3/28/2018

Medway Conservation Commission

Medway Town Hall

155 Village Street

Medway, MA 02053

Re: Response to Comments from Conservation Agent, EcoTec and Mass DEP

Timber Crest Estates Development, Medway, MA (DEP File #216-914)

1. Introduction

Goddard Consulting, LLC is pleased to submit this letter in response to the comments received regarding the Notice of Intent for the Timber Crest Estates residential development in Medway, MA. Responses are provided for the following comment sources:

1) January 10, 2018 letter from Conservation Agent Bridget Graziano

2) Undated memo from Conservation Agent Bridget Graziano titled: *"Notes from the 1-11-18 meeting requests of the applicant based on notes from hearing DEP #21-0914."*

3) January 8, 2018 letter from Art Allen of EcoTec, Inc. to the Commission.

4) MassDEP Comments issued on 12/18/17

Original comments are restated in italics, and project team (Goddard Consulting, Outback Engineering, Attorney Matthew Watsky, Applicant Mounir Tayara) responses are in bold.

2. Letter from Conservation Agent Bridget Graziano dated January 10, 2018.

Comment #2.1

It is the opinion of the Agent that that 310 CM 10.53(e) is not an entitlement to a wetlands crossing but a regulation allowing the Commission to consider a wetlands crossing that may exceed the 5, 000 square feet, so that the 5, 000 square feet max under 10.55 (4) does not in fact cause a taking of a property.

310 CMR 10.53 specifically states "...the Commission may issue an Order of Conditions and impose such conditions.... In determining whether to exercise its discretion to approve the limited project, listed in 310 CMR 10.53, the issuing authority shall consider the following factors; magnitude of the alteration and the significance of the project to the interests of the Act, the availability of reasonable alternatives to the proposed activity, the extent to which the adverse impacts are minimized, and the extent to which mitigation measures, including restoration and replication, are provided to contribute to the protection of the interests of the Act.

Conservation Commissions are not required to give approval to all projects in which wetlands will be crossed with a new roadway or driveway to provide access and may require the applicant to evaluate the reasonableness of alternatives including reconfiguration of the project to minimize to the greatest extent possible disruption of wetlands.

The use of this Regulation is within the Commission's discretion. The applicant has not supplied sufficient information to show that there are no other reasonable alternatives to the proposal and that adverse impacts are being minimized. The proposed project still under Alternative 4 show impacts to wetlands through the construction of roadways, addition of fill in close proximity to wetlands and within wetlands, development within 15' buffer zone with no buffer zone to wetlands resources, and proposed crossings for which the applicant has not provided

sufficient evidence showing that the proposed crossing will not impact the hydrology of the wetland resource. There continues to be fragmentation of wildlife habitat at Crossing #2 and #3.

At this time the information provided in the record does not support the conclusion that all possible alternatives were considered that avoided or minimized adverse impacts.

RESPONSE #2.1

With the acquisition of 13 Fairway Lane to allow design of an alternative access with no wetlands loss, and redesigning Wetlands Crossing #3 from a solid fill to a bridge crossing, the Applicant's team has redesigned the project and reduced the proposed BVW alteration from over 5,000 s.f to 3408 s.f. Although the Applicant reserves the right to seek approval of the project under 10.53 if that becomes necessary, we request review and approval under 310 CMR 10.55(4)(b).

Comment #2.2

Erosion controls not addressed – the current erosion controls are not sufficient and need to be amended.

RESPONSE #2.2

Additional erosion controls have been added to the plans, and a draft Stormwater Pollution Prevention Plan has been prepared which includes a detailed Erosion and Sediment Control Plan.

Comment #2.3

Horizontal Directional Drilling (HDD) - the applicant has addressed the comments provided by the Agent and Peer Review Consultant (Art Allen of Eco Tec) on the utility crossings through wetland resources by proposing horizontal directional drilling. This is an improvement and minimization of wetlands alterations from the original plan Alternative 3 submitted in the NOI package to the Commission on September 11, 2017. However, it is the opinion of the Agent this can be minimized further to avoid the wetland 75 sq ft alteration by moving the drilling to the east or avoiding the wetland in its entirety. In addition, this alternative must be accompanied by a Frac Out Plan or Contingency Plan. The Commission will need to review and approve this plan prior to accepting this alternative. Specifically, procedures if drilling fluid comes to the surface, supplies to be stored for this emergency, clean up and disposal plan if there is a spill within jurisdictional areas. It is agreed this is a significant improvement from the original proposal for the crossing #4 and #5, however, a Frac Out Plan must to be submitted to the Commission for review. Additionally, more information on how this HDD is performed will need to be supplied to the Commission for review. This will also be required when filing a 401 Water Quality Certification.

