

AGENDA
TRAFFIC COMMITTEE MEETING
JANUARY 18, 2012 – 7:30 P.M.
LOWER LEVEL CONFERENCE ROOM - TROY CITY HALL
500 W. BIG BEAVER ROAD

1. Roll Call
2. Minutes – November 16, 2011

REGULAR BUSINESS

3. Request for Stop or Yield Sign – Brunswick at Cadmus
Requested by Janel Karoumy, 6910 Brunswick
4. Public Comment
5. Other Business
6. Adjourn

cc: Item 3: Janel Karoumy, 6910 Brunswick
Residents within 300 feet of Brunswick at Cadmus

Traffic Committee Members
Lt. Robert Redmond, 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 accidents.

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 Stop or Yield Sign – Brunswick at Cadmus

Janel Karoumy of 6910 Brunswick requested that the intersection of Brunswick at Cadmus be reviewed for the purpose of installing a Stop or Yield sign on southbound Brunswick at Cadmus. Ms. Karoumy states that traffic entering from South Boulevard does not yield or stop at the intersection before proceeding onto Cadmus creating a hazardous situation.

SUGGESTED RESOLUTIONS:

Item 3:

- a. **RESOLVED**, that the Traffic Committee recommends that the intersection control at Brunswick and Cadmus be modified from “no traffic control” to a YIELD sign on the Brunswick Drive southbound approach to the intersection.
- b. **RESOLVED**, that the Traffic Committee recommends no changes at the intersection of Brunswick at Cadmus.

4. Public Comment

5. Other Business

6. Adjourn

A regular meeting of the Troy Traffic Committee was held Wednesday, November 16, 2011 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: Sarah Binkowski
Ted Halsey
Richard Kilmer
Al Petrulis
Gordon Schepke
Pete Ziegenfelder

ABSENT: John Diefenbaker

Also present: Bill Huotari, Deputy City Engineer/Traffic Engineer
Lt. Robert Redmond, Troy Police Dept.

2. Minutes – October 19, 2011

RESOLUTION # 2011-11-17

Moved by Kilmer
Seconded by Schepke

To approve the October 19, 2011 minutes as printed.

YES: All-6
NO: None
ABSENT: 1 (Diefenbaker)
MOTION CARRIED

REGULAR BUSINESS

3. Barclay at Holly – Speed Study

A request for 4-way Stop control at the Barclay and Holly intersection was made by Cindy Kaiser of 692 Barclay at the September 21, 2011 Traffic Committee meeting. Loraine Whitfield of 691 Barclay also spoke at the same meeting regarding the topic. Khair Assaf of 4414 Holly submitted an email on November 12, 2011 stating that in his experience there are motorists speeding and lack of compliance at the existing Stop signs on Holly.

The Traffic Committee tabled the item at the September 21st meeting to allow Traffic Engineering to perform a speed study on Barclay, between Randall and Holly. The results of the speed study show that there is neither a speeding issue nor a cut through issue during the times of the study.

Counts were taken on two separate occasions and each count lasted four days. The first set was taken from Thursday, September 29 through Monday, October 3 (6:00 am to 6:00 pm). The second set of counts was taken starting Thursday, October 13 through Monday, October 17 for the same time frame.

Data from the study is summarized below:

	9/29 - 10/3	10/13 - 10/17
85 th percentile speed	27.2 – 28.3 mph	27.2 – 28.5 mph
Average speed	21.4 – 22.3 mph	21.9 – 22.9 mph
Volume Weekday (24 hour average)	407 vpd	378 vpd
Volume Weekend (24 hour average)	360 vpd	361 vpd
Weekday AM Peak Hour (Volume & Time)	26 vehicles at 9:00 am	37 vehicles at 9:00 am
Weekend AM Peak Hour (Volume & Time)	18 vehicles at 10:00 & 11:00 am	29 vehicles at 11:00 am
Weekday PM Peak Hour (Volume & Time)	48 vehicles at 6:00 pm	39 vehicles at 6:00 pm
Weekend PM Peak Hour (Volume & Time)	46 vehicles at 6:00 pm	34 vehicles at 5:00 & 6:00 pm

There were no members of the public at the November 16th meeting to address this item.

