

**DELAWARE RIVER JOINT TOLL  
BRIDGE COMMISSION**

**REPORT OF AUDIT**

**WITH  
SUPPLEMENTARY INFORMATION**

**FOR THE YEAR ENDING  
DECEMBER 31, 2009**



**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**  
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**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

Roster of Officials  
As of December 31, 2009

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**New Jersey Commissioners**

	<b><u>Position</u></b>
David R. DeGerolamo	Chairman
Donald Hart	Member
William J. Hodas	Member
Yuki Moore Laurenti	Member
Harry Zikas, Jr.	Member

**Pennsylvania Commissioners**

	<b><u>Position</u></b>
Gaetan J. Alfano, Esquire	Vice Chairman
James L. Broughal, Esquire	Member
Bernard A. Griggs Jr.	Member
Melissa Heller	Member
John Prevoznik, Esquire	Member

**Other Officials**

	<b><u>Position</u></b>
Frank McCartney	Executive Director
Sean P. McNeeley	Chief Financial Officer
Stephen Cathcart	Comptroller

**DELAWARE RIVER JOINT TOLL  
BRIDGE COMMISSION**

**PART I**

**FINANCIAL SECTION**

**FOR THE YEAR ENDED  
DECEMBER 31, 2009**



## **INDEPENDENT AUDITOR'S REPORT**

The Board of Commissioners  
Delaware River Joint Toll Bridge Commission  
Morrisville, Pennsylvania

We have audited the accompanying statement of net assets, and the statement of revenues, expenses and changes in net assets, and cash flows together with the financial statements of the fiduciary fund of the Delaware River Joint Toll Bridge Commission as of and for the year ended December 31, 2009, which collectively comprise the Commission's basic financial statements as listed in the table of contents. These financial statements are the responsibility of the Delaware River Joint Toll Bridge Commission's management. Our responsibility is to express an opinion on these financial statements based on our audit.

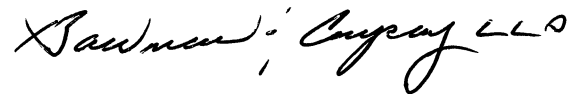
We conducted our audit in accordance with auditing standards generally accepted in the United States of America, the standards applicable to financial audits contained in Governmental Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Commission's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Delaware River Joint Toll Bridge Commission as of December 31, 2009 and the respective changes in financial position and cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

The accompanying management's discussion and analysis and Schedule of Funding Progress for the OPEB Plan, as listed in the table of contents are not a required part of the basic financial statements but are supplementary information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted primarily of inquiries of management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it.

Our audit was performed for the purpose of forming an opinion on the financial statements taken as a whole. The supplementary schedules are presented for purposes of additional analysis and are not a required part of the basic financial statements. The supplementary schedules have been subjected to the auditing procedures applied in the audit of the financial statements and, in our opinion, are fairly stated in all material respects in relation to the financial statements taken as a whole.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Bowman & Company LLP", written in black ink.

BOWMAN & COMPANY LLP  
Certified Public Accountants  
& Consultants

Voorhees, New Jersey  
June 30, 2010

## **MANAGEMENT'S DISCUSSION AND ANALYSIS**

As management of the Delaware River Joint Toll Bridge Commission (the "Commission"), we offer readers of the Commission's financial statements this narrative overview and analysis of the financial activities of the Commission's fiscal years ended December 31, 2009 and 2008. We encourage readers to consider the information presented here in conjunction with the audited financial statements and supplementary information as a whole.

### **Financial Highlights**

Total operating revenues for the Commission totaled \$86,928,518 for the year ended December 31, 2009, which represents an increase of 0.89% over the previous year. The increase in 2009 is primarily the result of removing E-ZPass discounts for casual users and peak Commercial E-ZPass use.

In 2009, net operating income totaled \$12,941,549 and change in net assets totaled \$(6,268,658), as compared to \$19,019,778 and \$5,911,613, respectively, for 2008.

### **Overview of the Financial Statements**

This discussion and analysis is intended to serve as an introduction to the Commission's financial statements, which are comprised of the financial statements, the notes to the financial statements, and certain required supplementary information. The supplementary information includes schedules of operations, expenses, cash and equivalent balances, investments, receivables, capital assets and traffic and revenues.

### **Basic Financial Statements**

The basic financial statements are designed to provide readers with a broad understanding of the Commission's finances, in a manner similar to that provided in the financial statements of private-sector businesses.

The statements of net assets present information on the Commission's assets and liabilities at December 31, 2009 and 2008, with the difference between the two reported as net assets. At December 31, 2009, the Commission's net assets equaled \$379,653,315, as compared to \$385,921,973 in 2008 – a decrease of 1.62%.

The statements of revenues, expenses and changes in net assets present information showing how net assets changed during the fiscal year. All changes in net assets are reported as soon as the underlying event occurs, regardless of the timing of related cash flows. Thus, revenues and expenses are reported in these statements for some items that will not result in cash flows until future fiscal periods or for items that have resulted in cash flows in previous periods.

### **Notes to Financial Statements**

The notes provide additional information that is essential to a full understanding of the data provided in the basic financial presentation.

## Other Information

In addition to the basic financial statements and accompanying notes, this report also presents certain supplementary information concerning expenses, investments and traffic.

## Financial Analysis

Commission assets, consisting of restricted and unrestricted assets, totaled \$853,300,374. Unrestricted current assets, totaling \$17,753,232 (an increase of \$9,019,154, or 113.0%), represents cash in the operating accounts, cash equivalent investments, and E-ZPass toll receivables. These unrestricted assets will be used to pay current expenses, to pay current debt service, or to be transferred to the general reserve fund.

Restricted assets, totaling \$629,064,279, are broken into two categories. Restricted current assets of \$48,790,328 increased 64.6% from the previous year end as a result of changes in investment security maturity terms. Total non-current assets totaled \$786,756,814, which represents a decrease of \$48,668,295, or 5.83%, from the 2008 year-end balance. Restricted cash and investments totaling \$205,662,382 which represents a decrease of \$65,805,690, or 24.24%, from the previous year, are restricted under the Trust Indenture. These changes in restricted assets are the result of payments from the bond funds to fund the purchase of capital assets, the payment of Compact Authorized Investment grants, and changes in investment security maturity terms. Capital assets totaling \$466,370,749 consist of land, infrastructure and equipment with an original value of approximately \$700.2 million less accumulated depreciation of approximately \$233.8 million. The land and infrastructure consist of twenty bridge crossings and related access roads spread over a 140-mile-long stretch of the Delaware River extending from Trenton, New Jersey north to Milford, Pennsylvania/Montague, New Jersey.

At December 31, 2009, the Commission had current and non-current liabilities of \$473,647,059, with the majority related to its series 2003, 2005A, and 2007 A, and 2007B bond issues, which represents a decrease of \$14,221,760 from 2008. The purpose of the 2003 issue was for the current refunding of the 1992 series, refunding of the 2002 Bond Anticipation Notes, financing of the first portion of the Commission's ten-year capital program, and related bond-issuance cost. The purpose of the 2005A issue was for the refunding of \$32,165,000 of the 2003 series bonds, and the financing of the Commission's \$40 million Compact Authorized Investment program. The purpose of the 2007A and 2007B issues was to provide funds to pay for the cost of capital improvements related to the system, to make deposits into the debt service reserve fund and to fund capitalized interest, to pay insurance and cost of issuance associated with the series.

The following table contains condensed financial information derived from the December 31, 2009 and 2008 financial statements of the Commission:

<b>Net Assest</b>	<b>2009</b>	<b>2008</b>
Current and Other Assets	\$ 386,929,626	\$ 462,237,576
Capital Assets	466,370,748	411,553,216
Total Assets	853,300,374	873,790,792
Bond indebtedness	446,002,675	459,454,626
Other Liabilities	27,644,384	28,414,193
Total Liabilities	473,647,059	487,868,819
Net Assest		
Investment in Capital Assets, net of related debt	205,420,272	205,515,765
Restricted	41,506,374	43,476,233
Unrestricted	132,726,669	136,929,975
Total net assets	\$ 379,653,315	\$ 385,921,973

<b>Changes in net</b>	<b>2009</b>	<b>2008</b>
Operating revenue	\$ 86,928,518	\$ 86,159,106
Operating expenses	42,987,219	42,587,104
OPEB Expense	13,178,706	10,887,000
Depreciation	17,821,044	13,665,224
Total operating expense	73,986,969	67,139,328
Net operating revenue	12,941,549	19,019,778
Non-operating reveune	4,504,647	20,529,000
Non-operating expense	(23,714,854)	(33,637,165)
Increase (Decrease) in Net Assets	(6,268,658)	5,911,613
Net Assets Beginning of year	385,921,973	380,010,360
Net Assets End of Year	\$ 379,653,315	\$ 385,921,973

<b>Summary of Cash Flows</b>	<b>2009</b>	<b>2008</b>
Cash flows provided by operating activities	\$ 21,458,974	\$ 45,542,892
Cash flows provided by investing activities	107,419,826	65,888,001
Cash flows used in financing activities	(100,206,875)	(148,913,322)
Net Increase (decrease) in cash and cash equivalents	28,671,925	(37,482,429)
Cash and equivalents, beginning of year	29,923,728	67,406,157
Cash and equivalents beginning of the year	\$ 58,595,653	\$ 29,923,728

## Significant Events

December 2001, the Commission approved a long-term Capital Improvement Program that provides major bridge rehabilitation, bridge enhancement, and installation of traffic management systems, as well as state-of-the-art bridge security and surveillance.

A toll rate structure with phased increases and discount adjustments was approved by the Commission to fund its Capital Improvement Program for system protection, preservation, management and enhancement of the Commission's infrastructure including twenty bridges, seven toll plazas, and administration and maintenance facilities that it owns, operates and maintains, as well as operating expenses for the Commission.

On January 15, 2009, the following changes were made to the Commission's E-ZPass discount program: a 20% casual discount provided to all passenger vehicles using E-ZPass was eliminated, a 5% peak period discount for trucks and other commercial vehicles was eliminated, and a 15% off-peak discount for trucks and other commercial vehicles was reduced to 10%.

The Capital Improvement Program continues to evolve as the need for additional projects are identified, program costs are re-evaluated and the Commission undertakes new initiatives to fund transportation infrastructure programs in bridge host communities.

On September 20, 2007, the Commission issued three bond issues: Series 2007A, 2007BI, and 2007B2. The 2007A issue was a fixed rate totaling \$134,170,000. The two Series 2007B issues were auction rate securities totaling \$75,000,000 each and were hedged by an interest rate swap issued by two counterparties. In September 2008, the two Series 2007B issues were converted into variable rate securities and are hedged by an interest rate swap issued by two counterparties.

On January 1, 2008, the Commission adopted GASB Statement No. 45, "Accounting and Financial Reporting by Employers for Post-Employment Benefits Other Than Pensions," which requires that the unfunded accrued actuarial liability for post-employment benefits be recognized over a thirty-year amortization period. See Note 5 in the Notes to Financial Statements for more information.

### **Contacting the Commission's Financial Management**

This financial report is designed to provide the citizens, taxpayers and legislators of New Jersey and Pennsylvania, and the users of the Commission's bridges, with a general overview of the Commission's finances and to demonstrate the Commission's accountability for the revenues that it receives. If you have questions about this report or need additional financial information, contact the Commission at (215) 295-5061 or visit its website at: [www.drjtbc.org](http://www.drjtbc.org).

## **BASIC FINANCIAL STATEMENTS**

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Exhibit A

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

Statement of Net Assets  
As of December 31, 2009

**ASSETS**

Current Assets:

Unrestricted Assets:

Cash and Cash Equivalents	\$ 10,498,028
E-ZPass Receivable	5,707,687
Other Receivables	69,487
Prepaid Expenses	<u>1,478,030</u>
Total Unrestricted Assets	<u>17,753,232</u>

Restricted Assets:

Cash and Cash Equivalents	48,097,624
Investment Income Receivable	<u>692,704</u>
Total Restricted Assets	<u>48,790,328</u>

Total Current Assets	<u>66,543,560</u>
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Non-Current Assets:

Unrestricted Assets:

Investments	<u>157,692,535</u>
Total Unrestricted Assets	<u>157,692,535</u>

Restricted Assets:

Investments	156,872,054
Property, Plant and Equipment:	
Completed (Net of Accumulated Depreciation)	363,728,096
Improvements in Progress	102,642,652
Deferred Assets:	
Unamortized Debt Issue Costs	<u>5,821,477</u>

Total Restricted Assets	<u>629,064,279</u>
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Total Noncurrent Assets	<u>786,756,814</u>
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Total Assets	<u>\$ 853,300,374</u>
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Exhibit A

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

Statement of Net Assets  
As of December 31, 2009

**LIABILITIES**

Current Liabilities Payable from Unrestricted Assets:

Accounts Payable and Accrued Expenses	\$ 6,939,918
E-ZPass Customer Liability	3,717,833
Compensated Absences Payable - Current Portion	<u>125,000</u>

Total Current Liabilities Payable from Unrestricted Assets	<u>10,782,751</u>
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Current Liabilities Payable from Restricted Assets:

Retainage Payable	7,471,988
Accrued Interest Payable on Bonds	7,426,082
Bridge System Revenue Bonds Payable - Current Portion	<u>11,740,000</u>

Total Current Liabilities Payable from Restricted Assets	<u>26,638,070</u>
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Non-Current Liabilities:

Compensated Absences Payable - Non-Current Portion	1,963,563
Bridge System Revenue Bonds Payable - Non-Current Portion	<u>434,262,675</u>

Total Long-Term Liabilities	<u>436,226,238</u>
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Total Liabilities	<u>473,647,059</u>
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**NET ASSETS**

Invested in Capital Assets, Net of Related Debt	205,420,272
Restricted	41,506,374
Unrestricted	<u>132,726,669</u>

Total Net Assets	<u>379,653,315</u>
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Total Liabilities and Net Assets	<u>\$ 853,300,374</u>
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See the accompanying Notes to Financial Statements.

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Exhibit B

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**  
Statement of Revenues, Expenses and Changes in Net Assets  
For the Year Ended December 31, 2009

**OPERATING REVENUES:**

Cash Tolls, Net	\$ 27,912,415
E-ZPass Tolls, Net	58,853,374
Miscellaneous Revenues	162,729
	<u>86,928,518</u>
Total Operating Revenues	<u>86,928,518</u>

**OPERATING EXPENSES:**

Administration:	
Salaries and Wages	4,026,727
Fringe Benefits	1,556,919
Other Expenses	2,260,999
Cost of Providing Services:	
Toll Bridges:	
Salaries and Wages	11,007,871
Fringe Benefits	4,747,444
Other Expenses	11,437,164
Toll Supported Bridges:	
Salaries and Wages	3,459,658
Fringe Benefits	1,573,960
Other Expenses	2,916,477
Other Post Employment Benefits	13,178,706
Depreciation	17,821,044
	<u>73,986,969</u>
Total Operating Expenses	<u>73,986,969</u>

Operating Income	12,941,549
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**NON-OPERATING REVENUES (EXPENSES):**

Investment Income	3,238,582
Gain on Disposal of Property, Plant and Equipment	53,362
Interest on Bonds	(14,422,362)
Amortizations of Deferred Loss on Defeasance	(109,607)
Amortizations of Net Premium on Bonds	1,212,703
Amortization of Debt Issue Costs	(421,915)
Compact Authorized Investment Program	(8,760,970)
	<u>(19,210,207)</u>
Total Non-Operating Revenues (Expenses)	<u>(19,210,207)</u>

**DECREASE IN NET ASSETS**

(6,268,658)

**NET ASSETS JAN. 1,**

385,921,973

**NET ASSETS DEC. 31,**

\$ 379,653,315

See the accompanying Notes to Financial Statements.

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Exhibit C

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

Statement of Cash Flows

For the Year Ended December 31, 2009

<b>Cash Flows from Operating Activities:</b>	
Receipts from Cash Tolls	\$ 27,912,415
Receipts from E-ZPass	57,703,281
Payments to Suppliers, Employees and Others	(44,326,037)
Payments to OPEB Trust	(20,000,000)
Other Operating Receipts	169,315
	<hr/>
Net Cash Provided by Operating Activities	21,458,974
	<hr/>
<b>Cash Flows from Capital and Related Financing Activities:</b>	
Acquisition of Property, Plant and Equipment	(56,871,336)
Sale of Property, Plant and Equipment	53,362
Compact Authorized Investment Program	(8,760,970)
Bond Issue Costs	(64,162)
Bond Principal	(11,340,000)
Capitalized Interest on Bonds	(8,295,252)
Interest on Bonds	(14,928,518)
	<hr/>
Net Cash Used in Capital and Related Financing Activities	(100,206,876)
	<hr/>
<b>Cash Flows from Investing Activities:</b>	
Investment Income	5,300,607
Net Change in Investments	102,119,219
	<hr/>
Net Cash Provided by (Used in) Investing Activities	107,419,826
	<hr/>
Net Increase (Decrease) in Cash and Cash Equivalents	28,671,924
Cash and Cash Equivalents at Beginning of Year	29,923,728
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Cash and Cash Equivalents at End of Year	\$ 58,595,652
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Exhibit C

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

Statement of Cash Flows  
For the Year Ended December 31, 2009

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Reconciliation of Operating Income to Net Cash Provided	
by Operating Activities:	
Operating Income	\$ 12,941,549
Adjustments to Reconcile Operating Income	
to Net Cash Provided by Operating Activities:	
Depreciation Expense	17,821,044
Change in Assets and Liabilities:	
EZ-Pass Receivable	(1,150,093)
Other Receivables	115,477
Prepaid Expenses	(533,362)
Accounts Payable and Accrued Expenses	1,351,799
E-ZPass Customer Liability	(108,891)
Compensated Absences Payable	95,651
OPEB Obligation	(9,074,200)
	<hr/>
Total Adjustments	8,517,425
	<hr/>
Net Cash Provided by Operating Activities	\$ 21,458,974
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See the accompanying Notes to Financial Statements.

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Exhibit D

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**  
**RETIREE HEALTH BENEFITS PLAN**  
 Statement of Trust Net Assets Available for Other Postretirement Employee Benefits  
 Fiduciary Fund  
 As of December 31, 2009

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**ASSETS**

Cash and Cash Equivalents	<u>\$ 20,000,000</u>
Total Assets	<u>20,000,000</u>

**NET ASSETS HELD IN TRUST FOR OPEB**

Net Assets Held in Trust for OPEB in excess of ARC	2,291,706
Net Assets Held in Trust for OPEB	<u>17,708,294</u>

<b>NET ASSETS HELD IN TRUST FOR OPEB</b>	<u><u>\$ 20,000,000</u></u>
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See the accompanying Notes to Financial Statements

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Exhibit E

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION  
RETIREE HEALTH BENEFITS PLAN**

Statement of Changes in Trust Net Assets Available for Other Postretirement Employee Benefits  
Fiduciary Fund  
For the Year Ended December 31, 2009

	<b><u>2009</u></b>
<b>ADDITIONS</b>	
Contributions	\$ 20,000,000
Total Contributions	<u>20,000,000</u>
Total Investment Income	<u>---</u>
<b>DEDUCTIONS</b>	
Total Deductions	<u>---</u>
<b>NET INCREASE</b>	20,000,000
Trust Net Assets, January 1,	<u>---</u>
<b>NET ASSETS HELD IN TRUST FOR OPEB</b>	<u><u>\$ 20,000,000</u></u>

See the accompanying Notes to Financial Statements

**Note 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Reporting Entity**

The Delaware River Joint Toll Bridge Commission (the "Commission"), a body corporate and politic, was created in 1934 by a compact, subsequently amended and supplemented, between the Commonwealth of Pennsylvania (the "Commonwealth") and the State of New Jersey ("New Jersey"), with the approval of the Congress of the United States. As a governmental agency, the Commission has no stockholders or equity holders.

The Commission is authorized and empowered, with federal government approval required in certain cases, to acquire, construct, administer, operate and maintain such bridges as the Commission deems necessary to advance the interests of the two states, to issue bonds and other obligations, and to make payment of interest thereon. The Capital Compact provides that Commission indebtedness shall not be deemed to constitute a debt or liability or a pledge of the faith and credit of the two states or any subdivision thereof.

In 1985, a proposed compact change was enacted and approved by New Jersey that was similar to the legislation that had been enacted by the Commonwealth in 1984. This proposed compact change received the required consent of the Congress of the United States in early 1987. The compact, as approved, required the Commission to refinance its bonded indebtedness. In addition, the Commission was obligated to assume full financial responsibility for the cost of operating and maintaining the toll-supported bridges that were financed by appropriations from the Commonwealth and the State of New Jersey. Accordingly, on July 1, 1987, the Commission defeased all of its then-outstanding bonded indebtedness. Due to this compact change, the accompanying financial statements include the operations of the toll-supported bridges.

The Commission has jurisdiction for vehicular and pedestrian traffic across the Delaware River between the Commonwealth and New Jersey from the Philadelphia/Bucks County line to the New York state line. The Commission's duties include the maintenance and operation of all the bridges over the Delaware River in its jurisdiction, with the following exceptions: the New Jersey-Pennsylvania Turnpike Bridge and the Burlington-Bristol Toll Bridge, both south of Trenton, and the Dingman's Ferry Toll Bridge, which is north of the Delaware Water Gap.

**Basis of Presentation, Fund Accounting**

The financial statements of the Commission have been prepared in accordance with generally accepted accounting principles applicable to enterprise funds of State and Local Governments on a going concern basis. The focus of enterprise funds is the measurement of economic resources, that is, the determination of operating income, changes in net assets (or cost recovery), financial position and cash flows. The Governmental Accounting Standards Board (GASB) is the accepted standard setting body for establishing governmental accounting and financial reporting principles.

The Commission uses a single Enterprise Fund to account for the Commission activities and maintain their records on the accrual basis of accounting. Enterprise funds account for activities (i) that are financed with debt that is secured solely by a pledge of the net revenues from fees and charges of the activity; or (ii) that are required by law or regulations that the activity's cost of providing services, including capital cost (such as depreciation or debt service), be recovered with fees and charges, rather than with taxes or similar revenues; or (iii) that the pricing policies of the activity establish fees and charges designed to recover its costs, including capital costs (such as depreciation or debt service). Under this method, revenues are recorded when earned and expenses are recorded when the related liability is incurred.

The Fiduciary Fund is used to account for the accumulation of other post employment benefit resources held in trust for employees.

**Note 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONT'D)****Basis of Accounting**

The Commission's Enterprise and Fiduciary Funds are accounted for using the accrual basis of accounting. Their revenues are recognized when they are earned, and their expenses are recognized when they are incurred, regardless of the timing of the related cash flows.

**Governmental Accounting Standards Board – Statement No. 20**

The Commission is required to follow all statements of the Governmental Accounting Standards Board (GASB). GASB Statement No. 20 was issued to give guidance in determining Generally Accepted Accounting Principles (GAAP) for governmental proprietary funds. It provides that all proprietary fund activities follow all Financial Accounting Standards Board (FASB) Statements issued prior to November 30, 1989, unless they conflict with GASB standards. It also provides that the governmental unit must elect whether to follow FASB Statements issued after that date.

The Commission has elected not to follow any FASB pronouncements issued after November 30, 1989.

**Budgets and Budgetary Accounting**

The Commission must adopt an annual budget in accordance with Section 702 of the Trust Agreement. Section 702 requires the Commission to adopt the final budget no later than December 31<sup>st</sup> for the ensuing fiscal year. The budget is adopted on the modified accrual basis of accounting with provisions for cash payments for bond principal. The Commission may not incur in a year any amount in excess of the amounts provided for current expenses in the annual budget.

If for any reason the Commission shall not have adopted the annual operating budget before the first day of any year, the budget for the preceding year, shall, until the adoption of the annual operating budget, be deemed to be in force and shall be treated as the annual operating budget under the section 702.

The Commission records encumbrances. An encumbrance represents a commitment related to unperformed contracts for goods or services. The issuance of a purchase order or the signing of a contract would create an encumbrance. The encumbrance does not represent an expenditure for the period, only a commitment to expend resources. At year-end, the accounting records are adjusted to record only expenses in accordance with generally accepted accounting principles.

**Cash, Cash Equivalents and Investments**

Cash and cash equivalents include petty cash, change funds, cash on hand, cash on deposit with public depositories and investment money market funds. All certificates of deposit are recorded as cash regardless of the date of maturity. Investments are recorded at fair market value.

The Commission's depository and investment options are subject to the provisions and restrictions of the Trust Indenture dated January 1, 2003 between the Commission and the TD Bank/Pennsylvania, National Association as Trustee. Section 601 of the Trust Agreement establishes the requirements for the security of deposits of the Commission.

**General Objectives** - The primary objectives, in priority of order of investment activities shall be safety, liquidity, and yield:

*Safety* - Safety of principal is the foremost objective of the investment program. Investments shall be undertaken in a manner that seeks to ensure the preservation of capital in the overall portfolio. The objective will be to mitigate credit risk and interest rate risk.



**Note 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONT'D)****Cash, Cash Equivalents and Investments (Cont'd)****General Objectives (Cont'd):**

*Liquidity* - The investment portfolio shall remain sufficiently liquid to meet all requirements that may be reasonably anticipated. This is accomplished by structuring the portfolio so that securities mature concurrent with cash needs to meet anticipated demands (static liquidity). Furthermore, since all possible cash demands cannot be anticipated, the portfolio should consist largely of securities with active secondary or resale markets (dynamic liquidity).

*Yield* - The investment portfolio shall be designed with the objective of attaining a market rate of return throughout budgetary and economic cycles, taking into account the investment risk constraints and liquidity needs. Return on investment is of secondary importance compared to the safety and liquidity objectives described above. The core of investments are limited to relatively low risk securities in anticipation of earning a fair return relative to the risk being assumed. Securities shall not be sold prior to maturity with the following exceptions:

1. A security with declining credit may be sold early to minimize loss of principal.
2. A security swap would improve the quality, yield, or target duration in the portfolio.
3. Liquidity needs of the portfolio require that the securities be sold.

**Suitable and Authorized Investments** – The following investments are allowed under the Trust Indenture:

1. Direct obligations of the United States of America and securities fully and unconditionally guaranteed as to the timely payment of principal and interest by the United States of America, provided, that the full faith and credit of the United States of America must be pledged to any such direct obligation or guarantee ("Direct Obligations").
2. Direct obligations and fully guaranteed certificates of beneficial interest of the Export-Import Bank of the United States; consolidated debt obligations and letter of credit-backed issues of the Federal Home Loan Banks; participation certificates and senior debt obligations of the Home Loan Mortgage Corporation (for purposes of this definition, "FHLMCs"); debentures of the Federal Housing Administration, senior debt obligations of the Federal National Mortgage Association (for purposes of this definition, "FNMAs"); participation certificates of the General Services Administration; guaranteed participation certificates and guaranteed pool certificates of the Small Business Administration; debt obligations and letter of credit-backed issues of the Student Loan Marketing Association; local authority bonds of the U.S. Department of Housing & Urban Development; guaranteed Title XI financing of the U.S. Maritime Administration; guaranteed transit bonds of the Washington Metropolitan Area Transit Authority; and Resolution Funding Corporation securities.
3. Direct obligations of any state of the United States of America or any subdivision or agency thereof whose unsecured, uninsured and under guaranteed general obligation debt is rated, at the time of purchase, "A" or better by Moody's Investors Services and "A" or better by Standard & Poor's Corporation, or any obligation fully and unconditionally guaranteed by any state, subdivision or agency whose uninsured and unguaranteed general obligation debt is rated, at the time of purchase, "A" or better by Moody's Investors Service and "A" or better by Standard & Poor's Corporation.
4. Commercial paper (having original maturities of not more than 270 days) rated, at the time of purchase, "P-1" by Moody's Investor's Services and "A" or better by Standard & Poor's Corporation.

**Note 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONT'D)****Cash, Cash Equivalents and Investments (Cont'd)****Suitable and Authorized Investments (Cont'd):**

5. Federal Funds, unsecured certificates of deposit, time deposit or bankers acceptance (in each case having maturities of not more than 365 days) of any domestic bank including a branch office of a foreign bank which branch office is located in the United States, provided legal options are received to the effect that full and timely payment of such deposit or similar obligation is enforceable against the principal office or any branch of such bank, which, at the time of purchase, has a short-term "Bank Deposit" rating of "P-1" by Moody's Investors Services and a "Short-Term CD" rating "A-1" or better by Standard & Poor's Corporation.
6. Deposits of any bank or savings and loan association which has combined capital, surplus and undivided profits of not less than \$3 million, provided such deposits are continuously and fully insured by the Bank Insurance Fund or the Savings Association Insurance Fund of the Federal Deposit Insurance Corporation.
7. Investments in money-market funds rated "AAAm" or "AAAm-G" by Standard & Poor's Corporation.
8. Repurchase agreements collateralized by Direct Obligations, GNMA's, FNMA's or FHLMCs with any registered broker/dealer or bank has an uninsured, unsecured and unguaranteed obligation rated "P-1" or "A3" or better by Moody's Investors Service, and "A-1" or A-" or better by Standard & Poor's Corporation.

**Inventory**

Inventory consists of operating supplies and roadway deicer for the Commission. The Commission has determined that the inventories were immaterial and are not recorded in the financial statements.

**Prepaid Expenses**

Payments made to vendors for services that will benefit future periods beyond December 31, 2009 are recorded as prepaid expenses.

**Debt Issuance Costs, Bond Discounts/Premiums and Deferred Loss on Defeasance**

Debt issuance costs, bond discounts/premiums and loss on defeasance are deferred and amortized over the life of the bonds using the effective interest method. Bond discounts/premiums and loss on defeasance are presented as an adjustment of the face amount of the revenue bonds payable whereas issuance costs are recorded as deferred assets.

**Property, Plant and Equipment**

Property, Plant, and Equipment primarily consists of expenditures to acquire, construct, place in operation and improve the facilities of the Commission. Purchased or constructed capital assets are recorded at cost or estimated historical cost. Infrastructure assets acquired prior to January 1, 2003, are reported primarily at estimated historical cost using deflated replacement cost. Assets acquired through gifts or donations are recorded at their estimated fair market value at time of acquisition.

Costs incurred for projects under construction are recorded as Improvements in Progress. In the year that the project is completed, these costs are transferred to Completed (Net of Accumulated Depreciation). The Commission capitalizes interest related to projects under construction. Capitalized interest for 2009 amounted to \$8,295,252.

**Note 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONT'D)****Property, Plant and Equipment (Cont'd)**

Expenditures are capitalized when they meet the following requirements:

1. Cost of \$5,000 or more.
2. Useful life of five years or more.
3. Increases value of an asset.

The related costs and accumulated depreciation of assets disposed of are removed from Property, Plant and Equipment and any gain or loss on disposition is credited or charged to non-operating revenues or expenses.

**Depreciation**

Depreciation is provided using the straight-line method over the estimated useful lives of the assets.

Asset lives used in the calculation of depreciation are generally as follows:

<u>Asset Class</u>	<u>Useful Life (Years)</u>
Infrastructure	15 – 50
Vehicles	5 – 15
Office furniture & equipment	5 - 7

Depreciation begins when the asset is placed in service.

**Interfunds**

Interfund receivables/payables represent amounts that are owed, other than charges for goods or services rendered, to/from a particular fund. These receivables/payables are eliminated during the aggregation process.

**Income Taxes**

The Commission operates as defined by the Internal Revenue Code Section 115 and appropriately is exempt from income taxes under Section 115.

**Operating and Non-Operating Revenues and Expenses**

Operating revenues consist primarily of cash tolls and E-ZPass revenues. Cash toll revenues are recognized as received. E-ZPass revenues are recognized when vehicles with E-ZPass utilize the Commission's toll bridges. Prepayments received from the Commission's E-ZPass customers are deferred and recognized as revenue as utilized at the Commission's toll bridges. Non-operating revenues principally consist of interest income earned on various interest-bearing accounts and on investments in debt securities. Investment income is recognized when earned.

Operating expenses include expenses associated with the operation, maintenance and repair of the bridges, and general administrative expenses. Non-operating expenses principally include expenses attributable to the Commission's interest on funded debt and major non-recurring repairs.

**Note 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONT'D)****Net Assets**

Net assets comprise the various earnings from operating income, non-operating revenues, expenses, and capital contributions. Net assets are classified in the following three components:

**Invested in Capital Assets, net of Related Debt** – This component of net assets consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of any bonds, notes or other borrowings that are attributable to the acquisition, construction or improvement of those assets. If there are significant unspent related debt proceeds at year-end, the portion of the debt attributable to the unspent proceeds is not included in the calculation of Invested in Capital Assets, net of Related Debt. Rather, that portion of the debt is included in the same net assets component as the unspent proceeds.

**Restricted** – This component of net assets consists of external constraints imposed by creditors (such as debt covenants), grantors, contributors, laws or regulations of other governments or constraints imposed by law through constitutional provisions or enabling legislation, that restricts the use of net assets.

**Unrestricted** – This component of net assets consists of net assets that do not meet the definition of “restricted” or “invested in capital assets, net of related debt.” This component includes net assets that may be allocated for specific purposes by the Board.

**Use of Estimates**

Management of the Commission has made certain estimates and assumptions relating to the reporting of assets, liabilities and revenues and expenses to prepare these financial statements in conformity with accounting principles generally accepted in the United States of America. Actual results may differ from those estimates.

**Note 2: STEWARDSHIP, COMPLIANCE, AND ACCOUNTABILITY****Compliance with Finance Related Legal and Contractual Provisions**

The Commission has no material violations of finance related legal and contractual provisions.

**Trust Indenture**

The Commission is subject to the provisions and restrictions of the Trust Indenture relating to the Bridge System Revenue Bonds, Series 2003 and Series 2005A, and Series 2007 A and B. The following is a summary of the activities of each account created by the Indenture:

**Construction Fund:**

All Bond proceeds for project costs are deposited into this fund.

**Revenue Fund:**

All revenues received by the Commission are deposited in the Revenue Fund. No later than the last business day of each month, the Commission shall withdraw from the Revenue Fund and deposit to the Operating Fund the amount equal to (i) the amount shown by the annual operating budget to be necessary to pay current expenses for the ensuing month, and (ii) an amount determined by a Commission official as being reasonably necessary to pay current expenses which are expected for each month, after taking into account the amount on deposit in the Operating Account (including the amount described in clause (i) above), it being recognized that the annual operating budget may have to be amended accordingly.

**Note 2: STEWARDSHIP, COMPLIANCE, AND ACCOUNTABILITY (CONT'D)****Trust Indenture (Cont'd)****Operating Account:**

Amounts on deposit in the Operating Account are used by the Commission to pay the Commission's operating expenses. Transfers are made from the Revenue Account on or before the last business day of the month.

**Debt Service Fund:**

Transfers are made from the Revenue Fund on or before the last business day preceding each interest, principal or sinking fund redemption payment date to the Debt Service Fund to provide for the debt service on all series of bonds. Payments are made from the Debt Service Fund for interest on the bonds, for principal installments on the bonds, and for the redemption price for any bonds to be redeemed. At December 31, 2009, the balance in the Debt Service Fund meets the requirements of the Trust Indenture.

**Debt Service Reserve Fund:**

Transfers are made to this fund from the Revenue Fund in an amount necessary to meet the Debt Service Reserve Requirement. The Debt Service Reserve Requirement is an amount equal to the Maximum Annual Debt Service on account of all of such Bonds, provided however, that the amount to be deposited in connection with the issuance of any Series of Bonds (or issue of Bonds, if multiple Series are considered one issue for tax purposes) shall not exceed an amount equal to the lesser of (A) 10% of the original principal amount of each Series of Bonds (or the issue price of such Series, or issue as aforesaid, if the original issue discount and plus any original issue premium of such issue exceeds 2% of the original aggregate principal amount of the Series of Bonds), or (B) 125% of the average annual debt service requirement on said Series of Bonds of the same issue for tax purposes.

Amounts held in the Debt Service Reserve Fund shall be used for the purpose of paying interest on maturing principal and mandatory sinking fund redemption price of Debt Service Reserve Fund Bonds whenever and to the extent that the monies held for the credit of the Debt Service Fund shall be insufficient for such purpose. At December 31, 2009, the balance in the Debt Service Reserve Fund meets the requirements of the Trust Indenture.

**Reserve Maintenance Fund:**

On or before the last business day of each month, the Commission shall transfer the amount shown in the annual capital budget for the ensuing month from the Revenue Fund to the credit of the Reserve Maintenance Fund.

**General Reserve Fund:**

On or before the last business day of each month (or more frequently, if desired) the Commission may transfer from the Revenue Fund to the credit of the General Reserve Fund any funds which a Commission official determines to be in excess of the amount required to be reserved therein for future transfers to the Operating Fund, Debt Service Fund, Debt Service Reserve Fund and the Reserve Maintenance Fund.

**Note 2: STEWARDSHIP, COMPLIANCE, AND ACCOUNTABILITY (CONT'D)****Trust Indenture (Cont'd)****General Reserve Fund (Cont'd):**

Monies in the General Reserve Fund may be used by the Commission to restore deficiencies in any funds or accounts created under the Trust Indenture and, absent any such deficiency, for any of the following purposes, with no one item having priority over any of the others:

- (a) To purchase or redeem bonds.
- (b) To secure and pay the principal or redemption price of and any interest on any subordinated indebtedness.
- (c) To make payments into the Construction Fund.
- (d) To fund improvements, extensions and replacements of the Bridge System.
- (e) As a self-insurance reserve.
- (f) To further any corporate purpose.

The Commission is authorized to apply monies on deposit in the General Reserve Fund for any of these purposes.

**Rebate Fund:**

Amounts on deposit in the Rebate Fund may be used solely to make payments to the United States of America under Section 148 of the Internal Revenue Code and to pay costs related to the calculation of the amounts due. Upon satisfaction of the Commission's covenants to calculate and pay Section 148 requirements, any amounts remaining in the Rebate Fund shall be deposited in the General Reserve Fund.

**Covenants as to Tolls**

The Commission is required to fix, revise, charge and collect tolls and other charges for traffic using the crossing facilities in order to provide an amount of Net Revenues in each fiscal year equal to not less than 130% of the principal and interest requirements for such year. The Commission satisfied this requirement for the year ending December 31, 2009.

To arrive at Net Revenues as defined in the Trust Agreement, the following adjustments to operating income need to be made:

Operating Income (Exhibit B)	\$ 12,941,549
Adjustments:	
Net Investment Income *	\$ 3,618,170
Gain on Sales of Assets	53,362
Depreciation Expense	17,821,044
Current Year Non Cash OPEB ARC	10,925,800
	<u>32,418,376</u>
Net Revenues Available for Debt Service Coverage	<u>\$ 45,359,925</u>
Total Debt Service (Principal and Interest)	<u>\$ 34,456,534</u>
Debt Service Coverage	132%

\* Excludes all unrealized market value adjustments and Construction Fund investment income.

**Note 2: STEWARDSHIP, COMPLIANCE, AND ACCOUNTABILITY (CONT'D)****Annual Budget - 2009**

<u>Description</u>	<u>2009 Budget</u>	<u>2009 Actual</u>	<u>Variance</u>
Budgetary Expenses:			
Salaries and Wages	\$ 18,407,652	\$ 18,494,257	\$ (86,605)
Employee Benefits and Cash OPEB Benefits	9,859,664	10,131,228	(271,564)
Heat, Light, & Power	844,980	747,874	97,106
Office Expense	282,155	154,990	127,165
Information Technology & Communications	734,986	562,263	172,723
Travel, Meetings, & Education Expense	149,761	156,676	(6,915)
E-ZPass Operating and Maintenance	5,526,451	5,014,242	512,209
State Police Bridge Security	4,203,399	4,152,731	50,668
Operating and Maintenance Expenses	1,786,803	1,560,077	226,726
Insurance	3,230,769	3,030,443	200,326
Professional Service Fees	943,500	1,125,467	(181,967)
Advertising and Marketing	75,200	109,875	(34,675)
Contingency	611,000		611,000
Total Budgetary Expenses:	<u>\$ 46,656,320</u>	<u>\$ 45,240,125</u>	<u>\$ 1,416,195</u>

**Note 3: DETAIL NOTES – ASSETS****Cash and Cash Equivalents**

*Custodial Credit Risk:* Custodial credit risk is the risk that, in the event of the failure of a depository financial institution, the Commission will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. As of December 31, 2009, the Commission held \$78,924,737 in cash and cash equivalents in financial institutions which includes the OPEB Trust Fund cash and cash equivalents, with \$250,000 insured by the Federal Depository Insurance Corporation, \$3,826,180 collateralized under the Governmental Units Depository Protection Act and \$74,848,557 held in uninsured and uncollateralized accounts.

**Investments**

*Custodial Credit Risk:* For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, the Commission will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the Commission, and are held by either the counterparty or the counterparty's trust department or agent, but not in the Commission's name. Of the Commission's \$314,564,589 investments in US Government Securities, US Government Agencies, and State Obligations, all \$314,564,589 of investments are registered in the name of the Commission and held by the counterparty.

*Interest Rate Risk:* Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. As a means of limiting its exposure to fair value losses arising from rising interest rates, the Commission's Trust Indenture limits the investment maturities by fund, depending on the fund's purpose, as disclosed in Note 1.

As of December 31, 2009, the Commission had the following investments and maturities.

<b><u>Investment Type</u></b>	<b><u>Fair Value</u></b>	<b><u>Investment Maturities (in Years)</u></b>	
		<b><u>Less Than 1</u></b>	<b><u>1-5</u></b>
State Obligations	\$ 5,058,374	\$ 5,058,374	\$ -
U.S. Government Agencies	246,625,488	194,310,050	52,315,438
U.S. Government Bonds/Notes	62,880,727	62,880,727	-
Total	<u>\$ 314,564,589</u>	<u>\$ 262,249,151</u>	<u>\$ 52,315,438</u>

*Credit Risk:* Credit risk is the risk that an issuer or counterparty to an investor will not fulfill its obligations. The Commission limits its exposure to credit risk through the Trust Indenture which restricts the investment obligations that may be purchased, by type and credit rating, as disclosed in Note 1. Presented below are summaries of the Commission's investments by type and credit rating as of December 31, 2009.

**Commission Investments**

<b><u>Investment Type</u></b>	<b><u>Rating *</u></b>	<b><u>% of Total Investments</u></b>
State Obligations	AAA	1.61%
Federal Home Loan Bank	AAA	29.37%
Federal Home Loan Mortgage Corporation	AAA	14.91%
Federal National Mortgage Association	AAA	34.12%
U.S. Treasury Bill	AAA	19.99%

\*AAA/Aaa represents the highest quality rating by Standard & Poors and Moody's

*Concentration of Credit Risk:* The Commission does not place a limit on the amount that may be invested in any one issuer. All permitted investments by the Commission must be rated in the three highest categories by the rating agencies.



**Note 4: DETAIL NOTES – ASSETS (CONT'D)****Property, Plant and Equipment**

The following schedule details changes in Property, Plant and Equipment by major class that occurred during the year ended December 31, 2009:

	Balance Dec. 31, 2008	Additions	Deletions	Transfers	Balance Dec. 31, 2009
<i>Capital Assets, not being Depreciated:</i>					
Land	\$ 129,888,166	\$ -	\$ -	\$ -	\$ 129,888,166
Construction in Progress	177,699,128	71,230,450	-	(146,286,926)	102,642,652
Total Capital Assets, not being Depreciated	307,587,294	71,230,450	---	(146,286,926)	232,530,818
<i>Capital Assets, being Depreciated:</i>					
Bridges / Road Network	272,272,301	265,952	-	146,286,926	418,825,179
Equipment	29,842,490	1,142,174	(513,999)	-	30,470,665
Total Capital Assets, being Depreciated	302,114,791	1,408,126	(513,999)	146,286,926	449,295,844
<i>Accumulated Depreciation:</i>					
Bridges / Road Network	(180,062,239)	(13,774,726)	-	-	(193,836,965)
Equipment	(18,086,630)	(4,046,318)	513,999	-	(21,618,949)
Total Accumulated Depreciation	(198,148,869)	(17,821,044)	513,999	---	(215,455,914)
Total Capital Assets, being Depreciated, Net	103,965,922	(16,412,918)	---	146,286,926	233,839,930
Total Capital Assets, Net	\$ 411,553,216	\$ 54,817,532	\$ ---	\$ ---	\$ 466,370,748

**Note 4: DETAIL NOTES – ASSETS (CONT'D)****Toll Revenue**

<u>Toll Class</u>	<u>Vehicles</u>	<u>Revenue</u>
1	32,128,775	\$ 24,009,168
2	786,875	3,901,862
3	326,559	3,141,744
4	276,238	3,509,472
5	3,179,217	50,692,982
6	70,798	1,339,588
7	2,114	47,626
8	43	2,400
11	91,149	136,544
12	107,997	161,794
13	4,590	6,884
15	35	26
Extra Axles	1,631	5127.25
Violations *	253,256	---
	<u>37,227,646</u>	<u>86,955,217</u>
Discounts, Allowances and Other Adjustments		<u>(189,428)</u>
		<u>\$ 86,765,789</u>

\* Extra Axles are not included in total volume

**Electronic Tolls**

In December 2002, the Commission initiated electronic toll collection and E-ZPass at the Bridges. The Commission records toll revenue net of uncollectible tolls, discounts and service fees. Gross toll revenue for 2009 was \$86,955,217, while the adjustments for uncollectible tolls and discounts was \$189,428.

**Note 5: DETAIL NOTES – LIABILITIES****Compensated Absences**

Commission employees may accumulate unused sick days with no restrictions. Employees are compensated for accumulated sick leave upon retirement or resignation at one-half of their then current hourly rate of pay times the number of days accumulated, up to a maximum of \$18,000. The accrued liability for accumulated sick leave at December 31, 2009 is estimated at \$1,874,782.

Commission employees may carry forward up to 5 vacation days not used during the year. Additional carryover days may be granted with permission from the Executive Director. Upon separation from the Commission, the employee will be paid for all accrued vacation time at their then current hourly rate. The accrued liability for accumulated vacation time at December 31, 2009 is estimated at \$213,781.

**Note 5: DETAIL NOTES – LIABILITIES (CONT'D)****Pension Plans****Pennsylvania State Employees' Retirement System**

*Plan Description* - Permanent full-time and part-time employees are eligible and required to participate in the plan that provides pension, death and disability benefits. A member may retire after completing three years of service and after reaching normal retirement age (the age of 60, except police officers at age 50, or the age at which 35 years of service has been completed, whichever occurs first). Benefits vest after five years of service. If an employee terminates his or her employment after at least five years of service but before the normal retirement age, he or she may receive pension benefits immediately or defer pension benefits until reaching retirement age. Employees who retire after reaching the normal retirement age with at least three years of credited service are entitled to receive pension benefits equal to 2.50% of their final average compensation (average of the three highest years in earnings) times the number of years for which they were a participant in the plan. The pension benefits received by an employee who retires after five years of credited service but before normal retirement age are reduced for the number of years that person is under normal retirement age.

Pension provisions include death benefits, under which the surviving beneficiary may be entitled to receive the employee's accumulated contributions less the amount of pension payments that the employee received, the present value of the employee's account at retirement less the amount of pension benefits received by the employee, the same pension benefits formerly received by the employee, or one-half of the monthly pension payment formerly received by the employee. The maximum pension benefit to the employee previously described may be reduced depending on the benefits elected for the surviving beneficiary.

The Pennsylvania State Employees' Retirement System issues a publicly available annual financial report, including financial statements, which may be obtained by writing to Pennsylvania State Employees' Retirement System, 30 North Third Street, Harrisburg, Pennsylvania, 17108-1147.

*Funding Policy* - The contribution requirements of plan members and the Commission are established and amended by the Pennsylvania State Employees' Retirement System Board. As of January 1, 2002, employees are required to contribute 6.25% of their gross earnings to the plan. The Commission was required to, and did, contribute an actuarially determined amount to the plan, which equaled 3.72%, 3.72%, and 3.67% of covered payroll in 2009, 2008, and 2007, respectively. In 2009 the Commission contributed \$555,663 to the plan.

**New Jersey Public Employees' Retirement System**

*Plan Description* - The PERS was established as of January 1, 1955. The PERS provides retirement, death, and disability, and medical benefits to qualified members. Vesting and benefit provisions are established by N.J.S.A. 43:15A and 43:3B.

The contribution requirements of plan members are determined by State statute. In accordance with Chapter 62, P.L. 1994, plan members enrolled in the Public Employees' Retirement System were required to contribute 5% of their annual covered salary. Effective July 1, 2008, however, in accordance with Chapter 92, P.L. 2007 and Chapter 103, P.L. 2008, plan members are required to contribute 5.5% of their annual covered salary. For employees enrolled in the retirement system prior to July 1, 2007, the increase is effective with the payroll period that begins immediately after July 1, 2008. The State Treasurer has the right under the current law to make temporary reductions in member rates based on the existence of surplus pension assets in the retirement system; however, statute also requires the return to the normal rate when such surplus pension assets no longer exist.

The Commission is billed annually for its normal contribution plus any accrued liability. In 2009 the Commission contributed \$24,167.

*Related Party Investments* - The Division of Pensions and Benefits does not invest in securities issued by the Commission.

**Note 5: DETAIL NOTES – LIABILITIES (CONT'D)****Post-Employment Benefits**

**Plan Description** - The Commission provides healthcare and life insurance benefits to its retirees and their spouses and dependents under the Delaware River Joint Toll Bridge Commission's Retiree Health Benefits Plan ("Retiree Health Benefits Plan"). The amount the Commission pays for the medical and life insurance premiums for retirees and spouses varies. Most regular active employees who retire directly from the Commission and meet the eligibility criteria may participate.

A separate, audited GAAP basis trust plan report is not issued for the Retiree Health Benefits Plan.

**Funding Policy** - The contribution requirement of the Commission is established by the Commission's Board of Commissioners and may be amended by the same. Prior to 2009, the Commission was on a pay-as-you-go basis.

**Annual OPEB Cost and Net OPEB Obligation** – The Commission's annual other postemployment benefit (OPEB) expense is calculated based on the annual required contribution of the employer (ARC), an amount actuarially determined in accordance with the parameters of GASB Statement 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed thirty years. The following table shows the components of the Commission's annual OPEB expense for the year, the amount actually contributed to the Retiree Health Benefits Plan, and changes in the Commission's net OPEB obligation to the Retiree Health Benefits Plan:

Normal cost	\$4,890,000
Amortization Payment	<u>5,997,000</u>
Annual Required Contribution	<u>10,887,000</u>
Interest on net OPEB obligation	---
Adjustment to annual required contribution	---
Annual OPEB cost (expense)	10,887,000
Premiums Paid	(2,252,906)
Contributions	<u>(20,000,000)</u>
Decrease in net OPEB obligation	(11,365,906)
Net OPEB Obligation – Beginning of Year	<u>9,074,200</u>
Net OPEB Asset – End of Year	<u>\$2,291,706</u>

**Funded Status and Funding Progress** - As of January 1, 2008, the most recent actuarial valuation date, the Retiree Health Benefit Plan was 0% funded. The actuarial accrued liability for benefits was \$110,300,000 and the actuarial value of assets was \$0, resulting in an unfunded actuarial accrued liability (UAAL) of \$110,300,000. The covered payroll (annual payroll of active employees covered by the plan) was \$18,000,000, and the ratio of the UAAL to the covered payroll was 613%. Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented as required supplementary information following the notes to financial statements, compares the assets used for funding purposes to the comparable liabilities to determine how well the Retiree Health Benefits Plan is funded and how this status has changed over the past several years. The actuarial liability is compared to the actuarial value of assets to determine the funding ratio. The Actuarial Accrued Liability under GASB is determined assuming that the Retiree Health Benefits Plan is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Employer contribution and funding progress information can be found in Schedules RSI-1 and RSI-2 as part of the Required Supplementary Information Section.

