

AGENDA

Traffic Committee Meeting

April 16, 2014 – 7:30 P.M.

Lower Level Conference Room – Troy City Hall

500 West Big Beaver Road

1. Roll Call
2. Minutes – March 19, 2014

REGULAR BUSINESS

3. Request for Traffic Control – Ogden at Keats
4. Request for Removal of No Parking Zone – 1914 Witherbee
5. Request for Traffic Control – Huntsford at Finch
6. Public Comment
7. Other Business
8. Adjourn

cc: Item 3: Dianne Poulton, 1432 Madison Drive, Troy, MI 48083
Properties within 300'

Item 4: Eric Eshaki, 1914 Witherbee, Troy, MI 48084
Robert Flynn, 2481 Manchester, Birmingham, MI 48009
Properties within 300'

Item 5: Raimonda Abdal, 908 Huntsford Drive, Troy, MI 48084
Properties within 300'

Traffic Committee Members

Captain Robert Redmond & Sgt. Mike Szuminski, Police Department

Lt. Eric Caloia, Fire Department

William J. Huotari, Deputy City Engineer/Traffic Engineer

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.

REGULAR BUSINESS

3. Request for Traffic Control – Ogden at Keats

Dianne Poulton of 1432 Madison Drive requests that traffic control be placed at the intersection of Ogden and Keats. Ms. Poulton states that the lack of traffic control at the intersection creates a hazardous situation.

SUGGESTED RESOLUTIONS:

- a. **RESOLVED**, that the intersection of Ogden and Keats be modified from NO Traffic Control to a YIELD sign on the Keats southbound approach to Ogden.
- b. **RESOLVED**, that NO changes be made at the intersection of Ogden and Keats.

4. Request for Removal of No Parking Zone – 1914 Witherbee

Eric Esshaki of 1914 Witherbee requests that the No Parking restrictions adjacent to 1914 Witherbee be removed. The south side of Witherbee, between Eton and Graefield, is posted No Parking on school days only between 8:15 – 9:15 AM and 3:15 – 4:15 PM. The north side of Witherbee is posted No Parking as the fire hydrant side of the street. Mr. Esshaki states that the current No Parking restriction places an undue burden on residents.

SUGGESTED RESOLUTIONS:

- a. **RESOLVED**, that the NO PARKING restrictions at 1914 Witherbee be REMOVED and the area adjacent to 1914 Witherbee, on the south side of the road, be open at all times for parking.
- b. **RESOLVED**, that NO changes be made to the existing NO PARKING zone on the south side of Witherbee adjacent to 1914 Witherbee.

5. Request for Traffic Control – Huntsford at Finch

Raimonda Abdal of 908 Huntsford Drive requests that the existing Yield signs at the intersection of Huntsford and Finch be replaced with Stop signs on the northbound and southbound Finch approaches to Huntsford. Ms. Abdal states that motorists do not yield at the intersection creating a hazardous situation.

SUGGESTED RESOLUTIONS:

- a. **RESOLVED**, that the intersection of Huntsford and Finch be modified from YIELD signs on northbound and southbound Finch to STOP signs on northbound and southbound Finch at Huntsford.
- b. **RESOLVED**, that NO changes be made at the intersection of Huntsford and Finch.

6. Public Comment

7. Other Business

8. Adjourn

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A regular meeting of the Troy Traffic Committee was held Wednesday, March 19, 2014 in the Lower Level Conference Room at Troy City Hall. Ted Halsey called the meeting to order at 7:30 p.m.

1. Roll Call

PRESENT: Sarah Binkowski
Tim Brandstetter
Ted Halsey
Stevan Popovic

ABSENT: Richard Kilmer
Al Petrusis
Pete Ziegenfelder

Also present: Murray Deagle, 328 Evaline
Brad Manning, 660/670 Trombley
Jerry Griffith, 660/670 Trombley
Sgt. Mike Szuminski, Police Department
Bill Huotari, Deputy City Engineer/Traffic Engineer

2. Minutes – February 19, 2014

RESOLUTION # 2014-03-06

Moved by Binkowski
Seconded by Brandstetter

To approve the February 19, 2014 minutes as printed.

YES: 4 (Binkowski, Brandstetter, Halsey, Popovic)
NO: None
ABSENT: 3 (Kilmer, Petrusis, Ziegenfelder)

MOTION CARRIED

PUBLIC HEARINGS

3. Request for Sidewalk Waiver – Sidwell #88-20-20-427-038

Item #3 and #4 were discussed at the same time by the Committee. The petitioner was not present at the meeting.

Safet Stafa requests a sidewalk waiver for the sidewalk at Lot 52 of Muer’s Garden Farms, Sidwell #88-20-20-427-038. Petitioner states that there is no existing sidewalk on Banmoor.

This will be a corner lot, so the waiver would actually apply to Banmoor and McClure as it would be granted to the parcel.

Traffic Engineering received two (2) emails regarding this request. One (1) email from Ann Bruttell of 3425 McClure Drive requested that the waiver be denied. The second email, from Jennifer and Mark Beres of 3322 McClure supported granting the waiver.

General discussion relative to sidewalk waivers and lack of existing sidewalks in this area ensued. There were no members of the public that commented on this item.

RESOLUTION # 2014-03-07

Moved by Binkowski
Seconded by Brandstetter

1. **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, Safet Stafa has requested a waiver of the requirement to construct sidewalk due to the fact that there is no existing sidewalk on Banmoor or McClure; 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 Lot 52 of Muer’s Garden Farms, Sidwell #88-20-20-427-038.

YES: 4 (Binkowski, Brandstetter, Halsey, Popovic)
NO: None
ABSENT: 3 (Kilmer, Petrusis, Ziegenfelder)

MOTION CARRIED

4. Request for Sidewalk Waiver – Sidwell #88-20-20-427-039

Item #3 and #4 were discussed at the same time by the Committee. The petitioner was not present at the meeting.

Safet Stafa requests a sidewalk waiver for the sidewalk at Lot 52 of Muer’s Garden Farms, Sidwell #88-20-20-427-039. Petitioner states that there is no existing sidewalk on Banmoor.

Traffic Engineering received two (2) emails regarding this request. One (1) email from Ann Bruttell of 3425 McClure Drive requested that the waiver be denied. The second email, from Jennifer and Mark Beres of 3322 McClure supported granting the waiver.

General discussion relative to sidewalk waivers and lack of existing sidewalks in this area ensued. There were no members of the public that commented on this item.

RESOLUTION # 2014-03-08

Moved by Brandstetter

Seconded by Binkowski

1. **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, Safet Stafa has requested a waiver of the requirement to construct sidewalk due to the fact that there is no existing sidewalk on Banmoor; 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 Lot 52 of Muer’s Garden Farms, Sidwell #88-20-20-427-039.

YES: 4 (Binkowski, Brandstetter, Halsey, Popovic)
NO: None
ABSENT: 3 (Kilmer, Petrusis, Ziegenfelder)

MOTION CARRIED

5. Request for Sidewalk Waiver – 475 Leetonia

Murray Deagle requests a sidewalk waiver for the sidewalk at Lot 92 of McCormick & Lawrence Little Farms Subdivision, 475 Leetonia, Sidwell #88-20-15-377-042. Petitioner states that there is no existing sidewalk on Leetonia to the west that would connect to Livernois. Mr. Deagle also states that there are potential issues with drainage and road grades along Leetonia.

Traffic Engineering received one (1) phone call from James Wong of 491 Leetonia regarding the sidewalk waiver request. Mr. Wong supports installation of a sidewalk if it were to be extended to Livernois.

Mr. Deagle was present at the meeting and noted that this lot is adjacent to existing sidewalk and would connect to a sidewalk network that provides a pathway to Leonard Elementary. He supports the waiver based on his claims that drainage in the area will be adversely impacted by installation of sidewalk.

Mr. Brandstetter did review the site and it appears that drainage issues should be able to be addressed during grading of the site.

Ms. Binkowski also recommended that the sidewalk be installed and that drainage issues be addressed through engineering and site grading.

RESOLUTION # 2014-03-09

Moved by Brandstetter
Seconded by Popovic

1. **WHEREAS**, the Traffic Committee has determined, after a public hearing, that Petitioner failed to establish the standards justifying the granting of a waiver,

NOW THEREFORE, BE IT RESOLVED, that the Traffic Committee denies a waiver of the sidewalk requirement for Lot 92 of McCormick & Lawrence Little Farms Subdivision, 475 Leetonia, Sidwell #88-20-15-377-042.

