

INLAND WETLANDS
COMMISSION
Telephone (203) 563-0180
Fax (203) 563-0284



TOWN HALL
238 Danbury Road
Wilton, Connecticut 06897

APPLICATION FOR A SIGNIFICANT REGULATED ACTIVITY

For Office Use Only:

Filing Fee \$ _____	WET# _____
Date of Submission _____	Wilton Land Record Map# _____
Date of Acceptance _____	Volume # _____ Page # _____
	Assessor's Map # _____ Lot# _____

APPLICANT INFORMATION:

Applicant DAVID & JENNIFER JAEHNIG
Address 17 HIDDEN LAKE RIDGE RD
WILTON, CT 06897
Telephone 203-482-0985
Email djaehnig@gmail.com

Agent (if applicable) TRACY CHALIFOUX LLC
Address 7 KING ST
DANBURY, CT 06811
Telephone 845-364-1360
Email tlchalifoux@gmail.com

PROJECT INFORMATION:

Property Address 17 HIDDEN LAKE RIDGE RD
Acres of altered Wetlands On-Site 0.0 AC
Linear Feet of Watercourse 360 LF
Linear Feet of Open Water 0.0
Sq. Ft. of proposed and/or altered impervious coverage 905 SF

Site Acreage 2.102
Cu. Yds. of Material Excavated 120 CU YD
Cu. Yds. of Material to be Deposited 20 CU YD
(3/4" GRAVEL BENEATH POOL)
Acres of altered upland buffer 0.0 AC
Sq. Ft. of disturbed land in regulated area 3,237 SF

APPLICATION REQUIREMENTS:

Is The Site Within a Public Water Supply
Watershed Boundary? NO ☒ YES* _____

Is The Site Within 500 Feet of a Town Boundary?
NO ☒ YES* _____

* If the answer is yes, then the applicant is responsible for notifying the appropriate water authority and/or adjoining community's Wetlands Department. Instructions for notification are available at the office of the commission.

Project Description and Purpose: Construction of an in-ground swimming pool, patio, pool equipment pad (concrete), installation of a 500-gal. underground propane tank, pool enclosure fence and native mitigation plantings.

In addition, the applicant shall provide eleven (11) collated copies of the following information as well as an electronic submission via email to mike.sullivan@townofwilton.org & elizabeth.ark@townofwilton.org --

- ☒ A. Written consent from the owner authorizing the agent to act on his/her behalf
- ☒ B. A Location Map at a scale of 1" = 800'
- ☒ C. *A Site Plan showing existing and proposed features at a scale not to exceed 1" = 40' accurate to the level of a A-2 property and T-2 topographic surveys*
- ☒ D. Sketch Plans depicting the alternatives considered
- ☐ E. Engineering Reports and Analysis and additional drawing to fully describe the proposed project
- ☒ F. Sedimentation and Erosion Control Plan, including the Construction Sequence
- ☒ G. Names and addresses of adjoining property owners
- ☒ H. A narrative describing, in detail
 - a. the proposed activity
 - b. the alternatives considered
 - c. impacts
 - d. proposed mitigation measures
- ☒ I. Soils Report prepared by a Certified Soil Scientist and Wetlands Map prepared by a Registered Land Surveyor
- ☒ J. A Biological Evaluation prepared by a biologist or other qualified professional
- ☒ K. Description of the chemical and physical characteristics of fill material to be used in the Regulated Area ONLY FILL TO BE USED IS 3/4" GRAVEL BENEATH SWIMMING POOL SHELL.
- ☒ L. Description and maps detailing the watershed of the Regulated Area
- ☒ M. Envelopes addressed to adjacent neighbors, the applicant, and/or agent, with certified postage and no return address

****Application materials shall be collated and copies of documents more than two pages in length shall be double sided.**

See Section 7 of the Wetlands and Watercourses Regulations of the Town of Wilton for a more detailed description of applications requirements.

The Applicant or his/her agent certifies that he is familiar with the information provided in this application and is aware of the penalties for obtaining a permit through deception, inaccurate or misleading information.

By signing this application, permission is hereby given to necessary and proper inspections of the subject property by the Commissioners and designated agents of the Commission or consultants to the Commission, at reasonable times, both before and after a final decision has been rendered.

Applicant's Signature: _____

Date: _____

1/7/21

Agent's Signature (if applicable) Tracy L. Caliper Date: 1/7/21



Tracy Chalifoux LLC

Landscape Architect

Date: December 31, 2020

To: Town of Wilton Inland Wetlands Commission

From: David P. Jaehnig

Re: Letter of Consent
17 Hidden Lake Ridge Rd
Wilton, CT 06897

I, David P. Jaehnig, hereby authorize Tracy Chalifoux LLC, to act as my agent for preparation of an Inland Wetlands Application for the above-referenced property.

I am aware of the proposed site improvements, and consent to the activities set forth within the application.



David P. Jaehnig

12/31/20

Date

7 King Street, Danbury, CT 06811

Mobile: 845-364-1360

E-mail: tchalifoux@gmail.com



Tracy Chalifoux LLC

Landscape Architect

Project Narrative

Prepared for:
17 Hidden Lake Ridge Road
Wilton, CT

December 31, 2020

Introduction

The roughly 2.1 acre property is situated on the south side of Hidden Lake Ridge Road. It contains a single-family residence, driveway from Hidden Lake Ridge Road, attached garage, walkways, patio, lawn areas and planting beds. The property is served by a septic system which was recently re-built under a separate wetland permit, and by well. The property is forested on three sides. Wetlands are located to the south, west and north of the property. A stream runs in a north to south direction at the west side of the property and is piped beneath the driveway just south of Hidden Lake Ridge Road, where the stream runs in a east to west direction. The south side of the property beyond the new septic system is wooded.

Background

The homeowner seeks to construct an in-ground pool, pool patio, pool equipment pad, pool enclosure fence and 500 gallon underground propane tank within 100' of a wetland and/or watercourse. As part of the application, four trees are proposed to be removed within the 100' wetland buffer. There is no disturbance proposed within the wetlands. No trees are to be removed from the wetlands.

Proposed Activities and Mitigation Measures

Swimming Pool and Wetland Mitigation and Enhancement Plantings

The intention of the proposed activities is to increase the usability of the homeowner's property through the installation of an in-ground swimming pool and small patio while enhancing the wetland buffer through introduction of a variety of native plantings. The new plantings will improve the ecology of the property on many levels. The proposed trees, shrubs and perennials will control erosion by reducing stormwater runoff, creating an opportunity for stormwater to be absorbed and filtered, protecting the quality of the existing wetlands and watercourses. The proposed plantings will also provide habitat, food and shelter for many types of fauna and avian species. A variety of native plant species are proposed which will serve to increase biodiversity through attracting additional birds, insects and mammals. The buffer area planting mitigation and enhancement includes eight trees, 26 native shrubs and twelve native perennials. Approximately .031 acres (1,360 sq ft) of buffer area is to be enhanced. No existing trees are to be removed from the wetlands.

Within the area of the proposed swimming pool, three existing trees are proposed to be removed due to their proximity to the new pool (excavation would be taking place within the area of their root zones) and the hazard they pose to the pool. Two are Maples (14 inch and 30 inch caliper) and the third tree is a 16 inch Black birch. A tree east of wetland flag B-5 is also proposed to be removed due to its hazardous condition.

In lieu of the four trees removed eight trees, 26 native shrubs and 12 native ferns are proposed. The new plantings will provide additional habitat for local flora and fauna.

7 King Street, Danbury, CT 06811

Mobile: 845-364-1360

E-mail: tlchalifoux@gmail.com

Upland Improvements

The proposed gunite in-ground swimming pool is 18' x 34'. The pool water treatment system will be cartridge-type, therefore *backwashing is not necessary*. A small impervious patio is proposed at the north end of the pool, and a six foot wide walk at the south end. To the west and east sides of the pool will be lawn and plantings. The pool equipment pad is located along the west wall of the residence within an area that is already being utilized for utilities. The underground propane tank is proposed south of the parking area, 90 feet from the wetlands. The pool enclosure fence is situated in the 100-foot wetland buffer, but not within the wetlands. No changes are proposed to the existing residence, driveway, patio, or walkways. No fill is to be brought onto the property, other than the 3/4 inch gravel for the swimming pool base. Any excess fill not used for grading immediately around the swimming pool will be exported from the site.

Impacts

The proposed swimming pool and small surrounding patio are not expected to cause a negative impact to the wetlands as a robust array of buffer plantings are proposed to provide additional habitat and water quality remediation, therefore increasing buffer functions.

Alternatives Considered

An alternative (Alternative 1) swimming pool location was explored immediately south of the residence, just off the existing rear patio. The pool size studied was 18' x 38', which was the homeowner's preferred size pool. This location was found not to be feasible because the side yard setback and septic setbacks could not be maintained. A smaller size swimming pool was also studied in this location and still did not meet setbacks. Alternative 2, indicating the swimming pool moved further south and slightly west met the septic and property line setbacks when the pool was reduced in size from 18' x 38', to 18' x 34'.

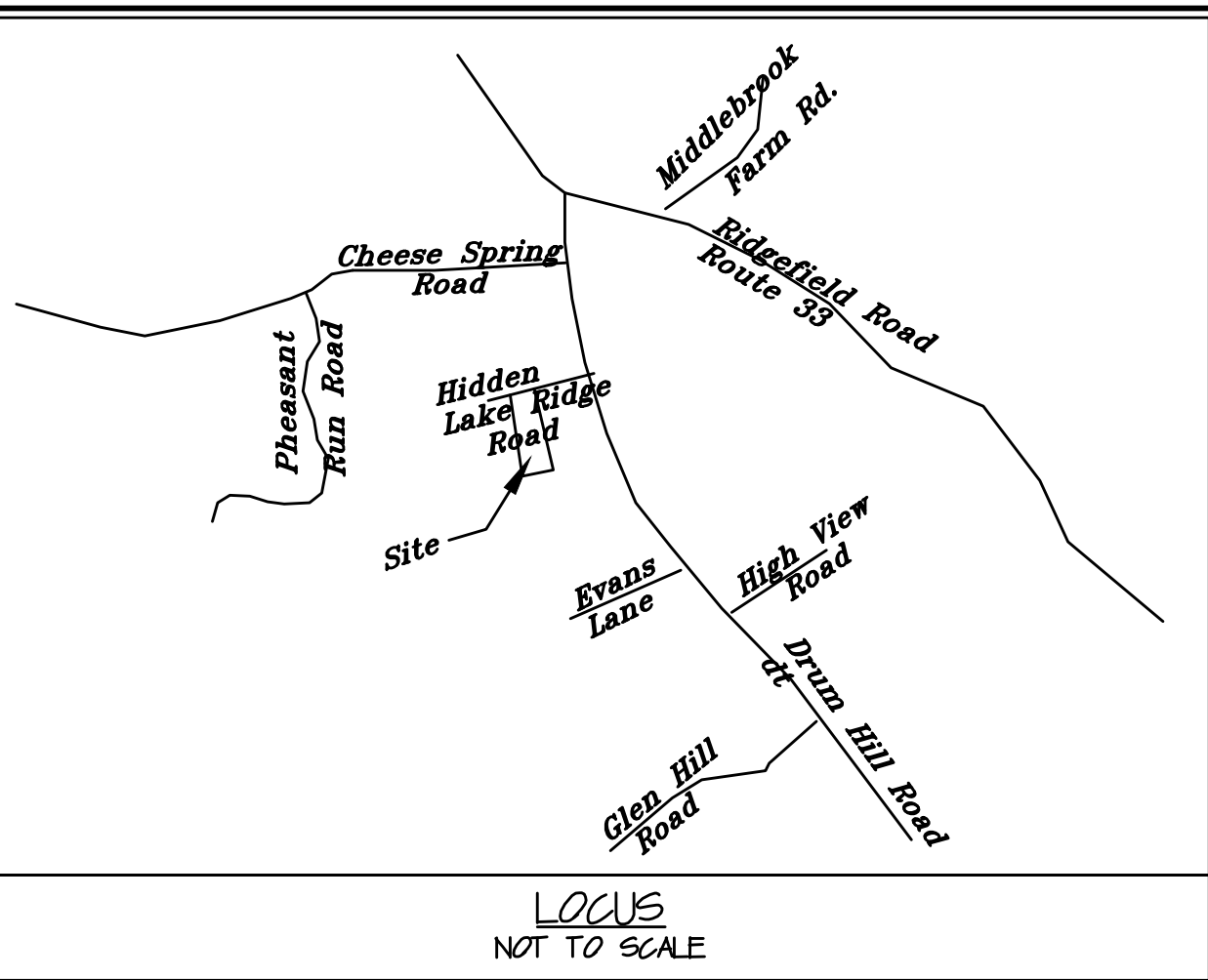
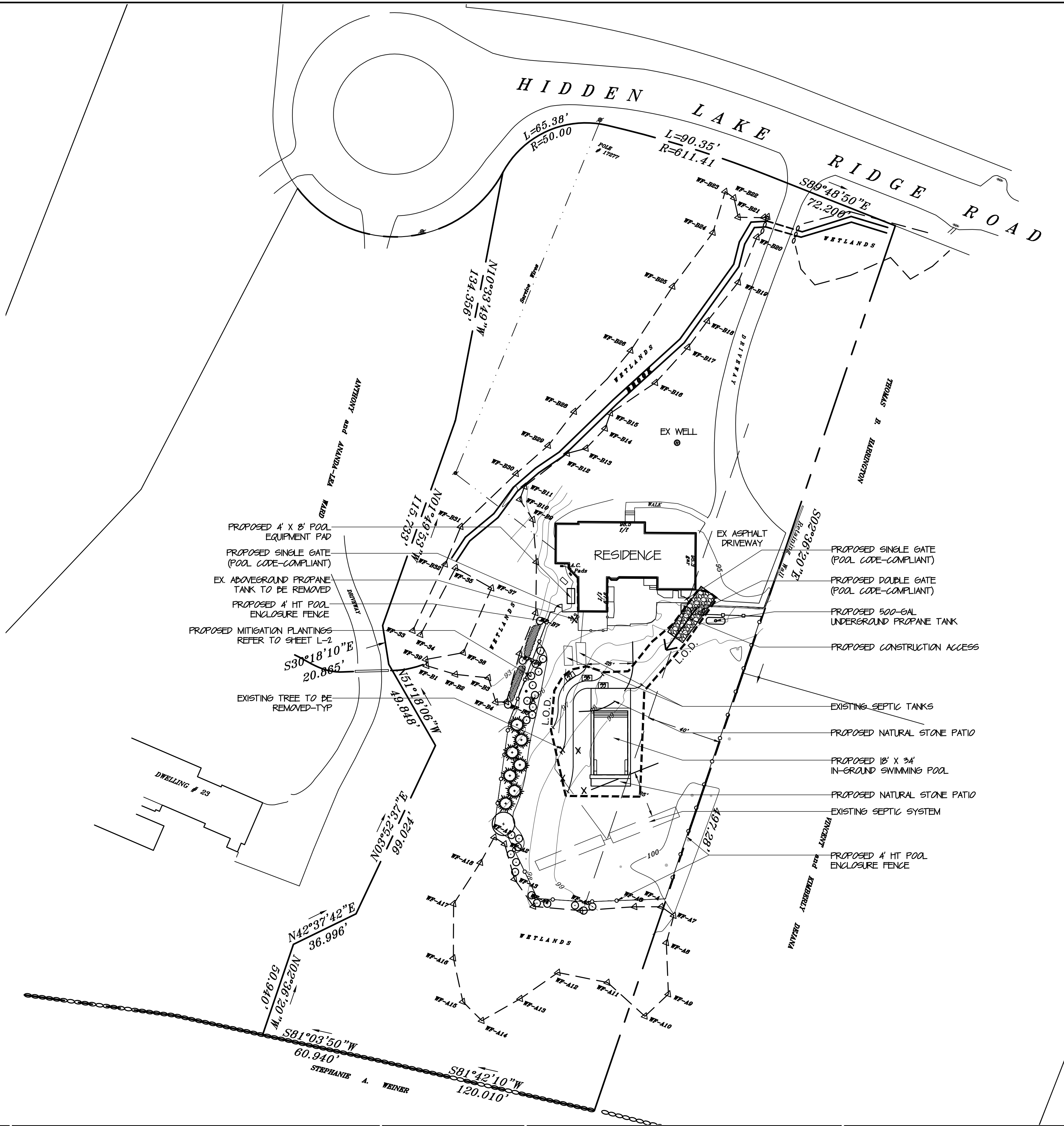
Sediment and Erosion Controls

