

# **HUDSON LOGISTICS CENTER**

**SITE PLAN APPLICATION #04-20**

**CONDITIONAL USE PERMIT APPLICATION #02-20**

**STAFF REPORT #8**

**SUPPLEMENT TO 10/21 PACKET**

**SITE:** 43 Steele Road; Map 234 Lots 5, 34 & 35 and Map 239 Lot 1

**ZONING:** General – 1 (G-1) and Business (B)

**PURPOSE OF PLANS:** Proposed commercial development consisting of three (3) new distribution and logistics buildings with associated access ways, parking, stormwater/drainage infrastructure and other site improvements.

## **ATTACHMENTS**

- A. Cover letter and supplemental traffic responses to public comment, trip generation analysis and TEPP memorandum, received November 4, 2020.
- B. Cover letter from BCM Law and Traffic Memorandum from TEPP received October 21, 2020.
- C. Supplemental response from Langan Engineering to Attachment B particular to site plan regulation requirements, received November 9, 2020.
- D. Two (2) items of correspondence from BCM Environmental & Land Law.
- E. Public Comment received October 15 to November 10, 2020.
- F. Revised Air Quality Impact Analysis, Epsilon Associates, received October 28, 2020.

## **SUMMARY OF CONTENT**

**Attachment A** contains the Applicant's responses to comments received through public input, including that of BCM Environmental & Land Law and its consultant, Transportation Engineering, Planning and Policy (TEPP, LLC).

**Attachment B** is BCM's cover letter for, and includes, TEPP's analysis. The cover letter also provides comment on site plan regulation related to traffic issues. **Attachment C** is a supplemental response by the Applicant to these site plan comments.

**Attachment D** are items of correspondence from BCM regarding the October 21, 2020 Planning Board meeting. A recommendation with respect to these letters is in the next section.

**Attachments E** and **F** are self-explanatory.

## **RECOMMENDATIONS**

The following recommendation appeared in the original staff report for the traffic-focused meeting of October 21, 2020:

Depending on the course of discussion at the October 21<sup>st</sup> meeting, it may be appropriate to take one of three actions. Draft motions will be provided.

1. Continue the traffic discussion to date certain, or,
2. Continue the hearing to the next topic of site plan to date certain, or,
3. Continue to the next topic of site plan to date certain and revisit traffic at a later date.

Staff recommends that the Planning Board consider the meeting schedule and topics for December and beyond. Site Plan specific issues is the next recommended topic. Furthermore, staff recommends that at least one of these dates be used for a Planning Board workshop on Zoning Amendments for 2021. The following dates are available for Planning Board meetings on Wednesdays in December at the Community Center, if other dates are wished to be added, a night other than a Wednesday would need to be considered:

- Wednesday, December 9, 2020
- Wednesday, December 16, 2020

Regarding **Attachment D**, in consult with the Town's attorney, staff does not find these items appropriate for Planning Board review at this time. BCM should direct these correspondences to the Board of Selectman and have been advised as such.

November 4, 2020

**BY HAND**

Planning Board  
Town of Hudson  
Attn: Brian Groth, Town Planner  
12 School Street  
Hudson, NH 03051

RE: Hudson Logistics Center – Site Plan, Subdivision and Conditional Use Permit Applications  
Supplemental Information -- Traffic


Dear Brian:

On behalf of the Applicant, Hillwood Enterprises, L.P., we are filing for the record a total of thirteen (13) copies of the following documents and reports:

1. Memorandum to Brian Groth, Town of Hudson, from John Plante, P.E., dated November 4, 2020 (Project Traffic Engineer's responses to supplemental traffic-related public comments attached to Planning Board Staff Report #6, dated October 21, 2020, including public comments received by the Planning Board between September 3, 2020 and October 14, 2020);
2. "Trip Generation Review," dated October 19, 2020, prepared for John Grace, Hillwood Enterprises, L.P., by Richard S. Bryant, P.E., Stantec (includes a third party peer review by traffic engineering consultants which concludes that the trip generation forecasts developed by Langan were developed in accordance with standard engineering and industry practice as well as Town guidance, and that the resulting trip estimates applied in Langan's traffic study are conservative, or an overestimation of the traffic impact on the area roadway network); and,
3. Memorandum to Brian Groth, Town of Hudson, from John Plante, P.E., dated November 3, 2020 (Project Traffic Engineer's responses to Memorandum prepared by TEPP, LLC, dated October 21, 2020).

Please do not hesitate to contact me with any comments, questions or concerns. Thank you.

Very truly yours,

  
John T. Smolak, Esq.

cc: John Grace and Brian Kutz, Hillwood (email only)  
Langan (email only)  
Justin L. Pasay, Esq. (email only)  
Distribution List

**LANGAN****Memorandum**

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**888 Boylston Street, Suite 510 Boston, MA 02199 T: 617.824.9100 F: 617.824.9101**

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**To:** Brian Groth/Town of Hudson

**From:** John D. Plante

**Info:** Elvis Dhima/Town Engineer  
John Grace/Hillwood  
John Smolak/S&V  
Nathan Kirschner/Langan

**Date:** November 4, 2020

**Re:** **Response to Supplemental Public Comments -- Traffic  
Hudson Logistics Center  
Hudson, New Hampshire  
Langan Project No.: 151010101**

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On behalf of Hillwood Enterprises, L.P. ("Hillwood"), the following are the Applicant's responses to the supplemental public comment letters as related to traffic matters concerning the proposed Hudson Logistics Center ("HLC") received by the Planning Board with Planning Board Staff Report #6 dated October 21, 2020, between September 3, 2020 and October 14, 2020. Accordingly, below please find each numbered comment followed by our response which follows under each question as **Response**.

1. For almost 50 years we have lived on Stoney Lane, a residential street in the northeast corner of Hudson. At one time it was an area where you could hear birds sing in the morning and dogs bark in the evening. Probably you live on a street like ours too. It's not unusual to see folks strolling on this wide street in the evening. You'll also see joggers, walkers, kids riding their bicycles and families pushing baby carriages or walking their dogs. It's a wide rural street without sidewalks. When the GPS came into use, drivers were directed to use our street as a convenient bypass for Rt 102 and Rt 111. Since then, gravel trucks, delivery vans, and even 18-wheelers fly down our street. None of these vehicles adhere to the speed limit sign of 25 mph - *none*.

If the Logistics Center plan passes, it will increase commercial traffic through our local streets. Trucks from this Center heading for Londonderry and Salem, points south be taking local roads and add wear and tear on their streets too. A BAN on all nonresidential local thru traffic for the health and safety of Hudson citizens and the wear/tear on our local roads will be necessary. We are strongly advising that you veto the proposed Logistics Center plan. The increase of traffic, additional wear/tear on our roads, noise and the loss of our rural character cannot balance whatever Hudson and surrounding areas will gain, if anything, from this project.

# MEMO

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***Response: A detailed description of the truck and automobile distribution patterns is provided in the traffic impact study, as amended through September, 2020 (TIS), which indicates that the truck routing will be limited to Lowell Road between the proposed site driveways and Sagamore Bridge Road, to provide access to and from the FE Everett Turnpike. There is no efficiency advantage for the trucks to travel on local roads. The trip distribution follows industry standard methodologies and the site specific uses. This methodology has been reviewed and approved by NHDOT.***

2. The employee counts for the financial impact don't correspond with the employment counts for the traffic study. For the traffic study we have been given a figure of 1029, for the financial study 1400. While the traffic study does make some assumptions based on the size of the building, what number is it? Certainly it plays nicely to downplay the traffic figures while up-selling the employment estimates. Is this being transparent? I don't think so.

***Response: The anticipated number of jobs created is not a direct correlation to daily employee counts. There are a number of factors related to those numbers, including truck driver jobs that are not included in the anticipated employee counts provided. The trip generation for HLC is based on facility size and use, not employee counts. The building areas are identified in the traffic impact report and match those of the buildings on the site plans. The trip generation has been reviewed and approved by the NHDOT.***

3. In August, I wrote because I found a document titled NH DOT Statewide Freight Plan, Final Report 2019. I read it thoroughly and shared my observations with all of you. I also attended the NRPC virtual meeting on Wednesday, September 9 (a mere five days ago!). Brian Groth was on the call to represent Hudson. The NRPC acknowledged that there are areas in Hudson which are already on the list of what is considered 'High Priority' for the entire State of New Hampshire. The Nashua Regional Planning Commission did not have their traffic study complete and they stated it would probably be three weeks before their results were conclusive. An estimated date was given as the first week in October.

So it was with extreme surprise and frustration the next day that I read Governor Sununu's letter dated September 10 to the town. He incorrectly stated that the Hillwood project had already secured the necessary approvals to go forward. There is no evidence at all "the State has demonstrated that the Hudson Logistics Center proponent can mitigate for their impacts in the vicinity of the project." The Governor, I believe must have just read the massive Langan traffic impact report; and concluded that it was both factual and that it met the NHDOT's requirements.

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The Langan report on pages 3 and 4 incorrectly states that Walmart Boulevard (East and West) is a "two-lane private driveway" with no posted speed limit. The very next point is that "Rena Avenue is a two lane east west local road under local jurisdiction." When these statements are shown grouped together, it is very misleading. Walmart Boulevard is at least 5 lanes wide (three lanes exit Sam's and Walmart, and two lanes enter each property). Knowing that this is a misleading statement, I suspect that there is a lot more other misleading information

The Governor doesn't know this town and he is way out of line to try to bully the Hudson Selectmen into approval this monstrous Hillwood proposal. The Selectmen thus far have done a fantastic job with studying all aspects and trying to remain impartial. I urge you to continue to weigh the facts, at least until the NHDOT concludes its traffic findings. A Governor who is seeking re-election in a year when he knows his political party is flailing is trying to bribe Hudson with only the promise "of the preliminary design and engineering phase" of Hudson Boulevard. He uses the language that "the timeline to in which project funding is available is limited" because of economic conditions. It is not true. The State DOT has millions of excess funds which I learned from attending the NRPC meeting. Our infrastructure cannot handle the impact! Every day does not have to become a traffic nightmare as residents go to work and go about their normal activities.

***Response: As noted in other NHDOT correspondence filed with Staff Report #6, dated October 21, 2020, the NHDOT has reviewed and approved the TIS and the conceptual off-site roadway improvements.***

4. You may think Amazon wants to deliver packages to Hudson, but what it will really deliver is traffic and more traffic! Living near and traveling on Lowell Road is a traffic nightmare, especially at rush hour, in the afternoons and during the holidays. The developer estimates that Amazon will operate 150-250 trucks a day at the site. That equals about 1 tractor trailer truck every 6 minutes. If those trucks leave the same day, that will be 1 truck every 3 minutes. But, with 363 loading docks and an additional 840 truck parking spots, this facility can handle hundreds more trucks per day in and out. Hundreds of employee cars in and out each day will compound the traffic even further. The operation is proposed to run 24/7, 365 days a year! This is more traffic on a road that already has a grade of "F" from the State.

The residential neighborhoods and businesses off Lowell Road in South Hudson enter and exit ONLY onto Lowell Road. I know since I live in one of those neighborhoods. Trying to get out of our neighborhoods will be brutal. Expect longer commuting times. This increased traffic will impact people driving from Tyngsborough and Dracut as well. People will use the heavily-traveled back roads to avoid Lowell Road making them even more congested. Truck drivers using GPS are sure to find them as well. Remember these back roads are often narrow, winding, bordered by houses with kids and have no sidewalks. Many residents and truck drivers will head south to the Tyngsborough Bridge. Residents in North Hudson may opt to cross over the northern Hudson-Nashua bridges to avoid heading south. All of these bridges are also congested.

