



# **TRAFFIC COMMITTEE AGENDA**

**January 15, 2020 – 7:30 P.M.**

**Lower Level Conference Room – Troy City Hall, 500 West Big Beaver Road**

1. Roll Call
2. Minutes – November 20, 2019

## **PUBLIC HEARINGS**

3. No Public Hearings

## **REGULAR BUSINESS**

4. Request for Traffic Control – North Lake Drive at Sherwood Drive
5. Public Comment
6. Other Business
7. Adjourn

cc:      Item 4:              Kevin Ferguson, 1850 Woodgate  
                                     Properties within 300'

Traffic Committee Members  
Sgt. Justin Novak, Police Department;  
Lt. Eric Caloia, Fire Department;

## **TRAFFIC COMMITTEE**

### **MESSAGE TO VISITORS, DELEGATIONS AND CITIZENS**

The Traffic Committee is composed of seven Troy citizens who have volunteered their time to the City to be involved in traffic and safety concerns. The stated role of this Committee is:

- a. To give first hearing to citizens' requests and obtain their input.
- b. To make recommendations to the City Council based on technical considerations, traffic surveys, established standards, and evaluation of citizen input.
- c. To identify hazardous locations and recommend improvements to reduce the potential for traffic crashes.

Final decisions on sidewalk waivers will be made by the Committee at this meeting.

The recommendations and conclusions arrived at on regular items this evening will be forwarded to the City Council for their final action. Any citizen can discuss these recommendations before City Council. The items discussed at the Traffic Committee meeting will be placed on the City Council Agenda by the City Manager. The earliest date these items might be considered by City Council would normally be 10 days to 2 weeks from the Traffic Committee meeting. If you are interested, you may wish to contact the City Manager's Office in order to determine when a particular item is on the Agenda.

Persons wishing to speak before this Committee should attempt to hold their remarks to no more than 5 minutes. Please try to keep your remarks relevant to the subject at hand. Please speak only when recognized by the Chair. These comments are made to keep this meeting moving along. Anyone wishing to be heard will be heard; we are here to listen and help in solving or resolving your particular concerns.

**PUBLIC HEARING****3. No Public Hearings****REGULAR BUSINESS****4. Request for Traffic Control – North Lake Drive and Sherwood Drive**

Kevin Ferguson of 1850 Woodgate Drive states that the lack of traffic control at the intersection of North Lake Drive and Sherwood Drive creates a hazardous condition now that Raintree Village on the Park has been developed.

**SUGGESTED RESOLUTIONS:**

- a. RESOLVED, that the intersection of North Lake Drive at Sherwood Drive be **MODIFIED** from no traffic control to a YIELD sign on the Sherwood Drive northbound approach to the intersection.
- b. RESOLVED, that **NO CHANGE** be made at the intersection of North Lake Drive at Sherwood Drive.

**5. Public Comment****6. Other Business****7. Adjourn**

A regular meeting of the Troy Traffic Committee was held Wednesday, November 20, 2019 in the Lower Level Conference Room at Troy City Hall. Pete Ziegenfelder called the meeting to order at 7:30 p.m.

**1. Roll Call**

Present: Don Johnson  
Richard Kilmer  
Cindy Nurak  
Al Petrulis  
Cynthia Wilsher  
Pete Ziegenfelder  
Alankar Shende, Student Representative

Absent: Sunil Sivaraman

Also present: Earl Roberts, 3243 Kilmer  
Mary Ortmann, 5298 Standish  
Michael Ortmann, 5298 Standish  
Pat Bismack, 370 McKinley  
Anne Smith, 5284 Standish  
Michaela Smith, 5284 Standish  
Sgt. Justin Novak, Police Department  
Bill Huotari, City Engineer/Traffic Engineer

**2. Minutes – September 18, 2019**

Resolution # 2019-11-20

Moved by Kilmer

Seconded by Johnson

To approve the minutes as printed.

Yes: Johnson, Kilmer, Nurak, Petrulis, Wilsher, Ziegenfelder

No: None

Absent: Sivaraman

**MOTION CARRIED****PUBLIC HEARINGS****3. Request for Sidewalk Waiver – 370 McKinley (Sidwell #88-20-09-254-015)**

Pat Bismack of 2742 Powderhorn (Rochester Hills), requests a sidewalk waiver for the sidewalk at 370 McKinley (Sidwell #88-20-09-254-015). Mr. Bismack states "*I would be the only one with a sidewalk in the whole sub*".

