



STAFF REPORT

To: Honorable Mayor and Members of Town Council

From: Ryan Germeroth, P.E., Transportation Planning and Traffic Engineering Manager

Title: Discussion/Direction: Creative Crosswalks in Downtown Castle Rock

History of Past Town Council, Boards & Commissions, or Other Discussions

Public Works staff met with and presented the information contained in this report with the leadership of the Downtown Development Authority (DDA) and Downtown Merchants Association (DMA). The goal of these discussions was to come to a consensus on the type of layouts that could be safely accommodated. Staff then presented the potential layouts to the DDA and DMA boards on August 4, 2016. Both boards made a recommendation to Town Council to allow the use of the creative layouts in the downtown area at four intersections and two midblock locations. In addition, the Downtown Alliance has provided a letter of support that has been provided as an attachment.

Discussion

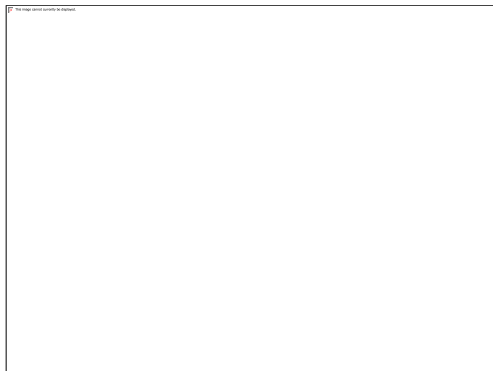
As part of the 2016 Pavement Maintenance Program (PMP), most of the existing stamped concrete crosswalks on Wilcox Street and Perry Street in downtown Castle Rock were removed due to on-going maintenance issues and overall deteriorating aesthetics associated with patch repairs. Maintenance costs of the stamped concrete crosswalks continued to increase year after year with the total cost for maintenance in 2015 about \$6,600 or \$550 per crosswalk. Initially, due to the increased costs for installation and expected future maintenance of new stamped concrete crosswalks, Public Works planned to install standard crosswalks utilizing paint only. The cost for installation of new stamped concrete crosswalks would be \$1,200 per crosswalk as compared to \$350 per crosswalk with painted crosswalks. However, concerns were raised by the DDA and DMA that standard crosswalks with only paint would not provide the desired unique characteristic for the downtown area of Castle Rock. With these concerns in mind, members of the DDA and DMA came up with several potential creative layouts that were provided to Public Works staff for consideration. Staff reviewed these proposed layouts with an eye toward pedestrian safety with the goal of having the layouts be as minimally distracting to drivers in the downtown area as possible while still providing identity as a marked crosswalk. Integration into existing Department operations for maintaining any potential unique markings was also considered.

After a productive discussion with the DDA and DMA leadership as well as both boards, consensus has been achieved for five different layouts for use in the downtown area. All layouts will utilize standard white paint and generally follow the standard crosswalk bar layout with the creative component either captured within the standard crosswalk bar or the crosswalk bars configured in a creative layout.

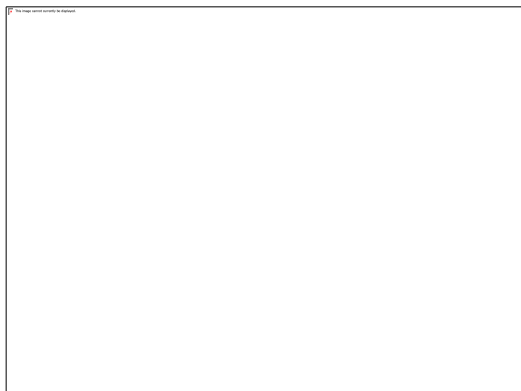
The following provides an example of each of the layouts as well as a breakdown of the costs and service level impact associated with the maintenance. It is expected that with the reduction in pavement maintenance costs due to the removal of the stamped concrete crosswalks, these additional costs associated with paint can be absorbed within the existing budget of the Public Works Department.

Boot print – 2nd Street and Perry Street

A scaled down version of this that would fit within the standard crosswalk width would be utilized.

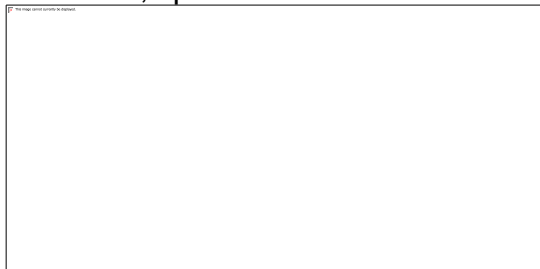


Zipper – 3rd Street and Perry Street (this layout would be modified with a roundabout at this intersection)



Fork / Spoon / Knife – 4th Street and Perry Street

The forks, spoons and knives would be incorporated into a standard crosswalk bar.



Rope – 5th Street and Wilcox Street

The rope layout would have the same dimensions as a standard crosswalk bar.



Ladder - Midblock crosswalks Perry Street north and south of 3rd Street



Historically, Public Works has only painted the transverse lines (the lines that run parallel to each other that are perpendicular to vehicle traffic) across each leg of the intersection given that the space between the lines was stamped concrete. These lines have been painted once per year. However, given the unique layout of these crosswalks, it may be desirable to paint each crosswalk twice per year instead of once as is current practice. The additional painting could be needed to assure that the creative layouts look as good as possible throughout as much of the year as possible. There are two options that could be considered for this increased level of service.

Option #1: If given direction to proceed with the painting of the creative layouts twice per year with in-house staff, the Traffic Engineering Division's Signs and Marking crew would incur additional costs and a shift in level of service with regard to the annual crosswalk painting program. This increased service level would result in one additional week of night-time painting in the downtown area as these crosswalks can only be safely painted at night when traffic is at its lowest levels. This increased level of service in the downtown area would result in a decreased level of service in other parts of Town. This would result in an annual decrease in the output of the crosswalk program of about 50 crosswalk locations in other parts of Town or about a 3% decrease in overall

output. It is expected that with this decrease in output, that the Division will be just under the annual performance metric of painting half of the crosswalks in the Town each year.

Option #2: This option would maintain the current Town staff commitment to one round of painting with in-house staff and would cover the additional round of painting with contractor staff.

With regard to additional paint program costs, the following table shows the impact with regard to maintenance costs for the Division's paint program.

Scenario	Painted Crosswalks (16 locations)	Difference	Notes
Historic maintenance cost (painted transverse)	\$450	-	Painted once per year
Option 1 - In-house Maintenance cost (creative designs)	\$2,990	\$2,540	Assumes painted twice per year by Town staff
Option 2 - In-house / Contract Maintenance costs (creative designs)	\$4,893	\$4,443	Assumes painted twice per year, once by Town staff and once by contractor

As can be seen in this table, the additional annual cost to the crosswalk painting program would be approximately \$2,500 per year. In addition to the annual maintenance costs, there would also be a one-time capital cost to purchase the stencils for each of the layouts. This cost would be \$2,195 which brings the total first year cost to \$5,185. The stencils are expected to last about 5 to 6 years before needing replaced.

Attachment A: Downtown Alliance Letter of Support