

# TECHNICAL MEMORANDUM



ENGINEERS  
PLANNERS  
SURVEYORS

Date: December 12, 2023

To: John Borroni, PE Village of Garden City Department of Public Works Superintendent

From: Sarah Carroll, PE, PTOE

cc: Village of Garden City Traffic Commission

Re: Summary of Speed Limit Evaluation for Village of Garden City; CM Project No. 123-168

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## Purpose

The purpose of this evaluation is to review the operating speeds and speed limits on roadways within the limits of Village of Garden City and make recommendations as to their appropriateness in the context of the Village potentially lowering the speed limit on certain roadways in certain areas, or village wide.

## Background

In 2021, Assembly Bill A1007A was introduced to amend the Vehicle and Traffic (VAT) law to allow for setting maximum speed limits as low as 25 mph. The previous law allowed a minimum of 30 mph with some exceptions for school zones and certain specified cities. The bill was subsequently passed and Chapter 71, Title 8, Article 37, Section (§)1643 of the VAT law was amended. Said amendment includes the following excerpt:

*"Establish maximum speed limits at which vehicles may proceed within such city or village, within designated areas of such city or village or on or along designated highways within such city or village higher or lower than the fifty-five miles per hour maximum statutory limit. No such speed limit applicable throughout such city or village or within designated areas of such city or village shall be established at less than twenty-five miles per hour."*

## Methodologies

### FHWA

New York State uses the *2009 Manual on Uniform Traffic Control Devices for Streets and Highways*, published by the Federal Highway Administration (FHWA), herein referred to as the MUTCD. Certain state specific modifications to the Federal MUTCD are published in the *New York State Supplement to the Manual on Uniform Traffic Control Devices for Streets and Highways*, published by the New York State Department of Transportation (NYSDOT), herein referred to as the NYS Supplement. NYS follows §1680 of the VAT using these two documents.

As it relates to speed limits, the MUTCD and as modified by the NYS Supplement states:

#### **"Standard:**

**After an engineering study has been made in accordance with established traffic engineering practices, a Speed Limit sign shall display the limit established by law, ordinance, regulation, or as adopted by the authorized agency. The speed limits shown shall be in multiples of 5 MPH."**

#### **"Support:**

**Area Speed Limit – An area speed limit is one which applies to all highways within a specified area, except those specifically excluded. The area may be an entire municipality, or only a portion thereof. The defined area may also be the grounds of a school, hospital, or other institution."**

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“Option:

Other factors that may be considered when establishing or reevaluating speed limits are the following:

- A. Road characteristics, shoulder condition, grade, alignment, and sight distance;
- B. The pace;
- C. Roadside development and environment;
- D. Parking practices and pedestrian activity; and
- E. Reported crash experience for at least a 12-month period.”

Although the MUTCD/NYS Supplement calls for an engineering study to establish speed limits, it does not detail the specific practice outside of simply using the 85<sup>th</sup> percentile speed; therefore, additional resources were reviewed for such.

### NYSDOT

The NYSDOT *Traffic Safety and Mobility Instruction* (TSMI) 17-05 (8/2017), summarizes the Departments’ guidance on establishing speed limits, although it pre-dates the VAT amendment. It recommends determining speed limits using:

- a. 85<sup>th</sup> percentile speed via radar
- b. Conduct a floating vehicle speed check
- c. Using USLIMITS2, an FHWA web-based tool

This TSMI sets guidance for how NYSDOT is to complete speed limit studies on the roads covered by their jurisdiction, or on county and town roads as requested by those respective county superintendents and town boards.

### 85<sup>th</sup> Percentile Speed

The concept of the 85<sup>th</sup> percentile speed is that drivers will generally drive at a speed with which they feel comfortable based on the surrounding roadway environment and surface conditions, regardless of the posted speed limit. Assuming the speed limit is reasonably posted, a narrow road with limited visibility and varied uses (i.e. pedestrians, bikes, on-street parking, etc.) will influence a reasonable person to drive slower, just as a wide road with limited access and clear views will make a driver more comfortable going faster. When the posted speed limit varies significantly from the natural free-flow speed, there will be more variability of speed; some drivers will drive closer to the speed limit (fearing a speeding ticket), while others will drive comfortably above the speed limit. This speed variation can have an impact on safety when faster drivers encounter slower drivers. The concept of setting the speed limit to the nearest increment of the 85<sup>th</sup> percentile speed encompasses a more uniform flow of traffic to minimize the speed differential.

### USLIMITS2

This is a web-based tool based on research by the National Cooperative Highway Research Program (NCHRP). It considers major factors used by practitioners using engineering judgement in determining an appropriate speed limit, including operating speeds, daily traffic, roadway characteristics, development, parking, and pedestrian and bicycle activity.

### Other Resources

#### *Methods and Practices for Setting Speed Limits*

*Methods and Practices for Setting Speed Limits* is an informational report published by FHWA describing four primary practices and methodologies used in establishing speed limits: engineering approach, expert systems,

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optimization, and injury minimization.<sup>1</sup> This report provides a broad overview of different speed limit setting methods but makes no specific policy recommendations or suggestions.

## *Managing Speed: Review of Current Practice for Setting and Enforcing Speed Limits*

*Managing Speed: Review of Current Practice for Setting and Enforcing Speed Limits* is a publication from the Transportation Research Board, Special Report 254, published in 1998. Their research found that setting speed limits by road classification and geographic area was widely used. Although the decision process for legislating speed limits for different classifications of roads may include input from traffic engineers, law enforcement, and the public among others, there is always a trade off with respect to safety, travel time, and feasibility of enforcement. A speed limit set too high may minimize travel time but at the cost of safety to vulnerable road users in the context of a residential area. Likewise, setting a limit too low on a rural through-road traveled mostly by commuters may improve safety, but would be contrary to driver expectation leading to low compliance and higher demand for enforcement. In the end, there is no single “right” speed limit, but should meet the requirements of enforceability and acceptance by the community at large.

## Study Area

The study area comprised of the entire Village of Garden City limits. The Village currently has a Villagewide speed limit of 30 mph. The study area roadways vary in classification, overall width, number of travel lanes, and roadside features (i.e. sidewalk, curbing, etc.). There are varying land uses (i.e. residential, commercial, institutional, etc.) along the roadways. When conducting this study, Arterial Classification Codes (ACCs) were used to help establish and organize the characteristics of roadways. ACCs are used in automated routing, especially in emergency vehicle response routes. The codes range from 1 to 6 and are measured by their level of travel mobility. Roadways with high levels of mobility have a higher trip volume and longer trip length than roads with lower levels of travel mobility. Those roads with lower levels of travel mobility tend to provide more access to property than roads with higher levels of mobility. ACCs 4, 5, and 6 are present within the Village. Table 1 summarizes the typical characteristics for these three ACCs and how they relate to this project.