YES: 4 (Binkowski, Brandstetter, Halsey, Popovic)
NO: None
ABSENT: 3 (Kilmer, Petrusis, Ziegenfelder)

MOTION CARRIED

6. Request for Sidewalk Waiver – Sidwell #88-20-22-401-095 (Parcel A)

Item #6 and #7 were discussed at the same time by the Committee.

Eric Konieczny requests a sidewalk waiver for the sidewalk at Lot 40 (Parcel A) of Supervisors Plat #6, Sidwell #88-20-22-401-095. Petitioner states that there is no existing sidewalk on Trombley.

Mr. Brad Manning of 660/670 Trombley was present at the meeting and supported a waiver based on no existing sidewalk on the entire street or in the area. The sidewalk would connect to nothing and lead to nowhere.

Mr. Halsey, who lives on Vanderpool, one block south of Trombley, confirmed that there are no sidewalks in this neighborhood.

Traffic Engineering received one (1) email regarding this sidewalk waiver. Mr. Frank Colosimo supports installation of the sidewalk and requests that the waiver be denied.

RESOLUTION # 2014-03-10

Moved by Popovic

Seconded by Brandstetter

1. **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, Eric Konieczny has requested a waiver of the requirement to construct sidewalk due to the fact that there is no existing sidewalk on Trombley; 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 Lot 40 (Parcel A) of Supervisors Plat #6, Sidwell #88-20-22-401-095.

YES: 4 (Binkowski, Brandstetter, Halsey, Popovic)
NO: None
ABSENT: 3 (Kilmer, Petrulis, Ziegenfelder)

MOTION CARRIED

7. Request for Sidewalk Waiver – Sidwell #88-20-22-401-096 (Parcel B)

Item #6 and #7 were discussed at the same time by the Committee.

Eric Konieczny requests a sidewalk waiver for the sidewalk at Lot 40 (Parcel B) of Supervisors Plat #6, Sidwell #88-20-22-401-096. Petitioner states that there is no existing sidewalk on Trombley.

Mr. Brad Manning of 660/670 Trombley was present at the meeting and supported a waiver based on no existing sidewalk on the entire street or in the area. The sidewalk would connect to nothing and lead to nowhere.

Mr. Halsey, who lives on Vanderpool, one block south of Trombley, confirmed that there are no sidewalks in this neighborhood.

Traffic Engineering received one (1) email regarding this sidewalk waiver. Mr. Frank Colosimo supports installation of the sidewalk and requests that the waiver be denied.

RESOLUTION # 2014-03-11

Moved by Popovic
Seconded by Brandstetter

1. **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, Eric Konieczny has requested a waiver of the requirement to construct sidewalk due to the fact that there is no existing sidewalk on Trombley; 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 Lot 40 (Parcel B) of Supervisors Plat #6, Sidwell #88-20-22-401-096.

YES: 4 (Binkowski, Brandstetter, Halsey, Popovic)
NO: None
ABSENT: 3 (Kilmer, Petrusis, Ziegenfelder)

MOTION CARRIED

REGULAR BUSINESS

8. Election of Chairperson

By-laws of the City of Troy Traffic Committee address the appointment of Chairperson. The Chairperson shall be one of the citizen members of the Committee and shall have the privilege of discussing all matters before the Committee and voting thereon.

Mr. Brandstetter nominated Mr. Ziegenfelder to remain as Chairperson. This was supported by Mr. Halsey.

RESOLUTION # 2014-03-12

Moved by Brandstetter
Seconded by Halsey

RESOLVED, That Traffic Committee hereby **ELECTS** Pete Ziegenfelder to serve as Chairperson for the Traffic Committee for a term scheduled to expire in one (1) year or until his or her successor shall take office.

YES: 4 (Binkowski, Brandstetter, Halsey, Popovic)
NO: None
ABSENT: 3 (Kilmer, Petrusis, Ziegenfelder)

MOTION CARRIED

9. Election of Vice-Chairperson

By-laws of the City of Troy Traffic Committee address the appointment of Vice-Chairperson. The Vice-Chairperson shall act for the Chairperson in his or her absence. The Vice-Chairperson shall be a citizen member of the Committee, with the rights and privileges of the Chairperson.

Mr. Halsey nominated Ms. Binkowski as Vice-Chairperson. This was supported by Mr. Brandstetter.

RESOLUTION # 2014-03-13

Moved by Halsey

Seconded by Brandstetter

RESOLVED, That Traffic Committee hereby **ELECTS** Sarah Binkowski to serve as Vice-Chairperson for the Traffic Committee for a term scheduled to expire in one (1) year or until his or her successor shall take office.

YES: 4 (Binkowski, Brandstetter, Halsey, Popovic)

NO: None

ABSENT: 3 (Kilmer, Petrusis, Ziegenfelder)

MOTION CARRIED

10. Public Comment

Ms. Kira Binkowski of 139 Scottsdale Drive requested that the intersection of Livernois and Square Lake be reviewed. School buses traveling northbound on Livernois and turning eastbound to Square Lake are in conflict with southbound Livernois left turning traffic that stop past the stop bar at the intersection. Ms. Binkowski requests that the stop bar be moved back to provide for more room for the school bus to navigate the turn.

11. Other Business

The April Traffic Committee meeting will be moved to Wednesday, April 16, 2014 at 7:30 PM. It had been scheduled for April 23, but a conflict with budget sessions necessitated a move in the scheduled Traffic Committee meeting date.

12. Adjourn

The meeting adjourned at 8:09 p.m.

Pete Ziegenfelder, Chairperson

Bill Huotari, Deputy City Engineer/Traffic Engineer



TRAFFIC COMMITTEE REPORT

April 4, 2014

TO: Traffic Committee

FROM: Bill Huotari, Deputy City Engineer/ Traffic Engineer

SUBJECT: Request for Traffic Control
Ogden at Keats

Background:

Dianne Poulton of 1432 Madison Drive requests that traffic control be placed at the intersection of Ogden and Keats. Ms. Poulton states that the lack of traffic control at the intersection creates a hazardous situation.

There have not been any crashes reported at this intersection in the past five (5) years.

The posted speed limit on both streets is 25 mph. Ogden Drive should be assigned right-of-way as it is the continuing road while Keats terminates.

There are no real sight distance obstructions in the two quadrants of the intersection. There is however driveways near the intersection that were considered as vehicles parking in the driveway can create an obstruction. These come into play when determining the safe approach speed for the intersection.

The safe approach speed on Keats was found to be more than 10 mph; therefore a YIELD sign is the recommended treatment.

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

Recommendation:

Recommend that a YIELD sign be placed on the Keats southbound approach to Ogden.

March 31, 2014

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

Subject: Traffic Control Recommendation for the intersection of Keats at Ogden
OHMJN: 0128-14-0040

Dear Mr. Huotari:

As requested, we have reviewed the Keats at Ogden intersection to determine the proper traffic control. The subject intersection is a tee intersection located in the City of Troy, approximately 1/3 miles east of Rochester Road and a few hundred feet south of Wattles Road. Both are local streets, with Ogden running in the east-west direction and Keats running north-south. The speed limit on both streets is 25 mph. There is currently no right-of-way control at the intersection. Reference the attachments for an aerial and intersection photos.

Background on Traffic Control Determination

Based on the *Michigan Manual of Uniform Traffic Control Devices (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.

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.

Crash Analysis

Based on information obtained through Traffic Improvement Association of Michigan, there has not been any crashes recorded in the past 5-years at this intersection.

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.

Types of Highways

Although both are considered local streets, Ogden Drive is the considered the major road at this intersection as it continues through the intersection, while Keats terminates. Consequently, Ogden should be given the right-of-way priority.

Sight Distance

There are no real sight distance obstructions in the two quadrants of the intersection. For the purposes of our investigation, we considered the obstructions that may be caused by vehicles parking in the driveways of the two corner houses. We noted during our site visit that each household had vehicles parked outside the garage, and these vehicles were in about the same position when Bing Maps, Google Earth and Street View were all reviewed. These 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 less than 10 mph for the minor road, a STOP sign is commonly used. In this case, the safe approach speed on Keats was found to be more than 10 mph; therefore a YIELD sign is the recommended treatment. The safe approach speed calculation spreadsheet is attached for your reference.

Recommendation

OHM recommends that intersection control should be place for a YIELD sign on the Keats approach to the intersection.

Sincerely,
Orchard Hiltz & McCliment, Inc.

