



**Guerriere &
Halnon, Inc.**
ENGINEERING & LAND SURVEYING

www.gandhengineering.com

Est. 1972

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F-4664

February 28, 2025

Town of Franklin Planning Board
355 East Central Street
Franklin, MA 02038

Re: Request for Non-Binding Review of Friendly 40B Development Local Initiative Program (LIP) – Larissa’s Court, Franklin, Massachusetts

Dear Planning Board Members:

As the applicant’s representative, Guerriere & Halnon, Inc. (G & H) hereby submits the Friendly 40B Proposed Residential Development Application for Larissa’s Court, Franklin, Massachusetts in accordance with the Town of Franklin Submittal Requirements last revised November 25, 2024. We have provided one original and one copy of the application and the following supporting documentation for your review and approval.

As part of the submittal G & H has included the following:

- LIP Checklist
- Larissa’s Court Friendly 40B Project Summary
- (6) Sets of 11”x17” prints of Larissa’s Court Site Plan – 202 Washington Street a Friendly 40B Development, Franklin, Massachusetts;
- (2) Sets of 24”x36” prints of Larissa’s Court Site Plan – 202 Washington Street a Friendly 40B Development, Franklin, Massachusetts;
- (2) Trip Generation Assessment Memo by Vanasse & Associates
- (2) sets 11”x17” Color Rendering Options of Proposed TriPlex Units
- Certified Abutter List and Abutter Notification

We trust this meets with your requirements. Please contact us at our Franklin office at (508) 528-3221 if you have any questions or require additional information.

Sincerely,
Guerriere & Halnon, Inc.

Michael Hassett
Project Engineer
Enclosures

Town of Franklin

355 East Central Street
Franklin, Massachusetts 02038-1352



Phone: (508) 520-4907
www.franklinma.gov

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

November 25, 2024

Friendly Chapter 40B Projects – Local Initiative Program (LIP)

According to the Massachusetts Department of Housing & Community Development (DHCD), the Town of Franklin currently has 11.97% of the Town's year-round housing units on the Subsidized Housing Inventory (SHI). Because Franklin is above the 10% affordable housing threshold, it can permit "Friendly 40B" projects to build mixed-income housing. Unlike traditional 40B projects, this allows municipalities to remain in control of most aspects of project design and construction. A "Friendly 40B" project - that is, a project that has local support because of the contribution it can make to the community's need for more diverse housing options, and the contributions the developer agrees to make to local needs (infrastructure, public safety, land protection, etc.).

All 40B developments are required to create housing where at least 25% of housing units are affordable according to DHCD regulations, but not all projects are equal in other ways (e.g., type and size housing units; location; proximity to transit; traffic impacts; public space; recreation or open space resources; aesthetics; building design; community character; wetland protection; safety; walkability; sustainability; low impact development).

The Town is not under pressure to increase its SHI by immediately approving additional 40B developments. Given that the Town has received inquiries regarding Friendly 40B's projects, the Town staff has put together a preliminary process to follow in determining if the project meets the needs of the Town and follows the LIP process.

Until further notice, the Town policy will be to accept Friendly 40B applications that provide for home ownership and not rentals. The Town is requiring "Friendly 40B" projects not include any housing that are large scale rental apartments exceeding 20 units. The Town will only consider Friendly 40B projects that offer home ownership, including, but not limited to, single-family subdivision developments, duplex or triplex housing developments, and condominium style and cottage style developments or small scale family rental projects (20 units or under). The Town recognizes that project proponents may choose to apply through state MassHousing agency for rental projects above the 20 unit threshold.

Franklin's Town Administrator has appointed the Town Planner as a single point of contact to serve as the primary municipal liaison for all issues relating to Chapter 40B affordable housing development matters. The Municipal Point of Contact will assist developers/applicants to sort out the 40B process and related requirements. Casual early pre-permit discussions with the Municipal Point of Contact are highly recommended.

