



AGENDA

Regular Meeting
Canton Inland Wetlands and Watercourses Agency
Thursday, May 12, 2016 at 7:00 p.m.
Library Community Center, Room F
40 Dyer Avenue, Canton, CT

CALL TO ORDER:

ROLL CALL:

PUBLIC COMMENT NOT RELATED TO AGENDA ITEM:

OLD BUSINESS:

1. **File #02-16-1135**; 594 Albany Turnpike; Assessor's Map 25; Parcel 1010594; Zone R-2; request to construct a single family home; David and Jacqueline Mott, applicants/owners

NEW BUSINESS:

1. **File #05-16-1137**; Pine Acres Drive; request to install a catch basin as part of roadway drainage improvements; Town of Canton Department of Public Works, applicant; Town of Canton, owner

OTHER BUSINESS:

1. Discussion with WPCA Superintendent Roger Ignazio regarding the establishment of protocol pertaining to emergency situations within or near wetlands
2. Approve Minutes of the April 14, 2016 Regular Meeting
3. Applications Received After Agenda Posted
4. Authorized Agent
5. Any Other Recent Enforcement Issues
6. Staff Report
 - a) Procedural Safety Guidelines
 - b) Roadside Management Pesticide Plan Update
 - c) 310 Albany Turnpike Update

ADJOURNMENT:

May 1, 2016

TO: Dave Shepard, Chair
Canton Inland Wetlands and Watercourses Agency
CC: Planning and Zoning Commission

FROM: Jay Kaplan
Canton Conservation Commission

Dear Dave:

At its 27 April 2016 meeting, the Canton Conservation met with David Mott, who has an application before your agency concerning 594 Albany Turnpike. The applicant is building a house that is immediately adjacent to the 100' Farmington River overlay district, and wishes to build a deck that will encroach eight feet into the overlay district. The Commission spent a considerable amount of time speaking with the applicant, as well as with Lance Hansen, Canton Representative to the Farmington River Coordinating Committee, who also attended the meeting.

A number of Commission members expressed concerns about setting a precedent with regard to incursions into the Overlay District. However, the Commission also recognizes the extent to which the applicant has gone to minimize any disturbance to the area as well as to the unique circumstances of this site.

Although the Commission did not take a position on the application, we do request that the Canton Inland Wetlands and Watercourses Agency consider the following should you vote to accept this application:

1. That the incursion into the Farmington River Overlay District be limited to the eight feet as presently delineated in the application.
2. That removal of trees, shrubs, and all other plants other than invasives is limited to those that may result in damage to the residence to be built adjacent to the overlay district.
3. That the property owner consults with a professional arborist in planting shrubs/trees, etc. within the overlay district and that said plantings be limited to native species.
4. That no herbicides, fungicides or other lawn treatment applications be allowed within the Overly District.

Should you or other IWWA Commissioners have any questions concerning these comments, please feel free to contact me or another member of the Conservation Commission or you may contact Emily Anyzeski, Canton Assistant Town Planner.



Farmington River Watershed Association, Inc.

749 Hopmeadow Street, Simsbury, CT 06070
(860) 658-4442 Fax (860) 651-7519 www.frwa.org

April 27, 2016

Sarah Faulkner
Chair, Canton Conservation Commission

Dear Ms. Faulkner,

On behalf of the Farmington River Watershed Association, I'm submitting this comment to the Canton Conservation Commission for inclusion in the public record, about a proposed residence at 594 Albany Turnpike.

Our understanding from seeing a site plan of the proposed residence is that a portion of the house's footprint is within the 100 foot protective overlay zone that Canton adopted more than twenty years ago, in support of the requirements for designation of the Farmington West Branch as a Wild & Scenic River.

Though Wild & Scenic River status was conferred by Congress, the associated overlay zone is established, and its protection enforced, entirely through local measures. If the proposed construction is indeed encroaching on the overlay zone, it's up to the town of Canton to honor its own commitment to the protections it put in place.

If there are special circumstances in this case that should be considered, then the town's process for approval should follow the procedure for granting exceptions to local ordinances, rather than simply approving the building proposal as is. It should be made clear to all that this case is not a precedent for others to build or encroach at will within the overlay zone.

We encourage the Town and the property owners to take all measures possible to avoid building within the overlay zone. If it is truly impossible to avoid by using an alternate plan, and the project does go forward, then the public record of the approval should (at least) clearly state that the 100 foot overlay protection is still in place and that there was a very compelling reason to waive it in this unique instance.

We look to the Town of Canton to thus uphold its own local protection of the scenic features and water quality of the Wild & Scenic Farmington West Branch.

Thank you for this opportunity to comment.

Sincerely,

A handwritten signature in cursive script that reads "Eileen Fielding". The signature is written in black ink and is positioned above the typed name and title.

