

Technical Memorandum

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From: Shashwat Anant, EIT
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Subject: 128 Nutley Street NW
Trip Generation Memorandum

Sekas Homes, LTD.

Introduction

This memorandum presents a comparison of traffic volumes related to the proposed redevelopment of an existing residential property with additional housing units. The proposed development is located at 128 Nutley Street NW, identified as Parcel # 0383 02 0104, within the Town of Vienna. The site consists of a 29,553-square-foot lot, currently zoned RS-12.5. The property is currently developed with a single-family detached home on a large lot, consistent with the area's original low-density residential development.

The development proposal seeks to redevelop the existing single-family lot into a nine-unit multifamily residential project, featuring a mix of flat and vertical unit configurations. The proposed development differs from traditional single-family subdivision by offering a more compact, diverse housing solution. This memo analyzes the proposed development, comparing its potential traffic generation and neighborhood impact against a single-family development scenario, demonstrating the project's minimal disruption to the existing built environment.

The proposed site location is shown in Figure 1 and the conceptual site plan is shown in Figure 1.

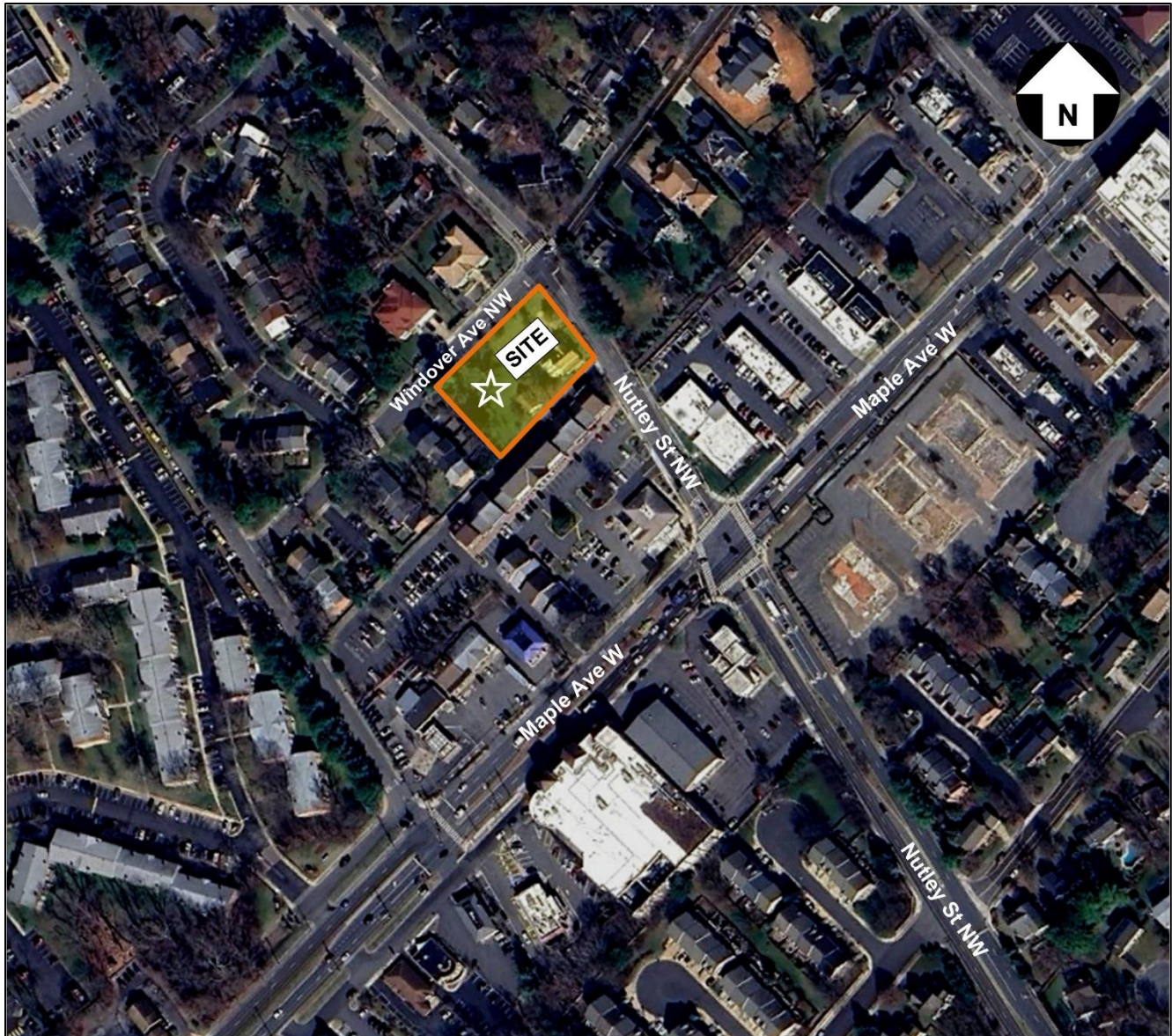


Figure 1: Site Location Map

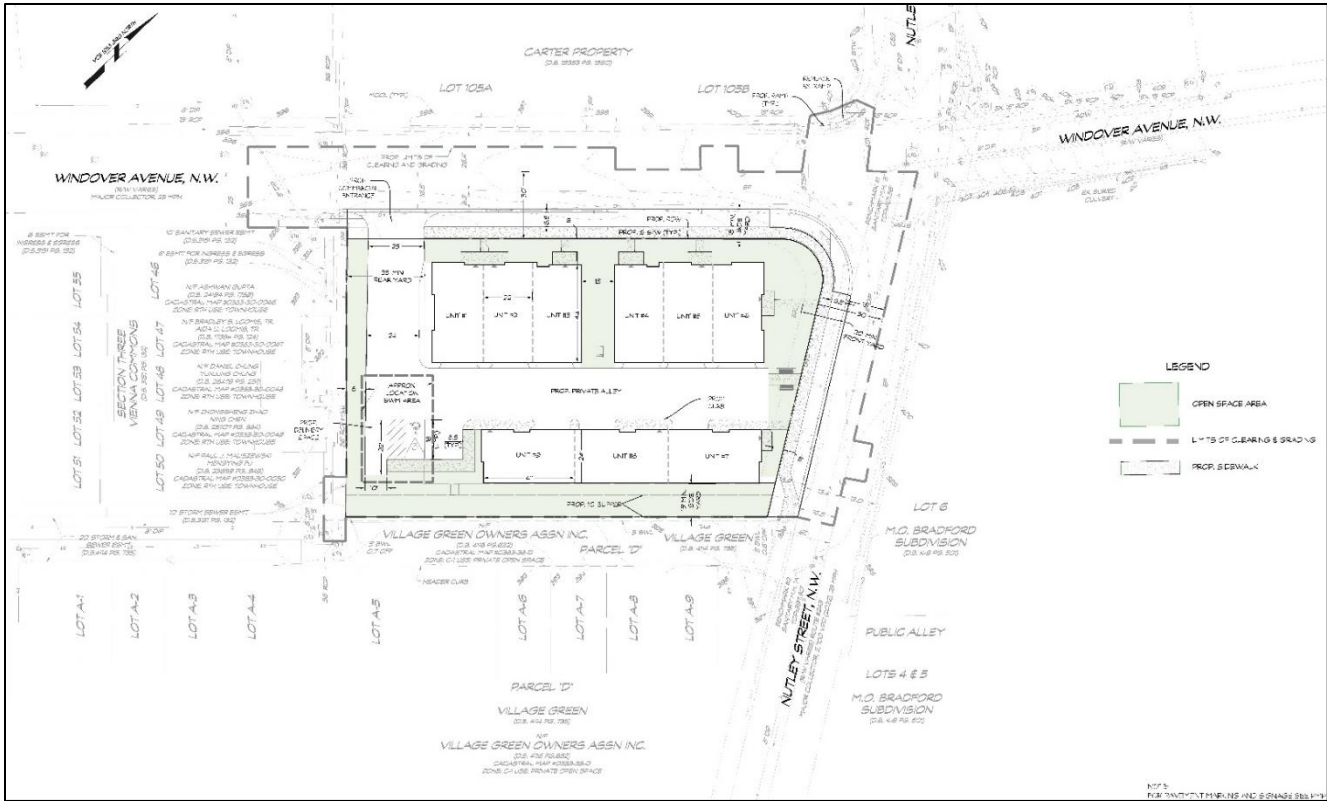


Figure 2: Conceptual Layout (Provided by LDC)

Trip Generation Comparison

The property where the buildings are proposed is currently occupied by a single-family home and the developer proposes nine residential units.

