

**Southwestern Pennsylvania Commission
District 10-0 Program Modifications**

Discussion:

- Engineering District 10 is requesting 35 program adjustments to the 2011-2014 Program.
- Fiscal modifications are being made to the FFY 2011-2014 TIP to keep the fiscal year-to-year funding in balance.
- Funding for the program modifications will be provided from the sources as noted in the narrative below and on the attached Fiscal Constraint Chart.

Project Summaries:

Amendments

- **Myoma Bridge #1:** This project is the replacement of the existing structurally deficient (SD) bridge carrying SR 3017 (Myoma Road) over Breakneck Creek in Adams Township, Butler County.

The Myoma Bridge #1 serves several businesses located in close proximity to the bridge; and the route is considered an important route for economic activity and commuter traffic headed for the PA 228 and US 19 corridors, as well as the Pennsylvania Turnpike and Interstate 79, which all converge in this region.

The District has investigated several options regarding traffic control during construction, including the use of a detour. However, the available detour routes are not suitable for the trucks servicing the ESM Cement Company. These routes have insufficient pavement structure and unsuitable geometrics for the detour traffic.

The next alternative investigated was phased construction by use of temporary signals, maintaining one lane of traffic over the bridge at all times during construction. The current bridge is SD and significant repairs have been made to the beams to keep the bridge in service. Demolition of a portion has been ruled out due to the uncertainty of what further damage might result from the demolition activities. Additional bracing required for this alternative would also create problems with flooding, due to the fact that the hydraulic capacity of the existing structure is inadequate and unable to pass even a 10-year storm event.

It is desirable to replace the structure online. Replacement offline would introduce adverse geometry on the approaches to the bridge. The extent of permanent right-of-way takes would be greater, and residential displacements would likely be double those for replacement online. Realignment would be further complicated by the proximity of a railroad grade crossing just several hundred feet south of the bridge. Any relocated roadway would need to tie into this crossing with a short distance to transition from the new bridge.

It was determined the best option for traffic control is the use of a temporary bridge, thereby allowing two lanes of traffic to remain open during construction of the new bridge. The estimated cost of the temporary structure is \$1,000,000.

The proposed project will remove the bridge from the SD listing.

Therefore, the District now requests that the construction phase of this project be added to the TIP in FFY 2013 in the amount of \$6,365,400 for the replacement of the bridge and the temporary structure.

The funds to program construction for this project are available in the **SPC District 10 Highway/Bridge Line Item**.

The District would also like to add the right-of-way and utility phases of this project in the amounts of \$517,000 and \$75,000 respectively in FFY 2012. The addition of these phases is an Administrative Action.

The sources to cover the addition of the right-of-way phase are as follows:

- **SPC District 10 Highway/Bridge Line Item:** \$107,000 State Bond
- **SPC District 10 Bridge Preconstruction Line Item:** \$410,000 State Bond

The sources to cover the addition of the utility phase are as follows:

- **SPC District 10 Bridge Preconstruction Line Item:** \$56,900 State Bond
- **2013 Butler DFB #2 Line Item:** \$16,100 State Bond
- **2013 Armstrong DFB #2 Line Item:** \$2,000 State Bond

Administrative Actions

- **PA 268/SR 1038 Intersection:** This project involves the realignment and upgrade to improve the safety and operational characteristics at this multi-legged intersection of PA 268 and SR 1038 in West Kittanning Borough, Armstrong County.

This project was let on March 3, 2011.

The District would now like to advance the State portion of the construction funding of this project from FFY 2012 to FFY 2011 in the amount of \$107,778.

The funds in FFY 2011 are available in the **SPC District 10 Highway/Bridge Line Item**.

- **Dime Road Bridge #2:** This project is the replacement of the existing SD bridge carrying SR 2066 (Dime Road) over Carnahan Run in Parks Township, Armstrong County.

According to the 2011 Bridge Risk Assessment, the structure is ranked 5th in Armstrong County and 11th in the District. Based on current data in the Bridge Management System, the deck and superstructure are rated as serious and the substructure is rated as poor.

This project will utilize phased construction, and the bridge will utilize galvanized steel beams. It is important to let the project before the end of the year so the contractor has enough time for fabrication and galvanizing in order for construction to begin in the spring.

