CITY OF CONCORD

New Hampshire's Main Street™

MINUTES

Traffic Operations Committee

March 21, 2017, 12:00 PM
2nd floor Conference Room
City Hall, 41 Green Street, Concord, NH

Staff Present:	**Guests:**
Rob Mack, Engineering Services (Chair)	Dick Lemieux, TPAC Chair
Ed Roberge, Engineering Services	
Jim Major, General Services	
John Stoll, Planning Division	
John Thomas, Police Department	
Rick Wollert, Fire Alarm Division	

1. **Regular Discussion Items**

   a. **Overview of City-Wide Crash Data**

   Not discussed.

   b. **City Council Meeting Update**

   Not discussed.

   c. **Transportation Policy Advisory Committee (TPAC) Update**

   Not discussed.

2. **Ongoing Discussion and Action Items**

   a. None.

3. **New Discussion and Action Items**

   a. **Request by a resident of Noyes Street to install a crosswalk on Clinton Street at Harvard Street *(Engineering: 2/22/17).***

   At issue is a request by Deborah Nixon of 11 Noyes Street to consider installation of a crosswalk on Clinton Street at Harvard Street. Her concern is safety in crossing Clinton Street at this location.

   Clinton Street is about 47 feet wide in this area and includes four travel lanes plus two bike lanes. Sidewalk is provided along both sides of Clinton Street with established crossings for pedestrians available at the traffic signals at McKee Square (800 feet to the east) and at S. Fruit Street (1000 feet

to the west). The Harvard Street approach is opposite the driveway to the courthouse. A CAT bus stop is located on the northwest corner of this intersection and is only serviced by westbound buses stopping at the courthouse side. A street light is also located on the northwest corner. Clinton Street is classified as a Major Arterial. CNHRPC reports a 2015 traffic flow of in excess of 13,000 vehicles per day along this section of Clinton Street.

In 2005, the Federal Highway Administration published research on the safety effects of marked versus unmarked crosswalks at pedestrian crossings that are not controlled by higher-order protective devices such as pedestrian traffic signals or raised median islands. The study results revealed that under no condition was the presence of a marked crosswalk along at an uncontrolled location associated with a significantly lower pedestrian crash rate compared to an unmarked crossing. Furthermore, on multi-lane roads with traffic volumes greater than 12,000 vehicles per day, having a marked crosswalk was associated with a higher pedestrian crash rate compared to an unmarked crossing.

TOC concurred that given the current design of Clinton Street in this area, that installation of a crosswalk at Harvard Street would be inappropriate unless accompanied by signalization and/or roadway reconstruction to include raised median islands or other traffic calming features. Implementation of such traffic devices or reconstruction would involve considerable public expenditure and would need to be included in City's Capital Improvement Program. It was also felt that there would be low pedestrian use of a crossing at this location given the available signalized crossings to the east and west; this potential usage is an important factor in comparing the needs for capital improvements here verses other locations across the city. TOC members suggested inquiring of the TPAC Bicycle-Pedestrian Subcommittee if any additional information is available regarding pedestrian-crossing needs at this particular location that might support further consideration of a significant capital improvement here. This item will be further discussed by TOC at the next meeting.

b. Request by a downtown employee to reinstate the former exclusive pedestrian crossing time with diagonal crossing at the Main Street/Pleasant Street signal *(Administration 3/8/17).*

At issue is a concern by resident and downtown employee Katherine Schmitt on pedestrian crossing safety at the Main/Pleasant intersection since it was reconstructed as part of the Main Street Complete Street Project. Requested is: a return to the former exclusive pedestrian crossing movement (all traffic is stopped); the former diagonal crosswalks; and the former no turn on red controls during the pedestrian crossing movement.