RESPONSE #2.3

Additional details on the HDD methodology have been incorporated into the applicable grading plans for wetland crossings 2, 4 and 5, including elimination of the 75 s.f. of alteration planned at Wetland Crossing #4 by moving the work limit further back from the wetlands. The SWPPP's Sedimentation & Erosion Control Plan includes additional details on the HDD staging areas showing the areas where drill rig and support vehicles will need to be laid out. HDD involves a drill rig, set up on one side of the wetland, that augers a pilot hole under the wetland that is held open with a bentonite slurry. When the auger reaches the other side of the wetland (the auger is closely controlled via automated computer system), it exits through another trench to grade. A casing pipe is then pulled back through the pilot hole as the auger is retracted to the drill rig. Water and sewer pipes can then be installed within the casing pipe and the ends connected to manholes and the remaining subsurface lines to complete the mains. As requested, a "Sample Fraction Mitigation Plan for Directional Drilling" (i.e. "Frac Out Plan") is attached for the Commission's review; we would like to propose that the Commission could approve this work, subject to a condition requiring a detailed, site-specific Frac Out Plan to be submitted to the Commission prior to the work commencing.

Comment #2.4

Roadway Width Reduction- It is understood that the applicant met with Fire Chief to work to reduce the roadway size which is a start to reducing impacts however this does not address all of our concerns with regards to wetland impacts for crossing #2.

The project proposes multiple crossings and fill location for the construction of the roadway which in my opinion does not meet the criteria for "magnitude of the alteration and the significance of the project to the interests of the Act, the availability of reasonable alternatives to the proposed activity, the extent to which adverse impacts are minimized...". The applicant must provide additional alternative that will further reduce impacts and meet the performances standards of 310 CMR 10.53 (1) and (3).

RESPONSE #2.4

A significant plan change has been made based on the acquisition of an easement on 13 Fairway Lane which became available after the submittal of the Notice of Intent. This property will provide an emergency access to connect cul de sac Road H (off Road F) to Fairway Lane, such that Road I and the emergency access road at wetland crossing #2 has been eliminated and replaced with a common driveway for access to 4 lots and only water/sewer utility installations at crossing #2.

In addition, a bridge is now proposed at Wetland Crossing #3 to span the majority of the BVW and all of the intermittent stream bank. With these changes (see also response to comment 2.3), wetland alteration has been significantly reduced to 3,408 s.f.

Comment #2.5

Emergency Access Crossing #2 - closure of Road F at the crossing, this will most likely require a new traffic study and modification with the ZBA.

RESPONSE #2.5

The applicant has submitted a notice of project change with the ZBA.

Comment #2.6

The applicant has not addressed the Agents and Peer Review Consultants (PRC) concerns noted the October 26, 2017 public hearing, requesting the applicant to address locations on the proposed plan where it is clear that wetland resource alteration will take place during and post construction due to the nature of the construction directly adjacent to the Bordering Vegetated Wetland (BVW) line and within the certified vernal pool habitat. At the October hearing, PRC mentioned, approximately 31 areas where the proposed work was taking place was at the wetland resource line (0 feet from wetland). I have counted 38 locations. Specifically, it is noted that there is grading within a wetlands resources (alteration/fill) that has not been accounted for within this application, see Sheet 21 of 50 from August 25, 2017 plan set. It is requested that all locations noted be discussed and information provided to the Commission how these 38 locations of construction at the BVW line will not impact the BVW pre/post construction and during construction.

The proposed roadway, storm water management systems, and eventually proposed units, driveways, lawns, and other structures are (0-15) feet from BVW. The access roadway and units completely encircles the BVW containing Certified Vernal Pool CVP #7696, CVP #7840, CVP #1540, and CVP #7839. The loss of shade associated with the removal of the entirety of the mature canopy within the buffer zone will alter both BVW and certified vernal pool habitat due to increased soil and water temperatures and decreased moisture.

RESPONSE #2.6

No work is proposed within any vernal pool habitat as defined under the state Wetlands Protection regulations. In addition, many of the areas identified as having work in close proximity to the wetlands have been adjusted so that work limits are further from the wetlands; this was done by using 2:1 slopes in some locations, using additional retaining walls, and by using the bridge and eliminating Road I as discussed previously. Additional erosion control measures have been incorporated to ensure wetlands are not impacted, such as by requiring the use of double silt fence with 7-day site stabilization measures. As such, there are no impacts to wetlands in these areas. As discussed previously, by eliminating Road I, a significant amount of upland shade trees will now be retained around the certified vernal pools.

Comment #2.7

Alternative Analysis – The applicant has not supplied alternatives that reduce impacts mentioned at the hearing of October 26, 2017 and in comments supplied by the Agent and Peer Review Consultant, Art Allen. It is recommended that the applicant provide alternative which reduce impacts to wetland resources further. There is not sufficient information provided to show that the proposed project cannot be reduced further to avoid wetland resource impacts with a hybrid of the alternatives presented. Based on a review of the condominium plans (in alternative 1) it seems there is less impact on this plan for lawn, impervious surface and storm water.