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***Response: The TIS provides recommendations for improvements to the Lowell Road corridor. These improvements will not only mitigate the traffic impact of the HLC, but will significantly improve the existing conditions, greatly improving operating conditions experience by the community today. These conceptual improvements have been reviewed and approved by NHDOT. A detailed description of the truck and automobile distribution patterns is provided in the TIS, which indicates that the truck routing will be limited to Lowell Road between the proposed site driveways and Sagamore Bridge Road, to provide access to and from the FE Everett Turnpike. There is no efficiency advantage for the trucks to traveling local roads. The trip distribution follow industry standard methodologies and the site specific uses. This methodology has been reviewed and approved by NHDOT.***

5. These diesel trucks are likely to pollute the air; diesel fumes and particulates are known carcinogens. Trucks heading to the Sagamore Bridge could sit idling at the 3 traffic lights between the site and the bridge. Imagine this extra traffic at the Wal-Mart and Sam's Club intersection, especially on weekends and holidays. Both of those businesses allow trucks and RVs to stay overnight in their parking lots. Are they (and shoppers) up to potentially having lots of trucks parking overnight? I don't know about you, but Hudson doesn't need all this additional traffic. I vote NO to more traffic and NO to Amazon.

***Response: An Air Quality Impact Analysis was prepared for the project and submitted to the Planning Board. This analysis details the air quality impacts of the project and its compliance with regulations.***

6. I have listened to some of the meetings and I am not convinced they are being forthcoming with what these warehouses will actually be. I feel they are saying what needs to be said for approval, but this will be much worse for the town. I have friends that live close to this and it will be a nightmare for them. The traffic will be much worse than what they are projecting, not to mention they have no projections for 5-10 years down the road. I am 100% completely against this based on the proposal set forth from Hillwood.

***Response: The TIS provides recommendations for improvements to the Lowell Road corridor. These improvements will not only mitigate the traffic impact of the HLC, but will significantly improve the existing conditions, greatly improving operating conditions experience by the community today. These conceptual improvements have been reviewed and approved by NHDOT. The TIS provides a detailed analysis of both the projected opening year (2022) and a ten year projection (2032).***

7. The proposed warehouse would be enormous. There will be dozens or hundreds of large and small trucks moving up and down route 3; this will impact traffic flow for commuters in multiple towns including Manchester, Bedford, Merrimack, Londonderry. There could be impact to secondary routes also as all those trucks travelling to and from Manchester Airport (Logan too) seek fastest travel times.

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***Response: A detailed description of the truck and automobile distribution patterns is provided in the TIS, which indicates that the truck routing will be limited to Lowell Road between the proposed site driveways and Sagamore Bridge Road, to provide access to and from the FE Everett Turnpike. There is no efficiency advantage for the trucks to traveling local roads. These proposed facilities have a very regimented material flow through them. The truck trips are spread out throughout the day with the vast majority of the truck trips occur outside the roadway peak hours. This further supports the position that traveling the highway routes for trucks is much more efficient than traveling on local roads or more circuitous routes. The trip distribution follows industry standard methodologies and the site specific uses. This methodology has been reviewed and approved by NHDOT.***

8. I strongly oppose the new Logistics Center. I live off of Bush Hill Road and we are a cut through from 93 to Route 3, traffic is usually steady but becomes unbearable when Lowell Road is backed up. With the new Logistics center coming into town the traffic will be backed up every day making Bush Hill a traffic nightmare. This narrow, windy road is not meant for the amount of traffic that this center will bring. Also, just trying to get out of side streets is already nearly impossible. I can't even imagine it worse. This center needs to be relocated to a remote area that can handle the traffic it will bring.

***Response: The TIS provides recommendations for improvements to the Lowell Road corridor. These improvements will not only mitigate the traffic impact of the HLC, but will significantly improve the existing conditions, greatly improving operating conditions experience by the community today. These conceptual improvements have been reviewed and approved by NHDOT.***

9. I don't think people realize the amount of traffic this will cause here and in Hudson. 200 tractor trailers and 50 box trucks per day (for starters!) doesn't include the fleet of Amazon vans that will follow and the cars of all the employees. It takes a long time for a fully loaded tractor trailer to get moving from a stop. The traffic near the proposed site is already congested as it is. Add that number of trailers, box truck and vans and it'll be gridlock all the time, not to mention the noise!

***Response: The Hudson Logistic Center does not include an Amazon delivery station which utilizes the vans mention. There will be no vans at this site.***

10. Per Hillwood Hudson Logistics Center's Website (June 6, 2020): "Approximately 150 to 200 tractor trailers and 35 to 50 box trucks will travel to and from the Logistics Center each day. The vast majority of the trucks entering and exiting the Hudson Logistic Center will come directly from the Everett Turnpike on Sagamore Bridge Road - two simple turns in both."



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- a. When was the last traffic study completed? Did it incorporate Hillwood's estimate of 200 tractor trucks, 50 box trucks and 2,000 employee cars? Did it incorporate the additional cars from the 80 apartments being constructed at the old Friar property?

**Response: The traffic counts for the TIS were conducted in the fall of 2019, prior to any impact of COVID-19. The TIS has been updated in September 2020 and has been reviewed and approved by the NHDOT.**

- b. Does the Sagamore Bridge or the Everett Turnpike have the excess capacity for this additional traffic? What is the overflow affect to the feeder roads, Lowell Rd, River Rd, Dracut Rd, Wason Rd, Routes 101 and 111, and Route 3 North and South?

**Response: Sagamore Bridge Road is included in the TIS analysis and this has been reviewed and approved by NHDOT.**

- c. Hudson River Place (2006) published plans that had a direct access road from the Sagamore Bridge to the development, why is that not included in Hillwood's proposed plan? Hillwood's plans intend to use Lowell Rd to Mercury Systems Driveway (Walmart Blvrd) and utilize the access easement to extend the road over the wetlands.

**Response: No direct access to Sagamore Bridge Road is needed or proposed for the project. The improvements proposed by Hudson River Place were never approved by NHDOT. NHDOT has also indicated that they would not prefer that kind of connection. The easement for the extension of the Mercury System driveway was a planning board condition of approval for that development, with the intent to provide future access to the redevelopment of the HLC site.**

- d. Has there been an independent validation to the developer's claims? The number of trucks in and out does not seem realistic (approximately 0.9% of capacity) and does not include the third building. What are the projections in 15 years (end of lease)? What is the maximum utilization of these buildings with several hundred loading docks?

**Response: The TIS and the methodologies used to develop the anticipated trip generation has been reviewed and approved by NHDOT. The TIS provides recommendations for improvements to the Lowell Road corridor. These improvements will not only mitigate the traffic impact of the HLC, but will significantly improve the existing conditions, greatly improving operating conditions experience by the community today. These conceptual improvements have been reviewed and approved by NHDOT. The TIS provides a detailed analysis of both the projected opening year (2022) and a ten year projection (2032).**

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Thank you for providing the Hillwood Team with the opportunity to respond to these, and other, public comments filed with the Planning Board.

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## Memo

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To:	Mr. John Grace Hillwood Enterprises, L.P.	From:	Richard S. Bryant, P.E. William R. Moore
File:	Hudson Logistics Center 43 Steele Road Hudson, NH Trip Generation Review	Date:	October 19, 2020

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Stantec Consulting Services Inc, (“Stantec”) conducted a peer review of the trip generation forecasts for the above referenced project documented in the traffic impact study prepared by Langan Engineering & Environmental Services, Inc. dated April 2020 and revised August 2020. Based on our review we find that the forecasts were developed in accordance with standard engineering practice and provide a reasonable estimate of project generated traffic. Also, in our opinion the trip generation forecasts as applied in the traffic study create a conservative, or over-estimate of future Build condition traffic volumes on the area roadway network.

**Langan Traffic Forecasts** – Langan considered two possible methods to forecast project generated traffic volumes and chose for analysis the higher volumes resulting from the two methods. Standard engineering practice and stated policies in many jurisdictions recommend that analysts apply Institute of Transportation Engineers (ITE) trip generation rates published in *Trip Generation* when developing traffic forecasts for proposed land use changes. Section 6 of the Town of Hudson Engineering Department *Engineering Technical Guidelines & Typical Details* states that “traffic study data should meet requirements set forth in the latest version of ... *Trip Generation [Rates, Plots and Equations]*, as published by the Institute of Transportation Engineers.” *Trip Generation* includes empirical data collected at operating facilities across the United States and Canada. It covers a wide range of land uses and is updated on regular basis as new data are collected. For land uses that are not considered in *Trip Generation*, alternative methods or data should be applied.

The 10<sup>th</sup> edition of *Trip Generation* was recently supplemented to add data for the proposed use, High-Cube Fulfillment Center Warehouse - Non-Sort, Land Use Code 155. Available trip rates can be used to estimate vehicle trips during the peak hours of the adjacent street using either employee counts or building floor area as the independent variable. Trip estimates for the peak hours of the generator can also be calculated based on the building floor area. The adjacent street trip rates are based on studies done at 22 sites since 2000. These rates were applied to the each of the three buildings in the program including 1,702,400 square feet of floor space indicating 573 AM peak hour trips and 703 PM peak hour trips during the peak hour of the generator. Trip estimates for the peak hour of the generator, based on one study, are 70 percent higher than the estimates for the peak hours of the adjacent street. Langan chose to apply the higher “peak hour of generator” trip estimates in the traffic analysis, with one exception, to represent a very conservative analysis condition. The one exception uses even higher volumes for Building A as described below.

As an alternative to applying ITE trip rates, Langan also considered tenant provided information regarding expected operations, employee counts, and schedules. The expected tenants and staffing data are known for Buildings A and B. Trip estimates developed for Building A based on expected operations are the same as or higher than the ITE floor area-based estimates. For Building B the tenant operations based estimates are much lower. Again, using the higher numbers, Langan applied the known tenant operations based volumes for Building A in the traffic analysis. The higher, floor area-based estimates were used for Building B. With the higher numbers, the full development is assumed to generate 573 AM peak hour trips and 795 PM peak hour trips.

The PM peak hour trip estimate derived for Building A based on tenant data was compared to the ITE data. The PM peak hour trip estimate for Building A based on the tenant data is 384 trips. As noted above, 22 sites

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Mr. John Grace

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**Reference:** Hudson, NH

were studied by the ITE under Land Use Code 155. Only eight of these sites generated more than 200 PM peak hour trips and the highest observation was approximately 385 trips. Again, this indicates that a conservative trip estimate has been applied. The estimate of 238 trips for the AM peak hour is higher than the trip counts for 18 of the sites in the 22-sites in the ITE database.

The Building A tenant data trip generation estimate was also compared to ITE trip rates for Light Industrial uses, ITE Land Use Code 110. This land use was considered as: it also involves shift work; it includes a larger data base (40 studies); and, more employee-based data. For this land use there are 3.05 vehicle trips per day per employee and 16 percent of these trips occur during the PM peak hour. Applying these rates to the proposed land use program for Building A with 683 employees indicates 2083 daily vehicle trips and 333 PM peak hour trips. Langan applied 384 trips again indicating an over-estimate of project trip generation.

The above analysis indicates that trip estimates used for both the AM and PM peak hours are conservative, that is, overstated. However, by using the tenant data based trip estimates for the PM peak hour for Building A the total PM peak hour trip estimates are more conservative than the AM peak hour estimates. The traffic operations analyses in the traffic study indicate that PM commuter peak hour operations are more critical than AM peak hour conditions. (Reported intersection No Build condition operating volume-to-capacity ratios at intersections proximate to the project site are higher during the PM peak hour than during the AM peak hour.) Consequently, the more conservative PM peak trip estimates have been applied to the more critical peak hour from a traffic operations perspective.

**Additional Study Assumptions—** Stantec prepared this memo to document our review of the trip generation component of the study however, there are other study assumptions that also reflect a conservative or “worst-case scenario” approach.