Eileen Fielding
Executive Director

LEGEND

X 000.0	EXISTING SPOT ELEVATION
--- 000	EXISTING INDEX CONTOUR
- - - 000	EXISTING MINOR CONTOUR
--- 000	PROPOSED INDEX CONTOUR
- - - 000	PROPOSED MINOR CONTOUR
=====	SEDIMENTATION CONTROL FENCE
~ ~ ~ ~ ~	TREE LINE/CLEARING LIMITS
○	DEEP HOLE TEST
○	PERCOLATION HOLE TEST
-----	100' UPLAND REVIEW AREA
-----	BUILDING RESTRICTION LINE
-----	EASEMENT LINE
-----	EDGE OF WATER
-----	STOCKADE FENCE
○	PROPERTY CORNER FOUND
◎	MDC MANHOLE
W	WATER MAIN (48"-TYPE UNKNOWN)
WC	WATER CONNECTION (1" COPPER)
FD	FOUNDATION DRAIN (4" PVC)
ETCS	ELECTRIC, TELEPHONE AND CABLE SERVICE

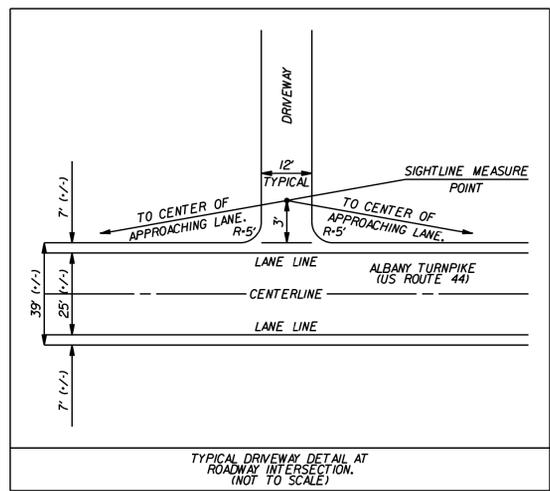
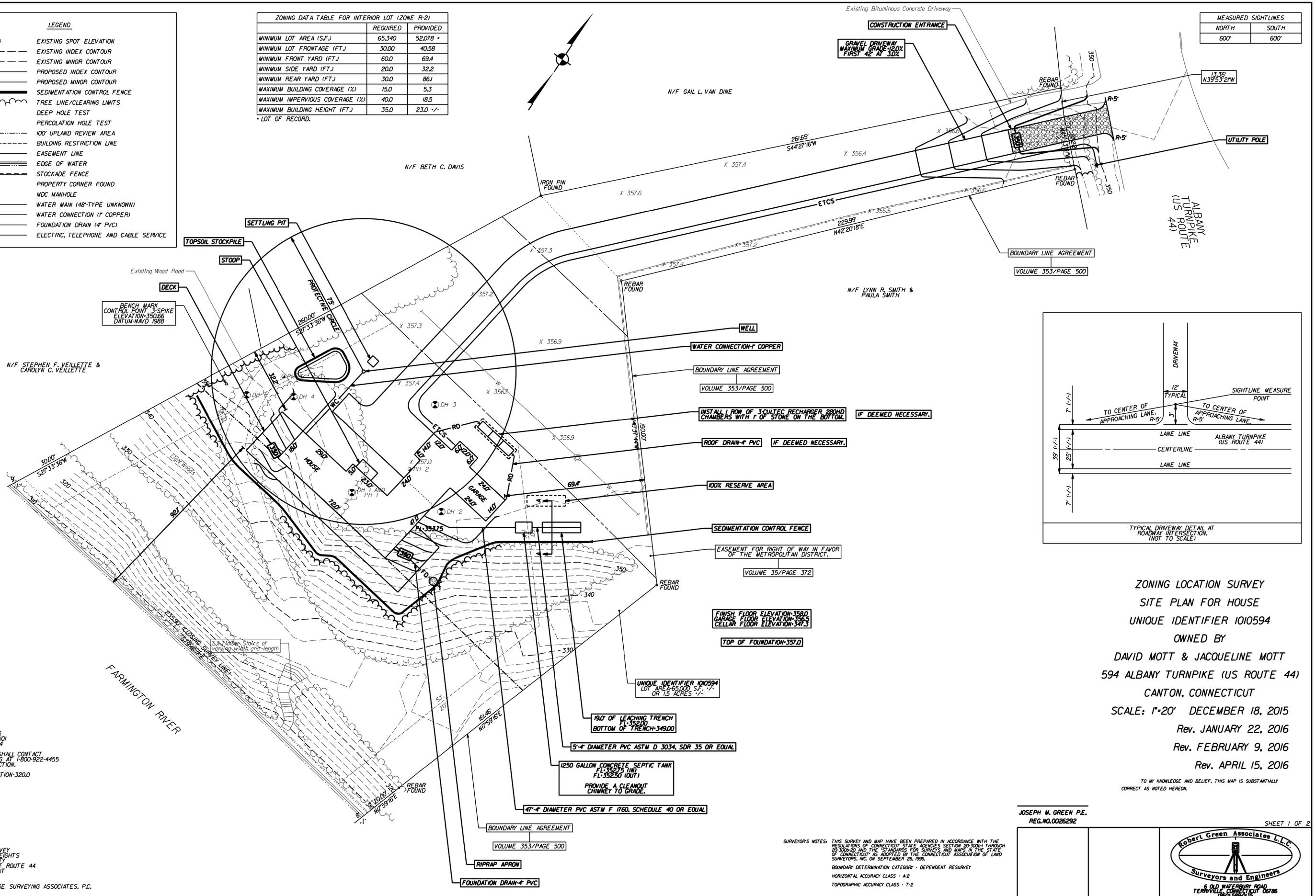
ZONING DATA TABLE FOR INTERIOR LOT (ZONE R-2)

