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

APPLICANT INFORMATION:

Applicant Mary Ellen and John Gill

Address 73 Cherry Lane

Wilton, CT 06897

Telephone (203) 820-3625

Email Canedogc@gmail.com

Agent (if applicable) McChord Engineering Assoc.

Address 1 Grumman Hill Road,

Wilton, CT 06897

Telephone (203) 834-0569

Email hrocheville@mcchordengineering.com

PROJECT INFORMATION:

Property Address 73 Cherry Lane

Acres of altered Wetlands On-Site_0.04

Linear Feet of Watercourse <u>N/A</u>_____

Linear Feet of Open Water <u>N/A</u>

Sq. Ft. of proposed and/or altered impervious coverage <u>335 Sq. Ft. decrease</u>

Site Acreage 1.740

Cu. Yds. of Material Excavated <u>65</u>

Cu. Yds. of Material to be Deposited <u>180</u>

Acres of altered upland buffer 0.42

Sq. Ft. of disturbed land in regulated area 18,400

APPLICATION REQUIREMENTS:

Is The Site Within a Public V	Nater	; Suppl <mark>+</mark>	1
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.

Page 2 Application for a Significant Regulated Activity

Project Description and Purpose: Demolish existing residence and reconstruct new residence in same location. One portion of the existing residence will remain. The existing asphalt driveway will be removed and a gravel driveway will be installed. A new septic system will be installed to serve the new residence. See attached Engineering Summary for additional information.

In addition, the applicant shall provide eleven (11) collated copies of the following information as well as an electronic submission via email to mike.conklin@wiltonct.org & elizabeth.larkin@wiltonct.org **

\checkmark	А.	Written consent from the owner authorizing the agent to act on his/her behalf	
✓	В.	A Location Map at a scale of 1" = 800'	
✓	C.	<i>A Site Plan showing existing and proposed features at a scale not to exceed 1" = 40'</i> accurate to the level of a A-2 property and T-2 topographic surveys	
\checkmark	D.	Sketch Plans depicting the alternatives considered	
\checkmark	E.	Engineering Reports and Analysis and additional drawing to fully describe the proposed project	
✓	F.	Sedimentation and Erosion Control Plan, including the Construction Sequence	
\checkmark	G.	Names and addresses of adjoining property owners	
\checkmark	H.	A narrative describing, in detail	
		a. the proposed activityc. impactsb. the alternatives consideredd. proposed mitigation measures	
\checkmark	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	
\checkmark	К	Description of the chemical and physical characteristics of fill material to be used in the Regulated Area	
\checkmark	L.	Description and maps detailing the watershed of the Regulated Area	
\checkmark	M.	Envelopes addressed to adjacent neighbors, the applicant, and/or agent, with <u>certified</u> 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: <u>SE</u>	LETTER OF ANTHORIZATION Date:	
Agent's Signature (if applicable	Hand Date: 12/14/23	



McChord Engineering Associates, Inc. Civil Engineers and Land Planners

1 Grumman Hill Road Wilton, CT 06897 (203) 834-0569

December 11, 2023

Town of Wilton Inland Wetlands Commission Town Hall – 238 Danbury Road Wilton, CT 06897

Re: Application for a Significant Regulated Activity Proposed Site Development 73 Cherry Lane Map 43, Lot 35

Dear Commissioners,

I hereby authorize McChord Engineering Associates, Inc. (MEA), to act as agent in regard to the referenced Inland Wetlands Commission application and authorize all subject property activities associated with the proposed site development at the subject property.

I hereby consent to all necessary and proper inspections of the property by the Town of Wilton Environmental Affairs Department and Commissioners at all reasonable times, both before and after the applied permit has been granted, and until the permitted activity has been completed in accordance with the conditions of the permit and verified by the Environmental Affairs Department.

Sincerely,

the V. Id

Mary C, LU Mary Ellen and John Gill 73 Cherry Lane Wilton, CT 06897

Adjacent Property Owners within 100' of Property 73 Cherry Lane Wilton, CT 06897 Map 43, Lot 35

<u>M-B-L</u>	Property Owner	Mailing Address
43/26	Angelo & Annamaria Dimeglio	61 Cherry Lane Wilton, CT 06897
43/29	State of Connecticut	2800 Berlin Turnpike Newington, CT 06131
43/30	State of Connecticut	2800 Berlin Turnpike Newington, CT 06131
43/31	Gerald P. Griffin III	69 Cherry Lane Wilton, CT 06897
43/32	Gerald P. Griffin III	69 Cherry Lane Wilton, CT 06897
43/34	James V. Mitchell	71 Cherry Lane Wilton, CT 06897
43/36	Neil & Elizabeth Alleva	77 Cherry Lane Wilton, CT 06897
44/1	Ivan Rossi	87 Cherry Lane Wilton, CT 06897
44/3	Micheal & Susan M. Greenburg Tr.	101 Cherry Lane Wilton, CT 06897
44/50	State of Connecticut	2800 Berlin Turnpike Newington, CT 06131

