

February 8, 2022

Mr. Bart Pacekonis – Chairman  
Planning & Zoning Commission  
Town of South Windsor  
1540 Sullivan Avenue  
South Windsor, CT 06074

**Re: Proposed Warehouse Development  
UW Vintage Lane II, LLC  
25 Talbot Lane  
South Windsor, Connecticut  
Our File: 22010**

Dear Mr. Pacekonis:

On behalf of our client, UW Vintage Lane II, LLC, our office has conducted a peer review of the Traffic Impact Study for the proposed Warehouse Development located at 25 Talbot Lane, dated January 2022 prepared by Langan. We have also reviewed the original and revised site plans that have been submitted for site plan approval. This letter presents our findings.

It is our understanding that the property proposed for development is located in the Industrial (I) Zone. It is further my understanding that a warehouse is a use allowed by right and requires only a Site Plan Approval in the Industrial Zone. Our office has reviewed the Langan report and compared it against the South Windsor Zoning Regulations, specifically Sections 4.1.5 and 6.1.5.

## **Original Site Plan**

The original site plan, dated 7/02/2021, depicts a single 359,640 s.f. warehouse building located in the center of the site. Vehicle parking is provided on the east side of the building. A total of 333 vehicle parking spaces are provided. The loading docks and trailer storage spaces are provided on the west side of the building. A total of 54 docks and 111 trailer spaces are provided. The loading dock area is located within a gated area. Access to the site is provided by a full service driveway to Governor's Highway and a full service driveway to Talbot Lane. The driveway to Governor's Highway will provide 24 feet of pavement with a single 12 foot lane for both entering and exiting traffic. The site driveway approach is proposed to operate under stop sign control. The driveway to Talbot Lane will provide 36 feet of pavement with a 24 foot wide lane for entering traffic and a 12 foot wide lane for exiting traffic. A 50 foot radius is provided on the site driveway to accommodate trucks. The site driveway approach will operate

under stop sign control. The driveways and parking areas are situated, and the proposed fenced in area, are such that the employee traffic and truck traffic are segregated. Drive aisles are provided around the building. A sidewalk is provided the length of the building on the east side of the building.

### **Current Site Plan**

The current site plan, dated 12/20/21 is similar to the original site plan with the exception of the loading dock area and the access to Talbot Lane. The number of trailer storage spaces has been reduced from 111 spaces to 59 spaces. A truck queueing lot of 30 spaces has been added. The access to Talbot Lane is in the same location. Access to the queueing lot is provided from the entrance drive. The fenced in area has been revised to remove the queueing lot from the security area. The gated entrance is located east of the queueing/marshalling parking lot entrance.

The truck access driveway is to Talbot Lane, an existing industrial roadway. The proposed site driveway provides 36 feet of pavement with a 24 foot wide entrance lane and a 12 foot wide exit lane. A 50 ft radius is provided for exiting traffic executing a right turn onto Talbot Street.

The site plan circulation pattern as designed is capable of accommodating a WB-62 design vehicle throughout the loading dock area and the truck queueing lot.

The employee access remains the same. A sidewalk is provided the length of the building on the east side of the building. Multiple crosswalks are provided within the employee parking lot to facilitate the movement of pedestrians through the parking lot.

### **Traffic Impact Study**

The Langan report outlines a study area extending along the Governor's Highway from Route 5 (John Fitch Boulevard) west of the site to Route 30 (Ellington Road) east of the site. Manual turning movement counts were conducted during December 2021 during the morning and afternoon peak commuter hours. The counts were conducted when schools were in session. Based on recent ConnDOT traffic volume counts, the traffic volumes were increased 0.5% per year to a design year of 2023, when the proposed development is anticipated to be open for business. This is consistent with current engineering practice.

The ITE Trip Generation report, 11<sup>th</sup> Edition, was used to estimate the site generated traffic volumes and truck volumes for the proposed development. Land Use Code 156: High Cube Parcel Hub warehouse was used for the trip generation. This is an appropriate land use to utilize for the proposed development.

