



Delaware River Joint Toll Bridge Commission

2022 ANNUAL REPORT



NO FISHING
LOITERING
SWIMMING
JUMPING
FROM BRIDGE
DR J T B C

Lumberville-Raven Rock Toll-Supported Pedestrian Bridge



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PHOTOGRAPHY/GRAPHICS CREDITS

A variety of photographic/graphic resources were used to publish this annual report. Contributors to this report included: Vicki Dodson; Justin Bowers; Joseph Jingoli & Son, Inc.; JMT; WSP USA; AECOM; Carol Feeley; Edward Savaria; Joe Donnelly; Matt Meeker, Traffic Planning and Design Inc. (TCPD); Michael Menche, Lambertville Historical Society; Jacobs Engineering Group; Judith Niper Van Noy; Graphic Arts Collection, Rare Books and Special Collections, Princeton University Library; Miles Ritter; A24; University Libraries, University of Iowa; Trenton Evening Times; and Spruance Library, Bucks County Historical Society.

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Commissioners

New Jersey



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Chairman



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YUKI MOORE LAURENTI
Treasurer



MICHAEL B. LAVERY



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VAN VLIET**



PAMELA JANVEY
Vice Chairwoman



JOHN D. CHRISTY



DANIELLA DE LEON



DANIEL GRACE
Secretary



ISMAIL A. SHAHID

Pennsylvania

About The Commission

The Delaware River Joint Toll Bridge Commission is a bistate agency that owns and operates eight toll bridges and twelve toll-supported bridges – two of which are pedestrian-only crossings. The agency's assigned jurisdiction includes portions of five counties in New Jersey and four counties in Pennsylvania. The service region has a population of more than 2 million people.

Funding for the operation, upkeep and maintenance of the Commission's bridges and related facilities is derived solely from revenues collected at the agency's toll bridges. The Commission receives neither federal nor state funds.

A 10-member board of Commissioners — five from each state — governs the Commission. New Jersey members are nominated by the governor and confirmed by that state's Senate for three-year terms. The Pennsylvania members are appointed by the governor and serve at his/her pleasure. Commissioners meet monthly to review reports, provide oversight, and set policies carried out by the Executive Director and professional staff.

The Commission's bridges carried an average of 351,000 vehicles per day in 2022. Total revenue in 2022 was \$195,639,367. The Commission's 2022 operating budget was \$81.8 million. The agency has roughly 375 full-time employees.

Executive Director's Message

The Delaware River Joint Toll Bridge Commission's rebound from the depths of the global COVID pandemic continued unabated in 2022.

More traffic. Improved toll collections. The completion of the Scudder Falls Bridge Replacement Project, the largest single capital undertaking in Commission history. The start of the second cycle of bridge rehabilitations under a rolling capital improvement program established more than two decades ago. Those are just some of the accomplishments this agency realized in the past year.

This report capsulizes those achievements and other activities in words and pictures.

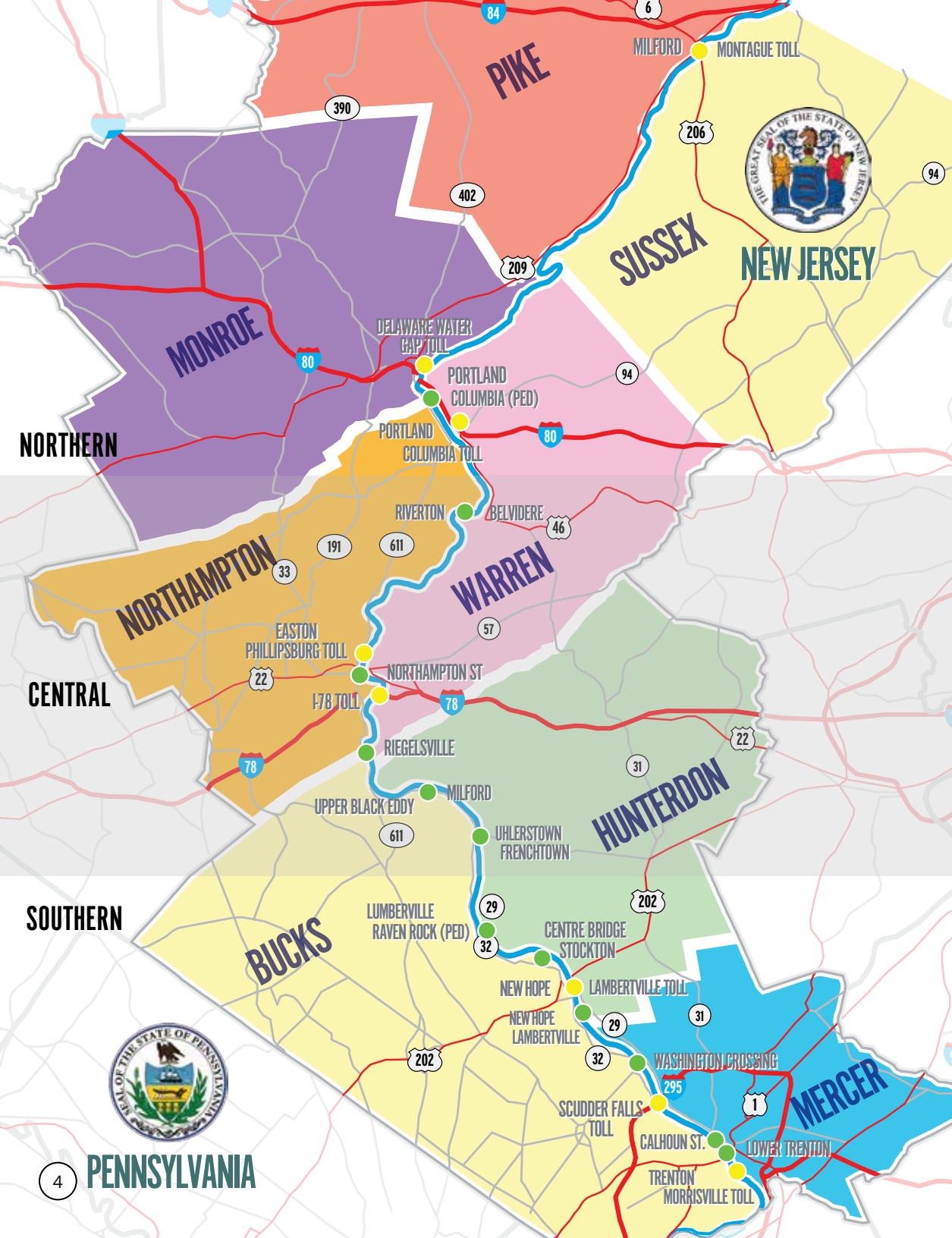
It is my privilege to convey this annual update on behalf of the Commissioners who voluntarily represent the states of New Jersey and Pennsylvania, setting policies and a course of progress for the public that we ultimately and collectively serve.



A handwritten signature in black ink that reads "Joe J. Resta".

Joe Resta
Executive Director
Yardley, PA.





Mission Statement

The Delaware River Joint Toll Bridge Commission provides safe and efficient river crossings between Pennsylvania and New Jersey. Stretching roughly 140 miles from the Philadelphia/Bucks County, Pa. boundary to the New Jersey/New York state line, the Commission's jurisdiction encompasses a diverse region featuring bustling cities, quaint river towns, and scenic areas where nature's beauty abounds. Committed to moving job commuters, commercial freight carriers, pedestrians and recreationists, the Commission strives to deliver quality customer service, sound fiscal management, and dependable ground-transportation facilities for its economically robust bi-state river region.

Staff

Joseph J. Resta
Executive Director

Mark J. Murranko
Deputy Executive Director of Operations

Kevin M. Skeels, P.E.
Chief Engineer

Arnold J. Conoline, Jr.
Chief Administrative Officer

Joseph F. Donnelly, Jr.
Deputy Executive Director of Communications

James M. Petrino
Chief Financial Officer

Qiyang (Tracy) Zhao
Comptroller

Steven Burke, P.E.
Assistant Chief Engineer

Charmaine Kent-Graves
Assistant Comptroller

Jodee Inscho
Director of Community Affairs

Julio A. Guridy
Director of Contract Compliance

Phil Calabro
Director of E-Z Pass

Joanna M. Cruz
Director of Human Resources

John Bencivengo
Director of Information Technology

LeVar Talley
Director of Maintenance

Lendell Jones
Senior Director of Maintenance & Toll Operations

Vacancy
First Senior Director of Operations

Matthew M. Hartigan
Senior Director of Public Safety & Bridge Security

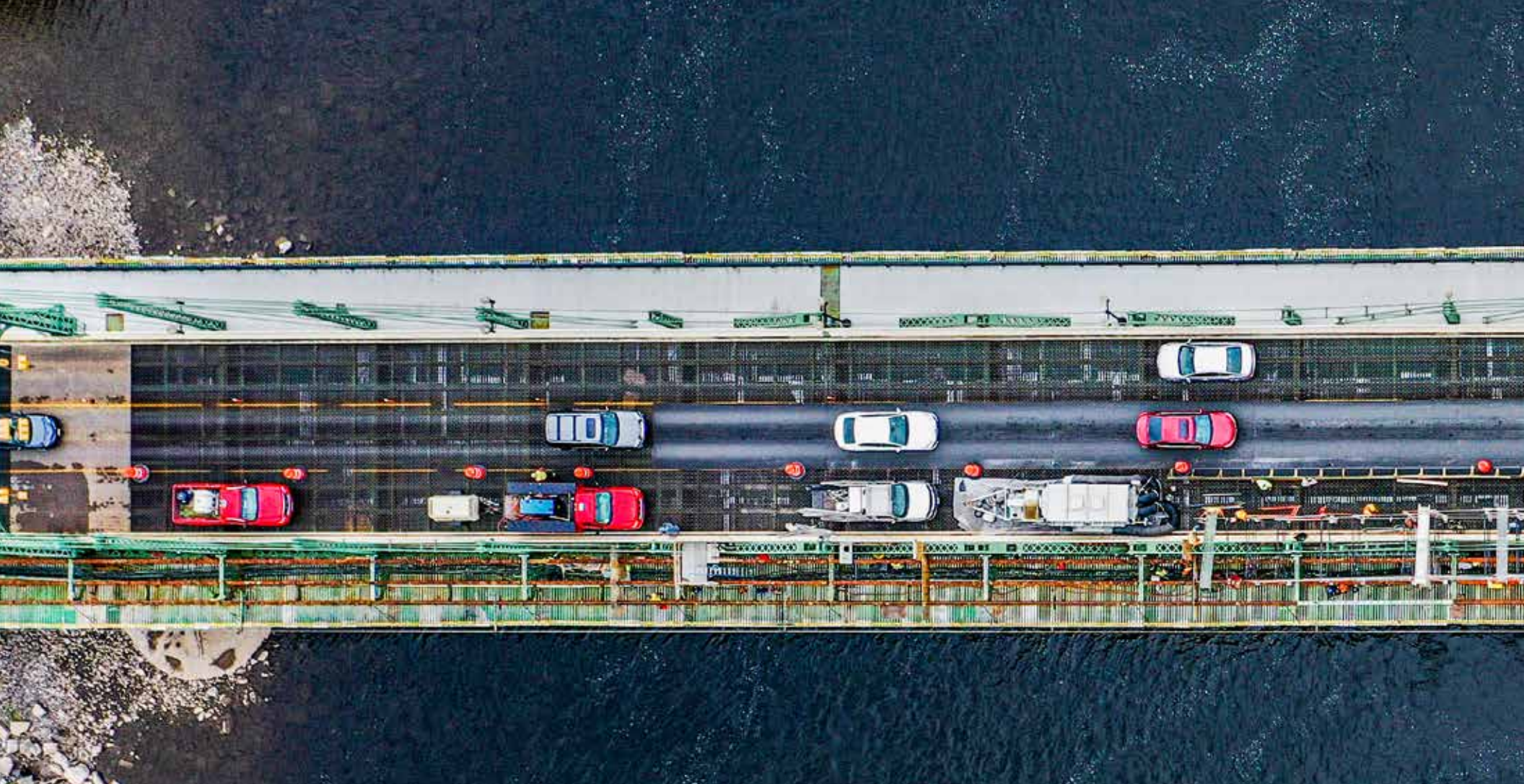
J. Eric Freeman
Director of Public Safety & Bridge Security

Vacancy
Director of Purchasing

Michele Gara
Director of Toll Operations

John Mills
Senior Director of Training & Employee Safety

Jack Baum
Director of Training & Employee Safety



Projects

Northampton Street Toll-Supported Bridge



Northampton Street Toll-Supported Bridge Undergoes Substantial Rehabilitation

The Commission's second oldest superstructure – the Northampton Street Toll-Supported Bridge – underwent a substantial rehabilitation in 2022.

