ARLINGTON CONSERVATION COMMISSION APPROVAL ORDER OF CONDITIONS – 47 SPY POND LANE – LOT 1(A) MassDEP File # 091-0318

ONLY UNDER THE WETLANDS PROTECTION ACT

DOCUMENTS REVIEWED

4/16/2020

- 1. Notice of Intent for work at 47 Spy Pond Lane (Lot 1/Lot A), Arlington, MA, signed July 9, 2019 by Mary Trudeau; Applicant: Scott Seaver of Seaver Construction, Woburn, MA and Representative: Mary Trudeau of Lexington, MA, and including:
 - a. "Description of Work Notice of Intent Filing", undated (5 pages).
 - b. June 28, 2016 Drainage Analysis for 47 Spy Pond Lane Lot 1/A conducted by Alan Engineering LLC.
 - c. October 29, 2018 letter from Division of Fisheries and Wildlife and Natural Heritage and Endangered Species Program map of site.
 - d. Construction Period Stormwater Operation and Maintenance Plan, 47 Spy Pond Lane (Lot 1/A), undated (4 pages).
 - e. Post-Construction Construction Stormwater Operation & Maintenance Plan, 47 Spy Pond Lane (Lot 1/A), undated (3 pages).
 - f. MassDEP Superseding Order of Conditions/Approval Cover Letter (3 pages).
 - g. MassDEP Superseding Order of Conditions/Approval Permit and Special Conditions (15 pages).
- "Proposed Site Plan in Arlington, Mass." showing Lot 1 by Keenan Survey of Winchester, MA, scale 1:10, dated November 7, 2018, revised June 11, 2019, stamped by James Richard Keenan, P.L.S #30751.
- 3. "Planting Plan in Arlington, Mass." showing Lot 1 by Keenan Survey of Winchester, MA, scale 1:10, dated November 7, 2018, revised June 11, 2019, by James Richard Keenan, P.L.S #30751.
- 4. All relevant documents submitted during the prior hearings and working session(s) for which the Commission approved this project under the Arlington Bylaw for Wetlands Protection on 10/18/2019 are incorporated by reference.

PROCEEDINGS

The Conservation Commission held hearings on the Notices of Intent filed under the Massachusetts Wetlands Protection Act only on March 5 and April 2, 2020. The Commission closed the public hearing on April 2, 2020, and deliberated on April 16, 2020.

On April 16, 2020, the Commission voted **xxxx to approve** the Project with conditions under the Massachusetts Wetlands Protection Act (the "Act").

Hearings and deliberations for 47 Spy Pond Lane Lots A(1) and B(2) were performed together; however, two separate decisions were rendered, consistent with the two separate filings for Lot A(1) and Lot B(2).

The existing dock at the property of Lot A(1) is subject to a separate permit proceeding; however, the Commission did add a Special Condition #60 concerning placement of this dock.

FINDINGS OF FACT AND LAW UNDER MASSACHUSETTS WETLANDS PROTECT ACT

- A. The Applicant filed a Notice of Intent under the Massachusetts Wetlands Protection Act only (version 10/04/2017) because the Superseding Order of Conditions issued in late 2016 had expired; as such, these findings do not consider the Arlington Bylaw for Wetlands Protection and regulations thereunder.
- B. The Commission approved this project under the Arlington Bylaw for Wetlands Protection (the "Bylaw") on 10/18/2019.
- C. The Commissions finds that the property at 47 Spy Pond Lane is currently, and has been for 50 or more continuous years, considered and managed as a single parcel with an existing house (vacant due to a fire) and large paved driveway to the north. The property is approximately 18,300 square feet along the shoreline of Spy Pond. Lot 1/A is approximately 8452 square feet. The existing house and all but 789 (491 lot 1+ 298 lot 2) sq. ft. of the existing expansive driveway are beyond 100 feet from Spy Pond so the existing house and most of the existing driveway are outside of the Commission's jurisdiction.
- D. The Applicant represents that the existing historical lot can be divided into two new conforming lots as to under zoning. The Applicant thus filed a Notice of Intent (NOI) for each proposed Lot. A separate decision for approval was made for Lot 2(B) in December 2018. Lot 1, also called Lot A, consists of the majority of the existing paved driveway, lawn area, trees and shrubs. Lot 1/A is approximately 8,452 square feet. A separate decision for approval was made for Lot 2(B) under the Bylaw on 12/21/2018.
- E. This Order of Conditions is only for work proposed and allowed on Lot 1/A. Work proposed on Lot 2/B is covered under a different Order of Conditions.
- F. 47 Spy Pond Lane slopes downward and toward Spy Pond which borders the property on the north. Resource Areas under the Bylaw on or within 100 feet of the property of Lot 1(A) are: Land Under Water Body, Bordering Land Subject to Flooding, Bank, and Wetlands Buffer.
- G. The Commission finds the delineation of the Resource Areas shown on the latest revised plans to be accurate.