SOIL & WETLAND SCIENCE, LLC OTTO R. THEALL PROFESSIONAL SOIL SCIENTIST / WETLAND SCIENTIST 2 LLOYD ROAD NORWALK, CONNECTICUT 06850 OFFICE (203) 845-0278 EMAIL: soilwetlandsci@aol.com

SOIL INVESTIGATION REPORT 73 CHERRY LANE WILTON, CONNECTICUT MARCH 23, 2021 JOB 4419

I conducted an on-site investigation of the soils on the residential property that is located at 73 Cherry Lane in Wilton, Connecticut on March 23, 2021. The examination for wetland soils was conducted in the field by inspection of soil samples taken with spade and auger.

Inland wetlands in Connecticut, according to the Connecticut General Statutes, are lands, including submerged lands, which consist of any of the soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey of the NRCS. Watercourses include rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent. Intermittent watercourses are to be delineated by a defined permanent channel and bank and the occurrence of two or more of the following characteristics: (A) evidence of scour or deposits of recent alluvium or detritus, (B) the presence of standing or flowing water for a duration longer than a particular storm incident, and (C) the presence of hydrophytic vegetation.

The wetland boundary was demarcated with pink flags numbered 1 through 18. The wetland contains a watercourse (pond and stream). The wetland soils consist of Ridgebury, Leicester and Whitman soils, extremely stony (3). The non-wetland soils consist of Sutton fine sandy loam (50), Canton and Charlton soils (60) and Udorthents-Urban land complex (306). The soil map units contain inclusions of other soil types. The results of this investigation are subject to change until accepted by the Inland Wetland Commission of the Town of Wilton.

Respectfully submitted:

Otto R. Theall Professional Soil Scientist



Town of Wilton

Geographic Information System (GIS)

Attachment B: 1" = 800' Location Map

Date Printed: 12/12/2023



Print Map

MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Wilton and its mapping contractors assume no legal responsibility for the information contained herein. Zoning Effective: July 28, 2017 Planimetrics Updated: 2014 Approximate Scale: 1 inch = 800 feet 0 800 Feet



Town of Wilton

Geographic Information System (GIS) <u>73 CHERRY LANE</u>, WILTON, CT, WATERSHED MAPPING FOR POND AND INLAND WETLANDS ON SITE.







GIS CODE #: _____ For DEEP Use Only

79 Elm Street • Hartford, CT 06106-5127

www.ct.gov/deep

Affirmative Action/Equal Opportunity Employer

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, 3rd 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 🗌
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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): Wilton
	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: Norwalk North or number: 107
	subregional drainage basin number:
7.	NAME OF APPLICANT, VIOLATOR OR PETITIONER (print name):
8.	NAME & ADDRESS / LOCATION OF PROJECT SITE (print information): 73 Cherry Lane
	briefly describe the action/project/activity (check and print information): temporary 🗌 permanent 🕱 description:
(Construction of new residence, driveway and hardscape with new septic system.
9.	ACTIVITY PURPOSE CODE (see instructions, only use one code):
10.	ACTIVITY TYPE CODE(S) (see instructions for codes): <u>1</u> , <u>2</u> , <u>10</u> , <u>12</u>
11.	WETLAND / WATERCOURSE AREA ALTERED (must provide acres or linear feet):
	wetlands: 0.04 acres open water body: 0 acres stream: 0 linear feet
12.	UPLAND AREA ALTERED (must provide acres): acres
13.	AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): acres

DATE RECEIVED:	DATE RECEIVED: PART III: To Be Completed By The DEEP	

Environmental Land Solutions, LLC

Landscape Architecture & Environmental Planning 8 Knight Street, Suite 203, Norwalk, CT 06851 Tel: (203) 855-7879 Fax: (203) 855-7836

December 13, 2023

Inlands Wetlands Commission Town of Wilton 238 Danbury Road Wilton, CT 06897

Re: Proposed Site and House Improvements 73 Cherry Lane, Wilton, CT

Dear Commission Members:

Environmental Land Solutions, LLC (ELS) has been retained by Fred Canedo, owner of the referenced property, to prepare a biological assessment evaluation for the proposed site work. This assessment focuses on the site's existing natural resources and the effects of the proposed development on these resources. A site inspection were conducted by ELS staff on October 31, 2023. In addition, the following documents were reviewed.

- 1. Property Survey, prepared by John O'Brien, dated October 16, 2023.
- 2. Soil Report, prepared by Soil & Wetland Science LLC, dated March 23, 2021.
- 3. Septic System and Site Development Plan, and Construction Notes and Details, by McChord Engineers Associates, Inc (MEA), dated December 13, 2023.

