City of Birmingham
A Walkable Community

MEMORANDUM

Community Development

DATE: March 23, 2015

TO: Joseph A. Valentine, City Manager

FROM: Mark Clemence, Deputy Chief of Police
Jana L. Ecker, Planning Director
Paul O'Meara, City Engineer

SUBJECT: Update on W. Maple Steering Committee Activities

At the steering committee meeting on January 22, 2015, Mr. Norm Cox of the Greenway Collaborative conducted a PowerPoint presentation outlining the basic principles of multi-modal transportation planning, and introduced some of the design tools communities can use in their street design to meet their specific objectives. Mr. Mike Labadie of Fleis & VandenBrink explained the basic types of data that traffic engineers collect and study when considering road improvements. In addition, steering committee members provided their comments and concerns regarding the existing conditions on the W. Maple corridor. Common findings were identified as follows:

- Concern that this section of W. Maple Road is dangerous and does not feel safe;
- Concern about the excessive speed of traffic on W. Maple;
- Concern about vehicles swerving to avoid other vehicles making turns along the corridor;
- Concern about the difficulties of turning onto W. Maple from adjacent side streets;
- Concern about traffic backups at Southfield Road;
- Difficulty for pedestrians to cross W. Maple; and
- Satisfaction with sidewalk conditions along the W. Maple corridor.

Accordingly, the steering committee agreed that each of the above common areas of concern translate into the following objectives for improvements considered for the W. Maple corridor:

- Improve the safety of the corridor, especially for vehicular and pedestrian traffic;
- Lower the speed of vehicular traffic in the corridor;
- Reduce the amount of vehicles swerving to avoid cars making turns along the corridor;
- Enhance the ease of vehicles to turn onto W. Maple from adjacent side streets;
- Reduce traffic congestion in the vicinity of the Southfield Road intersection;
- Provide safe and convenient pedestrian crossings along the corridor; and
- Maintain sidewalk facilities in the corridor.

In addition, the steering committee stated that the following objectives should also be included:

- Ensure that any proposed changes in the corridor do not make existing conditions worse; and
- Ensure that any proposed changes in the corridor do not increase cut-through traffic in the surrounding neighborhoods.

On February 26, 2015, the steering committee met for the second time. Several members of the public also attended this meeting. Mr. Labadie conducted a presentation to review his findings regarding the existing conditions in the W. Maple corridor. Mr. Labadie reviewed the traffic counts collected (including bicycle and pedestrian counts), turning movement data collected, the most recent 3 year crash history, the results of past speed studies, sight distance findings, gap analysis findings, traffic queues and the levels of service for all existing intersections in the W. Maple corridor.

All data collected was put into SYNCHRO, a computerized traffic modelling program to illustrate in actual time increments the existing conditions at AM and PM peak periods and throughout the day along the W. Maple corridor. Mr. Labadie responded to questions from steering committee members and the public, and then demonstrated the computerized SYNCHRO model of the actual corridor. The scaled model allows viewers to watch the operation and traffic flow of the corridor, and it becomes evident where the areas of concern exist. Committee members discussed the back up and traffic congestion around the W. Maple and Southfield intersection, the placement and timing of traffic signals, excessive speed, concerns regarding vehicular swerving around turning vehicles, pedestrian crossing issues and the difficulty for drivers to make turns out of the surrounding neighborhoods onto W. Maple at peak periods. Both the data compiled and the computer model created using the data confirmed the perceptions of the steering committee members that were previously noted.

After reviewing the existing conditions along the corridor, Mr. Labadie reviewed the following complete street / multi-modal design tools that are available for study to meet the objectives for improvements along the W. Maple corridor:

- ADA ramps at all corners and crossings
- Sidewalk improvements
- Crosswalk striping
- Pedestrian crossing islands
- Flashing beacons for pedestrian crossings
- Intersection improvements
- Bike lanes or shared lane markings
- Bus stop relocation /consolidation
- Bus stop enhancements

- 4 to 3 lane conversion
- Roundabouts
- Reconfiguration of road width
- Traffic calming measures (curb bump-outs, tree extensions, speed tables, signal coordination, road narrowing, public art, landscaping etc.)

On March 19, 2015, the Steering Committee met for the third time. Several members of the public attended this meeting. Mr. Labadie conducted a presentation to review his analysis of existing conditions in the corridor, and numerous complete street improvement options that he recommends for the corridor. Mr. Labadie advised that the following complete street / multi-modal design tools should be included in the corridor:

- ADA ramps at all corners and crossings
- Crosswalk marking improvements at the signalized intersections
- Installation of crossing islands (consider just west of Baldwin bridge, east of Chesterfield, east of Lakepark, at signals etc.)
- Flashing beacon at Baldwin bridge if pedestrian crossing installed
- Installation of right turn lane eastbound on Maple, south onto Southfield Road
- Removal of low use bus stops
- Enhancement of higher use bus stops (concrete pad, benches, shelters etc.)
- 4 to 3 lane conversion west of Southfield to east side of Cranbrook
- Use of enhanced technology in signals to control and optimize signal cycle lengths and timing

Mr. Labadie presented his Level of Service findings by intersection throughout the corridor both using existing conditions and future conditions in a 4 to 3 lane conversion. All intersections will continue to operate at a Level of Service C or higher overall (an acceptable Level of Service is D or higher). In response to questions from the Steering Committee and the public, Mr. Labadie explained how these improvements would significantly reduce accident rates and severity, virtually eliminate sideswipe accidents, reduce speeds, provide a consistent speed for traffic, increase the gaps in traffic through the use of platooning, reduce congestion (particularly in the area of Southfield Road), and would enhance pedestrian conditions and crossings throughout the corridor. Mr. Labadie also stated that there would not be an increase in cut through traffic if these improvements were made as traffic delays and queues would not increase, thus there would be no need or desire for traffic to divert from the corridor.

The Steering Committee asked Mr. Labadie and his team to gather additional information and return to the Steering Committee at their next meeting. Mr. Labadie was directed to conduct a detailed crash analysis comparison between the existing 4 lane configuration and a potential 3 lane configuration on the corridor to attempt to quantify the safety improvements from an accident perspective, and to provide a speed comparison between known speeds with the existing 4 lane configuration and expected speeds with a future 3 lane configuration based on

examples around the country. Additional information was also requested to back up the opinion that cut through traffic would not increase. Finally, staff directed Mr. Labadie to come back with line drawings at key locations illustrating the proposed layout of bike lanes and pedestrian crossings that could be added if a 4 to 3 lane conversion was constructed.

Next Steps:

At their next meeting, the Steering Committee will review the additional information requested, and consider making suggestions to the Multi-Modal Transportation Board regarding the type of improvements that should be considered for the W. Maple corridor from Southfield Road to Cranbrook Road.

The next meeting of the Steering Committee will be held on **April 16, 2015 at 6:00pm** in the second floor conference rooms at City Hall.