

**AGENDA**  
**TRAFFIC COMMITTEE MEETING**  
**OCTOBER 19, 2011 – 7:30 P.M.**  
**LOWER LEVEL CONFERENCE ROOM - TROY CITY HALL**  
**500 W. BIG BEAVER ROAD**

1. Roll Call
2. Minutes – September 21, 2011

**REGULAR BUSINESS**

3. Change YIELD sign to STOP sign Demaret at Player  
Requested by Geoffrey Rossi of 5566 Casper
4. Public Comment
5. Other Business
6. Adjourn

cc: Item 3:           Geoffrey Rossi, 5566 Casper  
                          Residents within 300 feet of Demaret at Player

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. Change YIELD sign to STOP sign at Demaret at Player**

Geoffrey Rossi of 5566 Casper requests that the existing YIELD sign be changed to a STOP sign at the intersection of Demaret at Player. See attached report.

**SUGGESTED RESOLUTIONS:****Item 3:**

- a. **RESOLVED**, that the Traffic Committee recommends changing the existing YIELD sign on northbound Demaret at Player to a STOP sign.
- b. **RESOLVED**, that the Traffic Committee recommends no changes at the intersection of Demaret at Player.

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

A regular meeting of the Troy Traffic Committee was held Wednesday, September 21, 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  
John Diefenbaker  
Ted Halsey  
Richard Kilmer  
Gordon Schepke  
Pete Ziegenfelder

ABSENT: Jan Hubbell

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

And: Chester Maciejewski, 2118 Prescott  
Janice Daniels, 5413 Breeze Hill Place  
Cindy Keiser, 692 Barclay  
Loraine Whitfield, 691 Barclay  
Karen Farrington, 2142 Prescott  
Nigel Farrington, 2142 Prescott  
Frank Daley, 2206 W. Wattles  
Ron Boitkus, 120 W. Wattles  
Forrest Dunkel, 2134 W. Wattles  
Frank Howrylak, 3035 Newport Ct.  
Ray Watts, 133 MacLynn Dr.

**2. Minutes – June 15, 2011**

RESOLUTION # 2011-09-11

Moved by Binkowski  
Seconded by Schepke

To approve the June 15, 2011 minutes as printed.

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

**REGULAR BUSINESS**

**2a. Request to Postpone Items #6 - #8 – Wattles Speed Limit Revisions**

These items were moved forward in the agenda and postponed to a later date. City Administration removed the items from the agenda in order for further research at the direction of the City Attorney and Police Chief.

**RESOLUTION # 2011-09-11**

Moved by Halsey  
Seconded by Diefenbaker

To postpone Items #6 - #8 to a later date to allow for further research at the direction of the City Attorney and Police Chief.

YES: 5  
NO: 1 (Schepke)  
ABSENT: 1 (Hubbell)  
MOTION CARRIED

**3. Change YIELD sign to STOP sign at Prescott at Milburn**

Sherwin DeLeon of 2130 Prescott requested that the existing Yield sign on Milburn at Prescott be changed to a Stop sign. The posted speed limit on both streets is 25 mph. Milburn is considered the local road. Average Daily Traffic (ADT) on Prescott exceeds 1,000 while Milburn has an ADT of approximately 400. There has been one (1) crash recorded in the past three (3) years. The homes in the northwest and northeast quadrants of the intersection create a sight distance obstruction.

Chester Maciejewski, 2118 Prescott, has lived at this address prior to the existing Yield sign being placed (2005). He states that most drivers do not yield at the existing sign and has seen close calls. He would prefer a Stop sign rather than the Yield sign.

Karen Farrington, 2142 Prescott, has lived at this address for 4 ½ years. Drivers do not stop at the Yield sign. Ms. Farrington provided pictures of her mailbox damaged by two vehicles sliding through the intersection last January. A police report was filed on January 6, 2011 (#11-567). The side of the street with the Yield sign (southbound) is posted No Parking, but several cars park there illegally. This is a frequent occurrence and exacerbates the issues at the intersection. Troy Police will review the parking issue and provide enforcement.

