

# TRAFFIC AND PARKING IMPACT STUDY

*For*

## Proposed Change of Use

*Property Located at:*

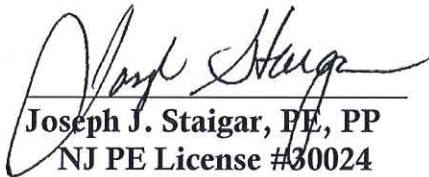
1-9 South Orange Avenue  
Township of South Orange Village  
Essex County, NJ

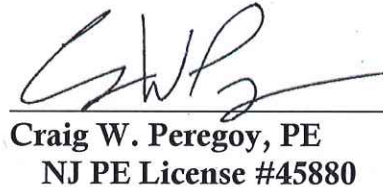
RECEIVED APR 16 2019

Prepared by:



1904 Main Street | 245 Main Street, Suite #110  
Lake Como, NJ 07719 | Chester, NJ 07930  
(732) 681-0760

  
Joseph J. Staigar, PE, PP  
NJ PE License #30024

  
Craig W. Peregoy, PE  
NJ PE License #45880

April 10, 2019

3020-99-001TE

## INTRODUCTION

It is proposed to convert a 15,515 SF of former restaurant use to office use. The property in question is located on South Orange Avenue, at its intersection with Vose Avenue and is currently occupied and operated as Ashley Marketplace on the first floor and formerly occupied and operated as a restaurant on the second and third floors. The application is made to the Township for the necessary approvals for the former restaurant use on the upper floors to be converted to office use. Access to the parking facility behind the building will continue to be provided via a driveway along Vose Avenue. The parking facility will continue to provide a total of 67 parking spaces available to the entire subject commercial site.

This study has examined the potential traffic impact and the potential parking demand of the proposed facility with the change of use.

Accordingly, this analysis includes the following information:

- A review of the existing roadways in the vicinity of the site, including roadway geometry, etc.;
- Projection of the volume of site traffic expected to be generated by the proposed property reuse;
- An examination of the expected parking demand and the available parking;
- Recommendations and conclusions.

## EXISTING CONDITIONS

A review of the existing roadway conditions near the subject site was conducted to provide the basis for assessing the traffic impact and parking demand of the proposed action of the reuse of the property.

### Existing Roadway Conditions

The following are descriptions of the roadways in the study area:

South Orange Avenue is a two-way urban principal arterial with an east/west orientation. The roadway provides on-street parking along both sides of the road. South Orange Avenue is under the County of Essex jurisdiction as Route 510.

Vose Avenue is a local roadway with one (1) lane in each of the northbound and southbound directions. Metered parking is provided on both sides.

The intersection of South Orange Avenue and Vose Avenue is controlled by a traffic signal.

## FUTURE CONDITIONS

Traffic volumes and potential impacts of operational analyses were developed for both the Future Build conditions.

### Traffic Generation

Projections of future traffic volumes were developed utilizing data as published in the Institute of Transportation Engineers (ITE) publication *Trip Generation, 10<sup>th</sup> Edition* for Land Use Code (LUC) 710 - General Office Building. Table I summarizes the projected trips generated by the proposed land use utilizing the ITE data.

**Table I**  
**Trip Generation - Proposed Office Use**

Land Use	AM Pk Hr			PM Pk Hr		
	In	Out	Total	In	Out	Total
15,515 SF General Office	15	3	18	3	15	18

As shown, the maximum peak hour trip generation is projected to be 18 trips. A comparison is made to the former restaurant using Land Use Code 931 - Quality Restaurant and Land Use Code 932 - High Turnover (Sit-Down) Restaurant.

**Table II**  
**Trip Generation - Former Restaurant Use**

Land Use	AM Pk Hr			PM Pk Hr		
	In	Out	Total	In	Out	Total
16,600 SF Quality Restaurant	-	-	12	86	43	129
16,600 SF High Turnover (Sit Down) Restaurant	91	74	165	100	62	162

It is noted that the office use conversion will result in a reduction in floor area by approximately 1,100 SF (16,600 SF to 15,515 SF).

As can be seen by the comparison in trip generation of the proposed office use to the former restaurant use that there is a significant reduction in overall trip generation by the proposed change of use. The reduction in trip generation is related to lesser traffic impact.



## Parking

Mass transit is conveniently available to the site with the existence of a New Jersey Train Station that essentially abuts the site. Whereas, employment commutation characteristics are more aligned with mass transit usage than restaurant use, it can be expected that train use will be utilized to the greater degree by the proposed office use as compared to the former restaurant use.

Based on ITE Parking Generation Manual, 5<sup>th</sup> Edition, the 15,515 SF of General Office in a dense, multi-use setting has a parking ratio of 1.84 parked vehicles per 1000 SF, resulting in a peak parking generation of **29 vehicles**. Even taking into account a General Urban/Suburban setting without the potentially high mass transit usage and mixed-use setting the parking generation rate would be 2.51 parked vehicles resulting in a peak parking demand of 39 vehicles.

In comparison, the restaurant would have a peak parking rate during the weekday 14.84 parked vehicles per 1000 SF, resulting in **246 vehicles** and a weekend rate of 17 parked vehicles per 1000 SF resulting in **282 vehicles**.

As can be seen by the comparison of the parking characteristics of the two (2) uses, the proposed office use is by far the lesser one.

It is further noted that the proposed office use is very compatible with the existing Marketplace, particularly as it relates to trip generation and parking generation. Whereas most patrons of a restaurant would refrain from buying products at a food market, the proposed office use is expected to generate a high patronage of the food market.

## **FINDINGS & CONCLUSIONS**

### **Findings**

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

- The proposed office use will generate 15 entering trips and 3 exiting trips during the morning peak hour and 3 entering trips and 15 exiting trips during the evening peak hour. This trip generation is many times less than the trip generation of the former restaurant use.
- Access to the parking for the site will continue to be provided via one (1) full movement driveway along Vose Avenue.
- The parking supply of 67 spaces will accommodate the peak parking demand of the proposed office use. The proposed office is expected to generate a peak demand of 29 parking spaces and is many times less than the former restaurant use. Whereas the former restaurant use had a significant overflow demand from the site, the parking demand of the proposed office use is expected to be self-contained in the provided parking garage, in concert with the existing Marketplace.

### **Conclusions**

Based upon our Traffic Impact and Parking Study as detailed in the body of this report, it is the professional opinion of Dynamic Traffic LLC that the adjacent street system of the Township of South Orange Village will not experience any impact or degradation in operating conditions with the proposed change of use. The parking demand is also projected to be lessened by the proposed change of use so that there will be less parked vehicles generated by the subject site.