**Table 1 – Summary of ACC Characteristics for Roadways within the Village**

ACC	Number of Lanes	Speed Limit	Adjacent Land Uses	Functional Classification	Examples within Village
4	2-4 Lanes	35-45 mph	Mix of Commercial/Residential	Arterial	Stewart Avenue/Clinton Road
5	2 Lanes	25-35 mph	Predominately Residential	Collector/Local	Hilton Avenue/Westbury Road
6	1-2 Lanes	15-25 mph	Residential/Private	Local	Roadways within Adelphi University

Included under Attachment A is a figure depicting the ACCs of the Village roadways.

## Analysis

### Data Collection

To provide a representative set of speed data for the various roadway types in the Village, roadway segments were identified in coordination with the Village of Garden City Department of Public Works Superintendent and the Traffic Commission. Speed data was collected from Tuesday, July 11, 2023, through Thursday, July 13, 2023, on 19 roadways within the Village. This data was compiled along with speed data from the New York State Department of Transportation (NYSDOT) *Traffic Data Viewer* and the *Garden City Satellite Study and Traffic Calming Master Plan Final Report* (prepared by Creighton Manning, dated August 20, 2023) in order to provide a global view on existing speed patterns. Attachment B includes a figure depicting the 85<sup>th</sup> percentile speeds of

<sup>1</sup> Report No. FHWA-SA-12-004, April 2012, by Forbes, Gardner, McGee, Srinivasan

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the roadways within the Village. A detailed summary of the road segments, speeds, source of data, volumes, and ACCs is included in Attachment B.

### 85<sup>th</sup> Percentile Speeds

The table in Attachment B summarizes speed data for 129 segments in the Village. To understand the 85<sup>th</sup> percentile speeds throughout the Village, the 85<sup>th</sup> percentile speeds of the 129 segments were compared to ACC 4 and 5 roadways. Table 2 summarizes the resulting representative 85<sup>th</sup> percentile speed by roadway type.

**Table 2 – Summary of ACC Characteristics Compared to 85<sup>th</sup> Percentile Speeds**

ACC	25-30 mph	30-35 mph	35-40 mph	45+ mph
4	10%	30%	23%	37%
5	16%	42%	36%	6%
6	N/A	N/A	N/A	N/A

As shown in Table 2, the majority (60%) of arterial roadways (ACC 4) have 85<sup>th</sup> percentile speeds of 35 mph or higher. This driving behavior is intrinsically related to the configuration of those roadways and their intended purpose. For instance, Stewart Avenue is a four -to-six-lane roadway that serves as an east-west arterial through the Village. Given the width of the roadway and most drivers utilizing it as a pass-through, drivers are more likely to operate at higher speeds.

Within the neighborhoods, which are served by ACC 5 and 6 roadways, Table 2 shows that the majority (78%) of the local roadways (ACC 5) have 85<sup>th</sup> percentile speeds between 30 and 40 mph. This range of speeds is still above the Villagewide posted speed limit with this driving behavior likely attributable to the overly wide roadways allowing drivers to feel comfortable operating at higher speeds. This phenomenon of roadway width leading to higher speeds was identified in the *Garden City Satellite Study and Traffic Calming Master Plan Final Report*.

It is important to note that 87% of motorists are driving at or above the posted speed limit of 30 mph. Speed data for ACC 6 roadways was not obtained as these types of roadways do not fall within Village's Right-of-Way.

### USLimits2

The USLIMITS2 evaluation was run separately on example streets within ACC 4 and ACC 5 roadways using their respective characteristics (i.e. number of driveways, number of traffic signals, pedestrian use). Table 3 summarizes the criterion and results with detailed reports included under Attachment D.

**Table 3 – USLIMITS2 Criterion and Results**

Location	ACC	85 <sup>th</sup> /50 <sup>th</sup> -% Speed (mph)	Segment Length (mile)	AADT	On-street parking and use	Ped and Bike activity	Recommended Speed Limit (mph)
Newmarket	4	35/29	0.5	1583	Not High	High	30
Franklin	4	41/34	0.4	20255	Not High	High	35
Wetherill	5	34/28	0.1	991	Not High	High	30
Hampton	5	35/29	0.1	2160	Not High	High	30

The USLimits2 analysis concluded that none of the example roadways qualifies for a speed limit reduction to 25 mph.

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### Other Considerations

While the 85<sup>th</sup> percentile speed of a roadway is an engineering metric that can be used for determining the posted speed limit, there are other factors that should be considered such as roadway classification, adjacent land uses, and crashes. As discussed earlier in the report, the roadways within the Village limits fall under various classifications. Arterial roadways generally serve pass-through traffic while collector/local roadways generally serve traffic within the Village limits. Given that the former typically prioritize motorists over other modes of traffic, the posted speed limits can be set higher than the latter, which tend to equally serve motorists and other modes of traffic. The land uses throughout the Village were reviewed but did not result in any significant speed limit trends. A speed limit of 25 mph would be consistent with the land uses along local/collector roads (ACC 5).

Crash data was reviewed from the *Garden City Satellite Study and Traffic Calming Master Plan Final Report*. The analysis in the report included crash data from five years between 2017-2021. No additional crash data was pulled for this project. A summary of crashes by location is included in **Table 4**. The crashes were plotted on a map and provided in Attachment E.

**Table 4 – Crashes Related to Unsafe Speeds (2017-2021)**

Location	Number of Crashes	Result	ACC	85 <sup>th</sup> Percentile Speed (mph)	Eligible for Speed Limit Reduction Based on 85 <sup>th</sup> %?
11th Street	4	Property Damage (4)	4	38	No
1 <sup>st</sup> Street	1	Property Damage (1)	5	38	No
Cathedral Ave	1	Property Damage (1)	4	34-42	No
Cherry Valley Ave	2	Injury (1) Property Damage (1)	4/5	33-43	No
Chestnut Street	1	Serious Injury (1)	5	30-33	Yes
Clinch Ave	1	Injury (1)	5	33	No
Clinton Road	10	Fatality (1) Serious Injury (1) Injury (7) Property Damage (1)	4	42-43	No
County Seat Dr	2	Injury (1) Property Damage (1)	5	44	No
Edgemere Rd	1	Injury (1)	4	25-33	Yes
Franklin Ave	4	Injury (1) Property Damage (3)	4	41	No
Hilton Ave	2	Injury (2)	5	31-42	No
Nassau Blvd	4	Injury (1) Property Damage (3)	4	36-37	No
Old Country Road	2	Serious Injury (1) Injury (1)	4	34-43	No
Ring Road W	1	Injury (1)	N/A	N/A	N/A
Rockaway Ave	1	Property Damage (1)	4	46-47	No
Stewart Ave	4	Serious Injury (1) Property Damage (3)	4/5	38-44	No
Washington Ave	1	Property Damage (1)	4	37	No
Westbury Road	1	Injury (1)	5	29	Yes
Wetherhill Road	1	Property Damage (1)	5	34-46	No

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Over the five years, 44 crashes were as a result of a vehicle traveling at an unsafe speed. Of those 44 crashes, one crash resulted in a fatality and four crashes resulted in serious injury. Of the roads listed in this table, three (3) roadways are eligible for speed limit reduction based on the 85<sup>th</sup> percentile speed methodology. The remaining 41 roadways with crashes related to speed have such high 85<sup>th</sup> percentile speeds that cannot be correctable by only a speed limit reduction. Other crash reduction factors are summarized in the *Garden City Satellite Study and Traffic Calming Master Plan Final Report* and should be considered.

