

**RECORDING  
NOT REQUIRED**

**Prepared by:**

City of Troy  
116 E. Market Street  
Troy, IL 62294



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**Ordinance No. 2024 - 45**

**AN ORDINANCE PROVIDING FOR THE INSTALLATION OF STOP  
SIGNS AT EISENHOWER BOULEVARD AND MCCLELLAND DRIVE  
IN THE CITY OF TROY, ILLINOIS**

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ADOPTED BY THE CITY COUNCIL  
OF THE CITY OF TROY, ILLINOIS  
THIS 1<sup>st</sup> DAY OF JULY 2024

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**WHEREAS**, the City Council of the City of Troy, Madison County, Illinois, wishes to provide a safe opportunity for traffic to navigate the Homes of Liberty Place Subdivision; and

**WHEREAS**, the anticipated pedestrian volume and potential sight obstruction are warranted cause for a four-way stop; and

**WHEREAS**, upon order of the City Council of the City of Troy, Illinois, and the evidence herein established, the Chief of Police and City Engineer have determined the need to improve safety at certain locations within the corporate limits of the City of Troy, Madison County, Illinois; and

**WHEREAS**, the City Council of the City of Troy, Illinois has determined that the public safety will be promoted by establishing stop signs at the locations set forth by the Chief of Police.

**NOW, THEREFORE, BE IT ORDAINED** by the Mayor and the City Council of the City of Troy, Illinois as follows:

SECTION 1: The preambles of this Ordinance are hereby incorporated herein by reference, the same as if set forth in this Section of this Ordinance verbatim, as findings of the City Council of the City of Troy, Illinois.

SECTION 2: Stop signs are hereby required and shall be installed for all directions of travel at the intersection of Eisenhower Boulevard and McClelland Drive within the City of Troy, Illinois.

SECTION 3: Any person who disobeys the Stop signs to be placed pursuant to this Ordinance shall be in violation of Chapters 71.05, 71.06 and 71.99 of the Codified Ordinances of the City of Troy, and shall be fined not less than \$25.00 nor more than \$500.00 for each such offense.

SECTION 4: Stop signs conforming to the Illinois Department of Transportation's standards and specifications shall be erected at the intersection described in Section 2 above, such intersection being within the City of Troy, Illinois. The location of these signs shall conform to the requirements of the Illinois Department of Transportation's standards and specifications.

SECTION 5: The Code of Ordinances of the City of Troy, Illinois, Chapter 73, Schedule VI, is hereby amended to reflect the above described stop signs' placement.

SECTION 6: That if any section or provision of this Ordinance is declared invalid for any reason, such invalidity shall not affect or impair any of the remaining sections or provisions of this Ordinance which can be given effect without the invalid section or provision, and to this end, the sections and provisions of this Ordinance are declared to be severable.


SECTION 7: This Ordinance shall be in full force and effect from and after its passage and approval as provided by law and shall be published in pamphlet form by the authority of the City Council.

**PASSED** by the City Council of the City of Troy, Madison County, Illinois, approved by the Mayor, and deposited in the office of the City Clerk this 1<sup>st</sup> day of July 2024.


Aldermen Vote:

Dan Dawson	<u>AYE</u>	Sam Italiano	<u>AYE</u>	Ayes:	<u>8</u>
Tim Flint	<u>AYE</u>	Debbie Knoll	<u>AYE</u>	Nays:	<u>0</u>
Elizabeth Hellrung	<u>AYE</u>	Tony Manley	<u>AYE</u>	Abstain:	<u>0</u>
Nathan Henderson	<u>AYE</u>	Troy Turner	<u>AYE</u>		

APPROVED:

  
\_\_\_\_\_  
DAVID NONN, Mayor  
City of Troy, Illinois

ATTEST:

  
\_\_\_\_\_  
KIMBERLY THOMAS, Clerk  
City of Troy, Illinois





**Collinsville**

100 Lanter Court, Suite 1  
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**St. Louis**

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**St. Charles**

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June 17, 2024

Jay Keeven  
City of Troy  
116 East Market  
Troy, IL 62294-1518

Re: Homes at Liberty Subdivision  
All-Way Stop Sign Study at McClellan Dr & Eisenhower Blvd

Mr. Keeven:

We have received a request to review stop sign warrants at the intersection of McClellan Dr & Eisenhower Blvd. After consideration, we recommend installing all-way stop control at the intersection of Chamberlain Dr and McClellan Dr because of a sight distance concern.

