

**EAST LYME INLAND WETLANDS AGENCY  
SPECIAL MEETING MINUTES**

**May 18, 2020**

**Remote Participation by ZOOM due to Covid 19**

**7:00 p.m.**

**Present:** Gary Upton, Phyllis Berger, Rosemary Ostfeld, Theodore Koch, Don Phimister, Kristin Chantrell, David Schmitt, Sandy Gignac, Alt., Doreen Rhein, Alt.

**Absent:** Jason Deeble, Alt.

**Also Present:** Gary Goeschel, Director of Planning/Inland Wetlands Agent, Jennifer Lindo, Administrative Assistant

**Call to Order:**

G. Upton called the meeting to order at 7:05. He explained the rules for participation in the remote ZOOM meeting. The materials for the applications are on the town's website.

**FILED**

**I. ADDITIONS TO THE AGENDA-none**

**II. PUBLIC HEARINGS-none**

**III. PUBLIC DELEGATIONS: none**

*May 22, 2020 AT 8:28 AM/D*  
*Bruce Honen ATC*  
**EAST LYME TOWN CLERK**

**IV. ACCEPTANCE OF MINUTES:**

**Meeting Minutes of February 24, 2020 Regular Meeting**

**MOTION (Ostfeld/Chantrell) To approve the minutes of February 24, 2020 Regular Meeting as presented. Vote: Approved Unanimously.**

**V. EX-OFFICIO REPORT-none**

**VI. PENDING APPLICATIONS:**

**A. Application of Harry Heller, Attorney/Agent for Pazz & Construction, LLC, Owner to conduct regulated activities in the upland review area in association with a proposed multi-family residential community on property identified in the application as N Bride Brook Rd, East Lyme Assessor's Map 09.0, Lot 37-2.**

(D. Reich is seated; T. Koch is muted and video disabled)

G. Goeschel gave background on the application, he read his memo dated March 30, 2020.

G. Goeschel stated the application is complete with no significant impacts to the regulated areas.

The Agency asked if there could be an independent expert to assess the impacts on the application site. They noted there was no hydrology report with the application. G. Goeschel informed the agency that the public hearing has been closed so no new information can be added to the record.

G. Upton stated he had concerns about the detention basin and the testimony of a resident concerning flooding that occurs on the site. He noted there are toxins such as, antifreeze, herbicides, oil, etc. that will be running off the site and onto adjacent properties. R. Ostfeld noted that the detention basin is over an aquifer protection zone.

G. Goeschel stated the abutting property owners had all been notified for the public hearing and if there were concerns they had the opportunity to present those concerns during the public hearing. He stated the detention basin is significant as to the volume of runoff from the site and designed for a hundred-year storm. G. Goeschel did not see evidence of flood plain areas.

K. Chantrell voiced concern about the thermal pollution runoff from the roofs of proposed buildings I, J and M. She stated that it will have significant impact to the wetlands that are already degraded. She informed the Agency and public that she has an environmental engineering degree.

K. Chantrell stated she believes there is a prudent and feasible alternative for proposed buildings I, J and M which run parallel to the wetlands and are in or partially in, the upland review area.

G. Goeschel stated there were no other feasible and prudent alternatives for the site due to the boundaries of the water and sewer boundary maps. There was no application by the applicant to move the water and sewer boundary but the applicant did apply for the water and sewer capacity for the proposed site.

G. Upton read section 1 (one) of the East Lyme Wetlands Regulations stating the purpose and role of the Agency.

G. Goeschel reminded the Agency of their authority. He stated that the application as presented meets the 2004 state water quality manual standards. He stated that according to the project engineer's calculations the runoff from the three buildings into the liters, pre-development is the same as post-development.

K. Chantrell reminded the Agency, the applicant stated during the public hearing process that there was going to be an impact from the runoff of buildings I, J and M and it was up to the Agency to determine if it was significant.

**MOTION: (Upton/Chantrell) to deny the application without prejudice because the application is incomplete due to several of the buildings need to be relocated or eliminated and the additional information as to water quality leaving the detention pond at the southern end of the site and the lack of a hydrology report.**

K. Chantrell stated the the buildings should be removed due to the runoff from the roofs of I, J and M and the runoff should not be going into the watercourse.

**Vote: Approved Unanimously.**

**B. Application of Toby and Glenn Knowles, Owner; for the proposed construction of a patio, correction of water runoff and wetlands restoration at property identified as 21 Brightwater Road, Niantic, East Lyme Assessor's Map 5.19, lot 58.**

(T. Koch returns at 8:42)

G. Goeschel informed the Agency that he issued a permit to G. Knowles for work in the upland review area.

G. Knowles updated the Agency on work he is proposing on the site. He stated the large tree in the upland review area has been cut down and the stump has been ground down.

Brandon Hyde (contractor) stated there is approximately 20-30 yards of fill proposed which will utilize on site materials. The fill will be used to create a soft gradient for runoff and top dressing. There will be crushed stone under the proposed patio. The water will be absorbed by the turf and then from there any other water will be absorbed into the wetlands. He stated the gradient slopes toward the wetlands.

**MOTION: (Chantrell/Ostfeld) to approve the application. Vote: Approved Unanimously.**

## **VII. NEW BUSINESS:**

### **A. East Lyme Inland Wetlands Agency Regulations**

The Agency discussed some of the changes to the regulations as well as the process for accepting the changes.

G. Goeschel stated that many of the changes are minor edits for clarification and spelling/grammar. The main changes are the increase of the upland review area and splitting the permit process into three categories; minor, intermediate and significant. G. Goeschel stated the agency may want to consider changing the sub-division and resub-division approvals. Typically, the applicant has to come to the Agency in the proposal phase and then again for each individual lot development. He suggested letting the agent approve each individual lot as the agency has already approved the overall site plan. It was the consensus of the members that they do not want to change the current approval process for sub-divisions and re sub-divisions.

Discussion about what agencies/towns/boards should be notified and given the opportunity to submit comment on the regulation changes. G. Upton informed the agency members that the changes should go to the state. A public hearing is required for proposed regulation changes.

The agency discussed changing the upland review area from 100 ft. to 500 ft.

**MOTION: (Ostfeld/Upton) to extend the regulated area to 500 ft.**

The members decided to focus on the change in the regulated area. Other areas of concern were signage. The Agency set the Public Hearing for June 8, 2020.

**Vote: Approved Unanimously.**

G. Upton read Section 15.2 of the regulations.

**MOTION: (Upton/) to put a moratorium on any pending and new applications until the 400 ft. increase to the upland review area is enacted.**

The legality of a moratorium was discussed.

**The MOTION failed due to lack of a second to the motion.**

### **B. Nottingham Hills Re-subdivision; Request of Kristen T. Clarke, P.E. Agent for Owner English Harbor Asset Management, LLC for a Determination of Permitted/Non-Regulated Activity at Upper Kensington Drive, as part of a 4-lot re-subdivision. East Lyme Assessor's Map 40.0, Lot 23 and 22.**

Paul Gerahty, representing the applicant gave background on the proposed site. He stated the site is part of a previously approved 16 lot application. The current proposal is Phase III. The agency previously approved this site for 2 lots but the owner has decided to do an additional split into 4 lots. Lot 4 will be donated to the East Lyme Land Trust. There is no proposed activity in any of the regulated areas of the new proposal. P. Gerahty informed the agency that the plan combines 2 driveways into one therefore, reducing the amount of impervious surface.

G. Goeschel noted that the plan shown is different than the one the town engineer had commented on. J. Lindo stated the plan was submitted on Friday and revised April 23, 2020. G. Goeschel stated that according to the new plans there is no regulated activity shown.

P. Gerahty stated that although lot 4 will be donated to the land trust, regulations require that all lots have to show they are a building lot able to have a house and septic system. There will be no house or septic due to the lot being donated to the land trust.

P. Gerahty stated the closest any activity comes to a regulated activity is approximately 30 ft.

The agency scheduled a site walk on June 6, 2020 at 9:00 AM before making a determination.

- C. 21 Marshfield Rd, Your Brothers Keeper LLC, Agent for Owner Brandy and Derek Moore, for Determination of a Permitted/Non-Regulated Activity at 21 Marshfield Road, for the clean out of a culvert entrance and exit to maintain the natural flow of water. East Lyme Assessor's Map 04.7, Lot 19.**

(This application was combined with item D)

- D. Creek Road, Giants Neck Heights Club House, your Brothers Keeper LLC, Agent for Owner Giants Neck Heights Association, for Determination of a Permitted/Non-Regulated Activity at 21 Marshfield Road, for the clean out of a culvert entrance and exit to maintain the natural flow of water. East Lyme Assessor's Map 04.7, Lot 18.**

Brian Kennedy stated the road was originally constructed in 1954 with the understanding the town would adopt the road but failed to do so. The association has been maintaining the road. He believes the culvert was filled in during hurricane Sandy. The phragmites on one end of the culvert are slowing the drainage to the creek.

G. Goeschel suggested the Agency combine item C and D as they are technically the same project. He confirmed both applicants agree the work needs to be done and the landowners have given permission. He stated he originally thought the work is exempt, except for the language in section 4.1 (F) that mentions hydrophilic vegetation which would require a permit. He also noted that the town's public works dept. applies for a permit every five years to conduct drainage clearing.

Alisa Lecour representing the property owner of 21 Marshfield Rd. is in favor of the proposed work.

B. Kennedy stated he would need to use a backhoe to accomplish the clearing of the culvert.

The Agency decided to do a site walk on June 6, 2020 before a determination was made.

## **VIII. OLD BUSINESS-none**

The members discussed who would be getting notice of the Public Hearing on the regulation changes and want to see as many as possible be made aware of the Public Hearing.

## **IX. REPORTS**

- A. Chairman's Report-none**

- B. Inland Wetlands Agent Report-no report.**

- C. Enforcement**

**Notice of Violation; 297 Boston Post Road; Al Smith Owner, Jason Pazzaglia, Other; Outside storage of equipment, construction materials, and the stockpiling of earthen materials including but not limited to yard debris within 100 feet of a watercourse without or in violation of an Inland Wetlands Permit.**

G. Goeschel stated the site has been cleaned up to his satisfaction and many of the old vehicles have been removed. The members can go to the site between 8:00 AM and 4:00 PM with notification to inspect for themselves. The Agency requested the item stay on the agenda

**D. Correspondence-none**

**X. ADJOURNMENT**

**MOTION: (Schmitt/Chantrell) to adjourn at 10:50. Vote: Approved Unanimously.**

**Respectfully Submitted**

**Sue Spang  
Recording Secretary**

# Town of

P.O. Drawer 519

Department of Planning &  
Inland Wetlands Agency

*Gary A. Goeschel II, Director of Planning /  
Inland Wetlands Agent*



# East Lyme

108 Pennsylvania Ave  
Niantic, Connecticut 06357

Phone: (860) 691-4114

Fax: (860) 860-691-0351

## MEMORANDUM

**To: East Lyme Inland Wetlands Agency**

**From: Gary A. Goeschel II, Director of Planning/ Inland Wetlands Agent**

**Date: March 30, 2020**

**Re: Re: Inland Wetlands Application – North Bride Brook Multi-Family Development:**  
Application of Pazz & Construction, LLC; Jason Pazzaglia, Applicant; Pazz & Construction, LLC, Owner; to conduct regulated activities in the upland review area in association with a proposed multi-family residential community on property identified in the application as N Bride Brook Rd, East Lyme Assessor's Map 09.0, Lot 37-2.

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Upon review of the above referenced application and the proposed plans entitled "North Bride Brook Multi-Family Development, prepared for Pazz & Construction, LLC, Sheets 1 through 7, dated 9/25/2019 and revised through 1/15/2020," by Brandon J. Hanfield, P.E. of Yantic River Consultants, LLC of 191 Norwich Avenue, Lebanon, CT and several meetings with the Applicant's engineer, Town staff, and four (2) evenings of public hearing, I offer the following:

### **FINDINGS:**

**Whereas:** In accordance with Section 7, Application Requirements, of the Inland Wetlands Regulations the applicant has provided the all the information required by Section 7.5 and the necessary additional information required by Section 7.6, including but not limited to proposed alternatives, engineering reports and analyses, a description of ecological communities and the functions of the wetlands and watercourse and the effects of the proposed activity on these communities and wetland functions, an alternative which would cause less or no environmental impact to wetlands or watercourses, as well as an operations and maintenance plan for stormwater structures, stormwater management plan, erosion and sedimentation control plan, and site development plans. As such, the application appears to be complete.

**Whereas:** In accordance with Section 7.6, the Agency required information to be submitted including but not limited to site plans which show the land which will be affected thereby which shows existing and proposed conditions, wetland and watercourse boundaries, contours, and other pertinent features of the land and the proposed activity.

**Whereas:** The Agency may find this application to be in conformance with the Inland Wetlands Regulations of the Town of East Lyme and more specifically based on the following findings:

**Whereas:** The Agency received an Inland Wetlands Application from Jason Pazzaglia of Pazz & Construction, LLC November 22, 2019 and the Agency commenced review of the Application at a regular meeting on December 9, 2019.

**Whereas:** The Agency at their December 9, 2019 meeting, scheduled a Public Hearing to commence on January 27, 2020 and published notice of said hearing in the January 15, 2020 and January 23, 2020 editions of The Day Newspaper.

**Whereas:** The Agency's commenced a public hearing on January 27, 2020, which was continued to the Agency's meeting of February 24, 2020 and closed that same evening.

**Whereas:** Town staff provided the Agency with comment concerning this application's compliance with local requirements and regulations as well as received testimony from the Applicant's professionals, and the general public.

**Whereas:** The Application submitted includes all the information required pursuant to Section 7.5 of the East Lyme Inland Wetlands and Watercourses Regulations and includes site plans, engineering reports, and wetlands delineation by a soil scientist depicted on the site plans. As such, the Application submitted in accordance with Section 7.1 of the East Lyme Inland Wetlands Regulations is complete.

**Whereas:** There is no direct impact on the wetlands or the watercourse as the all construction activities will be conducted within the 100-foot upland review area from an inland wetland and watercourses. Therefore, there are no irreversible and irretrievable loss of wetlands or watercourse which would be caused by the proposed regulated activity.

**Whereas:** The project has been designed to protect the wetlands and watercourses as the building structures, driveways, and drainage structures are designed to be situated outside of the wetlands and located in the upland review area as well as the public utilities (sewer, water, electric, etc..) which are being installed within existing upland areas.

**Whereas:** Mitigation measures to minimize and mitigate potential impacts from the creation of new impervious surfaces on the site and to protect the wetlands and watercourses, such as stormwater management structures (catch basins) and the retention pond, will pre-treat and control runoff, and promote groundwater recharge.

**Whereas:** Potential impacts are mitigated by the implementation of temporary erosion and sedimentation controls as well as stormwater controls throughout all phases of construction.

**Whereas:** The upland review process does not forbid activity based solely on proximity to wetlands. Rather, the upland review process merely provides a basis for determining whether activities will have an adverse impact on the adjacent wetland or watercourse, and if necessary, regulating them.

**Whereas:** Pursuant to Section 10.5 of the East Lyme Inland Wetlands and Watercourses Regulations, for the purpose of those Sections (1) "wetlands and watercourses" includes aquatic, plant or animal life and habitats in wetlands or watercourses, and (2) "habitats" means areas or environments in which an organism or biological population normally lives or occurs.

**Whereas:** Pursuant to Section 10.5 of the East Lyme Inland Wetlands and Watercourses Regulations, a municipal inland wetlands agency shall not deny or condition an application for a regulated activity in an area outside wetlands or watercourses on the basis of an impact or effect on aquatic, plant, or animal life unless such activity will likely impact or affect the physical characteristics of such wetlands or watercourses.

**Whereas:** Demonstrated by Exhibit "L", Memorandum from V. Benni, P.E. Town Engineer to G. Goeschel II, Wetlands Officer, dated January 27, 2020 Re: North Bride Brook Multi-Family Development, the Stormwater Management Report prepared in accordance with the 2004 Connecticut Stormwater Quality Manual, verifies that the proposed detention pond attenuates peak flow rates and volumes as compared to the pre-development conditions, resulting in a net zero (0) increase in run off from the development for the 2 through 100-year storm events.

**Whereas:** The proposed detention pond will enhance stormwater runoff quality and recharge the groundwater as stormwater from the closed drainage system will enter a sediment forebay which, is separated from the detention basin by a "Detention Filter Berm" before passing through the semi-pervious filter berm into the detention basin itself.

**Whereas:** The E&S Narrative and Construction Details provide construction notes and a long-term maintenance plan for the stormwater detention basin. Moreover, the Erosion and Sediment Control Plan was prepared according to the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control (CT DEEP), and includes a narrative, construction sequence and vegetative turf establishment procedures.

**Whereas:** Demonstrated by Exhibit "H", plan review comments from B. Kargl, Town Utilities Engineer, dated 12/12/19, found the conceptual layout of the water and sewer utilities to be acceptable.

**Whereas:** The record before the Agency, which includes Exhibit "B", Wetlands report from James Sipperly, Soil Scientist dated October 3, 2019, states: "The proposed development in the upland review area will not be disturbing any wetlands and/or watercourses on the site. For that reason, the inland wetlands will continue to perform their functions as they currently do." As such, the proposed activity will avoid any direct impacts to the wetlands or watercourses and the design has been prepared to minimize the potential for secondary and indirect impacts through implementation of the Erosion and Sedimentation Control Plan.

**Whereas:** Demonstrated by Exhibit "L", memorandum from V. Benni, Town Engineer and Exhibit "A" Application and project narrative, and Exhibit "B" the Soils Report by James Sipperly, the project will not significantly change to the hydrology of the wetlands and watercourse in question as the drainage design provides recharge to the on-site wetlands and watercourse by discharging the roof runoff from Building I, J, & M at the westerly corner of each building to a rip-rap splash pad which it then flows overland to the wetland in order to replicate the existing flows which currently reach and contribute to the recharge of the wetlands system.

**Whereas:** Although the proposed construction would pose an intrusion into the upland area, introducing a new and more intensive use than the present condition (forested land) and risks to the wetlands, there is no substantial evidence in the record to support a likely adverse impact on the wetlands and watercourse from the proposed upland intrusion.



**Whereas:** The record before the Agency of the current application contains no specific evidence that the impacts on the wetland and watercourse are significant, adverse, and would likely impact or affect the physical characteristics of such wetlands or watercourse.

**Whereas:** As demonstrated by Exhibit "A" the application and supporting documentation including the proposed plans entitled "North Bride Brook Multi-Family Development, prepared for Pazz & Construction, LLC, Sheets 1 through 7, dated 9/25/2019 and revised through 1/15/2020," by Brandon J. Hanfield, P.E. of Yantic River Consultants, LLC of 191 Norwich Avenue, Lebanon, C ", there are no other prudent and feasible alternatives yielding a 100-unit multi-family development that would eliminate or further reduce the potential for wetlands impacts. As the proposed activity is of limited duration with no direct or likely adverse impacts to the wetlands or watercourse, it is the preferred alternative.

### **SUGGESTED RESOLUTION**

Based on the Findings in the memorandum from Gary A. Goeschel II, Director of Planning/Inland Wetlands Agent to the Inland Wetlands Agency dated March 30, 2020, and the record before the Agency, I move the Agency APPROVE the Application known as the Application of Pazz & Construction, LLC; Jason Pazzaglia, Applicant; Pazz & Construction, LLC, Owner; Application to conduct regulated activities in the upland review area in association with a proposed 100-unit multi-family residential community on property identified in the Inland Wetlands and Watercourses Agency Application as North Bride Brook Rd, East Lyme Assessor's Map 09.0, Lot 37-2 and the plans entitled "North Bride Brook Multi-Family Development, prepared for Pazz & Construction, LLC, Sheets 1 through 7, dated 9/25/2019 and revised through 1/15/2020," by Brandon J. Hanfield, P.E. of Yantic River Consultants, LLC of 191 Norwich Avenue, Lebanon, CT, which are further subject to the following administrative requirements and required modifications to the site plan and other materials submitted in support of this application:

1. The Erosion and Sedimentation Control Plan and recommended Construction Sequence shall be followed.
2. Pursuant to the Erosion and Sedimentation Control Plan and construction sequence, notify conservation officer at least 2 days prior to construction to inspect erosion controls.
3. Silt fence and other erosion controls including temporary sediment traps and diversion swales to be installed shall be inspected by the Inland Wetlands Agent and the Town Engineer prior to any site construction, land clearing or other associated construction activities.
4. In areas proposed to be loamed and seeded, a low maintenance lawn such as fescue, which requires minimal application of fertilizers and pesticides, shall be planted.
5. Forested cover within the upland review areas shall be maintained to the extent practicable. The proposed Limits of Disturbance (LOD) shall be strictly adhered to throughout all phases of lot build out and construction.
6. As indicated in Exhibit "L", memorandum from Victor Benni P.E., Town Engineer dated January 27, 2020, an Erosion and Sedimentation Control Bond (aka financial guarantee)

in the amount of \$30,000.00 dollars in a form satisfactory to the Town of East Lyme and the Inland Wetlands Agency, its Agent, and Town Engineer shall be posted with the Town of East Lyme.

