

# **Exhibit B**



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August 30, 2019

**VIA E-MAIL AND HAND DELIVERY**

City of Lewes Planning Commission  
P.O. Box 227  
114 E. Third Street  
Lewes, DE 19958

**Re: Fishers Cove Land Use Application  
Burke & Rutecki, LLC**

Dear Chairman McKay:

We write in our capacity as stormwater/flood mitigation and geoscience engineer for Burke & Rutecki, LLC in relation to its Land Use application for the Fishers Cove subdivision (the "Application"). Below, we address several of the twenty-two factors set forth for preliminary consent consideration of a major subdivision application in the City of Lewes Code of Ordinances § 170-19(E). It is our opinion, rendered to a reasonable degree of engineering certainty, that the Application complies with each of the below factors:

**Factor One: Compliance with the Provisions of Chapter 170, Chapter 197 (Zoning), and Any Other Applicable Provisions of the Municipal Code of the City of Lewes.**

In our professional opinion, the Application presented at the Planning Commission's June public hearing complies with all applicable chapters and provisions of the City of Lewes Code of Ordinances, as explained in greater detail herein, in the Applicant's additional submissions, and based upon our rebuttal testimony at the August Planning Commission hearing

The Concerned Citizens of Rodney argue that the Application fails to comply with Code § 197-73 and Code § 197-76. Specifically:

- **197-73(A)(2)(d) & 197-76(A)(1)** – *The Application Maintains Natural Drainage to the Extent Practicable.* In accordance with this provision and with 197-76(A)(1), which provides that "[t]o the extent practicable, all

development shall conform to the natural contours of the land . . . . [, and n]atural . . . drainageways shall remain undisturbed,” the Application minimizes its impact on the natural contours of the Property where practicable. As you are aware, at the August 21, 2019 hearing on the Fishers Cove land use application (the “Application”), counsel for the opposition raised the issue of the potential disturbance of “drainageways” on the Property. To the best of our knowledge, with the exception of the historic home, the Property was not previously developed, and its natural contours have been documented by survey performed by Karins & Associates. Our review found no indication that a man-made drainage way(s) was established upon the Property, nor is there any indication that the Property served as a natural drainageway. Our review indicates that the term “drainageway” is undefined in the City of Lewes Code of Ordinances. We understand that under Delaware common law, undefined terms “must be given their ordinary, common meaning.” Therefore, we consulted Merriam-Webster Dictionary, which defines “drainageway” as “a route or course along which water moves or may move to drain a region.” Accordingly, the Application does not impact a drainageway. In order to reduce currently extant flooding on the property and adjacent property, some modification of the natural contours of the Property will be necessary. Therefore, although the subdivision requires the placement of a critical access roadway across a portion of the Property which will impact its existing natural contours. This impact is mitigated by the proposed stormwater management, described in greater detail below. Land development by nature requires changes to the natural contours to enable a functional development capable of providing for the code compliant safe passage of pedestrians, wheelchairs, and vehicles alike.

- **197-73(A)(2)(j)** – *The Application Minimizes the Impact of Development on Adjacent Properties Within and Near Flood-Prone Areas.* The current plan will continue to permit drainage from the adjacent properties that are currently being discharged onto the Fishers Cove Property and continue to safely convey it to the adjacent Lagoon. The storm sewer and stormwater management proposed shall be sized adequately to ensure adequate conveyance and will be finalized through the final engineering design process. However, as was testified at the August Planning Commission meeting, we intend to explore opportunities that, as part of the final engineering design, will **improve** drainage and thereby reduce flooding on the adjacent Rodney Avenue properties. Thus, its impact will be a net positive for the adjacent properties. It will also have no adverse impact to

drainage on the adjacent University of Delaware property. As noted in our testimony before the Planning Commission, flooding impact to adjacent properties is not exacerbated and, as part of the final engineering design refinement, we expect it will be reduced.