## Conclusions/Recommendations:

Amendment §1622 of the Vehicle and Traffic law allows the Village to pursue a 25 mph speed limit on their jurisdictional roads. Presently, roads in these neighborhoods carry a 30 mph speed limit. The appropriateness of lowering the area speed limits to 25 mph was evaluated by collecting existing speed, volume, and roadside setting characteristics and comparing that data to industry standard methodologies.

Based on the previously summarized guidance, it is clear that there is no single consensus among practitioners concerning methods and techniques that should be used to select appropriate speed limits. However, the approaches generally fall into two categories:

1. **Past Experience:** This method considers historical and existing conditions data to determine operating speeds and motorist comfort on a given roadway. Based on the data and assessment of environmental conditions, speed limits are then set to align policy with existing conditions. This method does little to influence or change driver behavior since the policy is based on such behavior.
2. **Desired Outcome:** This method considers what a community desires and identifies policy goals, including improved safety and feasibility of compliance and enforcement, in order to set speed limits that align with desired safety and mobility outcomes.

While each of the approaches has potential benefits and drawbacks, it is recommended that due to the urban nature of the Village and importance of pedestrian mobility and safety, the Village adopt a method of setting speed limits to achieve a **desired outcome**, rather than relying on past experience. Specifically, a default Village-wide speed limit of 25 mph with categorical exceptions is the most likely approach to satisfy the four criteria outlined by the FHWA and TRB to achieve a speed limit that is safe, enforceable, fair, and accepted. The following criteria should be considered to identify roadways that may warrant further study to determine whether they should be excluded from the default citywide speed limit:

### Functional Classification

Individual roads and streets do not serve travel independently, but as part of a network of roads through which traffic moves. As such, roadways must balance competing functions such as access (the ability to reach a destination) and mobility (the ability to flow through an area). Roadways can serve these goals to varying extents and are defined by the Federal Highway Administration (FHWA) in terms of functional classification based on the extent to which they balance these needs. Roadways classified as arterials should be identified as part of the screening process and further evaluated based on their surroundings.

### Arterial Classification

Similar to functional classification, arterial classification codes are used to categorize roads according to the level of travel mobility that they provide in the road network. This system uses a six-level system with higher levels of classification representing roads that serve the greatest number of trips and the longest trips, while lower classifications represent neighborhood and residential access. Roadways classified as highways, major roads, and local roads should be identified as part of the screening process and further evaluated based on their surroundings.

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## School Locations

Schools are a unique land use with heightened roadway requirements due to the prevalence of children that often walk or bike to and from school. As such, the guidance identifies specific criteria for establishing school zones with posted speed limits below the default Village-wide speed limit. School locations should be identified and adjacent roads considered for a reduced speed limit of 20 mph.

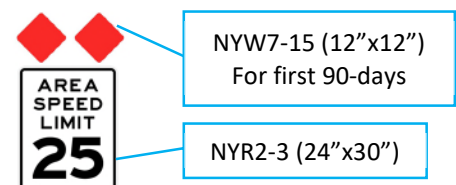
## Engineering Judgement

While the above criteria provide a solid foundation for determining the appropriateness of speed limits for Village roadways, engineering judgement should also be applied when setting speed limits in order to account for context that may not be readily apparent based on the data and criteria. For instance, although the MUTCD does not specify a minimum segment length for which a speed limit should be held constant, short segments where the posted speed limit fluctuates are contrary to driver expectation and should be avoided. This is evident in other sections of the MUTCD that specify minimum distances for posting linear speed limits and maximum segment lengths for school zones. Therefore, segments must be greater than 1,320 feet long in order to be considered for exclusion for the Village-wide speed limit of 25 mph.

Based on the above criteria, the Village-wide speed limit should be reduced to 25 mph with the exception of select roadways which require additional screening and evaluation. Those streets are shown in Attachment F.

## Installation

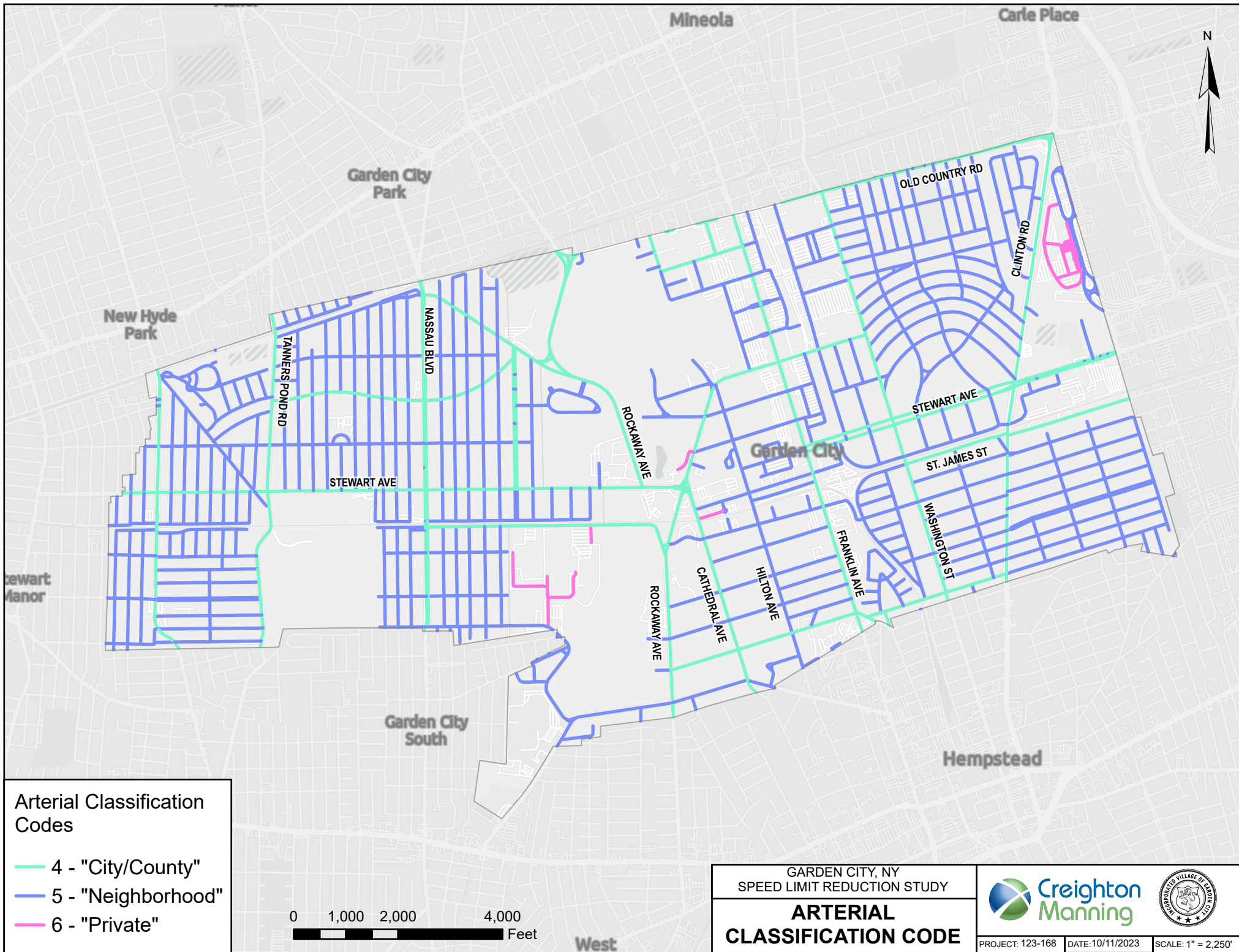
CM does recommend that the Village continue to pursue the traffic calming measures laid out in the *Garden City Satellite Study and Traffic Calming Master Plan Final Report*, in order to lower the 85<sup>th</sup> percentile speeds of roadways thus justifying the reduction of the posted speed limit. The Village will be responsible for purchasing and installing the new speed limits signs. For all newly posted signs, we recommend placing flags or sign markers (NYW7-15) on each sign for the first 90 days of the posting to inform the public of the new speed limits. See the sign example, right.