Municipal Point of Contact for Chapter 40B Development Issues:

Amy Love, Town Planner
Planning and Community Development Town of Franklin
355 East Central Street Franklin, MA 02038-1352
Phone: 508-520-4907
Email: alove@franklinma.gov

Below outlines the Town of Franklin recommended Checklist to proceed with a LIP application:

1. Project Information

- a. Project Name: Larissa’s Court
- b. Applicant Point of Contact Name: Marcelo Alves – New Generation Custom Homes Corp
 Phone number 508-377-2395 Email ngchcorp@gmail.com
- c. Project Team - Names, Titles, Contact information.

Service	Name	Title	Contact Info
Design Engineer	Guerriere & Halnon, Inc.	Project Manager	(P) 508-528-3221 Email: mhassett@gandhengineering.com

- d. Project Location:
 - i. **202 Washington St (AM 304-044-000-000)**
 - ii. **4 Taft Drive (AM 313-004-000-000)**
 - iii. **Taft Drive (AM 304-052-000-000)**
- e. Number of Units: 39 Units
- f. Bedroom Count: 1 Bedroom 2 Bedrooms 3 Bedrooms 117
- g. Rental or **Ownership**

2. Criteria for Review

- a. Percent of Affordable Units 25%
- b. Number of Affordable Units 9
- c. Number of units to count on the SHI 9
- d. Public Benefits
 - i. Public Access/Trails/Open Space
 - ii. Road Improvements
 - iii. Amenities
 - iv. Positive or Negative Impacts on the Town
 - v. Safety/Fire Impacts to Town

3. Review Process

- a. **Tech Review**
 - i. Attend a Technical Staff Review meeting held on Wednesdays at 3:00PM
- b. **Planning Board – Provide a non-binding review from the Planning Board**
 - i. Review to include
 - 1. Compliance with Section 185-31 of Town Zoning By-Law
 - 2. List of waivers, as minimal as possible
 - 3. Special Permit Criteria
 - 4. Stormwater Review
 - 5. Parking review
 - 6. The applicant is required to notify direct, immediate abutters when the non-binding review is scheduled.

- c. Conservation Commission (if required) – non-binding review from the Commission**
 - i. Review to include**
 1. Wetland Resource Impacts
 2. Completed ANRAD
 3. Wetland Crossings
 4. Area Wetland maps and disturbance
- d. Department of Housing and Community Development (DHCD)**
 - i. A Letter acknowledging the number of units that will be accepted on the Town’s SHI List.**
- e. Town Council Presentation**
 - i. Applicant should present an overview of the proposed project and outline the benefits for the Public**
 - ii. Gather feedback from Town Council members**
- f. Zoning Board of Appeals Approval**
 - i. Applicant shall submit a full application for the ZBA review and decision.**

Please note, the Applicant is free to submit an application directly to Zoning Board of Appeals. However, if the Applicant wants the support from the Town, and file under the LIP, it is highly suggested they follow this checklist.

Larissa's Court
Friendly 40B Project Summary
Local Initiative Program (LIP)
202 Washington Street
Franklin, Massachusetts

On behalf of the Applicant, New Generation Custom Homes, Guerriere & Halnon, Inc. is requesting the Town's support for the construction of a Friendly 40B development through the Town of Franklin's Local Initiative Program (LIP). The project site consists of the following parcels:

Parcel ID	Address	Area (acres)	Zoning District
304-044-000-000	202 Washington Street	5.840	Single Family III
313-004-000-000	4 Taft Drive	2.618	Single Family III
304-052-000-000	Taft Drive	5.877	Single Family III
Total Area (acres)		14.335	

The project site is currently undeveloped, except for the existing single family residential house at 202 Washington Street, and abuts Route 495 to the north, 5-single family residential homes and Washington Street to the west, undeveloped land to the east and the Taft Drive development to the south. There are no wetland resource areas within 100 feet of the project area.

In accordance with the Department of Planning & Community Development (DPCD) Friendly Chapter 40B Projects – Local Initiative Program (LIP), Guerriere & Halnon, Inc. and Applicant attended two (2) Technical Staff Review meetings in March and June 2024 to present the proposed Friendly 40B project. Based on comments received in March 2024, modifications to the proposed layout were adjusted accordingly and presented in June 2024, which is consistent with the preliminary plan set enclosed.