	REQUIRED	PROVIDED
MINIMUM LOT AREA (S.F.)	65,340	52,078 *
MINIMUM LOT FRONTAGE (FT.)	30.00	40.58
MINIMUM FRONT YARD (FT.)	60.0	69.4
MINIMUM SIDE YARD (FT.)	20.0	32.2
MINIMUM REAR YARD (FT.)	30.0	86.1
MAXIMUM BUILDING COVERAGE (%)	15.0	5.3
MAXIMUM IMPERVIOUS COVERAGE (%)	40.0	18.5
MAXIMUM BUILDING HEIGHT (FT.)	35.0	23.0 +/-

* LOT OF RECORD.

MEASURED SIGHTLINES

NORTH	SOUTH
600'	600'



**ZONING LOCATION SURVEY
SITE PLAN FOR HOUSE
UNIQUE IDENTIFIER 1010594
OWNED BY
DAVID MOTT & JACQUELINE MOTT
594 ALBANY TURNPIKE (US ROUTE 44)
CANTON, CONNECTICUT
SCALE: 1"=20' DECEMBER 18, 2015
Rev. JANUARY 22, 2016
Rev. FEBRUARY 9, 2016
Rev. APRIL 15, 2016**

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

JOSEPH M. GREEN P.E.
REG. NO. 0026292

SHEET 1 OF 2

NOTES:
ZONE R-2
ASSESSORS MAP 25
ASSESSORS BLOCK 101
ASSESSORS LOT 594
THE CONTRACTOR SHALL CONTACT
CALL BEFORE YOU DIG AT 1-800-922-4455
PRIOR TO CONSTRUCTION.
BASE FLOOD ELEVATION 320.0

MAP REFERENCE:
DEPENDENT RESURVEY
OF LOT 5 CASEY HEIGHTS
PATRICK J. FLAHERTY
ALBANY TURNPIKE CT ROUTE 44
CANTON, CONNECTICUT
APRIL 2005
SCALE: 1"=40'
PREPARED BY HODGE SURVEYING ASSOCIATES, P.C.

SURVEYOR'S NOTES: THIS SURVEY AND MAP HAVE BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTION 20-300b THROUGH 20-300d-20 AND THE STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.
BOUNDARY DETERMINATION CATEGORY - DEPENDENT RESURVEY
HORIZONTAL ACCURACY CLASS - A-2
TOPOGRAPHIC ACCURACY CLASS - T-2





April 11, 2016

FRCC - Appointed Representatives:

Barkhamsted

*Mario Santoro
Roger Behrens alternate*

Canton

*Lance Hansen
Mark Quinlan alternate*

Colebrook

*Ross Delaney
Tom Stanton alternate*

Hartland

Dan Bowler

New Hartford

*Alison Murdock
Joe Merlino alternate*

CT DEEP

Susan Peterson

Farmington River Anglers Association

*Nick Masi
Paul Pinette alternate*

Farmington River Watershed Association

*David Sinish
Eileen Fielding alternate*

Metropolitan District Commission

*Tim Anthony
Carol Youell alternate*

National Park Service

*Liz Lacy
Jamie Fosburgh alternate*



Town of Canton
Board of Selectmen
Planning and Zoning Commission

RE: Proposed Residential Development within River Protection Overlay Zone

Dear Members of the Board and Commissioners:

The Farmington River Coordinating Committee (FRCC) was established when 14 miles of the upper Farmington River were designated as a National Wild & Scenic River – August 26, 1994. The FRCC comprises representatives from each of the five towns adjacent to the Farmington River (Barkhamsted, Canton, Colebrook, Hartland, and New Hartford) as well as representatives from the Farmington River Anglers Association, the Farmington River Watershed Association, the Metropolitan District Commission, the CT Department of Energy and Environmental Protection, and the National Park Service. The FRCC embodies an important partnership among the riverfront towns and others to provide stewardship of the Farmington River and its upper watershed.

In fulfilling its Congressionally-mandated duties, the FRCC is responsible for overseeing activities on the river and implementing the Upper Farmington River Management Plan. This Management Plan was developed in 1993 by the Farmington River Study Committee with extensive input from citizens and officials in Canton and the other riverfront towns and nonprofit and governmental entities who have a stake in the health of the river. The Management Plan was updated in 2013 by the FRCC with much public input and approval by all members of the FRCC. In addition to helping craft the Plan, member towns voluntarily adopted the 100 foot buffer prior to W&S designation, and thus made a commitment to honor the protections of the designation. (Please access the plan at www.FarmingtonRiver.org)

With the findings and recommendations of the Upper Farmington River Management Plan as our base, the FRCC would like to address the recent proposal of the construction of a residence in the River Protection Overlay Zone in Canton at 594 Albany Turnpike. While the FRCC understands that the authority and decision-making on this issue lies with the town and its local boards and commissions, it also recognizes that there is a responsibility to maintain the buffer zone along the river. Allowing development this close to the river compromises the integrity of the buffer zone and sets a bad precedent for others to follow. This could create a cumulative impairment of that buffer zone.