In order to calculate the number of trips generated by the existing land use, the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition, the publication was utilized to determine the total number of trips going into and out of the subject study site during the weekday morning (AM) and weekday afternoon (PM) peak hours as well as the typical number of weekday daily trips associated with the development. The trips generated by the proposed use and the trips generated by the existing use are shown in Table 1.

Table 1: Trip Generation- Proposed Use and Existing Use

Land Use	ITE Code	Size	----- Week d a y -----						
			AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Existing Use									
Single-Family Detached Housing (EQUATIONS)	210	1 DU	0	1	1	1	0	1	15
Proposed Use									
Multifamily Housing (Low-Rise) (Apartments, Townhomes, Condo; max 2 floors; Not Close to Rail Transit)	220	9 DU	6	20	26	15	9	24	133
Difference (Proposed - Existing)									
					+25				+23 +118

As shown in Table 1, the proposed redevelopment is anticipated to generate approximately 25 additional trips during the AM peak hour, 23 additional trips during the PM peak hour, and 118 additional trips on a typical weekday.

Given the size of the existing lot, it could be subdivided to accommodate two large single-family units. Similar homes in the area often have six bedrooms. Additionally, accessory dwelling units could be built on the subdivided lots, bringing the potential

number of bedrooms to 16. The proposed total of 23 bedrooms in the nine multifamily units represents an increase of seven units or 44% over the by-right configuration.

