



Arlington Conservation Commission

Date: Thursday, March 21, 2024

Time: 7:00 PM

Location: Conducted by Remote Participation.

Please register in advance for this meeting. Reference materials, instructions, and access information for this specific meeting will be available 48 hours prior to the meeting on the Commission's agenda and minutes page. This meeting will be conducted in a remote format consistent with Chapter 2 of the Acts of 2023, which further extends certain COVID-19 measures regarding remote participation in public meetings until March 31, 2025. Please note: Not all items listed may in fact be discussed and other items not listed may be brought up for discussion to the extent permitted by law. This agenda includes those matters which can be reasonably anticipated to be discussed at the meeting.

Agenda

1. Administrative
 - a. Review of Meeting Minutes.
 - b. Correspondence Received.
All correspondence is available to the public. For a full list, contact the Conservation Agent at concomm@town.arlington.ma.us.

2. Discussion
 - a. Request from Friends of Spy Pond Park for Reimbursement from the Conservation Land Stewardship Fund.
 - b. Request for Certificate of Compliance: 19 Sheraton Park.
 - c. Water Bodies Working Group.
 - d. Tree Committee Update.
 - e. Artificial Turf Study Committee Update (next meeting TBD).

3. Hearings

Request for Determination of Applicability: 36 Peabody Road.

Request for Determination of Applicability: 36 Peabody Road.

This public hearing will consider a Request for Determination of Applicability for an addition to the existing structure at 36 Peabody Road in Arlington along with landscaping and hardscaping activities within the 100-foot Buffer Zone and Adjacent Upland Resource Area to Spy Pond.

DEP #091-0360: 2 Reservoir Road (Continuation from 3/7/2024).

DEP #091-0360: 2 Reservoir Road (Continuation from 3/7/2024).

This public hearing will consider a Notice of Intent to construct an addition off the rear of a single-family dwelling, renovate a front porch, and conduct landscaping and hardscaping activities within Riverfront Area and Bordering Land Subject to Flooding associated with Mill Brook, and within the 100-foot Buffer Zone to Bordering Vegetated Wetlands.

Request for Determination of Applicability: 459 Mystic Street (Continuation from 3/7/2024).

Request for Determination of Applicability: 459 Mystic Street (Continuation from 3/7/2024).

This public hearing will consider a Request for Determination of Applicability for the construction of an addition and deck expansion at 459 Mystic Street, within the 100-foot Buffer Zone to Bordering Vegetated Wetlands.

DEP #091-0356: Notice of Intent: Thorndike Place (Continuation from 3/7/2024).

DEP #091-0356: Notice of Intent: Thorndike Place (Continuation from 3/7/2024).

The Conservation Commission will hold a public hearing under the Wetlands Protection Act to consider a Notice of Intent for the construction of Thorndike Place, a multifamily development on Dorothy Road in Arlington.

DEP #091-0278: Amendment to Order of Conditions: 88 Coolidge Road (Continued from 3/7/2024).

DEP #091-0278: Amendment to Order of Conditions: 88 Coolidge Road (Continued from 3/7/2024).

This public hearing will consider the peer review report for an amendment to an Order of Conditions for construction of a new house at 88 Coolidge Road in the Buffer Zone to a Bordering Vegetated Wetland. The Commission will vote to continue this hearing to the meeting of April 4, 2024.



Town of Arlington, Massachusetts

Review Meeting Minutes.

Summary:

Review of Meeting Minutes.



Town of Arlington, Massachusetts

Correspondence Received.

Summary:

Correspondence Received.

All correspondence is available to the public. For a full list, contact the Conservation Agent at concomm@town.arlington.ma.us.

ATTACHMENTS:

Type	File Name	Description
Reference Material	MA_Assn_Conservation_Districts_-_Brian_Mariano.pdf	MA Assn Conservation Districts - Brian Mariano
Reference Material	Thorndike_Place_-_Amy_Antczak.pdf	Thorndike Place - Amy Antczak
Reference Material	Thorndike_Place_-_Anita_and_Gary_Gryan.pdf	Thorndike Place - Anita and Gary Gryan
Reference Material	Thorndike_Place_-_Ann_Abdul_Hannan.pdf	Thorndike Place - Ann & Abdul Hannan
Reference Material	Thorndike_Place_-_Brian_Mariano.pdf	Thorndike Place - Brian Mariano
Reference Material	Thorndike_Place_-_Brid_Coogan.pdf	Thorndike Place - Brid Coogan
Reference Material	Thorndike_Place_-_Brooke_Bartion_Ian_Marge.pdf	Thorndike Place - Brooke Bartion & Ian Marge
Reference Material	Thorndike_Place_-_Cissy_Yang.pdf	Thorndike Place - Cissy Yang
Reference Material	Thorndike_Place_-_Coalition_to_Save_the_Mugar_Wetlands.pdf	Thorndike Place - Coalition to Save the Mugar Wetlands
Reference Material	Thorndike_Place_-_Donna_Vanderlinden.pdf	Thorndike Place - Donna Vanderlinden
Reference Material	Thorndike_Place_-_Ed_Walsh.pdf	Thorndike Place - Ed Walsh
Reference Material	Thorndike_Place_-_Erin_Freeburger.pdf	Thorndike Place - Erin Freeburger
Reference Material	Thorndike_Place_-_GM_Hakim.pdf	Thorndike Place - GM Hakim
Reference Material	Thorndike_Place_-_Ian_Howard.pdf	Thorndike Place - Ian Howard
Reference Material	Thorndike_Place_-_Jin_Xu.pdf	Thorndike Place - Jin Xu
Reference Material	Thorndike_Place_-_John_C._Yurewicz.pdf	Thorndike Place - John C. Yurewicz
Reference Material	Thorndike_Place_-_Kamil_Mroczek_Kristin_Wallace.pdf	Thorndike Place - Kamil Mroczek & Kristin Wallace
Reference Material	Thorndike_Place_-_Karen_Fanale.pdf	Thorndike Place - Karen Fanale

▢	Reference Material	Thorndike_Place_-_Karen_Petho.pdf	Thorndike Place - Karen Petho
▢	Reference Material	Thorndike_Place_-_Lena_Nahan.pdf	Thorndike Place - Lena Nahan
▢	Reference Material	Thorndike_Place_-_Marjorie_Howard.pdf	Thorndike Place - Marjorie Howard
▢	Reference Material	Thorndike_Place_-_Mark_McCabe.pdf	Thorndike Place - Mark McCabe
▢	Reference Material	Thorndike_Place_-_Nancy_Ulrich.pdf	Thorndike Place - Nancy Ulrich
▢	Reference Material	Thorndike_Place_-_Nicholas_Ide.pdf	Thorndike Place - Nicholas Ide
▢	Reference Material	Thorndike_Place_-_Peggy_Hallinan.pdf	Thorndike Place - Peggy Hallinan
▢	Reference Material	Thorndike_Place_-_Peter_Fiore.pdf	Thorndike Place - Peter Fiore
▢	Reference Material	Thorndike_Place_-_Robin_Doughty.pdf	Thorndike Place - Robin Doughty
▢	Reference Material	Thorndike_Place_-_Shona_Gibson.pdf	Thorndike Place - Shona Gibson
▢	Reference Material	Thorndike_Place_-_Sue_Barry.pdf	Thorndike Place - Sue Barry
▢	Reference Material	Thorndike_Place_-_Tom_Woodbury.pdf	Thorndike Place - Tom Woodbury
▢	Reference Material	Thorndike_Place_-_Kim_Carney-Wong.pdf	Thorndike Place - Kim Carney-Wong
▢	Reference Material	Thorndike_Place_-_Lisa_Fredman.pdf	Thorndike Place - Lisa Fredman

2024 Statewide Local Working Groups

Brian Mariano <bmm0623@gmail.com>

Fri 3/15/2024 3:23 PM

To:ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Hi there, I am attending this event as a representative of the org I work for in Worcester County. Wanted to make sure it was on your radar as well. This will be my first meeting but think as an Arlington resident, so much of what I have learned and want to see applied lives in this vein so could be good to learn what kinds of programs and resources could be available to our community...

Thanks,
Brian

Hi everyone,

Sending a reminder about the 2024 Statewide Local Working Group taking place in one week, **March 19th 9:30am–12:00pm**. If you haven't yet, please [register here](#) to get the Zoom link for the meeting.

Also, please also be sure to fill out the county-level survey on local natural resource issues if you haven't already. You can find the survey [here](#).

Here's the agenda:

9:30 am – Introduction and presentations from NRCS

10:00 am – Breakout room overview

10:05 – Breakout session #1

10:40 am – Breakout session #2

11:15 am – Open discussion among all participants

12:00 am – Meeting adjourns

Each breakout session includes a 25 minute discussion followed by about 10 minutes for each group to share highlights of their discussion with the other groups.

Best,

Austin

--

Austin Miles, Farm Bill Outreach Coordinator

Massachusetts Association of Conservation Districts

(740) 818-8889 | amilesmacd@gmail.com

Mugar Wetlands

Amy M. Antczak <amymccann@gmail.com>

Sat 3/16/2024 2:29 PM

To:ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

To Whom It May Concern,

It has come to my attention that the Developer of the Mugar Wetlands has advised that it will not comply with the Conservation Commission's request that wells be installed and monitored on the site in the spring months. This is unacceptable. Accurate groundwater data is essential in determining the outcome and feasibility of this project. I expect that the Developer be held accountable in complying with this request.

Thank you,

Amy Antczak
6 Summer St. Place, Arlington

Thorndike Place

Anita G <gryan47@gmail.com>

Sun 3/17/2024 12:21 PM

To:ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Dear Conservation Commission members:

We are writing in regard to the recent developments on the Thorndike Place proposed development. As has been reiterated throughout this process, neighborhood flooding is a major problem already and would be further exacerbated by the planned project. The developers refusal to comply with the reasonable request the Con Comm made is entirely indicative of their contempt for the town and the concerns of the neighborhood and abutters such as us. Accurate groundwater data is absolutely essential for determining the impact on the future groundwater impact, and to evaluate proposed statements regarding and remediations proposed for flooding events. Without this the proposed project should be denied since the data presented cannot be verified to be accurate and the developer refusing to allow for independent 3rd party measurement is simply unacceptable.

Sincerely,

Anita and Gary Gryan

47 Burch St, Arlington, MA 02474

Agreement with the request made by the Conservation Commission (CC)

Nancy Hannan <downdogyogi1@gmail.com>

Sun 3/17/2024 1:51 PM

To:ConComm <ConComm@town.arlington.ma.us>

Cc:downdogyogi1 <downdogyogi1@gmail.com>

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Thank you so much for all your service to our community!

We have lived in Arlington for 20+ years and my husband and I fully support and completely agree with the CC that it is unacceptable that the Developer has refused to provide accurate groundwater data, which is definitely required for an assessment of reliable facts to be able to proceed with any project in the Mugar wetland.

The Developer' needs to be held accountable in complying with the request that wells be installed on the site during the springtime when seasonal high groundwater is at its highest..

Thank you,

Ann & Abdul Hannan

Thorndike Place - 3/14

Brian Mariano <bmm0623@gmail.com>

Thu 3/14/2024 11:53 AM

To:ConComm <ConComm@town.arlington.ma.us>

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Hello,

I recently learned of the news that the developer was able to elect NOT to install monitoring wells for more data this coming spring. It is frustrating to see that the concerns of the abutters and neighbors can just be ignored this way.

I have missed a few meetings since hearings have begun, but I recall the developers insisting that there was some sort of "permanent" reading or measurement that would suffice in this instance. I find this to be a huge red flag, as there is literally NOTHING that is permanent, so to use some calculation to justify the destruction of wetlands is a gross disregard of people's genuine concerns.

Please exhaust every piece of data that can be collected before destroying acres of land that can be utilized to solve the problem they seem intent on exacerbating.

Brian

Thorndike place wells.

Brid Business Address <bmcoogan@gmail.com>

Sat 3/16/2024 9:24 PM

To:ConComm <ConComm@town.arlington.ma.us>

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Dear Conservation Committee,

I really wish the developers would put the wells in the land like we asked them to do. It might help to alleviate some of our concerns if we knew we weren't going to have to deal with more flooding. Or, of course it might affirm out beliefs of more flooding.

I am sorry to be sending you more flooding photos.

My neighbor on Osborne Street sent me these photos of flooding between her and her neighbors house when it rained heavily after the snow this year.









Thank you for your work and long hours you've put into our concerns and for taking the time to read my message.

Regards.
Brid Coogan
17 Edith St

Mugar Wetlands - ground water monitoring

Brooke Barton <brookebarton@gmail.com>

Sun 3/10/2024 2:40 PM

To:ConComm <ConComm@town.arlington.ma.us>

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Dear Conservation Commission members,

I am writing as a resident living close to the proposed development on the Mugar Wetlands to ask that you hold firm in requiring the Developer to validate groundwater levels through well monitoring during the spring months, as specified in the ZBA's Order of Conditions in the Comprehensive Permit.

As you know, two recent independent reviews of the Developer's groundwater data have found problems with the data. We also know that climate change will lead to even more intense and difficult to manage precipitation and groundwater levels in the very near future.

Thank you for all you are doing to uphold this requirement and ensure that this project complies with the letter and spirit of the Conditions of the Comprehensive Permit.

Sincerely,
Brooke Barton & Ian Marge
27 Burch St, Arlington, MA 02474

Concerns about Mugar Wetlands development

Cissy Yang <cissyysy@gmail.com>

Sun 3/10/2024 9:08 PM

To: ConComm <ConComm@town.arlington.ma.us>

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To whom it may concern,

Hope this finds you well, we are residents on Dorothy Rd, Arlington and we are writing this email to express deep concerns about the Mugar Wetland development project.

Firstly, the escalating traffic pressure resulting from the project poses a significant safety risk to this neighborhood where a ton of kids reside here. The increased volume of vehicles, both during the project construction and after it fully settles, not only disrupts the tranquility of our neighbourhood but also raises concerns about pedestrian and road safety.

Secondly, this project threatens the delicate ecosystem of Mugar Wetland, leading to adverse consequences. Flooding issue would be the first reason to reject it. Mugar Wetland, as the largest flood-absorbing area in greater Cambridge, Belmont and Arlington region, acts as a natural sponge, absorbing excess rainwater and mitigating the risk of flooding in surrounding areas. Its removal would lead to decreased water absorption capacity, exacerbating the risk of flooding during heavy rainfall events. This not only poses a threat to nearby properties and infrastructure but also endanger lives and disrupts communities. The developer's recent refusal to comply with Conservation Commission's request to install and monitor wells during the spring months raises serious concerns about the accuracy and reliability of the underground water data provided. And their unwillingness to comply with this request, seems as unwilling to provide the essential information, calls into question the transparency and integrity of their development plans. There may be concerns that the data collected during the spring months could have a negative impact on their project plans, such as revealing higher water levels or increased flood risk that could complicated permitting or approval processes. Or they intend to keep certain info or data hidden from regulatory agencies or the public, potentially indicating a lack of transparency or willingness to engage in open dialogue about the project's potential impact.

We can't ignore the impact on water quality, wetlands play a vital role in maintaining water quality by filtering pollutants and sediments from runoff before they reach larger bodies of water. Without the filtration services provided by Mugar Wetland, there would be an increased risk of contamination in local waterways, affecting both human health and ecosystems. Furthermore, wetlands are crucial for climate change resilience, serving as carbon sinks and helping to buffer against the impacts of extreme weather events. Preserving Mugar Wetland is essential for enhancing the region's resilience to climate change by maintaining its capacity to absorb and store carbon.

We sincerely hope you prioritize the preservation of Mugar Wetland and address the aforementioned issues but not limited. It is imperative that sustainable development practices are implemented to safeguard both the environment and the well-being of our community.

Thanks for your time.

Residents on Dorothy Rd, Arlington


Thorndike Place - Response Letter

Coalition to Save the Mugar Wetlands <savethemugarwetlands@gmail.com>

Mon 3/11/2024 9:36 PM

To: ConComm <ConComm@town.arlington.ma.us>

Cc: David Morgan <dmorgan@town.arlington.ma.us>; Jim Feeney <jfeeney@town.arlington.ma.us>; Claire Ricker <cricker@town.arlington.ma.us>; info@arlingtonlandtrust.org <info@arlingtonlandtrust.org>; SBadmIn <SBadmIn@town.arlington.ma.us>

 1 attachments (464 KB)

Con Comm Letter 311.docx;

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To Members of the Conservation Commission:

Attached please find our response to BSC's letter dated Feb. 28th.

Thank you,

Jeanette Cummings
32 Dorothy Rd.

Julie DiBiase
29 Littlejohn St.

On Behalf of the Coalition to Save the Mugar Wetlands



March 11, 2024

To Members of the Conservation Commission:

We would like to address BSC's letter dated February 28th page 4, stating the Applicant's refusal to perform additional monitoring of well(s) as requested by the Commission. This clearly contradicts the requirements stipulated in the ZBA's Order of Conditions specified in the Comprehensive Permit.

It is vital that the Applicant comply with the Commission's request in order to validate their groundwater measurements and provide the most complete and accurate data, *particularly* given the questions and concerns raised by Hydrologist, Scott Horsley and Peer Reviewer, Hatch.

By the Applicant not abiding by the Commission's request and circumventing this fundamental process, it only undermines the integrity of the project. In addition, this could lead to negative environmental impacts, resulting in serious consequences for the entire East Arlington community.

In closing, we would like to express our expectation that the Applicant be held accountable in complying with this request.

Thank you on Behalf of the Coalition to Save the Mugar Wetlands,

Jeanette Cummings, 32 Dorothy Rd.
Julie DiBiase, 29 Littlejohn St.

Cc: James Feeney, Arlington Town Manager
David Morgan, Environmental Planner/Conservation Agent
Claire Ricker, Director, Planning & Community Development
Arlington Select Board
Arlington Land Trust

Without reliable data, we will literally be under water!



Edge of Thorndike Field
March 9, 2024



Corner of Edith St. and entrance to Thorndike Field
March 9, 2024

Mugar

Donna Vanderlinden <dvanderlinden@comcast.net>

Tue 3/12/2024 8:23 AM

To:ConComm <ConComm@town.arlington.ma.us>

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To The Conservation Commission,

I am writing to urge the Commission to hold OakTree Developer to fair practice and honest accurate information.

Their disregard for this accurate and truthful testing speaks to how much they value the property, community and the neighbors that live in it. As well as all the environmental impact this build would have immediately and for years to come.

This disregard for accurate testing is well documented and goes back to their testing and information regarding the traffic pattern on Lake St and surrounding areas. They tested off peak days and times. OakTree refusing to monitor ground water in the spring on the property, given the recommendations by hydrology experts, is a blatant disregard to the entire project.

I am asking that the Conservation Commission to require OakTree to comply with spring testing and monitoring of ground water. I would also urge the Commission and town to ultimately stop this build!

Thank you for all your work.

My basement, sump pump, and two dehumidifiers also thank you.

Donna Vanderlinden

24 Littlejohn St

Sent from my iPhone

Fw: Feedback for Town of Arlington

Joan Roman <jroman@town.arlington.ma.us>

Fri 3/15/2024 2:54 PM

To: David Morgan <dmorgan@town.arlington.ma.us>

Passing along...

Joan Roman (s/her)

Public Information Officer

Town of Arlington, MA

www.arlingtonma.gov

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Arlington values equity, diversity, and inclusion. We are committed to building a community where everyone is heard, respected, and protected.

From: Town of Arlington, MA <do-not-reply@town.arlington.ma.us>

Sent: Friday, March 15, 2024 2:36 PM

To: Webmaster <Webmaster@town.arlington.ma.us>

Subject: Feedback for Town of Arlington

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

You have received this feedback from Ed Walsh <edzo11@verizon.net> for the following page:

<https://www.arlingtonma.gov/town-governance/boards-and-committees/conservation-commission/news-and-notices>

The effort to build on the wetlands was started in the 1950's. My parents lead the fight against the development of the land for the same reason we are fighting today. It was wrong then and it is wrong now, not only for the water table but the VOLUME of TRAFFIC coming in and out of two streets creating a serious safety issues.

Urgent: Compliance with Groundwater Monitoring

Erin Freeburger <erin.freeburger@gmail.com>

Sat 3/9/2024 11:58 AM

To:ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Dear Conservation Commission,

I am writing to express my deep concern regarding the recent decision by the OakTree Developer to disregard the request for installing and monitoring groundwater wells on the Mugar site in Arlington.

This refusal directly conflicts with the stipulations outlined in the ZBA's Order of Conditions in the Comprehensive Permit.

Both Scott Horsley and Hatch, esteemed experts in hydrology and peer reviewers, have raised legitimate questions about the validity of the groundwater data provided by the Developer. Given these concerns, it is imperative for the Conservation Commission to ensure that accurate and reliable data is obtained, particularly during the spring months when the seasonal high groundwater is at its peak.

The refusal of the Developer to comply with this critical request not only undermines the process but also potentially jeopardizes the environmental integrity of the area.

It is unacceptable for the Developer to bypass such a vital aspect of the project's evaluation, which could lead to significant environmental consequences.

As a concerned member of the community, I urge the Conservation Commission to take necessary actions to hold the Developer accountable and ensure compliance with the required groundwater monitoring.

The future well-being of our community and environment depends on these decisions. Thank you for your attention to this urgent matter.

Sincerely,
Erin Freeburger
20 Parker St, Arlington

Developer Must Comply with Mugar Site Groundwater Data Collection

GM <gm.hakim@gmail.com>

Thu 3/14/2024 9:42 PM

To: ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Hello, Conservation Commission,

I recently became aware that the Mugar Wetlands' Developer's groundwater data derived from test pits done in the fall has been called into question by both Scott Horsley, a Hydrologist hired by Arlington Land Trust, and Hatch, the peer reviewer for the Conservation Commission. As a result, the Con Comm requested that wells be installed/monitored by the Developer on the site during the spring months when seasonal high groundwater is at its highest, as specified in the ZBA's Order of Conditions in the Comprehensive Permit.

Recently the Developer notified the Con Comm that they will NOT comply with this request. Honestly, this is not surprising, because the developer knows that the groundwater data will show that (quite accurately) they are trying to build in a floodplain, where people have flood insurance, and they want to barge ahead and build at all costs. This is ridiculous, and should not be allowed. Frankly, it is unacceptable that the Developer has refused to validate their data - accurate groundwater data is essential in determining the outcome and possible denial of this project. Without reliable facts, we will literally be under water.

The developer cannot cherry pick their data. Accurate data takes many samples to verify - a sample size of one or two readings does not accurately reflect the status of the ground water in this area. The developer must be held to account on this issue.

Thank you.

-GM Hakim
10 Edith Street
Arlington, MA 02474

~GM Hakim (He/Him)
Voice Actor
GMHakimVO@gmail.com
Listen to my [voiceover demos](#).
Read [my writing](#).
Or, [play D&D with me](#).

Mugar Wetland Development

ian howard <idhoward@gmail.com>

Sat 3/16/2024 10:06 PM

To:ConComm <ConComm@town.arlington.ma.us>

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Of course the developer should be held accountable for complying with the request. also it should not be a request but a demand!

Ian Howard

Save the Mugar Wetlands - My experience and concern regarding the groundwater

Jin Xu <xujinnj@gmail.com>

Sat 3/9/2024 8:44 PM

To: ConComm <ConComm@town.arlington.ma.us>

Cc: jia li <jia.li.summer@gmail.com>

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Dear Conservation Commission,

I hope this email finds you well. I am writing to express my sincere gratitude for the invaluable work you do in safeguarding the Mugar Wetland.

Living on Dorothy Rd, I have experienced firsthand the challenges posed by flooding during heavy rainfall. On multiple occasions, my garage has been affected, with water seeping through its walls. The significance of the Mugar Wetland as a natural reservoir to mitigate these flooding events cannot be overstated. It serves as a vital barrier, effectively managing excess water and safeguarding our neighborhood from potential damage.

In sharing my personal experiences with you, I want to underscore the critical role that the Mugar Wetland plays in our community. Your ongoing efforts in its preservation are deeply appreciated and have a tangible impact on the quality of life for residents like myself.

Once again, thank you for your dedication to the protection of the Mugar Wetland. Your commitment is instrumental in preserving the ecological integrity of our environment and ensuring the well-being of our community.

Warm regards,

Jin Xu

Thorndike Place Ground Water Test Refusal!

jspikey@comcast.net <jspikey@comcast.net>

Sat 3/9/2024 5:30 PM

To: ConComm <ConComm@town.arlington.ma.us>

Cc: Jeanette Cummings <jecummings87@gmail.com>; jada86@aol.com <jada86@aol.com>

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Town of Arlington, Ma.
Conservation Commission,

Commissioners,

It has come to my attention that the applicant for the Thorndike Development has refused to provide further site testing to ascertain the water levels during the 'wet' time of year! I did not know that applicants had the power or the right to refuse said testing! Further, I did not think anyone would have the nerve to refuse recommended site testing as required by the Conservation Commission! Are they that reckless that they would buck the authority that holds the necessary approvals they seek?

That tells me that the applicant has no regard whatsoever for the local residents and the MANY potentially negative impacts the proposed buildings might have on those residents' homes! We know from past experiences that the owner applicants, being absentee landlords of the property, have never come by to check on their property with regard to being "good neighbors" and keeping the place clean, and especially removing the homeless squatters from that property!

This is what we're up against and I do not like it! Refusal to do groundwater testing! Refusal to police their property! One can only imagine the "Corners" that might be cut if allowed to build, to protect existing neighbors' homes!

There has to be some firm and non-negotiable rebuttal to the applicant, especially when it directly involves neighbors' and neighborhood dwellings safety and protection!

There are SO MANY reasons that this development will have negative impacts on abutting owners! Now, they choose to ignore yet another impact and refuse testing!

Deny their application! We already don't want them to build for many reasons! As far as I am concerned, this refusal is that final 'straw' that broke their application!

The time has come to stand up for what's right and good. REFUSE the permit!

Respectfully submitted,

John C. Yurewicz
47 Mott Street

Addendum regarding Cutting "Corners": During one of the several ZBA Zoom meetings, we, the residents exacted from the applicants via the ZBA to NOT use pile driving machinery to

establish foundations for the proposed four / five story building. Instead, the applicants did promise to use "Aggregate Piles" instead of driven piles, a process in which an auger is used to drill down to proper bearing soil and then to power-inject crushed stone into that drilled hole. Hardly any vibratory impact on the many old dwellings in our neighborhood! This is one of the "Corners" I mentioned above, that the applicants might choose to "CUT" to get the job done less expensively.

Please hold them accountable!

Kamil Mroczek <kamil.mroczek@gmail.com>

Mon 3/11/2024 6:26 AM

To: ConComm <ConComm@town.arlington.ma.us>

Cc: Kristin Wallace <kristin.e.wallace@gmail.com>

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Hello Conservation Commission,

My family and I are residents of East Arlington and I was recently made aware of a significant and unacceptable development in the Thorndike Place project regarding the developer deciding not to comply with a request to accurately measure the groundwater levels.

Given the riskiness of the project, I believe the burden of proof should fall on the developer to ensure that this risky project will not cause irreparable environmental and societal damage. Just the fact that the developer is abstaining from their due diligence proves to me that they are not the correct developer and the project should be halted. There are already devastating effects that will result from this project.

To not accurately assess the risk of a risky project seems completely irresponsible. Please do not be that type of government.

I hope you got this far and appreciate your time,

Kamil Mroczek & Kristin Wallace
11 Garrison Rd, Arlington

I oppose the Thorndike Place Development

K. F. <karen.fanale@gmail.com>

Tue 3/12/2024 12:20 PM

To:ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Dear Conservation Commission:

As an Arlington resident for the past 17 years, I'm writing to express my firm opposition to the Thorndike Place development.

I recently attended a meeting last week via Zoom; however the Agenda was changed and Thorndike Place was moved to the last item and I could not stay on the whole time. Will the presentation and notes be available? I rejoined as BSC was talking about spraying chemicals.

I have learned from the Coalition to Save the Mugar Wetlands group that the developer is REFUSING to validate their groundwater data, despite your commission's request and as specified in the Zoning Board's order of conditions in the comprehensive permit.

This is unacceptable. Without accurate groundwater data, there is no way to know for certain the potential area flooding and water levels this development will cause. This data is part of their conditions. If they do not meet these conditions, their permit should be revoked.

Regardless of this data or not, I think it is irresponsible to subject the wetlands to such development at all. The potential devastating effects to the wetlands and the environment are clear - as well as property damage. No tax dollars or a few "affordable" housing units are worth the cost of irrevocable damage.

Thank you for your consideration

Karen Fanale
Arlington, MA

support for groundwater well installation for Thorndike Place

karen petho <karenpetho@gmail.com>

Tue 3/12/2024 9:30 AM

To:ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Good morning,

In reading the latest update from the Coalition to Save the Mugar Woods I was disappointed to hear that the developer is refusing to install groundwater monitoring wells to validate the data from their test pits.

I have lived on Milton Street for the last 10 years and we have noticed higher water than usual the last couple years and are very concerned about increased flooding due to climate change and the potential for this proposed development to worsen this situation. Additionally, my kids play soccer at Thorndike and we are very concerned about field conditions.

I work as an Environmental Scientist and know the value of seasonal, long term, groundwater data in establishing the water table conditions and depth. Please require the developer to obtain better data, and validate existing data. Don't allow them to get by with inadequate data.

Thank you,
Karen Petho

You need to hold the Thorndike Place developers accountable.

Nahan, Lena <lnahan@lesley.edu>

Tue 3/12/2024 2:18 PM

To: ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Dear Arlington Conservation Commission,

I'm a nearby resident deeply concerned with the destruction of vital green infrastructure that is the Mugar Wetlands. I am disturbed by the willful ignorance of the clear impact that Thorndike Place would have on Arlington's already stressed urban floodplain, putting this town even closer to being underwater in the not-so-faraway future. I speak for the untold diversity of creatures who would be displaced and killed by this unthoughtful development. I speak for the potential senior residents of Thorndike Place who would be vulnerable to flooding related health disasters. This is not wise or kind.

Please do all you can to hold the developers accountable for accurate flood safety information. Collection of groundwater data during it's highest point in the season is a commitment to safety that must be honored by the developers. I don't feel comfortable with their bypassing of steps meant to make sure their impact on the area is actually positive. It feels selfish and dangerously shortsighted.

Thank you for reading this message and considering the importance of this situation.

Best wishes, and I hope you have a good day.

Lena Nahan

mugar

Marjorie Howard <marjoriehow@gmail.com>

Wed 3/13/2024 10:35 AM

To:ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Please make sure the developer follows all requirements and installs wells during the spring months.

Thank you

Mugar Wetlands

Mark McCabe <arkman659@gmail.com>

Wed 3/13/2024 1:55 PM

To:ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Dear Conservation Committee,

The Mugar development has been going on since at least 2015, if not later. This group has no respect for the neighborhood and obviously no respect for the Conservation Commission, since they have notified the Commission that they will not comply with a request for water measurements. This indicates that they will go and develop whatever they want, regardless of protecting the Wetlands and what the neighbors think.

