



Engineering Services Division

Traffic Operations Committee

Meeting Minutes – March 19, 2013

Attendees: Rob Mack, PE, PTOE, Engineering Services
Steve Henninger, Planning Division
Greg Taylor, Police Department
Rick Wollert, Concord Fire Department

A. Regular Discussion Items

1) Overview of city-wide accident data, including prior-month accident summary and discussion of select accident locations, circumstances and potential action.

DISCUSSION / ACTIONS: Traffic accident data for February 2013 was reviewed. There were 94 reportable accidents in February 2013. This compares with 121 and 132 reportable accidents in February 2012 and 2011, respectively. 17 accidents resulted in total of 22 people injured, 4 of which occurred on Loudon Road. There were no fatalities.

There were three accidents involving pedestrians: a pedestrian aged 51 years leaving the Wal-Mart store and crossing the main crosswalk in front of the store and walking into a vehicle stopped at the crosswalk (minor injury, pedestrian at fault for not paying attention); a pedestrian aged 52 years walking along Loudon Road against traffic in the travel lane due to snow on sidewalks and being struck by the mirror of a passing vehicle (minor injury, vehicle not identified); and a pedestrian aged 28 years in an altercation with another driver in the Fort Eddy Shaws parking lot and throwing himself on the hood of the moving car and falling to the ground (injury, pedestrian and driver both at fault and cited).

2) City Council meeting update.

DISCUSSION / ACTIONS: City Council accepted the TOC reports requesting parking restrictions on both Whitney Road and Bradley Street in follow-up to Planning Board actions. Public hearings on the requests are scheduled for April 8, 2013.

3) Transportation Policy Advisory Committee (TPAC) update.

DISCUSSION / ACTIONS: TPAC discussed potential improvements to the Pleasant/Warren/Fruit intersection (CIP 283) as being evaluated by Engineering.

B. On-going Discussion and Action Items.

- 1) Referral from City Council to consider establishing a No Parking/Standing/Stopping zone along Conant Drive between South Street and Rundlett Street to mitigate adverse effects of parking for traffic related to school drop-offs/pick-ups at the Abbott-Downing Elementary School. (Council: 10/9/12).**

DISCUSSION / ACTIONS: At its February 19, 2013 meeting, TOC endorsed an extension of the current No Parking, Standing or Stopping zone on South Street southerly to beyond the Conant Drive intersection, and implementation of a No Parking, Standing or Stopping zone (school peak times only) along both sides of Conant Drive between South Street and Rundlett Street. Rob Mack reported that this TOC endorsement was presented to the Parking Committee at its February 25, 2013 meeting. The Parking Committee endorsed the option to extend the South Street parking restriction along both sides of the street to 100 feet south of the Conant Drive intersection. The Parking Committee also acknowledged the need to restrict parking along Conant Drive between South Street and Rundlett Street, but tabled action on the item pending a public information meeting to get feedback from local residents. At issue was whether to restrict parking along the short segment of Conant Drive between South Street and Rundlett Street (considered by the Parking Committee to be the minimum area of restriction), or whether it would be preferable to consider extending the potential restriction to include the length of Conant Drive, understanding that restriction parking in one location will act to divert on-street parkers to another area up the street. The issue of full-time restriction or time-limited restriction would also be discussed with residents.

The Parking Committee has scheduled a neighborhood meeting on March 25, 2013 at 6:00 PM at the Abbott-Downing School Café. Neighborhood input would be used to refine the committee's recommendation on area parking restrictions.

- 2) Request from Riverbend Community Mental Health, Inc. to establish an exclusive pedestrian crossing phase at the State/Pleasant signalized intersection. (Engineering: 10/9/12).**

DISCUSSION / ACTIONS: At issue is a request by Riverbend to consider revising the signalized pedestrian crossing at the intersection to provide exclusive WALK operation (all traffic stopped), versus the existing concurrent WALK operation (pedestrians cross with parallel traffic movement). This request was pursuant to a pedestrian accident at the intersection last fall involving a pedestrian in the crosswalk being struck by a turning vehicle. Riverbend noted that it has facilities adjacent to this intersection and that it is concerned for the safety of its consumers that use crosswalks at this intersection. This request was initially discussed by TOC at its October 16, 2012 meeting, with Mr. Alan Moses from Riverbend in attendance. TOC action was deferred at that time pending a more detailed engineering assessment of the intersection.

Rob Mack reported that Engineering Services had compiled intersection traffic and crash data and performed an assessment of intersection operation and safety. Peak period traffic data was compiled last December during the noon and afternoon commuter peak period, with the afternoon peak being the critical weekday period. Design-study findings developed over the winter for the Main Street Complete Street project were also incorporated into this assessment. A comparative assessment of converting the subject-intersection signal operation from concurrent to exclusive WALK operation was developed.

