

# WEST VIRGINIA PARKWAYS AUTHORITY



WEST VIRGINIA TURNPIKE

**ANNUAL REPORT 2015** 

HNTB



## WEST VIRGINIA PARKWAYS AUTHORITY

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**Director of Human Resources** 

## DAVID H. ROLLINS

Treasurer



July 1, 2015

West Virginia Parkways Authority Post Office Box 1469 Charleston, West Virginia 25325

#### **Dear Authority Members:**

As required by the Indentures of Trust securing the West Virginia Parkways Authority (WVPA) Revenue Bonds, we are pleased to submit our 2015 Annual Report regarding the condition and operation of the West Virginia Turnpike during the 2014/2015 fiscal year. Our findings on the condition of the Turnpike, our recommendations concerning maintenance, operation and insurance requirements and our recommendations for deposits into the renewal and replacement account are summarized in this report. Findings and recommendations are based on field review, meetings with the Authority and participation in design projects throughout the Turnpike system.

The West Virginia Turnpike is an 88-mile, four-lane toll road between Princeton and Charleston, West Virginia. The Turnpike is the direct route south from the Great Lakes and regions of Canada. Portions of both Interstate 77 and Interstate 64 are carried on this route, which includes 18 interchanges and 116 bridges.

In 2006, Governor Joe Manchin III requested the Public Resources Advisory Group (PRAG) to conduct an independent financial review and analysis of the Authority to assist in the evaluation of the need for future toll increases and the relationship of toll increases to maintaining the Turnpike in a manner that provides a safe facility and an acceptable level of service to its users. This report was submitted February 5, 2007.

On April 12, 2007, the Authority adopted a resolution refocusing the Authority to its core and principal mission of maintenance and upkeep of the Turnpike. This required the elimination of all economic and development investments except for Tamarack.

In July 2009, after years of decreasing toll revenues and increased costs to repair, rehabilitate and reconstruct the Turnpike's aging bridges, roadways and facilities; the Authority voted to approve the first, across-the-board toll increase on the West Virginia Turnpike in 28 years.

On August 1, 2009, new toll rates went into effect increasing rates from \$1.25 to \$2.00 per passenger car. In 2010, Senate Bill 427 was enacted which renamed and reorganized the West Virginia Parkways Authority (formerly known as West Virginia Parkways Economic Development Tourism Authority). This bill gave the Parkways Authority the authorization to construct new toll road projects by issuing bonds secured with toll revenues; however, bonds sold for new toll road construction cannot be used for the West Virginia Turnpike pursuant to Section 17-16A-10(a) which states that "the Parkways Authority is authorized to provide by resolution for the issuance of parkway revenue bonds of the state for the purpose of paying all or any part of the



cost of one or more parkway projects: Provided, that this section shall not be construed as authorizing the issuance of parkway revenue bonds for the purpose of paying the cost of the West Virginia Turnpike. The aggregate amount of the West Virginia Turnpike's outstanding principal amount of bonds cannot exceed \$200 million. Toll revenues for the 2015 fiscal year were \$88.697 million compared to the 2014 fiscal year of \$84.907 million, an increase of \$3.790 million or 4.5%. During the 12 month period ended June 2015, passenger car transactions increased 3.1% and commercial truck transactions increased 3.5% compared to the fiscal year ended June 2014. Operating expenses for the 12 months ended June 2015 increased 1.6% compared to the 12 months ended June 2014. This increase was the result of higher expenditures related to salt, damage claims and recoveries and other maintenance expenses were offset somewhat by staffing reductions in the toll collection department. We believe the Turnpike revenues under this new schedule of tolls are adequate to meet all needs of the Authority to maintain current debt service and provide sufficient liquidity levels while maintaining system assets and adequately funding capital needs.

The system wide upgrade of the WVPA toll collection system was successfully completed in 2012. The system includes cash and automated tolling via E-ZPass, replacing the previous system originally installed in late 1999 and early 2000.

All West Virginia citizens who participate in the E-ZPass non-commercial commuter pass program are able to deduct tolls from adjusted gross income up to \$1,200 per year on their state income tax return for taxable years beginning on or after January 1, 2007 (minimum amount eligible for deduction is \$25.00).

Authority personnel continue their excellent performances in both operation and maintenance activities. The Authority received the "Certificate of Excellence in Financial Reporting" from the Government Finance Officers Association of the United States and Canada for the 25th consecutive year. We sincerely appreciate the Authority's cooperation from its members and staff, as they continue to operate with a commitment to excellence.

Respectfully submitted,

Randolph T. Epperly, Jr., P.E.