Discussion ensued among Traffic Committee members, Lt. Redmond and the Traffic Engineer.

RESOLUTION # 2011-11-18

Moved by Halsey
Seconded by Binkowski

RESOLVED, that the Traffic Committee recommends no changes at the intersection of Barclay at Holly.

YES: All-6
NO: None
ABSENT: 1 (Diefenbaker)
MOTION CARRIED

4. Public Comment

There were no members of the public in attendance.

5. Other Business

Mr. Kilmer requested that Troy Police place a radar trailer on northbound Kirkton. Lt. Redmond will address this request.

Ms. Binkowski requested that the Traffic Engineer investigate the flash operation at the Livernois/Town Center traffic signal in the evening. She reports that the northbound and southbound flash operations are not in sync. The Traffic Engineer will address this request with the Road Commission for Oakland County (RCOC).

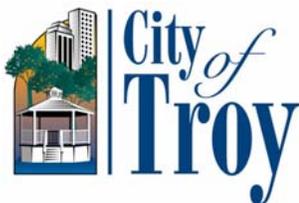
Mr. Halsey requested that additional green time be added to the left turn phase for Maple Road to southbound Coolidge movement. The Traffic Engineer will address this request with the RCOC.

6. Adjourn

The meeting adjourned at 8:15 p.m.

Pete Ziegenfelder, Chairperson

Bill Huotari, Recording Secretary



TRAFFIC COMMITTEE REPORT

January 9, 2012

TO: Traffic Committee

FROM: Bill Huotari, Deputy City Engineer/ Traffic Engineer

SUBJECT: Brunswick at Cadmus
Request for Stop or Yield Sign

Background:

Janel Karoumy of 6910 Brunswick requested that the intersection of Brunswick at Cadmus be reviewed for the purpose of installing a Stop or Yield sign on southbound Brunswick at Cadmus. Ms. Karoumy states that traffic entering from South Boulevard does not yield or stop at the intersection before proceeding onto Cadmus creating a hazardous situation.

The posted speed limit on both streets is 25 mph. Cadmus should be assigned right of way as it is the continuing road and Brunswick Drive terminates at Cadmus.

There have been no crashes recorded in the past three (3) years at the intersection.

The major sight distance obstructions at the intersection are the houses in the northern quadrants. The homes come into play when determining the safe approach speeds for the intersection. The safe approach speed was found to be greater than 10 mph on Brunswick, so a YIELD sign is the recommended treatment for the intersection.

The city requested that our traffic engineering consultant (OHM) review the request and provide a report of their findings and recommendations (copy attached).

Recommendations:

Staff concurs with our consultant's recommendation that the intersection control be modified from "no traffic control" to a YIELD sign on the Brunswick Drive southbound approach to the intersection.

December 16, 2011



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 Brunswick Dr and Cadmus Dr
OHM JN: 0128-11-0070

Dear Mr. Huotari:

As requested, we have reviewed the Brunswick Drive/Cadmus Drive intersection to determine the proper traffic control. The subject intersection is a T-intersection located in the City of Troy, approximately 0.15 miles east of Rochester Road and 0.10 miles south of South Boulevard. Both Brunswick Drive and Cadmus Drive are local streets, with Brunswick Drive running in the north-south direction and Cadmus Drive running east-west. The speed limit on both streets is 25 mph. There is currently no traffic control on any of the approaches. 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 been no crashes recorded in the past 3-years at the Brunswick Drive/Cadmus Drive 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 Brunswick Drive and Cadmus Drive are considered local streets, Cadmus Drive should be assigned right of way in this case, as it is the continuing road and Brunswick Drive terminates at Cadmus Drive. Driver expectation is that the continuing road does not have to stop and the terminating road must at a minimum slow to make the turn.

Sight Distance

The major sight distance obstructions at the intersection are the houses in the northern quadrants. The homes 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 Brunswick Drive was found to be greater 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 the intersection control be modified from "no traffic control" to a YIELD sign on the Brunswick Drive southbound approach to the intersection.

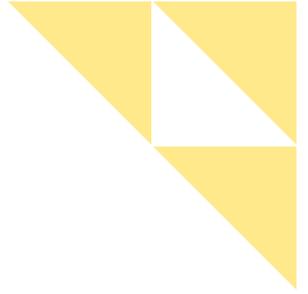
Sincerely,
Orchard Hiltz & McCliment, Inc.