Discussion ensued among Traffic Committee members, Traffic Engineer, Lt. Redmond and residents and centered around lack of compliance with Yield signs in general and concerns about illegal parking near the intersection. Police reiterated that they will add the area to their list and provide enforcement.

RESOLUTION # 2011-09-12

Moved by Schepke  
Seconded by Halsey

Recommend that the existing YIELD sign be changed to a STOP sign on southbound Milburn at Prescott.

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

**4. Change YIELD sign to STOP sign at Brinston at Milburn**

Traffic Engineering requested that the existing Yield sign on Milburn at Brinston be changed to a Stop sign. The posted speed limit on both streets is 25 mph. Milburn is considered the local road. Average Daily Traffic (ADT) on Brinston exceeds 1,000 while Milburn has an ADT of approximately 400. There has been one (1) crash recorded in the past five (5) years. The trees and landscaping in the southeast quadrant of the intersection create a sight distance obstruction.

No one wished to address the committee on this item as Brinston is one block north of Prescott and has very similar issues.

Richard Kilmer asked that Troy Police provide enforcement of signs once installed and review parking concerns.

RESOLUTION # 2011-09-13

Moved by Halsey  
Seconded by Binkowski

Recommend that the existing YIELD sign be changed to a STOP sign on northbound Milburn at Brinston.

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

**5. Request for 4-Way STOP Control at Barclay at Holly**

Cindy Kaiser of 692 Barclay requested that the intersection of Barclay at Holly be modified to 4-way Stop control. There are currently Stop signs posted on the Holly Drive approaches to the intersection. The posted speed limit on both streets is 25 mph. Holly Drive is considered the local road. Average Daily Traffic (ADT) on Barclay is 580 with Holly Drive at

359. There has been one (1) crash recorded in the past five (5) years. The trees and fence in the southwest quadrant of the intersection creates a sight distance obstruction and is justification for the existing Stop signs on Holly.

Cindy Kaiser, 692 Barclay, was present representing multiple neighbors and their concerns. Her primary concern is cut through traffic and speeds traveling on Barclay. She recognizes that Stop signs do not control speeds, but may address or diminish cut through traffic. Her opinion is that parking on the south side of Barclay near Holly creates a sight distance issue. She said that most residents that live near this intersection have a tendency to stop or slow down on Barclay even without a sign as most have had close calls in the past.

Loraine Whitfield, 691 Barclay, discussed the need for a Stop sign due to the number of children in the area. Barclay is a convenient cut through road with no Stop signs for its entire length. She feels that it may be younger drivers avoiding traffic on Rochester and/or going to and from home that are driving too fast and Stop signs would be effective in at least forcing them to stop at the intersection.

Janice Daniels, 5413 Breeze Hill Place, asked if establishing No Parking zones would help. Discussion ensued as to the fact that the north side of Barclay is already posted as No Parking due to fire hydrants. It was not recommended to post both sides of the road as No Parking, which could create a hardship for residents living in the area with minimal benefits in most instances.

Ted Halsey added that it sounded like a speed issue. Lt. Redmond confirmed that they have had the radar trailer on Barclay in the past and provided select enforcement in this area.

Gordon Schepke added that multiple Stop signs (i.e. one at Barclay and one at Randall) could provide a deterrent to cut through traffic.

Discussion ensued among Traffic Committee members, Traffic Engineer, Lt. Redmond and residents and centered on what a Stop sign can and can't do and/or is perceived to do. Stop signs do not control speed. Pedestrians still need to be observant at Stop signs and not assume that a vehicle will stop just because a sign is posted.

The Traffic Committee requested that a speed study be performed. Residents asked that the speed study include a Friday and Saturday as these seem to be the highest volume/speed days.

#### RESOLUTION # 2011-09-14

Moved by Kilmer

Seconded by Schepke

Recommend that Traffic Engineering perform a speed study on Barclay, between Randall and Holly and that the request for 4-Way Stop control be tabled pending the results of the speed study and further discussion.