Contained on the site plans are sediment and erosion control measures. Silt fence shall be installed according to the plan and shall remain in place for the duration of the project. The project landscape architect may determine if additional measures are needed. A stabilized construction access route is indicated on the plan, just off the existing driveway, and shall be adhered to. All existing trees to remain shall be protected and no machinery shall be within the critical root zone of the trees. Disturbance shall be kept to a minimum. As soon as construction is complete, any disturbed lawn areas shall be fine raked, seeded with lawn seed and hay mulched. After site is fully stable with vegetation cover, silt fence may be removed.

Summary

The proposed buffer planting improvements will significantly improve the ecology of the property through mitigating stormwater runoff, increasing biodiversity to support existing and attract new wildlife and pollinators, and creating food and shelter for the fauna. The proposed upland improvements will increase functionality of the property for the homeowner.

NOTES:
1. CONTACT CALL BEFORE YOU DIG AT 800-922-4455 TO HAVE UNDERGROUND UTILITY LINES MARKED PRIOR TO START OF ANY EXCAVATION WORK.
2. BASE MAP INFORMATION WAS TAKEN FROM "TOPOGRAPHIC MAP" PREPARED BY RKW LAND SURVEYING, NEW CANAAN, CT DATED MARCH 3, 2010.
3. SEPTIC LOCATION IS APPROXIMATE IS MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION
4. CONTRACTOR SHALL STRICTLY ADHERE TO THE LIMIT OF DISTURBANCE SHOWN IN THE PLAN.



OVERALL PLAN LEGEND

- PROPERTY LINE —————
- EXISTING CONTOUR - - - - - 103
- PROPOSED CONTOUR ——— 99
- LIMIT OF DISTURBANCE ——— L.O.D. ———
- EXISTING TREE TO REMAIN ● 24 MAP
- EXISTING TREE TO BE REMOVED ✖ 24 MAP
- PROPOSED NATIVE DECIDUOUS TREE +
- PROPOSED NATIVE EVERGREEN TREE *
- PROPOSED NATIVE SHRUB ○
- PROPOSED NATIVE PERENNIALs

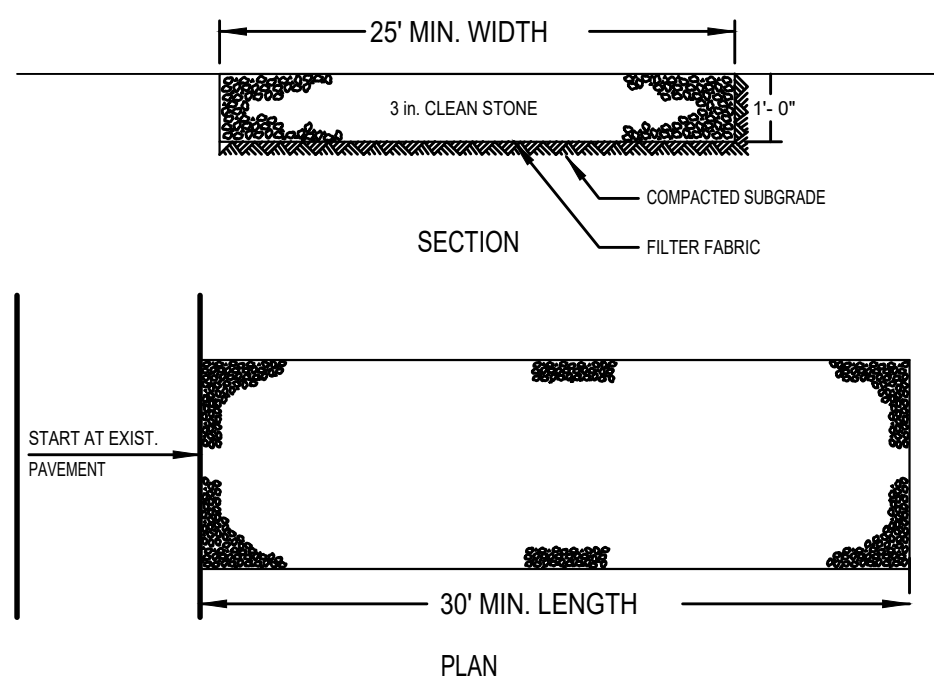
Revisions	Date	Tracy Chalifoux LLC Landscape Architect 7 King Street, Danbury, CT 06811 Office: 845-364-1360 E-mail: tchalifoux@gmail.com	Seal STATE OF CONNECTICUT TRACY LEE CHALIFOUX LANDSCAPE ARCHITECT NO. 1195	Project Title WETLAND APPLICATION PLAN PREPARED FOR: DAVID P. AND JENNIFER S. JAEHNIG		Graphic Scale and North Arrow 0 30' 60' Date January 7, 2021		Drawing Title OVERALL SWIMMING POOL SITE PLAN	Drawing No. L-1
				Location 17 HIDDEN LAKE RIDGE RD WILTON, CONNECTICUT	Scale 1"=30'-0"	Checked TLC	Drawn TLC		

NOTES:

1. CONTACT CALL BEFORE YOU DIG AT 800-922-4455 TO HAVE UNDERGROUND UTILITY LINES MARKED PRIOR TO START OF ANY EXCAVATION WORK.
2. BASE MAP INFORMATION WAS TAKEN FROM "TOPOGRAPHIC MAP" PREPARED BY RKW LAND SURVEYING, NEW CANAAN, CT DATED MARCH 3, 2010.
3. SEPTIC LOCATION IS APPROXIMATE IS MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
4. CONTRACTOR SHALL STRICTLY ADHERE TO THE LIMIT OF DISTURBANCE SHOWN IN THE PLAN.

WORK SEQUENCE:

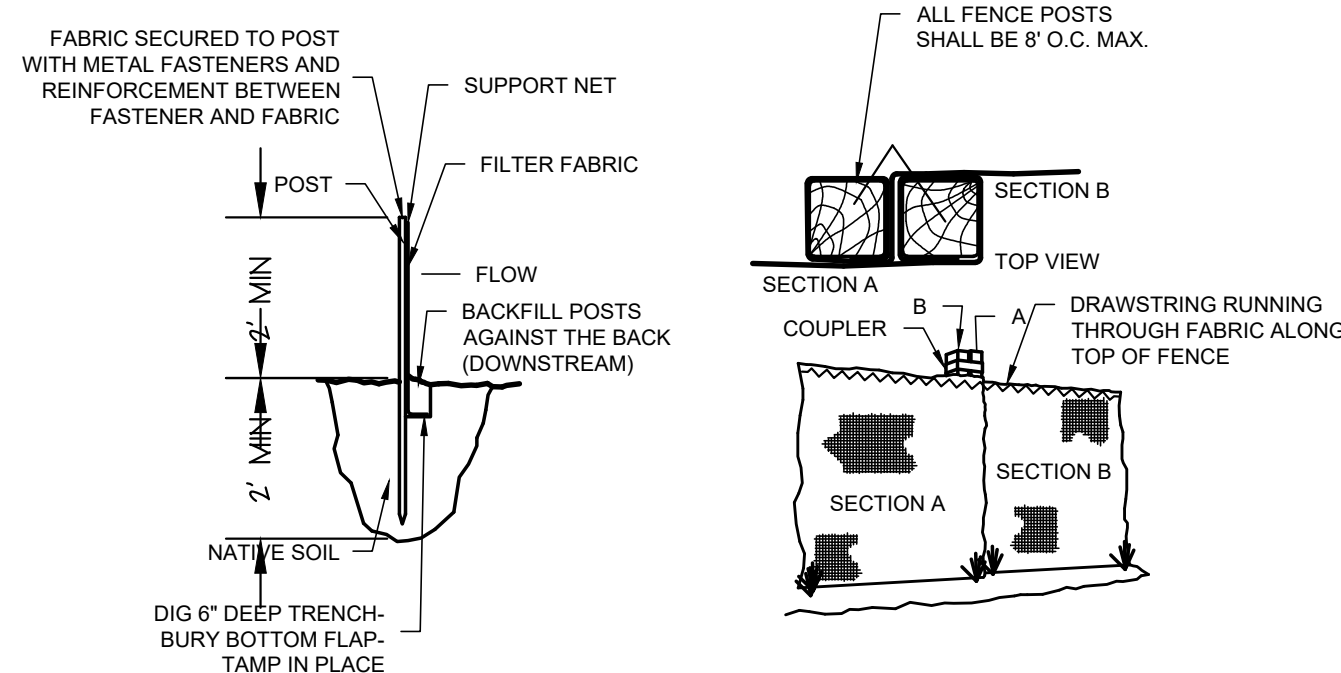
1. INSTALL CONSTRUCTION ACCESS
2. INSTALL SILTATION FENCE AS SHOWN ON PLAN
3. CUT TREES TO BE REMOVED AND GRIND STUMPS
4. EXCAVATE FOR SWIMMING POOL, UTILIZING ON SITE A PORTION OF THE FILL FOR GRADING AROUND THE SWIMMING POOL
5. EXPORT FROM SITE ANY FILL NOT USED FOR RE-GRADING
6. EXCAVATE AND TRENCH FOR UNDERGROUND PROPANE TANK
7. EXCAVATE FOR AND POUR CONCRETE POOL EQUIPMENT PAD
8. CONSTRUCT SWIMMING POOL
9. RESTORE ALL AREAS AFFECTED BY CONSTRUCTION WITH SCREENED TOPSOIL, FINE RAKE AND SEED
10. EROSION CONTROLS ARE TO REMAIN IN PLACE UNTIL VEGETATIVE COVER HAS BEEN ESTABLISHED



INSTALLATION NOTES

1. STONE SIZE - USE 3" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - 25 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCUR.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SOILED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ACCESS DETAIL
NOT TO SCALE



TOE-IN METHOD

JOINING SECTIONS OF FENCING

- INSTALLATION NOTES:
1. ALL INSTALLATION AS PER ASTM STANDARDS
 2. EXCAVATE A 6 INCH TRENCH ALONG THE LOWER PERIMETER OF THE SITE
 3. UNROLL A SECTION AT A TIME AND POSITION WALL OF THE TRENCH (NET SIDE AWAY FROM DIRECTION OF FLOW)
 4. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS APPROXIMATELY 2 INCHES FROM THE TRENCH BOTTOM
 5. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. STEEPER SLOPES REQUIRE AN INTERCEPT TRENCH
 6. JOIN SECTIONS AS SHOWN ABOVE