HNTB Corporation Associate Vice President

Associate vice i resident

cc: United Bank, Trustee (Attention: Kathy Smith)



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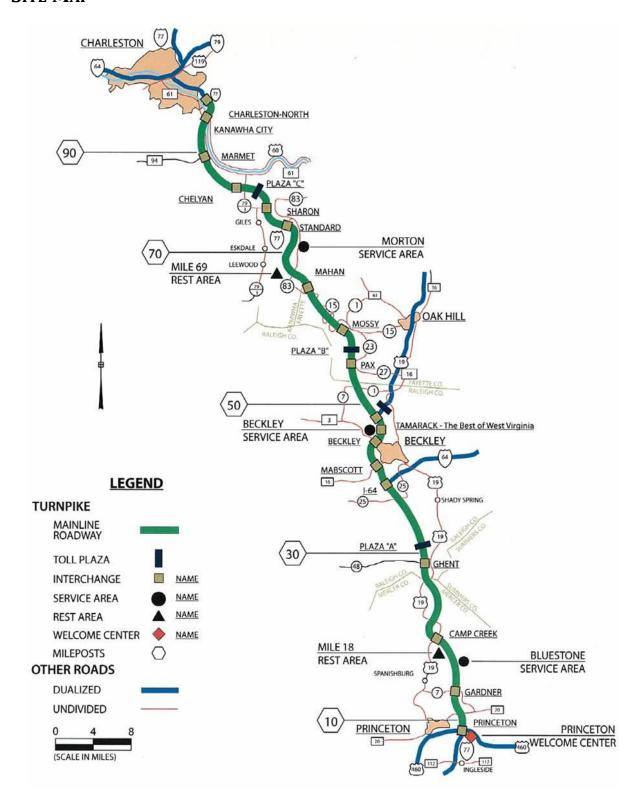


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## SITE MAP





## FISCAL YEAR 2015 ACCOMPLISHMENTS

During the year a contract was awarded to build a new Beckley Maintenance and State Police facility. Turnpike maintenance personnel were relocated and the old facilities were demolished. Construction began on the new facility and it should be complete in 2016.

The Board voted to construct a new, modern building, including parking area, and a new wastewater treatment plant at Rest Area 69. The new facility, with a stone exterior, will have a similar look as the new rest areas built by the West Virginia Division of Highways.

On May 20, 2015, the Blue Ribbon Highway Commission released their final report concerning transportation infrastructure and funding. Section 9 of this report pertains to the future of the West Virginia Parkways Authority. During the discussion, the Authority's General Manager addressed questions from members of the Senate Finance Committee concerning the Parkways Authority and tolling, in particular the cost to the State of West Virginia in 2019 if tolls are removed from the Turnpike when bonds are paid in full. The Committee was advised that over a period of thirty years as a time frame of measurement, based upon the current \$85 million per year in toll revenues, the State would see a loss of \$2.5 billion in toll revenue (\$1.9 billion of which comes from out of state users of the Turnpike).





## HIGHWAY AND BRIDGE REHABILITATION PROJECTS

Following the toll increase in 2009 and the increase in funds that followed, the WVPA began road and bridge rehabilitation projects on the West Virginia Turnpike such as full depth concrete repairs, asphalt pavement overlays, bridge deck overlays, bridge and facilities retrofit work and repairs and rehab to: median barriers, retaining walls, buildings, toll plazas, culverts and pavement markings. These are much needed pavement, concrete and bridge rehabilitation projects for Kanawha, Fayette, Raleigh, and Mercer Counties. A ten year plan from 2009 to 2019 will use toll revenues of \$335 million for deferred maintenance and capital costs, including \$242 million for paving needs. During 2010, patrons began to see significant improvements in pavement ride quality on sections of the Turnpike. The majority of the construction work for 2015 was performed in the Chelyan and Beckley areas (\$24 million in contracts were awarded this year as well as completing punch-list items from last year's contracts). Following Memorial Day, the majority of all work was performed at night, Monday through Thursday from 6:00 p.m. to 6:00 a.m., in order to keep traffic delays at a minimum. Toll revenues are being used to fund capital highway and bridge projects as quickly as traffic on the Turnpike will allow.





# Culvert Cleaning & Retrofit Contract 1C-14

This is a culvert repair project at select locations throughout the WV Turnpike. The work will be primarily composed of culvert retrofit by dewatering lining, paving inverts, miscellaneous repairs to wing walls, etc. and maintenance of traffic. Teays River Construction Company retrofitted 13 corrugated metal pipes ranging from 18" to 60" and one 66" steel plated pipe. The approximate construction cost was \$891,035.









# Contract 1C-14 (Continued)















## Bridge Painting Contract BP-1-15

This project consisted of spot cleaning and painting abutment steelwork extending 4 feet from abutments as well as applying a protective coating to abutments and piers for 18 bridges. The work included 40,900 square feet of steelwork and 38,200 square feet of concrete coatings for an approximate cost of \$816,790.









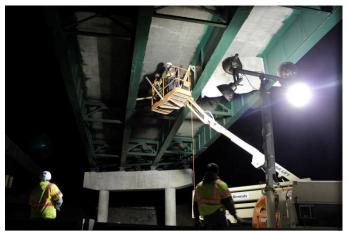


## Bridge Painting Contract BP-2-15

This project consisted of fully blasting and painting 35,800 square feet of the Corridor L (Route 19) overpass bridges and applying 6,200 square feet of protective coating to the parapet walls for an approximate cost of \$430,584.













# Bridge Painting Contract BP-3-15

This project consisted of fully blasting and painting the Mahan overpass, Standard overpass and Yeager Southbound bridge spans 9 and 10. A total of 48,500 square feet of steelwork and 3,500 square feet of concrete protective coating was applied at an approximate cost of \$787,790.











# State Police & Beckley Maintenance Building Contract SP-1-15

Construction began on a new 19,200 square foot office building including site and utility work. The approximate cost is \$3,880,240. Work to be completed in 2016.