7. A copy of each weekly inspection reports for the Stormwater Management Basin shall be furnished to the East Lyme Inland Wetlands Agent within 7-days of conducting said inspection.
8. Failure of the development to adhere to the stormwater management system components of the long-term operations and maintenance plan shall be consider a violation of this permit and the East Lyme Inland Wetlands and Watercourses Regulations.
9. Any proposed Additional work beyond this permit in the wetlands or watercourse or its 100-foot regulated area will require approval from the Inland Wetlands Agency or its certified agent.
10. Any changes to the site plan listed on this permit require notification to the Inland Wetlands Agent and may require commission approval; a new plan shall be given to the Inland Wetlands Agent for review and approval before such work begins.
11. Inland Wetlands Conservation Tags provided by the Wetlands Agency, available in the Land Use Office, Department of Planning & Inland Wetlands, shall be posted along the inland wetlands boundary at 40-50-foot intervals satisfactory to the Inland Wetlands Agent.
12. A 200-foot wide conservation easement, beginning at the limits of clearing and extending north, south and westward along the existing stream corridor, in a form satisfactory to the Inland Wetlands Agency and the Town of East Lyme, shall be filed on the land records in the office of the East Lyme Town Clerk prior to any construction.
13. No site work shall commence until all applicable conditions are satisfied.
14. Notify Inland Wetlands Agent upon completion of all regulated activities for a final inspection and to request the release of any financial guarantees.

This approval is specific to the site development plan submitted as the application of Jason Pazzaglia, Applicant; Pazz & Construction, LLC, Owner; Application to conduct regulated activities in the upland review area in association with a proposed 100-unit multi-family residential community on property identified in the Inland Wetlands and Watercourses Agency Application as North Bride Brook Rd, East Lyme Assessor's Map 09.0, Lot 37-2 and the plans entitled "North Bride Brook Multi-Family Development, prepared for Pazz & Construction, LLC, Sheets 1 through 7, dated 9/25/2019 and revised through 1/15/2020," by Brandon J. Hanfield, P.E. of Yantic River Consultants, LLC of 191 Norwich Avenue, Lebanon, CT".

Any change or modification in the plan or development plan layout other than those identified herein shall constitute a new application unless prior approval from the Agency or its Agent is granted. The applicant/owner shall be bound by the provisions of this Application and Approval.

N Bride Brook Multi-Family Development  
Inland Wetlands  
Updated as of 5/11/2020

[illegible]



# APPLICATION FOR PERMIT EAST LYME INLAND WETLANDS AGENCY

CHECK # 38510, 38512		Office Use Only
Fee Paid \$ 1,210.00	Date Submitted 11/22/2019	Application # _____
Date of Receipt _____	Date Approved _____	Permit Number _____
Major Impact: YES NO Public Hearing: <u>YES</u> NO Agent Approved: YES NO		

*Note: In accordance with the Inland Wetland and Watercourses Regulations, Eleven (11) copies of all application materials must be submitted.*

1. SITE LOCATION (Street) and Description: Westerly side North Bride Brook Road (no assigned street number)  
Assessor's Map 9 Lot # 37-2

*Note: It is the applicant's responsibility to provide the correct site address, map/lot number for the legal notice. Provide a description of the land in sufficient detail to allow identification of the inland wetlands and watercourses, the area(s) (in acres or square feet) of wetlands and watercourses to be disturbed, soil type(s), and wetland vegetation.*

2. APPLICANT: Pazz & Construction, LLC ; Jason Pazzaglia

Address: 21 Darrows Ridge Road Phone: (860) 961-2364  
East Lyme, Connecticut 06333 Fax: n/a  
Business: 21 Darrows Ridge Road Cell: (860) 961-2364  
East Lyme, Connecticut 06333 Email: jpazz17@gmail.com

Applicant's interest in the land: Owner

*\*\*If the applicant is a Limited Liability Corporation or a Corporation provide the managing member's or responsible corporate officer's name, address, and telephone number.*

3. OWNER: Pazz & Construction, LLC

Address: 21 Darrows Ridge Road Phone: (860) 961-2364  
East Lyme, Connecticut 06333 Fax: n/a  
Email: jpazz17@gmail.com Cell: (860) 961-2364

*\*\*As the legal owner of the property listed on this application, I hereby consent to the proposed activities. And I hereby authorize the members and agents of the Agency to inspect the subject land, at reasonable times, during the pendency of the application and for the life of the permit.*

Owners Printed Name: Pazz & Construction, LLC

Owners Signature: [Signature] Date: November 21, 2019

Jason Pazzaglia, its Member

EX "A"

4. Area of wetland to be disturbed: 0 sq. ft. or ac 0  
 Area of watercourse to be disturbed: 0 sq. ft. or ac 0  
 Upland review area to be disturbed: 62,530 sq. ft. or ac 1.44

Will fill be needed on site? Yes ☒ No

If yes, how much fill is needed? n/a Cubic yards

5. The property contains (circle one or more)

☒ WATERCOURSE

☐ WATERBODY ☐ WOODED-WETLAND

☒ SWAMP

☐ FLOODPLAIN

☐ OTHER: \_\_\_\_\_

Description of soil types on site: Upland soils are Haven Silt Loam (703A), Charlton-Chatfield Complex (73E) and Charlton-Chatfield Complex (73C); Wetland soils associated with the Bride Brook riparian corridor are Ridgebury Leicester Whitman soils.

Description of wetland vegetation: Forested wetland (general classification). The vegetative overstory includes Maple, Ash, Black Cherry, Oak and Poplar. Shrub species include Winterbury, Spice Bush, Silky Dog Wood and Mountain Laurel. The herbaceous layer includes sensitive fern, poison ivy, wildy grape and skunk cabbage.

Name of Soil Scientist(s) and date of survey: \_\_\_\_\_  
James Sipperly. Date of Survey: June 29, 2019.

6. Provide a written narrative of the purpose and a description of the proposed activity and proposed erosion and sedimentation controls and other best management practices and mitigation measures which may be considered as a condition of issuing a permit for the proposed regulated activity including, but not limited to, measures to (1) prevent or minimize pollution or other environmental damage, (2) maintain or enhance existing environmental quality, or (3) in the following order of priority: restore, enhance and create productive wetland or watercourse resources. Depending on the complexity of the project, include the following: construction schedule, sequence of operations, drainage computations with pre and post construction runoff quantities and runoff rates, plans clearly showing the drainage areas corresponding to the drainage computation, existing wetland inventory and functional assessment, soils report, construction plans signed by a certified soils scientist, licensed surveyor, and licensed professional engineer. **See Project Narrative submitted with this application.**

7. Provide information of all alternatives considered. List all alternatives which would cause less or no environmental impact to wetlands or watercourses and state why the alternative as set forth in the application was chosen. All such alternatives shall be diagrammed on a site plan or drawing. (Attach plans showing all alternates considered). Activities proposed are upland review area activities only, none of which are anticipated to have any adverse impact on the inland wetland/watercourse system which bisects the property in a northwesterly to southeasterly direction. Therefore, the considerations of alternatives is not required.

8. Attach a site plan showing the proposed activity and existing and proposed conditions in relation to wetlands and watercourses and identifying any further activities associated with, or reasonably related to, the proposed regulated activity which are made inevitable by the proposed regulated activity and which may have an impact on wetlands and watercourses. See site development plan entitled "North Bride Brook Multi-Family Development Prepared For Pazz & Construction, LLC Overall Layout Plan N. Bride Brook (Assessor's Map 9, Lot 37-2) East Lyme, CT" dated September 25, 2019 prepared by Yantic River Consultants, LLC consisting of 7 sheets submitted with this application.

9. Provide the name and mailing addresses of adjacent landowners (including across a street). Attach additional sheets if necessary.

Name/Address: SEE ATTACHED SHEET

Name/Address: \_\_\_\_\_

Name/Address: \_\_\_\_\_

**WETLANDS APPLICATION OF PAZZ & CONSTRUCTION, LLC**

**LIST OF ABUTTING PROPERTY OWNERS**

<b>Name and Mailing Address</b>	<b>Property Address</b>	<b>Parcel Number</b>
Ms. Geraldine J. Dzwilewski 90 North Bride Brook Road East Lyme, CT 06333	90 North Bride Brook Road	09.0/37
Ms. Margaret Berry Balon 86 North Bride Brook Road Niantic, CT 06357	86 North Bride Brook Road	09.0/37-1
State of Connecticut NCI & JB Gates Prison 199 West Main Street Niantic, CT 06357	199 West Main Street	10.0/2
Ms. Alice T. Welsh 102 North Bride Brook Road Niantic, CT 06357	102 North Bride Brook Road	14.0/66
Ms. Alice T. Welsh 102 North Bride Brook Road Niantic, CT 06357	North Bride Brook Road	14.0/67
Niantic Sportsmens Club Inc. P.O. Box 122 Niantic, CT 06357	Plants Dam Road	19.0/58
Mr. Frank Maric Mr. Rajko Maric 26 Johnson Place Ardsley, NY 10502	Spring Rock Road	14.0/45

10. Attach a completed DEP reporting form.

*The Agency shall revise or correct the information provided by the applicant and submit the form to the Commissioner of Environmental Protection in accordance with section 22a-30-14 of the Regulations of Connecticut State Agencies.*

DEEP Statewide Reporting Form submitted with this application.

11. Name of Erosion Control Agent (Person Responsible for Compliance):

Jason Pazzaglia

Address: 21 Darrows Ridge Road

East Lyme, Connecticut 06333

Email: jpazz17@gmail.com

Phone: (860) 961-2364

Fax: n/a

Cell: (860) 961-2364

12. Are you aware of any wetland violations (past or present) on this property? Yes ☐ No ☒

If yes, please explain: \_\_\_\_\_

13. Are there any vernal pools located on or adjacent (within 500') to the property? Yes ☐ No ☒

14. For projects that do not fall under the ACOE Category I general permit – Have you contacted the Army Corps of Engineers? Yes ☐ No ☒ N/A

15. Is this project within a public water supply aquifer protection area or a watershed area? Yes ☐ No ☒

16. If so, have you notified the Commissioner of the Connecticut Department of Public Health and the East Lyme Water and Sewer Department? Yes ☐ No ☒ (Proof of notification must be submitted with your application). N/A

17. Attach the appropriate filing fee based on the fee schedule established in Section 19 of the Regulations.

Fee: \$1,010.00 (Make checks payable to "Town of East Lyme").

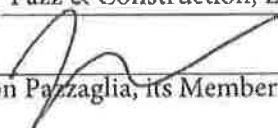
18. PUBLIC HEARINGS ONLY: The applicant must provide proof of mailing notices to the abutters prior to the hearing date.

*The undersigned Applicant hereby consents to necessary and proper inspection of the above mentioned property by the East Lyme Inland Wetlands Agency and/or its agents at reasonable times both before and after the permit in question has been granted.*

*The Applicant affirms that the information supplied in this application is accurate to the best of his/her knowledge and belief. As the applicant I hereby certify that I am familiar with the information provided in this application and I am aware of the penalties for obtaining a permit through deception or through inaccurate or misleading information.*

Printed Name: Pazz & Construction, LLC

Date: November 21, 2019

Signature: By:   
Jason Pazzaglia, its Member

Please note:

*Above notice to be published in legal section of newspaper having general circulation in the Town of East Lyme. Applicant to pay cost of publication.*

*You or a representative must attend the Inland Wetlands Agency meeting to present your application.*

## NORTH BRIDE BROOK MULTI-FAMILY DEVELOPMENT

### CHECKLIST FOR A COMPLETE APPLICATION

- ☒ completed application form including Department of Environmental Protection reporting form (green copy)
- ☒ A narrative of the purpose and description and methodology of all proposed activities;
- n/a ☐ Alternatives considered by the applicant, reasons for leaving less than a 10' buffer between clearing and the wetlands. Such alternatives to be diagrammed on a site plan or drawing and submitted to the commission as part of the application;
- ☒ Names and mailing addresses of abutting property owners;
- ☒ Three copies of approximately 1"=40' scale plans
- ☒ Locations of existing and proposed land uses
- ☒ Locations of existing and proposed buildings
- n/a ☐ Locations of existing and proposed subsurface sewage disposal systems, and test hole descriptions
- ☒ Existing and proposed topographical and man-made features including roads and driveways, on and adjacent to the site
- ☒ Location and diagrams of proposed erosion control structures
- ☒ Assessor map and lot number
- ☒ Key or inset map
- ☒ North arrow
- ☒ Flood zone classification and delineation
- n/a ☐ Use of wetland and watercourse markers where appropriate.
- ☒ Soil types classification and boundary delineation (flagged and numbered boundary), Soil Scientist's original signature and certification on plans
- ☒ Soil Scientist's (or other wetland scientist) report on the function of the wetlands
- ☒ Watercourse channel location and flow direction, where appropriate
- ☒ 100 ft. regulated area depicted on plans
- n/a ☐ Conservation easements where appropriate
- ☒ A detailed erosion and sediment control plan which meets requirements set forth in the most recent revision of the *Connecticut Guidelines for Soil Erosion and Sediment Control*, published by the Connecticut Council on Soil and Water Conservation, including:
  - ☒ Location of areas to be stripped of vegetation and other unprotected areas
  - ☒ Schedule of operations including starting and completion dates for major development phases
  - ☒ Seeding, sodding, or re-vegetation plans for all unprotected or un-vegetated areas
  - ☒ Location and design of structural sediment control measures
  - ☒ Timing of planned sediment control measures
- n/a ☐ Use of wetland and watercourse markers
- ☒ Proper certification on the application documents and plans

In the case of filling in wetlands, watercourses, or regulated upland areas, the following items are necessary:

- n/a ☐ Area to be filled
- n/a ☐ Volume of requested fill
  - ☒ Finished slopes of filled areas
  - ☒ Containment and stabilization measures
  - ☒ Proposed finished contours
- n/a ☐ Evaluation of the effect of filling the wetlands with respect to storage volume and its impact downstream showing before and after development flows, and the evaluation of storm water detention including the existing need for flood control downstream

Other required items:

- n/a ☐ Proof of adjoining Town notification, where required;
  - ☒ All application fees required by Section 16 of these regulations;
  - ☒ A written narrative detailing how the effects of the applicant's proposed activities upon wetlands and watercourses shall be mitigated.
- n/a ☐ A written description of any and all future plans which may be linked to the activities proposed in the current application.
- n/a ☐ Address the potential to enhance the current buffer area.
  - ☒ Review drainage information with Town Engineering
  - ☒ Mailing requirements for abutters (public hearing only)



# **Appendix D - ORDINANCE ESTABLISHING SCHEDULE OF FEES FOR CONSERVATION, PLANNING AND ZONING COMMISSIONS**

- 1.1 Application Fee \*\*
  - 1.1.1 Residential Uses.....\$150.00 Plus \*\$50.00/LOT  
Plus Fee from Schedule A
  - 1.1.2 Commercial Uses.....\$400.00  
Plus Fee from Schedule A
  - 1.1.3 All Other Uses .....\$200.00  
Plus Fee from Schedule A

\*Each lot with regulated activities

\*\*\$60 fee required by C.G.S 22a-27j will be added to the base fees.

1.2 Approval by Duly Authorized Agent \*\* \$100.00

1.3 Appeal of Duly Authorized Agent Decision.....\$300.00

1.4 Significant Activity Fee \$300.00

1.5 Public Hearing Fee

1.5.1 Single Residential \$200.00

1.5.2 Commercial/Industrial/Multi-Family \$450.00

1.6 Complex Application Fee .....Actual Cost

The Inland Wetlands Agency may charge an additional fee sufficient to cover the cost of reviewing and acting on complex applications. Such fee may include, but not be limited to, the cost of retaining experts, to advise, analyze, review, and report on issues requiring such experts. The Agency or the duly authorized agent shall estimate the complex application fee, which shall be paid pursuant to section 19.1 of these regulations within 10 days of the applicant's receipt or notice of such estimate. Any portion of the complex application fee in excess of the actual cost shall be refunded to the applicant no later than 30 days after publication of the agency's decision.

1.7 Permitted and Nonregulated Uses :

1.7.1 Permitted Uses as of Right .....\$0.00

1.7.2 Nonregulated ... ..\$0.00

1.8 Regulation Amendment Petitions .....\$500.00

(Does not include Notices or Regulation Advisories from DEP)

1.8.1 Map Amendment Petitions .....\$500.00  
Plus Fee from Schedule B

1.9 Modification of Previous Approval: .....\$100.00

1.10 Renewal of Previous Approval .. .....\$100.00

1.11 Monitoring Compliance Fee .....\$100.00

1.12 SCHEDULE A. For the purpose of calculating the permit application fee, the area in schedule A is the total area of wetlands and watercourses and the upland review area upon which a regulated activity is proposed.

SQUARE FEET of AREA

1.12.1. Less than 1,000 . .....\$0.00

1.12.2. 1,000 to 5,000 ... .....\$250.00

1.12.3. More than 5,000 .....\$750.00

+ 60.  
\$ 1,210.00

1.13 SCHEDULE B. For the purpose of calculating the map amendment petition fee, linear feet in schedule B is the total length of wetlands and watercourses boundary subject to the proposed boundary change.

LINEAR FEET

1.13.1. Less than 500 ....\$0.00

1.13.2 500 to 1,000 .....\$250.00

1.13.3 More than 1,000.....\$750.00

JAMES SIPPERLY  
CERTIFIED SOIL SCIENTIST  
21 CASE STREET  
NORWICH, CT 06360  
860-334-7073  
[james.sipperly.js@gmail.com](mailto:james.sipperly.js@gmail.com)

Brandon Handfield, Professional Engineer  
Yantic River Consultants  
191 Norwich Avenue  
Lebanon, CT 06249

October 3, 2019

RE: INLAND WETLAND SOILS AND WATERCOURSES INVESTIGATION,  
AND DELINEATION, NORTH BRIDE BROOK MULTI-FAMILY  
DEVELOPMENT, NORTH BRIDE BOOK ROAD, EAST LYME, CT

Dear Mr. Handfield:

On Saturday, June 29, 2019 I visited the site referenced above to inspect the inland wetlands and watercourses delineation that was originally performed by Michael Schaefer, Soil Scientist quite some time ago. Remarkably, most of his blue flagging was still identifiable in the field on either side of the watercourse that flows through the center of a narrow wetland corridor that bisects the property.

I sampled the soil throughout the site using a soil auger to a depth of two to three feet. Based on my field observations and using the guidelines established by the National Cooperative Soil Survey and as defined by the Connecticut General Statutes I delineated the inland wetland soils and watercourse on the property. I delineated the inland wetlands and watercourses using blue flagging numbered 1-44 and 45-78 respectively.

At many, if not all of Michael Schaefer's flag locations, I conducted a soil transect using my soil auger and in every instance I agreed with his placement of his wetland flags.

The inland wetland soils associated with Bride Brook are classified as a poorly drained and very poorly drained Leicester, Ridgebury Whitman fine sandy loam. These soils are often found in depressions and drainageways on glacial till uplands and are mapped together as a complex due to their similar physical characteristics, use and management.

Bride Brook flows in a southerly direction under Route 95 via a culvert onto the subject property and bisects the property and continues onto the State of Connecticut property to the south. The width of the actual flow is variable from 1 foot to 3 feet and tends to branch out and form mini meanders at times due to the presence of rocks and boulders and the nature of the topography.

Ex "B"

The inland wetlands and watercourses locations are shown correctly on a site plan entitled "North Bride Brook Multi-Family Development, prepared for Pazza Construction, LLC, Overall Layout Plan, sheet 1 of 7, dated 9/25/19, scale 1"= 60'" prepared by Yantic River Consultants, LLC".

All of the wetland areas are classified as a forested wetland general classification. Its functions include: groundwater recharge and discharge, sediment stabilization, nutrient removal and transformation, product export, and wildlife diversity. The vegetative over-story includes maples, ash, black cherry, oak and poplar. Shrub species include winterberry, spice bush, silky dogwood and mountain laurel. The herbaceous layer includes sensitive fern, poison ivy, wildly grape and skunk cabbage. No evidence of invasive species was observed.

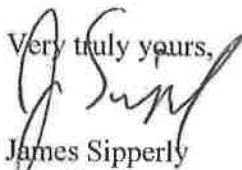
The proposed development in the upland review area will not be disturbing any wetlands and/or watercourses on the site. For that reason, the inland wetlands will continue to perform their functions as they currently do.

With any proposed project a comprehensive erosion and sedimentation control plan well designed and properly installed and maintained is the key to a successful project. Regular inspections should occur, especially after storm events of more than 0.1 inches of rain.

After reviewing the erosion and sedimentation control plans and the storm water design features it is my professional opinion that the proposed construction activities will not have a significant adverse effect on the adjacent inland wetlands and/or watercourse on or off the site.

If you have any questions or require additional information, please contact me at the telephone number referenced above.

Very truly yours,



James Sipperly

Certified Soil Scientist, Society of Soil Scientists of Southern New England  
Connecticut Wetland Scientist, Connecticut Association of Wetland Scientists

## AUTHORIZATION

Pazz & Construction, LLC hereby authorizes the law firm of Heller, Heller & McCoy to submit an application on its behalf to the Town of East Lyme Inlands Wetlands Agency for permits to conduct regulated activities in conjunction with the development of a proposed 108 unit multi-family development on real property located on the westerly side of North Bride Brook Road in the Town of East Lyme, Connecticut as depicted on a plan entitled "North Bride Brook Multi-Family Development Prepared For Pazz & Construction, LLC N. Bride Brook Road (Assessor's Map 9, Lot 37-2) East Lyme, CT Scale: 1" = 40' Sheets 1 of 7 to 7 of 7 Date 9/25/19 Yantic River Consultants, LLC 191 Norwich Avenue Lebanon, Conn 06249 Phone (860) 367-7264 E-mail: [yanticriver@gmail.com](mailto:yanticriver@gmail.com) Web: [www.yanticriverconsultants.com](http://www.yanticriverconsultants.com)".