The proposed development consists of 13-triplex units with 3 bedrooms per unit that will be connected to the Town's water and sewer infrastructure. This project is intended to make 25% of the housing units affordable in accordance with the Department of Housing and Community Development (DHCD). Since the majority of recent housing developments within the Town of Franklin and surrounding areas have consisted of multifamily apartment style complexes, this development would offer a more residential neighborhood community, and include affordable units, that can be incorporated into the Subsidized Housing Inventory (SHI) that is currently above the 10% affordable housing threshold.

The project site will have a double barrel entrance off Washington Street to accommodate residential and emergency vehicles maneuverability both in and out of the development as well as a 24' wide paved roadway throughout the site. Additional amenities being considered consist of pocket parks and trails to accommodate the residents. Approximately 40% of the 14.335 acres will remain undeveloped except for a cross-country sewer easement that will connect to the existing sewer main on Taft Drive.

Each triplex unit will have a single car garage and parking within the respective driveways, serviced by Town water and connected to the sewer collection system by individual pump systems, as needed, that will extend to a proposed gravity connection on the northeast side of the development. Roadways will be maintained through a home owner's association (HOA) and the development will have a common mailbox area and 14 proposed visitor parking spaces with a 5-foot wide sidewalk.

Larissa's Court
Friendly 40B Project Summary
Local Initiative Program (LIP)
202 Washington Street
Franklin, Massachusetts

The Applicant is currently coordinating with the New England Power Company to obtain an Assent Agreement to cross the 300-ft wide power easement with the proposed gravity sewer. The Applicant is proposing to maintain the existing house at 202 Washington Street and will connect to the developments sewer collection system by an individual pump system. A separate lot will be created for 202 Washington Street in conformance to the Town of Franklin Zoning Bylaws through the 81P Approval Not Required (ANR) plan process.

Proposed Waivers:

§185-29 Curbing – Allow modified cape cod berm within the development where granite or reinforced concrete curbing is required; Vertical granite curbing will be installed at the entrance roundings.

§300-13 Other Improvements (A) Sidewalks (1) – Allow the construction of a 5-foot wide sidewalk on one side of the roadway where a sidewalk on both sides of the roadway is required.

MEMORANDUM

TO: Mr. Gerald Scaparotti *and*
Mr Marcelo Alves
c/o New Generation Custom Homes
40 Alpine Row
Franklin, MA 02038

FROM: Mr. Jeffrey S. Dirk, P.E.*, PTOE, FITE 
Managing Partner
Vanasse & Associates, Inc.
35 New England Business Center Drive
Suite 140
Andover, MA 01810-1066
(978) 269-6830
jdirk@rdva.com

**Professional Engineer in CT, MA, ME, NH, RI and VA*

DATE: July 1, 2024

RE: 10045

SUBJECT: Trip Generation Assessment
Proposed Multifamily Residential Development – 202 Washington Street
Franklin, Massachusetts

Vanasse & Associates, Inc. (VAI) has prepared a trip generation assessment in support of the proposed multifamily residential development to be located at 202 Washington Street in Franklin, Massachusetts (hereafter referred to as the “Project”). This assessment provides detailed trip-generation calculations for the Project and includes a review of the anticipated travel patterns of the residents of the Project and a qualitative assessment of the potential impact of the Project on the transportation infrastructure.

Based on this assessment, we have concluded the following with respect to the Project:

1. Using trip-generation statistics published by the Institute of Transportation Engineer (ITE),¹ the Project is predicted to generate approximately 248 vehicle trips on an average weekday (two-way, 24-hour volume, or 124 vehicles entering and 124 exiting), with 15 vehicle trips (four (4) vehicle entering and 11 exiting) expected during the weekday morning peak-hour and 19 vehicle trips (11 vehicles entering and eight (8) exiting) expected during the weekday evening peak-hour;
2. Based on a review of the roadway network that serves the Project site, it is expected that approximately 70 percent of the trips associated with the Project will be oriented to/from north along Washington Street, with the remaining 30 percent of trips expected to be oriented to/from the south; and
3. Using the predicted trip distribution pattern, the traffic volume increases associated with the Project are expected to be less than one (1) additional vehicle every five (5) minutes, and would not be expected to result in a significant increase in motorist delays or vehicle queuing over existing conditions.