EXISTING CONDITIONS

This existing developed $1.74 \pm$ acre rear lot is located on the west side of Cherry Lane. Residential developed properties are found to the north, east and south. To the west of the site is undeveloped land owned by the State of Connecticut. The preexisting nonconforming house and improvements are clustered in the eastern area of the site, with the house 17' from the eastern property line. Existing site improvements include the dwelling, driveway, patio, lawn, two sheds, and a small dug pond in the northeastern corner of the site. The upland vegetation beyond the lawn area is characterized by second growth deciduous forest that includes a canopy of Red Maple, Hickory, Beech, Black Birch, Ash, Eastern White Pine and Pin Oak, with an understory dominated with nonnative invasive Euonymus and Japanese Barberry. Native Viburnums and Spicebush were also observed in the understory.

The overall property topography gently slopes to the north, with a highpoint of 99.0 along the southern property line and a low point elevation of $93' \pm$ (assumed datum).

Regulated Wetlands and Watercourses

Wetland soils were flagged over the majority of the site. The wetlands flagging on the lot reflects that half of the site is wetland soil, with the upland review area extending over the remainder of the site. The wetland soil were identified as Ridgebury, Leicester and Whitman soils complex. Wetland soils extend over the northen portion of the site, extending through the lawn to the existing landscape walls and in close proximity (3.5') to the house's western corner. A pond is located in the northeastern corner of the site, $52' \pm$ from the house. Wetland lawn extends from the house and driveway to the pond.

The wooded wetland in the north and western portion of the site is a naturalized deciduous forest, dominated by Red Maples, and includes Black Birch, Beech and Pin Oak. The understory is dominated by Clethra, Spicebush, Winterberry, Highbush Blueberry, Black Willow and Japanese Barberry, with a herbaceous layer of Sedges, and Cinnamon, Sensitive, and Royal Fern.

Wetland Functions

The functional evaluation of the wetlands is based on professional experience and the suggested criteria cited in the publication entitled "<u>The Highway Methodology Workbook</u> *Supplement*, Wetland Functions and Values, *A Descriptive Approach*," prepared by the US Army Corps of Engineers, NEDEP-360-1-30a, September 1999. Using this publication, the primary functions provided by the wetlands include, Groundwater Recharge/ Discharge, Freshwater Fish Habitat, Productive (Nutrients) Export, and Aesthetics. The wetland as a whole provides a wide range of functions in the wooded and naturalized area of the site. Wetland functions are diminished where wetland lawn is developed.

Groundwater Recharge/Discharge: This function considers the potential for a wetland to serve as groundwater recharge and/or discharge area. Recharge should relate to the potential for the wetland to contribute water to an aquifer. Discharge should relate to the potential for the wetland to serve as an area where groundwater can be discharged.

Based on the location of the site wetland and the on site pond, within a gently topography, the site's wetland and watercourse systems lend themselves to being a source of groundwater recharge / discharge.

Fish and Shellfish Habitat: This function considers the effectiveness of the seasonal or permanently standing water to support fish or shellfish habitat.

The onsite perennial pond support this function.

Production Export: This function relates to the effectiveness of a wetland to produce food or usable produces for humans or other living organisms.

This function is present but limited to native vegetated area. The existing lawn provides no significant source of food for wildlife.

Visual Quality / Aesthetics: This value relates to the visual and aesthetic values of the area.

The pond is aesthetically pleasing. Wildlife observation and photography are expected to be of value with views over the wetland and pond.

PROPOSED CONDITIONS:

The proposed site development will reconstruct the existing house and provide a new septic system. The western portion of the existing house closest to the wetlands will remain, stripped down to the frame and reconstructed on the existing foundation. The eastern portion of the house will be reconstructed with a new foundation, with a slightly enlarger foot print ($575 \pm$ sf). However, with the proposed site improvements there will be a net reduction ($335 \pm$ sf) in impervious coverage for the site.

As part of this site redevelopment the following site improvements and activities will be undertaken.

- 1. The existing paved driveway will be removed. A new gravel driveway will be installed. The new driveway surface will be $2980 \pm$ sf, providing a net impervious reduction of $1450 \pm$ sf.
- 2. The existing septic system elements will be abandoned (partly in the wetland) and a new septic system will be constructed outside of the wetland soil and constructed to code. The new tank and pump chamber will be located in an existing upland lawn area. The new septic fields will be located in an upland areas on the south-central area of the site 35' from the wetlands and $100' \pm$ from the pond.
- 3. The outdoor fuel oil tank will be removed and replaced with a buried propane tank.
- 4. The existing landscape walls adjacent to the driveway will remain and aid to contain construction activity.
- 5. A new 10' minimum width planting buffer $(3100 \pm \text{ sf})$ will be developed around the pond resulting in a decrease of existing wetlands lawn by 3100 sf \pm .
- 6. The existing well immediately adjacent to the house will be abandoned. A new code complying well will be dug north of the house.
- 7. The existing patio $(100 \pm \text{sf})$ will be removed from the wetland. A new patio will be developed outside the wetlands on the south side of the house. The patio will also be changed from an impervious to a pervious surface.