The buffer zone protects the river from runoff such as fertilizers and pesticides – as well as provides vegetation and forest cover to maintain the cool temperatures needed to guarantee the important cold water fish habitat for which the upper Farmington is known. The proposed development could see excessive tree removal as well as remove a scenic vista from those recreating on the river.

We encourage you to reconsider allowing a development of this kind within the 100 foot river protection zone. Please keep your town’s promise to the river, your neighboring towns, and all those who benefit from a healthy Farmington W&S River.

Sincerely,

Roger Behrens

Roger Behrens, Chair, Barkhamsted alternate, Farmington River Coordinating Committee

Cc: Inland Wetlands Commission
Farmington River Coordinating Committee



TOWN OF CANTON
 4 Market Street
 PO Box 168
 Canton, CT 06019

**CANTON TOWN HALL
 LAND USE OFFICE**

MAY 06 2016

Land Use Department
 (860) 693-7856
 (860) 693-7884 (fax)

DATE OF RECEIPT IN OFFICE

OFFICE USE ONLY		
FILE #: <u>05-16-1137</u>	FEE AMOUNT: <u>n/a</u>	CASH / CHECK <u>n/a</u>
DATE SUBMITTED: <u>5/6/16</u>		

**INLAND WETLANDS AND WATERCOURSES AGENCY (IWWA)
 PERMIT APPLICATION**

APPLICATION FEE: \$160.00 (includes \$60.00 State Surcharge)
 Please make checks payable to "Town of Canton"

**THIS APPLICATION CANNOT BE APPROVED UNTIL ALL REQUIRED INFORMATION IS PROVIDED
 AND ANY ADDITIONAL REQUIRED APPROVALS ARE OBTAINED.**

PLEASE PRINT LEGIBLY

Property Address: Pine Acres Drive near intersection of N. Mountain Road
 Assessor's Map: _____ Parcel: _____ Zone: _____ Lot Size: _____
 Land Record Reference to Deed Description: Volume: _____ Page: _____
 Property Owner: Town of Canton Phone: (860) 693-7847
 Applicant/Agent: Robert Martin, DPW Phone: (860) 693-7863
 Mailing Address: 50 Old River Road, Canton, CT
 Email Address: rmartin@townofcantonct.org
 Contractor/Consultant: n/a Phone: _____
 Mailing Address: n/a
 Email Address: n/a

Describe existing uses: Roadway

Describe proposed activity/purpose: Install one C-Type catch basin w/ an 8-12 inch inlet pipe leading to rear wetland to control runoff and water levels
 Describe how wetlands and watercourses will be disturbed: Additional drainage to be added in order to pickup road water runoff.

Quantify earthwork in regulated area: Volume: _____
 Depth: _____
 Slope: _____

Total area of materials moved/removed/disturbed: _____ Percent of total area: _____

FORM 88-1/15

SIGNIFICANT ACTIVITY INFORMATION

Complete this portion if your proposal is considered to be significant pursuant to Section 2.1 cc of the Canton IWWA Regulations. If you consider that your activity is not a Significant Activity, proceed to the signature page. All others complete this application in full. (Final determination of significance is reserved to the Wetlands Agency).

1. Describe further the general character of the land in sufficient detail to characterize the wetlands and watercourses, including soil types. Refer to any plans that may be enclosed: Swale area on the west side of Pine Acres Drive that direct concentrated runoff onto North Mountain Road
2. State the function that the wetlands/watercourses currently serve and the effect that the proposed activity may have on that function. Those functions should include surface and ground water quality, flood control, and wildlife habitat: Swales concentrated runoff from wooded area discharging in swale on N. Mtn. Road
3. State in more detail or by specific locations, depths to which removal or deposition operations are proposed and the percent of slope, including kinds of materials removed and/or deposited and sides of channels or excavations resulting from removal or filling operations: operation will be limited to installing a C-Type catch basin and an inlet 8-12 inch wide on west side of Basin.
4. State manner in which material will be removed or deposited and /or in which any structure will be erected, and/or use carried out, including a description of the nature of the use proposed: Trenching will be done to install basin + pipe inlet.
5. State the anticipated time and sequence of construction and length of construction period(s): one to two days - weather permitting.
6. List (or attach on a separate sheet) the titles of site plans, drawings, and cross-sections, with latest revision dates and any other reports that are part of this application and are accompanying this form: see photos 1-7
7. List (or attach on a separate sheet) all abutting property owners and downstream and down -gradient property owners as may be required. Give both names and addresses: Inlet pipe end is within the right-of-way
8. Identify previous permits or certificates for existing activities on the property giving name and current address and phone number of the permit holder, dates of issuance and expiration of the permit, and the agency file number: N/A

SUBMIT PLANS IN THE FOLLOWING FORMATS ONLY:

1. 24" x 36"
2. 18" x 24"
3. 12" X 18"

Attach a site plan scaled at sufficient detail to show existing and proposed conditions, including maximum building areas relative to regulated areas, measures proposed to mitigate potential adverse impacts and a listing of soil types.