A directional distribution of site generated traffic of 75% to and from the west and 25% to and from the east was utilized. All truck traffic was directed to and from the west to Route 5. The Langan report indicates the directional distribution was based on journey to work data obtained for South Windsor. Based on the relative background traffic volume data and the existing roadway network, the distribution used seems appropriate.

Capacity analyses were completed for the intersection of the Governor's Highway with Talbot Lane and for the proposed site driveway to the Governor's Highway. The analyses were completed using the SYNCHRO analysis software. The analysis indicates that all approaches operate at a LOS B or better during peak hours, under the combined traffic volume conditions with the existing roadway geometry. Since the application is for site plan approval, we have not reviewed the analyses at intersections distant from the site. The analysis indicates that the 95% queue within the site employee site driveway is less than two vehicles during peak hours.

Our office has completed a left turn lane warrant analysis for the proposed site driveway intersection for the morning and afternoon peak hours, and we have determined that a left turn lane treatment is not warranted. Based on the calculated levels of service and the projected volume of left turn movements, it is our opinion that a by-pass capability is not required either.

A review of the available Intersection Sight Distances (ISD) was completed. The analysis indicates that the required ISD's according to the ConnDOT Highway Design Manual are available at the proposed site driveway. We have reviewed the conditions in the field and we concur with the Langan findings that the available ISD's meet current ConnDOT Standards for 5 mph above the posted speed limit.

## **Conclusion**

Based on our review of the proposed site plan and the traffic impact study, it is my professional opinion that the proposed site plan will provide for an orderly flow of inbound and outbound traffic. The site driveways provide a sufficient pavement width for the anticipated peak hour traffic volumes. The proposed stop sign control will provide for acceptable levels of service at the site driveway intersections. The available intersection sight distances at the proposed Governor's Highway driveway meet and or exceed the current ISD as required by ConnDOT for an approach speed 5 mph above the posted speed limit.

The site layout virtually ensures that there is no possibility that on site queues will back out onto local roadways. The site layout also provides a sidewalk and crosswalks within the employee parking area to provide a safe and orderly path from the parking lot to the employee entrances. The site plan provides separate driveways for employees and trucks, and the site layout with proposed gates, will keep the on-site vehicular and truck

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traffic separated. The loading dock area provides sufficient pavement width to accommodate truck movements through the site. There is a sufficient number of trailer parking spaces provided on site. A queueing analysis conducted by our office and presented in a separate letter demonstrates that there are a sufficient number of loading docks to accommodate the daily and peak hour truck volumes for the site. The provision of a parking lot with 30 truck spaces is sufficient to accommodate enough queueing spaces for the peak hour truck flows to prevent trucks from extending off site and onto Talbot Lane.

We appreciate the opportunity to provide this information to you. A representative from our firm will be available to present testimony before local commissions if needed. If you require any additional information, please do not hesitate to contact our office.

Very truly yours,

**F. A. Hesketh & Associates, Inc.**

A handwritten signature in black ink, appearing to read 'Scott F. Hesketh', written over a horizontal line.