Known to locals as the “free bridge,” the 126-year-old structure was last rehabilitated in 2002.

The latest project's major tasks were as follows:

- Clean and paint the steel superstructure
- Repoint stone-masonry abutments, piers and wingwalls
- Reconstruct end pylons/walls
- Repair/rehabilitate various steel truss members
- Replace the bridge's two pedestrian walkway surfaces
- Replace bridge approach sidewalks
- Replace electrical systems and back-up generator
- Install new ornamental lighting fixtures
- Install new programmable architectural lighting to highlight the bridge's unique profile

Because of the three-lane bridge's high traffic volumes and its location between two large population centers (Easton, PA. and Phillipsburg, N.J.), project execution proved to be challenging in terms of staging and impactful to motorists, residents, and local business owners.

The work in 2022 was largely carried out in two major uninterrupted around-the-clock work-zone/travel configurations on the bridge. First, the bridge's upstream travel lane and adjacent walkway were closed from March to August. Second, the bridge's downstream travel lane and adjacent walkway were closed from late August to early November.



This staging plan enabled single lanes of traffic in each direction to always cross the bridge. Despite this accommodation, the presence of a signalized state highway (PA Route 611) at the bridge's Easton side and the dynamic of Easton-Phillipsburg (Route 22) Toll Bridge traffic diversion on the Phillipsburg side regularly caused backups during both off-peak and peak travel periods. In response, the Commission urged potential bridge motorists to allow more time to reach their destinations, plan alternate routes, or reschedule trips to less congested travel periods.

One positive note: because of the way the project contractor utilized the upstream and downstream closure periods, a third protracted center-lane closure period was avoided. This enabled the bridge to have its full complement of travel lanes back in service on Nov. 3.



New Foam-Core Composite Panels Enhance Walking Experience Between Easton & Phillipsburg

The Northampton Street Toll-Supported Bridge's flanking walkways have a new look: lighter, brighter, and quieter synthetic walkway panels and corresponding re-anodized aluminum railings, enhancing the customer experience of walking across the river between Easton, PA. and Phillipsburg, N.J.

As part of the two-year rehabilitation project at the bridge, the structure's former slip-prone fiberglass walkway planking was removed. That walkway surface system had been installed in 2002 and was on the last legs of its prescribed service life. The aging panels had proven problematic over time with issues like cracking and splitting that required additional surface screws to be installed to keep the walkway in place across the bridge.

The walkways are now outfitted with a composite product called fiber-reinforced polymer (FRP) molded panels. The new walkway panels are lighter weight, stronger, more rigid, and inherently quieter due to their foam-core construction. They also promise to be more corrosion-resistant and offer better traction for the bridge's pedestrian customers.

The early feedback on the new walkway panels has been decidedly positive. The new surface has a uniform off-white color that contrasts nicely with the freshly anodized black railings and the bridge's green truss. The Commission is now considering utilizing FRP to replace other aging walkway surfaces in the agency's bridge network.



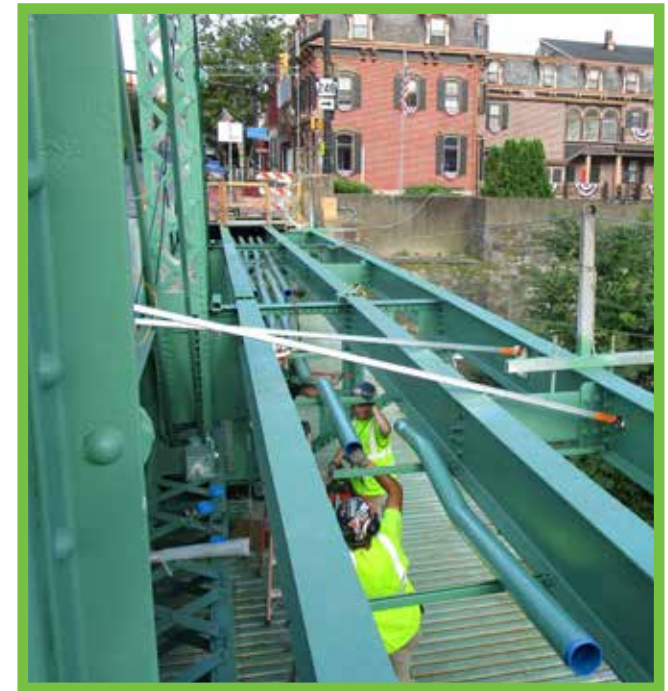
Only periodic off-peak single-lane closures are needed to complete remaining tasks. This work will carry over to 2023. The bridge's electrical systems will be replaced, and a new backup generator will be installed. The bridge also will be outfitted with new ornamental lighting fixtures and a new programmable architectural lighting system to highlight the bridge's iconic profile along the riverfront.

Due to lagging supply-chain disruptions triggered during the COVID-19 pandemic, it's unclear when the project will reach completion in 2023.

A key hard-to-acquire item is a new emergency electrical generator for installation adjacent to the bridge-monitor's shelter on the bridge's Easton side. The generator would have the capability to run on natural gas, propane, or gasoline, but the plan is to power it strictly with natural gas.

Each of the Commission's vehicular bridges are outfitted with electrical generators that are programmed to switch on during disruptions to normal electrical utility services. At the Northampton Street location, the generator would be of sufficient size to power the lights on the bridge's roadway and two walkways. It also would service the facility's security cameras and two bridge monitor shelters.

Supply chain disruptions also are threatening to delay completion of the bridge's architectural lighting system and the installation of new fiber cables to the bridge's security cameras.



Re-Gilded 126-Year-Old State Monuments Reinstalled Atop Northampton Street Bridge

After nearly a year's absence, newly gilded monuments depicting the state seals of New Jersey and Pennsylvania were reinstalled atop the Northampton Street Bridge's towers in late December.

The gold-leaf monuments date from the bridge's construction in 1895-96. They were removed in late 2021 in preparation for the two-year-long Northampton Street Bridge Rehabilitation Project. A variety of historical plaques also were taken off the bridge at that time and put into temporary storage, allowing for extensive bridge cleaning and painting work that took place between March and December.



Upon removal, the state monuments were transported to the famous Seward Johnson Atelier in Hamilton, N.J. They were then cleaned and fully restored by artisans experienced in making repairs and applying new gold-leaf finishes over the course of 2022.

It was the second time that Johnson Atelier employees had refurbished the 126-year-old monuments. The first time was in 1995, after they had gone missing from the bridge for an extended period – perhaps up to 24 years.

The savior of the monuments was Gloria Decker, a long-time Phillipsburg resident who served as a New Jersey member on the Delaware River Joint Toll Bridge Commission from 1994 to 2003. After her appointment to the Commission, Decker made it a mission to determine the missing monuments' whereabouts. She later found them serving as weathered statues at the agency's New Hope-Lambertville Toll Bridge Administration Building.

After Decker's discovery, the monuments were dispatched to the Johnson Atelier for the first time. The renowned facility restored the two sculptures so they could be reinstalled on their respective towers at each side of the bridge. The reinstallations occurred immediately after a September 26, 1995, ceremony that marked the bridge's 100th anniversary (its construction wasn't completed until 1896) and its designation as a National Historic Civil Engineering Landmark.

It's unclear how, when, or why the state monuments went missing from the Northampton Street Bridge.

The most plausible theory is they were removed for the New Hope-Lambertville (Route 202) Toll Bridge's July 22, 1971, opening ceremony. Regrettably, they remained at that location until Commissioner Decker's persistent detective work and discovery hastened their return to the iconic bridge where they belong.

Buildings at Future Langhorne Maintenance Site Start Taking Shape in 2022

Construction activities moved out of the ground at the Commission's future maintenance campus in Langhorne, PA. during 2022, with a barn-styled salt storage building and the walls of an expansive vehicle storage/maintenance structure now dominating the landscape.

The new buildings are the centerpiece elements of what will be a strategic facility serving the Commission's southern service region, notably the recently completed dual-span Scudder Falls (I-295) Toll Bridge.

A large array of work took place at the Langhorne location during the year, including:

- Electrical and plumbing connections for a fueling island and brine and magnesium-chloride deicing systems were completed along with the pouring of their respective concrete pads.
- Stormwater piping, inlets, manholes, and underground stormwater detention basins were completed.
- Domestic water and sanitary sewer lines were installed to serve the emerging vehicle storage/maintenance building.
- That building's concrete footings, foundation walls, electrical and plumbing under-slab rough-ins, and structural-steel erection was completed.
- A radiant floor heating system, roofing, office area partition walls, mechanical, electrical and plumbing activities along with building envelope waterproofing and façade work were taking place at year's end.

When completed, the Langhorne site will have a 45,000-square-foot vehicle-storage/maintenance building; a 5,000-ton-capacity salt storage building with adjoining brine-mixing facility and ice-melting magnesium-chloride storage tanks; outdoor parking spaces for employees, trucks, and equipment; and a fueling island with gasoline and diesel pumps.

The salt-operation facilities and the vehicle storage/maintenance building are now projected to reach substantial completion in fall 2023.



Langhorne site work



The Langhorne site is the core element of the Commission's Southern Operations & Maintenance Facilities Improvements Project. Another aspect of that undertaking advanced less dramatically during the year at the Commission's former base of operations in Morrisville, PA. Work on a one-story demarcation building reached completion. This structure will now serve as the distribution center for the location's electrical power, natural gas, sewer, water, and computer lines.

A salt-storage building, de-icing area and fueling island were completed at the location in 2020. A new 16,000-square-foot two-story office building and a new 8,900-square-foot vehicle storage/maintenance building also are in the works. The new office building will house Trenton-Morrisville Toll Bridge staff and various security and traffic-incident management personnel. The new vehicle-storage/maintenance building will service the toll bridge and other Trenton-area bridges. The largely mothballed 70-year-old administration building will be razed in spring-summer 2023 and demolition of the location's former maintenance garages should begin by fall 2023. Office trailers were delivered to the site during 2022 for future temporary use by toll bridge personnel while the new office building gets constructed. Current maintenance personnel in Morrisville will be moved to Langhorne once construction is completed there in fall 2023. A small number of those employees are expected to be assigned back to Morrisville once its downsized vehicle storage/maintenance building gets completed.



Morrisville site work



Milford-Montague Toll Bridge Undergoes Paving, Repairs

The weathered and potholed driving surfaces at the two-lane Milford-Montague Toll Bridge and its approaches are the primary focus of a repair and repaving job launched during the latter half of 2022.

The project, which is expected to be completed in spring 2023, consists of six major tasks:

The latest project's major tasks were as follows:

- Milling and paving of the bridge's Pennsylvania approach roadways and shoulders;
- Milling and paving of the New Jersey approach's northbound travel lane and adjoining shoulder;
- Full-depth replacement of the New Jersey approach's southbound travel lane and adjoining shoulder;
- Milling and paving of the bridge's travel lanes along with the installation of a waterproof membrane before a new asphalt surface is applied;
- Milling, paving, and/or full-depth repairs of parking lots at the bridge's administration building, maintenance garage, and salt barn; and
- Repairs/replacements of storm-water inlets along the bridge's approaches.

Almost every task was completed. The exception was the bridge's road surface on the Pennsylvania side, which could not be addressed before cold weather set in during late December.

The contractor is Mount Construction Co., Inc. of Berlin, N.J., which is performing the work under job order contract costing slightly less than \$2.9 million.

This is the most significant project to take place at this bridge since a wide-ranging rehabilitation in 2008 and 2009.

The four-span, 1,150-foot-long Milford-Montague Toll Bridge opened to traffic in December 1953. It is the only deck-truss structure and the northernmost bridge in the Commission's 20-bridge system. Due to its location, this bridge annually experiences more winter plowing and de-icing events than any other crossing. This is the major factor necessitating the repaving and paving work at the bridge in 2022 and 2023.



Divers Scrutinize Scudder Falls Toll Bridge's In-River Piers To Complete Federally Mandated Safety Inspections

A two-year process of inspecting in-water piers at the Commission's 20 Delaware River crossings was completed at the Scudder Falls Toll Bridge in late spring 2022.

