

**Capital District Transportation Committee**  
**2014 Unit Costs for Bike-Pedestrian Projects**  
**February 27, 2014**

**Introduction**

CDTC last refined its unit costs for shoulders (bikeway as part of the roadway), separate bikeways (multi-use path) and sidewalks in April 2008. CDTC is now updating them for the evaluation of bicycle and pedestrian projects after the 2013-18 TIP update.

**Recent Inflation**

Since these costs were last updated, prices for construction materials have been relatively stable, in contrast to the sharp increases between 2003 and 2008. Various sources indicated an average of about 3% inflation per year. Therefore, the first step in updating the unit costs for sidewalks and bike trails was to apply inflation of 3% per year to the previous set of unit costs.

Given that inflation has become stable, 3% inflation per year was assumed for highway preservation unit costs and assumed here as well for the period between the estimation of the cost and the two or three year period that would pass before the project is expected to be put out to bid. Since the previous unit costs assumed a four to five year period, the 2014 unit costs need to be reduced by 3% per year for two years.

**Final New Unit Costs**

The chart below shows the unit costs as of 2008 and the adjusted versions for 2014. Both versions also include all expected engineering, supervision and contingency costs. They do not include right-of-way costs.

The below unit costs for sidewalks will also require an increase of about 50% if full drainage is required, and another 50% if curbs will be installed for the full length of the sidewalk.

**Bicycle & Pedestrian Unit Project Costs 2014**

<b>Project Type</b>	<b>Width (ft)</b>	<b>2014 Cost (\$M/mile)</b>	<b>2008 Cost (\$M/mile)</b>
Shoulder	6	0.313	0.278
Separate Bikeway	10	0.877	0.779
Sidewalks Only	5	0.558	0.496
Sidewalks with Amenities	5	1.077	0.957
Sidewalks (Partial Amenities)	5	0.818	0.727

## **Recent Bicycle/Pedestrian Cost Estimates**

As part of this analysis, these unit costs were checked against actual costs of recent bike/ped projects. During the 2005-10 TIP update, CDTC staff used the 2003 version of its unit costs to estimate the costs of several projects. Two projects whose costs were estimated by CDTC staff, were programmed on the 2005-10 TIP have not sufficiently developed to provide reliable feedback on the original cost estimates. However, in both cases, the cost estimates are such that the original CDTC cost estimates may prove to be very accurate.

After the 2007-12 TIP update, CDTC staff updated the 2003 version of its unit costs as a first step in estimating the costs of several projects for the solicitation that followed the TIP update. Three projects whose costs were estimated by CDTC staff, were programmed on the 2007-12 TIP. Of those three, one (A499, Carman Road Connector Sidewalk) ended up being funded privately, making the CDTC estimate no longer applicable. One (R277, Lansingburgh Sidewalks) was deferred, and therefore, there is no information to compare against the CDTC estimate. The remaining one (A500, Sheridan Hollow Sidewalks) now has a new cost estimate of \$0.487M. The cost estimate using this procedure at the time of programming assumed obligation two years prior than when the project will actually be obligated. Adding two years' inflation to that cost estimate, brings the original estimate to \$0.443M, 9% short of the current price. The cost estimate used for TIP programming (again, inflated two years' worth) is \$0.361, 26% short. Although the cost estimate using these unit costs was only 9% different than the new updated cost estimate, it is important to note that the actual cost is not yet known.

In summary, of the projects whose costs were estimated by CDTC staff and were added to the TIP since 2005, none have been brought to construction obligation. But nothing has occurred with the updated costs of those projects that would bring into question the accuracy of the CDTC staff original cost estimates. In other words, a proper comparison of the cost estimates with recent projects cannot be done. But, the development of those projects so far is consistent with the original staff estimates.