- H. The Town of Arlington holds a sewer easement through the 47 Spy Pond Lane property in which it has placed a sewer line serving the neighborhood. Its location is shown on several plans.
- I. The Commission finds that the Resource Areas on Lot 1(A) are significant to the Resource Area values protected by the Act, as specified in the Regulations for each Resource Area.
- J. Spy Pond is an approximately 100-acre pond that is teaming with wildlife and enjoyed by many Arlington residents. Spy Pond Park is one of the most used parks in Arlington. The Arlington Boys and Girls Club also borders the shoreline and uses the Pond for many activities. The Town over the years has funded efforts to reduce and manage invasive aquatic plant species in Spy Pond. Many groups in Arlington advocate for the preservation of Spy Pond and work to improve its water quality, including the Arlington Conservation Commission, Spy Pond Committee, Friends of Spy Pond Park, and the Arlington Land Trust.
- K. The Notice of Intent for Lot 1(A) proposes construction of a single-family house and related appurtenances including an underground stormwater infiltration device. The house footprint will be approximately 1,757 square feet with the closest point of the dwelling proposed to be approximately 74.4-feet from the edge of Spy Pond. Work proposed also includes grading and construction of a retaining wall next to the house, the addition of a native planting area within 25-feet from the Pond with an 8-foot wide lawn path through the Wetlands Buffer down to the Pond along the edge of the property. A freestanding field stone unmortared and dry laid wall would be constructed 25-feet from the Pond to surround the proposed 25-foot planting area. The Applicant proposes planting two 3-inch diameter-at-breast height (dbh) trees to mitigate the removal of one mature sycamore tree that would have to be removed for construction of the house. The proposal also includes installing an offsite stormwater treatment unit at the corner of Princeton Road and Alfred Road to treat stormwater from an approximately 1.55 acre watershed area for off-site mitigation, within the Spy Pond watershed.
- L. The Commission finds that the existing impervious surface on the proposed Lot 1(A) is 491 square feet within the Wetlands Buffer and that the project proposed to increase the impervious surface to 879 square feet, a net increase of 388 square feet within the 50 100 foot portion of the Wetlands Buffer.¹

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¹ The Commission notes that the project will have a pervious driveway and walkway which although these are beyond the Commission's jurisdiction, has agreed to keep as pervious in perpetuity. The Commission notes the Applicant's further reduction of the overall amount of impervious surface on the entire lot but does not take it into account in its decision.

- M. As for work in the Wetlands Buffer, the Commission finds that the Applicant has demonstrated that there are no available or practical alternatives available with less impact to wetlands resource areas. The Applicant has significantly reduced the footprint of the house from the Applicant's first Notice of Intent filed in 2016, its second Notice of Intent filed in 2017, and its third Notice of Intent filed in 2018. The proposed house is approximately 74.4 feet from the boundary of resource area whereas the 2018 proposed structure would have been only 72.9 feet from the resource area. The distance of the project is approximately 74.4 feet from the pond, compared to the current impervious concrete driveway which is 68 feet from the pond. Therefore, impervious surface will be pushed approximately 6 feet back from the pond through the project. Thus, as proposed, this project would reduce intrusion into the 100-foot Buffer Zone compared to prior submittals from 2016 through 2018. The proposed project also mitigates more stormwater runoff than needed for the size of the house, restores a 25-ft wide vegetated buffer adding habitat value which currently does not exist, and contributes to a larger watershed's stormwater management with the installation of an offsite stormwater unit that will help improve water quality in Spy Pond. These, among others, are further detailed in Findings M through R, below.
- N. The two infiltration chambers will have the capacity for an approximately 30% larger house originally proposed in 2017 even though the current proposed house will now be smaller. This added capacity further protects the interests of the Act by providing more than sufficient infiltration of roof runoff, meaning there will be less overland stormwater flow across the property into Spy Pond. The existing house has no stormwater infiltration system.
- O. During construction, erosion and sediment controls will serve to protect the Wetlands Buffer and Spy Pond resource areas.
- P. The proposed 25-foot wide area of native plantings close to Spy Pond will enhance wildlife habitat by providing more plant material for wildlife foraging, escape cover, over-wintering, and breeding. Currently, this area is lawn. The vegetated buffer will also help to protect the water quality of Spy Pond by slowing down stormwater runoff and bringing greater stability to the bank and areas immediately adjacent to Spy Pond. The Applicant agrees to construct an unmortered, dry-laid stone wall as a boundary to this vegetative buffer area.
- Q. The Applicant agrees to pursue a Chapter 91/waterways license modification to relocate the dock currently on Lot 1(A), to run perpendicular to and straddle the property line between Lot 1(A) and Lot 2(B). Moving the dock to the proposed boundary between Lot 1 and Lot 2 as a shared dock will further protect the bank of Spy Pond by reducing the number of access