A diver made a series of submersions to examine the bridge's new piers for erosion, cracks, spalls, scour, and other possible defects. The work was conducted by W.J. Castle Associates under a consulting task agreement with the Naik Consulting Group, P.C.

Underwater inspections of the Commission's other 19 river bridges took place in 2021.

The inspections are required to take place every five years under the federal National Bridge Inspection Standards (NBIS). Underwater inspections of Commission vehicular bridges were last conducted in 2016.

The Federal Highway Administration's Underwater Bridge Inspection reference manual notes that underwater inspections promote sound bridge maintenance and management and are integral to ensuring the traveling public's safety: "Underwater material damage and deterioration, and scour-related undermining may not be apparent above water until the damage has become so severe that remedial actions are extremely expensive. Early detection of underwater distress allows implementation of cost-effective repairs."



Commission's NJ I-78 Roadway Segment Undergoes Additional Overnight Repairs

The pothole-prone asphalt joints along the Commission's 4.2-mile-long New Jersey I-78 roadway segment were once again the focus of a short-term repair project in 2022. It marked the fourth consecutive year that work took place along the heavily traveled stretch of highway, which carries traffic to and from the I-78 Toll Bridge.

The repairs were performed almost exclusively during overnight hours to minimize traffic impacts. Work was performed by Mount Construction Company under a job-order arrangement. Besides the joint repairs, the work included sealing, pothole repairs, lane striping and replacement of raised pavement markers.

A similar project is expected to be conducted along the highway segment in 2023.

The work on I-78's asphalt joints is intended to mitigate potential operational issues along the roadway segment until the Commission can design and bid a broad contract for a comprehensive milling and paving project, currently scheduled for 2024.





Wireless Structural-Monitoring Devices Go Live At Centre Bridge-Stockton Bridge

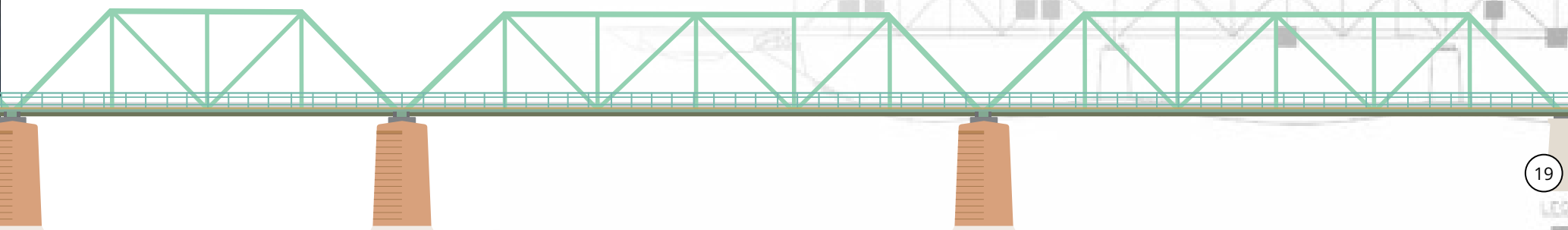
The Centre Bridge-Stockton Toll-Supported Bridge is sending signals.

During 2022, the 95-year-old, six-span Warren truss bridge between Solebury, PA. and Stockton Borough, N.J. was outfitted with an array of wireless sensors. The devices can detect strain, displacement of steel members, weaknesses caused by corrosion, and other potentially worrisome structural integrity issues.

The battery-powered sensors send data 24/7 to a solar-powered transmitter that then channels the continuous stream of readings to a cloud-based data bank. Engineers can then access the database to determine when and if overweight vehicles have crossed the bridge. The data stream shows how the bridge carries and distributes loads. Most importantly, the devices can provide near-real-time alerts if any structural damage is detected.

The device installations were done under a task order agreement with the engineering firm WSP USA, which produced a concept study on the wireless sensors in 2021. Engineers calibrated the sensors in July, using a series of pre-weighted dump-truck loads driven by Commission maintenance personnel.

The Centre Bridge-Stockton Bridge was chosen to serve as the pilot location for the wireless sensors because it has different-sized spans, and its structural members are representative of what can be found at many of the Commission's other weight-restricted bridges. If this initial Structural Health Monitoring Pilot Program proves successful, it could be extended to other applicable bridges.





Scudder Falls Bridge Replacement Project



Scudder Falls Bridge Replacement Project Reaches Final Completion in October 2022

Despite unanticipated challenges like the coronavirus pandemic, supply chain disruptions, and river flooding, a little more than five years of construction on Scudder Falls Bridge Replacement Project came to an official and unceremonious official end on October 31, 2022.

The lead contractor and various subcontractors spent the better part of the year addressing a wide array of “punch list” tasks at the new bridge, its adjoining interchanges, and along the 4.4-mile-long project corridor in New Jersey and Pennsylvania. The year’s task list included:

Riprap installation and landscaping along the New Jersey riverbank;

Intelligent traffic system (ITS), electronic security and surveillance (ESS), and highway lighting work in both states;

- Removal of the temporary construction platform and bulkhead on the river’s Pennsylvania side;
- Removal of remaining detour signage;
- Completion of stormwater drainage systems on the bridge;
- Roadside stabilization where warranted;
- Final grading on the Pennsylvania riverbank;
- General landscaping through the project area;
- Installation of remaining sign structures in New Jersey and Pennsylvania; and
- Completing and/or addressing issues with drainage basins throughout the project area.



Genesis and Objectives

The completed project stands as the largest single capital undertaking in Commission history. The primary beneficiaries are suburban Bucks County, PA. residents who make daily commutes between their homes and the abundant business and government office centers in New Jersey's Trenton-Princeton metropolitan area. The project's marque element – a dual-span bridge – carried 40,100 vehicles per day in 2022, a 16.9 percent increase over 2021's traffic.

In addition to the high-capacity river bridge, the project yielded widened approach roadways, safer flanking highway interchanges, a shared-use path for pedestrians and bicyclists, drainage and wetlands upgrades, and an all-electronic tolling facility that keeps traffic moving.

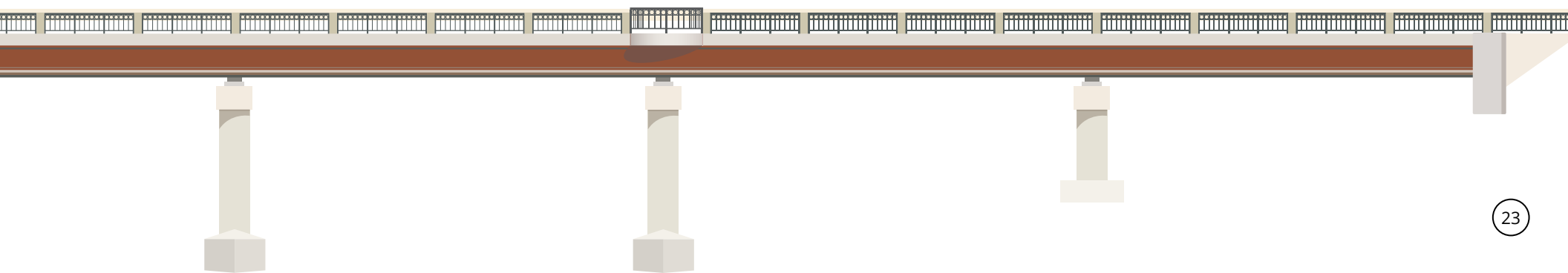
Michael Baker International with STV Inc. performed the project's final design, which was executed in three major construction stages. The project construction team included the Trumbull Corporation, general contractor; AECOM Technical Services, Inc., program manager; Hill International, Inc., construction manager; and TRC, WSP, and Gannett Fleming, construction inspections.

An exhaustive decade-long environmental documentation process preceded design and construction, culminating with federal regulatory approval in June 2012. AECOM, HNTB, and Jacobs Engineering Group were instrumental in achieving this early-planning milestone.

Following the federal go-ahead, the DRJTBC successfully endeavored to secure project financing. Advance tree cutting work and noise-abatement installation also were carried out along portions of the impending bridge replacement project's I-295 (formerly I-95) work zone. Michael Baker led the planning/design of these pre-project activities later which were performed by A.P. Construction Inc. and PKF-Mark III, Inc.

The Scudder Falls Bridge Replacement Project produced more than an array of transportation improvements. The multi-faceted undertaking also generated jobs and work for dozens of Identified Business Enterprise (IBE) subcontractors and consultants. Over \$110 million -- nearly 18 percent of the project's \$570 million total outlay -- went to IBE firms. Moreover, nearly 20 percent of the project workforce consisted of minorities and women.

*Source: Delaware River Joint Toll Bridge Commission's IBE Program/
Contract Compliance Department*





The Scudder Falls Bridge Replacement Project broke ground in April 2017. The centerpiece objective was the replacement of a deteriorating, congestion-prone, functionally obsolete bridge that became an increasingly hazardous commuter bottleneck several decades after its June 1961 opening. The outdated four-lane bridge was a non-redundant plate-girder structure with fracture-critical pin-and-hanger connections. The DRJTBC was committed to replacing the bridge with dual structures conforming to current design standards, with increased redundancy and greater capacity to handle current and future traffic demands.

The new bridge's design addressed the river crossing's former safety, capacity, and traffic-operations. The bridge's upstream span, which opened in July 2019, has three thru-travel lanes and an auxiliary lane running between the two highway interchanges near each end of the bridge. The downstream span, which opened in July 2021, has three thru-travel lanes and two auxiliary lanes. One of the auxiliary lanes stretches from the last highway interchange in Pennsylvania to the second exit in New Jersey. The other auxiliary lane connects the two interchanges near each end of the bridge. Each new span has flanking shoulders for vehicular breakdowns and emergencies. Each span's left shoulder is 14-feet wide to handle potential future bus rapid-transit service.

Commission's First All-Electronic Tolling Point

A significant project consideration was toll collection. The prior bridge was a non-tolled crossing. To mitigate public resistance, the DRJTBC needed a problem-free all-electronic-tolling (AET) system that would enhance the bridge project's free-flowing traffic objectives. Baker and STV designed a partially enclosed steel-supported gantry from which toll-collection cameras and equipment is suspended on the Pennsylvania side of the bridge's upstream span. The gantry is walkable, allowing for maintenance and repairs of tolling equipment without roadway closures. This is the DRJTBC's first AET facility. The location's 90-percent-plus rate of E-ZPass usage attests to the facility's early success and public acceptance.

The toll gantry is easily accessed from an adjacent four-story building that securely houses the bridge's AET system's support equipment and a command center for DRJTBC bridge monitors and security staff. The building is sized to handle possible additional future equipment needs. A nearby stand-by generator can power the AET equipment and associated building systems in the event of electrical service disruptions.

To further enhance the customer experience, the bridge's approach roadways, approach bridges and adjoining interchanges were widened,

reconstructed or realigned. Two miles of I-295 on the bridge's Pennsylvania side was widened to three lanes in each direction. The Pennsylvania highway interchange closest to the bridge was realigned and traffic signals were installed to control movements of vehicles exiting or entering that interchange's arterial road. New Jersey's mile-long I-295 bridge approach was overhauled and outfitted with various drainage improvements. Additional noise walls were installed in conjunction with this work. The highway's NJ Route 29 interchange was completely redesigned and reconstructed with two traffic-calming roundabouts. Prior to the project, the old I-295/Route 29 interchange had the highest crash incidents in the project area. Accidents now have been virtually eliminated.

Commission's First Shared-Use Walkway

Passive transportation also was a project consideration. The new bridge's upstream span includes a 10-foot-wide shared-use pedestrian/bicycle path. Ramps and pathways provide connectivity with recreational canal towpaths on the Pennsylvania and New Jersey sides. This is the only bridge in the DRJTBC system where bicyclists can pedal across. Bicyclists must dismount and walk across the other 15 DRJTBC bridges that are outfitted with walkways.

