

TRAFFIC IMPACT & SAFETY STATEMENT

For

411 Clinton Association LLC

8-Units Duplex Residential Housing Development

Property Located at:

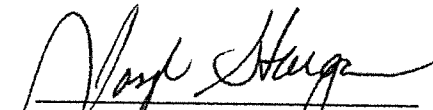
**411 Clinton Avenue
Lots 18.01-18.04. – Block 501
Borough of Northvale, Bergen County, NJ**

Prepared by:




**DYNAMIC
TRAFFIC**

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INTRODUCTION

The following study assesses the traffic impacts of a proposed action to construct four (4) duplex residential housing buildings containing a total of eight (8) housing units.

The subject site is located at the northwest corner of Clinton Avenue and Frances Lane in the Borough of Northvale, Bergen County, New Jersey. The site is designated as Block 501– Lots 18.01 -18.04 on the Borough Tax Maps. Three (3) of the buildings (6 total units) will have vehicular driveway access at Frances Lane and one (1) building (2 total units) will have vehicular access at Clinton Avenue.

Dynamic Traffic, LLC has been retained to prepare this study to assess the traffic and parking impact associated with the construction of The Project on the adjacent roadway network, concentrating on the safety aspects of the implementation of the project. This study 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, as well as the peak hour magnitude of vehicular and pedestrian traffic volumes.
- Projections of traffic to be generated by The Project were prepared utilizing trip generation data as published by the Institute of Transportation Engineers.
- The proposed site driveways were inspected for adequacy of geometric design, spacing and/or alignment to streets and driveways on the opposite side of the street, relationship to other driveways adjacent to the development, available sight distance, and conformance with accepted design standards.
- The parking layout and supply was assessed based on accepted design standards and demand experienced at similar developments, and to determine compliance with the New Jersey Residential Site Improvement Standards.

EXISTING CONDITIONS

A review of the existing site and roadway conditions near the proposed site was conducted to provide the basis for assessing the traffic impact of the proposed residential development. This included field investigations of the surrounding roadways and intersections.

Existing Roadway Conditions

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

Clinton Avenue is classified as a minor collector roadway under the jurisdiction of the Borough of Northvale. In the vicinity of the site the posted speed limit is 25 mph. There is one (1) lane of travel in each direction in a general east/west orientation. Curb and sidewalk are provided along the southerly side of the roadway, and only curb (no sidewalk) is provided on the southerly side. No parking is allowed on either side. The land uses along Clinton Avenue in the vicinity of The Project are primarily residential. A Stop sign controls traffic movements at the 3-legged intersection of Clinton Avenue and Tappan Road, with Tappan Road traffic having the right of way.

Frances Lane is a local roadway under the jurisdiction of the Borough of Northvale and is a "No Outlet" roadway that leads to Simon Way, which is a dead-end. The roadway is two-way with one lane in each direction, and oriented in an east/west direction. Parking is not allowed along Frances Place and is designated as a Fire Lane. There are no standard curb or sidewalk provided along either side of the roadway. The land uses along France Lane are residential. Frances Lane leads to Simon Way which is a dead-end.

Frances Lane provides frontage and access to three (3) single family homes and Simon Way provides frontage and access to five (5) single family homes. The current arrangement of the roadway pavement delineation and access driveways along Frances Way is rather haphazard and disorganized. The roadway width is approximately 20 feet wide with another approximate 15 feet of pavement parallel to the Frances Lane cartway. A utility pole exists at the near center of the pavement. There is little sense of organization and control of traffic movement between the 20 feet of cartway and 15 feet of parallel pavement.

There is a pedestrian crosswalk across Clinton Avenue along the westerly side of the intersection with Frances Place. A school crossing guard is stationed there during school arrivals and school dismissals. Further west along Clinton Avenue is an at-grade railroad crossing, and then another pedestrian crossing with a crossing guard stationed at Briarwood Lane for school arrivals and dismissals.

Existing Traffic Activity

Frances Lane provides pedestrian access to the Northvale Elementary Public School, and activity along Frances Lane is primarily generated by the students and their parents/guardians during arrival and dismissal times. While some children walk directly from the immediate neighborhood, others are driven to Veterans Memorial Park where their parents/guardians park and walk to the school. The pedestrian path taken is the south side of Clinton Avenue sidewalk, to the crosswalk at Frances Lane and Frances Lane to the school.