points that may result in bank erosion and sediment entering Spy Pond. The Applicant further agrees that if the dock cannot be relocated, it shall be removed.

- R. The Applicant agrees to purchase and install no later than date tbd an off-site mitigation stormwater Vortechnics 2000 water quality treatment unit at the intersection of Princeton Road and Alfred Road. The Town will maintain it per conversations with the Town Engineer.
- S. The Applicant agrees to install a pervious driveway and walkway although outside of the Conservation Commission's jurisdiction. The Applicant agrees to put in a deed restriction that these surfaces are to remain pervious.

CONCLUSION

The Commission finds that the proposed work on Lot 1(A) has the potential to individually and/or cumulatively harm the resource area values protected by the Act if not adequately regulated, but can proceed here given the mitigation provided and implementation of the conditions specified herein.

Based on the testimony at the public hearings, and review of the application materials and the documents listed above submitted during the public hearings, the Commission concludes that the proposed Project will not alter Resource Areas under the Act, the work as conditioned will not have significant or cumulative effects upon the interests of the Resource Area values of the Massachusetts Wetlands Protect Act when the conditions imposed are implemented to protect the Resource Area values. With the conditions contained herein, the Project meets the performance standards in the Act Regulations.

For the foregoing reasons, the Commission <u>approves</u> under the Act with the conditions stated herein the applications for work on 47 Spy Pond Lane proposed Lot 1(A).

ADDITIONAL SPECIAL CONDITIONS

In addition to the General Conditions (numbered 1-20 above), the Project is subject to the following Additional Special Conditions (under the Act):

Pre-Construction

21. Work permitted by this Order and Permit shall conform to the Notice of Intent, the approved plans and documents (listed above), and oral representations (as recorded in hearing minutes) submitted or made by the Applicant and the Applicant's agents or representatives, as well as any plans and other data, information or representations submitted per these Conditions and approved by the Commission.

- 22. The provisions of this Order and Permit shall apply to and be binding upon the Applicant and Applicant's assignees, tenants, property management company, employees, contractors, and agents.
- 23. No work shall be started under this Order until: (a) all other required permits or approvals have been obtained and (b) the appeal period of ten (10) business days from the date of issue of this Order has expired without any appeal being filed and (c) this Order has been recorded in the Registry of Deeds. No work shall be started under this Permit until all other necessary permits or approvals have been obtained.
- 24. The Applicant shall ensure that a copy of this Order of Conditions and Permit for work, with any referenced plans, is available on-site at all times, and that contractors, site managers, foremen, and sub-contractors understand its provisions.
- 25. Prior to starting work, the Applicant shall submit to the Commission the names and 24-hour phone numbers of project managers or the persons responsible for site work or mitigation.
- 26. Before work begins, erosion and sediment controls shall be installed at the limits of the work area and as depicted in the approved plans. These will include a silt fence and 12-inch straw or silt wattle around the entire work area (hay bales are not allowed and silt socks are preferred).
- 27. The contractor shall contact the Conservation Agent (concomm@town.arlington.ma.us; 781-316-3012) to arrange for a pre-construction meeting with the on-site project manager to walk through the Order of Conditions, confirm the wash out location, and walk the site to confirm the installation and placement of erosion controls prior to the start of any grading or construction work.
- 28. At least 21 days prior to construction, the Applicant shall submit revised site plans reflecting any additions, additional details, and changes from the June 11, 2019 plans referenced in this Order of Conditions to the Commission for approval. <<NS: this is vague and ripe for misinterpretation. Better to say "submit revised plans to reflect changes required in Special Conditions x, y, and z">>. <<ES: revised plans as referenced in the Documents Reviewed section of this OOC, like foundation (#32), planting monitoring report for plantings (#36), stormwater monitoring report for stormwater mitigation (#37), invasives management plan (#50), pervious surfaces (#56), retaining wall (#61) or more generally plans related to foundation, plantings, pervious surfaces?>>