Designers overcame significant challenges in designing the project, not the least of which was sequencing construction in a manner that enabled vehicular traffic to move through the corridor and across the river while construction took place. Design also had to address differing elevations in existing and proposed grades while maintaining traffic. (The New Jersey side of the new Scudder Falls Toll Bridge was up to six feet higher than the former Scudder Falls Bridge). To account for this, temporary supports of excavations were constructed to enable the progression of bridge erection and protect existing infrastructure that remained in service. The project area's rocky terrain was another design consideration, as was an unnamed stream culvert on the bridge's Pennsylvania side that had to be realigned beneath the existing I-295 approach with a jack-and-bore process. Design also accounted for increased stormwater runoff generated by the project's new or expanded facilities. This was achieved with numerous drainage upgrades throughout the project area, including the use of bio-retention basins in New Jersey and pre-treatment forebays and infiltration basins in Pennsylvania to control runoff and treat the increased impervious pavement area.

Multi-Faceted Scudder Falls Project Provides Improved Customer Experience

The Scudder Falls Bridge Replacement Project entailed more than construction of a new bridge over the Delaware River. The project encompassed a heavily commuted 4.4-mile interstate highway corridor (I-295, formerly signed I-95) between the County Route 579/Bear Tavern Road interchange in Ewing, N.J., and the PA Route 332/Yardley-Newtown Road interchange in Lower Makefield, PA.

The congestion-prone highway segment was a choke point for commuter traffic traveling from Bucks County, PA. bedroom communities to Central Jersey employment destinations. At the center of the project area was a functionally obsolete Eisenhower-era-designed bridge with two lanes in each direction. Every weekday, the bridge struggled to keep up with increasing traffic demands. Outdated interchanges with insufficient acceleration and deceleration lanes exacerbated safety problems at the bridge.

To address recurring traffic safety and capacity problems at the bridge and its adjoining interchanges and approach highway segments, the Commission planned and pursued a comprehensive project. This five-year-long regional transportation effort began providing dramatically improved customer experiences for tens of thousands of weekday commuters in July 2019. The dividends for the traveling public continue to this day.



Project Core Elements Completed

- Replaced the former four-lane Scudder Falls Bridge with a dual-span structure carrying six lanes of through traffic (three in each direction), two auxiliary New Jersey-bound lanes for accelerating/decelerating traffic between flanking interchanges, and one auxiliary Pennsylvania-bound lane for accelerating/decelerating traffic between flanking interchanges.
- Outfitted each replacement span with inside and outside shoulders/ breakdown lanes – a current federal highway standard – and sized the inside shoulders to carry possible future bus rapid-transit service.
- Completely reconstructed New Jersey’s accident-prone Route 29 interchange, using roundabout to safely control traffic movements on and off I-295.
- Reconfigured the Taylorsville Road interchange in Pennsylvania by eliminating dangerous traffic weaving points and controlling vehicular flows with traffic signals.
- Made drainage upgrades and storm-water-control improvements throughout the project area.
- Widened the Pennsylvania approach highway between the bridge and the Route 332/Newtown exit by adding an additional travel lane in each direction.
- Provided a shared-use pedestrian/bicycle walkway connecting the recreational canal paths on both sides of the river; it’s the Commission’s only bridge walkway where bicyclists can pedal across.
- Installed an all-electronic tolling (AET) system to collect tolls through E-ZPass tag readers and TOLL BY MAIL license plate billing.
- Erected noise-abatement walls, where warranted in the project area.
- Planted trees and other vegetation in accordance with respective state policies.
- Established wetland mitigation sites in NJ and PA.
- Utilized construction methods in the high-water-prone river to meet regulatory agency work restrictions, including measures to protect threatened and endangered species.

Planning, Collaboration Central to Project Design:

To design the project, the DRJTBC and its consultant team worked closely with the Federal Highway Administration, the Pennsylvania and New Jersey departments of transportation, the U.S. Army Corps of Engineers, and a patchwork of other state, regional and federal permitting agencies. Respective aspects of the project in the two states required different specifications. The team therefore had to adhere to specific design criteria for each state, and oftentimes needed to work from separate documents.

Project work was scheduled in a manner to protect endangered species and river spawning areas. In New Jersey, Wetlands and Riparian Bank credits were secured for qualifying impacts in that state. A wetlands-mitigation area to be perpetually protected by the DRJTBC was established near the bridge’s Pennsylvania abutment. The design of the wetlands-mitigation site included excavation, application of topsoil and plantings. A fencing plan shields saplings from depredation by deer. An alternative nesting site was designed and constructed on a nearby island in deference to a peregrine falcon that had once nested on the former Scudder Falls Bridge. In New Jersey, a tree planting plan was crafted in compliance with that state’s No Net Loss Reforestation Act.

Engineering, Transportation, Civic Organizations Gives Six More Awards to Scudder Falls Project

The Scudder Falls Bridge Replacement Project can now be called the “award-winning Scudder Falls Bridge Replacement Project.”

Six times during the year, the project was feted by engineering, transportation, or civic organizations.

The 2022 awards were as follows:

- Project of the Year over \$10 million – American Society of Highway Engineers (ASHE), Central and Southern New Jersey section, April 7.
- 2021 Project of the Year over \$20 million – ASHE Delaware Valley Section (Pennsylvania), April 20.

Collaboration extended to the execution of project construction as well. An owner's-controlled insurance program (OCIP) conducted by Arthur J. Gallagher & Co. and The Hartford protected the project's workforce. A bi-state project labor agreement involving the Mercer-Burlington Building & Construction Trades Council in New Jersey and the Building & Construction Trades Council of Philadelphia ensured the inclusion of regional tradespersons in the project. And the DRJTBC's Identified Business Enterprise program channeled over \$100 million in work to IBE subcontractors and consultants.

- 2022 Distinguished Engineering Award – New Jersey Alliance for Action, May 12.
- 2022 Project of the Year over \$250 million – New Jersey Section of the American Society of Civil Engineers (ASCE), May 26.
- Implementing Wildlife Management Strategies Prior to and During Construction for a Multi-Jurisdiction Project – Northeast Transportation and Wildlife Conference hosted by the South Jersey Transportation Authority (SJTA), New Jersey Fish and Wildlife (NJFW), and New Jersey Department of Transportation (NJDOT), September 19
- Bridge Project of the Year – March of Dimes, 29th Annual Transportation, Building and Construction Awards, November 2.

The project has now received eight total awards. Prior honors were an Engineering Excellence Distinguished Award (for the project's noise walls) from the American Council of Engineering Companies (ACEC) of New Jersey, and New Jersey's Leading Infrastructure Project Award from the New Jersey Alliance for Action. The project remains in the running for more honors in 2023.





Administration & Year in Review





Commission Mourns Passing Of Former Chief Engineer

George G. Alexandridis, the Commission's former award-winning chief engineer, passed away June 27, 2022. He was 87.

Alexandridis headed the agency's engineering department for 13 years -- from 1999 to 2012. He played a pivotal role in establishing the Commission's current-day capital improvement program.

His accomplishments included the introduction of E-ZPass toll collections and extensive rehabilitations and improvements at three toll bridges, 11 toll-supported (non-toll) bridges, and all seven of the agency's cash/E-ZPass toll plazas. His work helped to reduce traffic congestion

at Commission toll crossings while improving security and safety throughout the system.

He was the 2010 recipient of the prestigious New Jersey Alliance for Action's Dr. John L. Buzzi Engineering Excellence Award and the Professional Engineer's Society of New Jersey's 2006 Government Service Award.

"He left an indelible mark," said Commission Executive Director Joe Resta, "overseeing the completion of more than 100 projects that are benefitting New Jersey and Pennsylvania motorists to this day."

Commission Investigation of Trenton-Morrisville Toll Bridge Overcharges Yields Thousands of E-ZPass Customer Refunds

Sherlock Holmes might have been proud.

After multiple E-ZPass users reported instances of being overcharged at the Trenton-Morrisville Toll Bridge during the first half of 2022, Commission staff launched an investigation that eventually produced thousands of refunds for E-ZPass customers.

The culprit turned out to be an overhead vehicle-classification device that sporadically incorrectly profiled automobiles in one of the bridge's five toll-collection lanes. Further investigation revealed the suspect piece of in-lane toll equipment had been struck on multiple occasions by flat-bed trucks stacked with poorly anchored loads of crushed motor vehicles.

While the device looked fine on the outside, its innards had been shaken and impacted to such a degree that it occasionally and unpredictably malfunctioned. This caused random misreads of passenger vehicles with E-ZPass transponders, applying a \$9 toll instead of the prescribed \$1.25 toll.

Once the problem was identified and confirmed, the Commission teamed with its E-ZPass service providers – TransCore and Conduent – to proactively adjust the accounts of E-ZPass passenger-vehicle customers who had been overcharged. TransCore is the Commission's in-lane toll service provider, largely handling the hardware and software that records



and relays toll transactions at Commission tolling points. Conduent is the company that operates the regional New Jersey E-ZPass Customer Service Center, which processes the toll transactions and violations recorded at Commission toll bridges.

Approximately 1.4 million toll transactions recorded in the problematic toll lane were reexamined. Of those, around 86,000 of them (or about 6.1 percent) were determined to involve misclassifications.

The Commission proactively sought to credit the accounts of affected motorists between August and September. The agency further requested State Police in New Jersey and Pennsylvania to step up efforts aimed at intercepting poorly loaded flat-bed trailers approaching Commission toll plazas. Additionally, the Commission's Director of Community Affairs, Jodee Inscho, contacted area salvage yard operators, explained the issue, and they agreed to work with truckers to better secure loads of crushed motor vehicles.

As for the compromised vehicle-profiling device, it was replaced July 7. E-ZPass customer complaints of toll misclassifications in that Trenton-Morrisville lane ceased after that date.

Rapid Responses at Washington Crossing, Northampton Street Bridges Underscore Value of Ongoing Incident Training for Security Personnel

Commission bridge-security personnel showed their true mettle in responses to emergency situations at the Washington Crossing and Northampton Street bridges in 2022.

On the morning of May 28, a reckless pickup-truck driver struck three oncoming vehicles and portions of the Commission's Washington Crossing Toll-Supported Bridge. The pickup driver then steered his damaged vehicle off the bridge into Pennsylvania, where he attempted to flee the scene before coming to a stop in the nearby Washington Crossing historic park.

Assistant Coordinators John Kelly and Joseph Boraski were called to the scene to assist Bridge Monitor Girard Casale checking for motorist injuries among the damaged vehicles on the bridge. While on the bridge, Kelly and Boraski saw the pickup driver resisting apprehension by a lone Upper Makefield Township Police Sergeant. Kelly and Boraski promptly ran off the bridge to assist the police sergeant. Their actions ensured the combative driver's arrest and prevented him from accessing the police sergeant's firearm.

Kelly and Boraski's were presented proclamations for their valiant response efforts at the Commission's June meeting.

During the chilly pre-dawn hours of December 23, Bridge Monitor Mark Pedersen watched a lone male pedestrian crossing a Northampton Street Toll-Supported Bridge walkway. When the young man reached a point over the freezing river waters, he began to climb over the walkway railing. Pederson promptly raced out onto the bridge as the man descended into the dark waters below.

Pedersen alerted the Commission's Primary Control Center about the situation and reversed course to the downstream riverbank on the bridge's Phillipsburg, N.J. side. Pedersen entered the river to pull the disoriented man ashore from the frigid water. Other Commission personnel and Phillipsburg police arrived on scene and tended to the man, keeping him warm in patrol vehicle until an emergency medical services crew arrived to take him to a hospital.

Pedersen meritorious effort is expected to be recognized at the Commission's January 2023 meeting. (Editor's note: Pederson received a proclamation at that meeting.)

The selfless, timely, and courageous actions of Kelly, Boraski, and Pedersen underscore the value of the incident-response training the Commission provides to its security forces each year. Their actions also exemplify how the men and women in the Commission's Public Safety and Bridge Security Department work to serve the public every day.



New Hope-Lambertville River Crossing Exhaustively Researched For November Historical Society Presentation

The Commission owns and operates some of the oldest bridge crossings in the United States.

Recognizing that heritage and the public's interest in local history, the Commission's communications department occasionally gives presentations on the bridge network, portions of the bridge system, or individual crossing locations.

In November, Deputy Executive Director of Communications Joe Donnelly gave a comprehensive 90-minute PowerPoint slide presentation on the evolution and history of the bridges that have connected New Hope and Lambertville since 1814. The free program was provided for the Lambertville Historical Society and attracted more than 60 attendees.

Donnelly's talk is based on research that he has conducted since the bridge location's 200th anniversary in 2014. He wrote a hasty 45-page history of the bridge that year. Since then, he has come across new information and images to give a more comprehensive – and accurate – account of the bridge crossing.