# Bridge/Facility Retrofit Contract BFR-1-12

Contract BFR-1-12 is a 3 year contract with 2 one-year renewals. For fiscal year 2015, the contract amount was \$1,523,000. A major portion of this contract's work is to replace defective expansion joints/seals, retrofit structural steel members with section loss, repair damaged barrier walls, patch bridge decks and rehab toll plaza lanes.

## Yeager SB Section Loss Retrofit at Pier 6











# Contract BFR-1-12 (Continued)















# Bridges Repaired with Shotcrete Contract BSR-1-15

Deteriorated substructure units were repaired by Shotcrete. Air Placement Cement, Inc. repaired Bridges 3008N, 3008S, 3021S, 3273, 3053, 3066, 3074S, mile 50 box culvert and mile 75 underpass

(total of 1470 square feet) at an approximate

cost of \$214,904.









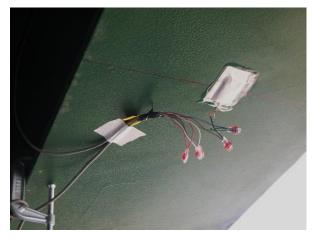




# Bridge 3271 Load Testing Contract BLT-1-14

WVPA contracted Lehigh University to load test 7 girders in Spans 1 & 3 for Bridge 3271. HNTB used the data collected to calculate new adjusted rating factors and prove that no retrofit is needed at this time.

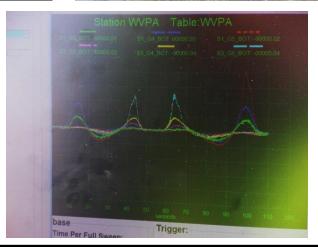














# Bridge 3272 Strengthening Contract BR-1-14

Bridge 3272 rated less than 37 tons in locations of shear near both abutments. Triton Construction installed new angles and diaphragms in strategic locations by bolting directly to girder webs. Cost of this project was \$62,000.







## Bridge 3273 Pier Protection Wall Contract BW-1-15

This project consisted of constructing a concrete barrier and associated guardrail to protect the Pier 1 columns for bridge 3273. Kokosing was awarded this project and total cost was \$220,094.









## **TOLL COLLECTION SYSTEM**

The system wide upgrade of the WVPA toll collection system was successfully completed in 2012. The system includes cash and automated tolling via E-ZPass, replacing the previous system originally installed in late 1999 and early 2000. In addition to accepting cash payments, the current system includes an electronic system that allows patrons equipped with E-ZPass transponders to pass non-stop through the toll plazas, which accounts for approximately 35.7% of toll transactions and collects 40.8% of toll revenue. An overhead antenna in each lane at each plaza reads the transponder and automatically identifies the vehicle for toll collection. A video enforcement system, in select lanes at toll plazas, photographs the vehicle and license plate of any vehicle that violates the toll collection system. The WVPA is currently a Full Member Agency of the E-ZPass Interagency Group along with multiple other toll agencies equipped with the E-ZPass system. This allows any vehicle equipped with a transponder to travel seamlessly without stopping throughout 16 eastern states, including 27 public transportation toll agencies where the E-ZPass standard is accepted. These states range from Illinois to the west, North Carolina in the south and up to Maine in the north. The program overall includes over 16 million accounts with over 28 million transponders in circulation and the collection of over \$7 billion in electronic toll revenues.

All toll plaza lanes accept E-ZPass. In addition to staffed and E-ZPass capability, the North Beckley Toll Plaza includes two lanes in each direction that provide the option to pay by coin via automatic coin machines when operated unstaffed with "EXACT CHANGE" signs displayed. The use of these lanes provides additional options for patrons and operational efficiencies for the WVPA. Advance signage advising of E-ZPass capability is presented along the roadways approaching the toll plazas to further communicate that all lanes are available for E-ZPass customers.

The WVPA currently operates with a nine-category toll classification system and rate structure, based upon number of axles and height, adopted originally in January 2000. This program also integrated the Parkways Authority Commuter Cards (PACC) discount program for high frequency passenger cars into the E-ZPass system.

On July 1, 2009 the West Virginia Parkways, Economic Development and Tourism Authority held a meeting at the Charleston Civic Center to give consideration and evaluation of public comments in connection with voting on the first across-the-board toll increase on the West Virginia Turnpike in 28 years. The Board voted to increase tolls for passenger cars from \$1.25 to \$2.00 for cash and non-WV E-ZPass customers. The commuter discount plan for high frequency users of the West Virginia Turnpike (formerly "PACC" or "PAC" Card Program) continued with no increase in fees.

A new discount program for the less frequent Turnpike traveler was also approved. Customers who drive the Turnpike occasionally can sign up for a WV E-ZPass at a cost of \$5.00 per year, then pre-pay funds via credit card into their account (\$20.00 minimum account balance). Rates for these customers only increased from \$1.25 to \$1.30 (a 35% savings). Toll is automatically deducted from the pre-paid account as they drive through the toll plazas. The WV E-ZPass is available to anyone, regardless of state or country of residence. Rates for all classes of commercial vehicles also increased; however, WV E-ZPass commercial account holder rates only increased to \$5.40 (a 20% savings), and the non-WV E-ZPass rate increased to \$5.87 (a 13% savings).



