

# **TRAFFIC ENGINEERING EVALUATION**

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## **PROPOSED MIXED-USE DEVELOPMENT**

**155 NEWARK AVENUE  
BLOCK 11405, LOT 6  
CITY OF JERSEY CITY  
HUDSON COUNTY, NEW JERSEY**

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Prepared for:

155 Newark Avenue LLC  
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Prepared by:

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**KLEIN**  
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## INTRODUCTION

The purpose of this Traffic Engineering Evaluation is to assess the traffic impacts associated with the improvements to the subject property known as Lot 6 in Block 11405 located at 155 Newark Avenue in the City of Jersey City, Hudson County. The site has approximately 25 feet of frontage along the south side of Newark Avenue and 25 feet of frontage on the north side of Christopher Columbus Drive. The site is in the Newark Avenue Downtown Redevelopment Plan Subzone A & C, which permits residential apartments on the upper floors. The proposal is to construct a seven-story building with 6,381 square feet of retail space on the ground floor and 27 dwelling units on the upper six floors.

## EXISTING CONDITIONS

The surrounding properties generally consist of a mix of commercial and residential uses. The streets that serve the subject site are described as follows:

**Newark Avenue** is a local street under the jurisdiction of the City of Jersey City, oriented in an east-west direction. Newark Avenue connects Route 1&9 in the west to Christopher Columbus Drive in the east. However, Newark Avenue is closed to vehicular traffic west of Barrows Street and east of Erie Street. There are sidewalks on both sides of the street. The statutory speed limit is 25 miles per hour (MPH).

**Barrow Street** is a local street under the jurisdiction of the City of Jersey City, oriented in a northbound direction, from Grand Street to Newark Avenue. There are sidewalks on both sides of the street. Parking is permitted on both sides of the street. There is a parking restriction for street cleaning posted “No Parking, 10 AM – 12 Noon, Thursday” on the east side and “No Parking 10 Am – 12 Noon, Tuesday” on the west side. Zone 2 Permit Parking is required on both sides of the street for parking over 2 hours, Monday through Friday. There is capacity for a total of approximately 13 on-street parking spaces on the block of Barrow Street between Palisades Avenue and Ogden Avenue. The statutory speed limit is 25 MPH.

### Mass Transportation Options

The Grove Street PATH Station is a 3-minute/0.1-mile walk from the subject site. The number 63, 64, 68, 81, and 82 bus lines, with service between the subject site and Hoboken, Weehawken, Bayonne, The Heights, and Lakewood, stop on Christopher Columbus Drive, which is a 3-minute/0.1-mile walk from the subject site. With the variety and frequency of mass transportation service during the peak commuting hours, as well as the variety of local commercial, retail, and entertainment options, this location provides adequate transportation infrastructure to not own a personal vehicle.

#### Bicycle Master Plan 2019

Near the subject site, as of 9/30/2019, the Let's Ride JC Bicycle Master Plan shows bicycle lanes or shared bike paths on Barrow Street, Erie Street, Newark Avenue, and Christopher Columbus Drive surrounding the subject site. There is a Citi Bike coral at the Grove Street PATH station and a Citi Bike coral at the intersection of Jersey Avenue with Newark Avenue.

#### Pedestrian Enhancement Plan 2018

Newark Avenue, near the subject site, is not mentioned in the Plan to be improved for walkability with signalization, crosswalk improvements, intersection treatments, curb extensions, bicycle facilities, transit connections, and streetscape treatments. However, Newark Avenue west of Barrow Street and east of Erie Street have been closed to vehicular traffic.

#### School Travel Plan 2019

Near the subject site, as of July 2019, the Jersey City School Travel Plan does not mention the intersection of Newark Avenue with Barrow Street/Erie Street. There are no crossing guards near the subject site.

#### Crashes (2012 to 2016)

Between the years 2012 and 2016, the School Travel Plan identifies crashes involving pedestrians and involving bicycles at the intersection of Newark Avenue with Barrow Street/Erie Street.

#### Vision Zero Action Plan

The Vision Zero Action Plan, February 2019 shows Christopher Columbus Drive and Grove Street as being in the High Injury Network.

## DEVELOPMENT PROPOSAL

The proposed redevelopment consists of the construction of a seven-story building with 6,381 square feet of commercial tenant space on the ground floor and 27 dwelling units on the upper six floors.

## TRIP GENERATION

According to the *Trip Generation Manual, 11<sup>th</sup> Edition* published by the Institute of Transportation Engineers (ITE), Multifamily Housing (Mid-Rise) includes apartments, townhouses, and condominium located within the same building with at least three other dwelling units and that have between three and 10 levels (floors). Trip generation for the proposed 27-unit, multifamily housing (mid-rise) building was calculated using the current *Trip Generation, 11<sup>th</sup> Edition*. The average trip generation rate for “Dense Multi-Use Urban” setting/location with rail transit within one-half mile was chosen to replicate the surrounding traffic conditions. The trip generation average rates for “Dense Multi-Use Urban” “Close to Rail Transit” would account for the mass transportation “discount” that would be applied to the vehicular trip generation calculation to account for the significant usage of mass transportation.