Regarding crash history at signalized pedestrian crossings city-wide, pedestrian-related crashes reported at intersection locations were reviewed from 2004 through 2012. During that nine-year period there were 25 pedestrian crashes reported at signalized intersections with pedestrian crossing signals. 13 occurred at

intersections where exclusive pedestrian WALK phasing was used, and 12 occurred at intersections where concurrent WALK signal phasing was used; a significant difference in crash history is not apparent.

TOC discussed the compact size of the State/Pleasant intersection and noted that if pedestrians were required to wait longer to cross the street due to operation of an exclusive crossing phase, an increasing number might elect to cross concurrent with traffic (against the DON'T WALK indication) at the first opportunity rather than wait for the light to cycle to the WALK indication. This is a commonly-observed occurrence in the downtown area and is a safety concern as these pedestrian crossings (albeit illegal) occur when traffic is generally not expecting to encounter pedestrians.

Consistency of signalized pedestrian crossing operation throughout the downtown area was also discussed. It was felt that the current mix of exclusive and concurrent operation among nearby signalized intersections was less-than-optimal insofar as creating varied driver/pedestrian expectations from intersection to intersection. Signals along the N. State Street corridor all operate with concurrent pedestrian crossings. Signals along Pleasant Street (exclusive of the State/Pleasant intersection) currently operate with exclusive pedestrian crossings. However, the adjacent Pleasant/Main intersection is planned to be reconfigured to a concurrent pedestrian crossing when rebuilt under the Main Street Complete Street project.

Engineering performed operational analyses of the State/Pleasant intersection assuming existing operation with concurrent pedestrian crossing as well as potential signalization with exclusive pedestrian crossing. The afternoon commuter peak period was analyzed for projected 2014 (near-current) and 2034 (design year) traffic conditions consistent with that developed for the Main Street redesign study. With concurrent pedestrian crossings, the intersection currently operates with computed average vehicle delay of about 25 seconds and 95th percentile traffic queues on approaches ranging from 148 to 272 feet. Revising the current operation to provide an exclusive pedestrian crossing doubles average vehicle delays to about 54 seconds and increases 95th percentile approach queues to 232 to 353 feet. In the 2034 future condition, the intersection operates with average delays of about 36 seconds with a concurrent crossing and very long delays of 114 seconds with an exclusive crossing. Computed future queuing with the exclusive crossing extends beyond both the Main/Pleasant and N. State/Warren intersections. Thus, with regard to traffic operation, the potential conversion to an exclusive pedestrian crossing operation results in substantially longer intersection delays and traffic queues which can exacerbate vehicle conflicts, parking maneuvers and pedestrian crossings near the intersection and at adjoining intersections.

TOC members noted concern for the mid-block crosswalk on Pleasant Street about 120 feet west of the subject intersection (at the South Congregational Church). While existing traffic queues from the signal can extend through this crosswalk, potential conversion to an exclusive crossing phase will increase the likelihood of traffic queues standing across the crosswalk, a safety concern for pedestrians crossing here.

Considering all of the above, TOC members did not feel that conversion of the subject intersection operation to include an exclusive pedestrian crossing operation was appropriate. Reasons noted include increased traffic delays and queuing extending further back to adjacent signals and midblock crosswalks, and potential pedestrian disregard for exclusive WALK phasing given increased crossing delay and the compact size of the intersection. Another concern for downtown-area safety was the provision of consistent pedestrian signal operation within the downtown core, especially among adjacent closely-spaced signals; concurrent pedestrian crossing is currently in operation along adjacent N. State Street corridor signalized intersections and is also planned for the adjacent Main/Pleasant intersection as part of the Main Street Complete Streets project.

Substantial improvements to signal equipment and pedestrian facilities at the State/Pleasant intersection are currently programmed in FY 2018 under CIP 283. Among the anticipated improvements are new signal pole locations, pedestrian countdown signals and improved accessibility on sidewalk corners. These programmed improvements will enhance pedestrian operation and safety at the intersection.

C. New Discussion and Action Items

- 1) None.

D. Open Discussion Items

- 1) Staff response to miscellaneous inquiries (refer to correspondence in agenda packet).

DISCUSSION / ACTIONS: None.

Respectfully submitted,

Robert J. Mack, PE, PTOE, Traffic Engineer
Chair, Traffic Operations Committee

***The next Traffic Operations Committee meeting will be held on
Tuesday, April 16, 2013 @ 12:00 PM in the 2ND Floor Conference Room.***