- 8. The existing shed in the southwestern portion of the lot will be relocated 10' further from the wetland.
- 9. The existing shed north of the driveway, and within the wetland, will be removed and the areas replanted with native species.
- 10. Roof gutters will remain, with new roof leaders discharging to splash pads at grade adjacent to the house.
- 11. The new foundation will only provide a crawl space for utilities beneath the finished floor. The elevation of the crawl space slab will be near the surface of the adjoining grade and be constructed without footing drains.
- 12. The existing pipe discharge to the pond will remain. However, the pipe discharge will be restricted to existing footing drain water collected from the existing older portion of the house as it does today. All previous roof drain connections to this pipe and to the pond will be eliminated.
- 13. The existing air handler will replaced with new units.
- 14. A new (propane) generator is proposed in the location of the existing oil tank
- 15. To help manage the construction, the owner will be removing the debris daily to alleviate the need for a dumpster. Building materials will be delivered in stages, to reduce the need for storage on site. Two spaces in the driveway for will used for subcontractor parking.

POTENTIAL WETLAND IMPACTS AND MITIGATION MEASURES:

The proposed development goal is to reduce wetland impacts of the permanent site improvements. However, due to the close proximity of wetlands to the existing house and driveway, some temporary disturbances will need to take place within the wetland lawn area.

A temporary site work $(1700 \pm \text{ sf})$ area, now maintained as wetland lawn, is required to be crossed to complete some of the site work. The following activities area proposed within the wetland:

- 1. Removal of the existing patio ($100 \pm sf$).
- 2. Demolition of the existing septic tank $(50 \pm \text{sf})$. Septic tank demolition includes removing septic tank contents and crushing the concrete structure. This will create a depression that will be back filled using soil from on-site excavation. It is estimated that 5 yard of material will be used to fill in the depression and only a small portion of this fill is within the wetland soil area.

- 3. Machine and material access to new septic field. To construct the new septic fields machine access is required to take material from the driveway to the new septic field location. Access will be restricted to a skid steer or similar small machine. Access routes will be protected with a timber mats or wood corduroy. This will distribute weight of vehicles during septic construction to minimize soil disturbance and compaction during construction. Material stockpiling will be prohibited in the wetland areas, and restricted to areas on the existing asphalt driveway. Wood mats will remain in place until the site work is complete. Once the mat and/or soil protection is removed a lawn will be reestablished in this area.
- 4. Construction access around the building. Similar to septic construction access for the septic field, pedestrian access around the building will be required to reconstruct and finish the existing walls that are to remain. General pedestrian access, installation of scaffolds and or machine lifts will be needed to reconstruction the existing building after it is stripped down to its frame. Similarly to septic installation wetland soil area will be protected with wood planks or plywood to allow pedestrian access and/or scaffolding needed to construct and refinish the perimeter of the structure. Once the matt and or soil protection are removed a lawn will be reestablished in this area.

The majority of the site work will remain outside of the wetlands, but within the 100' upland review area, which extends over the entire site. Since all of the site work will be conducted in close proximity to the wetland, additional measures have been incorporated into the site plans to insure the remaining site work will remain outside of the wetland. The goal of the site improvements are to reduce existing impacts to the wetlands and watercourse and reduce pollution sources on site. The proposed site improvements will reduce existing impacts to the wetland resources by incorporating the following Best Management Practices:

- a. Reduction of Impervious Pavements: There will be a net reduction of impervious surfaces site wide, this will reduce stormwater runoff and promote infiltration.
- b. Reduction of Pollutant Sources: Removing and/or relocating the septic, home heating oil tank, and paved drive surfaces outside or further from the wetland will significantly reduce pollutant sources to the wetlands.
- c. Native Planted buffers: A minimum 10' wide mixed native buffer is proposed. This will aid to expand plant diversity, reduce existing wetland lawn areas, and enhance stormwater quality by removing nutrient within stormwater runoff that will be uptake by the new plantings. See "Wetland Planting Plan," prepared by ELS, dated 12/13/2023.

- d. Boulder Demarcation Row: A new boulder demarcation row is included on the plan. This will provide a visual and physical delineation between maintained landscaped and natural areas for the current and future owners.
- e. Erosion and Sedimentation Controls: The site plans use a multi-level approach that include maintaining existing walls, using silt fence, and using 4' ht. wire fence to demarcate the perimeter of the work area will contribute to protecting the wetland during construction. This approach will limit and contain disturbed soil and trap sediments within stormwater runoff. The anti-tracking pad will help keep tires from tracking sediment off the site. Sedimentation and erosion controls shall be installed before earth disturbance and maintained during construction.