- *Peak Hours*-As noted above, project trip estimates reflect expected traffic generation during the peak hour of the generator. Tenant data suggests that the peak hours of traffic generation for the project will not coincide with the peak hours of traffic on the roadway system. However, the study combines peak hour volumes of the generator with the peak hour volumes of the adjacent street system to reflect a worst-case scenario.
- *Mode Choice*-When applying tenant based data to forecast traffic for Building A it was assumed that all workers would drive alone to and from the site. ITE data relative to ridesharing suggests that the trip estimates could be reduced by as much as 23 percent to account for carpooling and public transit access.
- *Existing Site Traffic*-Estimated traffic associated with the proposed development was added to the roadway network as new traffic without accounting for traffic associated with the existing golf course on the subject site. Existing volumes generated by the golf course could have been removed from the network to create a less conservative analysis condition.
- *Background Growth Rate*-When developing future No Build traffic volume networks Langan applied a traffic growth rate of one percent per year. This approach is conservatively high as the Nashua Regional Planning Commission's *Hudson Boulevard Traffic Analysis*, dated June 22, 2018, indicates only a 0.65% per year growth rate.
- *Level of Proposed Improvements*. Stantec also reviewed the traffic study level of service (LOS) results and associated off-site improvement plans. The proposed improvements were found to fully mitigate the development's projected traffic impacts and, in some cases, provide additional capacity over what is available today. In particular, the improved Route 3A intersection with Dracut, River and Steel Roads is predicted to operate at LOS A and C during the morning and evening peak hours as compared to a LOS B and F during the same existing peak hours with no improvements. In addition, the improved Route 3A intersection with Sagamore Bridge Road is predicted to operate at LOS B

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**Reference:** Hudson, NH

during the morning peak hour as compared to a LOS D during the existing morning peak hour with no improvements.

The above assumptions reflect an effort to present a conservative or worst case future traffic scenario.

**Conclusions** - Overall, we find that Langan has followed industry accepted practices and Town guidance in developing vehicle trip estimates for the project and that the resulting trip estimates applied in the traffic study are conservative, or an over-estimation of the traffic impact on the area roadway network.

Thank you for providing us the opportunity to provide peer review services. Please do not hesitate to call if we can be of further assistance.

**Stantec Consulting Services Inc.**



**Richard S. Bryant P.E.**

Senior Associate - Transportation



**William R. Moore P.E.**

Senior Principal - Transportation

**LANGAN****Memorandum**

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**888 Boylston Street, Suite 510 Boston, MA 02199 T: 617.824.9100 F: 617.824.9101**

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**To:** Brian Groth/Town of Hudson

**From:** John D Plante, PE

**Info:** Brian Kutz/Hillwood  
John Grace/Hillwood  
John Smolak/Smolak & Vaughan

**Date:** November 3, 2020

**Re:** **Response to TEPP, LLC Comments  
Hudson Logistics Center  
Hudson, New Hampshire  
Langan Project No.: 151010101**

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Below are our response to the memorandum prepared by TEPP, LLC, dated October 21, 2020, for BCM Environmental & Land Law, who is representing the opposition to the Hudson Logistic Center (HLC). These responses are intended to address the pertinent comments made in their memo.

**Document Review**

Their memo, although dated after, does not include a recognition that Langan issued a response, dated October 9, 2020, to the NHDOT comment letter of October 2, 2020 addressing the NHDOT's comments and providing revised conceptual plans incorporating the NHDOT comments. TEPP also fails to recognize or cite that NHDOT issued a letter, dated October 15, 2020, saying among other things:

*"The Department has reviewed and approved the methodology, trip generation and traffic volumes developed in the TIS. We concur that the proposed geometric modifications and adaptive signal control proposed at the four intersections will adequately mitigate the development's traffic. Per our review of the traffic analyses in the TIS, the proposed improvements will handle the existing and added traffic volumes reasonably well. Accordingly, the Department is supportive of the proposed development and the proposed mitigation."*

The TEPP memo also does not cite the town's peer reviewer, VHB's, letter of October 15, 2020, reviewing the traffic impact report and conceptual improvements. That letter indicates:

*"In summary, VHB has conducted that, based on the estimated site-generated vehicle trips presented in the Traffic Impact Study, the applicant's proposed upgrades to the study intersections adequately mitigate the project's traffic impact."*

**Study Area**

The TEPP memo list a series of intersections in a wide area around the project. The limits of the study is based on standard methodology, development traffic volumes, and discussions with NHDOT.

*Lowell Road north of Sagamore Bridge Road* - The anticipated development traffic volumes on Lowell Road, north of Sagamore Bridge Road, are of the scale that normally would not require intersection analysis. The resulting total bi-directional volume on the roadway AM 82 vph/PM 113 vph, under the or slightly higher than the 100 vph threshold mentioned in TEPP's memo. Although it is likely that some project volume will divert to several of the connecting roadways, such as Wason Road, we considered all site generated volumes continue north on Lowell Road. Therefore, we believe the volumes north

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overestimate the actual volumes. However, we did analyze four major intersections on Lowell Road north of Wason Road, and provided recommended improvements where appropriate.

*Lowell Road south of Dracut Road/River Road/Steele Road* – The project traffic on the roadways south of this local are less than the 100 vph threshold cited by TEPP. The anticipated total bi-directional traffic volume at this intersection is AM 70 vph/PM 98 vph. These volumes disperse even further, some to Dracut Road and some to River Road, thus it would not be appropriate to evaluate intersections south of this intersection.

## **Time Period**

The TEPP memo comments on the Saturday peak hours. The TIS discusses the Saturday peak hour and why it is not included in analysis.

## **Operational Analysis**

TEPP presents a very limited and selective comments on the operational analysis in the TIS. Their comments do not show the entire picture related to the topic cited. They also do not identify that their comments are based on the ten year future analysis of year 2032. It should be noted the queue lengths cited are for 95<sup>th</sup> percentile queue length during peak hours, which only occurs in 5% of the peak hour, which equates to only six minutes during the entire day. In an attempt to address their comments and provide a more appropriate representation of the topics, we offer the following:

*Lowell Rd/Pelham Rd* – TEPP identifies queue lengths for two approaches, one each in the morning and evening peak periods. The movements cited reflects the existing commuter route directional distribution. What is not presented is additional information to provide a more appropriate picture of the conditions. In 2032, twelve years from now, the increase in queue length will only be equivalent to five or six cars at the approaches cited and the average overall intersection delay does not change with or without the HLC development.

*Lowell Rd/Fox Hallow Dr* - TEPP identifies queue lengths for two approaches, one for each of the morning and evening peak periods. The movements cited reflects the existing commuter route directional distribution. What is not presented is additional information to provide a more appropriate picture of the conditions. TEPP cites the large morning southbound queue length, which is primarily associated with exiting traffic volumes. With the HLC project, the queue length only increases by 5 cars, twelve years from now. For the evening peak hour they have incorrectly cited a queue length associated with the northbound approach, at an intersection with only a 3.5 second increase in the average overlay intersection delay. The length cited is actually for the southbound approach. The northbound queue length actually reduces significantly from 2065 feet to 600 feet or by 60 cars, with the HLC project. The southbound approach would only increase by 4 cars, twelve years from now. The average overall intersection delay will decrease by over 9 seconds with the improvements proposed by HLC.

If we look at the conditions anticipated when this project could open, 2022, the northbound evening queue length reduces from 1772 feet to 519 feet or by 50 cars. The southbound evening queue length will increase by only 4 cars, but the average overall intersection delay decreases by 6 seconds.

# MEMO

Response to TEPP, LLC Comments  
Hudson Logistics Center  
Hudson, New Hampshire  
Langan Project No.: 151010101  
November 3, 2020- Page 3 of 3

*Lowell Rd/Sagamore Bridge Rd* – TEPP cites the eastbound left-turn evening peak hour queue length, what they fail to say is that this queue length does not increase with the HLC project. The reason is that this movement has zero volume associated with the project. Not cited is that during this peak hour the average overall intersection delay is reduced by 15 seconds with the improvement proposed by HLC. They also failed to cite the morning peak hour in which the queue is reduce by one car and the average overall intersection delay is reduced by 16 seconds and improve from a level of service D to a B with the improvements proposed by HLC.

TEPP cites several concerns relating to the NHDOT review. It is clear that TEPP has not reviewed the Langan response, dated October 9, 2020, to NHDOT October 2, 2020 comment memo cited by TEPP. TEPP also has not considered the NHDOT's letter, dated October 15, 2020, approving the traffic impact study and conceptual off-site improvement plans. We believe all the concerns cited by TEPP in this section have been addressed in these subsequent documents.

### ***Parking Spaces/Loading Docks***

A detailed description of the operation of these facilities is provided in the traffic impact study and in other supplemental documents submitted to the Planning Board, as to why the number of employee and trailer parking spaces are being provided to support the specific operations of the facilities.

### ***New Hampshire Statewide Freight Plan***

The HLC development and the improvements proposed for the Lowell Road corridor appear to meet the intent of the goals stated in the Freight Plan. The HCL development's proposed improvements to the Lowell Road/Sagamore Bridge Road intersection directly address the operational concerns identified in the Freight Plan for this location. TEPP indicates that Lowell Road is identified as a critical urban freight corridor; the improvements proposed by the HLC development will significantly improve the operations of this segment of the corridor, thus supporting the goals of the Plan. The New Hampshire Statewide Freight Plan appear to support the development of the HLC at this location.

### ***Road Modifications***

TEPP cites the October 2, 2020 comments from the NHDOT to express concerns. TEPP has failed to reference Langan's October 9, 2020 detailed response to the NHDOT comment memo addressing those concerns, nor the NHDOT October 15, 2020 letter approving the HLC traffic impact study and the proposed conceptual off-site roadway and signal improvements.

TEPP's memo then essentially repeats the NHDOT comments of October 2, 2020, and provides generalize commentary on theoretical impacts. It fails to recognize the results of the analyses presented in the TIS and the improved operating conditions resulting from the proposed off-site mitigation. The documents cited in the above paragraph support the appropriateness and effectiveness of these proposed improvements.





October 21, 2020

VIA HAND DELIVERY  
Town of Hudson Planning Board  
12 School St.  
Hudson, NH 03051

**RE: Hudson Logistics Center Subdivision, Site Plan & Conditional Use Permit; SB# 11-20, SP# 04-20, CU# 02-20; Lowell & Steele Road- Map 234/Lots 5, 34 & 35, Map 239/Lot 1; Traffic Standards Not Met**

Dear Chair Malley and Members of the Planning Board:

I write in the continued representation of more than fifty households in Hudson to oppose the applications for Subdivision, Site Plan & Conditional Use Permit approval (“Applications”) submitted by Hillwood Enterprises, L.P. (“Applicant”) to redevelop the golf course, property identified as Town Tax Map 234, Lot 5 and Tax Map 239, Lot 1 (“Property”) into the proposed Hudson Logistics Center (“Proposed Project”).

This letter addresses several shortcomings of the Application with respect to traffic, which means the Applications cannot be approved.

First, following is a list of the several requirements the Applicant must satisfy based on Hudson’s Site Plan Review Regulations. The Board “shall require that adequate provisions be made” by the Applicant for the following:

1. Safe and attractive development of the site and to guard against such conditions as would involve danger or injury to health or safety. Section 275-6(A).
2. Traffic circulation and access, including adequacy of entrances and exits, traffic flow, sight distances, curb cuts, turning lanes and traffic signalization. Section 275-6(B).
3. Pedestrian and bicycle safety and access. Section 275-6(C).
4. Off-street parking and loading. Section 275-6(D).
5. Emergency vehicle access, including fire lanes. Section 275-6(E).
6. Stormwater drainage and groundwater recharge. Section 275-6(F). (This includes as related to roadways associated with developments.)



7. Harmonious and aesthetically pleasing development of the municipality and its environs. Section 275-6(J).
8. Suitably located travelways of sufficient width to accommodate existing and prospective traffic and to afford adequate light, air and access for fire-fighting apparatus and equipment to buildings, and be coordinated so as to compose a convenient system. Section 275-6(K).

The Applicant must provide sufficient, credible evidence that the Proposed Project satisfies every one of the legal requirements listed above. The legal standard for approval is not a majority test. Without having provided sufficient, credible evidence to prove the Proposed Project would satisfy *all* of the traffic-related requirements, the Applications may not be approved.

Second, the Applicant has not provided sufficient, credible evidence. Please see the letter from Mr. Kim Hazarvartian from TEPP LLC dated October 21, 2020 for details. In summary, the points in that letter can be sorted into two grouped into two issues.