Temporary tandem toll booths continue to be available as a tool to relieve congestion during holiday periods as necessary at Toll Plazas A (Ghent), B (Pax) and C (Chelyan).

The WVPA's administrative headquarters continues to self-operate E-ZPass customer service and violation enforcement activities using upgraded computer systems as part of the completed conversion in 2012, replacing the system originally installed in 1999. The upgraded system significantly expanded the capabilities of the service center for improved service to WVPA customers including the addition of a self-service website and electronic notifications. Continued activities with the new system include a walk-up counter for in-person customer services, phone-based services, storage and distribution of transponders, management and processing toll accounts and maintenance of the back-office system for computer data and hardware.

The upgrade of the WVPA toll system represented a significant effort over four years on the part of the Authority to responsibly and proactively replace an aging system that was reaching the limits of its projected useful life. Previous issues, including difficulty with obtaining spare parts and significant financial risks should the system fail, have been eliminated. The system successfully passed a series of rigorous acceptance tests in 2012 to demonstrate the required performance accuracy and has been in live operation since. The switchover from the previous system was controlled over a period of time to ensure minimal customer impacts. The Authority is now well positioned for long term operation of the toll collection system and providing state of the art services to customers.

## TRAFFIC & REVENUE SUMMARY

On July 1, 2009, the Authority adopted a new toll and discount rate schedule that became effective August 1, 2009. The Authority's 2015 toll revenues exceeded those of the previous year by \$3.790 million or 4.5%. Passenger car transactions increased 3.1% and commercial truck transactions increased by 3.5% for the twelve months ending June, 2015.

The Authority's investment in capital assets at June 30, 2015 amounted to \$1.146 billion of gross asset value with accumulated depreciation of \$688 million, leaving a net book value of \$458 million. Capital assets represented 83.2% of the Authority's total assets and deferred outflows of resources at June 30, 2015.

The original West Virginia Turnpike opened to traffic in 1954 and has grown from 2 million vehicles annually during the 1950s and 1960s to the record 35.9 million transactions during fiscal year 2014-2015. From 1955 through 1999, traffic volume was based on the number of vehicles. Beginning in 2000 when the new toll system became operational, traffic volume was based on the number of transactions. The designation of the Turnpike as part of the interstate highway system in conjunction with its upgrading and dualizing to interstate standards and the completion of connecting interstate highways that include I-64, I-77 and I-79 at the north terminus, I-64 near the middle of the Turnpike and I-77 at the south terminus all led to dramatic traffic growth during the 1980s, which saw traffic double every five years. A sharp traffic increase also occurred after November 8, 1989, when toll collection was discontinued at 12 local interchanges, leading to heavy usage by local residents.



The average daily traffic counts, which correspond with the WVDOH FY 2015 traffic counts, are listed by location in the following table.

To reflect the agency's new mission and reduce operating costs, the Authority has been proactive in implementing cost-saving measures. These measures include utilizing modern technology, utilizing the purchasing power created through the State of West Virginia's Purchasing Division implementing organizational efficiencies throughout the past 10 years. The implementation of these and other costcutting measures have limited the growth rate of operating expenses during the past 10 years. However, increases in costs outside the WVPA's control, such as health insurance premiums, road salt and construction materials, are making it very difficult for the WVPA to implement any further substantial cost savings in operating expenses.

AVERAGE DAILY TRAFFIC (ADT)						
STA	ATS LISTED SOUTH TO NORTH					
MILE MARKER	LOCATION	ADT				
9-28	Princeton to Ghent	32,990				
28-40	Ghent to I-64	28,790				
40-42	I-64 to Mabscott	37,030				
42-44	Mabscott to Harper Rd	41,750				
44-48	Harper Rd to N. Beckley	40,150				
48-60	N. Beckley to Mossy	28,210				
60-74	Mossy to Standard	29,300				
74-78	Standard to Sharon	28,840				
78-85	Sharon to Chelyan	27,640				
85-90	Chelyan to Marmet	35,410				
90-95	Marmet to Kanawha City	37,340				
95-96	Kanawha City to Belle	38,760				

## CAPITAL IMPROVEMENT PROJECTS

The capital improvement and facilities capital projects are the WVPA projects scheduled and budgeted in the five-year work program. The five-year program for facilities capital projects and the five-year program for repair/replacement and highway and bridge capital projects are detailed in the following tables. The itemized budget amounts are listed for 2016 through 2020.

## MEMORIAL TUNNEL PROJECT

The WVPA, WVDOH and the Federal Highway Administration signed a 50 year lease with the West Virginia National Guard Adjutant General's office to use the Memorial Tunnel for a federal government test and training facility to support counter-terrorism and emergency response. A supplemental lease was signed for 6.785 additional acres that is being used for administration housing, parking and staging activities.