Scott F. Hesketh, P.E.  
Manager of Transportation Engineering

cc: Mr. Bradford Wainman, UW Vintage Lane II, LLC

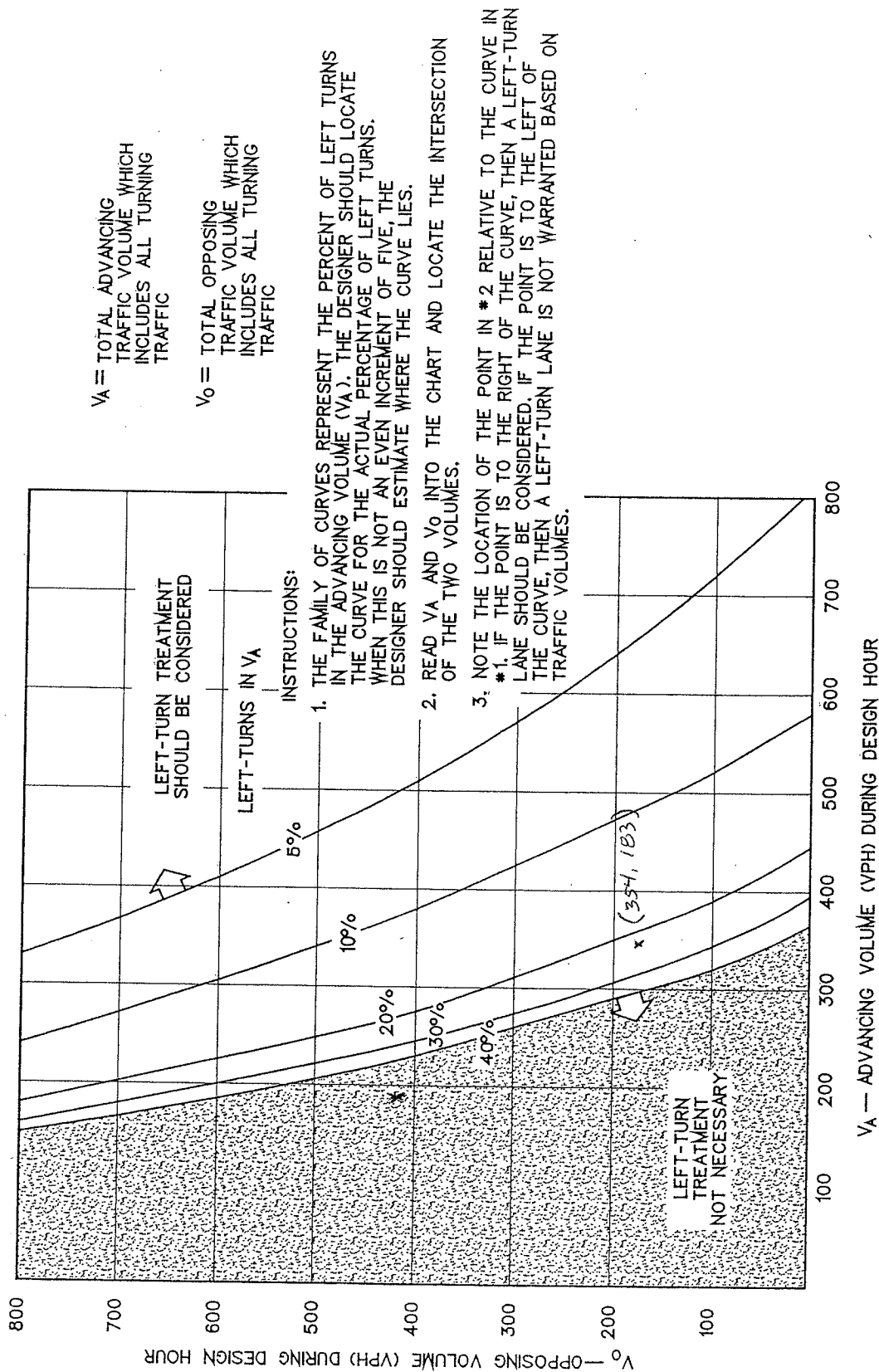
**LEFT TURN LANE WARRANT  
ANALYSIS WORKSHEET**

**Proposed Warehouse Development  
Talbot Lane - South Windsor, CT**

		<u><b>AM PEAK</b></u>	<u><b>PM PEAK</b></u>
VOLUME ADVANCING	V <sub>a</sub> =	354	197
LEFT TURN VOLUME	V <sub>l</sub> =	30	40
VOLUME OPPOSING	V <sub>o</sub> =	183	411
% OF LEFT TURNS	L =	8%	20%
SPEED OF MAINLINE TRAFFIC	V =	35 mph	35 mph

		<u><b>SAT PEAK</b></u>
VOLUME ADVANCING	V <sub>a</sub> =	
LEFT TURN VOLUME	V <sub>l</sub> =	
VOLUME OPPOSING	V <sub>o</sub> =	
% OF LEFT TURNS	L =	
SPEED OF MAINLINE TRAFFIC	V =	

STORAGE LENGTH REQUIRED



VOLUME GUIDELINES FOR LEFT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON  
2-LANE HIGHWAYS (40 mph)

Figure 11-5F