First, the Applicant has not analyzed all that should be analyzed. Therefore, the Applicant has not submitted *sufficient* evidence.

Perhaps the best example of insufficient evidence is that the Applicant appears not to have analyzed the impact of queuing caused by the Proposed Project upon all the residential and commercial driveways along Lowell Road. As Mr. Hazarvartian writes on page ten of his letter, the “proposed road modifications are significant enough that they should be considered not only in terms of project mitigation but in terms of effects on the corridor and Town including: effects of queueing on unsignalized driveways and sites along and near the Lowell Road corridor which is important especially if it affects site access, egress or internal circulation.” Another example is that the Applicant has not yet completed its determination on whether additional land along the Lowell Road corridor needs to be acquired, and if so, whether the owners of such private property are willing to sell it given that eminent domain cannot be used for the Proposed Project.

Without information such as this, and other omissions Mr. Hazarvartian’s letter identifies, the Applications cannot be approved because the Applicant has not submitted sufficient evidence.

Second, with respect to the analysis the Applicant has provided, some of it is not credible. Therefore, the Applicant has not submitted *credible* evidence.

Perhaps the best example of this is that is the Applicant’s consultants used driver profiles that reflects drivers cooperating about lane changing. Life experiences tell us that drivers often do not cooperate, and therefore traffic is likely to be worse than predicted



with such “cooperative driver” assumptions. Another example is the fact that the Applications call for more docks and parking spaces than the Applicant accounted for in the Applicant’s traffic analysis, a problem which almost all reviewers have noted, including Mr. Hazarvartian.

Without information such as this, and other problems Mr. Hazarvartian’s letter identifies, the Applications cannot be approved because the Applicant has not submitted credible evidence.

***Conclusion***

The Applications cannot be approved because the Applicant has not proven with sufficient, credible evidence that the Proposed Project will satisfy all of the required legal standards. Mr. Hazarvartian’s letter, as well as other materials in the Board’s record, support denial of the Applications.

My clients and I continue to thank you for your attention to these Applications.

Very truly yours,

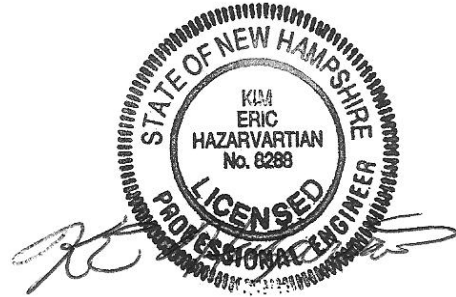
Amy Manzelli, Esq.  
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cc: Clients

**MEMORANDUM**

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 800 Turnpike Street, Suite 300, North Andover, Massachusetts 01845 USA  
 Phone (603) 212-9133 and Fax (603) 226-4108  
 Email tepp@teppllc.com and Web www.teppllc.com

Ref: 1523  
 Subject: Transportation-Engineering Review  
 Hudson Logistics Center  
 43 Steele Road  
 Hudson, New Hampshire  
 From: Kim Eric Hazarvartian, Ph.D., P.E., P.T.O.E.  
 Principal  
 Date: October 21, 2020

**INTRODUCTION**

BCM Environmental & Land Law, PLLC, has retained TEPP LLC to prepare this transportation-engineering review of the proposed Hudson Logistics Center project at 43 Steele Road in the Town of Hudson, New Hampshire.

The following consultants prepared materials in support of the project application:

- Langan Engineering & Environmental Services, Inc. (hereinafter Langan), of Boston, Massachusetts
- Stantec, of Mount Laurel, New Jersey

The New Hampshire Department of Transportation (hereinafter NHDOT) is reviewing the project on behalf of the State of New Hampshire.

Whiteman, Requardt & Associates, LLP (hereinafter WRA) provided materials, as described below, to the NHDOT.

Vanasse Hangen Brustlin, Inc. (hereinafter VHB) is reviewing the project on behalf of the Town.

TEPP LLC is considering the following materials:

1. WRA, January 2019 (final report, NHDOT statewide freight plan)
2. Langan, June 2020 (revised traffic impact study (TIS))
3. Langan, June 2, 2020 (memorandum, regarding trip generation)
4. NHDOT Bureau of Traffic, June 18, 2020 (memorandum, review regarding Langan April 29, 2020 and NHDOT Bureau of Traffic, May 21, 2020)

5. Langan, June 30, 2020 (memorandum, responses regarding NHDOT Bureau of Traffic, May 21, 2020 and NHDOT Bureau of Traffic, June 18, 2020)
6. VHB, July 27, 2020 (letter, regarding follow up of July 21, 2020 meeting)
7. NHDOT Bureau of Traffic, August 10, 2020 (memorandum, regarding review of Langan, June 2020 and Langan, June 30, 2020)
8. Langan, August 19, 2020 (memorandum, regarding responses to NHDOT Bureau of Traffic, August 10, 2020)
9. Stantec, August 20, 2020 (memorandum, regarding VISSIM analysis of Sagamore Bridge Road)
10. NHDOT Bureau of Traffic, September 1, 2020 (memorandum, regarding review of Langan, September 2020 and TIS supplement)
11. Langan, September 2020 (revised TIS)
12. Langan, September 15, 2020 (memorandum, regarding responses to various NHDOT comments)
13. NHDOT Bureau of Traffic, September 30, 2020 (memorandum)
14. NHDOT Bureau of Highway Design, October 2, 2020 (memorandum, regarding review of items NHDOT Bureau of Traffic, September 1, 2020, September 2020, Langan, and Langan, September 22, 2020)

## **STUDY AREA**

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The Langan, September 2020, study area included:

- Lowell Road/Pelham Road signalized intersection
- Lowell Road/Fox Hollow Drive/Nottingham Square Drive signalized intersection
- Lowell Road/Executive Drive signalized intersection
- Lowell Road/Hampshire Drive/Oblate Drive signalized intersection
- Lowell Road/Flagstone Drive/Wason Road signalized intersection
- Lowell Road/Sagamore Bridge Road signalized intersection
- Lowell Road/Wal-Mart Boulevard signalized intersection
- Lowell Road/Rena Avenue/Mercury Systems driveway (proposed Green Meadow Drive) signalized intersection

- Lowell Road/River Road/Dracut Road/Steele Road signalized intersection

The Stantec, August 20, 2020 study area included:

- Sagamore Bridge Road westbound merge west of Daniel Webster Highway
- Sagamore Bridge Road westbound weave between Lowell Road and Daniel Webster Highway
- Sagamore Bridge Road westbound weave between Daniel Webster Highway and the Everett Turnpike
- Sagamore Bridge Road eastbound weave between the Everett Turnpike and Daniel Webster Highway
- Sagamore Bridge Road eastbound merge east of Daniel Webster Highway

The combined study areas did not include:

- Lowell Road/Birch Street signalized intersection
- Lowell Road/Central Street signalized intersection
- Lowell Road/Market Basket shopping center driveway unsignalized intersection
- Wason Road/Goodwill shopping center west driveway unsignalized intersection
- Wason Road/Market Basket shopping center driveway unsignalized intersection
- Wason Road/Goodwill shopping center west driveway unsignalized intersection
- unsignalized intersections along Walmart Boulevard
- proposed Green Meadow Drive/proposed Mercury Systems west driveway unsignalized intersection
- proposed Green Meadow Drive/proposed Mercury Systems east driveway unsignalized intersection
- Sagamore Bridge Road ramp junctions along the Everett Turnpike
- Sagamore Bridge Road ramp terminals along Daniel Webster Highway
- Sagamore Bridge Road westbound weave between Daniel Webster Highway and the Everett Turnpike
- Sagamore Bridge Road eastbound weave between the Everett Turnpike and Daniel Webster Highway
- Sagamore Bridge Road eastbound merge east of Daniel Webster Highway

Regarding the locations not included in the study area:

- a study area often includes intersections or road segments where site-generated trips increase the peak-hour traffic volume by more than 100 vehicles per hour (vph)<sup>1</sup>
- Langan, September 2020, Figure 7, shows, at the north limit of the study area along Lowell Road north of Pelham Road, 113 vehicle-trips added for the PM peak-hour; signalized intersections farther north along Lowell Road include Birch Street and Central Street
- Langan, September 2020, Figure 7, shows, at the west limit of the study area along Sagamore Bridge Road west of Lowell Road, 392 vehicle trips added for the AM peak hour and 544 vehicle-trips added for the PM peak hour
- Langan, September 2020, shows a concept plan that includes the Lowell Road/Market Basket shopping intersection. Langan, September 2020, does not include traffic volumes for this intersection
- Langan, September 2020, shows concept plans for Wason Road that include modifications at Goodwill shopping center west driveway intersection, Market Plaza shopping center driveway intersection and Market Basket shopping center east driveway intersection

#### **ANALYSIS CONDITIONS AND TIME PERIODS**

Langan, September 2020, pages 22 to 37, includes the following analysis conditions:

- 2019 existing
- 2022 no build (with background traffic growth and without the project)
- 2022 build (with background traffic growth and with the project)
- 2032 no build (with background traffic growth and without the project)
- 2022 build (with background traffic growth and with the project)

Langan, September 2020, pages 22 to 37, includes the following time periods:

- weekday AM peak hour
- weekday PM peak hour

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<sup>1</sup> It does not appear that NHDOT has such a formal guideline. However, Massachusetts Department of Transportation, Transportation Impact Assessment (TIA) Guidelines (Boston, Massachusetts, March 13, 2014), page 10, states regarding study area “Intersections (to be assessed by approach) or roadway segments where site-generated trips increase the peak hour traffic volume by a) five (5) percent or more or b) by more than 100 vehicles per hour should be included in the study.”

Time periods did not include the Saturday peak hour. The applicant should verify that this is appropriate, considering actual area traffic volumes and trip generation based on relevant existing facilities for the same user.

## **OPERATIONAL ANALYSIS**

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Langan, September 2020, pages 22 to 37, tabulates operational analysis for all the above-described analysis conditions and peak hours.

The Lowell Road/Pelham Road intersection shows significant queuing (a line of vehicles):

- during the AM peak hour, the Lowell Road southbound through 95<sup>th</sup> percentile queue is 1,982 feet (ft), including exacerbation by the project
- during the PM peak hour, the Lowell Road northbound through 95<sup>th</sup> percentile queue is 2,494 ft

The Lowell Road/Fox Hollow Drive/Nottingham Square driveway shows significant queuing:

- during the AM peak hour, the Lowell Road southbound through 95<sup>th</sup> percentile queue is 2,516 ft, including exacerbation by the project
- during the PM peak hour, the Lowell Road northbound through 95<sup>th</sup> percentile queue is 870 ft, including exacerbation by the project

The Lowell Road/Sagamore Bridge Road intersection shows significant queuing. During the PM peak hour, the Sagamore Bridge Road eastbound left-turn 95<sup>th</sup> percentile queue is 987 ft, including exacerbation by the project.

NHDOT Bureau of Highway Design, October 2, 2020, pages 4 and 5, express concerns about analysis of ramp junctions along Sagamore Bridge Road:

- regarding the VISSIM model calculation, Stantec developed a driver behavior profile that reflects cooperative lane changes rather than default driver behavior parameters, to produce better results
- vastly different results between VISSIM and Highway Capacity Software results for the eastbound and westbound weaving section between the Daniel Webster Highway ramps and the Everett Turnpike ramps

Therefore, operations and impacts for these facilities have not been finally defined through modeling thus far.

NHDOT Bureau of Highway Design, October 2, 2020, page 5 shows, for the eastbound and westbound weaving section between the Daniel Webster Highway ramps and the Everett Turn-



pike ramps, level-of-service (LOS) C to E under the 2032 no-build condition and LOS D to F under the 2032 build condition, reflecting project impacts.

#### **TEPP LLC COMMENT ON PARKING SPACES**

The applicant should explain if and why excess parking spaces are being provided. Could excess parking spaces allow for operational changes that would increase site-trip generation?