Stephen B. Dearing, PE, PTOE
Manager of Traffic Engineering Services

Attachments:

- Crash Data
- Aerial and Intersection Photos
- Safe Approach Speed Calculation Spreadsheet

Safe Approach Speed Calculation

Keats at Ogden
City of Troy

Road 1 = Ogden
Road 2 = Keats

Date: 1/7/2014
Analyst: S.B. Dearing

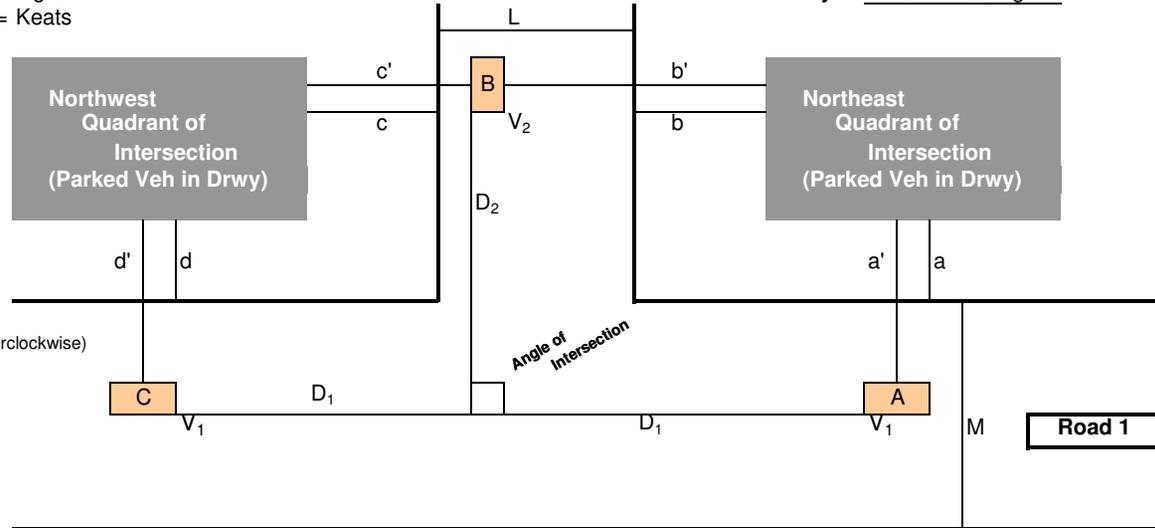
Measured:

Width of Roads
Road 1 = 27 (ft)
Road 2 = 27 (ft)

Distance to Obstruction
a = 51 (ft)
b = 16 (ft)
c = 27 (ft)
d = 57 (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)
V₁ = 30 (mph)

Perception / Reaction Time (AASHTO)

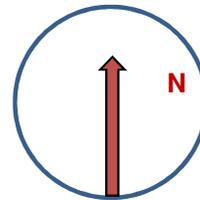
t = 2.5 (sec)

Deceleration rate (AASHTO)

A = 11.20

Clearance distance in excess of safe stopping distance (AAA)

EC = 0 (ft)



Road 2

Intermediate Calculations:
D₁ = 196
D_{2A} = 73.7
D_{2C} = 59.9
a' = 61.5
b' = 32.5
c' = 37.5
d' = 73.5

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

Calculated Safe Approach Speed for Vehicle B
Approaching on Road 2

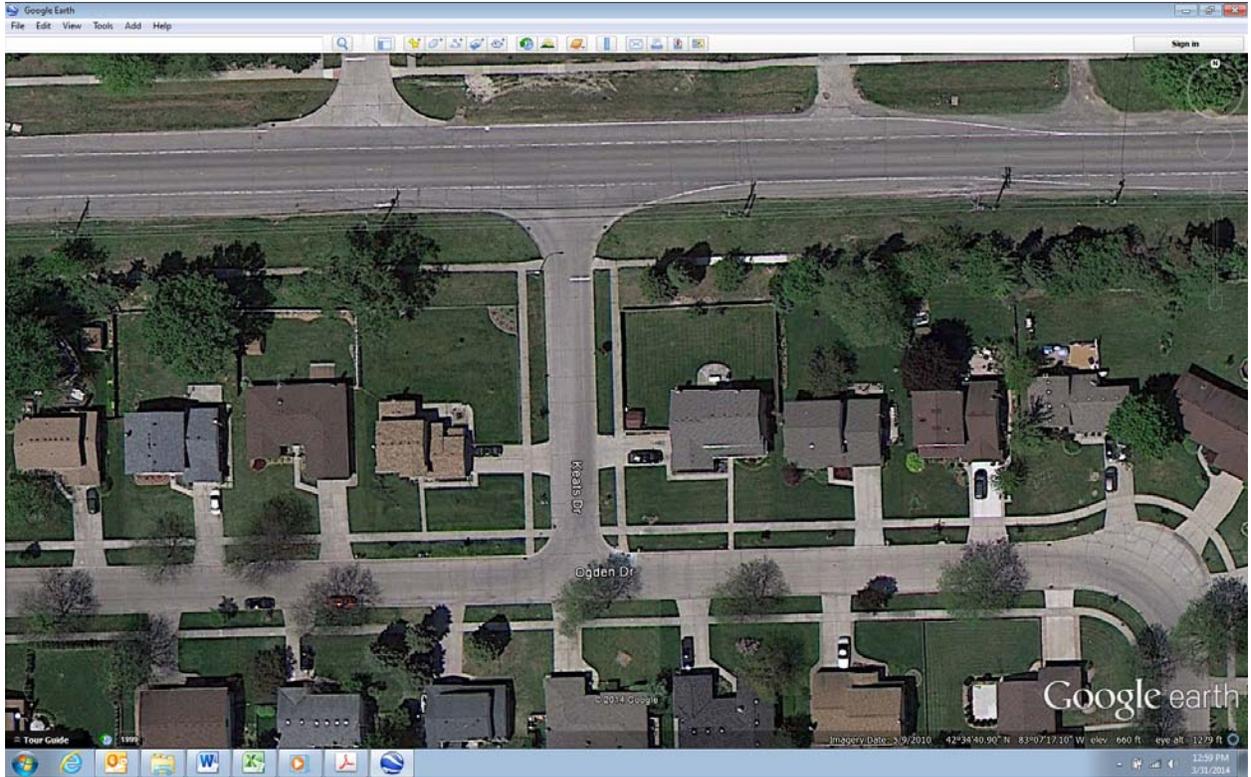
V₂ = 14.6 (mph) [Based on Veh. A]
or V₂ = 12.4 (mph) [Based on Veh. C]

TRUE

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



Keats Drive at Ogden Drive



Keats Drive Looking South to Ogden Drive



TRAFFIC COMMITTEE REPORT

April 4, 2014

TO: Traffic Committee

FROM: Bill Huotari, Deputy City Engineer/ Traffic Engineer

SUBJECT: Request for Removal of No Parking Zone – 1914 Witherbee
Remove No Parking Restrictions

Background:

Eric Esshaki of 1914 Witherbee requests that the No Parking restrictions adjacent to 1914 Witherbee be removed. The south side of Witherbee, between Eton and Graefield, is posted No Parking on school days only between 8:15 – 9:15 AM and 3:15 – 4:15 PM. The north side of Witherbee is posted No Parking as the fire hydrant side of the street.

Mr. Esshaki states that the current No Parking restriction places an undue burden on residents. Traffic Engineering did forward the request to Pembroke Elementary but received no comments back at the time the agenda was prepared.