If considered a significant activity, you may be required to attach maps at prescribed scales showing the location of proposed activities, adjacent lands and regulated areas, upstream/downstream areas, property lines, roads and drives, existing buildings and utilities, topography, published and or found soil survey types, wetlands limits, watercourses and buffer areas, existing open space lands and private/public conservation easements, and types of vegetative cover. Consult the regulations for details.

Discuss why this proposal was chosen over any alternatives. List all alternatives (use separate sheet if necessary): new catch basin to be installed to collect water discharging on N Main Road. Inlet pipe installed on west side of basin to allow water from woods during high water events to enter the inlet to avoid entering the road surface.

OWNER'S CONSENTING SIGNATURE:

The undersigned, as owner of the property, hereby consents to necessary and proper inspections of the property that is subject to this application by agents of the Canton Inlands Wetlands and Watercourses Agency at reasonable times, both before and after a final decision has been issued by this Agency.

Signature

Date

APPLICANT'S SIGNATURE:

The undersigned is familiar with all of the information provided in this application and is aware that any permit obtained through deception, or inaccurate or misleading information, is subject to revocation. The applicant further understands that any violation of any provision of a permit may result in orders to cease and desist from any and all work at the site. If an agent's name has been specified as the primary contact person on the front of this application, the applicant authorized that agent to act on his/her behalf before the Canton Inland Wetlands and Watercourses Agency in matters regarding this application.

Robert J. Martini
Signature

5/6/2016
Date

REQUEST FOR WAIVERS
(Per IWWA Regulations effective 09/01/11)

In accordance with Section 7.11 of the Canton Inland Wetlands and Watercourses Agency Regulations, a request is made that the following application requirements be waived (check those section numbers requested for waiver):

- Section 7.4d (The geographical location and description of the land in sufficient detail to allow identification of the properties, the wetlands, the watercourses, the area to be disturbed – waiving only identification of soil types and wetland vegetation)

- Section 7.4e (3) (The purpose and description of the activity, proposed E&S controls management practices, mitigation measures – waiving only identification of measures to restore, enhance and create productive wetland or watercourse resources)

- Section 7.4 g (Site plan on a scale of at least 1" = 40' showing proposed activity, existing and proposed conditions relating to wetlands and watercourses, associated or inevitable activity that may impact wetlands or watercourse)

- Section 7.4 h (Names and addresses of land owners within 100 feet of property boundary) N/A if significant impact activity determined or public hearing called.

- Section 7.4m (Any other information the Agency deems necessary)

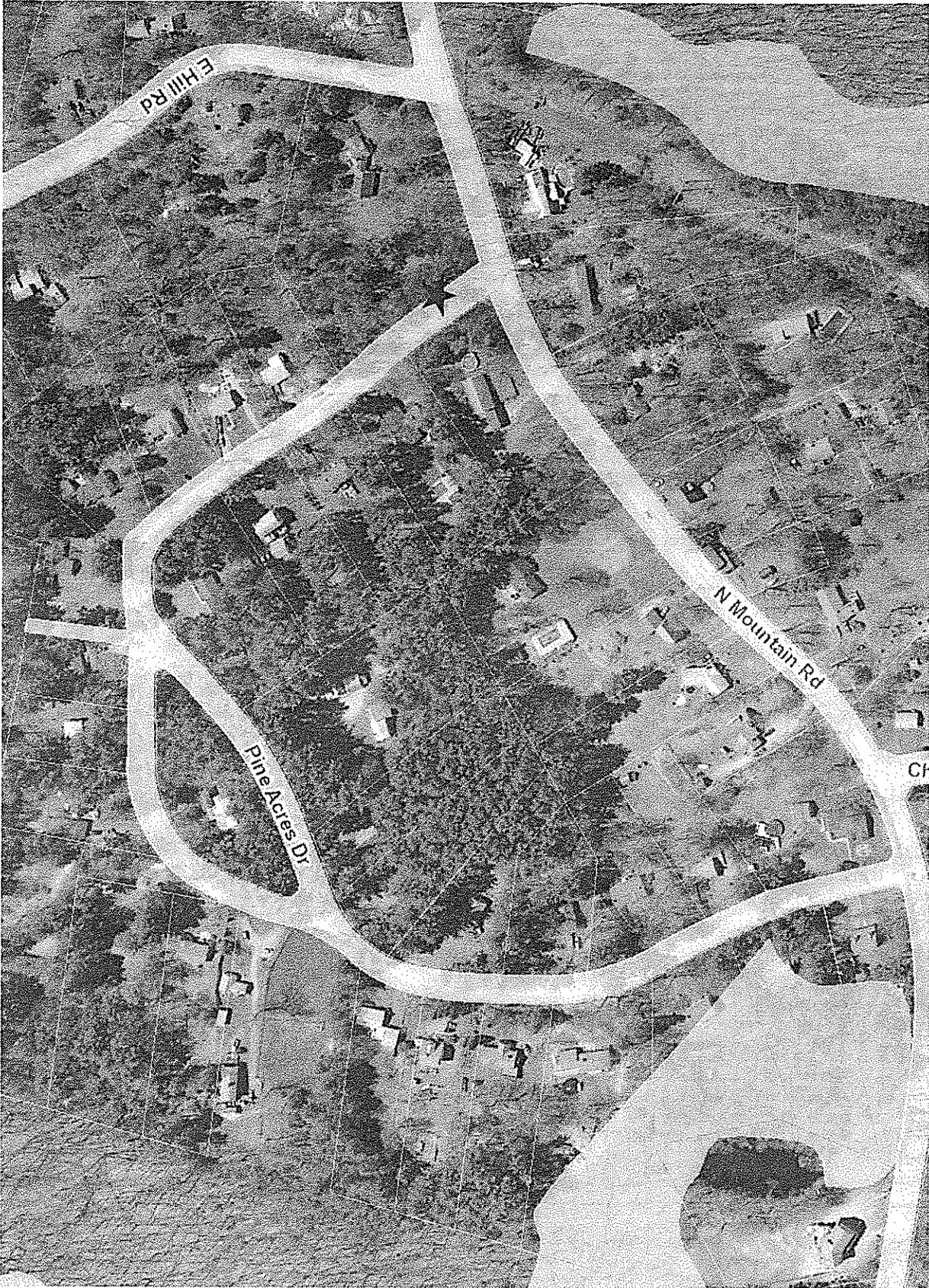
- Section 7.5 f (Analysis of chemical or physical characteristics of any fill material)