Pazz & Construction, LLC hereby further authorizes the law firm of Heller, Heller & McCoy, the consulting civil engineering firm of Yantic River Consultants, LLC and James Sipperly, Soil Scientist, to represent its interests in all proceedings before the Town of East Lyme Inland Wetlands Agency with respect to said application for permits to conduct activities in upland review areas adjacent to wetlands and watercourses on the hereinbefore described property.

Dated at Montville, Connecticut this 21<sup>st</sup> day of November, 2019.

**PAZZ & CONSTRUCTION, LLC**

By: 

(L.S.)

Jason Pazzaglia, its Member

Ex "C"

**APPLICATION OF PAZZ & CONSTRUCTION, LLC ("APPLICANT")  
TO  
TOWN OF EAST LYME INLAND WETLANDS AND WATERCOURSES  
COMMISSION**

**NORTH BRIDE BROOK MULTI-FAMILY RESIDENTIAL DEVELOPMENT  
NORTH BRIDE BROOK ROAD, EAST LYME, CONNECTICUT**

**APPLICATION NARRATIVE  
DATE: NOVEMBER 22, 2019**

**PROJECT OVERVIEW**

The Applicant is the owner of a 20.24 acre, more or less, tract of land, located on the westerly side of North Bride Brook Road in the Town of East Lyme, Connecticut (the "Property"). The Property enjoys road frontage both to the north and south of a single family dwelling and appurtenant facilities located at 90 North Bride Brook Road, which parcel is owned of record by Geraldine J. Dzwilewski as shown on the hereinafter referenced plan. The Applicant proposes to develop the easterly portion of the Property for one hundred eight (108) multi-family residential units formulated in an application to be submitted to the East Lyme Zoning Commission pursuant to the provisions of Section 8-30g of the Connecticut General Statutes.

As depicted on the Overall Layout Plan for the project entitled "North Bride Brook Multi-Family Development Prepared For Pazz & Construction, LLC Overall Layout Plan N. Bride Brook Road (Assessor's Map 9, Lot 37-2) East Lyme, CT Scale: 1" = 40' Sheet 1 of 7 Date 9/25/19 Yantic River Consultants, LLC 191 Norwich Avenue Lebanon, Conn 06249 Phone (860) 367-7264 E-mail: [yanticriver@gmail.com](mailto:yanticriver@gmail.com) Web: [www.yanticriverconsultants.com](http://www.yanticriverconsultants.com)" (the "Overall Layout Plan"), the project parcel is bifurcated by a wetland system associated with Bride Brook which flows through the project site in a northwesterly to southeasterly orientation. In conjunction with the instant development initiative, the Applicant is proposing only to develop that portion of the project site which is located easterly of the wetland system. As depicted on the Overall Layout Plan, the project site accommodates 48,970 square feet (1.12 acres) of regulated inland wetland and/or watercourse area, all comprised of the riparian system which incorporates and is adjacent to Bride Brook.

All proposed dwelling units to be constructed in the North Bride Brook Multi-Family Development will interconnect with the municipal sewer system administered by the Town of East Lyme Water and Sewer Commission and will obtain a potable water supply from the East Lyme municipal water system. The East Lyme Water and Sewer Commission has allocated 35,400 gallons of sewer capacity to provide sanitary sewer service to the 108 proposed residential apartment units to be constructed in the North Bride Brook Multi-Family Development.

The project will obtain vehicular and pedestrian access by virtue of a private access road which will intersect North Bride Brook Road adjacent northerly to the Dzwilewski property as depicted on the Overall Layout Plan. All roads interior to the multi-family development will be

privately owned and maintained by the Applicant/developer. The roadways within the multi-family development will be curbed and will accommodate a closed drainage system which will collect stormwater runoff from impervious and semi-pervious areas within the project development and transmit the same to a stormwater quality/detention basin located in the southeasterly corner of the project site. A swale to be constructed along the northeasterly periphery of the project site will direct stormwater runoff from semi-pervious areas of the project site to Catch Basin #309 which will pick up any overland flow emanating from semi-pervious areas of the project site and introduce the same to the stormwater system incorporated into the project design. Stormwater from the closed drainage system will discharge to a sediment forebay in the detention basin area in the southeasterly corner of the project site. The sediment forebay shall be separated from the detention basin by a filter berm constructed in accordance with the "Detention Filter Berm" detail delineated on Sheet 7 of 7 of the site development plan. The design of the sediment forebay and detention basin has been formulated in order to attain residency time in the sediment forebay for suspended solids in the stormwater stream to filter out and settle before the stormwater passes through the semi-pervious filter berm to the detention basin itself. Stormwater from the detention basin will be released at a controlled rate based upon the orifice sizes in the outlet structure to be located in the northeast corner of the detention basin. Water outletting the detention basin will be introduced to a cross-culvert under North Bride Brook Road and thereafter discharged to the environment. The stormwater design has been formulated in order to attenuate any increase in peak runoff for all design storm events from the 2 year storm to the 100 year storm.

In order to provide recharge to the wetland/watercourse system which bisects the property in a northwesterly to southeasterly direction, the project engineer has provided for roof top runoff from Buildings I, J and M as depicted on the Overall Layout Plan to be discharged to a rip rap splash pad at a westerly corner of each building. These stormwater discharges have been formulated to replicate the existing flows which currently reach and contribute to the recharge of the wetland system associated with Bride Brook.

The Property, with the exclusion of the wetland system which accommodates Bride Brook, is entirely composed of upland soils. A description of the vegetation and soil composition, including a detailed analysis of the characteristics and functions of the wetland and watercourse systems on the Property is contained in a report dated October 3, 2019 prepared on behalf of the Applicant by James Sipperly, certified soil scientist. This report is submitted with and constitutes an integral component of the application for permits to conduct regulated activities which is being submitted contemporaneously herewith to the Town of East Lyme Inland Wetlands and Watercourses Commission.

The Applicant is seeking a permit from the Town of East Lyme Inland Wetlands and Watercourses Commission to conduct regulated activities in the upland review area adjacent easterly to the wetland/watercourse system which bisects the Property in a northwesterly to southeasterly direction in conjunction with the development of its proposed 108 unit multi-family affordable residential development. Activities proposed by the application in the upland review area include the construction of Buildings J and M and a portion of Building I, the construction of a portion of the roadway and parking system which will provide access to and parking for Buildings I, J, K, L and M, grading and landscaping adjacent to Buildings I, J and M

and the stormwater discharge of the rooftop stormwater from Buildings I, J and M incorporated into the project design to provide stormwater recharge to the adjacent wetland system. The Applicant, in conjunction with the development of the multi-family residential project, is not proposing any direct disturbance to any inland wetland or watercourse. There are 4.56 acres of upland review area located adjacent to the wetland/watercourse system which bisects the Property. In conjunction with the development of its multi-family residential project, the Applicant is proposing disturbance of 1.44 acres of this upland review area. Through the incorporation of a robust erosion and sediment control program during construction, and well thought out stabilization techniques and a long term maintenance program, it is not anticipated that the activities proposed by the Applicant in the upland review area will have any adverse impact on the adjacent wetland/watercourse system. The statements contained in this Narrative are affirmed by the Evaluation Report of James Sipperly contained in his correspondence to the East Lyme Inland Wetlands and Watercourses Commission dated October 3, 2019.

The design of the stormwater collection, treatment and discharge system for the project was chosen by the Applicant's engineer in order to (i) avoid disturbance in conjunction with the development of the Property in wetlands and limit disturbance to upland review areas, resulting in no direct impact to or disturbance of any regulated inland wetland or watercourse (ii) maintain the existing hydraulic regime on the Property post-development in order to insure that there is adequate recharge for the wetland/watercourse system which bisects the Property in a northwesterly to southeasterly direction and (iii) discharge a highly renovated stormwater to the environment in a location which will not adversely impact wetlands or watercourses.

The development plan for the Property, as well as the development techniques specified by the design engineer, all of which have been incorporated into the site development plan, have been formulated to accomplish the following goals:

1. To avoid, to the maximum extent possible, wetland and environmental resources, and upland review areas adjacent to those resources located on the Property.
2. To provide housing units which will represent a good value to the public.
3. To replicate the pre-development hydrology of the wetland/watercourse system which bisects the Property.

The stormwater quality system which has been incorporated into the project vernacular has been designed by the Applicant's consulting engineer, Yantic River Consultants, LLC, in order to satisfy the goals enunciated in the 2004 Connecticut Department of Environmental Protection Stormwater Quality Manual. The stormwater quality forebay has been designed to receive and detain the water quality volume which will consist of the first one (1") inch of rainfall. The collection, treatment and discharge system has been designed both to meet the stormwater quality goals as well as to provide flood control by the attenuation of peak rates of discharge before the stormwater is released to the environment.

The soil designation for all soils located on the Property are identified on the Overall Layout Plan and their characteristics are set forth in the next section of this Narrative.

Stormwater runoff calculations for the project are contained in a report submitted herewith by Yantic River Consultants, LLC dated November 1, 2019.

## **SOIL CHARACTERISTICS**

Upland areas of the Property are comprised of three (3) soil types designated on the Overall Layout Plan as "Haven Silt Loam 0-3% (Code 703A)", "Charlton-Chatfield Complex, 15-45% (Code 73E)" and "Charlton-Chatfield Complex, 0-15% (Code 73C)". The soil characteristics for each soil type are as follows:

### **Haven Silt Loam**

The Haven Silt Loam soils are located in the southeasterly corner of the project site, primarily in the location of the parking area associated with Building E and the stormwater treatment and detention area. This soil type consists of well drained soils that formed in glacial outwash. Haven soils are found on stream terraces and outwash plains. Haven soils are found in a drainage sequence on the landscape with moderately well-drained Tisbury soils and poorly drained Raypol soils. They are near excessively drained Hinckley soils, well-drained Canton, Charlton, Narragansett and Agawam soils and moderately well-drained Ninigret soils. The typical soil stratification for the Haven soil is as follows:

0" – 7"	Dark brown silty loam; weak fine granular structure; very friable; common fine and medium roots; 5% coarse fragments; strongly acid; abrupt wavy boundary.
7" – 11"	Brown silty loam; weak medium subangular blocky structure; friable; few fine roots; 5% coarse fragments; strongly acid; gradual wavy boundary.
11" – 15"	Dark yellowish brown silt loam; weak medium subangular blocky structure; friable; few fine roots; 10% coarse fragments; strongly acid; gradual wavy boundary.
15" – 23"	Yellowish brown silt loam; weak medium subangular blocky structure; friable; few fine roots; 15% coarse fragments; strongly acid; clear wavy boundary.
23" – 60"	Light yellowish brown very gravelly sand; single grain; loose; 55% coarse fragments; medium acid.

### **Charlton-Chatfield Complex (0-15%)**

This soil complex is found on gently sloping to strongly sloping landscapes with bedrock controlled hills and bedrock controlled uplands. 0-3% of the surface area is covered with stones. This complex is comprised of 45% Charlton soils, 30% Chatfield soils and 25% other soils.



The stratification of the Charlton soils is as follows:

0" – 4"	Fine sandy loam.
4" – 7"	Fine sandy loam.
7" – 19"	Fine sandy loam.
19" – 27"	Gravelly fine sandy loam.
27" – 65"	Gravelly fine sandy loam.

The stratification of the Chatfield soils is as follows:

0" – 1"	Highly decomposed plant material.
1" – 6"	Gravelly fine sandy loam.
6" – 15"	Gravelly fine sandy loam.
15" – 29"	Gravelly fine sandy loam.
29" – 80"	Unweathered bedrock.

Permeability in the Charlton-Chatfield complex is well drained. Available water capacity is moderate to high. Depth to restrictive features in the Charlton soils is greater than 72" and 20" to 40" in the Chatfield soil.

Included with these soils and mapping are areas of moderately well-drained Sutton soils and poorly drained Leicester soils. Sutton soils are in slight depressions in the landscape; Leicester soils are in depressions and drainage ways. Also included are small areas of shallow, somewhat excessively drained Hollis soils where bedrock is 10" – 20" below the surface.

This soil group (designated as 73C on the Overall Layout Plan) is located in the northeasterly portion of the proposed to be developed project site and accommodates the entire westerly portion of the Property located westerly of the wetland/watercourse system which bisects the Property.

#### **Charlton-Chatfield Complex (15-45%)**

This Charlton-Chatfield complex (15-45%) is found on moderately steep to steep slopes on the landscape with bedrock controlled hills and bedrock controlled hills and uplands. 0-3% of the surface area of this soil is covered by stones. Charlton soils comprise 45% of the Charlton-Chatfield complex, Chatfield soils comprise 30% of the complex and 25% of the complex is comprised of other soils. Depth to bedrock in the Charlton soils is very deep and depth to bedrock in the Chatfield soils is moderately deep or deep. Both soils are well drained soils

formed from coarse-loamy melt-out till derived from granite and/or Schist and/or Gneiss. Both components of the Charlton-Chatfield complex are well-drained soils and permeability in each soil is moderate or moderately rapid. The depth to the restrictive layer in the Charlton soils is greater than 72" and the depth to the restrictive layer in the Chatfield soils is 20" to 40". Depth to seasonal groundwater in both soils is greater than 6'.

The stratification of the Charlton soil is as follows:

0" – 4"	Fine sandy loam.
4" – 7"	Fine sandy loam.
7" – 19"	Fine sandy loam.
19" – 27"	Gravelly fine sandy loam.
27" – 65"	Gravelly fine sandy loam.

The stratification of the Chatfield soils is as follows:

0" – 1"	Highly decomposed plant material.
1" – 6"	Gravelly fine sandy loam.
6" – 15"	Gravelly fine sandy loam.
15" – 29"	Gravelly fine sandy loam.
29" – 80"	Unweathered bedrock.

The Charlton-Chatfield complex is found on the landscape in areas of moderately well-drained Sutton soils and poorly drained Leicester soils. Sutton soils are found in slight depressions on the landscape. Leicester soils are found in depressions and drainage ways. Also included in this complex are small areas of shallow, somewhat excessively drained Hollis soils where bedrock is 10" – 20" below the surface.

## WETLAND SOILS

The wetland soils associated with the riparian corridor of Bride Brook extending in a northeasterly to southeasterly orientation through and across the Property are Ridgebury, Leicester, Whitman soils. These nearly level, poorly drained and very poorly drained soils are found in drainage ways and depressions on glacial till, upland hills, ridges, plains and drumloidal landforms. Stones and boulders cover 8-25% of the surface. Slopes range from 0-3%. The mapped acreage of this undifferentiated group is about 35% Ridgebury soil, 30% Leicester soil, 20% Whitman soil and 15% other soils. Some mapped areas consist of one of these soils, and

other areas consist of two or three. These soils were mapped together because there are no major differences in use and management.

The soil stratification for the Ridgebury soil is as follows:

- |           |  |
|-----------|--|
| 0" – 1"   | Partly decomposed leaves.  |
| 0" – 4"   | Black, fine sandy loam; weak medium granular structure; friable; common fine roots; 5% rock fragments; strongly acid; clear wavy boundary.   |
| 4" – 13"  | Gray fine sandy loam; common medium distinct strong brown mottles and common, medium faint yellowish brown mottles; massive; friable; 5% rock fragments; strongly acid; gradual wavy boundary.         |
| 13" – 20" | Brown fine sandy loam; many medium distinct yellowish brown mottles and few fine faint grayish brown mottles; massive; friable; firm in place; 10% rock fragments; slightly acid; clear wavy boundary. |
| 20" – 60" | Grayish brown sandy loam; few fine faint yellowish brown mottles; massive; very firm, brittle; 5% rock fragment; slightly acid.  |

The stratification of the Leicester soil is as follows:

- |           |   |
|-----------|---|
| 0" – 2"   | Decomposed leaves.  |
| 2" – 6"   | Very dark gray fine sandy loam; weak fine granular structure; very friable; few fine and medium roots; 5% rock fragments; very strongly acid; abrupt smooth boundary.   |
| 6" – 12"  | Dark grayish brown, fine sandy loam; few fine faint yellowish-brown mottles and many medium distinct light brownish gray mottles; weak medium subangular blocky structure; very friable; few medium roots; 5% rock fragments; strongly acid; clear wavy boundary. |
| 12" – 24" | Grayish brown, fine sandy loam; few medium distinct yellowish-brown and dark grayish brown mottles; weak medium subangular blocky structure; friable; 10% rock fragments; strongly acid; gradual wavy boundary.   |
| 24" – 32" | Pale olive fine sandy loam; many coarse distinct yellowish brown mottles; weak medium subangular blocky structure; friable; 15% rock fragments; strongly acid; gradual wavy boundary.   |
| 32" – 60" | Light olive gray gravelly fine sandy loam; many medium distinct yellowish brown mottles; massive; friable; 25% rock fragment; strongly acid.  |

The stratification of the Whitman soil is as follows:

0" – 1"	Decomposed leaf litter.
1" – 9"	Black fine sandy loam; weak medium granular structure; friable; common fine and medium roots; strongly acid; abrupt wavy boundary.
9" – 16"	Dark grayish brown fine sandy loam; few fine faint yellowish brown mottles; weak medium subangular blocky structure; friable; few fine roots; 5% rock fragments; medium acid; clear wavy boundary.
16" – 22"	Grayish brown, fine sandy loam; common medium distinct strong brown mottles and few medium light brownish gray mottles; moderate medium platy structure; very firm, brittle; 5% rock fragments; slightly acid; gradual wavy boundary.
22" – 60"	Grayish brown fine sandy loam; common medium distinct strong brown mottles and few medium faint light brownish gray mottles; massive; firm, brittle; 5% rock fragments; slightly acid.

Included with these soils and mapping are small areas of moderately well drained Rainbow, Sutton and Woodbridge soils and very poorly drained Adrian and Palms soils. The Ridgebury soil has a seasonal high water table at a depth of about 6". Permeability is moderate or moderately rapid in the surface layer and subsoil and slow or very slow in the substratum. The Leicester soil has a seasonal high water table at a depth of about 6". Permeability is moderate or moderately rapid. The Whitman soil has a high water table at or near the surface for most of the year. Permeability is moderate or moderately rapid in the surface layer and subsoil and slow or very slow in the substratum.

#### **PROPOSED REGULATED ACTIVITIES**

1. The development of proposed Building J and proposed Building M and a portion of proposed Building I in the upland review area adjacent easterly to the wetland system as depicted on the Overall Layout Plan.
2. The construction and use of a portion of the cul-de-sac, secondary access drive and parking in the upland review area adjacent easterly to the wetland system on the Property.
3. Grading and landscaping in the upland review area in conjunction with the development of proposed Buildings I, J and M, the cul-de-sac, secondary access drive and parking in the upland review area adjacent easterly to the wetland system on the Property.

4. The discharge of roof collected stormwater from Buildings I, J and M as depicted on the Overall Layout Plan in the upland review area adjacent easterly to the wetland system on the Property to provide recharge for the adjacent wetlands.

## GENERAL PROCEDURES

1. Prior to the conducting any construction activities on the Property, the Applicant, and its contractor, shall meet with the East Lyme Wetlands Enforcement Officer and the East Lyme Zoning Enforcement Officer to discuss and agree upon the method of installation and maintenance of erosion and sediment control measures during construction as well as a construction inspection schedule (the "Preconstruction Meeting").
2. Subsequent to the Preconstruction Meeting, the Applicant's surveyor shall delineate in the field the limits within which construction activities shall occur and shall further delineate the location for the installation of all erosion and sediment control measures as depicted on a plan entitled "North Bride Brook Multi-Family Development Prepared For Pazz & Construction, LLC Erosion & Sedimentation Control Plan N. Bride Brook Road (Assessor's Map 9, Lot 37-2) East Lyme, CT Sheet 5 of 7 Date 9/25/19 Yantic River Consultants, LLC 191 Norwich Avenue Lebanon, Conn 06249 Phone (860) 367-7264 E-mail: [yanticriver@gmail.com](mailto:yanticriver@gmail.com) Web: [www.yanticriverconsultants.com](http://www.yanticriverconsultants.com)" (the "Erosion Control Plan").
3. Upon agreement of the East Lyme Wetlands Enforcement Officer and the East Lyme Zoning Enforcement Officer, the Applicant shall clear (but not grub) the area required for the installation of erosion and sediment control measures as delineated on the Erosion Control Plan.
4. Once clearing of the areas for the installation of erosion and sediment control measures has been accomplished, the Applicant (or its contractor) shall install the erosion and sediment control measures as delineated on the Erosion Control Plan. In no event shall grubbing or soil disturbance (other than that required for the clearing associated with the installation of erosion and sediment control measures) occur until such time as all erosion and sediment control measures have been installed and inspected, as hereinafter provided.
5. At such time as all erosion and sediment control measures have been installed in accordance with the Erosion Control Plan and in accordance with the directives of the East Lyme Wetlands Enforcement Officer and the East Lyme Zoning Enforcement Officer enunciated at the Preconstruction Meeting, the Applicant shall contact the East Lyme Wetlands Enforcement Officer and the East Lyme Zoning Enforcement Officer to perform an on-site inspection of the installation of said erosion and sediment control measures. In no event shall actual construction activities be commenced either with respect to the infrastructure for the project or on any buildings, until such time as the East Lyme Wetlands Enforcement Officer and the East Lyme Zoning Enforcement Officer have reviewed and approved the installation of all applicable erosion and sediment control measures.