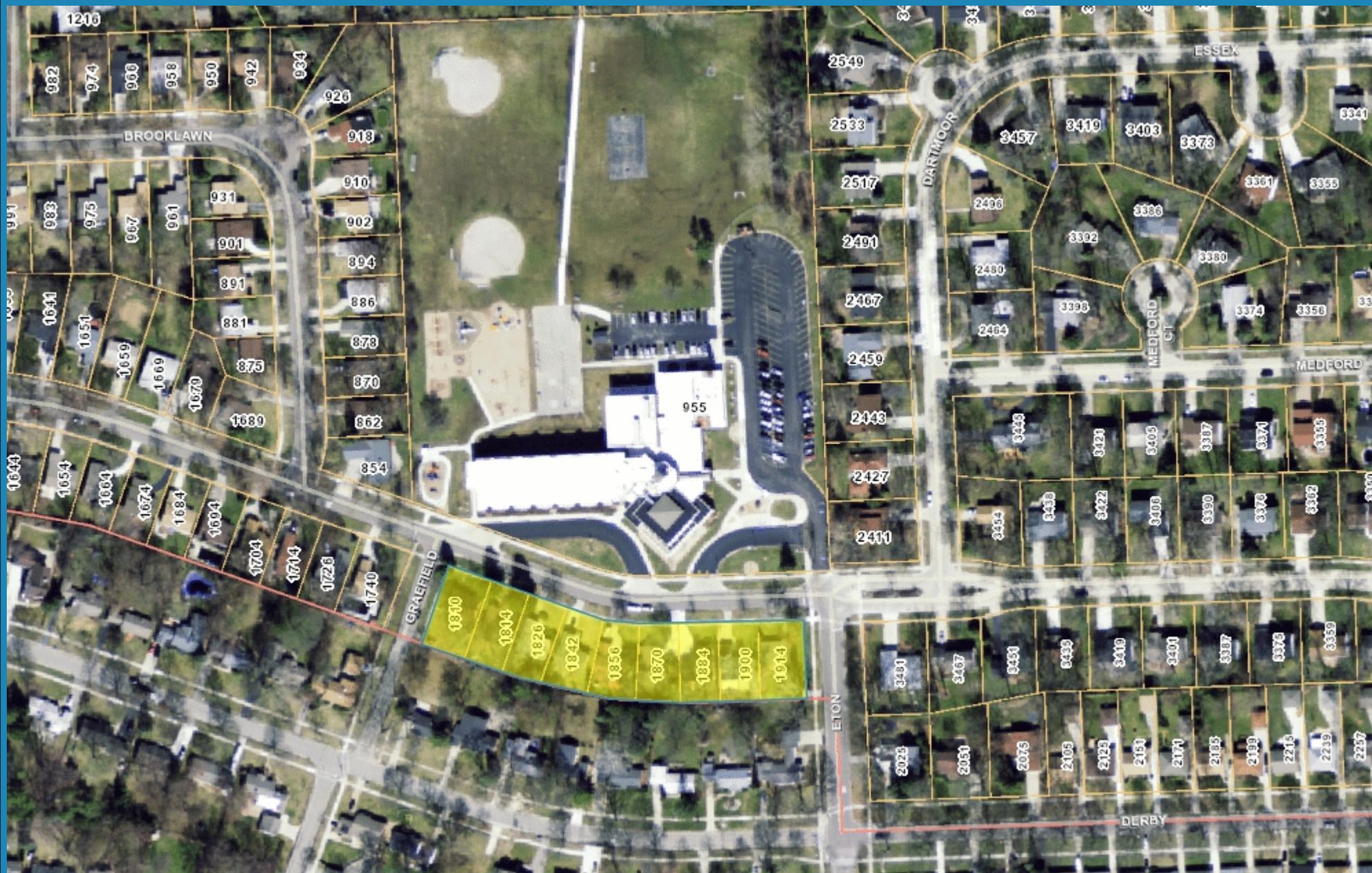
This area was posted No Parking based on a Traffic Committee recommendation from the meeting of October 18, 2006 (copy of minutes attached). At that time, Troy Police verified that most of the vehicles using the south side for parking were mostly owned by non-residents.

Most schools in the City have some type of parking restrictions on the roads near the schools to assist in moving traffic to and from the school, primarily during the AM arrival and PM dismissal periods. Depending on the location, one or both sides of the street have No Parking zones established. If the No Parking zone were to be modified, then any vehicle could legally park in this location.

1914 Witherbee is at the corner of Witherbee and Eton and prior to the current No Parking restrictions was posted with a "NO PARKING HERE TO CORNER" sign, approximately 60' west of the crosswalk (below the Pedestrian Walking sign), to keep the intersection open for better visibility of students that may be walking in the area as well as providing more room for bus traffic at the intersection.

Recommendations:

Recommend that no changes be made to the existing NO PARKING zone on the south side of Witherbee adjacent to 1914 Witherbee.



Note: The information provided by this application has been compiled from recorded deeds, plats, tax maps, surveys, and other public records and data. It is not a legally recorded map survey. Users of this data are hereby notified that the source information represented should be consulted for verification.





114516_WITHERBEE_GRAEFIELD_TO_ETON_D_03



A regular meeting of the Troy Traffic Committee was held Wednesday, October 18, 2006 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: John Diefenbaker
Jan Hubbell
Richard Kilmer
Gordon Schepke
Pete Ziegenfelder
Ted Hwang, Student Rep.
Prithvi Murthy, Student Rep.

ABSENT: Sara Binkowski
Ted Halsey

Also present: Gary Chegash, 318 Mt. Vernon Ave., Grosse Pointe Farms, MI
David Dietze, 1900 Witherbee, Troy
Birgit Felzer, 1850 Witherbee, Troy
Pat Bismack, 2742 Powderhorn, Rochester
Murray Deagle, 328 Evaline, Troy
and: John Abraham, Traffic Engineer
Lt. Scott McWilliams, Traffic Safety Division, Troy Police Dept.
Lt. Robert Matlick, Troy Fire Dept.

Resolution to Excuse Absent Members

RESOLUTION #2006-10-64

Moved by Kilmer

Seconded by Diefenbaker

To excuse Binkowski and Halsey.

YES: All-5

NO: None

ABSENT: 2 (Binkowski, Halsey)

MOTION CARRIED

2. Minutes – September 20, 2006

RESOLUTION #2006-10-65

Moved by Hubbell

Seconded by Kilmer

To approve the September 20, 2006 minutes as printed.

YES: All-5

ABSENT: 2 (Binkowski, Halsey)

MOTION CARRIED

PUBLIC HEARINGS

3. Request for Sidewalk Waiver – 271 Habrand

R.W.T. Building requests a waiver for the sidewalk at 271 Habrand. The sidewalk ordinance requires that sidewalk be installed in conjunction with the construction of a new house. The Public Works Department recommends denial of this waiver request. Petitioner has signed an "Agreement for Irrevocable Petition for Sidewalks."

Petitioner states that the neighborhood is already developed with no sidewalks existing, and a sidewalk would lead nowhere and connect to nothing. He mentioned that the road has a 50' right of way with ditches. Mr. Schepke mentioned that there are no other sidewalks in the area and that Blanche gets more traffic than Habrand; therefore, he does not see the need for a sidewalk at this spot.

Mr. Ziegenfelder reminded petitioner that in a survey of homeowners, the presence of sidewalks was the third major factor considered by potential home buyers.

RESOLUTION #2006-10-66

Moved by Diefenbaker

Seconded by Hubbell

1. WHEREAS, City of Troy Ordinances, Chapter 34, Section 8(D) allows the Traffic Committee to grant temporary waivers of the City of Troy Design Standards for Sidewalks upon a demonstration of necessity; and

WHEREAS, R.W.T Building has requested a temporary waiver of the requirement to construct sidewalk on the property because there are no other sidewalks in the area; and

WHEREAS, the Traffic Committee has determined the following:

- a. A variance 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 two-year waiver of the sidewalk requirement for the property at 271 Habrand, which is owned by R.W.T. Building.

YES: All-5
 NO: None
 ABSENT: 2 (Binkowski, Halsey)
 MOTION CARRIED

4. Request for Sidewalk Waiver – 2105 Kirkton

R.W.T. Building requests a waiver for the sidewalk at 2105 Kirkton. The sidewalk ordinance requires that sidewalk be installed in conjunction with the construction of a new house. The Public Works Department recommends denial of this waiver request. Petitioner has signed an “Agreement for Irrevocable Petition for Sidewalks.”

Petitioner states that the neighborhood is already developed with no sidewalks existing, and a sidewalk would lead nowhere and connect to nothing. There are also ditches on both sides of the street. He mentioned that the street has open ditches, and being R1E zoning, the setbacks are at a minimum and he feels it is not reasonable to install a sidewalk.

RESOLUTION #2006-10-67

Moved by Kilmer

Seconded by Diefenbaker

1. WHEREAS, City of Troy Ordinances, Chapter 34, Section 8(D) allows the Traffic Committee to grant temporary waivers of the City of Troy Design Standards for Sidewalks upon a demonstration of necessity; and

WHEREAS, R.W.T. Building has requested a temporary waiver of the requirement to construct sidewalk on the property because there are no other sidewalks in the area; and

WHEREAS, the Traffic Committee has determined the following:

- a. A variance 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 two-year waiver of the sidewalk requirement for the property at 2105 Kirkton, which is owned by R.W.T. Building.

YES: All-5
 NO: None
 ABSENT: 2 (Binkowski, Halsey)
 MOTION CARRIED

5. Request for Sidewalk Waiver – 3281 Troy Street

B & C Building requests a waiver for the sidewalk at 3281 Troy Street. The sidewalk ordinance requires that sidewalk be installed in conjunction with the construction of a new house. The Public Works Department recommends denial of this waiver request. Petitioner has signed an “Agreement for Irrevocable Petition for Sidewalks.”

