Bedford Wetlands Control Commission

425 Cherry Street
Bedford Hills, NY 10507
2nd Floor Conference Room

June 6, 2016
7:30 P.M.

Announcements:

7:30 PM – 7:35 PM - Submission Deadlines
- Site Walk Date

New Applications:

7:35 PM – 7:55 PM Renovations, Alterations and Additions to Residence, Rebuild of Gravel Driveway, Wetlands Drainage Course Restoration
Section **50.7** Block **1** Lot **6**, **R-4A** Zone
249 Mt. Holly Road, Katonah
Owner: **Clare Reinbergen Trust**
Applicant: **Roger Van Loveren, AIA**

7:55 PM – 8:15 PM Addition to Existing Residence, Reconstructed Pool & Deck, New Patio Areas, Walking Deck & Dock, Re-Delineated Driveway
Section **84.5** Block **1** Lot **2**, **R-4A** Zone
564 Guard Hill Road, Bedford
Owner/Applicant: **Nicholas Matfus & Gao Jing**

Conference:

8:15 PM – 8:25 PM Proposed Pool in Place of Deck
Section **72.10** Block **1** Lot **14**, **R-4A** Zone
49 West Patent Road, Bedford Hills
Owner: **Brandon & Lauren Yasgur**

Reports:

8:25 PM – 8:30 PM A – Status of Violations/Enforcement Actions
B – Town Wetland Official (Beth Evans) Monthly Report: Administrative Permits
C – Town Wetland Official (Beth Evans) Report: Hardy Kiwi Project

Minutes to be Approved:

8:30 PM February 1, 2016
April 4, 2016

Supporting documentation for all items on this agenda is available at the Town of Bedford website. (www.bedfordny.gov)
Larger documents and plans are available at the office of the Wetlands Commission.

TOWN OF BEDFORD - WETLANDS CONTROL COMMISSION

Application for Permit

Identification of Owner(s):

Name(s) of owner(s) (as shown on Deed): CLARE REINBERGEN

Mailing Address: 147 CHERRY ST. KATONAH, NY 10536

Phone: 914-428-1316 (home) 800-648-7626 (work); Fax: 914-428-2780 E-Mail: CREINBERGEN@MAIL.GROUTHPROD CO

Identification of Applicant (if other than owner(s)):

Name of Applicant: ROGER VAN LOVEREN, AIA

Mailing Address: 6 SPRUCE POND LANE, BEDFORD, NY 10506

Phone: 914-588-5309 (~~home~~ cell) 914-234-7823 (work); Fax: 234-7534 E-Mail: RVLARCH@AOL.COM

Professional Preparing Site Plan:

Name /Address: ROGER VAN LOVEREN, AIA. 6 SPRUCE POND LANE, BEDFORD NY

Phone: 914-234-7823 Fax: 234-7534 E-Mail: RVLARCH@AOL.COM

Identification of Property:

Bedford Tax Map Designation: Section 50.7 Block 1 Lot 6 Area 4.378 Ac

Zoning District: 4A **Project Address:** 249 MT. HOLLY ROAD

Approximate year of construction of any structure: 1966

Prior Applications/Other Applications (write "N/A" if not applicable; Project Cost):

Dates of any prior Wetlands Control Commission permits: NA

Identify any other Town of Bedford approvals required: BUILDING

Identify any other governmental approvals required: NYSDEC

Project cost (including professional fees): 600,000

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Project Description/Proposed Use (MUST BE DETAILED – Use Additional Pages if Needed):

SEE ATTACHED PAGE

Proposed Project Start Date: AUGUST 2016 **Estimated Date of Completion:** AUGUST 2017

The owner(s) hereby give(s) permission to the Town of Bedford, its agents, servants and employees, including, without limit, members of the Wetlands Control Commission and consultants to the Town to enter upon the Property solely for the purposes incidental to the within application (including without limit, inspection of the project after completion) at reasonable times upon reasonable notice to the owner or tenant in possession, which notice may be by telephone. If the applicant is different than the owner(s), the owner(s) hereby approves this application and consents to the applicant acting as agent for the owner in submitting this application and the applicant accepts its designation as agent for the owner(s).

I/we affirm by the signatures below that I/we are the rightful legal owner(s) of the property herein described in this application.

Signature of owner(s): _____ Date: _____
All owners must sign *Print name/title:* _____

_____ Date: _____
Print name/title: _____

Signature of applicant (if different): _____ Date: 4/8/16
Print name/title: ROGER VAN LOVEREN

Revised 8/9/13

Town of Bedford – Wetlands Control Commission

Clare Reinbergen Application 4/8/16

249 Mt. Holly Road, 50.7 – 1 – 6

Project Description/Proposed:

Renovation, Alterations of, and Additions to, existing 2 story, 4 Bedroom, 2,267 SF Residence. 28 SF Addition to 1st. Floor, 647 SF Addition to 2nd Floor over existing 1st.

One Bedroom on 1st Floor to be converted to Den and full Bathroom to be removed. 2nd Floor Addition rearranges existing two Bedrooms and expands with a Studio/Guest Room (4 Bedroom status maintained).

Front Entrance Deck replaced and altered with Entry steps up to covered Stoop. Rear Deck replaced and altered with larger raised Patio, above/inground Swimming Pool, Deck and Planter.

Existing Gravel Driveway to be raised. Crowned and rebuild with new underground electrical service from pole to house.

Existing man made structures in wetland watercourse to be removed, drainage course to be restored and enhanced.

617.20
Appendix B
Short Environmental Assessment Form

APR 8 2016

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:
REINBERGEN RESIDENCE

Project Location (describe, and attach a location map):
249 MT HOLLY ROAD, KATONAH NY, A LOT ON THE SOUTH SIDE OF ROAD

Brief Description of Proposed Action:
RENOVATIONS, ALTERATIONS & ADDITIONS TO A SMALL RESIDENCE, REBUILD OF GRAVEL DRIVEWAY, WETLANDS DRAINAGE COURSE RESTORATION

Name of Applicant or Sponsor:
ROGER VAN LOVEREN, AIA

Telephone: 914-234-7823 / 914-588-5309 CELL
E-Mail: RVLARCH@AOL.COM

Address:
6 SPRUCE POND LANE

City/PO:
BEDFORD

State: NY

Zip Code: 10506

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☒	☐
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval: NYS DEC, TOWN OF BEDFORD WATER CONTROL COMMISSION	☐	☒

3.a. Total acreage of the site of the proposed action? 4.378 acres
b. Total acreage to be physically disturbed? 0.451 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 4.378 acres

4. Check all land uses that occur on, adjoining and near the proposed action.
☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☒ Residential (suburban)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____
☐ Parkland

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	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☒	☐
b. Consistent with the adopted comprehensive plan?	☐	☒	☐
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	NO ☐	YES ☒	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify:	NO ☒	YES ☐	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	NO ☒	YES ☐	
b. Are public transportation service(s) available at or near the site of the proposed action?	☒	☐	
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	☒	☐	
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: SUPER INSULATION, GEOTHERMAL HEATING & COOLING, PHOTO VOLTAIC AND HYDRO HEAT ROOF PANELS, LED LIGHTING, ECOSMART FIREPLACE	NO ☐	YES ☒	
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: PRIVATE ON SITE WELL	NO ☒	YES ☐	
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: PRIVATE ON SITE SEPTIC	NO ☒	YES ☐	
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	NO ☒	YES ☐	
b. Is the proposed action located in an archeological sensitive area?	☒	☐	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	NO ☐	YES ☒	
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: 1,318 SF ARE IN THE DRAINAGE COURSE CONTAINS MAN MADE STRUCTURES THAT WILL BE REMOVED AND AREA TO BE RESTORED AND PROTECTED	☐	☒	
14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply: ☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional ☐ Wetland ☐ Urban ☒ Suburban			
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	NO ☒	YES ☐	
16. Is the project site located in the 100 year flood plain?	NO ☒	YES ☐	
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes,	NO	YES	
a. Will storm water discharges flow to adjacent properties? ☐ NO ☐ YES	☒	☐	
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: ☐ NO ☐ YES			

	NO	YES
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)? If Yes, explain purpose and size:	☒	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	☒	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	☒	☐

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

Applicant/sponsor name: ROGER VON LOVEREN, AIA Date: 4/8/16

Signature:

Part 2 - Impact Assessment. The Lead Agency is responsible for the completion of Part 2. Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

	No, or small impact may occur	Moderate to large impact may occur
1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations?	☐	☐
2. Will the proposed action result in a change in the use or intensity of use of land?	☐	☐
3. Will the proposed action impair the character or quality of the existing community?	☐	☐
4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)?	☐	☐
5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway?	☐	☐
6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities?	☐	☐
7. Will the proposed action impact existing: a. public / private water supplies?	☐	☐
b. public / private wastewater treatment utilities?	☐	☐
8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources?	☐	☐
9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)?	☐	☐

	No, or small impact may occur	Moderate to large impact may occur
10. Will the proposed action result in an increase in the potential for erosion, flooding or drainage problems?	☐	☐
11. Will the proposed action create a hazard to environmental resources or human health?	☐	☐

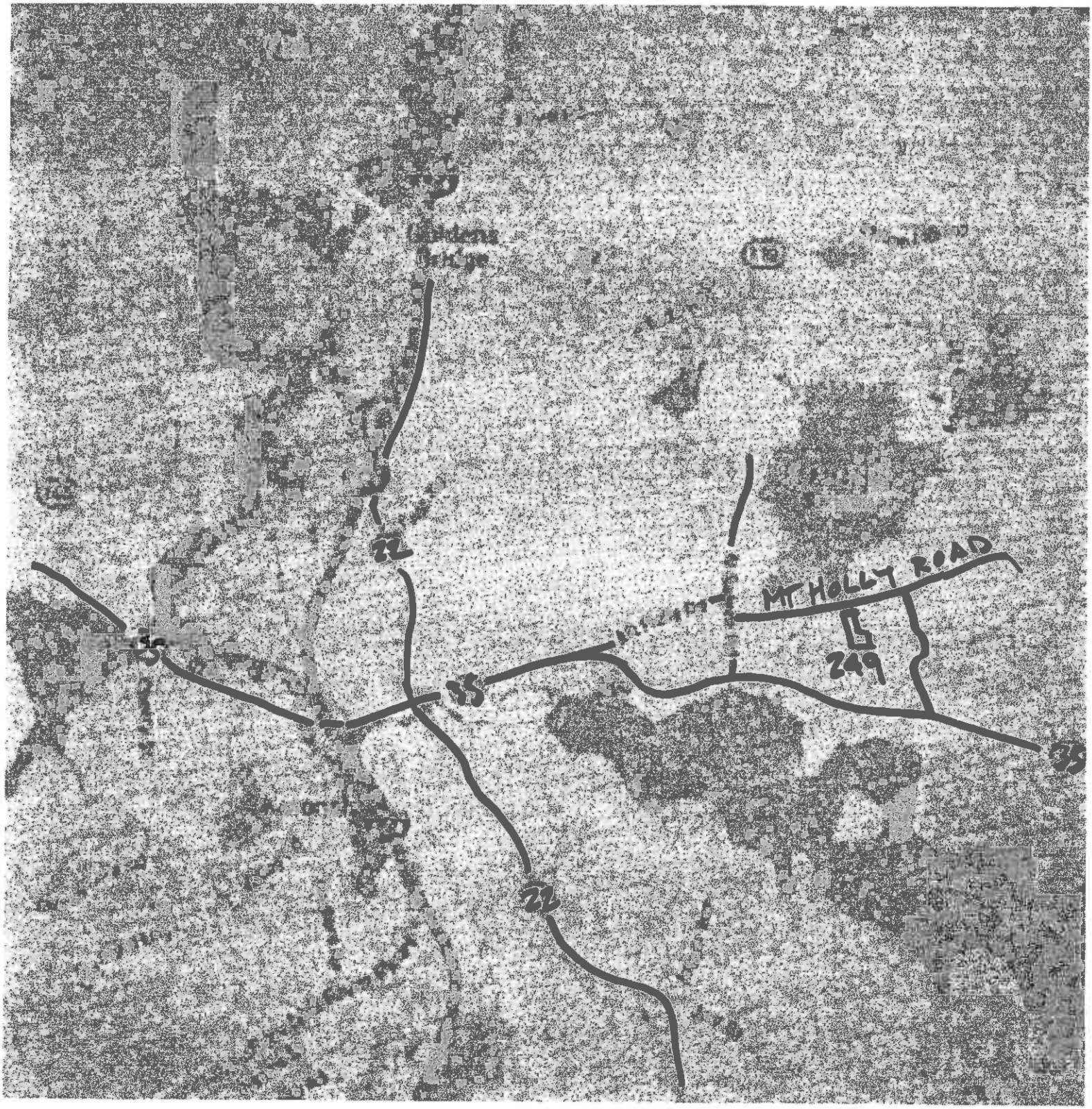
Part 3 - Determination of significance. The Lead Agency is responsible for the completion of Part 3. For every question in Part 2 that was answered "moderate to large impact may occur", or if there is a need to explain why a particular element of the proposed action may or will not result in a significant adverse environmental impact, please complete Part 3. Part 3 should, in sufficient detail, identify the impact, including any measures or design elements that have been included by the project sponsor to avoid or reduce impacts. Part 3 should also explain how the lead agency determined that the impact may or will not be significant. Each potential impact should be assessed considering its setting, probability of occurring, duration, irreversibility, geographic scope and magnitude. Also consider the potential for short-term, long-term and cumulative impacts.

☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action may result in one or more potentially large or significant adverse impacts and an environmental impact statement is required.

☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action will not result in any significant adverse environmental impacts.

Name of Lead Agency	Date
Print or Type Name of Responsible Officer in Lead Agency	Title of Responsible Officer
Signature of Responsible Officer in Lead Agency	Signature of Preparer (if different from Responsible Officer)

PRINT



REINBERGER
-4/8/16

MAP.

LETTER OF PERMIT DENIAL

Town of Bedford
Building Dept.
425 Cherry St.
914-666-8040

Parcel ID: **50.7-1-6**

Application #:

Date: 1/1/1900

Owner Information

Reinbergen Trust, Clare

Applicant Information

Reinbergen Trust, Clare
c/o Clare Reinbergen
249 Mt Holly Rd
Katonah NY 10536

Location: 249 Mt Holly Rd
Parcel ID: 50.7-1-6
Permit Type: Additions & Alterations
Work Description: Additions to second floor and alteration of existing residence

Dear Resident,
Regarding the application for a Building Permit on the property referenced above, the following facts are noted. This property is located in R-4A Zoning District. The requirements of the Zoning Ordinance of the Town of Bedford in comparison to your proposal are listed as follows:

Additions and alterations to an existing residence will require review and approve from the Wetland Control Commission.

Because your project does not meet the requirements of the Town of Bedford Zoning Ordinance, your application for a building permit is DENIED. If you wish to proceed with your request, you may, within sixty days of this letter, apply to the of the above provisions

Very truly yours,

Ralph Tarchine, Jr.
Building Inspector

75 Permit #6569
Receipt 10393

APPLICATION FOR BUILDING PERMIT
TOWN OF BEDFORD

☐ New Building ☒ Addition ☒ Alteration ☐ Demolition ☐ Roof ☐ Pool ☐ Already Built Bldg. Permit No._____

To the Building Inspector:

Application is hereby made for permission to perform the work in accordance with the plans and specifications herewith submitted and in compliance with the information given below.

It is agreed that if such permission is granted, said building will conform in all respects to said plans and specifications and shall comply with all provisions of the Town of Bedford Zoning Ordinance, and all State and Federal Laws or regulations pertaining in any way thereto.

Attached hereto are duplicate copies of the survey showing to scale position of building on the plot.

Owner CLARE REINBERGEN Address 147 CHERRY ST. KATONAH NY 10536 Tel.# 914-428-1316

Applicant ROGER VAN LOVEREN, AIA Address COSPRUCE POND LANE, BEDFORD NY Tel.# 914-234-7823

Architect/Engineer ROGER VAN LOVEREN Address _____ Tel.# _____

Builder TBD. Address _____

Building is located at 249 MT. HOLLY ROAD,

Section 50.7 Block 1 Lot 6 Town of Bedford Assessment Map.

INFORMATION MUST BE PROVIDED:

Detail of proposed construction: SEE ATTACHED PAGE
Add/Alt to exist Residence

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Bedford Building Dept.

Estimated **COST OF CONSTRUCTION**: $ 500,000

AFFIDAVIT OF CONSTRUCTION COST: This affidavit must be completed by the Design Professional if the estimated cost is $20,000 or more OR for Legalizations

I ROGER VAN LOVEREN do hereby affirm and certify as follows: (i) I am an architect/engineer (circle one) licensed by the State of New York; (ii) I have reviewed the plans, drawings and specifications for this application and am fully familiar with the proposed construction; (iii) based on my training and experience, I estimate the total cost of construction including all labor, all materials, all professional fees and all associated costs to be approximately $ 500,000, and (iv) pursuant to Penal Law § 210.45, I acknowledge that a false written statement made knowingly is a Class A misdemeanor.

Signature: _____ Date: 5/25/16

Sign and Affix Seal

REGISTERED ARCHITECT ROGER VAN LOVEREN 020798 STATE OF NEW YORK

Amount of square feet for new project 2,929.13 Total % of Building Coverage of property 1.83%

Total % of Impervious Surface of property 1.93 Area of disturbance 13,000 **If over 5000 sq. ft. submit erosion & sediment control plan.**

Age of Building or year built 1963

TYPE OF STRUCTURE

☒ One Family Dwelling ☐ Two Family Dwelling ☐ Multiple Dwelling

Accessory Structure _____ Pool ☐ Tennis Court ☐ Commercial ☐

ZONING DISTRICT (circle) R-4A 2A 1A 1/2A 1/4A TF VA MF EL

RO CB NB LI RB PBO PBR PBOK

Number of stories 2; Height 27'-7½" feet. Interior only _____

Front yard 413.7' feet. Rear yard 2363' feet. Side yard 62.9' feet ~~one side~~.

Side yard 126.4' feet other side.

The above setbacks must be filled in.

I hereby certify that the statements and data on this sheet are correct and true to the best of my knowledge and belief. Property Owner shall sign application or file letter of approval to:

(Signed) _____

Telephone No. 914-234-7823 /Email RVLarch@aol.com

Action By Building Inspector

The foregoing application and accompanying plans and specifications have been examined and considered, and the following action taken by me:

☐ Board of Health Approval
☐ Highway Approval
Town of Bedford ☐
Westchester County ☐
State of New York ☐

☐ Application Rejected
☐ Application Granted
☐ Referred to Board of Appeals

Variance Requested _____

_____

_____

_____

_____

_____
Building Inspector of the Town of Bedford, New York

FEES:

Building: _____

Certificate of Compliance _____

Total: _____

Permit No. _____

Date Approved _____

Date Notified _____

RECEIVED
MAY 26 2016
Bedford Building Dept.

Town of Bedford – Wetlands Control Commission / BUILDING DEPARTMENT

Clare Reinbergen Application 4/8/16

249 Mt. Holly Road, 50.7 – 1 – 6

Project Description/Proposed:

Renovation, Alterations of, and Additions to, existing 2 story, 4 Bedroom, 2,267 SF Residence. 28 SF Addition to 1st. Floor, 647 SF Addition to 2nd Floor over existing 1st.

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Front Entrance Deck replaced and altered with Entry steps up to covered Stoop. Rear Deck replaced and altered with larger raised Patio, above/inground Swimming Pool, Deck and Planter.

Existing Gravel Driveway to be raised. Crowned and rebuild with new underground electrical service from pole to house.

Existing man made structures in wetland watercourse to be removed, drainage course to be restored and enhanced.

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Owner Information

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Applicant Information

Reinbergen Trust, Clare
c/o Clare Reinbergen
249 Mt Holly Rd
Katonah NY 10536

Location: 249 Mt Holly Rd
Parcel ID: 50.7-1-6
Permit Type: Swimming Pool
Work Description: In ground swimming pool

Dear Resident,
Regarding the application for a Building Permit on the property referenced above, the following facts are noted. This property is located in R-4A Zoning District. The requirements of the Zoning Ordinance of the Town of Bedford in comparison to your proposal are listed as follows:

The construction an in ground swimming pool will require review and approval from the Wetland Control Commission

Because your project does not meet the requirements of the Town of Bedford Zoning Ordinance, your application for a building permit is DENIED. If you wish to proceed with your request, you may, within sixty days of this letter, apply to the of the above provisions

Very truly yours,

Ralph Tarchine, Jr.
Building Inspector

Pd Ck #75 Receipt 6570 10394

APPLICATION FOR BUILDING PERMIT
TOWN OF BEDFORD

☐ New Building ☐ Addition ☐ Alteration ☐ Demolition ☐ Roof ☒ Pool ☐ Already Built Bldg. Permit No._____

To the Building Inspector:

Application is hereby made for permission to perform the work in accordance with the plans and specifications herewith submitted and in compliance with the information given below.

It is agreed that if such permission is granted, said building will conform in all respects to said plans and specifications and shall comply with all provisions of the Town of Bedford Zoning Ordinance, and all State and Federal Laws or regulations pertaining in any way thereto.

Attached hereto are duplicate copies of the survey showing to scale position of building on the plot.

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Architect/Engineer ROGER VAN LOVEREN Address _____ Tel.#

Builder TBD. Address _____

Building is located at 249 MT. HOLLY ROAD,

Section 50.7 Block 1 Lot 6 Town of Bedford Assessment Map.

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Bedford Building Dept.

INFORMATION MUST BE PROVIDED:

Detail of proposed construction: SEE ATTACHED PAGE FOR FULL PROJECT. THIS APPLICATION FOR INGROUND SWIMMING POOL BEHIND HOUSE SET WITHIN PATIO/PLANTER STRUCTURE

Estimated **COST OF CONSTRUCTION:** $ 100,000

AFFIDAVIT OF CONSTRUCTION COST: This affidavit must be completed by the Design Professional if the estimated cost is $20,000 or more OR for Legalizations

I ROGER VAN LOVEREN do hereby affirm and certify as follows: (i) I am an architect/engineer (circle one) licensed by the State of New York; (ii) I have reviewed the plans, drawings and specifications for this application and am fully familiar with the proposed construction; (iii) based on my training and experience, I estimate the total cost of construction including all labor, all materials, all professional fees and all associated costs to be approximately $ 100,000, and (iv) pursuant to Penal Law § 210.45, I acknowledge that a false written statement made knowingly is a Class A misdemeanor.

Signature: _____ Date: 5/25/16

Sign and Affix Seal

REGISTERED ROGER VAN LOVEREN ARCHITECT 020798 STATE OF NEW YORK

Amount of square feet for new project 2,929.13 Total % of Building Coverage of property 1.83%

Total % of Impervious Surface of property 1.93 Area of disturbance 13,000 **If over 5000 sq. ft. submit erosion & sediment control plan.**

Age of Building or year built 1963

TYPE OF STRUCTURE

☐ One Family Dwelling ☐ Two Family Dwelling ☐ Multiple Dwelling

Accessory Structure INGROUND Pool ☒ Tennis Court ☐ Commercial ☐

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ZONING DISTRICT (circle) R-4A 2A 1A 1/2A 1/4A TF VA MF EL

RO CB NB LI RB PBO PBR PBOK

Number of stories 2; Height 27'-7½" feet. Interior only _____

Front yard 413.7' feet. Rear yard 236.3' feet. Side yard 62.9' feet ~~one side~~.

Side yard 126.4' feet other side.

The above setbacks must be filled in.

I hereby certify that the statements and data on this sheet are correct and true to the best of my knowledge and belief. Property Owner shall sign application or file letter of approval to:

(Signed) _____

Telephone No. 914-234-7873 /Email RVLarch@aol.com

Action By Building Inspector

The foregoing application and accompanying plans and specifications have been examined and considered, and the following action taken by me:

☐ Board of Health Approval
☐ Highway Approval
Town of Bedford ☐
Westchester County ☐
State of New York ☐

☐ Application Rejected
☐ Application Granted
☐ Referred to Board of Appeals

Variance Requested _____

_____

_____

_____

_____

_____
Building Inspector of the Town of Bedford, New York

FEES:

Building: _____

Certificate of Compliance _____

Total: _____

Permit No. _____

Date Approved _____

Date Notified _____

SURVEY OF GEOTHERMAL HEAT PUMP REGULATIONS IN THE UNITED STATES

Karen Den Braven

University of Idaho
Mechanical Engineering Department
Moscow, ID 83844-0902
(208) 885-7655
FAX (208) 885-9031

ABSTRACT

Geothermal heat pump systems (GHPs) are becoming more common. As more of these systems are installed, and practitioners move into new operating areas, it is becoming increasingly important that designers and installers be aware of the pertinent environmental regulations which affect system design and installation.

To this end, a survey has been conducted of US Federal and State Regulations which govern the design and installation of both open and closed loop geothermal heat pump systems. The appropriate officials in the Federal and state governments were located, and copies of the regulations were obtained.

The regulations which affect GHPs show no uniformity across the nation. Most (but not all) states simply apply their water well regulations to open loop systems. The status of regulations for closed loop (borehole) systems is more disorganized. While a few states have adopted industry standard practice in their regulations, many have no specific regulations whatsoever, while others have adopted (or are in the process of adopting) regulations which are proscriptive, and likely to hamper the industry.

A summary of the regulations was written, and was approved by the governing officials. The summaries and copies of the regulations themselves are available on the World Wide Web at http://www.uidaho.edu/ghpc/. Contact information for governing officials, including addresses and phone numbers, is also available at the site.

1. INTRODUCTION

Geothermal heat pump systems (GHPs) are becoming more common. For example, the Geothermal Heat Pump Consortium (GHPC), has as its goal a ten-fold increase in the number of GHP systems installed by 2001. If more of these systems are to be installed, it will be necessary for both new practitioners to enter the field and for the experienced to move into new operating areas. As this occurs, it is essential that designers and installers are aware of the environmental regulations which affect system design and installation in their locale.

To this end, a survey has been conducted of the appropriate US Federal and State Regulations which govern the design and installation of both open and closed loop geothermal heat pump systems. The appropriate officials in the Federal and state governments were located, and a copy of the regulations was obtained. A summary of the regulations was written, and was approved by the governing officials. The summaries and copies of the regulations themselves are available on the World Wide Web at http://www.uidaho.edu/ghpc/. Information on the governing officials, and their addresses and phone numbers is also available at the site.

This work began as a part of the attempt to characterize existing grouting regulations (applicable to vertical boreholes). It was initially supported by the Electric Power Research Institute (EPRI) and the National Rural Electric Cooperatives Association (NRECA) as part of the effort to revise the International Ground-Source Heat Pump Association (IGSHPA) Grouting Manual. [Den Braven and Jensen, (1996)] This work was extended to include Canadian National, Provincial and Territorial regulations [Den Braven and Schiers, (1996)] but this work is not included on the US Regulations website.