If someone was to walk down Margaret Street, Mary Street, Osborne Road and see the amount of homes that are already impacted by heavy rain you would see the need for groundwater testing. Pumps will be pumping water out of basements for days after the rain has ended. The Thorndike Field used by multiple school events and many youth sporting events will become a marsh if the water is pushed out from the Mugar Wetlands. Games will be cancelled as well as practice for the sports. I attended one of the first hearings at the Hardy School and the representatives were very elusive when it came to water. The other factor in this project is the amount of vehicles that will be added to the Lake Street area. Cars will be backed up for hours with their engines running adding to the already problem with climate control. The Streets that will access the development will be crowded with traffic, putting the neighbors at great risk for vehicle accidents or human accidents.

I urge you with great interest to deny their request in the same manner they denied to get accurate groundwater data.

Anything you do to stop this development will be gratefully appreciated. I thank you for your time to help conserve the Town of Arlington.

Thank you,

Mark W. McCabe
4 Dorothy Road
Arlington, MA 02474

Thorndike Place Hearings/Mugar Wetlands

Nancy Ulrich <nbean2001@gmail.com>

Sat 3/9/2024 5:49 PM

To:ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

To the Conservation Commission,

It is my understanding that the Developer of the above-referenced project has refused to comply (per the Con Comm's request that wells be installed/monitored by the Developer on the site during the spring months when seasonal high groundwater is at its highest, *as specified in the ZBA's Order of Conditions in the Comprehensive Permit*) as a result of the groundwater data derived from test pits done in the fall which were called into question by both Scott Horsley, a Hydrologist hired by Arlington Land Trust, and Hatch, the peer reviewer for the Conservation Commission.

I am writing to express my concern in the Developer's posture in this matter, and request that the Con Comm hold the Developer accountable and enforce the compliance of the Order of Conditions for the Developer to validate their data. Accurate groundwater data is essential in determining the outcome and possible denial of this project. Without reliable facts, we may literally be under water in the Kelwyn Manor neighborhood of Arlington.

Thank you in advance for your attention in this matter.

Nancy Ulrich
Resident of Kelwyn Manor

Sent from my iPhone

Mugar Wetlands proposed project

Nicholas Ide <nicholas.ide@gmail.com>

Mon 3/11/2024 8:40 AM

To:ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Dear Conservation Commission,

Regarding the proposed 401b project in the Mugar Wetlands. I have been informed that the Developer will not comply with the request for re-assessment of the groundwater levels. Specifically the request that that wells be installed/monitored by the Developer on the site during the spring months when seasonal high groundwater is at its highest, *as specified in the ZBA's Order of Conditions in the Comprehensive Permit.*

Given the size, scope, and plan of the project, and using the recent much smaller project on Edith Street as an example of a project which purposely designed for the environment, I have great concerns and implore you to ensure that the developer for the Mugar Wetlands complies with all requests and conditions related to the ZBA's comprehensive permit.

Sincerely,
Nicholas Ide
152 Lake St, Arlington MA

Thorndike Place

Peggy Hallinan <peggyhallinan@hotmail.com>

Tue 3/12/2024 2:14 PM

To:ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

I am writing to request that the developer comply with the Commission and install wells during the spring to monitor the water levels.

Thank you,
Peggy Hallinan
151 Lake Street
Arlington, MA 02474

Thorndike place Landscape Restoration Peer Review

Peter Fiore <fiorepe@hotmail.com>

Thu 3/14/2024 7:51 PM

To:ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Dear Members of the Arlington Conservation Commision,

Please accept these comments about the Thorndike Place development.

I read the BSC/SWCA response to peer review letter.

The proposed plan to address and eradicate invasive plant species does not appear to include the northwest section of the Mugar property adjacent to the development section. There is a colony of garlic mustard on this section that invades my backyard every Spring. It is a Sisyphean task to attempt to eradicate it by hand as I do NOT use herbicides. I also believe I've seen Japanese Knotweed out there waiting for its turn. In a few weeks I'll take pictures to send to you. If the developer is not required to eradicate invasive plant species from the northwest section it would seem to effectively leave the means by which any species removal from the development section will fail as these surviving plants will again repopulate the property.

I do not believe there are adequate protections from the developer using the northwest section to dump debris and detritus from the development section. Some dumping in the northwest section could even be done in the name of restoration.

Please require the developer this Spring to monitor the water level in the wells on the Thorndike Place site.

Thank you for your constant diligence in holding the applicant accountable.

Peter Fiore
58 Mott Street
Arlington, MA

Oaktree Development of Mugar Site

Robin Doughty <redoughty@hotmail.com>

Sun 3/17/2024 9:23 PM

To: ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Dear Conservation Commission Members,

I am writing to express my deep concern regarding the recent decision by the OakTree Developer to disregard the request for installing and monitoring groundwater wells on the Mugar site in Arlington.

This refusal directly conflicts with the stipulations outlined in the ZBA's Order of Conditions in the Comprehensive Permit.

Both Scott Horsley and Hatch, esteemed experts in hydrology and peer reviewers, have raised legitimate questions about the validity of the groundwater data provided by the Developer. Given these concerns, it is imperative for the Conservation Commission to ensure that accurate and reliable data is obtained, particularly during the spring months when the seasonal high groundwater is at its peak.

The refusal of the Developer to comply with this critical request not only undermines the process but also potentially jeopardizes the environmental integrity of the area.

As a concerned member of the community, I urge the Conservation Commission to take necessary actions to hold the Developer accountable and ensure compliance with the required groundwater monitoring. As residents that live very close to the Mugar site, we can tell you that we pump a lot of water out of our basement. It would seem to make sense for them to have the most accurate information about how high the groundwater can rise.

The future well-being of our community and environment depends on these decisions. Thank you for your attention to this urgent matter.

Sincerely,
Robin Doughty
107 Mary Street, Arlington

groundwater monitoring requirement

Shona Gibson <gibson_shona@hotmail.com>

Sun 3/17/2024 9:55 PM

To:ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Dear Conservation Commission,

I live in East Arlington close to the Mugar wetlands and was dismayed to learn that OakTree developers decided to ignore the ZBA's order to install and monitor groundwater wells on the Mugar site.

Their arrogant decision disrespects the process and everyone who is working hard to safeguard this fragile environment and avoid the worst effects of this proposed development.

Please do all you can to hold the Developer to account and ensure compliance with the required groundwater monitoring.

Thank you kindly for your attention to this critical matter.

Sincerely,

Shona Gibson
107 Mary Street,
Arlington, MA 02474

Thorndike Place

Sue Barry <suerachel@gmail.com>

Sat 3/9/2024 6:52 PM

To:ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

I am very concerned about the possible development of Thorndike Place both because of its negative impact on the environment and on Lake Street traffic. The Developer is clearly trying to ignore the environmental impact of the proposed project. They are refusing to comply with the request to build wells to monitor groundwater levels during the spring months. Flooding and sewerage overflow is already a problem in this area. The Developer must comply with this request.

Sincerely,

Sue Barry

61 Princeton Rd.

Arlington, MA 02474

Mugar property

Thomas J Woodbury <woodburytj@gmail.com>

Sat 3/9/2024 5:35 PM

To:ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Dear members of the Conservation Commission,

As residents of East Arlington, just off Lake Street, two blocks from Route 2, we are greatly concerned about the water table if the Mugar property is developed.

Please, hold the developer accountable in complying with the request that wells be installed/monitored by the Developer on the site during the spring months when seasonal high groundwater is at its highest, *as specified in the ZBA's Order of Conditions in the Comprehensive Permit.*

Thank you for your concern about this important matter.

Respectfully,

Tom Woodbury

3 Cabot Road

Arlington, MA 02474

781-646-0951

Mugar Project

Kim_Carney-Wong_&_Felix_Wong <kimandfelix@gmail.com>

Tue 3/19/2024 8:28 AM

To:ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

To those on the town conservation commission,

My name is Kimberly Carney-Wong and I live at 100 bay State Rd, Arlington, MA 02474. I am writing to you to express that I feel the developer looking to develop the area in East Arlington is held accountable in complying with the request that wells be installed/monitored by the Developer on the site during the spring months when seasonal high groundwater is at its highest, as specified in the ZBA's Order of Conditions in the Comprehensive Permit. Per information I received the developer is saying they will not comply with this request. I have serious concerns about the effects on the environment and those living in this area if this data is not collected and the construction is allowed to move forward.

Thank you fo your time.

Best,

Kim Carney-Wong

100 Bay State Rd, Arlington, MA 02474



Virus-free. www.avast.com

Compliance with groundwater monitoring is essential for Thorndike Place project

Lisa Fredman <lfredman1@gmail.com>

Tue 3/19/2024 10:57 AM

To: ConComm <ConComm@town.arlington.ma.us>; Lisa Fredman <lfredman1@gmail.com>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Dear Conservation Commission members,

I was stunned by the Thorndike Place developers' refusal to comply with your request to install and monitor groundwater wells on the Mugar site. Data obtained from such wells could answer questions raised by Scott Horsley and the Hatch group about the inconsistencies and quality of the test pit data. Instead, the developers' refusal raises more questions about the water level on the property, and more importantly, questions about compliance with other ConComm requests and confidence in the entire project. As a neighbor to the Mugar property, I have had concerns about the proposed project's adverse effects on local flooding and the environment; the developers' lack of compliance with your request has increased my concerns.

Please hold the developers accountable.

Thank you for your efforts, and for your attention to this matter.

Sincerely,

Lisa Fredman

63 Mott Street, Arlington MA



Town of Arlington, Massachusetts

Request from Friends of Spy Pond Park for Reimbursement from the Conservation Land Stewardship Fund.

Summary:

Request from Friends of Spy Pond Park for Reimbursement from the Conservation Land Stewardship Fund.

ATTACHMENTS:

Type	File Name	Description
▢ Reference Material	Friends_of_Spy_Pond_Park_Reimbursement_Request.pdf	Friends of Spy Pond Park Reimbursement Request

34 Hamilton Road, #301
Arlington, MA 02474

December 15, 2023

Arlington Land Trust
Arlington Town Hall
Arlington, MA 02474

Dear Arlington Land Trust

Thank you for granting the Friends of Spy Pond Park \$591.00 for shrubs, plants, compost and mulch for the year 2023.

I attach documentation for purchases totaling \$450.59.

There is a receipt for \$213.70 for shrubs from Parterre, a landscaper. The invoice was paid by Friends of Spy Pond Park. The reason why the Friends paid this Invoice is because when we tried to find shrubs in the fall, there were none to be found. As a landscaper, Parterre had access to more sources and bought and planted the shrubs.

I am asking to be reimbursed for \$450.59 and for the Friends to be reimbursed for \$140.41 which is the remainder of the grant. If that is not possible, would you roll over the \$140.41 to next year for purchase of more shrubs?

Thank you,

Sincerely,

A handwritten signature in cursive script that reads "Adrienne Landry".

Adrienne Landry

ARLINGTON LAND TRUST
ADRIENNE LANDRY
for FRIENDS OF SPY POND PARK
2023

A Amount Granted (See attached original proposal) \$591.00

List of receipts for Reimbursement (receipts attached)

4/18/23	Native plant Trust, Plants	\$214.31
4/18/23	Discounts to above	- <u>15.61</u>
	Total	\$198.70
4/20/23	Shattuck Hardware, Compost	11.69
5/10/23	Shattuck Hardware, Compost	12.99
6/05/23	Shattuck Hardward, Compost	12.99
6/02/23	Grow Native Massachusetts	76.00
6/09/23	Mahoney's, mulch	14.99
9/06/23	Native Plant Trust, plants	<u>123.23</u>

Receipts Total \$450.59

Remainder \$140.41

B

May the remainder of \$140.41 be given to the Friends of Spy Pond Park. In September, we prepared for Fall planting as planting in New England should be done before June and after August. When we tried to find the plants we wanted, there were none to be found. Parterre, the landscaper, agreed to purchase and plant them at a cost of \$213.70. The Friends paid Parterre for that. Proof of purchase attached.

Would the Arlington Land Trust reimburse the Friends for \$140.41, or the remainder of the monies granted?

OR

Would the Arlington Land Trust roll over the \$140.41 to the Friends for next years' plants.

PROPOSAL FOR ARLINGTON LAND TRUST

FRIENDS OF SPY POND PARK

****Cost Estimates for 2023**

Plantings, Equipment and Landscaping Help

Shrubs, Plants, Compost & Mulch

Shrubs	10 @ \$37.50	\$375.00
Flowering perennials	10 @ 13.99	140.00
Such as NE Aster, foam flower		
Compost	2 @ 12.99	26.00
Mulch	4 @ 12.50	50.00
		<u>\$591.00</u>

Equipment

Small Weed Extractor	75.00
(range from \$44.99 - 75.00)	
Grampa's or Garrett Wade	
Pitch forks 2 @ \$40.00	80.00
Weed wacker, Ace Hardware	119.00
Black+Decker LST300 String Trimmer	
+ 20-Volt Battery Pack	

Landscaping Help

10 hours at \$75.00 (3 person team)	<u>750.00</u>
-------------------------------------	---------------

\$1,615.00

****** These figures are based on purchases made and services used in 2022 as well as Internet searches for new items.

Native Plant Trust

Native Plant Trust
Garden in the Woods
180 Hemenway Road
Framingham, MA 01701
508-877-7630 x3601

Sales Receipt

04/18/2023 1:09 pm

Ticket: 220000113878
Register: Register 3
Employee: 3POS
Company: Friends of Spy Park, Inc.
Town of Arlington
Customer: Adrienne Landry

Items	#	Price
Viburnum dentatum /SH 2 gal	3	\$119.97 \$89.98
Swida sericea /SH 2 gal	3	\$110.97 \$83.23
Ilex verticillata 'Southern Gentleman' /SH 2 gal	1	\$37.99 \$28.49
Subtotal w/ Discounts		\$201.70
Tax (\$201.70 @ 6.25%)		\$12.61
Total Tax		\$12.61
Total		\$214.31

PAYMENTS

Credit Card \$214.31

The plants we sell are intended for garden use only and should not be planted in the wild.

Visit www.NativePlantTrust.org for further information.

Your purchases support Native Plant Trust's conservation mission, protecting native plants for future generations.

If your purchase fails to meet expectations, you may return or exchange unused, saleable merchandise in its original packaging. Your sales receipt should accompany all returns.

Thank You Adrienne Landry!

tspeedhq.com
der #113878
on.net

Native Plant Trust

Native Plant Trust
Garden in the Woods
180 Hemenway Road
Framingham, MA 01701
508-877-7630 x3601

Sales Receipt

04/18/2023 1:09 pm

/ Park, Inc. Town of Arlington
dry

	#	Price
um /SH 2 gal	3	\$119.97 \$89.98
H 2 gal	3	\$110.97 \$83.23
'Southern Gentleman' /SH 2 gal	1	\$37.99 \$28.49
Subtotal w/ Discounts		\$201.70
Tax (\$201.70 @ 6.25%)		\$12.61
Total Tax		\$12.61
Total		\$214.31

Credit Card \$214.31

ntended for garden use only and should not be planted in the wild.

www.NativePlantTrust.org for further information.

Native Plant Trust's conservation mission, protecting native plants



From: Garden in the Woods noreply@lightspeedhq.com
Subject: Garden in the Woods Receipt For Order #113934
Date: April 18, 2023 at 4:14 PM
To: Adrienne Landry alandryartist@verizon.net

Native Plant Trust

Native Plant Trust
Garden in the Woods
180 Hemenway Road
Framingham, MA 01701
508-877-7630 x3601

Refund Receipt
04/18/2023 4:10 pm

Ticket: 220000113934
Register: Register 3
Employee: 3POS
Company: Friends of Spy Park, Inc. Town of Arlington
Customer: Adrienne Landry

Paul -
\$ 214.31
Mary Ellen

Items	#	Price
Ilex verticillata 'Southern Gentleman' /SH 2 gal	-1	\$37.99 \$-28.49
Swida sericea /SH 2 gal	-3	\$110.97 \$-83.23
Viburnum dentatum /SH 2 gal <i>5 Gallon</i>	-3	\$119.97 <i>149.97</i> \$-89.98
Viburnum dentatum /SH 2 gal*	1	\$39.99 \$29.99
Swida sericea /SH 2 gal*	3	\$110.97 \$83.23
Ilex verticillata 'Southern Gentleman' /SH 2 gal*	3	\$113.97 \$85.48
Subtotal w/ Discounts		\$-3.00
Tax (\$-201.70 @ 6.25%)		\$-12.61
Total Tax		\$-12.61
Total		\$-15.61 ✓

PAYMENTS

Credit Card \$-15.61

FSPP

THANK YOU FOR SHOPPING AT
R.W.SHATTUCK ACE HARDWARE
24 MILL STREET
ARLINGTON, MA 02476
(781) 643-0114

THANK YOU FOR SHOPPING WITH US
04/20/23 2:14PM MMZ 550 SALE

7750094 1 EA \$11.69 EA CN
LOBSTER COMPOST 1CF \$11.69
You Saved : 1.30

SUB-TOTAL:\$ 11.69 TAX: \$.00
TOTAL: \$ 11.69
BC AMT: \$ 11.69

BK CARD#: XXXXXXXXXXXX6820
MID:*****9881 TID:***2581
AUTH: 438901 AMT: \$ 11.69
Host reference #:188997 Bat#

Authorizing Network: MASTERCARD

Chip Read
CARD TYPE:MASTERCARD EXPR: XXXX
AID : A0000000041010
TVR : 8000048000
IAD : 011060100122000000000000000000
TSI : 6800
ARC : 00
MODE : Issuer
CVM : Verified by PIN
Name : Mastercard Debit
ATC :02C0
AC : 8117C7C56273F6B5
TxnID/ValCode: 372904

Bank card USD\$ 11.69



==>> JRNL# B88997/1
CUST NO:*1060

THANK YOU ADRIENNE A LANDRY
FOR YOUR PATRONAGE

Acct: FRIENDS OF SPY POND PARK

Customer Copy

YOU SAVED \$ 1.30 BY SHOPPING AT
R.W.SHATTUCK ACE HARDWARE

NO RETURNS WITHOUT RECEIPT
RESTOCKING FEE MAY APPLY

THANK YOU FOR SHOPPING AT
R.W.SHATTUCK ACE HARDWARE
24 MILL STREET
ARLINGTON, MA 02476
(781) 643-0114

THANK YOU FOR SHOPPING WITH US
06/05/23 11:34AM MMZ 553 SALE

7748692 1 EA \$12.99 EA *N
COMPOST&PEAT MIX 1CF \$12.99

SUB-TOTAL:\$ 12.99 TAX: \$.00
TOTAL: \$ 12.99
BC AMT: \$ 12.99

BK CARD#: XXXXXXXXXXXX6820
MID:*****9881 TID:***2581
AUTH: 863961 AMT: \$ 12.99
Host reference #:218470 Bat#

Authorizing Network: MASTERCARD

Chip Read
CARD TYPE:MASTERCARD EXPR: XXXX
AID : A0000000041010
TVR : 8000048000
IAD : 011060100122000000000000000000
TSI : 6800
ARC : 00
MODE : Issuer
CVM : Verified by PIN
Name : Mastercard Debit
ATC :02FF
AC : 7AD18332C1E97895
TxnID/ValCode: 417926

Bank card USD\$ 12.99



==>> JRNL# C18470/1
CUST NO:*1060

THANK YOU ADRIENNE A LANDRY
FOR YOUR PATRONAGE

Acct: FRIENDS OF SPY POND PARK

Customer Copy

NO RETURNS WITHOUT RECEIPT
RESTOCKING FEE MAY APPLY

Tell us about your experience
today and Enter to win a \$50
gift card!

To participate

FSP

THANK YOU FOR SHOPPING AT
R.W.SHATTUCK ACE HARDWARE
24 MILL STREET
ARLINGTON, MA 02476
(781) 643-0114

THANK YOU FOR SHOPPING WITH US
05/10/23 11:44AM MMZ 553 SALE

7750094 1 EA \$12.99 EA
LOBSTER COMPOST 1CF \$12.99
5028380 1 EA \$9.99 EA
5" BLK DSNCT #3 SCRW 1PC \$9.99
5028326 1 EA \$9.99 EA
5" SLV DSNCT #3 SCRW 1PC \$9.99
5028268 1 EA \$2.99 EA
4" BLK #5 NAILON 1PC \$2.99
5204029 1 EA \$8.89 EA
SHEET .028X6X12" SS \$8.89

SUB-TOTAL:\$ 44.85 TAX: \$ 2.80
TOTAL: \$ 47.65
DB AMT: \$ 47.65

DEBIT/ATM: \$ 47.65
DEBIT/ATM: XXXXXXXXXXXX6820
MID:*****9881 TID:***2581
AUTH: 000836 AMT: \$ 47.65
Debit network id:40
Host reference #:200896 Bat#
Trace# 390497

Authorizing Network: MAESTRO

Chip Read
CARD TYPE:DEBIT EXPR: XXXX
AID : A0000000042203
TVR : 8000048000
IAD : 011060100120000000000000000000
TSI : 6800
ARC : 00
MODE : Issuer
CVM : Verified by PIN
Name : Debit
ATC :02D8
AC : 4FC2FB666F8077AA



==>> JRNL# C00896/1
CUST NO:*3342

THANK YOU ADRIENNE A LANDRY
FOR YOUR PATRONAGE
ACE REWARDS ID # 1916881071

Customer Copy

THANK YOU FOR SHOPPING AT
R.W.SHATTUCK ACE HARDWARE
24 MILL STREET
ARLINGTON, MA 02476
(781) 643-0114

THANK YOU FOR SHOPPING WITH US
06/19/23 12:15PM LEG 553 SALE

5028380 -1 EA 9.99 EA R
5" BLK DSNCT #3 SCRW 1PC -9.99
Orig: C00896/1 05/10/23 TX:
5028326 -1 EA 9.99 EA R
5" SLV DSNCT #3 SCRW 1PC -9.99
Orig: C00896/1 05/10/23 TX:

SUB-TOTAL:\$ -19.98 TAX: \$ -1.25
TOTAL: \$ -21.23
BC AMT: \$ -21.23

BK CARD#: XXXXXXXXXXXX6820
MID:*****9881 TID:***2581
AUTH: 0 AMT: \$ 21.23
Host reference #:227217 Bat#

Chip Read
CARD TYPE:MASTERCARD EXPR: XXXX
AID : A0000000041010
TVR :
IAD :
TSI :
ARC :
MODE : Issuer
CVM : No CVM
Name : Mastercard Debit
TxnID/ValCode: 430602

Bank card USD\$ -21.23



==>> JRNL# C27217/1
CUST NO:*3342

THANK YOU ADRIENNE A LANDRY
FOR YOUR PATRONAGE
ACE REWARDS ID # 19168810718

Name : X
I agree to pay above total amount
according to card issuer agreement
(merchant agreement if credit voucher)
Acct: ADRIENNE LANDRY

Customer Copy

NO RETURNS WITHOUT RECEIPT
RESTOCKING FEE MAY APPLY

53 of 200

ADRIENNE A. LANDRY

63-7112/2113

5259

34 HAMILTON RD # 301
ARLINGTON, MA 02474

DATE

June 2, 2023

PAY TO
THE ORDER OF

Grow Native Mass

\$ 76.00

Seventy six and 00/100

DOLLARS

Cambridge
SAVINGS BANK

MEMO

Adrienne Landry

5259

LOOK FOR FRAUD-DETECTION FEATURES INCLUDING THE SECURITY EYE AND HEAT-SENSITIVE INK. DETAILS ON BACK.

06072023 134112000225010 011300595

PAY TO THE ORDER OF
CAMBRIDGE TRUST COMPANY
BELMONT, MA 02478
011300595
AT
NAME OF FINANCIAL INSTITUTION, INC. DATE
MASSACHUSETTS DEPOSIT ONLY

RECEIPT

No. 951853

DATE June 2, 2023

FROM Grow Native MA

\$ 76.00

Seventy six and 00/100

DOLLARS

☐ FOR RENT
☐ FOR

ACCT.		<input type="radio"/> CASH
PAID		<input checked="" type="radio"/> CHECK
DUE		<input type="radio"/> MONEY ORDER
		<input type="radio"/> CREDIT CARD

FROM _____ TO _____

BY _____

A-1152
T-4161

Invoice

*** Duplicate ***

MAHONEY'S WINCHESTER
242 CAMBRIDGE ST
WINCHESTER, MA 01890 USA

MAHONEY'S GARDEN CTR
242 CAMBRIDGE ST
WINCHESTER, MA 01890
www.mahoneysgarden.com
781-729-5900

Sold to:

Ship to:

FSP

Ticket: WIN-T3367277 Cashier: TARYN
Station: 21 WIN User: TARYN
Date: 6/9/2023 10:27:13 AM

Customer #: WINCHESTER Ship date:
Sales Rep: TARYN Location: WIN Ship-via
Terms:

Quantity	Item #	Description	Ship-from location
1	2724	VERY OLD DARK BARK 2 CU FT	
1	HELP-NOTAX	NO TAX FORMS	

enriching Mulch
Dark Harbour Blend

Item Description	Qty	Price	Total
2724 VERY OLD DARK BARK 2 CU FT	1	14.99	14.99
HELP-NOTAX NO TAX FORMS	1	0.00	0.00

Subtotal 14.99

Total 14.99

Tender:
DEBIT 14.99
XXXXXXXXXXXX6820

Batch: 230609001
Auth: 745348
Entry Method: EMV Contact
Debit
AID: A00000000942203
TVR: 8000048000
TSI: 6800
AC: 353E0E28A3623613
CVM: pin
Authorization Mode: ISSUER

Number of items purchased: 2

RETURNS OF PRODUCT IN ORIGINAL CONDITION
CAN BE MADE WITHIN 30 DAYS OF PURCHASE
WITH RECEIPT. NO RETURN ON SALE ITEMS.
SEE OUR STAFF FOR MORE DETAILS ON
RETURN POLICY AND PLANT GUARANTEES.



RETURNS OF PRODUCT IN ORIGINAL CONDITION
CAN BE MADE WITHIN 30 DAYS OF PURCHASE
WITH RECEIPT. NO RETURN ON SALE ITEMS.
SEE OUR STAFF FOR MORE DETAILS ON
RETURN POLICY AND PLANT GUARANTEES.



From: Garden in the Woods noreply@lightspeedhq.com
Subject: Garden in the Woods Receipt For Order #140600
Date: September 6, 2023 at 4:03 PM
To: Adrienne Landry alandryartist@verizon.net



Native Plant Trust

Native Plant Trust
Garden in the Woods
180 Hemenway Road
Framingham, MA 01701
508-877-7630 x3601

Sales Receipt

09/06/2023 4:03 pm

Ticket: 220000140600
Register: Register 1
Employee: 1POS
Company: Friends of Spy Park, Inc. Town of Arlington
Customer: Adrienne Landry

Items	#	Price
Individual Membership*	1	\$40.00
Swida sericea /SHCG 2 gal*	3	\$110.97
		\$83.23
Subtotal w/ Discounts		\$123.23
Total Tax		\$0.00
Total		\$123.23

PAYMENTS

Credit Card \$123.23

The plants we sell are intended for garden use only and should not be planted in the wild.

Visit www.NativePlantTrust.org for further information.

Your purchases support Native Plant Trust's conservation mission, protecting native plants for future generations.

If your purchase fails to meet expectations, you may return or exchange unused, saleable merchandise in its original packaging. Your sales receipt should accompany all returns.

* No Tax Applied



PARTERRE

GARDEN SERVICES

2 Republic Road
North Billerica, MA 01862

INVOICE

Invoice # 17669

Date: 9/30/2023

Due: 10/30/2023

Bill To:

Susan Saw
Friends of Spy Pond Park, Inc.
P.O. Box 1051
Arlington, MA 02474

Reference:

[Friends of Spy Pond Park]
56 Pond Ln.
Arlington, MA 02474

Description**Total**

#11673 - Spy Pond Rosa virginiana Purchase

\$213.70

Invoice is for (4) Rosa virginiana, to be planted at Spy Pond Park using labor paid for by the Town of Arlington.

Invoice Notes:

Thank you for your business!

AMOUNT DUE \$213.70

Payments/Credits (\$0.00)

BALANCE DUE \$213.70

CURRENT DUE	1-30 DAYS PAST DUE	31-60 DAYS PAST DUE	61-90 DAYS PAST DUE	90+ DAYS PAST DUE	AMOUNT DUE
\$213.70	\$0.00	\$0.00	\$0.00	\$0.00	\$213.70 57 of 200

Reimbursement for plants, etc.

Adrienne Landry <alandryartist@verizon.net>

Mon 11/13/2023 8:16 AM

To: David Morgan <dmorgan@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Hi David

While creating a list of reimbursements for expenses to the Arlington Land Trust, a few questions came up.

- In order to get a discount on the plants from the Native Plant Trust, I had to buy a membership. The discount was well worth it. It cost \$40.00. May I include that in expenses. The total expenses I paid out was \$450.59 (if they do not allow the membership, the total is \$410.59). The grant was for \$591.00. $\$591.00 \text{ minus } \$450.59 = \$140.41$.
- Because I could not find the plants to be planted in the fall through the companies I have used in the past, Alexi from Parterre bought them and FSPP reimbursed Parterre. The cost to FSPP was \$213.70. I have receipts for that transaction. Can I ask the Arlington Land Trust to reimburse FSPP for the remainder of \$140.41.

If they do not allow the \$40 membership fee, I would ask for \$180.41 to be reimbursed to FSPP for plants.


Adrienne

Friends of Spy Pond Park receipts

Jennifer Joslyn-Siemiatkoski <JenniferJS@town.arlington.ma.us>

Thu 3/14/2024 4:25 PM

To:David Morgan <dmorgan@town.arlington.ma.us>

 1 attachments (5 MB)

FSSP Arlington Land Trust request.pdf;

David --

I scanned in the cover letter, list of receipts, and the receipts themselves. I went through the receipts and circled amounts and underlined dates, in order to make sure that everything matches up, which it doesn't exactly. The Shattuck receipt from 5/10/24 is for a total of \$47.65, and it was stapled to a return receipt from 6/19/24 which showed \$21.23 of that being refunded for a return. That leaves \$26.42 from the original receipt, and she's circled the three items that weren't returned and written FSP, but then she only put the cost of one of those items, \$12.99, on the list of receipts. So she could claim an additional \$13.43 in reimbursements. Do you want me to follow up with her and ask her to submit a revised cover letter and receipts list? Or should we just go with it as it is?

JJS

Jennifer Joslyn-Siemiatkoski (she/her)

Office Manager

Department of Planning and Community Development

Town of Arlington

781-316-3229

Arlington values equity, diversity, and inclusion. We are committed to building a community where everyone is heard, respected, and protected.



Town of Arlington, Massachusetts

Request for Certificate of Compliance:19 Sheraton Park.

