

Traffic Memorandum

***Greenmont Commons
Dracut, MA***

Prepared for

***Riverbank Properties
908 Lawrence Street
Lowell, MA 01852***

May 18, 2023

**CORNERSTONE
Land Associates, LLC**
Civil Engineering - Land Planning

25 Dean Avenue - Dracut, MA 01826 - (978) 835-0102
kmconsultants@comcast.net

SECTION 1: SITE & CONTACT DATA

1.1 Project & Site Information

Project/Site Name: Greenmont Commons

Project Street/Location: 135 Greenmont Avenue

City: Dracut State: MA ZIP Code: 01826

County or Similar Subdivision: _____

Applicant Name: Riverbank Properties

Applicant Address: 908 Lawrence St City: Lowell State: MA ZIP Code: 01826

1.2 Applicant Information

Name: Riverbank Properties

Address: 908 Lawrence Street City: Lowell State: MA ZIP Code: 01862

Contact: Branco Perego Phone: (978) 771-3205

1.3 Preparer Information

Name: Kenneth M. Lania, E.I.T., Cornerstone Land Associates, LLC.

Address: 25 Dean Avenue City: Dracut State: MA ZIP Code: 01826

Registered P.E.: John A. Visniewski, P.E. Email: kmconsultants@comcast.net

Phone: (978) 835-0102 Fax: _____

1.4 Project Type

Scope of Work: Development of an existing single family house lot into a 28 Unit Townhouse Rental Development including retaining walls, drainage, utilities, and visitor parking lot.

Function: Residential Commercial Industrial Other: _____

New Redevelopment Industrial Mix of New & Redevelopment

Estimated Start Date.: Upon Approvals Estimated Completion Date: December 2024

1.5 Executive Summary

BACKGROUND:

The proposed project is to construct 28 Townhouse Rental Units on the 2.45 Acre parcel utilizing the State's Comprehensive Permit Statute (M.G.L. c. 40B, Sections 20-23 enacted as Chapter 774 of the Acts of 1969) known as "Chapter 40B". The property is rectangle in shape with 240 LF of frontage along Greenmont Avenue and a depth of approximately 430 LF from the road.

The property contains one single family dwelling located approximately 85 ft from Greenmont Avenue with associated driveway, rear deck and patio, as well as an in-ground pool with concrete apron. The remainder of the property is a well established lawn with Bordering Vegetated Wetlands (BVW) in the southwestern corner of the property. The purpose of this study is to determine the traffic generation and safety impacts associated with the build out of the proposed development on Greenmont Avenue.

1.6 Forecasted Traffic

SITE TRAFFIC FORECASTING:

A trip generation analysis was performed for the development site for both the proposed use and the prior use. The analysis is based on the methods published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition. Trip generation rates are provided by the same ITE manual.

The ITE Manual compiles studies from across the country to provide a national average traffic for various land uses.

The resultant new trips generated by the proposed development as well as the previous use generation are shown in Tables 1 below.

Our office estimates that Greenmont Avenue likely carries 500 – 1,500 vehicles per day. This is a relatively low traffic volume and is considered a ‘pedestrian friendly’ street. MassDOT’s guidelines suggest that streets carrying fewer than 2,000 vehicles per day with travel speeds 30 mph or less can be considered ‘pedestrian friendly’ even without sidewalks. According to a 2019 MassDOT count, Bridge Street (Route 38) south of the site carried approximately 12,584 vehicle trips on a typical weekday. Pleasant Street (Route 113) east of Lakeview Avenue carried approximately 16,600 vehicle trips on a typical weekday during 2010.

Cornerstone utilized the ITE Manual for Land Use Code (LUC) 230 for Residential Condominiums/Townhouses. Based on the ITE Trip Generation for a LUC 230, a development of this size would generate 12 vehicle trips (3 trips in and 9 trips out) during the weekday peak hour, 15 vehicle trips (9 trips in and 6 trips out) during the weekday PM peak hour, and 12 vehicle trips (6 trips in and 6 trips out) during the Saturday midday peak hour.

Table 1 – New Trip Generation

Land Use Code	Description & Size	Daily In	Weekday Out	AM Peak In	Hour Out	PM Peak In	Hour Out
230 – ITE	Townhouse Condominium – 28 Units	81	81	3	9	9	6
		162		12		15	

SITE DISTANCE/SAFETY:

In the existing condition, the driveway access for the single family dwelling is centrally located along the properties frontage and is approximately 24 feet wide. The proposed driveway accessing the 28 Unit Townhouse Development will be located in the same location, albeit wider at the roadway intersection with Greenmont Avenue. The proposed driveway is 24 feet in width having 20 ft rounding radius on either side of the entrance. Based on the very low future site driveway volumes during the morning and afternoon peak hours, we project future traffic operations of the driveway at Greenmont Avenue will likely be very good during the busiest peak hours. We project each motorist will wait less than 10 seconds to exit the future site driveway during the peak 15 minute periods of the morning and afternoon peak hours (i.e. Level of Service 'A').

Cornerstone also projects that the Greenmont Avenue intersections with Please Street and Bridge Street should also operate acceptably during peak hours. Certainly, with fewer than 15 vehicles approaching each intersection during peak hours, averaging one vehicle every 4 minutes or more, there will be very little difference between traffic operations with or without the development of the site.

During many site visits to the property and observations at each intersection, little delay was encountered making either left or right turns out of both Pleasant Street and Bridge Street. Only one crash has been reported at each of these intersections during the past five (5) years.

Sight distance from the future entrance drive to the intersections at Bridge Street and Vermont Avenue measures greater than 500 feet in both directions. Elevation of Greenmont Avenue is relatively flat and no on street parking on is allowed. Vegetation along the southern side of Greenmont Avenue is limited in this area. The proposal calls for a vegetated BioRetention Cell to be located on either side of the future entrance drive, and it is our recommendation that no proposed vegetation be planted within 20 feet of the existing edge of roadway to allow for clear site when existing. Utilizing this recommendation for plantings, Cornerstone believes that the future entrance drive would have adequate sight lines for safe vehicular travel.

Lastly, Cornerstone has designed the internal driveway with sufficient size to allow for the access of Fire Trucks by providing a Tee-Type Turn Around at the rear of the development in the Visitor Parking Area. The combination of the 24 foot drive aisle along with the 24 foot wide Tee-Type Turn Around measuring a total length of 120 Feet, provides sufficient area for Fire Trucks to turn around safely in order to exit the property.

In summary, the proposed 28 Unit Townhouse Rental Development is not expected to have any material impact on traffic operations, safety or capacity on the adjacent roadway system. The proposed site driveway along Greenmont Avenue is expected to operate well below capacity with Level of Service (LOS) A operations and have adequate sight lines and safety vehicle access.