#### **TEPP LLC COMMENT ON LOADING DOCKS**

The applicant should explain if and why excess loading docks are being provided. Could excess loading docks allow for operational changes that would increase site-trip generation?

#### **NEW HAMPSHIRE STATEWIDE FREIGHT PLAN FINAL REPORT**

WRA, January 2019, page 131, includes the following as high-priority truck-freight bottleneck locations (before the proposed project was under consideration):

- Sagamore Bridge Road, the Everett Turnpike to Lowell Road, in the Town of Hudson
- Daniel Webster Highway at Sagamore Bridge Road, in the City of Nashua
- New Hampshire Route 3A and Lowell Road, from the Massachusetts Border to New Hampshire Route 111, in the Town of Hudson

WRA, January 2019, page 158, includes the following as critical urban freight corridors for consideration (before the proposed project was under consideration):

- Sagamore Bridge Road, Lowell Road to Daniel Webster Highway and the Everett Turnpike, in the Town of Hudson and the City of Nashua
- Lowell Road, Walmart Boulevard to Friars Drive, in the Town of Hudson

#### **PROPOSED ROAD MODIFICATIONS**

Langan, September 2020, pages ES 2 to ES 4, present proposed road modifications.

Proposed modifications include new adaptive traffic-signal controllers at the following intersections:

- Lowell Road/Flagstone Drive/Wason Road
- Lowell Road/Sagamore Bridge Road

- Lowell Road/Wal-Mart Boulevard
- Lowell Road/Rena Avenue/proposed Green Meadow Drive
- Lowell Road/River Road/Dracut Road/Steele Road, if it remains signalized

Proposed modifications include signal-timing optimization at the following intersections:

- Lowell Road/Executive Drive
- Lowell Road/Fox Hollow Drive/Nottingham Square Drive

Intersections with additional modifications include:

- Lowell Road/Executive Drive, geometry
- Lowell Road/Flagstone Drive/Wason Road, geometry
- Lowell Road/Sagamore Bridge Road, geometry
- Lowell Road/Wal-Mart Boulevard, geometry
- Lowell Road/Rena Avenue/Mercury Systems driveway (proposed Green Meadow Drive), geometry
- Lowell Road/River Road/Dracut Road/Steele Road retaining signalization and modifying geometry or replacing the signalized intersection with a two-lane roundabout

Intersections without additional modifications include:

- Lowell Road/Pelham Road
- Lowell Road/Fox Hollow Drive/Nottingham Square Drive
- Lowell Road/Hampshire Drive/Oblate Drive

More specifically, proposed road modifications involve providing, on Lowell Road northbound, a third through lane:

- beginning at the Rena Avenue/proposed
- proposed Green Meadow Drive intersection departure
- continuing through the Walmart Boulevard intersection as a conversion of the existing right-turn approach lane
- ending as a trap lane for left turns on the Sagamore Bridge Road intersection approach (through traffic must change out of this lane)

The proposed road modifications involve providing, on Lowell Road northbound, a potential third through lane:

- beginning between the Sagamore Bridge Road intersection
- continuing through the Wason Road/Flagstone Drive intersection
- ending as a trap lane for right turns on the Market Basket shopping center approach (through traffic must change out of this lane)

The proposed road modifications involve providing, on Lowell Road southbound, a potential third through lane:

- beginning on the Sagamore Bridge Road intersection departure
- continuing through the Walmart Boulevard intersection
- ending as a trap lane for right turns on the Rena Avenue/proposed Green Meadow Drive intersection approach (through traffic must change out of this lane)

The proposed road modifications, if the Lowell Road/River Road/Dracut Road/Steele Road remains signalized, on Lowell Road southbound, a second left-turn lane

- beginning as a trap lane (through traffic must change out of this lane)
- ending as a lane for left turns, on the approach to the River Road/Dracut Road/Steel Road intersection

The proposed road modifications involve providing additional turn lanes on Lowell Road northbound:

- a third left-turn lane on the northbound approach to the Sagamore Bridge Road intersection
- a second right-turn lane on the northbound approach to the Flagstone Drive/Wason Road intersection

The proposed road modifications involve, along Wason Road:

- on the eastbound approach to the Market Basket shopping center driveway intersection, the conversion of the left-turn lane to provide second through lane
- on the westbound approach to the Goodwill shopping center driveway, the conversion of the left-turn lane to a second through lane

#### **NHDOT COMMENTS ON PROPOSED ROAD MODIFICATIONS**

NHDOT Bureau of Highway Design, October 2, 2020, provides numerous concerns regarding the proposed road modifications including:

- three intersection approaches where through lanes become exclusive turn lanes, with the potential to trap vehicles, which is undesirable for safety
- both the signalized and roundabout alternatives for the Lowell Road/River Road/Dracut Road intersection, such as a trap lane on the Lowell Road southbound approach to the signalized alternative, and a “relatively small inscribed diameter” and “very poor deflection angle for the Dracut Road approach” to the roundabout alternative
- several areas with a lack of adequate shoulder width
- the potential need to acquire right of way or easements from adjacent properties
- stormwater treatment for the increased impervious/pavement area, with “the expectations from NHDES [(New Hampshire Department of Environmental Services)]” likely to be significant, which “may require right-of-way acquisition” and the question of “maintenance expectations”
- road modifications along or near Sagamore Bridge Road, where “it is unclear if the plans call for bringing the eastbound right turn lane from Sagamore Bridge Road into its own lane on” Lowell Road and where NHDOT needs “more detail of the proposed triple left geometry at Sagamore Bridge Road,” with concerns including “more width needed on Sagamore Bridge Road to accept the triple left, and an unusual turning path as depicted on the concept plan (part tangent, part curve) which will not be intuitive if the cat tracks are obliterated or snow covered”

#### **TEPP LLC COMMENTS ON PROPOSED ROAD MODIFICATIONS**

Langan, September 2020, page 51, presents potential variable lane-use signing on the Lowell Road northbound approach to the Flagstone Drive/Wason Road intersection. Such signage is unusual for the area and could be more confusing than conventional signing.

The multiple trap lanes are a significant concern. Through vehicles can be trapped in a lane where use changes to a mandatory turn. These through vehicles can be required to make otherwise unnecessary, undesirable and expedited lane changes, with negative effects on safety and operations.

The lack of adequate shoulder width, particularly reduction of existing shoulder width, negates the safety and operation purposes of shoulders by motor vehicles, bicycles and pedestrians

Multiple areas along Lowell Road and Wason Road could require acquisition of right of way (ROW) or easements to provide for pavement as well as potential pedestrian facilities, snow storage, traffic-control devices, utilities and so on. Private parties cannot compel such acquisitions, which could affect the practicability of potential road modifications.

The proposed road modifications:

- will create a more expansive travelway
- will result in more complex driving experiences
- will not have overall benefit for bicycles or pedestrians

As examples, Lowell Road will have:

- three through lanes per direction on select segments
- eight lanes total on the south leg of the Walmart Boulevard intersection
- nine lanes total on the north leg of the Walmart Boulevard intersection
- eight lanes total between on the south leg of the Sagamore Bridge Road intersection
- up to nine lanes on the south leg of the Flagstone Drive/Wason Road intersection
- a triple left-turn lane on the northbound approach to the Sagamore Bridge Road intersection

Increasing the number of lanes at signalized intersections may reduce efficiency<sup>2</sup> by undesirably:

- increasing lost time due to signal-phase changes
- increasing the number of signal phases
- increasing pedestrian crossing times
- reducing lane utilization, particularly for triple left-turn lanes

The proposed road modifications are significant enough that they should be considered not only in terms of project mitigation but in terms of effects on the corridor and Town including:

- motor vehicles, bicycles and pedestrians
- effects of queueing on unsignalized driveways and sites along and near the Lowell Road corridor which is important especially if it affects site access, egress or internal circulation
- the possibility of a wider southerly Lowell Road attracting more traffic to the narrower northerly Lowell Road and Hudson town center
- the compatibility of proposed modifications at the Lowell Road/Sagamore Bridge Road intersection with a future fourth easterly leg

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<sup>2</sup> Kornel Musci and Ata M. Khan, “*Effectiveness of Additional Lanes at Signalized Intersections*,” ITE Journal (January 2003), pages 26 to 30.

**RÉSUMÉ**

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**KIM ERIC HAZARVARTIAN, Ph.D., P.E., PTOE  
 PRINCIPAL**


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**EDUCATION**

- Bachelor of Science in Civil Engineering, University of Kansas
- Master of Science in Civil Engineering, University of Kansas
- Doctor of Philosophy, University of Massachusetts Amherst
- Courses, Northeastern University, Old Dominion University, Air Force Institute of Technology, University of Lowell

**CREDENTIALS**

- Professional Engineer, Maine, Massachusetts, New Hampshire, Vermont; other states available by reciprocity
- Certified Professional Traffic Operations Engineer

**AFFILIATIONS**

- Institute of Transportation Engineers, Fellow of the Institute, Past International Director, District One Past Chairman, New England Section Past President, New Hampshire Chapter Past President, District One and New England Section Distinguished Service Awards
- Transportation Research Board
- American Society of Civil Engineers
- Society of American Military Engineers
- Chi Epsilon National Civil Engineering Honor Society
- Sigma Xi Scientific Research Society

Hazarvartian is TEPP LLC Principal and has been active in transportation and civil engineering since 1981, with experience in many states and overseas. He specializes in transportation impacts of land developments, traffic operations, traffic safety, litigation support and expert testimony, with consulting, government-sector and academic experience. In addition to technical expertise, he brings extensive knowledge in procedures and policies of governmental permitting and approval of land developments and transportation improvements. Hazarvartian also has experience with military installations.

Hazarvartian's extensive teaching experience has been primarily at the college and professional level, on such topics as civil engineering, traffic and transportation engineering and planning and traffic impacts of development. Hazarvartian has published on a wide variety of transportation engineering topics including the preparation of traffic impact and access studies, trip generation and the use of computers in transportation engineering. His articles have appeared in publications of the Institute of Transportation Engineers, the American Society of Civil Engineers, and the Transportation Research Board.

**TRANSPORTATION IMPACTS OF LAND DEVELOPMENTS**

Transportation impacts of land developments include traffic impact and access studies, with municipal, regional or state review; state driveway and traffic control signal permits; and extensive process related to the Massachusetts Environmental Policy Act and Cape Cod Commission. Hazarvartian's representative projects as part of the developer team include:

Braemoor Woods Residential Development, Salem NH  
 Richardi Reservoir Residential Development, Braintree MA  
 Gillette Distribution Center, Devens MA  
 USA Springs Water Bottling Plant, Nottingham NH  
 Boston Sports Club, Wellesley MA  
 Allston Center Mixed-Use Redevelopment, Boston MA  
 CVS/Pharmacy, Londonderry NH  
 Wellington Circle Plaza Redevelopment, Medford MA  
 Huntington Common Senior Housing, Kennebunk ME  
 Discount Supercenter, Plymouth NH  
 Baker Mills Conversion, Boston MA  
 Integrated Solid Waste Management Facility, Bourne MA  
 Citizens Bank, NH Locations  
 The Works Health and Fitness Center, Somersworth NH  
 Shaw's Supermarket, North Conway NH

Babson College Various Projects, Wellesley/Needham MA  
 Valvoline Instant Oil Change, NH and MA Locations  
 Digital Federal Credit Union, Tyngsborough MA  
 Wise Living Senior Housing Projects, Cape Cod MA  
 The Home Depot, North Windham ME  
 128 Marketplace Commercial Redevelopment, Reading MA  
 Gasoline Station and Convenience Store, South Berwick ME  
 Mill Run Place Mixed-Use Development, Groton MA  
 Loudon Road/TJMaxx Shopping Center, Concord NH  
 Southern New Hampshire Medical Center, Nashua NH  
 St. Vincent Hospital Redevelopment, Worcester MA  
 Veterinary Clinic, Dover NH  
 Hannaford Supermarkets, NH and MA Locations  
 Enterprise Park Mixed-Use Development, Marshfield MA  
 Super Stop & Shop Supermarket, Brockton MA

## TRANSPORTATION REVIEWS

Hazarvartian's representative reviews of transportation impacts of land development or transportation initiatives, on behalf of municipalities or community organizations, include:

Pleasant Valley Street Residential Development, Methuen MA	Retail Center and Industrial Park, Rowley MA
Southern New Hampshire University, Hooksett NH	CVS/Pharmacy, Framingham MA
Whistle Stop Estates, Georgetown MA	Honey Dew Donuts, Wrentham MA
Ipswich Co-Operative Bank, Rowley MA	Regency Center Shopping Center, Merrimack NH
Cumberland Farms Gasoline Station and Convenience Store, Plaistow NH	Recreation Fields, Merrimack NH
Heartbreak Farm Residential Development, Ipswich MA	Hotel Expansion and Water Park, Merrimack NH
648 Old West Central Street Commercial Redevelopment, Franklin MA	Super Stop & Shop Supermarket, Newton MA
	Needham Street/Highland Avenue Corridor, Newton MA
	Live! Casino Massachusetts, Leominster MA
	840 East Street Residential Development, Tewksbury MA

## PLANNING, STUDY AND DESIGN OF TRANSPORTATION FACILITIES

Hazarvartian has been involved with the planning, study and design of road systems, intersections and traffic control signals for motor vehicles, bicycles and pedestrians and has also been involved in other transportation modes. Examples follow.

