

# EcoTec, Inc.

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## ENVIRONMENTAL CONSULTING SERVICES

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# Project Description, Construction Sequence & Wetlands Interest Assessment

**Proposed Single-Family Home  
233 Cedar Street  
Sturbridge, MA 01566**

Prepared for:  
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### **INTRODUCTION**

The following information has been prepared to supplement the Notice of Intent (NOI) filed for the property located at 233 Cedar Street for the construction of a single-family home with associated septic system, driveway, stormwater management facilities, utilities, grading and landscaping within the 100-foot Buffer Zone to Bordering Vegetated Wetlands (BVW). A Wetland Resource Evaluation, prepared by EcoTec, Inc., dated November 20, 2020, has been appended to the NOI application which describes the existing conditions and wetland resource areas that occur on the subject site. The wetland resource area boundaries on the site have been approved under a recent filing with the Conservation Commission. The following project description is based upon a site inspection conducted by Scott Jordan of EcoTec on September 7, 2022 and site plans entitled *Soil Absorption System- "NEW" – Located at 233 Cedar Street, Sturbridge, Massachusetts*, prepared by

Jalbert Engineering, Inc., dated revised 10/6/2022, which are included as part of the NOI application.

### **PROJECT DESCRIPTION AND CONSTRUCTION SEQUENCE**

The applicant proposes to construct a single-family home with associated 10-foot wide paved driveway, septic system, stormwater management facilities, utilities, grading and landscaping within the Buffer Zone to a BVW. The project has combined four separate lots for the construction of one single-family home; and as there is a wooded swamp wetland system located within the eastern portion of the site, the proposed project is the only practicable alternative for the proposed single-family home project. The project shall utilize an existing cart path with a recently installed equilibrium culvert to access the house site in the western portion of the site, thus avoiding any wetland alterations. With the exception of the proposed driveway and associated stormwater basins, there is no work proposed within the Sturbridge 25-foot No Disturbance Zone, and there are no structures proposed within the Sturbridge 50-foot No Build Zone. The driveway construction within the 25-foot No Disturbance Zone shall require the removal of two standing dead trees and one live white pine tree. The tree stumps shall not be removed, but may be ground, to avoid potential erosion. Additionally, approximately nine black birch saplings (dbh <5 inches) and one red maple sapling shall be trimmed or cut at ground level, as necessary, to allow for heavy equipment access and the driveway construction. The sapling stumps shall not be removed to avoid potential erosion. The applicant is hereby requesting a waiver for the construction of the driveway and associated stormwater basins within the 25-foot No Disturbance Zone which is necessary to access the house site.

The project provides a snow storage area, and stormwater management facilities including Stormtech chambers to infiltrate the roof runoff and stone lined basins to capture stormwater runoff along the proposed paved driveway. The limit of work/lawn area shall be demarcated with signage to prevent future clearing, dumping, or filling beyond the approved limit of work. The signage shall be of plastic or aluminum and shall be installed on metal, pressure treated, or cedar posts at 3'-5' above the ground surface and at a spacing of no more than 50 feet. The signs shall state the following, or similar language approved by the Sturbridge Conservation Commission:

“Wetland Conservation Easement  
No Mowing, cutting, construction,  
filling, application of chemicals,  
or dredging allowed”

The project construction sequence is as follows:

1. Prior to the start of clearing or other work on the site the limit of work shall be staked by the project surveyor.
2. Commence tree clearing (no stump removal until erosion control barriers have been installed);
3. An erosion control barrier of entrenched siltation fence fronted by staked straw bales will be installed at the limit of work as shown on the Site Plan. The erosion controls will be