RESPONSE #2.7

The plans now submitted have significantly further reduced wetland impacts by eliminating Road I at wetland crossing #2 and by incorporating a bridge at crossing #3 (see also Response #2.4). This significant plan revision also results in less buffer zone impacts, impervious surface and storm water runoff than other alternatives where it includes the lowest number of homes (143 vs. as many as 188 when duplexes where considered).

Comment #2.8

Reduction of lots – the applicant has not made an effort to reduce impacts to wetland resources through the reduction of lots. See Arts Comments #9 (1-8-18 comments).

RESPONSE #2.8

Based on the addition of an easement on 13 Fairway Lane and the elimination of Road I, 4 lots have been eliminated from the project (Lots 76-79). As such there is less than 3,500 s.f. of wetland alteration (see also Response #2.4). No other lots are planned to be eliminated.

Comment #2.9

Stream crossing details need to be provided, not only how these are proposed for during construction with cross sections showing openness ration, 1.2 x bank full and all stream crossing standards where applicable. At the October 26, 2017 meeting the Commission requested a Peer Review and this still needs to be reviewed and approved.

RESPONSE #2.9

Additional details and notes have been added to the plans in response to Tetra Tech's February 6, 2018 review comments. Refer to Outback Engineering's response letter for further information.

Comment #2.10

It is recommended the Commission have the applicant review and explain the grade changes with respect to the roadway and house construction. Please provide the percentage of slope in critical locations where the proposed project is less than 15' from BVW.

RESPONSE #2.10

Although the Commission previously requested that we not include house lot construction in this submittal, we can provide a general explanation of how lots will be graded. Generally, many of the house lots within the 100' buffer zone will have walkout basements. The individual lots will be carefully designed with tops of foundations of the homes a couple of feet above the road grades so that driveways will slope from the garages down to the roads, and side yards will be sloped down to the back yards to provide walkout basements; this means back yards will generally meet existing grades with only minor grading required. Silt fence will be provided at all of the rear yards within the 100-ft. buffer zone to prevent alteration to wetlands.

Comment #2.11

Storm water Management System peer review is suspended and requires authorization to re- start for review of proposed plans.

RESPONSE #2.11

Additional storm water system changes have been made to the plans in response to Tetra Tech's February 6, 2018 review comments. Refer to Outback Engineering's response letter for further information.

Comment #2.12

Note that Alternative 1 and 2 were never presented to the Commission until revised application package submitted for Timber Crest Estates, LLC on December 20, 2017.

RESPONSE #2.12

Comment #2.13

Under 310 CMR 10.60 Conservation Commission must determine that a project triggering a wildlife habitat evaluation has no adverse effects on wildlife habitat. Adverse effects on wildlife habitat mean the alteration of any habitat characteristic listed in 310 CMR 10.60(2), insofar as such alteration will, following two growing seasons of project completion and thereafter (or, if a project would eliminate trees, upon the maturity of replanted saplings) substantially reduce its capacity to provide the important wildlife habitat functions listed in 310 CMR 10.60(2). For Vernal Pool Habitat 10.60 (2) c. states that:

The topography, soil structure, plant community composition and structure, and hydrologic regime of vernal pool habitat can provide the following important wildlife habitat functions:

1. Food, shelter, migratory and breeding areas, and overwintering areas for amphibians;

2. Food for other wildlife.

It is not clear that the vernal pool habitat will not be impacted by the proposed project due to direct alteration of BVW within 100' of a vernal pool. The applicant must provide evidence that the vernal pool habitat will not be impacted through the grading, wetlands and habitat fragmentation, loss of canopy (shelter), hydrology, etc.

NOTE: The vernal pools present at the site meet the criteria used to define vernal pool clusters including the presence of two or more vernal pools, good connectivity between pools with few obstacles to amphibian migration, and their location within 200-400 feet of each other to protect migratory and dispersal distances for juvenile and adult pool breeding amphibians.

The applicant has not provided evidence that the development of a large portion of the available upland in close proximity to vernal pools and the construction of a roadway and walls completely surrounding certified vernal pool (in total 4) and their Vernal Pool Habitat will not highly degrade the vernal pool habitat, effectively severing it from its surrounding habitat and other nearby vernal pools.

It should be noted that 0-R Woodland Road and portions of the adjacent parcels are identified on the CAPS mapping (Conservation Assessment and Prioritization System). See Map. This system assesses the ecologically integrity of the lands and waters subsequently identifying and prioritizing land for habitat and biodiversity.

It is requested that the applicant provide any documentation completed for the review of vernal pools, specifically, documentation of evidence supporting whether or not the potential vernal pools could be certified.

RESPONSE #2.13

The project has been designed so that no work will take place within "Vernal Pool Habitat." Therefore, the project will not alter the topography, soil structure, plant community composition and structure, or hydrologic regime of any of the vernal pools.