Great Plain Avenue Bicycle Facility Study and Concept Plan, Wellesley MA	Main Street/Forest Street Intersection Railroad Preemption Traffic/Signal Design, Wakefield MA
Massachusetts Route 132 Corridor Simulation and Animation, Hyannis MA	Walkers Brook Drive/General Avenue Intersection Traffic/Signal Design, Reading MA
Sixth Street/Sixth Street Connector Intersection Traffic/Signal Design, Dover NH	Fort Leonard Wood MO, Major Planning and Design Study
Spit Brook Road and East Dunstable Road Corridor Study, Nashua NH	Hunter Army Airfield GA, Major Planning and Design Study
New Hampshire Route 9 Intersections Traffic/Signal Design, Concord NH	Misawa Air Base, Japan, Major Planning and Design Study
New Hampshire Route 25 Intersections Traffic/Signal Design, Plymouth NH	Patrick Air Force Base FL, Major Planning and Design Study
Massachusetts Route 28 Intersections Traffic/Signal Design, Brockton MA	Barksdale Air Force Base LA Airfield Pavement Repair, Full Design
	Dam Neck Naval Reservation VA, Gate-Area Operations Study
	K.I. Sawyer AFB MI, Gate-Area Design

## PARKING STUDIES AND DESIGN

Parking studies include assessing parking demand and supply, with solutions such as the planning of new parking facilities or the reduction of demand through management. Representative projects follow.

Concord Family YMCA, Concord NH	Patrick Air Force Base FL
Babson College, Wellesley MA	Southern New Hampshire Medical Center, Nashua NH
Downtown Everett, Everett MA	Staples Shopping Center, Nashua NH
Natick Center, Natick MA	Burger King, Merrimack NH
Falmouth Hospital, Falmouth MA	Washington Street Developments, Wellesley MA
Cloverleaf Center Shopping Center, Natick MA	

## LITIGATION SUPPORT AND EXPERT TESTIMONY

Hazarvartian's litigation support and expert testimony has involved research, analysis, expert opinions and expert testimony related to accidents; traffic operations and safety; and appeals of municipal development approvals. Representative cases follow.

Airport Curbside Operations, Warwick RI	Hannaford Supermarket, Lowell MA
The Outlet Center Site Circulation, South Burlington VT	Groveland Fairways, Groveland MA
Intersection Design Safety, North Andover MA	Rite-Aid Pharmacy, Henniker NH
U.S. Route 7 Design, South Burlington VT	



November 9, 2020

RECEIVED

NOV 09 2020

TOWN OF HUDSON  
PLANNING DEPARTMENT  
and Conditional Use Permit

**BY HAND**

Planning Board  
Town of Hudson  
Attn: Brian Groth, Town Planner  
12 School Street  
Hudson, NH 03051

RE: Hudson Logistics Center – Site Plan, Subdivision Applications  
Supplemental Information -- Traffic

Dear Brian:

On behalf of the Applicant, Hillwood Enterprises, L.P., and as a supplemental response to materials provided to you with my letter, dated November 4, 2020, we are filing for the record a total of thirteen (13) copies of a Memorandum, dated November 3, 2020, prepared by Langan Engineering and Environmental Services, Inc. in response to an October 21, 2020 letter from BCM Environmental and Land Law with respect to traffic matters as a part of the site plan review process. This Memorandum specifically supplements the Memorandum to Brian Groth, Town of Hudson, from John Plante, P.E., dated November 3, 2020 (Project Traffic Engineer's responses to Memorandum prepared by TEPP, LLC, dated October 21, 2020).

Please do not hesitate to contact me with any comments, questions or concerns. Thank you.

Very truly yours,

  
John T. Smolak, Esq.

cc: John Grace and Brian Kutz, Hillwood (email only)  
Langan (email only)  
Justin L. Pasay, Esq. (email only)  
Distribution List



**LANGAN****Memorandum**


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 888 Boylston Street, Suite 510 Boston, MA 02199 T: 617.824.9100 F: 617.824.9101
 

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**To:** Brian Groth/Town of Hudson

**From:** John D Plante PE

**Info:** John Grace/Hillwood  
Brian Kutz/Hillwood  
John Smolak/Smolak & Vaughan

**Date:** November 3, 2020

**Re:** **BCM Environmental & Land Law – October 21, 2020 Letter  
Hudson Logistics Center  
Hudson, New Hampshire  
Langan Project No.: 151010101**

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The BCM Environmental & Land Law letter of October 21, 2020 presents a position that there are shortcomings in the application with respect to traffic. It is Langan's professional opinion, as well as other traffic and transportation professionals representing the state, town and the applicant, that the traffic impact study, the methodology used and the proposed traffic corridor improvements will mitigate the development's traffic impact and improve existing operating conditions. We believe the documentation provided to the Planning Board meet or exceed the Site Plan Review Regulations and provides adequate provisions to address the criteria of those regulations.

The applicant has prepared and submitted comprehensive documentation, analyses and evidence detailing the potential traffic impacts of the proposed development and the improvements to operational conditions resulting from the proposed roadway and signal improvements. These improvements not only mitigate the traffic impact of the development, they address existing operating conditions in the corridor; improving operating condition significantly.

The basis of the BCM letter is the October 21, 2020 memorandum prepared by TEPP. As indicated in our response to that memo, dated November 3, 2020 (attached), TEPP has not reviewed all the documentation presented to the Planning Board. Therefore, to paraphrase the BCM letter's assertion: TEPP's position, and thus the BCM letter, is based on incomplete information and they have not provided a credible technical evaluation of the documentation related to the applicant meeting the requirements of the Town of Hudson's Site Plan Review Regulations.

Key documents, not reviewed or referenced in the TEPP memo, need to be considered in order to fully assess the completeness of the application. These key documents were submitted to the Planning Board prior to the date of the TEPP letter. These documents are:

- Langan memo to NHDOT, dated October 9, 2020 (Response to NHDOT memo October 2, 2020)
- NHDOT letter to Brian Groth, dated October 15, 2020 (Approving the Traffic Impact Study and the Conceptual Off-Site Improvement Plans)

# MEMO

BCM Environmental & Land Law – October 21, 2020 Letter  
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 Hudson, New Hampshire  
 Langan Project No.: 151010101  
 November 3, 2020- Page 2 of 7

- VHB Letter to Brian Groth, dated October 15, 2020 (Peer Review)

An additional document has been submitted to the Planning Board, subsequent to the date of the TEPP letter:

- Stantec letter to Hillwood, dated October 19, 2020 (Peer Review)

It is inappropriate for BCM to make the statement that the applicant has not provided sufficient, credible evidence proving the project will meet the required standards without having reviewed the documents identified above. Our professional opinion is that these documents culminate a comprehensive explanation and record of why what the applicant is proposing will have a significant positive impact on the traffic operations in the effected roadway network and meets the criteria outlined in the Site Plan Review Regulations.

BCM's letter categorizes their comments into two areas and below is our **response** to each:

BCM Letter: *"First, the Applicant has not analyzed all that should be analyzed. Therefore, the Applicant has not submitted sufficient evidence."*

***Response: As indicated above more technical information has been submitted than was considered by TEPP. The study area limits included in the traffic impact analysis are appropriate, dictated by where the Hudson Logistics Center (HLC) development's traffic volume is added, at sufficient levels, to the roadway network.***

***The proposed development's traffic volumes are primarily limited to Lowell Road, between the southerly site driveway and Sagamore Bridge Road, and on Sagamore Bridge Road and the highway it connects to. It should be noted that these roadways are state roadways. The TIS indicates that 85% of the HLC traffic volumes are limited to those roadway segments. This traffic volume is logical due the HLC's role in the e-commerce supply chain and the proximity of the HLC to the highway system. All roadways intersections within that area have been analyzed. This methodology follows industry standard and has been reviewed and approved by NHDOT. Approximately 15 % of HLC traffic volumes are on roadways north of the Lowell Road/Sagamore Bridge Road intersection and 13% south of the southerly driveway to the site. Of the 13%, it is anticipated that 3% will utilize Dracut Road and 10% on River Road.***

***Langan agrees with TEPP that a general rule of thumb is to analyze intersections if greater than 100 vehicles-per-hour (vph) added by the development to that intersection. Although, in previous publications by TEPP, they used the guideline they have cited is 100 vph in the busier direction are candidates for traffic impact analysis, which is different from the guideline which TEPP cites in its October 21, 2020 memo.***

***Lowell Road north of Sagamore Bridge Road - The anticipated development traffic volumes on Lowell Road, north of Sagamore Bridge Road, are of the scale that normally would not require intersection analysis. The resulting total bi-directional volume on the***

**MEMO**

BCM Environmental & Land Law – October 21, 2020 Letter  
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**roadway AM 82 vph/PM 113 vph, under the or slightly higher than the 100 vph threshold mentioned in TEPP's memo. Although it is likely that some project volume will divert to several of the connecting roadways, such as Wason Road, we considered all site generated volumes to continue north on Lowell Road. Therefore, we believe the volumes north overestimate the actual volumes. However, we did analyze five major intersections on Lowell Road north of Wason Road, and provided recommended improvements where appropriate. As the development's volume is on the main line, Lowell Road, the volumes at the minor approach at unsignalized intersections do not change to the conditions that would impact the traffic signal warrant analysis which would need to be met to consider the potential for a new traffic control signal.**

**For this area of the Lowell Road corridor, the development's slight increase in traffic volume does not necessitate mitigation, however, the applicant is proposing several upgrades to intersections to improve existing traffic operating conditions.**

**Lowell Road south of Dracut Road/River Road/Steele Road – The project traffic on the roadways south of this local are less than the 100 vph threshold cited by TEPP. The anticipated total bi-directional traffic volume at this intersection is AM 70 vph/PM 98 vph. These volumes disperse even further, some to Dracut Road (3%) and some to River Road (10%), thus industry standards indicate it would not be appropriate to evaluate intersections south of this intersection.**

**Relative to queuing analyses in the Lowell Road corridor, the TIS provides detailed results of this analysis and it indicates the significant reduction in queue length resulting for the improvements proposed by the applicant. Not only do these improvements mitigate the HLC new traffic to the network, they improve existing operating conditions.**

**The proposed improvements are expected to take place within the existing public rights-of-way (ROW). If any adjustments are needed to the proposed improvements due to ROW constraints, it is anticipate that the proposed lane arrangements will not be impacted, thus continuing to provide the significant operational improvements to the corridor.**

**NHDOT, VHB (town peer review consultant), Stantec (applicant peer review consultant), and Langan, all industry professionals have concluded that the methodologies used in the TIS and associated roadway improvements mitigate the impacts of the HLC development; and that the applicant has submitted the appropriate information to determine the development's traffic impact.**