Gary Chegash, of B & C building, stated that the neighborhood is already developed with no sidewalks existing, and a sidewalk would lead nowhere and connect to nothing.

Mr. Schepke asked what the setback is, and Mr. Chegash said it is 35’ from the property line on the frontage.

RESOLUTION #2006-10-68

Moved by Hubbell

Seconded by Diefenbaker

1. WHEREAS, City of Troy Ordinances, Chapter 34, Section 8(D) allows the Traffic Committee to grant temporary waivers of the City of Troy Design Standards for Sidewalks upon a demonstration of necessity; and

WHEREAS, B & C Building has requested a temporary waiver of the requirement to construct sidewalk on the property because there are no other sidewalks in the area; and

WHEREAS, the Traffic Committee has determined the following:

- a. A variance 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 two-year waiver of the sidewalk requirement for the property at 3281 Troy Street, which is owned by B & C Building.

YES: All-5
 NO: None
 ABSENT: 2 (Binkowski, Halsey)
 MOTION CARRIED

6. Request for Sidewalk Waiver – 4077 Virgilia

Pat Bismack requests a waiver for the sidewalk at 4077 Virgilia. The sidewalk ordinance requires that sidewalk be installed in conjunction with the construction of a new house. The Public Works Department recommends denial of this waiver request. Petitioner has signed an “Agreement for Irrevocable Petition for Sidewalks.”

Petitioner states that the neighborhood is already developed with no sidewalks existing, and a sidewalk would lead nowhere and connect to nothing.

Mr. Schepke has lived a block away on Paragon for the past 36 years. He stated that Virgilia gets a lot of traffic and he is concerned about safety for pedestrians and children playing. He believes the new homes have good setbacks from the road and there is enough room for sidewalks. He is particularly concerned about the corner, which is a very high traffic area, and there is really no place for kids to walk/play. He walks that area on a daily basis and feels strongly that a sidewalk should be installed.

RESOLUTION #2006-10-69

Moved by Schepke
 Seconded by Kilmer

WHEREAS, the Traffic Committee has determined, after a public hearing, that Petitioner failed to establish the standards justifying the granting of a waiver,

NOW THEREFORE, BE IT RESOLVED that the Traffic Committee denies a waiver of the sidewalk requirement for the property at 4077 Virgilia, which is owned by Pat Bismack.

YES: All-5
 NO: None
 ABSENT: 2 (Binkowski, Halsey)
 MOTION CARRIED

7. Request for Sidewalk Waiver – 4059 Virgilia

Pat Bismack requests a waiver for the sidewalk at 4059 Virgilia. The sidewalk ordinance requires that sidewalk be installed in conjunction with the construction of

a new house. The Public Works Department recommends denial of this waiver request. Petitioner has signed an "Agreement for Irrevocable Petition for Sidewalks."

Petitioner states that the neighborhood is already developed with no sidewalks existing, and a sidewalk would lead nowhere and connect to nothing.

The property in question is on a corner. Mr. Diefenbaker wanted clarification on whether the sidewalk requirement applies to both streets. Dr. Abraham said the rule applies to the whole parcel.

Mr. Schepke lives a block away on Paragon. He stated that Virgilia gets a lot of cut-through traffic and he is concerned about safety for pedestrians and children playing. He believes the new homes have good setbacks from the road and there is enough room for sidewalks. He feels that this would continue the sidewalk from 4077 Virgilia and potentially can be extended to Wattles if other properties are redeveloped.

Mr. Deagle, in support of Mr. Bismack, interjected that the engineering requirements for a sidewalk on this site would be much more difficult because of existing ditches that may require culverts for sidewalk connections to the roadway.

RESOLUTION #2006-10-70

Moved by Schepke

Seconded by Kilmer

WHEREAS, the Traffic Committee has determined, after a public hearing, that Petitioner failed to establish the standards justifying the granting of a waiver,

NOW THEREFORE, BE IT RESOLVED that the Traffic Committee denies a waiver of the sidewalk requirement for the property at 4059 Virgilia, which is owned by Pat Bismack.

YES: All-5
 NO: None
 ABSENT: 2 (Binkowski, Halsey)
 MOTION CARRIED

REGULAR BUSINESS

8. **Request for NO PARKING Signs on the South Side of Witherbee between Eton and Graefield.**

Birgit Felzer requests NO PARKING signs on Witherbee between Eton and Graefield, on both sides of the road. Parking is restricted on the north side (water main side) of Witherbee and is marked with NO PARKING signs. During construction work in the Pembroke School parking lot, employees were forced to park along Witherbee across from the school. Now that the parking lot is completed, they continue to park there. Mrs. Felzer has difficulty backing out of

her driveway when vehicles are parked on either side of her driveway on Witherbee.

The parking lot has more than adequate parking spaces and during different times of the day only around half of the parking spots are occupied.

Lt. Matlick said the road is narrow and very tight for maneuvering fire trucks if cars are parked on the road.

Lt. McWilliams approves parking restrictions because the road is narrow and can also cause difficulty for the school buses; however, he doesn't think full-time parking restrictions are necessary. He suggests restricting parking during the school beginning and ending hours. He has run license plate checks on the vehicles parked in the area and found they are mostly owned by non-residents.

Mr. Dietz, of 1900 Witherbee, opposes full-time parking prohibition, and says that his neighbor, Bob Flynn opposes it too. Mr. Dietz says his household has three cars, most of the neighbors have two, and on-street parking is needed. He also states that because of the bridge work on Adams there is a lot of cut-through traffic, and he estimates that 30% of the vehicles roll through the stop signs.

Lt. McWilliams suggested that a compromise would be to restrict parking ½ hour before and ½ hour after school arrival and dismissal times, 8:15 to 9:15 a.m. and 3:15 to 4:15 p.m. on school days only. This may prevent school personnel from parking on the street; the renovation of the school now provides more than adequate parking.

RESOLUTION #2006-10-71

Moved by Diefenbaker

Seconded by Hubbell

Recommend installation of NO PARKING SCHOOL DAYS ONLY 8:15 – 9:15 AM AND 3:15 – 4:15 PM signs on the south side of Witherbee between Eton and Graefield.

YES: All-5
 NO: None
 ABSENT: 2 (Binkowski, Halsey)
 MOTION CARRIED

9. Visitors' Time

No one else wished to address the committee.

10. Other Business

Lt. Matlick said that there is a private road between Research and Stephenson, north of Maple, where tenants are parking and could restrict fire truck access. There are currently NO PARKING signs posted, but since it is a private road, the

police cannot issue violations. He requests that the road be posted as fire lanes so police could enforce the parking restrictions.

RESOLUTION #2006-10-72

Moved by Kilmer

Seconded by Hubbell

To recommend posting FIRE LANE signs on the Stephenson Highway access drive to Research Drive, north of Maple.

YES: All-5

NO: None

ABSENT: 2 (Binkowski, Halsey)

MOTION CARRIED

Mr. Ziegenfelder hit a deer on Wattles, and wants DEER CROSSING signs installed. Dr. Abraham will study crash reports to see if signs are warranted. They can be installed without Traffic Committee action.

Mr. Kilmer asked about Osborne Square on Crooks. Dr. Abraham said there were five broadside crashes in 2005, and he will talk to the property owners about the City staff proposal of reducing the width of the existing driveway and adding another drive on the north side of the Osborn Square development.

Mr. Diefenbaker commended the City about the recent intersection pavement improvements at Wattles and Rochester, and at Square Lake and Rochester. He added that he is pleased to see that Long Lake and Livernois are also fixed, making driving a pleasure. The rest of the Committee expressed similar sentiments.

11. Adjourn

The meeting adjourned at 8:25 p.m. The next meeting is scheduled for November 15, 2006.

Pete Ziegenfelder, Chairman

Laurel Nottage, Recording Secretary

Traffic Committee Members

Cc: Lt. Scott McWilliams, Police Department
John K. Abraham, Traffic Engineer

RE: Traffic Committee Meeting Item #8
Installing NO PARKING signs on Witherbee between Eton & Graefield

I am writing this letter in response to the request by Birgit Selzer to have No Parking signs installed on Witherbee Drive between Eton and Graefield. I and my wife reside at 1900 Witherbee, directly across from Pembroke Elementary.