FIVE-YEAR PROGRAM	FOR R&R	AND CAF	PITAL - \$ T	ΓHOUSAN	IDS
	2016	2017	2018	2019	2020
Bridge Painting	\$2,369	\$2,440	\$2,513	\$2,097	\$2,160
Bridge Deck Overlays	\$1,400	\$828	\$856	\$878	\$905
Bridge/Facilities Retrofit	\$2,069	\$1,616	\$1,664	\$1,714	\$1,766
Guardrail Replacement	\$1,700	\$1,940	\$543	\$560	\$576
Shotcrete Repairs	\$200	\$100	\$100	\$75	\$77
Slope Reconditioning	\$0	\$0	\$0	\$0	\$0
Culvert Repair/Replacement	\$1,138	\$1,404	\$1,460	\$5,518	\$6,564
Vehicle/Equipment Replacement	\$2,167	\$2,400	\$2,500	\$1,800	\$1,400
Facilities Renovation and Repair	\$715	\$736	\$759	\$781	\$805
Sign Replacement/Overlays	\$110	\$115	\$119	\$124	\$128
Roadway Lighting	\$0	\$0	\$0	\$0	\$0
Pavement Striping and Markings	\$1,500	\$1,500	\$1,500	\$1,500	\$1,688
Full Depth Repairs/Undersealing	\$987	\$789	\$632	\$505	\$250
Safety Projects	\$82	\$84	\$86	\$89	\$92
Subtotals R&R	\$14,437	\$13,952	\$12,732	\$15,641	\$16,411
Paving	\$24,659	\$20,396	\$16,831	\$2,675	\$7,020
Facilities	\$3,100	\$1,476	\$750	\$3,175	\$1,000
Bluestone Southbound Bridge	\$0	\$0	\$0	¢10.000	¢ሰ
Painting	\$0	\$0	\$0	\$10,000	\$0
Bridge Deck Replacement	\$2,000	\$3,800	\$3,914	\$4,031	\$4,152
Subtotals Capital	\$29,759	\$25,672	\$21,495	\$19,881	\$12,172
Grand Totals	\$44,196	\$39,624	\$34,227	\$35,522	\$28,583

MAJOR PAVING NEEDS							
FY & Direction	Milepost	Miles	Cost \$Million		Comments		
FY 2016 SB	95.5 to 86.5	9	\$28.0	00			
FY 2017 NB	82.4 to 89.4	7	\$16.9	90			
FY 2018 NB	89.4 to 95.5	6.1	\$15.1	10			
Totals		22.1	\$60.0	00	(calculated at today's cost)		
	With truck lane	s 428 lane miles					
Notes:							
1. This program	n w ill overlay all exi	sting concrete on the	Turnpike as v	w ell as se	ctions with thin overlays over		
Portland cemen	t concrete.						
2. Cost estimate	es are based on the fo	llowing scope of worl	k:				
	a. Concrete repairs where needed d. Shoulders and ditches						
	b. 8" asphalt overla	ys		e. Guardrail			
	c. Drainage			g. Mediar	extensions where needed		



## Maintenance & Safety Highlights

# **Key activities of the WVPA's Maintenance Division include:**

- Road and bridge safety improvement
- Resource deployment for continuing pothole problems
- Continued implementation of the Maintenance Management System (modern management approach to improve efficiency and to reduce overall asset life cycle costs)
- Snow Removal and Ice Control (SRIC) operational improvements

RMANCE SO	ORECARD
TARGET	Actual
Α	A-
В	B+
Α	В
Α	В
Α	B+
Α	В
В	В
В	С
	A B A A A A B

## **Recent equipment purchases include:**

- Skid Steer Attachments
  - Hydraulic breaking hammer for Section III

- CAT 289 MTL (multi terrain loader)
- Five calcium spray booms for SRIC

## Highlights from Fiscal Year 2015 are listed below:

- Joint & Crack Sealing 1,331,813
   Linear Feet
- Patching 1,723 Tons
- Shoulder Stabilization 253,649
   Linear Feet
- Concrete Repair 4,436 Square Feet
- Deck Patching 4,148 Square Feet
- Bridge Expansion Joints 98 Joints
- Bridge Deck Epoxy Overlays 60 Square Feet
- Bridge Parapet Wall Coating 39,304
   Linear Feet
- Bridge Inspection/Support 1,822
   Man-hours
- Bridge Structure Repairs 4,290 Manhours
- Abutment/Pier Coating 20 Each
- Abutment/Pier Patching 332 Square Feet
- Ditch & Channel 7,539 Linear Feet
- Culvert & Drop Inlet 16,519 Linear Feet
- Annual Drain Inspection 95 Each
- Bench & Slope 16,435 Linear Feet
- Sweeping 208 Miles

- Fence Repair 3,035 Linear Feet
- Litter Pickup & Disposal 4,478 Bags
- Brush Cutting –131 Acres
- Mowing 2,400 Acres
- Herbicide Spraying 309 Acres
- Bridges Washed 167 Structures (some bridges get washed twice when prepping for sealing)
- Bridge Lanes Sealed 46 Each
- Roadside Delineators Installed 7,224
   Each
- Salt Used 24,675 Tons
- Courtesy Patrol/Daywatch 25,438 Manhours
- Emergency Response 2,288 Man-hours
- Install/Repair Barrier Walls 916 Manhours
- Line Striping 10,940 Linear Feet
- Pipe Lining 40 Linear Feet
- Beckley Maintenance Salt Building Demo 1,114 Man-hours
- Building, New Construction 434 Manhours



WVPA Maintenance continued with their bridge preservation efforts by shotblasting and sealing 15 bridge decks. This will prolong the service life of these decks.

Deck joint rehab and replacement is an ongoing repair due to corrosion and impact loads from trucks.