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

**6. Wattles Road, Coolidge to Livernois Speed Limit Changes**

This item was postponed to a later date. City Administration removed the item from the agenda in order for further research at the direction of the City Attorney and Police Chief.

**7. Wattles Road, Adams to Beach Speed Limit Changes**

This item was postponed to a later date. City Administration removed the item from the agenda in order for further research at the direction of the City Attorney and Police Chief.

**8. Wattles Road, Beach to Coolidge Speed Limit Changes**

This item was postponed to a later date. City Administration removed the item from the agenda in order for further research at the direction of the City Attorney and Police Chief.

**9. Public Comment**

Ron Boitkis, 120 W. Wattles, commented on the proposed speed limit changes. He lives near the museum and is concerned that a higher speed limit would create a public safety hazard for events at the museum. He stated that with the privatization of the museum that they will be holding more events to raise funds. Many children cross Wattles Road at Ruthland to go to the museum. Traffic does not drive 40 mph currently and will only drive faster if the speed limit is raised. There are no sidewalks on the north side of Wattles so pedestrians and bikers use the road and/or shoulder. Children crossing Wattles from the museum wait in his driveway for traffic to clear before crossing. Gravel trains traveling eastbound are driving too fast to make the light at Livernois. He lives at the end of the taper from the intersection on westbound Wattles and observes aggressive drivers using the taper to try and pass other vehicles traveling in the same direction. He feels that the speed limit should be lowered to 35 mph from the current 40 mph rather than being raised to 45 mph.

Forrest Dunkel, 2134 Wattles, agreed with the engineering studies as he believes that most drivers exceed the posted speed limit on most all roads. He believes that if you increase the speed limit drivers will just drive faster. He asked if there is any gain to the City by changing the speed limits.

Frank Daley, 2206 W. Wattles, stated that Wattles is a residential area and over 70% of the residents in the Beach to Coolidge section are over 65 years old. He has had issues getting in and out of his driveway due to the high rates of speed of passing vehicles. He reported that there was a crash on Wattles just the other night. He requested that Troy Police Department sit at Estates Drive once a week to enforce the current speed limit. He stated that this is not like Coolidge where there are few driveways connecting directly to the major road. He is also concerned about lower property values if the speed limit were increased.

Mr. Daley stated that there are no other residential areas in Oakland or Macomb County that he is aware of that are posted at 45 mph. Mr. Daley called on September 22, 2011 to add that a lot of children (30-40 per day) cross Wattles Road at Estates to go the back way to Schroeder Elementary to get to the swim club and tennis courts.

Gordon Schepke, stated that speed limits should be set for all conditions as this is Michigan and we do get rain and snow for many months of the year. He also stated that there are many animals that cross Wattles Road.

Janice Daniels, 5314 Breeze Hill Place, stated that she walks on Wattles Road and it has a unique character. She said that it is dangerous at the current posted speed and that a ticket should cost enough to discourage speeding. She would like to see the pro's vs. con's of raising the speed limit. She feels that there is no reason to raise the speed limit. She also requested that all members of the Traffic Committee as well as City Council walk Wattles Road to observe the conditions.

Richard Kilmer does not think that the speed limit should be raised. He stated that 17 Mile (Wattles) is a bad road and the speed limit should stay the way it is.

**10. Other Business**

Mr. Schepke reported that the EVA between Paragon and Hedgewood is being used as a cut through. The temporary measures that were placed have been moved or fallen over and is not prohibiting vehicles from using this as a cut through. Traffic Engineering has referred this to DPW for action.

**11. Adjourn**

The meeting adjourned at 8:37 p.m.