SUMMARY:

The proposed site redevelopment will create an overall benefit for the on site wetland and watercourse by reducing pollutant source, reducing impervious surfaces, providing a planted buffer for the pond, promoting infiltration, and reducing lawn surfaces. By incorporation all of these development strategics into the site plans, the wetland functions will be improved if implemented in accordance to the proposed plans.

Sincerely,

Kate Throckmorton, ASLA Registered Landscape Architect, RLA Certification in Erosion and Sedimentation Control NOFA Certified Professional

cherry lane 73-wilton 2023 ea.wpd





PLAN PREPARED FOR FEDERICO CANEDO WILTON, CONNECTICUT CONSTRUCTION NOTES:

- 1. SUBSURFACE SEWAGE DISPOSAL SYSTEM MATERIALS AND CONSTRUCTION TECHNIQUES SHALL CONFORM TO THE STATE OF CONNECTICUT AND LOCAL HEALTH CODE STANDARDS AND SPECIFICATIONS, AS WELL AS ACCEPTED STANDARDS OF GOOD WORKMANSHIP.
- 2. FINAL INSPECTION AND AS-BUILT DRAWINGS SHALL BE MADE IN ACCORDANCE WITH STATE AND LOCAL CODES. THE DESIGN ENGINEER SHALL BE NOTIFIED AT LEAST 24 HOURS IN ADVANCE OF SYSTEM COMPLETION. INSPECTION OF THE SYSTEM SHALL OCCUR AS SOON AS POSSIBLE TO PREVENT DAMAGE AND IT SHALL BE COVERED WITHIN TWO WORKING DAYS OF THE SANITARIAN'S INSPECTION.
- 3. THE WASTE LINE FROM THE HOUSE/BUILDING TO THE SEPTIC TANK SHALL BE NO LESS THAN 4" DIAMETER CAST IRON PIPE (ASTM A-74) OR A PVC SCHEDULE 40 (ASTM D1785), WITH RUBBER COMPRESSION GASKETS OR SOLVENT WELD JOINTS AND SHALL BE PITCHED WITH A MINIMUM SLOPE OF 1/4" PER FOOT.
- 4. ALL SOLID DISTRIBUTION PIPING SHALL BE TIGHT JOINT 4" DIAMETER PVC (ASTM D3034 SDR 35). THESE LINES SHALL LIE ON UNDISTURBED OR COMPACTED SOIL.
- 5. THE SEPTIC TANK SHALL HAVE A MINIMUM CAPACITY OF 1250 GALLONS AND CONTAIN TWO COMPARTMENTS. THE TANK SHALL BE INSTALLED LEVEL AND BE SET UPON AT LEAST 6" OF CRUSHED STONE OR GRAVEL, AND BE EQUIPPED WITH A 30" RISER SECTION TO GRADE, FOR ACCESS. SEPTIC TANKS INDICATED ARE MANUFACTURED BY RICHARD SEPTIC SYSTEMS, INC. OF TORRINGTON, CT. AN EQUIVALENT TANK IS ACCEPTABLE.
- 6. DISTRIBUTION BOXES ARE MODEL DB 4 AS MANUFACTURED BY RICHARD SEPTIC SYSTEMS, INC. OF TORRINGTON, CONNECTICUT. BOXES SHALL BE SET UPON AT LEAST 6" OF CRUSHED STONE OR GRAVEL. EQUIVALENT BOXES ARE ACCEPTABLE.
- 7. THE CONTRACTOR SHALL REMOVE FROM THE AREA OF THE SEPTIC SYSTEM ALL TOPSOIL AND ALL OTHER ORGANIC MATERIALS, TREE TRUNKS, AND DEBRIS; AND SHALL SCARIFY AND RAKE THE EXPOSED SURFACE TO ENSURE A GOOD BOND BETWEEN THE EXISTING SUBSOIL AND THE SELECT FILL.
- 8. SELECT FILL SHALL MEET CONNECTICUT DEPARTMENT OF TRANSPORTATION SPECIFICATION M.02.06-1B AS FOLLOWS: SIEVE