**Note 5: DETAIL NOTES – LIABILITIES (CONT'D)****Post-Employment Benefits (Cont'd)**

In December 2009, the Commission established an irrevocable trust fund to provide funding for post employment benefits. Effective December 28, 2009, the Commission contributed \$20,000,000 to the Retiree Health Benefits Trust, with US Bank servicing as Trustee. The Activities are accounted for using the accrual basis of accounting and all investments are recorded at their fair value.

*Actuarial Methods and Assumptions:* Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

In the January 1, 2008, actuarial valuation, the entry age normal cost method was used. The significant actuarial assumptions included a phased funding investment return assumption (3.5% effective rate of return over thirty years), an annual healthcare cost trend rate of 11.0% initially, reducing by decrements to an ultimate rate of 5.0% after 12 years. The Retiree Health Benefits Plan's unfunded actuarial liability is being amortized using a closed, level dollar amount with a 30 year amortization period on a closed basis. The remaining amortization period at December 31, 2009 was 28 years.

**Lease Obligations**

At December 31, 2009, the Commission has operating lease agreements in effect for the following:

- Copiers
- Towers

Operating Leases – Future minimum rental payments under operating lease agreements are as follows:

<u>Fiscal Year</u>	<u>Amount</u>
2010	\$ 67,219
2011	44,055
2012	<u>7,343</u>
	<u>\$ 118,617</u>

Current year payments under operating leases totaled \$83,895.

**Bonded Indebtedness**

At December 31, 2009, the Commission had \$438,490,000 in revenue and refunding revenue bonds outstanding. The bonds were issued in 2003, 2005, and 2007. These bonds were issued pursuant to the Trust Indenture dated January 1, 2003 between the Commission and the TD Bank/Pennsylvania, National Association as Trustee.

**Series 2003 Bonds** – In January 2003, the Commission issued \$158,530,000 Bridge System Revenue Bonds, Series 2003. The purpose of the 2003 issue was for the current refunding of the 1992 series, refunding of the 2002 bond anticipation note, financing of the first portion of the Commission's ten year capital program, and related bond issuance cost.

In March 2005, the Commission partially refunded \$32,165,000 of the Series 2003 outstanding bonds. See the Series 2005 Bonds on the following page.

**Note 5: DETAIL NOTES – LIABILITIES (CONT'D)****Bonded Indebtedness (Cont'd)**

**Series 2005A Bonds** - In March 2005, the Commission issued \$72,645,000 Bridge System Revenue Bonds. The bonds were issued at a premium of \$6,544,528 and yielded total cash of \$79,544,528. Of the proceeds, \$34,770,228 of the bonds were used to advance refund \$32,165,000 of the Commission's Bridge System Revenue Bonds, Series 2003, \$2,918,863 was deposited into a Debt Service Reserve Fund, \$1,500,436 was used to pay cost of issuance and the remaining \$40,000,000 was deposited into the 2005 Construction Fund.

The Commission defeased a portion of the Series 2003 Bonds by placing some of the proceeds of the Series 2005A Bonds in an irrevocable trust account to provide for all future debt service payments on the Series 2003 Bonds. Accordingly, the trust account assets and the liability for the of Series 2003 Bonds are not included in the Commission's financial statements. On December 31, 2009 \$32,165,000 million of Series 2003 Bonds outstanding are considered defeased.

The \$40,000,000 of new monies was used to establish the Compact Investment Program. This program was created to provide funding for transportation infrastructure related projects in New Jersey and Pennsylvania communities that host its bridges. As of December 31, 2009, the Commission had committed all \$40,000,000 for grants to municipalities participating in the Compact Authorized Investment ("CAI") program, of which \$23,959,969 was undistributed at December 31, 2009. Funded projects include installation of upgrades to traffic signalization around Commission facilities, road widening in areas affected by Commission crossings, bicycle or pedestrian paths leading up to Commission facilities, park and ride facilities, safety lighting, and right of way renovation, protection, or beautification.

**Series 2007A Bonds** - In July of 2007, the Commission issued \$134,170,000 in Bridge System Revenue Bonds. These Bonds were issued to provide funds to pay for the cost of capital improvements related to the system, to make deposits into the Debt Service Reserve Fund, fund capitalized interest and pay insurance and cost of issuance associated with the series.

**Series 2007B (SWAP) Bonds** – In July of 2007, the Commission issued two series of Bridge System Revenue Bonds (2007B1 and 2007B2) for \$75,000,000 each. In September 2008, the bonds were converted into variable rate securities and are hedged by an interest rate swap issued by two counterparties. These Bonds were issued to provide funds to pay for the cost of capital improvements related to the system, to make deposits into the Debt Service Reserve Fund, to fund capitalized interest and to pay insurance and cost of issuance associated with the series.

**Objective of the swaps** - In October of 2005, the Commission entered into two forward starting swaps with two counterparties to hedge against future interest rates. The intention of the swaps was to take advantage of the current historically low interest rate environment in advance of the issuance of bonds by the Commission (as authorized by its Trust Indenture) in 2007.

**Terms** - The swaps were entered into with Merrill Lynch Capital Services, Inc. ("MLCS") and Morgan Stanley Capital Services, Inc. ("MSCS"). The swaps were effective on October 1, 2007, and will mature on July 1, 2032. On the trade date, MLCS and MSCS were both rated AA- by Standard & Poor's Ratings Services ("S&P"), a division of The McGraw-Hill Companies, and Aa3 by Moody's Investors Service, Inc. ("Moody's"). The swaps were priced at a fixed rate of 4.231% based on an amortizing notional schedule with a combined \$150,000,000 initial notional amount. Under the swaps starting October 1, 2007, the Commission pays a fixed rate of 4.231% and receives a variable payment equal to the Bond Market Association Municipal Swap Index (the "BMA" Index). The bonds' variable-rate coupons, when issued, is based on a remarketing rate that is highly correlated to the BMA Index. As part of the swap transactions, the Commission also purchased two interest rate swap insurance policies dated October 6, 2005, issued by MBIA Insurance Corporation for the account of the Commission, as principal, and the counterparties, as beneficiary. The insurance policies provide for risk mitigation and limit the need for the Commission to post eligible collateral.

**Note 5: DETAIL NOTES – LIABILITIES (CONT'D)****Bonded Indebtedness (Cont'd)*****Series 2007B (SWAP) Bonds (Cont'd)***

*Fair Value* - As of December 31, 2009 and 2008, the swaps had a negative fair value of \$14,113,804 and \$23,997,604, respectively, meaning that if such agreements were terminated as of such date and no substitute counterparty could be found to replace the existing counterparty, the Commission would have to pay the amounts shown in parentheses. The fair value was estimated using the zero-coupon method. This method calculates the future net settlement payments required by the swap, assuming that the current forward rates implied by the yield curve correctly anticipate future spot interest rates. These payments are then discounted using the spot rates implied by the current yield curve for hypothetical zero-coupon bonds due on the date of each future net settlement of the swap.

*Credit Risk* - As of December 31, 2009 and 2008, the Commission was not exposed to credit risk because the swaps had a negative fair value. Should interest rates change and the fair value of the swaps become positive, the Commission would be exposed to credit risk in the amount of the swaps' fair value. Agreed upon collateral threshold levels per the Credit Support Annex ("CSA") require collateral to be posted based on counterparty ratings as set forth in the CSA.

*Basis Risk* - Basis risk exists to the extent the Authority's fixed rate payments to the counterparties do not exactly equal the index on the swaps. The Authority's taxable and tax-exempt bonds are hedged with the BMA Municipal Swap Index.

*Termination Risk* - The swaps are governed by the International Swap Dealers Association Master Agreement, which includes standard termination events. In addition, the swaps may be terminated if the long-term, unenhanced rating on the bonds issued by the Commission is withdrawn, suspended or falls below Baa3 as determined by Moody's, or BBB- as determined by S&P. Furthermore, the swaps may be terminated if the counterparties' credit support provider fails to have any rated long-term, unsecured, unenhanced senior debt or if the rating of the senior debt is withdrawn, suspended or falls below Baa2 as determined by Moody's, or BBB as determined by S&P.

In connection with the aforementioned swaps, no amounts are recorded in the financial statements other than the prepaid cost of issuance of the swaps.

**Note 5: DETAIL NOTES – LIABILITIES (CONT'D)****Bonded Indebtedness (Cont'd)**

The following schedules represent the debt service requirements for the outstanding bonds:

## Series 2003

<u>Year</u>	<u>Principal Amount</u>	<u>Interest</u>	<u>Total Debt Service</u>
2010	\$ 5,635,000	\$ 4,683,869	\$ 10,318,869
2011	5,930,000	4,380,288	10,310,288
2012	6,245,000	4,060,694	10,305,694
2013	6,580,000	3,724,038	10,304,038
2014	2,995,000	3,472,694	6,467,694
2015	3,145,000	3,311,519	6,456,519
2016	3,320,000	3,141,813	6,461,813
2017	3,490,000	2,963,050	6,453,050
2018	3,675,000	2,774,969	6,449,969
2019	-	2,678,500	2,678,500
2020	-	2,678,500	2,678,500
2021	5,610,000	2,538,250	8,148,250
2022	5,890,000	2,250,750	8,140,750
2023	6,185,000	1,948,875	8,133,875
2024	6,495,000	1,631,875	8,126,875
2025	6,815,000	1,469,500	8,284,500
2026	7,160,000	1,128,750	8,288,750
2027	7,520,000	770,750	8,290,750
2028	7,895,000	394,750	8,289,750
Total Series 2003	<u>\$ 94,585,000</u>	<u>\$ 50,003,431</u>	<u>\$ 144,588,431</u>



Note 5: DETAIL NOTES – LIABILITIES (CONT'D)Bonded Indebtedness (Cont'd)

<u>Year</u>	<u>Principal Amount</u>	<u>Interest</u>	<u>Total Debt Service</u>
2010	\$ 1,045,000	\$ 3,535,900	\$ 4,580,900
2011	1,095,000	3,482,400	4,577,400
2012	1,150,000	3,426,275	4,576,275
2013	1,210,000	3,367,275	4,577,275
2014	5,000,000	3,199,525	8,199,525
2015	5,220,000	2,918,475	8,138,475
2016	5,540,000	2,624,344	8,164,344
2017	5,835,000	2,315,156	8,150,156
2018	6,155,000	1,989,244	8,144,244
2019	6,480,000	1,645,794	8,125,794
2020	6,840,000	1,283,719	8,123,719
2021	1,825,000	1,049,881	2,874,881
2022	1,920,000	951,575	2,871,575
2023	2,020,000	848,150	2,868,150
2024	2,125,000	742,000	2,867,000
2025	2,235,000	633,000	2,868,000
2026	2,345,000	524,363	2,869,363
2027	2,450,000	416,475	2,866,475
2028	2,560,000	303,750	2,863,750
2029	2,675,000	185,963	2,860,963
2030	2,795,000	62,888	2,857,888
Total Series 2005	<u>\$ 68,520,000</u>	<u>\$ 35,506,150</u>	<u>\$ 104,026,150</u>

Note 5: DETAIL NOTES – LIABILITIES (CONT'D)Bonded Indebtedness (Cont'd)

## Series 2007A

Ending <u>Year</u>	Principal <u>Amount</u>	<u>Interest</u>	Total Debt <u>Service</u>
2010	\$ 1,410,000	\$ 6,361,450	\$ 7,771,450
2011	1,545,000	6,298,656	7,843,656
2012	1,670,000	6,230,338	7,900,338
2013	1,660,000	6,159,575	7,819,575
2014	1,450,000	6,088,050	7,538,050
2015	1,920,000	6,003,800	7,923,800
2016	1,760,000	5,911,800	7,671,800
2017	2,000,000	5,817,800	7,817,800
2018	2,010,000	5,717,550	7,727,550
2019	2,135,000	5,613,925	7,748,925
2020	2,275,000	5,503,675	7,778,675
2021	2,260,000	5,390,300	7,650,300
2022	2,400,000	5,273,800	7,673,800
2023	2,490,000	5,151,550	7,641,550
2024	2,640,000	5,023,300	7,663,300
2025	2,710,000	4,889,550	7,599,550
2026	2,855,000	4,750,425	7,605,425
2027	2,925,000	4,605,925	7,530,925
2028	3,050,000	4,456,550	7,506,550
2029	3,200,000	4,300,300	7,500,300
2030	3,375,000	4,135,925	7,510,925
2031	3,475,000	3,964,675	7,439,675
2032	3,595,000	3,787,925	7,382,925
2033	14,000,000	3,348,050	17,348,050
2034	14,700,000	2,630,550	17,330,550
2035	15,435,000	1,877,175	17,312,175
2036	16,205,000	1,126,688	17,331,688
2037	16,935,000	381,038	17,316,038
Total Series 2007A	<u>\$ 132,085,000</u>	<u>\$ 130,800,344</u>	<u>\$ 262,885,344</u>

**Note 5: DETAIL NOTES – LIABILITIES (CONT'D)****Bonded Indebtedness (Cont'd)**

## Series 2007B

<u>Year</u>	<u>Principal Amount</u>	<u>Interest (1)</u>	<u>Total Debt Service</u>
2010	\$ 3,650,000	\$ 6,063,023	\$ 9,713,023
2011	3,850,000	5,908,592	9,758,592
2012	3,950,000	5,745,698	9,695,698
2013	4,200,000	5,578,574	9,778,574
2014	4,350,000	5,400,872	9,750,872
2015	4,450,000	5,216,823	9,666,823
2016	4,800,000	5,028,544	9,828,544
2017	4,950,000	4,825,456	9,775,456
2018	5,250,000	4,616,021	9,866,021
2019	5,450,000	4,393,894	9,843,894
2020	5,650,000	4,163,304	9,813,304
2021	5,950,000	3,924,253	9,874,253
2022	6,250,000	3,672,508	9,922,508
2023	6,550,000	3,408,071	9,958,071
2024	6,800,000	3,130,940	9,930,940
2025	7,150,000	2,843,232	9,993,232
2026	7,450,000	2,540,716	9,990,716
2027	7,800,000	2,225,506	10,025,506
2028	8,200,000	1,895,488	10,095,488
2029	8,550,000	1,548,546	10,098,546
2030	8,900,000	1,186,796	10,086,796
2031	9,350,000	810,237	10,160,237
2032	<u>9,800,000</u>	<u>414,638</u>	<u>10,214,638</u>
Total Series 2007B	<u>\$ 143,300,000</u>	<u>\$ 84,541,727</u>	<u>\$227,841,727</u>

(1) Series 2008 are variable rate revenue bonds. The interest rate is adjusted daily as

Total Bonded Indebtedness	\$ 438,490,000
Less:	
Current Portion	<u>(11,740,000)</u>
Total Long Term Bond Indebtedness	<u>\$ 426,750,000</u>

Several of the series of bonds may be redeemed in whole or in part prior to their respective maturities, subject to certain requirements, including prepayment premiums.

**Note 5: DETAIL NOTES – LIABILITIES (CONT'D)****Summary of Long-Term Liabilities:**

	Principal Outstanding <u>Jan. 1, 2009</u>	<u>Additions</u>	<u>Reductions</u>	Principal Outstanding <u>Dec. 31, 2009</u>	Current Due Within <u>One Year</u>
Revenue Bonds	\$ 449,830,000	\$ -	\$ (11,340,000)	\$ 438,490,000	\$ 11,740,000
OPEB Obligation	9,074,200	10,887,000	(19,961,200)		
Compensated Absences	<u>1,992,912</u>	<u>95,651</u>	<u>-</u>	<u>2,088,563</u>	<u>125,000</u>
Total Long Term Liabilities	<u>\$ 460,897,112</u>	<u>\$ 10,982,651</u>	<u>\$ (31,301,200)</u>	<u>\$ 440,578,563</u>	<u>\$ 11,865,000</u>

**Note 6: AGREEMENTS****New Jersey State Police**

The Commission and State of New Jersey, Department of Law and Public Safety, Division of State Police (NJSP) have entered into an agreement whereby the NJSP provide patrol and law enforcement services to the Commission. The NJSP officers operating under this agreement are designated as Public Safety Supervisors of the Commission and as a result are not limited to the territorial jurisdiction of the State of New Jersey. The NJSP officers are empowered to provide law enforcement services along all commission land, roads and bridges both inside and outside of New Jersey.

This agreement is ongoing and the period of the current agreement began November 1, 2008 and expires on June 30, 2011 with two subsequent one (1) year renewals at the Commission's sole discretion. Under this current agreement the NJSP will designate one (1) sergeant and twelve (12) troopers to act as Public Safety Supervisors of the Commission. The Commission must reimburse the NJSP for both salaries and patrol cars used by the officers. The following is the estimated rate for patrol services:

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
Troopers	\$148,005/Tpr.	\$151,000/Tpr.	\$157,040/Tpr.
Sergeant	\$168,481	\$171,400	\$178,256

The total actual cost for salaries and vehicles under this agreement for 2009 was \$2,352,876.

**Note 6: AGREEMENTS****Pennsylvania State Police**

The Commission and the Commonwealth of Pennsylvania, Pennsylvania State Police (PSP) have entered into an agreement whereby the PSP provide patrol and law enforcement services to the Commission. The PSP officers operating under this agreement are designated as Public Safety Supervisors of the Commission and as a result are not limited to the territorial jurisdiction of the Commonwealth of Pennsylvania. The PSP officers are empowered to provide law enforcement services along all commission land, roads and bridges both inside and outside of Pennsylvania.

This agreement is ongoing and the period of the current agreement began July 1, 2008 and expires on June 30, 2011. Under this current agreement the PSP will designate one (1) sergeant and twelve (12) troopers to act as Public Safety Supervisors of the Commission. The Commission must reimburse the PSP for both salaries and patrol cars used by the officers. For the purpose of this Agreement a general salary increase of 4% has been estimated for each of the three years of this agreement. These salary increases will be adjusted, if necessary, once the new PSP contract becomes effective. The benefits are estimated based on the Pennsylvania State Police 2008-2009 fiscal year budget request with an annual increase of 2% to the benefit rate. The benefit rates will be adjusted accordingly once the actual percentage is determined. The estimated rates are 55.34% for year 1, 57.59% for year 2 and 59.59% for year 3. The following is the estimated rate for patrol services:

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
Troopers	\$129,844/Tpr.	\$136,774/Tpr.	\$144,050/Tpr.
Sergeant	\$149,189	\$157,151	\$165,511
Additional Hourly Rates	\$93	\$98	\$103

The total actual cost for salaries and vehicles under this agreement for 2009 was \$1,870,016.

**Note 7: RISK MANAGEMENT**

The Commission is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. These risks are covered by commercial insurance purchased from independent third parties. Settled claims from these risks have not exceeded coverage for the past several years.

**Note 8: SUBSEQUENT EVENT****Governmental Accounting Standards Board Statement No. 53**

Effective for the year ending December 31, 2010, the Commission will be required to implement Statement No. 53 of the Governmental Accounting Standards Board - Accounting and Financial Reporting for Derivative Instruments. As described in Note 5, the Commission has entered into an interest rate hedge (swap) agreements for the purposes of managing its interest rate risk on certain debt obligations. Statement No. 53 requires that the fair value of such derivative instruments be reported in the financial statements as well as the change in fair value. If, however, a derivative is effectively hedging (reducing) the risk it was created to address, then the annual changes in the derivative's fair value are deferred and reported on the statement of net assets. Accounting changes adopted to conform to the provisions of this Statement are required to be applied retroactively by restating financial statements, if practical, for all prior periods presented. Based on the fair value of the Commission's derivative transactions disclosed in Note 5, as of December 31, 2009, the impact of the implementation of Statement 53 will be material on the 2009 financials.

## **REQUIRED SUPPLEMENTARY INFORMATION**

33000

Schedule RSI-1

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

Required Supplementary Information  
Schedule of Funding Progress for the OPEB Plan

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Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability - (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
1/1/2008	\$ -	\$ 110,300,000	\$ 110,300,000	0 %	\$ 18,000,000	613%

Schedule RSI-2

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

Required Supplementary Information  
Schedule of Employer Contributions to the OPEB Plan

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Year Ended December 31,	Annual Required Contribution (ARC)	Percentage of ARC Contributed
2009	\$ 10,887,000	204%
2008	\$ 10,887,000	17%

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

Note to Required Supplementary Information  
For the Year Ended December 31, 2009

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**Other Postemployment Benefits**

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows:

Valuation Date	January 1, 2008
Actuarial Cost Method	Entry Age Normal Cost Method
Amortization Method	Closed, Level Dollar Method
Remaining Amortization Period	28 years
Asset Valuation Method	N/A
Actuarial Assumptions:	
Investment Rate of Return	3.5%
Rate of Medical Inflation for Retirees Under Age 65	11% grading to 5.0% over 12 years

For determining the GASB ARC, the rate of employer contributions to the Delaware River Joint Toll Bridge Commission Plan is composed of the Normal Cost plus amortization of the Unfunded Actuarial Liability. The Normal Cost is a portion of the actuarial present value of plan benefits and expenses which is allocated to a valuation year by the actuarial cost method. The Actuarial Liability is that portion of the Present Value of Projected Benefits that will not be paid by Future Employer Normal Costs or active employee contributions. The difference between this liability and the funds accumulated as of the same date is the Unfunded Actuarial Liability.



## **SUPPLEMENTARY SCHEDULES**

## DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION

Schedule of Toll Revenue

For the Year Ended December 31, 2009

Schedule 1

Class	Description	Rate	Trenton-Morrisville		New Hope-Lambertville		Interstate 78		Easton-Phillipsburg	
			Cash Volume	Cash Revenue	Cash Volume	Cash Revenue	Cash Volume	Cash Revenue	Cash Volume	Cash Revenue
01	Automobile	\$ 0.75	2,752,399	\$ 2,064,299	611,910	\$ 458,933	3,292,426	\$ 2,469,320	2,275,724	\$ 1,706,793
11	Auto with 1-Axle Trailer	1.50	3,987	5,981	1,476	2,214	16,477	24,716	5,251	7,877
12	Auto with 2-Axle Trailer	1.50	5,461	8,192	3,827	5,741	28,262	42,393	7,349	11,024
13	Auto with 3-Axle Trailer	1.50	431	647	136	204	1,793	2,690	248	372
<b>AUTOMOBILE SUBTOTAL</b>			<b>2,762,278</b>	<b>2,079,118</b>	<b>617,349</b>	<b>467,091</b>	<b>3,338,958</b>	<b>2,539,118</b>	<b>2,288,572</b>	<b>1,726,065</b>
02	Comm'l 2-Axle Peak	\$ 5.00	39,664	198,320	16,582	82,910	70,871	354,355	45,160	225,800
02	Comm'l 2-Axle Off-Peak	4.50	-	-	-	-	-	-	-	-
03	Comm'l 3-Axle Peak	9.75	9,141	89,125	3,864	37,674	17,317	168,841	8,050	78,488
03	Comm'l 3-Axle Off Peak	8.78	-	-	-	-	-	-	-	-
04	Comm'l 4-Axle Peak	13.00	2,834	36,842	1,108	14,404	13,706	178,178	4,548	59,124
04	Comm'l 4-Axle Off Peak	11.70	-	-	-	-	-	-	-	-
05	Comm'l 5-Axle Peak	16.25	19,666	319,573	7,600	123,500	488,735	7,941,944	55,598	903,468
05	Comm'l 5-Axle Off Peak	14.63	-	-	-	-	-	-	-	-
06	Comm'l 6-Axle Peak	19.50	144	2,808	133	2,594	3,995	77,903	704	13,728
06	Comm'l 6-Axle Off Peak	17.55	-	-	-	-	-	-	-	-
07	Comm'l 7-Axle Peak	22.75	6	137	7	159	361	8,213	24	546
07	Comm'l 7-Axle Off Peak	20.48	-	-	-	-	-	-	-	-
08	Comm'l Permit		-	-	-	-	10	575	1	-
<b>COMMERCIAL SUBTOTAL</b>			<b>71,455</b>	<b>646,804</b>	<b>29,294</b>	<b>261,241</b>	<b>594,995</b>	<b>8,730,008</b>	<b>114,085</b>	<b>1,281,153</b>
<b>EXTRA AXLES SUBTOTAL *</b>			<b>1</b>	<b>3</b>	<b>2</b>	<b>7</b>	<b>310</b>	<b>1,008</b>	<b>33</b>	<b>107</b>
<b>NON-REVENUE*</b>			<b>3,469</b>	<b>-</b>	<b>2,774</b>	<b>-</b>	<b>8,108</b>	<b>-</b>	<b>4,214</b>	<b>-</b>
<b>GROSS CASH TOTALS</b>			<b>2,833,733</b>	<b>\$ 2,725,925</b>	<b>646,643</b>	<b>\$ 728,338</b>	<b>3,933,953</b>	<b>\$11,270,133</b>	<b>2,402,657</b>	<b>\$ 3,007,325</b>
Discounts, Allowances and Other Adjustments				(3,217)		1,000		4,189		(761)
<b>NET CASH REVENUE</b>				<b>\$ 2,722,708</b>		<b>\$ 729,339</b>		<b>\$11,274,322</b>		<b>\$ 3,006,564</b>

Note: \*Extra Axles and Non-Revenue not included in total volume amount.

(Continued)

## DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION

Schedule of Toll Revenue

For the Year Ended December 31, 2009

Class	Description	Rate	Portland-Columbia		Delaware Water Gap		Milford-Montage		TOTALS	
			Cash Volume	Cash Revenue	Cash Volume	Cash Revenue	Cash Volume	Cash Revenue	Cash Volume	Cash Revenue
01	Automobile	\$ 0.75	585,245	\$ 438,934	3,881,650	\$ 2,911,238	561,825	\$ 421,369	13,961,179	\$ 10,470,884
11	Auto with 1-Axle Trailer	1.50	2,533	3,800	15,417	23,126	3,427	5,141	48,568	72,852
12	Auto with 2-Axle Trailer	1.50	2,941	4,412	16,592	24,888	2,595	3,893	67,027	100,541
13	Auto with 3-Axle Trailer	1.50	131	197	1,071	1,607	33	50	3,843	5,765
<b>AUTOMOBILE SUBTOTAL</b>			<b>590,850</b>	<b>447,341</b>	<b>3,914,730</b>	<b>2,960,858</b>	<b>567,880</b>	<b>430,451</b>	<b>14,080,617</b>	<b>10,650,041</b>
02	Comm'l 2-Axle Peak	\$ 5.00	9,379	46,895	54,185	270,925	7,785	38,925	243,626	1,218,130
02	Comm'l 2-Axle Off-Peak	4.50	-	-	-	-	-	-	-	-
03	Comm'l 3-Axle Peak	9.75	2,551	24,872	14,314	139,562	1,114	10,862	56,351	549,422
03	Comm'l 3-Axle Off Peak	8.78	-	-	-	-	-	-	-	-
04	Comm'l 4-Axle Peak	13.00	1,262	16,406	7,950	103,350	491	6,383	31,899	414,687
04	Comm'l 4-Axle Off Peak	11.70	-	-	-	-	-	-	-	-
05	Comm'l 5-Axle Peak	16.25	6,952	112,970	332,751	5,407,204	1,907	30,989	913,209	14,839,646
05	Comm'l 5-Axle Off Peak	14.63	-	-	-	-	-	-	-	-
06	Comm'l 6-Axle Peak	19.50	102	1,989	5,790	112,905	46	897	10,914	212,823
06	Comm'l 6-Axle Off Peak	17.55	-	-	-	-	-	-	-	-
07	Comm'l 7-Axle Peak	22.75	6	137	467	10,624	1	23	872	19,838
07	Comm'l 7-Axle Off Peak	20.48	-	-	-	-	-	-	-	-
08	Comm'l Permit		-	-	32	1,825	-	-	43	2,400
<b>COMMERCIAL SUBTOTAL</b>			<b>20,252</b>	<b>203,269</b>	<b>415,489</b>	<b>6,046,394</b>	<b>11,344</b>	<b>88,078</b>	<b>1,256,914</b>	<b>17,256,947</b>
<b>EXTRA AXLES SUBTOTAL*</b>			<b>7</b>	<b>23</b>	<b>443</b>	<b>1,440</b>	<b>-</b>	<b>-</b>	<b>796</b>	<b>2,587</b>
<b>NON-REVENUE*</b>			<b>1,279</b>	<b>-</b>	<b>3,638</b>	<b>-</b>	<b>854</b>	<b>-</b>	<b>24,336</b>	<b>-</b>
<b>GROSS CASH TOTALS</b>			<b>611,102</b>	<b>\$ 650,633</b>	<b>4,330,219</b>	<b>\$ 9,008,692</b>	<b>579,224</b>	<b>\$ 518,529</b>	<b>15,337,531</b>	<b>\$ 27,909,575</b>
Discounts, Allowances and Other Adjustments				(505)		1,936		197		2,840
<b>NET CASH REVENUE</b>				<b>\$ 650,128</b>		<b>\$ 9,010,628</b>		<b>\$ 518,727</b>		<b>\$ 27,912,415</b>

Note: \*Extra Axles and Non-Revenue not included in total volume amount.

(Continued)

## DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION

Schedule 1

Schedule of Toll Revenue

For the Year Ended December 31, 2009

Class	Description	Rate	Trenton-Morrisville		New Hope-Lambertville		Interstate 78		Easton-Phillipsburg	
			ETC Volume	ETC Revenue	ETC Volume	ETC Revenue	ETC Volume	ETC Revenue	ETC Volume	ETC Revenue
01	Automobile	\$ 0.75	3,487,995	\$ 2,598,776	1,214,679	\$ 905,142	4,342,302	\$ 3,236,891	3,412,767	\$ 2,542,285
11	Auto with 1-Axle Trailer	1.50	4,157	6,209	2,163	3,234	11,789	17,632	5,056	7,562
12	Auto with 2-Axle Trailer	1.50	4,017	6,002	2,933	4,386	14,871	22,228	4,697	7,026
13	Auto with 3-Axle Trailer	1.50	90	135	28	42	279	418	23	35
15	Default	0.75	4	3	1	1	6	4	2	2
<b>AUTOMOBILE SUBTOTAL</b>			<b>3,496,263</b>	<b>2,611,124</b>	<b>1,219,804</b>	<b>912,805</b>	<b>4,369,247</b>	<b>3,277,173</b>	<b>3,422,545</b>	<b>2,556,910</b>
02	Comm'l 2-Axle Peak	5.00	117,520	586,612	37,202	185,740	128,458	641,267	93,464	466,497
02	Comm'l 2-Axle Off-Peak	4.50	11,681	52,462	3,303	14,826	17,416	78,238	7,865	35,320
03	Comm'l 3-Axle Peak	9.75	51,734	503,448	14,580	141,985	63,617	619,217	34,726	337,933
03	Comm'l 3-Axle Off Peak	8.78	5,119	44,881	1,261	11,054	13,078	114,564	5,494	48,129
04	Comm'l 4-Axle Peak	13.00	39,696	515,065	3,471	45,048	61,030	791,951	44,688	579,418
04	Comm'l 4-Axle Off Peak	11.70	7,027	82,141	1,066	12,451	30,749	359,084	5,641	65,852
05	Comm'l 5-Axle Peak	16.25	102,987	1,670,397	14,701	238,490	928,490	15,063,504	117,133	1,900,115
05	Comm'l 5-Axle Off Peak	14.63	22,215	324,323	3,542	51,727	320,514	4,681,165	34,582	504,875
06	Comm'l 6-Axle Peak	19.50	1,084	21,106	360	7,011	27,430	534,036	1,268	24,671
06	Comm'l 6-Axle Off Peak	17.55	303	5,309	47	824	13,602	238,316	452	7,914
07	Comm'l 7-Axle Peak	22.75	19	432	35	796	678	15,394	33	751
07	Comm'l 7-Axle Off Peak	20.48	2	41	-	-	156	3,177	4	80
<b>COMMERCIAL SUBTOTAL</b>			<b>359,387</b>	<b>3,806,217</b>	<b>79,568</b>	<b>709,954</b>	<b>1,605,218</b>	<b>23,139,913</b>	<b>345,350</b>	<b>3,971,553</b>
<b>EXIT VIOLATIONS</b>			<b>36,965</b>		<b>16,058</b>		<b>83,192</b>		<b>43,895</b>	
<b>EXTRA AXLES SUBTOTAL*</b>			<b>37</b>	<b>89</b>	<b>11</b>	<b>36</b>	<b>381</b>	<b>1,207</b>	<b>4</b>	<b>13</b>
<b>GROSS ETC TOTALS</b>			<b>3,892,615</b>	<b>\$ 6,417,430</b>	<b>1,315,430</b>	<b>\$ 1,622,795</b>	<b>6,057,657</b>	<b>\$ 26,418,293</b>	<b>3,811,790</b>	<b>\$ 6,528,476</b>
Discounts, Allowances and Other Adjustments				(124,520)		(36,542)		(144,378)		(101,211)
ETC Account / Maintenance Fees				53,108		12,667		214,677		48,710
Commission Vehicles				(22,116)		(19,894)		(17,286)		(23,318)
<b>NET ETC REVENUE</b>				<b>\$ 6,323,902</b>		<b>\$ 1,579,026</b>		<b>\$ 26,471,306</b>		<b>\$ 6,452,656</b>

Note: \*Extra Axles and Non-Revenue not included in total volume amount.

(Continued)

## DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION

Schedule of Toll Revenue

For the Year Ended December 31, 2009

Class	Description	Rate	Portland-Columbia		Delaware Water Gap		Milford-Montage		TOTALS	
			ETC Volume	ETC Revenue	ETC Volume	ETC Revenue	ETC Volume	ETC Revenue	ETC Volume	ETC Revenue
01	Automobile	\$ 0.75	643,648	\$ 479,680	4,388,105	\$ 3,269,793	678,100	\$ 505,717	18,167,596	\$ 13,538,284
11	Auto with 1-Axle Trailer	1.50	1,936	2,894	14,583	21,824	2,897	4,337	42,581	63,692
12	Auto with 2-Axle Trailer	1.50	1,819	2,720	10,846	16,218	1,787	2,673	40,970	61,254
13	Auto with 3-Axle Trailer	1.50	8	12	311	466	8	12	747	1,119
15	Default	0.75	1	1	19	14	2	2	35	26
<b>AUTOMOBILE SUBTOTAL</b>			<b>647,412</b>	<b>485,306</b>	<b>4,413,864</b>	<b>3,308,315</b>	<b>682,794</b>	<b>512,740</b>	<b>18,251,929</b>	<b>13,664,374</b>
02	Comm'l 2-Axle Peak	5.00	17,796	88,825	79,107	394,882	13,731	68,531	487,278	2,432,352
02	Comm'l 2-Axle Off-Peak	4.50	1,682	7,548	13,074	58,727	950	4,260	55,971	251,380
03	Comm'l 3-Axle Peak	9.75	6,311	61,454	57,971	564,283	2,402	23,404	231,341	2,251,725
03	Comm'l 3-Axle Off Peak	8.78	270	2,367	13,516	118,471	129	1,132	38,867	340,597
04	Comm'l 4-Axle Peak	13.00	7,701	100,028	28,655	371,911	885	11,492	186,126	2,414,913
04	Comm'l 4-Axle Off Peak	11.70	440	5,146	13,191	154,040	99	1,158	58,213	679,872
05	Comm'l 5-Axle Peak	16.25	19,897	322,967	516,810	8,384,375	4,648	75,409	1,704,666	27,655,257
05	Comm'l 5-Axle Off Peak	14.63	2,310	33,758	177,268	2,588,931	911	13,301	561,342	8,198,079
06	Comm'l 6-Axle Peak	19.50	146	2,844	9,495	184,849	39	761	39,822	775,278
06	Comm'l 6-Axle Off Peak	17.55	7	123	5,643	98,861	8	140	20,062	351,488
07	Comm'l 7-Axle Peak	22.75	39	886	254	5,769	5	114	1,063	24,142
07	Comm'l 7-Axle Off Peak	20.48	-	-	15	307	2	41	179	3,645
<b>COMMERCIAL SUBTOTAL</b>			<b>56,599</b>	<b>625,946</b>	<b>914,999</b>	<b>12,925,405</b>	<b>23,809</b>	<b>199,741</b>	<b>3,384,930</b>	<b>45,378,728</b>
<b>EXIT VIOLATIONS</b>			<b>4,670</b>		<b>61,171</b>		<b>7,305</b>		<b>253,256</b>	<b>-</b>
<b>EXTRA AXLES SUBTOTAL*</b>			<b>3</b>	<b>10</b>	<b>383</b>	<b>1,186</b>	<b>16</b>		<b>835</b>	<b>2,540</b>
<b>GROSS ETC TOTALS</b>			<b>708,681</b>	<b>\$ 1,111,262</b>	<b>5,390,034</b>	<b>\$ 16,234,906</b>	<b>713,908</b>	<b>\$ 712,481</b>	<b>21,890,115</b>	<b>\$ 59,045,642</b>
Discounts, Allowances and Other Adjustments				(22,278)		(83,257)		(23,805)		(535,991)
ETC Account / Maintenance Fees				8,939		134,515		5,402		478,019
Commission Vehicles				(20,156)		(21,647)		(9,879)		(134,295)
<b>NET ETC REVENUE</b>				<b>\$ 1,077,768</b>		<b>\$ 16,264,518</b>		<b>\$ 684,199</b>		<b>\$ 58,853,374</b>

Note: \*Extra Axles and Non-Revenue not included in total volume amount.

**Delaware River Joint Toll Bridge Commission**  
Schedule of Operation Expenses  
For Year Ended December 31, 2009

Description	Total					
	Year Ended December 31					
	2008	2009	Trenton- Morrisville	New-Hope- Lambertville	I-78	Easton- Phillipsburg
Salaries and Wages	\$ 18,371,608	\$ 18,494,257	\$ 1,621,214	\$ 1,120,457	\$ 2,305,957	\$ 1,790,377
Employee Benefits	7,343,791	7,878,322	713,525	458,526	1,048,827	751,411
Other Post Employment Benefits	10,887,000	13,178,706	1,051,684	649,954	1,453,415	989,628
	36,602,399	39,551,285	3,386,423	2,228,938	4,808,198	3,531,417
Heat, Light, & Power	745,130	747,874	133,493	121,047	122,242	109,851
Office Expense	265,722	154,990	1,213	730	5,741	10,715
Information Technology & Communications	569,230	562,263	46,630	44,343	29,981	38,065
Travel, Meetings, & Education Expense	175,274	156,676	1,251	936	663	2,845
E-ZPass Operating and Maintenance	4,132,982	5,014,242	839,026	347,109	1,290,293	867,095
State Police Bridge Security	3,755,977	4,152,731	541,101	119,183	608,375	420,256
Operating and Maintenance Expenses	2,559,929	1,560,077	172,812	177,256	256,002	178,179
Insurance	3,460,969	3,030,443	292,257	229,494	550,730	213,839
Professional Service Fees	1,173,963	1,125,467	-	-	-	-
Advertising and Marketing	32,529	109,875	-	-	-	-
Depreciation	13,665,224	17,821,044	2,386,152	1,747,330	1,748,639	829,490
	30,536,929	34,435,684	4,413,934	2,787,428	4,612,668	2,670,335
Total Operation Expenses	\$ 67,139,328	\$ 73,986,969	\$ 7,800,357	\$ 5,016,366	\$ 9,420,866	\$ 6,201,752

(Continued)

**Delaware River Joint Toll Bridge Commission**  
Schedule of Operation Expenses  
For Year Ended December 31, 2009

Description	Portland-Columbia	Delaware Water Gap	Milford-Montague	Toll Supported Bridges	Administrative Expenses
Salaries and Wages	\$ 810,916	\$ 2,550,529	\$ 808,421	\$ 3,459,658	\$ 4,026,727
Employee Benefits	330,910	1,110,576	333,670	1,573,960	1,556,919
Other Post Employment Benefits	463,786	1,515,470	463,786	2,289,536	4,301,446
	1,605,611	5,176,575	1,605,877	7,323,154	9,885,092
Heat, Light, & Power	45,207	59,095	52,323	104,617	-
Office Expense	3,168	4,590	3,810	345	124,677
Information Technology & Communications	15,132	40,768	24,669	13,955	308,720
Travel, Meetings, & Education Expense	209	643	764	282	149,084
E-ZPass Operating and Maintenance	227,386	1,219,469	223,863	-	-
State Police Bridge Security	80,978	583,043	91,360	1,708,433	-
Operating and Maintenance Expenses	87,029	173,608	82,749	122,117	310,324
Insurance	136,518	406,464	101,562	966,729	132,851
Professional Service Fees	-	-	-	-	1,125,467
Advertising and Marketing	-	-	-	-	109,875
Depreciation	373,676	1,105,395	1,068,401	8,345,387	216,574
	969,303	3,593,076	1,649,502	11,261,865	2,477,573
Total Operation Expenses	\$ 2,574,915	\$ 8,769,651	\$ 3,255,379	\$ 18,585,019	\$ 12,362,665

33000

Schedule 3

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

Analysis of E-Zpass Receivable  
For the Year Ended December 31, 2009

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Balance January 1, 2009		\$ 4,557,594
Add:		
Gross E-Zpass Tolls	\$ 59,045,642	
E-ZPass Account Fees	49,495	
E-ZPass Maintenance Fees	428,524	
Delaware River Joint Toll Bridge Commission Vehicles	(134,295)	
Commuter Discounts	(620,074)	
E-ZPass Write Offs	(8,514)	
Toll Violations	(381,247)	
		<u>58,379,530</u>
		62,937,124
Less:		
Cash Received from Other Agencies	51,721,547	
Transfers from Customer Liability Accounts	5,507,890	
		<u>57,229,437</u>
Balance December 31, 2009		<u><u>\$ 5,707,687</u></u>

Schedule 4

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

Analysis of E-ZPass Customer Liability  
For the Year Ended December 31, 2009

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Balance January 1, 2009		\$ 3,826,724
Add:		
Receipts		<u>18,250,100</u>
		22,076,824
Less:		
Toll Revenue Earned	\$ 5,507,890	
Transfers to Other Agencies	12,813,660	
Refunds	37,441	
		<u>18,358,991</u>
Balance December 31, 2009		<u><u>\$ 3,717,833</u></u>



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Schedule 5

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

Analysis of Improvements in Progress  
For the Year Ended December 31, 2009

Balance January 1, 2009		\$	177,699,128
Add:			
Disbursed	\$	55,463,210	
Retainage Due Contractors		7,471,988	
Capitalized Interest on Bonds		<u>8,295,252</u>	
			<u>71,230,450</u>
			248,929,578
Less:			
Transferred to Completed			<u>146,286,926</u>
Balance December 31, 2009		\$	<u><u>102,642,652</u></u>

Schedule 6

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

Analysis of Plant, Property and Equipment  
For the Year Ended December 31, 2009

	<u>January 1, 2009</u>	<u>Additions</u>	<u>Deletions</u>	<u>December 31, 2009</u>
Land	\$ 129,888,166	\$ -	\$ -	\$ 129,888,166
Buildings and Improvements	17,498,846	136,209	-	17,635,055
Infrastructure	254,773,455	146,416,669	-	401,190,124
Vehicles & Equipment	29,842,490	1,142,174	513,999	30,470,665
	<u>432,002,957</u>	<u>147,695,052</u>	<u>513,999</u>	<u>579,184,010</u>
Less: Accumulated Depreciation	<u>198,148,869</u>	<u>17,821,044</u>	<u>513,999</u>	<u>215,455,914</u>
	<u>\$ 233,854,088</u>	<u>\$ 129,874,008</u>	<u>\$ ---</u>	<u>\$ 363,728,096</u>
Transferred from Construction in Progress		\$ 146,286,926		
Disbursed		<u>1,408,126</u>		
		<u><u>\$ 147,695,052</u></u>		

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Schedule 7

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

Proprietary Fund

Schedule of Investments

For the Year Ended December 31, 2009

<u>Face</u>	<u>Description</u>	<u>Coupon Rate</u>	<u>Date of Maturity</u>	<u>Amortized Cost</u>	<u>Fair Market Value</u>	<u>Rating S &amp; P</u>
<b>U.S. GOVERNMENT AGENCIES</b>						
\$10,000,000	Federal Home Loan Bank	0.000%	1/26/2010	\$ 9,909,750	\$ 9,916,000	AAA
10,000,000	Federal Home Loan Bank	0.000%	2/10/2010	9,902,461	9,913,239	AAA
2,000,000	Federal Home Loan Bank	0.000%	6/16/2010	1,988,862	1,992,627	AAA
3,000,000	Federal Home Loan Bank	0.000%	2/8/2010	2,999,865	2,999,928	AAA
4,000,000	Federal Home Loan Bank	0.000%	3/26/2010	3,966,587	3,974,027	AAA
5,000,000	Federal Home Loan Bank	2.375%	4/30/2010	5,012,300	5,036,725	AAA
5,000,000	Federal Home Loan Bank	3.000%	6/11/2010	5,005,000	5,061,725	AAA
10,000,000	Federal Home Loan Bank	2.750%	6/18/2010	10,152,000	10,117,200	AAA
6,000,000	Federal Home Loan Bank	0.500%	10/15/2010	6,000,000	5,998,140	AAA
3,000,000	Federal Home Loan Bank	1.750%	2/17/2011	2,999,250	3,005,206	AAA
7,000,000	Federal Home Loan Bank	1.750%	2/17/2011	6,996,500	7,010,394	AAA
5,000,000	Federal Home Loan Bank	1.375%	5/16/2011	5,005,500	5,037,500	AAA
4,000,000	Federal Home Loan Bank	1.550%	8/26/2011	3,999,000	4,020,620	AAA
5,800,000	Federal Home Loan Bank	0.000%	3/26/2010	5,751,551	5,762,339	AAA
7,000,000	Federal Home Loan Bank	0.000%	3/26/2010	6,941,527	6,954,547	AAA
5,000,000	Federal Home Loan Bank	0.500%	10/15/2010	5,000,000	4,998,450	AAA
600,000	Federal Home Loan Bank	0.000%	5/5/2010	599,583	599,653	AAA
10,000,000	Federal Home Loan Mortgage Corporation	0.000%	4/1/2010	9,996,306	9,996,806	AAA
5,500,000	Federal Home Loan Mortgage Corporation	0.000%	2/8/2010	5,492,343	5,493,968	AAA
10,000,000	Federal Home Loan Mortgage Corporation	2.875%	6/28/2010	9,979,150	10,127,600	AAA
2,500,000	Federal Home Loan Mortgage Corporation	3.250%	7/16/2010	2,497,150	2,529,763	AAA
7,500,000	Federal Home Loan Mortgage Corporation	3.250%	7/16/2010	7,538,978	7,637,437	AAA
7,500,000	Federal Home Loan Mortgage Corporation	1.750%	7/7/2011	7,500,000	7,500,750	AAA
3,000,000	Federal Home Loan Mortgage Corporation	1.550%	8/24/2011	2,999,700	3,004,980	AAA
600,000	Federal Home Loan Mortgage Corporation	0.000%	5/18/2010	599,520	599,645	AAA
10,000,000	Federal National Mortgage Association	0.000%	1/11/2010	9,928,989	9,931,128	AAA
11,000,000	Federal National Mortgage Association	3.100%	2/4/2010	11,007,370	11,027,500	AAA
6,000,000	Federal National Mortgage Association	0.000%	2/26/2010	5,946,300	5,954,700	AAA
10,000,000	Federal National Mortgage Association	0.000%	3/8/2010	9,998,183	9,998,283	AAA
7,000,000	Federal National Mortgage Association	0.000%	5/3/2010	6,964,598	6,973,896	AAA
9,000,000	Federal National Mortgage Association	0.000%	5/24/2010	8,969,850	8,978,220	AAA
3,000,000	Federal National Mortgage Association	0.000%	3/4/2010	2,999,475	2,999,485	AAA
10,000,000	Federal National Mortgage Association	0.000%	1/8/2010	9,915,203	9,916,933	AAA
2,000,000	Federal National Mortgage Association	0.000%	8/2/2010	1,990,167	1,993,283	AAA
7,000,000	Federal National Mortgage Association	3.250%	8/12/2010	6,995,940	7,125,790	AAA
5,000,000	Federal National Mortgage Association	1.875%	4/8/2011	5,000,000	5,015,650	AAA
7,500,000	Federal National Mortgage Association	2.750%	4/11/2011	7,410,975	7,689,863	AAA
5,000,000	Federal National Mortgage Association	1.375%	4/28/2011	5,025,400	5,039,075	AAA
5,000,000	Federal National Mortgage Association	1.300%	11/10/2011	4,997,500	4,991,400	AAA
5,828,000	Federal National Mortgage Association	0.000%	9/1/2010	5,811,390	5,813,284	AAA
\$ 3,900,000	Federal National Mortgage Association	0.000%	11/9/2010	3,888,847	3,887,729	AAA
<b>TOTAL U.S. GOVERNMENT AGENCIES</b>				<u>\$ 245,683,067</u>	<u>\$ 246,625,487</u>	

(Continued)

33000

Schedule 7

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

Proprietary Fund

Schedule of Investments

For the Year Ended December 31, 2009

<u>Face</u>	<u>Description</u>	<u>Coupon Rate</u>	<u>Date of Maturity</u>	<u>Amortized Cost</u>	<u>Fair Market Value</u>	<u>Rating S &amp; P</u>
<b>MUNICIPAL &amp; STATE OBLIGATIONS &amp; FUNDS</b>						
\$ 5,058,374	Pennsylvania Treasurer's INVEST Program	0.167%	1/1/2010	\$ 5,058,374	\$ 5,058,374	AAA
<b>TOTAL MUNICIPAL &amp; STATE OBLIGATIONS &amp; FUNDS</b>				<u>\$ 5,058,374</u>	<u>\$ 5,058,374</u>	
<b>U.S. GOVERNMENT BONDS AND NOTES</b>						
\$11,000,000	U.S. Treasury Bills	0.000%	2/11/2010	\$ 10,930,828	\$ 10,937,315	AAA
4,000,000	U.S. Treasury Bills	0.000%	2/11/2010	3,994,722	3,997,093	AAA
10,500,000	U.S. Treasury Bills	0.000%	7/29/2010	10,456,104	10,469,401	AAA
8,000,000	U.S. Treasury Bills	0.000%	10/21/2010	7,984,507	7,973,700	AAA
6,500,000	U.S. Treasury Bills	0.000%	1/14/2010	6,472,512	6,473,477	AAA
10,000,000	U.S. Treasury Bills	0.000%	5/6/2010	9,949,640	9,963,725	AAA
5,000,000	U.S. Treasury Bills	0.000%	10/21/2010	4,981,850	4,981,200	AAA
5,200,000	U.S. Treasury Bills	0.000%	9/23/2010	5,191,437	5,186,708	AAA
\$ 2,900,000	U.S. Treasury Bills	0.000%	5/20/2010	2,898,119	2,898,109	AAA
<b>TOTAL U.S. GOVERNMENT BONDS AND NOTES</b>				<u>\$ 62,859,720</u>	<u>\$ 62,880,727</u>	
<b>TOTAL INVESTMENTS</b>				<u><b>\$ 313,601,161</b></u>	<u><b>\$ 314,564,589</b></u>	

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

Schedule of Revenue Bonds

For the Year Ended December 31, 2009

	Date of Issue	Original Issue	Maturities		Rate	Balance January 1, 2009	Decreased	Balance December 31, 2009
			Date	Amount				
Series 2003	01/21/03	\$ 158,530,000	07/01/10	\$ 5,635,000	5.25%			
			07/01/11	5,930,000	5.25%			
			07/01/12	6,245,000	5.25%			
			07/01/13	6,580,000	5.25%			
			07/01/14	2,995,000	5.25%			
			07/01/15	3,145,000	5.25%			
			07/01/16	3,320,000	5.25%			
			07/01/17	3,490,000	5.25%			
			07/01/18	3,675,000	5.25%			
			07/01/21	5,610,000	5.00%			
			07/01/22	5,890,000	5.00%			
			07/01/23	6,185,000	5.00%			
			07/01/24	6,495,000	5.00%			
			07/01/25	6,815,000	5.00%			
			07/01/26	7,160,000	5.00%			
			07/01/27	7,520,000	5.00%			
			07/01/28	7,895,000	5.00%			
			\$ 94,585,000		\$	99,955,000	\$ 5,370,000	\$ 94,585,000
Series 2005	03/23/05	\$ 72,645,000	07/01/10	\$ 1,045,000	5.00%			
			07/01/11	1,095,000	5.00%			
			07/01/12	1,150,000	5.00%			
			07/01/13	1,210,000	5.00%			
			07/01/14	5,000,000	5.50%			
			07/01/15	5,220,000	5.50%			
			07/01/16	1,415,000	5.25%			
			07/01/16	4,125,000	5.50%			

(Continued)

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

Schedule of Revenue Bonds

For the Year Ended December 31, 2009

	Date of Issue	Original Issue	Maturities		Rate	Balance January 1, 2009	Decreased	Balance December 31, 2009		
			Date	Amount						
Series 2005 (Cont'd)	03/23/05	\$ 72,645,000	07/01/17	\$ 4,350,000	5.50%					
			07/01/17	1,485,000	5.25%					
			07/01/18	4,590,000	5.50%					
			07/01/18	1,565,000	5.25%					
			07/01/19	4,835,000	5.50%					
			07/01/19	1,645,000	5.25%					
			07/01/20	5,105,000	5.50%					
			07/01/20	1,735,000	5.25%					
			07/01/21	1,825,000	5.25%					
			07/01/22	1,920,000	5.25%					
			07/01/23	2,020,000	5.25%					
			07/01/24	2,125,000	5.00%					
			07/01/25	2,235,000	5.00%					
			07/01/26	2,345,000	4.50%					
07/01/27	2,450,000	4.50%								
07/01/28	2,560,000	4.50%								
07/01/29	2,675,000	4.50%								
07/01/30	2,795,000	4.50%								
			\$ 68,520,000		\$	69,525,000	\$	1,005,000	\$	68,520,000
Series 2007 A	07/19/07	\$ 134,170,000	07/01/10	\$ 1,410,000	4.25%					
			07/01/11	1,545,000	4.25%					
			07/01/12	1,670,000	4.25%					
			07/01/13	1,660,000	4.25%					
			07/01/14	1,450,000	5.00%					
			07/01/15	1,920,000	5.00%					
			07/01/16	1,760,000	5.00%					

(Continued)

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

Schedule of Revenue Bonds

For the Year Ended December 31, 2009

	Date of Issue	Original Issue	Maturities		Rate	Balance January 1, 2009	Decreased	Balance December 31, 2009			
			Date	Amount							
Series 2007 A (Cont'd)	07/19/07	\$ 134,170,000	07/01/17	\$ 2,000,000	5.00%						
			07/01/18	2,010,000	5.00%						
			07/01/19	2,135,000	5.00%						
			07/01/20	2,275,000	5.00%						
			07/01/21	2,260,000	5.00%						
			07/01/22	2,400,000	5.00%						
			07/01/23	2,490,000	5.00%						
			07/01/24	2,640,000	5.00%						
			07/01/25	2,710,000	5.00%						
			07/01/26	2,855,000	5.00%						
			07/01/27	2,925,000	5.00%						
			07/01/28	3,050,000	5.00%						
			07/01/29	3,200,000	5.00%						
			07/01/30	3,375,000	5.00%						
			07/01/31	3,475,000	5.00%						
			07/01/32	3,595,000	5.00%						
			07/01/33	14,000,000	5.00%						
07/01/34	14,700,000	5.00%									
07/01/35	15,435,000	5.00%									
07/01/36	16,205,000	4.50%									
07/01/37	16,935,000	4.50%									
						\$	133,700,000	\$	1,615,000	\$	132,085,000
Series 2007 B	07/19/07	\$ 150,000,000	07/01/10	\$ 3,650,000	Variable						
			07/01/11	3,850,000	Variable						
			07/01/12	3,950,000	Variable						
			07/01/13	4,200,000	Variable						

(Continued)

## Schedule of Revenue Bonds

For the Year Ended December 31, 2009

[illegible]

**APPRECIATION**

I express my appreciation for the courtesies extended and assistance rendered to me during the course of this audit.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Stephen E. Ryan", with a stylized flourish at the end.

