
February 18, 2025

Township of West Orange Planning Board
66 Main Street
West Orange, NJ 07052

Attn: Jamilet Baquerizo Vite, Secretary

**Re: Traffic Impact and Parking Assessment
172-174 Main Street LLC
Proposed Mixed-Use Development
Block 89 – Lot 6
172-174 Main Street (CR 659)
Township of West Orange
Essex County, NJ
DT # 5661-25-00657**

Dear Planning Board Members:

Dynamic Traffic has prepared the following assessment to determine the traffic impact associated with the proposed development of a site located along southbound Main Street (CR 659), between its intersection with Lakeside Avenue and Charles Street in the Township of West Orange, Essex County, New Jersey. The site is designated as Block 89 – Lot 6 on the Township Tax Maps. The site is currently developed with a two-story office building totaling approximately 6,600 SF and a paved parking area. The property owner proposes to improve the existing parking area and add a single story to the existing two-story office building and convert the property to a mixed-use residential building containing 7 units and 2,824 SF of ground floor office space (The Project). Parking will be provided via 25 spaces accessed via a reconstructed curb cut along Main Street.

This assessment documents the methodology, analyses, findings and conclusions of our study and includes:

- A detailed field inspection was conducted to obtain an inventory of existing roadway geometry, traffic control, and location and geometry of existing driveways and intersections.
- Projections of traffic to be generated by The Project were prepared utilizing trip generation data as published by the Institute of Transportation Engineers.
- The anticipated parking generation was assessed based on demand experienced at similar developments and availability of mass transit.

Existing Conditions

Main Street (CR 659) is a minor arterial roadway under Essex County jurisdiction with a general north/south orientation. In the vicinity of the site the speed limit is 25 MPH and the roadway provides one travel lane in each direction. Curbing and sidewalk are provided along both sides of the roadway. On-street parking is permitted along portions of both sides of the roadway. Main Street provides a slightly curved horizontal alignment and a descending vertical alignment from north to south. The land uses along Main Street in the vicinity of The Project include mixed-use and multi-family residential buildings.

Site Generated Traffic

Trip generation projections for The Project were prepared utilizing trip generation research data as published under Land Use Code (LUC) 220 – Multifamily Housing (Low-Rise) and LUC 712 – Small Office Building in the Institute of Transportation Engineers' (ITE) publication, *Trip Generation, 11th Edition*. This publication sets forth trip generation rates based on empirical traffic count data conducted at numerous research sites. Table 1 shows the anticipated trip generation for The Project during the weekday peak street hours (PSH).

Table 1
Trip Generation

Land Use	AM PSH			PM PSH		
	In	Out	Total	In	Out	Total
7 Dwelling Units	1	2	3	3	1	4
2,824 SF Office	4	1	5	2	4	6
Total	5	3	8	5	5	10

Table 2 provides an ITE trip generation comparison between the proposed mixed-use building and the existing office building.

Table 2
Trip Generation Comparison

Land Use	AM PSH			PM PSH		
	In	Out	Total	In	Out	Total
Proposed Mixed-Use Building	5	3	8	5	5	10
Existing Office Building	9	2	11	5	9	14
Difference	-4	1	-3	0	-4	-4

As shown above, the proposed mixed-use residential and commercial building is anticipated to generate 8 trips during the weekday morning peak hour and 10 trips during the weekday evening peak hour. It should be noted that compared to the traffic associated with the existing office building, the site would experience a reduction in traffic during the weekday morning and evening peak hours. The number of new trips falls below the New Jersey Department of Transportation (NJDOT) accepted standard of a significant increase in traffic of 100 or more peak hour trips hence, it is not anticipated that the proposed development will have any perceptible impact on the traffic operation of the adjacent roadway network.

Parking and Mass Transit

As previously noted, parking will be provided via 25 spaces inclusive of 1 Electric Vehicle Supply Equipment (EVSE) space and 1 ADA accessible space. The Ordinance has the following parking requirements:

- Single Bedroom and Efficiency Apartments – 1.8 spaces per unit
- Two Bedroom Apartments – 2.0 spaces per unit
- Office Space – 1.0 spaces per 250 SF

Based on the proposed unit mix, a total of 24.3 parking spaces are required which is exceeded by the 25 parking spaces proposed with consideration of the EVSE credit. The site will provide 9' x 18' parking spaces which is consistent with Residential Site Improvement Standards (RSIS) requirements served by two-way aisles 30' in width.

