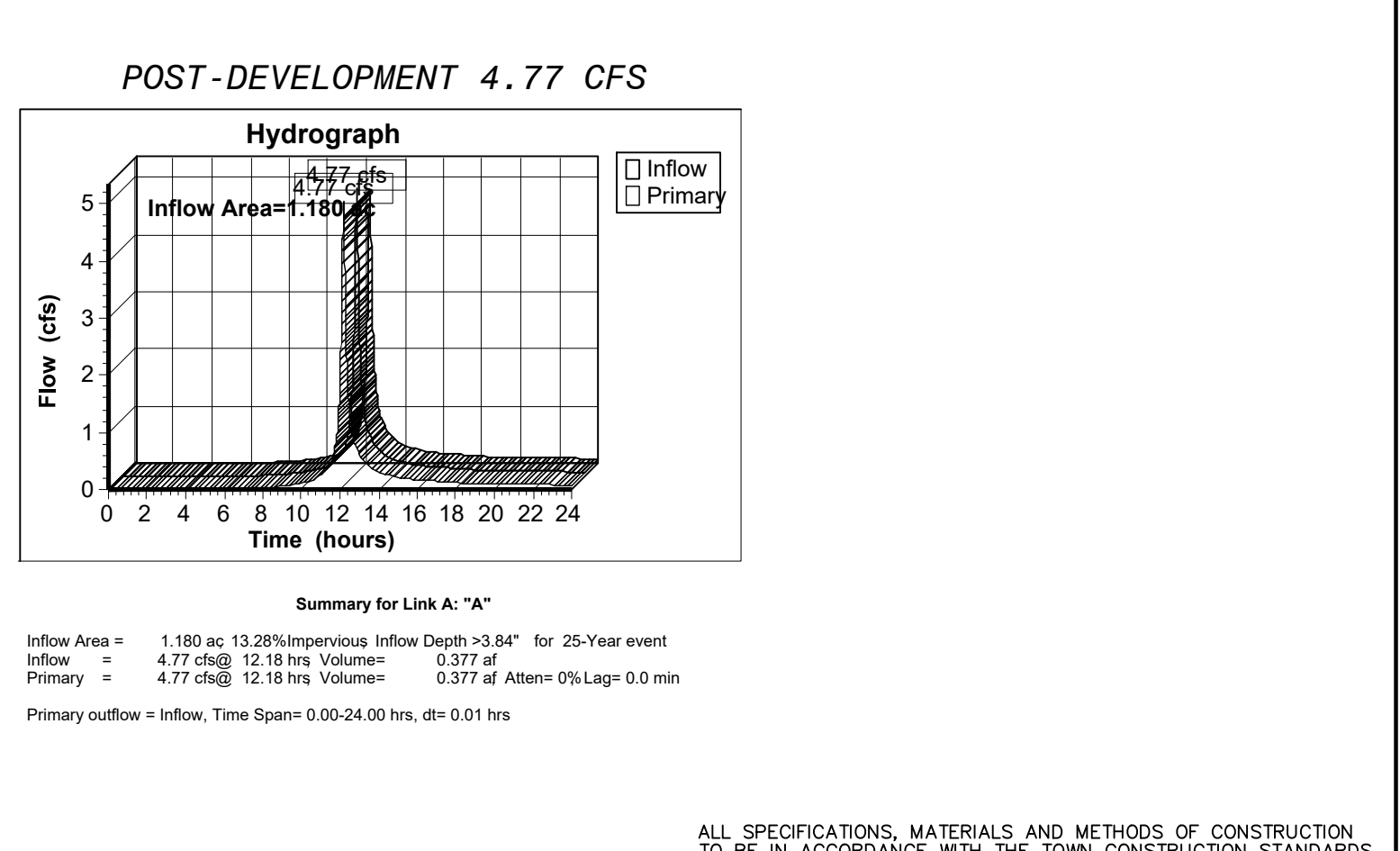
CULTEC SYSTEM



POST-DEVELOPMENT 4.77 CFS



POST-DEVELOPMENT 4.77 CFS



LEGEND table listing symbols for Utility Pole, Sign Post, Hydrant, Water Valve, Light Pole, Guy Wires, Tele. Manhole, Sewer Manhole, Water Manhole, Electric Manhole, Drain Manhole, Manhole, Electric Box, Existing Grade, Proposed Grade, 14 Tree Size, Tree to be Removed.

Table with columns: NO, DATE, DESC, BY. Row 1: 2, APRIL 10, 2023, SGA. Row 2: 1, JULY 21, 2022, SGA.

SITE PLAN SHED ADDITION AND STONE RETAINING WALL DETAIL SHEET

PREPARED FOR: JOSEPH GENTILE STREET: 9 BARNARD RD TOWN OF NORTH CASTLE TAX LOT 108.03-3-54 WESTCHESTER COUNTY, NEW YORK COPYRIGHT GABRIEL E. SENOR, P.C. 2011

GABRIEL E. SENOR, P.C. CONSULTING ENGINEER AND SURVEYOR 30 NORTH CENTRAL AVE. HASTINGS, NEW YORK 10801 (914) 422-0270 FAX 422-8009

Professional Engineer seal for Gabriel E. Senor, P.C., License No. 10627. Includes scale (as shown), date (June 20, 2021), and drawing title (D-1).

PLANNING BOARD CHAIRMAN OWNER JOSEPH M. CERMELE, P.E. KELLARD SESSIONS CONSULTING TOWN ENGINEER

**Drainage Calculations
9 Barnard Road
Town of North Castle, New York**

Eliot Senor P.E. & L.S.
July 22, 2022

April 10, 2023 revised



The analysis was performed utilizing the Soil Conservation Service (SCS) TR-20 and TR-55 methodologies. Rainfall intensity was utilized for 25 Year and 100 storm event at 6.49” and 9.28” respectively for a 24 hour rainfall in Westchester County. The development is the construction of a shed and wall. Excess surface stormwater generated by the impervious surfaces of the building which currently is not connected to any storm system shall be stored in a drainage structure to be constructed on-site.

Pre-Development 25 & 100 Year Storm

The Soil Conservation Service’s TR-20 method (a more accurate and precise calculation methodology than TR-55) as incorporated in the HydroCAD software was used to determine the pre-development and post-development runoff rates of the property.

Post-Development 25 & 100 Year Storm

Runoff is to be mitigated by a system of 180 Cultecs which will be connected to the roof leader system of the entire house.

Currently there is Drain inlet which has a point discharge to the neighbor to the west. This will be removed. A Grass swale will be constructed, and plantings will be paced in the area between the driveway and the property line to prevent sheet flow to the neighboring property.

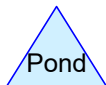
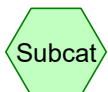
Table Stormwater Runoff

Design Storm (yr)	Total Pre-development Peak Runoff (cfs)	Total Post-Development Peak Runoff (cfs) basin
25	5.10	4.77
100	8.14	7.68

Given the Post Development basin routing runoff rates for the selected storms shown peak runoff has no net increase of those of the Pre Development condition. It is concluded that the proposed design satisfactorily meets the Town regulation of no net increase in the rate of offsite storm water discharge.

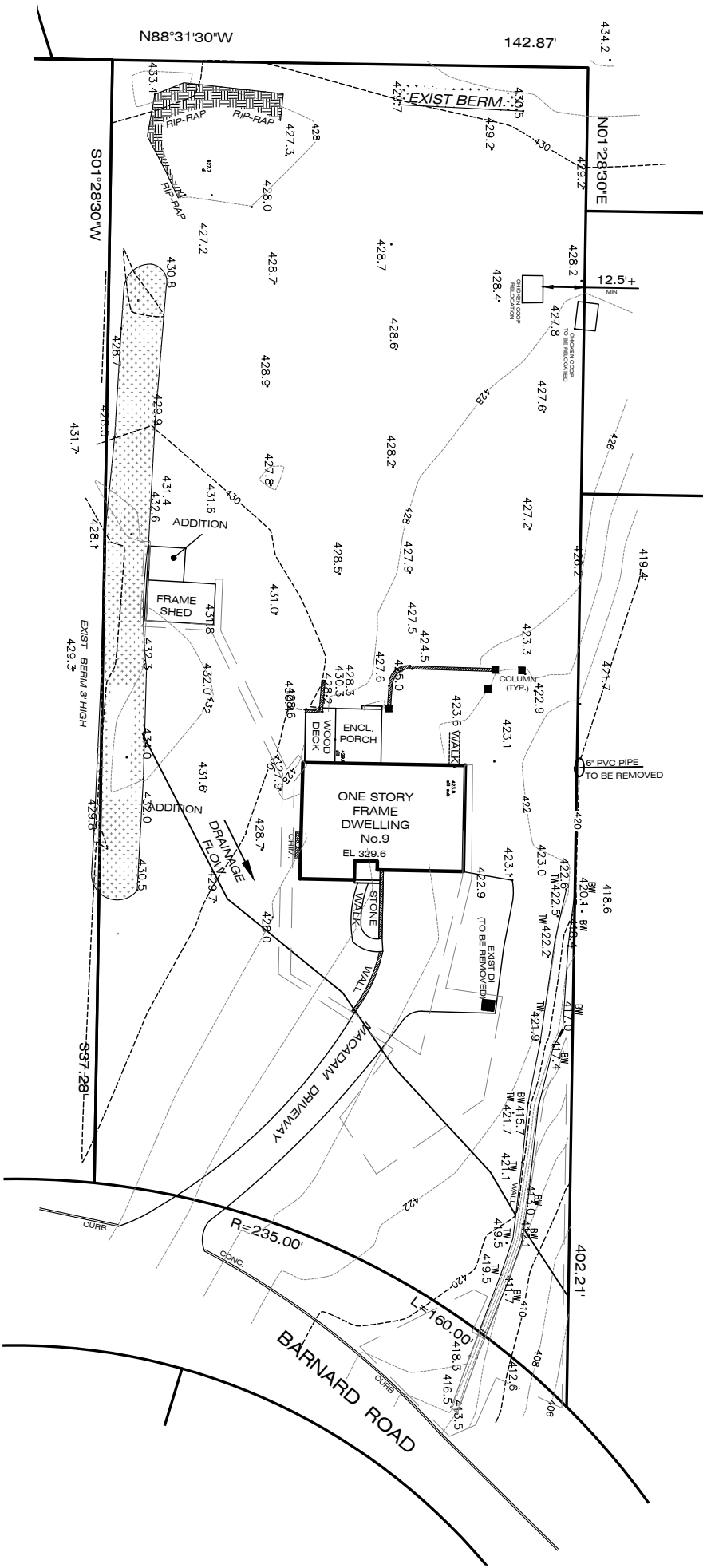


PRE-DEVELOPMENT



Routing Diagram for 9 BARNARD

Prepared by {enter your company name here}, Printed 7/22/2022
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EXISTING DRAINAGE

9 BARNARD

NRCC 24-hr C 25-Year Rainfall=6.49"

Prepared by {enter your company name here}

Printed 7/25/2022

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Page 1

Summary for Subcatchment PRE: PRE-DEVELOPMENT

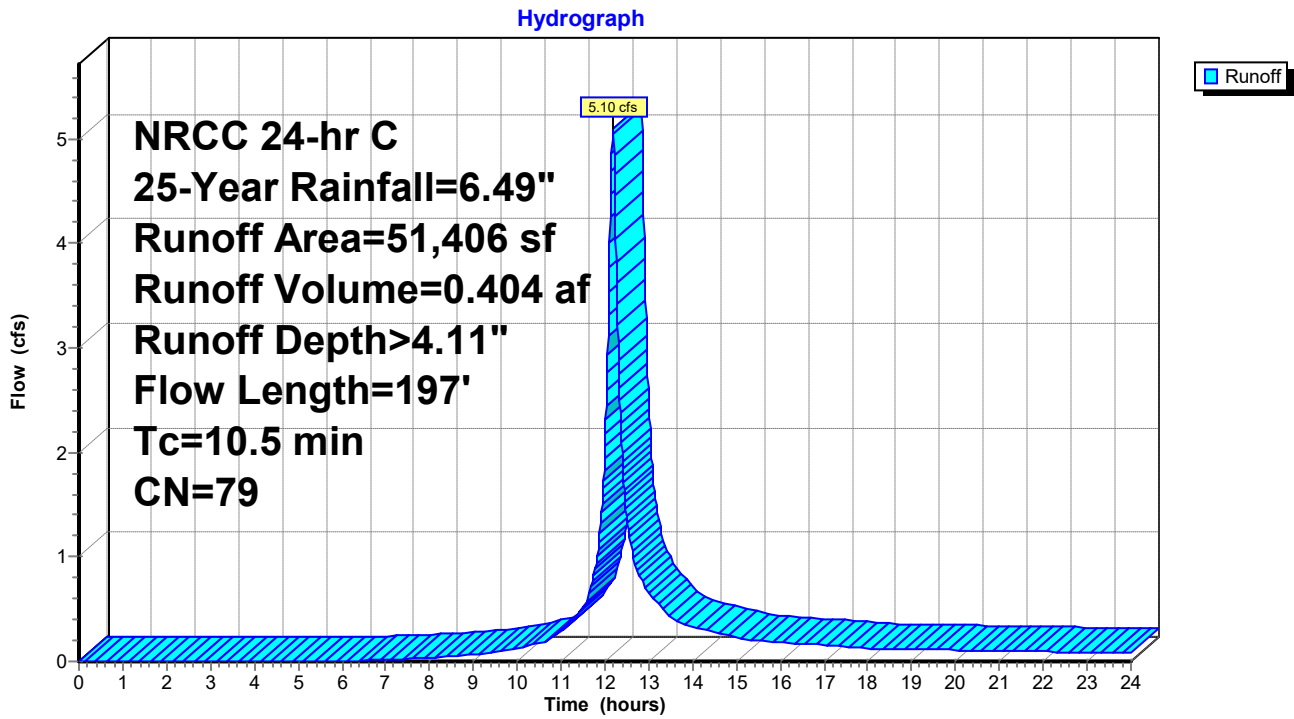
Runoff = 5.10 cfs @ 12.18 hrs, Volume= 0.404 af, Depth> 4.11"
 Routed to nonexistent node Entire Pre

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 NRCC 24-hr C 25-Year Rainfall=6.49"

Area (sf)	CN	Description
44,713	76	Woods/grass comb., Fair, HSG C
* 6,693	98	
51,406	79	Weighted Average
44,713		86.98% Pervious Area
6,693		13.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	24	0.0800	0.16		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
4.3	38	0.0520	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
3.4	38	0.0900	0.18		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
0.0	7	0.0900	4.83		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	13	0.0700	4.26		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.0	14	0.0700	5.37		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.2	41	0.0500	3.60		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.0	22	0.3300	9.25		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
10.5	197	Total			

Subcatchment PRE: PRE-DEVELOPMENT



9 BARNARD

NRCC 24-hr C 25-Year Rainfall=6.49"

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Page 3

Hydrograph for Subcatchment PRE: PRE-DEVELOPMENT

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.04	0.00	0.00
1.00	0.08	0.00	0.00
1.50	0.12	0.00	0.00
2.00	0.16	0.00	0.00
2.50	0.20	0.00	0.00
3.00	0.25	0.00	0.00
3.50	0.29	0.00	0.00
4.00	0.34	0.00	0.00
4.50	0.39	0.00	0.00
5.00	0.45	0.00	0.00
5.50	0.50	0.00	0.00
6.00	0.56	0.00	0.00
6.50	0.62	0.00	0.01
7.00	0.69	0.01	0.02
7.50	0.76	0.02	0.03
8.00	0.84	0.03	0.04
8.50	0.93	0.05	0.05
9.00	1.03	0.08	0.06
9.50	1.14	0.11	0.09
10.00	1.28	0.17	0.13
10.50	1.45	0.23	0.17
11.00	1.67	0.34	0.28
11.50	2.03	0.54	0.52
12.00	3.09	1.26	2.06
12.50	4.46	2.34	1.37
13.00	4.82	2.64	0.67
13.50	5.04	2.84	0.43
14.00	5.21	2.98	0.33
14.50	5.35	3.10	0.28
15.00	5.46	3.20	0.23
15.50	5.56	3.29	0.20
16.00	5.65	3.37	0.18
16.50	5.73	3.44	0.17
17.00	5.80	3.51	0.16
17.50	5.87	3.57	0.14
18.00	5.93	3.62	0.13
18.50	5.99	3.67	0.12
19.00	6.04	3.72	0.11
19.50	6.10	3.77	0.11
20.00	6.15	3.81	0.11
20.50	6.20	3.86	0.10
21.00	6.24	3.90	0.10
21.50	6.29	3.94	0.10
22.00	6.33	3.98	0.09
22.50	6.37	4.02	0.09
23.00	6.41	4.05	0.09
23.50	6.45	4.09	0.08
24.00	6.49	4.12	0.08

