

McDonough & Rea Associates, Inc.

Traffic and Transportation Consulting

Kevin P. McDonough (1953-1994) John H. Rea, P.E. Jay S. Troutman, Jr., P.E. Scott T. Kennel

May 12, 2021

West Long Branch Zoning Board of Adjustment 965 Broadway West Long Branch, NJ 07764

Re:

Monmouth University ZB-2019-22

Proposed Main Campus Use Changes & Improvements

Lots, 1-5, 7-9, 11, 12.01 & 12.02 in Block 39 Borough of West Long Branch, Monmouth County

MRA File No. 19-162

Dear Board Members:

McDonough and Rea Associates (MRA) has prepared a *Traffic Impact Analysis* for the noted *Application* which is before the Zoning Board. We have reviewed the engineering report from E.M. Waterbury & Associates, dated April 10, 2021 and the West Long Branch Police Department Traffic Safety Bureau *Memorandum* of April 15, 2021 with regard to traffic comments dealing with the new access connection to Larchwood Avenue and the operation of the Cedar Avenue (Route 71)/Larchwood Avenue intersection.

The primary concern expressed in the traffic reviews deals with potential back-ups on northbound Larchwood Avenue that could impact the location of the new access drive to Larchwood Avenue which is approximately 290 feet from the intersection.

We have reviewed these concerns and have conducted queuing calculations for the northbound Larchwood Avenue approach to the Cedar Avenue intersection. Attached to this letter are printouts from the *Level of Service Analysis* we performed which also show calculations for the 85th percentile queue on northbound Larchwood Avenue for the AM peak street hour and PM peak street hour time frames.

The 85th percentile queue calculation is typically utilized as a design parameter in determining whether queuing would impact adjacent driveways (new or existing).

Please reply to:



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1431 Lakewood Road, Suite C, Manasquan, NJ 08736 • (732) 528-7076 • Fax (732) 528-6673 105 Elm Street, Lower Level, Westfield, NJ 07090 • (908) 789-7180 • Fax (908) 789-7181

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Findings were that during the AM peak street hour, the 85th percentile queue on northbound Larchwood Avenue is 21.1 feet and represents approximately 1 vehicle. Given the location of the proposed driveway, 290 feet from the intersection, the potential for additional traffic, exiting onto Larchwood Avenue from the new parking lots, creating a queue that extends 290 feet to the new driveway, is minimal, at best. We also note that during the morning peak hour, it is entering traffic more than exiting traffic that will impact the driveway. Therefore, any vehicles making left turns from southbound Larchwood Avenue into the new driveway will not be impacted by queuing on northbound Larchwood Avenue.

For the PM peak street hour, the 85th percentile queue is calculated at 115.3 feet or approximately 4.5 vehicles. Again, the existing queueing is well short of the distance that the driveway is located from the intersection at 290 feet. Therefore, the likelihood of additional traffic creating a queue that extends 290 feet to the new driveway is minimal. We note that this was the highest queue on northbound Larchwood Avenue during the 2:15 PM-3:15 PM hour.

We also note that it is unlikely for motorists who wish to travel east on Cedar Avenue, leaving the new parking lot, to travel west to Larchwood Avenue via the new connection to Larchwood Avenue, get in a queue on northbound Larchwood Avenue at the Cedar Avenue traffic signal, only to turn right and proceed east on Cedar Avenue. It is much easier for these motorists to utilize the existing unsignalized driveway to Cedar Avenue, which is significantly further east than the Larchwood Avenue/Cedar Avenue intersection.

In addition to the foregoing, it is the Applicant's intention to widen the existing unsignalized access to Cedar Avenue to provide for separate left and right turn lanes exiting the campus so that right turning vehicles will not be queued behind left turning vehicles in order to travel east on Cedar Avenue. The Applicant will also install signage within the new parking lot, directing motorists who wish to go east on Cedar Avenue, to this driveway and motorists who wish to go west on Cedar Avenue to the Larchwood Avenue driveway. A concept of the change is appended to this letter as well as a change to the crosswalk location across the access driveway to Cedar Avenue.



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In summary, the location of the proposed new driveway to Larchwood Avenue at 290 feet from the intersection, is in a location where queuing on northbound Larchwood Avenue will not impact driveway movements into and out of this location during either the AM or PM peak hour. We continue to believe that giving motorists the option of accessing the traffic signal at Cedar Avenue in order to make left turns or crossing movements, instead of utilizing the existing unsignalized access to Cedar Avenue, is in the best interest of traffic safety, not only for University traffic, but for the general public. In combination with the widening of the unsignalized Cedar Avenue driveway to provide separate left and right turn lanes, we believe traffic from the new parking areas can access Cedar Avenue efficiently.

A representative of MRA will be in attendance at an upcoming Borough of West Long Branch Zoning Board of Adjustment meeting to provide expert testimony and answer any questions board members, board experts or the public may have regarding this issue or other traffic related issues as they may arise.

Very truly yours,

John H. Rea, PE

Principal

Scott T. Kennel

Sr. Associate

cc: Steven Mlenak, Esq.

Bill Fitzgerald, PE

Patti Swannack, VP Administrative Services

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