The new intersection design has been in full operation since November 2015. Large corner bump-outs were constructed to substantially shorten pedestrian crossing lengths. The former exclusive pedestrian crossing phase was replaced with an operation designed for pedestrians to cross with parallel traffic movement (referred to as 'concurrent walk' and similar to signals along N. State Street between Pleasant Street and Centre Street). The new Main/Pleasant operation features an advance pedestrian interval, where the WALK phase starts about five seconds before the green light is given for parallel traffic movement, giving pedestrians a head start to enter the intersection before parallel-moving traffic is given the green light. The former no turn on red restrictions (which were commonly disregarded) were eliminated. All of these changes together act to lower pedestrian and vehicle delays, a critical consideration in the Main Street redesign, as they balanced the need to reduce the number of traffic lanes at the intersection in order to both widen sidewalks and retain on-street parking.

Since the new intersection design and concurrent pedestrian operation began on November 12, 2015, CPD has not reported a pedestrian crash at this location. Under the prior exclusive pedestrian crossing operation with diagonal crosswalks, there were two reported pedestrian crashes since 2008, each involving a pedestrian crossing against the DON'T WALK signal. Staff has also observed significant improvement in pedestrian compliance with the WALK/DON"T WALK signals. Vehicle

speeds through the intersection also appear to be reduced with the sharing of green time by both pedestrians and vehicles. Staff has received substantial positive feedback from pedestrians and drivers on the change.

Concurrent pedestrian crossing operation is the most common pedestrian operation across the country. Many of the signals in Concord's downtown core include concurrent crossings, and it is hoped that more will be so converted in the future with the goal of providing a more consistent form of pedestrian crossing operation across the city. This consistency was a foremost concern noted by visually-impaired walkers during the Main Street Complete Streets Project public input process; whether the crossing was concurrent or exclusive was of lesser concern. The Storrs/Pleasant Extension intersection is another reasonable candidate for future conversion to a concurrent pedestrian crossing operation. The N. Main/Loudon/Centre intersection, however, would not be amenable to a concurrent crossing operation without costly intersection reconstruction and right-of-way acquisition; long pedestrian crossings across multiple lanes, high traffic volumes and speeds, and complex traffic signal phasing are reasons that the exclusive pedestrian crossing was retained at this location under the recent Main Street project.

TOC strongly concurred that the current pedestrian crossing operation, as implemented under the Main Street Complete Streets Project, is safe, efficient and appropriate for the location. The concurrent pedestrian crossing operation fosters better pedestrian compliance with the traffic signals, acts to reduce pedestrian and vehicle delays and queuing, and provides consistent pedestrian-crossing operation with other nearby signals in the downtown area. A regression to the former exclusive pedestrian phase, with or without the former diagonal crossing, would: substantially increase vehicle and pedestrian delays from current levels; increase lengths of standing vehicle queues at the intersection; encourage unsafe pedestrian non-compliance with the signals (a concern now that all the crosswalks have been shortened); and increase vehicle speeds thru the intersection as drivers would be more focused on the green light rather than on the mix of pedestrian and bicycle traffic sharing the street with them.

c. Request by a Dixon Street employee to install a crosswalk on Storrs Street at Dixon Avenue *(Engineering: 3/9/17).*

At issue is a concern that there is not a painted crosswalk on Storrs Street at Dixon Avenue and that a number of employees cross at that location between the businesses on Dixon Street to the west and the parking lot on the east side of Storrs Street.

TOC reviewed the Storrs Street corridor and found that crosswalks are generally located at all street intersections except for the Dixon Avenue location. Sidewalks with corner ramps are already located at the subject intersection corners. TOC concurred that painting a crosswalk would be a reasonable and minimal-cost improvement at this location and would maintain the consistency of crosswalk applications at intersections along the corridor. It was suggested that the crosswalk be painted across the north leg of the intersection to further remove it from the shadows cast by the overhead parking garage just to the south. General Services would schedule painting of the crosswalk as part of this spring's pavement marking program. Crosswalk signs would not be used as this is not a mid-block location.

4. Open Discussion Items

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

None.

b. Review of the City's no-trucking routes.

Engineering and General Services staff will arrange to have a working meeting to review the no-trucking route map.

c. Mini-roundabouts webinar

The TOC meeting adjourned at 1:00 PM to allow viewing of a FHWA webinar on mini-roundabouts. Several TOC members joined Engineering staff in watching the program.

Next meeting date: April 18, 2017