- 29. At least 21 days prior to the start of any construction on Lot 1/A, the Applicant shall submit a signed agreement between the Town of Arlington and Seaver Construction for the acceptance and maintenance of the off-site stormwater treatment unit.
- 30. The contractor shall provide written Notice of the work start date to the Conservation Agent 48 hours prior to start of work.
- 31. The Commission, its employees, and its agents shall have the right of entry onto the site to inspect for compliance with the terms of this Order of Conditions and Permit until a Certificate of Compliance has been issued.
- 32. Within 30 days of completion of the installation of the concrete foundation, the Applicant shall submit an as-built plan, stamped by a Professional Engineer or Registered Land Surveyor, to the Commission within 30 days of the foundation of the home being built showing distances from property lines and Bank and Bordering Vegetated Wetland resource areas.
- 33. The Applicant shall submit no later than July 1, 2020 for Conservation Commission approval a restrictive covenant that any pervious surfaces shown on the plan outside of the Commission's jurisdiction shall remain pervious. The restrictive covenant shall benefit and be enforceable by the Conservation Commission and the Town of Arlington.
- 34. The Applicant shall include the Arlington Conservation Commission's Agent on all communication related to the necessary Chapter 91 Licensing in order to move the location of the existing dock to the boundary of Lots 1/A and 2/B. The Applicant shall not later than September 1, 2020 file a formal request to MassDEP's Waterways Division its request to relocate the dock. If MassDEP does not grant permission to relocate the dock, the Applicant shall remove it.

Environmental Monitors

35. The Applicant must hire a qualified environmental monitor to be onsite during project construction. The monitor shall submit an electronic report to the Conservation Agent twice a month regarding construction progress and relation to resource areas. The qualified environmental monitor shall also submit an electronic report after every rain event exceeding 0.5 inches of rain << SC: do we need to define a duration of time?>> during the duration of construction to the Conservation Agent regarding the condition of the site during and after the rain event, as well as the status of erosion controls and any additional measures to address stormwater interventions and erosion controls management issues caused by said rain event.

- 36. The Applicant must hire a qualified planting monitor to oversee the installation of the vegetated buffer plantings installation. The qualified monitor shall be a certified landscape architect or landscape designer. A planting report must be submitted to the Conservation Commission within 10 days of the completion of the plant installation. The planting report shall include <<NS: specify contents such as list of species and quantity actually planted>>. <<ES: The planting report shall include the following plantings: 10x Sweet Pepperbush (Clethra alnifolia), 10x Arrowwood (Viburnum recognitum), 10x Silky Dogwood (Cornus amomum), 5x Witch Hazel (Hamamelis virginana), 3x Shadbush (Amelanchier canadense), 30x Lowbush Blueberry (Vaccinium angustifolia), and 2x 2.5" caliper Sycamore (Plantanus occidentalis).>>
- 37. The Applicant must hire a qualified stormwater monitor or engineer to oversee the installation of the stormwater infiltration units, permeable pavers, and off-site stormwater mitigation unit. A stormwater mitigation report must be submitted to the Conservation Commission within 10 days of the completion of the stormwater infiltration units and permeable pavers installation.

Post-Construction

- 38. When requesting a Certificate of Compliance for this Order of Conditions, the Applicant must submit a written statement from a Massachusetts professional engineer, registered land surveyor, or registered landscape architect certifying that the completed work complies with the plans referenced in this Order, or provide an as-built plan and statement describing any differences.
- 39. The Applicant must obtain a letter from the Town Engineer that the off-site stormwater mitigation unit was installed properly and its operation and maintenance are acceptable. Other specific requirements for a Certificate of Compliance are detailed in other Special Conditions below in bold text.
- 40. Certification must be provided that the Order of Conditions will be conveyed to any new owner of the property, so that new owners are apprised of the continuing conditions of this permit. This shall be a continuing condition that survives the expiration of this permit.

Dumpsters

41. All dumpsters must be covered at the end of each work day, and no dumpsters will be allowed overnight within the 100-foot Buffer Zone or Adjacent Upland Resource Areas ("AURA") or other Resource Areas.

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Stockpiling

42. No uncovered stockpiling of materials shall be permitted overnight within 100 feet of any waterway or water body.

Erosion

43. Areas that are disturbed by construction and access activities shall as soon as possible be brought to final grade and reseeded and restabilized, and shall be done so prior to the removal of the erosion control barrier.