The Department of Public Works (DPW) recommends approving the waiver request and not requiring the installation of sidewalk “*due to the lack of sidewalk on the surrounding parcels*”, contingent upon the submission of a cash deposit for future construction and to assure consent and participation in any future sidewalk installation.

Mr. Bismack has already paid the sidewalk waiver fee in lieu of constructing the sidewalk. This was done due to the time of year and the need to have final grade approval issued to allow for the closing of the house.

Mr. Bismack was in attendance at the meeting and reiterated that there are no other sidewalks in the subdivision. The new homeowner does not want sidewalk.

Traffic Engineering received one (1) email in support of waiving the sidewalk.

Resolution # 2019-11-21

Moved by Wilsher

Seconded by Petrulis

WHEREAS, City of Troy Ordinances, Chapter 34, allows the Traffic Committee to grant waivers of the City of Troy Design Standards for Sidewalks upon a demonstration of necessity; and

WHEREAS, Pat Bismack has requested a waiver of the requirement to construct sidewalk based on lack of sidewalk on surrounding parcels; and

WHEREAS, the Traffic Committee has determined the following:

- a. A waiver will not impair the public health, safety or general welfare of the inhabitants of the City and will not unreasonably diminish or impair established property values within the surrounding area, and
- b. A strict application of the requirements to construct a sidewalk would result in practical difficulties to, or undue hardship upon, the owners, and
- c. The construction of a new sidewalk would lead nowhere and connect to no other walk, and thus will not serve the purpose of a pedestrian travel-way.

NOW THEREFORE, BE IT RESOLVED, that the Traffic Committee **GRANTS** a waiver of the sidewalk requirement for 370 McKinley (Sidwell #88-20-09-254-015) based on the receipt of a cash deposit in the amount of \$1,818.60 commensurate with the cost of sidewalk construction.

Yes: Johnson, Kilmer, Nurak, Petrulis, Wilsher, Ziegenfelder

No: None

Absent: Sivaraman

**MOTION CARRIED**

**REGULAR BUSINESS**

**4. Request for Traffic Control – Drake Drive and Tucker Drive at Standish Drive**

Mary Ortmann of 5298 Standish Drive states that the lack of traffic control at the intersection of Drake Drive and Tucker Drive, both at Standish Drive creates a hazardous condition.

Traffic Engineering received one (1) email in support of Stop signs at the intersections.

Michael Ortmann of 5298 Standish Drive was in attendance at the meeting. Mr. Ortmann reports that traffic has increased since the new subdivisions to the west have been built. Most traffic is coming off Drake and going south on Standish. Frequently turning vehicles travel at high speeds without slowing at the intersections. There appears to be more traffic on southbound Standish during the AM and PM peak hours. Traffic also appears to be heavier on Standish between Drake and Tucker. Traffic goes way too fast on Standish.

Mary Ortmann of 5298 Standish Drive was in attendance at the meeting. Ms. Ortmann discussed concerns with backing out of her driveway with fast approaching vehicles along Standish. She reports that many times vehicles will tailgate her as she drives the speed limit along Standish. Speeds along Mayflower have also increased. School time traffic makes the situation even more complicated. No one knows what to do at the intersection of Tucker and Standish. There is no traffic control in the area.

Anne Smith of 5284 Standish was in attendance at the meeting. Ms. Smith reiterated that traffic does not stop or yield at the intersection and confirmed that drivers do tailgate you along Standish. Many drivers do not yield to others at Tucker and Standish. She supports Stop signs to provide direction to drivers.

Mr. Ziegenfelder supports ALL-WAY STOP at the intersection of Tucker and Standish.

Mr. Johnson asked for clarification on parking in the area. The west side of Standish is posted No Parking. Parked cars can block visibility of cars pulling out of driveways. The new subdivisions are about 3 years old and have added traffic to the area. He asked about the John R construction impact on traffic and a resident reported that one-way northbound traffic on John R has increased southbound traffic on Standish, but that traffic had already increased before the John R construction started due to the new subdivisions.

Ms. Wilsher added that the school related traffic adds to the confusion in the area.

Sgt. Novak discussed that most students are driven to and picked up from school adding to the number of vehicles on the roads. Troy Police prefer traffic control at intersections.

Mr. Kilmer discussed opening up Tucker. He supports ALL-WAY STOP at the intersections.

