# GODDARD CONSULTING Strategic Wetland Permitting

September 8, 2017 Revised December 20, 2017

Medway Conservation Commission Medway Town Hall 155 Village Street Medway, MA 02053

Re: Notice of Intent (NOI) for Timber Crest Estates Fairway Lane, Holliston Street, Ohlson Circle, Winthrop Street and Woodland Road

# 1. INTRODUCTION AND PROJECT DESCRIPTION

Goddard Consulting, LLC (Goddard) is pleased to submit this Notice of Intent (NOI)) on behalf of the applicant, Timber Crest Estates, LLC. This NOI application is for proposed work within Buffer Zone, Bank and Bordering Vegetated Wetlands (BVW) and Land Under Waterbodies (LUW) associated with the "Timber Crest Estates" 40B residential development located off Fairway Lane, Holliston Street, Ohlson Circle, Winthrop Street and Woodland Road. This NOI is being filed under the MA Wetlands Protection Act (WPA) only.

The project consists of 147 housing units, including 70 single-family homes on the west portion of the site and 77 single-family homes on the east portion of the site. The site, as designed by Outback Engineering of Middleborough, MA, has a subdivision roadway entrance for the single family house lots off of Winthrop Street, directly opposite from Stephanie Road. The subdivision roadways loop through the western portion of the site, ending in a cul-de-sac with an emergency access provided to Ohlson Circle, across the property located at 13 Ohlson Circle.

This NOI application <u>does not</u> include the construction of any individual houses or duplexes. Separate individual filings will be submitted for the construction of residences. This NOI is for the site preparation, grading, stormwater management structures, utilities, wetland crossings and roadways.

The project design has avoided impacts within 15 feet of wetland resource areas wherever possible and has incorporated two wildlife crossing structures, designed to allow passage of reptiles, amphibians and mammals under roadways in locations near vernal pools.

## 2. EXISTING WETLAND RESOURCE AREAS

Four separate Orders of Resource Area Delineation (ORADs) confirming the wetland resource area boundaries within the subject properties were issued by the Conservation Commission as follows:

- DEP File #216-821 (ORAD Issued 9/10/14)
- DEP File #216-841 (SORAD Issued 10/20/15)
- DEP File #216-859 (ORAD Issued 12/11/15)
- DEP File #216-878 (ORAD Issued 12/12/16)

# This NOI has been filed prior to the expiration of any of the four ORADs, therefore it is presumed by the applicant that all approved resource area boundaries are still valid.

Forty-one new BVW flags were delineated by Goddard Consulting in July of 2017, extending northeast from proposed Road D. Confirmation of the accuracy of the new flags is requested as part of this NOI application. The flags are blue and numbered from #235 through #276. DEP datasheets are attached, documenting upgradient and downgradient conditions at flag #271. Update: the BVW flags were peer-reviewed by Arthur Allen of EcoTec Inc. As described in a report to the Commission dated October 23, 2017, Mr. Allen recommended that flags #236 and 237 be relocated slightly up-gradient, 12 and 10 feet respectively. New flags, agreed upon in the field, were delineated and labeled as "#236R" and "#237R." These revised flags (and their associated revised buffer zone) will be incorporated onto the next plan revision to be performed by Outback Engineering.

The boundaries of documented vernal pools were reviewed and ultimately approved by the Commission's peer review consultant, EcoTec, in a letter to the Commission dated 5/23/17 (attached). The Bank of stream within the 165 Holliston Street property (Map 9, Parcel 51) was also revised and ultimately approved by EcoTec during May 2017.

A stream shown as "perennial" on the USGS map within the 165 Holliston Street property has been documented to be "intermittent" pursuant to 310 CMR 10.58(2)(a)1.d. A detailed report with documentation of the dry stream conditions is included with this application. Update: Mr. Allen, in his report, confirmed the intermittent status of the stream in person and determined that the dry stream documentation provided with the NOI application is compliant with the Regulations.

# 3. PROPOSED RESOURCE AREA IMPACTS

### 3.1 BUFFER ZONE IMPACTS

The project design has avoided impacts within 15 feet of wetland resource areas wherever possible. The project design has incorporated two wildlife crossing structures, designed to

allow passage of reptiles, amphibians and mammals under roadways in locations near vernal pools.