The undersigned, as owner or duly authorized applicant, has reviewed the above information provided to the Canton Inland Wetlands and Watercourses Agency and certifies it is true and correct to the best of his/her knowledge and belief.

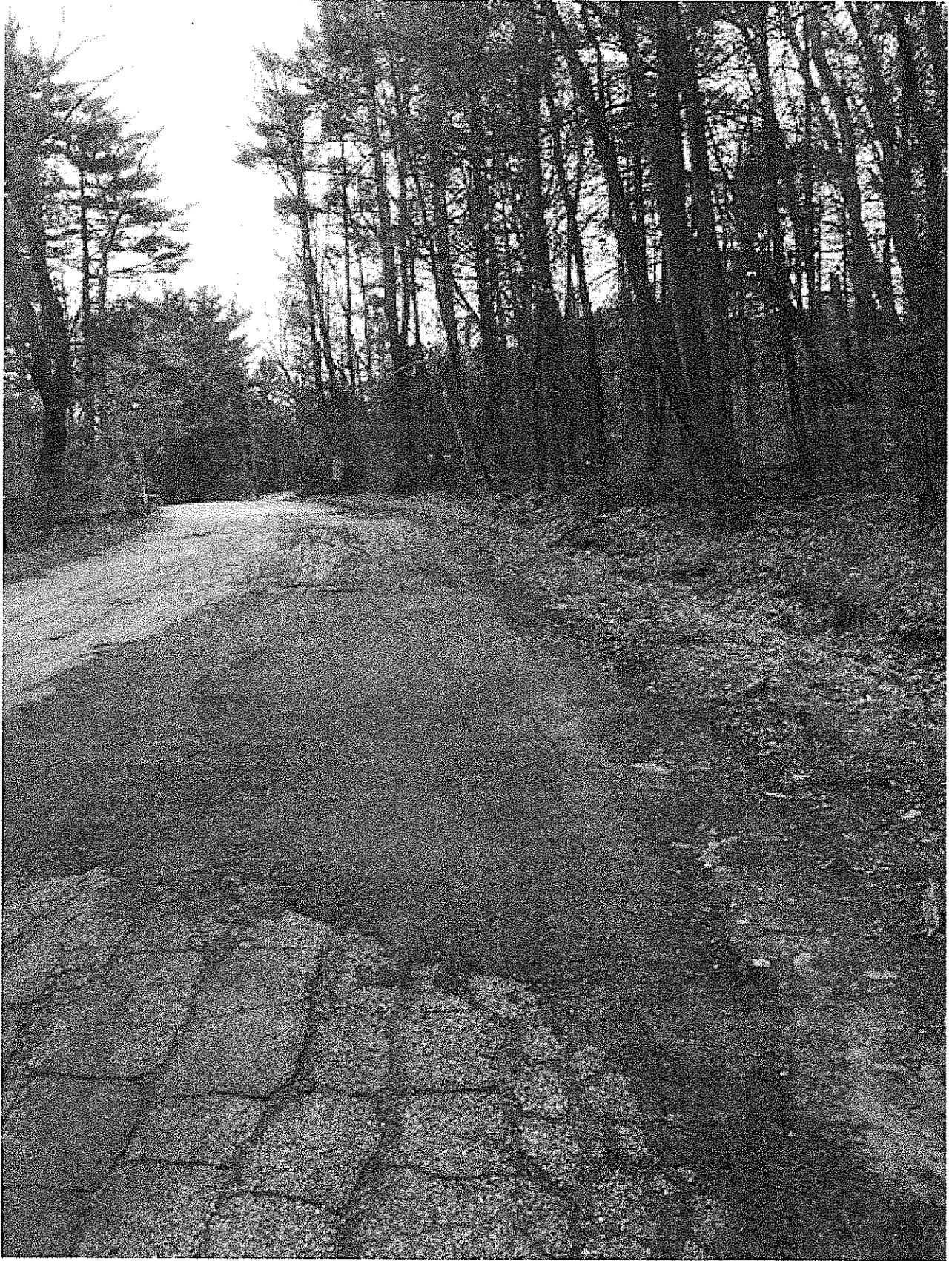
Robert J. Marti
Signature

5/16/2016
Date

①



2



3



4



5



6



17

















DRAFT MINUTES

Regular Meeting

Canton Inland Wetlands and Watercourses Agency

April 14, 2016 at 7:00 p.m.

Library/Community Center, Room F

CALL TO ORDER – The regular meeting of April 14, 2016 was called to order at 7:06 p.m.

ROLL CALL – Chairman David Shepard, Robert Bahre, David Sinish, Rich Vandebogart and Al Bombassei
ALSO PRESENT – Assistant Town Planner Emily Anyzeski and Land Use Coordinator Renee Narducci

A quorum of the agency is present.

PUBLIC COMMENT NOT RELATED TO AGENDA ITEM – Sara Faulkner of 25 Dyer Avenue, Collinsville, CT, was present in order to talk about the Conservation Commission's concerns regarding the proposed re-build of the Town Garage at its current location, as well as the proposed single-family home at 594 Albany Turnpike. She pointed out that the Conservation Commission feels the current location of the garage is not appropriate and alternative properties should be considered due to multiple reasons. A letter was handed out to the Agency consisting of a pro/con list that was developed by all members of the Conservation Commission. Ms. Faulkner wanted to state on record that the Commission is opposed to the proposed plan and is currently working with the BOS and PMBC regarding other sites. Due to the fact that the proposed home at 594 Albany Turnpike was an agenda item, Ms. Faulkner was told to hold off on further comment until permitted to do so by the Agency.

OLD BUSINESS:

Mr. Sinish recused himself at 7:16 p.m.

1. **File #02-16-1135; 594 Albany Turnpike; Assessor's Map 25; Parcel 1010594; Zone R-2; request to construct a single family home; David and Jacqueline Mott, applicants/owners** – The property owners, David and Jacqueline Mott, were present in order to provide background on the location of the proposed home and answer any questions the agency had. The agency discussed the site walk that occurred on March 31, 2016, and N. Pade informed the Agency of the public hearing that has been opened among the Planning and Zoning Commission, along with the time constraints currently in place. D. Shepard discussed whether or not a public hearing was necessary for the application currently before the IWWA, and there was a general consensus that one was not needed. R. Bahre spoke about the design of a dry well in order to deal with the water and the possibility of moving the plunge pool. The Agency felt there are feasible and prudent alternatives regarding said plunge pool, and encouraged other designs that would provide less of an impact on the property and to the Upland Review Area.

