TO: **MANSFIELD INLAND WETLANDS AGENCY**

FROM: **ATTORNEY DAVID F. SHERWOOD**

RE: **STORRS LODGES, LLC APPLICATION NO. W1564**

DATE: **JULY 12, 2016**

PRUDENT AND FEASIBLE ALTERNATIVE ANALYSIS

The applicant provides this summary of its consideration of alternatives to the proposed regulated activities in accordance with General Statutes § 22a-41 (a) (2) and § 10.2 (b) of the Mansfield Inland Wetlands and Watercourse Regulations.

I. DESIGN CONSIDERATIONS AND LIMITATIONS

Given the topographical features of the property and inherent limitations on access to existing public roadways, any type of development of this property would require a road system and public utility connections basically following the layout incorporated into the project as proposed.

A. PUBLIC ROAD ACCESS

The subject property abuts Hunting Lodge Road in two locations along its easterly boundary for approximately 80 feet and 250 feet respectively, and the northerly terminus of Northwood Road to the southwest. No other public road access is available.

Roadway access from Carriage House Drive through the abutting apartment complex to the north is not possible due to the layout of the existing buildings and parking areas within that complex.

There is no feasible connection to the west due to topographic considerations and the presence of preserved forest land (North Eagleville tract and Cedar Swamp Brook and associated wetlands).

Roadway access to the south can only occur by extending Northwood Road because an existing residential subdivision (Meadowood Road) borders most of its southerly boundary.

Northwood Road begins at North Eagleville Road as a driveway to provide access to a student apartment complex owned and operated by the University. Head-in 90-degree parking is constructed along both sides of the first 800 feet of the driveway, which also has several raised pedestrian crossings or “speed bumps.” From there, the roadway continues as a minor town road to service three existing residences at the north end of the road, where the pavement ends. The northerly terminus of Northwood Road abuts the southwesterly boundary of the property.

B. WETLANDS AND WATERCOURSES; EXISTING CROSSINGS

Existing site conditions and the location of inland wetlands and watercourses is shown on Sheet PS-1 of the Site Plans.

An inlands wetlands crossing along the southerly frontage on Hunting Lodge Road occurs at a location that has been used for many years based on a review of current site conditions and historical aerial photography.

A second existing crossing is located to the east of the vernal pool, which connects the northerly and southerly sections of the property.

C. UTILITY LOCATIONS

Public water and sanitary sewer connections are located at the lower (southerly) end of Northwood Road. Public water is also available along Hunting Lodge Road

II. ACCESS ALTERNATIVES

Proposed public road access to the property and internal driveway connections utilize existing crossings and minimize impacts to onsite wetlands and watercourses.

A. PUBLIC ROAD ACCESS ALTERNATIVES

The property is accessible from two public roads, Hunting Lodge Road to the east and Northwood Road to the south. As proposed, Hunting Lodge Road would serve as the primary access to the property with Northwood Road access limited to public, bike and pedestrian transportation and emergency vehicles.

Use of Northwood Road as the sole principal road access is not feasible due to its existing use as an access driveway for student housing adjacent to North Eagleville Road and public safety access considerations which require two public road connections for use by emergency vehicles. Principal access from Northwood Road is also undesirable due its proximity to the vernal pool in Wetlands Area “A”.

A wetlands crossing which could be used to connect the proposed development to Hunting Lodge Road occurs at a location along the easterly boundary that has been used for many years to gain access to the property. The remains of an old driveway at this crossing would have to be improved to current design standards, which require a minimum 24-foot wide paved roadway with a sidewalk to provide safe pedestrian access within the site and to the existing public walkway and bike path along Hunting Lodge Road. This location for the proposed access driveway leading into the property from Hunting Lodge Road minimizes wetlands and watercourses disturbance and is the best alternative available.

Principal road access or a second connection to Hunting Lodge Road could also be provided at the northeast corner of the property. However, a large undisturbed wetlands separates the property at that location from Hunting Lodge Road, which would be impacted if such a crossing were implemented. Its use as principal road access to the property would result in greater impact with no apparent benefit. Use of two road connections to Hunting Lodge Road and elimination of the internal driveway would segregate the northerly and southerly sections of the development and the northerly section would be quite remote from the required second access for emergency vehicles.

Relocating the proposed roadway access to Hunting Lodge Road further to the north would require construction of a new roadway crossing through a significant undisturbed wetland corridor. There is no evidence to suggest that such a crossing has existed in the past at this location. Undertaking such a crossing is not considered to be prudent when compared to the proposed crossing location.