Roadway Light Pole Repair



### Insurance

Section 7.10, Subsection (E) of the 1993 Indenture of Trust as supplemented for the West Virginia Parkways Authority states:

- (E) The Authority will at all times cause to be maintained, to the extent reasonably obtainable, the following kinds and the following amounts of insurance, with such variations as shall reasonably be required to conform to applicable standard or customary insurance practice and subject to such exceptions and permissible deductions as are ordinarily required:
- (a) Multi-risk insurance on the facilities of the system which are of an insurable nature and of the character usually insured by those operating similar facilities, covering direct physical loss or damage thereto from causes customarily insured against, in such amounts as the consulting engineer shall certify to be necessary or advisable to provide against such loss or damage and to protect the interest of the Authority and the bondholders;
- (b) Use and occupancy insurance covering loss of system revenues by reason of necessary interruption, total or partial, in the use of facilities of the system, due to loss or damage to any such facility on which multi risk insurance is maintained as provided in this section, in such amount as the consulting engineer shall certify will provide income during the period of interruption, but in no event less than 12 months, in the event of the occurrence or any such loss or damage, equal to the amount of the loss of system revenues, computed on the basis of system revenues of the corresponding period during the preceding calendar year, or if such facility was not in operation during the preceding calendar year, then computed on the basis of the consulting engineer's estimate, attributable to such loss or damage;
- (c) War risk insurance, if obtainable from the United States Government or any agency thereof, covering direct physical loss or damage, and loss of system revenues attributable thereto, on the facilities of the system which are insurable there under, in each case in the respective amount, as nearly practicable, provided under clauses (a) and (b) above;
- (d) During the period of construction or reconstruction of any material portion of the facilities of the system, the Authority shall require contractors constructing any such portion of the facilities of the system to file bonds or undertakings for the full performance of such contracts, and under which all risk from any cause whatsoever, without any exception during the period of such construction, shall be assumed by such contractors; and

FATALITY RATES								
PER HUNDRED MILLION MILES TRAVELED								
YEAR	ANNUAL FATALITIES	FATALITY RATE						
2000	12	1.3						
2001	6	0.7						
2002	9	1.0						
2003	4	0.4						
2004	15	1.6						
2005	5	0.5						
2006	6	0.6						
2007	8	0.8						
2008	7	0.8						
2009	8	0.9						
2010	4	0.4						
2011	8	0.8						
2012	8	0.8						
2013	5	0.5						
2014	3	0.3						
2015	4	0.4						



(e) Any additional or other insurance covering (i) loss or (ii) damage for which the Authority is or may become liable.

The Authority obtains insurance coverage for general liability, property damage, business interruption, errors and omissions and natural disasters through the West Virginia Board of Risk and Insurance Management. This board provides insurance for the State of West Virginia, local government entities and eligible non-profit organizations. Liability coverage provided to all these insured entities is limited to \$1,000,000 per occurrence with an annual aggregate coverage limit of \$22,000,000.

The Authority established a \$5 million self-insurance fund after losing the excess liability coverage from a private insurance company during 1986. In September 1992, the Authority obtained \$10 million excess liability coverage from a private insurance company. In view of this, the Authority's insurance consultant recommended that the self-insurance fund be reduced to \$1 million and be changed from liability exclusively to include other risk of loss such as pollution first party clean-up, pollution third party liability, condemnation, earthquake, earth shift, flood, etc., and be specifically designated as the Authority's percentage of contribution in the event of a disaster.

The Appendix contains copies of the consulting engineer's July 1, 2015 letter regarding recommendations for Multi-risk Insurance, in accordance with subparagraph (a) above, listing current replacement cost for bridges, and the consulting engineer's July 1, 2015 letter with recommendations for Use and Occupancy Insurance, in accordance with subparagraph (b) above, in the amount of \$89 million to remain in line with current toll revenues. All other insurance needs are determined by the Authority.



## **APPENDIX**







July 1, 2015

Mr. Gregory C. Barr, General Manager West Virginia Parkways Authority P.O. Box 1469 Charleston, WV 25325

RE: Use and Occupancy Insurance

Dear Mr. Barr:

Section 7.10, Subsection (E) of the 1989 and 1993 Indentures of Trust state that Use and Occupancy Insurance shall be in such amounts as the Consulting Engineer shall certify will provide income during a period of interruption of up to 12 months for loss of system revenues due to damage to the system resulting in partial or total loss of revenues. This amount shall equal revenues during the corresponding period for the preceding year.

It is recommended that the Authority obtain Use and Occupancy Insurance coverage in the amount of \$89,000,000 (Eighty Nine Million) for the 2015-2016 fiscal year. Toll revenues for the fiscal year 2014-2015 were \$88.697 million.

Very truly yours,

Randolph T. Epperly, Jr., P.E.

HNTB Corporation
Associate Vice President

RTE/cak

cc: - United Bank, Trustee (Attention: Kathy Smith)

- West Virginia State Board of Risk & Insurance Management

(Attention: Dave Mason) Margaret Vickers, WVPA



July 1, 2015

Mr. Gregory C. Barr General Manager West Virginia Parkways Authority P.O. Box 1469 Charleston, WV 25325

RE: Multi-Risk Insurance

Dear Mr. Barr:

Section 7.10, Subsection (E) of the 1989 and 1993 Indentures of Trust state that the Authority shall maintain Multi-Risk Insurance on the system facilities which are of an insurable nature and of the character usually insured by those operating similar facilities in such amounts as the Consulting Engineers shall certify to be necessary or advisable to provide against such loss or damage and to protect the interest of the Authority and the Bondholders.