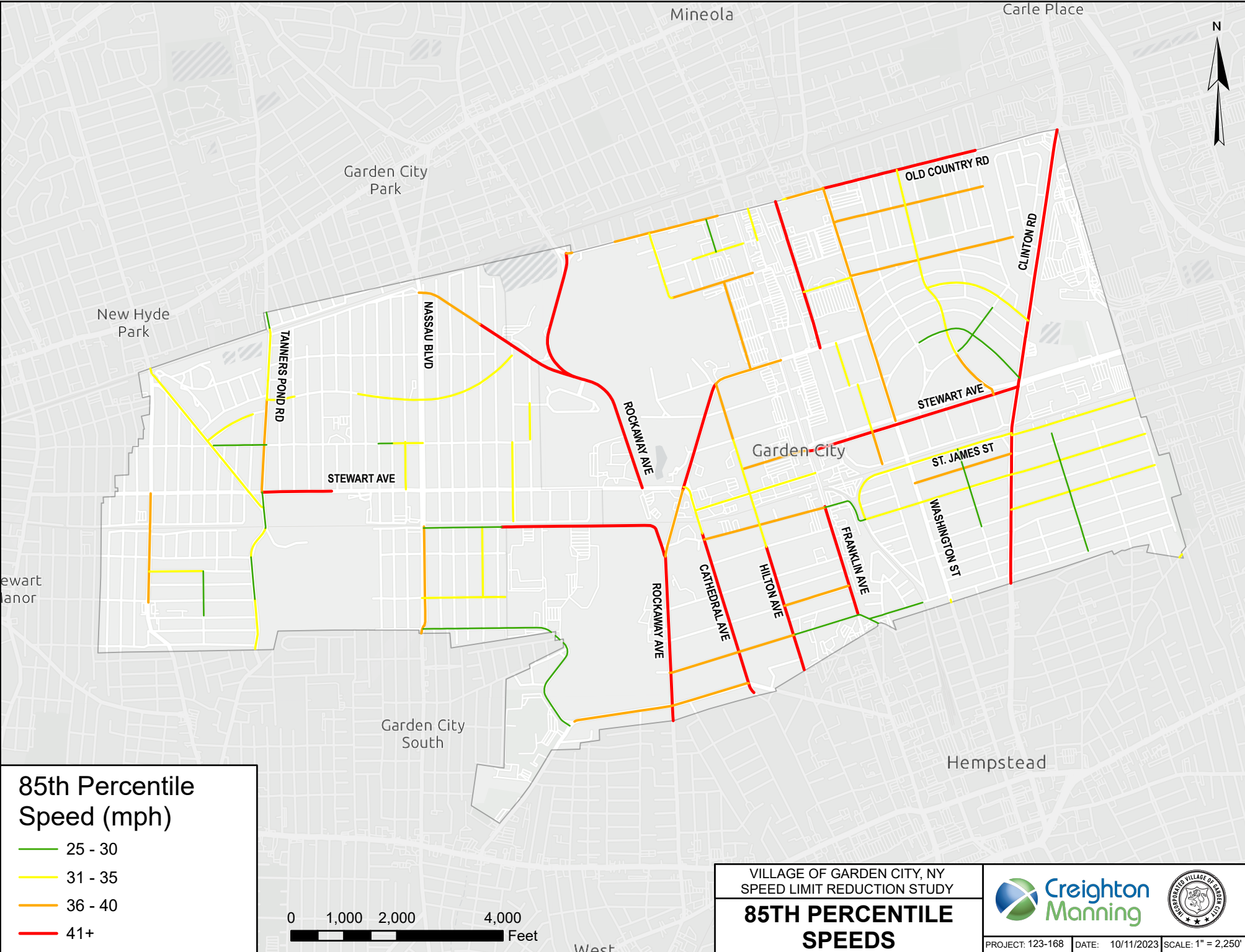
Recommended Speed Limit Sign (TYP)

**Attachment A**  
ACC Figure





**Attachment B**  
85<sup>th</sup> Percentile Speed Figure



85th Percentile  
Speed (mph)

- 25 - 30
- 31 - 35
- 36 - 40
- 41+

0 1,000 2,000 4,000 Feet

VILLAGE OF GARDEN CITY, NY  
SPEED LIMIT REDUCTION STUDY

**85TH PERCENTILE  
SPEEDS**



PROJECT: 123-168 | DATE: 10/11/2023 | SCALE: 1" = 2,250'