Information requested of and obtained from Michael Pinajian, Superintendent, Northvale School District, about the school on September 24, 2020 are as follows (Mr. Pinajian's answers are as in italics):

1) Number of children enrolled in the school = 516

2) Breakdown by grade:

*K - 41
1 - 59
2 - 55
3 - 59
4 - 62
5 - 52
6 - 63
7 - 62
8 - 63*

3) Number of children presently attending the school (during this pandemic) = 367

4) Arrival and dismissal times (presently with the Pandemic and prior to the pandemic):

*Prior to and after the pandemic students may begin arriving at 8:00 AM and are dismissed at 3:00 PM.
During the pandemic the students' arrival is 8:15 AM and dismissal is 12:30 PM.*

5) After school activities:

There are no onsite after school activities during the pandemic; however, prior to and after the pandemic most activities are over by 4:30 PM.

Any other points missed that would be relative to the safety and health of the children? If plans are approved, a sidewalk will be installed from the property line at the school field to the end the road at Clinton Ave where there is a traffic guard.

The addition of a sidewalk on Francis Lane would be very helpful in helping to ensure the safety of the students who walk to and from school that way.

Vehicular and pedestrian traffic counts were taken along Frances Place and its intersection with Clinton Avenue on September 29, 2020 during the arrival period between 7:45 am and 9:00 am, and on October 1, 2020 during the dismissal period of 11:45 am to 1:00 pm. The weather could be characterized as "pleasant and comfortable"; mid-60's/lower 70's and cloudy.

MORNING SCHOOL ARRIVALS

Time	Frances Lane		Clinton Avenue	
	Pedestrians	Pedestrians	Vehicles	Vehicles
	<u>Walking NB</u>	<u>Walking SB</u>	<u>Traveling EB</u>	<u>Traveling WB</u>
7:45-8:00 AM	0	0	21	20
8:00-8:15 AM	1A/1C	0	22	18
8:15-8:30 AM	2C Bikes, 1A/1C, 2A/3C, 1C, 3A/4C, 1A/2C, 1A/1C, 1A/2C, 1A/2C Total = 10A/19C	1A, 1A, 1A, 1A, 2A, 1A Bike, 1A, 1A, 1A, 1A/1C Total=11A/1C 2 Cars turned left onto Clinton	25	24
8:30-8:45 AM	0	1A, 1A 1 Car turned right onto Clinton	33	23
8:45-9:00 AM	0	0 3 Cars turned left onto Clinton	25	23

Note: A = Adult, C = Child

From this data, the weekday morning peak hour activity consisted of:

- 20 Adults and 17 Children pedestrians and 1 Adult biker and 2 Children biker along Frances lane.
- 6 exiting car trips generated along Frances Lane generated by the 8 existing single family homes that the roadway serves (that front on Frances Lane or Simon Way).
- 105 EB vehicle movements and 88 WB movements on Clinton Avenue.

During the afternoon dismissal time the characteristics of pedestrian traffic is more intense. Between 12:30 -12:45 PM consisted of a constant flow of pedestrian traffic for a course of approximately 5 minutes when the majority of pedestrians crossed and then sporadic increments of crossings of 30 seconds or more for the other 10 minutes. During that time period the crossing guard stopped all vehicular traffic flow on Clinton Avenue. During this 15-minute period there were 110 Children and 48 Adults that walked Frances Lane. Some of the Adults walked Frances Lane before 12:30 PM toward the school to retrieve Children. After 12:45 PM there was 1 Adult with 1 Child that walked Frances Lane. Essentially, almost all Children pedestrian activity occurred during the 15-minute time span between 12:30-12:45 pm.

The current high intensity of pedestrian traffic is a function of the school having no after-school activity, which would otherwise be spread out in the afternoon.

FUTURE CONDITIONS

Traffic Generation

Projections of future traffic volumes were developed utilizing data as published in the Institute of Transportation Engineers (ITE) publication *Trip Generation, 10th Edition* for Land Use Code (LUC) 220 – Single Family Detached Residential Housing Units and LUC 221 – Multi-Family Mid-Rise. Duplex units do not necessarily fit into exactly into either category, but somewhere in between. The proposed duplex units are on the smaller size (3-bedrooms) and would expect to generate lesser trips than single-family units. This is further characterized by the trip generation determined from the count on Frances lane that serves access to eight (8) single family homes and generated only 6 total trips during the morning peak hour.

To be conservative, the eight (8) duplex units that are proposed are projected to act similarly to single-family homes. Table I summarizes the projected trips generated by the proposed development utilizing the ITE data, as single-family detached housing units.