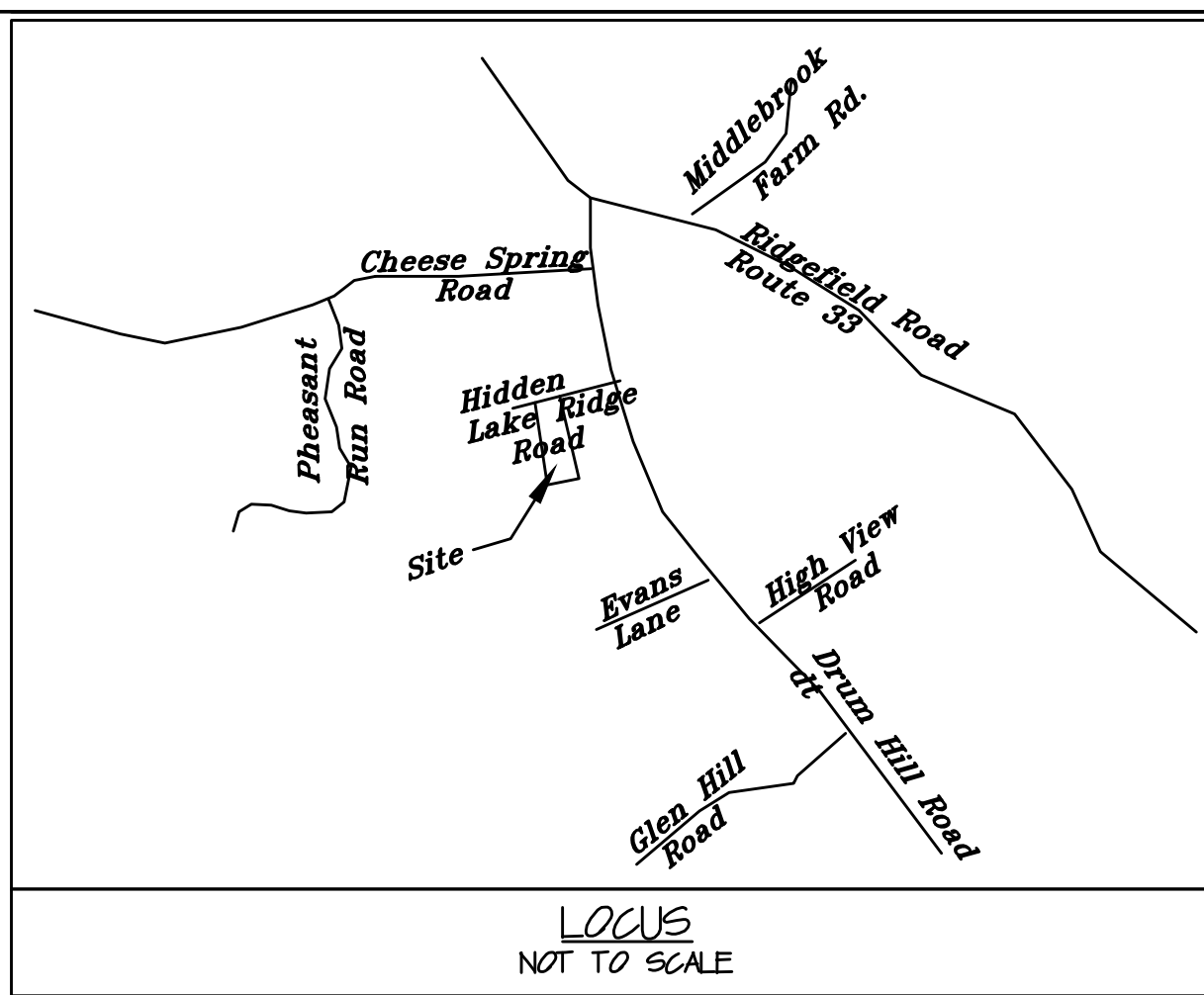
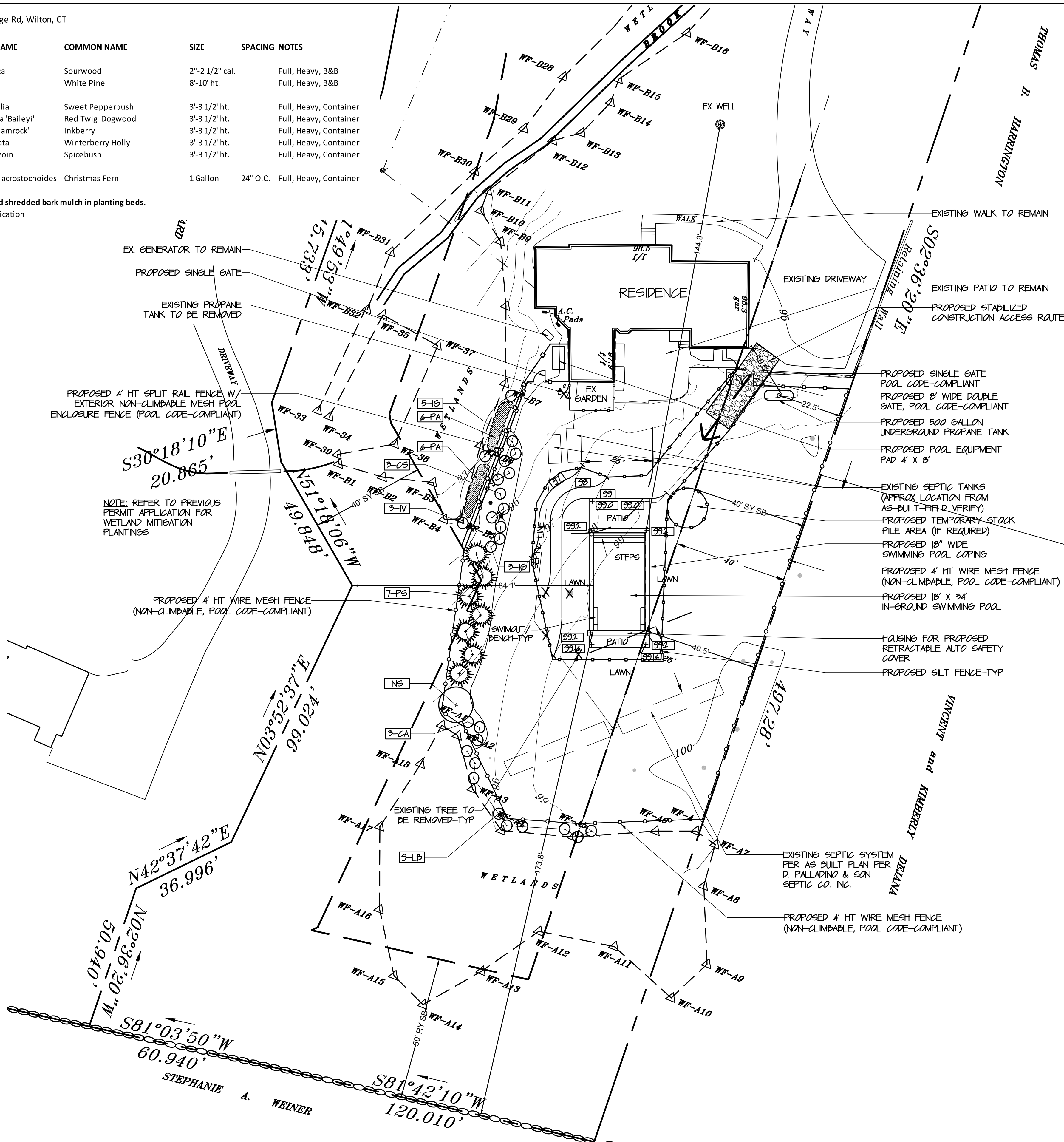
FABRIC SILTATION FENCE DETAIL
NOT TO SCALE

PLANT LIST-17 Hidden Lake Ridge Rd, Wilton, CT

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	NOTES
TREES						
1	NS	Nyssa sylvatica	Sourwood	2"-2 1/2" cal.		Full, Heavy, B&B
7	PS	Pinus strobus	White Pine	8'-10' ht.		Full, Heavy, B&B
SHRUBS						
3	CA	Clethra alnifolia	Sweet Pepperbush	3'-3 1/2' ht.		Full, Heavy, Container
3	CS	Cornus sericea 'Bailey'	Red Twig Dogwood	3'-3 1/2' ht.		Full, Heavy, Container
8	IG	Ilex glabra 'Shamrock'	Inkberry	3'-3 1/2' ht.		Full, Heavy, Container
3	IV	*Ilex verticillata	Winterberry Holly	3'-3 1/2' ht.		Full, Heavy, Container
9	LB	*Lindera benzoin	Spicebush	3'-3 1/2' ht.		Full, Heavy, Container
PERENNIALS						
12	PA	*Polystichum acrostochoides	Christmas Fern	1 Gallon	24" O.C.	Full, Heavy, Container

Note: Provide 2" depth of non-dyed shredded bark mulch in planting beds.

*Plants from previous wetland application



GENERAL LEGEND

- PROPERTY LINE ---
- EXISTING CONTOUR ---103---
- PROPOSED CONTOUR [99]
- PROPOSED SPOT GRADE +[992]
- LIMIT OF DISTURBANCE ---L.O.D.---
- SILT FENCE ---
- EXISTING TREE TO REMAIN ●
- EXISTING TREE TO BE REMOVED ★
- PROPOSED NATIVE DECIDUOUS TREE +
- PROPOSED NATIVE EVERGREEN TREE *
- PROPOSED NATIVE SHRUB ○
- PROPOSED NATIVE PERENNIALS [shaded area]
- PROPOSED LAWN [dotted area]

POOL GENERAL NOTES:

1. INGROUND GUNITE SWIMMING POOL TO BE 18' X 34', SHALLOW END TO BE 3'-6" DEPTH, DEEP END TO BE 6'-6" DEPTH.
2. COPING TO BE 18" WIDE X 2" THICKNESS. EDGE TREATMENT TO BE PENCIL EDGE OR SIMILAR. FINAL EDGE TREATMENT TO BE SELECTED BY OWNER.
3. PROVIDE STEPS IN SHALLOW END AND TWO SWIMOUTS/BENCHES IN DEEP END.
4. PROVIDE TWO (2) UNDERWATER LED POOL LIGHTS
5. PROVIDE RETRACTABLE SAFETY AUTOCOVER
6. PROVIDE WINTER COVER
7. PROVIDE A 100,000 BTU STA RITE POOL HEATER, PROPANE
8. POOL TO BE SALT WATER SYSTEM
9. PROVIDE ONE POLARIS POOL CLEANER
10. PLASTER STYLE TYPE AND COLOR TO BE SELECTED BY OWNER
11. TILE STYLE TO BE SELECTED BY OWNER
12. PROVIDE FILTER PUMP, 15 HP HAYWARD SUPER PUMP
13. ALL POOL EQUIPMENT AND COMPONENTS TO BE HIGH-EFFICIENCY AND ENVIRONMENTALLY-FRIENDLY
14. PROVIDE A 500 SQ FT STA RITE CARTRIDGE FILTER SYSTEMS (NO BACKWASH NECESSARY)
15. CONNECT TO UNDERGROUND PROPANE TANK
16. SWIMMING POOL CONTRACTOR SHALL PROVIDE ENGINEERED POOL STRUCTURAL PLANS AND DETAILS AS REQUIRED BY TOWN TO SECURE ALL APPROVALS AND PERMITS

Revisions	Date	 Tracy Chalifoux LLC Landscape Architect 7 King Street, Danbury, CT 06811 Office: 845-364-1360 E-mail: tchalfoux@gmail.com		Project Title WETLAND APPLICATION PLAN PREPARED FOR: DAVID P. AND JENNIFER S. JAEHNIG Location 17 HIDDEN LAKE RIDGE RD WILTON, CONNECTICUT	Graphic Scale and North Arrow Date January 7, 2021 Scale 1"=20'-0" Checked TLC Drawn TLC	Drawing Title SWIMMING POOL SITE PLAN Drawing No. L-2 SHEET 2 OF 2
-----------	------	---	--	---	--	--

1. CONTACT CALL BEFORE YOU DIG AT 800-922-4455 TO HAVE UNDERGROUND UTILITY LINES MARKED PRIOR TO START OF ANY EXCAVATION WORK.
2. BASE MAP INFORMATION WAS TAKEN FROM "TOPOGRAPHIC MAP" PREPARED BY RKW LAND SURVEYING, NEW CANAAN, CT DATED MARCH 3, 2010.



			 Tracy Chalifoux LLC Landscape Architect 7 King Street, Danbury, CT 06811 Office: 945-364-1369 E-mail: tchalifoux@gmail.com	Seal	Project Title CONCEPT PLAN PREPARED FOR: DAVID P. AND JENNIFER S. JAEHNIG	Graphic Scale and North Arrow 0 20' 40'  Date October 21, 2020	Drawing Title SWIMMING POOL FEASIBILITY STUDY	Drawing No. CP	
Revisions	Date				Location 17 HIDDEN LAKE RIDGE RD WILTON, CONNECTICUT	Scale 1"=20'-0"	Checked TLC	Drawn TLC	SHEET 1 OF 1

**Biological Evaluation
Of
Wetlands and Watercourse**

The Jaehnig Site
17 Hidden Lake Ridge Rd.

Wilton, CT

Approx. 2.0 –Acres Area

Prepared for

David and Jennifer Jaehnig

Jan. 2, 2021

21jaehnig.17hiddenlakeridge.Biol.wiltonCT

Introduction

A biological evaluation of wetlands and a watercourse was completed Jan. 2, 2021 on property identified as 17 Hidden Lake Ridge in Wilton, CT by Paul J. Jaehnig, Certified Wetland Scientist. The work consisted of: characterizing wetlands / watercourse and functions; describing vegetative cover; assess wildlife habitat potential; and outline impacts to the wetland / watercourse functions as a result of the proposed project. The work was conducted in accordance with the Town of Wilton Wetland Law guidelines for a Significant Wetland Permit Application. The work was done at the request of the clients and property owners, David and Jennifer Jaehnig. A biological assessment of the site was previously prepared by this office in April of 2020 for the installation of a new sewage disposal area.