**Attachment C**  
Data Collection Summary



Road Name	Road Segment Begin	Road Segment End	85th Percentile Speed	AADT	Data Source	Segment Length (FT)	ACC
BAYBERRY AVE	MAPLE ST	MAXWELL RD	37	1024	ATR	528	5
BAYBERRY AVE	MAXWELL RD	LINDEN ST	37	1024	ATR	264	5
BAYBERRY AVE	LINDEN ST	RUSSELL RD	37	1024	ATR	466	5
BAYBERRY AVE	WASHINGTON AVE	MAPLE ST	37	1024	ATR	1637	5
BROOK ST	573 WEST CLINT	CLINTON RD	38	503	ATR	581	5
BROOK ST	WASHINGTON AVE	573 WEST CLINT	38	503	ATR	1320	5
CAMBRIDGE AVE	KENSINGTON RD	WHITEHALL BLVD	30	4940	NYS DOT	264	5
CAMBRIDGE AVE	NASSAU BLVD	KENSINGTON RD	30	4940	NYS DOT	845	5
CAMBRIDGE AVE	WHITEHALL BLVD	CHERRY VALLEY	28	4894	NYS DOT	3350	5
CATHEDRAL AVE		LIRR	34	12197	NYS DOT	106	4
CATHEDRAL AVE	6TH ST		34	12197	NYS DOT	106	4
CATHEDRAL AVE	GARDEN CITY VL	6TH ST	42	11689	NYS DOT	3168	4
CATHEDRAL AVE	LIRR	CHERRY VALLY AVE	34	12197	NYS DOT	770	4
CHERRY VALLEY A	FOURTEENTH ST	ANDOVER CT	33	2986	NYS DOT	319	5
CHERRY VALLEY A	ANDOVER CT	OLD COUNTRY RD	33	2986	NYS DOT	1001	4
CHERRY VALLEY AVE	STEWART AVE	ELEVENTH ST	43	18162	NYS DOT	2101	4
CHERRY VLLY AV	ROCKAWAY AV	W STEWART AVE	40	17926	NYS DOT	1300	4
CHESTER AVE	NASSAU BLVD	ADELPHI COLLEGE	31	532	ATR	1573	5
CHESTNUT ST	ST JAMES ST SO	CLINTON RD	33	2976	ATR	2901	5
CHESTNUT ST	FRANKLIN AVE	ST JAMES ST SO	30	5497	NYS DOT	1006	5
CHESTNUT ST	CLINTON RD	GROVE ST	33	1122	ATR	2625	5
CLINCH AVE	WILSON ST	GARFIELD ST	33	553	NYS DOT	370	5
CLINCH AVE	GARFIELD ST	NEW HYDE PARK RD	33	553	NYS DOT	2165	5
CLINCH AVE	EDGEMERE RD	STEWART AVE	33	553	NYS DOT	422	5
CLINCH AVE	STEWART AVE	WILSON ST	33	553	NYS DOT	317	5
CLINTON RD	STEWART AVE	WYATT RD	43	18450	NYS DOT	946	4
CLINTON RD	COMMERCIAL AVE	STEWART AVE	42	21611	NYS DOT	902	4
CLINTON RD	WYATT RD	OLD COUNTRY RD	43	18450	NYS DOT	3960	4
CLINTON RD	MEADOW ST	GARDEN ST	42	21611	NYS DOT	791	4
CLINTON RD	GARDEN ST	COMMERCIAL AVE	42	21611	NYS DOT	1849	4
CLINTON ST	GARDEN CTY V/L	MEADOW ST	43	28050	NYS DOT	186	5
COMMERCIAL AVE	CLINTON RD	VILLAGE LINE	35	10215	NYS DOT	2429	4
COUNTY SEAT DR	COURT HOUSE DR	OLD COUNTRY RD	44	5855	NYS DOT	726	5
COUNTY SEAT DR	ELEVENTH ST	COURT HOUSE DR	44	5855	NYS DOT	2165	5
DENTON AVE	RAILROAD AVE	GARDEN CITY V/L	30	7105	NYS DOT	302	4
EDGEMERE RD	RAILROAD	YALE ST	33	7887	ATR	630	4
EDGEMERE RD	STEWART AVE	RAILROAD	25	9245	NYS DOT	686	4
EDGEMERE RD	YALE ST	FAIRMOUNT BLVD	25	9245	NYS DOT	796	4
EDGEMERE RD	FAIRMOUNT BLVD	DARTMOUTH ST	32	6723	NYS DOT	317	4
EDGEMERE RD	DARTMOUTH ST	VILLAGE LINE	32	6723	NYS DOT	634	4
ELEVENTH ST	HILTON AVE	FRANKLIN AVE	38	21179	NYS DOT	1320	4
EUSTON RD	STRATFORD AVE	STEWART AVE	31	347	ATR	898	5
FIFTEENTH ST	SUFFOLK LA	FRANKLIN AVE	33	984	NYS DOT	1003	4
FIRST ST	CHERRY VALLEYAVE	CATHEDRAL AVE	38	15720	NYS DOT	3378	5
FOURTEENTH ST	CHERRY VALLEYAVE	SUFFOLK LA	38	3894	NYS DOT	634	5
FOURTEENTH ST	SUFFOLK LA	FRANKLIN AVE	38	3894	NYS DOT	955	5
FRANKLIN AVE	2ND ST	6TH ST	41	20255	ATR	2112	4
GOLF CLUB LA	FOURTEENTH ST	ELEVENTH ST	39	4540	NYS DOT	1735	5
HAMPTON RD	ST PAULS PL	STRATFORD AVE	35	2160	ATR	686	5
HARVARD ST	NEW HYDE PARK RD	MIDDLETON RD	32	354	ATR	1003	5
HILTON AVE	6TH ST	GARDEN CITY V/L	42	5752	NYS DOT	2431	5
HILTON AVE	ELEVENTH ST	10TH ST	39	3313	NYS DOT	524	5
HILTON AVE	LIRR	6TH ST	31	9757	NYS DOT	741	5
HILTON AVE	9TH ST	LIRR	31	9757	NYS DOT	1373	5
HILTON AVE	10TH ST	9TH ST	39	3313	NYS DOT	585	5
HOMESTEAD AVE	CLINCH AVE	HAYES ST	34	750	ATR	1003	5
JOHN ST	STEWART AVE	ST JAMES ST N	36	473	NYS DOT	676	5
JOHN ST	400 N OF STEWART AVE	STEWART AVE	35	285	NYS DOT	528	5
JOHN ST	WARTON PL	400 N OF STEWART AVE	35	285	NYS DOT	370	5
KEENAN PL	ELEVENTH ST	WARTON PL	33	254	NYS DOT	845	5
KELLUM PL	OLD COUNTRY RD	FIFTEENTH ST	33	3134	NYS DOT	624	5
KINGSBURY RD	WETHERILL RD	CLINTON RD	31	724	ATR	2147	5
MAIN ST	FRANKLIN AVE	VILLAGE LINE	29	4769	NYS DOT	414	4
MEADOW ST	FRANKLIN CT EA	LIRR	30	5795	NYS DOT	317	4
MEADOW ST	MAIN ST	FRANKLIN CT EA	30	5795	NYS DOT	739	4

