

**Projects First-Round Winner**  
Innovations Challenge

**April 2016**

Prepared by Transportation Planning  
Missouri Department of Transportation

## Sidewalk Overlay



### Description

Marion Route 79 was primarily a resurfacing project through the downtown Hannibal area, which required upgrading pedestrian facilities to comply with federal guidelines. Approximately 3,000 linear feet of sidewalk along a portion of the project, commonly known as Mark Twain Avenue, required improvements. There were issues related to removing the existing sidewalk because of impacts to the curb of a concrete drainage ditch that was parallel to a large portion of the sidewalk. After core team discussion, the concept of not removing the existing sidewalk but constructing new sidewalk over the existing one emerged. After construction and cost estimate reviews, it was decided to utilize the method of Unbonded Concrete Sidewalk Overlay for this area. Constructing the sidewalk in this manner would provide greater stability against pedestrian usage and the effects of climate conditions, which will minimize maintenance needs and extend the expected sidewalk life.

### Benefit

The elimination of removing the existing sidewalk simplified the sidewalk construction process, saved construction time, and lessened work zone impacts to motorists. Overall improvements to the sidewalk enhanced pedestrian safety by providing ADA compliance and addressed maintenance concerns for the area.

### Materials

Materials: \$118,270, which is about \$18,000 less than traditional sidewalk removal and construction.

### For More Information Contact:

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Additional photos can be seen by accessing the Innovations Challenge SharePoint page at: <http://sharepoint/systemdelivery/TP/Documents/InnovationsChallenge.aspx>.

**Traditional Sidewalk Removal and Construction Cost**

**\$136,380**

**Unbonded Concrete Sidewalk Overlay**

| Materials                                 | Quantity | Unit Cost | Cost             |
|---|----------|-----------|------------------|
| Unbonded Concrete Geosynthetic Interlayer | 1872 SY  | \$4.50    | \$8,424          |
| Unbonded Concrete Sidewalk                | 1560 SY  | \$57.85   | \$90,246         |
| Integral Curb                             | 2450 LF  | \$8.00    | \$19,600         |
|   |          |           | <b>\$118,270</b> |

**Cost Savings of \$18,110**