9 BARNARD

NRCC 24-hr C 100-Year Rainfall=9.28"

Prepared by {enter your company name here}

Printed 7/25/2022

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Page 4

Summary for Subcatchment PRE: PRE-DEVELOPMENT

Runoff = 8.14 cfs @ 12.18 hrs, Volume= 0.658 af, Depth> 6.69"
 Routed to nonexistent node Entire Pre

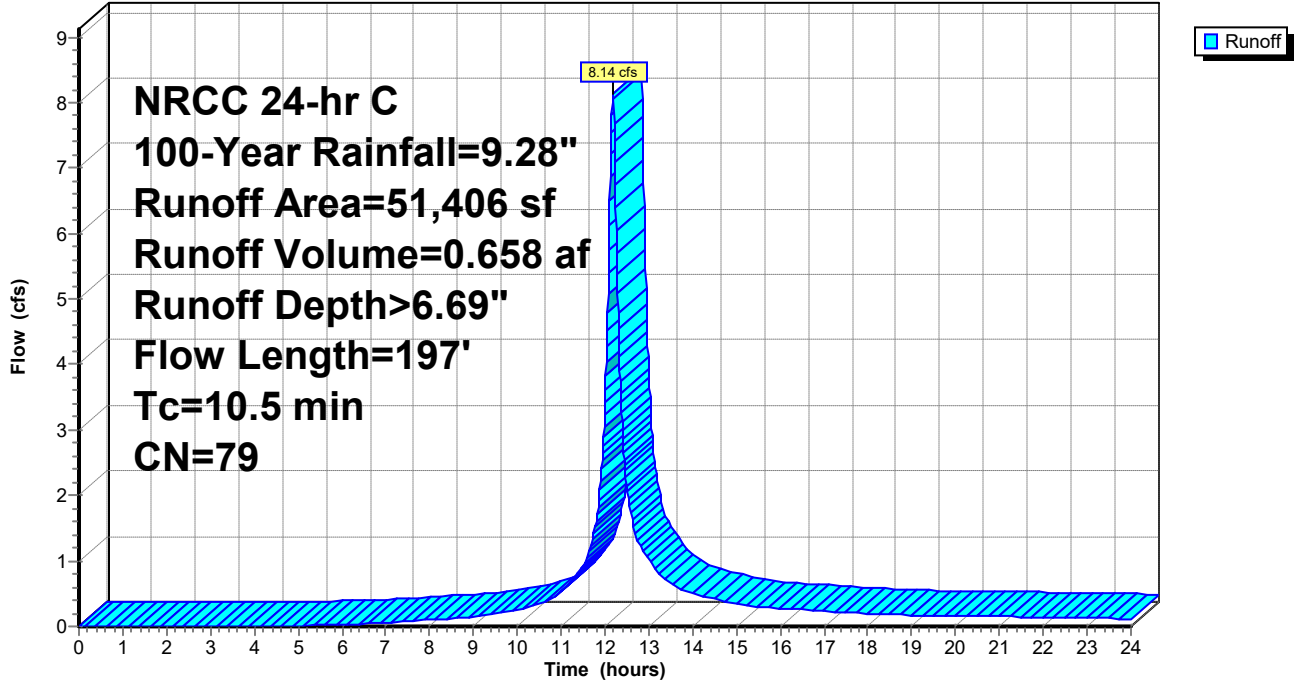
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 NRCC 24-hr C 100-Year Rainfall=9.28"

Area (sf)	CN	Description
44,713	76	Woods/grass comb., Fair, HSG C
* 6,693	98	
51,406	79	Weighted Average
44,713		86.98% Pervious Area
6,693		13.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	24	0.0800	0.16		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
4.3	38	0.0520	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
3.4	38	0.0900	0.18		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
0.0	7	0.0900	4.83		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	13	0.0700	4.26		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.0	14	0.0700	5.37		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.2	41	0.0500	3.60		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.0	22	0.3300	9.25		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
10.5	197	Total			

Subcatchment PRE: PRE-DEVELOPMENT

Hydrograph



9 BARNARD

NRCC 24-hr C 100-Year Rainfall=9.28"

Prepared by {enter your company name here}

Printed 7/25/2022

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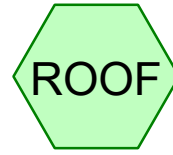
Page 6

Hydrograph for Subcatchment PRE: PRE-DEVELOPMENT

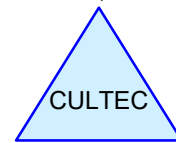
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.05	0.00	0.00
1.00	0.11	0.00	0.00
1.50	0.17	0.00	0.00
2.00	0.23	0.00	0.00
2.50	0.29	0.00	0.00
3.00	0.35	0.00	0.00
3.50	0.42	0.00	0.00
4.00	0.49	0.00	0.00
4.50	0.56	0.00	0.00
5.00	0.64	0.00	0.01
5.50	0.72	0.01	0.02
6.00	0.80	0.02	0.03
6.50	0.88	0.04	0.04
7.00	0.98	0.06	0.06
7.50	1.09	0.10	0.08
8.00	1.21	0.14	0.10
8.50	1.33	0.19	0.12
9.00	1.47	0.25	0.15
9.50	1.63	0.32	0.20
10.00	1.83	0.43	0.26
10.50	2.07	0.56	0.33
11.00	2.39	0.77	0.53
11.50	2.90	1.12	0.92
12.00	4.42	2.31	3.42
12.50	6.38	4.02	2.12
13.00	6.89	4.48	1.02
13.50	7.21	4.78	0.66
14.00	7.45	5.00	0.50
14.50	7.65	5.18	0.42
15.00	7.81	5.33	0.35
15.50	7.95	5.46	0.30
16.00	8.07	5.58	0.28
16.50	8.19	5.69	0.26
17.00	8.30	5.79	0.24
17.50	8.40	5.88	0.21
18.00	8.48	5.96	0.19
18.50	8.56	6.04	0.18
19.00	8.64	6.11	0.17
19.50	8.72	6.18	0.17
20.00	8.79	6.25	0.16
20.50	8.86	6.31	0.16
21.00	8.93	6.38	0.15
21.50	8.99	6.44	0.14
22.00	9.05	6.50	0.14
22.50	9.11	6.55	0.13
23.00	9.17	6.61	0.13
23.50	9.23	6.66	0.12
24.00	9.28	6.71	0.12



POST



ROOF

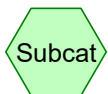


CULTEC

CULTEC



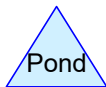
"A"



Subcat



Reach



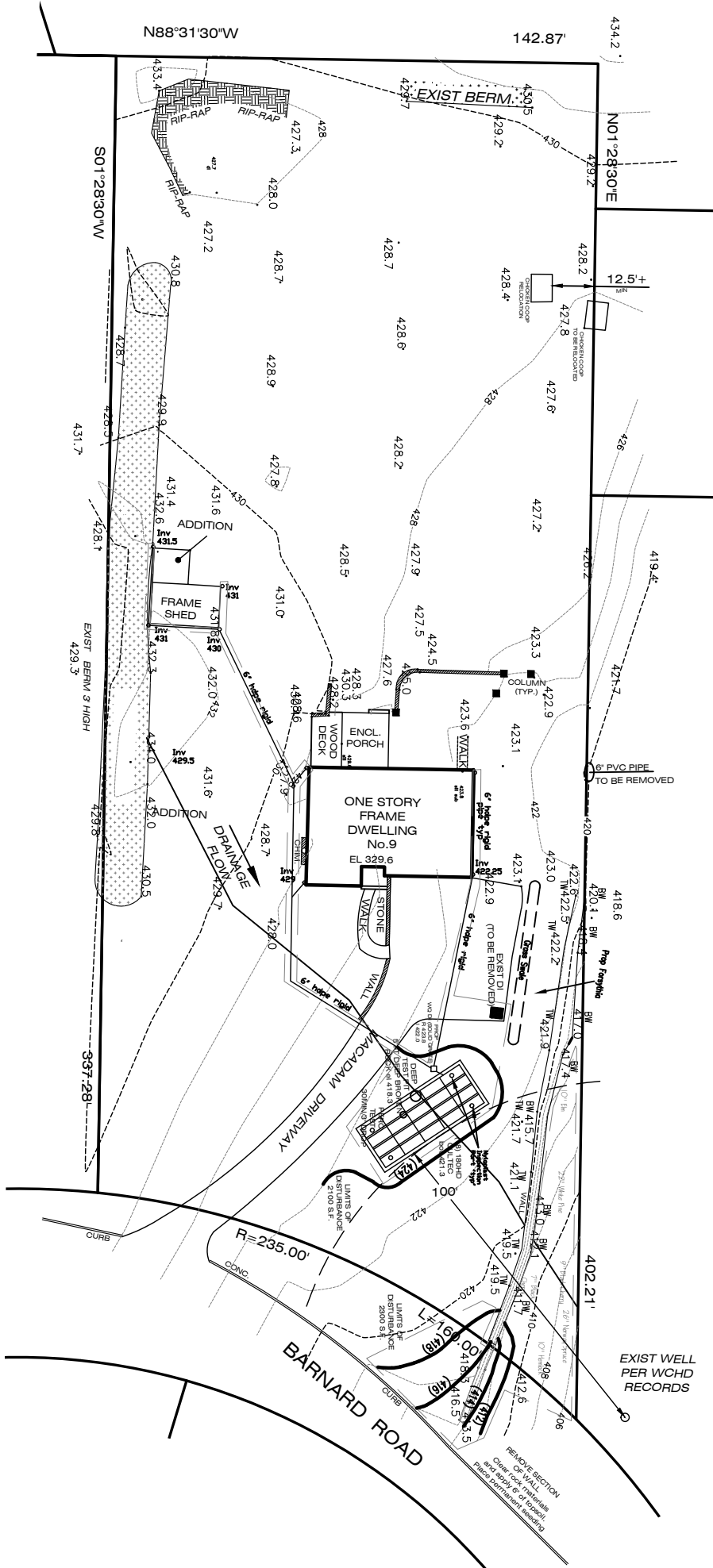
Pond



Link

Routing Diagram for 9 BARNARD

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PROPOSED DRAIANGE

N88°31'30"W

142.87'

434.2' NO1°28'30"E

S01°28'30"W

12.5'

6" PVC PIPE TO BE REMOVED

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EXIST WELL PER WCHD RECORDS

BARNARD ROAD

MACADAM DRIVEWAY

ONE STORY FRAME DWELLING No.9 EL 329.6

FRAME SHED

ADDITION

ADDITION

ADDITION

ADDITION

ADDITION

ADDITION

R=235.00'

L=16.00'

L=16.00'

L=16.00'

L=16.00'

L=16.00'

L=16.00'

L=16.00'

L=16.00'

L=16.00'

L=16.00'

REMOVE SECTION

Clear of all materials and debris. If possible, place permanent road log.

Clear of all materials and debris. If possible, place permanent road log.

Clear of all materials and debris. If possible, place permanent road log.

Clear of all materials and debris. If possible, place permanent road log.

9 BARNARD

NRCC 24-hr C 25-Year Rainfall=6.49"

Prepared by Gabriel E Senor PC

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Page 1

Summary for Subcatchment POST: POST

Runoff = 4.77 cfs @ 12.18 hrs, Volume= 0.377 af, Depth> 4.00"
 Routed to Link A : "A"

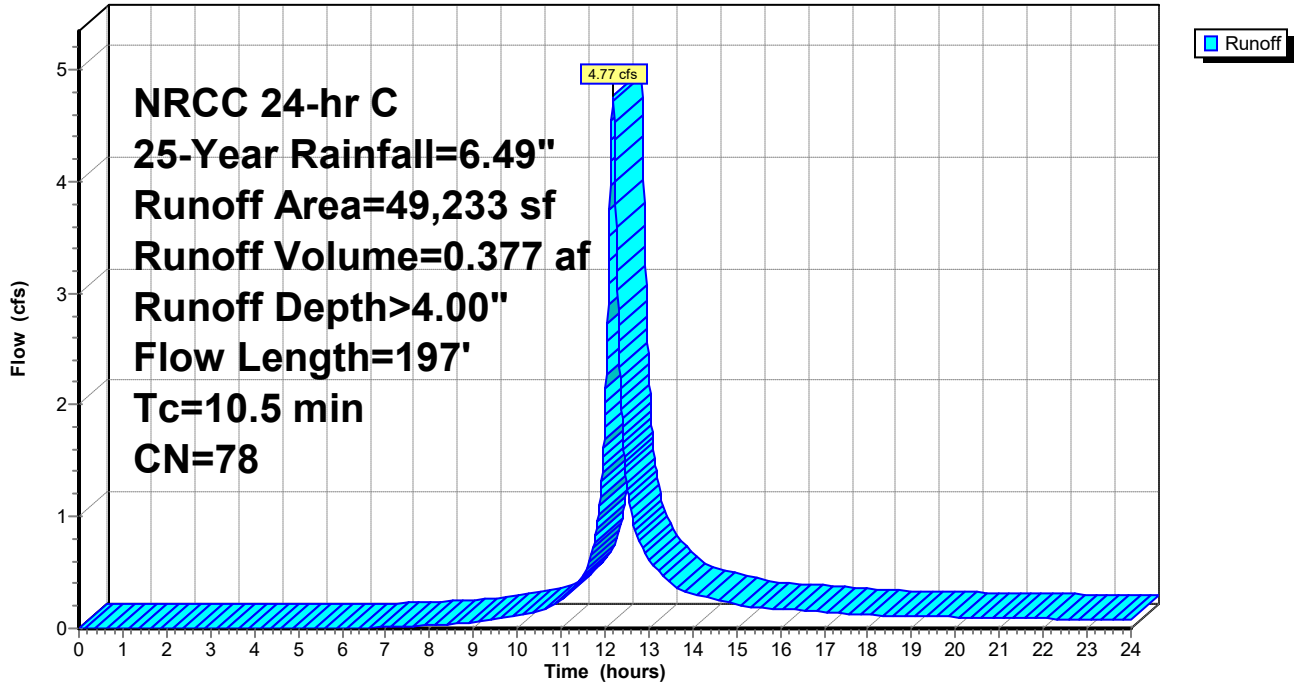
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 NRCC 24-hr C 25-Year Rainfall=6.49"

Area (sf)	CN	Description
44,580	76	Woods/grass comb., Fair, HSG C
* 4,653	98	
49,233	78	Weighted Average
44,580		90.55% Pervious Area
4,653		9.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	24	0.0800	0.16		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
4.3	38	0.0520	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
3.4	38	0.0900	0.18		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
0.0	7	0.0900	4.83		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	13	0.0700	4.26		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.0	14	0.0700	5.37		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.2	41	0.0500	3.60		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.0	22	0.2200	7.55		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
10.5	197	Total			

Subcatchment POST: POST

Hydrograph



9 BARNARD

NRCC 24-hr C 25-Year Rainfall=6.49"