To complete his new presentation, visits were made to examine materials and/or acquire images from the New York Public Library, the Library Company of Philadelphia, the New Jersey State Archives, the Bucks County Historical Society's Spruance Library, and local historical societies. Donnelly says online newspaper clipping services, genealogical websites, and search engines like Google also proved to be tremendous resources in piecing together the bridge's full story.

His program provided new facts and materials for individuals interested in the history of the bridge as well as the communities of New Hope and Lambertville. These included:

- A documented account about the formation of the New Hope Delaware Bridge Company, which constructed the first wooden bridge at the location;
- An extended examination of the illegal banking enterprise the bridge company operated for 35 years before a crackdown by New Jersey lawmakers;
- The revelation that Hiram Scarborough, a one-armed man from New Hope, collected tolls at the wooden bridge for 35 years;

- A photograph of Samuel Grant, a well-respected Philadelphia businessman who owned the bridge for a little more than 25 years in the mid- to late-1880s;
- Photographs of Lambertville men who played a role in the bridge's conveyance into public hands as a free crossing in the early part of the 20th century.

"So many of the historical accounts of these bridges are just plain wrong," said Donnelly. "Too often, people keep repeating errors and falsehoods contained in prior publications and web postings. Doing the research on these bridges is akin to putting together puzzles together that are missing pieces. The goal is to get the record straight."

The presentation was well received. The plan is for the product to be revised and expanded as a PDF document in 2023 before being placed on the Commission's website for further public access.





Forgotten Film Footage Digitized, Posted Online for Public Viewing

The Commission will never be confused with “Tinseltown,” but the bridge agency’s engineering department once had movie-making equipment that was used to record construction projects, traffic bottlenecks, and bridge opening events between the mid-1930s to the mid-1950s.

The resulting film footage apparently went into storage about 70 years ago and was largely forgotten. But after the Commission moved its engineering department archival materials out of its soon-to-be-demolished Morrisville administration building, the film footage was rediscovered as a potential resource for area historians and the public at large.

The reels were still in good condition. Each has been digitized and stored on Commission servers. The process of making the footage available began during the second half the year via three uploads to the Commission’s YouTube channel.

In September, film footage depicting the June 1933 demolition of the former wooden covered bridge between Upper Black Eddy, PA. and Milford, N.J. premiered. The silent footage shows a variety of tasks, including pile driving of temporary steel supports in the river, hand and power saw cutting of old bridge timbers, moving of a rolling derrick atop the bridge, and unloading of bridge timbers at a temporary storage yard near the bridge. The filmed

demolition work immediately preceded construction of the current steel-truss Upper Black Eddy-Milford Bridge.

In October, a digitized reel showing crippling traffic congestion and early bridge construction work in Easton, PA. and Phillipsburg, N.J. during the 1930s was released. Among other things, this footage shows long traffic queues on and around the Northampton Street Bridge (“the free bridge”) prior to construction of the Bushkill Street Bridge, now named the Easton-Phillipsburg (Route 22) Toll Bridge. This reel gives glimpses of three former Phillipsburg landmarks: the Pennsylvania Railroad Station, the Wardell Hotel (previously the Lee House), and a then-operational Union Square Hotel. Surveying, early land clearing, and groundbreaking for the Bushkill Street Bridge project also is depicted.

The Commission released a second reel of 1933 Upper Black Eddy-Milford bridge footage in December. This additional footage includes more demolition of the former covered bridge, early construction of the current steel bridge, and damaging river flooding that crested on August 25, 1933.

More reels of Commission archival footage are expected to be released in 2023 and 2024.



Iconic Trenton Makes Sign Glows Blue and Yellow To Demonstrate Commission's Solidarity with Ukrainian People

As was the case at many other illuminated landmarks around the country, the Commission's famous Trenton Makes The World Takes sign was converted to the Ukrainian flag's blue and yellow colors after that sovereign nation was attacked by Russian forces in February 2022.

The Commission is committed to maintaining the blue-yellow default setting on the sign until the war between the two countries comes to a satisfactory end. Previously, the sign's normal default setting was the color red.

The Ukrainian flag colors appear whenever another color-display program is not scheduled for the iconic sign, which is connected to two downstream trusses on the Commission's Lower Trenton Toll-Supported Bridge.

The color switch was made unceremoniously due to the tragic nature of Russia's aggression against the Ukrainian people.

Trenton residents, motorists, and social media influencers took note, though. A flurry of photographs of the bridge sign's blue-yellow color scheme appeared on platforms like Instagram and Facebook in a regional show of support for Ukraine.



Grab the Popcorn!

Famous Lower Trenton Bridge Sign Scores Sixth Film Appearance

The Lower Trenton Bridge's iconic "Trenton Makes The World Takes" sign chalked up its sixth movie credit in 2022.

The illuminated sign made a brief transitional appearance in *Funny Pages*, an "indie" coming-of-age comedy written, directed, and edited by New York filmmaker Owen Kline. The movie debuted August 26, 2022.

The sign appears relatively early in the storyline, at the point when the film's protagonist moves to Trenton. Glowing in its classic default red color, the sign prominently appears out the driver's window of a car moving from Pennsylvania into New Jersey on the nearby Trenton-Morrisville (Route 1) Toll Bridge.

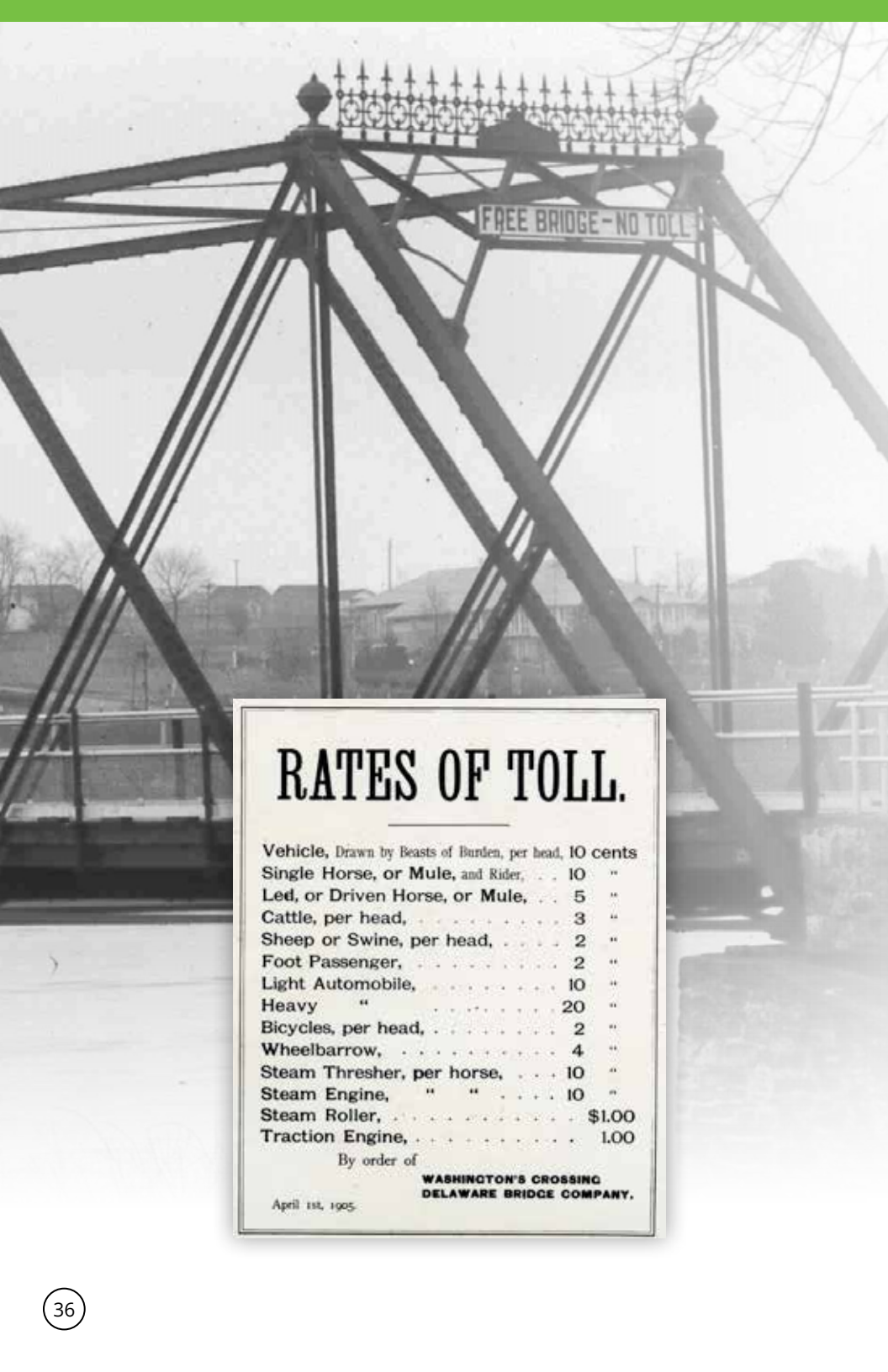
Kline described the bridge sign footage as "B-roll," one of the movie's last segments to be filmed. He said it was challenging to film because he wanted the driver's silhouette with the sign appearing sequentially left to right out of the moving car. He recalled getting the shot in two takes.

"It was compositional, and we needed to get it before it was too dark to see the figure in the car," said Kline.

Prior film appearances of the Trenton Makes sign were:

- Human Desire (1954)
- Baby, It's You (1983)
- Stealing Home (1988)
- Rocket Science (2007)
- One for the Money (2012) (Note: The actual bridge sign does not appear in the film. Instead, a bridge near Pittsburgh, PA. was outfitted with letters to look like the namesake Trenton bridge.)





Narrow Washington Crossing Bridge Achieves 100th Anniversary of Toll-Free Service, Public Ownership during April

The 100th anniversary of the freeing of the narrow and functionally obsolete Washington Crossing Toll-Supported Bridge unceremoniously occurred during 2022.

According to published accounts from that time, the bridge's toll collector stopped accepting fares during the morning of April 26, 1922. Until that point, tolls had been collected at the river crossing since January 1, 1835 — save for the periods after two successive wooden bridges at the location were destroyed by floods in 1841 and 1903, respectively.

However, the freeing of the bridge between Hopewell Township, N.J. and Upper Makefield, PA, almost did not take place; a planned April 25, 1922 property closing meeting was bungled by both the sellers and buyers.

On one side of the planned transaction were the private owners of the current bridge – the Washington Crossing Delaware Bridge Company formed in 1904 and the Taylorsville Delaware Bridge Company formed in 1831. On the other side were respective attorneys from the State of New Jersey and the Commonwealth of Pennsylvania. Also in attendance were members of the Joint Commission for Elimination of Toll Bridges (“the Joint Commission”), a former agency the two states formed in 1916 to help facilitate public ownership of the various private toll bridges that operated along the river.

The property closing had been arranged to take place at the New Jersey State House in Trenton after the bridge's private owners agreed months earlier to sell their structure and related properties to the two states for \$40,000. But when the parties finally met in Trenton, two issues arose. The bridge owners couldn't provide tax records on the tolls they collected at the bridge. Meanwhile, Pennsylvania sent a substitute attorney to the meeting without providing him the state's requisite \$20,000 check for purchasing the bridge.

RATES OF TOLL.

Vehicle, Drawn by Beasts of Burden, per head,	10 cents
Single Horse, or Mule, and Rider, . . .	10 "
Led, or Driven Horse, or Mule, . . .	5 "
Cattle, per head,	3 "
Sheep or Swine, per head,	2 "
Foot Passenger,	2 "
Light Automobile,	10 "
Heavy "	20 "
Bicycles, per head,	2 "
Wheelbarrow,	4 "
Steam Thresher, per horse,	10 "
Steam Engine, " "	10 "
Steam Roller,	\$1.00
Traction Engine,	1.00

By order of

WASHINGTON'S CROSSING
DELAWARE BRIDGE COMPANY.

April 1st, 1905.

So, instead of exchanging titles, deeds, surveys and money, the closing became more of a conference on how to amicably address the muffed bridge purchase. The result: a hastily arranged agreement to cease toll collections at the bridge while providing time for the bridge owners to produce their tax records and the Pennsylvania Attorney General's Office to convey that state's payment check. All parties agreed to seal up the bridge sale in two weeks – by May 2, 1922.