During this summer's construction project at Pembroke, there was a tremendous amount of parking congestion throughout the nearby streets. Apparently, some employees of the school continue to park on Witherbee now that the construction is over. Additionally, at student drop-off and pick-up times, the street is crowded with parents parked while dropping off or retrieving their children. I have noticed that it is sometimes difficult to enter or exit my driveway due to how close people park to the driveway entrance when it is crowded.

However, I am concerned that were Ms. Selzer's request to be approved, residents would lose the ability to park in front of their own home. Firstly, the driveways in this area are very small and if one has three cars in the home, it is nearly impossible to put them all in the driveway. Secondly, when having guests or holiday get-togethers, it seems unnecessarily inconvenient to make your guests park a block down the road, which additionally would only make it more crowded in front of other people's homes.

It appears to me that the problem is related to inadequate parking and standing areas in the Pembroke parking lot and driveways. I am strongly opposed to adding No Parking signs. Minimally, I strongly believe the committee should consider creating a permit parking or residents only parking designation rather than eliminating parking altogether, which I believe would unduly burden those who reside on the street.

Sincerely,

David A. Dietze



TRAFFIC COMMITTEE REPORT

April 7, 2014

TO: Traffic Committee

FROM: Bill Huotari, Deputy City Engineer/ Traffic Engineer

SUBJECT: Request for Traffic Control
Huntsford at Finch

Background:

Raimonda Abdal of 908 Huntsford Drive requests that the existing Yield signs at the intersection of Huntsford and Finch be replaced with Stop signs on the northbound and southbound Finch approaches to Huntsford . Ms. Abdal states that motorists do not yield at the intersection creating a hazardous situation.

There have not been any crashes reported at this intersection in the past five (5) years.

The posted speed limit on both streets is 25 mph. Right-of-way priority was given to Huntsford by placement of the existing Yield signs by Traffic Control Order 68-8-SS. Documentation for the placement was not found, but it appears that the Traffic Control Order was issued based on overall traffic control placement in the Washington Square Subdivision in 1968 (copy attached).

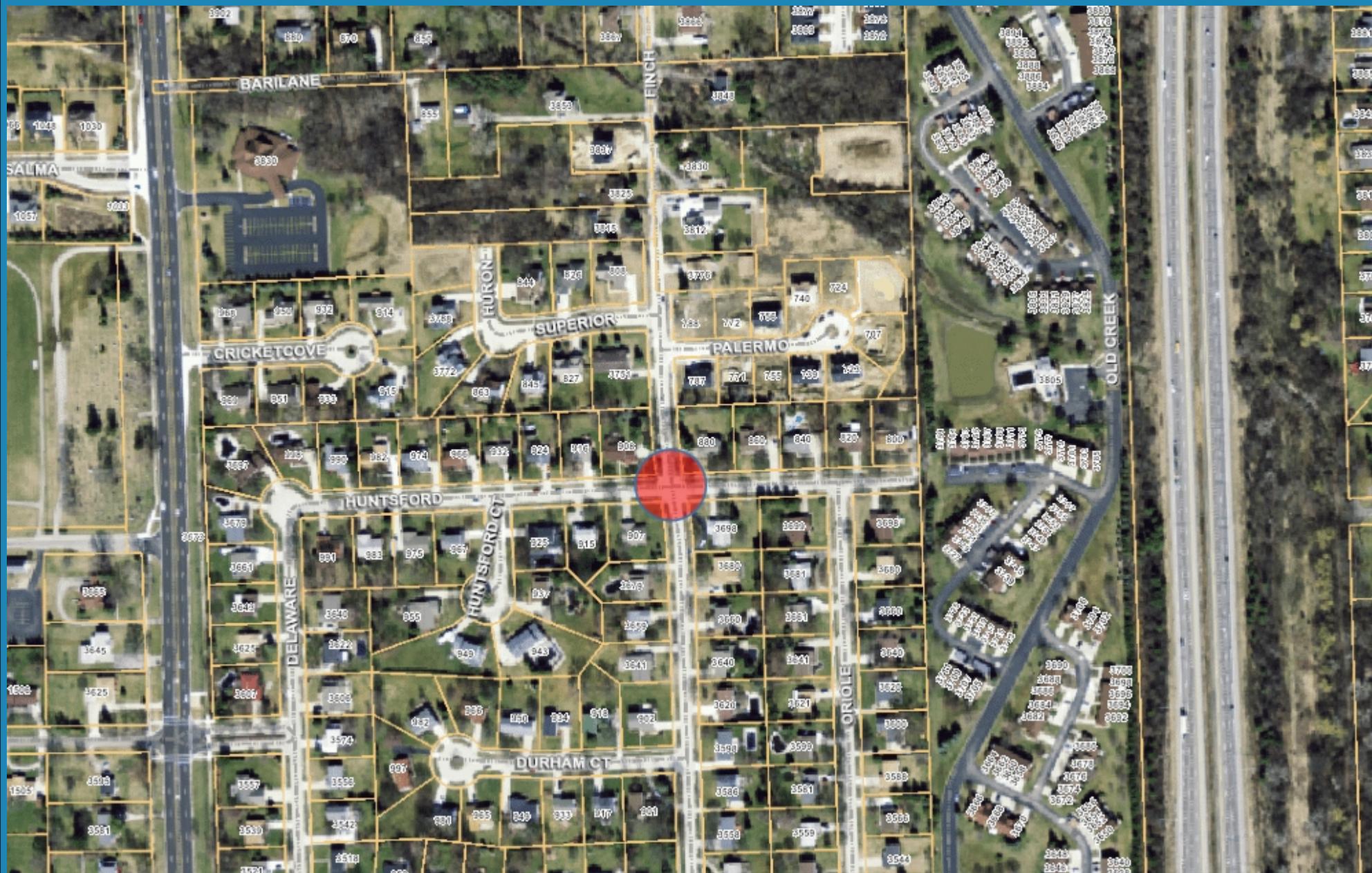
There are no real sight distance obstructions in the four quadrants of the intersection other than the houses and some landscaping immediately adjacent to the structures. These come into play when determining the safe approach speed for the intersection.

The safe approach speed on Finch was found to be more than 10 mph; therefore a YIELD sign is the recommended treatment.

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

Recommendation:

Recommend that NO CHANGES be made to the existing traffic control at the intersection of Huntsford and Finch.



800 0 400 800Feet



Note: The information provided by this application has been compiled from recorded deeds, plats, tax maps, surveys, and other public records and data. It is not a legally recorded map survey. Users of this data are hereby notified that the source information represented should be consulted for verification.

April 4, 2014

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

Subject: Traffic Control Recommendation for the intersection of Finch and Huntsford
OHMJN: 0128-14-0080

Dear Mr. Huotari:

As requested, we have reviewed the Finch and Huntsford intersection to determine the proper traffic control. The subject intersection is a full cross intersection located in the City of Troy, approximately 0.2 miles east of Crooks Road and 1/3 mile south of Wattles Road. Both are local streets, with Huntsford running in the east-west direction and Finch running north-south. The speed limit on both streets is 25 mph. The current right-of-way control at the intersection has Finch yielding for Huntsford. Reference the attachments for an aerial and intersection photos.

Background on Traffic Control Determination

Based on the *Michigan Manual of Uniform Traffic Control Devices (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.

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.

Crash Analysis

Based on information obtained through Traffic Improvement Association of Michigan, there have not been any crashes recorded in the past 5-years at this intersection.

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.

Types of Highways

Both are considered local streets. We note that Finch has the longest stretch of unimpeded travel of the two roadways. We believe this was a factor when the City previously chose to give the right-of-way priority to Huntsford.

Sight Distance

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. There are no real sight distance obstructions in the four quadrants of the intersection other than the houses and some landscaping immediately adjacent to the buildings.

When the safe approach speed is found to be less than 10 mph for the minor road, a STOP sign is commonly used. In this case, the safe approach speed on Finch was found to be more than 10 mph; therefore a YIELD sign is the recommended treatment. The safe approach speed calculation spreadsheet is attached for your reference.

Recommendation

OHM finds that there is no compelling reason to modify the current intersection control of Finch yielding to Huntsford, and we recommend no changes be made at this time.

Sincerely,
Orchard Hiltz & McCliment, Inc.