Regarding the concept of "vernal pool clusters," Attorney Watsky received the following email from Nancy Lin, from MassDEP Wetlands and Waterways Program:

> Hi Matt –
>
> The website that you referenced is MassDEP's Vulnerable Wetlands mapping project that was developed through an EPA Wetlands Program Development grant as a storm water management planning tool for the pilot communities identified in the webpage (Milford, Bellingham, Franklin, Canton, Sharon and Walpole). It is meant to help other communities by outlining a cost effective sub-watershed approach to meeting EPA mandated TMDL requirements and MS4 storm water standards.
>
> We do not consider this web page to specifically address the regulatory permitting requirements of the Wetlands Protection Act but the GIS maps provided serves to help

municipal officials visually identify impaired water hotspots and advantageous sites to locate storm water retrofits and treatment and infiltration BMPs. By providing such a tool communities can better protect their water resources, including wetlands, and also aid in meeting their TMDL and MS4 requirements.

Nancy Lin, PWS

MassDEP, Wetlands and Waterways Program

Regarding providing *evidence that the development of a large portion of the available upland in close proximity to vernal pools and the construction of a roadway and walls completely surrounding certified vernal pool (in total 4) and their Vernal Pool Habitat will not highly degrade the vernal pool habitat, effectively severing it from its surrounding habitat and other nearby vernal pools.***: the project has been designed so that no work will take place within "Vernal Pool Habitat." Therefore, the project will not alter the topography, soil structure, plant community composition and structure, or hydrologic regime of any of the vernal pools.**

We agree that the onsite areas mapped by the CAPS program (see Figures 1 & 2 below) contain valuable habitat for a variety of wildlife. Most, if not all of, the mapped area will remain undeveloped.

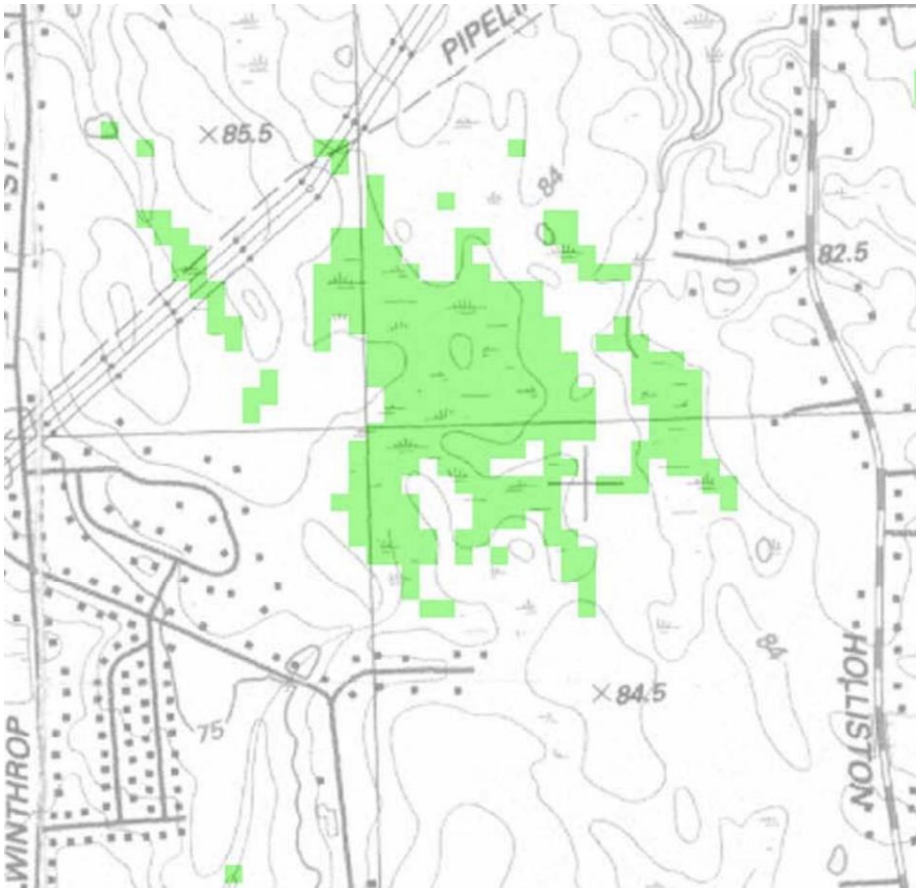

Figure 1 - CAPS map of project vicinity.