- 197-73(A)(2)(k)** – *The Application Maintains Flood Storage and Conveyance Functions of the Floodplain.* The Application maintains flood storage sufficient to provide no adverse impact to existing flood levels. It maintains the conveyance function of the flood plain through proposed site grading and installation of comprehensive storm drainage and swale network that will adequately convey the 100 year storm. Flood storage is proposed under the current development plan by the grading and storage within stormwater conveyance basins within the flood plain to offset the fill being proposed for the roadway, driveways and site grading. .
- **197-73(A)(2)(l)** – *The Application Minimizes the Impact of Development on the Natural and Beneficial Functions of the Floodplain.* See below, Factor Three.
  - **197-73(A)(2)(m)** – *The Application Does Not Use the Floodplain in a Hazardous or Environmentally Incompatible Manner.* The Application will meet all the regulatory requirements of the Clean Water Act, as it applies to conveyance of stormwater to tidal waters. The Application’s stormwater management improves drainage on the property and removes roadways and homes from the mapped flood plain. The Application does not disturb wetlands on the property or adjacent to the property, and maintains open space well above the minimum required under the Code to further provide environmental sensitivity. In keeping with the purpose of this section and with Code § 197-73(A)(2)(l), the Application minimizes, to the extent practicable, development on the floodplain and has no adverse flooding impact on adjacent properties.
  - **197-73(D)(5)(b)** – *The Application Does Not Use Fill for the Purpose of Supporting a Building or Structure.* The planned buildings or structures on the Property will be supported using deep foundation systems supported on or below existing site grades. They will not be structurally supported on fill.

- **197-73(D)(5)(c)** – *The Application’s Fill is Designed with Adequate Drainage and No Adverse Effect on Adjacent Properties.* As stated above, the stormwater management plan improves drainage on the Property, and, thus, will not have an adverse impact on adjacent properties. However, we intend to explore options with the City’s Engineer and other review agencies, during the final engineering design stage that will not only have no adverse effect on adjacent properties, but rather would improve drainage on the immediately adjacent properties.

**Factor Three: Minimal Use of Wetlands and Floodplains.**

As we discussed at the Planning Commission meeting, the plan design minimizes the use of mapped flood plain and it is expected that, during final design refinements, we will continue to work with the City’s Engineer to minimize flood plain use consistent with a design that meets City codes and other relevant regulations. The Application does not propose the disturbance to state and federally regulated wetlands and therefore makes minimal or no use of the wetlands.

An engineering report prepared by Mr. Tim Anderson, P.E., on behalf of the Concerned Citizens of Rodney (the “Anderson Report”) notes that “the filling in this floodplain area should be evaluated to ensure no adverse impact on the floodplain elevation will result.”<sup>1</sup> The Anderson Report further notes that some of the properties on Rodney Avenue are located within the FEMA floodplain and have natural drainage toward the floodplain, but the proposed development would drain these areas through stormwater management facilities. The Application will adequately convey stormwater in the area adjacent to the abutting Rodney Avenue homes and will not result in ponding of water. The Rodney Avenue homes drain onto the Fisher’s Cove Property and the Application addresses this by conveying this runoff so as to minimize flooding and drainage impacts. The stormwater conveyance system shall be designed to meet the Sussex Conservation District (SCD), State and City requirements for conveyance from the Project and minimize undue retention of stormwater within the Project or on its lots.

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<sup>1</sup> Mr. Anderson’s Report is attached hereto as Exhibit A.

**Factor Ten: Prevention of pollution of surface water and ground water.**

The Project design and Application prevents the pollution of surface water and groundwater. The Application and Project design will comply with State stormwater management regulations that prescribe requisite water quality measures intended to prevent pollution to area surface and groundwater. The Application envisions extensive use of bioretention areas, and rain gardens for quality treatment of stormwater runoff.