<u>% PASSING</u>	
WET SIEVE	DRY SIEV
100	100
70–100	70–100
10-50 *	10-75
0-20	0-5
0-5	0-2.5

SIEVE

00 -100

- * PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75% IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10% AND #200 SIEVE DOES NOT EXCEED 5%.
 - THE FILL SHALL ALSO BE ACCEPTABLE TO THE LOCAL HEALTH DEPARTMENT.
- 9. THE FIRST 6" OF SELECT FILL SHALL BE HARROWED INTO THE EXISTING SOIL. THEREAFTER, IT SHALL BE PLACED IN 12" LIFTS AND MECHANICALLY COMPACTED. COMPACTION SHALL BE AT LEAST 90%-95% OF THAT DETERMINED BY A MODIFIED OPTIMUM COMPACTION TEST PERFORMED IN ACCORDANCE WITH ASTM D1557. SELECT FILL SHALL BE PLACED TO A POINT AT LEAST 5' FROM THE EDGE OF THE TRENCH, AND COMMON FILL TO A POINT 10' FROM THE EDGE OF THE TRENCH. IN CASES WHERE THE DEPTH OF FILL EXCEEDS 12" ABOVE THE EXISTING GRADE, THE TRENCH SHALL BE NOTCHED INTO THE EXISTING SOIL AT LEAST 12" AND FILLED WITH SELECT FILL.
- 10. FINAL GRADING, INCLUDING THE 6" TOPSOIL LAYER, SHALL BE COMPLETED AS SOON AS POSSIBLE AFTER FINAL INSPECTION. CARE SHALL BE TAKEN TO PREVENT THE PONDING OF SURFACE WATER ON OR NEAR ANY PART OF THE SYSTEM.
- 11. PROPOSED SEPTIC SYSTEM LOCATIONS MAY NOT BE SHIFTED WITHOUT OBTAINING WRITTEN PERMISSION FROM THE DESIGN ENGINEER AND LOCAL SANITARIAN.
- 12. NO PART OF THE SEPTIC TANK OR LEACHING TRENCHES SHALL BE WITHIN 75' OF ANY WELL. THERE IS NO APPARENT INTERFERENCE BETWEEN THE WELLS OR SEPTIC SYSTEMS ON ADJACENT PROPERTIES AND THOSE PROPOSED ON THIS PLAN.
- 13. SURFACE AND GROUNDWATER DRAINS SHALL BE PLACED UP GRADIENT AND AT LEAST 25' FROM THE SEPTIC SYSTEM. WHEN DRAINS ARE REQUIRED TO BE DOWN GRADIENT, THEY MUST BE AT LEAST 50' FROM THE SEPTIC SYSTEM. ALL DRAINS AND ROOF LEADERS SHALL DISCHARGE AWAY FROM THE SEPTIC SYSTEM.
- 14. SOIL AND EROSION CONTROL MEASURES SHALL BE INSTALLED AS INDICATED ON THE PLAN AND MAINTAINED DURING CONSTRUCTION, UNTIL THE SITE IS STABILIZED.
- 15. THIS DESIGN IS BASED UPON THE USE OF CONVENTIONAL BATHTUBS WITH A CAPACITY UNDER 100 GALLONS. IF A LARGER BATH/HOT TUB IS TO BE INSTALLED THE LEACHING AREA AND SEPTIC TANK SIZES MUST BE INCREASED TO COMPLY WITH SECTION VIII.F OF THE TECHNICAL STANDARDS. ADDITIONALLY, THE SYSTEM HAS NOT BEEN DESIGNED TO ACCEPT EFFLUENT FROM WHIRLPOOL BACKWASH, WATER SOFTENER BACKWASH OR GARBAGE DISPOSALS.
- 16. THIS DESIGN IS BASED UPON THE INSTALLATION OF THE SEPTIC SYSTEM IN UNCOMPACTED NATURAL SOIL. ALTHOUGH THE CONTRACTOR IS RESPONSIBLE FOR PREPARING THE SITE, THE USE OF HEAVY EQUIPMENT IN THE PROPOSED SEPTIC AREA IS PROHIBITED TO AVOID OVER COMPACTION OF THE NATIVE SOIL.
- 17. THIS DESIGN CONFORMS TO APPLICABLE CODES AND ACCEPTED PRACTICE. NO OTHER WARRANTY IS EXPRESSED OR IMPLIED.
- 18. McCHORD ENGINEERING ASSOCIATES, INC. ASSUMES NO RESPONSIBILITY FOR SEPTIC SYSTEM SITE PREPARATION, LOCATION, OR INVERT ELEVATIONS IN COMPLIANCE WITH THE APPROVED PLAN, UNLESS IT SUPERVISES EACH PHASE OF SYSTEM INSTALLATION.
- 19. PRIOR TO CONSTRUCTION A SURVEYOR LICENSED IN THE STATE OF CONNECTICUT SHALL STAKE OUT THE PROPOSED SEPTIC SYSTEM AND PROVIDE BENCHMARK ELEVATIONS.

JUNE 1, 2022 AND WERE WITNESSED BY THE WILTON HEALTH DEPARTMENT. PERCOLATION TESTS A AND B WERE CONDUCTED BY MCCHORD ENGINEERING ASSOCIATES, INC. ON AUGUST 23, 2023.