Mr. Petrulis agreed that ALL-WAY STOP at Tucker and Standish makes sense. He questioned where southbound Standish traffic is generated from. He disagreed that all of the cut through traffic was from outside of the area and would not necessarily be classified as cut through traffic.

Student representative Shende discussed the ALL-WAY STOP at Tucker and Standish and the potential of an ALL-WAY STOP at Drake and Standish.

Sgt. Novak stated that Troy Police provide additional enforcement when new traffic control devices are installed to ensure compliance as drivers get used to the new signs.

Resolution # 2019-11-22

Moved by Johnson

Seconded by Wilsher

RESOLVED, that the intersection of Drake Drive at Standish Drive be **MODIFIED** from no traffic control to a STOP sign on the Drake Drive approach to the intersection at Standish Drive.

Yes: Johnson, Kilmer, Nurak, Petrulis, Wilsher, Ziegenfelder

No: None

Absent: Sivaraman

**MOTION CARRIED**

Resolution # 2019-11-23

Moved by Johnson

Seconded by Wilsher

RESOLVED, that the intersection of Tucker Drive at Standish Drive be **MODIFIED** from no traffic control to ALL-WAY STOP control at the intersection of Tucker Drive at Standish Drive.

Yes: Johnson, Kilmer, Nurak, Petrulis, Wilsher, Ziegenfelder

No: None

Absent: Sivaraman

**MOTION CARRIED**

**5. Request for Traffic Control – Hartland Drive at Kilmer Drive**

Marci Curtis of 343 Vanderpool states that the lack of ALL-WAY STOP control at the intersection of Hartland Drive at Kilmer Drive creates a hazardous condition. A new home at the corner has exacerbated the condition and reduced the sight lines.

Traffic Engineering received two (2) phone calls in support of ALL-WAY STOP control at the intersection of Hartland and Kilmer.

Earl Roberts of 3243 Kilmer was in attendance at the meeting. He has lived in his home near the intersection for 29 years and has witnessed the increase in traffic along Hartland. He supports ALL-WAY STOP control at the intersection. The new home at the corner will reduce visibility.

Mr. Kilmer added that Hartland has always been a primary cut through route between Livernois

and Rochester.

Ms. Wilsher discussed increased traffic along Hartland due to the new retail and restaurants along Big Beaver. Traffic is using Hartland to avoid congestion on Big Beaver.

Mr. Johnson supports ALL-WAY STOP control at the intersection. The curve in Hartland near Ellenboro creates limited line of sight for drivers on Kilmer, especially if vehicles are traveling fast along Hartland as they approach Kilmer.

Resolution # 2019-11-24

Moved by Kilmer

Seconded by Wilsher

RESOLVED, that the intersection of Hartland Drive at Kilmer Drive be **MODIFIED** from STOP control on the Kilmer Drive approaches to ALL-WAY STOP control at the intersection of Hartland Drive and Kilmer Drive.

Yes: Johnson, Kilmer, Nurak, Petrulis, Wilsher, Ziegenfelder

No: None

Absent: Sivaraman

## **MOTION CARRIED**

### **6. 2020 Meeting Schedule**

According to City of Troy Traffic Committee By-Laws, Article IV – Meetings:

*“Regular meetings will be held on the third Wednesday of each month at 7:30 p.m. at the Troy City Hall, 500 West Big Beaver Road, Troy, Michigan.”*

There are no other by-laws or procedures that establish the actual dates of the meetings, but an annual calendar of meetings is published by the City so meeting dates need to be set for this purpose.

Resolution # 2019-11-25

Moved by Kilmer

Seconded by Johnson

RESOLVED, that the Traffic Committee **SHALL HOLD** Regular Meetings in 2020 according to the following schedule at 7:30 PM:

- Wednesday, January 15
- Wednesday, February 19
- Wednesday, March 18
- Wednesday, April 15
- Wednesday, May 20
- Wednesday, June 17
- Wednesday, July 15
- August – NO MEETING



- Wednesday, September 16
- Wednesday, October 21
- Wednesday, November 18
- December – NO MEETING

Yes: Johnson, Kilmer, Nurak, Petrulis, Wilsher, Ziegenfelder

No: None

Absent: Sivaraman

**MOTION CARRIED**

**7. Public Comment**

There was no public comment at the meeting.

**8. Other Business**

Traffic Engineering provided handouts from MDOT showing the Diverging Diamond Interchange (DDI) proposed at 14 Mile and Big Beaver, both at I75. General discussion regarding I75 construction followed.

