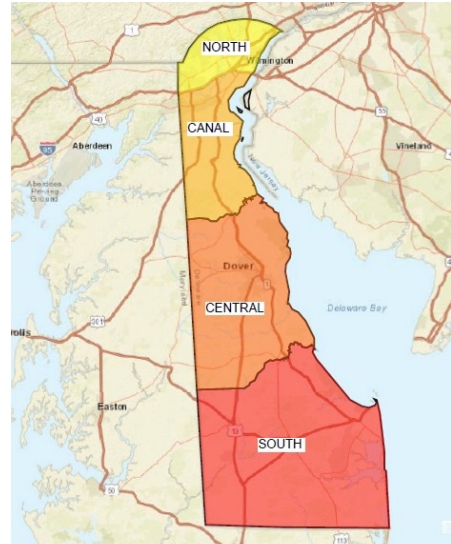


DeLDTOT PREVENTATIVE MAINTENANCE BRIDGE BUNDLING PROGRAM

DeLDTOT uses a series of bridge bundling contracts to address preventative maintenance issues on their bridges. Work to be included in these contracts is prioritized by DeLDTOT's Bridge Management section, and the contracts are administered by the DeLDTOT maintenance districts. A combination of Federal and State funds is used to pay for the work. DeLDTOT and the Federal Highway Administration agreed to a memorandum of understanding on the types of preventative maintenance activities that Federal funds can be used to address. On the open-end bridge maintenance contracts, DeLDTOT has decided to use 100% State funds in an effort to react more quickly without needing to obtain clearance under the National Environmental Policy Act. Although the National Environmental Policy Act clearance process is simple for maintenance work, the time to achieve it can be critical when there is an urgent need to perform a repair.

The deck sealing and bridge painting contracts are true preventative maintenance contracts. DeLDTOT takes a programmatic approach to prioritizing work in a timely manner. The goal is to keep decks sealed and steel beams painted to prevent deterioration. The deck sealing contract focuses on decks with black steel reinforcement that are in good condition, and the program is aimed at sealing these decks every 5 years. The locations and quantities are determined in the design phase of the program. Plans are put together in a proposal format and awarded based on LB.

The bridge maintenance and deck patching contracts are intended to address preventative maintenance for bridges identified as needing work on an annual basis



DeLDTOT maintenance districts.

as part of the prioritization process, but also serve as a means to address emergency-related issues. The exact locations and work types are not known, but DeLDTOT advertises the contracts based on historical work. Plans are put together in proposal format with assumed items and quantities and awarded based on LB. Items of work needed over the term of the contract (usually 3 years) that are not in the contract are negotiated. Although much of the work is repair work, DeLDTOT considers these contracts to be preventative maintenance. Most of these bridges are still in fair or good condition and would otherwise not receive work until they deteriorated significantly. Assembling a contract for one bridge would not be efficient and would have such low quantity that it would not be worthwhile, whereas bundling allows the repairs to be made in a timely manner.

Name of Agency: Delaware Department of Transportation (DeLDTOT)

Location: Statewide

Project Delivery Method: Indefinite Delivery/Indefinite Quantity (IDIQ), Design-Bid-Build (D-B-B)

Procurement Method: Low Bid (LB)

Total Project Cost:

- \$4.5 million over 3 years (Interstate Deck Patching: IDIQ/LB)
- \$3.0 million over 3 years (North District Bridge Maintenance: IDIQ/LB)
- \$3.0 million over 3 years (Canal District Bridge Maintenance: IDIQ/LB)
- \$1.5 million over 3 years (Central District Bridge Maintenance: IDIQ/LB)
- \$1.5 million over 3 years (South District Bridge Maintenance: IDIQ/LB)

\$2.0 million over 5 years (Deck Sealing Contract: D-B-B/LB)

\$3.0 million per year (Bridge Painting Contracts: D-B-B/LB)

Current funding is around \$8.0 million per year.

Funding Source:

- Bridge Maintenance Contract: 100% State-Funded
- Interstate Deck Patching: 100% State-Funded
- Deck Sealing: Federal- and State-Funded (80%/20%)
- Painting: Federal- and State-Funded (80%/20%)

Construction Schedule: The maintenance contracts are 3-year open-end contracts. The deck sealing and bridge painting contracts are assigned times based on the work.

Project Website: None

SUMMARY

Program Goals	The goal for preventative maintenance contracts is to save time and money by bundling similar work (deck sealing and bridge painting). The goal for open-end contracts is to minimize response time and to address small maintenance items early by bundling many bridges together.
Bridge Selection Criteria	Deck Sealing: Decks with black bar and in good condition Bridge Painting: Paint condition index <75 Open-End Contracts: Deck spalls and delamination, leaking joints, deteriorated back walls, bearings (items identified during inspections), spot painting, concrete sealing, scour repair
Delivery and Procurement Method	Deck Sealing: D-B-B, LB Bridge Painting: D-B-B, LB Open-End Maintenance Contracts: IDIQ, LB
Funding Sources, Financing Strategy	Contracts with known locations: Federally Funded Contracts with unknown locations: 100% State-Funded
Environmental, Right-of-Way, and Utility Considerations	Bridge maintenance work. No third-party involvement.
Risks	IDIQ contracts have an inherently higher risk in providing a bid price because locations and exact work type are unknown. Contracts with known locations are low risk.
Owner Management/Quality Assurance	Contracts are put together by the Bridge Management section, but are managed by the maintenance districts. Construction inspection is performed by DeIDOT. Construction details for IDIQ contracts are assembled by the Bridge Management section with input from the contractor.
Stakeholder Communication	Communication is limited to notifications for road and lane closures to do the work.

The focus of these contracts is to keep the decks and joints in good condition to prevent deterioration of the bearings and substructure. Because contractors do not know the exact location and type of work, the prices for the IDIQ maintenance contracts tend to be higher to account for the risk. The tradeoff is that DeIDOT can get repairs completed more quickly and have a method to address emergency bridge-related issues while also performing preventative maintenance for their bridge inventory. To get the most for their money, DeIDOT tries

to focus the work on just the items that have a direct effect on the condition ratings of the bridge (i.e., they do not repair small spalls on the substructure). Contractors do have the opportunity to assist in developing design details and have input into timing of work to minimize disruptions to traffic.

In total, DeIDOT spends around \$8 million per year on preventative bridge maintenance activities, which is approximately 15% of their bridge preservation budget.