MERILLON AVE	NASSAU BLVD	KENSINGTON RD	40	8399	NYS DOT	950	4
MERILLON AVE	WHITEHALL BLVD	ROCKAWAY AVE	47	10612	NYS DOT	2063	4
MERILLON AVE	KENSINGTON RD	WHITEHALL BLVD	40	8399	NYS DOT	370	4
MIDDLETON RD	HARVARD ST	DARTMOUTH ST	26	455	ATR	845	5
NASSAU BLVD	GREENWAY ST E	HEMPSTEAD TL	36	16841	NYS DOT	32	4
NASSAU BLVD	HEMPSTEAD TL	LIRR	37	23234	NYS DOT	2006	4
NEW HYDE PK RD	FAIRMOUNT BLVD	STEWART AVE	37	16843	NYS DOT	2059	4
NEW HYDE PK RD	CLINCH AVE	GC/HYDE PK VL	34	18693	NYS DOT	98	4
NEWMARKET RD	TANNERS POND R	WICKHAM RD	34	1074	ATR	528	4
NEWMARKET RD	MEADBROOK RD	OXFORD BLVD	35	1583	ATR	3168	4
OLD COUNTRY RD	HERRICKS RD	MINEOLA BLVD	40	25191	NYS DOT	2112	4
OLD COUNTRY RD	WILLIS AVE	ROSLYN RD	38	36110	NYS DOT	739	4
OLD COUNTRY RD	COUNTY SEAT DR	WILLIS AVE	34	32831	NYS DOT	60	4
OLD COUNTRY RD	ROSLYN RD		43	39285	NYS DOT	634	4
OLD COUNTRY RD		RUSSELL RD	43	39285	NYS DOT	2323	4
OSBORNE RD	LEFFERTS RD	CLINTON RD	25	1064	ATR	2301	5
OXFORD BLVD	STRATFORD AVE	NORTH AVE	34	1701	ATR	1494	4
POPLAR ST	CLINTON RD	GROVE ST	33	563	ATR	2841	5
PROSPECT AVE	ST JAMES ST SO	POPLAR ST	27	595	ATR	1531	5
ROCKAWAY AVE	HEMPSTEAD TL	CHERRY VALLEY AVE	46	17783	NYS DOT	3104	4
ROCKAWAY AVE	STEWART AVE	OLD COUNTRY RD	47	10612	NYS DOT	5228	4
ROSLYN RD	OLD COUNTRY RD	THIRD ST	38	18229	NYS DOT	69	4
SECOND ST	CATHEDRAL AVE	HILTON AVE	38	1740	NYS DOT	1109	4
SECOND ST	HILTON AVE	FRANKLIN AVE	29	2717	NYS DOT	1247	4
SECOND ST	ROCKAWAY AVE	CATHEDRAL AVE	38	1740	NYS DOT	1373	4
SEVENTH ST	CATHEDRAL AVE	FRANKLIN AVE	34	9263	NYS DOT	2376	5
SIXTH ST	CATHEDRAL AVE	WILMAR PL	38	5537	NYS DOT	1373	5
SIXTH ST	WILMAR PL	FRANKLIN AVE	38	5537	NYS DOT	992	5
SOUTH AVE	ADELPHI UNIVERSITY	ROCKAWAY AVE	44	8611	NYS DOT	3485	4
SOUTH AVE	NASSAU BLVD	ADELPHI UNIVERSITY	29	5132	ATR	1478	4
SOUTH RD	COUNTY SEAT DR	WASHINGTON AVE	33	1781	NYS DOT	933	5
ST JAMES ST SO	RAINBOW PARK	CLINTON RD	35	5397	NYS DOT	187	4
ST JAMES ST SO	CHESTNUT ST	RAINBOW PARK	35	5397	NYS DOT	3485	4
STEWART AVE	HILTON AVE	FRANKLIN AVE	38	13513	NYS DOT	1267	5
STEWART AVE	COVENTRY PL	CLINTON RD	44	32310	NYS DOT	1426	4
STEWART AVE	BUTLER PL	COVENTRY PL	44	32310	NYS DOT	528	4
STEWART AVE	TANNERS PND RD		43	25794	ATR	1315	4
STEWART AVE	WASHINGTON AVE	BUTLER PL	44	32310	NYS DOT	475	4
STEWART AVE	FRANKLIN AVE	WASHINGTON AVE	42	26169	NYS DOT	1742	4
STRATFORD AVE	ROXBURY RD	WELLINGTON RD	29	1718	NYS DOT	264	5
STRATFORD AVE	HAYES ST	TANNERS POND R	28	1446	NYS DOT	264	5
STRATFORD AVE	WELLINGTON RD	NASSAU BLVD	34	2046	ATR	577	5
STRATFORD AVE	CLINCH AVE	HAYES ST	28	1446	NYS DOT	739	5
TANNERS POND RD	STEWART AVE	NEWMARKET RD	36	4310	NYS DOT	1742	4
TANNERS POND RD	TERRACE PK	MAIN AVE	33	6103	NYS DOT	841	4
TANNERS POND RD	NEWMARKET RD	TERRACE PK	33	6103	NYS DOT	370	4
TANNERS POND RD	MAIN AVE	RAILROAD AVE	33	6103	NYS DOT	151	4
THIRD ST	HILTON AVE	FRANKLIN AVE	37	2074	ATR	1271	5
TRANSVERSE RD	RUSSELL RD	PELL TERRACE	38	1129	NYS DOT	304	5
TRANSVERSE RD	WASHINGTON AVE	WETHERILL RD	38	1129	NYS DOT	1320	5
TRANSVERSE RD	WETHERILL RD	RUSSELL RD	38	1129	NYS DOT	1531	5
TREMONT ST	GARDEN ST	PINE ST	29	503	ATR	317	5
TREMONT ST	PARK	GARDEN ST	29	503	ATR	1478	5
TREMONT ST	PINE ST	MEADOW ST	29	503	ATR	533	5
WASHINGTON AVE	STEWART AVE	OLD COUNTRY RD	37	14673	NYS DOT	4541	4
WASHINGTON ST	W COLUMBIA ST	GARDEN CTY VL	34	11979	NYS DOT	51	4
WEST ST	FIFTEENTH ST	OLD COUNTRY RD	29	1184	NYS DOT	634	4
WESTBURY BLVD	BENNETT AVE	VILLAGE LINE	33	9395	NYS DOT	68	5
WESTBURY BLVD	HEMPSTEAD VL	OAK ST	32	12462	NYS DOT	10	5
WESTBURY RD	OSBORNE RD	WYATT RD	29	1042	ATR	1056	5
WETHERILL RD	OLD COUNTRY RD	BAYBERRY AVE	34	991	ATR	682	5
WETHERILL RD	BAYBERRY AVE	WESTBURY RD	34	1202	NYS DOT	3014	5
WETHERILL RD	WESTBURY RD	STEWART AVE	36	1313	NYS DOT	1053	5
WHITEHALL BLVD	SOUTH AVE	CHESTER AVE	34	565	ATR	1323	5