*BCM Letter: "Second, with respect to the analysis the Applicant has provided, some of it is not credible. Therefore, the Applicant has not submitted credible evidence."*

**Response: A detailed response to TEPP's review memo is provided in Langan memorandum dated November 3, 2020 (attached). We believe our memo and other submitted documents answers the comments raised by TEPP and refutes BCM claim of the applicant has not submitted credible evidence in support of the application.**

**It should be noted, that the BCM statement above is based on the TEPP memo, which is not based on a review of all the information submitted to the Planning Board. As such,**

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***the claim above is not an accurate or credible statement. For example, BCM asserts in the BCM letter that the concept of “cooperative driver” is an example of lack of credible evidence. If TEPP had reviewed the complete record, it would have seen the attached document (Langan Memo, dated October 9, 2020), addressing the industry standard nature of this term, submitted in response to the NHDOT comment of October 2, 2020.***

***A detailed description of the operation of these facilities is provided in the traffic impact study and in other supplemental documents submitted to the Planning Board, as to why the number of employees and trailer parking spaces are being provided to support the specific operations of the facilities. The proposed tenant fully understands its intended operations for these facilities and the resulting requirements for the number of employee parking spaces, loading docks, and trailer storage parking.***

***Our response to TEPP’s memo, dated October 21, 2020, responds in detail to the additional points made therein. In addition to the document not reviewed by TEPP, it does not appear that TEPP has reviewed the various simulation models provided to the state and town. These models further illustrate the significant improvement to operations conditions provided by the development.***

***Langan also has, when an opportunity presented itself to do so, chose to take a conservative approach to the methodology, resulting in what we suggest is an overestimation of the traffic impact to the roadway network. The specific examples of this fact are detailed in the TIS and supplemental data, including:***

- ***Combining the peak hour of the generator and the roadway;***
- ***Utilizing the larger of tenant or ITE trip generation volumes;***
- ***Taking a small multi-occupancy vehicle credit of 5%, although ITE guidance and the tenant’s experience is much higher;***
- ***Use of a 1% annual growth rate versus the documents 0.67% annual growth rate; and,***
- ***Implementation of improved signal operations since the proposed adaptive traffic signal operate more efficiently than the standard software can account for.***

***The NHDOT has approved the traffic impact study methodology and agree with our analysis approach and results. The NHDOT has also approved the resulting conceptual off-site improvements and agrees that these proposed improvements mitigate the development’s impact.***

Moreover, the BCM letter provides a laundry list of site plan review criteria listed under § 275-6 of the Ordinance and asserts that the Applicant has not met these criteria. If BCM had thoroughly reviewed the voluminous traffic materials filed with the Planning Board, it should have readily determined that the Applicant’s project has “made adequate provision” for the following criteria. In addition to the information filed with the Board’s record, and as will be supplemented during the planning board meeting process, the Applicant clearly meets the following criteria:

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BCM Environmental & Land Law – October 21, 2020 Letter  
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A. The safe and attractive DEVELOPMENT of the site and to guard against such conditions as would involve danger or injury to health or safety, and no significant diminution in value of surrounding properties would be suffered.

***Response: Relative to traffic, the proposed site and off-site transportation improvements meet applicable town and state requirements. Town staff and peer review comments on the site and off-site elements of the development have been addressed and incorporated into the design and approach. The proposed off-site improvements will improve existing traffic operations and mitigate the anticipated project traffic. This is detailed in the traffic impact study, dated September 2020 and associated supplemental information. These operational improvements will also improve safety at the study area intersections. These conceptual off-site improvements have been reviewed and approved by NHDOT in a letter dated October 15, 2020.***

B. Traffic circulation and access, including adequacy of entrances and exits, traffic flow, sight distances, curb cuts, turning lanes and traffic signalization.

***Response: The application documentation and presentations have provided very detailed information demonstrating that the development meets applicable town and state guidelines and regulations for traffic circulation and access, including adequacy of entrances and exits, traffic flow, sight distances, curb cuts, turning lanes and traffic signalization. The site roadway system is designed to industry, tenant, and town standards, providing safe and effective circulation within the site. The proposed site driveways are located at two locations previously identified by the Planning Board in prior land development approvals. The first, the northern access, will be the extension of the existing WalMart Boulevard into the development site. The applicant proposes to make improvements to this intersection to improve the operating conditions. These improvements will include replacing the existing traffic signal with state-of-the-art adaptive signal equipment with video detection. These signals adapt to the actual traffic volumes present and adjust the timing of the signal heads. These improvements reduce the queue lengths at the approaches. The second, southern access driveway location is at the current location of the driveway to Mercury Systems, at the intersection of Lowell Road and Rena Avenue. The driveway approach will be reconstructed to provide additional turning movement lanes. These and other improvements (adaptive signal equipment, additional lanes) proposed for this intersection accommodates the development's traffic and improves the queuing on both the site driveway and the mainline.***

C. Pedestrian and bicycle safety and access.

***Response: The site has been designed and configured with a focus on safety. The site parking lots incorporate internal sidewalks, crosswalks, traffic calming, and signage, design to separate pedestrians from vehicles and slow vehicle speed. The sites have also been designed with adequate parking to minimize cars circulating the parking lot to find the 'best' space; this further limits pedestrian/car conflicts. The proposed tenant has***

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***experienced significant multi-occupancy vehicle use, as such the sites have been designed with large drop-off/pick-up area to accommodate this activity. The developer has been in discussions with Nashua Transit System to bring a bus route to the development and the Lowell Road area. The activities in the truck courts are separated for all parking areas with security fencing. Bicycle racks are provided at each building location.***

***The location of the development and the use type does not result in pedestrian traffic coming from off-site to the facilities. Crosswalks will be proposed at appropriate intersection locations. The proposed off-site improvements will result in the reconstruction of existing sidewalks that are impacted by the improvements and shoulders will be provided where applicable.***

D. Off-street parking and loading.

***Response: The Project has been designed to ensure adequate off-street parking and loading, as depicted on the site plans and supporting materials filed with the Planning Board.***

E. Emergency vehicle access, including fire lanes.

***Response: The development's internal roadways are 40 feet in width, and are designed to ensure adequate emergency vehicle access, both within and leading to the site, with the provision of fire lanes as may be dictated by the Hudson Fire Department.***

F. Stormwater drainage and groundwater recharge. [As noted in the BCM Letter, as related to roadways associated with developments.]

***Response: The Applicant has filed a Stormwater Management Report with the Planning Board, and which has been peer reviewed. The Stormwater Report is also being reviewed as a part of the AoT Permit review process by the NHDES, and has been reviewed by the Lower Merrimack River Local Advisory Committee (LMRLAC). Accordingly, we deem the traffic-related stormwater drainage and groundwater recharge to adequately serve the project in compliance with applicable requirements.***

J. Harmonious and aesthetically pleasing DEVELOPMENT of the municipality and its environs.

***Response: The Project has been designed to comply with the Hudson Zoning, Site Plan and Stormwater Management requirements from a stormwater management perspective. In addition, an extensive Landscape Plan which includes 746 trees and 3,601 shrubs as well as berms, sound walls and other landscape features have been designed to provide significant buffers to adjacent properties to ensure a harmonious and aesthetically pleasing development. The development has been design to shift the buildings and the development to significantly exceed the minimum setback for the residential neighborhood south of the site. Significant existing vegetation and wetlands will be maintained to provide buffering the adjacent properties. The landscape planting complies with all town of Hudson zoning requirements.***

# MEMO

BCM Environmental & Land Law – October 21, 2020 Letter  
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K. Suitably located travelways of sufficient width to accommodate existing and prospective traffic and to afford adequate light, air and ACCESS for fire-fighting apparatus and equipment to buildings, and be coordinated so as to compose a convenient system.

***Response: A comprehensive traffic impact study, dated September 2020, and supplemental material and simulation models have been provided as part of the Site Plan application, along with conceptual off-site improvement plans depicting the significant improvements to the Lowell Road corridor. The internal roadways provide 40 foot pavement width and adequate turning radii to support emergency vehicle.***

In addition, BCM fails to mention another traffic related criterion as follows:

I. Adequate provision for fire safety, prevention and control.

***Response: The Project has been designed so that traffic and related improvements will ensure that there will be adequate provision for fire safety, prevention and control. The site will be served by underground water mains sufficient for fire suppression and for redundancy, and the tenant will provide water tanks and internal systems for fire suppression.***

***The Applicant has submitted comprehensive and credible evidence which details the Applicant's compliance with the Site Plan Review Requirements. This is supported by the positive comments by peer review, the regional planning commission and NHDOT professionals that have reviewed this information.***

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October 27, 2020

VIA EMAIL  
Town of Hudson Planning Board  
12 School St.  
Hudson, NH 03051  
planning@hudsonnh.gov

**RE: Hudson Logistics Center Subdivision, Site Plan & Conditional Use Permit; SB# 11-20, SP# 04-20, CU# 02-20; Lowell & Steele Road- Map 234/Lots 5, 34 & 35, Map 239/Lot 1; Recusal of Selectman Morin**

Dear Chair Malley and Members of the Planning Board:

I write in the continued representation of more than fifty households in Hudson to oppose the applications for Subdivision, Site Plan & Conditional Use Permit approval (“Applications”) submitted by Hillwood Enterprises, L.P. (“Applicant”) to redevelop the golf course, property identified as Town Tax Map 234, Lot 5 and Tax Map 239, Lot 1 (“Property”) into the proposed Hudson Logistics Center (“Proposed Project”). Please make this letter a part of your record in this matter.

I respectfully request that Selectman Morin recuse himself from any aspect of consideration of the Proposed Project. Following the Planning Board meeting on last Wednesday, October 21, 2020, members of the public observed Selectman Morin make statements that demonstrate he has prejudged the Applications and/or is biased in favor of them. Specifically, Selectman Morin was heard making statements to members of the public who oppose the Applications to the effect of: (1) we have ways to take care of people like you; and (2) we aren’t going to put up with your bullshit anymore. Understood in context, Selectman Morin has prejudged that the Application should be granted despite the continuing and unresolved nature of the Planning Board’s review of the Proposed Project.

“If a person has prejudged an application before a municipal board, he cannot sit in judgment on that board.” 13 NH Practice Series: Local Government Law § 602 (2020) (citing *City of Dover v. Kimball*, 136 N.H. 441 (1992)).





I recognize that Selectboard Morin is not currently seated on the Planning Board. However, I am also am aware that very unfortunately the primary and alternate *ex officio* members of the Board of Selectmen seated on the Planning Board (Selectman Coutu and Selectwoman McGrath) have experienced medical issues which have absented them from some Planning Board meetings. Therefore, at least once, another Selectman has sat on the planning Board. So, it seems possible that Selectman Morin may have been called upon to sit on the Planning Board at a future meeting. I also am aware that Selectman Coutu has indicated he would take input from other Selectboard members as part of his determining how to vote on the Applications.

Accordingly, I request that Selectman Morin not sit on the Planning Board, not share input on the Applications, and not be involved in any other aspect of the Applications.

Thank you for your attention to this request.

Very truly yours,

Amy Manzelli, Esq.  
*Licensed in New Hampshire*  
(603) 225-2585  
[manzelli@nhlandlaw.com](mailto:manzelli@nhlandlaw.com)

Cc:

Clients

Brian Groth, Town Planner, via email to [bgroth@hudsonnh.gov](mailto:bgroth@hudsonnh.gov)

Hudson Board of Selectman, via email to [bos@hudsonnh.gov](mailto:bos@hudsonnh.gov)



October 27, 2020

VIA EMAIL  
Town of Hudson Planning Board  
12 School St.  
Hudson, NH 03051  
planning@hudsonnh.gov

**RE: Hudson Logistics Center Subdivision, Site Plan & Conditional Use Permit; SB# 11-20, SP# 04-20, CU# 02-20; Lowell & Steele Road - Map 234/Lots 5, 34 & 35, Map 239/Lot 1; Record Corrections**

Dear Chair Malley and Members of the Planning Board:

I write in the continued representation of more than fifty households in Hudson to oppose the applications for Subdivision, Site Plan & Conditional Use Permit approval (“Applications”) submitted by Hillwood Enterprises, L.P. (“Applicant”) to redevelop the golf course, property identified as Town Tax Map 234, Lot 5 and Tax Map 239, Lot 1 (“Property”) into the proposed Hudson Logistics Center (“Proposed Project”).