Stephen E. Ryan  
Certified Public Accountant  
Registered Municipal Accountant





**Delaware River  
Joint Toll Bridge  
Commission**

*Preserving Our Past, Enhancing Our Future*

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# **2009 TOLL BRIDGE ANNUAL INSPECTION REPORT**

## **JANUARY 2010**



### **TOLL BRIDGES**

Trenton-Morrisville	Portland-Columbia
New Hope-Lambertville	Delaware Water Gap
Interstate 78	Milford-Montague
Easton-Phillipsburg	

### **TOLL-SUPPORTED BRIDGES**

Lower Trenton	Uhlerstown-Frenchtown
Calhoun Street	Upper Black Eddy-Milford
Scudder Falls	Riegelsville
Washington Crossing	Northampton Street
New Hope-Lambertville	Riverton-Belvidere
Centre Bridge-Stockton	Portland-Columbia
Lumberville-Raven Rock	

Prepared by

**Tran** Systems

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January 18, 2010

Mr. Frank G. McCartney  
Executive Director  
Delaware River Joint Toll Bridge Commission  
2492 River Road  
New Hope, PA 18938-9519

**RE: DRJTBC Contract No. C-09-02A; Capital Project 0814A  
General Engineering Consultant – 2009 Annual Inspections  
2009 Toll Bridge Facility Inspections – Annual Inspection Report  
Our Project Number 708090016**

Dear Mr. McCartney:

It is with great pleasure that we are submitting the Consulting Engineer's Seventy-Second Annual Inspection Report (2009 Toll Bridge Inspections) for the Commission's following facilities:

- A. The Seven (7) Toll Bridges
- B. The Thirteen (13) Toll-Supported (Non-Toll) Bridges
- C. The Thirty-Six (36) approach bridges and roadways serving the above bridges
- D. The Commission's buildings and grounds
- E. The Commission's vehicles and equipment

This Annual Inspection Report summarizes our findings and recommendations based upon the 2009 inspection of the Toll Bridge Facilities. An update of the 2008 inspection of the Toll-Supported Facilities was completed to indicate any material changes in the conclusion and recommendation report sections. All facilities are in operating condition.

The Thirteenth Annual Maintenance Report which defines activities to be undertaken by the Commission's maintenance staff is published separately.

The report identifies certain ongoing capital projects and their estimated costs for 2010 and 2011. The estimated expenditure for capital projects in 2010 is \$105,885,000. In addition, an estimated expenditure of \$989,000 is recommended for new vehicle and equipment purchases in 2010. Therefore, the total amount of ongoing capital projects and vehicle and equipment expenditures in 2010 is estimated to be \$106,874,000. The estimated expenditure for ongoing capital projects and vehicle and equipment expenditures for 2011 is \$149,283,000.

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I, William Clark, P.E., do hereby certify to the best of my knowledge, information, and belief that the information contained in the accompanying inspection report has been prepared in accordance with accepted engineering practice. This inspection and report conform to applicable requirements, criteria, guidelines, and standards as stated in the "Bridge Inspectors Reference Manual", FHWA NHI 03-001 – 2002, "Inspection of Fracture Critical Bridge Members" – 1986, as published by FHWA and the AASHTO "Manual for Condition Evaluation of Bridges" – 1994, including all interims and is true and correct at the time of the inspection. This report has been reviewed using appropriate Quality Assurance guidelines in accordance with generally accepted engineering practice.

It has been a pleasure to serve the Commission. Please contact us if you require any additional information.

Very truly yours,

**TranSystems Corporation**

A handwritten signature in dark ink, appearing to read "William Clark".

William Clark, P.E.  
Project Manager/Associate

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# **DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

## **MEMBERS OF THE COMMISSION**

### **NEW JERSEY**

HONORABLE DAVID R. DEGEROLAMO  
**Chairman**

HONORABLE DONALD HART

HONORABLE HARRY ZIKAS, JR.

HONORABLE WILLIAM J. HODAS  
**Secretary - Treasurer**

HONORABLE YUKI MOORE LAURENTI

### **PENNSYLVANIA**

HONORABLE GAETAN J. ALFANO  
**Vice Chairman**

HONORABLE MELISSA HELLER

HONORABLE JAMES L. BROUGHAL

HONORABLE BERNARD A. GRIGGS, JR.

HONORABLE JOHN PREVOZNIK

# **DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

## **PROFESSIONAL ASSOCIATES**

### **CONSULTING ENGINEERS**

TRANSSYSTEMS  
Paramus, New Jersey

### **LEGAL COUNSEL**

FOX ROTHSCHILD, LLP  
Philadelphia, Pennsylvania

FLORIO, PERRUCCI, STEINHARDT & FADER  
Phillipsburg, New Jersey

### **EMPLOYMENT COUNSEL**

STRADLEY, RONON, STEVENS & YOUNG  
Philadelphia, Pennsylvania

WOLFF & SAMSON  
West Orange, New Jersey

### **AUDITORS**

MERCADIEN  
Princeton, New Jersey

### **FINANCIAL ADVISOR**

NW FINANCIAL GROUP  
Jersey City, New Jersey

### **COMMUNICATIONS CONSULTANT**

BELLEVUE COMMUNICATIONS  
Philadelphia, Pennsylvania

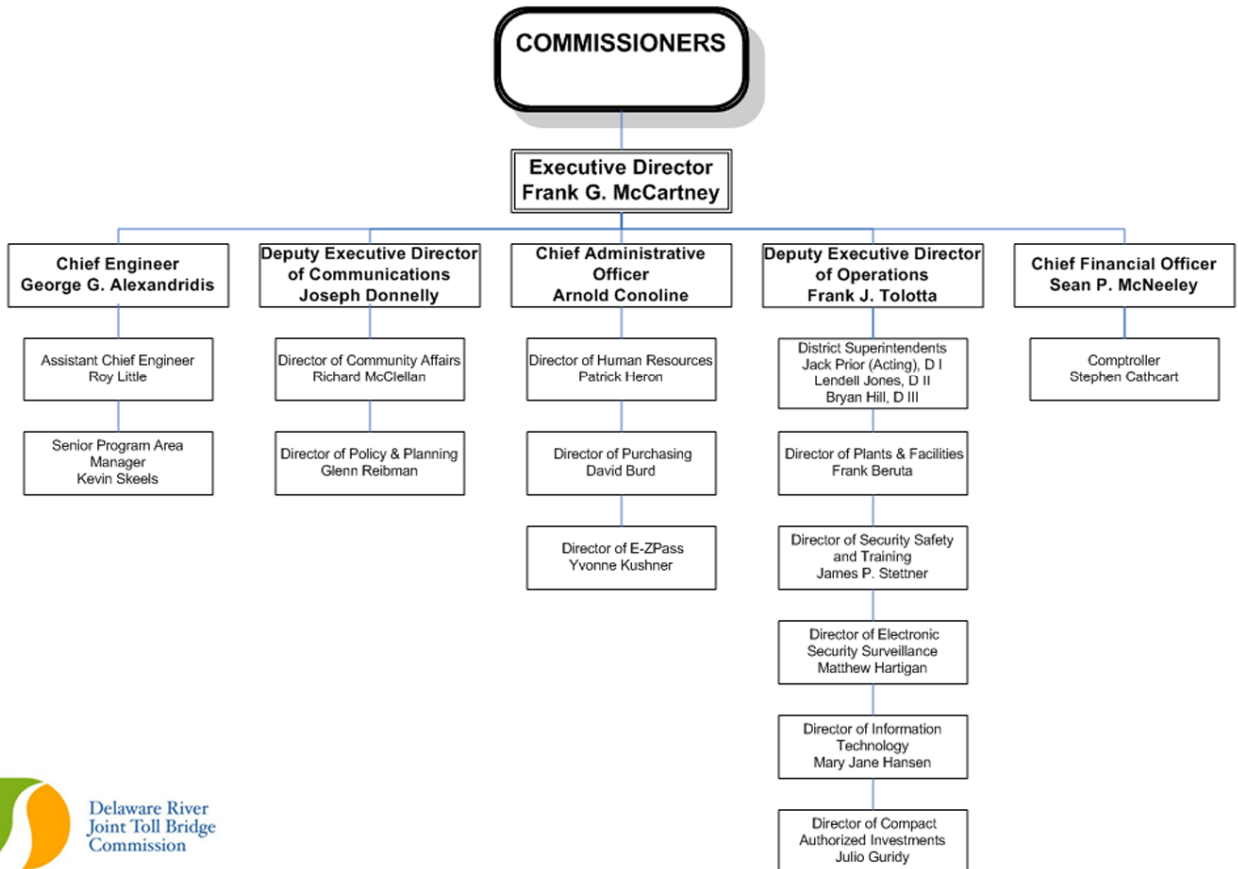
### **INVESTMENT ADVISOR**

TD BANK  
Philadelphia, Pennsylvania

## COMMISSION STAFF

### DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION

ORGANIZATION CHART  
DECEMBER 2009



Delaware River  
Joint Toll Bridge  
Commission

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## INTRODUCTION

In accordance with Federal Highway Administration (FHWA) regulations, all bridges must be inspected at least once every two (2) years, more often if warranted, due to condition. Under Section 705 of the Commission's Bridge System Revenue Bonds, Series 2007, all bridges and toll facilities are to be inspected once every two (2) years. The Commission will inspect its Toll-Supported Bridges in even years (2008, 2010, etc.) and the Toll Bridges in odd years (2009, 2011, etc.). The associated facilities and grounds will be inspected in the year the bridge is inspected.

This Seventy-second Annual Inspection Report of bridges and facilities owned and operated by the Delaware River Joint Toll Bridge Commission contains the findings of the 2009 inspections of the Toll Bridges. This year's inspections consisted of seven (7) Toll Bridges and any accompanying facilities and approach structures. The conclusions and recommendations concerning the Toll-Supported Bridges are based on the 2008 inspections. Any changes to the 2008 conclusions or recommendations for the Toll-Supported Bridges are indicated by text that is ***bold and italicized***. The inspection findings shown for the Toll-Supported Bridges is for informational purposes.

Commission District foremen and maintenance personnel provided our inspection crew with support services and access equipment necessary for performing the inspections. Several maintenance personnel also assisted in providing a valuable 'walk through' of the bridges, prior to beginning the inspections, highlighting the major areas of concern and any previous work done on the structure.

The equipment used to access the majority of the bridges (underdeck) consisted of various length ladders, Commission owned lift trucks, an under-bridge unit called The Bridgemaster and rigging.

The following report highlights the significant findings observed during the inspections, including recommended measures of repairing or improving noted deficiencies, either by Commission maintenance forces or by a future contract. This report, however, does not discuss routine preventative maintenance items regularly performed by Maintenance forces. Any maintenance force level deficiencies which have been identified during the annual inspection can be found in the *Thirteenth Annual Maintenance Report*, published under a separate cover, which has been prepared to expedite communication of repair work to the maintenance staff. In general these maintenance tasks include, but are not limited to, the following:

- Removal of accumulated debris from the deck, deck joints, inlets, catch basins, and drainage pipes
- Annual cleaning of structures (bridge flushing)
- Monitoring and repair of lighting and electrical work
- Removal of vegetation from substructures
- Removal of graffiti from bridges and retaining walls
- Patching concrete spalls and asphalt potholes
- Sealing roadway and bridge deck cracks
- Localized cleaning and painting of rusted steel/bearings
- Deck joint rehabilitation
- Guide rail repairs
- Miscellaneous steel repairs

A consistent numbering system was used to identify the bridge spans. Span numbering generally begins at the westernmost location of the bridge and increases to the east. However, a specific numbering system was not utilized for the individual structural members. The locations for individual members (stringers, floorbeams, etc.) are referenced by their relationship to known fixed points, such as bridge fascias and piers.

**Several capital improvement projects were completed since the inception of the Program in 2001. Among these projects are the following:**

PROJECTS COMPLETED 2001 - 2009 (> \$25,000)	PROGRAM COST
Trenton - Morrisville TB Rehab + One Aux. NB Lane	\$ 104,490,813
I-78 Roadway Rehabilitation	\$ 50,931,906
Electronic Surveillance/Detection System	\$ 21,783,695
Milford - Montague TB Rehabilitation	\$ 19,077,696
E-ZPass Implementation	\$ 18,023,146
Centre Bridge - Stockton TSB Rehabilitation	\$ 9,730,805
New Hope - Lambertville TB Plaza & Bridge Rehab	\$ 9,671,373
Riverton - Belvidere TSB Rehabilitation	\$ 9,280,815
New Hope - Lambertville TSB Rehabilitation	\$ 7,700,991
Northampton Street Bridge Rehabilitation	\$ 7,364,066
Uhlerstown - Frenchtown TSB Rehabilitation	\$ 5,779,187
New Hope - Lambertville TB Administration Building Additions & Renovations	\$ 5,776,994
Power Upgrades - All facilities+Struct Wiring+Telephone	\$ 4,760,754
Cleaning & Painting of the Lower Trenton TSB & Sign Replacement	\$ 4,567,205
New Hope - Lambertville TB - Floorbeam Bracket Improvements	\$ 3,714,510
Easton - Phillipsburg TB Sign Structure Replacements, Repair & Signage Upgrades	\$ 2,681,981
Easton - Phillipsburg TB Sidewalk Replacement	\$ 1,705,247
Scudder Falls TSB Deck Joint Replacement	\$ 1,446,418
High Priority Structural Steel Repairs at the SFTSB	\$ 968,625
I-78 Expansion Dam Replacement	\$ 867,788
District 3 Roof Replacements	\$ 781,634
Emergency and Priority Repair Contract (all Bridges) - T/TS 389	\$ 749,233
New Hope - Lambertville TB Terne Roof Replacement	\$ 685,101
Milford - Montague TB Water Supply Upgrade	\$ 657,289
Northerly Corridor Congestion Mitigation Study	\$ 647,376
Easton - Phillipsburg TB Replace Roof System on Admin Bldg and Garage	\$ 599,782
I-80 NJ Repaving (NJDOT)	\$ 581,442
Riegelsville TSB End Floorbeam Bearings	\$ 565,563
Southerly Crossing Corridor Study	\$ 544,643
Easton - Phillipsburg Pavement of Bridge Approaches (PennDOT)	\$ 517,090
Interstate 78 Salt Storage Bldg	\$ 485,681
Substructure & Scour Remediation	\$ 482,299
Trenton - Morrisville TB Adm. Bldg. Elevator Modernization Phase II	\$ 451,795

Calhoun Street TSB Interim Repair Contract (Structural Steel Repairs)	\$	445,913
Washington Crossing TSB Deck Joint Replacement @ Pier 1,2,4 & 5	\$	407,885
Phase 1 Delaware Water Gap TB ORT Study	\$	405,011
Emergency and Priority Repair Contract (all Bridges) -I-80/NHTSB	\$	367,116
Portland - Columbia TSB Handicap Accessible Ramp	\$	305,656
Portland - Columbia TSB Deck Repairs and Drainage Modifications	\$	290,998
2008 Long Term Traffic Projections	\$	249,998
I-80 NJ Service Road Repair & Repaving	\$	239,885
Replace Overhead Sign on I-80 (by NJDOT)	\$	230,309
Northampton Street TSB Inspection/Access Cable/Lifeline	\$	222,044
Furnishings and Equipment for New Hope Addition and Renovation	\$	207,389
Alternative Analysis Study - Additional Capacity at Calhoun Street	\$	200,343
Wide Area Network (WAN)	\$	192,957
Interstate 78 Roadway Restriping	\$	184,898
Emergency Management Studies (Phase 1 & 2)	\$	184,000
Riegelsville TSB Pier Apron Repair	\$	166,755
New Hope - Lambertville TSB Emergency Sidewalk Repair	\$	156,083
I-95/Scudder Falls TSB Bridge Lighting Upgrade	\$	126,131
NJDEP & PADEP Municipal Stormwater Regulation Compliance at Toll Facilities	\$	122,971
Trenton - Morrisville TB Administration Building Elevator Upgrade Phase 1	\$	106,455
I-95/Scudder Falls TSB Guiderail Replacement (By NJDOT)	\$	103,000
Portland - Columbia Pedestrian Bridge, PA Approach Vehicle Access	\$	82,163
Construction Safety Audit	\$	79,022
5 Projects (fall below threshold to be included in this list)	\$	67,245
Delaware Water Gap (I-80) Impact Attenuators Design (see 438, Constr. Cost included in 440)	\$	64,092
Trenton - Morrisville Admin Building Space Plan	\$	56,544
Community Involvement Guidelines	\$	52,264
Milford - Montague TB Impact Attenuators Design, see 438 (Constr. cost incl. in 430)	\$	32,046
Portland - Columbia TB Impact Attenuators Design, see 438 (Constr. cost incl. in 441)	\$	27,116
<b>TOTAL</b>	<b>\$</b>	<b>303,449,232</b>

**The capital improvement projects shown below are underway and are either being developed, studied, designed, or constructed:**

<b>PROJECTS UNDERWAY ( &gt; \$25,000)</b>	<b>PROGRAM COST</b>
I-95/Scudder Falls Improvement Project	\$ 308,570,010
Compact Authorized Investments (CAI)	\$ 45,945,000
E-P TB Rehabilitation	\$ 28,123,923
I-80/Delaware Water Gap Toll Bridge Rehabilitation	\$ 16,419,594
Calhoun Street TSB Rehabilitation	\$ 11,453,480
District 1, 2 & 3 Substructure & Scour Remediation	\$ 11,214,312

I-78 Open Road Tolling (ORT) Lanes	\$	10,285,128
Upper Black Eddy - Milford TSB Rehabilitation	\$	8,944,227
In-Lane System Integrator	\$	7,130,096
I-80/Delaware Water Gap Toll Bridge Open Road Tolling	\$	7,093,637
Riegelsville TSB Rehabilitation	\$	6,300,000
Phase 1 Rehabilitation & Concept Study for the Washington Crossing TSB	\$	3,425,547
DWG Maintenance Garage Improvements	\$	2,960,104
Portland - Columbia TB Facility Improvements	\$	2,129,900
New Hope - Lambertville TB PA Roadway Repaving, PA Outfall and NJ Route 29 Overpass Bearing Seat Replacement	\$	2,060,000
Compact Authorized Investment Consultants	\$	2,000,000
TM Buildings HVAC Upgrade	\$	1,668,978
Facility Stormwater & Drain Investigations	\$	1,640,000
Financial Management System	\$	1,380,180
Riverton - Belvidere TSB Water Street Repaving & Improvements	\$	1,287,500
E-ZPass Customer Service Center / Violations Processing Center	\$	1,054,827
NH-L TB Equipment and Salt Storage Building Replacement	\$	958,750
Fire Protection Systems at All Critical Equipment Spaces	\$	741,327
E-ZPass ETC Technical Consultant	\$	500,000
Electronic Surveillance/Detection System (ESS) Technical Consultant	\$	500,000
IT Network Systems & Telephone Upgrades	\$	412,485
New Hope - Lambertville TB Electrical Improvements	\$	312,258
Radio System Enhancements	\$	200,000
Trenton - Morrisville TB Buildings Roof Replacement	\$	181,806
Traffic Count Program Upgrade	\$	172,500
IT Digital Paperless Project	\$	150,000
Easton - Phillipsburg Aboveground Storage Tank Diesel Fuel Storage Tank Replacement	\$	109,240
Reimbursement Agmt for Northampton Street TSB PA Shelter Sewer System Connection	\$	30,000
<b>TOTAL</b>	<b>\$</b>	<b>485,354,810</b>

**FUTURE PROJECTS****PROGRAM COST**

<b>27 FUTURE PROJECTS</b>	<b>\$</b>	<b>286,750,864</b>
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**VEHICLES & EQUIPMENT, LABOR AND UNPLANNED PROJECTS (2001-2019)****PROGRAM COST**

Vehicles & Equipment	\$	24,434,896
Capitalized Capital Prgm Mgmt Consultant Expenditures	\$	16,407,914
Capitalized Engineering Department Labor	\$	12,117,518
Unplanned Projects (all bridges)	\$	12,034,955
<b>TOTAL</b>	<b>\$</b>	<b>64,995,284</b>



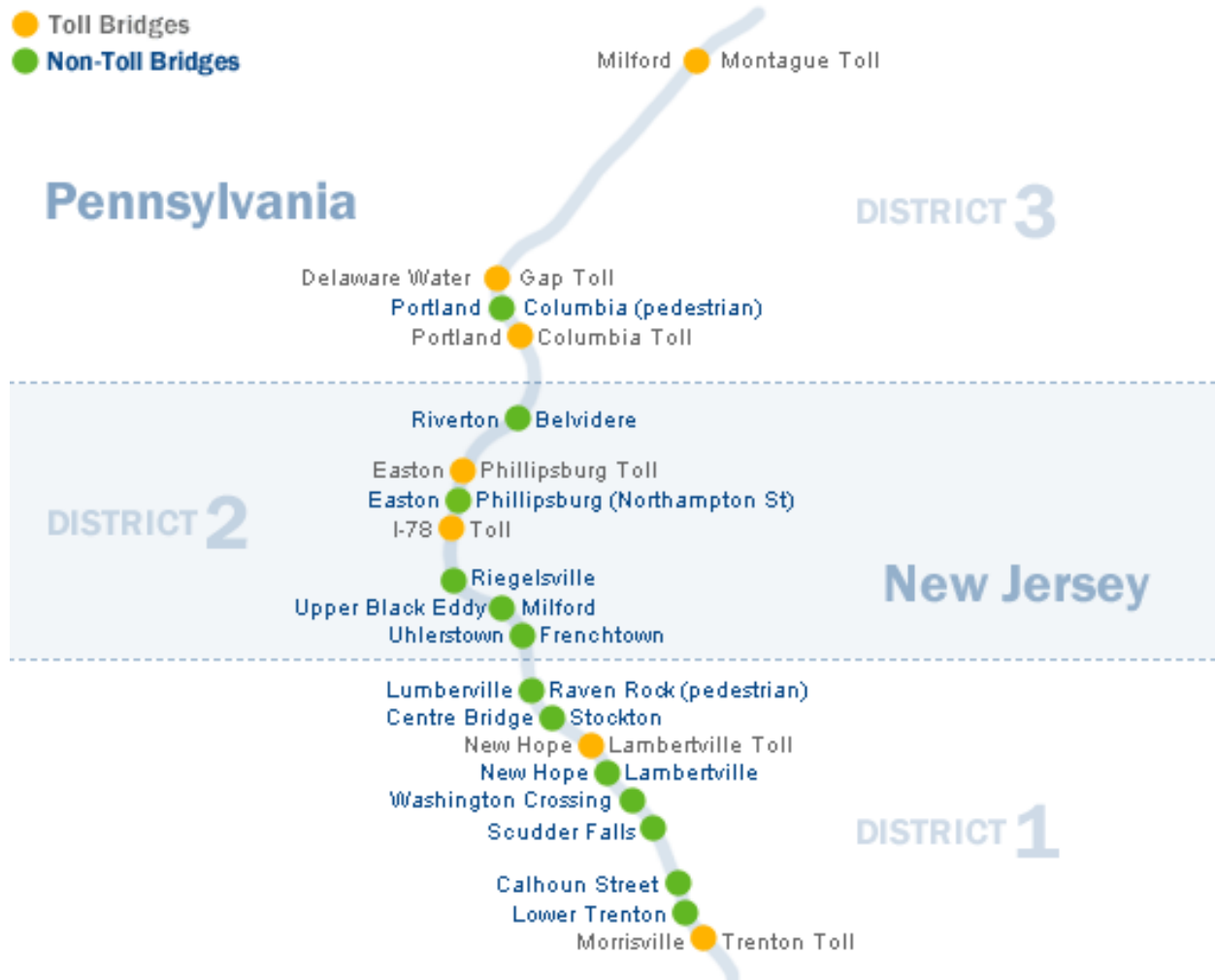
In 2000 the Commission adopted a “fix it right” philosophy for its Capital Program as compared to the previous “fix what’s broken” approach. The “fix it right” approach is based on the premise that whenever a project requires a bridge closure for implementation, that project must be designed so that no additional repair projects requiring a closure will be necessary for a subsequent period of at least 15 years. The estimated costs of the recommended improvements included in this report account for all costs of design, construction, construction management and inspection, and contract administration, are consistent with the Commission’s “fix it right” approach. It is also noted that the general findings and estimated repair costs developed from the 2006 Underwater Inspection Report, have been included in this report.

The format of the cost sheets for the 2009 Annual Inspection Report reflects the estimated cost of recommended improvements funded by the General Reserve in 2010 and 2011. Cost sheets for the Toll-Supported Bridges have been updated to reflect anticipated costs in 2010 and 2011. In addition the cost sheets provide the total program cost of the projects (Design, CMCI and Construction). The total in each section does not include the cost of completed projects.

The following report will summarize significant findings, recommendations, and associated estimated costs at the end of each section for each structure. Following the main reports are the recommendations for equipment and vehicle inspections and their associated repair/replacement costs. Finally, the Schedule of Insurance is provided towards the end of this report.

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## KEY SHEET



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***COMMISSION INITIATIVES  
AND SYSTEM-WIDE PROJECTS***

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

In addition to addressing the findings of the 2009 annual inspection, the Commission has instituted in its Capital Program a number of "Commission Initiatives and System-Wide Projects". These initiatives increase the safety and security of patrons, increase the Commission's responsiveness to emergencies, identify needed future capacity improvements, and allow for increased control of projects and equipment.

The following is a partial listing of Commission Initiatives and System-Wide Projects that have begun or will begin in the near future:

### COMMISSION INITIATIVES & SYSTEM-WIDE PROJECTS

Project Description	* Program Cost	General Reserve Fund	
		2010	2011
<b><u>Electronic Surveillance/Detection System</u></b>	\$21,784,000	\$1,581,000	\$0
This project involves the planning, design, installation and maintenance of an electronic surveillance and detection system to provide for the security of the Commission's bridges, roadways, toll plazas, and support facilities. The program will also include upgrades to the Commission's existing radio communications system. A consulting firm will be responsible for program management including the administration, planning, development, and coordination of the implementation of an electronic system designed to deter and detect impacts of threats to Commission assets. The project was completed in 2009, but final payment will be made in 2010.			
<b><u>Compact Authorized Investments</u></b>	\$45,946,000	\$15,099,000	\$0
<b><u>Compact Authorized Investment Consultants</u></b>	\$2,001,000	\$617,000	\$0
In order to maintain and enhance the bridge infrastructure the Commission has programmed projects to include Compact Authorized Expenditures for host community transportation infrastructure improvements. These expenditures will be geared toward improving throughout at the Commission's facilities. This initiative is currently ongoing.			
<b><u>Capitalized Engineering Department Labor</u></b>	\$12,118,000	\$800,000	\$830,000
This Commission initiative will track the in-house engineering department's efforts on all capital projects. The total programmed amount is shown as well as the expected expenditures in the next two years. All capitalized labor is then removed from the Commission's Operating Budget.			
<b><u>Capitalized Capital Prgm Mgmt Consultant Expenditures</u></b>	\$16,408,000	\$2,421,000	\$1,764,000
The Capital Program Management Consultant has enabled the Commission to continue to move the Capital Program forward by managing design, construction and construction management contracts associated with the capital program. Additional project managers have been provided under this contract and this cost is being tracked as a capital expense.			

\* Note: The Program Cost includes the costs from 2001 to 2019.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### COMMISSION INITIATIVES & SYSTEM-WIDE PROJECTS

Project Description	* Program Cost	General Reserve Fund	
		2010	2011
<b><u>IT Network Systems &amp; Telephone Upgrades</u></b> This project involves the installation and maintenance of improvements, including switches and routers, to the Commission's Information Technology (IT) and Telephone systems in order to enhance the quality, security and reliability of the facility and inter-facility communications.	\$413,000	\$120,000	\$0
<b><u>IT Digital Paperless Project</u></b> This project will meet the commissions green initiative. completed project implementation will provide access to electronic documents. project will organize a filing system for scanned documents (blue prints, drawings, contract, PO's etc.) providing quick access and organized systems for ease of location. Included will be upgrades to our printer/scanner equipment and make use of our SAN ARRAY storage at NH/L -TM facility.	\$150,000	\$150,000	\$0
<b><u>Traffic Count Program Upgrade</u></b> The work includes the development and installation of new telemetry software to communicate to the existing traffic count stations located at all vehicular Toll Supported Bridges and the free direction of all Toll Bridges. The installation of a new database program to manage the traffic data is also included in this effort. Also included is the replacement of the traffic counters and modems.	\$173,000	\$173,000	\$0
<b><u>E-ZPass Toll Lanes Treadle Frame Replacement at Toll Bridges</u></b> The project includes the replacement of the treadle frames that are part of the ETC System. This work must be completed by the Commission's In-Lane Toll System DBM provider since the treadles are part of an overall electronic toll collection system. This work includes the replacement of 21 treadle frames (4 at NH-L, 4 at I-78, 5 at E-P, 3 at P-C, and 5 at DWG).	\$1,680,000	\$903,000	\$777,000

\* Note: The Program Cost includes the costs from 2001 to 2019.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### COMMISSION INITIATIVES & SYSTEM-WIDE PROJECTS

Project Description	* Program Cost	General Reserve Fund	
		2010	2011
<b><u>E-ZPass In-Lane System Integration DBM (CAPITAL COSTS ONLY)</u></b>	\$7,131,000	\$3,190,000	\$0
<p>The existing toll lanes are comprised of automatic lanes, manual/attended lanes and dedicated Electronic Toll Collection (ETC) lanes. The current toll collection system has no Violation Enforcement System (VES) and all enforcement is performed via manual means, toll gates.</p> <p>As part of the toll collection system expansion, the Commission will implement a two (2) lane Open Road Tolling (ORT) system at the I-78 Toll Bridge, one (1) lane ORT system at the DWG Toll Bridge, and also equip the existing conventional lanes with VES. In addition to the installation of the ORT and VES at the I-78 Toll Bridge, the Commission intends to install VES at the remaining six (6) toll bridges. Included in this project is the design, build and maintenance of the ORT, VES and the maintenance of the existing ETC system.</p>			
<b><u>E-ZPass Customer Service Center / Violation Processing Center (CSC/VPC)</u></b>	\$1,055,000	\$227,000	\$0
<p>As part of the Commission's toll collection system expansion, the Commission plans to implement an ORT system and to equip numerous conventional lanes with VES. This project includes the CSC/VPC design, development, installation, integration and testing. This project also includes the replacement of the existing CSC with a new CSC that also provides violation processing capability. The CSC/VPC System shall interface with the existing ETC system, the ORT system and the VES system to obtain transaction data and violation images to post transactions and pursue toll evaders.</p>			
<b><u>District 1, 2 &amp; 3 Substructure &amp; Scour Remediation</u></b>	\$11,215,000	\$4,652,000	\$6,080,000
<p>The need for the proposed scour remediation and substructure repair work stems from the findings of the 2005 &amp; 2006 underwater inspections. The Concept Study includes In-Depth inspections of each bridge substructure to determine appropriate repairs. The results of the Concept Study will be used to develop the PS&amp;Es needed to perform the repairs in 2010. This project will include riprap placement, spall patching, crack sealing, masonry repairs, debris removal, pier and apron repairs.</p>			

\* Note: The Program Cost includes the costs from 2001 to 2019.



## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### COMMISSION INITIATIVES & SYSTEM-WIDE PROJECTS

Project Description	* Program Cost	General Reserve Fund	
		2010	2011
<b><u>Intelligent Transportation Systems (ITS) Improvement Study</u></b>	\$597,000	\$0	\$597,000
<p>The Commission proposes to implement Intelligent Transportation System (ITS) improvements to monitor real-time traffic conditions and disseminate traveler information at the Trenton-Morrisville, Easton-Phillipsburg, I-78 and Delaware Water Gap Toll Bridge Facility and the I-95 Scudder Falls Bridge. Dissemination of information could improve travel time and safety during recurring and non-recurring congestion. ITS efforts could include deploying incident detection/management devices using roadway sensors for vehicle and incident detection. Incident verification/management using CCTV can be accomplished by deploying cameras at each facility. Dissemination of real-time traveler information can be accomplished through kiosks at major traffic generators / rest stops / visitor centers, as well as DMS/HAR installed along the roadway prior to major decision points that will allow motorists to use alternative routes.</p>			
<b><u>Fire Protection Systems at All Critical Equipment Spaces</u></b>	\$742,000	\$397,000	\$345,000
<p>The Commission has planned the design and installation of fire protection/suppression systems in the communication equipment rooms at all of the Commission's Administration Buildings.</p>			
<b><u>Asset Management System Enhancements</u></b>	\$317,000	\$0	\$156,000
<p>Maintenance Management Tracking and Bridge Management modules to be developed for the asset management system. As part of the ESS project, the Commission has purchased the software modules from Cartegraph. These include maintenance management and bridge management modules. The purpose of this project is to populate these modules with historic data and update them as needed to provide maintenance with a means of tracking their activities and the engineering department with a means to track bridge management data.</p>			
<b><u>Financial Management System</u></b>	\$1,381,000	\$733,000	\$0
<p>The Commission proposes to address the increasing scale of expenditures and complexity of the Capital Improvement Program and improve enterprise resource management by upgrading from the existing accounting system and implementing a comprehensive financial management system. The Commission will assess needs and implement a solution that addresses some or all of the following areas: accounting, general ledger, accounts payable, project accounting, capital program tracking and analysis, budgeting, cash management, and purchasing.</p>			

\* Note: The Program Cost includes the costs from 2001 to 2019.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### COMMISSION INITIATIVES & SYSTEM-WIDE PROJECTS

Project Description	* Program Cost	General Reserve Fund	
		2010	2011
<b><u>Broadband Communications System</u></b>	\$10,756,000	\$710,000	\$5,829,000
<p>The goal of the development of a Broadband Communication System is to reduce the Commission's dependency upon leased line services as the primary communication infrastructure supporting electronic toll collection, electronic surveillance / detection system, wide area network, telecommunications, etc. Through the use of a Commission owned and operated hybrid communication network consisting of but not limited to current wireless technologies and hardwire infrastructure, a Broadband Communication System could allow for substantial reductions in the need for leased line services and the recurring operating costs associated with the same as well as provide for increased capacity.</p>			
<b><u>District 1 Bridge Repairs</u></b>	\$5,648,000	\$1,390,000	\$1,152,000
<p>Various improvements to be done throughout District 1 that may not be large enough to warrant their own contract or that have been removed from current projects. The Commission plans to package miscellaneous bridge and facility repair items for one (1) district into one (1) construction contract. This will allow the Commission to receive a competitive price completing various minor miscellaneous items. It is envisioned that one (1) contract will be completed each year and each district should be placed on a three (3) year cycle.</p>			
<b><u>District 2 Bridge Repairs</u></b>	\$5,891,000	\$0	\$312,000
<p>Various improvements to be done throughout District 2 that may not be large enough to warrant their own contract or that have been removed from current projects. The Commission plans to package miscellaneous bridge and facility repair items for one (1) district into one (1) construction contract. This will allow the Commission to receive a competitive price completing various minor miscellaneous items. It is envisioned that one (1) contract will be completed each year and each district should be placed on a three (3) year cycle.</p>			

\* Note: The Program Cost includes the costs from 2001 to 2019.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### COMMISSION INITIATIVES & SYSTEM-WIDE PROJECTS

Project Description	* Program Cost	General Reserve Fund	
		2010	2011
<b><u>District 3 Bridge Repairs</u></b>	\$6,124,000	\$0	\$0
Various improvements to be done throughout District 3 that may not be large enough to warrant their own contract or that have been removed from current projects. The Commission plans to package miscellaneous bridge and facility repair items for one (1) district into one (1) construction contract. This will allow the Commission to receive a competitive price completing various minor miscellaneous items. It is envisioned that one (1) contract will be completed each year and each district should be placed on a three (3) year cycle.			
<b><u>Electronic Surveillance/Detection System (ESS) Technical Consultant</u></b>	\$500,000	\$170,000	\$165,000
ESS Technical Consultant - \$500,000 Task Order Assignment for various ESS related projects.			
<b><u>Facility Stormwater &amp; Drain Investigations</u></b>	\$1,640,000	\$360,000	\$360,000
This work shall address all toll facilities except E-P which has already undergone the study phase. The Study includes facility floor drains and stormwater drains investigations, inventory, and condition assessments to determine existing configurations and development of recommendations for drainage flow improvements. Design and construction of new stormwater and/or drain systems will be done if necessary.			
<b><u>E-ZPass ETC System Wide Replacement</u></b>	\$20,750,000	\$0	\$0
This project includes analyzing the existing ETC System, VES and ORT, determine end of life while considering the Next Generation IAG equipment. When end of useful life is determined, implement a new system.			
<b><u>Cashless Tolling Strategy Study</u></b>	\$575,000	\$575,000	\$0
This study includes determining the next generation of All Electronic Toll Collection and recommending to the Commission how to best implement.			
This study will develop a strategy for the Commission to implement cashless tolling at its facilities. This study will include the timing of implementation at each of the facilities and prioritize the conversion to cashless tolling.			

\* Note: The Program Cost includes the costs from 2001 to 2019.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### COMMISSION INITIATIVES & SYSTEM-WIDE PROJECTS

Project Description	* Program Cost	General Reserve Fund	
		2010	2011
<b><u>Commission-Wide Paint System Analysis</u></b>	\$100,000	\$100,000	\$0
In recent years the Commission has undertaken program to blast clean & paint its lead-based inventory of bridges to comply with lead abatement regulations. This work is normally performed as part of an overall bridge rehabilitation project. In general, the bridges have been painted with moisture cured urethane which allows the Commission to perform the painting at lower temperatures and in an environment which is generally more humid due to location over the river. The first bridge to be painted with moisture cured urethane was U-F TSB in 2002, NHS TSB in 2003 and NH-L TSB in 2004. All subsequent rehabilitations (10 as of 2009) have used this same method.			
This study will evaluate these paint systems to determine their longevity and the need to revisit repainting of these bridges in the future.			
<b><u>E-ZPass ETC Technical Consultant</u></b>	\$500,000	\$375,000	\$125,000
ETC Technical Consultant - \$500,000 Task Order Assignment for various ETC related projects.			
<b><u>Radio System Enhancements</u></b>	\$200,000	\$200,000	\$0
The radio project consists of constructing and continually enhancing the DRJTBC 800 MHz radio system that extends from Trenton-Morrisville to Milford-Montague. The new radio system enables inter-district communications as well as interoperability with the Pennsylvania and New Jersey State Police. Future enhancements are planned to enable the Commission to speak directly to PennDot and NJDOT to coordinate highway incidents, snow plowing operations, and other roadway issues.			
<b><u>Financial Grade Long-Term Traffic Projections</u></b>	\$575,000	\$575,000	\$0
This project includes developing a complete financial grade traffic and revenue study for the Scudder Falls Bridge. This project will continue where the 2009 Traffic and Revenue Projections Study left off.			
<b><u>Bridge Monitoring System Study for 17 Vehicular Bridges (E-P not incl.)</u></b>	\$1,000,000	\$500,000	\$500,000
This project includes a needs assessment study to determine the feasibility of implementing a Bridge Monitoring System (SMART technology) at 17 of the Commission's vehicular bridges. Since E-P TB Rehabilitation design will begin shortly, it will be studied separately.			
	* Program Cost	2010	2011
<b>Total for all of the above Commission Initiatives and System-wide Projects:</b>			
	\$177,370,000	\$36,018,000	\$18,992,000

\* Note: The Program Cost includes the costs from 2001 to 2019.

***TRENTON-MORRISVILLE***

***TOLL BRIDGE FACILITY***

***(Structure No. 20)***





## **GENERAL**

### **TRENTON-MORRISVILLE TOLL BRIDGE**

(12 span, simply supported, composite steel multi-girder)

The Trenton-Morrisville Toll Bridge (Structure No. 20) carries US Route 1 over the Delaware River between Trenton, New Jersey and Morrisville, Pennsylvania.

The main bridge is a twelve span, simply supported, composite steel girder structure with an overall length of 1,322 feet. The substructure consists of reinforced concrete abutments and piers with granite facing on the piers. The bridge was originally constructed by the Commission in 1952 as a four (4) lane roadway, and widened to six (6) lanes in 1965 for a total roadway width of 62 feet. In 1983 an aluminum barrier was erected across the bridge, creating three southbound and two northbound lanes. In 2009 an extensive widening and rehabilitation project was completed, creating an addition northbound lane. The current configuration has three (3) northbound and three (3) southbound lanes.

The posted speed limit in the northbound direction is 40 mph and 50 mph in the southbound direction until midspan, where the speed limit is reduced to 20 mph approach to toll plaza.

The multi-year project for the widening and rehabilitation of the Route 1 corridor has been completed under Contract T-380B in 2009. This work included the main river bridge and approach structures in New Jersey and Pennsylvania. The project's major elements included the following work:

- Rehabilitating the main river bridge and widening it to accommodate a northbound auxiliary lane for exiting into Trenton
- Providing a deceleration lane on the viaduct over the Delaware Canal and Conrail property on the Pennsylvania side of the bridge
- Modifying the interchange at South Pennsylvania Avenue in Morrisville and installing a new traffic signal and resurfacing the pavement on South Pennsylvania Avenue
- Installing noise walls adjacent to northbound Route 1 in Morrisville
- Constructing a new toll plaza, serving southbound motorists on the Morrisville side of the bridge
- Realigning the NJ Route 29 Ramp (Ramp C) and constructing a new bridge over Route 29 to allow for improved access to that highway
- Rehabilitating, cleaning and repainting structural steel components of the bridge and its Route 1 approaches

### **TRENTON-MORRISVILLE TOLL BRIDGE APPROACH STRUCTURES**

The New Jersey approach consists of nine approach structures. The Pennsylvania approach consists of two approach structures.

### **TRENTON-MORRISVILLE TOLL BRIDGE FACILITY AND GROUNDS**

The one-way toll plaza, located at the Pennsylvania approach, has five toll lanes. The tollbooths are erected on concrete islands and are protected by an overhead canopy and has a service tunnel

for the toll collection staff. Each lane is equipped for E-ZPass. The recently completed construction project included replacement of the toll plaza.

Contract No. T-500A Trenton - Morrisville Administration Building Elevator Modernization was awarded in 2008 and construction was completed in 2009.

The 2009 inspection included the main river bridge, eleven approach bridges, and the facility and grounds.

## **SIGNIFICANT FINDINGS**

**BASED ON THE FINDINGS OF THE 2009 INSPECTIONS, THE MAIN RIVER BRIDGE AND ALL APPROACH STRUCTURES ARE CAPABLE OF SAFELY SUPPORTING ALL LEGAL LOADS.**

### **TRENTON-MORRISVILLE TOLL BRIDGE MAIN RIVER BRIDGE**

(12 span, simply supported, composite steel multi-girder)

The structure is in overall good condition.

The deck is in good condition.

The approach roadway is in very good condition.

The superstructure and substructure are in good condition.

An underwater inspection was performed in 2006 by under Contract No. C-467D. The substructure was found to be in satisfactory condition.

### **ROUTE 29 OVERPASS (NJ)**

(3 span, prestressed concrete spread box beams)

The structure is in overall good condition.

The deck and approach roadway are in very good condition.

The superstructure and substructure are in good condition.

### **RAMP N OVERPASS (NJ)**

(1 span, steel mutli-girder)

The structure is in overall good condition.

The deck is in good condition.

The approach roadway is in very good condition.



The superstructure and substructure are in good condition.

RAMP IY OVERPASS (NJ)

(3 span, steel multi-girder)

The structure is in overall good condition.

The deck, approach roadway, superstructure and substructure are in good condition.

RAMP Y OVERPASS (LONG RAMP) (NJ)

(4 span, steel multi-girder)

The structure is in overall good condition.

The deck, approach roadway, superstructure and substructure are in good condition.

UNION STREET OVERPASS (NJ)

(1 span, steel multi-girder)

The structure is in overall good condition.

The deck is in good condition.

The approach roadway is in very good condition.

The superstructure and substructure are in good condition.

CENTER STREET UNDERPASS (NJ)

(1 span, riveted steel plate girders)

The structure is in overall good condition.

The deck, approach roadway, superstructure and substructure are in good condition.

BROAD STREET UNDERPASS (NJ)

(1 span, steel multi-girder)

The structure is in overall good condition.

The deck is in good condition.

The approach roadway is in very good condition.

The superstructure and substructure are in good condition.

RAMP N OVER UNION STREET (NJ)

(3 span, prestressed concrete girders)

The structure is in overall good condition.

The deck is in very good condition.

The approach roadway, superstructure and substructure are in good condition.

RAMP C OVER NJ ROUTE 29 (NJ)

(3 span, steel multi-girder)

The structure is in overall very good condition.

WASHINGTON STREET OVERPASS (PA)

(1 span, steel multi-girder)

The structure is in overall good condition.

The deck, approach roadway and superstructure are in very good condition.

The substructure is in good condition.

SOUTH PENNSYLVANIA AVENUE OVERPASS (PA)

(1 span steel multi-girder)

The structure is in overall satisfactory condition.

The deck and approach roadway are in very good condition.

The superstructure and substructure are in good condition.

The deck, approach roadway, superstructure and substructure are in very good condition.

TRENTON-MORRISVILLE TOLL BRIDGE FACILITY AND GROUNDS

The HVAC system is not working adequately. The facility maintenance personnel have indicated that HVAC duct cleaning has been completed. HVAC system replacement is currently programmed in the future for the Trenton – Morrisville Administration Building.

The existing roof of the administration building consists of a rubber membrane system. Repair patches were observed on the roof. Occasional roof leakage has been reported. The administration building and maintenance facility roof replacement is in the planning stage.

An electronic surveillance system along with upgrading of the fire warning and alarm systems have been completed under Contract No. DB-396A Electronic Surveillance/Detection System.

The administration building brick and stone facade exhibits areas of displacement of the bricks due to pressure resulting from water intrusion. The interior of the administration building exhibits water damage adjacent to windows at several locations. There are sections of sidewalk and curb around the facility that exhibit settlement, cracking and spalling. (Some areas have been addressed post inspection)

## **CONCLUSIONS**

**BASED ON THE FINDINGS OF THE 2009 INSPECTIONS, THE MAIN RIVER BRIDGE AND ALL APPROACH STRUCTURES ARE CAPABLE OF SAFELY SUPPORTING ALL LEGAL LOADS.**

### **TRENTON-MORRISVILLE TOLL BRIDGE MAIN RIVER BRIDGE**

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.

### **ROUTE 29 OVERPASS (NJ)**

The structure is in overall good condition. For additional information on the bridge condition, see the *Thirteenth Annual Maintenance 2009 Report*.

### **RAMP N OVERPASS (NJ)**

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

### **RAMP IY OVERPASS (NJ)**

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

### **RAMP Y OVERPASS (LONG RAMP) (NJ)**

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

### **UNION STREET OVERPASS (NJ)**

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

#### CENTER STREET UNDERPASS (NJ)

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

#### BROAD STREET UNDERPASS (NJ)

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

#### RAMP N OVER UNION STREET (NJ)

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

#### RAMP C OVER NJ ROUTE 29 (NJ)

The structure is in overall very good condition. For additional information on the bridge condition, see the *Thirteenth Annual Maintenance 2009 Report*.

#### WASHINGTON STREET OVERPASS (PA)

The structure is in overall good condition. For additional information on the bridge condition, see the *Thirteenth Annual Maintenance 2009 Report*.