Based on the Manual of Uniform Traffic Control Devices (MUTCD), all-way stop control is warranted if at least one of the following criteria is met:

- The vehicle volume entering the intersection from the major street approaches averages at least 300 vehicles per hour for any 8 hours of an average day, AND the combined volumes entering the intersection from the minor street approaches averages at least 200 vehicles per hour for the same 8 hours.
- Locations where a minor road user, after stopping, cannot see conflicting traffic and is therefore not able to safely navigate the intersection unless conflicting cross traffic is also required to stop.
- Five or more reported crashes have occurred in a 12-month period that are considered preventable by a multi-way stop installation.
- An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where all-way stop control would improve traffic operational characteristics of the intersection.

An approximation of the volume of traffic will likely be based on the number and type of housing within the area was completed. Anticipated volumes at the intersection of McClellan Dr & Eisenhower Blvd would be about 1,000 vehicles/day, or around 100 vehicles per hour, during the peak hour. Though these volume rates do not meet the MUTCD criteria mandating an all-way stop control, there are other considerations such as pedestrian volumes, sight distance, and function to consider.

There are sight obstructions present at the intersection as shown on the attached Exhibits. Parking is allowed on McClellan Dr and Eisenhower Blvd. Parked cars along these roads will create a sight obstruction to cars entering the intersection. This type of site obstruction is not unusual for residential intersections, and they can be found throughout the City where multi-way stop signs are not present or required. However at this location, if a structure were to be built on Lot 135 at the northwest corner of the intersection, the structure itself would create a sight obstruction due to the curved alignment of Eisenhower Blvd.



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Though the intersection doesn't meet the traffic threshold, we are concerned with the sight obstruction and increased traffic may create a safety concern. Therefore, in our judgement, the all-way stop at the intersection of Eisenhower Blvd and McClellan Dr is warranted for safety because the sight obstruction creates potential to trigger the crash warrant if not addressed. For higher visibility, we also further recommend that pedestrian crosswalks be installed for pedestrian safety.

Respectfully,

**OATES ASSOCIATES, INC.**

A handwritten signature in black ink that reads "Tom Cissell III". The signature is written in a cursive style with a prominent "T" and "C".

Tom Cissell, PE  
City Engineer

# Attachment A

## Photo Exhibits



Photo 1: Sight-triangle looking north along Eisenhower with Field Technician representing building line.



Photo 2: Sight-triangle looking north along Eisenhower from eastern approach of intersection.



*Photo 3: Sight-triangle looking west along McClellan from southern approach of intersection.*



# Attachment B

## MUTCD STOP WARRANTS

# MULTI-WAY STOP SIGN WARRANTS MUTCD 2023

Location:	CHAMBERLAIN DR & MCCLELLAN DR	Community Population:	
Major Route:	CHAMBERLAIN DR	Traffic Count Date:	May 14, 2024
Minor Route:	MCCLELLAN DR	File Name:	STOP SIGN WARRANT
85th Percentile Speed:	25 M.P.H.	Date:	May 14, 2024
		By:	ANW

### MINIMUM VEHICULAR / PEDESTRIAN VOLUMES TO WARRANT STOP SIGNS

	SUM OF MAJOR APPROACHES	SUM OF MINOR APPROACHES
FULL WARRANT	300 VEHICLES/HOUR	200 VEHICLES/HOUR
70% WARRANT	210 VEHICLES/HOUR	140 VEHICLES/HOUR

NOTES: The eight highest hourly volumes counted on a typical day must exceed those highlighted above.

### VEHICULAR VOLUME DATA REQUIRED TO CHECK WARRANTS

ROUTE	TWO-WAY ADT	ONE-WAY (1/2 ADT)	DHV (10% ONE-WAY)	8TH MAX. HOURLY 0.55x(DHV)
MAJOR	1330		133	< 200
MINOR	N/A	690	69	< 140

NOTES: **70% of full warrant volume applies when 85th percentile major traffic speed exceeds 40 MPH OR when the Intersection lies within an isolated community of less than 10,000 population.**

MAJOR ROUTE ADT is the sum of the two-way traffic volume on both sides of the minor route.  
MINOR ROUTE ADT is the traffic volume on the higher side only.