This letter seeks to correct the record of the Applications. At its meeting on last Thursday, October 22, 2020, Selectman Coutu made comments about the Planning Board meeting on Wednesday, October 21, 2020 (which he was unable to attend). He used words like “assail” to describe the conduct of members of the public who oppose the Proposed Project.

Taken alone, Selectman Coutu’s comments may suggest that members of the public have conducted themselves inappropriately or were acting aggressively during the meeting. To the contrary, no member of the public participated during the Planning Board meeting on Wednesday night. Moreover, following the meeting, members of the public observed Selectmen Morin and Martin yelling at, swearing at, gesturing with pointed fingers at, taking steps towards, and otherwise being aggressive towards members of the public.



Thank you for the opportunity to add this correction to your record of this matter.

Very truly yours,

Amy Manzelli, Esq.  
*Licensed in New Hampshire*  
(603) 225-2585  
manzelli@nhlandlaw.com

Cc:

Clients

Brian Groth, Town Planner, via email to [bgroth@hudsonnh.gov](mailto:bgroth@hudsonnh.gov)

Hudson Board of Selectman, via email to [bos@hudsonnh.gov](mailto:bos@hudsonnh.gov)



# TOWN OF LITCHFIELD

2 Liberty Way, Suite 1, Litchfield, NH 03052  
Tel: 603-424-2131 Fax: 603-424-3014 [www.litchfieldnh.gov](http://www.litchfieldnh.gov)  
PLANNING BOARD

October 19, 2020

Timothy Malley, Chairman  
Hudson Planning Board, Town Hall  
12 School Street  
Hudson, NH 03051

## **RE: Hudson Logistics Center Site Plan Review**

Dear Chairman Malley & Members of the Board,

On October 7, 2020, The Litchfield Planning Board heard from members of SaveHudsonNH.org and Hillwood Enterprises, LP concerning the proposed development off Lowell Road in Hudson NH known as the Hudson Logistic Center (formerly the Green Meadow Golf Course). Litchfield received notification from the Town of Hudson in May 2020 of the proposed site plan that is a project of Regional Impact pursuant to NH RSA 36:56. Both sides had the opportunity to present their positions to the Board with an opportunity for questions and comments.

For Litchfield, the paramount concern from this project is traffic pouring onto Routes 3A and 102. While it was suggested that the majority of trucks entering and leaving the Hudson Logistic Center would come directly to and from the Everett Turnpike and Sagamore Bridge, there is an even greater likelihood the volume of traffic, as described, would have the potential of spilling over onto Routes 3A and 102 corridors creating congestion and backup. With access to the Manchester Airport, the amount of traffic coming down from Hudson through Litchfield would create substantial adverse impacts.

As a regional abutter, Litchfield is not persuaded by Hillwood's blanket assertion that, "they do not project traffic impacts to Litchfield from this project," and have requested that they identify such adverse impacts in their traffic study. The fact that Hillwood could not identify these concerns, at first glance, is indeed concerning and stretches credibility. The temptation for trucks from this Logistic Center utilizing Route 3A as a thoroughfare from Hudson down through Litchfield and into to Manchester has the potential to create major traffic flow problems that could potentially impact Litchfield's unique character and quality of life, forever. This is especially so, where vehicles coming from this proposed site have no control over what truck routes they will use on a daily basis. The noise and congestion created by the kind of distribution facility being proposed in Hudson is incomprehensible and needs to undergo an exhaustive site review of the intended and unintended consequences this will have on abutting towns and municipalities.

The Planning Board of Litchfield would ask that the Hudson Planning Board be as thorough as it can in

its review of this project and leave no stone unturned. We ask that Hudson carefully ~~study~~ Attachments E - 11/18/20 project with a critical eye towards the impacts this project will have to traffic volumes and flow associated with Routes 3A and 102 corridors in Litchfield. We would ask that Hillwood Enterprises specifically identify what those adverse impacts to Litchfield are, and what, if any, perceived benefits Litchfield may expect to see in both the long and short term. Hudson's Planning Board needs to be cognizant of the regional impact this will have on its abutting communities.

Once the adverse impacts have been specifically identified, it would be beneficial for Litchfield and other surrounding communities to know from the developer what the plans are to mitigate them. One suggestion might be to implement controls for truck routes to prevent unnecessary spillover onto Routes 3A and 102 from this facility creating congestion problems for commuters and residents, alike. As a regional abutter, we hope to see such plans by the developer to implement these route control measures to preserve and maintain the peace and tranquility of Litchfield's scenic byway and local character. Thank you for your attention in this matter.

Sincerely,

Michael R. Croteau, Esq., Chair  
Litchfield Planning Board

**John Goeman**

---

**From:** Debbie Arrington <dizzydeb1964@gmail.com>  
**Sent:** Wednesday, October 21, 2020 10:50 AM  
**To:** ~BoS; Groth, Brian; Planning; Malizia, Steve; Coutu, Roger; Martin, Normand; McGrath, Marilyn; Morin, Dave; kroy@hudonnh.gov; victoria.sheehan@dot.nh.gov; governorsununu@nh.gov; Debbie Arrington  
**Subject:** Hudson NH Proposed Logisitcs Center

---

**EXTERNAL: Do not open attachments or click links unless you recognize and trust the sender.**

Good Morning,

I am contacting you all regarding the traffic studies and discussions at the Hudson Town Meeting for the proposed Amazon Logistics Warehouses.

One very important local example is the Amazon location off of Exit 10 Route 93 in Hooksett. This location is a much smaller scale because it took over the Old BJ's facility.

After speaking with locals in the area they say that trying to get to Target, Khols or Petco or anywhere in this area is now very difficult and timely. Waiting at traffic lights over 4 - 5 times before getting through. People live in NH and not MASS for one of these very reasons.

I think we need to take a serious hard look into our small town of Hudson and see what kind of congestion this will bring. Lowell Road is already overloaded and the surrounding smaller roads are very busy with traffic connecting other towns.

Please consider the people who live here and the ones who need to drive in Hudson. There is absolutely NO benefit to us only a combination of many negative impacts.

Thank you for your time,  
Debbie Arrington  
5 Eagle Drive  
Hudson NH

**Groth, Brian**

---

**From:** Mick Rogers <Mick.Rogers@qorvo.com>  
**Sent:** Saturday, October 31, 2020 9:55 AM  
**To:** Planning  
**Subject:** Proposed Amazon site

---

EXTERNAL: Do not open attachments or click links unless you recognize and trust the sender.

To the planning board, where are we at with proposed future site at Green Meadow. I am deeply concerned with the traffic and do not think the current intersection at the bridge is going to work. Everyone in town seems to know this except the town government. I am not anti- business. I was for the outlets going in Hudson years ago at Green Meadow but the town said no. There is no way the intersection is built for the kind of future traffic. In addition there is the new strip mall already in place and low income or "workforce " housing going in on Lowell Rd. When all is construction is complete and the pandemic is over that intersection is going to be a complete disaster.

Regards,

Matthew Rogers  
11 Gabrielle Dr  
Hudson, NH  
Sent from my iPhone

**Groth, Brian**

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**From:** William Cole <bcfairway@msn.com>  
**Sent:** Saturday, November 7, 2020 4:34 PM  
**To:** Timothy Malley; jordanulery@comcast.net; William Collins; dillan Dumont; esvanderveen@comcast.net; Elliott Veloso; Coutu, Roger; McGrath, Marilyn; Groth, Brian  
**Cc:** Morin, Dave; Martin, Normand; troy@hudsonnh.gov; Malizia, Steve; Dhima, Elvis; Avery, William; Buxton, Robert; Forrence, Jess; Michaud, Jim  
**Subject:** Hudson Logistics Center: "OUTSTANDING" Issues  
**Attachments:** HLC Issues.docx

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**EXTERNAL: Do not open attachments or click links unless you recognize and trust the sender.**

ALL,

Attached is a copy of a document I provided to the BOS at last Wednesday's "hearing"(?).

The document (with applicable marginal notes) highlights - as identified by Town staff, consultants and residents - approximately 40 critical issues / topics related to any Hudson Logistics Center proposal that may come before the Town.

None of these items have yet been resolved - only a few have actually been addressed, and then only in a cursory fashion.

It's important to realize that, without exception, each of these items has a number of "sub-sets" that will have to be addressed and resolved as a prerequisite for "final" resolution of any given main issue.

I trust this list will be of assistance as the Planning Board attempts to transition from a "street corner Dunkin Donuts" level of focus to the reality that the Town has allowed itself to presently face - with nothing less than the future of Hudson, for generations to come, at stake.

Sorry I won't be "at the table" with you in the coming months - and one suspects years - as you deal with the HLC.

But, please be assured that the Planning Board will remain in my every thought going forward.

Best regards,

Bill Cole



**HUDSON LOGISTICS CENTER ISSUES**

**(Not Yet Addressed or Resolved)**

<b>Fiscal Impact Study</b>	<b>Reeks / Barrett: discredited</b>
<b>Comprehensive Fiscal Impact Report</b>	<b>Town sponsored / funded</b>
<b>“BERM” - constructed before anything else</b>	<b>Staff Report #3 (dtd 22 Jul '20)</b>
<b>“fuel &amp; maintenance”</b>	<b>Staff Report #3 (dtd 22 Jul '20)</b>
<b>New Police “facility”</b>	<b>Staff Report #4 (dtd 12 Aug '20)</b>
<b>Additional Fiber Optic cabling</b>	<b>Staff Report #4 (dtd 12 Aug '20)</b>
<b>Complete “water effort” (Fire Dept)</b>	<b>Staff Report #4 (dtd 12 Aug '20)</b>
<b>Communications “assessment” (Fire Dept)</b>	<b>Staff Report #4 (dtd 12 Aug '20)</b>
<b>Conduct Equipment Analysis (Fire Dept)</b>	<b>Staff Report #4 (dtd 12 Aug '20)</b>
<b>Contract w/3<sup>rd</sup> party “oversight” (Fire Dept)</b>	<b>Staff Report #4 (dtd 12 Aug '20)</b>
<b>Police Impact Study</b>	
<b>Fire Impact Study</b>	
<b>DPW Impact Study</b>	
<b>Public Safety Study / HAZMAT Plan</b>	
<b>Site Plan</b>	<b>Peer Review (25 Jun '20)</b>
<b>Traffic Study (BS: revised Jun '20 (p.41-42))</b>	<b>VBH Review</b>
<b>Noise Study (See Peer Review (29 Jun '20))</b>	<b>Review “additional” study</b>
<b>Environmental Impact (wildlife)</b>	
<b>Environmental Impact (wetlands)</b>	
<b>Pollution (air credits, water, etc.)</b>	

**Water (line/press/ fire sup) #2 / 5, 7, 9, 13**      **Weston & Sampson “reviewing”**

**Sewer (extension / new district / capacity**

**Dredge & Fill Permit (DESP)**

**Alteration of Terrain Permit**

**Town “roads” acceptance (Steele, GM Drive)**      **DPW / BOS**

**Boat ramp / shoreline trail easement**

**Tenants**

**Escrow account / financial viability**      **if project goes “belly up”**

**Days / Hours of operation**

**Off site improvements**

**Construction plan / timeline**

**Blasting**

**Construction oversight by 3<sup>rd</sup> party**

**Berm /sound barrier**

**Fueling / maintenance facilities**

**Storm / groundwater**      **Peer Review (19 Jun ‘20)**

**Site Sound Evaluation**

**Traffic controllers / detections to match town**

**Commuter rail parking spaces**

**Community Impact (social / cultural)**

**NH Shoreline Water Quality Protection Act**