

**Capital District Transportation Committee
2018 Unit Costs for Bike-Pedestrian Projects
November 7, 2018**

Introduction

CDTC last refined its unit costs for shoulders (bikeway as part of the roadway), separate bikeways (multi-use path) and sidewalks in February 27, 2014. A review of recently constructed bike-ped projects showed that the below unit costs are consistent with actual costs. Therefore, CDTC will use these unit costs for the 2019-24 TIP update.

2018 Unit Costs

The below unit costs include all expected engineering, supervision and contingency costs. They do not include right-of-way costs.

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 2018

Project Type	Width (ft)	2018 Cost (\$M/mile)
Shoulder	6	0.313
Separate Bikeway	10	0.877
Sidewalks Only	5	0.558
Sidewalks with Amenities	5	1.077
Sidewalks (Partial Amenities)	5	0.818

Recent Bicycle/Pedestrian Cost Estimates

As part of this analysis, these unit costs were checked against actual costs of the most recent bike/ped projects. During the 2016-21 TIP update, SA295 (Pruyn Hill Pedestrian Safety, Phase II) was added to the TIP and is now built. The sponsor's construction estimate was made as part of detailed design of Phase One of this project (SA274), which is the most accurate way to estimate construction. CDTC's unit costs were used to check for reasonableness. The project was for construction only of 1200 feet of sidewalk with partial amenities. The project was added to the TIP for \$0.126M. CDTC's estimate, using \$0.818 per mile and removing 18% for engineering and 12% for construction inspection, is \$0.143M. The project obligations totaled \$0.124M. So, CDTC estimate was 15% high, which could reflect the average nature of these unit costs and could also reflect the wide range of cost between projects with no amenities and partial amenities. But it is still consistent with the actual cost.

During the 2013-18 TIP update, S219 (Helderberg Avenue Sidewalks) was added to the TIP and is now complete. Sponsor estimates were used, with CDTC's unit costs used to check for reasonableness. The project was for all phases and included curbs and drainage. The project was for 3600 feet of sidewalk (800 of which is new). The project was added to the TIP for a total of \$0.619M. CDTC's estimate using \$0.588 per mile with 50% for drainage and another 50% for curbs is \$0.761M. The project obligations totaled \$0.705M. Sponsor estimate ended up being 14% low with CDTC's estimate being 8% high.