



TRANSPORTATION ADVISORY COMMITTEE

7 Twin Circle Drive, Arlington, MA 02474

To: Board of Selectmen, Arlington, Mass

From: Transportation Advisory Committee (TAC)

Subject: Hemlock@Yerxa, Winchester@Hutchinson, and Morningside@Hutchinson

Date: 21 September 2009

In May 2009 the Board of Selectmen requested that the TAC study and make recommendations on issues raised by a constituent with respect to intersections involving Yerxa Road and Winchester Road. Jean Clark and Ed Starr conducted this study, and a report is attached. At the TAC meeting on August 12, 2009 these recommendations were voted unanimously.

We recommend that:

1. Place a stop sign on Yerxa Road at the intersection with Hemlock Street. Trim vegetation blocking the view of Hemlock from Yerxa if possible.
2. Place a stop sign on Winchester Road northbound at Hutchinson Road.
3. Place a stop sign on Winchester Road southbound at Hutchinson Road.
4. Place a stop sign on Morningside Drive northbound at Hutchinson Road.

The corners of all of these intersections are rounded, so the selection of the specific locations for the stop signs should be determined at site visits with TAC and DPW personnel.

Respectfully submitted,

Jean Clark
Edward Starr, Chair

Transportation Advisory Committee Members:

Elisabeth Carr-Jones, Jean Clark, Officer Corey Rateau, Jeff Maxtutis, Howard Muise,
Michael Rademacher, Scott Smith, Edward Starr, and Laura Wiener

Web site; www.tac.arlington.ma.us/

Stop Signs at Yerxa Road/Hemlock Street, Winchester Road/Hutchinson Road, and Morningside Drive/Hutchinson Road

Yerxa Road and Hemlock Street: This is the intersection of a busy street (Hemlock) with a minor street (Yerxa). The intersection is at the bottom of a steep incline on Hemlock. Hemlock is a primary access to Stratton School.

Using data collected on March 4, 2004 (Thursday) for studies related to Symmes, there are 229 vehicles in the AM peak hour entering Summer from Hemlock and 80 going into Hemlock. Some of these originate below the intersection with Yerxa, but the residential density there is not nearly as high as beyond Yerxa, and many are related to the Stratton School. If half of the 229 vehicles southbound went by Yerxa, that would be 115 in an hour, or about 2 per minute on average.

Referring to the TAC Guidelines for a Two-Way Stop, an important reason to consider a two way stop here is lack of visibility. Approaching Hemlock from Yerxa, the sightlines are block by trees and bushes. See photos below. Given the incline, vehicles often go down the hill very quickly. If you drive this often, you approach this intersection very carefully. Without prior knowledge, the probability of a crash increases significantly.



View from Yerxa at Hemlock, roughly 30 ft



Roughly 50 ft

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Elisabeth Carr-Jones, Jean Clark, Lt. Paul Conroy, Susan Doctrow, Jeff Maxtutis, Howard Muise, Michael Rademacher, Scott Smith, Edward Starr, and Laura Wiener

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Hemlock southbound looking at Yerxa intersection – about 50 ft.

The American Association of State and Highway Officials (AASHTO) gives guidelines for stopping sight distances as follows: 20 mph = 115 feet; 25 mph = 150 feet. Visibility here is 50 ft or less.

We recommend placing a stop sign on Yerxa at this intersection, and if possible trimming some of the foliage. The placement of the sign and decision about foliage should be made at site with TAC and DPW Personnel.

Winchester Road and Hutchinson Road: Hutchinson Road travels along the edge of the Winchester Golf Course. It carries a significant amount of traffic. Winchester Road intersects with Hutchinson both from the south and the north. Morningside Road also intersects Hutchinson from the south very near Winchester.

Traffic data was obtained on Hutchinson between Oldham and Morningside on November 13-15, 2002 (Wed to Fri). This data shows:

Eastbound: Average of 819 vehicles/day; mean speed of 29 mph, 85th percentile – 35 mph

Westbound: Average of 780 vehicles/day; mean speed of 29 mph, 85th percentile – 35 mph

Total volume for roadway = 1599 vehicles/day

Referring to the TAC Guidelines for a Two-Way Stop, the issue at this intersection is visibility. The American Association of State and Highway Officials (AASHTO) gives guidelines for stopping sight distances as follows: 20 mph = 115 feet; 25 mph = 150 feet.

At the Winchester intersection from the south, the sight lines allow visibility of roughly 30-40 feet for vehicles approaching on Hutchinson from the west and on Hutchinson approaching Winchester due to a stonewall. See photos. A stop sign is recommended.

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Winchester northbound looking at Hutchinson to the left – about 50 ft from intersection



Hutchinson eastbound looking towards Winchester southbound – about 50 ft from intersection

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At the Winchester intersection from the north, the sightlines again allow visibility of only 30-40 feet for a vehicle approaching on Hutchinson from the west and for a vehicle on Winchester approaching Hutchinson from the north. The major blockage is from professional landscaping with large bushes. See photos. A stop sign is recommended.



Looking south towards Hutchinson from Winchester north at about 50 ft

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Morningside Drive and Hutchinson Road: We also recommend that a stop sign be placed at Morningside and Hutchinson for sightline reasons. Although not as severe as Winchester, visibility of a vehicle traveling down Hutchinson of Morningside is severely restricted. A stop sign is recommended.



Morningside looking north at Hutchinson from about 50 ft

The corners at each of all of these sites is rounded and the selection of the specific location of the stop sign should be determined at a site visit with TAC and DPW personnel.

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