**9. Adjourn**

The meeting adjourned at 8:23 p.m.

---

Pete Ziegenfelder, Chairperson

---

William J. Huotari, City Engineer/Traffic Engineer

G:\Traffic\aaa Traffic Committee\2019\11\_November 20\20191120\_Minutes\_TC\_DRAFT.docx



## **TRAFFIC COMMITTEE REPORT**

December 17, 2019

TO: Traffic Committee

FROM: Bill Huotari, City Engineer/ Traffic Engineer

SUBJECT: Request for Traffic Control  
North Lake Drive at Sherwood Drive

### **Background:**

Kevin Ferguson of 1850 Woodgate Drive states that the lack of traffic control at the intersection of North Lake Drive and Sherwood Drive creates a hazardous condition now that Raintree Village on the Park has been developed.

There were no crashes recorded in the past three (3) years.

The posted speed limit on both streets is 25 mph.

North Lake Drive would be considered the major road as it provides access to John R Road and the new residential construction to the west of the intersection (Raintree Village on the Park).

The major potential sight distance obstructions at the intersection are the house corner located at the southwest quadrant of the intersection and house corner located at the southeast quadrant of the intersection.

The safe approach speed was found to be 17.4 mph for a vehicle traveling northbound on Sherwood Drive as a result of the sight obstruction from the house corner on the southeast quadrant of the intersection, therefore a YIELD sign is the recommended treatment on the Sherwood Drive northbound approach to the intersection.

The city requested that OHM review the intersection and provide their findings and recommendations (copy attached).

December 5, 2019

Mr. William Huotari, PE  
City Engineer  
City of Troy  
500 W. Big Beaver Rd  
Troy, MI 48084

RE: Traffic Control Recommendation for North Lake Drive at Sherwood Drive  
OHM JN: 0128-19-0240

Dear Mr. Huotari:

As requested, we have reviewed the intersection of North Lake Drive at Sherwood Drive to determine the proper traffic control. The subject intersection is a 3-leg intersection located in the City of Troy approximately 1,200' west of John R Road and 2,200' south of Wattles Road. The speed limit on both streets is 25 mph. There is no yield or stop sign on the northbound leg of Sherwood Drive. Reference the attachments for aerial and intersection photos.

### **Types of Roadways**

Both Sherwood Drive and North Lake Drive are considered local streets. North Lake Drive runs east / west and connects the neighborhood to John R Road (principal arterial). Sherwood Drive runs north / south and serves access to / from the neighborhood from Woodgate Drive. Street parking is allowed only on the west side of Sherwood Drive and the southside of North Lake Drive. North Lake Drive would be considered the major road as it provides access to John R Road and the new residential construction to the west of the intersection on North Lake Drive.

The ensuing traffic control analysis adheres to the guidance presented in the 2011 Michigan Manual on Uniform Traffic Control Devices (MMUTCD). A reference document explaining the background behind the analysis is attached to this memo.

### **Approach Speeds**

The approach speed limit on both streets is 25 mph. Speed limits alone cannot be used in this case to determine which direction of traffic should be assigned the right-of-way.

### **Crash Analysis**

Based on information obtained through the Traffic Improvement Association of Michigan, there were no crashes recorded in the past three (3) years within a 250' radius of the intersection. Therefore, the crash history does not constitute a compelling case for modifying the existing controls.



## **Traffic Volumes**

Traffic counts were not collected in the vicinity of the intersection. Traffic volumes in residential areas are predominantly driven by the number of single-family residential homes in the neighborhood. Based on the residential nature and the number of homes in the surrounding area, it is highly improbable that this location would satisfy any of the minimum volume warrants for an all-way STOP. Further explanation within the context of the minimum volume constraints is provided next.

It is extremely unlikely that North Lake Drive meets and sustains the 300 vehicles per hour threshold for a minimum of 8 hours. The combined vehicular, pedestrian, and bicycle volumes entering from Sherwood Drive is similarly unlikely to average at least 200 units for any 8 hours. Additionally, since the posted speed limit is only 25 mph, it is reasonable to assume that the 85<sup>th</sup> percentile approach speed does not exceed 40 mph. Thus, the minimum vehicular volume warrants on either road cannot be discounted to 70 percent of the values described previously. Finally, the study intersection is likely to fall significantly shy even of the reduced 80 percent volumes, based on expected trip generation for this neighborhood. Therefore, the minimum volume criteria for an all-way STOP has not been met.

