



BRENT SPENCE
BRIDGE CORRIDOR

Moving the Economy,
Creating Jobs

BRENT SPENCE BRIDGE PROJECT
POTENTIAL COST SAVINGS ESTIMATE

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HNTB

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After the FHWA construction estimate workshop in early 2012, additional work has been done to reduce the construction cost for the Brent Spence Bridge Project. A practical design workshop/value engineering session was held in October 2012 to determine potential cost savings measures. From that workshop three parts of the bridge design have been altered to reduce the cost of the project.

- Reduction in main span pier spacing from 1,000 feet to 870 feet (approval received from the Coast Guard in January 2013);
- Use of network (instead of inclined) tied arch bridges for navigation span only
- Reduced inside shoulders, from 14 feet to 8 feet and outside shoulders from 14 feet to 12 feet on both upper and lower bridge decks (16 feet width reduction to overall width of bridge)

The approximate saving in construction costs from these updates is \$150,000,000.

Preliminary estimates show an 18% diversion on average based on the addition of tolls. With this data the following lane reductions have been developed as potential cost savings measures. The southbound CD system will be reduced from 3 lanes to 2 lanes (lower deck), while the I-71 SB traffic (upper deck) will have travel lane width reduced from 18 feet to 12 feet to keep a constant width on both decks. Also, the travel lanes on northbound I-71/I-75 will be reduced by one lane starting south of the Kyles Lane interchange thru the 12th street interchange. The unit prices for these estimates are based on the unit prices from the FHWA construction estimate workshop.

- Pavement Width Reductions (and other misc. Roadway items) – approx. \$1,500,000
- Bridge Width Reductions (local bridges) – approx. \$1,800,000
- Bridge Width Reductions (approach structures) – approx. \$2,700,000
- Bridge Width Reductions (new Brent Spence Bridge) – approx. \$20,500,000

The approximate saving in construction costs from these updates is \$26,500,000, for a total estimated savings of \$176,500,000. These values equate to a 33% savings on the for the bridge crossing, originally estimated at \$514,100,000.

The estimated initial base construction costs for the approved Alternate I is \$1,535.9M. The above savings results in an 11% reduction in costs for a revised construction cost of \$1,359.4M.