The regulations survey was first extended with support from the Geothermal Heat Pump Consortium to include horizontal and open system regulations, and to place them on the World Wide Web. Later extensions to the work included gathering applicable building code regulations. This information is also available on our Website. Work in progress includes determining local codes and regulations, names and contact addresses of the local officials, and continuous updating of the existing information.

2. SUMMARY OF GEOTHERMAL HEAT PUMP REGULATIONS

2.1 Open Loop Geothermal Heat Pump Systems

Regulations governing open loop systems fall into the following five general governing categories:

- -well driller licensing,
- -pump installer licensing,
- -water well construction standards,
- -reinjection regulations, and,
- -surface discharge.

While there is no nationwide consensus among regulators concerning appropriate regulations for drilling open loop geothermal heat pump systems, each state tends to apply its water well regulations to these systems. In addition, the National Ground Water Association disseminates information to its members on what is considered good well drilling practice. Forty six of the fifty states require licensing of well drillers, while about half also require separate licensing for pump installers.

On the discharge side, there are Federal regulations which govern both above-ground and below ground discharge. The Environmental Protection Agency's (EPA's) National Pollutant Discharge Elimination System (NPDES) regulations specifically govern surface discharge, unless a state has applied for and received "primacy" from EPA (the right to govern discharges at the state level). In addition, nothing in Federal statutes prevents a state or other governing body from adopting regulations which are more strict than the NPDES. Some states will prefer surface discharge for systems, while others will forbid it. Many are only worried about surface discharge if the change in the water temperature through the geothermal system is large, which is typically not the case for a geothermal heat pump system.

The situation is similar for reinjection. Since water is being reinjected underground, these wells are covered by the Underground Injection Control (UIC) regulations. Many states have regulations governing spacing of wells, allowable depths, etc.

2.2 Closed Loop Geothermal Heat Pump Systems

Closed loop geothermal heat pump systems are unlike any technology which has been used before. While it makes some sense to apply water well regulations to open loop supply wells, there is no existing body of regulations which are immediately appropriate for closed loop systems.

As the number of systems increases, environmental concerns are also coming to the forefront. Responsibility for groundwater quality can come under the purview of Federal, state, and local or regional governmental entities.

The Federal UIC and NPDES regulations were designed to prevent contamination of groundwater, aquifer, and surface water. However, the UIC portion of the Safe Water Drinking Act (40 CFR, Parts 144-147) precludes a closed-loop ground source system from being defined as an injection well as it is not used for the emplacement of fluids underground. Similarly, the NPDES portion of the Clean Water Act (40 CFR, Parts 122-124) which covers surface discharge of fluids, does not include ground-coupled heat pump systems under the definition it uses for "waters of the United States", which specifically limits its influence to such water bodies as wetlands, ponds, streams, sloughs, and navigable waterways. However, nothing in either the UIC or NPDES regulations precludes any state, county, parish, water district, municipality, etc. from adopting more stringent regulations. The majority of regulatory activity concerning closed loop ground-coupled heat pump systems has occurred at the state level.

The primary concern of the states is protection of groundwater quality, and all are at least concerned about the potential for groundwater contamination due to these systems. However, the reaction of the various states to this concern has varied greatly. The resulting action ranges from benign neglect to proscriptive policies which dictate materials and methods of design and installation very precisely. The recent increase in the number of installed systems has improved awareness, but has not necessarily increased understanding and knowledge among those who are responsible for promulgating and enforcing environmental regulations. The current status of regulatory requirements is a mish-mash, with little rhyme or reason. All wish to protect groundwater, but do not agree on how this is best accomplished.

In some cases, regulators have consulted with the practitioners in a particular state or region, and have worked out acceptable statutes which the industry accepts as sensible. In other cases, regulators have been hostile to concerns from industry practitioners, and have enacted debilitating legislation despite technical and scientific arguments to the contrary. Yet again, others have acted out of a sense of protective duty, but with ignorance of the technology and a lack of understanding of various options and their environmental impact.

Existing regulations for closed-loop systems tend to fall into the following categories:

-horizontal loop construction,
-vertical borehole and loop construction,
-grouting or backfill methods and materials,
-antifreeze specifications, and
-direct expansion specifications.

(A very few will also mention such lesser used systems as mains-connected systems, and standing columns wells.)

A typical example of the type of regulatory chaos that one will find is shown by looking at antifreeze specifications in the different states.

Closed-loop heat pump systems installed in most locations in the United States require the use of an antifreeze within the ground loop piping in order to prevent damage due to freezing. While approximately half of the states do not have specific regulations, all are at least somewhat concerned about the potential for groundwater contamination due to ground-coupled heat pump systems. Numerous antifreeze solutions have been tried over the years, with varying success.

The perfect antifreeze has not yet been invented. It would be:

- non-toxic,
- non-flammable,
- stable,
- compatible with other system materials,
- non-polluting (with respect to such characteristics as biological oxygen demand (BOD),
- non-corrosive,
- cheap, *and*
- would have excellent heat transfer and low viscosity characteristics.

Every antifreeze in use represents a compromise in the above characteristics. The most commonly used fluids to this point in time have been aqueous mixtures of:

- ethylene glycol,
- propylene glycol,
- methanol,
- ethanol,
- sodium chloride,
- calcium chloride, and
- potassium acetate.

Each of these has benefits and drawbacks. Each is acceptable in some locations in the United States, while at the same time being unacceptable in others. Ethylene glycol is the most common automotive antifreeze. However, it is toxic, and is not commonly used in ground-coupled heat pump systems, except in Europe [Heinonen, Tapscott, Wildin, and Beall, (1997)]. The salt solutions are non-toxic and non-flammable, but present potentially serious corrosion problems. Methanol is common, but is toxic, and is flammable in high concentrations. Ethanol is also common, and is less toxic than methanol, but can also be flammable, requiring care in handling. Potassium acetate is non-toxic and non-flammable, but its use can cause leakage and consequent corrosive problems which have resulted in litigation. Propylene glycol is non-toxic, and if food- or pharmaceutical-grade, is acceptable as a food additive. However, propylene glycol is more viscous than the other fluids, resulting in higher energy usage for the system. This higher viscosity also makes it more difficult to handle in cold weather. Three fluids have been recommended for use by the International Ground Source Heat Pump Association (IGSHPA) (a ground source heat pump industry association) in their standards. These are potable water, water plus potassium acetate, and water plus propylene glycol.

A detailed study of the relative advantages and disadvantages of numerous antifreeze solutions was recently completed by Heinonen, Tapscott, Wildin, and Beall, (1997), which is summarized in [Heinonen, Wildin, Beall, and Tapscott, (1997)]. Their conclusions detail:

- life cycle costs,
- corrosive risks,
- leakage risks,
- health, fire and environmental concerns, and
- regulatory risks (termed concern for future risk).

They also identified two other potential antifreezes which may be worth considering due to their characteristics and use in similar applications: calcium magnesium acetate (CMA), and urea ($CO(NH_2)_2$). They note CMA has high leakage potential and high long-term costs, while urea is also prone to leakage and is also corrosive. In general, the authors agree with IGSHPA, which recommended potable water, water plus potassium acetate, or water plus propylene glycol.

At present, twenty-six (26) of the fifty (50) states have no specific regulations or recommendations about what fluids are acceptable for use in ground-coupled heat pump ground

loop piping. Most of these also have no specific regulations regarding the construction or grouting of boreholes either.

Most of the rest of the states that have considered the issue have taken what may be referred to as a "belt-and-suspenders" approach to groundwater protection. That is, they will not only dictate proper construction of the ground loop to prevent joint leakage, they also require proper grouting of the borehole to minimize damage should leakage occur, and then also specify use of a non-toxic fluid for the loop to prevent any damage should construction and grouting measures both fail.

Of the remaining twenty-four (24) states, six (6) do not have specific regulations (or in some cases, regulatory authority) but do have "recommendations" or "policies" which in some cases are optional, but may be made part of a drilling permit. Some of these do recommend specific fluids. Another six (6) states merely have a requirement that any fluid used be "non-toxic". As was mentioned previously, in two states jurisdiction over closed-loop fluids lies with regional or local authorities; the state does not have jurisdiction. In the remaining ten (10) states, detailed directives have been written concerning acceptable fluids (and usually other aspects of ground-coupled heat pump system construction as well). The roster of fluids that are or are not acceptable varies widely from state to state.

The only fluid which is always acceptable is potable water. Other than that, there is no universal agreement, and no universally acceptable fluid. In Table 1, the number of states listed as accepting each of the following fluids will include both those of the six states who make "recommendations" and those of the ten states which have specific requirements. They will not include those who merely require a "non-toxic" fluid.

Several fluids acceptable to some of the states, as shown in Table 1, have not yet been mentioned. HCFC-22 is a chlorofluorocarbon refrigerant most commonly used in refrigeration systems. Its use as a heat transfer fluid in ground source heat pump systems is primarily limited to what are known as direct expansion systems, in which the evaporator/condenser piping itself is buried as the ground loop without the use of an intermediary heat exchanger. This type of system is not yet common. Glycerin, dipotassium phosphate, and calcium carbonate have also seen limited use in ground source heat pump systems.

As can be seen from Table 1, a majority of those states which specify fluids prefer potable water, propylene glycol, and potassium acetate. It is no accident that these fluids are the ones recommended by IGSHPA, as a number of states looked to them for industry input as they constructed their regulations.

A detailed list of the fluids which are approved by each state is given in [Den Braven, (1998)].

It is strongly recommended that the reader contact the pertinent regulatory officials within each state or other regulatory body to determine in detail the current application of regulations, as these do evolve and change over time.

TABLE 1: *FLUIDS ACCEPTABLE TO THE STATES*
(of the sixteen states who specify fluids)

FLUID	**NUMBER WHICH ACCEPT THE FLUID**
Potable Water	All
Aqueous propylene glycol	13
Aqueous potassium acetate	10
Aqueous calcium chloride	6
Aqueous sodium chloride	3
Aqueous ethanol	3
HCFC-22	2
Glycerin (Pharmaceutical grade)	2
Dipotassium phosphate	2
Aqueous methanol	2
Calcium carbonate	1
Aqueous ethylene glycol	1
Salt water	1
"Others on approval"	1

2.3 Local Regulations

In addition to the state regulations, a number of localities have adopted regulations concerning geothermal heat pump systems. We are in the process of collecting local regulations. Once again there is no systematic agreement on the part of local officials on appropriate regulations for this technology. Local regulations often exist due to the efforts (for good or ill) of only one or a few individuals. The situation is even more variable than on the state level.

By way of example, we have discovered the following:

-In Washington, thirteen counties have authority to expand on the state's water well construction standards as they see fit.

-Several counties in Montana have the authority to regulate water wells and driller licensing.

-All counties in Minnesota have the authority to expand upon state reinjection well standards.
-Several townships in Pennsylvania forbid the construction of open loop systems.

These regulations typically exist on the county or town (or city) level. Again, it is again strongly recommended that the practitioner contact officials in his or her location to determine whether there are any applicable regulations *before* commencing activities in a new location.

3. REGULATORY CLIMATE CHANGE

In addition to the regulations listed above, a number of states also have regulatory changes in progress, including Wyoming, Illinois, Iowa, Kansas, Washington, Ohio, and Maryland. The majority of these involve open loop systems. However, a few are developing detailed regulations. These include California and New Jersey. Still others with no regulatory authority have developed detailed "guidelines" to encourage proper construction of geothermal heat pump systems (Pennsylvania).

To assist in the development of appropriate construction practices, the National Ground Water Association in 1997 gathered together regulators, scientists, installers and other interested parties in an effort to develop industry supported guidelines for the construction of vertical boreholes for closed loop systems. This resulted in the publication in July, 1997 of "Guidelines for the Construction of Vertical Boreholes for Closed Loop Heat Pump Systems" [McCray, Ed., (1997)]. Their primary concern is that the subsurface environment is protected, and that industry practice be consistent with that concern. In this document, they address such issues as drilling , sanitary protection, control of drilling fluids, grouts, grout placement techniques, piping, pipe joining, heat transfer fluids, decommissioning, and many other topics. It should be noted that many of their suggestions, such as recommendations on acceptable piping materials, refer to that accepted by IGSHPA.

4. SUMMARY AND CONCLUSIONS

The regulations which presently govern the design and construction of open and closed loop geothermal heat pump systems across the US are a patchwork of appropriate and inappropriate responses to potential environmental problems. As these systems become more common, fear of environmental degradation can cause the passage of proscriptive legislation.

It is imperative that GHP system designers and installers recognize and acknowledge the concerns of regulatory officials. It is also imperative that they help educate officials in current and suggested industry practice. The existence of the Website which summarizes the existing regulations can be useful, as many states or other governing locales will study the response of other regulators to the technology, or even contact them for input.

The totality of state regulations in the US is so broad that is impossible to cover them thoroughly in this short paper. It is recommended that the reader consult the Web site mentioned before and their state regulators for complete information.

ACKNOWLEDGMENTS

The support of EPRI and NRECA in the original idea for regulations gathering is acknowledged and appreciated. The support by the Geothermal Heat Pump Consortium in the furthering of the regulations and construction of the Website is also greatly appreciated.

The hard work by my past and present students at the University of Idaho in gathering regulations and converting them to Web pages made all of this possible.

REFERENCES

Den Braven, K. R. (1998). Antifreeze Acceptability for Ground-Coupled Heat Pump Loops in the United States, ASHRAE Transactions, (104)1, January.

Den Braven, K. R., and Jensen, J., (1996). State and Federal Vertical Borehole Grouting Regulations. Final report to the Electric Power Research Institute on Project RP 33881-01, July.

Den Braven, K. R., and Schiers, C., (1996). Canadian Provincial and Territorial Vertical Borehole Grouting Regulations. Final report to the Electric Power Research Institute on Project RP 33881-01, November.

Heinonen, E. W., Tapscott, R. E., Wildin, M. W., and Beall, A. N., (1997). Assessment of Anti-Freeze Solutions for Ground-Source Heat Pump Systems. ASHRAE Report 908RP, February.

Heinonen, E. W., Wildin, M. W., Beall, A. N., and Tapscott, R. E,. (1997). Assessment of Anti-Freeze Solutions for Ground-Source Heat Pump Systems. ASHRAE Transactions, (103)2.

McCray, K., B, Editor, (1997), Guidelines for the Construction of Vertical Boreholes for Closed Loop Heat Pump Systems, National Ground Water Association, Westerville, Ohio.

Green Fact Sheet

INFILTRATOR®
water technologies

Infiltrator Plays Significant Role in Sustainability

January 2016

Introduction

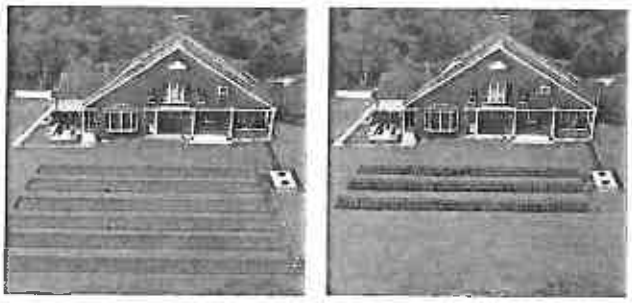
Infiltrator Water Technologies, LLC is the original and world's leading manufacturer of plastic leachfield drainage chambers and septic tanks for environmental onsite waste-water solutions. The chambers are a direct replacement for stone and pipe leachfields, and have revolutionized the septic industry. They provide cost-effective, efficient methods for the design of residential and commercial wastewater systems.

There are more than 2.6 million Infiltrator systems installed and over 138 million chambers in-ground worldwide. Infiltrator chamber systems have stood the test of time with an established history of performance and reliability, since 1987. Today, nearly half of the septic systems installed in the US use an Infiltrator Water Technologies product.

Infiltrator chambers are the original plastic leachfield drainage chambers.

Background

By being an industry leader, Infiltrator plays a significant role in implementing sustainable manufacturing practices. Infiltrator's technologies complement nature's own processes for recycling wastewater. For over twenty five years, Infiltrator has applied science and technology to further the onsite industry's goals of improved public health and better water quality. While we continue to make septic systems healthier, more reliable and longer-lasting, we are committed to manufacture products that also help to conserve our precious natural resources.



Traditional full-size stone and pipe leachfield vs. reduced size chamber system leachfield.

Infiltrator owns and operates Champion Polymer Recycling (Champion). Champion, formed in 1995, is one of the top twenty recycling companies in the country which is uniquely positioned to procure, certify, accept and process large quantities of plastic scrap. The use of recycled plastic materials goes directly into the manufacture of our products instead of being land filled or burned in an incinerator. Everyday we purchase and process post-consumer and post-industrial plastics to manufacture our products, putting over 150 million pounds (75,000 tons) of recycled plastics to better, environmentally friendly use every year.

Reducing the environmental footprint of materials, product manufacturing, and transportation is a global movement. Infiltrator recently funded a quantitative research study to understand more about the carbon footprint of the onsite wastewater industry. The study evaluated the environmental impacts of both conventional septic systems consisting of a concrete septic tank and stone/pipe drainfield and systems using recycled thermoplastics tanks and chambers.

For more information, contact Infiltrator Water Technologies, LLC at 1-800-221-4436.

Green Fact Sheet

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water technologies

Infiltrator Plays Significant Role in Sustainability

January 2016

Infiltrator found that even when transporting the recycled thermoplastic system 1030 miles and conventional systems only 30 miles, the recycled systems reduced electricity consumption by 88%, fuel consumption by 67%, water consumption by 97% and carbon emissions by 44%.

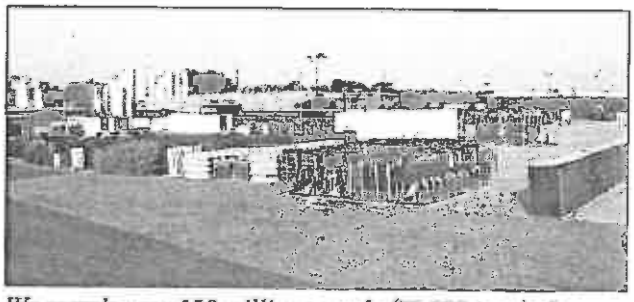
When compared to the total number of septic systems installed each year (estimated at 400,000 installed septic systems in 2013), this could amount to a total yearly savings of 2.2 billion kWh of electricity, 1.8 billion kBtu of fuel, 380 million gallons of water, and 59 kilotons of carbon if every septic system was composed of recycled thermoplastics rather than conventional materials.

Quick Facts

Here are some ways Infiltrator and Champion are working to improve the environment in which we live.

- We seek polypropylene, polyethylene (LDPE & HDPE) and materials (parts, purging, regrind, pellets) from the following industries: automotive, building materials, beverage and bottling, food processing, grocery/bakery, and distribution centers.
- Infiltrator products are made of 95% recycled material.
- The post-consumer and post-industrial plastics we purchase keep 75,000 tons per year from being landfilled.
- Infiltrator has the ability to process up to 500,000 pounds of plastic daily.
- Champion one of the top 20 purchasers of recycled plastics in the United States.
- Procurement Breakdown
  - 25% Post-consumer
  - 75% Post-industrial

Infiltrator products are made from 95% recycled material.



We recycle over 150 million pounds (75,000 tons) of plastic per year to manufacture our products.

- With our unique procurement procedure we visit dump sites to reclaim materials before they are land filled.
- Proprietary processing method allows us to utilize waste streams that are otherwise unusable to other recycling/manufacturing companies.
- Infiltrator was awarded the Chairman's Award by Global Plastics Environmental Conference (GPEC) in 2013
- Champion participates in many recycling organizations and associations including the Association of Post-Consumer Plastic Recyclers, Carpet America Recovery Effort, Automotive Body Parts Association, and Automobile Recyclers Association.
- Total Barrels of oil saved by recycling (2014-2016) = 1.53 million barrels.
- Tons of CO_2 reduced by recycling (2014-2016) = 198,000 tons.

[1] Recycling a ton of polypropylene saves 10.2 barrels of oil.

[2] Recycling a ton of polypropylene reduce CO_2 emissions by 1.32 tons.

Sources: Argonne National Labs, DOE, Franklin Associates, Phillips 66 and Wellman.

www.infiltratorwater.com

1-800-221-4436

U.S. Patents: 4,759,661; 5,017,041; 5,156,488; 5,336,017; 5,401,116; 5,401,459; 5,511,903; 5,716,163; 5,588,778; 5,839,844 Canadian Patents: 1,329,959; 2,004,564 Other patents pending. Infiltrator, Equalizer, Quick4 and SideWinder are registered trademarks of Infiltrator Water Technologies. Infiltrator is a registered trademark in France. Infiltrator Water Technologies is a registered trademark in Mexico. Contour, MicroLeaching, PolyTuff, ChamberSpacer, MultiPort, PosiLock, QuickCut, QuickPlay, SnapLock and StraightLock are trademarks of Infiltrator Water Technologies
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EnviroTest Laboratories Inc.

ANALYTICAL REPORT

Job Number: 420-95546-4

SDG Number: 41877

Job Description: Carnell Environmental

For:
Carnell Environmental
7-11 Legion Drive
Suite G3
Valhalla, NY 10595

Attention: Mr. Michael Carnicelli

Debra Bayer
Customer Service Manager
dbayer@envirotestlaboratories.com
10/05/2015

cc: Cheryl Charles
Lab reports

NYSDOH ELAP does not certify for all parameters. EnviroTest Laboratories does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval of the laboratory. EnviroTest Laboratories Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our laboratory. All questions regarding this report should be directed to the EnviroTest Customer Service Representative.

EnviroTest Laboratories, Inc. Certifications and Approvals: NYSDOH 10142, NJDEP NY015, CTDOPH PH-0554

Job Narrative
420-J95546-4

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
No analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

General Chemistry
Method SM 4500 H+ B: The holding time for pH is 15 minutes, the samples were received outside of the holding time.

No other analytical or quality issues were noted.

Biology
No analytical or quality issues were noted.

METHOD SUMMARY

Client: Carnell Environmental

Job Number: 420-95546-4
SDG Number: 41877

Description	Lab Location	Method	Preparation Method
Matrix: Water			
ICP Metals by 200.7	EnvTest	EPA 200.7 Rev 4.4	
200 Series Drinking Water Prep Determination Step	EnvTest		EPA 200
ICPMS Metals by 200.8	EnvTest	EPA 200.8 Rev.5.4	
200 Series Drinking Water Prep Determination Step	EnvTest		EPA 200
Anions by Ion Chromatography	EnvTest	MCAWW 300.0	
Anions by Ion Chromatography	EnvTest	EPA 300.0 Rev. 2.1	
Purgeable Organic Compounds in Water by GC/MS	EnvTest	EPA-DW 524.2	
pH	EnvTest	SM19 SM 4500 H+ B	
Total Coliform and Escherichia coli by Colilert - Presence/Absence	EnvTest	SMWW SM 9223	

Lab References:

EnvTest = EnviroTest

Method References:

EPA = US Environmental Protection Agency

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM19 = "Standard Methods For The Examination Of Water And Wastewater", 19Th Edition, 1995."

SMWW = "Standard Methods for the Examination of Water and Wastewater"

METHOD / ANALYST SUMMARY

Client: Carnell Environmental

Job Number: 420-95546-4
SDG Number: 41877

Method	Analyst	Analyst ID
EPA-DW 524.2	Andersen, Eric C	ECA
EPA 200.7 Rev 4.4	Cusack, Renee	RC
EPA 200.8 Rev.5.4	Pistole, Maria	MP
MCAWW 300.0	Sirico, Derek	DS
EPA 300.0 Rev. 2.1	Cruz, Joshua	JC
SM19 SM 4500 H+ B	O'Driscoll, Kate	KO
SMWW SM 9223	O'Driscoll, Kate	KO

SAMPLE SUMMARY

Client: Carnell Environmental

Job Number: 420-95546-4
SDG Number: 41877

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
420-95546-6	249 Mt. Holly Rd, Katonah (First)	Drinking Water	09/24/2015 1235	09/24/2015 1530
420-95546-7	249 Mt. Holly Rd, Katonah (Flush)	Drinking Water	09/24/2015 1243	09/24/2015 1530

Mr. Michael Carnicelli
Carnell Environmental
7-11 Legion Drive
Suite G3
Valhalla, NY 10595

Job Number: 420-95546-4
Sdg Number: 41877

Client Sample ID: **249 Mt. Holly Rd, Katonah (First)**
Lab Sample ID: **420-95546-6**

Date Sampled: 09/24/2015 1235
Date Received: 09/24/2015 1530
Client Matrix: Drinking Water

Analyte	Result/Qualifier	Unit	RL	RL	Dilution
Method: 200.8 Rev.5.4		Date Analyzed:		09/28/2015 1547	
Prep Method: 200		Date Prepared:		09/25/2015 1337	
Lead	14	ug/L	1.0	1.0	1.0

Mr. Michael Carnicelli
Carnell Environmental
7-11 Legion Drive
Suite G3
Valhalla, NY 10595

Job Number: 420-95546-4
Sdg Number: 41877

Client Sample ID: **249 Mt. Holly Rd, Katonah (Flush)**
Lab Sample ID: **420-95546-7**

Date Sampled: 09/24/2015 1243
Date Received: 09/24/2015 1530
Client Matrix: Drinking Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: 300.0		Date Analyzed:		09/24/2015 1852	
Nitrate as N	0.97	mg/L	0.010	0.25	1.0

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Valhalla, NY 10595

Job Number: 420-95546-4
Sdg Number: 41877

Client Sample ID: **249 Mt. Holly Rd, Katonah (Flush)**
Lab Sample ID: **420-95546-7**

Date Sampled: 09/24/2015 1243
Date Received: 09/24/2015 1530
Client Matrix: Drinking Water

Analyte	Result/Qualifier	Unit	NONE	NONE	Dilution
Method: SM 9223		Date Analyzed:	09/24/2015 1656		
Coliform, Total	Absent	CFU/100mL			1.0
Escherichia coli	Absent	CFU/100mL			1.0

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Job Number: 420-95546-4
Sdg Number: 41877

Client Sample ID: **249 Mt. Holly Rd, Katonah (Flush)**
Lab Sample ID: **420-95546-7**

Date Sampled: 09/24/2015 1243
Date Received: 09/24/2015 1530
Client Matrix: Drinking Water