Within 500 feet there are multiple bus stops for New Jersey Transit. Additionally, the area surrounding the site is of a dense population nature with numerous multi-family and commercial developments. The surrounding neighborhood is very walkable and conducive to pedestrians as it is interconnected with sidewalks. Opportunities for carpooling, utilization of Uber and Lyft services, in addition to mass transit and other alternative means of travel, are conveniently available; all of which will reduce the trip and parking generation of the proposed development.

Additionally, we have reviewed www.walkscore.com which is a walkability evaluation tool of cities and towns which was developed by urban planning, environmental and technical experts. The mission of Walk Score is to promote walkable neighborhoods by making it easy for people to evaluate walkability and transportation when choosing where to live. To note is that 172-174 Main Street in West Orange has a walk score of approximately 88 out of 100 (defined as "Very Walkable"), meaning that daily shopping and errands can be accomplished without a car, thus reducing automobile dependency. This is supported by the proximity to commercial and service-related uses.

Findings

Based upon the detailed analyses as documented herein, the following findings are noted:

- The proposed mixed-use residential and office building is projected to generate 5 entering trips and 3 exiting trips during the weekday morning peak hour and 5 entering trips and 5 exiting trips during the weekday evening peak hour. This level of trip generation is not considered "significant" based on thresholds set forth by the NJDOT.
- When compared to the traffic associated with the existing office building, the proposed development would generate a reduction in traffic during the weekday morning and evening peak hours
- The proximity to mass transit and high walkability score will reduce the need for automobile

dependency for the project thereby reducing the parking demand.

- The proposed parking supply exceeds the requirements set forth in the Ordinance with consideration of the EVSE credit.

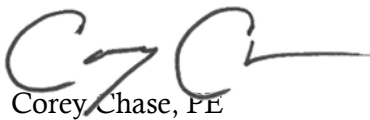
Conclusion

Based upon our Traffic Impact and Parking Assessment as detailed in the body of this report, it is the professional opinion of Dynamic Traffic that the adjacent street system of the Township of West Orange and Essex County will not experience any significant degradation in operating conditions with the proposed development of the site.

If you have any questions about the above, please do not hesitate to contact our office.

