



## Engineering Services Division

# Traffic Operations Committee

Meeting Minutes - January 17, 2012

Attendees: Rob Mack, PE, PTOE, Engineering Services  
Ed Roberge, PE, Engineering Services  
Jim Major, General Services  
Greg Taylor, Concord Police Department  
Rick Wollert, Concord Fire Department  
Dick Lemieux, TPAC Chair  
Jennifer Kretovic, City Council

### 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 December 2011 was reviewed. There were 125 reportable accidents in December 2011. This compares with 148 and 152 reportable accidents in December 2010 and 2009, respectively. 24 accidents resulted in total of 30 people injured, with 3 of those injuries occurring on Loudon Road. There were no fatalities.

There were five accidents involving pedestrians: a pedestrian aged 72 years crossing Green Street in the crosswalk at Warren Street and being struck by a southbound Green Street vehicle after he pushed another pedestrian out of the way of the quickly-approaching vehicle (minor injury, driver at fault); a pedestrian aged 31 walking westbound along Pleasant Street in the crosswalk at Dartmouth-Hitchcock Concord and being struck by a vehicle exiting the driveway (injury, driver at fault); a pedestrian aged 17 years walking southbound on S. Fruit Street and crossing Redington Road and being struck by a vehicle turning from Redington Road (minor injury, driver fled scene); a pedestrian aged 9 years crossing S. Main Street in the crosswalk at Fayette Street ahead of a larger group of crossing pedestrians and being struck by a vehicle turning left out of Fayette Street (minor injury, driver at fault); and a pedestrian aged 74 years walking eastbound on Merrimack street and crossing Community Drive in the crosswalk and being struck by a vehicle turning left onto Community Drive (minor injury, driver at fault).

TOC overviewed 2011 annual accidents. There were 1193 reportable accidents in 2011. This compares with 1215 and 1327 reportable accidents in 2010 and 2009, respectively, and is about 9 percent below the city-wide crash average of 1293 over the prior seven years from 2004 through 2010. In 2011, 244 accidents resulted in total of 291 injuries with no fatalities. This compares with 392 injuries and 2 fatalities reported in 2010.

- 2) **City Council meeting update.**

DISCUSSION / ACTIONS: There were no TOC action items at City Council's January meeting.

3) **Transportation Policy Advisory Committee (TPAC) update.**

DISCUSSION / ACTIONS: There was no TPAC meeting in December.

B. **On-going Discussion and Action Items.**

1) **Referral from Council regarding a request from Alex de Nesnera to remove the STOP signs on the School Street approaches to the School Street/N. Fruit Street intersection. (Council: 3/14/11).**

DISCUSSION / ACTIONS: Rob Mack presented a draft report summarizing the history of this referral and the results of an updated engineering study on intersection traffic control. Regarding safety, there have been no reported crashes at the intersection in the nearly 4 years since the March 2008 installation of multi-way STOP. In the four years prior to the installation (2004-2007), there were an average of 1.5 crashes per year, all related to North Fruit Street vehicles failing to stop at the STOP sign. General Services noted that winter plowing and street maintenance along School Street approaching the new STOP signs has been tricky in slippery winter conditions, but maintenance was feasible. Engineering staff received some positive feedback from local residents in that the multi-way STOP made it easier for them to turn from North Fruit Street onto School Street during busy times. Staff contacted the family of the former vision-impaired student who indicated that the former student still lived at their Ridgewood Lane residence and that they still liked the multi-way traffic control at the School/North Fruit intersection.

Engineering Services has been monitoring traffic volumes in the Upper School Street area since prior to the opening of Langley Parkway, with the latest traffic counts being conducted in April 2011. Notable is a substantial reduction of about 25 to 30 percent in School Street traffic volumes, attributable to traffic diversion to Langley Parkway which opened in July 2008, coupled with the revised lane-use improvements at the Pleasant/Warren/Fruit intersection implemented in April 2009. Engineering staff received a number of comments from area residents confirming that traffic flows along School Street appeared reduced and that egress from side streets onto School Street seemed easier. Intersection sight lines for vehicles on the N. Fruit Street southbound approach (from the neighborhood) can become restricted due to vegetation along the north side of School Street. Also, vehicles on the N. Fruit Street northbound approach (from the school) may have a limited sight line to School Street vehicles approaching from the left (west) due to a low overhanging tree branch about 100 feet to the west. These vegetation sight line restrictions are not a concern with multi-way STOP control at the intersection, but would be considerations if two-way STOP control was in effect.

TOC was informed that some school bus drivers had felt that the conversion to multi-way STOP had made it easier for school buses to turn from N. Fruit Street to School Street as compared to pre-2008 conditions under two-way STOP control. The aforementioned low-hanging tree branch just to the west was noted as being contributory, particularly since bus drivers are seated higher exacerbating the sight line restriction. The volume of buses entering the intersection from N. Fruit Street has also reduced substantially following the relocation of the primary bus stop from the school entrance on North Fruit Street to the bus drop-off area along Westbourne Street.

MUTCD criteria for multi-way STOP were reviewed and do not appear to be met at this intersection. This finding was also reported in TOC's April 24, 2006 report to City Council. Furthermore, traffic volumes at this intersection have substantially reduced since the 2006 study. A comparative analysis

of intersection traffic operation was also developed for the weekday AM peak hour condition. Use of either two-way or multi-way STOP allows the intersection to operate with low delays and at good levels of service. The two-way STOP operation does however result in a substantially lower number of vehicle stops, overall delay, fuel consumption and emissions. Because of the relatively low volume of traffic at this intersection, multi-way STOP control does not act to improve overall intersection performance.

TOC concurred with the findings of the engineering study and that it would be appropriate to remove the multi-way STOP condition at this intersection, essentially by removing the STOP signs on the School Street approaches that were installed in March 2008. This finding is also in accordance with the City's Stop Sign Policy. To enhance safety, TOC recommends that potential conversion back to two-way STOP control be accompanied by selective vegetation maintenance along the north side of School Street near the intersection to improve sight lines from N. Fruit Street to the extend practical. The tree branch overhanging the School Street eastbound approach to the intersection should also be pruned to improve sight lines. Signed notice of the change in traffic control should be provided for several weeks. Existing crosswalks and related signs on the east and south legs of the intersection should be retained. Traffic operations should continue to be monitored by staff.

The draft engineering report and TOC recommendations would also be discussed with TPAC on January 26, 2012. It is anticipated that a final report and recommendation on this referral would be submitted to City Council in February for a potential public hearing in March.

C. **New Discussion and Action Items**

- 1) **None.**

D. [Redacted]

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

DISCUSSION / ACTIONS: None.

Respectfully submitted,

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

***The next Traffic Operations Committee meeting will be held on  
Tuesday, February 21, 2012 @ 12:00 PM in the 2<sup>ND</sup> Floor Conference Room.***