Equipment

- 44. No heavy equipment may be stored overnight within 50 feet of the wetland and no refueling or maintenance of machinery shall be allowed within the 100-foot Buffer Zone, and Adjacent Upland Resource Area or within any Resource Area.
- 45. Arrangements shall be made for any rinsing of tools, equipment, etc. associated with on—site mixing or use of concrete or other materials such that the waste water is disposed of in the concrete wash out station-at least 50 feet from the resource area. In no case may waste water be discharged into or onto Resource Areas on or adjacent to the site. In no case may waste water be placed in storm drains. Any spillage of materials shall be cleaned up promptly.

Sweeping

- 46. A power-broom must be kept onsite at all times to conduct the daily workday street sweeping.
- 47. Any dirt or debris spilled or tracked onto any paved streets shall be swept up and removed daily with a power-broom.

Dewatering

- 48. Any dewatering operations shall conform to the following:
 - (a) Notify the Conservation Commission that dewatering is required.
 - (b) Any catch basins, drains, 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.
 - (e) No dewatering shall occur within 50 feet of the pond.

Plantings

- 49. All vegetated buffer plantings shall be native and be installed and maintained according to the standards of the American Association of Nurserymen (AAN) and be maintained in perpetuity. This shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition in perpetuity.
- 50. At least 21 days prior to plant installation, the Applicant shall submit an invasive plant management plan to the Conservation Commission. The plan shall focus on invasive plant management for the vegetated buffer area. The plan's recommendations shall be performed by the Applicant and the recommendations shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition in perpetuity.
- 51. The Applicant shall monitor all approved plantings for a period of three years after plant installation. The Applicant shall maintain 100% survival of all installed plantings after the first and second year of monitoring, and maintain a 90% survival of all installed plantings after the third (final) year of monitoring.
- 52. The Applicant shall maintain 100% survival of the two approved replacement trees. This shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition in perpetuity.
- 53. The unmortared and dry laid stone wall approved to delineate the vegetated buffer area shall remain as unmortared and dry laid. This shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition in perpetuity.
- 54. A metal (or other permanent material) sign or marker shall be installed on or along the unmortared wall to demarcate the conservation area. Specifications and a plan for the sign shall be submitted to the Commission for approval 21 days prior to the construction of the wall. The permanent sign or marker shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition in perpetuity.

Chemicals

55. To avoid adding excess nitrogen runoff to Spy Pond, the Applicant shall only treat the lawn with slow release nitrogen fertilizer. Application of this fertilizer cannot occur in

the summer, or after storm events. Lawn fertilizer shall only be applied twice a year, in spring and fall. No herbicides shall be used to treat invasive or unwanted plants. New plantings shall only be fertilized once, during the initial planting year. No pesticides or rodenticides shall be used to treat pest management issues within the 100-foot Wetland Buffer. This shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition in perpetuity.

Pervious Surfaces

- 56. Pervious surfaces shown on the project plans shall be maintained and not be replaced by impervious surfaces. This shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition in perpetuity.
- 57. The approved deck shall be constructed to facilitate stormwater infiltration below so that it acts a pervious surface.

Stormwater Management

- 58. The on-site infiltration system shall be maintained according to the manufacturer best management practices and operations/maintenance plan. The system shall be checked twice a year to ensure compliance with the best management practices and operations/maintenance plan. An annual report shall be submitted to the Conservation Commission and Town Engineer demonstrating that the operation and maintenance of the unit was performed per the manufacturer best management practices. This shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition in perpetuity.
- 59. The off-site Vortechnics unit shall be purchased and installed by the Applicant at the Applicant's expense. The Town of Arlington shall take over the maintenance of the unit per the conservations documented with the Town Engineer, only when the Town Engineer is satisfied with the function of the unit. The off-site unit shall be installed and operational within 12 months of the issuance of the Order of Conditions.

Retaining Wall

- 60. There shall be no retaining wall over the existing sewer easement. Instead, the property shall be gradually graded to meet the existing contours.
- 61. At least 21 days prior to construction, the Applicant shall submit a revised retaining wall plan to the Conservation Commission Agent for review and approval.

Dock

62. The dock on Lot 1/A must either be relocated to the property boundary between Lots 1/A and 2/B, or fully removed and abandoned before the Applicant named in this Order sells or conveys by the time of sale of either Lot 1/A or Lot 2/B.

