

ROAD SYSTEM

BRIDGES

BRIDGE PRESERVATION PROGRAM

PROJECT SCOPE/DESCRIPTION: Bridges identified for bridge painting; bridge scour; bridge deck preservation; and underwater bridge repairs are addressed through this program. The bridge management program identifies deficient bridges and funding for preliminary engineering, right-of-way, and construction in the Bridge Projects section. They are then listed as separate projects in the Capital Transportation Program.

The sign inspection program will inventory and inspect all state-owned sign structures, high mast lighting, and traffic signal supports. During the initial inventory inspection of the structures, an inspection interval will be assigned based on the structure's condition. Funding to address deficiencies identified through the inspection plan is provided within Materials and Minor Contracts.

PROJECT JUSTIFICATION: The bridge inspection program creates the priority rating system, which is based on deficiency ratings and will be used for further rehabilitation and repair as they are identified.

County:	Statewide
Municipality:	
Funding Program:	Road System - Bridges
Functional Category:	Preservation
Representative District:	Statewide
Senatorial District:	Statewide

Example of a Timber Bridge



Bridge Over Silver Lake in Rehoboth



BRIDGE PRESERVATION PROGRAM (CONTINUED)**PROJECT FUNDING INFORMATION**

Project	Funding Type	Original Estimate	Current Estimate	Authorization	Committed as of 06/30/03	Expended as of 06/30/03	Committed Unexpended as of 06/30/03	Authorization Available
Bridge Preservation Program		\$ 3,704.0						
Prior Years	State			\$ 5,249.4	\$ 1,982.2	\$ 0.0	\$ 1,982.2	\$ 3,267.2
	Federal			\$ 5,537.6	\$ 0.0	\$ 0.0	\$ 0.0	\$ 5,537.6
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
FY 2003	State		\$ 3,704.0	\$ 1,800.8	\$ 0.0	\$ 0.0	\$ 0.0	\$ 5,068.0
	Federal			\$ 4,003.2	\$ 0.0	\$ 0.0	\$ 0.0	\$ 9,540.8
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
FY 2004 Authorized	State			\$ 1,380.8				\$ 6,448.8
	Federal			\$ 2,323.2				\$ 11,864.0
	Other			\$ 0.0				\$ 0.0
FY 2005 Projected	State			\$ 1,800.8				\$ 8,249.6
	Federal			\$ 4,003.2				\$ 15,867.2
	Other			\$ 0.0				\$ 0.0
FY 2006 Projected	State			\$ 1,380.8				\$ 9,630.4
	Federal			\$ 2,323.2				\$ 18,190.4
	Other			\$ 0.0				\$ 0.0
FY 2007-2009 Projected	State			\$ 4,882.4				\$ 14,512.8
	Federal			\$ 8,729.6				\$ 26,920.0
	Other			\$ 0.0				\$ 0.0
Total Projected	State			\$ 16,495.0	\$ 1,982.2			\$ 14,512.8
	Federal			\$ 26,920.0	\$ 0.0			\$ 26,920.0
	Other			\$ 0.0	\$ 0.0			\$ 0.0
Total All Funds		\$ 3,704.0	\$ 3,704.0	\$ 43,415.0	\$ 1,982.2	\$ 0.0	\$ 1,982.2	\$ 41,432.8

BRIDGE PRESERVATION PROGRAM (CONTINUED)**PROJECT TIMELINE INFORMATION**

Project #	Description	Phase	Funding Schedule	Current Estimate	Prior Years	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 -2009
	Bridge Preservation Program									
	Bridge Painting	PE/C	100% ST	\$ 416.2	\$ 416.2	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
		PE/C	80% FHWA	16,000.0	4,000.0	2,000.0	2,000.0	2,000.0	2,000.0	4,000.0
	Sign Structure Program	PE/C	80% FHWA	4,832.0	604.0	604.0	604.0	604.0	604.0	1,812.0
	Bridge Scour	PE/C	100% ST	2,519.0	2,519.0	0.0	0.0	0.0	0.0	0.0
		PE/C	80% FHWA	2,400.0	300.0	300.0	300.0	300.0	300.0	900.0
	Bridge Inspection & Management	PE/C	80% FHWA	10,418.0	2,018.0	2,100.0	0.0	2,100.0	0.0	4,200.0
	Bridge Deck Preservation	PE/C	100% ST	5,669.8	769.8	700.0	700.0	700.0	700.0	2,100.0
	Underwater Bridge Repair	PE/C	100% ST	1,160.0	160.0	100.0	100.0	100.0	100.0	600.0
	Total All Funds			\$ 43,415.0	\$ 10,787.0	\$ 5,804.0	\$ 3,704.0	\$ 5,804.0	\$ 3,704.0	\$ 13,612.0

BRIDGE PROJECTS

PROJECT SCOPE/DESCRIPTION: Funding is requested for bridges that are identified for replacement or rehabilitation including structurally deficient bridges. As individual bridge projects are identified, they are listed as separate projects.

Bridge 1-609B on 6th Street Over CSX railroad: The proposed work on Bridge 1-609B, which carries 6th Street over CSX railroad, consists of replacing the existing steel through girder superstructure with a single span prestressed concrete girder. The existing abutments are in good condition and will be evaluated to determine if they can be reused. If new abutments are needed, they will be built immediately behind the existing abutments to eliminate the need for excavation, demolition, and removal (and also preserving the existing bridge's appearance). Additional work to be included will be reconstruction of roadway approaches.