Summary:

Request for Certificate of Compliance:19 Sheraton Park.

ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	19_Sheraton_Park_-_Request_for_Certificate_of_Compliance_Package.pdf	19 Sheraton Park - Request for Certificate of Compliance Package
▢	Reference Material	19_Sheraton_Park_Order_of_Conditions.pdf	19 Sheraton Park Order of Conditions
▢	Reference Material	19_Sheraton_Park_COC_Memorandum.pdf	19 Sheraton Park COC Memorandum



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 8A – Request for Certificate of Compliance
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

DEP File Number:

Provided by DEP

A. Project Information

Important:

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Upon completion of the work authorized in an Order of Conditions, the property owner must request a Certificate of Compliance from the issuing authority stating that the work or portion of the work has been satisfactorily completed.

1. This request is being made by:
Name Nergis Mavalvala
Mailing Address 19 Sheraton Park
City/Town Arlington State MA Zip Code 02474
Phone Number 617-319-6310

2. This request is in reference to work regulated by a final Order of Conditions issued to:
Applicant Nergis Mavalvala
Dated 3/9/2011 DEP File Number 91-230

3. The project site is located at:
Street Address 19 Sheraton Park City/Town Arlington
Assessors Map/Plat Number 19 Parcel/Lot Number 15

4. The final Order of Conditions was recorded at the Registry of Deeds for:
Property Owner (if different) Middlesex Book Document Number: 1625027 Page 247501
County Document Number: 1625027
Certificate (if registered land) 247501

5. This request is for certification that (check one):

☒ the work regulated by the above-referenced Order of Conditions has been satisfactorily completed.

☐ the following portions of the work regulated by the above-referenced Order of Conditions have been satisfactorily completed (use additional paper if necessary).

☐ the above-referenced Order of Conditions has lapsed and is therefore no longer valid, and the work regulated by it was never started.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

DEP File Number:

WPA Form 8A – Request for Certificate of Compliance

Provided by DEP

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. Project Information (cont.)

6. Did the Order of Conditions for this project, or the portion of the project subject to this request, contain an approval of any plans stamped by a registered professional engineer, architect, landscape architect, or land surveyor?

☒ Yes

If yes, attach a written statement by such a professional certifying substantial compliance with the plans and describing what deviation, if any, exists from the plans approved in the Order.

☐ No

*We have attached the As Built survey,
to meet this requirement.*

B. Submittal Requirements

Requests for Certificates of Compliance should be directed to the issuing authority that issued the final Order of Conditions (OOC). If the project received an OOC from the Conservation Commission, submit this request to that Commission. If the project was issued a Superseding Order of Conditions or was the subject of an Adjudicatory Hearing Final Decision, submit this request to the appropriate DEP Regional Office (see <http://www.mass.gov/eea/agencies/massdep/about/contacts/find-the-massdep-regional-office-for-your-city-or-town.html>).

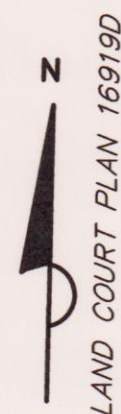
3/4/24

Re: 19 Sheraton Park, Arlington, MA 02474

Narrative of work done to obtain the Certificate of Compliance:

- 1) New Englandscap of Lexington installed two drywells on the back of the house. Each of the two pairs of downspouts on the back of the house (one pair to the right of the back deck and one pair to the left) were tied in together and their discharge goes into their designated drywell. We chose for each drywell to have a cleanout (the two cleanouts are shown on the as-built drawing).
- 2) Rober Survey of Arlington did an as-built survey of the property.

SHERATON PARK



LOT 180
N/F
PASI MIETTINEN &
KATIE GARRETT
CERT. 246844

N 80°03'50" E
151'±

SPY POND

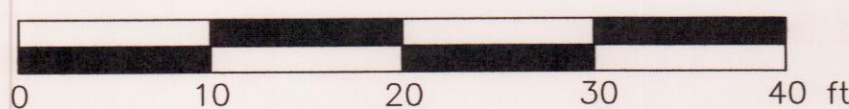
WITHIN 100' BUFFER

TOTAL BUFFER AREA 11,788± S.F.
EXISTING IMPERVIOUS AREA 1,935± S.F. 16.4%
PROPOSED IMPERVIOUS AREA ± S.F. %

OWNER: NERGIS MAVALVALA & AIDA KHAN

CONSERVATION PLAN IN ARLINGTON, MA (MIDDLESEX COUNTY)

SCALE: 1"= 10' DATE: NOVEMBER 5, 2023



ROBER SURVEY

1072A MASSACHUSETTS AVENUE
ARLINGTON, MA 02476
(781) 648-5533
7016PL2.DWG



LOT 178

N/F
TRUSTEE OF THE FRANCIS G. CEPPI
REVOCABLE LIVING TRUST
CERT. 256751

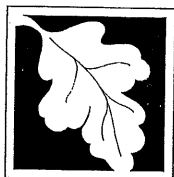
NOTE: ELEVATIONS BASED ON NAVD 1988.

-owner-orig
-DEP
-file

-owner-orig
-DEP
-file

56 Windsor St.

19 Sheraton Plk
91-230
3/9/11



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

91-230

MassDEP File #

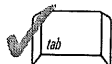
eDEP Transaction #

Arlington

City/Town

A. General Information

Important:
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. From: Arlington
Conservation Commission
2. This issuance is for (check one):
a. ☒ Order of Conditions b. ☐ Amended Order of Conditions

3. To: Applicant:

Nergis

a. First Name

Mavalvala

b. Last Name

c. Organization

56 Windsor St

d. Mailing Address

Arlington

e. City/Town

MA

f. State

02474

g. Zip Code

4. Property Owner (if different from applicant):

same as above

a. First Name

b. Last Name

c. Organization

d. Mailing Address

e. City/Town

f. State

g. Zip Code

5. Project Location:

19 Sheraton Park

a. Street Address

Arlington

b. City/Town

19

c. Assessors Map/Plat Number

15

d. Parcel/Lot Number

Latitude and Longitude, if known:

d
d. Latitude

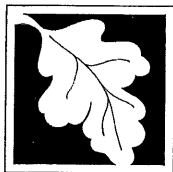
m

s

d
e. Longitude

m

s



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

19 Sheraton Pk
3/9/11

Provided by MassDEP:
91-230
MassDEP File #

eDEP Transaction #
Arlington
City/Town

A. General Information (cont.)

6. Property recorded at the Registry of Deeds for (attach additional information if more than one parcel):

Middlesex

247501

a. County

b. Certificate Number (if registered land)

1391

83

c. Book

d. Page

7. Dates:
- | | | |
|--------------------------------|-------------------------------|---------------------|
| <u>2/14/11</u> | <u>3/3/11</u> | <u>3/9/11</u> |
| a. Date Notice of Intent Filed | b. Date Public Hearing Closed | c. Date of Issuance |

8. Final Approved Plans and Other Documents (attach additional plan or document references as needed):

Certified Plot Plan

a. Plan Title

Boston Survey, Inc.

George C. Collins, PLS #41784

b. Prepared By

c. Signed and Stamped by

12/7/10

1 inch = 20 feet

d. Final Revision Date

e. Scale

Schematic Design/preliminary permitting plan

2/14/11

f. Additional Plan or Document Title

g. Date

B. Findings

1. Findings pursuant to the Massachusetts Wetlands Protection Act:

Following the review of the above-referenced Notice of Intent and based on the information provided in this application and presented at the public hearing, this Commission finds that the areas in which work is proposed is significant to the following interests of the Wetlands Protection Act (the Act). Check all that apply:

- | | | |
|--|--|--|
| a. <input type="checkbox"/> Public Water Supply | b. <input type="checkbox"/> Land Containing Shellfish | c. <input checked="" type="checkbox"/> Prevention of Pollution |
| d. <input type="checkbox"/> Private Water Supply | e. <input checked="" type="checkbox"/> Fisheries | f. <input checked="" type="checkbox"/> Protection of Wildlife |
| g. <input type="checkbox"/> Groundwater Supply | h. <input checked="" type="checkbox"/> Storm Damage Prevention | i. <input checked="" type="checkbox"/> Flood Control |

2. This Commission hereby finds the project, as proposed, is: (check one of the following boxes)

Approved subject to:

- a. ☒ the following conditions which are necessary in accordance with the performance standards set forth in the wetlands regulations. This Commission orders that all work shall be performed in accordance with the Notice of Intent referenced above, the following General Conditions, and any other special conditions attached to this Order. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, these conditions shall control.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

19 Sheraton Pl
3/9/11

Provided by MassDEP:

91-230

MassDEP File #

eDEP Transaction #

Arlington

City/Town

B. Findings (cont.)

Denied because:

- b. ☐ the proposed work cannot be conditioned to meet the performance standards set forth in the wetland regulations. Therefore, work on this project may not go forward unless and until a new Notice of Intent is submitted which provides measures which are adequate to protect the interests of the Act, and a final Order of Conditions is issued. **A description of the performance standards which the proposed work cannot meet is attached to this Order.**
- c. ☐ the information submitted by the applicant is not sufficient to describe the site, the work, or the effect of the work on the interests identified in the Wetlands Protection Act. Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides sufficient information and includes measures which are adequate to protect the Act's interests, and a final Order of Conditions is issued. **A description of the specific information which is lacking and why it is necessary is attached to this Order as per 310 CMR 10.05(6)(c).**

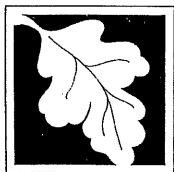
Inland Resource Area Impacts: Check all that apply below. (For Approvals Only)

3. ☒ Buffer Zone Impacts: Shortest distance between limit of project disturbance and Bank or Bordering Vegetated Wetland boundary (if available)

32

a. linear feet

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
4. <input type="checkbox"/> Bank	a. linear feet	b. linear feet	c. linear feet	d. linear feet
5. <input type="checkbox"/> Bordering Vegetated Wetland	a. square feet	b. square feet	c. square feet	d. square feet
6. <input type="checkbox"/> Land Under Waterbodies and Waterways	a. square feet	b. square feet	c. square feet	d. square feet
	e. c/y dredged	f. c/y dredged		
7. <input type="checkbox"/> Bordering Land Subject to Flooding	a. square feet	b. square feet	c. square feet	d. square feet
Cubic Feet Flood Storage	e. cubic feet	f. cubic feet	g. cubic feet	h. cubic feet
8. <input type="checkbox"/> Isolated Land Subject to Flooding	a. square feet	b. square feet		
Cubic Feet Flood Storage	c. cubic feet	d. cubic feet	e. cubic feet	f. cubic feet



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

19 Sheraton Pk

3/9/11

Provided by MassDEP:

91-230

MassDEP File #

eDEP Transaction #

Arlington

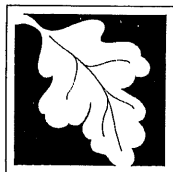
City/Town

B. Findings (cont.)

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
9. <input type="checkbox"/> Riverfront Area	a. total sq. feet	b. total sq. feet		
Sq ft within 100 ft	c. square feet	d. square feet	e. square feet	f. square feet
Sq ft between 100-200 ft	g. square feet	h. square feet	i. square feet	j. square feet

Coastal Resource Area Impacts: Check all that apply below. (For Approvals Only)

10. ☐ Designated Port Areas
Indicate size under Land Under the Ocean, below
11. ☐ Land Under the Ocean
- a. square feet b. square feet
- c. c/y dredged d. c/y dredged
12. ☐ Barrier Beaches
Indicate size under Coastal Beaches and/or Coastal Dunes below
13. ☐ Coastal Beaches
- a. square feet b. square feet c. nourishment cu yd d. nourishment cu yd
14. ☐ Coastal Dunes
- a. square feet b. square feet c. nourishment cu yd d. nourishment cu yd
15. ☐ Coastal Banks
- a. linear feet b. linear feet
16. ☐ Rocky Intertidal Shores
- a. square feet b. square feet
17. ☐ Salt Marshes
- a. square feet b. square feet c. square feet d. square feet
18. ☐ Land Under Salt Ponds
- a. square feet b. square feet
- c. c/y dredged d. c/y dredged
19. ☐ Land Containing Shellfish
- a. square feet b. square feet c. square feet d. square feet
20. ☐ Fish Runs
Indicate size under Coastal Banks, Inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above
- a. c/y dredged b. c/y dredged
21. ☐ Land Subject to Coastal Storm Flowage
- a. square feet b. square feet



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

19 Sheraton Pk

3/9/11

Provided by MassDEP:

91-230

MassDEP File #

eDEP Transaction #

Arlington

City/Town

B. Findings (cont.)

22. ☐ Restoration/Enhancement:

a. square feet of BVW

b. square feet of salt marsh

23. ☐ Stream Crossing(s):

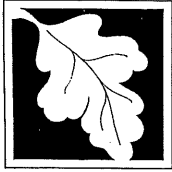
a. number of new stream crossings

b. number of replacement stream crossings

C. General Conditions Under Massachusetts Wetlands Protection Act

The following conditions are only applicable to Approved projects.

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Order.
2. The Order does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.
3. This Order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.
4. The work authorized hereunder shall be completed within three years from the date of this Order unless either of the following apply:
 - a. the work is a maintenance dredging project as provided for in the Act; or
 - b. the time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance. If this Order is intended to be valid for more than three years, the extension date and the special circumstances warranting the extended time period are set forth as a special condition in this Order.
5. This Order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the Order.
6. If this Order constitutes an Amended Order of Conditions, this Amended Order of Conditions does not extend the issuance date of the original Final Order of Conditions and the Order will expire on _____ unless extended in writing by the Department.
7. Any fill used in connection with this project shall be clean fill. Any fill shall contain no trash, refuse, rubbish, or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles, or parts of any of the foregoing.
8. This Order is not final until all administrative appeal periods from this Order have elapsed, or if such an appeal has been taken, until all proceedings before the Department have been completed.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

19 Sheraton Pk
3/9/11

Provided by MassDEP:

91-230

MassDEP File #

eDEP Transaction #

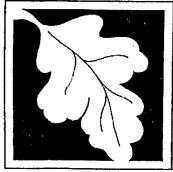
Arlington

City/Town

C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

9. No work shall be undertaken until the Order has become final and then has been recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed work is to be done. In the case of the registered land, the Final Order shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is done. The recording information shall be submitted to the Conservation Commission on the form at the end of this Order, which form must be stamped by the Registry of Deeds, prior to the commencement of work.
10. A sign shall be displayed at the site not less than two square feet or more than three square feet in size bearing the words,

"Massachusetts Department of Environmental Protection" [or, "MassDEP"]
"File Number 91-230 "
11. Where the Department of Environmental Protection is requested to issue a Superseding Order, the Conservation Commission shall be a party to all agency proceedings and hearings before MassDEP.
12. Upon completion of the work described herein, the applicant shall submit a Request for Certificate of Compliance (WPA Form 8A) to the Conservation Commission.
13. The work shall conform to the plans and special conditions referenced in this order.
14. Any change to the plans identified in Condition #12 above shall require the applicant to inquire of the Conservation Commission in writing whether the change is significant enough to require the filing of a new Notice of Intent.
15. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Order at reasonable hours to evaluate compliance with the conditions stated in this Order, and may require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.
16. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order and to any contractor or other person performing work conditioned by this Order.
17. Prior to the start of work, and if the project involves work adjacent to a Bordering Vegetated Wetland, the boundary of the wetland in the vicinity of the proposed work area shall be marked by wooden stakes or flagging. Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Conservation Commission.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

19 Sheraton Pk
3/9/11

Provided by MassDEP:

91-230

MassDEP File #

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C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

18. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. At no time shall sediments be deposited in a wetland or water body. During construction, the applicant or his/her designee shall inspect the erosion controls on a daily basis and shall remove accumulated sediments as needed. The applicant shall immediately control any erosion problems that occur at the site and shall also immediately notify the Conservation Commission, which reserves the right to require additional erosion and/or damage prevention controls it may deem necessary. Sedimentation barriers shall serve as the limit of work unless another limit of work line has been approved by this Order.

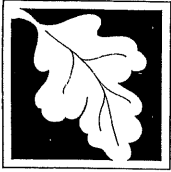
NOTICE OF STORMWATER CONTROL AND MAINTENANCE REQUIREMENTS

19. The work associated with this Order (the "Project") is (1) ☐ is not (2) ☒ subject to the Massachusetts Stormwater Standards. If the work is subject to the Stormwater Standards, then the project is subject to the following conditions:

a) All work, including site preparation, land disturbance, construction and redevelopment, shall be implemented in accordance with the construction period pollution prevention and erosion and sedimentation control plan and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Construction General Permit as required by Stormwater Condition 8. Construction period erosion, sedimentation and pollution control measures and best management practices (BMPs) shall remain in place until the site is fully stabilized.

b) No stormwater runoff may be discharged to the post-construction stormwater BMPs unless and until a Registered Professional Engineer provides a Certification that:

- i. all construction period BMPs have been removed or will be removed by a date certain specified in the Certification. For any construction period BMPs intended to be converted to post construction operation for stormwater attenuation, recharge, and/or treatment, the conversion is allowed by the MassDEP Stormwater Handbook BMP specifications and that the BMP has been properly cleaned or prepared for post construction operation, including removal of all construction period sediment trapped in inlet and outlet control structures;
- ii. as-built final construction BMP plans are included, signed and stamped by a Registered Professional Engineer, certifying the site is fully stabilized;
- iii. any illicit discharges to the stormwater management system have been removed, as per the requirements of Stormwater Standard 10;
- iv. all post-construction stormwater BMPs are installed in accordance with the plans (including all planting plans) approved by the issuing authority, and have been inspected to ensure that they are not damaged and that they are in proper working condition;
- v. any vegetation associated with post-construction BMPs is suitably established to withstand erosion.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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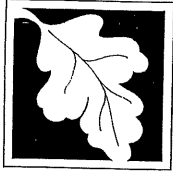
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C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

- c) The landowner is responsible for BMP maintenance until the issuing authority is notified that another party has legally assumed responsibility for BMP maintenance. Prior to requesting a Certificate of Compliance, or Partial Certificate of Compliance, the responsible party (defined in General Condition 18(e)) shall execute and submit to the issuing authority an Operation and Maintenance Compliance Statement ("O&M Statement") for the Stormwater BMPs identifying the party responsible for implementing the stormwater BMP Operation and Maintenance Plan ("O&M Plan") and certifying the following: *i.*) the O&M Plan is complete and will be implemented upon receipt of the Certificate of Compliance, and *ii.*) the future responsible parties shall be notified in writing of their ongoing legal responsibility to operate and maintain the stormwater management BMPs and implement the Stormwater Pollution Prevention Plan.
- d) Post-construction pollution prevention and source control shall be implemented in accordance with the long-term pollution prevention plan section of the approved Stormwater Report and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Multi-Sector General Permit.
- e) Unless and until another party accepts responsibility, the landowner, or owner of any drainage easement, assumes responsibility for maintaining each BMP. To overcome this presumption, the landowner of the property must submit to the issuing authority a legally binding agreement of record, acceptable to the issuing authority, evidencing that another entity has accepted responsibility for maintaining the BMP, and that the proposed responsible party shall be treated as a permittee for purposes of implementing the requirements of Conditions 18(f) through 18(k) with respect to that BMP. Any failure of the proposed responsible party to implement the requirements of Conditions 18(f) through 18(k) with respect to that BMP shall be a violation of the Order of Conditions or Certificate of Compliance. In the case of stormwater BMPs that are serving more than one lot, the legally binding agreement shall also identify the lots that will be serviced by the stormwater BMPs. A plan and easement deed that grants the responsible party access to perform the required operation and maintenance must be submitted along with the legally binding agreement.
- f) The responsible party shall operate and maintain all stormwater BMPs in accordance with the design plans, the O&M Plan, and the requirements of the Massachusetts Stormwater Handbook.



Massachusetts Department of Environmental Protection
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Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

g) The responsible party shall:

1. Maintain an operation and maintenance log for the last three (3) consecutive calendar years of inspections, repairs, maintenance and/or replacement of the stormwater management system or any part thereof, and disposal (for disposal the log shall indicate the type of material and the disposal location);
2. Make the maintenance log available to MassDEP and the Conservation Commission ("Commission") upon request; and
3. Allow members and agents of the MassDEP and the Commission to enter and inspect the site to evaluate and ensure that the responsible party is in compliance with the requirements for each BMP established in the O&M Plan approved by the issuing authority.

h) All sediment or other contaminants removed from stormwater BMPs shall be disposed of in accordance with all applicable federal, state, and local laws and regulations.

i) Illicit discharges to the stormwater management system as defined in 310 CMR 10.04 are prohibited.

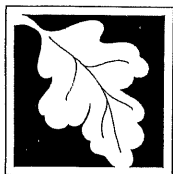
j) The stormwater management system approved in the Order of Conditions shall not be changed without the prior written approval of the issuing authority.

k) Areas designated as qualifying pervious areas for the purpose of the Low Impact Site Design Credit (as defined in the MassDEP Stormwater Handbook, Volume 3, Chapter 1, Low Impact Development Site Design Credits) shall not be altered without the prior written approval of the issuing authority.

l) Access for maintenance, repair, and/or replacement of BMPs shall not be withheld. Any fencing constructed around stormwater BMPs shall include access gates and shall be at least six inches above grade to allow for wildlife passage.

Special Conditions (if you need more space for additional conditions, please attach a text document):

See attached three (3) pages, conditions 20-35.



Massachusetts Department of Environmental Protection
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WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

19 Sheraton Pls

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D. Findings Under Municipal Wetlands Bylaw or Ordinance

1. Is a municipal wetlands bylaw or ordinance applicable? ☒ Yes ☐ No
2. The Arlington Conservation Commission hereby finds (check one that applies):

- a. ☐ that the proposed work cannot be conditioned to meet the standards set forth in a municipal ordinance or bylaw, specifically:

1. Municipal Ordinance or Bylaw

2. Citation

Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides measures which are adequate to meet these standards, and a final Order of Conditions is issued.

- b. ☒ that the following additional conditions are necessary to comply with a municipal ordinance or bylaw:

Arlington Bylaw for Wetlands Protection

Title V, Art 8

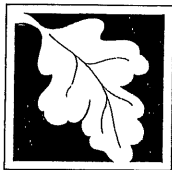
1. Municipal Ordinance or Bylaw

2. Citation

3. The Commission orders that all work shall be performed in accordance with the following conditions and with the Notice of Intent referenced above. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, the conditions shall control.

The special conditions relating to municipal ordinance or bylaw are as follows (if you need more space for additional conditions, attach a text document):

See attached three (3) pages, conditions 20-35.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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E. Signatures

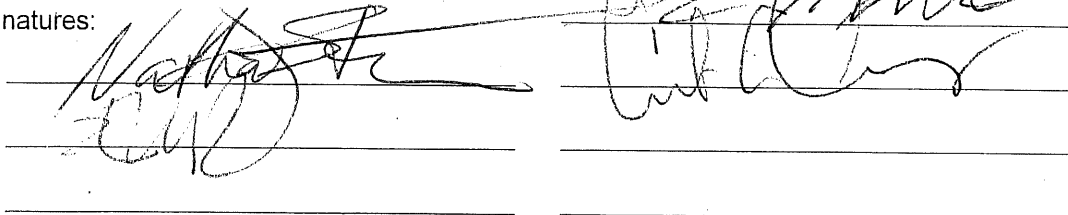
This Order is valid for three years, unless otherwise specified as a special condition pursuant to General Conditions #4, from the date of issuance.

Please indicate the number of members who will sign this form.

This Order must be signed by a majority of the Conservation Commission.

The Order must be mailed by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate Department of Environmental Protection Regional Office, if not filing electronically, and the property owner, if different from applicant.

Signatures:



☐ by hand delivery on

Date

☐ by certified mail, return receipt requested, on

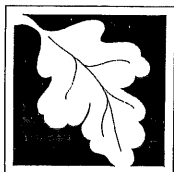
Date

F. Appeals

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate MassDEP Regional Office to issue a Superseding Order of Conditions. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request of Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order associated with this appeal will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order, or providing written information to the Department prior to issuance of a Superseding Order.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40), and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal ordinance or bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

19 Sheraton Pk
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G. Recording Information

This Order of Conditions must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Conditions. The recording information on this page shall be submitted to the Conservation Commission listed below.

Arlington, 730 Massachusetts Ave., Arlington, MA 02476
Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:

Arlington
Conservation Commission

Please be advised that the Order of Conditions for the Project at:

19 Sheraton Park
Project Location

91-230
MassDEP File Number

Has been recorded at the Registry of Deeds of:

Middlesex
County

Book

Page

for: Property Owner

and has been noted in the chain of title of the affected property in:

Book

Page

In accordance with the Order of Conditions issued on:

Date

If recorded land, the instrument number identifying this transaction is:

Instrument Number

If registered land, the document number identifying this transaction is:

Document Number

Signature of Applicant

ARLINGTON CONSERVATION COMMISSION
ORDER OF CONDITIONS -19 SHERATON PARK
HOUSE RECONSTRUCTION

19 Sheraton Pk
3/9/11
DEP FILE NO. 91-230

Referenced Documents and Plans

1. Notice of Intent for 19 Sheraton Park, Arlington, MA 02474, prepared by Nergis Mavalvala and Aida Khan, 56 Windsor St, Arlington, MA 02474, dated 2/14/2011.
2. Certified plot plan located at 19 Sheraton Park, Arlington, MA prepared for Nergis Mavalvala and Aida Khan, 56 Windsor St, Arlington, MA 02474, prepared by George C. Collins, PLS #41784, Boston Survey, Inc, Unit C-4 Shipways Place, Charlestown, MA 02129, dated 12/7/10.
3. Schematic Design/Preliminary permitting plan, sheets SP.1 and A2.2, Khan-Mavalvala residence, 19 Sheraton Park, Arlington, MA 02474, prepared for Nergis Mavalvala and Aida Khan, 56 Windsor St, Arlington, MA 02474, prepared by EvB Design, 33 ½ Union Square, Somerville, MA 02143, dated 2/14/11.

Findings

After a duly noticed public hearing on 3/3/11, the Commission makes the following findings:
The house will be constructed at a distance of 62.5 feet (at the closest point) from the shore of Spy Pond.

Special and/or Bylaw Conditions

20. At least 48 hours, prior to the start of any work, the applicant shall submit to the Commission (letter, email or message to 781-316-3012) the names and 24 hour (emergency) phone numbers of project managers or other persons responsible for demolition and sitework.
21. Before work begins, erosion and sediment controls (strawbale and/or siltfence) shall be installed at the limits of the work area in such a manner as to protect the waterbody, as shown on the plan.
22. The contractor shall call/contact the Conservation Administrator (781-316-3012, cbeckwith@town.arlington.ma.us) to arrange for a site walk to confirm the installation and placement of erosion controls prior to the start of any grading work.
23. The applicant shall make sure that a copy of this Order of Conditions, with the above-referenced plans, is available on site at all times, and that contractors, site managers, foremen, and sub-contractors understand its provisions.
24. The Conservation Commission, its employees and its agents (upon proper notification of site personnel) shall have the right of entry onto the site to inspect for compliance with the terms of this Order of Conditions.
25. No construction vehicles shall be stored over night within 100 feet of the wetland. No vehicles shall be maintained (oil changed, refueled) within 100 feet of the wetland.
26. No stockpiling of soil or demolition materials shall be permitted within 100 feet of the wetland. All other stockpiles must be covered at the end of each work day.

ARLINGTON CONSERVATION COMMISSION
ORDER OF CONDITIONS –19 SHERATON PARK
HOUSE RECONSTRUCTION

DEP FILE NO. 91-230

19 Sheraton Pk
3/9/11

27. Any downspouts from the roof drains shall be designed as to protect the slope towards the Pond from any erosion with the use of rainbarrels, dry wells or trench drains.
28. No copper flashing, gutters or downspouts shall be used on the new construction.
29. Any dirt or debris spilled or tracked onto any paved streets or areas shall be swept up and removed daily.
30. All dumpsters must be covered at end of each work day and no dumpsters will be allowed within 100 feet of the Resource Area.
31. In the event of discovery of hazardous materials on the site during excavation work, clean up of these materials shall conform to the requirements and standards of State law and regulations.
32. Any dewatering operations shall conform to the following:
- (a) Notify the Conservation Commission that dewatering is required.
 - (b) Any catch basins, drain and outfalls to be used in dewatering operations shall be cleaned out before operations begin.
 - (c) Any water discharged as part of any dewatering operation shall be passed through filters, on-site settling basins, settling tank trucks, or other devices to ensure that no observable sediments or pollutants are carried into any Resource Area, street, drain or adjacent property.
 - (d) Measures shall be taken to ensure that no erosion or scouring shall occur on public or private property, or on the banks or bottoms of water bodies, as a result of dewatering operations.
33. Arrangements shall be made as per Condition 32(c) and (d) for any rinsing of tools, equipment, etc. associated with on-site mixing or use of concrete or other materials. Any spillage of materials shall be cleaned up promptly.
34. Any plantings and landscaping within the 100-foot Buffer Zone (from the wetland) shall conform to the following:
- (a) No plant materials shall be used of any species which appears on the attached list of invasive species.
 - (b) Fertilizers, pesticides, or herbicides shall not be used within the Buffer Zone, except as noted in (c) unless a specific need for treating a particular specimen or species has been demonstrated to the Commission, and permission has been granted.
 - (c) Fertilizers may be used at the time of installation of any plant materials, and once more within a year after planting.

This condition shall not expire with the issuance of a Certificate of Compliance.

35. When requesting a Certificate of Compliance for this Order of Conditions, the applicant must submit a written statement from a qualified professional certifying that the completed work complies with the plans referenced in this Order, or provide an as-built plan and statement describing any differences.

INVASIVE PLANT SPECIES OCCURRING IN MASSACHUSETTS

19 Sheraton Pk
91-230
3/9/11

The following is a list of non-native plants recorded in Massachusetts which possess strongly invasive characteristics. Those which are currently presenting the greatest threat to native plant communities are in bold. Remember, however, that some species which are not bolded may eventually become major problems.