6. In conjunction with the development of the North Bride Brook Multi-Family Development, marketable timber removed in conjunction with construction activities shall be removed from the site. Construction debris (i.e. stumps, branches, etc.) shall either be (i) ground in place or (ii) removed to an area approved, in advance, by the East Lyme Zoning Enforcement Officer. In no event shall stumps or construction debris be buried on site.
7. All erosion and sediment control measures shall be inspected at least twice weekly while construction is ongoing and after every storm event resulting in the deposition of in excess of one-tenth of one (0.10") inch of precipitation and repaired and maintained as necessary.
8. If any erosion and sediment control measure fails or is not installed or maintained in accordance with the Erosion Control Plan or the directives of the East Lyme Wetlands Enforcement Officer or the East Lyme Zoning Enforcement Officer, the Applicant shall be required to cease all construction activities with respect to the development of the North Bride Brook Multi-Family Development until such time as said erosion and sediment and control measures have been installed in accordance with the Erosion Control Plan and/or the directives of the East Lyme Wetlands Enforcement Officer or the East Lyme Zoning Enforcement Officer and approval of the same has been certified, in writing, by the East Lyme Wetlands Enforcement Officer and the East Lyme Zoning Enforcement Officer.
9. During the stabilization period (after construction of any area on the Property has been completed, but prior to certification of approval thereof by the East Lyme Wetlands Enforcement Officer and the East Lyme Zoning Enforcement Officer for removal of erosion and sediment control measures) all erosion and sediment control measures shall be maintained in proper working order and condition. Unless notice otherwise is provided to the East Lyme Wetlands Enforcement Officer and the East Lyme Zoning Enforcement Officer, Jason Pazzaglia, 21 Darrows Ridge Road, East Lyme, Connecticut 06333, (860) 961-2364, [jpazz17@gmail.com](mailto:jpazz17@gmail.com) shall be the responsible party for compliance with all erosion and sediment control measures and requirements in conjunction with construction activities on the Property. All erosion and sediment control measures shall be inspected, maintained and/or repaired, as necessary, as set forth above.
10. Subject to permitting requirements, it is anticipated that the construction of infrastructure improvements for the North Bride Brook Multi-Family Development shall commence in the summer of 2020. The project will be constructed in increments and it is anticipated that a 3 – 4 year period will be required for the complete construction and stabilization of the North Bride Brook Multi-Family Development.
11. During the stabilization period, any erosion which occurs shall be immediately repaired by the Applicant, reseeded with the seeding mixes set forth in the Construction Sequencing section of this Narrative and re-stabilized.

12. Once complete site stabilization has been achieved, and certification thereof obtained, in writing, from the East Lyme Wetlands Enforcement Officer and the East Lyme Zoning Enforcement Officer, all erosion and sediment control measures shall be removed by the Applicant.

## CONSTRUCTION SEQUENCING

1. The Applicant shall clear the area for the initial phase of construction of the North Bride Brook Multi-Family Development. No grubbing shall occur until subsequent to the installation and inspection of erosion and sediment control measures. Any marketable timber shall be removed from the Property.
2. The Applicant shall install silt fence down gradient of the area of all construction activities as depicted on the Erosion Control Plan. The Applicant may use wood chip berms in lieu of silt fence as an acceptable methodology for sediment and erosion control. Silt fence installation, if utilized, shall be effected in accordance with the "Silt Fence" detail as depicted on Sheet 6 of 7 of the project site plan.
3. The Applicant shall install the anti-tracking apron at the construction interface of the access road to the Property with North Bride Brook Road in accordance with the "Anti-Tracking Pad Detail" as depicted on Sheet 6 of 7 of the project plans.
4. Upon completion of installation of erosion and sediment control measures, the Applicant shall contact the East Lyme Wetlands Enforcement Officer and the East Lyme Zoning Enforcement Officer to perform an inspection of the installation of erosion and sediment control measures. In no event shall mass soil disturbance and/or grubbing occur in the first phase of the project until such time as the installation of erosion and sediment control measures has been approved by the East Lyme Wetlands Enforcement Officer and the East Lyme Zoning Enforcement Officer.
5. Surface soil shall be stripped in the first phase construction area and stockpiled in a surface soil stockpile area as depicted on the Erosion Control Plan. Surface soil stockpiles shall have a slope not exceeding 4:1, and shall be stabilized by seeding with a perennial ryegrass mix and mulch. The perennial ryegrass mix shall be applied at a rate of 40 pounds per acre. Mulch shall be applied at the rate of 80 pounds per 1,000 square feet, and shall be spread by hand or with a mulch blower. Silt fence or staked hay bales shall be installed along the down gradient periphery of each surface stockpile location.
6. Excavation for the installation of the water quality forebay and stormwater detention basin shall be effected at the location delineated on the plans. Excavated materials shall be retained for use as fill in fill areas on the project site as delineated on the project plans. The water quality/detention basin shall be excavated and shaped to the contours and at the depths depicted on the project site development plan. Culvert trenches shall be excavated in order to effect the interconnection of the outlet structure within the detention basin to the catch basin system in North Bride Brook Road.

7. Upon completion of the excavation of the culvert trenches, bedding material, not less than 12" shall be installed and compacted in each trench bed.
8. The outlet structure (OCS #100) shall be installed in the northeasterly corner of the detention basin and interconnected to the 15" HDPE outlet culvert which will extend to and interconnect with an existing CB-C (Type II) catch basin in North Bride Brook Road.
9. Upon placement of the outlet culvert, bedding, not less than 12" in thickness shall be installed over the top of the culvert pipe installation and compacted in place. Thereafter, the culvert trenches shall be backfilled with stored surface soil.
10. The filter berm shall be installed separating the water quality forebay from the detention basin in accordance with the detention filter berm detail as depicted on Sheet 7 of 7 of the site development plan.
11. The water quality-detention basin embankments shall be constructed of silty sand and/or clay material.
12. The stormwater quality forebay shall be loamed with not less than 6" of surface soil containing not less than 8% organic content.
13. The stormwater detention basin shall be loamed with not less than 6" of surface soil containing not less than 8% organic content.
14. The water quality forebay and detention basin shall be planted by installing the New England Erosion Control/Restoration Mix or equal. The New England Erosion Control/Restoration Mix contains a selection of native grasses and wild flowers designed to colonize generally moist, recently disturbed sites where quick growth of vegetation is desired to stabilize the soil surface. This mix is particularly appropriate for water quality/detention basins which do not normally hold standing water. The plants in this mix can tolerate infrequent inundation but not constant flooding. The New England Erosion Control/Restoration Mix contains the following species: Switchgrass, Virginia Wild Rye, Creeping Red Fescue, Fox Sedge, Creeping Bent Grass, Silky Wild Rye, Nodding Bur-marigold, Soft Rush, Grass-Leaved Goldenrod, Sensitive Fern, Jo-Pye Weed, Boneset, Flat-Top Aster, New York Aster and Blue Vervain. The seed mix shall be applied at a rate of 1 pound per 1,245 square feet of disturbed area.

Disturbed areas on the water quality/detention basin berm and exterior thereto which are not anticipated to contain the hydrology required to support the New England Erosion Control/Restoration Mix shall be prepared by spreading ground limestone equivalent to 50% calcium plus magnesium oxide applied at a rate of 50 pounds per 1,000 square feet. Fertilizer (10-10-10) is to be applied at a rate of 7.5 pounds per 1,000 square feet. Following the initial application of lime and fertilizer, there are to be no periodic applications of lime and fertilizer. Disturbed areas will be seeded with a seeding mixture of Kentucky Bluegrass applied at a rate of 20 pounds per acre, Creeping Red Fescue applied at a rate of 20 pounds per acre and Perennial Ryegrass applied at a rate of 5



pounds per acre for a total application of 45 pounds per acre. In the event that a hydroseed mix is not utilized, after seeding, the areas seeded shall be stabilized with hay mulch immediately applied at a rate of 70 pounds per 1,000 square feet, and anchored by tracking. Seeding shall only occur between April 15 and June 15 and August 15 to October 1.

15. As areas of the project site are cleared and grubbed, the Applicant shall install, in the downgradient locations delineated on the Erosion Control Plan, temporary sediment traps in accordance with the "Temporary Sediment Trap" detail depicted on Sheet 6 of 7 of the site development plan which shall be sized, in the field, by the Applicant's consulting civil engineer in accordance with the "Temporary Sediment Trap (TST) Sizing" chart as depicted on Sheet 6 of 7 of the site development plan.
16. Upon completion of the installation and stabilization of the water quality/stormwater detention basin, construction shall progress sequentially in the first phase of project development in accordance with the site development plan.
17. All utility installations, including stormwater, the potable water distribution system and sanitary sewer facilities shall be installed in accordance with the design plans utilizing the trenching, compaction and cover requirements as hereinbefore set forth.
18. As the stormwater drainage system is being sequentially completed, the Applicant shall install sediment control devices in each installed catch basin in accordance with the "Inlet Sediment Control Device" detail depicted on Sheet 6 of 7 of the project site development plan.
19. Areas for road and parking construction and building construction in the first phase of the project shall be "boxed-out" and/or excavated, as the case may be, in accordance with the specifications, and at the elevations depicted on the project site development plan.
20. Excavated material derived from site development shall either be utilized as structural fill in fill areas in the first phase of the project or stored in soil stockpiles in the soil stockpile locations as depicted on the Erosion Control Plan. Any stockpiled earth product material shall be stabilized and protected by the installation of erosion control devices in accordance with the requirement hereinbefore set forth in this Construction Sequencing Narrative.
21. Each road location shall be boxed out and trenches excavated for the installation of all utilities, including stormwater drainage.
22. Upon the completion of culverting, not less than 12" of clean bedding material shall be installed in each utility trench.
23. Subsequent to the installation of bedding, utilities, including stormwater drainage pipes, shall be installed as delineated on the utilities plan incorporated into the site development plan.

24. Once utilities have been installed, each utility trench shall be backfilled with clean bedding material compacted to a depth of not less than 12" over each utility installation. Areas to be paved will be prepared by installing a compacted gravel subgrade base, overlaid with 8" of processed gravel (compacted) and thereafter by the installation of 3" of compacted Class 2 bituminous concrete placed in 1.5" lifts in accordance with the Bituminous Pavement detail delineated on Sheet 6 of 7 of the project site development plan. Bituminous concrete curbing shall be installed in accordance with the "Bituminous Concrete Curb (BCLC) Detail" as depicted on Sheet 6 of 7 of the project site development plan.
25. Buildings in the first phase of the project shall be constructed in accordance with the architectural plans for the development of the same.
26. Upon completion of construction in the first phase of the project, disturbed areas shall be stabilized by spreading stockpiled surface soil over these areas at a thickness of not less than 4". Areas to be seeded will be prepared by spreading ground limestone equivalent to 50% calcium plus magnesium oxide applied at a rate of 50 pounds per 1,000 square feet. Fertilizer (10-10-10) is to be applied at a rate of 7.5 pounds per 1,000 square feet. Following the initial application of lime and fertilizer, there are to be no periodic applications of lime and fertilizer.
27. All disturbed areas on slopes greater than 6' in height shall be stabilized by the installation of North American Green S150 or approved equal erosion control blanket installed in accordance with the Erosion Control Blanket Slope Installation Detail as depicted on Sheet 6 of 7 of the site development plan. Other disturbed areas will be seeded with a seeding mix of Kentucky Bluegrass applied at a rate of 20 pounds per acre, Creeping Red Fescue applied at a rate of 20 pounds per acre and perennial Ryegrass applied at a rate of 5 pounds per acre for a total application of 45 pounds per acre. A hydroseed mix utilizing comparable cultivars shall be a suitable substitute. In the event that a hydroseed mix is not utilized, after seeding, the areas seeded shall be stabilized with hay mulch immediately applied at a rate of 70 pounds per 1,000 square feet, and anchored by tracking. Seeding shall only occur between April 15 and June 15 and August 15 to October 1.
28. Once all disturbed areas have been thoroughly stabilized, erosion and sediment control measures shall be removed.
29. As the Applicant nears completion of construction of improvements in the first phase of the North Bride Brook Multi-Family Development, the Applicant shall commence construction of the second phase of the project; and, thereafter, sequentially, each additional phase until completion of the project has been achieved.
30. As each sequential phase of the North Bride Brook Multi-Family Development is constructed, the Applicant shall install, maintain and utilize the erosion control measures and structures depicted on the Erosion Control Plan which shall be installed, administered

and utilized in accordance with the procedures set forth in the General Procedures section of this Narrative and, as applicable, the construction sequencing requirements contained in the Construction Sequencing section of this Narrative.

## **MAINTENANCE REQUIREMENTS**

1. As delineated in the General Procedures section of this Narrative, the Applicant shall, during construction of the project, be responsible for inspecting all erosion control measures installed in the active development phase of the project on a twice weekly basis and after each storm event resulting in the deposition of in excess of 0.10" of precipitation.
2. At any time that sediment reaches one-half the height of the silt fence or the wood chip berm, the sediment shall be removed and utilized as site fill on the Property.
3. Temporary sedimentation traps shall be inspected in accordance with the inspection schedule required pursuant to the General Procedures section of this Narrative. At such time as temporary sedimentation traps are filled to 50% of their capacity, excavation equipment shall be introduced into the temporary sediment traps and all collected sediment shall be excavated and removed from the sedimentation traps to restore the temporary sedimentation traps to their designed capacity. Removed sediment shall be utilized as structural site fill on the project site.
4. Check dams and water bars shall be inspected in accordance with the inspection schedule required pursuant to the requirements of the General Procedures section of this Narrative and cleaned and repaired as necessary in order to insure their functional utility.
5. Inlet sediment control devices shall be inspected weekly and after every storm event resulting in more than 0.10" of precipitation and cleaned as necessary. If any inspection discloses any breach in an inlet sediment control device, the inlet sediment control device shall be replaced immediately.

## **PERMANENT MAINTENANCE SCHEDULE**

1. All parking areas, roadways, sidewalks, driveways and other impervious areas (other than rooftops) shall be swept clean of sand, litter and other possible pollutants twice each year, once between November 14 and December 15 (after leaf fall has concluded) and once during the month of April (after the possibility of further sanding has ended). All material accumulated as a result of the sweeping activities shall be disposed of in accordance with law.
2. The Applicant shall utilize a sand/salt mix of 80/20 for winter roadway, parking lot and sidewalk treatments.

3. All catch basin sumps shall be cleaned at least once per year between the period April 15 and May 30. All material cleaned from catch basin sumps shall be disposed of in accordance with law.
4. A monthly inspection of all stormwater structures installed within the project, including the water quality forebay and the stormwater detention basin, and outfalls, shall be conducted for floating or surface debris. Any floating or surface debris encountered shall be removed and properly disposed of.
5. Except during the grow-in period, the water quality forebay shall be inspected once per year. At such time as accumulated sediments attain a depth of 12", accumulated sediment shall be removed and disposed of in accordance with law. The water quality forebay and detention basin shall be mowed once each year at the conclusion of the growing season.
6. The Applicant shall be responsible for compliance with all of the terms and provisions of this Narrative, including adherence to the maintenance requirements contained in this section hereof.
7. During the first two (2) years subsequent to the completion of the project, the Applicant shall inspect all downgradient discharge areas within the project for channelization subsequent to any storm event resulting in the deposition of in excess of 1" of rainfall. If channelization is occurring, the Applicant shall immediately retain the services of a certified soil and erosion control specialist in order to design remedial measures in order to diffuse the flow causing the channelization and shall forthwith implement the remedial measures designed by the certified soil and erosion control specialist.



## Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete and mail this form in accordance with the instructions on pages 2 and 3 to:

DEEP Land & Water Resources Division, Inland Wetlands Management Program, 79 Elm Street, 3<sup>rd</sup> Floor, Hartford, CT 06106

Incomplete or incomprehensible forms will be mailed back to the inland wetlands agency.

### PART I: Must Be Completed By The Inland Wetlands Agency

1. DATE ACTION WAS TAKEN: year: \_\_\_\_\_ month: \_\_\_\_\_
2. ACTION TAKEN (see instructions, only use one code): \_\_\_\_\_
3. WAS A PUBLIC HEARING HELD (check one)? yes ☐ no ☐
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:  
(print name) \_\_\_\_\_ (signature) \_\_\_\_\_

### PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant

5. TOWN IN WHICH THE ACTION IS OCCURRING (print name): East Lyme  
does this project cross municipal boundaries (check one)? yes ☐ no ☒  
if yes, list the other town(s) in which the action is occurring (print name(s)): \_\_\_\_\_
6. LOCATION (see instructions for information): USGS quad name: Niantic or number: 101  
subregional drainage basin number: Bride Brook 2206
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (print name): Pazz & Construction, LLC
8. NAME & ADDRESS / LOCATION OF PROJECT SITE (print information): North Bride Brook Multi-Family Development,  
90 North Bride Brook Road, East Lyme, CT  
briefly describe the action/project/activity (check and print information): temporary ☐ permanent ☒ description: Construction activities in upland review areas adjacent to wetlands and a watercourse in conjunction with the development of a multi-family affordable housing project.
9. ACTIVITY PURPOSE CODE (see instructions, only use one code): C
10. ACTIVITY TYPE CODE(S) (see instructions for codes): 9, 12, 14
11. WETLAND / WATERCOURSE AREA ALTERED (must provide acres or linear feet):  
wetlands: 0.00 acres open water body: 0.00 acres stream: 0.00 linear feet
12. UPLAND AREA ALTERED (must provide acres): 1.44 acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): 0.00 acres

DATE RECEIVED:

### PART III: To Be Completed By The DEEP

DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO

FORM CORRECTED / COMPLETED: YES NO

Ex "E"

# Town of East Lyme


P.O. DRAWER 519

NIANTIC, CONNECTICUT 06357



Town Engineer  
Victor A. Benni, P.E.

860-691-4112  
FAX 860-739-6930

To: Gary A. Goeschel II, Director of Planning  
From: Victor Benni, P.E., Town Engineer   
Date: December 13, 2019  
Re: North Bride Brook Multi-Family Development  
Wetlands Application Review

Information submitted by the Applicant which was considered in this review:

- (Drawing Set) North Bride Brook Multi-Family Development, Prepared for: Pazz & Construction, LLC, East Lyme, CT, 7-Sheet Drawing Set, Date: 9/25/19, By: Yantic River Consultants, LLC.
- (Wetlands Report) Inland Wetland Soils and Watercourses Investigation, And Delineation, North Bride Brook Multi-Family Development, North Bride Brook Road, East Lyme, CT, Date: October 3, 2019, By: James Sipperly, Certified Soil Scientist.
- Application Narrative, Application of Pazz & Construction, LLC, North Bride Brook Multi-Family Residential Development, North Bride Brook Road, East Lyme, Connecticut, Date: November 22, 2019.
- Stormwater Management Report, North Bride Brook Multi-Family Development, North Bride Brook Road, East Lyme, CT, Prepared for: Pazz & Construction, LLC, Date November 1, 2019, By: Yantic River Consultants, LLC.

This office has reviewed the above referenced information and has the following comments in regard to that portion of the development pertaining to the Wetlands and the 100' Upland Review Area:

1. The Wetland Report indicates that the proposed development in the upland review area will not be disturbing any wetlands and/or watercourses on the site.
2. Bride Brook and the un-named tributary to Bride Brook are both listed with the CT DEEP as being "impaired" water bodies. The construction and long-term operations & maintenance components of the stormwater management system should be strictly adhered to.
3. As indicated in the Wetlands Report, "All of the wetland areas are classified as a forested wetland general classification. Its functions include: groundwater recharge and discharge, sediment stabilization, nutrient removal and transformation, product export, and wildlife diversity." The Application Narrative indicates that the project engineer has provided for roof top runoff from Buildings I, J & M to be discharged to the westerly corner of each building in order to replicate the existing flows which currently reach and contribute to the recharge of the wetland system associated with Bride Brook.
4. Catch basin #'s 313, 315, & 324 shall be equipped with 4' deep sumps and hooded outlets.
5. A landscaping/planting plan should be considered for the developed area between the Limit of Proposed Tree Clearing and the Secondary Access Drive; between the Cul-de-sac and Building M. A proposed treeline and understory should be established up to the edge of the two parking areas and the Secondary Access Drive.

Ex "F"

6. The Erosion & Sedimentation Control Plan (Sheet 5), and the Details (Sheets 6 & 7) are in compliance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control. The Sequence of Construction and E&S Control Narrative notes on Sheet 5 propose that the project will be completed in multiple phases. Inspection and Maintenance notes along with Temporary Sediment Trap sizing and detail have also been included. Provide correction of numbering system for Drawing Set, Sheet Numbers 6 & 7.
7. The Project Narrative calls for all erosion and sediment control measures to be inspected at least twice weekly during construction and following storm events resulting in excess of 0.1" of precipitation. The Wetlands Agency may wish to consider that weekly or monthly reports be submitted to the East Lyme Wetlands Agent during construction; on a weekly or monthly basis.
8. The results of the 5 soil test pits in the vicinity of the water quality-detention basin shall be provided for review to the East Lyme Engineering Department. Construction of the water quality-detention basin requires an approximate 5' cut into existing grades. The CT DEEP 2004 Connecticut Stormwater Quality Manual (11-P3-3) recommends that the bottom of the infiltration facility be located at least 3 feet above the seasonally high water table or bedrock.
9. The CT DOT Drainage Manual (October 2000) recommends that for quantity purposes, dry detention basins shall be designed to be able to pass a 100-year storm safely (Chapter 10.11-2). This is to ensure that the embankment will not be damaged or fail during the passage of the 100-year storm. In addition, the Manual indicates that the crest of the outlet control structure be set be a minimum of 1 foot below the crest of the emergency spillway, that 1 foot of freeboard be provided between the 100-year storm and the top of the embankment elevations, and 4:1 side slope maintenance access. This criteria should be incorporated into the stormwater management, calculations, design plan, and details for the water quality-detention basin.
10. The Stormwater Management Report verifies that the proposed detention pond attenuates peak flow rates and volumes as compared to the pre-development conditions, resulting in a zero-net increase in runoff from the development.
11. An Erosion and Sedimentation bond should be reviewed by the Engineering Department, following the Wetlands Agency's determination as to the addition of the potential planting plan in the upland review area and the decision whether or not to require the submittal of weekly/monthly E&S inspection reports.