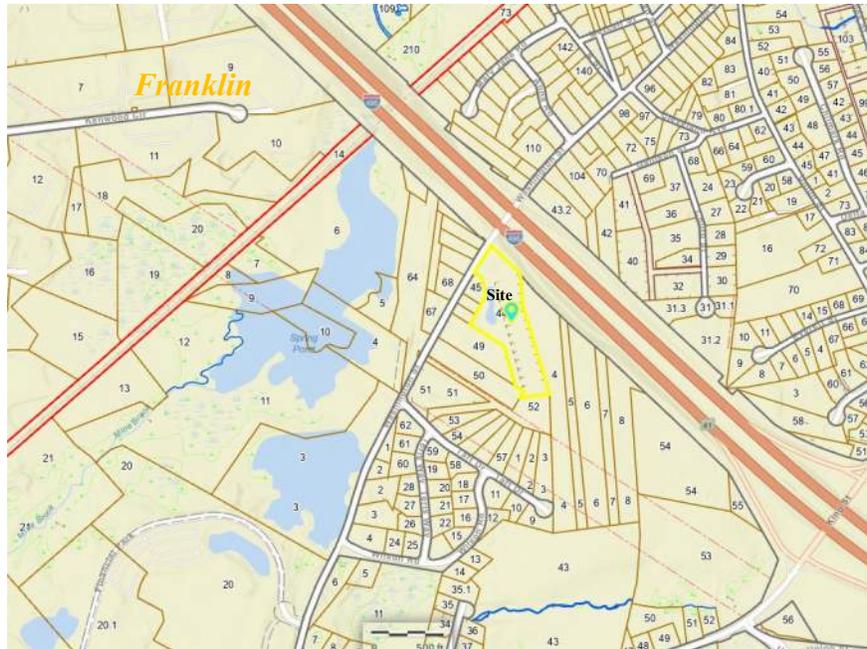
The following details our assessment of the Project.

¹*Trip Generation*, 11th Edition; Institute of Transportation Engineers; Washington, DC; 2021.



PROJECT DESCRIPTION

The Project will entail the construction of a 39-unit multifamily residential to be located at 202 Washington Street in Franklin, Massachusetts. The residential units will be dispersed between 13 buildings that will include three (3) units each in a townhouse style layout. The Project site encompasses approximately 5.84± acres of land that is bounded by Interstate 495 (I-495), Washington Street and areas of open and wooded space to the north; residential properties and areas of open and wooded spaces to the south; areas of open and wooded spaces to the east; and Washington Street and residential properties to the west. The Project site is currently improved by a single-family home that fronts along Washington Street with supporting appurtenances that will be retained on a separate lot.



Town of Franklin GIS 2024

Access to the Project site will be provided by way of a new driveway that will intersect the east side of Washington Street that will be generally situated at the location of the existing driveway that serves the single-family home that occupies a portion of the Project site. On-site parking will be provided in accordance with the parking requirements of c. 185, § 185-21, *Parking loading and driveway requirements*, of the Bylaws of the Town of Franklin, which requires a minimum of 2.0 parking spaces per dwelling unit for a residential use not located within the Downtown Commercial Zoning District.

PROJECT-GENERATED TRAFFIC

In order to develop the traffic characteristics of the Project, trip generation statistics published by the Institute of Transportation Engineers (ITE)² for a similar land use as that proposed was used. ITE Land Use Code (LUC) 215, *Single-Family Attached Housing*, was used to establish the traffic characteristics of the Project, the results of which are summarized in Table 1 with the detailed trip-generation calculations attached.

²*Trip Generation*, 11th Edition; Institute of Transportation Engineers; Washington, D.C.; 2021.



Table 1
TRIP GENERATION SUMMARY

Time Period	Vehicle Trips ^a		
	Entering	Exiting	Total
<i>Average Weekday:</i>	124	124	248
<i>Weekday Morning Peak-Hour:</i>	4	11	15
<i>Weekday Evening Peak-Hour:</i>	11	8	19

^aBased on ITE LUC 215, *Single-Family Attached Housing* (39 dwelling units).