=DO NOT USE ANY OF THESE PLANTS=

COMMON NAME	SCIENTIFIC NAME	COMMON NAME	SCIENTIFIC NAME
Amur honeysuckle	<i>Lonicera maackii</i>	Lesser naiad	<i>Najas minor</i>
Autumn olive	<i>Elaeagnus umbellata</i>	Live-forever or Orpine	<i>Sedum telephium</i>
Barnyard grass	<i>Echinochloa crusgalli</i>	Mile-a-Minute Vine	<i>Polygonum perfoliatum</i> L.
Black locust	<i>Robinia pseudoacacia</i>	Moneywort	<i>Lysimachia nummularia</i>
Black swallow-wort	<i>Cynanchum louiseae</i>	Morrow's honeysuckle	<i>Lonicera marrowii</i>
Bittersweet nightshade	<i>Solanum dulcamara</i>	Morrow's X Tatarian honeysuckle (hybrid)	<i>Lonicera x bella</i>
Bushy Rock-cress	<i>Cardamine impatiens</i>	Multiflora rose	<i>Rosa multiflora</i>
Canada bluegrass	<i>Poa compressa</i>	Norway maple	<i>Acer platanoides</i>
Chervil	<i>Anthriscus sylvestris</i>	Oriental bittersweet	<i>Celastrus orbiculata</i>
Coltsfoot	<i>Tussilago farfara</i>	Phragmites, Reed grass	<i>Phragmites australis</i>
Common barberry	<i>Berberis vulgaris</i>	Porcelain berry	<i>Ampelopsis brevipedunculata</i>
Common buckthorn	<i>Rhamnus cathartica</i>	Purple loosestrife	<i>Lythrum salicaria</i>
Common / hedge privet	<i>Ligustrum vulgare</i>	Reed canary-grass	<i>Phalaris arundinacea</i>
Common mullein	<i>Verbascum thapsus</i>	Russian olive	<i>Elaeagnus angustifolia</i>
Creeping buttercup	<i>Ranunculus repens</i>	Sea- or homed poppy	<i>Glaucium flavum</i>
Curly pondweed	<i>Potamogeton crispus</i>	Sheep fescue	<i>Festuca ovina</i>
Cypress spurge	<i>Euphorbia cyparissias</i>	Sheep-sorrel	<i>Rumex acetosella</i>
Dame's rocket	<i>Hesperis matronalis</i>	Silver lace-vine	<i>Polygonum aubertii</i>
English ivy	<i>Hedera helix</i>	Silver poplar	<i>Populus alba</i>
European water-milfoil	<i>Myriophyllum spicatum</i>		
Fanwort	<i>Cabomba caroliniana</i>	Spotted knapweed	<i>Centaurea biebersteinii</i>
Garlic mustard	<i>Alliaria petiolata</i>	Sweet reedgrass	<i>Glyceria maxima</i>
Giant waterweed	<i>Egeria densa</i>	Sycamore maple	<i>Acer pseudoplatanus</i>
Glossy buckthorn	<i>Rhamnus frangula</i>	Tatarian honeysuckle	<i>Lonicera tatarica</i>
Goutweed or Bishop's weed	<i>Aegopodium podagraria</i>	Tree-of-heaven	<i>Ailanthus altissima</i>
Hair fescue	<i>Festuca filiformis</i>	True forget-me-not	<i>Myosotis scorpioides</i>
Hairy willow-herb	<i>Epilobium hirsutum</i>	Water-chestnut	<i>Trapa natans</i>
Japanese barberry	<i>Berberis thunbergii</i>	Watercress	<i>Rorippa nasturtium-aquaticum</i>
Japanese honeysuckle	<i>Lonicera japonica</i>		
Japanese hops	<i>Humulus japonicus</i>	Western catalpa	<i>Catalpa speciosa</i>
Japanese knotweed	<i>Polygonum cuspidatum</i>	White mulberry	<i>Morus alba</i>
Japanese privet	<i>Ligustrum obtusifolium</i>	Wild thyme	<i>Thymus pulegioides</i>
Japanese rose	<i>Rosa rugosa</i>	Winged euonymus, aka Burning bush	<i>Euonymus alata</i>
Japanese Stilt Grass	<i>Microstegium vimineum</i> (Trin.) A. Camus	Variable water-milfoil	<i>Myriophyllum heterophyllum</i>
Kiwi vine	<i>Actinidia arguta</i>	Yellow floating heart	<i>Nymphoides peltata</i>
Kudzu	<i>Peuraria Montana</i>	Yellow iris	<i>Iris pseudacorus</i>

From "A Guide to Invasive Plants In Massachusetts" by Pamela B. Weatherbee, Paul Somers and Tim Simmons, The Massachusetts Biodiversity Initiative, Massachusetts Division of Fisheries and Wildlife, 1998. Reformatted by Arlington Conservation Commission - 6/4/03

MEMORANDUM

Date: March 17, 2024
To: Arlington Conservation Commission, c/o David Morgan
From: Ryan Clapp
Re: Certificate of Compliance - DEP #091-0230: #19 Sheraton Park

A Request for a Certificate of Compliance for DEP #091-0230 was received by the Arlington Conservation Commission. The details of the Order of Conditions are as follows:

Address: 19 Sheraton Park
Applicant: Nergis Mavalvala
Date of Issuance: March 9, 2011

On March 15, 2024, I visited the site at #19 Sheraton Park to confirm that the project had been completed in accordance with the site plans, narrative, and Order of Conditions. Please see the attached photographs taken as exhibits.

Specifically, I observed that two drywells had been installed onsite within the 100' buffer zone. While not initially approved by the Order of Conditions, these were later incorporated into the plans and approved by the Conservation Commission.

Overall, it appeared that the project had been constructed in compliance with the Order of Conditions, and the observations made onsite matched those provided in the As-Built survey. However, upon later review of the original plans, I noted several deviations:

1. The deck in the rear of the house had been expanded upon;
2. The house footprint had been altered (though this resulted in decreased impervious surfaces within the 100' buffer zone;
3. The original plans had included a robust planting plan (though there were no associated Conditions.) This planting plan has not been implemented.

Based on my observations onsite, I do recommend the Arlington Conservation Commission issue a Certificate of Compliance for DEP #091-0230: #19 Sheraton Park.























Town of Arlington, Massachusetts

Water Bodies Working Group.

Summary:

Water Bodies Working Group.

ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	Water_Bodies_Working_Group_Meeting_Notes_03142024.pdf	Water Bodies Working Group Meeting Notes 03142024

Water Body Working Group notes

David White <dwhite@gilbertwhite.com>

Fri 3/15/2024 10:09 AM

To: Dave Kaplan <dkaplan31@gmail.com>; David White <dwhite@gilbertwhite.com>; Brad Barber <bradb@shore.net>; David Morgan <dmorgan@town.arlington.ma.us>; Ellen Reed <eltreed@gmail.com>; Natasha Waden <nwaden@town.arlington.ma.us>; Carolyn White <cawhitema@gmail.com>
Cc: ConComm <ConComm@town.arlington.ma.us>

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

All,

Here are notes from last night. Please review especially in regards to the Monday Fin Com meeting.

David

Water Bodies Working Group Meeting Notes - March 14, 2024

Present: David White, David Morgan, Susan Chapnick, Ellen Reed, Brad Barber, Catherine White.

Regrets: David Kaplan.

1. The management contract for **Spy Pond** with SWCA has now been signed and they can start. The first task is to work out with NHESP what treatment work they can actually do. Send a contract to David K. who will monitor.
2. The contract with New England Aquatic Services for water chestnut harvesting at the **Res** is now in place. They will be performing mechanical harvesting during the weeks of June 10 and June 17. Total cost \$27,500.
3. **Hills Pond floating wetlands** - We agreed that they may be removed as they are not functioning as intended
4. The **2023 Water Bodies Report** is now complete and PDF copies will be made available to the public and to FinCom.
5. The **budget presentation to FinCom** is scheduled for 7:30 to 8:00+ on Monday March 18 in the conference room at the Community Safety building.
6. **Agenda:**
 - a. Introduction - David W.
 - b. Reservoir - David W.
 - c. Spy Pond - Brad Barber & Steve Ricci
 - d. Hills Pond - Bill Reed (proxy for Ellen)
 - e. McClennen - David W. & Susan C.
7. **Budget components:**
 - a. Reservoir - Four weeks instead of two to bring down the seed level so as to reduce future efforts. $2 \times 27,500 = 55,00$
 - b. Spy Pond
 - i. Engelmann's sedge survey and report \$10k
 - ii. Pre-treatment survey x2 \$17k

- iii. Plant and algae treatment x2 \$27k
- iv. Post treatment survey and report \$ 9.6k
- v. Phragmites treatment \$ 5.5k
- vi. Contingency and inflation \$ 0.9k
- vii. Total request \$70k
- c. Hills Pond
 - i. Contract with Water & Wetlands - This year \$5,090
 - ii. Next year \$6,000 to cover contingencies and inflation.
- d. McClennen
 - i. Establishment of buffer strip with signage and plantings around the pond.
 - ii. Further investigations proposed with CPA funding.
- 8. Other
 - a. Upper Reeds Brook - for future consideration
 - b. WBWG Membership -
 - i. Susan & Chuck ad hoc
 - ii. Recruit Associate Eileen Coleman ?
- 9. Items for ConCom meeting
 - a. Spy Pond contract
 - b. Res contract
 - c. Fin Com meeting report
 - d. Hills Pond floating wetlands



Town of Arlington, Massachusetts

Request for Determination of Applicability: 36 Peabody Road.

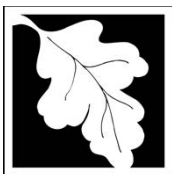
Summary:

Request for Determination of Applicability: 36 Peabody Road.

This public hearing will consider a Request for Determination of Applicability for an addition to the existing structure at 36 Peabody Road in Arlington along with landscaping and hardscaping activities within the 100-foot Buffer Zone and Adjacent Upland Resource Area to Spy Pond.

ATTACHMENTS:

Type	File Name	Description
Reference Material	36_Peabody_Road_-_Request_for_Determination_of_Applicability_Package.pdf	36 Peabody Road - Request for Determination of Applicability Package



Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Municipality _____

A. General Information

Important:

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Applicant:

Eliza

First Name

Hatch

Last Name

36 Peabody Road

Address

Arlington

City/Town

MA

State

02476

Zip Code

978-852-0672

Phone Number

eliza.hatch@gmail.com

Email Address

2. Property Owner (if different from Applicant):

First Name

Last Name

Address

City/Town

State

Zip Code

Phone Number

Email Address (if known)

3. Representative (if any)

First Name

Last Name

Company Name

Address

City/Town

State

Zip Code

Phone Number

Email Address (if known)

B. Project Description

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):

36 Peabody Road

Street Address

Arlington

City/Town

42.41111

Latitude (Decimal Degrees Format with 5 digits after decimal e.g. XX.XXXXX)

-71.15600

Longitude (Decimal Degrees Format with 5 digits after decimal e.g. -XX.XXXXX)

121

Assessors' Map Number

121-2-10

Assessors' Lot/Parcel Number

b. Area Description (use additional paper, if necessary):

Backyard of 36 Peabody Road

c. Plan and/or Map Reference(s): (use additional paper if necessary)

Title

Date

Title

Date

[How to find Latitude and Longitude](#)

[and how to convert to decimal degrees](#)



Massachusetts Department of Environmental Protection

Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Municipality

B. Project Description (cont.)

2. a. Activity/Work Description (use additional paper and/or provide plan(s) of Activity, if necessary):

See Appendix A.

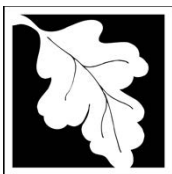
- b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

See Appendix B.

3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.

- ☐ Single family house on a lot recorded on or before 8/1/96
- ☐ Single family house on a lot recorded after 8/1/96
- ☐ Expansion of an existing structure on a lot recorded after 8/1/96
- ☐ Project, other than a single-family house or public project, where the applicant owned the lot before 8/7/96
- ☐ New agriculture or aquaculture project
- ☐ Public project where funds were appropriated prior to 8/7/96
- ☐ Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
- ☐ Residential subdivision; institutional, industrial, or commercial project
- ☐ Municipal project
- ☐ District, county, state, or federal government project
- ☐ Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.

- b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary).



Massachusetts Department of Environmental Protection

Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Municipality _____

C. Determinations

1. I request the Conservation Commission make the following determination(s). Check any that apply:
Conservation Commission

- ☐ a. whether the **area** depicted on plan(s) and/or map(s) referenced above is an area subject to jurisdiction of the Wetlands Protection Act.
- ☐ b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced above are accurately delineated.
- ☐ c. whether the **Activities** depicted on plan(s) referenced above is subject to the Wetlands Protection Act and its regulations.
- ☐ d. whether the area and/or Activities depicted on plan(s) referenced above is subject to the jurisdiction of any **municipal wetlands' ordinance** or **bylaw** of:

Name of Municipality

- ☐ e. whether the following **scope of alternatives** is adequate for Activities in the Riverfront Area as depicted on referenced plan(s).
- _____

D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Signatures:

I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.

Signature of Applicant

Date

Signature of Representative (if any)

Date

Appendix A

We plan to repair one wall that is failing due to improper installation. We are adding additional retaining wall to address ongoing erosion and to create a more stable planting area because the things we planted in that area did not survive. We are relocating one staircase to accommodate an upcoming planned addition to our house. We will be adding a total of thirty-four (34) square feet of hardscape (see attached plans for details). As part of the work on the house we plan to remove brick pavers, though this is slightly outside of the resource area.

In order to do this, we plan to install erosion controls at the base of the steepest part of the hill, as we are trying to reduce overall erosion on our property. We plan to remove one 14" Sycamore Maple and one 12" Norway Maple which shows signs of the trunk failing at the base of the tree. We plan to replace them with four native trees per the replacement requirements. We also will be moving one native tree that we installed in 2020 just inside the 100' buffer zone and replanting it in a slightly different location just outside of the 100' buffer zone. Lastly, we plan to install approximately ten new native shrubs once work on the walls and staircase is complete. It is our hope that these shrubs and replacement trees will help to stabilize this last section of hillside.

Appendix B

This project qualifies for Conservation Agent Administrative Review under the Arlington Regulations for Wetlands Protection Section 8.

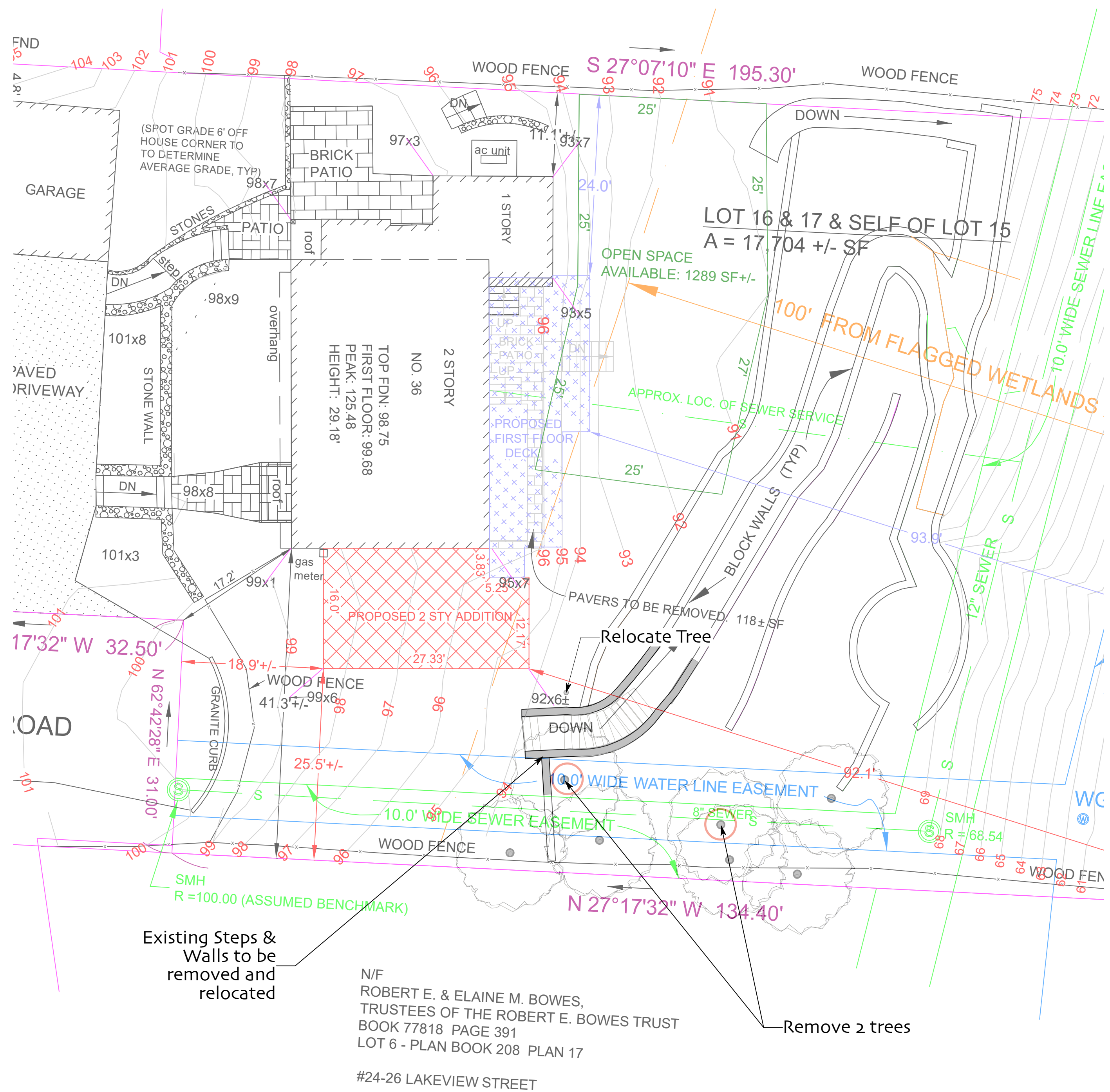
Section 8(B) states that the Applicant may apply for Administrative Review if the project meets the criteria of Sections 8(C) and 8(D).

Section 8(C):

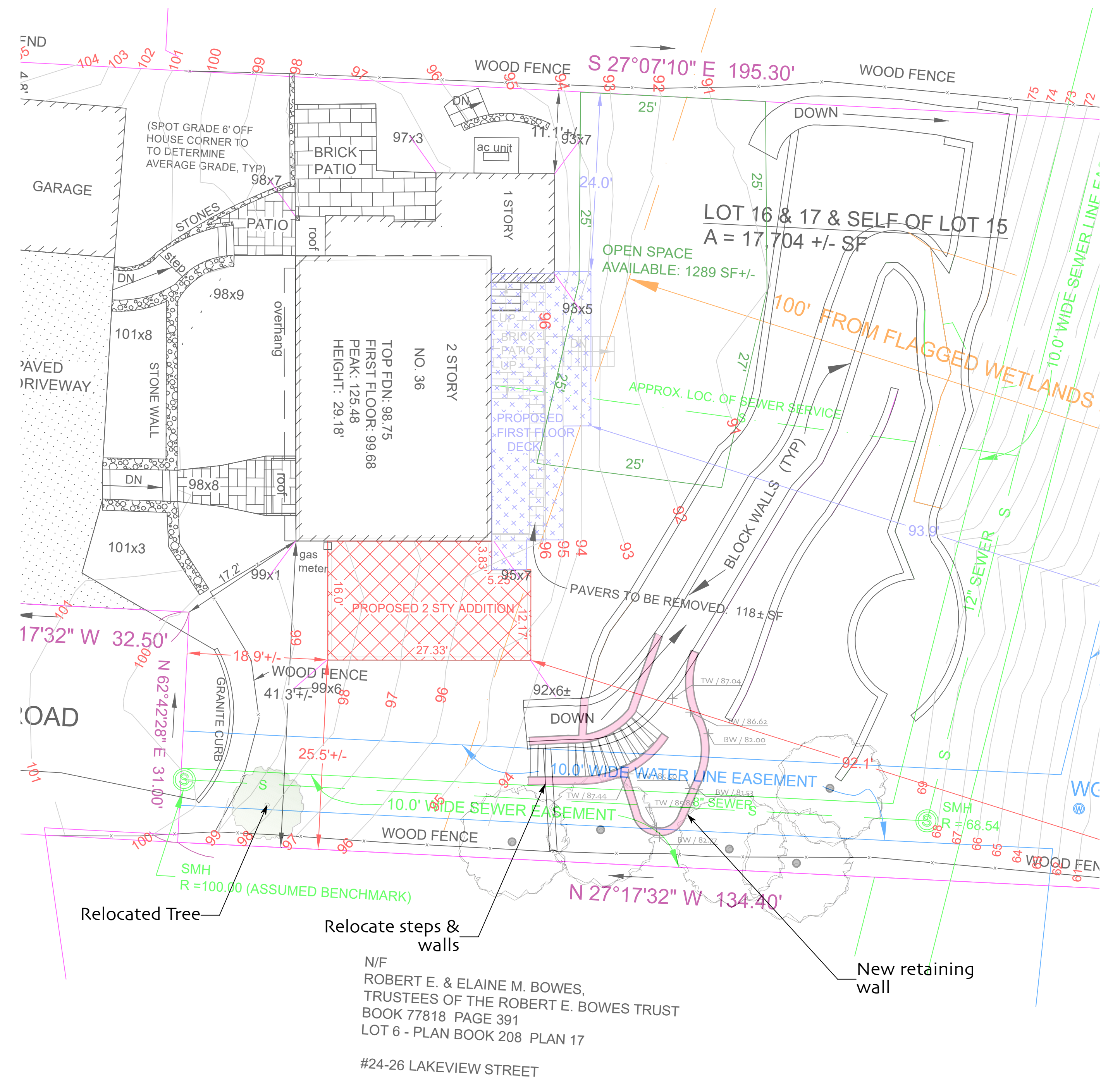
- (1) The work is proposed only in the Adjacent Upper Resource Area (AURA).
- (2) The work is going to be significantly less than 5,000 square feet.
- (3) The work will not be in the first 25 feet of the AURA, with the exception of our plan to install appropriate erosion controls.
- (4) We do not plan to remove non-invasive vegetation. We plan to remove two trees but plan to replace them with four additional and more appropriate trees from the native plant list.
- (5) The work will not adversely impact climate change resilience functions. In fact, we hope that by stabilizing the steepest part of our hillside more we will be able to replant several native shrubs that did not survive the drought a few years ago as well as prevent further erosion into Spy Pond.

Section 8(D):

- (2) Installation of a short stretch of new stone wall; repair of existing wall/staircase, and a slight relocation of a staircase. The sides of the staircase, especially the freestanding one, will likely need mortar in order to withstand the pressure of the steep slope, but the remaining walls will be freestanding.
- (4) We plan to install approximately ten additional native shrubs once the walls are repaired/installed.



EXISTING CONDITIONS/DEMOLITION
54 SF Walls to be removed



PROPOSED PLAN
88 SF Walls to be added
88-54= 34 SF Total Additional Hardscape



	Rue Sherwood Landscape Design, LLC 225 Argilla Rd Ipswich, MA 01938 www.ruesherwood.com ruesherwood@gmail.com 978-500-3131
	Eliza Hatch & Ian Jessen 36 Peabody Rd Arlington, MA
Site Modifications for Proposed Addition	
2/13/24	1"=10'

Abutter Notification

Notification to Abutters Under the Massachusetts Wetlands Protection Act And Arlington Wetlands Protection Bylaw

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and the Arlington Wetlands Protection Bylaw, you are hereby notified of the following:

The Conservation Commission will hold a virtual public meeting using Zoom, on Thursday, March 21, 2024, at 7:00pm in accordance with the provisions of the Mass. Wetlands Protection Act (M.G.L. Ch. 131, s. 40, as amended), the Town of Arlington Bylaws Article 8, Bylaw for Wetland Protection, and in accordance with the Governor's Order Suspending Certain Provisions of the Open Meeting Law, G. L. c. 30A, § 20 relating to the COVID-19 emergency, for a Request for Determination of Applicability from Eliza Hatch and Ian Jessen, for repairing walls, adjusting placement of staircase, moving/replacing trees at 36 Peabody Road, Arlington, MA 02476, within 100 feet of a wetland, on Assessor's Property Map/s #121, Lot/s #121-2-10. Please refer to the Commission's online meeting agenda for specific Zoom meeting access information.

A copy of the application and accompanying plans are available by request by contacting the Arlington Conservation at 781-316-3012 or mmuszynski@town.arlington.ma.us. For more information call the applicant at 978-852-0672 or the Arlington Conservation Commission at 781-316-3229, or the DEP Northeast Regional Office at 978-694-3200.

NOTE: Notice of the Public Hearing will be published at least five (5) business days in advance in The Arlington Advocate and will also be posted at least 48 hours in advance in the Arlington Town Hall.

The meeting information for your hearing is:

Date: 3/21/24

Time: 7:00

**CERTIFIED ABUTTERS LIST**

Date: January 19, 2023

Subject Property Address: 36 PEABODY RD Arlington, MA

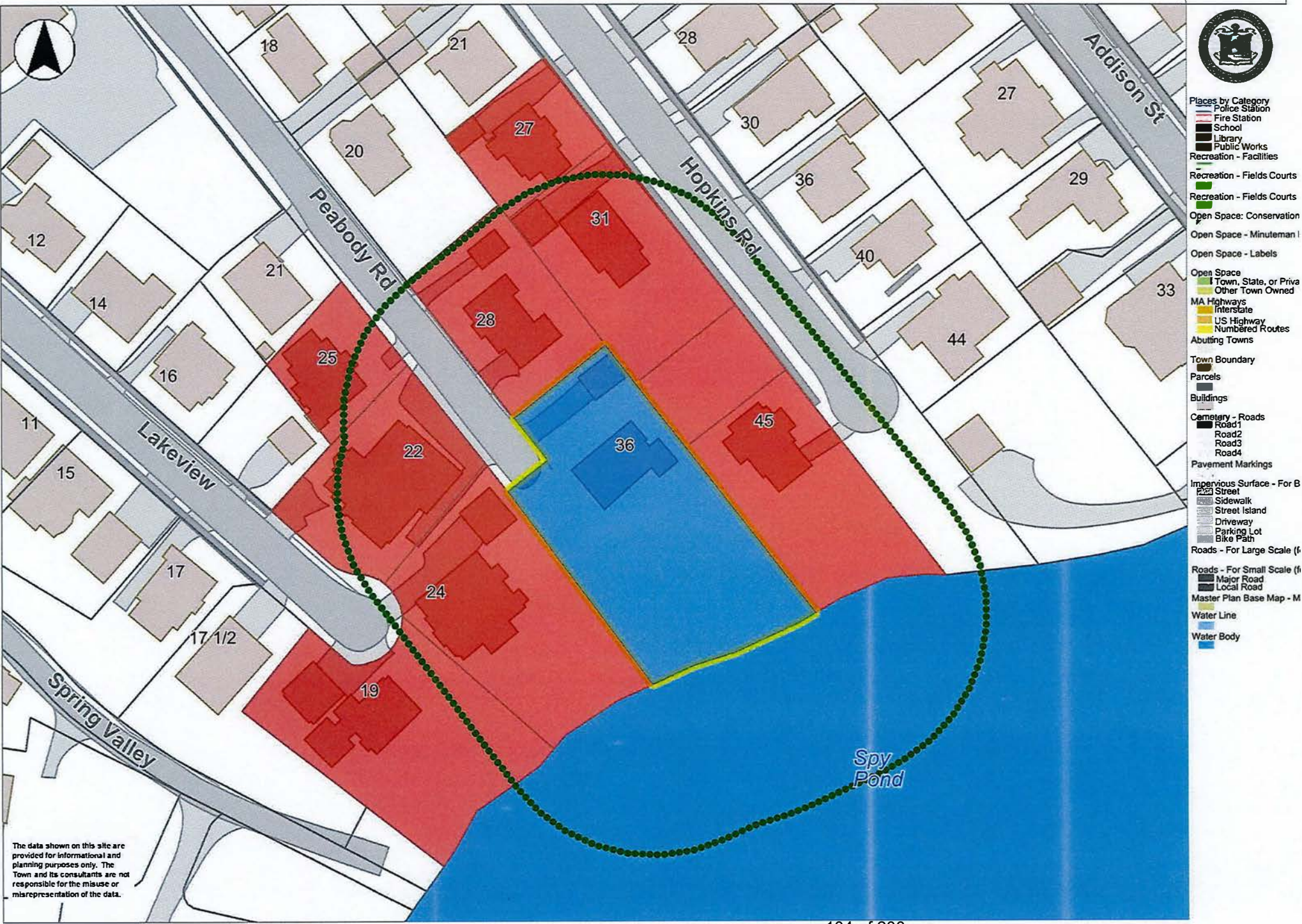
Subject Property ID: 121-2-10

Search Distance: 100 Feet - Conservation

Parcel ID:	Property Location	Owner 1	Owner 2	MAILING ADDRESS			
				Mailing Address 1	Town	State	Zip
121-1-6	25 PEABODY RD	WADSWORTH MARY DEIRDRE		25 PEABODY RD	ARLINGTON	MA	02476
121-1-7	22 LAKEVIEW	22 LAKEVIEW LLC		31 PHILEMON STREET	ARLINGTON	MA	02474
121-1-8	26 LAKEVIEW	BOWES ROBERT E & ELAINE M/ TRS	ROBERT E BOWES TRUST	26 LAKEVIEW	ARLINGTON	MA	02476
121-2-5	27 HOPKINS RD	CONN KATHARINE	MANQUIN BRENDAN	27 HOPKINS RD	ARLINGTON	MA	02476
121-2-7	31 HOPKINS RD	AUMULLER CHRISTIAN		PO BOX 292	ARLINGTON	MA	02476
121-2-8	0-LOT HOPKINS RD	CAP GMBH		PO BOX 292	ARLINGTON	MA	02476
121-2-9	45 HOPKINS RD	CAP GMBH		PO BOX 292	ARLINGTON	MA	02476
121-2-10	36 PEABODY RD	JESSEN IAN	HATCH ELIZA	36 PEABODY RD	ARLINGTON	MA	02476
121-2-11	28 PEABODY RD	BLAIR COLIN C & SUSANNE S /TRS	COLIN & SUSANNE BLAIR TRUST	28 PEABODY RD	ARLINGTON	MA	02476
122-5-16.B	19 LAKEVIEW	BARBERA MARIANNE		19 LAKEVIEW	ARLINGTON	MA	02476

The Board of Assessors certifies the names and addresses of requested parties in interest, all abutters to a single parcel within 100 feet.

Town of Arlington
Office of the Board of Assessors
730 Massachusetts Ave
Arlington, MA 02476
P: 781.316.3050
E: assessors@town.arlington.ma.us



- Places by Category**
- Police Station
 - Fire Station
 - School
 - Library
 - Public Works
 - Recreation - Facilities
- Recreation - Fields Courts**
- Recreation - Fields Courts
- Open Space: Conservation**
- Open Space - Minuteman I
 - Open Space - Labels
- Open Space**
- Town, State, or Private
 - Other Town Owned
- MA Highways**
- Interstate
 - US Highway
 - Numbered Routes
 - Abutting Towns
- Town Boundary**
- Parcels
 - Buildings
- Cemetery - Roads**
- Road1
 - Road2
 - Road3
 - Road4
- Pavement Markings**
- Impervious Surface - For B
 - Street
 - Sidewalk
 - Street Island
 - Driveway
 - Parking Lot
 - Bike Path
- Roads - For Large Scale (ft)**
- Roads - For Small Scale (ft)
 - Major Road
 - Local Road
- Master Plan Base Map - M**
- Water Line
 - Water Body

Affidavit of Service


(Please return to Conservation Commission)

I, Eliza Hatch , being duly sworn, do hereby state as follows: on March 5, 2024, I mailed a "Notification to Abutters" in compliance with the second paragraph of Massachusetts General Laws, Chapter 131, s.40, the DEP Guide to Abutter Notification dated April 8, 1994, and the Arlington Wetlands Protection Bylaw, Title V, Article 8 of the Town of Arlington Bylaws in connection with the following matter:

Repairing walls, adjusting placement of staircase, moving/replacing trees at 36 Peabody Road, Arlington, MA 02476.