## **Sight Distance**

The major potential sight distance obstructions at the intersection is the house corner located at the southwest quadrant of the intersection and house corner located at the southeast quadrant of the intersection. Reference the attachments for intersection photos. These obstructions come into play when determining the safe approach speeds for the intersection. The safe approach speed is the speed at which a vehicle can approach an intersection and still stop in time to avoid a collision with a vehicle on the cross street. Safe approach speeds are determined through calculations.

When the safe approach speed is found to be more than 10 mph, a YIELD sign is recommended. In this case, the safe approach speed was found to be 17.4 mph for a vehicle traveling northbound on Sherwood Drive as a result of the sight obstruction from the house corner on the southeast quadrant of the intersection, therefore a YIELD sign is the recommended treatment. The safe approach speed calculation spreadsheet is attached for your reference.



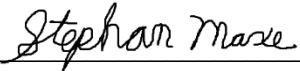
## Recommendation

OHM recommends installing a YIELD sign on the Sherwood Drive northbound approach to the intersection. The intersection should continue to be monitored if traffic volumes increase or crashes begin to occur.

Sincerely,  
Orchard, Hiltz & McCliment, Inc.

---

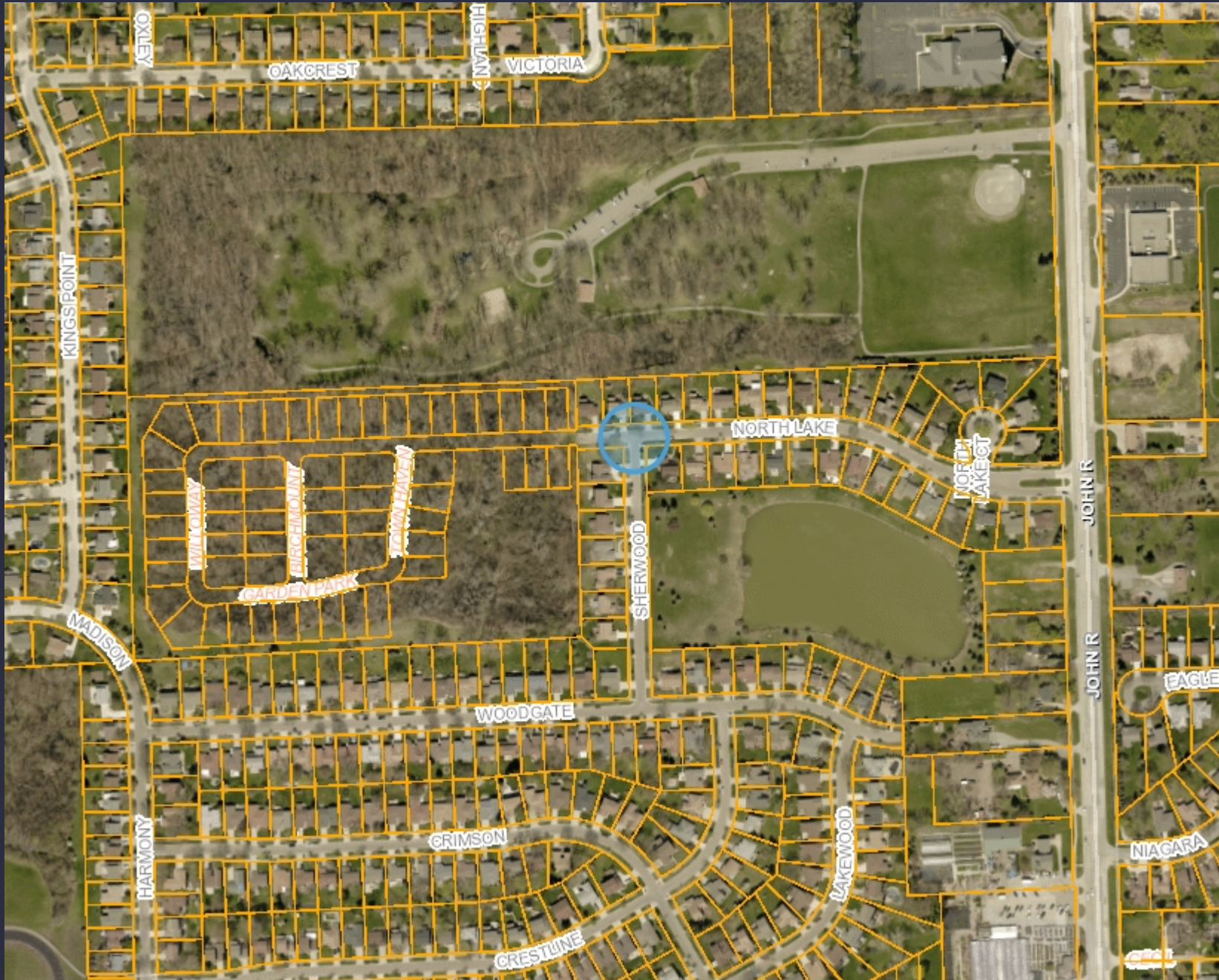
Ricardo Freshley  
Engineer

  
Stephan Maxe, PE  
Project Engineer

## Attachments:

- Aerial Photo
- Safe Approach Speed Calculation Spreadsheet
- Intersection Photos
- Traffic Control Determination Reference Guide
- Crash Data





Notes:



## Safe Approach Speed Calculation

**N Lake Dr and Sherwood Dr**  
City of Midland

Date: 12/4/2019  
Analyst: Ife Ogundeji

### Measured:

Width of Roads  
Road 1 = 23 (ft)  
Road 2 = 23 (ft)

Distance to Obstruction  
a = 57.1 (ft)  
b = 51.5 (ft)  
c = 47.9 (ft)  
d = 48.2 (ft)

### Angle of Intersection

Delta = 90 (degrees, measure counterclockwise)

### Road 1 Posted

Speed Limit = 25 (mph)

### Assumed:

Speed of Vehicle A = Speed of Vehicle C  
= Posted Speed Limit on Road 1

+ 5 (mph)

$V_1 = 30$  (mph)

Perception / Reaction Time (AASHTO)

$t = 2.5$  (sec)

Deceleration rate (AASHTO)

$A = 11.20$

Clearance distance in excess of safe stopping distance (AAA)

$EC = 0$  (ft)

Calculated Safe Approach Speed for Vehicle B

Approaching on Road 2

TRUE 17.4 (mph) [Based on Veh. A]

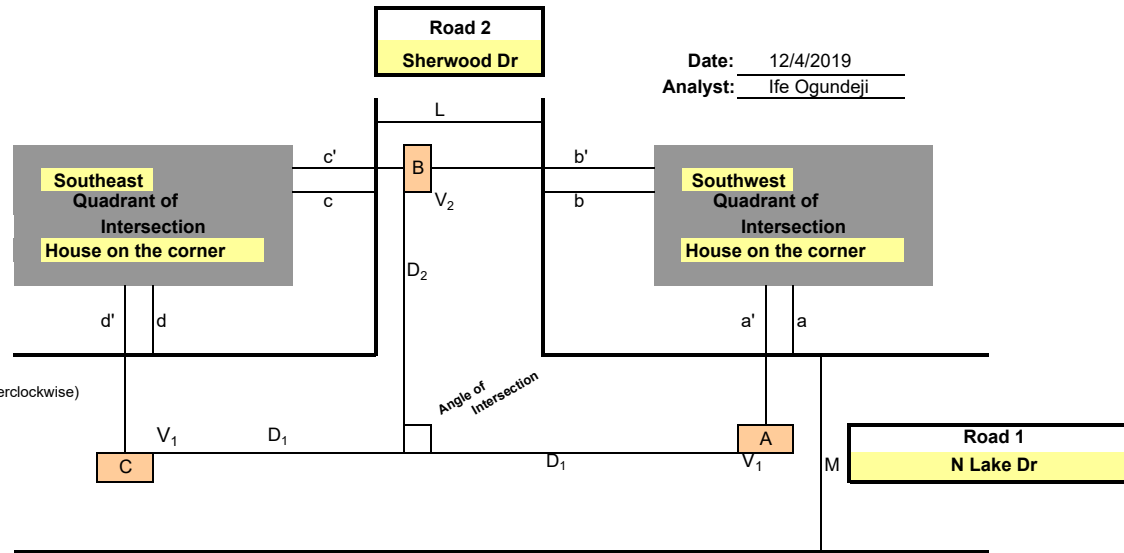
FALSE or  $V_2 = 15.1$  (mph) [Based on Veh. C]

Threshold of Safe Approach Speed (AAA, FHWA & NSC)

to Recommend STOP Control 10.0 (mph)

to Recommend YIELD Control 25.0 (mph)

Otherwise Recommends NO CONTROL.



