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September 3, 2020

Frederick County Council
Winchester Hall
12 East Church Street
Frederick, MD 21701

Re: Delauter-Hutzell Properties- Environmental Benefits
RCI Project No. 0643Q
Rezoning R-19-02

Dear President M.C. Keegan-Ayer and Council Members:

This letter is in regards to the proposed MXD rezoning (R-19-02) of the approximately 27.60+/- acre Delauter and Hutzell Properties located near the intersection of Old National Pike (MD Route 144) and Meadow Road in Frederick County, MD. The intent of this letter is to provide a summary of the environmental benefits of rezoning the Delauter and Hutzell Properties, which include.

- Zoning application is based on the conservation of environmental resources
- No net loss of forest
- The implementation of a waterbody buffer
- A 48% reduction in nutrients loading into receiving waters

Additional details are provided below for the environmental benefits listed above.

Zoning Application is Based on the Conservation of Environmental Resources

Under my supervision as a professional landscape architect and ISA certified arborist with 20 years of experience, Rodgers Consulting, Inc. prepared a Natural Features Map for the Delauter and Hutzell Properties. The preparation of this map began with a desktop analysis followed by a field investigation to analyze and delineate environmental and cultural features. This ultimately led to the preparation of a Natural Features Map showing the environmental opportunities and constraints in which to base a concept plan on. Specific steps taken to prepare the Natural Features Map are detailed as follows.

Desktop Analysis

1. Prepared a map with the site boundary, topography and existing features including publically available records of streams and tree lines.
2. Researched the National Wetlands Inventory (NWI) to determine if publically available information regarding the presence of streams and wetlands exist onsite.
3. Performed a slope analysis to calculate and map moderate and steep slopes.
4. Researched the Federal Emergency Management Agency (FEMA) to determine the location(s) of FEMA 100-year floodplain(s) in proximity to the property.
5. Researched the US Department of Agriculture (USDA) Web Soil Survey to map and describe the soils onsite.

6. Analyzed natural drainage swales and publically mapped streams and determine where they drain to in the overall watershed.
7. Submitted a request to the Maryland Department of Natural Resources (MD DNR) to determine if there are any public records for rare, threatened or endangered species.
8. Consulted the Maryland Historic Trust (MHT) MEDUSA Cultural Resource Information System website to identify and locate any properties contained on the Maryland Inventory of Historic Properties.

Field Investigations

1. Verified the presence and extents of environmental and cultural features identified during desktop analysis and mapped and located environmental and cultural features present onsite that did not show up during the desktop analysis.
2. Walked each stream and classified whether it is a perennial, intermittent, or ephemenral.
3. Performed a wetland delineation on the entire site.
4. Conducted a separate field meeting with the U.S. Army Corps. of Engineers and the Maryland Department of the Environment.
5. Performed a forest stand delineation to locate and characterize each forest stand on the site.

Preparation of a Natural Features Map

1. State and local environmental buffers were applied to the mapped features including:
    a. State wetland buffers
    b. Floodplain building restriction lines
    c. Delineation of the Frederick County waterbody buffer
2. Pulled all the information gathered above into a comprehensive Natural Features Map.

No Net Loss of Forest

Approximately 6.86+/- acres of existing forest is located on the property. Under the previous Forest Resource Ordinance (FRO), based on the area of the site and conservation threshold for a MXD, approximately 2+/- acres of clearing would have been allowed before requiring mitigation.

Under the recently approved Forest Resource Ordinance (FRO) the conservation of existing forest will be prioritized and any unavoidable forest clearing will be reforested at a 1:1 ratio **resulting in "no net loss" of forest**. Additionally, all forest saved and planted will be placed in a conservation easement to be preserved in perpetuity.

The Implementation of a Waterbody Buffer

The rezoning of the Delauter and Hutzell Properties requires a waterbody buffer to be delineated and factored into land use decisions once rezoned. Some of the waterbody buffer areas that will be delineated will be unforested. The rezoning of the Delauter and Hutzell Properties provides an **opportunity to afforest these areas, thereby increasing the overall environmental benefit**.

A Reduction in Nutrients Loading into Receiving Waters

The Delauter and Hutzell Properties contain an unnamed tributary to Long Branch. Long Branch crosses Old National Pike and Interstate 70 several times before eventually draining into Linganore Creek. Linganore Creek eventually connects into the Monocacy River.

The Environmental Protection Agency (EPA) established the Chesapeake Bay Total Maximum Daily Load (TMDL) on December 29, 2010. A TMDL is a regulatory term in the U.S. Clean Water Act that sets the maximum amount of a pollutant that a waterbody can receive while still meeting water quality standards. The Chesapeake Bay TMDL identified Nitrogen, Phosphorous, and Sediment as the three pollutants that, if reduced, will improve the health of the bay. The work done by the Chesapeake Bay Program that has gone into monitoring, modeling, and developing watershed implementation plans in support of the TMDL has given us a better understanding on how different land uses load pollutants into adjacent waterbodies and how best management practices such as Environmental Site Design (ESD) can reduce nutrient loads into receiving waterbodies.

Based on the proposed preservation of forest in combination with the rezoning to a MXD development treated to modern stormwater management standards, a nutrient loading study was conducted for the Delauter and Hutzell Properties. Based on the results of the study, **the total phosphorous is expected to be reduced by up to 9 lbs/acre/year, a 48% reduction from current levels**. Additionally, **total nitrogen is calculated to be reduced by up to 143 lbs/acre/year, a 48% reduction for current levels**. To address sediment, during construction the site will be in compliance with Maryland State Erosion and Sediment Control Regulations and upon construction will be stabilized.

Conclusion

Based upon the items outlined above the rezoning of the Delauter and Hutzell Properties will result in several environmental benefits. If you should have any questions or require additional information please contact me at 301.948.4700 or mwessel@rodgers.com.

Sincerely,

Matthew J. Wessel, PLA, ISA Certified Arborist

Cc: J. Wiley, Cromwell Investments, LLC.
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