#### SOUTH PENNSYLVANIA AVENUE OVERPASS (PA)

The structure is in overall satisfactory condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

#### TRENTON-MORRISVILLE TOLL BRIDGE FACILITY AND GROUNDS

- A study should be performed to determine repairs necessary to the exterior of the administration building.
- A study should be done to determine upgrading room finishes in the administration building.
- The Commission should continue to conduct detailed life and safety studies as part of all facility renovation projects (A life safety code review consist of conducting a detailed physical inspection to determine if the building is up to code with the current Fire Protection NEFPA 101 Life and Safely Regulations and other local building codes, items reviewed include: stairway dimensions, emergency lighting, number and locations of exits, smoke detectors, fire extinguishers, sprinkler systems and other building safety features).

- A study should be performed to determine the best method of upgrading the HVAC system.
- A study should be conducted to determine the requirements and feasibility of converting the generator system from oil to natural gas.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### Trenton-Morrisville Toll Bridge

#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

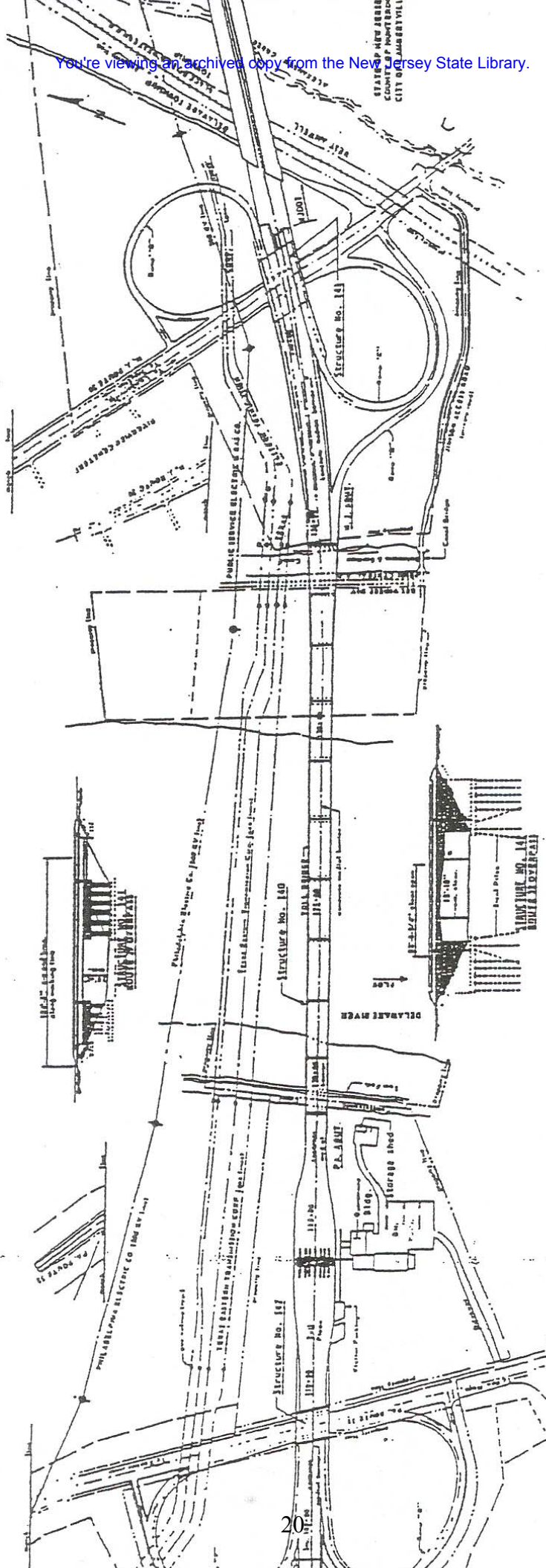
Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
380	T-M TB Rehab + One Aux. NB Lane	\$104,491,000	\$2,214,000	\$5,082,000
BRIDGES SUB TOTAL		\$104,491,000	\$2,214,000	\$5,082,000
<b><u>Facilities and Grounds</u></b>				
TMTB	Unplanned Projects	\$1,384,000	\$100,000	\$104,000
466	TM HVAC Upgrade	\$1,669,000	\$813,000	\$838,000
468	TM Buildings Roof Replacement	\$182,000	\$6,000	\$20,000
519	TM Admin Building Renovations	\$1,310,000	\$125,000	\$316,000
FACILITIES AND GROUNDS SUB TOTAL		\$4,545,000	\$1,044,000	\$1,278,000
TOTAL COST		\$109,036,000	\$3,258,000	\$6,360,000

***NEW HOPE-LAMBERTVILLE***  
***TOLL BRIDGE FACILITY***  
***(Structure No. 140)***

STATE OF NEW JERSEY  
COUNTY OF HUNTERDON  
TOWNSHIP OF DELAWARE

NEW JERSEY APPROACH TO THE  
NEW HOPE-LAMBERTVILLE TOLL BRIDGE

NEW HOPE - LAMBERTVILLE TOLL BRIDGE





## **GENERAL**

### **NEW HOPE-LAMBERTVILLE TOLL BRIDGE**

(10 span, continuous, steel two girder/floorbeam/stringer)

The New Hope-Lambertville Bridge (Structure No. 140) was opened to traffic on July 22, 1971 and carries US Route 202 over the Delaware River between Delaware Township, New Jersey and Solebury Township, Pennsylvania.

The bridge is a ten span, continuous, steel two girder fracture critical structure. The deck is reinforced concrete and carries two lanes of traffic in each direction separated by a median barrier. The substructure units are composed of reinforced concrete with stone facing. The total length of the structure is 1,682 feet measured from center to center of bearings.

Complete rehabilitation of the floorbeam cantilever brackets was completed in October 2009 under Contract No. T-498A. All of the 130 steel cantilever bracket tie plates on the bridge were strengthened with high strength steel. Structural repairs were also made to the stringer bearings and steel catwalk, which included replacing the stringer bearing bolts and replacement of deteriorated sections of the catwalk.

### **NEW HOPE-LAMBERTVILLE APPROACH BRIDGES**

The Commission's jurisdiction also includes the loop-ramp interchanges with overpasses provided at Route 29 in New Jersey and Route 32 in Pennsylvania. The posted speed limit on the approach roadways is 55 mph.

### **NEW HOPE-LAMBERTVILLE FACILITY AND GROUNDS**

The toll plaza at the Pennsylvania approach has one-way toll collection, replacing the two-way collection prior to the 2002 rehabilitation. All lanes are equipped with E-ZPass. The toll plaza is erected on concrete islands and is protected with an overhead canopy that matches the Operations building roof.

Contract No. T-397B, New Hope - Lambertville Toll Bridge Building Administration Building Renovations & Addition, was completed in October 2008 and rededication of the building was held in December 2008. Contract No. T-397B included upgrades to the HVAC system and installation of a back-up generator to supply all power needs of the facility.

Upon rededication of the Administration Building in 2008, the New Hope – Lambertville Toll Bridge facility is now known as the New Hope Headquarters and Administration Building and houses most of the Commission's Executive Staff as well as some administrative and operations staff.

The 2009 inspection included the main river bridge, two approach bridges, and the facility and grounds.

## **SIGNIFICANT FINDINGS**

**BASED ON THE FINDINGS OF THE 2009 INSPECTIONS, THE MAIN RIVER BRIDGE AND ALL APPROACH STRUCTURES ARE CAPABLE OF SAFELY SUPPORTING ALL LEGAL LOADS.**

### **NEW HOPE-LAMBERTVILLE TOLL BRIDGE**

(10 span, continuous, steel two girder/floorbeam/stringer)

The structure is in overall good condition. The visually inspected pin and hanger system is in good condition.

The deck, superstructure and substructure are in good condition.

The approach roadway is in fair condition. There are medium to wide transverse partially sealed cracks at the east and west approach roadways.

An underwater inspection was performed in 2006 by under Contract No. C-467D. The substructure was found to be in good condition.

### **ROUTE 29 OVERPASS**

(3 span, simply supported, steel multi-stringer)

The structure is in overall fair condition due to the substructure.

The deck is in good condition.

The approach roadway is in fair condition. The approach roadways exhibit several fine to medium cracks throughout.

The superstructure is in good condition.

The substructure is in fair condition. Several large areas of hollow concrete and spalls with exposed rebars are noted at the east abutment breastwall and the pier caps and columns.

### **ROUTE 32 OVERPASS**

(1 span, reinforced concrete rigid frame)

The structure is in overall satisfactory condition.

The roadway is in good condition.

The superstructure is in satisfactory condition. The intrados (exposed face) of the rigid frame exhibits few fine to medium cracks with efflorescence at the north and south ends of the midspan. Incipient spalls are noted over PA Route 32 southbound right lane and right shoulder.

The substructure is in good condition.

## NEW HOPE-LAMBERTVILLE TOLL BRIDGE FACILITY AND GROUNDS

The New Hope-Lambertville tollbooths and tunnel are in good condition. The roadways at the tollbooths are in good condition. The administration building and attached maintenance garage facility roofs were replaced in 2007. The Commission owned roadway throughout the jurisdiction exhibits numerous areas of sealed and partially sealed random cracks, surface wearing, uneven patchwork and spalling.

## CONCLUSIONS

**BASED ON THE FINDINGS OF THE 2009 INSPECTIONS, THE MAIN RIVER BRIDGE AND ALL APPROACH STRUCTURES ARE CAPABLE OF SAFELY SUPPORTING ALL LEGAL LOADS.**

## NEW HOPE-LAMBERTVILLE TOLL BRIDGE MAIN RIVER BRIDGE

The structure is in overall good condition.

- Improve channel protection at Piers 1 through 6.
- The deteriorated stone masonry joints at the abutments should be repointed.
- Remove the timber debris at Piers 2, 3, 4 and 6.
- Pressure inject the masonry cracks with epoxy grout at the east abutment.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.

## ROUTE 29 OVERPASS

The structure is in overall fair condition due to the substructure condition.

- The deck joints are deteriorated throughout the structure and the portions of the deck joints that are either loose or missing at Pier 2 and the east abutment should be repaired.
- Consideration should be given to replacing the deck joints throughout the structure with a more durable type of joint.
- There are several areas of spalls with exposed reinforcement and hollow concrete areas at the east abutment and Piers 1 and 2 that should be patched with concrete.
- Clean and paint the fascia stringer ends and bearings at the abutments and piers.
- Consideration should be given for replacement of existing bearings with elastomeric pads.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

## ROUTE 32 OVERPASS

The structure is in overall satisfactory condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

## NEW HOPE-LAMBERTVILLE TOLL BRIDGE FACILITY AND GROUNDS

- Studies should be conducted for replacing the material storage shed and magnesium chloride tanks.
- Consideration should be given to repaving the Commission-owned roadway, including approach roadway ramps.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### New Hope Lambertville Toll Bridge

#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
498	NH-L TB - Floorbeam Bracket Improvements (completed in 2009, final payments to be made in 2010.)	\$3,715,000	\$315,000	\$0
543	NH-L TB PA Roadway & Interchange, Outfall and NJ Route 29 Overpass Bearing Seat & NJ Reimbursement Agreement	\$2,060,000	\$182,000	\$1,878,000
BRIDGES SUB TOTAL		\$5,775,000	\$497,000	\$1,878,000
<b><u>Facilities and Grounds</u></b>				
NHLTB	Unplanned Projects	\$1,040,000	\$75,000	\$78,000
521	NH-L TB Equipment and Salt Storage Building Replacement	\$959,000	\$501,000	\$441,000
554	NH-L TB Electrical Improvements	\$313,000	\$32,000	\$0
FACILITIES AND GROUNDS SUB TOTAL		\$2,312,000	\$608,000	\$519,000
TOTAL COST		\$8,087,000	\$1,105,000	\$2,397,000

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***INTERSTATE 78***  
***TOLL BRIDGE FACILITY***  
***(Structure Nos. 270 & 275)***





## **GENERAL**

### **INTERSTATE 78 TOLL BRIDGE MAIN RIVER BRIDGE**

(Twin 7 span, continuous, steel multi-girder)

The Interstate 78 toll bridge carries traffic over the Delaware River between Williams Township, Northampton County, Pennsylvania and the Town of Phillipsburg, Warren County, New Jersey. The facility was opened to traffic on November 21, 1989.

The Interstate 78 main river bridge (Structure Nos. 270 & 275) is a twin, 1,222 foot long, four girder, 7 span continuous bridge. The dual roadways are each 46 feet from curb to curb and carry three lanes of traffic. The substructure consists of reinforced concrete hammerhead piers and reinforced concrete stub abutments. The posted speed limit on the bridge is 55 mph.

### **INTERSTATE 78 APPROACH BRIDGES**

The New Jersey approach consists of six (6) approach structures. The Pennsylvania approach consists of five (5) approach structures. In total there are eleven (11) approach structures owned and maintained by the Commission that are part of the Interstate 78 Toll Bridge Facility.

### **INTERSTATE 78 ROADWAY**

The Commission's jurisdiction extends approximately 2.2 miles to the west at the Pennsylvania approach and includes five (5) bridges and a Welcome Center. The New Jersey approach extends approximately 4.2 miles to the east from the main river bridge and includes six (6) approach structures (not including Conrail over I-78 or the Route 173 structures).

In October 2009, the Commission completed Contract T-424A, I-78 Roadway Rehabilitation, a two-year, rehabilitation project along the agency's 4.2-mile segment of I-78 in New Jersey. The project included subsurface remediation to address sinkholes as well as rehabilitating cracked roadway conditions as a result of heavy truck traffic along the roadway. Subsurface voids were filled and stabilized as part of the project; the Commission's New Jersey segment of I-78 is in an area where subsurface limestone geologic formations are prone to sinkholes. Work included rehabilitation of the concrete roadway, utilizing a variety of techniques including polyurethane grout injection and concrete slurry grouting. Crack stitching was also utilized at numerous locations, complete full depth replacement of the roadway was completed at the worst locations. The Still Valley Exit 3 Ramp was also rehabilitated as part of the project. Other improvements included repairs to various overpasses and secondary bridge structures, and the installation of a variety of safety upgrades, such as new striping and guiderails.

### **INTERSTATE 78 TOLL BRIDGE FACILITY AND GROUNDS**

The one-way toll plaza, located at the Pennsylvania approach of the westbound lanes, has seven toll lanes. All toll booths are erected on concrete islands and are protected by an overhead canopy. All lanes are equipped with E-ZPass.

The 2009 inspection included the eastbound and westbound main river bridges, eleven (11) approach structures, and the facility and grounds.

## **SIGNIFICANT FINDINGS**

**BASED ON THE FINDINGS OF THE 2009 INSPECTIONS, THE MAIN RIVER BRIDGE AND ALL APPROACH STRUCTURES ARE CAPABLE OF SAFELY SUPPORTING ALL LEGAL LOADS.**

### **INTERSTATE 78 TOLL BRIDGE (EASTBOUND)**

(7 span, continuous, steel multi-girder)

The structure is in overall good condition.

The deck is in satisfactory condition. The top of the deck exhibits numerous fine to medium transverse cracks throughout. The metal Stay-In-Place forms at the underside of the deck have isolated areas of spot rust and the concrete overhangs exhibit few fine cracks with efflorescence.

The approach roadway is in satisfactory condition. A few medium to wide transverse cracks were noted at the approach roadways.

The superstructure and substructure are in good condition.

An underwater inspection was performed in 2006 under Contract No. C-467D. The substructure for the eastbound roadway was found to be in good condition.

### **INTERSTATE 78 TOLL BRIDGE (WESTBOUND)**

(7 span, continuous, steel multi-girder)

The structure is in overall good condition.

The deck is in good condition.

The approach roadway is in satisfactory condition. A few medium to wide transverse cracks were noted at the approach roadways. The hot-poured sealer at the abutment header is slightly deteriorated and depressed.

The superstructure and substructure are in good condition.

An underwater inspection was performed in 2006 under Contract No. C-467D. The substructure for the westbound roadway was found to be in good condition.

### **SERVICE ROAD OVERPASS**

(1 span, simply supported, prestressed concrete adjacent box beams)

The structure is in overall good condition.

The deck, approach roadway, superstructure and substructure are in good condition.

### MORGAN HILL ROAD OVERPASS

(2 span, simply supported, prestressed concrete spread box beams)

The structure is in overall good condition.

The deck is in satisfactory condition. The top of the deck exhibits fine to medium cracks throughout, with some cracks being partially sealed. The compression-seal deck joints are partially covered with hot poured-sealer and exhibit deterioration where visible.

The approach roadway is in satisfactory condition. Medium to wide cracks were noted throughout both approach roadways.

The superstructure and substructure are in good condition.

### CEDARVILLE ROAD OVERPASS

(4 span, simply supported, prestressed concrete I-beams)

The structure is in overall good condition.

The deck is in good condition.

The approach roadway is in satisfactory condition. The asphalt wearing surface exhibits minor to moderate wearing.

The superstructure and substructure is in good condition.

### I-78 WESTBOUND OVER ROUTE 611

(3 span, simply supported, prestressed concrete spread box beams)

The structure is in overall good condition.

The deck is in good condition.

The approach roadway is in satisfactory condition. The west approach roadway exhibits medium to wide cracks. The east approach roadway has a few spalls partially patched with asphalt.

The superstructure and substructure are in good condition.

### I-78 EASTBOUND OVER ROUTE 611

(3 span, simply supported, prestressed concrete spread box beams)

The structure is in overall good condition.

The deck is in good condition.

The approach roadway is in fair condition. The west approach roadway exhibits medium to wide cracks with several small spalls. The east approach roadway has few spalls with exposed rebars partially patched with asphalt and few wide cracks.

The superstructure and substructure are in good condition.

CARPENTERSVILLE ROAD OVERPASS

(2 span, continuous, steel multi-stringer)

The structure is in overall good condition.

The deck, approach roadway, superstructure and substructure are in good condition.

EDGE ROAD OVERPASS

(2 span, continuous, steel multi-stringer)

The structure is in overall satisfactory condition.

The deck and approach roadway are in good condition.

The superstructure is in satisfactory condition. The bottom flanges exhibit light to moderate rust and the remaining portion of the superstructure and bearings exhibit light surface rust.

The substructure is in good condition.

I-78 WESTBOUND OVER ROUTE 519

(2 span, continuous, steel multi-stringer)

The structure is in overall good condition.

The deck, approach roadway, superstructure and substructure are in good condition.

I-78 EASTBOUND OVER ROUTE 519

(2 span, continuous, steel multi-stringer)

The structure is in overall good condition.

The deck is in satisfactory condition. The compression-seal deck joints are partially covered with hot-poured sealer and exhibit areas of minor to moderate settlement.

The approach roadways are in satisfactory condition. The west approach roadway exhibits few partially sealed wide cracks.

The superstructure and substructure are in good condition.

I-78 WESTBOUND OVER RAMP C

(1 span, simply supported, steel multi-stringer)

The structure is in overall good condition.

The deck is in good condition.

The approach roadways are in satisfactory condition. The west approach roadway exhibits wide cracks. There are spalls at the approach slabs between the lanes due to missing and broken lane reflectors.

The superstructure and substructure are in good condition. Areas of heavy pigeon debris and spot rusting of the structural steel were noted.

#### I-78 EASTBOUND OVER RAMP C

(1 span, simply supported, steel multi-stringer)

The structure is in overall good condition.

The deck is in good condition.

The approach roadways are in satisfactory condition. The approach roadways exhibit wide cracks throughout.

The superstructure and substructure are in good condition. Areas of heavy pigeon debris and spot rusting of the structural steel were noted.

#### INTERSTATE 78 TOLL BRIDGE FACILITY AND GROUNDS

Some of the I-78 facility vehicles and equipment are not protected from the weather and are stored along parking lots because of a lack of storage capacity within the building.

The exterior wood stair case west of the maintenance building is deteriorated and has no handrail.

The employee parking lot exhibits uneven pavement and sealed cracks throughout.

#### CONCLUSIONS

**BASED ON THE FINDINGS OF THE 2009 INSPECTIONS, THE MAIN RIVER BRIDGE AND ALL APPROACH STRUCTURES ARE CAPABLE OF SAFELY SUPPORTING ALL LEGAL LOADS.**

#### INTERSTATE 78 TOLL BRIDGE (EASTBOUND)

The structure is in overall good condition.

- Remove the areas of heavy pigeon debris and clean and spot paint the structural steel as required.
- The broken reflectors at Span 6 and the east approach roadway should be replaced.
- Repair the undermined areas at Piers 4 and 5.
- Improve channel protection at Pier 4 and at the northwest corner of Pier 5.
- Repair the cracks in the tremie at Pier 4.

- Repair the spalls in the Pier 3 and 5 foundations.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.

#### INTERSTATE 78 TOLL BRIDGE (WESTBOUND)

The structure is in overall good condition.

- Remove the areas of heavy pigeon debris and clean and spot paint the structural steel as required.
- The undermined area and cracks in the tremie at Pier 4 should be repaired.
- Improve channel protection around Pier 4.
- The debris near the substructure units should be removed.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.

#### SERVICE ROAD OVERPASS

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

#### MORGAN HILL ROAD OVERPASS

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

#### CEDARVILLE ROAD OVERPASS

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

#### I-78 WESTBOUND OVER ROUTE 611

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

### I-78 EASTBOUND OVER ROUTE 611

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

### CARPENTERSVILLE ROAD OVERPASS

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

### EDGE ROAD OVERPASS

The structure is in overall satisfactory condition.

- Clean and paint the superstructure steel and bearings.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

### I-78 WESTBOUND OVER ROUTE 519

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

### I-78 EASTBOUND OVER ROUTE 519

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

### I-78 WESTBOUND OVER RAMP C

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

### I-78 EASTBOUND OVER RAMP C

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

### INTERSTATE 78 ROADWAY

Contract No. T-424A completed the I-78 Roadway Rehabilitation in New Jersey. The roadway is in very good condition.

### INTERSTATE 78 TOLL BRIDGE FACILITY AND GROUNDS

- Replace the missing snow guards and install gutters on the maintenance garage.
- The Commission should continue to conduct detailed life and safety studies as part of all facility renovation projects (A life safety code review consist of conducting a detailed

physical inspection to determine if the building is up to code with the current Fire Protection NEFPA 101 Life and Safety Regulations and other local building codes, items reviewed include: stairway dimensions, emergency lighting, number and locations of exits, smoke detectors, fire extinguishers, sprinkler systems and other building safety features).

- Consider replacing and upgrading the fuel pump cabinets.
- A study should be conducted to determine the need for additional vehicle and equipment storage at the I-78 facility.
- A study of the HVAC system should be conducted to determine whether the system located at the facility needs to be upgraded.
- Install permanent impact attenuators at the toll plaza. This will be completed under Contract No. T-427B

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.



## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### Interstate 78 Toll Bridge

#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
424	I-78 Roadway Rehabilitation	\$50,932,000	\$4,667,000	\$0
427B	I-78 Open Road Tolling (ORT) Lanes	\$10,286,000	\$5,647,000	\$0
542	I-78 Parapet Upgrades on various structures & Crossover Median Protection	\$10,921,000	\$0	\$0
552	Cleaning & Painting of I-78 Bridges (Edge, Carpentersville, Main River, etc)	\$7,276,000	\$280,000	\$6,996,000
506	I-78 PA Approach Repaving & Welcome Center Improvements	\$10,097,000	\$852,000	\$6,909,000
<b>BRIDGES SUB TOTAL</b>		<b>\$89,512,000</b>	<b>\$11,446,000</b>	<b>\$13,905,000</b>
<b><u>Facilities and Grounds</u></b>				
I-78TB	Unplanned Projects	\$1,960,000	\$150,000	\$156,000
507	I-78 HVAC Upgrade	\$1,158,000	\$0	\$100,000
508	I-78 Maintenance Garage Improvements	\$3,070,000	\$0	\$348,000
<b>FACILITIES AND GROUNDS SUB TOTAL</b>		<b>\$6,188,000</b>	<b>\$150,000</b>	<b>\$604,000</b>
<b>TOTAL COST</b>		<b>\$95,700,000</b>	<b>\$11,596,000</b>	<b>\$14,509,000</b>

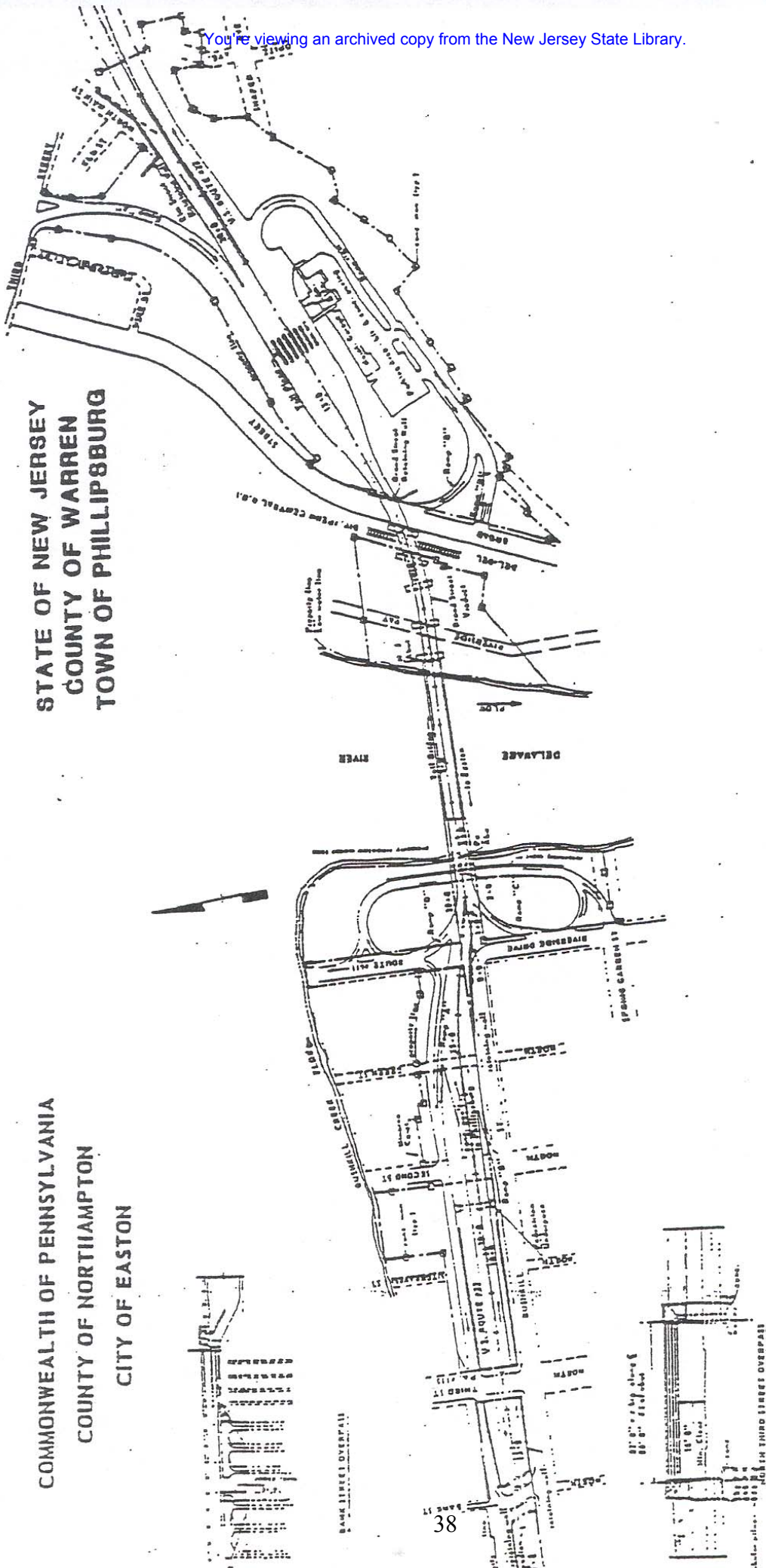
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***EASTON-PHILLIPSBURG***  
***TOLL BRIDGE FACILITY***  
***(Structure No. 300)***

STATE OF NEW JERSEY  
COUNTY OF WARREN  
TOWN OF PHILLIPSBURG

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF NORTHAMPTON  
CITY OF EASTON

EASTON - PHILLIPSBURG TOLL BRIDGE



## **GENERAL**

### **EASTON-PHILLIPSBURG TOLL BRIDGE**

(1 span, Petit Thru-Truss)

The Easton-Phillipsburg Toll Bridge (Structure No. 300) carries US Route 22 over the Delaware River between the City of Easton, Pennsylvania, and the Town of Phillipsburg, New Jersey. The bridge was opened to traffic on January 14, 1938. Westbound only toll collection commenced on June 4, 1989.

The main river bridge consists of a 540 foot Petit thru-truss span over the Delaware River. The overall length, including the approaches on either end of the structure, is approximately 1,010 feet. The roadway width is 40 feet between the trusses and carries 4 lanes of traffic. There are 8 foot sidewalks cantilevered outside of both trusses. The substructure consists of reinforced concrete abutments. The posted speed limit through the toll bridge facility is 25 mph.

Sidewalk reconstruction was performed under Contract No. T-420 and was completed in 2004.

The underside of the Easton-Phillipsburg Toll Bridge, which includes the roadway stringers, floorbeams, and the bottom chords of the trusses, received an in-depth inspection in April 2007. This special in-depth inspection was required due to the limited access to those members for the regular inspections. The underside components were found to be in overall satisfactory condition. All major areas of section loss at the floorbeams and lateral bracing was found below the curblines due to poor drainage.

### **EASTON-PHILLIPSBURG TOLL BRIDGE APPROACH STRUCTURES**

The Commission's jurisdiction includes a total of five (5) approach structures. On the Pennsylvania approach there are four (4) approach structures.

Approximately 2,000 feet of the Pennsylvania approach was reconstructed in 1982. This reconstruction included new superstructures for the overpasses at Bank Street, Third Street and Route 611. The truss support for the center bearing of the Broad Street Viaduct was reconstructed in 2001.

### **EASTON-PHILLIPSBURG TOLL BRIDGE FACILITY AND GROUNDS**

The one-way toll plaza, located at the New Jersey approach, has five (5) toll lanes. All tollbooths are erected on concrete islands and are protected by an overhead canopy. All lanes are equipped for E-ZPass.

The 2009 inspection included the main river bridge, five (5) approach bridges, and the facility and grounds.

## **SIGNIFICANT FINDINGS**

**BASED ON THE FINDINGS OF THE 2009 INSPECTIONS, THE MAIN RIVER BRIDGE AND ALL APPROACH STRUCTURES ARE CAPABLE OF SAFELY SUPPORTING ALL LEGAL LOADS.**

### **EASTON-PHILLIPSBURG TOLL BRIDGE MAIN RIVER BRIDGE**

(1 span, Petit Thru-Truss)

The structure is in overall satisfactory condition.

The deck is in satisfactory condition. Numerous medium to wide transverse cracks are noted throughout the bridge, mainly over the floorbeam locations with several shallow spalls.

There is no approach roadway for this structure due to the adjacent approach structures.

The superstructure is in satisfactory condition. Several members exhibit isolated areas of light to moderate surface rust and peeling paint. Pack rust was noted at several locations between eyebars and at gusset plate connections. Few access cover plates at the vertical truss members are welded and few welds are cracked. The underside inspection performed in April 2007 noted minor section loss to the floorbeams and lateral bracing.

The substructure is in good condition.

An underwater inspection was performed in 2006 under Contract No. C-467D. The substructure was noted to be in good condition.

### **BROAD STREET VIADUCT**

(5 span, simply supported, riveted steel three girder-floorbeam-stringer system)

The structure is in overall fair condition due to the superstructure condition.

The deck is in satisfactory condition. Fine to medium transverse cracks are noted throughout the top of deck. Several areas of the underside steel trough and sidewalk SIP forms exhibit heavy laminar rust.

The approach roadway (east only) is in satisfactory condition. Medium to wide cracks are noted in the asphalt. The eastbound and westbound lanes exhibit small spalls and loose concrete.

The superstructure is in fair condition. Several structural steel members exhibit areas of moderate to severe corrosion below the deck joints, along the curb openings, and those exposed directly to the elements. Severe rust was noted at the end stringers and floorbeam under the deck joint at Pier 4 with up to 50% material loss to the stringer connection bolts. Stringers 2 and 4 (from the north) deflect up to 1/4" at the connection to the floorbeam at Pier 4 due to the losses at the connection bolts. Repaired cracks were noted at Piers 1 to 3 at the floorbeam-kneebrace connections. The weld repair at the vertical connection to the Span 3 south girder at Pier 3 has cracked and is 21" long. The crack extends approximately 1/2" beyond the weld repair area.

The substructure is in good condition.

### ROUTE 611 OVERPASS

(1 span, simply supported, prestressed concrete adjacent box beam)

The structure is in overall satisfactory condition.

The deck is in fair condition. The top of deck exhibits large areas of deteriorated asphalt patches and concrete areas. The compression seal deck joints at the east and west abutments are depressed, torn, and missing throughout. The parapets have a few incipient spalls throughout.

The approach roadway (west only) is in satisfactory condition. The approach slab exhibits several small spalls with a few exposed rebars.

The superstructure is in satisfactory condition. The prestressed box beams exhibit a few small spalls and incipient spalls with moderate water stains throughout.

The substructure is in satisfactory condition. The abutments have a few medium to wide cracks throughout with hollow areas and delaminated concrete.

### THIRD STREET OVERPASS

(1 span, simply supported, steel multi-stringer)

The structure is in overall good condition.

The deck is in good condition.

The approach roadway is in satisfactory condition. The approach slab exhibits several fine to medium cracks and small spalls throughout.

The superstructure and substructure are in good condition.

### BANK STREET OVERPASS

(3 span, continuous, steel multi-stringer)

The structure is in overall good condition.

The deck is in fair condition. The underside of deck exhibits several spalls with exposed rebar and incipient spalls throughout.

The approach roadway, superstructure and substructure are in good condition.

The inlet at the northwest corner of Bank Street under Span 2 has settled with erosion of the roadway slab subbase material adjacent to the inlet. The concrete sidewalls of the inlet have also spalled with several areas of missing and broken concrete.

### PEDESTRIAN TUNNEL

(Single cell, reinforced concrete box culvert)

The structure is in overall good condition.

The roadway and culvert are in good condition.

### EASTON-PHILLIPSBURG TOLL BRIDGE FACILITY AND GROUNDS

The west side of the toll plaza has several concrete slabs of roadway with a few open and wide transverse cracks. The roadway surface is uneven with wear along tire lines and minor settlement of concrete slabs. During heavy rain, there are areas with ponding water and the tunnel under the toll booth exhibits minor leakage and occasionally the carpets on tunnel floor over the drains become wet. Overall the toll plaza is in fair condition.

Localized failure of steep embankments located at east and south sides of the maintenance yard, adjacent to the Broad Street ramp, were previously noted. Eroded embankment was observed at the base of the slope. These areas appear to be stable at the time of this inspection.

The current diesel fuel storage tank used by this facility has a 250 gallons capacity and it is inadequate for current needs. The fuel is dispensed utilizing a hand pump. The current underground diesel storage tank should be replaced with an above ground tank.

The administration building brick and stone façade exhibits areas of distress and displacement of the bricks due to pressure resulting from water intrusion. The circulating hot water heating system in the administration building is not functioning adequately and it needs to be flushed cleaned. Maintenance forces at the facility indicated that they will flush this heating system.

The roof on the administration building and garage was replaced in 2007 under Contract No. T-465A.

### CONCLUSIONS

**BASED ON THE FINDINGS OF THE 2009 INSPECTIONS, THE MAIN RIVER BRIDGE AND ALL APPROACH STRUCTURES ARE CAPABLE OF SAFELY SUPPORTING ALL LEGAL LOADS.**

### EASTON-PHILLIPSBURG TOLL BRIDGE MAIN RIVER BRIDGE

The structure is in overall satisfactory condition.

- Consideration should be given for a major rehabilitation project for the toll bridge and the approach structures including cleaning and painting of the superstructure steel, miscellaneous steel repairs, installation of bird mitigation measures, utility conduit repairs, drainage improvements and repaving. (A design contract for the Easton – Phillipsburg Toll Bridge is scheduled to be advertised in late 2009 or early 2010)



- Seal the medium crack at the east abutment and the wide crack at the west abutment with epoxy injected concrete.
- Improve channel protection at the east and west abutments.
- Repoint stone masonry joints at the east and west abutments.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.

### BROAD STREET VIADUCT

The structure is in overall fair condition due to the superstructure.

- All gusset plates and floorbeam ends should be cleaned and spot painted.
- Replace the bird netting in Span 1.
- Grind smooth the steel fingers at the deck joints to remove the plow catch.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

### ROUTE 611 OVERPASS

The structure is in overall satisfactory condition.

- Replace the missing and deteriorated compression seals at the east and west abutment deck joints including the sidewalks.
- Remove the hollow concrete areas at the north end of the east abutment and the south end of the east abutment and patch the areas with concrete.
- Epoxy coat the bearing seats and the end of the box beams.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

### THIRD STREET OVERPASS

The structure is in overall good condition.

- Replace the compression seal joints at the east and west abutment deck joints and patch the spalls at the deck joint headers and adjacent areas with concrete.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

### BANK STREET OVERPASS

The structure is in overall good condition.

- Repair the inlet at the northwest corner of Bank Street below Span 2.

- Replace the deteriorated and missing compression seals at the east and west abutment deck joints and patch the spalls at the deck joint headers with concrete.
- Replace the missing and sheared anchor bolts at the east abutment and Pier 2 bearings.
- Consideration should be given to replacing the existing bearings.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

#### PEDESTRIAN TUNNEL

The structure is in overall good condition. For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

#### EASTON-PHILLIPSBURG TOLL BRIDGE FACILITY AND GROUNDS

- The deteriorated and cracked concrete slabs on the west side of the toll plaza should be replaced. Several of the concrete slabs on the east side of toll plaza in the westbound lanes should be replaced.
- The spalled curbs and deteriorated relief joint should be repaired.
- A study should be performed to determine the necessary repairs to the exterior of the administration building.
- A study should be performed to determine repairs and upgrades to the grounds and auxiliary buildings.
- The Commission should continue to conduct detailed life and safety studies as part of all facility renovation projects (A life safety code review consist of conducting a detailed physical inspection to determine if the building is up to code with the current Fire Protection NEFPA 101 Life and Safely Regulations and other local building codes, items reviewed include: stairway dimensions, emergency lighting, number and locations of exits, smoke detectors, fire extinguishers, sprinkler systems and other building safety features).

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

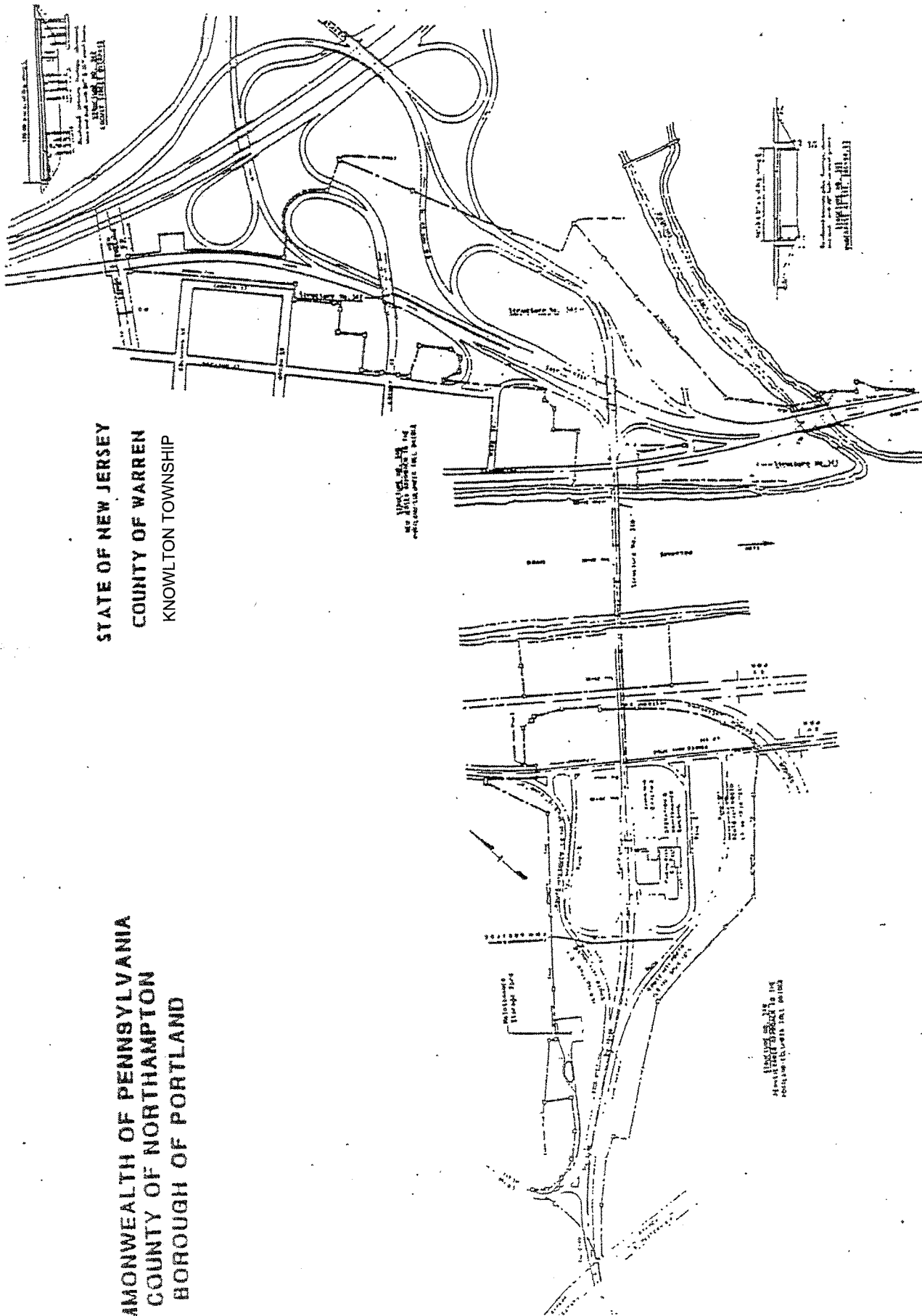
### Easton-Phillipsburg Toll Bridge

#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
437	E-P TB Rehabilitation	\$28,124,000	\$1,155,000	\$8,711,000
BRIDGES SUB TOTAL		\$28,124,000	\$1,155,000	\$8,711,000
<b><u>Facilities and Grounds</u></b>				
EPTB	Unplanned Projects	\$1,097,000	\$75,000	\$78,000
475	E-P AST Diesel Fuel Storage Tank Replacement	\$110,000	\$90,000	\$0
509	E-P HVAC Upgrade	\$1,737,000	\$0	\$150,000
522	E-P Elevator Modernization	\$645,000	\$77,000	\$365,000
FACILITIES AND GROUNDS SUB TOTAL		\$3,589,000	\$242,000	\$593,000
TOTAL COST		\$31,713,000	\$1,397,000	\$9,304,000

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***PORTLAND-COLUMBIA***  
***TOLL BRIDGE FACILITY***  
***(Structure No. 340)***



PORTLAND - COLUMBIA TOLL BRIDGE

## **GENERAL**

### **PORTLAND-COLUMBIA TOLL BRIDGE**

(10 span, riveted steel multi-girder)

The Portland-Columbia Toll Bridge Facility (Structure No. 340) opened to traffic on December 1, 1953 and converted to toll collection in the westbound direction only on May 25, 1989. The bridge connects Pennsylvania Route 611 at Portland, Pennsylvania with US Route 46 at a section of Knowlton Township, New Jersey. US Route 46 merges with Interstate 80 located just north of the bridge on the New Jersey approach.

The main river bridge consists of a ten span, riveted steel plate girder system with an approximate total length of 1,309 feet. The roadway is 32 feet wide from curb to curb and carries one lane of traffic in each direction with a posted speed limit of 35 mph. The substructure units consist of reinforced concrete piers and concrete bin abutments. All the substructures are founded on spread footings with the exception of Pier 8, which is founded on piles. The piers also have partial granite stone facing.

A rehabilitation contract performed in 1992 included replacement of the existing concrete deck with a cast-in-place deck and concrete parapets. The combination sidewalk and maintenance walkway were removed and a new lighting system on the downstream side of the main bridge was installed. Approach roadway improvements (NJ and PA) and new drainage systems were also constructed. In 1998, the main river bridge, the pedestrian bridge to the north of the toll bridge, and both approach structures were cleaned and painted by contract.

### **PORTLAND-COLUMBIA APPROACH BRIDGES**

The Commission's jurisdiction also includes two additional bridges at the New Jersey approach. Deck and barrier replacements were performed in 1992 in conjunction with the main river bridge rehabilitation contract.

### **PORTLAND-COLUMBIA TOLL BRIDGE FACILITY AND GROUNDS**

The one-way toll plaza, located at the Pennsylvania approach, has three toll lanes. All the tollbooths are erected on concrete islands and are protected by an overhead canopy. All three lanes are equipped for E-ZPass.

The 2009 inspection included the main river bridge, two approach bridges, and the facility and grounds.

## **SIGNIFICANT FINDINGS**

**BASED ON THE FINDINGS OF THE 2009 INSPECTIONS, THE MAIN RIVER BRIDGE AND ALL APPROACH STRUCTURES ARE CAPABLE OF SAFELY SUPPORTING ALL LEGAL LOADS.**

### PORTLAND-COLUMBIA TOLL BRIDGE

(10 span, riveted steel multi-girder)

The structure is in overall good condition.

The deck is in good condition.

The approach roadway is in satisfactory condition. Large areas of fine map cracking are noted at both approaches with few medium to wide cracks and shallow spalls.

The superstructure and substructure are in good condition.

An underwater inspection was performed in 2006 under Contract No. C-467D. The underwater components of the substructure were noted to be in very good condition.

### ROUTE 46 OVERPASS

(1 span, riveted steel multi-girder)

The structure is in overall good condition.

The deck is in good condition.

The approach roadway is in satisfactory condition. The east approach exhibits numerous medium to wide cracks throughout the pavement.

The superstructure and substructure are in good condition.

### LOCUST STREET OVERPASS

(4 span, steel multi-stringer)

The structure is in overall satisfactory condition.

The deck, approach roadway and superstructure are in good condition.

The substructure is in satisfactory condition. A spall was noted at the east abutment bridge seat exposing the anchor bolt of the Stringer 6 bearing with a 10 square inch area of undermining of the masonry plate (approximately 10%). All three piers exhibit hollow concrete areas and cracks at the pier columns and at the pier cap of Pier 1. There is a large area of collapsed slope protection at the south end of the west abutment under Stringer 2 with loose bricks and exposed fill.



## PORTLAND-COLUMBIA TOLL BRIDGE FACILITY AND GROUNDS

The maintenance parking lot is in poor condition with wide cracking of the asphalt pavement and unevenness throughout. The storage yard and driveway are in poor condition with numerous areas of deteriorated pavement. Also, the roadway drainage is poor because of spalling and cracking of the pavement.

The roof on the maintenance garage and the administration building was replaced in 2005 under Contract No. T-439A.

The HVAC controls are approximately 20 years old and the controls are not working properly.

The entire District 3 salt storage is maintained at this location. The existing storage capacity is not sufficient. A new salt storage facility is currently planned for this Toll Bridge Facility.

## CONCLUSIONS

**BASED ON THE FINDINGS OF THE 2009 INSPECTIONS, THE MAIN RIVER BRIDGE AND ALL APPROACH STRUCTURES ARE CAPABLE OF SAFELY SUPPORTING ALL LEGAL LOADS.**

## PORTLAND-COLUMBIA TOLL BRIDGE

The structure is in overall good condition.

- The incipient spalls, delaminated and cracked areas throughout the concrete patches in the east abutment and Piers 2, 3, 4 and 9 should be repaired.
- Improve channel protection around Piers 4 through 8.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.

## ROUTE 46 OVERPASS

The structure is in overall good condition.

- Replace the missing and deteriorated compression joint seals at the east and west abutment deck joints.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

## LOCUST STREET OVERPASS

The structure is in overall satisfactory condition.

- Repair the spall causing the undermining of the Stringer 6 bearing at the east abutment.
- Remove the pack rust below the rocker bearings at Stringers 2 through 5 at the west abutment and Stringer 4 at the east abutment.
- Reset the shifted sliding plate bearings at all piers.
- Replace the missing anchor bolts at Stringer 1 of Span 4 at Pier 3.
- Consideration should be given to replacing all existing bearings.
- The cracked and hollow concrete throughout the piers should be removed and patched with concrete.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

## PORTLAND-COLUMBIA TOLL BRIDGE FACILITY AND GROUNDS

- The maintenance (rear) parking lot and the salt storage yard access and turn around should be repaved.
- New sidewalks, curbs and drainage should be constructed.

*These improvements will be included in Contract No. T-441A Locust Street Improvements.*

- A study was performed on the HVAC controls to determine what components need to be replaced, or if the entire system should be upgraded.
- A study was performed to determine the district's deicing requirements. A new district salt storage facility is currently planned for Portland – Columbia Toll Bridge Facility.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### Portland-Columbia Toll Bridge

#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

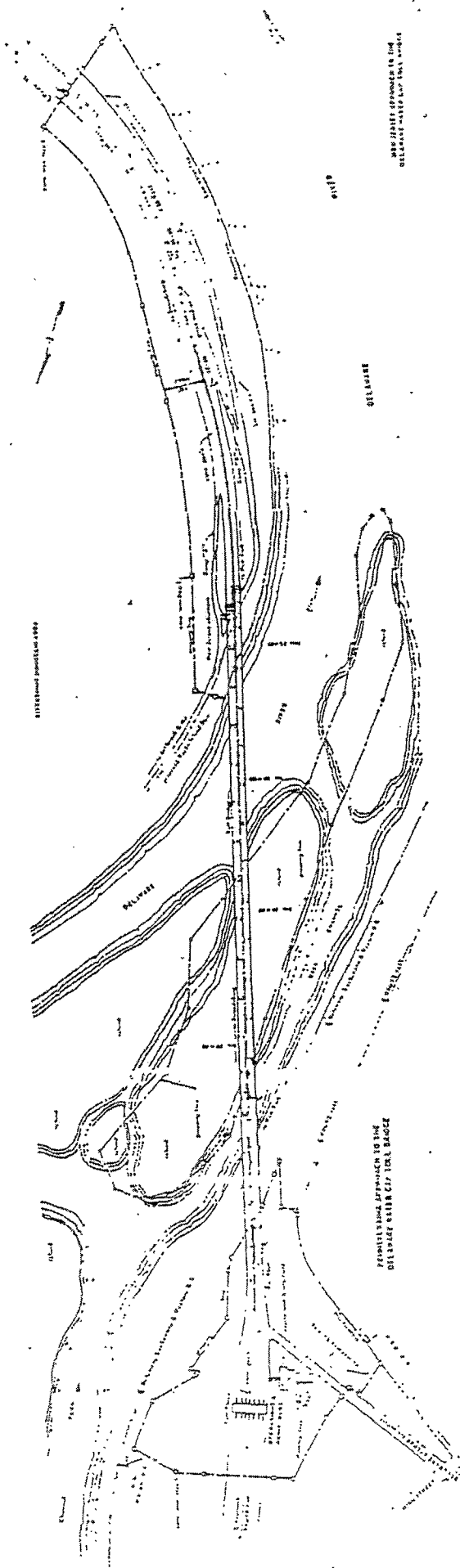
Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
441	P-C TB Facility Improvements	\$2,130,000	\$1,879,000	\$0
BRIDGES SUB TOTAL		\$2,130,000	\$1,879,000	\$0
<b><u>Facilities and Grounds</u></b>				
PCTB	Unplanned Projects	\$719,000	\$50,000	\$52,000
512	P-C HVAC Upgrade	\$1,117,000	\$96,000	\$1,021,000
FACILITIES AND GROUNDS SUB TOTAL		\$1,836,000	\$146,000	\$1,073,000
TOTAL COST		\$3,966,000	\$2,025,000	\$1,073,000

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***DELAWARE WATER GAP***  
***TOLL BRIDGE FACILITY***  
***(Structure Nos. 380 & 390)***

STATE OF NEW JERSEY  
COUNTY OF WARREN  
HARDWICK TOWNSHIP

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF MONROE  
BOROUGH OF DELAWARE WATER GAP



DELAWARE WATER GAP TOLL BRIDGE

## **GENERAL**

### **DELAWARE WATER GAP TOLL BRIDGE**

(Eastbound: 17 span, riveted steel multi-girder)

(Westbound: 16 span, riveted steel multi-girder)

The Delaware Water Gap Toll Bridge (Structure Nos. 380 and 390) carries Interstate 80 across the Delaware River near Delaware Water Gap, Pennsylvania, and Hardwick Township, NJ, providing a gateway from the eastern metropolitan area to the Pocono recreational area. Through Pennsylvania, the four lane limited access highway crosses the width of Pennsylvania to the Ohio border and directly connects to the Ohio Turnpike. On the New Jersey side, Interstate 80 connects the Delaware Water Gap Toll Bridge to the George Washington Bridge.