The botched closing was the source of some embarrassment to Assistant Deputy Attorney General William Irvin Swoope, the lawyer Pennsylvania dispatched to the April 25 closing. Next day's Trenton Evening Times reported that Swoope "failed to bring a check of \$20,000 with him" to the property closing. Meeting minutes of the Joint Commission characterized the matter differently: "a misunderstanding" because Swoope "had not been given check and folder on this bridge when he was detailed to take the place of Deputy Attorney General (Sterling G.) McNees."



William I. Swoope

Luckily, the postponed bridge purchase didn't derail Swoope's career. He ran for a Central Pennsylvania congressional seat that fall — and won! He served two terms.

Records show the bridge company representatives at the April 25, 1922 property closing were J. Warren Fleming, president; Jesse E. Harper, secretary and vice president; Farley D. Hunt; Horace G. Reader; Alonzo H. Balderston; and John E. Howell. Meeting minutes do not indicate what their bridge company affiliations were. Some of the individuals likely held stock in both the oldline Taylorsville and newer Washington Crossing bridge companies.

Joint Commission meeting minutes are silent as to why there were two bridge companies, but research of news articles and historical records in New Jersey and Pennsylvania suggest that the Washington Crossing Delaware Bridge Company was formed to raise additional capital to construct the current bridge after its wooden predecessor was destroyed in the river's October 1903 "Pumpkin Flood."



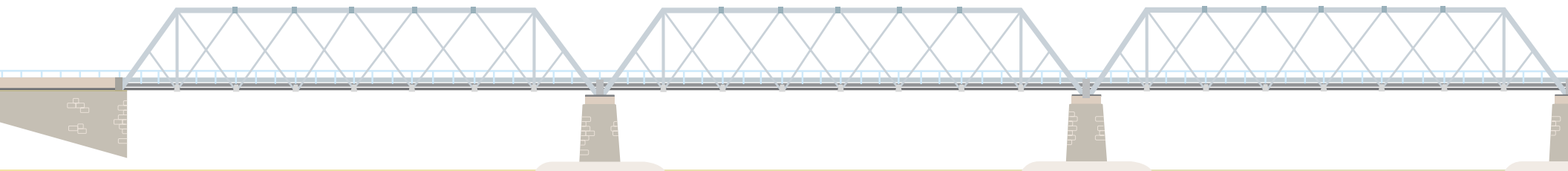
Washington Crossing Bridge's History Dates To 1831, Includes Floods, Tolls, Private and Public Ownership

- The Taylorsville Delaware Bridge Company was established by New Jersey legislation February 14, 1831 and concurring Pennsylvania legislation April 1, 1831.
- First Taylorsville bridge – a wooden covered bridge using Connecticut architect Ithiel Town's lattice-truss design – opened January 1, 1835; it was the sixth private toll bridge to link Pennsylvania and New Jersey.
- Bridge swept down river in the "Bridges Freshet" of January 8, 1841.
- Bridge substructures reportedly raised six feet and the new Taylorsville bridge – largely consisting of remnants retrieved from downriver after 1841 flood – reopens in either 1842 or 1843.

Taylorsville Bridge Company minutes on file at the Bucks County Historical Society's Spruance Library in Doylestown, PA. indicate company officers felt their 1831 charter restricted them from issuing more shares of stock. So, a sister company was formed. The bridge company minutes further show the former New Jersey Bridge Company of Manasquan, N.J. – the contractor that constructed the current bridge – played a role in selling the new Washington Crossing stock shares.

It's unclear how the bridge's ownership was divided between the two companies. Records on file at the New Jersey State Archives show the Joint Commission referenced only the old-line Taylorsville Delaware Bridge Company in deeds and property transfers. This seems logical since that company acquired the necessary properties for the bridge crossing in the 1830s.

Ownership nuances aside, the Washington Crossing Bridge became the sixth of 16 private toll bridge franchises the two states purchased over a 14-year period from 1918 to 1932. Prior purchases were at Lower Trenton (1918); Point Pleasant-Byram (1919); New Hope-Lambertville (1920); Northampton Street (Easton-Phillipsburg) (1921); and Milford-Montague (April 25, 1922). The bridge purchases were the result of a regional grassroots free bridges movement that sprang up along the river in the early 20th century. Three factors fueled the ostensibly loose-knit campaign: the national Good Roads Movement started by bicyclists and farmers in the late-19th century; Progressive-era politics in the early 20th century; and the increased affordability of mass-produced automobiles for the middle-class beginning in 1908.



- Second wooden covered bridge destroyed in the “Pumpkin Flood,” which crested October 10, 1903; it was one of nine bridges between Pennsylvania and New Jersey that were destroyed or partially destroyed by that flood.
- Taylorsville Delaware Bridge Company and new Washington Crossing Delaware Bridge Company contracted the New Jersey Bridge Co. of Manasquan, N.J. to construct a new steel-truss bridge.
- Newly named steel-truss Washington Crossing Bridge opened as a tolled crossing April 11, 1905; it was the last of the post-1903-flood replacement bridges to be constructed and put into service.
- Bridge was purchased jointly by New Jersey and Pennsylvania in a \$40,000 transaction arranged by the former Joint Commission for Elimination of Toll Bridges – Pennsylvania-New Jersey and completed by May 2, 1922; freed of tolls on morning of April 26, 1922.
- The Delaware River Joint Toll Bridge Commission is established by New Jersey Dec. 18, 1934, Pennsylvania Dec. 19, 1934, and federal compact ratified by Congress Aug. 30, 1935; states still own bridge but they annually pay the new bi-state Commission to operate and maintain the Washington Crossing Bridge as a free passage.

- The bridge sustains substantial damage during the historic Delaware River flood of 1955; the bridge is closed for repairs from August 19, 1955 to November 17, 1955.
- A 12-year process to update the Bridge Commission's federal compact ends with Congressional approval Apr. 2, 1987; the compact changes effectively end annual state tax payments for the bridge's operation and upkeep.
- The states convey ownership of the tax-supported Washington Crossing Bridge – and 12 other non-toll crossings – to the Bridge Commission on July 1, 1987; the revised compact compels the Bridge Commission to henceforth use a portion of its annual highway toll bridge revenues to cover the aging Washington Crossing Bridge's annual costs.

(Note: There is nothing in the historical record that explains why the Taylorsville and Washington bridge companies decided to have such a narrow bridge constructed in 1904 and 1905. Possible theories are: 1. The surviving substructures (piers and abutments) after the 1903 flood could not have supported a wider structure. 2. The bridge companies could not have afforded a wider bridge. 3. The private bridge company's investors included farmers who might have been skeptical of the notion that emerging gasoline-powered vehicles would one day replace animal-powered carts and coaches.)

As was the case with the other private bridges the two states acquired back in the early 20th century, the Washington Crossing span had a series of deficiencies that had been ignored by its private owners. Within months of the bridge's public purchase, Joint Commission engineers determined that it needed a new wooden floor (open steel-grate surfaces weren't manufactured until the 1930s). The engineers also determined repairs needed to be made to the bridge's supporting piers and abutments, which dated back to the mid-1830s. The Joint Commission later attempted to improve the bridge's approaches.

A pedestrian walkway was added on the bridge's downstream side in 1926. The bridge's New Jersey approach was redesigned in 1947. In 1951, the bridge's wood roadway flooring was removed and replaced with a steel-grate driving surface. This change enabled the bridge's roadway width to be increased to 15 feet.

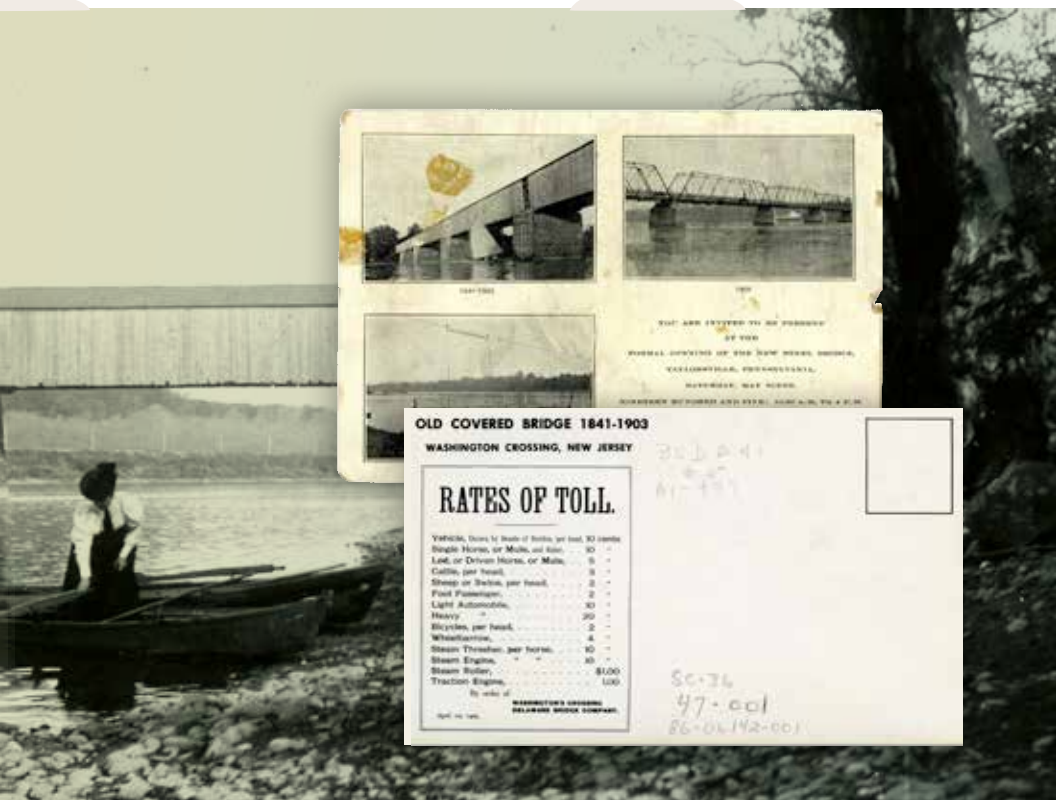
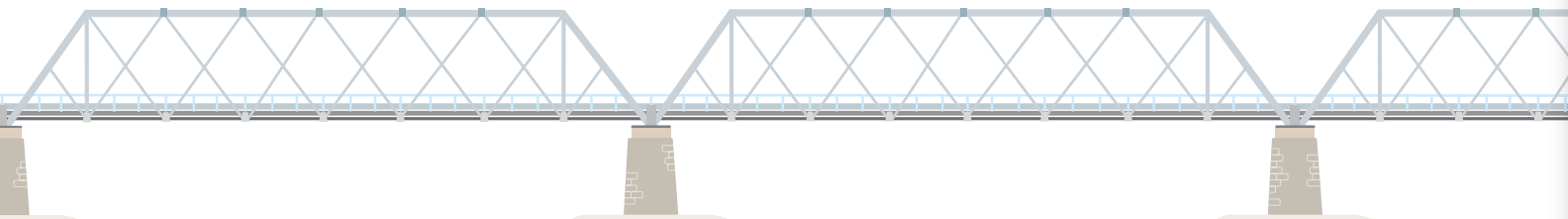
CROSSING BRIDGE IS FREED OF TOLL

Despite the failure of Pennsylvania to pay its share of the purchase price of the Washington Crossing Bridge yesterday, it was freed of toll this morning, according to the bridge tender on duty there. An unexpected delay occurred yesterday in the final negotiations for the purchase of the bridge when Deputy Attorney General Swoope of Pennsylvania, failed to bring a check for \$20,000 with him to the conference of the owners and the New Jersey representative.

The purchase price of the bridge was \$40,000 and yesterday State Treasurer Read drew a check for New Jersey's share, which he gave to Assistant Attorney General William Newcorn, who met with Mr. Swoope to complete the purchase. Mr. Swoope failed, however, to bring with him the check for Pennsylvania's share.

When the representatives met, however, the owners of the bridge agreed to stop collecting toll this morning, in view of the fact that the check would be forwarded later.

Mr. Swoope brought with him the check for \$15,750, the Pennsylvania share in the purchase price of the Millford bridge. New Jersey turned over a check for an equal amount and the details of the purchase of that bridge were completed. The bridge was then freed of toll.



OLD COVERED BRIDGE 1841-1903

WASHINGTON CROSSING, NEW JERSEY

RATES OF TOLL.