Analyte	Result/Qualifier		Unit	RL	RL	Dilution
Method: 524.2			Date Analyzed:		09/25/2015 1351	
1,1,1,2-Tetrachloroethane	0.50	U	ug/L	0.50	0.50	1.0
1,1,1-Trichloroethane	0.50	U	ug/L	0.50	0.50	1.0
1,1,2,2-Tetrachloroethane	0.50	U	ug/L	0.50	0.50	1.0
1,1,2-Trichloroethane	0.50	U	ug/L	0.50	0.50	1.0
1,1-Dichloroethane	0.50	U	ug/L	0.50	0.50	1.0
1,1-Dichloroethene	0.50	U	ug/L	0.50	0.50	1.0
1,1-Dichloropropene	0.50	U	ug/L	0.50	0.50	1.0
1,2,3-Trichlorobenzene	0.50	U	ug/L	0.50	0.50	1.0
1,2,3-Trichloropropane	0.50	U	ug/L	0.50	0.50	1.0
1,2,4-Trichlorobenzene	0.50	U	ug/L	0.50	0.50	1.0
1,2,4-Trimethylbenzene	0.50	U	ug/L	0.50	0.50	1.0
1,2-Dichloroethane	0.50	U	ug/L	0.50	0.50	1.0
1,2-Dichlorobenzene	0.50	U	ug/L	0.50	0.50	1.0
1,2-Dichloropropane	0.50	U	ug/L	0.50	0.50	1.0
1,3-Dichloropropane	0.50	U	ug/L	0.50	0.50	1.0
1,4-Dichlorobenzene	0.50	U	ug/L	0.50	0.50	1.0
2,2-Dichloropropane	0.50	U	ug/L	0.50	0.50	1.0
Benzene	0.50	U	ug/L	0.50	0.50	1.0
Bromobenzene	0.50	U	ug/L	0.50	0.50	1.0
Bromochloromethane	0.50	U	ug/L	0.50	0.50	1.0
Bromomethane	0.50	U	ug/L	0.50	0.50	1.0
n-Butylbenzene	0.50	U	ug/L	0.50	0.50	1.0
cis-1,2-Dichloroethene	0.50	U	ug/L	0.50	0.50	1.0
cis-1,3-Dichloropropene	0.50	U	ug/L	0.50	0.50	1.0
Carbon tetrachloride	0.50	U	ug/L	0.50	0.50	1.0
Chlorobenzene	0.50	U	ug/L	0.50	0.50	1.0
Chloroethane	0.50	U	ug/L	0.50	0.50	1.0
Chloromethane	0.50	U	ug/L	0.50	0.50	1.0
Dibromomethane	0.50	U	ug/L	0.50	0.50	1.0
Ethylbenzene	0.50	U	ug/L	0.50	0.50	1.0
Dichlorodifluoromethane	0.50	U	ug/L	0.50	0.50	1.0
Hexachlorobutadiene	0.50	U	ug/L	0.50	0.50	1.0
Isopropylbenzene	0.50	U	ug/L	0.50	0.50	1.0
p-Isopropyltoluene	0.50	U	ug/L	0.50	0.50	1.0
Methylene Chloride	0.50	U	ug/L	0.50	0.50	1.0
m-Xylene & p-Xylene	1.0	U	ug/L	1.0	1.0	1.0
Methyl tert-butyl ether	0.50	U	ug/L	0.50	0.50	1.0
o-Xylene	0.50	U	ug/L	0.50	0.50	1.0
Tetrachloroethene	0.50	U	ug/L	0.50	0.50	1.0
Toluene	0.50	U	ug/L	0.50	0.50	1.0

Mr. Michael Carnicelli
Carnelli Environmental
7-11 Legion Drive
Suite G3
Valhalla, NY 10595

Job Number: 420-95546-4
Sdg Number: 41877

Client Sample ID: **249 Mt. Holly Rd, Katonah (Flush)**
Lab Sample ID: **420-95546-7**

Date Sampled: 09/24/2015 1243
Date Received: 09/24/2015 1530
Client Matrix: Drinking Water

Analyte	Result/Qualifier		Unit	RL	RL	Dilution
trans-1,2-Dichloroethene	0.50	U	ug/L	0.50	0.50	1.0
trans-1,3-Dichloropropene	0.50	U	ug/L	0.50	0.50	1.0
Trichloroethene	0.50	U	ug/L	0.50	0.50	1.0
tert-Butylbenzene	0.50	U	ug/L	0.50	0.50	1.0
Trichlorofluoromethane	0.50	U	ug/L	0.50	0.50	1.0
Vinyl chloride	0.50	U	ug/L	0.50	0.50	1.0
Xylenes, Total	1.5	U	ug/L	1.5	1.5	1.0
Styrene	0.50	U	ug/L	0.50	0.50	1.0
sec-Butylbenzene	0.50	U	ug/L	0.50	0.50	1.0
1,3,5-Trimethylbenzene	0.50	U	ug/L	0.50	0.50	1.0
N-Propylbenzene	0.50	U	ug/L	0.50	0.50	1.0
1,3-Dichlorobenzene	0.50	U	ug/L	0.50	0.50	1.0
2-Chlorotoluene	0.50	U	ug/L	0.50	0.50	1.0
4-Chlorotoluene	0.50	U	ug/L	0.50	0.50	1.0
Surrogate					Acceptance Limits	
4-Bromofluorobenzene	98		%		71 - 120	
Toluene-d8 (Surr)	95		%		79 - 121	
1,2-Dichloroethane-d4 (Surr)	112		%		70 - 128	
Method: 200.7 Rev 4.4			Date Analyzed:		09/29/2015 1327	
Prep Method: 200			Date Prepared:		09/28/2015 1616	
Iron	0.060	U	mg/L	0.060	0.060	1.0
Sodium	6.6		mg/L	0.20	0.20	1.0
Method: 200.8 Rev.5.4			Date Analyzed:		09/29/2015 0940	
Prep Method: 200			Date Prepared:		09/28/2015 1616	
Lead	1.3		ug/L	1.0	1.0	1.0
Arsenic	0.0014	U	mg/L	0.0014	0.0014	1.0
Manganese	0.010	U	mg/L	0.010	0.010	1.0
Method: 300.0 Rev. 2.1			Date Analyzed:		09/29/2015 1741	
Chloride	37		mg/L	15	15	10
Method: SM 4500 H+ B			Date Analyzed:		09/25/2015 1602	
pH	7.19	H	SU	0.200	0.200	1.0
Temp @ pH Measurement	16.0		Degrees C	5.00	5.00	1.0

DATA REPORTING QUALIFIERS

Client: Carnell Environmental

Job Number: 420-95546-4
Sdg Number: 41877

Lab Section	Qualifier	Description
GC/MS VOA		
	U	The analyte was analyzed for but not detected at or above the lowest stated limit.
Metals		
	U	The analyte was analyzed for but not detected at or above the lowest stated limit.
General Chemistry		
	H	Sample was prepped or analyzed beyond the specified holding time

Definitions and Glossary

Client: Carnell Environmental

Job Number: 420-95546-4

Sdg Number: 41877

Abbreviation	These commonly used abbreviations may or may not be present in this report.
%R	Percent Recovery
DL, RA, RE	Indicates a Dilution, Reanalysis or Reextraction.
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit - an estimate of the minimum amount of a substance that an analytical process can reliably detect. A MDL is analyte- and matrix-specific and may be laboratory-dependent.
ND	Not detected at the reporting limit (or MDL if shown).
QC	Quality Control
RL	Reporting Limit - the minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.
RPD	Relative Percent Difference - a measure of the relative difference between two points.

EnviroTest Laboratories, Inc.

CHAIN OF CUSTODY

95546-4

315 Fullerton Avenue
Newburgh, NY 12550
TEL (845) 562-0890
FAX (845) 562-0841

CUSTOMER Carnell
ADDRESS 7-11 Legion Dr. Ste G-3
CITY/STATE/ZIP Valhalla NY 10595
CONTACT M. Fescoe PHONE 914 946-4300
PROJECT LOCATION 249 Mt. Holly Rd. Katonah, NY
PRJ NUMBER/P.O.# 41877

REPORT TYPE
- [X] STANDARD
- [ ] ISRA
- [ ] NJ REG
- NYASP [ ] A [ ] B
- [ ] OTHER

TURNAROUND
- [X] NORMAL
- [ ] QUICK
- VERBAL

REPORT # (Lab Use Only)

NOTE: SAMPLE TEMPERATURE UPON RECEIPT MUST BE 4C +/- 2C.

SAMPLE TEMP. 6.5 °C
SAMPLE REC'D. ON ICE [ ] Y [ ] N
pH CHECK [ ] Y [ ] N
CHLORINE RESIDUAL [ ] Y [ ] N

NY PUBLIC WATER SUPPLIES
SOURCE ID
ELRP TYPE
FEDERAL ID

MATRIX: DW=DRINKING WATER S=SOIL O=OIL WW=WASTE WATER SL=SLUDGE GW=GROUND WATER

Sample #	SAMPLING DATE	SAMPLING TIME	COMP (Y / N)	GRAB (Y / N)	MATRIX	Client I.D.	Total # of containers	40ml Glass HCL	Liter Glass HCL	250ml Amber H2SO4	Liter Amber Plain	250ml Plastic HNO3	250ml Plastic NaOH	Liter Plastic	Liter Plastic H2SO4	250ml Plastic	125ml Plastic Sterile	8oz Glass	2oz Glass	250ml Pl. NaOH/ZnAcc	ANALYSIS REQUESTED
	9/24/15			Y	DW		1							1							West Cty First Draw Lead
	9/24/15			Y	DW		5	2				1				1	1				West Cty Flush Draw

SAMPLES SUBMITTED FOR ANALYSIS WILL BE SUBJECTED TO THE ENVIROTEST TERMS AND CONDITIONS OF SALE (SHORT FORM) UNLESS ALTERNATE TERMS ARE AGREED IN WRITING.

RELIQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	Carnell	9/24/15		[signature]	ER	9/24/15	1:20
SAMPLED BY [signature]	Carnell	9/24/15					
RELIQUISHED BY [signature]	Eoz	9/24/15	2:30	[signature]	ER	9/24/15	330

COMMENTS

NYSDOH 10142 NJDEP NY015 CTDOPH-PH-0554 EPA NY00049

LOGIN SAMPLE RECEIPT CHECK LIST

Client: Carnell Environmental

Job Number: 420-95546-4
SDG Number: 41877

Login Number: 95546

Question	T/F/NA	Comment
Samples were collected by ETL employee as per SOP-SAM-1	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is recorded.	True	6.5 C
Cooler Temp. is within method specified range.(0-6 C PW, 0-8 C NPW, or BAC <10 C	True	
If false, was sample received on ice within 6 hours of collection.	NA	
Based on above criteria cooler temperature is acceptable.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	False	pH
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	NA	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

Table 1 - Primary Parameters

Information obtained from the New York State Department of Health Website
http://www.health.state.ny.us/environmental/water/drinking/ccr/table1.htm
http://www.epa.gov/safewater/contaminants/index.html#mcls

Contaminant	MCL*	Sources in Drinking Water	Health Effects	Recommended Treatment
Total Coliform Bacteria	Any Positive sample	Naturally present in the environment	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.	Ultraviolet Disinfection System
E. Coli	Any Positive sample	Human and animal fecal water	E. Coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in the wastes can cause short-term effects such as diarrhea cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children and people with severely compromised immune systems.	Ultraviolet Disinfection System
Nitrate	10 mg/L	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.	Infants below the age of six months who drink water containing nitrates in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.	Reverse Osmosis Filters
Arsenic	10 ug/L	Erosion of natural deposits; Runoff from orchards: Runoff from glass and electronics production wastes	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.	Reverse Osmosis Filters or Activated Alumina Filters
Lead	15 ug/L action level	Corrosion of household plumbing systems; Erosion of natural deposits	Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.	Reverse Osmosis Filters
Vinyl Chloride	2 ug/L	Degradation of other chemicals leaching from waste sites, spills, etc.	Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.	Carbon Filters

Table 1 - Primary Parameters - continued

Information Obtained from the New York State Department of Health Website
http://www.health.state.ny.us/environmental/water/drinking/ccr/table1.htm
http://www.epa.gov/safewater/contaminants/index.html#mcls

Contaminant	MCL*	Sources in Drinking Water	Health Effects	Recommended Treatment
Vinyl Chloride	10 ug/L	Degradation of other chemicals leaching from waste sites, spills, etc.	Some people who drink water containing vinyl chloride in excess of the MCL over many years have an increased risk of getting cancer.	Carbon Filters
Methyl Tertiary Butyl Ether (MTBE)	10 ug/L	Releases from gasoline storage tanks. MTBE is an octane enhancer in unleaded gasoline. Atmospheric deposition.	EPA reviewed available health effects information on MTBE in its 11997 Drinking Water Advisory guidance and decided that there was insufficient information available to allow EPA to establish quantitative estimates for health risks and as such would not set health advisory limits. The drinking water advisory document indicates that there is little likelihood that MTBE in drinking water will cause adverse health effects at concentrations between 20 and 40 ppb or below.	Carbon Filters
Primary Organic Contaminants (POC's)	5 ug/L	Discharge from industrial activities or petroleum spills	Refer to the following websites for further information: hhtp://www.health.state.ny.us/environmental/water/drinking/ccr/table.htm or http://www.epa.gov/safewater/contaminants/index.html#mcls	

* Maximum Contaminant Level (MCL) - Maximum permissible level of a contaminant in drinking water as established in Part 5 of the New York State Sanitary Code.

** Other treatment options may be available

Table 2 - Secondary Parameters

Information Obtained from the New York State Department of Health Website
http://www.health.state.ny.us/environmental/water/drinking/ccr/table1.htm

Contaminant	MCL*	Sources in Drinking Water	Health Effects	Recommended Treatment
Iron	300 ug/L	Naturally occurring	Iron has no health effects. At 1,000 ug/L a substantial number of people will note the bitter astringent taste of iron. Also, at this concentration, it imparts a brownish color to laundered clothing and stains plumbing fixtures with a characteristic rust color. Staining can result at levels of 50 ug/L, lower than those detectable to taste buds. Therefore, the MCL of 300 ug/L represents a reasonable compromise as adverse aesthetic effects are minimized at this level. Many multi-vitamins may contain 3,000 or 4,000 micrograms or iron per capsule.	No Treatment Required
Manganese	300 ug/L	Naturally occurring; Indicative of landfill contamination	The Food and Nutrition Board of the National Research determined an estimated safe and adequate daily dietary intake of manganese to be 2,000-5,000 micrograms for adults. However, many peoples diets lead them to consume even higher amounts of manganese, especially those who consume high amounts of vegetable or are vegetarian. The infant population is of greatest concern. It would be better if the drinking water were not used to make infant formula since it already contains iron and manganese. Excess manganese produced a brownish color in laundered goods and impairs the taste of tea, coffee, and other beverages. Concentrations may cause a dark brown stain on porcelain plumbing fixtures. As with iron, manganese may form a coating on distribution pipes. These may slough off causing brown blotches on laundered clothing or black particles in the water.	No Treatment Required
Sodium	(see Health Effects)	Naturally occurring; Road salt; Water softeners; Animal Waste	Water containing more than 20 mg/L of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/L of sodium should not be used by people on moderately restricted sodium diets.	No Treatment Required

Table 2 - Secondary Parameters...continued

Information Obtained from the New York State Department of Health Website
http://www.health.state.ny.us/environmental/water/drinking/ccr/table1.htm

Contaminant	MCL*	Sources in Drinking Water	Health Effects	Recommended Treatment
Chloride	250 mg/L	Naturally occurring or indicative of road salt contamination	No health effects. The MCL for chloride is the level above which the taste of water may become objectionable. In addition, to the adverse taste effects, high chloride concentration levels in the water contribute to the deterioration of domestic plumbing and water heaters. Elevated chloride concentrations may also be associated with the presence of sodium in drinking water.	No Treatment Required
pH	N/A	Naturally occurring	A low pH (acidic) can cause corrosion of household plumbing causing lead to be leached out into the drinking water from any lead solder joints, the water service line from private well, and/or plumbing fixtures containing lead. A high pH (basic) can cause slippery feel, soda taste and deposits. pH range should be 6.5 to 8.5.	No Treatment Required

Additional information may be obtained from http://www.epa.gov/safewater/
* Maximum Contaminant Level (MCL) - Maximum permissible level of a contaminant in drinking water as established in Part 5 of the New York State Sanitary Code.

Well, Water Storage Tank, and Household Plumbing Disinfection Procedure

Private wells, water storage tanks, and/or househould plumbing may become contaminated with Total Coliform Bacteria. Such contamination may results from an isolated source of contamination from an isolated event, e.g. floor or unclean faucet; or from a continuous source of contamination, e.g. poor well design or construction, cracked well casing, or defective sanitary seal on well casing allowing ground water near the surface of the ground to continually infiltrate the well.

This disinfection procedure is not intended where there is continuous source of contamination. Satisfactory well disinfection as discussed in Section 3.0 of the Rules & Regulations would suggest an isolated source of contamination.

The following disinfection procedure is from Section 8.0 of the Westchester County Health Department Rules & Regulations For the Design And Construction Of Residential Subsurface Sewage Treatment Systems And Wells In Westchester County, New York:

1. For each 50 foot depth, mix one quart of solution containing 5-1/4% available chlorine in 5 gallons of water. Recent guidelines from the New York State Health Department advises that **laundry bleach** with additives (i.e., scented, softening agents, etc.) lacking NSF/ANSI Standard 60 approval for use in drinking water treatment **should not be used** for well disinfection purposes.

2. Pour this solution into the well and recirculate water through the household plumbing and a garden hose back into the well to assure the entire well water column is chlorinated. Open all taps one at a time until a noticeable chlorine odor appears at the tap then turn them off.

3. Again add chlorine solution to the well and recirculate water through the garden hose back into the well to assure the entire well water column is chlorinated. Shut off the pump and replace the well cap or sanitary seal on top of the casing. Allow the chlorine solution to remain in the system for a minimum of eight (8) hours, or overnight if possible.

4. Thoroughly flush the system until the chlorine odor dissipates. A DPD chlorine test kit may be used to determine when the chlorine has dissipated.

5. Collect a sample for bacteriological examination by a NYS ELAP approved lab.

Concrete Washout Area
Best Management Practice

from Ecology's Water Quality Program

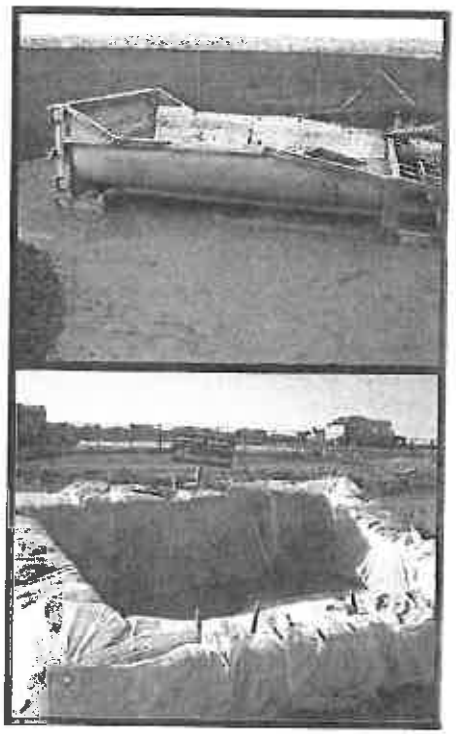
Reminder: The Construction Stormwater General Permit does not allow operators to discharge concrete wash water to waterways, storm drains or groundwater. Operators must manage and contain this water to prevent spills, leaks or discharges.

Description: Concrete wash water is generated from washing out ready-mix trucks, drums and pumps; it also includes the water from rinsing off chutes, equipment, and concrete truck exteriors. Concrete wash water is toxic to fish and aquatic life and can contaminate drinking water supplies. Improper disposal can clog storm drain pipes and cause flooding. Operators must prevent concrete wash water from entering waterways, storm drains and groundwater. If possible, all concrete waste and wash water should be returned with each concrete truck for disposal at the concrete batch plant. If this is not possible, operators can install an on-site **concrete washout area**. This best management practice can prevent water pollution and comply with state and federal laws.

Education for Concrete Contractors: The success of your on-site concrete washout area depends on whether or not concrete truck drivers use your designated concrete washout areas. Bring attention to the designated washout area with signs, and provide careful oversight to prevent improper dumping of concrete wash water. Operators should ensure that concrete contracts include requirements that concrete truck drivers use designated concrete washout areas.

Types of Concrete Washout Areas

Prefabricated washout containers: A growing number of companies offer sturdy, prefabricated concrete washout containers that are delivered to the site. Some services provide the containers alone without providing maintenance and disposal of materials, while other companies offer complete service that includes delivery of containers and regular pickups of solid and liquid waste materials. The prefabricated containers resist damage and protect against spills and leaks. Full-service option relieves the site superintendent of the burden of disposing of materials. Some companies offer prefabricated washout containers with ramps to accommodate concrete pump trucks.



Self-installed concrete washouts: You can also build your own concrete washout facility - although self-installed structures are much less reliable than prefabricated containers and are prone to leaks.

- **Below-grade washouts** will prevent breaches and reduce the likelihood of spills and contaminated stormwater runoff.
- **Above-grade washouts** must be carefully sized, inspected and maintained to prevent leaks and spills.

Sizing Self-Installed Concrete Washout Areas

Refer to Ecology BMP C154 for detailed design standards. You must size your washouts to handle solids, wash water, and rainfall to prevent overflow.

- Approximately 7 gallons of wash water are used to wash one truck chute.
- Approximately 50 gallons are used to wash out the hopper of a concrete pump truck.

Below-grade washouts on must be sized to contain all liquid and solid waste you expect to generate in between cleanout periods. On larger sites, the pit should be at least 10 feet wide by 10 feet long and accommodate a minimum 12 inch freeboard (safety margin) in the sizing calculations. Line the pit with plastic sheeting of at least 10-mil thickness that has no holes or tears to prevent leaching of liquids into the ground.

Above-grade washouts on larger sites must be at least 10 feet wide by 10 feet long and sized to contain all liquid and solid waste you expect to generate in between cleanout periods. Washouts at smaller sites can be smaller according to the expected capacity needed. Include a minimum of 12 inch freeboard in the sizing calculations. You can make the structures from staked straw bales or sandbags double- or triple-lined with plastic sheeting of at least 10-mil thickness that has no holes or tears.

Placement of Concrete Washout Areas

You should not place concrete washout facilities within 50 feet of storm drains, open ditches, or water bodies. Consider multiple areas based upon demand for storage capacity. Allow convenient access for concrete trucks, preferably near the area where the concrete is being poured. If trucks need to leave a paved area to access washout, prevent track-out with a pad of rock or quarry spalls (see Ecology BMP C105). These areas should be far enough away from other construction traffic to reduce the likelihood of accidental damage and spills.

Operation

Inspection: Check all concrete washout facilities daily to determine if they have been filled to 75% capacity. The facility needs to be cleaned or changed when 75% full. Inspect self-installed washouts daily to ensure that plastic linings are intact and sidewalls have not been damaged by construction activities. If contractors have washed out chutes or hoppers in other unapproved locations, you may need to provide more education, install additional signage, or place additional washouts in more convenient locations.

Material Removal: If the washout is nearing capacity, vacuum and dispose of the waste material in an approved manner. Do not discharge liquids to waterways, storm drains or directly onto ground. Do not use sanitary sewer without local approval. Remove liquids or cover the structures before predicted storms to prevent overflows.

You can remove hardened concrete whole or you can break it up first, depending on the type of equipment available at your site. You can then reuse the concrete onsite or haul it away for disposal or recycling.

When you remove materials from the concrete washout, inspect for signs of weakening or damage, and rebuild structure or make necessary repairs. Install a new plastic liner after every cleaning.

Resources

Ecology's Stormwater Management Manuals:
http://www.ecy.wa.gov/programs/wq/stormwater/construction/#More%20Stormwater%20Guidance%20Information%20

For more information, please contact:

Jeff Killelea
Washington State Dept. of Ecology - Water Quality Program
(360) 407-6127 or jkil461@ecy.wa.gov

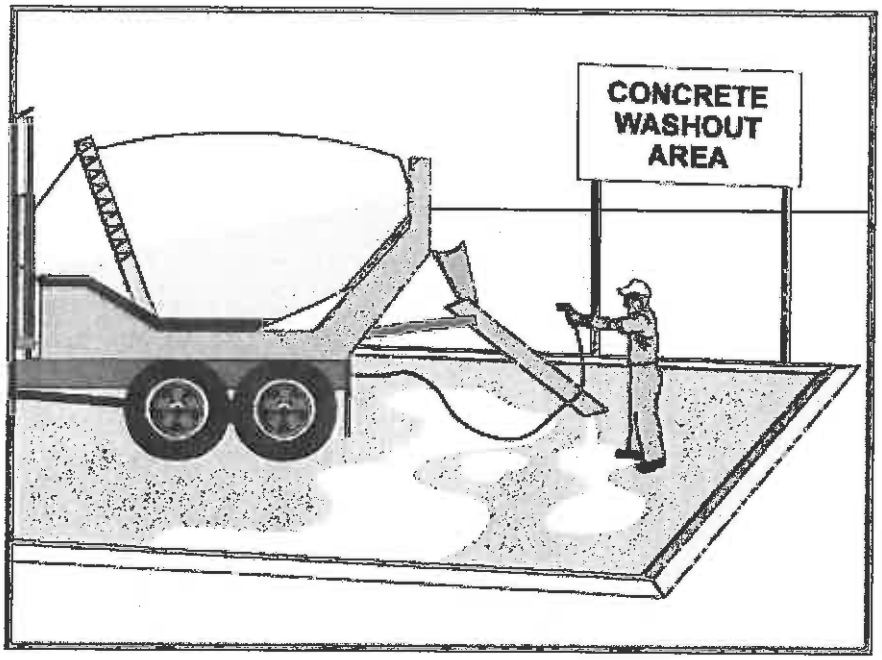
Visit Ecology's Construction Stormwater Website: http://www.ecy.wa.gov/programs/wq/stormwater/construction

If you need this information in an alternate format, please call the Program Development Services Section Secretary at 360-407-6401. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

BMP C154: Concrete Washout Area

Purpose

Prevent or reduce the discharge of pollutants to stormwater from concrete waste by conducting washout offsite, or performing onsite washout in a designated area to prevent pollutants from entering surface waters or groundwater.



Conditions of Use

Concrete washout area best management practices are implemented on construction projects where:

- Concrete is used as a construction material
- It is not possible to dispose of all concrete wastewater and washout offsite (ready mix plant, etc.).
- Concrete trucks, pumpers, or other concrete coated equipment are washed onsite.

Design and Installation Specifications

Implementation

The following steps will help reduce stormwater pollution from concrete wastes:

- Perform washout of concrete trucks offsite or in designated concrete washout areas only.
- Do not wash out concrete trucks onto the ground, or into storm drains, open ditches, streets, or streams.
- Do not allow excess concrete to be dumped onsite, except in designated concrete washout areas.

- Concrete washout areas may be prefabricated concrete washout containers, or self-installed structures (above-grade or below-grade).
    - Prefabricated containers are most resistant to damage and protect against spills and leaks. Companies may offer delivery service and provide regular maintenance and disposal of solid and liquid waste.
    - If self-installed concrete washout areas are used, below-grade structures are preferred over above-grade structures because they are less prone to spills and leaks.
    - Self-installed above-grade structures should only be used if excavation is not practical.

Education

- Discuss the concrete management techniques described in this BMP with the ready-mix concrete supplier before any deliveries are made.
- Educate employees and subcontractors on the concrete waste management techniques described in this BMP.
- Arrange for contractor's superintendent or Certified Erosion and Sediment Control Lead (CESCL) to oversee and enforce concrete waste management procedures.
- A sign should be installed adjacent to each temporary concrete washout facility to inform concrete equipment operators to utilize the proper facilities.