The toll bridge, built by the Commission and opened on December 16, 1953, is a twin, multi-span (17 spans EB and 16 spans WB), steel riveted plate girder bridge approximately 2,465 feet in total length. The dual roadways are each 28 feet wide from curb to curb, carrying two lanes of traffic each, and are separated by an aluminum barrier. A 5 foot wide sidewalk is located on the south side of the eastbound roadway, separated from the travel lanes with a concrete barrier. The substructure units consist of reinforced concrete bin abutments and piers. The piers also have partial granite stone facing. The speed limit posted at both approach roadways is 55 mph.

Major rehabilitation work was completed in 1989. The rehabilitation work included reconstruction of the toll plaza for one-way toll collection in the westbound direction (8 total lanes), deck replacement, construction of a New Jersey approach pedestrian walkway, toll plaza access tunnel, and miscellaneous pavement replacement. Other work performed under this contract included the installation of the aluminum median barrier, lighting and signage.

### **DELAWARE WATER GAP TOLL BRIDGE FACILITY AND GROUNDS**

The one-way toll plaza, located at the Pennsylvania approach has eight (8) toll lanes. All tollbooths are erected on concrete islands and are protected by an overhead canopy.

A ½ mile section of Interstate 80 east of the bridge was resurfaced in 2007 under Contract No. T-492A, a reimbursement agreement with the New Jersey Department of Transportation.

The 2009 inspection included the eastbound and westbound main river bridges and the facility and grounds.

## **SIGNIFICANT FINDINGS**

**BASED ON THE FINDINGS OF THE 2009 INSPECTIONS, THE MAIN RIVER BRIDGES ARE CAPABLE OF SAFELY SUPPORTING ALL LEGAL LOADS.**

DELAWARE WATER GAP TOLL BRIDGE (EASTBOUND)  
(17 span, riveted steel multi-girder)

The structure is in overall satisfactory condition.

The deck is in satisfactory condition. The cast-in-place microsilica concrete (deck slab) roadway and sidewalk deck, installed in 1989, exhibits numerous fine to medium transverse cracks and longitudinal cracks over the stringer locations. These cracks were formed during the initial pouring procedures. Cores taken in 1989 and again in 1996 indicated that cracks to have grown to a maximum width of 1/16" at some locations, and also showed no signs of corrosion to the reinforcement. This inspection revealed minor or no rust to the stay-in-place forms at the underside of the deck and no significant changes to the cracks on the surface of the deck.

As a result of the above noted deck conditions, the Commission as part of Contract C-472A, completed a comprehensive Bridge Deck Condition Survey in 2008. The results of this Survey indicated that widespread transverse cracking exists throughout the decks. These cracks, which are generally very small in width, were mostly formed during initial pouring procedures. Although the cracking is widespread, it does not seem to be causing any significant deterioration in the deck, based on the bridge deck evaluation results for this project. The deck evaluation results indicate that there is very little deterioration. Based on these findings, the appropriate deck restoration strategy recommended was to patch the areas of deterioration and protect the decks from intrusion of moisture through the cracks via a penetrating sealer.

The deck joints were rebuilt during the deck replacement in 1989 and consist of steel plates welded to the original finger joints, combined with steel angle armoring and strip seals. The "Seva" patch material, used as the joint header material, is deteriorated at numerous locations throughout. The material is settled, cracked, and spalled, exposing the steel plates and steel angle armoring below in several areas. Few deck joints in the eastbound roadway are slightly vertically offset between spans resulting in minor plow catch damage. All the deck joints also exhibit moderate debris accumulation in the joint opening.

The approach roadway in Pennsylvania is in satisfactory condition. Fine to medium map cracks were noted at the approaches. Random cracks and small spalls were also noted at the approaches.

The superstructure is in good condition.

The substructure is in satisfactory condition. The substructure exhibits areas of spall repair and epoxy coating that was performed by Maintenance forces. Numerous areas of spalled and hollow concrete were noted throughout the substructure. Some of these areas have been removed by maintenance forces and the exposed reinforcement was epoxy coated. The footing at the west abutment is exposed.

An underwater inspection was performed in 2006 under Contract No. C-467D. The substructure for the eastbound roadway was found to be in satisfactory condition.



## DELAWARE WATER GAP TOLL BRIDGE (WESTBOUND)

(16 span, riveted steel multi-girder)

The structure is in overall satisfactory condition.

The deck is in satisfactory condition. The defects noted at the westbound roadway deck are similar to the eastbound roadway deck. The deck joints in the westbound roadway exhibit 1/2" to 3/4" vertical offset resulting in plow catch damage at the east and west abutments and Pier 3. The aluminum median barrier exhibits scrape marks.

The approach roadway is in satisfactory condition. Fine to medium map cracks were noted at the approaches. A few small spalls were noted at the approach slabs.

The superstructure is in satisfactory condition. The north and south fascia girders exhibit isolated areas of minor material loss to the bottom flange throughout all spans. Several rocker bearings exhibit moderate to heavy rust at the bearings and keeper angles. A few bearings are missing shoulder bolts. No lateral movement of the bearings was noted at the time of inspection. The paint at the fascia beams is in fair condition, while the paint at the interior beams is in good condition.

The substructure is in good condition.

An underwater inspection was performed in 2006 under Contract No. C-467D. The substructure for the westbound roadway was found to be in good condition.

The results of the recently completed Northerly Crossing Corridor Congestion Mitigation Study indicate that the I-80 DWG Bridge currently operates at a level of service F during the weekday PM peak period. This report recommends that the DRJTBC proceed with an Open Road Tolling project at the I-80 DWG Bridge to help increase the throughput capacity at the I-80 bridge.

## DELAWARE WATER GAP TOLL BRIDGE FACILITY AND GROUNDS

A need has been identified for additional maintenance garage space at this facility. The existing garage space does not allow for indoor storage of all vehicles. The existing maintenance garage also does not have restroom, locker room or lunchroom facilities, which are present at the other Commission maintenance facilities. A training/meeting room for the district is also needed. Currently, meetings take place in the garage area and are disrupted by outside activity.

Maintenance has requested to replace HVAC system because it is not functioning properly. Maintenance has also requested to replace streetlight electrical panels at three locations. The metal cabinets are corroded and are difficult to open and close.

Maintenance has indicated that the salt storage capacity is insufficient for the entire district. A new district salt storage facility is currently planned for the Portland – Columbia Toll Bridge Facility.

## **CONCLUSIONS**

**BASED ON THE FINDINGS OF THE 2009 INSPECTIONS, THE MAIN RIVER BRIDGES ARE CAPABLE OF SAFELY SUPPORTING ALL LEGAL LOADS.**

### **DELAWARE WATER GAP TOLL BRIDGE (EASTBOUND)**

The structure is in overall satisfactory condition.

- The bearings should be replaced with elastomeric bearings.
- The hollow concrete areas and spalls throughout the substructure should be repaired with concrete.
- The structural steel superstructure should be cleaned and painted.
- The top of deck cracks should be sealed with a methacrylate sealer.
- Reconstruct the deteriorated and settled roadway catch basins along the left and right shoulders of I-80 at the toll plaza.
- Repair concrete spalls at Pier 3 through 8.
- Improve channel protection around the footings at Piers 8, 9, 12 and 14.
- Remove debris at substructure units.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

Contract No. C-472A Delaware Water Gap Toll Bridge Rehabilitation is underway and addresses the above water line items referenced above.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge. Contract C-476A is anticipated to commence within the next year and will be addressing the below water items referenced above including the debris removal.

### **DELAWARE WATER GAP TOLL BRIDGE (WESTBOUND)**

The structure is in overall satisfactory condition.

- The existing steel bearings should be replaced with elastomeric bearings.
- The structural steel girders should be painted.
- The top of deck cracks should be sealed with a methacrylate sealer.
- Improve channel protection around Piers 8, 9 and 13.
- Repair the spalled areas and void at the west abutment breastwall and Pier 5.
- Grout repair and pressure inject cracks at Pier 5.
- Remove debris at Piers 3, 9, 12 and 13.

- Repoint masonry joints at Pier 15.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

Contract No. C-472A Delaware Water Gap Toll Bridge Rehabilitation is underway and addresses the above water items referenced above.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.

#### DELAWARE WATER GAP TOLL BRIDGE FACILITY AND GROUNDS

- A study for the expansion and modifications of maintenance garage is recommended.
- A study should be performed on the HVAC controls to determine what components need upgrading, or if entire system should be upgraded.
- Consider replacing the severely corroded electrical panels for the streetlights.
- A study was performed to determine the district's deicing requirements. A new district salt storage facility is currently planned for Portland – Columbia Toll Bridge Facility.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### Delaware Water Gap Toll Bridge

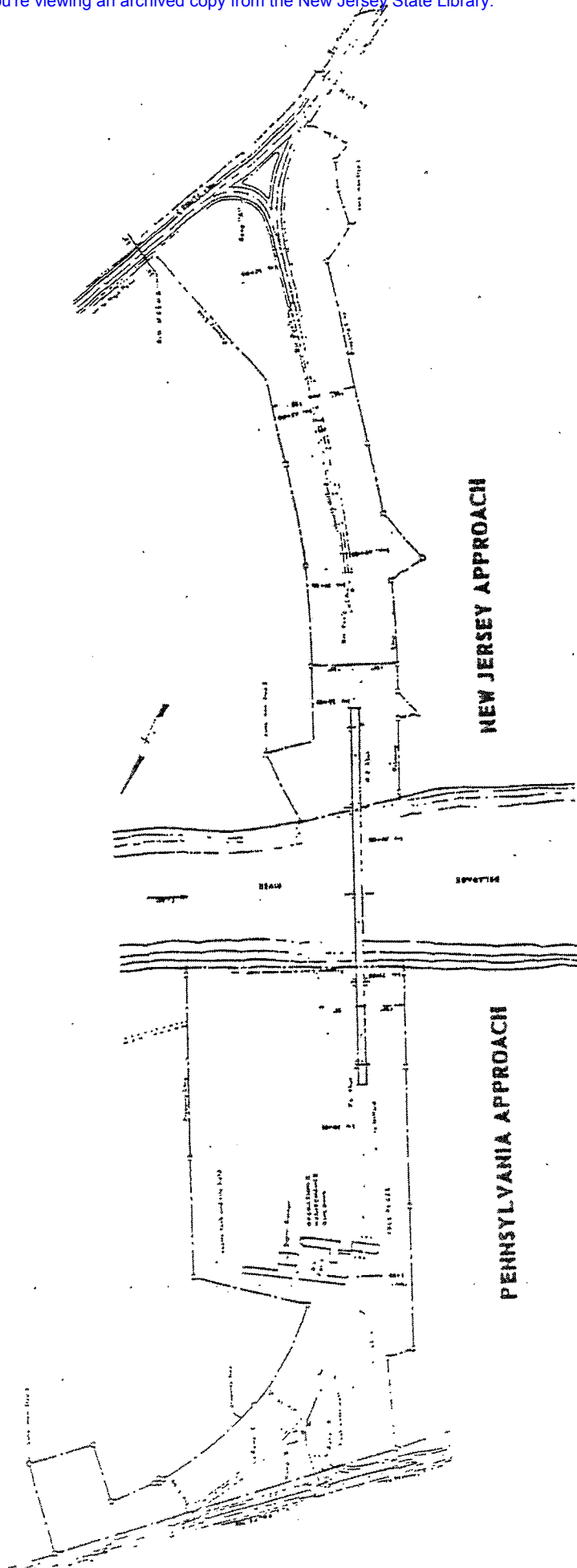
#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
440B	Phase 1 - DWG Toll Bridge ORT Implementation	\$7,094,000	\$6,482,000	\$0
440C	DWG Toll Bridge Improvements	\$179,524,000	\$0	\$0
472	Delaware Water Gap Toll Bridge Rehabilitation	\$16,420,000	\$7,802,000	\$8,056,000
BRIDGES SUB TOTAL		\$203,038,000	\$14,284,000	\$8,056,000
<b><u>Facilities and Grounds</u></b>				
DWGTB	Unplanned Projects	\$1,046,000	\$75,000	\$78,000
474	DWG Maintenance Garage Improvements	\$2,961,000	\$336,000	\$2,049,000
513	DWG HVAC Upgrade	\$1,676,000	\$116,000	\$1,561,000
FACILITIES AND GROUNDS SUB TOTAL		\$5,683,000	\$527,000	\$3,688,000
TOTAL COST		\$208,721,000	\$14,811,000	\$11,744,000

***MILFORD-MONTAGUE***  
***TOLL BRIDGE FACILITY***  
***(Structure No. 400)***

STATE OF NEW JERSEY  
COUNTY OF SUSSEX  
TOWN OF MONTAGUE

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF PIKE  
DINGMAN TOWNSHIP



MILFORD - MONTAGUE TOLL BRIDGE

## **GENERAL**

### **MILFORD-MONTAGUE TOLL BRIDGE**

(4 span, continuous, steel deck truss)

The Milford-Montague Toll Bridge (Structure No. 400) is the northern-most toll bridge across the Delaware River under the Commission's jurisdiction. Located seven miles south of the New Jersey/New York state line, the bridge connects US Route 206 at Montague, New Jersey to US Route 209 at Dingman Township, Pennsylvania.

The toll bridge, built by the Commission and opened to traffic on December 30, 1953, is a four span continuous steel deck truss structure with an approximate total length of 1,150 feet. The curb to curb width of the roadway is 27'-6" and carries one lane of traffic in each direction with a posted speed limit on the New Jersey approach of 40 mph. Cantilevered from the north truss is a 4'-0" wide sidewalk. The substructure units consist of reinforced concrete abutments and piers with granite stone facing on the piers.

In 1982 the original deck was replaced with precast concrete deck panels and stringers were relocated (fifth stringer added) for the addition of the cantilevered sidewalk. Also included in the 1982 rehabilitation project were modifications to the substructures and bridge lighting, and the addition of the aluminum safety barriers. In 1998, the New Jersey approach was milled and repaved by contract.

Contract No. T-430A, a rehabilitation contract for the Milford-Montague Toll Bridge, was completed in 2009. The improvements to the structure are:

- Concrete deck replacement
- Superstructure steel repairs
- Cleaning and painting of the superstructure
- Substructure repairs
- Slope protection and erosion damage repairs
- Approach roadway repaving
- Drainage improvements
- Safety feature improvements (signage, guide rails, etc.)
- New Toll Plaza

### **MILFORD-MONTAGUE TOLL BRIDGE FACILITIES AND GROUNDS**

At the Pennsylvania approach, there are three westbound toll collection lanes that are protected by a canopy and founded on concrete islands.

In 2009, the toll plaza was replaced under Contract No. T-430A.

The 2009 inspection included the main river bridge and the facility and grounds.

## **SIGNIFICANT FINDINGS**

**BASED ON THE FINDINGS OF THE 2009 INSPECTIONS, THE MAIN RIVER BRIDGE IS CAPABLE OF SAFELY SUPPORTING ALL LEGAL LOADS.**

### **MILFORD-MONTAGUE TOLL BRIDGE**

(4 span, continuous, steel deck truss)

The structure is in overall good condition.

The deck and approach roadway are in very good condition.

The superstructure and substructure are in good condition.

An underwater inspection was performed in 2006 under Contract No. C-467D. The underwater components of the substructure were noted to be in good condition.

### **MILFORD-MONTAGUE TOLL BRIDGE FACILITIES AND GROUNDS**

The toll plaza, approach roadway, and sign structures were rehabilitated under Contract No. T-430A in 2009.

The HVAC system is showing signs of the age and it is not functioning satisfactorily.

The present salt storage capacity is insufficient for the entire district in the event of a major snowstorm. A new district salt storage facility is currently planned for the Portland – Columbia Toll Bridge Facility

## **CONCLUSIONS**

**BASED ON THE FINDINGS OF THE 2009 INSPECTIONS, THE MAIN RIVER BRIDGE IS CAPABLE OF SAFELY SUPPORTING ALL LEGAL LOADS.**

### **MILFORD-MONTAGUE TOLL BRIDGE**

The structure is in overall good condition.

- Improve channel protection at Piers 2 and 3.

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.



## MILFORD-MONTAGUE TOLL BRIDGE FACILITIES AND GROUNDS

- A study should be performed on the HVAC controls to determine what components need upgrading, or if the entire system should be upgraded.
- A study should be performed to determine the district's overall deicing requirements. The study should include but not limited to determining salt storage capacity, storage location, type of storage and any additional deicing capabilities. A new district salt storage facility is currently planned for the Portland – Columbia Toll Bridge Facility

For a list of maintenance repair items, see the *Thirteenth Annual Maintenance 2009 Report*.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### Milford-Montague Toll Bridge

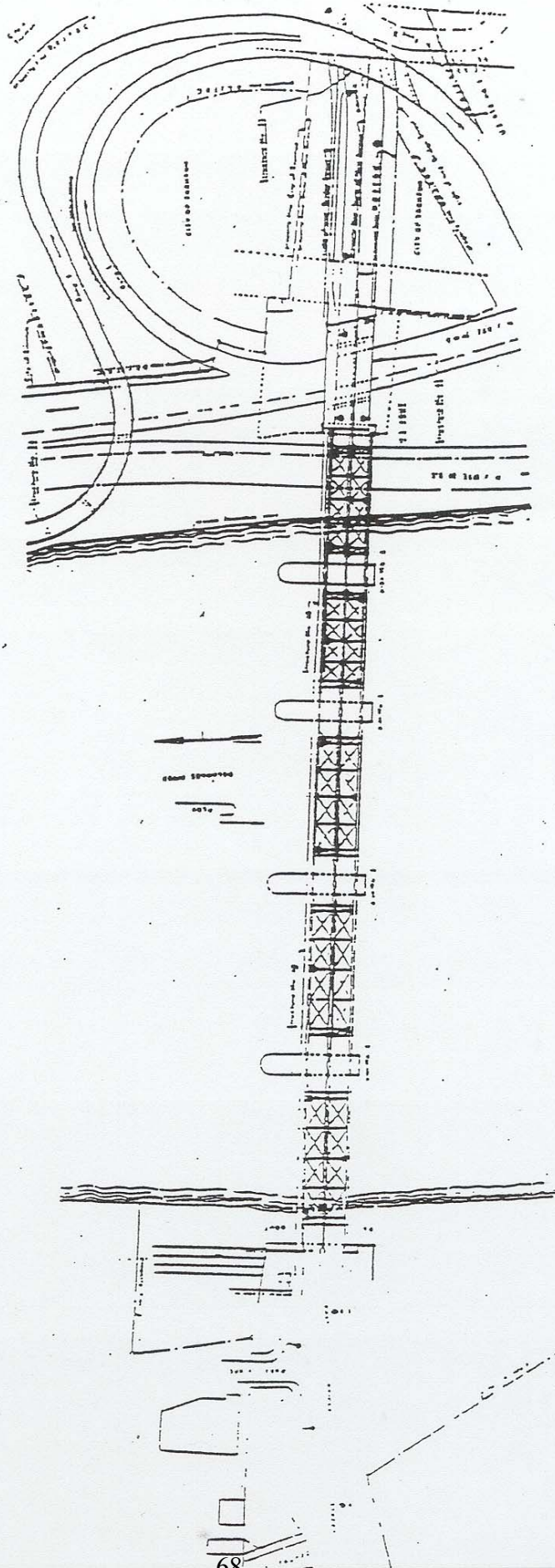
#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
The bridge was rehabilitated in 2009				
BRIDGES SUB TOTAL		\$0	\$0	\$0
<b><u>Facilities and Grounds</u></b>				
MMTB	Unplanned Projects	\$719,000	\$50,000	\$52,000
514	M-M HVAC Upgrade (incl. Emerg. Gen. Relocation)	\$1,180,000	\$77,000	\$1,103,000
FACILITIES AND GROUNDS SUB TOTAL		\$1,899,000	\$127,000	\$1,155,000
TOTAL COST		\$1,899,000	\$127,000	\$1,155,000

***LOWER TRENTON***  
***TOLL-SUPPORTED BRIDGE***  
***(Structure No. 40)***

STATE OF NEW JERSEY  
COUNTY OF MERCER  
CITY OF TRENTON

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF BUCKS  
BOROUGH OF MORRISVILLE



LOWER TRENTON TOLL SUPPORTED BRIDGE

## **GENERAL**

### **LOWER TRENTON TOLL-SUPPORTED BRIDGE**

(5 span, subdivided warren truss)

The Lower Trenton Toll-Supported Bridge (Structure No. 40), also known as the “Trenton Makes” Bridge, carries Bridge Street traffic from Trenton, New Jersey to Morrisville, Pennsylvania; one of three bridges connecting these two towns.

The structure is a five span subdivided Warren Truss built in 1928, with a total length of approximately 1,022 feet. The roadway consists of two lanes, one lane in each direction separated by a center truss. The curb to curb width of each lane is 19 feet, 4 ½ inches. The substructure, originally built in 1804, widened and raised in 1874, consists of stone masonry.

The structure is currently posted for a 5 ton weight limit restriction and a 25 mph speed limit. The structure is also posted for a 10 foot vertical clearance.

The downriver truss displays the “Trenton Makes the World Takes” sign which is mounted to the truss members; hence, the nickname “The Trenton Makes Bridge”. The original sign was erected in 1935 and replaced in 1981. A new sign was installed in 2005.

The structure was cleaned and painted under Contract No. TS-398A in 2005. The officer's shelter located on the Pennsylvania side of the bridge was replaced in 2006.

The east approach bridge is NJDOT owned and was not part of the inspection.

### **LOWER TRENTON TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS**

At the northwest approach corner of the Lower Trenton Toll-Supported Bridge is a Commission owned Pennsylvania officer shelter.

## **SIGNIFICANT FINDINGS**

### **LOWER TRENTON TOLL-SUPPORTED BRIDGE**

(5 span, subdivided warren truss)

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall satisfactory condition due to minor deterioration of structural elements.

The deck, approach roadway (Pennsylvania) and superstructure are in good condition.

The substructure is in satisfactory condition. The abutments and piers exhibit numerous areas of cracked and missing mortar. A few piers also exhibit loose and missing stones in isolated areas. Heavy scaling with exposed rebar is present at the Pier 4 concrete apron.

An underwater inspection was performed in 2006 under Contract No. C-467D. The substructure units below the waterline were found to be in fair condition due to undermining of the aprons at Piers 2 and 4.

#### LOWER TRENTON TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania officer shelter is in overall good condition. There are two small holes (1" diameter each) in the back siding. The concrete foundation exhibits minor spalls. The light standard adjacent to the shelter was reported to be not functioning. There are minor areas of loose and missing mortar at the retaining wall adjacent to the shelter. The shelter and bridge lighting electrical cabinet door does not properly close.

### CONCLUSIONS

#### LOWER TRENTON TOLL-SUPPORTED BRIDGE

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall satisfactory condition due to minor deterioration of structural elements. The areas of missing and split stone masonry, hollow concrete and spalls throughout the substructure should be repaired with concrete. Riprap should be installed around Piers 1, 3, 4 and the northwest retaining wall. Areas of missing and deteriorated mortar in the stone masonry joints throughout the substructure should be repointed. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.

#### LOWER TRENTON TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania officer shelter is in overall good condition. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### Lower Trenton Toll-Supported Bridge

#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
In 1997 this bridge was rehabilitated. In 2005, cleaning and painting were performed and the "TRENTON MAKES" sign was replaced.				
	BRIDGES SUB TOTAL	\$0	\$0	\$0
<b><u>Facilities and Grounds</u></b>				
LTTSB	Unplanned Projects	\$370,000	\$25,000	\$26,000
	FACILITIES AND GROUNDS SUB TOTAL	\$370,000	\$25,000	\$26,000
	TOTAL COST	\$370,000	\$25,000	\$26,000

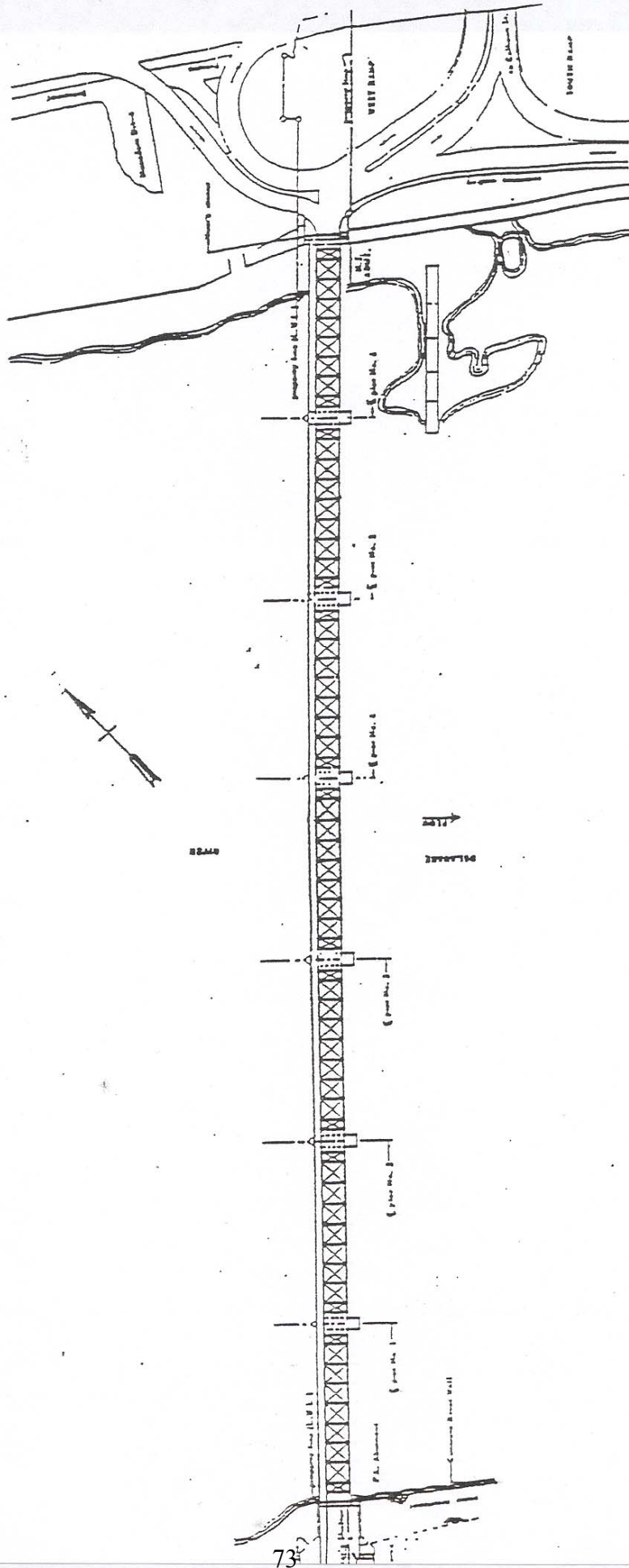
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***CALHOUN STREET***  
***TOLL-SUPPORTED BRIDGE***  
***(Structure No. 60)***

STATE OF NEW JERSEY  
COUNTY OF MERCER  
CITY OF TRENTON

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF BUCKS  
BOROUGH OF MORRISVILLE



# CALHOUN STREET TOLL SUPPORTED BRIDGE

## **GENERAL**

### **CALHOUN STREET TOLL-SUPPORTED BRIDGE**

(7 span, wrought iron phoenix truss)

The Calhoun Street Toll-Supported Bridge (Structure No. 60) is one of three bridges constructed to connect Trenton, New Jersey and Morrisville, Pennsylvania. The truss was built in 1884 and the stone masonry substructure was built in 1859.

The structure is a seven span, wrought iron, pin connected Phoenix Pratt Truss with a total length of approximately 1,274 feet. The open steel grid deck provides a curb to curb width of 18 feet, 4 inches. A timber plank sidewalk is supported by the upriver truss on steel cantilever brackets.

The structure is currently posted for a 3 ton weight limit restriction and a 15 mph speed limit. The structure is also posted for an 8 foot vertical clearance.

A structural analysis of the structure was performed under Contract No. C-447A. The primary objective of this study was to understand the structural integrity of the bridge and determine the remaining useful life of the structure and the most economical and constructible structural remediation strategies. Findings are detailed in the "Concept Study Report" dated August 2008. The major work items recommended include; the complete replacement of the bridge roadway floor system and sidewalk, repair of truss members including heat straightening of damaged truss members. Also recommended is the replacement of the truss bearings, cleaning and painting, replacement of the bridge lighting systems and improvements to the approach roadways and sidewalks.

### **CALHOUN STREET TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS**

At the southwest and southeast approach corners of the Calhoun Street Toll-Supported Bridge are Commission owned Pennsylvania and New Jersey officer shelters.

## **SIGNIFICANT FINDINGS**

### **CALHOUN STREET TOLL-SUPPORTED BRIDGE**

(7 span, wrought iron phoenix truss)

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall poor condition due to the superstructure and substructure.

The deck is in satisfactory condition. Several welds connecting the steel bars in the open steel grid deck have cracked and several bars were noted to be loose. Areas of moderate rust are present throughout the perimeter of the steel grid deck.

The approach roadway is in good condition.

The superstructure is in poor condition. The roadway stringers that are presumed to no longer carry load are deteriorating with extensive material losses noted at the webs, bottom flanges and connections to the floorbeams. In numerous locations, the lower portion of the stringer web is completely perforated and/or the bottom flange exhibits extensive width and thickness losses. Several of the bottom flanges throughout the floorsystem are detached from the stringer webs and are hanging. In 1998 under Contract No. 345 alternating lines of stringers were removed and replaced. It has been previously determined that the bridge can safely carry the posted load of 3 tons with these 1998 stringers carrying the vehicular loading. It has been determined previously that the bridge can safely support the posted vehicular loading of 3 tons. The roadway stringers carrying live load located adjacent to the heavily deteriorated members were found to be in generally satisfactory physical condition. The end floorbeams exhibit web holes and flange losses. The majority of the end floorbeams have been temporarily supported with timber blocking that bears on the pier caps. Numerous diagonal and vertical truss members were damaged by traffic impact prior to the installation of the existing bridge vehicular railings. The resulting damage consists of bent inboard and outboard members and some loose members that do not appear to be in tension. Many of the damaged members have been supplemented with wire cables wrapped around the top and bottom panel points. Supplementary rods have been installed at several locations. Several holes occurring on the north end of the upper chord sway bracing in all spans were found in the Phoenix members.

The substructure is in poor condition. There are widespread areas of large spalls with exposed rebar, delaminations, scaling and efflorescence noted at the vertical and horizontal surfaces of the concrete pier caps. The concrete caps at Piers 4, 5 and 6 appear to exhibit greater deterioration than the other piers. The stone masonry portions of the piers are generally in satisfactory condition with occasional fine cracks in the mortar joints.

An underwater inspection was performed in 2006 under Contract No. C-467D. The substructure units below the waterline were found to be in satisfactory condition with minor deterioration to the concrete and exposed pier footings.

#### CALHOUN STREET TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania officer shelter is in overall satisfactory condition. There is a wide crack at the east side of the concrete foundation. There is a missing access cover at the base of the light standard at the east side of the shelter.

The New Jersey officer shelter is in overall good condition. There is a disconnected hanging wire and utility conduit in the basement.

#### CONCLUSIONS

##### CALHOUN STREET TOLL-SUPPORTED BRIDGE

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall poor condition due to the superstructure and substructure. A comprehensive rehabilitation should be performed on the structure. The rehabilitation should include cleaning and painting the above deck superstructure, floorsystem and sidewalk replacement, bearing replacement, steel and substructure repairs. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

The Commission has selected an engineering consultant to perform the above recommended rehabilitation under Contract No. C-447B and it is anticipated that the project will begin in 2009.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.

#### CALHOUN STREET TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania officer shelter is in overall satisfactory condition. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

The New Jersey officer shelter is in overall good condition. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### Calhoun Street Toll-Supported Bridge

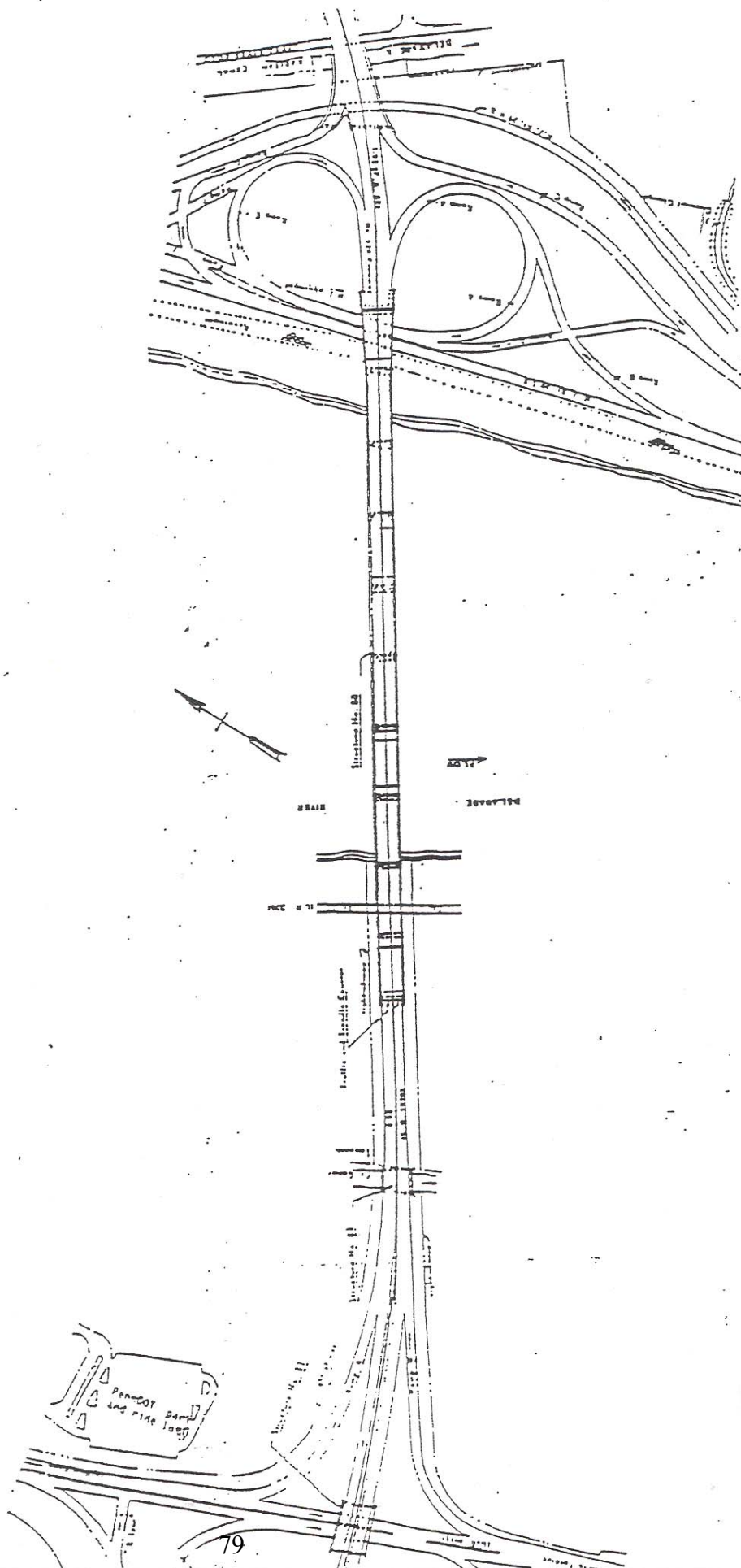
#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
447	CS TSB Rehabilitation	\$11,454,000	\$10,529,000	\$0
BRIDGES SUB TOTAL		\$11,454,000	\$10,529,000	\$0
<b><u>Facilities and Grounds</u></b>				
CSTSB	Unplanned Projects	\$217,000	\$15,000	\$16,000
FACILITIES AND GROUNDS SUB TOTAL		\$217,000	\$15,000	\$16,000
TOTAL COST		\$11,671,000	\$10,544,000	\$16,000

***SCUDDER FALLS***  
***TOLL-SUPPORTED BRIDGES***  
***(Structure Nos. 80, 81 & 82)***

STATE OF NEW JERSEY  
COUNTY OF MERCER  
TOWNSHIP OF EWING

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF BUCKS  
TOWNSHIP OF LOWER MAKEFIELD



SCUDDER FALLS TOLL SUPPORTED BRIDGE



## **GENERAL**

### **SCUDDER FALLS TOLL-SUPPORTED BRIDGE**

(10 span, riveted steel plate girder)

The Scudder Falls Toll-Supported Bridge (Structure No. 80) carries Interstate 95 over the Delaware River from Lower Makefield Township, Pennsylvania to Ewing Township, New Jersey.

The main river bridge is a ten span, riveted plate girder structure consisting of two span continuous deck girders and alternating cantilever spans. Built by the Commission in 1959 and opened to traffic on June 22, 1961, the bridge carries two dual roadways each having a curb to curb width of 27 feet with a concrete median barrier, and flanked by an upstream and downstream safety walk. The total length of the bridge is 1,740 feet. The substructure units are reinforced concrete, with stone facing on the piers.

The posted speed limit on the bridge approach roadways is 55 mph. The Commission's jurisdiction at this crossing also includes two Pennsylvania approach overpasses, one at the Pennsylvania Canal and the other at Taylorsville Road.

The Commission is moving forward with plans to improve the Scudder Falls Bridge based on conclusions contained in its Southerly Crossings Corridor Study. That study found that congestion and safety problems on the bridge were a result of its narrow configuration, the proximity of adjoining interchanges, and ramps merging onto I-95. The bridge carries more than 57,500 vehicles per day and operates at the worst level of service (LOS F) during peak rush hours. Over the next 25 years, traffic volumes are expected to increase an additional 35 percent. In cooperation with the New Jersey and Pennsylvania Departments of Transportation, the Commission is completing a preliminary engineering plan and an environmental assessment to select a preferred alternative that will improve safety and relieve anticipated congestion on the bridge and an approximate 4 mile stretch of I-95, from Route 332 in Bucks County, Pennsylvania to Bear Tavern Road in Mercer County, New Jersey. The assessment includes environmental studies, alternatives to improve safety and congestion, and preliminary engineering design. The Commission has communicated with the public regarding this project via public meetings, newsletters, and a website to reflect the current status.

### **PENNSYLVANIA CANAL OVERPASS**

(1 span, simply supported, steel multi-stringer)

The Pennsylvania Canal Overpass (Structure No. 81) carries Interstate Route 95 over the Pennsylvania Canal in Lower Makefield Township, Pennsylvania. The structure is an approach bridge to the main Scudder Falls Toll-Supported Bridge that crosses the Delaware River.

The Pennsylvania Canal Overpass is a simple span, concrete deck, multi-stringer structure founded on reinforced concrete abutments on footings, which are supported by steel bearing piles. Opened to traffic on June 22, 1961, the bridge carries two dual roadways each with a curb to curb width of 27 feet with a concrete median barrier, and flanked by an upriver and downriver safety walk. The total span length of the bridge is 61 feet, 4 inches.

### **TAYLORSVILLE ROAD OVERPASS**

(3 span, steel multi-stringer)

Taylorsville Road Overpass (Structure No. 82) carries Interstate 95 over Taylorsville Road in Lower Makefield Township, Pennsylvania and provides access to the main Scudder Falls Toll-Supported Bridge over the Delaware River. The bridge was built in 1959 and opened to traffic on June 22, 1961.

The structure is a three span, concrete deck, multi-stringer structure founded on reinforced concrete abutments and piers on footings that are supported by cast in place concrete piles. The bridge carries two dual roadways each with a curb to curb width of 27 feet with a concrete median barrier. The bridge is flanked by a north and south safety walk. The total span length of the bridge is 134 feet.

### **SIGNIFICANT FINDINGS**

#### **SCUDDER FALLS TOLL-SUPPORTED BRIDGE**

(10 span, riveted steel plate girder)

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting all legal loads.

The structure is in overall satisfactory condition due to minor deterioration of structural elements.

The deck is in good condition.

The approach roadways and associated ramps are in satisfactory condition. Deteriorated asphalt was noted in numerous locations more prevalent adjacent to the concrete headers. The approach roadways and ramps exhibit several small potholes and spalls.

The superstructure is in satisfactory condition. Several stringers exhibit horizontal cracks in the web. The 1st floorbeam to the east of Pier 5 exhibits a crack in the south tie plate. Sheared anchor bolts are present in the north tie plate at the 2<sup>nd</sup> floorbeam in Span 9.

The substructure is in good condition.

An underwater inspection was performed in 2006 under Contract No. C-467D. The substructure units below the waterline were found to be in good condition with only minor spalls and minor exposure of the Pier 3 footing.

#### **PENNSYLVANIA CANAL OVERPASS**

(1 span, simply supported, steel multi-stringer)

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting all legal loads.

The structure is in overall satisfactory condition due to minor deterioration of structural elements.

The deck is in good condition.

The approach roadway is in good condition.

The superstructure is in satisfactory condition. Heavy laminar rust is typical at the stringer ends and bearings with minor material losses.

The substructure is in good condition.

An underwater inspection was performed in 2006 under Contract No. C-467D. The substructure units below the waterline were found to be in good condition with only fine random cracks throughout.

### TAYLORSVILLE ROAD OVERPASS

(3 span, steel multi-stringer)

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting all legal loads.

The structure is in overall fair condition due to minor deterioration of primary structural elements.

The deck is in good condition.

The approach roadway is in good condition.

The superstructure is in fair condition. Stringers exhibit moderate to heavy laminar rust at the bottom flange and lower web. Stringer 14 exhibits moderate impact damage over the right northbound lane. Heavy laminar rust is typical at the bearings with heavy debris accumulation surrounding the bearing seats.

The substructure is in satisfactory condition. The east abutment backwall exhibits a spall with exposed rebar at the north end. Medium vertical cracks are typical throughout. Several previous concrete patches have failed at Pier 2.

## CONCLUSIONS

### SCUDDER FALLS TOLL-SUPPORTED BRIDGE

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting all legal loads.

The structure is in overall satisfactory condition due to minor deterioration of structural elements. Under Contract 393, Interstate 95/Scudder Falls Toll-Supported Bridge Improvement

Project, the main river bridge and its approach roadways and bridges are expected to be replaced by 2013. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

#### PENNSYLVANIA CANAL OVERPASS

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting all legal loads.

The structure is in overall satisfactory condition due to minor deterioration of structural elements. Under Contract 393, Interstate 95/Scudder Falls Toll-Supported Bridge Improvement Project, the main river bridge and its approach roadways and bridges are expected to be replaced by 2013. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

#### TAYLORSVILLE ROAD OVERPASS

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting all legal loads.

The structure is in overall fair condition due to minor deterioration of primary structural elements. Under Contract 393, Interstate 95/Scudder Falls Toll-Supported Bridge Improvement Project, the main river bridge and its approach roadways and bridges are expected to be replaced by 2013. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### Scudder Falls Toll-Supported Bridge

#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

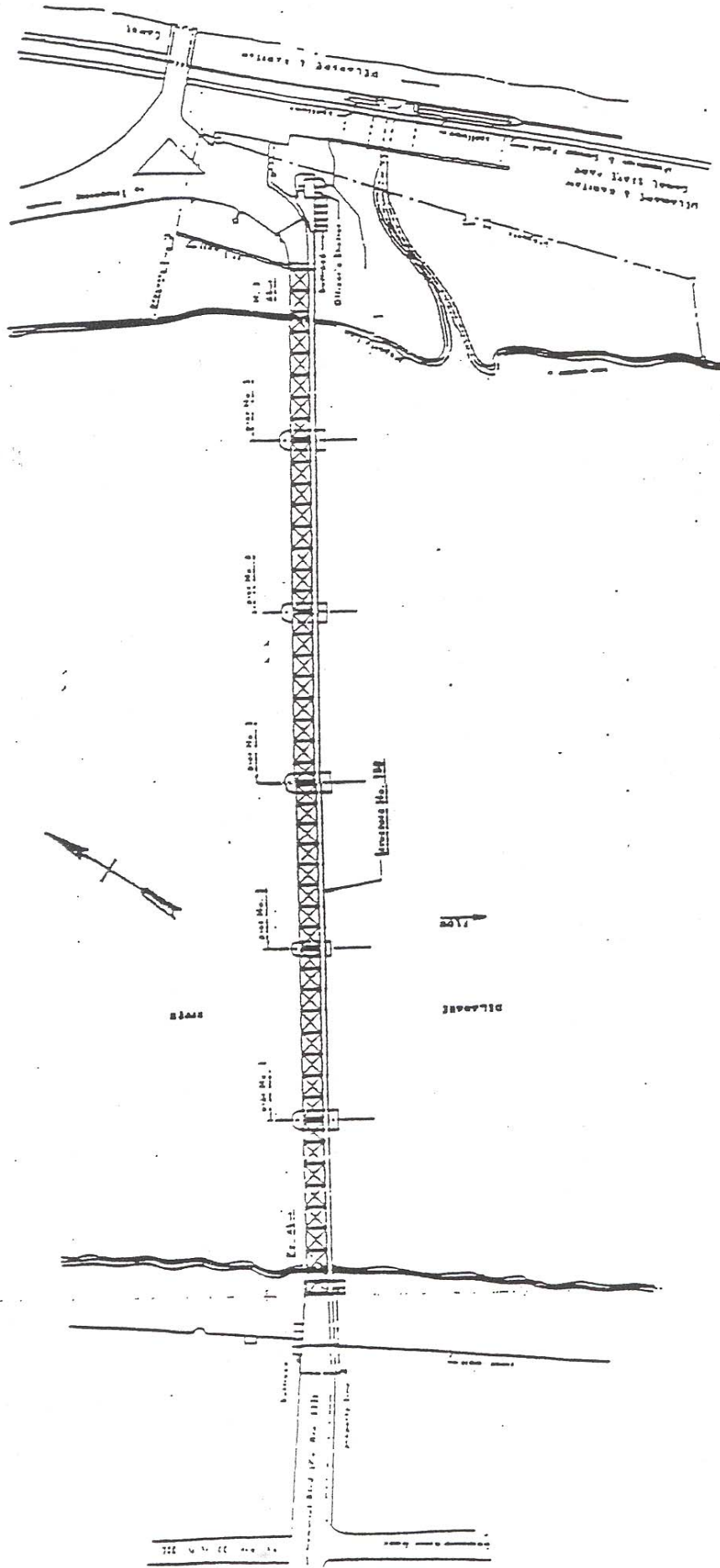
Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
393A	I-95 / SF Improvement Project (Design, CM/CI, Construction)	\$308,571,000	\$14,722,000	\$71,096,000
BRIDGES SUB TOTAL		\$308,571,000	\$14,722,000	\$71,096,000
<b><u>Facilities and Grounds</u></b>				
SFTSB	Unplanned Projects	\$1,013,000	\$75,000	\$78,000
FACILITIES AND GROUNDS SUB TOTAL		\$1,013,000	\$75,000	\$78,000
TOTAL COST		\$309,584,000	\$14,797,000	\$71,174,000

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***WASHINGTON CROSSING***  
***TOLL-SUPPORTED BRIDGE***  
***(Structure No. 100)***

STATE OF NEW JERSEY  
COUNTY OF MERCER  
TOWNSHIP OF HOPEWELL  
WASHINGTON CROSSING

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF BUCKS  
TOWNSHIP OF UPPER MAKEFIELD  
WASHINGTON CROSSING



WASHINGTON CROSSING TOLL SUPPORTED BRIDGE



## **GENERAL**

### **WASHINGTON CROSSING TOLL-SUPPORTED BRIDGE**

(6 span, double warren truss)

The Washington Crossing Toll-Supported Bridge (Structure No. 100) connects Mercer County Route 546 in Hopewell Township, New Jersey with PA Route 532 (George Washington Memorial Boulevard) in the Township of Taylorsville in Upper Makefield, Pennsylvania.

The structure is a six span double Warren Truss, with a total length of approximately 877 feet. The steel superstructure was built in 1904. The substructures, composed of rubble stone faced masonry, are from the original construction in 1831. The open steel grid deck provides a curb to curb width of 15 feet. The downstream side of the truss supports a cantilevered, wood planked sidewalk.

The structure is currently posted for a 3 ton weight limit restriction and a 15 mph speed limit. The structure is also posted for an 8 foot vertical clearance.

The deck joint support system was repaired under Contract No. TS-428A in 2005. This Contract consisted of repairing and replacing riser beams. High priority substructure repairs were also completed under this contract during 2005 due to post flood damage.

### **WASHINGTON CROSSING TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS**

At the southeast approach corner of the Washington Crossing Toll-Supported Bridge is a Commission owned New Jersey officer shelter.

## **SIGNIFICANT FINDINGS**

### **WASHINGTON CROSSING TOLL-SUPPORTED BRIDGE**

(6 span, double warren truss)

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall poor condition due to the superstructure and substructure.

The deck is in good condition.

The approach roadway is in satisfactory condition. The pavement adjacent to the west abutment deck joint exhibits moderate surface wear and spalled areas. Medium transverse cracks are present throughout the roadways.

The superstructure is in poor condition. The lower chord exhibits impact damage at the north truss from panel points L2 to L4 in Span 3, L1 to L4 in Span 5 and L1 to L3 in Span 6. The south tie rod at Span 2, the south tie rod at Span 3, the north tie rod at Span 4, the north tie rod at Span 5 and the north tie rod at Span 6 have been removed. The west abutment truss bearing

appears over expanded and is in contact with the backwall. Light to moderate rust with minor section losses is typical throughout the floorsystem.

The substructure is in poor condition. The Pennsylvania abutment backwall is rotating causing the existing tooth deck joint to close completely and the concrete transition parapets to deteriorate at the base. Several wide diagonal cracks were noted at the north and south ends of the west abutment backwall from this movement and rotation.

An underwater inspection was performed in 2006 under Contract No. C-467D. The substructure units below the waterline were noted to be in satisfactory condition due to minor deterioration and undermining of the pier aprons and loss of pointing and cracks in the west abutment and wingwalls.

#### WASHINGTON CROSSING TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The New Jersey officer shelter is in overall good condition.

### CONCLUSIONS

#### WASHINGTON CROSSING TOLL-SUPPORTED BRIDGE

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall poor condition due to the superstructure and substructure. An in-depth inspection and rating contract leading to a comprehensive rehabilitation is recommended. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

The Commission has selected an engineering consultant to perform Phase 1 of the above recommended rehabilitation under Contract C-442A. Phase 2 is programmed to be started in 2012.