MOTION: D. Shepard moved to continue File #02-16-1135; 594 Albany Turnpike; Assessor's Map 25; Parcel 1010594; Zone R-2; request to construct a single family home; David and Jacqueline Mott, applicants/owners, to the next regularly scheduled meeting on Thursday, May 12, 2016 at 7:00 p.m. in Room F of the Community Center. A. Bombassei seconded the motion, which passed unanimously 4-0-0.

Mr. Sinish returned at 8:15 p.m.

NEW BUSINESS

1. **File #03-16-1003; 310 Albany Turnpike; Assessor's Map 31; Parcel 1010310; Zone B; Request to install a concrete sidewalk, wood decking and handrails adjacent to an existing swale in order to address fire code concerns; Jonathan Singer, applicant; Canton Realty Associates, LLC, owner** – Representing the applicant and owner was Mr. Joseph Santovasi, who was present in order to provide insight on the application and answer any questions the Agency had. D. Shepard provided some feedback on his visit to the site after receiving a phone call from the Assistant Town Planner regarding whether or not a full wetlands application would be necessary. J. Santovasi stated that the concrete for the east side of the complex will be brought in using a motorized wheelbarrow, while the concrete on the south side will be pumped in. All areas will be spread by hand and compacted with a machine, with 5.5 feet between the erosion control measures and the building.

MOTION: D. Shepard moved to APPROVE File #03-16-1003; 310 Albany Turnpike; Assessor's Map 31; Parcel 1010310; Zone B; Request to install a concrete sidewalk, wood decking and handrails adjacent to an existing swale in order to address fire code concerns; Jonathan Singer, applicant; Canton Realty Associates, LLC, owner, as presented, subject to the following conditions:

1. The permit is valid for a period not to exceed two (2) years from the date of issue; and
2. The installation of silt fence shall be situated as far up the hill away from the wetlands/watercourses as possible.

D. Sinish seconded the motion, which passed unanimously 5-0-0.

OTHER BUSINESS

1. **Approve Minutes of the March 10, 2016 Regular Meeting**

MOTION: D. Shepard moved to approve the minutes of the March 10, 2016 regular meeting. A. Bombassei seconded the motion, which passed 4-0-1. R. Bahre abstained.

