

BOARD OF ALDERMEN

ITEM NO. D(2)

AGENDA ITEM ABSTRACT MEETING DATE: February 19, 2008

TITLE: Follow Up to Traffic Calming on Oak Ave.

DEPARTMENT: PUBLIC WORKS	PUBLIC HEARING: YES ___ NO __X__
ATTACHMENTS: A. Resolution B. Longitudinal pavement lines guidance	FOR INFORMATION CONTACT: George Seiz, Director Public Works: 918-7427 Adena Messinger, Trans. Planner: 918-7329

PURPOSE

The purpose of this item is to provide follow up information to the Board of Aldermen about traffic calming on Oak Avenue.

INFORMATION

At its' regular meeting on October 16, 2007 the Board of Aldermen reviewed a request from residents for traffic calming on Oak Avenue between Weaver Street and Poplar Ave. As a result of that review and discussion, the BOA adopted a resolution endorsing traffic management on Oak Avenue which included five items as follows:

1. That the Board of Aldermen endorses additional enforcement for Oak Avenue.
2. The Board of Aldermen directs staff to work with residents to implement a neighborhood awareness campaign directed at all users of Oak Avenue.
3. That the Board of Aldermen ask the town staff to explore the narrowing down of the entrance to Oak Avenue off of North Greensboro, providing that the measure allows for school bus access.
4. That a speed table be installed on Oak Avenue using the High Street design.
5. That the town staff explore striping along both sides of Oak Avenue.

DISCUSSION AND FOLLOW-UP

1. *That the Board of Aldermen endorses additional enforcement for Oak Avenue.*

The Police Department will monitor and enforce speed and other violations of motor vehicle law along Oak Avenue.

2. *The Board of Aldermen directs staff to work with residents to implement a neighborhood awareness campaign directed at all users of Oak Avenue.*

The Town's transportation planner will be contacting residents to help organize a neighborhood awareness/education campaign as outlined in the *Stage 1 Traffic Calming* section of the Town's residential traffic management plan. The exact time frame is not known at this time and depends on the work load of the Transportation Planner.

3. *That the Board of Aldermen ask the town staff to explore the narrowing down of the entrance to Oak Avenue off of North Greensboro, providing that the measure allows for school bus access.*

Town staff met with District Engineer, Chuck Edwards on November 26, 2007 to discuss possible changes to the intersection. Mr. Edwards indicated there were not sufficient justifications to apply DOT funding for any intersection improvements. He compared the Oak Ave. location to the recently completed improvements at the intersection of Pleasant Dr./N. Greensboro and noted there was clear justification for the Pleasant Dr. improvements due to inadequate intersection sight distance for both approaching traffic and pedestrians. Oak Ave. has sufficient sight distance for both motorist and pedestrians. Mr. Edwards made some suggestions the Town may want to consider that may help improve safety at the intersection, and probably would be less costly than removing and replacing concrete which is what was done at Pleasant Drive. The suggestions were as follows:

1. Remove existing yellow island painted in the intersection.
2. Establish a pedestrian cross walk with a STOP bar.
3. Establish a short center line aligned with the center of the opposing intersection of the 600 block Oak Ave.
4. Delineate the west radius with hatched pavement markings and flexible delineators to create a tighter radius and slightly re-align the throat of the intersection to encourage slower speed for accessing Oak Ave. from N. Greensboro southbound traffic.

In essence the new radius would be defined by delineators, and a new centerline would help better define the intersection alignment. Some of the work would need to be contracted and a portion would be completed with Public Works forces. The budget impact to hire contractors and purchase materials is in the range of \$7,500 to \$8,500. It would take about 34 staff labor hours for the project. If the cost of staff labor hours are included the entire project cost would range from \$9,000 to \$10,000.