#### WASHINGTON CROSSING TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The New Jersey officer shelter is in overall good condition.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### Washington Crossing Toll-Supported Bridge

#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

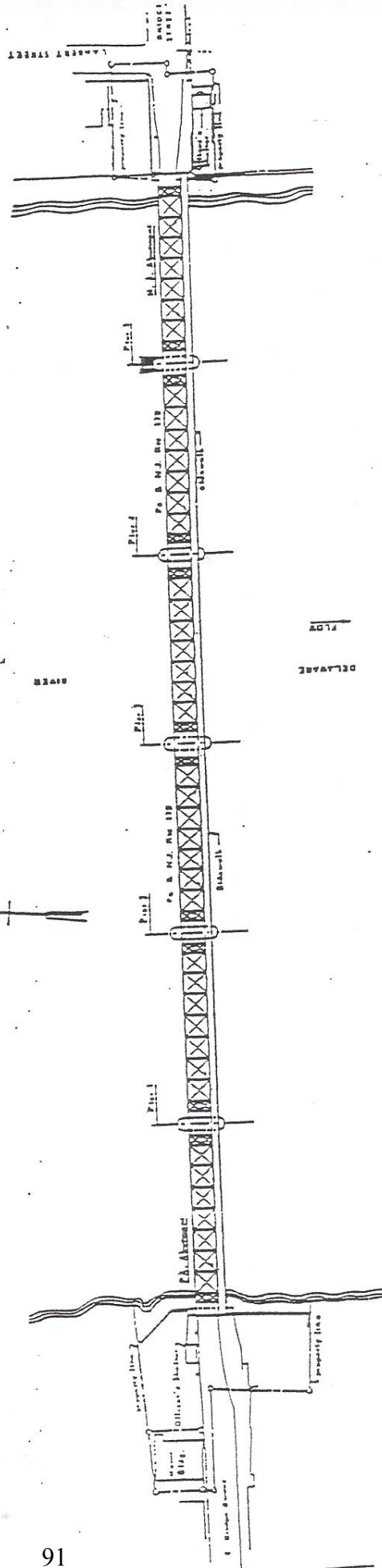
Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
442A	Phase 1 Rehabilitation & Concept Study for the Washington Crossing TSB	\$3,426,000	\$2,025,000	\$714,000
442B	Washington Crossing TSB Phase 2 Rehabilitation	\$10,133,000	\$0	\$0
BRIDGES SUB TOTAL		\$13,559,000	\$2,025,000	\$714,000
<b><u>Facilities and Grounds</u></b>				
WCTSB	Unplanned Projects	\$193,000	\$15,000	\$16,000
FACILITIES AND GROUNDS SUB TOTAL		\$193,000	\$15,000	\$16,000
TOTAL COST		\$13,752,000	\$2,040,000	\$730,000

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***NEW HOPE-LAMBERTVILLE***  
***TOLL-SUPPORTED BRIDGE***  
***(Structure No. 120)***

STATE OF NEW JERSEY  
COUNTY OF HUNTERDON  
CITY OF LAMBERTVILLE

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF DUCKS  
BOROUGH OF NEW HOPE



NEW HOPE - LAMBERTVILLE TOLL SUPPORTED BRIDGE

## **GENERAL**

### **NEW HOPE-LAMBERTVILLE TOLL-SUPPORTED BRIDGE**

(6 span, pin connected pratt truss)

The New Hope-Lambertville Toll-Supported Bridge (Structure No. 120) connects Bridge Street in New Hope, Pennsylvania to Lambertville, New Jersey.

The structure, constructed in 1904, is a six span pin connected Pratt Truss with a total length of approximately 1,046 feet. The open steel grid deck provides a curb to curb width of 20 feet 7 inches. A timber plank sidewalk, installed in 1982, is supported on the downstream side by steel cantilever brackets. Abutments, wingwalls and piers are ashlar faced masonry; the piers are stone filled. All substructure units are from original construction in 1814.

The structure is currently posted for a 4 ton weight limit restriction and a 15 mph speed limit.

The bridge was rehabilitated under Contract No. TS-370A in 2004.

### **NEW HOPE-LAMBERTVILLE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS**

At the northwest and southeast approach corners of the New Hope-Lambertville Toll-Supported Bridge are Commission owned Pennsylvania and New Jersey officer shelters. At the Pennsylvania side of the bridge is a Commission owned former firehouse that primarily functions as a storage facility for the Commission.

## **SIGNIFICANT FINDINGS**

### **NEW HOPE-LAMBERTVILLE TOLL-SUPPORTED BRIDGE**

(6 span, pin connected pratt truss)

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall satisfactory condition due to minor deterioration of structural elements.

The deck and approach roadway are in good condition.

The superstructure is in satisfactory condition. Several north truss lower chord members in Span 5 exhibit impact damage. Many truss member's exhibit minor section losses that have been arrested by paint.

The substructure is in good condition.

An underwater inspection was performed in 2006 under Contract No. C-467D. The substructure units below the waterline were found to be in satisfactory condition, exhibiting minor deterioration including undermining of the pier aprons.

#### NEW HOPE-LAMBERTVILLE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania and New Jersey officer shelters are in overall good condition.

The former firehouse is in overall good condition. A detailed inspection of the former firehouse was not performed due to the facility being used for the storage of items from the New Hope – Lambertville Toll Bridge Administration Building Renovations and Addition, which was undergoing construction during the time of the inspection.

#### CONCLUSIONS

##### NEW HOPE-LAMBERTVILLE TOLL-SUPPORTED BRIDGE

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall satisfactory condition due to minor deterioration of structural elements. Riprap should be installed around the concrete aprons at all piers. Sections of the damaged concrete apron should be repaired. Cracks in the concrete aprons should be sealed. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

Priority repairs to Pier 2 were completed in 2007 under Contract No. DB-0457B

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.

#### NEW HOPE-LAMBERTVILLE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania and New Jersey officer shelters are in overall good condition.

The former firehouse is in overall good condition.



## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### New Hope-Lambertville Toll-Supported Bridge

#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

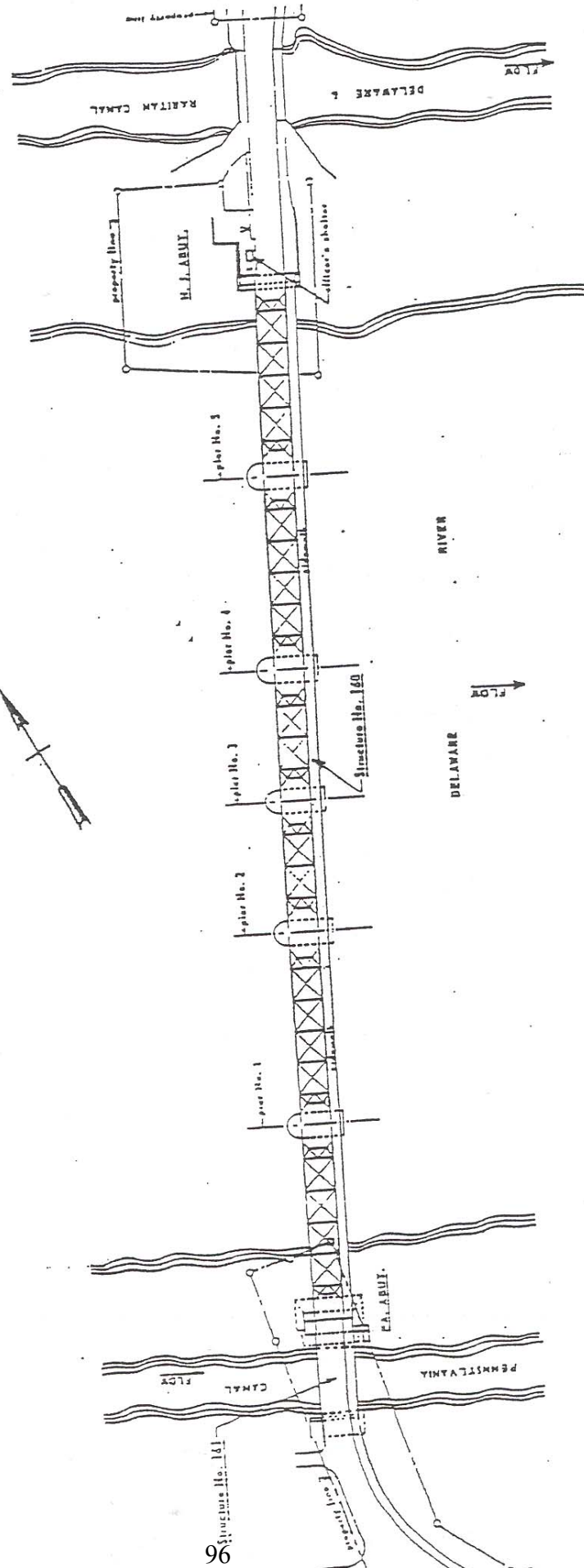
Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
The bridge was rehabilitated in 2004				
BRIDGES SUB TOTAL		\$0	\$0	\$0
<b><u>Facilities and Grounds</u></b>				
NHLTSB	Unplanned Projects	\$322,000	\$25,000	\$26,000
FACILITIES AND GROUNDS SUB TOTAL		\$322,000	\$25,000	\$26,000
TOTAL COST		\$322,000	\$25,000	\$26,000

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***CENTRE BRIDGE-STOCKTON***  
***TOLL-SUPPORTED BRIDGES***  
***(Structure Nos. 160 & 161)***

STATE OF NEW JERSEY  
COUNTY OF HUNTERDON  
TOWNSHIP OF DELAWARE  
BOROUGH OF STOCKTON

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF BUCKS  
TOWNSHIP OF SOLEBURY  
CENTRE BRIDGE



CENTRE BRIDGE - STOCKTON TOLL SUPPORTED BRIDGE

## **GENERAL**

### **CENTRE BRIDGE-STOCKTON TOLL-SUPPORTED BRIDGE**

(6 span, riveted steel warren truss)

The Centre Bridge-Stockton Toll-Supported Bridge (Structure No. 160) connects PA Route 32 in Solebury Township, Pennsylvania to NJ Route 29 in Stockton, New Jersey.

The bridge, opened to traffic in 1927, is a six span, riveted steel Warren Truss structure, with a total length of approximately 825 feet. The open steel grid deck, provides a curb to curb width of 19 feet, 11 ½ inches. In addition, a six foot timber plank sidewalk, is supported on the downriver truss on steel cantilever brackets. The piers and abutments originally constructed in 1814 from random ashlar masonry are stone filled and rest upon timber crib foundations. In 1926 portions of the piers were encased with reinforced concrete.

The structure is currently posted for a 5 ton weight limit restriction and a 25 mph speed limit. The structure is also posted for a 12 feet vertical clearance.

A comprehensive rehabilitation of the Centre Bridge-Stockton Toll-Supported Bridge was completed in 2007 under Contract No. TS-429A.

### **CENTRE BRIDGE-STOCKTON TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS**

At the northeast approach corner of the Centre Bridge-Stockton Toll-Supported Bridge is a Commission owned New Jersey officer shelter.

### **PENNSYLVANIA CANAL OVERPASS**

(1 span, prestressed concrete adjacent box beams)

The Pennsylvania Canal Overpass (Structure No. 161) carries traffic over the Pennsylvania Canal in Solebury Township, PA. The structure is an approach bridge to the main Centre Bridge-Stockton Toll-Supported Bridge that crosses the Delaware River.

The Pennsylvania Canal Overpass is a simple span, prestressed concrete adjacent box beam structure. The curb to curb width is 19 feet, 11 ½ inches and the span length is 63 feet.

A comprehensive rehabilitation of the Pennsylvania Canal Overpass was completed in 2007 under Contract TS-429A.

## **SIGNIFICANT FINDINGS**

### **CENTRE BRIDGE-STOCKTON TOLL-SUPPORTED BRIDGE**

(6 span, riveted steel warren truss)

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall good condition.

The deck, approach roadway, superstructure and substructure are in good condition.

An underwater inspection was performed in 2006 under Contract NO. C-467D. The substructure units below the waterline were found to be in fair condition due breastwall deterioration but this condition was repaired under Contract No. TS-429A.

#### **CENTRE BRIDGE-STOCKTON TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS**

The New Jersey officer shelter is in overall good condition. There is a small spall at the rear of the retaining wall.

#### **PENNSYLVANIA CANAL OVERPASS**

(1 span, prestressed concrete adjacent box beams)

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting all legal loads.

The structure is in overall good condition.

The deck, approach roadway and substructure are in good condition.

The superstructure is in very good condition.

An underwater inspection was performed in 2006 under Contract No. C-467D. The substructure units below the waterline were found to be in good condition with only minor spalls and cracks.

#### **CONCLUSIONS**

##### **CENTRE BRIDGE-STOCKTON TOLL-SUPPORTED BRIDGE**

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall good condition. Riprap should be installed at the east face of Pier 1, the entire perimeter of Piers 2 and 3 and at the north and east faces of Piers 4 and 5. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.

## CENTRE BRIDGE-STOCKTON TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The New Jersey officer shelter is in overall good condition. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

## PENNSYLVANIA CANAL OVERPASS

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting all legal loads.

The structure is in overall good condition. Unsound concrete should be removed from the north and south ends of the east and west abutment breastwalls and patch. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### Centre Bridge-Stockton Toll-Supported Bridge

#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

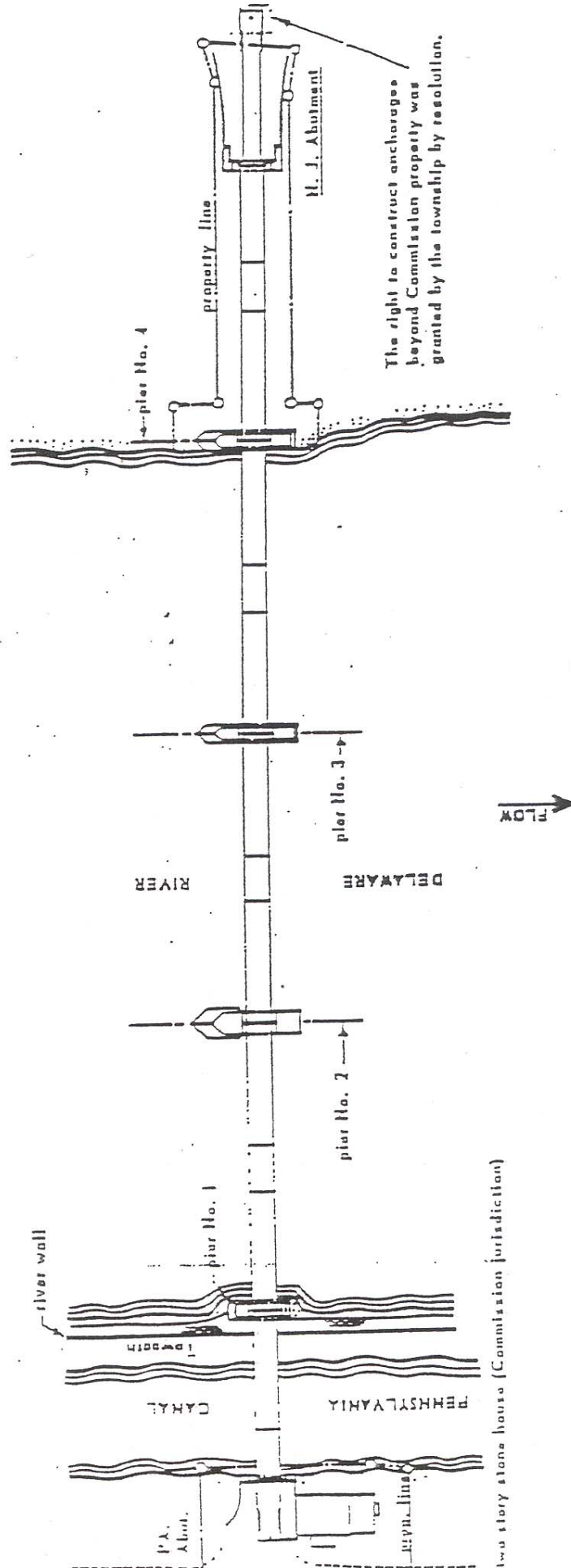
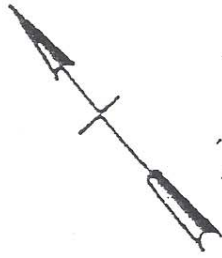
Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
The bridge was rehabilitated in 2007				
BRIDGES SUB TOTAL		\$0	\$0	\$0
<b><u>Facilities and Grounds</u></b>				
CBSTSB	Unplanned Projects	\$322,000	\$25,000	\$26,000
FACILITIES AND GROUNDS SUB TOTAL		\$322,000	\$25,000	\$26,000
TOTAL COST		\$322,000	\$25,000	\$26,000



***LUMBERVILLE-RAVEN ROCK***  
***TOLL-SUPPORTED BRIDGE***  
***(Structure No. 180)***

STATE OF NEW JERSEY  
COUNTY OF HUNTERDON  
TOWNSHIP OF DELAWARE  
RAVEN ROCK

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF BUCKS  
TOWNSHIP OF SOLEBURY  
LUMBERVILLE



two story stone house (Commission jurisdiction)

## LUMBERVILLE - RAVEN ROCK TOLL SUPPORTED BRIDGE

## **GENERAL**

### **LUMBERVILLE-RAVEN ROCK TOLL-SUPPORTED BRIDGE**

(5 span, suspension)

The Lumberville-Raven Rock Toll-Supported Bridge (Structure No. 180) connects Solebury Township (Lumberville) in Pennsylvania with Delaware Township (Raven Rock) in New Jersey.

This pedestrian bridge is a five span suspension bridge with straight backstays and a precast waffle style concrete slab held together by longitudinal post tensioning web cables. The floor system is strengthened by cable trusses along each suspension cable. The width of the walkway is 7 feet, 7 inches and the structure length is approximately 688 feet.

The bridge was closed to vehicular traffic in February of 1944. In 1947, the superstructure was re-built on the original 1856 masonry substructure. A major rehabilitation contract was completed in 1993 that included a new deck slab, pier and abutment repointing, approach sidewalks and bridge lighting. The entire bridge was last painted in 1980 by Maintenance forces and the towers were again painted in 1990.

### **LUMBERVILLE-RAVEN ROCK TOLL-SUPPORTED BRIDGE FACILITY AND GROUNDS**

At the southwest corner of the Lumberville-Raven Rock Toll-Supported Bridge is a Commission owned house. Adjacent to this Commission owned house and property is a retaining wall along the Pennsylvania Canal.

## **SIGNIFICANT FINDINGS**

### **LUMBERVILLE-RAVEN ROCK TOLL-SUPPORTED BRIDGE**

(5 span, suspension)

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting all legal loads.

The structure is in overall poor condition due to the substructure.

The deck and approach walkways are in good condition.

The superstructure is in fair condition. Both fascia girders exhibit areas of light to moderate pack rust at the bottom flange more prevalent adjacent to the bridge scuppers due to water infiltration. Struts exhibit light to moderate pack rust at the fascia ends. Pitting with areas of up to 50% material loss is present at the pipe cross bracing. The suspension towers exhibit areas of light to severe pack rust at the tower base.

The substructure is in poor condition. The concrete aprons at Piers 1 and 4 exhibit random wide cracks. The concrete aprons at Piers 2 and 3 are missing several sections exposing the timber cribbing pier foundations. The remaining sections exhibit wide cracks and undermining.

An underwater inspection was performed in 2006 under Contract No.C-467D. The substructure units below the waterline were found to be in poor condition due to undermining and deteriorated concrete aprons at Piers 2 and 3.

#### LUMBERVILLE-RAVEN ROCK TOLL-SUPPORTED BRIDGE FACILITY AND GROUNDS

The house is in overall poor condition and exhibits exterior and interior paint peeling, deteriorated wood porch framing, failed window sealers, exposed wires and a leaning oil tank foundation.

The southwest retaining wall along the Pennsylvania Canal is partially collapsed and leaning. The stones have become loose throughout.

### CONCLUSIONS

#### LUMBERVILLE-RAVEN ROCK TOLL-SUPPORTED BRIDGE

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting all legal loads.

The structure is in overall poor condition due to the substructure. The bridge should be cleaned and painted. Riprap should be installed at Piers 1, 2, 3 and the west abutment. The deteriorated portions of the concrete aprons at Piers 2 and 3 should be reconstructed. The wide crack in the concrete apron at Pier 1 should be sealed. Voids in the stone masonry at Piers 1 and 4 should be filled. Missing and deteriorated pointing throughout the substructure units should be replaced and the cracks in the stone masonry should be sealed. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.

#### LUMBERVILLE-RAVEN ROCK TOLL-SUPPORTED BRIDGE FACILITY AND GROUNDS

The house and retaining wall are in overall poor condition. The Commission should consider undertaking a study to repair and upgrade the condition of the house and the adjacent stone retaining wall.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### Lumberville-Raven Rock Pedestrian Bridge

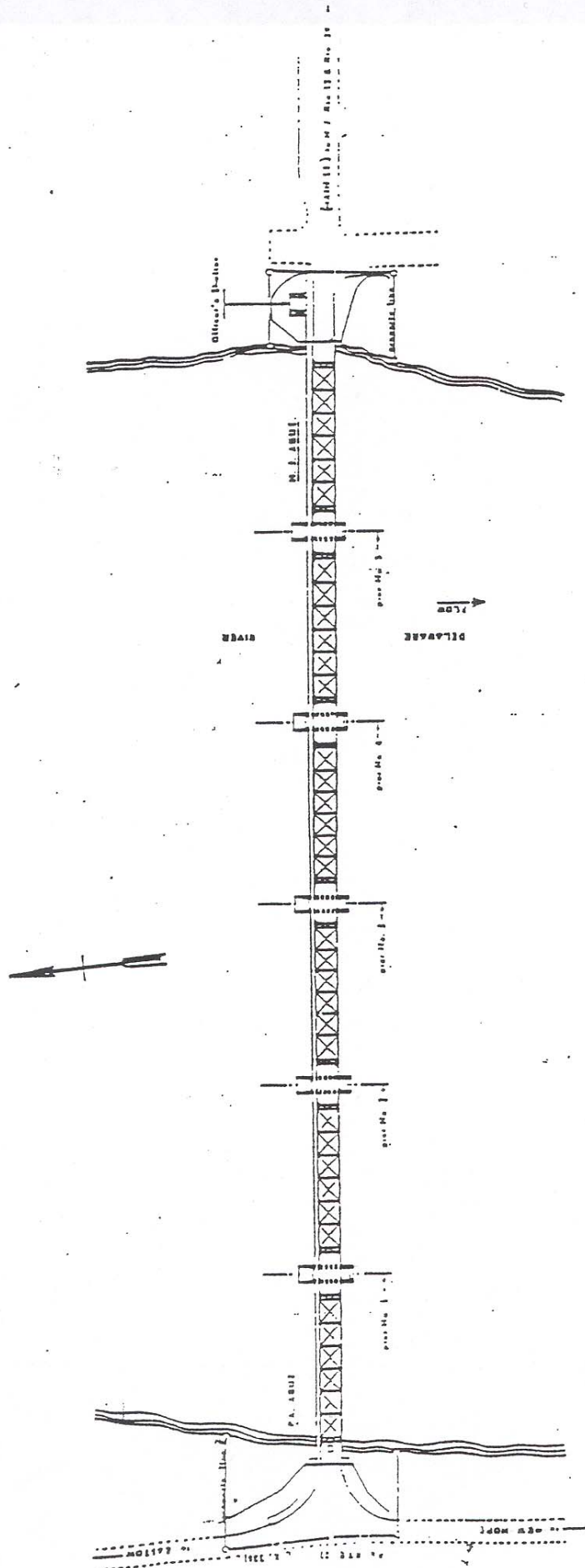
#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
443	L-RR TSB Rehabilitation & Retaining Wall Reconstruction	\$2,902,000	\$288,000	\$2,582,000
BRIDGES SUB TOTAL		\$2,902,000	\$288,000	\$2,582,000
<b><u>Facilities and Grounds</u></b>				
LRRTSB	Unplanned Projects	\$129,000	\$10,000	\$11,000
FACILITIES AND GROUNDS SUB TOTAL		\$129,000	\$10,000	\$11,000
TOTAL COST		\$3,031,000	\$298,000	\$2,593,000

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***UHLERSTOWN-FRENCHTOWN***  
***TOLL-SUPPORTED BRIDGE***  
***(Structure No. 220)***

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF BUCKS  
TOWNSHIP OF THIRUM  
WILBERTOWN



## UHLERSTOWN – FRENCHTOWN TOLL SUPPORTED BRIDGE



## **GENERAL**

### **UHLERSTOWN-FRENCHTOWN TOLL-SUPPORTED BRIDGE**

(6 span, riveted steel warren truss)

The Uhlerstown-Frenchtown Toll-Supported Bridge (Structure No. 220) carries Bridge Street traffic from Uhlerstown, Tinicum Township in Pennsylvania to Frenchtown, New Jersey.

The bridge, which rests on the original masonry substructure built in 1843, consists of a six span riveted steel Warren Truss structure, built in 1931. The open steel grid deck, added in 1949, provides a curb to curb width of 16 feet 6 inches. The structure is approximately 950 feet in length. A concrete filled steel grid sidewalk is supported by the upstream truss on steel cantilever brackets.

The structure is currently posted for a 15 ton weight limit restriction and a 15 mph speed limit. The structure is also posted for a 12 foot 6 inch vertical clearance.

The structure was rehabilitated in 2001 under Contract No. TS-363.

### **UHLERSTOWN-FRENCHTOWN TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS**

At the northeast approach corner of the Uhlerstown-Frenchtown Toll-Supported Bridge is a Commission owned New Jersey officer shelter.

## **SIGNIFICANT FINDINGS**

### **UHLERSTOWN-FRENCHTOWN TOLL-SUPPORTED BRIDGE**

(6 span, riveted steel warren truss)

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall good condition.

The deck, approach roadway, superstructure and substructure are in good condition.

An underwater inspection was performed in 2006 under Contract No. C-467D. The substructure units below the waterline were found to be in satisfactory condition exhibiting minor deterioration including undermining of the aprons.

### **UHLERSTOWN-FRENCHTOWN TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS**

The New Jersey officer shelter is in overall good condition. There are cracks and spalls in the retaining wall coating adjacent to the shelter.

## **CONCLUSIONS**

### **UHLERSTOWN-FRENCHTOWN TOLL-SUPPORTED BRIDGE**

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall good condition. The undermining of the concrete aprons and the west abutment should be repaired. The cracks in the concrete aprons and pier caps should be repaired and the stone masonry joints in the east abutment and Pier 1 should be repaired. Riprap at the west abutment protection wall should be installed. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.

### **UHLERSTOWN-FRENCHTOWN TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS**

The New Jersey officer shelter is in overall good condition. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### Uhlerstown-Frenchtown Toll-Supported Bridge

#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

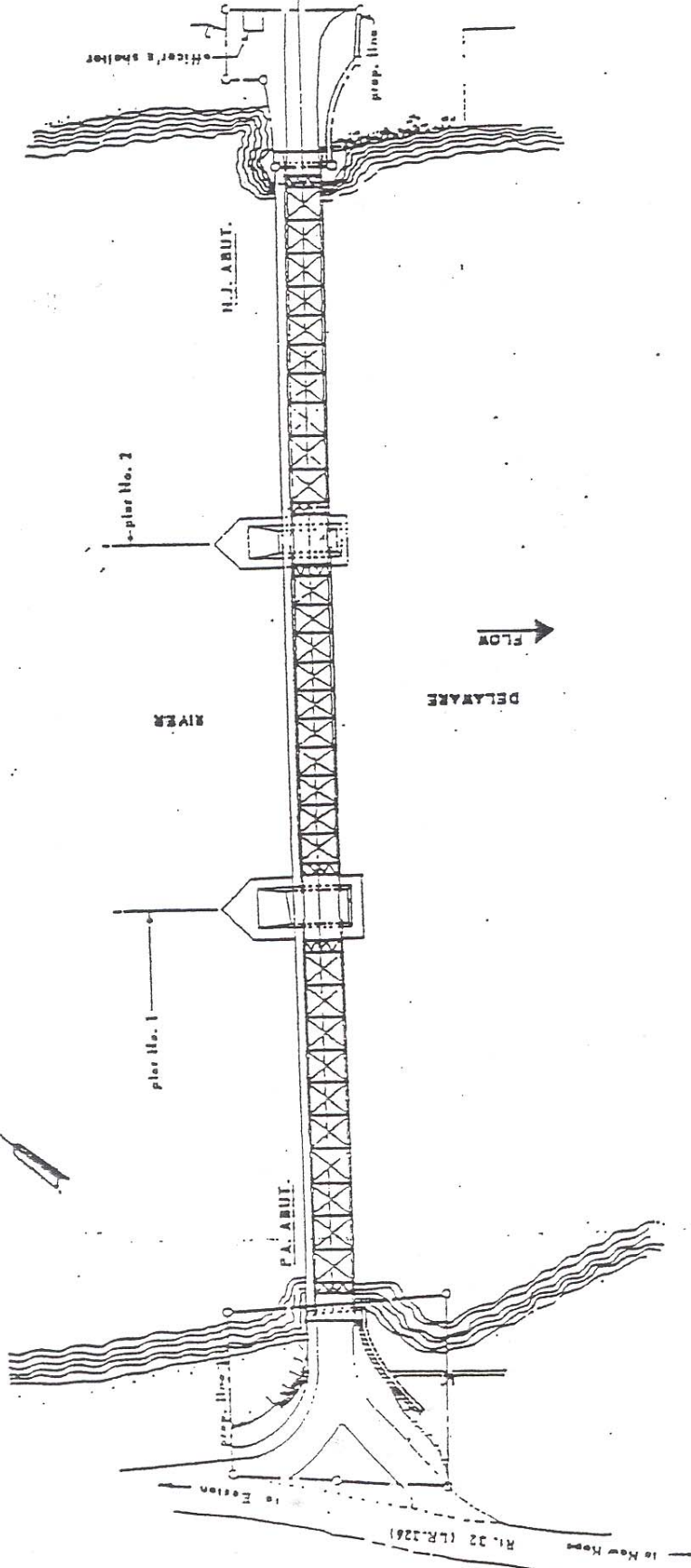
Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
The bridge was rehabilitated in 2001.				
BRIDGES SUB TOTAL		\$0	\$0	\$0
<b><u>Facilities and Grounds</u></b>				
UFTSB	Unplanned Projects	\$322,000	\$25,000	\$26,000
FACILITIES AND GROUNDS SUB TOTAL		\$322,000	\$25,000	\$26,000
TOTAL COST		\$322,000	\$25,000	\$26,000

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***UPPER BLACK EDDY-MILFORD***  
***TOLL-SUPPORTED BRIDGE***  
***(Structure No. 240)***

STATE OF NEW JERSEY  
COUNTY OF HUNTERDON  
BOROUGH OF MILFORD

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF BUCKS  
TOWNSHIP OF BRIDGETON  
UPPER BLACK EDDY



UPPER BLACK EDDY - MILFORD TOLL SUPPORTED BRIDGE

## **GENERAL**

### **UPPER BLACK EDDY-MILFORD TOLL-SUPPORTED BRIDGE**

(3 span, warren truss)

The Upper Black Eddy-Milford Toll-Supported Bridge (Structure No. 240) extends over the Delaware River and connects PA Route 32 and Hunterdon County Route 619 via Bridge Street from Upper Black Eddy, Bridgeton Township, Pennsylvania to Milford Borough, New Jersey.

The bridge, constructed in 1933, is a three span Warren Truss structure, with a total length of approximately 700 feet. The deck consists of concrete filled steel inverted “T’s” and provides a curb to curb width of 20 feet. Both abutments, recapped with reinforced concrete following flood damage, were originally built in 1842 with rubble faced masonry. The piers, built in 1842, are stone filled having also been recapped with reinforced concrete.

The structure is posted for a 15 mph speed limit.

In 1996 a new galvanized plate sidewalk was added to the bridge and is supported on the upriver truss on steel cantilever brackets. Substructure units were repointed in 1998 under Contract 347.

### **UPPER BLACK EDDY-MILFORD TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS**

At the northeast approach corner of the Upper Black Eddy-Milford Toll-Supported Bridge is a Commission owned New Jersey officer shelter.

## **SIGNIFICANT FINDINGS**

### **UPPER BLACK EDDY-MILFORD TOLL-SUPPORTED BRIDGE**

(3 span, warren truss)

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting all legal loads.

The structure is in overall fair condition due to minor deterioration of primary structural elements.

The deck is in satisfactory condition. The top of deck exhibits light to moderate wearing throughout all spans. The underside of the steel grid deck typically exhibits light to moderate rust with moderate to heavy rust below the deck joints and fascia stringers. The steel curbs exhibit light to moderate rust with heavy rust noted at the curb support.

The approach roadway is in satisfactory condition. The New Jersey approach roadway exhibits medium transverse and longitudinal cracks throughout. Steel plating is exposed adjacent to the east abutment deck joint due to deteriorated asphalt.

The superstructure is in satisfactory condition. The steel floorbeams and stringers typically exhibit light to moderate rust and peeling paint with areas of minor section losses. The top flange of the roadway stringers typically exhibit severe rust due to water leakage through the steel grid deck. Severe rust and significant pack rust build up is typical at the fascia stringer bearings. Random areas of severe rust with minor section losses exist on several truss members; however no significant material loss was noted. The paint is in overall moderate to poor condition throughout the structure. The truss rocker bearings are in minor expansion with moderate to severe rust throughout.

The substructure is in fair condition. The east and west abutments exhibit cracked and missing mortar and a few missing stones. The two piers exhibit random areas of missing mortar. Severe scaling and hollow sounding areas is typical at the concrete pier caps.

An underwater inspection was performed in 2006 under Contract No. C-467D. The substructure units below the waterline were found to be in satisfactory condition due to minor deterioration to the concrete at the abutments.

#### UPPER BLACK EDDY-MILFORD TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The New Jersey officer shelter is in overall satisfactory condition. The slope protection at the north side of the shelter is eroding. There are cracks in the shelter sidewalk. The roof trim exhibits minor peeling of paint.

### CONCLUSIONS

#### UPPER BLACK EDDY-MILFORD TOLL-SUPPORTED BRIDGE

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting all legal loads.

The structure is in overall fair condition due to minor deterioration of primary structural elements. An in-depth inspection leading to a comprehensive rehabilitation including substructure and scour evaluation is scheduled under Contract No. C-444A. An engineering consultant has been selected for Contract No. C-444A and it is anticipated that this project will begin in 2009. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

#### UPPER BLACK EDDY-MILFORD TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The New Jersey officer shelter is in overall satisfactory condition. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.



## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### Upper Black Eddy-Milford Toll-Supported Bridge

#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

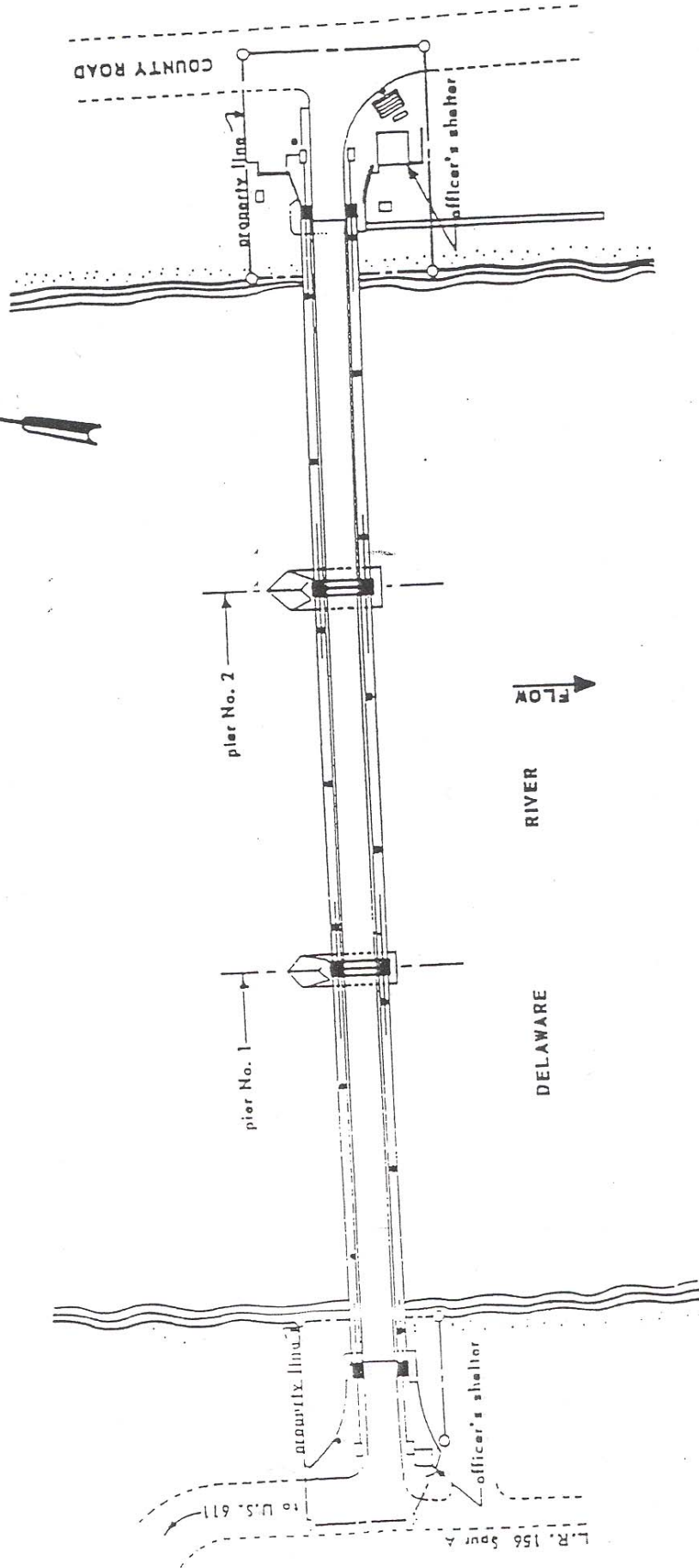
Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
444	Upper Black Eddy - Milford TSB Rehabilitation	\$8,945,000	\$837,000	\$7,537,000
BRIDGES SUB TOTAL		\$8,945,000	\$837,000	\$7,537,000
<b><u>Facilities and Grounds</u></b>				
UBEMTSB	Unplanned Projects	\$193,000	\$15,000	\$16,000
FACILITIES AND GROUNDS SUB TOTAL		\$193,000	\$15,000	\$16,000
TOTAL COST		\$9,138,000	\$852,000	\$7,553,000

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***RIEGELSVILLE***  
***TOLL-SUPPORTED BRIDGE***  
***(Structure No. 260)***

STATE OF NEW JERSEY  
COUNTY OF WARREN  
BOROUGH OF RIEGELSVILLE

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF BUCKS  
BOROUGH OF RIEGELSVILLE



RIEGELSVILLE TOLL SUPPORTED BRIDGE

## **GENERAL**

### **RIEGELSVILLE TOLL-SUPPORTED BRIDGE**

(3 span, suspension)

The Riegelsville Toll-Supported Bridge (Structure No. 260) connects Durham Township in Pennsylvania with Pohatcong Township in New Jersey.

The bridge, constructed in 1904, is a three span Cable Suspension bridge with straight backstays and a total length of approximately 577 feet. The open steel grid deck, supported by a king post floorbeam system, provides a curb to curb width of 15 feet 11 inches. A timber plank sidewalk rests on floorbeam cantilevers on both fascias. The sidewalk railing is actually a double Warren Truss, assisting in strengthening the bridge roadway. The substructure, originally built in 1835, was raised and built up in 1904.

The structure is currently posted for a 2 ½ ton weight limit restriction and a 15 mph speed limit.

Under Contract TS-391, the Riegelsville Toll-Supported Bridge has undergone the first step in a full rehabilitation, as part of the Commission's 10 year capital program addressing improvements to many of the bridges. Work consisted of strengthening towers on the river piers, replacement of hanger blocks connecting vertical hangers to the floorbeams, repair of floorbeam bearings at each end of the floorbeams of the three spans, concrete repair on pier two and concrete crack repairs at the anchorages. The bridge was last painted by contract in 1985. A cleaning and pointing contract was completed for the substructure in 1998. Contract TS-461A repaired the damaged concrete aprons and additional damage from the Flood of June 2006.

### **RIEGELSVILLE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS**

At the southwest and southeast approach corners of the Riegelsville Toll-Supported Bridge are Commission owned Pennsylvania and New Jersey officer shelters.

## **SIGNIFICANT FINDINGS**

### **RIEGELSVILLE TOLL-SUPPORTED BRIDGE**

(3 span, suspension)

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall poor condition due to the condition of the superstructure.

The deck is in good condition.

The approach roadway is in poor condition. The east approach roadway exhibits areas of moderate surface wear with uneven concrete typical near the curb lines. Subsequent to the inspection this roadway was repaved under a Compact Authorized Investment project.

The superstructure is in poor condition. The steel floorbeams exhibit severe corrosion. Approximately 40 percent of all floorbeams exhibit numerous web holes (up to full height of web). Heavy to severe rust with minor material losses is typical at the bottom flange of the floorbeams. Severe corrosion and material losses is typical at the cross bracing members. U-bolt connecting cables typically exhibit minor material losses.

The substructure is in satisfactory condition. The abutments exhibit several wide random cracks. Heavy scaling is typical at the east abutment and the Pier 1 and 2 bridge seats.

An underwater inspection was performed in 2006 by under Contract No. C-467D. The substructure units below the waterline were found to be in fair condition due to deteriorated concrete at the abutments and pier aprons.

#### RIEGELSVILLE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania officer shelter is in overall good condition.

The New Jersey officer shelter is in overall fair to poor condition. The window frames exhibit cracks and paint peeling. The shelter floor exhibits areas of rot and decay and temporary timber supports have been installed to support the floor system.

### CONCLUSIONS

#### RIEGELSVILLE TOLL-SUPPORTED BRIDGE

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall poor condition due to the superstructure. This bridge is currently scheduled for a comprehensive rehabilitation with design starting in 2009 under Contract No. 445. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.

#### RIEGELSVILLE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania officer shelter is in overall good condition.

The New Jersey officer shelter is in overall fair to poor condition. The Commission should consider undertaking a study to determine whether the shelter can be rehabilitated or should be replaced. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### Riegelsville Toll-Supported Bridge

#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
445	RGL Rehabilitation	\$6,300,000	\$5,510,000	\$0
BRIDGES SUB TOTAL		\$6,300,000	\$5,510,000	\$0
<b><u>Facilities and Grounds</u></b>				
RTSB	Unplanned Projects	\$193,000	\$15,000	\$16,000
FACILITIES AND GROUNDS SUB TOTAL		\$193,000	\$15,000	\$16,000
TOTAL COST		\$6,493,000	\$5,525,000	\$16,000

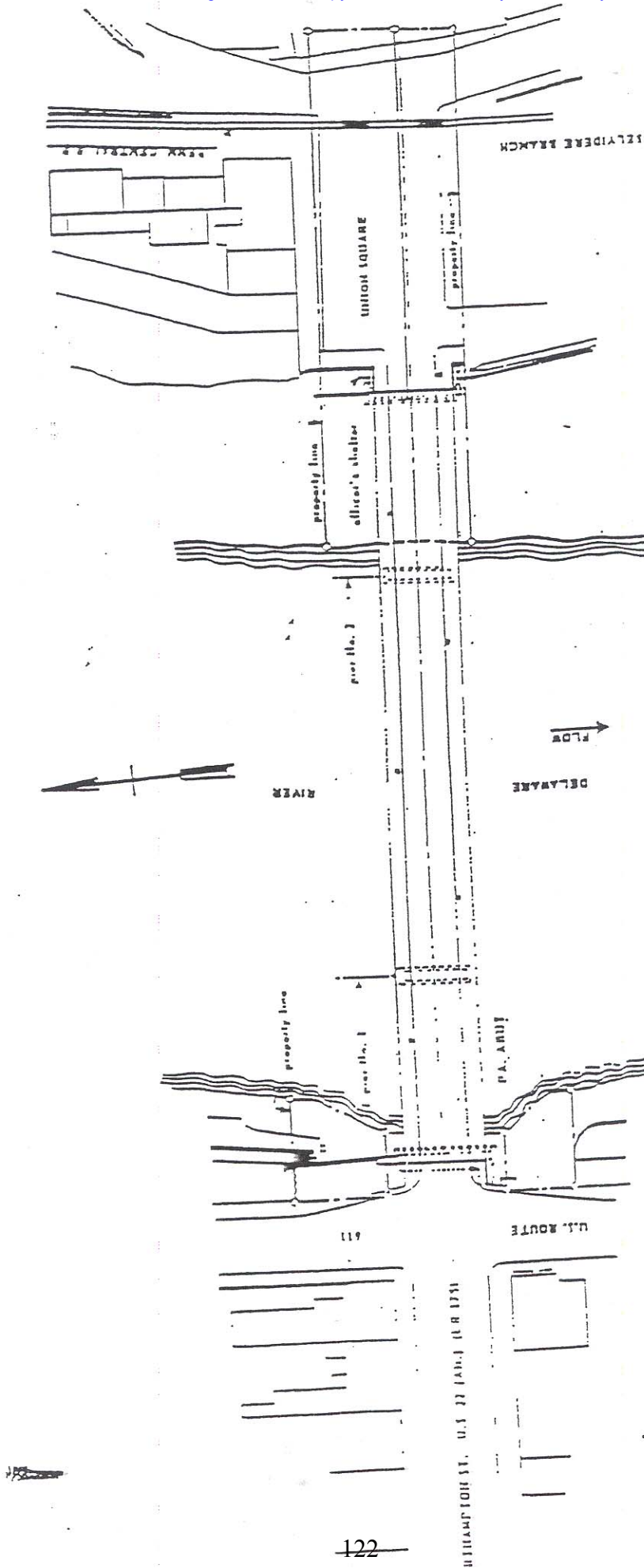
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***NORTHAMPTON STREET***  
***TOLL-SUPPORTED BRIDGE***  
***(Structure No. 280)***

STATE OF NEW JERSEY  
COUNTY OF WARREN  
TOWN OF PHILLIPSBURG

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF NORTHAMPTON  
CITY OF EASTON



NORTHAMPTON STREET TOLL SUPPORTED BRIDGE

## **GENERAL**

### **NORTHAMPTON STREET TOLL-SUPPORTED BRIDGE**

(3 span, cantilevered truss)

The Northampton Street Toll-Supported Bridge (Structure No. 280), just south of the Easton-Phillipsburg Toll Bridge, connects Easton, Pennsylvania to Phillipsburg, New Jersey.

The bridge, although aesthetically resembling a suspension bridge, is a double cantilever truss structure, adjoined by a center (main) suspended span. The three lane open steel grid deck provides a curb to curb width of 32 feet and a total bridge length of 550 feet. The current bridge was constructed in 1895, with a major rehabilitation in 2001 under Contract TS-365. Repairs were completed due to flood damages in 2005 and 2006.

The structure is currently posted for a 3 ton weight limit restriction and a 15 mph speed limit.

### **NORTHAMPTON STREET TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS**

At the southwest and northeast approach corners of the Northampton Street Toll-Supported Bridge are Commission owned Pennsylvania and New Jersey officer shelters.

## **SIGNIFICANT FINDINGS**

### **NORTHAMPTON STREET TOLL-SUPPORTED BRIDGE**

(3 span, cantilevered truss)

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall satisfactory condition due to minor deterioration of structural elements.

The deck and substructure are in good condition.

The approach roadway is in satisfactory condition. The east approach roadway exhibits areas of medium to wide mapcracking and moderate wear with uneven pavement in the westbound lane. This roadway was resurfaced under Contract No. TS-499A.

The superstructure is in satisfactory condition. The floorbeams and stringers typically exhibit minor section losses. Several stringers exhibit minor impact damage. Stringer 9 at L9L10 is bent 5" to the south due to impact damage, and the 3<sup>rd</sup> riser beam from the west exhibits a 2 1/2" cracked weld at the east side with 3 of 4 connection bolts missing. Impact damage is present at the lower chord in several locations. The eyebars and pin nuts at the suspended portion of Span 2 exhibit movement and the eyebars are loose. There has been no change in movement since the previous inspection. Previously in 2007 a special inspection was performed to determine the source of an audible noise reported by the bridge officers near the west abutment. No reports of this noise have been reported in 2008.

An underwater inspection was performed in 2006 under Contract No. C-467D. The substructure units below the waterline were found to be in satisfactory condition due to minor deterioration of mortar joints at the west abutment.

#### NORTHAMPTON STREET TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania and New Jersey officer shelters are in overall good condition. Lavatory facilities at the officer shelters have recently been upgraded by Commission Maintenance Forces.

### **CONCLUSIONS**

#### NORTHAMPTON STREET TOLL-SUPPORTED BRIDGE

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall satisfactory condition due to minor deterioration in structural elements. The stone masonry joints in the abutments and wingwalls should be repaired. Cracks in the concrete aprons at Pier 1 and 2 should be pressure injected. The concrete apron at Pier 2 should be repaired and riprap installed around Pier 2. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.

#### NORTHAMPTON STREET TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania and New Jersey officer shelters are in overall good condition. Lavatory facilities at the officer shelters have been upgraded by Commission Maintenance Forces.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### Northampton Street Toll-Supported Bridge

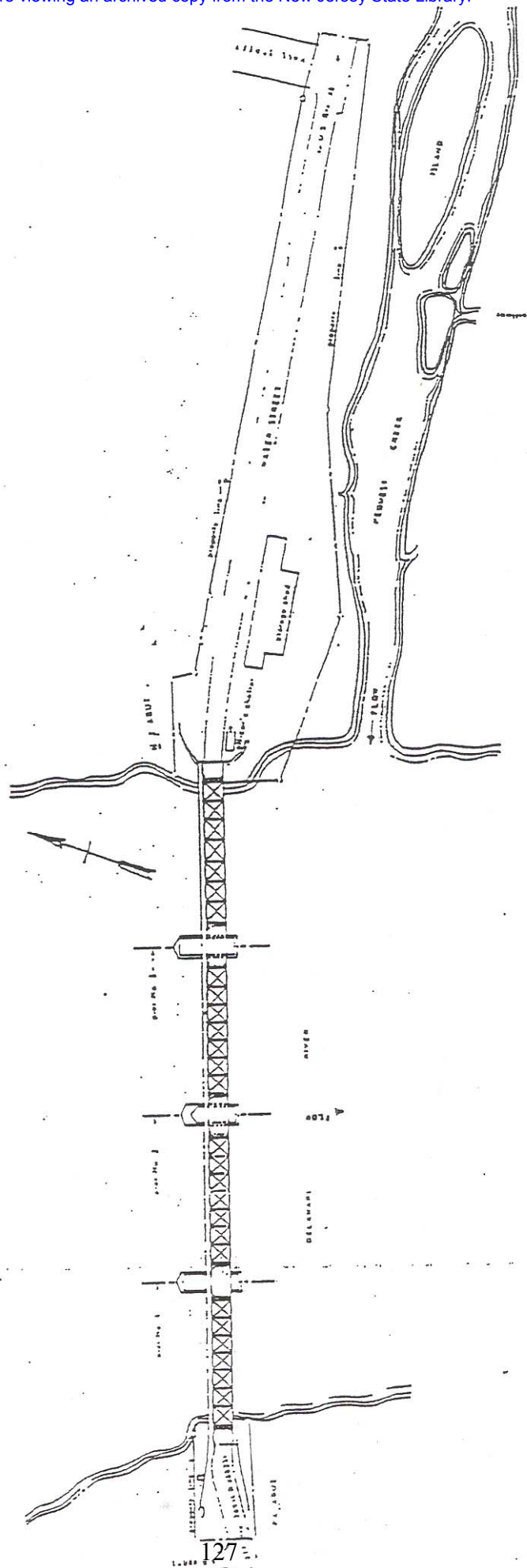
#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
The bridge was rehabilitated in 2002.				
555	Reimbursement Agreement for NHS TSB PA Shelter Sewer System Connection	\$30,000	\$30,000	\$0
BRIDGES SUB TOTAL		\$30,000	\$30,000	\$0
<b><u>Facilities and Grounds</u></b>				
NHSTSB	Unplanned Projects	\$335,000	\$25,000	\$26,000
FACILITIES AND GROUNDS SUB TOTAL		\$335,000	\$25,000	\$26,000
TOTAL COST		\$365,000	\$55,000	\$26,000

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***RIVERTON-BELVIDERE***  
***TOLL-SUPPORTED BRIDGE***  
***(Structure No. 320)***

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF NORTHAMPTON  
TOWNSHIP OF LOWER MOUNT BETHEL  
RIVERTON



# RIVERTON - BELVIDERE TOLL SUPPORTED BRIDGE



## **GENERAL**

### **RIVERTON-BELVIDERE TOLL-SUPPORTED BRIDGE**

(4 span, riveted steel, double warren truss)

The Riverton-Belvidere Toll-Supported Bridge (Structure No. 320) carries Water Street across the Delaware River and connects Riverton, Lower Mount Bethel Township, Pennsylvania with the Town of Belvidere, New Jersey.