2. **Applications Received After Agenda Posted** – None
3. **Authorized Agent** – None
4. **Any Other Recent Enforcement Issues** – None
5. **Staff Report** – E. Anyzeski provided the Agency with an update on the proposed dog park, and stated that the Town Project Administrator, George Wallace, located a wetlands survey of the parcel being considered. E. Anyzeski stated that she will apply the wetlands data to an aerial image in order to depict the proposed location of the dog park on the parcel in relation to the wetlands. There was a discussion on the proposed expansion of the skate park at Mills Pond and E. Anyzeski provided a rendering of the proposed concept, as well as an aerial image. The Agency also discussed the Conservation Commission's request to review all applications and provide feedback prior to the IWWA making a final decision. D. Shepard requested that E. Anyzeski speak with the Conservation Commission in order to determine the route of the request and what their intentions are.

ADJOURNMENT – **MOTION:** R. Bahre moved to adjourn the meeting at 9:33 p.m. R. Vandebogart seconded the motion, which passed unanimously 5-0-0.

Respectfully Submitted,
Renee Narducci, Land Use Coordinator



Proactive by Design

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION
MANAGEMENT

GZA GeoEnvironmental,
Inc.
655 Winding Brook Drive,
Suite 402
Glastonbury, CT 06033
203-286-8900
www.gza.com



May 5, 2016
File No. 05.0045674.00

Response Environmental, Inc.
7 Henry Street
Worcester, MA 01604

Attention: Stefanie S. Wood
Project Manager

Reference: Final Wetland Soil Sampling and Density Testing Results
310 Albany Turnpike
Canton, Connecticut

Dear Ms. Wood:

The wetland soil sampling and density testing has been performed on the wetland soil area potentially impacted by temporary fill. Of the two areas initially sampled on November 3, 2015, only one of the areas was filled. The "ramp" area on the north side of the site where the previous sample ST-1 was collected was the only fill placed on wetland soil. Consequently, this was the only area sampled. The sampling and testing was performed according to our proposal dated October 2, 2015 and the Wetland Soil Sampling and Density Testing Plan dated October 6, 2015.

GZA collected two samples (ST-3 and ST-4) of the wetland topsoil layer in the area of the ramp fill on April 20, 2016 at the locations shown on Figure 1. The samples were transported to the soils laboratory and soil moisture and density tests were performed in general accordance with ASTM D 2937. The results are summarized below and the test reports are attached.

Samples ST-3 and ST-4 have Total Unit Weights of 84.7 and 83.7 pounds per cubic foot (pcf) and average moisture contents of 41.5 and 29.9%. The before fill sample in the ramp area, Sample ST-1, had a Total Unit Weight of 89.7 pounds per cubic foot (pcf) and an average moisture content of 18%. Based the results of the sampling and testing, the upper 0.8 feet of the wetland soil profile has not increased in density due to the temporary filling.

Please call if you have any questions.

Very truly yours,

Dan T. Kinard, P.E.
Associate Principal

Thomas F. Stark
Senior Principal

Attachments:

Figure 1 – Topsoil Sample Locations
Laboratory Test Results, Sample ST-3 and ST-4



Proactive by Design

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WATER
CONSTRUCTION
MANAGEMENT

35 Nutmeg Drive
Suite 325
Trumbull, CT 06611
T: 203.380.8188
F: 203.375.1529
www.gza.com



LABORATORY TESTING

Project Name Wetland Soil Sampling and Density Testing **Project No.** 05.0045674.00

Site Location Canton, Connecticut

Tested by P. Waters **Sample Collected** 4/20/16 **Date Tested** 4/21/16

Determination of Water Content

Item	Sample No. (Depth)	
	ST-3 (0 – 0.8 feet)	ST-4 (0 – 0.8 feet)
Can No.	P-1	P-2
Mass of can, W_1 (g)	129	115.5
Mass of can + wet soil, W_2 (g)	897.5	888.0
Mass of can + dry soil, W_3 (g)	672.0	710.0
Mass of moisture, $W_2 - W_3$ (g)	225.5	178.0
Mass of dry soil, $W_3 - W_1$ (g)	543.0	594.5
Moisture content, w (%) = $\frac{W_2 - W_3}{W_3 - W_1} \times 100$	41.5%	29.9%

Determination of Unit Weight

Item	Sample No.	
	ST-3	ST-4
Weight of cylinder, W_1 (g)	682	679
Weight of cylinder + wet soil, W_2 (g)	2,257	2,232
Volume of cylinder, V (in ³) (L=10" Dia.=3")	70.69 (0.041 ft ³)	70.69 (0.041 ft ³)
Weight of wet soil, $W_2 - W_1$ (g)	1575 (3.47 lbs)	1553 (3.42 lbs)
Moist unit weight, γ (pcf) = $\frac{W_2 - W_1}{V}$	84.9 pcf	83.7 pcf
Dry unit weight, γ_{dry} (pcf) = $\frac{\gamma}{1 + \frac{w(\%)}{100}}$	60pcf	64.4 pcf