The form of the notification, and a list of the abutters to whom it was provided and their addresses, are attached to this Affidavit of Service.

Signed under the pains and penalties of perjury, this 5th day of March.



Name

Bylaw Filing Fees and Transmittal Form

Rules:

1. Fees are payable at the time of filing the application and are non-refundable.
2. Fees shall be calculated per schedule below.
3. Town, County, State, and Federal Projects are exempt from fees.
4. These fees are in addition to the fees paid under M.G.L. Ch. 131, s.40 (ACT).

Fee Schedule (ACC approved 1/8/15):

\$	No./Area	Category
\$150		(R1) RDA- \$150 local fee, no state fee
		(N1) Minor Project - \$200 (house addition, tennis court, swimming pool, utility work, work in/on/or affecting any body of water, wetland or floodplain).
		(N2) Single Family Dwelling - \$600
		(N3) Multiple Dwelling Structures - \$600 + \$100 per unit all or part of which lies within 100 feet of wetlands or within land subject to flooding.
		(N4) Commercial, Industrial, and Institutional Projects - \$800 + 50¢/s.f. wetland disturbed; 2¢/s.f. land subject to flooding or buffer zone disturbed.
		(N5) Subdivisions - \$600 + \$4/l.f. feet of roadway sideline within 100 ft. of wetlands or within land subject to flooding.
		(N6) Other Fees - copies, printouts; per public records law
		(N7) Minor Project Change - \$50
		(N8) Work on Docks, Piers, Revetments, Dikes, etc - \$4 per linear foot
		(N9) Resource Boundary Delineation (ANRAD) - \$1 per linear foot
		(N10) Certificate of Compliance (COC or PCOC) - No charge if before expiration of Order, \$200 if after that date.
		(N11) Amendments - \$300 or 50% of original local filing fee, whichever is less.
		(N12) Extensions -
		a. Single family dwelling or minor project - \$100.
		b. Other - \$150.
		(N13) Consultant Fee -per estimate from consultant
\$150	TOTAL	

Note: Submit this form along with the forms submitted for the ACT - the "Wetlands Filing Fee Calculations Worksheet," and the "Notice of Intent Fee Transmittal Form."

Legal Notice Charge Authorization

DATE: March 5, 2024

TO: legals@wickedlocal.com

I hereby authorize Community Newspapers to bill me directly for the legal notice to be published in the Arlington Advocate newspaper on _____ for a public hearing with the Arlington Conservation Commission to review a project at the following location:

36 Peabody Road, Arlington

Thank you.

Signed: 

Send bill to:

ELIZA WATZ (Address)

36 PEABODY RD

ARLINGTON MA 02476

978-852-0672 (Phone)



Town of Arlington, Massachusetts

DEP #091-0360: 2 Reservoir Road (Continuation from 3/7/2024).

Summary:

DEP #091-0360: 2 Reservoir Road (Continuation from 3/7/2024).

This public hearing will consider a Notice of Intent to construct an addition off the rear of a single-family dwelling, renovate a front porch, and conduct landscaping and hardscaping activities within Riverfront Area and Bordering Land Subject to Flooding associated with Mill Brook, and within the 100-foot Buffer Zone to Bordering Vegetated Wetlands.

ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	2_Reservoir_Road_- _NOI_Supplemental_Information.pdf	2 Reservoir Road - NOI Supplemental Information

March 13, 2024

Electronic & Hand Delivery

Arlington Conservation Commission
Arlington Town Hall Annex
730 Massachusetts Avenue
Arlington, MA 02476

Re: Supplemental Information
Notice of Intent Application
2 Reservoir Road
Arlington, Massachusetts
DEP File #: 091-0360

[LEC File #: BerL\23-557.02]

Dear Members of the Conservation Commission:

On behalf of the Applicants and Property Owners, Linnea and David Berggren, LEC Environmental Consultants, Inc., (LEC) is submitting supplemental information and updated plans in response to comments provided by the Conservation Commission during the March 7, 2024 public hearing. Specifically, this letter addresses the request for written compliance with the vegetation replacement and stormwater sections of the *Town of Arlington Wetlands Protection Regulations*. Attached please find a revised *Planting Plan*, dated January 20, 2024 and revised March 12, 2024, and prepared by Holly Garden Design (Attachment A).

Revised Planting Plan

Holly Samuels has revised the *Planting Plan* to include an Invasive Plant Management Plan, a revised planting palette including additional native species within the 100-foot Buffer Zone, additional replacement trees, and justification for the select use of native cultivars. Compliance with the vegetation replacement section of the *Bylaw* is provided below.

Stormwater Management Compliance

As a single-family lot, the project is not required to meet the MA DEP Stormwater Management Standards. Additionally, the project results in a net increase of impervious surface of only 316.6± square feet, which is below the 350-square-foot impervious increase threshold that triggers formal stormwater management under the Town's *Stormwater Management Rules and Regulations*; however, the Applicants propose stormwater management that is commensurate with the nature and scope of the project in order to comply with Section 33C of the *Bylaw Regulations* as outlined below.

LEC Environmental Consultants, Inc.				www.lecenvironmental.com
12 Resnik Road Suite 1 Plymouth, MA 02360 508.746.9491	380 Lowell Street Suite 101 Wakefield, MA 01880 781.245.2500	100 Grove Street Suite 302 Worcester, MA 01605 508.753.3077	P.O. Box 590 Rindge, NH 03461 603.899.6726	680 Warren Avenue Suite 3 East Providence, RI 02914 401.685.3109
PLYMOUTH, MA	WAKEFIELD, MA	WORCESTER, MA	RINDGE, NH	EAST PROVIDENCE, RI

Stormwater management design for all projects (including projects that do not require a Stormwater Management Report under 310 CMR 10.05 (6)(k) or projects that are exempt under Arlington's Stormwater Management Rules and Regulations) specified in a request Arlington Regulations for Wetlands Protection for determination of applicability or an application for a permit shall accomplish the following:

(1) Not exacerbate or create flooding conditions and shall not result in an increase in the peak rate of stormwater runoff over existing conditions during storm events.

The Applicants propose to install a trench drain along the southern edge of the proposed addition to capture the stormwater from the proposed addition. Stormwater run-off from a portion of the existing dwelling also will be directed to this trench drain. Additionally, the Applicants propose to capture stormwater run-off from the entire detached garage roof via a second trench drain to provide further mitigation and promote additional stormwater infiltration. Further, by way of converting existing lawn to naturally vegetated land, the Applicants are reducing stormwater runoff velocity through the site compared to existing conditions. Given the modest size of the addition, and the mitigation measures mentioned above, LEC does not anticipate the project exacerbating or creating flooding conditions.

(2) Reduce stormwater pollution to the maximum extent possible. Low Impact Development techniques listed in the Massachusetts Stormwater Handbook, (LID BMPs) should be prioritized for their positive impact on overall site climate change resilience, improvements to water quality, and ability to handle water quantity. Depending upon the type of project proposed, this may include but not be limited to reduction in impervious surfaces, bio-retention (rain gardens), and infiltration systems.

The majority of stormwater run-off from this site is from roof areas, which is considered 'clean' stormwater run-off. The potential for stormwater pollution is limited to stormwater run-off from the existing driveway, which will be reduced in size compared to existing conditions.

(3) Have a written operation and maintenance plan to inspect, properly maintain, and repair installed BMPs after project completion to ensure they are functioning according to the design intent in perpetuity.

The only stormwater 'BMPs' proposed on the site are stone trench drains. Other than keeping the trenches free of debris (leaves, etc.), they require little to no maintenance. The Applicants are open to a Special Condition in an Order of Conditions preparing an Operation & Maintenance Plan indicating that the trench drains shall be kept free of debris.

Section 25 Vegetation Replacement Compliance

The Applicants have revised the *Planting Plan* to comply with the vegetation removal and replacement standards outlined in Section 25(f)(b) of the *Bylaw Regulations* as outlined and discussed below.

(1) No vegetation in a resource area protected by the Bylaw shall be damaged, extensively pruned, or removed without written approval by the Commission and, if approval is granted, with in-kind replacement (as defined below).

The Applicants propose to remove 8 trees that are all 8" DBH or less. Tree replacement in accordance with the *Bylaw Regulations* is discussed below.

(2) Extensive pruning is defined as removal of 20% or more of limbs or growth. For extensive pruning or removal of vegetation because of an Imminent Risk to Public Health and Safety, in-kind replacement shall be to the extent practicable as determined by the Commission (See Section 10 of these Regulations for Emergency Certification or Section 7 of these Regulations for Administrative Review).

No tree pruning of trees >20% of limbs or growth is proposed.

(3) Vegetation replacement shall conform with Section 25.F and is not considered successful until the replacement plants have survived three full growing seasons.

The Applicants propose to have a qualified professional monitor the replacement trees for three full growing seasons and complete yearly monitoring reports documenting the status of the replacement trees.

C. Definitions

(1) "In-kind replacement" means planting the same type of plant species (if native) that was removed, extensively pruned, or damaged, of sizes and quantities as specified in Section 25.F, unless compelling evidence is presented in writing to the Commission that explains why the resource area values under the Bylaw are promoted through an alternative proposal.

a. An in-kind replacement should occur within the same resource area, or another resource area located in close proximity on the project site. Only non-invasive plant species that are "straight" species native to New England shall be planted as replacements unless justification is provided. Native "straight" species are those that are not cultivars, nativars, or hybrids. Proposed plantings of cultivars, nativars or hybrids requires prior approval of the Conservation Commission after the applicant provides information as to whether the replacement or replacements may provide food sources for pollinators, fruit and berries for birds and vegetative cover for small animals and/or erosion control on banks and slopes, and do not pose a threat to the native species. See Vegetation Replacement Guidance provided on the Arlington Conservation Commission website.

b. An "in-kind replacement" shall consider a combination of species type, size, and surface area as measured by the drip line of the impacted plant(s) or the diameter at breast height (dbh) for trees. A chart of acceptable replacement trees that are straight species native to New England is available on the Arlington Conservation Commission website or from the Conservation Agent

Section 25F(2)(a):

Table F.1. Tree Replacement Requirements	
Existing Tree	Replacement Quantity
Deciduous dbh ¹ < 1.5" Evergreen height ² < 4'	0 ³
Deciduous dbh 1.5" to 6" Evergreen height 4' to 6'	2
Deciduous dbh 6" to 10" Evergreen height 6' to 10'	3
Deciduous dbh > 10" Evergreen height > 10'	≥ 4 at discretion of Commission
¹ dbh = diameter at breast height (4' 6" above the ground) ² Evergreen trees because of their dense branches and needles are generally measured based on their height and width ³ Sapling trees shall include deciduous trees with a dbh of 1.5 inches and less (or caliper equivalent) and evergreens of 2 feet or less and shall be replaced at the discretion of the Commission. Replacement Deciduous trees must be a minimum of 1.5" dbh (or caliper equivalent); replacement Evergreen trees must be a minimum of 4' in height.	

The Applicants propose to remove seven Norway maples (*Acer platanoides*) and one black walnut tree (*Juglans nigra*) as depicted on the *Conservation Plan* and *Planting Plan*. All of the proposed trees to be removed are less than or equal to 8" DBH. The Applicants propose to install 14 replacement trees. Below is a summary of the proposed replacement trees:

- 8 Slender Silhouette Sweetgum (*Liquidambar styracifolia* 'Slender Silhouette')
- 1 Cherokee Chief Native Dogwood (*Cornus florida* 'Cherokee Chief')
- 5 Dark American Arborvitae (*Thuja occidentalis* 'Nigra')

Due to the existing tree cover on site and the limited size of the property, the Applicants propose to install 4 native shrubs and 137 perennials within the Restoration Area in addition to the replacement trees in order to meet the replacement requirements.

b. Replacement Deciduous trees must be a minimum of 1.5" dbh (or caliper equivalent); replacement Evergreen trees must be a minimum of 4' in height.

c. If a plant is healthy with a single stem, well-shaped and bushy, has sufficient well-spaced side branches to give it weight and good bud qualities, and conforms to the requirements described in the latest edition of American Standard for Nursery Stock, published by the American Association of Nurseryman (ANN), then it is an acceptable plant.



d. All replacement plants shall have ball sizes which are of a diameter and depth to encompass enough of the fibrous and feeding root system as necessary for the full recovery of the plant once planted.

e. Plants over 14' should not be container grown.

Considering the limited space on the property, the Applicants have maximized the number of replacement trees that can be responsibly planted on the site by providing columnar and cone-shaped trees that have smaller horizontal footprints. Lastly, Landscape Designer Holly Samuels has provided justification for the use of cultivars which are summarized on the 'Use of Native Cultivars Chart' located on the *Planting Plan*.

Thank you for your consideration of this Supplemental Information. We look forward to meeting with you at the March 21, 2024 Public Hearing. If you have any questions in the meantime, please do not hesitate to contact me in our Wakefield office at 781-245-2500 or at rkirby@lecenvironmental.com.

Sincerely,

LEC Environmental Consultants, Inc.

A handwritten signature in black ink, appearing to read 'Richard Kirby', with a stylized flourish at the end.

Richard A. Kirby
Senior Wetland Scientist

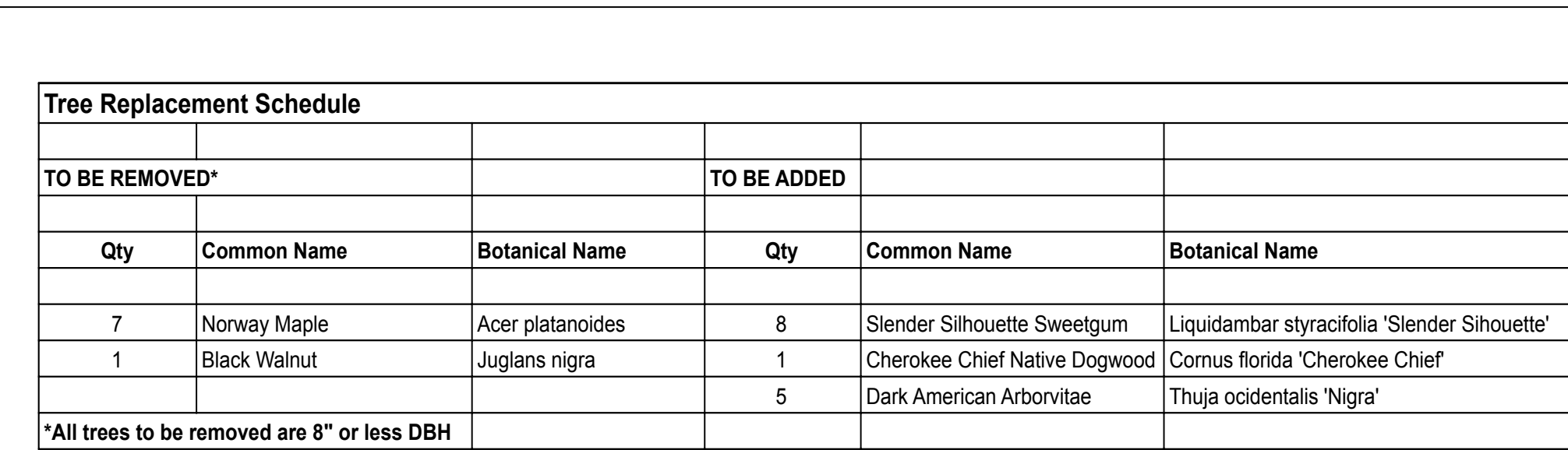
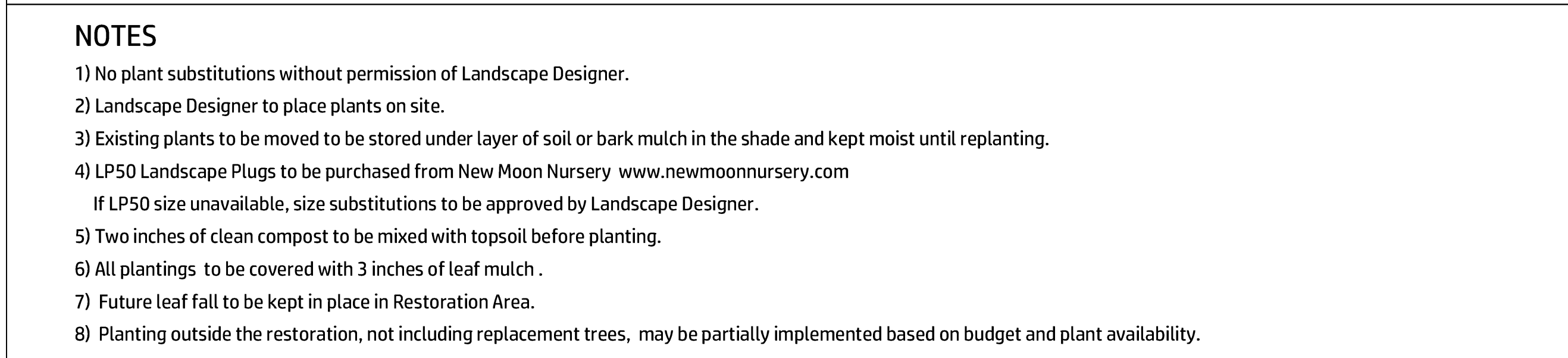
A handwritten signature in black ink, appearing to read 'Nicole Ferrara', with a stylized flourish at the end.

Nicole Ferrara
Wetland Specialist

cc: DEP, Northeast Region

Attachment A

Planting Plan, dated January 20, 2024 and revised March 12, 2024,
prepared by Holly Garden Design



Use of Native Cultivars	
<p>In cases of small residential settings, the use of some cultivated, naturally-occurring varieties of native plants (cultivars) offers an opportunity for the ecological benefits of these native plants to be beneficial in the landscape where the straight species would get too large and unwieldy. This growth pattern would require constant pruning and shaping that would result in diminished ecological value by removing flowering and fruiting parts. The following chart shows the cultivars selected in the planting plan and the reasons for their selection.</p>	
Cultivar	Reason for Selection
Cherokee Chief Dogwood	The bright red fruits of this pink flowering cultivar of the native Dogwood are an important food for wildlife in the late summer and early fall. Many songbirds eat the fruits. Woodpeckers, crows, and grackles also eat the fruits as do wild turkey and bobwhite quail. Mammals such as mice, squirrels, skunks, and others also feed on the fruits. Small bees, flies, and butterflies are attracted to the flowers and will feed on the nectar and collect pollen.
Slender Silhouette Sweetgum	This tall, narrow cultivar of the native Sweetgum is a larval host to the Luna Moth, Prometheus Silkmoth, and dozens of other species. It attracts native bees, wasps, flies and beetles; birds feast on the seeds and insects enjoy the foliage. It is ideal for smaller settings because of its narrow upright habit while providing all of the same ecological functions as the straight species.
Dark American Arborvitae	This smaller cultivar of Easter White Cedar provides nesting sites for songbirds, as well as winter protection.

Berggren Restoration Plant List				
PLANT TYPE	QTY	LATIN NAME	COMMON NAME	SIZE
TREES				
	5	Thuja occidentalis 'Nigra'	Dark American Arborvitae	10 Gal
SHRUBS				
	2	Clethra alnifolia	Summersweet Clethra	5 Gal
	1	Hamamelis virginiana	Witch Hazel	10 Gal
	1	Lindera benzoin	Spicebush	10 Gal
PERENNIALS				
	1	Aruncus dioicus	Goatsbeard, Bride's Feathers	1 Gal
	20	Eurybia divaricatus	Wood White Aster	1 Gal
	15	Geranium maculatum	Wild Geranium	1 Gal
	14	Matteuccia struthiopteris	Ostrich Fern	1 Gal
	37	Polygonatum biflorum	Solomon's Seal	1 Gal
	50	Waldsteinia fragarioides	Barren Strawberry	LP50

Berggren Full Plant List				
PLANT TYPE	QTY	LATIN NAME	COMMON NAME	SIZE
TREES				
	1	Cornus florida 'Cherokee Chief'	Cherokee Chief Pink Dogwood	1-1.5" B&B
	8	Liquidambar styraciflua 'Slender Silhouette'	Slender Silhouette Sweetgum	10 Gal
	5	Thuja occidentalis 'Nigra'	Dark American Arborvitae	10 Gal
SHRUBS				
	2	Aronia melanocarpa	Black Chokeberry	5 Gal
	2	Clethra alnifolia	Summersweet Clethra	5 Gal
	1	Hamamelis virginiana	Witch Hazel	10 Gal
	3	Hydrangea paniculata 'Little Quickfire'	Little Quickfire Hydrangea	5 Gal
	6	Ilex glabra 'Shamrock'	Shamrock Inkberry Holly	3 Gal
	4	Itea virginica 'Little Henry'	Little Henry Sweetspire	3 Gal
	1	Lindera benzoin	Spicebush	10 Gal
PERENNIALS				
	1	Agastache foeniculum	Anise Hyssop	1 Gal
	9	Allium cernuum	Nodding Onion	1 Qt
	1	Aruncus dioicus	Goatsbeard, Bride's Feathers	1 Gal
	9	Asclepias tuberosa	Butterfly Weed	1 Qt
	3	Asclepias incarnata	Rose Milkweed	1 Gal
	6	Astilbe japonica 'Europa'	Europa Japanese Astilbe	1 Gal
	100	Carex pensylvanica	Pennsylvania Sedge	LP 50
	5	Eragrostis spectabilis	Purple Lovegrass	1 Qt
	20	Eurybia divaricata	Wood White Aster	1 Gal
	15	Geranium maculatum	Wild Geranium	1 Gal
	42	Geranium x cantabrigiense 'Biokovo'	Biokovo Cranesbill	LP50
	14	Matteuccia struthiopteris	Ostrich Fern	1 Gal
	6	Monarda punctata	Spotted Beebalm	1 Qt
	37	Polygonatum biflorum	Solomon's Seal	1 Gal
	2	Solidago odora	Sweet Goldenrod	1 Qt
	3	Symphoricarum novae-angliae	New England Aster	1 Qt
	100	Waldsteiria fragarioides	Barren Strawberry	LP50

Plants considered invasive or potentially invasive to Massachusetts, as listed on the webpage of the Massachusetts Invasive Plant Advisory Group (MIPAG), shall be identified and removed by hand-pulling or other mechanical means. In the event that chemical treatment becomes necessary, application will be handled by a MA licensed applicator using non-spraying methods such as cut-stump treatment or injection using an herbicide rated for wetland use such as Aquaneat or Garlon B. Removed invasive plant material will be disposed of by bagging and incineration.



Town of Arlington, Massachusetts

Request for Determination of Applicability: 459 Mystic Street (Continuation from 3/7/2024).

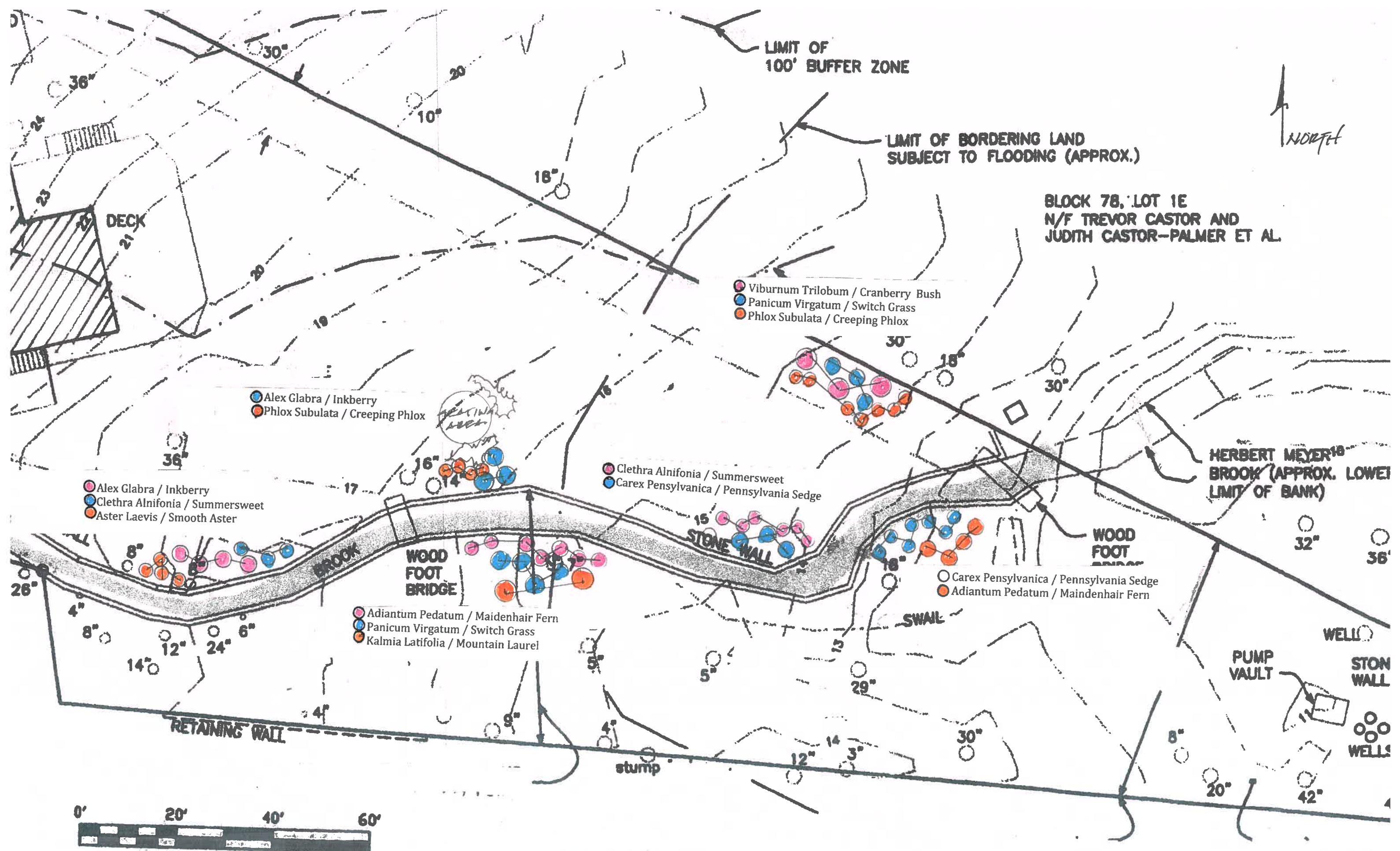
Summary:

Request for Determination of Applicability: 459 Mystic Street (Continuation from 3/7/2024).

This public hearing will consider a Request for Determination of Applicability for the construction of an addition and deck expansion at 459 Mystic Street, within the 100-foot Buffer Zone to Bordering Vegetated Wetlands.

ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	459_Mystic_Street_Planting_Plan.pdf	459 Mystic Street Planting Plan



Proposed Planting Plan at
459 Mystic Street



Town of Arlington, Massachusetts

DEP #091-0356: Notice of Intent: Thorndike Place (Continuation from 3/7/2024).

Summary:

DEP #091-0356: Notice of Intent: Thorndike Place (Continuation from 3/7/2024).

The Conservation Commission will hold a public hearing under the Wetlands Protection Act to consider a Notice of Intent for the construction of Thorndike Place, a multifamily development on Dorothy Road in Arlington.

ATTACHMENTS:

Type	File Name	Description
Reference Material	Thorndike_Place_-_BSC_Test_Pit_Report.pdf	Thorndike Place - BSC Test Pit Report
Reference Material	Thorndike_Place_-_Comment_Letter_Scott_Horsley.pdf	Thorndike Place - Comment Letter Scott Horsley
Reference Material	Thorndike_Place_-_Hatch_Permit_Recommendation.pdf	Thorndike Place - Hatch Permit Recommendation
Reference Material	Thorndike_Place_-_Restoration_Plan_Supplemental_Materials.pdf	Thorndike Place - Restoration Plan Supplemental Materials
Reference Material	Thorndike_Place_-_SWCA_Response_to_Restoration_Plan_Supplemental_Materials.pdf	Thorndike Place - SWCA Response to Restoration Plan Supplemental Materials
Reference Material	Thorndike_Place_-_Invasive_Species_Management_Plan.pdf	Thorndike Place - Invasive Species Management Plan

MARCH 13, 2024

Town of Arlington Conservation Commission
c/o Mr. Ryan Clapp, Conservation Administrator
Robbins Memorial Town Hall
730 Massachusetts Avenue
Arlington, Massachusetts 02476

**RE: Test Pit Summary Report
Thorndike Place Stormwater Peer Review**

Dear Members of the Arlington Conservation Commission,

On behalf of the Applicant, Arlington Land Realty, LLC, BSC Group, Inc. (BSC) is pleased to submit the attached Test Pit Summary Report summarizing results of work completed on May 18-19, 2023, under the supervision of the Town of Arlington's selected peer reviewer, Whitestone Associates (see also their report dated June 29, 2023).

The purpose of the test pits is to establish estimated seasonal high ground water (ESHGW) levels to design effective stormwater infiltration systems in six locations. A 2-foot minimum separation between the ESHGW elevation and the bottom of the proposed infiltration system is required for in accordance with the Massachusetts Department of Environmental Protection's Stormwater Handbook (the Handbook).

The test pit work was performed to be wholly aligned with the conditions of the Comprehensive Permit issued by the Town of Arlington Zoning Board of Appeals. As such, it was conducted in full coordination with Town of Arlington officials including the Town Engineer, Wayne Chouinard, and the Commission's Agent, David Morgan. As detailed in the attached Test Pit Report, based on our coordination with Town staff, Whitestone was engaged by the Town to observe and document the test pits with BSC to meet the conditions of the Comprehensive Permit.

As there seems to be some level of confusion regarding the test pits performed, the results of these test pits, and the design of the stormwater management system, please note the following:

- The test pits were performed in May 2023, as per the conditions of the Comprehensive Permit. In accordance with the conditions and the Handbook, this is during the period of the year "when groundwater levels are likely to be highest."
- The eight (8) test pits were performed in the exact locations of proposed stormwater infiltration systems and these locations were submitted in advance for review and acceptance to Mr. Morgan and Mr. Chouinard. As previously stated, all test pit work was reviewed and witnessed by the Town's peer reviewer, Whitestone Associates.
- The Town's peer reviewer, Whitestone Associates, reviewed and wholly corroborated BSC's results in all eight test pit. There are no discrepancies or disagreements in the findings.
- Meaningful redoximorphic (redox) features were noted in three of the eight test pits by both BSC and Whitestone Associates. Whitestone Associates, the Town's peer reviewer, noted incomplete redox in one additional location (TP-7), but appropriately ignored these features with regard to ESHGW as they did not continue through the bottom of the test pit. Redox features indicating ESHGW levels were observed at elevations 3.63 in TP-3, 3.98 in TP-5, and 1.54 in TP-6.