Prepared by Gabriel E Senor PC

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Page 3

Hydrograph for Subcatchment POST: POST

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.04	0.00	0.00
1.00	0.08	0.00	0.00
1.50	0.12	0.00	0.00
2.00	0.16	0.00	0.00
2.50	0.20	0.00	0.00
3.00	0.25	0.00	0.00
3.50	0.29	0.00	0.00
4.00	0.34	0.00	0.00
4.50	0.39	0.00	0.00
5.00	0.45	0.00	0.00
5.50	0.50	0.00	0.00
6.00	0.56	0.00	0.00
6.50	0.62	0.00	0.00
7.00	0.69	0.01	0.01
7.50	0.76	0.01	0.02
8.00	0.84	0.03	0.03
8.50	0.93	0.04	0.04
9.00	1.03	0.07	0.06
9.50	1.14	0.10	0.08
10.00	1.28	0.15	0.11
10.50	1.45	0.21	0.15
11.00	1.67	0.31	0.26
11.50	2.03	0.50	0.47
12.00	3.09	1.19	1.91
12.50	4.46	2.26	1.29
13.00	4.82	2.56	0.63
13.50	5.04	2.75	0.41
14.00	5.21	2.89	0.31
14.50	5.35	3.01	0.26
15.00	5.46	3.11	0.22
15.50	5.56	3.19	0.19
16.00	5.65	3.27	0.17
16.50	5.73	3.34	0.16
17.00	5.80	3.41	0.15
17.50	5.87	3.47	0.13
18.00	5.93	3.52	0.12
18.50	5.99	3.57	0.11
19.00	6.04	3.62	0.11
19.50	6.10	3.66	0.11
20.00	6.15	3.71	0.10
20.50	6.20	3.75	0.10
21.00	6.24	3.79	0.10
21.50	6.29	3.84	0.09
22.00	6.33	3.87	0.09
22.50	6.37	3.91	0.08
23.00	6.41	3.95	0.08
23.50	6.45	3.98	0.08
24.00	6.49	4.01	0.07

9 BARNARD

NRCC 24-hr C 25-Year Rainfall=6.49"

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Summary for Subcatchment ROOF: ROOF

[49] Hint: $T_c < 2dt$ may require smaller dt

Runoff = 0.37 cfs @ 12.09 hrs, Volume= 0.026 af, Depth> 6.25"
Routed to Pond 1P : CULTEC

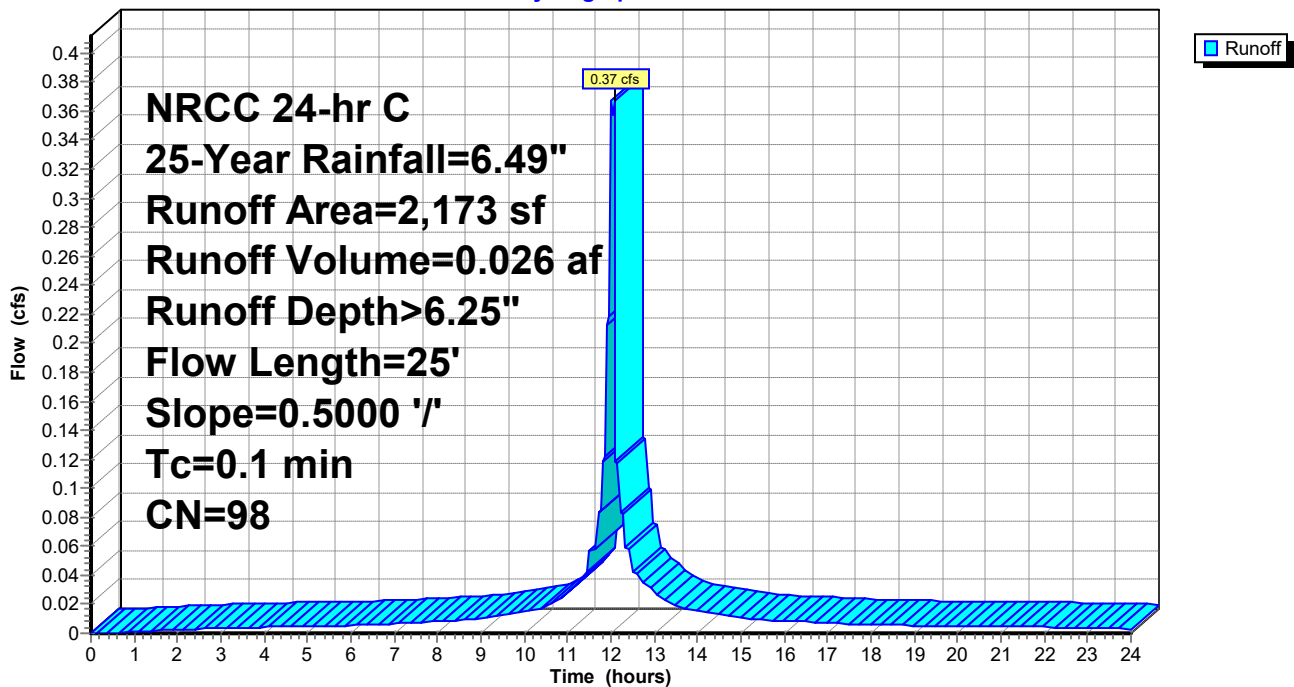
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
NRCC 24-hr C 25-Year Rainfall=6.49"

Area (sf)	CN	Description
2,173	98	Roofs, HSG C
2,173		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	25	0.5000	3.95		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.50"

Subcatchment ROOF: ROOF

Hydrograph



9 BARNARD

NRCC 24-hr C 25-Year Rainfall=6.49"

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Hydrograph for Subcatchment ROOF: ROOF

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.04	0.00	0.00
1.00	0.08	0.00	0.00
1.50	0.12	0.02	0.00
2.00	0.16	0.04	0.00
2.50	0.20	0.07	0.00
3.00	0.25	0.10	0.00
3.50	0.29	0.14	0.00
4.00	0.34	0.18	0.00
4.50	0.39	0.22	0.00
5.00	0.45	0.27	0.00
5.50	0.50	0.32	0.01
6.00	0.56	0.37	0.01
6.50	0.62	0.43	0.01
7.00	0.69	0.49	0.01
7.50	0.76	0.56	0.01
8.00	0.84	0.64	0.01
8.50	0.93	0.73	0.01
9.00	1.03	0.82	0.01
9.50	1.14	0.93	0.01
10.00	1.28	1.07	0.01
10.50	1.45	1.23	0.02
11.00	1.67	1.45	0.03
11.50	2.03	1.81	0.05
12.00	3.09	2.86	0.27
12.50	4.46	4.22	0.05
13.00	4.82	4.58	0.03
13.50	5.04	4.81	0.02
14.00	5.21	4.97	0.02
14.50	5.35	5.11	0.01
15.00	5.46	5.22	0.01
15.50	5.56	5.32	0.01
16.00	5.65	5.41	0.01
16.50	5.73	5.49	0.01
17.00	5.80	5.57	0.01
17.50	5.87	5.63	0.01
18.00	5.93	5.70	0.01
18.50	5.99	5.75	0.01
19.00	6.04	5.81	0.01
19.50	6.10	5.86	0.01
20.00	6.15	5.91	0.01
20.50	6.20	5.96	0.00
21.00	6.24	6.00	0.00
21.50	6.29	6.05	0.00
22.00	6.33	6.09	0.00
22.50	6.37	6.14	0.00
23.00	6.41	6.18	0.00
23.50	6.45	6.21	0.00
24.00	6.49	6.25	0.00

Summary for Pond 1P: CULTEC

[92] Warning: Device #2 is above defined storage

Inflow Area = 0.050 ac, 100.00% Impervious, Inflow Depth > 6.25" for 25-Year event
 Inflow = 0.37 cfs @ 12.09 hrs, Volume= 0.026 af
 Outflow = 0.07 cfs @ 11.72 hrs, Volume= 0.026 af, Atten= 82%, Lag= 0.0 min
 Discarded = 0.07 cfs @ 11.72 hrs, Volume= 0.026 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link A : "A"

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 421.90' @ 12.30 hrs Surf.Area= 488 sf Storage= 213 cf

Plug-Flow detention time= 14.6 min calculated for 0.026 af (100% of inflow)
 Center-of-Mass det. time= 14.4 min (754.0 - 739.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	421.21'	259 cf	15.00'W x 32.50'L x 1.79'H Field A 873 cf Overall - 227 cf Embedded = 646 cf x 40.0% Voids
#2A	421.46'	227 cf	Cultec C-100HD x 16 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 4 rows
#3	422.50'	1 cf	0.50'D x 1.50'H Vertical Cone/Cylinder x 4 -Impervious
		487 cf	Total Available Storage

Storage Group A created with Chamber Wizard

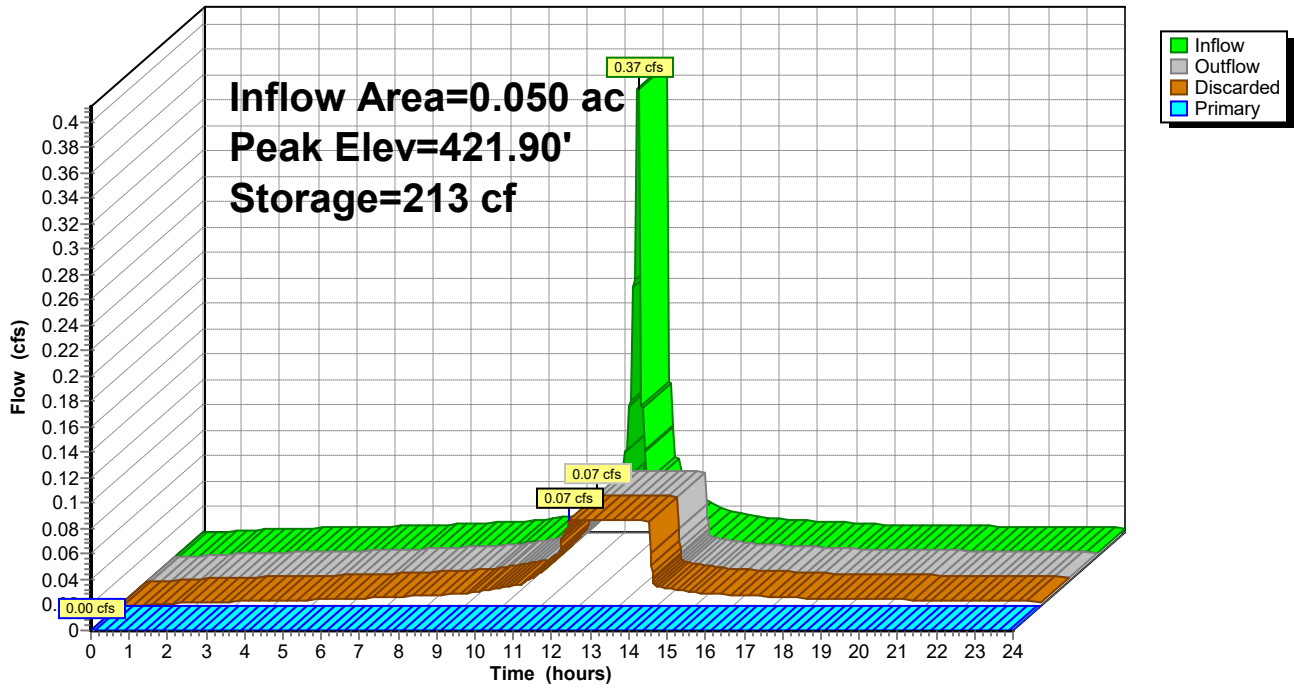
Device	Routing	Invert	Outlet Devices
#1	Discarded	421.21'	6.000 in/hr Exfiltration over Surface area
#2	Primary	424.00'	6.0" Horiz. Pop Up Emitter X 4.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.07 cfs @ 11.72 hrs HW=421.24' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=421.21' (Free Discharge)
 ↑2=Pop Up Emitter (Controls 0.00 cfs)

Pond 1P: CULTEC

Hydrograph



9 BARNARD

NRCC 24-hr C 25-Year Rainfall=6.49"

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Hydrograph for Pond 1P: CULTEC

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	421.21	0.00	0.00	0.00
0.50	0.00	0	421.21	0.00	0.00	0.00
1.00	0.00	0	421.21	0.00	0.00	0.00
1.50	0.00	0	421.21	0.00	0.00	0.00
2.00	0.00	0	421.21	0.00	0.00	0.00
2.50	0.00	0	421.21	0.00	0.00	0.00
3.00	0.00	0	421.21	0.00	0.00	0.00
3.50	0.00	0	421.21	0.00	0.00	0.00
4.00	0.00	0	421.21	0.00	0.00	0.00
4.50	0.00	0	421.21	0.00	0.00	0.00
5.00	0.00	0	421.21	0.00	0.00	0.00
5.50	0.01	0	421.21	0.01	0.01	0.00
6.00	0.01	0	421.21	0.01	0.01	0.00
6.50	0.01	0	421.21	0.01	0.01	0.00
7.00	0.01	1	421.21	0.01	0.01	0.00
7.50	0.01	1	421.21	0.01	0.01	0.00
8.00	0.01	1	421.21	0.01	0.01	0.00
8.50	0.01	1	421.21	0.01	0.01	0.00
9.00	0.01	1	421.21	0.01	0.01	0.00
9.50	0.01	1	421.22	0.01	0.01	0.00
10.00	0.01	1	421.22	0.01	0.01	0.00
10.50	0.02	1	421.22	0.02	0.02	0.00
11.00	0.03	2	421.22	0.03	0.03	0.00
11.50	0.05	3	421.23	0.04	0.04	0.00
12.00	0.27	81	421.54	0.07	0.07	0.00
12.50	0.05	206	421.88	0.07	0.07	0.00
13.00	0.03	149	421.72	0.07	0.07	0.00
13.50	0.02	68	421.51	0.07	0.07	0.00
14.00	0.02	1	421.22	0.02	0.02	0.00
14.50	0.01	1	421.22	0.01	0.01	0.00
15.00	0.01	1	421.21	0.01	0.01	0.00
15.50	0.01	1	421.21	0.01	0.01	0.00
16.00	0.01	1	421.21	0.01	0.01	0.00
16.50	0.01	1	421.21	0.01	0.01	0.00
17.00	0.01	1	421.21	0.01	0.01	0.00
17.50	0.01	1	421.21	0.01	0.01	0.00
18.00	0.01	0	421.21	0.01	0.01	0.00
18.50	0.01	0	421.21	0.01	0.01	0.00
19.00	0.01	0	421.21	0.01	0.01	0.00
19.50	0.01	0	421.21	0.01	0.01	0.00
20.00	0.01	0	421.21	0.01	0.01	0.00
20.50	0.00	0	421.21	0.00	0.00	0.00
21.00	0.00	0	421.21	0.00	0.00	0.00
21.50	0.00	0	421.21	0.00	0.00	0.00
22.00	0.00	0	421.21	0.00	0.00	0.00
22.50	0.00	0	421.21	0.00	0.00	0.00
23.00	0.00	0	421.21	0.00	0.00	0.00
23.50	0.00	0	421.21	0.00	0.00	0.00
24.00	0.00	0	421.21	0.00	0.00	0.00