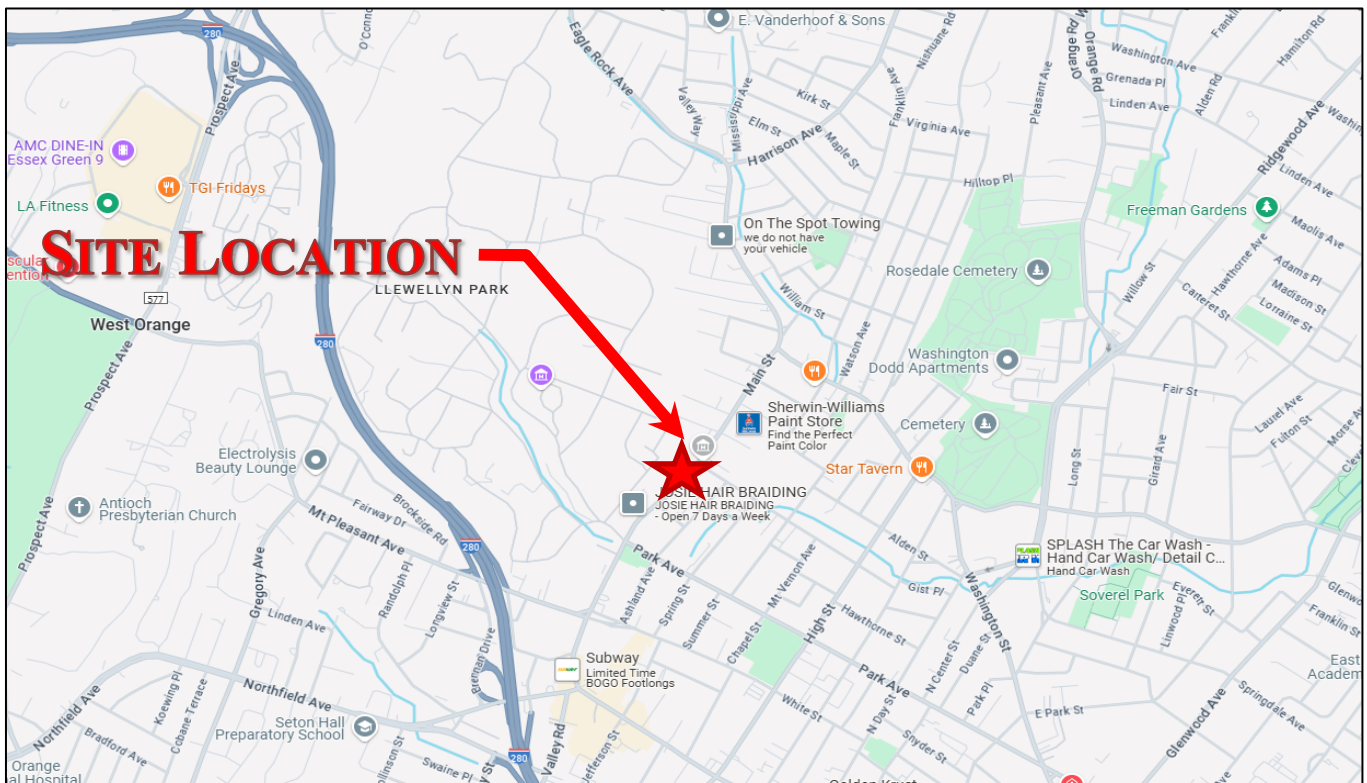
Sincerely,

Dynamic Traffic, LLC



Corey Chase, PE
Senior Principal
NJ PE License 47470

c: Maurice Cox
Tyler Zeberl



Proposed Mixed-Use Development
 Traffic Impact and Parking Assessment
 5661-25-00657

Site Location Map

Corey M. Chase, P.E.

Senior Principal



Mr. Chase joined Dynamic Traffic, LLC in 2018 as a Principal and holds licenses in Professional Engineering in New Jersey, New York, Pennsylvania, Connecticut, and Maryland. Corey has gained over 20 years of experience in private and public traffic engineering, inclusive of intersection design projects, transportation planning, and traffic signals. Included within his private

sector experience is preparation of traffic impact/parking studies, access permitting, intersection design and site access and circulation design for numerous private, retail, office, residential, institutional, and industrial/warehouse developments. His public experience includes corridor studies, intersection designs and circulation plans for Townships/Counties and Planning/Zoning Board Reviews for various municipalities.

Mr. Chase has been responsible for the preparation of over 1,000 traffic impact analyses and associated access permitting for proposed developments throughout the northeast for various land uses including retail, residential, institutional, office, industrial, warehousing, recreational facilities and mixed-use developments.

Licenses:

- New Jersey Professional Engineer License
- New York Professional Engineer License
- Pennsylvania Professional Engineer License
- Connecticut Professional Engineer License
- Maryland Professional Engineer License
- Rhode Island Professional Engineer License
- Georgia Professional Engineer License

Education:

- University of Massachusetts Amherst, Bachelor of Science in Civil Engineering, 2002

Expert Testimony:

Mr. Chase has been appointed as an expert and testified before over 250 boards throughout New Jersey, New York, Pennsylvania, and Connecticut. He regularly provides traffic and parking testimony at Land Use Boards in support of his client's projects.

Employment History:

- 2018 – Present – Dynamic Traffic, LLC – Senior Principal
- 2002 – 2018 – Atlantic Traffic & Design Engineers, Inc. – Senior Project Manager

Agency Experience:

- New Jersey Department of Transportation
- New York State Department of Transportation
- Pennsylvania Department of Transportation
- Connecticut Office of the State Traffic Administration
- Maryland State Highway Administration
- Bergen County Division of Engineering
- Burlington County Division of Engineering
- Camden County Division of Engineering
- Essex County Division of Engineering
- Hudson County Division of Engineering
- Mercer County Division of Engineering
- Monmouth County Division of Engineering
- Morris County Division of Engineering
- Ocean County Division of Engineering
- Passaic County Division of Engineering
- Somerset County Division of Engineering
- Union County Division of Engineering
- Warren County Division of Engineering
- New York City Department of Transportation
- Philadelphia Streets Department
- New Jersey Sports & Exposition Authority

Project Experience:

Montgomery Promenade – A large scale commercial development located in Montgomery, NJ. Mr. Chase was responsible for the traffic engineering activities associated with the development approval and access permitting which involved State, County and Municipality Review Agencies.

The project included the design of two Township Master Plan Roads, traffic signal improvements on both State and County roads, extensive road widening as well as the design of a roundabout to serve as the focal point of the development.

Xchange at Secaucus Junction – A 2,000-unit transit village residential development located in Secaucus, NJ which involved the NJSEA, County and Municipality. Mr. Chase oversaw the preparation of the traffic impact analysis, which assessed the regional impacts of the development, as well as the design of the internal roadways throughout the development which maximized pedestrian connectivity and provided traffic calming utilizing a series of roundabouts. Through coordination with NJ Transit and the County, the pedestrian connectivity to the adjacent train station was improved and a shuttle service was developed as an amenity to residents.