

Memorandum

By: Roger Dickinson, P.E., PTOE
Date: April 30, 2012
RE: Hannaford Hinesburg

Following the Development Review Board hearing held on February 21, 2012, which I was unable to attend, I understand the DRB had lingering questions about traffic. This memorandum responds to those questions.

1) Updated Analysis including Lantman's current trip generation

It has been requested that we supply an updated traffic analysis that assumes the Lantman's property continues to generate traffic at the same rate as it does currently, e.g. 251 pm peak hour trips rather than 100 pm peak hour trips used in some of the previous modeling. While it remains our professional opinion that 100 pm peak hour trips (or less) is a much more likely outcome, in all recent analyses we have reverted to using the higher rate. Consequently, you already have the requested information. Specifically, this information is contained in the following documents:

- a) Memorandum by Roger Dickinson, dated December 12, 2011 (with attachments)
- b) Memorandum by Roger Dickinson, dated February 13, 2012
- c) PDF of the traffic Powerpoint presented to the DRB, dated February 21, 2012.

The levels of service shown in both the December and February memos as well as in the Powerpoint PDF presented at the February 21st meeting by David White all assume Lantman's continues to generate the same traffic as today (251 pm peak hour trips) and assume the mitigation strategies we are currently proposing. The February 21st Powerpoint PDF, in particular, summarizes all of the key points of the previous work incorporating 251 trips from the Lantman's property and is up-to-date.

2) Rt 116/Charlotte Road Intersection

Simulation of the future levels of service at the Route 116/Charlotte Rd intersection with Hannaford's proposed mitigation, but without construction of the new Hannaford store, shows Level Of Service C with an overall delay of 27 sec/vehicle. That compares to LOS C with an overall delay of 31 sec/vehicle with Hannaford.

3) Rt 116/ Mechanicsville Road Intersection

Relative to the Route 116/Mechanicsville Road intersection, the DRB asked how much the west-bound delay would change. Assuming Lantman's continues to generate 251 pm peak hour trips, for vehicles exiting Mechanicsville Road there is a 57 second delay without Hannaford and a 110 second delay with Hannaford. This is based on the Highway Capacity Manual procedures for unsignalized intersections as opposed to simulation methods (e.g. SimTraffic). It also does not include other factors, such as an increase in vehicles electing to instead turn left at the signalized intersection at Commerce Street.

The Route 116/Mechanicsville Road intersection meets the warrants for signalization today, without Hannaford. While an applicant has no obligation to solve pre-existing

problems, if one assumes that Lantman's continues to generate traffic at the same rate as it currently does, then Hannaford will add to the existing problems at this intersection. To address this Hannaford proposes to mitigate its impact by helping fund a traffic signal at this intersection.

The current cost for signaling a three-way intersection equals approximately \$175,000, including engineering design. This presumes that there is adequate right-of-way to install the necessary signal equipment and that no utility relocations will be required. Potential right-of-way acquisition & utility relocation costs are not included in the foregoing.

Hannaford's potential impact on this intersection can be mitigated by Hannaford contributing a fair share of the cost of signalization. This can be calculated by dividing Hannaford's new pm peak hour trips (143 in all directions) traveling through the Mechanicsville Road intersection by the sum of that (143) plus existing pm peak hour volumes (1,441 in all directions). The resulting percentage equals 9.0%. Hannaford's fair share would thus equal \$15,750.

To be conservative, Hannaford proposes to pay \$25,000 towards the cost of signaling the Route 116/Mechanicsville Road intersection upon installation of those signals. This commitment to pay would remain in effect for up to five years after Hannaford's opening.