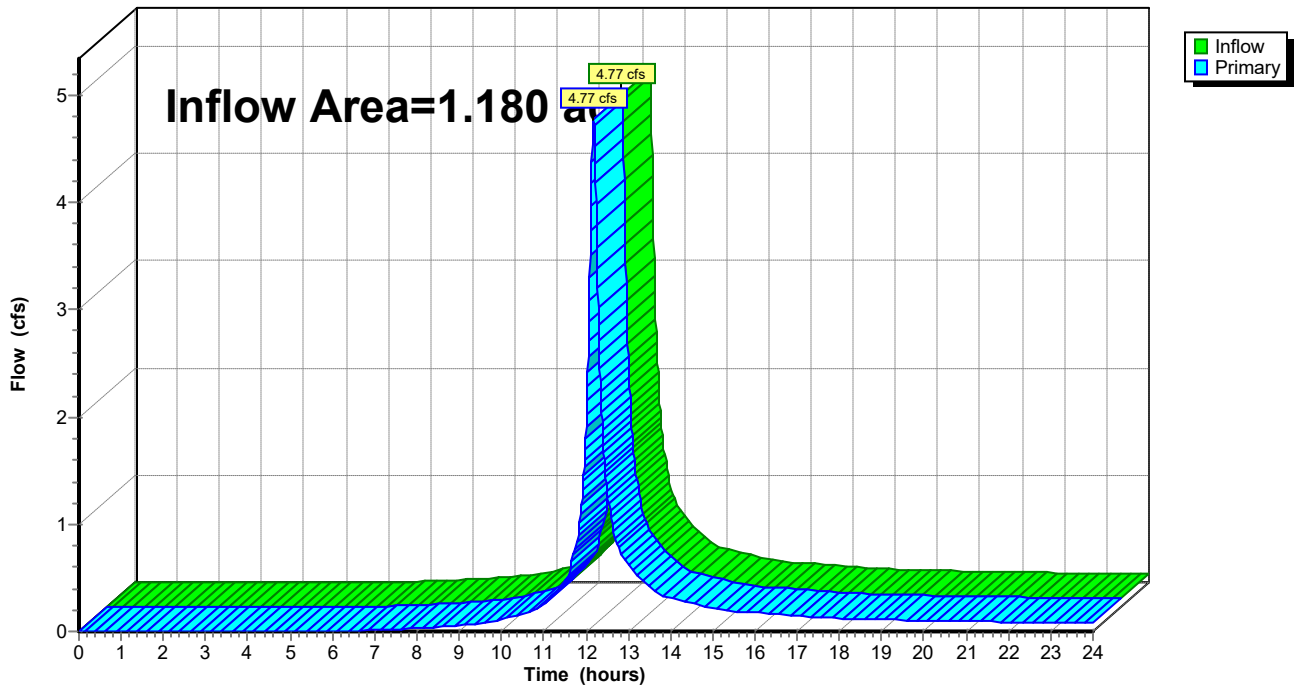
Summary for Link A: "A"

Inflow Area = 1.180 ac, 13.28% Impervious, Inflow Depth > 3.84" for 25-Year event
Inflow = 4.77 cfs @ 12.18 hrs, Volume= 0.377 af
Primary = 4.77 cfs @ 12.18 hrs, Volume= 0.377 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link A: "A"

Hydrograph



9 BARNARD

NRCC 24-hr C 25-Year Rainfall=6.49"

Prepared by Gabriel E Senor PC

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Hydrograph for Link A: "A"

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00
7.00	0.01	0.00	0.01
7.50	0.02	0.00	0.02
8.00	0.03	0.00	0.03
8.50	0.04	0.00	0.04
9.00	0.06	0.00	0.06
9.50	0.08	0.00	0.08
10.00	0.11	0.00	0.11
10.50	0.15	0.00	0.15
11.00	0.26	0.00	0.26
11.50	0.47	0.00	0.47
12.00	1.91	0.00	1.91
12.50	1.29	0.00	1.29
13.00	0.63	0.00	0.63
13.50	0.41	0.00	0.41
14.00	0.31	0.00	0.31
14.50	0.26	0.00	0.26
15.00	0.22	0.00	0.22
15.50	0.19	0.00	0.19
16.00	0.17	0.00	0.17
16.50	0.16	0.00	0.16
17.00	0.15	0.00	0.15
17.50	0.13	0.00	0.13
18.00	0.12	0.00	0.12
18.50	0.11	0.00	0.11
19.00	0.11	0.00	0.11
19.50	0.11	0.00	0.11
20.00	0.10	0.00	0.10
20.50	0.10	0.00	0.10
21.00	0.10	0.00	0.10
21.50	0.09	0.00	0.09
22.00	0.09	0.00	0.09
22.50	0.08	0.00	0.08
23.00	0.08	0.00	0.08
23.50	0.08	0.00	0.08
24.00	0.07	0.00	0.07

9 BARNARD

NRCC 24-hr C 100-Year Rainfall=9.28"

Prepared by Gabriel E Senor PC

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Summary for Subcatchment POST: POST

Runoff = 7.68 cfs @ 12.18 hrs, Volume= 0.619 af, Depth> 6.57"
 Routed to Link A : "A"

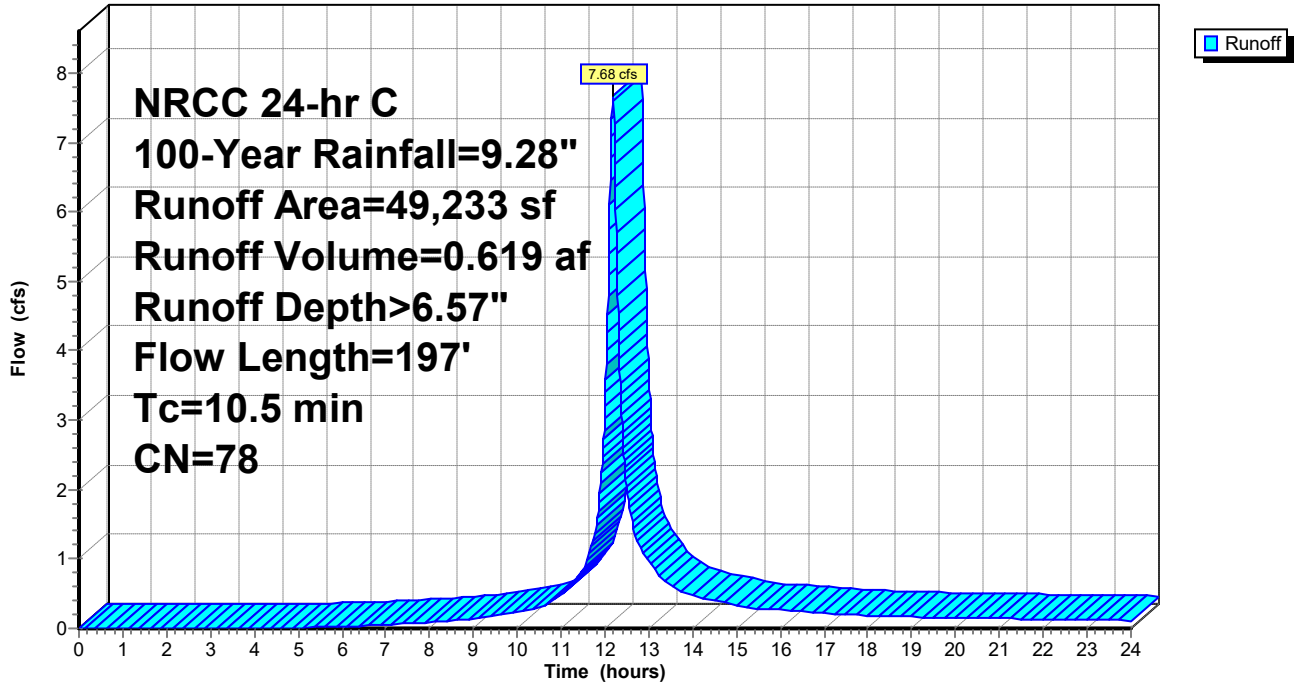
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 NRCC 24-hr C 100-Year Rainfall=9.28"

Area (sf)	CN	Description
44,580	76	Woods/grass comb., Fair, HSG C
* 4,653	98	
49,233	78	Weighted Average
44,580		90.55% Pervious Area
4,653		9.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	24	0.0800	0.16		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
4.3	38	0.0520	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
3.4	38	0.0900	0.18		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
0.0	7	0.0900	4.83		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	13	0.0700	4.26		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.0	14	0.0700	5.37		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.2	41	0.0500	3.60		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.0	22	0.2200	7.55		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
10.5	197	Total			

Subcatchment POST: POST

Hydrograph



9 BARNARD

NRCC 24-hr C 100-Year Rainfall=9.28"

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Hydrograph for Subcatchment POST: POST

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.05	0.00	0.00
1.00	0.11	0.00	0.00
1.50	0.17	0.00	0.00
2.00	0.23	0.00	0.00
2.50	0.29	0.00	0.00
3.00	0.35	0.00	0.00
3.50	0.42	0.00	0.00
4.00	0.49	0.00	0.00
4.50	0.56	0.00	0.00
5.00	0.64	0.00	0.01
5.50	0.72	0.01	0.01
6.00	0.80	0.02	0.02
6.50	0.88	0.03	0.04
7.00	0.98	0.05	0.05
7.50	1.09	0.08	0.07
8.00	1.21	0.12	0.09
8.50	1.33	0.16	0.11
9.00	1.47	0.22	0.13
9.50	1.63	0.29	0.18
10.00	1.83	0.39	0.24
10.50	2.07	0.52	0.31
11.00	2.39	0.72	0.49
11.50	2.90	1.06	0.85
12.00	4.42	2.23	3.21
12.50	6.38	3.91	2.01
13.00	6.89	4.37	0.97
13.50	7.21	4.67	0.63
14.00	7.45	4.88	0.47
14.50	7.65	5.06	0.40
15.00	7.81	5.21	0.33
15.50	7.95	5.34	0.29
16.00	8.07	5.46	0.27
16.50	8.19	5.57	0.24
17.00	8.30	5.67	0.22
17.50	8.40	5.76	0.20
18.00	8.48	5.84	0.18
18.50	8.56	5.91	0.17
19.00	8.64	5.99	0.16
19.50	8.72	6.06	0.16
20.00	8.79	6.13	0.15
20.50	8.86	6.19	0.15
21.00	8.93	6.25	0.14
21.50	8.99	6.31	0.14
22.00	9.05	6.37	0.13
22.50	9.11	6.43	0.13
23.00	9.17	6.48	0.12
23.50	9.23	6.54	0.12
24.00	9.28	6.58	0.11

9 BARNARD

NRCC 24-hr C 100-Year Rainfall=9.28"

Prepared by Gabriel E Senor PC

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Summary for Subcatchment ROOF: ROOF

[49] Hint: $T_c < 2dt$ may require smaller dt

Runoff = 0.53 cfs @ 12.09 hrs, Volume= 0.038 af, Depth> 9.04"
Routed to Pond 1P : CULTEC

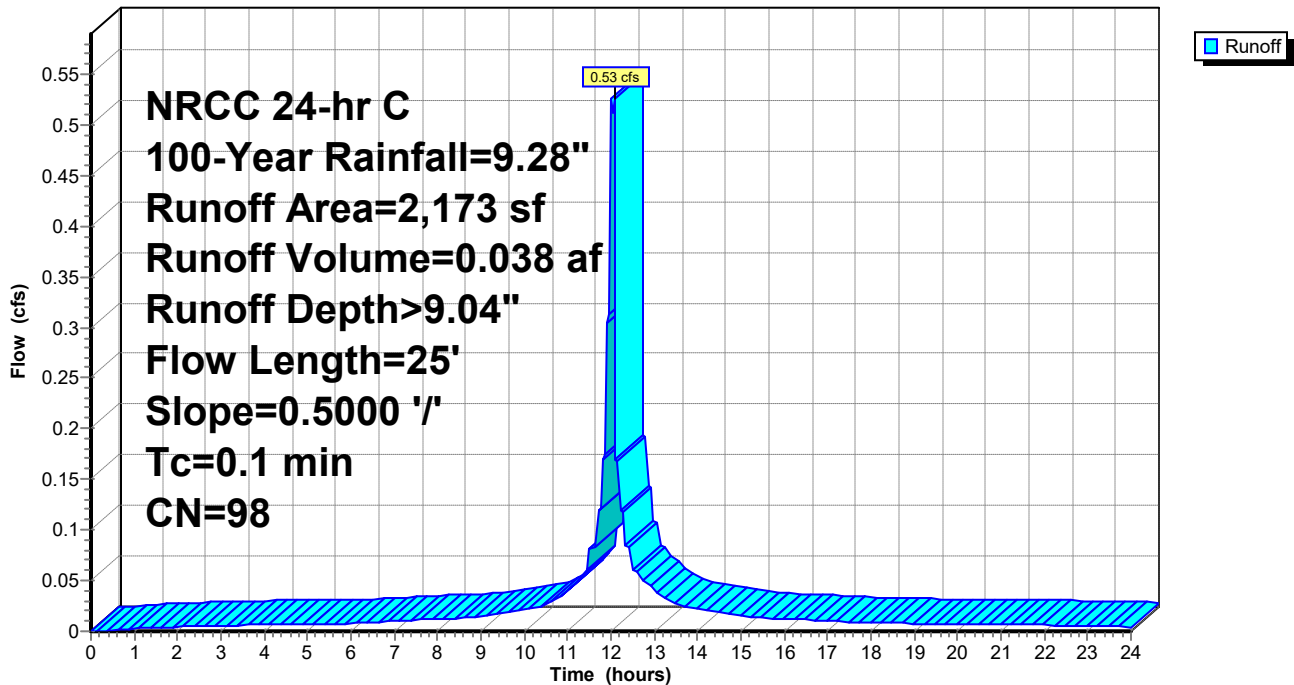
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
NRCC 24-hr C 100-Year Rainfall=9.28"

Area (sf)	CN	Description
2,173	98	Roofs, HSG C
2,173		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	25	0.5000	3.95		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.50"

Subcatchment ROOF: ROOF

Hydrograph



9 BARNARD

NRCC 24-hr C 100-Year Rainfall=9.28"

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Hydrograph for Subcatchment ROOF: ROOF

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.05	0.00	0.00
1.00	0.11	0.02	0.00
1.50	0.17	0.05	0.00
2.00	0.23	0.09	0.00
2.50	0.29	0.14	0.01
3.00	0.35	0.19	0.01
3.50	0.42	0.25	0.01
4.00	0.49	0.31	0.01
4.50	0.56	0.38	0.01
5.00	0.64	0.45	0.01
5.50	0.72	0.52	0.01
6.00	0.80	0.59	0.01
6.50	0.88	0.68	0.01
7.00	0.98	0.77	0.01
7.50	1.09	0.88	0.01
8.00	1.21	0.99	0.01
8.50	1.33	1.12	0.01
9.00	1.47	1.25	0.01
9.50	1.63	1.41	0.02
10.00	1.83	1.61	0.02
10.50	2.07	1.84	0.03
11.00	2.39	2.16	0.04
11.50	2.90	2.67	0.07
12.00	4.42	4.18	0.38
12.50	6.38	6.14	0.07
13.00	6.89	6.65	0.04
13.50	7.21	6.97	0.03
14.00	7.45	7.21	0.02
14.50	7.65	7.41	0.02
15.00	7.81	7.57	0.01
15.50	7.95	7.71	0.01
16.00	8.07	7.83	0.01
16.50	8.19	7.95	0.01
17.00	8.30	8.06	0.01
17.50	8.40	8.16	0.01
18.00	8.48	8.24	0.01
18.50	8.56	8.32	0.01
19.00	8.64	8.40	0.01
19.50	8.72	8.48	0.01
20.00	8.79	8.55	0.01
20.50	8.86	8.62	0.01
21.00	8.93	8.69	0.01
21.50	8.99	8.75	0.01
22.00	9.05	8.81	0.01
22.50	9.11	8.87	0.01
23.00	9.17	8.93	0.01
23.50	9.23	8.99	0.01
24.00	9.28	9.04	0.00

Summary for Pond 1P: CULTEC

[92] Warning: Device #2 is above defined storage

Inflow Area = 0.050 ac, 100.00% Impervious, Inflow Depth > 9.04" for 100-Year event
 Inflow = 0.53 cfs @ 12.09 hrs, Volume= 0.038 af
 Outflow = 0.07 cfs @ 11.52 hrs, Volume= 0.038 af, Atten= 87%, Lag= 0.0 min
 Discarded = 0.07 cfs @ 11.52 hrs, Volume= 0.038 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link A : "A"

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 422.50' @ 12.50 hrs Surf.Area= 488 sf Storage= 388 cf