Stephen B. Dearing, PE, PTOE
Manager of Traffic Engineering Services

Attachments:

- Crash Data
- Aerial and Intersection Photos
- Safe Approach Speed Calculation Spreadsheet

Safe Approach Speed Calculation

**Finch Dr at Huntsford Dr
City of Troy**

Date: 1/7/2014
Analyst: S.B. Dearing

Measured:

Width of Roads
Road 1 = 28 (ft)
Road 2 = 28 (ft)

Distance to Obstruction
a = 55 (ft)
b = 58 (ft)
c = 42 (ft)
d = 40 (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)
V₁ = 30 (mph)

Perception / Reaction Time (AASHTO)

t = 2.5 (sec)

Deceleration rate (AASHTO)

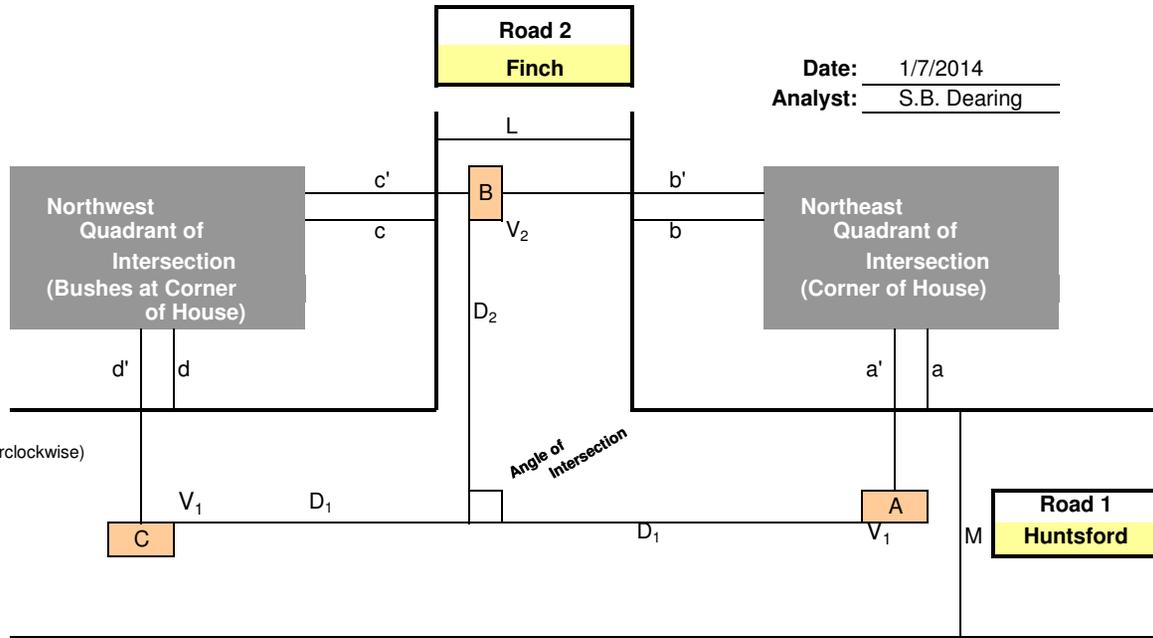
A = 11.20

Clearance distance in excess of safe stopping distance (AAA)

EC = 0 (ft)

Calculated Safe Approach Speed for Vehicle B
Approaching on Road 2

V₂ = 19.3 (mph) [Based on Veh. A]
or V₂ = 14.7 (mph) [Based on Veh. C]



Intermediate Calculations:

D₁ = 196
D_{2A} = 107
D_{2C} = 74.7
a' = 66
b' = 75
c' = 53
d' = 57

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**

TRUE

Safe Approach Speed Calculation

**Finch Dr at Huntsford Dr
City of Troy**

Date: 4/4/2014
Analyst: S.B. Dearing

Measured:

Width of Roads
Road 1 = 28 (ft)
Road 2 = 28 (ft)

Distance to Obstruction
a = 57 (ft)
b = 48 (ft)
c = 58 (ft)
d = 58 (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)
V₁ = 30 (mph)

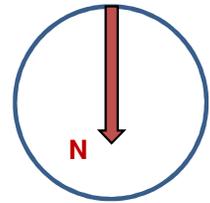
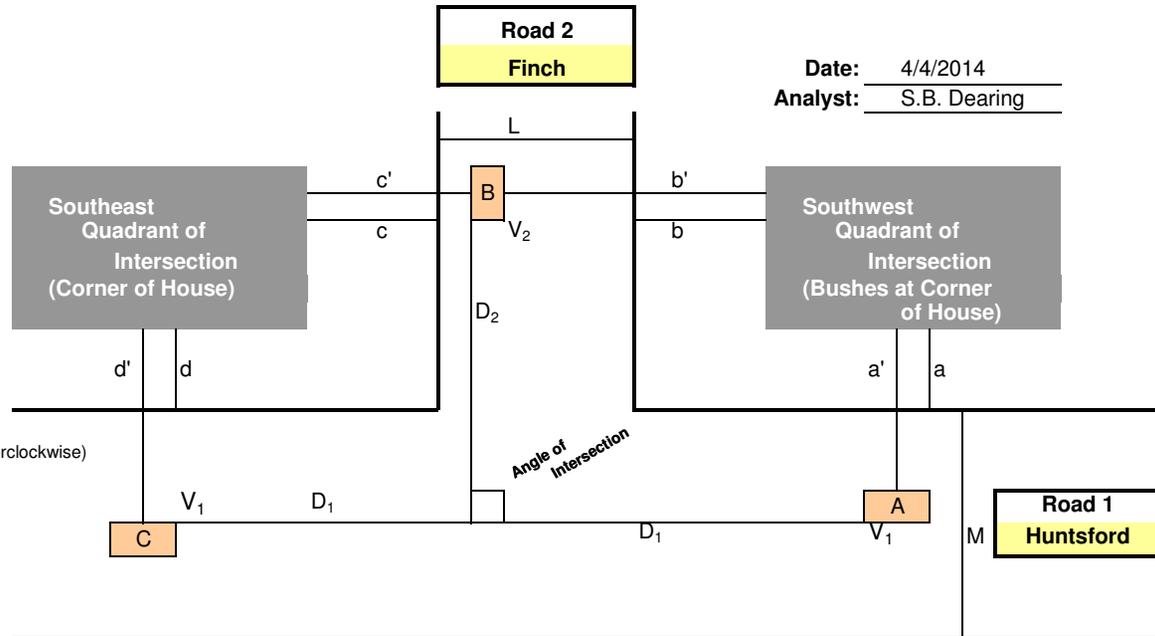
Perception / Reaction Time (AASHTO)
t = 2.5 (sec)

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

V₂ = 18.6 (mph) [Based on Veh. A]
or V₂ = 20.0 (mph) [Based on Veh. C]



Intermediate Calculations:
D₁ = 196
D_{2A} = 102
D_{2C} = 111.6
a' = 68
b' = 65
c' = 69
d' = 75

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.

