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## MEMORANDUM

TO: Frank A. Filiciotto, P.E. DATE: November 19, 2024

Village of New Hempstead Planning Board

FROM: Brian Dempsey P.E., PTOE. RSP1 RE: Union Road Townhomes

Brian Haggarty, EIT New Hempstead

DTS Provident Design Engineering (DTS Provident) has reviewed the August 28, 2024, LaBella Traffic Response Letter regarding our Traffic Impact Study. LaBella comments are outlined below in bold with DTS Provident follow-up responses *in italics*:

## **TIS Review**

1) LaBella Comment: Despite studying six intersections, there are key intersections along Union Road that lie within the radius of study but were not actually counted or analyzed by DTS. These are the intersections (i) Union Road and Brick Church Road, (ii) Union Road and Grandview Avenue, and (iii) Union Road and McNamara Road. The latter two are the intersections of two county roads. LaBella recommends that the applicant explain why they were not included in the scope.

DTS Provident Response: The original scope was discussed with the Town its Traffic Consultant at that time and the scope included the six intersections that were originally studied. The additional three intersections have since been included in the Study.

2) LaBella Comment: LaBella suggests that, at a minimum, the intersections of Union Road/Brick Church Road be included and analyzed as part of the study. This intersection is an offset, all-way stop-controlled intersections with proximity to the New York Country Club and three schools. DTS assigned the same amount of future traffic to the other two intersections noted above, so a discussion concerning the impact of the project on these two locations should be provided as well.

DTS Provident Response: This intersection as well as the other two previously mentioned above now been included in the update Traffic Study.

3) LaBella Comment: LaBella suggests that the applicant install an automatic traffic recorder (ATR) to collect volume, speed, and classification data along the site frontage to validate the manual turning movement counts and to confirm the prevailing speed, which is used to inform the sight distance analysis.

DTS Provident Response: An ATR was installed on Union Road just south of Michael Street, to validate the volumes, speed and to validate the sight distance analysis. Based on the ATR data collected, the ATR Volumes and the manual turning movement counts validates that the volumes are close between the two. On the ATR speed data shows that there was an average speed of 32 mph and an 85th percentile speed of 38 mph. Based on



AASHTO Chapter 3 Sight Distance, for a speed of 38 mph a Stopping Sight Distance of 283 ft is required in which there is enough adequate sight distance at the site location.

4) LaBella Comment: DTS applied a 2.0% background traffic growth rate and considered traffic associated with seven projects. LaBella recommends that the applicant prepare a table summarizing the location, type of project, square footage/density of the project, total trip generation, and source of traffic data associated with the project so a validation can be confirmed.

DTS Provident Response: See table below:

TABLE - OTHER PROJECTS				
Location	Type	Square Footage/Density	Trip Gen	Source
48 Grandview Avenue	Bais Malka - Academic Institution (Expansion)	2 Classrooms	*N/A	
103 Brick Church Road	Residential Redevelopment	325 Proposed Residential Lots	223 AM Trips 309 PM Trips	*N/A
585 Union Road	Residential Development	One 2-family dwelling Unit	*N/A	
698 Union Road	Congregation Knesset Israel - Residential and Commercial	Subdivision of Lot	*N/A	
755 Union Road	Religious Services - Commercial	1,000 SF	*N/A	
775 Route 45	Illinois Properties - Commercial and Residential	18,554 SF Addition	*N/A	
870 Route 45	Denton Acres - Commercial Development	13,500 SF Office Building	*N/A	

<sup>\*</sup>No trip generation was provided

Most of the projects above did not provide trip generation. These projects are accommodated by the 2.0% growth rate.

5) LaBella Comment: The TIS utilized the institute of Transportation Engineering (ITE) *Trip Generation Manual*, 11<sup>th</sup> Edition, to determine the number of trips generated by the proposed senior townhomes using Land Use Code (LUC) 252 "Senior Adult Housing – Multifamily". The TIS State that the senior townhomes will generate 11 total trips in the AM peak hour and 14 total trips in the PM peak hour. However, this land use considers "dwelling units that share both floors and walls with other units in the residential building,", LaBella suggests that DTS consider LUC 251 "Senior Adult Housing – single Family," which notes that dwelling units can be either detached, and identify the differences in future site-generated traffic.

DTS Provident Response: Land Use Code 251 was used in the revised analysis.

6) LaBella Comment: Figure 6 and Figure 7 show the arrival and departure distributions for the development, respectively. The distributions represent possible traffic patterns of future residents. However, key nearby roadways such as Grandview Avenue, McNamara Road, and Brick Church Road were omitted from future traffic assignments. Instead, the distribution identifies the use of roadways like Ivy Lane and Pennington Way, which are classified as Urban Local roadways. The



applicant should explain the rationale for the trip distribution and assignment of future sitegenerated traffic.

DTS Provident Response: The arrival and departure distributions were revised to incorporate the additional roadways and have been included in the revised analysis. The distributions were based upon a combination of existing travel patterns and anticipated travel routes based on ease of access to main roadways and potential destinations.

7) LaBella Comment: DTS should provide an updated level of service analysis incorporating the trip generation volumes based on LUC 251 "Senior Adult Housing – Single Family" and any adjustments to the scope of study intersections and trip distribution/assignment.

DTS Provident Response: An updated level of service analysis using the trip generation based upon Land Use Code 251 has been conducted and are included in the updated Traffic Study. The additional study intersections have been included and distributions have been adjusted.

8) LaBella Comment: DTS provided an overview of crashes reported on Union Road over a threeyear period. The period start date and end date should be specified. In general, DTS should provide crash summary tables for intersections and segments. The tables should present intersection type, severity, and contributing factors.

DTS Provident Response: Additional information on the crash history including the start date and the end date have been included in the revised Traffic Study. Further details of the crash history is included in the appendices.

9) LaBella Comment: More specifically, seven crashes were reported on a one-half-mile segment of Union Road between Brockton Road and Jonathan Place. This segment includes the subject site and main driveway. DTS should provide a summary of crash location, type, severity, and contributing factors. DTS should also determine if the crash rate for this stretch of Union Road is above the statewide average.

DTS Provident Response: These 7 crashes including their types and causes are included in the overall crash summary table in the appendices in the Traffic Study. This stretch of Union Road involves various intersections along its route and therefore cannot be directly compared to a NYSDOT mainline crash rate as these require no intersection in between and a few of the 7 crashes occurred at intersections.

10) LaBella Comment: The TIS states that 21 crashes occurred close to the intersections of Union Road and Brick Church Road and 61 crashes occurred close to the intersection of Union Road and McNamara Road. Site-generated traffic will be added to these intersections based on the trip distribution and assignment presented in the TIS. LaBella recommends that the applicant describe possible ways to mitigate the crash rate higher than the statewide average.

DTS Provident Response: A crash overview and comparison to the statewide averages has been provided in the Traffic Study and the appendices. The Project would only have limited traffic at these locations. These locations and some other study locations do have crash rates higher than the Statewide average. An expanded discussion has been included in the Traffic Study.



11) LaBella Comment: LaBella recognizes that the applicant is not responsible for bearing the responsibility of resolving an existing safety issue; however, proportional "fair share" efforts may be possible in the furtherance of traffic safety.

DTS Provident Response: Comment Noted. The Project will not generate significant traffic and illustrates in the Traffic Study that it will not have a significant impact on the adjacent roadway network.

<u>Site Development Plan Review - Will be responded separately by the Project's Civil Engineer.</u>

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