Project-Generated Traffic-Volume Summary

As can be seen in Table 1, the Project is expected to generate approximately 248 vehicle trips on an average weekday (two-way, 24-hour volume, or 124 vehicles entering and 124 exiting), with 15 vehicle trips (four (4) vehicle entering and 11 exiting) expected during the weekday morning peak-hour and 19 vehicle trips (11 vehicles entering and eight (8) exiting) expected during the weekday evening peak-hour.

Trip Distribution

The anticipated directional distribution of vehicle trips to and from the Project site was determined based on a review of the existing transportation network serving the Project site and the most direct travel route to/from the Project site to major employment centers. Table 2 summarizes the anticipated distribution of generated trips to and from the Project site.

Table 2
TRIP DISTRIBUTION AND TRAFFIC VOLUME INCREASES

Location/Peak Period	Trip Distribution ^a	Project Generated Trips ^b
<i>Washington Street, north of the Project Site:</i>		
Average Weekday Daily	70%	174
Weekday Morning Peak-Hour	--	10
Weekday Evening Peak-Hour	--	13
<i>Washington Street, south of the Project Site:</i>		
Average Weekday Daily	30%	74
Weekday Morning Peak-Hour	--	5
Weekday Evening Peak-Hour	--	6

^aExpected distribution of generated trips to and from the Project site.

^bFrom *Total* Column of Table 1.

As can be seen in Table 2, it is expected that approximately 70 percent of the trips associated with the Project are expected to be oriented to/from north along Washington Street with the remaining 30 percent expected to be oriented to/from south.



Traffic volume increases along Washington Street north of the Project site as a result of the Project are expected to be 174 additional vehicles on an average weekday, with 10 additional vehicles expected during the weekday morning peak-hour and 13 additional vehicles expected during the weekday evening peak-hour. Traffic volume increases along Washington Street south of the Project site as a result of the Project are expected to be 74 additional vehicles on an average weekday, with five (5) additional vehicles expected during the weekday morning peak-hour and six (6) additional vehicles expected during the weekday evening peak-hour.

The predicted traffic volume increases are expected to be less than one (1) additional vehicle every five (5) minutes, and would not be expected to result in a significant increase in motorist delays or vehicle queuing over existing conditions.

SUMMARY

VAI has prepared a trip generation assessment in support of the proposed multifamily residential development to be located at 202 Washington Street in Franklin, Massachusetts. This assessment has provided trip-generation calculations for the Project and included a review of the anticipated travel patterns of the residents of the Project and a qualitative assessment of the potential impact of the Project on the transportation infrastructure. Based on this assessment, we have concluded the following with respect to the Project:

1. Using trip-generation statistics published by the ITE,³ the Project is predicted to generate approximately 248 vehicle trips on an average weekday (two-way, 24-hour volume, or 124 vehicles entering and 124 exiting), with 15 vehicle trips (four (4) vehicle entering and 11 exiting) expected during the weekday morning peak-hour and 19 vehicle trips (11 vehicles entering and eight (8) exiting) expected during the weekday evening peak-hour;
2. Based on a review of the roadway network that serves the Project site, it is expected that approximately 70 percent of the trips associated with the Project will be oriented to/from north along Washington Street, with the remaining 30 percent of trips expected to be oriented to/from the south; and
3. Using the predicted trip distribution pattern, the traffic volume increases associated with the Project are expected to be less than one (1) additional vehicle every five (5) minutes, and would not be expected to result in a significant increase in motorist delays or vehicle queuing over existing conditions.

In consideration of the above findings, it is expected that the existing transportation infrastructure affords sufficient capacity to accommodate the relatively minor increase in traffic that the Project represents.

Attachments: Site Plan
Trip-Generation Calculations

³Institute of Transportation Engineers, op. cit. 1.



