

ENCOURAGING THROUGH-TRAVEL ALONG THE COLLECTOR AND ARTERIAL STREET NETWORK ACCOMPLISHMENTS

TOC regularly reviews city-wide crash data to proactively address potential areas of concern.

TOC reviews city-wide crash data on a monthly basis, including motor vehicle, pedestrian and bicycle modes, with a focus on identifying and proactively addressing hot-spot locations, and as follow-up to prior roadway or intersection improvements.

TOC performed intersection safety assessments at selected high-crash locations.

Staff, through TOC, performed crash analyses and intersection safety assessments, and implemented safety improvement measures at intersection locations city-wide. Assessments can be in response to a reported high crash incidence, or as follow-up monitoring of intersection improvement projects. Improved locations exhibiting reduced crash experience include:

- Liberty/Centre roundabout
- N. State/Franklin Roundabout
- Loudon/D'Amante signalized intersection
- Broadway/Rockingham intersection multi-way STOP signs.



Analysis of historic crash data, such as this one showing predominant crash types, help guide engineers to appropriate solutions.

TOC, through TPAC, developed and recommended for Council approval, various city policies and practices regarding the use and maintenance of street signs and markings.

An In-Street Pedestrian Crossing Sign (“Weeble”) Policy adopted by City Council on January 12, 2009 sets standards for sign application and placement and establishes a maximum number of Weebles permitted at any one time.



In-street crosswalk weeble

A city-wide pavement marking practice adopted by City Council in 2010 provides for twice-yearly application of pavement markings in order to enhance lane-use and crosswalk visibility. Most markings are reapplied in spring with a follow-up application in high-traffic locations in the fall. This practice replaced the former once-a-year application that generally occurred in late summer and resulted in poor pavement marking visibility at heavily-travelled locations during the spring months. Additional costs are offset by identifying other locations that need less frequent restriping. Thus, the City has been able to increase safety without increasing costs.

TOC inventoried current school zone signing and marking applications and recommended a uniform city-wide guideline.

A STOP Sign Policy adopted by City Council in August 2011 sets uniform, city-wide practice for the location and use of STOP signs based on Federal standards and engineering practice.

TOC supported staff in the design and construction of traffic signal and pedestrian improvements on Loudon Road at Exit 14.

Traffic control and safety improvements along the Loudon Road corridor between N. Main Street and the Everett Arena, one of the most heavily traveled corridors in the city, included: coordination of seven traffic signals, including four closely spaced signals, in the I-93 Exit 14 area; select sidewalk improvements; installation of countdown pedestrian signals; and revised crosswalk locations.



Countdown WALK signal and blank-out NO RIGHT TURN sign at the Loudon/Ft Eddy intersection.

TOC supported staff in the research and implementation of state-of-the-art traffic signal control technologies.

TOC recommended and implemented emerging technologies to enhance traffic operation and safety, including:

- Countdown pedestrian signals
- Video detection at intersections for both vehicles and bicycles
- Flashing yellow arrow left-turn signals
- No Right Turn blank-out signs to enhance busy pedestrian crosswalks, and
- Emergency vehicle hybrid beacons for fire station access to busy streets.

Many of these applications were among the first in the State of New Hampshire.



The city's first Emergency Vehicle Hybrid Beacon. The flashing sequence is activated for fire trucks leaving Central Station on North State Street.

TOC developed and implemented low-cost intersection improvements to reduce travel delay at key arterial intersections.

In conjunction with the Comprehensive Transportation Policy, proactive and low-cost improvements to enhance traffic operations and reduce delay along arterial routes that were successfully implemented by staff through TOC include easy-to-implement lane-use and signal modifications at:

- Pleasant/Warren/Fruit intersection
- S. Main/Storrs intersection
- Pleasant/Main intersection
- N. Main/Washington intersection
- N. Main/Bouton/I-393 intersection



A simple restriping of existing pavement width to add a second left-turn lane at the intersection of South Main and Storrs Streets increased throughput and significantly decreased vehicle delays, resulting in reduced fuel use and air pollution by idling vehicles and reduced driver frustration.

TOC, through TPAC, provided feedback to Council on traffic operations referrals.

Numerous assessments city-wide pursuant to staff, resident or business requests for stop signs, speed limit changes, crosswalks, mitigation of construction traffic impacts, revised on-street parking, sight distance improvement, street lighting and accident/safety concerns.

TOC and TPAC collaborated with city staff and the Energy Committee to develop and implement energy-reduction programs.

TOC developed an energy-saving program to replace existing incandescent traffic and pedestrian signal bulbs with energy-saving LED lighting modules. Implemented in 2011 with funding from a Department of Energy grant, it is expected that the energy-savings will exceed the costs in about two and a half years.

TOC also planned, implemented and is monitoring a street-lighting reduction program during late-night hours to facilitate energy savings. Corridors include Water Street, the Manchester Street Bridge, and the Loudon Road bridge over Storrs Street.