

SHERBORN CONSERVATION COMMISSION



MEMO

TO: Sherborn Zoning Board of Appeals and the Sherborn Select Board

FROM: Conservation Commission

DATE: July 15, 2025

RE: Comments on Washington Street Sherborn Homes (Lot 3) and Proposed Conditions for a Possible Comprehensive Permit

The Conservation Commission provides the following comments on the proposed Washington Street Sherborn Homes project, which includes two duplex buildings, as shown on the design plan titled *"Lot 3 Washington Street, Sherborn, MA,"* dated April 29, 2025.

Although the project will be subject to review by the Commission under the Massachusetts Wetlands Protection Act, the Commission requests that several conditions be included in the Comprehensive Permit. These requested conditions reflect the more protective standards set forth in the Sherborn Wetlands Bylaw and its regulations.

The site is currently undeveloped and contains two undisturbed wetland resource areas and their buffer zones. An Isolated Vegetated Wetlands (IVW), on the west side of the property, includes a vernal pool that supports amphibian and invertebrate breeding in a fish-free environment. This area also contributes to groundwater recharge and water quality protection. A Bordering Vegetated Wetland (BVW) on the east side of the site provides important critical functions such as wildlife habitat, groundwater recharge, water quality protection, and flood mitigation.

The proposed project includes a 12- bedroom septic field, two duplex buildings, a common driveway, and extensive grading and landscaping – all within the unaltered 100-foot buffer zones of both wetlands.

The Commission's primary concerns are as follows:

1. **Septic System Impacts** - Water quality impacts arising from the septage outflow from a significantly sized 12-bedroom system, whose field is partly in the BVW buffer zone and upgradient to the BVW. The septic field is at the edge of the vernal pool buffer zone and upgradient to the vernal pool. In addition, there is significant grading related to the septic system in the buffer zone of both the BVW and the vernal pool. Due to residential drinking water wells, the local regulations have a 125-foot separation of the septic field from wetland resources to protect water quality, which will not be met in this project.
2. **Loss of Vernal Pool Buffer Zone** – Removing vegetation adjacent to the vernal pool may increase sun exposure, disrupting its ecological function. Vegetation surrounding a vernal

pool provides shade and insulation, which help regulate water temperature and moisture levels—conditions critical for the successful breeding of amphibians and invertebrates. Removing this vegetation increases sun exposure, which can dry out the pool too quickly, disrupt breeding cycles, and reduce habitat quality for species that depend on these temporary water bodies.

3. **Loss of BVW Buffer Zone** - The buffer zone around a BVW helps protect the wetland by filtering stormwater runoff, trapping sediments, and preventing pollutants from entering the wetland. It also supports wildlife habitat and stabilizes soils to reduce erosion. Removing vegetation in this area can lead to poorer water quality, increased runoff, and loss of habitat for wetland-dependent species.
4. **Impacts from Grading for Houses, Driveway and Septic System** – Significant grading for the buildings, driveway and septic system may alter stormwater flow and increase erosion, potentially degrading the vernal pool and diminishing the protective function of the BVW.
5. **Restoration/Mitigation Planting Plan** – A planting plan is needed to restore the disturbed buffer areas and to help offset ecological impacts.
6. **Roof Runoff** – Direct discharge of roof runoff into the wetland buffer may create point source pollution, impacting water quality. The Commission recommends incorporating stormwater infiltration measures.
7. **Driveway Location & Sealant Use** – The proposed driveway is located within the wetland buffer zone. The use of coal-tar-based asphalt sealants must be prohibited to prevent harmful chemical runoff into the wetlands.
8. **Chemical Use** - The use of chemicals for pest control, vegetation management, landscaping and de-icing should be minimized and selected to minimize environmental impact.

To assist in evaluating potential wetland impacts and in developing appropriate mitigation measures, the following information should be added to the design plan:

- The proposed limit of future lawn and managed landscape areas, which should be minimized within the wetland buffer zone.
- The location, species, and diameter at breast height (DBH) of all trees greater than 6 inches DBH proposed for removal within the buffer zone.

This information is necessary to assess the extent of buffer zone alteration and to guide restoration and mitigation planting requirements that the Commission would then propose to the ZBA under Condition 8 below.