\_\_\_\_\_  
Pete Ziegenfelder, Chairperson

\_\_\_\_\_  
Bill Huotari, Recording Secretary



## TRAFFIC COMMITTEE REPORT

October 6, 2011

TO: Traffic Committee

FROM: Bill Huotari, Deputy City Engineer/ Traffic Engineer

SUBJECT: Demaret at Player  
Change Yield to Stop Sign

### Background:

Geoffrey Rossi of 5566 Casper requested that the existing YIELD sign on northbound Demaret at Player be changed to a STOP sign.

The posted speed limit on both streets is 25 mph. Demaret is considered the local road based on volumes. Average daily traffic (ADT) on Player is 931, while Demaret has an ADT of 646. The volumes are well below the threshold levels for multi-way STOP sign warrants.

There have been no crashes recorded in the past five (5) years at the Demaret/Player intersection.

There is a large shrub in the southwest quadrant that creates a sight distance obstruction. Traffic Engineering contacted Code Compliance for a review of the landscaping to review compliance with City ordinances. The only violation was some branches overhanging the sidewalk which have been trimmed up by the homeowner. The shrub sits outside of the 25' x 25' sight distance triangle, so no further removal can be required.

The sight distance obstruction in the southwest quadrant comes into play when determining the safe approach speed for the intersection. The safe approach speed was found to be less than 10 mph on the Demaret approach northbound to Player.

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 "YIELD control" to a STOP sign on the Demaret Drive northbound approach at Player.

September 29, 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 Player Drive and Demaret Drive  
OHM JN: 0128-11-0050

Dear Mr. Huotari:

As requested, we have reviewed the Player Drive/Demaret 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 0.35 miles south of E Square Lake Road. Both Player Drive and Demaret Drive are local streets, with Player Drive running in the east-west direction and Demaret Drive running north-south. The speed limit on both streets is 25 mph. There is currently a yield sign posted on the Demaret Drive approach to 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 “multi-way STOP” or “all-way STOP” sign installation is discouraged. The multi-way STOP warrant requires the volumes of traffic per approach leg on intersecting roads to be approximately equal.

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.

### **Traffic Volumes**

24-Hour traffic volumes were collected by OHM. The counts indicate the average daily traffic (ADT) on Player Drive to be 931 with Demaret Drive at 646. The highest peak hour volumes along each road are 94 for Player Drive and 59 on Demaret Drive. All traffic counts are provided as an attachment to this letter. However, pedestrian traffic has not been counted at the intersection.

The MMUTCD indicates that multi-way STOP control could be warranted if there were at least 300 vehicles per hour from the major street approaches and 200 units (vehicles, pedestrians and bicycles) per hour from the minor street approaches for the same eight hours on an average day. Though pedestrian data was not available, we assumed that up to 20 pedestrians per hour would not be unreasonable.

Based on the peak hour volumes alone, the option of multi-way STOP control does not meet warrants. With the pedestrian and vehicular traffic added together, this location is still far below warrant thresholds for multi-way STOP control.

### **Crash Analysis**

Based on information obtained through Traffic Improvement Association of Michigan, there have been no crashes recorded in the past 5-years at the Player Drive/Demaret 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 Player Drive and Demaret Drive are considered local streets, Player Drive is considered the major road at this intersection based on the traffic volumes. The road with the heavier volume of traffic, Player Drive, should be given the right-of-way.

### **Sight Distance**

The major sight distance obstruction at the intersection is landscaping shrubbery in the southwest quadrant. This landscaping comes 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 Demaret Drive was found to be less than 10 mph; therefore a STOP 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 "yield control" to a STOP sign on the Demaret Drive northbound approach to the intersection. We recommend against modifying the intersection to multi-way STOP control.

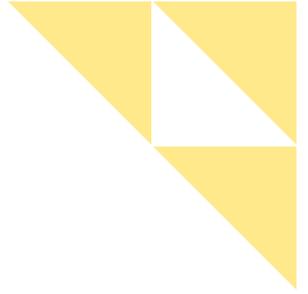
Sincerely,  
Orchard Hiltz & McCliment, Inc.

A handwritten signature in black ink, appearing to read "S. Loveland". The signature is fluid and cursive, with the first letter being a large, stylized 'S'.