Roadway Volume Comparison

Also, as shown in Figure 3, the site-generated trips will contribute no more than 2.1% of daily traffic on surrounding major roadways. Nutley Street NW, which carries 4,700 to 5,700 daily vehicles, would see an increase of no more than 2.1%. Maple Avenue W carries 23,000 to 28,000 daily vehicles and will see up to a 0.3% increase. Given these low percentages, the redevelopment is anticipated to have minimal impacts on traffic operations of the surrounding roadways. If the difference in trips was computed on a per-bedroom basis compared to the by-right scenario, the traffic increase would be even less.

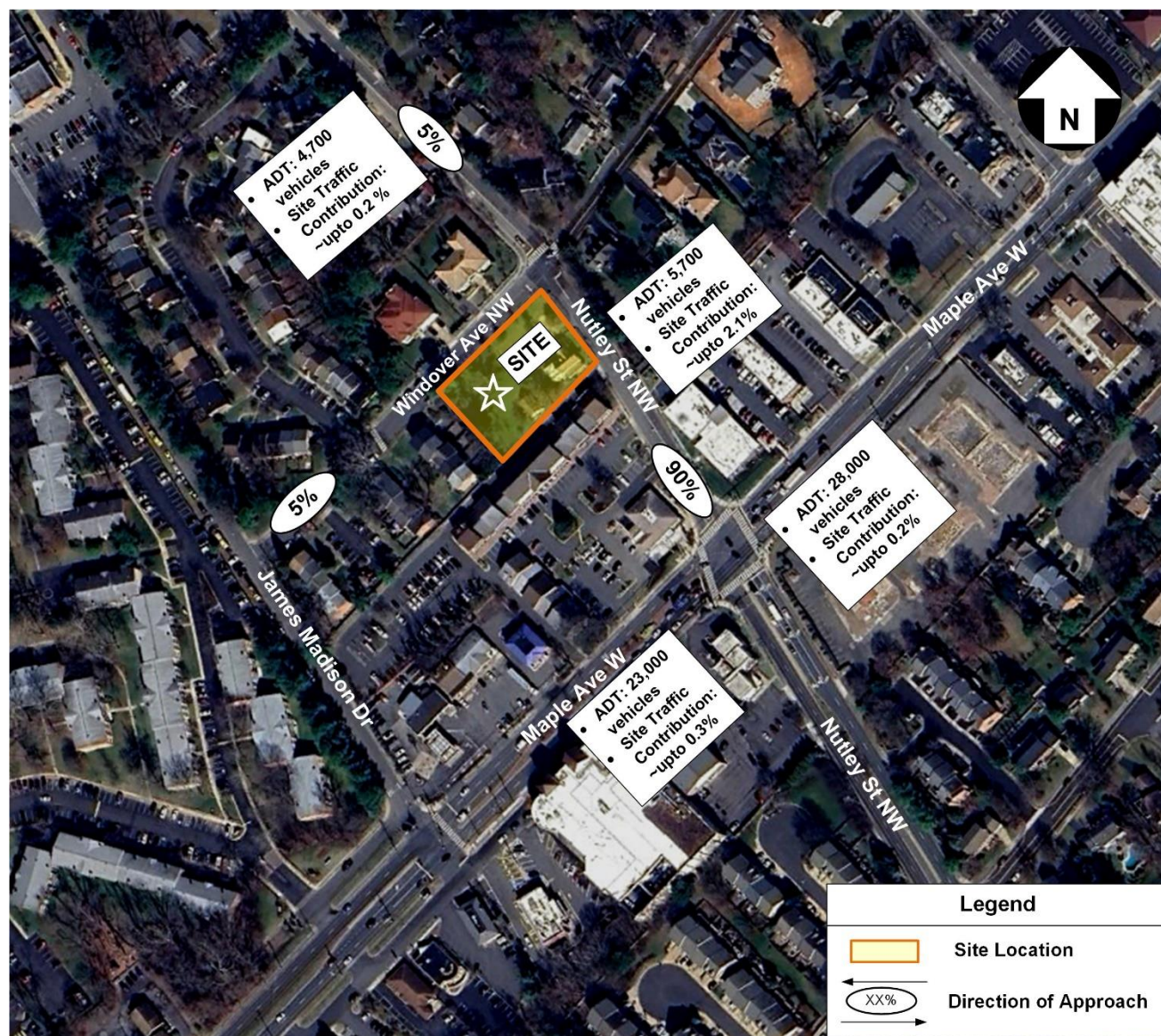


Figure 3: DOA and Estimated Traffic Impact

Summary and Conclusions

The analysis presented in this memorandum supports the following conclusions:

- The proposed nine-unit multifamily development at 128 Nutley Street NW would replace an existing single-family home on a 29,553-square-foot lot zoned RS-12.5.
- The proposed use is anticipated to generate approximately 25 additional trips during the AM peak hour, 23 additional trips during the PM peak hour, and 118 additional trips on a typical weekday with site trips contributing 0.2% to 2.1% of daily traffic on surrounding roads.
- Given the low percentages of site traffic contributing to the surrounding roads, the surrounding road network is anticipated to have minimal impacts on traffic operations.
- The site could be redeveloped with two large homes and two accessory dwellings, yielding up to 16 bedrooms compared to the 23 proposed bedrooms. This would represent an even smaller increase in traffic than noted above.