The Conservation Commission requests that the Zoning Board of Appeals incorporate the following conditions into their final decision to help address the above concerns:

- 1) **Wetland Markers:** Eight (8) concrete monuments with wetland plaques shall be installed along the limit of lawn, as shown on the approved design plan; four on the vernal pool side (west) and four on the bordering vegetated wetland side (east). Wetland plaques may be obtained from the Sherborn Conservation Commission office.

- 2) **Fertilizers/Pesticides/Herbicides:** Fertilizers used for landscaping and lawn care shall be zero-phosphate, low-nitrogen, slow-release products, applied only in moderation and only within the 50–100-foot buffer zone. No fertilizers, pesticides, or herbicides shall be applied in the 50-foot No Alteration Zone or the BVW.
- 3) **De-icing Chemicals:** To protect the adjacent wetland resource areas from contamination, the use of sodium chloride (rock salt) and other chloride-based and sodium-based de-icing chemicals is prohibited within 100 feet of any Bordering Vegetated Wetland (BVW) or vernal pool. Alternative de-icing methods such as sand, calcium magnesium acetate (CMA), or other environmentally benign products may be used sparingly and only as necessary to maintain public safety. The Permittee shall ensure that all property managers, contractors, and maintenance personnel are informed of this requirement.
- 4) **Fill:** Any fill material used in wetland jurisdictional areas shall be clean fill, containing no garbage, refuse, rubbish, industrial or commercial or municipal fill or waste, demolition debris, or septic sludge, including, but not limited to lumber, wood, stumps, plaster, wire, rubbish, pipes, lathe, paper, cardboard, glass, metal, tires, ashes, appliances, motor vehicles or parts of any of the foregoing. No fill containing levels of oil or hazardous materials above GW-1/S-1 Method 1 Standards, as described in the Massachusetts Contingency Plan (MCP) environmental regulations as revised, will be used in connection with any project under the jurisdiction of the Commission. The source of any fill to be used in jurisdictional areas will be made known in writing to a member of the Commission at least one week prior to placement at the site. All environmental reports and results of chemical testing of such fill will be filed with the Commission at this time. The Commission reserves the right to require specific additional chemical testing of fill by a third party, at the applicant's expense.
- 5) **Driveway Surface:** Coal-tar based asphalt sealants will not be used on the driveway due to the direction of stormwater run-off into the wetland buffer zone.
- 6) **Exterior Lighting:** To protect wildlife habitats, all exterior lighting should be designed to avoid illuminating wetland areas, buffer zones and potential wildlife corridors. All exterior lighting in the wetland buffer zones (and preferably other areas as well) will:
 - (i) be directed downward to focus away from the wetland resource and buffer zone and to limit light pollution (e.g. Dark Sky Approved),
 - (ii) use warm lighting (3000K or lower, preferably 2700K),
 - (iii) be limited in wattage/lumens and number to meet safety needs,
 - (iv) include timers to turn off or dim lights that will be on all night,
 - (v) include motion detectors so that this option is available to lessen night lighting.
- 7) **Stormwater Management:** A stormwater infiltration system shall be installed to manage roof runoff from each proposed building. Each system shall be sized to capture and infiltrate a minimum of one inch of rainfall over the entire roof area. Outlets from these systems shall be located as far from wetland resource areas as practicable and shall be designed to prevent erosion or concentrated flow within the buffer zone. Energy dissipation and stabilization measures (e.g., riprap aprons) shall be incorporated as needed to maintain the integrity of surrounding soils and vegetation. The final infiltration system design shall be included in the approved site plans and is subject to review and approval by the Commission or its agent.

8) **Restoration and Mitigation Planting:** Due to the extent of work within the wetland buffer zone, a restoration and mitigation planting plan is required for all disturbed buffer zone areas. The final planting plan must be submitted to the Commission for review and approval following receipt of additional information regarding proposed tree removal and lawn limits. All plant species shall be native and approved by the Commission. Plantings must meet the following survival standards over two full growing seasons: 100% survival for trees, 90% for shrubs, and complete groundcover for herbaceous species. Following grading of the septic field and any driveway work near the vernal pool or BVW, all exposed soils must be stabilized immediately using jute matting and seeded with a conservation or erosion control seed mix.

Note: Further details for this condition can be provided after the additional information requested above has been provided.