ATTACHMENTS

DRAFT SITE PLAN
TRIP-GENERATION CALCULATIONS

DRAFT SITE PLAN

ROUTE 495



SINGLE-FAMILY RESIDENTIAL III	
FRANKLIN ZONING BYLAW SECTION 185 ATTACHMENT 9; LAST AMENDED 03-13-2019 BY AMENDMENT 19-831	
MINIMUM LOT AREA	20,000 SF
MINIMUM LOT FRONTAGE	125'
MINIMUM LOT DEPTH	160'
MINIMUM LOT WIDTH	112.5'
MINIMUM YARDS	
FRONT	40'
SIDE	25'
REAR	30'
% OF LOT UPLAND COVERED BY:	
STRUCTURES	25
STRUCTURES+PAVING	35

- NOTES:
1. THIS SITE IS NOT IN A FLOOD HAZARD ZONE
 2. REFER TO FRANKLIN ASSESSORS MAP 304 LOT 4,44, AND 52
 3. THIS SITE IS NOT IN A WATER RESOURCE DISTRICT.
 4. ALL REFERENCED DEEDS AND PLANS ARE ON RECORD AT THE NORFOLK REGISTRY OF DEEDS.
 5. THIS SITE IS NOT LOCATED WITHIN A NATURAL HERITAGE AND ENDANGERED SPECIES PROGRAM AREA.
 6. THIS LAND IS ZONED SINGLE FAMILY III.
 7. TOPO INFORMATION WAS TAKEN FROM THE TOWN OF FRANKLIN ASSESSORS MAP AND SHOULD ONLY BE CONSIDERED AS GENERAL INFORMATION AND DOES NOT REPRESENT AN ON THE GROUND SURVEY.
 8. THIS LAND CONTAINS 727,452±sf (16.7 ACRES).

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DRAWING MARKINGS AND OTHER OBSERVED PRESENCE. DEVELOPER SHOULD BE CONSIDERED APPROXIMATE. PRIOR TO EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE FULLY COMPLETELY AND RELIABLY DEPICTED. CONTRACTORS OR OBSERVED PHYSICAL EVIDENCE. CONTRACTORS (IN ACCORDANCE WITH MASS. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG-SAFE(7233).

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

FLORENCE RISTANIO
202 WASHINGTON STREET
FRANKLIN, MA 02038

DEED BOOK 31923 PAGE 20
PLAN No. 3448 OF 1914 PLAN Bk. 71
A.M. 304 LOT 44

APPLICANT

APPLICANT NAME 1
APPLICANT ADDRESS
FRANKLIN, MA 02038

SITE PLAN
202 WASHINGTON STREET
FRANKLIN MASSACHUSETTS

PROPOSED CONCEPT 3

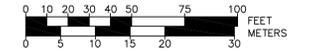
APRIL 3, 2024

DATE	REVISION DESCRIPTION

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05/14/2024 2:42:06 PM

GRAPHIC SCALE: 1"=40'



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TRIP-GENERATION CALCULATIONS

Graph Look Up



ITETripGen Web-based App

- Graph Look Up
- How to Use ITETripGen
- TGM Desk Reference
- TGM Appendices
- Support Documents
- Add Users
- Comments

Query Filter

DATA SOURCE:
Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:
215

LAND USE GROUP:
(200-299) Residential

LAND USE :
215 - Single-Family Attached Housing

LAND USE SUBCATEGORY:
All Sites

SETTING/LOCATION:
General Urban/Suburban

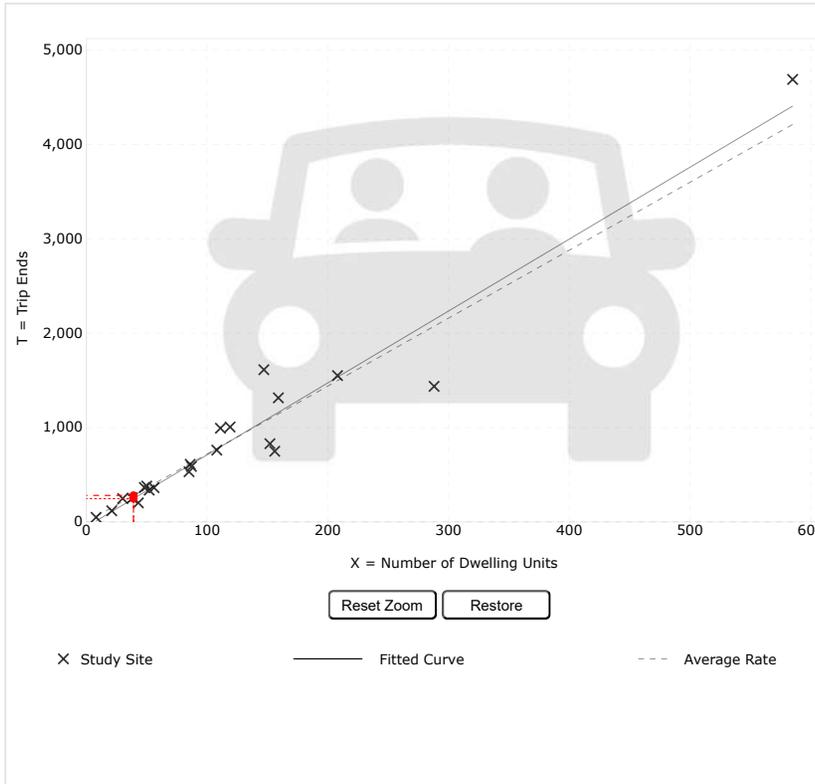
INDEPENDENT VARIABLE (IV):
Dwelling Units