It is recommended that Multi-Risk Insurance be carried on all bridges, equipment, vehicles and facilities at the Administration Building, Maintenance Areas, Rest Areas, Service Areas, Toll Plazas, Caperton Center, Welcome Center, and all other facilities owned and operated by the Authority, including all structures, furnishings and equipment.

The Authority engaged an insurance consultant in 1993 to review insurance coverage. The list of Authority buildings, structures and contents of buildings and structures has been revised and updated annually in accordance with the advice of the Authority's insurance consultant and our previous recommendations. It is recommended that this list be revised and updated to include all additions, deletions and current values.

The insurance consultant recommended that the bridges be insured for replacement costs. Attached is a list of those current costs that were calculated using "Engineering News Record" construction indices. The estimated 2015 replacement costs were determined by multiplying the bid price by the ratio of the construction cost index of 10,037.4 to the cost index for the year that each bridge was bid.

Very truly yours,

Randolph T. Epperly, Jr., P.E.

HNTB Corporation Associate Vice President

RTE/cak

Attachments

cc: - United Bank, Trustee w/att. (Attention: Kathy Smith)

- West Virginia State Board of Risk & Insurance Management

w/att. (Attention: Dave Mason)

- Margaret Vickers, WVPA



# WEST VIRGINIA PARKWAYS AUTHORITY

STRUCTURE NUMBER	YEAR BID	ENR INDEX	BID PRICE	RI	EPLACEMENT COSTS (ROUNDED)
2144N	1980	3237	\$ 15,235,011	\$	47,242,000
2144S	1952	569	\$ 2,419,297	\$	42,678,000
3001N	1976	2401	\$ 311,298	\$	1,302,000
3001S	1976	2401	\$ 316,803	\$	1,325,000
3003N	1976	2401	\$ 287,596	\$	1,210,000
3004S	1976	2401	\$ 306,888	\$	1,283,000
3005N	1976	2401	\$ 649,641	\$	2,716,000
3005S	1976	2401	\$ 565,379	\$	2,364,000
3006	1976	2401	\$ 375,435	-	1,570,000
3007	1976	2401	\$ 372,640	\$	1,558,000
3008N	1976	2401	\$ 256,237	\$	1,080,000
3008S	1976	2401	\$ 268,094	\$	1,130,000
3010N	1976	2401	\$ 7,966,577	\$	33,305,000
3010S	1952	569	\$ 1,546,394	\$	27,280,000
3012N	1976	2401	\$ 744,234	\$	3,112,000
3012S	1976	2401	\$ 560,547	\$	2,344,000
3017N	1976	2401	\$ 335,144	\$	1,402,000
3018S	1976	2401	\$ 334,367	\$	1,398,000
3019N	1976	2401	\$ 308,425	\$	1,290,000
3019S	1976	2401	\$ 178,300	\$	746,000
3020N	1976	2401	\$ 195,939	\$	820,000
3020S	1976	2401	\$ 291,219	\$	1,220,000
3021N	1976	2401	\$ 211,463	\$	885,000
3021S	1976	2401	\$ 344,491	\$	1,441,000
3022N	1976	2401	\$ 257,358	\$	1,080,000
3022S	1976	2401	\$ 243,665	\$	1,020,000
3026N	1983	4066	\$ 1,261,802	\$	3,115,000
3026S	1983	4066	\$ 1,010,343	\$	2,495,000
3029N	1983	4066	\$ 625,654	\$	1,545,000
3029S	1983	4066	\$ 354,725	\$	876,000



# West Virginia Parkways Authority

STRUCTURE NUMBER	YEAR BID	ENR INDEX	BID PRICE	REPLACEMENT COSTS (ROUNDED)
3030N	1983	4066	\$ 822,446	\$ 2,031,000
3030S	1983	4066	\$ 1,566,506	\$ 3,868,000
3034N	1983	4066	\$ 1,008,408	\$ 2,490,000
3034S	1983	4066	\$ 1,038,557	\$ 2,564,000
3038N	1978	2776	\$ 349,604	\$ 1,265,000
3038S	1978	2776	\$ 565,705	\$ 2,046,000
3039E	1978	2776	\$ 354,302	\$ 1,282,000
3039W	1978	2776	\$ 354,302	\$ 1,282,000
3041N	1982	3825	\$ 505,662	\$ 1,327,000
3041S	1982	3825	\$ 495,378	\$ 1,300,000 \$ 1,010,000
3042	1982	3826	\$ 384,616	
3043N	1982	3825	\$ 444,803	\$ 1,170,000
3043S	1982	3825	\$ 840,560	\$ 2,206,000
3044N	1982	3825	\$ 1,171,994	\$ 3,076,000
3044S	1982	3825	\$ 1,047,519	\$ 2,749,000
3045N	1982	3825	\$ 596,023	\$ 1,565,000
3045S	1982	3825	\$ 883,965	\$ 2,320,000
3046N	1981	3533	\$ 573,556	\$ 1,630,000
3046S	1981	3533	\$ 707,668	\$ 2,011,000
3048N	1981	3533	\$ 441,062	\$ 1,254,000
3048S	1981	3533	\$ 430,038	\$ 1,230,000
3050N	1981	3533	\$ 482,166	\$ 1,370,000
3050S	1981	3533	\$ 491,056	\$ 1,396,000
3051N	1982	3825	\$ 410,565	\$ 1,080,000
3051S	1982	3825	\$ 410,565	\$ 1,080,000
3053N	1982	3825	\$ 747,909	\$ 1,963,000
3053S	1982	3825	\$ 747,909	\$ 1,963,000
3055N	1979	3003	\$ 1,266,273	\$ 4,233,000
3055S	1979	3003	\$ 1,264,663	\$ 4,228,000
3056N	1979	3003	\$ 1,456,339	\$ 4,868,000
3056S	1979	3003	\$ 1,467,482	\$ 4,905,000
3057N	1979	3003	\$ 1,669,909	\$ 5,582,000



