

Short Street and High Street, Ellsworth

Node #23990

CRF (2013-2015) 1.86

Short Street is a two-way city street that intersects Route 3 (High Street), a one-way, with two travel lanes and a left turn lane for turning onto Short St. 65 feet prior to Short Street (opposite side of Route 3 from Short Street) is the entrance to a car wash/gas station, which is popular due to its reputation for low fuel prices. 65 feet beyond the car wash/gas station entrance (directly across from Short Street) is the entrance to a veterinary hospital. These two business have separate entrances. This section of Route 3 is subject to heavy traffic volumes comprised of shipping, local business and tourist traffic, as it offers access to a variety of “big box” retail stores, local business and serves as the primary route to the MDI/Bar Harbor/Acadia region. There were nine crashes reported at this intersection between January 2013 and December 2015 (see Appendix A).



Because Short Street is the “last chance” to exit the one-way section of High Street, and connects Routes 1 & 3, many patrons of the car wash and veterinary hospital cross Route 3 to get onto Short Street. From the Car Wash, this involves cutting across three lanes of one-way traffic (see Photo A). From the veterinary hospital, it involves going the wrong way on a one-way across two lanes of traffic. Vehicles also regularly cross High Street from Short Street to get to the car wash, going the wrong way for 65 feet or for 25 feet and entering the exit. Five of the nine crashes reported at this location involved vehicles crossing Route 3 from the car wash to Short Street, and one involved a crossing from the veterinary hospital to Short Street.

Sight obstructions to the northwest can make it difficult for traffic exiting Short Street to do so safely from the existing location of the stop sign & stop line. From the painted stop line on Short Street looking northwest a sign, parked vehicles, and snow storage in the winter months, can limit the visibility of traffic on High Street (see Photo B). These obstructions restrict sight of traffic in the left designated turn lane for vehicles turning onto Short Street and the lane that they are entering (the left through lane). The limited visibility causes drivers on Short Street waiting to pull out to creep closer to the end of the road in an effort to see when they have a clear window to pull out (see Photo C). Traffic in the far left lane turning from Route 3 onto Short Street regularly cuts short the turn, cutting into the lane where entering traffic may be waiting (see Photo D). The combined factors of waiting vehicles creeping further into the intersection to enhance visibility (without curbing adjustments), wrong way movements onto Route 3 from Short Street into the car wash and traffic turning tightly onto Short Street from Route 3, creates risk. One crash evidenced this scenario within the 2013-2015 study period.

Two additional crashes at this node were associated with vehicles performing lane changes while traveling this section of High Street, which has three lanes up to Short Street, and two lanes thereafter (see Photo E).

To improve safety at this intersection, the following short-term, low-cost improvements are recommended:

1. Modify the southwest bound entrance to eastbound Route 3
 - a. The double yellow line on Short Street and the painted stop line should be brought towards Route 3, approximately 3 feet behind the curbline. These changes will allow southwest bound Short Street traffic to see without obstruction to the northwest, as well as provide visual cues to traffic turning onto Short Street from Route 3, encouraging vehicles to turn cleanly into the northeast bound travel lane (see Photo F).
 - b. Relocate the stop sign for southwest bound Short Street to 3 feet northeast of the left turn lane curb line.
2. The car wash’s street-level “Propane Fill Station” sign between the entrances for the car wash and the veterinary hospital should be relocated to enhance visibility of oncoming traffic for vehicles exiting the veterinary hospital (see Photo G).
3. Redesign and construct a right-angled curb at Short Street to discourage traffic from turning right, entering the one way going the wrong way (from Short Street to the car wash). This change will also provide a physical barrier protecting traffic turning onto Route 3 from traffic turning left onto Short Street from east bound Route 3 in the left turn lane. (see Photo H).
4. Enhanced Signage

- a. Improve overhead lane designation signage with destination signage
- b. Install roadside signage on the left & right of Route 3 to reduce unnecessary lane changes along this one-way stretch.

Long-term planning considerations to improve the safety at this intersections should include:

5. Consider Business Access Changes
 - a. Consider consolidating the separate entrances of the car wash and the veterinary hospital with a single shared entrance of moderate width.
 - b. Consider making the existing entrance to the car wash a restricted right in only entrance.
 - c. Consider consolidating the separate exits of the car wash and the veterinary hospital with a single shared exit (or an exit to access Route 3 to Short Street & a right turn only exit)

Photo A. Car wash patrons often travel across three lanes of traffic on High Street to get to Short Street.



Photo B. Motorists on Short Street waiting to turn face numerous barriers to visibility, making it hard to judge when it is safe for them to proceed.



Photo C. Motorists on Short Street waiting to turn often pull close to High Street to enhance their view of oncoming traffic. Note the location of the painted stop line beneath the rear axle of the stopped vehicle in this photo.



Photo D. Motorists turning onto Short Street from High Street often make a shallow turn, causing them to drift into the lane where turning traffic waits.



Photo E. This section of High Street, which has three lanes up to Short Street, and two lanes proceeding south.



Photo F. Relocate the stop line and extend the yellow line on Short Street.



Photo G. Relocate the street-level sign on High Street.



Photo H. Redesign and reconstruct the curb on Short Street.



Photo I. Recommendation 4: Future consolidation of High Street business entrances in this area



Appendix A. Summary Crash Diagram

