

September 27, 2012

TO:

Board of Mayor and Aldermen

FROM:

Eric Stuckey, City Administrator

David Parker, City Engineer/CIP Executive Paul Holzen, Director of Engineering Carl Baughman, Traffic Engineer

SUBJECT:

Discussion Concerning Speeding Issues on Jordan Road Between Murfreesboro Road (SR 96) and

Liberty Pike

Purpose

The purpose of this memo is to follow up on the report given on September 13, 2012. The Capital Improvements Committee requested additional information on the enforcement efforts that have occurred on this road, toward keeping the speeds under control. Carl Baughman has obtained four years of ticket data from the Police Department and presents it in the <u>Data</u> section.

Background

Mrs. Murdock first contacted our Traffic Engineer, Carl Baughman, seeking speed relief in November 2011, at which time speed samples were collected. The data showed a significant pattern of speeds in excess of the 30 miles per hour speed limit. In fact, the prevailing speeds indicate that drivers are treating Jordan Road as if it were a 40 mph road. This data was sent on to our Police Department in an effort to step up speed enforcement. In June of 2012 Mrs. Murdock requested the City to install speed humps as an option to reduce the speed along this section of Jordan Road. This option would require a neighborhood petition and a special appropriation by BOMA. At that time it was requested to investigate an all-way STOP at some nearby street intersection on Jordan Road. The most likely candidate was the through street of Churchill Place, but the volume distribution was heavily oriented toward Jordan Road (80% of intersection traffic) falling well outside of warrant conditions. In addition the Manual on Uniform Traffic Control Devices (Section 2B.04 Right-of-way at Intersections) specifically states the following: "YIELD or STOP signs should not be used for speed control".

Data

Jordan Road Currently has and Average Daily Traffic Volume of 1500 vpd with 3 residential driveways directly accesses this section of Jordan Road. Speeding ticket data was investigated for the period January 1, 2008 through September 1, 2012. During this period there were forty-seven (47) tickets issued on Jordan Road; the data was presented by date, time, location, measured speed and officer name. Eighteen (18) of these tickets were issued in this year 2012. The average 2012 measured speed was 46.6 mph with the range from 38 mph to 56 mph. This information is consistent with the speed samples collected in 2011 showing a significant pattern of speeds in excess of the 30 mile per hour speed limit.

In addition to the speed and volume data presented above, Mack Hatcher Parkway has been under construction since December 2011. The effect of construction up to now on Jordan Road traffic flow is unclear, but lane closures set to begin in late October on Murfreesboro Road and Liberty Pike at their Mack Hatcher intersections are likely to adversely impact Jordan Road during their term. There will be only one lane open in each direction, with left turns allowed, during this period.



Options

- Option 1 Encourage the residents to work through the Royal Oaks subdivision neighborhood contact Lance Maliszewski to initiate the traffic calming process outlined in the Neighborhood Traffic Calming Program. A successful petition could result in the prompt installation of a temporary speed hump at the optimal location, until such time as BOMA might fund the permanent speed humps.
- Option 2 Step up the enforcement of speeding on Jordan Road, until it generates at least an interim impact on prevailing speeds.
- Option 3 An additional option that would most likely lead to reductions in speeds and volumes would be to close a section of the road to all traffic other than emergency vehicles (See Attached exhibit A). Continuity of travel between Murfreesboro Road and Liberty Pike would then be accomplished on Mack Hatcher Parkway, and Jordan Road would in effect then become two subdivision streets (the north portion and the south portion of the Royal Oaks subdivision). Crossover travel between the two portions of the Royal Oaks subdivision would then occur on the external arterial streets, and Jordan Road would become more like a local street. It should be noted this option would result in a change in traffic pattern within the subdivision and increase the volume on Sheffield PI, Churchill PI and London Ln. Prior to moving forward with this option staff would encourage the residents to work through the Royal Oaks subdivision neighborhood contact Lance Maliszewski to initiate the traffic calming process outlined in the Neighborhood Traffic Calming Program.
- Option 4 Realign Jordan Rd at Liberty Pike and convert the entrance to a right-in-right out (See Exhibit B). This option would reduce the cut through traffic between Murfreesboro Rd and Liberty Pike but would have a limited impact on the internal traffic and speeds on Jordan Road. This option would also be the most expensive and require Design, ROW and a construction contract. If this option is considered it should be included in the CIP prioritization and funding process.

Financial Impact

- Option 1 Jordan Road is 4400 feet long and the effective influence zone of a speed hump is about 400 feet, perhaps 5-6 speed humps on the street would be mostly effective. This would cost about \$12,500-\$15,000 for permanent installation.
- Option 2 No financial impact other than the time associated with on duty officers enforcing speed limits on Jordan Road.
- Option 3 This option could be completed with the installation of signs, grass paver system or a bollard/gate. Engineering Staff would need to work with the street department and emergency personnel to find a good solution. It is estimated that this would cost around \$15,000.
- Option 4 This option would be the most expensive option and would require Design, ROW and Construction Bid. It's estimated this option would cost around \$200,000-\$300,000.

Recommendation

At this time Staff recommends option 2 and option 4. If option 1 and 3 are to be considered staff would recommend, assist and encourage the residents to initiate the traffic calming process within the subdivision.

Jordan Road Exhibit A