**Factor Eleven: Minimization of erosion and sedimentation, minimization of changes in groundwater levels, minimization of increased rates of runoff, minimization of potential for flooding and design of drainage so that groundwater recharge is maximized.**

The Application minimizes erosion, sedimentation, changes in groundwater levels, increased rates of runoff, and potential for flooding; and provides for a drainage design which maximizes groundwater recharge (to the extent that the site has soil conditions conducive to recharge). The Application must comply with State stormwater management and erosion and sediment control regulations as administered by DNREC and the Sussex Conservation District (SCD). As noted in the Planning Commission meeting, runoff rates will, at a minimum, conform to DNREC regulations and there will be no adverse impacts to area flooding.

The Anderson Report erroneously states that “[t]he proposed drainage swale along the eastern side of Burke Road would have concentrated stormwater runoff flow across the rear corner of Rodney Avenue TP 335-4.18-11.00.” The stormwater conveyance system shall be designed to meet the Sussex Conservation District (SCD) and the City requirements for conveyance from the Project and minimize undue retention of stormwater within the site or on the lots.

The Anderson Report further takes issue with the use of surface ponds for stormwater management, because the grading for the ponds “does not appear to address . . . requirements for safety benching, aquatic benching, extended detention, forebay pretreatment, or minimum setbacks from property lines,” and notes that the ponds need a minimum depth to prevent the formation of mosquito breeding habitats, as well as erosion protection for outlet discharges into the wetlands.

The stormwater storage and conveyance system proposed within the Project's elongated cul-de-sac does not have to meet the requirements of Pond Code 378, as it pertains to wet ponds. Neither does it have to meet the extended detention, forebay pretreatment, or minimum setbacks from property lines for stormwater management facilities. The application shall meet the State and SCD requirements for stormwater management facilities and conveyance facilities that are proposed within the site.

Also, the Anderson Report takes issue with "presumed" infiltration facilities on Lots 1-3, and suggests that it "should be demonstrated that infiltration and groundwater conditions are feasible for such facilities" in accordance with DNREC requirements. **The Application anticipates that soils conditions on the site have limited recharge capability and will provide a design to maximize infiltration consistent with those conditions.**

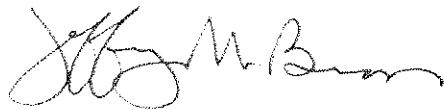
The Anderson Report additionally notes that "all of the lots have some portion that are below the floodplain elevation," and City of Lewes Code 197-76(B)(1) requires "no undue retention of surface water on the properties." As noted earlier, the stormwater conveyance system shall be designed to meet the SCD and the City requirements for conveyance from the Project and minimize undue retention of stormwater within the site or on the lots. Further, **as noted in our presentation at the Planning Commission meeting, the Application will not exacerbate flooding and the Application will result in an engineered design for Fisher's Cove that will provide positive drainage via swales and storm drains and not cause retention of surface water on neighboring properties.**

Finally, the community has expressed concern that the proposed development would exacerbate flooding of the field on the west side of Rodney Avenue, which is prone to flooding during storms. **As explained at the Planning Commission meeting, the Application will not exacerbate flooding of the area in question. Depending upon the final engineering design refinements approved by the City's Engineer and other reviewing agencies, the objective is to actually improve area flooding and drainage.**

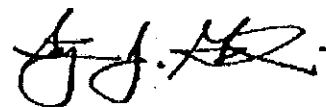
**Factor Seventeen: Effect on Area Waterways.**

As we discussed at the Planning Commission, in our review of the June 9, 2019 AECOM Flood Study, the Application will not have a measureable adverse impact on area waterways. As stated, during the Planning Commission meeting, it is the objective during final engineering design to not only have no adverse impact on area waterways but to actually improve flooding and drainage conditions in the vicinity of the Fisher's Cove Project.

Based on the above, we believe, to a reasonable degree of engineering certainty, that the Application complies with Factors 3, 10, 11, and 17 set forth in the City of Lewes Code of Ordinances § 170-19(E). I am available at your convenience should you have any questions. Thank you for your consideration of the Application.



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Senior Consultant



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