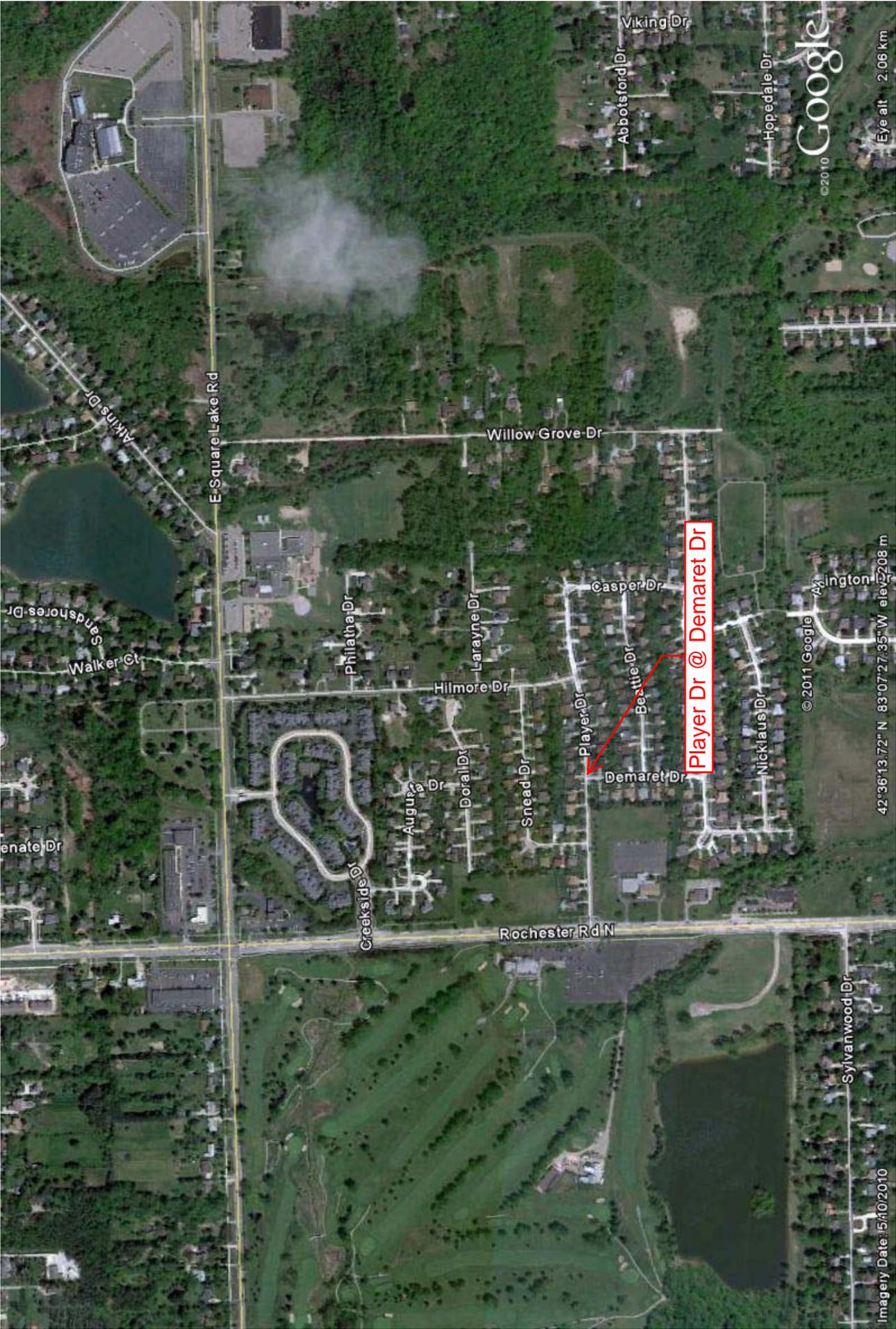
Steven M. Loveland, PE, PTOE  
Traffic Project Engineer