The bridge, constructed in 1904, is a four span, riveted steel, double Warren Truss structure, with a total length of approximately 653 feet. The open steel grid deck provides a curb to curb width of 16 feet, 4 inches. In addition, a concrete filled steel grid sidewalk is supported on the upriver truss with steel cantilever brackets.

The piers and the Pennsylvania abutment are rough ashlar faced masonry and stone filled. The piers are supported on timber cribs and lower portions are concrete filled steel sheet piling (1929-32). The New Jersey abutment, including its wingwalls, is constructed of concrete on timber piles.

The bridge is currently posted for an 8 ton weight limit restriction and a 15 mph speed limit.

A comprehensive bridge rehabilitation was completed under Contract No. TS-371A in 2007.

### **RIVERTON-BELVIDERE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS**

At the southeast approach corner of the Riverton-Belvidere Toll-Supported Bridge is a Commission owned New Jersey officer shelter. A commission owned storage garage is also at the southeast end of the bridge.

## **SIGNIFICANT FINDINGS**

### **RIVERTON-BELVIDERE TOLL-SUPPORTED BRIDGE**

(4 span, riveted steel, double warren truss)

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall good condition.

The deck, approach roadway, superstructure and substructure are in good condition.

An underwater inspection was performed in 2006 under Contract No. C-467D. The substructure units below the waterline were found to be in satisfactory condition due to minor deterioration including concrete cracks at the abutments and undermining at Pier 2. The cracks were repaired under Contract No. TS-371A.

## RIVERTON-BELVIDERE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The New Jersey officer shelter is in overall poor condition. The bathroom floor exhibits areas of rotted timber and is uneven. The entire shelter is pitched towards the south.

The storage garage is in overall poor condition. There are numerous holes in the roof causing water leakage throughout the garage floor. The roof is deteriorating and exhibits vegetation growth throughout.

## CONCLUSIONS

### RIVERTON-BELVIDERE TOLL-SUPPORTED BRIDGE

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting the posted load.

The structure is in overall good condition. Scour protection including the installation of riprap at the east and west abutments and Pier 2 is recommended. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.

### RIVERTON-BELVIDERE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The New Jersey officer shelter is in overall poor condition. The Commission should consider undertaking a study to determine whether the shelter can be rehabilitated or if it should be replaced. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

The storage garage is in overall poor condition. The Commission should consider undertaking a study to repair and upgrade the condition of the roof. This work is currently scheduled to be included under Contract No. 505 Water Street Repairs.

## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### Riverton-Belvidere Toll-Supported Bridge

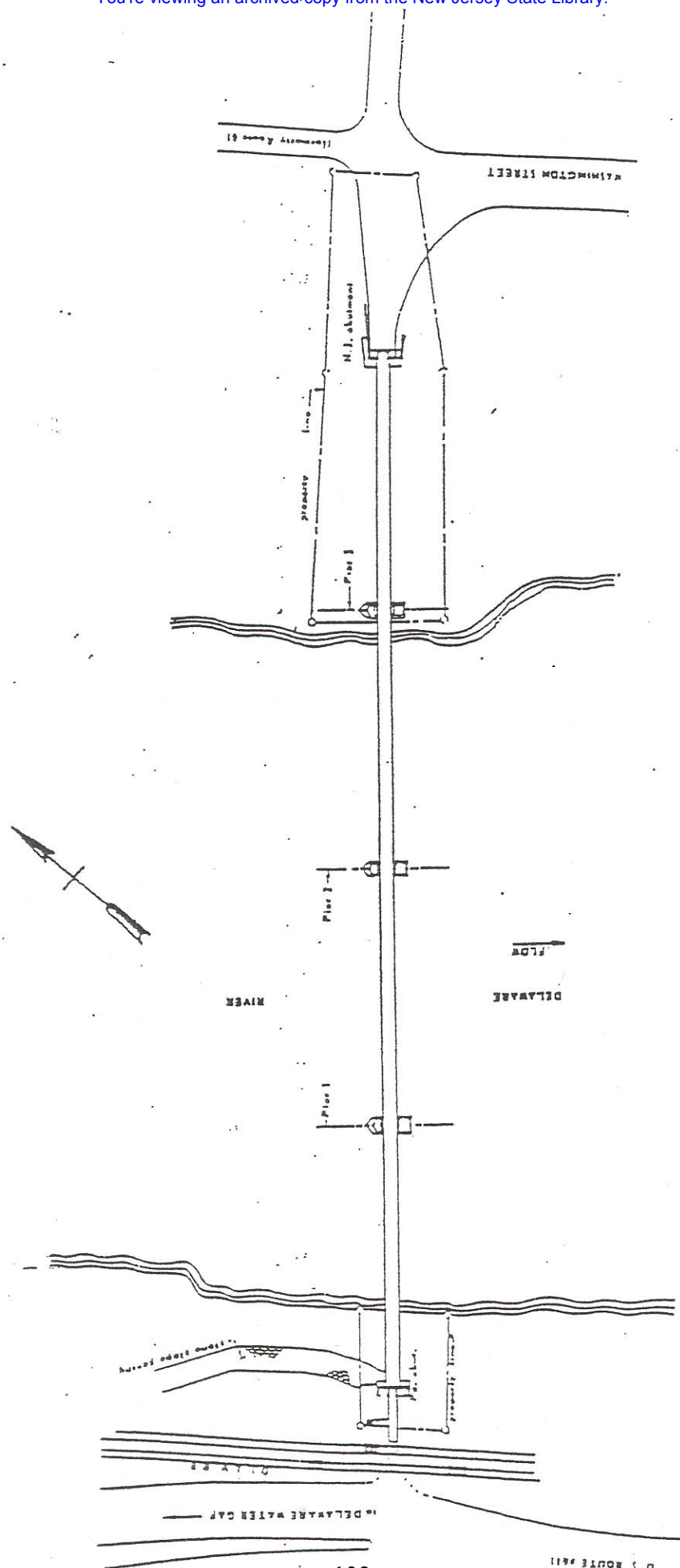
#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
371	R-B TSB Rehabilitation Contract (Design / Construction) <i>The bridge was rehabilitated in 2007. Labor Counsel is working to resolve an outstanding issue.</i>	\$9,281,000	\$38,000	\$0
505	R-B Water Street Improvements	\$1,288,000	\$1,264,000	\$0
BRIDGES SUB TOTAL		<u>\$10,569,000</u>	<u>\$1,302,000</u>	<u>\$0</u>
<b><u>Facilities and Grounds</u></b>				
RBTSB	Unplanned Projects	\$0	\$25,000	\$26,000
FACILITIES AND GROUNDS SUB TOTAL		<u>\$0</u>	<u>\$25,000</u>	<u>\$26,000</u>
TOTAL COST		<u>\$10,569,000</u>	<u>\$1,327,000</u>	<u>\$26,000</u>

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***PORTLAND-COLUMBIA***  
***TOLL-SUPPORTED BRIDGE***  
***(Structure No. 360)***

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF NORTHAMPTON  
BOROUGH OF FORTLAND



# PORTLAND - COLUMBIA TOLL SUPPORTED BRIDGE

## **GENERAL**

### **PORTLAND-COLUMBIA TOLL-SUPPORTED BRIDGE**

(4 span, continuous, steel thru-deck girder)

The Portland-Columbia Toll-Supported Bridge (Structure No. 360) connects Portland Borough (Upper Mount Bethel Township), Pennsylvania with Columbia (Knowlton Township), New Jersey, just north of the Portland-Columbia Toll Bridge.

This Pedestrian Bridge is a four span continuous, thru-deck steel girder system, with a concrete deck and built up girders with a total length of 770 feet. The width of the walkway is 9 feet, 6 inches between girder centers. The present bridge was reconstructed in 1958, following the flood of 1955, and original vehicular traffic was diverted to the main river bridge.

This bridge was last cleaned and painted in 1998 under Contract 346. In 2003, the construction of a handicap accessible ramp at the west approach and bridge deck modifications was completed under Contract No. TS-388. In 2004, drainage and deck modifications were done under Contract No. TS-388A to alleviate ponding of water and corrosion due to improper drainage.

## **SIGNIFICANT FINDINGS**

### **PORTLAND-COLUMBIA TOLL-SUPPORTED BRIDGE**

(4 span, continuous, steel thru-deck girder)

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting all legal loads.

The structure is in overall poor condition due to the substructure.

The deck is in satisfactory condition. The top of deck exhibits light to moderate scaling throughout with fine to medium transverse cracks. Several incipient spalls and spalls with exposed rebar are present at the deck underside. The underside of deck also exhibits fine to medium transverse cracks with efflorescence and water stains.

The approach walkways and superstructure are in good condition.

The substructure is in poor condition. The north retaining wall is fractured adjacent to the west abutment breastwall and is displaced 2" towards the east. The top of the northeast retaining wall is displaced 8" towards the west. The east abutment breastwall exhibits spalled and hollow sounding concrete along the base. The east abutment backwall exhibits spalled and hollow sounding concrete patches with medium mapcracking at several locations. Fine to wide cracks are typical throughout the substructure units.

An underwater inspection was performed in 2006 under Contract No. C-467D. The substructure units below the waterline were found to be in good condition with only hairline cracks and minor undermining at the pier aprons.

## **CONCLUSIONS**

### **PORTLAND-COLUMBIA TOLL-SUPPORTED BRIDGE**

Based on the findings of the 2008 inspections, the bridge is capable of safely supporting all legal loads.

The structure is in overall poor condition due to the substructure. Unsound concrete should be removed, exposed rebar should be cleaned and areas of incipient spalling throughout the underdeck should be patched. Undermined areas at all the piers should be repaired and riprap should be installed around all the piers. Broken areas of stone at the southeast corner of Pier 2 and cracked areas in the aprons at all the piers should be repaired. Riprap should be installed along the northwest wingwall at the east abutment drainage outfall. For a list of maintenance repair items, see the *Twelfth Annual Maintenance Report*.

The Commission has undertaken a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. C-476A. This project is currently in the design phase and includes this bridge.



## 2010-2011 CAPITAL PLAN ESTIMATED EXPENDITURES

### Portland-Columbia Pedestrian Bridge

#### ESTIMATED COST OF RECOMMENDED IMPROVEMENTS FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	Program Cost	General Reserve Fund	
			2010	2011
<b><u>Bridges, Roadways, Sidewalks, and Approaches</u></b>				
No Projects are currently planned.				
BRIDGES SUB TOTAL		\$0	\$0	\$0
<b><u>Facilities and Grounds</u></b>				
PCTSB	Unplanned Projects	\$151,000	\$10,000	\$11,000
FACILITIES AND GROUNDS SUB TOTAL		\$151,000	\$10,000	\$11,000
TOTAL COST		\$151,000	\$10,000	\$11,000

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# 2010-2011 CAPITAL PLAN

## VEHICLES & EQUIPMENT

### 2010 VEHICLES & EQUIPMENT SUMMARY BY DISTRICT

DISTRICT	Est. Purchase \$	Est. Sale \$	Est. Net \$
Trenton-Morrisville	\$ 226,000	\$ 12,000	\$ 214,000
New Hope-Lambertville	\$ 180,000	\$ -	\$ 180,000
Southern Div. Toll-Supported	\$ 23,000	\$ -	\$ 23,000
District 1 Total	\$ 429,000	\$ 12,000	\$ 417,000
Interstate 78	\$ 183,000	\$ 8,500	\$ 174,500
Easton-Phillipsburg	\$ 157,000	\$ 12,000	\$ 145,000
Northern Div. Toll-Supported	\$ 52,000	\$ 13,000	\$ 39,000
District 2 Total	\$ 392,000	\$ 33,500	\$ 358,500
Portland-Columbia	\$ 51,000	\$ -	\$ 51,000
Delaware Water Gap	\$ 71,000	\$ -	\$ 71,000
Milford-Montague	\$ 46,000	\$ -	\$ 46,000
District 3 Total	\$ 168,000	\$ -	\$ 168,000

TOTAL \$ 989,000 \$ 45,500 \$ 943,500

2010 VEHICLES & EQUIPMENT \$ 989,000

# 2010-2011 CAPITAL PLAN VEHICLES & EQUIPMENT

TRENTON - MORRISVILLE

## CAPITAL EQUIPMENT REQUEST

(>\$5,000 AND 3 YEAR OR MORE LIFE)

Recommended New Items	Dept	Identifier(s)	Items To Be Replaced, Sold, or Transferred*	Est. Purchase	Est. Sale	Est. Net
Small Tools/Misc. Equipment	Maint		New Items	\$5,000		\$5,000
ETC Transponders	EZPass		New Items	\$41,000		\$41,000
2010 Portable Crash Attenuator	Maint.		New Item	\$25,000		\$25,000
Portable Air Compressor	Maint		Portable Air Compressor	\$20,000		\$20,000
Ventrac Model 4231TD Hill Mower	Maint		New Item	\$30,000		\$30,000
Saw Cutter	Maint		Saw Cutter	\$2,000		\$2,000
Truck, Pick Up 4x4 Crew Cab	Maint		2002 Ford F-250 SuperDuty 4X4	\$43,000	\$5,000	\$38,000
		1FTNF21F32EC27207	Serial No.			
		SG21017	License Plate No.			
		59,231	Mileage / Hrs			
			Hours			
		15011	Commission ID No. TM			
2010 Hybrid Utility Vehicle	ENG		2003 Ford Crown Victoria	\$30,000	\$4,000	\$26,000
		2FAHP71WX3X155659	Serial No.			
		MG2053A	License Plate No.			
		45,244	Mileage / Hrs			
			Hours			
		TM 1004	Commission ID No.			
2010 Hybrid Utility Vehicle	Operations		2002 Chevy Blazer SUV	\$30,000	\$3,000	\$27,000
		1GNDT13W12K233351	Serial No.			
		SG21184	License Plate No.			
		64,324	Mileage / Hrs			
			Hours			
		11008	Commission ID No.			
			Serial No.			
			License Plate No.			
			Mileage / Hrs			
			Hours			
			Commission ID No.			
Estimated Total				\$226,000	\$12,000	\$214,000

# 2010-2011 CAPITAL PLAN VEHICLES & EQUIPMENT

## NEW HOPE - LAMBERTVILLE

### CAPITAL EQUIPMENT REQUEST

(>\$5,000 AND 3 YEAR OR MORE LIFE)

Recommended New Items	Dept	Identifier(s)	Items To Be Replaced, Sold, or Transferred*	Est. Purchase	Est. Sale	Est. Net
Small Tools/Misc. Equipment	Maint		New Items	\$5,000		\$5,000
ETC Transponders	EZPass		New Items	\$41,000		\$41,000
Equipment & Furniture for Secondary Control Center (SCC)	ESS		New Items	\$50,000		\$50,000
T320 Bobcat Track Loader	Maint		New Item	\$60,000		\$60,000
Bobcat CAM 18 Equipment Trailer	Maint		New Item	\$6,000		\$6,000
Exmark Lazer Zero Turn Mower	Maint		2004 John Deere Zero Turn Mower	\$9,000		\$9,000
		TC0757B032905	Serial No.			
			License Plate No.			
		1,585	Mileage / Hrs			
			Hours			
			Commission ID No.			
Exmark Lazer Zero Turn Mower	Maint		2004 John Deere Zero Turn Mower	\$9,000		\$9,000
		TC0757B32993	Serial No.			
			License Plate No.			
		1,209	Mileage / Hrs			
			Hours			
			Commission ID No.			
			Serial No.			
			License Plate No.			
			Mileage / Hrs			
			Hours			
			Commission ID No.			
			Serial No.			
			License Plate No.			
			Mileage / Hrs			
			Hours			
			Commission ID No.			
			Serial No.			
			License Plate No.			
			Mileage / Hrs			
			Hours			
			Commission ID No.			
			Estimated Total	\$180,000		\$180,000

## CAPITAL EQUIPMENT REQUEST

[illegible]

## CAPITAL EQUIPMENT REQUEST

[illegible]

## CAPITAL EQUIPMENT REQUEST

[illegible]



## CAPITAL EQUIPMENT REQUEST

[illegible]

(>\$5,000 AND 3 YEAR OR MORE LIFE)

VE-8

(>\$5,000 AND 3 YEAR OR MORE LIFE)

VE-9

(>\$5,000 AND 3 YEAR OR MORE LIFE)

VE-10

## 2010-2011 CAPITAL PLAN



### SUMMARY OF EXPENDITURES

#### CAPITAL PROGRAM ESTIMATED EXPENDITURES

	<i>2010</i>	<i>2011</i>
Toll Bridge Facilities	\$34,319,000	\$46,542,000
Toll-Supported Bridge Facilities	\$35,548,000	\$82,249,000
Commission Initiatives & System-Wide Projects	\$36,018,000	\$18,992,000

<i>Subtotal</i>	<i>\$105,885,000</i>	<i>\$147,783,000</i>
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#### VEHICLE / EQUIPMENT GROSS PURCHASES

	<i>2010</i>	<i>2011</i>
Vehicular and Maintenance Equipment	\$989,000	\$1,500,000

<i>Subtotal</i>	<i>\$989,000</i>	<i>\$1,500,000</i>
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	<i>2010</i>	<i>2011</i>
<b><i>TOTAL 2010 - 2011 CAPITAL PLAN</i></b>	<b><i><u>\$106,874,000</u></i></b>	<b><i><u>\$149,283,000</u></i></b>

## 2010-2011 CAPITAL PLAN



<b><u>TOLL BRIDGES</u></b>	<b><u>2010</u></b>	<b><u>2011</u></b>
<u>Trenton-Morrisville</u>	\$3,258,000	\$6,360,000
<u>New Hope-Lambertville</u>	\$1,105,000	\$2,397,000
<u>Interstate 78</u>	\$11,596,000	\$14,509,000
<u>Easton-Phillipsburg</u>	\$1,397,000	\$9,304,000
<u>Portland-Columbia</u>	\$2,025,000	\$1,073,000
<u>Delaware Water Gap</u>	\$14,811,000	\$11,744,000
<u>Milford-Montague</u>	\$127,000	\$1,155,000
<b><i>Subtotal</i></b>	<b><i>\$34,319,000</i></b>	<b><i>\$46,542,000</i></b>
<b><u>TOLL-SUPPORTED BRIDGES</u></b>	<b><u>2010</u></b>	<b><u>2011</u></b>
<u>Lower Trenton</u>	\$25,000	\$26,000
<u>Calhoun Street</u>	\$10,544,000	\$16,000
<u>Scudder Falls</u>	\$14,797,000	\$71,174,000
<u>Washington Crossing</u>	\$2,040,000	\$730,000
<u>New Hope-Lambertville</u>	\$25,000	\$26,000
<u>Centre Bridge-Stockton</u>	\$25,000	\$26,000
<u>Lumberville-Raven Rock</u>	\$298,000	\$2,593,000
<u>Uhlerstown-Frenchtown</u>	\$25,000	\$26,000
<u>Upper Black Eddy-Milford</u>	\$852,000	\$7,553,000
<u>Riegelsville</u>	\$5,525,000	\$16,000
<u>Northampton Street</u>	\$55,000	\$26,000
<u>Riverton-Belvidere</u>	\$1,327,000	\$26,000
<u>Portland-Columbia</u>	\$10,000	\$11,000
<b><i>Subtotal</i></b>	<b><i>\$35,548,000</i></b>	<b><i>\$82,249,000</i></b>
<b><u>COMMISSION INITIATIVES &amp; SYSTEM-WIDE PROJECTS</u></b>	<b><u>2010</u></b>	<b><u>2011</u></b>
	<b><i>\$36,018,000</i></b>	<b><i>\$18,992,000</i></b>
<b><i>TOTAL CAPITAL PLAN EST. EXPENDITURES</i></b>	<b><i>\$105,885,000</i></b>	<b><i>\$147,783,000</i></b>

## 2010-2011 CAPITAL PLAN



### BRIDGES, ROADWAYS, SIDEWALKS, & APPROACHES SUMMARY

<b><u>DISTRICT I</u></b>	<b><u>2010</u></b>	<b><u>2011</u></b>
<u>Trenton-Morrisville Toll Bridge</u>	\$2,214,000	\$5,082,000
<u>Lower Trenton Toll-Supported Bridge</u>	\$0	\$0
<u>Calhoun Street Toll-Supported Bridge</u>	\$10,529,000	\$0
<u>Scudder Falls Toll-Supported Bridge</u>	\$14,722,000	\$71,096,000
<u>Washington Crossing Toll-Supported Bridge</u>	\$2,025,000	\$714,000
<u>New Hope-Lambertville Toll-Supported Bridge</u>	\$0	\$0
<u>New Hope Lambertville Toll Bridge</u>	\$497,000	\$1,878,000
<u>Centre Bridge-Stockton Toll-Supported Bridge</u>	\$0	\$0
<u>Lumberville-Raven Rock Toll-Supported Bridge</u>	\$288,000	\$2,582,000
<b><i>District I Total</i></b>	<b><i>\$30,275,000</i></b>	<b><i>\$81,352,000</i></b>
<b><u>DISTRICT II</u></b>	<b><u>2010</u></b>	<b><u>2011</u></b>
<u>Uhlerstown-Frenchtown Toll-Supported Bridge</u>	\$0	\$0
<u>Upper Black Eddy-Milford Toll-Supported Bridge</u>	\$837,000	\$7,537,000
<u>Riegelsville Toll-Supported Bridge</u>	\$5,510,000	\$0
<u>Interstate 78 Toll Bridge</u>	\$11,446,000	\$13,905,000
<u>Northampton Street Toll-Supported Bridge</u>	\$30,000	\$0
<u>Easton-Phillipsburg Toll Bridge</u>	\$1,155,000	\$8,711,000
<u>Riverton-Belvidere Toll-Supported Bridge</u>	\$1,302,000	\$0
<b><i>District II Total</i></b>	<b><i>\$20,280,000</i></b>	<b><i>\$30,153,000</i></b>

## 2010-2011 CAPITAL PLAN



### BRIDGES, ROADWAYS, SIDEWALKS, & APPROACHES SUMMARY

<b><u>DISTRICT III</u></b>	<b><u>2010</u></b>	<b><u>2011</u></b>
<u>Portland-Columbia Toll Bridge</u>	\$1,879,000	\$0
<u>Portland-Columbia Toll-Supported</u>	\$0	\$0
<u>Delaware Water Gap Toll Bridge</u>	\$14,284,000	\$8,056,000
<u>Milford-Montague Toll Bridge</u>	\$0	\$0
<b><i>District III Total</i></b>	<b><i>\$16,163,000</i></b>	<b><i>\$8,056,000</i></b>

	<b><u>2010</u></b>	<b><u>2011</u></b>
<b><i>BRIDGES, ROADWAYS, SIDEWALKS &amp; APPROACHES TOTAL</i></b>	<b><i>\$66,718,000</i></b>	<b><i>\$119,561,000</i></b>

### FACILITIES AND GROUNDS SUMMARY

<b><u>DISTRICT I</u></b>	<b><u>2010</u></b>	<b><u>2011</u></b>
<u>Trenton-Morrisville Toll Bridge</u>	\$1,044,000	\$1,278,000
<u>Lower Trenton Toll-Supported Bridge</u>	\$25,000	\$26,000
<u>Calhoun Street Toll-Supported Bridge</u>	\$15,000	\$16,000
<u>Scudder Falls Toll-Supported Bridge</u>	\$75,000	\$78,000
<u>Washington Crossing Toll-Supported Bridge</u>	\$15,000	\$16,000
<u>New Hope-Lambertville Toll-Supported Bridge</u>	\$25,000	\$26,000
<u>New Hope Lambertville Toll Bridge</u>	\$608,000	\$519,000
<u>Centre Bridge-Stockton Toll-Supported Bridge</u>	\$25,000	\$26,000
<u>Lumberville-Raven Rock Toll-Supported Bridge</u>	\$10,000	\$11,000
<b><i>District I Total</i></b>	<b><i>\$1,842,000</i></b>	<b><i>\$1,996,000</i></b>



## 2010-2011 CAPITAL PLAN



### FACILITIES AND GROUNDS SUMMARY

<b><u>DISTRICT II</u></b>	<b><u>2010</u></b>	<b><u>2011</u></b>
<u>Uhlerstown-Frenchtown Toll-Supported Bridge</u>	\$25,000	\$26,000
<u>Upper Black Eddy-Milford Toll-Supported Bridge</u>	\$15,000	\$16,000
<u>Riegelsville Toll-Supported Bridge</u>	\$15,000	\$16,000
<u>Interstate 78 Toll Bridge</u>	\$150,000	\$604,000
<u>Northampton Street Toll-Supported Bridge</u>	\$25,000	\$26,000
<u>Easton-Phillipsburg Toll Bridge</u>	\$242,000	\$593,000
<u>Riverton-Belvidere Toll-Supported Bridge</u>	\$25,000	\$26,000
<b><i>District II Total</i></b>	<b><i>\$497,000</i></b>	<b><i>\$1,307,000</i></b>

### FACILITIES AND GROUNDS SUMMARY

<b><u>DISTRICT III</u></b>	<b><u>2010</u></b>	<b><u>2011</u></b>
<u>Portland-Columbia Toll Bridge</u>	\$146,000	\$1,073,000
<u>Portland-Columbia Toll-Supported Bridge</u>	\$10,000	\$11,000
<u>Delaware Water Gap Toll Bridge</u>	\$527,000	\$3,688,000
<u>Milford-Montague Toll Bridge</u>	\$127,000	\$1,155,000
<b><i>District III Total</i></b>	<b><i>\$810,000</i></b>	<b><i>\$5,927,000</i></b>

	<b><u>2010</u></b>	<b><u>2011</u></b>
<b><i>FACILITIES AND GROUNDS TOTAL</i></b>	<b><i>\$3,149,000</i></b>	<b><i>\$9,230,000</i></b>

## 2010-2011 CAPITAL PLAN



### EQUIPMENT PURCHASES

#### 2010 VEHICLE & EQUIPMENT PURCHASES

<u>Toll Facility</u>	<u>Estimated Purchase Price of New Units</u>	<u>Estimated Sell Price of Used Units</u>	<u>Estimated Net Cost</u>
Trenton-Morrisville	\$226,000	\$12,000	\$214,000
New Hope-Lambertville	\$180,000	\$0	\$180,000
Interstate Route 78	\$183,000	\$8,500	\$174,500
Easton-Phillipsburg	\$157,000	\$12,000	\$145,000
Portland-Columbia	\$51,000	\$0	\$51,000
Delaware Water Gap	\$71,000	\$0	\$71,000
Milford-Montague	\$46,000	\$0	\$46,000
Southern - Toll-Supported Bridges	\$23,000	\$0	\$23,000
Northern - Toll-Supported Bridges	\$52,000	\$13,000	\$39,000
	<u>\$989,000</u>	<u>\$45,500</u>	<u>\$943,500</u>

#### ***TOTAL 2010 GROSS VEHICLE & EQUIPMENT PURCHASES***

**\$989,000**

#### ***ESTIMATED 2011 GROSS VEHICLE & EQUIPMENT PURCHASES\****

**\$1,500,000**

*\*The 2010 V & E purchases above are based upon the "actual" estimates listed in the "Vehicle & Equipment" section of the 2009 General Engineering Annual Inspection Report. The 2011 V & E purchases of \$1.5M above are estimates of anticipated replacements/cost of new items for 2011 and are subject to change pending the 2010 General Engineering Inspection.*

## ***SCHEDULE OF INSURANCE***

### ***I. CURRENT SCHEDULE OF INSURANCE (2009)***

The Delaware River Joint Toll Bridge Commission currently has in effect the following principle types and amounts of insurance coverage:

#### ***A. General Liability***

\$	2,000,000	General Aggregate Limit
\$	2,000,000	Products/Completed Operations Aggregate Limit
\$	1,000,000	Personal/Advertising Injury Limit
\$	1,000,000	Each Occurrence Limit
\$	300,000	Damage to Premises
\$	15,000	Medical Expense Limit, Any One Person

The above General Liability limits apply for all bridges (Toll and Toll-Supported Bridges).

The above General Liability limits apply per each location.

Coverage includes Independent Contractors, Medical Payments, Contractual Liability, Fire Damage, Legal Liability, Employees as Additional Insured, Host Liquor Liability, Incidental Medical Malpractice, Broad Form Property Damage Liability, Non-owned Watercraft Liability (under 26ft), Limited Worldwide Products Liability and Extended Bodily Injury Liability.

#### ***B. Commercial Automobile Liability***

\$	1,000,000	Bodily Injury/Property Damage Combined Single Limit, Each Accident
\$	35,000	Uninsured/Underinsured Motorist Coverage (PA & NJ)
\$	50,000	Garagekeepers Liability
(Lesser of ACV or Cost of Repair)		Hired Car Physical Damage Coverage

Deductible on Comprehensive and Collision

\$	500	Cost New Less than \$29,999
\$	1,000	Cost New \$30,000-\$49,999
\$	2,000	Cost New Greater Than 50,000

#### ***C. Umbrella Liability***

\$	25,000,000	Each Occurrence, Annual Aggregate
----	------------	-----------------------------------

There is an excess umbrella policy with a \$25,000,000 limit. The total coverage of \$50,000,000 is inclusive of all Bridges, Vehicles, and Operations.

## ***SCHEDULE OF INSURANCE***

### **D. Building & Contents Insurance**

\$	1,000,000	Extra Expense
\$	10,000,000	Loss Limit Location #1
\$	5,000,000	Loss Limit Locations 2-7
\$	500,000	Unnamed Locations
\$	5,000	Deductible

(Additional sub-limits and deductibles apply)

Coverage extensions include: Debris Removal, Pollutant Cleanup and Removal, Newly Acquired Buildings and Personal Property, Personal Property of Others/Employees, Valuable papers-Cost of Research, Property Off Premises within 1,000 feet, Outdoor Property - Trees, Shrubs and Plants, Property in Transit (Special Form Only) and Fences and Signs.

### **E. Equipment Floater Limits (Included in Building Policy)**

\$	2,280,800	Specific Limits Apply Per Schedule
\$	240,756	Miscellaneous Unscheduled Tools
\$	1,000	Deductible

### **F. Bridge Property Coverage**

#### **Loss Limits:**

\$	50,000,000	Loss Limit – Primary
\$	50,000,000	Loss Limit – Excess of \$50,000,000 per Occurrence
\$	375,000,000	Loss Limit – Excess of \$100,000,000 per Occurrence
\$	100,000,000	Flood – Excess of \$150,000,000 per Occurrence/Aggregate

#### **Values:**

### **Toll Bridge Summary**

#### **Trenton-Morrisville Facility**

\$	43,546,680	Bridge
\$	20,366,232	Viaducts
\$	9,394,136	Use/Occupancy

#### **New Hope-Lambertville Facility**

\$	42,926,000	Bridge
\$	9,395,550	Viaducts
\$	211,680	Use/Occupancy

## ***SCHEDULE OF INSURANCE***

### Interstate Route 78 Facility

\$	50,346,400	Bridge
\$	33,527,388	Viaducts
\$	38,455,765	Use/Occupancy

### Easton-Phillipsburg Facility

\$	10,120,000	Bridge
\$	10,633,000	Viaducts
\$	9,293,593	Use/Occupancy

### Portland-Columbia Facility

\$	18,326,000	Bridge
\$	3,796,710	Viaducts
\$	1,753,202	Use/Occupancy

### Delaware Water Gap Facility

\$	67,952,000	Bridge
\$	25,719,302	Use/Occupancy

### Milford-Montague Facility

\$	15,519,560	Bridge
\$	1,182,311	Use/Occupancy

### **All Seven (7) Toll Bridges**

\$	<b>248,736,640</b>	<b>Bridges</b>
\$	<b>77,719,680</b>	<b>Viaducts</b>
\$	<b>86,010,169</b>	<b>Use and Occupancy</b>
\$	<b>412,466,489</b>	<b><i>TOTAL (Toll Bridges)</i></b>

### **Toll-Supported Bridge Summary**

<u>Lower Trenton</u>	\$	17,887,920
<u>Calhoun Street</u>	\$	10,624,640
<u>Scudder Falls</u>	\$	49,884,100
<u>Washington Crossing</u>	\$	5,542,640
<u>New Hope-Lambertville</u>	\$	8,878,880
<u>Centre Bridge-Stockton</u>	\$	7,805,820
<u>Lumberville-Raven Rock</u>	\$	2,476,800
<u>Uhlerstown-Frenchtown</u>	\$	7,037,400
<u>Upper Black Eddy-Milford</u>	\$	6,300,000
<u>Riegelsville</u>	\$	3,980,000
<u>Northampton Street</u>	\$	7,414,400
<u>Riverton-Belvidere</u>	\$	4,824,800



***SCHEDULE OF INSURANCE******II. INSURANCE REQUIREMENTS FOR 2010***

In accordance with Section 708 of the Bridge System Revenue Bonds, Series 2007, the following types of insurance are required to be maintained by the Commission to the extent as reasonably obtainable:

**MULTI-RISK INSURANCE**

The Commission currently maintains insurance for full replacement of all twenty (20) Toll and Toll-Supported Bridges and their approach structures (viaducts). In 1999 the Commission supplemented the full insurance coverage for the thirteen (13) Toll-Supported Bridges. The full replacement costs are reviewed annually and updated accordingly to follow current inflation and construction costs.

TranSystems has re-assessed each of the twenty (20) Toll and Toll-Supported Bridges and their associated approach structures (viaducts) with respect to the structures replacement costs. Most of the bridges, when and if replaced, will be replacement in kind. A simple cost per square foot (the overall bridge length multiplied by its overall width) was used in the development of the replacement costs for all of the Toll and Toll-Supported Bridges and their approach structures (viaducts). Square foot unit costs may vary between bridges due to specific characteristics such as the need for deep foundations, feature crossed and aesthetics. The Engineering News Record (ENR) Construction Cost Index (CCI) is utilized to update the replacement costs on a yearly basis due to inflation.

The 2010 Estimated Replacement Costs for the twenty Toll and Toll-Supported Bridges and their approach structures are listed below:

<u>TOLL FACILITY</u>		<u>BRIDGE</u>		<u>APPROACH STRUCTURES</u>
Trenton-Morrisville	\$	43,600,000	\$	20,400,000
New Hope-Lambertville	\$	43,000,000	\$	9,400,000
Interstate Route 78	\$	50,400,000	\$	33,600,000
Easton-Phillipsburg	\$	10,200,000	\$	10,700,000
Portland-Columbia	\$	18,400,000	\$	3,800,000
Delaware Water Gap	\$	68,000,000	\$	0
Milford-Montague	\$	15,600,000	\$	0
<i>SUBTOTALS</i>	\$	<i>249,200,000</i>	\$	<i>77,900,000</i>

<u>TOLL-SUPPORTED FACILITY</u>		<u>BRIDGE</u>		<u>APPROACH STRUCTURES</u>
Lower Trenton	\$	17,900,000	\$	0
Calhoun Street	\$	10,700,000	\$	0
Scudder Falls	\$	44,400,000	\$	5,600,000
Washington Crossing	\$	5,600,000	\$	0
New Hope-Lambertville	\$	8,900,000	\$	0
Centre Bridge-Stockton	\$	7,200,000	\$	700,000
Lumberville-Raven Rock *	\$	2,500,000	\$	0
Uhlerstown-Frenchtown	\$	7,100,000	\$	0
Upper Black Eddy-Milford	\$	6,300,000	\$	0
Riegelsville	\$	4,000,000	\$	0
Northampton Street	\$	7,500,000	\$	0

## ***SCHEDULE OF INSURANCE***

Riverton-Belvidere	\$	4,900,000	\$	0
Portland-Columbia *	\$	3,400,000	\$	0
<i>SUBTOTALS</i>	\$	<i>130,400,000</i>	\$	<i>6,300,000</i>

\* Pedestrian Bridge

**Total (All Bridges) Replacement Cost for 2010 = \$ 463,800,000**

### **USE AND OCCUPANCY INSURANCE**

The Commission currently maintains Use and Occupancy Insurance for all of its seven (7) Toll Facilities. The Commission has provided the anticipated 2010 revenues presented below.

<u>TOLL FACILITY</u>	<u>2010 ANTICIPATED REVENUE</u>
Trenton-Morrisville	\$ 9,141,400
New Hope-Lambertville	\$ 2,279,079
Interstate Route 78	\$ 32,803,929
Easton-Phillipsburg	\$ 12,861,264
Portland-Columbia	\$ 1,681,051
Delaware Water Gap	\$ 24,434,634
Milford-Montague	\$ 1,189,101
<b>(Total Toll Revenue)</b>	<b>\$ 84,390,458</b>
Interest on Investments	\$ 3,927,000
Other Income	\$ 389,000
<b>(TOTAL PROJECTED REVENUE - 2010)</b>	<b>\$ 88,706,458</b>

### **WAR-RISK INSURANCE**

The Commission does not maintain this type of insurance for any of its bridges, as it is not reasonably obtainable due to its excessive cost. However the Commission does maintain coverage for terrorism.

### **PUBLIC LIABILITY – PROPERTY DAMAGE – BODILY INJURY**

Public Liability and Property Damage are maintained by the Commission under its General Liability and Auto Liability insurance coverage, which provides a maximum coverage of \$1,000,000. In addition the Commission carries \$50,000,000 maximum coverage in Excess Liability Insurance on all Bridges, Vehicles and Operations and \$500,000 in Business Travel Accident Insurance.



## ***SCHEDULE OF INSURANCE***

### **BLANKET REAL AND PERSONAL PROPERTY INSURANCE- ADMINISTRATIVE & MAINTENANCE BUILDINGS, CONTENTS, TOLL BOOTHS, ETC.**

The Commission currently maintains Building and Contents Insurance in the amount of \$27,189,000. Estimated replacement costs for all Toll Facility Administration Buildings, Maintenance Buildings and Garages and Toll Plazas were recalculated, based upon the overall square-foot area of each facility originally calculated and increased by a factor of 1.5% and rounded. The estimated replacement costs for 2010 are as follows:

<u>LOCATION</u>	<u>2010 ESTIMATED REPLACEMENT VALUE</u>
Trenton-Morrisville	\$ 8,444,000
New Hope-Lambertville	\$ 3,485,000
Interstate 78	\$ 4,044,000
Easton-Phillipsburg	\$ 4,080,000
Portland-Columbia	\$ 1,641,000
Delaware Water Gap	\$ 3,696,000
Milford-Montague	\$ 2,293,000
Belvidere (Storage Bldg.)	\$ 256,000
New Hope Toll Supported (Garage)	\$ 180,000
15 Toll Supported Bridge Officer Shelters	\$ 217,000
Lumberville-Raven Rock (Bridge Tender house)	\$ 266,000
<b>TOTAL</b>	<b>\$ 28,602,000</b>

### **OTHER INSURANCE**

Following good business practice and conforming to the laws of the State of New Jersey and the Commonwealth of Pennsylvania, the Commission carries additional insurance to that which is required by the Bridge System Revenue Bond Resolution. Among this additional coverage is a \$10 million Public Officials Liability insurance.

## ***SCHEDULE OF INSURANCE***

### ***III. CONCLUSIONS AND RECOMMENDATIONS FOR 2010***

In general the Commission's overall insurance coverage is adequately provided; however, the amounts of the following coverage's should be adjusted:

- The Use and Occupancy Insurance should be adjusted to reflect the estimated 2010 anticipated revenues in conformance with the Bridge System Revenue Bond Resolutions.
- The Blanket Building and Contents Insurance should be adjusted to reflect the 2010 estimated property replacement values published above.

## **PAINT CONDITION RATINGS**

- EXCELLENT** - No problems noted.
- GOOD** - Some minor problems, but paint is sound and functioning as intended to protect the metal surfaces.
- SATISFACTORY** - Surface or freckled rust has formed or is forming. The paint system may be chalking, peeling or showing signs of paint distress, but there is no exposure of metal.
- FAIR** - Surface or freckled rust is prevalent. There may be exposed metal and/or beginning signs of active corrosion, but there is little to no section loss of steel members.
- POOR** - The overall paint system has failed which has consequently caused corrosion and significant section loss to steel members. Exposed metal and/or corrosion are typical throughout the bridge. A new paint system is required.

NOTE: Paint system ratings for a bridge will be an overall condition. Although localized areas may exhibit a better or worse condition, the rating encompasses the majority of the bridge paint system for the entire bridge.

## **BRIDGE CONDITION RATINGS**

<b><u>EXCELLENT</u></b> -	New bridge.
<b><u>VERY GOOD</u></b> -	No problems noted.
<b><u>GOOD</u></b> -	Some minor problems.
<b><u>SATISFACTORY</u></b> -	Some minor deterioration of structural elements.
<b><u>FAIR</u></b> -	Minor section loss, deterioration, spalling and/or scour of primary structural elements.
<b><u>POOR</u></b> -	Advanced section loss, deterioration, spalling and/or scour of primary structural elements.
<b><u>SERIOUS</u></b> -	Seriously deteriorated primary structural elements.
<b><u>CRITICAL</u></b> -	Facility should be closed until repairs are performed.
<b><u>IMMINENT FAILURE</u></b> -	Facility is closed. Study of repairs is feasible.
<b><u>FAILED</u></b> -	Facility is closed and beyond repair.

NOTE: These condition ratings are used to describe the existing, in-place bridge as compared to its as-built condition or its posted weight restriction. These ratings provide an overall characterization of the general condition of the entire bridge. These ratings do not describe a localized or nominally occurring instance of deterioration or disrepair or reflect structural or geometric adequacy.

## **COST ESTIMATING**

The costs associated with the repairs and rehabilitation for various elements at the bridge facilities are estimated based upon the following criteria as applicable or available:

- 1) **BID PRICES**: Quantities are developed during routine inspections for the appropriate repair (square foot, cubic yard, etc.). A unit cost is developed using standard bid items most resembling the repair. Inflation, if required, is used to increase unit costs for repair next year.
- 2) **COMMISSION PERSONNEL/HISTORY**: Maintenance staff are interviewed about the materials and length of time required for certain repairs. Maintenance staff are also asked about previous work relating to the proposed work and the costs relating to them. Depending on the year and extent of the previous work, the proposed costs are adjusted accordingly.
- 3) **EXPERIENCE**: Some of the proposed repairs/rehabilitation cannot be accurately quantified and no previous related work is available. Costs are then developed based upon experience of similar tasks. A length of time to complete the job is assumed and costs are approximated.

NOTE: Cost Estimates for major rehabilitation work include a 20% increase in cost to account for engineering services to prepare the contract documents and supervise construction.

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***APPENDIX A:***  
***BRIDGE LISTING***

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<b>Bridge Name</b>	<b>Structure Type</b>	<b>No. Of Spans</b>	<b>Structure Length (FT - IN)</b>
<b>Trenton-Morrisville Toll Bridge</b>	Steel Multi-Girder	12	1324 - 6
Washington Street Overpass (Pa)	Steel Multi-Girder	1	52 - 9 c-c brg.
South Pennsylvania Avenue Overpass (Pa)	Steel Multi-Girder	1	63 - 7 c-c brg.
Ramp "IY" Overpass (NJ) {Bridge St.}	Steel Multi-Girder	3	132 - 9 c-c brg.
Union Street Overpass (NJ)	Steel Multi-Girder	1	74 - 6 c-c brg.
Ramp "C" over Route 29 (NJ)	Steel Multi-Girder	3	183 - 3
Ramp "N" Over Union Street (NJ)	P/S Concrete Girder	3	168 - 0 c-c brg.
Center Street Underpass (NJ)	Riveted Steel Plate Girder	1	91 - 3 c-c brg.
Broad Street Underpass (NJ)	Steel Multi-Girder	1	76 - 11 c-c brg.
Ramp 'N' Overpass (NJ)	Steel Multi-Girder	1	77 - 1 c-c brg.
Route 29 Overpass @ TMTB (NJ)	P/S Concrete Spread Box Beams	3	118 - 0
Ramp 'Y' Overpass (Long Ramp) (NJ)	Steel Multi-Girder	4	282 - 0 c-c brg.
<b>Lower Trenton Toll-Supported Bridge</b>	Subdivided Warren Truss	5	1021 - 7
<b>Calhoun Street Toll-Supported Bridge</b>	Iron Phoenix Truss	7	1273 - 3
<b>Scudder Falls Toll-Supported Bridge</b>	Riveted Steel 2 Girder/Floorbeam/Stringer	10	1740
Taylorville Road Overpass (Pa)	Steel Multi-Stringer	3	134 - 0 c-c brg.
Pennsylvania Canal Overpass (Pa)	Steel Multi-Stringer	1	61 - 4
<b>Washington Crossing Toll-Supported Bridge</b>	Double Warren Truss	6	876 - 7
<b>New Hope-Lambertville Toll-Supported Bridge</b>	Pratt Truss	6	1045 - 6.5
<b>New Hope Lambertville Toll Bridge</b>	Steel 2 Girder/Floorbeam/Stringer	10	1682
Route 32 Overpass (Pa)	Concrete Rigid Frame	1	83 - 7
Route 29 Overpass @ NHLTB (NJ)	Steel Multi-Stringer	3	185 - 0 c-c brg.
<b>Centre Bridge-Stockton Toll-Supported Bridge</b>	Riveted Steel Warren Truss	6	824 - 10
Pennsylvania Canal Bridge	P/S Concrete Adjacent Box Beams	1	63 - 0
<b>Lumberville-Raven Rock Pedestrian Bridge</b>	Suspension	4	688 - 3
<b>Uhlertown-Frenchtown Toll-Supported Bridge</b>	Riveted Steel Warren Truss	6	950 - 10
<b>Upper Black Eddy-Milford Toll-Supported Bridge</b>	Warren Truss	3	699 - 9.25
<b>Riegelsville Toll-Supported Bridge</b>	Suspension	3	576 - 9.875
<b>Interstate 78 Toll Bridge WB</b>	Steel Multi-Girder	7	1222
<b>Interstate 78 Toll Bridge EB</b>	Steel Multi-Girder	7	1222
Morgan Hill Road Bridge Overpass (Pa)	P/S Concrete Spread Box Beams	2	210 - 0 c-c brg.
Cedarville Road Overpass (Pa)	P/S Concrete I-Beams	4	Unknown
I-78 over Route 611 (Pa) WB	P/S Concrete Spread Box Beams	3	197 - 6 c-c brg.
I-78 over Route 611 (Pa) EB	P/S Concrete Spread Box Beams	3	199 - 9 c-c brg.
Carpentersville Road Overpass (NJ)	Steel Multi-Stringer	2	203 - 0 c-c brg.
Edge Road Overpass (NJ)	Steel Multi-Stringer	2	272 - 0 c-c brg.
I-78 WB over Route 519 (NJ)	Steel Multi-Stringer	2	237 - 10 c-c brg.
I-78 EB over Route 519 (NJ)	Steel Multi-Stringer	2	236 - 5 c-c brg.
I-78 WB over Ramp C (NJ)	Steel Multi-Stringer	1	112 - 6 c-c brg.
I-78 EB over Ramp C (NJ)	Steel Multi-Stringer	1	116 - 11 c-c brg.
Service Road Overpass (Pa)	P/S Concrete Adjacent Box Beams	1	43 - 0 c-c brg.
<b>Northampton Street Toll-Supported Bridge</b>	Cantilever Truss	3	550 - 0 pin to pin
<b>Easton-Phillipsburg Toll Bridge</b>	Petit Thru-Truss	1	539 - 8 pin to pin
Broad Street Viaduct (NJ)	Riveted Steel 3 Girder/Floorbeam/Stringer	5	431 - 4
Third Street Overpass (Pa)	Steel Multi-Stringer	1	83 - 0 c-c brg.
Pedestrian Tunnel (Pa)	Reinforced Concrete Box Culvert	1	Unknown
Bank Street Overpass (Pa)	Steel Multi-Stringer	3	120 - 0 c-c brg.
Route 611 Overpass (Pa)	P/S Concrete Adjacent Box Beams	1	34 - 0 fc-fc abut.
<b>Riverton-Belvidere Toll-Supported Bridge</b>	Riveted Steel Double Warren Truss	4	652 - 5
<b>Portland-Columbia Toll Bridge</b>	Riveted Steel Multi-Girder	10	1309
Route 46 Overpass (NJ)	Riveted Steel Multi-Girder	1	96 - 1
Locust Street Overpass (NJ)	Steel Multi-Stringer	4	170 - 0 c-c brg.
<b>Portland-Columbia Pedestrian Bridge</b>	Steel Thru-Deck Girder	4	770
<b>Delaware Water Gap Toll Bridge EB</b>	Riveted Steel Multi-Girder	17	2398 - 6 c.c brg. abut.
<b>Delaware Water Gap Toll Bridge WB</b>	Riveted Steel Multi-Girder	16	2462 - 10 c.c. brg. abut.
<b>Milford-Montague Toll Bridge</b>	Steel Deck Truss	4	1150

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# **2009 TRAFFIC ENGINEERING REPORT**

## **Year 2010 Toll Bridge Traffic Volume And Revenue Projections**

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Delaware River  
Joint Toll Bridge  
Commission

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### **Delaware River Joint Toll Bridge Commission**

New Hope Headquarters and Administration Building  
2492 River Road, New Hope, PA 18938-9519

February 15, 2010

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## **EXECUTIVE SUMMARY**

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Pennoni Associates Inc. (Pennoni) has been retained by the Delaware River Joint Toll Bridge Commission (Commission) to determine if the projected year 2010 revenues will be enough to satisfy the conditions of all current Bridge System Revenue Bonds, which require under Section 703 (b), paragraph 2 that the Commission will not issue any Additional Bonds constituting Long-Term Indebtedness unless (along with other things) the following is delivered to the Trustee:

A report of a Consultant to the effect that (i) the Net Revenues of the Commission during the preceding Fiscal Year were at least 130% of the Maximum Annual Debt Service on all Applicable Long-Term Indebtedness then Outstanding and on any Applicable Long-Term Indebtedness proposed to be issued (which report may assume any revisions of the Tolls which have been approved by the Commission subsequent to the beginning of such Fiscal Year were in effect for the entire Fiscal Year), and (ii) the Projected Debt Service Coverage Ratio is not less than 1.30.

Revenues for 2010 were projected by applying the current toll structure to the 2010 projected volumes for each vehicle type on the seven (7) toll bridges under the jurisdiction of the Commission.

The sum of year 2010 projected toll bridge revenues (\$86,840,351) under the current toll structure is high enough to satisfy Section 703 (b), paragraph 2 of current Bridge System Revenue Bonds. Table 16 lists the projected revenues and expenditures for the year 2010. Since there is a projected Debt Service Coverage Ratio of 1.35, the requirements of current Bridge System Revenue Bonds are projected to be met.