Vehicle, drawn by team of horses, per foot, 50 cents	
Single Horse, or Mule, or Bull,	50 "
Load, or Driven Horse, or Mule,	5 "
Cattle, per head,	5 "
Sheep or Swine, per head,	2 "
Foot Passengers,	2 "
Light Automobile,	50 "
Heavy,	50 "
Bicycles, per head,	2 "
Wheelbarrow,	4 "
Steam Traction, per horse,	50 "
Steam Engine,	50 "
Steam Boiler,	\$1.00
Traction Engine,	1.00

By order of
WASHINGTON CROSSING
DELAWARE BRIDGE COMPANY.





Traffic/Finance

I-78 Toll Bridge





Commission Sees Second Year Of Post-Pandemic Traffic, Revenue Gains

Traffic and toll revenue figures have risen two consecutive years at the Commission after a precipitous decline in 2020 due to the onset of the COVID pandemic.

Traffic using the Commission's 18 vehicular bridges rose to 128,131,424 crossings in 2022. That's a 2.5 percent increase over the 125,231,458 vehicle crossings recorded in 2021 and 12.9 percent increase over the pandemic-low 111,647,527 crossings in 2020.

Another upward trend in the 2022 traffic figures was the gap between vehicles using the Commission's eight toll bridges compared to the 10 non-toll vehicular crossings. Tolls bridges experienced roughly 75.7 percent of overall traffic compared to 24.3 percent at the non-tolled crossings, which the Commission refers to as "toll-supported bridges." The ratios of toll bridge traffic to non-toll bridge traffic were 74.8 percent to 25.2 percent in 2021 and 74.7 percent to 25.3 percent in 2020.

The shift has been discernable for many years and a variety of factors might be in play: growing E-ZPass usage, capital improvements the Commission has made to improve the customer experience at its toll bridges, generational changes in the service region's population, and the Commission's lower toll rates compared to other agencies with Delaware River crossings.

The traffic shifting is a factor – but certainly not the major one – in the Commission's improved financial outlook. Toll collections increased by 6.1 percent in 2022 compared to 2021. The major contributing factor for the increased revenue was a series toll schedule adjustments that went into effect in April 2021. Nonetheless, both truck and passenger-vehicle traffic increased 4 percent and 11.2 percent, respectively, in the year-to-year comparison of 2022 vs. 2021.

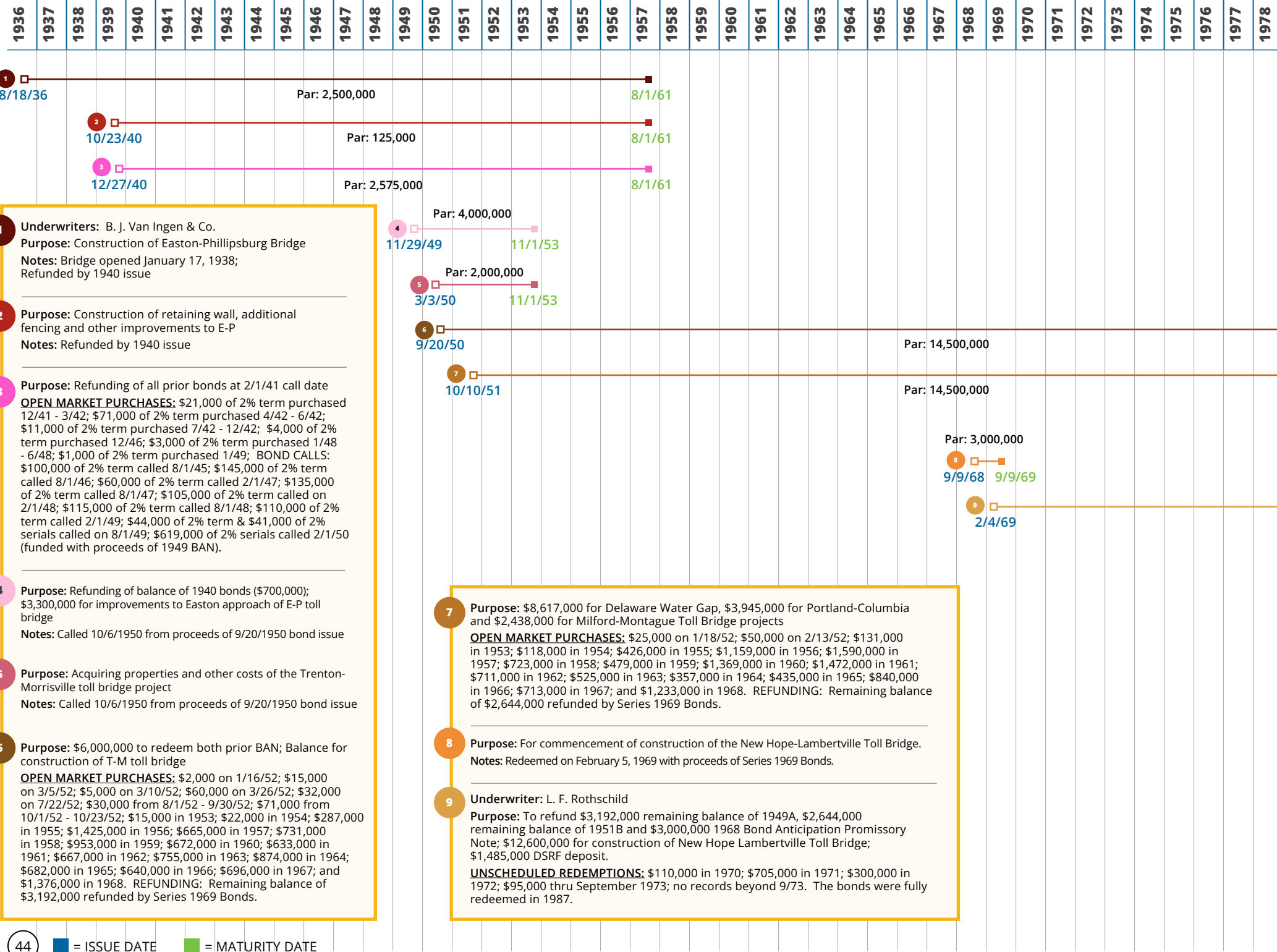
Commission's Financial Chief Compiles Historical Account Of Bond Issuances since Agency's Creation in Late 1934

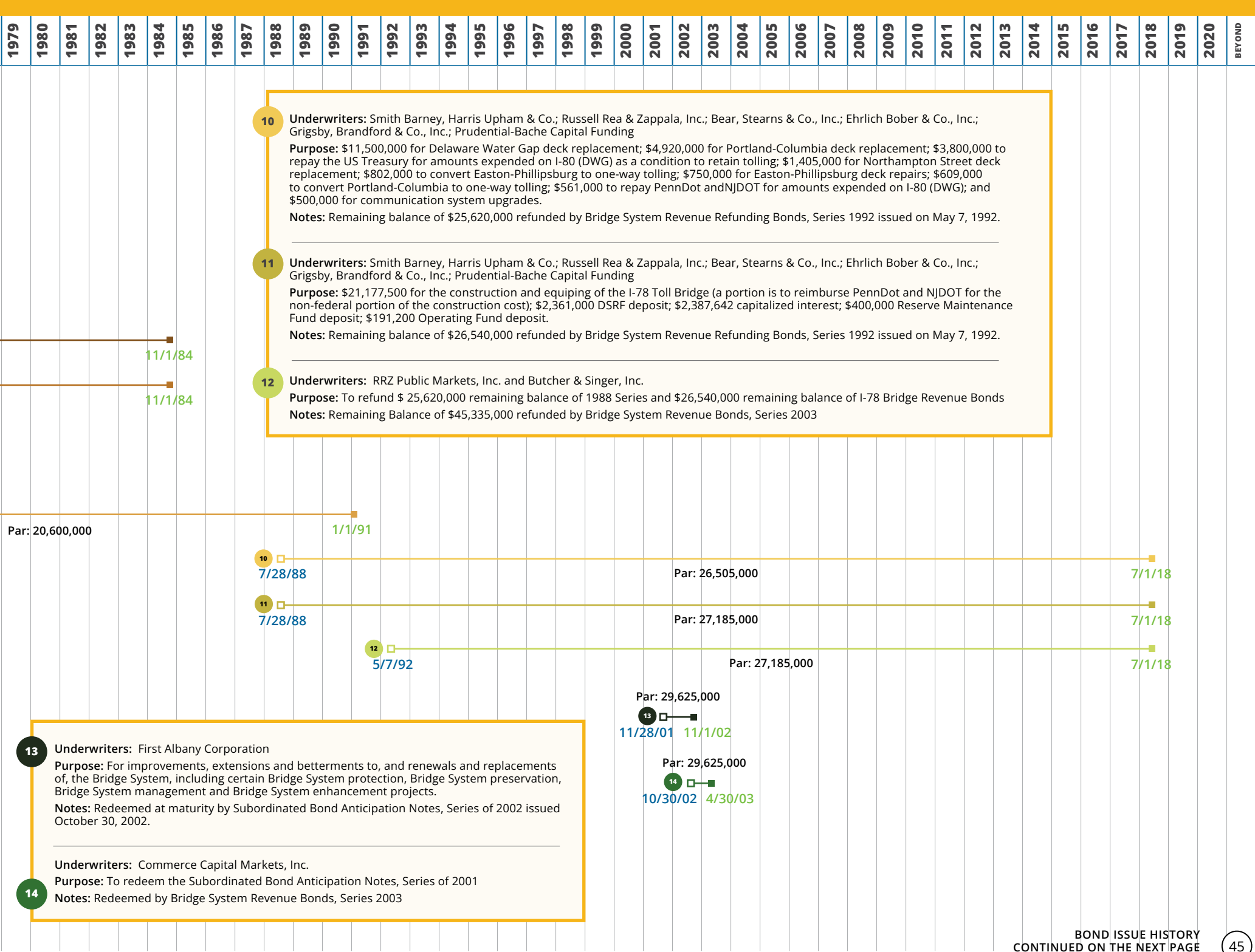
Like other public agencies, the Commission borrows money for bridge building, roadway construction, and other transportation infrastructure projects. The borrowings are achieved through periodic issuances of general revenue bonds, which are then paid back with respective interest through toll collections. This approach ensures that the costs of Commission projects are shouldered by the motorists who make use of the resulting transportation improvements. The bond issuances also have helped the Commission comply with its Compact, notably new provisions that were completed by the states of New Jersey and Pennsylvania and the federal government in 1987.