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TOWN OF EAST LYME  
INLAND WETLANDS AGENCY  
Notice of Public Hearing

The East Lyme Inland Wetlands Agency will hold a Public Hearing on January 27, 2020, at 7:00 p.m., at the East Lyme Town Hall, 108 Pennsylvania Avenue, Niantic, CT, to consider the following application:

**A. NORTH BRIDE BROOK MULTI-FAMILY DEVELOPMENT:** Application of Pazz & Construction, LLC; Jason Pazzaglia, Applicant; Pazz & Construction, LLC, Owner; to conduct regulated activities in the upland review area in association with a proposed multi-family residential community on property identified in the application as N Bride Brook Rd, East Lyme Assessor's Map 09.0, Lot 37-2

Copies of specific proposals are available for public viewing in the Land Use Office.

Gary Upton, Chairman

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# Town of East Lyme

*Inland Wetlands Agency*

*P.O. Box 519*

*Niantic, Connecticut 06357*

December 19, 2019

Account #D20603

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**Please publish the following notice on January 15, 2020 and January 23, 2020**

TOWN OF EAST LYME  
INLAND WETLANDS AGENCY  
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- A. NORTH BRIDE BROOK MULTI-FAMILY DEVELOPMENT:** Application of Pazz & Construction, LLC; Jason Pazzaglia, Applicant; Pazz & Construction, LLC, Owner; to conduct regulated activities in the upland review area in association with a proposed multi-family residential community on property identified in the application as N Bride Brook Rd, East Lyme Assessor's Map 09.0, Lot 37-2

Copies of specific proposals are available for public viewing in the Land Use Office.

  
Gary Upton, Chairman

# EAST LYME INLAND WETLAND AGENCY

## APPLICATION REVIEW SHEET

Please return comments to Gary Goeschel, Wetlands Enforcement Officer

TITLE OF PLAN:	North Bride Brook Multi-Family Development, Prepared for Pazz & Construction LLC, by Yantic River Consultants, LLC, dated September 25, 2019
DATE RECEIVED:	11/22/2019
DATE DISTRIBUTED:	12/4/2019
REVIEW DEADLINE:	12/13/2019

	Reports	Plans
Victor Benni, Town Engineer	✓	✓
Brad Kargl, Utility Engineer		✓
Ray Hart, Fire Marshal		✓
William Mulholland, Zoning Official		✓

### COMMENTS:

In general, this office finds the conceptual layout for the water & sewer utilities to be acceptable. This office will require detailed design plans, at which time, location of utility structures including hydrants, blowoffs, services and mains will be reviewed and may deviate from that shown on the plans.

REVIEWED BY: B. Kargl DATE: 12/12/19

# EAST LYME INLAND WETLAND AGENCY

## APPLICATION REVIEW SHEET

Please return comments to Gary Goeschel, Wetlands Enforcement Officer

TITLE OF PLAN:	North Bride Brook Multi-Family Development, Prepared for Pazz & Construction LLC, by Yantic River Consultants, LLC, dated September 25, 2019
DATE RECEIVED:	11/22/2019
DATE DISTRIBUTED:	12/4/2019
REVIEW DEADLINE:	12/13/2019

	Reports	Plans
Victor Benni, Town Engineer	✓	✓
Brad Kargl, Utility Engineer		✓
Ray Hart, Fire Marshal		✓
William Mulholland, Zoning Official		✓

### COMMENTS:

application needs a zone change and affordable Housing Development approval by the zoning commission. also needs site plan approval. application will need a storm water management approval as well.

REVIEWED BY: CMM

DATE: 12/4/19

Ex "I"

**HELLER, HELLER & McCOY**  
*Attorneys at Law*  
**736 Norwich-New London Turnpike**  
**Uncasville, Connecticut 06382**

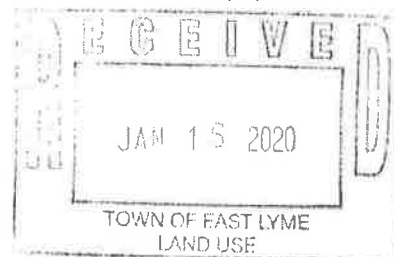
*Sidney F. Heller (1903-1986)*  
*Harry B. Heller*  
*William E. McCoy*

*Telephone: (860)-848-1248*  
*Facsimile: (860)-848-4003*

*Mary Gagne O'Donal*

January 15, 2020

Town of East Lyme Inland Wetlands Agency  
108 Pennsylvania Avenue  
Niantic, CT 06357



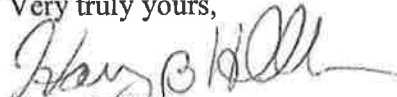
Re: Pazz & Construction, LLC – North Bride Brook Multi-Family Development  
Wetlands Application

Gentleperson:

Enclosed herewith please find copies of notices which were forwarded to owners of properties located within 200 feet of the property for which the above referenced wetlands application has been filed. These notices have been provided to alert all neighboring property owners of the public hearing that has been scheduled for the above referenced application on January 27, 2020 at 7:00 p.m. in accordance with Section 9.2 of the East Lyme Zoning Regulations.

Also enclosed please find the United States Postal Service Certificate of Mailing – Firm form that has been stamped by the United States Postal Service evidencing that the notices were mailed on January 13, 2020, pursuant to the provisions of Section 9.2 of the East Lyme Zoning Regulations.

Very truly yours,


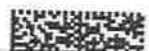
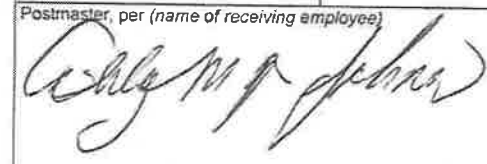
  
Harry B. Heller

HBH/rmb

"Ex J"




# Certificate of Mailing — Firm

Name and Address of Sender Heller, Heller & McCoy 736 Norwich-New London Turnpike Uncasville, Connecticut 06382		TOTAL NO. of Pieces Listed by Sender  <b>8</b>	TOTAL NO. of Pieces Received at Post Office™  <b>8</b>	Affix Stamp Here Postmark with Date of Receipt  \$3.28 0 US POSTAGE FIRST-CLASS 062S0010046047 06382  B7125602		
		Postmaster, per (name of receiving employee) 				
USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift	
1.	Ms. Geraldine J. Dzwilewski 90 North Bride Brook Road East Lyme, CT 06333	.55	.41			
2.	Ms. Margaret Berry Balon 86 North Bride Brook Road Niantic, CT 06357	.55	.41			
3.	State of Connecticut NCI & JB Gates Prison 199 West Main Street Niantic, CT 06357	.55	.41			
	Ms. Alice T. Welsh 102 North Bride Brook Road Niantic, CT 06357	.55	.41			
5.	Ms. Alice T. Welsh 102 North Bride Brook Road Niantic, CT 06357	.55	.41			
6.	Mr. William C. Brown P.O. Box 863 Niantic, CT 06357	.55	.41			



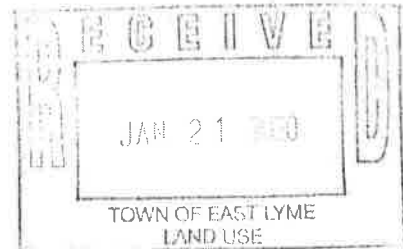
# Certificate of Mailing — Firm

Name and Address of Sender  Heller, Heller & McCoy 736 Norwich-New London Turnpike Uncasville, Connecticut 06382	TOTAL NO. of Pieces Listed by Sender  <b>8</b>	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here <i>Postmark with Date of Receipt.</i>  
	Postmaster, per (name of receiving employee)		

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
7.	State of Connecticut Department of Environmental Protection 79 Elm Street Hartford, CT 06106	.55	.41		
8.	Pazz & Construction, LLC Attn: Mr. Jason Pazzaglia 21 Darrows Ridge Road East Lyme, CT 06333	.55	.41		
<div></div>					



NORTH BRIDE BROOK MULTI-FAMILY DEVELOPMENT  
EAST LYME, CONNECTICUT



**COMMENT RESPONSE SUMMARY**

**FROM:** Victor Benni, P.E., Town Engineer

**DATE:** December 13, 2019

**RE:** North Bride Brook Multi-Family Development, Wetlands Application Review

1. The Wetland Report indicates that the proposed development in the upland review area will not be disturbing any wetlands and/or watercourses on the site.

**Response. Confirmed.**

2. Bride Brook and the un-named tributary to Bride brook are both listed with the CT DEEP as being "impaired" waterbodies. The construction and long-term operations & maintenance components of the stormwater management system should be strictly adhered to.

**Response. Noted and agree.**

3. As indicated in the Wetlands Report, "All of the wetland areas are classified as a forested wetland general classification. Its functions include: groundwater recharge and discharge, sediment stabilization, nutrient removal and transformation, product export, and wildlife diversity." The Application Narrative indicates that the project engineer has provided for roof top runoff from Buildings I, J, & M to be discharged to the westerly corner of each building in order to replicate the existing flows which currently reach and contribute to the recharge of the wetland system associated with Bride Brook.

**Response. Confirmed.**

4. Catch basin #'s 313, 315, & 324 shall be equipped with 4' deep sumps and hooded outlets.

**Response. Per our conversation, the overall collection network was evaluated to determine which basins warrant deeper sumps and trap hoods. Catch basins #302, 313, 319 and 324 are the final open-top structures of each intermediate pipe run. These basins were selected as the appropriate structures for 4' sumps and labeled accordingly. All other catch basins will have a 2' deep sump. Drainage note 3B was also added to Sheet 3 for clarity.**

5. A landscaping/planting plan should be considered for the developed area between the Limit of Proposed Tree Clearing and the Secondary Access Drive; between the Cul-de-sac and Building M. A proposed tree line and understory should be established up to the edge of the two parking areas and the Secondary Access Drive.

**Response. Proposed landscaping within the 100' Upland Review Area was added to Sheet 2 along the westerly clearing limit parallel with the inland wetlands. The proposed landscaping consists of seeding the bordering upland areas with New England Wetland Plants 'Conservation/wildlife mix'. Once properly established, this seed mix creates a native vegetated buffer that requires no fertilization and minimal maintenance or mowing.**

6. The Erosion & Sediment Control Plan (Sheet 5), and the Details (Sheets 6 & 7) are in compliance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control. The Sequence of Construction and E&S Control Narrative notes on Sheet 5 proposed that the

ENGINEERING RESPONSE 1

Ex. "K"



project will be completed in multiple phases. Inspection and Maintenance notes along with the Temporary Sediment Trap sizing and detail have also been included. Provide correction of numbering system for Drawing Set, Sheet Numbers 6 & 7.

**Response. The Sheet Numbers have been corrected as requested.**

7. The Project Narrative calls for all erosion and sediment control measures to be inspected at least twice weekly during construction and following storm events resulting in excess of 0.1" of precipitation. The Wetlands Agency may wish to consider that weekly or monthly reports be submitted to the East Lyme Wetlands Agent during construction; on a weekly or monthly basis.

**Response. The project will be registered with the CT DEEP. This registration will include the preparation and implementation of a Stormwater Pollution Control Plan, which includes a requirement for routine inspections and reports. The weekly reports will be transmitted to the Town Wetland Enforcement Officer on a monthly basis.**

8. The results of the 5 soil test pits in the vicinity of the water quality-detention basin shall be provided for review to the East Lyme Engineering Department. Construction of the water-quality-detention basin requires an approximate 5' cut into existing grades. The CT DEEP 2004 Connecticut Stormwater Quality Manual (11-P3-3) recommends that the bottom of the infiltration facility be located at least 3 feet above seasonally high-water table or bedrock.

**Response. The results of the soil testing have been added to Sheet 3 of the revised plan set. The first round of testing performed on 7/25/19 consisted of test pits excavated to a depth of 7'-8' below existing grade. Groundwater or ledge was not witnessed. Soils below the water quality-detention basin consisted of fine sandy loam (trace silt) over medium to coarse sands and gravels. Falling head permeability tests were conducted on the sands & gravels with an average calculated permeability of 55 to 85 ft/day. The calculated values exceed the NRCS published rate of 25 ft/day for the Haven silt loam soils.**

**On 1/14/20, 2 additional pits were excavated to a depth of 9'-10'. Groundwater was witnessed at a depth of 114" in TP7, which is 4.5' below the bottom of basin. Standpipes were installed to allow for monitoring.**

**Given the depth to witnessed groundwater, it is our opinion that sufficient separation has been provided between the bottom of basin and seasonally high groundwater. In addition, to minimize the potential for long-term standing water, a granular filter material and moist site conservation seed mix has been specified for the basin bottom to promote infiltration.**

9. The CT DOT Drainage Manual (October 2000) recommends that for quantity purposes, dry detention basins shall be designed to be able to pass a 100-year storm safely (Chapter 10.11-2). This is to ensure that the embankment will not be damaged or fail during the passage of the 100-year storm. In addition, the Manual indicates that the crest of the outlet control structure be set to a minimum of 1 foot below the crest of the emergence spillway, that 1 foot of freeboard be provided between the 100-year storm and the top of the embankment elevations, and 4:1 side slope maintenance access. This criteria should be incorporated into the stormwater management, calculations, design plans, and details for the water quality-detention basin.





**Response.** A berm will be constructed along the southern and eastern perimeter of the basin to provide a minimum of 1' of freeboard. In addition, a riprap emergency spillway has been added to divert overflow from storms in excess of 100-year towards a secondary overflow catch basin.

10. The stormwater management report verifies that the proposed detention pond attenuates peak flow rates and volumes as compared to the pre-development conditions, resulting in a zero-net increase in runoff from the development.

**Response.** Confirmed.

11. An Erosion and Sedimentation bond should be reviewed by the Engineering Department, following the Wetland Agency's determination as to the addition of the potential planting plan in the upland review area and the decision whether or not to require a submittal of weekly/monthly E&S inspection reports.

**Response.** A bond estimate spreadsheet is included for erosion and sedimentation controls and restoration activities to be performed within the 100' upland review area.



WESTLEDGE APARTMENT COMMUNITY  
2 WESTLEDGE DRIVE  
BOND ESTIMATE

**BOND QUANTITIES FORM**

Project Name: NORTH BRIDE BROOK MULTI-FAMILY DEV.  
Address: NORTH BRIDGE BROOK ROAD, EAST LYME, CT  
Bond Amount: \$28,000.00  
Project No.: 00057-00001  
Bond Type: E&S CONTROL - IWA ONLY

Owner/Developer: PAZZ & CONSTRUCTION, LLC  
Address: 21 DARROWS RIDGE ROAD  
EAST LYME, CT 06333  
Phone #: (860) 961-2364

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	ITEM AMOUNT
1	Clearing and Grubbing	1.30	ACRE	\$2,000.00	\$2,600.00
2	Anti-Tracking Pad	1.00	EA	\$1,500.00	\$1,500.00
3	Sedimentation Control System	1,000.00	LF	\$5.00	\$5,000.00
4	Sedimentation Control at Catch Basin	4.00	EA	\$100.00	\$400.00
5	Erosion Control Blanket	3,000.00	SF	\$1.50	\$4,500.00
6	Riprap Splash Pad @ Roof Leaders	10.00	EA	\$200.00	\$2,000.00
7	Restoration of Lawn Areas	2,000.00	SY	\$3.00	\$6,000.00
8	Wildlife/Conservation Areas	1,500.00	SY	\$4.00	\$6,000.00
SUBTOTAL					\$28,000.00



# Town of East Lyme


P.O. DRAWER 519

NIANTIC, CONNECTICUT 06357



Town Engineer  
Victor A. Benni, P.E.

860-691-4112  
FAX 860-739-6930

To: Gary A. Goeschel II, Director of Planning  
From: Victor Benni, P.E., Town Engineer   
Date: January 27, 2020  
Re: North Bride Brook Multi-Family Development  
Wetlands Application Review

Information submitted by the Applicant which was considered in this review:

- (Drawing Set) North Bride Brook Multi-Family Development, Prepared for: Pazz & Construction, LLC, East Lyme, CT, 7-Sheet Drawing Set, Date: 9/25/19, Revised: 01/15/20, By: Yantic River Consultants, LLC.
- (Wetlands Report) Inland Wetland Soils and Watercourses Investigation, And Delineation, North Bride Brook Multi-Family Development, North Bride Brook Road, East Lyme, CT, Date: October 3, 2019, By: James Sipperly, Certified Soil Scientist.
- Application Narrative, Application of Pazz & Construction, LLC, North Bride Brook Multi-Family Residential Development, North Bride Brook Road, East Lyme, Connecticut, Date: November 22, 2019.
- Stormwater Management Report, North Bride Brook Multi-Family Development, North Bride Brook Road, East Lyme, CT, Prepared for: Pazz & Construction, LLC, Date November 1, 2019, By: Yantic River Consultants, LLC.
- Bond Quantities Form, North Bridebrook Multi-Family Dev., E&S Control – IWA Only, Received by Land Use Department: 01/21/20.

This office has reviewed the above referenced information and has the following comments in regard to that portion of the development pertaining to the Wetlands and the 100' Upland Review Area:

1. The Wetland Report indicates that the proposed development in the upland review area will not be disturbing any wetlands and/or watercourses on the site.
2. Bride Brook and the un-named tributary to Bride Brook are both listed with the CT DEEP as being "impaired" water bodies. The construction and long-term operations & maintenance components of the stormwater management system should be strictly adhered to.
3. As indicated in the Wetlands Report, "All of the wetland areas are classified as a forested wetland general classification. Its functions include: groundwater recharge and discharge, sediment stabilization, nutrient removal and transformation, product export, and wildlife diversity." The Application Narrative providing for roof top runoff from Buildings I, J & M to be discharged to the westerly corner of each building should be adhered to in order to replicate the existing flows which currently reach and contribute to the recharge of the wetland system associated with Bride Brook.

Ex "L"

4. The Erosion & Sedimentation Control Plan (Sheet 5) and the Details (Sheets 6 & 7) provide compliance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control. The Sequence of Construction and E&S Control Narrative notes (Sheet 5) propose that the project will be completed in multiple phases; Inspection and Maintenance notes along with Temporary Sediment Trap sizing and detail have also been included.
5. The Project Narrative calls for all erosion & sediment control measures to be inspected at least twice weekly during construction and following storm events resulting in excess of 0.1" of precipitation. The Wetlands Agency may wish to consider that the weekly reports required by the CT DEEP Stormwater Pollution Control Plan be submitted to the East Lyme Wetlands Agent.
6. The Stormwater Management Report verifies that the proposed detention pond attenuates peak flow rates and volumes as compared to the pre-development conditions, resulting in a zero-net increase in runoff from the development.
7. The East Lyme Engineering Department recommends that the Wetlands Agency consider an Erosion & Sedimentation (E&S) bond in the amount of \$30,000 for the installation & maintenance of the E&S control measures.





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1. **THE COMPANY'S POLICY** is to ensure that all employees are aware of the company's policy on health and safety.

