Traffic Signal Removal Study
N. Main Street & 4th Avenue

The City of Gainesville – Public Works Department has received a request from the Duckpond Neighborhood Association to remove the traffic signal at North Main Street & 4th Avenue. In accordance with the MUTCD, an engineering study was performed to determine a traffic signal is appropriate traffic control for the intersection.

I. Traffic Warrant Study:

Warrant 1 & Warrant 2 - The traffic volumes on N.E. 4th Avenue were studied to determine if they meet any of the volume warrants listed under Warrant 1 and Warrant 2 of FHWA's Manual On Uniform Traffic Control Devices. The volumes on N.E. 4th Avenue do not meet the criteria for the installation of a traffic signal.

Warrant 3 – Peak Hour Delay – this was not studied for this intersection as the traffic signal does exist. However, the Duckpond Neighborhood is an older gridded neighborhood with high street connectivity providing many access points at both signalized and non-signalized intersections. Once the existing traffic signal is removed, residents of the neighborhood would still have many alternative signalized intersections to access major roadways during peak (and off-peak) times as follows:

- N. Main Street & 8th Avenue;
- N. Main Street & 2nd Avenue;
- N. Main Street & 1st Avenue;
- E. University Avenue & 1st Street;
- E. University Avenue & 3rd Street;
- E. University Avenue & 7th Street; and
- N.E. 8th Avenue & 7th Street.

Warrant 4 – Pedestrian Volumes – pedestrians would still be able to cross the major roadways via a traffic signal as listed below. Additionally, the Main Street "narrowing" project is scheduled to be implemented in the near future, reducing the crossing distance for Main Street.

Warrant 5 – School Crossing – there is not a school on either side of Main Street in vicinity of this intersection therefore this warrant does not apply.

Warrant 6 – Coordinated System – removing this traffic signal will actually provide for better coordination along Main Street by reducing the traffic signals per mile.

Warrant 7 – Crash Experience – Traffic crashes were investigated for the intersection. During the time from January 1, 2003 to April 1, 2008, there are only 2 crashes reported at this intersection:

(1) August 26, 2003 - Southbound vehicle crashed with a westbound vehicle. The vehicle traveling southbound ran red light - no injuries were reported. The accident occurred on a Tuesday during the daylight hours and the roads were dry.

(2) February 02, 2006 - Southbound left turn vehicle crashed with a northbound vehicle. Both vehicles had a solid green light. The vehicle traveling SB made a left turn in front of motorcycle traveling northbound, causing the collision. There was 1 non-incapacitating injury. The accident occurred on a Thursday during the nighttime (dark) hours and roads were dry.

Warrant 8 – Roadway Network – As the neighborhoods on both sides of Main Street are gridded and have access to additional traffic signals, this warrant does not apply.

II. Intersection Sight Distance

The sight distance at the intersection was reviewed. It was determined to be in compliance with FDOT Standard Index 546 – Sight Distance At Intersections. Additionally, in the Main Street re-construction project, 2 lanes are being eliminated and on street parking and bike lanes are being added on both sides of the street. This will further enhance sight distance by bringing the curb line and stop bar farther out into the right of way.

III. Determine Appropriate Traffic Control

On the west side of Main Street, N.W. 4th Avenue is a 1 way street headed west, therefore no traffic control is needed.

On the east side, N.E. 4th Avenue is a two-way street. Our recommendation would be to install a westbound stop sign and coordinate the proposed design change with the FDOT for the Main Street plans.

MUTCD Traffic Signal Removal Procedure:

Option:

If the engineering study indicates that the traffic control signal is no longer justified, removal may be accomplished using the following steps:

A. Determine the appropriate traffic control to be used after removal of the signal.
B. Remove any sight-distance restrictions as necessary.
C. Inform the public of the removal study, for example by installing an informational sign (or signs) with the legend TRAFFIC SIGNAL UNDER STUDY FOR REMOVAL at the signalized location in a position where it is visible to all road users.
D. Flash or cover the signal heads for a minimum of 90 days, and install the appropriate stop control or other traffic control devices.
E. Remove the signal if the engineering data collected during the removal study period confirms that the signal is no longer needed. Instead of total removal of the traffic control signal, the poles and cables may remain in place after removal of the signal heads for continued analysis.