Contracts

- Incorporate requirements for concrete waste management into concrete supplier and subcontractor agreements.

Location and Placement

- Locate washout area at least 50 feet from sensitive areas such as storm drains, open ditches, or water bodies, including wetlands.
- Allow convenient access for concrete trucks, preferably near the area where the concrete is being poured.
- If trucks need to leave a paved area to access washout, prevent track-out with a pad of rock or quarry spalls (see Ecology BMP C105). These areas should be far enough away from other construction traffic to reduce the likelihood of accidental damage and spills.
- The number of facilities you install should depend on the expected demand for storage capacity.
- On large sites with extensive concrete work, washouts should be placed in multiple locations for ease of use by concrete truck drivers.

Onsite Temporary Concrete Washout Facility, Transit Truck Washout Procedures:

- Temporary concrete washout facilities shall be located a minimum of 50 ft from sensitive areas including storm drain inlets, open drainage facilities, and watercourses.
- Concrete washout facilities shall be constructed and maintained in sufficient quantity and size to contain all liquid and concrete waste generated by washout operations.
    - Approximately 7 gallons of wash water are used to wash one truck chute.
    - Approximately 50 gallons are used to wash out the hopper of a concrete pump truck
- Washout of concrete trucks shall be performed in designated areas only.
- Concrete washout from concrete pumper bins can be washed into concrete pumper trucks and discharged into designated washout area or properly disposed of offsite.
- Once concrete wastes are washed into the designated area and allowed to harden, the concrete should be broken up, removed, and disposed of per applicable solid waste regulations. Dispose of hardened concrete on a regular basis.

- <u>Temporary Above-Grade Concrete Washout Facility</u>
    - Temporary concrete washout facility (type above grade) should be constructed as shown on the details at the end of this BMP, with a recommended minimum length and minimum width of 10 ft, but with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations.
    - Straw bales and staking materials shall conform to the provisions in <u>BMP C230: Straw Bale Barrier</u>.
    - Plastic lining material should be a minimum of 10 mil polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.

- <u>Temporary Below-Grade Concrete Washout Facility</u>
    - Temporary concrete washout facilities (type below grade) should be constructed as shown on the details at the end of this BMP, with a recommended minimum length and minimum width of 10 ft. The quantity and volume should be sufficient to contain all liquid and concrete waste generated by washout operations.
    - Lath and flagging should be commercial type.
    - Plastic lining material shall be a minimum of 10 mil polyethylene sheeting and should be free of holes, tears,

or other defects that compromise the impermeability of the material.
    - Liner seams shall be installed in accordance with manufacturers' recommendations.
    - Soil base shall be prepared free of rocks or other debris that may cause tears or holes in the plastic lining material.

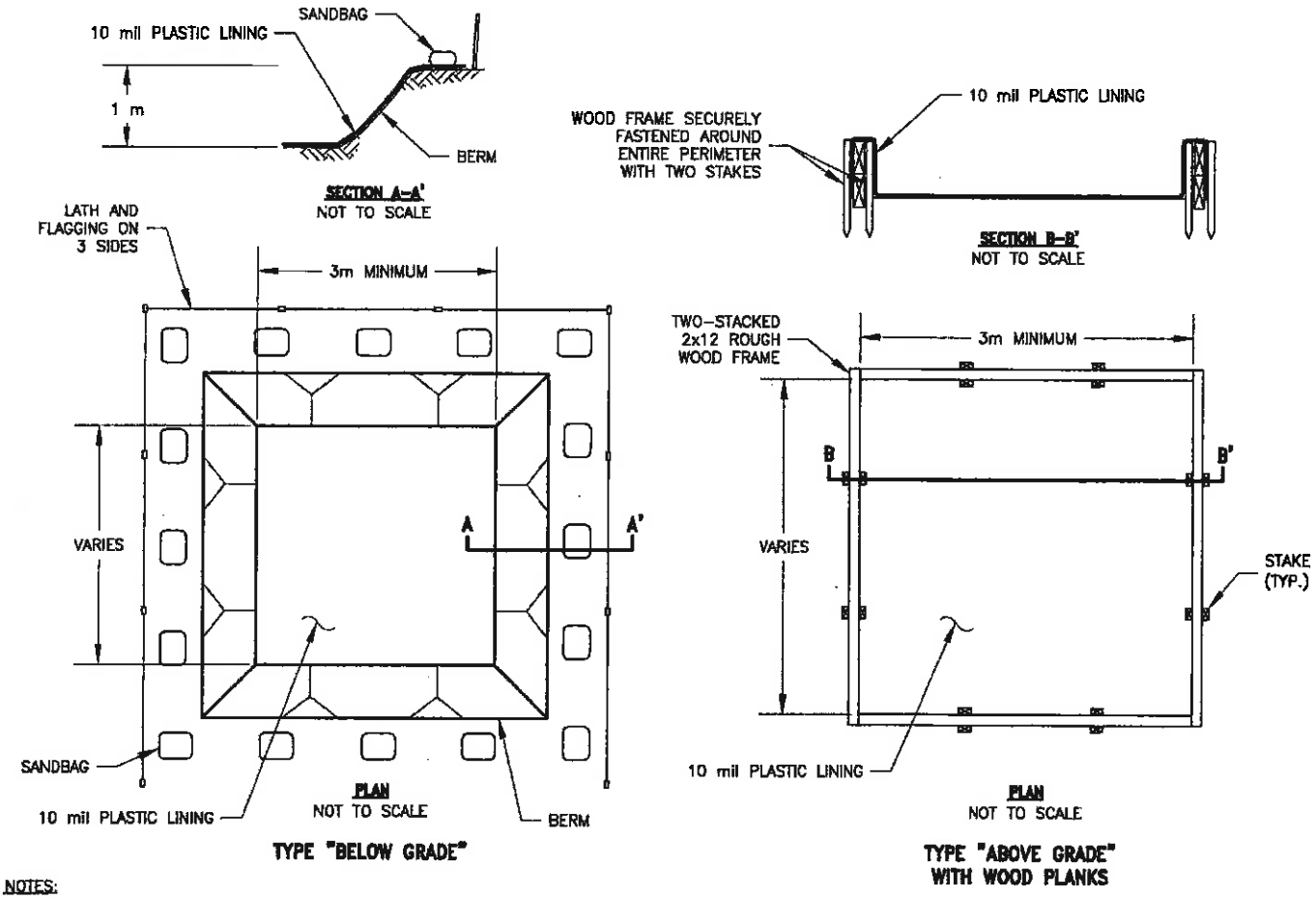
Inspection and Maintenance

- Inspect and verify that concrete washout BMPs are in place prior to the commencement of concrete work.
- During periods of concrete work, inspect daily to verify continued performance.
    - Check overall condition and performance.
    - Check remaining capacity (% full).
    - If using self-installed washout facilities, verify plastic liners are intact and sidewalls are not damaged.
    - If using prefabricated containers, check for leaks.
- Washout facilities shall be maintained to provide adequate holding capacity with a minimum freeboard of 12 inches.
- Washout facilities must be cleaned, or new facilities must be constructed and ready for use once the washout is 75% full.
- If the washout is nearing capacity, vacuum and dispose of the waste material in an approved manner.
    - Do not discharge liquid or slurry to waterways, storm drains or directly onto ground.
    - Do not use sanitary sewer without local approval.
    - Place a secure, non-collapsing, non-water collecting cover over the concrete washout facility prior to predicted wet weather to prevent accumulation and overflow of precipitation.
    - Remove and dispose of hardened concrete and return the structure to a functional condition. Concrete may be reused onsite or hauled away for disposal or recycling.
- When you remove materials from the self-installed concrete washout, build a new structure; or, if the previous structure is still intact, inspect for signs of weakening or damage, and make any necessary repairs. Re-line the structure with new plastic after each cleaning.

Removal of Temporary Concrete Washout Facilities

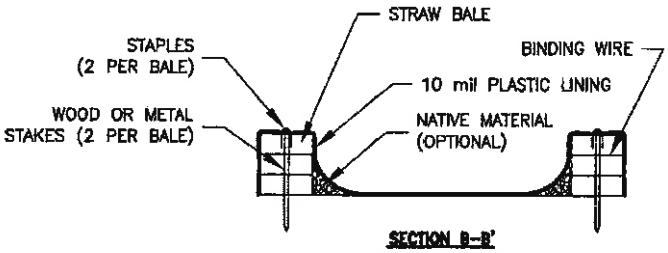
- When temporary concrete washout facilities are no longer required for the work, the hardened concrete, slurries and liquids shall be removed and properly disposed of.

- Materials used to construct temporary concrete washout facilities shall be removed from the site of the work and disposed of or recycled.
- Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities shall be backfilled, repaired, and stabilized to prevent erosion.

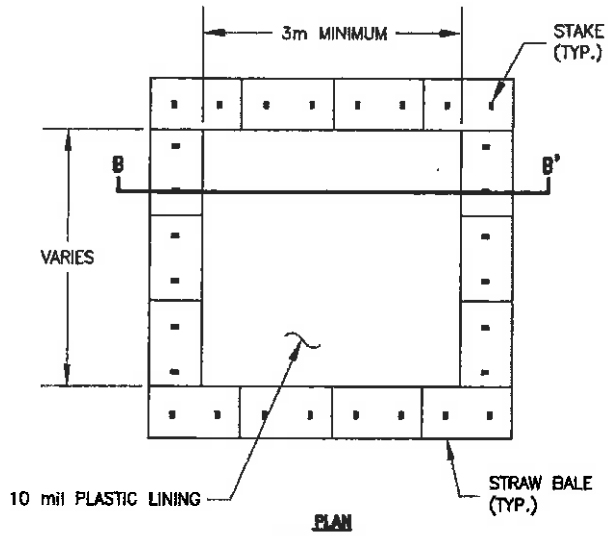


NOTES:

1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. THE CONCRETE WASHOUT SIGN (SEE PAGE 6) SHALL BE INSTALLED WITHIN 10 m OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

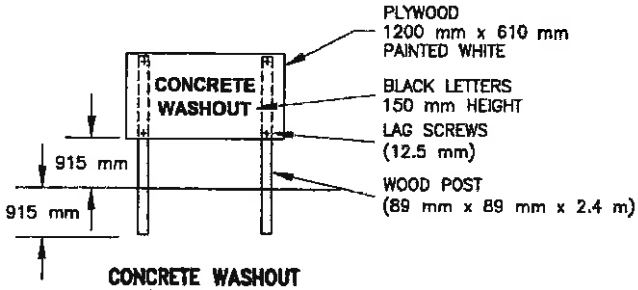


SECTION B–B'
NOT TO SCALE

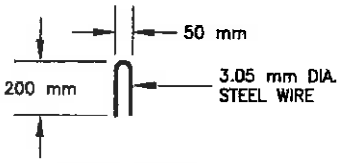


PLAN
NOT TO SCALE

TYPE "ABOVE GRADE"
WITH STRAW BALES



CONCRETE WASHOUT
SIGN DETAIL
(OR EQUIVALENT)

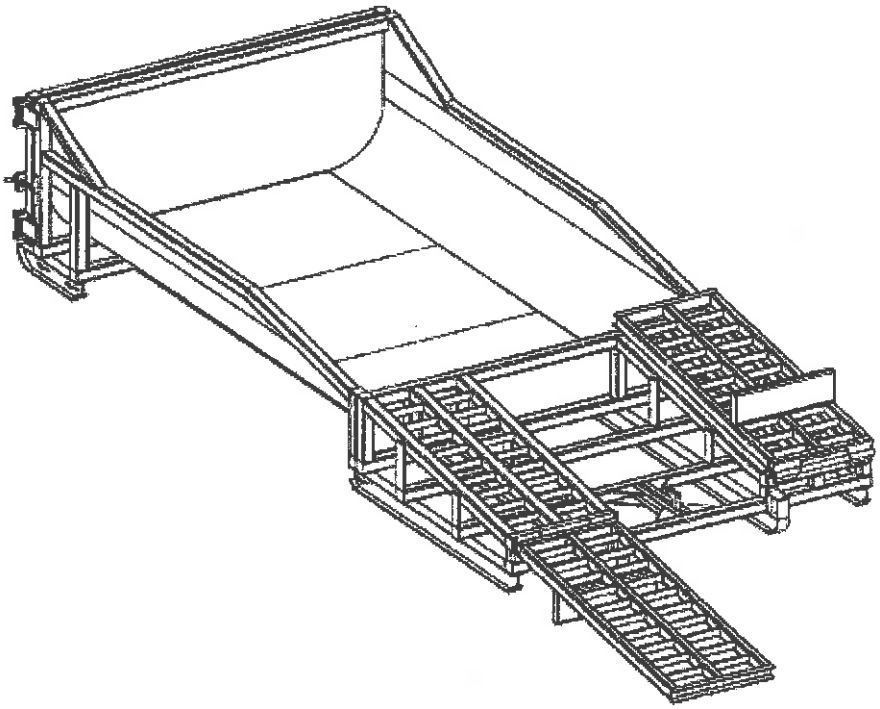


STAPLE DETAIL

NOTES:

1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. THE CONCRETE WASHOUT SIGN (SEE FIG. 4–15) SHALL BE INSTALLED WITHIN 10 m OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

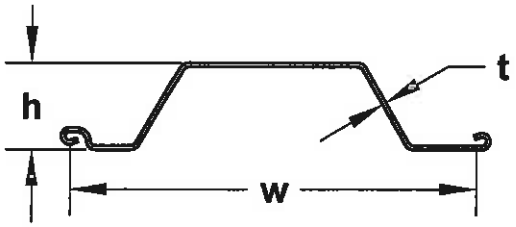
CALTRANS/FIG4–14.DWG SAC 8–14–02



Prefabricated Concrete Washout Container w/Ramp

SKL/SKS

SKL/SKS Cold Formed Steel Sheet Pile



SECTION	Width (w) in (mm)	Height (h) in (mm)	Thickness (t) in (mm)	Cross Sectional Area in²/ft (cm²/m)	WEIGHT Pile lb/ft (kg/m)	WEIGHT Wall lb/ft² (kg/m²)	SECTION MODULUS Elastic in³/ft (cm³/m)	SECTION MODULUS Plastic in³/ft (cm³/m)	Moment of Inertia in⁴/ft (cm⁴/m)	COATING AREA Both Sides ft²/ft (m²/m)	COATING AREA Coating Area ft²/ft² (m²/m²)
SKL 9	21.65 550	3.54 90	0.157 4.0	2.53 53.50	15.52 23.10	8.60 42.00	2.55 137	3.28 176.43	4.50 615	4.23 1.29	1.17 1.17
SKL 10	21.65 550	3.54 90	0.177 4.5	2.83 59.90	17.40 25.90	9.63 47.00	2.88 155	3.67 197.23	5.09 695	4.23 1.29	1.17 1.17
SKL 12	21.65 550	3.54 90	0.217 5.5	3.43 72.60	21.10 31.40	11.67 57.00	3.53 190	4.42 237.66	6.22 850	4.23 1.29	1.17 1.17
SKS 11	27.56 700	5.91 150	0.197 5.0	3.29 69.60	25.69 38.23	11.26 55.00	6.34 341	7.54 405.36	18.67 2550	5.87 1.79	1.28 1.28
SKS 13	27.56 700	5.91 150	0.217 5.5	3.61 76.40	28.22 42.00	12.29 60.00	6.98 375	8.44 454.03	20.48 2810	5.87 1.79	1.28 1.28
SKS 14	27.56 700	5.91 150	0.250 6.4	4.17 88.20	32.58 48.49	14.19 69.27	8.05 433	9.48 509.87	23.78 3247	5.87 1.79	1.28 1.28
SKS 16	27.56 700	5.91 150	0.276 7.0	4.57 96.70	35.61 53.00	15.57 76.00	8.89 478	10.40 559.20	26.25 3585	5.87 1.79	1.28 1.28

Interlock Compatibility

	SKL 9	SKL 10	SKL 12	SKS 11	SKS 13	SKS 14	SKS 16
SKL 9	●	●	●	●	●	●	●
SKL 10	●	●	●	●	●	●	●
SKL 12	●	●	●	●	●	●	●
SKS 11	●	●	●	●	●	●	●
SKS 13	●	●	●	●	●	●	●
SKS 14	●	●	●	●	●	●	●
SKS 16	●	●	●	●	●	●	●

● Interlock compatible ○ Interlock not compatible

SKL/SKS

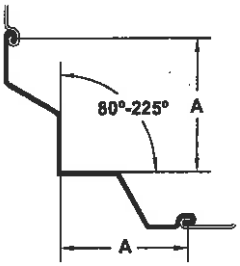
SKL/SKS Cold Formed Steel Sheet Pile

Available Steel Grades					
ASTM	YIELD STRENGTH		ASTM	YIELD STRENGTH	
	(ksi)	(MPa)		(ksi)	(MPa)
A 572 Grade 50	50	345	A 572 Grade 65 (Mod)**	80	555
A 572 Grade 55	55	380	A 588	50	345
A 572 Grade 60	60	415	A 690	50	345
A 572 Grade 65*	65	450			

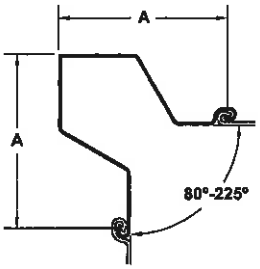
*Not available for thicknesses ≥ 0.375" (9.525mm). **Not available for thicknesses > 0.276" (7.0mm).

Corner Piles

D1 Corner Piles

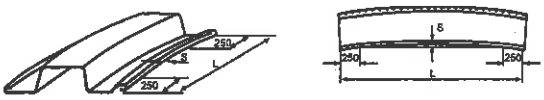
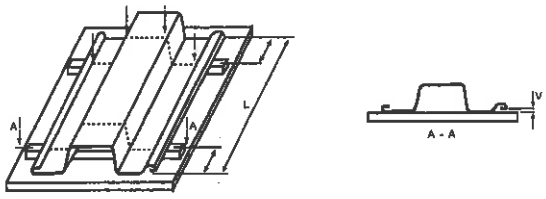


D3 Corner Piles



SKL 9-12: A = 10.8 inches (275.0 mm)
SKS 11-16: A = 13.8 inches (350.0 mm)

Delivery Conditions & Tolerances

	ASTM A6		EN 10249 2	
Mass	± 2.5%		± 7%	
Length	+ 5 inches	− 0 inches	± 50 mm	
Straightness				
Bending (S)			0.25% of the length	
Curving (C)			0.25% of the length	
Twisting (V)			2% of the length	

Standard Rolled Lengths*

SKL, SKS	70 feet	(21.3 m)

* Longer lengths may be possible upon request.

RVL Architecture

Roger van Loveren, AIA, Architect • 6 Spruce Pond Lane, Bedford, NY 10506 • (914) 234-7823 • E-Mail: rvlarch@aol.com

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BEDFORD WETLANDS CONTROL COMMISSION

May 13, 2016

Mr. Andrew Messinger, Chairman
Town of Bedford
Wetlands Control Commission
425 Cherry St. Bedford Hills, NY 10507

Re: Clare Reinbergen Property, 249 Mount Holly Road, Katonah, NY

Dear Mr Messinger,

We are submitting the following additional materials, revisions to the Wetlands Control Commission for the referenced property application:

A. Evidence of Septic System maintenance: Vogler Brothers 8/5/15 Cleaning and inspection
B. Evidence of suitable potable water at the residence: Carnell Environmental inspections, inc. Private Well test, 2-page statement paper submission, the full 20 page report submitted on disk
C. Geothermal Closed Loop Well System Proposal:
    a. NYS, West. County and Bedford have no regulations regarding specific closed loop geothermal systems
    b. Well Drillers follow State of Connecticut standards specifying distances to private Drinking Water Wells, Private on site Septic Systems. Distances are indicated on Site Plan SP-1
    c. The closed Loop Piping in the Well Pipe is encased in a solid energy transferring slurry
    d. The proposed closed loop fluid is: "Environol" for the "WaterFurnace" System. The Product info and msds sheets are included. The product is 75.6% water and 21.4% Ethanol
D. Private Swimming Pool Proposal:
    a. The Proposed 30'x12' Pool is designed to be primarily within a 4' raised box of planters, deck& patio. The proposed level of the box is one step down from the existing floor level
    b. The resulting excavation and construction below existing grade is only for the concrete retaining walls and a small deep end section equal to 22% of the Pool.
    c. The Pool Maintenance & Sanitation is proposed as follows:
        i. Automatic Pool Cover. Covering the Pool not only provides safety but also prevents accidental harm to wildlife. A cover further reduces the requirement for maintenance by 50-70%
        ii. Energy efficient variable speed pump & Cartridge filtration (no back wash)
        iii. "Ozone Plus UV" Pool sanitation as an alternate to Chlorine/Salt Generation system, coupled with a mineral dispenser providing a complete non chlorine based process.
        iv. Additionally for overflow from the pool cover box, (a rainwater pump on the cover prevents push down overflow) and season end 20% draw down underground storage and infiltration system has been designed and indicated on the revised SP-1 Site Plan
E. Drawing revisions and supplements:
    a. SP-1 has been revised:
        i. Additional notes regarding construction sequence, methods, Quantities Notes and Calculations
        ii. Pool water storage calculation and details
        iii. Addition of Concrete Truck Washout and Capture (detailed information on Disk)
        iv. SP-3 & Sp-4: Driveway reconstruction Details and drainage crossings
F. Alternate Pool location Study:
    a. A partial Site Plan drawing is submitted illustrating the placement of a full in ground Pool in the only are available outside the 100' Wetland delineation offset

Very truly yours,

Roger van Loveren, AIA

RvL/dm
Cc: CR, PJ

Carnell
ENVIRONMENTAL
INSPECTIONS, INC.

Private Well Water Test

Carnell Environmental Inspections, Inc. was retained to conduct a water test for the purpose of meeting the Westchester County Private Well Testing Law (Chapter 707). More information on the regulation can be found at http://health.westchestergov.com/private-well-water.

For home sales, test results are valid for a period of one (1) year, except the bacteriological result, which is valid for a period of six (6) months from the date of sample collection. For home leases, test results are valid for a period of five (5) years from the date of sample collection.

Below find the summary of the results. Attached find a laboratory analytical report.

Project Description

Inspection Address	249 Mount Holly Road Katonah, NY 10536.
Section/Lot/Block	50.7/1/6.
Inspection Type	Initial.

Sample Collection

Date of Inspection	September 24, 2015.
Time of Sample Collection Visit	12:35 PM.
Inspector	Michael H. Fescoe.
Sample Location	kitchen.

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Analytical Results

Analytical Laboratory	Envirotest (NYS ELAP Certification # 10142)
Analytical Report #	420-95546-4.
Primary Parameter Results	All analytical parameters meet primary contaminant standards for drinking water parameters tested. A primary parameter or primary contaminant is a drinking water contaminant or parameter related to the sanitary quality of water for which New York State Department of Health has specified a maximum contaminant level (MCL). Westchester County Private Well Testing regulation requires remediation where a water test discloses a primary water test failure.
Secondary Parameter Results	All analytical results meet secondary contaminant standards for drinking water for parameters tested. A secondary parameter or secondary contaminant is a drinking water contaminant related to the aesthetic water quality for which either the New York State Department of Health has specified a maximum contaminant level or there exists guidelines or an optimum range. The secondary parameters for the Westchester County Private Well testing regulation include the following; Chloride, Manganese, Iron, Sodium and pH. The Westchester County Private Well Testing regulation **DOES NOT** require remediation when a water test discloses a secondary water test failure.

Carnell
ENVIRONMENTAL
INSPECTIONS, INC.

Notification

DOH Notification It is YOUR responsibility to provide the buyer or tenant of the home these water test results.

It is YOUR responsibility to provide the buyer or tenant of the home these water test results.

SIGNATURE

Signed for Carnell Environmental Inspections, Inc.

Michael V. Carnicelli, Director
CARNELL ENVIRONMENTAL INSPECTIONS, INC.
914 946 4300 x 114.

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Vogler Brothers Inc.
39 North Street
Katonah, New York 10536

(914) 232-5535

Invoice

Date	Invoice #
8/5/2015	80300

PAID 08/05/2015

Bill To
Claire Reinbergen 147 Cherry Street Katonah, NY 10536

Bills are due when received... A Finance charge of 1½% per month will be charged on all past due Accounts. We Now accept Visa, Discover, MasterCard and American Express.

PO No.	Terms
469-2691	Due on receipt

Item	Quantity	Description	Rate	Amount
Inspection		Cleaned and inspected 1000 gallon precast septic tank, water level at proper height, inlet and outlet baffles are in place, no sign of drain fields running back into the tank or over above ground. The system is in working order at the Bartell residence located at 249 Mt. Holly Road,Katonah, NY.	590.00	590.00T
		Sales Tax	7.375%	43.51

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Total	$633.51
Payments/Credits	-$633.51
Balance Due	$0.00

TOWN OF BEDFORD - WETLANDS CONTROL COMMISSION

Application for Permit

Identification of Owner(s):

Name(s) of owner(s) [as shown on Deed]: NICHOLAS MATFUS & GAO JING

Mailing Address: 564 GUARD HILL ROAD, BEDFORD, NY 10506

Phone: 646 761 4864 (home) _____ (work); Fax: _____ E-Mail: njmatfus@minekings.n

Identification of Applicant (if other than owner(s)):

Name of Applicant: SAME AS OWNER

Mailing Address: _____

Phone: _____ (home) _____ (work); Fax: _____ E-Mail: _____

Professional Preparing Site Plan:

Name /Address: CRONIN ENGINEERING P.E. P.C., 39 ARLO LANE, CORTLANDT MANOR NY 10567

Phone: 914-736-3664 Fax: _____ E-Mail: KEITH@CRONINENGINEERING.N

Identification of Property:

Bedford Tax Map Designation: Section 84.5 Block 01 Lot 02 Area 4.113 ACRES

Zoning District: R-4A **Project Address:** 564 GUARD HILL ROAD

Approximate year of construction of any structure: 1946

Prior Applications/Other Applications (write "N/A" if not applicable; Project Cost):

Dates of any prior Wetlands Control Commission permits: N/A

Identify any other Town of Bedford approvals required: ZONING VARIANCE, WETLANDS, BUILDING PERMI

Identify any other governmental approvals required: NYSDEC - NOI

Project cost (including professional fees): 180,000.00

Project Description/Proposed Use (MUST BE DETAILED – Use Additional Pages if Needed):

INVOLVES ADDITION TO HOUSE, RECONSTRUCTED POOL DECK, NEW PATIO AREAS, WALKING DECK + DOCK, RE-DELINEATED DRIVEWAY

Proposed Project Start Date: FALL 2016 **Estimated Date of Completion:** FALL 2017

The owner(s) hereby give(s) permission to the Town of Bedford, its agents, servants and employees, including, without limit, members of the Wetlands Control Commission and consultants to the Town to enter upon the Property solely for the purposes incidental to the within application (including without limit, inspection of the project after completion) at reasonable times upon reasonable notice to the owner or tenant in possession, which notice may be by telephone. If the applicant is different than the owner(s), the owner(s) hereby approves this application and consents to the applicant acting as agent for the owner in submitting this application and the applicant accepts its designation as agent for the owner(s).