# West Virginia Parkways Authority

STRUCTURE NUMBER	YEAR BID	ENR INDEX	BID PRICE	REPLACEMENT COSTS (ROUNDED)
3057S	1979	3003	\$ 1,467,837	\$ 4,907,000
3058N	1979	3003	\$ 2,590,444	\$ 8,659,000
3058S	1979	3003	\$ 2,539,317	\$ 8,488,000
3059N	1979	3003	\$ 1,310,193	\$ 4,380,000
3059S	1979	3003	\$ 954,601	\$ 3,191,000
3060N	1979	3003	\$ 1,366,315	\$ 4,567,000
3060S	1979	3003	\$ 1,344,010	\$ 4,493,000
3061	1979	3003	\$ 610,330	\$ 2,041,000
3063N	1979	3003	\$ 538,107	\$ 1,799,000
3063S	1979	3003	\$ 535,374	\$ 1,790,000
3065N	1979	3003	\$ 1,445,790	\$ 4,833,000
3065S	1979	3003	\$ 1,445,790	\$ 4,833,000
3066	1979	3003	\$ 576,917	\$ 1,929,000
3067N	1979	3003	\$ 2,256,259	\$ 7,542,000
3067S	1979	3003	\$ 2,256,259	\$ 7,542,000
3070N	1983	4066	\$ 528,737	\$ 1,306,000
3070S	1983	4066	\$ 528,737	\$ 1,306,000
3072N	1983	4066	\$ 717,000	\$ 1,770,000
3072S	1983	4066	\$ 717,000	\$ 1,770,000
3073N	1980	3237	\$ 981,507	\$ 3,044,000
3073S	1980	3237	\$ 981,507	\$ 3,044,000
3074N	1980	3237	\$ 1,110,269	\$ 3,443,000
3074S	1980	3237	\$ 1,110,269	\$ 3,443,000
3075N	1980	3237	\$ 1,930,130	\$ 5,986,000
3075S	1980	3237	\$ 1,930,130	\$ 5,986,000
3076N	1978	2776	\$ 1,036,302	\$ 3,748,000
3076S	1978	2776	\$ 1,036,302	\$ 3,748,000
3077	1978	2776	\$ 708,758	\$ 2,563,000
3078	1978	2776	\$ 448,257	\$ 1,621,000
3080N	1978	2776	\$ 635,890	\$ 2,300,000



# WEST VIRGINIA PARKWAYS AUTHORITY

STRUCTURE NUMBER	YEAR BID	ENR INDEX	BID PRICE	REPLACEMENT COSTS (ROUNDED)
3080S	1978	2776	\$ 635,890	\$ 2,300,000
3081N	1980	3237	\$ 399,901	\$ 1,241,000
3081S	1980	3237	\$ 399,901	\$ 1,241,000
3082N	1980	3237	\$ 2,687,208	\$ 8,333,000
3082S	1980	3237	\$ 2,687,208	\$ 8,333,000
3083N	1980	3237	\$ 336,301	\$ 1,050,000
3083S	1980	3237	\$ 336,301	\$ 1,050,000
3084N	1980	3237	\$ 821,754	\$ 2,549,000
3084S	1980	3237	\$ 821,754	\$ 2,549,000
3085N	1981	3533	\$ 503,608	\$ 1,431,000
3085S	1981	3533	\$ 503,608	\$ 1,431,000
3086N	1981	3533	\$ 602,286	\$ 1,712,000
3086S	1981	3533	\$ 602,286	\$ 1,712,000
3087N	1980	3237	\$ 990,712	\$ 3,073,000
3087S	1980	3237	\$ 990,712	\$ 3,073,000
3088	1980	3237	\$ 157,856	\$ 490,000
3235E	1981	3533	\$ 385,112	\$ 1,100,000
3235W	1981	3533	\$ 385,112	\$ 1,100,000
3271	1983	4066	\$ 1,213,000	\$ 2,995,000
3272	1983	4066	\$ 1,044,771	\$ 2,580,000
3273	1983	4066	\$ 1,142,945	\$ 2,822,000
3276	1983	4066	\$ 487,747	\$ 1,210,000
4172	1995	5506	\$ 1,328,831	\$ 2,423,000
4178	1995	5506	\$ 814,289	\$ 1,485,000



**HNTB**