- Groundwater was observed in the other five test pits at elevations from -0.24 (TP-7) to 2.5 (TP-8). This observed groundwater was lower than the redox features indicating ESHGW in almost all locations.
- Out of an abundance of caution and based on BSC's professional engineering experience, all proposed stormwater infiltration systems were designed conservatively using the highest observed ESHGW, based on the highest redoximorphic features found across the entire site, at elevation 3.98. Setting the bottom of each infiltration system at elevation 6.0 results in the required minimum 2-foot separation between ESHGW and bottom of infiltration in all cases. However, it must be noted that observed groundwater in most test pits was substantially lower than 3.98. Therefore, using an elevation of 4 is a conservative approach to design.
- BSC's conservative assumption of ESHGW was validated with a subsequent Frimpter Analysis (submitted previously on 2/28/2024) which showed predicted seasonal variation of ESHGW no higher than 3.98, below but in line with the design elevation of 4. Frimpter Analysis calculations were completed on the five test pits where redox features were not present. Frimpter Analysis predicted probable ESHGW from elevation 2 (TP-7, at site of large infiltration system) to elevation 3.91 (TP-1, at site of small infiltration system.) In no case did the Frimpter Analysis predict ESHGW higher than elevation 3.98 that was utilized in the design.
- All stormwater infiltration systems across the entire site are designed to be installed at elevation 6 insuring at least the minimum 2-feet required separation from ESHGW as specified by the Handbook.
- Hence, all requirements of the ACC, AZBA and most importantly the MA WPA have been conservatively addressed and met.

Please feel free to contact me at (617) 896-4386 or drinaldi@bscgroup.com should you have any questions on the information in this report.

Sincerely,
BSC GROUP, INC.



Dominic Rinaldi, PE
Senior Associate

Attachments: Test Pit Summary Report

TEST PIT SUMMARY REPORT

**THORNDIKE PLACE
DOROTHY ROAD
ARLINGTON, MA**

JULY 2023

Owner/Applicant:

ARLINGTON LAND REALTY LLC
84 Sherman Street, 2nd Floor
Cambridge, MA 02140

BSC Job Number: 23407.01

Prepared by:



803 Summer Street
Boston, MA 02127

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SECTION 1.0

PROJECT INFORMATION

1.01 PROJECT DESCRIPTION AND TEST PIT REQUIREMENTS

On November 22, 2021, the Town of Arlington Zoning Board of Appeals issued a Comprehensive Permit to Arlington Land Realty, LLC (Arlington Land Realty) under M.G.L. c. 40B, §§ 20-23, for a multi-family housing development consisting of twelve (12) ownership family homes, contained within six (6) duplex buildings together with 124 senior living residential apartments located within a single residential building off Dorothy Road in Arlington, Massachusetts. The total property area is approximately 17.66 acres and is located off Dorothy Road near the intersection with Littlejohn Street. The project is bounded on the north by Dorothy Road, on the east by residential properties and Thorndike Field, and bounded on the south and west by Concord Turnpike (Route 2).

The Project consists of clearing and grubbing of the northwest section of the property and construction of one 4-story residential building with a lower-level parking garage, six duplex townhouses with covered carports, as well as surface parking, walkways, utility services, and a stormwater management system. As part of the permitting of the Project, three (3) soil test pits were performed in November 2020 to determine soil types and estimated seasonal high groundwater (ESHGW) elevation for stormwater management design purposes.

As a condition of the Project, prior to construction, Arlington Land Realty was required to perform additional soil test pits for the purposes of confirming the 2020 test pits and ESHGW elevation in the exact locations of proposed stormwater infiltration systems to aid in their design. Specifically, Conditions C.2(k) and I.17 of the Comprehensive Permit required the following:

C.2(k) – Utilizing the methods detailed in Condition I.17, the Applicant shall perform additional test pits at the proposed stormwater basins to confirm groundwater elevations during seasonal high groundwater conditions as confirmed by monitoring nearby USGS wells. These test pits shall be witnessed by the Town and/or its agent. Should revisions to the infiltration system design be required based on additional groundwater investigations, revised plans and stormwater calculations will be provided to the Department of Planning and Community Development for review prior to the issuance of building permits.

I.17 – In addition to the provisions of Condition C.2.k, the Applicant shall, through documentation to be submitted to the Board for review, establish seasonal high groundwater elevations at the Property to ensure that there is a minimum of a two-foot separation between the bottom of the stormwater management infiltration chambers and the seasonal high groundwater table. The Applicant shall provide proposed locations and number of test pits and wells to the Board for review and administrative approval. Seasonal high groundwater shall be established based on Volume 2, Chapter 2: Structural BMP Specifications for the Massachusetts Stormwater Handbook, with specific requirements, as follows "Estimate seasonal high groundwater based on soil mottles or through direct observation when borings are conducted in April or May, when groundwater levels are likely to be highest. If it is difficult to determine the seasonal high groundwater elevation from borings or test pits, then use the Frimpter method developed by the USGS (Massachusetts/Rhode Island District Office) to estimate seasonal high groundwater. After estimating the seasonal high groundwater using the Frimpter method, re-examine the bore holes or test pits to determine if there are any field indicators that corroborate the Frimpter method estimate."

BSC Group, Inc. (BSC) was retained by Arlington Land Realty in March 2023 to perform the required test pits and ensure compliance with the referenced Comprehensive Permit conditions and aid in the design of the stormwater infiltration systems. This report summarizes BSC's work and the results of the test pit program.

1.02 TEST PIT LOCATIONS AND COORDINATION WITH TOWN

Based on the requirements of Condition C.2(k) and utilizing the approved site plans referenced by the Comprehensive Permit, it was determined that eight (8) additional test pits would be performed. One (1) test pit would be performed in each of the five (5) smaller underground infiltration systems associated with the duplex buildings closest to Dorothy Road, two (2) test pits would be performed in the large underground infiltration system adjacent to the 4-story residential building, and one (1) test pit would be performed adjacent to the bio-retention area east of the 4-story building. As TP-2 from 2020 was located approximately 6-feet from the large underground infiltration system, this test pit program would result in three (3) test pits in or adjacent to the large system and one (1) in each of the smaller systems and bio-

retention area. Based on the size of these systems, this program meets the Stormwater Standard 3 requirements of the Massachusetts Stormwater Handbook, Volume 3, Chapter 1 and the requirements of Conditions C.2(k) and I.17.

In accordance with the Conditions, BSC coordinated with the Town of Arlington to ensure that Town staff or a representative designated by the Town would be on site during test pit work to witness and confirm the results. BSC contacted Claire Ricker, Director of Planning & Community Development to coordinate a test pit witness for the Town and was referenced through Town Engineer, Wayne Chouinard to David Morgan, Environmental Planner and Conservation Agent. Mr. Morgan arranged to have a representative from Whitestone Associates on site to witness the test pits on May 18 and 19, 2023.

During the course of our coordination with the Town, Mr. Chouinard indicated that he would like to also have temporary groundwater monitoring wells installed during test pit excavation to allow for longer term measurements of groundwater on site. Based upon Mr. Chouinard's request, it was determined that three (3) wells would be installed at the locations of test pits TP-1, TP-6, and TP-7. These locations would allow for groundwater measurements across the full width and depth of the site and place them in three different types of infiltration systems (small, large, and bio-retention). Prior to test pit excavation, locations were field located utilizing a combination of GPS and swing ties from fixed points (utility poles, manholes, valve boxes, etc.) that had previously been located on the existing conditions survey for the project. Test pit and well locations are provided in Appendix B.

1.03 TEST PIT RESULTS AND COMPARISON TO 2020 RESULTS

On May 18 and 19, 2023, BSC oversaw the excavation of eight (8) soil test pits and the installation of three (3) temporary groundwater monitoring wells. These test pits were witnessed by a representative of Whitestone Associates on behalf of the Town of Arlington. In general, test pits consisted of varying depths of fill materials overlaying a parent material of fine sandy loam. Surface fill depths varied from 27 to 108-inches and generally decreased the further east the test pit was located. Test pit TP-8, located within the large underground infiltration system, was entirely fill material to a depth of 120-inches.

Standing and/or weeping groundwater was found in all test pits at depth varying from 60 to 112-inches below existing grade. Additionally, redoximorphic (redox) features, indicating the presence of seasonal high groundwater, were observed in three of the test pits – TP-3, TP-5, and TP-6. These redox features were found at depths between 48 and 64-inches below existing grade. The table below summarizes the test pit results. Where redox features were observed, these have been used to identify ESHGW elevations. Where no redox features were observed, the depth to observed groundwater has been used to identify ESHGW elevations.

Test Pit	Existing Grade	Total Depth (in.)	Depth Fill (in.)	Depth Observed GW (in.)	Depth to Redox (in.)*	ESHGW
TP-1	10.66	120	90	108	n/a	1.66
TP-2	8.79	104	83	97	n/a	0.71
TP-3	7.88	87	27	82	51	3.63
TP-4	7.08	96	64	68	n/a	1.41
TP-5	7.98	74	33	60	48	3.98
TP-6	6.87	132	30	110	64	1.54
TP-7	8.92	114	108	110	n/a	-0.24
TP-8	11.83	120	120	112	n/a	2.50

*Test pits with "n/a" in Depth to Redox column indicate locations where no redoximorphic features that would indicate an estimated seasonal high groundwater were observed.

Test pit logs are provided in Appendix C and photos are provided in Appendix D.

In general, the test pits conform to the test pits performed in November 2020. Test pits 1 and 2 from 2020 were in the western portion of the site (generally in the vicinity of TP-1 and 8 in 2023) and showed similar depths of fill and depths to standing water or weeping from the pit face. Test pit 3 in 2020 was generally further back from the street and approximately mid-way between 2023 TP-6 and TP-7. As such, it appears to be an outlier with regard to soils observed. As TP-3 in 2020 was the only test pit where redox features were observed and these features were lower than observed groundwater in the other two test pits, ESHGW for the 2020 design was based on observed water elevations. The ESHGW generally ranged between elevations 0 and 3, and the system was designed to the most conservative ESHGW elevation (3.0 as found in TP-1) observed in 2020. As shown in the table above, the highest ESHGW elevation from the 2023 test pits is 3.98 at TP-5. As shown on the approved plans, the primary infiltration system has a bottom elevation of El. 6; the confirmatory testing performed in 2023 supports the appropriateness of that primary infiltration system as designed. With respect to the smaller infiltration systems along Dorothy Road, supporting the townhouse units, the lowest elevation of those smaller systems is El. 5.5. Based on the results of the recent test pit analysis, i.e., Test Pits 3 and 5, a slight adjustment to the design of the small infiltration systems was made resulting in the stone bottoms of the infiltration systems be slightly adjusted from El. 5.5 to El. 6.0, maintaining the required 2 feet of separation per the DEP Stormwater Standards. Likewise, to account for such raising the height of the bottom of the systems, the height was correspondingly decreased and a minor increase in the footprint was provided. Such adjustments do not change the overall stormwater management design or the calculations; these small infiltration systems as well as the overall stormwater management design will function consistently as the design submitted, peer reviewed, and approved under the Comprehensive Permit.

1.04 CONCLUSIONS

In accordance with Conditions C.2(k) and I.17 of the November 22, 2021, Comprehensive Permit for the Project, BSC performed eight (8) additional soil test pits and installed three (3) temporary groundwater monitoring wells. This work was witnessed by a representative of the Town of Arlington as required by the Conditions. The results of these test pits were generally consistent with the test pits previously performed in November 2020. Based on these test pit results, specifically TP-5, a slight adjustment to the bottom of the small townhouse infiltration systems was made. This slight adjustment does not result in any significant changes to the stormwater management system design or the previously approved calculation results. In sum, all infiltration systems with a bottom elevation of 6.0, will be located at least the minimum two feet above the highest ESHGW found across the site but in many cases with greater separation based on May 2023 findings witnessed by the Town's representative, Whitestone Associates.

APPENDIX A

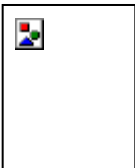
USGS LOCUS MAP

APPENDIX B

TEST PIT MAP

APPENDIX C

TEST PIT LOGS



Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

A. Facility Information

Arlington Land Realty, LLC.

Owner Name

Dorothy Road

Street Address

Arlington

City

MA

State

16-8-2, 16-8-3, 16-8-4, 16-8-5, 16-8-6, 16-8-7A

Map/Lot #

02474

Zip Code

B. Site Information

1. (Check one) ☒ New Construction ☐ Upgrade

2. Soil Survey NRCS USDA Web Soil Survey

Source

655

Soil Map Unit

Udorthents, wet substratum

Soil Series

Depressions

Landform

Soil Limitations

Loamy alluvium and/or sandy glaciofluvial deposits and/or loamy glaciolacustrine deposits and/or loamy marine deposits and/or loamy basal till and/or loamy lodgment till

Soil Parent material

3. Surficial Geological Report

2018/USGS

Year Published/Source

Artificial fill, glaciomarine fine deposits, stagnant ice deposits

Map Unit

Fine/very fine sand down to very fine sand, silt, silty clay, and clay

Description of Geologic Map Unit:

4. Flood Rate Insurance Map Within a regulatory floodway? ☐ Yes ☒ No

5. Within a velocity zone? ☐ Yes ☒ No

6. Within a Mapped Wetland Area? ☐ Yes ☒ No

If yes, MassGIS Wetland Data Layer:

Wetland Type

7. Current Water Resource Conditions (USGS):

Month/Day/ Year

Range: ☐ Above Normal

☐ Normal

☐ Below Normal

8. Other references reviewed:

(Zone II, IWPA, Zone A, EEA Data Portal, etc.)

Not in Zone II or IWPA (MassMapper)



Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-1 5/18/23 9:00AM Clear 42.4' N 71.2' W
Hole # Date Time Weather Latitude Longitude

1. Land Use Wooded lot in residential area Trees Some surface stones, not many 3%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: At the front of the site along Dorothy Road, about 32' in from the edge of the road

2. Soil Parent Material: Glaciofluvial deposits Depression SU
Landform Position on Landscape (SU, SH, BS, FS, TS, Plain)

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands 280 feet
Property Line 22 feet Drinking Water Well >100 feet Other _____ feet

4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☒ Disturbed Soil/Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☒ Yes ☐ No If yes: 108" Depth to Weeping in Hole 114" Depth to Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-90	Fill	Sandy Loam	7.5YR 3/2		Cnc : Dpl:		0	4-6	Massive	Friable	
90-120	C	Fine Sandy Loam	7.5YR 5/2		Cnc : Dpl:		0	0	Massive	Friable	
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						

Additional Notes: Top of monitoring well 3'-8" from ground surface



Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-2 5/18/23 1:30PM Clear 42.4' N 71.2' W
Hole # Date Time Weather Latitude Longitude

1. Land Use Wooded lot in residential area Trees Some surface stones, not many 2%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: At the front of the site along Dorothy Road, about 30' in from the edge of the road

2. Soil Parent Material: Glaciofluvial deposits Depression BS
Landform Position on Landscape (SU, SH, BS, FS, TS, Plain)

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands 270 feet
Property Line 22 feet Drinking Water Well >100 feet Other _____ feet

4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☒ Disturbed Soil/Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☒ Yes ☐ No If yes: _____ Depth to Weeping in Hole 97" Depth to Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-83	Fill	Sandy Loam	10YR 3/2		Cnc : Dpl:		0	4-6	Massive	Friable	
83-104	C	Fine Sandy Loam	10YR 5/1		Cnc : Dpl:		0	0	Massive	Friable	
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						

Additional Notes:

Shifted back a few feet because of boulder or buried piece of debris

Seemed like there may have been a second layer of sandy material below the point where groundwater broke into the hole



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

1. Method Used (Choose one):

☐ Depth to soil redoximorphic features

☒ Depth to observed standing water in observation hole

☐ Depth to adjusted seasonal high groundwater (S_h)
(USGS methodology)

Obs. Hole # TP-1

_____ inches

108 inches

_____ inches

Obs. Hole # TP-2

_____ inches

97 inches

_____ inches

Index Well Number _____

Reading Date _____

$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole/Well# _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

☐ Yes ☒ No

b. If yes, at what depth was it observed (exclude O, A, and E Horizons)?

Upper boundary: _____

_____ inches

Lower boundary: _____

_____ inches

c. If no, at what depth was impervious material observed?

Upper boundary: _____

97
_____ inches

Lower boundary: _____

104
_____ inches



Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-3 5/18/23 2:30PM Clear 42.4' N 71.2' W
Hole # Date Time Weather Latitude Longitude

1. Land Use Wooded lot in residential area Trees Some surface stones, not many 6%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: At the front of the site along Dorothy Road, about 32' in from the edge of the road

2. Soil Parent Material: Glaciofluvial deposits Depression BS
Landform Position on Landscape (SU, SH, BS, FS, TS, Plain)

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands 280 feet
Property Line 22 feet Drinking Water Well >100 feet Other _____ feet

4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☒ Disturbed Soil/Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☒ Yes ☐ No If yes: _____ Depth to Weeping in Hole 82" Depth to Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-27	Fill	Sandy Loam	10YR 2/2		Cnc : Dpl:		0	4-6	Massive	Friable	Buried A layer at 21"
27-87	C	Fine Sandy Loam	10YR 4/3	51"	Cnc : 7.5YR5/8 Dpl:		0	0	Massive	Friable	
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						

Additional Notes:



Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-4 5/19/23 8:15AM Clear 42.4' N 71.2' W
Hole # Date Time Weather Latitude Longitude

1. Land Use Wooded lot in residential area Trees Some surface stones, not many 6%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: At the front of the site along Dorothy Road, about 30' in from the edge of the road

2. Soil Parent Material: Glaciofluvial deposits Depression TS
Landform Position on Landscape (SU, SH, BS, FS, TS, Plain)

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands 310 feet
Property Line 24 feet Drinking Water Well >100 feet Other _____ feet

4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☒ Disturbed Soil/Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☒ Yes ☐ No If yes: 68" Depth to Weeping in Hole 72" Depth to Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-64	Fill	Gravelly Sandy Loam	7.5YR 3/1		Cnc : Dpl:		10-15	2-4	Massive	Friable	
64-96	C	Fine Loamy Sand	10YR 4/2		Cnc : Dpl:		2-4	0	Massive	Very Friable	
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						

Additional Notes:



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

1. Method Used (Choose one):

☒ Depth to soil redoximorphic features

Obs. Hole # TP-3

51 inches

Obs. Hole # TP-4

_____ inches

☒ Depth to observed standing water in observation hole

82 inches

68 inches

☐ Depth to adjusted seasonal high groundwater (S_h)
(USGS methodology)

_____ inches

_____ inches

Index Well Number _____

Reading Date _____

$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole/Well# _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

☐ Yes ☒ No

b. If yes, at what depth was it observed (exclude O, A, and E Horizons)?

Upper boundary: _____

inches

Lower boundary: _____

inches

c. If no, at what depth was impervious material observed?

Upper boundary: _____

68

inches

Lower boundary: _____

96

inches



Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-5 5/19/23 10:30AM Clear 42.4' N 71.2' W
Hole # Date Time Weather Latitude Longitude

1. Land Use Wooded lot in residential area Trees Some surface stones, not many 10%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: At the front of the site along Dorothy Road, about 35' in from the edge of the road

2. Soil Parent Material: Glaciofluvial deposits Depression BS
Landform Position on Landscape (SU, SH, BS, FS, TS, Plain)

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands 230 feet
Property Line 24 feet Drinking Water Well >100 feet Other _____ feet

4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☒ Disturbed Soil/Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☒ Yes ☐ No If yes: 60" Depth to Weeping in Hole 60" Depth to Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-33	Fill	Gravelly Sandy Loam	10YR 3/2		Cnc : Dpl:		10	4-6	Massive	Friable	Buried A layer at 26"
33-74	C	Fine Sandy Loam	10YR 5/2	48"	Cnc : Dpl:		0	0	Massive	Friable	
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						

Additional Notes:



Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-6 5/19/23 9:00AM Clear 42.4' N 71.2' W
Hole # Date Time Weather Latitude Longitude

1. Land Use Wooded lot in residential area Trees Some surface stones, not many 5%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: At the front of the site along Dorothy Road, about 120' in from the edge of the road

2. Soil Parent Material: Glaciofluvial deposits Depression TS
Landform Position on Landscape (SU, SH, BS, FS, TS, Plain)

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands 110 feet
Property Line 12 feet Drinking Water Well >100 feet Other _____ feet

4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☒ Disturbed Soil/Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☒ Yes ☐ No If yes: 110" Depth to Weeping in Hole 110" Depth to Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-30	Fill	Gravelly Sandy Loam	7.5YR 3/2		Cnc : Dpl:		10-15	4-6	Massive	Friable	
30-132	C	Fine Sandy Loam	10YR 5/2	39"	Cnc : 7.5YR5/8 Dpl:		0	0	Massive	Friable	
				64"	Cnc : 7.5YR5/8 Dpl:						Second redox band - calling ESGW here
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						

Additional Notes:

Multiple redox bands in C horizon

Top of monitoring well 1'-8" from ground surface



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

1. Method Used (Choose one):

☒ Depth to soil redoximorphic features

Obs. Hole # TP-5

48 inches

Obs. Hole # TP-6

64 inches

☒ Depth to observed standing water in observation hole

60 inches

110 inches

☐ Depth to adjusted seasonal high groundwater (S_h)
(USGS methodology)

_____ inches

_____ inches

Index Well Number _____

Reading Date _____

$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole/Well# _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

☐ Yes ☒ No

b. If yes, at what depth was it observed (exclude O, A, and E Horizons)?

Upper boundary: _____

inches

Lower boundary: _____

inches

c. If no, at what depth was impervious material observed?

Upper boundary: _____

60

inches

Lower boundary: _____

74

inches



Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-7 5/18/23 11:00AM Clear 42.4' N 71.2' W
Hole # Date Time Weather Latitude Longitude

1. Land Use Wooded lot in residential area Trees Some surface stones, not many 3%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: At the front of the site along Dorothy Road, about 110' in from the edge of the road

2. Soil Parent Material: Glaciofluvial deposits Depression BS
Landform Position on Landscape (SU, SH, BS, FS, TS, Plain)

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands 190 feet
Property Line 100 feet Drinking Water Well >100 feet Other feet

4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☒ Disturbed Soil/Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☒ Yes ☐ No If yes: Depth to Weeping in Hole 110" Depth to Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-108	Fill	Gravelly Sandy Loam	7.5YR 3/1		Cnc : Dpl:		10	4-6	Massive	Friable	
108-114	C	Fine Sandy Loam	5Y 5/1		Cnc : Dpl:		0	0	Massive	Friable	
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						

Additional Notes: Sand layer was completely saturated
Top of monitoring well 4'-6" from ground surface



Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP-8 5/18/23 10:00AM Clear 42.4' N 71.2' W
Hole # Date Time Weather Latitude Longitude

1. Land Use Wooded lot in residential area Trees Some surface stones, not many 4%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: At the front of the site along Dorothy Road, about 110' in from the edge of the road

2. Soil Parent Material: Glaciofluvial deposits Depression TS
Landform Position on Landscape (SU, SH, BS, FS, TS, Plain)

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands 210 feet
Property Line 98 feet Drinking Water Well >100 feet Other _____ feet

4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☒ Disturbed Soil/Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☒ Yes ☐ No If yes: 112" Depth to Weeping in Hole _____ Depth to Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-120	Fill	Gravelly Sandy Loam	7.5YR 3/1		Cnc : Dpl:		10	4-6	Massive	Friable	
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						

Additional Notes:



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

1. Method Used (Choose one):

☐ Depth to soil redoximorphic features

Obs. Hole # TP-7

_____ inches

Obs. Hole # TP-8

_____ inches

☒ Depth to observed standing water in observation hole

110 inches

112 inches

☐ Depth to adjusted seasonal high groundwater (S_h)
(USGS methodology)

_____ inches

_____ inches

Index Well Number _____

Reading Date _____

$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole/Well# _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

☐ Yes ☒ No

b. If yes, at what depth was it observed (exclude O, A, and E Horizons)?

Upper boundary: _____

_____ inches

Lower boundary: _____

_____ inches

c. If no, at what depth was impervious material observed?

Upper boundary: _____

120
inches

Lower boundary: _____

120
inches



Commonwealth of Massachusetts
City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

F. Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Signature of Soil Evaluator

Emily Derrig, SE 14158

Typed or Printed Name of Soil Evaluator / License #

5/22/2023

Date

6/30/2023

Expiration Date of License

Name of Approving Authority Witness

Approving Authority

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with [Percolation Test Form 12](#).

Field Diagrams: Use this area for field diagrams:

APPENDIX D

TEST PIT PHOTOS



TP-1 at full depth



TP-1 with standing water at bottom



Installation of monitoring well at TP-1



Completed monitoring well at TP-1



TP-2 at full depth



TP-2 with standing water at bottom



TP-3 with standing water at bottom



TP-3 with standing water at bottom. Note redoximorphic features on side wall.



Soil pile from TP-3. Note redoximorphic features in soils.



TP-4 with standing water at bottom



TP-5 with standing water at bottom. Note redoximorphic features on side wall.



TP-5 with standing water at bottom. Note redoximorphic features on side wall.



TP-6 with standing water at bottom. Note redoximorphic features on side wall.



TP-6 monitoring well installation. Note redoximorphic features on side wall.



Completed monitoring well at TP-6



TP-7 at full depth



TP-7 with standing water at bottom



Completed monitoring well at TP-7

Scott Horsley
Water Resources Consultant
39 Chestnut Street • Boston, MA 02108 • 508-364-7818

March 18, 2024

Mr. Charles Tirone, Chairperson
Town of Arlington
Conservation Commission
730 Massachusetts Avenue
Arlington, MA 02476

RE: Thorndike Place

Dear Chairperson Tirone and Conservation Commissioners:

I am writing in response to the BSC letter dated February 28, 2024 and specifically regarding their comments regarding estimated seasonal high groundwater (ESHGW) levels and groundwater mounding.

Estimated Seasonal High Groundwater (ESHGW)

As I documented in my prior letters dated November 13, 2023 and February 7, 2024 the test pit information and estimated seasonal high groundwater (ESHGW) levels do not conform with the MADEP Stormwater Handbook. In summary the MADEP Handbook requires the following¹:

1. test pits must be located at the location of the infiltration facility
2. estimated seasonal high groundwater can be established using redox features
3. if redox features are not present, wells should be installed and groundwater levels should be measured in the spring
4. groundwater levels in wells should be compared to USGS index wells

¹ The MADEP Stormwater Handbook, Volume 3 states, “Conduct tests at the point where recharge is proposed...Seasonal high groundwater represents the highest groundwater elevation. Depth to seasonal high groundwater may be identified based on redox features in the soil (see Fletcher and Venneman listed in References). When redox features are not available, installation of temporary push point wells or piezometers should be considered. Ideally, such wells should be monitored in the spring when groundwater is highest and results compared to nearby groundwater wells monitored by the USGS to estimate whether regional groundwater is below normal, normal, or above normal (see: <http://ma.water.usgs.gov>)”.¹

The test pit data at the location of the primary stormwater facility (System INF-1) is limited to two test pits (TP 7 and TP 8). Test pit TP8 provided no data on redox features or water levels.

TP 7 does show redox features at elevation 5.6. However, in response to the Commission's request about redox information in Test Pit 7 the BSC letter states, "The redox features noted in Test Pit 7 were observed by Whitestone Associates, the Town's peer reviewer, approximately between elevations 4.4 and 5.6, but appropriately disregarded by Whitestone in determining the groundwater elevation in their June 28, 2023, review."

In my opinion a groundwater elevation of 5.6 at this location seems reasonable given the site topography, other groundwater levels provided and the elevation of the adjacent wetland. However, the applicant recommends not using this redox feature as a representative ESHGW elevation. Therefore, they must rely upon measured water levels in a well located at the infiltration system and measured during spring conditions as identified in the MADEP Stormwater Handbook.

Only one well was installed at the location of the infiltration system at TP7. The water levels reported by BSC in their recent February 28, 2024 letter are – 0.24 (May 2023) and – 0.20 (February 2024). These reported water levels are below mean sea level and approximately 5 – 6 below the level of the adjacent wetland.

In my experience I have never seen groundwater levels to be below sea level in Massachusetts. Additionally, groundwater levels are typically at or above the elevation of adjacent wetlands. Simply put, these water levels are inconsistent with standard hydrologic principles and are suspect. Although no well construction diagrams or descriptions are provided it is possible that there may have been a problem with the design or installation of the well at TP7.

Regardless of these unusual water level readings at well TP7, BSC has relied upon these measurements and conducted USGS (Frimpter) water level adjustment calculations to provide an estimate of ESHGW levels.

As was discussed at the February 1, 2024 Conservation Commission meeting and requested by the Commission, it would be easy and inexpensive to install additional (properly constructed) wells at the location of the proposed infiltration system and to make water level measurements during the current seasonal high groundwater period to provide a greater level of certainty about groundwater conditions and a more conservative foundation upon which the stormwater infiltration system could be designed.

Groundwater Mounding

I have read BSC's explanation for selecting a groundwater mounding duration of 1.22 hours. I do not agree with their proposal to limit the analysis to less than the 24-hour design storm

and the following 72-hour period as outlined in the MADEP Stormwater Handbook. I see no logical reason why the modeling duration would be less than the storm duration (which is 24 hours). This will only give a false underestimate of the impacts.

The MADEP Stormwater Handbook, Volume 3, Chapter 2 states, *“Mounding analysis is required when the vertical separation from the bottom of an exfiltration system to seasonal high groundwater is less than four (4) feet and the recharge system is proposed to attenuate the peak discharge from a 10-year or higher 24-hour storm (e.g., 10-year, 25-year, 50-year, or 100-year 24-hour storm). In such cases, the mounding analysis must demonstrate that the Required Recharge Volume (e.g., infiltration basin storage) is fully dewatered within 72 hours (so the next storm can be stored for exfiltration). The mounding analysis must also show that the groundwater mound that forms under the recharge system will not break out above the land or water surface of a wetland (e.g., it doesn’t increase the water sheet elevation in a Bordering Vegetated Wetland, Salt Marsh, or Land Under Water within the 72-hour evaluation period)”*.

Thank you for the opportunity to provide these comments. Please contact me directly with any questions that you might have.

Sincerely,

A handwritten signature in black ink, appearing to be 'Scott W. Horsley', with a stylized, overlapping loop structure.

Scott W. Horsley
Water Resources Consultant

RE: Thorndike Place Test Pit Summary

Mullen, Ross <ross.mullen@hatch.com>

Fri 3/15/2024 10:44 AM

To: David Morgan <dmorgan@town.arlington.ma.us>; Ryan Clapp <rclapp@town.arlington.ma.us>; Bitsko, Duke <duke.bitsko@hatch.com>

Cc: ConComm <ConComm@town.arlington.ma.us>; Mullen, Ross <ross.mullen@hatch.com>

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David,

At this time, Hatch's recommendation is for "**Recommended Site Modification**" and "**Collection of Additional Data**" based both on the criteria listed in the Mass Stormwater Manual and our professional judgement.