I/we affirm by the signatures below that I/we are the rightful legal owner(s) of the property herein described in this application.

Signature of owner(s): NICHOLAS MATFUS Date: 5/4/2016
All owners must sign *Print name/title:* _____

GAO JING Date: 5/4/2016
Print name/title: _____

Signature of applicant (if different): — Date: —
Print name/title: _____

Revised 8/9/13

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CRONIN
ENGINEERING P.E., P.C.
Professional Engineering & Consulting

39 Arlo Lane
Cortlandt Manor, NY 10567
T:(914) 736-3664 F:(914) 736-3693

May 05, 2016

Mr. Andrew Messinger, Chairman
Town of Bedford Wetlands Control Commission
425 Cherry Street
Bedford Hills, NY 10507

Re: Wetlands Permit Application
Matfus Residence
564 Guard Hill Road

Dear Mr. Messinger and Members of the Wetlands Control Commission:

Find enclosed the following for the above referenced project:

1. Application fee of $200.
2. Escrow check for $500.
3. Nine copies of the Application Form.
4. Nine copies of the Wetland Permit Application package.
5. Nine copies of the EAF.
6. One copy of the property deed.
7. Nine copies of the property survey.
8. Nine copies of the report from the Applicant's Environmental Consultant.
9. Nine copies of the Site Development Plan prepared by this office, dated May 03, 2016.
10. Nine copies of the Architectural plans (11x 17).

This project involves proposed improvements to the property located at 564 Guard Hill Road. The improvements include an addition to the existing residence, the removal of a portion of the existing driveway, a new pool patio/deck, the replacement of a deck with a patio and the addition of a walking deck and dock platform at the pond. Some of the improvements will take place within the limiting distance of 100 feet from a Town regulated wetland as well as NYSDEC regulated Freshwater Wetland K-5 and the walking deck and dock platform will occur within the wetland boundary.

The project site currently contains many improvements within 100 foot wetland buffer which include the swimming pool and existing deck, the eastern half of the house, a shed, walkways and decks/patios, pool equipment among other minor items. These items have been there for over 20 years.

Since some of the improvements are located within the regulated areas, the Applicant has provided a wetland mitigation plan which is referenced on the Site Development Plan.

Kindly review the enclosed information and place the application on the June 06, 2016 agenda. Should you have any questions or require additional information, please contact me at the above number. Thank you for your time and consideration in this matter.

Respectfully submitted,

Keith C. Staudohar
Cronin Engineering P.E. P.C.

cc: Nicholas Matfus w/ encl.
Armand Graham, RA
Steve Coleman, w/ encl.

Bwcc-bedford-matfus-564 guard hill road-wetland commission-submission1-ks-20160505.doc

617.20
Appendix B
Short Environmental Assessment Form

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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

Nicholas Matfus

Name of Action or Project:
Wetland Permit for Matfus Site Development Plan

Project Location (describe, and attach a location map):
564 Guard Hill Road, Town of Bedford

Brief Description of Proposed Action:
Proposed addition to an existing house and a new patio around existing in ground swimming pool along with a walking deck to a dock, new patios and driveway modifications. There is work to be performed within the 100' wetland buffer and minor work (proposed dock) proposed within the wetland.

Name of Applicant or Sponsor:	Telephone: 646-761-4864
Nicholas Matfus	E-Mail: keith@croninengineering.net

Address:
564 Guard Hill Road, Tax Map ID Section: 84.5; Block: 02; Lot: 03

City/PO:	State:	Zip Code:
Town of Bedford	NY	10506

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval: **Town of Bedford - Wetland Permit, ZBA variance, Building Permit, NYSDEC Stormwater NOI**	☐	☑

3.a. Total acreage of the site of the proposed action? **4.111** acres
b. Total acreage to be physically disturbed? **+-0.17** acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? **4.111** ☒ acres

4. Check all land uses that occur on, adjoining and near the proposed action.
☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☑ Residential (suburban)
☑ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____
☐ Parkland

	NO	YES	N/A
5. Is the proposed action, a. A permitted use under the zoning regulations? Area Variance required for house addition	✓		
b. Consistent with the adopted comprehensive plan?		✓	
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?		✓	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: Geographic area overlaying aquifer		✓	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	✓		
b. Are public transportation service(s) available at or near the site of the proposed action?	✓		
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	✓		
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies:		✓	
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: Potable water on site via existing drilled well.	✓		
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: Wastewater treatment via existing sewage treatment system.	✓		
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	✓		
b. Is the proposed action located in an archeological sensitive area?		✓	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?		✓	
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: house addition, pool patio within 100' buffer, approximately 5,819 sq ft or 0.13 acres; walking deck and dock within wetland, approximately 503 sq ft or 0.01 acres		✓	
14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply: ☐ Shoreline ☑ Forest ☐ Agricultural/grasslands ☐ Early mid-successional ☑ Wetland ☐ Urban ☐ Suburban			
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	✓		
16. Is the project site located in the 100 year flood plain?		✓	
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, a. Will storm water discharges flow to adjacent properties? ☑ NO ☐ YES		✓	
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: ☑ NO ☐ YES			

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	NO	YES
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)? If Yes, explain purpose and size:	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	☑	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	☑	☐

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

Applicant/sponsor name: Cronin Engineering P.E. P.C. / Keith Stowebar Date: 05-03-16

Signature:

Part 2 - Impact Assessment. The Lead Agency is responsible for the completion of Part 2. Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

	No, or small impact may occur	Moderate to large impact may occur
1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations?	☐	☐
2. Will the proposed action result in a change in the use or intensity of use of land?	☐	☐
3. Will the proposed action impair the character or quality of the existing community?	☐	☐
4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)?	☐	☐
5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway?	☐	☐
6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities?	☐	☐
7. Will the proposed action impact existing: a. public / private water supplies?	☐	☐
b. public / private wastewater treatment utilities?	☐	☐
8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources?	☐	☐
9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)?	☐	☐

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	No, or small impact may occur	Moderate to large impact may occur
10. Will the proposed action result in an increase in the potential for erosion, flooding or drainage problems?	☐	☐
11. Will the proposed action create a hazard to environmental resources or human health?	☐	☐

Part 3 - Determination of significance. The Lead Agency is responsible for the completion of Part 3. For every question in Part 2 that was answered "moderate to large impact may occur", or if there is a need to explain why a particular element of the proposed action may or will not result in a significant adverse environmental impact, please complete Part 3. Part 3 should, in sufficient detail, identify the impact, including any measures or design elements that have been included by the project sponsor to avoid or reduce impacts. Part 3 should also explain how the lead agency determined that the impact may or will not be significant. Each potential impact should be assessed considering its setting, probability of occurring, duration, irreversibility, geographic scope and magnitude. Also consider the potential for short-term, long-term and cumulative impacts.

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☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action may result in one or more potentially large or significant adverse impacts and an environmental impact statement is required.

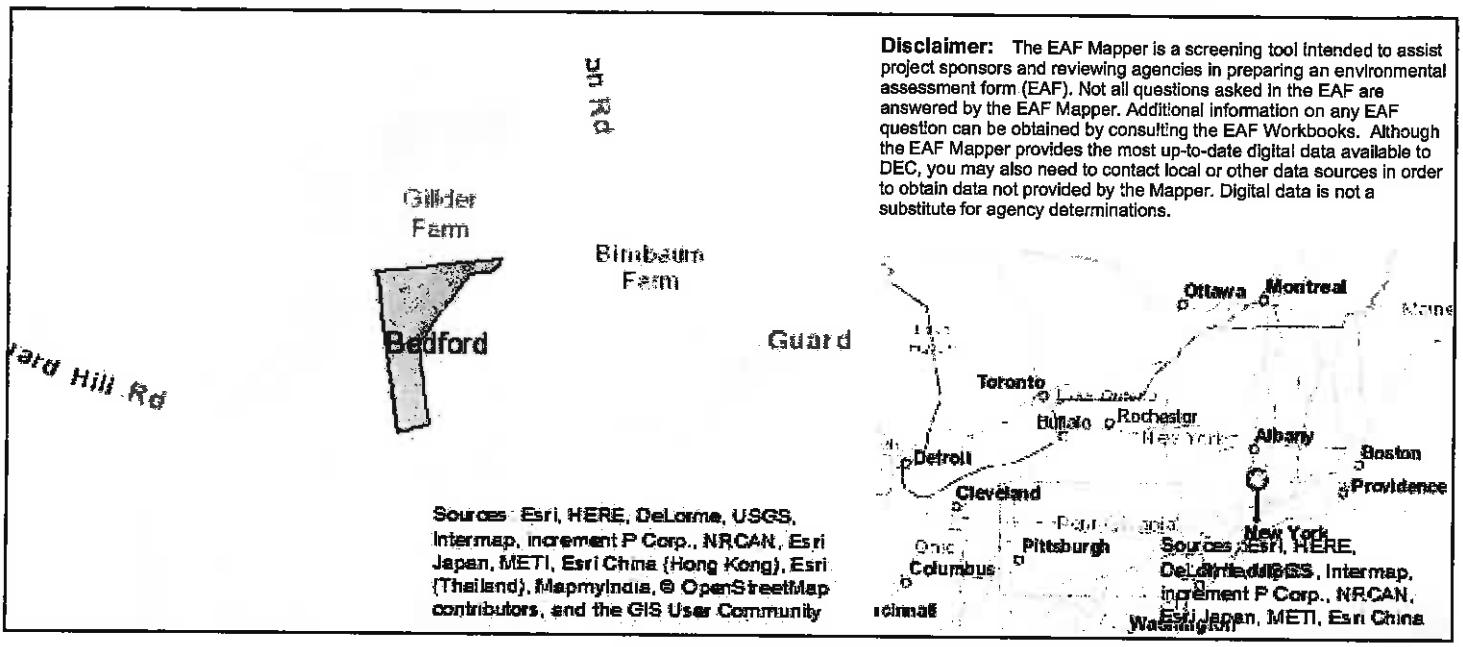
☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action will not result in any significant adverse environmental impacts.

Town of Bedford Wetlands Control Commission	05-03-16
Name of Lead Agency	Date
Print or Type Name of Responsible Officer in Lead Agency	Title of Responsible Officer
Signature of Responsible Officer in Lead Agency	Signature of Preparer (if different from Responsible Officer)

PRINT

EAF Mapper Summary Report

Monday, May 02, 2016 11:22 AM



Part 1 / Question 7 [Critical Environmental Area]	Yes
Part 1 / Question 7 [Critical Environmental Area - Identify]	Name:Geographic Area Overlaying Aquifer, Reason:Exceptional or unique character, Agency:Bedford, Town of, Date:11-3-84
Part 1 / Question 12a [National Register of Historic Places]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	Yes
Part 1 / Question 20 [Remediation Site]	No

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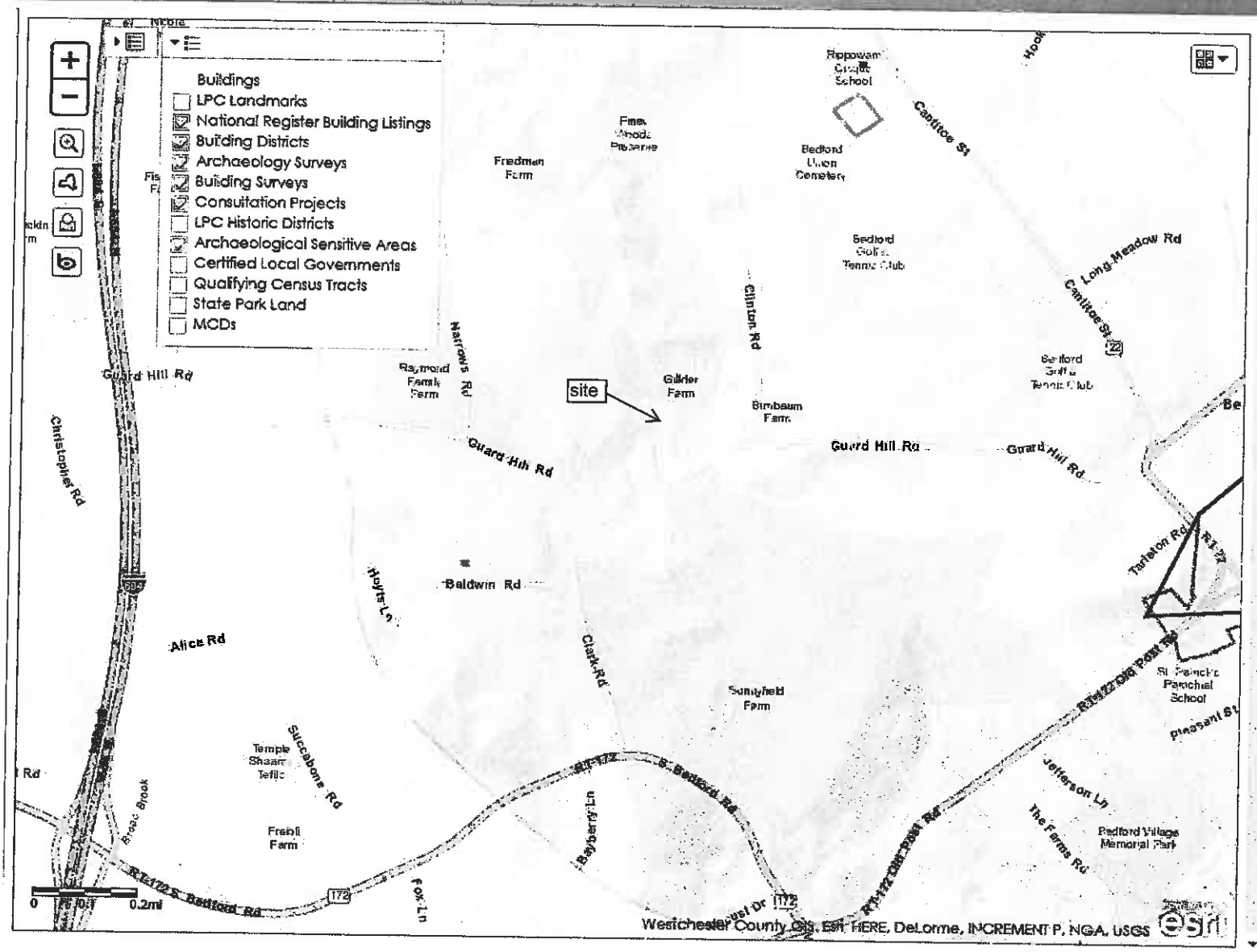

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Search	Layers & Legend	Tell Me More
Need a Permit?	Contacts	Help

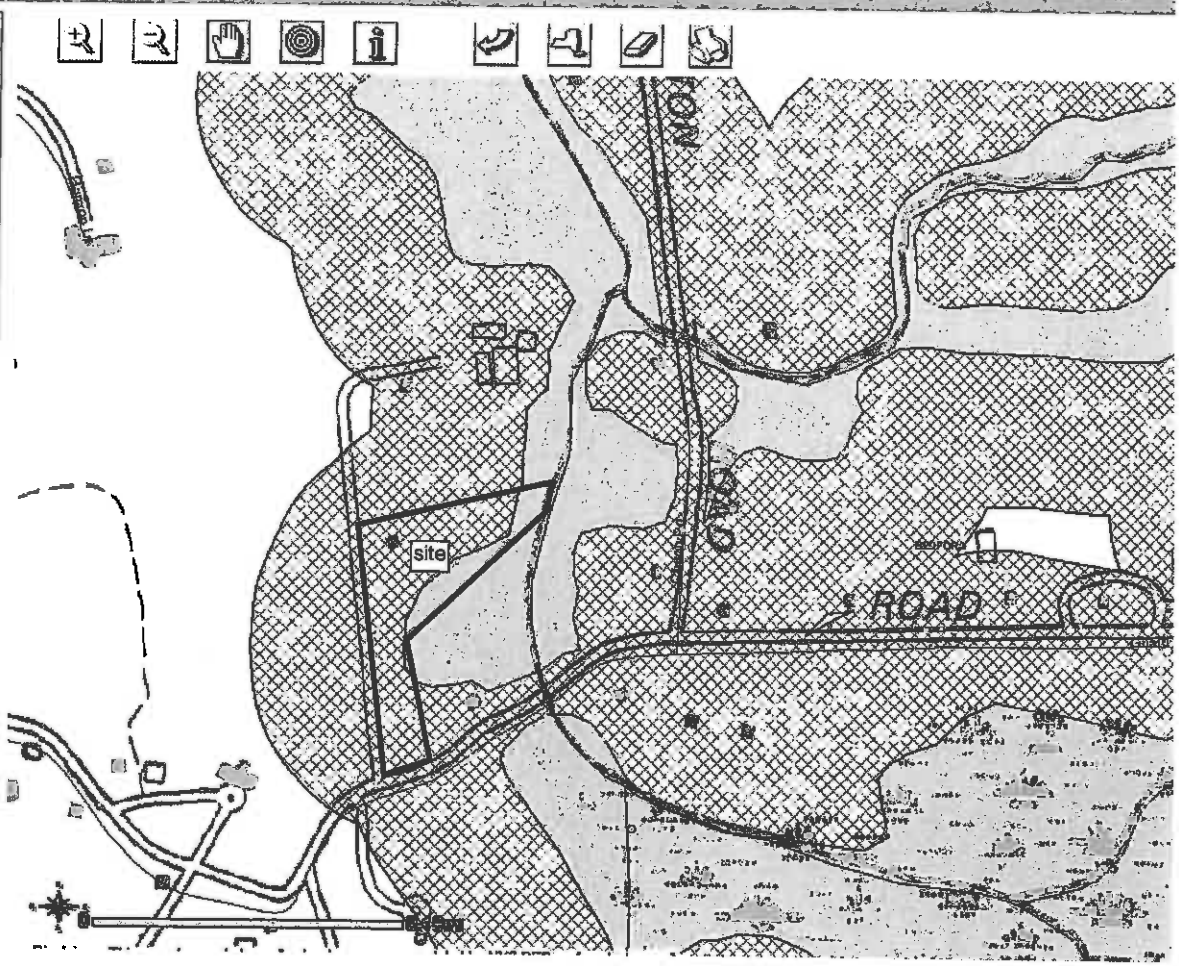
Map Layers & Legend

More layers appear as you zoom in.

- [x] Classified Water Bodies
- [x] Unique Geological Features
- [x] Classified Water Bodies
- [x] State-Regulated Freshwater Wetlands
- Wetland Checkzone ?
- [x] Rare Plants and Rare Animals
- [x] Significant Natural Communities
- Natural Communities Vicinity ?
- [x] Background Map
- [x] Adirondack Park Boundary
- [x] Counties

Click "Refresh Layers" to activate and deactivate layers.

Refresh Layers



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STEPHEN W. COLEMAN
ENVIRONMENTAL CONSULTING.

Environmental Planning & Site Analysis
Wetland Mitigation & Restoration Plans
Wetland Delineation & Assessment
Natural Resource Management
Pond & Lake Management
Wildlife & Plant Surveys
Breeding Bird Surveys
Landscape Design

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May 03, 2016

Mr. Andrew Messinger, Chairman
Bedford Wetlands Control Commission
425 Cherry Street
Bedford Hills, New York 10507

Re: Matfus Residence, 564 Guard Hill Road, Bedford, New York - Wetland/Watercourse Investigation and Delineation, Evaluation and Functional Assessment of Pond and Adjacent Wetland Features, Proposed Addition and Site Improvements, Proposed Restoration, Enhancement and Mitigation of Wetland and Wetland Buffer Areas

Dear Mr. Messinger:

As part of the proposed improvements for the property at 564 Guard Hill Road, I have completed a wetland delineation and performed a site analysis of potential impacts to existing wetland resources that are present on the property. The environmental assessment included investigation and determination of all wetland and watercourse resources present on the subject property, completion of a wetland functional assessment, evaluation of proposed wetland and wetland buffer impacts, and recommendations regarding mitigation measures for disturbances within regulated wetland and wetland buffer areas.

The subject property contains local wetlands that are part of NYSDEC wetlands (K-5) that consist of an existing pond and fringe riparian and forested wetland system. The letter is in support of a wetland permit application submitted to the Bedford Wetlands Control Commission.

Existing Conditions

The property was originally Lot # 1 of a Subdivision that was approved in 1986. At the time of approval, the property was developed as a single family residential home that included an in-ground pool and patio, on-site septic system and several ancillary structures and improvements. Several of the improvements at that time were approved within the regulated wetland buffer area. The wetland boundary referenced in 1986 was the edge of the existing pond. Restrictions were placed on portions of the parcel along Guard Hill Road that prevented the construction of any additional structures. The driveway access is provided off a shared easement with the adjacent parcel to the west.

The majority of the residence and the entire pool and patio, shed and pool equipment and fencing are located within the regulated wetland buffer. A large percentage of the wetland buffer area adjacent to the pond has been converted to residential lawn and landscaped areas. Along the wetland edge, several invasive clumps of multi-flora rose and Japanese stilt grass have become established. The northeastern corner of the wetland has been used to dump excess lawn related debris. Existing trees on the property consist of remnant upland wooded species and planted ornamental trees. The wetland extends onto adjacent parcels to the north, east and southern side of the parcel.

Wetland Delineation

Wetlands and watercourses on the subject property were flagged on January 22, 2016 in accordance with the Freshwater Wetlands Code of the Town of Bedford, NY, and supplemented by the technical

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criteria as outlined in the 1995 NYSDEC Freshwater Wetlands Manual. Vegetation, soils and hydrological parameters were used to determine the outer wetland boundary limits. The wetland/upland boundary was field determined and pink surveyors flagging labeled "Wetland Boundary" were hung on vegetation along the respective boundary. Due to the topography and recent developments along the perimeter, the wetland boundary is distinct and well defined. The site was visited in April, 2016 during the growing season to re-confirm that the wetland boundary accurately represents existing field conditions.

One wetland system was located on the property and includes a large pond and riparian wetland system. The wetland extends onto adjacent properties to the north and east of the parcel and includes a meandering watercourse and remnant forested and open water wetland areas. A large percentage of the wetland had previously been converted to an open water pond that has since filled in along the edges with riparian obligate wetland plants. Sections of the wetland with higher topographic relief consist of a combination of native and invasive shrub species. The pond depth appears to be shallow and range from 3-6 feet. Sections of the eastern pond edge have become dominated by phragmites grass and other invasive plant species. The southern end of NYSDEC wetland K-5 is where the pond was historically created. Ownership of the pond is shared with the adjacent neighbor to the southeast. The section of the wetland to the north of the parcel consists of a residential property that has previously converted the wetland buffer to extensive and well maintained horse paddocks.

Several obligate wetland plants were observed and include red maple, American elm, willow and cottonwood trees. The shrub layer includes silky dogwood, winterberry, arrowood viburnum, swamp azalea, gray dogwood and willow. The emergent layer is dominated by tussock sedge, skunk cabbage, phragmites grass, common rush, and lake sedge. Several invasive plant species have become well established within the shrub and ground layers within the wetland proper and buffer area. Dominant species include multi-flora rose, Japanese stilt grass, garlic mustard, wineberry, reed canary grass and oriental bittersweet.

Hydric soils were present and included solid organic soils with a histic epipedon layer. Soils were inundated or saturated at the surface. Hydrological features included standing water, inundation at or near the surface, positive water flows and drainage patterns, and water-stained leaves. The outer boundary of the wetland closest to the subject property was flagged with flag numbers A-01 (a-c) to A-11. The wetland boundary followed the bottom of the slope and clear topographic break present along the edge of the pond and the residential portion of the property. An existing post and rail fence with wire is installed along the outer boundary of the wetland.

Wetland Functional Assessment

A functional assessment was completed on April 22, 2016. The wetlands located on the property consist of a combination of an open water pond and remnant forested wetland complex. The pond is an extension of the larger wetland complex from the adjoining property to the northeast.

The wetlands were evaluated according to "A Rapid Procedure for Assessing Wetland Functional Capacity" by Magee and Hollands, 1998. This particular method is based on the Hydrogeomorphic Classification system (HGM) as developed by the Army Corps of Engineers. The wetlands on the property are classified as a forested watercourse complex that generally drains from a north to south direction. The wetlands on the property are classified as a depressional wetland (pond). The watercourse within the wetland complex off of the property to the northeast would be classified as a Slope wetland.

This model examines the functions and values of freshwater wetlands based upon biological characteristics, landscape position, geology, hydrology and vegetation present. The majority of the

wetland system occurs on slopes ranging from 1% to 10%. Within the model, several key attributes of wetlands are evaluated that relate to specific wetland values and functions, including:

- Modification of groundwater discharge
- Modification of groundwater recharge
- Storm and flood-water storage
- Modification of stream flow
- Modification of water quality
- Export of detritus
- Contribution to abundance and diversity of wetland vegetation
- Contribution to abundance and diversity of wetland fauna

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The above functions are evaluated based upon the existing site conditions that are present within the wetland area. The data collected is used to evaluate the functional capacity of the existing wetland (rated from 0 to 1), and allows the investigator to make preliminary planning decisions on wetland functions and values as it related to future conditions and proposed changes. Functions are rated low to high with low levels 0 to 0.33, moderate levels from 0.34 to 0.66, and high levels from 0.67 to 1.0.

The wetland complex consisted of two HGMs: 1.) A depressional wetland consisting of the pond and 2.) slope wetlands consisting of the watercourse within the larger forested wetland complex located off-site on adjacent parcels. These HGMs were evaluated based upon the depressional and sloped wetland characteristics and criteria. Each of the functions performed by these HGMs is briefly described below. This discussion is based on the wetland assessment model scores achieved from collecting site-specific data on the wetland system. The scores represent the potential for this wetland type to perform that specific function. It is important to evaluate the data based upon the size of the wetland, its landscape setting and not just the numerical scores. The wetland functional model scores have been summarized in the tables below.