Plug-Flow detention time= 30.2 min calculated for 0.038 af (100% of inflow)
 Center-of-Mass det. time= 30.1 min (764.8 - 734.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	421.21'	259 cf	15.00'W x 32.50'L x 1.79'H Field A 873 cf Overall - 227 cf Embedded = 646 cf x 40.0% Voids
#2A	421.46'	227 cf	Cultec C-100HD x 16 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 4 rows
#3	422.50'	1 cf	0.50'D x 1.50'H Vertical Cone/Cylinder x 4 -Impervious
		487 cf	Total Available Storage

Storage Group A created with Chamber Wizard

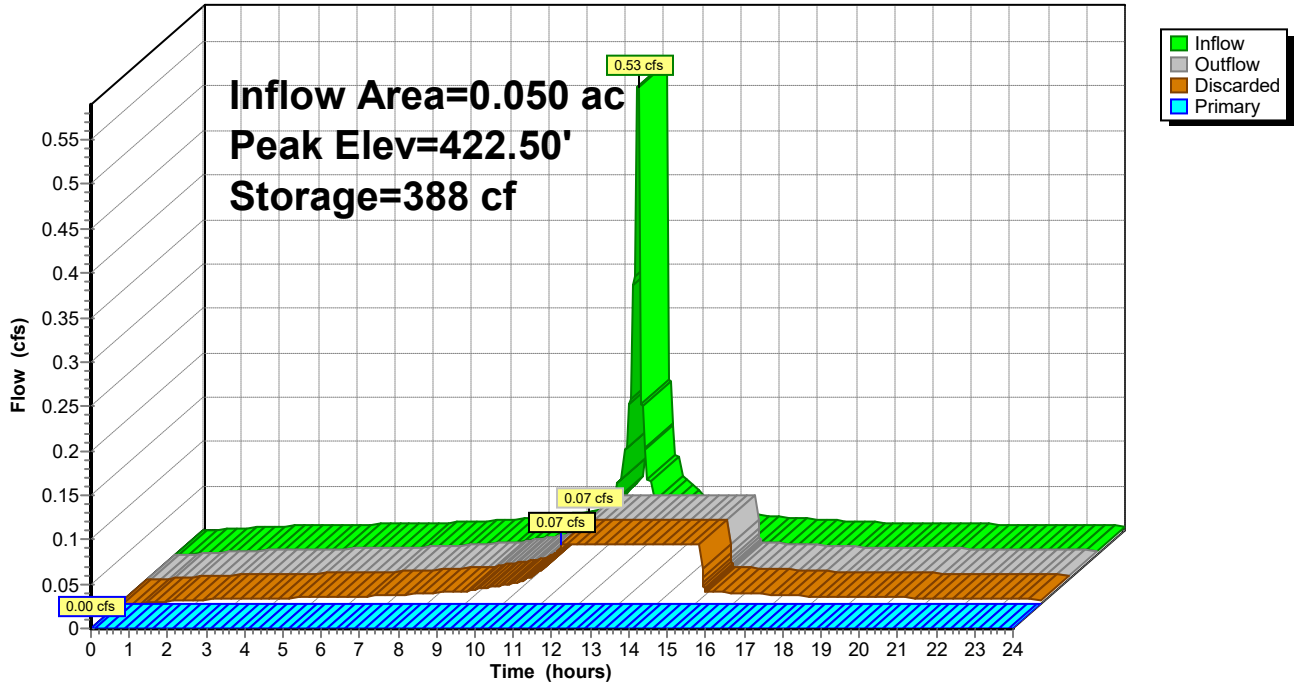
Device	Routing	Invert	Outlet Devices
#1	Discarded	421.21'	6.000 in/hr Exfiltration over Surface area
#2	Primary	424.00'	6.0" Horiz. Pop Up Emitter X 4.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.07 cfs @ 11.52 hrs HW=421.24' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=421.21' (Free Discharge)
 ↑2=Pop Up Emitter (Controls 0.00 cfs)

Pond 1P: CULTEC

Hydrograph



9 BARNARD

NRCC 24-hr C 100-Year Rainfall=9.28"

Prepared by Gabriel E Senor PC

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Hydrograph for Pond 1P: CULTEC

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	421.21	0.00	0.00	0.00
0.50	0.00	0	421.21	0.00	0.00	0.00
1.00	0.00	0	421.21	0.00	0.00	0.00
1.50	0.00	0	421.21	0.00	0.00	0.00
2.00	0.00	0	421.21	0.00	0.00	0.00
2.50	0.01	0	421.21	0.01	0.01	0.00
3.00	0.01	0	421.21	0.01	0.01	0.00
3.50	0.01	0	421.21	0.01	0.01	0.00
4.00	0.01	1	421.21	0.01	0.01	0.00
4.50	0.01	1	421.21	0.01	0.01	0.00
5.00	0.01	1	421.21	0.01	0.01	0.00
5.50	0.01	1	421.21	0.01	0.01	0.00
6.00	0.01	1	421.21	0.01	0.01	0.00
6.50	0.01	1	421.21	0.01	0.01	0.00
7.00	0.01	1	421.21	0.01	0.01	0.00
7.50	0.01	1	421.21	0.01	0.01	0.00
8.00	0.01	1	421.21	0.01	0.01	0.00
8.50	0.01	1	421.22	0.01	0.01	0.00
9.00	0.01	1	421.22	0.01	0.01	0.00
9.50	0.02	1	421.22	0.02	0.02	0.00
10.00	0.02	2	421.22	0.02	0.02	0.00
10.50	0.03	2	421.22	0.02	0.02	0.00
11.00	0.04	3	421.23	0.04	0.04	0.00
11.50	0.07	5	421.24	0.06	0.06	0.00
12.00	0.38	157	421.74	0.07	0.07	0.00
12.50	0.07	388	422.50	0.07	0.07	0.00
13.00	0.04	359	422.36	0.07	0.07	0.00
13.50	0.03	296	422.14	0.07	0.07	0.00
14.00	0.02	217	421.91	0.07	0.07	0.00
14.50	0.02	131	421.68	0.07	0.07	0.00
15.00	0.01	39	421.41	0.07	0.07	0.00
15.50	0.01	1	421.22	0.01	0.01	0.00
16.00	0.01	1	421.22	0.01	0.01	0.00
16.50	0.01	1	421.21	0.01	0.01	0.00
17.00	0.01	1	421.21	0.01	0.01	0.00
17.50	0.01	1	421.21	0.01	0.01	0.00
18.00	0.01	1	421.21	0.01	0.01	0.00
18.50	0.01	1	421.21	0.01	0.01	0.00
19.00	0.01	1	421.21	0.01	0.01	0.00
19.50	0.01	1	421.21	0.01	0.01	0.00
20.00	0.01	1	421.21	0.01	0.01	0.00
20.50	0.01	1	421.21	0.01	0.01	0.00
21.00	0.01	1	421.21	0.01	0.01	0.00
21.50	0.01	1	421.21	0.01	0.01	0.00
22.00	0.01	0	421.21	0.01	0.01	0.00
22.50	0.01	0	421.21	0.01	0.01	0.00
23.00	0.01	0	421.21	0.01	0.01	0.00
23.50	0.01	0	421.21	0.01	0.01	0.00
24.00	0.00	0	421.21	0.00	0.00	0.00

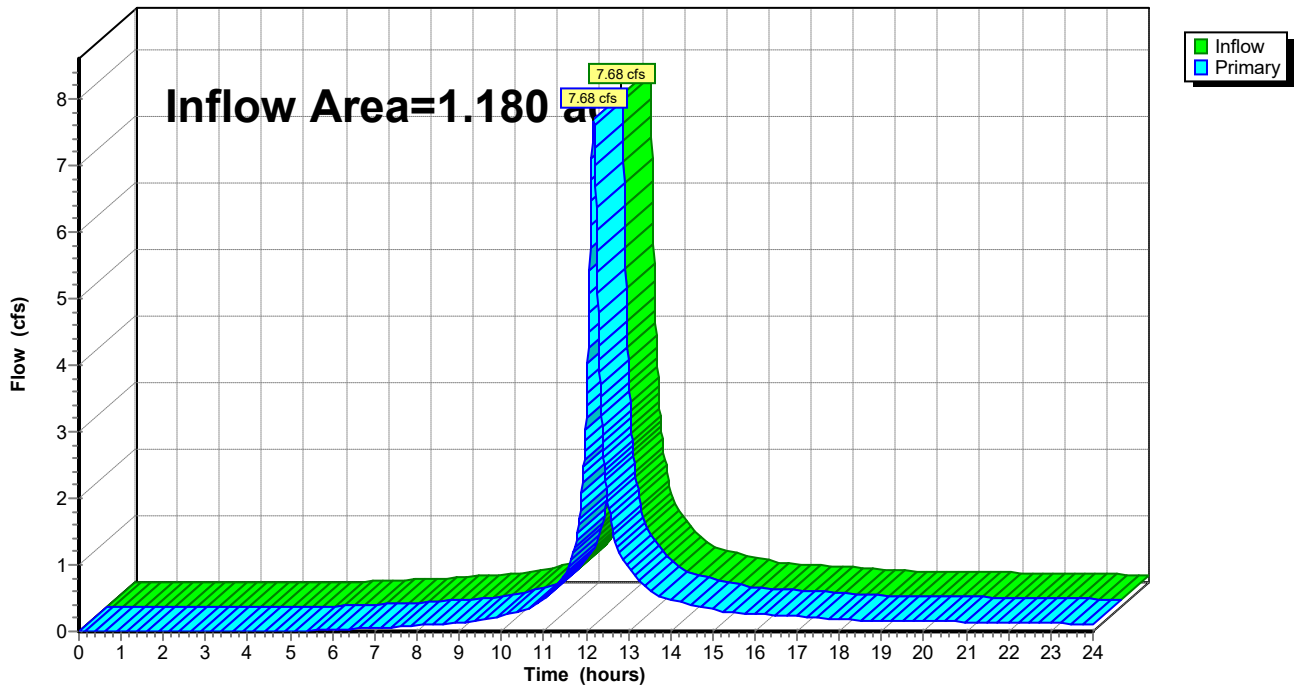
Summary for Link A: "A"

Inflow Area = 1.180 ac, 13.28% Impervious, Inflow Depth > 6.29" for 100-Year event
Inflow = 7.68 cfs @ 12.18 hrs, Volume= 0.619 af
Primary = 7.68 cfs @ 12.18 hrs, Volume= 0.619 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link A: "A"

Hydrograph



9 BARNARD

NRCC 24-hr C 100-Year Rainfall=9.28"

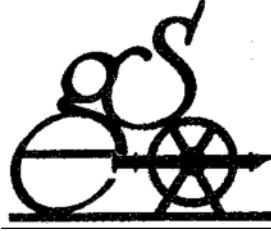
Prepared by Gabriel E Senor PC

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Hydrograph for Link A: "A"

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00
5.00	0.01	0.00	0.01
5.50	0.01	0.00	0.01
6.00	0.02	0.00	0.02
6.50	0.04	0.00	0.04
7.00	0.05	0.00	0.05
7.50	0.07	0.00	0.07
8.00	0.09	0.00	0.09
8.50	0.11	0.00	0.11
9.00	0.13	0.00	0.13
9.50	0.18	0.00	0.18
10.00	0.24	0.00	0.24
10.50	0.31	0.00	0.31
11.00	0.49	0.00	0.49
11.50	0.85	0.00	0.85
12.00	3.21	0.00	3.21
12.50	2.01	0.00	2.01
13.00	0.97	0.00	0.97
13.50	0.63	0.00	0.63
14.00	0.47	0.00	0.47
14.50	0.40	0.00	0.40
15.00	0.33	0.00	0.33
15.50	0.29	0.00	0.29
16.00	0.27	0.00	0.27
16.50	0.24	0.00	0.24
17.00	0.22	0.00	0.22
17.50	0.20	0.00	0.20
18.00	0.18	0.00	0.18
18.50	0.17	0.00	0.17
19.00	0.16	0.00	0.16
19.50	0.16	0.00	0.16
20.00	0.15	0.00	0.15
20.50	0.15	0.00	0.15
21.00	0.14	0.00	0.14
21.50	0.14	0.00	0.14
22.00	0.13	0.00	0.13
22.50	0.13	0.00	0.13
23.00	0.12	0.00	0.12
23.50	0.12	0.00	0.12
24.00	0.11	0.00	0.11



Gabriel E. Senior, P.C.

Engineers Planners Surveyors

90 N Central Park Avenue

Hartsdale, NY 10530

Tel: (914) 422-0070

Fax: (914) 422-3009

E-Mail: Eliot@gesenor.com

MEMORANDUM

TO: Town of North Castle
FROM: Eliot Senior P.E. L.S.
SUBJECT: 9 Barnard Road

DATE: July 25, 2022

GENERAL COMMENTS

1. The plan shall demonstrate that all required setbacks to the septic, well and stormwater facilities meet minimum WCHD requirements. We note that the domestic well serving the adjacent property to the east is relatively close to the common property line. This well should be survey located and illustrated on the plan to demonstrate that the required separation distance between the well and stormwater management system can be maintained.

Plan development has Health Department Approval. Well information shown as per Health Department records.

2. The applicant has provided building elevations and floor plans of the existing shed to be legalized for the Planning Board's consideration.

Noted.

3. The applicant has provided a Landscaping Plan for consideration by the Planning Board. The Site Plan shall depict all Town-regulated trees proposed to be removed or protected within and ten (10) feet beyond the proposed limit of disturbance. It appears that, at a minimum, additional tree removal is required for the proposed lower retaining wall. We note that in addition to the two (2), 20-inch pine trees illustrated on the plan, that there exists a relatively dense vegetated buffer between the adjoining lots. This buffer will require clearing in order to construct the retaining wall. The plan proposes to replant this area with a mix of dwarf junipers and boxwoods. We would recommend that the Planning Board consider requiring a more robust screening plan.

A landscape plan has been prepared by a landscape architect based upon suggestion by Planning Board. Proposed lower wall no longer being considered.

4. The plan illustrates an existing stone retaining wall along the eastern property line at the front of the site. This wall was constructed without prior approval and exceeds six (6) feet in height. This office is not aware of any prior design or construction certification nor was this office able to inspect its construction. Portions of the wall had been constructed within the Town right-of-way and are now proposed to be removed and the area restored. We offer the following comment relative to the wall:

- The limits of the wall to be removed within the Town right-of-way are illustrated on the plan. The plan shall also illustrate and detail the means to restore this area.

Restoration noted on plan. Sediment and Soil Stockpile measures shown.

- As previously requested, the applicant shall provide an estimate of the quantity of fill imported to the site to construct and backfill the wall. As part of this estimate and based on a field visit attended by this office and the Building Inspector during the prior application, it appeared that fill was also imported to regrade a portion of the rear yard. This assumption was supported by review of available Westchester County GIS data and the buried "feet" of existing trees in the rear yard. This added material should be included in any cut/fill calculation.

Approximately 450 cubic yards of fill has been placed behind the wall. The rear yard was regraded and a planting berm was added. It is estimated to be approximately 350 cubic yards.

- The Stone Wall Detail illustrates a tiered retaining wall with a maximum height of four (4) feet. The existing retaining wall is not dimensioned on the detail. However, based on field visits, the wall reaches heights of approximately eight (8) feet. The lower tiered wall does not dimension the footing width or depth of crushed stone backfill. The retaining wall design and detail shall be updated accordingly. When the original wall was first constructed, and as part of the prior application, the applicant was required to provide a design certification by a New York State Licensed Professional Engineer demonstrating that the wall, as constructed, is stable, has been adequately sized to provide appropriate factors of safety for sliding, overturning and bearing, and has been constructed in accordance with the design and detail. Said certification was not received by this office. It is not clear why the lower retaining wall is required or being proposed at this time. We assume that the plan to construct a second tier with a maximum height of four (4) feet is to eliminate the need to provide the above certification. However, the proposed retaining wall plan will require clearing of whatever vegetated buffer remains along the property line. The Planning Board should consider whether this is appropriate or if the wall should remain as is and the certification be provided.

The construction of the lower wall is no longer under consideration. It was suggested at the Planning Board site visit that the existing wall will remain. A letter of certification to the construction and stability has been provided with this submission.