	THIS DRAWING AND DETA BE USED FOR THIS SPE CONSENT OF THE ENGIN	AILS ON IT, AS AN INSTRUMENT OF SERVICE, IS ECIFIC PROJECT AND SHALL NOT BE LOANED, CA JEER.	THE PROPERTY OF THE ENGINEER AND MAY OPIED OR REPRODUCED WITHOUT THE WRITTEN
	1 12-13-23 NO. DATE	ISSUED FOR MUNICIPAL APPRO REVISIONS AND SUBMISSIONS	OVAL
	SIGNATURE:		DRAWING NO:
JOB NO: 2254A-2 DATE: DECEMBER 13, 2023 DRAWN BY: DRS CHECKED BY: TSN, HMR SCALE: AS SHOWN	HILL BISS HARD	No. 26595 CENSED	SE2 SHEET 2 OF 2

AND 48 LF OF GST 6218.

<u>DEEP TEST 2</u>

NO LEDGE

0"- 8" TOPSOIL

NO GROUNDWATER

0"-10" TOPSOIL

NO GROUNDWATER

RESTRICTIVE @ 35"

PERCOLATION TEST B

PRESOAK: 2:31 PM

DEPTH

4: 25 13 1/2" 4 1/2" 4: 35 16 1/4" 2 3/4"

DESIGN RATE = 1:10

DRO

REFILL

1 3/4"

10"-35" RED-BROWN SILTY

LOAM

35"–64" TAN HARDPAN

MOTTLING @ 33"

<u>DEEP TEST 5</u>

NO LEDGE

DEPTH: 18

TIME

3: 45

DIAMETER: 8"

3:55 12" 4:05 16"

4:15 DRY 4:15 9"

4:45 DRY

8"-33" RED-BROWN SILTY

HARDPAN

I OAM

33"-63" MOTTLED GREY

THE DEPTH OF THE SYSTEM.

<u>DEEP TEST 3</u> 0"-10" TOPSOIL 10"-30" RED-BROWN SILTY LOAM WITH COBBLES 30"-60" TAN HARDPAN WITH COBBLES NO LEDGE

NO GROUNDWATER RESTRICTIVE @ 39'

<u>DEEP TEST 6</u> 0"-10" TOPSOIL 10"-39" RED-BROWN SILTY LOAM WITH COBBLES

NO LEDGE NO GROUNDWATER ROOTS @ 39" RESTRICTIVE @ 39"

39"–64" TAN HARDPAN



1 Grumman Hill Road Wilton, CT 06897 (203) 834-0569

December 13, 2023

Inland Wetlands Commission Town Hall 238 Danbury Road Wilton, CT 06897

Re: Engineering Summary Proposed Site Development 73 Cherry Lane, Wilton, CT Map 43, Lot 35

Dear Commissioners:

This office has been commissioned by Federico Canedo to prepare an Application for a Significant Regulated Activity associated with the proposed site development at 73 Cherry Lane. The entire property falls within the 100-ft regulated area for the inland wetlands and pond on the site. The total earthwork within the regulated area is over 100 cubic yards and is therefore considered a Significant Activity. The following is an engineering summary of the existing conditions, proposed development and regulated activity.

The property is a rear lot that totals 1.74-acres and is located within Wilton's "R-2" residential zone. Approximately 0.85-acres of the property are compromised by an existing pond or inland wetlands. It is currently developed with a single-family residence, asphalt driveway, hardscape and sheds. The existing residence is decrepit and needs to be rebuilt including the foundation. Most of the lawn is considered inland wetlands. The western portion of the property is woodlands. Topography on the site consists of gradual slopes that drain north towards the pond and inland wetlands. The property is outside of any public water supply watersheds and FEMA flood zones. The property is served by an on-site septic system and private well.

The proposed development consists of the demolition of the existing residence and subsequent construction of a new residence in the same location. One portion of the existing structure will remain and be reconstructed in place. The proposed residence was granted a special permit variance as the existing house is non-conforming (see Wilton Land Records, Book 2563, Page 399). The existing asphalt driveway will be removed and a new, smaller gravel driveway will be installed. Stormwater management improvements are proposed to control runoff and improve water quality for the site development. The existing septic system and well will be abandoned and new ones will be installed. An above ground oil fuel tank will be removed and a new underground propane tank and generator will be installed. Refer to

Inland Wetlands Commission December 13, 2023 Page 2/3

the "Septic System/Site Development Plan" prepared by this office for additional information on the proposed development.

The proposed development maintains existing drainage patterns on site. Due to removal of portions of the driveway and hardscape, there is a decrease in impervious area of approximately 335 ft². Currently, rooftop runoff spills over to the ground surface. There is one roof leader that is directly connected to the pond via an exterior sump pump. Driveway runoff is not captured and sheet flows through lawn to the pond. Proposed roof leaders will discharge to splash pads at ground surface minimizing erosion and promoting sheet flow to the inland wetlands and pond. The existing roof leader that is connected to the pond will be removed. Driveway runoff from the new gravel driveway will continue to sheet flow through lawn to the pond. An expanded and planted buffer area will improve water quality of the runoff discharging to the pond. The proposed stormwater management plan is an improvement to existing condition as there is a decrease in impervious area and an enhanced vegetated buffer. There will be no adverse impacts to downstream drainage system as a result of the proposed development.