Depressional Wetland - Pond – Functional Model Scores Summary

WETLAND FUNCTION	RANGE	SITE-SPECIFIC SCORE	FUNCTIONAL CAPACITY INDEX (FCI)
Modification of Groundwater Discharge	3-18	12	0.66
Modification of Groundwater Recharge	4-21	12	0.57
Storm and Flood Water Storage	4-27	15	0.55
Modification of Stream Flow	1-9	6	0.67
Modification of Water Quality	4-18	16	0.89
Export of Detritus	5-18	13	0.72
Contribution to Abundance and Diversity of Wetland Vegetation	2-15	11	0.73
Contribution to Abundance and Diversity of Wetland Fauna	4-33	26	0.72

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Slope Wetland – watercourse/wetland complex off-site- Functional Model Scores Summary			
WETLAND FUNCTION	**RANGE**	**SITE-SPECIFIC SCORE**	**FUNCTIONAL CAPACITY INDEX (FCI)**
Modification of Groundwater Discharge	2-15	11	0.73
Modification of Groundwater Recharge	N/A	N/A	N/A
Storm and Flood Water Storage	4-21	12	0.57
Modification of Stream Flow	1-9	6	0.67
Modification of Water Quality	3-15	13	0.87
Export of Detritus	4-15	8	0.53
Contribution to Abundance and Diversity of Wetland Vegetation	2-15	11	0.73
Contribution to Abundance and Diversity of Wetland Fauna	4-33	28	0.78

Description of Functional Summary Scores (for both wetland types):

Modification of Groundwater Discharge

Depressional wetlands collect surface and groundwater from many directions and may or may not have specific outlets. The pond serve as a depressional wetland and can collect and discharge groundwater on the site. The wetland model scores for this function of the depressional wetland are considered moderate (66%). Off-site Slope wetlands serve as areas that discharge groundwater (water intersecting the land surface). The slope wetland areas are a combination of a sloping hillside intermittent watercourse which collects water from characteristics such as seasonal hillside seeps, and springs where the groundwater emerges at the surface and is transmitted as surface flows. The wetland model scores for this function are considered moderate to high (73%).

Modification of Groundwater Recharge

Depressional wetlands on glacial till can often intercept with groundwater and function in groundwater recharge. The open pond wetland model scores for this function are considered moderate (57%). Consistent with the HGM model for sloped wetlands, this area of the wetland is not capable of modifying groundwater recharge.

Storm and Flood Water Storage

Depressional wetlands are often good sources for retaining and detaining storm and flood water. The open depressional pond collects water and stores it before it leaves via evaporation and via an intermittent outlet to the northeast. In general, slope wetlands do not typically provide for storm and floodwater storage but the intermittent flow of the watercourse may permit some temporary storm and floodwater storage. The pond size does increase the ability of this type of wetland to serve a higher

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degree of storm and flood water storage. The wetland model scores for this function are shown to be at moderate levels (55% and 57% respectively).

Modification of Stream Flow

The sloping watercourse helps to modify the outlet stream flow and provide preliminary storage and treatment. The open pond's storage of storm and flood waters does serve to modify stream flow, due to its storage capacity. The wetland model scores were considered high (67%) for the depressional ponds and also for the sloping wetlands (67%) for this function.

Modification of Water Quality

To modify water quality requires the wetland to be able to trap and dissolve sediments and other elements that are transported from surface water flows. The pond allows settling of sediments and other debris, so their does exist a greater ability to modify water quality. The pond and wetland's ability at storm and flood water retention allows for sediments to settle and biochemical transformations to occur thus increasing the water quality potential. As a result, the wetland model scores were high for this function for both the depressional pond and the sloping wetlands (89% and 87% respectively).

Export of Detritus

The depressional pond does provide the potential for some export of detritus during larger storm events. The outlet height regulates the amount of detritus that may leave the site. The wetland model scores for this wetland function were moderate to high (72%). The hillside seepage and watercourse channels normally transport detritus more rapidly, but the intermittent flows limit the ability to provide this function. Therefore the wetland model scores for the sloping wetlands on site were lower (53%) for this function.

Contribution to Abundance and Diversity of Wetland Vegetation

Plant species diversity and density are important factors for this function. Slope wetlands in general are unpredictable in their ability to retain soil saturation or standing water during the growing season. The diversity and density of plant strata layers at the site increase the attractiveness and species diversity. The plant community is considered of medium diversity and the juxtaposition within the landscape is fairly intact in this rural setting and support a typical diversity of wetland vegetation. The vegetation along the edge of the pond provides good horizontal and vertical stratification which creates attractive habitat for resident wildlife species. The wetland model scores for this wetland function were moderate to high (73%) for both the depressional and sloping wetlands.

Contribution to Abundance and Diversity of Wetland Fauna

The moderate land use impacts, flooded water regime, and number of vegetation layers and percent cover increase this system's ability to maintain habitat conditions utilized by a variety of species. The variety of wetland types (pond, and watercourse/forested wetland complex) contribute to the moderate potential for contributing to a diversity of wetland fauna. The wetland model score for this function reflects a moderate to high score of (72%) for depressional and 78% for the sloping wetland.

Summary

The model scores for both the depressional and off-site slope wetlands represent a moderate functioning wetland system. The combination of the off-site forested wetland/watercourse complex and the existing pond within the landscape combine to provide important functional attributes, and

have the capacity to provide water quality treatment measures, plus, provide habitat for wetland dependent plant and animal species. . The property does exhibit impacts from former land use practices including the spread of invasive plant species from disturbance and excess nutrient loading from adjacent horse farm operations.

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References

Cowardin, L.M., V.Carter, F.G. Golet, E.T. LaRow, 1979. "Classification of Deepwater Habitats of the United States," USFWS, US Dept. of Interior, pg. 1-131.

D.W.Magee and G.G.Hollands. 1998. A Rapid Procedure for Assessing Wetland Functional Capacity based on Hydrogeomorphic (HGM) Classification. Normandeau Associates and ENSR. 190 pg.

Edinger, G.J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero (editors). 2002. "Ecological Communities of New York State", Second Edition. New York Natural Heritage Program, New York Department of Environmental Conservation, Albany, New York.

Existing Wetland and Wetland Buffer Disturbance

As noted, the parcel was developed in the 1980's and included development of the majority of the existing wetland buffer area. A majority of the house, the entire pool, pool patio, equipment and fencing are located within the wetland buffer. A stone boulder retaining wall was constructed to define the edge of disturbance for construction of the pool. A post and rail fence was installed along the edge of the wetland at the base of the slope and extends along the northern and western boundary of the wetland towards the existing residence to the southeast.

Proposed Improvements and New Wetland and Wetland Buffer Disturbance

The proposed improvements include re-locating the existing garage to the northwestern side of the existing residence, which will be accessed by a new gravel driveway and turnaround area, plus an on-grade flagstone patio. The new addition for the garage and patio will be located within the regulated wetland buffer. The existing garage area will be converted to living space. The portion of the existing driveway that serves the current garage will be removed and converted to lawn area. The location of the new addition for the garage and patio will also require a side yard variance from the Zoning Board of Appeals.

Proposed stormwater facilities will also be located within the wetland buffer. An elevated wood walkway and dock is proposed within the wetland buffer and will extend into the wetland and pond edge to allow access to the open water section of the pond.

Wetland and Wetland Buffer Impacts and Proposed Mitigation Measures

The existing impervious surfaces represent approximately 12,073 square feet. Currently, none of the impervious surfaces (including roof leaders, and pool or pool patio areas) are captured and treated prior to discharge into the adjacent wetlands.

The runoff from the proposed addition for the garage and new patio area will be conveyed to properly designed stormwater practices to comply with NYSDEC standards. In addition, a large portion of the existing driveway will be removed and converted to lawn surface. The existing pool will include a drywell to capture the first 6 inches of the pool, or 20 % of the pool water volumes and store and treat prior to discharge.

As a result of the planned stormwater practices, the proposed impervious surfaces will remain the same as the existing development. No increases will occur in the amount of impervious cover.

The edge of the pond and adjacent riparian wetlands will be restored and enhanced by removal of existing stockpiles of debris, and selective removal of invasive shrubs and grasses. New native plantings consisting of native shrubs and grasses are also proposed. Please refer to the proposed Site Plan that shows the location of invasive plant removal and re-planting areas.

The proposed wood walkway and dock will create a temporary disturbance within the existing buffer and wetland. The buffer within this area along the existing fence currently consists of lawn grasses. The walkway will be installed on top of the existing lawn surface. The walkway will consist of environmentally friendly wood products that will rest on the existing surface. Within the wetland edge and pond, a series of footings will be installed to anchor the proposed dock. The dock will also be constructed with certified wood products that are free of known contaminants.

Summary

The proposed improvements will not result in a net increase in impervious surfaces. Existing pool and pool drawdown will be captured and treated via stormwater practices, which will help to off-set disturbances within the wetland buffer. Sections of the wetland and wetland buffer are proposed to be restored and enhanced via removal of debris and invasive species. New native plantings will be added along the wetland edge to provide better quality habitat and attractiveness to resident wildlife species.

We look forward to discussing the merits of this project with the Wetlands Control Commission at its June meeting. Please let me know if you have any questions or require any additional information.

Sincerely,

Stephen W. Coleman

Stephen W. Coleman
Principal
SWC/tbh
cc: N. Matfus
A.Graham, R.A.
Cronin Engineering

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The Office of the Westchester County Clerk: This page is part of the instrument; the County Clerk will rely on the information provided on this page for purposes of indexing this instrument. To the best of submitter's knowledge, the information contained on this Recording and Endorsement Cover Page is consistent with the information contained in the attached document.

553493111DED001W

Westchester County Recording & Endorsement Page

Submitter Information

Name:	Benchmark Title	Phone:	914-250-2400
Address 1:	Lisa Pejril	Fax:	914-250-2402
Address 2:	222 Bloomingdale Road	Email:	lpejril@benchmarkta.com
City/State/Zip:	White Plains NY 10605	Reference for Submitter:	BTA 73444

Document Details

Control Number: **553493111** Document Type: **Deed (DED)**

Package ID: 2015111000177001001 Document Page Count: **4** Total Page Count: **5**

Parties

☐ Additional Parties on Continuation page

1st PARTY		2nd PARTY	
1: CASA ZETA LLC	- Other	1: MATFUS NICHOLAS	- Individual
2: TESSLER CRAIG	- Individual	2: GAO JING	- Individual

Property

☐ Additional Properties on Continuation page

Street Address: 564 GUARD HILL ROAD Tax Designation: 84.05-1-2

City/Town: BEDFORD Village:

Cross- References

☐ Additional Cross-Refs on Continuation page

1: 2: 3: 4:

Supporting Documents

1: RP-5217 2: TP-584

Recording Fees

Statutory Recording Fee:	$40.00
Page Fee:	$25.00
Cross-Reference Fee:	$0.00
Mortgage Affidavit Filing Fee:	$0.00
RP-5217 Filing Fee:	$125.00
TP-584 Filing Fee:	$5.00
Total Recording Fees Paid:	$195.00

Transfer Taxes

Consideration:	$1,900,000.00
Transfer Tax:	$7,600.00
Mansion Tax:	$19,000.00
Transfer Tax Number:	6481

Mortgage Taxes

Document Date:

Mortgage Amount:

Basic:	$0.00
Westchester:	$0.00
Additional:	$0.00
MTA:	$0.00
Special:	$0.00
Yonkers:	$0.00
Total Mortgage Tax:	**$0.00**

Dwelling Type: Exempt: ☐

Serial #:

RECORDED IN THE OFFICE OF THE WESTCHESTER COUNTY CLERK

WESTCHESTER COUNTY SEAL

Recorded: 12/16/2015 at 11:30 AM

Control Number: **553493111**

Witness my hand and official seal

Timothy C.Idoni
Westchester County Clerk

Record and Return To

☐ Pick-up at County Clerk's office

benchmark title
222 bloomingdale rd

white plains, NY 10605

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B1473444 #2

— Bargain and Sale Deed, with Covenant against Grantor's Acts — Individual or Corporation (Single Sheet)

CONSULT YOUR LAWYER BEFORE SIGNING THIS INSTRUMENT—THIS INSTRUMENT SHOULD BE USED BY LAWYERS ONLY.

THIS INDENTURE, made the 17th day of November, in the year 2015

BETWEEN Casa Zeta, LLC., c/o Chapman Bird & Tessler, Inc., 1990 S Bundy Dr., Suite 200, Los Angeles, Ca. 90025

party of the first part, and Nicholas Matfus and Jing Gao, 550 West 54th street, New York, N.Y. 10019

party of the second part,

WITNESSETH, that the party of the first part, in consideration of

Ten dollars

paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Town of Bedford, County of Westchester, as more particularly described on Schedule A attached hereto

TOGETHER with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof; TOGETHER with the appurtenances and all the estate and rights of the party of the first part in and to said premises; TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

AND the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid.

AND the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose. The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above written.

IN PRESENCE OF:

Casa Zeta, LLC

By Craig Tessler, Manager

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CONTROL COMMISSION

ACKNOWLEDGEMENT TAKEN IN NEW YORK STATE

State of New York, County of , ss:

On the day of in the year , before me, the undersigned, personally appeared

, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

ACKNOWLEDGEMENT BY SUBSCRIBING WITNESS TAKEN IN NEW YORK STATE

State of New York, County of , ss:
On the day of in the year , before me, the undersigned, a Notary Public in and for said State, personally appeared , the
subscribing witness to the foregoing instrument, with whom I am personally acquainted, who, being by me duly sworn, did depose and say that he/she/they reside(s) in

(If the place of residence is in a city, include the street and street number if any, thereof); that he/she/they know(s)

to be the individual described in and who executed the foregoing instrument; that said subscribing witness was present and saw said

execute the same; and that said witness at the same time subscribed his/her/their name(s) as a witness thereto

ACKNOWLEDGEMENT TAKEN IN NEW YORK STATE

State of New York, County of , ss:

On the day of in the year , before me, the undersigned, personally appeared

, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

ACKNOWLEDGEMENT TAKEN OUTSIDE NEW YORK STATE

*State of CALIFORNIA, County of , ss:
*(Or insert District of Columbia, Territory, Possession or Foreign County)

On the day of November in the year 2015, before me the undersigned personally appeared

See attached Acknowledgement

Personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), that by his/her/their signature(s) on the instrument, the individual(s) or the person upon behalf of which the individual(s) acted, executed the instrument, and that such individual make such appearance before the undersigned in the Los Angeles, California.

(add the city or political subdivision and the state or country or other place the acknowledgement was taken).

Bargain and Sale Deed
With Covenants

X

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BEDFORD WETLANDS CONTROL COMMISSION

SECTION: 84.05

BLOCK: 1

LOT: 2

COUNTY OR TOWN: Bedford

Title No.

CASA ZETA, LLC
TO
NOHOLAS MATFUS and JING GAO

RETURN BY MAIL TO:

Benchmark Title Agency, LLC
222 Bloomingdale Road
White Plains, New York 10605

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Los Angeles)
On November 17, 2015 before me, Leslie Cutting Notary Public
Date *Here Insert Name and Title of the Officer*
personally appeared Craig Tessler
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

LESLIE CUTTING
Commission # 2066996
Notary Public - California
Los Angeles County
My Comm. Expires May 31, 2018

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document
Title or Type of Document: _____ Document Date: _____
Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other: _____
Signer is Representing: _____

Signer's Name: _____
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other: _____
Signer is Representing: _____

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Benchmark Title Agency, LLC

Title No. BTA73444

SCHEDULE A

ALL that certain plot, piece or parcel of land, situate, lying and being in the Town of Bedford, County of Westchester and State of New York, being known and designated as Lot 1 on a certain map entitled "Subdivision Plat prepared for Edward T. Thompson situated in the Town of Bedford, Westchester County, New York", made by Chas H. Sells Inc. dated January 17, 1985 and filed in the Office of the County Clerk, Division of Land Records on June 21, 1985 as Map No. 21961, being more particularly bounded and described as follows:

BEGINNING at a point on the northerly side of Guard Hill Road, where the same is intersected by the division line between Lots 1 and 2 on the aforesaid map;

RUNNNING THENCE along the northerly side of Guard Hill Road, in a westerly direction along a curve to the right having a radius of 250.00 feet, a central angle of 12 degrees 38 minutes 48 seconds, a distance of 55.18 feet and continuing along the northerly side of Guard Hill Road, South 85 degrees 30 minutes 00 seconds West 104.14 feet to the easterly line of Parcel "A" Subdivision Plat prepared for Mary W. Fulton, etc., filed in the Westchester County Clerk's Office (Division of Land Records) as Map No. 21181;

RUNNING THENCE along the easterly line of Parcel "A" on Map No. 21181, North 04 degrees 52 minutes 40 seconds East 778.22 feet to the southerly line of Parcel "A" on Map No. 21181;

RUNNING THENCE along a southerly line of Parcel "A" on Map No. 21181, South 85 degrees 07 minutes 20 seconds East 573.42 feet to the division line between Lots 1 and 2 on Map No. 21961;

RUNNING THENCE along the division line between Lots 1 and 2 on Map No. 21961, in a southwesterly direction along a curve to the right having a radius of 40.00 feet, a central angle of 93 degrees 59 minutes 15 seconds, a distance of 65.62 feet to a point;

THENCE CONTINUING along the division line between Lots 1 and 2, South 78 degrees 27 minutes 19 seconds West 126.14 feet, South 52 degrees 17 minutes 07 seconds West 414.71 feet and South 00 degrees 23 minutes 20 seconds East 379.30 feet to the northerly side of Guard Hill Road, the point or place of BEGINNING.

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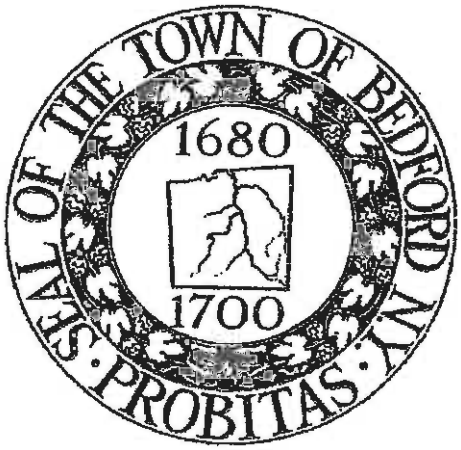
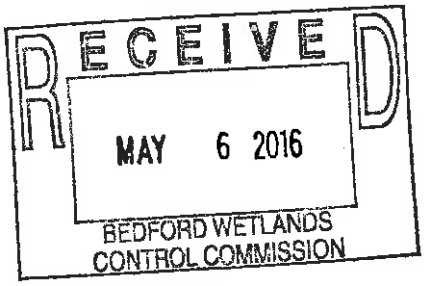
FOR CONVEYANCING ONLY

The policy to be issued under this report will insure the title to such buildings and improvements erected on the premises which by law constitute real property.

Application for Wetlands Permit





Town Of Bedford
Wetlands Control Commission

425 Cherry Street
Bedford Hills, New York 10507
Tel: (914) 666-5140 • Fax: (914) 666-2026

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(Last revised 4/6/2015.)

Dear Applicant:

Enclosed are the required forms for completing an application for a wetlands permit for the Town of Bedford. Also included are materials which may assist you in the process. This package is designed to be self-explanatory, but please feel free to call the Town of Bedford's Wetlands Control Commission at 914-666-5140 with any questions.

The Wetlands Control Commission may only act upon *complete applications with all required supporting materials*. To allow adequate review of your application and to meet public notice requirements, applications are to be submitted to Town of Bedford Wetlands Control Commission, 425 Cherry Street, Bedford, New York 10507 *not later than twenty business days* prior to the next regular meeting of the Commission. Supplemental submissions (i.e., additional required materials) are due *not later than fifteen business days* prior to the next regular meeting of the Commission. Regular meetings usually are scheduled for the first Monday of each month, but call the number above to confirm. The owner or applicant should be present at the meeting. You can also find a schedule of meetings, submission cut-off dates and site walks on the Town website – www.bedfordny.gov. Please submit the following with your application:

1. Application Fee: Check or money order made payable to "Town of Bedford" for the fee as follows: (a) project involving a single lot: $200.00; or (b) project involving more than one lot: $200.00 plus $25 for each additional lot or $50 per acre of affected wetlands, *whichever is higher*.

2. Plans: Plans for the proposed work, unless otherwise specified, shall be drawn to a scale of not less than one (1) inch equals thirty (30) feet. The plans shall be certified by an engineer, architect, land surveyor or landscape architect licensed in the State of New York. Plans must show the following:

✓ (a) The location of all wetlands as determined by a qualified ecologist, botanist and/or soil scientist no earlier than twelve (12) months prior to the date of filing the application.

✓ (b) Location of construction or area proposed to be disturbed and its relation to property lines, buildings, roads and watercourses within two hundred fifty (250) feet.

✓ (c) Estimated quantities of material of excavation or fill.

✓ (d) Location of any well and depth thereof and any sewage or wastewater disposal system within one hundred (100) feet of the disturbed area.

✓ (e) Existing and proposed contours at two-foot intervals in the proposed disturbed area and to a distance of one hundred (100) feet beyond.

✓ (f) Details of any drainage system proposed, both for the conduct of the work and after completion thereof, and measures proposed to control erosion and siltation during and after the work.

N/A (g) Where creation of a lake or alteration of a watercourse or wetland is proposed, details of the construction of any dams, embankments and outlets or other water control devices.

✓ (h) A property location map.

✓ (i) Most recent deed and survey of the property.

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Note: the Commission is permitted to waive or modify the plan requirements listed above if it determines that sufficient information and documentation is submitted to enable it to make its determinations required under the law. You should check with the staff if you believe a waiver may be

appropriate. This waiver or modification does not apply to wetlands listed on the State Freshwater Wetlands Map.

3. Applications Affecting Water Retention Capacity, Water Flow or Drainage (if applicable): Applications affecting the water retention capacity, water flow or other drainage characteristics of any pond, lake, reservoir, natural drainage system or wetland shall include a statement prepared by a professional engineer licensed in the State of New York of the impact of the project on upstream and downstream areas, giving appropriate consideration to flood or drought levels of watercourses and amounts of rainfall.

4. Other Permits (if applicable): Copies of all applicable town, county, state or federal permits or permit applications which are required for such work or improvement, unless such permits are conditioned upon obtaining a Wetlands Permit.

5. Other Information and Details: After initial review of your application, you may be asked to submit additional information or details.

6. Reimbursement for Town's Professional Consultants: Your application may be referred to the Commission's consultant(s) and you will be required to reimburse the Town for the cost of such consultant services. In addition to the application fee, you are required to submit a deposit to be held in escrow which the Town will apply toward reimbursement for the Town's professional consulting services. The current rate for these services is $125.00 per hour. In some instances, the deposit will be insufficient and you will be billed to reimburse the Town the difference. *Please note that the Commission is not authorized under the Town Code to issue your permit unless and until such reimbursement is made.*

Please remember that an incomplete application package will result in delay. Your cooperation is appreciated!

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Section A

Each Applicant must complete all items listed in Section A.
Place a checkmark next to each completed item.
Return this checklist with your application.

I. Fees and Escrow Deposits:

In this category place a checkmark next to the items appropriate to your application.

✓ Please include two (2) separate checks or money orders made payable to "Town of Bedford" for **Escrow Fee:**

✓ $500 as escrow deposit for Wetlands Permit Application

OR

____ $1,000 as escrow deposit for Remediation of Wetlands Law Violation Application

A $200 minimum balance is required in the "Escrow Fee Account" for:

a) The application to be considered on any future agenda
b) A compliance inspection of the project to be scheduled

Application Fee (computed as follows):

✓ $200 for a project involving a single lot

OR

____ $200 for a project involving more than one lot

PLUS Either $25 for each additional lot
Or $50 per acre of affected wetlands – Whichever is higher

Example: A 3-lot subdivision with 5 acres of affected wetlands requires payments totaling $750, based on:

$500 – Escrow Fee
$450 – Application Fee: $200 = Project involving more than one lot
$250 = 5 acres of affected wetlands X $50 per acre of affected wetlands
$950 – Total of Fees Required

II. Application Form

✓ Nine (9) sets each of a completed application form with all current owner(s) signature(s). The name of the owner(s) on the application should be the same as the name(s) on the deed.

III. Environmental Assessment Form

✓ Nine (9) sets of the Environmental Assessment form with all current owner(s) signatures(s) with – only side 1 is to be completed.

IV. Deed

✓ One copy of the most recent deed(s).

V. Survey of Property

✓ Nine (9) sets of survey of property.

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VI. Plans

____ Plan which contains all of the following:
- ____ site plans
- ____ architectural plans
- ____ landscape architectural plans
- ____ wetlands plans (plans showing wetland delineation in conjunction with wetlands investigation/report do not have to conform to the stated scale.)
- ____ mitigation plan
- ____ planting plan

— OR —

✓ combined site plans that include wetlands, wetlands mitigation, or planting plan of the proposed work

✓ Unless otherwise specified, all plans shall be drawn to a scale of not less than one (1) inch equals thirty (30) feet.

✓ The plans shall be dated (with the last revision dates) and certified by an engineer, architect, land surveyor or landscape architect licensed in the State of New York.

✓ Plans should be individually folded so as to fit into an 8 ½ X 14 legal size folder with the property owner(s) and tax map reference written to appear on the top of the folded plan.

____ The preparer of such plans shall comply with the attached Guidelines for Wetlands Studies and Reports as adopted by the Commission at its BWCC meeting of 5/7/01.

Plans must show the following:

✓ The location of all wetlands as determined by a qualified ecologist, botanist and/or soil scientist.

✓ The survey location of the wetlands needs to have been performed no earlier than twelve (12) months prior to the date of filing the application.
***Please note that on all new applications, the wetlands located surveys must be updated if the survey was performed earlier than twelve (12) months prior to the filing of the application.*

✓ All property lines, buildings, roads and watercourses within two hundred fifty (250) feet of any proposed construction of disturbance.

✓ Watershed and destination of water courses.

✓ Estimated quantities of material of excavation or fill.

✓ Location of access route for construction.

____ Identification of whether the work is to be done by hand or machine.

✓ Cost estimate of the work (including all materials, plantings and professional services)

✓ Location of any well and depth thereof and any sewage or wastewater disposal system within one hundred (100) feet of disturbed area.

N/A Written proof that septic systems within regulated/controlled wetlands within the Town of Bedford have been properly maintained within the four (4) year time period prior to application.

✓ Existing and proposed contours at two-foot intervals in the proposed disturbed area and to a distance of one hundred (100) feet beyond.

✓ Details of any drainage system proposed, both for the conduct of the work and after completion thereof, and measures proposed to control erosion and siltation during and after work (erosion control).

N/A Where creation of a lake, pond or alteration of a watercourse or wetland is proposed, details of topography and proposed new grading, and the construction of any dams, embankments and outlets or other water control devices.

✓ A property location map.

N/A Prior wetland permit and resolution number if applicable.

✓ Date

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Section B

Each applicant need only complete the category that is applicable to the site conditions of the property.
Choose the appropriate category(ies)
Place a check mark next to each completed item
Submit checklist with your application

I. Applications Affecting Water Retention Capacity, Water Flow or Drainage

Application affecting the water retention capacity, water flow or other drainage characteristics of any pond, lake, reservoir, natural drainage system or wetland shall include:

_____ A statement prepared by a professional engineer licensed in the State of New York of the impact of the project on upstream and downstream areas. This statement should give appropriate consideration to flood or drought levels of watercourses and amounts of rainfall.