In summary, there is considerable uncertainty in the soils at the site, and even by the applicant's own admission, they barely meet multiple standards regarding separation from groundwater. Regarding the separation from groundwater, the margin for error on this site is extremely small. The separation from groundwater will affect the proposed project's ability to conform with the standards 2, 3, and 4 :

- In our experience, infiltration BMP's near wetlands and infiltration in areas of historic fill are very atypical, because many engineers do not feel confident that the types of soils commonly found at these locations will be able to infiltrate stormwater runoff in the long-term. This site is both proximal to a wetland and located on historic fill.
- The design does not meet the minimum permissible setbacks to structures for infiltration devices may be found in Table RR of the Mass Stormwater Manual.
- Hatch remains very concerned that there is appreciable groundwater-intrusion based flood risk to the townhomes and we are concerned that insufficient separation to groundwater would result in the project not meeting the required water quality criteria. While the applicant's groundwater readings meet the Mass Stormwater Manual, there are numerous engineering best practice guides and that state that wet floodproofing should be secondary to good engineering design that keeps water away from building foundations (e.g. FEMA NFIP Technical Bulletin 10 dated March 2023). There is both a risk of hydrostatic pressure induced collapse of the foundations, as well as basement damage from groundwater intrusion to the structures. Based on these principles, the Town of Arlington bylaws include a requirement of 4.0-feet of separation between the low floor of occupied levels and the seasonal high-water table [Section 5.8.6.A(2)], which we understand is not subject to the review of the Conservation Commission.
- Because we understood the stormwater peer review was closed, we have not yet reviewed the groundwater mounding analysis.
- We concur with the recommendations of the Conservation Commissioners that was expressed at the February 15, 2024 meeting, which included the recommendations to collect additional groundwater levels at the site. We believe that the additional data collection would either help to validate or repudiate the established groundwater elevations and provide significantly more certainty.

Ross Mullen, PE*, CFM** (he/his/him)

Senior Water Resources/ Hydrotechnical Engineer| Hydropower & Dams

*Professional Engineer Licensed in AZ, ME, MN, NH, NY, ND, OR, TN, TX, and WA

**Certified Floodplain Manager

Direct Line: +1 612-395-8597

105 South 5th Avenue Suite #350

Minneapolis, Minnesota USA 55401

HATCH

Vacation Alert(s):

-March 29 through April 7

From: David Morgan <dmorgan@town.arlington.ma.us>

Sent: Friday, March 15, 2024 9:11 AM

To: Mullen, Ross <ross.mullen@hatch.com>; Ryan Clapp <rclapp@town.arlington.ma.us>; Bitsko, Duke <duke.bitsko@hatch.com>

Cc: ConComm <ConComm@town.arlington.ma.us>

Subject: Re: Thorndike Place Test Pit Summary

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Thanks, Ross. Having spoken with the commission chairs about the review, I understand your request for a change order. I expect the commissioners will discuss at Thursday's hearing whether they feel they have sufficient information to move forward, or if they want to request a change order.

Does Hatch have a recommendation based on the information reviewed to date? There was language in the contract about Hatch providing recommendations "for approval, conditional approval, recommended site modification, or denial of the proposed development." Which of these categories do your findings fit best?

Cheers,

David

David Morgan | Environmental Planner + Conservation Agent | Department of Planning and Community Development | 781.316.3012

Arlington values equity, diversity, and inclusion. We are committed to building a community where everyone is heard, respected, and protected.

From: Mullen, Ross <ross.mullen@hatch.com>

Sent: Thursday, March 14, 2024 2:02 PM

To: David Morgan <dmorgan@town.arlington.ma.us>; Ryan Clapp <rclapp@town.arlington.ma.us>; Bitsko, Duke <duke.bitsko@hatch.com>

Cc: ConComm <ConComm@town.arlington.ma.us>; Mullen, Ross <ross.mullen@hatch.com>; Mullen, Ross <ross.mullen@hatch.com>

Subject: RE: Thorndike Place Test Pit Summary

169 of 200

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Welcome back David.

My apologies, it was my understanding that the Conservation Commission had moved onto the habitat review and were no longer receiving comments from the stormwater peer reviewer.

Additionally, the Hatch team is happy to continue to provide comments and attend Conservation Commission public meetings; however, we will require a change order as our scope only included attendance of one public meeting by two staff (or two meetings by one staff member) and one set of response to comments from the applicant. Unfortunately, we've exhausted our original budget by attending multiple meetings and issuing several rounds of comments.

Let us know how you'd like to proceed.

Ross Mullen, PE*, CFM** (he/his/him)

Senior Water Resources/ Hydrotechnical Engineer| Hydropower & Dams

*Professional Engineer Licensed in AZ, ME, MN, NH, NY, ND, OR, TN, TX, and WA

**Certified Floodplain Manager

Direct Line: +1 612-395-8597

105 South 5th Avenue Suite #350

Minneapolis, Minnesota USA 55401

HATCH

Vacation Alert(s):

-March 29 through April 7

From: David Morgan <dmorgan@town.arlington.ma.us>

Sent: Thursday, March 14, 2024 12:22 PM

To: Dominic R. Rinaldi <drinaldi@bscgroup.com>; Ryan Clapp <rclapp@town.arlington.ma.us>; Stephanie Kiefer <SKiefer@smolakvaughan.com>; Bitsko, Duke <duke.bitsko@hatch.com>; Mullen, Ross <ross.mullen@hatch.com>

Cc: ConComm <ConComm@town.arlington.ma.us>

Subject: Re: Thorndike Place Test Pit Summary

**** CAUTION:** This email originated outside Hatch. Do not click links or open attachments unless you can authenticate the sender and the content

Hi Duke and Ross,

Are you in receipt of Dom's report and will you be able to provide feedback on the submitted supplemental materials by COB?

While we received BSC's materials by the deadline for the next meeting, we won't have a response, so in order to facilitate discussion, the sooner the better.

Cheers,

David

David Morgan | Environmental Planner + Conservation Agent | Department of Planning and Community Development | 781.316.3012

Arlington values equity, diversity, and inclusion. We are committed to building a community where everyone is heard, respected, and protected.

From: Dominic R. Rinaldi <drinaldi@bscgroup.com>

Sent: Wednesday, March 13, 2024 12:06 PM

To: Ryan Clapp <rclapp@town.arlington.ma.us>; Stephanie Kiefer <SKiefer@smolakvaughan.com>; Bitsko, Duke <duke.bitsko@hatch.com>; Mullen, Ross <ross.mullen@hatch.com>

Cc: ConComm <ConComm@town.arlington.ma.us>

Subject: Thorndike Place Test Pit Summary

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

All,

Please find the attached Test Pit Summary Report for Thorndike Place submitted to clarify information previously provided. Please confirm receipt and let me know if you have any questions. Thank you.

Dominic Rinaldi, PE (he, him)

Engineering Manager, Senior Associate

O: 617-896-4300 / D: 617-896-4386

drinaldi@bscgroup.com

www.bscgroup.com

MARCH 12, 2024

Arlington Conservation Commission
730 Mass Ave Annex
Arlington, MA 02476

**RE: Notice of Intent
SWCA Notice of Intent Restoration Plan Peer Review
Thorndike Place Residential Community
Dorothy Road, Arlington, MA**

Dear Members of the Arlington Conservation Commission:

On behalf of Arlington Land Realty, LLC (the Applicant), BSC Group, Inc. respectfully presents the attached Planting Plan, Sheet L-100, last revised 03/07/2024, to complete our response to SWCA's peer review report dated March 6, 2024. BSC submitted a proposed Invasive Species Management Plan (ISMP) to the Commission and to SWCA on March 7, 2024. During the public hearing on March 7, we discussed two outstanding SWCA comments regarding plant selections shown on the proposed planting plan. Herein we address these comments and for the record, each of SWCA's final comments.

SWCA Response 1: SWCA agrees with this response and approach. No further response required.

SWCA Response 2: SWCA recommends that the ISMP be submitted to the Commission and reviewed by an expert in the control of invasive species prior to the issuance of an OOC. Effective control of invasive plants is critical to the success of any ISMP and may require complex management methodologies given the extent and diversity of invasive species on the site. Review of the ISMP prior to OOC issuance ensures the ISMP will be effective and that the Commission has the ability to guarantee that the plan is adequate prior to permit issuance.

BSC submitted a proposed ISMP for peer review on March 7, 2024.

SWCA Response 3: No further response required.

SWCA Response 4: SWCA concur with these revisions. No further response required.

*SWCA Response 5: The proposed planting plan still includes multiple species that are not representative of the diversity and community structure of the adjacent habitats (e.g., Atlantic white cypress [*Chamaecyparis thyoides*] and others). SWCA recommends the planting plan be revised to include species that better represent the adjacent communities within the restoration area.*

Please refer to the attached Sheet L-100. No tree is proposed *within the restoration area or compensatory flood storage area* that is not specifically listed in SWCA Comment 5. BSC is providing a color-markup of the restoration planting sheet to clarify proposed species placements.

It should be noted that the planting plan is for the entire Project Site, including areas outside

of the Commission's jurisdiction.

The proposed Woodland and Floodplain Restoration seed mixes are as follows:

Botanical Name	Common Name
<i>Asclepias syriaca</i>	Common Milkweed
<i>Asclepias incarnata</i>	Swamp Butterfly Weed
<i>Symphyotrichum novae-angliae</i>	New England Aster
<i>Chamaecrista fasciculata</i>	Partridge Pea
<i>Elymus canadensis</i>	Canada Wild Rye
<i>Elymus virginicus</i>	Virginia Wild Rye
<i>Festuca rubra</i>	Red Fescue
<i>Rudbeckia laciniata</i>	Green-headed Coneflower
<i>Schizachyrium scoparium</i>	Little Bluestem
<i>Solidago juncea</i>	Early Goldenrod
<i>Sorghastrum nutans</i>	Indiangrass
<i>Symphyotrichum novi-belgii</i>	New York Aster
<i>Baptisia tinctoria</i>	Horseflyweed
<i>Desmodium canadense</i>	Showy Tick Trefoil
<i>Euthamia graminifolia</i>	Flat-top Goldentop
<i>Pycnanthemum virginianum</i>	Virginia Mountain Mint

SWCA Response 6: SWCA agrees with these revisions. No further response required.

SWCA Response 7: SWCA agrees with this approach. No further response required.

SWCA Response 8: No further response required.

SWCA Response 9: The revised planting plan continues to propose a number of cultivars within the 100-foot Buffer Zone. Other cultivars are still proposed in other areas of the site.

BSC has revised the proposed restoration planting plan to remove cultivars and has revised the proposed seed mixes for the restoration and compensatory flood storage areas to contain only native plants. The lawn areas seed mix has also been revised to contain only native species.

It should be noted that the planting plan is for the entire Project Site, including areas outside of the Commission's jurisdiction. There is one plant proposed that is a non-native landscaping plant, but it is proposed to be located along the walking path between the buildings, outside of the Commission's jurisdiction.

SWCA Response 10: This note does not appear to indicate that removal of any snags must be approved by the Commission.

SWCA recommends revising this note as to indicate that Commission approval is required for snag removal.

The Note on Sheets L-100 has been updated to state, "2. Remove all invasive species according

to ISMP; cut and remove (do not stump) all dead trees that pose a safety hazard to people or property as determined by Landscape Architect (LA) & Wildlife Ecologist (WE) with administrative approval of Conservation Commission; restore area with native tree, shrub, and grass plantings as directed by LA. Utilize cut plant materials to construct snags and wildlife habitats as directed by LA & WE.

We look forward to an opportunity to discuss these revisions with the Commission and its Peer Review consultant at the upcoming hearing. Mr. Groves will again be available to discuss the ISMP and is also available to answer questions that may come up during the hearing.

If you have any questions regarding the enclosed information, please contact me at (617) 896-4594 or mburne@bscgroup.com. Thank you for your consideration in this matter.

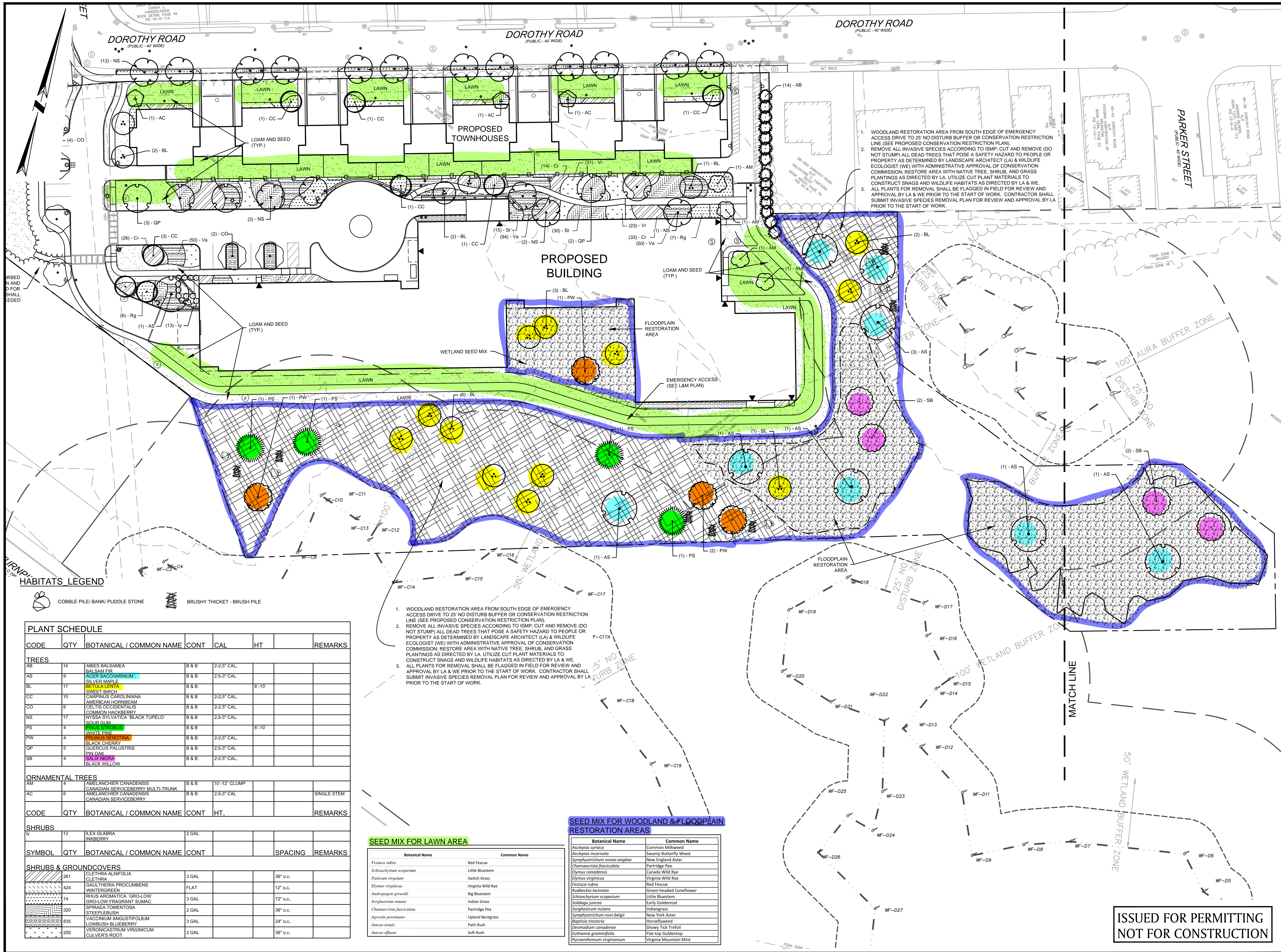
Thank you,
BSC Group, Inc.



Matt Burne, PWS
Senior Ecologist

cc: Stephanie Keifer

Enclosed: Sheet L-100
 Sheet L-100, color mark up
 Sheet L-101
 Sheet L-101, color mark up



HABITATS LEGEND

	COBBLE PILE/BANK/PUDDLE STONE
	BRUSHY THICKET/BRUSH PILE

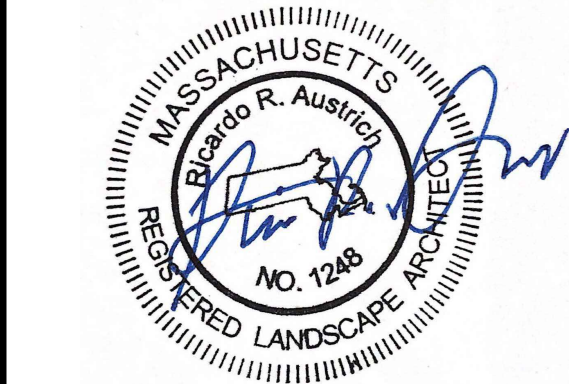
PLANT SCHEDULE						
CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	HT	REMARKS
TREES						
AB	14	ABIES BALSAMEA BALSAM FIR	B & B	2-2.5" CAL.		
AS	9	ACER SACCARINUM SILVER MAPLE	B & B	2.5-3" CAL.		
BL	17	BETULA LENTA WHITE BIRCH	B & B		8'-10'	
CC	10	CARPINUS CAROLINIANA AMERICAN HORNBEAM	B & B	2-2.5" CAL.		
CO	8	CELTIS OCCIDENTALIS COMMON HACKBERRY	B & B	2-2.5" CAL.		
NS	17	NYSSA SYLVATICA 'BLACK TUPELO'	B & B	2.5-3" CAL.		
PS	4	PRUNUS STRUBBII WHITE CHERRY	B & B		8'-10'	
PW	4	PRUNUS SEROTINA BLACK CHERRY	B & B	2-2.5" CAL.		
QP	5	QUERCUS PALUSTRIS PIN OAK	B & B	2.5-3" CAL.		
SB	4	SALIX NIGRA BLACK WILLOW	B & B	2-2.5" CAL.		
ORNAMENTAL TREES						
AM	4	AMELANCHIER CANADENSIS CANADIAN SERVICEBERRY MULTI-TRUNK	B & B	10'-12' CLUMP		SINGLE STEM
AC	8	AMELANCHIER CANADENSIS CANADIAN SERVICEBERRY	B & B	2.5-3" CAL.		
CODE	QTY	BOTANICAL / COMMON NAME	CONT	HT.		REMARKS
SHRUBS						
IV	13	ILEX GLABRA INKBERRY	2 GAL			
SYMBOL	QTY	BOTANICAL / COMMON NAME	CONT		SPACING	REMARKS
SHRUBS & GROUNDCOVERS						
	261	CLETHRA ALNIFOLIA CLETHRA	3 GAL		36" o.c.	
	424	GAULTHERIA PROCUMBENS WINTERGREEN	FLAT		12" o.c.	
	74	RHILUS AROMATICA 'GRO-LOW' GRO-LOW FRAGRANT SUMAC	3 GAL		72" o.c.	
	320	SPIRAEA TOMENTOSA STEEPLEBUSH	2 GAL		36" o.c.	
	835	VACCINIUM ANGUSTIFOLIUM LOWBUSH BLUEBERRY	3 GAL		24" o.c.	
	200	VERONICASTRUM VIRGINICUM CULVERS ROOT	2 GAL		36" o.c.	

SEED MIX FOR LAWN AREA

Botanical Name	Common Name
Festuca rubra	Red Fescue
Schizachyrium scoparium	Little Bluestem
Panicum virgatum	Switch Grass
Elymus virginicus	Virginia Wild Rye
Andropogon gerardii	Big Bluestem
Sorghastrum nutans	Indian Grass
Chamaecrista fasciculata	Partridge Pea
Agrostis perennans	Upland Bentgrass
Juncus tenuis	Path Rush
Juncus effusus	Soft Rush

SEED MIX FOR WOODLAND & FLOODPLAIN RESTORATION AREAS

Botanical Name	Common Name
Asclepias syriaca	Common Milkweed
Asclepias incarnata	Swamp Butterfly Weed
Symphoricarpos alba	New England Aster
Chamaecrista fasciculata	Partridge Pea
Elymus canadensis	Canada Wild Rye
Elymus virginicus	Virginia Wild Rye
Festuca rubra	Red Fescue
Rudbeckia hirta	Green-headed Coneflower
Schizachyrium scoparium	Little Bluestem
Solidago juncea	Early Goldenrod
Sorghastrum nutans	Indian Grass
Symphoricarpos alba	New York Aster
Baylisia tinctoria	Horselyweed
Desmodium canadense	Showy Tick Trefol
Euthamia graminifolia	Flat-top Goldenrod
Pycnanthemum virginicum	Virginia Mountain Mint



REGISTERED LANDSCAPE ARCHITECT

THORNDIKE PLACE
NOTICE OF INTENT

DOROTHY ROAD
IN
ARLINGTON
MASSACHUSETTS
(MIDDLESEX COUNTY)

PLANTING PLAN

SEPTEMBER 6, 2023

REVISIONS:

NO.	DATE	DESC.
1	02/07/24	REV. RESTORATION AREA
2	03/07/24	REV. RESTORATION AREA

PREPARED FOR:
ARLINGTON LAND REALTY, LLC
84 SHERMAN STREET, 2ND FLOOR
CAMBRIDGE, MA

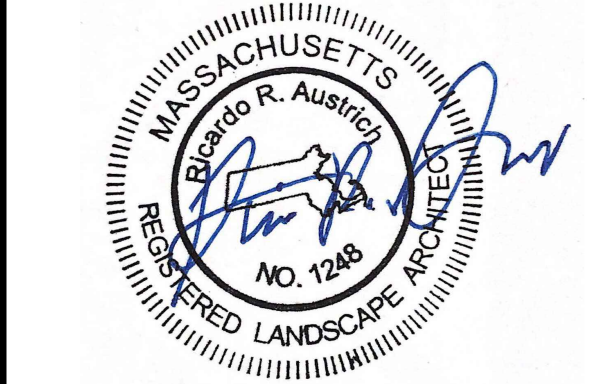
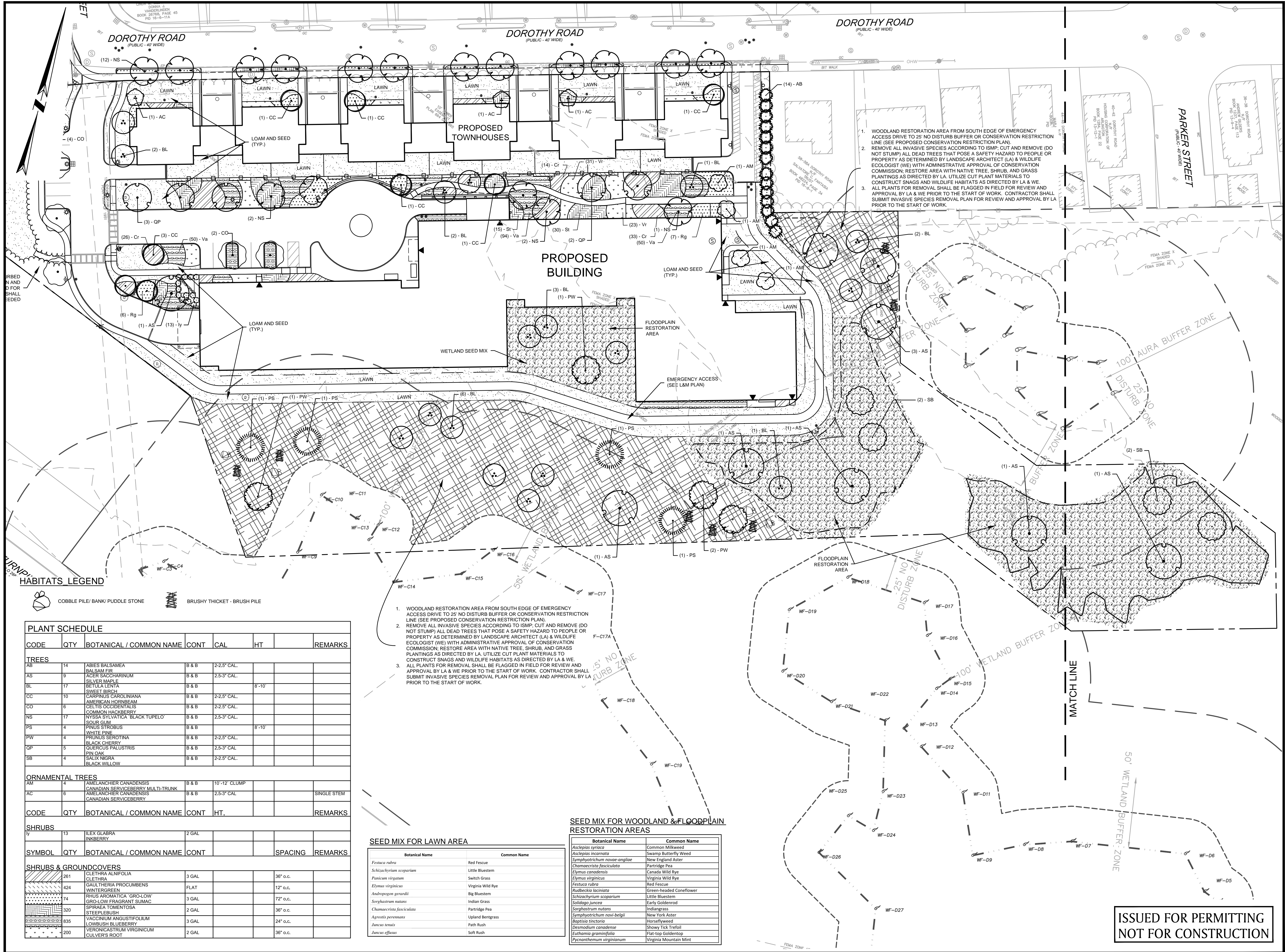
BSC GROUP
803 Summer Street
Boston, Massachusetts
02127
617 896 4300

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SCALE: 1" = 30'
0 15 30 60 FEET

FILE: \Civil\Drawings\2340700-LM
DWG.:
JOB. NO: 23407.02 SHEET L-100

ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION



REGISTERED LANDSCAPE ARCHITECT

THORNDIKE PLACE
NOTICE OF INTENT

DOROTHY ROAD
IN
ARLINGTON
MASSACHUSETTS
(MIDDLESEX COUNTY)

PLANTING PLAN

SEPTEMBER 6, 2023

REVISIONS:		
NO.	DATE	DESC.
1	02/07/24	REV. RESTORATION AREA
2	03/07/24	REV. RESTORATION AREA

PREPARED FOR:
ARLINGTON LAND REALTY, LLC
84 SHERMAN STREET, 2ND FLOOR
CAMBRIDGE, MA

BSC GROUP
803 Summer Street
Boston, Massachusetts
02127
617 896 4300

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SCALE: 1" = 30'
FILE: \Civil\Drawings\2340700-LM
DWG.:
JOB. NO: 23407.02 SHEET L-100

RE: Updated planting plan

Chase Bernier <chase.bernier@swca.com>

Thu 3/14/2024 4:17 PM

To: David Morgan <dmorgan@town.arlington.ma.us>; Matthew Burne <mburne@bscgroup.com>; Ryan Clapp <rclapp@town.arlington.ma.us>

Cc: Chuck Tirone <ctirone@ci.reading.ma.us>; Susan Chapnick <s.chapnick@comcast.net>; Dominic R. Rinaldi <drinaldi@bscgroup.com>; Stephanie Kiefer <SKiefer@smolakvaughan.com>; Chase Bernier <chase.bernier@swca.com>

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I reviewed the revised plans and everything looks good on these. Our ecological restoration invasive species specialist is still taking a look at the ISMP, but I've asked her send any comments asap.

P. Chase Bernier, CWB, PWS, CERP
Senior Natural Resources Team Lead

SWCA Environmental Consultants
15 Research Drive
Amherst, MA 01002
P 508.232.6668 | C 845.702.6498
chase.bernier@swca.com

From: David Morgan <dmorgan@town.arlington.ma.us>

Sent: Thursday, March 14, 2024 1:17 PM

To: Matthew Burne <mburne@bscgroup.com>; Chase Bernier <chase.bernier@swca.com>; Ryan Clapp <rclapp@town.arlington.ma.us>

Cc: Chuck Tirone <ctirone@ci.reading.ma.us>; Susan Chapnick <s.chapnick@comcast.net>; Dominic R. Rinaldi <drinaldi@bscgroup.com>; Stephanie Kiefer <SKiefer@smolakvaughan.com>

Subject: Re: Updated planting plan

Hi Chase,

Thank you for confirming receipt. Will you be able to provide feedback on the submitted supplemental materials by COB?

While we received BSC's materials by the deadline for the next meeting, we won't have a response, so in order to facilitate discussion, the sooner the better.

Cheers,

David

David Morgan | Environmental Planner + Conservation Agent | Department of Planning and Community Development | 781.316.3012

Arlington values equity, diversity, and inclusion. We are committed to building a community where everyone is heard, respected, and protected.

From: Matthew Burne <mburne@bscgroup.com>

Sent: Thursday, March 14, 2024 8:02 AM

To: Chase Bernier <chase.bernier@swca.com>; David Morgan <dmorgan@town.arlington.ma.us>; Ryan Clapp <rclapp@town.arlington.ma.us>

Cc: Chuck Tirone <ctirone@ci.reading.ma.us>; Susan Chapnick <s.chapnick@comcast.net>; Dominic R. Rinaldi <drinaldi@bscgroup.com>; Stephanie Kiefer <SKiefer@smolakvaughan.com>

Subject: RE: Updated planting plan

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Thank you Chase, I appreciate it.

Matt Burne, PWS

Senior Ecologist, Senior Associate

From: Chase Bernier <chase.bernier@swca.com>

Sent: Wednesday, March 13, 2024 7:09 PM

To: Matthew Burne <mburne@bscgroup.com>; David Morgan <dmorgan@town.arlington.ma.us>; Ryan Clapp <rclapp@town.arlington.ma.us>

Cc: ctirone@ci.reading.ma.us; s.chapnick@comcast.net; Dominic R. Rinaldi <drinaldi@bscgroup.com>; Stephanie Kiefer <SKiefer@smolakvaughan.com>; Chase Bernier <chase.bernier@swca.com>

Subject: Re: Updated planting plan

Hi Matt -

Yes, we are in receipt of the revised plans. I've been in spotty reception and have had trouble sending emails out.

-Chase.