TIME PERIOD:
Weekday

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
39 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
 Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Single-Family Attached Housing (215) [Click for Description and Data Plots](#)

Independent Variable:
Dwelling Units

Time Period:
Weekday

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
22

Avg. Num. of Dwelling Units:
120

Average Rate:
7.20

Range of Rates:
4.70 - 10.97

Standard Deviation:
1.61

Fitted Curve Equation:
 $T = 7.62(X) - 50.48$

R²:
0.94

Directional Distribution:
50% entering, 50% exiting

Calculated Trip Ends:
 Average Rate: 281 (Total), 140 (Entry), 141 (Exit)
 Fitted Curve: 247 (Total), 123 (Entry), 124 (Exit)

Graph Look Up



ITETripGen Web-based App

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Query Filter

DATA SOURCE:
Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:
215

LAND USE GROUP:
(200-299) Residential

LAND USE :
215 - Single-Family Attached Housing

LAND USE SUBCATEGORY:
All Sites

SETTING/LOCATION:
General Urban/Suburban

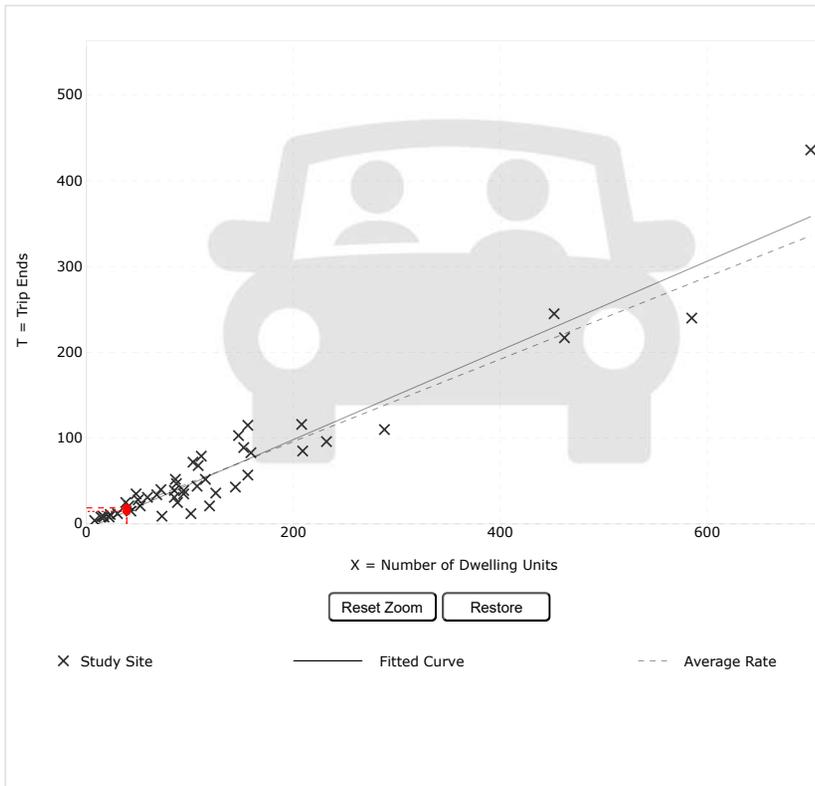
INDEPENDENT VARIABLE (IV):
Dwelling Units