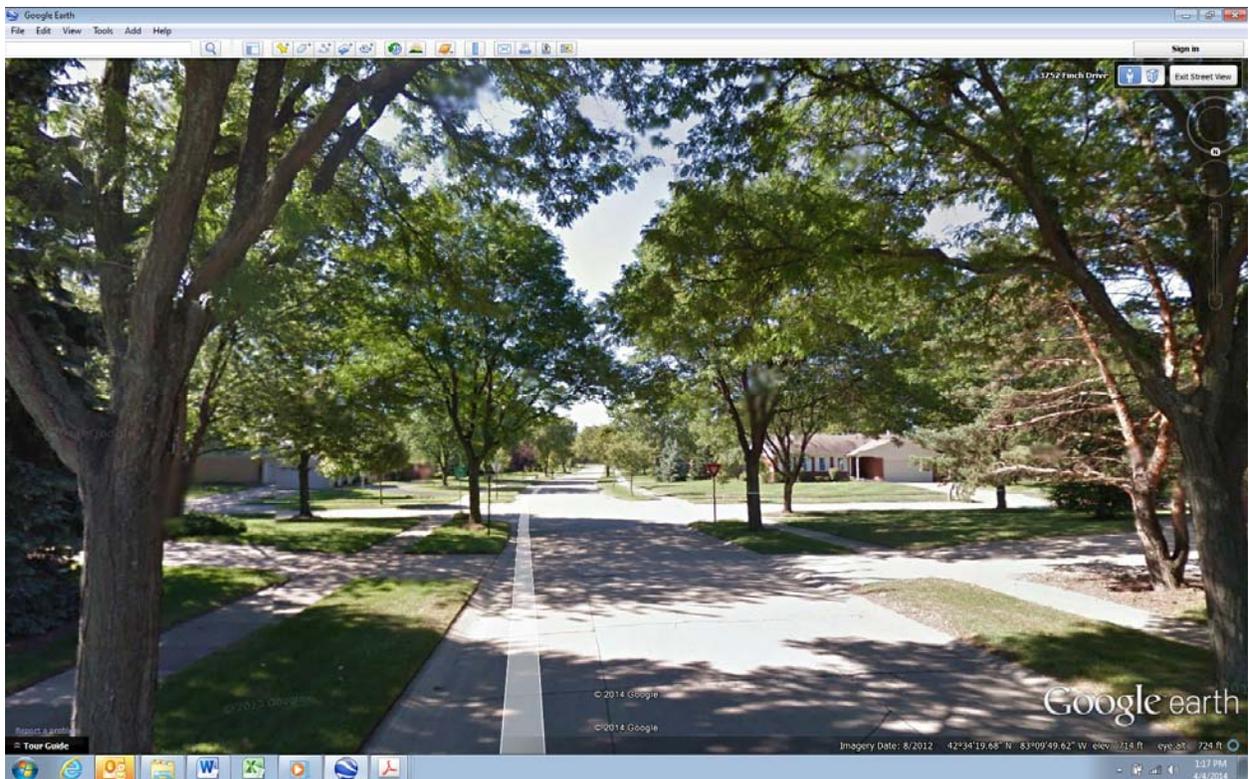
Calculated by spreadsheet

Recommended ROW control for Road 2

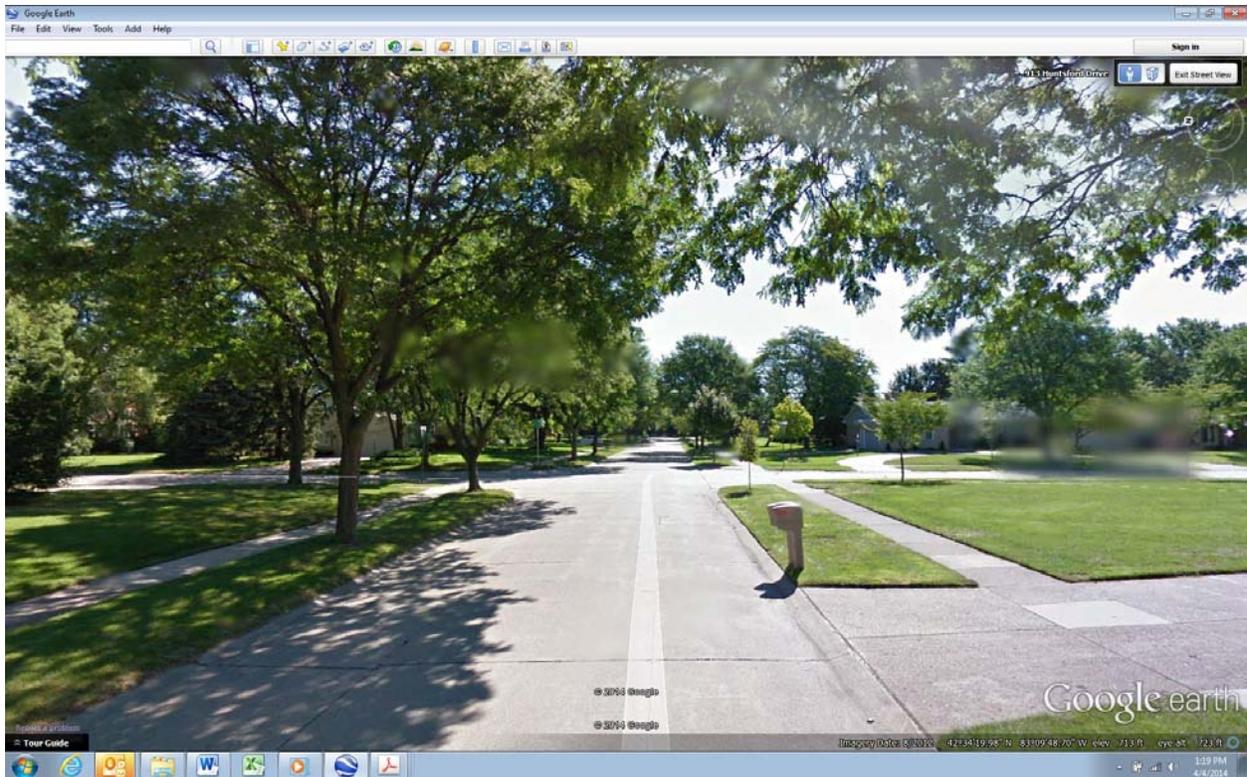
based on safe approach speed : **YIELD Sign**



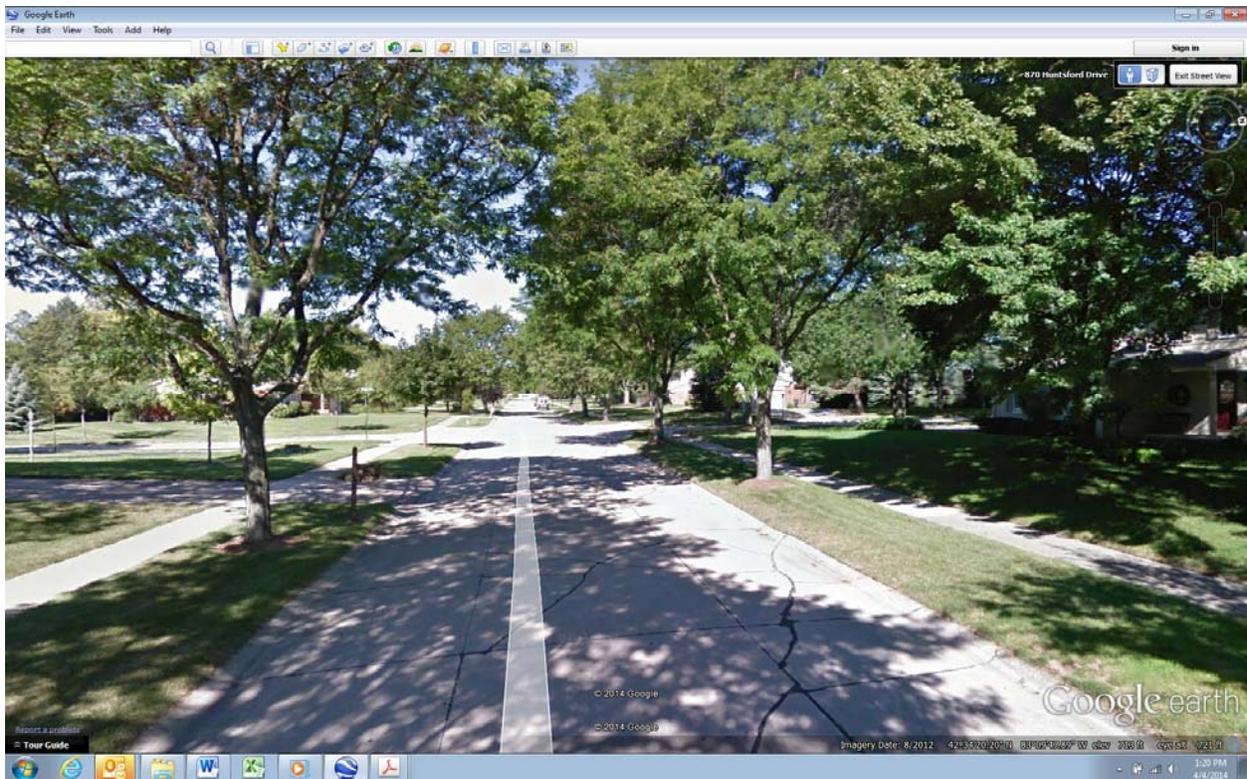
Looking north on Finch



Looking south on Finch



Looking east on Huntsford



Looking west on Huntsford

TRAFFIC CONTROL ORDER 68-8-SS

Location: Washington Square Subdivision

Requirement of Order:

RESOLVED, that Traffic Control Order No. 68-8-SS for the installation of four (4) "Yield" signs in Washington Square Subdivision, is hereby approved for the following locations:

- McManus Rd. at Delaware St.
- Finch Rd. at Huntsford Rd.
- Park Lane Drive at Finch Road
- Finch Road at Boulan Park

Date of Commission Approval: July 22, 1968

Work Order Sent to D.P.W.: July 24, 1968

Date Installed: 12-18-68

Copies to:

Police Department

City Clerk

(2) copies to D.P.W. (this form shall also be work order)

Install signs _____

Note installation date on both copies as soon as complete and return (1) copy to Manager's office.

City Manager

Manager's office will forward copies to Police Department and City Clerk.