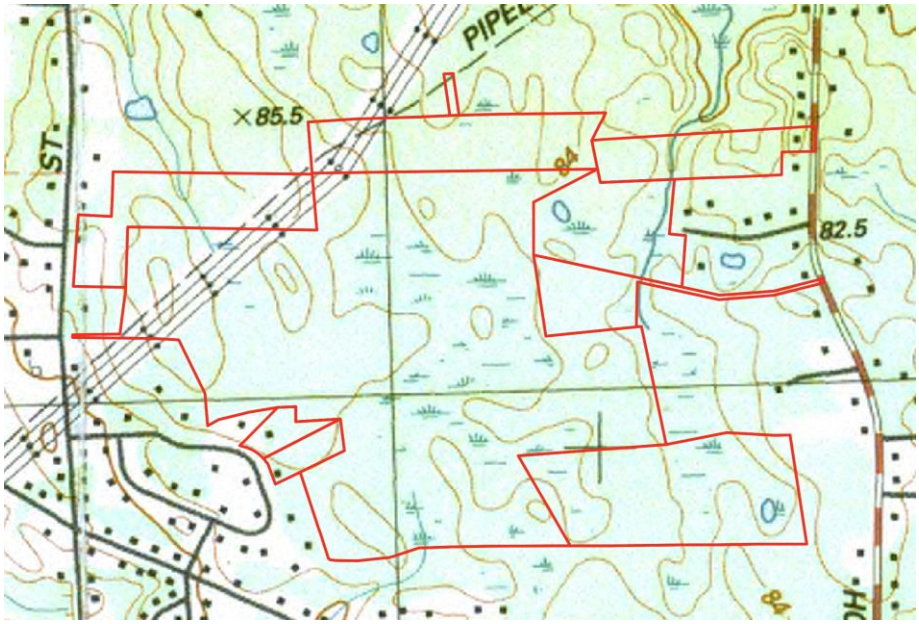

Figure 2 - USGS map with project boundaries, for comparison with CAPS Map .

The applicant has agreed, under the ZBA process, to treat any uncertified vernal pools as if they are certified.

Comment #2.14

Wetlands Replication – the applicant has not provided evidence the locations identified for wetlands replication will function similarly to the area that will be lost and also function as replacement wildlife habitat.

RESPONSE #2.14

The number of wetland replication areas has been reduced from two to one. The area proposed for replicating the BVW alteration associated with Crossing #3 was identified by the Commission's peer reviewer Art Allen of EcoTec as a recommended location. This area is immediately adjacent to a wetland bordering on the same intermittent stream and BVW system where the alteration will take place. This replication area is very similar in vegetative composition, structure and hydrology to the area being altered.

3. Undated Memo from Conservation Agent Bridget Graziano

Comment #3.1

Update on filing with ACOE for 404 under the Clean Water Act and with DEP 401 Water Quality Permit.

RESPONSE #3.1

With the reduction in BVW alteration to below 3,500 s.f., a 401 WQC application will no longer be required. The applicant intends to file a 404 WQC application with the Army Corps of Engineers as soon as an Order of Conditions has been issued for the project.

Comment #3.2

Update on filing for filing of an ENF (for certificate) to file for the 401 WQC, this will include MEPA filing.

RESPONSE #3.2

Based on the reduction in wetland impacts discussed above, an ENF is no longer required.

Comment #3.3

Title History for properties under the ownership of Henry Wickett specifically relating to properties surrounding the Wickett Properties of 21-R Fairway Lane, 0 –R Woodland Road, and 11 Woodland Road.

RESPONSE #3.3

Title examinations for 21-R Fairway Lane, 0-R Woodland Road, 11 Woodland Road, and, 13 Fairway Lane.

Comment #3.4

Provide information on 310 CMR 10.53(3)(e) as it relates to "…The issuing authority may require the applicant to utilize access over an adjacent parcel of land currently or formally owned by the applicant, or in which the applicant has, or can obtain an ownership interest." This include but is not limited to all surrounding parcels with uplands access and the access through 153-R Holliston Street for which a portion was given away, that had access to Holliston Street. See attached ANR Plan.

RESPONSE #3.4

As expressed above, with the proposed redesign reducing the BVW alteration to less than 5,000 s.f, we request approval of the project pursuant to 310 CMR 10.55.

Assuming approval is granted under 10.55, further detailed review of the criteria in 10.53 is not relevant. We do, however, reserve the right to seek approval under 10.53 in the event of a denial or excessively stringent conditions imposed under 10.55. For the record, in December of 2014, Mr. Wickett purchased 102 Winthrop Street which eliminated the need for a major crossing from the East side to the West of the proposed development. This purchase created upland access to the West side.

On January of 2015, Timber Crest estates acquired what has become 153-R Holliston Street. This acquisition connected uplands that otherwise would need a significant crossing. A condition of the sale was to not include access through 153 Holliston Street and based on that, a new ANR plan was approved by the Medway Planning Board and recorded in Plan book 636 page 75. The access previously shown on ANR plan book 455 page 199 recorded on Mar 20, 1998 was combined to 153 Holliston Street (Lot 1) and was never offered for sale. Please refer to the plans included in this submission.