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**CONTACT INFORMATION**  
 44422 Avenue Charles, 1st Floor, 410  
 771 University Avenue  
 Pittsburgh, PA 15260  
 Phone: 412-624-1234  
 Fax: 412-624-1235  
 www.412.org, www.412.org/412

**NORTH BRIDGE BROOK  
MULTI-FAMILY DEVELOPMENT  
OFFSHOOTING  
PAZ & ASSOCIATES, LLC  
GRADING & DRAINAGE PLAN**

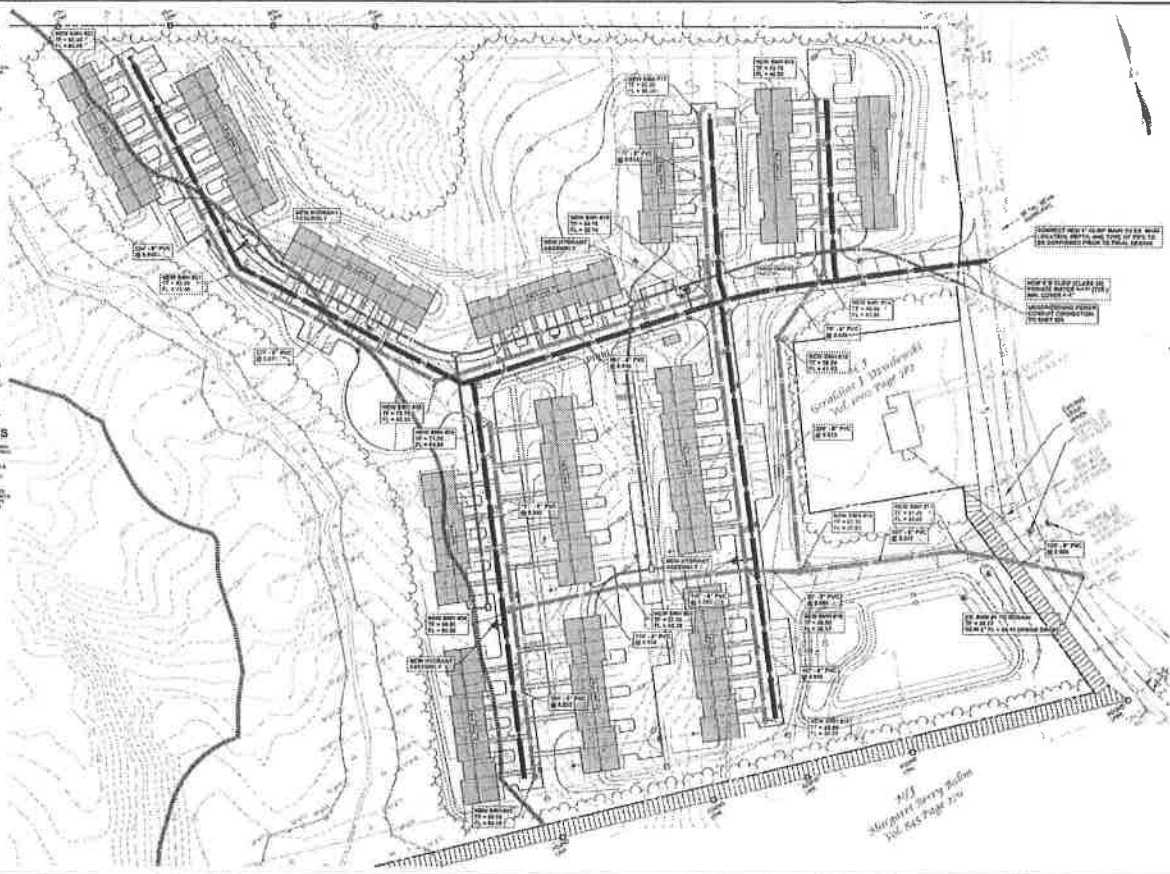
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姓名	王 明 华
性别	男
出生年月	1980.10.10
身份证号	320624198010101010

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1. **1.1** (1) **Section 44**; (2) **Paragraphs 1 to 4**; (3) **Section 45**; (4) **Section 46**; (5) **Section 47**; (6) **Section 48**; (7) **Section 49**; (8) **Section 50**; (9) **Section 51**; (10) **Section 52**; (11) **Section 53**; (12) **Section 54**; (13) **Section 55**; (14) **Section 56**; (15) **Section 57**; (16) **Section 58**; (17) **Section 59**; (18) **Section 60**; (19) **Section 61**; (20) **Section 62**; (21) **Section 63**; (22) **Section 64**; (23) **Section 65**; (24) **Section 66**; (25) **Section 67**; (26) **Section 68**; (27) **Section 69**; (28) **Section 70**; (29) **Section 71**; (30) **Section 72**; (31) **Section 73**; (32) **Section 74**; (33) **Section 75**; (34) **Section 76**; (35) **Section 77**; (36) **Section 78**; (37) **Section 79**; (38) **Section 80**; (39) **Section 81**; (40) **Section 82**; (41) **Section 83**; (42) **Section 84**; (43) **Section 85**; (44) **Section 86**; (45) **Section 87**; (46) **Section 88**; (47) **Section 89**; (48) **Section 90**; 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(227) **Section 269**; (228) **Section 270**; (229) **Section 271**; (230) **Section 272**; (231) **Section 273**; (232) **Section 274**; (233) **Section 275**; (234) **Section 276**; (235) **Section 277**; (236) **Section 278**; (237) **Section 279**; (238) **Section 280**; (239) **Section 281**; (240) **Section 282**; (241) **Section 283**; (242) **Section 284**; (243) **Section 285**; (244) **Section 286**; (245) **Section 287**; (246) **Section 288**; (247) **Section 289**; (248) **Section 290**; (249) **Section 291**; (250) **Section 292**; (251) **Section 293**; (252) **Section 294**; (253) **Section 295**; (254) **Section 296**; (255) **Section 297**; (256) **Section 298**; (257) **Section 299**; (258) **Section 300**; (259) **Section 301**; (260) **Section 302**; (261) **Section 303**; (262) **Section 304**; (263) **Section 305**; (264) **Section 306**; (265) **Section 307**; (

4. *As a result of the above, the following is recommended:* (a) The Board of Directors of the Company should be advised that the Company's current financial position is such that it is not in a position to pay dividends to its shareholders.
5. *A resolution of the Board of Directors of the Company is recommended that the Company should be advised that the Company's current financial position is such that it is not in a position to pay dividends to its shareholders.*
6. *A resolution of the Board of Directors of the Company is recommended that the Company should be advised that the Company's current financial position is such that it is not in a position to pay dividends to its shareholders.*
7. *A resolution of the Board of Directors of the Company is recommended that the Company should be advised that the Company's current financial position is such that it is not in a position to pay dividends to its shareholders.*

[illegible]

**CONTACT INFORMATION**  
YANG C. POENAR, CONSULTANT II  
181 NORMAN AVENUE  
LYNNBACH, UTAH 84043  
Phone: 435.337.1144  
Email: poenar@lynnbach.com  
Web: www.lynnbach.com

**NORTH HEDGE BROOK  
MULTI-FAMILY DEVELOPMENT**  
REPAIRED PWS  
PART 6 CONSTRUCTION I.I.C.  
**UTILITY PLAN**

姓名: 王明 性别: 男 出生年月: 1985.10.10 身份证号: 310101198510101010 联系电话: 13800138000 电子邮箱: wangming@163.com	姓名: 李华 性别: 女 出生年月: 1990.05.20 身份证号: 310101199005201010 联系电话: 13900139000 电子邮箱: lihua@163.com
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1. The following information is available for the year ended 31 December 2010:

1. *Journal of the American Medical Association*, 1994; 271: 1011-1012.

- [illegible]

[illegible][illegible]

© 2000 Blackwell Science Ltd, *Journal of Internal Medicine* 247: 391–397

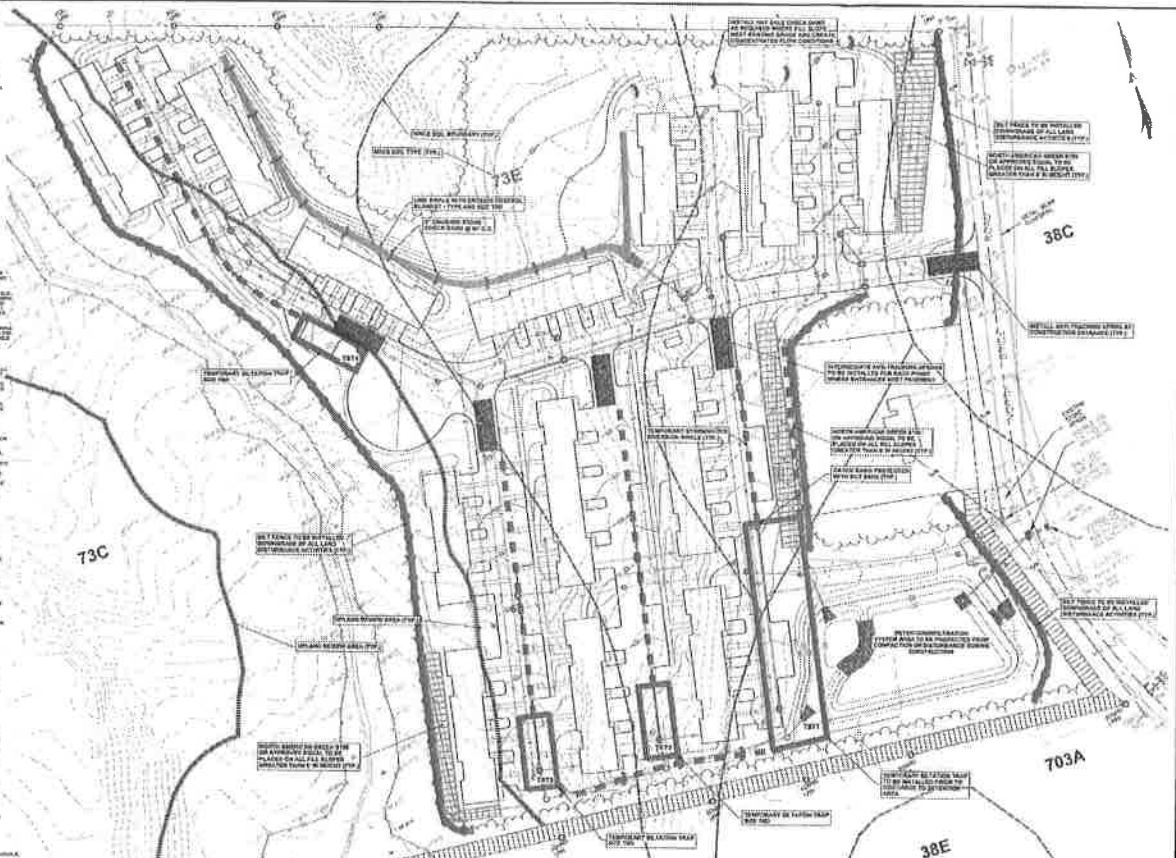
10. J. A. J. van Halbeek, H. J. M. de Groot, and J. A. M. Smit, *Journal of Polymer Science: Part A: Polymer Chemistry*, **34**, 1031 (1996).
11. J. A. J. van Halbeek, H. J. M. de Groot, and J. A. M. Smit, *Journal of Polymer Science: Part A: Polymer Chemistry*, **34**, 1039 (1996).
12. J. A. J. van Halbeek, H. J. M. de Groot, and J. A. M. Smit, *Journal of Polymer Science: Part A: Polymer Chemistry*, **34**, 1047 (1996).
13. J. A. J. van Halbeek, H. J. M. de Groot, and J. A. M. Smit, *Journal of Polymer Science: Part A: Polymer Chemistry*, **34**, 1055 (1996).
14. J. A. J. van Halbeek, H. J. M. de Groot, and J. A. M. Smit, *Journal of Polymer Science: Part A: Polymer Chemistry*, **34**, 1063 (1996).
15. J. A. J. van Halbeek, H. J. M. de Groot, and J. A. M. Smit, *Journal of Polymer Science: Part A: Polymer Chemistry*, **34**, 1071 (1996).
16. J. A. J. van Halbeek, H. J. M. de Groot, and J. A. M. Smit, *Journal of Polymer Science: Part A: Polymer Chemistry*, **34**, 1079 (1996).
17. J. A. J. van Halbeek, H. J. M. de Groot, and J. A. M. Smit, *Journal of Polymer Science: Part A: Polymer Chemistry*, **34**, 1087 (1996).
18. J. A. J. van Halbeek, H. J. M. de Groot, and J. A. M. Smit, *Journal of Polymer Science: Part A: Polymer Chemistry*, **34**, 1095 (1996).
19. J. A. J. van Halbeek, H. J. M. de Groot, and J. A. M. Smit, *Journal of Polymer Science: Part A: Polymer Chemistry*, **34**, 1103 (1996).
20. J. A. J. van Halbeek, H. J. M. de Groot, and J. A. M. Smit, *Journal of Polymer Science: Part A: Polymer Chemistry*, **34**, 1111 (1996).

6. *Streptococcus* sp. isolated in the 1940s from a patient with meningitis.

- [illegible]

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3. **PROBABILITY** and **STATISTICS** are the two main branches of **Mathematics** that are used in **Science** and **Engineering**. They are used to analyze data and make predictions.
4. **PROBABILITY** is the study of the likelihood of an event occurring. It is used to predict the outcome of an event.
5. **STATISTICS** is the study of data. It is used to analyze data and make predictions.
6. **PROBABILITY** and **STATISTICS** are used in many fields, including **Science**, **Engineering**, **Business**, and **Medicine**.
7. **PROBABILITY** and **STATISTICS** are used to analyze data and make predictions.
8. **PROBABILITY** and **STATISTICS** are used to analyze data and make predictions.
9. **PROBABILITY** and **STATISTICS** are used to analyze data and make predictions.
10. **PROBABILITY** and **STATISTICS** are used to analyze data and make predictions.



**CONTACT INFORMATION**  
 YOUNG BAKER CORP., TAMU, LL C  
 164 MCKINCH AVENUE  
 LUBBOCK, TEXAS 79408  
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 Web: [www.youngbak.com](http://www.youngbak.com)

NORTH BRIDGE BRIDGE  
MULTI-FAMILY DEVELOPMENT  
PREPARED FOR  
PAGE & COMPANY, INC.  
CROSSING & SEDIMENTATION CONTROL PLAN

[illegible]





# UTILITY STATEMENT

THESE UTILITIES ARE BASED ON THE INFORMATION PROVIDED BY THE CLIENT AND THE FIELD SURVEY. THE ENGINEER HAS CONDUCTED A VISUAL INSPECTION OF THE EXISTING UTILITIES AND HAS FOUND NO EVIDENCE OF ANY OTHER UTILITIES. THE ENGINEER HAS NOT CONDUCTED ANY OTHER INVESTIGATIONS AND HAS NOT BEEN ADVISED OF ANY OTHER UTILITIES. THE ENGINEER HAS NOT BEEN ADVISED OF ANY OTHER UTILITIES. THE ENGINEER HAS NOT BEEN ADVISED OF ANY OTHER UTILITIES.

## GENERAL GRADING NOTES

1. ALL ELEVATIONS ARE IN FEET UNLESS OTHERWISE NOTED. ELEVATIONS ARE BASED ON THE DATUM OF MEANS SEA LEVEL.
2. THE EXISTING GRADE IS SHOWN BY THE DOTTED LINES. THE PROPOSED GRADE IS SHOWN BY THE SOLID LINES.
3. THE PROPOSED GRADE IS TO BE MAINTAINED AT ALL TIMES. THE PROPOSED GRADE IS TO BE MAINTAINED AT ALL TIMES.
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## DRAINAGE

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## STORMWATER O & M NOTES

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<p>SCALE: 1" = 40'</p> <p>PROJECT NUMBER: 00057-00001</p> <p><b>YRC</b> YORK REGIONAL CONSULTANTS</p>	<p><b>CONTACT INFORMATION</b></p> <p>YORK REGIONAL CONSULTANTS 100 HUNTERS AVENUE LEWISTON, ME 04240</p> <p>PHONE: (207) 533-1111 FAX: (207) 533-1112 WWW: www.yrc.com</p>	<p><b>NORTH BRIDE BROOK MULTI-FAMILY DEVELOPMENT</b></p> <p>PREPARED FOR: PAZZA CONSTRUCTION, LLC</p> <p><b>GRADING &amp; DRAINAGE PLAN</b></p> <p>DATE: 06/11/2013 BY: JAMES J. YOUNG</p>	<p><b>REVISION HISTORY</b></p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>06/11/2013</td> <td>ISSUED FOR PERMIT</td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION	1	06/11/2013	ISSUED FOR PERMIT
NO.	DATE	DESCRIPTION							
1	06/11/2013	ISSUED FOR PERMIT							

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1. 下列各句，没有语病的一项是（3分）  
A. 随着“一带一路”的深入推进，沿线国家间贸易往来日益频繁，经济合作日益密切。  
B. 通过这次活动，使我们增长了见识，开阔了眼界。  
C. 为了防止此类事件不再发生，学校加强了校园安全管理。  
D. 他不仅在学习上刻苦努力，而且在体育方面也有很强的天赋。
2. 下列各句，标点符号使用正确的一项是（3分）  
A. 他问：“你叫什么名字？”  
B. 他问：“你叫什么名字？”  
C. 他问：“你叫什么名字？”  
D. 他问：“你叫什么名字？”
3. 下列各句，修辞手法使用恰当的一项是（3分）  
A. 他的脸色像纸一样白。  
B. 他的脸色像纸一样白。  
C. 他的脸色像纸一样白。  
D. 他的脸色像纸一样白。
4. 下列各句，句式变换正确的一项是（3分）  
A. 原句：他昨天去了北京。变换：北京是他昨天去的地方。  
B. 原句：他昨天去了北京。变换：北京是他昨天去的地方。  
C. 原句：他昨天去了北京。变换：北京是他昨天去的地方。  
D. 原句：他昨天去了北京。变换：北京是他昨天去的地方。

## ELECTRIC & TELECOMMUNICATIONS



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YANTIC RIVER CUNILLO™ANTS LLC  
191 NORFOLK AVENUE  
LEBANON, CONN 06240  
Tel: 860.339.9999  
Fax: 860.339.9999  
Web: [www.yanticrivercunillobl.com](http://www.yanticrivercunillobl.com)

**NORTH HAVEN BROOK  
MULTI-FAMILY DEVELOPMENT**

PREPARED FOR  
# AAZK & CONSULTING ENGINEERS, LLC.

**UTILITY PLAN**

[illegible]

# GENERAL CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL NECESSARY PERMITS FOR THE WORK TO BE PERFORMED.

## SEQUENCE OF CONSTRUCTION:

1. EXISTING UTILITIES SHALL BE LOCATED AND DEPTH VERIFIED PRIOR TO ANY CONSTRUCTION.
2. ALL EXISTING UTILITIES SHALL BE PROTECTED AND DEPTH VERIFIED PRIOR TO ANY CONSTRUCTION.
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10. ALL EXISTING UTILITIES SHALL BE PROTECTED AND DEPTH VERIFIED PRIOR TO ANY CONSTRUCTION.

## E & S CONTROL NARRATIVE:

The purpose of this narrative is to provide a detailed description of the proposed construction project and the associated environmental and safety risks. The project involves the construction of a new building and the associated infrastructure. The risks associated with this project include the potential for soil erosion, sedimentation, and the release of pollutants into the surrounding environment. The following measures are proposed to mitigate these risks and ensure the safety of the construction process.

## E & S CONTROL PLAN:

1. ALL EXISTING UTILITIES SHALL BE LOCATED AND DEPTH VERIFIED PRIOR TO ANY CONSTRUCTION.
2. ALL EXISTING UTILITIES SHALL BE PROTECTED AND DEPTH VERIFIED PRIOR TO ANY CONSTRUCTION.
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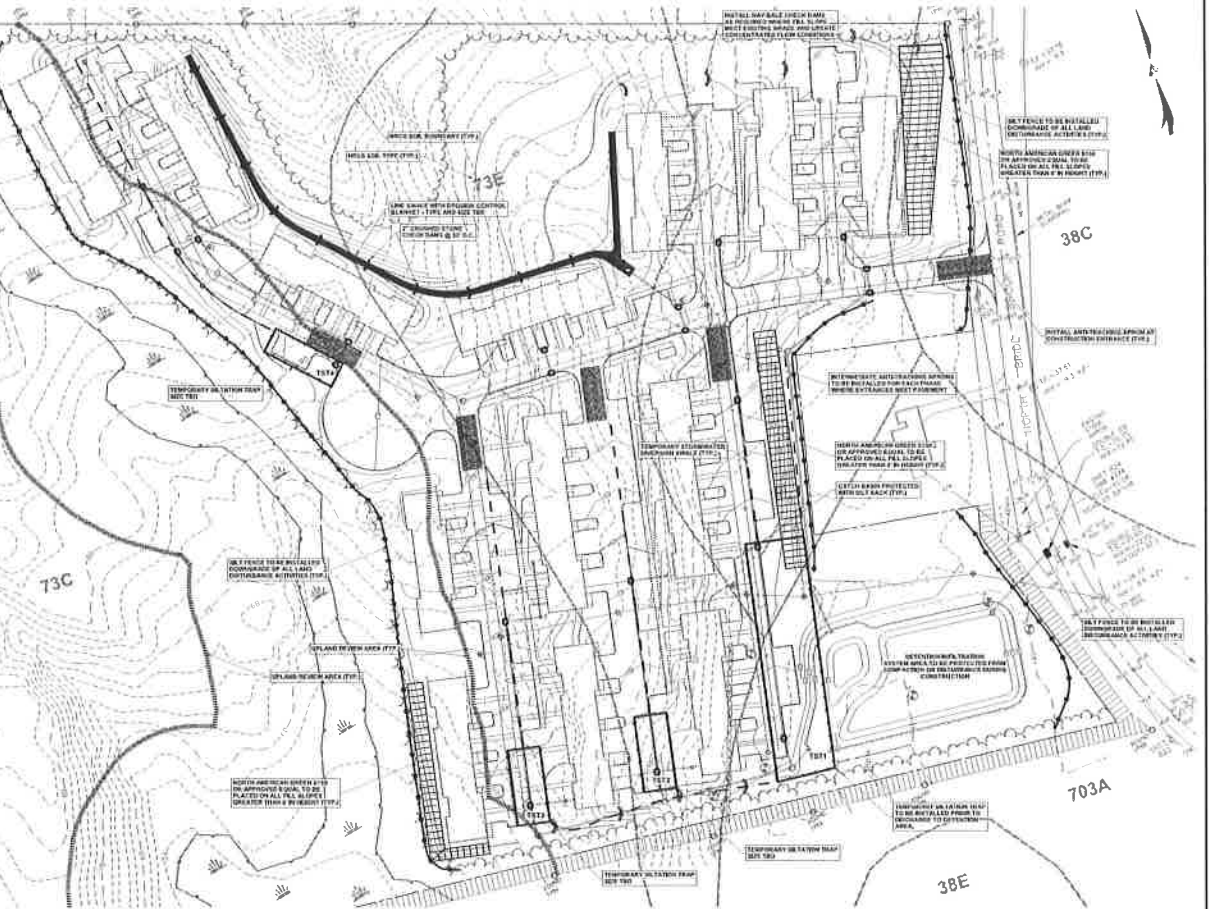
## INSPECTION AND MAINTENANCE:

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2. ALL EXISTING UTILITIES SHALL BE PROTECTED AND DEPTH VERIFIED PRIOR TO ANY CONSTRUCTION.
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SCALE: 1" = 40'