Although staff agrees that these suggested modifications may improve intersection alignment, there is some question as to whether anything needs to be done to slow turning traffic. This question is based on speed data (from December 12 and 13, 2007) which shows the 85th percentile speed for those making a right turn onto Oak Ave. to be 19.73 mph (the speed limit on Oak Ave is 20 mph). There is also some concern as to the visual impact of installing numerous vertical delineators and the subsequent on-going maintenance costs for fixing knocked down delineators and re-striping.

4. *That a speed table be installed on Oak Avenue using the High Street design.*

A speed table was installed by the Public Works Department on November 14, 2008. The table is located in the vicinity of 200 Oak Avenue (just south of the s-curve).

Follow-up traffic/speed information was gathered during the week of December 10, 2007. Table 1 below shows the recorded speed of vehicles before and after installation

of the speed table. Overall speeds have been reduced with the most significant change at the speed table.

Table 1. 85th percentile speed			
	100 Oak	200 Oak/on speed table	204 Oak
Pre-speed table	25.45*	26.48*	24.13**
Post-speed table	24.31	19.14	21.15

*This is an average, calculated from eight data points between March and September 2007

** This is an average, calculated from six data points between July and September 2007

It appears the speed table is having a favorable impact on reducing speed along Oak Avenue.

5. *That the town staff explore striping along both sides of Oak Avenue.*

According to the Manual on Uniform Traffic Control Devices (MUTCD) longitudinal lines are used to delineate vehicular paths of travel along the roadway and typically mark the center of the road, lanes of travel, and edges of pavement. The MUTCD does not provide guidance on the use of pavement markings for the purpose of visually narrowing the roadway. As a matter of practice the Town has not painted edge lines on residential streets due to slower speeds. Painted edge lines are not typically placed next to curb and gutter sections except on some higher speed roadways where it's important to delineate the edge of the travel lane from a change in surface or drop off of pavement.

Oak Avenue is 21 feet wide (face of curb to face of curb) with 2 ½ foot wide curb and gutter on both sides. The asphalt paving between the curb and gutter is 17 feet wide.

The staff does not recommend painting lines for the following reasons:

1. Painting edge lines for the purpose of traffic calming is not an accepted practice;
2. The Town has not typically painted edge lines along residential streets. To do so may set a precedent which could have significant maintenance cost impact.
3. There is already contrasting concrete curb and gutter which delineates the asphalt paving and gives a visual effect of only 17 feet width of travel (8.5 feet in each direction).

The cost of putting edge lines along both sides of Oak Avenue from N. Greensboro to Weaver Street (about 2100 ft) would be in the range of \$1,900 for painted lines to about \$5,000 for thermoplastic lines. There would be on-going maintenance costs to maintain the striping. Staff feels that there would be virtually no impact to traffic speed if lines were painted.

FISCAL AND STAFF IMPACT

As noted above the fiscal impact for the proposed modifications at the intersection of Oak Avenue and North Greensboro is in the range of \$7,500 to \$8,500 (total project cost \$9,000 to \$10,000) utilizing about 34 hours of staff time. The striping of edge lines would cost in the range of \$1,900 to \$5,000 depending on the type of lines painted. This striping work would need to be contracted.

It is anticipated that the Transportation Planner will need to spend 20 to 25 hours to organize and meet with residents and take preliminary steps for a neighborhood/education campaign. The time involved with implementing a campaign is yet to be determined and will be based on the type of campaign the neighborhood is interested in. As noted earlier the exact time frame is not known at this time and depends on the work load of the Transportation Planner.

The Police Department will continue to monitor Oak Avenue as part of their routine enforcement.

RECOMMENDATION

Staff recommends the following:

1. That the Police Department continue to monitor Oak Avenue as part of their routine enforcement.
2. That staff will follow through on the initiation of a neighborhood/education campaign.
3. That no intersection modifications at Oak Avenue and North Greensboro be made at this time, and the staff be directed to get a better understanding of what the treatment (if any) should be at this intersection.
4. That edge lines should not be striped along Oak Avenue.