### Intermediate Calculations:

$D_1 = 196$

$D_{2A} = 92.6$

$D_{2C} = 77.2$

$a' = 63.1$

$b' = 62.5$

$c' = 53.9$

$d' = 59.2$

Based On  $D_1 = (1.075 V_1^2 / A) + 1.4667 V_1 t + EC$

$D_{2A} = \frac{a' * D_1}{(D_1 - b')}$  or  $D_{2C} = \frac{c' * D_1}{(D_1 - d')}$

Notes: Enter field measurements in yellow highlighted area.

Blue fields are std. default values; change only for cause.

Calculated by spreadsheet

Recommended ROW control for Road 2

based on safe approach speed: YIELD SIGN





**Photograph No. 1:** North Lake Drive – Heading East

**Date:** 12/04/19 **Photographer:** Ricardo Freshley





**Photograph No. 2:** North Lake Drive – Heading East and Looking Right

**Date:** 12/04/19 **Photographer:** Ricardo Freshley



**Photograph No. 3:** North Lake Drive – Heading West

**Date:** 12/04/19 **Photographer:** Ricardo Freshley





**Photograph No. 4:** North Lake Drive – Heading West and Looking Left

**Date:** 12/04/19 **Photographer:** Ricardo Freshley



**Photograph No. 5:** Sherwood Drive – Heading North

**Date:** 12/04/19 **Photographer:** Ricardo Freshley



**Photograph No. 6:** Sherwood Drive – Heading North and Looking Right

**Date:** 12/04/19 **Photographer:** Ricardo Freshley





**Photograph No. 7:** Sherwood Drive – Heading North and Looking Left

**Date:** 12/04/19 **Photographer:** Ricardo Freshley



**Photograph No. 8:** Sherwood Drive – Heading South

**Date:** 12/04/19 **Photographer:** Ricardo Freshley

## **Reference Guide on Traffic Control Determination in the State of Michigan**

### **Background**

This document is intended to be used as a reference guide for performing intersection traffic control studies of intersections on public roadways in Michigan. The document explains the procedure and requirements necessary to implement traffic control at an intersection as stipulated by the Michigan Manual on Uniform Traffic Control Devices (MMUTCD). Generally, the starting premise is an uncontrolled intersection. The first step would then be to verify if the intersection should remain uncontrolled or if YIELD or STOP controls on the minor street approach(es) should be provided. For locations with higher traffic volumes and /or crash issues, then an evaluation of the location for all-way STOP warrants would be performed. The appropriate analysis for each level of control described below.

### **YIELD Traffic Control Guidance**

The use of a YIELD sign is intended to assign the right-of-way at intersections where it is not usually necessary to stop before proceeding into the intersection. Conversely, the STOP sign is intended for use where it is usually necessary to stop before proceeding into the intersection.

The following conditions should be fully evaluated to determine how the right-of-way should be assigned:

- Traffic Volumes: Normally, the heavier volume of traffic should be given the right-of-way.
- Approach Speeds: The higher speed traffic should normally be given the right-of-way.
- Types of Highways: When a minor highway intersects a major highway, it is usually desirable to control the minor highway.
- Sight Distance: Sight distance across the corners of the intersection is the most important factor and is critical in determining safe approach speeds.

### **STOP Traffic Control Guidance**

Based on the MMUTCD there are four conditions where STOP signs may be warranted:

- At the intersection of a less important road with a main road where application of the normal right-of-way rule is unduly hazardous.
- On a street entering a through highway or street.
- At an unsignalized intersection in a signalized area.
- At other intersections where a combination of high speed, restricted view, or crash records indicate a need for control by the STOP sign.

Many times STOP signs are installed where they may not be warranted. Traffic experts agree that unnecessary STOP signs:

- Cause accidents they are designed to prevent.
- Breed contempt for other necessary STOP signs.
- Waste millions of gallons of gasoline annually.
- Create added noise and air pollution.
- Increase, rather than decrease, speeds between intersections.

There is also an explicit restriction in the MMUTCD that STOP signs are not to be used for speed control, in Section 2B.04.



Evaluation of All-Way STOP Traffic Control

Based on the MMUTCD there are four conditions where **all-way** STOP signs may be warranted:

- A. *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 control signal.*
- B. *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.*
- 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; and*
  - 2. *The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but*
  - 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.*
- D. *Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.*