Site Description

The site is an approx. 2.0 acres area property situated on the south side of Hidden Lake Ridge. The site consists of: a residence; surrounding lawn; woodlands; and wetlands (see enclosed *Wetland Map* and *photos 1-8* in the Appendix).

Slopes vary from nearly level and gently sloping to steep sloping. Most of the site is gently sloping. Nearly level land is around the residence, and some of the central-southern portions of the site. Steep sloping land is on the southwest corner of the site. The central-southern and southeast portions of the site slope down to the west. The southwest corner of the site slopes down to the north. The central and northern portions of the site slope down to the north. Land around the residence and along the driveway has topography modified by past man-made activity, such as soil cut, fill, and machine grading, carried-out during the development of the site.

Wetlands

Introduction

Two separate wetland areas were identified: wetland areas WL-“A” and “B”. These wetland areas are on the southern, western, and northern portions of the site (see enclosed *Wetland Map*). Previous man-made disturbances to the site, including soil filling and grading associated with the development of the site, has resulted in disturbances to wetlands on the site. These past wetland disturbances include: local modification of natural drainage patterns; segmentation of wetland areas; and modification of natural wetland vegetative cover. Plant types and distribution, as well as, wildlife habitation in these wetlands is indicative of these man-made disturbances.

Wetlands on the site are classed as: Palustrine forested with a deciduous cover, non-tidal saturated hydrology, acidic water chemistry, and mineral soil composition (Classification PFO1aBn in “Classification of Wetlands and Deep-water Habitats of the United States”

(cont.)

by Cowardin, Carter, Golet, and LaRoe); i.e. swampland. The watercourse on the site is classed as: a small Riverine, intermittent, with an unconsolidated bottom (Classification R4UB, using as above). The wetlands on the site are mainly poorly drained, with only a small area, west of the residence, being very poorly drained. The soils found in these wetlands are mineral-types (poorly drained Leicester loam, and lesser amounts of very poorly drained Sun silt loam). Soils formed recently along the watercourse, located to the west and north of the residence, are termed Fluvaquent soils. Where there has been past man-made disturbance of wetland soils, the designation of Aquents soils is used. Wetland are mainly poorly drained, and the organic rich surface layers of the site wetland soils are thin. The water table in the wetlands may be at or near the ground surface at wetter periods of the year, but may drop to 1 or 2 ft. or more at droughty periods of the year. The wetland soils have developed on a parent glacial till, underlain by granitic metamorphic bedrock (gneiss and schistose types), and so drainage waters have an acidic pH. Plant communities and anticipated wildlife use in the site is a consequence of the drainage conditions and water chemistry.

Using also the Hollands and Magee “Hydro-geomorphic (HGM) Classification approach, wetlands on the site can be termed as: nearly level to very gently sloped depression wetland (swampland) with no outlet; small intermittent, upper regime (toward beginning or upper portion of watershed) watercourse with associated corridor of slope wetlands (swampland and wetland lawn).

Wetland WL- “A”

Wetland Description

Wetland WL-“A” is a poorly drained, nearly level to very gently sloped depression forested swamp wetland located on the southern portion of the site (see *photos 1 & 2* in the Appendix). The wetland is irregularly-shaped, approx. 90 ft. across (west to east), and 70 to 50 ft. across (north to south). The wetland covers approx. 0.12 acre in area.

Wetland WL-“A” is hydrologically “isolated” in that there is no defined drainage course flowing in to nor out of the wetland area. The wetland originates on, and is confined almost entirely to the site. Hydrology of the wetland is supported by: intermittent direct precipitation from rainfall and snow melt; intermittent storm-water run-off from surrounding upland areas; and groundwater. The surrounding upland watershed to the wetland is small; approx. 1-1.5 acres. The wetland has very soggy soils at this time of year, but is anticipated to have a depressed water table, and a rather dry surface in many portions of the wetland floor, at droughty periods of the year. During extended, large

(cont.)

rainfall events there may be the potential for a build-up of surface drainage on the western portion of the wetland sufficient enough to allow some intermittent surface discharge from the northwest end of wetland WL-“A”, for a short distance, before being lost to subsurface infiltration. The hydrology of this wetland tends toward the “drier” end of the wetland spectrum.

The eastern portion of wetland WL-“A” is nearly level to very gently sloping (see *photo 1* in the Appendix). The soils are poorly drained. Micro-topography is weakly developed, and in the slight concave areas are soggy patches of matted leaf litter. Puddled water is not evident at this time.

The western portion of wetland WL-“A” is level and slightly concave (see *photo 2* in the Appendix). Soils here are “wetter” than the eastern portion of the wetland, with shallow puddled water covering areas 5 to 8 ft. across during wetter periods of the year. The micro-topography here is also weakly developed.

Wetland Flora & Fauna

The hydrologic condition, relatively small area, separation from other wetlands systems, and proximity to residential lands, has resulted in a poorly-developed vegetative diversity, and thereby somewhat diminished value as an attractive wildlife habitat area.

On the eastern portion of the wetland WL-“A”, the tree canopy consists of red maples with shallow and exposed root development. The trees are approx. 8 to 15 inches (d.b.h.) in size, and are spaced approx. 20 ft. or more apart. The understory is quite open except for a dominance of barberry shrubs, a few large spicebush, and few large winged euonymus. The shrub understory covers 10 to 20% of the wetland floor. The wetland floor is covered with low-growing poison ivy. Pachysandra groundcover has encroached into northern edge of the wetland. Matted leaf litter covers the un-vegetated portions of the wetland.

On the western portion of wetland WL-“A” there is a gap in the red maple tree canopy. Only a few red maples grow on the westernmost edge of the wetland. The shrub understory is also open. Herbaceous growth is more prevalent in this portion of the wetland. Japanese stilt grass (an invasive plant) is quite common here, along with few skunk cabbage, only one or two tussock sedge, fireweed, less than five sensitive ferns, and one or two jack-in-the-pulpit. Low-growing poison ivy groundcover is abundant.

(cont.)

Wildlife habitation of wetland WL-“A” is limited to use mainly by transient wildlife such as white-tailed deer, coyote, turkey, gray and red foxes, and raccoon. These larger animals typically traverse and browse the wetland, from time to time, while cross-cutting through adjacent woodland areas in search of food. Smaller mammals may include field mice and voles. Ribbon snake, possible copperhead, may inhabit voids in fieldstone wall close to the southwest side of wetland WL-“A”. The small size of the wetland, a somewhat “drier” hydrologic wetland position, and separation from other wetlands systems, limit potential for an abundant wildlife population in the wetland area. Reptiles such a box turtle and snapping turtles would not be anticipated in the wetland WL-“A” because of the lack of ponding. Salamanders would not be anticipated here as there is no vernal pool development, and the adjacent forest buffer area has been generally segmented and reduced by residential lands. Aquatic life, such as fish, would also not be supported in this “drier” hydrologic regime. Green frog and the spring peeper may utilize some of the “wetter” western portion of wetland WL-“A”. The red maple tree canopy, and tall shrub borders where gaps in the canopy occur, provide opportunities for small songbirds to nest and perch. Birds such as the Common yellowthroat, woodcock, blue jay, American robin and sparrow may utilize such areas in and around the wetland. The butterfly and grasshopper may possibly be in the more open areas of the wetland during summer months.

Wetland WL- “B”

Wetland WL-“B” is located on the central-western, northwest, and northeast portions of the site (see *photos 3 to 6* in the Appendix). The wetland extends to the west and northeast of the site. Wetland WL-“B” consists of a small watercourse with a narrow corridor of flanking associated hillside wetlands.

Watercourse Description

The watercourse is a small riverine system, located at the upper regime or headwaters of its drainage watershed. The watercourse drainage is intermittent, its gradient is gentle, and there is little appreciable floodplain development. The small watercourse channel is approx. 2 ft. wide and 1 ft. deep for the most part. Approx. 1 to 1/2 inch deep water flows in a channel lined mainly with gravel and fine sandy loam sized deposits. A narrow corridor of gently sloped wetlands flank the watercourse.

(cont.)

The watercourse flows out from under a neighbor's driveway and then enters the central-western edge of the site. The watercourse turns northeast, continuing for approx. 80 ft. This section of the watercourse channel is approx. 2 to 3 ft. wide, 2 to 2.5 ft. deep, and has a steep side slopes. The channel is rather linear and it clearly has been excavated to control its course. The channel floor is un-vegetated and has a gravelly bottom. The channel gradient is gentle. Approx. 1/2 inch deep water flows in this section of the watercourse. Gently sloped non-wetland woodlands flank this section of the watercourse. The watercourse gradient flattens near the west-northwest of the residence, and its channel of approx. 2.0 ft. width, becomes less defined. The watercourse channel is lined with fine sand and loam deposits.

Once past the northwest corner of the residence, the watercourse continues northeast, developing increasing again to a more gentle gradient again (see *photos 3 & 4* in the Appendix). The watercourse here has a slightly meandering, well-defined channel; its flow path has likely been controlled by past man-made disturbances. The channel is approx. 2.5 ft. wide and less than 1 ft. deep. Approx. 1 inch deep water flows in the channel. Stones and small boulders, placed end to end, stabilize the channel sides. The watercourse channel is mainly un-vegetated, lined with cobbles and fine sand deposits, except where groundcovers of pachysandra and lawn fescue grasses have encroached into some of the channel. Very gently sloped wetlands flanking the watercourse.

Near the central-northern edge of the site, the watercourse turns east and is then piped under the driveway, near the driveway entrance. The watercourse continues east, for approx. 40 ft., before turning north where it is then be piped under Hidden Lake Ridge and away from the site.

This last 40 ft. section of the watercourse is approx. 2 to 3 ft. wide and less than 0.5 ft. deep, and carries approx. 1 inch deep water; it has a very gentle to nearly flat gradient. The channel limits are poorly defined here as there is little relief contrast with adjacent wetlands.

The watercourse has variable flow characteristics. At wetter periods of the year, flow is generally contiguous through the site. In contrast, at droughty times of the year, the watercourse's flow may be discontinuous and flow tapers down to a trickle.

(cont.)

Wetland Description

Wetland WL-“B” is mostly poorly drained, with a small area just to the west of the residence being very poorly drained (see *photos 5 & 6* in the Appendix). Wetland areas are approx. 20 ft. across east to west, at a point to the west of the residence. To the north of the residence, the wetlands are approx. 15 to 20 ft. wide to the west of the watercourse, and nil to 3 ft. wide to the east of the watercourse. The wetlands are approx. 40 ft. wide east to west, and 50 ft. long north to the south on the northeast corner of the site. In total, wetlands in wetland WL-“B” cover approx. 0.12 acre in area. Wetland WL-“B” has only weak micro-topography development in the areas near the central-western and central-northern portions of the site; otherwise, there is no micro-topography development. Wetlands in wetland WL-“B” are mainly gently sloped; their diffuse seeps drain toward in a general northerly direction and toward the watercourse.

Most of the wetlands in wetland WL-“B” do not experience significant inundation because of they have slight gradients. Locally, there may be limited inundation of wetland areas, where the wetland gradient is nearly flat or where flow through a drainage pipe backs-up. One such area is near the northern edge site where the drainage is piped under the driveway. A second area is where drainage is piped under the Hidden Lake Ridge road. A third and final small area is just to the west of the residence, where the watercourse gradient temporarily flattens out. The hydrology of wetland WL-“B” is subject to fluctuations in degree of saturation, with soggy soils and diffuse seeps developing at wetter times of the year, and relatively dry soil surfaces during summer periods with extended droughty spells.

Wetland WL-“B” is subject to sediment influx from upland areas. The primary source of sediment influx is carried in suspension by the watercourse. During large storm events the watercourse flow surges and sediment carried by run-off is washed into the watercourse. Soil plucked from the steep side slopes of the watercourse section, on the central-western edge of the site, is gradually carried downstream and re-deposited at lower points along the watercourse. There are also spot areas of soil slump along the narrow steep side slopes bordering the east side of the wetland, where adjacent to the residence.

(cont.)

Wetland Flora & Fauna

The vegetative cover of wetland WL-“B” consists of: sensitive fern, skunk cabbage, minor sallow sedge, pachysandra, and Japanese stilt grass. Pachysandra groundcover is primarily along the wetlands covering the northwest portion of the site. A few winterberry and barberry shrubs grow in the wetland area near the edge of woodlands on the central-northern edge of the site. Thin shrub understory of few spicebush grow near the woodland edge to the west of the residence. Japanese stilt grass growth is more common on the wetland area to the west of the residence, and wetlands adjacent to the driveway crossing. In this area, there is no tree canopy, as well as, no pachysandra groundcover encroachment. A small area of gently sloped wetland swampland, on the northeast corner of the site, has a vegetative cover of: red maple tree canopy; thin understory of barberry and spicebush; herbaceous growth of skunk cabbage. Matted leaves cover many un-vegetated portions of the wetland floor of wetland WL-“B”. A small area of nearly level wetland lawn, approx. 8 ft. long parallel to the watercourse, and 3 ft. wide normal to the watercourse, is located just to the northwest and downslope of the residence.

Wildlife habitation in wetland WL-“B” consists of the occasional browsing deer, raccoon, and squirrel. The close proximity to open residential limits their visits. The open wetland areas just to the west of the residence, where there is some herbaceous growth and no pachysandra encroachment, may be utilized by spring peepers and butterflies. Spring peepers and butterflies may utilize areas along the watercourse. Ribbon snakes may utilize the wetlands on the northern portion of the site where they have the protective cover of lush pachysandra.