MEETS WARRANT?		WARRANT NUMBER	WARRANT DESCRIPTION
YES	NO		
	X	A	TRAFFIC SIGNAL JUSTIFIED. Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic signal.
	X	B	CRASHES. Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.
	X	C	MINIMUM VOLUMES. 1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day. 2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 vehicular units per hour for the same 8 hours, with an average delay to minor-street traffic of at least 30 seconds per vehicle during the highest hour. 3. If the 85th percentile approach speed of the major street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.
	X	D - COMB. C.1 & C.2	COMBINATION OF CONDITIONS C.1. and C.2. is applied when Warrant C.1 is not satisfied and Condition C.2 is not satisfied, but 80% of both Condition C.1 <u>and</u> Condition C.2 are satisfied.

### OTHER CONSIDERATIONS:

- A. The need to control left-turn conflicts;
- B. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;
- C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop; and
- D. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection



Job: 15062.002  
 Calculated By: ANW Date: 4/23/24  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

**OUTPUT DATA:**

INTERSECTION TRIP GENERATION												
Location: Homes of Liberty Place												
Intersection: Eisenhower Blvd. & McClellan Dr.												
Time: A.M. Peak Hour												
	McClellan Dr.						Eisenhower Blvd.					
	EB			WB			SB			NB		
	L	T	R	L	T	R	L	T	R	L	T	R
# TRIPS	3	1	0	0	3	2	1	9	1	0	27	0
<b>TOTAL</b>	<b>4</b>			<b>5</b>			<b>11</b>			<b>27</b>		

**INPUT DATA:**

DIRECTION	EB			WB			SB			NB		
CONTRIBUTES TO	L	T	R	L	T	R	L	T	R	L	T	R
# HOUSES	6 (1)	0	0	0	5 (2)	4 (2)	0	0	0	0	48 (4)	0

- (1) SEE ATTACHMENT 1
- (2) SEE ATTACHMENT 2
- (3) SEE ATTACHMENT 3
- (4) SEE ATTACHMENT 4

**A.M. CALCULATIONS:**

Single-family Detached Housing Trip Rate: 0.75 (Referenced from ITE Trip Generation Manual 11th Edition)

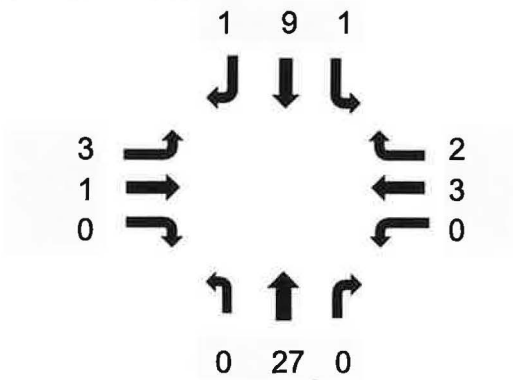
Directional Distribution (Enter/Exit): .26/.74 (Referenced from ITE Trip Generation Manual 11th Edition)

	TURN	CONTRIBUTING HOUSES	RATE	EXIT RATIO	ENTER RATIO	# OF TRIPS
EB	L	6 (1)	0.75	0.74	N/A	3
	T	5 (2)	0.75	N/A	0.26	1
	R	0	0.75	N/A	0.26	0
WB	L	0	0.75	N/A	0.26	0
	T	5 (2)	0.75	0.74	N/A	3
	R	4 (2)	0.75	0.74	N/A	2
SB	L	4 (2)	0.75	N/A	0.26	1
	T	48 (4)	0.75	N/A	0.26	9
	R	6 (1)	0.75	N/A	0.26	1
NB	L	0	0.75	0.74	N/A	0
	T	48 (4)	0.75	0.74	N/A	27
	R	0	0.75	N/A	0.26	0

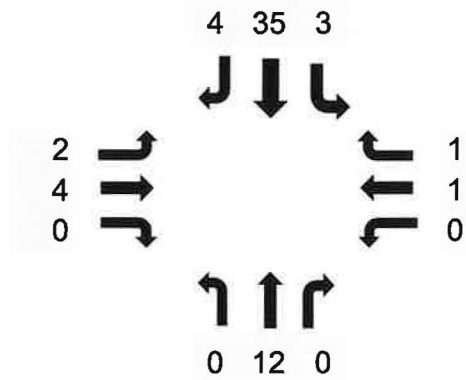
ENTER =	
EXIT =	

**Intersection: Eisenhower & McClellan**

AM Peak Hr.