TIME PERIOD:
Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
39 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
 Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Single-Family Attached Housing (215) [Click for Description and Data Plots](#)

Independent Variable:
Dwelling Units

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
46

Avg. Num. of Dwelling Units:
135

Average Rate:
0.48

Range of Rates:
0.12 - 0.74

Standard Deviation:
0.14

Fitted Curve Equation:
 $T = 0.52(X) - 5.70$

R²:
0.92

Directional Distribution:
25% entering, 75% exiting

Calculated Trip Ends:
Average Rate: 19 (Total), 5 (Entry), 14 (Exit)
Fitted Curve: 15 (Total), 4 (Entry), 11 (Exit)

Graph Look Up



ITETripGen Web-based App

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Query Filter

DATA SOURCE:
 Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:
 215

LAND USE GROUP:
 (200-299) Residential

LAND USE :
 215 - Single-Family Attached Housing

LAND USE SUBCATEGORY:
 All Sites

SETTING/LOCATION:
 General Urban/Suburban

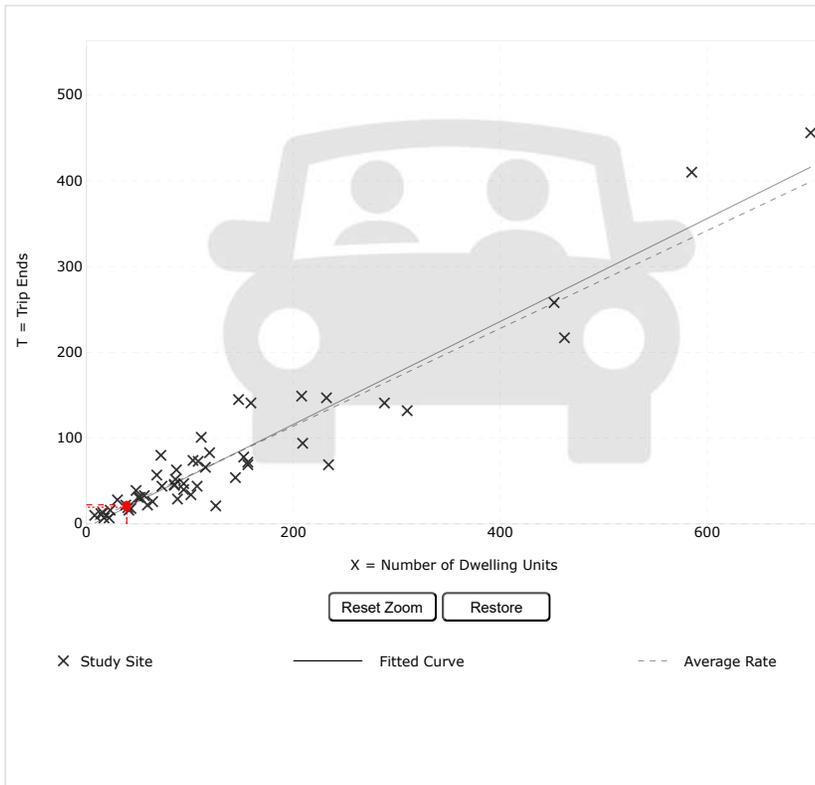
INDEPENDENT VARIABLE (IV):
 Dwelling Units

TIME PERIOD:
 Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:
 Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
 39

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
 Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
 Single-Family Attached Housing (215) [Click for Description and Data Plots](#)

Independent Variable:
 Dwelling Units

Time Period:
 Weekday
 Peak Hour of Adjacent Street Traffic
 One Hour Between 4 and 6 p.m.

Setting/Location:
 General Urban/Suburban

Trip Type:
 Vehicle

Number of Studies:
 51

Avg. Num. of Dwelling Units:
 136

Average Rate:
 0.57

Range of Rates:
 0.17 - 1.25

Standard Deviation:
 0.18

Fitted Curve Equation:
 $T = 0.60(X) - 3.93$

R²:
 0.91

Directional Distribution:
 59% entering, 41% exiting

Calculated Trip Ends:
 Average Rate: 22 (Total), 13 (Entry), 9 (Exit)
 Fitted Curve: 19 (Total), 11 (Entry), 8 (Exit)