Wetland Buffers

Wetland WL-“A” is buffered by: gently sloped woodlands on the west, east, and south sides; on the north side by a flat-topped fill soil mound with lawn cover where a newly installed sewage disposal area is located.

Wetland WL-“B” is buffered by: gently sloped woodlands along its western and southwest sides; gently sloped lawn area along its eastern side, and placed stones and boulders along the north portion of the east side of the watercourse. A steep sloped, narrow strip of land vegetated in part with pachysandra and grasses, borders the east side of wetland WL-“B” where it passes the west side of the residence.

(cont.)

Wetland Functions

Wetland WL-“A” functions primarily as a small contributory local ground-water recharge area because it has a very slight concave profile, and most particularly because it lacks a surface drainage outlet. Such conditions are suitable to hold precipitation and captured run-off to be made available for subsurface infiltration. The wetland also provides water quality function by trapping sediment, or any dissolved pollutants, carried in run-off from travelling further down on the watershed. The contribution of this wetland to this function is likely minor. The wetland provides some wildlife habitat area potential for browsing deer, coyote, raccoon, squirrel, turkey, and chipmunk. Small songbirds may utilize the tree and shrub cover for nesting. The proximity to residential lands does, however, limit this area as a significant wildlife habitat area.

Wetland WL-“B” functions primarily as a local ground-water discharge point, providing contributory drainage to lower points within the watershed. The restricted drainage outlet, near the driveway and property line, as well as, placement of stones and boulders placed along the watercourse channel, serve to promote both water quality and local flood control functions, by attenuating watercourse flow rates and trapping pollutant loads carried by the watercourse. Deer, raccoon, fox, squirrel, and chipmunk may occasionally browse the western portions of the wetland, where there is a woodland border. Exposure to residential lands limits the value of the wetland as a significant wildlife habitat area. Dogs on the site, and on adjoining properties, are keen to discourage larger mammals from browsing the wetland during daylight hours. Butterflies and dragon flies, and spring peeper, may utilize the very poorly drained wetland area on the central-western portion of the site, as well as, areas along the watercourse to the north of the residence. Ribbon snake may inhabit the protective cover of pachysandra in the more northern portion wetland WL-“B”.

Proposed Project and Impact to Wetlands

An 18 ft. by 34 ft. sized in-ground swimming pool, with pool patio, associated pool equipment, pool fence enclosure, underground pool propane tank, and associated earth grading is proposed in the backyard of the site, all within 100 ft. of wetlands (see *photos 7 & 8* in the Appendix and enclosed *Wetland Map*). The closest proposed disturbances are 18 ft. from wetland for proposed grading, and 40 ft. for the proposed pool. No disturbance of wetlands is proposed. Details of the proposed structures are provided on a plan prepared by the office of Tracy Chalifoux, Landscape Architect. The location of the proposed disturbance is based on zoning and health dept. setback restrictions.

(cont.)

The area proposed for the pool is very gently sloped to nearly level lawn area. The proposed project will require the removal of two maples (14 inch and 30 inch caliper) and a third birch (16 inch caliper) in the lawn area, in the location of the proposed pool. A fourth tree is proposed for removal near the wetland edge based on hazard potential. Because the area is nearly level to very gently sloped, proposed earthworks will not be extensive, focusing primarily on excavation for the pool.

The proposed pool is a “cartridge-type” design, requiring no backwashing. The proposed pool may be considered a “closed-system”, having no contact with ground water, and no discharge from the pool into adjacent non-wetland buffer, wetland, and watercourses with regards to operation and maintenance.

The proposed project will also provide substantial permanent mitigation measures by way of installing native plantings including: 8 trees; 26 shrubs; and twelve herbaceous plants. Details of the proposed mitigation plantings are depicted on the plan prepared by the office of Tracy Chalifoux, Landscape Architect. These proposed plantings will be installed in the wetland buffer, between the proposed pool area and wetlands, as well as, in wetland areas. The areas proposed for planting mitigation are presently either lawn area in the wetland buffer, or wetland areas with poor vegetative density and diversity, most particularly with regards to shrub understory.

The proposed project will not result in a negative impact to wetlands and watercourse. Since the proposed pool is a closed system, there will no fouling of wetlands, watercourse, or groundwater. Wetland functions, as previously outlined, will not be adversely impacted by the proposed project. While the proposed pool is considered “hardscape”, and will result in removal of existing vegetative cover in the wetland buffer, the area “lost” is residential lawn and is not highly attractive area for wildlife, and is not an optimal buffer to wetlands. In contrast, the proposed project with proposed mitigation plantings, can actually provide a substantial improvement to potential wildlife habitation in and around wetlands, as well as, add overall functional value to the vegetative structure and diversity of the wetland buffer and wetlands, than is otherwise existing in the wetland buffer and wetlands. Furthermore, the proposed mitigation plantings will better protect surface water quality, particularly along the base and side slope along the east side of wetland WL-“B” where adjacent to the residence, by anchoring the soils and thereby reducing the potential of sediment influx down into the adjacent wetland and watercourse.

(cont.)

Curiously enough, there is an unexpected bonus to the proposed project pool project with regards to wetland and watercourse quality. It is this office's experience of seeing pool projects, before and after for over 37 years in Wilton and other towns, that homeowners tend to reduce or eliminate chemical applications to their lawn area surrounding their pool. Maybe humans are not as dumb as we might think. It seems that homeowners are discouraged from wanting to use lawn chemical applications in an area they and their children will be swimming and walking around in bare feet. In this light, a pool can be regarded as somewhat of an "environmental insurance policy"; its presence provides the self-serving motivation for the homeowner to better protect themselves and the natural environment.

The most significant negative impact to wetlands posed by the project is the small, but unavoidable "nuisance" impact associated with noise from machine equipment during the construction period. Wildlife, particularly small birds, may be temporarily displaced and likely keep away from lands in close proximity to the area of construction until work ceases. This is a short-term and minor negative impact. It is a commonly occurring, but generally tolerated impact whenever work of this type has to be carried-out in Wilton. I

In summary, the proposed project provides many positive and permanent impacts to the wetlands buffer, wetlands, and watercourse. The only negative impact is short-term and relatively superficial in nature.

Appendix

Selected Site Photos



Photo 1 Looking south across the east portion of wetland WL- "A". Note neighbor's residence in upper right background of photo..



Photo 2 Looking south across western portion of wetland WL- "A". Note newly installed sewage disposal area in upper right portion of photo; residence in upper center background of photo.

Jan. 2021- The Jaehnig Site, 17 Hidden Lake Ridge, Wilton, CT



Photo 3 Looking north and downstream along watercourse associated with wetland WL-"B". Note neighbor's residence on opposite side of road in upper background of photo.



Photo 4 Looking southerly and upstream along watercourse associated with wetland WL-"B". Note edge of residence in upper left corner of photo.

Jan. 2021 – The Jaehnig Site, 17 Hidden Lake Ridge, Wilton, CT



Photo 5 Looking southerly and upslope along wetland WL- "B". Note residence is to the left of photo.



Photo 6 Looking southerly and upslope along wetland WL- "B". Note residence is to the left of photo.
Jan. 2021- The Jaehnig Site, 17 Hidden Lake Ridge, Wilton, CT

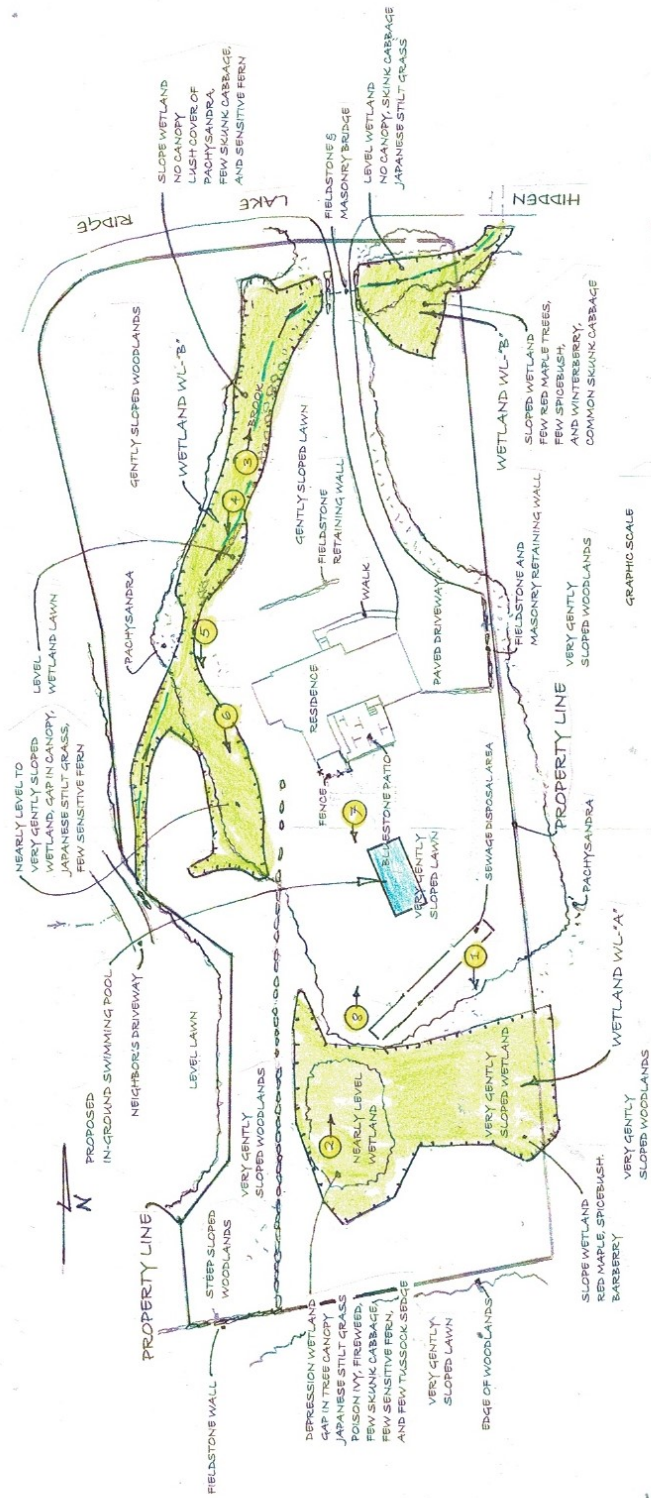


Photo 7 Looking southerly across backyard lawn area proposed for in-ground swimming pool.



Photo 8 Looking northerly across backyard lawn area proposed for in-ground swimming pool. Note residence in the background of photo.

Jan. 2021- The Jaehnig Site, 17 Hidden Lake Ridge, Wilton, CT



Wetland Map **The Jaehning Site** **17 Hidden Lake Ridge**

Wilton, CT

Approx. 2.0 Acres Area

Prepared for
David and Jennifer Jaehning

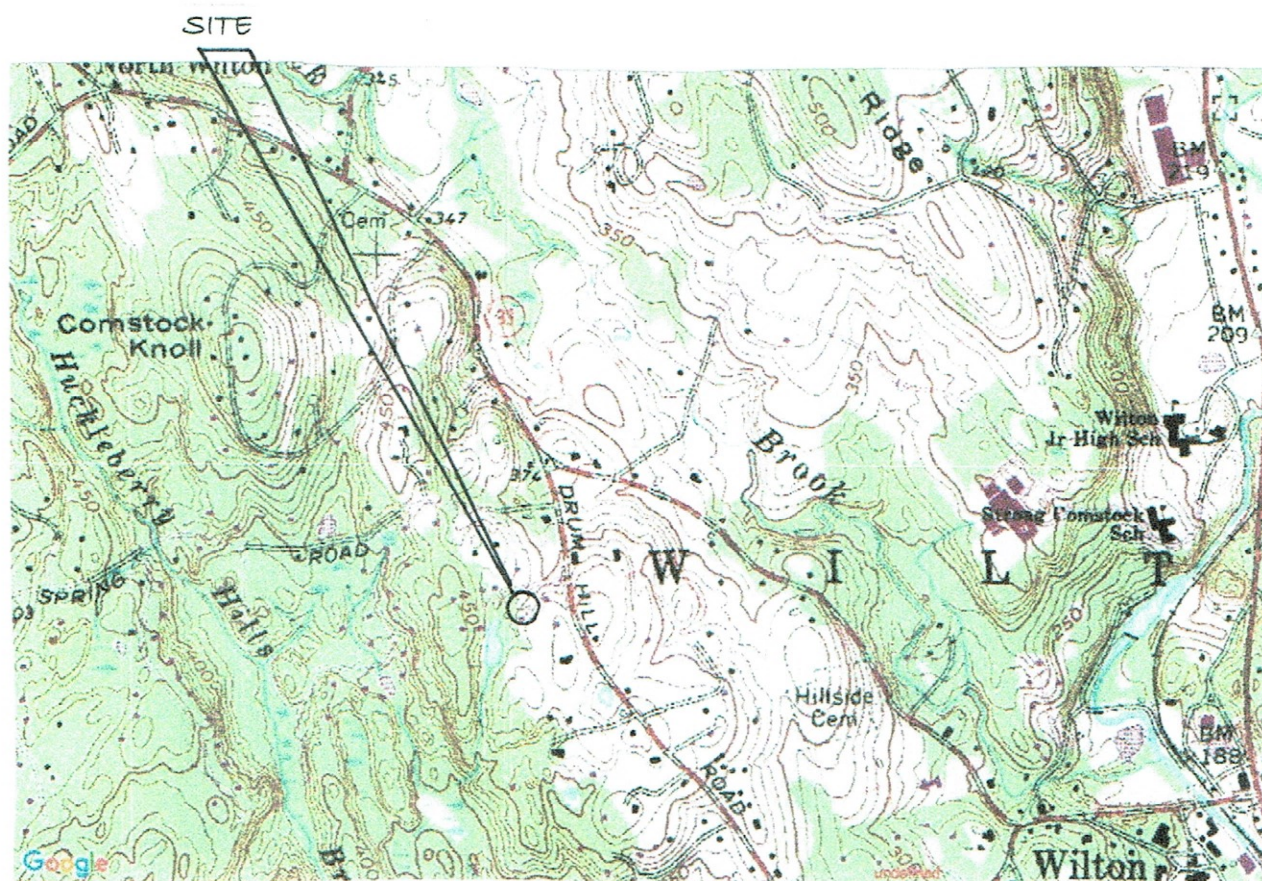
Jan. 2, 2021

Prepared By
Paul J. Jaehning - Wetlands and Soils Consulting
 P.O. Box 1071 Ridgefield, CT 06877