According to the *Trip Generation, 11<sup>th</sup> Edition* published by the Institute of Transportation Engineers, “a strip retail plaza is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. Each study site in this land use has less than 40,000 square feet of gross leasable area (GLA). Because a strip retail plaza is open-air, the GLA is the same as the gross floor area of the building.” Based on the size of the retail space, the percentage of trips associated with the retail space would be primarily pass-by trips, which is reflected in the PM peak hour pass-by rate of 87 percent, which was calculated based on ITE standards and is also shown in Table 1. Pass-by trips are trips that are already on the roadway network and are not new trips.

The proposed redevelopment is expected to generate 6 additional vehicular trips during the weekday AM peak hour and 20 additional vehicular trips during the weekday PM peak hour. There are no on-site parking spaces; therefore, the vehicular trips would be dispersed throughout the area, creating no significant traffic impact. Therefore, in my professional opinion, the number of new vehicular trips on the nearby streets would not have a significant impact on traffic operations in the area.

The proposed redevelopment would generate 8 new person trips during the weekday AM peak hour and would generate 6 new person trips during the PM peak hour. Due to the high pedestrian activity in the area, most of those new trips to and from the retail space would be pedestrian traffic. Therefore, in my professional opinion, the number of new pedestrian trips along the existing sidewalks and crossing the existing intersections.

According to Transportation Impact Analysis for Site Development, published by the Institute of Transportation Engineers (ITE), an increase of less than 100 vehicle trips would not change the level of service of the local street network nor appreciably increase the volume-to-capacity ratio of an intersection approach. Also, NJDOT Access Management Code considers a significant increase in trips greater than 100 peak hour trips AND greater than a 10 percent increase in previously anticipated daily trips. Therefore, the proposed development is not anticipated to significantly impact the operations of the local streets.

#### SITE PLAN REVIEW

There are ample sidewalks in the area. There is also access to a variety of mass transportation services, as well as shared bicycles and bicycle lanes. There are also local shopping, dining, and entertainment options. Rideshare vehicles, such as Uber or Lyft, would park in an on-street parking space to pick-up or drop-off a passenger associated with this proposed project. Therefore, the employees, visitors, and customers of this property will not require a parking space. The existing driveway on the Columbus Drive side of the property will be removed.

#### CONCLUSIONS

Based upon our trip generation evaluation, it is our professional opinion that the proposed redevelopment would generate an insignificant number of vehicle trips and would not have a significant impact on traffic conditions during the weekday AM and PM peak commuter traffic hours. Therefore, in my professional opinion, the number of additional vehicular trips at the existing intersections would not have a significant impact.

The proposed redevelopment is expected to generate few additional pedestrian trips during the weekday AM and PM peak hours. Therefore, in my professional opinion, the increase in pedestrian trips along the existing sidewalks and crossing the existing intersections would not have a significant impact.

In conclusion, the development of this project would have no significant impact on the traffic operations of area roadways and intersections and would not have a significant impact on local parking conditions.

The foregoing is a true representation of my findings.



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155 Newark Avenue, Jersey City, Hudson County, NJ

Table 1 Trip Generation Summary

CODE		LAND USE	AM PEAK HOUR				PM PEAK HOUR				WEEKDAY
			AMOUNT	IN	OUT	TOTAL	IN	OUT	TOTAL		
EXISTING											
VEHICLE TRIPS											
710	General Office Building (Dense Multi-Use Urban Area)		2,274 SF	2	0	2	0	2	2	2	
822	Strip Retail Plaza (<40KSF)		3,046 SF	4	3	7	10	10	20	20	
	Pass By Percentage (PM)		-100%				(10)	(10)	(20)	(20)	
	EXISTING VEHICLE TRIPS (Subtotals)			6	3	9	10	12	22	22	
PERSON TRIPS											
710	General Office Building (Dense Multi-Use Urban Area)		2,274 SF	3	0	3	1	2	3	3	
822	Strip Retail Plaza (<40KSF)		3,046 SF	4	3	7	10	10	20	20	
	Pass By Percentage (PM)		-100%				(10)	(10)	(20)	(20)	
	EXISTING PERSON TRIPS (Subtotals)			4	3	7	0	0	0	0	
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PROPOSED											
VEHICLE TRIPS											
221	Multifamily Housing (Mid-Rise)(Close to Rail Transit)		27 units	1	6	7	5	2	7	7	
822	Strip Retail Plaza (<40KSF)		6,381 SF	9	6	15	21	21	42	42	
	Pass By Percentage (PM)		-87%				(18)	(18)	(36)	(36)	
	PROPOSED VEHICLE TRIPS (Subtotals)			9	6	15	21	21	42	42	
PERSON TRIPS											
221	Multifamily Housing (Mid-Rise)(Close to Rail Transit)		27 units	4	11	14	9	6	15	15	
822	Strip Retail Plaza (<40KSF)		6,381 SF	9	6	15	21	21	42	42	
	Pass By Percentage (PM)		-87%				(18)	(18)	(36)	(36)	
	PROPOSED PERSON TRIPS (Subtotals)			9	6	15	3	3	6	6	
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INCREASE IN VEHICLE TRIPS				3	3	6	11	9	20	20	
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INCREASE IN PERSON TRIPS				5	3	8	3	3	6	6	

SOURCES: *Trip Generation, 11th Edition* , published by the Institute of Transportation Engineers (ITE)

Walk 0.1 mile, 3 min