### 3.2 RESOURCE AREA IMPACTS

The project requires the alteration of BVW, Bank and LUW resource areas (Table 1). The altered BVW will be replicated at a ratio of greater than 1:1, exceeding WPA standards. There will be two temporary alterations of BVW for construction of a water/sewer line, which will be carefully restored to pre-existing conditions. The two stream crossings impacting Bank and LUW have been designed in compliance with the MA Stream Crossing Standards and 310 CMR 10.54 and 10.56 respectively.

Table 1 – Resource area alteration amounts at each of five wetland crossings.

Impact Area ID	Bank Alteration	LUW Alteration	BVW Alteration
Crossing #1	70 lf	270 sf	0
Crossing #2	0	0	3,644 sf
Crossing #3	106 lf	556 sf	3,505 sf
Crossing #4 (aka Water/Sewer B)	0	0	75 sf
Crossing #5	0	0	0
(aka Water/Sewer A)			

### 4. COMPLIANCE WITH WPA PERFORMANCE STANDARDS

### 4.1 BUFFER ZONE

The WPA Regulations [310 CMR 10.02(2)(b)] do not contain performance standards for Buffer Zone Alteration. All reasonable efforts to avoid, minimize and mitigate adverse impacts on the Buffer Zone have been considered, but the project design requires that Buffer Zone be altered in order to achieve the desired project design. The project design has avoided impacts within 15 feet of wetland resource areas wherever possible. The altered area of Buffer Zone does not contain slopes greater than 15%, and erosion and sedimentation controls will be installed along the limit of work throughout the project area in order to prevent any siltation into the wetlands during construction.

# 4.2 LIMITED PROJECT

### 310 CMR 10.53(3)(e)

The construction and maintenance of a new roadway or driveway of minimum legal and practical width acceptable to the planning board, where reasonable alternative means of access from a public way to an upland area of the same owner is unavailable. Such roadway

or driveway shall be constructed in a manner which does not restrict the flow of water. Reasonable alternative means of access may include any previously or currently available alternatives such as realignment or reconfiguration of the project to conform to 310 CMR 10.54 through 10.58 or to otherwise minimize adverse impacts on resource areas. The issuing authority may require the applicant to utilize access over an adjacent parcel of land currently or formerly owned by the applicant, or in which the applicant has, or can obtain, an ownership interest. The applicant shall design the roadway or driveway according to the minimum length and width acceptable to the Planning Board, and shall present reasonable alternative means of access to the Board. The applicant shall provide replication of bordering vegetated wetlands and compensatory flood storage to the extent practicable. In the Certificate of Compliance, the issuing authority may continue a condition imposed in the Order of Conditions to prohibit further activities under 310 CMR 10.53(3)(e).

The roadway crossings have been designed with the minimum width acceptable to the Planning Board, and alternative means of access from a public way to the upland areas of the same owner are not available. During the Comprehensive Permit process with the Medway Zoning Board of Appeals (ZBA) it was determined that the eastern portion of the project would need a second means of access/egress in addition to the roadway connecting to Fairway Lane. Plans submitted to the ZBA dated 3/16/2016 (shown below) show that two large wetland crossings would have been required in order to extend the roadway south to Fern Path. In order to avoid these two substantial wetland crossings, the applicant acquired the property at 165 Holliston Street and revised the project to connect to Holliston Street with a single crossing instead of the original two crossings as shown on the 3/16/16 plan. The crossings have been designed so as to not restrict the flow of water. Any BVW alteration will be replicated at a ratio of at least 1:1.

See Alternative Analysis submitted by Outback Engineering, dated 12/18/17 for a more detailed examination of four project alternatives and their associated wetland resource area impacts.



Figure 1 - Outback Engineering Plan, submitted to ZBA, dated 3/16/16.

## 4.3 BORDERING VEGETATED WETLANDS

<u>310 CMR 10.55(4)</u> is the regulatory jurisdiction under the WPA that applies to BVW alteration and replication. The section reads as follows, with compliance stated in **bold**:

# 310 CMR 10.55(4)(a)

Where the presumption set forth in 310 CMR 10.55(3) is not overcome, any proposed work in a Bordering Vegetated Wetland shall not destroy or otherwise impair any portion of said area.