B. INTERNAL DRIVEWAY LOCATION ALTERNATIVE

As proposed, the internal site driveway connecting the northerly and southerly sections of the development and providing a proximate means of egress for the northerly half utilizes an existing crossing at the site of historical disturbance and fill placement and involves no direct disturbance to a wetlands or watercourse. This internal driveway might be moved easterly to further separate it from the vernal pool in Wetlands “A”. However, any such alternative location would entail significant new wetlands and watercourse impacts, and even with the utilization of an arch culvert for the crossing, direct wetlands disturbance of at least 3,100 square feet would result.

III. CROSSING ALTERNATIVES

The applicant considered use of both box and arch culverts to make the single wetlands crossing proposed in connection with this development. The design team belives that use of an arch culvert will result in less impact. Although wooden bridges have been utilized in similar situations, they are no longer recommended due to maintenance issues and the potential need for future replacement resulting in further disruptive impacts.

A. BRIDGE (ARCH CULVERT) CROSSING

As proposed, the wetland crossing for the main driveway will be accomplished using a precast concrete arch bridge to insure there will be minimal unavoidable impacts to the wetlands and intermittent watercourse at this location. This approach to the roadway crossing design minimizes permanent disturbance at the proposed crossing to just 4,402 square feet.

Plan and profile drawings of the proposed precast arch culvert are included in the Site Plans as Sheet SDD-1.

B. BOX CULVERT CROSSING

Crossing the wetlands using conventional pipe or box culverts was evaluated as a possible and less costly alternative to the proposed precast arch bridge crossing. This would result in the loss of at least 38 linear feet of watercourse disturbance and an additional 760 square feet of direct wetland disturbance and loss of the natural intermittent watercourse across the roadway footprint.

Due to the sensitive nature of the crossing location, a conventional culvert and fill installation was deemed not to be the most prudent alternative.

IV. ALTERNATIVE DEVELOPMENT PROPOSALS

A. RESIDENTIAL SUBDIVISION

Development as a residential subdivision would entail the same site access challenges as development as a student housing complex, with identical impacts to wetlands and watercourses.

Additionally, subdivision would result in the inclusion of wetlands and watercourses within privately owned building lots. Historically, long-term adverse impacts have resulted from homeowner use of environmentally sensitive resources in a conventional residential environment. The monitoring and enforcement of potential activities and impacts on wetlands and watercourses becomes difficult when they occur on individually-owned residential properties. Unsupervised lawn care activities, including application of herbicides, fertilizers and pesticides, car washing, and snow removal and deicing practices would be conducted by individual homeowners and would not be part of a comprehensive Best Management Practices management plan as would be the case in a master plan development operated by an on-site management team.

A residential subdivision would also do nothing to ameliorate the pressing need for student housing in the immediate vicinity of the Storrs campus.

B. HIGH-RISE APARTMENT COMPLEX

Development as a multi-storied apartment complex also would entail the same site access challenges as development as the proposed student housing complex, but with greater impacts to wetlands and watercourses.

A student housing project then known as “Ponde Place” was previously proposed for the property under the DMR Zoning Regulations. The plan called for three large multi-storied buildings along with attached town house style homes for over 650 students and faculty. The layout called for large conventional parking lots for each of the three main buildings. This design approach, using high density multi-storied buildings, is no longer consistent with Mansfield’s long-term planning goals.

As proposed, Ponde Place involved significantly greater wetlands impacts than the current proposal and the application was withdrawn prior to action by town agencies.

V. DEVELOPMENT AS PROPOSED

The proposed development consists of 47 two-story residential buildings with 218 units providing housing for 692 UCONN students with a community center building and outdoor recreational areas. Two access driveways are proposed. The main access driveway will enter the property from Hunting Lodge Road. A secondary access driveway will enter from Northwood Road but will be limited to emergency access, campus bus circulation, bike and pedestrian use.

The proposed wetland crossing for the main access driveway from Hunting Lodge Road will utilize a precast concrete arch bridge so there will be only minimal and unavoidable impacts to the wetlands at this location. Other than the permanent disturbance at the culvert bridge crossing totaling 4,402 square feet, there will be no direct impacts to wetlands or watercourses on the property. Two on-site mitigation areas have been incorporated into the site design to help off-set the loss of this wetlands area. The landscape plan incorporates an extensive planting plan to add additional permanent buffering along the limits of clearing to the wetlands and watercourses on the property.

Development of this property as proposed under a master plan as residential student housing largely limits disturbance to selected upland areas and sets aside the wetland and watercourse resources and appropriate buffers. The proposed clusters of two- story housing units minimize the need for large expanses of parking. Property maintenance will be supervised by an on-site professional management team and monitored for compliance with conditions of Inland Wetlands Agency and Planning and Zoning Commission approvals

Given the property's shape, topographic features, limited public access points and the configuration of natural wetlands and watercourse resources, the development as currently proposed represents the best alternative among the possible development options.