Attachments:

- Aerial and Intersection Photos
- Traffic Counts
- Safe Approach Speed Calculation Spreadsheet



# Attachments



Aerial Photograph  
Player Dr @ Demaret Dr



Looking East along Player



Looking NB along Demaret



Looking Southeast from Player



Looking Northwest from Demaret



Looking West along Player

# Orchard, Hiltz & McCliment, Inc.

34000 Plymouth Road  
Livonia, MI 48150  
**734.522.6711**

24 Hour Count - South Leg  
Demareet Drive

Site Code: 000000000001  
Station ID:

Latitude: 0' 0.000 Undefined

Start Time	Mon 26-Sep-11	Tue 27-Sep-11	Wed 28-Sep-11	Thu 29-Sep-11	Fri 30-Sep-11	Average Day	Sat 01-Oct-11	Sun 02-Oct-11	Week Average
12:00 AM	*	*	*	3	*	3	*	*	3
01:00	*	*	*	1	*	1	*	*	1
02:00	*	*	*	1	*	1	*	*	1
03:00	*	*	*	0	*	0	*	*	0
04:00	*	*	*	1	*	1	*	*	1
05:00	*	*	*	7	*	7	*	*	7
06:00	*	*	*	31	*	31	*	*	31
07:00	*	*	*	36	*	36	*	*	36
08:00	*	*	*	44	*	44	*	*	44
09:00	*	*	*	38	*	38	*	*	38
10:00	*	*	16	34	*	25	*	*	25
11:00	*	31	*	*	*	31	*	*	31
12:00 PM	*	*	21	*	*	21	*	*	21
01:00	*	*	42	*	*	42	*	*	42
02:00	*	*	49	*	*	49	*	*	49
03:00	*	*	49	*	*	49	*	*	49
04:00	*	*	56	*	*	56	*	*	56
05:00	*	*	50	*	*	50	*	*	50
06:00	*	*	59	*	*	59	*	*	59
07:00	*	*	39	*	*	39	*	*	39
08:00	*	*	30	*	*	30	*	*	30
09:00	*	*	17	*	*	17	*	*	17
10:00	*	*	11	*	*	11	*	*	11
11:00	*	*	5	*	*	5	*	*	5
Day Total	0	0	475	196	0	646	0	0	646
% Avg. WkDay	0.0%	0.0%	73.5%	30.3%	0.0%	100.0%	0.0%	0.0%	08:00
% Avg. Week	0.0%	0.0%	73.5%	30.3%	0.0%	100.0%	0.0%	0.0%	44
AM Peak Vol.			11:00	08:00		08:00			08:00
			31	44		44			44
PM Peak Vol.			18:00			18:00			18:00
			59			59			59
Grand Total	0	0	475	196	0	646	0	0	646

ADT Not Calculated

# Orchard, Hiltz & McCliment, Inc.

34000 Plymouth Road  
Livonia, MI 48150  
**734.522.6711**

24 Hour Count - West Leg  
Player Drive

Site Code: 000000000002  
Station ID:

Latitude: 0' 0.000 Undefined

Start Time	Mon 26-Sep-11	Tue 27-Sep-11	Wed 28-Sep-11	Thu 29-Sep-11	Fri 30-Sep-11	Average Day	Sat 01-Oct-11	Sun 02-Oct-11	Week Average
12:00 AM	*	*	*	7	*	7	*	*	7
01:00	*	*	*	2	*	2	*	*	2
02:00	*	*	*	1	*	1	*	*	1
03:00	*	*	*	0	*	0	*	*	0
04:00	*	*	*	3	*	3	*	*	3
05:00	*	*	*	7	*	7	*	*	7
06:00	*	*	*	41	*	41	*	*	41
07:00	*	*	*	36	*	36	*	*	36
08:00	*	*	*	43	*	43	*	*	43
09:00	*	*	*	57	*	57	*	*	57
10:00	*	*	34	44	*	39	*	*	39
11:00	*	*	44	*	*	44	*	*	44
12:00 PM	*	*	28	*	*	28	*	*	28
01:00	*	*	49	*	*	49	*	*	49
02:00	*	*	64	*	*	64	*	*	64
03:00	*	*	52	*	*	52	*	*	52
04:00	*	*	74	*	*	74	*	*	74
05:00	*	*	89	*	*	89	*	*	89
06:00	*	*	94	*	*	94	*	*	94
07:00	*	*	68	*	*	68	*	*	68
08:00	*	*	72	*	*	72	*	*	72
09:00	*	*	33	*	*	33	*	*	33
10:00	*	*	16	*	*	16	*	*	16
11:00	*	*	12	*	*	12	*	*	12
Day Total	0	0	729	241	0	931	0	0	931
% Avg. WkDay	0.0%	0.0%	78.3%	25.9%	0.0%	100.0%	0.0%	0.0%	0.0%
% Avg. Week	0.0%	0.0%	78.3%	25.9%	0.0%	100.0%	0.0%	0.0%	0.0%
AM Peak Vol.			11:00 44	09:00 57		09:00 57			09:00 57
PM Peak Vol.			18:00 94			18:00 94			18:00 94
Grand Total	0	0	0	729	241	0	0	0	931

ADT Not Calculated

# Safe Approach Speed Calculation

Player at Demaret  
City of Troy, MI

Major = Player  
Local = Demaret

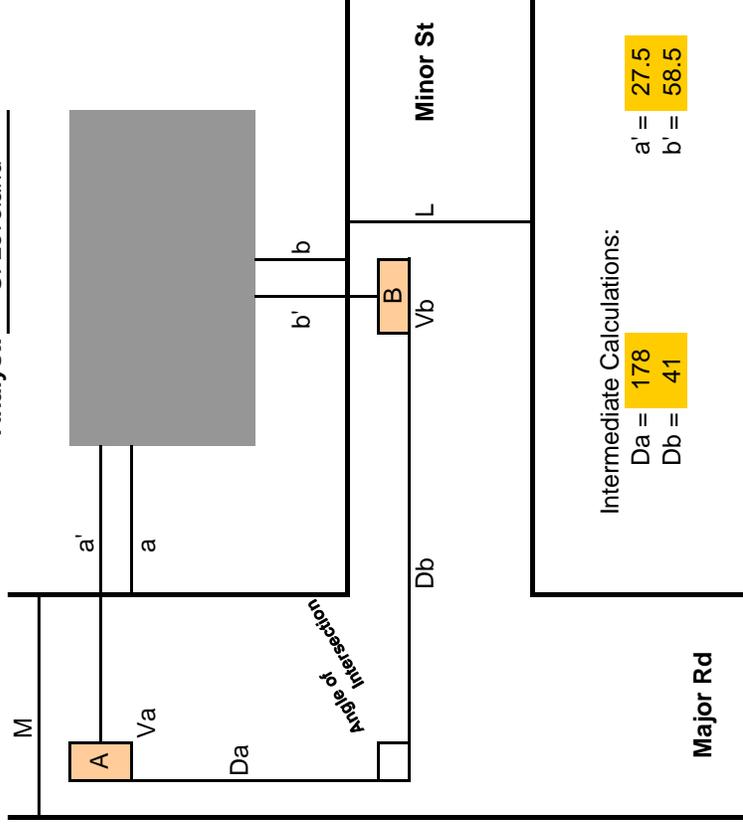
Date: 9/27/2011  
Analyst: S. Loveland

- Measured:
- Width of Roads
    - Major: M = 27 (ft)
    - Local: L = 27 (ft)
  - Distance to Obstruction
    - a = 17 (ft)
    - b = 42 (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 = 7.3 (mph)
--------------------------------------------------------------------	----------------



Intermediate Calculations:

Da = 178  
Db = 41  
a' = 27.5  
b' = 58.5

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 local street based on safe approach speed :

**STOP Sign**