The proposed BVW alterations will not destroy or otherwise impair any portion of said areas.

## 310 CMR 10.55(4)(b)

Notwithstanding the provisions of 310 CMR 10.55(4)(a), the issuing authority may issue an Order of Conditions permitting work which results in the loss of up to 5000 square feet of Bordering Vegetated Wetland when said area is replaced in accordance with the following general conditions and any additional, specific conditions the issuing authority deems necessary to ensure that the replacement area will function in a manner similar to the area that will be lost:

1. the surface of the replacement area to be created ("the replacement area") shall be equal to that of the area that will be lost ("the lost area");

# The surface area of the replacement area is slightly more than 1:1, greater than the lost area.

2. the ground water and surface elevation of the replacement area shall be approximately equal to that of the lost area;

# The ground water elevation of the replacement area is expected to be approximately equal to that for the lost area.

3. The overall horizontal configuration and location of the replacement area with respect to the Bank shall be similar to that of the lost area;

# The overall horizontal configuration and location of the replacement area with respect to the Bank shall be similar to that of the lost area;

4. The replacement area shall have an unrestricted hydraulic connection to the same water body or waterway associated with the lost area;

# The replacement area shall have an unrestricted hydraulic connection to the same wetland system as the lost area. The replacement area connects to the same delineated BVW as the lost area.

5. The replacement area shall be located within the same general area of the waterbody or reach of the waterway as the lost area;

### The replacement area is located next to and connected to the lost area.

6. At least 75% of the surface of the replacement area shall be reestablished with indigenous wetland plant species within two growing seasons, and prior to said vegetative reestablishment any exposed soil in the replacement area shall be temporarily stabilized to prevent erosion in accordance with standard U.S. Soil Conservation Service methods; and

The replacement area has been designed with native tree, shrub and herbaceous species with the intention of complying with this condition. As described in the monitoring section below, the replacement area will be inspected annually for two growing seasons to ensure that the replacement area meets the 75% coverage within two growing seasons. Any bare soils following construction will have been seeded with New England Wetland Plants Wetmix, so soil stabilization should occur rapidly.

7. The replacement area shall be provided in a manner which is consistent with all other General Performance Standards for each resource area in Part III of 310 CMR 10.00. In the exercise of this discretion, the issuing authority shall consider the magnitude of the alteration, and the significance of the project site to the interests identified in M.G.L. c. 131, Sec. 40, the extent to which adverse impacts are minimized, and the extent to which mitigation measures, including replication or restoration, area provided to contribute to the protection of the interests identified in M.G.L. c. 131, Sec. 40.

The replacement area meets the general performance standards for the altered resource area, which is BVW.

In the exercise of its discretion, the Commission should consider that the project has been designed to minimize impacts to BVW to the greatest extent practicable and the BVW will be replicated at a ratio of greater than 1:1.

### 310 CMR 10.55(4)(c-e)

These sections are not applicable to this project.

#### **4.4 BANK**

### 310 CMR 10.54(4)(a)

Where the presumption set forth in 310 CMR 10.54(3) is not overcome, any proposed work on a Bank shall not impair the following:

- 1. the physical stability of the Bank;
- 2. the water carrying capacity of the existing channel within the Bank;
- 3. ground water and surface water quality;
- 4. the capacity of the Bank to provide breeding habitat, escape cover and food for fisheries;

The proposed Bank alterations will not impair the physical stability of the Bank, the water carrying capacity of the existing channel within the Bank, ground water and surface water quality of the Bank, nor the capacity of the Bank to provide breeding habitat, escape cover and food for fisheries.

5. the capacity of the Bank to provide important wildlife habitat functions. A project or projects on a single lot, for which Notice(s) of Intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 50 feet (whichever is less) of the length of the bank found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. In the case of a bank of a river or an intermittent stream, the impact shall be measured on each side of the stream or river. Additional alterations beyond the above threshold may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures contained in 310 CMR 10.60.