Table I
Trip Generation – Proposed Residential Use

Land Use	AM PK HR			PM PK HR		
	In	Out	Total	In	Out	Total
8 Residential Units	2	4	6	5	3	8

Since no appreciable increase in trip generation is projected to be generated by the site, the operational conditions of the surrounding roadway network is not anticipated to change. The minimal delays and queues in the area will remain as existing and it is likely that there will be no perceptible change in the traffic conditions with the construction of the proposed residential development. In fact, both ITE and the New Jersey Department of Transportation (NJDOT) define a “significant” increase in traffic as 100 or more peak hour trips. As shown in Table I and taking credit for the removal of the existing single family unit, the subject property will generate a net maximum of only 8% of this threshold.

Site Access, Circulation and Parking

There are proposed to be three (3) duplex units with driveways on Frances Lane and one (1) duplex unit with its driveway on Clinton Avenue. Therefore, the trip generation of Table I above will be dispersed proportionately; 4 or 5 additional trips on Frances Lane during the morning peak hour and 6 additional trips during the afternoon peak hour.

Frances Lane will be significantly improved as part of the overall development plan to be a more standardized design that will enhance vehicular and pedestrian traffic:

- 1) Frances Lane will be curbed and repaved to have a consistent and distinct cartway width of twenty (20) feet from curb to curb, providing order to traffic flow along its length. The existing utility pole will be located behind the proposed curb line and out of the traveled way. The vehicular operation of Frances Lane will be greatly improved and promote public safety.
- 2) The driveways of the existing homes that front on Frances Lane will be physically separated from the cartway of Frances Lane and their layout will be coordinated to provide a sense of

order and direction to providing access to and from Frances Lane, and correct the haphazard arrangement that exists.

- 3) A concrete sidewalk will be constructed along the west side of Frances Lane, which will greatly improve public safety, and particularly the many schoolchildren that currently walk along Frances Lane. Vehicular traffic of Frances Lane will be physically separated from the pedestrian traffic.
- 4) The cross-section of Frances Lane will be provided with a normal crown, meaning that the grades will slope down from the centerline to the gutter line on both sides, and then longitudinally along the gutter line to appropriate drainage inlet on Clinton Avenue. Stormwater collection and conveyance will be greatly improved.

As mentioned previously, each building will have an access driveway providing access to and from Frances Lane; so that there will be three (3) driveways on Frances Lane. Frances Lane a very flat and straight alignment that offers excellent sight visibility for fronting or backing in or out of each of the driveways. There are no blind spots that may cause conflicts between vehicles or vehicles and pedestrians. This excellent sight visibility will ensure safe operation of the proposed driveways.

Each unit will be provided one (1) garage space and one (1) driveway space, which meets the requirements of the Residential Site Improvement Standards (RSIS)

FINDINGS & CONCLUSIONS

Findings

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

- The proposed development of the site for eight (8) duplex residential units will generate a maximum net increase of 6 AM peak hour trips and 8 PM peak hour trips. This equates to 8% or less of the threshold that would be considered a significant increase in traffic.
- Six (6) of the total eight (8) units will access the units on Frances Lane and two (2) units will access via Clinton Avenue, reducing the net increase of traffic onto Frances Lane.
- Significant improvements will be made to Frances Lane that will enhance public safety immensely. The alignment will be standardized for two-way traffic flow, a utility pole will be removed from the traveled way, stormwater will be appropriately discharged, existing driveways along the roadway will be organized, and most importantly, a sidewalk will be constructed physically out of the traveled way of Frances Lane.
- Frances lane is of a very flat and straight alignment, offering optimum sight visibility to motorists and pedestrians, to provide for safe and efficient movement of automobiles and pedestrians.
- The proposed parking supply is sufficient to support t the anticipated demand and meets the RSIS requirements. No variance or deminimus exception is required.

Conclusions

Based upon our Traffic Impact and Safety Statement as detailed in the body of this report, it is the professional opinion of Dynamic Traffic, LLC that the adjacent street system of the Borough of Northvale will not experience any significant degradation in operating conditions with the construction of The Project as a significant increase in traffic will not result. The site driveways are located to provide safe and efficient access to the adjacent roadway system. The substantial improvements to the design and alignment of, and particularly the implantation of a pedestrian sidewalk along its length, will greatly enhance the safety of pedestrian traffic along Frances Lane and particularly for students and their parent/ guardians who walk along Frances Lane to and from the adjacent school.