

**CITY OF ROCHESTER HILLS
DEPARTMENT OF PUBLIC SERVICES**

May 30, 2008

**TRAFFIC CONTROL
HILLWOOD SUBDIVISION (SECTION 2)**

Background

A traffic study was recently performed for the intersections of Little Creek Road at Blue Beech Road and at Blue Beech Court at Blue Beech Road. This study was initiated by a request from a resident of Hillwood Subdivision to determine if regulatory traffic control devices are warranted at these intersections, as established by *Michigan Manual Uniform Traffic Control Devices* (MMUTCD).

Intersection Sight Obstructions

Little Creek Road at Blue Beech Road

At this time, no permanent sight obstructions exist at any of the intersection quadrants that would adversely impact the safe approach speeds. There are two (2) "spot" obstructions due to two (2) tree trunks that are about 8" to 10" in diameter. The condition of the trees will need to be further evaluated by the City's Forestry Department as to condition and may necessitate removal.

Blue Beech Court at Blue Beech Road

At this time, at the northerly approach of Blue Beech Court at Blue Beech Road, there are several trees that limit the sight distance along with the obtuse angle of the intersection. The southerly approach of Blue Beech Court at Blue Beech Road has several trees at the corner that limit the sight distance and should be trimmed. The City's Forestry Department will provide further evaluation of said trees and provide necessary trimming.

Traffic Crash History

Traffic crash data was obtained from the Traffic Improvement Association (TIA) for the period of January 1, 2005 through December 31, 2007. During the three (3) year period there was one (1) reported crash that occurred approximately 370 feet southeast of intersection at Little Creek Road and Blue Beech Road. The reported crash is not attributable to conflicts with the intersection and was the result of negligent driving (see attached data).

The recommended regulatory traffic control device (stop/yield sign) for the intersection with available sight distance:

- 1) Sight distance measured approximately 400 feet southeasterly and approximately 690 feet northwesterly. Recommend Little Creek Road to **YIELD** to Blue Beech Road.
- 2) Sight distance measured approximately 500 feet southerly and approximately 180 feet northerly. Recommend Blue Beech Court to **STOP** to Blue Beech Road. [Note: Blue Beech Court has two (2) approaches to Blue Beech. Each approach will be signed with a Stop Sign.

Note: Intersection Sight Distance [AASHTO Recommended]

$$ISD = (1.47) * (V_{major}) * (t_g) = (1.47) * (30 \text{ MPH}) * (8 \text{ sec}) = 353 \text{ feet}$$

ISD = Intersection Stopping Distance

V_{major} = Design Speed of Primary Road [road is posted 25 MPH]

T_g = time gap for minor road vehicle to enter the major road.

Action Requested

Request the *Advisory Traffic and Safety Board* (ATSB) to support having the **TCO No. YS-100 and TCO No. SS-139** issued and that the ATSB recommend that the City Council approve this TCO until it rescinded or superseded.

Paul G. Shumejko, P.E., PTOE
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