Steven M. Loveland, PE, PTOE
Traffic Project Engineer

Attachments:

- Aerial and Intersection Photos
- Safe Approach Speed Calculation Spreadsheet



Attachments



- Legend**
- Road Centerline
 - Major Road
 - Industrial Road
 - Local Road
 - Ponds and Basins
 - Streams and Creeks
 - Parcels
 - Aerial Photos - 2010
 - Red: Band_1
 - Green: Band_2
 - Blue: Band_3

1:3,393

Notes
 Brunswick at Cadmus request for Yield or Stop Sign

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.





Brunswick Dr looking Southwest



Cadmus Dr looking West



Brunswick Dr looking Southeast



Cadmus Dr looking East

Safe Approach Speed Calculation

Cadmus at Brunswick
City of Troy, MI

Major = Cadmus Dr
Local = Brunswick Dr

Date: 12/15/2011

Analyst: S. Loveland

Measured:

- Width of Roads
 - Major: M = 27 (ft)
 - Local: L = 27 (ft)
- Distance to Obstruction
 - a = 40 (ft)
 - b = 37 (ft)
- Angle of Intersection
 - Delta = 90 (degrees)
- Major Rd Posted
 - Speed Limit = 25 (mph)

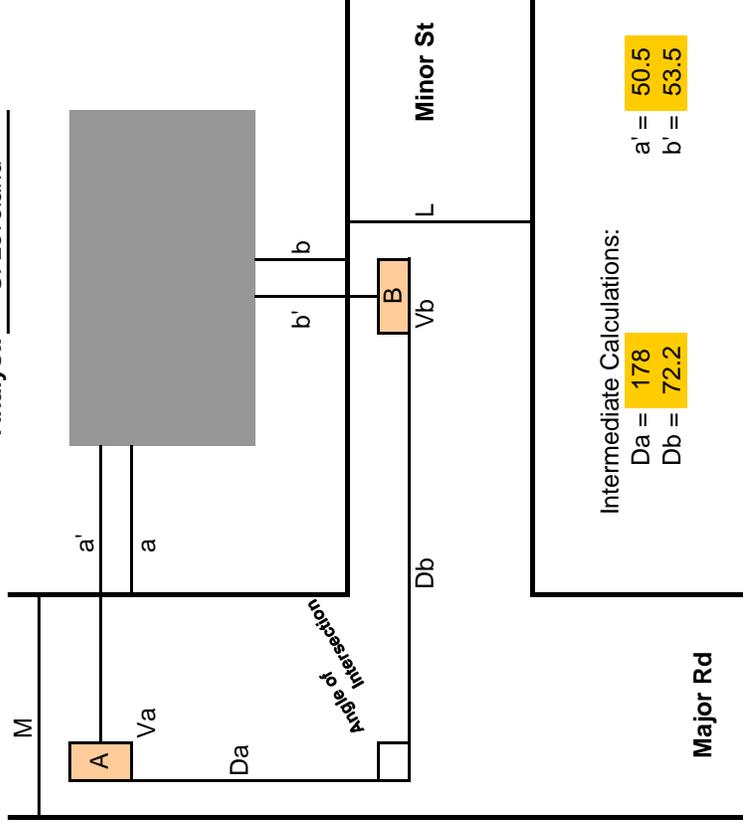
Assumed:

- Speed of Vehicle A = Posted Speed Limit on Major Road + 5 (mph)
- Va = 30 (mph)
- Perception / Reaction Time (AASHTO) t = 2.0 (sec)
- Coefficient of friction (AASHTO) f = 0.40
- Clearance distance in excess of safe stopping distance (AAA) C = 15 (ft)

Calculated Safe Approach Speed for Vehicle Approaching on Local Rd	Vb = 14.0 (mph)
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Recommended ROW control for local street based on safe approach speed :

YIELD Sign



Intermediate Calculations:

Da = 178
Db = 72.2
a' = 50.5
b' = 53.5

Notes:

Enter field measurements in yellow highlighted area.
Blue fields are std. default values; change only for cause.
Calculated by spreadsheet