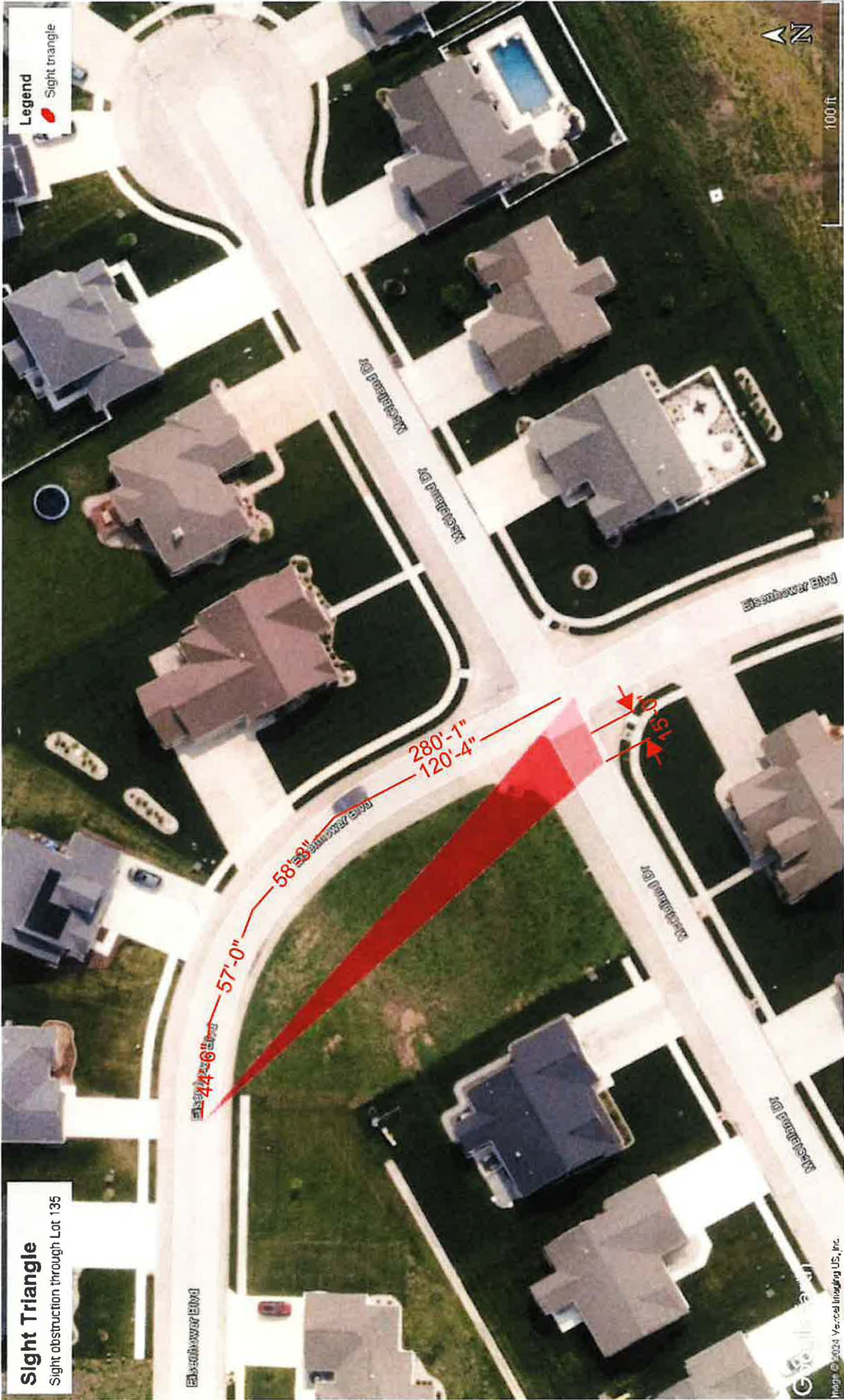
PM Peak Hr.



NOTE: PM ASSUMES EQUAL BUT OPPOSITE TO AM AT A 32% INCREASE BECAUSE PM RATE IS 0.99 VS. 0.75 AM RATE.

# Attachment C

## SIGHT DISTANCE TRIANGLES



# Attachment D

## HOUSES THAT CONTRIBUTE TO TRAFFIC