PROJECT NUMBER: 0000000000

YRC



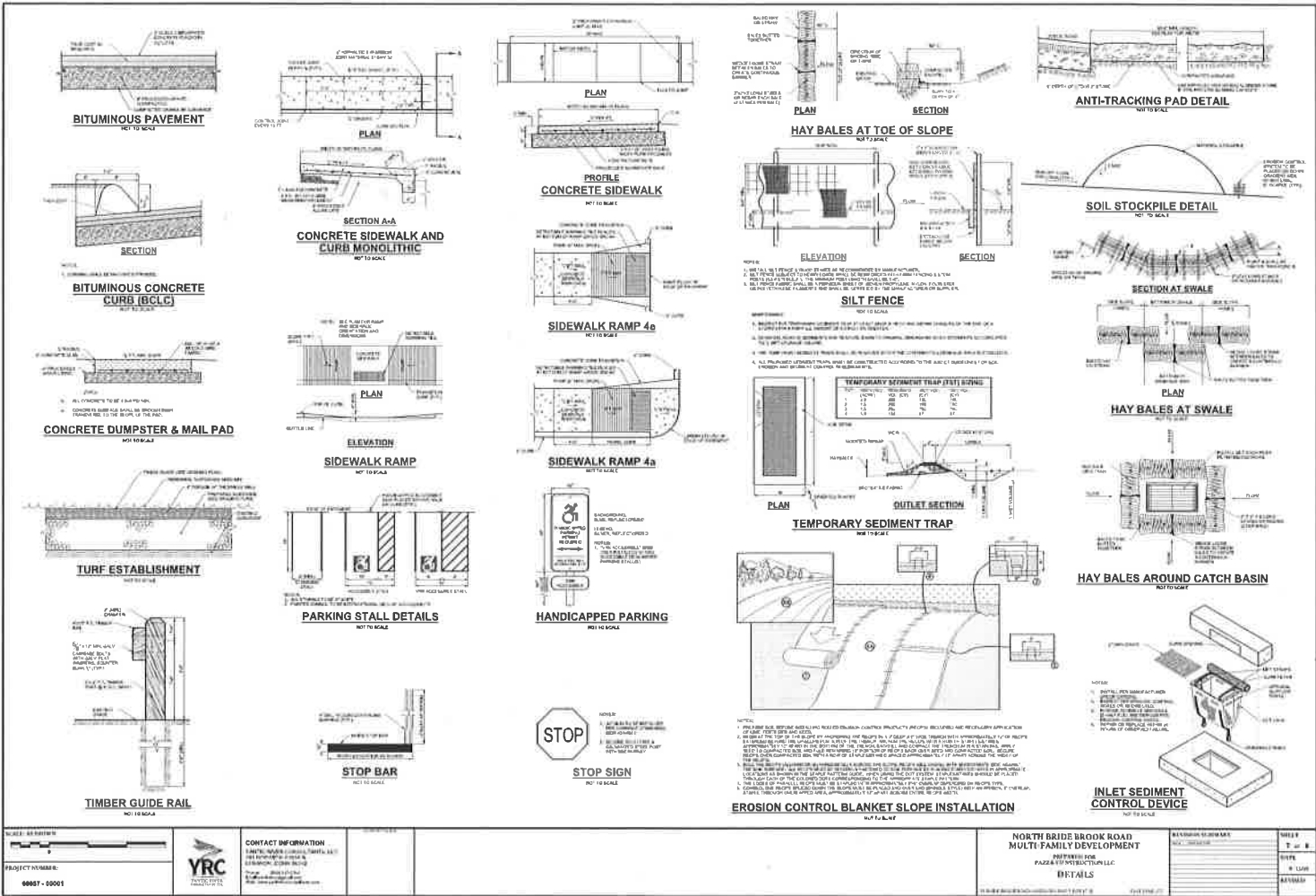
CONTACT INFORMATION: YARC WASH CONSULTANTS, LLC, 10 WOODS AVENUE, LESANDY, CORN. BLVD.

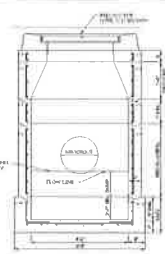
PREPARED FOR: PACE & CONSTRUCTION, LLC

EROSION & SEDIMENTATION CONTROL PLAN

REVISIONS: 1. 0000000000, 2. 0000000000, 3. 0000000000, 4. 0000000000, 5. 0000000000, 6. 0000000000, 7. 0000000000, 8. 0000000000, 9. 0000000000, 10. 0000000000



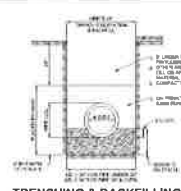




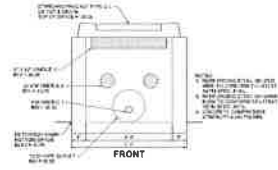
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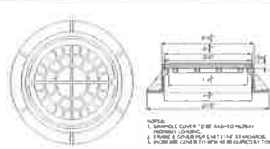
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NOT TO SCALE



**TRENCHING & BACKFILLING**  
NOT TO SCALE



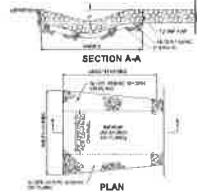
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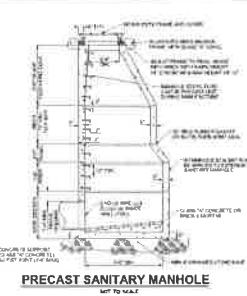
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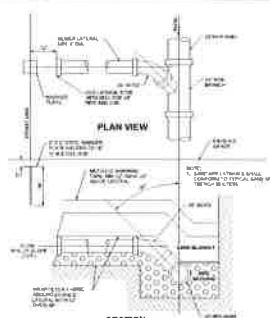
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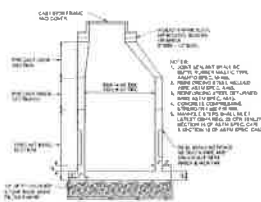
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**PRECAST SANITARY MANHOLE**  
NOT TO SCALE



**SECTION LATERAL CONNECTION**  
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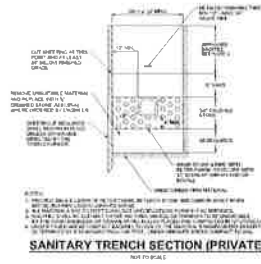


**PRECAST STORM DRAIN MANHOLE**  
NOT TO SCALE



**DETENTION BASIN BERM**  
NOT TO SCALE

**DETENTION FILTER BERM**  
NOT TO SCALE



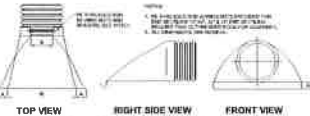
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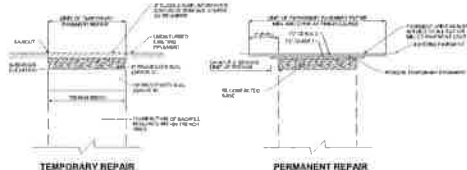
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**YARD DRAIN**  
NOT TO SCALE



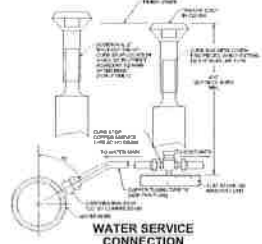
**FLARED END DETAIL**  
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**TEMPORARY REPAIR**  
NOT TO SCALE

**PERMANENT REPAIR**  
NOT TO SCALE

**PAVEMENT RESTORATION OVER TRENCH**  
NOT TO SCALE



**WATER SERVICE CONNECTION**  
NOT TO SCALE



# Town of

**P.O. Drawer 519**

**Department of Planning &  
Inland Wetlands Agency**

*Gary A. Goeschel II, Director of Planning /  
Inland Wetlands Agent*



# East Lyme

108 Pennsylvania Ave

Niantic, Connecticut 06357

Phone: (860) 691-4114

Fax: (860) 860-691-0351

## MEMORANDUM

**To: East Lyme Inland Wetlands Agency**

**From: Gary A. Goeschel II, Director of Planning/ Inland Wetlands Agent**

**Date: May 18, 2020**

**RE: Inland Wetlands Application – Application of Glenn Knowles, Applicant/Owner,** for the proposed construction of a patio, correction of water runoff and wetlands restoration at property identified as 21 Brightwater Road, Niantic, East Lyme Assessor's Map 5.L9, lot 58.

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In regards to the above referenced application, the East Lyme Inland Wetlands Agency at a meeting held on Monday, February 24, 2020, at the East Lyme Town Hall, 108 Pennsylvania Avenue, Niantic, Connecticut, directed me to prepare a draft motion for the above referenced application for discussion and a resolution at their next regularly scheduled meeting which was to be held on March 9, 2020. Unfortunately, due to extenuating circumstance the Agency canceled the meeting and set a Special Meeting to discuss the items that were initially scheduled for the March 9, 2020 Meeting. Subsequently, the Town of East Lyme was forced to close its doors to the public as a result of the COVID-19 Pandemic. As a result, the Inland Wetlands Agency has been unable to meet in a public forum to render a final decision on your application. As such, upon discussing the matter with the Inland Wetlands Agency Chairman, Gary Upton, the Vice Chair, Kristen Chantrell, and First Selectman, Mark Nickerson, it was agreed that I, as Agent for the Commission, would approve the proposed work within the upland review area as it will still be consistent with State Statutes and the East Lyme Inland Wetland and Watercourses Regulations. Upon the opening of the Town Hall to the public or the establishment of virtual meetings pursuant to the criteria provided in the Governor's Executive Orders, the Agency will then be able to act on the portion of work within the on-site inland wetlands.

As such, only the portion of work within the 100-foot upland review area as proposed in the above referenced application known as "Application of Glenn Knowles, Applicant/Owner, for the proposed construction of a patio, correction of water runoff and wetlands restoration at property identified as 21 Brightwater Road, Niantic, East Lyme Assessor's Map 5.19, lot 58 was approved with the following conditions to the site plan;

1. Notify conservation officer at least 2 days prior to sitework in order that they may monitor the work.

2. Any proposed Additional work beyond this permit in the wetlands or watercourse or its 100-foot regulated area will require approval from the Inland Wetlands Agency or its certified Agent.
3. Any changes to the site plan listed on this permit require notification to the Inland Wetlands Agent and may require Agency approval- a new plan incorporating said changes shall be given to the Agent before any work begins.
4. No site work shall commence until all applicable conditions are satisfied.
5. Notify Inland Wetlands Agent upon completion of all regulated activities for final inspection and sign off.

In regards to the work proposed within the on-site wetlands, it may only be permitted by the Agency. Therefore, I offer the following:

**FINDINGS:**

**Whereas:** The Agency may find this application to be in conformance with the Inland Wetlands Regulations of the Town of East Lyme and more specifically based on the following:

**Whereas:** In accordance with Section 7.6, the Agency required information to be submitted including but not limited to site plans which show the land which will be affected thereby which shows existing and proposed conditions, wetland and watercourse boundaries, contours, and other pertinent features of the land and the proposed activity;

**Whereas:** In accordance with Section 7, Application Requirements, of the Inland Wetlands Regulations the applicant has provided the all the information required by Section 7.5 and the necessary additional information required by Section 7.6, As such, the application appears to be complete.

**Whereas:** Victor Benni, PE, Town Engineer has reviewed the proposed plans

**Whereas:** Demonstrated by the Memorandum from Victor Benni, PE, Town Engineer to G. Goeschel II, Director of Planning, dated March 6, 2020 indicates the slight increase in stormwater from the site improvements will be mitigated by the inclusion of the proposed rain garden on the upland side of the wetland and the rock flow diffuser at the low point of the on-site wetland addresses the existing erosion potential.

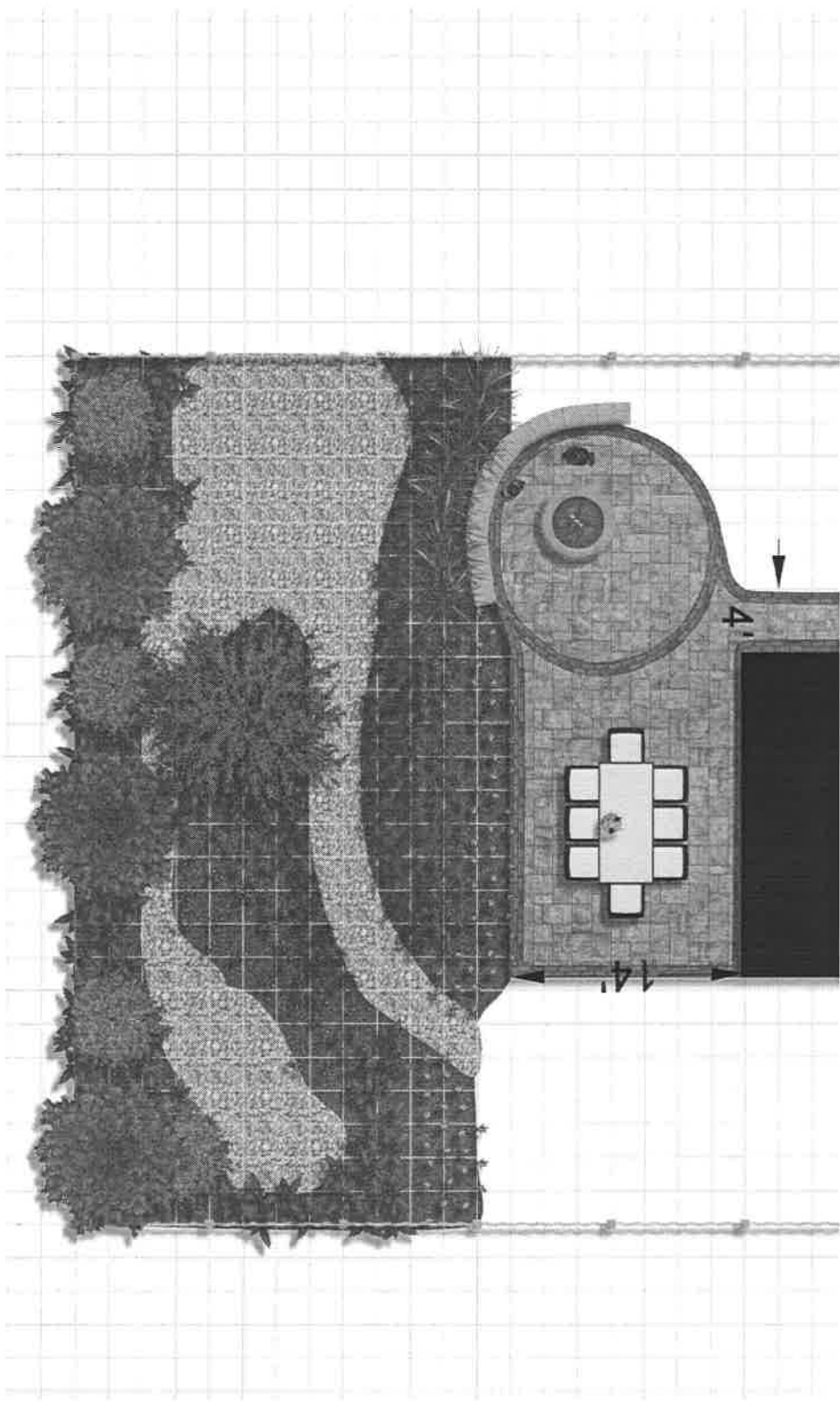
**Whereas:** Indicated in the memorandum from Victor Benni, PE, Town Engineer to G. Goeschel II, Director of Planning, dated March 6, 2020, the proposed modification to the wetlands will accommodate additional water and restore native wetlands plants; and

**Whereas:** The proposed improvements do not change the overall surface runoff flow pattern at the rear portion of the property.

## **SUGGESTED RESOLUTION**

Therefore, based on the Findings in the memorandum from Gary A. Goeschel II, Director of Planning/Inland Wetlands Agent to the Inland Wetlands Agency dated March 30, 2020, and the record before the Agency, I move the Agency APPROVE the Application known as the Application of Glenn Knowles, Applicant/Owner, for the proposed construction of a patio, correction of water runoff and wetlands restoration at property identified as 21 Brightwater Road, Niantic, East Lyme Assessor's Map# 5.19, Lot# 58. This approval is specific to the site development plan submitted as the Application of Glenn Knowles, Applicant/Owner, for the proposed construction of a patio, correction of water runoff and wetlands restoration at property identified as 21 Brightwater Road, Niantic, East Lyme Assessor's Map# 5.19, Lot# 58. Any change in the plan, development plan layout, or any modifications of this approval other than those identified herein shall constitute a new application unless prior approval from the Agency or its Agent is granted.

The applicant/owner shall be bound by the provisions of this Application and Approval.



Plant	cont. size		quantity
BETULA NIGRA `HERITAGE` - HEAVY	#15	8-10`	1
ILEX VERT. `JIM DANDY`	#5	18-21``	1
ILEX VERTICILLATA `WINTER RED`	#5	42-48``	3
JUNIPERUS VIRGINIANA	#7	-	3
ASTER NOVAE-ANGLIAE `PURPLE DOME`	#2	-	12
ECHINACEA PURPUREA `HAPPY STAR`	#1	-	15
EUPATORIUM `BABY JOE`	#2	-	6
IRIS VERSICOLOR	#1	-	15
RUDBECKIA FULGIDA `GOLDSTURM`	#1	-	12
OSMUNDA CINNAMOMEA/CINNAMON FERN	#1	-	15
CAREX STRICTA	#1	-	21
PANICUM VIRGATUM `SHENANDOAH`	#2	-	5

# Town of

P.O. Drawer 519

**Department of Planning &  
Inland Wetlands Agency**

*Gary A. Goeschel II, Director of Planning /  
Inland Wetlands Agent*



# East Lyme

108 Pennsylvania Ave  
Niantic, Connecticut 06357

Phone: (860) 691-4114

Fax: (860) 860-691-0351

March 27, 2020

Toby & Glenn Knowles  
21 Brightwater Road  
East Lyme, CT 06375

**RE: Inland Wetlands Application – Application of Glenn Knowles, Applicant/Owner,** for the proposed construction of a patio, correction of water runoff and wetlands restoration at property identified as 21 Brightwater Road, Niantic, East Lyme Assessor's Map 5.L9, lot 58.

Dear Mr. and Mrs. Knowles,

The East Lyme Inland Wetlands Agency at a meeting held on Monday, February 24, 2020, at the East Lyme Town Hall, 108 Pennsylvania Avenue, Niantic, Connecticut, directed me to prepare a draft motion for the above referenced application for discussion and a resolution at their next regularly scheduled meeting which was to be held on March 9, 2020. Unfortunately, due to extenuating circumstance the Agency canceled the meeting and set a Special Meeting to discuss the items that were initially scheduled for the March 9, 2020 Meeting. Subsequently, the Town of East Lyme was forced to close its doors to the public as a result of the COVID-19 Pandemic. As a result, the Inland Wetlands Agency has been unable to meet in a public forum to render a final decision on your application. As such, upon discussing the matter with the Inland Wetlands Agency Chairman, Gary Upton, the Vice Chair, Kristen Chantrell, and First Selectman, Mark Nickerson, it was agreed that I, as Agent for the Commission, would approve the proposed work within the upland review area as it will still be consistent with State Statutes and the East Lyme Inland Wetland and Watercourses Regulations. Upon the opening of the Town Hall to the public or the establishment of virtual meetings pursuant to the criteria provided in the Governor's Executive Orders, the Agency will then be able to act on the portion of work within the on-site inland wetlands.

Therefore, please consider this correspondence as APPROVAL of only the portion of work within the 100-foot upland review area proposed in your application known as "Application of Glenn Knowles, Applicant/Owner, for the proposed construction of a patio, correction of water runoff and wetlands restoration at property identified as 21 Brightwater Road, Niantic, East Lyme Assessor's Map 5.L9, lot 58 which, is further subject to the following administrative requirements and required modifications to the site plan and other materials submitted in support of this application:

1. Notify conservation officer at least 2 days prior to sitework in order that they may monitor the work.
2. Any proposed Additional work beyond this permit in the wetlands or watercourse or its 100-foot regulated area will require approval from the Inland Wetlands Agency or its certified Agent.
3. Any changes to the site plan listed on this permit require notification to the Inland Wetlands Agent and may require Agency approval- a new plan incorporating said changes shall be given to the Agent before any work begins.
4. No site work shall commence until all applicable conditions are satisfied.
5. Notify Inland Wetlands Agent upon completion of all regulated activities for final inspection and sign off.

This approval is specific to the site development plan submitted as the Application of Glenn Knowles, Applicant/Owner, for the proposed construction of a patio, correction of water runoff and wetlands restoration at property identified as 21 Brightwater Road, Niantic, East Lyme Assessor's Map 5.L9, lot 58. Any change in the plan, development plan layout, or any modifications of this approval other than those identified herein shall constitute a new application unless prior approval from the Agency or its Agent is granted.

The applicant/owner shall be bound by the provisions of this Application and Approval.

If you have any further questions regarding this letter or any of the Inland Wetland Regulations, please do not hesitate to contact me at (860) 235-6211 or [ggoeschel@eltownhall.com](mailto:ggoeschel@eltownhall.com).

Sincerely,



Gary A. Goeschel II  
Director of Planning/  
Wetlands Enforcement Officer

cc: William Mulholland, Zoning Official  
Steven E. Way, Building Official  
Victor Benni, Town Engineer  
Mark C. Nickerson, First Selectman  
Inland Wetlands Agency  
File

# Town of East Lyme

P.O. DRAWER 519

NIANTIC, CONNECTICUT 06357



Town Engineer  
Victor A. Benni, P.E.

860-691-4112  
FAX 860-739-6930

To: Gary A. Goeschel II, Director of Planning  
From: Victor Benni, P.E., Town Engineer  
Date: March 6, 2020  
Re: 21 Brightwater Road  
Wetlands Application Review

A handwritten signature in dark ink, appearing to read "Victor Benni", is written over the "From:" line of the letterhead.