Bridge 1-609C on 7th Street Over CSX railroad: The proposed work on Bridge 1-609C, which carries 7th Street over CSX railroad, consists of removing the existing steel through girder superstructure and piers. The existing abutments will remain in place if an analysis of the existing abutments proves them to be stable without the superstructure. The roadway at either end of the bridge will be closed and modified with some landscaping or architectural enhancements.

Bridge 1-609D on 9th Street Over CSX railroad: The proposed work on Bridge 1-609D, which carries 9th Street over CSX railroad, consists of replacing the existing steel through girder superstructure with a single span steel or prestressed concrete girder. The existing abutments will be evaluated to determine if they can remain in place to serve as retaining structures. New abutments will be built immediately behind the existing abutments to eliminate the need for excavation, demolition, and removal (and also preserving the existing bridge's appearance). Additional work to be included will be reconstruction of roadway approaches.

PROJECT JUSTIFICATION: The bridge priority rating system is based on deficiency ratings, which are updated annually to target specific bridges for repair/rehabilitation/construction.

Bridge 1-609B on 6th Street Over CSX railroad: The existing steel superstructure is in serious condition. There is 100 percent section loss (holes) in the girder webs, web stiffeners, and cover plates at the bearings. The bridge is currently closed due to these deficiencies. The bridge currently ranks 301st on the department's bridge deficiency list (via the bridge management program).

Bridge 1-609C on 7th Street Over CSX railroad: The existing steel superstructure is in critical condition. There is severe corrosion and section loss in the girder flanges, web stiffeners, and longitudinal struts. The northeast bearing anchor bolts are corroded to 100 percent section loss. The bridge is currently closed due to these deficiencies. The bridge currently ranks 102nd on the department's bridge deficiency list (via the bridge management program).

BRIDGE PROJECTS (CONTINUED)

Bridge 1-609D on 9th Street Over CSX railroad: The existing steel superstructure is in critical condition. There is 100 percent section loss (holes) in the girder webs, end bearing stiffeners, web stiffeners, and top and bottom flanges and cover plates at the bearings and various other locations. Severe corrosion with section loss up to 100 percent also exists in the top and bottom flanges of the floor beams, the lateral bracing, and the connection plates. The bridge is currently posted for three tons due to these deficiencies. The bridge currently ranks 40th on the department's bridge deficiency list (via the bridge management program).

County:	Statewide
Municipality:	
Funding Program:	Road System - Bridges
Functional Category:	Preservation
Representative District:	Statewide
Senatorial District:	Statewide

BRIDGE PROJECTS (CONTINUED)**PROJECT FUNDING INFORMATION**

Project	Funding Type	Original Estimate	Current Estimate	Authorization	Committed as of 06/30/03	Expended as of 06/30/03	Committed Unexpended as of 06/30/03	Authorization Available
Bridge Projects		\$ 3,410.5						
Prior Years	State			\$ 3,009.1	\$ 0.0	\$ 0.0	\$ 0.0	\$ 3,009.1
	Federal			\$ 1,199.2	\$ 0.0	\$ 0.0	\$ 0.0	\$ 1,199.2
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
FY 2003	State		\$ 3,410.5	\$ 1,051.7	\$ 0.0	\$ 0.0	\$ 0.0	\$ 4,060.8
	Federal			\$ 3,769.6	\$ 0.0	\$ 0.0	\$ 0.0	\$ 4,968.8
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
FY 2004 Authorized	State			\$ 2,769.9				\$ 6,830.7
	Federal			\$ 640.6				\$ 5,609.4
	Other			\$ 0.0				\$ 0.0
FY 2005 Projected	State			\$ 214.0				\$ 7,044.7
	Federal			\$ 855.9				\$ 6,465.3
	Other			\$ 0.0				\$ 0.0
FY 2006 Projected	State			\$ 2,184.4				\$ 9,229.1
	Federal			\$ 8,737.6				\$ 15,202.9
	Other			\$ 0.0				\$ 0.0
FY 2007-2009 Projected	State			\$ 11,360.0				\$ 20,589.1
	Federal			\$ 45,440.0				\$ 60,642.9
	Other			\$ 0.0				\$ 0.0
Total Projected	State			\$ 20,589.1	\$ 0.0			\$ 20,589.1
	Federal			\$ 60,642.9	\$ 0.0			\$ 60,642.9
	Other			\$ 0.0	\$ 0.0			\$ 0.0
Total All Funds		\$ 3,410.5	\$ 3,410.5	\$ 81,232.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 81,232.0

BRIDGE PROJECTS (CONTINUED)**PROJECT TIMELINE INFORMATION**

Project #	Description	Phase	Funding Schedule	Current Estimate	Prior Years	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 -2009
	Bridge Projects									
	Structurally Deficient Bridges	PE, RW, C	80% FHWA	\$ 61,315.6	\$ 1,499.0	\$ 3,212.0	\$ 624.8	\$ 257.8	\$ 7,922.0	\$ 47,800.0
		PE, RW, C	100% ST	2,928.3	2,709.3	109.3	109.7	0.0	0.0	0.0
		PE, RW, C	80% FHWA	6,572.1	0.0	0.0	0.0	572.1	1,500.0	4,500.0
	Design and Right of Way for Identified Annual Program	PE, RW, C	100% ST	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		PE, RW, C	80% FHWA	7,916.0	0.0	1,500.0	176.0	240.0	1,500.0	4,500.0
	CSX Bridges in Wilmington	PE, RW, C	100% ST	2,500.0	0.0	0.0	2,500.0	0.0	0.0	0.0
	Total All Funds			\$ 81,232.0	\$ 4,208.3	\$ 4,821.3	\$ 3,410.5	\$ 1,069.9	\$ 10,922.0	\$ 56,800.0