STONEFIELD

March 18, 2024

Dawn Gaebel
Planning Board Secretary
263 Somerset Street
North Plainfield, New Jersey 07060

RE: Traffic & Parking Assessment Report
Proposed Residential Development
430 Grove Street
Block 110, Lots 2.02 through 2.13
Borough of North Plainfield, Somerset County, New Jersey
SE&D Job No. PRI-230101

Dear Board Members:

Stonefield Engineering and Design, LLC ("Stonefield") has prepared this analysis to examine the potential traffic and parking impacts of the proposed residential development on the adjacent roadway network. The subject property is located along the northerly side of Grove Street across from its intersection with Ridge Avenue in the Borough of North Plainfield, Somerset County, New Jersey. The subject property is designated as Block 110, Lots 2.02 through 2.13 as depicted on the Borough of North Plainfield Tax Map. The site has approximately 643 feet of frontage along Grove Street. The existing site is undeveloped with existing access provided via one (1) full-movement gated driveway along Grove Street. Under the proposed development program, eight (8) multifamily residential buildings consisting of four (4) residential dwelling units each, for a total of 32 residential dwelling units, would be constructed. Access is proposed via one (1) ingress-only and one (1) egress-only driveway along Grove Street.

Existing Conditions

The subject property is located along the northerly side of Grove Street across from its intersection with Ridge Avenue in the Borough of North Plainfield, Somerset County, New Jersey. The subject property is designated as Block 110, Lots 2.02 through 2.13 as depicted on the Borough of North Plainfield Tax Map. The site has approximately 643 feet of frontage along Grove Street. Land uses in the area are a mix of residential, commercial, and educational uses.

Grove Street is a local roadway with a general north-south orientation and is under the jurisdiction of the Borough of North Plainfield. Along the site frontage, the roadway provides one (1) lane of travel in each direction and has a posted speed limit of 25 mph. In the vicinity of the site, curb is provided along the westerly side of the roadway, sidewalk and shoulders are not provided, and on-street parking is permitted along both sides. Grove Street provides north-south mobility throughout the Borough of North Plainfield and provides access to U.S. Route 22 westbound to the southeast of the site, serving a mix of residential and commercial uses along its length.

Ridge Avenue is a local roadway with a general east-west orientation and is under the jurisdiction of the Borough of North Plainfield. In the vicinity of the site, the roadway provides one (1) lane of travel in each direction and has no posted speed limit. Curb is provided along both sides of the roadway, sidewalk and shoulders are not provided, and on-street parking is permitted along both sides of the roadway except along the southerly side of the roadway between Harrison Avenue and Jefferson Avenue. Ridge Avenue provides east-west mobility within the Borough of North Plainfield from its easterly terminus at Grove Street to its westerly terminus at Jefferson Avenue, serving a mix of residential and commercial uses along its length.

Grove Street and Ridge Avenue intersect to form an unsignalized T-intersection with the eastbound approach of Ridge Avenue operating under stop control. The eastbound approach of Ridge Avenue provides one (1) shared left/right-turn lane. The northbound approach of Grove Street provides one (1) shared left-turn/through lane and the southbound approach of Grove Street provides one (1) shared through/right-turn lane. Crosswalks and pedestrian ramps are not provided.

Trip Generation

Trip generation projections for the proposed residential development were prepared utilizing the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition. Trip generation rates associated with Land Use 215 "Single-Family Attached Housing" were cited for the eight (8) townhouses consisting of a total of 32 residential dwelling units. Note that Land Use 215 "Single-Family Attached Housing" accounts for sites with townhouses/rowhouses, with three (3) or more distinct dwelling units each and constitutes the most similar land use to the proposed development within the Trip Generation Manual. **Table 1** provides the weekday morning and weekday evening trip generation volumes associated with the proposed development.

TABLE 1 – PROPOSED TRIP GENERATION

	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
Land Use	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**
32 Units Single-Family Attached Housing *ITE Land Use 215*	4	11	15	11	7	18

The proposed development is expected to generate 18 new trips during the critical weekday evening peak hour. Based on the Multimodal Transportation Impact Analysis for Site Development published by ITE, a trip increase of less than 50 vehicle trips would likely not change the level of service of the adjacent roadway system or appreciably increase the volume-to-capacity ratio of an intersection approach. As such, the proposed development is not anticipated to significantly impact the operations of the adjacent roadway network.

Site Circulation/Parking Supply

A review was conducted of the proposed residential development using the Site Plan prepared by our office, dated March 18, 2024. In completing this review, particular attention was focused on the site access, circulation, and parking supply.

Access is proposed via one (1) ingress-only and one (1) egress-only driveway along Grove Street. Under the proposed development program, eight (8) townhouses consisting of four (4) residential dwelling units each, for a total of 32 residential dwelling units, would be constructed. The townhouses would be constructed along the Grove Street frontage with surface-level parking proposed along the northeasterly portion of the site. The trash enclosure would be located at the northerly corner of the site. One (1)-way vehicular circulation throughout the site would be facilitated via a minimum of 18-foot-wide drive aisles. A 24-foot-wide one (1)-way drive aisle would be located adjacent to the 90-degree surface-level parking spaces in accordance with industry standards.

Regarding the parking requirements for the proposed development, the Villa Maria Redevelopment Plan references the New Jersey Administrative Code Residential Site Improvements Standards (RSIS) (NJAC 5:21) which permits a maximum of 1.8 parking spaces per one-bedroom unit, 2.0 spaces per two-bedroom unit, and 2.1 parking spaces per three-bedroom unit for garden apartment uses. For the proposed residential development consisting of 11 one-bedroom units, 18 two-bedroom units, and three (3) three-bedroom units, this equates to a maximum of 62 permitted parking spaces. The site would provide 58 total parking spaces, inclusive of three (3) ADA accessible parking spaces, which complies with the maximum parking permitted per RSIS standards. The

parking spaces would be nine (9) feet wide by 18 feet deep in accordance with the Borough of North Plainfield Ordinance and industry standards.

As per P.L. 2021, c.171 (C.40:55D-66.18 et al.), all projects involving multifamily dwellings with more than five (5) units must have 15% of the parking supply be pre-wired for electric vehicle charging stations ("make-ready"). Of the make-ready parking spaces, 5% must be ADA compliant. For the proposed parking supply of 58 parking spaces, this equates to nine (9) make-ready parking spaces with one (1) being ADA accessible. The electric vehicle requirements consider electric vehicle spaces as a minimum of two (2) parking spaces for the purpose of satisfying parking requirements, up to a 10% reduction of the total requirement. As such, the development plan would be considered to provide 62 (58 + 4) total parking spaces, whereas a maximum of 62 are permitted.

Based on the published RSIS maximum parking requirements, the proposed parking supply of 58 parking spaces would be sufficient to support the expected parking demand of the proposed development.

Conclusions

This report was prepared to examine the potential traffic impact of the proposed residential development. The analysis findings, which have been based on industry standard guidelines, indicate that the proposed development would not have a significant impact on the traffic operations of the adjacent roadway network. The site driveways and on-site layout have been designed to provide for effective access to and from the subject property. Based on published RSIS maximum parking space requirements, the parking supply would be sufficient to support this project.

Please do not hesitate to contact our office if there are any questions.

Best regards,

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