Information submitted by the Applicant which was considered in this review:

- Written Narrative (Narrative), Assessors Map #5.19 Lot 58, 2020, by: Toby and Glenn Knowles.
- Proposed Site Plan Design, Guy Turgeon, 21 Brightwater Road, Scale: 1"=10', Date: April 19, 2002, Revised to: 2/12/09, by: Gerwick-Mereen LLC.
- Sketch Drawings (Sketches), 21 Brightwater Rd, Knowles, GSK1 As Is, GSK 2 Transition, GSK3 Final.

This office has reviewed the above referenced information and has the following comments:

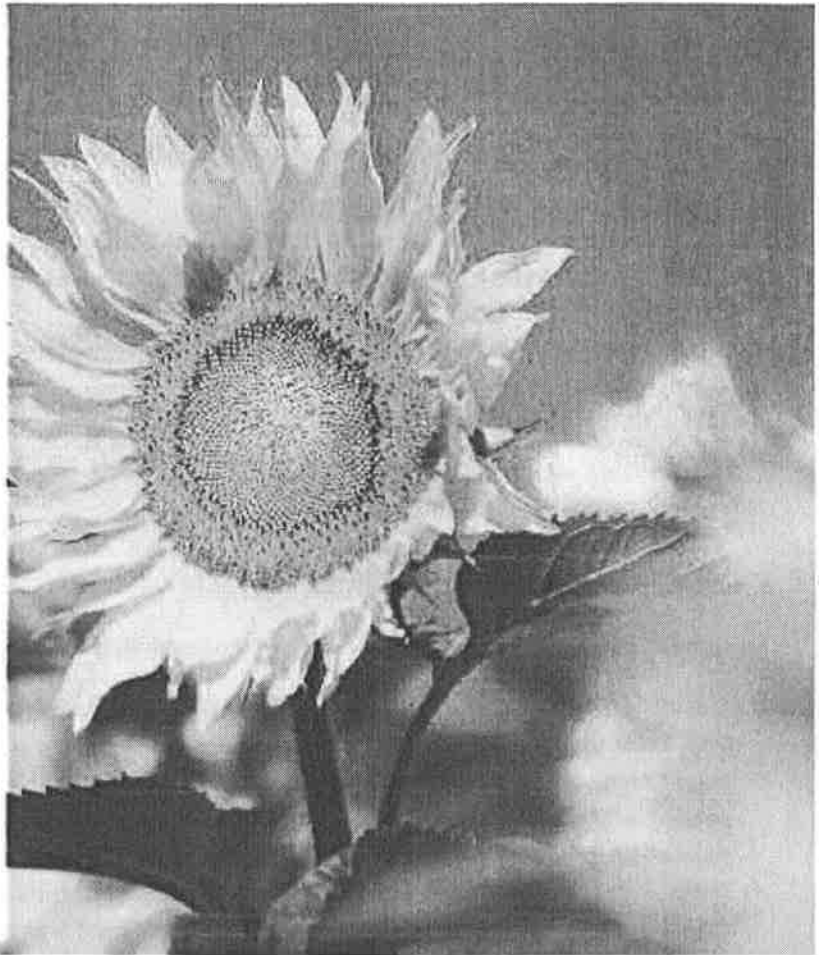
1. The Narrative indicates that the modification to the wetlands will accommodate additional water and restore native wetland plants.
2. The proposed improvements do not change the overall surface runoff flow pattern at the rear portion of the property.
3. The Narrative demonstrates that the slight increase in stormwater from the site improvements will be mitigated by the inclusion of the proposed rain garden on the upland side of the wetland.
4. The proposed rock flow diffuser at the low point of the on-site wetland addresses the already existing erosion potential.
5. The Wetlands Agency may consider having the Wetlands Agent monitor the site as the work progresses; the Engineering Department is available at your disposal to assist in this matter.



# Wetlands Narrative

Assessors Map # 5.19 Lot 58

2020



The purpose of this narrative is to provide the East Lyme Wetland Commission the details of our project to correct a water issue, build a patio, and modify the wetland to accommodate additional water and restore it with native plants.

**Toby and Glenn Knowles**  
21 Brightwater Rd  
Niantic, CT 06357  
(860) 334-0199



Assessors Map # 5.19 Lot # 58

Subject: Written Narrative in Support of Application for Permit East Lyme Inland Wetland Agency

The purpose of this permit application is three-fold:

1. Correct water issues in the lawn and around the house and slab
2. Construct a patio in back of the house
3. Modify the wetland to accommodate additional water and restore with native wetland plants

Four drawings have been provided with this permit application

1. GJK 1 – As Is of 21 Brightwater Rd
2. GJK 2 – Transition of 21 Brightwater Rd
3. GJK 3 – Final of 21 Brightwater Rd
4. Original Site Plan Design by Guy Turgeon

Correct water issues in the lawn and around the house slab

Surface water from the upland neighbor, 23 Brightwater Road passes under the properties fence along with water from the roof, causing puddles in the grass on the left side of the property. At the back right corner of the property, water pools against the foundation from runoff of the house roof. The proposed changes are to add gutters to the back half of the house and pipe the water into the wetlands at the low point of the property. A flow diffuser will be used to mitigate impact to the wetlands from water exiting the pipe. It is estimated that 250 gallons would be directly transiting the pipe in a 1" rain storm. A majority of this water would normally end up in the wetlands area as it is the low point of the property (see Drawing # 4). On the upland side of the house reused top soil from grading and top soil will be brought in to grade the grass area towards the wetland. The grade in the transition from the grass to the wetlands will be lowered to allow water to flow into the wetlands. A gentle swale will be installed to direct the flow of water. A rain garden will be added to the upland side of the wetland to mitigate additional flow of water. The size of the rain garden will be approximately 100 square feet and 8" deep, treating up to approximately 500 gallons water.

Construction of a patio

The location of the patio will be placed directly behind the house and flowing to the back and right of the property. The location of the patio is shown on drawing # 3. The patio will be constructed of UNILOCK pavers. A low wall will be constructed at the edge of the wetlands to provide a defined border from the patio to the wetland area.

Modify Wetland Area to accommodate additional water and restore with native wetland plants

#### Alternative 1:

The existing wetland has a high spot directly in the center. The proposed concept is to better define this high spot and enhance the naturally occurring swales to the north and south of the high spot. A rain garden will be constructed on the upland side of the high spot shown on drawing # 3. The rain garden will extensively be used as a fore bay. The rain garden will be designed and installed using the [Nemo.uconn.edu/raingardens/installation.htm](http://Nemo.uconn.edu/raingardens/installation.htm) web site for rain gardens. There are two naturally occurring swales to the north and south of the high spot. The overflow of the water from the rain garden will be channeled by the existing swale on the north side of the high spot. This will allow the water to flow to the water storage site on the east side of the high spot. The water that flows from the left side of the house via the grass swale will be directed to the existing swale on the southern side of the high spot. This will allow the water to flow to the water storage site of the east side of the high spot as well. Both existing swales in the wetland will be enhanced for better flow and will be filled with river rock. The water storage site will allow rain water to settle and be processed into the ground. The capacity of the water storage site may have to be increased. A flow diffuser of rock approximately 24" wide by 18" deep and 6 feet long will be installed at the low point of the property at the far east point of the wetland. In extreme rainfall it will mitigate any potential erosion to the down land property, 19 Brightwater Road. Sod will be planted on all grass areas that have been disturbed during installation of the patio.

The purpose of the wetland upgrade is to improve wildlife habitat and native vegetation diversity while better managing water runoff. Native wetland plants will be installed to restore, enhance and create productive wetland. Plants such as Winterberry Holly will provide food for birds during the winter. Grasses such as *Carex Amphibola* (Creek Sedge) will be planted along the water transition sites for erosion control. *Cephalanthus Occidentalis* (Button Bush) will be planted because it tolerates flooding and some salt and also has a spicy sent that attracts butterflies and bees. The rain garden will have Iris, Cone Flowers and Asters. Evergreens will be planted at the far North of the property to create a blind from the neighbor at 24 Saltaire Ave. This is our initial considerations for this wetland area. As time progresses other productive plants maybe be introduced. We utilized the Connecticut association of conservation and inland wetlands commission web site for potential plantings. A complete list of plantings can be found in appendix A.

#### Alternative 2:

The do nothing option for this work will not resolve the issues with water in the grass area around the house and water pooling against the slab.

#### Alternative 3:

I have discussed options of installing galley's in the upland area of the wetland to accommodate water runoff from the roof and from property at 23 Brightwater Road. I have dug test wells in the upland and have hit groundwater approximately 18" below grade. This would render the galley's ineffective.

## Appendix A

### Property Plantings

Native plants were selected to replant the wetlands area. Plantings were also selected to aid wildlife. The following plants will be introduced into the wetlands:

#### **Wetland area:**

Winterberry Holly

Rush Grasses

Pickeralweed

Arrow Arum

Red Star Hibiscus

Cardinal Flower

White Cedar

White Birch

Creek Sage

Button Bush

#### **Rain Garden:**

Asters

Iris

Cone Flowers

Day lilies

Sage

Toby and Glenn Knowles

21 Brightwater Rd

Niantic, CT 06357

Assessors Map # 5.19 Lot # 58

Subject: Written Narrative in Support of Application for Permit East Lyme Inland Wetland Agency

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ggoeschle  
etownhall.com

# APPLICATION FOR PERMIT EAST LYME INLAND WETLANDS AGENCY

02# 1492

Office Use Only

Fee Paid \$210<sup>00</sup>

Date Submitted 1/21/2020

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

Date of Receipt 2/24/2020

Date Approved \_\_\_\_\_

Permit Number \_\_\_\_\_

Major Impact: YES NO

Public Hearing: YES NO

Agent Approved: YES NO

*Note: In accordance with the Inland Wetland and Watercourses Regulations, Eleven (11) copies of all application materials must be submitted.*

1. SITE LOCATION (Street) and Description: 21 BRIGHTWATER RD

Assessor's Map 5.19 Lot # 58

*Note: It is the applicant's responsibility to provide the correct site address, map/lot number for the legal notice. Provide a description of the land in sufficient detail to allow identification of the inland wetlands and watercourses, the area(s) (in acres or square feet) of wetlands and watercourses to be disturbed, soil type(s), and wetland vegetation.*

2. APPLICANT: Toby + Glenn Knowles

Address: 21 Brightwater Rd  
Niantic CT 06357

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Business: \_\_\_\_\_

Cell: 860 334-0199

Email: gknowles1@icloud.com

Applicant's interest in the land: \_\_\_\_\_

*\*\*If the applicant is a Limited Liability Corporation or a Corporation provide the managing member's or responsible corporate officer's name, address, and telephone number.*

3. OWNER: Toby + Glenn Knowles

Address: 21 Brightwater Rd  
Niantic CT 06357

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: gknowles1@icloud.com

Cell: 860 334 0199

*\*\*As the legal owner of the property listed on this application, I hereby consent to the proposed activities. And I hereby authorize the members and agents of the Agency to inspect the subject land, at reasonable times, during the pendency of the application and for the life of the permit.*

Owners Printed Name: Glenn J Knowles

Owners Signature: *Glenn J Knowles*

Date: 1/20/20

4. Area of wetland to be disturbed: 900 sq. ft. or ac  
Area of watercourse to be disturbed: \_\_\_\_\_ sq. ft. or ac  
Upland review area to be disturbed: \_\_\_\_\_ sq. ft. or ac

Will fill be needed on site? ☒ Yes ☐ No

If yes, how much fill is needed? 20 - 30 Cubic yards

5. The property contains (circle one or more)

WATERCOURSE

WATERBODY WOODED-WETLAND

SWAMP

FLOODPLAIN

OTHER: \_\_\_\_\_

Description of soil types on site: \_\_\_\_\_

Description of wetland vegetation: Pepper bush, Blueberry

Name of Soil Scientist(s) and date of survey: Donald Fortunado

6. Provide a written narrative of the purpose and a description of the proposed activity and proposed erosion and sedimentation controls and other best management practices and mitigation measures which may be considered as a condition of issuing a permit for the proposed regulated activity including, but not limited to, measures to (1) prevent or minimize pollution or other environmental damage, (2) maintain or enhance existing environmental quality, or (3) in the following order of priority: restore, enhance and create productive wetland or watercourse resources. Depending on the complexity of the project, include the following: construction schedule, sequence of operations, drainage computations with pre and post construction runoff quantities and runoff rates, plans clearly showing the drainage areas corresponding to the drainage computation, existing wetland inventory and functional assessment, soils report, construction plans signed by a certified soils scientist, licensed surveyor, and licensed professional engineer.

7. Provide information of all alternatives considered. List all alternatives which would cause less or no environmental impact to wetlands or watercourses and state why the alternative as set forth in the application was chosen. All such alternatives shall be diagrammed on a site plan or drawing. (Attach plans showing all alternates considered).

Alternative 1: Proposed Plan in narrative

Alternative 2: DO NOTHING

Alternative 3: USE OF GALLEY'S in upland

8. Attach a site plan showing the proposed activity and existing and proposed conditions in relation to wetlands and watercourses and identifying any further activities associated with, or reasonably related to, the proposed regulated activity which are made inevitable by the proposed regulated activity and which may have an impact on wetlands and watercourses.

9. Provide the name and mailing addresses of adjacent landowners (including across a street). Attach additional sheets if necessary.

Name/Address: Brian Harrington / 23 Brightwater Rd Niantic CT 06357

Name/Address: Laurene O'LOUGHLIN / 19 Brightwater Rd Niantic CT 06357

Name/Address: Linda Gesualdi / 24 Saltaire Ave Niantic CT 06357

William Molloy / 22 Brightwater Rd, Niantic CT 06357



10. Attach a completed DEP reporting form.

*The Agency shall revise or correct the information provided by the applicant and submit the form to the Commissioner of Environmental Protection in accordance with section 22a-30-14 of the Regulations of Connecticut State Agencies.*

11. Name of Erosion Control Agent (Person Responsible for Compliance):

Glenn Knowles

Address: 21 Brightwater Rd  
Niantic CT 06357

Phone: 860 334-0199

Fax: \_\_\_\_\_

Email: gknowles1@gmail.com

Cell: \_\_\_\_\_

12. Are you aware of any wetland violations (past or present) on this property? Yes ☒ No

If yes, please explain: \_\_\_\_\_

13. Are there any vernal pools located on or adjacent (within 500') to the property? Yes ☒ No

14. For projects that do not fall under the ACOE Category I general permit - Have you contacted the Army Corps of Engineers? Yes ☒ No

15. Is this project within a public water supply aquifer protection area or a watershed area? Yes ☒ No

16. If so, have you notified the Commissioner of the Connecticut Department of Public Health and the East Lyme Water and Sewer Department? Yes ☐ No *(Proof of notification must be submitted with your application).*

17. Attach the appropriate filing fee based on the fee schedule established in Section 19 of the Regulations.

Fee: 210 *(Make checks payable to "Town of East Lyme").*

18. PUBLIC HEARINGS ONLY: The applicant must provide proof of mailing notices to the abutters prior to the hearing date.

*The undersigned Applicant hereby consents to necessary and proper inspection of the above mentioned property by the East Lyme Inland Wetlands Agency and/or its agents at reasonable times both before and after the permit in question has been granted.*

*The Applicant affirms that the information supplied in this application is accurate to the best of his/her knowledge and belief. As the applicant I hereby certify that I am familiar with the information provided in this application and I am aware of the penalties for obtaining a permit through deception or through inaccurate or misleading information.*

Printed Name: Glenn Knowles Date: 1/20/20

Signature: 

Please note:

*Above notice to be published in legal section of newspaper having general circulation in the Town of East Lyme. Applicant to pay cost of publication. You or a representative must attend the Inland Wetlands Agency meeting to present your application.*

## CHECKLIST FOR A COMPLETE APPLICATION

- ☐ completed application form including Department of Environmental Protection reporting form (green copy)
- ☐ A narrative of the purpose and description and methodology of all proposed activities;
- ☐ Alternatives considered by the applicant, reasons for leaving less than a 10' buffer between clearing and the wetlands. Such alternatives to be diagrammed on a site plan or drawing and submitted to the commission as part of the application;
- ☐ Names and mailing addresses of abutting property owners;
- ☐ Three copies of approximately 1"=40' scale plans
- ☐ Locations of existing and proposed land uses
- ☐ Locations of existing and proposed buildings
- ☐ Locations of existing and proposed subsurface sewage disposal systems, and test hole descriptions
- ☐ Existing and proposed topographical and man-made features including roads and driveways, on and adjacent to the site
- ☐ Location and diagrams of proposed erosion control structures
- ☐ Assessor map and lot number
- ☐ Key or inset map
- ☐ North arrow
- ☐ Flood zone classification and delineation
- ☐ Use of wetland and watercourse markers where appropriate.
- ☐ Soil types classification and boundary delineation (flagged and numbered boundary), Soil Scientist's original signature and certification on plans
- ☐ Soil Scientist's (or other wetland scientist) report on the function of the wetlands
- ☐ Watercourse channel location and flow direction, where appropriate
- ☐ 100 ft. regulated area depicted on plans
- ☐ Conservation easements where appropriate
- ☐ A detailed erosion and sediment control plan which meets requirements set forth in the most recent revision of the *Connecticut Guidelines for Soil Erosion and Sediment Control*, published by the Connecticut Council on Soil and Water Conservation, including:
  - ☐ Location of areas to be stripped of vegetation and other unprotected areas
  - ☐ Schedule of operations including starting and completion dates for major development phases
  - ☐ Seeding, sodding, or re-vegetation plans for all unprotected or un-vegetated areas
  - ☐ Location and design of structural sediment control measures
  - ☐ Timing of planned sediment control measures
  - ☐ Use of wetland and watercourse markers
- ☐ Proper certification on the application documents and plans

In the case of filling in wetlands, watercourses, or regulated upland areas, the following items are necessary:

- ☐ Area to be filled
- ☐ Volume of requested fill
- ☐ Finished slopes of filled areas
- ☐ Containment and stabilization measures
- ☐ Proposed finished contours
- ☐ Evaluation of the effect of filling the wetlands with respect to storage volume and its impact downstream showing before and after development flows, and the evaluation of storm water detention including the existing need for flood control downstream

Other required items:

- ☐ Proof of adjoining Town notification, where required;
- ☐ All application fees required by Section 16 of these regulations;
- ☐ A written narrative detailing how the effects of the applicant's proposed activities upon wetlands and watercourses shall be mitigated.
- ☐ A written description of any and all future plans which may be linked to the activities proposed in the current application.
- ☐ Address the potential to enhance the current buffer area.
- ☐ Review drainage information with Town Engineering
- ☐ Mailing requirements for abutters (public hearing only)

# **Appendix D - ORDINANCE ESTABLISHING SCHEDULE OF FEES FOR CONSERVATION, PLANNING AND ZONING COMMISSIONS**

1.1	Application Fee **	
1.1.1	Residential Uses.....	\$150.00 Plus *\$50.00/LOT
	Plus Fee from Schedule A	
1.1.2	Commercial Uses.....	\$400.00
	Plus Fee from Schedule A	
1.1.3	All Other Uses.....	\$200.00
	Plus Fee from Schedule A	

\*Each lot with regulated activities

\*\*\$60 fee required by C.G.S 22a-27j will be added to the base fees.

1.2	Approval by Duly Authorized Agent **	\$100.00
1.3	Appeal of Duly Authorized Agent Decision.....	\$300.00
1.4	Significant Activity Fee	\$300.00
1.5	Public Hearing Fee	
	1.5.1 Single Residential	\$200.00
	1.5.2 Commercial/Industrial/Multi-Family	\$450.00

## 1.6 Complex Application Fee.....Actual Cost

The Inland Wetlands Agency may charge an additional fee sufficient to cover the cost of reviewing and acting on complex applications. Such fee may include, but not be limited to, the cost of retaining experts, to advise, analyze, review, and report on issues requiring such experts. The Agency or the duly authorized agent shall estimate the complex application fee, which shall be paid pursuant to section 19.1 of these regulations within 10 days of the applicant's receipt or notice of such estimate. Any portion of the complex application fee in excess of the actual cost shall be refunded to the applicant no later than 30 days after publication of the agency's decision.

1.7	Permitted and Nonregulated Uses :	
1.7.1	Permitted Uses as of Right .....	\$0.00
1.7.2	Nonregulated .....	\$0.00
1.8	Regulation Amendment Petitions.....	\$500.00
	(Does not include Notices or Regulation Advisories from DEP)	
1.8.1	Map Amendment Petitions.....	\$500.00
	Plus Fee from Schedule B	

1.9	Modification of Previous Approval: .....	\$100.00
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1.10	Renewal of Previous Approval .....	\$100.00
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1.11	Monitoring Compliance Fee .....	\$100.00
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## 1.12 SCHEDULE A. For the purpose of calculating the permit application fee, the area in schedule A is the total area of wetlands and watercourses and the upland review area upon which a regulated activity is proposed.

### SQUARE FEET of AREA

1.12.1.	Less than 1,000 .....	\$0.00
1.12.2.	1,000 to 5,000 .....	\$250.00
1.12.3.	More than 5,000 .....	\$750.00

## 1.13 SCHEDULE B. For the purpose of calculating the map amendment petition fee, linear feet in schedule B is the total length of wetlands and watercourses boundary subject to the proposed boundary change.

### LINEAR FEET

1.13.1.	Less than 500 .....	\$0.00
1.13.2	500 to 1,000.....	\$250.00
1.13.3	More than 1,000 .....	\$750.00