- maintained until all work is complete and the upgradient portions of the site have been stabilized.
4. Excavate organic top soils from 10-foot wide driveway and install 12" raised gravel base to provide firm site access during construction;
  5. Construct stone lined stormwater basins along driveway, stabilize disturbed soils along shoulders with BFM hydroseed, sod, or seed and erosion control blankets;
  6. Excavate for foundation/slab. Immediately temporarily stabilize exposed soils where earth disturbing activities have/will cease for more than 14 days;
  7. Form and pour foundation/slab;
  8. Backfill foundation/slab and complete rough grading. Temporarily stabilize exposed soils as necessary with hydromulch (min. 2,200 lbs/acre), wood mulch, straw mulch (2 bales/1,000 sf), or similar;
  9. Install septic system, stabilize side slopes with sod, seed and erosion control blanket, or bonded fiber matrix hydroseed applied at manufacturer's recommended rate.
  10. Construct infiltration chambers and connect utilities;
  11. Construct house, including framing, roofing, siding and interior;
  12. Complete grading, pave driveway;
  13. Conduct final cleanup of wood scraps, building materials, etc.;
  14. Loam and seed lawn area. Use sod, seed and erosion control blanket, or bonded fiber matrix hydroseed applied at manufacturer's recommended rate for septic system slopes and all slopes in excess of 3H:1V.
  15. Install "Wetland Conservation Easement" signs at limit of work. Signs should be installed on metal, pressure treated, or cedar posts at 3'-5' above the ground surface and at a spacing of no more than 50 feet.

### **PROTECTION OF WETLAND INTERESTS ASSESSMENT**

The interests protected under the Massachusetts Wetlands Protection Act and Regulations, applicable to this site, include the following: public or private water supply, protection of groundwater supply, flood control, storm damage prevention, prevention of pollution, protection of land containing shellfish and fisheries, and protection of wildlife habitat. The proposed project protects wetland interests as follows:

Public or Private Water Supply - There are no aquifers, surface water supplies or wellhead protection areas within the immediate vicinity of the site. Any potential runoff will be controlled with a silt fence and staked bale erosion control barrier. Under post construction conditions, runoff

from impervious surfaces will be treated and recharged in the provided Stormtech infiltration chambers and stormwater basins. Under post construction conditions, runoff from impervious surfaces will be treated and recharged in the provided Stormtech infiltration chambers and stormwater basins.

Flood Control – There are no Zone A or Zone AE 100-year floodplains located on or near the site. Additionally, the site access shall utilize an existing cart path and there is no filling or alteration of wetland resource areas proposed under the project.

Storm Damage Prevention - The proposed project will not change long-term site characteristics relative to storm damage prevention. Minimal grade changes are proposed and the site will be stable with vegetation and impervious surfaces upon completion. In the short term; erosion controls will prevent storm damage during construction.

Prevention of Pollution – Potential stormwater runoff will be controlled, and prevented, through the use of erosion controls during construction. Erosion and sediment control during construction will include temporary measures such as straw wattle and silt fence barriers, and temporary stabilization. Permanent erosion control will be provided through stabilization of all disturbed areas with high-quality soils, vegetation, impervious surfaces and stormwater management facilities, including Stormtech infiltration chambers and stormwater basins.

Protection of Shellfish and Fisheries – There are no perennial waterbodies or waterways on or near the site; therefore, there shall be no impact to fisheries associated with the project. If present, shellfish shall be protected through the use of erosion controls during construction. Erosion and sedimentation controls will be provided during the construction project to ensure that eroded and suspended sediments will not be released to wetland resource areas. Erosion and sediment control during construction will include temporary measures such as straw wattle and silt fence barriers, and temporary stabilization. Permanent erosion control will be provided through stabilization of all disturbed areas with high-quality soils, vegetation, impervious surfaces and stormwater management facilities, including Stormtech infiltration chambers and stormwater basins.

Protection of Wildlife Habitat – The project does not propose the alteration of wetland resource areas on the site; therefore, there shall be no impact to wetland wildlife habitat. Potential stormwater runoff will be controlled through the use of erosion controls during construction. Erosion and sediment control during construction will include temporary measures such as straw wattle and silt fence barriers, and temporary stabilization. Permanent erosion control will be provided through stabilization of all disturbed areas with high-quality soils, vegetation, impervious surfaces and stormwater management facilities, including Stormtech infiltration chambers and stormwater basins. Additionally, based upon a review of the *Massachusetts Natural Heritage Atlas*, 15<sup>th</sup> edition, Priority Habitats and Estimated Habitats from the NHESP Interactive Viewer, valid from August 1, 2021, and Certified Vernal Pools from MassGIS, there are no Estimated Habitats [for use with the Act and Regulations (310 CMR 10.00 *et seq.*)], Priority Habitats [for use with Massachusetts Endangered Species Act (M.G.L. Ch. 131A; “MESA”) and MESA Regulations (321 CMR 10.00 *et seq.*)], or Certified Vernal Pools on or in the immediate vicinity of the site. A copy of this map is attached to the Wetland Resource Evaluation which has been appended to the NOI.