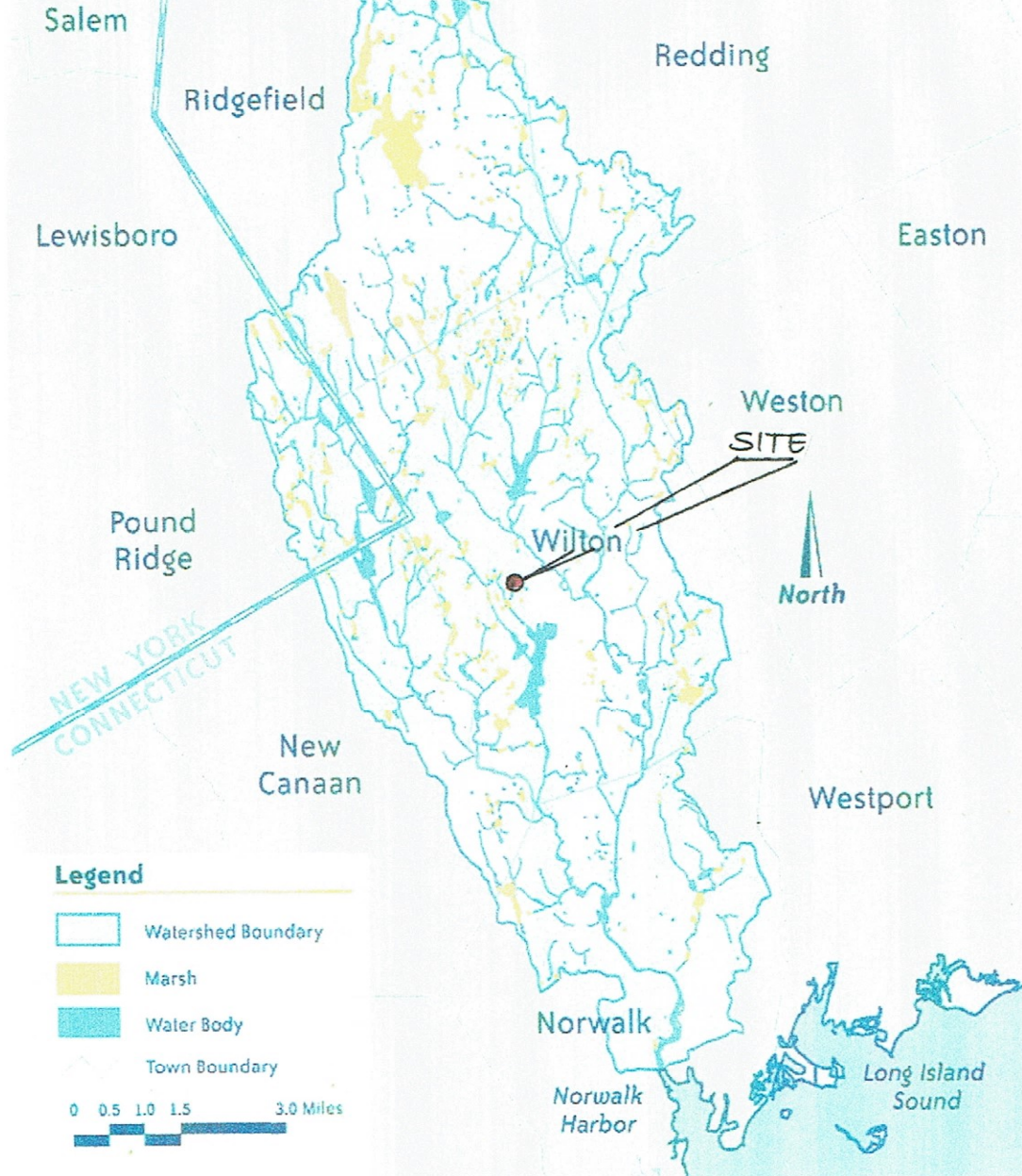
Map Scale: 1 inch = 50 ft.

MAP NOTES:

1. WETLANDS INVESTIGATION COMPLETED FEB. 24, 2020 BY PAUL J. JAEHNIG - CERTIFIED PROFESSIONAL GEOLOGIST, SOIL SCIENTIST, AND WETLAND SCIENTIST IN ACCORDANCE WITH THE TOWN OF WILTON WETLANDS LAWS. WETLAND BOUNDARY AS DEPICTED ON THIS MAP, SURVEY-LOCATED BY RWL LAND SURVEYING.
2. LOCATION OF PROPERTY LINE, ROAD, DRIVEWAY, AND RESIDENCE FROM SURVEY PREPARED BY RWL LAND SURVEYING.
3. EDGE OF WOODLANDS, VEGETATIVE COVERS, AND WALLS PLOTTED ONTO MAP DURING WETLAND INVESTIGATION.



REGIONAL DRAINAGE MAP
N.T.S.

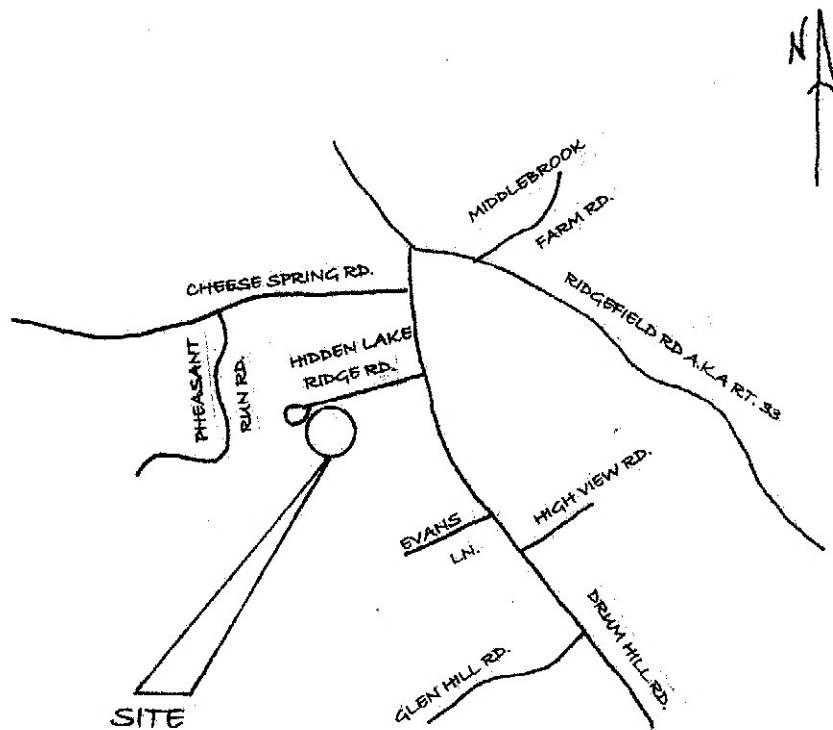


Map courtesy of The Norwalk River Watershed Initiative

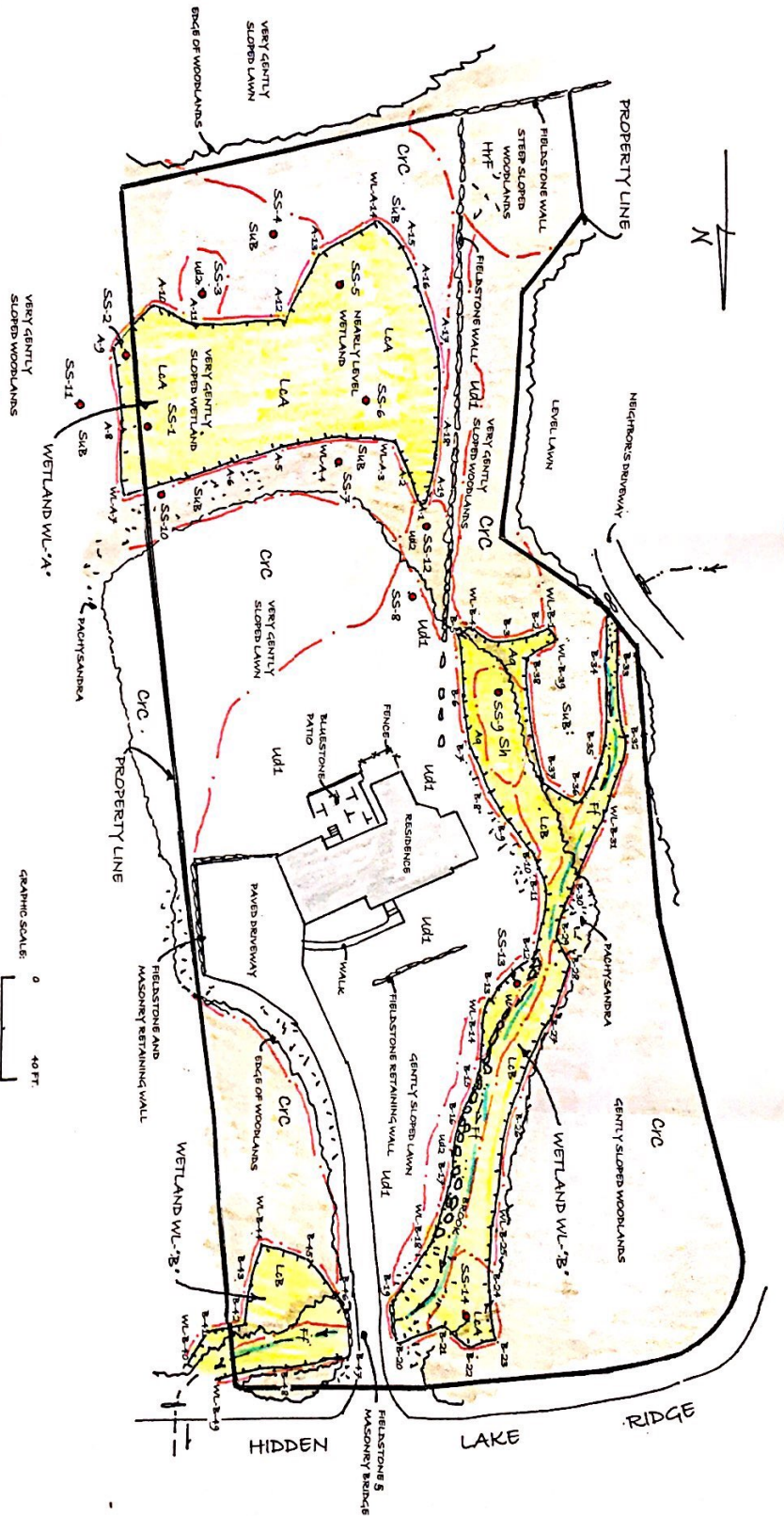
©Norwalk River Watershed Association, a 501(c)(3) nonprofit membership organization

List of Adjoining Neighbors to 17 Hidden Lake Ridge Rd.

1. Stephanie A. Weiner – 57 Drum Hill Rd. Wilton, CT 06897
2. Vincent and Kimberly DeJana- 55 Drum Hill Rd. Wilton, CT 06897
3. Anthony and Ananda Lea Ward - 23 Hidden Lake Ridge Rd. Wilton, CT 06897
4. Thomas B Harrington - 5 Hidden Lake Ridge Rd. Wilton, CT 06897



LOCATION MAP
MAP SCALE: 1 INCH = 800 FT.



KEY TO MAP
 ● SS-1 SOIL BORING LOCATION
 WL-A1
 WL-A2 FLAGGED WETLAND BOUNDARY
 WL-A3

SOILS INFORMATION

NON WETLAND SOILS

CYC Chanton-Chatfield complex, rolling, v. rocky
 well drained, slopes 2 to 15 %

HTF Hollis-Chatfield-Rock outcrop complex
 well drained, slopes 15 to 35 %

SUB Sutton loam
 moderately well drained, slopes 3 to 8 %

UDI Udorthons soils
 well drained, slopes varied

UDZ Udorthons soils
 moderately well drained, slopes varied

WETLAND SOILS

Aq Aquents soils
 poorly drained, slopes 0 to 3 %

Ff Fluvaquents
 very poorly drained, slopes 0 to 2 %

LcA LcA
 poorly drained, slopes 0 to 3 %

LcB LcB
 poorly drained, slopes 3 to 8 %

Sh Sh
 very poorly drained, slopes 0 to 2 %

Uo Udorthons, wet substratum
 poorly drained, slopes 0 to 5 %

UDI Udorthons soils
 well drained, slopes varied

CYC

Wetland & Soils Map

The Jaehning Site

137 Hidden Lake Ridge

Wilton, CT

Approx. 2.0 acres area

Prepared for

David and Jennifer Jaehning

Feb. 24, 2020

Prepared By
 Paul Jaehning - Wetlands and Soils Consulting
 P.O. Box 1091 Ridgefield, CT 06877

Map Scale: 1 inch = 40 ft.