Construction funding is currently programmed in FFY 2014; but, because of the bridge conditions, the District has been working to prepare this project for a late fall 2011 let.

During development of the 2011-2014 Program it was the District's intent to program construction for this project in FFY 2012. However, lack of bridge funds and the higher priority of other projects utilizing those funds forced us to program construction two years later. Now, with the funds available, the District would like to program construction when it was originally intended.

Therefore, the District now requests that the construction funding be advanced from FFY 2014 to FFY 2012 by programming \$1,300,000 (100% State Act 44) in FFY 2012.

The proposed project will remove the bridge from the SD listing.

The funds to program construction for this project in FFY 2012 are available in the **SPC District 10 Highway/Bridge Line Item**.

SPC September 2011 Modifications

- **Kiddyland Park Bridge:** This structurally deficient (SD) bridge carries PA 28 over Cowanshannock Creek in Rayburn Township, Armstrong County. The project was let on September 1, 2011, to replace the existing structure.

So as to not lose low bid savings, the District is proposing to remove \$174,000 of Federal Bridge funds in FFY 2011 from this project and place them into the US 119 over US 422 Bridges project. In addition, \$43,500 of State matching funds will also be removed from Kiddyland Park Bridge and placed into the SPC District 10 Highway/Bridge Line Item. These funds are in FFY 2012.

The construction estimate for the US 119 over US 422 Bridges project at the PS&E (Plans, Specifications, and Estimate) stage was \$175,000 over the programmed amount. Therefore, the \$174,000 from Kiddyland Park Bridge will cover nearly all the needed \$175,000. The remaining \$1,000 will come from a final voucher done July 27, 2011, on surplus preliminary engineering funds on PA 28 Pine Creek Bridge.

- **PA 228 Mars Railroad Bridge:** This project involves replacing the existing structure carrying PA 228 over the CSX/B&O Railroad. Also included is an extension of an adjacent arch culvert over Breakneck Creek and the improvement of the Mars Valencia Road (SR 3015) intersection located south of Mars Borough in Adams Township, Butler County.

The intent of this project is that it be consistent with the template developed as part of the original Route 228 Improvement project. The proposed template at this location shows that this section is already in need of five-lanes to accommodate current traffic demands. Therefore, the District plans to replace the existing structure with one that will accommodate five lanes--four through lanes and a center turning lane. As a result, the arch culvert over Breakneck Creek needs included in the project scope due to its proximity to the bridge. In addition, adjustments are necessary at the intersection with Mars Valencia Road to allow for transition of the increased template.

The additional work on the right-of-way plan that resulted from inclusion of the arch culvert and adjacent intersection has caused a \$305,000 final design cost increase. These funds are being secured from within the project from surplus monies in the preliminary engineering and right-of-way phases.

- **Calhoun School Road Bridge:** This Department force bridge (DFB) project involves the replacement of the existing structure carrying SR 1016 (Calhoun School Road) over a tributary to Scrubgrass Creek in Wayne Township, Armstrong County.

The District would now like to advance a portion of the construction funding for this project from FFY 2012 to FFY 2011 in the amount of \$97,845.

The sources to cover the advancement of the construction phase of this project are as follows:

- **2013 Armstrong County DFB Line Item:** \$12,645 State Bond
- **Bradys Bend Bridge #2:** \$10,600 State Bond surplus right-of-way funds
- **Bradys Bend Bridge #6:** \$74,600 State Bond surplus right-of-way funds
- **Department Force Bridges:** The following DFBs in Butler County have experienced minor construction cost increases:
 - **Leasureville Bridge #1:** \$60,000--this project is the replacement of the existing structure carrying SR 2018 (Sarver Road) over a tributary to Buffalo Creek in Winfield Township
 - **Muddy Creek Bridge:** \$25,000--this project is the rehabilitation of the existing structure carrying SR 4002 (Mahood Road) over Big Muddy Creek in Clay Township

SPC September 2011 Modifications

At this time the District requests to add funds to the construction phases of the above projects in FFY 2011.

The source to cover these minor construction cost increases is a low bid savings from **Plum Creek Bridge**.