II. Fence Permits Within Wetlands or Within the 100 Foot Wetlands Buffer

Fence permit applications must be accompanied by:

_____ Nine (9) sets of site plans OR Nine sketches clearly showing:
- _____ the location and height of the proposed fence
- _____ a statement of the type of material(s) to be used to construct the fence
- _____ a design that allows the passage of small wildlife through the bottom of the fence to maintain corridors for upland and wetland habitat
- _____ an erosion control plan

III. Deck Permit Within Wetlands or Within the 100 Foot Wetlands Buffer

Deck permit applications must be accompanied by:

_✓_ Nine (9) sets of site plans OR Nine (9) sketches clearly showing:
- _✓_ the proposed location of the deck
- _✓_ a statement of the type of material(s) used to construct the deck
- _____ the construction detail
- _____ deck and elevation detail
- _✓_ an erosion control plan

IV. Other Permits (if applicable)

It should be noted that in addition to a wetlands permit, all applications may be subject to other applicable town, county, state, or federal permits.

Reimbursement for Town's Professional Consultants:

Your application will be referred to the Commission's consultant(s) and you will be required to reimburse the Town for the cost of such consultant services. The escrow mentioned above is an *estimate* of the amount needed to cover the cost for the Town's professional consulting service to review and comment on your application. The actual cost may vary. Additional payments may be required. In addition, any escrow balance cannot be refunded until all sign-offs have been issued, including sign-offs which may be required one or two years after the project is completed.

Please remember that an incomplete application package will result in delay. Your cooperation is appreciated.

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Bedford Wetlands Control Commission

Guidelines for Fences

(Revised and Adopted 4/6/2015)

1. Erection of the fence will be done by hand without the operation of machinery or heavy equipment within the Wetland or Wetland/Watercourse Buffer (the "Regulated Area").
2. Erection of the fence does not result in any vegetation clearing, grading, filling or other construction or development activities within the Regulated Area.
3. The following requirements shall apply in the event the fence is to cross any stream or other watercourse:
   a. The fence shall not inhibit or alter the natural drainage flow or cause the blocking or damming of surface water.
   b. No fence post is to be placed in the bed or within three feet from the edge of such stream or other watercourse.
   c. The bottom portion of the fence shall be no lower than 12 inches above seasonal high water of such stream or other watercourse;
4. Care shall be taken to stabilize disturbed areas promptly after construction.
5. All necessary precautions shall be taken to prevent contamination in the Regulated Area by silt, sediment, fuels, solvents, lubricants, or any other pollutant or toxic substance.
6. Openings at no less than fifteen-foot intervals shall be placed for the entire course of the fence which is located in the Regulated Area so as to allow the passage of small animals. Each such opening shall be at least six inches in height above ground level and twelve inches in length.

6a. As an alternative to item 6 above the Commission or the Town Environmental Consultant may recommend that fencing be installed in such a manner that it will run continuoulsy 6 inches or more above the established grade to permit the free movement of wetland dependent mammals, amphibians and reptiles.

Bedford Wetlands Control Commission
Guidelines For Larger Projects

(Adopted 5/1/2006)

Detailed plans should be provided which include:

1. **An up-to-date survey of the entire property** which shows the existing improvements and the location of all regulated wetlands and watercourses (including wetland flag numbers, if possible) and the 100' wetland setback. The survey should be prepared by a licensed surveyor. For properties where the wetland delineation is older than 1 year, the professional who did the original delineation should reconfirm the accuracy of the boundary in writing as part of the application. A property location map should also be provided, either as an inset or on a separate sheet.

2. **A detailed site plan showing the proposed improvements**. The site plan should include:
   a. Clear identification of the location of construction and area proposed to be disturbed and its relation to property lines, buildings, roads and watercourses within two hundred fifty (250) feet;
   b. new improvements should be distinguished from existing improvements by hatching, cross-hatching, shading or other clear designation;
   c. the nearest point of the improvements to the wetlands;

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d. the dimensions, square footage of the improvements and the square footage increase in disturbance;
e. The limits of disturbance (building envelope) and construction ingress/egress should be identified with care given to restrict disturbance, to the fullest extent practicable, to areas outside of the wetlands and wetlands buffer;
f. Identify whether any proposed structure will have a foundation;
g. Identify the means for carrying out the construction and the equipment to be used (e.g., whether hand tools will be used);
h. Estimated quantities of material of excavation or fill and whether there will be any stockpiling of excavated soils for the project;
i. the disposition of any stockpiled soils;
j. whether any ledge or bedrock is expected to be encountered in excavating any portion of the site (e.g., for a foundation);
k. Identify how any roof run-off will be handled and whether there will be gutters and downspouts to carry the run-off. If stormwater drywells are being considered, identify the location of the lines running from the structure to the drywells;
l. Location of any well and depth thereof and any sewage or wastewater disposal system within one hundred (100) feet of the disturbed area;
m. Existing and adjusted contours at two-foot intervals in the proposed disturbed area and to a distance of one hundred (100) feet beyond;
n. Description of any proposed grading;
o. Details of any drainage system proposed, both for the conduct of the work and after completion thereof, and measures proposed to control erosion and siltation both during and after the work;
p. Details of any proposed erosion control plans and identification of location of siltation fences and other measures.

3. Where the proposed project entails *unavoidable* impacts, the wetlands law requires a **mitigation plan**. Please note that mitigation is distinct from avoidance and minimization of impacts. All plans must reflect every reasonable effort to avoid impacts and, where not possible, to minimize impacts to the maximum extent practical. Examples of mitigation include:
   a. Where a pre-existing septic system is located within the regulated area, relocation of the septic system as far as practicable from the regulated area.
   b. Allowing any lawn area current in the wetland or bordering the wetland to revert to a natural state.
   c. Creation of limited mow areas for other portions of existing lawn in the regulated area.
   d. Enhancement of existing wetlands through any of the following or a combination thereof: (a) removal of invasive species; (b) removal of any inorganic and organic debris; and/or (c) planting of wetlands species identifying size, type, quantity, location, protocol for installation and including the legends pertaining to no use of fertilizers, herbicides, chemicals, pesticides, etc. in the regulated area.
   e. Creation of a permanent non-disturbance area (which may include any area to revert to natural wetlands or a limited mow area) for the wetlands and a portion of the buffer through a declaration of restrictive covenants or granting of a conservation easement to a not-for-profit conservancy organization qualified to handle such easements. In either event, the document is to be recorded in the land records.

Bedford Wetlands Control Commission
Guidelines For Proposed Wetlands Delineations
(Adopted 10/1/2001)

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(1) All requests will require the following items:
   (a) Application form.

(b) Deed to the property (we do not need a title report)
(c) $100 payment to the Town of Bedford.

(2) The Town Environmental Consultant will review the application and materials submitted with it, inspect the site and advise the Commission whether additional information and documentation may be required in order to ascertain the wetlands delineation, in which case the following additional items would be required:
(a) flagging in the field (by the soil scientist) of the wetlands boundary
(b) wetlands report (please see the Commission's May 7, 2001 Guidelines for wetlands reports.)
(c) confirmation by the Town Environmental Consultant of the wetlands boundary
(d) survey-location of the wetlands and wetlands buffer based on the confirmation of the wetlands boundary by the Town Environmental Consultant.

(3) Following the Town Environmental Consultant's review of the materials and confirmation of the wetlands boundary, seven sets of all required to be submitted to the Commission.

(4) The Commission then will act upon the request and, as needed, its own inspection of the site. The Commission's action will be in the form of a resolution adopted at a regular meeting of the Commission.

If you have any questions, please contact the staff. Your cooperation is appreciated.

Bedford Wetlands Control Commission
Guidelines For Swimming Pools
(Adopted 9/11/2006)

***IMPORTANT NOTE**: If the pool is down slope of the regulated area (that is, the wetlands and buffer area), then these guidelines **may not apply at all**. We would suggest discussing the matter with the Commission's staff.*

The following assumes that the Commission is comfortable with the location and size of the pool. In addition, the site plan should provide the following:

1. Please identify the limits of disturbance.
2. Please identify the ingress/egress for the project, which to the greatest degree possible should avoid encroaching into the regulated area, so as to minimize disturbance.
3. A drywell should be considered for draining the pool (even if only partial drainage is required). Explain how this will be constructed to minimize disturbance. The drywell should be sized in proportion to the size of the pool. We would suggest consulting the Commission's staff.
4. Please identify the type of fuel proposed to heat the pool and its location.
5. Please identify any fuel, electric or other utility lines and conduits passing through the regulated area to the pool area.
6. Please add the following legends on the plan:
   i. "Discharge of pool water into the regulated area is prohibited."
   ii. "A self-contained filtration system for the pool shall be utilized, thus requiring no backwash whatsoever."
   iii. "There shall be no storage of pool chemicals or other toxic substances in the regulated area."

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Bedford Wetlands Control Commission
Guidelines For Wetland Studies And Reports
(Adopted 5/7/2001)

(1) Soil borings and other commonly accepted tests should be performed to determine the presence of hydric soils.

(2) The report should include the following:
- (a) general description, identification and location of soil types including any hydric soils
- (b) identification and location of plant types and whether they are typical of wetland species

(3) The report should describe the wetland in detail including:
- (a) functional values with supporting explanation
- (b) flora
- (c) fauna
- (d) the source of the wetlands and whether it is part of a larger wetland system both on or off site
- (e) explain where the wetland ultimate drains (e.g., reservoir, river or other water body).

(4) Describe the wetland buffer in detail covering the same items as above in (3).

(5) Once the wetland and the wetland buffer has been flagged on the subject property, it is to be survey-located and the survey-located and certified plan is to be submitted to the Commission for review and approval.

(6) Winter wetland delineations are discouraged and will be subject to verification during the growing season.

(7) Wetlands and the one hundred (100) foot setback area must be delineated and survey-located based upon flagging set by the wetlands consultant. These are subject to the verification of the Commission.

(8) Any wetland study must have been (i) prepared not more than one year prior to the submission of the application; or (ii) if a study was prepared more than one year prior to the submission of the application, then reviewed and updated within one year.

The Commission notes that a wetland study and report is not required for every application. However, they are commonly provided with regard to properties with extensive or sensitive wetland features. Submission of the reports with the application, rather than after the first Commission hearing on the application, will facilitate and expedite the review process.

The Commission notes that these are general guidelines to assist applicants and their consultants. They are not intended to be exclusive or exhaustive. Applicants and their consultants should exercise discretion in following the guidelines and should recognize that the Commission reserves the right to request further information and study.

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Legends for Mitigation Plans

A) **Prohibition Against Application of Organic or Inorganic Chemicals (i.e.,fertilizers):**
"There shall be no organic or inorganic chemicals (including, but not limited to, fertilizers, pesticides, herbicides and fungicides) deposited or introduced in the wetlands or within the wetland buffer area. To the extent any such deposits or introduction has occurred, it shall immediately be terminated."

B) **Wetlands Plantings – Shrubs or Trees:**
"At the time of planting of the indicated trees or shrubs, no fertilizers are to be used or added to the planting hole or top dressing. The use of biostimulants (such as, but not limited to, mycorhizal fungi) not regulated by the New York State Department of Environmental Conservation may be applied as appropriate until one year after installation of plant materials and shall be discontinued thereafter. Horticultural oils may be applied to trees and shrubs as part of a monitored Integrated Pest Management (I.P.M.) program, however, these oils shall not be permitted to be applied to any plant material in any manner that might permit the introduction of the oil onto or into any wetlands or wetlands buffer area as delineated on the site plan approved by the Town of Bedford Wetlands Control Commission."

Protocol for Limited Mowing Area

1) Identify with cross-hatching the area where mowing is to be limited.

2) Identify the cross-hatching as "Limited Mow Area."

3) Add the following legend to the Site Plan:
"Limited Mow Area
The Limited Mow Area may be mowed twice (and no more than twice) each calendar year as follows: the first mowing of the year should be carried out in late summer (between August 15 and September 15) to a height of not less than 6 inches. If there is growth to a height of one foot or more following the first mowing, a second mowing may be done in late fall (between November 15 and December 15) or early spring (between March 15 and April 15) to a height of between 4 and 6 inches.
The owner acknowledges that the purpose of the limited mowing is to maintain meadow areas to provide habitat for nesting grassland birds and small mammals, thereby increasing the diversity of habitats found on the subject property. Meadow areas adjacent to ponds and streams also provide significant benefits relative to maintaining water quality."

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Legend for Permanent Non-Disturbance Conservation Area

1. **Purpose:** It is the purpose of the Permanent Non-Disturbance Conservation Area to preserve and protect such area against despoliation and destruction and to that purpose to prohibit certain activities in such area.

2. **Prohibited Activities:** Excepting Owner's Reserved Rights (listed below), any act prohibited or regulated by the Town of Bedford's Freshwater Wetlands Law the shall be prohibited in the Permanent Non-Disturbance Conservation Area and without limiting the generality of the foregoing, the following activities and uses are expressly prohibited in, to, on, over, through, under or with respect to the Permanent Non-Disturbance Conservation Area:

   a) Placing or depositing materials or chemical wastes or introducing influents of sufficiently high thermal or chemical content as to cause deleterious ecological effect in the Permanent Non-Disturbance Conservation Area.

   b) Any structure, accessory structure, swimming pool or tennis court.

   c) Any form of draining, dredging, dewatering, excavation or removal of material, either directly or indirectly.

   d) Any form of dumping, filling or depositing of material, either directly or indirectly.

   e) Introduction of any form of pollution, including but not limited to the installation of a septic tank, the running of a sewer outfall or the discharge of sewage treatment effluent or other liquid wastes into or so as to drain into the Permanent Non-Disturbance Conservation Area.

   f) Alteration or grading natural features and contours, alteration of drainage conditions or diversion of any flow of a watercourse, water body, marsh or swamp.

   g) Construction of docks, dams, other water control devices, pilings or bridges, whether or not they change the ebb and flow of the water.

   h) Installation of any service lines, cable conduits, pipes or wells.

   i) Construction of driveways or roads.

   j) Cutting any healthy trees, shrubs or non-invasive material.

   k) Depositing or introducing organic or inorganic chemicals, including without limitation any fertilizers, pesticide, herbicide or fungicides.

   l) Conducting any other activity that substantially impairs any of the functions or benefits to wetlands as described in the Law.

   m) Operation of snowmobiles, dune buggies, motorcycles, all-terrain vehicles, or any other types of motorized vehicles on the Protected Property.

   n) Conducting any other activity which under the Law, as may be amended from time to time, constitutes a controlled act or otherwise would require a permit.

3. **Owner's Reserved Rights:** Notwithstanding any of the foregoing provisions to the contrary and as expressly limited herein, the Owner reserves the following reserved rights (the "Owner's Reserved Rights"), without prior notice to the Town; provided, however, that the exercise of such rights will not interfere with or have an adverse impact on the essential natural, open and scenic quality of or the conservation interests associated with the property:

   a) The right to hike and observe nature.

   b) The right to maintain existing walls and fences.

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c) The right to remove dead and diseased vegetation.

d) The right to sell, give or otherwise convey the property any portion or portions of the property, provided such conveyance is subject to these terms..

e) The right to restore any existing structure on the property in the event of damage or destruction; provided, however, that (i) Owner shall make application to the Town of Bedford Wetlands Control Commission with respect thereto; and (ii) in no event shall any restored structure exceed the footprint or area of the pre-existing structure.

f) The right to maintain existing structures at the property without otherwise violating these terms.

4. **Enforcement:** The Town and its successors and assigns shall have the right to enforce these provisions by proceedings at law or in equity, including but not limited to the right to require the restoration of the Permanent Non-Disturbance Conservation Area.

5. **Easement to the Town for Monitoring and Enforcement:** Owner hereby grants the Town an easement over the property for the purposes of monitoring and enforcing these terms.

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THE WETLANDS CONTROL COMMISSION OF THE TOWN OF BEDFORD
BEDFORD, NEW YORK

February 1, 2016

A meeting of the Wetlands Control Commission of the Town of Bedford was held on February 1, 2016, starting at 7:31 PM in the Town Offices at 425 Cherry Street, Bedford Hills, New York.

Present: Chairman Andrew Messinger, Vice-Chairman Carol Parker, Member Fiona Mitchell, Member John Stockbridge, Town Environmental Consultant Beth Evans and Senior Office Assistant Donna Berkowitz.

Absent: Member David Beckett

Announcements:
Andrew Messinger announced that the next meeting of the Commission is scheduled for Monday, March 7, 2016; the deadline for new applications is Friday, February 5, 2016; the deadline for supplemental submissions for this meeting is on Friday, February 12, 2016. The site walk for the March 7, 2016 meeting will take place on February 18, 2016.
Andrew Messinger was informed by Beth Evans that she will not be able to attend the March 7, 2016 meeting, and if they do not receive an adequate number of applications for that meeting, it will be postponed until the next meeting which is Monday, April 4, 2016.

Owners: Christopher Davis and Andrea Schaefer:
Applicant: Benedek & Ticehurst,
Landscape Architects & Site Planners, P.C.
Pergola and Drainage
Section 84.9 Block 1 Lot 4, R-4A Zone
40 Clark Road, Bedford, New York

Owners/Applicants/Representatives Present:
Andrea Schaefer, owner;
Glen Ticehurst, Benedek & Ticehurst, Landscape Architects & Site Planners, P.C.

Discussion:
Glen Ticehurst stated they are proposing to put a shade structure at the end of the pool. The majority of the decking will be removed around the pool and a more modest terrace will be behind the house. Glen stated there is a perched wetland hill and the effect will not have any impact

partially in and outside of the wetland setback. There will be some mitigation planting in wetland area on property line to the North. Glen stated they are proposing to put in two curtain drains along edge of the lawn. Andrea is having flooding problems in her basement and this will alleviate some of the subsurface water coming through the ground. There is mitigation proposed at the outfall of the trench.

Carol Parker requested a description of the pergola in the application with pictures, what it is made of, the footings, etc. Ms. Parker asked if the pool fence was being moved. Glen Ticehurst replied yes. Ms. Parker asked if there was an Administrative permit for the fence. Beth Evans replied yes.

Andrew Messinger stated there is a recent wetland delineation by Paul Jannig. Beth stated Glen's plan references the 2016 delineation not the survey. The original wetland was flagged in 2001 and Paul Jannig confirmed the flagged locations in 2015.

John Stockbridge asked about the next door neighbor – the way the hill works – there seems to be lots of flow from above. Andrea Schaefer asked "do you mean the Flemings?" John said yes. Mrs. Schaefer stated she has lots of pictures and would like them to be put them on the record. She stated there's a reason they are putting in this big drainage ….. the water runs toward her and not the Flemings. The owners at 701 South Bedford Rd. came and submitted a permit to take down the house and put up a new house, and then spent the summer clear cutting. She called the DEC. Mrs. Schaefer stated she had 4 inches of water each time it rained and her basement was dry for 20 years. The DEC said they were allowed to do outside the building envelope a small amount to allow to build. They clear cut over an acre beyond what they were allowed and without a DEC permit on steep slope. She had to get a dumpster to remove everything from the basement, antiques – everything was trashed from this wetland violation, steep slope violation.

John Stockbridge asked what the violation was. Andrew Messinger asked if the Town took any action and/or the DEC. Andrea Schaefer stated she called the DEC and she spoke to the Code Enforcement Officer. The Code Enforcement Officer and Building Inspector went out on several occasions. What the owners were submitting to the Planning Board was a plan, but when the Building Inspector went out they were never doing what was supposed to be done. She stated the Building Inspector did stop work on a couple of occasions, and the DEC guy said without a doubt he did x y & z and he wasn't supposed to. The property owner at 701 South Bedford Rd. needed a steep slope permit and has to come back and reapply for all those things with Planning Board.

Andrew Messinger stated he will follow up with the Building Department regarding Mrs. Schaefer's concerns.

Andrea Schaefer was reiterating her concerns regarding the tree cutting.

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Motion:
Carol Parker made a motion to grant the application for the pergola and curtain drain a wetland permit for a period of two years based on the site plan for the Davis residence labeled WL-1 prepared by Benedek & Ticehurst, Landscape Architects & Site planners, P.C., dated October 27, 2015, with the following conditions:

1. All the standard conditions of the Commission shall be added to this permit (See Attachment A);
2. Should any changes be necessary to the site plan that affect the impervious surface coverage, drainage or plantings in construction with regulated areas, the Town Environmental Consultant shall be informed immediately. The TEC shall determine if these changes can be classified as routine field changes or they are substantive and require further review by this Commission;
3. Any changes that take place to the project or the plan shall be documented to the Commission in the form of updated site plans.

Carol Parker made a motion to seek a negative declaration under SEQRA as a Type II.
Motion Seconded by: John Stockbridge

Andrew Messinger stated he would like to add and amend that. Asked if he could add two items. Mr. Messinger asked "What do you call the swale that you're constructing on the left side of the property?" Glen Ticehurst responded "swale/curtain drain."

Andrew Messinger added a condition which would be (4):

4. Upon the completion of the swale-curtain drains and the stabilization of the soils at this location, the Town Environmental Consultant shall inspect and certify that this feature complies with the plan;
5. The applicant shall provide a written and photographic description of the pergola included in the Wetland file.

Voting on the Permit Application with the conditions:
Motion Seconded by: John Stockbridge

Beth Evans stated the proposed application will not have an adverse impact on the environment based on mitigation measures that are proposed in the reduction of the impervious area.

Vote: Ayes: Messinger, Parker, Mitchell, Stockbridge. Nays: None. Absent: Beckett

Owner: 41 Woodfield Road, LLC
Applicant: Bryan Robertson, Robertson Contracting Corp.

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Remediation of Wetlands Violation, Addition and Renovations to Existing Residence
Section 49.18 Block 2 Lot 44, R-1/2 Acre Zoning District
40 Hickory Road, Katonah

Owners/Applicants/Representative Present:
Bryan Robertson, Robertson Contracting Corp., Glen Ticehurst, Benedek & Ticehurst, Landscape Architects & Site Planners, P.C.

Discussion:
Glen Ticehurst stated Bryan Robertson contacted him to help him navigate the violation.

Andrew Messinger stated that a number of weeks ago the Town Environmental Consultant requested a mitigation plan which they have not received. Mr. Messinger stated the application indicated the renovation of the house and does not see anything that requires a Wetland permit. Bryan Robertson stated it's a bump out of the garage on the impervious surface, removing the blacktop, extending garage 12 ft.

Andrew Messinger asked if there was a stop work order. Mr. Robertson replied not officially. He was told not to do anymore work until he received a Wetland permit and to get a tree permit. Mr. Robertson stated he met Beth Evans out at the site and she stated to retain someone to do the remediation, which is Glen. Mr. Robertson stated he can't do the mitigation until April, so is asking if in the meantime he can continue the construction of the project.

Beth Evans stated she asked Mr. Robertson to get the wetland flags that had been hung by Mary Jannig's survey located and he did do that. Ms. Evans stated she has a copy of that dated January 27, 2016. The survey date is January 19th and the map was prepared on January 27th.

Beth Evans stated that Mr. Robertson is correct that they can't do anything in terms of planting at this point. If Glen Ticehurst is retained to prepare a plan it is reasonable - we should let the Building Department know that no Certificate of Occupancy should be issued until the mitigation plan has been approved by your Board and properly installed and implemented – let them keep working and get something prepared.

Andrew Messinger stated he went to the site and it was difficult to tell what was removed, when, and if a mitigation plan is prepared if the location of the trees that were taken down be put on it.

Beth Evans stated in this case it's not how many trees came down but where they came down and what the impact to the property may be.

Andrew Messinger stated his suggestion is to table this to the April meeting, and Mr. Robertson will come back with a mitigation plan and we will consider the wetland permit for the change at the house, if it is needed.

John Stockbridge asked if Mr. Robertson can continue the work inside the house.
Mr. Messinger responded that he is going to send a memo to the Building Department that it is the Commission's opinion that no Certificate of Occupancy should be issued until the plantings have been completed.

Owner: Michael and Catherine Paletta
Permit time extension, remediation of Wetlands Law Violation
Section 83.11 Block 2 Lot 5.1, R-4 Acre Zoning District
100 Baldwin Road, Bedford Corners

Discussion:
Andrew Messinger stated this is a four year old application in which the applicant has not completed the invasive species removal that was agreed to in the plan or .....

Beth Evans stated she would like to fill in the sentence differently. The applicant has not completed the documentation of the invasive species removal. Ms. Evans stated she had visited the property several times and they did an incredible job removing the invasive species. What they have not done was be diligent in getting their consultant David Sessions to write the report to document that.

Andrew Messinger stated one of the conditions he has is that the above time extension will run this permit to the five year limit allowed by the Commission. If the work has not been completed and documented by February 6, 2017, the applicant will be in violation of this permit and will be considered in violation of the permit unless a new permit application is submitted prior to the application date, but that seems to be punishing the applicant where the applicant may not be the faulty party here.

Beth Evans stated in talking to Dave Sessions there will be no problem getting the documentation in the Spring.

Andrew Messinger made a motion that time extension be granted for one year to the applicant to complete the invasive species removal and documentation in as contained in the original permit pertaining to item numbers 8 and 16 with the following conditions:

1. All the original conditions in the permit shall remain in effect, and there shall be no changes to the plans or conditions without the expressed written approval of the Commission;

2. The above noted time extension will run this permit to the five year limit allowed by the Commission. If the noted work has not been completed and documented by February 6, 2017, the applicant may be in violation of this permit, and it will be necessary for a new permit and application to be submitted prior to the expiration date.

Motion: Mr. Messinger made a motion to second.
Motion Seconded by: Carol Parker
Vote: Ayes: Messinger, Parker, Mitchell, Stockbridge. Nays: None. Absent: Beckett

Discussion:
Andrew Messinger discussed the ***Bedford Wetlands Handbook.*** Mr. Messinger asked the Commission members if they came up with a list of questions for the handbook. Fiona Mitchell asked if the handbook was going to be in a question and answer format. Mr. Messinger stated a large portion of the handbook will be in a question and answer format so that the questions that are commonly answered will be easily available and explained.

Mr. Messinger stated he would like to put descriptions of the wetlands and various types of wetlands that are in the Town; what their function is and a discussion of the wetland law, history, the amendments; discussion of administrative permits; how the laws administer code enforcement; how the Justice Court plays into it; the fact that you cannot appeal a decision of the Commission within the Town, it has to go to the State Supreme Court; why we require security in certain situations and how much that security maybe, what's it for and how is it refunded.

Mr. Messinger stated he thinks there should be a discussion on livestock stewardship and also guidelines. Mr. Messinger then went on to list the questions he had written.

Beth Evans suggested to keep the handbook concise and list reasons why the Commission does what they do and why they protect wetlands.

Carol Parker stated they need to set up an outline and assign what the objectives are. Andrew Messinger stated he will clean up his draft of questions to circulate and ask each member of the Commission to think of distinctive areas where narratives can be written.

Reports:
A – Status of Violation/Enforcement Actions
Beth Evans stated there was not much to report other than the applicant the Commission heard tonight.
B – Town Wetland Official (Beth Evans) Monthly Report: Administrative Permits

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Beth Evans stated she signed one for a fence around a pond on a property on Baldwin Rd. The owners picked fencing that had 6x6 openings in the bottom, so all they had to do was cut one piece of wire every so many feet.