Wetlands Survey

The Jaehnig Site
17 Hidden Lake Ridge Rd.

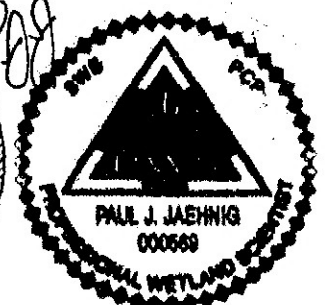
Wilton, CT

Approx. 2.0 –Acres Area

Prepared for

David and Jennifer Jaehnig

Feb. 24, 2020



20jaehnig.17hiddenlakeridge.wiltonCTwrep

Introduction

A wetland investigation was completed Feb. 24, 2020 on property identified as 17 Hidden Lake Ridge in Wilton, CT by Paul J. Jaehnig, Certified Professional Geologist, Soil Scientist, and Wetland Scientist. The work consisted of the taking of soil borings to identify the presence of wetland or hydric soils and the delineation of the wetland boundary. The work was conducted in accordance with the Town of Wilton Wetland Law. The work was done at the request of the clients and property owners, David and Jennifer Jaehnig.

Site Description

The site is an approx. 2.0 acres area property situated on the south side of Hidden Lake Ridge. The site consists of: a residence; surrounding lawn; woodlands; and wetlands (see enclosed *Wetland and Soils Map* and *photos 1-10* in Appendix I).

Slopes vary from nearly level and gently sloping to steep sloping. Most of the site is gently sloping. Nearly level land is around the residence, and some of the central-southern portions of the site. Steep sloping land is on the southwest corner of the site. The general direction of slope across the southern portion of the site is down to the north. The central and northern portions of the site slope down to the north. The northwest corner of the site slopes down to the east. Land around the residence and along the driveway has topography modified by past man-made activity such as soil cut, fill, and machine grading carried-out during the development of the site.

A paved driveway comes off of Hidden Lake Ridge and into the northeast corner of the site (see *photo 1* in Appendix I). The driveway continues south to southeast across the northeast portion of the site, widening to form a vehicle parking area adjacent to the northeast side of the residence near the central-eastern edge of site. The residence is located on the north-central portion of the site (see *photos 1 & 2* in Appendix I).

Lawn covers much of the northern portion of the site, as well as, the central, and southern-central portion of the site (see *photos 1 & 2* in Appendix I). *Pachysandra* groundcover grows along some of the lawn edges (see *photo 3* in Appendix I).

Non-wetland woodlands cover the northwest, northeast, and southwest portions of the site, and the southern edge of the site (see *photo 4* in Appendix I). Woodlands have a tree canopy of sugar maple, northern red oak, beech, and red maple. The woodland understory has shrubs of winged euonymus and barberry. Some of the winged euonymus shrubs has large. Beds of *pachysandra* have encroached into some of the woodlands near the lawn edge on the southern portion of the site. Poison ivy growth is noted on some woodlands floor where close to wetlands on the southern portion of the site. Twig and leaf litter covers the woodland floor. Low profile rock outcroppings are noted in the woodlands on the southwest corner of the site.

Wetlands

Introduction

The wetland boundary was marked in the field with consecutively numbered flagging labeled (WL-A-1, WL-A-2, etc.). The wetland boundary was plotted on the enclosed *Wetland and Soils Map*. Two separate wetland areas were identified: wetland areas WL-"A" and "B". These wetland areas are on the southern, western, and northern portions of the site. Previous man-made disturbances to the site, including soil filling and grading associated with the development of the site, resulted in local modification of natural drainage patterns, as well as, segmentation of what was likely one contiguous wetland area.

Wetland WL-"A"

Wetland Description

Wetland WL-"A" is a level and very gently sloped swampland located on the southern portion of the site (see *photos 5 & 6* in Appendix I). The wetland is irregularly-shaped, approx. 90 ft. across west to east, and 70 to 50 ft. across north to south.

The wetland is hydrologically isolated in that there is no defined drainage course flowing into nor out of wetland area. The wetland originates on, and is confined essentially on the site. The eastern portion of the site is very gently sloping down to west, draining toward the nearly level and very slightly concave western portion of the wetland. The wetland is poorly drained. Micro-topography is weakly developed. Slight concave areas have matted leaves and puddled water in places. Hydrology of the wetland is supported by: intermittent direct precipitation from rainfall and snow melt; intermittent storm-water run-off from surrounding upland areas; and groundwater. The wetland has very soggy soils at this time of year, but is anticipated to have a depressed water table, and a rather dry surface in many portions of the wetland floor, at droughty periods of the year. During extended, large rainfall events there may be the potential for a build-up of surface drainage on the western portion of the wetland sufficient enough to allow some intermittent surface discharge from the northwest end of wetland WL-"A".

The wetland vegetative cover consists of: a thin tree canopy of red maple; a thin shrub understory of barberry, few spice bush, and winged euonymus; groundcover of poison ivy; and herbaceous growth of Japanese stilt grass, fireweed, and a few sensitive ferns. Matted leaves cover many un-vegetated portions of the wetland floor. Tree and shrubs commonly have shallow and exposed roots. The tree canopy has a gap on the western portion of the wetland; Japanese stilt grass is very common in this area. *Pachysandra* has encroached into the northeast portion of wetland "A".

Wetland Buffers

Wetland WL-"A" is buffered by: very gently sloped woodlands on all but the southwest side; moderate to steep sloped woodlands on the southwest side of the wetland.

Wetland Functions

Wetland WL-"A" provides the following wetland functions: a groundwater recharge function because of its level profile and micro-topography development and absence of a

defined surface drainage outlet. The wetland provides some minor wildlife habitat area utilized by the occasional browsing deer, squirrel, coyote, turkey, and raccoon. Butterflies may utilize the more open western portion of the wetland.

Wetland WL-"B"

Wetland Description

Wetland WL-"B" is located on the central-western, northwest, and northeast portions of the site (see *photos 7 to 10* in Appendix I). The wetland extends to the west and northeast of the site. Wetland WL-"B" consists primarily of a small watercourse with a narrow corridor of flanking associated hillside wetlands. A small watercourse, with channel approx. 2 ft. wide and 1 ft. deep, with approx. 1 to 1/2 inch deep flowing water, discharges from out a pipe with headwall from under a neighboring driveway and into the central-western edge of the site. The watercourse turns northeast for approx. 80 ft., flowing through a gently sloping, narrow and steep-sided, well-defined excavated channel, and into a more gently sloping wetland area located on the central-western portion of the site. The watercourse continues northeasterly, along a very slightly meandering course, across the northwest portion of the site (see *photo 7* in Appendix I). A narrow corridor of gently sloped wetlands flank the western side of the watercourse. Near the central-northern edge of the site, the watercourse turns east and is piped under the driveway (see *photo 8* in Appendix I). The watercourse continues for another 40 ft. and off of the northeast edge of the site (see *photo 9* in Appendix I). Just off of the site the watercourse turns north and is then piped under Hidden Lake Ridge.

Gently sloping and locally nearly level wetlands are on the central-western and northwest portions of the site, and the central-northern and northeast edges of the site. These wetland border the watercourse, and are closely associated with the watercourse. One area, located on the central-western portion of the site, and in close proximity to the west side of the residence, is more hydrologically separated from the other wetland areas associated with wetland WL-"B" as a consequence of a prior re-routing of the drainage near the western property line. Wetlands are poorly drained and locally very poorly drained. There is weak micro-topography developed in the wetland areas near the central-western and central-northern portions of the site. Drainage in wetlands is directed in a northerly direction. Wetlands flanking the watercourse exhibit diffuse seeps which drain to the watercourse. The wetlands may be locally inundated on the central-northern edge of the site should water flow become restricted during large rainfall events. A small area of poorly drained, nearly level wetland lawn area is on the east side of the watercourse, at a point just to the northwest of the residence (see *photo 10* in Appendix I).

The vegetative cover of wetland WL-"B" consists of: sensitive fern, skunk cabbage, sallow sedge, pachysandra, and Japanese stilt grass. Pachysandra groundcover is primarily along the wetlands covering the northwest portion of the site. A few winterberry and barberry shrubs grow in the wetland area near the edge of woodlands on the central-northern edge of the site. Matted leaves cover many un-vegetated portions of the wetland floor.

Wetland Buffers

Wetland WL-"B" is buffered by: gently sloped woodlands along its western and southwest sides; gently sloped lawn area along its eastern side, and placed stones and boulders along the north portion of the east side of the watercourse.

Wetland Functions

Wetland WL-"B" functions primarily as a local ground-water discharge point, providing contributory drainage to lower points within the watershed. Deer and raccoon may occasionally browse the wetland, however to close proximity to residential lands significantly limits the wetland as an important potential wildlife habitat area. Butterflies and dragon flies may utilize the very poorly drained wetland area on the central-western portion of the site.

Regional Drainage

Drainage on the site is directed northerly across the site, concentrating to form a small watercourse which flows off the northeast corner of the site. The drainage continues northeast and drains to the Comstock Brook. The Comstock Brook flows into the Norwalk River near Wilton Center (see *Regional Drainage Map* in Appendix II).

Soils

Shallow soil borings were taken using a spade and Dutch auger at selected locations throughout the site in order to identify wetland soils. Soil boring locations (SS-1, SS-2, etc.) were plotted approx. on the enclosed *Wetland and Soils Map*. Soil borings were logged noting color, texture, and redoximorphic features such as mottling. The color descriptions of the soils were keyed to the Munsell Color Notation. Detailed descriptions of soil borings are provided in Appendix III.

Soils encountered in the study area include: non-wetland, well drained Charlton-Chatfield complex, rolling, very rocky (CrC), slopes 2 to 15 %, in the undisturbed, gently sloped woodland and lawn areas on the site; non-wetland, well drained Hollis-Chatfield-Rock outcrop complex (HrF), slopes 15 to 35 %, in the undisturbed, moderately steep sloped woodland areas on the southwest portion of the site; non-wetland, moderately well drained Sutton loam (SuB), slopes 3 to 8 %, in the undisturbed, very gently sloped woodlands adjacent to wetlands on the southern and central-western portions of the site; non-wetland, well drained Udorthents cut, fill, and graded soil (Ud1), slopes varied, to describe soil areas, where man-made grading work has been carried-out, as part of the past development work on the site, around the residence, yard, and along the driveway; non-wetland, moderately well drained Udorthents (Ud2), slopes varied, to describe areas near some wetlands where the soil has been previously disturbed by man; wetland, poorly drained Aquents soils (Aq), slopes 0 to 3 %, to describe wetland areas previously disturbed by man; wetland, very poorly drained Fluvaquents (Ff), slopes 0 to 2 %, to describe wetland areas with young or recent soils formed along the active drainage course; wetland, poorly drained Leicester loam (LcA), slopes 0 to 3 %, in the undisturbed, nearly level wetland areas; wetland, wetland, poorly drained Leicester loam (LcB), slopes 3 to 8 %, in the undisturbed, gently sloped wetland areas; wetland, very poorly drained Sun silt loam (Sh), slopes 0 to 2 %, in the undisturbed, nearly level

wetland area just to the southwest of the residence; and wetland, poorly drained Udorthents, wet substratum (Uc), slopes 0 to 3 %, to describe a small area of wetland lawn, located to the northwest of the residence, where a thin cover of fill soil has been placed over a natural wetland soil profile. The site distribution of these soil-types is depicted on the enclosed *Wetland and Soils Map*.

Appendix I
Selected Site Photos



Photo 1 Looking south and upslope along driveway and toward residence.



Photo 2 Looking north across back yard lawn and toward residence.

Feb. 2020- The Jaehnig Site, 17 Hidden Lake Ridge, Wilton, CT



Photo 3 Looking southerly across gently sloped woodlands on the southern portion of site. Note pachysandra has encroached into woodlands from edge of lawn.



Photo 4 Looking northeast and downslope across woodlands on the southwest corner of the site. Note residence in upper background of photo; rock outcroppings in lower foreground of photo.

Feb. 2020 – The Jaehnig Site, 17 Hidden Lake Ridge, Wilton, CT



Photo 5 Looking west across eastern portion of wetland WL-"A". Note soggy ground and matted leaves in foreground of photo.



Photo 6 Looking northeast across western portion of wetland WL-"A". Note residence in upper left background of photo.

Feb. 2020- The Jaehnig Site, 17 Hidden Lake Ridge, Wilton, CT



Photo 7 Looking southerly and upstream along small watercourse associated with wetland WL- "B". Note narrow corridor of wetlands along west side of watercourse.