- The existing retaining wall had been constructed immediately adjacent to several trees, compromising the root zone and structure. As previously noted, their long-term survival was

questionable. We note that there is at least one dead tree in the immediate vicinity of the retaining wall (assumed to be the 14" tree illustrated on the plan). This should be confirmed by the applicant. We would recommend that the dead tree be shown to be removed. The Planning Board should discuss whether additional plantings are appropriate.

See Landscape Plan provided.

The plan illustrates a temporary construction access above the existing retaining wall for construction of the infiltration system. The plan must be revised to illustrate how the area of the lower wall will be accessed for construction and what measures will be used to protect the downgradient property from being disturbed. It is not clear how the proposed lower wall can be constructed as proposed without some level of disturbance to the adjoining property.

Erosion control measures have been provided,

5. As part of the prior application, the Building Department had required soil sampling to insure the import material was clean and complied with applicable NYSDEC Part 360 regulations. An analysis and report, prepared by Sterling Environmental Engineering, P.C., was provided. We the following preliminary comments:
 - The report should be sealed by a NYS Licensed Professional Engineer.
 - The report should include a summary table that lists the concentrations of all detected compounds vs. the allowable limits for Unrestricted Use and Residential use for review by the Building Inspector and consideration by the Planning Board.
 - There does not appear to be analytics provided for PCBs/Pesticides.
 - The Planning Board should discuss whether the report should be reviewed further by the Town's hydrogeologic consultant.

Revised report to be provided prior to meeting.

6. The plan proposes an infiltration system to collect and mitigate stormwater runoff generated from the existing residence and shed. The existing roof leader connection that discharges off site is proposed to be removed. This office previously witnessed soil testing in the vicinity of the practice to demonstrate that suitable soils exist. We note, however, that the depth to rock, as noted on the plan, is approximately five (5) feet. As such, it does not appear that the required 3 ft minimum separation will be provided by the design. The infiltration system layout shall be adjusted accordingly. We would also recommend that an additional inspection port be shown the unit to which the storm piping is connected.

Storm system has been updated for proper 3 ft. separation.




7. The plan proposes to remove the existing drain inlet located within the driveway, which currently discharges to the adjoining property. The plan, however, does not illustrate how runoff from the driveway will be collected or conveyed. Without the inlet, it appears that stormwater runoff will continue to sheet flow toward the adjoining property. The applicant should review this layout and consider an alternative to collect and mitigate this flow. We note that should this drain inlet be connected to the infiltration system, the WCHD minimum required setback to a drilled well is 100 feet.

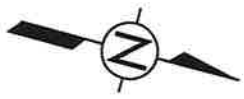
The existing drain will be removed along with the point discharge. To prevent sheet flow a grass swale will be constructed and additional plantings of Forsythia will be planted.

8. Drawing S-2 appears to have been named incorrectly and should be revised to "Proposed Conditions".

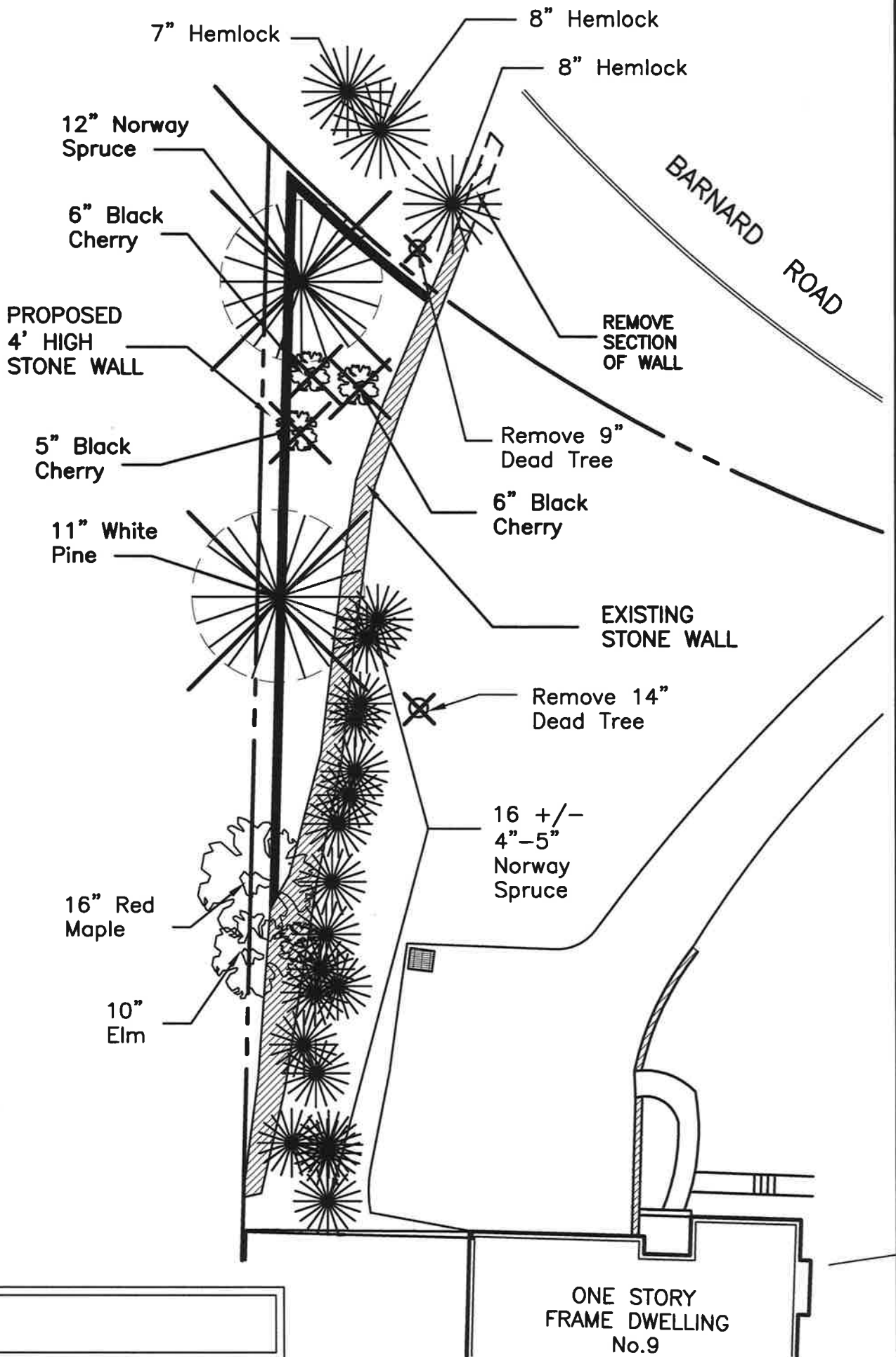
Drawing S-2 has been revised to "Proposed Conditions"

LEGEND:

-  PROPERTY LINE
-  EXISTING TREE (evergreen)
-  EXISTING TREE (deciduous)
-  Remove EXISTING TREE (evergreen)
-  Remove EXISTING TREE (deciduous)
-  Remove Dead Tree
-  EXISTING TREE (evergreen) with drip line



SCALE: 1" = 20'-0"



Existing Tree Removals

Quant.	Cal.	Botanical Name	Common Name
1	12"	<i>Picea abies</i>	Norway Spruce
1	11"	<i>Pinus strobus</i>	Eastern White Pine
2	6"	<i>Prunus serotina</i> *	Wild Cherry
1	5"	<i>Prunus serotina</i> *	Wild Cherry

Total Caliper Removed: 34"

* Invasive Species as per NYS Department of Environmental Conservation

Existing Invasive Vine Removals

Botanical Name	Common Name
<i>Ampelopsis brevipedunculata</i>	Porcelain Berry
<i>Lonicera japonica</i>	Honeysuckle
<i>Celastrus scandens</i>	American bittersweet
<i>Toxicodendron radicans</i>	Poison Ivy

Existing Trees Recommendations

- Removal all dead trees
- Prune all dead & broken limbs & branches greater than 1-1/2" dia.

WALTER G. NESTLER P.C.
 LANDSCAPE ARCHITECT ASLA
 ISA CERTIFIED ARBORIST

511 BOLTON AVENUE
 BRONX, NEW YORK 10473-2901
 VOICE & FAX: (718) 842-5356
 e-mail: wgnestler@aol.com



TREE REMOVAL PLAN "Option A"





GENTILE RESIDENCE

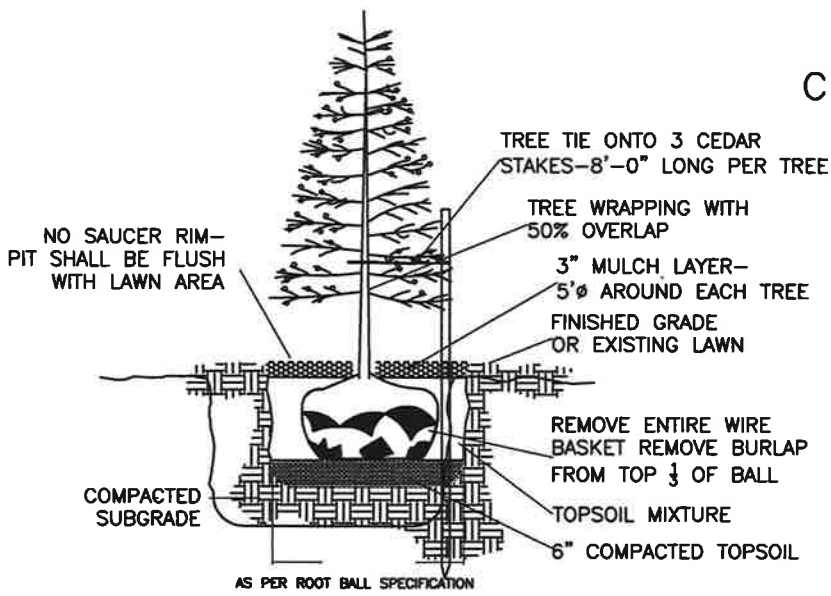
9 BARNARD ROAD
 ARMONK, NEW YORK 10504

Property ID# 108.03-3-54
 Zoning: R-1A

April 7, 2023
 Sheet: 1 of 2

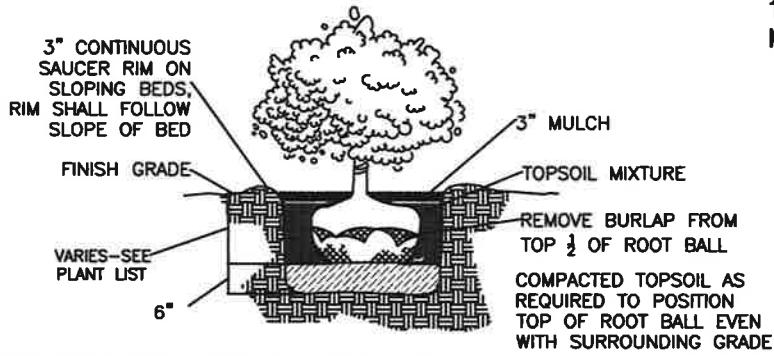
LEGEND:

- PROPERTY LINE
-  EXISTING TREE (evergreen)
-  PROPOSED EVERGREEN TREE
-  EXISTING TREE (deciduous)
-  PROPOSED EVERGREEN shrub



EVERGREEN TREE PLANTING

Not To Scale

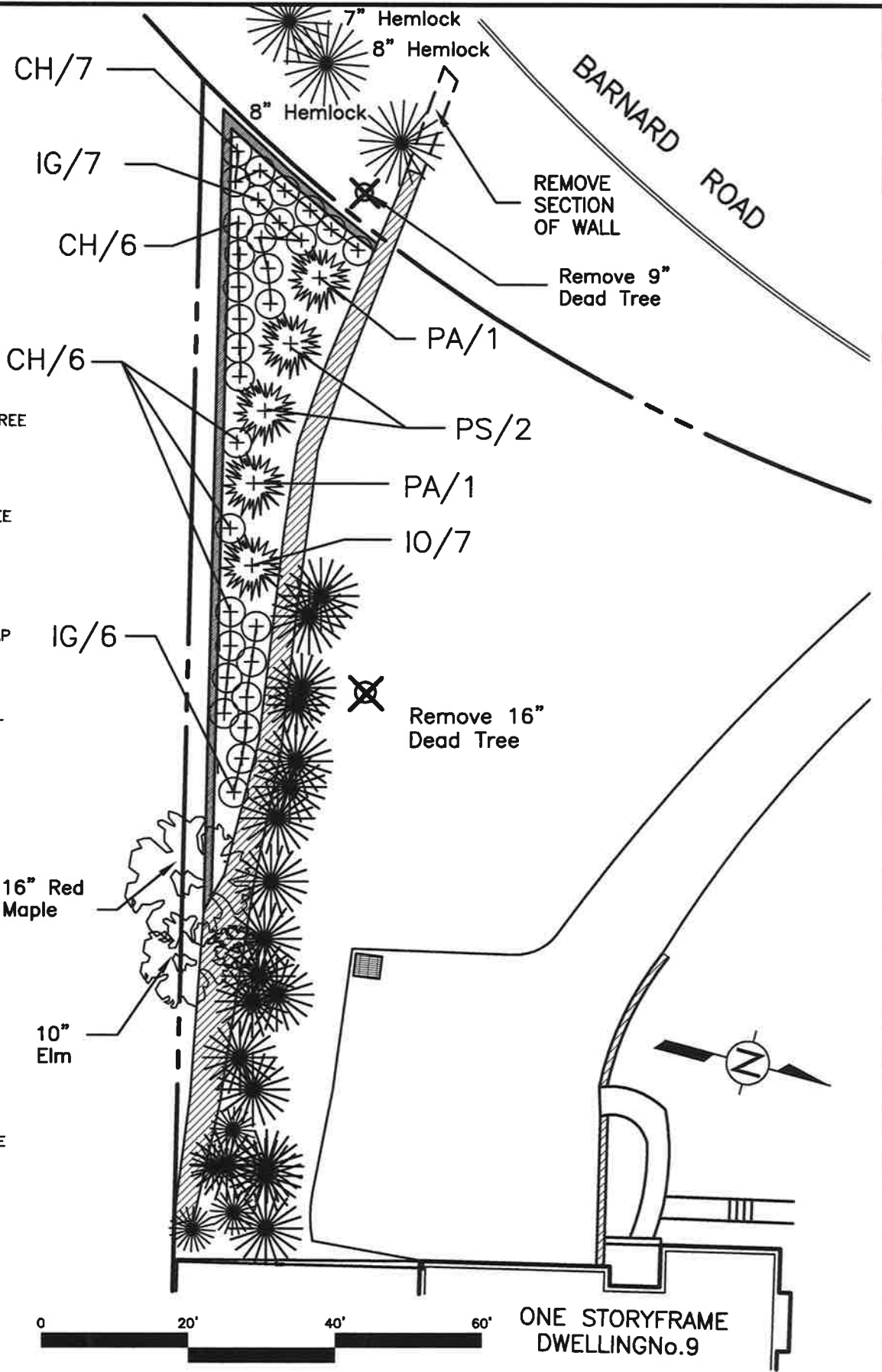


SHRUB PLANTING DETAIL

Not To Scale

Tree Specified/Characteristics

- Native Species / Indigenous Species
- Deer Resistant / Drought Tolerant



PROPOSED PLANT LIST

Sym.	Quant.	Botanical Name	Common Name	Size	Spacing	Remarks
CH	19	Cotoneaster—horizontalis	Rockspray Contoneaster	3 Gal.	4' min.	Multi-branched, 3' min leads
IG	13	Ilex glabra	Inkberry	3.5'-4'	10' min.	Low branched & full symmetrical crown
IO	1	Ilex opaca	American Holly	7'-8'	10' min.	Low branched & full to grade
PA	2	Picea abies	Noway Spruce	8-10'	10' min.	Low branched & full to grade
PS	2	Pinus strobus	Eastern White Pine	8-10'	10' min.	Low branched & full to grade