**Attachment D**  
USLimits2 Results

# USLIMITS2 Speed Zoning Report

## Project Overview

### Project Name: GC Speed Limit Reduction Study

**Analyst:** Sarah Carroll

**Date:** 2023-10-26

#### Basic Project Information

Project Number: 123-168  
Route Name: Wetherill  
From: Old Country  
To: Bayberry  
State: New York  
County: Nassau County  
City: Garden City village  
Route Type: Road Section in Developed Area  
Route Status: Existing

#### Roadway Information

Section Length: .1301 mile(s)  
Statutory Speed Limit: 25 mph  
Existing Speed Limit: 30 mph  
Adverse Alignment: No  
One-Way Street: No  
Divided/Undivided: Undivided  
Number of Through Lanes: 2  
Area Type: Residential-Subdivision  
Number of Driveways: 19  
Number of Signals: 0

#### Crash Data Information

Crash Data Years: 0  
Crash AADT: N/A  
Total Number of Crashes: N/A  
Total Number of Injury Crashes: N/A

#### Traffic Information

85th Percentile Speed: 34 mph  
50th Percentile Speed: 28 mph  
AADT: 991 veh/day  
On Street Parking and Usage: Not High  
Pedestrian / Bicyclist Activity: High

### Recommended Speed Limit:



**Note:** The final recommended speed limit is higher than the 25 mph statutory speed limit for this type of road. An engineering study such as the one carried out with USLIMITS is usually required to set a speed limit above the statutory limit.

**Note:** Crash data were not entered for this project. A comprehensive crash study is a critical component of any traffic engineering study. We suggest that you repeat this process when crash data become available.

**Note:** A speed zone of .1301 miles is generally too short for the recommended speed limit. Consider lengthening the speed zone (if that is possible) or using the speed limits from adjacent sections (if they are appropriate for this section). If the speed and other data you provided are representative of conditions for this short section, then the speed limit noted above may be considered.

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# USLIMITS2 Speed Zoning Report

## Project Overview

### Project Name: GC Speed Limit Reduction Study

**Analyst:** Sarah Carroll

**Date:** 2023-10-26

#### Basic Project Information

Project Number: 123-168

Route Name: Franklin

From: 2nd

To: 6th

State: New York

County: Nassau County

City: Garden City village

Route Type: Road Section in Developed Area

Route Status: Existing

#### Crash Data Information

Crash Data Years: 0

Crash AADT: N/A

Total Number of Crashes: N/A

Total Number of Injury Crashes: N/A

#### Traffic Information

85th Percentile Speed: 41 mph

50th Percentile Speed: 34 mph

AADT: 20255 veh/day

On Street Parking and Usage: Not High

Pedestrian / Bicyclist Activity: High

#### Roadway Information

Section Length: .4009 mile(s)

Statutory Speed Limit: 25 mph

Existing Speed Limit: 30 mph

Adverse Alignment: No

One-Way Street: No

Divided/Undivided: Undivided

Number of Through Lanes: 4

Area Type: Commercial

Number of Driveways: 3

Number of Signals: 3

### Recommended Speed Limit:



**Note:** The final recommended speed limit is higher than the 25 mph statutory speed limit for this type of road. An engineering study such as the one carried out with USLIMITS is usually required to set a speed limit above the statutory limit.

**Note:** Crash data were not entered for this project. A comprehensive crash study is a critical component of any traffic engineering study. We suggest that you repeat this process when crash data become available.

**Note:** The road section is in an area with high pedestrian or bicycle activity. Consider implementing engineering measures to reduce speeds before lowering the recommended speed limit. See [Engineering Countermeasures for Speed Management](#) and [PedSafe](#) for more guidance.

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# USLIMITS2 Speed Zoning Report

## Project Overview

### Project Name: GC Speed Limit Reduction Study

**Analyst:** Sarah Carroll

**Date:** 2023-10-26

#### Basic Project Information

Project Number: 123-168  
Route Name: Hampton  
From: St Pauls  
To: Stratford  
State: New York  
County: Nassau County  
City: Garden City village  
Route Type: Road Section in Developed Area  
Route Status: Existing

#### Crash Data Information

Crash Data Years: 0  
Crash AADT: N/A  
Total Number of Crashes: N/A  
Total Number of Injury Crashes: N/A

#### Traffic Information

85th Percentile Speed: 35 mph  
50th Percentile Speed: 29 mph  
AADT: 2160 veh/day  
On Street Parking and Usage: Not High  
Pedestrian / Bicyclist Activity: High

#### Roadway Information

Section Length: .1320 mile(s)  
Statutory Speed Limit: 25 mph  
Existing Speed Limit: 30 mph  
Adverse Alignment: No  
One-Way Street: No  
Divided/Undivided: Undivided  
Number of Through Lanes: 2  
Area Type: Residential-Collector/Arterial  
Number of Driveways: 12  
Number of Signals: 0

### Recommended Speed Limit:



**Note:** The final recommended speed limit is higher than the 25 mph statutory speed limit for this type of road. An engineering study such as the one carried out with USLIMITS is usually required to set a speed limit above the statutory limit.

**Note:** Crash data were not entered for this project. A comprehensive crash study is a critical component of any traffic engineering study. We suggest that you repeat this process when crash data become available.

**Note:** A speed zone of .1320 miles is generally too short for the recommended speed limit. Consider lengthening the speed zone (if that is possible) or using the speed limits from adjacent sections (if they are appropriate for this section). If the speed and other data you provided are representative of conditions for this short section, then the speed limit noted above may be considered.

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# USLIMITS2 Speed Zoning Report

## Project Overview

### Project Name: GC Speed Limit Reduction Study

**Analyst:** Sarah Carroll

**Date:** 2023-10-26

#### Basic Project Information

Project Number: 123-168  
Route Name: Newmarket  
From: Meadbrook  
To: Oxford  
State: New York  
County: Nassau County  
City: Garden City village  
Route Type: Road Section in Developed Area  
Route Status: Existing

#### Crash Data Information

Crash Data Years: 0  
Crash AADT: N/A  
Total Number of Crashes: N/A  
Total Number of Injury Crashes: N/A

#### Traffic Information

85th Percentile Speed: 35 mph  
50th Percentile Speed: 29 mph  
AADT: 1583 veh/day  
On Street Parking and Usage: Not High  
Pedestrian / Bicyclist Activity: High

#### Roadway Information

Section Length: .5682 mile(s)  
Statutory Speed Limit: 25 mph  
Existing Speed Limit: 30 mph  
Adverse Alignment: No  
One-Way Street: No  
Divided/Undivided: Undivided  
Number of Through Lanes: 2  
Area Type: Residential-Collector/Arterial  
Number of Driveways: 24  
Number of Signals: 1

### Recommended Speed Limit:



**Note:** The final recommended speed limit is higher than the 25 mph statutory speed limit for this type of road. An engineering study such as the one carried out with USLIMITS is usually required to set a speed limit above the statutory limit.