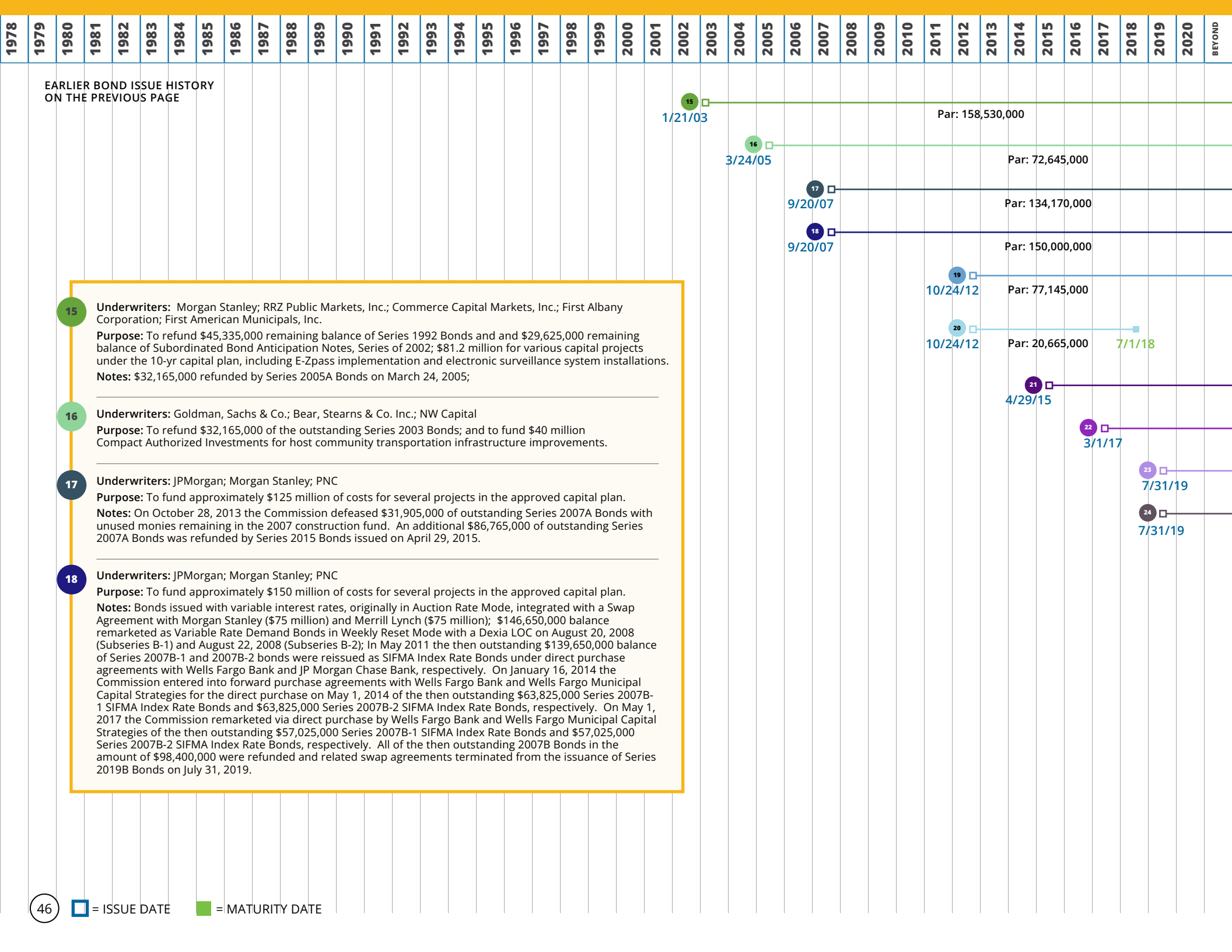
In 2022, the Commission's Chief Financial Officer, James M. Petrino, completed a compendium of the Commission's bond issuances since the agency's creation in late 1934. A document of this type had never been assembled before. It is provided in this annual report for posterity.

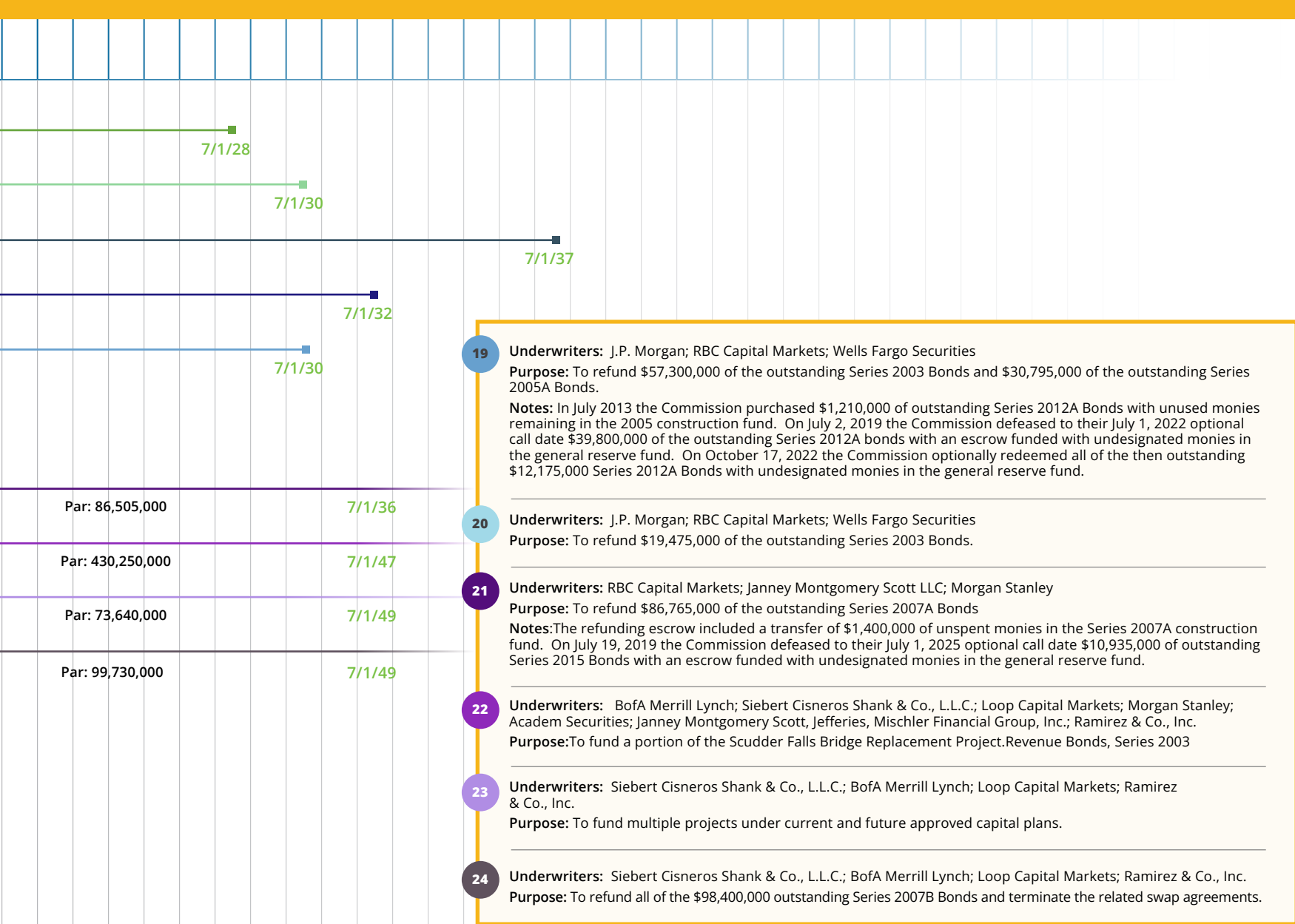


Delaware River Joint Toll Bridge Commission











Traffic Counts

Annual Average Daily Traffic*					
Toll Bridges	2018	2019	2020	2021	2022
Trenton-Morrisville Route 1	61,100	62,000	47,400	52,600	53,000
Scudder Falls Toll I-295** †	-	20800***	30,300	34300†	40100‡
New Hope-Lambertville Route 202	12,500	12,600	8,800	10,000	10,700
I-78	65,000	66,400	53,400	62,800	63,500
Easton-Phillipsburg Route 22	35,800	35,800	30,300	33,300	34,700
Portland-Columbia	7,600	7,800	6,400	6,800	7,100
Delaware Water Gap I-80	51,000	51,300	44,100	49,300	49,800
Milford-Montague Route 206	7,400	7,500	7,000	7,300	7,000
Total - Toll Bridges	240,400	243,400	227,700	222,100	225,800

Annual Average Daily Traffic*					
Toll-Supported Bridges	2018	2019	2020	2021	2022
Lower Trenton	15,000	15,500	14,200	16,100	16,600
Calhoun Street	15,900	15,400	13,200	15,200	15,500
Scudder Falls I-295***	52,700	26,500	—	—	—
Washington Crossing	6,000	7,300	5,600	6,400	7,000
New Hope-Lambertville	13,300	12,600	10,300	12,200	12,400
Centre Bridge-Stockton	4,600	5,000	4,500	4,300	3,900
Uhlerstown-Frenchtown	4,800	5,400	3,900	4,500	4,500
Upper Black Eddy-Milford	3,500	3,500	3,200	3,400	3,400
Riegelsville	3,200	3,200	2,800	3,100	3,100
Northampton Street	17,100	16,900	15,100	16,500	14600§
Riverton-Belvidere	4,900	5,100	4,500	4,800	4,100
Total - Toll Supported Bridges	141,000	116,400	77,300	86,500	70,500

Total Commission-Wide Annual Average Daily Traffic	381,400	359,800	305,000	308,600	296,300
Total Commission-Wide Yearly Traffic	139.2M	138.9M	111.6M ¶	125.2M	128.1M

*Incidents where there are lower traffic counts may be a result of construction, bridge closures, or data-collection issues. Data reflects traffic in both directions.

**Scudder Falls Toll Bridge's all-electronic tolling gantry went online 7/14/19 - Daily average 44,500 vehicles over ensuing 171 days of 2019.

***First span of replacement toll bridge opened to traffic in PA-bound direction only overnight July 9, 2019. Crossing operated without tolls 194 days in 2019 with daily average traffic of 49,900 vehicles during that period.

† Scudder Falls Toll Bridge's downstream span opened to traffic evening of August 17, 2021.

‡ Scudder Falls Bridge Replacement Project "final completion -- October 31, 2022

§ Uninterrupted single-lane travel restrictions for Northampton Street Bridge Rehabilitation Project April-November 2022.

¶ COVID-19 pandemic caused 19.6-percent traffic reduction; comparison of 2019-2020 data.

Statements of Net Position

Dec. 31, 2022 Dec. 31, 2021

ASSETS		
Current Assets		
Unrestricted Assets		
Cash and Cash Equivalents	\$15,193,313	\$15,068,263
Investments	80,401,448	75,887,962
EZPass, Pay by Plate and Violations Receivable *(net of allowance for Uncollectibles of \$95,109,076 for 2022 and \$67,422,317 for 2021)	20,555,056	17,604,066
Other Receivables	105,075	53,049
Fiduciary Fund Receivable	1,067,141	1,177,806
Prepaid Expenses	685,695	384,182
Total Unrestricted Assets	118,007,728	110,175,328
Restricted Assets:		
Cash and Cash Equivalents	28,924,230	25,021,326
Investments	88,288,616	118,183,152
Accrued Interest Receivable	895,912	470,055
Total Restricted Assets	118,108,758	143,674,533
Total Current Assets	236,116,486	253,849,861
Non-Current Assets		
Unrestricted Assets:		
Investments	79,146,566	72,423,722
Total Unrestricted Assets	79,146,566	72,423,722
Restricted Assets		
Investments		10,603,587
Prepaid Bond Insurance	66,149	72,180
Net Other Post-Employment Benefits	7,905,512	11,392,864
Total Restricted Assets	7,971,661	22,068,631
Capital Assets:		
Capital Assets Not Being Depreciated	201,377,443	168,492,875
Capital Assets Being Depreciated (Net of Accumulated Depreciation)	858,560,087	865,930,882
Total Capital Assets	1,059,937,530	1,034,423,757
Total Non-Current Assets	1,147,055,757	1,128,916,110
Total Assets	\$1,383,172,243	\$1,382,765,971

Dec. 31, 2022 Dec. 31, 2021

DEFERRED OUTFLOWS OF RESOURCES		
Deferred Loss on Refunding of Debt	\$14,446,574	\$17,312,621
Deferred Outflows - OPEB	5,155,533	5,166,029
Deferred Outflows - Pension	15,297,994	19,259,477
Total Deferred Outflow of Resources	\$34,900,101	\$41,738,127
LIABILITIES		
Current Liabilities Payable from Unrestricted Assets		
Accounts Payable and Accrued Expenses	\$17,592,876	\$21,946,257
Compensated Absences - Current Portion	151,631	155,371
Retainage Payable	4,099,288	11,640,065
Total Current Liabilities from Unrestricted Assets	21,843,795	33,741,693
Current Liabilities Payable from Restricted Assets		
Accrued Interest Payable on Bonds	15,224,409	15,901,378
Bridge System Revenue Bonds Payable - Current Portion	11,705,000	18,310,000
Total Current Liabilities Payable from Restricted Assets	26,929,409	34,211,378
Non-Current Liabilities		
Compensated Absences Payable	2,881,006	2,952,047
Bridge System Revenue Bonds Payable - Non Current Portion	685,927,056	716,653,905
Net Pension Liability	50,763,975	65,827,338
Total Non-Current Liabilities	739,572,037	785,433,290
Total Liabilities	\$788,345,241	\$853,386,361
Deferred Inflows of Resources		
Deferred Inflows-OPEB	\$24,663,895	\$34,345,159
Deferred Inflows-Pension	17,718,082	9,989,132
Total Deferred Inflows of Resources	\$42,381,977	\$44,334,291
NET POSITION		
Net Invested in Capital Assets	\$415,229,169	\$388,932,987
Restricted	78,735,736	81,647,551
Unrestricted	93,380,221	56,202,908
Total Net Position	\$587,345,126	\$526,783,446

*The Allowance for Uncollectible represents the accumulated accounting reserve for outstanding tolls and violation administrative fees.





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