PLANTING NOTES

1. PROTECT ALL EXISTING VEGETATION TO BE PROTECTED FROM DAMAGE DURING ALL PHASES OF CONSTRUCTION
2. PRIOR TO PLANTING ALL UTILITIES ARE TO LOCATED & MARKED ON SITE
3. IT IS THE INTENT OF THIS CONTRACT TO AVOID ANY DISTURBANCE TO EXISTING VEGETATION ON THE SITE OTHER THAN THOSE SPECIFICALLY DESIGNATED FOR REMOVAL. ADJUSTMENTS SHALL BE MADE IN THE FIELD THE DIRECTION OF THE LANDSCAPE ARCHITECT
4. ALL PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS OTHERWISE NOTED
5. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE LOCATION OF MECHANICAL EQUIPMENT AND UTILITIES EXISTING OR PROPOSED IN THE AREAS TO BE PLANTED AND SHALL, WHERE NECESSARY, RELOCATE PLANTS AT THE DIRECTION OF THE LANDSCAPE ARCHITECT
6. QUANTITIES GIVEN IN THE PLANT LIST ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES SHOWN ON THE LIST AND SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIALS REQUIRED TO COMPLETE THE PLANS

7. THE CONTRACTOR SHALL VERIFY ALL GRADES, DIMENSIONS, & EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT
8. LOCATIONS OF NEW PLANTS SHALL BE STAKED AND/OR PLACED BY THE CONTRACTOR AND APPROVED BY THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH THE WORK
9. ALL PLANTS SHALL BE SUBJECT TO THE LANDSCAPE ARCHITECT'S INSPECTION & APPROVAL AT THE NURSERY AND AT THE SITE BEFORE ANY PLANTING WORK IS BEGUN
10. ALL BEDS AND TREE SAUCERS AND OTHER AREAS NOTED SHALL RECEIVE THREE (3) INCHES OF APPROVED MULCH (SHREDDED CEDAR BARK)
11. CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR ONE YEAR FROM THE OF LANDSCAPE ARCHITECT'S FINAL WRITTEN APPROVAL AND AS NOTERD IN SPECIFICATIONS
12. CONTRACTOR TO COORDINATE PLANTING, SEEDING, AND TREE WORK WITH OTHER TRADES
13. CONTRACTOR RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED
14. CONTRACTOR RESPONSIBLE FOR RESTORING ALL AREAS DISTURBED DUE TO PLANTING OPERATIONS

WALTER G. NESTLER P.C.
 LANDSCAPE ARCHITECT ASLA
 ISA CERTIFIED ARBORIST

511 BOLTON AVENUE
 BRONX, NEW YORK 10473-2901
 VOICE & FAX: (718) 842-5356
 e-mail: wgnestler@aol.com



PLANTING PLAN "Opition "A"








GENTILE RESIDENCE

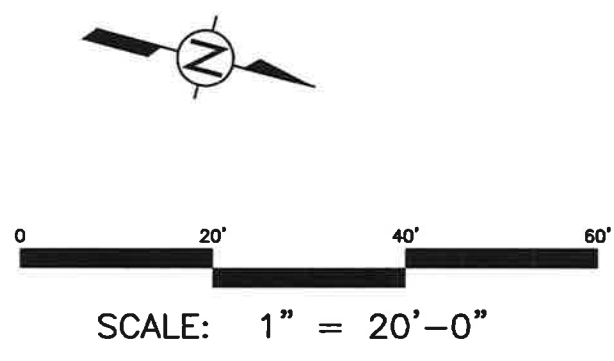
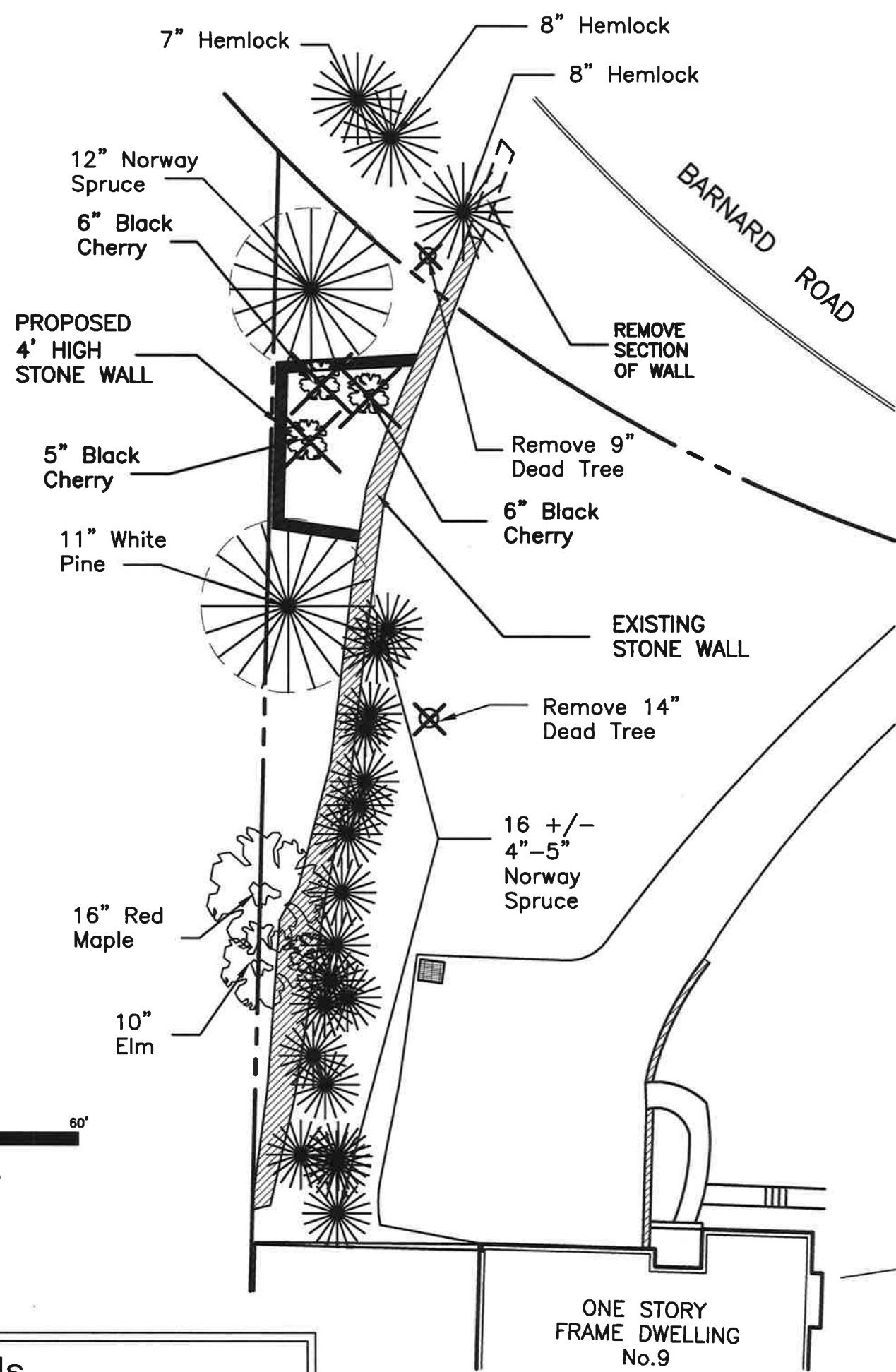
9 BARNARD ROAD
 ARMONK, NEW YORK 10504

Property ID# 108.03-3-54
 Zoning: R-1A

April 7, 2023
 Sheet: 2 of 2

LEGEND:

-  PROPERTY LINE
-  EXISTING TREE (evergreen)
-  EXISTING TREE (deciduous)
-  Remove EXISTING TREE (evergreen)
-  Remove EXISTING TREE (deciduous)
-  Remove Dead Tree
-  EXISTING TREE (evergreen) with drip line



Existing Tree Removals			
Quant.	Cal.	Botanical Name	Common Name
2	6"	Prunus serotina *	Wild Cherry
1	5"	Prunus serotina *	Wild Cherry
Total Caliper Removed:			17"

* Invasive Species as per NYS Department of Environmental Conservation

Existing Invasive Vine Removals	
Botanical Name	Common Name
Ampelopsis brevipedunculata	Porcelain Berry
Lonicera japonica	Honeysuckle
Celastrus scandens	American bittersweet
Toxicodendron radicans	Poison Ivy

- ### Existing Trees Recommendations
- Removal all dead trees
 - Prune all dead & broken limbs & branches greater than 1-1/2" dia.

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511 BOLTON AVENUE
 BRONX, NEW YORK 10473-2901
 VOICE & FAX: (718) 842-5356
 e-mail: wgnestler@aol.com







TREE REMOVAL PLAN "Option B"

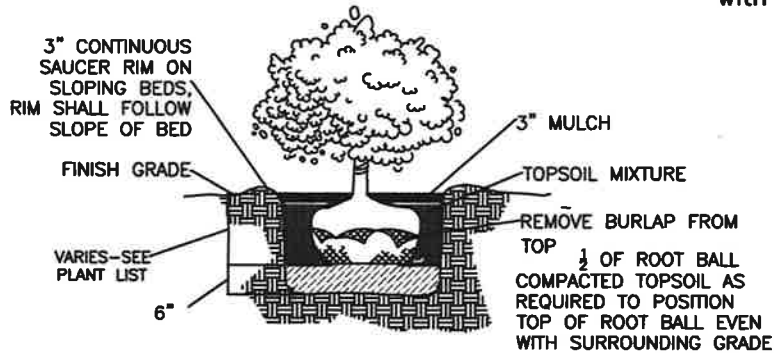
GENTILE RESIDENCE
 9 BARNARD ROAD
 ARMONK, NEW YORK 10504

Property ID# 108.03-3-54
 Zoning: R-1A

April 7, 2023
 Sheet: 1 of 2

LEGEND:

-  PROPERTY LINE
-  EXISTING TREE (evergreen)
-  EXISTING TREE (deciduous)
-  PROPOSED EVERGREEN shrub



SHRUB PLANTING DETAIL

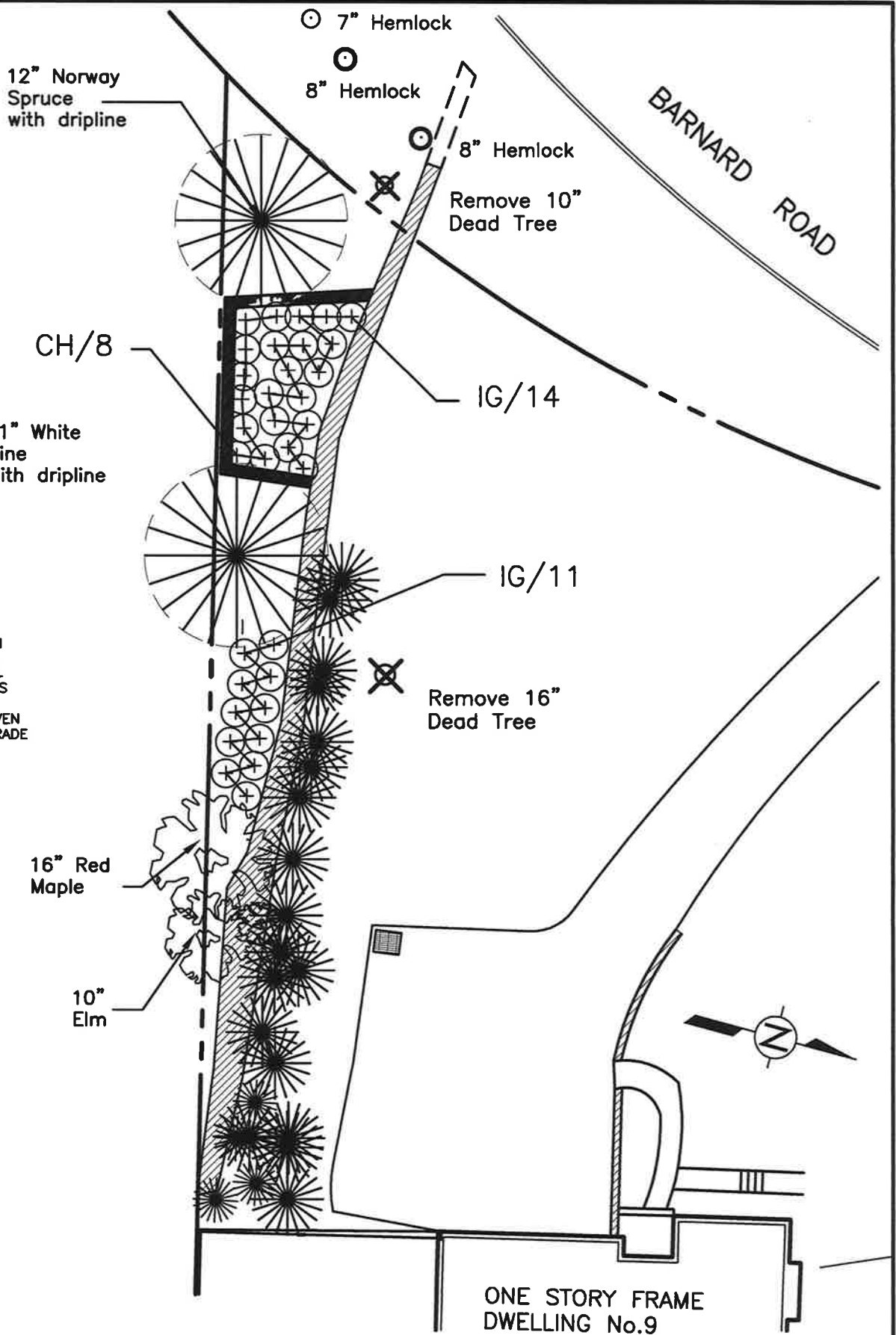
Not To Scale

Characteristics of Trees & Shrubs Secified

- Native Species / Indiginous Species
- Deer Resistant / Drought Tolorant



SCALE: 1" = 20'-0"



PROPOSED PLANT LIST

Sym.	Quant.	Botanical Name	Common Name	Size	Spacing	Remarks
CH	8	Cotoneaster-horntalis	Rockspray Contoneaster	3 Gal.	4' min.	Multi-branched, 3' min leads
IG	25	Ilex glabra	Inkberry	4'-4.5'	5' min.	Low branched & full symetrical crown

PLANTING NOTES

1. PROTECT ALL EXISTING VEGETATION TO BE PROTECTED FROM DAMAGE DURING ALL PHASES OF CONSTRUCTION
2. PRIOR TO PLANTING ALL UTILITIES ARE TO LOCATED & MARKED ON SITE
3. IT IS THE INTENT OF THIS CONTRACT TO AVOID ANY DISTURBANCE TO EXISTING VEGETATION ON THE SITE OTHER THAN THOSE SPECIFICALLY DESIGNATED FOR REMOVAL. ADJUSTMENTS SHALL BE MADE IN THE FIELD THE DIRECTION OF THE LANDSCAPE ARCHITECT
4. ALL PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS OTHERWISE NOTED
5. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE LOCATION OF MECHANICAL EQUIPMENT AND UTILITIES EXISTING OR PROPOSED IN THE AREAS TO BE PLANTED AND SHALL, WHERE NECESSARY, RELOCATE PLANTS AT THE DIRECTION OF THE LANDSCAPE ARCHITECT
6. QUANTITIES GIVEN IN THE PLANT LIST ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES SHOWN ON THE LIST AND SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIALS REQUIRED TO COMPLETE THE PLANS