On August of 2016 Timber Crest LLC acquired ownership of 165 Holliston Street. This acquisition allowed the applicant to eliminate significant wetland fill to get to Fern Path for access.

In March of 2018 the applicant acquired an easement through 13 Fairway Lane which eliminated Crossing #2.

Comment #3.5

Provide copy of sewer easement for the properties of 0-R woodland Road, 11 Fairway Lane, 13 Fairway Lane, and 15 Fairway Lane. Agent noted at meeting, this properties were not listed in the NOI or abutter notifications were not provided, the property owners did not sign this NOI application, and finally wetlands on these properties have not been delineated or reviewed by our Peer Review Consultant.

RESPONSE #3.5

The proposed sewer connection will be removed from the current NOI and a new NOI will be filed and proper notifications to the abutters will be made.

Comment #3.6

Provide minutes, comments letter, or site the ZBA comprehensive permit decision/condition where the ZBA required a specific means of egress from the site.

RESPONSE #3.6

During the ZBA approval process, comments from the Medway Conservation Commission were examined by the Board and the proposed crossings to insure egress for safety was approved by the Medway Zoning Board of Appeals and the Town of Medway Fire Chief.

Comment #3.7

Provide a set of alternatives for the proposed project by reducing impacts discussed at the meeting/hearing.

RESPONSE #3.7

Refer to Responses #2.4 and 2.7.

Comment #3.8

Provide a BVW alteration amount based on feedback from meeting and outcome of meeting with Dan Wells (scheduled for 1/19/18), portions of this project will need to use 310 CMR 10.55 (4) since they do not meet criteria under 310 CMR 10.53(3)(e) and were not specifically, quantified under this filing. It is the opinion of the Agent based on the information supplied that the proposed project will result in alteration to BVW that have not been quantified especially, in extremely close proximity to BVW (at 0 feet and between 0-15 feet).

RESPONSE #3.8

Where shown on the plans, we have provided silt fence at the project work limits. Unless and until there is actual alteration of BVW, we cannot assume that wetlands will be impacted outside of the work limits. Refer to Response #2.4.

Comment #3.9

Provide additional information of Horizontal Directional Drilling, it was noted there is no construction summary for how this work is performed, specifically, whether soil testing has been performed to locate ledge or geo-technical borings completed so this is not discovered in the field at the last minute. Additionally, Agent mentioned providing Frac Out Plan which will need to be submitted. It should be

noted any turns within the line will require pits dug on either side, please show this will not be performed within wetland locations or if it will, where and mitigation for this. Overall not enough information was submitted to the Commission on 12.20.17 to make a decision/finding. Relocate east end of drilling in area #4 to avoid direct wetland impacts.

RESPONSE #3.9

Refer to Response #2.3.

Comment #3.10

Provide information to the Commission on how the Vernal Pool Habitat will not be affected by this project pre/during/post construction. Simply the erection of the siltation fence proposed in the project will alter this habitat. Additionally, it should be noted, that it has not been discussed at this time during hearings but the applicant has not addressed any Time of Year Restrictions (TOY.)

RESPONSE #3.10

There will be a restriction of no onsite construction activity after 5:00 pm during the peak amphibian migratory season (March 1 to April 15).

Comment #3.11

Provide evidence and research showing that the proposed fill in BVW and directly adjacent to (extremely close proximity) to vernal pools and vernal pool habitat will not alter habitat.

- *Work for the entire residential portion of the project is in close proximity to vernal pool habitat. Vernal pool habitat includes all areas within 100 feet of the mean annual boundaries of vernal pools that is also within an Area Subject to Protection Under M.G.L. c. 131, § 40. These areas are essential breeding habitat, and provide other extremely important wildlife habitat functions during non-breeding season, for a variety of amphibian species and other wildlife species. The project does not meet the provisions of 10.60 because its impairment of Wildlife Habitat, specifically vernal pool habitat, is not acknowledged in the Wildlife Habitat Assessment.*

RESPONSE #3.11

Where shown on the plans, we have provided silt fence at the project work limits. There is no alteration of Vernal Pool Habitat proposed.

Comment #3.12

Provide facts showing that the complete development of all available upland in close proximity to vernal pools and the construction of a roadway and walls completely surrounding vernal pool and its Vernal Pool Habitat will not degrade the vernal pool habitat, effectively severing it from its surrounding habitat and the habitat surrounding two other nearby vernal pools.

RESPONSE #3.12

The elimination of Crossing #2 and four house lots will greatly reduce the amount of clearing and fragmentation of upland habitat in the vicinity of the vernal pools.

Comment #3.13

Provide more clarity on fill and grade changes, there are some topographic lines and some grades for top of roadway but it is not clear on what all the grades will be. The Commission will need to review the grades on the slopes near the wetlands and vernal pools.