*Photo 8 Looking easterly along brook associated with wetland WL- "B" where watercourse is piped under driveway.
Feb. 2020- The Jaehnig Site, 17 Hidden Lake Ridge, Wilton, CT*



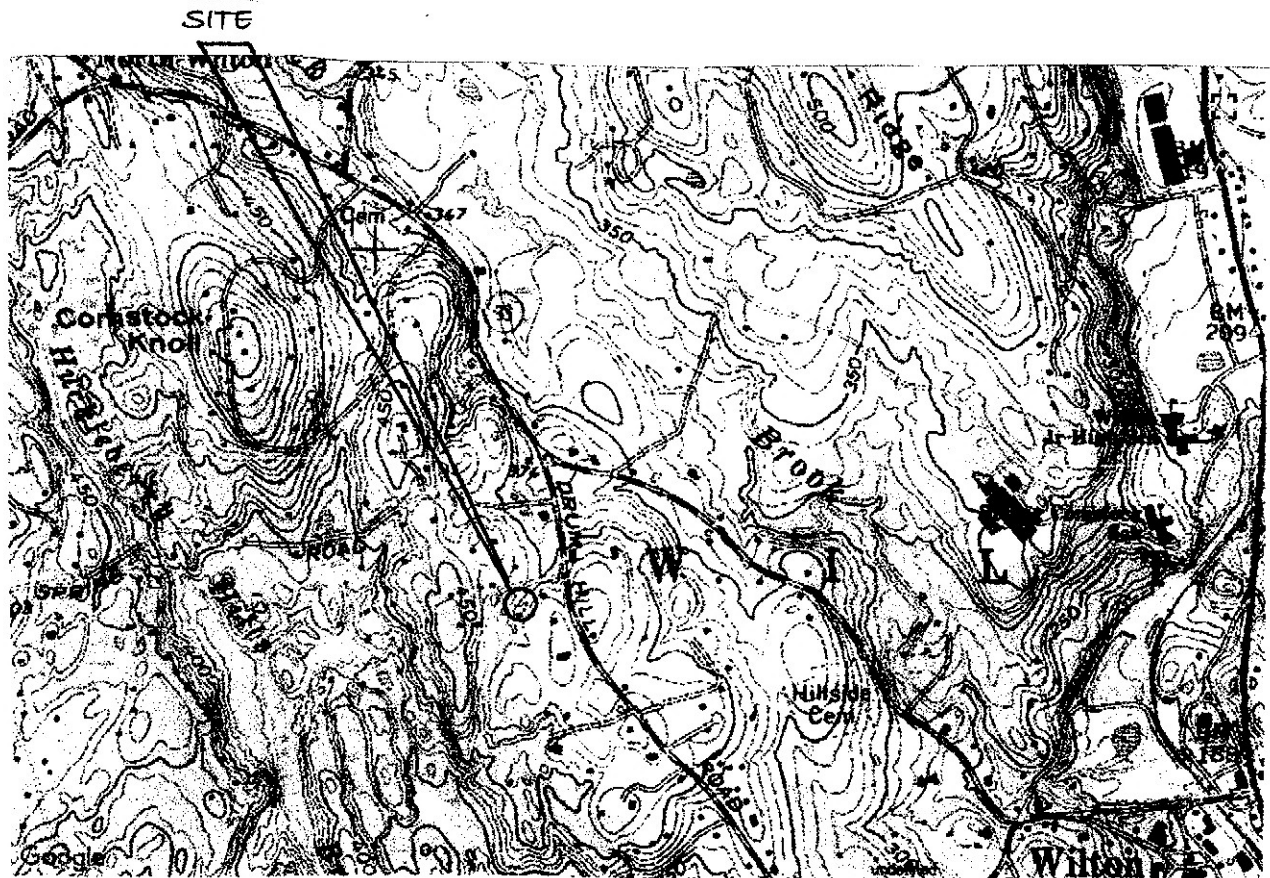
Photo 9 Looking easterly and downstream along watercourse and flanking wetlands wetland WL- "B" on the northeast corner of the site. Note stone wall in lower foreground of photo is at driveway crossing.



Photo 10 Looking northerly along nearly level wetland area associated with wetland WL- "B" just to the southwest of the residence.

Feb. 2020- The Jaehnig Site, 17 Hidden Lake Ridge, Wilton, CT

Appendix II
Regional Drainage Map



REGIONAL DRAINAGE MAP
N.T.S.

Appendix III

Soil Boring Logs

KEY TO BORING LOGS

SS-1	SOIL BORING
0-4"	DEPTH IN INCHES FROM THE GROUND SURFACE
COLOR	MUNSELL COLOR NOTATION
VERY DARK GRAY	HUE VALUE/ CHROMA 10YR 3 / 1

SS-1

SITE: LEVEL TO VERY GENTLY SLOPED WETLAND AREA; POORLY DRAINED; WEAK MICRO-TOPOGRAPHY; THIN TREE CANOPY OF RED MAPLE WITH SHALLOW AND EXPOSED ROOTS; OPEN UNDERSTORY EXCEPT FOR FEW WINGED EUONYMUS SHRUBS AND SAPLINGS; SCATTERED POISON IVY GROUND COVER; MATTED LEAVES COVER SOME OF WETLAND FLOOR AND TWIG AND LEAF LITTER COVER REMAINING GROUND.

0-6" DARK GRAY 10YR 4/1 LOAM WITH 5% BROWN 7.5YR 4/4 MOTTLES (REDOX CONCENTRATIONS).

6-17" LIGHT BROWN GRAY 2.5Y 6/2 LOAM WITH 20% YELLOW BROWN 10YR 5/6 MOTTLES (REDOX CONCENTRATIONS).

17-29" LIGHT BROWN GRAY 2.5Y 6/2 LOAM WITH 30% YELLOW BROWN 10YR 4/6 MOTTLES (REDOX CONCENTRATIONS); FIRM.

WATER TABLE AT 2".

SS-2

SITE: SIMILAR TO SS-1; MATTED LEAVES ON WETLAND FLOOR.

0-8" DARK GRAY 10YR 4/1 LOAM WITH 5% BROWN 7.5YR 4/4 MOTTLES (REDOX CONCENTRATIONS).

8-18" LIGHT BROWN GRAY 2.5Y 6/2 LOAM WITH 20% DARK YELLOW BROWN 10YR 4/6 MOTTLES (REDOX CONCENTRATIONS).

18-29" LIGHT BROWN GRAY 2.5Y 6/2 LOAM WITH 30% DARK YELLOW BROWN 10YR 4/6 MOTTLES (REDOX CONCENTRATIONS); FIRM.

WATER TABLE AT 4".

SS-3

SITE: GENTLY SLOPED WOODLANDS; THIN TREE CANOPY OF RED AND SUGAR MAPLES; UNDERSTORY OF LARGE WINGED EUONYMUS SHRUBS; TWIG AND LEAF LITTER COVERS WOODLAND FLOOR.

0-2" DARK GRAY BROWN 10YR 4/2 LOAM.

2-7" BROWN 10YR 4/3 LOAM.

(SS-3 cont.)

7-28" MIXED YELLOW BROWN 10YR 5/4 AND BROWN 10YR 5/3 LOAM WITH FLAKES OF BIOTITE MICA.

WATER TABLE NOT ENCOUNTERED.

SS-4

SITE: GENTLY SLOPED WOODLANDS; TREE CANOPY OF BEECH, NORTHERN RED OAK, AND SUGAR MAPLE; SHRUB UNDERSTORY OF FEW WINGED EUONYMUS; TWIG AND LEAF LITTER COVERS WOODLAND FLOOR.

0-2" DARK BROWN 10YR 3/3 LOAM.

2-8" BROWN 10YR 4/3 LOAM.

8-22" YELLOW BROWN 10YR 5/4 LOAM.

22-29" YELLOW BROWN 10YR 5/4 LOAM WITH 2% DARK YELLOW BROWN 10YR 4/6 MOTTLES (REDOX CONCENTRATIONS).

WATER TABLE AT 22".

SS-5

SITE: LEVEL WETLAND AREA; POORLY DRAINED; WEAK MICRO-TOPOGRAPHY; GAP IN TREE CANOPY; OPEN UNDERSTORY; HERBACEOUS GROWTH OF JAPANESE STILT GRASS AND FIREWEED; POISON IVY GROUND COVER; SPHAGNUM MOSS GROUND COVER ON SOME OF WETLAND FLOOR; MATTED LEAVES COVER UN-VEGETATED AREAS OF WETLAND FLOOR.

0-7" DARK GRAY 10YR 4/1 LOAM WITH 5% BROWN 7.5YR 4/4 MOTTLES (REDOX CONCENTRATIONS).

7-17" LIGHT BROWN GRAY 2.5Y 6/2 LOAM WITH 20% DIFFUSE YELLOW BROWN 10YR 5/6 MOTTLES (REDOX CONCENTRATIONS).

17-29" LIGHT BROWN GRAY 2.5Y 6/2 LOAM WITH 30% DARK YELLOW BROWN 10YR 4/6 MOTTLES (REDOX CONCENTRATIONS); FIRM.

WATER TABLE AT 0".

SS-6

SITE: EDGE OF NEARLY LEVEL WETLAND AREA; SIMILAR TO SS-5; ONE LARGE SPICEBUSH SHRUB; JAPANESE STILT GRASS GROUND COVER; POISON IVY GROUND COVER.

0-9" DARK GRAY 10YR 4/1 SILT LOAM.

9-17" LIGHT BROWN GRAY 2.5Y 6/2 LOAM WITH 20% DARK YELLOW BROWN 1YR 4/6 MOTTLES (REDOX CONCENTRATIONS).

17-29" LIGHT BROWN GRAY 2.5Y 6/2 LOAM WITH 30% DARK YELLOW BROWN 10YR 4/6 MOTTLES (REDOX CONCENTRATIONS); FIRM.

WATER TABLE NOT ENCOUNTERED.

SS-7

SITE: VERY GENTLY SLOPED WOODLANDS; THIN TREE CANOPY OF BLACK BIRCH, RED MAPLE, AND SUGAR MAPLE; THIN UNDERSTORY OF BARBERRY AND WINGED EUONYMUS SHRUBS; TWIG AND LEAF LITTER COVERS WOODLAND FLOOR.

0-2" DARK BROWN 10YR 3/3 LOAM.

2-4" DARK GRAY BROWN 10YR 4/2 LOAM.

4-8" BROWN 10YR 4/3 LOAM.

8-19" YELLOW BROWN 10YR 5/4 LOAM.

19-29" YELLOW BROWN 10YR 5/4 LOAM WITH 20% DARK YELLOW BROWN 10YR 4/6 MOTTLES (REDOX CONCENTRATIONS); FIRM.

WATER TABLE AT 0".

SS-8

SITE: EDGE OF VERY GENTLY SLOPED LAWN.

0-2" VERY DARK GRAY BROWN 10YR 3/2 LOAM.

2-28" MIXED BROWN 10YR 4/3 LOAM.

WATER TABLE NOT ENCOUNTERED.

SS-9

SITE: GENTLY SLOPED WETLAND; POORLY DRAINED; WEAK MICRO-TOPOGRAPHY; LOCAL PUDDLED WATER; VERY THIN TREE CANOPY OF RED MAPLE WITH SHALLOW ROOTS; UNDERSTORY OF FEW WINGED EUONYMUS SHRUBS; SENSITIVE FERNS; MATTED LEAVES COVER UN-VEGETATED AREAS OF WETLAND FLOOR.

0-12" GRAY 10YR 5/1 SILT LOAM.

12-29" GRAY BROWN 10YR 5/2 LOAM WITH 20% DARK YELLOW BROWN 10YR 4/6 MOTTLES (REDOX CONCENTRATIONS).

WATER TABLE AT 0".

SS-10

SITE: LEVEL WOODLANDS; THIN TREE CANOPY OF SUGAR MAPLE AND WHITE OAK; FEW LARGE WINGED EUONYMUS SHRUBS AND FEW BARBERRY; GROUND COVER OF PACHYSANDRA.

0-2" VERY DARK GRAY BROWN 10YR 3/2 LOAM.

2-10" BROWN 10YR 4/3 LOAM.

10-19" YELLOW BROWN 10YR 5/4 LOAM.

19-28" YELLOW BROWN 10YR 5/4 LOAM WITH 2% DARK YELLOW BROWN 10YR 4/6 MOTTLES (REDOX CONCENTRATIONS).

WATER TABLE NOT ENCOUNTERED.

SS-11

SITE: VERY GENTLY SLOPED WOODLANDS; TREE CANOPY OF BLACK CHERRY AND RED MAPLE; UNDERSTORY OF LARGE WINGED EUONYMUS SHRUBS; TWIG AND LEAF LITTER COVERS WOODLAND FLOOR.

0-4" VERY DARK GRAY BROWN 10YR 3/2 LOAM.

4-10" BROWN 10YR 4/3 LOAM.

10-21" YELLOW BROWN 10YR 5/6 LOAM.

21-28" YELLOW BROWN 10YR 5/6 LOAM WITH 2% DARK YELLOW BROWN 10YR 4/6 MOTTLES (REDOX CONCENTRATIONS).

WATER TABLE AT 21".

SS-12

SITE: VERY GENTLY SLOPED WOODLANDS; SHRUB UNDERSTORY OF FORSYTHIA AND WINGED EUONYMUS; GROUND COVER OF PACHYSANDRA.

0-22" DARK BROWN 10YR 3/3 AND BROWN 10YR 4/3 LOAM.

WATER TABLE NOT ENCOUNTERED.

SS-13

SITE: VERY GENTLY SLOPED LAWN; ADJACENT BROOK 2 FT. WIDE AND 1 FT. DEEP WITH APPROX. 2 INCHES DEEP FLOWING WATER.

0-12" MIXED DARK BROWN 10YR 3/3, BROWN 10YR 4/3, AND YELLOW BROWN 10YR 5/4 LOAM.

12-15" GRAY 10YR 5/1 LOAM WITH 5% BROWN 7.5YR 4/4 MOTTLES (REDOX CONCENTRATIONS).

15-28" GRAY BROWN 10YR 5/2 LOAM WITH 20% BROWN 7.5YR 4/4 MOTTLES (REDOX CONCENTRATIONS).

WATER TABLE AT 8".

SS-14

SITE: VERY GENTLY SLOPED WETLAND; POORLY DRAINED; VERY WEAK MICRO-TOPOGRAPHY; ADJACENT WINTERBERRY AND WINGED EUONYMUS SHRUBS; HERBACEOUS COVER OF SALLOW SEDGE; MATTED LEAVES COVER UN-VEGETATED GROUND.

0-7" GRAY BROWN 10YR 5/2 AND YELLOW BROWN 10YR 5/4 SANDY LOAM.

7-26" DARK GRAY 10YR 4/1 LOAM.

WATER TABLE AT 2".