### See attached Detailed Wildlife Habitat Evaluation.

6. Work on a stream crossing shall be presumed to meet the performance standard set forth in 310 CMR 10.54(4)(a) provided the work is performed in compliance with the Massachusetts Stream Crossing Standards by consisting of a span or embedded culvert in which, at a minimum, the bottom of a span structure or the upper surface of an embedded culvert is above the elevation of the top of the bank, and the structure spans the channel width by a minimum of 1.2 times the bankfull width. This presumption is rebuttable and may be overcome by the submittal of credible evidence from a competent source.

Notwithstanding the requirement of 310 CMR 10.54(4)(a)5., the impact on bank caused by the installation of a stream crossing is exempt from the requirement to perform a habitat evaluation in accordance with the procedures contained in 310 CMR 10.60.

Both stream crossings have been designed in compliance with the MA Stream Crossing Standards.

310 CMR 10.54(4)(b-c)

These sections are not applicable to this project.

### 4.4 LAND UNDER WATERBODIES AND WATERWAYS (LUW)

310 CMR 10.56

Where the presumption set forth in 310 CMR 10.56(3) is not overcome, any proposed work within Land under Water Bodies and Waterways shall not impair the following:

- 1. The water carrying capacity within the defined channel, which is provided by said land in conjunction with the banks;
- 2. Ground and surface water quality;
- 3. The capacity of said land to provide breeding habitat, escape cover and food for fisheries; and

The proposed LUW alterations will not impair the water carrying capacity within the defined channel, ground water and surface water quality of the LUW, nor the capacity of the LUW to provide breeding habitat, escape cover and food for fisheries.

4. The capacity of said land to provide important wildlife habitat functions. A project or projects on a single lot, for which Notice(s) of intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 5,000 square feet (whichever is less) of land in this resource area found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. Additional alterations beyond the above threshold may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures established under 310 CMR 10.60.

### See attached Detailed Wildlife Habitat Evaluation.

5. Work on a stream crossing shall be presumed to meet the performance standard set forth in 310 CMR 10.56(4)(a) provided the work is performed in compliance with the Massachusetts Stream Crossing Standards by consisting of a span or embedded culvert in which, at a minimum, the bottom of a span structure or the upper surface of an embedded culvert is above the elevation of the top of the bank, and the structure spans the channel width by a minimum of 1.2 times the bankfull width. This presumption is rebuttable and may be overcome by the submittal of credible evidence from a competent source. Notwithstanding the requirements of 310 CMR 10.56(4)(a)4., the impact on Land under Water Bodies and Waterways caused by the installation of a stream crossing is exempt from the requirement to perform a habitat evaluation in accordance with the procedures established under 310 CMR 10.60.

Both stream crossings have been designed in compliance with the MA Stream Crossing Standards.

### 4.5 STORMWATER MANAGEMENT

310 CMR 10.05(6)(k) through (q)

The project has been designed to comply with MA Stormwater Management Standards.

### 5. SUBMITTED MATERIALS

NOTE: This is a list of original submitted materials. Supplemental materials have been provided but are not reflected in this section.

Four hard copies of this application package are enclosed, along with the site plans and stormwater report. A digital copy of the application package will also be submitted. The titles of all documents enclosed are as follows:

- NOI (WPA Form 3) Application form
- Wetland Fee Transmittal Form, Copy of Checks
- Affidavit of Service
- Certified Abutter Lists
- Notification to Abutters
- USGS Site Locus, Goddard Consulting, LLC. 8/21/17
- Orthophoto View of Site, Goddard Consulting, LLC. 8/21/17
- Vernal Pool Boundary Review, Ecotec, 5/23/17
- MA DEP BVW datasheets, Goddard Consulting, LLC. 7/21/17
- Wetland Replication Plan, Goddard Consulting, LLC. 9/7/17
- Intermittent Stream Documentation Report, Goddard Consulting, LLC. 9/7/17
- Detailed Wildlife Habitat Evaluation Report, Goddard Consulting, LLC. 9/7/17
- Conservation Permitting Plans for Timber Crest Estates (Multiple Sheets), Outback Engineering, Inc., 8/25/17 (signed 9/7/17)
- Stormwater Report with DEP Checklist, Outback Engineering, Inc., 9/7/17

Sincerely,

by

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Daniel Wells, M.S.

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