**Note:** Crash data were not entered for this project. A comprehensive crash study is a critical component of any traffic engineering study. We suggest that you repeat this process when crash data become available.

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## How the Recommended Speed Limit was Determined

The questions and responses below, and the referenced page numbers, correspond to the flowcharts found in the [Decision Rules Flowchart document](#).

## Terms Used in the Recommendation

- **Closest 85th:** This is the 5 mph increment that is closest to the 85th percentile speed (e.g., if the 85th percentile speed is 63 mph, the Closest 85th will be 65 mph).
- **Rounded-down 85th:** This is the 5 mph increment obtained by rounding down the 85th percentile to the nearest 5 mph increment (e.g., if the 85th percentile speed is 63 mph, the Rounded-down 85th will be 60 mph).
- **Closest 50th:** This is the 5 mph increment that is closest to the 50th percentile speed (e.g., if the 50th

- percentile speed is 58 mph, the Closest 50th will be 60 mph).
- **SL\_1**: Speed limit determined using site characteristics (e.g., AADT, interchange spacing, roadside hazard rating, ped/bike activity, number of traffic signals, etc.).
  - **SL\_2**: Speed limit determined using crash data from the crash module.
  - **SL**: Recommended Speed Limit.

## Determine SL\_1 Using Site Characteristics (pg. K-23)

**Note:** The number of signals per mile is being calculated as 1.76 signals per mile.

**Note:** The number of driveways per mile is being calculated as 42.24 driveways per mile.

**Question 1:** Are any of the following true: there are more than four signals per mile, pedestrian or bicyclist activity is high, parking activity is high, or there are more than 60 driveways per mile?

**Results:** Yes. There are 1.76 signals per mile, 42.24 driveways per mile, high pedestrian/bicyclist activity, and not high parking activity. **The SL\_1 is set to the closest 50th percentile speed (30 mph).**

**Question 2:** Are crash data available?

**Results:** No crash data are available. **The SL is being set equal to SL\_1 (30 mph).**

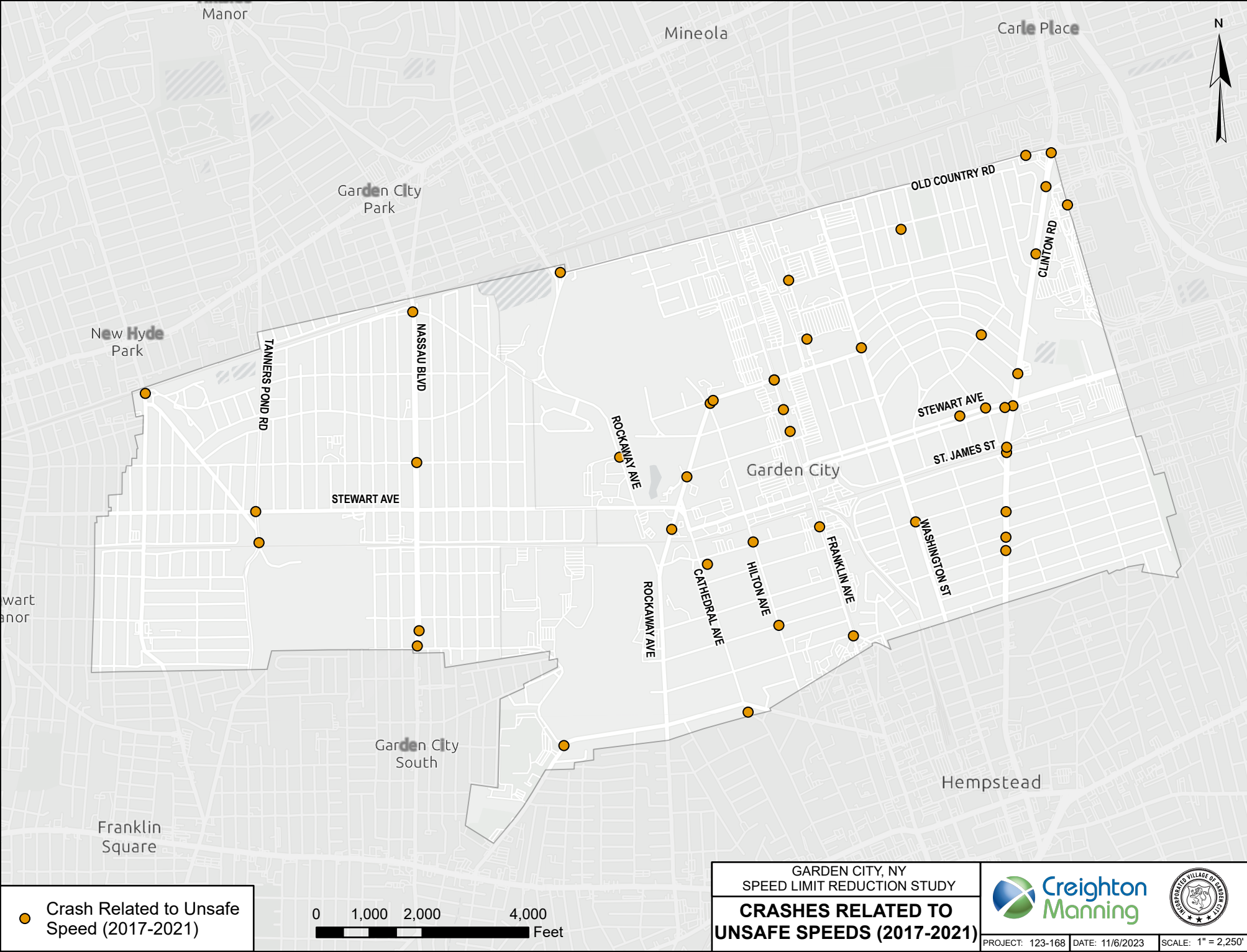
## Determine the Final Recommended Speed Limit (pg. K-28)

**Question 3:** Is the SL less than 20 mph or greater than 50 mph?

**Results:** The SL (30 mph) is between 20 mph and 50 mph. **The SL remains the same.**

**Final Recommendation:** **The recommended speed limit is 30 mph.**

**Attachment E**  
Crashes Related to Speed

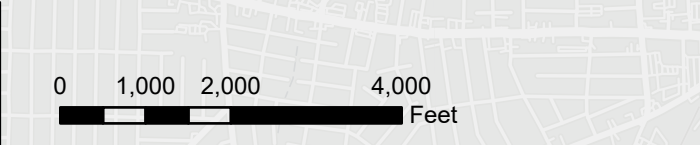


**Attachment F**  
Streets Requiring Further Analysis





 Streets Requiring Further Analysis



GARDEN CITY, NY  
SPEED LIMIT REDUCTION STUDY  
**FURTHER ANALYSIS**

	
PROJECT: 123-168	DATE: 9/7/2023
SCALE: 1" = 2,250'	