Meeting Adjournment:
Motion: Andrew Messinger made a motion to adjourn the meeting at 8:40 p.m.
Motion Seconded by: Fiona Mitchell.
Vote: Ayes: Messinger, Parker, Mitchell, Stockbridge. Nays: None. Absent: Beckett

Respectfully submitted,

_____

Donna M. Berkowitz
Acting Recording Secretary
Bedford Wetlands Control Commission

Minutes approved by Bedford Wetland Control Commission on 2016 and filed in the Office of the Town Clerk on , 2016

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Attachment A - WCC Permit Resolution Standard Conditions:

A. The Applicant shall apply for any permits required by any other agency for this Project. No work permitted under this approval shall start until all such permits have been obtained.

B. Prior to the commencement of the Project and when erosion and sediment controls have been installed in accordance with the New York Guidelines for Urban Erosion and Sediment Control, the Applicant shall notify the Commission at (914) 666-5140 to arrange an inspection of such controls. There shall be no work commenced on the Project unless and until the Town Environmental Consultant or the Town Director of Planning has approved such controls.

C. The Project shall be carried out in accordance with the approved Plan.

D. Promptly upon completion of the Project, the Applicant shall notify the Commission to arrange an inspection of the Project, including conditions as may be set forth in this condition. ***[IF THERE WILL BE A BUILDING PERMIT WITH A C/O OR C/C ISSUED:*** *"No certificate of occupancy or certificate of compliance shall be issued unless and until the Town Environmental Consultant has inspected the Project and has determined that the Project has been completed in compliance with the conditions of the Resolution."]* ***[IF THERE WILL NOT BE A BUILDING PERMIT WITH A C/O OR C/C ISSUED:*** *"The Town Environmental Consultant shall inspect the Project and determine that the Project has been completed in compliance with the conditions of the Resolution."]*

E. The Permit granted under this Resolution shall expire on the completion of the Project, _____ year(s) *(insert time granted when approved)* from the date of this resolution or at the time specified upon approval, whichever occurs sooner. Unless the resolution states that no time extensions will be granted, an application for the renewal of the Permit must be received not less than sixty (60) days before the expiration of the Permit.

F. Pursuant to Section 122-9I of the Law, the Applicant shall be responsible for obtaining the approvals or permits required by any other agencies prior to commencement of the Project.

G. Pursuant to Section 122-9K of the Law, the Applicant shall reimburse the Town for the costs of any inspection, review or work performed by the Town Environmental Consultant and any other consultants in connection with the application and the Project.

THE WETLANDS CONTROL COMMISSION OF THE TOWN OF BEDFORD
BEDFORD, NEW YORK

APRIL 4, 2016

A meeting of the Wetlands Control Commission of the Town of Bedford was held on April 4, 2016, starting at 7:30 PM in the Town Offices at 425 Cherry Street, Bedford Hills, New York. Present were Chairman Andrew Messinger, Vice-Chairman Carol Parker, Member Fiona Mitchell, Member David Beckett, Member John Stockbridge, Town Environmental Consultant Beth Evans and Wetlands Secretary Francine Luppino.

Announcements:
Mr. Messinger announced that the next meeting of the Commission is scheduled for Monday, May 2, 2016; the deadline for new applications for this meeting is on Friday, April 8, 2016; the deadline for supplemental submissions for this meeting is on Monday, April 11, 2016. The site walk for the May 2nd meeting will be on Thursday, April 14, 2016. If there is not a May meeting of the Commission the next meeting will take place on Monday, June 6, 2016; the deadline for new applications for that meeting is Friday, May 6, 2016; the deadline for supplemental submissions for this meeting is on Friday, May 13, 2016. The site walk for the June 6th meeting will be on Thursday, May 19, 2016.

Mr. Messinger also made everyone aware that on June 1st or June 8th, he and Ms. Evans will be leading a walk through Bedford Hill Memorial Park for about 20 residents. This will be a 2 hour nature walk of sorts in which Mr. Messinger and Ms. Evans will point out and discuss the history, issues and problems of the park and surrounding areas and its wetlands. The watershed that supplies Lake Marie is complex and interesting because it involves a very large associated wetland, storm water collection system, extensive siltation, bioremediation, a sewage treatment plant, two swimming pools, and several heavily used athletic facilities as well as a previously contaminated town water well. And yet, Lake Marie seems to be teaming with reptiles, amphibians, fish and other wildlife and flora. This would be a good place to speak with town residents about situations in science where there are difficult problems with difficult solutions.

Reports:
A – Status of Violations/Enforcement Actions
Ms. Evans reported that there was one stop work order issued last month for a property that she gave an Administrative Permit to for a fence, because the applicant had a small backhoe that they were using to move boulders out of the way to put a fence post in. Ms. Evans says she had not specifically said that

all work was to be done by hand in the Administrative Permit. Ms. Evans went out to look at the site last month, and says in her opinion, there was no apparent damage, and the entire fence in the regulated area was installed at least 6 inches off the ground. It was a near violation, but having inspected it with the Code Enforcement Officer, Ms. Evans decided it was acceptable.

B – Town Wetland Official (Beth Evans) Monthly Report: Administrative Permits
Ms. Evans reported that no Administrative Permits had been issued since the last Wetlands meeting.

Minutes to be Approved:

January 4, 2016 – Approved by the Commission

February 1, 2016 – Not yet approved by the Commission. Will approve at next BWCC meeting.

Owner/Applicant:

Remediation of Wetlands Violation
Section 49.18 Block 2 Lot 44, R-½A Zone
40 Hickory Road, Katonah
Owner: **41Woodfield Road, LLC**
Applicant: **Bryan Robertson,**
Robertson Contracting Corp.
(Supplemental Submission)

Present:
Glenn Ticehurst, RLA, ASLA, Benedek & Ticehurst Landscape Architects & Site Planners, P.C.
Bryan Robertson, Robertson Contracting Corp.

Discussion:
Mr. Ticehurst presented a mitigation plan. Mr. Ticehurst says he suggested to Mr. Robertson that they would do more than just tree replacement; they would plant various shrubs and plants. Mr. Ticehurst suggested the plantings will be better to look at and better for the habitat. Ms. Parker pointed out that if there were 7 or 8 trees removed, this plan only proposes 4 tree to be planted, and the Commission usually asks for 2 to 1. Mr. Messinger said that 2 to 1 trees would crowd each other out and agrees that Mr. Ticehurst's proposed plan would be better than planting all trees.

Ms. Evans asked about deer protection. Mr. Ticehurst proposed netting and organic hot pepper spray. Ms. Evans asked about follow up maintenance. Ms. Evans suggests that the plan seems acceptable, but it needs to be monitored and maintained for at least 2 growing seasons.

Motion:
Mr. Messinger proposed that a permit be granted for a period of 30 months, based on a series of plans noted as Robertson Renovation/addition by Michael Piccirillo, AIA, consisting of 9 pages as well as a survey last updated 8/1/11 and a site mitigation plan prepared by Benedek and Ticehurst, dated 3/17/16, with the following conditions:

1) All of the standard conditions of this Commission shall be enumerated and included into these conditions as applicable.
2) No Certificate of Occupancy shall be issued by the Building Department unless and until the TEC (Town Environmental Consultant) certifies by means of a written memorandum that the plantings have been completed as per the noted mitigation plan.
   a) The removal of invasive species as noted in Mr. Ticehurst's letter dated 3/18/16 shall be done by hand and without the use of any herbicides.
3) No Certificate of Occupancy shall be issued unless and until the applicant provides written confirmation from the Department of Health that the renovation and the addition will not necessitate any expansion of the septic system into the wetlands buffer or any part of the regulated area and will in addition provide a location on a site plan indicating where the septic system is located. The applicant will also provide proof of service to the septic system that has taken place within the past two years.
4) The applicant shall install deer fencing of approximately 6 feet in height to enclose and protect the area of newly planted trees and shrubs and this fencing shall remain in place for no less than two full growing seasons from the date of planting.
5) The plantings are to be installed in the spring of 2016 and monitored by the TEC at least once per growing season to ensure the viability of the plantings.

Mr. Messinger moved a negative declaration under SEQR.

Voting on the Permit Resolution:
Motion Seconded by: Carol Parker
Vote: Ayes: Messinger, Parker, Mitchell, Beckett, Stockbridge – Nays: None

Owner/Applicant:

Change in Use from Office/Warehouse to Automotive Use

Section 71.12-2-36, LI Zone
799 Bedford Road, Bedford Hills
Owner: **DP 21, LLC**
Applicant: **Estate Motors**

Owners/Applicants/Representatives Present:

Peter Catizone, Catizone Engineering, Civil Engineer for Estate Motors
Anthony Anzalone, Representing Estate Motors
Neil Alexander, Attorney, Cuddy and Feder LLP, Council for Diamond Properties

Discussion:

Mr. Messinger stated that the Commission has not received any updated information or plans so it will be very hard to approve anything tonight since the Commission has not had the opportunity to look at it.

Mr. Catizone stated that the wetlands flags that were installed in 2008 were re-flagged at the request of the TEC, and they have an updated survey. Mr. Catizone is focused on receiving a negative declaration from the Village of Mt. Kisco, as they are the lead agency in this project. This project encompasses 2 municipalities and 4 zoning districts, so it has been a challenge.

Mr. Alexander stated that Estate Motors is looking to re-tenant the space that is currently occupied by Wine Enthusiasts. The building ends right at the property line of Mt. Kisco.

Mr. Catizone stated that there is 113,000 square feet of change of use. Mr. Catizone referred to a map and stated that they are not expanding the pavement edge and not expanding the impervious area. They are reconfiguring the parking spaces and removal of a portion of a triangular island which is in the wetland buffer. He is not proposing any changes to the wetlands other than some recommendations that some of the BWCC members had at the site visit. The recommendations were to relocate some of the trees that are on site now, including a series of Oak trees, and to relocate some trees and shrubs at the wetland buffer and edge of the vegetative area.

Mr. Catizone stated that they have relocated the dumpster way outside of the buffer. Mr. Catizone stated that they have a note to identify invasive species and there should be an invasive species plan to remove those 2 times a year for 2 years after the issuance of a C/O. Mr. Catizone stated there are several types of pavement conditions on the site and they are not permitted to construct impervious services within 100 feet of wetland buffer. They are proposing several types of surfaces, and the client has not yet selected the product at this time.

Mr. Catizone reiterated that the project within the wetland buffer does not impact the wetlands at all. It's an area that's already been disturbed. All activities are within areas that have been previously disturbed.

Mr. Messinger asked how far away Mr. Catizone is from a final plan. Mr. Catizone answered that they could submit the plans that they have here to the Commission, which are pretty much final except for the detail of the grasscrete pavers.

Mr. Beckett would like to know the increase in impervious area. Mr. Catizone discussed a Zoning Analysis, and he does not have the break out in just the regulated area. Ms. Parker added, Mr. Catizone should have the change in impervious surface in the regulated area in Bedford, in the final plan. Mr. Catizone also clarified that the loading dock is in Mt. Kisco. Ms. Parker would like to know if the grading plan to get to the height of the loading dock is in the Bedford regulated area. Mr. Catizone said grading will be in the regulated area. Ms. Parker said they would need this on a grading plan.

Mr. Messinger commented that at the next meeting, they can probably issue a permit if the applicant has everything in order. The Commission will need a final revised plan, invasive species removal and monitoring document that can be passed on to the new tenant, because that will be incorporated into the permit. The Commission would expect that the permit will run through that monitoring period so that the Commission through the TEC can monitor it. There should be a narrative describing the trees that are being moved or removed by species and count. Also, the plan should include the calculations on any changes in impervious surfaces in the regulated area. Mr. Messinger clarified that this application is not an amendment, this is a new application.

Owner/Applicant:

Additions and Renovations to Existing Residence
Section 49.18 Block 4 Lot 29, R-1/4A Zone
126 Valley Road, Katonah
Owner: **Bank of America, NA**
Contract Vendee: **Christopher and Allison Suppa**
Applicant: **The Helmes Group, LLP**

<u>Owners/Applicants/Representatives Present:</u>
Christopher and Allison Suppa, Contract Vendee
Steven Helmes, AIA, The Helmes Group, LLC

Discussion:

Mr. Suppa states that there was a site visit on Thursday, March 24th. Paul Jaehnig was there and they incorporated feedback into a mitigation plan. The changes were minor, and Mr. Jaehnig added a rain garden to the front of the property. Mr. Helmes is explaining the house and proposals to additions. The house has been sitting dormant for a while. They hired William Kenny to flag and redraw the delineation on the survey, and they hired Mr. Jaehnig to give a mitigation plan.

Mr. Messinger said they are going to need a grading plan, based on the site visit. Ms. Evans said the concern at the site visit was the driveway and garage, and how a car would get in/out of the garage. Mr. Helmes explained that it will be a small garage with a low ceiling, and they are working with existing slab height in the basement. Ms. Evans said it was a little unclear as to where the retaining walls were versus the property line. Ms. Evans wanted to be clear as to what kind of grading would happen in order to try to get into and out of the garage. Mr. Helmes said there is a concrete platform that once had a shed and they will get rid of the concrete and use that as a backup space. Ms. Evans said that wasn't clear at the site walk and they were told the concrete pad was going to be turned into vegetative area.

Ms. Evans said that Mr. Jaehnig re-did the mitigation plan to show a rain garden in the front yard of this property. Ms. Evans suggested there are other ways to handle storm water runoff, instead of a rain garden, such as Cultec units. Other options should be explored, as opposed to rain garden. This doesn't have to be presented back to the Commission, but it is a strong suggestion.

Mr. Messinger said the septic system has to be inspected within the past two years to get a wetlands permit and says to provide proof of service.

Motion:

Mr. Messinger moved that the Application by Christopher and Allison Suppa, Contract Vendees for the property at 126 Valley Road be granted a wetlands permit for a period of 2 years, based on a set of plans noted as Helmes Group, 3/26/16, drawing no. 1, MP1, dated March 3, 2016 with the following conditions:

1. All of the Commission's standard conditions shall be enumerated and included into these conditions as applicable.
2. The applicant shall provide proof of septic service to have taken place within the past 2 years. If such service has not taken place, such service shall be provided with proof provided to the Commission in a written form. No building permit shall be issued until such proof has been provided.

3. Upon completion of the drainage features including the noted rain gardens or any other features agreed to by the TEC as field changes shall be inspected and approved as per the plans by the TEC who will issue a memo to the commission that such features have been completed and meet the plan conditions.

Mr. Messinger moved a negative declaration under SEQR.

Voting on the Permit Resolution:
Motion Seconded by: John Stockbridge
Vote: Ayes: Messinger, Parker, Mitchell, Scott, Stockbridge – Nays: None

Owner/Applicant:

Application of Aquatic Pesticide to Pond
Section 72.12 Block 2 Lot 4, R-4A Zone
333 Bedford Center Road, Bedford Hills
Owner/Applicant: **Tom Meyer**
Section 72.12 Block 2 Lot 6, R-4A Zone
53 Narrows Road, Bedford Hills
Owner/Applicant: **Rick Talmadge**
Section 72.12 Block 2 Lot 5, R-4A Zone
345-349 Bedford Center Road, Bedford Hills
Owner/Applicant: **Kimberly Kelly**
Section 72.16 Block 1 Lot 6, R-4A Zone
95 Narrows Road, Bedford Hills
Owner/Applicant: **Robert Ahrens**

Mr. Messinger recused himself from this application, and exited the room.

Owners/Applicants/Representatives Present:
John Marwell, Attorney at Law, Shamberg Marwell & Hollis, P.C., representing Mr. Talmadge
James Gorman, Aquatic Specialist Pond Connection
Renee Reinhold, works for Mr. Talmadge

Discussion:
Mr. Marwell stated that the applicants are seeking a permit to apply the same treatment to the pond in 2016, as they did in 2014. Ms. Parker pointed out there is no plan and the Commission would like to see a plan that shows the pond, the owners, the wetlands boundaries, the 100 foot set-back, and the location of septic tanks of each of the owners on the property. She stated that they can

discuss what type of plan would be acceptable, but before the Commission goes forward and issues a permit, a plan would be required. Ms. Parker stated that there was no plan submitted in 2014, that the application came in late with a sense of urgency, and the Commission waived that requirement. Looking at the code, Ms. Parker stated that the Commission didn't have the right to waive that requirement. Mr. Gorman said it should be easy to get a map. Ms. Parker reiterated that it needs the property lines, wetlands boundaries, 100 foot buffer, and the septic locations, or approximate septic locations. She also stated that each homeowner would be required to show proof that their septic had been cleaned and inspected within the previous two years.

Ms. Evans said there was a DEC permit issued in June 2014, and as part of the permit that two reports were to be filed at yearend 2014. We would like a copy of those reports and the map given to the DEC from that year with that permit. Mr. Gorman said there was one treatment done in 2014, and there is a map for it and a report that was given to the DEC. Mr. Gorman can supply the map and report to the Commission. Mr. Gorman said they did not do treatments in 2015 because they did not have a Bedford Wetlands permit that was valid for 2015. Mr. Gorman said the conditions on the 2014 permit allowed them to do stuff in 2014, and the property owners did not want to comply with the conditions for 2015, to pursue the 2015 permit.

Ms. Parker asked about a water quality report, (referring again to the reports filed with the DEC) and would like a copy from 2014 and would ask that if a permit were granted this year that submitting copies of those reports would be a condition.

Mr. Gorman explained the project. He would like to treat the algae, about 40% of the pond. The permit would be valid for three treatments. He stated they only did one treatment in 2014 because by the time they got the permits, there was only time for one treatment, which was satisfactory to the owners for the season. The total number of applications would only be three 40% treatments of the pond. They would not anticipate doing anything until after June 1, 2016.

Mr. Gorman explained the treatment process. Using a rowboat, it would take approximately 2 hours, he would have to put signs up, nothing would be in the air, everything gets mixed in the water, so there is no chance of spilling elsewhere.

Ms. Evans said one of the concerns are impacts on vertebrate fish. Mr. Gorman said they can do a water hardness test, and using Cutrine Plus isn't as harsh to the environment as copper sulfate, because there is less of a percentage of active ingredients. Ms. Evans said it is a concern not only because of the impacts on fish, but also this property sits over an aquifer, and they are worried

that copper compounds that get into sediments will travel. Mr. Gorman said it is a small percentage of copper. Ms. Evans said the applicant should give a short narrative to the Commission of exactly what is being done and the hardness of the water. Mr. Gorman said he will do a water hardness test before June 1st. Mr. Gorman said the residual should bind up in the sediment. The Cutrine is only 9% copper versus copper sulfate which is 99% copper. Ms. Evans said, to make it clear to the Commission, one of the main reasons she is concerned is partly the aquifer that underlies this part of the town, but also it is a multi-lobed pond, and it is virtually table flat, and there is not a lot of through flow and turnover and flushing. What goes in the pond tends to stay in the pond. Mr. Gorman reiterated that it is such a low amount of treatment, and said he sandbags the outlets. Mr. Beckett said it does not biodegrade, it concentrates? Mr. Gorman said it is an element and does not biodegrade. Mr. Beckett asked what is the drinking water standard for copper? Ms. Evans and Mr. Gorman did not know the answer to that question.

Mr. Gorman said the DEC makes people use the lowest effective rate, about 0.23 parts per million in NYS. Mr. Gorman said they use Cutrine in the reservoirs to treat the tunnels. They no longer use copper sulfate.

Mr. Beckett asked what is the purpose of the treatment to the pond and is it just for aesthetics. Mr. Gorman said the reason for this treatment is to get rid of algae, major mosquito problems, and for aesthetics. Ms. Mitchell asked how effective was the one treatment in 2014, and why is it necessary to have three treatments? The one treatment in 2014 was very successful. He said he does not have to do three treatments, but if he does not ask for them he cannot do them. If the algae build up isn't so bad, Mr. Gorman said he does not have to do three treatments. Ms. Parker asked what the pond was like last year when it wasn't treated. Mr. Gorman said last year, the pond was pretty bad.

Ms. Parker explained it is part of the responsibility of the Commission to try to allow the least invasive treatment, to cause the least damage to the environment. In a lot of cases where we've had situations like this, we have requested that the homeowners create a no mow zone, and we've found that to be very effective. Ms. Parker said the Commission would like to suggest that as an alternative as well. Mr. Gorman said the applicant that it effects the most is certainly Mr. Talmadge's property. Mr. Gorman said he does understand that and he does preach a lot of our education stuff is on buffer zones, not necessarily buffer zone where you have to plant trees and stuff, but buffer zone being just don't touch it, the ten feet. Mr. Gorman said he understands that it is standard operating procedure but the frustrating part about this instance is there is about 9,000 feet of shoreline, and Mr. Talmadge's property is only 150 feet of that. Ms. Parker said she thinks it's twice that amount. Mr. Gorman said, even so that's only 4 percent of the shoreline, how much of an impact can that

have on the outlet portion of the pond to the whole ecosystem that exists there, and Mr. Talmadge is in the outlet of the pond.

Ms. Evans said one of the other applicants, Kimberly Kelly, came in years ago for an application to do some work at her property, and the Commission asked her to create no mow zones and vegetative buffers, and she did that extensively on her property and they are still intact and functioning. Mr. Gorman said he knows that she has that, but if you look on the Google Earth pictures that are there, her section of the pond is as bad as the rest of it. Mr. Gorman said in certain situations that works out good, but he doesn't know if adding that to the 200-400 feet of Mr. Talmadge's property, it's such a small percentage in this situation, he doesn't know how that would affect it, and he is in the outlet of the pond. Ms. Evans said something that the Commission asks people to consider is to do as much as they can to improve the water quality. Ms. Evans said certainly the Cutrine aesthetically takes care of some of the algae problems and algae blooms are not pleasant to have in your front yard, back yard, or side yard, but this pond is dead flat if you look at the topographic maps, and there is not a lot of water flowing through it to clean it out. Mr. Gorman asked if the recommendation of the buffer zone is to keep nutrients from going into the pond. Ms. Evans replied yes. Mr. Gorman said the amount of leaves that are coming in have to be exponentially higher than Mr. Talmadge's approximately one acre of lawn. Ms. Evans said she doesn't disagree with Mr. Gorman, it's an incremental effect, and if there were no homes there and these blueberry ponds that were part of a bog system to access blueberry bushes, it would fill back in and become a wetland system again. It would not be a pond at all. Ms. Evans said she understands the property owners want this to be an aesthetic amenity to their property, but in her opinion, nature is trying to get it to go back to being a wetland.

Mr. Gorman asked, what if he conducted a water test on a spot upstream and downstream and sees if there is a nutrient difference, to say the water coming in is virtually the same as the water going out, or some kind of threshold we can prove what the impact there from that property is. Ms. Evans said in 2014, the Commission suggested this kind of testing would be helpful to understand what it is the homeowners are hoping to accomplish, and we had not gotten anything. Mr. Gorman said that is easy enough to do. Mr. Marwell said it would be helpful if that were a recommendation of the Commission instead of a condition. Mr. Gorman said in theory if the water coming in and the water going out were the same, maybe we could avoid this buffer zone. Ms. Evans said they don't have much information right now, and the Commission has some concerns about an on-going treatment program that addresses one nuisance component of the pond, but doesn't cure anything in terms of what's going on. Ms. Parker said they can make that as a recommendation.

Ms. Reinhold said when they had Bill Kenny's assistant, Megan, here, didn't she submit water samples at that point? Ms. Evans said she did not. The Commission did have a conversation about water samples in 2014, but did not receive any data.

Mr. Marwell inquired about when the next meeting would be, so they can get materials in. Ms. Parker said the meeting would be Monday, June 6th, and supplemental materials would be due by May 13th. Ms. Evans said it is unlikely that the Commission would meet in May. Ms. Parker said supplemental information would have to be in by Monday, April 11th, for a May meeting. Mr. Gorman said he can have everything but the 2016 water test in by April 11th. Ms. Parker said that would be fine but it would be up to Mr. Messinger if we meet in May, based on anything else that comes in. Ms. Parker said we definitely need the plan in front of us. Ms. Parker said there is also the application to the DEC they are waiting for, so do you expect to have that before the June meeting as that may be what is going to limit you, rather than the Commission. Mr. Marwell said can we ask you to approve the town permit, subject to getting the DEC permit as a condition. Ms. Parker said that would be fine.

Ms. Parker stated that one of the requirements of the plan is that a legend appear on the plan that no fertilizers are introduced in the wetland or 100 foot buffer, and that legend is available on the website. We would like to see that stated on the plan, in the legend, so that anyone that looks at the plan is reminded of that condition. Mr. Gorman said he will look into that, and can look it up on the website. Ms. Parker said other than that, she thinks they have covered everything. Mr. Gorman asked if the Commission had any other questions about the application. Ms. Parker said no. Ms. Parker said she hopes that it is satisfactory. Mr. Gorman said he thinks so, and he clarified the date for supplemental submissions as Monday, April 11th.

Ms. Parker motioned to end the meeting at 9:13PM.
Vote: Ayes: Parker, Mitchell, Scott, Stockbridge – Nays: None

Date approved by the Bedford Wetlands Control Commission:

_____

Respectfully submitted,

_____ _____

Francine Luppino, Wetlands Secretary Date

Attachment A - WCC Permit Resolution Standard Conditions:

The Applicant shall apply for any permits required by any other agency for this Project. No work permitted under this approval shall start until all such permits have been obtained.

Prior to the commencement of the Project and when erosion and sediment controls have been installed in accordance with the New York Guidelines for Urban Erosion and Sediment Control, the Applicant shall notify the Commission at (914) 666-5140 to arrange an inspection of such controls. There shall be no work commenced on the Project unless and until the Town Environmental Consultant or the Town Director of Planning has approved such controls.

The Project shall be carried out in accordance with the approved Plan.

Promptly upon completion of the Project, the Applicant shall notify the Commission to arrange an inspection of the Project, including conditions as may be set forth in this condition. ***[IF THERE WILL BE A BUILDING PERMIT WITH A C/O OR C/C ISSUED:*** *"No certificate of occupancy or certificate of compliance shall be issued unless and until the Town Environmental Consultant has inspected the Project and has determined that the Project has been completed in compliance with the conditions of the Resolution."]* ***[IF THERE WILL NOT BE A BUILDING PERMIT WITH A C/O OR C/C ISSUED:*** *"The Town Environmental Consultant shall inspect the Project and determine that the Project has been completed in compliance with the conditions of the Resolution."]*

The Permit granted under this Resolution shall expire on the completion of the Project, _____ year(s) *(insert time granted when approved)* from the date of this resolution or at the time specified upon approval, whichever occurs sooner. Unless the resolution states that no time extensions will be granted, an application for the renewal of the Permit must be received not less than sixty (60) days before the expiration of the Permit.

Pursuant to Section 122-9I of the Law, the Applicant shall be responsible for obtaining the approvals or permits required by any other agencies prior to commencement of the Project.

Pursuant to Section 122-9K of the Law, the Applicant shall reimburse the Town for the costs of any inspection, review or work performed by the Town Environmental Consultant and any other consultants in connection with the application and the Project.