7. THE CONTRACTOR SHALL VERIFY ALL GRADES, DIMENSIONS, & EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT
8. LOCATIONS OF NEW PLANTS SHALL BE STAKED AND/OR PLACED BY THE CONTRACTOR AND APPROVED BY THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH THE WORK
9. ALL PLANTS SHALL BE SUBJECT TO THE LANDSCAPE ARCHITECT'S INSPECTION & APPROVAL AT THE NURSERY AND AT THE SITE BEFORE ANY PLANTING WORK IS BEGUN
10. ALL BEDS AND TREE SAUCERS AND OTHER AREAS NOTED SHALL RECEIVE THREE (3) INCHES OF APPROVED MULCH (SHREDDED CEDAR BARK)
11. CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR ONE YEAR FROM THE OF LANDSCAPE ARCHITECT'S FINAL WRITTEN APPROVAL AND AS NOTERD IN SPECIFICATIONS
12. CONTRACTOR TO COORDINATE PLANTING, SEEDING, AND TREE WORK WITH OTHER TRADES
13. CONTRACTOR RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED
14. CONTRACTOR RESPONSIBLE FOR RESTORING ALL AREAS DISTURBED DUE TO PLANTING OPERATIONS

WALTER G. NESTLER P.C.
 LANDSCAPE ARCHITECT ASLA
 ISA CERTIFIED ARBORIST

511 BOLTON AVENUE
 BRONX, NEW YORK 10473-2901
 VOICE & FAX: (718) 842-5356
 e-mail: wgnestler@aol.com



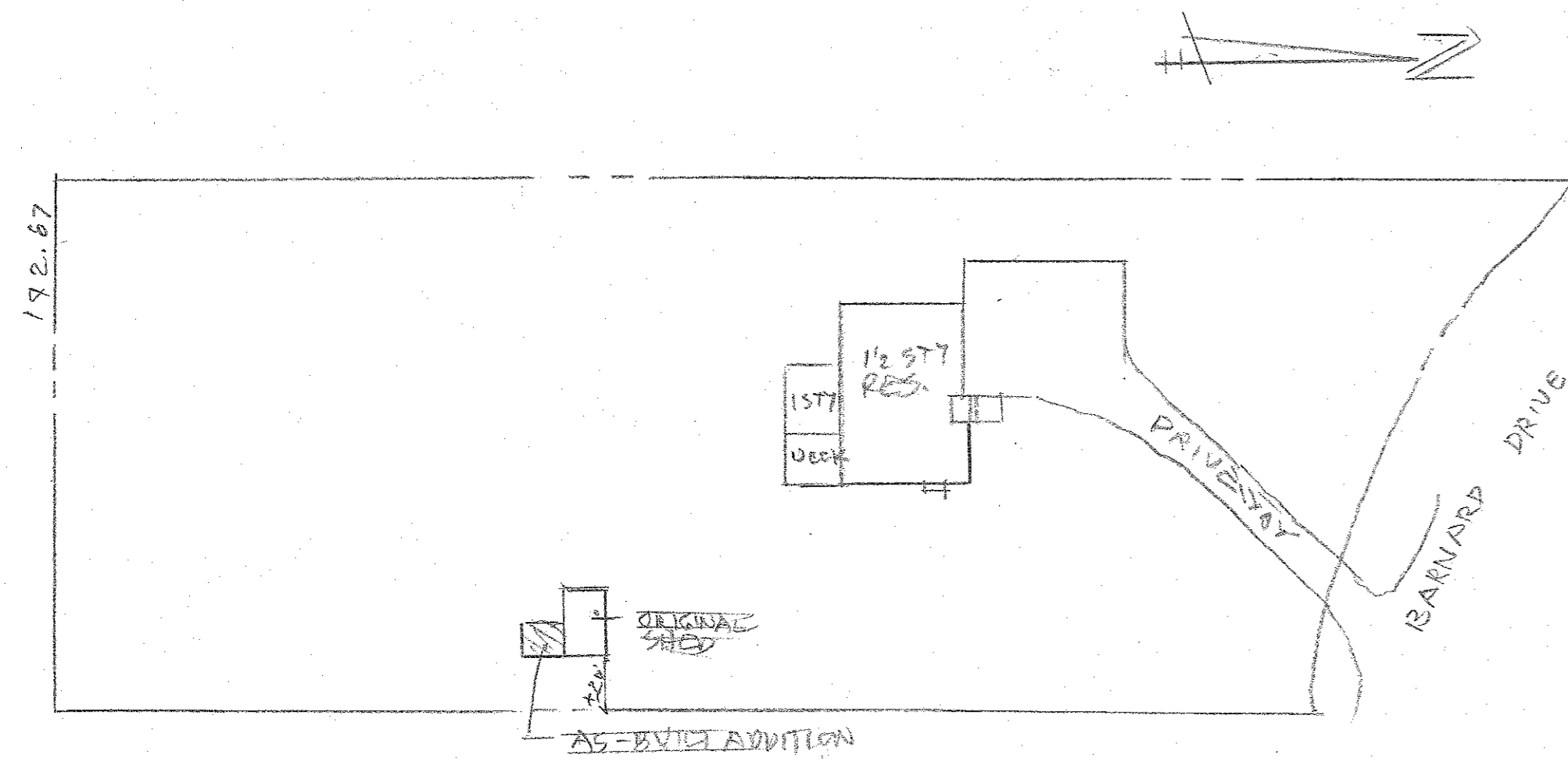
PLANTING PLAN "Opition "B"

GENTILE RESIDENCE

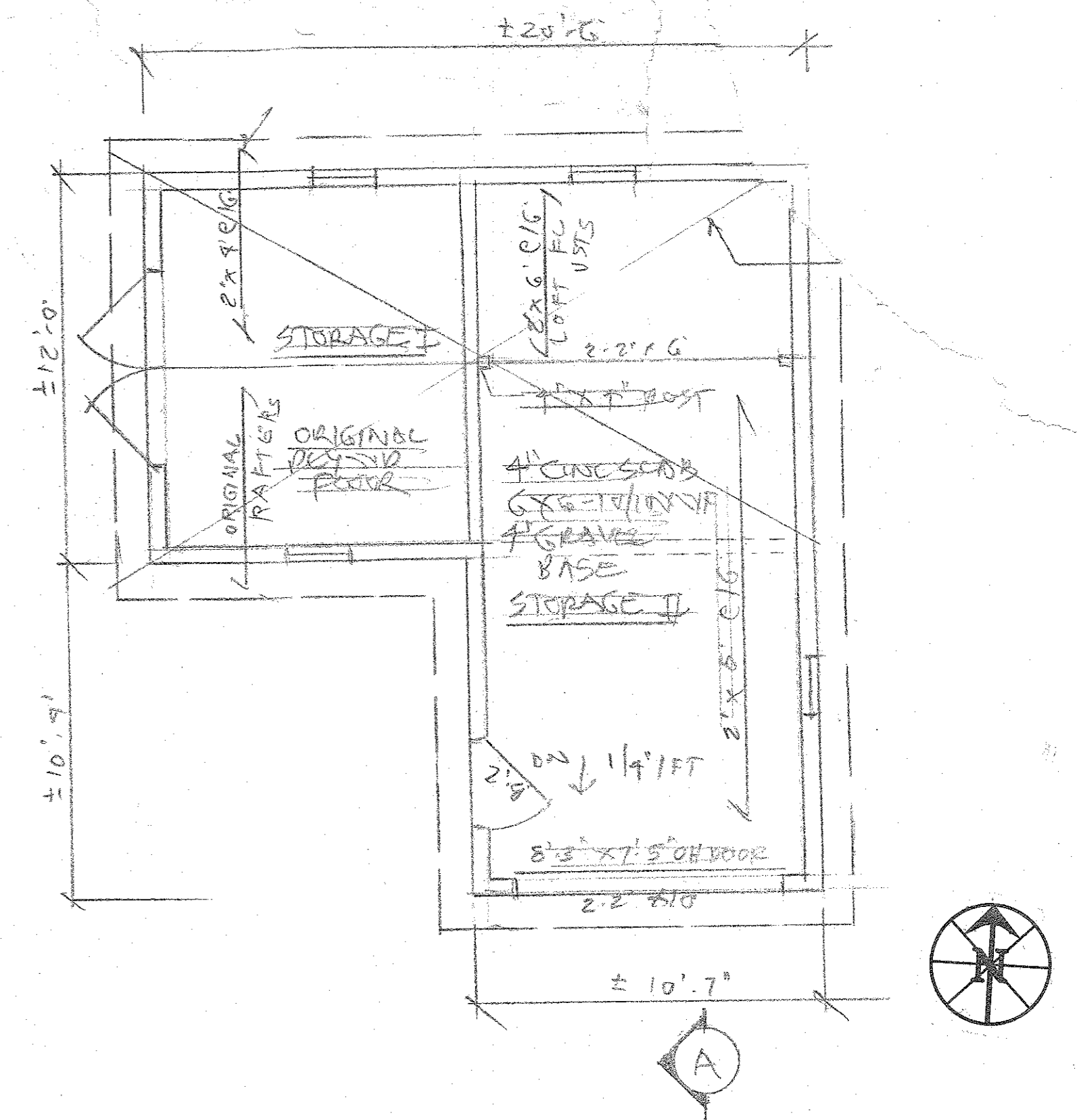
9 BARNARD ROAD
 ARMONK, NEW YORK 10504

Property ID# 108.03-3-54
 Zoning: R-1A

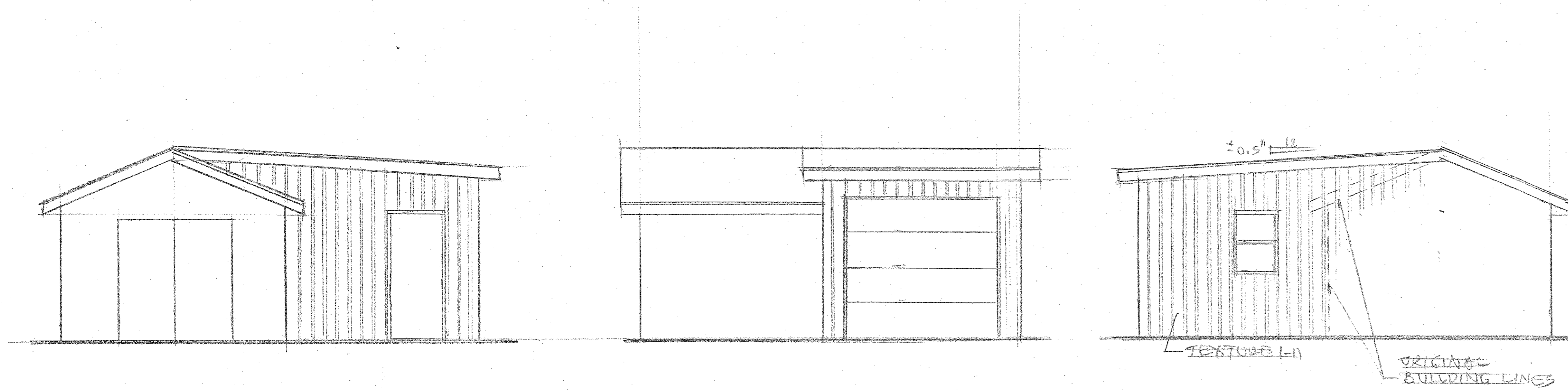
April 7, 2023
 Sheet: 2 of 2



SITE PLAN scale: 1/8" = 1'-0"



FIRST FLOOR PLAN scale: 1/4" = 1'-0"

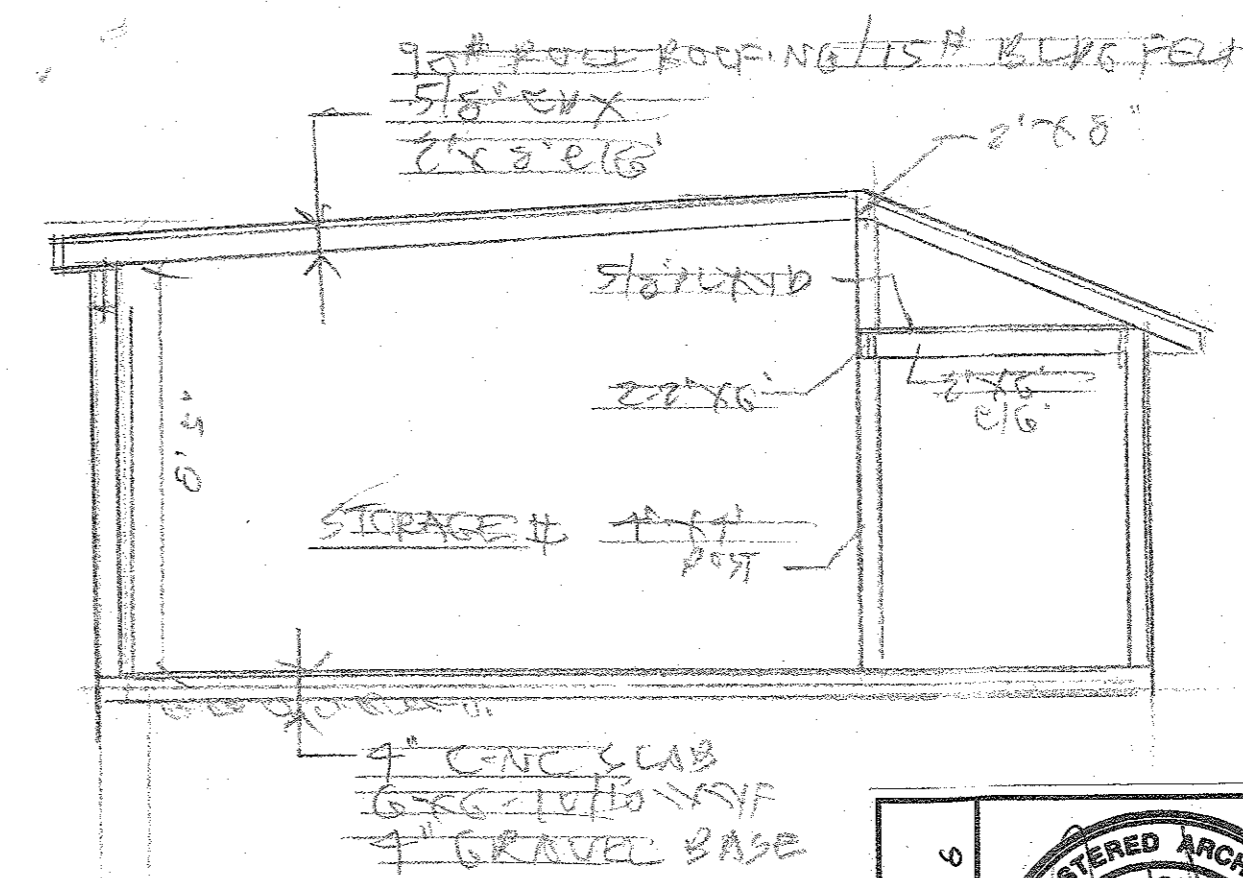


WEST

SOUTH

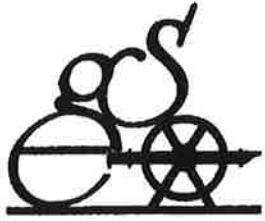
EAST

EXTERIOR ELEVATIONS scale: 1/2" = 1'-0"



SECTION A scale: 1/2" = 1'-0"

DATE 10.23.16 	PROJECT AS-BUILT ADDITION TO SHED MR JOSEPH GENTILE 9 BARNARD DRIVE (ARMONK) TOWN OF NORTH CASTLE NY	SHEET E-1
	John Cotugno Architect, P.C. 90 N Central Ave Hartsdale N.Y. tel. 914 589 2521 10530	



Gabriel E. Senor, P.C.

Engineers Planners Surveyors

90 N Central Park Avenue

Hartsdale, NY 10530

Tel: (914) 422-0070

Fax: (914) 422-3009

E-Mail: info@gesenor.com

July 25, 2022

Robert Melillo
Building Inspector
Town of North Castle
17 Bedford Rd.
Armonk, NY 10504

Re: Retaining wall inspection.
9 Barnard Road
Armonk, New York 10504

Dear Inspector Melillo:

I inspected the stone retaining wall at the referenced premises on January 16, 2019. I found the wall to be properly constructed and in sound condition. There was also no visual evidence of failure.

Please feel free to call me if you have any questions.

Very truly yours,

Eliot Senor, P.E., D.S.