P. Chase Bernier, CWB, PWS, CERP
Senior Natural Resources Team Lead

SWCA Environmental Consultants
15 Research Drive 01002
Amherst, MA 01581

Cell: 845.702.6498 (preferred)

Direct: 508.232.6668 (direct)

From: Matthew Burne <mburne@bscgroup.com>

Sent: Wednesday, March 13, 2024 6:52 PM

To: David Morgan <dmorgan@town.arlington.ma.us>; Ryan Clapp <rclapp@town.arlington.ma.us>

Cc: ctirone@ci.reading.ma.us <ctirone@ci.reading.ma.us>; s.chapnick@comcast.net <s.chapnick@comcast.net>; Dominic R. Rinaldi <drinaldi@bscgroup.com>; Stephanie Kiefer <SKiefer@smolakvaughan.com>; Chase Bernier <chase.bernier@swca.com>

Subject: Updated planting plan

Good evening, David and Ryan,

BSC received confirmation that the Test Pit report submittal was received and circulated. With all due respect, I would again request confirmation that the planting plan information submitted to the Commission on Tuesday, 3/12/24, has been received and circulated.

I look forward to the opportunity to fully discuss this plan and the ISMP at the upcoming meeting.

Kind regards,

Matt Burne, PWS

Senior Ecologist, Senior Associate

803 Summer Street, Third Floor / Boston, MA 02127

O: 617-896-4300 / D: 617-896-4594 / C: 857-234-2476

mburne@bscgroup.com

www.bscgroup.com



I work flexibly and may send emails outside of working hours.

I do not expect a response or action outside your own working hours.

MARCH 7, 2024

Arlington Conservation Commission
730 Mass Ave Annex
Arlington, MA 02476

**RE: Notice of Intent
Invasive Species Management Plan (ISMP)
Thorndike Place Residential Community
Dorothy Road, Arlington, MA**

Dear Members of the Arlington Conservation Commission:

On behalf of Arlington Land Realty, LLC (the Applicant), BSC Group, Inc. is pleased to present the attached Invasive Species Management Plan (ISMP) for review by the Arlington Conservation Commission in conformance with *SWCA Response 2* contained in Commission's Peer Review consultant's letter report dated March 6, 2024.

Tom Groves, a BSC Senior Botanist with extensive experience in restoration ecology (see attached resume) has prepared a detailed ISMP designed to achieve realistic goals for the Site as quickly as possible with the intention of reducing the amount and duration of land disturbance required to achieve restoration goals to the greatest extent possible.

We look forward to the opportunity to discuss the ISMP with the Commission and its Peer Review consultant. Mr. Groves will be available to attend a meeting of the Commission to discuss the ISMP and is also available to answer questions that may come up during its review.

If you have any questions regarding the enclosed information, please contact me at (617) 896-4594 or mburne@bscgroup.com. Thank you for your consideration in this matter.

Thank you,
BSC Group, Inc.



Matt Burne, PWS
Senior Ecologist

cc: Stephanie Keifer

Enclosed: Resume, Tom Groves, Senior Botanist
Thorndike Place Invasives Species Management Plan

Dorothy Rd. Arlington, MA Invasive Plant Management Plan

March 2024

PREPARED FOR

Arlington Land Realty LLC

116 Huntington Avenue

Boston, MA 02116

PREPARED BY

 **BSC GROUP**

803 Summer St. Floor 3

Boston, MA 02127

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1. Invasive Plant Species Management Plan

Introduction

Invasive plants are non-native species which have a competitive advantage over the native plant species of New England. Introduction of these invasive species has been facilitated by various human origins over the past two hundred years. Due to the ability to quickly colonize disturbed areas and without any natural predators or diseases, these species have many advantages over our native plant species. Invasive species can produce more seeds, grow faster, and utilize available water, habitat, and photosynthetic resources which is detrimental to not only native plants but also wildlife, insects, fungi, and humans. The degradation of natural habitats due to invasive plants can alter soil chemistry, water quality, and biodiversity across taxa.

The Thorndike Place Residential Community (the Project) will impact 4.7 acres of a 17.7-acre site, with the remaining 12 acres placed in conservation restriction. This project will include six (6) duplex units and a 124-unit senior living residential apartment building, parking, landscaping, lighting, and other site improvements. The Project proposes work within the FEMA 100-Year Floodplain/Bordering Land Subject to Flooding as well as within the buffer zone to Bordering Vegetated Wetland.

A site visit was made on February 26, 2024, by Tom Groves, Senior Botanist/Ecologist, and Matt Burne, Senior Ecologist from BSC Group, to determine the invasive species composition, their distribution, density, and maturity. This information is imperative to creating a site-specific invasive plant management plan for the acreage included in the scope of this project.

Management Goals and Objectives

Invasive species will forever be present at this location due to the proximity to major urban zones, invasive pressure from neighboring sites, existing invasive plant seed banks, and invasive plants in the immediate vicinity that are out of the scope of this management plan. The overarching goal of any invasive management plan is to control, to the greatest extent possible, the invasive plants currently present, encourage native plant regeneration, and detect any new invasive species early enough to gain control while the extent of the infestation is low.

The planned disturbances at this location include grading, soil disturbance, and construction development for housing. There are a few options for managing invasive plants within the designated restoration area. The likelihood of germination and/or introduction of new invasive species to the site is very high and for this reason, continued monitoring of the site post-construction and post-initial treatment is recommended for 10 years to ensure success and provide opportunities for continued invasive management adaptive strategies.

Existing Conditions

During the site visit on February 26, 2024, there were twelve invasive species observed. As a note, this survey was done during the dormant season, and additional invasive species could be present that were not observable during the February site visit.

The 4.7 acres included in the scope of this invasive plant management plan have portions that fall within the FEMA floodplain for the Little River and the native species composition here are indicative of this habitat type. The area of focus for habitat restoration efforts has low, medium, and high infestations of both herbaceous and woody invasive plant species (Table 1). Additionally, various native plant species exist in this location, although visibly being outcompeted by the invasive species. Retaining these native species through targeted treatments for only invasive plants will aid in reducing the likelihood of recolonization of invasive plants in the future.

During the time of the site visit, the identifiable native species included common hackberry (*Celtis occidentalis*),

bladdernut (*Staphylea trifoliata*), cottonwood (*Populus deltoides*), boxelder (*Acer negundo*), red maple (*Acer rubrum*), silver maple (*Acer saccharinum*), grapes (*Vitis spp.*), cherries (*Prunus spp.*), staghorn sumac (*Rhus typhina*), American pokeberry (*Phytolacca americana*), goldenrod (*Solidago spp.*), blackberries (*Rubus spp.*), and white birch (*Betula papyrifera*).

The most widespread of the woody species observed during the site visit were Norway maples (*Acer platanoides*). Also evident was the number of seeds of this species present on the ground during the survey. The other woody species within the restoration area were not overly large nor was there an abundance of fruit. Herbaceous invasive plants with the highest densities were Japanese knotweed (*Fallopia japonica*) and garlic mustard (*Allaria petiolata*).

Invasive Species Observations and Background

Invasive Plant Control General Overview

There are four categories included in “Invasive Pest Management”: Cultural, Biological, Mechanical, and Chemical. The long-term control of invasive species and the level of success is increased when the four methods are used in conjunction. For instance, a cultural change would be for the town to implement a bylaw to eliminate invasive plants in landscaped areas. Biological controls are few and far between and often rely on non-native insect species that have the potential to do more harm than good and often do.

Due to the scope of this management plan, only two approaches (mechanical and chemical) for the control of invasive plants are addressed.

Mechanical Control

Mechanical control of invasive plants is possible but the success of choosing this method is dependent on specific conditions. Plants when in low density, seedlings, or in wet ground can often be hand-pulled or weed-wrenched out of the ground. As infestations become more mature, widespread, and denser, this method on its own quickly becomes time-consuming, expensive, and has the potential to cause the germination of many more invasive plants.

Mulching is also included in this category and can be an effective use of a pre-mechanical treatment if paired with a subsequent chemical control treatment.

Chemical Control

Usually thought of as a last resort, the chemical control approach is an effective, efficient, and economical way to address an invasive plant infestation. This option requires knowledge of native and invasive plant species to target only the desired plants for the treatment. If done properly there are low instances of off-target damage and a high rate of success. Herbicide control treatments can reduce invasive plants after 1-year of treatment to 5% - 10%. This method additionally doesn't disturb the soil, which can assist in reducing seedling flushes.

Within this category is a range of application techniques. The chosen application method is dictated by species, seasonality, growth habit, density, access, or other sensitive species. The application methods are also related to herbicide solution percentages, volume, and plant surface area. For this habitat management plan, I've defined the applicable terms “Foliar” and “Cut-Stump.”

Foliar: Foliar treatment is the application of herbicide in a 5% solution of wetland-approved herbicide and a non-ionic surfactant with water. Another type of application method is with a 7% solution of wetland-approved herbicide and an application product called Thinvert. These two percentages of solution are applied using a low-volume/low-pressure backpack sprayer. This approach is beneficial when the invasive plant population is below 50% of the total make of the treatment area. If the invasive plant density is more than 50% of the total vegetative makeup of the area, then a high-volume/high-pressure approach can be considered. This approach uses more volume of water but less herbicide. An application using this method would mix wetland-approved herbicide with a 1% - 2% solution.

Cut-Stump: This type of treatment is effective when treating plants that cannot be foliar treated. By severing the stem of the tree, shrub, or vine, herbicide in a 50% wetland-approved herbicide and 50% water is applied to the cambium of the stump. This is only effective during the later part of the growing season, during the time plants are returning resources to their root system.

Woody Trees, Shrubs, and Vines

Oriental Bittersweet (Celastrus orbiculatus)

The bittersweet present at the Dorothy Road site is primarily observable in fully-grown vines (Photo 1). These climbing vines can strangle, reduce the health of native trees, and make them more susceptible to snow and ice storms. Additionally, this species flowers profusely and can hybridize with native Massachusetts (S3 uncommon) American bittersweet (*Celastrus scandens*).

Small plants of this species can easily be hand-pulled in the spring when the ground is wet.

Medium-sized or matting plants that have yet to climb into the canopy can be sprayed with backpack sprayers and a Glyphosate product during the summer until leaf drop in the fall.

Large vining individuals that have climbed into the tree canopy of larger trees must be cut-stumped.

Norway Maple (Acer platanoides)

Norway maples are widespread on these property parcels and represent the largest estimated basal area of tree species present at the site. Additionally, many seeds of this species were observed in the leaf litter during the site visit and will play into the future management strategies for this area.

Due to the size of these species, it will be necessary to cut these trees and treat the stumps with a cut-stump application. Due to the proximity to wetlands, this application should preferably be applied with a Buckthorn Blaster to reduce off-target damage to native plant species.

Once the trees have been cut down and treated, there are two options for the tree material. The remaining stumps could be chipped in place to reduce germination of this species and other invasive plant seeds present like garlic mustard (*Alliaria petiolata*). Alternatively, the logs could be used to create wildlife piles on the exterior of the habitat area or in the conservation restriction area. These piles could provide additional habitat for small mammals, amphibians, and reptiles as well as fungi and insects.

Tree-of-Heaven (Ailanthus altissima)

Similar to Norway maples (*Acer platanoides*), this tree species should be felled, and the stump treated. Smaller plants with accessible foliage can be treated with a 5% - 7% wetland-approved Glyphosate solution applied with a backpack sprayer.

Common Buckthorn (Rhamnus cathartica)

A difficult woody species to control with foliar treatments, the ideal treatment method for this species is mechanical control via digging and removal of the tree along with the root system. This method is easier with seedlings or small plants. As the plant matures, removal with a machine may be necessary. An alternative approach is to sever the tree and treat the stump with a cut-stump application at the end of the growing season.

Autumn Olive (Elaeagnus umbellata)

Observed occurring in a low to medium density within the habitat restoration area, this shrubby species rarely grows taller than 8 feet and can either be treated with a foliar treatment or cut-stump treatment. Seeds of this species are probably present in the seed bank and should be on the list of species to monitor during future site visits.

Multiflora Rose (Rosa multiflora)

This species was observed in low densities mixed in with Japanese knotweed (*Fallopia japonica*) and garlic mustard (*Alliaria petiolata*) throughout the habitat restoration area. This invasive species is killed most effectively with a mid-summer into fall foliar treatment or with a cut-stump treatment during the same period.

These plants were observed in February without fruit and likely do not currently flower under a closed canopy. With the increase in canopy gaps with the removal of competing tree species like Norway maples (*Acer platanoides*), there is an increased likelihood that these plants could develop flowers and fruits if left untreated.

Glossy buckthorn (Frangula alnus)

There were no mature specimens of this species observed during the February site visit. This could suggest that there's a mature seed source close by, or the plants that are present are a result of bird dispersal. The plants observed were waist-high on average and not mature enough to produce fruits.

Management of this species could be accomplished with mechanical control or with backpack sprayers and a foliar application during the growing season until leaf drop. Cut-stump treatment of small stems like in this situation isn't as effective due to human error and small stems are often missed. This non-treatment of small stems creates a situation for sprouting. If follow-up treatments aren't made, the resulting effect of the sprouting is growth in the number of stems present which exponentially increases the number of possible flowering stems and future fruits.

Common Ivy (Hedera helix)

This species was only observed in one location and comprises a very low percentage of the total number of invasive plants at this location. Invasive plants of this species should either be cut-stumped or foliar treated along with other woody invasives during the July – October window.

Honeysuckle (Lonicera spp.)

At least two species of invasive honeysuckles (*Lonicera spp.*) with two different growth forms were observed during the February site visit.

The vining Japanese honeysuckle (*Lonicera japonica*), was commonly seen on the forest floor but not growing up into trees (Photo 3). The most effective treatment for this species is a foliar treatment during the growing season.

The second species of invasive honeysuckle was of the shrub-type growth habitat. There are three to four invasive *Lonicera* species present in New England. Identification of these two species is only possible during fruiting/flowering. There were few mature specimens of these species within the treatment area. Treatment of these occurrences can be treated at the same time as *Lonicera japonica*.

Herbaceous Plants

Japanese knotweed (Fallopia japonica)

This invasive species occurs in high density throughout the treatment area as well as where activities will take place (Photo 2). These plants have low seed viability and are primarily spread via cuttings of the stem or pieces of the rhizomes. This makes it particularly important for the cleaning of incoming and outgoing construction equipment during the construction phase of this project.

This species is best treated with a foliar solution after flowering has completed, typically in September. Other control methods for this species are often time-consuming and ineffective, but with a well-timed foliar treatment, mature populations can be reduced 90% - 95% after the first season. It's imperative that after treatment the plants are left undisturbed until at least November (2 months) to absorb the herbicide into their root system for the greatest effect.

Common Reed (Phragmites australis)

Although this species does not occur in the area included in the scope of this habitat management plan, addressing this species' presence in the surrounding wetland is valuable for adaptive management planning. This species occurs in the wetland southwest of the project area and within the Conservation Restriction area and should be addressed in relation to wetland habitat, restoration, and water quality. This species also has the potential to spread into the habitat restoration area with future flood events and the nature of the soil composition at the site.

Treatment of this species should be made after the plants have tasseled (flowered) during the months of September/October. Similar to Japanese knotweed (*Fallopia japonica*), this species has very few viable seeds and primarily spreads asexually through stem and rhizome fragments. The most effective treatment for this species is a foliar treatment made with a wetland-approved Glyphosate product in a 5% - 7% Thinvert solution applied with backpack sprayers.

Garlic Mustard (*Alliaria petiolata*)

The site at Dorothy Road is heavily infested with this invasive species. As a biennial, this species undergoes one season of non-reproductive growth (basal leaves) before it bolts (flowers) in the second season. During the site visit both basal rosettes (first year plants, Photo 4) as well as desiccated mature plants (second year plants, Photo 5) were observed. Seeds of this species can remain viable for up to 10 years in the soil. For this reason, a successful management plan for this species must first interrupt seed dispersal.

Mechanical control for this species can be effective but due to this species ability to continually flower through the growing season, it's unreasonable to assume that one pre-flowering cutting will be sufficient to interrupt the seed bank. This species, even after being severed from the main stem can still flower and produce viable seeds.

Due to the size of the infestation at the site, it is reasonable to consider a foliar application of a wetland-approved herbicide early in the spring to eliminate flowering plants permanently. A month after the initial treatment of both first and second-year plants, it would be beneficial to apply a minimum of 3" of woodchips to act as a smothering layer to eliminate the possibility for any existing seeds to germinate.

Table 1: Invasive Species List, Density, Recommended Control Methods, and Timing Summary

Invasive Species Common Name	Scientific Name	Density	Control Method	Treatment Timing
Japanese knotweed	<i>Fallopia japonica</i>	High	Foliar	August - October
Common Reed Grass	<i>Phragmites australis</i>	Adjacent to the treatment area	Foliar	August - October
Garlic Mustard	<i>Alliaria petiolata</i>	High	Hand-Pulling/Foliar	March - May
Oriental Bittersweet	<i>Celastrus orbiculatus</i>	High	Cut-Stump/Foliar	July - October
Norway Maple	<i>Acer platanoides</i>	High	Cut-Stump	July - October
Tree-of-Heaven	<i>Ailanthus altissima</i>	Low	Cut-Stump	July - October
Common Buckthorn	<i>Rhamnus cathartica</i>	Low/Medium	Cut-Stump	July - October
Autumn Olive	<i>Elaeagnus umbellata</i>	Low/Medium	Cut-Stump	July - October
Multiflora Rose	<i>Rosa multiflora</i>	Medium	Cut-Stump/Foliar	July - October
Glossy buckthorn	<i>Frangula alnus</i>	Low	Cut-Stump/Foliar	July - October
Common Ivy	<i>Hedera helix</i>	Low	Cut-Stump/Foliar	July - October
Honeysuckles	<i>Lonicera spp.</i>	Low/Medium	Foliar	July - October

Mechanical Pre-Treatment Approach

Due to the current site conditions at the habitat restoration location, it could be beneficial to pre-treat the site with mulching equipment like a Brontosaurus mower or ASV mulcher. Machines like this can immediately chip woody debris and plant material creating a more accessible site for future invasive management visits. This approach additionally has the advantage of creating resprouting vegetation that can be treated when knee-high, reducing the required labor and herbicide use. Mechanical pre-treatment isn't a perfect process however and species like bitter-sweet which could be vining around trees intended for retention would have to be cut by hand for protection. Another potential benefit from this pre-treatment process is an increase in soil disturbance. Normally this would cause issues after an initial chemical treatment, but in this case, it could assist in forcing germination of the seed bank and lessening future chemical treatments by creating a mass germination event before an initial chemical treatment.

If mechanical pre-treatment was a desired plan for this property, I would suggest having the Japanese knotweed (*Fallopia japonica*) treated before the mulching. In my experience success is more likely when healthy plants of this species are treated with chemicals. Cutting *Fallopia japonica* changes the hormones and the resprouts take many more years to get under control after this scenario. Additionally, the spreading of this material to other areas on or off the site will be reduced if these mature healthy plants are treated before a mulching treatment.

Coordination of a management approach like this is difficult. It helps if the contractor can do both the mechanical and chemical treatments. If this isn't possible and two contractors are required, timing of the two processes will be key to the success of the project. Ideally, a mechanical pre-treatment approach would be completed during the months of November – March.

Invasive Species Monitoring Program

After the implementation of the initial management approach strategy, it will be necessary to begin a regular monitoring program to capture any newly established species, collect information on the success of the treatment, and adapt future management control actions. Due to the proposed disturbance activities for the site, proximity to other invasive plant populations not presently at the site, and the high possibility for invasive plants in general monitoring should be implemented to account for these probable introductions.

Monitoring immediately after a treatment isn't necessary and it will usually be beneficial to delay monitoring until the next growing season or alternate years of treatment and monitoring. At least five separate monitoring events should take place intermittently over 6 years after completion of the initial and follow-up treatments to assess success and changes to management strategies.

2. Appendices

Invasive Species Control Management Options & Schedules

Table 2: Chemical Treatment Solution Recommendations

Treatment Type	Applicable Species	Description	Timing
Foliar	Woody seedlings, smaller shrubs, <i>Fallopia japonica</i> , <i>Phragmites australis</i>	5% - 7% Solution wetland approved herbicide (i.e. Glyphosate Round-Up Custom) and 0.5% non-ionic surfactant (i.e. Aquachem 90) with water or Thinvert. Applied during the growing season to actively growing foliage.	July – October*
Cut-Stump	Woody vine, shrub, tree species where foliage is not treatable.	50% Solution of wetland approved herbicide (i.e. Glyphosate Round-Up Custom) mixed with water. Application is best made with a Buckthorn Blaster.	July – October*

*For specific species treatment timing refer to Table 1.

Table 3: Option 1 - Chemical Control

Task Chemical Approach	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1. Garlic Mustard Chemical Treatment												
2. Cut Mature Trees (Norway Maple/Tree-of-Heaven) and Stump Treat												
2a. Create Wildlife Piles												
2b. Retain Logs for Chipping/Weed Suppression												
3. Foliar Treatment on Woody Plants*												
4. Foliar Treatment on Japanese Knotweed												
5. Chip Norway/Tree of Heaven logs for 3" mulch after GM treatment												
6. Monitoring/Follow-up Treatment												
7. Monitoring												
Season 1												
Season 2												
Season 3												
Seasons 4, 6, 8, & 10												

In this scenario, each treatment time is laid out by season. If subitems are accomplished in the proper order without delays, this phase of the project could be completed in two seasons.

Table 4: Option 2 – Mechanical Control Option

Task Mechanical Pre-Treatment Approach	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1. Cut Mature Trees (Norway Maple/Tree-of-Heaven) and Stump Treat												
1a. Create Wildlife Piles												
1b. Retain Logs for Chipping/Weed Suppression												
2. Chemical Treatment of Japanese knotweed (Foliar)												
3. Mechanical Mulching Treatment												
4. Site Wide Chemical Control Treatment												
5. Chip Norway/Tree of Heaven logs for 3" mulch after GM treatment												
6. Monitoring												
Season 1												
Season 2												
Season 3												
Seasons 4, 6, 8, & 10												

This scenario includes a mechanical mulching treatment. Imperative to this option is a chemical treatment of Japanese knotweed (*Fallopia japonica*). Selection of this option without first treating these species and delaying mulching for a few months is not recommended.

Photos



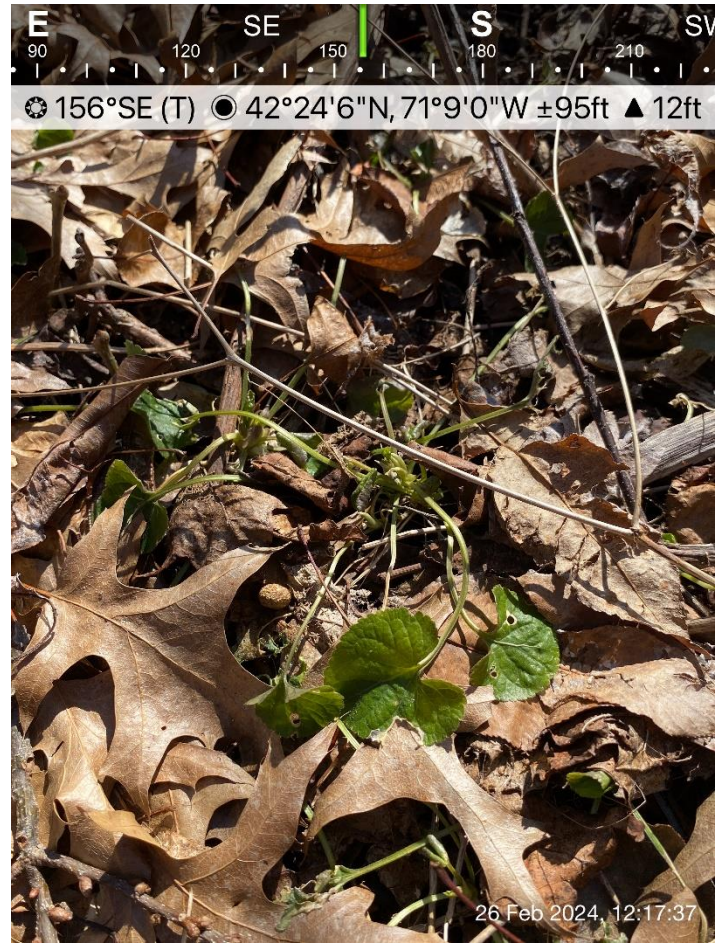
Photo 1: Oriental bittersweet (*Celastrus orbiculatus*) climbing up a mature black cherry tree in the habitat restoration area off Dorothy Rd.



Photo 2: A picture of the habitat restoration area off Dorothy Rd. The conditions seen here were roughly consistent across the 4.7 acres.



Photo 3: *Lonicera japonica*, a common invasive on the forest floor in the habitat management parcel.



Photos 4 and 5: Garlic mustard (*Alliaria petiolata*) with two different looking growth forms. Photo 4 (Left): Second year plant that previously flowered, set and dispersed seed. Photo 5 (Right): Basal rosettes from the 2023 season that will flower and produce seed this season.



Tom Groves

Senior Botanist

YEARS OF EXPERIENCE

10

EDUCATION

Framingham University

B.S. Wildlife Biology (2014)

UMass Lowell

B.A. English Writing (2006)

CERTIFICATIONS

New Hampshire Supervisory Pesticide

Applicators License #S-2229958

(2017 – 2022)

Vermont Pesticide Applicators License

#1208-4955 (2014 - 2023)

Massachusetts Pesticide Applicator

License #AL-0052105 (2014 - 2023)

**OSHA 10-Hour Construction Safety
and Health**

AFFILIATIONS

**New England Botanical Society Field
Trip Program Coordinator**

2024 - Present

**New England Botanical Society
Member**

2020 – Present

**Native Plant Trust Plant Conservation
Volunteer**

2014 - Present

MEET TOM

Tom is an observant botanist dedicated to learning as much as he can about New England's natural habitats, ecosystems, and most importantly, plants. Over the past 10 years, Tom has been privileged enough to spend most of his time in the varied habitats of New England observing the habitats and flora. This natural habitat immersion and dedicated observation time have helped hone his ability to find rare plants and see the small differences in cryptic and often overlooked species. Tom has been providing ecological restoration advice to national wildlife refuges, state biologists, NRCS, and private landowners in Massachusetts, New Hampshire, and Vermont for the past decade. From 2015 – 2023, Tom was responsible for planning, managing, and executing 1,400 acres of habitat restoration work annually on behalf of a Vermont-based forestry company. In the past year as a Senior Botanist with BSC Group, Tom has been leading rare plant surveys, ecological restoration mitigation strategies, and permitting of ecological projects with clients like National Grid, Eversource, and Bradley International Airport. Additionally, Tom was a BSC Team member working with the City of Stamford, CT to map and prepare invasive management strategies to assist the city in meeting ecological restoration goals. Tom is a botanist who is forever intrigued by the world around him, excited by natural habitats, and observant of all the special components of the biodiversity in New England.

WORK RELATED EXPERIENCE

BSC Group | Manchester, NH | 2023 – Present

Senior Botanist

Long View Forest | Hartland/Westminster, VT | 2015 – 2023

Woodland Services Division Manager/Botanist

Polatin Ecological Services | Gill, MA | 2014 – 2015

Habitat Restoration Technician

Native Plant Trust | Framingham, MA | 2013 - 2014

Rare Plant Conservation Fellow

Reported New Populations of Rare Plants (S1/S2)

Triphora trianthophora – Dummerston, VT 2018
Collinsonia canadensis – Bennington and Rutland Counties 2022
Silene ovata – Asheville, NC 2021
Cypripedium parviflorum var. pubescens – Cornish, NH 2022
Lupinus perennis – Hudson, NH 2023
Viola adunca – Royalston, MA 2023
Carex castanea – Grafton County, NH 2023
Pycnanthemum virginianum – Charlestown, NH 2023
Silene stellata – Stamford, CT 2023
Carex typhina – Wethersfield, CT 2023
Gentianopsis crinita – Lebanon, NH 2023
Hackelia virginiana – Lebanon, NH 2023
Viola lanceolata – Vernon, VT 2023
Polygala polygama – Vernon, VT 2023
Pycnanthemum torrei – Pelham, NH 2023

New Populations of Uncommon Plants (S3)

Celsastrus scandens – Swanton, VT 2020
Spiranthes lucida – Manchester, VT 2022
Dirca palustris – Arlington, VT 2022
Triosteum perfoliatum – Cullowhee, NC 2022
Mimulus alatus – Stamford, CT 2023

PROJECT EXPERIENCE HIGHLIGHTS

Eversource, 400/500 Lines Rebuild Project (Zone 5 of the ECT Program), Ledyard and Preston, CT Senior Botanist

Oversaw the Atlantic White Cedar mitigation portion of this project including fencing, planting, long-term monitoring, reporting, and vegetation management to ensure compliance with Water Quality Certification (WQC) guidelines.

National Grid, Eversource, and Rhode Island Energy Rare Plant Surveys and Mitigation Guidance for Various Utility Projects Senior Botanist

Perform rare plant surveys for transmission line companies in Vermont, New Hampshire, Massachusetts, Connecticut, and Rhode Island. Plan, identify, map, and report on rare plants as well as invasive populations in priority habitats in these New England states for reporting to Natural Heritage Programs to support utility line projects.

Bradley International Airport (BDL) Taxi Way Expansion Project, Windsor, CT Senior Botanist

Surveyed, assessed, and reported on the quality of sand barren habitat in project expansion areas. Data was collected, mapped and a habitat restoration plan was prepared to provide the best ecological restoration options for rare species including lepidopterans, plants, and provide ecological recommendations to BDL and Natural Diversity Data Base (NDDB)..

New England Power Company A1/B2 ACR Project Vernon, VT Senior Botanist

Surveyed, collected seed, and provided recommendations to Vermont Agency of Natural Resources on transplanting of impacted rare plant species within the ROW.

Green Mountain National Forest, Mary Beth Deller, Vermont Invasive Plant Specialist/Botanist

Provide expert recommendations on prioritization of invasive species treatment areas as well as provide appropriately timed treatments and reports.

Parker River & Great Bay National Wildlife Refuge, Nancy Pau, Portsmouth, NH & Newburyport, MA Invasive Plant Specialist/Botanist

Work with MA Fish and Wildlife to advise, prepare, and execute invasive plant management practices in the NWRs.

ADDITIONAL EXPERIENCE

University of New Hampshire Cooperative Extension - 2019

Senior Botanist/Educator

Continuing education instructor for extension office on timber stand improvement and integrated pest management strategies.

Antioch University – 2021 & 2022

Senior Botanist/Educator

Instructor for Master's Degree program on invasive plants and management strategies.

Rhode Island Nursery and Landscape Association - 2023

Senior Botanist/Educator

Continuing education instructor for Introduction to Botany and invasive plant management

University of Rhode Island Cooperative Extension 2023 - Present

Senior Botanist/Educator

Continuing education instructor for invasive plant identification and invasive plant management.

AWARDS AND AFFILIATIONS

Native Plant Trust

2014 Marylee Everett Conservation Fellowship

The Wildlife Society

2013 Scholarship Awardee for 2-week long Wildlife Techniques course with Castleton State College and VT Fish & Wildlife

New England Botanical Society

2022 Les Mehrhoff Botanical Research Award