## INTRODUCTION

Pennoni Associates Inc. (Pennoni) has been retained by the Delaware River Joint Toll Bridge Commission (Commission) to project traffic volumes by vehicle type on the seven (7) toll bridges for the year 2010. The seven (7) toll bridges and 13 toll-supported bridges under the jurisdiction of the Commission are listed below from south to north.

TOLL BRIDGES	TOLL-SUPPORTED BRIDGES
<b>DISTRICT ONE</b>	
Trenton–Morrisville (U.S. Route 1)	Lower Trenton
New Hope–Lambertville (U.S. Route 202)	Calhoun Street
	Scudder Falls (Interstate 95)
	Washington Crossing
	New Hope–Lambertville (Route 179)
	Centre Bridge–Stockton
	Lumberville–Raven Rock (Pedestrian Only)
<b>DISTRICT TWO</b>	
Interstate 78	Uhlerstown–Frenchtown
Easton–Phillipsburg (U.S. Route 22)	Upper Black Eddy–Milford
	Riegelsville
	Northampton Street
	Riverton–Belvidere
<b>DISTRICT THREE</b>	
Portland–Columbia	Portland Columbia (Pedestrian Only)
Delaware Water Gap (Interstate 80)	
Milford–Montague	

The purpose of the study is to determine if year 2010 projected toll revenues (under the current toll structure) will satisfy the requirements of current Bridge System Revenue Bonds, which require under Section 703 (b), paragraph 2 that the Commission will not issue any Additional Bonds constituting Long-Term Indebtedness unless (along with other things) the following is delivered to the Trustee:

A report of a Consultant to the effect that (i) the Net Revenues of the Commission during the preceding Fiscal Year were at least 130% of the Maximum Annual Debt Service on all Applicable Long-Term Indebtedness then Outstanding and on any Applicable Long-Term Indebtedness proposed to be issued (which report may assume any revisions of the Tolls which have been approved by the Commission subsequent to the beginning of such Fiscal Year were in effect for the entire Fiscal Year), and (ii) the Projected Debt Service Coverage Ratio is not less than 1.30.

Since there is a projected Debt Service Coverage Ratio of 1.35, the requirements of current Bridge System Revenue Bonds are projected to be met.





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## **METHODOLOGY**

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To project traffic volumes on the toll bridges for the year 2010, we considered new development projects which could add traffic to the toll bridges, roadway construction projects which could divert motorists from their regular routes, and general background growth, based on historic traffic volume data crossing the bridges.

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## **YEAR 2010 DEVELOPMENT PROJECTS**

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County planning/engineering offices for the eight (8) counties along the Delaware River within the study area (Bucks, Northampton, Monroe, and Pike counties in Pennsylvania and Mercer, Hunterdon, Warren, and Sussex counties in New Jersey) were contacted to learn of large developments which could have a major affect on toll bridge volumes during the year 2010. While several development projects are underway, only a few major projects are expected to open/expand/contract during the 2010 calendar year. For informational purposes, we have discussed major projects which may reach full buildout in the distant future but will likely not contribute any traffic during the year 2010.

### **District 1**

In Mercer County, the Capital Health System hospital is relocating from Bellevue Avenue and Prospect Street to a new regional facility at the southern end of Merrill Lynch at Scotch Road and I-95. Regardless of when the new hospital is finished, any Pennsylvania traffic using the hospital will likely shift from the Calhoun Street Toll Supported Bridge to the Scudder Falls Toll Supported Bridge, not affecting traffic volumes on the toll bridges in 2010 or beyond.

There are several small to medium sized developments at various stages of the approval process, and many are not near toll bridges. The Quakerbridge Mall expansion is still a few years off. No specific increase in traffic at the Trenton-Morrisville Toll Bridge was assumed from Mercer County developments.

In Bucks County, some medium office developments up to 200,000 square feet have been proposed and are anticipated to be constructed in 2010 or beyond 2010. We have not assumed any additional traffic crossing the Trenton-Morrisville Toll Bridge from these developments in 2010.

In southern Hunterdon County, there are no new major developments proposed in the area of the New Hope-Lambertville Toll Bridge.

### **District 2**

The Sands Bethworks Casino opened in May of 2009 with up to 3,000 slot machines, and approvals are being sought to add table games. Future development of a 300 room hotel and 200,000 square feet of retail space are on hold at this time. While the casino was open for seven months in 2009, we have not assumed any increase in traffic to the toll bridges in 2010 to reflect the patronage over 12 months in 2010.

Majestic Realty has proposed approximately 8 million square feet of industrial / warehouse space in Bethlehem, also at the former Bethlehem Steel plant. Nothing is anticipated to be completed and occupied during 2010.





St. Luke's Hospital, with campuses in Allentown, PA and Bethlehem, PA has obtained a property on Route 33 and Freemansburg Avenue in Easton, PA, but no development plans are being considered at this time.

Martin Tower in Bethlehem is proposed to consist of a 22-story condominium building with 800 units and retail (Phase 2) and 585 townhouses on the acreage surrounding the tower (Phase 1). Phase 1 was approved in 2007 but no construction has been scheduled and is not expected to be completed by the end of 2010. Phase 2 has been put on hold indefinitely.

A 500,000 square foot mixed use office / retail project at Route 33 and Route 248 in Nazareth received approvals in 2008, and while some construction is underway, it is not anticipated that the project will be completed in 2010. No additional traffic crossing the toll bridges was considered.

A warehousing facility has been submitted in Bloomsbury, NJ in Warren County just off I-78, but has not received approvals at the local or county level. Nothing is anticipated to be occupied in 2010.

No major developments are proposed in northern Hunterdon County for 2010.

### **District 3**

In Pike County, the Highland Village residential development remains in the final stages of the approval process for the projects beginning phases. However no lots are yet available for sale and nothing is expected to be occupied during 2010.

In Monroe County, a 109,000 square foot strip center with a supermarket and a drugstore will replace a flea market, but this supermarket is two miles from an existing supermarket and six miles from the Delaware Water Gap. No additional bridge crossings are anticipated from this development.

No major developments are proposed in northern Warren County or Sussex County for 2010.

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### **RECENT ROADWAY CONSTRUCTION PROJECTS**

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County planning/engineering offices and the departments of transportation were also asked about significant roadway construction projects near the bridges. In addition, the Delaware Valley Regional Planning Commission (DVRPC) Transportation Improvement Program (TIP) was also reviewed. Our findings are as follows:

#### **Commission Projects**

- ☑ The Trenton-Morrisville Toll Bridge rehabilitation project was completed in late 2009. A slight shift of passenger cars is anticipated to return from the Lower Trenton Toll Supported Bridge.
- ☑ The Washington Crossing Toll Supported Bridge rehabilitation project is scheduled to occur during April and May 2010. The full closure during this period will likely divert traffic to the New Hope-Lambertville or Scudder Falls Toll Supported Bridges.
- ☑ The Riegelsville Toll Supported Bridge rehabilitation project is scheduled from summer 2010 through February 2011. Any diversions from Riegelsville would likely increase traffic at the Upper Black Eddy-Milford Toll Supported Bridge or the I-78 Toll Bridge. Given the relatively



low volume of the Riegelsville Toll Supported Bridge, no increase was assumed at the I-78 Toll Bridge due to diversions.

- ☑ The Upper Black Eddy–Milford Rehabilitation Project was initially scheduled to occur during 2010, but has been pushed back to occur from fall 2010 to summer 2011, in part to accommodate diversions from Riegelsville. It will be completely shut down from early 2011 through late May 2011. No increase was assumed at the I-78 Toll Bridge due to diversions during 2010, since the bridge is now scheduled to remain open throughout 2010.
- ☑ The Milford-Montague Toll Bridge Rehabilitation Project was completed in 2009. No diversions were assumed from the rehabilitation, so no vehicles are anticipated to return to the bridge in 2010.
- ☑ The I-78 NJ Roadway Rehabilitation project was substantially completed during September 2009, while the I-78 Open Road Tolling schedule indicates three of the seven toll booth lanes will be closed from December 2009 to May 2010, and all construction work at the plaza is to be completed in July 2010. This work will shift autos and trucks to the Easton - Phillipsburg Toll Bridge, which will in turn shift some automobiles to the Northampton Street Toll Supported Bridge. As the number of tollbooths at the I-78 toll plaza has decreased by 42% (three of seven lanes) we have assumed a diversion of 24% over five months (approximately 10% of the yearly total) to the Easton-Philipsburg Toll Bridge. Diversions will likely be higher during periods of congestion, or in the daytime. Given the increased congestion at the Easton-Philipsburg Toll Bridge, we have assumed 395,000 passenger cars (approximately 50% of the volume of passenger cars diverted from I-78) will shift to the Northampton Street Toll Supported Bridge.
- ☑ The New Hope-Lambertville (Route 202) Toll Bridge Floor Beam Bracket Improvement Project was completed during October 2009.
- ☑ The Calhoun Street Toll Supported Bridge Rehabilitation Project will require the structure to be closed to vehicular and pedestrian traffic from May 24 to September 24, 2010. Diversions will likely increase volumes on the Lower Trenton Toll Supported Bridge and the Trenton - Morrisville Toll Bridge. Of the approximately 1.12 million westbound vehicles using the Calhoun Street Toll Supported Bridge over a four month period (June, July, August and September), we have assumed that 2/3 would divert to the Lower Trenton Toll Supported Bridge, and 1/3 (373,333 cars) would divert to the Trenton - Morrisville Toll Bridge.
- ☑ The Delaware Water Gap (I-80) Toll Bridge Bearing Replacements/Painting Project should continue through mid 2011, while the Delaware Water Gap Open Road Tolling schedule indicates construction work at the plaza will continue through November 2010. Any diversions from the Delaware Water Gap would use the Portland Columbia Toll Bridge, with the same toll structure as the Delaware Water Gap.

### **Bucks County, Pennsylvania**

- ☑ The Pennsylvania Turnpike will have an interchange with I-95 in Bristol. The project is in preliminary phases of construction, with stage 1 construction anticipated to be completed in 2014. This phase is not expected to impact any traffic patterns in 2010.

In reviewing the Lehigh Valley Transportation Improvement Program (TIP), the DVRPC TIP for Pennsylvania and New Jersey, and the NJTPA TIP, there are no major construction projects planned in other areas that are projected to have significant effects on volumes or patterns near the bridges.



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## ***HISTORICAL TRAFFIC VOLUMES***

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The Commission provided historical traffic volume information for the 11 vehicular toll-supported bridges and the seven (7) toll bridges. For the purpose of this study, volumes and toll revenue data from the years 2004 to 2009 were used.

Monthly traffic volume data for the toll-supported bridges is summarized on a yearly basis from 2004 to 2009, as listed in Tables 1 through 6. Where volume data was not available, traffic volumes were estimated and are shown in italics. No vehicle classification was provided, but most toll-supported bridges (with the exception on the Scudder Falls Bridge and the Upper Black Eddy-Milford Bridge) have weight restrictions prohibiting large trucks.

The Scudder Falls Toll Supported Bridge carries approximately 20-21 million vehicles per year, which converts to an average annual daily traffic volume (AADT) of approximately 57,000 vehicles. Since traffic is higher on weekdays, the average weekday traffic volume (AWDT) is approximately 60,000 vehicles. Volumes on the Scudder Falls Bridge have remained constant for several years. The Lower Trenton, Calhoun Street, and Northampton Street Toll Supported Bridges carry approximately 6.0-8.5 million vehicles per year, and the New Hope-Lambertville Toll Supported Bridge carries approximately 4.8 – 5.3 million vehicles per year. The remaining toll-supported bridges carry from 1.1 to 2.7 million vehicles per year.

At the toll supported bridges, there were minor fluctuations in volumes year to year on most bridges, with the five (5) year trend generally less than three (3) percent per year. During 2004, the New Hope-Lambertville Toll Supported Bridge was under construction, decreasing volumes. More vehicles gradually returned to the Trenton-Morrisville (Route 1) Toll Bridge from the Lower Trenton Toll Supported Bridge during 2005 and 2006, but shifted back to the Lower Trenton Toll Supported Bridge during 2007, in part from the construction at the Trenton-Morrisville Toll Bridge.

Reviewing information from the seven (7) toll bridges under the jurisdiction of the Commission during 2009, we found the Trenton-Morrisville (US Route 1), I-78, Easton-Phillipsburg (US Route 22), and Delaware Water Gap (Interstate 80) Toll Bridges carry between 6.2 million and 9.9 million toll paying (westbound) vehicles per year. The remaining three (3) toll bridges carry between 1.3 million and 2.0 million toll paying (westbound) vehicles per year. These figures have remained consistent over the past few years, with the exception of the New Hope - Lambertville Toll Bridge, which saw a spike in passenger cars during 2004 from the construction on the New Hope -Lambertville Toll Supported Bridge.

The five (5) axle tractor-trailer continues to be the most common truck type, representing approximately 8.5 percent of vehicles crossing the seven (7) toll bridges during 2009, and estimated to comprise approximately 8.2 percent of vehicles during 2010 but generating approximately 58 percent of the 2010 toll revenue. Conversely, passenger cars represented approximately 87.5 percent of the vehicles on the seven (7) toll bridges during 2009, and are projected to generate approximately 28 percent of the toll revenue during 2010. The auto / tractor trailer volume and revenue percentages have remained consistent for the past several years.



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## **YEAR 2010 TRAFFIC VOLUME AND TOLL REVENUE PROJECTIONS**

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Based on the findings listed above, a growth or reduction factor was applied to 2009 data for each vehicle type on each toll bridge to project year 2010 volumes. Generally, recent one (1) year to three (3) year growth trends are considered. However, historic economic conditions experienced during late 2008 and 2009 indicate that one to three year growth trends may not be practical. We also considered monthly volumes during the later part of 2008 and 2009, in order to compare months after the economic downturn.

The economic slowdown and mild recovery is expected to cause minor decreases to modest increases to the number of commuters and truck crossings during 2010.

Tables 7 through 13 illustrate actual traffic volumes for the seven (7) toll bridges for the years 2004 through 2009, as well as the projected year 2010 volumes. Review of the data indicates passenger cars increased 1.25% system wide from 2008 to 2009, but trucks decreased by 7.05%. The five axle tractor trailers, or Class 5 trucks (the most common truck type) decreased by 5.8%, while the 3-axle, 4-axle, 6-axle, and 7-axle trucks decreased from 11% to 17%.

Passenger car volumes are projected to remain flat or increase up to 2.5% from 2009 to 2010. The five axle tractor trailers, or Class 5 trucks (the most common truck type) is projected to decrease from 1% to 8% at the Trenton – Morrisville, Easton – Phillipsburg, and Milford - Montague toll bridges from 2009 to 2010, with Class 5 trucks projected to increase 1% to 3% at New Hope – Lambertville, I-78, Portland-Columbia, and the Delaware Water Gap toll bridges. The four toll bridges projecting increases in Class 5 trucks carry 89% of total Commission Class 5 toll crossings. The current toll structure was applied to the projected 2010 volumes to determine the projected year 2010 revenue for each toll bridge.

Frequent or commuter E-ZPass passenger car users that have 20 or more crossings in a 35-calendar day period will pay \$0.45, a 40% discount over the cash / casual E-ZPass fare. Based on E-ZPass penetration rates at each toll bridge and the number of total commuter E-ZPass transactions, we were able to estimate the number of cash paying passenger cars/casual E-ZPass passenger cars, and commuting E-ZPass passenger cars at each of the seven (7) toll bridges.

For trucks, the off peak traffic (9 PM – 6 AM) will receive a 10% discount over the cash fare. We determined the percentage of off peak E-ZPass users for each vehicle class at each bridge to reach a weighted average toll. For example, the 2-axle trucks at the Trenton-Morrisville Bridge will have 93.7% cash/peak E-ZPass users at \$5.00, and 6.3% off peak E-ZPass users at \$4.25, for a weighted average toll of \$4.95. Special permit vehicles will maintain the same toll structure of \$0.40 per ton plus \$2.00 permit fee. For example, a truck weighing 80,000 pounds (40 tons) will pay \$18.00.

Table 14 compares the 2009 volumes and revenues for each bridge and maintenance district with the projected 2010 volumes. As indicated, overall toll traffic volumes are projected to increase by approximately 375,000 vehicles (+1.00%) and revenues are projected to increase by approximately \$450,000 (+0.52%). We note that the change in toll volumes is in part from adding 373,000 passenger cars from the Calhoun Street Toll Supported Bridge to the Trenton-Morrisville Toll Bridge, and subtracting 395,000 passenger cars from I-78 and diverting them the Northampton Street Toll Supported Bridge. Since Class 5 trucks provide the majority of the toll revenue, the increase in projected Class 5 trucks leads to the increase in revenue.



Table 15 is provided in response to (i) of Section 703 (b) paragraph 2 and provides 2009 Total Revenue, 2009 Operating Expenses, Net Revenue, Maximum Annual Debt Service, and 130% of the Maximum Annual Debt Service. All values were provided by the Commission. The requirement that the Net Revenue for the preceding fiscal year be at least 130% of the Maximum Annual Debt Service was met.

On June 1, 2009, the Commission began charging the E-ZPass accounts a monthly \$1 account service fee. We have estimated additional revenue of \$428,000 during the seven month period from June – December 2009. During 2010, we have estimated revenue of \$734,000, as the fees will be in effect for the entire year.

With the rollout of Open Road Tolling, the Commission has a vehicle enforcement system (VES) in place to reduce toll evasion. Through experience of nearby toll agencies, the fines associated with the VES more than offset the losses from unpaid tolls, and produce a small profit. However, given that there is no historic data or experience with toll violators on the Commission facilities, it is anticipated for 2010 that the revenue recognized from the administrative fees for violators and the toll revenue loss due to violators will be revenue neutral.

Table 16 lists the 2010 projected toll revenues, and subtracts the projected operating expenses. The Net Revenue is then divided by Maximum Annual Debt Service to calculate a Projected Debt Service Coverage Ratio that is required to be not less than 1.30. The Commission provided all the figures in Table 16, with the exception of the projected 2010 toll revenue. With a Projected Debt Service Coverage Ratio of 1.35, the requirements of all current Bridge System Revenue Bonds are projected to be met.



**Table 1 - 2004 Toll Supported Bridge Volumes**

Month	Lower Trenton	Calhoun Street	Scudder Falls	Washington Crossing	New Hope-Lambertville	Centre Bridge-Stockton	Unlertown-Frenchtown	Upper Black Eddy-Milford	Riegelsville	Northampton Street	Riverton-Belvidere	Total
January	495,049	545,773	1,558,639	215,643	131,272	158,320	104,599	112,951	89,299	647,096	139,963	4,198,604
February	491,631	541,831	1,584,203	220,054	157,576	162,945	108,568	114,563	86,645	646,150	141,661	4,255,827
March	543,079	599,213	1,773,426	244,549	137,807	181,410	122,478	128,366	97,390	718,412	160,225	4,706,355
April	532,424	594,358	1,802,794	250,560	154,061	193,391	130,759	141,162	97,980	724,557	164,864	4,786,910
May	548,806	619,033	1,841,026	270,327	143,402	214,181	143,818	149,292	100,696	750,157	174,202	4,954,940
June	537,692	609,804	1,831,365	250,175	301,416	196,765	139,959	146,241	97,578	708,925	171,847	4,991,767
July	533,218	584,653	1,758,351	231,474	426,710	188,715	146,966	149,039	98,234	716,311	174,983	5,008,654
August	536,367	555,972	1,811,783	221,746	436,722	185,161	144,138	144,543	97,182	720,922	170,090	5,024,626
September	<i>547,070</i>	534,777	1,789,294	199,741	390,205	166,567	125,187	133,017	89,810	634,981	160,925	4,771,574
October	<i>573,398</i>	587,641	1,459,900	216,130	443,149	177,050	133,368	142,999	98,574	714,031	170,631	4,716,871
November	<i>515,313</i>	556,841	1,740,078	190,649	409,346	159,500	116,295	127,600	92,094	675,077	153,783	4,736,576
December	<i>480,000</i>	577,632	1,736,170	190,638	420,771	155,204	112,075	127,686	97,425	692,831	155,831	4,746,263
<b>Total</b>	6,334,047	6,907,528	20,687,029	2,701,686	3,552,437	2,139,209	1,528,210	1,617,459	1,142,907	8,349,450	1,939,005	56,898,967

estimated figures due to adjustments shown in *italics*  
adjusted figures due to counter malfunction rounded





**Table 2 - 2005 Toll Supported Bridge Volumes**

Month	Lower Trenton	Calhoun Street	Scudder Falls	Washington Crossing	New Hope-Lambertville	Centre Bridge-Stockton	Unlawstown-Frenchtown	Upper Black Eddy-Milford	Riegelsville	Northampton Street	Riverton-Belvidere	Total
January	453,991	520,094	1,566,950	175,523	369,422	130,496	98,147	115,312	85,589	615,480	136,364	4,267,368
February	436,839	506,071	1,521,736	167,777	359,028	126,870	95,552	109,768	82,146	599,385	135,497	4,140,669
March	543,079	580,142	1,766,709	192,763	405,788	148,274	113,344	126,969	94,544	692,465	155,279	4,819,356
April	532,424	527,249	1,131,518	21,035	385,277	145,725	103,752	116,299	99,691	591,668	147,988	3,802,626
May	548,806	604,119	1,877,850	183,915	441,442	182,304	128,463	137,669	114,644	716,255	167,351	5,102,818
June	537,692	601,724	1,858,574	198,817	436,210	182,171	127,998	132,171	116,004	710,299	165,285	5,066,945
July	533,218	599,309	1,786,565	202,953	427,856	188,107	138,408	135,112	114,466	700,001	170,799	4,996,794
August	510,000	598,063	1,858,505	201,975	437,261	180,094	134,231	131,779	110,654	741,908	162,021	5,066,491
September	482,514	558,116	1,662,649	202,075	417,298	160,857	125,248	125,340	103,239	690,890	160,440	4,688,666
October	504,022	560,559	1,745,874	200,667	439,579	172,000	125,108	124,343	104,940	710,506	166,786	4,854,384
November	472,857	541,370	1,654,746	186,307	417,122	145,307	116,073	116,732	99,694	678,235	159,536	4,587,979
December	480,984	558,001	1,673,429	177,476	414,259	128,022	106,302	112,082	101,868	697,971	155,725	4,606,119
<b>Total</b>	6,036,426	6,754,817	20,105,105	2,111,283	4,950,542	1,890,227	1,412,626	1,483,576	1,227,479	8,145,063	1,883,071	56,000,215

estimated figures due to adjustments shown in *italics*  
adjusted figures due to counter malfunction rounded



**Table 3 - 2006 Toll Supported Bridge Volumes**

Month	Lower Trenton	Calhoun Street	Scudder Falls	Washington Crossing	New Hope-Lambertville	Centre Bridge-Stockton	Unlawstown-Frenchtown	Upper Black Eddy-Milford	Riegelsville	Northampton Street	Riverton-Belvidere	Total
January	481,349	542,134	1,647,638	180,403	392,376	113,462	106,700	109,085	97,553	692,038	156,259	4,518,997
February	460,026	506,035	1,512,963	162,729	329,479	114,662	96,112	101,386	90,141	657,336	144,571	4,175,440
March	523,914	581,075	1,776,740	191,241	429,947	145,430	116,468	118,054	105,674	743,968	167,761	4,900,272
April	504,442	559,811	1,734,750	195,203	444,336	154,511	120,327	121,299	107,097	739,970	164,243	4,845,989
May	527,000	581,547	1,826,526	212,848	464,451	169,518	130,353	135,000	111,162	753,909	173,749	5,086,063
June	512,623	600,000	1,788,813	205,000	450,000	165,000	128,000	111,000	106,000	691,000	173,000	4,930,436
July	506,000	558,000	1,700,000	200,000	445,000	159,000	115,000	141,000	104,618	670,000	163,480	4,762,098
August	522,121	570,908	1,826,859	212,444	458,066	159,240	115,004	145,038	105,974	703,761	162,924	4,982,339
September	507,037	539,572	1,687,969	208,244	432,513	149,144	119,096	116,836	101,082	676,601	156,138	4,694,232
October	522,611	562,501	1,511,747	224,156	445,294	156,057	123,489	120,092	104,976	713,693	122,807	4,607,423
November	491,981	529,549	1,703,521	193,677	409,206	148,027	110,682	109,788	100,046	679,434	130,358	4,606,269
December	507,939	546,301	1,710,279	194,945	437,619	149,662	113,254	113,532	105,741	721,389	155,793	4,756,454
<b>Total</b>	6,067,043	6,677,433	20,427,805	2,380,890	5,138,287	1,783,713	1,394,485	1,442,110	1,240,064	8,443,099	1,871,083	56,866,012

estimated figures due to adjustments shown in *italics*

adjusted figures due to counter malfunction rounded

June July figures represent adjusted volumes without closures due to flooding





**Table 4 - 2007 Toll Supported Bridge Volumes**

Month	Lower Trenton	Calhoun Street	Scudder Falls	Washington Crossing	New Hope-Lambertville	Centre Bridge-Stockton	Unlawstown-Frenchtown	Upper Black Eddy-Milford	Riegelsville	Northampton Street	Riverton-Belvidere	Total
January	524,204	542,687	1,685,485	192,444	419,839	41,725	109,786	105,158	96,816	693,543	118,486	4,530,173
February	469,357	473,726	1,500,683	171,680	367,118	37,041	93,879	91,227	85,694	605,955	102,020	3,998,380
March	563,583	565,893	1,757,094	200,232	441,053	42,871	112,786	110,080	100,047	719,066	122,695	4,735,400
April	552,445	553,288	1,753,484	199,323	440,986	52,777	116,939	111,931	104,787	725,886	124,217	4,736,063
May	610,088	605,582	1,907,911	228,224	485,112	-	135,253	125,821	114,212	757,722	152,232	5,122,157
June	588,576	597,164	1,873,937	219,692	459,198	144,609	129,958	121,992	110,936	716,876	140,936	5,103,874
July	585,804	594,745	1,840,925	214,810	469,964	156,410	134,273	128,239	111,487	703,747	140,140	5,080,544
August	607,531	606,545	1,899,467	215,831	473,885	153,788	131,437	128,664	110,141	718,414	150,648	5,196,351
September	560,732	550,187	1,757,370	209,360	449,773	151,546	124,988	122,259	104,853	679,051	145,880	4,855,999
October	604,763	581,938	1,895,727	231,077	464,487	148,710	125,436	121,808	109,742	714,884	153,385	5,151,957
November	568,910	535,795	1,769,634	208,935	426,255	132,809	108,631	111,020	102,463	686,364	137,410	4,788,226
December	553,963	550,136	1,685,119	208,741	420,918	125,165	102,058	105,890	100,357	669,354	127,623	4,649,324
<b>Total</b>	6,789,956	6,757,686	21,326,836	2,500,349	5,318,588	1,187,451	1,425,424	1,384,089	1,251,535	8,390,862	1,615,672	57,948,448

estimated figures due to adjustments shown in *italics*

adjusted figures due to counter malfunction rounded

Centre Bridge - Stockton Bridge weekday closures for TS-429A (Jan-May, Nov) and the count station loop detectors were replaced in May

Riverton - Belvidere Bridge weekend and weekday closures for TS-371A (Jan-July, Oct-Nov)

Increase in traffic volume on Lower Trenton Bridge is a result of construction on the Trenton - Morrisville Toll Bridge (T-380B)



**Table 5 - 2008 Toll Supported Bridge Volumes**

Month	Lower Trenton	Cathoun Street	Scudder Falls	Washington Crossing	New Hope-Lambertville	Centre Bridge-Stockton	Unierstown-Frenchtown	Upper Black Eddy-Milford	Riegelsville	Northampton Street	Riverton-Bawidere	Total
January	549,171	546,405	1,713,675	212,292	401,420	118,394	107,030	104,657	100,513	684,793	136,459	4,674,809
February	517,339	518,435	1,599,753	196,860	374,271	104,984	95,233	90,579	93,440	633,000	120,662	4,344,555
March	581,858	576,991	1,757,169	213,822	418,575	127,589	111,371	106,873	107,891	669,907	143,026	4,815,072
April	584,031	577,733	1,819,802	232,002	434,746	135,471	116,558	108,559	112,799	636,451	149,179	4,907,331
May	589,750	585,529	1,853,292	236,178	459,526	145,187	126,709	117,382	114,937	666,428	154,320	5,049,238
June	579,166	570,037	1,809,912	222,609	447,505	146,138	124,312	114,459	110,376	683,685	148,997	4,957,196
July	585,286	581,134	1,827,359	206,636	457,613	143,721	131,454	114,257	102,929	684,172	154,410	4,988,971
August	581,026	574,488	1,813,596	217,165	463,633	150,120	129,548	114,789	104,825	664,408	152,225	4,965,823
September	551,811	553,676	1,815,570	216,066	424,235	137,923	116,167	102,073	98,494	635,448	147,383	4,798,846
October	557,418	577,329	1,826,723	233,058	443,608	140,967	126,718	98,207	103,852	672,295	156,041	4,936,216
November	508,556	517,250	1,690,526	197,744	395,624	136,819	112,026	92,901	89,294	605,825	136,633	4,483,198
December	540,738	563,926	1,794,014	209,550	401,679	130,957	104,539	97,961	87,757	632,779	133,367	4,697,267
<b>Total</b>	6,726,150	6,742,933	21,321,390	2,593,982	5,122,435	1,618,270	1,401,665	1,262,697	1,227,108	7,869,191	1,732,702	57,618,522

estimated figures due to adjustments shown in *italics*

adjusted figures due to counter malfunction rounded

Increase in traffic volume on Lower Trenton Bridge (January and February) is a result of construction on the Trenton - Morrisville Toll Bridge (T-380B)



**Table 6 - 2009 Toll Supported Bridge Volumes**

Month	Lower Trenton	Calhoun Street	Scudder Falls	Washington Crossing	New Hope-Lambertville	Centre Bridge-Stockton	Uhlertown-Frenchtown	Upper Black Eddy-Milford	Riegelsville	Northampton Street	Riverton-Belvidere	Total
January	518,115	553,851	1,643,568	199,361	350,943	116,074	97,639	92,981	79,741	603,279	126,110	4,381,662
February	500,303	490,991	1,522,087	189,393	351,147	115,328	96,407	91,060	77,190	591,359	125,656	4,150,921
March	565,748	555,634	1,707,097	220,540	384,131	132,470	110,887	103,561	88,307	666,954	144,833	4,680,162
April	579,305	582,724	1,827,731	224,781	403,555	143,491	119,268	110,797	94,754	684,941	152,173	4,923,520
May	588,519	590,292	1,831,390	224,827	426,904	164,146	131,358	120,087	97,028	705,446	161,272	5,041,269
June	579,191	551,107	1,823,098	214,028	417,571	146,159	126,641	116,651	105,790	684,546	157,903	4,922,685
July	588,155	580,735	1,734,852	218,537	448,893	142,686	140,607	123,648	113,477	661,319	160,559	4,913,468
August	574,407	572,997	1,812,943	207,522	448,977	160,092	133,636	122,459	110,022	682,176	152,663	4,977,894
September	541,100	559,584	1,739,818	210,094	421,046	155,092	127,499	117,161	103,864	638,612	151,627	4,765,497
October	559,056	568,089	1,796,426	216,949	432,672	137,538	126,932	116,117	107,958	642,662	154,067	4,858,466
November	513,799	537,297	1,724,337	198,432	411,658	128,515	116,369	108,037	101,092	585,296	139,078	4,563,910
December	508,224	560,621	1,711,797	192,122	399,701	132,464	107,376	110,263	102,062	725,262	134,964	4,684,856
<b>Total</b>	6,615,922	6,703,922	20,875,144	2,516,586	4,897,198	1,674,055	1,434,619	1,332,822	1,181,285	7,871,852	1,760,905	56,864,310

estimated figures due to adjustments shown in *italics*

adjusted figures due to counter malfunction rounded

Traffic counters down throughout parts of 2009 at Calhoun Street, Scudder Falls, Centre Bridge-Stockton, and Uhlertown-Frenchtown bridges. Data interpolated from 2008 and available 2009 volumes.



**Table 7: Trenton-Morrisville Toll Bridge Volume and Revenue Projections**

class	2004 volume	2005 volume	2006 volume	2007 volume	2008 volume	2009 volume	factor from 2009 to 2010	2010 base volume (projected)	Diverted from Calhoun Street Bridge
1 - passenger car	6,281,830	6,588,111	6,805,085	6,396,032	6,107,545	6,295,506	1.025	6,452,894	373,333
2 - 2-axle truck	159,655	172,109	181,550	176,380	175,125	168,865	1.040	175,620	
3 - 3-axle truck	71,473	74,247	78,038	83,143	85,360	65,994	0.920	60,714	
4 - 4-axle truck	50,275	55,136	58,329	61,861	65,417	49,557	0.980	48,566	
5 - 5-axle truck	169,038	185,618	194,518	178,566	171,432	144,868	0.990	143,419	
6 - 6-axle truck	1,594	1,876	1,769	1,493	1,776	1,531	1.000	1,531	
8 - special permit	-	-	-	-	-	-		-	
7 - 7-axle truck	146	132	136	39	33	27	1.000	27	
total toll	6,734,011	7,077,229	7,319,425	6,897,514	6,606,688	6,726,348		6,882,771	

class	toll	2010 total volume (projected)	2010 revenue
1 - passenger car	\$ 0.73	6,826,227	\$ 4,964,330.10
2 - 2-axle truck	\$ 4.97	175,620	\$ 872,601.34
3 - 3-axle truck	\$ 9.65	60,714	\$ 586,003.87
4 - 4-axle truck	\$ 12.84	48,566	\$ 623,597.63
5 - 5-axle truck	\$ 15.98	143,419	\$ 2,291,221.32
6 - 6-axle truck	\$ 19.36	1,531	\$ 29,633.36
8 - special permit	varies	0	\$ 0.00
7 - 7-axle truck	\$ 22.58	27	\$ 609.70
<b>Totals</b>		<b>7,256,104</b>	<b>\$ 9,367,997.33</b>

Assumes 1,120,000 westbound passenger cars from the Calhoun Street Toll Supported Bridge will be diverted from May 24 - September 24, 2010  
2/3 will divert to the Lower Trenton Toll Supported Bridge, and 1/3 (373,333 vehicles) will divert to the Trenton-Morrisville Toll Bridge



**Table 8: New Hope-Lambertville Toll Bridge Volume and Revenue Projections**

class	2004 volume	2005 volume	2006 volume	2007 volume	2008 volume	2009 volume	factor from 2009 to 2010	2010 volume (projected)
1 - passenger car	2,026,746	1,700,215	1,720,641	1,894,591	1,758,949	1,853,211	1.020	1,890,275
2 - 2-axle truck	52,056	50,979	56,265	57,425	55,234	57,087	1.020	58,229
3 - 3-axle truck	24,171	26,248	31,139	28,569	24,051	19,705	0.980	19,311
4 - 4-axle truck	7,797	7,052	6,938	7,614	6,669	5,645	1.030	5,814
5 - 5-axle truck	27,141	26,682	26,910	28,473	25,391	25,843	1.030	26,618
6 - 6-axle truck	804	718	757	964	749	540	1.000	540
8 - special permit	-	4	1	-	1	-	1.000	-
7 - 7-axle truck	67	48	52	50	23	42	1.000	42
	2,138,782	1,811,946	1,842,703	2,017,686	1,871,067	1,962,073		2,000,829

\*\* 2004 auto volumes higher than normal due to New Hope Lambertville Toll Supported Bridge Closures

class	toll	2010 volume (projected)	2010 revenue
1 - passenger car	\$ 0.73	1,890,275	\$ 1,374,454.94
2 - 2-axle truck	\$ 4.97	58,229	\$ 289,577.25
3 - 3-axle truck	\$ 9.68	19,311	\$ 187,022.91
4 - 4-axle truck	\$ 12.71	5,814	\$ 73,873.63
5 - 5-axle truck	\$ 16.03	26,618	\$ 426,604.75
6 - 6-axle truck	\$ 19.26	540	\$ 10,402.68
8 - special permit	varies	0	\$ 0.00
7 - 7-axle truck	\$ 22.64	42	\$ 950.95
<b>Totals</b>		<b>2,000,829</b>	<b>\$ 2,362,887.11</b>



**Table 9: Interstate 78 Toll Bridge Volume and Revenue Projections**

class	2004 volume	2005 volume	2006 volume	2007 volume	2008 volume	2009 volume	factor from 2009 to 2010	2010 base volume (projected)	Diverted to Easton- Phillipsburg
1 - passenger car	6,974,743	7,226,070	7,605,954	7,821,489	7,559,187	7,791,397	1.015	7,908,268	(790,827)
2 - 2-axle truck	222,516	231,076	236,629	235,204	230,345	216,745	1.030	223,247	(22,325)
3 - 3-axle truck	93,683	99,176	104,217	106,916	103,599	94,012	0.930	87,431	(8,743)
4 - 4-axle truck	111,525	119,102	127,958	124,799	116,043	105,485	0.970	102,320	(10,232)
5 - 5-axle truck	1,946,024	1,922,988	1,943,206	1,877,951	1,831,467	1,737,739	1.020	1,772,494	(177,249)
6 - 6-axle truck	35,967	38,604	41,381	42,808	49,371	45,027	1.030	46,378	(4,638)
8 - special permit	8	12	8	9	8	10	1.000	10	
7 - 7-axle truck	1,379	1,420	1,485	1,123	1,379	1,195	1.000	1,195	(120)
total toll	9,385,845	9,638,448	10,060,838	10,210,299	9,891,399	9,991,610		10,141,343	

class	toll	2010 total volume (projected)	2010 revenue
1 - passenger car	\$ 0.73	7,117,441	\$ 5,179,520.06
2 - 2-axle truck	\$ 4.96	200,922	\$ 996,122.75
3 - 3-axle truck	\$ 9.60	78,688	\$ 755,696.67
4 - 4-axle truck	\$ 12.61	92,088	\$ 1,161,301.43
5 - 5-axle truck	\$ 15.95	1,595,245	\$ 25,440,647.63
6 - 6-axle truck	\$ 18.92	41,740	\$ 789,765.85
8 - special permit	varies	10	\$ 673.08
7 - 7-axle truck	\$ 22.58	1,075	\$ 24,276.66
<b>Totals</b>		<b>9,127,209</b>	<b>\$ 34,348,004.13</b>

10% shift of all vehicle classes to EP due to toll plaza construction for  
5 months (24% over 5 months = 10% for year)



**Table 10: Easton-Phillipsburg Toll Bridge Volume and Revenue Projections**

class	2004 volume	2005 volume	2006 volume	2007 volume	2008 volume	2009 volume	factor from 2009 to 2010	2010 base volume (projected)	Diverted from I-78
1 - passenger car	5,551,047	5,690,754	5,702,051	5,742,513	5,925,210	5,755,012	1.000	5,755,012	395,414
2 - 2-axle truck	168,748	173,094	168,505	164,859	159,893	146,489	0.950	139,165	22,325
3 - 3-axle truck	60,320	64,105	64,531	59,599	61,563	48,270	0.920	44,408	8,743
4 - 4-axle truck	45,422	42,727	48,881	60,400	60,317	54,877	0.920	50,487	10,232
5 - 5-axle truck	263,362	263,496	250,482	210,038	215,992	207,313	0.920	190,728	177,249
6 - 6-axle truck	4,853	5,826	6,699	3,351	3,055	2,425	0.920	2,231	4,638
8 - special permit	-	-	-	-	-	-	1.000	-	-
11 - 7-axle truck	211	252	177	113	71	61	1.000	61	120
total toll vehicles	6,093,963	6,240,254	6,241,326	6,240,873	6,426,101	6,214,447		6,182,092	

class	toll	2010 total volume (projected)	2010 revenue
1 - passenger car	\$ 0.73	6,150,426	\$ 4,482,160.54
2 - 2-axle truck	\$ 4.98	161,490	\$ 803,465.00
3 - 3-axle truck	\$ 9.65	53,151	\$ 512,956.92
4 - 4-axle truck	\$ 12.87	60,719	\$ 781,227.52
5 - 5-axle truck	\$ 15.99	367,977	\$ 5,885,599.42
6 - 6-axle truck	\$ 19.23	6,869	\$ 132,092.58
8 - special permit	varies	0	\$ 0.00
7 - 7-axle truck	\$ 22.26	181	\$ 4,028.53
<b>Totals</b>		<b>6,800,813</b>	<b>\$ 12,601,530.51</b>

10% trucks from I-78 diverted to EP. 10% of passenger cars from I-78 (790,827) diverted to EP (395,414) and Northampton Street (395,413)



**Table 11: Portland Columbia Toll Bridge Volume and Revenue Projections**

class	2004 volume	2005 volume	2006 volume	2007 volume	2008 volume	2009 volume	factor from 2009 to 2010	2010 volume (projected)
1 - passenger car	1,162,560	1,217,782	1,221,400	1,365,195	1,274,654	1,242,931	1.000	1,242,931
2 - 2-axle truck	28,720	29,958	30,743	30,772	29,250	28,857	1.020	29,434
3 - 3-axle truck	11,677	10,874	10,287	12,364	12,887	9,132	0.960	8,767
4 - 4-axle truck	6,149	6,780	8,645	7,980	8,791	9,403	1.040	9,779
5 - 5-axle truck	31,778	34,076	34,464	33,480	32,306	29,159	1.020	29,742
6 - 6-axle truck	453	705	589	475	295	255	1.000	255
8 - special permit	-	-	-	-	-	-	1.000	-
7 - 7-axle truck	14	12	13	9	12	45	1.000	45
total toll vehicles	1,241,351	1,300,187	1,306,141	1,450,275	1,358,195	1,319,782		1,320,953

class	toll	2010 volume (projected)	2010 revenue
1 - passenger car	\$ 0.73	1,242,931	\$ 904,413.03
2 - 2-axle truck	\$ 4.98	29,434	\$ 146,546.86
3 - 3-axle truck	\$ 9.70	8,767	\$ 85,044.21
4 - 4-axle truck	\$ 12.94	9,779	\$ 126,517.82
5 - 5-axle truck	\$ 16.14	29,742	\$ 479,921.76
6 - 6-axle truck	\$ 19.46	255	\$ 4,961.45
8 - special permit	varies	0	\$ 0.00
7 - 7-axle truck	\$ 22.75	45	\$ 1,023.75
<b>Totals</b>		<b>1,320,953</b>	<b>\$ 1,748,428.88</b>





**Table 12: Delaware Water Gap (Interstate 80) Toll Bridge Volume and Revenue Projections**

class	2004 volume	2005 volume	2006 volume	2007 volume	2008 volume	2009 volume	factor from 2009 to 2010	2010 volume (projected)
1 - passenger car	8,488,847	8,493,107	8,590,643	8,501,039	8,290,964	8,389,765	1.010	8,473,663
2 - 2-axle truck	161,134	161,724	162,397	162,971	153,827	146,366	0.980	143,439
3 - 3-axle truck	93,075	95,818	95,676	96,380	92,137	85,801	0.970	83,227
4 - 4-axle truck	57,861	63,106	63,265	67,828	62,497	49,796	0.960	47,804
5 - 5-axle truck	1,128,514	1,120,941	1,124,054	1,175,507	1,090,089	1,026,829	1.010	1,037,097
6 - 6-axle truck	20,887	20,884	19,712	23,663	24,637	20,928	0.920	19,254
8 - special permit	69	64	42	38	49	32	1.000	32
7 - 7-axle truck	1,346	1,246	1,376	1,104	1,036	736	1.000	736
total toll vehicles	9,951,733	9,956,890	10,057,165	10,028,530	9,715,236	9,720,253		9,805,252

class	toll	2010 volume (projected)	2010 revenue
1 - passenger car	\$ 0.73	8,473,663	\$ 6,166,082.59
2 - 2-axle truck	\$ 4.96	143,439	\$ 710,962.99
3 - 3-axle truck	\$ 9.60	83,227	\$ 799,193.10
4 - 4-axle truck	\$ 12.69	47,804	\$ 606,577.05
5 - 5-axle truck	\$ 15.97	1,037,097	\$ 16,561,146.82
6 - 6-axle truck	\$ 18.99	19,254	\$ 365,612.90
8 - special permit	varies	32	\$ 2,154.72
7 - 7-axle truck	\$ 22.68	736	\$ 16,691.02
<b>Totals</b>		<b>9,805,252</b>	<b>\$ 25,228,421.20</b>



**Table 13: Milford-Montague Toll Bridge Volume and Revenue Projections**

class	2004 volume	2005 volume	2006 volume	2007 volume	2008 volume	2009 volume	factor from 2009 to 2010	2010 volume (projected)
1 - passenger car	1,311,848	1,300,872	1,303,872	1,310,047	1,265,773	1,257,986	1.000	1,257,986
2 - 2-axle truck	22,786	23,234	24,278	26,171	26,692	22,466	0.920	20,669
3 - 3-axle truck	5,328	5,244	5,228	4,545	4,486	3,645	0.920	3,353
4 - 4-axle truck	1,929	1,887	1,946	2,011	1,569	1,475	1.040	1,534
5 - 5-axle truck	10,495	10,014	9,380	8,921	8,917	7,466	0.920	6,869
6 - 6-axle truck	107	99	78	85	129	93	1.000	93
8 - special permit	3	-	-	-	-	-	1.000	-
7 - 7-axle truck	38	24	18	11	8	8	1.000	8
total toll	1,352,534	1,341,374	1,344,800	1,351,791	1,307,574	1,293,139		1,290,512

class	toll	2010 volume (projected)	2010 revenue
1 - passenger car	\$ 0.73	1,257,986	\$ 915,490.57
2 - 2-axle truck	\$ 4.97	20,669	\$ 102,808.71
3 - 3-axle truck	\$ 9.71	3,353	\$ 32,558.07
4 - 4-axle truck	\$ 12.95	1,534	\$ 19,858.55
5 - 5-axle truck	\$ 16.07	6,869	\$ 110,383.93
6 - 6-axle truck	\$ 19.42	93	\$ 1,805.88
8 - special permit	varies	0	\$ 0.00
7 - 7-axle truck	\$ 22.10	8	\$ 176.80
<b>Totals</b>		<b>1,290,512</b>	<b>\$ 1,183,082.52</b>



**Table 14: Volume and Revenue Comparison -- 2009 to 2010**

Revenue Summary by Bridge/District						Change in Actual vs. Projected Volume from 2009 to 2010		Change in Actual vs. Projected Revenue from 2009 to 2010	
						2009 Volumes	2009 Revenues	2010 Volume (Projected)	2010 Revenue (Projected)
District						vehicles	percent		
1	Trenton-Morrisville	6,726,348	\$ 9,032,550.30	7,256,104	\$ 9,367,997.33	529,756	7.88%	\$ 335,447.03	3.71%
1	New Hope-Lambertville	1,962,073	\$ 2,303,287.24	2,000,829	\$ 2,362,887.11	38,756	1.98%	\$ 59,599.87	2.59%
2	Interstate 78	9,991,610	\$ 37,586,982.36	9,127,209	\$ 34,348,004.13	-864,401	-8.65%	\$ (3,238,978.23)	-8.62%
2	Easton-Phillipsburg	6,214,447	\$ 9,427,798.68	6,800,813	\$ 12,601,530.51	586,366	9.44%	\$ 3,173,731.83	33.66%
3	Portland-Columbia	1,319,782	\$ 1,721,822.57	1,320,953	\$ 1,748,428.88	1,171	0.09%	\$ 26,606.31	1.55%
3	Delaware Water Gap	9,720,253	\$ 25,115,645.76	9,805,252	\$ 25,228,421.20	84,999	0.87%	\$ 112,775.44	0.45%
3	Milford-Montague	1,293,139	\$ 1,202,699.62	1,290,512	\$ 1,183,082.52	-2,627	-0.20%	\$ (19,617.10)	-1.63%
	Total	37,227,652	\$ 86,390,786.53	37,601,672	\$ 86,840,351.70	374,020	1.00%	\$ 449,565.17	0.52%

Estimated 2010 volumes and revenues reflect diversion of 223,000 trucks and 395,400 cars from I-78 to Easton-Phillipsburg, and diversion of 395,400 cars from I-78 to Northampton Street due to construction at the I-78 Toll Plaza



**Table 15: Actual Revenue and Expenditures for 2009**

District	Bridge	2009 Volume	2009 Revenue
1	Trenton-Morrisville	6,726,348	\$ 9,032,550.30
1	New Hope-Lambertville	1,962,073	\$ 2,303,287.24
2	Interstate 78	9,991,610	\$ 37,586,982.36
2	Easton-Phillipsburg	6,214,447	\$ 9,427,798.68
3	Portland-Columbia	1,319,782	\$ 1,721,822.57
3	Delaware Water Gap	9,720,253	\$ 25,115,645.76
3	Milford-Montague	<u>1,293,139</u>	<u>\$ 1,202,699.62</u>
	Total	37,227,652	\$ 86,390,786.53
	Total Toll Revenue	(From above)	\$ 86,390,786.53
	E-ZPass Service Fees	(Estimate 7 months June - December)	\$ 428,000.00
	Interest Income	(Provided by Commission)	\$ 3,618,172.00
	Other Income	(Provided by Commission)	<u>\$ 216,091.00</u>
1.	Total Revenue - 2009		\$ 90,653,049.53
2.	Operating Expenses - 2009	(Provided by Commission)	<u>\$ 45,127,265.00</u>
3.	Net Revenue	(Line 1 - Line 2)	\$ 45,525,784.53
4.	Maximum Annual Debt Service	(Provided by Commission)	\$ 34,456,534.00
5.	130% of Maximum Annual Debt Service		\$ 44,793,494.20
6.	Calculated Debt Service Coverage Ratio	(Line 3 / Line 4)	1.321
Therefore, the requirement that the Net Revenue for the preceding fiscal year be greater than 130% of the Maximum Annual Debt Service has been met, satisfying the requirements of all current Bridge System Revenue Bonds, Section 703 (b), Paragraph 2 (i)			



**Table 16: Projected Revenue and Expenditures for 2010**

Projected Revenue by Bridge/District		2010 Volume	2010 Revenue
1	Trenton-Morrisville	7,256,104	\$ 9,367,997.33
1	New Hope-Lambertville	2,000,829	\$ 2,362,887.11
2	Interstate 78	9,127,209	\$ 34,348,004.13
2	Easton-Phillipsburg	6,800,813	\$ 12,601,530.51
3	Portland-Columbia	1,320,953	\$ 1,748,428.88
3	Delaware Water Gap	9,805,252	\$ 25,228,421.20
3	Milford-Montague	<u>1,290,512</u>	<u>\$ 1,183,082.52</u>
Total		37,601,672	\$ 86,840,351.70
Total Toll Revenue		(From above)	\$ 86,840,351.70
E-ZPass Service Fee Estimate		(Estimated)	\$ 734,000.00
Interest Income		(Provided by Commission)	\$ 3,431,000.00
Other Income		(Provided by Commission)	<u>\$ 401,000.00</u>
1. Total Projected Revenue - 2010			\$ 91,406,351.70
2. Operating Expenses - 2010		(Provided by Commission)	<u>\$ 46,464,742.00</u>
3. Net Revenue		(Line 1 - Line 2)	\$ 44,941,609.70
4. Maximum Annual Debt Service		(Provided by Commission)	<u>\$ 33,376,355.25</u>
5. Projected Debt Service Coverage Ratio		(Line 3 / Line 4)	1.347
<p>Therefore, the requirement that the Projected Debt Service Coverage Ratio be greater than 1.30 is met, satisfying the requirements of all current Bridge System Revenue Bonds Section 703(b), Paragraph 2 (ii).</p> <p>Given that the historic data or experience with toll violators on the Commission facilities does not exist, it is anticipated, based on discussions with area toll agencies, for 2010 that the revenue recognized from the administrative fees for violators and the toll revenue loss due to violators will be revenue neutral.</p>			