RESPONSE #3.13

Outback Engineering's plans include detailed grading plans for the roadways and drainage systems, and road profiles showing finished and existing grades. Silt fence work limits are also clearly shown.

Comment #3.14

Provide the linear feet for retaining walls with are located within 0-15 of BVW, the Commission needs to be able to review locations were retaining wall will be erected near wetlands or vernal pools.

RESPONSE #3.14

On the West side, there is approximately 80 l.f. of retaining walls within 15' of the intermittent stream (no BVW) for the emergency access road to Ohlson Circle; no other retaining walls are needed for the roadway.

On the East side, there is a total of approximately 226 l.f. of walls within 15' of BVW along Road F near station 3+0 and for the bridge crossing; no other retaining walls within 15' of BVW are needed for the roadways.

Comment #3.15

Fire Chief is willing to review and comment on alternatives.

RESPONSE #3.15

We understand the Fire Chief has provided input on the latest plan changes including the 15' emergency access across 13 Fairway Lane (refer to Fire Dept. letter to ZBA dated March 7, 2018).

4. January 8, 2018 Letter from Art Allen of EcoTec

Comment #4.1

It should be noted that, due to the extent of direct wetland impacts associated with this project, separate written approval is required under the United States Clean Water Act including a Section 401 Water Quality Certification from the Massachusetts Department of Environmental Protection and Section 404 Pre-Construction Notification approval from the United States Army Corps of Engineers. It should also be noted that the Army Corps wetland mitigation requirements differ significantly from the Wetlands Protection Act requirements and that Army Corps jurisdiction includes any regulated activity within 500 feet of a vernal pool (Certified or otherwise).

RESPONSE #4.1

With the reduction in BVW alteration to below 3,500 s.f., a 401 WQC application will no longer be required. The applicant intends to file a 404 WQC PCN application with the Army Corps of Engineers as soon as an Order of Conditions has been issued for the project. The mitigation requirements will be revised, if necessary, to comply with ACOE permitting requirements.

Comment #4.2

I confirm that revised plan sheet 20 of 49 depicts revised locations of wetland flags 236 & 237, as recommended.

RESPONSE #4.2

No comment needed.

Comment #4.3

The impacts to Bordering Vegetated Wetland ("BVW") associated with the utility easements A (#5) and B (#4) have been largely eliminated through the use of underground directional drilling. Direct wetland alteration of 75 square feet is still proposed at the east end of impact area #4. This impact could also be avoided by moving the start of directional drilling slightly to the east.

RESPONSE #4.3

The 75 sf of BVW impact has been eliminated. Refer to Response #2.3.

Comment #4.4

The impacts associated with wetland crossing #1 have been reduced by decreasing the width of the roadway at the crossing. Stream crossing standards compliance documentation has been provided and it appears that the proposed structure meets the requirements. My recommendations for engineering review of the structure as well as a detailed sequence of construction, including stream preservation or restoration, remain to be addressed.

RESPONSE #4.4

Goddard Consulting has submitted the document "Streambed Restoration Plan," dated 3/22/18. Detailed Construction Sequencing for Crossing #1 is provided on Detail Sheet 42 of 51. Also, refer to Outback Engineering's response letter to Tetra Tech's comments.

Comment #4.5

The impacts associated with wetland crossing #2 have also been reduced by decreasing the width of the roadway at the crossing. My recommendations for engineering review of the structure as well as a detailed sequence of construction and restoration of the area under the culvert, remain to be addressed. A narrative was provided explaining that this crossing is required for emergency access and cannot be eliminated. Assuming that this is the case, I have additional concerns regarding hydrology of the wetland that will be altered by filling the crossing and leaving only one connecting point. During my field evaluation, I noted that flow concentrates in three locations along the width of the proposed wetland crossing. The proposed box culvert is in one of the locations and I recommend two additional

culverts be provided, one on either side of the box culvert, similar to what is now proposed for wetland crossing #3.

RESPONSE #4.5

Road I and the box culvert at Wetland Crossing #2 has been eliminated. HDD will be used to install water and sewer as noted in responses above.

Comment #4.6

Stream crossing standards compliance documentation has been provided for wetland crossing #3 and it appears that the proposed structure meets the requirements. My recommendations for engineering review of the structure as well as a detailed sequence of construction, including stream preservation or restoration, remain to be addressed. An 18" diameter pipe culvert has been provided to supplement the box culvert in a portion of the wetland with seasonal ponding and sheet flow. The location of wetland replication area #3 has been revised in accordance with my recommendations.

RESPONSE #4.6

The box culvert at Wetland Crossing #3 has been changed to a 68-ft. bridge spanning the intermittent stream as now shown on the latest Conservation Permitting Plans revised March 15, 2018. Detailed construction sequence notes and other details are included.