The proposed development also strives to mitigate impacts to the inland wetlands and pond on-site. The structure for the portion of the house that is closest to the inland wetlands will remain. Portions of the asphalt driveway and patio that are close to the inland wetlands will be removed and replaced with lawn creating a larger buffer to the pond and inland wetlands. The existing septic tank that is partially in the inland wetlands will be crushed and abandoned. The existing septic system that is close to the inland wetlands will also be abandoned. An existing shed and patio that are in the inland wetlands will be removed. An existing exterior sump pump and roof leader that is directly connected to the pond will be removed. A planted meadow area is proposed along the pond to mitigate impacts during construction and improve the buffer to the pond from the developed portion of the property. Refer to the "Wetland Planting Plan" and Biological Assessment Evaluation prepared by Environmental Land Solutions, LLC for additional information on the mitigation planting plan.

All of the proposed development is a regulated activity as the whole property is within the 100-ft regulated area. Efforts were taken to minimize the impact to the inland wetlands during construction. The proposed septic system location offers the least disturbance while meeting required setbacks including the neighbors well. The total disturbance within the regulated area is approximately 18,400 ft². The total amount of material being deposited is approximately 180 ft³ and the total amount of material being excavated is approximately 65 ft³. This amount of material is the minimum amount required for the septic system installation and new driveway. There will also be temporary disturbances to the inland wetlands during construction to crush the existing septic tank, remove the existing patio, remove the existing shed and access the septic system location. The lawn in this area will be returned to existing conditions following construction. Disturbance within the inland wetlands will also be required to install the proposed mitigation plantings. The total amount of disturbance within the inland wetlands will also be required to install the plantings, is approximately 1,700 ft².

Multiple alternatives were considered to reduce the disturbance within the regulated area. However, the proposed site development plan proved to be the best option since the Inland Wetlands Commission December 13, 2023 Page 3/3

proposed house is located in the same area as the existing. Also, the portion of the existing house that is to remain is the closest part of the house to the inland wetlands. This portion of the house also could have been rebuilt increasing disturbance close to the inland wetlands. It is possible that the septic system could have been located further into the woods to the west. This would have increased disturbance in the regulated area to access a septic location further from the house. The house was originally designed with a full basement but has been reduced to a crawl space to minimize earthwork in the regulated area and the amount of groundwater that would need to be pumped.

Earthwork is minimized as the proposed house is designed to work with existing grade. Material from the demolished house and driveway will be temporarily stockpiled and hauled off site. Some fill material will be needed within the regulated area. Filling for small portions around the house and septic area will be minimal and will use material excavated from the septic system installation. Topsoil within the construction area will be stockpiled and reused. Select septic fill will be required to be imported onto the site for the proposed septic system. Select septic fill is a clean granular material. Clean gravel and/or crushed stone will also need to be imported for the proposed septic system.

Soil and erosion controls, in the form of a silt fence, will be employed to protect the inland wetlands and pond during construction. A wire fence will be installed behind the silt fence to delineate the limit of disturbance. A dirt bag is proposed for any dewatering activities required during the foundation construction. A construction entrance is proposed to the east of the house, furthest from the inland wetlands as possible. Temporary timber matting will be used to cross the wetlands lawn for septic system construction access. Excess soil will be stockpiled outside the regulated area and surrounded by silt fence until it can be hauled off site. Sediment and erosion control measures will be installed prior to the start of construction, maintained throughout construction and will only be removed once a permanent vegetative cover is established.

It is the opinion of this office that the proposed site development is an improvement to the existing conditions on site. The proposed development will not create any adverse to adjacent properties, downstream drainage systems, inland wetlands or the pond.

Sincerely,

Hårry M Rocheville Jr, P.E. Project Manager

Impervious Area Summary 73 Cherry Lane, Wilton, CT

Existing Impervious Surfaces		
Description	Area (ft ²)	
Existing Residence	2,255	
Existing Driveway	3,990	
Existing Walkway	205	
Existing Sheds	190	
Existing Patio at House	500	
Existing Patio in Yard	95	
Total	7,235	

Proposed Impervious Surfaces		
Description	Area (ft ²)	
Proposed Residence	2,240	
Proposed Driveway	2,980	
Proposed Patio and Deck	740	
Proposed Walkways	230	
Existing Residence to Remain	585	
Existing Relocated Shed	125	
Total	6,900	

Difference in Impervious Area	
Existing Impervious	7,235
Proposed Impervious	6,900
Difference	-335













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