Comment #4.7

I continue to recommend that for any infrastructure or lots with work within 50-feet of wetlands that permanent "Wetland Buffer Zone - No Disturb" markers be provided at the limits of work. The proponent has agreed to discuss this recommendation with the Commission.

RESPONSE #4.7

The applicant will be glad to discuss this suggestion with the Commission at the next hearing.

Comment #4.8

The alternatives analysis, submitted by Outback Engineering, focuses on alternative roadway layouts and associated, direct wetland impacts. This analysis, together with the comments by Attorney Watsky and the applicant's ownership chronology, may be sufficient to justify the claim of Limited Project for the preferred roadway layout. I defer to the Commission and their counsel on this issue.

RESPONSE #4.8

No comment needed.

Comment #4.9

In my first report, I commented about the extent of buffer zone alterations proposed, particularly within 15 feet of wetlands. I also commented about the quality and significance of buffers across the project site and recommended that the first 15 feet of the buffer be protected to the maximum extent practicable. The proponent's response to this comment was to simply state the extent of revisions made, during the ZBA process, to move the work away from wetlands. In my opinion this response is inadequate. I list below, by plan sheet number, additional revisions which could be made to preserve the inner buffer, particularly associated with proposed house lots. In my experience, house lot buffers, and adjacent wetlands, suffer the most from development both in the short and long terms. Also, in my experience, the smaller the buffers, the greater the wetland impacts. As I noted previously, the Wetlands Protection Act Regulations [at 310 CMR 10.53(1)] affords discretion to the Commission when permitting and conditioning work in the buffer zone.

➢ *Sheet 19: Revise/shorten culvert outlet on west side of Road C;*

➢ *Sheet 21: Eliminate Lots 20, 34, 35 & 36;*

➢ *Sheet 23: Eliminate Lot 137;*

➢ *Sheet 24: Eliminate Lots 129, 131, 133, 134 & 135; eliminate Lot 77, shift common drive to north;*

➢ *Sheet 25: Eliminate Lots 100 & 105 (re-orient Lot 104); eliminate Lot 107 (re-orient Lots 106 & 108); eliminate Lot 122; eliminate Lot 125 (re-orient Lot 124); eliminate Lot 128 (re-orient Lot 127);*

➢ *Sheet 26: Eliminate Lot 113 (re-orient Lot 114); eliminate Lot 116 (re-orient Lot 117);*

➢ *Sheet 27: Re-orient/re-size houses on Lots 146 & 147.*

RESPONSE #4.9

We have shortened the culvert FE2 on Road C (at lots 56/57) approximately 10 ft. to pull work outside the 15 ft. buffer. As noted in other responses, significant plan changes have been made based on the inclusion of 13 Fairway Lane and grading changes to significantly reduce actual and potential wetland impacts. These changes include the elimination of 4 lots (#76-79), and no other lots are planned to be eliminated. As previously requested by the Commission, we are not seeking approval for construction of individual homes at this time, and may use different house boxes when designing/permitting individual lots.

5. MassDEP Comments

Comment #5.1

There appears to be a discrepancy between bordering vegetated wetland impacts listed in the Notice of Intent (7,702 sf) and the Wildlife Habitat Evaluation (11,478 sf). Please provide additional information.

RESPONSE #5.1

NOI Form 3 has been updated to reflect the greatly decreased resource area impacts, and the change from filing under 310 CMR 10.53 to 310CMR 10.55.

Comment #5.2

The limited project provisions of 310 CMR 10.53(3) are designed to provide the issuing authority with the discretion to allow certain work to proceed although the work may not meet the performance standards set forth in 310 CMR 10.54 through 10.57. These provisions provide the discretion to permit these projects. The issuing authority is not required to give approval to all projects filed under this provision, but should examine the facts and determine whether the project qualifies as a limited project (Wetlands Policy 88-2: Access Roadways).

RESPONSE #5.2

Please see responses above to 2.1 and 3.4.

Comment #5.3

How has the project been designed to protect Vernal Pools and the surrounding habitat during and after construction? Will the Vernal Pools continue to provide important wildlife habitat value? Will the Vernal Pools continue to receive surface water/groundwater? How is storm water proposed to be managed in the area of the Vernal Pools? Certified Vernal Pools are designated as Outstanding Resource Waters in the Massachusetts Surface Water Quality Standards.

RESPONSE #5.3

See responses #3.10, 3.11 and 3.12.

An updated Storm water Report has been submitted.

Agreed.

Comment #5.4

A 401 Water Quality Certification is required to be obtained from MassDEP for this project.

RESPONSE #5.4

401 WQC will no longer be necessary due to the reduction of BVW alteration to less than 3,500 s.f.

Sincerely,

GODDARD CONSULTING, LLC

by 

Daniel Wells, M.S.

Senior Wildlife Biologist and Wetland Scientist

cc: Wetlands Division, DEP – CERO, 8 New Bond Street, Worcester, MA 01606

Timber Crest Estates, LLC